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Production code: KP12Q2



Diamond
catering equipment

TARGHETTA TECNICA

MANUALE D'USO
MANUEL D'INSTRUCTIONS
GEBRAUCHSANWEISUNG
OPERATOR'S HANDBOOK
MANUAL DE EMPLEO
HANDLEIDING
РУКОВОДСТВО К ИСПОЛЬЗОВАНИЮ
MANUAL DE USO



3205710

VETRINA REFRIGERATA VERTICALE
VITRINE VERTICALE RÉFRIGÉRÉE
VERTIKALE KÜHLVITRINEN
UPRIGHT REFRIGERATED DISPLAY UNITS
VITRINAS VERTICALES REFRIGERADAS
VERTICALE GEKOELDE VETRINE
ВЕРТИКАЛЬНАЯ ХОЛОДИЛЬНАЯ ВИТРИНА
VITRINE REFRIGERADA VERTICAL

Leggere attentamente le avvertenze contenute nel presente libretto in quanto forniscono importanti indicazioni riguardanti la sicurezza, d'uso e di manutenzione.

Conservare con cura questo libretto per ogni ulteriore consultazione dei vari operatori.

IT

Il costruttore si riserva il diritto di apportare modifiche al presente manuale, senza preavviso e responsabilità alcuna.

Lire avec attention les instructions contenues dans ce livret car elles fournissent d'importants renseignements pour ce qui concerne la sécurité, l'emploi et l'entretien.

Garder avec soin ce livret pour des consultations ultérieures de différents opérateurs.

FR

Le constructeur se réserve le droit d'apporter des modifications à ce manuel, sans préavis ni responsabilité d'aucune sorte.

Lesen Sie bitte aufmerksam diese Gebrauchsanweisung durch, die wichtige Informationen bezüglich der Sicherheit, dem Gebrauch und der Instandhaltung enthält.

Heben Sie sorgfältig diese Gebrauchsanweisung auf, damit verschiedene Anwender sie zu Rat ziehen können.

DE

Der Hersteller behält sich das Recht, Änderungen dieser Gebrauchsanweisung ohne Ankündigung und ohne Übernahme der Verantwortung vornehmen zu können.

Carefully read the instructions contained in the handbook. You may find important safety instructions and recommendations for use and maintenance.

Please retain the handbook for future reference.

GB

The Manufacturer is not liable for any changes to this handbook, which may be altered without prior notice.

Lea atentamente las advertencias contenidas en este manual pues dan importantes indicaciones concernientes la seguridad, la utilización y el mantenimiento del aparato.

Rogamos guarde el folleto de instalación y utilización, para eventuales futuros usuarios.

ES

El constructor se reserva el derecho de hacer modificaciones al actual manual, sin dar algún preaviso y sin responsabilidad alguna.

Nauwkeurig de waarschuwingen in dit boekje lezen, aangezien zij belangrijke aanwijzingen verschaffen wat betreft de veiligheid, het gebruik en het onderhoud.

Dit boekje goed bewaren.

NL

De fabrikant behoudt zich het recht voor om veranderingen in deze handleiding aan te brengen, zonder voorafgaande waarschuwing en zonder enkele aansprakelijkheid.

Внимательно читайте предупреждения, содержащиеся в настоящем руководстве, касающиеся надежности использования и обслуживания.

Бережно храните это руководство для каждой последующей консультации разных рабочих.

RU

Конструктор сохраняет за собой право вносить изменения в настоящее руководство без предупреждения и любой ответственности, без,

P

Leia com atenção as advertências contidas neste manual pois fornecem importantes indicações para a segurança, a utilização e a manutenção do aparelho.

O construtor reserva-se o direito de modificar o manual sem dar aviso prévio e sem nenhuma responsabilidade.

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MACHINE DESCRIPTION

This device has been designed for temporary exposition and conservation of food products. Any other use is to be considered improper.

ATTENTION: the appliances are not suitable for installation outdoors or in environments subject to the action of the elements.

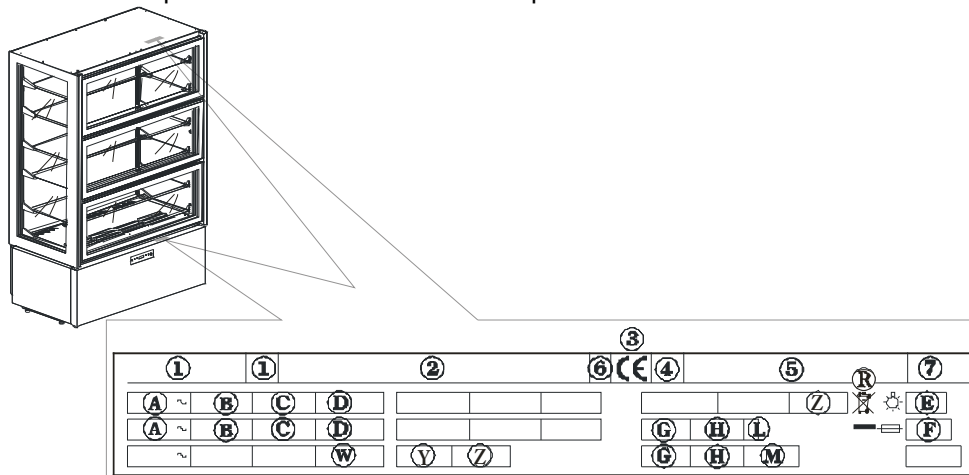
The manufacturer cannot be held liable for improper use of its products.

The units are equipped with a finned evaporator protected against oxidation, a hermetic compressor, a copper aluminium condenser and a digital electronic data card. The appliance is equipped with removable shelves.

