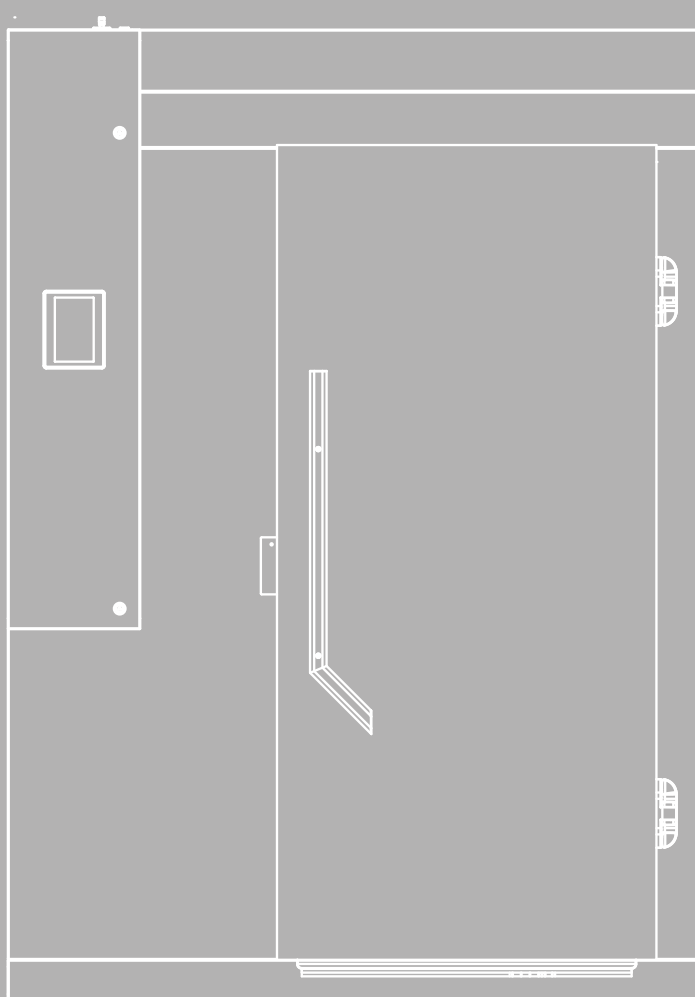


Quick-start guide

INDUSTRY



Review	00
Edition	01



NUOVAIR
INNOVATORS OF REFRIGERATION

Description of the display

The commands for setting, adjusting or displaying the functions are located on the lower section, on the upper section and on the central part of the display (Fig.3)

Description of the standard symbols:

- 1 - Returns to the previous page
- 2 - Access to all the functions and settings of the blast chiller
- 3 - If flashing, displays the current alarms
- 4 - Displays useful information related to the cycle
- 5 - Defrost cycle
- 6 - Displays the time
- 7 - Displays the date (day/month/year)
- 8 - Displays all the functions
- 9 - Displays the function or cycle in progress
- 10 - Returns to the home page
- 11 - "Lock screen" button, when pressed, displays the screen shown in fig. 4

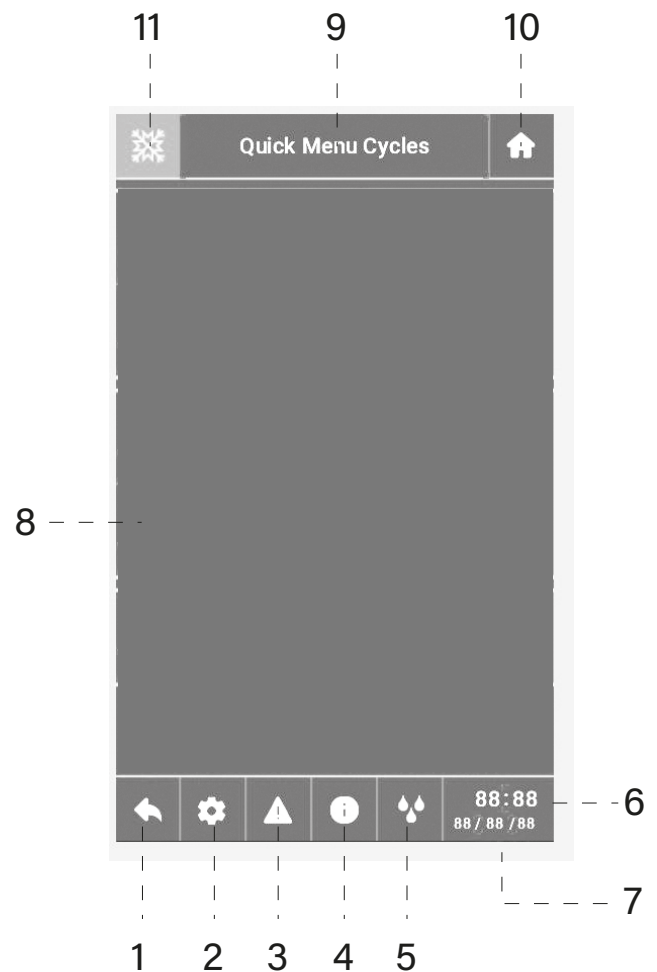


figure 3

Lock screen (Fig. 4).

To unlock the screen, press the display for 2 seconds.

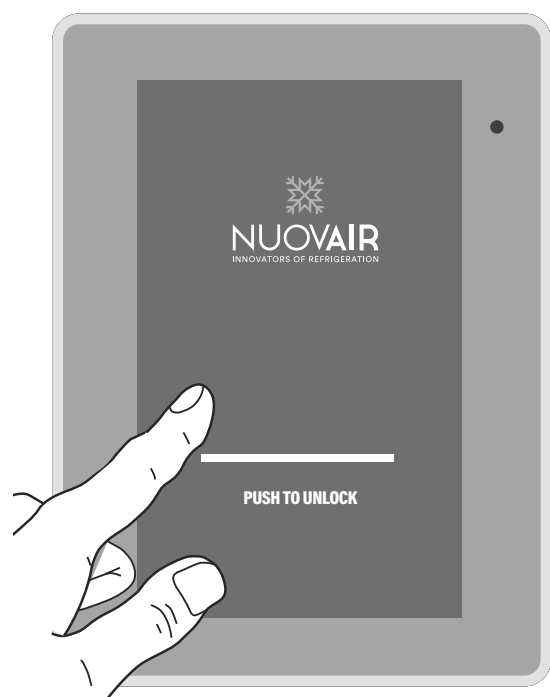


figure 4

5.1 First start-up

After turning on the main blast chiller switch, the display lights up. Wait a few minutes for the software to load, until the screen in Fig. 5 appears. Then set all the required data.

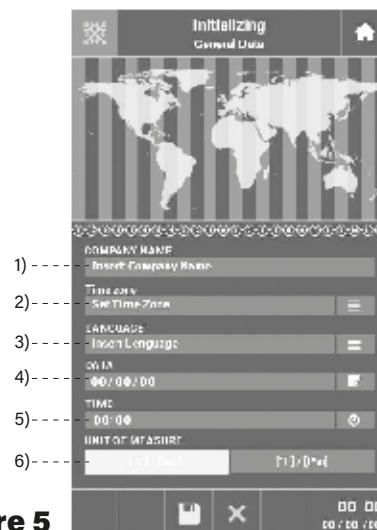


figure 5

5.1.1 Entering the company name

By selecting "Company Name" (figure 6), a keyboard appears on the display which you can use to type the name, when finished, press "enter" to confirm, or "Esc" to exit.

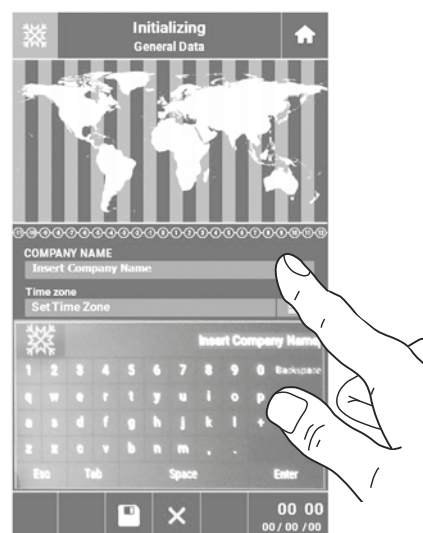


figure 6

5.1.2 Setting the time zone

By selecting "Time zone", the screen shown in fig. 7 appears and you can choose the country in which the blast chiller is used.

