INSTALLATION AND OPERATING INSTRUCTIONS
for
VBCFT Model

809-239A 08/04/2022

3779 CHAMPION BLVD, WINSTON-SALEM, NC 27105
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SEE BACK COVER FOR WARRANTY REGISTRATION

WELCOME

Thank you for purchasing a Victory cabinet. This series has passed our strict quality control inspection and meets the high standards set by Victory Refrigeration! You have made a quality investment that with proper maintenance will give you many years of reliable service!

Please read the following installation and maintenance instructions before installing or using your unit. If you have any questions, Please call our Technical Service Department at **(800) 684-1199**. 8:00 AM to 5:00 PM EST.

Important Information

- PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE INSTALLING OR USING, IF RECOMMENDED PROCEDURES ARE NOT FOLLOWED, WARRANTY CLAIMS MAY BE DENIED.
- Your warranty registration information is located within this manual. Please complete the card and submit it to Victory Refrigeration within TEN days of installation. Failure to properly register equipment may limit or void the warranty.
- Victory Refrigeration reserves the right to change specifications and product design without notice. Such revisions do not entitle the buyer to corresponding changes, improvements, additions, or replacements for previously purchased equipment.
- THE MANUFACTURER DECLINES LIABILITY FOR NON-DECLARED USE OF THE PRODUCT. THE REPRODUCTION OF THIS MANUAL OR ITS PARTS THEREOF, IS PROHIBITED.

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SAFETY

This appliance has been designed with your safety in mind. It has many features to keep you from being harmed. However, safe operation and maintenance are your responsibilities.

CAUTION

Use: When using this unit, please:

- **Move it carefully.** If on casters be sure the casters do NOT run over the power cord.
- **Lock** the casters when in use.
- **Seek help.** This machine is heavy! Be sure to move with enough help to avoid tipping or dropping the cabinet.
- **Prevent children from playing in or on the cabinet**. Persons unable to use this product must be prevented access.
- **Follow all instructions**. There are many safety labels and directions on the unit. Heed them.
- **Watch your fingers**. There may be pinch points near the door hinges.

CAUTION

Maintenance

Do NOT:

- Clean a frozen evaporator with a sharp object
- Clean a dirty condenser with a sharp object.
- Store gasoline, kerosene or any other flammable material near the cabinet.

Do ALWAYS

- Use a Victory recommended technician certified to repair R404 equipment.
- Use ONLY Victory factory service parts. Use of non OEM parts can be dangerous because of the design changes needed to safely use R404.
- Wear gloves to perform maintenance on the motor components or the evaporating unit inside the machine.

Important Information to Add

Record the model number, serial number and the date of installation here for future reference. The model and serial numbers are on the unit's serial number dataplate, which is located on the left inside wall.

Model Number	
Serial Number	
Date of Installation	
Purchased From	

CAUTION **WARNING**

Observe the **Caution** and **Warning** notices. They are indicators of important safety information. Keep this manual for future reference.

CAUTION

The manufacturer declines all liability:
1) for any operation performed on the machine in disregard of the instructions provided in this manual
2) for non-declared use of the product.

GENERAL SAFETY INSTRUCTIONS:

- Before connecting the machine to the power supply, ensure that the voltage and frequency correspond to those indicated on the specifications plate.
- **Always connect the machine to an appropriate high sensitivity differential magnet circuit breaker switch (30 mA).**
- Before performing any cleaning or maintenance operation disconnect the machine from the power supply by:

  1) Positioning the master switch on OFF
  2) Remove the plug

- Wear gloves to perform maintenance on the motor compartment or on the evaporating unit positioned inside the machine.
- Do not insert screwdrivers or other devices between the guards (fan, evaporator, protections, etc.).
- Do not handle electrical parts with wet hands or without shoes.
- Ensure good functioning of the compressor unit and evaporator by never obstructing the air inlets.
- In the case of machines fitted with wheels, check that the rest surface is flat and perfectly horizontal.
- For machines fitted with locks and keys, it is recommended to keep the keys out of the reach of children.
- Use is only reserved for suitable, trained personnel. Installation routine and extraordinary maintenance (for example, cleaning and maintenance of the refrigeration system), must be performed by specialized and authorized technical personnel with a sound knowledge of the refrigeration and electrical systems.

HAZARDS, AND AVOIDABLE RISKS:

- The refrigerator equipment has been designed and manufactured with the appropriate devices to guarantee the health and safety of the user and does not contain dangerous edges, sharp surfaces or protruding elements.
- The stability of the machine is guaranteed even when the doors are open. DO NOT PULL DOWN OR HANG ON THE DOORS.
- For units with drawers, do not open more than one drawer at a time and do not lean or sit on an open drawer in order to avoid overturning or damaging the refrigerator.
- Units with glass doors, do not extract more than one basket or rack at a time in order to avoid compromising the stability. When adding items, gradually add starting from the bottom upwards; similarly, remove items starting from the top downwards.
- THE MACHINE WAS NOT DESIGNED TO BE INSTALLED IN AN ATMOSPHERE WITH RISK OF EXPLOSION. Do not store explosive substances, such as pressurized flammable propellant containers, inside the appliance.
- MAXIMUM LOAD (UNIFORMLY DISTRIBUTED) PER BASKET, DRAWER, OR RACK = 40 KG (88 LBS).

Risks caused by moving parts:
The only moving part is the fan, which presents no risk as it is isolated by a protection grill secured with screws. If the protection grill needs to be removed, disconnect the machine from the power supply before doing so.

Risks caused by low/high temperatures:
Warning labels indicating "TEMPERATURE WARNING" are located in the proximity of areas which constitute low/high temperature dangers.

Risks caused by electrical power:
Electrical risks have been eliminated by designing the electrical system in accordance with IEC EN 60204-1 and IEC EN 60335-1. Warning labels indicate "high voltage" areas which may present electrical risks.

In order to avoid any risks, damaged power supply cables must be replaced by the manufacturer, by an approved technical support center, or by a qualified individual.

Risks caused by noise:
<70 dB (A) at the nosiest point at 1 m in operating conditions
<130 dB (C) at 1m in operating conditions

Residual Risks:
Any liquids emanating from food or cleaning products are prevented from leaking outside by a drain positioned at the bottom of the unit. During cleaning operations, remove the plug and place a collection tray under the machine (Hmax=100mm or 4 inches).

IT IS HIGHLY IMPORTANT THAT THE PLUG IS REFITTED INTO THE HOLE PROPERLY. IF THE MACHINE DOES NOT HAVE A DRAIN, THE UNIT MUST BE CLEANED THOROUGHLY ON A DAILY BASIS TO PREVENT THE STAGNATION OF LIQUIDS

Safety Devices:

IT IS PROHIBITED TO TAMPER WITH OR REMOVE THE SAFETY DEVICES PROVIDED (PROTECTION GRILLS, WARNING LABELS, ETC.) THE MANUFACTURER DECLINES ALL LIABILITY IF INSTRUCTIONS ARE NOT FOLLOWED

Appliances with wheels:
When moving, take care not to forcefully push the unit in a way that avoids overturning and damage. Also, note any unevenness of the surface on which the refrigerator is being pushed. Appliances fitted with wheels cannot be leveled, therefore, ensure that the surface on which they rest is perfectly horizontal and level.

ALWAYS BLOCK THE WHEELS WITH THE STOPS PROVIDED.

Routine and programmed maintenance:

The information contained in this chapter addresses suitable, trained personnel in the case of routine maintenance; while specialized and authorized personnel is addressed for extraordinary and/or programmed maintenance.

- Before performing any intervention, disconnect the machine plug from the electrical power supply.
- In routine maintenance operations, the removal of protections/safety devices (grills, warning labels, etc.) is prohibited.

WARNING

Instructions in case of fire:
DO NOT USE WATER IN THE CASE OF FIRE.
USE CO_2 FIRE EXTINGUISHER (CARBON DIOXIDE) AND COOL THE MOTOR COMPARTMENT AREA AS QUICKLY AS POSSIBLE.

IMPORTANT INFORMATION

This unit is intended to be used in a commercial application. That includes bars and restaurants.

If installed in a residence some commercial service companies may not be able to service it on site.

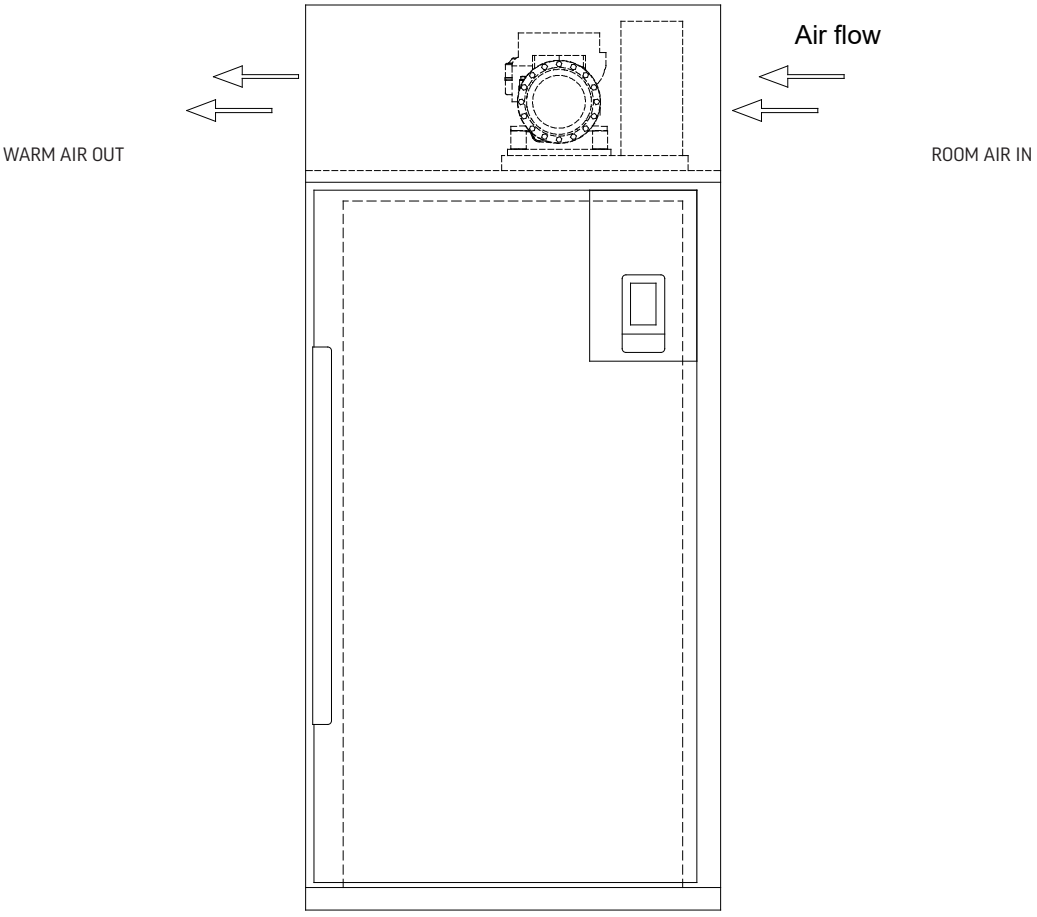
The manufacturer has designed and produced this machine with the finest in materials. The manufacturer assumes no liability for units that have been altered in any way. Alterations or part substitutions will void the warranty.

Limitations

The machine is designed for use indoors in a controlled environment. It must be kept dry, not overheated or subjected to excessive cold. May only be connected to a dedicated electrical circuit. Extension cords are not permitted.

	Minimum	Maximum
Voltage	208	240
Room Air Temp	60° F	86° F

Air Flow



Agency Approvals

These marks appear on the dataplate or serial tag, located in the inside of the left wall. The dataplate also contains the model and serial numbers as well as electrical requirements.

PRODUCT INFORMATION

Model	Cabinet Dimensions w x d x h (Inches)	Door Count	Full Load Amps	Compressor HP	Refrigerant Charge R-404 (g) / (oz)	BTU/Hr (113°F/-13°F)	Heat Rejection (W) (14°F/95°F) Hashare	Voltage	NEMA Plug
VBCFT-20-200PU-XL	43.31 X 64.26 X 94.49	1	23.8	2.8	2906 / 98.24	10857	9850	208-240/60/3	15-30P

Height includes legs.

- Blast Chilling Cycle rapidly lowers the temperature of the contents from 194˚F to 37.4˚F in 90 minutes
- Shock Freezing Cycle lowers the temperature from 194˚F to 0˚F in 240 minutes
- Thawing Cycle returns frozen food to a temperature of 53.6˚F; amount of time is determined by the product thickness
- ALWAYS REFERENCE YOUR EQUIPMENT DATA PLATE AMPS, REFRIGERANT AND REFRIGERANT CHARGE FOR THE MOST UP TO DATE AND ACCURATE VALUES.

ELECTRICAL

This is a cord-connected unit, and must be connected to its own **dedicate**d power supply. Check the dataplate on the machine to confirm the voltage and per the dataplate use the correct fuses or HACR circuit breakers.

Note: Do not connect to GFI / GFCI outlets. Connection to that type of outlet can result in product loss due to unsafe cabinet temperature when GFI device trips from moisture.

Power Cord

This 208-240 volt unit is equipped with a 15-30P cord, please check the data plate for confirmation.

If the power cord becomes damaged, it must be replaced with the identical cord.

Follow All National and Local Codes

This Unit Must Be Grounded. Do not use extension cords and do not disable or by-pass ground prong on electrical plug.

Initial Start Up

Plug the power cord into the proper power supply.

The cabinet will soon begin to blow warm air out of the front grille area, and cool air will flow from the inside blower.

Cautions

Care must be taken whenever moving or servicing the unit. The refrigerant is contained in a sealed system, but if released it is flammable.

UNPACKING AND SET UP

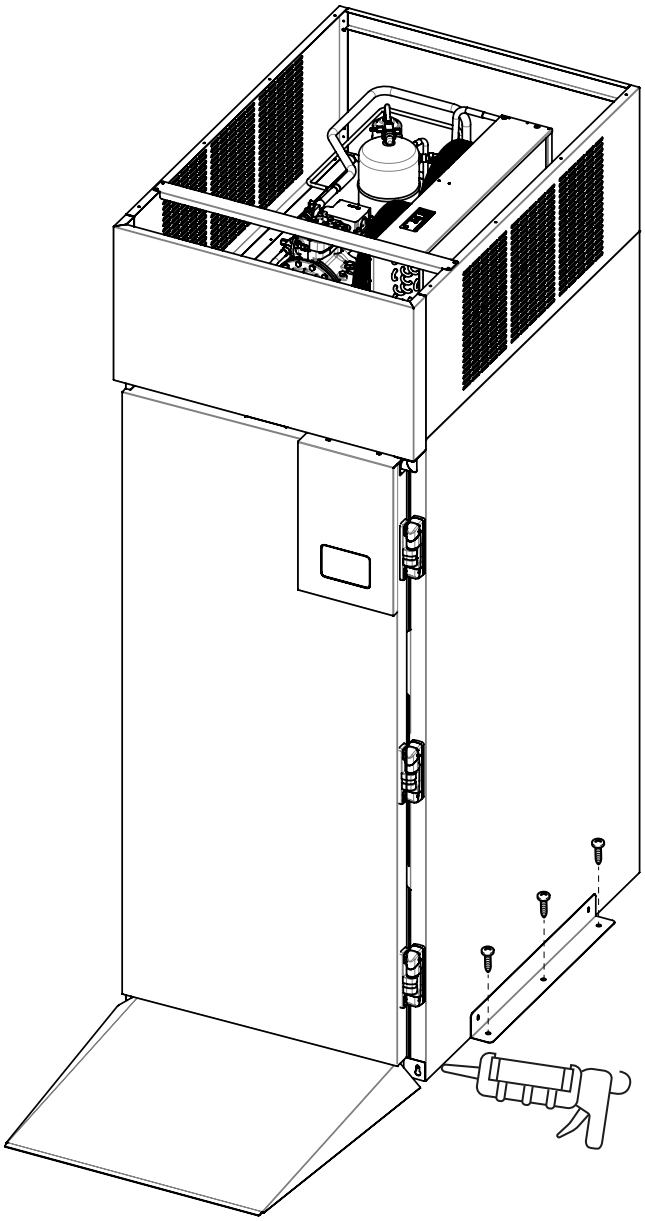
Do not stack or store lying down.

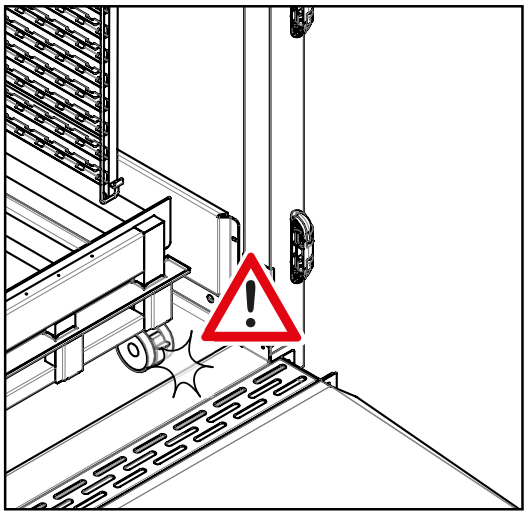
Maximum storage and transport temperature - 60˚C/140˚F

Maximum temperature for installation environment - 30˚C/86˚F

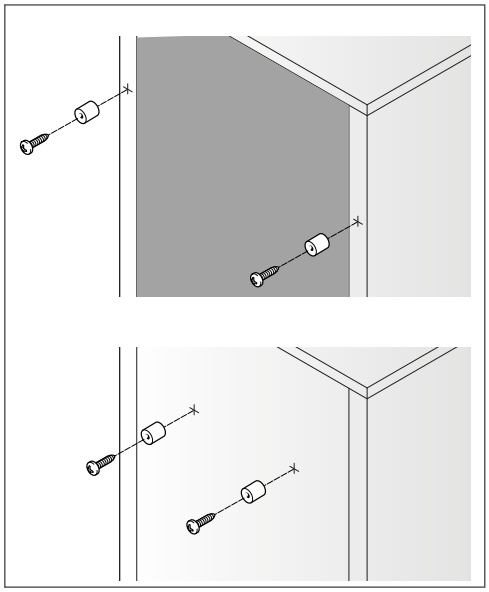
Device transport and handling must be done exclusively as follows.

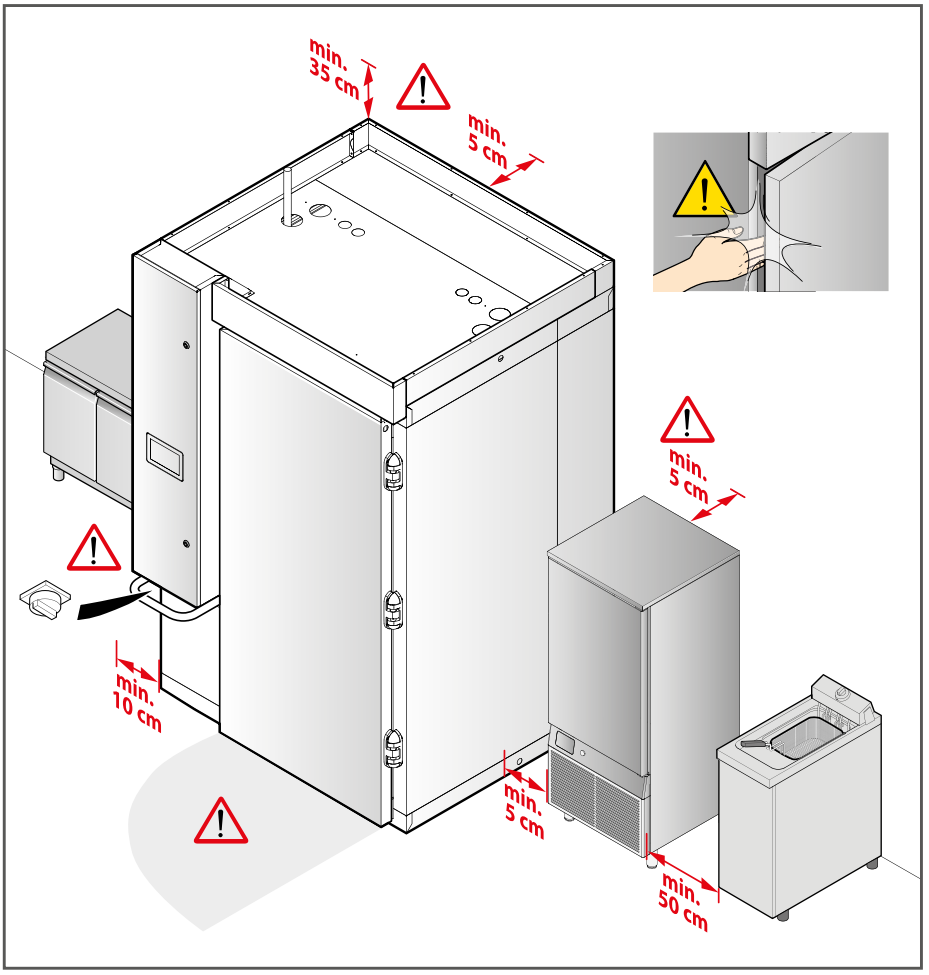
1. Keep the packaging in the vertical position, as per the indications printed on it (this precaution is necessary to prevent the oil contained in the compressor from circlulating which could break the valves and cause problems while starting the motor).
2. After unpcaking, when moving the device do not push or pull it in order to avoid the risk of overturning or damaging some parts (for example, the feet). Never tilt the device from the door side.
3. For cells with a motor on board, it is advisable to secure the appliance to the floor, using the brackets supplied with the appliance.





INSTALLATION





4. The following are required:

- A circuit breaker with high sensitivity, adequately sized
- A point of connection to the power mains
- A point of connection to the water mains
- Minimum clearances for ventilation on all sides of unit
- If a drain pipe will be installed, a point of discharge (optional)

5. The machine must be positioned only on floors that are:

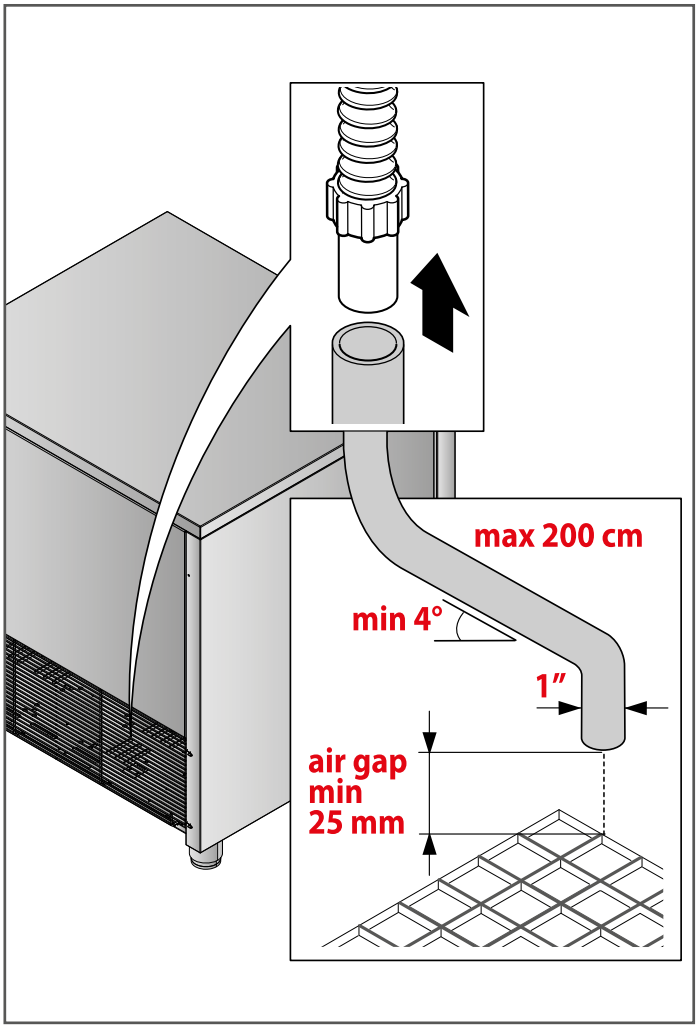
- non-flammable or sensitive to heat
- perfectly leveled
- free of roughness, essentially smooth and even
- that can support the device at full load

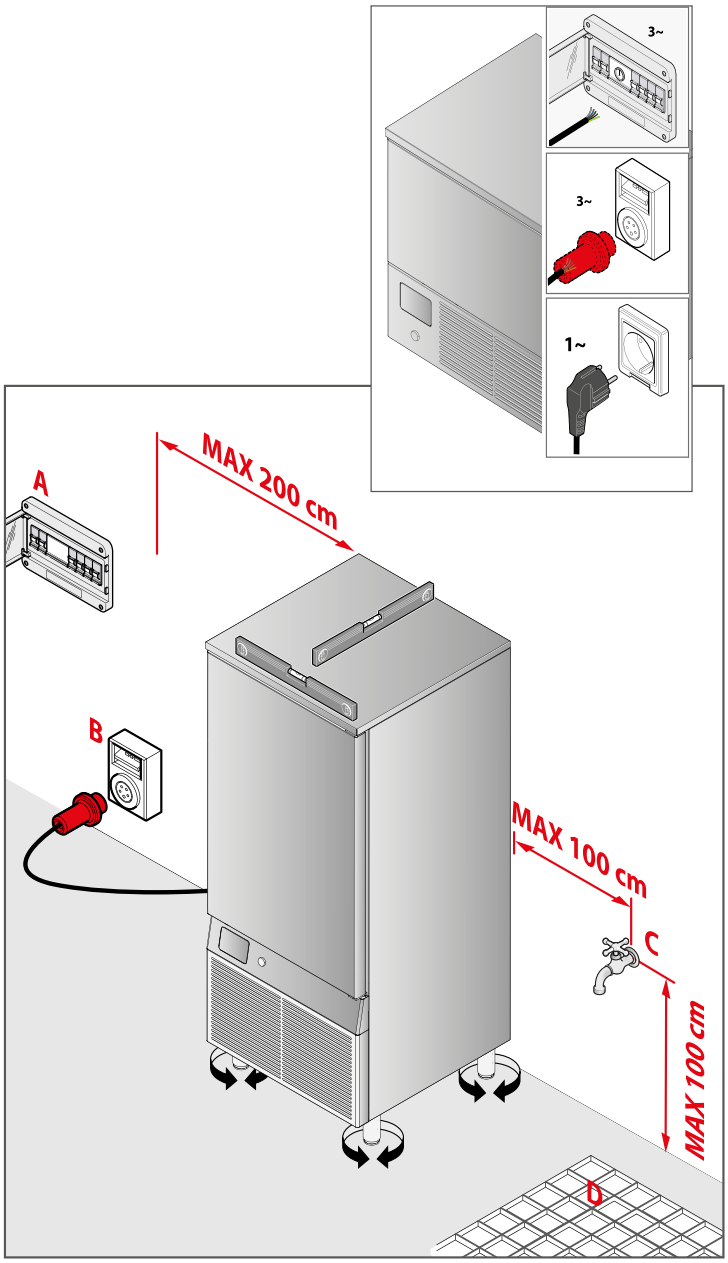
6. Keep the illustrated minimum clearances around the device. This will facilitate connections to utilities and maintenance. The device requires ventilation on the back where the vents and coolant are located. Therefore, do not place them against the wall but keep them approximately 7.5 cm (3 inches) away. In order to prevent accidental movements, install the provided spacers on the back of the device, this is very important on devices with wheels.

