# USER GUIDE


UCBF432-SS11A • 5 Tray Blast Freezer/Chiller Right Hand Hinge Stainless Solid 115v

UCBF532-SS12A • 10 Tray Blast Freezer/Chiller Right Hand Hinge Stainless Solid 230v

UCBF632-SS12A • 15 Tray Blast Freezer/Chiller Right Hand Hinge Stainless Solid 230v

UCBF659-SS12A • 40 Tray Blast Freezer/Chiller Right Hand Hinge Stainless Solid 230v

## WELCOME TO U-LINE

Congratulations on your U-Line purchase. This product is part of our U-Line by Desmon Collection. Made by our sister company, Desmon in Italy, one of Europe's leading producers of commercial refrigeration products. It is designed and certified for commercial applications in North America.

U-Line offers products focused on functionality, style, and inspired innovations — paying close attention to even the smallest details. Applications include residential, outdoor, ADA height compliant, marine, and commercial. Complete product categories include Beverage Centers, Wine Refrigerators, Ice Machines, Refrigerators, Freezers, and Dispensers.

Our advanced refrigeration systems, large and flexible capacities, and Built-In to Stand Out® clean integrated look allow you to preserve the right product, in the right place, at the right temperature. Since 2014, U-Line has been part of the Middleby family of brands. Most products are designed, engineered, and assembled in Milwaukee, Wisconsin, USA, and select products are available worldwide.

## PRODUCT INFORMATION

Looking for additional information on your product? User Guides, Spec Sheets, CAD Drawings, Compliance Documentation, and Product Warranty information are all available for reference and download at u-line.com.

## PROPERTY DAMAGE / INJURY CONCERNS

In the unlikely event property damage or personal injury is suspected related to a U-Line product, please take the following steps:

1. U-Line Customer Care must be contacted immediately at +1.414.354.0300.
2. Service or repairs performed on the unit without prior written approval from U-Line is not permitted. If the unit has been altered or repaired in the field without prior written approval from U-Line, claims will not be eligible.

## GENERAL INQUIRIES

U-Line Corporation
8900 N. 55th Street
Milwaukee, Wisconsin 53223 USA
Monday - Friday 8:00 am to 4:30 pm CST
T: +1.414.354.0300
Email: sales@u-line.com
u-line.com

## SERVICE & PARTS ASSISTANCE

Monday - Friday 8:00 am to 4:30 pm CST
T: +1.414.354.0300
Service Email: onlineservice@u-line.com
Parts Email: onlineparts@u-line.com

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# U-Line Corporation (U-Line) Commercial Limited Warranty

## Three Year Limited Warranty

For three years from the date of original purchase, this warranty covers all parts and labor to repair or replace any part of the product that proves to be defective in materials or workmanship. Service provided by U-Line under the above warranty must be performed by a U-Line factory authorized servicer, unless otherwise specified by U-Line. Service provided during normal business hours.

## Five Year Sealed System Limited Warranty

For five years from the date of original purchase, U-Line will repair or replace the following parts, labor not included, that prove to be defective in materials or workmanship: compressor, condenser, evaporator, drier, and all connecting tubing. All service provided by U-Line under the above warranty must be performed by a U-Line factory authorized servicer, unless otherwise specified by U-Line. Service provided during normal business hours.

## Terms

These warranties apply only to products installed in any one of the fifty states of the United States, the District of Columbia, or the ten provinces of Canada. The warranties do not cover any parts or labor to correct any defect caused by negligence, accident or improper use, maintenance, installation, service, repair, acts of God, fire, flood or other natural disasters. The product must be installed, operated, and maintained in accordance with your product's User Guide.

The remedies described above for each warranty are the only ones that U-Line will provide, either under these warranties or under any warranty arising by operation of law. U-Line will not be responsible for any consequential or incidental damages arising from the breach of these warranties or any other warranty, whether express, implied, or statutory. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. These warranties give you specific legal rights, and you may also have other rights which vary from state to state.

Any warranty that may be implied in connection with your purchase or use of the product, including any warranty of *merchantability* or any warranty *fit for a particular purpose* is limited to the duration of these warranties, and only extends to five years in duration for the parts described in the section related to the three-year limited warranty above. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

- Service must be dispatched by the factory to be eligible for warranty coverage.
- The warranties only apply to the original purchaser and are non-transferable.
- Replacement water filters, light bulbs, and other consumable parts are not covered by these warranties.
- The start of U-Line's obligation begins on the shipment date from the factory.
- Food, beverage, and medicine loss are not covered by these warranties.
- If the product is located in an area where U-Line factory authorized service is not available, you may be responsible for a trip charge or you may be required to bring the product to a U-Line factory authorized service location at your own cost and expense.
- Any product purchased as a floor display is covered by a 90-day warranty only.
- Signal issues related to Wi-Fi connectivity are not covered by these warranties.

For parts and service assistance, or to find U-Line factory authorized service near you, contact U-Line:
8900 N. 55th Street, Milwaukee, WI 53223 • u-line.com • onlineservice@u-line.com • +1.414.354.0300

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## 1. Powering up the Touch Screen Control

This is the Stand-By screen. To begin, push and hold the Power Button for 5 seconds, until you see the Status Bar move to the right and it says "please wait".


It will start to initialize the control and load the software, please allow 15 seconds for it to complete.

This the Home screen. From this screen you can Blast Chill, Blast Freeze or go to the More menu. To turn off the controller, just press on the ON/OFF button on the right bottom side.

## 2. The Blast Chilling Mode

The Blast Chilling function allows you to quick chill food down to 3°C(37°F) degrees in 90 minutes or less, provided that

- the total product weight matches with the Blast Chiller Specification
- the initial temperature is lower or equal than 90°C(195°F)
- the product thickness is less or equal than 5 cm(2 inches)
- the food is evenly distributed in the chamber
- a pre-chill initial step is done to improve the chiller performance in the heaviest conditions

***Product temperature before and after a Chilling Cycle***

While the food starting temperature depends on the cooking or finishing process which the food went through, its target temperature at the end of the cycle is a determined conventional value (3°C-37°F) and cannot be changed, as it has to comply with HACCP regulation. For instance, a *Chicken* in a oven can be cooked up to 200°C(390°F). Tts core temperature will be anyway lower than 100°C(212°F) because of the water content. Before putting it in a storage cooler, it should be cooled down to 3°C(37°F). A *pizza dough* won't have such a warm temperature at the end of its finishing process, i.e. 25°C(77°F). But at the end of the chilling cycle its core temperature is expected to be 3°C(37°F) as well.

***Air Temperature***

The air temperature is the temperature of the room where the food is being chilled. Its range for a Blast Chilling process is from -25°C(-13°F) to 9°C(48°F) degrees and holding from -10°C(14°F) to 10°C(50°F).

***Time or Temperature based Cycles***

You can chill by using automatic mode (just selecting food icons) or manual mode. Depending on the type of mode and options selected, which will see

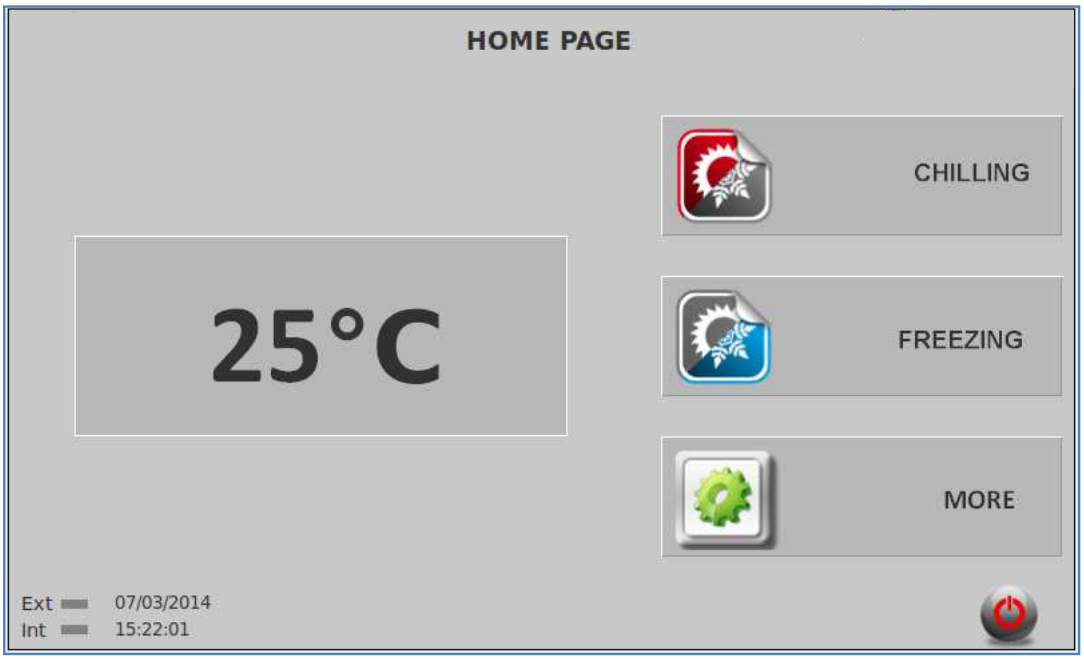
later in this chapter, you may choose to chill by time, or by using the food probe to chill to a set core temperature. If the time mode is selected, then the Blast Chilling cycle will terminate by elapsed time. In the latter case, the product may or may not reach the desired core temperature. In the food probe mode, Blast Chilling will be controlled by the food probe and may take more or less time, depending on the product weight, density, thickness, starting temperature and so on to reach the target temperature. In either mode, once the time has elapsed or the food probe temperature is reached, the machine will then switch to the hold mode automatically and maintain the product at the storage temperature. Users will chill by time when are aware of the fact that food end temperature is not ruling the cycle and is not determining the time to stop it (the pre-selected time will determine the cycle end instead). Or otherwise they will select a core temperature based cycle when they want to be sure that the food temperature before going into holding mode matches with food safety guidelines (3°C-37°F).

***Automatic Defrost***

Evaporator will defrost automatically between chilling and hold and will terminate once the ice on the evaporator is totally melted.

***Blast Chilling Cycle Activation***

When the Blast Chilling mode is selected, the machine will automatically Pre-chill the cabinet to -5°C(23°F). Once it reaches the pre-chill temperature, then either a manual cycle or a recipe can be started.



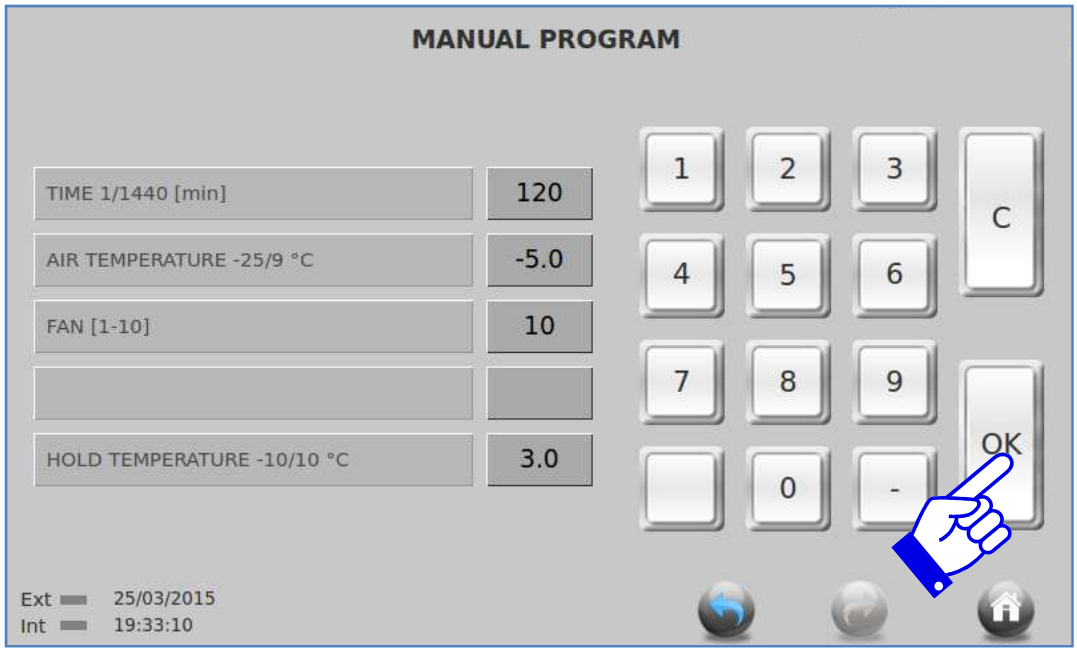

However, you can push the green start tab (Play) to go directly to the recipe selection screen and skip the pre-chill cycle.


You may select either the Manual cycle or select any one of the food categories.


## 2.1. Blast Chilling Manual Program

Press the tab Manual in the recipe selection screen.

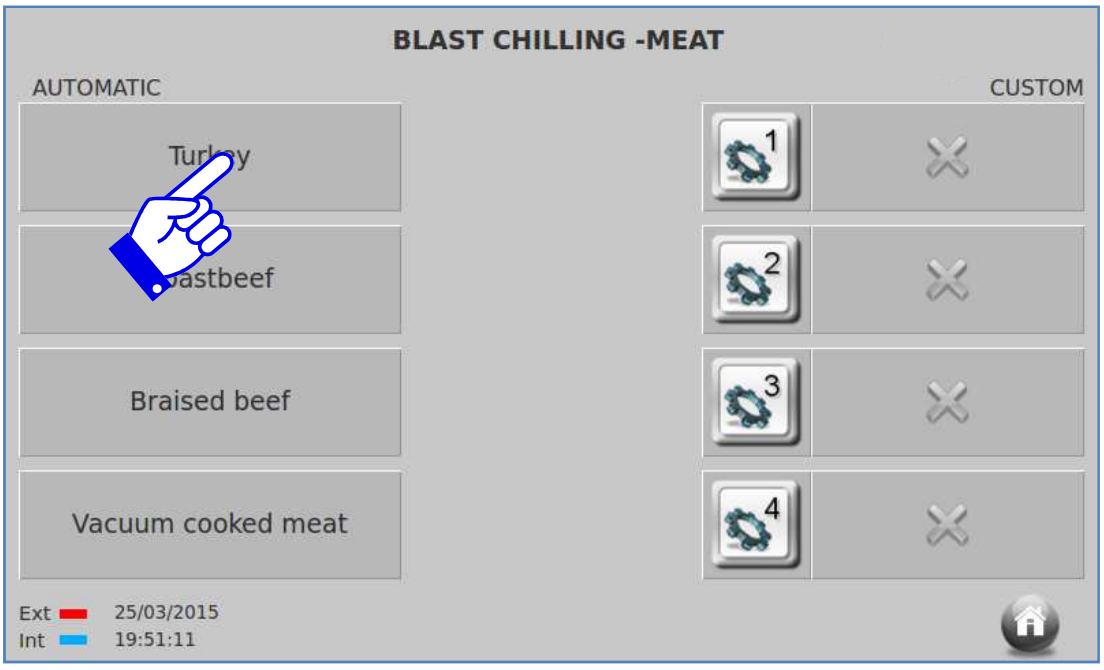

To set the time, push the TIME tab and set the time of the cycle. Push the AIR TEMPERATURE tab to set the room air temperature. Push the FAN speed tab to set the fan speed, default is always high or 10. Push the HOLD TEMPERATURE tab to set the temperature at the end of the cycle. Hit OK to start the cycle.




## 2.2. Blast Chilling Automatic OEM Recipes

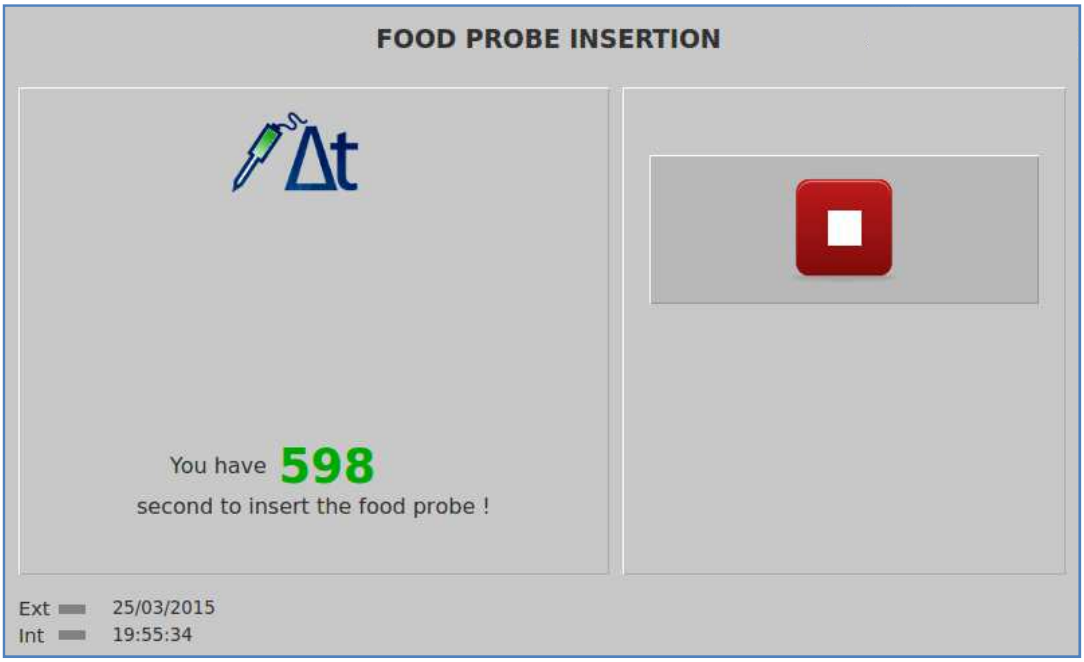
The pre-programmed recipes do not require to enter any cycle setting, as these recipes come with internal pre-determined settings able to suit the best chilling process for the selected type of food.


Furthermore, every recipe has 4 categories to suit different kinds of the selected food.




These pre-programmed categories are set up for different proteins, such as fatty, lean, roast or thin cut. Once a food is selected the cycle can be started immediately by pressing the specific category (left side of the screen, one out of the 4 tabs).

Once the tab is pressed, the following screen will appear.




**NOTE: When selecting an automatic recipe the use of the needle probe is mandatory.**

A time counter will run until the needle probe is inserted in the food.

The electronic system will recognize the probe insertion and will initiate the cycle.

A graph will show in real time the food core temperatures read by the food probe and the air temperature. On the right side it will show the food under process, the type of cycle (chilling or freezing icon), the fan speed. On the bottom the screen will also show real time values as well as cycle setpoint values. From left to right:

**Food**: The current warmest core temperature

**Air**: The current air temperature

**Time**: Elapsed time

**End Cycle Temperature**: in an automatic recipe is the first step food target temperature. Once this temperature is reached in the food core, the cycle will switch to next step

**Air set**: The air desired temperature of the current step

**End cycle**: The time to the end of the cycle (here three dashes because it's a core temperature based cycle, unable to foresee exactly the cycle length)

**Food scan**: The status of the 4 core temperatures, left square is related to the core on the needle end (the sharp one), right square is related to the core closest to the probe handle.

The system will perform a "food scan" through monitoring of the 4 cores in the food thickness in the first 5 minutes. Some of them may be excluded from the algorithm, because considered out of the food. The warmest core will determine the end of the total cycle (3°C-37°F). While each core will contribute to regulate the internal cycle's steps, varying the air set temperature and fan speed. The status of a core can be:

- Blue, indicating the warmest core
- Green, indicating that a core is actually positioned in the food thickness
- Grey, indicating that a core was excluded.

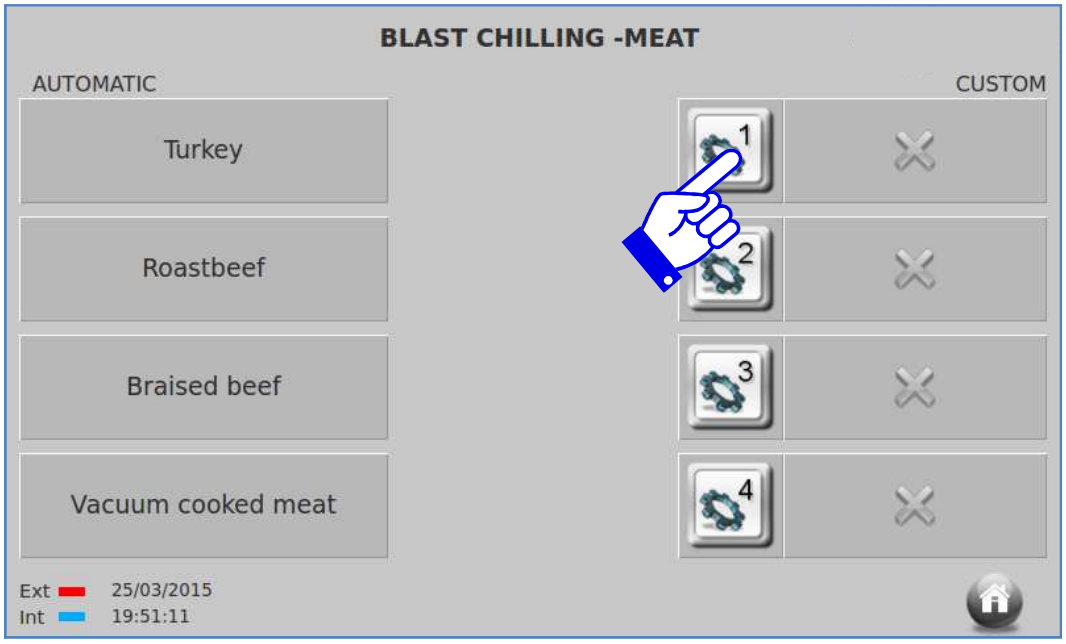
Further to the "food scan" the cycle will run through 4 different steps with different settings, with the goal to chill the food in the shortest possible

time, while saving the product integrity. For instance, a piece of cooked meat at 90°C(194°F) will run through an initial step at very low temperature, but then reaching to highest air temperature at the end to prevent icing of the outer surface. A pastry items will be probably chilled in a more soft air (above icing point) since the beginning, in order not to affect the product surface.

**NOTE: The automatic OEM recipes are set up in the factory and will guarantee the best combination of steps for a chilling cycle.**

### 2.3. Blast Chilling Custom Recipes

Every food (icon) allows to create 4 custom recipes (clicking on the gear icon on the right side of the screen). The custom configuration requires to choose the core probe option, the cycle time length (if the core probe is not selected), the air temperature, the fan speed and the air temperature for the subsequent holding cycle. To disable or enable the food probe click on the green check mark or red X.




**NOTE: The custom configuration is like a Manual Program, but related to a Food Category (Icon).**



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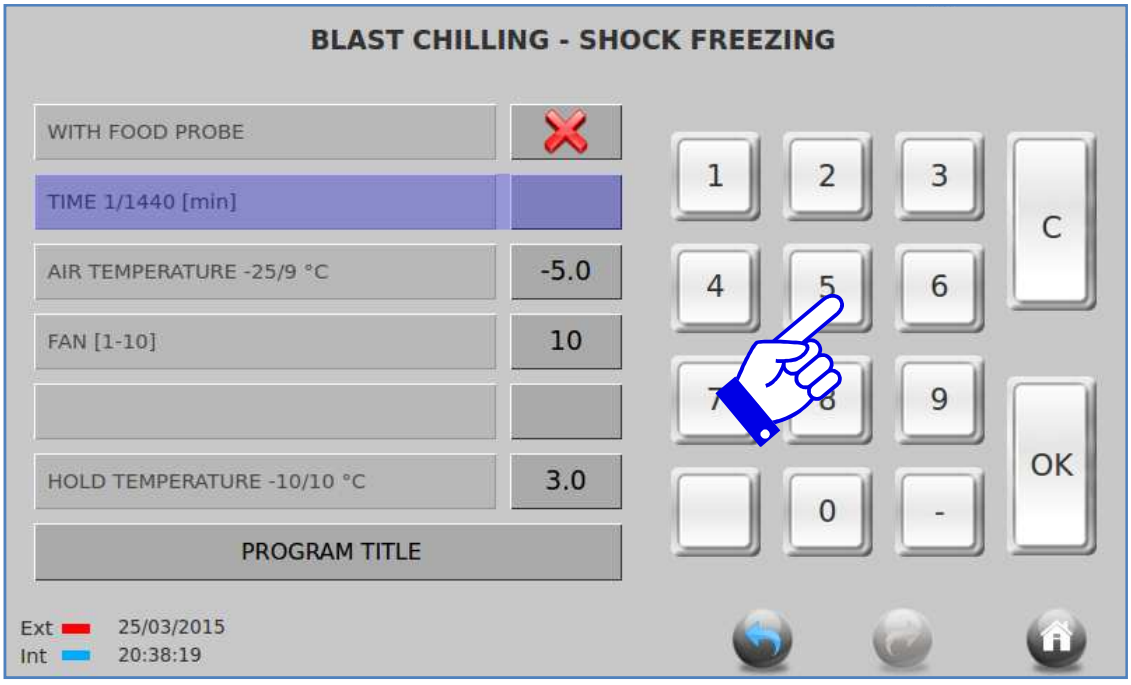
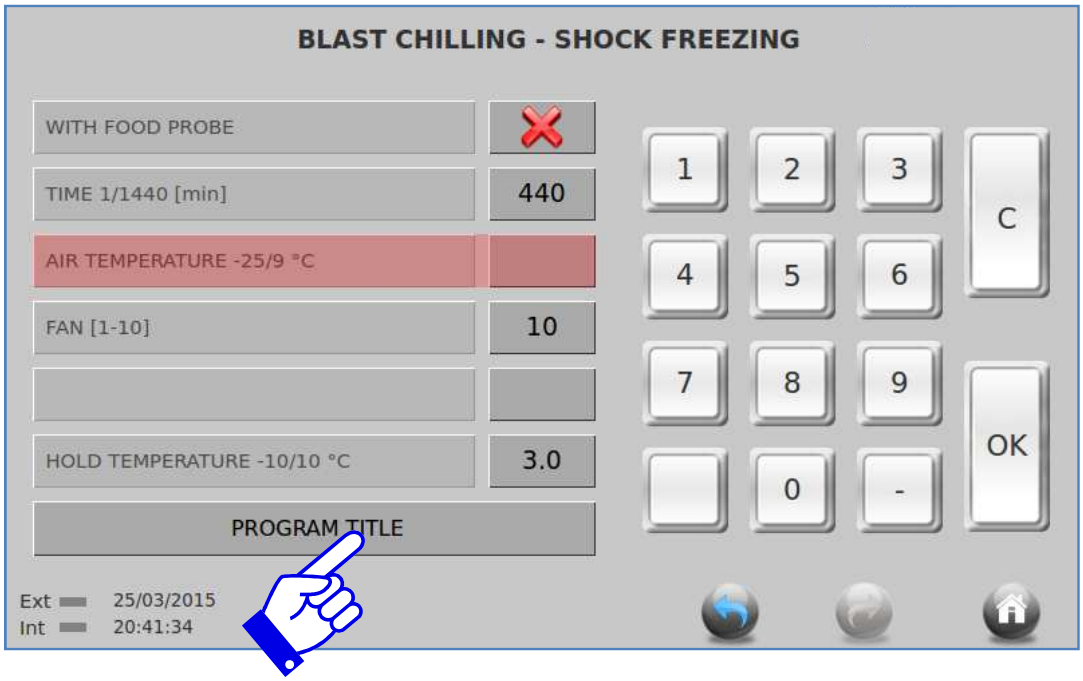
To select Time, Air Temperature, Fan Speed and Holding Temperature, just click on the related tabs and insert values.


