



BEVERAGE-AIR®

INSTALLATION AND OPERATING INSTRUCTIONS for RCBL-202-R-PFA-HC



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**SEE BACK COVER FOR
WARRANTY REGISTRATION**



WELCOME

Thank you for purchasing a Beverage-Air cabinet. This series has passed our strict quality control inspection and meets the high standards set by Beverage-Air 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.

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 Beverage-Air Refrigeration within TEN days of installation. Failure to properly register equipment may limit or void the warranty.
- Beverage-Air 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.



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.



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 Beverage-Air recommended technician certified to repair R290 equipment.
- Use ONLY Beverage-Air factory service parts. Use of non OEM parts can be dangerous because of the design changes needed to safely use R290.
- 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	



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



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 noisiest 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.

**Instructions in case of fire:**

DO NOT USE WATER IN THE CASE OF FIRE.

USE CO₂ 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.

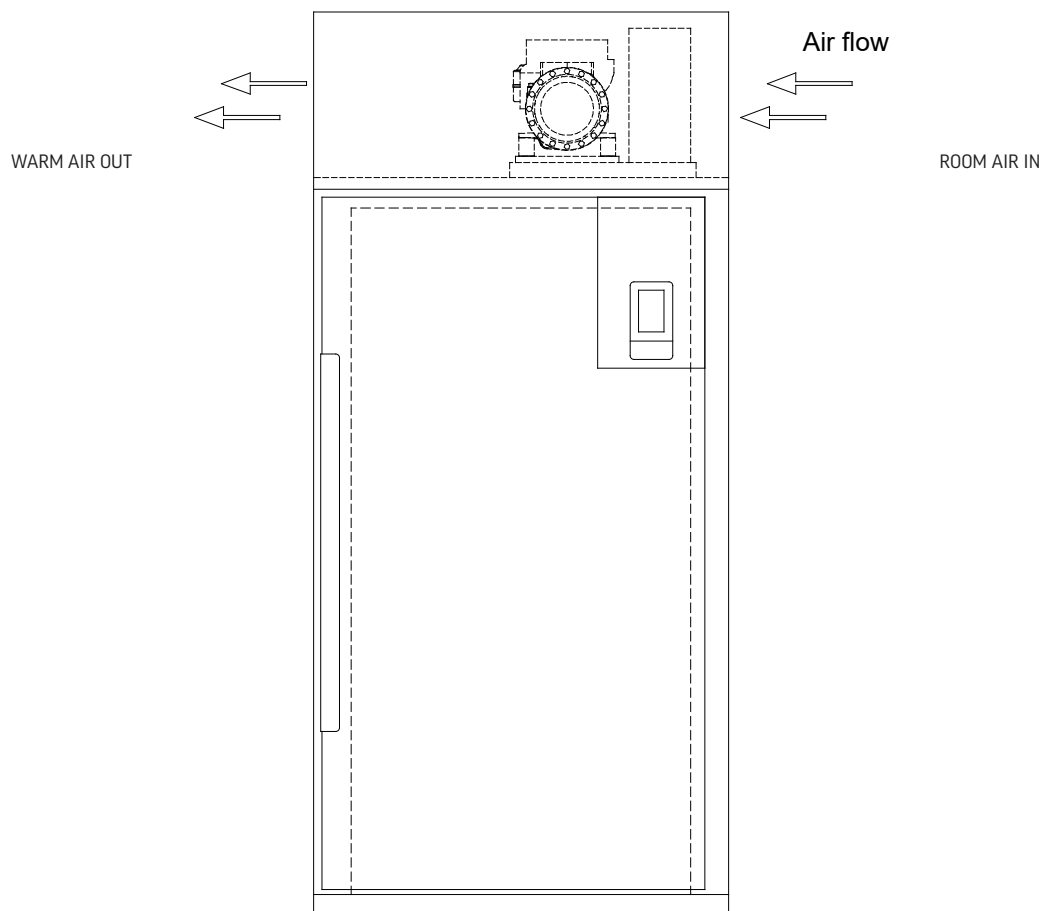
The manufacturer has designed and produced this machine with the finest in materials. The manufacturer assumes no liability for units that have been altered in any way. Alterations or part substitutions will void the warranty.

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 Amount R-290 (lbs)	BTU/Hr (113°F/-13°F)	Heat Rejection (W) (14°F/95°F) Hashare	Voltage	NEMA Plug
RCBL-202-R-PFA-HC	43.3 X 64 X 94.5	1	13.2	1 1/4 X 3	1,0 lbs (3x0, 33 lbs)	4,579 X 3	8800	208-230/60/3	15-20P

Height includes legs.

- ****RAMPS ARE NOT INCLUDED IN THE PURCHASE OF THE UNITS, AND MUST BE REQUESTED AT THE TIME OF THE ORDER****
- Blast Chilling Cycle rapidly lowers the temperature of the contents (242lbs) from 194°F to 37.4°F in 90 minutes
- Shock Freezing Cycle lowers the temperature (132 lbs) from 194°F to 0°F in 240 minutes
- 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 **dedicated** 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 208-230 volt unit is equipped with a 15-20P 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

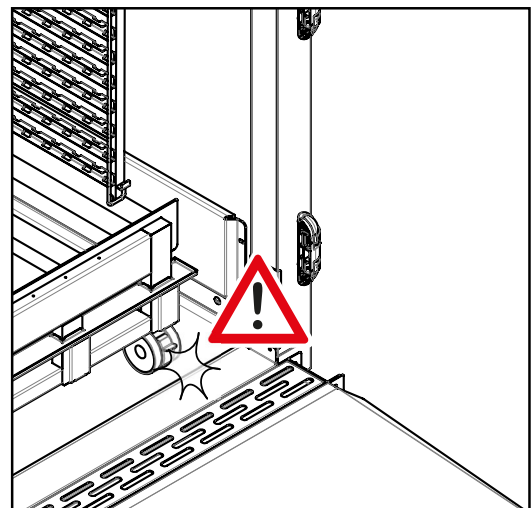
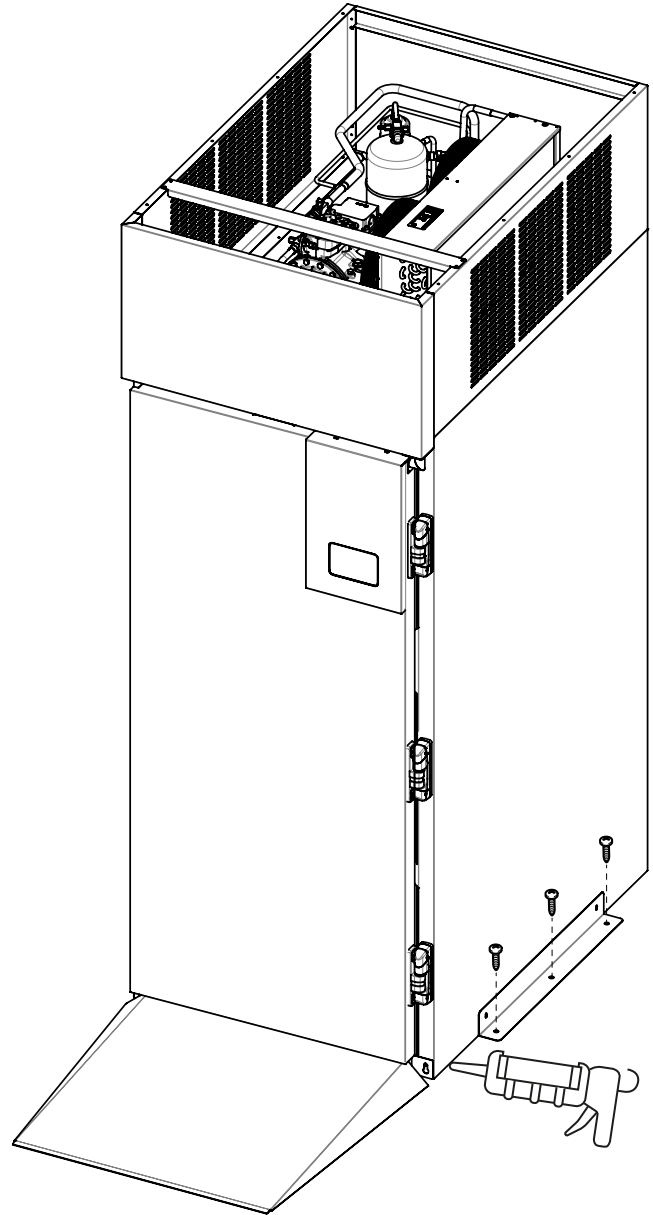
Do not stack or store lying down.

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 circulating which could break the valves and cause problems while starting the motor).
2. After unpacking, 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.



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:



TALL LOAD



FRAGILE



KEEP DRY

- 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:

$$I_{max} = 2.3 I_n \text{ (nominal current)}$$

$$I_{cc} \text{ (short-circuit current)} = 4500 \text{ A with } 230\text{V}/1\sim/50\text{Hz power supply.}$$

$$I_{cc} \text{ (short-circuit current)} = 6000 \text{ A with } 400\text{V}/3\sim/50\text{Hz power supply}$$

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



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:

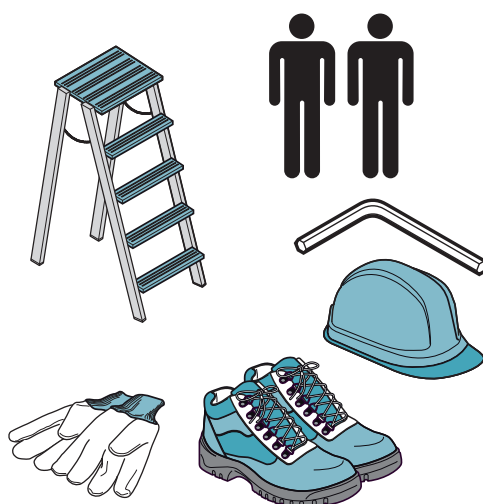
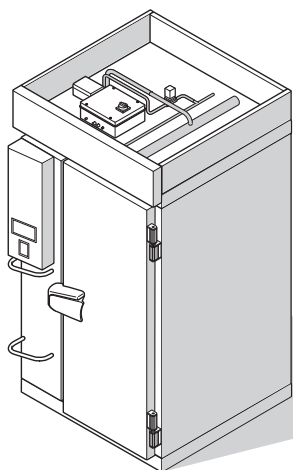
- Position the machine in a well-aerated place and far from heat sources. Observe minimum gaps for operating functions, aeration and maintenance.
- A machine with wheels cannot be leveled, therefore, ensure that the surface on which it rests is perfectly horizontal and level.

