REFRIGERAZIONE

gelateria

Proxima STX

MANUALE D'USO E MANUTENZIONE

TECHNICAL BOOK

CE

English

CLABO Spa

Index

Dear Customer

. This Manual or Technical Guide is a part of the Product and its target is to show use and maintenance of the cabinet. The operators have the responsibility of reading it and following the instruction reported on it. No other use of the display cabinet is allowed other than indicated in this manual.

This manual must be kept in good conditions and follow the cabinet during its entire operative life until dismissing, in order to have all the information needed for maintenance of the qualitative and safety standards.

The Firm will not assume any responsibility for damage to people, animals or things, caused by failure to observe the indications reported on the present Manual or by uses of the equipment for any purposes other than the ones for which it has been designed and sold.

For operator's safety, all equipment devices must be kept in constant efficiency.

1. STANDARD AND REGULATIONS

1.1 IDENTIFICATION

The *SERIAL NUMBER* on the plate positioned on the back (operator side) of the display cabinet (pic.1) must be given when contacting the manufacturer or customer services.

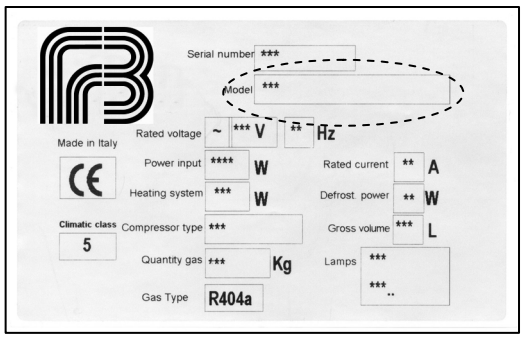


Fig.1

WARNING:
Maintenance of the good conditions and legibility of the label applied to the cabinet is recommended. Don't tamper with the label.

1.2 TECHNICAL ASSISTANCE

In case of malfunctioning of the machine, before contacting technical assistance, try to fix the problem following the troubleshooting guide reported in the chapter n.6.

If the problem cannot be fixed using the troubleshooting guide, contact the authorized technical assistance using one of the following references:
Phone: +39 0731 6153 1
Fax: +39 0731 6153 413
Email: info@clabo.it
Or using Internet web site: www.clabo.it

It is necessary to communicate to the technical assistance:

- Cabinet serial number (as described in the previous paragraph)
- Cabinet Model, as reported in the label
- A detailed description of the problem encountered and of the interventions al right made to fix it.

WARNING:
Don't contact not-authorized technicians

2. DATA AND TECHNICAL SPECIFICATIONS

2.1 MAIN CHARACTERISTICS

Proxima STX Ice-Cream cabinet is planned for showing and marketing ice-cream products and deigned to reach temperatures in the refrigerated zone not less than -18/-20° C, at Class 4 Climatic Conditions (+30° C, 55% R.H.), defined by the UNI EN 23953-2 par. 5.3.1.3 European Standard.

Thermal Insulation of the cabinet is guaranteed by polyurethane Foam.

Cooling System is equipped with **Semi-hermetic** compressor: one compressor is used. Condensing unit is installed on the machine in a compartment of the base or it can be remote, within maximum 20mt of linear piping far from the machine. In this case Cabinet and Condensing unit(s) are supplied separated and without cooling gas.

WARNING:
Installation of Remote Unit and Charge of gas is provided by the customer. Please refer to the correspondent section in the present manual.

Defrosting system is automatic, with *"double inverted cycle system"*: two defrost cycles are realized separately, regulated by electronic control with different time intervals.

Refrigeration is ventilated: inside the cooled compartment the fans are installed and they produce air flow, responsible for ice-cream cooling. The display case mod. Proxima STX Ice-cream cabinet has also a double air circulation system, that permit the air inlet inside the display area from two grid: one is below the service deck and the other one is between the two lines of ice-cream pans.

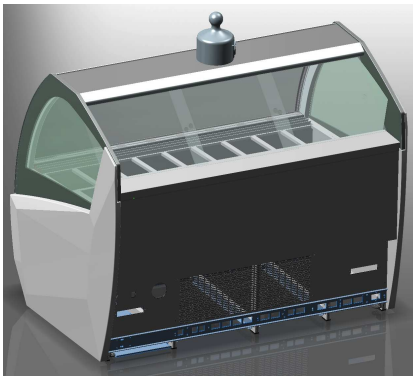
Machine is equipped with an electronic control board which operates the cooling system, automatic defrost, anti-condensation devices and lights. User interface is formed by a 6-keys keyboard with a 3-digit display, positioned on cabinet back panel.

All glass surfaces are double-glazed, tempered and heated in order to avoid condensation problems.

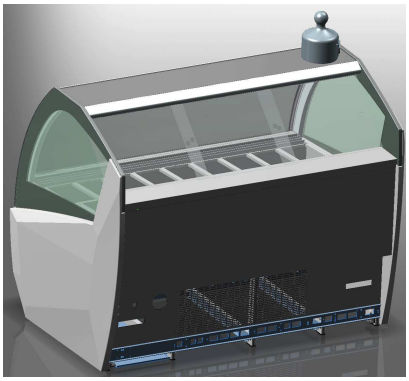
Front glass can be opened with the joint in the upper part in order to permit cleaning operations; the weight of the front glass is sustained by gas pistons, that also help during the opening and the closure of the glass.

The roof is supported by metallic pillars that can resist a maximum weight of 10 kg.

WARNING:
Don't put concentrated weight on the roof: *risk of Break.*
In order to avoid damages, distribute the weight evenly on the surface.



