Blast Chillers/Freezers

Crosswise

....
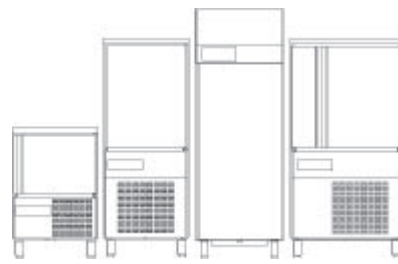
EN   User manual *

Foreword

The installation, use and maintenance manual (hereinafter Manual) provides the user with information necessary for correct and safe use of the machine (or "appliance").

The following must not be considered a long and exacting list of warnings, but rather a set of instructions suitable for improving machine performance in every respect and, above all, preventing injury to persons and animals and damage to property due to improper operating procedures.

All persons involved in machine transport, installation, commissioning, use and maintenance, repair and disassembly must consult and carefully read this manual before carrying out the various operations, in order to avoid wrong and improper actions that could compromise the machine's integrity or endanger people. Make sure to periodically inform the user regarding the safety regulations. It is also important to instruct and update personnel authorised to operate on the machine, regarding its use and maintenance.

The manual must be available to operators and carefully kept in the place where the machine is used, so that it is always at hand for consultation in case of doubts or whenever required.

If, after reading this manual, there are still doubts regarding machine use, do not hesitate to contact the Manufacturer or the authorised Service Centre to receive prompt and precise assistance for better operation and maximum efficiency of the machine. During all stages of machine use, always respect the current regulations on safety, work hygiene and environmental protection. It is the user's responsibility to make sure the machine is started and operated only in optimum conditions of safety for people, animals and property.

IMPORTANT
- The manufacturer declines any liability for operations carried out on the appliance without respecting the instructions given in this manual.
- The manufacturer reserves the right to modify the appliances presented in this publication without notice.
- No part of this manual may be reproduced.
- This manual is available in digital format by:
  – contacting the dealer or reference customer care;
  – downloading the latest and up to date manual on the web site;
- The manual must always be kept in an easily accessed place near the machine. Machine operators and maintenance personnel must be able to easily find and consult it at any time.

Contents

A   WARNING AND SAFETY INFORMATION

A.1   General information

To ensure safe use of the machine and a proper understanding of the manual it is necessary to be familiar with the terms and typographical conventions used in the documentation. The following symbols are used in the manual to indicate and identify the various types of hazards:

⚠️ **WARNING**
Danger for the health and safety of operators.

⚡ **WARNING**
Danger of electrocution - dangerous voltage.

✋ **CAUTION**
Risk of damage to the machine or the product.

❗ **IMPORTANT**
Important instructions or information on the product

▽ Equipotentiality

📖 Read the instructions before using the appliance

ℹ️ Clarifications and explanations

Manufacturer   Electrolux Professional SpA Viale Treviso 15 33170 Pordenone Italy
www.electrolux.com/professional

• These appliances are intended to be used for commercial applications, for example in kitchens of restaurant, canteens, hospitals and in commercial enterprises such as bakeries, butcheries, etc., but not for continuous mass production of food .

• Only specialised personnel are authorised to operate on the machine.

• This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
  – Do not let children play with the appliance.
  – Keep all packaging and detergents away from children.
  – Cleaning and user maintenance shall not be made by children without supervision.

• Do not store explosive substances, such as pressurized containers with flammable propellant, in this appliance

• Do not remove, tamper with or make the machine marking illegible.

• When scrapping the machine, the marking must be destroyed.

• Save these instructions carefully for further consultation by the various operators.

A.2   Personal protection equipment

Summary table of the Personal Protection Equipment (PPE) to be used during the various stages of the machine's service life.

Stage	Protective garments	Safety footwear	Gloves	Glasses	Safety helmet
Transport	—	●	○	—	○
Handling	—	●	○	—	—
Unpacking	—	●	○	—	—
Installation	—	●	○	—	—
Normal use	●	●	●[1]	—	—
Adjustments	○	●	—	—	—
Routine cleaning	○	●	●[1]	○	—
Extraordinary cleaning	○	●	●	○	—
Maintenance	○	●	○	—	—
Dismantling	○	●	○	○	—
Scrapping	○	●	○	○	—
Key:					
●	**PPE REQUIRED**				
○	**PPE AVAILABLE OR TO BE USED IF NECESSARY**				
—	**PPE NOT REQUIRED**				

1. During Normal use, gloves protect hands from the cold tray when being removed from the appliance. Note: The gloves to be worn during cleaning are the type suitable for contact with the cooling fins (metal plates). Failure to use the personal protection equipment by operators, specialised personnel or users can involve exposure to chemical risk and possible damage to health (depending on the model).

A.3   General safety

- The machines are provided with electric and/or mechanical safety devices for protecting workers and the machine itself.
- Never operate the machine, removing, modifying or tampering with the guards, protection or safety devices.
- Do not make any modifications to the parts supplied with the appliance.
- Several illustrations in the manual show the machine, or parts of it, without guards or with guards removed. This is purely for explanatory purposes. Do not use the machine without the guards or with the protection devices deactivated.
- Do not remove, tamper with or make illegible the safety, danger and instruction signs and labels on the machine.

A.4   General safety rules

Protection devices installed on the machine

- The guards on the machine are:
  - fixed guards (e.g. casings, covers, side panels, etc.), fixed to the machine and/or frame with screws or quick-release connectors that can only be removed or opened with tools. Therefore the user must not remove or tamper with such devices. The Manufacturer declines any liability for damage due to tampering or their non-use.

– interlocked movable guards (door) for access inside the machine;
– machine electrical equipment access doors, made from hinged panels openable with tools. The door must not be opened when the machine is connected to the power supply.

Safety signs to be placed on the machine or near its area:

Prohibition	Meaning
	do not remove the safety devices
	do not use water to extinguish fires (placed on electrical parts)

Danger	Meaning
	caution, hot surface
	danger of electrocution (shown on electrical parts with indication of voltage)

End of use

- When the appliance is no longer to be used, make it unusable by removing the mains power supply wiring.

Instructions for use and maintenance

- Risks mainly of a mechanical, thermal and electrical nature exist in the machine. Where possible the risks have been neutralised:
  - directly, by means of adequate design solutions.
  - indirectly by using guards, protection and safety devices.
- Any anomalous situations are signalled on the control panel display.
- During maintenance several risks remain, as these could not be eliminated, and must be neutralised by adopting specific measures and precautions.
- Do not carry out any checking, cleaning, repair or maintenance operations on moving parts. Workers must be informed of this prohibition by means of clearly visible signs.
- To guarantee machine efficiency and correct operation, periodical maintenance must be carried out according to the instructions given in this manual.
- Make sure to periodically check correct operation of all the safety devices and the insulation of electrical cables, which must be replaced if damaged.
- Extraordinary machine maintenance operations must only be carried out by specialised personnel provided with all the appropriate personal protection equipment, tools, utensils and ancillary means.
- Never operate the machine, removing, modifying or tampering with the guards, protection or safety devices.