Once you push a tab on a mode, that mode will be highlighted in blue.




Using the key pad, select the correct number corresponding to the range indicated by each mode.

If the choice is outside of the range for any of the modes, or the chosen option is not applicable, that mode will be highlighted in red and the end user must select a valid number within the range.




Once all modes are set, press PROGRAM TITLE to name the custom recipe.


Push the Title tab and the tab will highlight in green, you can then name the program.


By pressing the Description tab, you can now add other important information for that recipe. Press OK to start the cycle.

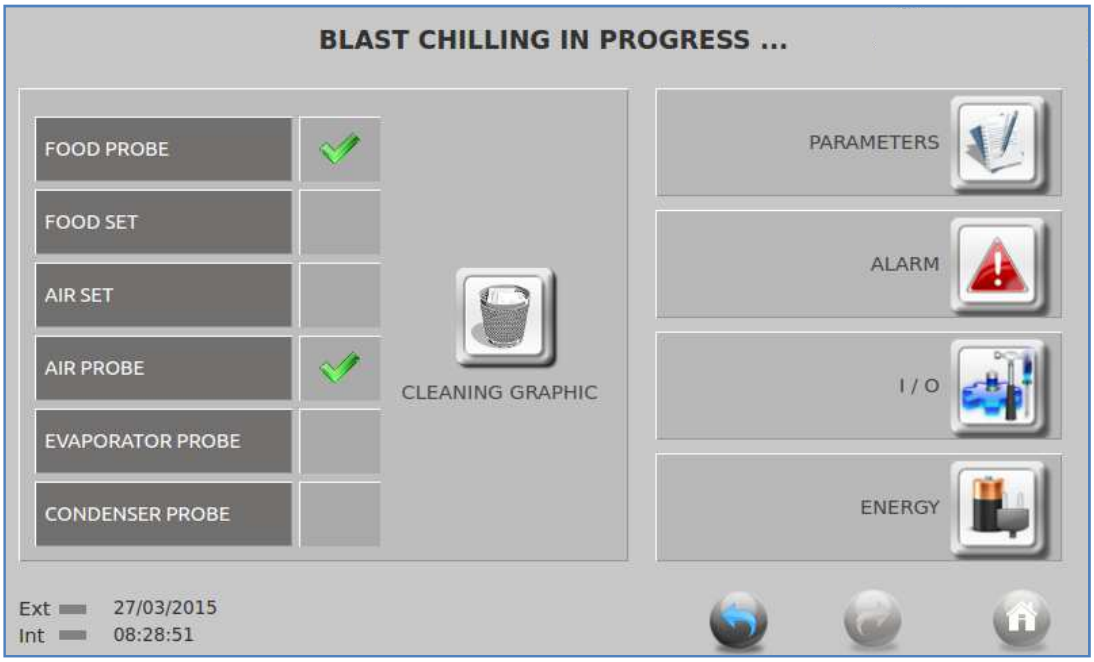

If the probe mode was selected, the screen will prompt you to insert the probe if you haven't already done so. You have 10 minutes to do so or if it is already inserted, the control will recognize this and start.


**NOTE: The Manual programs and the Custom Recipes will not provide the same advantages of the Automatic OEM Recipes**, but they will allow to run only one single step chilling process during all the cycle, with air temperature and fan speed being always the same value.

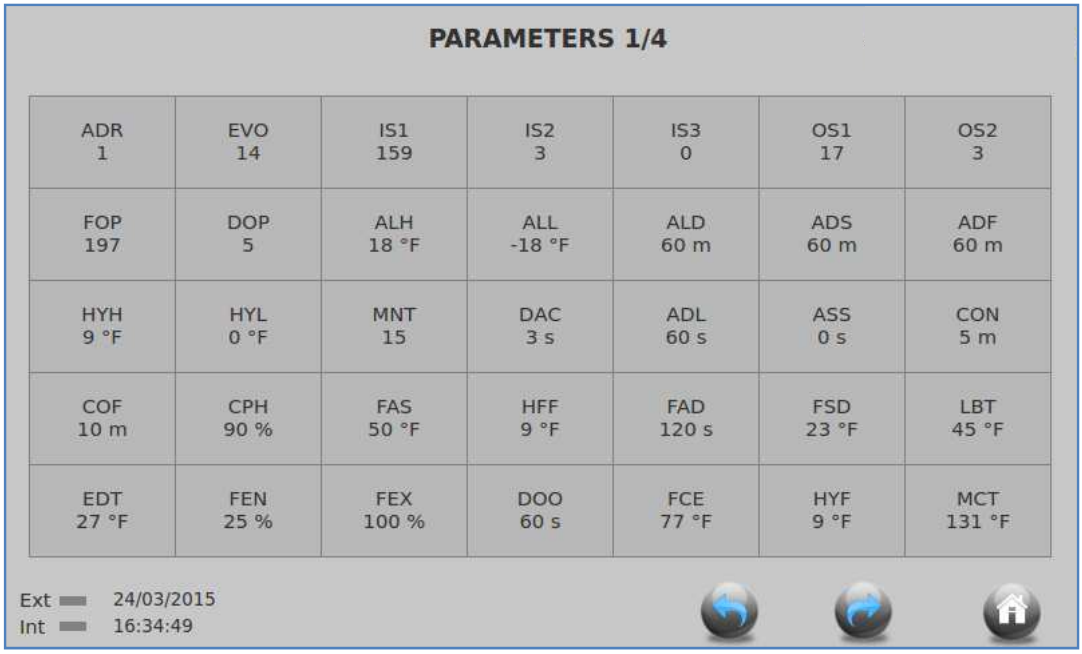
### 2.4. Cycle Graph and other functions

For either an automatic or manual cycle the graph will show the air set temperature, the actual air temperature and the set temperature during a chilling or freezing cycle. The timer will count up until it reaches the cycle set time or, when using the insert probe, until the food target temperature is reached and will then switch to the hold mode. The cycle can be stopped at any time by pressing the stop button. If the door(s) are opened, the fans and compressor will turn off. The compressor has a 1 minute delay on start up.

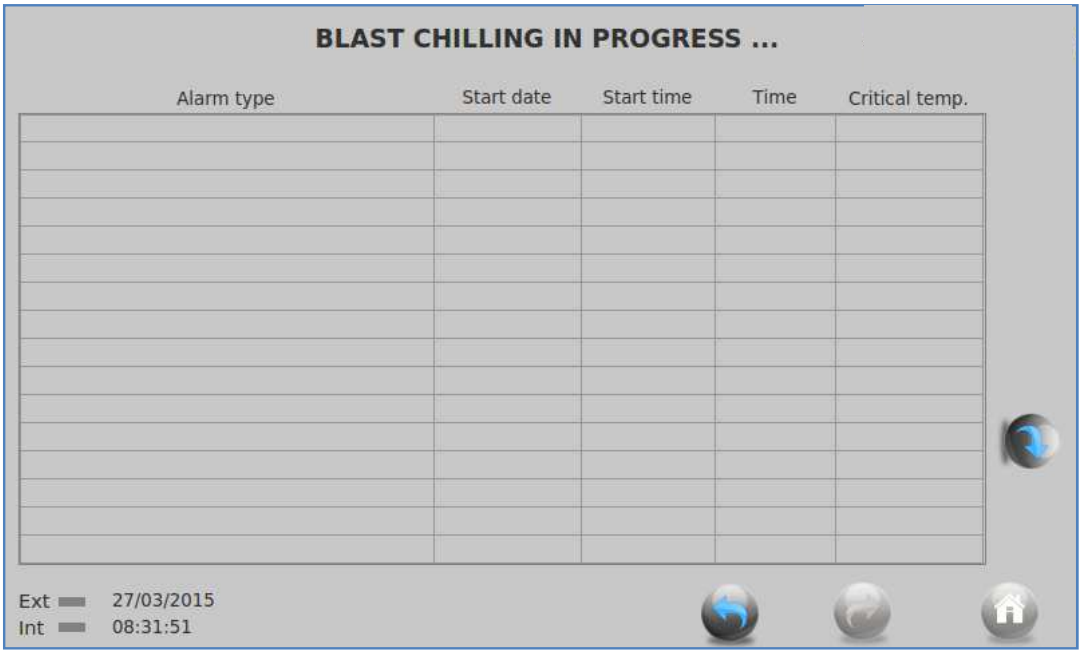

At any time while running a cycle, touch inside the graph and this screen will appear. It allows selecting which temperature value has to drawn in the graph by enabling or disabling the green checkmarks on the left side.



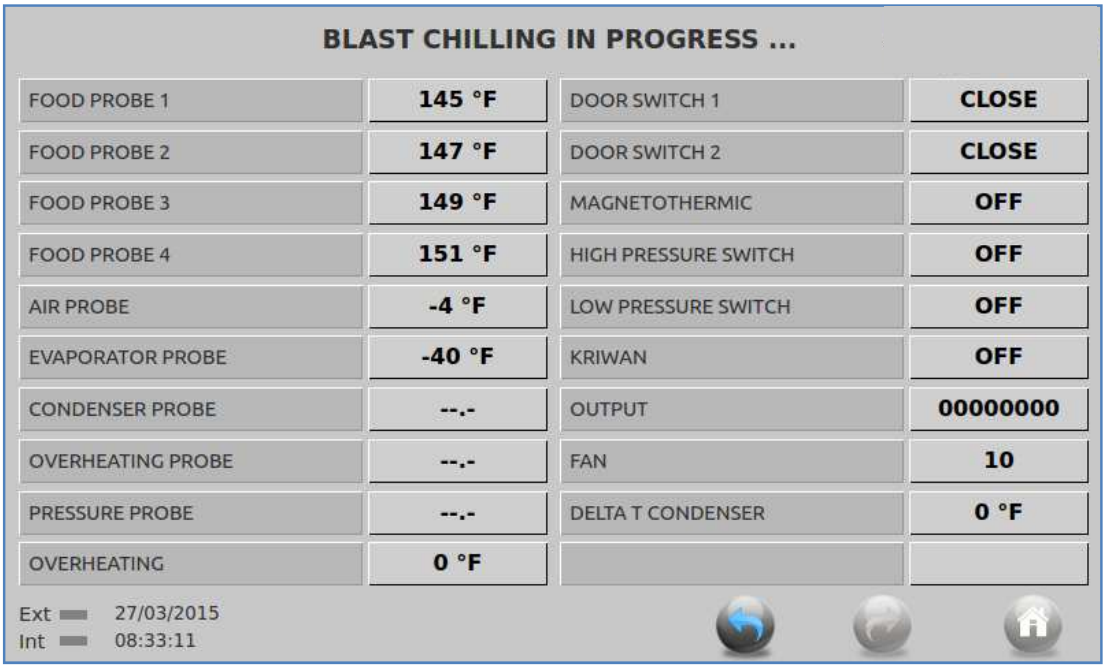

By clicking on PARAMETERS, the screen allows checking all the control parameters settings. These parameters cannot be changed in this screen and are for reference only. Push the Return icon to return to the previous screen.




Pushing the ALARM tab, the screen will show any alarms that may happen during the cycle.



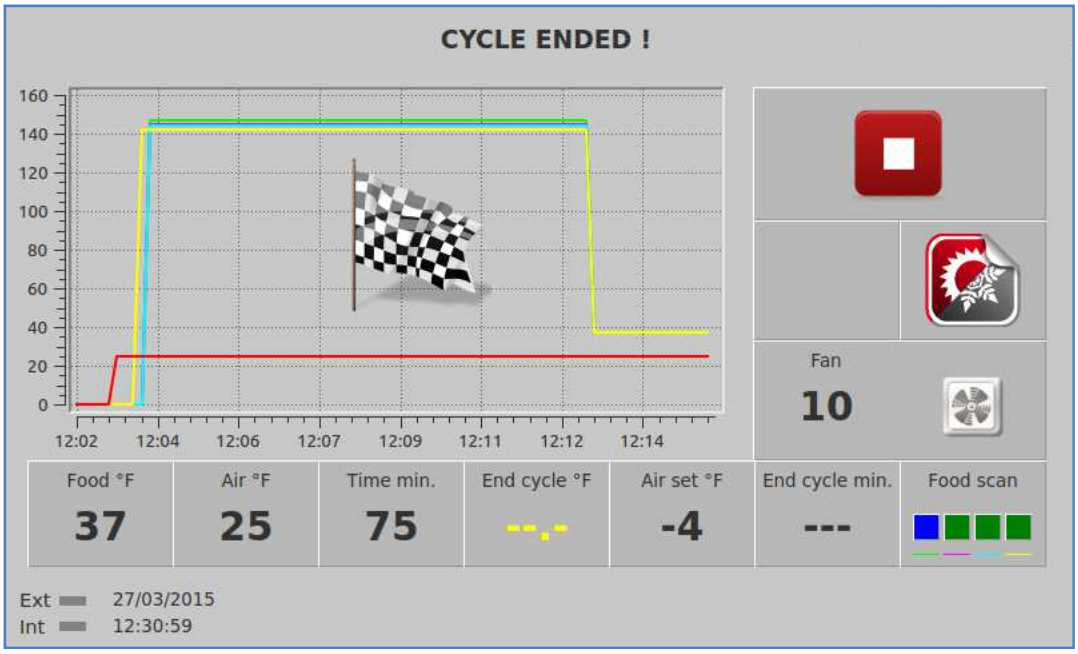

The I/O function allows to monitor in real time all the probe readings, including the 4 insert probe cores, and the door status. These are called Input values. Additionally, the I/O shows the component working status and the fan speed. These are called Outputs values.




The ENERGY tab allows monitoring the actual voltage, absorption power and others.

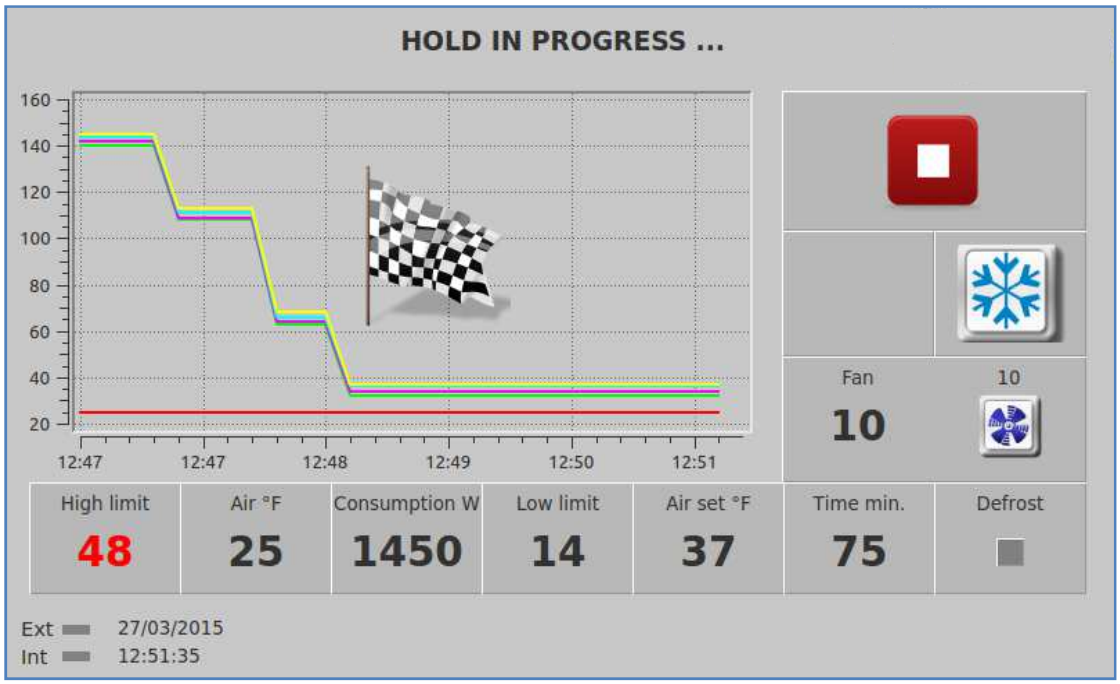
## 2.5. Cycle End

When the cycle is complete, this is the screen that will appear. The flag icon shows the exact time when the target was reached.




## 2.6. Automatic Holding Cycle

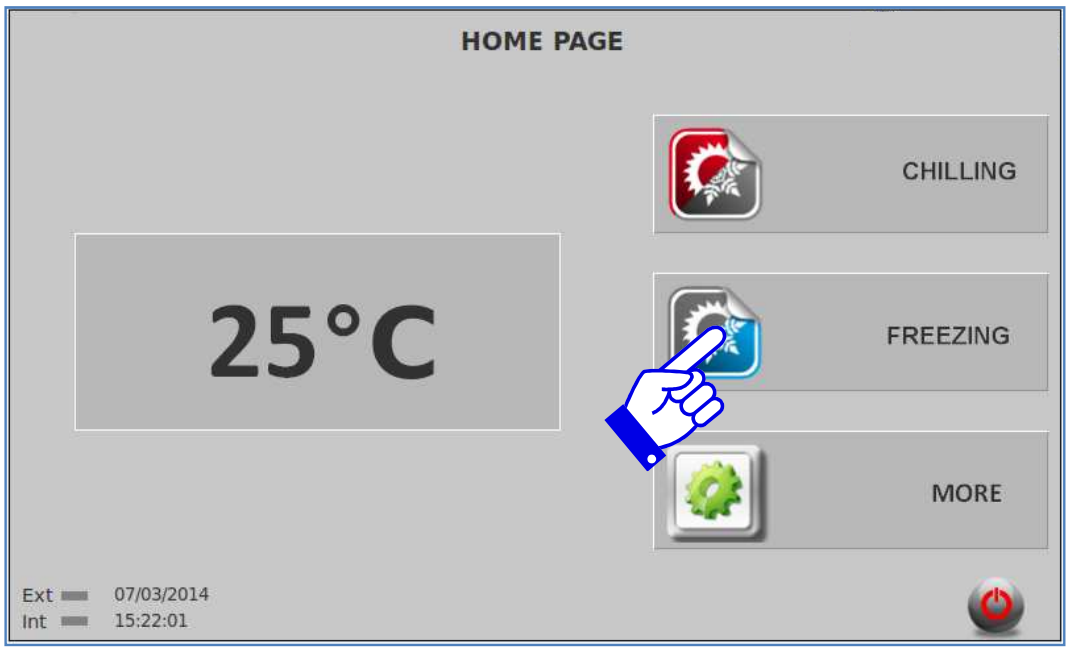
The Holding mode will start automatically. From left to right the screen will show you the upper temperature limit to trigger a high temperature alarm, the current temperature during the chilling mode, the energy usage at this time, the low limit to trigger a low temperature alarm, the set air temperature for the holding cycle, the time elapsed during the holding cycle and if the unit is in defrost.




By pushing the red stop button, you will stop the holding cycle and return to the Home screen.

## 3. The Blast Freezing Mode

The Shock Freeze cycle is identical to the Blast Chilling cycle in respect to programming, operation and modes, with the exception that it will run in much lower temperatures and hold at lower temperatures. The pre-determined food target temperature in a freeze cycle is -18°C(0°F) and HACCP states that this temperature should be reached within 240 minutes. The air temperature can be set down to -40°C(-40°F). As well as in the Chilling cycle, it's up to the user whether to select a food probe based cycle, with the benefit to have a properly frozen food at the end of the cycle, or a time based cycle, that will switch to the holding mode after a given time, regardless of the food temperature. Please see instructions in the above chapters for operation and programming.



## 4. The "Other" Screen (More)

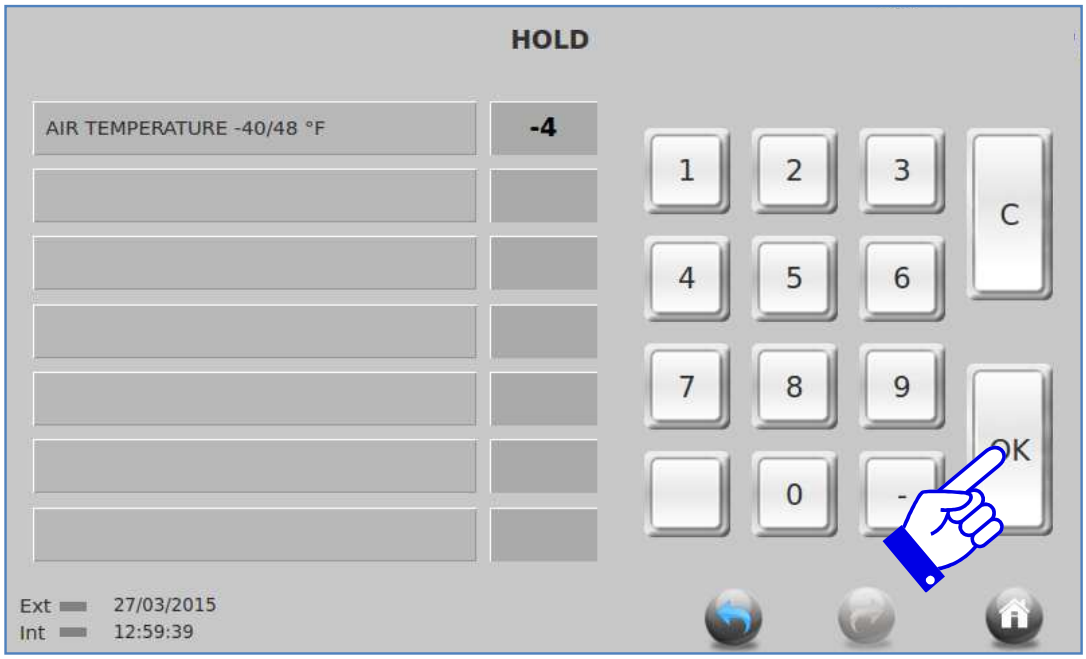
The Other screen allows the user to put the chiller in a Hold only mode, perform a Thawing cycle (if applicable), activate a UV Lamp sterilization cycle (if applicable), perform a manual defrost cycle, turn on the Optional Heated Probe, access the Service menu or go into the Options menu.

### 4.1. Hold

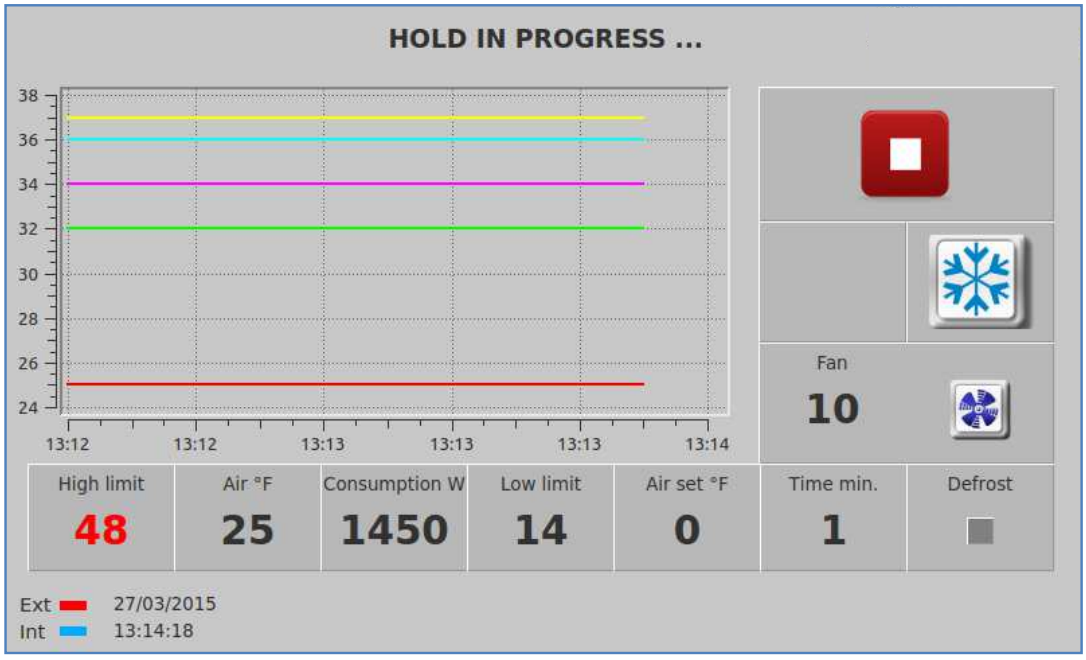
To select the Hold option, press the Hold tab.


To change the hold temperature, press the Air temperature tab, the tab will turn blue and you can select a temperature from -40°C(-40°F) to 8°C(46°F). If no temperature is selected or a temperature is selected outside of the range and start is pushed, the tab will turn red and not allow you to continue until a correct temperature is selected.

Once you have selected a temperature, press OK and the cycle will begin.



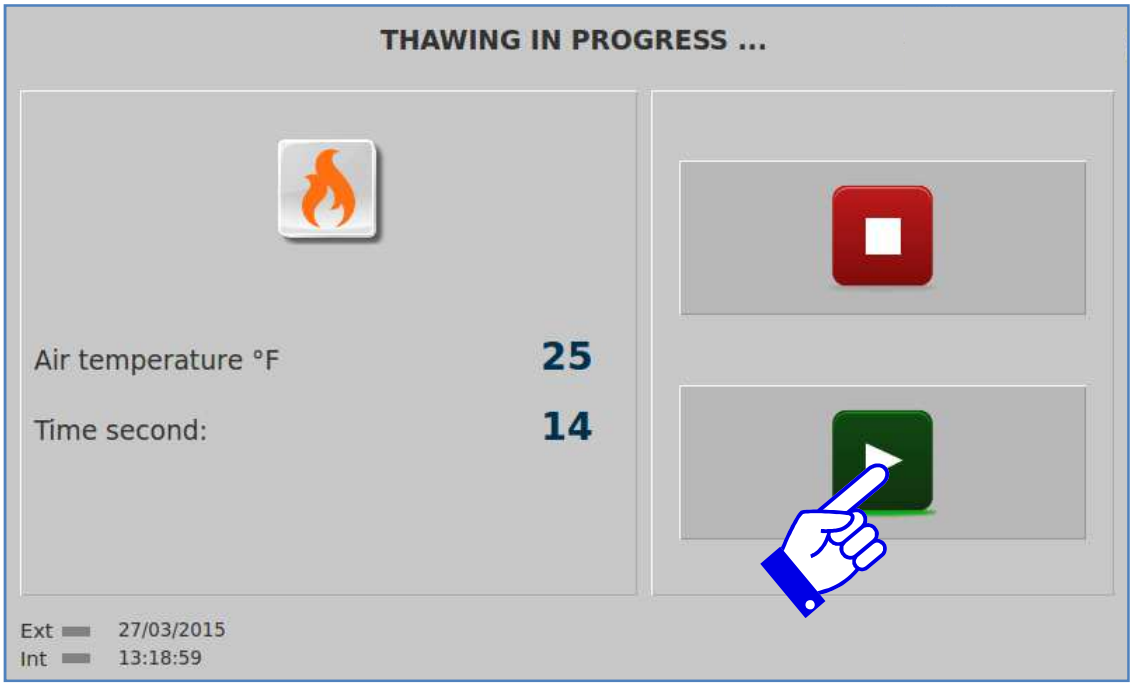

This is the graph that will be shown during the HOLD cycle.