- **Minimum Clearance:** 7.5 cm (3 inches) at back, 35cm (14 inches) on top, 10 cm (4 inches) on left, 5 cm (2 inches) on right, and a minimum of 50 cm (20 inches) from sources of heat
- **Floor Load:** the floor on which the cooler is located must be even and level, free from vibrations, and strong enough to support the combined weights of the unit and maximum product load.

7. CONNECTIONS TO THE MAINS AND CONNECTION PLUGS MUST COMPLY WITH THE LEGAL PROVISIONS IN FORCE IN THE COUNTRY OF INSTALLATION AND MUST BE PERFORMED BY A QUALIFIED TECHNICIAN AUTHORIZED BY THE MANUFACTURER. In order to avoid any risks, damaged power supply cables must be replaced by the manufacturer, by an approved technical support center, or in any case by an individual with similar qualifications. Before connecting the device to the mains:

- read the safety instructions provided in this manual
- make sure the main voltage and frequency correspond to those indicated in the device serial number plate. A rated voltage variation of +/- 10% is accepted.





8. Cleansing water is collected in a tank which is under the machine. In order to avoid emptying the tank too frequently, we recommend you connect the drain to a maximum 200 cm/80 inches long hose (not supplied) and lead it to a grate on the floor or in the wall.

9. The drain pipe must have the following characteristics:

- is of trap type
- has a minimum inclination of 4%
- has an air gap of at least 25mm/10 inches
- does not have clamps
- has a diameter not under that of the drain pipe joint

TRANSPORT AND HANDLING THE PRODUCT:

- The machine must be transported using suitable handling equipment and never manually.
- If lifting systems are used, such as a forklift or trans pallet, take particular care that the load is balanced.
- Normally the packaging is in expandable polystyrene on wood pallets, secured to the bottom of the equipment for greater safety during transport and handling.
- After removing the packaging from the machine, it is advisable to verify the integrity of the machine and the absence of damage due to transport. Any damage must be communicated to the carrier immediately. Damaged machines cannot be returned to the manufacturer under any circumstances unless prior notice and written authorization is received.
- Warnings are printed on the packaging, representing the instructions to be complied with to ensure that no damage is caused during loading, unloading, transport, and handling.

Warnings printed on our packaging:

- The user must dispose of the packaging in accordance with the laws in force in the applicable country.
- When storing or transporting the machine, the maximum stacking limit is two machines, unless otherwise indicated with an appropriate adhesive label.
- SINCE THE CENTER OF GRAVITY OF THE MACHINE DOES NOT CORRESPOND TO ITS GEOMETRIC CENTER, BE AWARE OF INCLINATIONS DURING HANDLING.
- DURING HANDLING, DO NOT PUSH OR DRAG THE MACHINE TO PREVENT OVERTURNING OR DAMAGE TO PARTS (E.G. FEET).
- NEVER LEAN THE MACHINE ON THE DOOR SIDE.

REQUIREMENTS (RESPONSIBILITY OF THE CUSTOMER):

- Provide a high sensitivity differential magnet circuit breaker switch (30mA).
- Provide a wall socket with grounding that meets the requirements of the country where the machine is being operated.
- Verify that the surface on which the machine rests is level.
- In the case of water-cooled machines or with equipment with direct humidity control, provide connection to a water system.

CONNECTION:

Before connecting the machine to the power supply, ensure that the voltage and frequency correspond with those indicated on the specifications plate.
A variation of +/-10% of the normal voltage is permitted.
It is of utmost importance that the machine is connected to an efficient grounding connection.

Grounding the machine is a mandatory safety measure that is required by law:
In order to protect the machine from any electrical overload or short circuit, the connection to the power supply is through a high sensitivity differential magnet circuit breaker switch (30 mA) with a manual re-set and with sufficient power.
For dimensioning the protection device, consider the following:

I_{max} = 2.3 I_n (nominal current)
I_{cc} (short-circuit current) = 4500 A with 230v/1~/50Hz power supply.
I_{cc} (short-circuit current) = 6000 A with 400v/3~/50Hz power supply

Blast Chillers with Washing Kits:
The appliance must be connected to the water supply network using the supplied flexible pipe, suitable for high temperatures and pressure and with 3/4" GAS attachment.
To prevent the excessive deposit of lime scale and therefore decrease maintenance, the use of a water softener is recommended.
To increase efficiency the recommended water temperature must be between 40-60°C (104°F - 140°F). The optimum network pressure must be between 2-5 bar for the rotor to rotate regularly. If the water pressure should fall below 0.5 bar, a safety pressure switch will intervene that will immediately block the function with a signal on the alarm display

CAUTION

IT IS FUNDAMENTAL NOT TO CHANGE THE DIRECTION OF THE ROTOR SPRAYING NOZZLES IN ORDER TO PREVENT COMPLETELY ALTERING THE SYSTEM'S FUNCTIONING FEATURES.

DO NOT USE PLUGS WITHOUT GROUNDING. THE MAIN SOCKET MUST COMPLY WITH REGULATIONS VALID IN THE APPLICABLE COUNTRY.

POSITIONING:

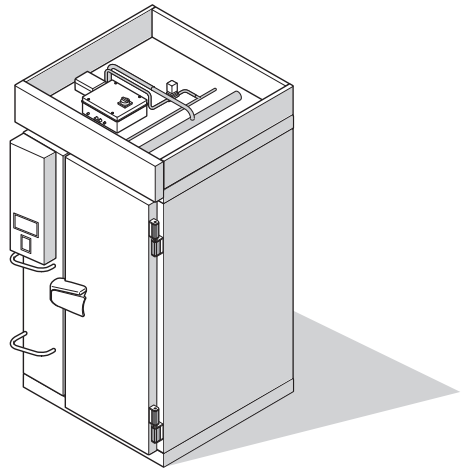
- Position the machine in a well-aerated place and far from heat sources. Observe minimum gaps for operating functions, aeration and maintenance.
- A machine with wheels cannot be leveled, therefore, ensure that the surface on which it rests is perfectly horizontal and level.
- THE MACHINE HAS NOT BEEN DESIGNED TO BE INSTALLED IN EXPLOSIVE ENVIRONMENTS.
- DURING HANDLING AND POSITIONING DO NOT PUSH FORCEFULLY OR DRAG THE MACHINE TO PREVENT OVERTURNING OR DAMAGE. PAY PARTICULAR ATTENTION TO UNEVENNESS OF SURFACES, NEVER LEAN THE MACHINE FROM THE DOOR SIDE
- IF THE MACHINE HAS WHEELS, ALWAYS LOCK THE WHEELS ONCE IT HAS BEEN INSTALLED.

RE-INSTALLATION:

If re-installation is required, proceed as follows:

- Position the power supply switch to OFF
- Disconnect the plug from the power supply and wind up the cable
- Remove all contents from the interior of the cabinet and clean the cabinet and accessories thoroughly
- Re-pack the machine, taking care to re-position the protective polystyrene and secure the wooden base, in order to prevent damage during transport
- Proceed as previously described for new position and connection

INSTRUCTIONS FOR PRE-ASSEMBLED SINGLE CHILLER



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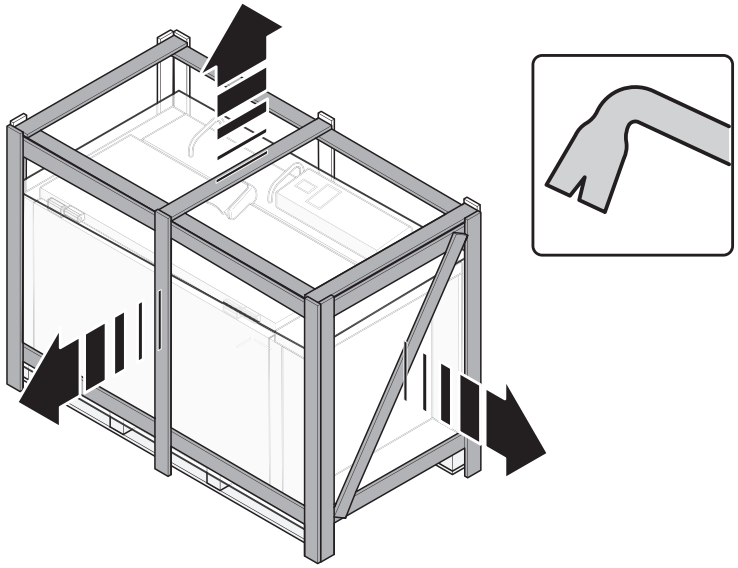

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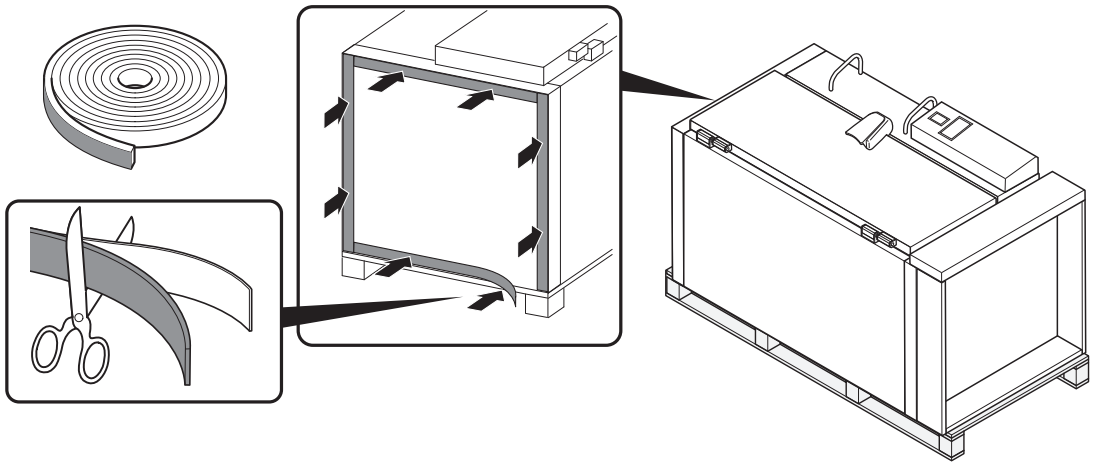

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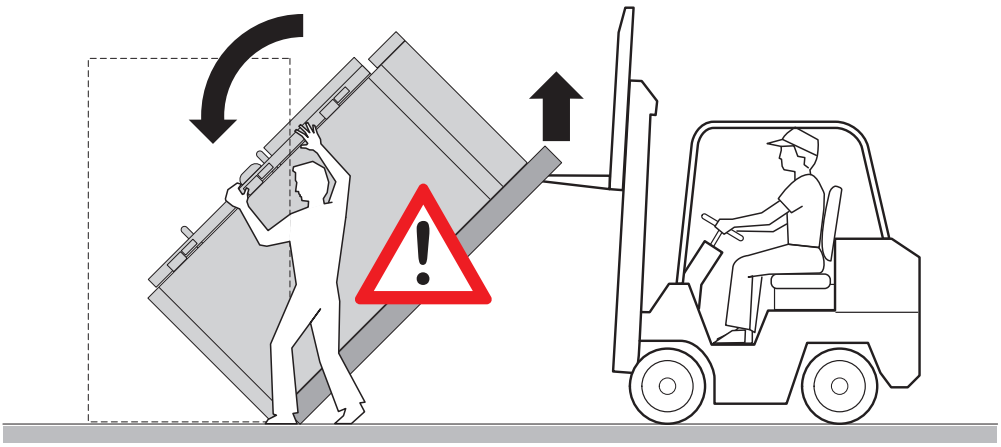

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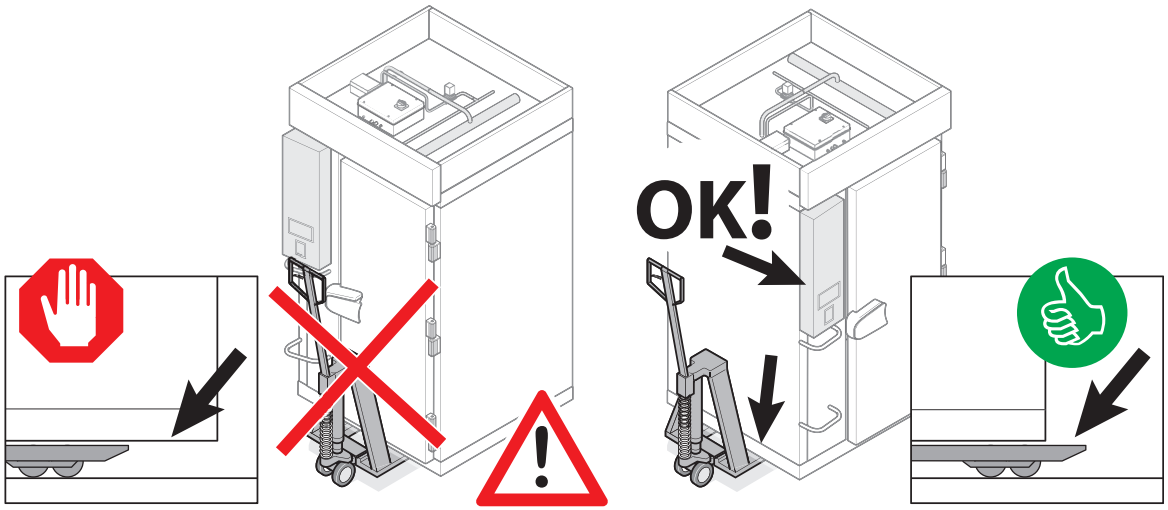

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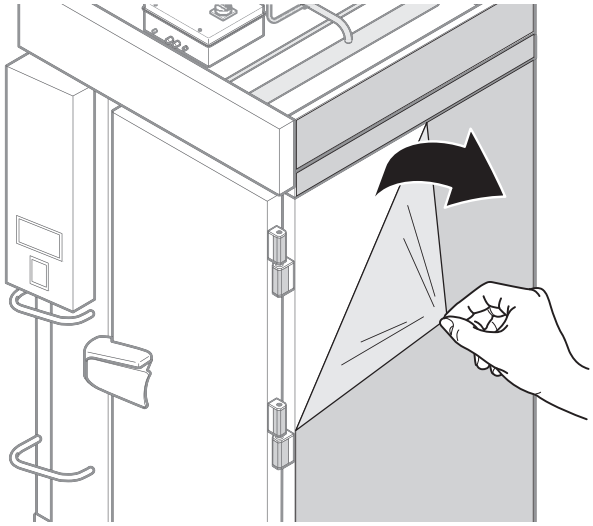


OPERATION

Applications, purpose, unauthorized use, declared and non-declared use:

- These appliances are agri-food machines (EC regulation No. 1935/2004), intended for food related items.
- The machines are designed with the appropriate equipment to guarantee the health and safety of the user.
- They are not suitable for storing pharmaceuticals, chemicals, or any other non food products.
- Avoid appliance misuse. Do not place live animals, objects that aren't related to food, or corrosive products inside the unit.

Application of the Blast Chiller/Shock Freezer:

The blast chiller/shock freezer is a machine which rapidly lowers the temperature of cooked or raw foods, in order to maintain the organoleptic properties (chemical, physical, and nutritional) of these foods unaltered.

COOLING, FREEZING, OR THAWING TIME IS A PARAMETER THAT IS DIFFICULT TO ESTABLISH WITH ANY PRECISION, SINCE THIS MAY VARY DEPENDING ON THE TYPE OF FOOD AND THE TYPE OF DISH USED FOR STORAGE.

THE DECLARED PERFORMANCE LEVELS WERE OBTAINED BY USING 25MM (1 INCH) THICK POTATO PUREE IN SHELF ALUMINUM TRAYS GN1/1 H=40MM (1 1/2 INCH)

Blast Chilling cycle:

- This cycle enables rapid lowering of the temperature of the cooked food (from +90°C/194°F to +3°C/37.4°F in 90 minutes) to avoid it remaining within the critical temperature range of +10°C/50°F to +65°C/149°F.
- The cooked and blast chilled food can then be stored in the refrigerator for up to 5 days.

Shock Freezing cycle:

- Shock freezing (from +90°C/194°F to -18°C/0.4°F) prevents the formation of macro crystals of ice on the food which would result in a loss of liquids and vitamins. This cycle is suitable for cooked and raw food and then conserves the food for up to 2 months and 12 months respectively.

Thawing cycle:

- This cycle returns frozen products to a positive temperature rapidly, but in a controlled manner.
- By thawing food in this unit, the risk of not having fully cooked parts is reduced.

Conservation/Storage cycle:

- At the end of every blast chilling, shock freezing, and thawing cycle, the machine envisions a conservation cycle during which the equipment functions as a normal refrigerator and the duration of which is at the user's discretion.

FOOD STORAGE:

For the best performance of the appliance, the following indications should be observed.

Blast Chilling/Shock Freezing/Thawing cycle:

- do not open the door once the cycle has commenced, wait until the cycle is complete
- avoid wrapping, protecting, or closing containers with lids or insulating films
- do not use trays or containers taller than 65mm (2.5 inches)
- do not stack items
- use aluminum or stainless steel containers

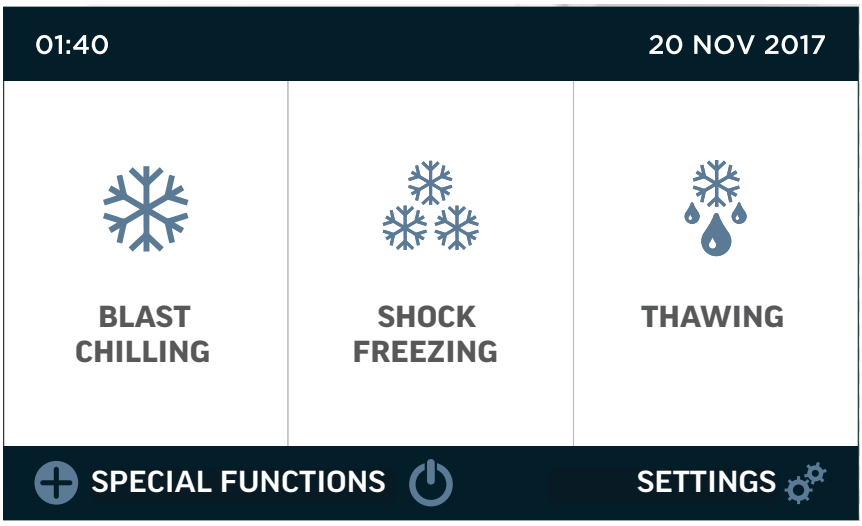
Conservation cycle:

- do not introduce hot foods or uncovered liquids inside the machine
- wrap or protect food, particularly if they contain aromas
- arrange the food inside in a way that does not limit air circulation, avoiding placing papers, cartons, boards, etc. on the racks that may obstruct the passage of air
- avoid opening the door frequently or for lengthy periods of time

FEATURES

Blast Chilling
- Rapidly brings the product core temperature to +3°C/37.4°F, reduces natural product evaporation maintaining its humidity and preventing bacterial proliferation after cooking.
- This function lets you plan dishes in advance, increase productivity, keep flavor, color, fragrance and weight unaltered and eliminate the risk of intoxication and waste.
- All the organoleptic properties are kept in tact due to perfect air and temperature in the chamber.

Thawing
- To control and determine product thawing means keeping the organoleptic properties in tact and optimize stock, avoiding useless waste.
- Thawing occurs in maximum food safety conditions, by the slow re-absorption of the micro-crystallized water in food
- The ideal cycle for products to be served raw or cold, like fish or bakery products, since it does not damage the molecular structure.



Special Functions
- Needle Probe Heating
- Hi-giene
- Defrost
- Pre-cooling
- Continuous Cycle

Shock Freezing
- It rapidly brings the product core temperature to -18°C/-0.4°F, keeping product structure and consistency in tact.
- This feature allows you to purchase products at their peak of freshness, maturity and availability on the market and preserve all their properties in tact.
- Thanks to a -40°C/-40°F controlled air flow, the qualities of a fresh product can be preserved in time.

A blast chiller is a device that quickly lowers the temperature of the introduced food, whether fresh or cooked. Fresh, or just cooked food has the maximum organoleptic qualities and flavor; however, if not eaten immediately, it loses the initial quality properties in time and micro-organisms, potentially harmful to man, multiply.

Blast chilling is used when food is not eaten within two hours of its preparation, reducing the product temperature to +3°C (37°F) at the core within 90 minutes. Subsequently, the product must be stored in a refrigerator at a temperature between 0-3°C (32°F-37°F) where it can be kept for up to 5 days.

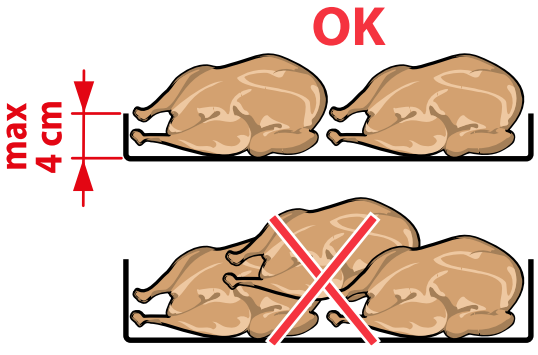
Shock freezing is used to keep all the food organoleptic properties intact. The chiller reduces the product temperature to reach -18°C at it's core. Subsequently, the product must be stored in a freezer at a constant temperature of -20°C degrees and can be even eaten after 3/18 months, according to the product, provided the cold chain regulations are met.
Normal refrigerators and freezers, unlike a blast chiller, do not have the ability to quickly lower the initial product temperature, consequently, the latter is damaged on the organoleptic and flavor levels.

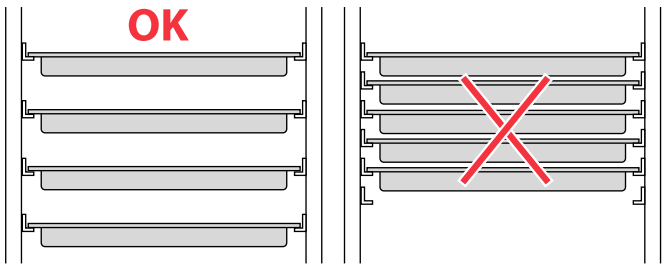
Controlled Thawing returns frozen products to a positive temperature in a controlled and fast manner, meeting HACCP standards. This means always remaining under temperatures where bacterial flora reproduce exponentially. Furthermore, cooking a thawed product in a controlled manner is better than cooking a cooked product from an initial frozen condition since it reduces the risk of having not fully cooked parts.

Correctly Loading the Equipment

Food should be placed in a single layer in containers. The containers should be evenly placed inside the cell. Correct container placement will permit free air circulation in the cell: avoid obstructing the air vents and overloading the equipment over the admissible limits. Containers should be:

- **uncovered**
- **food safe**
- **resistant to the temperatures reached by chilling and slow cooking cycles**
- **with low edges (maximum 4.5 cm or 1-3/4")**

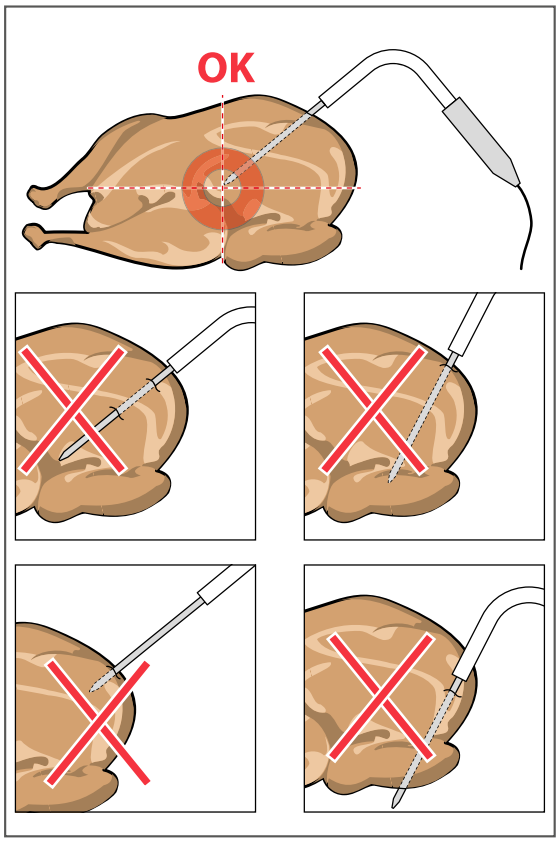




The maximum load (evenly distributed) per tray or rack is 40 kg.

