



USE AND MAINTENANCE MANUAL
Medical Devices
TOUCH controller

<i>Revision</i>	<i>Date</i>	<i>Description</i>
E	10/2018	Content revision and address update
F	04/2020	Medical Devices update and new refrigerant variant
G	09/2023	Company Name update

READ THIS USER MANUAL CAREFULLY

Failure to read this manual and any misunderstandings regarding the instructions contained within it can cause irreversible damage to the unit, as well as create a source of danger for users and significantly decrease device performance.

The manufacturer declines all responsibility for any uses other than those listed below.



Any maintenance operations must be carried out by personnel authorized by the manufacturer FIOCCHETTI.



The corresponding warranty will become immediately void in the event of use or maintenance of equipment not in compliance with specifications by the manufacturer FIOCCHETTI.

The material contained in this manual is for informational purposes only. Its contents and the product itself may be subject to change without prior notification. In no event shall the manufacturer FIOCCHETTI be held responsible for any damage due to use of this manual.



Provide all the information required regarding operation of the device being tested in order to request technical support from FIOCCHETTI.

	<p>Natural but flammable refrigerant R290</p> <p>Every model is available with natural, but flammable, refrigerant upon request</p>	
	<p>The cooling system, permanently sealed in accordance with UNI EN 1127-1, will be marked with the symbol on the side.</p>	
	<p>Do not damage refrigerant circuit tubes.</p> <p>Installation environment must, in compliance with EN 378, have a volume of 1 m³ every 8 gr of R290 contained in the cooling system. Refrigerant quantity in the system is written in the silver data plate attached inside the device and in the last page of this manual.</p>	

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1.1 CERTIFICATION

Fiocchetti medical devices are refrigerators and freezers designed for the storage and preservation of human blood, human body liquids and human body tissues destined to transfusion, administration and re-introduction in human body, in accordance with the definition of Attachment IX, point III, rule 2 of Medical Devices Directive 93/42/EC and subsequent modification 2007/47/EC. Following the same directive, these devices fall in class IIa.

According to the above mentioned directive (Article 1), Fiocchetti's refrigerators are NOT medical devices; nevertheless, they are comprehended in the category, since they are meant to **store/manage a medical device**, i.e. a blood bag, destined to store human blood, human body liquids and human body tissues destined to transfusion, administration and re-introduction in human body. Therefore, these devices are defined as BORDERLINE, and, as such, norms related to the type of equipment applies, although not strictly related to medical device directive.

1.2 TESTING AND WARRANTY

The machine is tested at our factory in accordance with current regulations and it is shipped ready to use. The warranty is valid for 12 months from the date of delivery and establishes the right to repair/replace parts that are defective, not including electrical and electronic parts. Apparent defects and any deviations from orders must be communicated to the manufacturer within 5 days of receipt of the goods under penalty of invalidation of the warranty. Any other defects (not apparent) must be communicated within 5 days of discovery, and in any case within 6 months from the goods receipt. The customer will only be entitled to the repair or replacement of goods, with the absolute exclusion of any direct or indirect damages of any kind. In any case, the right to repair or replacement of materials must be exercised within the maximum time limit provided by the warranty, with the time limits having been contractually reduced with respect to those established by law. Repair or replacement of defective materials will occur at the manufacturer's factory, where materials must be delivered with freight prepaid. The manufacturer will then return them carriage forward.

1.3 PURPOSE, CONTENT AND RECIPIENTS OF THE MANUAL

This manual has been drafted for the purpose of providing all the instructions necessary for correct use of the machine and for maintaining it in perfect condition, in particular with regard to the user's safety. The following professional figures shall be defined in order to identify tasks and responsibilities:

Installer: qualified technician who performs machine placement and commissioning in accordance with the instructions in this manual.

User: person who, after carefully reading this manual, uses the machine for his own permitted uses. It is mandatory for the user to read the manual carefully and make reference to it.

Routine maintenance worker: qualified technician able to carry out routine maintenance on the machine, following the instructions in this manual.

Special maintenance worker: qualified technician authorised by the manufacturer, able to carry out special maintenance on the machine.

The manufacturer declines any responsibility for improper or unreasonable use of the machine and for all those operations carried out on the same ignoring the instructions in this manual.

The manual must be kept in an accessible location known to all operators (installers, users, routine and special maintenance workers).

No part of this manual may be reproduced and/or disclosed by any means and in any form whatsoever.

1.4 ARRANGEMENTS PREPARED BY THE CUSTOMER

The following arrangements are set by the customer:

- The machine electrical connection, with care of SUPERARTIC models
- Installation site arrangement
- Routine maintenance
- Refrigerator cleaning and the products used for it

1.5 REQUEST FOR TECHNICAL SUPPORT

Provide all the information required regarding operation of the device being tested in order to request technical support from FIOCCHETTI.

For this purpose, send the table in Annex 1 (pag. 59) "USER DATA FOR TECHNICAL SUPPORT REQUEST" filled in.

Technical support department e-mail	assistenza@fiocchetti.it
Sales department e-mail	sales@fiocchetti.it
Support request	https://www.fiocchetti.it/en/technical-service.asp
User manual request	https://www.fiocchetti.it/en/Manuals-refrigerators-freezers-blood-banks.asp
Tel.	+39 0522 976232
Fax	+39 0522 976028

Our Technical Support Department can provide all the information you need for correct unit operation and can put you in touch with your nearest authorised service centre. Our Sales Department staff provides information on prices and availability of requested components.

2

SAFETY

2.1 GENERAL SAFETY RULES

Read the manual carefully and follow instructions contained herein. Do not use the equipment for purposes other than those for which it was designed.

The user assumes full responsibility in case of operations carried out without observing the instructions in the manual. Below is a list of the main safety rules:

- Do not touch the equipment with moist or wet hands or feet.
- Do not insert screwdrivers or other objects into the guards or moving parts.
- Do not pull the power cord to disconnect the appliance from the electrical mains.
- Do not allow the machine to be used by unauthorised users.
- Before performing any cleaning or maintenance, disconnect the machine from the electrical mains by switching it off and disconnecting the plug.
- In case of failure and/or malfunction, switch off the machine and do not attempt to repair or service it on your own. It is absolutely necessary to contact qualified personnel.

2.2 SAFETY AND ACCIDENT PREVENTION

This machine has been designed with suitable measures to assure safety and the health of the user. The following is a list of protections adopted against mechanical risks:

- Stability: the machine has been designed and built in order to guarantee its stability in all foreseen operating conditions, even with shelves/drawers extracted, without any risk of tipping, falling, or sudden movement.
- Surfaces, edges, corners: within the limits permitted by their functions, accessible parts of the machine have no sharp corners, sharp edges or rough surfaces that could cause injury.
- Moving parts: all components with the possibility of movement have been designed, built and configured to avoid risk. Some parts are also protected by fixed guards to prevent contact or injury.

The following is a list of measures adopted to protect against other risks:

- Electrical power: the machine has been designed, built and fitted with the aim of preventing risks of electric shock, in compliance with established safety regulations.

- Noise: the machine has been designed and built to minimise risks related to the emission of acoustic noise (always lower than 70 dB).



The following is strictly forbidden:

- Tampering with or removing the evaporator cover enclosure that protects the user from a risk of cutting on the evaporator fins
- Removal of the data plates fixed in the inside edge of the motor compartment that contain technical specifications and earth connection warnings
- Removal of the data plate fixed on the evaporator unit guard and near the electrical wiring inside the motor compartment, which warns the user to disconnect power before working on the unit.



The manufacturer declines any responsibility for safety of the machine if the above recommendations are not observed.

2.3 CONTRAINDICATIONS

The refrigerated cabinet must not be used:

- Exposed to weathering
- With adapters or extension cords
- In explosive atmospheres or where there is a risk of fire
- Near to heat sources (radiators, etc.)
- If the device is built in furniture, proper ventilation must be guaranteed. On the contrary, warranty will automatically expire.

2.4 WARNING ON THE REFRIGERANT GAS

If in the device a flammable gas is used like R290 refrigerant, the following label appears on the compressor and on the data plate of the machine.



In this case, some special precautions should be taken:

1. Position the appliance in an environment of suitable dimensions in compliance with EN 378: the environment must have a volume of 1m³ every 8gr of R290 refrigerant. The quantity of gas contained in the circuit is declared on the silver data plate attached inside the cabinet
2. Do not use the equipment if damaged
3. To avoid damages to the refrigerant circuit, do not use mechanical devices to accelerate defrost process.
4. Make sure that air grids are always free to guarantee a certain ventilation to the device
5. If there is refrigerant leakage, avoid using open flames, remove from the device flammable products and ventilate immediately the environment
6. Do not store potential explosive substances (for example spray cans containing flammable gases) inside the device
7. Do not use electrical appliances inside the chamber, ATEX approved appliance only.

If any malfunction, disconnect the equipment from the mains.

Extraordinary maintenance should be performed only by qualified personnel.

3.1 TECHNICAL DESCRIPTION

The refrigerated cabinet covered by this manual produces cold by means of low-pressure vaporisation of a liquid refrigerant, such as HCFC, HFC or HC, inside a heat exchanger (evaporator). The vapour thus obtained is brought back to the liquid state by means of a higher pressure mechanical compression (via a compressor) followed by cooling in another heat exchanger (condenser). The correct, uniform distribution of air inside the cabinet is guaranteed by one or more fan motors, depending on the model.

The machine is composed of a modular monocoque coated with different materials and insulated with polyurethane foam at a density of 43 kg/m³.

The instrumentation is grouped on the front panel. On some models, the motor compartment, where the condenser unit and electrical wiring can be housed, closes automatically.

Inside, the machine is equipped with brackets suitable for supporting wire shelves, extractible drawers and steel baskets. The doors on all machines are equipped with a closing device with automatic return and door lock and easily replaceable magnetic seals for perfect tightness. Measures were taken during design and construction to obtain a machine that meets specific safety requirements, such as internal rounded corners, condensate liquid drainage, no rough surfaces, fixed guards on moving or potentially dangerous parts, and so on.

The maximum capacity of shelves and drawers load on all Fiocchetti models is 30 kg with weight uniformly distributed.



All models are for indoor use and cannot be installed outdoors.
Warranty will immediately expire, if equipment is installed improperly.

3.2 INTENDED USE

All the listed models are suitable for storage. For this reason, we suggest only storing products that have already been refrigerated or frozen (depending on the model).

We declare that any use outside of those allowed by the machine is considered as “improper use” and therefore the manufacturer declines all responsibility.

Fiocchetti medical devices are refrigerators and freezers designed for the storage and preservation of human blood, human body liquids and human body tissues destined to transfusion, administration and re-introduction in human body, in accordance with the definition of Attachment IX, point III, rule 2 of Medical Devices Directive 93/42/EC and subsequent modification 2007/47/EC.

In accordance with the same directive, Fiocchetti medical devices fall in class IIa.

Hence, Fiocchetti medical device can store:

- Blood
- Plasma
- Breast milk

This category includes the following models

MODEL	Factory °T set point
EMOTECA	+4°C or +22°C*
EMOTECA 2T (chamber A/chamber B)	+4°C/+4°C
EMOTECA TWIN	+4°C
PLASMA VISION	-20°C
PLASMA VISION 2T (chamber A/chamber B)	+5°C / -20°C
PLASMA FREEZER	-20°C
PLASMA-LABOR 2T(chamber A/chamber B)	+5°C / -20°C
PLASMA SUPERARTIC	-35°C
PLASMA SUPERARTIC 2T (chamber A/chamber B)	+5°C / -30°C

* ON REQUEST FOR MODELS FROM 100 TO 500L

Despite the above definition of medical devices, the same refrigerators are allowed for storage and preservation of:

- Drugs, vaccines, reagents properly stored, whatever nature
- Generic use substances and materials in hospital, laboratory or pharmaceutical environment, not flammable nor explosive.

User must take care of allowed storage temperature. Since these units are medical devices, temperature factory setpoint are adjustable within limits connected to the intended use and therefore, it is user responsibility to store those substances or material following the manufacturer guidelines.

!!!IMPORTANT!!!



Breast milk, blood bags and blood products **CANNOT** be stored together with other material (drugs, reagents and generic use substances) and must be store in accordance with the temperature settings by the manufacturer and respect suitable storage period.



Blood and Breast milk **CANNOT** be stored together. It is important to allocate devices to store one or the other.
Avoid mixed use.



FIOCCHETTI declines responsibility in case staff in charge is not adequately formed and trained on blood storage specifications (temperatures and storage periods) and the correct treatment of donated breast milk according to the guidelines (G.U.n.32, 8 February 2014).



FIOCCHETTI declines responsibility concerning previous or following phases of the product lifecycle.

3.3 GENERAL DEVICE FEATURES

Power supply	230V \pm 10% or 115V \pm 10%
Frequency	50 Hz or 60Hz
Allowed ambient temperature	See climatic class
Storage temperature	-10°C to +50°C
Acoustic pressure at 1 mt	\leq 70dBA

3.4 CLIMATIC CLASS

The unit identification label (see chapter 9) reports the climatic class to which the unit belongs, i.e. the ambient temperature range between which the unit can work.

The following table explains the meaning of the climatic class symbols

SYMBOL	AMBIENT TEMPERATURE RANGE
SN	from +10°C to +32°C
N	from +16°C to +32°C
ST	from +18°C to +38°C
C	from +10°C to +25°C



Climatic class on the dataplate refers to the factory setpoint.

4.1 TRANSPORT AND HANDLING

The machine must be transported and handled solely in a vertical position and following the instructions printed on the packaging. This precaution is necessary to avoid contamination of the compressor with oil which may cause the rupture of valves, of the cooling coils and problems with electric motor starting.

The accessories supplied with the machine (slides, wire shelves, drawers, baskets, etc.) are shipped inside the unit. The machine is fixed on a wooden pallet by means of screws, wrapped with polyethylene and packaged in cardboard, a wooden crate or wooden case.

The machine must be handled using a forklift or pallet truck with suitable forks (fork length at least equal to 2/3 length of the unit).



If the machine needs to be set down in order to bring it into the installation location, it is absolutely necessary to wait at least 6 hours before switching it on.

The manufacturer declines any responsibility for problems due to transport carried out in any condition different from those specified above.

4.2 POSITIONING

Incorrect positioning can cause damage to the machine and create dangerous conditions for users; therefore, the installer must comply with the following general rules:

- Position the machine keeping a minimum distance of 10 cm from all walls. If the machine is embedded in any type of furniture, a correct air flow of the condensing unit (compressor/fan motors) must be always ensured. The warranty will immediately expire, if this is not guaranteed. (Figure 1 – equipment position)

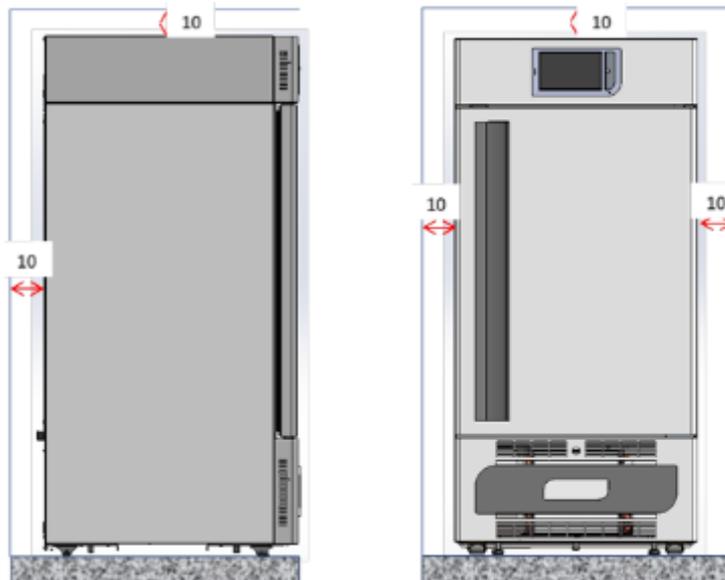


Figure 1 – equipment position

- Set the machine in a sufficiently ventilated environment.
- Place the machine far from heat sources and far from sources of electromagnetic interferences (such as motors, generators, infrared beams, telephones) which can have negative effects on equipment functioning.
- Avoid exposure to direct sunlight and air conditioning flows.
- Remove the supplied accessories and the wooden pallet base.
- Position the machine with the aid of a spirit level. If necessary, adjust the levelling feet on the metal base (on models fitted with adjustable feet) (Figure 2 – adjusting feet).

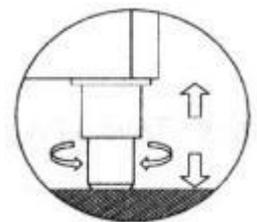


Figure 2 – adjusting feet



For models taller than 1,5 m, installation with wall fixing brackets is recommended.

4.3 CLEANING

Equipment is shipped already cleaned. However, it is advised to carry out a further washing following the instructions below:

- Remove the protective PVC film from the external surfaces of the machine.
- Clean the inside of the chamber with a cloth dampened with alcohol in order to eliminate the protective oil.



The glass door must be cleaned using a cloth dampened with water. Do not therefore use chemicals.



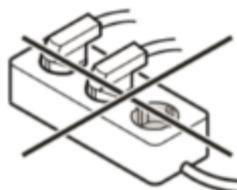
Figure 3 - glass cleaning label

*: Learn more on cleaning at chapter 6 paragraph 2

4.4 WIRING AND ELECTRICAL CONNECTION

The electrical system and connection must be set up by qualified personnel. Please follow the instructions below for safety reasons:

- Make sure that the system is suitably sized for the absorbed power of the machine.
- It is essential to properly connect the machine to an effective grounding system set in accordance with current legislation.
- In the event of incompatibility between the outlet and machine plug, replace the outlet with a suitable type, provided that the part is approved according to the laws in force.
- If electrical cable is damaged, it must be replaced by qualified personnel to prevent any risk.
- If the freezer is supplied without a plug, connect it directly under the switch board.
- Do not interpose adapters and/or reducers.
- Electric socket must not be directly behind the device and must be easily accessible.
- Do not use extension cords or multiple sockets (see picture below).



- Do not use inverters for stand-alone systems (conversion of direct current into alternating current or three-phase current) or energy-saving connector. Could cause damage to the electronics.



Special attention should be paid to SUPERARTIC model electrical connection as absorption is high. Prepare cables with a cross section of at least 2.5 mm² and with a limited in length.

4.4.1 ELECTRICAL PROTECTIONS

Fiocchetti devices are equipped with 2 safety fuses (phase and neutral) with integral protection against electric shocks, short circuits and over-currents, and according to the standards for laboratory devices.

The fuses can be accessed from the front: open the refrigerator door and the fuses will be found behind the front control unit panel. The activation current of the fuses must be either 10 A or 16 A according to the models.

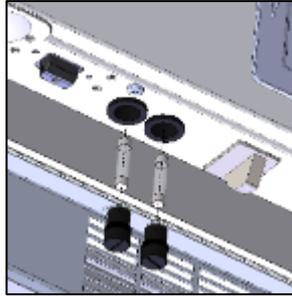


Figure 4 – Fuse housing



The replacement must be done by qualified personnel.

4.5 SET-UP OPERATIONS

Before turning on the appliance, it is necessary to check that it has not been damaged during transport, handling and installation.

- Check the condition of the packaging (it must not show dents and/or breakages)
- Check the condition of the external frame (it must not show dents and/or breakages)
- Check the condition of the power cord (it should not have scratches or cuts).
- Check that the feet and/or wheels are stable.
- Check that door opens correctly and closes hermetically
- Check door gaskets (they should not have scratches or cuts)
- Check that display do not show cracks.

4.6 USE OF THE INTERNAL COMPARTMENT AND MATERIAL STORAGE

The stainless-steel rack system allows for the installation of fully extractable drawers on telescopic guides with "bayonet connection" and with the possibility of having a mixed arrangement of completely interchangeable drawers/shelves. SUPERARTIC and PLASMA SUPERARTIC models use drawers mounted on extractable slides, not telescopic.