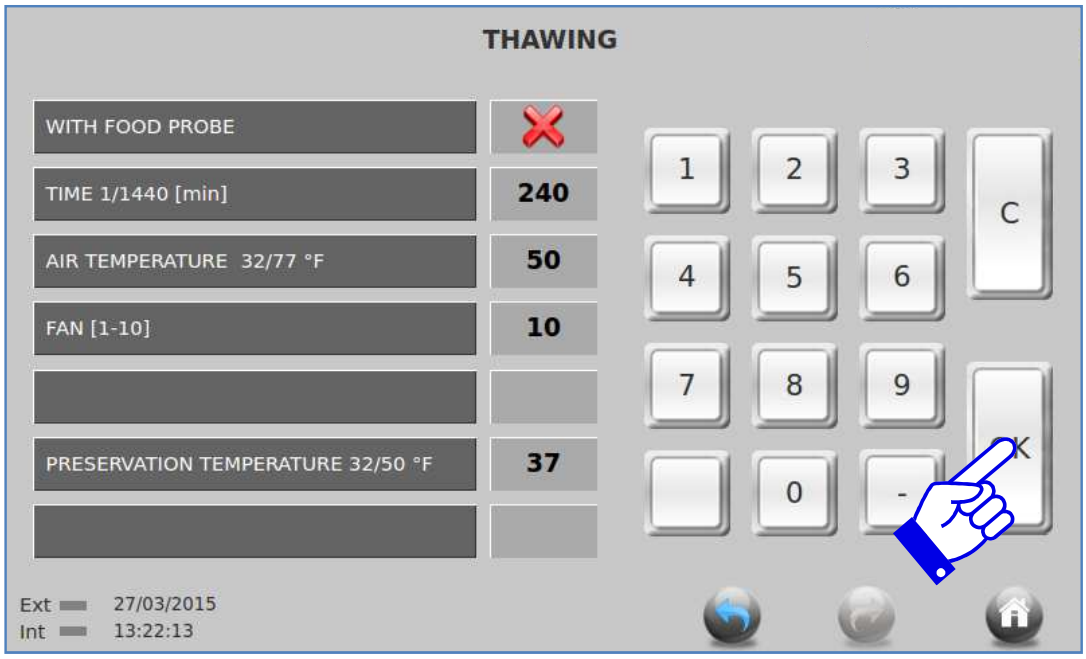

This cycle will run until it is stopped.

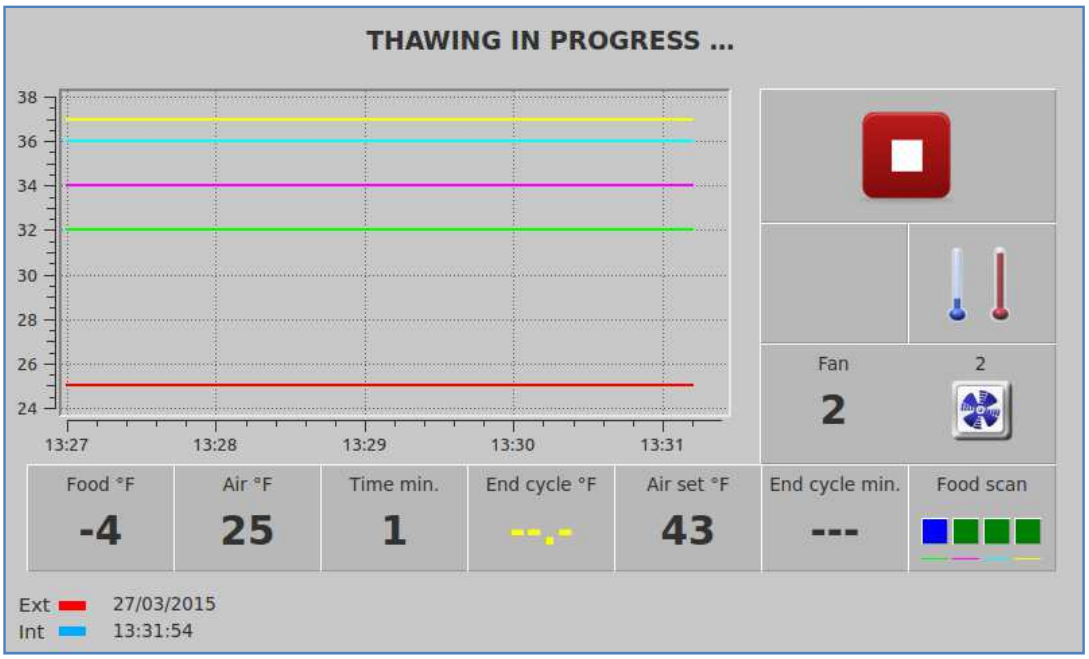
## 4.2. Thawing

The Thawing function, when applicable, will provide a gentle heating in the cabinet with a soft fan speed and a special heating system, allowing quick thawing of a frozen product.

The air temperature can be set within 0°C(32°F) and 9°C(48°F). The insert probe can be also used to run a product temperature based cycle, hence obtaining a notification from the display when the product is ready to re-thermalize (i.e. 3°C-37°F). Or otherwise set a time based cycle to run the thawing process for a predetermined time.



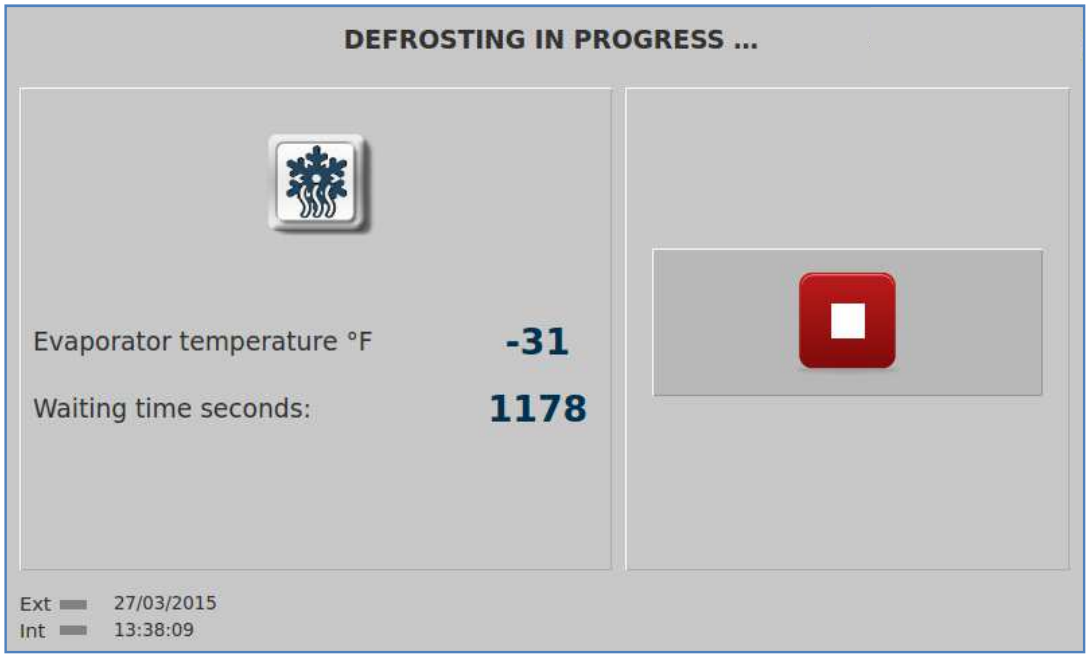
## 4.3. Sterilization

The Sterilization cycle is a special UV-Lamp process available upon request to kill bacteria in the Blast Chiller Room. This cycle provides a much deeper hygienic level than normal cleaning procedure.


## 4.4. Manual Defrost

You can select a Manual Defrost from this screen by pressing on the Manual Defrost tab.

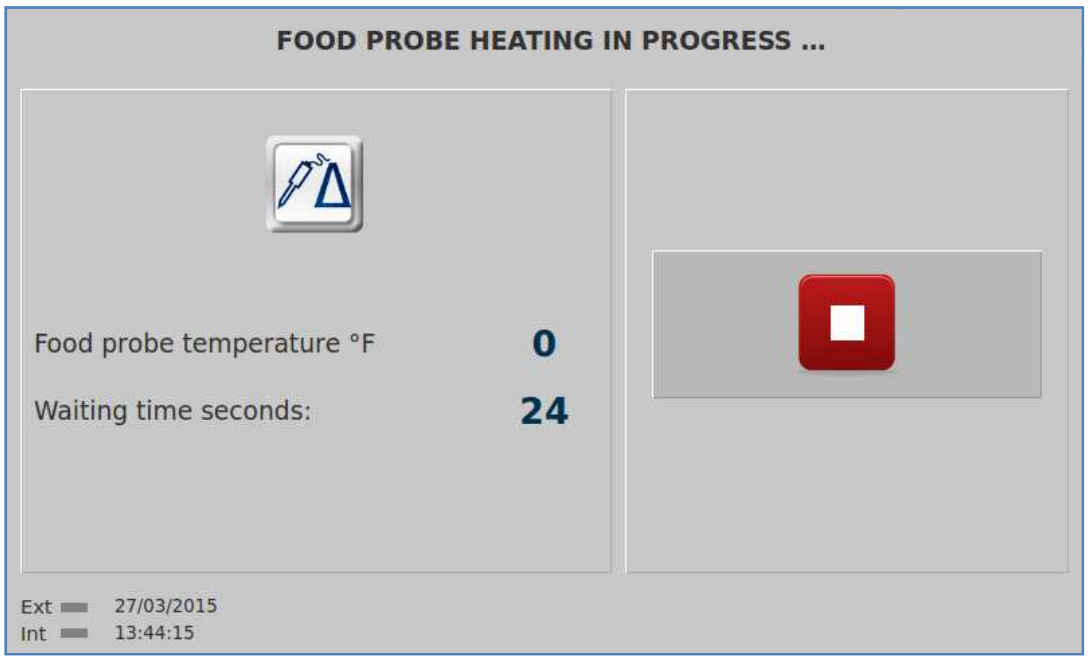

The Manual Defrost cycle is programmed to run for 10 minutes or until the evaporator temperature reaches 8°C(46°F).



This is an air defrost cycle, so the fans will run at high speed. Once the Manual Defrost is complete by either time or temperature, the screen will return automatically to the Home screen or it can be terminated at any time by pressing the red stop button.

### 4.5. Heated Probe

The Heated Probe function is available upon request and it must be installed and activated at the factory. This allows the end user to activate it by pushing the Heated Probe tab. Once pushed the food probe will heat slightly, for one minute, to allow it to be removed from frozen product without damaging the probe. After it times out, push the red stop button to return to the Option screen or push the Home icon to return to the Home screen.




## 4.6. Options

This tab will give access to many advanced functions.

### 4.6.1. Alarm List


This stores the Alarm List of any alarms that may occur during operation and is useful for diagnosing an issue with the equipment. It provides a description of the alarm, date and time they occurred.

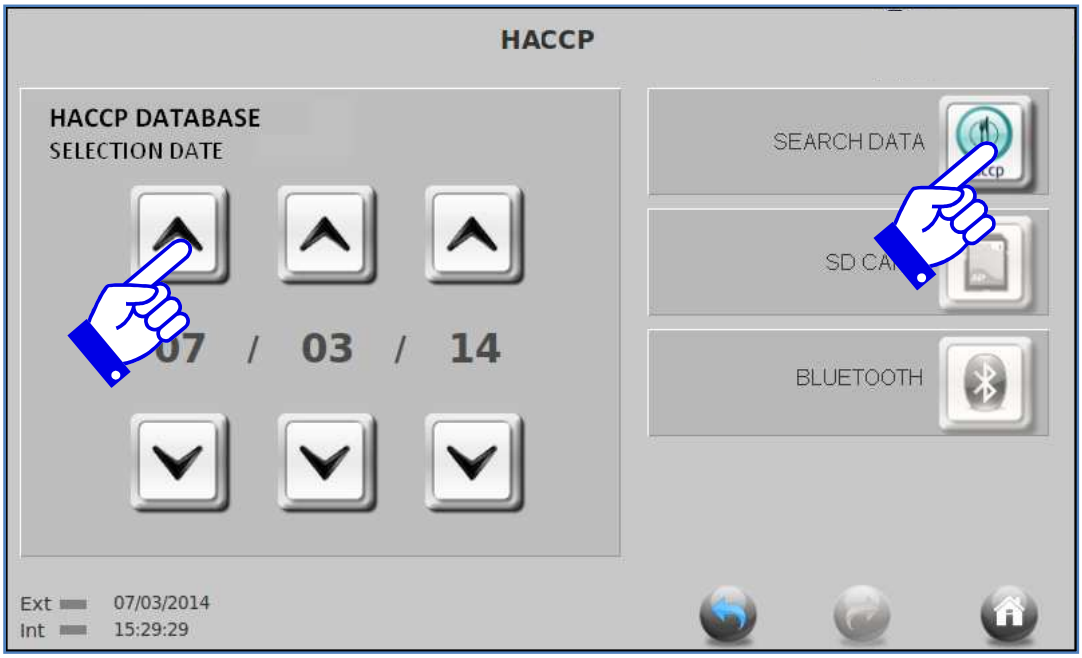
### 4.6.2. Defrost List

This stores the Defrost List of any defrost cycles that have occurred during operation.


It provides a description of the defrost cycle, date and time they occurred.

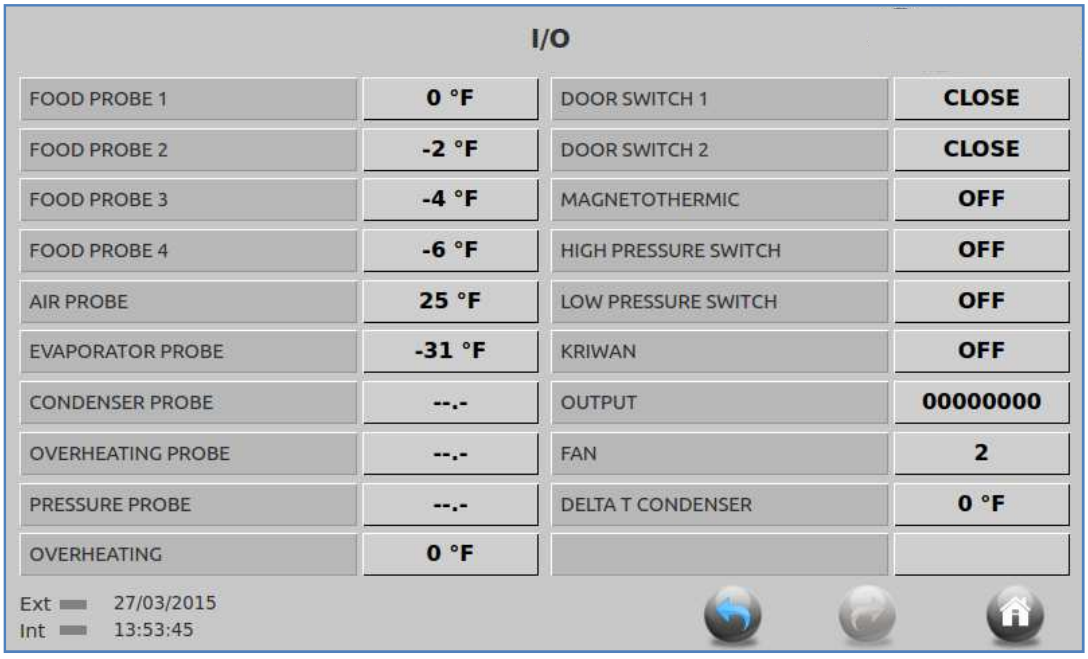
This screen will provide you with a graph showing the HACCP data for the cycles made in the selected date.


Once date is selected press SEARCH DATA to pop up on the windows cycle graphs.



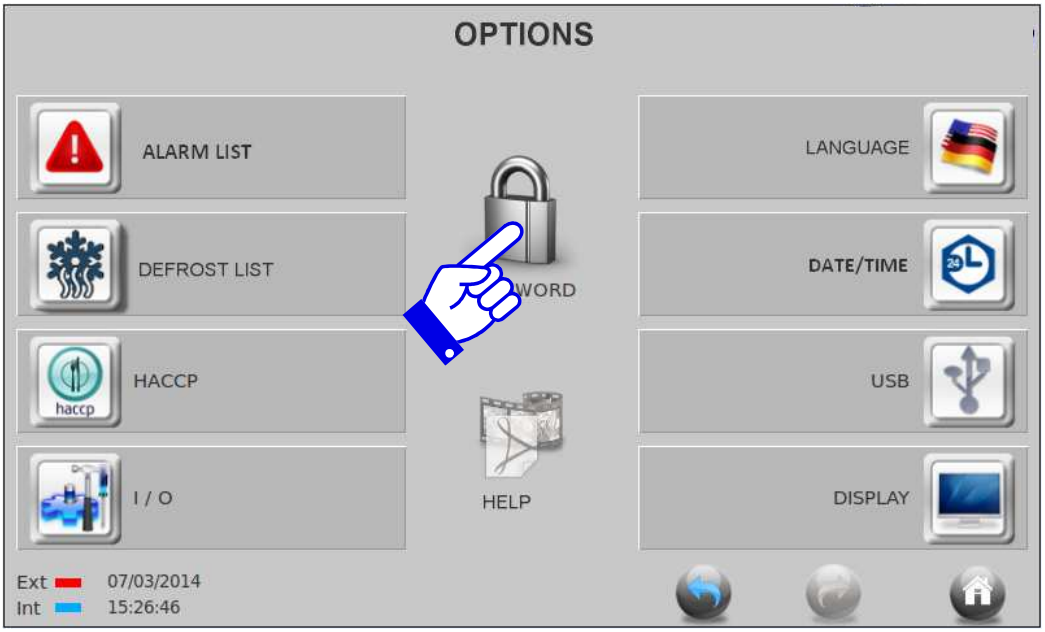
### 4.6.4. Input/Outputs

The Input/Output menu will allow to check all incoming signals, such as temperature sensors, door switch status and relay status.

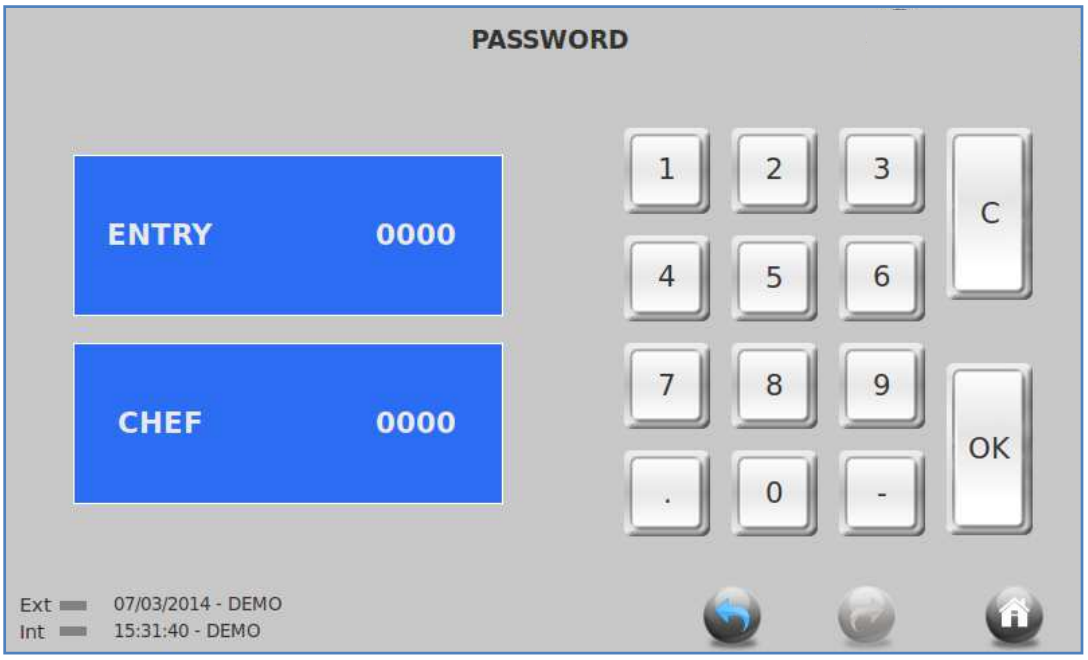
### 4.6.5. Password

The Password can be changed from the factory default or a password can be set by the chef to protect the recipes.




**WARNING: If the password is changed or a chef's password is set up, the factory cannot access this control if diagnostic service is required. You must secure the password in a safe place, otherwise if it is lost, the software must be reloaded and all saved recipes will be lost.**

To set a new password, select which type of password you wish to enter, ENTRY or Chef, that tab will be highlighted. Enter the password you have and hit ok. Once this action is performed, you will be the only one to access the control.



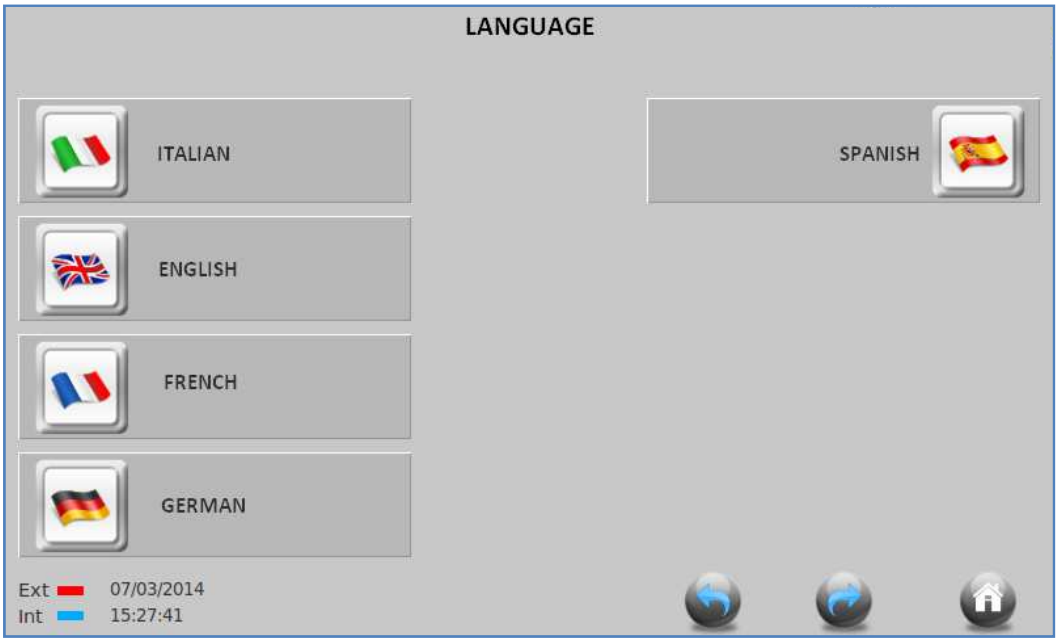

### 4.6.6. HELP

The Help button will used for future storage of videos, manuals, parts lists or maintenance information.

### 4.6.7. Language


Push the Language tab and you will have the ability to change the language.

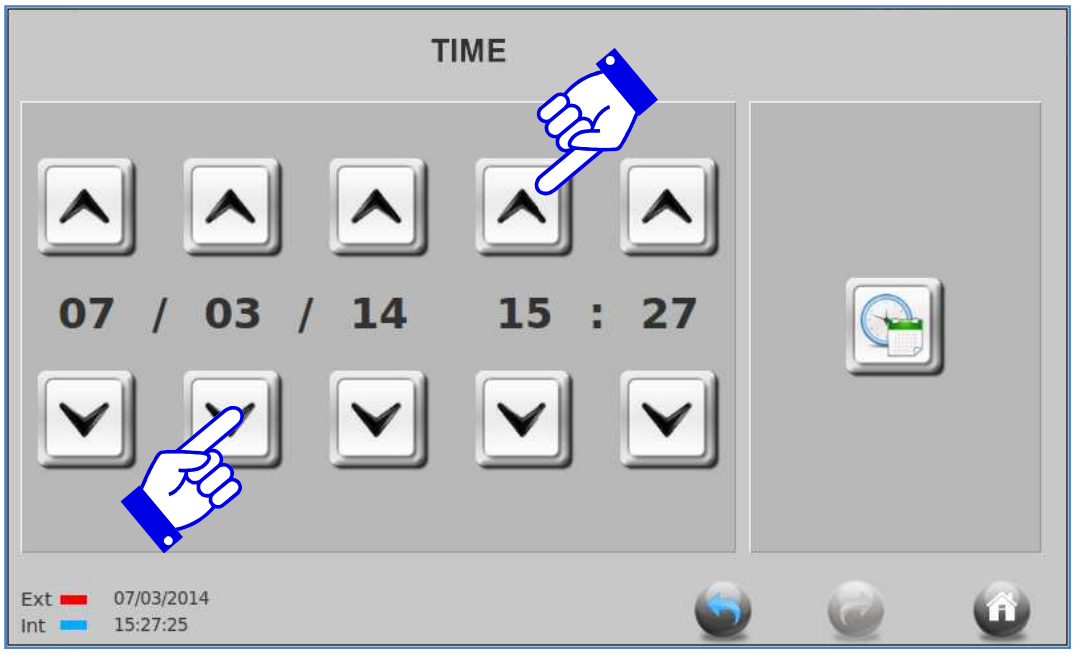
The language can be selected from Italian, English, French, Spanish or German.



### 4.6.8. How to set the time and date

Time and Date settings are important to track the HACCP data correctly. Push the Date/Time tab to show the Time setting screen.

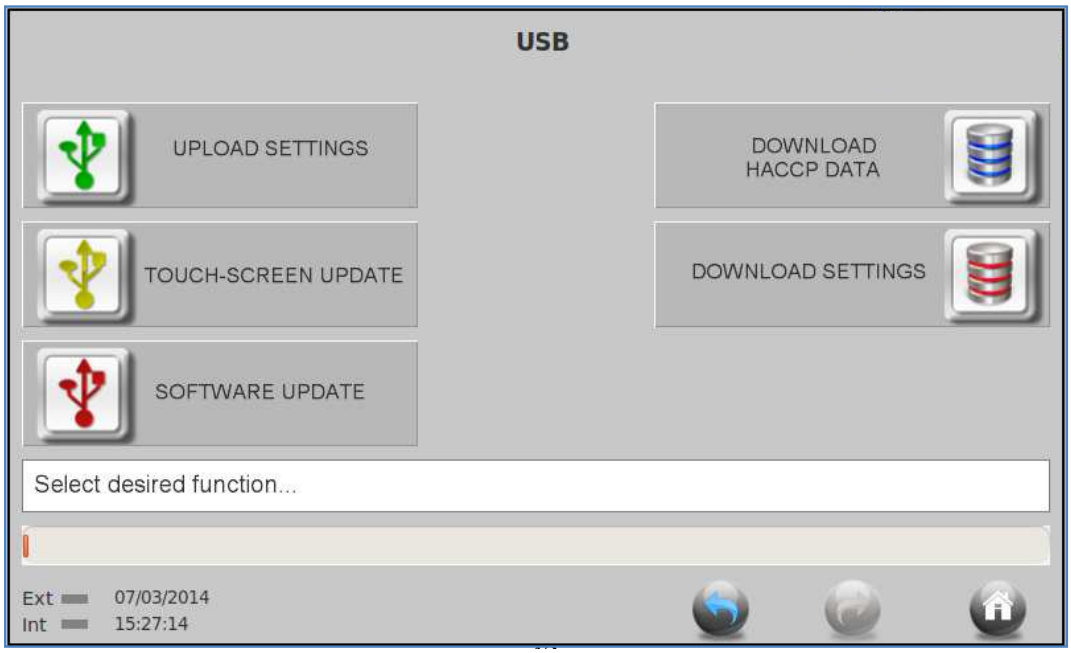

To set the proper date, firstly set the day, then the month and finally the year. Use the up and down arrows to reach the proper date and time.



