ETL BLAST CHILLER SERIES

USER MANUAL

1.GENERAL DOCUMENTATION

The present manual is exclusively valid and applicable to the following products series:

Etl Series

MODEL NUMBER	CHILLING OUTPUT	FREEZING OUTPUT	UNIT TYPE
GBF15-11S	15	11	S
GBC30SG	30	NO FREEZING	SG
GBF30-17SG	30	17	SG
GBF44-26SG	44	26	SG
GBF30-17SP	30	17	SP
GBF44-26SP	44	26	SP
GBC39S	39	NO FREEZING	S
GBF39-24S	39	24	S
GBF52-37S	52	37	S
GBF61-44S	61	44	S
GBF77-55S	77	55	S
GBF176-143S	176	143	S
GBF242-209S	242	209	S
GBC88S	88	NO FREEZING	S
GBF88-66S	88	66	S
GBF143-110S	143	110	S
GBC112S	112	NO FREEZING	S
GBF112-77S	112	77	S
GBF171-132S	171	132	S
GBF440-385R	440	385	R
GBF837-727R	837	727	R

1.1General information

• This manual is an integral part of the product, providing all the information required to ensure correct installation, operation and maintenance of the machine.
• Read the manual carefully, making reference to it for machine operation. Keep the manual in a safe place where it can be accessed by all authorised operators (installers, operators and service personnel). The european series machines are been constructed in compliance with the directives 73/23/CEE (low-voltage), 89/336/CEE (electromagnetic compatibility) and 98/37/CE (machines; for certain models only), while, the United states series machines are been constructed in compliance with the standard for Safety Commercial Refrigerators and Freezers, ANSI/UL 471, Issued: 2006/01/27 Ed:9 Rev:2008/10/24; Refrigeration Equipment General Instruction No 1-2 (R2004); CAN/CSA-C22.2 No.120, Issue:1991/01/01 Ed:3; Commercial Refrigerators and Freezers, NSF/ANSI 7, Issue: 2007/06/01.
• The machine has been designed for professional applications only and should only be operated by qualified personnel.
• The machine must only be used for the purposes for which it was designed, i.e. for chilling and freezing food products. The machine must not be used for products requiring constant temperature control and recording, such as:
- heat-sensitive chemicals,
- medicines or
- blood products.
• The manufacturer declines all responsibility for any damage caused by incorrect or unreasonable machine use, such as:
• improper use by untrained persons;
• technical modifications or operations not suited to specific models;
• use of non-original or non-specific spare parts;
• failure to follow the instructions given in this manual.

1.2 Installation

The machine must be installed by a specialised technician authorised by and in compliance with the instructions given in this manual. In the event that the machine is fitted with a remote condenser unit, the installation technician is responsible for checking all connections in compliance with the instructions given by for plant and machine installation.

1.3 Transport and handling

• To load or unload the machine and/or components from/onto the means of transport, use a lift truck or fork lift equipped with forks that are at least half the length of the machine housing; use a crane if the machine is fitted with eye bolts. Select the lifting equipment suited to the weight and overall dimensions of the packaged machine/components.
• When handling the machine/ components, apply all precautions to prevent damage, in compliance with the information given on the packaging material (fig.1).

Fig.1

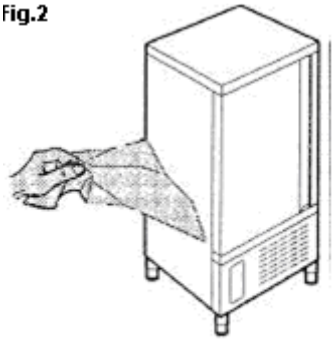
1.4 Unpacking

• Remove all cardboard, wood or other materials from the wood base on which the machine is set. Lift the machine/components with suitable means (e.g. lift truck), remove the wood base, then position the machine/components in the allocated site.

• Once all packing material has been removed, check that the machine has not been damaged in any way.

• Remove the protective PVC film on the

Fig.2



stainless steel panels from all internal and external surfaces (fig. 2).

• ***Always wear protective gloves when handling***
packing material and the wood base.

• NB Dispose of packing materials in compliance
with disposal regulations applied
in the country where the machine is to be installed. Never dispose of materials in the environment.

1.5 General safety regulations

Failure to observe the recommendations made by the present manual will be at the entire responsibility of the machine user. The main safety regulations are as follows:

- do not touch the machine with moist or wet hands or feet;
- never operate the machine while barefoot;
- do not insert screwdrivers, cooking utensils or any other object between the guards and moving parts;
- before performing cleaning or routine maintenance operations, disconnect the machine from the power supply at the master switch and the main knife switch (if present);
- never pull on the power cable to disconnect the machine from the power supply.

2.INSTALLATION

2.1 Data plate information

• Check that the data specified on the plate correspond to the characteristics of the power supply (V, kW, Hz, no. phases and power available).