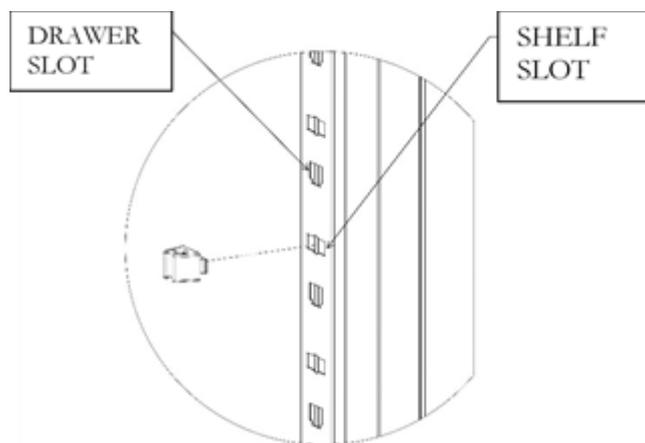


Figure 5 – Slots for internal fittings

4.6.1 SHELVES INSTALLATION

Position the shelf supports on the rack at the desired position, inserting them into the special slots and turning them of 90° to block them. At this point, insert shelves (Figure 6 – shelves installation)

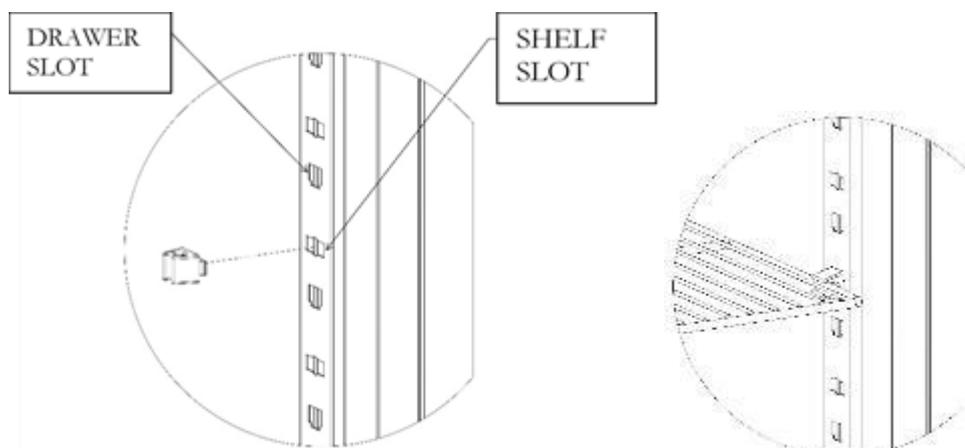


Figure 6 – shelves installation

4.6.2 DRAWERS INSTALLATION

Insert the guides into the special slots of racks (Figure 7) and pull out the telescopic guides by gently pressing on the white lever (Figure 8), install them on the drawer and fill the drawer on the guides installed on racks (Figure 9).

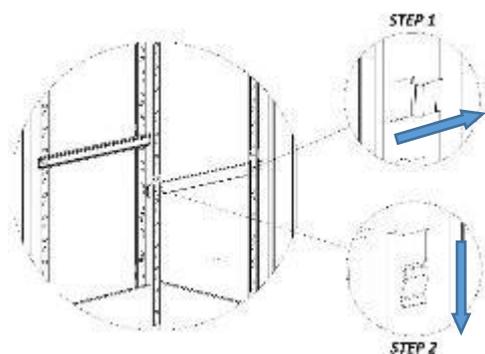


Figure 8 – guides installation

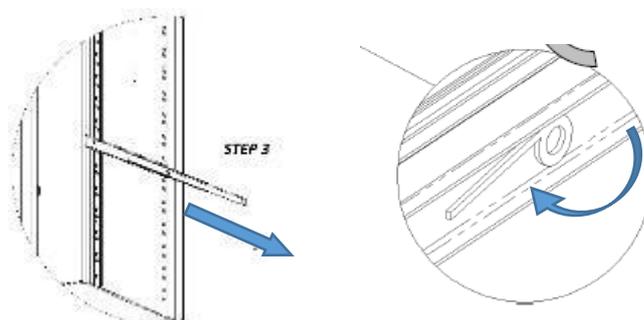


Figure 9 – pulling guides out

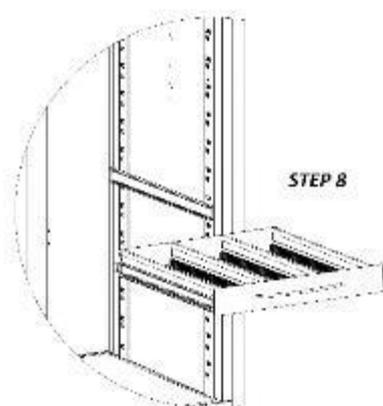


Figure 7 – installation of drawer on rack

4.6.3 PLACING MATERIAL INSIDE THE COMPARTMENT

Care must be taken when loading material, to avoid malfunctions and allow air flow to ensure temperature uniformity inside the refrigerated compartment.

Observe the following instructions:

- ✓ Do not place material over the label indicating the maximum permitted loading level, if present.
- ✓ Store material leaving a distance of at least 6 cm from sides and at least 18 cm from the top of the compartment (Figure 11-12)



Figure 10 - Max. level label

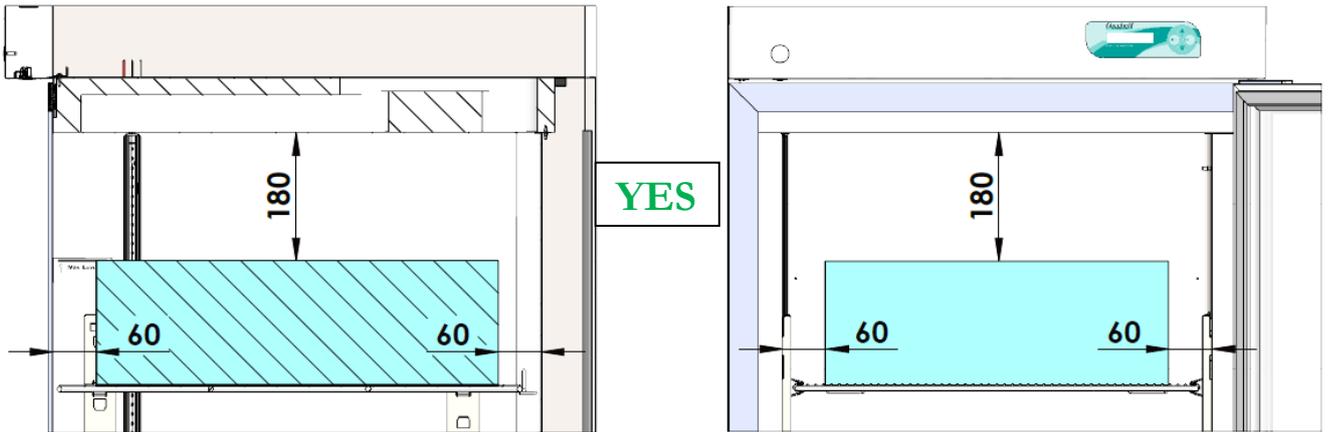


Figure 11 – Correct material storage

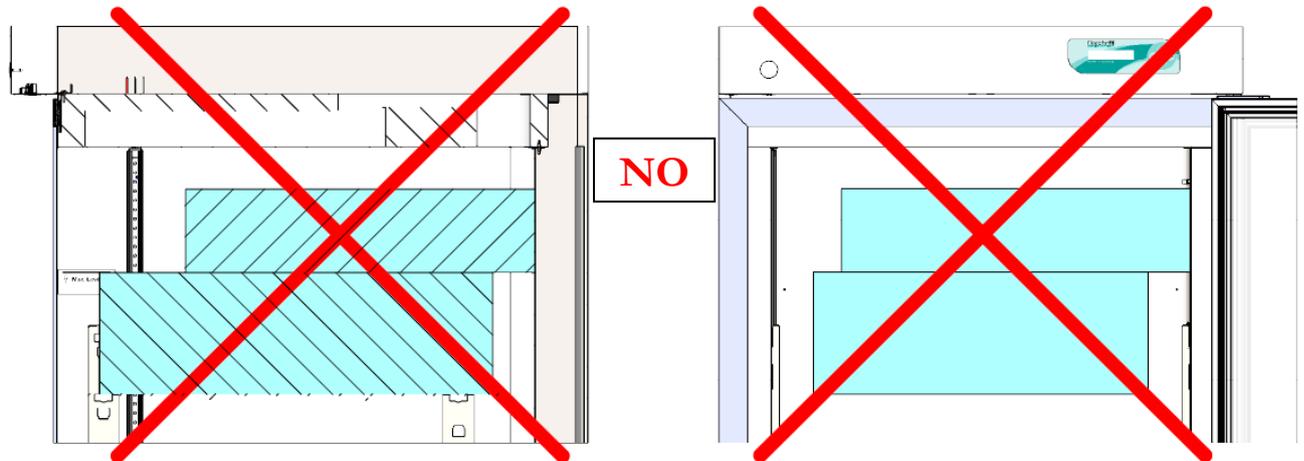


Figure 12 – INCORRECT material storage

- ✓ Do not position material in contact with or near the temperature probes (Figure 13).



Figure 13– probes position

- ✓ Do not block air vents (Figure 14) and pressure equalising valve in SUPERARTIC models (Figure 15).

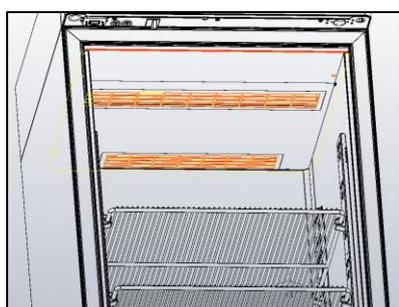


Figure 14 – air vents at the top of the compartment

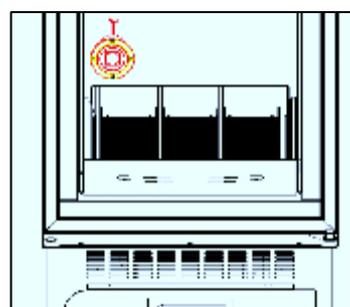


Figure 15 – position of the SUPERARTIC model pressure equalising valve

4.7 INDICATION FOR OPTIMAL USE

The following instructions are provided to the user to follow in order to get the best equipment performances:

- The power supply must comply with the information provided on the technical data plate (+/- 10%).
- The units have been designed and built to work in environment with temperatures falling within the climatic class temperatures indicated on the technical data plate (see Par. 9.1) and at a relative humidity of 60%.
- Do not block the motor compartment air vents.
- Load stored material gradually at ambient temperature to grant proper refrigeration.
- Store material on shelves (or drawers). Do not place products directly on the bottom, or against the wall, doors or fixed guards of the unit (see Par. 4.6.3)
- Make sure doors are closed properly.
- Limit door opening frequency and duration. Each time the door is opened, the internal temperature will alter and there will be possible ice formation on the evaporator
- Keep the defrost water drain outlet clear.
- Follow a regular maintenance schedule (see Par. 6)

!!!IMPORTANT!!!



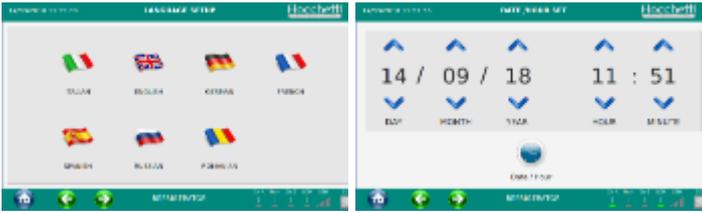
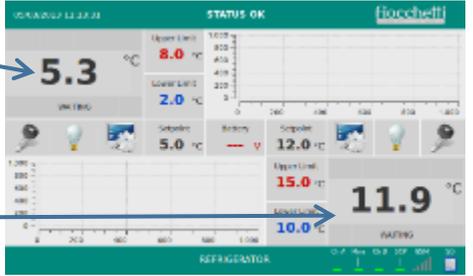
Every model of freezer is designed to store material already frozen, especially model SUPERARTIC. Material load turnover cannot exceed 5% of the total stored load.

5 ECT-F TOUCH DISPLAY FUNCTIONING

5.1 ECT-F TOUCH Control OPERATION

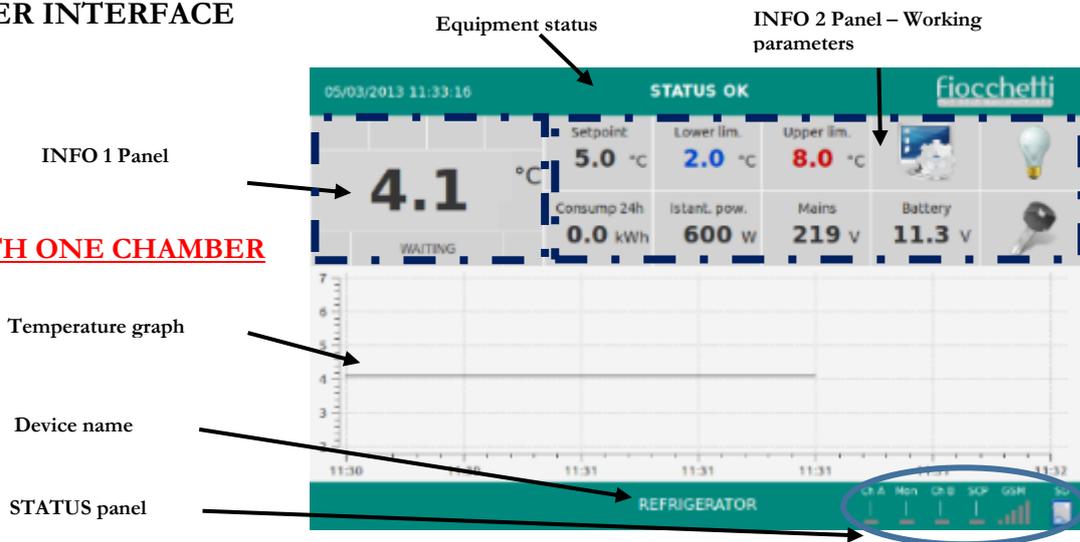
5.1.1 SWITCHING ON

To switch on the equipment for the first time follow these below instructions:

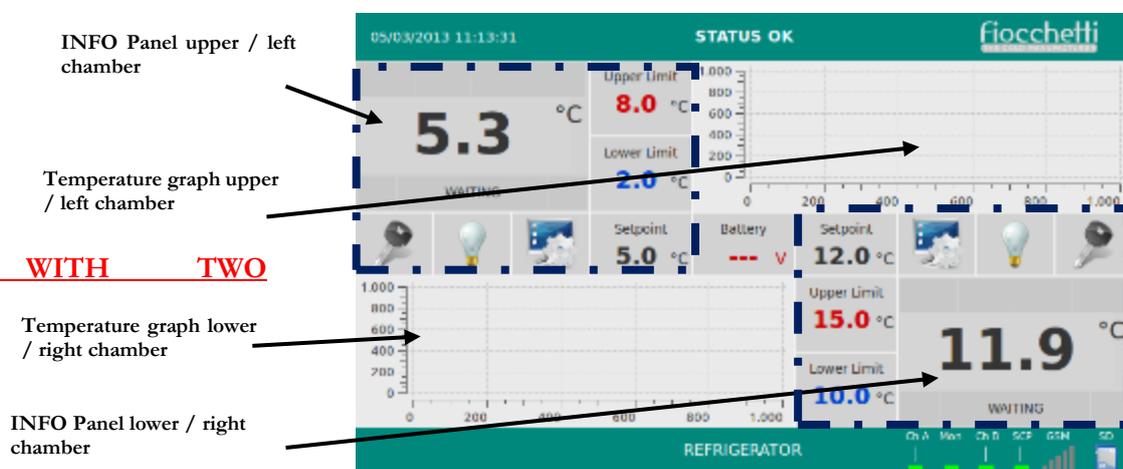
1.	Connect the plug to the electric socket.	
2.	Switch on the equipment by pressing the three red squares sequentially from left to right (if pressed correctly, the squares will become green).	
3.	Select language and set date and hour.	
4.	After setting the required data, the user interface will appear:	<p>Equipment with one chamber</p>  <p>Temperature detected inside the chamber</p> <p>SETPOINT temperature</p> <p>Equipment with two chambers</p>  <p>Temperature detected inside upper or left chamber</p> <p>Temperature detected inside lower or right chamber</p>

5.2 PANEL USER INTERFACE

EQUIPMENT WITH ONE CHAMBER



EQUIPMENT WITH TWO CHAMBERS



EQUIPMENT WITH ONE CHAMBER + BALLASTED TEMPERATURE PRODUCT PROBE

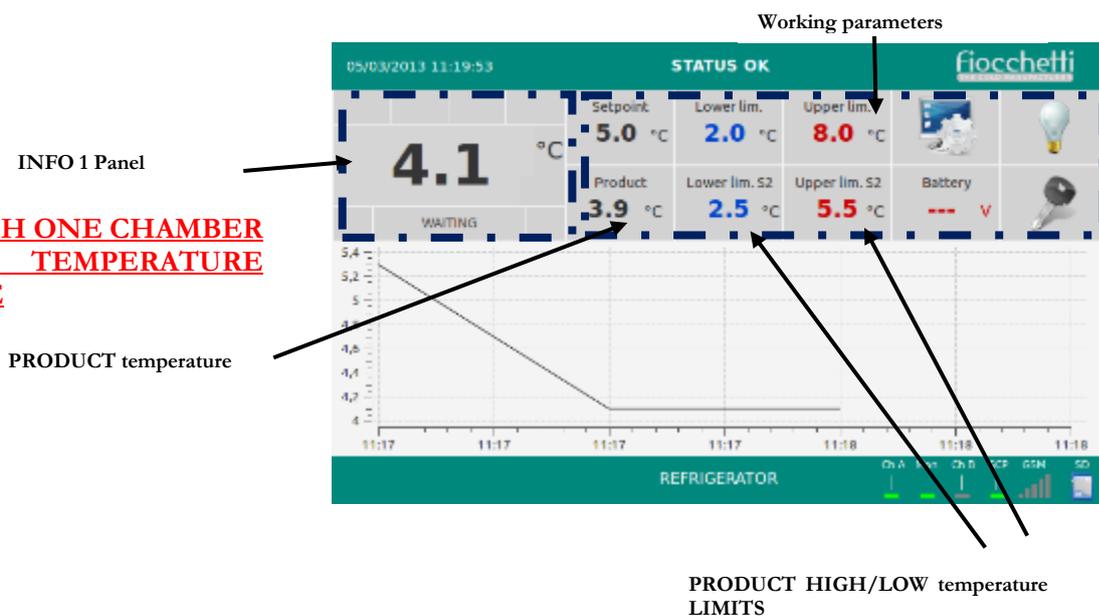
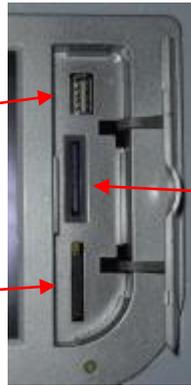


Figure 16 - Ballasted temperature product probe

5.2.1 USER HARDWARE INTERFACE

USB port for software update, programming and data backup download.

SIM Card slot for GSM module (optional)



SD card to register functional data, temperatures and to store technical documents in digital format.