An HFC refrigerant fluid, approved by current legislation, is used in the refrigerating units.

IDENTIFICATION TAG

For any communication with the manufacturer, always mention the MODEL and the SERIAL NUMBER of the appliance which are reported on the technical feature plate.



Refrigerator rating plate containing the following ratings

- | | |
|--------------------------------|---|
| 1) MODEL | D) RATED POWER |
| 2) SUPPLIER'S NAME AND ADDRESS | E) TOTAL LAMP POWER |
| 3) CE MARK | F) FAUSE CURRENT |
| 4) YEAR OF MAKE | G) REFRIGERATING SYSTEM TEMPERATURE GRADE |
| 5) SERIAL NO | H) REFRIGERATING GAS QUANTITY |
| 6) ELECTRIC INSULATING GRADE | L) REFRIGERATING GAS |
| 7) ELECTRIC PROTECTION GRADE | R) WEEE SYMBOL |
| A) POWER SUPPLY VOLTAGE | W) HEATING SECTION POWER |
| B) ELECTRIC CURRENT RATE | |
| C) POWER SUPPLY FREQUENCY | |

GENERAL NOTES BY THE DELIVERY

At the delivery inspect that the packing is not injured and that it has not been damaged during the transport.

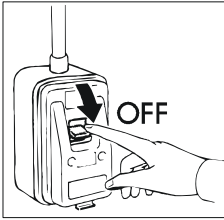
After having unpacked the unit check and verify that all of the parts and components have been included and that its characteristics and condition correspond to the specifics of the order that you made. Otherwise contact immediately the retailer.

While complementing you on your excellent choice we hope that you will be able to fully utilise our equipment following the necessary directions and precautions contained in this manual.

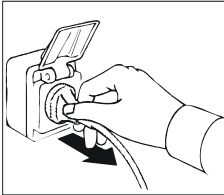
But, remember that any reproduction of this manual is forbidden and that due to a constant pursuit of innovation and technological quality, the features hereby presented could change without notice.

SAFETY PRESCRIPTIONS

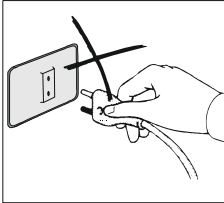
WARNING: before any maintenance or cleaning operation the machine must be insulated from the current:
- witch the general cut-out in OFF position;



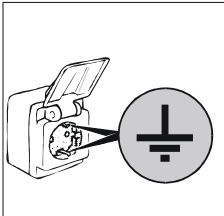
- remove the plug;



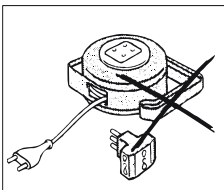
WARNING: do not use current taps or plugs not provided with grounding.



The socket must be provided with GROUNDING.



WARNING: do not use adapters or patch cords for the connection to the electric line.



WARNING: wait the time necessary to reach the setted temperature before to introduce the food to preserve.

WARNING: do not put hot foods or drinks into the unit.

WARNING: see to the arrangement of the food products to be conserved inside in such a manner that they do not extend beyond the shelves so as to not interrupt the flow of air inside the unit. Do not obstruct fan intake area.

WARNING: do not carry out cleaning activities in the area around the unit with its door open.

Do not wash the appliance by spraying high-pressure water on the machine.

WARNING: not use chlorine based or otherwise toxic substances (bleach, muriatic acid, etc.) for cleaning the unit or the areas directly adjacent to it.

Do not place any objects on the bottom of the unit. Use the proper shelves.

On the shelves the maximum distributed weight is not to exceed **20 kg**.

WARNING: glass Breaking Hazard: Close or open the door VERY GENTLY AND NEVER ABRUPTLY OR WITH VIOLENCE and do not lean on the door itself.

The cleaning and maintenance of the refrigerating engine and the compressor area needs the intervention of a skilled technician, therefore it cannot be done by other persons.

For a maintenance intervention or in case of anomaly disconnect completely the machine; ask for the TECHNICAL SERVICE to an entitled center and the use of original spare parts.
Failure to comply with what is written above may compromise the safety of the units.

INSTALLATION

The units are always shipped on pallets and protected by cardboard boxes.

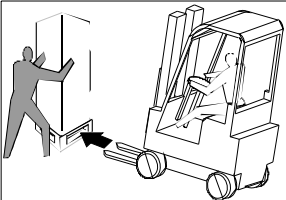
On receiving and after having unpacked in case of damages or missing pieces act as described in the chapter "GENERAL NOTES BY THE DELIVERY".

All setting up and starting operations are to be carried out by skilled staff.

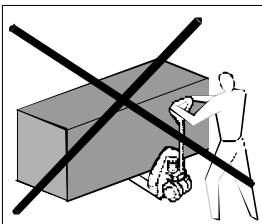
WARNING: package parts (plastic bags, polystyrene foam, nails and the like) are dangerous for children and must not be left within their reach.

Lift the unit with a forklift and move it to its place of installation paying close attention that the load is well balanced.

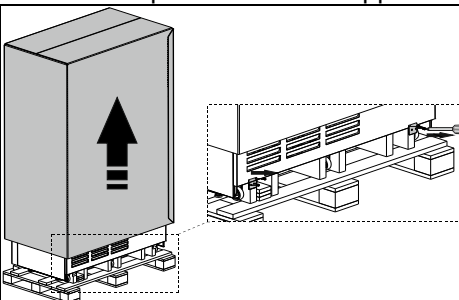
WARNING: overturning hazard: Never tilt the unit. During handling make sure that it is stabilised by qualified personnel.