HOW TO USE THE NEEDLE PROBE:

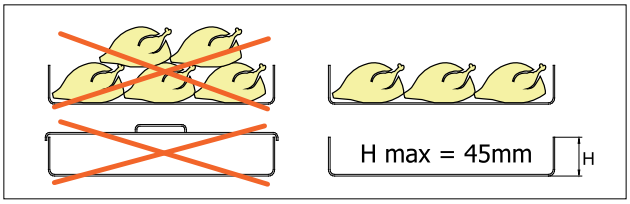
- The needle probe reads the temperature at the food "core" during chilling or thawing. When it reaches the value set by the user or default value, it means the food is either chilled or thawed.
- The needle probe is fully inserted in the food to be chilled/ thawed. Make sure the tip reaches the food core or the most internal point, without exiting.
- Be careful not to insert it into very fatty points or near bones. If the food is too thin, insert the probe parallel to the support surface.
- Make sure to keep the probe clean and sanitized, and only insert the polished part of the probe.



THE PROBE CAN BE HEATED TO FACILITATE REMOVAL FROM FROZEN FOODS.

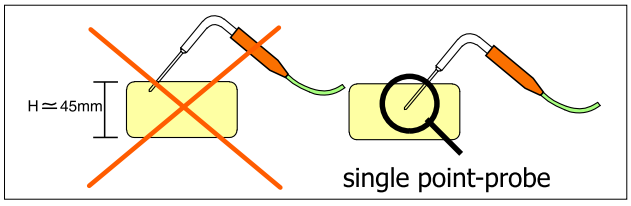
CAUTION

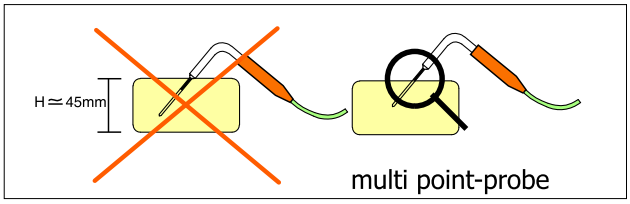
HANDLE THE PROBE WITH CARE SINCE IT IS SHARP AND WHEN USED FOR THAWING, REACHES HIGH TEMPERATURES.



GENERAL RECOMMENDATIONS:
For correct use of the spike probe:

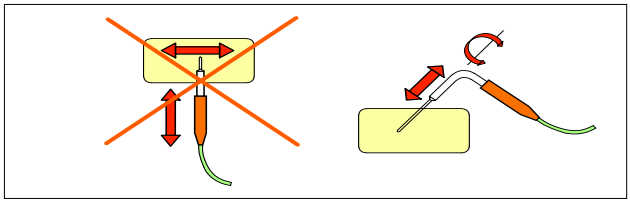
- avoid violent blows, they can jeapordize the correct functioning of the probe
- sterilize the probe before use
- the maximum recommended thickness of the product is 45 mm (1-3/4")
- cleanliness of the spike determines good performance





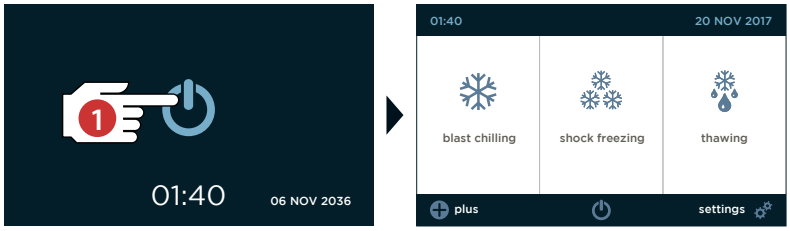
TO EXTRACT THE PROBE:

- Heat the probe
- Turn it
- Extract it without tilting the spike



CONTROL PANEL

Turning on and off



Main screen *Function selection screen*

1 To turn the equipment on, touch the ⏻ ***ON/OFF*** key: the main screen appears.

2 At the end of work, touch the ⏻ ***ON/OFF*** key in the main screen to turn the equipment off.

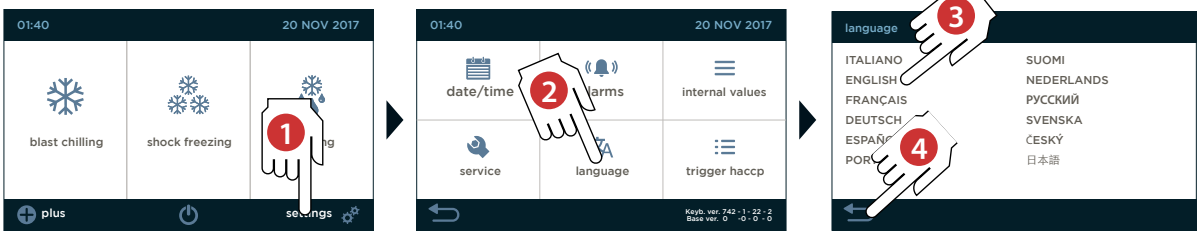
Keyboard lock and unlock

Locked keyboard *Unlocked keyboard*

After several minutes of disuse, the keyboard automatically locks to prevent the cycle in progress from being accidentally stopped.

1 To unlock the keyboard, touch the ***padlock*** on the display, the buzzer emits three beeps to indicate the keyboard has been unlocked.

Initial settings (Language and Date/Time)

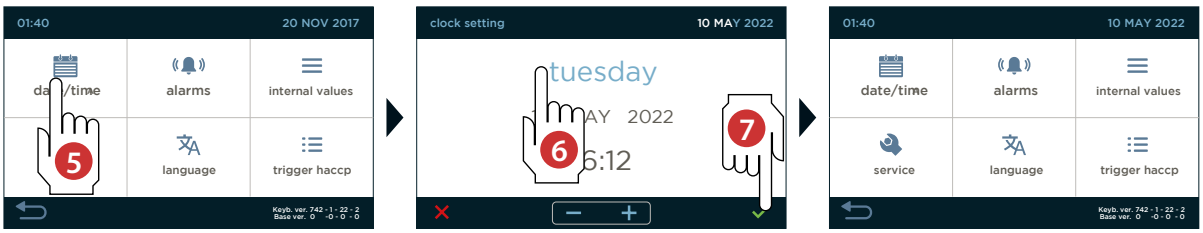


1 Touch the ***Settings*** key: the Settings screen is displayed

2 Set the display ***language*** of all the screens by touching the ***Language*** key.

3 Touch the required language: the word "***LANGUAGES***"at the top will change according to the selected language.

4 Confirm with the ↩ key



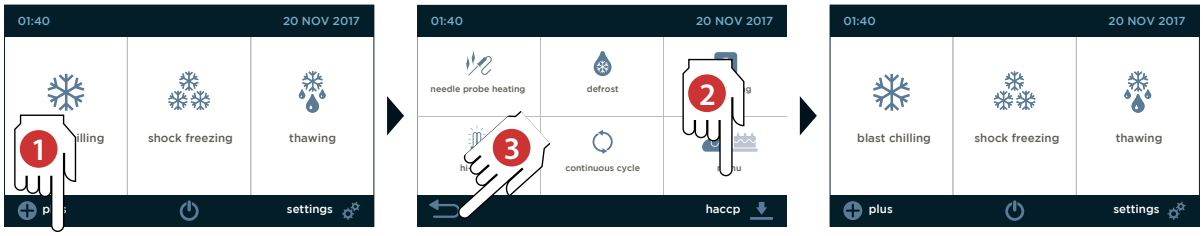
5 Set the ***current date and time*** touching the ***Date / Time*** key.

6 Touch the value you wish to change: it will become blue. Act on keys "**-**" and "**+**" to set it.

7 Confirm with "√" or cancel the entered values with "**x**".

(Gastronomy/Bakery)

Set the appliance in ***gastronomy or patisserie mode***: this way, only the relevant recipes will be displayed.



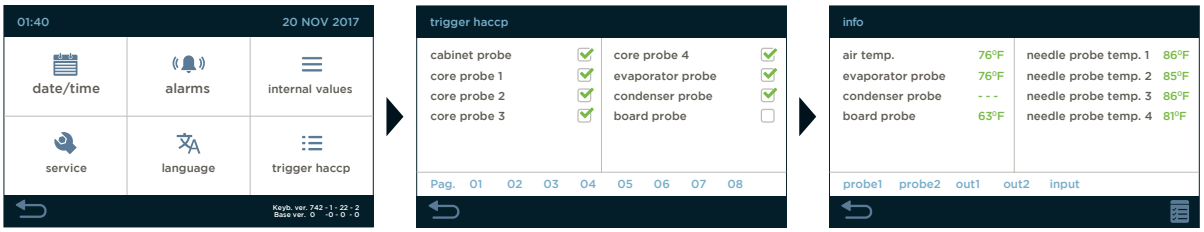
Function selection screen *PLUS screen* *Function selection screen*

1 Touch the ***PLUS*** key: a Settings screen is displayed

2 A screen appears, where the user can choose either GASTRONOMY or PATISSERIE mode: the selected mode is highlighted in dark blue.

3 Confirm with the key

Settings page



Languages / Date and time

For further information, please refer to "Settings Page" on page 20

Service

For further information, see page 50

Alarms

For further information, see page 48

Trigger HACCP

On this page you tick which data will be downloaded when you download the HACCP data history onto a USB stick.

Internal values

This page shows the temperatures detected by the machine probes.

BLAST CHILLING +3°C/37.4°F

The Blast chilling Cycle rapidly brings the core temperature of fresh or cooked food to +3°C / 37.4°F

It is always best to pre-cool the cell before starting a Blast chilling Cycle.
For further instructions on how to run a pre-cooling function, see page 45.

Blast Chilling with saved recipe (Cookbook)

Recipes available:

GASTRONOMY version

MEAT

FISH

VEGETABLES

FIRST COURSES

CROISSANT

BREAD

CAKES

CREAMS SAUCES

PATISSERIE version

CROISSANT

BISQUIT, LAYERED SPONGE/ROLLS

BREAD

MIGNON PATISSERIE

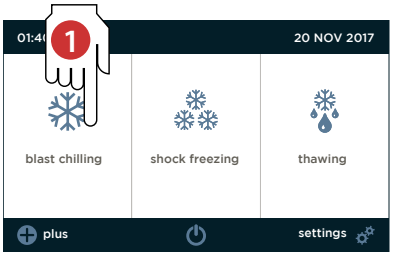
CROISSANT

TARTS

CREAMS SAUCES

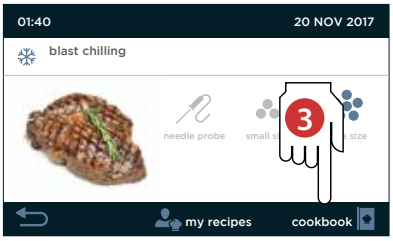
FINE PATISSERIE

Use pre-set recipes

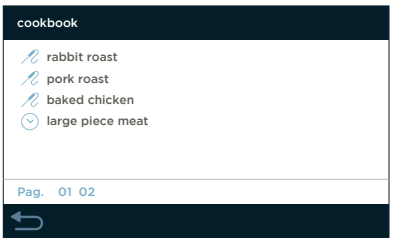


1 Select the ***Blast Chilling*** cycle from the main screen touching the corresponding icon.

2 Select the icon for the food to be chilled ("MEAT" in the example).



3 Touch the ***Cookbook*** icon.

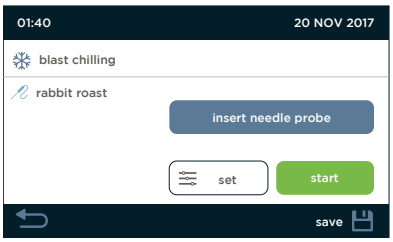


4 Various factory set ***Blast Chilling*** cycles are displayed, all dedicated to the selected product category ("MEAT" in the example).

Touch the corresponding name, for example, "RABBIT ROAST".

cycle providing for the insertion of the probe to the core of the food to be chilled: this ends when the set core temperature is reached.

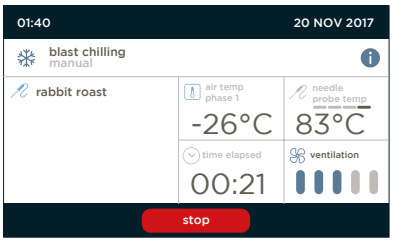
the cycle ends when the set time expires.



5 Launch the recipe with the ***START*** key.

If the cycle includes a needle probe, a message (***Add needle probe***) reminds the user to do this.

If changes to the cycle phases are needed, press the SET key. These settings apply only to the cycle to be run (changes are not permanent and are cleared when exiting the program). Settings can only be changed before starting the cycle and not when running. For further information, see page 32.



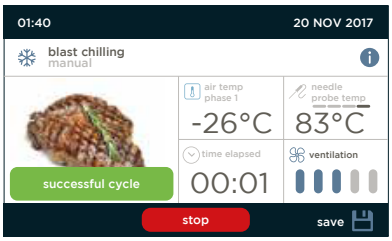
Screen appearing when the cycle has started

Current temperature in the chamber:
white icon: compressor OFF
blue icon: compressor ON
flashing icon: compressor waiting

Fan speed

Time elapsed from start and time remaining to the end of the recipe

Current core temperature

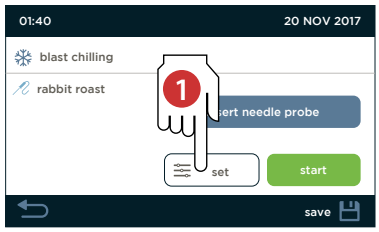


6 The recipe ends at the end of the set time (if it is a time cycle) or when the set core temperature is reached (if the cycle provides for a core probe). To stop the cycle early, touch the ***STOP*** key.
At the end of the ***Blast Chilling*** cycle, the machine moves automatically to ***Positive Storage*** mode.

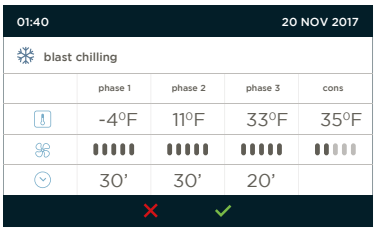
Cycles that ended normally, and moved on to the storage phase, can be saved in My Recipes.
For further information, see page 26.

Editing saved recipes (Cookbook) and creating a personal recipe (My recipes)

Recipes in the ***Cookbook*** section CANNOT be deleted or PERMANENTLY changed.
These settings can only be edited for the cycle to be run (changes are not permanent and are cleared when exiting the program). Settings can only be change before starting the cycle and not when running.
Alternatively, the recipe changed by the user can be saved with another name (e.g. "RABBIT ROAST WITH POTATOES") and will be saved under ***My recipes***.



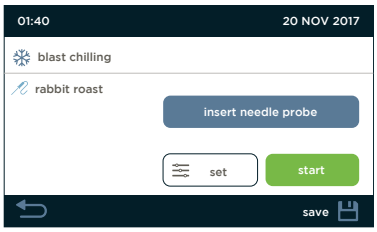
1 If, before touching ***START***, you decide to change the parameters of the cycle you want to start ("RABBIT ROAST" in the example), touch the ***SET*** key.



2 Set the desired values touching the value you wish to change: it will turn blue. Act on keys "**-**" and "**+**" to set it.

- Temperature of each phase
- Fan speed in each phase
- Duration of each phase
- Core temperature

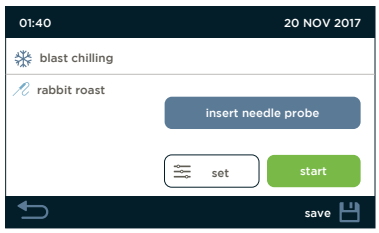
3 Save settings with "√" or clear the entered values with "**x**".



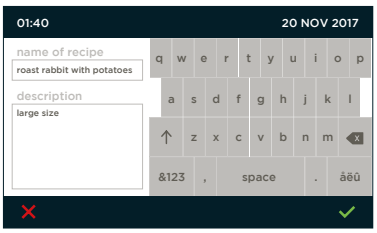
At this point you can:

A **Run the new set recipe** by pressing the ***START*** key, remembering that the changes made will only be applied to the cycle to be run.

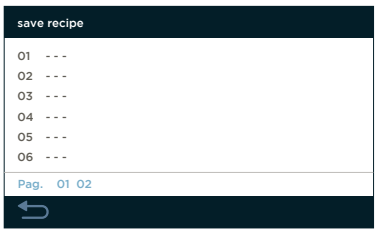
B **Save the new set recipe** under a new name; later on, to use this and all other personal recipes, touch the ***My recipes*** icon. To save a recipe with a name, continue the procedure.



B1 Save the new recipe by touching the ***Save*** key.



B2 Enter the name of the recipe on the keypad ("ROAST RABBIT WITH POTATOES" in the example"), confirm with "√" or delete with "**x**".



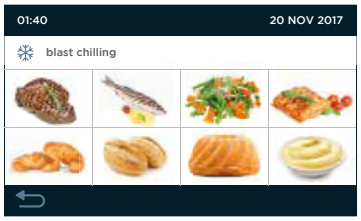
B3 Touch the position where you wish to save the recipe: confirm the chosen position with "√" or delete with "**x**".

If the selected position is already occupied by another recipe, a warning to be confirmed appears on the display ("***Overwrite the existing recipe in place 01***").

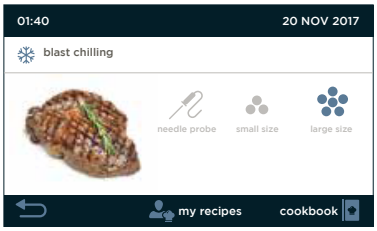
Blast Chilling with automatic or manual cycles

If, having selected a product category (for example "MEAT"), no recipe is found for the food to be chilled, you can use either automatic or manual chilling.

1 Select the ***Blast Chilling*** cycle from the main screen touching the corresponding icon.



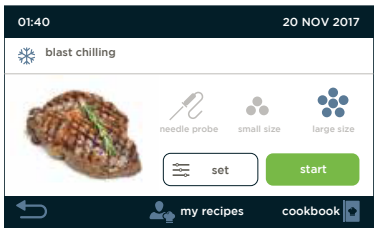
2 Select the icon for the food to be chilled ("MEAT" in the example).



3 Select the cycle to be run (it will turn blue):

- **needle probe**: automatic cycle, with core probe,
- **small size**: manual cycle, timed, chilling of small food
- **large size**: manual cycle, timed, chilling of large food

The last two do not require a needle probe but a set chilling time (editable).



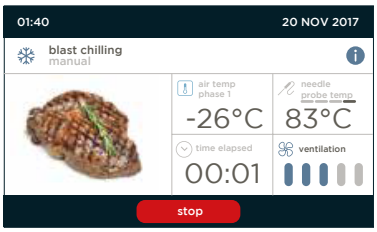
4 Touch the ***SET*** key, to check the settings of the selected cycle.

5 If the settings suit your needs, run the positive chilling cycle by pressing ***START***.

If that is not the case, see page 30 point **2** .

Changes will only apply to this cycle (changes are not permanent and are deleted by exiting the program).

When the fan speed is changed during chilling, the initial fan value is saved.

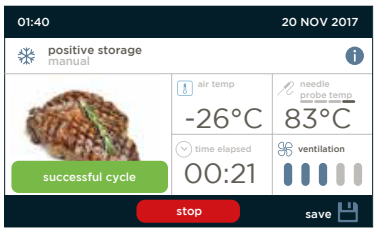


Current temperature in the chamber:
white icon: compressor OFF
blue icon: compressor ON
flashing icon: compressor waiting

Fan speed

Time elapsed from start and time remaining to the end of the recipe

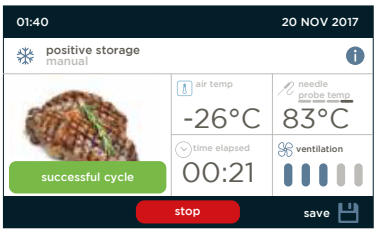
Current core temperature



6 The recipe ends at the end of the set time (if it is a time cycle) or when the set core temperature is reached (if the cycle provides for a core probe). To stop the cycle early, touch the ***STOP*** key.
At the end of the ***Blast Chilling*** cycle, the machine moves automatically to ***Positive Storage*** mode.

Cycles that ended normally, and moved on to the storage phase, can be saved in my Recipes.
For further information, see page 26.

Positive Storage



During the ***Positive Storage*** phase (which automatically follows each ***Blast Chilling*** cycle) the cell temperature is kept at +2°C/35.6°F

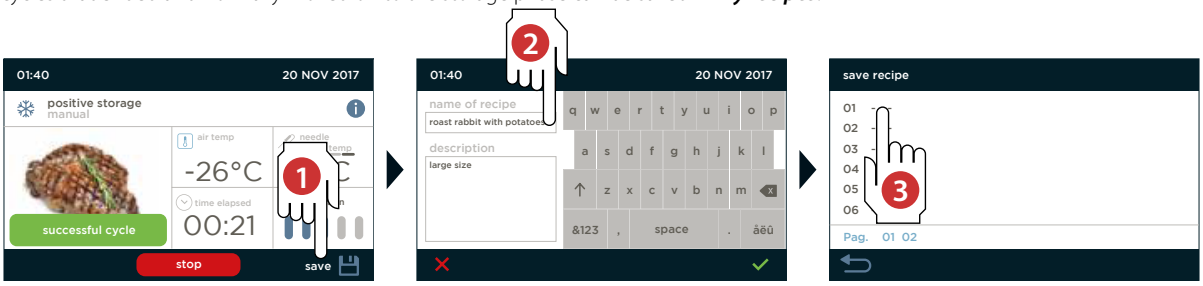
Fan speed can be adjusted by other storage parameters cannot be changed.

Press ***STOP*** to end the cycle.

When a cycle is interrupted due to a blackout or other reasons, the green area, that indicates the storage phase, turns red.

Saving the completed Blast Chilling cycle

Cycles that ended and normally moved on to the storage phase can be saved in ***My recipes***.



1 Save the finished cycle touching the ***Save*** key.

2 Enter the name of the recipe on the keypad ("ROAST RABBIT WITH POTATOES" in the example"), confirm with "√" or delete with "**x**".

3 Touch the position where you wish to save the recipe: confirm the chosen position with "√" or delete with "**x**".

If the selected position is already occupied by another recipe, a warning to be confirmed appears on the display ("***Overwrite the existing recipe in place 01***").

The recipe is saved in the memory space for ***Blast Chilling*** and for the product category (e.g. "MEAT").

All cycles saved in ***My recipes*** FROM COMPLETED CYCLES, are the repetitions of times and temperatures recorded during the operation and do not require the core needle probe (indicated by the clock symbol next to the recipe name). My recipe cycles saved from a COMPLETED CYCLE must only be used with the same type of food and size as the completed cycle.

Default values for automatic or manual Blast Chilling cycles (+3° C)

MEAT	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-30°C / -22°F	-15°C / 5°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Set Core	25°C / 77°F	12°C / 53.6°F	3°C / 37.4°F	--
	SMALL SIZE			
Set Cell	-20°C / -4°F	-12°C / 10.4°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	30′	30′	20′	--
	LARGE SIZE			
Set Cell	-25°C / -13°F	-15°C / 5°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	30′	30′	30′	--

FISH	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-5°C / 23°F	-5°C / 23°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Set Core	30°C / 86°F	30°C / 86°F	3°C / 37.4°F	--
	SMALL SIZE			
Set Cell	-5°C / 23°F	-5°C / 23°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	15′	0′	25′	--
	LARGE SIZE			
Set Cell	-5°C / 23°F	-5°C / 23°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	20′	0′	30′	--

VEGETABLES	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-5°C / 23°F	-5°C / 23°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Set Core	30°C / 86°F	30°C / 86°F	3°C / 37.4°F	--
	SMALL SIZE			
Set Cell	-5°C / 23°F	-5°C / 23°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	10′	0′	30′	--
	LARGE SIZE			
Set Cell	-5°C / 23°F	-5°C / 23°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	20′	0′	30′	--

FIRST COURSES	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-2°C / 28.4°F	-2°C / 28.4°F	0°C / 32°F	2°C / 35.6°F
Fan speed	5	5	5	2
Set Core	30°C / 86°F	30°C / 86°F	3°C / 37.4°F	--
	SMALL SIZE			
Set Cell	-2°C / 28.4°F	-2°C / 28.4°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	30'	0'	15'	--
	LARGE SIZE			
Set Cell	-2°C / 28.4°F	-2°C / 28.4°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	40'	0'	20'	--

CROISSANT	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-5°C / 23°F	-5°C / 23°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Set Core	25°C / 77°F	25°C / 77°F	3°C / 37.4°F	--
	SMALL SIZE			
Set Cell	-5°C / 23°F	-5°C / 23°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	25'	0'	30'	--
	LARGE SIZE			
Set Cell	-5°C / 23°F	-5°C / 23°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	30'	0'	30'	--

BREAD	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-5°C / 23°F	-5°C / 23°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Set Core	40°C / 104°F	40°C / 104°F	3°C / 37.4°F	--
	SMALL SIZE			
Set Cell	-5°C / 23°F	-5°C / 23°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	20'	0'	30'	--
	LARGE SIZE			
Set Cell	-5°C / 23°F	-5°C / 23°F	0°C / 32°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	20'	0'	40'	--

CAKES	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-5°C / 23°F	-5°C / 23°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Set Core	25°C / 77°F	25°C / 77°F	3°C / 37.4°F	--
	SMALL SIZE			
Set Cell	-5°C / 23°F	-5°C / 23°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	40′	0′	20′	--
	LARGE SIZE			
Set Cell	-5°C / 23°F	-5°C / 23°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	60′	0′	30′	--

CREAMS - SAUCES	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-20°C / -4°F	-5°C / 23°F	0°C / 32°F	2°C / 35.6°F
Fan speed	5	5	5	2
Set Core	30°C / 86°F	12°C / 10.4°F	3°C / 37.4°F	--
	SMALL SIZE			
Set Cell	-20°C / -4°F	-5°C / 23°F	0°C / 32°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	30′	20′	20′	--
	LARGE SIZE			
Set Cell	-20°C / -4°F	-5°C / 23°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	35′	20′	35′	--

BISCUITS, LAYERED SPONGE/ROLLS	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-5°C / 23°F	-5°C / 23°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Set Core	25°C / 77°F	25°C / 77°F	3°C / 37.4°F	--
	SMALL SIZE			
Set Cell	-5°C / 23°F	-5°C / 23°F	0°C / 32°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	20′	--	20′	--
	LARGE SIZE			
Set Cell	-5°C / 23°F	-5°C / 23°F	0°C / 32°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	30′	--	20′	--

TARTS	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-5°C / 23°F	-5°C / 23°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Set Core	25°C / 77°F	25°C / 77°F	3°C / 37.4°F	/
	SMALL SIZE			
Set Cell	-5°C / 23°F	-5°C / 23°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	40'	/	20'	/
	LARGE SIZE			
Set Cell	-10°C / 14°F	-5°C / 23°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	30'	30'	30'	/

MIGNON PATISSERIE	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-5°C / 23°F	-5°C / 23°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Set Core	25°C / 77°F	25°C / 77°F	3°C / 37.4°F	/
	SMALL SIZE			
Set Cell	-5°C / 23°F	-5°C / 23°F	-1°C / 30.2°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	20'	/	20'	/
	LARGE SIZE			
Set Cell	-5°C / 23°F	-5°C / 23°F	-1°C / 30.2°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	30'	/	30'	/

FINE BISCUITS	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-5°C / 23°F	-5°C / 23°F	-1°C / 30.2°F	2°C / 35.6°F
Fan speed	5	5	5	2
Set Core	25°C / 77°F	25°C / 77°F	3°C / 37.4°F	--
	SMALL SIZE			
Set Cell	-5°C / 23°F	-5°C / 23°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	20'	--	10'	/
	LARGE SIZE			
Set Cell	-5°C / 23°F	-5°C / 23°F	1°C / 33.8°F	2°C / 35.6°F
Fan speed	5	5	5	2
Time	20'	/	20'	/

SHOCK FREEZING -18°C/-0.4°F

The Shock freezing Cycle rapidly brings the core temperature of fresh or cooked food to -18°C / 0.4°F

It is always best to pre-cool the cell before starting a Shock freezing Cycle.
For further instructions on how to run a pre-cooling function, see page 45.