Figure 17 – Hardware interface

5.2.2 INFO 1 PANEL

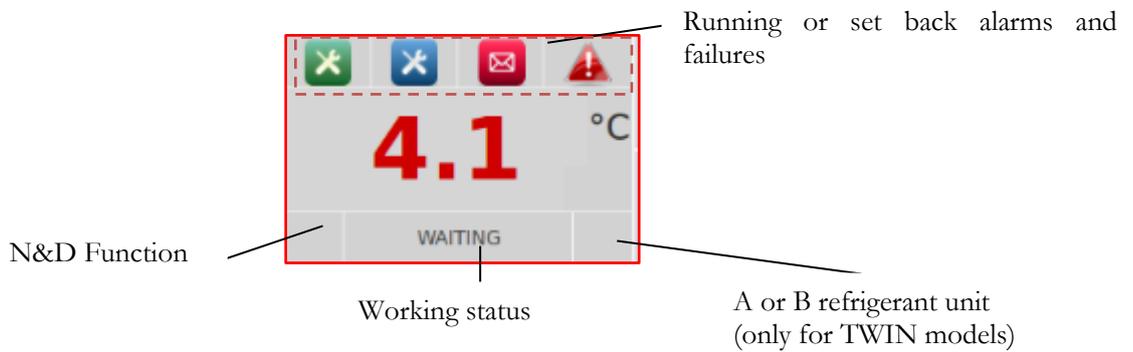


Figure 18 – INFO 1 Panel

STRING	WORKING STATUS
PAUSE	Compressor is off, waiting for next cooling cycle
COOLING	The compressor is ON to reach setpoint
DEFROST	The refrigerator defrosts, warming up the evaporator
DRIPPING	Last phase of defrosting to allow evaporator dripping
WAITING	The compressor is ON after defrosting to re-acquire the temperature
HEATING	Heating action active (available only for some specific models)

Table 1 – Working status strings

5.2.3 INFO 2 PANEL

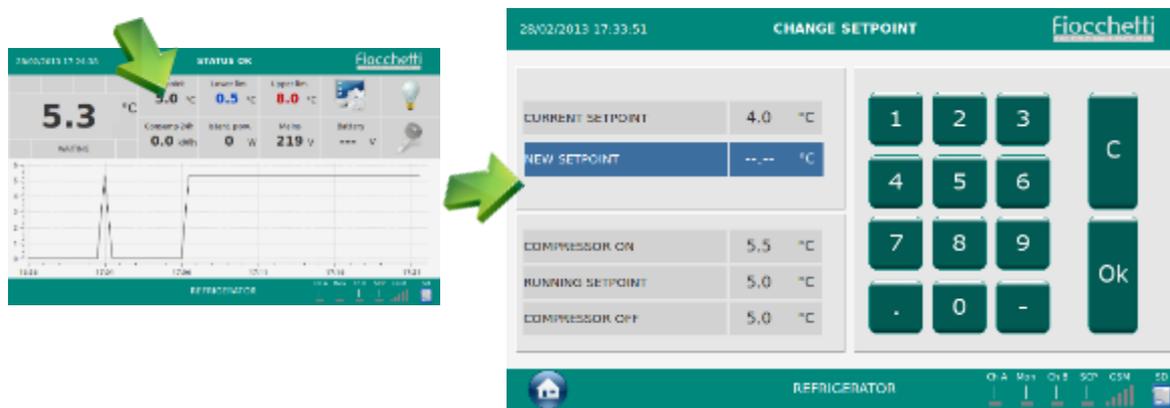
In Info 2 panel set parameters (Setpoint, High and low temperature limits) and working equipment information are displayed.

Setpoint 5.0 °C	Lower lim. 2.0 °C	Upper lim. 8.0 °C		
Consump 24h 0.0 kWh	Istant. pow. 600 W	Mains 219 V	Battery 11.3 V	

Figure 19 – INFO 2 Panel

5.2.3.1 How to change setpoint

Touch Setpoint value to access to the dedicated page.



In “Change Setpoint” page, enter the new desired value and press OK to confirm. Touching “HOME”  icon go back to homepage.

In the same page, user can find information also of compressor switching on/off differential and Running setpoint (this differs from the Current setpoint when the Night and Day function is activated – see par. 5.2.4.4).



Every time the setpoint temperature is changed, user should always check that the limits are still properly set. If they are not coherent, user should change them accordingly (see par.5.2.3.2).



If user password is enabled (see par. 5.2.5.1), a password will be asked to change setpoint.

5.2.3.2 Setpoint adjustment limits

Setpoint can be adjusted only according to relative guidelines for storage and preservation of blood, plasma and breast milk.

MODEL	FACTORY SETPOINT	ADJUSTMENT LIMITS
<i>EMOTECA</i> <i>EMOTECA 2T</i> <i>EMOTECA TWIN</i>	+4°C	+3°C ; +5°C
<i>EMOTECA*</i>	+22°C*	From +20°C to +24°C
<i>PLASMA VISION</i> <i>PLASMA FREEZER</i>	-20°C	-25°C ; -15°C
<i>PLASMA SUPERARTIC</i>	-35°C	-40°C ; -20°C
<i>PLASMA VISION 2T</i> <i>PLASMA-LABOR 2T</i>	+4°C / -20°C	+3°C ; +5°C / -25°C ; -15°C
<i>PLASMA SUPERARTIC 2T</i>	+4°C / -30°C	+3°C ; +5°C / -40°C ; -20°C

* On request for models from 100 to 500L

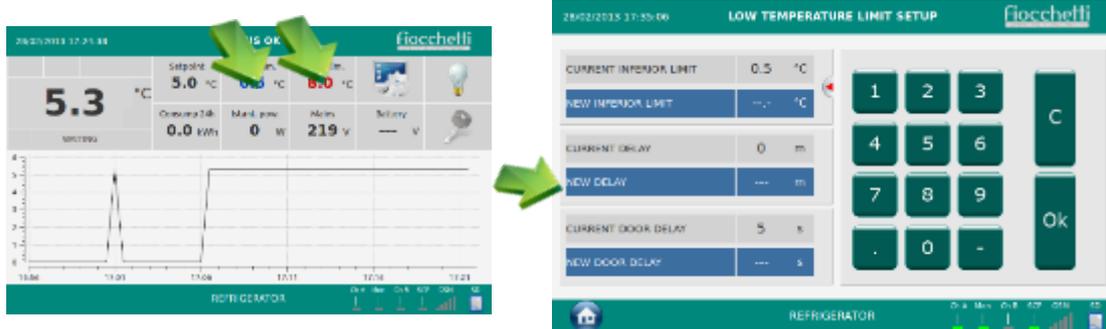


Duration of storage is strictly related to temperature set.

FIOCCHETTI declines responsibility concerning previous or following phases of the product lifecycle.

5.2.3.3 How to change alarm delay signalization

Touch lower or upper limit to access to the dedicated page.



Touch NEW DELAY and enter the new value. Press OK to confirm it.

Go back to homepage by touching home icon .



If user password is enabled (see par. 5.2.5.1), a password will be asked to access to this page.

5.2.3.4 How to change door alarm delay signalization

Touch lower or upper limit to access to the dedicated page.



Touch NEW DOOR DELAY and enter the new value. Press OK to confirm it.

Go back to homepage by touching home icon .



If user password is enabled (see par. 5.2.5.1), a password will be asked to access to this page.

5.2.3.5 Consumption panel

Touch Battery to access to the dedicated page.



In CONSUMPTION PANEL the following information is displayed:

- Snapshot equipment consumption
- Daily equipment consumption (of the last 24 h)
- Current energy mains
- Minimum accepted value for the signalization of “Low mains tension”
- Battery backup voltage (if battery backup installed)
- Battery backup working status (if battery backup installed)
- Battery backup wear level (if battery backup installed)
- Battery backup setup date (if battery backup installed)

Go back to homepage by touching home icon .

5.2.3.6 Electric digital key lock (optional)

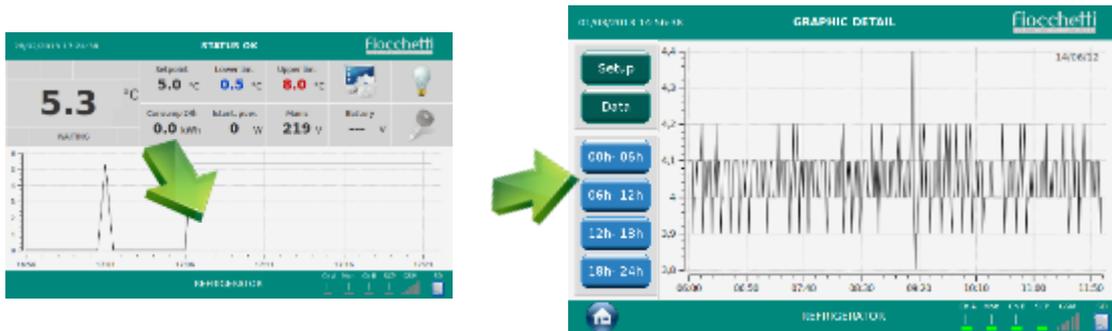
As safety device against unauthorized door opening, the equipment can be fitted with an electric digital key lock (optional accessory). The door is opened by gently pressing on the key icon in the homepage.



When the equipment gets turned off (STAND-BY status), the electric digital lock opens itself automatically. In case of power failure, lock remains open, if it was open. On the contrary, it remains closed, if it was closed and you should follow instructions to unlock the door manually (see par.5.6).

5.2.3.7 Temperature graphic visualization

In the homepage a temperature graph of the last 6 hours is constantly visualized. Touching the graph the user can enter the sub-menu “GRAPHIC DETAIL”.



By means of the following icons , it is possible to visualize immediately the current daily time spans graphic details.

On the contrary, by touching **Data** it is possible to analyse the past registered temperature data.

24h temperature graphic preview

Icon allows to switch from SD stored data to the flash memory stored data (flash memory stores up to 1 year) in case SD card is not in its slot , it has been lost or damaged.

SD INFO:

- Date of last backup
- No. Files included
- Free space
- No of date/hour changes done by the user.

Select day/month/year to visualize the temperature graph of the date of interest. Then, touch LOAD GRAPH: a daily temperature graph preview will be visualized on the right of the display. Touching the icon DETAIL GRAPH, it is possible to visualize the time spans graphic detail of the loaded day.

5.2.4 ECT-F TOUCH USER PANEL

Touch the icon  to access to the dedicated page.



In this page there are different sub-menus:

ICONS	DESCRIPTION
	It allows to turn the equipment off (<u>password protected, if passwords are enabled</u>).
	It allows to visualize the latest n. 32 recorded alarms.
	It allows to visualize the latest n. 32 days in which door opening alarm has occurred.
	It allows access to the Night & Day function and to the key locking management settings (key locking is password protected, if password is enabled).
	It runs a manual defrost.
	It allows access to Multimedia information (TUTORIAL).
	It allows to change date and hour.
	It allows to set the desired language.
	It allows access to the user setup management.
	The icon allows the visualization of all the registered users as well as the related enabled tasks (par.5.2.5.1 and 5.2.5.2)
	It allows the user to backup the temperature registered data.
	It allows access to the SERVICE menu (<u>Always password protected</u>).

Table 2 – User panel icons

5.2.4.1 Switching off

Switch off the equipment by touching the icon . Then, select the following icon: . The screen will ask to confirm again. Therefore, to confirm the system turning off press  or  to cancel the operation.



If the control user password is enabled (see par. 5.2.5.1), user shall enter the password in order to switch off the system.

5.2.4.2 Alarms list

Touch  icon and then  to access to alarms list page.

In the alarm list the following is visualized:

- Type of alarm
- Date/hour of alarm beginning
- Duration of alarm
- Critical temperature attained

MESSAGE	TYPE OF FAULT IN PROGRESS
HIGH TEMPERATURE	High temperature inside the chamber
LOW TEMPERATURE	Low temperature inside the chamber
HIGH TEMP. DUE TO OPEN DOOR	High temperature inside the chamber due to door not properly closed or door opened too frequently and too long.
HIGH TEMP. DUE TO MAINS FAILURE	High temperature inside the chamber due to mains failure.

Table 3– Alarm list

5.2.4.3 Door opening list

Touch  icon and then  to access to door opening list.

In this page, the last 32 days in which door has been opened are visualized. Each door opening is detailed as follow:

- Door openings date
- Door openings total duration in a day
- Total number of openings in a day
- No. Of critical openings in a day (critical duration > 30 seconds)

5.2.4.4 Night & Day Function

Touch  icon and then  to access to Night & day function.

This page allows to manage two functions:

a) Night and Day function

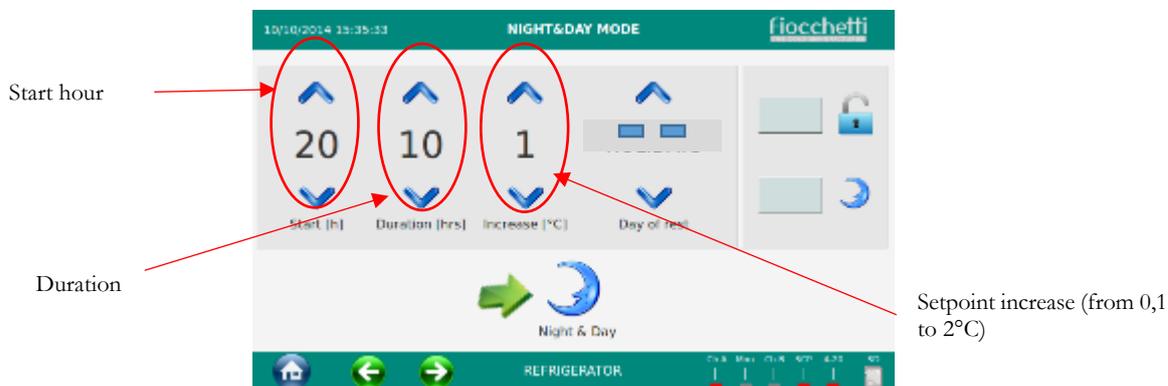
This special function allows saving energy when the equipment is not used frequently (e.g. during the night, holidays, days off, etc.). When the Night & Day function is enabled:

- the display, logo and led light brightness is lowered (led light inside the chamber will turn to blue)
- the temperature inside the chamber is increased of a default value (from 0,1°C to 2°C max). Thus, it is assumed that there aren't door openings during the selected period.

The Night & Day function can be enabled in different ways:

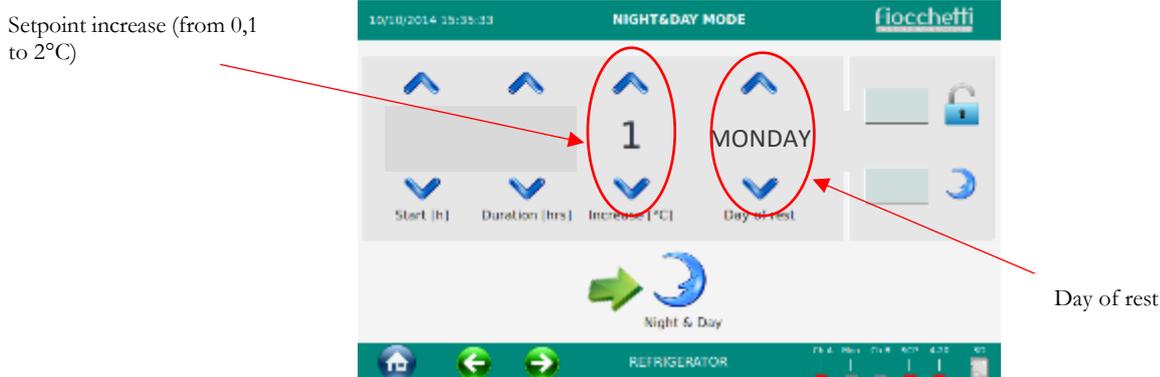
1. At a specific hour of the day:

Select the Night and Day start hour, the duration and the temperature increase value. Then, touch  to enable the function. Every day at the set hour and for the required duration, the refrigerator will activate the Night & Day function. This function will automatically deactivate after the set duration.



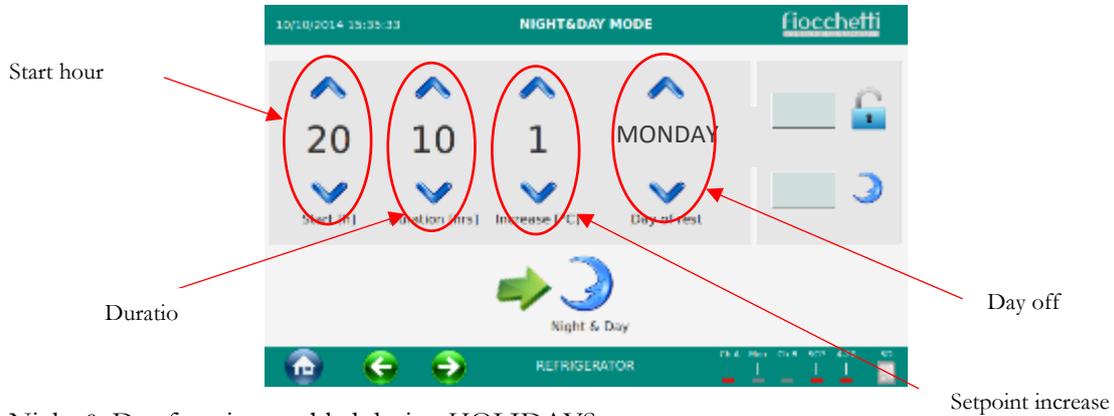
2. Only in a specific day of the week:

Select the day of rest (e.g. Monday) and the temperature increase value. Then, touch  to enable the function. During the chosen day, the Night & Day function will activate and will deactivate the day after.



3. Every day at a specific hour and during the day of rest:

Select the Night and Day start hour, the duration, the temperature increase value and the day of rest. Then, touch  to enable the function. In this way, the Night & Day function will activate both every day at a specific hour and for the set duration and for the whole day of rest chosen. The Night & Day function deactivates automatically.



4. Night & Day function enabled during HOLIDAYS:

Enter as day of rest HOLIDAYS and touch  to enable the function. This function will activate immediately, and it will last till it won't be disabled manually by touching again the icon .



If the control user password is enabled (see par. 5.2.5.1), user shall enter the password 0000 to enable Night & Day function.

b) Digital electric lock management

This feature allows the user to configure the lock in accordance with its optimal use. In addition to the standard opening by touching the relating icon, possible configurations are nr. 2:

- Lock always open → touch  to activate ✓
- Automatic opening and closing according to Night & day setup: always open during daytime use and closed when Night & Day function is on. → touch  to activate ✓

It is still possible to open the door by touching the key icon in homepage while Night & Day function is active.

5.2.4.5 Access list

Touch icon  and then  to access to the dedicated sub-menu. In this page, it is possible to visualize how many door openings, switch on/off, change limits, etc have been done by the/each user every day (if different users have been created, please see par. 5.2.5.2).

5.2.4.6 Defrosting

Equipment fitted with ECT-F TOUCH controller is provided with an advanced managing of the defrosting cycles. **The defrosting is operated only if necessary, thus drastically reducing the number of cycles for a cost-effective operation. For this reason, a manual defrosting has never to be operated.**

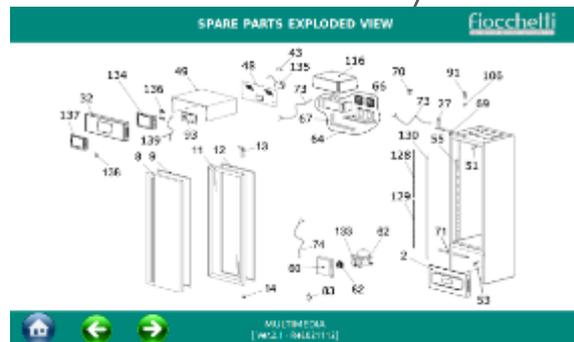
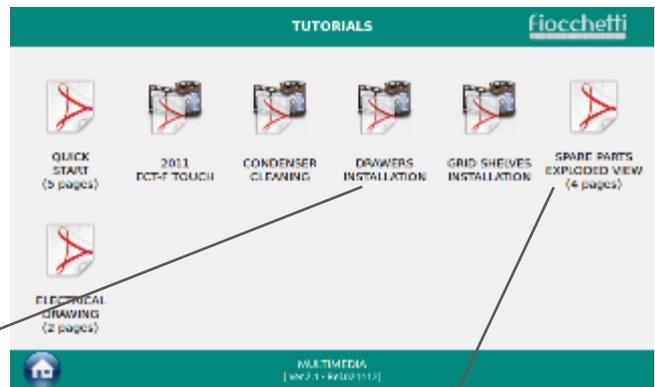
Despite this, in user panel the defrost icon  is available to run manual defrost if necessary and only under specific conditions.