• The dataplate with appliance (fig.3) specifications is located at the rear exterior of the machine and/or on the electrical boards The set-up of individual units and the installation of condensers are subject to the fire-safety regulations of the country in which the machine is installed; seek all necessary advice from the local firefighting authorities. Bear in mind that the intervention of safety valves or plug fuses in the refrigerating circuit will lead to the immediate discharge of refrigerant into the environment.

2.2 Positioning

• The machine must be installed and commissioned in complete compliance with safety regulations, procedures and standing laws.
• The installation technician bears the responsibility of ensuring compliance with fire safety requirements; seek all necessary advice from the local firefighting authorities.
• Position the machine in the allocated site.
• Adjust the machine feet until the appliance is perfectly level. In the case of particularly heavy equipment, use appropriate lifting means

• If the appliance is not perfectly level, correct operation and condensate flow-off will not be assured.

AVOID

• direct exposure to sunlight;

• closed sites with high temperatures and poor air circulation;

• installing the machine near sources of heat (fig. 4).

Fig.4

2.3 Ambient temperature and air circulation

For air-cooled appliances, the maximum ambient temperature for operation is 32℃. Correct operation cannot be guaranteed at higher temperatures. The machine may operate safely to a maximum temperature of 38℃. Remote condensing units must be installed in special rooms or outdoors, protected against direct sunlight by a shelter or roof structure (at the cost of the purchaser)..

Sufficient air circulation must be guaranteed at all times

2.4 Electrical connections

A dedicated thermal-magnetic circuit breaker compliant with established regulations must be installed on the appliance power line.
• Connected electrical cables must correspond to the technical data (as specified on electrical drawings provided by the installation technician). Connect the grounding conductor to an efficient grounding system.

THE MANUFACTURER DECLINES ALL LIABILITY AND GUARANTEE OBLIGATIONS IN THE EVENT OF INJURY TO PERSONS OR DAMAGE TO EQUIPMENT AND OBJECTS DUE TO INCORRECT INSTALLATION AND/OR FAILURE TO COMPLY WITH STANDING INSTALLATION REGULATIONS.

2.5 Refrigeration component

connections - remote assemblies
Appliance power lines are sized for installation distances of up to 5 metres. For greater distances, seek advice from .

2.6 Information for the installation Technician

Before starting up the machine, check that it has been correctly installed and commissioned (test report).
1. Check that there are no gas leaks from weldings or joints made during installation works.
2. Check that the pipes connecting the condenser to the remote condensing unit have been well insulated.
3. Check all wiring connections.
4. Check electrical input.
5. Check the standard pressure in the refrigerant system.
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6. check the expansion valve during operation.

7. Perform at least one blast freezing cycle (to the SET temperature) and one manual defrosting cycle

In the event that the appliance or the remote condensing unit have not been transported in a vertical position (e.g. on the back) or have been overturned during installation works, allow at least 4 hours before starting up the equipment.
• Inform the customer of the exact purpose of the appliance, with specific reference to the use and requirements of the customer.

The appliance must be installed and put into service by a technician authorised.

2.7 Safety and control systems

• Door micro switch: shuts down fan operation in the cell when the door is opened.
• General fuses: protect the power circuit against short circuiting and overloads.
• Compressor heat relay: intervenes in the event of overloads or operating faults.
• Safety pressure switch: intervenes in the event of excessive pressure in the refrigerant circuit.
• Plug fuses: intervene in the event of overpressure or operating fault in the safety pressure switch (see above).
• Chamber temperature control: operated by the electronic board by means of a probe inside the cell.
• Temperature control end defrost cycle: controlled by the electronic board by means of the probe in the evaporator

.
2.8 Appliance disposal
Demolish and dispose of the machine in compliance with the regulations applied in the country of installation, particularly in regards to refrigerant gas and compressor lubricant oil.

WEEE Notice
The Directive on Waste Electrical and Electronic Equipment (WEEE), which entered into force as European law on 13th February 2003, resulted in a major change in the treatment of electrical equipment at end-of-life. The purpose of this Directive is, as a first priority, the prevention of WEEE, and in addition, to promote the reuse, recycling and other forms of recovery of such wastes so as to reduce disposal.

The WEEE logo on the product or on its box indicates that this product must not be disposed of or dumped with your other household waste. You are liable to dispose of ali your electronic or electrical waste equipment by relocating over to the specified collection point for recycling of such hazardous waste. Isolated collection and proper recovery of your electronic and electrical waste equipment at the time of disposal will allow us to help conserving natural resources. Moreover, proper recycling of the electronic and electrical waste equipment will ensure safety of human health and environment. For more information about electronic and electrical waste equipment disposal, recovery, and collection points, please contact your local city centre, WEEE professional disposal service, shop from where you purchased the equipment, or manufacturer of the equipment.

3. ADVICE TO ENSURE EFFICIENT APPLIANCE OPERATION

3.1 Shut-down procedures

In the event of emergency, shut down the appliance by switching off power at the main panel, by means of the knife switch or by removing the plug from the power socket.