Reasonably foreseeable improper use

Improper use is any use different from that specified in this manual. During machine operation, other types of work or activities deemed improper and that in general can involve

risks for the safety of operators and damage to the appliance are not allowed. Reasonably foreseeable improper use includes:

- lack of machine maintenance, cleaning and periodical checks;
- structural changes or modifications to the operating logic;
- tampering with the guards or safety devices;
- failure to use personal protection equipment by operators, specialised personnel and maintenance personnel;
- failure to use suitable accessories (e.g. use of unsuitable equipment or ladders);
- keeping combustible or flammable materials, or in any case materials not compatible with or pertinent to the work, near the machine;
- wrong machine installation;
- placing in the machine any objects or things not compatible with its use, or that can damage the machine, cause injury or pollute the environment;
- climbing on the machine;
- non-compliance with the requirements for correct machine use;
- other actions that give rise to risks not eliminable by the Manufacturer.
  The previously described actions are prohibited!

Residual risks

- The machine has several risks that were not completely eliminated from a design standpoint or with the installation of adequate protection devices. Nevertheless, through this manual the Manufacturer has taken steps to inform operators of such risks, carefully indicating the personal protection equipment to be used by them. Sufficient spaces are provided for during the machine installation stages in order to limit these risks.

  To preserve these conditions, the areas around the machine must always be:

  – kept free of obstacles (e.g. ladders, tools, containers, boxes, etc.);
  – clean and dry;
  – well lit.

For the Customer's complete information, the residual risks remaining on the machine are indicated below: such actions are deemed improper and therefore strictly forbidden.

Residual risk	Description of hazardous situation
Slipping or falling	The operator can slip due to water or dirt on the floor
Burns/abrasions (e.g. heating elements, cold pan, cooling circuit plates and pipes)	The operator deliberately or unintentionally touches some components inside the machine without using protective gloves
Electrocution	Contact with live parts during maintenance operations carried out with the electrical panel powered
Falling from above	The operator intervenes on the machine using unsuitable systems to access the upper part (e.g. rung ladders, or climbs on it)
Tipping of loads	When handling the machine or the packing containing it, using unsuitable lifting systems or accessories or with the load unbalanced

Residual risk	Description of hazardous situation
Chemical (refrigerant gas)	Inhalation of refrigerant gas. Therefore always refer to the appliance labels
Harm to eyesight and skin	Exposure to UV rays for appliances with germicidal lamp, in case of door interlock fault.

Normal machine use

- If the appliance contains a UV emitter, do NOT stare at the light source.
- In case of a significant anomaly (e.g. short circuits, wires coming out of the terminal block, motor breakdowns, worn electrical cable sheathing, etc.) the operator must immediately deactivate the machine.

A.5   Product loading and unloading

- Cover or wrap food before placing it in the appliance.
- Use kitchen gloves when loading and removing food.
- Regarding the maximum load for each appliance and each shelf, respect that given in the table below:

Shelf maximum load (kg)	40kg

A.6   Machine cleaning and maintenance

- Before carrying out any cleaning or maintenance, disconnect the appliance from the power supply. For details see the Electrical Connection paragraph in the Installation Manual.
- Do not touch the appliance with wet hands or feet or when barefoot.
- Do not remove the safety guards.
- Use a ladder with suitable protection for work on appliances with accessibility from above.
- Use suitable personal protection equipment.
- Machine maintenance, checking and overhaul operations must only be carried out by specialised personnel or the Customer Care Service, provided with adequate personal protection equipment, tools and ancillary means.
- Work on the electrical equipment must only be carried out by specialised personnel or the Customer Care Service.
- Put the machine in safe conditions before starting any maintenance operation.
- Respect the requirements for the various routine and extraordinary maintenance operations. Non-compliance with the instructions can create risks for personnel.

Ordinary maintenance

- Disconnect the power supply before cleaning the appliance.
  For details see the Electrical Connection paragraph in the Installation Manual.
- Do not clean the machine with jets of water or with a steam cleaner.

Cleaning the cabinet and accessories

- Pay attention to the selection and use of cleaning products in order to maintain proper appliance performance and safeness.
- Before using the appliance, clean all the internal parts and accessories with lukewarm water and neutral soap, or products that are over 90% biodegradable (in order to reduce

the emission of pollutants into the environment), then rinse and dry thoroughly, where possible clean with dishwashing machine.

- Do not clean the appliance with detergents containing chlorine, solvent-based cleaning products (e. g. trichloro-ethylene), abrasive powders or agents, scouring pads or sponges that could damage the surfaces. Do not use organic solvent substances or essential oils. These substances could damage the parts of the appliance made from synthetic material.
- Do not use products (even if diluted) containing chlorine (sodium hypochlorite, hydrochloric or muriatic acid, etc.) to clean the floor under the appliance.
- Pay particular attention when handling the core probe; it is a sharp object, therefore handle it very carefully during cleaning.

Preventive Maintenance

- Preventive Maintenance reduces downtime and maximizes machines efficiency. Customer Care Service can provide advice on the best maintenance plan to be purchased based on the intensity of use and the age of the equipment.

Repair and extraordinary maintenance

- Repair and extraordinary Maintenance have to be carried out by specialised authorised personnel. The manufacturer declines any liability for any failure or damage caused by the intervention of an unauthorized technician by the Manufacturer and the original manufacturer warranty will be invalidated.

Parts and accessories

- Use only original accessories and/or spare parts. Failure to use original accessories and/or spare parts will invalidate the original manufacturer warranty and may render the machine not compliant with the safety standard.

Maintenance intervals

- The inspection and maintenance intervals depend on the actual machine operating conditions and ambient conditions (presence of dust, damp, etc.), therefore precise time intervals cannot be given. In any case, careful and periodical machine maintenance is advisable in order to minimise service interruptions.
- It is advisable to carry out the checks with the frequency given in the following table:

Maintenance, inspections, checks and cleaning	Frequency	Responsability
Ordinary cleaning • general cleaning of machine and surrounding area	Daily	Operator
Mechanical protection devices • check their condition and for any deformation, loosening or removed parts	Every 6 months	Service

Maintenance, inspections, checks and cleaning	Frequency	Responsability
Control • check the mechanical part, for cracks or deformation, tightening of screws: check the readability and condition of words, stickers and symbols and restore if necessary	Yearly	Service
Machine structure • tightening of main bolts (screws, fixing systems, etc.) of machine	Yearly	Service
Safety signs • check the readability and condition of safety signs	Yearly	Service
Electrical control panel • check the electrical components installed inside the electrical control panel. Check the wiring between the electrical panel and machine parts.	Yearly	Service
Electrical connection cable • check the connection cable (replace if necessary)	Yearly	Service
General machine overhaul • check all components, electrical equipment, corrosion, pipes…	Every 10 years[1]	Service

1. the machine is designed and built for a duration of about 10 years. After this period of time (from commissioning) the machine must undergo a general inspection and overhaul.

• It is advisable to stipulate a preventive and scheduled maintenance contract with the Customer Care Service.

B WARRANTY

B.1 Warranty terms and exclusions

If the purchase of this product includes warranty coverage, warranty is provided in line with local regulations and subject to the product being installed and used for the purposes as designed, and as described within the appropriate equipment documentation.

Warranty will be applicable where the customer has used only genuine spare parts and has performed maintenance in accordance with Electrolux Professional user and maintenance documentation made available in paper or electronic format.

Electrolux Professional strongly recommends using Electrolux Professional approved cleaning, rinse and descaling agents to obtain optimal results and maintain product efficiency over time.