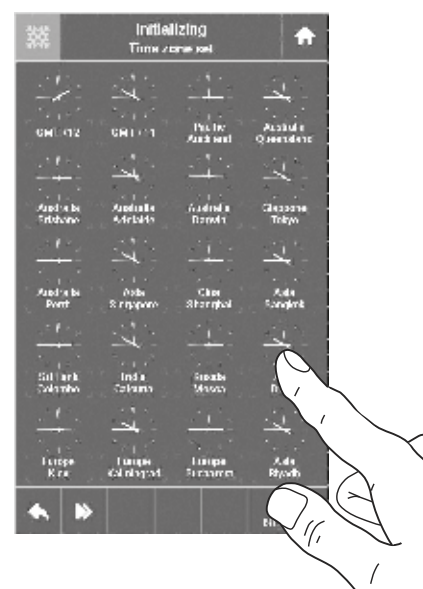


figure 7

5.1.3 Language selection

By selecting "Language", the screen in figure 8. is displayed.
Choose the desired language.

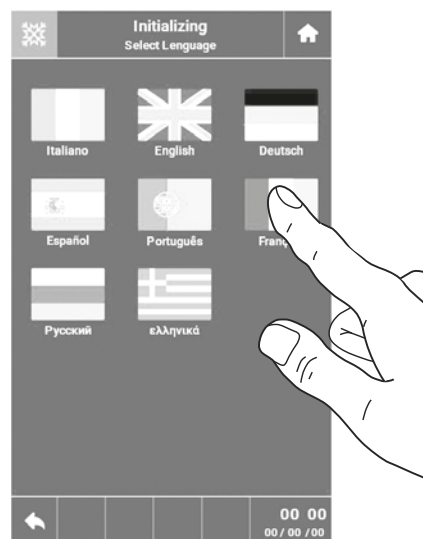


figure 8

5.1.4 Date and time settings

By selecting "Date" or "Time", the screen in figure 9 is displayed.

Set the time (hours and minutes) using the keys  

To set the date, press on the various fields, the keyboard with which you set the current day, month and year will appear on the display.

By pressing the button  the set data will be saved automatically

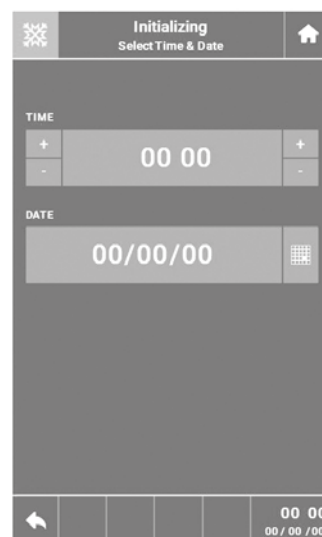


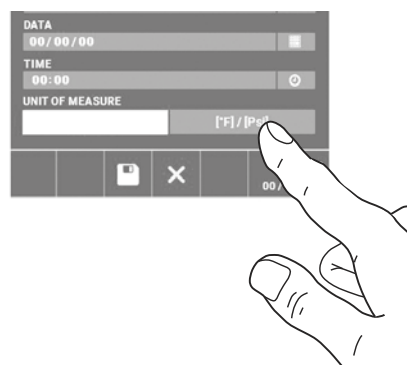
figure 9

5.1.5 Selecting Units of Measurement

Choose the unit of measurement of the temperature with which you want to work by pressing the °C or °F key (figure 10).

Press the symbol  to save all the settings entered (figure 10).

figure 10



5.2 Description of the cycles

BLAST CHILLING CYCLES +3°C

Pasta/Rice
Bread
Vegetables
Meat/Fish
Soups/Sauces
Cakes +3
Creams +3
Creams +25
Cream puffs +3
Quiche +3
Croissants +3
Croissants +16
Pizza +3
Sushi +3
Tartare +3
Lettuce dryer +10
Lasagna +3
Fish (+3)
Meat +3

FREEZING CYCLES -18°C

Pasta/Rice
Bread
Vegetables
Meat/Fish
Soups/Sauces
Cakes -18
Petit fours -18
Creams -18
Cream puffs -18
Ice Cream -18
Chocolate -8
Croissant -18
Pizza -18
Raw bread -18
Fresh Pasta -18
Remove from the mould -18
Kebab -18
Shellfish -18
Tuna -18

MY CICLE

My cycle1
My cycle2
My cycle3

My cycle24



5.2.1 Description of the BLAST CHILLING cycles

 +3 SOFT	1 - SOFT CHILLING Suitable for all delicate or thin products such as vegetables, pastries, bread, rice, and pasta. It gently cools the product with chamber temperatures around 0°C. The cycle is finished when the product has reached +3°C at the core or at the end of the set time.
 +3 HARD	2 - HARD CHILLING Suitable for all fatty or thick products such as meats, soups, and pies. It quickly cools the product with chamber temperatures below 0°C. The cycle is finished when the product has reached +3°C at the centre or at the end of the set time.
 BREAD	3 - BREAD Suitable for all cooked products coming straight from a bread oven, the product is chilled to +3°C with various temperature steps avoiding the igloo effect and retaining the moisture of the product. The cycle is finished when the product has reached +3°C at the core or at the end of the set time.
 PIZZA	4 - PIZZA Suitable for cooked pizzas of any thickness coming straight from an oven, the product is chilled to +3°C with various temperature steps, avoiding the igloo effect and retaining the moisture of the product. The cycle is finished when the product has reached +3°C at the core or at the end of the set time.
 QUICHE +3	5 - QUICHE Suitable for cooked quiches of any thickness coming straight from an oven, the product is chilled to +3°C with various temperature steps, avoiding the igloo effect and retaining the moisture of the product. The cycle is finished when the product has reached +3°C at the core or at the end of the set time.
 MEAT/FISH	6 - MEAT / FISH Suitable for cooked meat and fish of any thickness coming straight from an oven, the product is chilled to +3°C with various temperature steps, avoiding the igloo effect and retaining the moisture of the product. The cycle is finished when the product has reached +3°C at the core or at the end of the set time.
 SOUPS / SAUCES	7 - SOAPS / SAUCES Suitable for hot soups and sauces, the product is chilled to +3°C with various temperature steps, avoiding the igloo effect and retaining the moisture of the product. The cycle is finished when the product has reached +3°C at the core or at the end of the set time.
 FISH +3	8 - FISH Suitable for all types of cooked fish or shellfish. It gently cools the product with chamber temperatures around 0°C. The cycle is finished when the product has reached +3°C at the core or at the end of the set time.
 SUSHI +3	9 - SUSHI Suitable for SUSHI, SASHIMI. It gently cools the product with chamber temperatures around 0°C and with variable ventilation. This prevents oxidation of the product and maintains its freshness. The cycle is finished when the product has reached +3°C at the core or at the end of the set time.
 TARTARE +3	10 - TARTARE Suitable for raw meat or fish tartare. It gently cools the product with chamber temperatures around 0°C and with variable ventilation. This prevents oxidation of the product and maintains its freshness. The cycle is finished when the product has reached +3°C at the core or at the end of the set time.
 MEAT +3	11 - MEAT Suitable for cooked meat of any thickness coming straight from an oven, the product is chilled to +3°C with various temperature steps, avoiding the igloo effect and retaining the moisture of the product. The cycle is finished when the product has reached +3°C at the core or at the end of the set time.



LASAGNE +3

12 - LASAGNE

Suitable for meat and fish in puff pastry, cooked lasagna, the product is chilled to + 3°C with various temperature steps, avoiding the igloo effect and retaining the moisture of the product. The cycle is finished when the product has reached +3°C at the core or at the end of the set time.