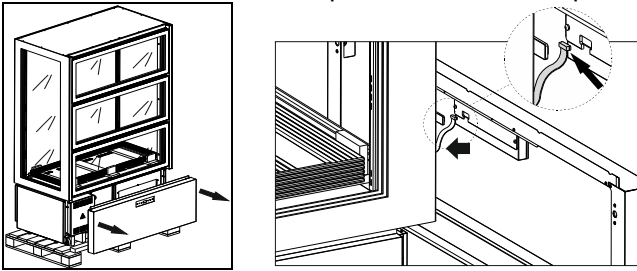
WARNING: never transport the unit in a horizontal position; such an operation could cause damage to the structure and or to the operational plant.



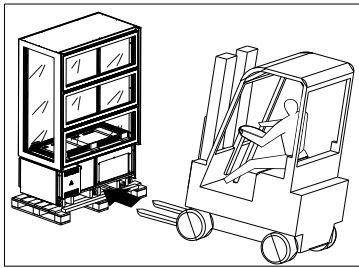
Once at the installation site, follow the instructions below.
Remove the packing box, adhesive tape and any styrofoam pieces.
Remove the plate behind the appliance.



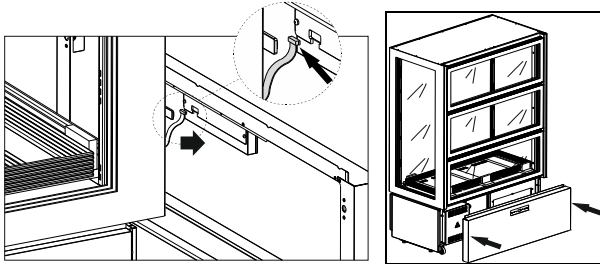
Remove the lower instrument panel, grasping it on the side, freeing it from the four retaining bolts. Remove the cable from the panel control board; position the instrument panel in a safe place.



With a forklift, lift the appliance, freeing it from the package base and bring it to the installation location, making sure that the load is balanced. Place the unit in its permanent location.



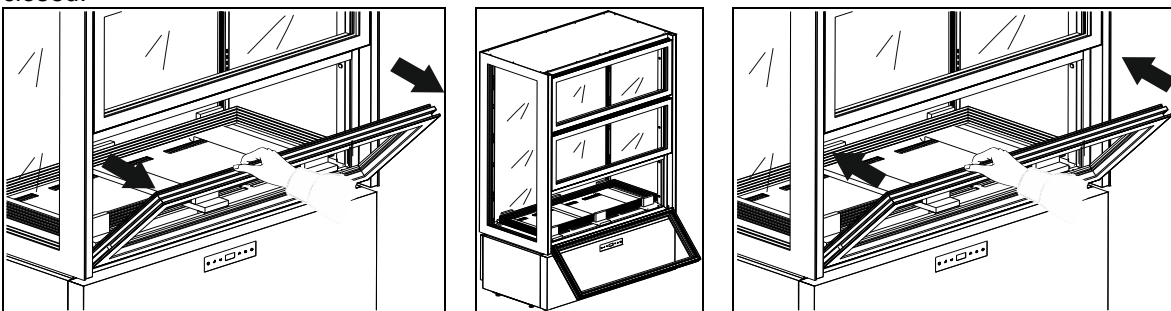
Replace the cable on the panel control board and the instrument panel.



The appliance is equipped with doors that open downward, equipped with gas springs which ensure closing in a controlled manner. In any case, always accompany the door with your hand when closing.

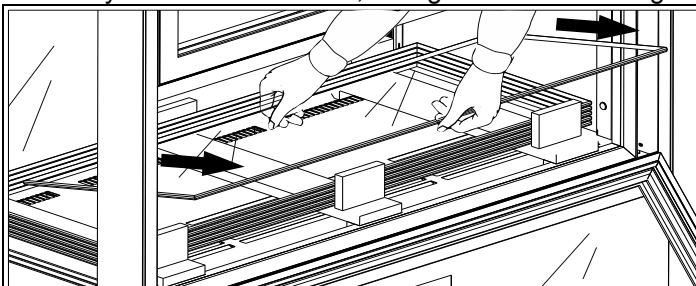
To lock the door in the open position, guide it to its fullest open position.

To close a door in the locked position, grasp the handle with your hand and accompany the door until it is closed.



Open the lower door and bring it to its locked position.

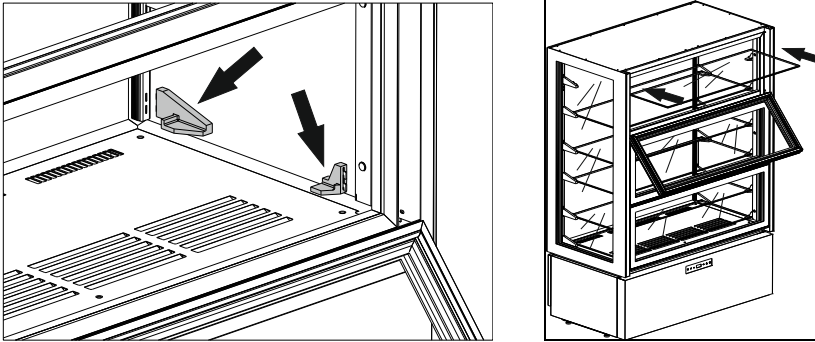
Delicately remove the shelves, taking care not to damage them. Position the shelves in a safe location.