The Electrolux Professional warranty does not cover:

• service trips cost to deliver and pick up the product;
• installation;
• training on how to use/operate;
• replacement (and/or supply) of wear and tear parts unless resulting from defects in materials or workmanship reported within one (1) week from the failure;
• correction of external wiring;
• correction of unauthorized repairs as well as any damages, failures and inefficiencies caused by and/or resulting from;
  – insufficient and/or abnormal capacity of the electrical systems (current/voltage/frequency, including spikes and/or outages);
  – inadequate or interrupted water supply, steam, air, gas (including impurities and/or other that does not comply with the technical requirements for each machine);

- plumbing parts, components or consumable cleaning products that are not approved by the manufacturer;
- customer's negligence, misuse, abuse and/or non-compliance with the use and care instructions detailed within the appropriate equipment documentation;
- improper or poor: installation, repair, maintenance (including tampering, modifications and repairs carried out by third parties not authorized third parties) and modification of safety systems;
- Use of non-original components (e. g.: consumables, wear and tear, or spare parts);
- environment conditions provoking thermal (e. g. overheating/freezing) or chemical (e. g. corrosion/oxidation) stress;
- foreign objects placed in- or connected to- the product;
- accidents or force majeure;

- transportation and handling, including scratches, dents, chips, and/or other damage to the finish of the product, unless such damage results from defects in materials or workmanship and is reported within one (1) week of delivery unless otherwise agreed;
- product with original serial numbers that have been removed, altered or cannot be readily determined;
- replacement of light bulbs, filters or any consumable parts;
- any accessories and software not approved or specified by Electrolux Professional.

Warranty does not include scheduled maintenance activities (including the parts required for it) or the supply of cleaning agents unless specifically covered within any local agreement, subject to local terms and conditions.

Check on Electrolux Professional website the list of authorized customer care.

C GENERAL INFORMATION

⚠ **WARNING**
Refer to "*Warning and Safety Information*".

C.1 Introduction

Given below is some information regarding the intended use of this appliance, its testing, and a description of the symbols used (that identifies the type of warning), the definitions of terms used in the manual and useful information for the appliance user.

C.2 Additional indications

The drawings and diagrams given in the manual are not in scale. They supplement the written information with an outline, but are not intended to be a detailed representation of the machine supplied.

The numerical values given on the machine installation diagrams refer to measurements in millimeters and/or inches.

C.3 Intended use and restrictions

This appliance has been designed for the blast chilling and/or blast freezing, preservation of foods (it rapidly lowers the temperature of cooked foods in order to preserve their initial qualities and guarantee their good condition for several days) and for food warming.

Any other use is deemed improper.

✋ **CAUTION**
The machine is not suitable for installation outdoors and/or in places exposed to atmospheric agents (rain, direct sunlight, etc.).

ℹ **NOTE!**
The manufacturer declines any liability for improper use of the product.

C.4 Testing and inspection

Our appliances have been designed and optimized, with laboratory testing, in order to obtain high performance and efficiency.

The product is shipped ready for use.

Passing of the tests (visual inspection - electrical test - functional test) is guaranteed and certified by the specific enclosures.

C.5 Appliance identification

This manual applies to various Crosswise models. For further details regarding your model, refer to "Technical Data".

C.6 Copyright

This manual is intended solely for consultation by the operator and can only be given to third parties with the permission of Electrolux Professional SpA.

C.7 Keeping the manual

The manual must be carefully kept for the entire life of the machine, until scrapping. The manual must stay with the machine in case of transfer, sale, hire, granting of use or leasing.

C.8 Recipients of the manual

This manual is intended for:

- the carrier and handling personnel;
- installation and commissioning personnel;
- the employer of machine users and the workplace manager;
- operators for normal machine use;
- specialised personnel - Customer Care service (see service manual).

C.9 Definitions

Listed below are the definitions of the main terms used in the manual. It is advisable to read them carefully before use.

Operator	machine installation, adjustment, use, maintenance, cleaning, repair and transport personnel.
Manufacturer	Electrolux Professional SpA or any other service centre authorised by Electrolux Professional SpA.
Operator for normal machine use	an operator who has been informed and trained regarding the tasks and hazards involved in normal machine use.
Customer Care service or specialised personnel	an operator instructed/trained by the Manufacturer and who, based on his professional and specific training, experience and knowledge of the accident-prevention regulations, is able to appraise the operations to be carried out on the machine and recognise and prevent any risks. His professionalism covers the mechanical, electrotechnical and electronics fields etc.
Danger	source of possible injury or harm to health.
Hazardous situation	any situation where an operator is exposed to one or more hazards.
Risk	a combination of probabilities and risks of injury or harm to health in a hazardous situation.

Protection devices	safety measures consisting of the use of specific technical means (guards and safety devices) for protecting operators against risks.
Guard	an element of a machine used in a specific way to provide protection by means of a physical barrier.
Safety device	a device (other than a guard) that eliminates or reduces the risk; it can be used alone or in combination with a guard.
Customer	the person who purchased the machine and/or who manages and uses it (e. g. company, entrepreneur, firm).
Electrocution	an accidental discharge of electric current on a human body.

C.10 Responsibility

The Manufacturer declines any liability for damage and malfunctioning caused by:

• non-compliance with the instructions contained in this manual;
• repairs not carried out in a workmanlike fashion, and replacements with parts different from those specified in the spare parts catalogue (the fitting and use of non-original spare parts and accessories can negatively affect machine operation and invalidates the original manufacturer warranty);
• operations carried out by non-specialised personnel;
• unauthorized modifications or operations;
• missing, lack or inadequate maintenance;
• improper machine use;
• unforeseeable extraordinary events;
• use of the machine by uninformed and / or untrained personnel;
• non-application of the current provisions in the country of use, concerning safety, hygiene and health in the workplace.

The Manufacturer declines any liability for damage caused by arbitrary modifications and conversions carried out by the user or the Customer.

The employer, workplace manager or service technician are responsible for identifying and choosing adequate and suitable personal protection equipment to be worn by operators, in compliance with regulations in force in the country of use.

The Manufacturer declines any liability for inaccuracies contained in the manual, if due to printing or translation errors.

Any supplements to the installation, use and maintenance manual the Customer receives from the Manufacturer will form an integral part of the manual and therefore must be kept together with it.

D NORMAL MACHINE USE

⚠ **WARNING**
Refer to "*Warning and Safety Information*".

D.1 Characteristics of personnel trained for normal machine use

The Customer must make sure the personnel for normal machine use are adequately trained and skilled in their duties, as well as ensuring their own safety and that of other persons.

The Customer must make sure his personnel have understood the instructions received and in particular those regarding work hygiene and safety in use of the machine.

D.2 Characteristics of personnel enabled to operate on the machine

The Customer is responsible for ensuring that persons assigned to the various duties:

• read and understand the manual;
• receive adequate training and instruction for their duties in order to perform them safely;
• receive specific training for correct machine use.