- 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.

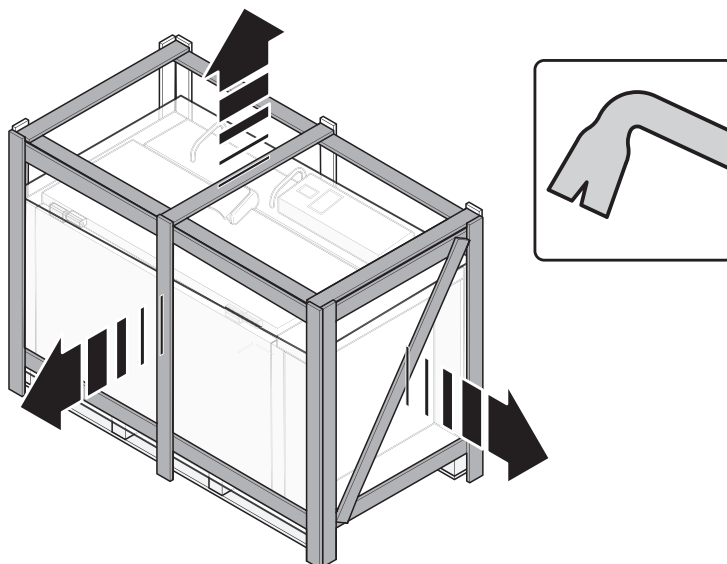
RE-INSTALLATION:

If re-installation is required, proceed as follows:

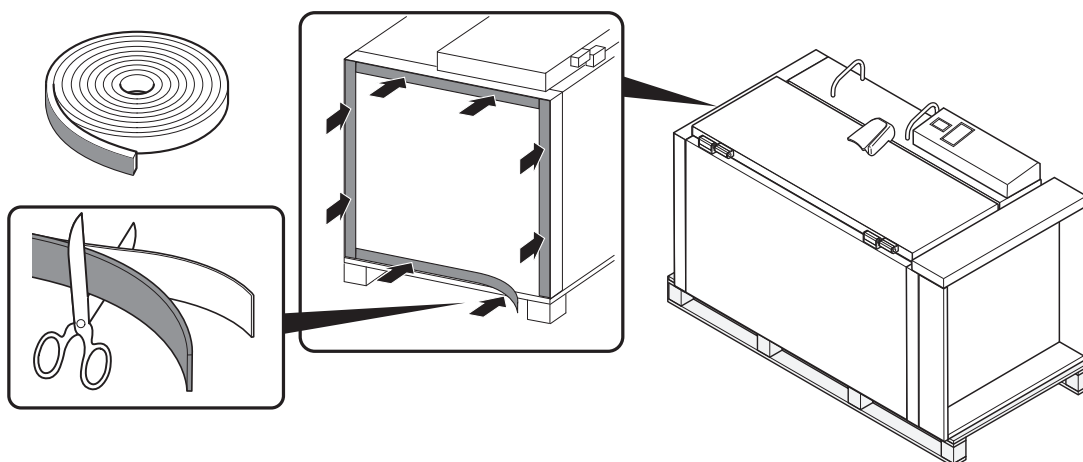
- Position the power supply switch to OFF
- Disconnect the plug from the power supply and wind up the cable
- Remove all contents from the interior of the cabinet and clean the cabinet and accessories thoroughly
- Re-pack the machine, taking care to re-position the protective polystyrene and secure the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



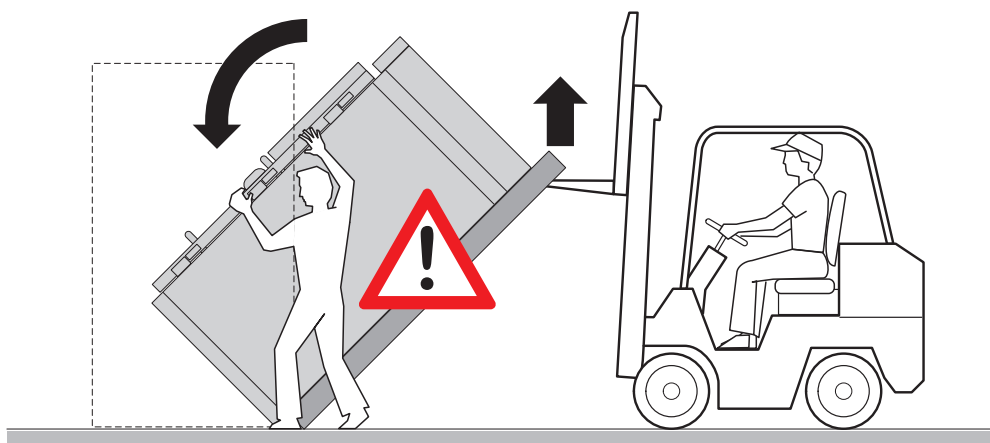
1.



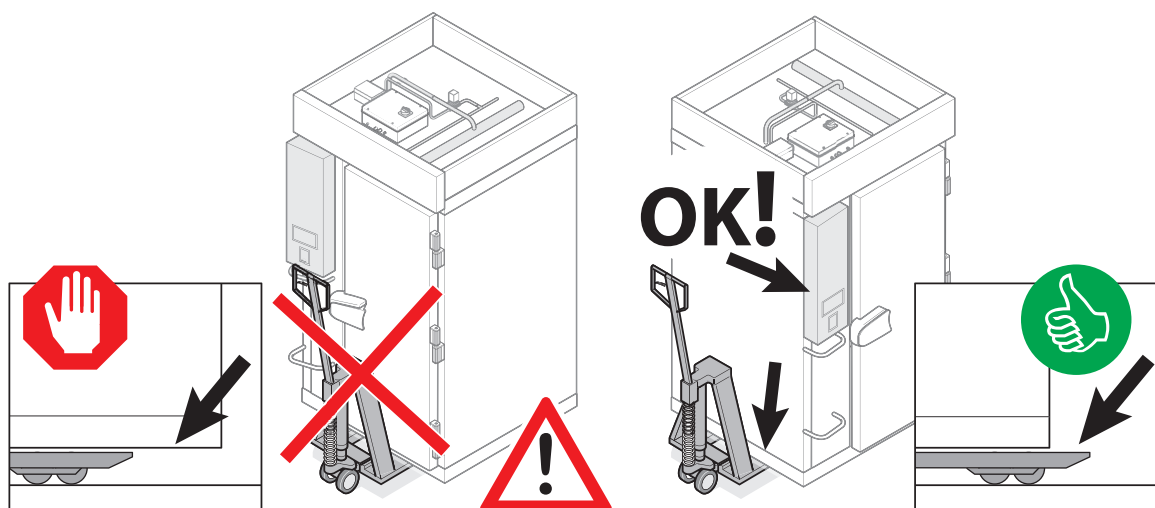
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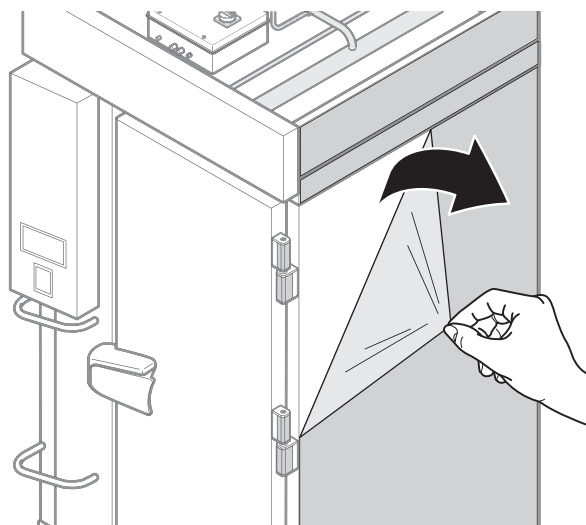
3.



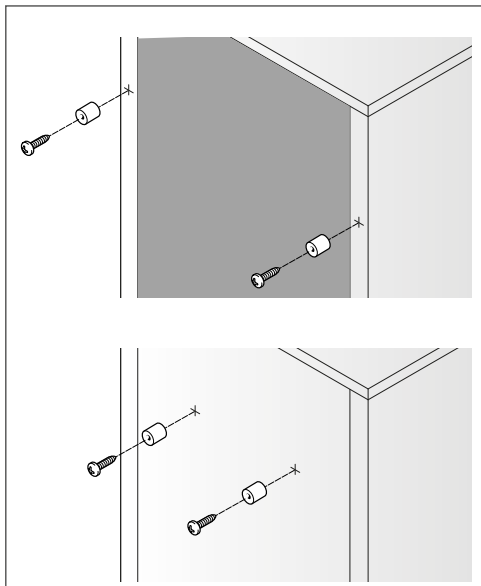
4.



5.