NO



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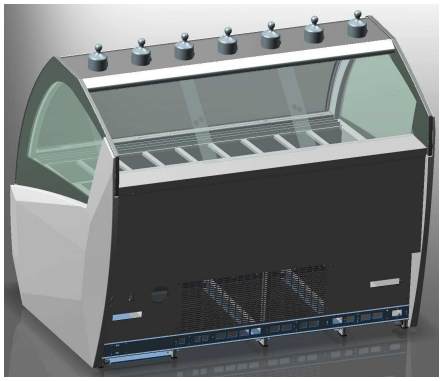
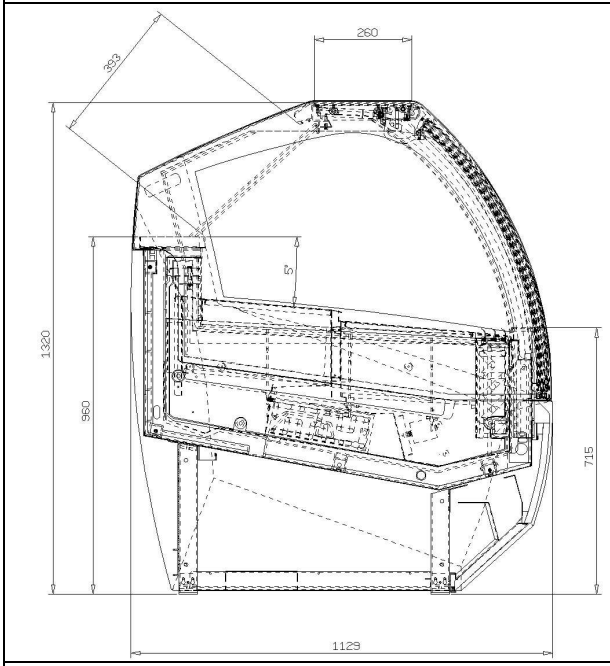
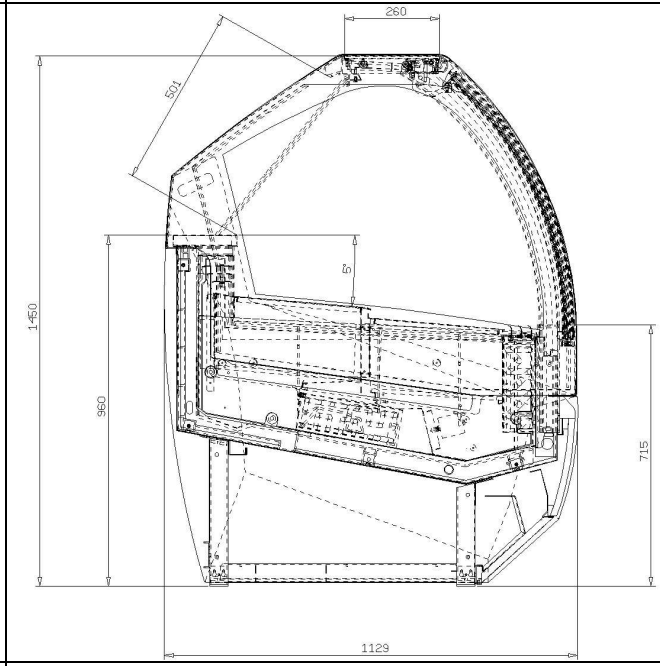
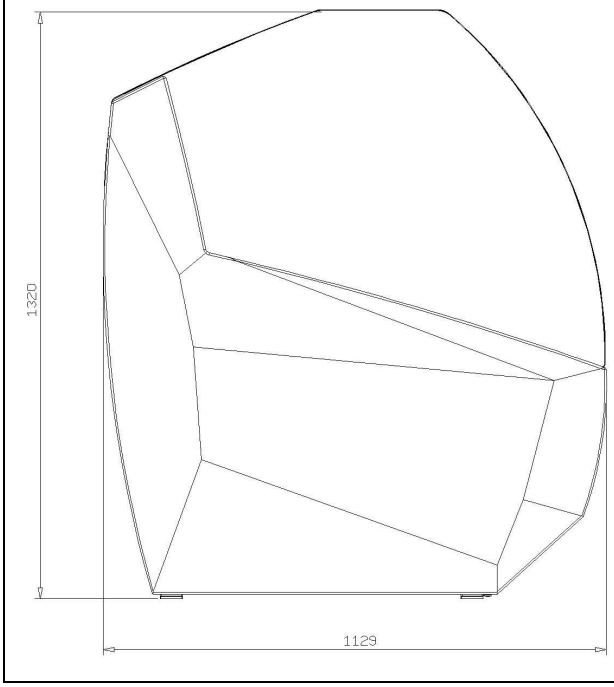
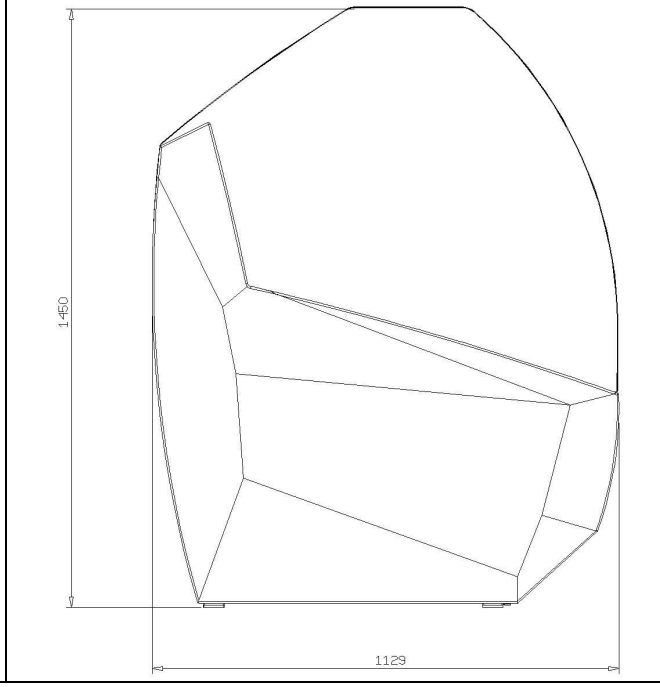


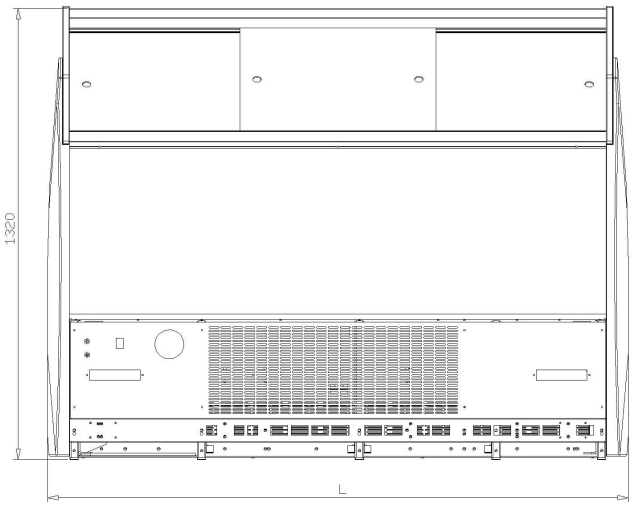
OK

If the cabinet has a reserve storage this is designed for display of product at low temperature, not below -18/-20 ° C. The storage is connected to an independent condensing unit and is managed by an additional electronic control.

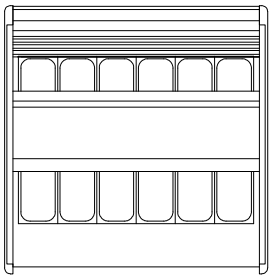
2.2 TECHNICAL DRAWINGS

SECTION VIEW - CABINET H1320	SECTION VIEW - CABINET H1450
	
SIDE VIEW H1320	**SIDE VIEW H1450**
	

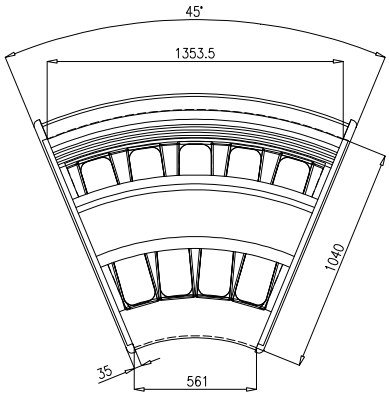
REAR VIEW

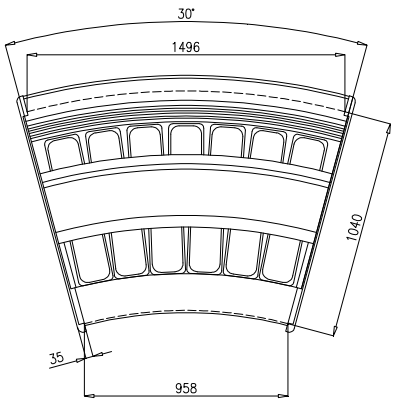


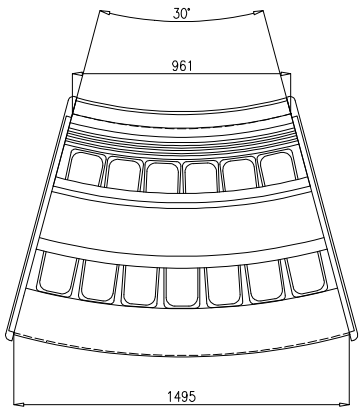
Plan View:



MODEL	6+6	9+9	12+12
QUOTE "L"	1050	1575	2100







MODEL		
A 45°	A 30°	C 30°

2.3 TECHNICAL DATA

Mod:	Supply * [V-ph-Hz]	Compr. Power [W]	Total Power [W]	Working Temperature [° C]	Gas Type
G6	400/3/50	1150	**1560**	-18/-20	R404a
G9	400/3/50	1700	**2255**	-18/-20	R404a
G12	400/3/50	2170	**2930**	-18/-20	R404a
A30	400/3/50	1150	**1690**	-18/-20	R404a
C30	400/3/50	1150	**1580**	-18/-20	R404a
A45	400/3/50	1210	**1880**	-18/-20	R404a
G9 R	400/3/50	2050	**2950**	-18/-20	R404a
G12 R	400/3/50	2300	**3550**	-18/-20	R404a

**: Other electrical supply are available on customer request*

3. RECEIPT AND INSTALLATION

WARNING:
Before acceptance of the equipment, control the following:

- the package must be intact and the products haven't to be damaged during transport.
- the shipped goods correspond to the order specifications.
- the presence and integrity of accessories.
- possible damages occurred on products must be reported on the transport document for the compensation by the transport agency.

WARNING:
This product must be installed by qualified personnel. During installation the operators involved must wear individual protection devices.

WARNING:
The installation of Remote Condensing Units (where available), must be performed by qualified personnel, following the instruction reported on manual delivered with the condensing unit itself and supplied by the factory.

3.1 LIFTING AND MOVEMENT

In order to move the cabinet from the transport vehicle use a fork lift having the suitable loading capacity as follow (Fig.2):

- Position the forks at the level of vehicle (e.g. lorry)
- Move forward with the forks so as to insert them under the cabinet's pallet.
- Ensure that the cabinet is perfectly balanced on the forks before lifting it.
- Position the cabinet on the ground and remove the package.