5.2.4.7 Multimedia information (TUTORIAL)

The Multimedia section enables the user to watch technical static contents (PDF) and dynamic contents (video). Touch



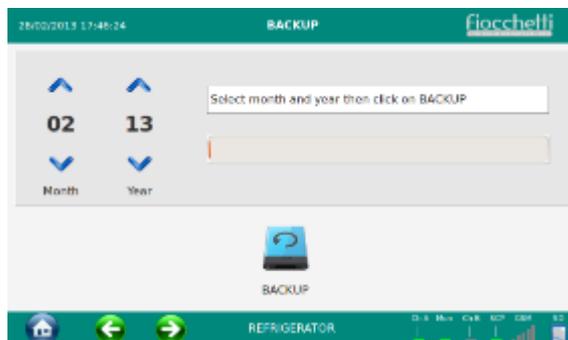
to access to the menu.



5.2.4.8 Data backup from USB

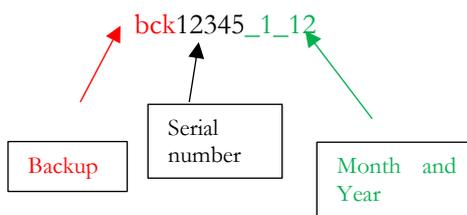
This menu is useful to run a monthly backup of the temperature data by means of a USB. Access to the dedicated page

by touching on  and then on  icon. This is the page that will be visualized:



Enter the month/year you desire to copy, touch the following icon  and follow the described procedure that will appear in the screen.

Inside of the USB a folder with all the registered data will be automatically created. The name of the folder is a particular code which identifies the equipment; therefore, it is possible to load in the USB different backup of different equipment.



BEWARE: if date/hour has been changed (for example, this might happen when civil time is changed to solar time and vice versa), there might be data loss while downloading data from USB. Therefore, we advise to backup data from SD CARD (see par. 5.3).

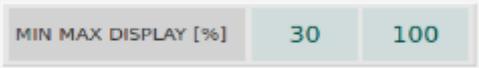
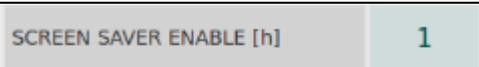
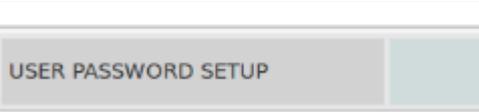


We advise to use the SD Card for the first download of data in order also to install the software Capture 5.2 provided free in SD CARD (see par. 5.3)

5.2.5 SYSTEM PANEL SETUP

Touch  icon and then  to access to Software panel setup menu. In this menu the user has the possibility to customize some specific functions of the equipment.



	To modify the internal light brightness (from 0 to 100%)
	To modify the brightness of the display (MAX during the equipment functioning, MIN when screensaver or Night and Day function are enabled)
	To activate Screensaver each (h) hours (from 1 to 12 h or never)
	To activate  or deactivate the USER PASSWORD SETUP (to activate and deactivate PSW: 0000). The generic password is then 1234. To change this password see par. 5.2.5.1
	To setup day and hour for the system SMS (only when GSM Communicator is installed)
	To activate  “Easier accessibility”. This function will increase in homepage the dimension of key and light.
	Date in which battery was installed the last time.

	It enables to give a name to the equipment to be then visualized in the Homepage.
	It enables to enter a GSM number to send SOS SMS automatically in case of a system failure (only if additional GSM module is installed).
	It enables to access to a menu specifically designed to run tests on the equipment. To get more detailed information, see par. 5.2.5.4.
	It activates or deactivates the equipment audio.
	To run a TFT upgrade (to be used only upon technical service authorization).
	 <u>To run a system reboot.</u> <u>TO BE USED ONLY IF STRICTLY NECESSARY.</u>

Table 4 – Software setup panel icons

5.2.5.1 User password setup



Enabling the “USER PASSWORD SETUP”  in the SOFTWARE PANEL SETUP (enter PSW: 0000 to activate), it is possible to protect the equipment from no qualified personnel who may change important parameters for the correct functioning of the equipment.

Password will be asked for the following operations:

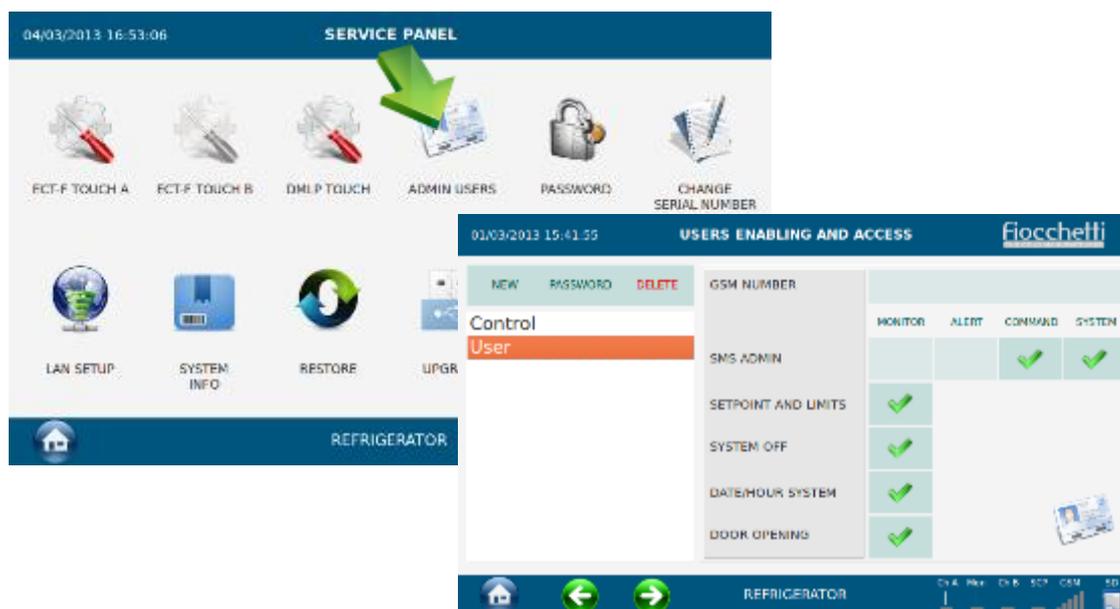
- Switching on
- Switching off
- Date/hour changing
- Temperature Setpoint changing
- Min. and Max. alarm temperature limits changing
- User Menu accessing
- Door opening, if digital electric lock is installed
- Night & Day Menu accessing.



The generic USER password is 1234 and it can be changed only entering the Service Menu - “ADMIN USERS” sub-menu.

5.2.5.2 User management

In service menu, enter “ADMIN USERS” section touching  icon.



Two default users exist in USERS ENABLING AND ACCESS service.

The first is called **CONTROL** and it is a generic user acting as administrator for enabling and disabling Password management from the SYSTEM SETUP menu. This user has no access credentials and he can only modify the password. By default, the password for managing the CONTROL user is 0000. But by accessing this menu and selecting CONTROL with a double-click, the related password can be customised as well.

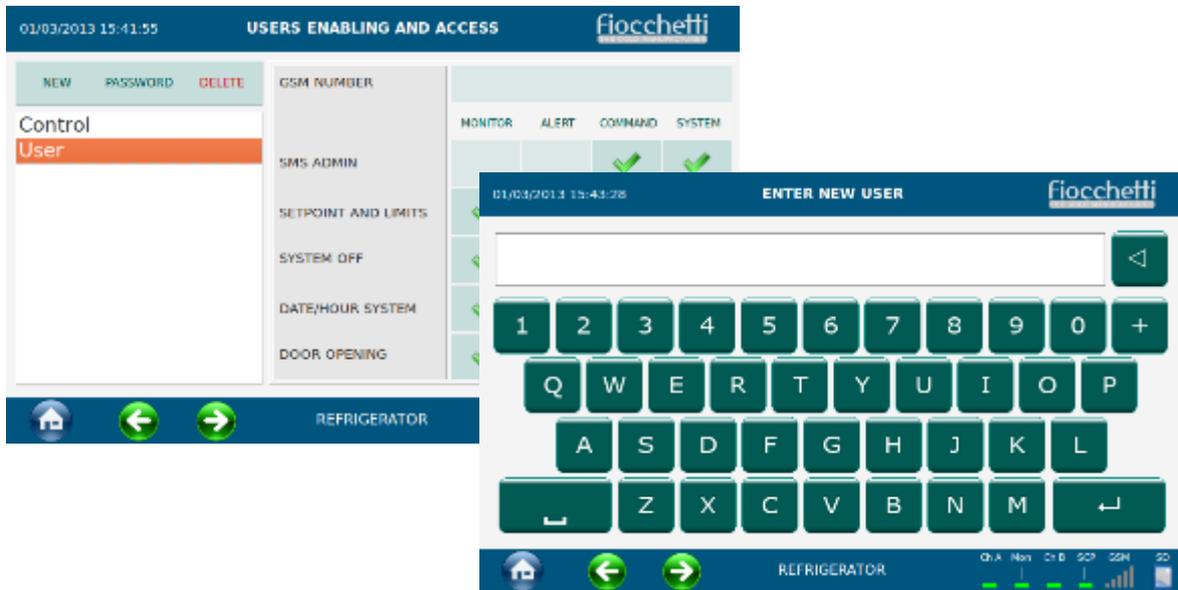


Beware: Password 0000 is the one requested in SYSTEM SETUP when enabling the USER PASSWORD SETUP.

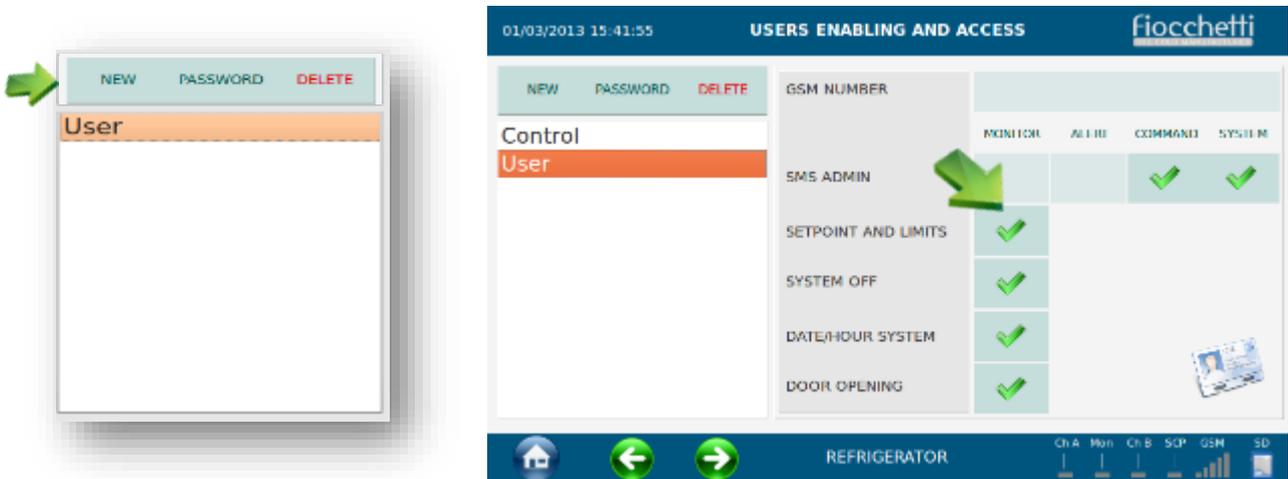
The second is called USER: it is enabled by default to do everything using password 1234.

New users can be created by gently pressing “NEW” and typing in the name (for example JOHN). After confirming

by pressing , a specific password will be requested for this user.



Double click on the name of the created user (if selected correctly, it will turn blue) and enable or disable the functions required for this user (setpoint and limits changing, switching on/off the equipment, the door opening, the date/hour changing, etc.).



5.2.5.3 Screensaver

User can enable screensaver entering Software panel setup. Screensaver will automatically activate, if the screen is not in use for a certain period of time.



The screensaver page will show the chamber temperature against a black background easily readable from the distance. The screensaver page will disappear at the touching of the screen.



5.2.5.4 Test function

Test program allows to check operation of some security signaling, such as acoustic alarm for event of high temperature, acoustic alarm for event of low temperature and remote alarm test for acoustic alarm and dry contacts. During these tests, device operation keeps taking place regularly and temperature inside the chamber remains within limits.

Following table describes the functions of the mentioned menu.

	<p>By selecting this icon, the displayed value of the probe slowly (within a minute) and artificially increases up to a value above the upper limit set. Once it happens, acoustic signaling takes place three times and dry contact switches. To conclude test, the value of the probe turns back close to the device operating value; after that it is allowed to exit the menu or to select a different test. The event generated by the test is filed in alarm list and on SD card, under the name of “SIMULATED HIGH TEMP”.</p> <p> Capture software allows for certain to view the event when loading data with sampling rate of 30 sec. On the contrary, a sampling frequency of 1 min or 5 mins does not assure to catch it, as it depends on the exact moment in which the test is performed.</p>
	<p>By selecting this icon, the displayed value of the probe slowly (within a minute) and artificially decreases down to a value below the lower limit set. Once it happens, acoustic signaling takes place three times and dry contact switches. To conclude test, the value of the probe turns back close to the device operating value; after that it is allowed to exit the menu or to select a different test. The event generated by the test is filed in alarm list and on SD card, under the name of “SIMULATED LOW TEMP”.</p> <p> Capture software allows for certain to view the event when loading data with sampling rate of 30 sec. On the contrary, a sampling frequency of 1 min or 5 mins does not assure to catch it, as it depends on the exact moment in which the test is performed.</p>
	<p>Tapping this icon allows to test device audio buzzer, by activating a single acoustic signaling, and on the dry contact (remote alarm) switching for 10 secs. Potential-free relay is placed on the electronic board or, if available, on the external terminal board placed in the back of the refrigerator (par.5.5.2)</p>

Table 5– Functions of test menu



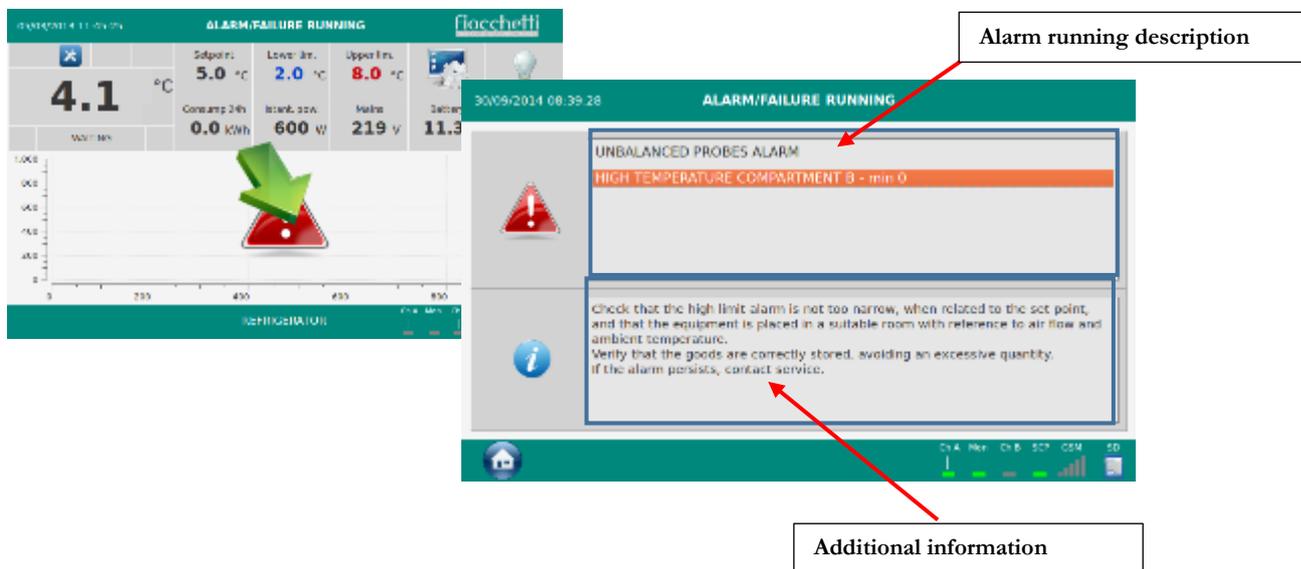
Remote alarm test is available on each model, while high temperature test and low temperature test only on models equipped with additional DMLP digital monitor. When not available, icon will appear grey and not selectable.



High temperature and low temperature test may be performed only under conditions of ideal and abnormalities-free device functioning. Should test fail, a red triangle  will be displayed and it will be possible to go back to homescreen to verify presence of alarms.

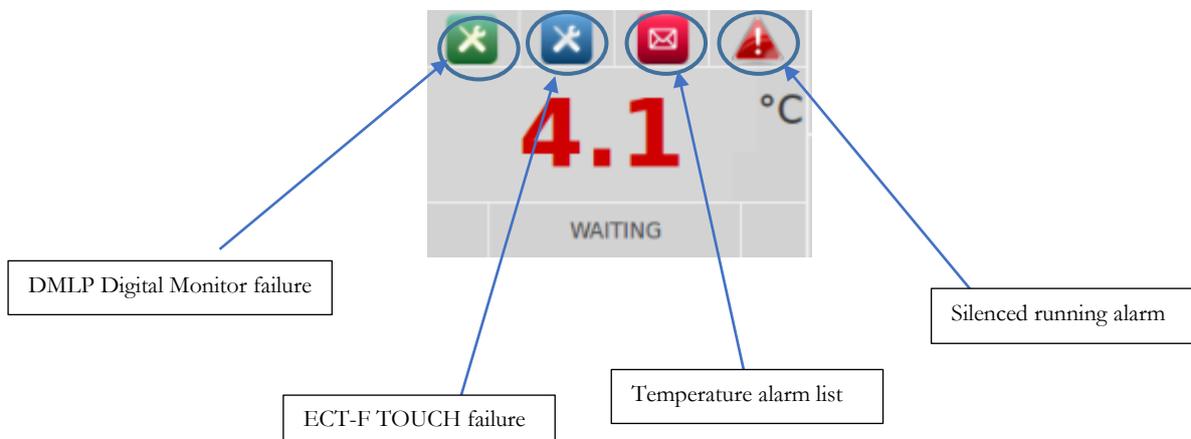
5.2.6 ALARMS AND FAILURES SIGNAL

When a failure or alarm is detected, in the display will appear the following icon  and an acoustic alarm will be heard. Touch the icon  in order to silence the acoustic alarm and visualize the description of the alarm. It is possible to touch the description of the failure in order to have more information also about the possible solution of the problem.



Once visualized the description, in the homepage the icon of alarm  will appear littler and near the temperature of the chamber in order to signal that the alarm is still running. If after 30 minutes, the Failure/Alarm persists, the acoustic alarm will be reiterated, and the alarm icon  will appear again big in the middle of the display.

When the alarm or failure is off, the user will continue to be informed in the Homepage both visually, with a dedicated icon "Temperature Alarm" , and acoustically every 2 minutes until the type of alarm or failure is visualized. By touching , you inspect the alarm and you stop the signaling.