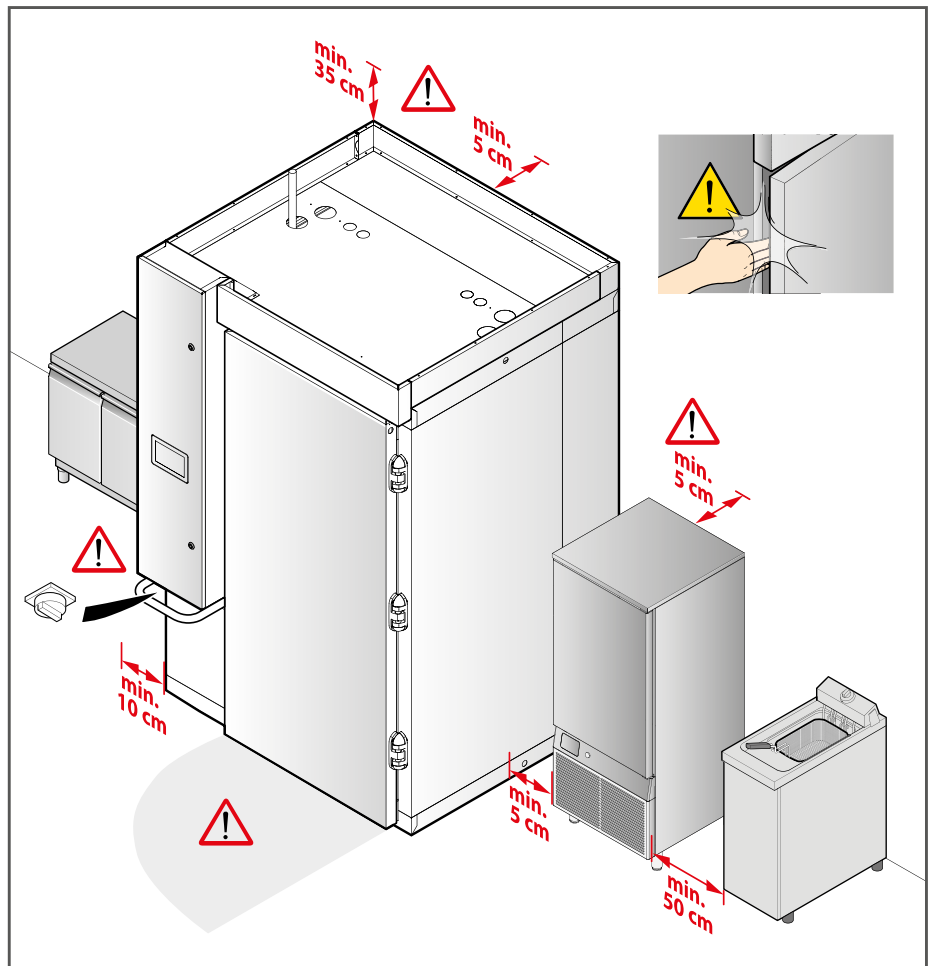


INSTALLATION



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:

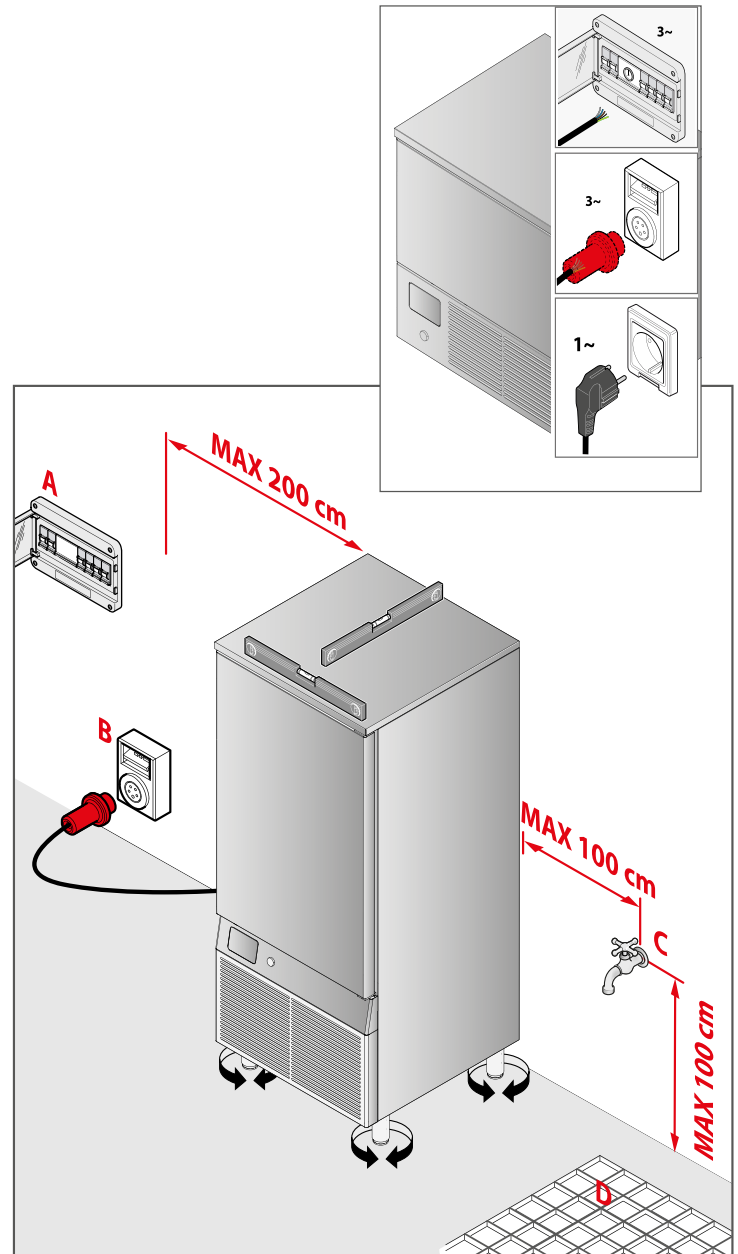
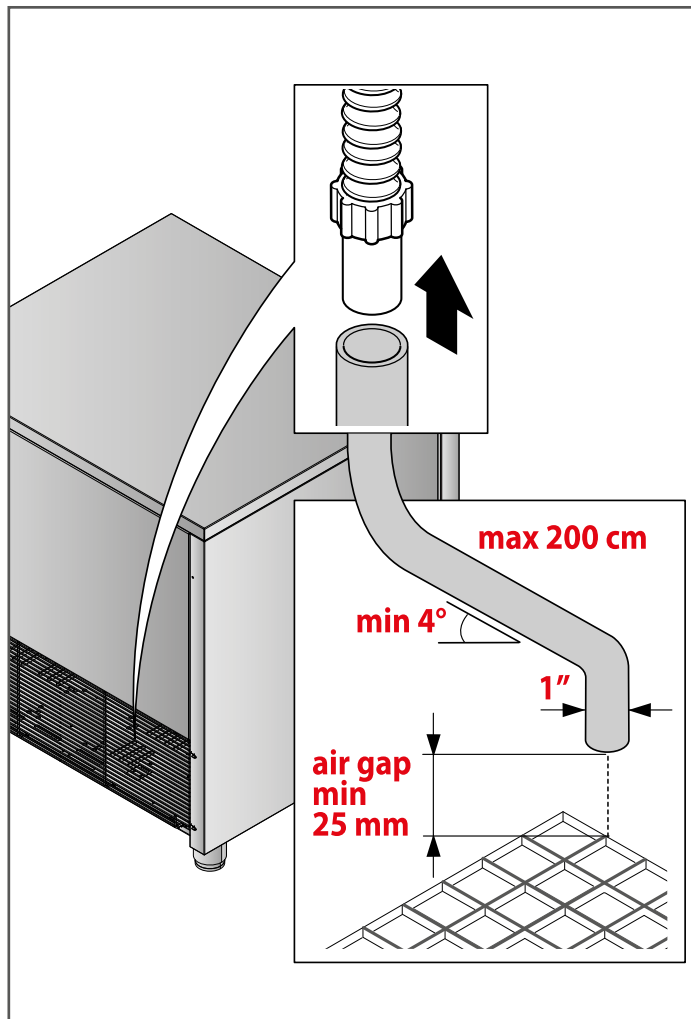
- non-flammable or sensitive to heat
- perfectly leveled
- free of roughness, essentially smooth and even
- that can support the device at full load

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.