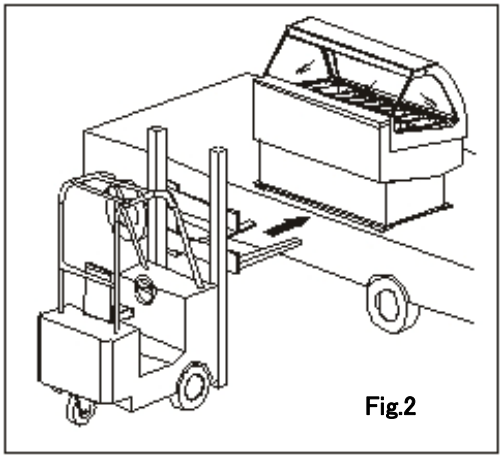


Fig.2

WARNING:
During the package wasting, using devices such as cutter could cause injuries to people or damages to product.
In addition, avoid to smear against the product with metallic parts such as watches, buckles, chains, rings and so on that could produces scratches.

- Lift up the cabinet by the pallet, as shown in Pic.3 .
- The cabinet must be moved manually when on the ground.
- Remove the screws that anchor the lists to the base: tilt the cabinet and remove the lists as shown in Pic.3 Pos.B
- The cabinet must be moved manually when on the ground.

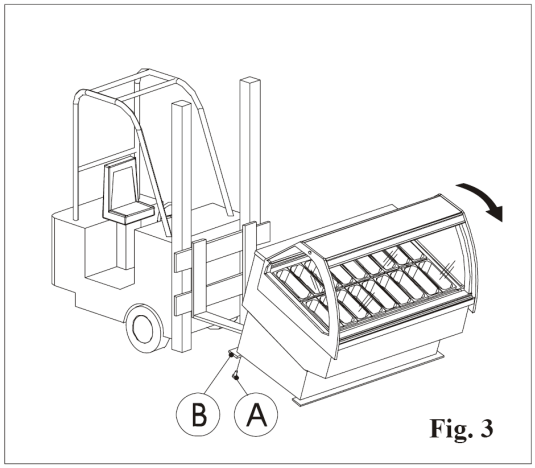


Fig. 3

WARNING: Danger of Tipping or slipping
Don't lift the cabinet more than 10 cm above the ground.

3.2 POSITIONING

For a correct positioning follow these instructions

- Position the display cabinet leaving enough space for use and maintenance in safe conditions as envisioned by the UNI EN 12100-2010
- Check that there is a suitable earth plant present envisioned by European Standards.
- Once positioned in the desired area, make the display cabinet level using the adjustable feet (fig. 4).

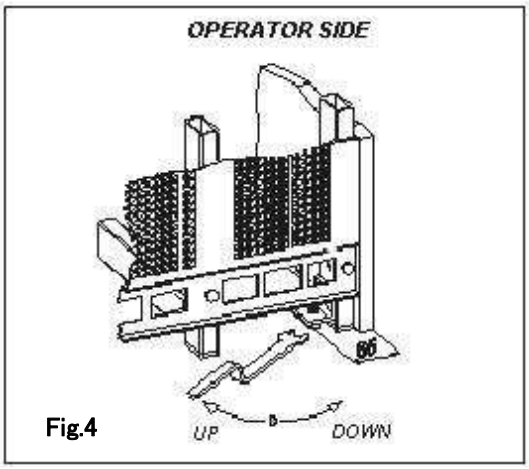


Fig.4

WARNING:
Before positioning the cabinet, assure that the floor is suitable for supporting its weight.

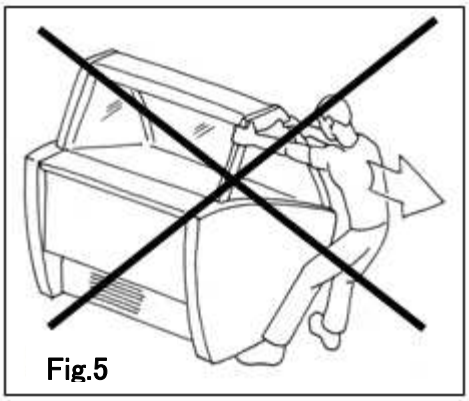


Fig.5

WARNING:
During positioning do not lean on or pull front and side glasses, front and side panels: *risk of damage* (see fig.5).

WARNING:
The showcase is designed for use with a decking with minimum height 80mm. If you do not use a decking be sure to buy the proper back closure of the base, to prevent accidental access to electrical or sharp parts.

3.3 ENVIRONMENTAL SPECIFICATIONS

When positioning the display cabinet take into consideration that its operability is guaranteed in the following environmental conditions: temperature <30° C and relative humidity <55%. (class 4, UNI EN 23953-2).
During installation It must also be checked that:

- there is sufficient circulation of air around the display cabinet but not strong currents;
- the display cabinet is not near any hot air sources;
- the display cabinet is not exposed to direct sunlight;
- the cooling air grills of the condenser are not blocked (fig. 6 , Letter "A");
- air conditioning or heating in the room are not directed onto the display cabinet.

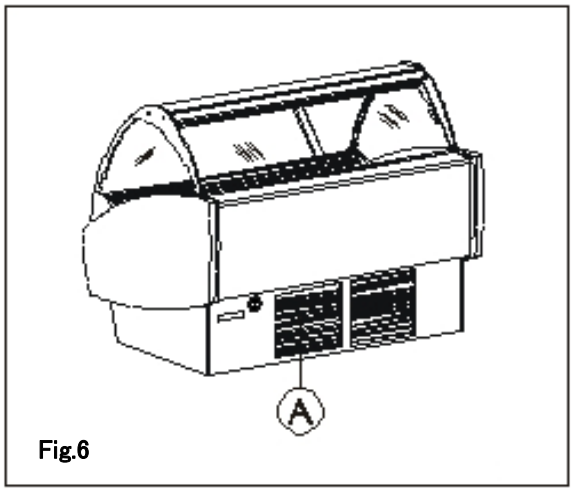


Fig.6

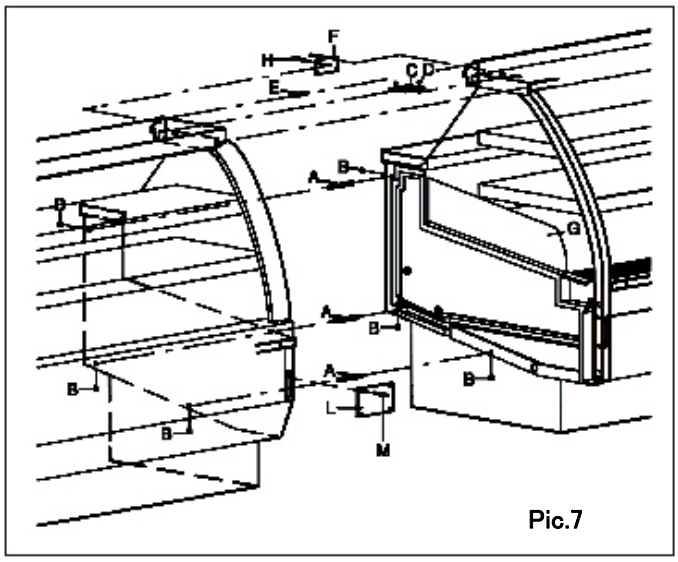
WARNING:
To guarantee the proper functioning of the cabinet, let the air flow in a proper way to the customer side through the specific grid under the front covering panel.

The above-mentioned indications must be respected to prevent malfunctioning, which will not be covered by the warranty.

WARNING:
During working operations, there is an air exchange between the cabinet's refrigerating system and the surrounding environment. For this reason don't install the cabinet in ambient subjected to pollution or having atmospheres with substances in concentration or quantity out of the limits regulated by actual law for health care.

3.4 CANALIZATION

Before performing canalization check that the showcases are at the same height by adjusting the special feet and that both showcases are laid flat, i.e. horizontally levelled.



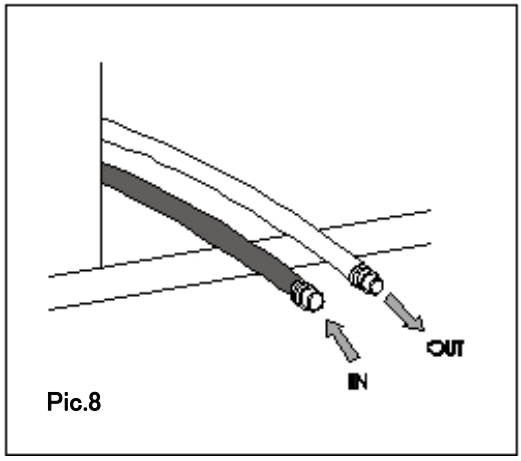
Pic.7

In order to join two cabinets follow instructions below referring to picture n.7:

- introduce the A pin and block it through the B dowels;
- screw the E peg;
- introduce the F and L plates and fix them through the dowels;
- introduce the G crystal shoulder into the corresponding seating;
- place the showcases side by side, till the E peg already screwed in the showcase, and the F plate are perfectly introduced into the other showcase's seatings, after screwing the other dowel first;
- introduce the C plate into the corresponding seating and block it with the D screw;
- Insert divider glass G in its hole between the two cabinets.