Shock Freezing with saved recipe (Cookbook)

Recipes available:

GASTRONOMY version

MEAT

FISH

VEGETABLES

BREAD

CROISSANT

ICE CREAM

FIRST COURSES

FISH SANITATION

PATISSERIE version

CROISSANT

ICE CREAM

CAKES

BREAD

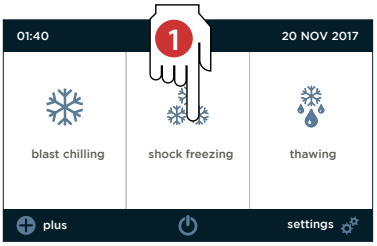
FRUIT

MOUSSE BAVAROISE SEMIFREDDO

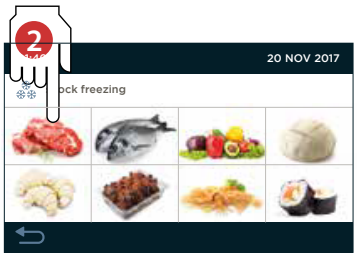
CUPBOARD CAKES

JELLIES CREAM CAKES

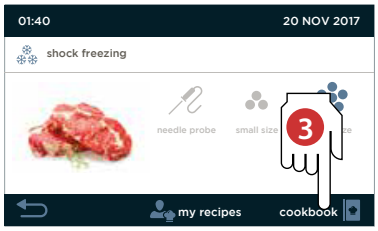
Use pre-set recipes



1 Select the ***Shock Freezing*** cycle from the main screen touching the corresponding icon.

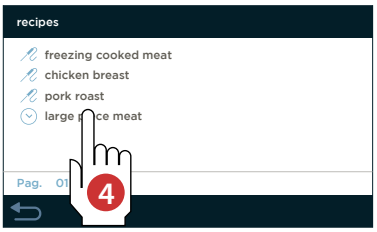


2 Select the icon for the food to be chilled ("MEAT" in the example).



3 Touch the ***Cookbook*** icon.

74°F 86°F

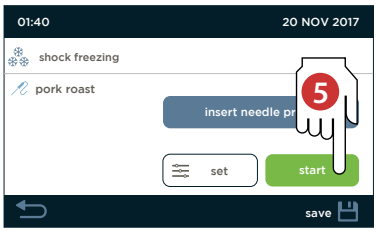


4 Various factory set ***Shock Freezing*** cycles are displayed, all dedicated to the selected product category ("MEAT" in the example).

Touch the corresponding name, for example, "PORK ROAST".

cycle providing for the insertion of the probe to the core of the food to be chilled: this ends when the set core temperature is reached.

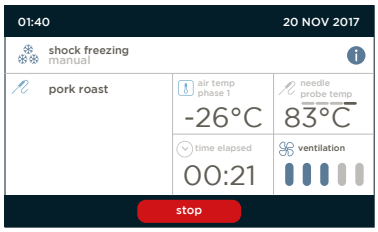
the cycle ends when the set time expires.



5 Launch the recipe with the ***START*** key.

If the cycle includes a needle probe, a message (***Insert needle probe***) reminds the user to do this.

If changes to the cycle phases are needed, press the SET key. These settings apply only to the cycle to be run (changes are not permanent and are cleared when exiting the program). Settings can only be changed before starting the cycle and not when running. For further information, see page 24.



Screen appearing when the cycle has started

Fan speed

Time elapsed from start and time remaining to the end of the recipe

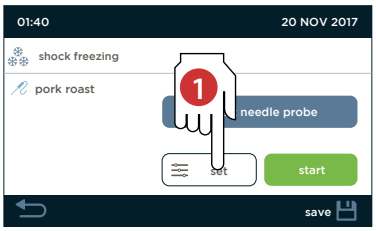
Current core temperature

The recipe ends at the end of the set time (if it is a time cycle) or when the set core temperature is reached (if the cycle provides for a core probe).
To stop the cycle early, touch the ***STOP*** key.
At the end of the ***Shock Freezing*** cycle, the machine automatically switches to ***Shock Freezing*** mode.

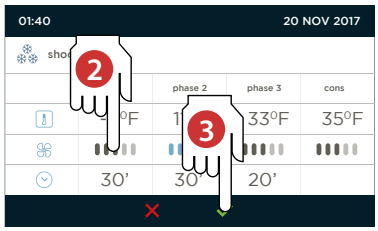
Cycles that ended normally, and moved on to the storage phase, can be saved in my Recipes. For further information, see page 35.

Editing saved recipes (Cookbook) and creating a personal recipe (My recipes)

Recipes in the ***Cookbook*** section CANNOT be deleted or PERMANENTLY changed.
These settings can only be edited for the cycle to be run (changes are not permanent and are cleared when exiting the program). Settings can only be change before starting the cycle and not when running.
Alternatively, the recipe changed by the user can be saved with another name (e.g. "RABBIT ROAST WITH POTATOES") and will be saved under ***My recipes***.



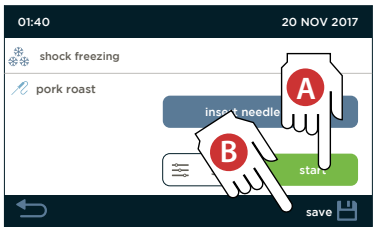
1 If, before touching ***START***, you decide to change the parameters of the cycle you want to start ("PORK ROAST" in the example), touch the ***SET*** key.



2 Set the desired values touching the value you wish to change: it will turn blue. Act on keys "**-**" and "**+**" to set it.

- Temperature of each phase
- Fan speed in each phase
- Duration of each phase
- Core temperature

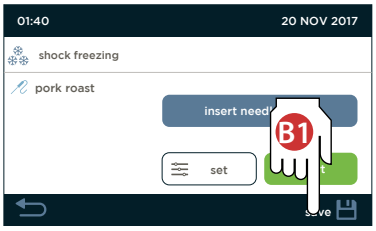
3 Save settings with "√" or clear the entered values with "**x**".



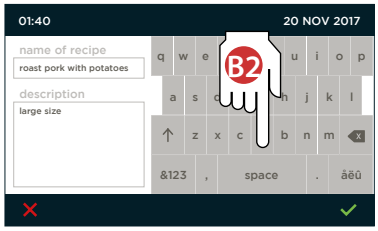
At this point you can:

A **Run the new set recipe** by pressing the ***START*** key, remembering that the changes made will only be applied to the cycle to be run.

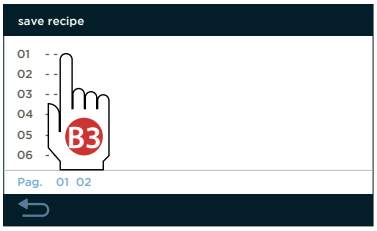
B **Save the new set recipe** under a new name; later on, to use this and all other personal recipes, touch the ***My recipes*** icon. To save a recipe with a name, continue the procedure.



B1 Save the new recipe by touching the ***Save*** key.



B2 Enter the name of the recipe on the keypad ("ROAST PORK WITH POTATOES" in the example"), confirm with "√" or delete with "**x**".

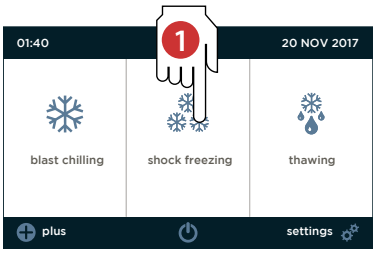


B3 Touch the position where you wish to save the recipe: confirm the chosen position with "√" or delete with "**x**".

If the selected position is already occupied by another recipe, a warning to be confirmed appears on the display ("***Overwrite the existing recipe in place 01***").

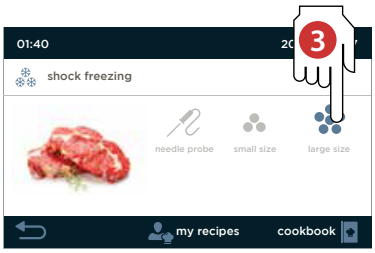
Shock Freezing with automatic or manual cycles

If, having selected a product category (for example "MEAT"), no recipe is found for the food to be chilled, you can use either automatic or manual chilling.



1 Select the ***Shock Freezing*** cycle from the main screen touching the corresponding icon.

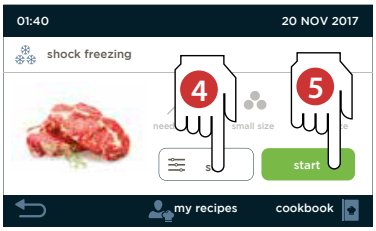
2 Select the icon for the food to be chilled ("MEAT" in the example).



3 Select the cycle to be run (it will turn blue):

- **needle probe**: <u>automatic</u> cycle, with core probe,
- **small size**: <u>manual</u> cycle, timed, chilling of small food
- **large size**: <u>manual</u> cycle, timed, chilling of large food

The last two do not require a needle probe but a set chilling time (editable).



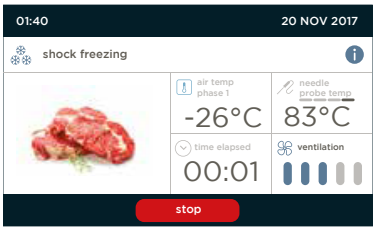
4 Touch the ***SET*** key, to check the settings of the selected cycle.

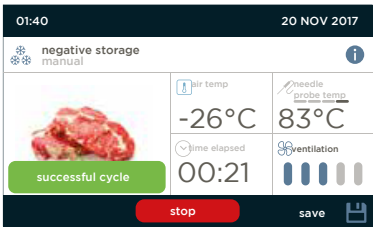
5 If the settings suit your needs, run the positive chilling cycle by pressing ***START***.

If that is not the case, see page 30 point **2** .

Changes will only apply to this cycle (changes are not permanent and are deleted by exiting the program).

When the fan speed is changed during chilling, the initial fan value is saved.





Screen appearing when the cycle has started

Current temperature in the chamber:
<u>white icon</u>: compressor OFF
<u>blue icon</u>: compressor ON
<u>flashing icon</u>: compressor waiting

Fan speed

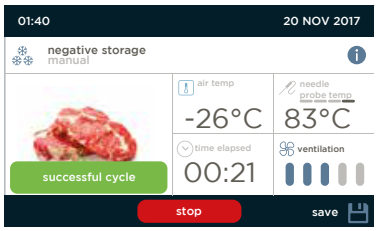
Time elapsed from start and time remaining to the end of the recipe

Current core temperature

6 The recipe ends at the end of the set time (if it is a time cycle) or when the set core temperature is reached (if the cycle provides for a core probe). To stop the cycle early, touch the ***STOP*** key.
At the end of the ***Shock Freezing*** cycle, the machine automatically switches to ***Negative Storage.***

Cycles that ended normally, and moved on to the storage phase, can be saved in my Recipes.
For further information, see page 35.

Negative Storage



*During the **Negative Storage** phase (which automatically follows each **Shock freezing** cycle), the cell temperature is kept at -20°C/-4°F.*

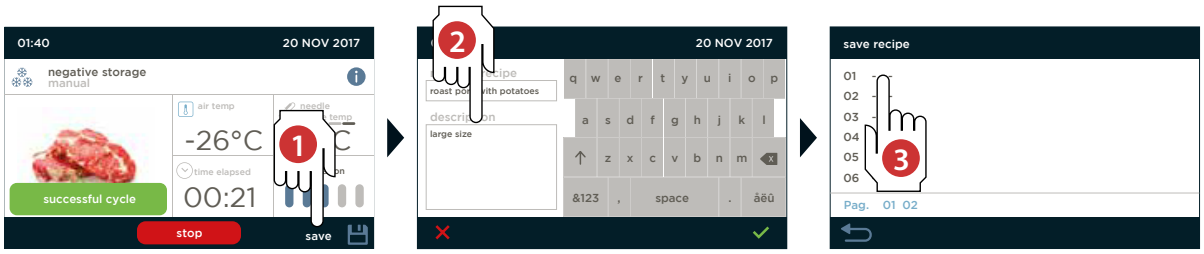
Fan speed can be adjusted by other storage parameters, but cannot be changed.

Press STOP to end the cycle.

When a cycle is interrupted due to a blackout or other reasons, the green area that indicates the storage phase, turns red.

Saving the completed Shock Freezing cycle

Cycles that ended and normally moved on to the storage phase can be saved in ***My recipes***.



1 Save the finished cycle touching the ***Save*** key.

2 Enter the name of the recipe on the keypad ("ROAST PORK WITH POTATOES" in the example"), confirm with "√" or delete with "**x**".

3 Touch the position where you wish to save the recipe: confirm the chosen position with "√" or delete with "**x**".

If the selected position is already occupied by another recipe, a warning to be confirmed appears on the display ("***Overwrite the existing recipe in place 01***").

The recipe is saved in the memory space for ***Shock Freezing*** and for the product category (e.g. "MEAT").

All cycles saved in ***My recipes*** FROM COMPLETED CYCLES, are the repetitions of times and temperatures recorded during the operation and do not require the core needle probe (indicated by the clock symbol next to the recipe name). My recipe cycles saved from a COMPLETED CYCLE must only be used with the same type of food and size as the completed cycle.

Fish sanitation cycle - gastronomy version

1 Insert the probe into the food to be chilled.

2 Press the ***"START"*** key: a cycle starts divided into the following three phases:

-***Shock freezing*** with chamber set to -40°C/-40°F (parameter AK1) until the needle probe reaches -20°C/-4°F (parameter AK2)

-***Maintenance*** for 24 hours (parameter AK3) with chamber setpoint at -20°C/-4°F (parameter AK2).

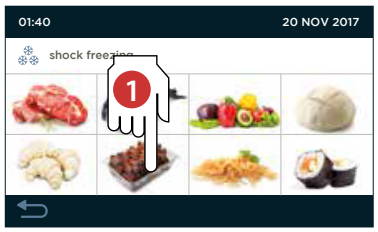
-***Negative Storage*** with chamber setpoint at -20°C/-4°F (parameter AK4).

When the temperature read by the needle probe reaches the end ***Shock freezing*** temperature, the device automatically switches to ***Maintenance***. After the maintenance period, the device automatically switches to ***Negative Storage***.

ANISAKIS

Anisakiasis is a parasitic infection of the gastrointestinal tract caused by eating raw or insufficiently cooked seafood products containing Anisakis simplex larvae: if the larvae penetrate the intestinal wall, they cause a violent abdominal pain, associated with nausea and vomiting. Should, one or two weeks after the infection, these succeed in passing into the intestines, a significant immune response can occur, with intermittent abdominal pain, nausea, diarrhoea and fever or intestinal perforation.

Ice cream softening function



This function allows softening ice cream after getting it out of the freezer at -18°C/0.4°F: the softening cycle with dedicated algorithm and heat supplied by the resistances, brings the ice cream to a temperature of -12 or -13°C/10.4° or 8.6°F, which is ideal for presentation and sale, cutting down on time without ruining it.

To use this cycle, the needle probe needs to be inserted into the ice cream bowl; insert it deeply into the central part, preventing it from touching the sides: when the probe detects that the set temperature has been reached, it stops the cycle.

Default values for automatic or manual Negative Chilling cycles (-18°C)

MEAT	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Set Core	-18°C / -0.4°F	-18°C / -0.4°F	-18°C / -0.4°F	--
	SMALL SIZE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	40′	40′	40′	--
	LARGE SIZE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	80′	80′	80′	--

FISH	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Set Core	-18°C / -0.4°F	-18°C / -0.4°F	-18°C / -0.4°F	--
	SMALL SIZE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	30′	30′	30′	--
	LARGE SIZE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	50′	50′	50′	--

VEGETABLES	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Set Core	-18°C / -0.4°F	-18°C / -0.4°F	-18°C / -0.4°F	--
	SMALL SIZE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	30′	30′	30′	--
	LARGE SIZE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	40′	40′	40′	--

BREAD	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-35°C / -31°F	-35°C / -31°F	-35°C / -31°F	-20°C / -4°F
Fan speed	5	5	5	2
Set Core	-18°C / -0.4°F	-18°C / -0.4°F	-18°C / -0.4°F	--
	SMALL SIZE			
Set Cell	-35°C / -31°F	-35°C / -31°F	-35°C / -31°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	20′	20′	20′	--
	LARGE SIZE			
Set Cell	-35°C / -31°F	-35°C / -31°F	-35°C / -31°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	80′	80′	80′	--

CROISSANT	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Set Core	-18°C / -0.4°F	-18°C / -0.4°F	-18°C / -0.4°F	--
	SMALL SIZE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	20′	20′	20′	--
	LARGE SIZE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	25′	25′	25′	--

ICE CREAMS	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Set Core	-18°C / -0.4°F	-18°C / -0.4°F	-18°C / -0.4°F	--
	SMALL SIZE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	30′	30′	30′	--
	LARGE SIZE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	80′	80′	80′	--

FIRST COURSES	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Set Core	-18°C / -0.4°F	-18°C / -0.4°F	-18°C / -0.4°F	--
	SMALL SIZE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	30'	0'	15'	--
	LARGE SIZE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	40'	40'	40'	--

FRUIT	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Set Core	-18°C / -0.4°F	-18°C / -0.4°F	-18°C / -0.4°F	--
	SMALL SIZE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	30'	30'	30'	--
	LARGE SIZE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	40'	40'	40'	--

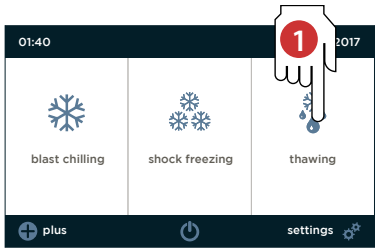
CAKES	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Set Core	-18°C / -0.4°F	-18°C / -0.4°F	-18°C / -0.4°F	--
	SMALL SIZE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	20'	20'	20'	--
	LARGE SIZE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	25'	25'	25'	--

MOUSSE, BAVAROISE SEMIFREDDO	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Set Core	-18°C / -0.4°F	-18°C / -0.4°F	-18°C / -0.4°F	--
	SMALL SIZE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	30'	--	20'	--
	LARGE SIZE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	30'	30'	30'	--

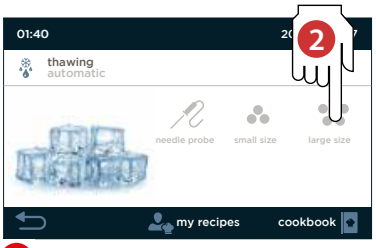
CUPBOARD CAKES	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Set Core	-18°C / -0.4°F	-18°C / -0.4°F	-18°C / -0.4°F	--
	SMALL SIZE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	40'	--	20'	--
	LARGE SIZE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	60'	--	40'	--

ICED, JELLLES CREAM CAKES	Phase 1	Phase 2	Phase 3	Storage phase
	WITH PROBE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Set Core	-18°C / -0.4°F	-18°C / -0.4°F	-18°C / -0.4°F	--
	SMALL SIZE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	20'	--	20'	--
	LARGE SIZE			
Set Cell	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-20°C / -4°F
Fan speed	5	5	5	2
Time	30'	--	30'	--

THAWING (IF PRESENT)



1 Select the ***Thawing*** cycle from the main screen, touching the corresponding icon.



2 THREE different thawing programs are possible, depending on the thickness of the product to be thawed.

Small Size

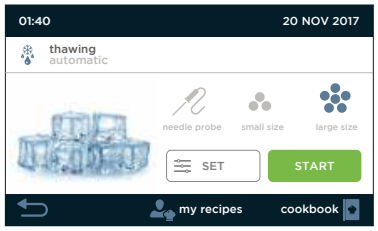
thickness less than or equal to 50 mm (2");
length of the thawing cycle - 60 mins

Medium Size

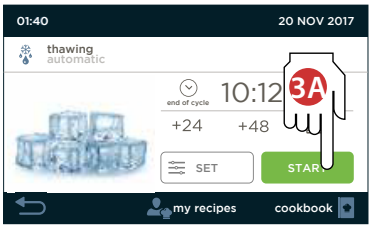
thickness between 50 and 10 mm (2-4")
length of the thawing cycle - 240 mins

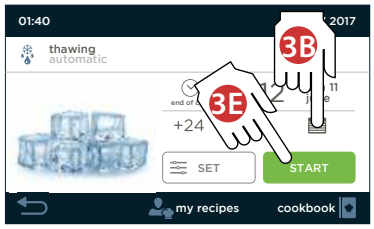
Large Size

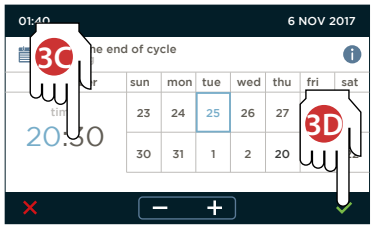
thickness exceeding 100 mm (4" and above)
length of the thawing cycle - 360 mins



If changes to the cycle phases are needed, press the SET key. These settings apply only to the cycle to be run (changes are not permanent and are cleared when exiting the program). Settings can only be changed before starting the cycle and not when running. For further information, see page 43.



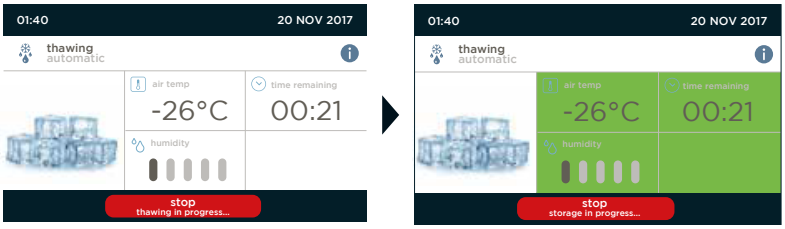




3 If you want the thawing cycle to:

	what to do…	***what happens…***	***the food will be ready…***
start immediately	**3A** press the ***START*** key	the thawing cycle starts immediately	...after 60, 240 or 360 minutes depending on the selected size.
start at a later time, so that the food will be ready at a certain time/day	press one of the keys: ***+24*** : thawing starts 24 hours after the key has been pressed ***+48*** : thawing starts 48 hours after the key has been pressed ***calendar*** **3B**: in this case, set the date and time when you wish the food to be ready **3C**, confirm with "√" **3D**. In both cases press ***START*** **3E**	The thawing cycle does not start immediately. The food is kept at the conservation temperature (-20°C/-4°F) until the cycle starts. This is automatic, and is managed by software based on the set thawing cycle end time, and the required thawing time (60, 240, or 360 minutes, based on the size selected). When food is in storage (-20°C, -4°F) pressing the red "STOP storage in progress" key starts the thawing cycle straight away, pressing it again stops it.	... at the set date and time (shown in the display as end of thawing time).

The **Thawing** cycle divides the total time into 5 phases (60, 240, or 360 minutes based on selected size).
At the beginning of **Phase 1** while the product is still frozen, the temperature shown will be the **Initial Set Chamber** (20°C/68°F, 25°C/77°F, or 30°C/86°F based on the selected size). This temperature is automatically reduced at each phase to reach **Phase 5 End Chamber Set** (12°C/53.6°F). After thawing, Storage (-20°C/-4°F) automatically begins, the buzzer sounds for several seconds and the message "**Thawing In Progress**" in the **STOP** key turns to **"Storage in Progress"**, this means the thawing process has been completed.



Screen appearing when the cycle has started

Current temperature in the chamber:
white icon: compressor OFF
blue icon: compressor ON
flashing icon: compressor waiting

Time remaining to the end of the thawing cycle

Humidity in the cell

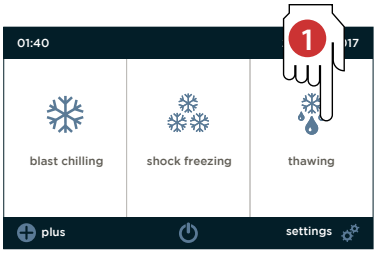
The addition of humidity is important if food is thawed without trays (they could lose weight and dehydrate) while these are not needed if closed in bags or containers.
Humidity to be added during the cycle can be set from 0 (no additional humidity) to rise to five levels, and can always be changed during the entire cycle by touching the humidity icon on the display.
Humidity is inhibited during the first part of the thawing cycle.