5.3 TEMPERATURE DATA BACKUP FROM SD CARD

We suggest saving every two months in the computer the SD card registered data in order to prevent data loss in case SD CARD is lost or damaged.

To make the backup of data, extract the SD CARD and make a copy of the Backup folder in your PC, without deleting any folder nor file.

The Software CAPTURE 5.2, available in the SD card, will allow reading, creating and printing daily/weekly graphs of the backup data saved in the USB.

While the SD card is extracted, all data will be registered in anyway.



In case of problems with SD card, always check that the lever on the side of the same is positioned in “writing” position. If not, the controller won’t recognize it.



In order to guarantee the maximum efficiency of the system we advise to replace the SD card every 3-4 years.



In SD card folder named DOCS you may also find:

- User manual in PDF version
- Electrical connections scheme
- Spare Parts list



Figure 20 – SD card lever position

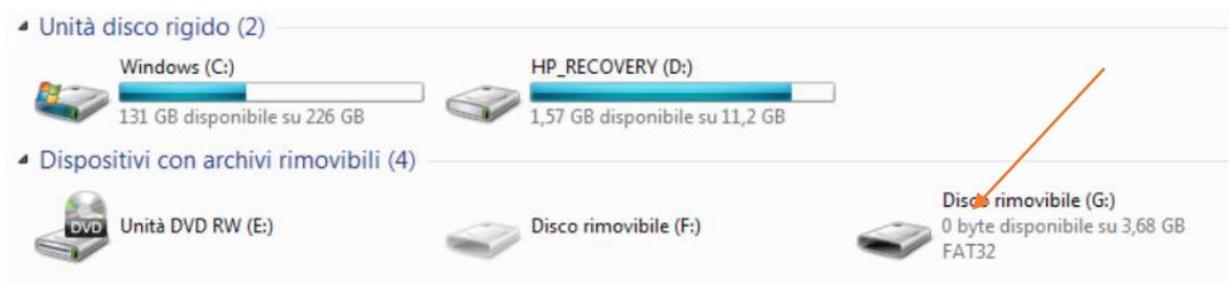
5.3.1 DATA LOADING IN CAPTURE SOFTWARE

SD card contains no. 4 folders:

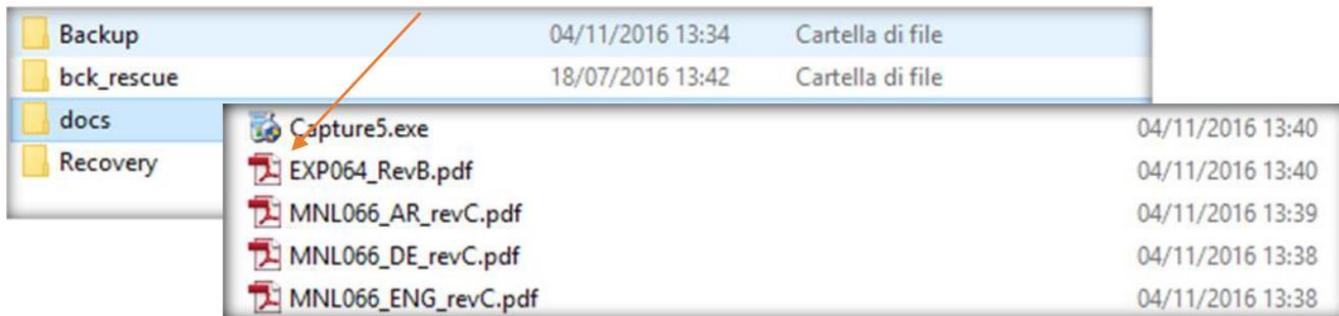
- Backup (including temperature data)
- Bck_rescue (including additional temperature backup folder)
- Docs (including Capture 5.2 software, manuals and electric drawings)
- Recovery (including the backup of all the customization made by the user)

Follow the below steps to install Capture 5.2 software:

- Remove the SD card from the slot of the equipment.
- Insert the SD card in the slot of the computer (if present) or use a Card Reader.
- Double click on Removable Disk related to SD Card (e.g. Removable Disk G:)



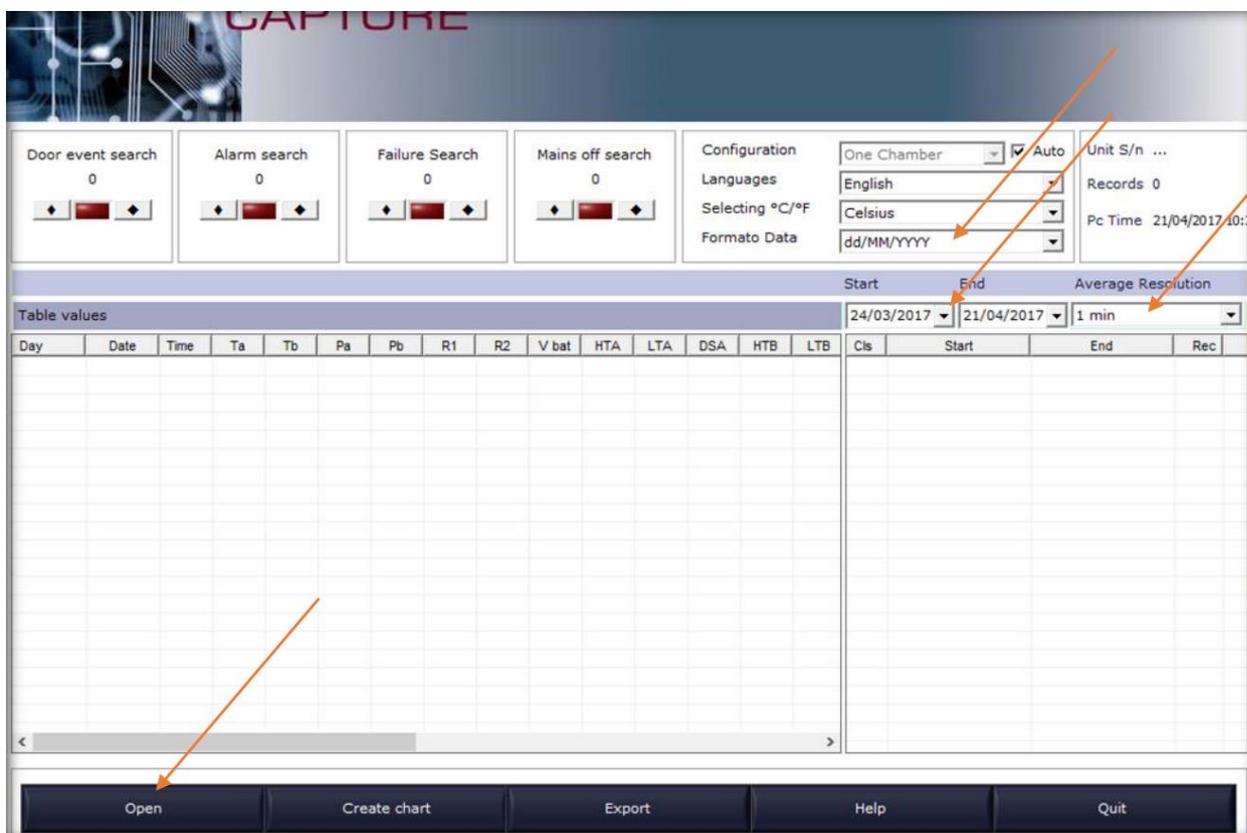
- Open “Docs” folder and install Capture software.



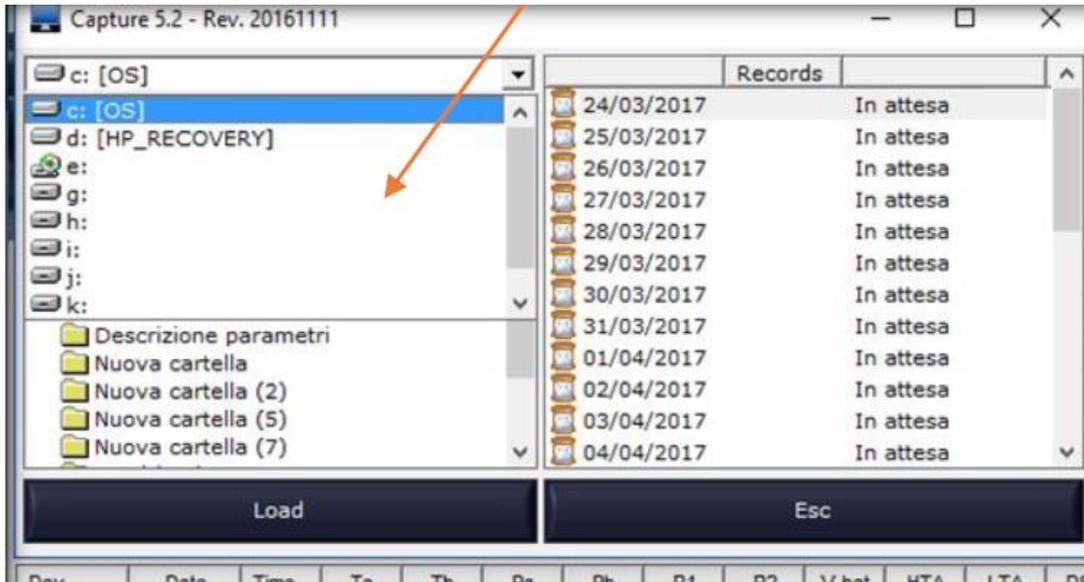
- Open Capture software, select the time period you would like to download (Start-End) and set the average resolution (select 5 minutes to create monthly graphs).



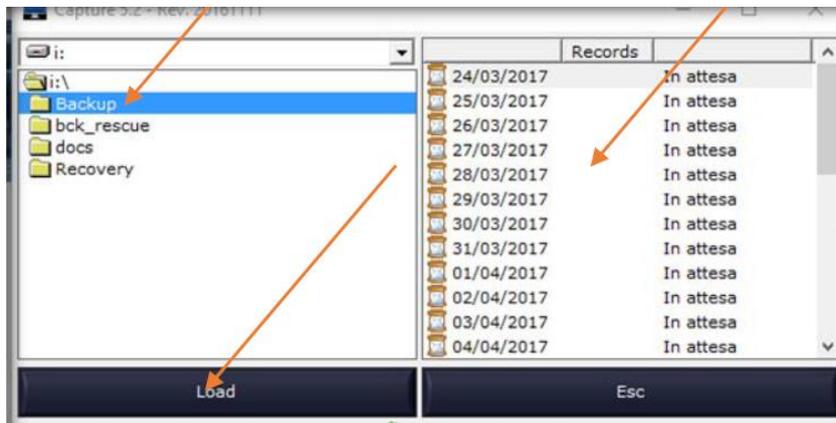
- Click on



- Select the path of the folder you want to load.



- Double click on the Backup folder and click on . Wait for data loading.



CAPTURE

Door event search: 0

Alarm search: 0

Failure Search: 0

Mains off search: 0

Configuration: Two Chambers Auto

Languages: English

Selecting °C/°F: Celsius

Formato Data: dd/MM/YYYY

Unit S/n: 44352

Records: 38100

Pc Time: 21/04/2017 11:59

Table values														Start	End	Average	Resolution	
														01/03/2017	21/04/2017		1 min	
Day	Date	Time	Ta	Tb	Pa	Pb	R1	R2	V bat	HTA	LTA	DSA	HTB	L1	Cls	Start	End	Rec
Wednes...	01/03/2...	00:0...	5.2	17.8	Close	Close	On	On	11.2	8	2	5	0	-2	1	01/03/2017 00:00	26/03/2017 01:59	361...
Wednes...	01/03/2...	00:0...	5.2	17.8	Close	Close	On	On	11.2	8	2	5	0	-2	2	26/03/2017 03:00	27/03/2017 11:59	1980

Open
Create chart
Export
Help
Quit

5.3.2 HOW TO CREATE A TEMPERATURE GRAPH

When data has been downloaded, it is possible to create charts by clicking on **Create chart**. Then, select the desired chamber (Chamber A – Chamber B – Chambers A+B – Battery)

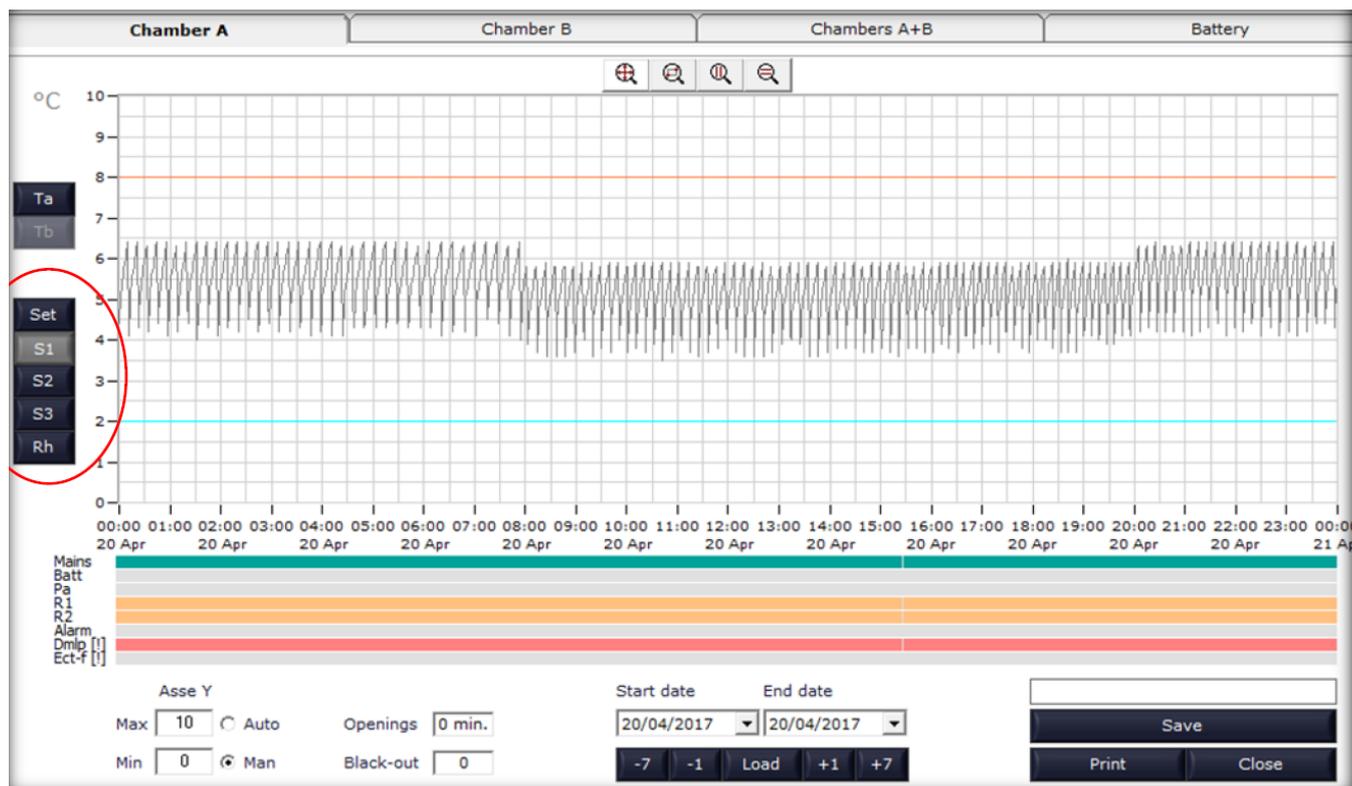
The following relevant data is visualized in each chart:

Serial Number: serial number of the device

Start / end date of the graph

Printed: the date of printing

Note



The chart is daily and by clicking on **+1** it is possible to visualize the temperature graph of the next day. You can build a weekly chart by clicking on **+7**. Clicking again on **+7** the next week temperature chart will be visualized.

The scale on the axis of the graph of the temperatures is automatic and it is based on the values displayed on the chart, but you can change it using the appropriate menu in the lower left, by selecting the "Man".



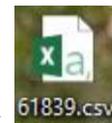
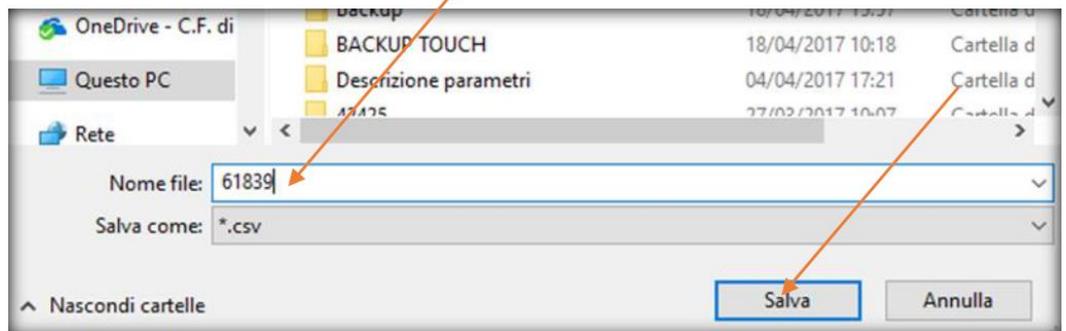
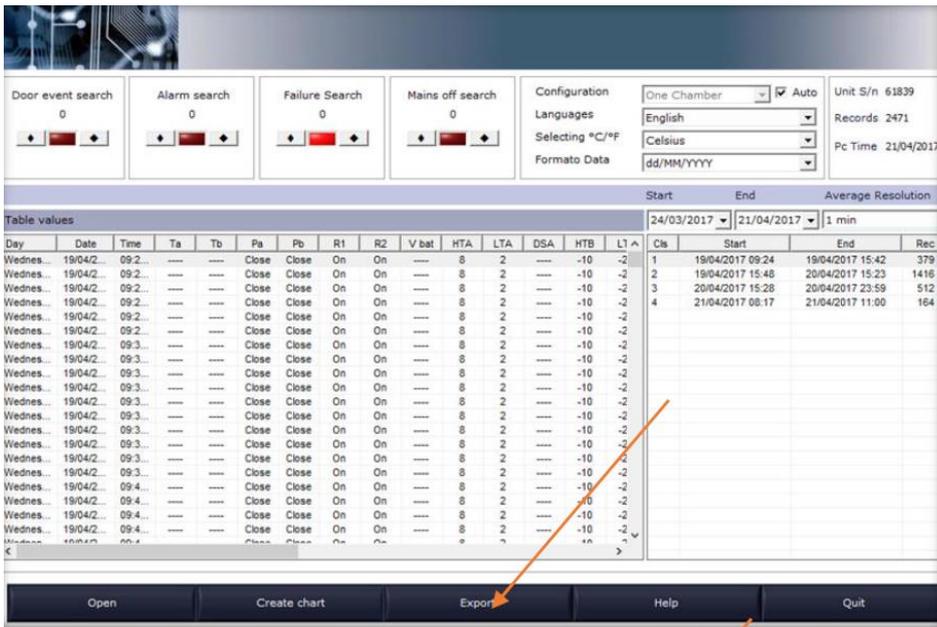
Click on the buttons at the left of the graph to enable or disable the visualization of the desired chamber (Ta-Tb-Set-S1-S2-S3-Rh)

The button **Load** allows setting a start/end date to create a customized chart of the required period.