VEGETABLE

13 - VEGETABLE

Suitable for all types of cooked vegetables. It gently cools the product with chamber temperatures around 0°C and with variable ventilation. This prevents oxidation of the product and maintains its freshness. The cycle is finished when the product has reached +3°C at the core or at the end of the set time.



CAKES +3

14 - CAKES

Suitable for all types of cakes or tarts. It gently cools the product with chamber temperatures around 0°C and with variable ventilation. This prevents oxidation of the product and maintains its freshness. The cycle is finished when the product has reached +3°C at the core or at the end of the set time.



CREME +3

15 - CREME +3

Suitable for all types of creams. It gently cools the product with chamber temperatures around 0°C and with variable ventilation. This prevents oxidation of the product and maintains its freshness. The cycle is finished when the product has reached +3°C at the core or at the end of the set time.



CREME +25

16 - CREME +25

Suitable for all types of hot creams to be cooled for immediate use. It gently cools the product with chamber temperatures around 0°C and with variable ventilation. The cycle is finished when the product has reached +25°C at the core or at the end of the set time.



BIGNE' +3

17 - BIGNE'

Suitable for all types of hot cream puffs. It gently cools the product with chamber temperatures around 0°C and with variable ventilation. It retains the moisture of the product. The cycle is finished when the product has reached +3°C at the core or at the end of the set time.



CROISSANT +3

18 - CROISSANT +3

Suitable for all types of brioche, croissants or warm leavened products. It gently cools the product with chamber temperatures around 0°C and with variable ventilation. It retains the moisture of the product. The cycle is finished when the product has reached +3°C at the core or at the end of the set time.



CROISSANT +16

19 - CROISSANT +16

Suitable for all types of brioche, croissants or warm leavened products for immediate consumption. It gently cools the product with chamber temperatures around 0°C and with variable ventilation. It retains the moisture of the product. The cycle is finished when the product has reached +3°C at the core or at the end of the set time.



DRY LETTUCE

20 - DRY LETTUCE

Suitable for lettuce. It cools and dries the product correctly avoiding bacterial proliferation, extending its freshness. Temperatures above 0°C and with reduced ventilation. The cycle is finished when the product has reached +10°C at the core or at the end of the set time.



PASTA/RICE

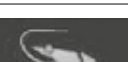
21 - PASTA/RICE

Suitable for all types of cooked pasta and rice. It gently cools the product with chamber temperatures around 0°C. The cycle is finished when the product has reached +3°C at the core or at the end of the set time.

**22 - 23 - 24 - MY CYCLE 1-2-3**

Customisable cycles: product temperatures, chamber temperatures, phases, times and ventilation can be set.

5.2.2 Description of the FREEZING cycles

 SOFT FREEZING	1 - SOFT FREEZING Suitable for all hot and raw delicate products. It gently freezes the product with positive temperatures in the first phase and negative in the second phase. It prevents the igloo effect. The cycle is finished when the product has reached -18°C at the core or at the end of the set time.
 HARD FREEZING	2 - HARD FREEZING Suitable for fatty or thick raw or cold products such as meats, soups, and pies. It quickly freezes the product with temperatures always below zero. The cycle is finished when the product has reached -18°C at the core or at the end of the set time.
 BREAD	3 - BREAD Suitable for all raw or cooked bakery products, the product is frozen at -15°C with various temperature steps, avoiding the igloo effect and retaining the moisture of the product. The cycle is finished when the product has reached -18°C at the core or at the end of the set time.
 PIZZA	4 - PIZZA Suitable for all types of raw or cooked pizza. It gently freezes the product with positive temperatures in the first phase and negative in the second phase. It prevents the igloo effect and keeps the yeasts intact. The cycle is finished when the product has reached -18°C at the core or at the end of the set time.
 RAW BREAD	5 - RAW BREAD Suitable for all types of raw bread and focaccia. It gently freezes the product with positive temperatures in the first phase and negative in the second phase. It keeps the yeasts intact. The cycle is finished when the product has reached -18°C at the core or at the end of the set time.
 FRESH PASTA	6 - FRESH PASTA Suitable for all types of fresh pasta. It gently freezes the product with positive temperatures in the first phase and negative in the second phase. It keeps the structure intact and avoids oxidation. The cycle is finished when the product has reached -18°C at the core or at the end of the set time.
 MEAT/FISH	7 - MEAT / FISH Suitable for cooked or raw meat and fish, the product is frozen at -18°C with various temperature steps, avoiding the igloo effect and retaining the moisture of the product. The cycle is finished when the product has reached -18°C at the core or at the end of the set time.
 SOUPS / SAUCES	8 - SOAPS / SAUCES Suitable for very hot soups and sauces, the product is frozen at -18°C with various temperature steps, avoiding the igloo effect and retaining the moisture of the product. The cycle is finished when the product has reached -18°C at the core or at the end of the set time.
 KEBAB	9 - KEBAB Suitable for thick, raw or cooked meat, the product is frozen at -18°C with various temperature steps, avoiding the igloo effect and retaining the moisture of the product. The cycle is finished when the product has reached -18°C at the core or at the end of the set time.
 SEAFOOD	10 - SEAFOOD Suitable for all types of cooked fish or shellfish. The product is gently frozen with various temperature steps. The cycle is finished when the product has reached -18°C at the core or at the end of the set time.
 TUNA	11 - TUNA Suitable for raw tuna. The product is frozen with temperatures around -40°C, this allows the fixing of the colour and avoiding oxidation. The cycle is finished when the product has reached -18°C at the core or at the end of the set time.



VEGETABLE

12 - VEGETABLE

Suitable for all types of cooked and raw vegetables. The product is gently frozen avoiding the oxidation of the product and completely retaining its freshness. The cycle is finished when the product has reached -18°C at the core or at the end of the set time.



CAKES

13 - CAKES

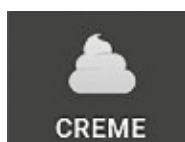
Suitable for all types of cakes or tarts. The product is gently frozen with negative chamber temperatures and variable ventilation. This prevents oxidation of the product and maintains its freshness. The cycle is finished when the product has reached -18°C at the core or at the end of the set time.



MIGNON

14 - MIGNON

Suitable for petit fours. The product is gently frozen with negative chamber temperatures and variable ventilation. This prevents oxidation of the product and maintains its freshness. The cycle is finished when the product has reached -18°C at the core or at the end of the set time.



CREME

15 - CREME

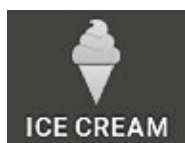
Suitable for all types of creams. The product is frozen with negative temperatures and variable ventilation. This prevents oxidation of the product and maintains its freshness. The cycle is finished when the product has reached -18°C at the core or at the end of the set time.



BIGNE'

16 - BIGNE'

Suitable for cream puffs. The product is frozen with negative temperatures and variable ventilation. This prevents oxidation of the product and maintains its freshness. The cycle is finished when the product has reached -18°C at the core or at the end of the set time.



ICE CREAM

17 - ICECREAM

Suitable for ice cream, sorbet. The product is frozen with temperatures down to -40°C in the chamber. Suitable for freezing ice cream or for thermal shock. The cycle is finished when the product has reached -18°C at the core or at the end of the set time.



CHOCOLATE

18 - CHOCOLATE

Suitable for all types of chocolate. It hardens the product allowing decoration. The cycle is finished when the product has reached -8°C at the core or at the end of the set time.



CROISSANT

19 - CROISSANT

Suitable for all types of brioches, croissants or warm and raw leavened products. The product is gently frozen with negative chamber temperatures and variable ventilation. It retains the moisture of the product. The cycle is finished when the product has reached -18°C at the core or at the end of the set time.

EXTRACT FROM
MOLD**20 - EXT. FROM MOLD**

Suitable for cooling products inside moulds to aid their removal.



PASTA/RICE

21 - PASTA / RICE

Suitable for all types of cooked or raw pasta and rice. The product is gently frozen with variable chamber temperatures. It avoids the dehydration of the product thus retaining its properties. The cycle is finished when the product has reached -18°C at the core or at the end of the set time.