3.2 Operating tips

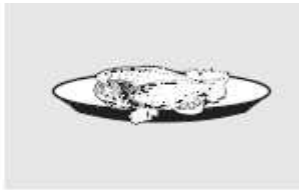
Before starting up the appliance, clean the inside of the cell thoroughly.

3.3 Pre-cooling

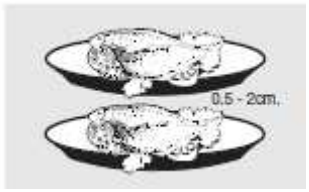
Before using the appliance for the first time, or after a prolonged period of disuse, pre-cool the cell by running an empty cycle until the set operating temperature has been reached. To ensure optimal performance without any alteration to food quality: arrange food products in such a way as to favour the circulation of cold air throughout the cell; open the door as little as possible.

3.4 Loading the appliance

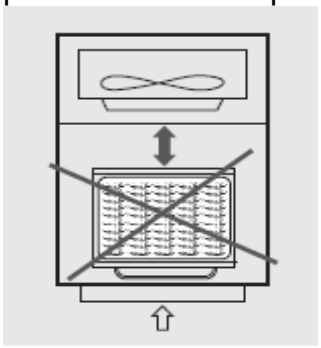
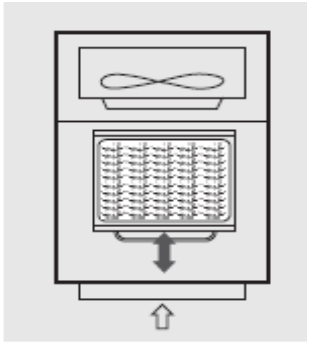
a) Ensure that foods to be chilled and/or frozen are separate and do not have a thickness greater than 50-80 mm. Do not load the appliance beyond the quantity by the manufacturer.

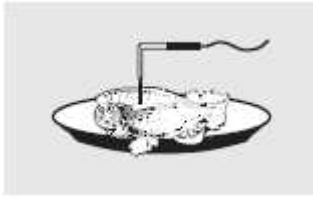
b) Ensure that there is sufficient clearance between trays to enable free air circulation. If the appliance is not completely full, distribute the trays and foods evenly throughout the available space.

c) Position trays inside the tray compartment
as far as they will go, as close as possible to the evaporator.

d) Position the core probe at the centre of the largest product or food item; make sure that the tip of the probe does not protrude or touch the tray.
The probe must be cleaned and sanitised before each new cycle (operation) to prevent inadvertent contamination.

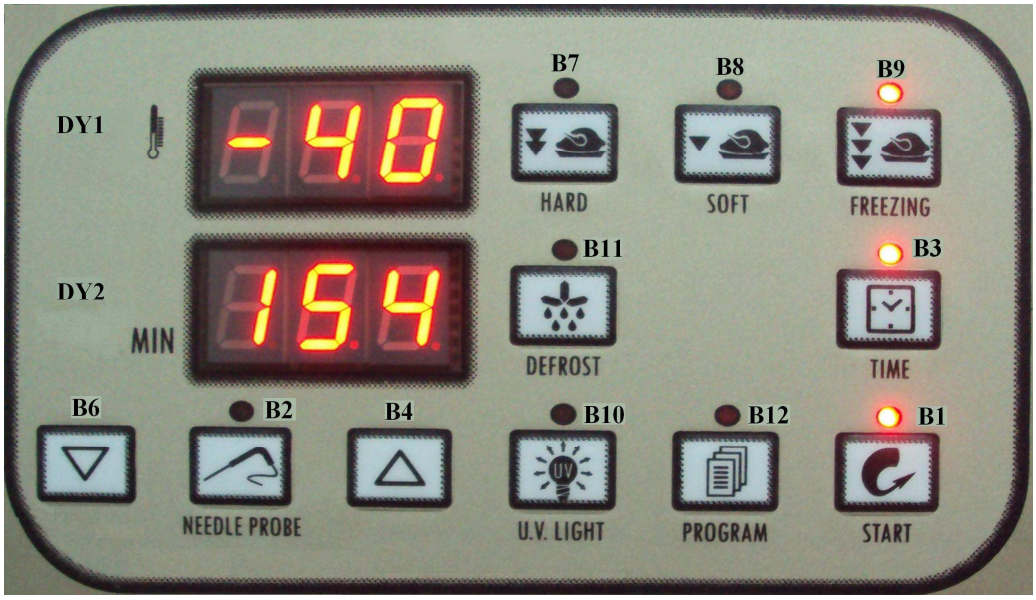


e) Avoid covering the trays and/or containers
with insulating covers or film. The more the product is insulated, the more time is required for chilling or freezing.
Trays must be packaged when the product has been chilled, before being placed in storage.


4.PROGRAMMING AND OPERATING INSTRUCTIONS

Please read these instructions carefully prior to installation and use, and follow all the precautions for installation and electrical connections; keep these instructions with the device for future consultation.

The device must be disposed of in accordance with local regulations pertaining to the collection of electrical and electronic appliances.