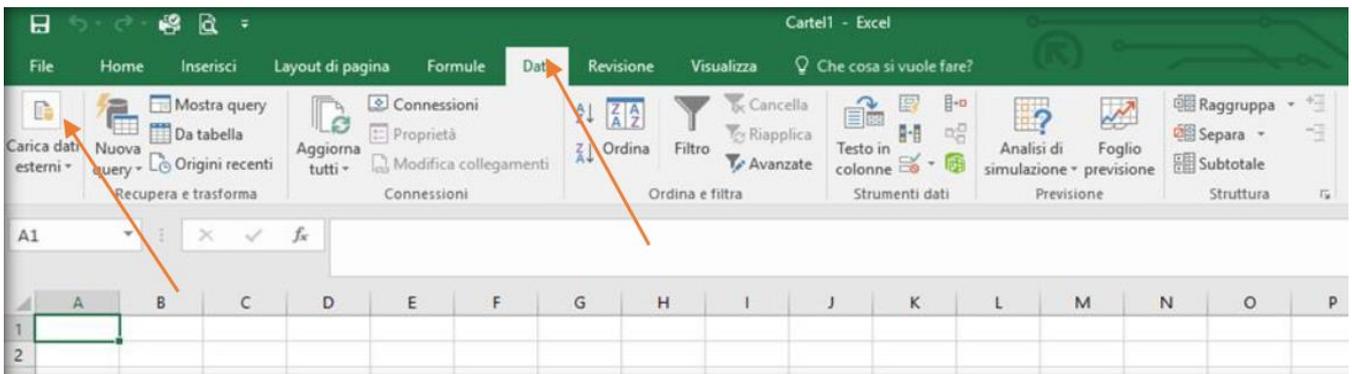
The available "Zoom" tools and the "Auto Scale" Y-axis function allow performing further analysis on the recorded data.

5.3.3 HOW TO EXPORT DATA

- Click on **Export** and save the file (for example, save it with equipment serial number).



- Open "Excel" software, click on Data and load the file saved previously



- Then, follow these steps:

Importazione guidata testo - Passaggio 1 di 3

La creazione guidata del testo ha riscontrato che i dati sono delimitati.
Scegliere Avanti o il tipo dati che meglio si adatta ai dati.

Tipo dati originali

Scegliere il tipo di file che meglio si adatta ai dati:

Delimitato - Con campi separati da caratteri quali virgole o tabulazioni.

Larghezza fissa - Con campi allineati in colonne e separati da spazi.

Inizia ad importare alla riga: Origine file:

Dati con intestazioni

Anteprima del file C:\Users\assistenza.CF\Desktop\61839.csv.

```

1 Day;Date;Time;Ta;Tb;Pa;Pb;R1;R2;V bat;HTA;LTA;DSA;HTB;LTB;DSB;AL a;Al b; Dmlp (!
2 Wednesday;19/04/2017;09:24:00;----;----;Close;Close;On;On;----;8;2;----;-10;-24;
3 Wednesday;19/04/2017;09:25:00;----;----;Close;Close;On;On;----;8;2;----;-10;-24;
4 Wednesday;19/04/2017;09:26:00;----;----;Close;Close;On;On;----;8;2;----;-10;-24;
5 Wednesday;19/04/2017;09:27:00;----;----;Close;Close;On;On;----;8;2;----;-10;-24;

```

Importazione guidata testo - Passaggio 2 di 3

In questa finestra di dialogo è possibile impostare i delimitatori contenuti nei dati. L'anteprima mostra come si presenta il testo.

Delimitatori

Tabulazione

Punto e virgola

Virgola

Spazio

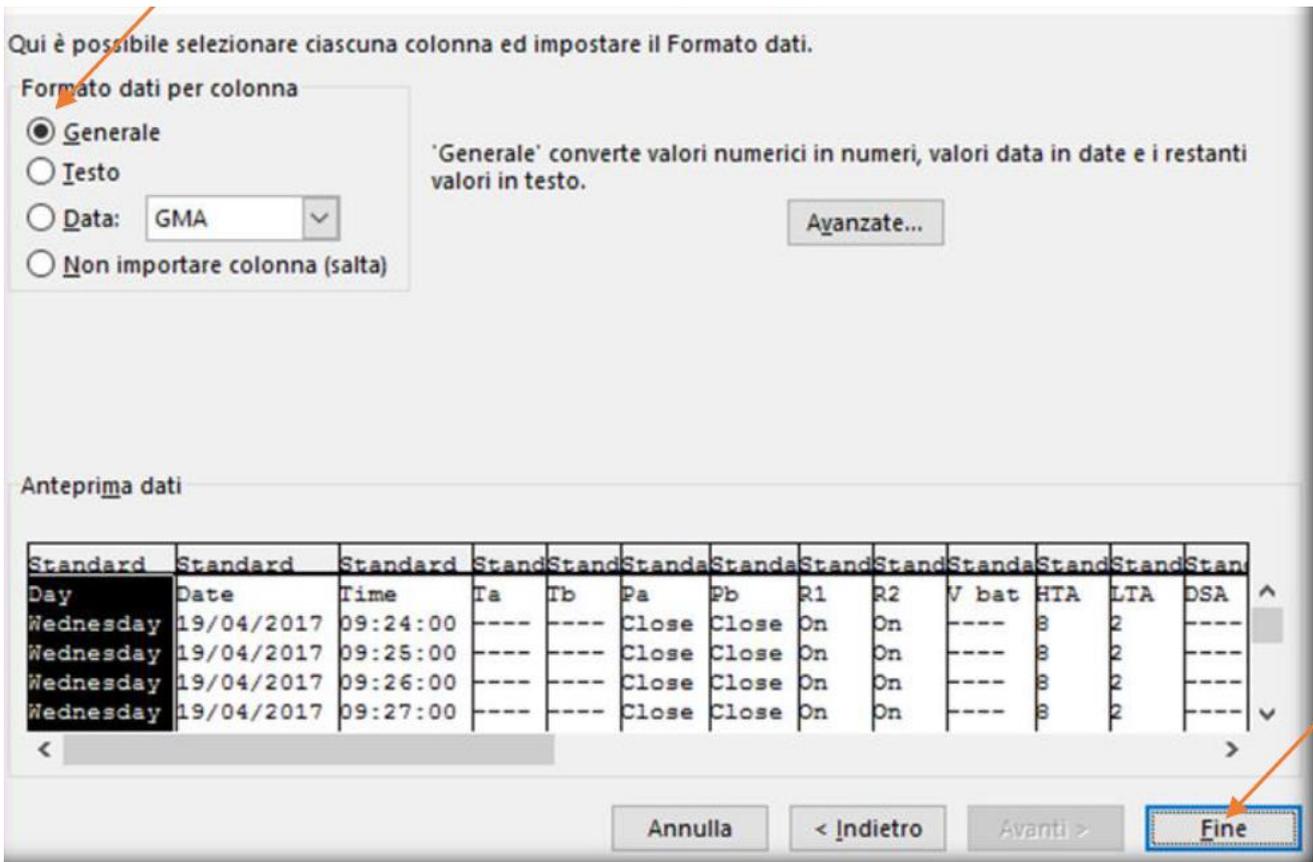
Altro:

Considera delimitatori consecutivi come uno solo

Qualificatore di testo:

Anteprima dati

Day	Date	Time	Ta	Tb	Pa	Pb	R1	R2	V bat	HTA	LTA	DSA
Wednesday	19/04/2017	09:24:00	----	----	Close	Close	On	On	----	8	2	----
Wednesday	19/04/2017	09:25:00	----	----	Close	Close	On	On	----	8	2	----
Wednesday	19/04/2017	09:26:00	----	----	Close	Close	On	On	----	8	2	----
Wednesday	19/04/2017	09:27:00	----	----	Close	Close	On	On	----	8	2	----



- This is the exported table:

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	
1	Day	Date	Time	Ta	Tb	Pa	Pb	R1	R2	V bat	HTA	LTA	DSA	HTB	LTB	DSB	ALa	Al b	Dmlp (!)	Mains	SetA	S1A	S2A	S3A	Rha	SetB	S1B	S2B	S3B	RhB	Ectf (!)
2	Wednesday	19/04/2017	09:24:00	----	----	Close	Close	On	On	----	8	2	----	-10	-24	----	OK	OK	----	207 V	5	5.2	0	30.4	----	-20	-16.6	-5.4	26.5	----	--
3	Wednesday	19/04/2017	09:25:00	----	----	Close	Close	On	On	----	8	2	----	-10	-24	----	OK	OK	----	210 V	5	4.9	3.7	21.3	----	-20	-15.6	15.1	27	----	--
4	Wednesday	19/04/2017	09:26:00	----	----	Close	Close	On	On	----	8	2	----	-10	-24	----	OK	OK	----	214 V	5	5.3	7.9	18.2	----	-20	-14.5	15.3	24.1	----	--
5	Wednesday	19/04/2017	09:27:00	----	----	Close	Close	On	On	----	8	2	----	-10	-24	----	OK	OK	----	214 V	5	5.6	10.6	17.9	----	-20	-13.6	14.9	22.7	----	--
6	Wednesday	19/04/2017	09:28:00	----	----	Close	Close	On	On	----	8	2	----	-10	-24	----	OK	OK	----	211 V	5	5.9	11.4	20.1	----	-20	-12.7	1.3	29.7	----	--
7	Wednesday	19/04/2017	09:29:00	----	----	Close	Close	On	On	----	8	2	----	-10	-24	----	OK	OK	----	211 V	5	4.6	-0.7	30.9	----	-20	-12.3	-16.2	26.8	----	--
8	Wednesday	19/04/2017	09:30:00	----	----	Close	Close	On	On	----	8	2	----	-10	-24	----	OK	OK	----	209 V	5	4.4	3.4	22.8	----	-20	-13.5	-19.6	27.7	----	--
9	Wednesday	19/04/2017	09:31:00	----	----	Close	Close	On	On	----	8	2	----	-10	-24	----	OK	OK	----	212 V	5	5.1	7	20.5	----	-20	-15.7	-22.6	28.3	----	--
10	Wednesday	19/04/2017	09:32:00	----	----	Close	Close	On	On	----	8	2	----	-10	-24	----	OK	OK	----	211 V	5	5.4	9.4	20.9	----	-20	-17.7	-24	28.6	----	--
11	Wednesday	19/04/2017	09:33:00	----	----	Close	Close	On	On	----	8	2	----	-10	-24	----	OK	OK	----	213 V	5	5.6	10.5	21.5	----	-20	-18.8	-24.1	28.4	----	--
12	Wednesday	19/04/2017	09:34:00	----	----	Close	Close	On	On	----	8	2	----	-10	-24	----	OK	OK	----	211 V	5	5.9	11.2	22	----	-20	-19.6	-24.1	28.1	----	--
13	Wednesday	19/04/2017	09:35:00	----	----	Close	Close	On	On	----	8	2	----	-10	-24	----	OK	OK	----	213 V	5	5.3	0	31	----	-20	-20.3	-24.8	27.4	----	--
14	Wednesday	19/04/2017	09:36:00	----	----	Close	Close	On	On	----	8	2	----	-10	-24	----	OK	OK	----	212 V	5	4	2.5	23.1	----	-20	-19.6	-20.6	21.3	----	--
15	Wednesday	19/04/2017	09:37:00	----	----	Close	Close	On	On	----	8	2	----	-10	-24	----	OK	OK	----	214 V	5	4.8	6.3	19.4	----	-20	-18.7	-14.6	19	----	--
16	Wednesday	19/04/2017	09:38:00	----	----	Close	Close	On	On	----	8	2	----	-10	-24	----	OK	OK	----	212 V	5	5.1	8.6	18.3	----	-20	-18	-11.4	16.8	----	--

5.4 BUFFER BATTERY FOR ALARM IN THE EVENT OF POWER FAILURE

A buffer battery can be purchased as an optional accessory which allows the controller to operate autonomously for approximately 12 hours in the event of power failure. The controller itself will recharge the battery, keeping it charged and ensuring availability when needed.



Figure 22 – Battery label



Figure 21 – Buffer batteries

5.5 CONNECTION TO EXTERNAL CONTACTS

5.5.1 ETHERNET SETUP

Fill the Ethernet cable into the equipment’s RJ-45 port.
 The appliance is factory setup with the following IP address **192.168.0.127**.
 This IP address must be setup according to your corporate network, so please follow these steps:

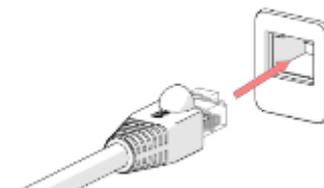


Figure 23 – Ethernet port

In the homepage, touch first User menu icon  and second Service menu icon . Now, the Service menu password is asked. Enter 2810 PSW and confirm.



Access to LAN Setup menu by touching  icon and change IP and SUBNET address. Once entered the new addresses confirm by “OK”, and touch  to record and exit from the menu.



In order to check if the procedure has been successful, enter the new IP address in a computer’s Browser (advised browser: MOZILLA FIREFOX) connected to the Ethernet line – a detailed view of the equipment main functions should appear:

The screenshot shows the 'ECT-F Web Server' interface with the following data:

Coldroom	Low Limit	High Limit	Setpoint	Mains
4.5 °C	2 °C	8 °C	5 °C	234 V
Light	Door	N&D	Power	Energy 24h
on	closed	disabled	63 W	0.471 kWh
Evaporator	Condenser	Compressor	Board Temp.	Relais
-1.3 / 6.1 -1 °C	21.1 / 29.1 26.3 °C	02:38 / 03:00 25 %	32 °C	00110010
Alarms	ALTA TEMPERATURA PER BLACK-OUT			
IP 192.168.2.127	MEDIKA 400 TOUCH[12345]			



Beware: in the Service Menu there are parameters and configurations that guarantee the proper functioning of the equipment. Any unauthorised tampering may irreversibly compromise the equipment and warranty will automatically expire.

5.5.2 FUNCTIONAL PARAMETERS READING VIA MODBUS TCP/IP PROTOCOL

RJ45 port (Ethernet) allows to interface the device to BMS third party systems and to monitoring software “FIOCCHETTI LAN SUPERVISOR”.

Available function is “ReadHoldingRegister”, reading only, with not less then 5 seconds polling. Temperature values must be divided by 10.

Device Address is 1 as per factory settings.

Following table shows primar parameters available for reading;

SINGLE CHAMBER DEVICES	THERMOSTAT	PRODUCT ref. sensor (if installed)
CURRENT TEMPERATURE	3000 o 999	3001
DOOR STATUS	1075*	
SETPOINT	1003	
HIGH TEMPERATURE LIMIT	1007	3003
LOW TEMPERATURE LIMIT	1008	3005
ON/OFF (0=OFF, 1=ON)	1078	
MAINS FAILURE	3026**	
HIGH TEMPERATURE ALARM	3014 o 1023	3018
LOW TEMPERATURE ALARM	3016 o 1025	3020
COMPRESSOR WORK	1033	
DEFROST TIMEOUT	1037	
HIGH CONDENSING TEMPERATURE	1038	
LOW EVAPORATION TEMPERATURE	1039	
PROBE S1 FAILURE	1042	

PROBE S2 FAILURE	1043	
PROBE S3 FAILURE	1044	
HIGH TEMPERATURE CAUSED BY POWER FAILURE	3039 o 1055	3040
HIGH TEMPERATURE CAUSED BY DOOR OPENING	3036 o 1056	3038

*0= closed, 1= open, 2= open door alarm active

**only if DMLP digital monitor is installed.

DOUBLE CHAMBER DEVICES	CHAMBER A	CHAMBER B
CURRENT TEMPERATURE	3000 o 999	3001 o 1999
DOOR STATUS	1075*	2075*
SETPOINT	1003	2003
HIGH TEMPERATURE LIMIT	1007	2007
LOW TEMPERATURE LIMIT	1008	2008
ON/OFF (0=OFF, 1=ON)	1078	2078
MAINS FAILURE	3026**	3026**
HIGH TEMPERATURE ALARM	3014 o 1023	3018 o 2023
LOW TEMPERATURE ALARM	3016 o 1025	3020 o 2025
COMPRESSOR WORK	1033	2033
DEFROST TIMEOUT	1037	2037
HIGH CONDENSING TEMPERATURE	1038	2038
LOW EVAPORATION TEMPERATURE	1039	2039
PROBE S1 FAILURE	1042	2042
PROBE S2 FAILURE	1043	2043
PROBE S3 FAILURE	1044	2044
HIGH TEMPERATURE CAUSED BY POWER FAILURE	3039 o 1055	3040 o 2055
HIGH TEMPERATURE CAUSED BY DOOR OPENING	3036 o 1056	3038 o 2056

*0= closed, 1= open, 2= open door alarm active

**only if DMLP digital monitor is installed.

5.5.3 EXTERNAL TERMINAL BOARD

When the external terminal board is installed on the back of the unit, it is possible to connect the equipment to an external alarm system by dry contacts (AL1, AL2) and Ethernet port.

na	c	nc	na	c	nc			-	+	-	+
AL1			AL2					4-20mA A		4-20mA B	

Figure 25 – external terminal board label

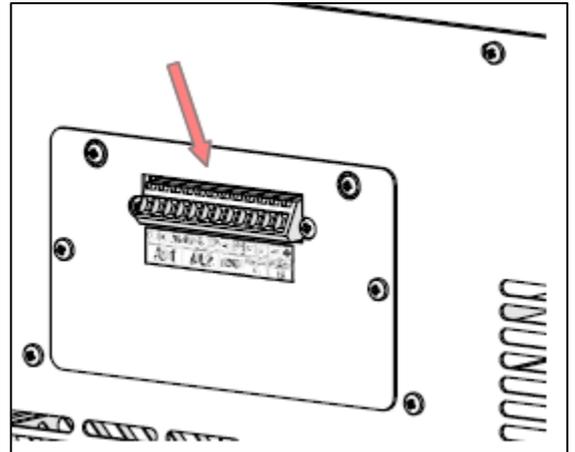


Figure 24 – external terminal board position

5.5.3.1 AL1-AL2

The dry contact (no-c-nc) commutes when an alarm/failure of ECT-F controller or DMLP digital monitor is triggered. See here below a table for the different combinations.

SINGLE CHAMBER DEVICES			
	FAILURES	TEMPERATURE ALARM (AIR)	TEMPERATURE ALARM PRODUCT REFERENCE SENSOR (only if product reference sensor is installed)
AL1	●	●	
AL2			●

DOUBLE CHAMBER DEVICES		
	ALARMS + FAILURES CHAMBER A	ALARMS + FAILURES CHAMBER B
AL1	●	
AL2		●

5.5.3.2 4-20mA Chamber A-Chamber B (option available upon request)

The 4-20mA outputs allows connecting the equipment to an external system with 4-20mA input. 4-20mA outputs convert a temperature value detected by the ECT-F controller or DMLP Digital monitor probe into an electric signal.

5.6 MANUAL UNLOCKING OF THE DOOR (optional)

In the event of unexpected power failure, it is possible to unlock the electronic locking (if installed) by means of the key provided (figure 26).



Figure 26 - key

- **One chamber equipment:** Insert the key in the dedicated slot, placed on the frontal panel side, in accordance with the door handle position. In order to be able to open the door, it is necessary to hold the release lever pushed. By stopping pushing, the mechanism door will be locked again. (Figure 27).

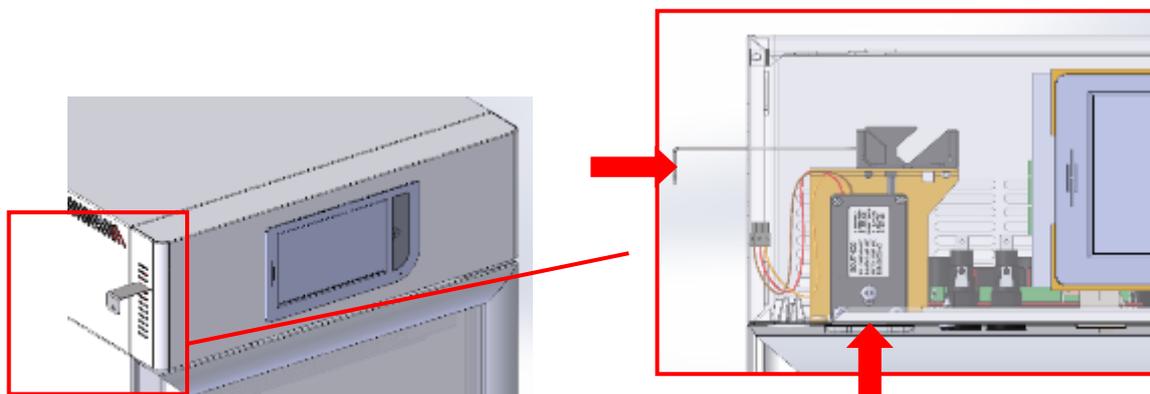


Figure 27 – key position to open the door manually in equipment with one chamber

- **Double temperature equipment:** you should follow the same above manual unlocking instructions. In Figure 28, indications to find the slot for unlocking, in accordance with the handlong position.