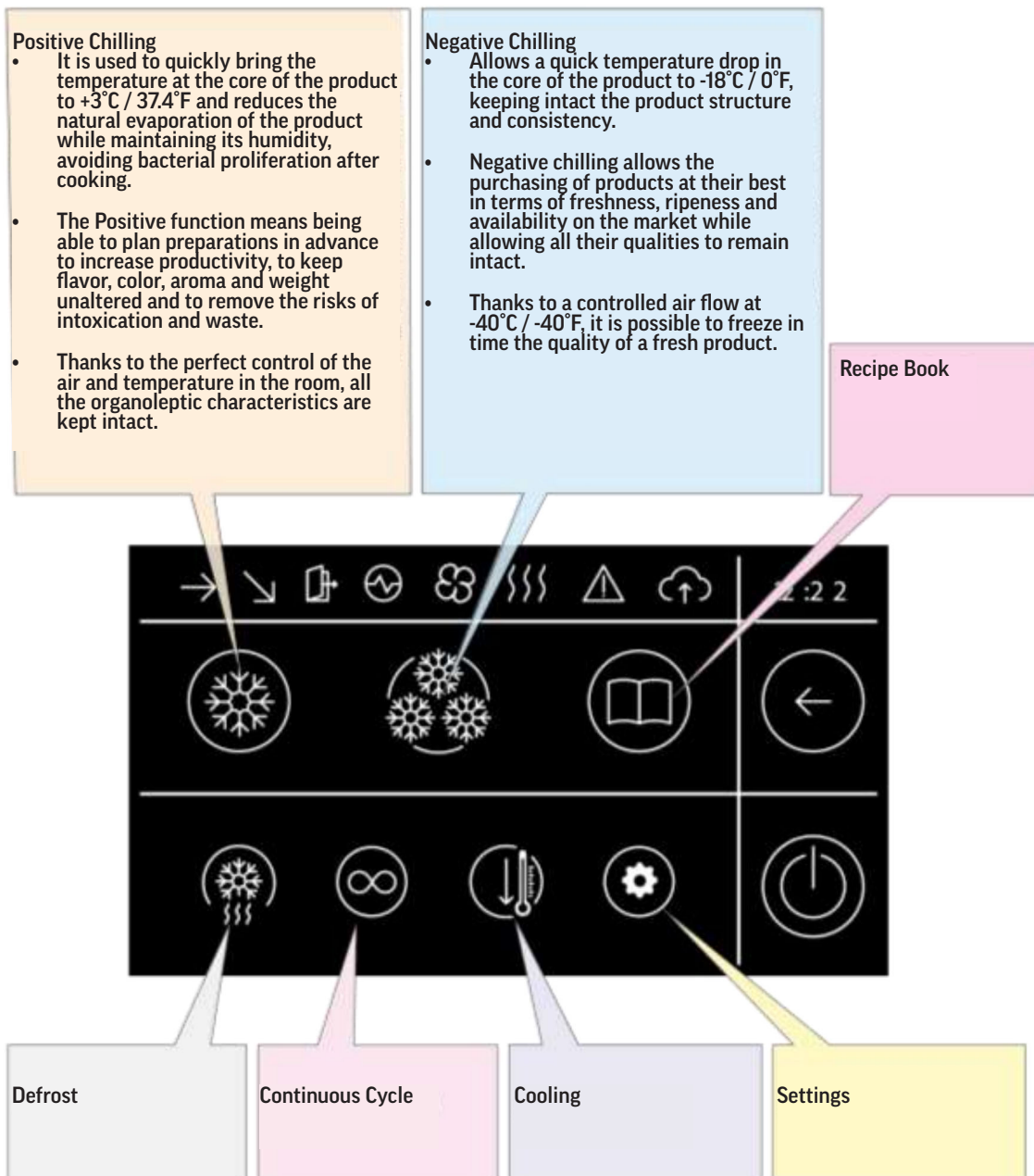


8. Cleansing water is collected in a tank which is under the machine. In order to avoid emptying the tank too frequently, we recommend you connect the drain to a maximum 200 cm/80 inches long hose (not supplied) and lead it to a grate on the floor or in the wall.

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

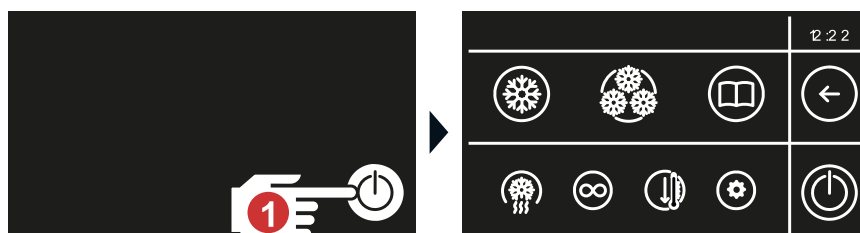
USING THE CONTROLLER



Starting and shutting off

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

At the end of the work activity, to turn off the equipment, from the main screen, tap the ON/OFF key. A countdown of 5 seconds allows you to cancel the shutdown operation.



Keypad lock and unlock

After a few minutes of inactivity, the keypad lock is automatically activated, which guarantees inappropriate accidental stops of a cycle that has started.

To release the keypad, tap the padlock on the display; the sound of three beeps one after another indicates that it has been unlocked.

Initial settings

1 Tap the Settings key: the Settings screen appears

2 Set the display language for all screens by tapping the Select Language key.

3 Tap the relevant language

4 Confirm with the key

5 Set the current date by tapping the Date key.

6 Use the and keys and to set the data and confirm with

1 Then tap the Temperature key

2 Set the desired unit of measurement

3 confirm with the key

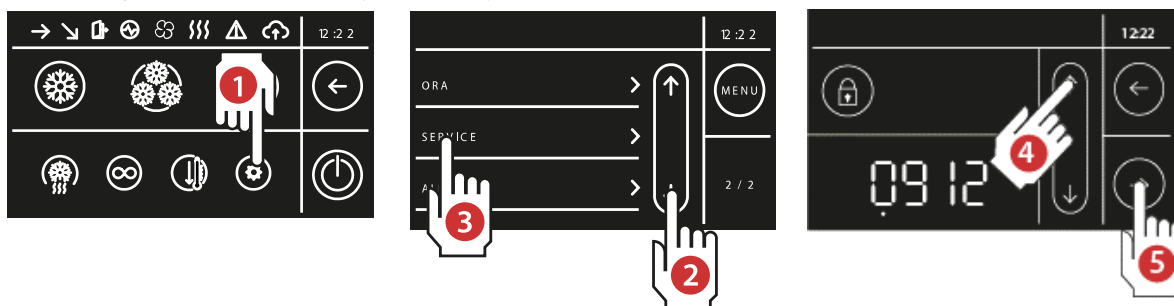
4 Scroll through the settings page

1 Select the Time key to set the current time

2 Use the and keys and to set the data and confirm with

SERVICE settings

Access to this section is reserved for qualified personnel and is protected by a password ("0912") which must be safeguarded by the Support Center to prevent unsuitable work being performed which could compromise the operation of the equipment and result in damages that are not covered by the warranty.



Tap the Settings^① key: the settings screen is displayed

Scroll the list of options with the **DOWN** ^② arrow and **SERVICE** ^③

Enter the password "0912" by pressing the **UP** ^④ and **RIGHT** ^⑤ arrow until fully entered and then, press "OK" (to correct any errors, use the **DOWN** and **LEFT** arrow

Factory parameters



Select **PARAMETERS** ^⑥ and select the parameter you want to change using the **RIGHT** or **LEFT** arrows and confirm the choice with the **OK** key. Once the value has been set, confirm with **OK**

The PARAMETERS are set by default in °C and the respective values and limits are indicated in the table with this unit of measurement.

To view the values in °F, set parameter P2 to 1 and after the change, disconnect and reconnect the power supply to the board. Any CHILLING and DEEP FREEZING programs previously stored will be reset to the default value every time P2 is set again.

ATTENTION!

- Make sure that unsuitable settings cannot compromise the operation of the equipment, resulting in
- -damage not covered by the warranty.
- It is not possible to set a value that exceeds the minimum (MIN) and maximum (MAX) limits indicated in the table.
- After a parameter change, it is recommended to cut and restore the voltage to the board.

The following table illustrates the meaning of the set-up parameters.

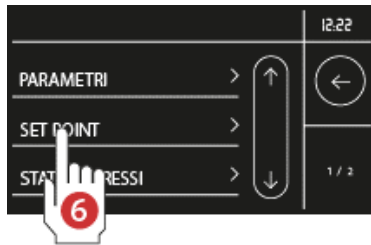
Label	Group	Machine configuration	Default	Min.	Max.	U.M.
P0001	General	Timeout standby display	5	0	60	min
P0002	General	0=Celsius / 1=Fahrenheit	0	0	1	
P0003	General	Language	0	0	10	
P0004	General	Time format 0=12 am/pm / 1=24h	0	0	1	
P0005	General	Enable buzzer 0 = Disabled / 1 = Enabled	1	0	1	
P0006	General	Buzzer duration at blast chilling cycle end	3	0	999	min
P0007	General	Buzzer in alarm duration	1	0	90	min
P0008	General	Buzzer activation time at end of cycle	5	0	600	sec
P0009	General	Buzzer pause time at end of cycle	55	0	999	sec
P0010	Alarms	Hysteresis for temperature alarm return	2	0	10	°C
P0011	Alarms	High temperature alarm threshold in positive storage related to storage setpoint	7	0	50	°C
P0012	Alarms	Low temperature alarm threshold in positive storage related to storage setpoint	0	-10	0	°C
P0013	Alarms	High temperature alarm threshold in negative storage related to storage setpoint	6	0	50	°C
P0014	Alarms	Low temperature alarm threshold in negative storage related to storage setpoint	-10	-50	0	°C

Label	Group	Machine configuration	Default	Min.	Max.	U.M.
P0015	Alarms	Temperature alarm delay from start of storage or defrost	60	0	300	min
P0016	Alarms	Temperature alarm delay	30	0	300	min
P0017	Alarms	Blackout maximum duration	2	0	300	min
P0018	Alarms	Door open alarm delay	2	0	60	min
P0019	Alarms	HP alarm detection time	5	0	60	sec
P0020	Alarms	Thermostat alarm detection time	5	0	60	sec
P0021	Alarms	Condenser temperature above which the overheated condenser alarm is activated	80	0	200	°C
P0022	Alarms	Condenser temperature above which the locked compressor alarm is activated	90	0	200	°C
P0023	Alarms	Locked compressor alarm delay	1	0	15	min
P0024	Alarms	Duration of a power failure during a cycle above which a cycle is interrupted	15	0	60	min
P0025	Alarms	Behaviour of power supply reset instrument 0 = the cycle will be interrupted 1 = the cycle will be restarted 2 = the cycle will be restarted if the duration of the interruption was less than parameter P0024	1	0	2	
P0026	Compressor	Compressor on/off hysteresis	1	0	20	°C
P0027	Compressor	Minimum switch-off time of the compressor	2	0	30	min
P0028	Compressor	Minimum switch-on time of the compressor	0	0	300	sec
P0029	Compressor	Minimum time between two switch-ons of the compressor	0	0	30	min
P0030	Compressor	Compressor switch-on delay from power-on	2	0	30	min
P0031	Compressor	Compressor switch-off delay (Pumpdown)	10	0	600	sec
P0032	Compressor	Solenoid switch-on delay (Pumpdown)	0	0	600	sec
P0033	Compressor	Compressor dead zone in slow cooking cycles	2	0	20	°C
P0034	Compressor	Compressor activation time if temperature greater than "dead zone" and slow cooking hysteresis, ice-cream tempering and continuous cycle	30	0	250	sec
P0035	Digital inputs	High pressure digital input polarity 0: DI Open = HP Alarm active / 1: DI closed = HP Alarm active If pressure switch P1 is installed = 0; if not installed = 1	0	1	0	1
P0036	Digital inputs	Effect caused by activation of high pressure input 0 = no effect 1 = Alarm, the compressor and evaporator fan will be switched off and the condenser fan will be switched on	1	0	1	
P0037	Digital inputs	LP alarm detection time	5	0	60	sec
P0038	Digital inputs	Low pressure digital input polarity 0: DI Open = LP Alarm active 1: DI closed = LP Alarm active	1	0	1	
P0039	Digital inputs	Effect caused by the activation of the low pressure input 0= no effect 1= Low pressure alarm: the compressor, heating and evaporator fan will be switched off 2= Pumpdown management and alarm: when switching off the refrigeration system, the input will switch off the compressor output; if at the end of the pumpdown time the input has not intervened, switch off the compressor and send an alarm 3= Compressor thermal alarm: the compressor and fans and heaters will be switched off	3	0	3	
P0040	Digital inputs	Safety thermostat digital input polarity 0: DI Open = Thermostat alarm active 1: DI closed = Thermostat alarm active	1	0	1	
P0041	Digital inputs	Effect caused by activation of the safety thermostat input 0= no effect 1= Alarm, the compressor and fans and heating elements will be switched off	1	0	1	
P0042	Digital inputs	Compressor thermal digital input polarity 0= DI Open = Active alarm 1= DI closed = Active alarm	1	0	1	
P0043	Digital inputs	Condensing unit alarm digital input polarity 0= DI Open = Active alarm; 1= DI closed = Active alarm	1	0	1	
P0044	Digital inputs	Digital thermal fan input polarity 0= DI Open = Active alarm; 1= DI closed = Active alarm	1	0	1	
P0045	Digital inputs	Micro-door 1 digital input polarity 0= DI Closed = door closed; 1= DI closed = door open	0	0	1	