SMALL SIZE (thickness ≤ 50mm/2")	Set initial chamber Phase 1 (frozen product)	Phase 2	Phase 3	Phase 4	Set end chamber Phase 5 (thawed product)	Storage
Set Cell	20°C / 68°F	autom. temperature	autom. temperature	autom. temperature	12°C / 53.6°F	3°C / 37.4°F
Fan speed	5	5	5	5	5	ON/OFF
Set Humidity	Adjustable from 0 (no humidity) to 5 (maximum humidity)					
Cycle duration (time)	60 minutes					

MEDIUM SIZE (thickness 50-100mm / 2-4")	Set initial chamber Phase 1 (frozen product)	Phase 2	Phase 3	Phase 4	Set end chamber Phase 5 (thawed product)	Storage
Set Cell	25°C / 77°F	autom. temperature	autom. temperature	autom. temperature	12°C / 53.6°F	3°C / 37.4°F
Fan speed	5	5	5	5	5	ON/OFF
Set Humidity	Adjustable from 0 (no humidity) to 5 (maximum humidity)					
Cycle duration (time)	240 minutes					

LARGE SIZE (thickness > 100mm / 4")	Set initial chamber Phase 1 (frozen product)	Phase 2	Phase 3	Phase 4	Set end chamber Phase 5 (thawed product)	Storage
Set Cell	30°C / 86°F	autom. temperature	autom. temperature	autom. temperature	12°C / 53.6°F	3°C / 37.4°F
Fan speed	5	5	5	5	5	ON/OFF
Set Humidity	Adjustable from 0 (no humidity) to 5 (maximum humidity)					
Cycle duration (time)	360 minutes					

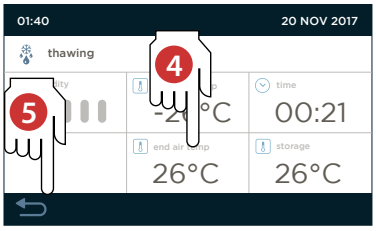
Editing thawing cycle parameters (optional)



1 Select the ***Thawing*** cycle from the main screen, touching the corresponding icon.

2 Select the thawing program that suits the thickness of the product to be defrosted best.

2 Touch the ***SET*** key.



4 If necessary, the user can change:

- cell temperature during Phase 1 - ***Initial Set Chamber*** (initial temperature in the cell when the product is still frozen);
- cell temperature during Phase 5 - ***End Set Chamber*** (end thawing cycle cell temperature);
- cycle duration (***Time***);

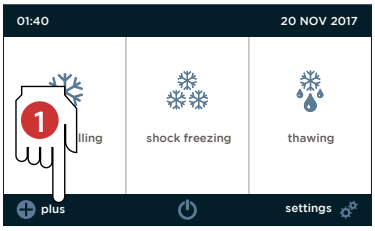
cell temperature during the ***Storage*** phase.

5 After the settings, touch the ***back*** key and ***START*** key to start the thawing cycle.

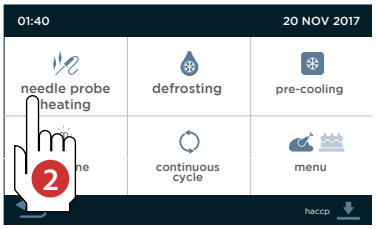
SPECIAL FUNCTIONS

NEEDLE PROBE HEATING

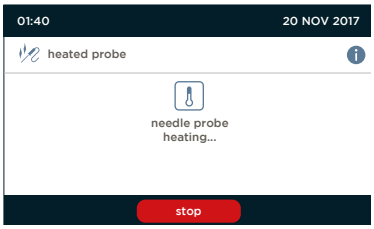
This function is useful to make the extraction of the needle probe from a product easier after a shock freezing cycle; it is possible to start it only if the temperature of the food is lower than -5°C/23°F.



1 Select ***Plus*** in the bottom LH corner of the main screen



2 Select ***Needle Probe heating*** and the cycle starts.

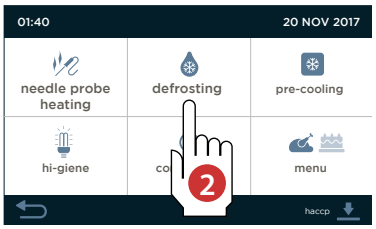


3 The heating phase automatically stops after the temperature suited to remove the needle probe from the product is reached and the ***"remove needle probe"*** message appears on the screen. Touch the message to exit.

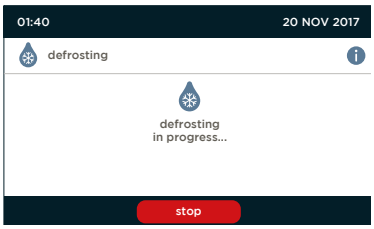
AIR DEFROSTING WITH THE DOOR OPEN

The door of the blast chiller must remain open during the whole function.

1 Select ***Plus*** in the bottom LH corner of the main screen



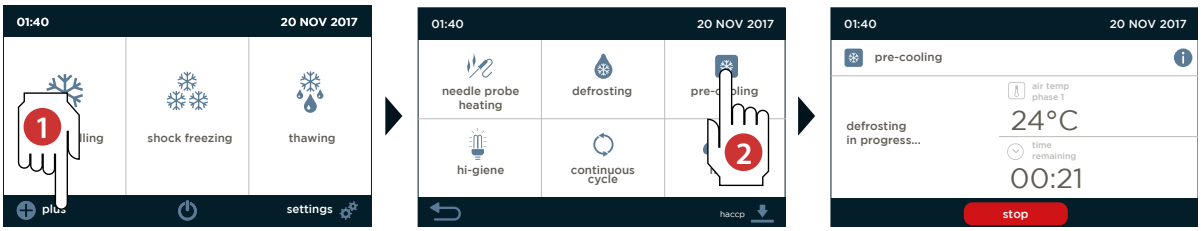
2 Select ***Defrosting*** and the cycle starts.



Defrosting automatically starts in all storage cycles, with the product inserted; after defrosting, the machine returns to normal operations. Defrosting can only start if the evaporator temperature is under 3°C.
Defrost ends:
- when the end defrost temperature is reached. (The message "***Cycle completed***" appears)
- by pressing ***STOP*** (the message "***Cycle interrupted***" appears)

PRE-COOLING

Before starting a **Blast chilling** or **Shock freezing** Cycle, the cell should be pre-cooled before food is introduced.
To start the function, follow points 1 and 2 in the illustration below; a cycle immediately starts that brings the chamber temperature to -25°C/-13°F (with the cycle started, the descending chamber temperature is displayed)
Once this temperature is reached, a buzzer sounds for 3 seconds every 60 seconds to indicate that the equipment is ready for food to be chilled and run to a **Blast chilling** or **Shock freezing** Cycle.
To stop pre-cooling in advance, open the door or touch the **STOP** key.

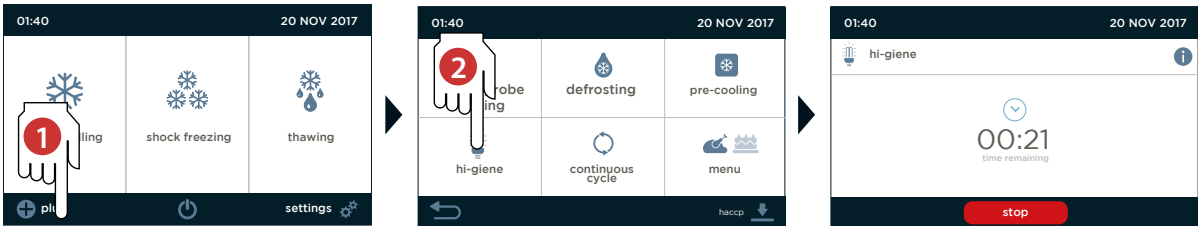


HI-GIENE (NEEDLE PROBE STERILIZATION - OPTIONAL) - ONLY FOR BLAST CHILLERS WITH TROLLEYS

Touch the Hi-giene icon to start the sterilization cycle.
Sterilization can only start if the chamber temperature is over 15°C/59°F and with the door closed.
Sterilization ends:

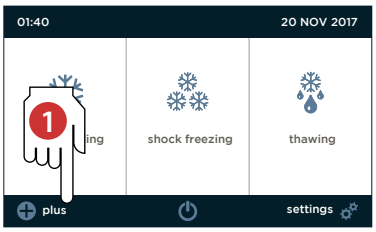
-at the end of the set time
-by pressing STOP
-if the door is opened

The time remaining until the end of sterilization is displayed.
When finished, message "Cycle Completed" appears. Touch the message to exit.
Opening a door, or blackouts will interrupt Sterilization.

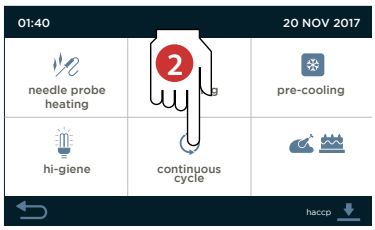


CONTINUOUS CYCLE

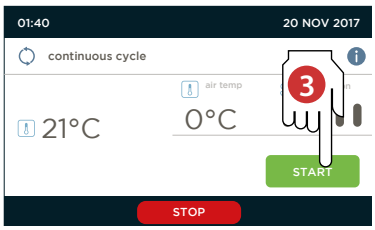
This function lets you quickly set the temperature and air speed for a ***Continuous Cycle*** that only ends when the ***STOP*** key is pressed. Furthermore, after the start, touch ***Multi level*** on the display to activate up to 8 timers and assign to each level the time to be spent in the cell.



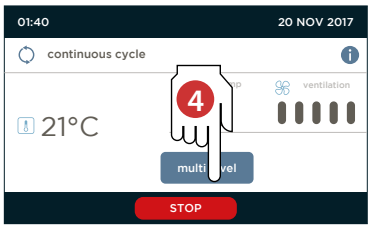
1 Select ***Plus*** in the bottom LH corner of the main screen



2 Select ***Continuous cycle*** and the cycle starts.

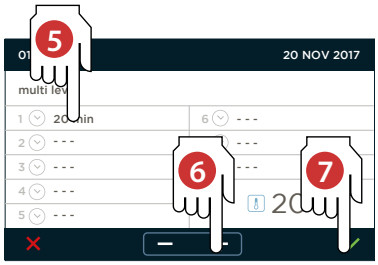


3 Set the temperature in the chamber and the fan speed as usual, the press the ***START*** key: now the oven will work continuously with the set parameters until ***STOP*** is pressed.

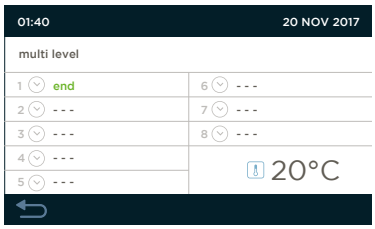


4 If necessary, up to 8 timers can be set that warn about the expiry of the set time.

Press ***Multi level*** and the timer screen is accessed.



5 6 7 Press on the desired timer and set the time using the "+" e "-" keys. Press the "√" key to activate the timer and start the countdown.
Set all the timers you need the same way.

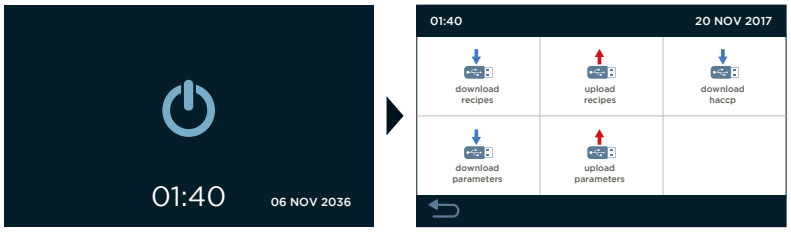


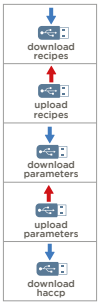
8 The green message ***END*** appears every time a timer expires. Open the door or touch the time to return the countdown to " - - - " (no time set).

If a timer ends with the initial ***Continuous Cycle*** screen, the machine automatically switches to ***Multi level*** mode that indicates the expired timer.

USB MENU

With the display off (OFF), a USB can be inserted (FAT 32 formatted) and the USB screen is automatically displayed.





Download recipes: the entire ***My recipes*** section will be downloaded from the board to the USB key

Upload recipes: the entire ***My recipes*** section in the USB key will be uploaded to the board.

Download parameters: all parameters and all set points will be downloaded from the board to the USB key.

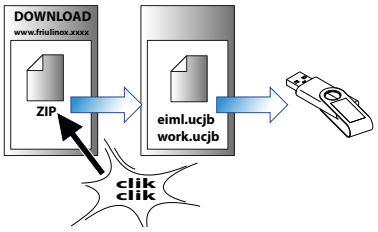
Upload parameters: all parameters and set points in the USB key will be uploaded to the board.

Download HACCP: log data will be downloaded to the USB key

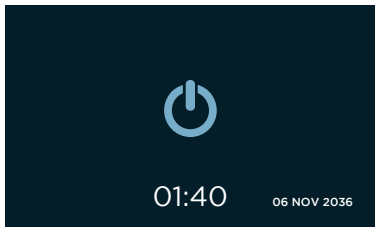
Once the operation to be carried out is selected, the confirmation request appears: press key "√" to start downloading data and view the progress. If the process is successfully completed, press ***OK*** to return to the USB menu.

To download HACCP data (***Download HACCP***) confirm the operation with the **"**, "key, to open data download start date and time settings.

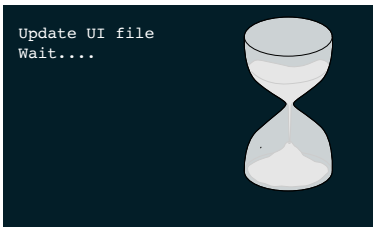
FIRMWARE UPDATE



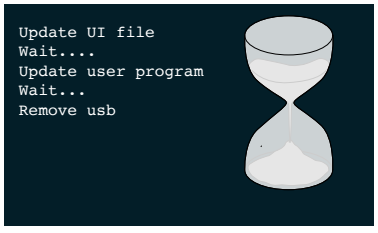
Download the two update files from the Manufacturer's site and extract them; copy them onto a FAT 32 formatted USB stick.



with the display OFF, insert the USB stick into the appropriate oven socket.



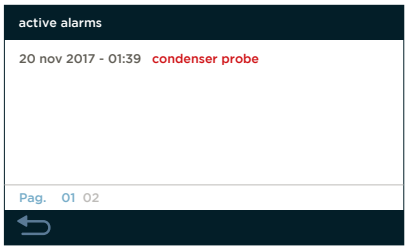
An uploading screen is displayed automatically.



After a few minutes, a screen warns that uploading has been successful: remove the USB stick.

The display restarts automatically after a short time and the main screen appears.

ALARMS



A warning is displayed when an alarm is triggered.
Some alarms prevent the machine operation, others just limit some functions.

Chamber Probe Alarm (Contact customer service)
A probe fault triggers the Chamber Probe Alarm and the buzzer and alarm relay trigger. The alarm is signalled at the top of the display. The buzzer sounds. It can be muted by touching the display. When the fault is fixed, the alarm automatically resets and the alarm relay turns off.
With the Chamber Probe broken, the following program can be started or continued:
- ***Timed Chilling*** (the compressor is controlled on the Needle Probe).
- ***Temperature Chilling*** not yet started switches to Timed at Start.
- ***Temperature Chilling*** in progress, switches to Timed if the Needle Probe is not inserted; the compressor is controlled on the Needle Probe instead of on the Cell probe.
- ***Temperature Chilling*** in progress with the Needle Probe inserted, the compressor turns on and off according to the set times.

Evaporator Probe Alarm (Contact customer service)
A probe fault triggers an Evaporator Probe Alarm. The alarm is signalled at the top of the display, the buzzer sounds and can be muted by touching the display.
At the end of the fault the alarm is automatically reset.

High Temperature alarm during storage
If the temperature remains over the set point during positive or negative storage for a time set by the parameter, a High Temperature alarm triggers. The alarm is signalled at the top of the display.
The buzzer sounds and can be muted by touching the display. When the temperature returns under the alarm threshold, it is automatically reset. The alarm is saved in the HACCP log.

Low Temperature alarm during storage
If the temperature remains under the set point during positive or negative storage for a time set by the parameter, a Low Temperature alarm triggers. The alarm is signalled at the top of the display.
The buzzer sounds and can be muted by touching the display. When the temperature returns over the alarm threshold, it is automatically reset. The alarm is saved in the HACCP log.

Needle Probe Alarm (Contact customer service)
A Needle Probe alarm triggers a Needle Probe fault alarm when in Stand-by or if a Temperature chilling cycle is in progress (in this case, the cycle automatically switches to timed) or during needle probe cooking (in this case cooking ends). The alarm is signalled at the top of the display, the buzzer can be muted by touching the display.
At the end of the fault the alarm is automatically reset. For Multi-top needle probe, a single sensor fault triggers the alarm.

Door Open alarm
The door open alarm triggers after a delay set by the parameter. The compressor immediately stops and that alarm is signalled at the top of the display- The buzzer sounds and can be muted by touching the display. The alarm is automatically reset when the door is closed.
HP pressure gauge Alarm (Contact customer service)
When the HP pressure gauge alarm is detected by the board, the chilling cycles in progress immediately end. The compressor and evaporator fans immediately stop and the alarm is signalled at the top of the display.
The buzzer sounds and can be muted by touching the display.
At the end of the fault the alarm is automatically reset.

LP pressure gauge alarm (only for models where applicable) (Contact customer service)
When the LP pressure gauge alarm is detected by the board, the chilling cycles in progress immediately end. The compressor and evaporator fans immediately stop and the alarm is signalled at the top of the display.
The buzzer sounds and can be muted by touching the display.
At the end of the fault the alarm is automatically reset.

The compressor and evaporator fans stop and the alarm is signalled at the top of the display.
The buzzer sounds and can be muted by touching the display.
At the end of the fault the alarm is automatically reset.

Safety Thermostat alarm (Contact customer service)
When the thermostat alarm is detected by the board, the chilling cycles in progress immediately end.
The compressor, fans and heating resistances immediately turn off.
The alarm is signalled at the top of the display.
The buzzer sounds and can be muted by touching the display.
At the end of the fault the alarm is automatically reset.

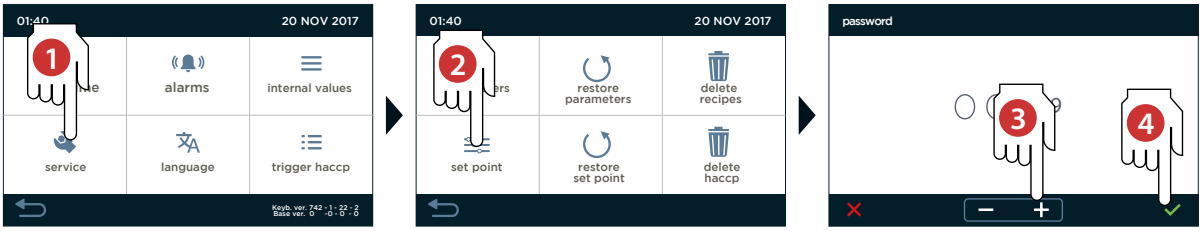
Blackout alarm
When a blackout alarm occurs during a cycle in progress, the machine resumes the cycle from where it left off when power returns.
Chilling time tolerance is 10 minutes.
The buzzer can be muted by touching the display.

SERVICE

The ***Service*** menu is dedicated to both qualified personnel and the end user. Some functions are password protected by the Manufacturer to prevent unwelcome interventions from affecting the machine operation and avoid any damages that wouldn't be covered by the warranty.

SET POINT

In the ***Settings*** menu select ***Service*** and then ***SetPoint*** and enter password -19 to open the settings menu.



Label	Chilling set point	Default	MIN	MAX
Ab01	PHASE 1 cell set point in chilling +3°C Soft Manual	0°C	-60°C	100°C
Ab02	PHASE 1 core set point in chilling +3°C Soft Manual	10°C	-60°C	100°C
Ab03	PHASE 1 time set point in chilling +3°C Soft Manual full load	30min	0min	240min
Ab04	PHASE 2 cell set point in chilling +3°C Soft Manual	0°C	-60°C	100°C
Ab05	PHASE 2 core set point in chilling +3°C Soft Manual	5°C	-60°C	100°C
Ab06	PHASE 2 time set point in chilling +3°C Soft Manual full load	30min	0min	240min
Ab07	PHASE 3 cell set point in chilling +3°C Soft Manual	0°C	-60°C	100°C
Ab08	PHASE 3 core set point in chilling +3°C Soft Manual	3°C	-60°C	100°C
Ab09	PHASE 3 time set point in chilling +3°C Soft Manual full load	30min	0min	240min
Ab10	Cell set point in storage +3°C Manual	2°C	-60°C	100°C
Ab11	PHASE 1 cell set point in chilling +3°C Hard Manual	-20°C	-60°C	100°C
Ab12	PHASE 1 core set point in chilling +3°C Hard Manual	22°C	-60°C	100°C
Ab13	PHASE 1 time set point in chilling +3°C Hard Manual full load	30min	0min	240min
Ab14	PHASE 2 cell set point in chilling +3°C Hard Manual	-9°C	-60°C	100°C
Ab15	PHASE 2 core set point in chilling +3°C Hard Manual	10°C	-60°C	100°C
Ab16	PHASE 2 time set point in chilling +3°C Hard Manual full load	30min	0min	240min
Ab17	PHASE 3 cell set point in chilling +3°C Hard Manual	0°C	-60°C	100°C
Ab18	PHASE 3 core set point in chilling +3°C Hard Manual	3°C	-60°C	100°C
Ab19	PHASE 3 time set point in chilling +3°C Hard Manual full load	30min	0min	240min
Ab20	Reserved	90		
Ab21	PHASE 1 cell set point in chilling -18°C Soft Manual	-10°C	-60°C	100°C
Ab22	PHASE 1 core set point in chilling -18°C Soft Manual	3°C	-60°C	100°C
Ab23	PHASE 1 time set point in chilling -18°C Soft Manual full load	80min	0min	240min
Ab24	PHASE 2 cell set point in chilling -18°C Soft Manual	-25°C	-60°C	100°C
Ab25	PHASE 2 core set point in chilling -18°C Soft Manual	-5°C	-60°C	100°C
Ab26	PHASE 2 time set point in chilling -18°C Soft Manual full load	80min	0min	240min
Ab27	PHASE 3 cell set point in chilling -18°C Soft Manual	-40°C	-60°C	100°C
Ab28	PHASE 3 core set point in chilling -18°C Soft Manual	-18°C	-60°C	100°C
Ab29	PHASE 3 time set point in chilling -18°C Soft Manual full load	80min	0min	240min
Ab30	Cell set point in storage -18°C Manual	-20°C	-60°C	100°C

Label	Chilling set point	Default	MIN	MAX
Ab31	PHASE 1 cell set point in chilling -18°C Hard Manual	-40°C	-60°C	100°C
Ab32	PHASE 1 core set point in chilling -18°C Hard Manual	-18°C	-60°C	100°C
Ab33	PHASE 1 time set point in chilling -18°C Hard Manual full load	80min	0min	240min
Ab34	PHASE 2 cell set point in chilling -18°C Hard Manual	-40°C	-60°C	100°C
Ab35	PHASE 2 core set point in chilling -18°C Hard Manual	-18°C	-60°C	100°C
Ab36	PHASE 2 time set point in chilling -18°C Hard Manual full load	80min	0min	240min
Ab37	PHASE 3 cell set point in chilling -18°C Hard Manual	-40°C	-60°C	100°C
Ab38	PHASE 3 core set point in chilling -18°C Hard Manual	-18°C	-60°C	100°C
Ab39	PHASE 3 time set point in chilling -18°C Hard Manual full load	80min	0min	240min
Ab40	Fan speed PHASE 1	5	0	5
Ab41	Fan speed PHASE 2	5	0	5
Ab42	Fan speed PHASE 3	5	0	5
Ab43	Fan speed in storage	5	0	5
Ab44	Maximum chilling time set point +3°C	120min	0min	999min
Ab45	Maximum chilling time set point -18°C	300min	0min	999min
Ab46	PHASE 1 time set point in chilling +3°C Soft Manual half load	30min	0min	240min
Ab47	PHASE 2 time set point in chilling +3°C Soft Manual half load	30min	0min	240min
Ab48	PHASE 3 time set point in chilling +3°C Soft Manual half load	30min	0min	240min
Ab49	PHASE 1 time set point in chilling +3°C Hard Manual half load	30min	0min	240min
Ab50	PHASE 2 time set point in chilling +3°C Hard Manual half load	30min	0min	240min
Ab51	PHASE 3 time set point in chilling +3°C Hard Manual half load	30min	0min	240min
Ab52	PHASE 1 time set point in chilling -18°C Soft Manual half load	80min	0min	240min
Ab53	PHASE 2 time set point in chilling -18°C Soft Manual half load	80min	0min	240min
Ab54	PHASE 3 time set point in chilling -18°C Soft Manual half load	80min	0min	240min
Ab55	PHASE 1 time set point in chilling -18°C Hard Manual half load	80min	0min	240min
Ab56	PHASE 2 time set point in chilling -18°C Hard Manual half load	80min	0min	240min
Ab57	PHASE 3 time set point in chilling -18°C Hard Manual half load	80min	0min	240min
Label	**Thawing set point**	**Default**	**MIN**	**MAX**
Sc01	Initial set point in thawing cycle with high load	30°C	-60°C	100°C
Sc02	End set point in thawing cycle with high load	12°C	-60°C	100°C
Sc03	Thawing cycle duration with high load	360min	0min	999min
Sc04	Initial set point in thawing cycle with medium load	25°C	-60°C	100°C
Sc05	End set point in thawing cycle with medium load	12°C	-60°C	100°C
Sc06	Thawing cycle duration with medium load	240min	0min	999min
Sc07	Initial set point in thawing cycle with low load	20°C	-60°C	100°C
Sc08	End set point in thawing cycle with low load	12°C	-60°C	100°C
Sc09	Thawing cycle duration with low load	60min	0min	999min
Sc10	Fan speed during phase 1	5	0	5
Sc11	Fan speed during phase 2	5	0	5
Sc12	Fan speed during phase 3	5	0	5
Sc13	Fan speed during phase 4	5	0	5
Sc14	Fan speed during phase 5	5	0	5
Sc15	Dead zone in thawing cycle	1°C	0°C	10°C
Sc16	Heat hysteresis in thawing cycle	2°C	0°C	10°C
Sc17	Cold hysteresis in thawing cycle	2°C	0°C	10°C
Sc18	Storage set point in thawing cycle	3°C	-60°C	100°C
Sc19	Set humidity during phase 1	0	0	5
Sc20	Set humidity during phase 2	0	0	5
Sc21	Set humidity during phase 3	0	0	5
Sc22	Set humidity during phase 4	0	0	5
Sc23	Set humidity during phase 5	0	0	5
Sc24	Set humidity during storage	0	0	5