D.3 Operator qualified for normal machine use
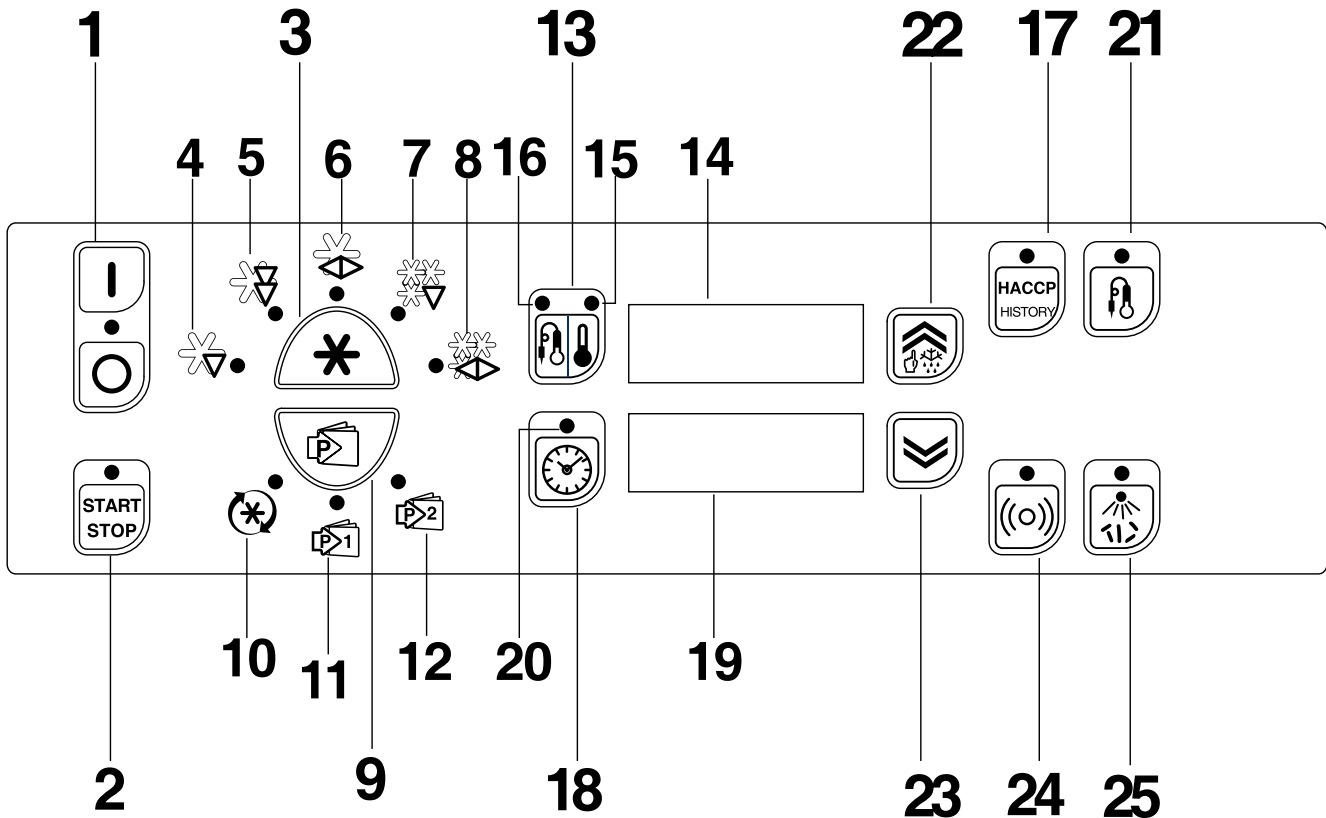
Must have at least:

• knowledge of the technology and specific experience in operating the machine;
• adequate general basic education and technical knowledge for reading and understanding the contents of the manual, including correct interpretation of the drawings, signs and pictograms;
• sufficient technical knowledge for safely performing his duties as specified in the manual;
• knowledge of the regulations on work hygiene and safety.

In case of a significant anomaly (e. g. short circuits, wires coming out of the terminal block, motor breakdowns, worn electrical cable sheathing, etc.) the operator for normal machine use must:

• immediately deactivate the machine.

E CONTROL PANEL

E.1 User interface description

1	ON/OFF switch	13	Temperature button
2	Start/stop cycle button	14	Temperature display
3	Select cycle button	15	Compartment probe temperature LED
4	SOFT chilling cycle LED	16	Core probe temperature LED (if present)
5	HARD chilling cycle" LED	17	HACCP/HISTORY button
6	POSITIVE maintaining cycle" LED	18	Time button
7	NEGATIVE blast chilling or FREEZING cycle LED	19	Time display
8	NEGATIVE maintaining cycle LED	20	Timed cycle LED
9	P1 or P2, Turbo cooling programme selection button	21	Core probe button
10	Turbo cooling LED	22	Double function button:UP - Manual defrost
11	Programme 1 LED	23	DOWN button
12	Programme 2 LED	24	SERVICE ALARM" button
		25	Germicidal cycle button

F DESCRIPTION OF CYCLES

F.1 Positive blast chilling

Positive blast chilling brings the food quickly to a core temperature of +3℃ (37.4℉). The positive blast chilling cycle is suitable for foods to be consumed within a few days. Two types of blast chilling are provided for:

- **SOFT CHILLING**:
  recommended for foods such as vegetables or pieces of food that are not very thick.
- **HARD CHILLING**:
  recommended for larger pieces of food.

F.2 Negative blast chilling or freezing (freezers only)

Freezing allows foods to be preserved for longer periods (weeks or months).

Fast freezing consists of reaching a negative temperature (-18℃ / – 0.4℉) in the core of the product in the shortest possible time.

This ensures that the tissues are not damaged when the product thaws and the food preserves it appearance and nutritional components. With this cycle, the temperature of the food is between -20℃(-4℉) and -18℃ (-0.4℉) after freezing.

F.3 Maintaining or preservation

The preservation cycle, for example keeping food at a chosen temperature so that it does not alter over time, is started automatically at the end of the blast chilling or freezing cycles.

Preservation is continuous; it is necessary to operate on the programme in order to interrupt it.

F.4 Sterilisation cycle (function for appliances with germicidal lamp)

The UV lamps have a direct germicidal action whose purpose is to sterilise the surfaces and the air in the appliance compartment. This function can be used to sterilise kitchen utensils such as knives, carving forks, etc. (carry out the operation in 2 cycles, turning the utensils over) and can be activated at the end of each working day. Do not use this function if there is food in the compartment. It only works with compartment temperature above 15℃ (59°F).

⚠ **WARNING**
The appliance has a safety device that switches off the lamps when the doors are opened. This safety feature is provided because exposure to UV radiation emitted by the lamps is harmful and can damage eyes.

G USER INTERFACE DESCRIPTION

G.1 Switching on

This button indicates whether the appliance is on or off. To switch it on, press the button I ; the LED O•I and the entire interface light up.

G.2 START/STOP cycle

This button is used to start or stop the selected cycle. The selected cycle starts immediately when activated. To stop it, keep the button pressed for at least 3 seconds. If the door is closed when a cycle is started, the button lights up; whereas it will start blinking if the door is opened during a cycle.

To optimise machine performance, and only if the need arises, a preparation cycle can start at the beginning of a chilling cycle, signalled on the temperature display with the message "PREP".

Also, if the blast chiller has been idle for a long time, the compressor will be started with impulses to guarantee maximum efficiency.

G.3 Cycle selection (Standard)

The machine default setting is the SOFT chilling cycle. Use the buttons ⊛ to select:

From left to right:

- Positive SOFT chilling
- Positive HARD chilling
- Positive maintaining (or preservation)
- Negative blast chilling or freezing
- Negative maintaining (or preservation)

When selecting the required cycle, press the button ⊛ to go to the next selection; management is circular therefore it is possible to scroll forwards or back.

G.4 Programmes

Two user changeable default programmes (P1 and P2) are associated with each standard cycle.