Once the proper date and time is set, push the Return arrow to go back to the Options screen or push the Home icon to return the Home screen.

### 4.6.9. USB functions

Through the USB port, located on the right side of the Touch Screen frame, it's possible both to import and export data from/to a USB stick. There are no special requirement for the type of USB, however an empty formatted USB with minimum 2 gigs is recommended.

The main active functions are:

- ✓ Touch Screen Update
- ✓ Software Update (only software, only parameter, both software and parameters)
- ✓ Download HACCP Data

other functions being still under development.

- **Touch Screen Update**

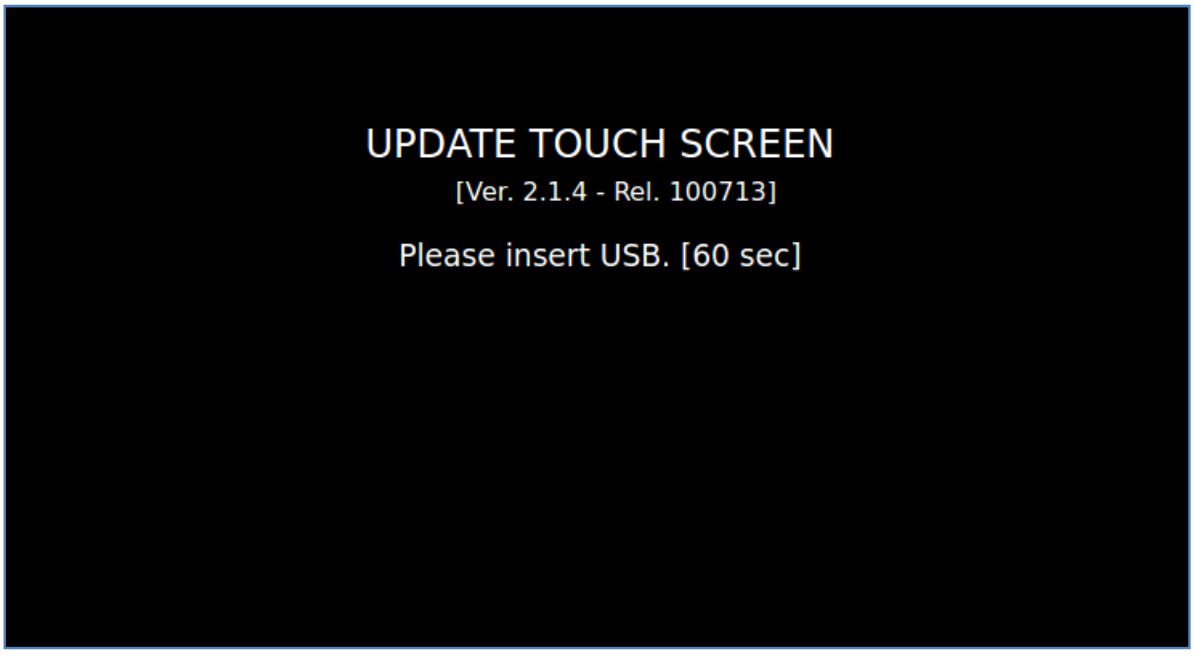
This functions allows Software enhancement related to the Touch Screen Display only. To do a Touch Screen Update please collect the necessary files from your Authorized Service Company, or engage one if necessary. These files will come in a zipped folder with a tar.gz extension. Their names are:

- ✓ *update_db.tar.gz*
- ✓ *update_tft.tar.gz*

i. Use a PC to copy the above files on a empty USB

ii. Remove the USB from the PC and insert it into the Touch Screen USB port

iii. Select the USB function and press the tab **TOUCH SCREEN UPDATE**



iv. The Display will show the above screen and will restart at the end of the procedure

- **Software Update (only software)**

This functions allows Software enhancement related to the Power relay board only (also called Firmware Update). To do a Firmware Update please collect the necessary files. These files will come in a zipped folder, containing the following files

- ✓ *CHILL.emi*
- ✓ *indexemi.arg* ***NOTE: the file index.arg changes according to the type of Software Update (Software, only parameters, both Software and Parameters)***
- ✓ *Desm_BlastChiller_900_0251_11A.bin*

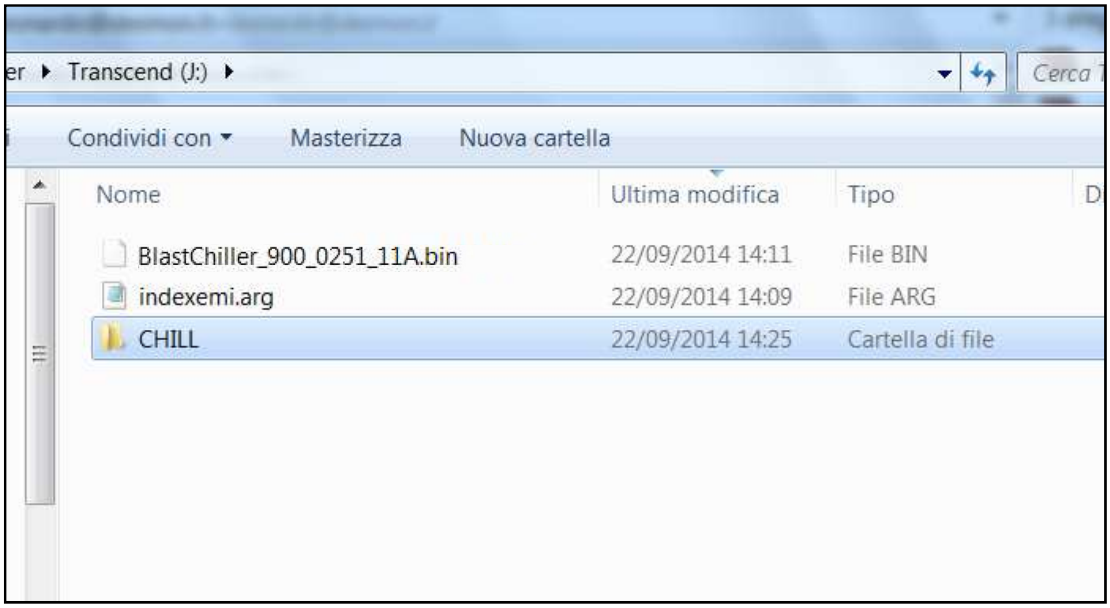
i. Once the files are available on a PC, connect a USB drive to it

ii. Create a folder on the USB drive and name it "CHILL"

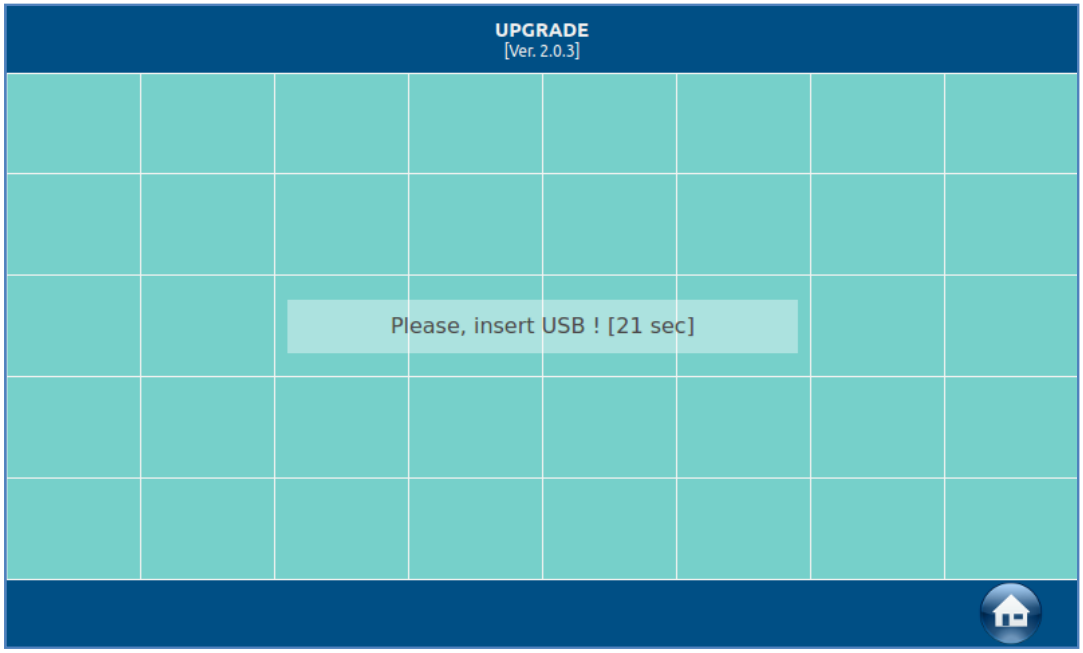
iii. Copy the file *CHILL.emi* in the "CHILL" folder

iv. Exit from the folder and copy the files *indexemi.arg* and *Desm_BlastChiller_900_0251_11A.bin* next to the "CHILL" folder

The USB content will show as in the below picture:

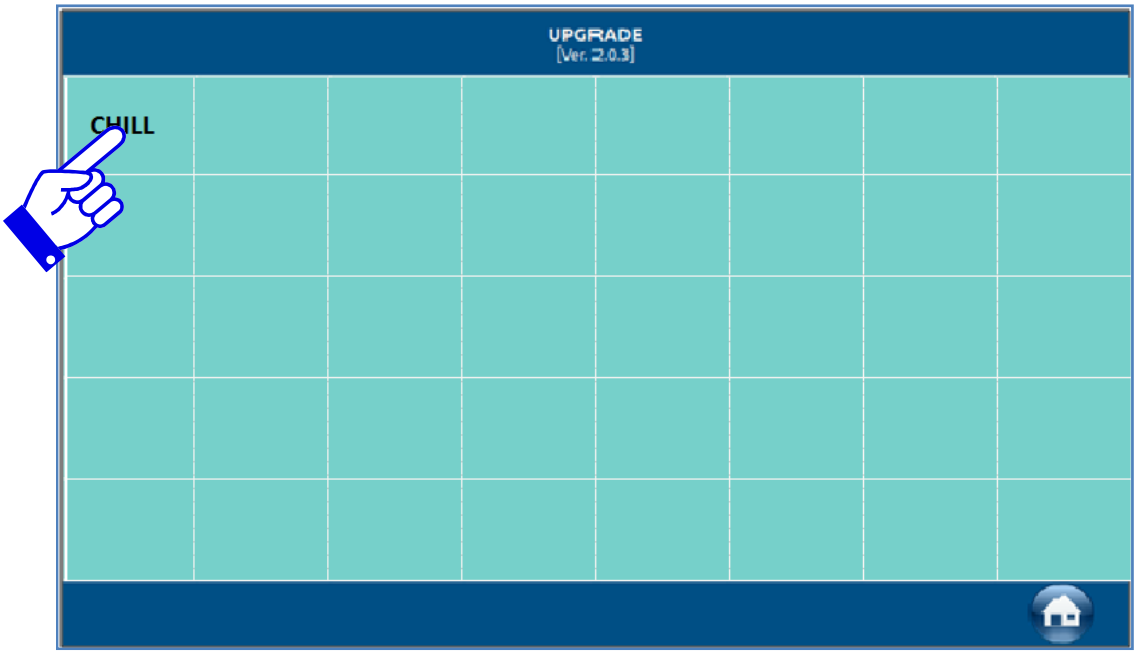


vi. Go to the USB function and select **SOFTWARE UPDATE**. A screen will pop up asking to insert the USB key until the key is detected.

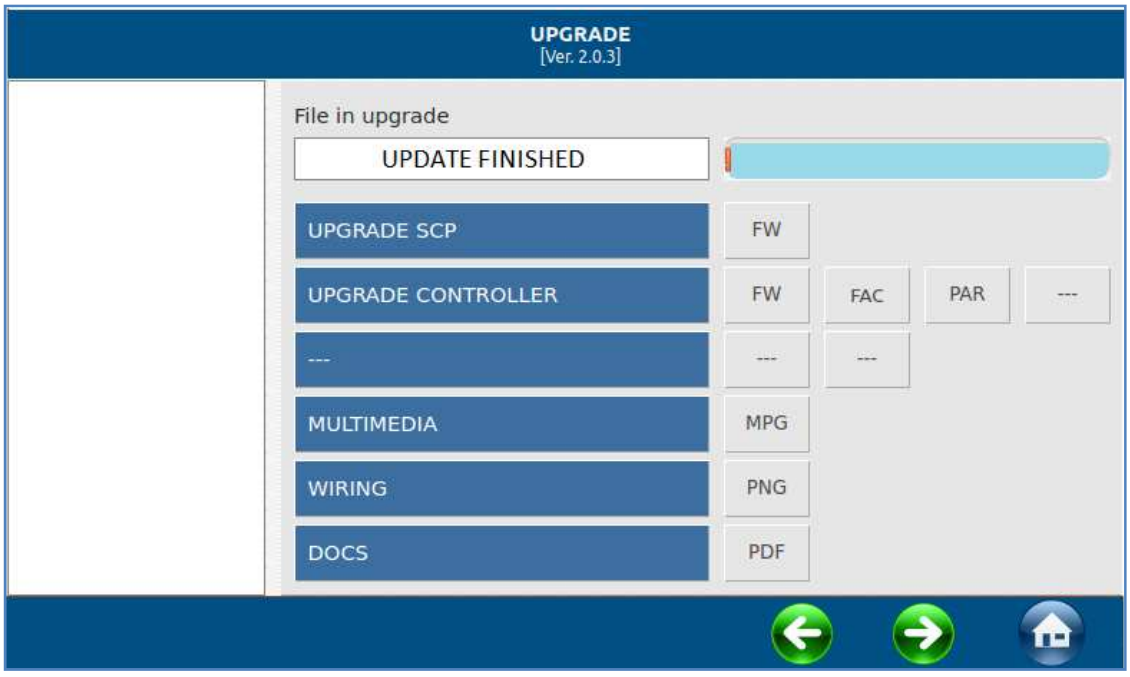



vii. Once the USB key is detected the screen will show **CHILL** on the left top side

viii. Press on CHILL to begin the update



ix. The following screen will appear during the updating process:

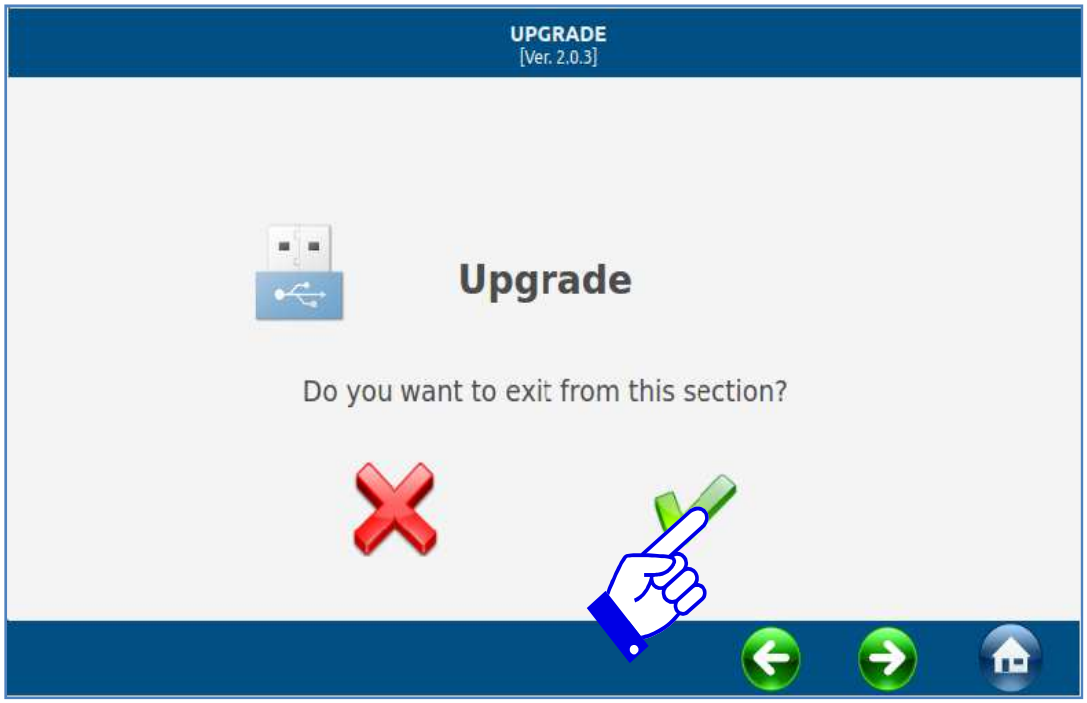




x. At the end of the procedure the screen will show UPDATE FINISHED

xi. Press the HOME icon on the right bottom side to confirm

xii. Press again the HOME icon in the next screen

xiii. After that press the green checkmark button to exit from the update procedure. The Display will then restart.




- **Software Update (only parameters)**

This function will allow loading from a USB drive the parameters settings only, but basically requires the same procedure as in the Software Update above described. To do a parameter update please collect the necessary files from your Authorized Service Company. These files will come in a zipped folder, containing the following files

- ✓ *CHILL.emi*
- ✓ *indexemi.arg* ***(NOTE: the file index.arg changes according to the type of Software Update (Software, only parameters, both Software and Parameters)***
- ✓ *parA.fac*

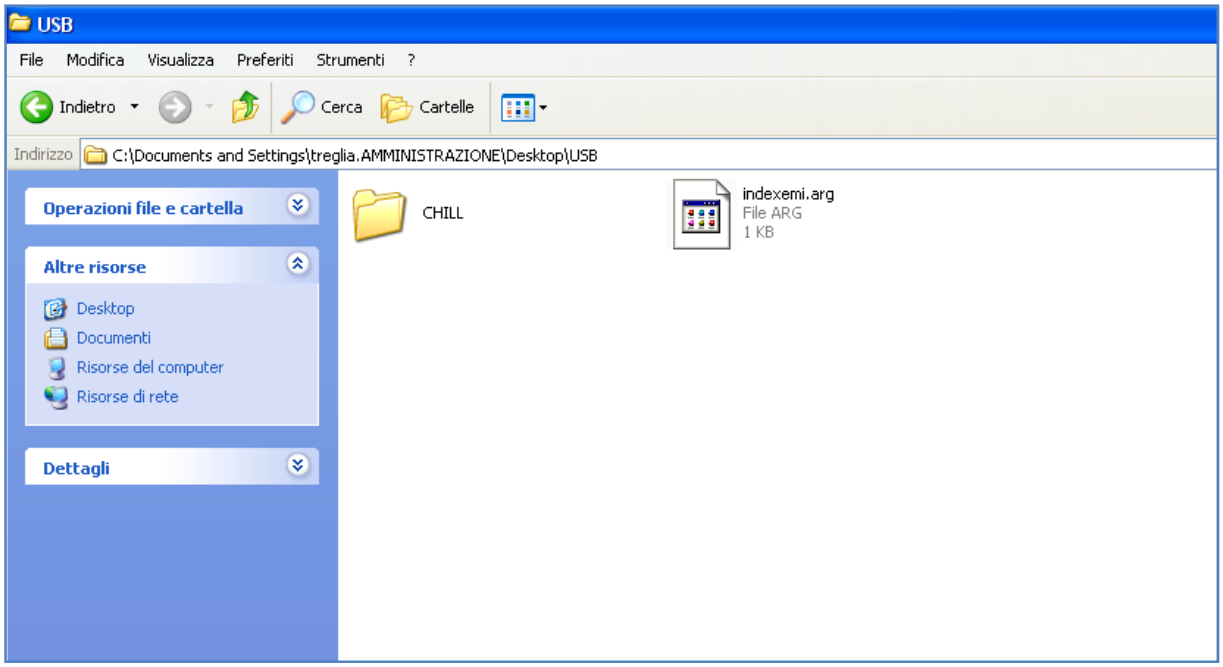
i. Once the files are available on a PC, connect a USB drive to it

ii. Create a folder on the USB drive and name it "CHILL"

iii. Copy the file *CHILL.emi* and *parA.fac* in the "CHILL" folder

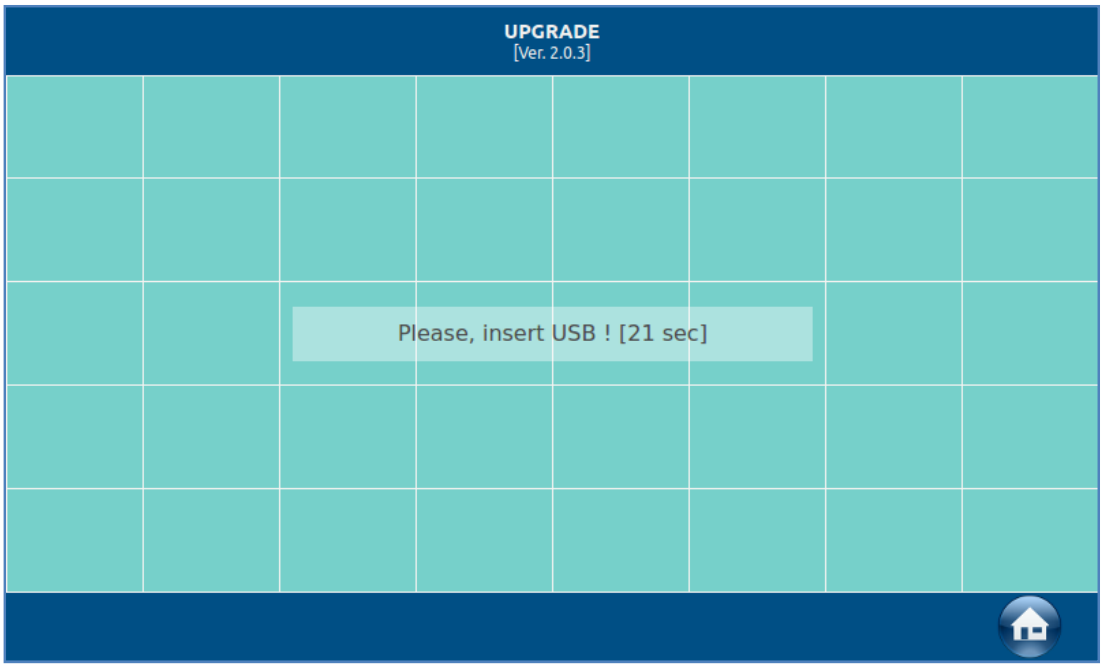
*iv.* Exit from the folder and copy the files *indexemi.arg* next to the "CHILL" folder

The USB content will show as in the below picture:



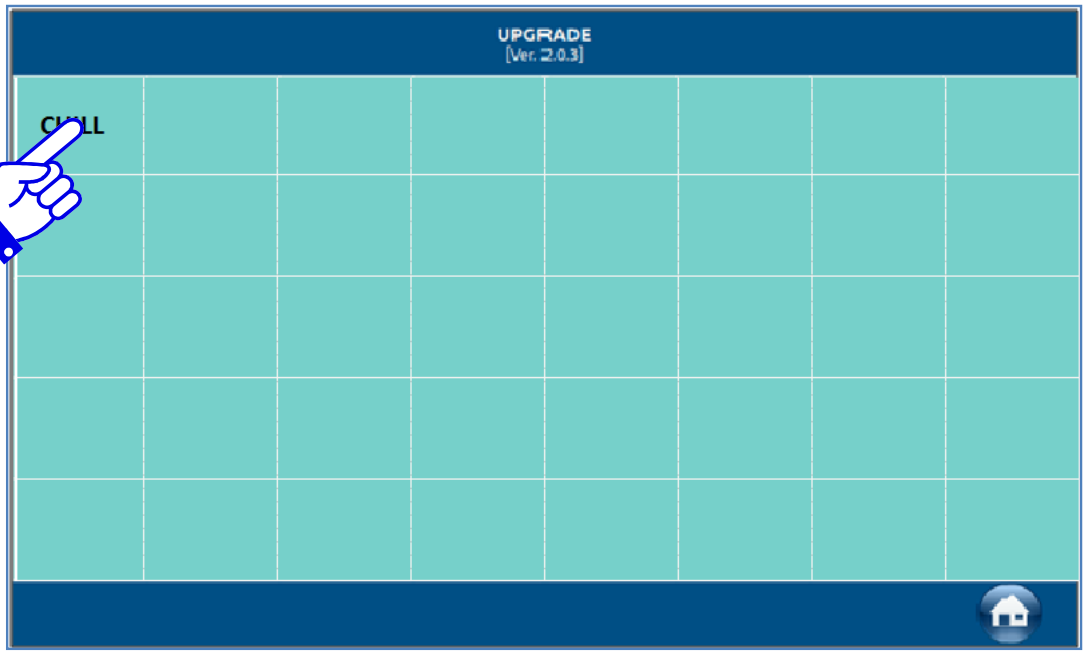

v. Remove the USB from the PC and connect it to the controller port

vi. Go to the USB function and select **SOFTWARE UPDATE**. A screen will pop up asking to insert the USB key until the key is detected.