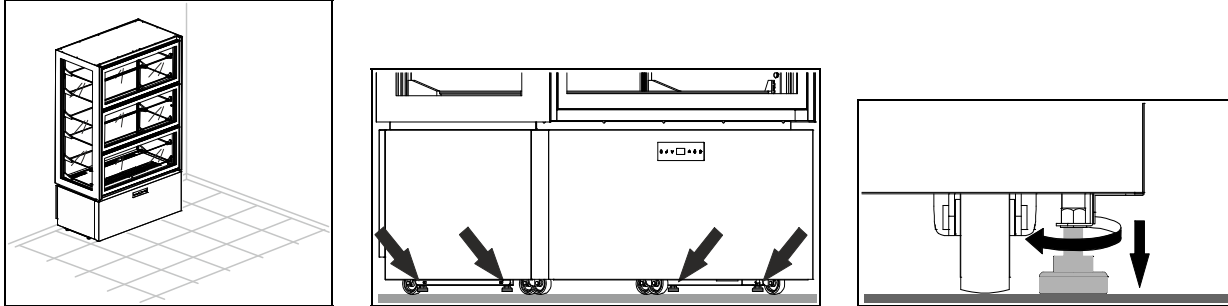
Remove the wooden and polystyrene parts inside the appliance.

To install the shelves, follow what is indicated below:

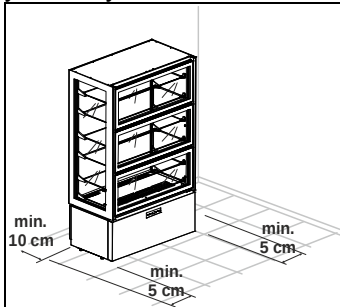
- Pre-assemble the shelf supports on the racks, taking care to properly position the rear supports (larger) and the front supports (smaller) at the same height.
- Make sure that the steel support hooks are inserted properly in the rack holes. To ensure proper support insertion, use a small hammer with a rubber head, if necessary.
- Insert the various shelves, making sure not to subject them to impact.



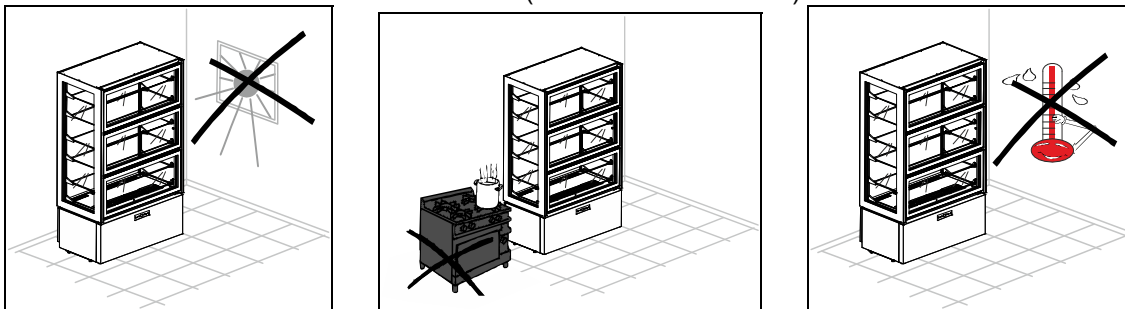
Adjust the leveller feet found under the unit so that it does not shift or rock.



WARNING: Position the unit at least 10 cm away from the rear wall. It is possible to place units side by side, yet in any case there must be at least 5 cm space between one unit and another.



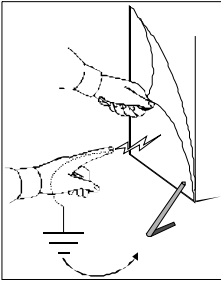
WARNING: Make sure that the unit is not exposed to direct sunlight, or any other sources of heat nor placed in environments with high temperatures; any of these would cause the unit to wear more quickly and perform poorly. The units have been declared to be in the 4 (T = 30° C U.R. = 55%) climate class.



Remove protective film from product.

This may cause unpleasant static electricity discharge which, however, is not dangerous.

The inconvenience is reduced or prevented by continuously holding the refrigerator with one hand or grounding the package.

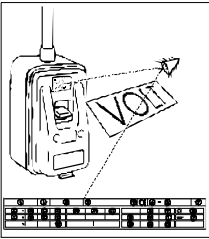


The electrical mains cables must be correctly sized and selected based on the installation conditions.

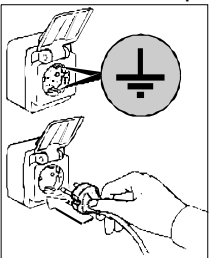
The +2°C/+10°C models have 3m of single phase cable (3G 1,5mm²) with a SCHUKO type plug.

The -20°C/+5°C models have 3,5m of single phase cable (3G 2,5mm²) without plug.

Check and verify that the line voltage corresponds to that found on the technical specifications plaque on the unit.