4.1 Introductory information

The device has the following operational states:

- "on" (the device is switched on and an operating cycle is running)
- "stand-by" (the device is switched on and no operating cycle is running, but it is possible to select one)
- "off" (the device is switched on and no operating cycle is running, and it is not possible to select any).

If power is interrupted while in the "on" mode, when power is restored the device will be in the same state and the operational cycle will be restarted from the point reached when the power interr. occurred .

If power is interrupted while in "stand-by" or "off" mode, when power is restored the device will be in the same state.

4.2 Switching the device on/off ("off"/"stand-by")

•ensure no procedures are running

•press  **B1** for 5 s

The regulators are switched off while in "off" mod.

4.3 Starting/stopping an operational cycle ("on"/ "stand-by")

•ensure no procedures are running

•press  **B1**

The regulators are switched off while in "stand-by" mode.

4.4 The display

In the "on" state, during normal operation, display **DY1** shows:

•the temperature measured by the needle probe if a set-temperature chilling or freezing operation is ongoing

•the temperature of the cabinet if a set-temperature chilling, or timed freezing or a storage operation is ongoing.

Display **DY2** shows:

•the amount of time for a blast chill or freezing operation, if these are ongoing

While in "stand-by" mode, display **DY1** shows the cabinet temperature and display **DY2** shows "- - -".

While in "off" mode, display **DY1** shows "OFF" and display **DY2** is off.

4.5 Displaying the temperatures detected by the probes

•ensure the device is in "off" mode and no procedures are running

•press  **B2** + **B4**  for 5 s: display **DY1** will show the message "**Pr1**" and display **DY2** will show the cabinet temperature

•press **B4**  or **B6**  to select one of the labels shown in the table below.

CODE	MEANING
Pr1	cabinet probe
Pr2	needle probe
Pr3	evaporator probe
Pr4	condenser probe

To exit the procedure:

•press **B1** 

If there is no condenser probe (parameter P3 = 0), label "**Pr4**" will not be displayed.

4.6 Starting/stopping manual defrosting

To start defrosting in manual mode:

•ensure the device is in "off" mode and no procedures are running

•press **B11**  display **DY1** will show “dEF”.

If the evaporator temperature is above the value set by parameter **P23**, defrosting will not be activated.

To stop defrosting in manual mode:

•press **B11** 

4.7 Switching on the UV light (cabinet sterilisation)

•ensure that the device is in "stand-by" mode, that no procedures are running and that the micro port input is not active

•press **B10** 

The UV light is turned on for the period of time established by parameter **P46** or until **B10**  is pressed once more.

4.8 Heating the needle probe

•ensure that the device is in "stand-by" mode, that no procedures are running and that the micro port input is not active

•press **B2**  for 5 s: the needle probe will be heated until it reaches the temperature set by parameter **P47** or at most for the period of time set by parameter **P48**.

If the temperature detected by the needle probe is above the value set by parameter **P47**, heating will not be started.

The micro-port input will not be reported during needle probe heating.

4.9 Buzzer mute

- ensure no procedures are running
- press **B4** 

After the period of time established by parameter **P56** has elapsed, the buzzer is automatically muted.

5. OPERATIONAL CYCLES

5.1 Introductory information

The device has the following operational cycles:

- hard set-temperature chilling and storage
- normal set-temperature chilling and storage
- set-temperature freezing and storage
- hard timed chilling and storage
- timed normal chilling and storage
- timed freezing and storage.

Set-temperature cycles are preceded by a test to check correct needle probe insertion (see parameters **P14** and **P15**); if the result of the test is negative, cycles will be started in timed mode.

5.2 Hard set-temperature chilling and storage cycle

To select the cycle:

- ensure the device is in "off" mode and no procedures are running
- press **B7**  : display DY1 will show the operational set point and LED B7 will switch on.

To alter the first step operational setpoint:

- press **B4**  or **B6** 

To alter the second step operational setpoint:

•press **B7**  for 5 s: LED B7 will flash

•press **B4**  or **B6** 

These settings remain active until another cycle is selected. Also, it is possible to set the first step operational setpoint by means of parameter **P6** and the second step operational setpoint by means of parameter **P4**; the hard chill process progresses from the first step to the second when the temperature detected by the needle probe reaches the value set by parameter **P12.**

To start the cycle:

•press **B1** 

When the temperature detected by the needle probe reaches the value set by parameter P10, the buzzer is activated for the length of time set by parameter **P55** and the device switches to storage mode.

To interrupt the cycle:

•press **B1** 

5.3 Normal set-temperature chilling and storage cycle

To select the cycle:

•ensure the device is in "off" mode and no procedures are running

•press **B8**  : display **DY1** will show the operational setpoint and LED B8 will switch on.

To alter the operational setpoint:

•press **B4**  or **B6** 

These settings remain active until another cycle is selected. It is also possible to set the operational setpoint by means of parameter **P4**.