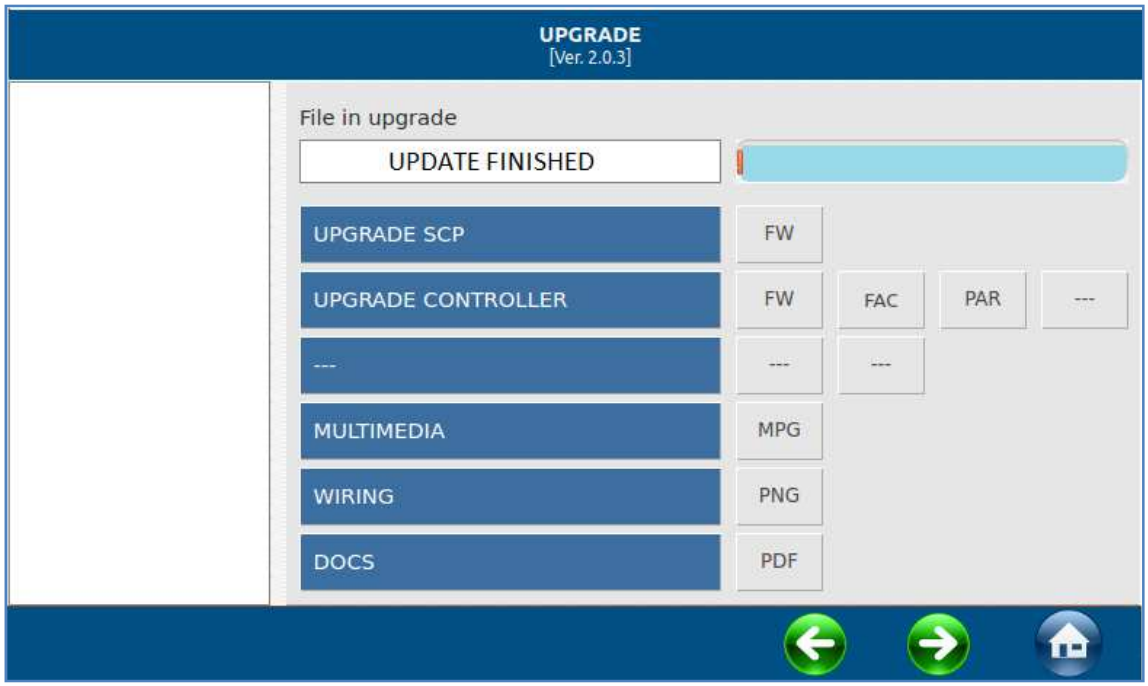



vii. Once the USB key is detected the screen will show **CHILL** on the left top side

viii. Press on CHILL to begin the update




ix. The following screen will appear during the updating process. Press START:

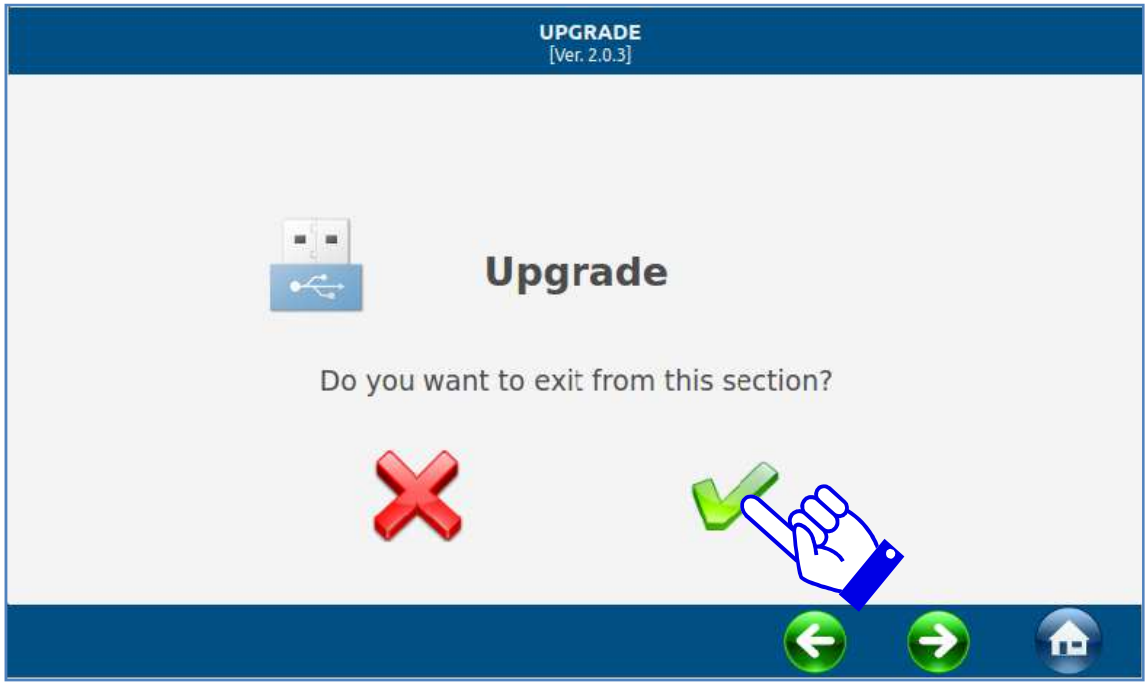



x. At the end of the procedure the screen will show UPDATE FINISHED

xi. Press the HOME icon on the right bottom side to confirm

xii. Press again the HOME icon in the next screen

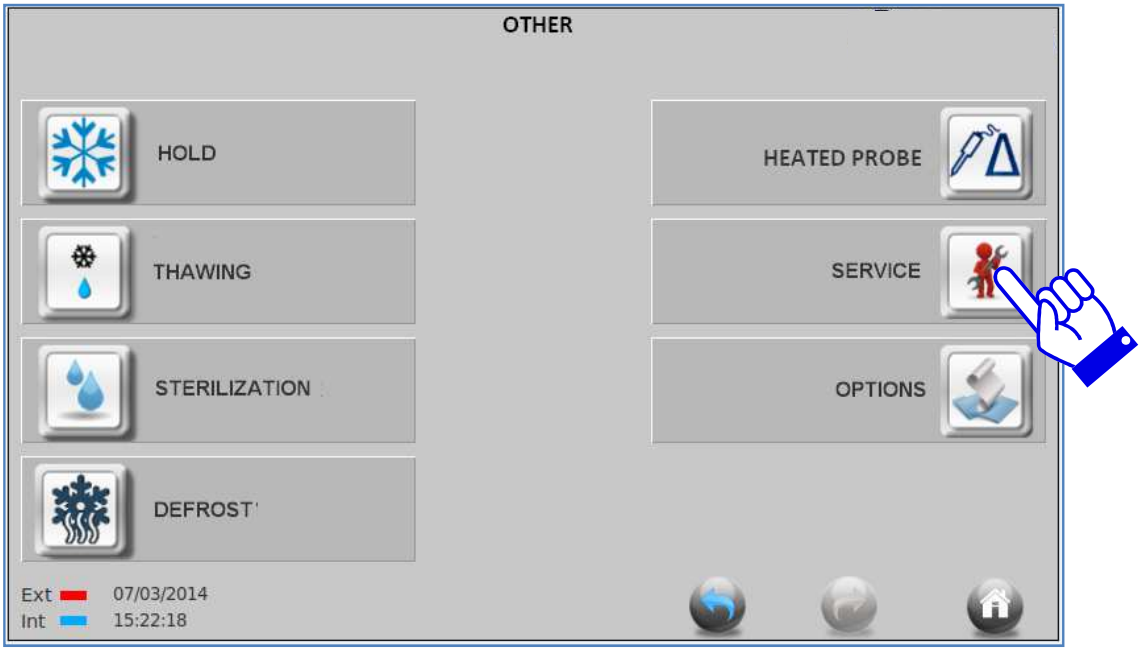
xiii. After that press the green checkmark button to exit from the update procedure. The Display will then restart.



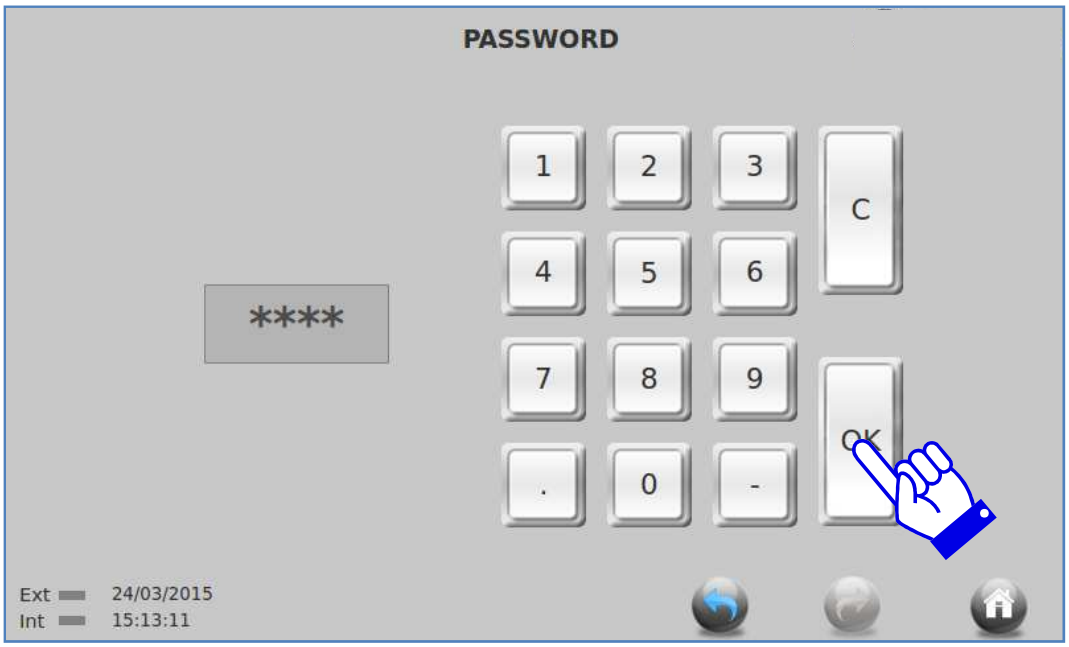
xiv. To enable the new updated settings a **PARAMETER RESTORE** is needed

xv. From the Home screen press MORE

xvi. Press SERVICE

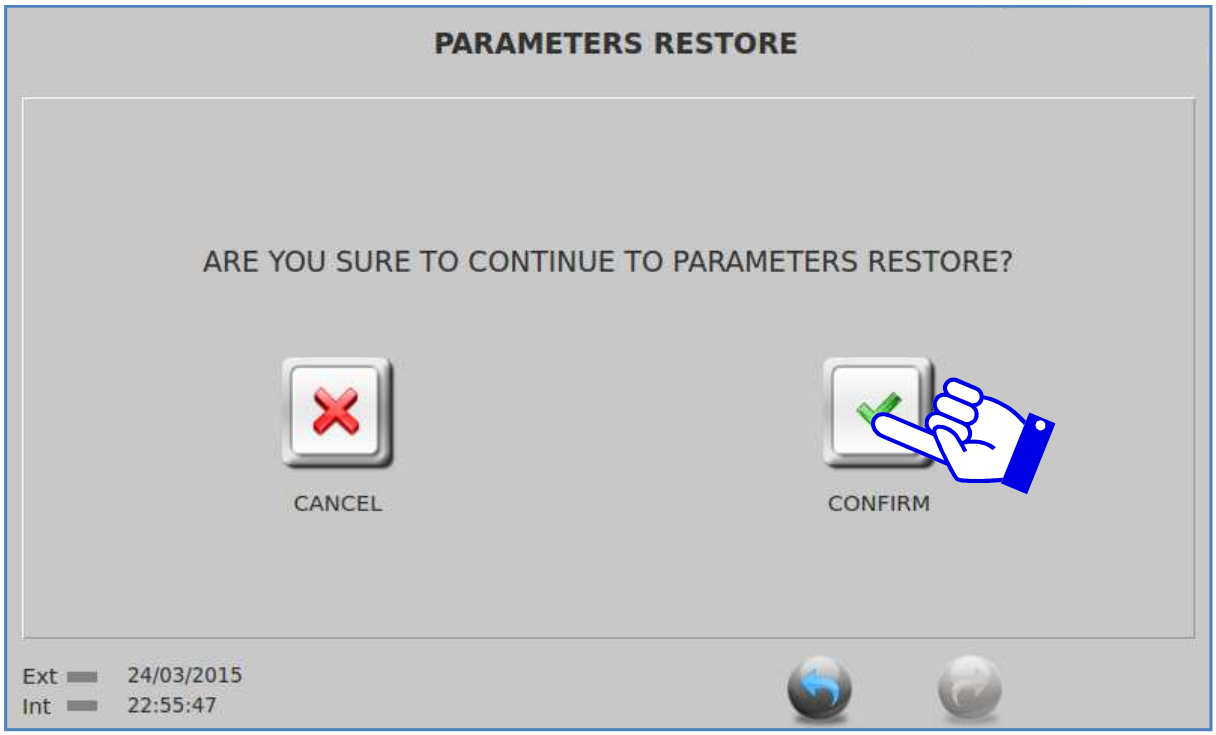



xvii. Insert the password and press OK




xviii. Press PARAMETER RESTORE


xix. Confirm by pressing the green Checkmark




- **Software Update (both Software and Parameters)**

This function will allow loading a new Software and a new Parameter setting. To do a Software and Parameter update please collect the necessary files from your Authorized Service Company. These files will come in a zipped folder, containing the following files

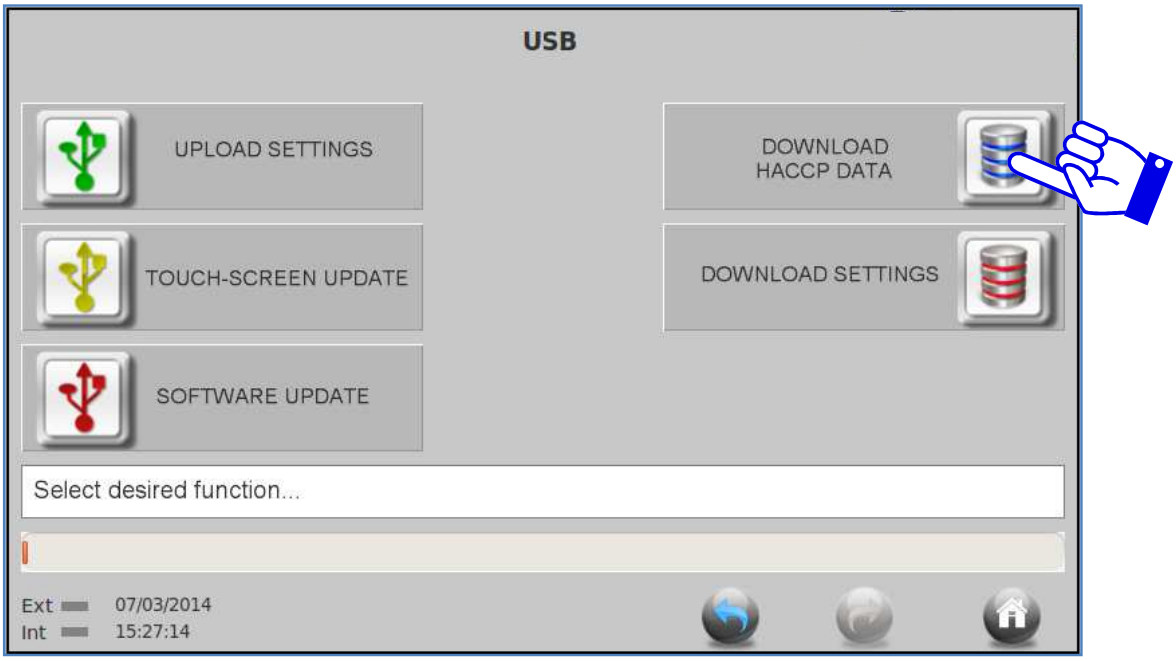
- ✓ *CHILL.emi*
- ✓ *indexemi.arg* ***(NOTE: the file index.arg changes according to the type of Software Update (Software, only parameters, both Software and Parameters)***
- ✓ *Desm_BlastChiller_900_0251_11A.bin*
- ✓ *parA.fac*

i. Once the files are available on a PC, connect a USB drive to it
ii. Create a folder on the USB drive and name it "CHILL"
iii. Copy the file *CHILL.emi* and *parA.fac* in the "CHILL" folder
*iv.* Exit from the folder and copy the files *indexemi.arg* and *Desm_BlastChiller_900_0251_11A.bin* next to the "CHILL" folder

Repeat steps from v. To xix. described in the previous paragraph "**Software Update (only parameters)".**

- **Download HACCP Data**

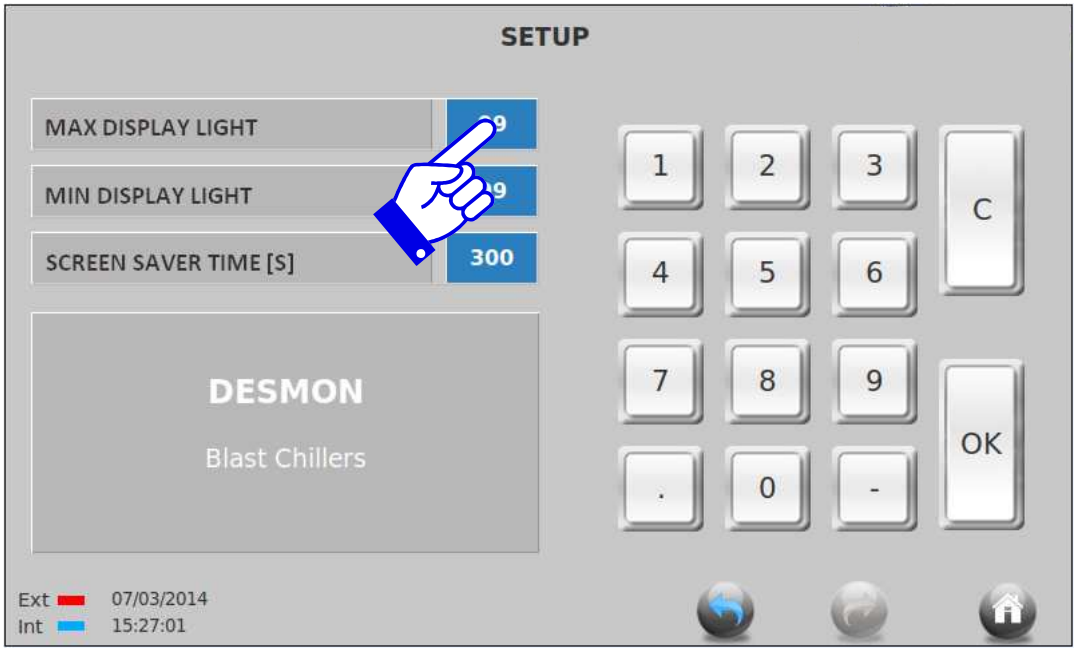
This function will export a zipped file named "haccp.zip" on the key. See instruction at chapter 7 on how to trace the haccp data.




### 4.6.10. How to adjust the display

Push the Display tab to adjust the screen brightness, maximum, minimum and to set the screen saver message.

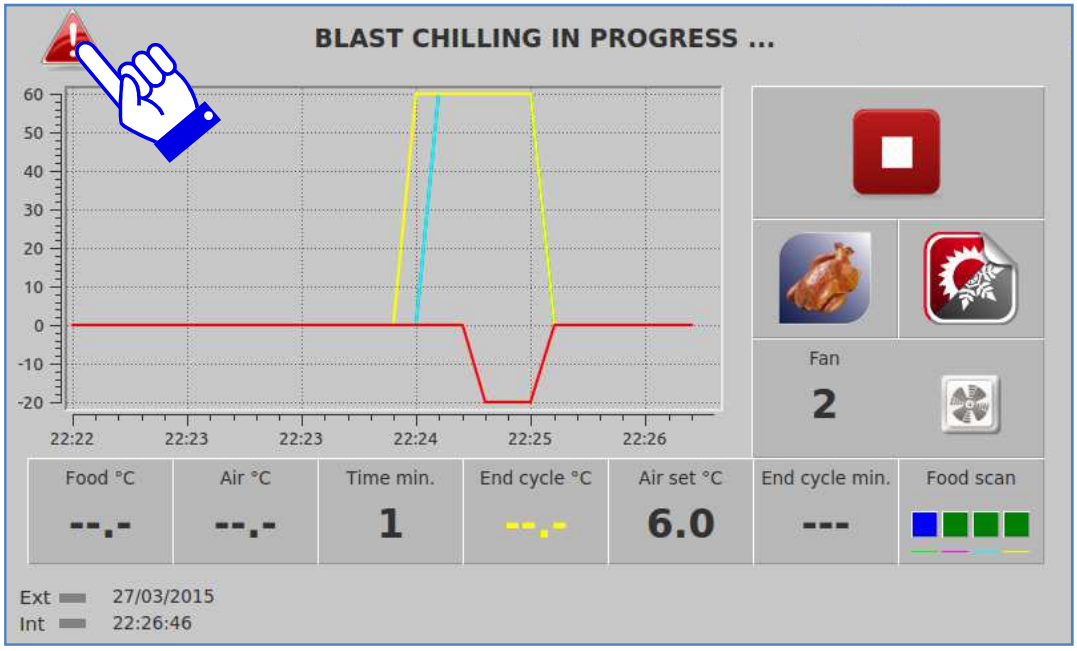
Push the tab you wish to change, enter a new value and it will store it.

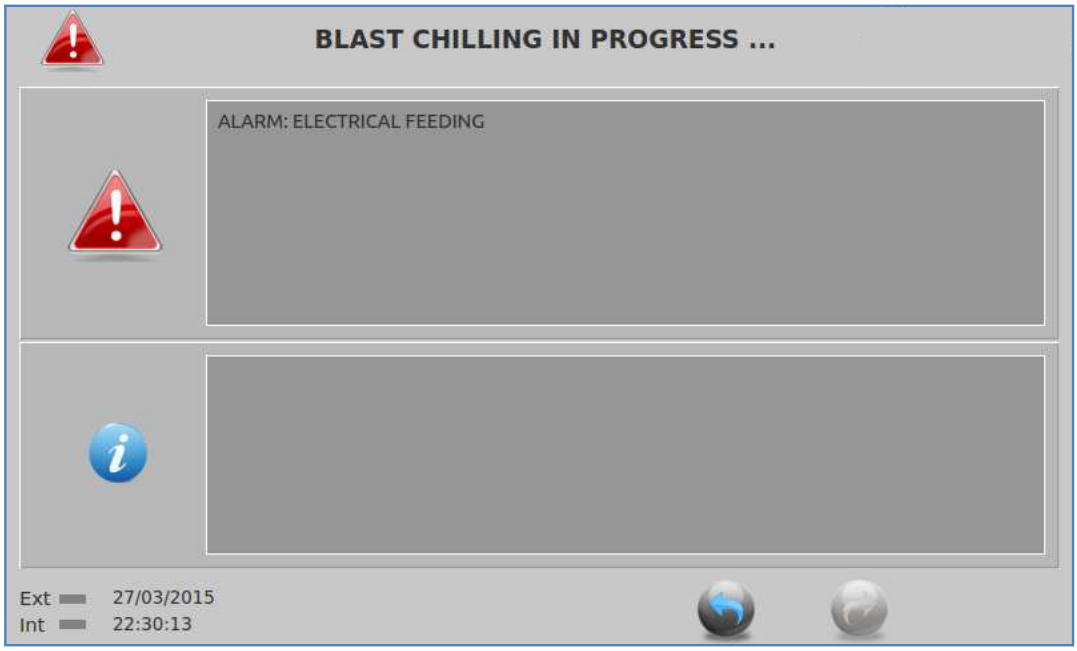



Push the Return arrow to return to the Options screen or push the Home icon to return the Home screen.

## 5. Alarm List

When an alarm is occurring an alert icon will blink on the screen and the buzzer will activate. Click on the alarm icon to see details.



This is the list of all alarms event that may occur during operation, along with recommendation on how to solve them.

**ALARM: DOOR**

The door is open for more than the allowed time during a cycle.

**ALARM: MAINTENAINCE**

It's just a reminder to perform a regular service inspection and preventive maintenance. Call your A.S.A. for more information.

**ALARM: CONDENSER HIGH TEMPERATURE**

It means that the condenser temperature is to high if compared to a normal working condition, defined by a temperature threshold. In this version of Blast Chiller the alarm is not enabled, as the condenser probe is not installed.

**ALARM: EVPORATOR LOW TEMPERATURE**

It means that the evaporator temperature is too low if compared to the current setpoint temperature. There is a differential parameter LBT that states the maximum gap that should exist between setpoint temperature and evaporator temperature. The alarm may occur in some occasion when there is a big change of setpoint temperature during a multistep automatic recipe, the evaporator temperature remaining low for some minutes and hence triggering the alarm. This alarm it's not a critical one, however it could be avoided by setting LBT as high as possible (i.e. 40°C-72°F).

**ALARM: DEFROSTING TIME**

Means that the defrost process has not terminated within the maximum defrosting time. The defrost normally ends by coil temperature (DTE). If this doesn't happen within DTO minutes then the alarm triggers. Check the evaporator coil icing status, one defrost may be not enough, then repeat the defrost. If the alarm occur during the holding cycle there may be a problem with the defrost device (hot gas valve). Using the Blast Chiller as an holding cabinet for a long time may reach to this alarm too.

**ALARM: ELECTRICAL FEEDING**

It means that the voltage supply is not within the safety range. The range is determined by parameter MRV Main Reference Voltage, plus or minus 20%. Check the voltage actual reading from the Energy section during a cycle for more details (2.4. Cycle Graph and other functions). Call Service if there is suspect of low or high voltage.

**ALARM: LOW TEMPERATURE**

It occurs when during the holding cycle the air temperature goes below the lower temperature limit, parameter ALL. This parameter is a differential respect to the setpoint.

**ALARM: HIGH TEMPERATURE**

It occurs when during the holding cycle the air temperature goes above the higher temperature limit, parameter ALH. This parameter is a differential respect to the setpoint.

**ALARM: AIR PROBE (S1)**

Air probe failure. Call Service.

**ALARM: EVAPORATOR PROBE (S2)**

Evaporator probe failure. Call Service.

**ALARM: CONDENSER PROBE (S3)** (Not applicable in this version of Blast Chiller)

Condenser probe failure. Call Service.

**ALARM: FOOD PROBE (PT1)**

Insert probe core 1 failure. Call Service.

**ALARM: FOOD PROBE (PT2)**

Insert probe core 2 failure. Call Service.

**ALARM: FOOD PROBE (PT3)**

Insert probe core 3 failure. Call Service.

**ALARM: FOOD PROBE (PT4)**

Insert probe core 4 failure. Call Service.

**ALARM: RELAY 1,2,…,8 BROKEN**

The electronic board detected a failure on Relay 1,2,…,8. Call Service.

**ALARM: TRIAC BROKEN**

The electronic board detected a failure on the PWM output for evaporator fan variable speed. Call Service.

**ALARM: BLACK OUT**

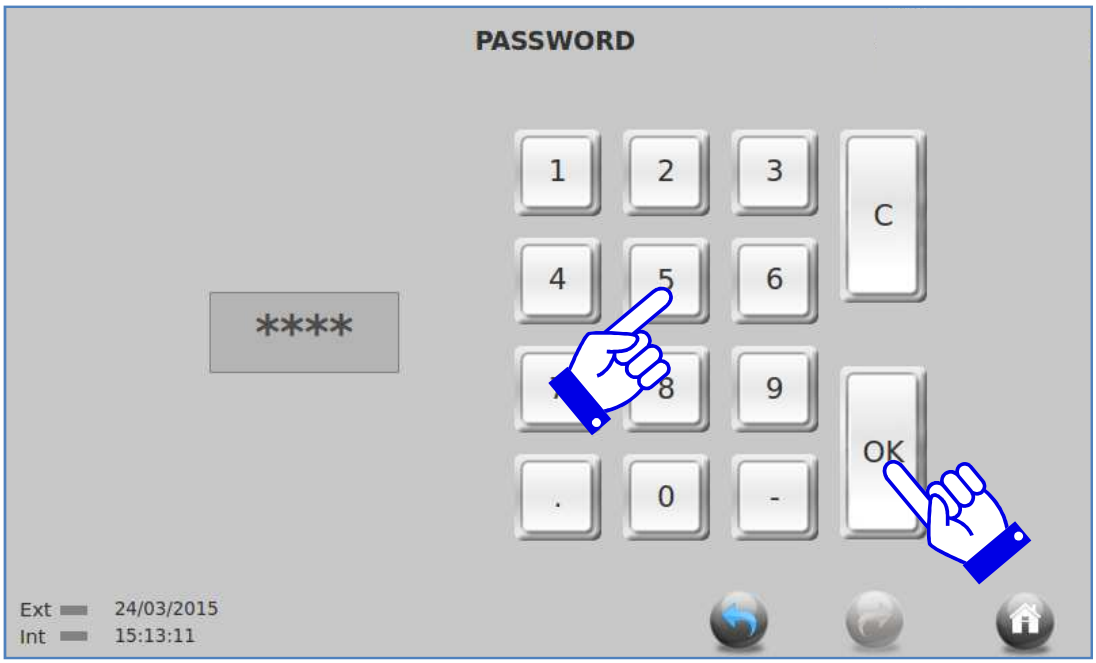
The system recorded a power interruption without switching off the display.