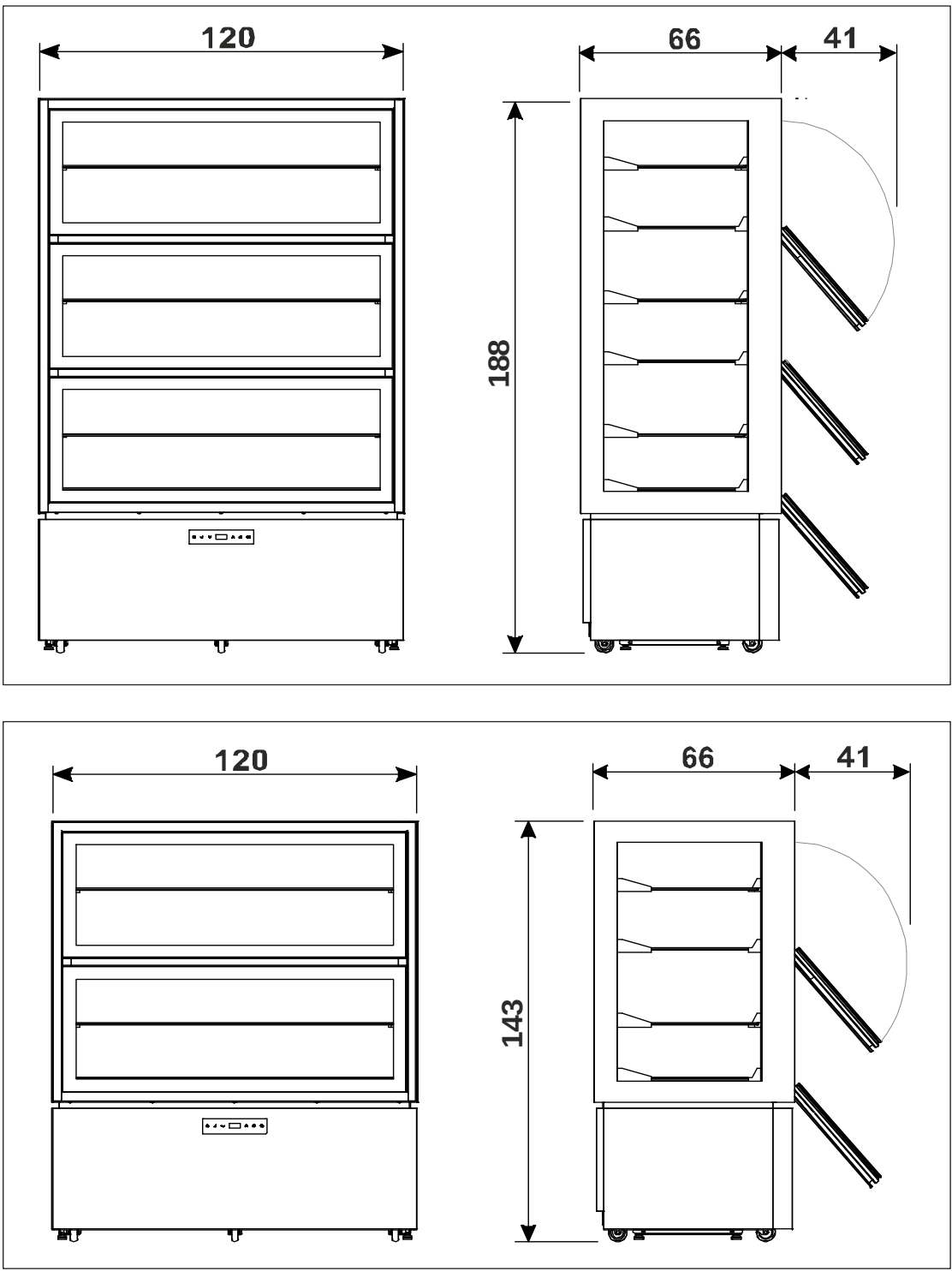
Then insert the plug into the current tap.



Now the installation has come to end.

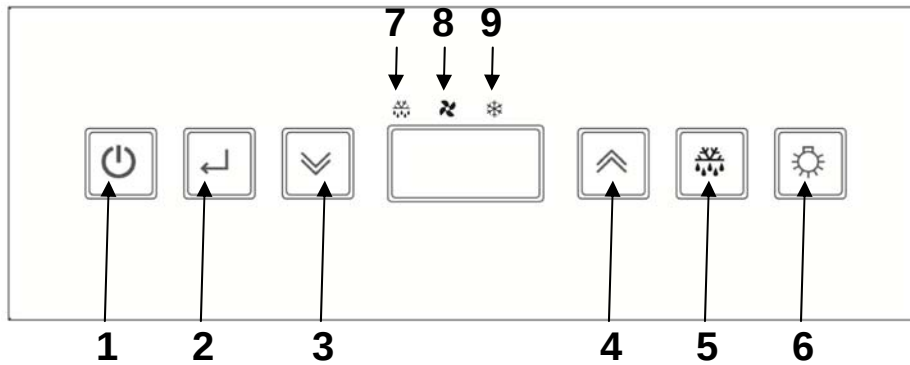
TECHNICAL SPECIFICATIONS

The dimensions of the units are found below.



CONTROL PANNELS

All of the units have the following control panel installed:



POS	DESCRIPTION
1	ON/SBY key
2	ENTER key
3	DOWN key
4	UP key
5	DEFROST key
6	LIGHT key
7	DEFROST ICON
8	FAN ICON
9	COMPRESSOR ICON

	ON/SBY key Press this key for 3 seconds and release it as the display shows the [Sby] to set the appliance to the stand-by mode (Backlighting activated). When holding device in stand-by pressed [the display shows Sby], the controller turns on (Backlighting deactivated).
	ENTER key Press and release this key to check/change the appliance temperature setpoint; during operations the above mentioned backlighting is flashing.
	UP and DOWN keys These keys allow to increase or decrease the value of the parameter to be changed (the backlighting is flashing during these operations). Pressed and released enable the visualisation of the minimum and maximum temperatures recorded (if available) and any active alarms (the backlighting is flashing during these operations) The button, held down for a period exceeding 3 seconds, allows the modification of the chamber humidity settings (backlighting flashing). Pressed at the same time for a time greater than 3 seconds enables the selection of the keyboard lock or entry into parameter configuration by way of the confirmation with the button.
	DEFROST key Pressed for a time greater than 3 seconds activates / deactivates the manual defrost (the backlighting is activated during these operations)
	LIGHT key Pushed and released allows the activation or the deactivation of the unit's interior illumination (backlighting ON with light ON, backlighting OFF with light OFF), independent of the status in which the button might be.
	DEFROST ICON <i>Led on:</i> defrost in progress <i>Led blinking:</i> defrost activation delay or dripping in progress <i>Led blinking at high frequency:</i> alarm memorized
	FAN ICON <i>Led on:</i> room fans activated <i>Flashing LED:</i> ventilator activation delay
	COMPRESSOR ICON <i>Led on:</i> compressor activated <i>Led blinking:</i> compressor activation delay