3.5 PLUMBING CONNECTION

Connect the inlet and outlet tubes to the water plant for water-cooled condenser type display cabinets only. The inlet tube may be recognised by its thermal insulation covering.



Pic.8

WARNING:
Please ensure that the taps are open and that the water flows regularly (Pic. 8) before turning on the cabinet. Then regulate pressure-static water valve depending on pressure and temperature of water coming from external net.

WARNING:
Use of not-decalcified water could case irreparable damages to the system.
Use exclusively filtered and decalcified water.

WARNING:
Inlet water pressure can't exceed 10 bar.
Inlet water temperature shouldn't exceed 20° C in order not to decrease machine's performances.

3.6 ELECTRICAL CONNECTIONS

Before installation, check that a suitable earth plant is present as envisioned by the regulations
in force in the country of sale. Check that the mains voltage is compatible with the features stated on the plate positioned on the operator side of the display cabinet (see fig. 1). Also check that the line upstream from the display cabinet is appropriately dimensioned to support the load of the display cabinet itself.

WARNING:
Voltage fluctuation above 10% of the nominal voltage stated on the plate can cause permanent damage to the compressor and other electro-mechanical equipment. In this case they are not covered by the warranty.

Respect national regulations for electrical installations.
Position the master switch in the OFF position.
The display cabinet is supplied with a 5-wire cable;

- Yellow/Green = Grounding wire
- Blue = Neutral Line
- Brown = phase 1
- Grey = Phase 2
- Black = Phase 3

WARNING:
Never cut or remove the yellow-green cable mentioned above.

The five power supply wires must be connected to the back-bone network, which a san efficient earth system, in compliance with national and local regulations (where present) regarding electrical installations and suitable for the electric absorption of the display cabinet, refer to chapter 2 – Total Absorbed Power.

WARNING:
The electrical connection to the mains must be made using the five wires supplied. Moreover, the central plant to which the display cabinet is connected must have a switch with contact opening of at least 3 mm protected by fuses.

WARNING:
Apply a suitable method of fixing to the power supply cable on the connection box, making reference to the table shown below.

Rated Current [A]	Rated Section [mm²]	
	Gen. Purpose Flex Cables [mm²]	Grounding Cables [mm²]
3	0,5 ÷ 0,75	1 ÷ 2,5
3 ÷ 6	0,75 ÷ 1	1 ÷ 2,5
6 ÷ 10	1 ÷ 1,5	1 ÷ 2,5
10 ÷ 16	1,5 ÷ 2,5	1,5 ÷ 4
16 ÷ 25	2,5 ÷ 4	2,5 ÷ 6
25 ÷ 32	4 ÷ 6	4 ÷ 10
32 ÷ 40	6 ÷ 10	6 ÷ 16
40 ÷ 63	10 ÷ 16	10 ÷ 25

3.7 WATER DRAIN PIPE

If the cabinet is supplied with external drains for condensation / defrosting or periodic cleaning water discharge, be sure to connect the drain pipes to the sewer.

3.8 REMOTE UNITS INSTALLATION

If condensing unit are remote, far from the cabinet, these will be supplied separated from the cabinet. Model, Power and Dimensions of the condensing unit depend on the distance from the cabinet, which can reach up to 20 mt.

For remote condensing unit installation, use and maintenance, please refer to its manual, supplied with the unit itself.

WARNING:

For constructive reasons, in case of remote condensing unit it is necessary to anchor the cabinet to the floor in order to avoid rollover problems.

3.9 END OF SERVICE AND DISPOSAL

Packaging

Do not throw away of part of the display cabinet packaging but separate it according to the type of material in question (cardboard, wood, steel, polyester, etc…) and dispose of it according to the current laws in vigour in the country of use.

End of Service of Display Cabinet

When the display cabinet has reached the end of its life span:

- Remove the refrigerant from the refrigerator circuit of the display cabinet.
- Empty it of all of the oil it contains.
- Remove all of the rubber parts (e.g. O-ring, rubber trimming).
- Send it off to be scrapped.

Important information for the User for the Purpose and effect of the WEEE Directive 2002/96/CE and subsequent amendments 2003/108/CE concerning Waste Electrical and Electronic Equipment: this equipment has been marked with the above crossed waste bin symbol.

The symbol of crossed waste basket reported on the machine or on the crate indicates that the product at the end of its life must be picked up separately from other waste. The dispose of machine must be done by specifically authorized WEEE disposal centre. User can find out information by its dealer / agent / manufacturer.

The proper collection for decommissioned equipment for following recycle, treatment ad environmentally compatible disposal, contributes in preventing possible negative damage to environment and health and promotes the reuse and/or recycling of materials and parts of the equipment.

Disposal of the product without respecting the mentioned directives and standards means the application of sanctions provided for actual law.

4. FUNCTIONING

4.1 GENERAL USE RULES

The machine is designed for showing ice cream ("Products") at the required temperature by the customer and not less than -18/-20 ° C.

Before introducing products inside the cabinet, wait about **60 minutes** from refrigeration start-up: the refrigerating system must reach setpoint temperature. This interval of time could vary depending on ambient conditions (temperature, humidity).

WARNING:
Displayed temperature is the value read by the cabinet probe: so this is the temperature of the air used for refrigeration. For this reason it could be different than the temperature of the displayed product.

WARNING:
It is very important to consider that the optimum temperature of the air inside the cabinet varies greatly with changing in ice-cream composition (especially the percentage of sugars and fats).

WARNING:
Before inserting the displayed product in the cabinet, it must be conserved in proper blast chillers.

WARNING:
The displayed product must be introduced in the refrigerated region using suitable alimentary containers. If the displayed products exits from their containers, this cannot be sold or used: it must be removed and wasted.

WARNING:
To prevent the deviation of the air flow on refrigerating area and the condensation or the melting of ice cream, we suggest to keep the maximum level of the ice cream under the cold line (see figure of the sticker on the cabinet). We also remind that objects obstructing the air flow inside the tub, such as flavour tags or scoops, can sometimes cause condensation, ice cream melting or ice formation.

For the correct functioning of the cabinet, it is necessary to verify that, during its operations, no ambient elements have an effect on its functioning; in particular it is necessary to control the follow:

- Air circulation around the cabinet should be sufficient to guarantee the correct functioning of the condenser (in case of inner condensing unit).
- For the same reason take care not to obstruct the back grid (staff's side) and the front one.
- Strong air current in the environment or source of hot air next to the cabinet that can interfere with inner machine ventilation **must** be avoided: air is responsible for product cooling; bad air flow can produce deterioration of product inside.
- For the same reason eventual air conditioning or warming systems should not blow directly air inside the machine.
- Direct sun light shouldn't hit the cabinet in any time. Sun radiation could damage the displayed product.
- Nothing inside cooled compartment of the machine should block air flow.

WARNING:
In case of damage of the displayed product, this one cannot be used or sold: it must be removed from the cabinet.

WARNING:
Do not load excessively the ice-cream pans: for optimal operation and maintenance of the products, the ice-cream level should never exceed the edge of the pan. The excessive height of the product may interfere with the airflow inside the cabinet.

4.2 START-UP

1. Turn on the main switch of the electrical net of the shop.
2. Turn on the cabinet On/Off switch (pos.A on fig.9), located on the back protection panel. When the switch is on the display should turn on.

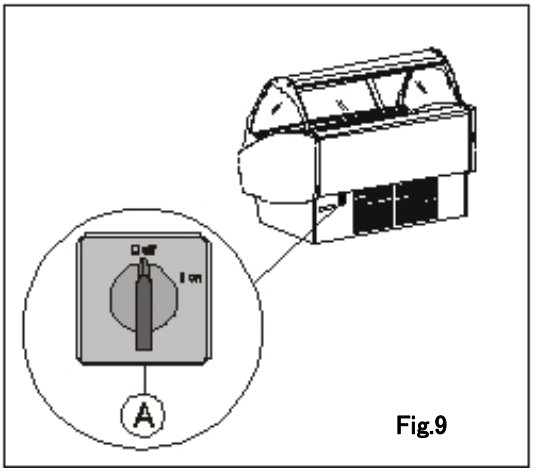


Fig.9

4.3 CONTROL PANEL

Keyboard
T640 Inox Blue
(183x38 mm)

set To visualize or change set point. When programming this button is used to select a parameter or to confirm a value.