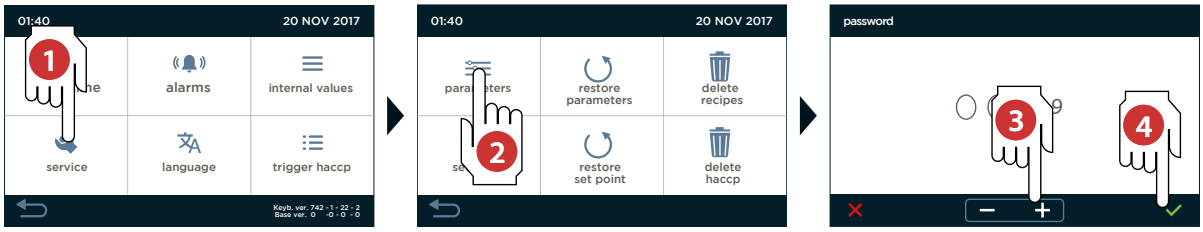
Label	Cooling set point	Default	MIN	MAX
PR01	Pre-cooling chamber set point	-25°C	-60°C	45°C
PR02	Pre-cooling chamber set point Positive cycles only	-25°C	-60°C	45°C
PR03	Buzzer sounding period at end pre-cooling	60 sec	3 sec	600 sec
Label	**Anisakis Killer set point**	**Default**	**MIN**	**MAX**
AK01	Chamber set point in chilling	-40°C	-60°C	100°C
AK02	Needle Probe set point end chilling	-18°C	-60°C	100°C
AK03	Maintenance phase duration	24 h	1 h	99 h
AK04	Chamber set point in storage	-20°C	-60°C	100°C
AK05	Maximum phase 1 needle probe duration	5 h	1 h	99 h
Label	**Retarder set point**	**Default**	**MIN**	**MAX**
FL01	FL04, FL05, FL06 parameter offset	1°C	1°C	15°C
FL02	Minimum settable set point for the block, storage and manual refrigeration phases.	-22°C	-99°C	FL03
FL03	Maximum settable set point for the block, storage and manual refrigeration phases.	25°C	FL02	45°C
FL04	neutral cold zone for block, storage and manual refrigeration phases	1°C	0°C	10°C
FL05	neutral cold zone for activation, rising and manual heating phases	3°C	0°C	10°C
FL06	neutral cold zone for delay baking phase	1°C	0°C	10°C
FL07	FL10, FL11 parameter offset	1°C	1°C	15°C
FL08	Minimum settable set point for the activation, rising, delay baking and manual heating phases.	0°C	-99°C	FL09
FL09	Maximum settable set point for the activation, rising, delay baking and manual heating phases.	40°C	FL08	45°C
FL10	neutral hot zone for activation, rising and manual heating phases	3°C	0°C	10°C
FL11	neutral hot zone for delay baking phase	1°C	0°C	10°C
FL12	Cycle time to turn on the heating resistances in the event of heat request	60 sec	1 sec	600sec
FL13	Heating resistance activation time in cycle time FL12	45 sec	1 sec	600 sec
FL14	Number of resistance regulation steps in activation phase	4	1	10
FL15	Percent 1st activation step increase	25%	0%	FL16
FL16	Percent 2nd activation step increase	50%	FL15	FL17
FL17	Percent 3rd activation step increase	75%	FL16	FL18
FL18	Percent 4th activation step increase	100%	FL17	100
FL19	Percent 5th activation step increase	- - - -	FL18	FL20
FL20	Percent 6th activation step increase	- - - -	FL19	FL21
FL21	Percent 7th activation step increase	- - - -	FL20	FL22
FL22	Percent 8th activation step increase	- - - -	FL21	FL23
FL23	Percent 9th activation step increase	- - - -	FL22	FL24
FL24	Percent 10th activation step increase	- - - -	FL23	100%
NOTE: visibility of parameters FL15 to FL24 depends on the number of regulation steps selected with parameters FL14. Consequently, even the parameter default value will change to have a linear percent increase as default. Example of 4 regulation steps: FL15 25%, FL16 50%, FL17 75%, FL18 100% Example of 7 regulation steps: FL15 14%, FL16 29%, FL17 43%, FL18 57%, FL19 71%, FL20 86%, FL21 100%				
FL25	Number of resistance regulation steps in rising phase	4	1	10
FL26	Percent 1st rising step increase	25%	0%	FL27
FL27	Percent 2nd rising step increase	50%	FL26	FL28
FL28	Percent 3rd rising step increase	75%	FL27	FL29
FL29	Percent 4th rising step increase	100%	FL28	100
FL30	Percent 5th rising step increase	- - - -	FL29	FL31
FL31	Percent 6th rising step increase	- - - -	FL30	FL32

Label	Retarder set point	Default	MIN	MAX
FL32	Percent 7th rising step increase	- - - -	FL31	FL33
FL33	Percent 8th rising step increase	- - - -	FL32	FL34
FL34	Percent 9th rising step increase	- - - -	FL33	FL35
FL35	Percent 10th rising step increase	- - - -	FL34	100%
NOTE: visibility of parameters FL15 to FL24 depends on the number of regulation steps selected with parameters FL14. Consequently, even the parameter default value will change to have a linear percent increase as default. Example of 4 regulation steps: FL15 25%, FL16 50%, FL17 75%, FL18 100% Example of 7 regulation steps: FL15 14%, FL16 29%, FL17 43%, FL18 57%, FL19 71%, FL20 86%, FL21 100%				
FL36	Humidity control mode: 0 = with humidity probe 1 = timed cycles based on set percent	1	0	1
FL37	Minimum cell temperature under which humidifying/dehumidifying control is inhibited	10°C	-99°C	45°C
FL38	Cycle time for humidifier start (if FL36 = 1)	60sec	1sec	600sec
FL39	Humidifier start time win FL38 cycle time to generate 100% humidity in the cell (if FL36 =1)	30sec	1sec	600sec
FL40	Humidification/dehumidification control on during block and storage phases	0	0	1
FL41	dehumidification offset	5 %rH	1 %rH	100 %rH
FL42	neutral dehumidification zone value	2 %rH	0 %rH	100 %rH
FL43	dehumidification attempt duration with pump-down solenoid valve	10 sec	0 sec	255 sec
FL44	humidification offset	5 %rH	1 %rH	100 %rH
FL45	neutral humidification zone value	2 %rH	0 %rH	100 %rH
FL46	humidification proportional band value	10 %rH	0 %rH	50 %rH
FL47	Cycle time for proportional humidification regulation	30sec	0sec	255sec
FL48	Base times for proportional humidification regulation cycle time: 0 = seconds; 1 = minutes	0	0	1
FL49	Compressor forced startup at the start of Activation and Leavening	0min	0min	240min
FL50	Reserved	0		
FL51	Reserved	10		
FL52	Reserved	20		
FL53	Reserved	30		
Label	**Slow cooking set point**	**Default**	**MIN**	**MAX**
CL01	Meat cooking chamber temperature set phase 1	80°C	20°C	85°C
CL02	Meat cooking time set phase 1	120 min	-1 (INF)	900 min
CL03	Meat needle probe cooking set phase 1	45°C	0°C	85°C
CL04	Meat cooking fan set phase 1	2	0	5
CL05	Meat cooking humidity set phase 1	1	0	5
CL06	Fish cooking chamber temperature set phase 1	85°C	20°C	85°C
CL07	Fish cooking time set phase 1	90 min	-1 (INF)	900 min
CL08	Fish needle probe cooking set phase 1	40°C	0°C	85°C
CL09	Fish cooking fan set phase 1	2	0	5
CL10	Fish cooking humidity set phase 1	1	0	5
CL11	Bakery cooking chamber temperature set phase 1	45°C	20°C	85°C
CL12	Bakery cooking time set phase 1	120 min	-1 (INF)	900 min
CL13	Bakery needle probe cooking set phase 1	42°C	0°C	85°C
CL14	Bakery cooking fan set phase 1	2	0	5
CL15	Bakery cooking humidity set phase 1	0	0	5
CL16	Meat cooking chamber temperature set phase 2	80°C	20°C	85°C
CL17	Meat cooking time set phase 2	120 min	-1 (INF)	900 min
CL18	Meat needle probe cooking set phase 2	70°C	0°C	85°C

Label	Slow cooking set point	Default	MIN	MAX
CL19	Meat cooking fan set phase 2	2	0	5
CL20	Meat cooking humidity set phase 2	1	0	5
CL21	Fish cooking chamber temperature set phase 2	80°C	20°C	85°C
CL22	Fish cooking time set phase 2	90 min	-1 (INF)	900 min
CL23	Fish needle probe cooking set phase 2	68°C	0°C	85°C
CL24	Fish cooking fan set phase 2	2	0	5
CL25	Fish cooking humidity set phase 2	1	0	5
CL26	Bakery cooking chamber temperature set phase 2	45°C	20°C	85°C
CL27	Bakery cooking time set phase 2	0min	-1 (INF)	900 min
CL28	Bakery needle probe cooking set phase 2	42°C	0°C	85°C
CL29	Bakery cooking fan set phase 2	2	0	5
CL30	Bakery cooking humidity set phase 2	0	0	5
CL31	Chamber set in storage	42°C	20°C	85°C
CL32	Fan set in storage	2	0	5
CL33	Humidity set in storage	0	0	5
CL34	Resistance activation period in proportional band (Conf120)	0 sec	0 sec	600 sec
Label	**Drying set point**	**Default**	**MIN**	**MAX**
As01	SOFT drying duration	40 min	1	10
As02	HARD drying duration	80 min	0°C	85°C
As03	De-icing solenoid hysteresis	0°C	0°C	85°C
As04	Heating hysteresis	0°C	0 sec	999 sec
As05	Cell drying set point	5	0	5
As06	not used	70	-60°C	85°C
Label	**Short leavening set point**	**Default**	**MIN**	**MAX**
Lb01	Leavening heating set point	26°C	0°C	45°C
Lb02	Leavening set point	120 min	0 min	900 min
Lb03	Leavening humidity set	4	0	5
Lb04	Conservation fan set	2	1	5
Lb05	Conservation heating set point	10°C	0°C	45°C
Lb06	Conservation humidity set point	4	0	5
Lb07	Conservation fan set	2	1	5
Label	**Standard drying set point**	**Default**	**MIN**	**MAX**
Av01	Number of drying cycles	4	1	10
Av02	Heating set point	45°C	0°C	85°C
Av03	Cooling set point	15°C	0°C	85°C
Av04	Pause time	120 sec	0 sec	999 sec
Av05	Fans in drying mode set	5	1	5
Av06	Evaporator set: below the compressor turns off	0°C	-60°C	85°C

PARAMETERS

In the ***Settings*** menu select ***Service*** and then ***Parameters***, and enter password 19 to open the settings menu.



Label	Machine configuration	Default	min	MAX
Conf00	Hysteresis for temperature alarm reset	2°C	0°C	10°C
Conf01	High Temperature alarm threshold in positive storage for Set CONS	7°C	0°C	50°C
Conf02	Low Temperature alarm threshold in positive storage	0°C	-10°C	0°C
Conf03	High Temperature alarm threshold in negative storage for Set CONS	6°C	0°C	50°C
Conf04	Low Temperature alarm threshold in negative storage for Set CONS	-10°C	-50°C	0°C
Conf05	Temperature alarm delay from start storage or defrost	60min	0min	300min
Conf06	Temperature alarm delay	30min	0min	300min
Conf07	Maximum blackout duration	2min	0min	300min
Conf08	Keyboard lock timeout	180sec	0sec	600sec
Conf09	0: Celsius; 1: Fahrenheit	0	0	1
Conf10	Cell probe offset	0°C	-10°C	10°C
Conf11	Evaporator probe offset	0°C	-10°C	10°C
Conf12	Condenser Probe offset	0°C	-10°C	10°C
Conf13	Needle Probe 1 offset	0°C	-10°C	10°C
Conf14	Needle Probe 2 offset	0°C	-10°C	10°C
Conf15	Needle Probe 3 offset	0°C	-10°C	10°C
Conf16	Needle Probe 4 offset	0°C	-10°C	10°C
Conf17	Door open polarity 0: DI closed = door Closed 1: DI closed = door Open	0	0	1
Conf18	Door Open alarm delay	2 min	0 min	60 min
Conf19	Enable buzzer (0 disabled; 1 Enabled)	1	0	1
Conf20	Buzzer duration at end chilling cycle	10 sec	0 sec	600 sec
Conf21	Alarm buzzer duration	1 min	0 min	90 min
Conf22	Enable needle probe acknowledge (0 disabled; 1 Enabled)	0	0	1
Conf23	Positive Chilling cycles only: 0 = Positive and Negative cycles and thawing 1 = Positive and Negative cycles 2 = Positive cycles and thawing 3 = Positive cycles only	0	0	1

Label	Machine configuration	Default	min	MAX
Conf24	HP alarm detection time	5 sec	0 sec	60 sec
Conf25	High Pressure digital input polarity 0: DI Open = HP alarm on 1: DI Closed = HP alarm on	0	0	1
Conf26	effect caused by high pressure input activation: 0=no effect 1= Alarm, the compressor and evaporator fan turn off and the condenser fan turns on	1	0	1
Conf27	LP alarm detection time	5 sec	0 sec	60 sec
Conf28	Low Pressure digital input polarity 0: DI Open = LP alarm on 1: DI closed = LP alarm on	0	0	1
Conf29	effect caused by low pressure input activation: 0=no effect 1 = Low Pressure alarm: the compressor, heating and evaporator fan are turned off. 2= Pumpdown and alarm management: in cooling system shutdown, the input will turn of the compressor output; if the input does not trigger at the end of pumpdown time, the compressor turns off and an alarm is generated. 3 = Compressor overload alarm: the compressor and fans and resistances will be turned off.	3	0	3
Conf30	Thermostat alarm detection time	5 sec	0 sec	60 sec
Conf31	Thermostat digital input polarity 0: DI Open = Thermostat alarm on 1: DI closed = Thermostat alarm on	0	0	1
Conf32	effect caused by thermostat input activation: 0=no effect 1 = Alarm:, the compressor and fans and resistances will be turned off.	1	0	1
Conf33	Door resistance on set point	10°C	-10°C	20°C
Conf34	UVC sterilisation duration	15 min	0 min	999 min
Conf35	Minimum temperature for start sterilisation	15°C	0°C	100°C
Conf36	Temperature under which needle probe heating can start	-5°C	-50°C	50°C
Conf37	Needle Probe Heating duration	90 sec	0 sec	600 sec
Conf38	End needle probe heating temperature	30°C	0°C	100°C
Conf39	Compressor on off hysteresis	1°C	0°C	20°C
Conf40	Minimum compressor shutdown time	2 min	0 min	30 min
Conf41	Minimum compressor on time	0 sec	0 sec	300 sec
Conf42	Minimum time between two compressor starts	0 min	0 min	30 min
Conf43	Reserved	0		
Conf44	Delta set point in needle probe control with cell probe error	-2°C	-10°C	10°C
Conf45	Minimum needle probe temperature for start chilling	90°C	0°C	90°C
Conf46	Needle probe insertion test duration	3 min	1 min	240 min
Conf47	Fan ON with compressor off in storage	30 sec	0 sec	999 sec
Conf48	Fan OFF with compressor off in storage	120 sec	0 sec	999 sec
Conf49	Temperature difference at core in needle probe insertion test	4°C	0	10°C
Conf50	Temperature difference between cell and core in needle probe insertion test	5°C	0	10°C
Conf51	Instrument address	1	1	247
Conf52	Serial management: 0=not used; 1= ModBus	1	0	1
Conf53	BaudRate: 0 = 2400; 1 = 4800; 2 = 9600; 3 = 19200	2	0	3

Label	Machine configuration	Default	min	MAX
Conf54	Parity : 0 = no parity; 1 = odd; 2 = even	2	0	2
Conf55	Sampling time	10 min	1 min	60 min
Conf56	Run defrost at start chilling 0 = No; 1 = Yes	0	0	1
Conf57	End defrost temperature	8°C	-10°C	30°C
Conf58	Maximum defrost duration	15 min	1 min	90 min
Conf59	Interval between two defrosts in storage (0=excluded)	0 hours	0 hours	18 hours
Conf60	Defrost type: 0= air; 1= hot gas; 2= electric	0	0	2
Conf61	Dripping time	1 min	0 min	90 min
Conf62	Compressor start delay with hot gas defrost	0 sec	0 sec	600 sec
Conf63	Temperature under which defrost can start	3°C	-10°C	30°C
Conf64	Fan stop temperature delta after defrost	5°C	0°C	10°C
Conf65	Compressor ON time in Pos cycles with Chamber probe fault	3 min	0 min	60 min
Conf66	Compressor OFF time in Pos cycles with Chamber probe fault	7 min	0 min	60 min
Conf67	Compressor ON time in Neg cycles with Chamber probe fault	8 min	0 min	60 min
Conf68	Compressor OFF time in Neg cycles with Chamber probe fault	2 min	0 min	60 min
Conf69	Compressor on delay from Power-On	2 min	0 min	30 min
Conf70	Minimum speed settable by the user	1	0	5
Conf71	Maximum speed settable by the user	5	0	5
Conf72	PWM fan peak speed	80%	0%	100%
Conf73	PWM fan peak time	5 sec	0 sec	600 sec
Conf74	Initial splash	1	0	10
Conf75	Machine type: 0=Gastronomy; 1=Bakery	0	0	1
Conf76	Minimum PWM fan linearised speed	10%	0%	100%
Conf77	Maximum PWM fan linearised speed	60%	0%	100%
Conf78	Enable Evaporator fan regulation temperature set	25°C	-50°C	50°C
Conf79	Reserved	0		
Conf80	condenser temperature over which the over which overheated condenser alarm triggers	80°C	0°C	200°C
Conf81	condenser temperature over which the over which compressor blocked alarm triggers	90°C	0°C	200°C
Conf82	compressor blocked alarm delay	1 min	0 min	15 min
Conf83	Compressor shutdown delay (Pumpdown)	10 sec	0 sec	600 sec
Conf84	Solenoid start delay (Pumpdown)	60 sec	0 sec	600 sec
Conf85	Reserved	0		
Conf86	fan operations in thawing: 0=parallel to compressor/resistances; 1=always ON	1	0	1
Conf87	Enable evaporator probe: 0 = No; 1 = Yes	1	0	1
Conf88	Enable condenser probe: 0 = No; 1 = Yes	0	0	1
Conf89	Blackout duration during a cycle over which the cycle is interrupted	15min	0min	60min
Conf90	Instrument behaviour at restored power 0 = the cycle is interrupted 1 = the cycle is resumed 2 = the cycle is resumed if the interruption duration was under parameter Conf89	1	0	2
Conf91	Reserved	1		
Conf92	evaporator fan speed during dehumidification	2	0	5
Conf93	evaporator fan shutdown delay from compressor/heating resistance shutdown (only valid for operations in parallel)	0sec	0sec	240sec
Conf94	Cycle time for evaporator fan start (valid when fans should be off)	60sec	0sec	600sec

Label	Machine configuration	Default	min	MAX
Conf95	Evaporator fan activation time in cycle time Conf94	60sec	0sec	600sec
Conf96	Evaporator Fan: 0=Inverter; 1=PWM	1	0	1
Conf97	evaporator fan delay at door closure	3sec	0sec	240sec
Conf98	Inverter fans speed 1	500 rpm	400 rpm	600 rpm
Conf99	Inverter fans speed 2	700 rpm	600 rpm	800 rpm
Conf100	Inverter fans speed 3	900 rpm	800 rpm	1000 rpm
Conf101	Inverter fans speed 4	1100 rpm	1000 rpm	1200 rpm
Conf102	Inverter fans speed 5	1300 rpm	1200 rpm	1400 rpm
Conf103	PWM fans speed 1	20%	0%	100%
Conf104	PWM fans speed 2	40%	0%	100%
Conf105	PWM fans speed 3	60%	0%	100%
Conf106	PWM fans speed 4	80%	0%	100%
Conf107	PWM fans speed 5	100%	0%	100%
Conf108	Sterilisation: 0=Hi-giene; 1=UVC	0	0	1
Conf109	Condenser fan activation hysteresis	2°C	0°C	20°C
Conf110	Condenser fan activation set point	15°C	-50°C	50°C
Conf111	Condenser fans during defrosting 0 = fans OFF; 1 = fans ON	0	0	1
Conf112	Condenser fan shutdown delay from compressor shutdown (only valid with condenser probe disabled)	30 sec	0 sec	300 sec
Conf113	Sterilisation duration with Hi-giene	30 min	0 min	999 min
Conf114	Fan operations in Block phase: 0=parallel to compressor; 1=always ON	1	0	1
Conf115	Fan operations in Storage phase: 0=parallel to compressor; 1=always ON	1	0	1
Conf116	Fan operations in Activation phase: 0=parallel to compressor; 1=always ON	1	0	1
Conf117	Fan operations in Rising phase: 0=parallel to compressor; 1=always ON	1	0	1
Conf118	Fan operations in Delay baking phase: 0=parallel to compressor; 1=always ON	1	0	1
Conf119	Door effect: 0=no effect; 1= Evaporator, Compressor and heating resistance fan off; 2= Evaporator and heating resistance fan off;	2	0	2
Conf120	Heating proportional band in cooking	1°C	0°C	20°C
Conf121	Spray time in humidification during cooking	2sec	0sec	60sec
Conf122	Cycle time in humidification during cooking	15min	0min	999min
Conf123	Humidification activation delay at start cooking	1min	0min	99min
Conf124	Spray time in humidification during thawing	2sec	0sec	60sec
Conf125	Cycle time in humidification during thawing	15min	0min	999min
Conf126	Humidification activation delay at start thawing	90min	0min	99min
Conf127	Spray time in humidification during leavening retarder	2sec	0sec	60sec
Conf128	Cycle time in humidification during leavening retarder	15min	0min	999min
Conf129	Humidification activation delay at start leavening retarder	0min	0min	99min
Conf130	Continuous Cycle set point	0°C	-50°C	85°C
Conf131	Fan set in continuous cycle	5	0	5
Conf132	Leavening humidifying spray time	2 sec	0 sec	60 sec
Conf133	Leavening humidifying cycle time	15 min	0 min	999 min
Conf134	Humidifying delay during leavening	1 min	0 min	99 min
Conf135	Compressor dead zone in slow cooking cycles	3°C	0°C	20°C
Conf136	Maximum duration on compressor during cooking	15sec	0sec	250sec
Conf137	duration on buzzer	5sec	0sec	600sec
Conf138	duration off buzzer	55sec	0sec	999sec

MAINTENANCE AND CLEANING

CLEANING THE UNIT:

Before any cleaning operation, disconnect the machine from the electrical power supply.

Routine and Programmed Maintenance:
Routine maintenance and cleaning should be performed by suitable, and trained personnel, while extraordinary and programmed maintenance should only be performed by specialized and authorized technicians.

Initial Installation:
Before operating, wash the interior and accessories with a little water and neutral soap in order to remove the "new" odor. Arrange the accessories inside the cabinet in positions most appropriate for use.

Daily Cleaning:

- Carefully clean the external surfaces of the machine using a damp cloth and following the direction of the finish.
- Use neutral detergents and not substances with a chlorine base and/or that are abrasive.
- Do not use utensils that may cause scratches, resulting in the formation of rust. Rinse with clean water and dry carefully.
- Clean the interior of the cabinet with neutral detergents which do not contain chlorine or abrasives, to avoid the formation of dirt residues. In the case of hardened stains, use soap and water or neutral detergents, and use a wooden spoon or plastic spatula if necessary.
- After cleaning, rinse with a little water and dry carefully.
- Do not wash the machine with direct water jets or streams, as any water leakage into electrical components may affect their correct functioning.
- Lower and adjoining areas of the machine must also be cleaned on a daily basis with soap and water and not with toxic or chlorine-based detergents.

WARNINGS FOR BLAST CHILLERS WITH WASHING KIT:

- Always use the neutral detergent supplied by the manufacturer to guarantee maximum cleanliness without damaging the interior surface and the relative functional parts of the blast chiller (evaporator, fans, heating plug, etc).
- Before starting any washing program check, using the visual indicator positioned in the lower left side of the appliance, that the level of detergent is above the minimum accepted.

PERIODIC CLEANING AND GENERAL MAINTENANCE:

- Cleaning and general maintenance operations must be carried out to ensure the consistent performance of the machine.
- The refrigerator unit (condenser) must be cleaned by specialized personnel.
- Regularly clean the drain to avoid any blockages.

IT IS OF UTMOST IMPORTANCE THAT THE DRAIN HOLE IS CLOSED WITH THE APPROPRIATE PLUG.