TEMPERATURE SETPOINT SETTING/VARIATION

	Press and release the key <u>enter</u> : the current setpoint blinks on the display for 5 seconds. After 5 seconds, the displays shows the room temperature again
	While the display is blinking, use the <u>up</u> and <u>down</u> keys to increase or decrease the temperature setpoint
	Press the <u>enter</u> button again to confirm the new set point: the acquisition of the new value is signalled by an acoustic emission of 3 short consecutive beeps. The display returns to the indication of the temperature in the cell.

SMART FUNCTIONS – Quick-access functions

FORCED MANUAL DEFROST

	Push the <u>defrost</u> button for more than 3 seconds to access the manual defrost functions. With the defrost in progress press the button again for a period greater than 3 seconds to end the defrost phase.
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CHANGE IN RELATIVE HUMIDITY +2°C/+10°C and -20°C/+5°C

	Push the <u>down</u> button, hold down for more than 3 seconds to modify the percentage of relative humidity in the chamber. The temporary flashing confirmation label [F_C] corresponds to a too low relative humidity (fans in parallel with the compressor). The flashing temporary confirmation label [F_] corresponds to a too high relative humidity (fans independent). The relative humidity that blinks on the temporary label [FtE] is programmed by the manufacturer.
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BLOCKIEREN DER TASTATUR

	Push the <u>up</u> and <u>down</u> buttons simultaneously and hold down for more than 3 seconds. The label [Loc] is visualised.
	Push the <u>enter</u> to confirm the choice and activate the function. After 30 seconds if not confirmed the program exits the function. To unlock the keyboard it is necessary to press the   buttons simultaneously for more than 3 seconds: in confirmation of the operation on the display the message [UnL] appears, flashing, accompanied by 3 short beeps of the buzzer. Immediately afterwards, the display returns to the indication of the temperature in the cell. With the keyboard locked, pressing any button, the instrument emits a long beep indicating the [Loc] message on the display.

PROBE READING MANUAL PRINTING: Coupled with the TSP print terminal

 	Push the <u>up</u> and <u>down</u> buttons simultaneously and hold down for more than 3 seconds. The label [Loc] is visualised.
 	Use the <u>up</u> and <u>down</u> buttons to visualise the [Prt] function.
	Push the <u>enter</u> to confirm the choice and activate the function. <i>After 30 seconds, if not confirmed, the program exits the function.</i>

PARAMETER CONFIGUTATION

 	Push the <u>up</u> and <u>down</u> buttons simultaneously and hold down for more than 3 seconds. The label [Loc] is visualised.
 	Use the <u>up</u> and <u>down</u> keys to display the function [Par].
	Press the <u>enter</u> key to enter the parameter configuration mode. <i>After 30 seconds if not confirmed the program exits the function.</i> Enter the password to gain access. The display shows the password setting mode [00]
 	Use the <u>up</u> and <u>down</u> keys to select the password “65”
	Press the <u>enter</u> key to confirm your selection. If the password is correct, the display shows the first parameter in the configuration list.
 	Use the <u>up</u> and <u>down</u> keys to scroll the controller parameters
	Press the <u>enter</u> key to confirm your selection. The current value of the parameter selected in flashing mode is visualised.
 	Use the keys <u>up</u> and <u>down</u> to select the new value
	Press the <u>enter</u> key to confirm your selection.

PARAMETERS OF CONFIGURATION

“UNITS +2°C/+10°C”