**22 - 23 - 24 - MY CYCLE 1-2-3**

Customisable cycles: product temperatures, chamber temperatures, phases, times and ventilation can be set.

5.4 Operating modes

There are 2 operating modes:

- 1) **FULL MODE version (72 cycles)**
- 2) **EASY MODE version**

1) FULL MODE version 72 cycles (figure 11)

With this graphic display we can select a total of 72 cycles divided by categories:

- 24 Blast chilling cycles
- 24 Freezing cycles
- 24 Customised cycles

The home screen (figure 11) displays the cycles that are most used, the customer will be able to decide the cycles to be displayed on this page according to their needs.

By pressing on the side section (+3 Blast chilling) or (-18 Freezing), the screen in fig. 12 with all programmed blast chilling or freezing cycles will appear.

All these cycles can be displayed, moved, changed, duplicated or restored using the appropriate keys (see Fig. 12).

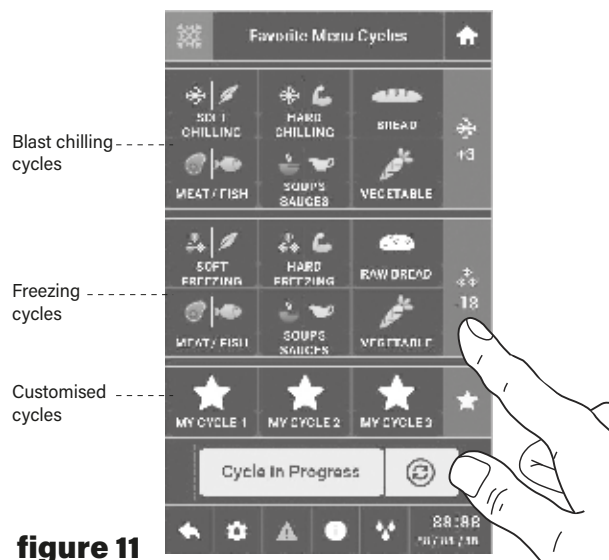


figure 11

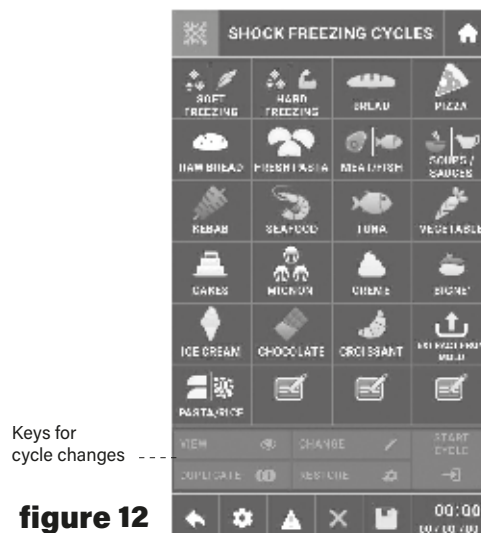


figure 12

2) EASY Mode version (figure 13)

- no. 2 blast chilling programs +3°C "Soft" and "Hard"
- no. 2 freezing programs -18°C "Soft" and "Hard"

These programs are already preset and are NOT editable and can not be changed.

Press the selected cycle and start it by using the "START" button.

The blast chiller starts in timer mode, but during processing it can also be switched to the core temperature mode.



figure 13

5.4.1 Blast chilling/Freezing in FULL MODE (72 cycles)

To start a blast chilling or freezing cycle, select a pre-set cycle on the Home screen or press on the side section +3 or -18 to display all the preset blast chilling or freezing cycles (Fig. 14).

Select the desired cycle and start it by pressing the "START CYCLE" button. (Figure 15).

The operation screen of the selected cycle will appear on the display (Figure 16).

CYCLE OPERATION

The cycle can be started with time priority by selecting the icon  or with temperature priority at the core of the product by selecting the icon . This operation can also be performed when the cycle is started.

It is possible to change the cycle time by dragging the time selector (figure 16), or by clicking on the clock on the side of the time selector.

By dragging the time selector to the end of the run, the machine operates in infinite cycle (max time: 4 days).

Furthermore, the air speed inside the chamber can also be changed by dragging the fan selector (figure 16), or by clicking on the numerical value on the side of the selector.

To start the cycle, keep the key  pressed for more than one second. The indicator changes colour and the time and fan bars start.

Once the cycle has started, the icon  will be displayed by clicking on this icon, it is possible to view or change the parameters of the cycle in progress. To set as default and therefore to save these changes, press the icon , otherwise the values will be automatically restored at the next restart of the cycle.



figure 14



figure 15

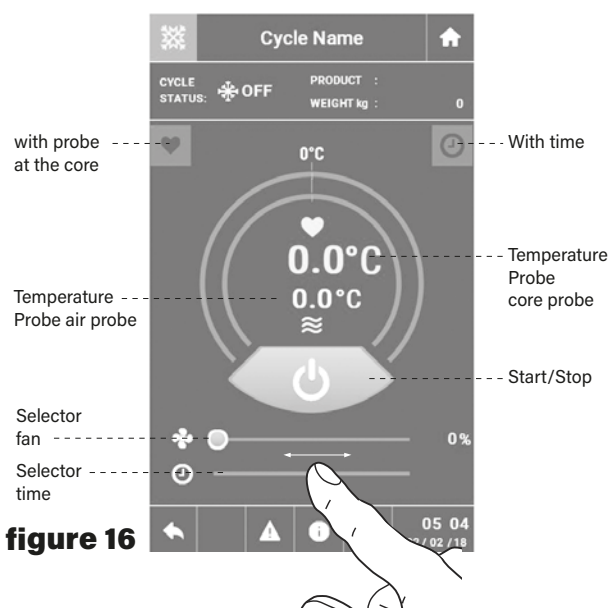


figure 16

5.4.2 Cycle changes and adjustments preset blast chilling

Replacing a blast chilling/freezing cycle highlighted on the home screen

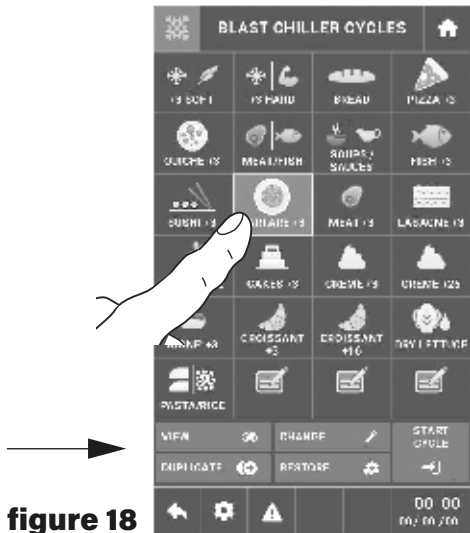
To replace a preset blast chilling/freezing cycle on the home screen, press the cycle that you want to replace from the home for 2 seconds (fig.17), the screen in figure 18 will appear, select the cycle you want to highlight on the home screen and press the icon  to save.

figure 17



By using the buttons shown in Figure 18, it is possible to display, duplicate, change or restore the blast chilling or freezing cycles;

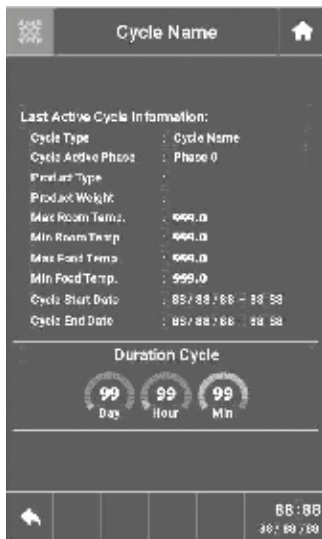
figure 18



Displaying a blast chilling/freezing cycle

To display the contents of a blast chilling or freezing cycle, enter the cycles screen, select the cycle to display and press the  button, all information related to that cycle will appear (figure 19).

figure 19



Duplicating a blast chilling/freezing cycle

To duplicate a blast chilling or freezing cycle enter the cycles screen,

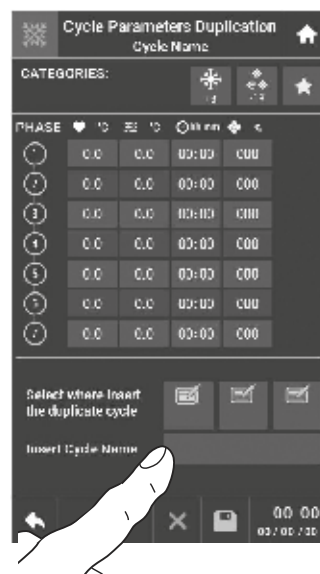
select the cycle to duplicate and press 

The screen in figure 20 will appear, select the position in which to insert the cycle to duplicate and then enter the name of the duplicated cycle.