Press the "PROGRAMMES" button 🔘 to set the appliance to programmes mode. The appliance switches from standard cycle selection to programme selection and vice versa.

From left to right:

- Turbo cooling
- Programme P1
- Programme P2

What does programme mean? For blast chilling, the user can modify the compartment temperature and chilling time and save the changes in the memory for subsequent retrieval; for maintaining, the user can set the compartment set point.

ℹ **NOTE!**
To go from standard cycle selection status to programme selection, press 🔘 .
To go from programme selection status to standard cycle selection, press ⊛ .

G.4.1 Blast chilling with "turbo cooling"

The turbo cooling cycle allows the user to operate the appliance continuously with a compartment temperature between the min. set point and +3℃. The appliance works in continuous cycle and defrost is managed automatically. To select this type of cycle, refer to paragraph G.4 *Programmes*

G.4.2 Cycles for ice-cream

By enabling the parameter "EICE" (EICE = y) the machine is set to do 2 ice cream cycles; programmes "P1" and "P2" leave the normal logic and become 2 specific cycles for ice cream. They are no longer associated with the selected standard cycle: when selecting this cycle the LEDs relevant to the standard cycles are off.

- cycle "P1": timed blast chilling or with core probe; after chilling, the machine automatically switches to preservation at a temperature of -14 ℃ and -10℃ for BC .
- cycle "P2": blast chilling with "turbo cooling" with compartment temperature of -16 ℃ and -12℃ for BC.

  NB: To modify the parameter "EICE", refer to paragraph M *LIST OF USER PARAMETERS*.

G.5 Temperature

The temperature display can show the compartment temperature and the core probe temperature (if present). If a **cycle is active** (positive or negative maintaining, timed positive blast chilling or timed freezing), the temperature displayed is the compartment temperature (if present). If a **core probe cycle is active**, the core probe temperature will be displayed by default.

Press the button in blast chilling cycles to switch between compartment temperature and core probe temperature (if present). The LED indicates which of the two temperatures is being displayed at that time:

- if the core probe temperature is displayed, the Core probe temperature led lights up

- if the compartment temperature is displayed, the compartment temperature led lights up.

Only 1 of the 2 is on.

If a cycle is active (positive or negative maintaining, timed positive blast chilling or timed freezing), the temperature displayed is the compartment temperature.

G.6   Time

- During a blast chilling cycle: the time display shows the total or remaining chilling time
- During a maintaining cycle: the display shows the time
- During a turbo cooling cycle: the display shows:
  – "°°°°°"= approx. 2 hours before defrost start
  – "°°°°"= approx. 1 ½ hours before defrost start
  – "°°"= approx. 1 hour before defrost start
  – "°"= approx. ½ hour before defrost start

The Timed cycle led is on only when a timed blast chilling cycle is in progress. In the cycle selection phase it indicates the chilling time.

G.7   UP/Manual defrost button

This is a double function button:

1. INCREASE VALUE: use during modification to increase the parameter and set point values or to go to the next parameter;
2. MANUAL DEFROST: if system conditions allow it, press the button for at least 4 seconds to activate manual defrost. The message "dEfr" appears on the display throughout the entire phase. The selection is valid only in preservation/maintaining conditions and in the selection of the operation cycle. At the end of defrost, the board returns to the main configuration.

G.8   Down/Set button

Use during modification to decrease the parameter and setpoint values or scroll the parameters back.

G.9   Alarm warning

1. **HACCP/History**

For displaying the compartment high temperature alarm and blast chilling cycle end error alarm.
When an HACCP alarm occurs, the LED:
- blinks if the alarm is in progress.
- stays on (fixed) if the alarm has ended but must still be seen by the user.

2. **Service alarms**

In the SERVICE ALARMS function all the alarms, except the compartment high temperature alarm and blast chilling cycle end error alarm are stored and can be displayed .
- blinks if the alarm is in progress.
- stays on (fixed) if the alarm has ended but must still be seen by the user.

(see chapter J *Alarms* for all information on alarms)

G.10   Display core probe temperature

(if the core probe is present)

Use this function to display the core probe temperatures if there is more than one core probe inserted in the product. If only one core probe is used, to display the temperature refer to that given in paragraph G.5 *Temperature* .

G.11   Sterilisation cycle

 (Function for appliances with germicidal lamp)

The UV lamps have a direct germicidal action and are used to sterilise the surfaces and air inside the compartment of the machine (see pararagraph F.4 *Sterilisation cycle (function for appliances with germicidal lamp)*). No cycle must be active. During the cycle, the "TEMPERATURE" display shows the compartment temperature. The main menu is shown at the end of the cycle.

G.12   Food safe control

(if present)

Indicates machine HACCP status. The FOOD SAFE CONTROL LED lights up and turns:

RED
- during a blast chilling cycle (timed or with core probe);
- at the end of a core probe blast chilling cycle, if the cycle does not end correctly;
- uring preservation/maintaining in case of a compartment high temperature alarm;
- during preservation after blast chilling, if the process does not end correctly;

GREEN
- at the end of a core probe blast chilling cycle, if the cycle ends correctly;
- during preservation/maintaining if there are no HACCP alarms;

OFF
- machine in standby mode;

G.13   Reference standard

G.13.1   Reference standard

The appliance can be set in accordance with 3 different standards:

1. NF (French)

2. UK (British
3. CUSTOM (defined by user)

> (!) **IMPORTANT**
> The reference standard selection can be changed only if no blast chilling cycle is active, setting the parameter "nOr".
> (see paragraph H.9 *Modifying USER parameters* to activate the parameter)

> (!) **IMPORTANT**
> The correct end of cycle temperature and time limits set by the NF and UK standards are fixed and cannot be changed by the user, whereas the CUSTOM standard is configurable.

For example, if the NF setting is used, a positive blast chilling cycle with core probe ends correctly if the temperature of 10℃ (50℉) is reached within 110 minutes.

Blast chilling then proceeds until the factory-set maintaining temperature is reached or the user presses STOP. See par. C.2.2.7 for the procedure for modifying the temperature of the CUSTOM Standard and par. D.6 for the list of parameters.

SOFT / HARD CHILLING			
Standard	**Chilling start temperature**	**Chilling end temperature**	**Chilling duration**
NF	+63℃ (145.4℉)	+10℃ (50℉)	110 minutes
UK	+70℃ (158℉)	+3℃ (37.4℉)	90 minutes
CUSTOM	CbSt℃	CCEt℃	CCtI minutes

FREEZING			
Standard	**Chilling start temperature**	**Chilling end temperature**	**Chilling duration**
NF	+63℃ (145.4℉)	-18℃ (64.4℉)	270 minutes
UK	+70℃ (158℉)	−18℃ (-0.4℉)	240 minutes
CUSTOM	CbSt℃	CFEt℃	CFtI minutes

H   INSTRUCTION FOR THE USER

> (caution) **CAUTION**
> Before using the machine, clean the compartment with a detergent solution, as there may still be residuals of condensation from final testing by the manufacturer (see paragraph L.1.2 *Cleaning the cabinet and accessories* for the type of product to use).

H.1   Switching on

Turn on the protection switch installed upstream of the appliance and press the ON button to activate it. The ON LED lights up to signal that the appliance is powered.

H.2   Selecting a standard cycle

The machine default setting is the SOFT chilling cycle.