Label	Group	Machine configuration	Default	Min.	Max.	U.M.
P0046	Digital inputs	Micro-door 2 digital input polarity 0= DI Closed = door closed 1= DI closed = door open	1	0	1	
P0047	Digital inputs	D1 input polarity 0= DI Open = Active alarm ; 1= DI closed = Active alarm	1	0	0	
P0048	Digital inputs	D2 input polarity 0= DI Open = Active alarm ; 1= DI closed = Active alarm	1	0	0	
P0049	Digital inputs	Enable D1 0=Disabled / 1=Enabled	0	0	1	
P0050	Digital inputs	Enable D2 0=Disabled / 1=Enabled	0	0	1	
P0053	Door	door heating element switch-on setpoint	5	-10	20	°C
P0054	Door	Door effect 0= no effect 1= switches off evaporator fan, compressor and cell heating element 2= switches off evaporator fan and cell heating element	2	0	2	
P0055	Defrost	Performs a defrost at the start of blast chilling 0 = No / 1 = Yes	0	0	1	
P0056	Defrost	Defrosting end temperature	15	-10	30	°C
P0057	Defrost	Maximum duration of defrost	15	1	90	min
P0058	Defrost	Interval between two defrosts in storage (0=excluded)	0	0	18	hours
P0059	Defrost	Defrosting type: 0= air / 1= hot gas / 2= electric	0	0	2	
P0060	Defrost	Dripping time	1	0	90	min
P0061	Defrost	Compressor with hot gas defrosting activation delay	0	0	600	sec
P0062	Defrost	Temperature below which the defrosting can start	3	-10	30	°C
P0063	Defrost	Delta fan stop Temperature after a defrost	5	0	10	°C
P0064	Defrost	Condenser fans during defrost 0 = fans OFF / 1 = fans ON	0	0	1	
P0065	Probes	Cell probe offset	0	-10	10	°C
P0066	Probes	Evaporator probe offset	0	-10	10	°C
P0067	Probes	Condenser probe offset	0	-10	10	°C
P0068	Probes	Needle 1 probe offset	0	-10	10	°C
P0069	Probes	Needle 2 probe offset	0	-10	10	°C
P0070	Probes	Needle 3 probe offset	0	-10	10	°C
P0071	Probes	Needle 4 probe offset	0	-10	10	°C
P0072	Probes	Enable probe detection 0 = Disabled / 1 = Enabled	1	0	1	
P0073	Probes	Needle insertion test duration	3	1	240	min
P0074	Probes	Temperature below which the needle heating can start	-5	-40	50	°C
P0075	Probes	Delta setpoint in needle probe control with cell probe error	-2	-10	10	°C
P0076	Probes	Minimum temperature of needle to start blast chilling	90	0	90	°C
P0077	Probes	Temperature difference at core in the needle insertion test	4	0	10	°C
P0078	Probes	Temperature difference between cell and core in the needle insertion test	5	0	10	°C
P0079	Probes	Needle heating duration	90	0	600	sec
P0080	Probes	Needle heating end temperature	30	0	100	°C
P0081	Probes	Comp. ON in positive cycles with faulty chamber probe	3	0	60	min
P0082	Probes	Comp. OFF in positive cycles with faulty chamber probe	7	0	60	min
P0083	Probes	Comp. ON in negative cycles with faulty chamber probe	8	0	60	min
P0084	Probes	Comp. OFF in negative cycles with faulty chamber probe	2	0	60	min
P0085	Probes	Number of probes installed 0= no probe 1=1 probe single point 2=2 probes single point 3=3 probes single point 4=4 probes single point 5=1 probe vacuum	0	0	5	
P0086	Probes	Enable evaporator probe 0 = disabled / 1 = enabled	1	0	1	
P0087	Probes	Enable condenser probe 0 = disabled / 1 = enabled	0	0	1	
P0088	Probes	Enable cell probe 0 = disabled / 1 = enabled	1	0	1	

Factory setpoint

This function allows you to permanently change the settings used by the standard cycles.



Access the **SERVICE** menu (see paragraph 6.5). Select **SET POINT** ⑥ and select the **SET POINT** you want to change using the **RIGHT** or **LEFT** arrows and confirm the choice with the **OK** key.

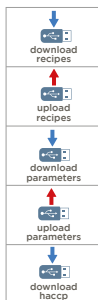
Once the value has been set, confirm with **OK** or go back to the previous screen without confirming with the **LEFT** arrow.

Label	Setpoint description	default	min	max	u.m.
Deep freezing					
AB01	Phase1 cell setpoint in soft manual +3°C blast chilling	0	-40	20	°C
AB02	Phase1 core setpoint in soft manual +3°C blast chilling	10	-40	20	°C
AB03	Phase1 setpoint time in full-load soft manual +3°C blast chilling	30	0	240	min
AB04	Phase2 cell setpoint in soft manual +3°C blast chilling	0	-40	20	°C
AB05	Phase2 core setpoint in soft manual +3°C blast chilling	5	-40	20	°C
AB06	Phase2 setpoint time in full-load soft manual +3°C blast chilling	30	0	240	min
AB07	Phase3 cell setpoint in soft manual +3°C blast chilling	0	-40	20	°C
AB08	Phase3 core setpoint in soft manual +3°C blast chilling	3	-40	20	°C
AB09	Phase3 setpoint time in full-load soft manual +3°C blast chilling	30	0	240	min
AB10	Cell setpoint in manual +3°C preservation	2	-40	20	°C
AB11	Phase1 cell setpoint in hard manual +3°C blast chilling	-20	-40	20	°C
AB12	Phase1 core setpoint in hard manual +3°C blast chilling	22	-40	20	°C
AB13	Phase1 setpoint time in full-load hard manual +3°C blast chilling	30	0	240	min
AB14	Phase2 cell setpoint in hard manual +3°C blast chilling	-9	-40	20	°C
AB15	Phase2 core setpoint in hard manual +3°C blast chilling	10	-40	20	°C
AB16	Phase2 setpoint time in full-load hard manual +3°C blast chilling	30	0	240	min
AB17	Phase3 cell setpoint in hard manual +3°C blast chilling	-1	-40	20	°C
AB18	Phase3 core setpoint in hard manual +3°C blast chilling	3	-40	20	°C
AB19	Phase3 setpoint time in full-load hard manual +3°C blast chilling	30	0	240	min
AB20	Reserved	0			
AB21	Phase1 cell setpoint in soft manual -18°C blast chilling	-10	-40	20	°C
AB22	Phase1 core setpoint in soft manual -18°C blast chilling	3	-40	20	°C
AB23	Phase1 setpoint time in full-load soft manual -18°C blast chilling	80	0	240	min
AB24	Phase2 cell setpoint in soft manual -18°C blast chilling	-25	-40	20	°C
AB25	Phase2 core setpoint in soft manual -18°C blast chilling	-5	-40	20	°C
AB26	Phase2 setpoint time in full-load soft manual -18°C blast chilling	80	0	240	min
AB27	Phase3 cell setpoint in soft manual -18°C blast chilling	-40	-40	20	°C
AB28	Phase3 core setpoint in soft manual -18°C blast chilling	-18	-40	20	°C
AB29	Phase3 setpoint time in full-load soft manual -18°C blast chilling	80	0	240	min
AB30	Cell setpoint in manual -18°C preservation	-20	-40	20	°C
AB31	Phase1 cell setpoint in hard manual -18°C blast chilling	-40	-40	20	°C
AB32	Phase1 core setpoint in hard manual -18°C blast chilling	-18	-40	20	°C
AB33	Phase1 setpoint time in full-load hard manual -18°C blast chilling	80	0	240	min
AB34	Phase2 cell setpoint in hard manual -18°C blast chilling	-40	-40	20	°C
AB35	Phase2 core setpoint in hard manual -18°C blast chilling	-18	-40	20	°C
AB36	Phase2 setpoint time in full-load hard manual -18°C blast chilling	80	0	240	min
AB37	Phase3 cell setpoint in hard manual -18°C blast chilling	-40	-40	20	°C
AB38	Phase3 core setpoint in hard manual -18°C blast chilling	-18	-40	20	°C
AB39	Phase3 setpoint time in full-load hard manual -18°C blast chilling	80	0	240	min
AB40	Phase1 fan speed	5	0	5	
AB41	Phase2 fan speed	5	0	5	
AB42	Phase3 fan speed	5	0	5	
AB43	Fan speed in preservation	5	0	5	
AB44	Maximum setpoint time +3°C blast chilling	120	0	999	min
AB45	Maximum setpoint time -18°C blast chilling	300	0	999	min

Pre-cooling						
PR01	Pre-cooling chamber setpoint	-25	-40	20	°C	
PR02	Pre-cooling chamber setpoint positive cycles only	-25	-40	20	°C	
PR03	Buzzer sound period at the end of pre-cooling	60	3	600	sec	
Drying						
AS01	Soft drying duration	40	15	60	min	
AS05	Cell in drying setpoint	60	30	80		
AS06	Cell in pre-heating setpoint	0	20	85		
AS07	Evaporator fan in pre-cooling	1	0	5		
AS08	Evaporator fan in pre-heating	5	0	5		
AS09	Evaporator fan in defrost	5	0	5		
Continuous cycle						
CC01	Set continuous cycle	0	-40	20	°C	
CC02	Fan speed during continuous cycle	5	1	5		

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.