Periodic Checks:

- that the power plug is correctly inserted into the power outlet
- the appliance isn't affected by heat sources
- the machine is perfectly level
- the door gasket seals perfectly
- the drain is not blocked
- the condenser battery is not covered with dust; should that be the case, request after-sales technical assistance

Extraordinary Maintenance (only by specialized personnel):

- periodically clean the condenser
- check door gaskets to ensure perfect sealing
- make sure the electrical system is in order
- using an amperometric clamp, check the surround heating elements

IN THE CASE OF REPAIRS OR REPLACEMENT OF PARTS, ALWAYS PROVIDE THE CODE AND SERIAL NUMBER OF THE MACHINE, VISIBLE ON THE SPECIFICATIONS PLATE.

In case of extended periods of inactivity:

If an extended period of inactivity of the machine is foreseen:

- switch the machine off by pressing the OFF button on the control panel
- remove the plug from the power supply socket
- empty the refrigerator and carefully clean it (see cleaning section)
- leave doors ajar to ensure air circulation

Cleaning Schedule:

Cabinet	Condenser coil	Gaskets	Routine maintenance
Daily wipe down Weekly interior	Quarterly cleaning	Daily inspection, check that hinges are tight to the cabinet.	Annually

BEFORE PERFORMING ANY MAINTENANCE, CUT OFF THE POWER SUPPLY TO THE MACHINE AND WEAR SUITABLE PERSONAL PROTECTION EQUIPMENT, IN PARTICULAR GLOVES.

BEFORE THE FIRST USE, WASH THE TRAYS AND CHAMBER USING A CLOTH DAMPENED WITH HOT SOAPY WATER AND END WITH RINSING AND DRYING. TO ELIMINATE WORK RESIDUE, RUN THE EQUIPMENT EMPTY FOR ABOUT 30 MINUTES.

THE USER MUST ONLY PERFORM ROUTINE MAINTENANCE OPERATIONS SUCH AS CLEANING. FOR SPECIALIZED MAINTENANCE, CONTACT A SERVICE CENTER FOR HELP FROM AN AUTHORIZED TECHNICIAN.

THE WARRANTY IS NULL AND VOID IN THE EVENT OF DAMAGES DUE TO NEGLIGENCE OR INCORRECT MAINTENANCE SUCH AS THE USE OF UNSUITABLE DETERGENT.

WHEN CLEANING THE UNIT, OR ANY PART OR ACCESSORY OF THE UNIT, DO NOT USE:

-abrasive or powder detergents

-aggressive or corrosive detergents (hydrochloric or sulphuric acid, caustic soda, or with pH>10). THESE SUBSTANCES SHOULD NOT BE USED TO CLEAN THE FLOOR UNDERNEATH THE UNIT EITHER

-abrasive or sharp tools (abrasive sponges, scrapers, steel brushes, etc.)

-steamed or pressurized water jets

Weekly Interior Cleaning

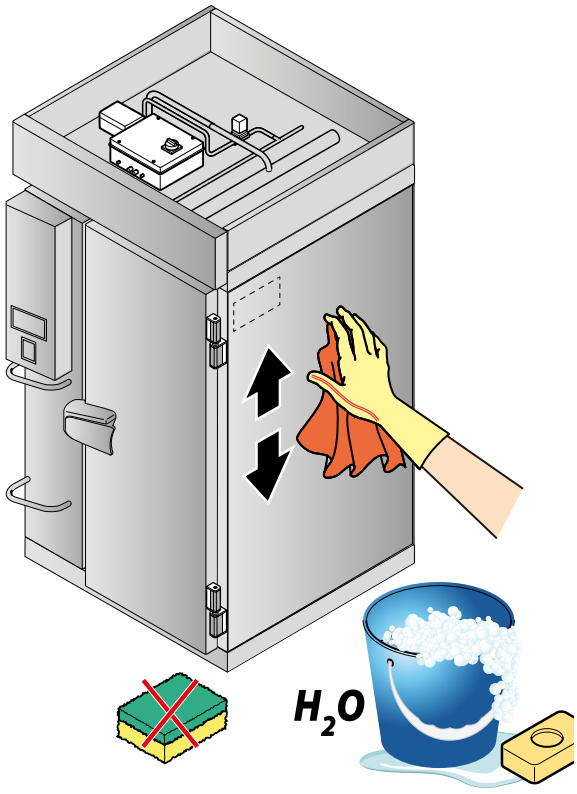
1. Remove all food related items and shelves. Store the food at a safe temperature.
2. Disconnect power to the unit (unplug it or switch the breaker off).
3. Remove all loose food particles from the inside walls, floor, door liner and ceiling.
4. Scrub all interior surfaces and door gaskets with a warm (100°F to 110°F) detergent solution and a soft scrub brush.
5. Rinse with clean water and allow to air dry.
6. Return the shelves to the unit and secure them.
7. Restore power.
8. Return food to the unit when it has reached a safe temperature.

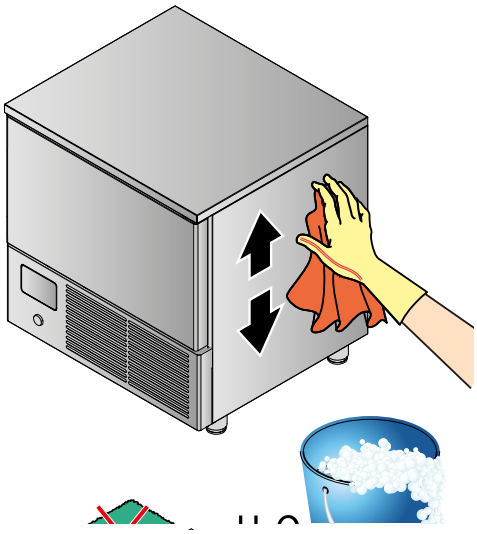
TO CLEAN THE TOUCH SCREEN, USE A CLOTH SLIGHTLY DAMPENED WITH A PRODUCT SPECIFIC FOR CLEANING GLASS, FOLLOWING THE DETERGENT MANUFACTURER'S INSTRUCTIONS. DO NOT SPRAY DIRECTLY, OR USE TOO MUCH PRODUCT IN ORDER TO AVOID INFILTRATIONS THAT COULD DAMAGE THE DISPLAY.

Daily Exterior Cleaning

It is much easier to clean on a regular basis than to have to remove stains once they have built up. Clean the equipment chamber daily to maintain high levels of hygiene and equipment performance.

1. Wash with a soft cloth dampened with hot soapy water (soap must not contain chlorine). If the thawing function has been used, wait for the equipment to cool down first.
2. Rinse with clean water.
3. Dry with a soft cloth.
4. Polish with a soft cloth, wiping with the grain.
5. Wipe weekly with stainless steel cleaner.





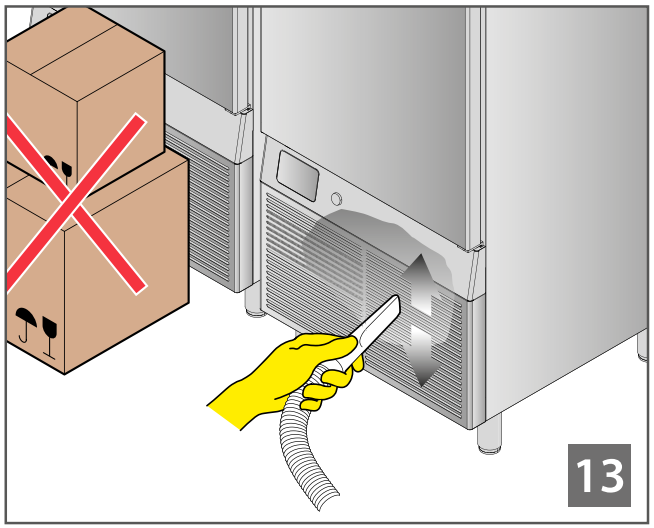
Keep vents free of obstructions and dust by cleaning them often with a normal vacuum or brush.

We recommend you remove the front panel once a week following the illustrated instructions and cleaning the filter with hot soapy water. If replacement is required, contact the manufacturer to order spare parts.

TO ENSURE THE DEVICE IS IN PERFECT USE AND SAFETY CONDITIONS, WE RECOMMEND YOU HAVE IT MAINTAINED AND SERVICED BY AN AUTHORIZED SERVICE CENTER AT LEAST ONCE A YEAR.

How to help achieve better results and safe work conditions:

- keep the motor compartment air vents free of objects and remove dust
- periodically clean and replace the filter behind the motor compartment air vents
- arrange food to be chilled or thawed as explained in the previous chapter
- accurately close the doors during each work cycle
- always keep the defrost water drain hole free
- avoid opening doors during blast chilling/shock freezing or slow cooking cycles
- perform routine maintenance as indicated in the specific section
- when thawing racks of fatty food (chicken), insert a tray on the bottom of the chamber to collect fat that may drip from the food
- do not use easily flammable foods or liquids (alcohol) when cooling



IN CASE OF DISUSE OF THE UNIT:

-cut off power and water supplies

-protect the external steel equipment parts by wiping them down with a soft cloth slightly dampened with Vaseline oil

-leave the door ajar to guarantee correct ventilation

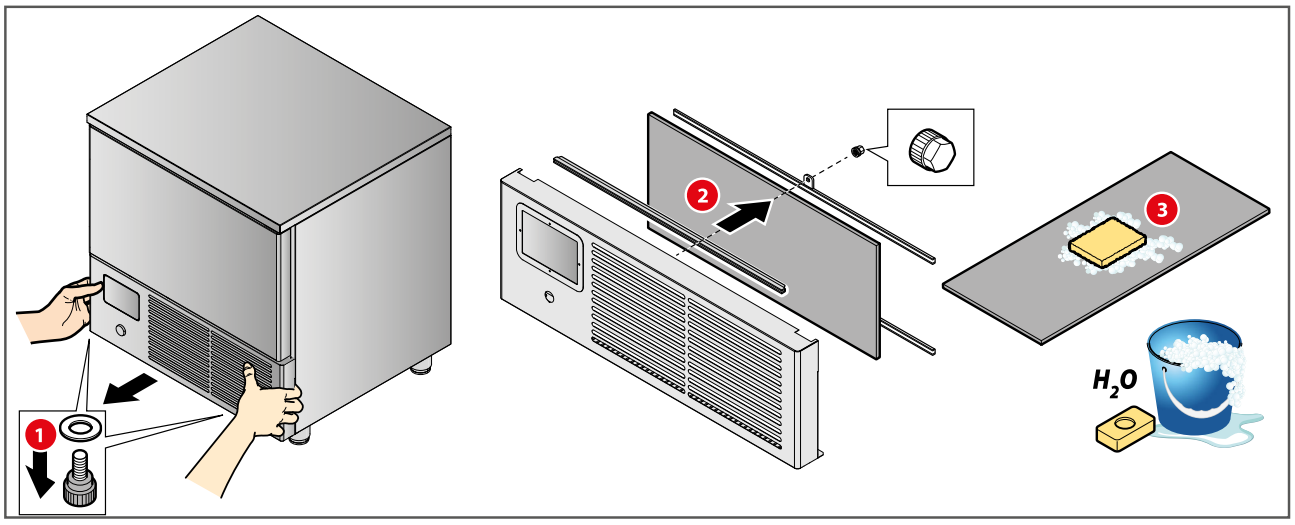
BEFORE RESUMING OPERATIONS:

-accurately clean the equipment and accessories

-reconnect the equipment to the power and water supplies

-inspect the unit before using it

-restart the equipment at a low temperature for at least 60 minutes without any food inside



METHODS FOR CLEANING STAINLESS STEEL

Cleaning Needed	Cleaning Agent	Method of Application	Affect on Finish
Smears and fingerprints	Areal 20, Lac-O-Nu, Lumin Wash O'Cedar Cream Polish, Stainless Shine.	Rub with cloth as directed on the package.	Satisfactory for use on all finishes. Provides barrier film to minimize prints.
Stubborn Spots and Stains, Baked-On Splatter, and Other Light Discolorations	Allchem Concentrated Cleaner.	Apply with damp sponge or cloth. Rub with damp cloth.	Use in direction of polish lines on No. 4 (polished) finish. May scratch No. 2 (mill) and Nos. 7 and 8 (polished) finishes.
	Samae, Twinkle or Cameo Copper Cleaner	Rub with damp cloth.	
	Grade FFF Italian pumice, whiting, or talc.	Rub with dry cloth.	
	Liquid NuSteel Paste NuSteel or DuBois Temp. Copper's Stainless Steel Cleaner Revere Stainless Cleaner Household cleansers, such as Old Dutch, Lighthouse, Sunbrite, Wyandotte, Bab-O, Gold Dust, Sapolio, Bon Ami, Ajax, or Comet Grade F Italian Pumice, Steel Bright, Lumin Cleaner, Zud, Restore, Sta-Clean, or Highlite. Penny-Brite or Copper-Brite.	Use small amount of cleaner. Rub with dry cloth using a small amount of cleaner. Apply with damp sponge or cloth. Rub with a damp cloth. May contain chlorine bleaches. Rinse thoroughly after use. Rub with a damp cloth. Rub with a dry cloth using a small amount of cleaner.	
Heat tint or discoloration	Penny-Brite or Copper-Brite. Past NuSteel, DuBois Temp, or Tarnite. Revere Stainless Steel Cleaner. Allen Polish, Steel Bright, Tenacious Deposits, Rusty Discolorations, Industrial Atmospheric Stains Wyandotte, Bab-O or Zud.	Rub with a dry cloth. Rub with a dry cloth or stainless steel wool. Apply with damp sponge or cloth. Rub with a damp cloth.	
Burnt-On Foods and Grease Fatty Acids, Milkstone (where swabbing or rubbing is not practical)	Easy-Off, De-Grease-It, 4 to 6% hot solution of such agents as trisodium phosphate or sodium tripolyphosphate or 5 to 15% caustic soda solution	Apply generous coating. Allow to stand for 10-15 minutes. Rinse. Repeated application may be necessary.	Excellent removal, satisfactory for use on all finishes.
Tenacious Deposits, Rusty Discolorations, Industrial Atmospheric Stains	Oakite No. 33, Dilac Texo 12, Texo NY, Flash-Klenz, Caddy Cleaner, Turco Scale 4368 or Permag 57.	Swab and soak with clean cloth. Let stand 15 minutes or more according to directions on package, then rinse and dry.	Satisfactory for use on all finishes
Hard Water Spots and Scale	Vinegar. 5% oxalic acid, 5% sulfamic acid, 5 to 10% phosphoric acid, or Dilac, Oakite No. 33, Texo 12, Texo N.Y.	Swab or wipe with cloth. Rinse with water and dry. Swab or soak with cloth. Let stand 10-15 minutes. Always follow with neutralizer rinse, and dry.	Satisfactory for all finishes. Satisfactory for all finishes. Effective on tenacious deposits or where scale has built up.

TROUBLESHOOTING

IN THE EVENT OF EQUIPMENT MALFUNCTION:

- If the equipment does not work, or if functional or structural defects are noted, disconnect it from the power and water mains, and contact a service center authorized by the manufacturer without attempting to repair on your own.
- Original parts are recommended; the manufacturer may not be held liable if original parts are not used.
- We recommend that the device be maintained and serviced by an authorized technician at least once a year to ensure safe and efficient operation.

Often operating difficulties are a result of causes which may be corrected in house. Therefore, before requesting assistance from a technician, perform the following checks.

If the machine stops operating:

- check that the plug is inserted correctly into the electrical socket.

If the cabinet temperature is insufficient:

-look for nearby heat sources that could be the cause
-ensure that the doors close perfectly
-check that the condenser filter is not blocked
-make sure the ventilation grills of the control panel are not obstructed
-look for items inside the cabinet that could be obstructing ventilation

If the machine is noisy:

-look for loose contacts between the machine and other objects
-make sure the machine is perfectly level
-look for loose screws (visible screws only), and tighten if found

If the problem isn't resolved after the checks above, request technical assistance indicating the following:

-the nature of the problem
-the code and serial number of the machine appearing on the specifications plate (this is located outside of the unit, either on the side or at the rear, and inside the motor compartment).

TESTING PERFORMED:

The product is dispatched after visual, electrical, and operating tests have been passed. The technical data plate is located outside on the side or at the rear, and inside the motor compartment.

- Testing was performed in a rectangular showroom with no sound absorption. Significant obstacles were absent in the area surrounding the machine.
- Testing was performed under the most severe condition which corresponds to the start-up phase called "PULL DOWN".
- Noise testing was performed in compliance with Legislative Decree 277 and in accordance with methods described in ISO 230-5, in order to obtain the data required by 2006/42/EC Directive.

Noise Level:

<70 dB(A) at the noisiest point at 1m in operating conditions
<130 dB(C) at 1m in operating conditions

Materials and Fluids Used:

- Respecting the environment, all the used materials comply with Legislative Decree no. 151, July 25, 2005, in the implementation of directives RoHS (2002/95/EC) and WEEE (2002/96/EC and 2003/108/EC), concerning the reduction in use of hazardous substances in electrical and electronic equipment, as well as waste disposal.
- The refrigerant gases or the foaming agents of the polyurethane foams used are in compliance with Regulation EC 842/2006.

If the equipment does not work or functional or structural alterations are noted:

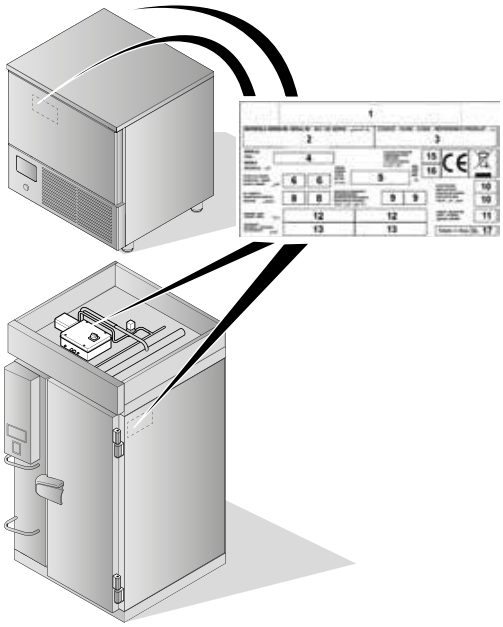
-disconnect it from the power and water mains
-consult the table below to check the proposed solutions

If the solution is not found in the table below, contact a manufacturer authorized service center informing them of;

-the nature of the defect
-the equipment code and serial number found on its specification plate

Original replacement parts are required for repairs. Otherwise, the manufacturer cannot be held liable. The use of non-original replacement parts could also null and void the warranty.

To ensure that the appliance is in perfect use and safety conditions, we recommend you have it maintained and serviced by an authorized service center at least once a year.



1	Manufacturer	11	Lamp power
2	Serial number	12	Maximum and minimum pressure
3	Code	13	Coolant, type and quantity
4	Model	15	Gas expanding in the insulation
5	Voltage	16	Year of manufacture
6	Current absorbed during operation	17	Climate class (#)
8	Power of the defrosting resistance		
9	Power of the defrosting resistance		
10	Rated power of other resistances		

Problem type	Before contacting a service centre, check that...
The device is fully off.	- ...the system is powered and the plug is not disconnected.
The equipment does not cool enough	- ...it is not effected by an external heat source; - ...the doors are fully shut; - ...the condenser filter is not clogged; - ...the front air vents are not obstructed by objects or dust; - ...food is well distributed in the cell and do not obstruct ventilation in the cell; - ...the equipment is not overloaded with food (follow your equipment load instructions).
The equipment is very noisy	- ... there are no contacts between the equipment and any other object or machine; - ...the equipment is perfectly levelled; - ...visible screws are well-tightened.

Do not attempt to repair the equipment on your own. This could cause serious damages to humans, animals and property and null and voids the Warranty.
Always request service by a service centre authorised by the manufacturer and request ORIGINAL spare parts.

DISMANTLING AND DISPOSAL

Pay attention to managing this product at the end of its working life, reducing negative impacts on the environment and improving resource use efficiency. Please remember that illicit or incorrect product disposal is punishable by law.

DISCONNECTION:

The disconnection of this machine from the electrical and water supplies must be done by qualified technicians

- Avoid spilling or leakage of refrigerants into the environment
- Before disconnecting the unit, the below should be collected and properly disposed of if present:

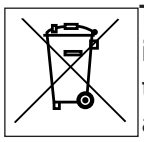
  - refrigerant gas
  -non-freezing solutions present in hydraulic circuits

STORAGE:

While waiting for dismantling and disposal, the appliance can be temporarily stored even outdoors provided that the unit's electrical, refrigeration, hydraulic, and plumbing circuits are intact and closed. Remove the power cord, any compartment or chamber lock devices where applicable, and make sure the doors cannot be closed in order to avoid entrapment. The country's laws on environmental protection are still to be observed.

THE UNIT MUST BE DISMANTLED BY QUALIFIED PERSONNEL.

DISMANTLING:



This symbol identifies the units as returning units in directive RAEE 2002/96/CE. It also specifies that the product was released onto the market after August 13, 2015 and should not be assimilated with other waste at the end of its working life but disposed of separately. All equipment is made of recyclable metallic materials (stainless steel, iron, aluminum, galvanized sheet metal, copper, etc.) in percentages over 90% in weight.

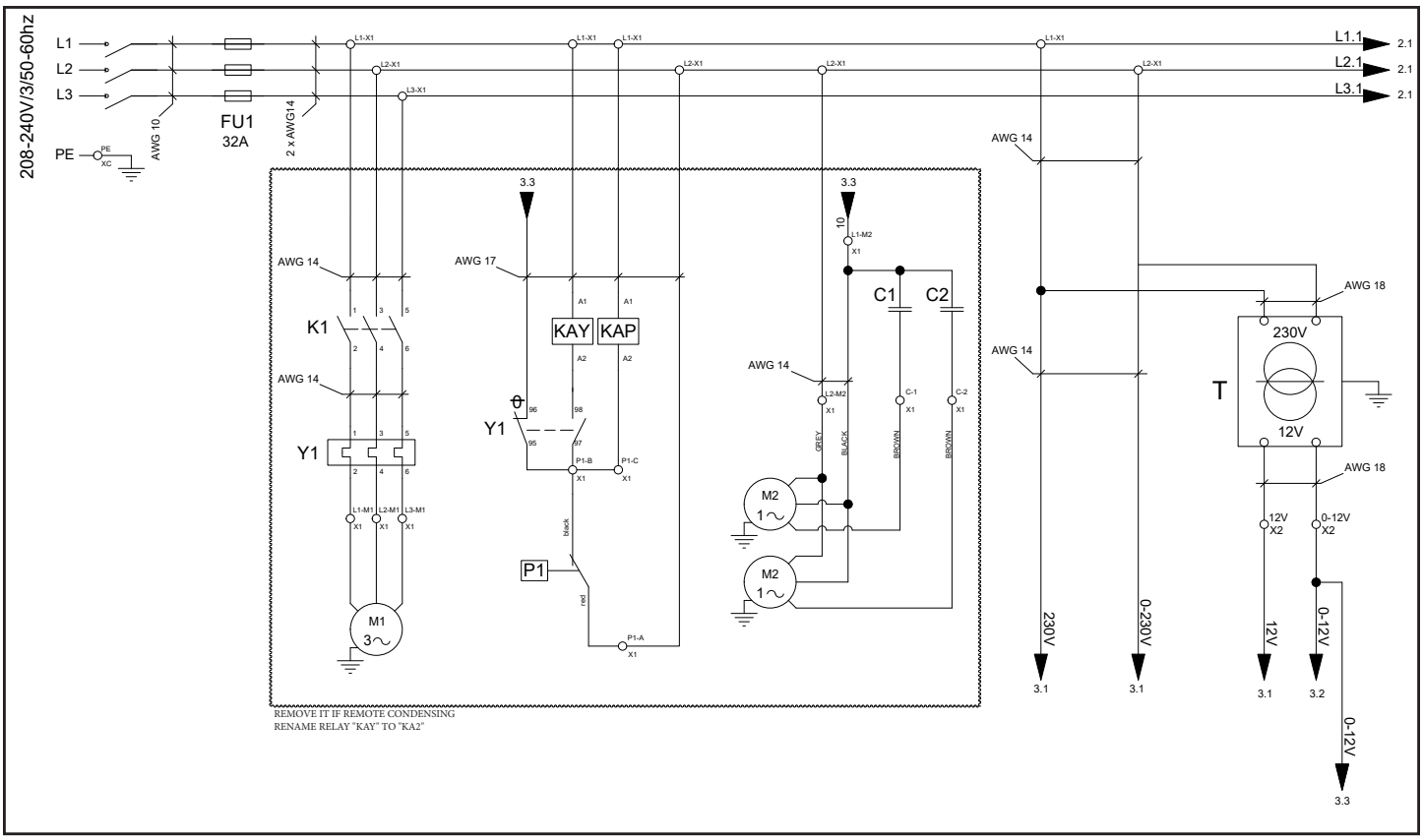
Due to the presence of hazardous substances, information regarding the potential effects on the environment and human health can be obtained from the following:

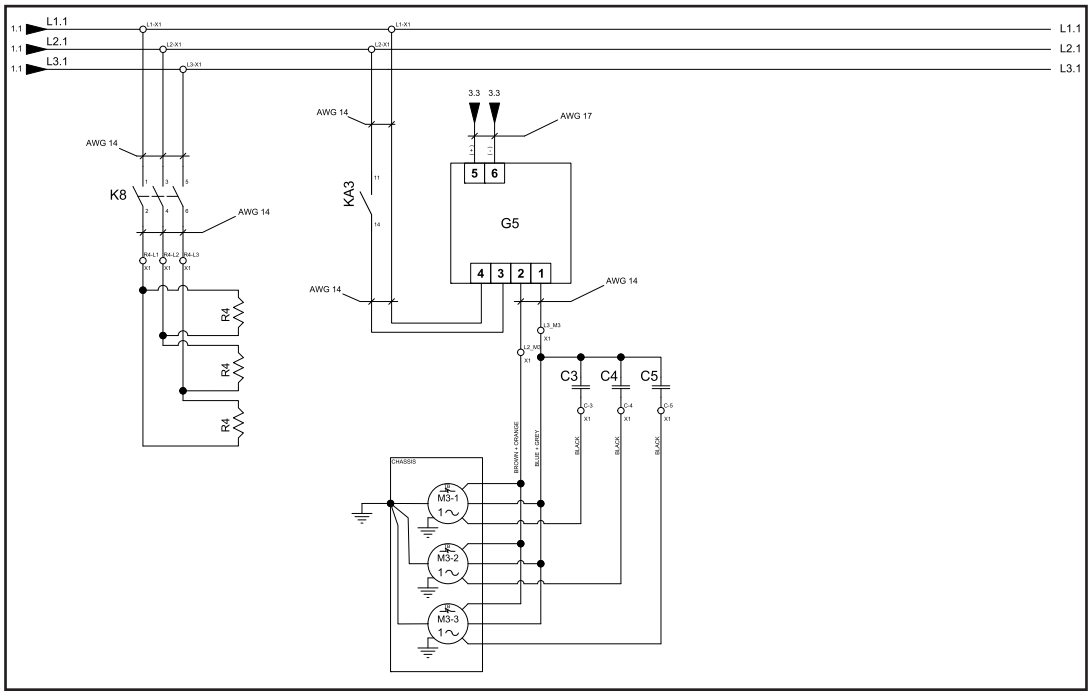
- the manufacturer
- the distributor/importer
- organization in charge of collecting and processing waste
- the retailer where the appliance was purchased
- local services in charge of waste disposal

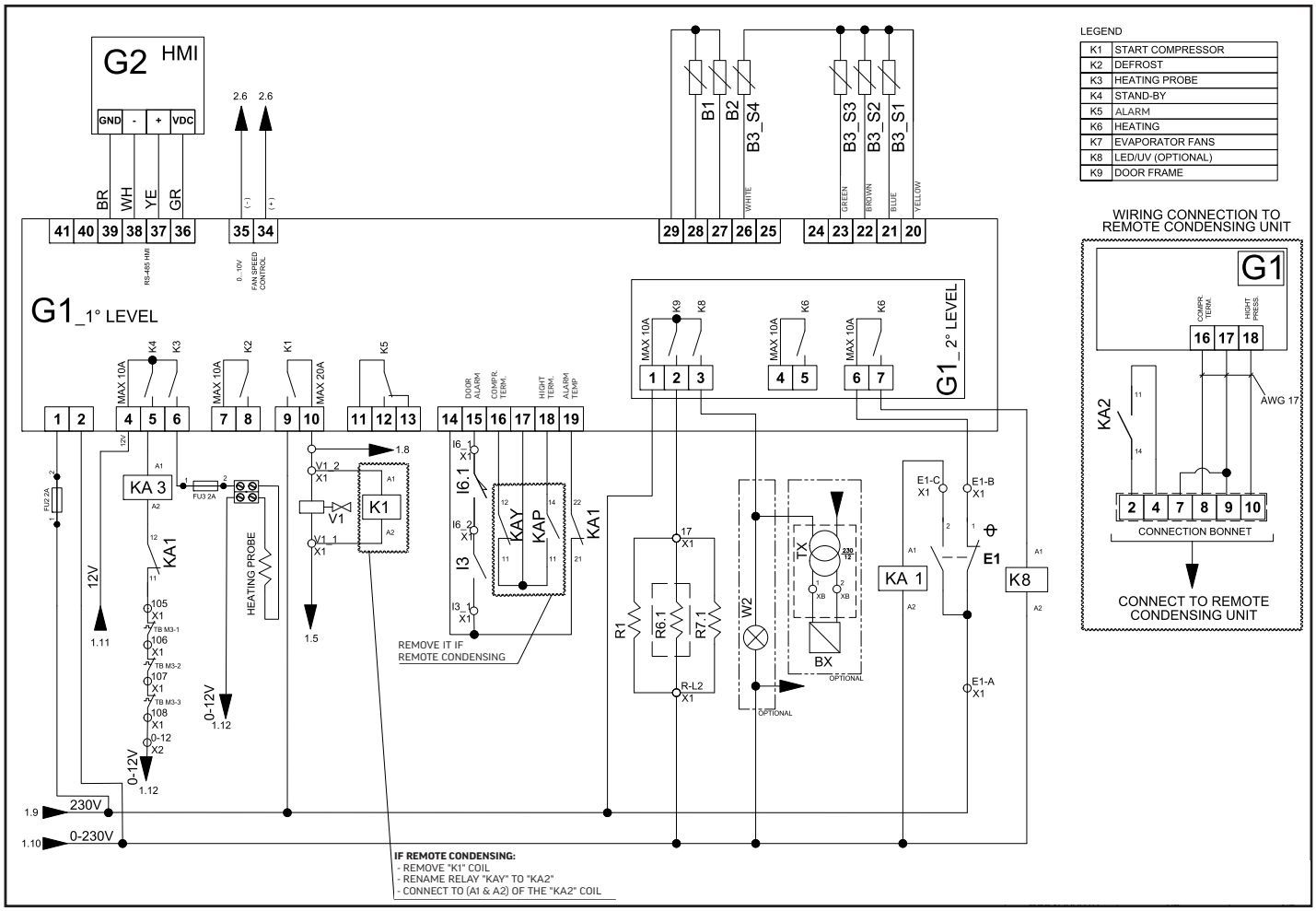
DISPOSAL:

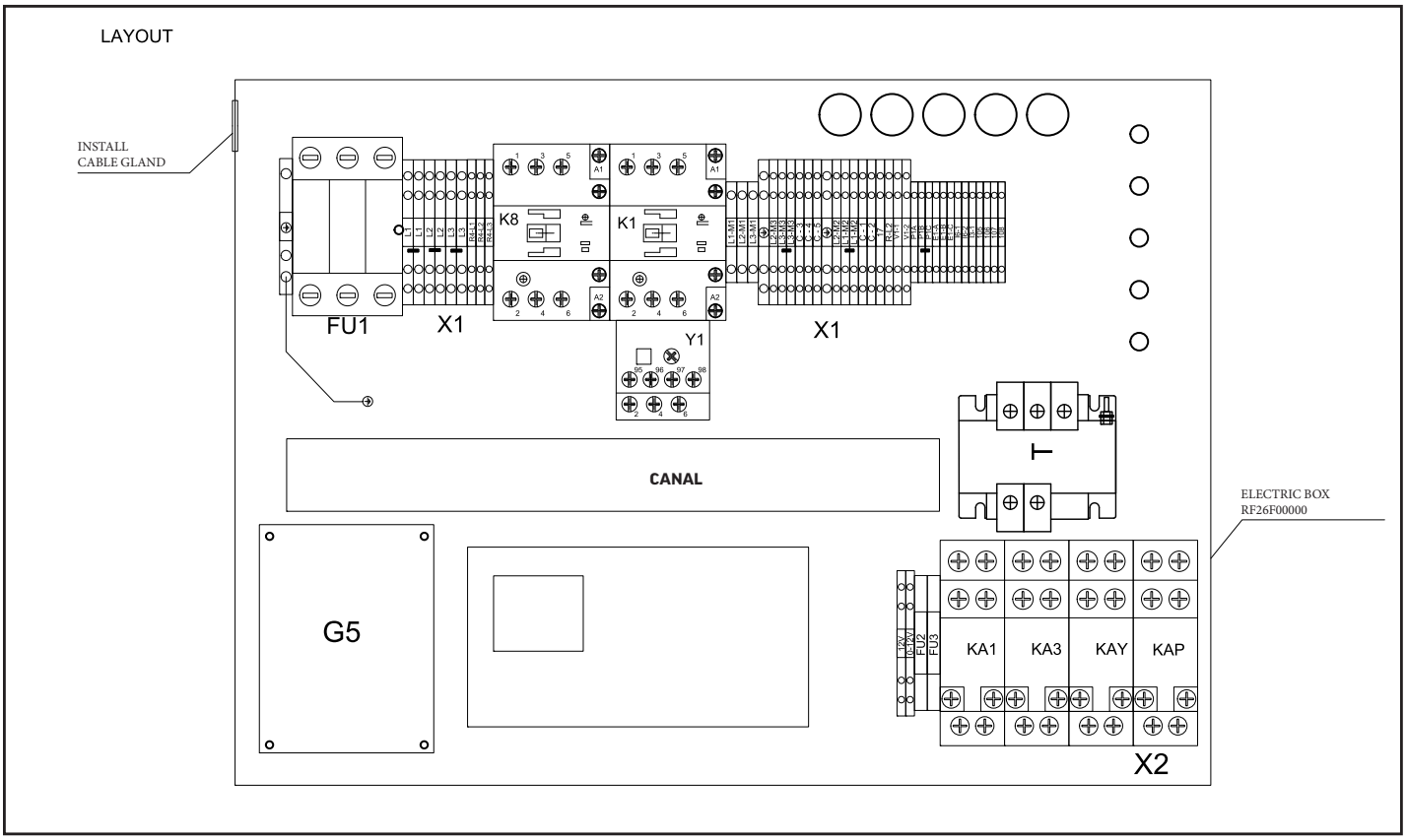
- As per Legislative Decree no. 49 art. 13 dated 2014 "Implementation of WEEE Directive 2012/19/EU on electric and electronic waste", it is required that electrical and electronic equipment disposal and recycling must be handled through a dedicated collection, in suitable approved facilities, and separate from mixed domestic waste disposal.
- The user has the option of not disposing of the appliance at the end of the useful life as domestic waste, but to deliver it to designated collection facilities authorized as required by regulations, or as specified by the distributor.
- All materials are to be retrieved or disposed of in compliance with the national regulations concerning the subject.
- For further information on the appliance disposal, contact the manufacturer.

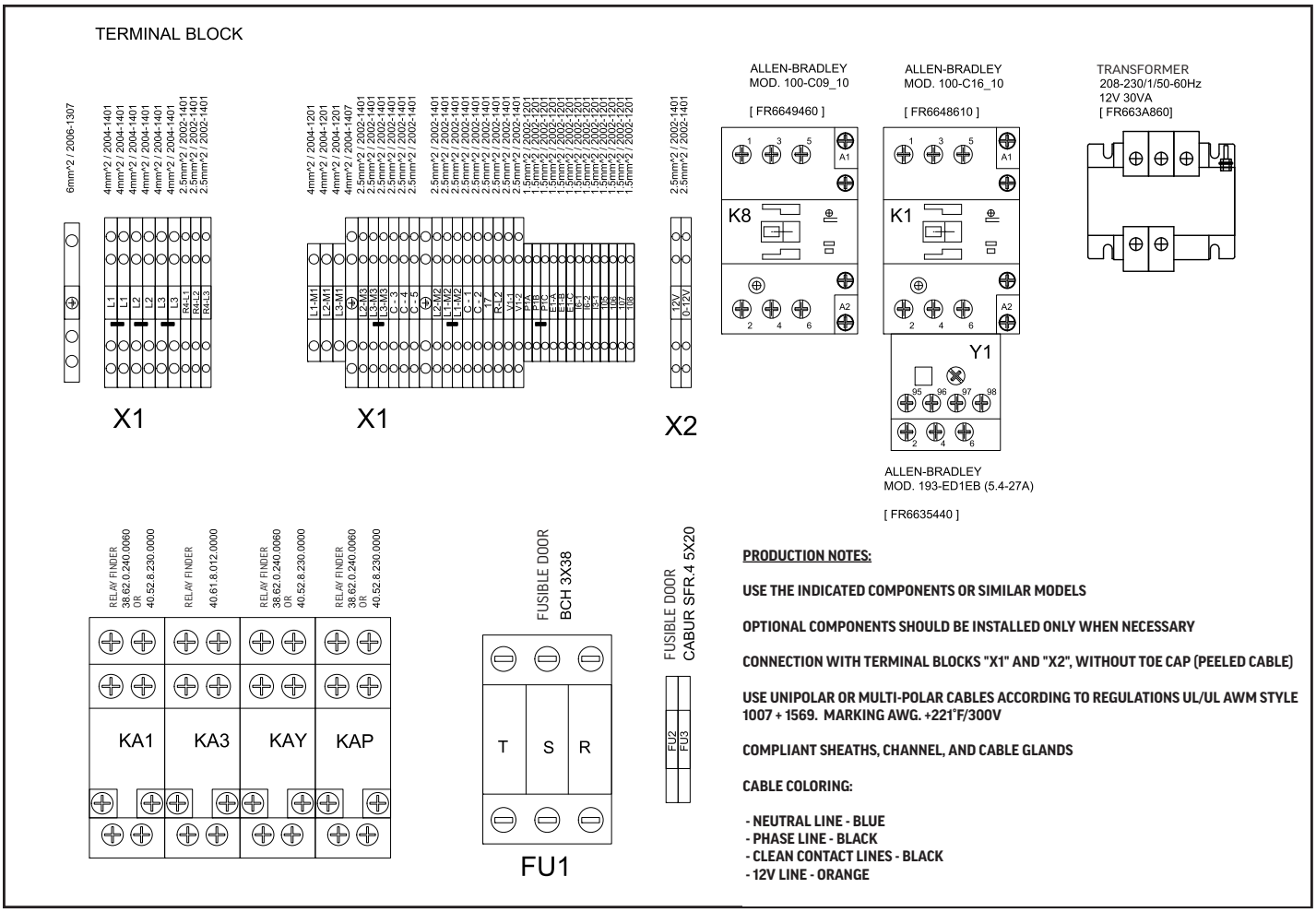
FOR THE SERVICE TECH - WIRING DIAGRAMS






G2 HMI
GND
-
+
VDC
BR
WH
YE
GR
2.6
2.6
RS-485 HMI
0..10V
FAN SPEED CONTROL
B1
B2
B3_S4
B3_S3
B3_S2
B3_S1
WHITE
GREEN
BROWN
BLUE
YELLOW
G1_1° LEVEL
G1_2° LEVEL
MAX 10A
MAX 20A
K1
K2
K3
K4
K5
K6
K8
K9
DOOR ALARM
COMPR. TERM.
HIGHT TERM.
ALARM TEMP.
KA 3
KA1
KAY
KAP
K1
V1
HEATING PROBE
REMOVE IT IF REMOTE CONDENSING
R1
R6.1
R7.1
R-L2
W2
TX
BX
OPTIONAL
KA 1
E1
E1-A
E1-B
E1-C
K8
12V
230V
0-230V
0-12V
FU2 2A
FU3 2A
TB M3-1
TB M3-2
TB M3-3
IF REMOTE CONDENSING:
- REMOVE "K1" COIL
- RENAME RELAY "KAY" TO "KA2"
- CONNECT TO (A1 & A2) OF THE "KA2" COIL
LEGEND
K1 START COMPRESSOR
K2 DEFROST
K3 HEATING PROBE
K4 STAND-BY
K5 ALARM
K6 HEATING
K7 EVAPORATOR FANS
K8 LED/UV (OPTIONAL)
K9 DOOR FRAME
WIRING CONNECTION TO REMOTE CONDENSING UNIT
G1
COMPR. TERM.
HIGHT PRESS.
KA2
AWG 17
CONNECTION BONNET
CONNECT TO REMOTE CONDENSING UNIT


LAYOUT
INSTALL
CABLE GLAND
FU1
X1
K8
K1
X1
Y1
CANAL
G5
ELECTRIC BOX
RF26F00000
KA1
KA3
KAY
KAP
X2



PRODUCTION NOTES:

USE THE INDICATED COMPONENTS OR SIMILAR MODELS

OPTIONAL COMPONENTS SHOULD BE INSTALLED ONLY WHEN NECESSARY

CONNECTION WITH TERMINAL BLOCKS "X1" AND "X2", WITHOUT TOE CAP (PEELED CABLE)

USE UNIPOLAR OR MULTI-POLAR CABLES ACCORDING TO REGULATIONS UL/UL AWM STYLE 1007 + 1569. MARKING AWG. +221°F/300V

COMPLIANT SHEATHS, CHANNEL, AND CABLE GLANDS

CABLE COLORING:

- **NEUTRAL LINE - BLUE**
- **PHASE LINE - BLACK**
- **CLEAN CONTACT LINES - BLACK**
- **12V LINE - ORANGE**

FOR THE SERVICE TECH - GENERAL KEY FOR WIRING DIAGRAMS

A	Power supply unit
A1	Lamp power supply unit
A2	Printer power supply unit
B	Probe
B1	Temperature probe
B2	Defrosting probe
B3	Core probe
B4	Condenser probe
B5	Vacuum probe
B6	Humidity probe
B7	Evaporator outlet temperature probe
BX	Sanitizing
C	Electric condenser
CK	Buzzer
D	Voltage variator
D1...16	Quick connector
E	Thermostat
E1	Safety thermostat
E2	Control thermostat
EEV	Electronic expansion valves
EVD	EEV control module
FU	Fuse
G	Thermostat
G1	Power card
G2	Command card
G3	Auxiliary card
G4	Printer + IF RICS
G5	Fan control
G6	Encoder
H	Indicator light
H1	Power indicator light
H2	Alarm indicator light
H3	Defrosting indicator light
H4	Cycle indicator light
IG	Main switch
I1	Switch
I2	Switch
I3	Door microswitch
I4	Float
I5	Selector
I6	Evaporator micro switch
K1	Compressor contactor
K2	Condenser contactor
K3	Evaporator fan contactor
K4	UVC contactor
K5	Defrosting contactor
K6	Delayed contact
K8	Room heating contactor
KA	Auxiliary relay
L	Line
L1	3-phase line #1
L2	3-phase line #2
L3	3-phase line #3
M	Electric motor
M1	Compressor
M2	Condenser fan
M3	Evaporator fan
M4	Additional motorised fan

M5	Linear actuator
M6	Heating and dehumidification fan
N	Neutral
O	Timer
P	Pressure switch
PE	Earth point
P1	Pressure transducer
P2	Pressure transducer
Q	Relay
Q1	Power relay
Q2	Relay with 2 contacts
Q3	Thermal protection relay for compressor
Q4	Water supply relay
Q5	Detergent supply relay
Q6	Detergent pump relay
Q7	Drain valve relay
Q8	Heating relay
Q9	Drain safety relay
QS	Main switch
R	Resistance
R1	Frames resistance
R2	Defrosting resistance
R3	Evaporation resistance
R4	Heating resistance
R5	Guard resistance
R6	Discharge resistance
R7	Pressure balancing valve resistance
R8	Frame heating glass doors (on the glass)
R9	Perimetrical heater for glass doors
R10	Humidify heating element
S	Starter
T	Transformer
T1	Automatic transformer
T2	Ballast
TX	Transformer for sanitizing
TB	Thermal breaker
U	Thermometer
V1	Solenoid-valve
V2	Water solenoid-valve
V3	Solenoid-valve warm gas
V4	By-pass valve
W	Lamp
W1	Neon lamp
W2	UVC lamp
X	Terminal
X1	Terminal board
XM	Evaporator module terminal block
Y1	Compressor thermal-breaker
Y2	Condenser thermal-breaker
Y3	Evaporator thermal-breaker
Y5	Defrosting termal-breaker
Y6	Fan termal protector
Z	Noise prevention filter

LIMITED WARRANTY

Warranty (Continental USA & Canada Only)

SIX (6) YEAR PARTS & LABOR LIMITED WARRANTY

Victory® Refrigeration (Victory) warrants to the original purchaser of Victory branded equipment, that such equipment is free from defects in material and workmanship, under normal use, proper maintenance and service as indicated by Victory's installation and operation instructions, for a period of six (6) years from the date of installation, or seventy-five (75) months from the date of shipment from the manufacturer, whichever is earlier.

SEVEN (7) YEAR COMPRESSOR PART LIMITED WARRANTY*

In addition to the warranty set forth above Victory® Refrigeration (Victory), warrants the hermetically/ semi-hermetically sealed compressor (part only) for an additional year (1) years beyond the initial six (6) year warranty period; not to exceed eighty-seven (87) months from the date of shipment from Victory, provided upon receipt of the compressor, manufacturer examination shows the sealed compressor to be defective. This extended warranty does not cover freight for the replacement compressor or freight for return of the failed compressor. Also, this extended compressor-part only warranty does NOT apply to any electrical controls, condenser, evaporator, fan motors, overload switch, starting relay, capacitors, temperature control, filter/drier, accumulator, refrigeration tubing, wiring harness, labor charges, or supplies which are covered by the standard warranty above.

*Units shipped after 09/1/2023. Previous warranty applies to units shipped prior.

Exceptions:

- Warranty does not apply for units installed in a Residential application. Units are intended for Commercial use only.
- Blast Chillers carry a 3 year parts and labor warranty; 2 additional years for the compressor

Normal wear type parts, such as light bulbs/lamps, gaskets, fuses, batteries, blast chiller/freeze probes, thermostat or electronic controller calibration and/ or adjustment, and any normal maintenance items as outlined in the Owner's Manual, adjustment of door mechanisms or freight damage are not covered by this warranty. For the purpose of this warranty, the original purchaser shall be deemed to mean the individual or company for whom the product was originally installed.

Proof of purchase must be supplied to Victory to validate the warranty. This warranty is valid only if equipment is properly installed, and started-up as outlined in the Owner's Manual.

Units that utilize variable speed compressor technology can experience nuisance tripping on Class A GFCI outlets which have a trip limit of 4 mA to 6 mA. To avoid this issue in a location that requires GFCI circuit protection, Beverage Air & Victory recommends using a HUBBELL Model Number GFRST83W 20A Heavy Duty Hospital Grade Self-Test GFCI Receptacle.

Removal or alteration of the serial/ data plate from equipment shall be deemed to release Victory from all warranty obligations or any other obligations, expressed or implied . The warranty does not cover installation, start-up, normal maintenance, food loss, or other consequential damage, and it excludes components that are removable without tools. Our obligation under this warranty shall be limited to repairing or replacing, including labor, any part of such product, which proves defective.

Victory reserves the right to examine any product claimed to be defective. The labor warranty shall be for self-contained units only and for standard straight time, which is defined as normal service rate time, for service performed during normal working hours. Any service requested outside of a servicer's normal working hours will be covered under this warranty at the normal rate and any additional overtime rate will be the responsibility of the equipment purchaser. Victory shall not be responsible for any costs incurred if the work is performed by other than Victory's authorized service personnel. Reimbursement claims for parts and/or labor service costs must be made in writing. Model, cabinet serial number and installation location must be shown on the claim. A receipted bill from the servicing agency must accompany the claim, together with full details of the service problems, diagnosis and work performed. Victory reserves sole discretion whether further documentation on a claim is to be submitted. Any part determined to be

LIMITED WARRANTY (CONTINUED)

defective in the product should be returned to the company within thirty (30) days under the terms of this warranty and must be accompanied by a record of the cabinet model, serial number, with a return material authorization number (RMA#) issued by Victory.

Special installation/applications, including remote locations, are limited in coverage by this warranty. Any installation that requires extra work, and/or travel, to gain access to the unit for service is the sole responsibility of the equipment purchaser. Improper operation resulting from factors, including but not limited to, improper or negligent cleaning and maintenance, low voltage conditions, inadequate wiring, outdoor use and accidental damage are not manufacturing defects and are strictly the responsibility of the purchaser.

With the exception of Blast Chillers product is designed for maintaining temperature and not bringing food to a desired temperature therefore cannot be held responsible of this function under warranty.

Units must be in conditioned environments or warranty will be void.

Condenser coils must be cleaned at regular intervals. Failure to do so can cause compressor malfunction and will void warranty. Although cleaning requirements vary in accordance with the operation of various products, Victory recommends a minimum monthly cleaning.

NOTE: NO CLAIMS CAN BE MADE AGAINST THESE WARRANTIES FOR SPOILAGE OF PRODUCTS, LOSS OF SALES OR CONSEQUENTIAL DAMAGES. THE FOREGOING WARRANTIES ARE EXPRESSLY GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED, OR STATUTORY, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED, AND ALL OTHER OBLIGATIONS OR LIABILITIES ON OUR PART, AND WE NEITHER ASSUME, NOR AUTHORIZE ANY OTHER PERSON TO ASSUME FOR US, ANY OBLIGATION OR LIABILITY IN CONNECTION WITH THE SALE OF SAID REFRIGERATION UNITS OR ANY PARTS THEREOF.

These warranties shall not be assignable and shall be honored only in so far as the original purchaser.

These warranties do not apply outside the limits of the USA and Canada, nor do they apply to any part that has been subject to misuse, neglect, alteration, accident, or to any damage caused by transportation, flood, fire, acts of terrorism, or acts of God.

LIMITATION OF LIABILITY:

Victory or its affiliates shall not be liable for any indirect, incidental, special or consequential damages, or losses of a commercial nature arising out of malfunctioning equipment or its parts or components thereof, as a result of defects in material or workmanship. In no event shall Victory be liable for a sum in excess of the purchase price of the item.

THE ORIGINAL OWNER'S SOLE AND EXCLUSIVE REMEDY AND VICTORY'S SOLE AND EXCLUSIVE LIABILITY SHALL BE LIMITED TO THE REPAIR OR REPLACEMENT OF PARTS OR COMPONENTS CONTAINED IN THE EQUIPMENT IDENTIFIED ABOVE WHICH UNDER NORMAL USE AND SERVICE MALFUNCTION AS A RESULT OF DEFECTS IN MATERIAL OR WORKMANSHIP, SUBJECT TO THE APPLICABLE PROVISIONS AND LIMITATIONS STATED ABOVE. 08/2023

Warranty Registration

Register your product online at **Victory.com/parts-service** or fill out and mail the form below.

Cabinet Model Number: _____ Date Of Installation: _____

Cabinet Serial Number: _____

Location Of Product

Business Name: _____

Business Street: _____

Business City: _____ State: _____ Postal Code:_____

Mail to: Victory, 3779 Champion Blvd, Winston-Salem, NC 27105

Rev. 08/22