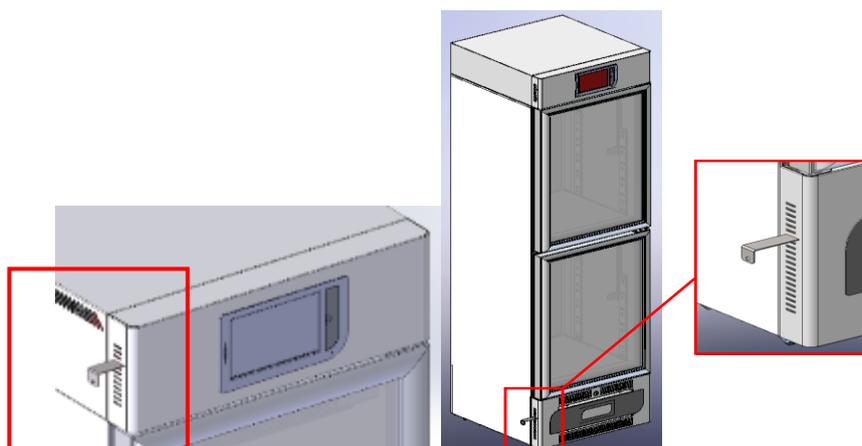


Figure 28 – key position to open the door manually in double temperature equipment

- **For model 600 2T**, manual unlocking have to be performed from front side with the supplied key.
- **For model 1500** manual door opening has to be performed by accessing from top of the refrigerator – figure 29. Pulling the release lever upwards and keeping levers individually in tractions, allows opening the related door.

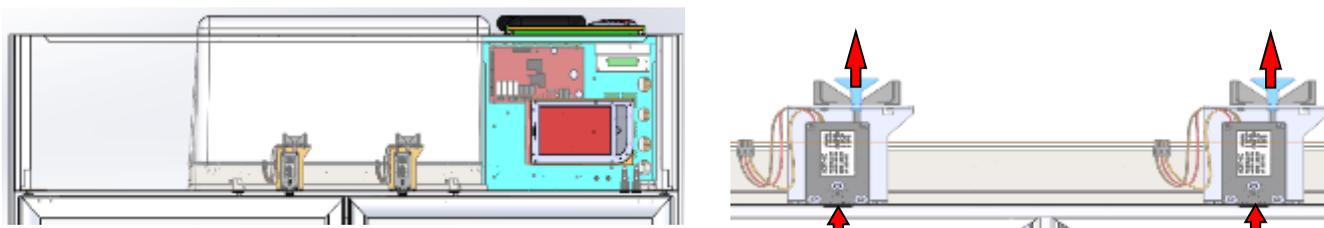


Figure 29 – mod. 1500 digital electric lock position

6 ORDINARY AND EXTRAORDINARY MAINTENANCE

The information in this chapter is addressed to both users (non-specialised personnel) and routine maintenance workers.

6.1 PROHIBITION OF SAFETY DEVICE REMOVAL

Do not remove safety protections without having switched off the refrigerator cabinet and disconnecting it from the electrical mains.

The manufacturer disclaims all liability that may arise if this regulation is not observed.

6.2 CLEANING THE UNIT INSIDE AND OUTSIDE

We recommend cleaning both inside and outside surfaces of the unit at least twice a year.



WARNING:
DISCONNECT POWER CORD BEFORE ANY OPERATION, INCLUDING CLEANING.

The following is indicated for this purpose:

- **Cleaning products:** On white steel panels, following industrial detergents has been used with success and approved:

COMMERCIAL NAME	Water dilution
P3 OXONIA	5%
P3 TOPACTIVE 200	5%
P3 TOPAX 66	5%
P3 TOPAX 990	3%

Available detergents are uncountable, therefore please always refer to warning labels of mentioned detergents.

In case of uncertainty about the product, please use only water and non-abrasive neutral detergents.

DO NOT USE SOLVENTS OR THINNERS.

- **Cleaning method:** use a cloth or sponge soaked in a suitable cleaning product to clean the inside and outside parts of the cabinet.
- **Disinfection:** do not use substances that can alter the organoleptic characteristics of stored products.
- **Rinsing:** use a cloth or sponge soaked in water. DO NOT USE WATER JETS.
- **Frequency:** at least twice a year or at different intervals depending on the type products stored.

6.3 CLEANING THE CONDENSER

Failure to clean the condenser, as well as temperature being too high in the environment in which it is installed, is one of the main causes of difficult cabinet operation. Cleaning must be carried out every 2-3 months, even in the cleanest environments.

You must access the condenser coil, placed in all models in the technical compartment near the compressor, and clean it with one of the following:

- Long bristle brush
- Vacuum cleaner
- Compressed air



DO NOT USE METAL BRUSHES
DO NOT BEND CONDENSER FINS



CAUTION:
ALWAYS DISCONNECT THE POWER CORD BEFORE THIS OPERATION.

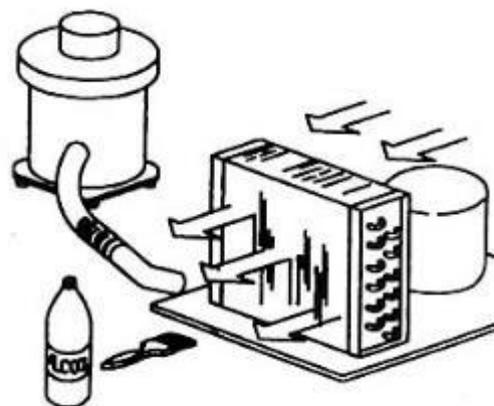


Figure 30 – Condenser image

In order to ensure optimal unit operation, follow the manufacturer instructions, arranging for periodic maintenance to be carried out by qualified technicians.

Follow these below cleaning instructions according to the bought model:

MODEL 100-140-280 2T

1. Use a Phillips head screwdriver to remove the cover (if the battery pack cover is present, do not remove the screws to the right and left of the terminal board or those for fixing the cover itself).
For model 280 2T, also remove the rear electrical wiring cover channel.
2. Use a vacuum cleaner or air jet to remove any dust on the condenser fins.
Perform this procedure backwards to restore correct fastening of the rear cover.
3. Restore the electrical current and switch back on the device.

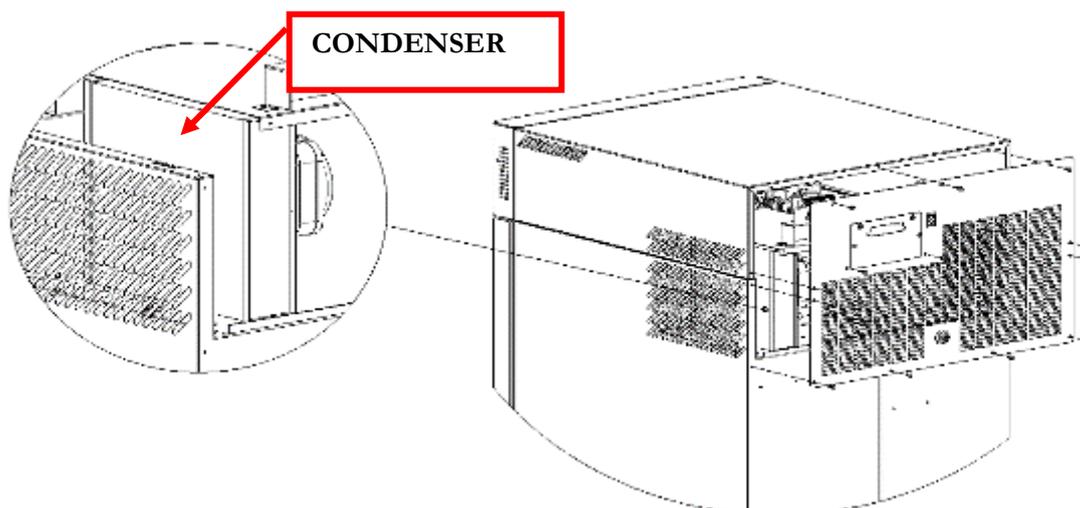


Figure 31 - Condenser position in models 100-140-280

MODEL 130-170-200-250-300-600 2T-400-500 (1T and 2T)

1. Use a Phillips head screwdriver to remove the guard (3 screws).
2. Use a vacuum cleaner, air jet, or a long bristle brush to remove any dust on the condenser fins.

Perform this procedure backwards to restore correct fastening of the guard.

3. Restore the electrical current and switch back on the device.

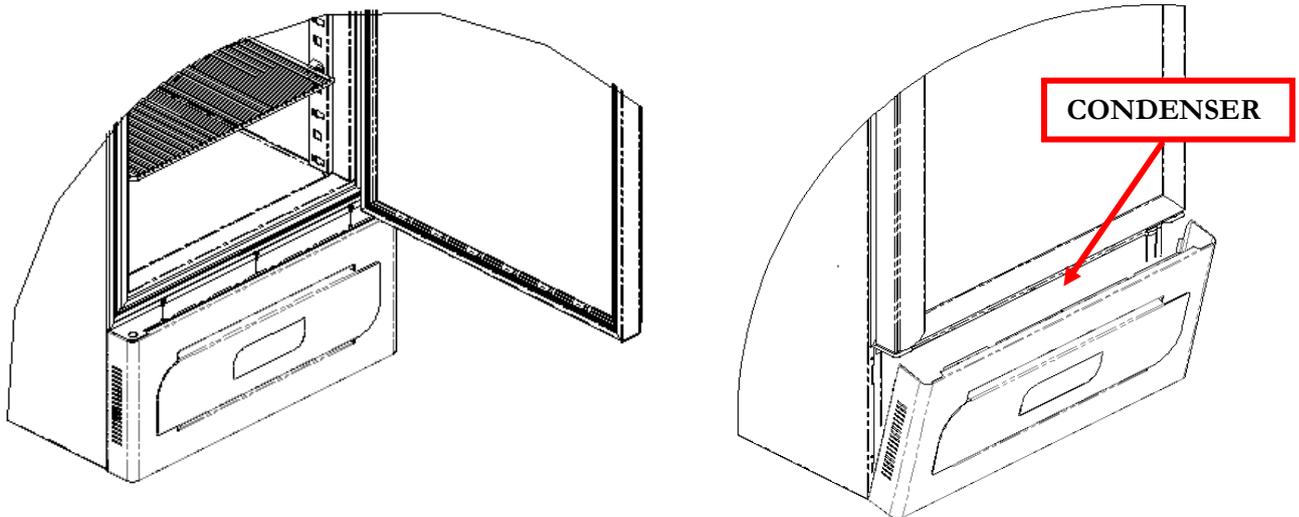


Figure 32 - Condenser position in models with lower compartment motor

MODEL 700-1500

1. In models with higher motors (700-1500 L), the condenser can be accessed directly from the outside using a ladder.
2. Use a vacuum cleaner, air jet, or a long bristle brush to remove any dust on the condenser fins.
3. Restore the electrical current and switch back on the device.

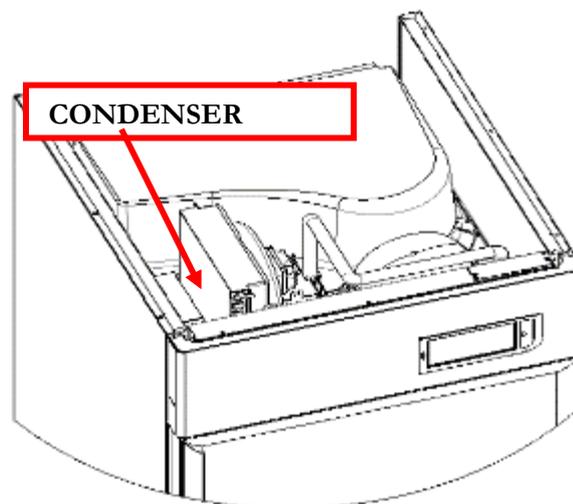


Figure 33 - Condenser position in models 700-1500

6.4 CONDENSATE WATER DRAINING

Defrosting causes the formation of condensate water. The water evaporates automatically in models with motor compartment in lower position.

In some other models, water is collected in a tray, included in supply, which is set under the unit and inserted in the corresponding slides.

This tray must be emptied frequently

Optionally, models with upper motor compartment can have a collecting tray included for automatic condensation water evaporation.

List of Models with upper motor:

EMOTECA TWIN	700 – 1500
PLASMA SUPERARTIC	700 – 700 2T
PLASMA LABOR	700 2T

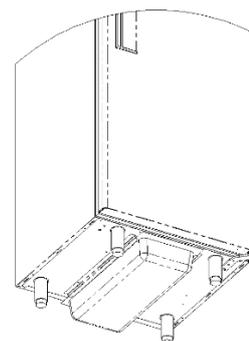


Figure 34 - Condensate collection tray position

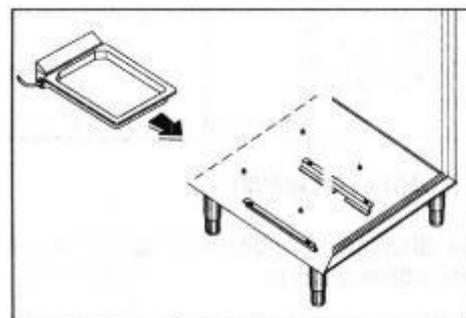


Figure 35 - Tray with automatic condensate water evaporation

6.5 COMPLETE DEFROSTING OF FREEZER DEVICES

In case of plasma freezers, a complete defrost operation is advisable on annual basis in order to remove completely ice residues. For this operation, please unload device completely and turn it off for at least 24 hours with door open. Dry it completely and remove water from condensate water tray if necessary.

Devices requiring this operations are as per following table

MODEL	Factory °T set point
PLASMA VISION	-20°C
PLASMA VISION 2T (Compartment B)	-20°C
PLASMA FREEZER	-20°C
PLASMA-LABOR 2T(Compartment B)	-20°C
PLASMA SUPERARTIC	-35°C
PLASMA SUPERARTIC 2T (Compartment B)	-30°C

6.6 REPLACING BUFFER BATTERIES

To ensure maximum efficiency, we suggest periodically changing backup batteries at least every 2 years. This operation can be performed by users, easily accessing the housing located

- at the rear of the device.
- at the upper of the device (models with upper motor compartment).

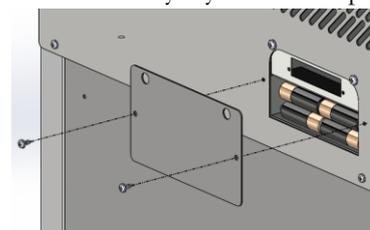


Figure 36 - Battery position

7

DEMOLITION

This unit is marked in compliance with European Directive 2012/19/UE (WEEE).



The symbols  on the product means that it must not be considered as domestic waste but it must be given to the competent authority for the recycling of electric and electronic appliances.

Before scrapping the machine, make it unusable by cutting the power cord, and removing the doors, shelves and drawers so that children cannot access the unit. Do not leave it unattended even for a few days.

For further information about the treatment, retrieval and recycling of the product, please contact local officials, the domestic waste collection service or the distributor.

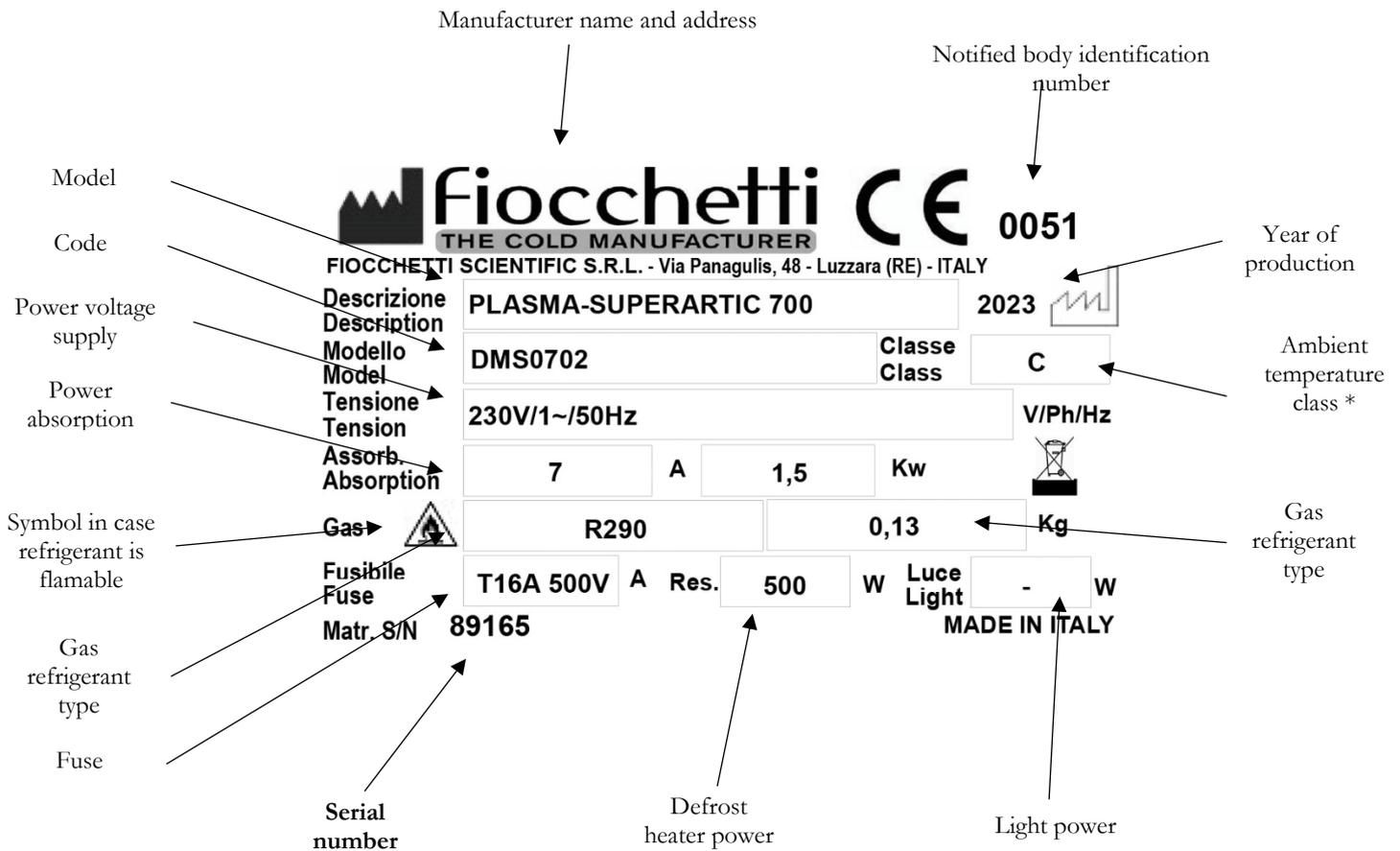
Please comply with applicable laws.

The gas present into the system must be extracted by authorised personnel.