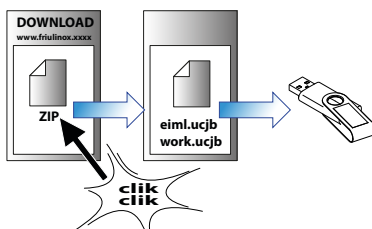
Upload parameters: all parameters and set points in the USB key will be uploaded to the board.

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

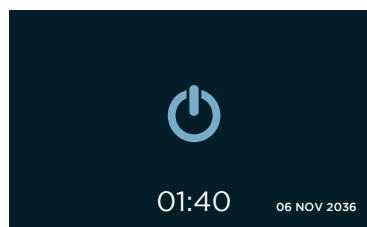
Once the operation to be carried out is selected, the confirmation request appears: press key "✓" to start downloading data and view the progress. If the process is successfully completed, press **OK** to return to the USB menu.

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

FIRMWARE UPDATE



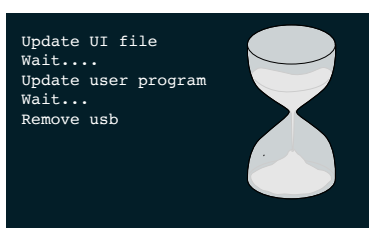
Download the two update files from the Manufacturer's site and extract them; copy them onto a FAT 32 formatted USB stick.



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.

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 OR FREEZING 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.

Conservation/Storage cycle:

- At the end of every blast chilling, and shock freezing, 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:

- 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

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.

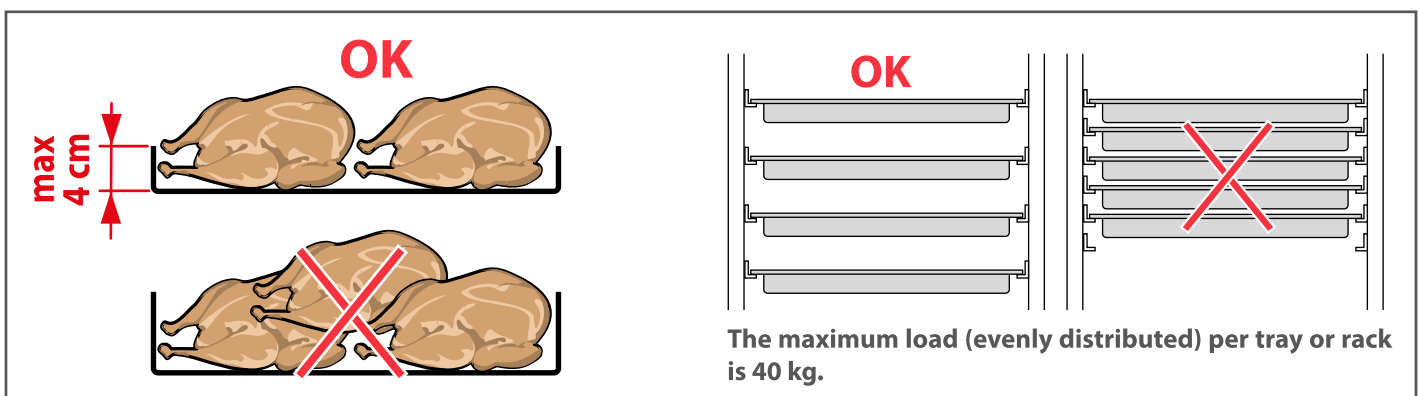
Blast chilling is used when food is not eaten within two hours of its preparation, reducing the product temperature to $+3^{\circ}\text{C}$ (37°F) at the core within 90 minutes. Subsequently, the product must be stored in a refrigerator at a temperature between $0-3^{\circ}\text{C}$ ($32^{\circ}\text{F}-37^{\circ}\text{F}$) 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.

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:

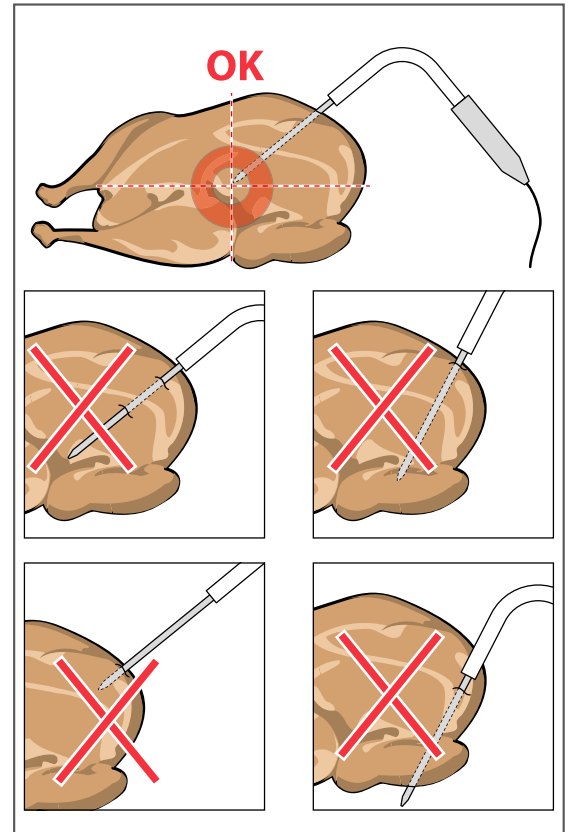
- uncovered
- food safe
- resistant to the temperatures reached by chilling and slow cooking cycles
- with low edges (maximum 4.5 cm or 1-3/4")



HOW TO USE THE NEEDLE PROBE:

- The needle probe reads the temperature at the food "core" during chilling. When it reaches the value set by the user or default value, it means the food is chilled.
- The needle probe is fully inserted in the food to be chilled. 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.

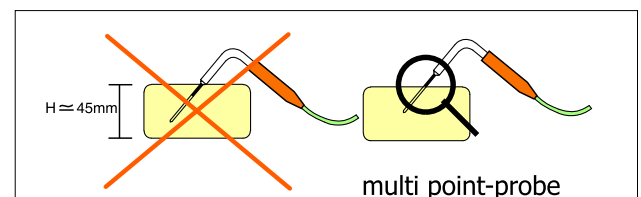
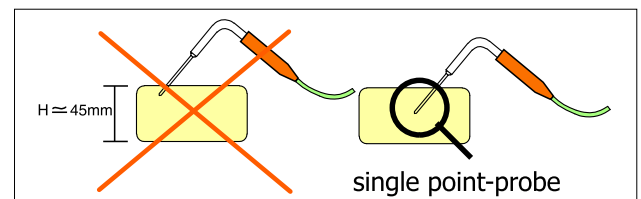
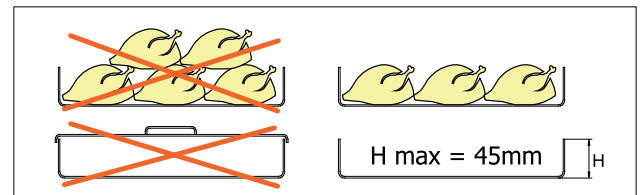
THE PROBE CAN BE HEATED TO FACILITATE REMOVAL FROM FROZEN FOODS.



GENERAL RECOMMENDATIONS:

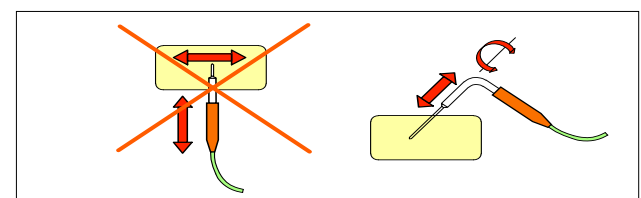
For correct use of the spike probe:

- avoid violent blows, they can jeopardize 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



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	Quarterly cleaning	Daily inspection, check that hinges are tight to the cabinet.	Annually
Weekly interior			

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

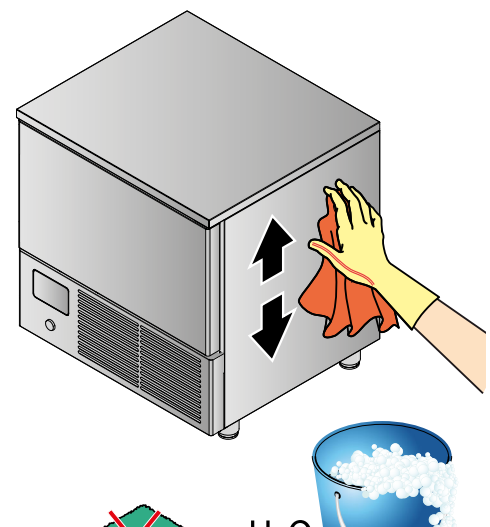
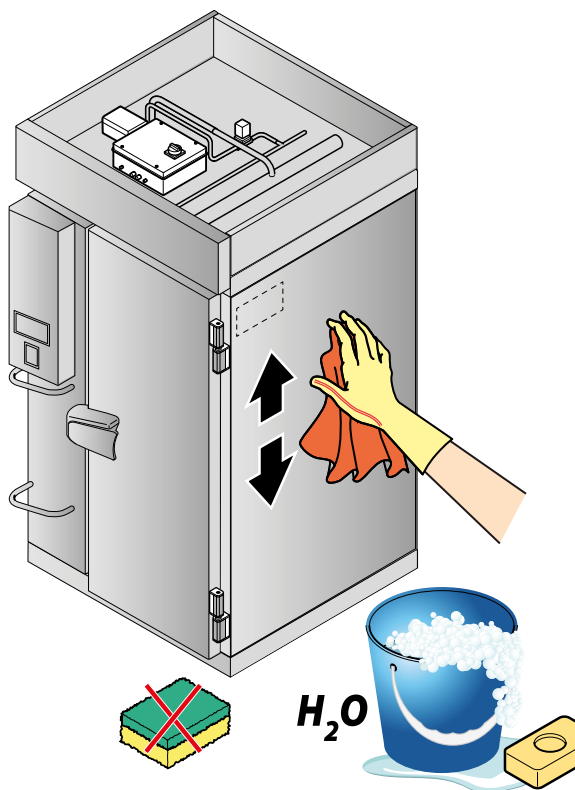
1. Remove all food related items and shelves. Store the food at a safe temperature.
2. Disconnect power to the unit (unplug it or switch the breaker off).
3. Remove all loose food particles from the inside walls, floor, door liner and ceiling.
4. Scrub all interior surfaces and door gaskets with a warm (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).
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.