To start the cycle:

•press **B1** 

When the temperature detected by the needle probe reaches the value set by parameter P10, the buzzer is activated for the length of time set by parameter **P55** and the device switches to storage mode.

To interrupt the cycle:

- press **B1** 

5.4 Set-temperature freezing and storage cycle

To select the cycle:

- ensure the device is in "off" mode and no procedures are running
- press **B9**  : display **DY1** will show the operational setpoint and LED **B9** will switch on.

To alter the operational set point:

- press **B4**  or **B6** 

These settings remain active until another cycle is selected. It is also possible to set the operational set point by means of parameter **P5**.

To start the cycle:

- press **B1** 

When the temperature detected by the needle probe reaches the value set by parameter **P11**, the buzzer is activated for the length of time set by parameter **P55** and the device switches to storage mode.

To interrupt the cycle:

- press **B1** 

5.5 Hard timed blast chilling and storage cycle

To select the cycle:

- ensure the device is in "off" mode and no procedures are running
- press **B7**  : display **DY1** will show the operational set point and LED **L7** will switch on.

To alter the first step operational set point:

•press **B4**  or **B6** 

To alter the second step operational set point:

•press **B7**  per 5 s: LED **L7** will flash

•press **B4**  or **B6** 

It is also possible to set the first step operational set point by means of parameter **P6** and the second step operational set point by means of parameter **P4**.

•press **B3**  : display **DY2** will show the duration of the chilling step and LED **L3** will be switched on.

To alter the duration of the chilling step:

•press **B4**  or **B6** 

It is also possible to set the chill duration time by means of parameter **P16**.

These settings remain active until another cycle is selected. The hard chill process switches from the first step to the second step once the period of time established by parameter **P18** has elapsed.

To start the cycle:

•press **B1** 

When the chill duration time has elapsed, the buzzer is activated for the length of time set by parameter **P55** and the device switches to storage mode.

To interrupt the cycle:

•press **B1** 

5.6 Normal timed chilling and storage cycle

To select the cycle:

ensure the device is in "off" mode and no procedures are running

•press **B8**  : display **DY1** will show the operational setpoint and LED **L8** will switch on.

To alter the operational setpoint:

•press **B4**  or **B6** 

It is also possible to set the operational setpoint by means of parameter P4.

•press **B3**  : display **DY2** will show the duration of the chilling step and LED **L3** will be switched on.

To alter the duration of the chilling step:

•press **B4**  or **B6** 

It is also possible to set the chill duration time by means of parameter **P16**.

These settings remain active until another cycle is selected.

To start the cycle:

•press **B1** 

When the chill duration time has elapsed, the buzzer is activated for the length of time set by parameter **P55** and the device switches to storage mode.

To interrupt the cycle:

•press **B1** 

5.7 Timed freezing and storage cycle

To select the cycle:

•ensure the device is in "off" mode and no procedures are running

•press **B9**  : display **DY1** will show the operational set point and LED **L9** will switch on.

To alter the operational set point:

•press **B4**  or **B6** 

It is also possible to set the operational set point by means of parameter **P5**.

•press **B3**  :

display **DY2** will show the duration of the freezing step LED **L3** will be switched on.

To alter the duration of the freezing step:

•press **B4**  or **B6** 

It is also possible to set the freeze duration time by means of parameter **P17**.
These settings remain active until another cycle is selected.

To start the cycle:

•press **B1** 

When the freezing step duration time has elapsed, the buzzer is activated for the length of time set by parameter **P55** and the device switches to storage mode.

To interrupt the cycle:

•press **B1** 

5.8 Storage, selection and starting a program

The device allows storage of operation cycle settings in programs; up to 99 programs can be stored.

To store a program:

•proceed as described in paragraphs 3.5, 3.6 or 3.7 without starting the cycle

•press **B12**  for 5 s: display **DY1** will show the label of the first unused program

•press **B4**  or **B6**  to select another label

•press **B12**  for 5 s: the device will store the program and exit from the procedure (any programs with the same label will be overwritten).

To select and start a stored program:

•ensure the device is in "stand-by" mode and no procedures are running

•press**B12**  : display **DY1** will show the label of the first program

•press **B4**  or **B6**  to select a program

•press **B1** 

To display the label of the current program:

•press **B12** 

5.9 Additional functions accessible during operational cycles

To display the cabinet temperature during a set-temperature chilling step or during a set-temperature freezing step:

•press the key relating to the current cycle: display **DY1** displays the cabinet temperature for 5 s.

To display the temperature detected by the needle probe during a timed chilling step, timed freezing step or during storage:

•press **B2**  : display **DY1** shows the temperature measured by the needle probe for 5s.

To display the time elapsed since starting a chilling or freezing step:

•press **B4**  : display **DY2** shows the elapsed time for 5 s.