This button is used during programming for going through the parameter codes or for increasing their value.
If pressed and then released you will visualize the controlled section (LOC, SE2, ALL).
If pressed continually for 3 seconds this button allows the access to the sections menu.

This button is used during programming for going through the parameter codes or decreasing their value.

Keep this button pressed for 3 seconds to start the manual defrosting cycle.

Use this button to turn the display cabinet lights on and off.

Turn the refrigeration on/off.

Keys Combinations:

set + Press and hold together for three seconds: enter the programming mode.

set + Press and release together: exit from programming and return to temperature visualization.

There are a series of luminous points on the display, the meaning of which you will find in the table below:

LED	Mode	Function
❄	ON	Compressor on
❄	FLASHING	Programming phase (flashing with LED ✣)
✣	ON	evaporator and fans active
✣	FLASHING	Programming phase (flashing with LED ❄)
❄	ON	Defrosting active
❄	FLASHING	Dripping time underway
	ON	Keyboard in "ALL" mode
	FLASHING	Keyboard in RVD mode (remote control)
	ON	ALARM SIGNAL – In the "Pr2" programme it indicates that the parameter is also present in "Pr1"

Visualize Minimum recorded temperature

1. Press and release key ⩔.
2. "LO" message will be visualized on display, followed by the minimum temperature recorded.
3. Press again ⩔ key or wait 5 seconds in order to visualize standard read temperature.

Visualize Maximum recorded temperature

1. Press and release key ⩓.
2. "HI" message will be visualized on display, followed by the maximum temperature recorded.
3. Press again ⩓ key or wait 5 seconds in order to visualize standard read temperature.

Reset Minimum / Maximum recorded temperatures

1. In order to reset recorded temperatures, first visualize maximum / minimum recorded temperature as described above, with keys ⌃ or ⌄.
2. Push SET button until the message "RSt" on display flashes three times.

Visualize and Modify Setpoint Temperature

1. in order only to visualize temperature setpoint push and release SET button one time. The setpoint will be immediately visualized. Wait 15 seconds to come back to normal visualization.
2. in order to change setpoint push SET button for 3-4 seconds: the led (red dot) on display will flash and temperature setpoint is visualized.
3. Modify setpoint using ⌃ or ⌄ buttons.
4. Confirm selected value pushing and releasing SET point one time. The new value will flash three times. Wait 15 seconds to come back to normal visualization.

Start a Manual Defrosting Cycle

DEFROST 1

1. Press and hold ❄ button for more than 3 seconds.
2. Message "DF1" will appear on display.
3. Press SET button and defrosting cycle 1 will start.

DEFROST 2

1. Press and hold ❄ button for more than 3 seconds.
2. Message "DF1" will appear on display, use arrows key until "DF2" label appears on display.
3. Press SET button and defrosting cycle 2 will start.

Enter level 1 (User) programming menu

1. Press and hold **SET**+⌄ for more than 3 seconds.
2. Display will show the first programming parameter that can be changed by user.

Change parameters values

Enter programming mode as described above:

1. Select the parameter you want to change with ⌃ or ⌄ buttons.
2. Press SET button to visualize the value of the selected parameter.
3. Change its value with ⌃ or ⌄ buttons and push SET button to confirm the choice. The value will flash three times and the display will show the following parameter in the list.

EXIT: Push together SET+⌃ on time or wait 30 sec without pressing any key.

WARNING: the changed new value is memorized also exiting programming mode without pressing set button.

Keyboard lock

1. Press and hold ⌃ and ⌄ keys for some seconds, until the message "POF" will appear and flash on display.
2. At this point the keyboard is blocked and only setpoint and maximum / minimum temperatures visualization are available.
3. In order to unlock keyboard press and hold ⌃ and ⌄ button for some seconds until message "Pon" will appear and flash.

Stand-By Function

1. Pressing **ON/OFF** key, "**OFF**" will be displayed.
2. When **OFF** is displayed the machine enters the "Stand-by" mode and all loads and regulation are disabled. Press again **ON/OFF** button to exit the Stand-by mode.

Note: *During Stand-by mode the light switch is active.*

Visualize probe value

1. Enter in level 1 Programming menu.
2. Use ⌃ and ⌄ until parameter "prd" appears on display.
3. Press SET key. Then use ⌃ and ⌄ for desired probe label.
4. Press SET key for visualize probe value. Press SET key again in order to exit and return on label visualization.

4.4 ALARM MESSAGES

Display	Cause	Outputs status
P1	Faulty main probe	Compressor output: 15 minute on and 30 minutes off
P2	Faulty Evaporator Probe	Not modified
HA	High temperature alarm	Not modified
LA	Low temperature alarm	Not modified
EE	Memory anomaly	Not modified
EAL	Digital input external alarm	Not modified
CA	Compressor Alarm	Compressor, evaporator fans and heaters OFF
nOL	Faulty communication between control board and keyboard	Not modified

4.5 CABINET WITH INDEPENDENT SECTOR OR WITH RESERVE

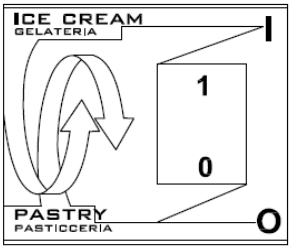
In case the cabinet is equipped with an independent sector (called "Fruttini" or "differentiated / second sector") or with a reserve cell installed in the base, two different control boards with two keyboards will be present, one for each sector (main sector and second sector / Reserve). In order to use the second control the procedure are the same described above.

In case of presence of second sector (not reserve) the two control board are linked one each other in order to synchronize defrosting cycles: the two cooled compartment of the cabinet will operate defrost simultaneously even if turned on in different times.

4.6 OPTIONAL KIT KVP – ICE CREAM / PASTRY CHANGE

The cabinet could be equipped with the so called "Kit KVP", as optional: it is an additional systems of valves that permit to operate the cabinet designed for ice cream products also for positive temperature.

Acting on the additional switch the system adapts to work in different conditions and in this way it is possible to set the temperature up to +4° C.



In order to use the optional for passing from ice-cream functioning to pastry functioning, identify additional switch located in cabinet back panel and highlighted by the sticker shown here
The presence of the light of the switch (pos.1) means that the cabinet is working in Ice-Cream Mode. On the other hand the switch off (position 0) identify the pastry functioning.

WARNING:
Activating the switch for passing in Pastry mode the programming parameter of the control board are NOT changed: for this reason the cabinet will continue to work with same settings of Ice Cream functioning (i.e. it will defrost at the same intervals).

Temperature Setpoint MUST be changed manually, increasing it to +4° C: if this operation is omitted the compressor will never stop with consequent possible damage.

4.7 STOPPING THE MACHINE

To stop the Machine completely act on the switch, which is located behind the rear protection panel. Position the master switch at "0" (fig.10, pos. "A") disconnecting the display cabinet power supply.

5. CLEANING AND MAINTENANCE

WARNING:
All maintenance operations must be performed by expert qualified personnel.
Before performing any maintenance operation be sure that the cabinet is disconnected from electrical supply.

WARNING:
Wait until hot parts have cooled down and reached ambient temperature to avoid burning risk.

WARNING:
Wear suitable gloves during maintenance and cleaning operations to avoid contact with metallic parts which could cause injuries.

5.1 ORDINARY MAINTENANCE: DAILY CLEANING

Daily cleaning operations can be performed by generic not-trained personnel.

Glass and working surfaces should be cleaned every day, at the end of the daily service of the shop.

WARNING:
During daily cleaning operations, remove completely the displayed product from the cabinet. In case of possible contacts between the products and not-alimentary chemicals, the product should be removed and wasted: it can't be used or sold.

Glass Surfaces:

Clean glass surfaces (back door, front and side glasses, shelves and roof top) using a humid sponge and a specific cleaner for glasses. Remove with care any residual of cleaners or chemicals, drying with a soft cloth.

WARNING:
During moving glass cleaning operation, open and close them with great care accompanying them until end of movement. Avoid to lean on movable glasses during cleaning operations.

Plastic / Stainless Steel / Wood / Marble / Chromate surfaces:

Clean with a sponge or humid cloth, using water and/or neutral specific cleaners; wash and dry with care using a soft cloth.

5.2 ORDINARY MAINTENANCE: WEEKLY CLEANING

Weekly cleaning operations can be performer by generic not-trained personnel.