## 6. Service

This menu is mainly dedicated to technicians and troubleshooters. Access to service functions is password protected, to avoid unwished changes of crucial settings and prevent damages to the Equipment. Even knowing the password, do not access to the SERVICE MENU unless you are a qualified authorized technician.

### 6.1. Access to Service Menu

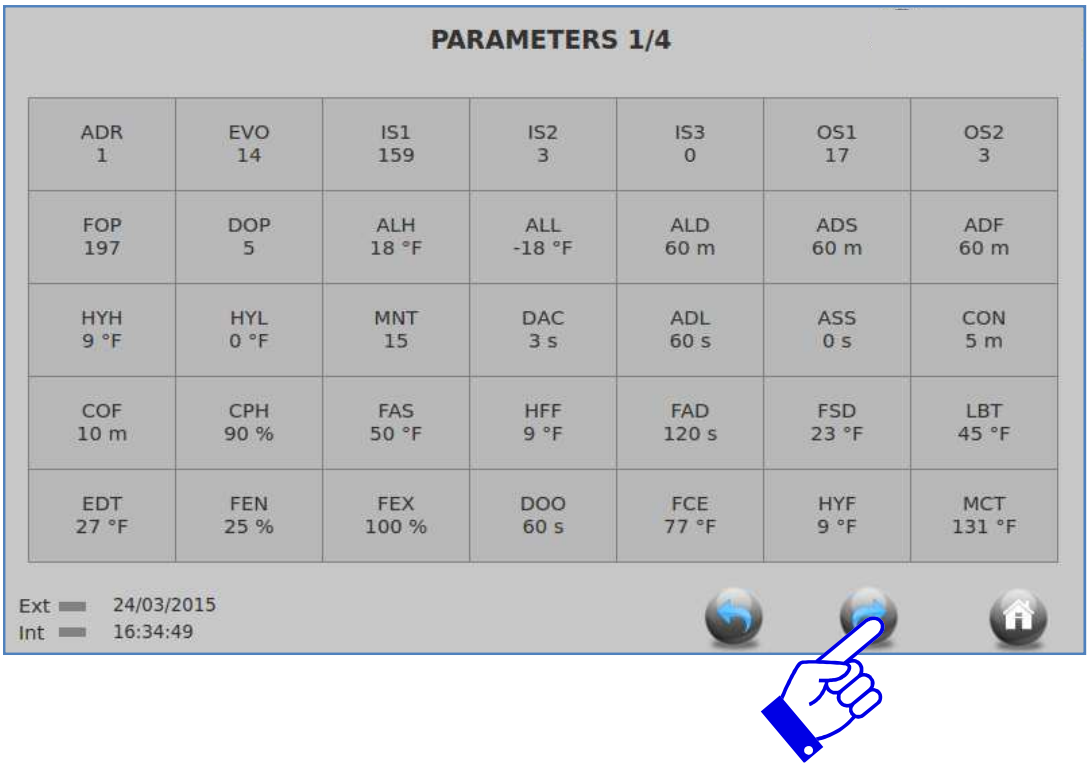
From the HOME screen press MORE, then press SERVICE.

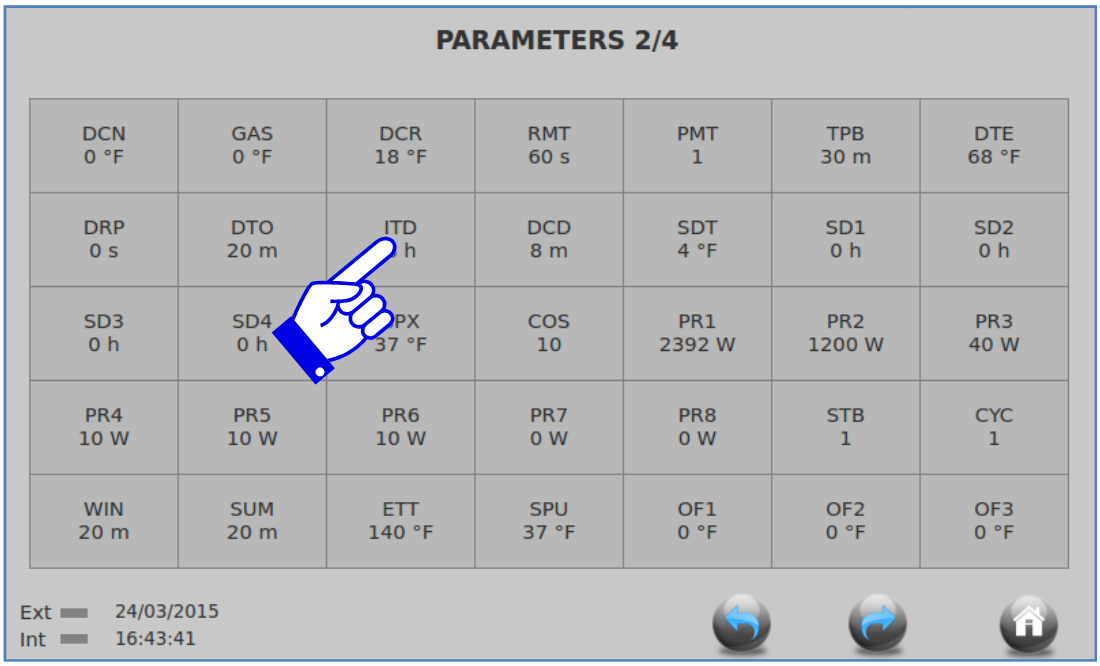



Insert the 4 digits password and hit OK to enter the menu.

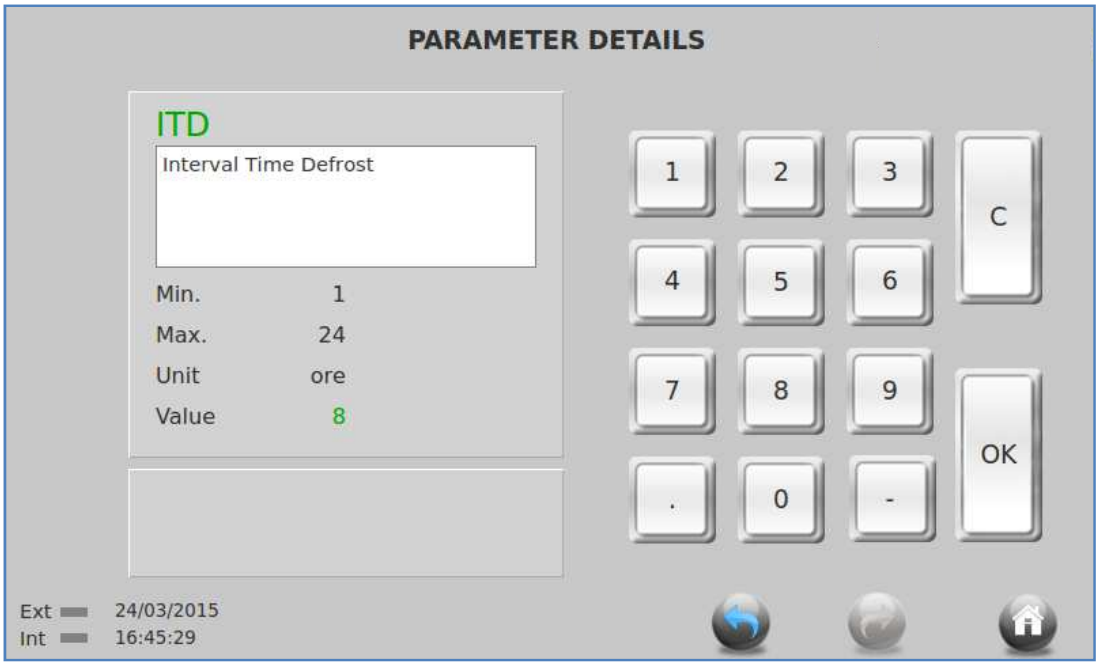
Pressing on PARAMETERS it is possible to check or change all the internal parameters of the Equipment. There are 134 parameters shown on 4 different pages.


Press the left or right arrow to scroll pages.






Press on the parameter to check or change.




Use the keyboard to change the parameter value and press OK to confirm the change.

The following table of settings is only for reference. Parameters values might change in the future without prompt release of revised manuals. Please ask your Service Agency for receiving up-to-date list of parameters for your Equipment.

| Parameter | Description | 5 PANS 115V | 5 PANS 230V | SELF CONTAINED 230V | TROLLEY |
|---|---|---|---|---|---|
| ADR | serial address [num] | 1 | 1 | 1 | 1 |
| **EVO** | **alarm intervention super-parameter [num]** | **0** | **0** | **0** | **0** |
| **IS1** | **probes and door input configuration super-parameter [num]** | **155** | **155** | **155** | **155** |
| **IS2** | **digital input configuration super-parameter [num]** | **8** | **8** | **8** | **8** |
| IS3 | not used | 0 | 0 | 0 | 0 |
| **OS1** | **additional output super-parameter [num]** | **0** | **0** | **0** | **0** |
| **OS2** | **additional output super-parameter [num]** | **0** | **0** | **0** | **0** |
| **FOP** | **fans mode super-parameter [num]** | **131** | **131** | **131** | **135** |
| **DOP** | **defrost mode super-parameter [num]** | **7** | **7** | **7** | **5** |
| ALH | upper temperature alarm limit [°C/°F] | 50 | 50 | 50 | 50 |
| ALL | lower temperature alarm limit [°C/°F] | 14 | 14 | 14 | 14 |
| ALD | temperature alarm delay [min] | 60 | 60 | 60 | 60 |
| ADS | temperature alarm delay after start [min] | 180 | 180 | 180 | 180 |
| ADF | temperature alarm delay after defrost[min] | 120 | 120 | 120 | 120 |
| HYH | upper differential cooling action [°C/°F] | 4 | 4 | 4 | 4 |
| HYL | lower differential cooling action [°C/°F] | 0 | 0 | 0 | 0 |
| MNT | number of trays of blast chiller [num] | 15 | 15 | 15 | 15 |
| DAC | compressor stop delay [sec] | 3 | 3 | 3 | 3 |
| ADL | minimum time of stop compressor [sec] | 60 | 60 | 60 | 60 |
| ASS | start compressor delay at power on [sec] | 30 | 30 | 30 | 30 |
| CON | compressor on time in probe faulty [min] | 5 | 5 | 5 | 5 |
| COF | compressor off time in probe faulty [min] | 10 | 10 | 10 | 10 |
| CPH | not used | 90 | 90 | 90 | 90 |
| FAS | evaporator fan set point [°C/°F] | 50 | 50 | 50 | 50 |
| HFF | differential of fan set point [°C/°F] | 9 | 9 | 9 | 9 |
| FAD | delay of fan start in evaporator probe faulty [sec] | 5 | 5 | 5 | 5 |
| FSD | stop evaporator fan temperature in defrost [°C/°F] | 14 | 14 | 14 | 14 |

| Parameter | Description | 5 PANS 115V | 5 PANS 230V | SELF CONTAINED 230V | TROLLEY |
|---|---|---|---|---|---|
| LBT | minumum evaporator temperature related to set point [°C/°F] | 50 | 50 | 50 | 50 |
| EDT | choking evaporator fan temperature range [°C/°F] | 59 | 59 | 59 | 59 |
| FEN | minimum evaporator fan speed % [num] | 25 | 25 | 25 | 25 |
| FEX | maximum evaporator fan speed % [num] | 95 | 95 | 95 | 95 |
| DOO | max open door time before door alarm [sec] | 60 | 60 | 60 | 60 |
| FCE | condenser fan set point [°C/°F] | 77 | 77 | 77 | 77 |
| HYF | upper differential condenser fan action [°C/°F] | 9 | 9 | 9 | 9 |
| MCT | max condenser temperature [°C/°F] | 131 | 131 | 131 | 131 |
| DCN | dirty condenser threshold [°C/°F] | 0 | 0 | 0 | 0 |
| GAS | low refrigerant amount alert threshold [°C/°F] | 0 | 0 | 0 | 0 |
| DCR | differential for restarting blast chiller after high condenser temperature [°C/°F] | 18 | 18 | 18 | 18 |
| RMT | stop time during high condenser temperature [sec] | 180 | 180 | 180 | 180 |
| PMT | max high condenser event before high temp. Alarm [num] | 3 | 3 | 3 | 3 |
| TPB | time threshold for high condenser temp. Alarm [min] | 30 | 30 | 30 | 30 |
| DTE | defrost ending temp related to evap. Probe [°C/°F] | 41 | 41 | 41 | 41 |
| DRP | dripping time after defrost [sec] | 60 | 60 | 60 | 60 |
| DTO | defrost timeout [min] | 10 | 10 | 10 | 10 |
| ITD | interval between two consecutive defrosts [hours] | 8 | 8 | 8 | 8 |
| DCD | max on-time drain heater [min] | 8 | 8 | 8 | 8 |
| SDT | ice detecting sensitivity in smart defrost mode [num] | 0 | 0 | 0 | 0 |
| SD1 | first daily defrost [hour] | 0 | 0 | 0 | 0 |
| SD2 | second daily defrost [hour] | 0 | 0 | 0 | 0 |
| SD3 | third daily defrost [hour] | 0 | 0 | 0 | 0 |
| SD4 | fourth daily defrost [hour] | 0 | 0 | 0 | 0 |
| SPX | door frame heater set point [°C/°F] | 14 | 14 | 14 | 14 |
| COS | average power factor of equipment [num] | 5 | 5 | 5 | 5 |
| PR1 | declared power connected to relay1 [num] | 0 | 0 | 0 | 0 |

| Parameter | Description | 5 PANS 115V | 5 PANS 230V | SELF CONTAINED 230V | TROLLEY |
|---|---|---|---|---|---|
| PR2 | declared power connected to relay2 [num] | 0 | 0 | 0 | 0 |
| PR3 | declared power connected to relay3 [num] | 0 | 0 | 0 | 0 |
| PR4 | declared power connected to relay4 [num] | 0 | 0 | 0 | 0 |
| PR5 | declared power connected to relay5 [num] | 0 | 0 | 0 | 0 |
| PR6 | declared power connected to relay6 [num] | 0 | 0 | 0 | 0 |
| PR7 | declared power connected to relay7 [num] | 0 | 0 | 0 | 0 |
| PR8 | declared power connected to relay8 [num] | 0 | 0 | 0 | 0 |
| STB | number of cycles during D test [num] | 5 | 5 | 5 | 5 |
| CYC | number of on7off cycles during D test [num] | 5 | 5 | 5 | 5 |
| WIN | max pull down time in winter D test [num] | 90 | 90 | 90 | 90 |
| SUM | max pull down time in summer D test [num] | 120 | 120 | 120 | 120 |
| ETT | set point in heating cycle during D test [°C/°F] | 59 | 59 | 59 | 59 |
| SPU | user set point in storage cycle [°C/°F] | 37 | 37 | 37 | 37 |
| OF1 | cabinet probe offset [num] | -0.7 | -0.7 | -0.7 | 0 |
| OF2 | evaporator probe  offset [°C/°F] | 0 | 0 | 0 | 0 |
| OF3 | condenser probe offset [°C/°F] | 0 | 0 | 0 | 0 |
| OF4 | core probe point 1 offset [°C/°F] | 0 | 0 | 0 | 0 |
| OF5 | core probe point  2 offset [°C/°F] | 0 | 0 | 0 | 0 |
| OF6 | core probe point 3 offset [°C/°F] | 0 | 0 | 0 | 0 |
| OF7 | core probe point 4 offset [°C/°F] | 0 | 0 | 0 | 0 |
| OF8 | core probe point 5 offset [°C/°F] | 0 | 0 | 0 | 0 |
| SLL | not used | -40 | -40 | -40 | -40 |
| SLH | not used | 3 | 3 | 3 | 3 |
| RHU | cabinet RH% set point settable [num] | 80 | 80 | 80 | 80 |
| MNS | mains voltage alarm limit [%] | 20 | 20 | 20 | 20 |
| MAL | voltage alarm delay [hours] | 10 | 10 | 10 | 10 |
| MEV | max number of voltage conditions before voltage alarm [num] | 5 | 5 | 5 | 5 |

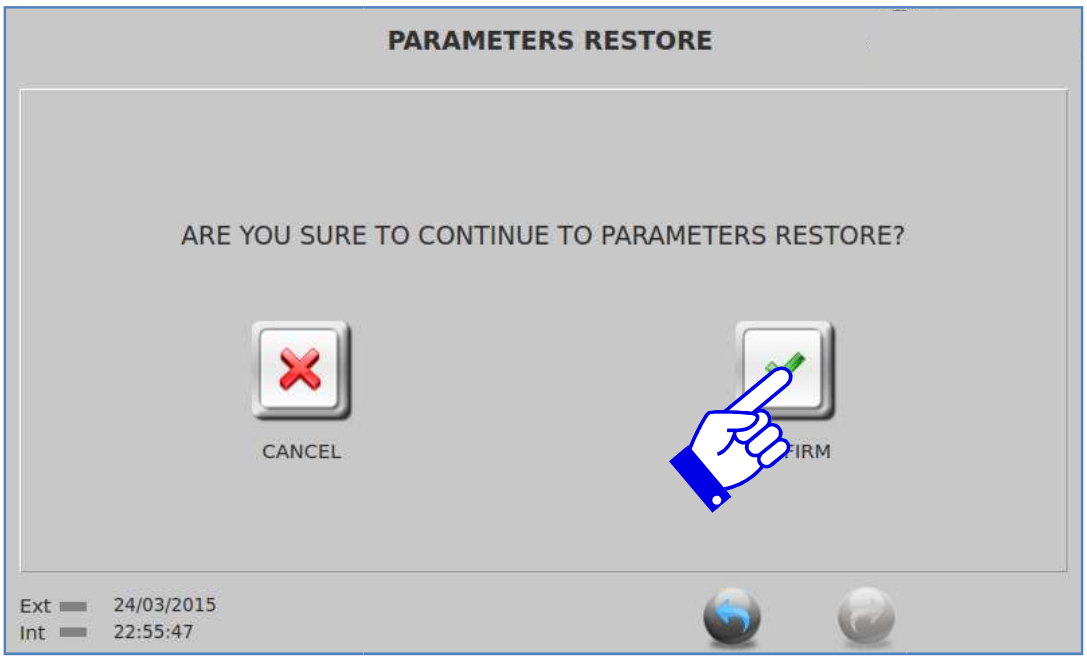
| Parameter | Description | 5 PANS 115V | 5 PANS 230V | SELF CONTAINED 230V | TROLLEY |
|---|---|---|---|---|---|
| MBP | time range in which is performed the mains voltage control [hours] | 1 | 1 | 1 | 1 |
| RL1 | relay 1 action type [num] | 1 | 1 | 1 | 1 |
| RL2 | relay 2 action type [num] | 13 | 13 | 13 | 17 |
| RL3 | relay 3 action type [num] | 17 | 17 | 17 | 13 |
| RL4 | relay 4 action type [num] | 13 | 13 | 13 | 13 |
| RL5 | relay 5 action type [num] | 0 | 0 | 0 | 0 |
| RL6 | relay 6 action type [num] | 11 | 11 | 11 | 11 |
| RL7 | relay 7 action type [num] | 10 | 10 | 10 | 10 |
| RL8 | relay 8 action type [num] | 1 | 1 | 1 | 1 |
| SRV | remaining time before maintenance [day] | 800 | 800 | 800 | 800 |
| PCA | cabinet set point in prechilling [°C/°F] | 28 | 28 | 28 | 28 |
| PCF | evaporator fan speed in prechilling [num] | 10 | 10 | 10 | 10 |
| PFA | cabinet set point in prefreezing [°C/°F] | -22 | -22 | -22 | -22 |
| PFF | evaporator fan speed in prefreezing [num] | 10 | 10 | 10 | 10 |
| DWA | load tolerance on relays [%] | 20 | 20 | 20 | 20 |
| STO | max storage time without hot gas defrost [hours] | 48 | 48 | 48 | 48 |
| DFS | difference between core probe and cabinet probe to detect core probe inserted [°C/°F] | 18 | 18 | 18 | 18 |
| STE | sterilization cycle duration [sec] | 300 | 300 | 300 | 300 |
| PRH | heating core probe cycle duration [sec] | 60 | 60 | 60 | 60 |
| VOF | mains voltage sensor offset [num] | 77 | 77 | 77 | 77 |
| PTE | not used | 20 | 20 | 20 | 20 |
| PTI | not used | 12 | 12 | 12 | 12 |
| MRT | max recharging time of battery [hours] | 20 | 20 | 20 | 20 |
| FCD | max first recharging time of battery [hours] | 12 | 12 | 12 | 12 |
| BTD | max duration of battery test [sec] | 3 | 3 | 3 | 3 |
| TBT | consecutive battery test interval time [min] | 5 | 5 | 5 | 5 |
| NMT | not used | 250 | 250 | 250 | 250 |

| Parameter | Description | 5 PANS 115V | 5 PANS 230V | SELF CONTAINED 230V | TROLLEY |
|---|---|---|---|---|---|
| VRS | start battery charging threshold [V/10] | 11,1 | 11,1 | 11,1 | 11,1 |
| VRE | end battery charging threshold [V/10] | 11,3 | 11,3 | 11,3 | 11,3 |
| VRT | battery voltage at ending charging for max duration [V/10] | 9,8 | 9,8 | 9,8 | 9,8 |
| VBR | minimum battery voltage for disabling battery [V/10] | 8,6 | 8,6 | 8,6 | 8,6 |
| VAD | battery voltage threshold to show "no battery" message [V/10] | 3,3 | 3,3 | 3,3 | 3,3 |
| VPD | battery voltage threshold to detect presence of battery [V/10] | 5 | 5 | 5 | 5 |
| TBK | delay time before safety turn off of battery circuit [sec] | 60 | 60 | 60 | 60 |
| BOF | battery voltage offset [V/10] | 0 | 0 | 0 | 0 |
| MST | max air temperature during thawing [°C/°F] | 50 | 50 | 50 | 50 |
| OFH | not used | 3 | 3 | 3 | 3 |
| PAT | air temperature in pre-thawing cycle [°C/°F] | 43 | 43 | 43 | 43 |
| PFT | evaporator fan speed in pre-thawing cycle [%] | 10 | 10 | 10 | 10 |
| PAC | air temperature in pre-soft cooking cycle [°C/°F] | 43 | 43 | 43 | 43 |
| PFC | evaporator fan speed in pre-soft cooking cycle [%] | 6 | 6 | 6 | 6 |
| HHL | lower differential heating action [°C/°F] | 5 | 5 | 5 | 5 |
| HHH | upper differential heating action [°C/°F] | 5 | 5 | 5 | 5 |
| MRV | nominal mains voltage [V] | 115 | 230 | 230 | 220 |
| PRF | evaporator fan declared power [W] | 100 | 100 | 100 | 100 |
| CMR | evaporator speed fan index during RH% control [num] | 10 | 10 | 10 | 10 |
| CPR | not used | 10 | 10 | 10 | 10 |
| CIN | not used | 0 | 0 | 0 | 0 |
| SPS | not used | 7 | 7 | 7 | 7 |
| TBC | not used | 5 | 5 | 5 | 5 |
| LPT | not used | 0 | 0 | 0 | 0 |
| POF | not used | 0 | 0 | 0 | 0 |

## 6.3. Parameters Restore

At any time is possible to restore the original parameter list that was loaded into the controller via USB key (see chapter 4.6.9 Software Update - only parameters). Press PARAMETERS RESTORE.

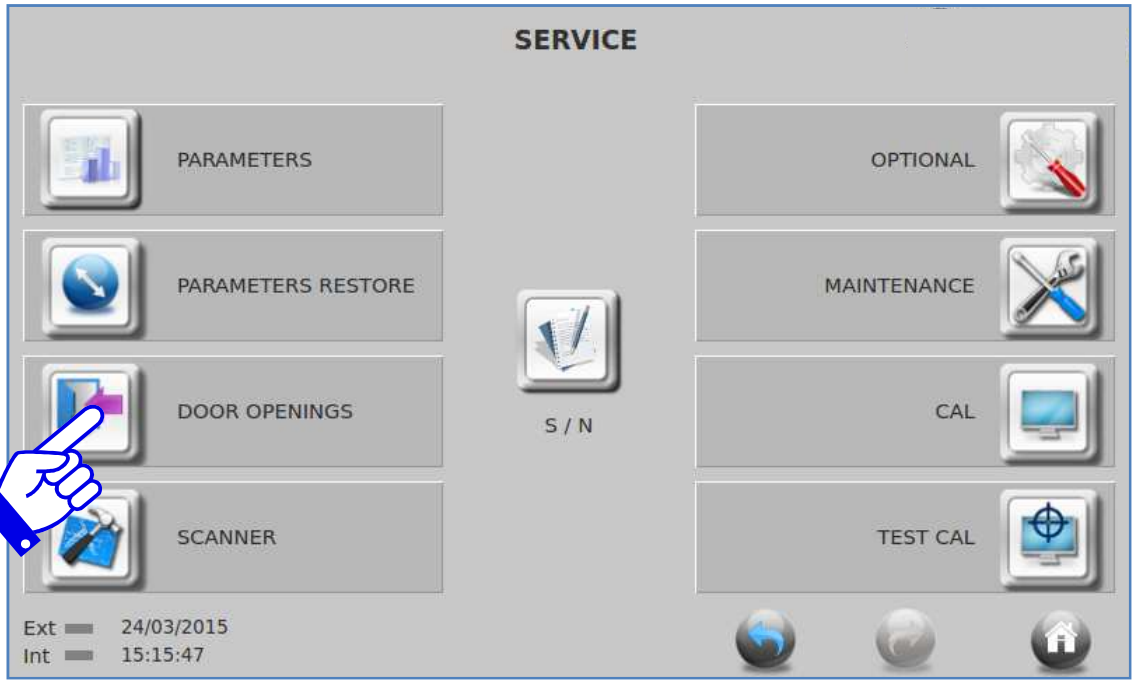

Press the green checkmark to confirm.




Wait until the screen returns to the main service options.