8

LABELLING

8.1 DEVICE IDENTIFICATION LABEL



*Ambient temperature caption:

- SN** (da +10°C a +32°C)
- N** (da +16°C a +32°C)
- ST** (da +18°C a +38°C)
- T** (da +18°C a +43°C)
- C** (da +10°C a +25°C)

8.1.1 OTHER LABELLING

Table 6 - Labels

	Danger of electrocution Disconnect power supply before removing the protection																																				
 PRIMA DI APRIRE LA PROTEZIONE TOGLIERE LA TENSIONE TURN OFF AND UNPLUG AC BEFORE OPENING COVER AVANT D'OUVRIR LA PROTECTION ÔTER LA TENSION BEVOR DER SCHUTZ ZU OEFFNEN, ZU ENTSPANNEN	Cut off power before removing the guard.																																				
	Earthing symbol																																				
	Flammability Circuit containing flammable refrigerant																																				
	Danger of heat High temperature parts																																				
	Periodic condenser cleaning																																				
	Glass door cleaning for Vision models																																				
	Do not exceed the indicated level																																				
	Position of batteries for alarms																																				
<table border="1" data-bbox="256 1473 804 1597"> <tr> <td>na</td><td>c</td><td>nc</td> <td>na</td><td>c</td><td>nc</td> <td></td><td></td> <td>-</td><td>+</td> <td>-</td><td>+</td> </tr> <tr> <td>AL1</td><td></td><td></td> <td>AL2</td><td></td><td></td> <td></td><td></td> <td>4-20mA</td><td></td> <td>4-20mA</td><td></td> </tr> <tr> <td></td><td></td><td></td> <td></td><td></td><td></td> <td></td><td></td> <td>A</td><td></td> <td>B</td><td></td> </tr> </table>	na	c	nc	na	c	nc			-	+	-	+	AL1			AL2					4-20mA		4-20mA										A		B		External dry contacts label
na	c	nc	na	c	nc			-	+	-	+																										
AL1			AL2					4-20mA		4-20mA																											
								A		B																											
	Warning and obligation to manual reading																																				

The following documents are attached:

- Declaration of conformity with DIRECTIVE 93/42/ECC
- Electric safety check receipt – printed upon request
- Wiring diagram

10

CONSUMABLE MATERIALS

Table 7- Consumable materials

Code	Type/Characteristics	Application	Image
BAT007	BATTERY 3V Lithium Coin Cell Battery type CR 2032	Clock battery on the board	
BAT005	BATTERIA type AA rechargeable NiMH 1.2 V 2.7 Ah	Acoustic and visual alarm battery backup	
DAT014	SD Card 8GB Sandisk SDSDAA-008G for ECT-F TOUCH (2011)	SD card	

11

TROUBLESHOOTING

The table below lists information regarding the possible causes and actions to be taken for the most common faults, which do not need automatically technical servicing.

Servicing on the electrical system must also be carried out by trusted electricians.

PROBLEM	POSSIBLE CAUSE	SOLUTION
The unit does not switch on.	<ul style="list-style-type: none"> Controller set to “Stand-by” 	<ul style="list-style-type: none"> Switch on the controller.
	<ul style="list-style-type: none"> No mains 	<ul style="list-style-type: none"> Check the plug, outlet, fuses and electrical line.
	<ul style="list-style-type: none"> Power plug not connected to the electrical outlet. 	<ul style="list-style-type: none"> Connect the power cord to the electrical socket.
	<ul style="list-style-type: none"> Control panel fault 	<ul style="list-style-type: none"> Contact Technical Support.
Unit does not reach the set temperature.	<ul style="list-style-type: none"> Too much material has been placed in the compartment 	<ul style="list-style-type: none"> Reduce the quantity and leave space between the shelves and walls. Place products in the cabinet a few at a time after the temperature has stabilised.
	<ul style="list-style-type: none"> Material was placed in the freezer area at room temperature (i.e. +25°). 	<ul style="list-style-type: none"> Store only already frozen products.
	<ul style="list-style-type: none"> Prolonged or too frequent door openings 	<ul style="list-style-type: none"> Reduce door openings and close the door more quickly.
	<ul style="list-style-type: none"> Ambient temperature is too high. 	<ul style="list-style-type: none"> Air condition the environment.

PROBLEM	POSSIBLE CAUSE	SOLUTION
	<ul style="list-style-type: none"> • Condenser clogged by dust or dirt. 	<ul style="list-style-type: none"> • Clean the condenser.
	<ul style="list-style-type: none"> • Electronic controller operating fault 	<ul style="list-style-type: none"> • Contact Technical Support.
	<ul style="list-style-type: none"> • Cooling system operating fault 	<ul style="list-style-type: none"> • Contact Technical Support.
The unit is noisy	<ul style="list-style-type: none"> • Unit instability 	<ul style="list-style-type: none"> • Eliminate the cause.
	<ul style="list-style-type: none"> • Contact with objects (e.g. cardboards, polystyrene or other materials) 	<ul style="list-style-type: none"> • Move and/or remove objects touching the equipment.
Repeated alarm or fault signals or alarm noticed	<ul style="list-style-type: none"> • Unit has detected an alarm. 	<ul style="list-style-type: none"> • Visualize alarms (see par. 5.2.4.2)
Products wet	<ul style="list-style-type: none"> • Formation of ice in the evaporator or sudden defrosting 	<ul style="list-style-type: none"> • Contact Technical Support.
	<ul style="list-style-type: none"> • High humidity level in the environment 	<ul style="list-style-type: none"> • Air condition or ventilate the environment.
Glass door wet	<ul style="list-style-type: none"> • High humidity level in the environment 	<ul style="list-style-type: none"> • Air condition or ventilate the environment.

12 TOUCH SCREEN TROUBLESHOOTING

In case one of the following inconvenient applies, it is advisable to get in touch with technical assistance in order to determine the possible cause.

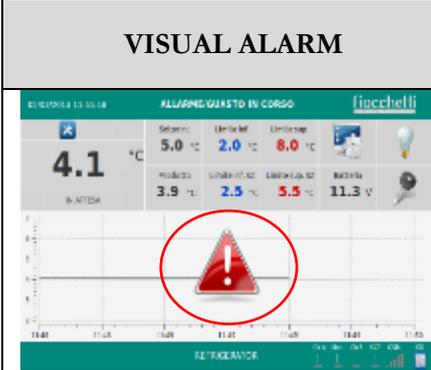
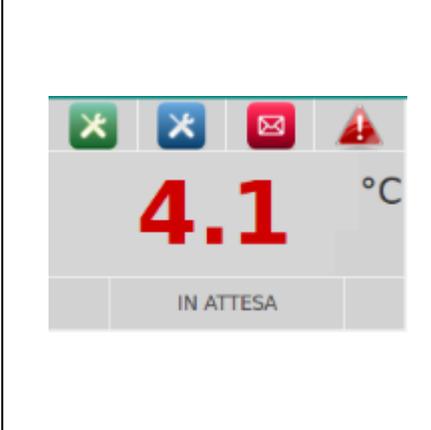
PROBLEM	POSSIBLE CAUSE	SOLUTION
Screen red/black/white colour	<ul style="list-style-type: none"> • Electrical parts disconnected. 	<ul style="list-style-type: none"> • Contact Technical Support.
	<ul style="list-style-type: none"> • External electromagnetic fields. 	
	<ul style="list-style-type: none"> • Spikes surge. 	
Icons do not react to commands or perform different functions	<ul style="list-style-type: none"> • Improper use of screen with pens and pins, screen marked or spoiled. 	<ul style="list-style-type: none"> • Use stylus for touch screens.
	<ul style="list-style-type: none"> • Icons are touched too fast (multitouch). 	<ul style="list-style-type: none"> • The screen does not support multitouch – touch icons more slowly.

PROBLEM	POSSIBLE CAUSE	SOLUTION
	<ul style="list-style-type: none"> Unbalanced screen. 	<ul style="list-style-type: none"> Contact Technical Support.
System stuck in “starting system” mode	<ul style="list-style-type: none"> O.S. files damaged by power surges. 	<ul style="list-style-type: none"> Contact Technical Support.

13

DIAGNOSTIC

Visual alarms list:

VISUAL ALARM		MEANING
		Visual and acoustic indication of a running alarm or failure (touch the red triangle  to get more information).
		DMLP FAILURE RUNNING ALARM OR OFF (if present)
		ECT-F FAILURE RUNING ALARM OR OFF
		TEMPERATURE ALARM OFF
		RUNNING ALARM, but muted (the red triangle goes back in the middle of touch screen after 15 min.).
		SD card absent or damaged or not recognized.
		Check SD card – see par. 5.3
		Battery disconnected or discharged.

In presence of an off alarm or failure icon, touch the icon and wait for failure/alarm list loading.

To stop the acoustic alarm, touch the icon  and go back to homepage.

To permanently delete the acoustic signal, disable the audio device (par. 5.2.5). If other faults or alarms occur, you will get only a visual signal.

VISUAL AND ACOUSTIC ALARM	SOLUTION
HIGH TEMPERATURE	<ul style="list-style-type: none"> • Check that products have been correctly stored in the chamber (see par. 4.6.3)
	<ul style="list-style-type: none"> • Check ambient conditions (environment should be neither too hot nor too cold).
	<ul style="list-style-type: none"> • Clean the condenser (see par. 6.3)
	<ul style="list-style-type: none"> • Check that door is properly closed.
	<ul style="list-style-type: none"> • Air condition the environment.
	<ul style="list-style-type: none"> • Check the electrical system or accidental disconnection of the plug.
LOW TEMPERATURE	<ul style="list-style-type: none"> • Contact Technical Support.
OPEN DOOR ALARM	<ul style="list-style-type: none"> • Check that door is properly closed.
	<ul style="list-style-type: none"> • Check if door has been kept opened more than the programmed limit.
LOW EVAPORATION TEMPERATURE	<ul style="list-style-type: none"> • Switch off the equipment (see par. 5.2.4.1). Disconnect the plug from the mains, wait for some seconds and plug it again. Switch on the equipment and touch the running failure/alarm icon to eliminate the signalization.
	<ul style="list-style-type: none"> • Check that door is properly closed.
	<ul style="list-style-type: none"> • If the problem persists, contact Technical Support.

VISUAL AND ACOUSTIC ALARM	SOLUTION
HIGH CONDENSING TEMPERATURE	<ul style="list-style-type: none"> • Switch off the equipment (see par. 5.2.4.1). Disconnect the plug from the mains, wait for some seconds and plug it again. Switch on the equipment and touch the running failure/alarm icon to eliminate the signalization.
	<ul style="list-style-type: none"> • Air condition the environment.
	<ul style="list-style-type: none"> • Check that installation has been properly performed (see par. 4.2)
	<ul style="list-style-type: none"> • Clean the condenser (see par. 6.3)
	<ul style="list-style-type: none"> • If the problem persists, contact Technical Support.
LOW MAINS VOLTAGE	<ul style="list-style-type: none"> • Switch off the equipment (see par. 5.2.4.1). Disconnect the plug from the mains, wait for some seconds and plug it again. Switch on the equipment and touch the running failure/alarm icon to eliminate the signalization.
	<ul style="list-style-type: none"> • Check mains voltage.
	<ul style="list-style-type: none"> • If the problem persists, contact Technical Support.
MAX TIME DEFROST	<ul style="list-style-type: none"> • Check that products have been properly stored inside the cabinet (see par. 4.6.3).
	<ul style="list-style-type: none"> • Check ambient conditions (environment should be neither too hot nor too cold).
	<ul style="list-style-type: none"> • Touch the running failure/alarm icon to eliminate the signalization.
	<ul style="list-style-type: none"> • If the problem persists, contact Technical Support.

VISUAL AND ACOUSTIC ALARM	SOLUTION
COMPRESSOR WORK	<ul style="list-style-type: none"> • Air condition the environment.
	<ul style="list-style-type: none"> • Clean the condenser (see par. 6.3)
	<ul style="list-style-type: none"> • Check that installation has been properly performed (see par. 4.2)
	<ul style="list-style-type: none"> • Switch off the equipment (see par. 5.2.4.1). Disconnect the plug from the mains, wait for some seconds and plug it again. Switch on the equipment and touch the running failure/alarm icon to eliminate the signalization.
	<ul style="list-style-type: none"> • Check that door is properly closed.
	<ul style="list-style-type: none"> • If the problem persists, contact Technical Support.
POWER FEEDER FAILURE	<ul style="list-style-type: none"> • Switch off the equipment (see par. 5.2.4.1). Disconnect the plug from the mains, wait for some seconds and plug it again. Switch on the equipment and touch the running failure/alarm icon to eliminate the signalization.
	<ul style="list-style-type: none"> • Contact Technical Support.
MAINS FAILURE	<ul style="list-style-type: none"> • Check the electrical system or accidental disconnection of the plug.
SWITCH DOOR FAILURE	<ul style="list-style-type: none"> • Switch off the equipment (see par. 5.2.4.1). Disconnect the plug from the mains, wait for some seconds and plug it again. Switch on the equipment and touch the running failure/alarm icon to eliminate the signalization.
	<ul style="list-style-type: none"> • Check that door is properly closed.
	<ul style="list-style-type: none"> • If the problem persists, contact Technical Support.
PROBE S1-S2-S3 FAILURE	<ul style="list-style-type: none"> • Contact Technical Support. Refrigerator functioning is guaranteed anyway.
FAILURE LOAD U1-U2-U3-U4-U5-U6-LOAD 1 AUX-LOAD 2 AUX	<ul style="list-style-type: none"> • Switch off the equipment (see par. 5.2.4.1). Disconnect the plug from the mains, wait for some seconds and plug it again. Switch on the equipment and touch the running failure/alarm icon to eliminate the signalization.
	<ul style="list-style-type: none"> • Contact Technical Support. Refrigerator functioning is guaranteed anyway.

VISUAL AND ACOUSTIC ALARM	SOLUTION
--%	<ul style="list-style-type: none"> Contact Technical Support.
PROTECTION AGAINST OVERHEATING	<ul style="list-style-type: none"> Switch off the equipment (see par. 5.2.4.1). Disconnect the plug from the mains, wait for some seconds and plug it again. Switch on the equipment and touch the running failure/alarm icon to eliminate the signalization.
	<ul style="list-style-type: none"> Contact Technical Support. Refrigerator functioning is guaranteed anyway.
PROTECTION AGAINST FREEZING	<ul style="list-style-type: none"> Switch off the equipment (see par. 5.2.4.1). Disconnect the plug from the mains, wait for some seconds and plug it again. Switch on the equipment and touch the running failure/alarm icon to eliminate the signalization.
	<ul style="list-style-type: none"> Contact Technical Support. Refrigerator functioning is guaranteed anyway.
S1m-S2m (only if Dmlp Digital Monitor is installed)	<ul style="list-style-type: none"> Contact Technical Support. Refrigerator functioning is guaranteed anyway.
UNBALANCED PROBES ALARM (only if Dmlp Digital Monitor is installed)	<ul style="list-style-type: none"> Switch off the equipment (see par. 5.2.4.1). Disconnect the plug from the mains, wait for some seconds and plug it again. Switch on the equipment and touch the running failure/alarm icon to eliminate the signalization
	<ul style="list-style-type: none"> Contact Technical Support.
AUXILIARY COOLING SYSTEM FAILURE (only for TWIN models)	<ul style="list-style-type: none"> High temperature alarm due to long door opening.
	<ul style="list-style-type: none"> Contact Technical Support. Refrigerator functioning is guaranteed anyway.
TWIN COMMUNICATION FAILURE (only for TWIN models)	<ul style="list-style-type: none"> Switch off the equipment (see par. 5.2.4.1). Disconnect the plug from the mains, wait for some seconds and plug it again. Switch on the equipment and touch the running failure/alarm icon to eliminate the signalization.
	<ul style="list-style-type: none"> Contact Technical Support.

Annex 1 - USER DATA FOR TECHNICAL SUPPORT REQUEST

Please fill in the following tables in order to provide all data necessary for Technical support. If possible, leave the refrigerator in operation for 1 hour or, even better, 24 hours to allow the controller to fully collect information.

MODEL*:	SERIAL NUMBER*:
----------------	------------------------

Device traceability, see the silver plate at the end of this manual

- 1) Has periodic cleaning of the condenser been carried out as per the use and maintenance manual? YES No
If Yes, indicate the date of the last cleaning and the names of personnel who performed it.
- 2) Have the problems been verified according to the information stated in the use and maintenance manual?
YES No

Fill out the following table.

Equipment:	yes	no
- Does not cool		
- Does not reach the set temperature		
- Does not switch on		
- Equipment built into furniture		
- Power cable connected to multiple sockets or adapters of the power outlet		
- THE REFRIGERATOR UNIT IS NOISY		
- DISPLAY OFF		
The Display signals:	yes	no
- Evaporator		
- Condenser		
- No battery		
- Battery failure		
- Comp. work		
- Invalid SD		

Table - Fault signal table

Notes:

SENT ON:	SIGNATURE: (legible)
-----------------	--------------------------------

via e-mail to assistenza@fiocchetti.it

Note: failure to submit a properly completed request (*required fields) will result in a failure to open servicing with a resulting delay in the resolution of issues.

Annex 2 – MEDICAL DEVICE USABILITY

The purpose of this questionnaire is to identify the aptitude of medical device use (MD) and to check if the information provided is correct.

This form shall be filled in in its entirety for each installed MD by the person (s) responsible (s) of its usage. A copy must be kept at the ward hospital where the MD has been installed and another must be signed by the person in charge of the hospital ward and sent back to FIOCCHETTI SCIENTIFIC S.R.L. at one of the following addresses:

e-mail : tecnico@fiocchetti.it

Fax : +39 0522 976028

MEDICAL DEVICE IDENTIFICATION	
Model	
Model Code	
Serial number	

INTENDED USE	
Ward where the MD is installed	
Type of stored product	

LIST OF PERSONNEL INTENDED FOR USE		
FIRST NAME	SURNAME	POSITION

If required, the usage of MD can be evaluated according to the following criteria (select only one):

EVALUATION	DESCRIPTION
1	Very poor
2	Poor
3	Satisfactory
4	Very good
5	Excellent

QUESTIONNAIRE						
N°	QUESTION/REQUEST	ANSWER/EVALUATION				
1	Have you already used an identical or similar device, of the same or different brand?	YES <input type="checkbox"/>		NO <input type="checkbox"/>		
2	Have the users intended to use the MD been properly trained about the "good use" of blood and blood related products? (blood sampling, processing and storage)	YES <input type="checkbox"/>		NO <input type="checkbox"/>		
3	Have the users intended to use the MD been properly trained about the "good use" of breast milk? (sampling, processing and storage)					
4	Is there in the chosen medical staff intended to use the MD a person informed and updated on the current regulations for MD?	YES <input type="checkbox"/>		NO <input type="checkbox"/>		
5	Has the Use and Maintenance manual been read?	YES <input type="checkbox"/>		NO <input type="checkbox"/>		
6	Was the installation carried out in compliance with the indications listed in the manual?	YES <input type="checkbox"/>		NO <input type="checkbox"/>		
7	The provided documentation is clear, and it provides all the useful information for the usage of the device.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
8	The instructions stick on the packaging for its removal are clear and comprehensive.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
9	The installation instructions displayed in the manual are clear and don't give margin for interpretation.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
10	Taking into account the instructions provided in the manual by the manufacturer, can the MD be used improperly or incorrectly?	YES <input type="checkbox"/>		NO <input type="checkbox"/>		
11	If you answered "YES" to the question above, please provide details/reasons: ----- -----					
12	The device display (Touch screen or keyboard) is intuitive and easy to be used.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
13	The access to user panel interface is easy.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
14	The alarms described in the manual and shown in the display are adequate to grant the safety of the stored product.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
15	The accessories supplied for the storage of "products" are easy to be used (for example, shelves or drawers with dividers).	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>

Stamp and signature

DATE:

-----/-----/-----

Space reserved for the data sheet with the characteristics of the appliance



Space reserved for the stamp of the distributor



fiocchetti
THE COLD MANUFACTURER

FIOCCHETTI SCIENTIFIC S.R.L.

Via Panagulis, 48 – 42045 Luzzara (RE) – Italy

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