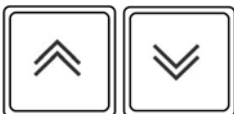
Parameter	Description	Default	min	MAX
MEASUREMENT INPUTS				
/1	Room probe calibration (the parameter is expressed in eighths of degree)	-4°C	-40	+99
/3	condenser probe activation (0=off; 1=on)	1	0	1
/6	digital input configuration (0 = open contact, 1 = closed contact)	1	0	1
/7	door open alarm delay time (0 = excluded)	120 sec	0	255
Pr	room probe reading	- °C	-	-
Pc	condenser probe reading	- °C	-	-
COMPRESSOR ADJUSTMENT				
r0	adjuster hysteresis (differential)	+3°C	1	15
r1	min. operating setpoint selectable	+2°C	-40	r2
r2	max. operating setpoint selectable	+10°C	r1	+99
COMPRESSOR PROTECTION				
C0	compressor activation delay from device start	1 min	0	240
C2	min. delay between compr. stop and subsequent start	3 min	0	240
C5	compressor start cycle time in the event of room probe alarm	10 min	1	240
C6	C5 % where compr. starts in the event of room probe alarm	50 %	0	100
DEFROST				
d0	defrost interval (0= excluded)	6 hours	0	99
d3	max. defrost duration (0= defrost never activated)	20 min	0	99
d6	defrosting display (0=actual cell temperature, 1=stopped cell temperature, 2=dEF label)	1	0	2
dE	defrost interval count: 0= actual hours; 1=hours comp. ON; 2= autodeterm.	0	0	1
ALARMS				
A0	alarm hysteresis (differential)	+2 °C	1	15
A1	min. operating setpoint alarm (0= excluded)	-2 °C	-40	0
A2	max. operating setpoint alarm (0= excluded)	+15 °C	0	+99
A3	alarm exclusion from device start	120 min	0	240
A4	buzzer activation mode for alarm : 0= always; 1= timer-controlled	1	0	1
A5	time limit for buzzer acoustic signal (only if A4 = 1)	1 min	0	240
A6	temperature alarm exclusion time (only if A1 and/or A2 ≠0)	15 min	0	240
EVAPORATOR FAN ADJUSTMENT				
F3	evaporator fan func. during regular operation (0=OFF; 1=ON; 2=parallel with compressor)	1	0	2
F6	temperature below which the condenser fan turns off	20°C	-40	+99
F7	condenser fan differential (relating to F6)	+3°C	1	25
F8	condenser fan func. during regular operation (0=parallel with compr.; 1=ON); also refer to F6 and F7	1	0	1
FA	critical temperature for signalling high condensation temperature	+52°C	-40	+99
Fb	critical temperature for high pressure alarm	+57°C	-40	+99
PRINT				
P0	Configuration parameters printing enable (0 = disabled)	1	0	1
P1	Sampling time (see also parameter P6)	60 min	1	60
P2	Selection of temperature probe to be printed (0 = none, 1=chamber probe, 2 = chamber and evaporator probe)	1	0	2
P3	Payslip heading selection (0 =excluded, 1 = BTV Display Case, 2 = BTS Display Case)	1	0	2
P4	Equipment identification number printing enable (0 = no, 1= yes)	1	0	1
P5	Selection of language for payslip heading (1=Italian, 2=English, 3=French, 4=Spanish, 5=German)	1	-1	5
P6	Selection of unit of measure for sampling time (1 = minutes, 2 =hours)	1	1	2
COMMUNICATIONS MANAGEMENT				
L1	Instrument address (date detected in printing phase if P4 = 1)	1	0	255
L2	Serial port management (o = not utilised, 1 = print)	1	0	1
L3	Baud Rate data transmiss. (1=2400, 2=4800, 3=9600, 4=18200)	3	1	4
L4	Transmission control mode (0 = no parity, 1 = odd, 2 = even)	0	0	2

“UNITS -20°C/+5°C”

Parameter	Description	Default	min	MAX
MEASUREMENT INPUTS				
/1	Room probe calibration (the parameter is expressed in eighths of degree)	-8°C	-40	+99
/2	evaporator probe activation (0=off;1=on)	1	0	1
/3	condenser probe activation (0=off; 1=on)	1	0	1
/6	digital input configuration (0 = open contact, 1 = closed contact)	1	0	1
/7	door open alarm delay time (0 = excluded)	120 sec	0	255
/A	setpoint attivazione resistenza porta (solo se /9 = 0)	-2°C	-40	+99

/b	door resist. activation adjustment hysteresis (only if /9 =0)	2°C	1	15
/E	Sensor probe visualisation management (0 = normal, 1 = limited from above r0)	1	0	1
Pr	room probe reading	- °C	-	-
Pd	defrost/evaporator probe reading	- °C	-	-
Pc	condenser probe reading	- °C	-	-
COMPRESSOR ADJUSTMENT				
r0	adjuster hysteresis (differential)	+3°C	1	15
r1	min. operating setpoint selectable	-20°C	-40	r2
r2	max. operating setpoint selectable	+5°C	r1	+99
COMPRESSOR PROTECTION				
C0	compressor activation delay from device start	1 min	0	240
C2	min. delay between compr. stop and subsequent start	3 min	0	240
C5	compressor start cycle time in the event of room probe alarm	10 min	1	240
C6	C5 % where compr. starts in the event of room probe alarm	70 %	0	100
DEFROST				
d0	defrost interval (0= excluded)	4 hours	0	99
d1	defrost type (0= resistance, 1= hot-gas)	1	0	1
d2	end-of-defrost temp. (relating to evaporator temper.)	+12 °C	-40	+99
d3	max. defrost duration (0 = the defrosting function will not start; 255 = the defrosting function will go on continuously)	20 min	0	255
d6	defrosting display (0=actual cell temperature, 1=stopped cell temperature, 2=dEF label)	1	0	2
d7	dripping time	4 min	0	15
dE	defrost interval count: 0= actual hours; 1=hours comp. ON; 2= autodeterm.	1	0	1
ALARMS				
A0	alarm hysteresis (differential)	+2 °C	1	15
A1	min. operating setpoint alarm (0= excluded)	-2 °C	-40	0
A2	max. operating setpoint alarm (0= excluded)	+15 °C	0	+99
A3	alarm exclusion from device start	120 min	0	240
A4	buzzer activation mode for alarm : 0= always; 1= timer-controlled	1	0	1
A5	time limit for buzzer acoustic signal (only if A4 = 1)	1 min	0	240
A6	temperature alarm exclusion time (only if A1 and/or A2 ≠0)	15 min	0	240
A7	temp. alarm exclusion time after evap. stop (for A1 and/or A2 ≠0)	60 min	0	240
EVAPORATOR FAN ADJUSTMENT				
F1	temper. above which the evap. fan stops (only if /A = 1 and F7 = 3 or 4)	-1°C	-55	+99
F2	fan differential (relating to F1, only if /A = 1 and F7 = 3 or 4)	+2°C	1	15
F3	evaporator fan func. during regular operation (0=OFF; 1=ON; 2=parallel with compressor; 3=determined by F1 and F2 with comp. ON and OFF with comp. OFF)	1	0	4
F4	evap. vent. operation during defrost and dripping (0= OFF, 1= ON, 2= determ. with F7)	0	0	2
F5	evaporator fan stop after dripping	3 min	0	15
F6	temperature below which the condenser fan turns off	20°C	-40	+99
F7	condenser fan differential (relating to F6)	+3°C	1	25
F8	condenser fan func. during regular operation (0=parallel with compr.; 1=ON); also refer to F6 and F7	0	0	1
F9	condenser fan func. during defrost and dripping (0=OFF; 1=ON, 2=ON if Tc≥26°C and OFF if Tc<25°C)	2	0	2
FA	critical temperature for signalling high condensation temperature	+38°C	-40	+99
Fb	critical temperature for high pressure alarm	+40°C	-40	+99
PRINT				
P0	Configuration parameters printing enable (0 = disabled)	1	0	1
P1	Sampling time (see also parameter P6)	60 min/hours	1	60
P2	Selection of temperature probe to be printed (0 = none, 1=chamber probe, 2 = chamber and evaporator probe)	1	0	2
P3	Payslip heading selection (0 =excluded, 1 = BTV Display Case, 2 = BTS Display Case)	1	0	2
P4	Equipment identification number printing enable (0 = no, 1= yes)	1	0	1
P5	Selection of language for payslip heading (1=Italian, 2=English, 3=French, 4=Spanish, 5=German)	1	-1	5
P6	Selection of unit of measure for sampling time (1 = minutes, 2 =hours)	1	1	2
COMMUNICATIONS MANAGEMENT				
L1	Instrument address (date detected in printing phase if P4 = 1)	1	0	255
L2	Serial port management (0 = not utilised, 1 = print)	1	0	1
L3	Baud Rate data transmiss. (1=2400, 2=4800, 3=9600, 4=18200)	3	1	4
L4	Transmission control mode (0 = no parity, 1 = odd, 2 = even)	0	0	2