Before saving the duplicated cycle, you can also change one or more parameters displayed on the screen.

Then press the icon  to save the duplicated cycle.

figure 20



Changing parameters of a blast chilling/freezing cycle

To change the parameters of a blast chilling or freezing cycle, enter the cycles screen,

select the cycle

to change and press the  button

the screen of figure 21 will appear.

Change the content and press the icon  to save changes.

figure 21



Restoring a blast chilling/freezing cycle

To restore a blast chilling or freezing cycle enter the cycles screen, select the cycle

to restore and press the button 

The screen of figure 22 will appear, it is possible to restore any previously changed cycle to the factory settings.

The cycle name to restore will appear, confirm and press the icon  to save.

figure 22



5.5 Blast chilling operation EASY MODE

To use the blast chiller Easy Mode, it is necessary to enable the operation in the "OPERATOR PARAMETERS" menu.

By pressing the symbol  on the Home screen, you access the settings screen (figure 23). Press "Operator Settings".

To access the screen in figure 24, the operator password 33333 must be entered.

Then press "Enabling Easy Mode" to access the screen in figure 25.

Enable the Easy Mode button and then press the home page button.

The screen that will appear is that of the "EASY MODE" system of figure 26.

- no. 2 blast chilling programs +3°C "Soft" and "Hard"
- no. 2 freezing programs -18°C "Soft" and "Hard"

These programs ARE NOT EDITABLE and can not be changed.

Press the selected cycle and start it with the "START" button, the display will show the operation screen of the selected program (figure 27).

CYCLE OPERATION

The cycle can be started

with time priority by selecting the icon 

or with temperature priority at the

core of the product by selecting the icon  .

This operation can also be performed when the cycle is started.

It is possible to change the cycle time by dragging the time selector (figure 27), or by clicking on the clock on the side of the time selector.

By dragging the time selector to the end of the run, the machine operates in infinite cycle (max time: 4 days).

Furthermore, the air speed inside the chamber can also be changed by dragging the fan selector (figure 27), or by clicking on the numerical value on the side of the selector.

To start the cycle, keep the key  pressed for more than one second.

The indicator changes colour and the time and fan bars start.

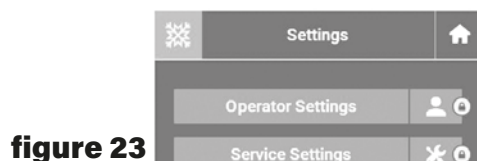


figure 23

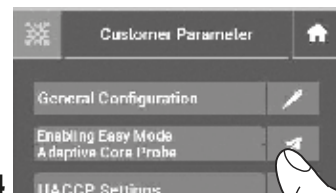


figure 24

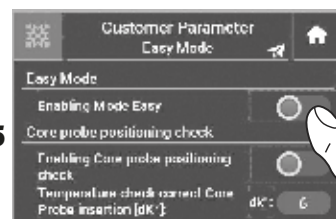


figure 25

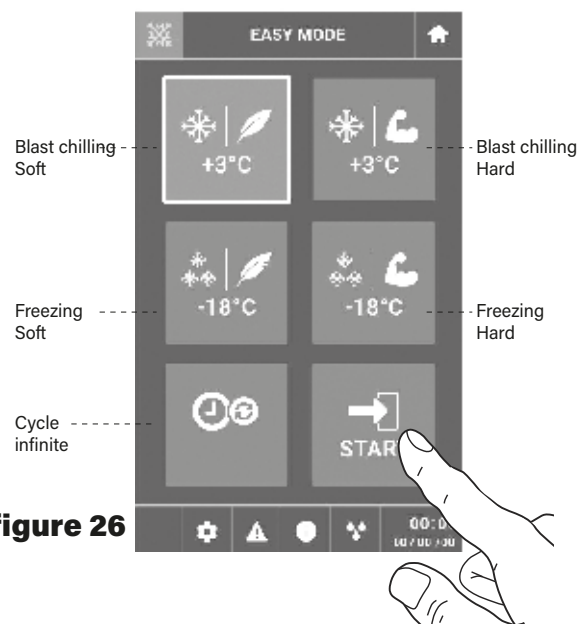


figure 26

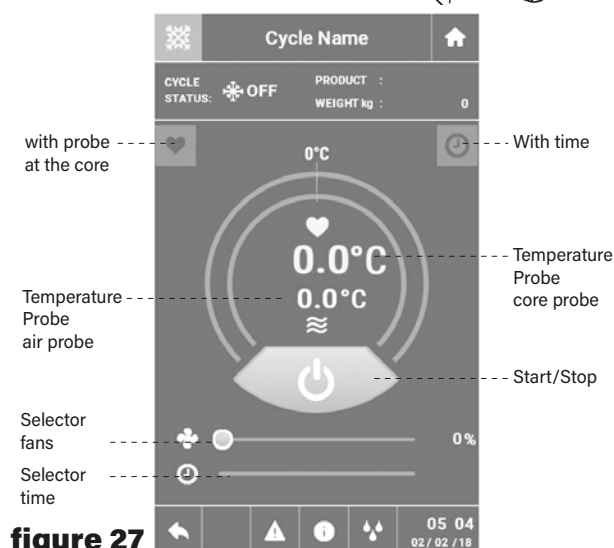


figure 27

5.6 Defrosting

To start defrosting, press the icon  (figure 28)

Defrosting can be **adaptive** or **timed**.

In the case of **timed** defrosting, the duration is set by the user according to the level of intensity chosen shown in the table below.

The defrosting duration is shown in the table according to the intensity.

In the case of **adaptive** defrosting, the machine will decide how long the defrost will last according to the level of ice covering the evaporator. In this configuration, the minimum defrosting duration is 15 minutes, the maximum duration is 2 hours. This defrosting mode allows you to optimise the defrosting times.

LEVELS OF DEFROST INTENSITY:

- 1) 15 min Defrost duration.
- 2) 20 min Defrost duration.
- 3) 25 min Defrost duration.
- 4) 30 min Defrost duration.
- 5) 35 min Defrost duration.
- 6) 40 min Defrost duration.
- 7) 45 min Defrost duration.
- 8) 50 min Defrost duration.
- 9) 55 min Defrost duration.
- 10) 60 min Defrost duration

To perform a defrost it is always necessary to open the door, if it is closed a message appears on the display (figure 29).

If the door is closed during defrosting, the fans stop and the time counter is blocked. Once the door has been closed properly, both the fans and the time counter will restart. Once the defrost time is up, the fans stop.

To change the defrost parameters press the symbol  on the Home screen to access the "Settings" screen, press "Operator Settings" to enter the "Customer Parameter" screen and then press on "Defrost settings" (figure 30).

The screen of figure 31 will appear where you can change the parameters.

It is also possible to enable a defrost warning message, ie the machine signals that at the next restart it would be desirable to perform a defrost to maintain optimal performance.