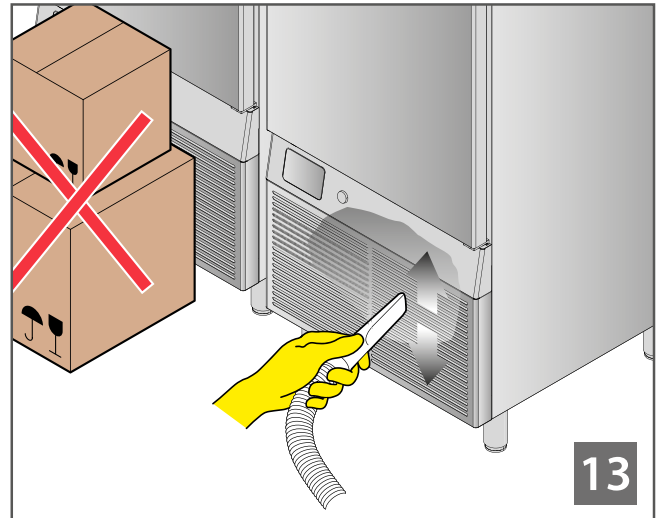
We recommend you remove the front panel once a week following the illustrated instructions and cleaning the filter with hot soapy water. If replacement is required, contact the manufacturer to order spare parts.



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 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
- do not use easily flammable foods or liquids (alcohol) when cooling

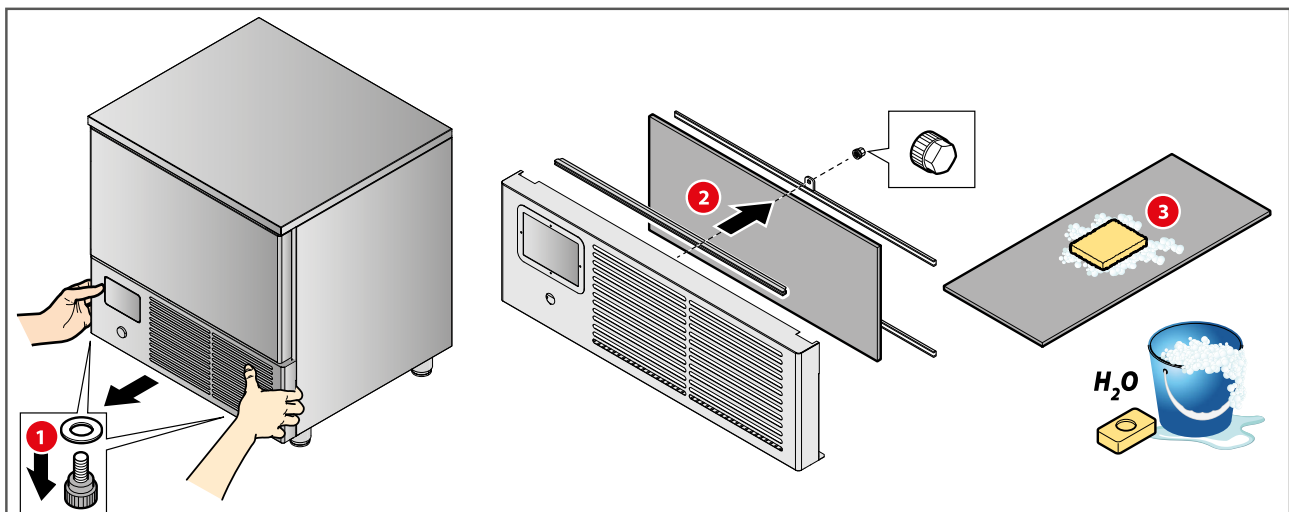


IN CASE OF DISUSE OF THE UNIT:

- 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 stain- less 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.

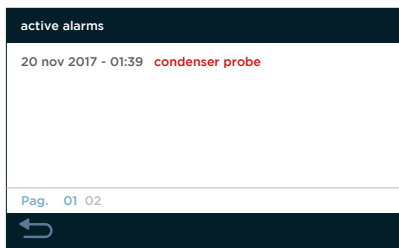
Noise Level:

- <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.

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.



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

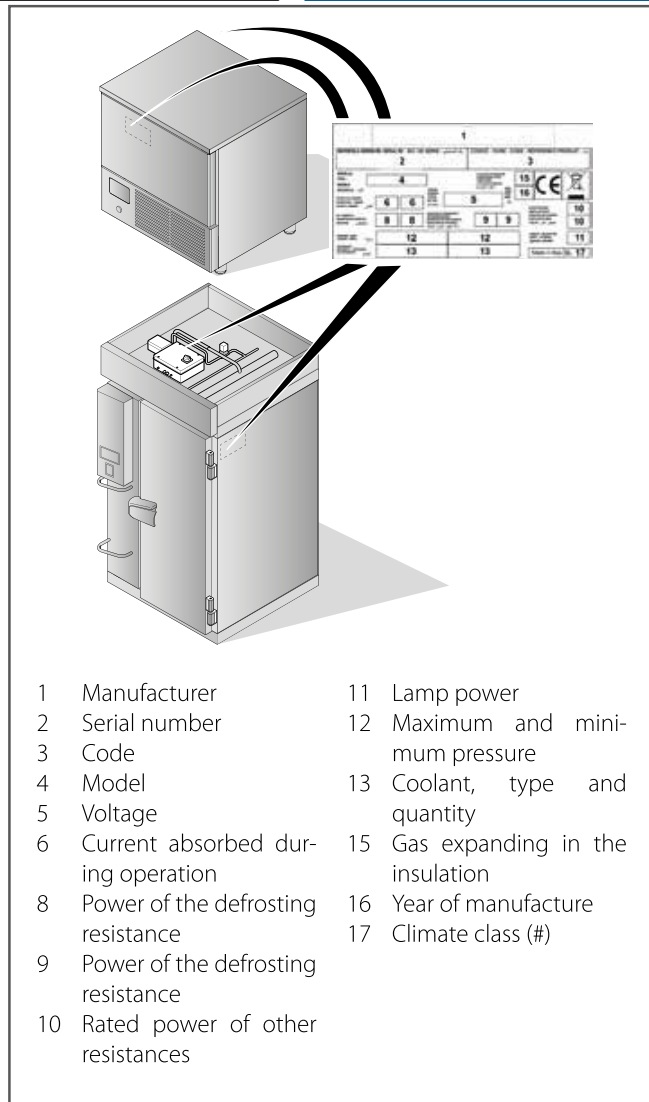
- disconnect it from the power and water mains
- consult the table below to check the proposed solutions

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.



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

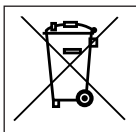
- Avoid spilling or leakage of refrigerants into the environment
- Before disconnecting the unit, the below should be collected and properly disposed of if present:
 - refrigerant gas
 - non-freezing solutions present in hydraulic circuits

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.

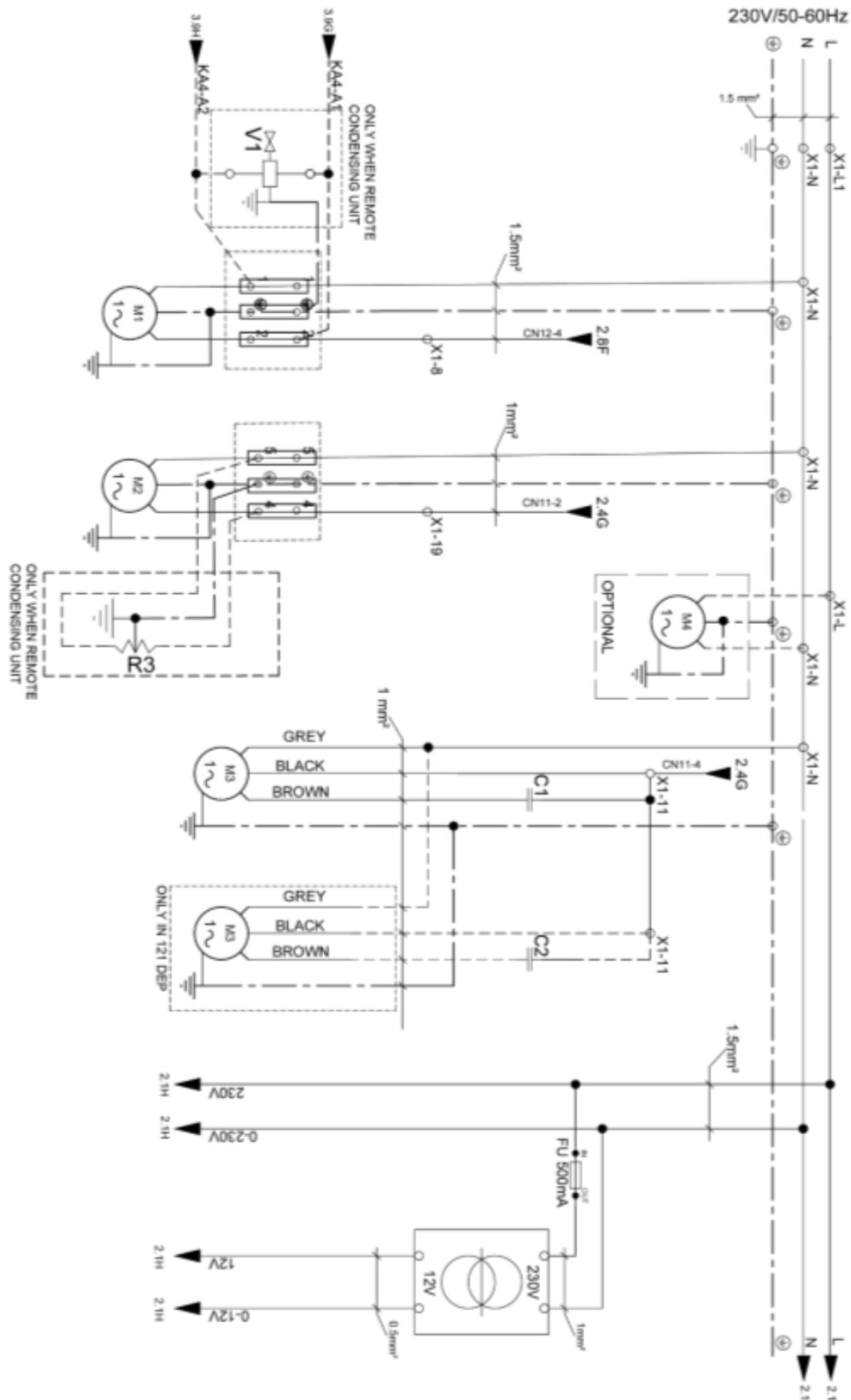
Due to the presence of hazardous substances, information regarding the potential effects on the environment and human health can be obtained from the following:

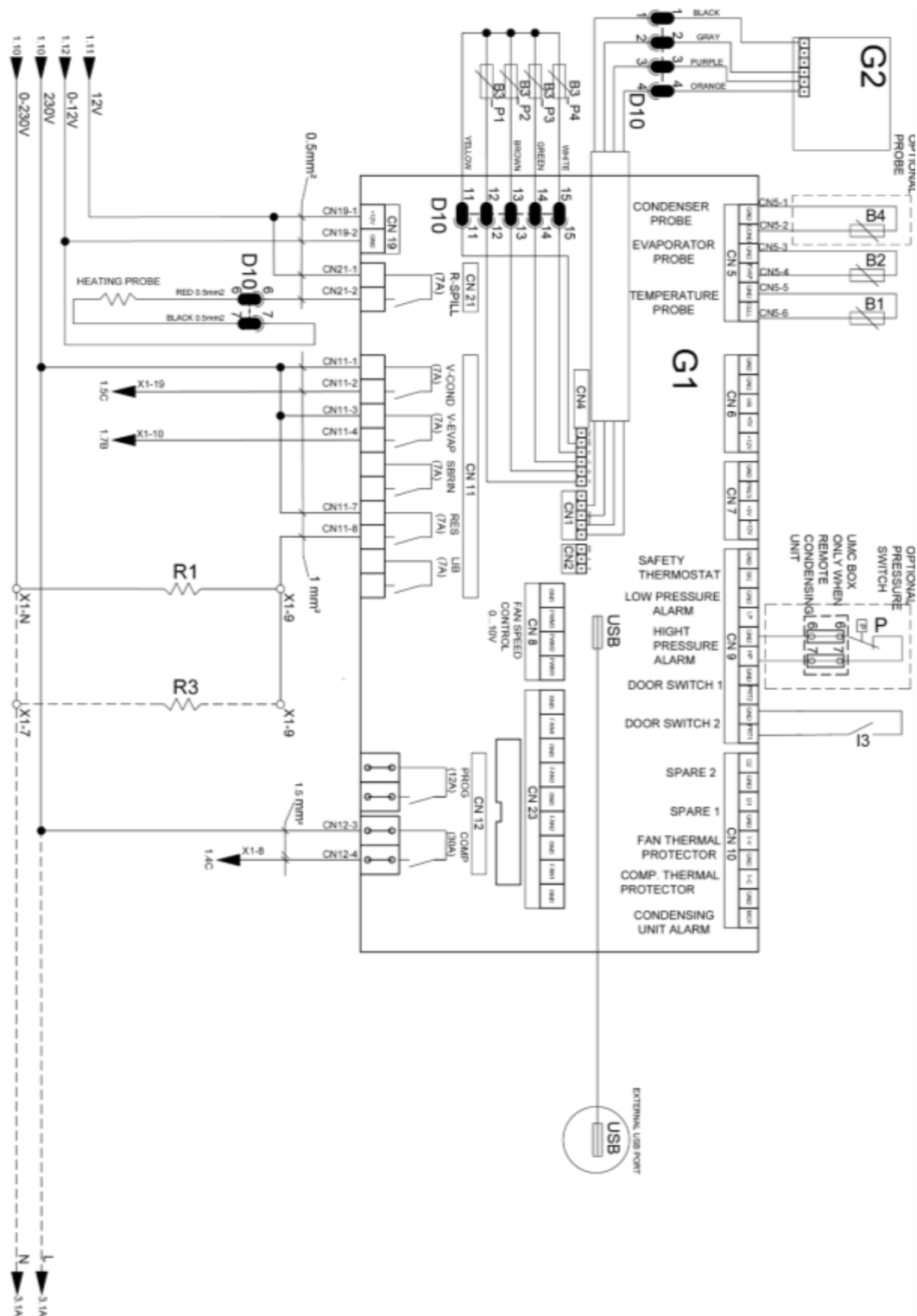
- the manufacturer
- the distributor/importer
- organization in charge of collecting and processing waste
- the retailer where the appliance was purchased
- local services in charge of waste disposal

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





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
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	Humidity heating element
S	Starter
T	Transformer
T1	Automatic transformer
T2	Ballast
TX	Transformer for sanitizing
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 thermal-breaker
Y6	Fan thermal protector
Z	Noise prevention filter

LIMITED WARRANTY

WARRANTY (Warranty valid in USA and Canada)

THREE (3) YEAR PARTS AND LABOR WARRANTY:

Beverage-Air Corporation warrants to the original purchaser of Beverage-Air branded equipment, including all parts thereof, that such equipment is free from defects in material and workmanship, under normal use, proper maintenance, and service as indicated by Beverage-Air installation and operation instructions, for a period of three (3) years from the date of installation, or thirty-nine (39) months from the date of shipment from the manufacturer, whichever is earlier.

ADDITIONAL TWO (2) YEAR COMPRESSOR PART WARRANTY*:

In addition to the warranty set forth above, Beverage-Air warrants the hermetically/semi-hermetically sealed compressor (part only) for an additional TWO (2) years beyond the first THREE (3) years warranty period; not to exceed sixty-three (63) months from the date of shipment from Beverage-Air, 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 the return of the failed compressor.

* Units shipped after 07/01/2024. Previous warranty applies to units shipped prior.

EXCEPTIONS:

- CT96 and CF3 models carry a ONE (1) year parts and labor warranty, limited to fifteen (15) months from date of shipment from Beverage-Air. These are excluded from additional compressor warranty.
- SR/SF (Slate) models carry a TWO (2) year parts and labor warranty, limited to twenty-seven (27) months from date of shipment from Beverage-Air.
- BZ, VM, CDR, DPCR, MT and Blast Chillers carry a THREE (3) year parts and labor warranty; additional TWO (2) years compressor part only.
- Units installed in Residential applications will be not covered under this warranty. Units are intended for Commercial use only.

Also, this 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 warranty above.

Note: 3rd party extended warranties are not covered by this warranty statement.

Normal wear parts, as deemed by Beverage-Air, such as but not exclusive to, light bulbs/lamps and gaskets 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 who the product was originally installed.

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. Nuisance tripping not covered under warranty.

Our obligation under this warranty shall be limited to repairing or replacing, including labor, any part of such product, which proves thus defective. Beverage-Air reserves the right to examine any product claimed to be defective and request photos of the unit prior to dispatching service. Moisture or water damage is not covered under warranty. If service is deemed non-warranty, Beverage-Air reserves the right to bill the end user for service.

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. All warranty labor will be covered at standard time. Any service requested outside of a servicer's normal working hours including weekends and any additional overtime will be at the responsibility of the equipment purchaser. Any part or accessory determined to be 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, and identified with a return material authorization number (RMA#) issued by the manufacturer.

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, improper installation, low voltage conditions, inadequate wiring, outdoor use (unless otherwise specified) and accidental damage are not manufacturing defects and are strictly the responsibility of the purchaser.

LIMITED WARRANTY (CONTINUED)

With the exception of Blast Chillers, the product is designed for maintaining temperature and not bringing food to a desired temperature and therefore cannot be held responsible for this function under warranty. Units must be in a conditioned environment or warranty will be void. Non-standard use of unit can also be subject to reduced or voided warranty.

Condensing coils must be cleaned at regular intervals as a part of preventative maintenance for optimal performance. Failure to do so is subject to a voided warranty. Although cleaning requirements vary in accordance with operation of various products, Beverage-Air recommends a minimum monthly cleaning.

NO CLAIMS CAN BE MADE AGAINST THIS WARRANTY FOR SPOILAGE OF FOOD, 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, 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 THERE OF.

This warranty shall not be assignable and shall be honored only in so far as the original purchaser. This warranty does not apply outside the limits of the United States of America and Canada, nor does it 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:

Beverage-Air Corporation or their affiliates shall not be liable for any indirect, incidental, special or consequential damages, or losses of a commercial nature arising out of malfunction equipment or its parts components thereof, as a result of defects in material or workmanship.

THE ORIGINAL OWNER'S SOLE AND EXCLUSIVE REMEDY AND BEVERAGE-AIR'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.

Note: Additional Terms and Conditions of sale may apply. Notice: Specifications are subject to change without notice. Contact Beverage-Air for specific model agency approval. All prices are ex-works Brookville, PA. July 1, 2024

Warranty Registration

Register your product online at **Beverage-Air.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: Beverage-Air, 3779 Champion Blvd, Winston-Salem, NC 27105

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