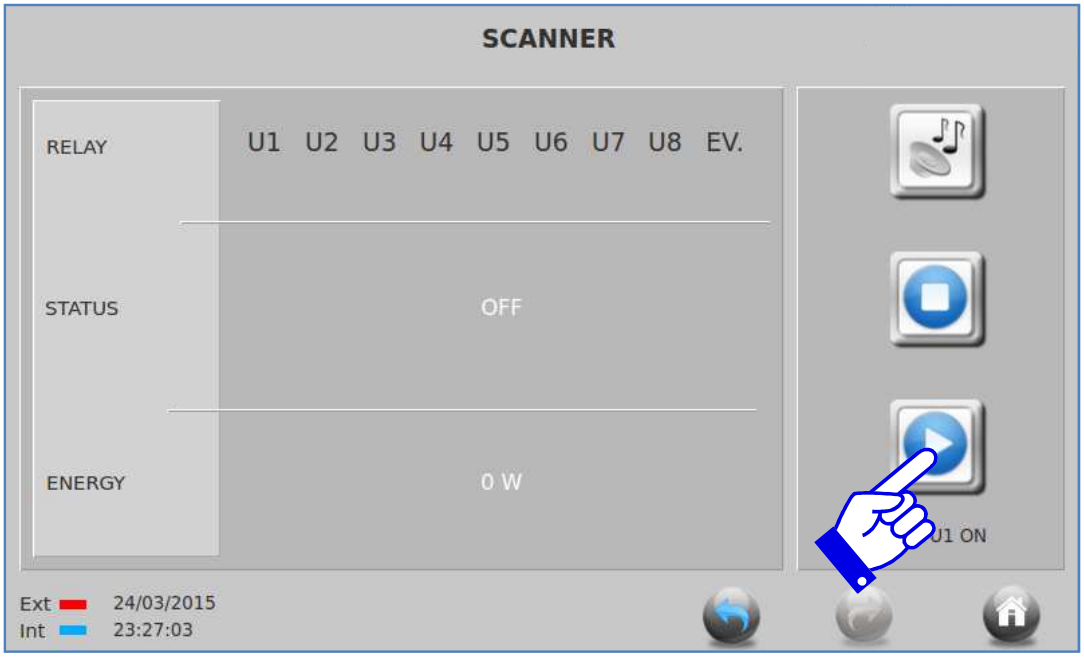

## 6.4. Door Openings

Use this function to check door opening events, date, opening duration and critical events in which air temperature exceeded the threshold value.

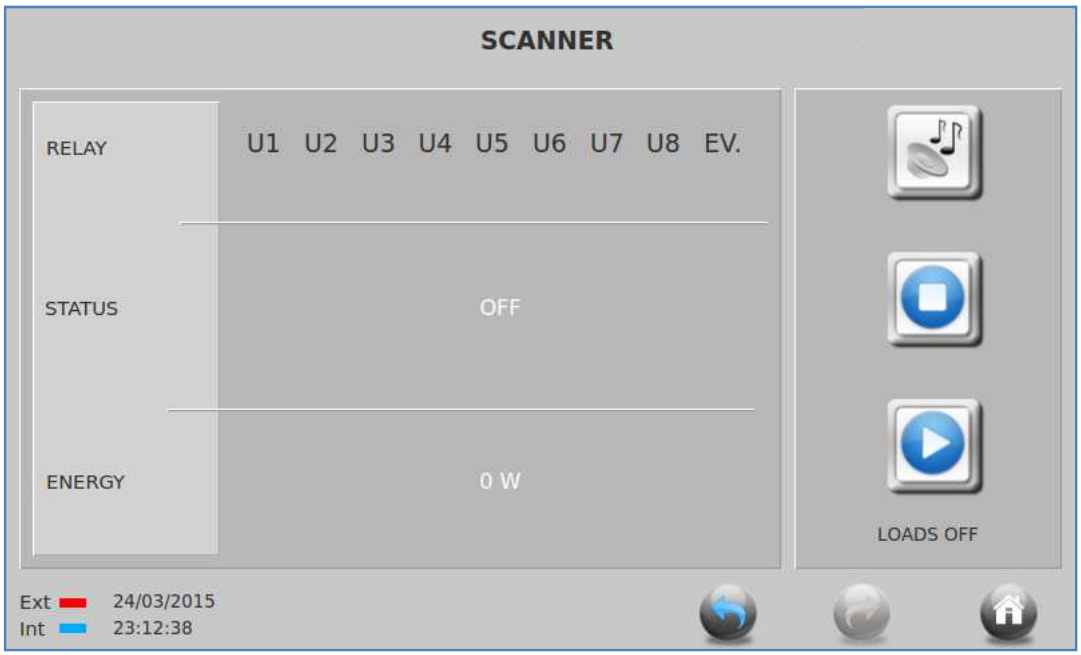


This is one of the most advanced service functions, which allows to force each board relay to activate and deactivate.

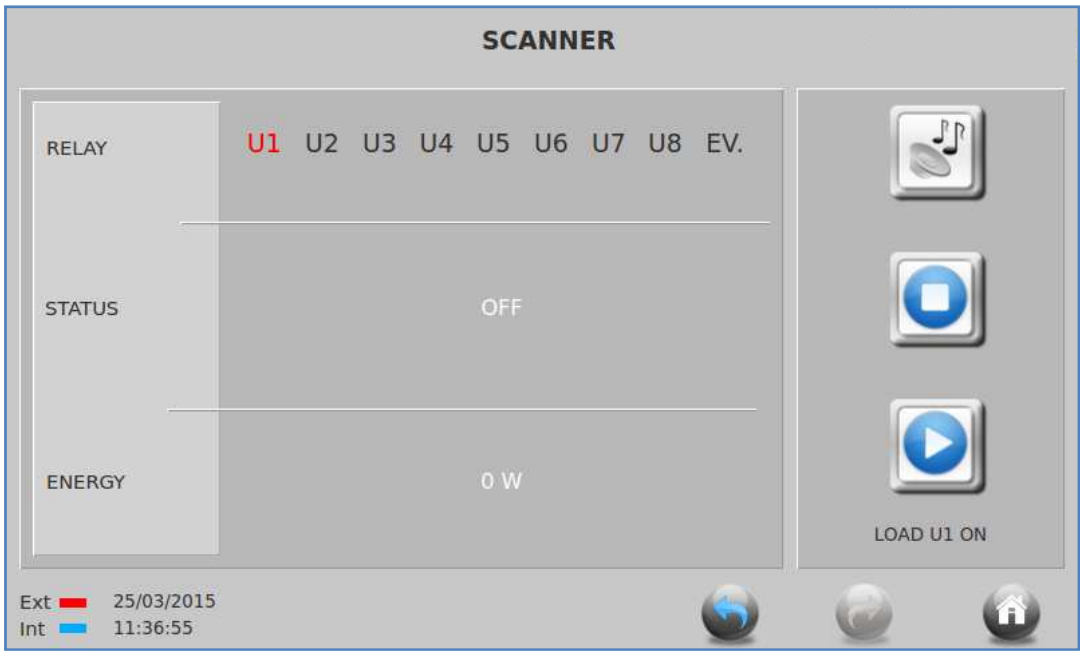

Press the PLAY button to activate relay 1 (U1).



After pressing the PLAY button, below "LOAD U1 ON" will appear.



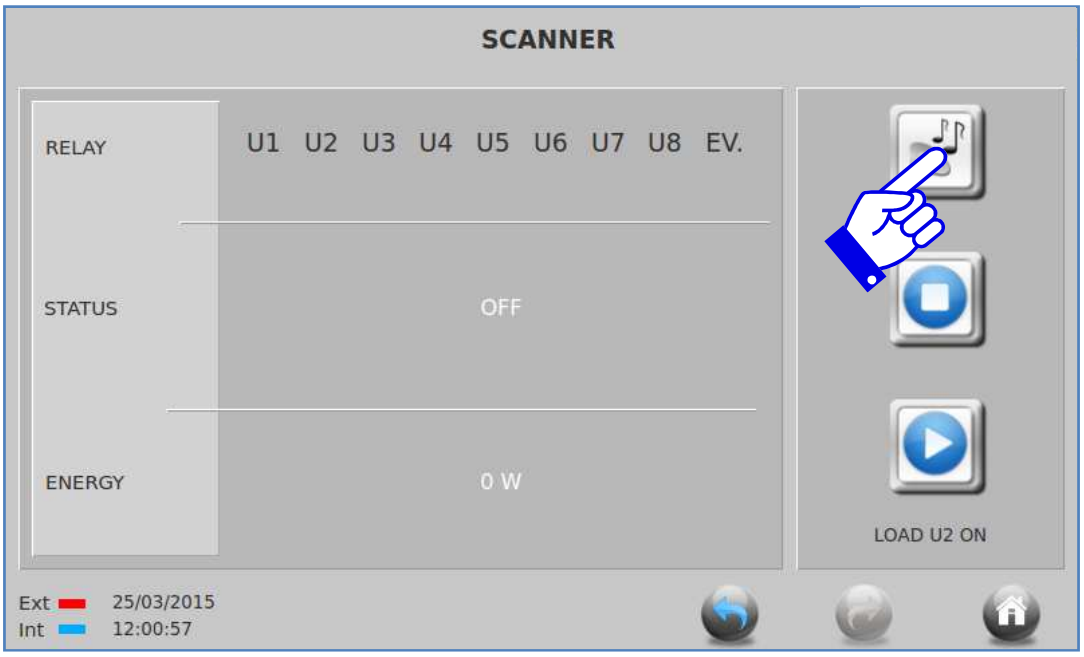

The relay #1 (output N-U1 on the relay board) will be excited. Wait few seconds until the power board will feed a signal back to the display to prove that the relay is actually closed (U1 will become red and STATUS will change to ON).



Meanwhile the power consumption on that relay output will appear in the row ENERGY, to monitor if there is any absorption by the component supplied by relay 1 and how much the absorption is.

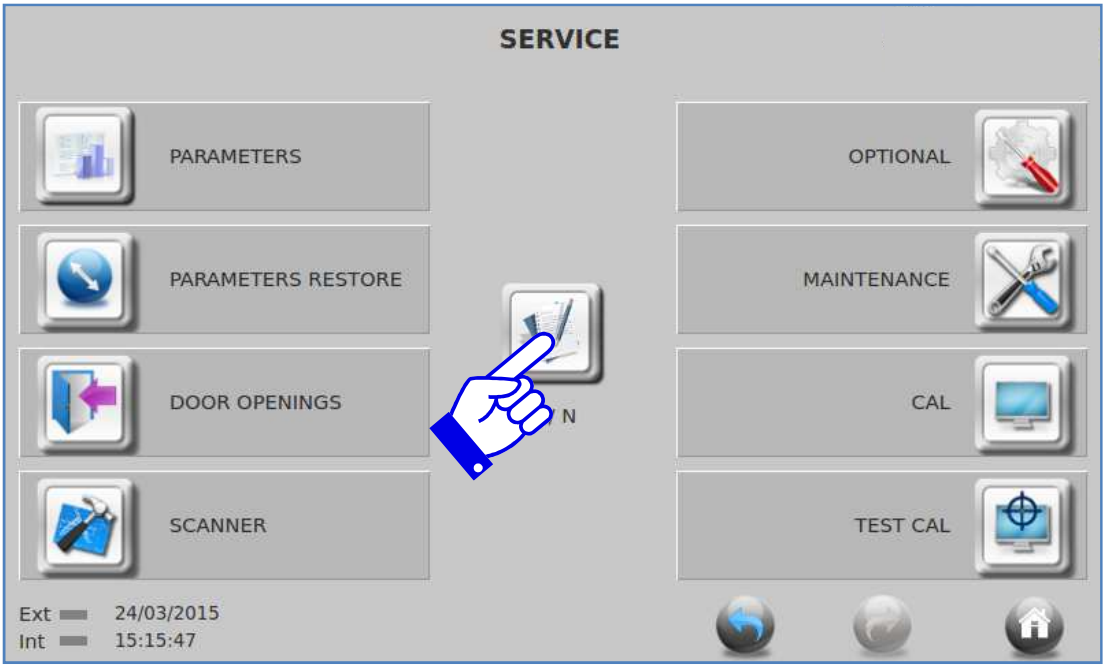
**NOTE: When using an additional contactor or power relay connected on the power board, the power absorption will not show the actual power pulled by the electrical load connected with that contact or power relay.**

Press again the PLAY button to activate relay #2, or STOP to de-activate the relay. Press on the music icon to test the buzzer.



## 6.6. Serial Number

Press on the Serial Number tab.



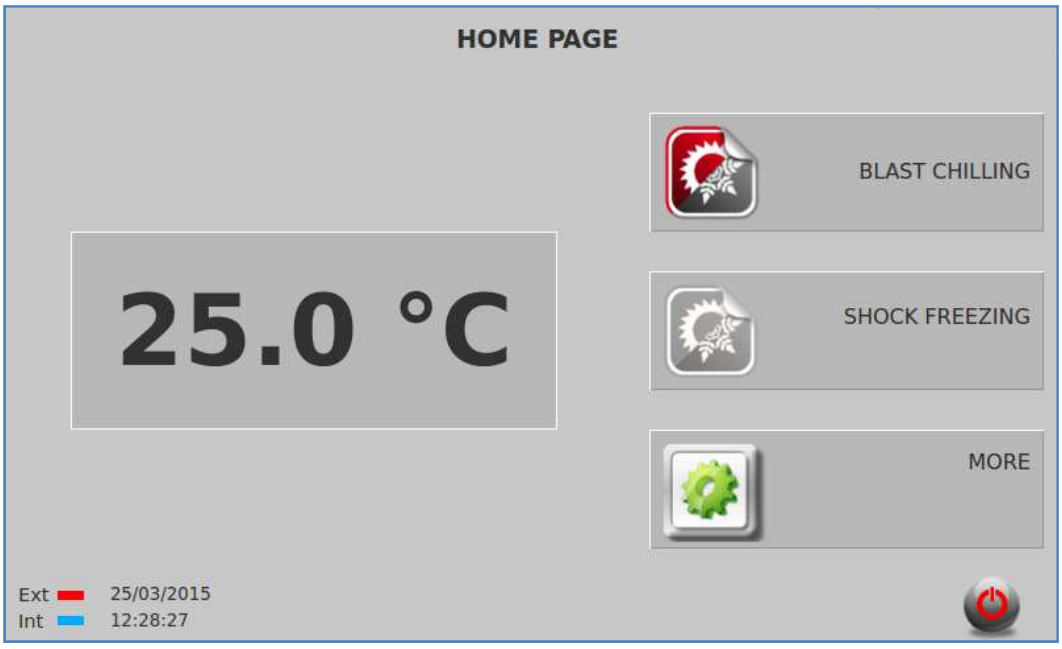

Enter the serial number of the Equipment to associate the electronic board to that Equipment. Press OK to confirm.

## 6.7. Optional (also written "Option" in some software release)



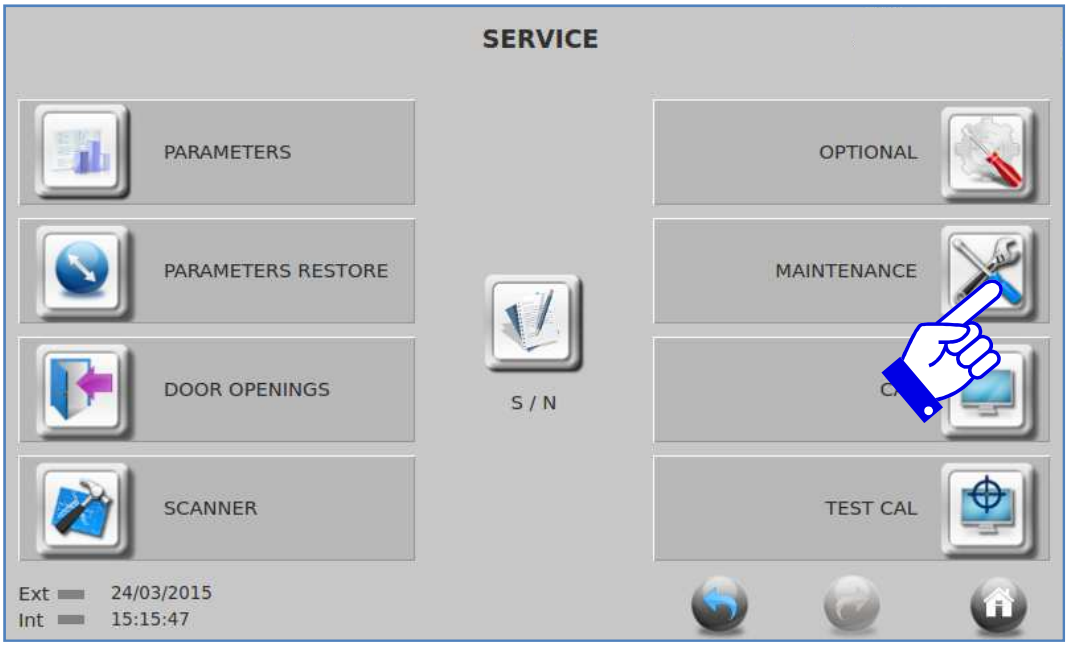
This menu will allow to enable or disable some advanced function such as: Core probe heating function, Sterilizer, Heating functions (left side) or Blast freezing cycle, temperature display mode, Celsius [°C] or Fahrenheit [°F].

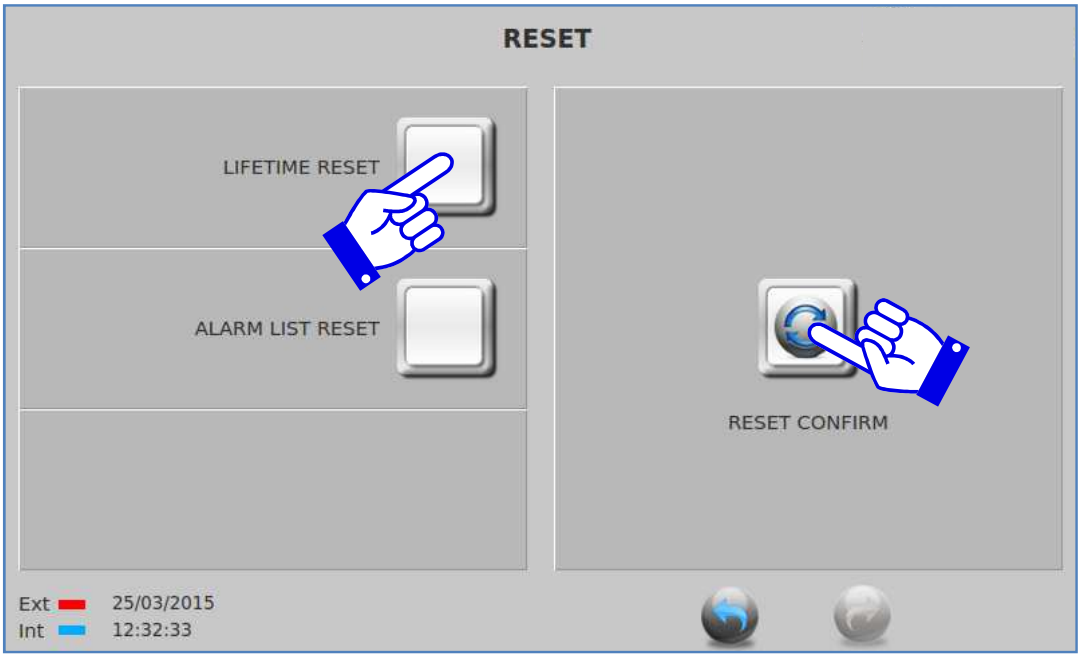
**NOTE: Disabling the Blast Freezing cycle will only permit to select a Soft Chilling Cycle from the Main selection screen.**




## 6.8. Manteinance

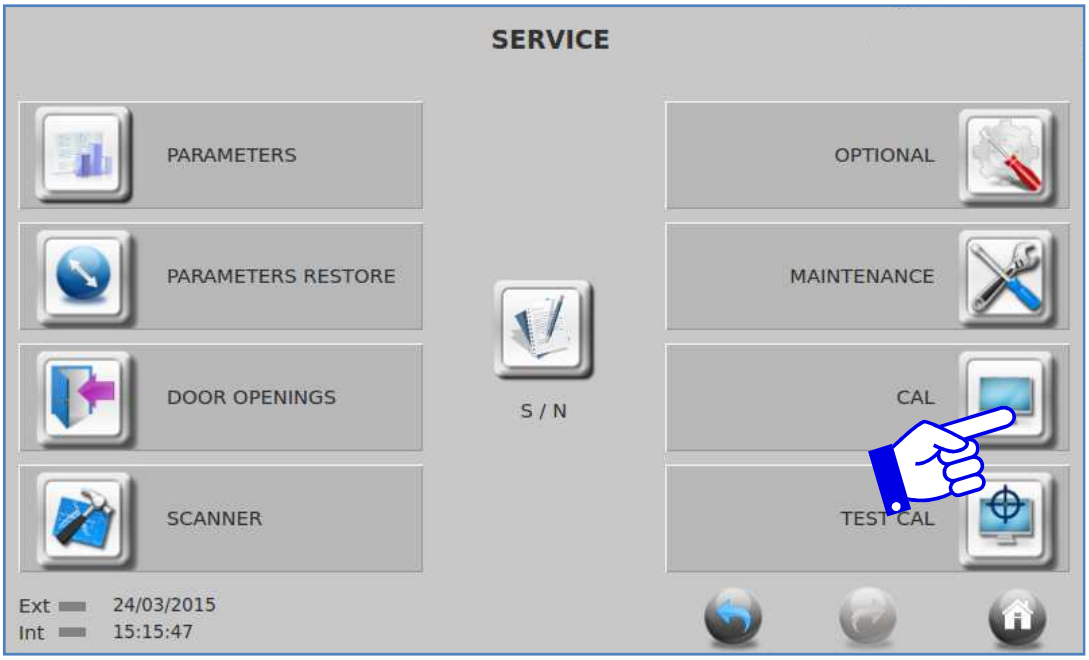
This function will allow to reset either the lifetime counter of the machine or the alarm list. Press the related tab and confirm the reset.






## 6.9. Cal (Display Calibration)

The display calibration allows to optimize the touch screen performance, ensuring precise reaction to finger commands.

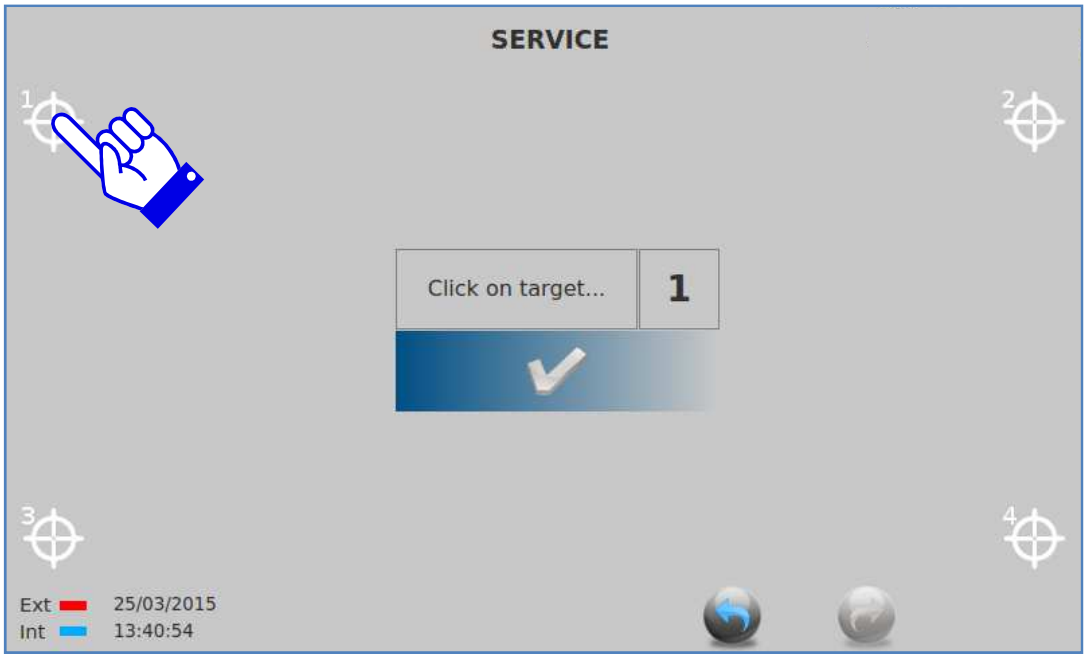


Press on the CAL tab, locate the red cross in the upper left hand corner and push on it, the cross will move to the upper right hand corner, push there and then to the lower left hand corner, push there and finally to the lower right hand corner, push there. Push then on the green checkmark to, the calibration is completed.

## 6.10. Test Cal (Display Calibration Test)

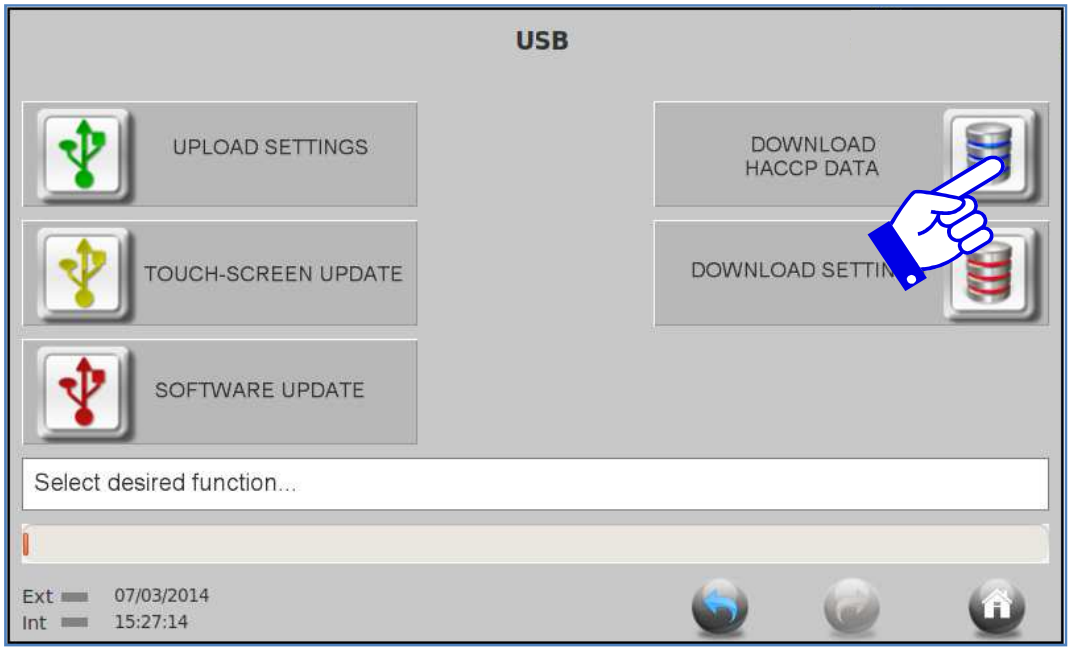
This function just allows to test the current display calibration, verifying that the touch commands are accurately recognized from the display.


Push on the 4 targets and verify that target identification in the center of the screen is consistent.

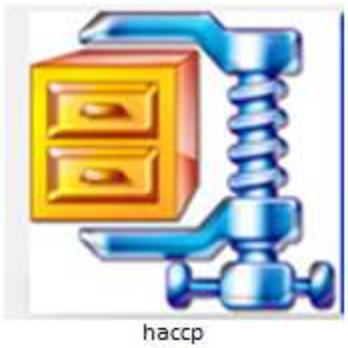


## 7. Download HACCP data and trace Cycle Diagrams

As mentioned at chapter 4.6.9 this Touch Screen Controller is capable to export HACCP information to a USB key. Press on the related tab in the USB menu and the controller will start to transfer all the recorder cycles to the USB.