It is possible in some conditions that the machine also indicates to make a defrost even if apparently the evaporator does not seem to be covered in ice.

figure 28

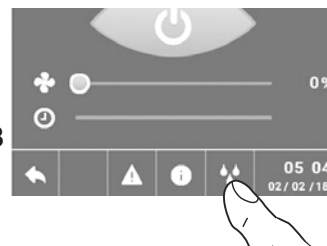


figure 29

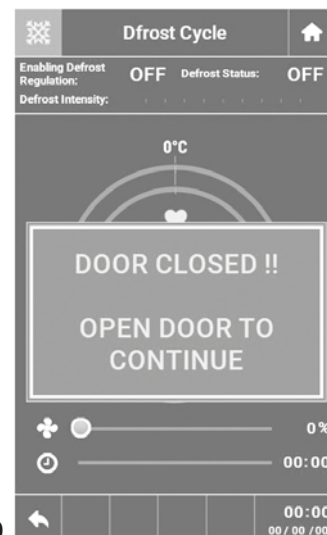


figure 30

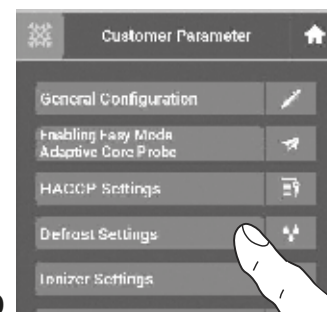
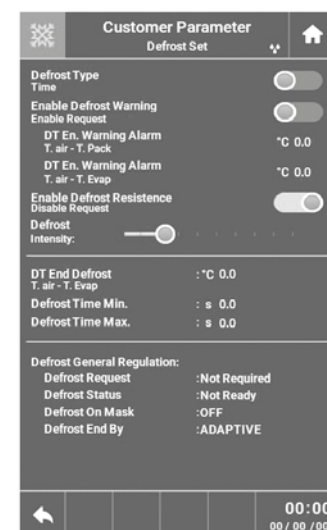


figure 31



5.7 Ionization

To activate ionization press the symbol  , on the Home screen to access the "Settings" screen, press "Operator Settings" to enter the "Customer Parameter" screen and then press on "Ionizer settings" (figure 32).

The screen in figure 33 will appear where you can activate ionization and choose from 15 different levels of intensity.

In the table below you can see the characteristics of each level.

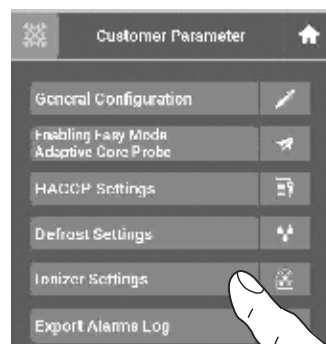


figure 32

	Time start-up fans [sec]	Time start-up ionizer [sec]	Time that elapses between the two start-ups [h]
Intensity 0	0	0	0
Intensity 1	15	180	6
Intensity 2	15	360	6
Intensity 3	15	540	6
Intensity 4	15	180	0
Intensity 5	15	360	4
Intensity 6	15	540	4
Intensity 7	15	120	3
Intensity 8	15	240	3
Intensity 9	15	360	3
Intensity 10	15	120	2
Intensity 11	15	240	2
Intensity 12	15	360	2
Intensity 13	15	120	1
Intensity 14	15	240	1
Intensity 15	15	360	1



figure 33

The condenser must be cleaned at least once a month or whenever the surface is opaque.

The condenser must be replaced every year in order to ensure optimal levels of sanitisation.

The ionizer only works if the door is closed.

5.8 HACCP

(Hazard Analysis and Critical Control Point)

To activate this function press the symbol , on the Home screen to access the "Settings" screen, press "Operator Settings" to enter the "Customer Parameter" screen and then press on "HACCP Settings" (figure 34).

The screen of figure 35 will appear where the function can be activated.

This function of the blast chiller allows you to record possible anomalies during the running of a cycle or during a maintenance phase. These parameters are as follows:

- AIR Temperature
- EVAPORATOR COIL ASSEMBLY Temperature
- Core Temperature
- Suction Pressure
- Delivery Pressure
- Selected Cycle
- Cycle Alarm
- Open Door Alarm.
- Closed Door Alarm during Defrosting
- Fan Open Door Alarm
- Condensing Unit Alarm
- Low-pressure Pressure Switch Alarm
- High-pressure Pressure Switch Alarm
- Unit Power Alarm (FeedBack)
- Kriwan Alarm
- Blackout Alarm
- Chamber High Temperature Alarm
- Fan Block Alarm caused by Condensing Unit Block

NOTE concerning blackout: If a power failure occurs during a cycle in progress or during a maintenance cycle, if the power is interrupted for longer than the set value, the blackout alarm is signalled. In addition, the date and time of the interruption and the duration of the blackout are displayed on the screen. By downloading the HACCP data, it is also possible to evaluate the maximum temperature reached at the end of Blackout.

Data recording is done with a 9-month cycle. The blast chiller continuously records all the data listed above and after nine months begins to overwrite the old data. The sampling time cannot be set and is fixed at 5 min.

Data can be downloaded on the machine by means of a USB key or by a PC if the blast chiller is connected to the company network. See the specific section.

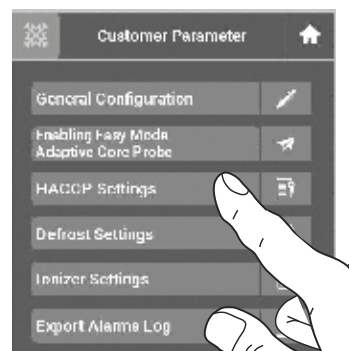


figure 34

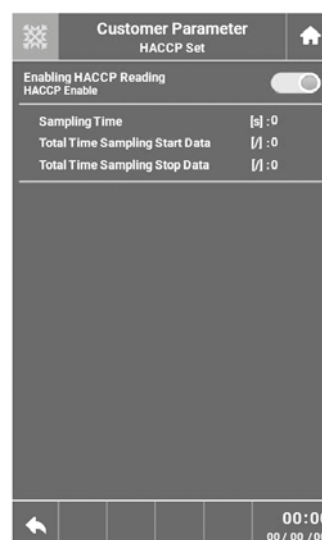


figure 35

5.9 Export Alarms Log

To activate this function press the symbol , on the Home screen to access the "Settings" screen, press "Operator Settings" to enter the "Customer Parameter" screen and then press on "Export Alarms Log" (figure 36).

The screen of figure 37 will appear where it is possible to export the log of the alarm history, it is possible to save the generated file in the controller's internal memory or on a USB stick.

To do this, select the location where to save the file. If necessary, change the progressive number of the latter (Export Idx.) in order to avoid any overwriting (figure 37).

Click on the  icon to generate the file.

If no error messages appear, the file has been correctly created.

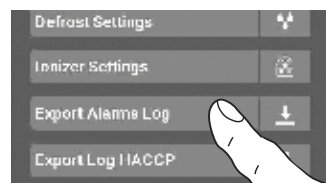


figure 36



figure 37

6.0 Export Log HACCP

To activate this function press the symbol , on the Home screen to access the "Settings" screen, press "Operator Settings" to enter the "Customer Parameter" screen and then press on "Export Log HACCP" (figure 38).

The screen of figure 39 will appear where it is possible to export the HACCP log file. It is possible to save the generated file in the controller's internal memory or on a USB stick.

To do this, select the location where to save the file.

Select the start and end date of the data download

If necessary, change the progressive number of the latter (HACCP Log Index) in order to avoid any overwriting of previously generated files.

Click on the  icon to create the file.

If no error messages appear, the file has been correctly created.