Cabinet must be completely cleaned at least once a week, in order to eliminate dirt and to defrost it completely. Remove bottom panel for performing weekly cleaning, in order to get access to the bottom of the basin.

Operate as follows:

1. Remove ice-cream products from the cabinet.
2. Turn off the cabinet and disconnect it from electrical supply.

WARNING:
Before performing any weekly cleaning operation, be sure that the cabinet is turned off and completely disconnected from electrical net.

3. Remove internal movable panels. Clean the with care using neutral cleaners; wash them with water and dry using a soft cloth.

WARNING:
Removing bottom panels you will get free access to the evaporators surfaces which are sharp and could injury the staff: wear always suitable gloves when performing weekly cleaning.

4. Use a humid sponge to remove any residual of ice-cream product and dirt from the basin. Avoid using too much water that could damage electric components.

WARNING:
Don't tamper or damage electrical connections and wires or the refrigerating system piping, inside and below the basin.

5. Clean the basin with a dry cloth and let it dry completely.
6. Put all the bottom panels back in place as they where positioned before.
7. Turn on the cabinet again.

WARNING:
Use of abrasive, corrosive products, solvents, acids that could cause irreparable damages on surface and start corrosion must be avoided.
Don't pour flammable products on hot parts such as lamps, LEDs, ballasts and so on.
Don't pour water on electric components such as fan motors, lights and so on.

WARNING:
In case of electric water-evaporating pans optional don't use too much water during cleaning operations in order to avoid water spillage on floor.

WARNING:
During cleaning operations of movable glasses, be careful in opening and closing the glass, accompanying it until its final position. Avoid to lean on the open glass during cleaning phases.

5.3 PROGRAMMED MAINTENANCE – CONDENSER CLEANING

Condenser cleaning must be performed by an expert and qualified operator, for it is considered a programmed maintenance operation.

The deposit of dust and dirt in general on the condenser fins (air) reduces the efficiency of the plant until functioning is prevented and causing damage to the compressor. It is therefore absolutely necessary to periodically clean the condenser (every 20-30 days) as indicated below:

1. Turn off the cabinet and disconnect it from the electrical net.
2. Remove the back protection grid.
3. Remove dust and dirt present on the condenser fins using a brush or a vacuum cleaner (fig.10).

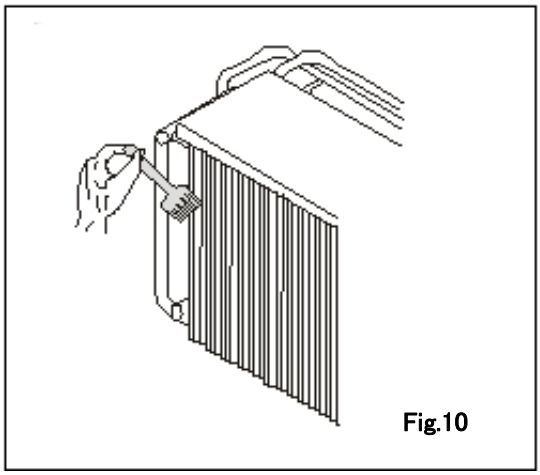


Fig.10

WARNING:
During condenser cleaning operations don't use rigid or metallic objects that could damage it.

5.4 SUMMARY OF SCHEDULED MAINTENANCE

Ordinary Maintenance				
	Generic Operator	Qualified Operator	Frequency	Tools
External glass surfaces	X		Daily	Suitable cleaner, Humid sponge
Internal Glass surfaces	X		Daily	Suitable cleaner, Humid sponge
Other External surfaces	X		Daily	Suitable cleaner, Humid sponge
Inner basin surfaces	X		Weekly	Humid Sponge

Programmed Maintenance				
	Generic Operator	Qualified Operator	Frequency	Tools
Condenser Cleaning		X	Monthly	Brush / Vacuum Cleaner

6. PRACTICAL TROUBLESHOOTING GUIDE

1) Temperature of the display area not low enough (i.e. ice cream too soft)

Probable Cause	*Probable Solution*
Evaporator closed by ice	Perform a complete defrost as follow: Remove the displayed product and put inside another refrigerated cabinet. Turn off main switch for 10/12 hours in order to permit the complete melting of frost inside the cabinet.
Condenser blocked by dust or other.	Clean the condenser. Remove everything that obstructs regular air flow to the condenser.
The ventilators are not working and / or their blades are damaged.	Request the intervention of the assistance service for the replacement of the same.
The display cabinet is exposed to air currents or direct sunlight	The display cabinet does not function in these conditions; remove the display cabinet from the air currents and/or direct sunlight
The thermostat is not working properly. With a perfectly functional refrigerating plant, the thermostat maintains a higher temperature in the air than that set.	Call the technical assistance service.
The refrigerated airflow (the “sheet of air”) on the ice-cream is irregular.	Check the air circuit (ventilator area, area beneath the evaporator) and remove any obstacles to the circulation of cold air.
Lack of water	Check if there is a water flow, if there is, call the technician for possible water valve rupture, pressure-stat problems or other causes.

2) The defrosting water does not drain off properly (that is, the water obtained from the melting of ice during the automatic or manual defrosting phases).

Probable Cause	*Probable Solution*
The defrosting water drainage tube that goes from the cold tub to the tub in which such water is channelled (for evaporation) is blocked.	Open up the drainage tube
The display cabinet is positioned on the ground in such a way that the drainage water is not directed towards the outlet hole.	Ensure that the display cabinet is level on the ground. It must be completely level.

3) The compressor never stops or it works for very long periods of time.

Probable Cause	*Probable Solution*
The room temperature is very high (e.g. above +32° C).	If it is not possible to lower the room temperature (e.g. by means of air conditioning) the compressor will work almost constantly.
The air condenser is blocked	Clean the condenser
The thermostat is set too low.	Regulate the thermostat to a higher temperature
The ventilators are off.	Call the assistance service to individualise the cause and replace them if necessary.

4) The display cabinet does not work

Probable Cause	*Probable Solution*
The cabinet is not plugged in.	Plug it in
The trip switch has gone off.	Reinsert the trip switch.
The general switch of the display cabinet is off.	Turn on the general switch of the display cabinet