If the key is pressed during the storage phase, display **DY2** will show the effective duration of the chilling or freezing process

6. SETTINGS

6.1 Setting the date and time

To access the procedure:

- ensure the device is in "off" mode and no procedures are running

To alter the date and time:

- press **B3**  for 5 s: display **DY1** will show "YY" and display **DY2** will show the last two digits corresponding to the year
- press **B4**  or **B6**  to change the year
- press **B3**  : display **DY1** will show "NN" and display **DY2** will show the digits corresponding to the month (the month is displayed in 12 month format)
- press **B4**  or **B6**  to change the month
- press **B3**  : display **DY1** will show "dd" and display **DY2** will show the digits corresponding to the day (days are displayed in 31 day format)
- press **B4**  or **B6**  to change the day
- press **B3**  : display **DY1** will show "hh" and display **DY2** will show the digits corresponding to the hour (hours are displayed in 24 hour format)
- press **B4**  or **B6**  to change the hour
- press **B3**  : display **DY1** will show "nn" and display **DY2** will show the digits corresponding to the minutes
- press **B4**  or **B6**  to change the minutes

•press **B3**  : the device will exit the procedure.

6.2 Setting the configuration parameters

To access the procedure:

•ensure the device is in "off" mode and no procedures are running

•press **B4**  + **B6**  for 5 s: display **DY1** will show "PA" and display **DY2** will show the corresponding value.

To select a parameter:

•press **B4**  or **B6** 

To modify a parameter:

•press **B3**  : LED **L3** will be switched on

•press **B4**  or **B6**  within 60 s

•press **B3** 

To exit the procedure:

•press **B4**  + **B6**  for 5s.

7. HACCP

7.1 Introductory information

The device is capable of storing up to 10 HACCP alarms, after which the most recent alarm will overwrite the oldest.

The device can furnish the following information:

- •the critical value
- •the date and time at which the alarm occurred
- •the alarm duration (from 1 minute to 999 minutes, " - - -" if the alarm is ongoing).

CODE	ALARM TYPE (AND CRITICAL VALUE)
Er0	cabinet probe error (the temperature of the cabinet when the alarm condition occurred)
Er1	evaporator probe alarm (the maximum cabinet temperature during the alarm condition)
Er3	needle probe alarm (the maximum cabinet temperature during the alarm condition)
AL	minimum) cabinet temperature alarm (the minimum cabinet temperature during the alarm condition)
AH	maximum) cabinet temperature alarm (the maximum cabinet temperature during the alarm condition)
Ht	condenser temperature alarm (the maximum cabinet temperature during the alarm condition)
d - r	micro port input alarm (the maximum cabinet temperature during the alarm condition)
HP	high pressure input alarm (the maximum cabinet temperature during the alarm condition)
LP	low pressure input alarm (the maximum cabinet temperature during the alarm condition)
HA	compressor thermal protection input alarm (the maximum cabinet temperature during the alarm condition)

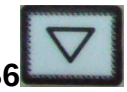
7.2 Viewing HACCP alarm information

Viewing HACCP alarm information:

•ensure the device is in "off" mode and no procedures are running

•press **B12**  for 5 s: display DY1 will show "Prt".

To select an alarm:

•press **B4**  or **B6**  display **DY1** will show the number of the alarm (for example "n03") and display DY2 will show the relevant code (for example "AH", or one of the codes
reported in the table in section 5.1; the lower the number, the older the alarm itself).

To display the information relating to the alarm:

•press **B3**  repeatedly: the display will show the following information in sequence (for example):

INFO	MEANING
St **y07**	on display DY1 on display DY2 The alarm occurred in 2007 (continued ...)
M03 **d26**	on display DY1 on display DY2 The alarm occurred on 26 March 2007
h16 **d30**	on display DY1 on display DY2 The alarm occurred at 4:30pm
t **8**	on display DY1 on display DY2 The critical value is 8 ℃/8 ℉
dur **75**	on display DY1 on display DY2 The alarm has lasted for 75 minutes
DY1 **AH**	on display DY1 on display DY2 The selected alarm

LED **L13** provides information relating to the status of the HACCP alarm memory; please refer to section 7.1.

To exit the information series:

•press **B4**  or **B6**  display **DY1** will show the number of another alarm and display **DY2** will show the corresponding code.

To exit the procedure:

•press **B12**  for 5 s.

7.3 Deleting the HACCP alarm list

•set parameter **P73** to 1.

8. DATA PRINTING

8.1 Introductory information

The device has a serial port for communicating with the PM 100AX9S001 print module.

8.2 Connecting the PM 100A X9S001 print module

Connecting the PM 100A X9S001 print module:

•ensure that parameter **P71** is set to 1

•ensure that the print module baud rate is set to 9,600 baud

•ensure that the module parity is set to odd.

8.3 Printing operational cycle information

Printing operational cycle information:

•operational cycle start date

•operational cycle or program type (or one of the codes listed in the table below)

CODE	MEANING
T>>>*	hard set-temperature chilling and storage
T*	normal set-temperature chilling and storage
T***	set-temperature freezing and storage
t>>>*	hard timed chilling and storage
t*	timed normal chilling and storage
t***	timed freezing and storage
P01...99	program 01 ... 99

•printing time

•cabinet temperature (**Pr1**)

•temperature measured by the needle probe (**Pr2**, only if the operational cycle is a set-temperature cycle)

•time of switchover to storage mode

•time of any operational cycle interruption.