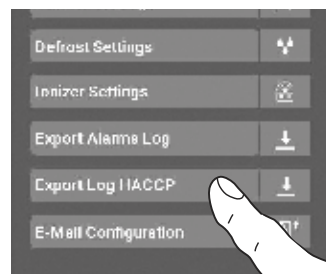


figure 38

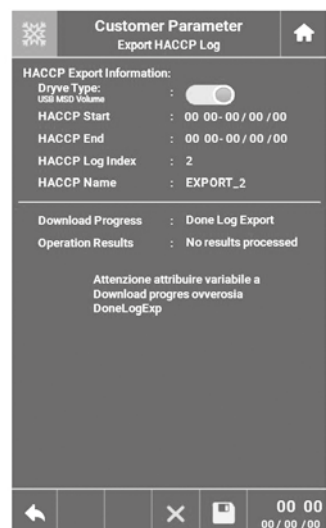
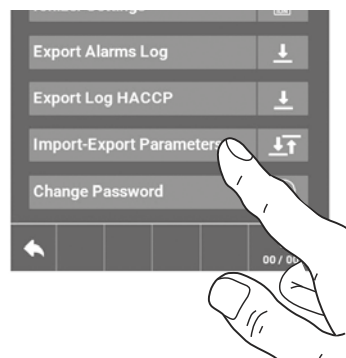


figure 39

6.1 Import Export Parameters

To perform an export/import of the blast chiller parameters press the symbol  on the Home screen to access the "Settings" screen, press "Operator Settings" to enter the "Customer Parameter" screen and then press on "Import Export Parameters" (figure 40).

figure 40



The screen in figure 41 will appear where it is possible to export the PARAM_EXPORT_ file. It is possible to save the generated file in the controller's internal memory or on a USB stick.

To do this, select the location where to save the file.

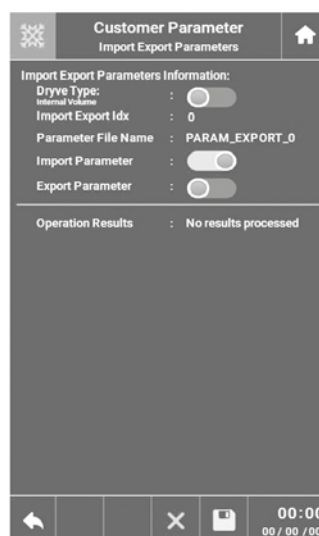
If necessary, change the progressive number of the latter (ImportExport Idx) in order to avoid any overwriting.

Click on the icon to create the file.

If no error messages appear, the file has been correctly created.

This operation must be performed every time the controller is updated to avoid losing any recipes changed by the user.

figure 41



6.2 Faults and possible solutions

The blast chiller is equipped with a visual system that signals the presence of an alarm. The alarms are shown on the display.



For any other type of alarm displayed: wait a few minutes if the problem persists contact support and specify the alarm code displayed.

Communication of faults shown on the display:

No.	Description	Possible cause	Possible solution	Effects
2-5	Fan Open Door Alarm.	- Fan door open. - Damage to cable, connection or micro switch of the fan door. - Incorrect positioning of the fan door micro switch. - Cable disconnected in the terminal board.	- Check the status of the door. - Check connections between the door micro switch and the terminal device. - Check the integrity of the fan door micro switch.	- Immediate blocking of the fans. - Blocking of the condensing unit after 300 s. - Signalling CYCLE IN PROGRESS GENERAL ALARM. - Signalling UNIT OR CHAMBER GENERAL ALARM. - If there is a external network connection, send an alert e-mail.
6	Open Door Alarm.	- Door open. - Damage to cable, connection or micro switch of the door. - Incorrect positioning of the door micro switch. - Cable disconnected from the terminal board.	- Check the status of the door. - Check connections between the door micro switch and the terminal device. - Check the integrity of the door micro switch.	- Attention message on the cycle start screen; impossibility to start a cycle. - Blocking of the fans after a preset time. - Blocking of the condensing unit after 300 s - Signalling CYCLE IN PROGRESS GENERAL ALARM. - Signalling UNIT OR CHAMBER GENERAL ALARM. - If there is a external network connection, send an alert e-mail.
7	Excessive Data Writing in the Controller Memory Unit Alarm	- Electronic malfunction.	- Contact the Supplier.	- Damage to controller ROM. - Impossibility to use the machine.
8	Write Error in the Retain Memory alarm.	- Possible damage to the ROM of the controller.	- Contact the Supplier.	- Damage to controller ROM. - Impossibility to use the machine.
9-12	Low Superheating Evaporator Alarm 1-2-3-4	- Superheating set too low. - Excessive compressor engaging and disengaging. - PID config. to optimise. - Very low evaporation temperatures. - Damage to temperature or pressure transducers. - Loss of step by the valve.	- Significantly increase heating. - Check for errors in the reading of Pressure/Temperature probes. - Reset the valve controller. - Contact the Supplier.	- If the alarm persists, possible liquid return to the condensing unit. - Possible cycle parameter threshold exceeded (The air temperature may fall below the value set by the cycle).
13-16	Evaporation high temperature exceeded Alarm (MOP).	- Evaporation temperatures too high. - Damage to temperature or pressure transducers. - MOP Integral time set to 0. - Loss of step by the valve	- Check for errors in the reading of Pressure/Temperature probes. - Check the MOP value set. - Change the value of the MOP integral time. - Contact the Supplier.	- High evaporation temperature/pressure - Excessive workload for the compressor resulting in overheating and possible compressor thermal protection triggering

No.	Description	Possible cause	Possible solution	Effects
17-20	Motor Electronic Thermostat Valve Alarm.	- Motor disconnected, damaged or incorrectly powered.	- Check the power and communication cable between the controller (EVD) and the electronic expansion valve motor. - Enter the diagnostic section with the machine in standby and manually change the valve opening degree. - Contact the Supplier and decide if the motor needs replacing.	- Impossibility to start a cycle and to use the blast chiller.
21-24	Low Temperature/ Evaporation Pressure Alarm (LOP).	- Excessive compressor engaging and disengaging. - PID configuration to optimise/instability of the valve - LOP integral time set to 0 - Very low evaporation temperatures. - Damage to temperature or pressure transducers - Loss of step by the valve	- Significantly increase the superheating. - Check for probe Temperature/Pressure reading errors - Change the LOP integral time value. - Reset the valve controller. - Contact the Supplier.	- Possible intervention of the low-pressure pressure switch.
25-28	High Condensing Temperature Alarm.	- Return refrigerant liquid high temperature. - Lack of refrigerant fluid supply in the suction line. - Condenser dirty. - Condenser fan malfunction.	- Check operation of fans and cleaning of the condenser. - Check correct thermostat valve operation. - Check the amount of refrigerant.	- Possible intervention of the high-pressure pressure switch resulting in machine shut down.
29-32	Electronic Thermostat Valve Pressure Probe Alarm	- Probe S1 - S3 faulty or set alarm range exceeded.	- Check connection and integrity of the probe. - Check the MINIMUM and MAXIMUM alarm parameter values.	- incorrect operation of the electronic thermostatic valve with possible blocking of the condenser unit.
33-36	Electric Thermostat Valve Temperature Probe Alarm	- Probe S2 - S4 faulty or set alarm range exceeded.	- Check connection and integrity of the probe. - Check the MINIMUM and MAXIMUM alarm parameter values.	- incorrect operation of the electronic thermostatic valve with possible blocking of the condenser unit.
37-38	EPROM damaged Alarm (EEV controller).	- Electronic thermostat valve memory compromised.	- Replace the driver of the electronic valve. - Contact the Supplier.	- The Eprom parameters of the machine and operating parameters generates in any case the blocking of the electronic valve and impossibility to start a cycle of the machine.
39-42	Incomplete Closing of the Electronic Thermostat Valve Alarm.	- Loss of alignment of motor steps.	- Restart the controller of the Electronic Thermostatic Valve.	- No harmful effect on the machine.
43-46	Failed emergency closure alarm.	- Missing chamber power supply	- Not feasible	- None