Use the button ✳ to select

❆ ❆ ❆ ❆ ❆

From left to right:

- Positive SOFT chilling
- Positive HARD chilling
- Positive maintaining (or preservation)
- Negative blast chilling or freezing
- Negative maintaining (or preservation)

When selecting the required cycle, press the button ✳ to go to the next selection; management is circular therefore it is possible to scroll forwards or back.

If the required cycle is another one, press the button ✳ until selected and start it with the button

> (!) **IMPORTANT**
> The machine automatically recognises when the core probe is inserted in the product. If the core probe is not inserted, a timed cycle will start automatically. It is necessary to wait 2 minutes after the end of the preparation cycle for automatic recognition (**see chapter "Analysis of user interface" in the complete user manual on the web site**).
> Therefore if a timed cycle starts, after 2 minutes the TIME LED will light up and the COMPARTMENT TEMPERATURE will be displayed by default.

H.3   Selecting a turbo cooling cycle

- To select the turbo cooling cycle, press the button 🔘 ;
- the LED ✳ turns orange;
- To start the cycle, press the button START/STOP .

H.4   Selecting a programme

The user must firstly decide which type of cycle to start (SOFT, HARD, etc.) and then select the required programme.
Proceed as follows:

- select the required type of cycle;
- press the programme selection button 🔘 ;
- the LED ✳ turns orange;
- press the selection button 🔘 until the LED of the required programme ▷1 lights up;

If the type of programme is suitable:

- start it by pressing the button START/STOP .
  Otherwise:
- press the selection button 🔘 until the LED of the required programme ▷2 lights up;
- to start the programme, press the button START/STOP .

The user can modify some parameters of the cycles and save the changes:

- for the blast chilling cycle, the user can modify the compartment blast chilling time/setpoint and save it in the memory, from where it can subsequently be recalled (see paragraph H.5 *Modifying the blast chilling time* and H.6 *Modifying the compartment temperature during blast chilling*);
- for maintaining, the user can set the compartment setpoint.

H.5 Modifying the blast chilling time

The blast chilling time can be modified in the following cases:

1. when setting a programme (P1 or P2)
2. when selecting a blast chilling cycle
3. during blast chilling (it can only be decreased)

To modify it, proceed as follows:

- press the button ⏲ for 2 seconds;
- the display flashes to signal "modify" mode;

- set the required value with the buttons ⟰ and ⟱;

- press the button ⏲ to confirm the value, or confirmation occurs automatically after 5 seconds of inactivity;

H.6 Modifying the compartment temperature during blast chilling

The setpoint can be modified only in a custom cycle or during turbo cooling, as follows:

- press the button 🌡 for 2 seconds;
- the display flashes to signal "modify" mode;

- set the required value with the buttons ⟰ and ⟱;

- press the button 🌡 to confirm the value, or confirmation occurs automatically after 5 seconds of inactivity.

H.7 Display temperature setpoint and blast chilling end time

During a cycle, the user can view the temperature setpoint and blast chilling end time by pressing the buttons 📶 and ❄ together.

H.8 Modifying Custom Standard parameters

To modify CUSTOM Standard temperatures and time, use the procedure for modifying USER parameters given in paragraph H.9 *Modifying USER parameters*.

H.9 Modifying USER parameters

To modify a parameter, select the utility:

- press the buttons ⟰ and ⟱ together for at least 4 seconds; the TEMPERATURE display shows the parameter label and the TIME display the value label;
- to exit the display phase, wait 5 seconds without pressing any buttons;

- press the buttons ⟰ and ⟱ to display the required parameter;

- press the button ⏲ for 2 seconds to access modify mode;

- press the buttons ⟰ and ⟱ to modify the value of the operation parameters
- the new value is saved automatically after 8 seconds of inactivity or by pressing the button ⏲;

NOTE!
The parameters can be modified ONLY if no cycle is active. If a cycle is active, the utility only enables the display of parameters (see the list of parameters in the complete user manual on the web site).

H.10 Blast chilling/preservation cycle

When the blast chilling or freezing cycle has ended, the machine automatically goes to the preservation phase. The food must be stored in an appropriate way, maintaining a preservation temperature suitable for the type of food being chilled.

H.11 Defrost

Defrost is activated automatically during preservation. The duration of the cycles and the intervals between defrosts are factory-set.

H.12 Manual defrost

To start a manual defrost press the button ❄ for 4 seconds.

To decrease the defrost time, the function can be activated with the door open, for example a manual defrost can be started leaving the blast chiller door open.

In this way the blast chiller activates the internal fans which draw air into the compartment from the outside, thereby shortening defrost times (for detailed information see paragraph "UP/MANUAL DEFROST BUTTON" in the complete user manual on the web site).

Before every defrost, remove the drain plug located on the bottom of the compartment; refit it after defrosting.

H.13 Germicidal lamps (function for appliances with germicidal lamp)

To activate the lamps:

- the machine must be switched on but with no cycle activated;

- press the button 🔆;

NOTE!
It is advisable to do a germicidal cycle at the start of the day before using the appliance, and another at the end of the day, after cleaning the compartment. (for detailed information see paragraph "STERILISATION CYCLE" in the complete user manual on the web site).

IMPORTANT
The cycle will not be activated if the compartment temperature is below 15°C (59°F) or if the door is open.

## H.14 Proper machine operation

Proper machine operation during the blast chilling and freezing cycles depends on some factors:

- Using the core probe (if present) in the blast chilling cycles ensures good results. It is important to place the probe correctly, in the centre of the largest piece of food, making sure the tip does not protrude and, in particular, that it does not to touch the pan.

OK!
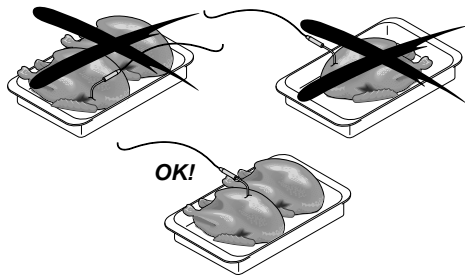
Make sure the core probe is clean and sterilised when inserting it in the product, and always take care when handling it, since it is a sharp object.

At the end of the cycle, open the door and remove the core probe, putting it back in its original position .
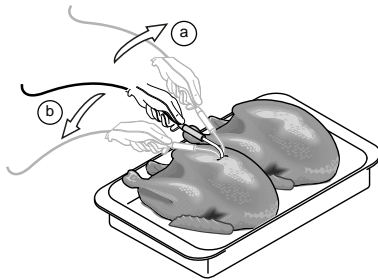
- It is advisable to keep food covered during the blast chilling cycle in order to facilitate chilling. The product must be evenly distributed inside the compartment to ensure good air circulation and therefore better preservation. In any case, do not leave the door open longer than necessary when removing or loading food.

  NOTE!
  Remember that the pans are cold, therefore use gloves.
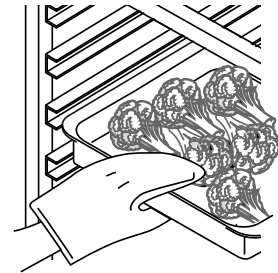
- It is advisable to use shallow containers (or with sides not higher than 65 mm / 2.55 in) to allow good air circulation around the product (the greater the surface area of the food exposed to the cold air, the shorter the chilling time). Clean the containers and their support surfaces thoroughly to avoid contaminating the food. It is also advisable to put the food in the chiller using the same container it was cooked in.
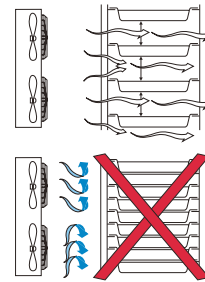
I   EXAMPLES OF STARTING OPERATION CYCLES

I.1   Introduction

To make the use of this blast chiller's electronic board more immediate, step-by-step instructions have been provided for activating the various functions.