Printing of the temperature occurs at operational cycle start, and at intervals (see parameter **P72**).

8.4 Printing HACCP alarm information

The module prints the information reported in the table in section 5.2.

To print the information relating to the alarms:

•ensure the device is in "off" mode and no procedures are running

•press **B12**  for 5 s: display DY1 will show "Prt"

•press **B12** 

To exit the procedure:

•press **B12**  for 5 s.

9. MAINTENANCE AND CLEANING

WARNING !!!
THESE OPERATIONS MUST BE PERFORMED BY A CERTIFIED INSTALLATION TECHNICIAN ONLY.

The information and instructions given in this section address all persons operating the appliance: the user, the maintenance technician and non-specialised personnel. **Ensure that the electrical power to the system has been disconnected before carrying out any cleaning or maintenance work on the appliance.**

9.1 GENERAL SAFETY REGULATIONS

Recall the following regulations to ensure that all cleaning and routine maintenance operations are conducted safely.

- do not touch the machine with moist or wet hands or feet;
- never operate the machine while barefoot;
- do not insert screwdrivers, cooking utensils or any other object between the guards and moving parts.
- before performing cleaning or routine maintenance operations, disconnect the machine from the power supply at the master switch and by pulling out the plug;
- never pull on the power cable to .disconnect the machine from the power .supply.

Removal of guards and safety devices for the purposes of routine maintenance is strictly prohibited. The manufacturer declines all responsibility for accidents causedby failure to observe the above regulation.

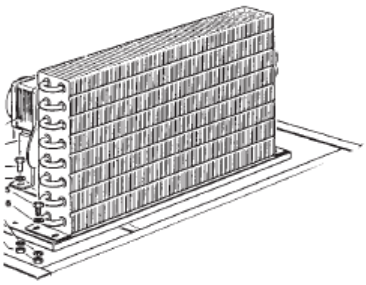
Before starting up the appliance, clean the inside of the cell thoroughly, as described in par. 8.3.

9.2 CLEANING THE CONDENSER

To ensure correct and efficient air condenser operation, it must be kept clean to allow free circulation of air. This operation should be performed at least once a month. Use a non-metal brush to remove all dust and debris from the condenser blades.

Use a vacuum cleaner to prevent the dust removed from being dispersed in the surrounding area. To remove greasy deposits, use a brush dipped in alcohol.

NEVER USE POINTED OR ABRASIVE INSTRUMENTS TO SCRAPE APPLIANCE SURFACES.



PERFORM THIS OPERATION ONLY AFTER THE APPLIANCE HAS BEEN SHUT DOWN

IMPORTANT
The condenser has sharp edges. Always wear protective gloves, goggles and masks when carrying out the above operations

9.3 CLEANING THE CELL
To guarantee hygiene and ensure the quality of processed foods, clean the interior of the cell frequently, according to the type of food stored.

Weekly cleaning is recommended.

The cell interior and components can be cleaned with a soft cloth or sponge.

Clean with water and non-abrasive neutral detergents. Rinse with a damp cloth or sponge, or with a gentle jet of water (no stronger than mains pressure). Do not use pointed or abrasive instruments to scrape appliance surfaces. NEVER USE ABRASIVE FLUIDS, SOLVENTS OR THINNERS

NB Always wear protective gloves while cleaning.

How to access the evaporator for cleaning.
It is possible to gain access to the inside part of the evaporator, to perform the cleaning of the same, by removing the screws located on the front fan panel (T14-Pict.1, T5-Pict.3) and opening it to the right side for T14 (Pict.2), or removing the panel on model T 5. (Pict.4)

Fig. 1

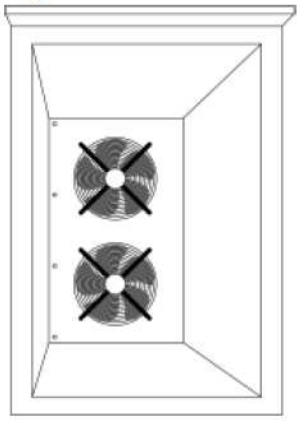


Fig . 2

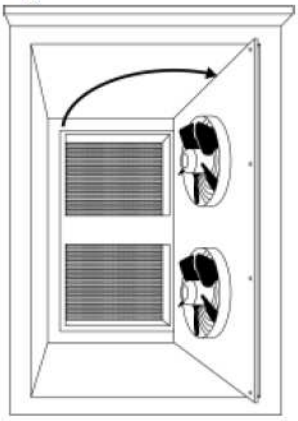


Fig . 3

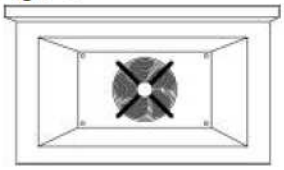
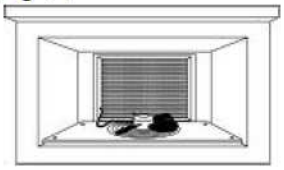


Fig . 4



Periodically, provide to clean the evaporator, using nebulized hot water at low pressure, and addressing the water throw on the evaporator battery

Finished the cleaning, provide to dry the evaporator using air pressure in order to desiccate and remove the residues of presence of water . After that refit the fan panel in proper position.