No.	Description	Possible cause	Possible solution	Effects
47-48	Incompatibility of the EEV operating system Alarm.	- Failure to update the operating system of the electronic thermostat valve controller.	- Upgrade the software of the electronic thermostatic valve. - Contact the Supplier.	- Controller Block of the electronic thermostatic valve.
49-52	Configuration of the parameters not carried out correctly alarm.	- Communication missing between electronic thermostat valve controller	- Check the integrity of the connections between device and electronic thermostat valve. - Check address of electronic thermostat valve Address 1: EEV Controller 1 Address 2: EEV Controller 2 - Contact the Supplier.	- Controller Block of the electronic thermostatic valve valve.
53-54	Compressor Protection alarm.	- Intervention of the thermal protections of the compressor/s due to excessive superheating of the electrical motor.	- Consider a marked decrease of the MOP threshold. - Check operation of condensing part fans. - Clean the condenser if necessary. - Check the amount of refrigerant. - Contact the Supplier.	- Immediate condenser unit block, resulting in general alarm generation of the chamber or condenser and impossibility to start a cycle. - If the cycle is in progress this remains active until the compressor protection alarm is restored. Generated also general alarm for cycle in progress. - If there is an external network connection, send an email alert.
55-56	Condenser Unit Low Pressure Alarm.	- Electronic thermostat valve not working. - Electronic thermostat valve unstable. - Ice covering the evaporator. - Chamber fans malfunction.	- Check the integrity of the evaporating part. - Check correct operation of the electronic thermostat valve. - Perform a defrost if the evaporator is covered in ice.	- Immediate condenser unit block, resulting in alarm generation of the chamber or condenser and impossibility to start a cycle. - If the cycle is in progress this remains active until the compressor protection alarm is restored. General alarm also triggered for cycle in progress. - If there is an external network connection, send an email alert.
57-58	Condenser Unit High Pressure Alarm.	- High temperatures of the refrigerant fluid returning to the compressor. - Lack of refrigerant fluid supply in the suction nline. - Condenser dirty. - Condenser fan malfunction.	- Check the integrity of the condensing part. - Check correct operation of the fans	- Immediate condenser unit block, resulting in general alarm generation of the chamber or condenser unit and impossibility to start a cycle. - If the cycle is in progress this remains active until the compressor protection alarm is restored. Generated also general alarm for cycle in progress. - If there is an external network connection, send an email alert.

No.	Description	Possible cause	Possible solution	Effects
59	Chamber Fan Alarm.	- Chamber fans broken or malfunctioning.	- Check the fan contactor. - Replace the broken or damaged fan. - Contact supplier	- The cycle starts but the blast chiller works without the fans. The temperature of the machine does not go down or goes down very slowly
60-65	Compressor Maintenance Alarm	- Compressor maintenance threshold exceeded	- Contact a maintenance technician of therefrigerating unit. - Reset the hour meter counter of maintenance.	- None
66	Ionizer Maintenance Alarm.	- Ionizer maintenance threshold exceeded.	- Contact a maintenance technician to replace the ionizer condenser. - Reset the hour meter counter.	- Poor sanitisation.
67	Fan Maintenance Alarm.	- Fan maintenance threshold exceeded.	- Contact a maintenance technician to check correct system operation. - Reset the hour meter counter.	- None
68	Chamber Air Probe Alarm.	- Probe fault. - Internal probe error, damaged or broken. - Configuration error of the probe. - Probe disconnected. - Probe not used.	- Check probe connection and configuration. - Replace the probe. - Contact the Supplier.	- Impossibility to use the machine. - Impossibility to use the adaptive defrost
69	Evaporator Coil Assembly Temperature Probe Alarm.	- Probe fault. - Internal probe error, damaged or broken. - Configuration error of the probe. - Probe disconnected. - Probe not used.	- Check probe connection and configuration. - Replace the probe. - Contact the Supplier.	- Impossibility to use the adaptive defrost
70	Resistors Temperature Probe Alarm.	- Probe fault. - Internal probe error, damaged or broken. - Configuration error of the probe. - Probe disconnected. - Probe not used.	- Check probe connection and configuration. - Replace the probe. - Contact the Supplier.	- Impossibility to use the machine.
71	Product Temperature Probe Alarm (Needle Probe 1).	- Probe fault. - Internal probe error, damaged or broken. - Configuration error of the probe. - Probe disconnected. - Probe not used.	- Check probe connection and configuration. - Replace the probe. - Contact the Supplier.	- Impossibility to use the machine with the core probe. Only Time cycles will be performed.
72	Product Temperature Probe Alarm (Needle Probe 2).	- Probe fault. - Internal probe error, damaged or broken. - Configuration error of the probe. - Probe disconnected. - Probe not used.	- Check probe connection and configuration. - Replace the probe. - Contact the Supplier.	- The device will not use Needle Probe 2.

No.	Description	Possible cause	Possible solution	Effects
73	Product Temperature Probe Alarm (Needle Probe 3)	- Probe fault. - Internal probe error, damaged or broken. - Configuration error of the probe. - Probe disconnected. - Probe not used.	- Check probe connection and configuration. - Replace the probe. - Contact the Supplier.	- The device will not use Needle Probe 3.
74	Condenser side Pressure Probe Alarm.	- Probe fault. - Internal probe error, damaged or broken. - Configuration error of the probe. - Probe disconnected. - Probe not used.	- Check probe connection and configuration. - Replace the probe. - Contact the Supplier.	- The device will not display some information on the user interface.
75	Evaporator side Pressure Probe Alarm.	- Probe fault. - Internal probe error, damaged or broken. - Configuration error of the probe. - Probe disconnected. - Probe not used.	- Check probe connection and configuration. - Replace the probe. - Contact the Supplier.	- The device will not display some information on the user interface.
76	Blackout Alarm	- Chamber power supply interruption during a cycle.	- Reactivate power supply of the machine.	- If the cycle is not in progress, no cycle alarm will be generated - If the blackout lasts longer than 5 days, the machine remains blocked for 4.30 hours in order to avoid a start with refrigerant inside the casing of the alarm. - If during a cycle in progress a blackout occurs with a duration longer than that set, a cycle alarm is generated- see alarm 84.
77-78	PumpDown Alarm, Pump Down not Terminated correctly	- End Pump Down pressure not reached. - Solenoid valve not properly closed.	- Check the correct operation of the solenoid valve. - Check the correct operation of the pressure transducers.	- End Pump Down due to exceeding time limit threshold, with triggering of an alarm.
79-82	Controller Alarm EVD offline.	- Controller not powered. - No communication between EVD and cPco controller.	- Check the address of the EVD device. - Check the device power supply.	- Inability to use the machine.
83	Door Open during an active cycle alarm.	- If during a cycle in progress the door is opened for a time above the set limit the alarm door open is triggered. - Door micro switch damaged	- Check that the door is closed. - Check connections and integrity of the door micro switch.	- Blocking of the cycle in progress; - If the alarm is restored, the cycle restarts. - CYCLE IN PROGRESS GENERAL ALARM signal. - If there is an external network connection, send an email alert.

No.	Description	Possible cause	Possible solution	Effects
84	Blackout Alarm during the cycle.	- Power failure during a cycle in progress.	- Restore electric power supply.	- Alarm signal in the event that the blackout exceeds the time threshold set and there is a cycle in progress. - CYCLE IN PROGRESS GENERAL ALARM signal. - If there is an external network connection, send an email alert.
85	Chamber High Temperature Alarm.	- High temperature detected internal chamber (above the set limit).	- Check the temperature inside the chamber. If required, act to restore the chamber temperature. - In case the problem occurs with an empty chamber, switch off the machine. - Contact the supplier.	- Alarm signal with fan blocking.
86	Door Closed Alarm during defrost cycle.	- A defrost cycle has been started with a closed door - Door micro switch damaged	- Check that the door is open. - Check connections and integrity of the door micro switch.	- Blocking of the defrost cycle in progress.
87	Cycle in Progress General Alarm	- Alarms Concatenation	- See other alarms.	- CYCLE GENERAL ALARM signal. - If there is an external network connection, send an email alert.
88	Condenser Unit or Chamber General Alarm.	- Alarms Concatenations.	- See other alarms.	- CYCLE IN PROGRESS GENERAL ALARM signal. - If there is an external network connection, send an email alert.
89	Chamber High Temperature Alarm during a cycle	- High temperature detected inside chamber during a cycle.	- Review cycle parameters. - Contact Suppliers.	- Switching off the resistors if present. - CYCLE GENERAL ALARM signal. - If there is an external network connection, send an email alert.
90	Condenser Unit electric power supply absence alarm	- Condenser unit electric power supply absence.	- Restore condenser unit electric connections.	- The cycle remains in progress but there is no cold generation - CYCLE IN PROGRESS GENERAL ALARM signal. - If there is an external network connection, send an email alert



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