When switched on, the appliance is set for the SOFT chilling cycle by default.

Select the required cycle by pressing the button according to the instructions below.

I.2   Hard chilling

- Press the selection button until the until the "hard chilling led " lights up.

- Press the "start/stop cycle" button .

If the core probe is not inserted in the product, the cycle will be timed.

I.3   Hard chilling with modification of chilling end time

- Press the selection button until the "hard chilling led " lights up ;

- To modify the chilling end time:

  – Press the" time" button for 2 seconds;

- Set the required value by pressing or ;
  The new value will be automatically saved after 5 seconds of inactivity or by pressing the "time" button again.

- Press the "start/stop cycle" button .

I.4   Hard chilling with programme selection

- Press the selection button until the until the "hard chilling led " lights up;

- Press the programme selection button until the programme type selection led lights up;

- If the selected programme is suitable, press the "start/stop cycle" button .

- To modify the type of programme:

  – press the "select cycle" button until the led of the required programme lights up.

  – Press the "start/stop cycle" button .

I.5 Hard chilling with programme selection and modification of chilling time

- Press the selection button ✳ until the "hard chilling led " ❄ lights up;

- Press the "programme selection" button ▽ until the led of the required programme ▷2 lights up;

- If the selected programme is suitable, press the "start/stop cycle" button [START STOP].

- To modify the type of programme:

  – Press the selection button ✳ until the led of the required programme ❄ lights up;

  – Press the time button 🕐 for 2 seconds

  – Set the required time value by pressing 🔼 or ▽;
  The new value is saved automatically after 5 seconds of inactivity, or by pressing the time button again;

  – Press the "start/stop cycle" button [START STOP].

– Press the "temperature" button 🌡 again to save the new setting or confirmation occurs automatically after 5 seconds of inactivity;

– Press the "start/stop cycle" button [START STOP].

- To modify the compartment temperature:

  – Press the temperature button 🌡 for 2 seconds;

  – Set the required temperature value by pressing 🔼 or ▽;
  The new value is saved automatically after 5 seconds of inactivity, or by pressing the temperature button again;

  – Press the s"start/stop cycle" button [START STOP].

I.6 Blast chilling with "turbo cooling"

- Press the "select programme" button ▽;

- The "turbo cooling" led ✳ lights up.

- Press the "start/stop cycle" button [START STOP].

J   ALARMS

J.1   Introduction

The electronic board manages two types of alarm systems:

- **HACCP** for monitoring and storing high temperature alarms.
  An HACCP alarm status is signalled by sounding of the buzzer, blinking of the HACCP red LED, and the alarm message appearing on the display.
- **SERVICE ALARMS** for storing and managing all the alarms available on the electronic board (except the high temperature and blast chilling cycle end error alarms).

J.2   HACCP alarms

For managing the compartment high temperature alarm and the blast chilling cycle end error alarm.

If no alarm is active: the "TEMPERATURE" display shows the message **none**, whereas the "TIME" display remains off.

In case of an alarm the "TEMPERATURE" display shows the alarm number **AL 1, AL 2**, etc., and the "TIME" display shows the description of the alarm (see paragraph J.2.1 *Description of alarms*).

To access the menu, press the button [HACCP HISTORY]. To exit the menu press the button again. Use the buttons 🔼 and ▽ to scroll; the messages **AL 1, AL 2**, etc. will appear. After displaying the last alarm, the display shows the message "——"; the unit automatically returns to the main menu after 12 seconds of inactivity.

To cancel the alarms, press ✳ + ▽ together for 5 seconds.

🖐 **CAUTION**
The reset function is disabled if the operator has not seen the stored alarms and the message "RES" appears on the TEMPERATURE display.

J.2.1   Description of alarms

- **High temperature alarm**

The display shows:

- the message **Batch**(number) **Ht**(maximum temperature reached) **C Start** Date Time **End ——**,if the alarm is still active
  EXAMPLE: **Batch 01 Ht 15C Start 25-10-01 15.48 End ——**
- the message **Batch**(number) **Ht**(maximum temperature reached) **C Start** Date Time **End** Date Time, if the alarm has ended.
  EXAMPLE: **Batch 01 Ht 15C Start 25-10-01 15.48 End 25-10-01 17.48**
  where:
  Start Date Time indicates the start of the alarm,
  End Date Time indicates the end of the alarm ("Date" format: DD-MM-YY, "Time" format HH.MM;).

- **Blast chilling cycle end error alarm**
  This type of control is done to check that a blast chilling/freezing cycle with core probe ends correctly. If it does not end correctly, a "**Blast chilling duration outside limit**" alarm is generated and the display shows:

- the message **Batch**(number) **Ot**(blast chilling time) **MIN Start** Date Time **End** Date Time
  EXAMPLE: **BATCH1 Ot 120MIN Start 25-10-01 15.48 End 25-10-01 17.48.**
  where:
  (number) indicates the current day's batch number;
  Start Date Time indicates cycle start;
  End Date Time cycle end.
  Batch number:
  Every blast chilling cycle (SOFT/HARD chilling, freezing) carried out will be identified by a progressive number (1,2, …) called the "BATCH NUMBER". It refers to the current day and will be reset to **0** at the start of a new calendar day.

ℹ **NOTE!**
N.B. In case of timed blast chilling/freezing, there are no cycle-end control alarms.

J.3   Service alarms

There are two types of service alarms:

- type **"b"** (user):

  which do not require After-Sales Service assistance and do not shut down the machine;

SYMBOL	DESCRIPTION	ACTION
B1	Condenser high temperature	– Clean the condenser; – check air circulation near it
B2	Door open	– Close door
B3	Memory full	– Reset HACCP alarms
B4	Power failure	– check the efficiency of the power supply; – check the electrical system;

- type **"E"** (non-user):

  advising to contact the After-Sales Service, but which do not shut down the machine;

SYMBOL	DESCRIPTION	ACTION
E1	Compartment minimum temperature	
E2	Evaporator minimum temperature	
E3	Compartment probe faulty or disconnected	
E4	Evaporator probe faulty or disconnected	
E5	Room probe faulty or disconnected[1]	
E6	Condenser probe faulty or disconnected[1]	CALL THE AFTER-SALES SERVICE
E7	Core probe 1 faulty or disconnected[1]	
E8	Core probe 2 faulty or disconnected[1]	
E9	Core probe 3 faulty or disconnected[1]	
E10	Pressure switch activation	
E11	Faulty compressor operation	
E12	Evaporator fan failure	
E13	Internal clock failure/ Battery low	

1.   If present

All alarms will be stored as follows:

- the "TEMPERATURE" display shows the alarm number, for example "AL 1", "AL 2", etc.,
- whereas the "TIME" display shows the ALARM CODE, for example "E1", "b1", etc.