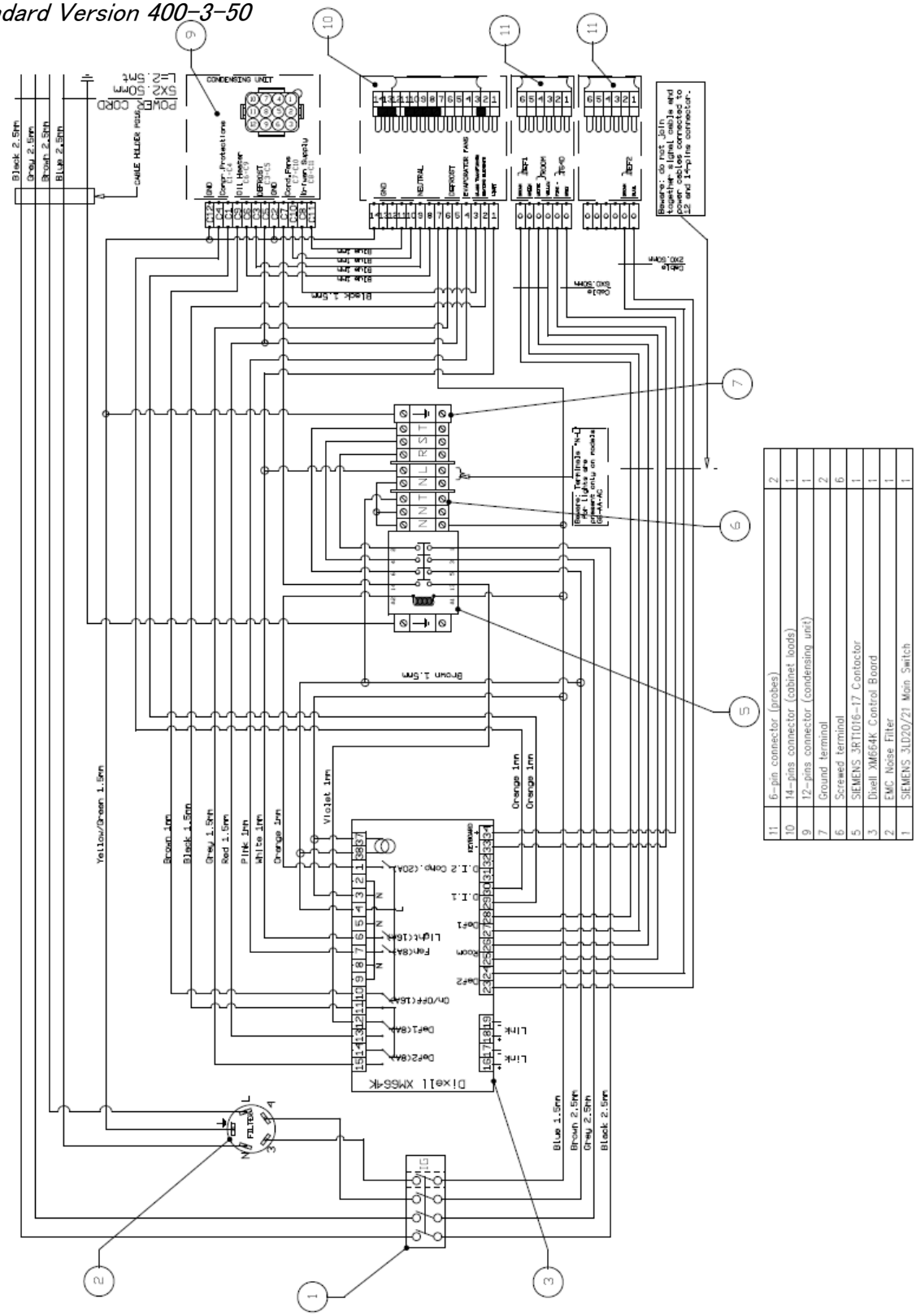
5) The light is not working

Probable Cause	*Probable Solution*
The light switch is not turned on.	Turn on the light switch.
The LED bars are not connected properly.	Verify that the 4-pin connector between two LED bars is inserted properly.
The LED bar is blown.	Replace the LED bar.
The LED supplier is blown.	Replace the LED supplier.

7. ELECTRICAL DIAGRAMS

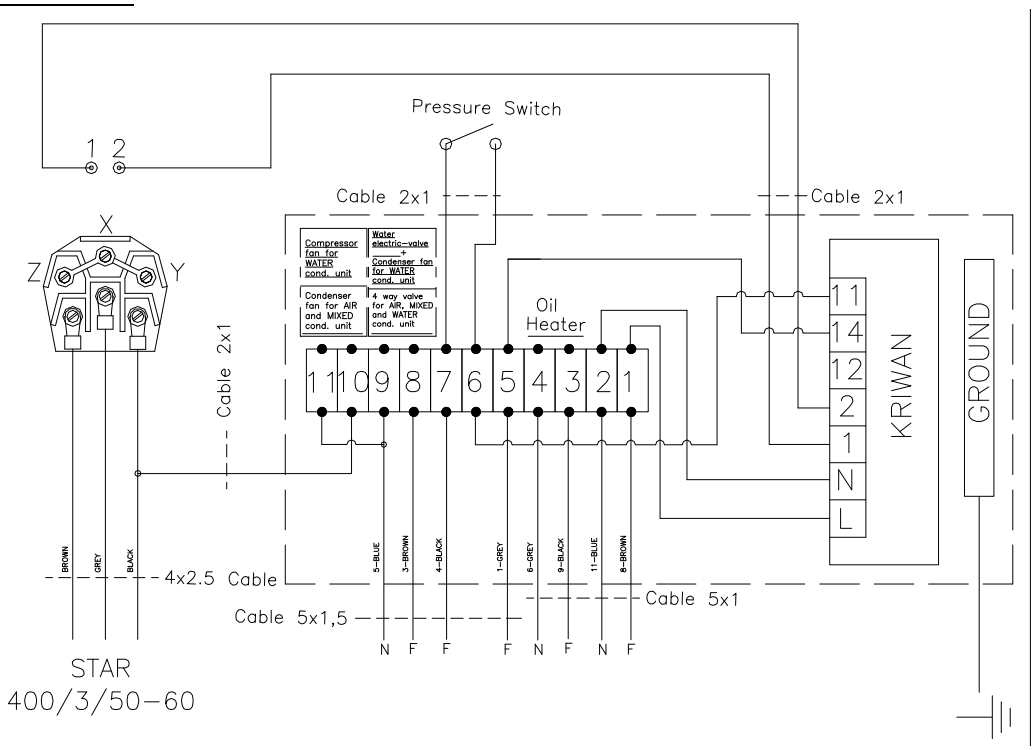
7.1 PROXIMA STX ELECTRICAL BOX - 1 SEMI-HERMETIC COMPR.