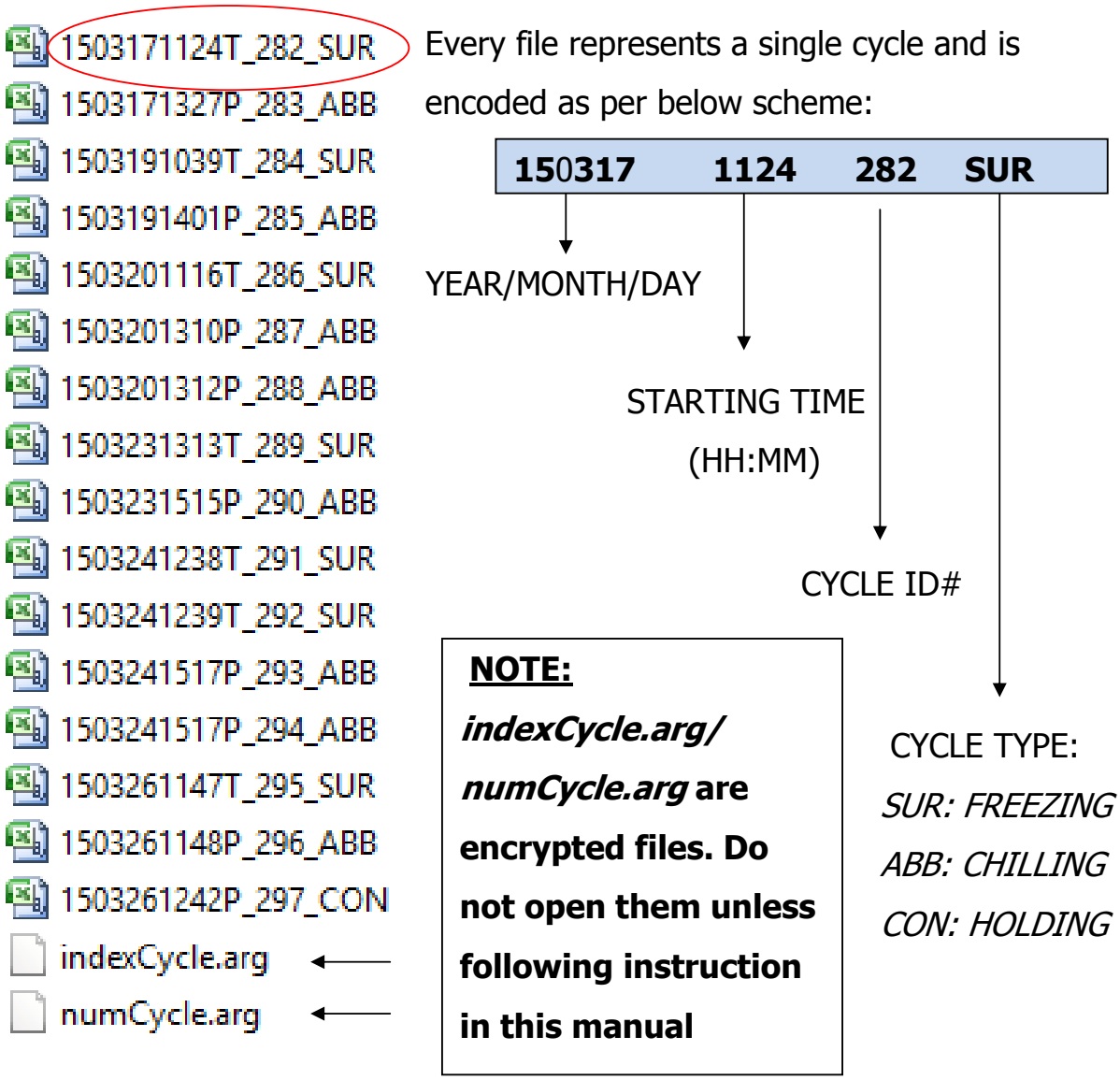

The file will be exported as a zipped file named "haccp.zip". When you connect the USB to a PC the file will show as below


The icon depends on the zip software installed on the PC. Use any zip software (such as unzip, winrar, G7 or similar) to extract he file to a folder. The folder will be named "haccp" as well. The cycle data are stored at the following path

**haccp\home\root\haccp**

and will be contained into .csv files (Comma Separated Values). They will be normally associated to Excel, like shown in the below example:



## 7.1. Using a Proprietary Software to trace HACCP data

The above .csv files can be easily loaded and traced via a proprietary software called *Blast Chiller Tracer.* Ask the software files to your A.S.A. or to the factory. The necessary files are:

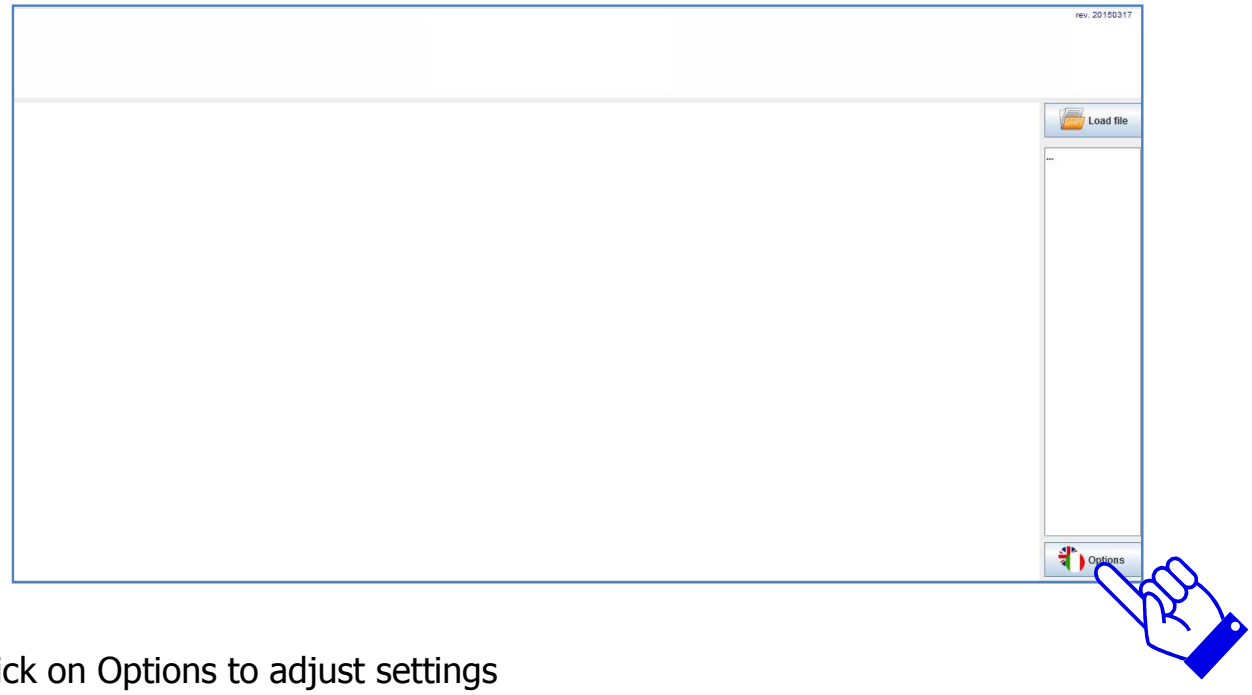
-  db (folder)
-  lib (folder)
-  BlastChillerTracer (Java executable file)

They will need to stay in the same folder, that you can place wherever in your PC.
**NOTE: Do not open *db* and *lib* folders but only run BlastChillerTracer.**

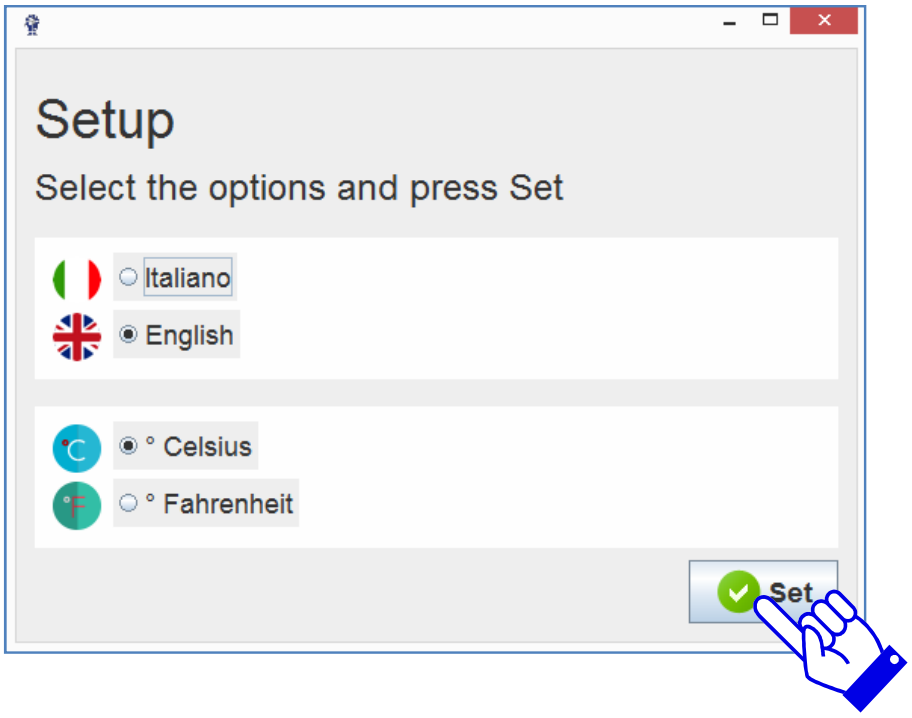
The Tracer is Java executable file. Java virtual machine (JVM) is a very common software and is normally preinstalled into Windows based OS, in order to run games or other graphical interactive application. When this software is existing on a PC the file BlastChillerTracer will be automatically associated to the JAVA icon. Should this not happen, then you probably need to install the JVM. Contact your Administrator or install directly the JVM from the following link:

http://www.java.com/it/download/

The software is safe and free of charge. Once it is installed you can run the executable file BlastChillerTracer that has a .jar extension. The main window will show as below.

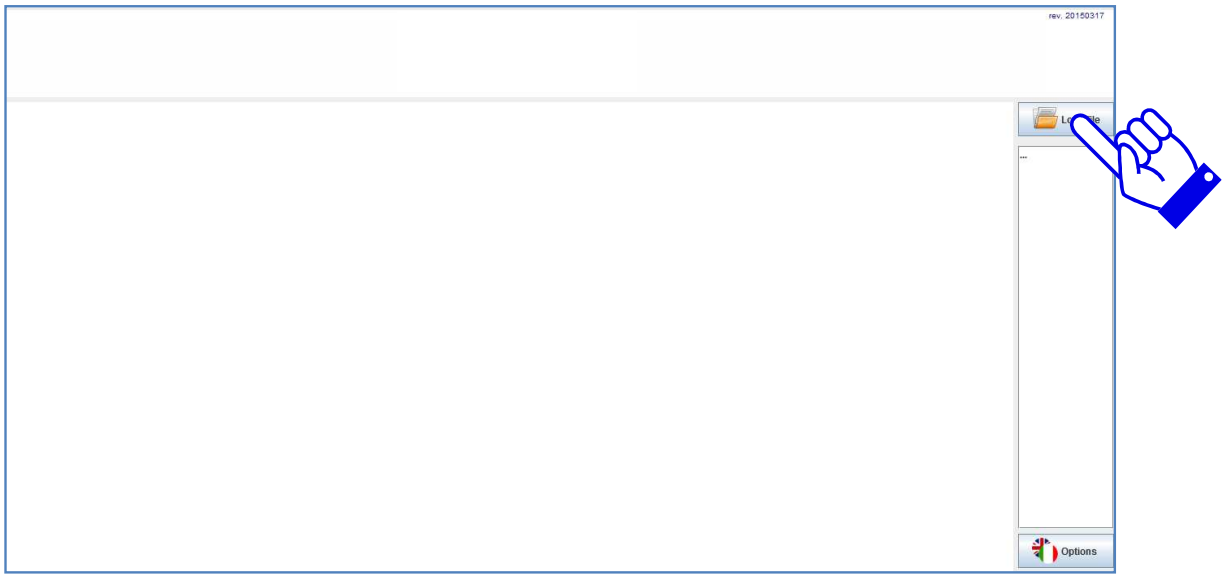



Click on Options to adjust settings

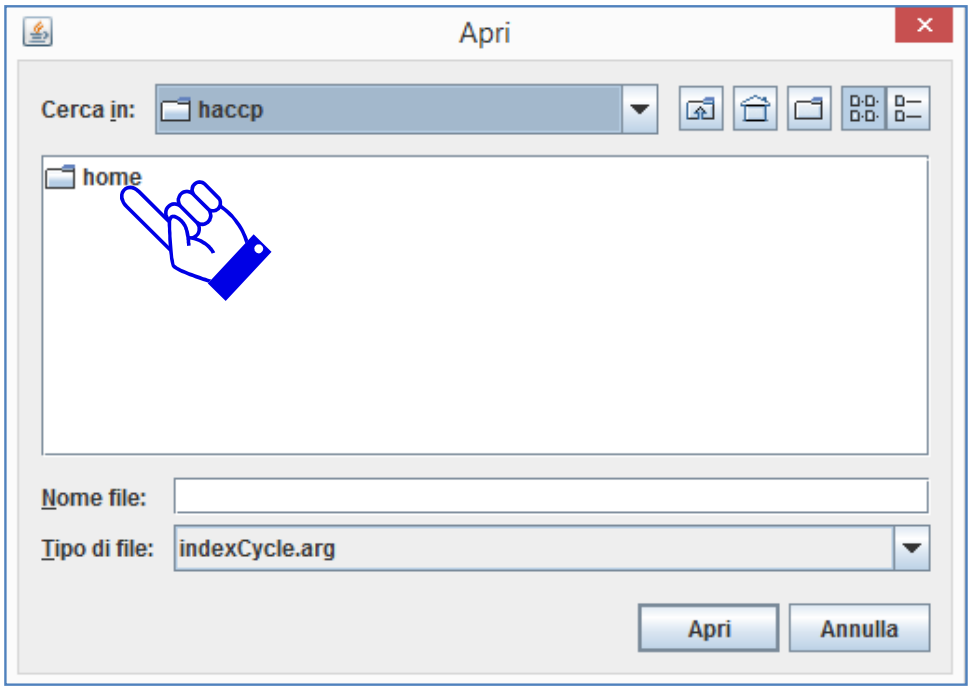



Select the language and scale of temperature, press SET to confirm and exit.

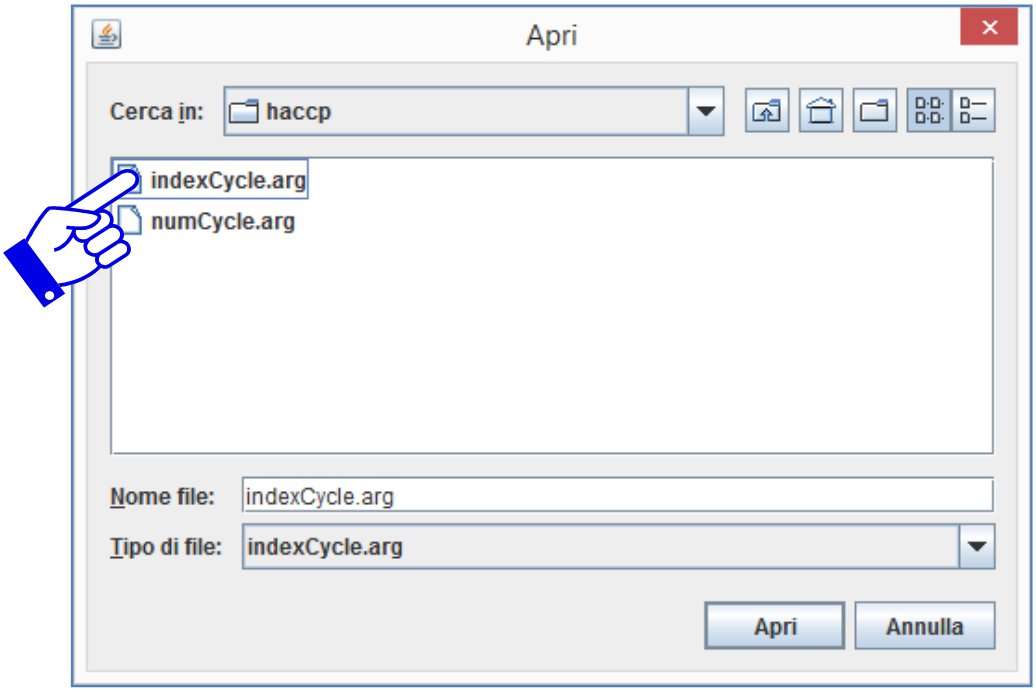
Press the Load File tab on the right top of the screen.



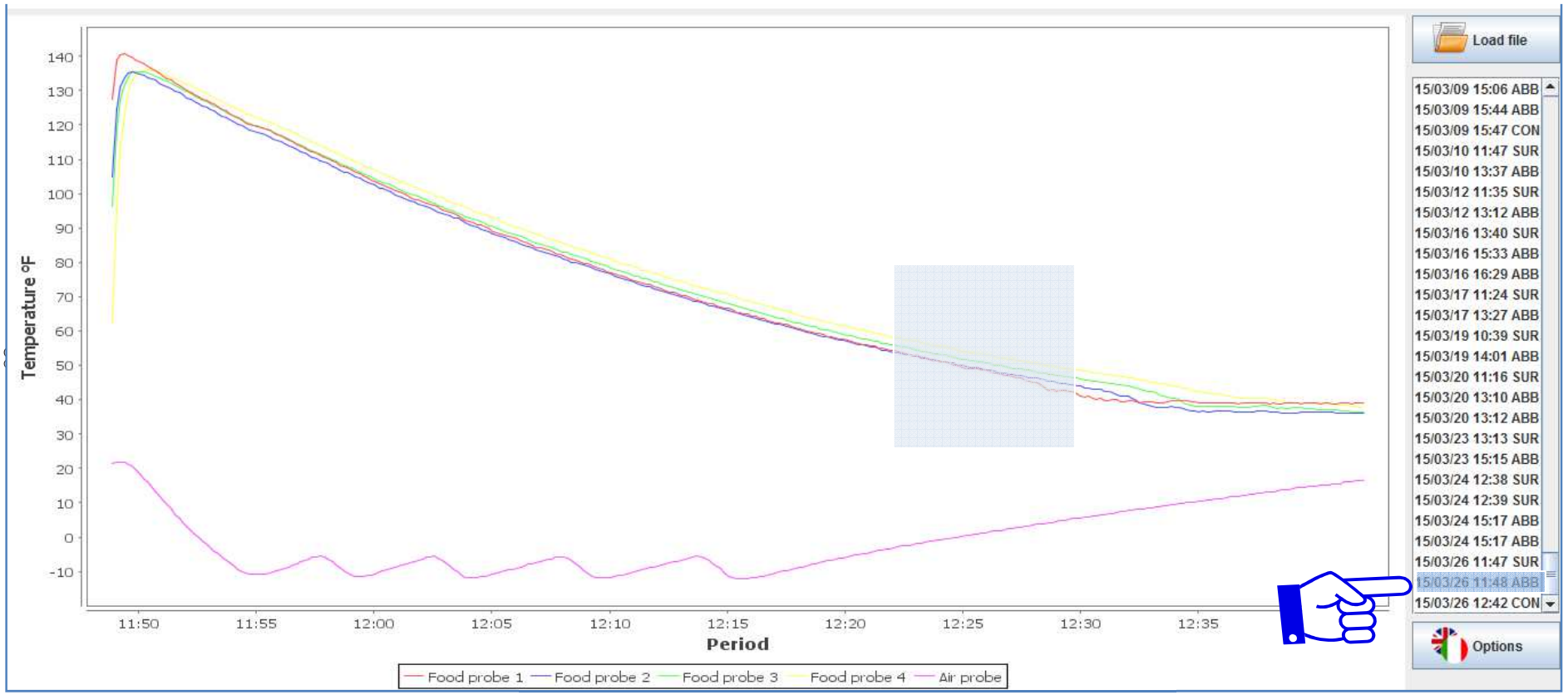

A search file window will open, requiring to find the file *indexCycle.arg* in the *haccp* folder. This is the folder extracted from the *haccp.zip* file downloaded from the USB Touch Screen. Click on the folder name to go through all the path *haccp|home|root|haccp.*



Once that the .arg files show in the box, double click on left side of *indexCycle.arg*




Select the cycle to graph from the right column, watching at date, starting hour and cycle code (see encoding scheme at the above paragraph). See example of cycle graph at the following page. Right click on the graph to print or save a .png file. Scroll up or down to zoom in and out. To zoom in a specific area of the graph, just select the area with the mouse.


Temperature °F
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
11:50
11:55
12:00
12:05
12:10
12:15
12:20
12:25
12:30
12:35
Period
Food probe 1
Food probe 2
Food probe 3
Food probe 4
Air probe
Load file
15/03/09 15:06 ABB
15/03/09 15:44 ABB
15/03/09 15:47 CON
15/03/10 11:47 SUR
15/03/10 13:37 ABB
15/03/12 11:35 SUR
15/03/12 13:12 ABB
15/03/16 13:40 SUR
15/03/16 15:33 ABB
15/03/16 16:29 ABB
15/03/17 11:24 SUR
15/03/17 13:27 ABB
15/03/19 10:39 SUR
15/03/19 14:01 ABB
15/03/20 11:16 SUR
15/03/20 13:10 ABB
15/03/20 13:12 ABB
15/03/23 13:13 SUR
15/03/23 15:15 ABB
15/03/24 12:38 SUR
15/03/24 12:39 SUR
15/03/24 15:17 ABB
15/03/24 15:17 ABB
15/03/26 11:47 SUR
15/03/26 11:48 ABB
15/03/26 12:42 CON
Options

U-LINE

## 7.2. Access the source HACCP files for own purpose

The tracer software is a powerful tool to graph all cycle stored in the Blast Chiller memory. However, it's possible to open the .csv source files for checking data or other purpose. Access the .csv files directly from the *haccp* extracted folder (see first section of this chapter). Open the wished cycle with Excel or an equivalent spreadsheet software. The data will be shown as in the below screenshoot:

| | A | B | C | D | E | F | G | H | I | J | K |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2,60315E+11 | 53.1 | 40.4 | 35.6 | 17.0 | -5.9 | 1 | 0 | 0 | | |
| 2 | 2,60315E+11 | 59.4 | 51.4 | 48.0 | 35.6 | -5.6 | 1 | 0 | 0 | | |
| 3 | 2,60315E+11 | 60.3 | 55.1 | 53.0 | 45.3 | -5.6 | 1 | 0 | 0 | | |
| 4 | 2,60315E+11 | 60.5 | 56.5 | 55.5 | 50.9 | -5.7 | 1 | 0 | 0 | | |
| 5 | 2,60315E+11 | 60.1 | 57.2 | 56.6 | 54.1 | -6.0 | 1 | 0 | 0 | | |
| 6 | 2,60315E+11 | 59.8 | 57.4 | 57.4 | 55.9 | -6.3 | 1 | 0 | 0 | | |
| 7 | 2,60315E+11 | 59.4 | 57.2 | 57.5 | 57.0 | -7.0 | 1 | 0 | 0 | | |
| 8 | 2,60315E+11 | 59.1 | 57.1 | 57.5 | 57.5 | -7.6 | 1 | 0 | 0 | | |
| 9 | 2,60315E+11 | 58.8 | 56.9 | 57.4 | 57.7 | -8.5 | 1 | 0 | 0 | | |
| 10 | 2,60315E+11 | 58.4 | 56.6 | 57.3 | 57.8 | -8.9 | 1 | 0 | 0 | | |
| 11 | 2,60315E+11 | 58.1 | 56.4 | 57.1 | 57.7 | -9.6 | 1 | 0 | 0 | | |
| 12 | 2,60315E+11 | 57.6 | 56.1 | 56.8 | 57.6 | -10.5 | 1 | 0 | 0 | | |
| 13 | 2,60315E+11 | 57.2 | 55.6 | 56.5 | 57.4 | -11.1 | 1 | 0 | 0 | | |
| 14 | 2,60315E+11 | 56.8 | 55.3 | 56.1 | 57.2 | -11.9 | 1 | 0 | 0 | | |
| 15 | 2,60315E+11 | 56.4 | 55.0 | 55.9 | 56.9 | -12.5 | 1 | 0 | 0 | | |
| 16 | 2,60315E+11 | 56.1 | 54.7 | 55.6 | 56.6 | -13.3 | 1 | 0 | 0 | | |
| 17 | 2,60315E+11 | 55.7 | 54.4 | 55.2 | 56.3 | -14.1 | 1 | 0 | 0 | | |
| 18 | 2,60315E+11 | 55.3 | 54.1 | 54.9 | 56.1 | -14.7 | 1 | 0 | 0 | | |
| 19 | 2,60315E+11 | 54.9 | 53.7 | 54.6 | 55.7 | -15.4 | 1 | 0 | 0 | | |
| 20 | 2,60315E+11 | 54.5 | 53.3 | 54.3 | 55.5 | -16.0 | 1 | 0 | 0 | | |
| 21 | 2,60315E+11 | 54.2 | 53.0 | 53.9 | 55.2 | -16.7 | 1 | 0 | 0 | | |
| 22 | 2,60315E+11 | 53.8 | 52.7 | 53.6 | 54.9 | -17.3 | 1 | 0 | 0 | | |
| 23 | 2,60315E+11 | 53.4 | 52.3 | 53.3 | 54.5 | -17.8 | 1 | 0 | 0 | | |
| 24 | 2,60315E+11 | 53.0 | 52.0 | 52.9 | 54.2 | -18.5 | 1 | 0 | 0 | | |
| 25 | 2,60315E+11 | 52.8 | 51.7 | 52.6 | 53.9 | -19.0 | 1 | 0 | 0 | | |

Data at column A represent date/hour/minutes/second. Change the cell format to "Number" in order to show the time properly. Reduce decimal places to 0. Next page will show an example of how the rows should appear, and how to read the information.

| | A | B | C | D | E | F | G | H | I |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 260315114853 | 53.1 | 40.4 | 35.6 | 17.0 | -5.9 | 1 | 0 | 0 |
| 2 | 260315114903 | 59.4 | 51.4 | 48.0 | 35.6 | -5.6 | 1 | 0 | 0 |
| 3 | 260315114913 | 60.3 | 55.1 | 53.0 | 45.3 | -5.6 | 1 | 0 | 0 |
| 4 | 260315114924 | 60.5 | 56.5 | 55.5 | 50.9 | -5.7 | 1 | 0 | 0 |
| 5 | 260315114933 | 60.1 | 57.2 | 56.6 | 54.1 | -6.0 | 1 | 0 | 0 |
| 6 | 260315114943 | 59.8 | 57.4 | 57.4 | 55.9 | -6.3 | 1 | 0 | 0 |
| 7 | 260315114953 | 59.4 | 57.2 | 57.5 | 57.0 | -7.0 | 1 | 0 | 0 |

**DD/MM/YY** **HH/MM/SS** **FOOD PROBE 1** **FOOD PROBE 2** **FOOD PROBE 3** **FOOD PROBE 4** **AIR PROBE** **NOT USED**