If no alarm is active: When the button is pressed, the first alarm, i.e. the last to occur, is displayed. Press the button again to go to the next alarm, and likewise to scroll all the stored alarms. After displaying the last alarm, the message "——" appears on the display and after 5 seconds the unit automatically returns to the main menu. When the next alarm occurs, the current ones will be deleted (automatic reset). If an alarm is active, pressing the button silences the buzzer and displays the alarm message. Press the button again to go to the next alarm, and likewise to scroll all the stored alarms. After displaying the last alarm, the message "——" will appear on the display and after 5 seconds the unit automatically returns to the main menu. No cancelling from the memory (i. e. no reset) occurs when alarms are active.

To cancel the alarms, press ✳ + ▷ together for 5 seconds.

CAUTION

The reset function is disabled if the operator did not see the stored alarms and the message "RES" appears on the "TEMPERATURE" display.

K   HACCP CONNECTIONS (ACCESSORIES)

NOTE!
Refer to the handbook enclosed with the kit for instructions on installing the accessories.

The board has a serial communication line for interacting with other units or an HACCP network control station.

It can be connected:

- directly to a device that communicates in TTL (e. g. the FT190ELX printer), by setting the parameter E485="Prn"
- to an RS485 communications network, by setting the parameters E485="PC" and PRTY="1" (refer to the handbook supplied with the kit) inserting the conversion card RS485-LK-P and Adr="Network address".

L MACHINE CLEANING AND MAINTENANCE

⚠ **WARNING**
Refer to *"Warning and Safety Information"*.

L.1 Ordinary maintenance

L.1.1 Care information

The following care operations have to be carried out by the owner and/or user of the appliance.

ⓘ **IMPORTANT**
Problems resulting from poor or lack of care as hereinafter described will not be covered by the warranty.

⚠ **WARNING**
Before carrying out any cleaning or maintenance, disconnect the appliance from the power supply.

L.1.2 Cleaning the cabinet and accessories

It is advisable to clean the compartment weekly; increase the frequency according to appliance use. Before using the appliance, clean all the inside parts and accessories with lukewarm water and neutral soap or products that are over 90% biodegradable (in order to reduce the emission of pollutants into the environment), then rinse and dry thoroughly.

✋ **CAUTION**
Do not use steel wool or similar material to clean stainless steel surfaces. Do not use detergents containing chlorine, solvent-based detergents (e.g. trichloro-ethylene) or abrasive powders.

30°C
86°F

L.1.3 Cleaning the core probe

ⓘ **IMPORTANT**
Pay particular attention when handling the core probe; remember that it is a sharp object, therefore handle it very carefully, even during cleaning.

Clean the core probe regularly to ensure its efficiency. The probe must be cleaned by hand, using lukewarm water and neutral soap or products that are over 90% biodegradable (in order to reduce the emission of pollutants into the environment), then rinsed with clean water and a sanitising solution.

✋ **CAUTION**
Do not use steel wool or similar material to clean the core probe. Do not use detergents containing chlorine, solvent-based detergents (e. g. trichloro-ethylene) or abrasive powders.
Do not use boiling water to clean the core probe.

L.1.4 Cleaning the pan holder structure (for 7/10-15/ 28kg GN 1/1 models)

The pan holder structure can be removed by undoing the screws located on the bottom, and is dishwasher safe. Do not use solvent-based detergents (e. g. trichloro-ethylene) or abrasive powders for cleaning.

L.1.5 Precautions in case of long idle periods

If the appliance is not going to be used for some time, take the following precautions:

- disconnect the power supply;
- remove all food from the compartment and clean the inside and accessories;
- clean the cabinet, going over all the stainless steel surfaces vigorously with a rag moistened with paraffin oil to create a protective film;
- leave the door or the drawers open so that air can circulate inside, preventing the formation of unpleasant odours.
- periodically air the premises.

After carrying out maintenance make sure the machine is able to work safely and, in particular, that the protection and safety devices are efficient.

L.1.6 Quick troubleshooting guide

In some cases, faults can be eliminated easily and quickly by following a brief troubleshooting guide:

The appliance does not switch on:

- make sure the socket is powered.

The appliance does not reach the required internal temperature:

- make sure the condenser is clean.
- make sure the cycles have been correctly set.
- make sure the product has been correctly loaded in the compartment.
- check the integrity of the core probe.

The appliance is too noisy:

- make sure the appliance is properly levelled. An unbalanced position can set off vibrations.
- make sure the appliance is not touching other equipment or parts which could reverberate.

If the fault persists after carrying out the above checks, contact the Customer Care Service, remembering to specify:

A. the type of fault;
B. the appliance PNC (production number code);
C. the Ser. No. (appliance serial number).

ⓘ **NOTE!**
The appliance PNC and serial number are essential for identifying the type of appliance and date of manufacture:

L.2 Repair and extraordinary maintenance

i **NOTE!**
Repair and extraordinary maintenance have to be carried out by specialised authorised personnel, who can ask the manufacturer to supply a servicing manual.

M   LIST OF USER PARAMETERS

SYMBOL		RANGE
MIN	Internal clock: Minutes	0..59
HOUR	Internal clock:Hours	0..23
DAY	Internal clock: Day	1..31
MON	Internal clock: Month	1..12
YEAR	Internal clock: Year	0..99
SrF	Indicates the compartment temperature setpoint for the positive maintaining cycle and preservation phase after positive chilling.	-25..10°C/F
SFF	Indicates the compartment temperature setpoint for the negative maintaining cycle and preservation phase after negative chilling.	-25..10°C/F
LAC	Temperature delta for preservation/absolute temperature setpoint below which a low temperature alarm is generated	-50..125°C/F
HAC	Temperature delta for preservation/absolute temperature setpoint above which a high temperature alarm is generated	-50..125°C/F
CdiF	Indicates if the LAC and HAC temperature limits are expressed in a differential (d) or absolute (A) way.	A/d
SLd	Indicates the duration of the sanitation cycle	0..240
bCCy	Buzzer modes for signalling correct end of a chilling cycle "nob" = buzzer off; "bbl" = buzzer on for 30 seconds; "llb" = buzzer on until any button is pressed	Nob bbl lbl
bFCy	Buzzer mode for signalling HACCP alarms	
bAll	Buzzer mode for signalling a generic alarm	
CCEt	"CUSTOM" Standard: POSITIVE CHILLING END TEMPERATURE	0..CbSt°C/F
CCtl	"CUSTOM" Standard: POSITIVE CHILLING END TIME	0..360 min
CFEt	"CUSTOM" Standard: NEGATIVE CHILLING END TEMPERATURE	-35..CbSt°C/F
CFtl	"CUSTOM" Standard: NEGATIVE CHILLING END TIME	0..360°C/F
CbSt	"CUSTOM" Standard: CHILLING START TEMPERATURE	0..127°C/F
EICE	The parameter enables the Utility of the cycles ICE P1 and P2 in place of the customisable programmes	Y/N
tPrA	Indicates the printing interval during a chilling cycle. If set to 0 only the temperatures at the start and end of the cycle are printed.	1..255 min
tPrC	Indicates the printing interval in preservation/maintaining. If set to 0 no values are printed.	1..255 min
PrnL	Printing language configuration: It = Italian, Gb = English, dE = German, fr = French, Es = Spanish, Se = Swedish	It/Gb/dE/fr/Es/Se
Adr	Network address.	01-FF
E485	Type of connection: "Prn" = Printer; "PC" = Personal Computer;	Prn/PC
nOr	Indicates the "NF", "UK" or "CUSTOM" reference Standards	nF, Uk, CuSt
REL	Software version.	-

i **NOTE!**
The default parameters (DEF) may vary for different appliance models.

CE