Standard Version 400-3-50

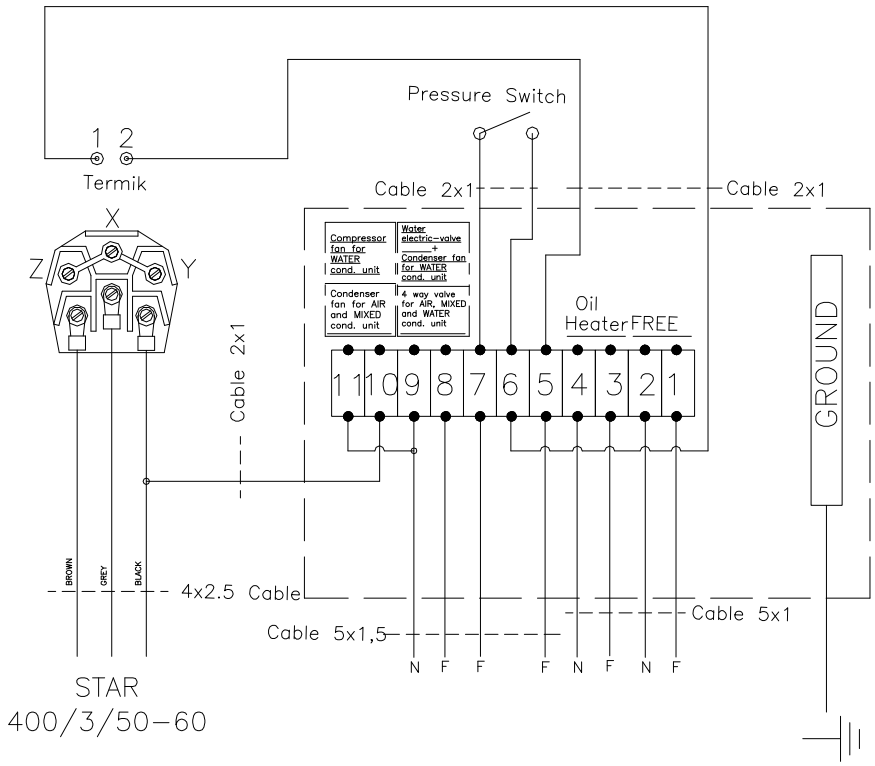


7.2 ELECTRICAL BOX – CONDENSING UNIT (INTERNAL OR REMOTE)

KRIWAN Protection

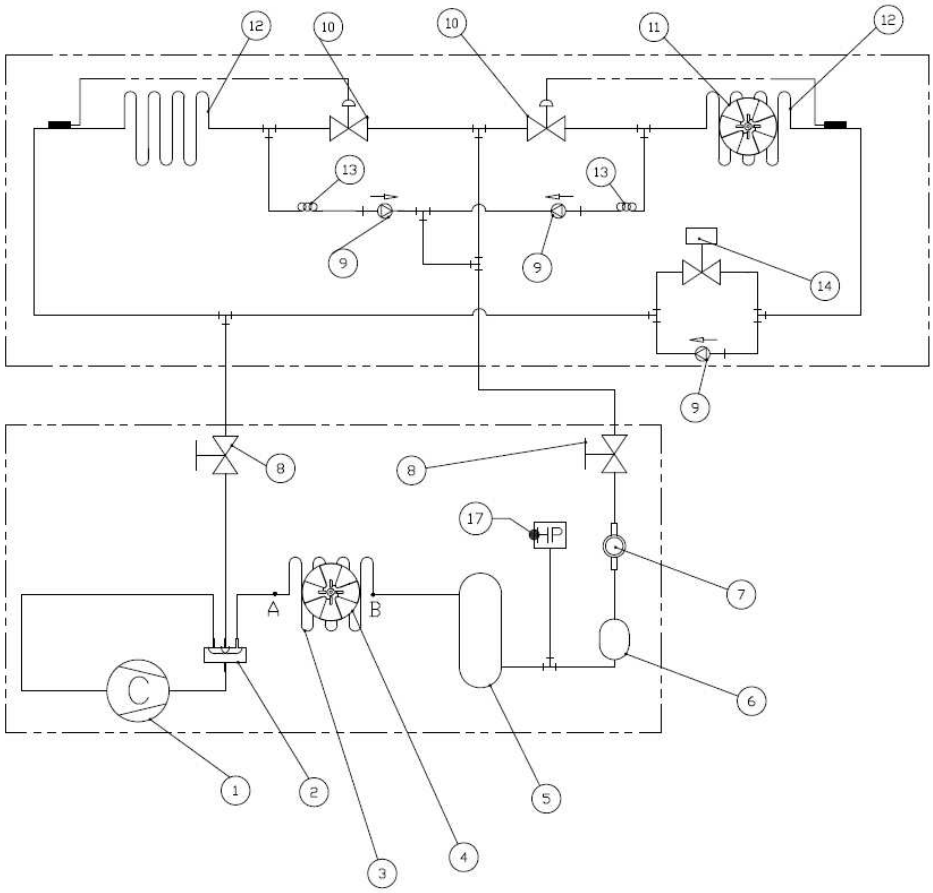


TERMIK Protection



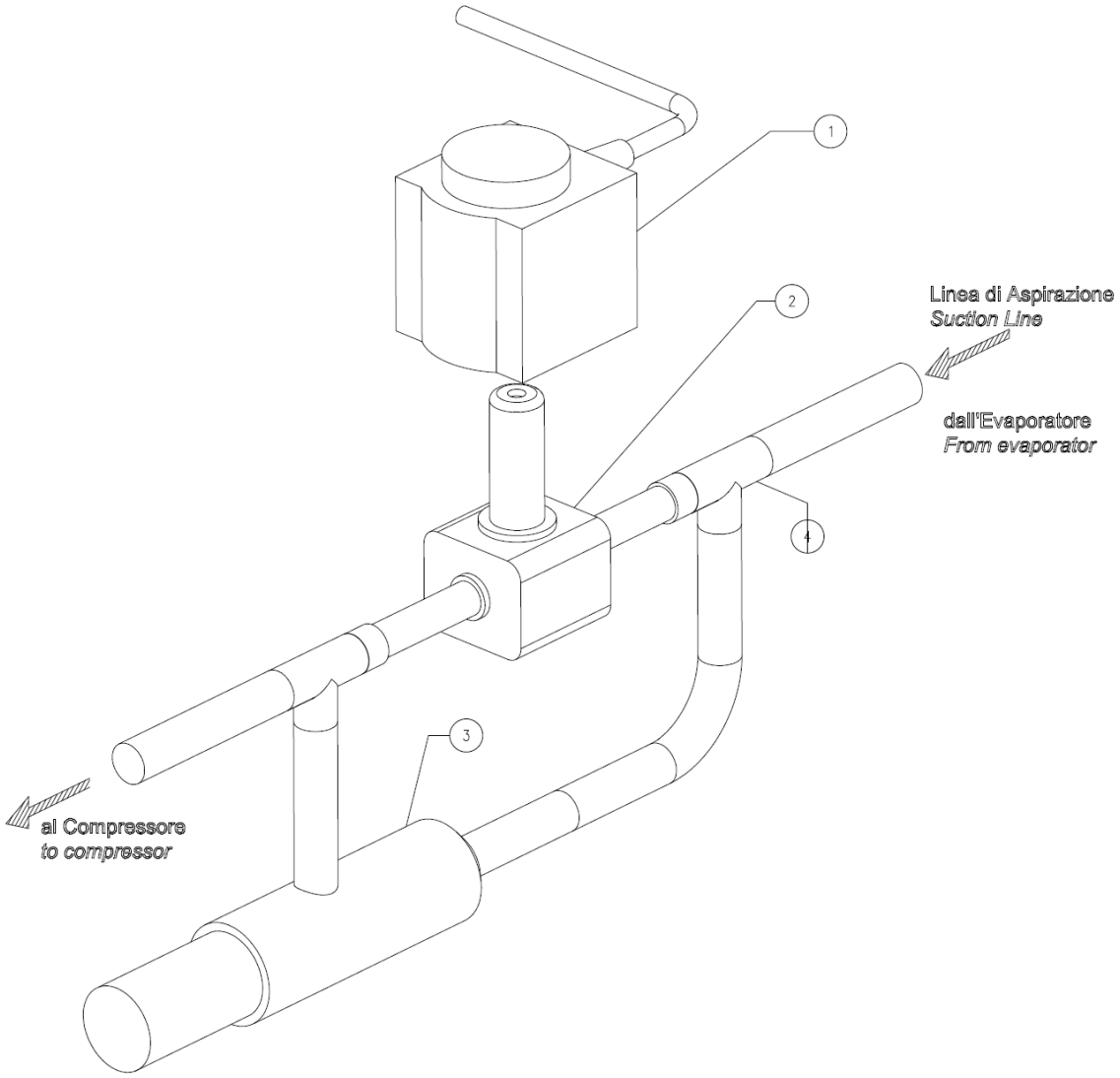
8. COOLING SYSTEM DIAGRAM

8.1 COOLING SYSTEM W/ DOUBLE INVERTED CYCLE DEFROST



POSITION	DESCRIPTION	QUANTITY
1	Semi-hermetic Compressor	1
2	4-way Defrost Valve	1
3	Condenser (double fan)	1
4	Condenser Fan	2
5	Liquid Receiver	1
6	Filter	1
7	Liquid Glass	1
8	Manual Tap	2
9	Check Valve	3
10	Thermostatic Valve	2
11	Evaporator Fan	3-5
12	Evaporator	2
13	Capillary diam.6 x 600	2
14	Second Defrost Solenoid Valve	1
17	HP Pressure-stat	1

8.2 OPTIONAL KIT KVP - ICE CREAM / PASTRY CHANGE



POS.	DESCRIPTION
1	Solenoid Valve Coil
2	Solenoid Valve Body
3	KVP Pressure Regulating Valve
4	Tee

NORME DI GARANZIA

I prodotti sono coperti da garanzia per una durata di 14 mesi dalla data di consegna dalla Clabo Spa al cliente, inteso come primo acquirente.
La validità della garanzia è certificata dal documento di consegna e dall'etichetta attaccata al prodotto riportante la matricola.

Tale documentazione dovrà essere conservata a cura del cliente e citata o esibita in caso di richiesta di intervento in garanzia.

La mancata esibizione di tali documenti o la presentazione di tali documenti alterati o illeggibili comporta la decadenza automatica della garanzia.
Non sono coperte da garanzia eventuali danni o malfunzionamenti causati dal trasporto effettuato da terzi, da erronea installazione e manutenzione, da negligenza o trascuratezza nell'uso, da usura dei componenti, da manomissione, da modifiche effettuate senza la preventiva autorizzazione da parte della Clabo Spa.

Per ottenere l'intervento tecnico in garanzia, dovrà essere inoltrata richiesta scritta alla Direzione Commerciale o al concessionario di zona.

La Clabo Spa a proprio insindacabile giudizio, deciderà se riparare o sostituire i componenti o l'intero prodotto.

È esclusa qualsiasi diversa ed ulteriore responsabilità della Clabo Spa, e così anche per danni diretti e/o indiretti. L'eventuale sostituzione del prodotto non comporta il prolungamento o il rinnovo delle condizioni di garanzia.

Tutte le spese di spedizione e/o trasporto dei componenti o dei prodotti inviati in garanzia o dei componenti difettosi sostituiti da rendere a Clabo Spa sono a carico del cliente.

WARRANTY TERMS

Clabo Spa undertakes to provide warranty on its products to the first purchaser of the product for a period of 14 months running from delivery date.
The warranty acknowledgement is based both on the date of the delivery note and the serial number tag shown on the product.

Such documentation will have to be kept by the customer. The documentation will have to be mentioned or shown should there be a request of intervention during the warranty coverage.
Loss of such documentation or any modification thereof which might render it illegible, will lead to immediate warranty termination.

Any damage or malfunctioning determined during transportation by third parties, by incorrect installation or maintenance, by negligence or carelessness of use and tampering by third parties, by components wear, modifications made without previous authorization by Clabo Spa, will not be covered by warranty.

In order to obtain a technical intervention under warranty, a written request will have to be sent to the Sales Management Division or to the local distributor.
Clabo Spa will unquestionably decide whether it would be necessary to repair or replace the components or the product at issue.

Clabo Spa will not accept any further/ different responsibility and/or liability and this would include direct and/or indirect damages. Cases of replacement of the equipment will not lead to extension or renewal of the warranty period.

Transportation costs of components or products delivered under warranty or replaced faulty components returned to Clabo Spa are to be covered by customer.

REFRIGERAZIONE

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