To carefully clean with a cloth the surfaces adjacent to the evaporator and provide to reassemble the frontal fans panel.

Important: Before starting the machine pls
verify to have removed the equipments used in precedence for the cleaning.

10. MESSAGES AND INDICATIONS

10.1 Messages

L1	“on”/”stand-by” LED if on, a chilling or freezing operation is ongoing if flashing, a storage operation is ongoing	**L2**	needle probe LED if on, the temperature measured by the needle probe is being displayed if flashing, then the result of the test to verify correct needle probe insertion was negative; the cycle will be started in timed mode and the buzzer will emit 5 beeps every 10 s
L3	timed operation cycle LED if on, a timed operation cycle will have been selected (or is ongoing	**L7**	hard chill LED if on: •a hard chill operation will have been selected •the first step of a hard chill operation is ongoing •modification of the hard chill first step operational setpoint is underway if flashing: •modification of the hard chill second step operational setpoint is underway •the second step of a hard chill operation is in progress
L8	normal chilling LED if on, a normal chill operation has been selected (or is ongoing	**L9**	freezing LED if on, a freezing operation has been selected (or is ongoing)
L10	UV light (cabinet sterilisation) LED if on, the UV light is on (a cabinet sterilisation operation is ongoing)	**L11**	defrosting LED if on, defrosting is ongoing
L12	program LED if on, program storing, selection or execution is ongoing	**L13**	HACCP LED if on, program storing, selection or execution is ongoing

10.2 Indications

dEF	if on, defrosting is ongoing if flashing, drip-draining is ongoing

11. ALARMS

11.1 Alarms

AL	Minimum cabinet temperature alarm Remedies: •check the cabinet temperature •see parameters P64 and P66 Consequences: •the alarm output will be activated	**AH**	Maximum cabinet temperature alarm Remedies: •check the cabinet temperature •see parameters P65 and P67 Consequences: •the alarm output will be activated
Ht	Condenser temperature alarm Remedies: •check the condenser temperature •see parameter P62 Consequences: •the operational cycle will be interrupted •it will not be possible to start any operational cycles •the condenser fan will be switched on •the alarm output will be activated	**d - r**	Micro-port input alarm Remedies: •check the causes of the input activation •see parameter P38 Consequences if the alarm occurs while in "on" mode: •the compressor will be shut down •if parameter P37 is set to 1, the evaporator fan will be switched off •if parameter P59 is set to 0, the cabinet light will be switched on •the condenser fan will be switched off •if the UV light is on (i.e. if cabinet sterilisation is ongoing), the UV light will be switched off
HP	High pressure input alarm Remedies: •check the causes of the input activation •see parameter P40 Consequences: •the operational cycle will be interrupted •the loads will be switched off •it will not be possible to start any operational cycles •the alarm output will be activated	**LP**	Low pressure input alarm Remedies: •check the causes of the input activation •see parameter P42 Consequences: •the operational cycle will be interrupted •the loads will be switched off •it will not be possible to start any operational

	Compressor thermal protection input alarm Remedies: •check the causes of the input activation •see parameter P44
HA	Consequences: •the operational cycle will be interrupted •the loads will be switched off •it will not be possible to start any operational cycles •the alarm output will be activated
	Power failure during an operational cycle Remedies: •check the causes of the input activation
rES	Consequences: •the operational cycle will be restored from the point where the power failure occurred

When the cause that triggered the alarm has been resolved, the device restores normal operation.

12 INTERNAL DIAGNOSTICS

12.1 Internal diagnostics

Er0	Cabinet probe error Remedies: •see parameter P60 •check probe integrity •check probe-device connection •check the cabinet temperature Consequences: •the operational cycle will be interrupted •the loads will be switched off •it will not be possible to start any operational cycles •the alarm output will be activated	**Er1**	Evaporator probe error Remedies: •the same as for the previous case, but in relation to the evaporator probe Consequences: •defrosting will last for the length of time set by parameter P24 •the evaporator fan will be switched off during storage •the alarm output will be activated
Er3	Needle probe error Remedies: •the same as for the previous case, but in relation to the needle probe Consequences: •if a set-temperature chilling or freezing operation is ongoing, the operational cycle will be interrupted •it will not be possible to start any set-temperature operational cycles •the alarm output will be activated		
Err	User interface-module communication error Remedies: •check the user interface-module connection Consequences: •if an operational cycle is ongoing, the device will continue to function normally •it will not be possible to start any operational cycles		

When the cause that triggered the alarm has been resolved, the device restores normal operation.