USER PARAMETER CONFIGURATION - PROBE READING

	Push the <u>up</u> and <u>down</u> buttons simultaneously and hold down for more than 3 seconds. The label [Loc] is visualised.
	Utilise the <u>up</u> and <u>down</u> buttons to scroll the sensor probe readings and the user parameters.
	Press the <u>enter</u> key to confirm your selection and enter the mode for reading probes or changing parameters. The current value blinks on the display.
	Use the keys   to select the new value, applicable to parameters only.
	Press the <u>enter</u> key to exit or confirm the selection of the parameter new value; the setting stops blinking.

DEFAULT PARAMETER RECOVERY

Information accessible to qualified staff only.

	On starting the appliance, a “LAMPTEST” phase will start. If you press the <u>enter</u> key 3 times consecutively during this phase, all default parameters will be reset. The display shows [rLd] indicating the reset of the values pre-set by the manufacturer.
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ATTENTION: the default values in memory refer to the configurations (**tn**, **bt**) exclusively.

ALARMS

UNIT WITH BROKEN SENSOR PROBES DURING CONSERVATION

Room probe error

If the room probe is broken or the relevant connection interrupted, the display shows the label [**E0**].

The appliance keeps operating in storing according to the values given to parameters **C5** and **C6**.

The inner fan keeps operating according to the value given to “**F3**”

Evaporator fan error (only on -20°C / +5°C units)

If the room probe is broken or the relevant connection interrupted, the display shows the label [**E1**].

The inner fan operates according to the value given to parameter “**F3**”.

*Note: if both of the sensor probes are broken or disconnected **E0** and **E1** will be visualised sequentially on the display.*

Condenser probe error

If the condenser probe is broken or the relevant connection interrupted, the display shows the label [**E2**].

The condenser fan keeps operating according to the value given to parameter “**F8**”.

*If the three probes are broken or disconnected, **E0**, **E1**, and **E2** alternate on the display.*

UNIT WITH BROKEN SENSOR PROBES DURING DEFROST

Room probe error

In the event that the chamber sensor probe is broken or the respective connection has been interrupted during the defrost phase the function will be completed normally.

The string set with the parameter “**d6**” and the label [**E0**] will be visualised alternatively on the display.

Condenser probe error

If the condenser probe is broken or the relevant connection interrupted, the display shows the label [**E2**].

The condenser fan keeps operating according to the value given to parameter “**F8**”.

*If the three probes are broken or disconnected, **E0**, **E1**, and **E2** alternate on the display.*

HIGH TEMPERATURE ALARM

	If the room temperature exceeds the setpoint, the label [AH] and the temperature reached alternate on the display. Press <u>up</u> to display the duration of the event causing the alarm.
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The buzzer may be silenced by pressing the button 

The visual alarm signal stays on until the temperature returns within the normal range.

LOW TEMPERATURE ALARM

	If the room temperature is below the setpoint, the label [AL] and the temperature reached alternate on the display. The buzzer sounds. Press <u>down</u> to display the duration of the event causing the alarm.
--	--

The buzzer may be silenced by pressing the button 

The visual alarm signal stays on until the temperature returns within the normal range.

HIGH AND LOW TEMPERATURE ALARMS MEMORIZED

	The defrost led blinking at high frequency indicates high or low temperature alarm.
	Pushing the <u>enter</u> button the type of alarm recorded will be visualised on the flashing display.
	Pushing the <u>enter</u> button the critical temperature recorded will be visualised on the flashing display.
	Pushing the <u>enter</u> button the time duration of alarm event, expressed in minutes, will be visualised on the flashing display.
	Pushing the <u>enter</u> button the operation of the defrost LED will be reset to its normal state. The display shows [rES] after the abnormal event.

In the event that another alarm event were to occur, for high or low temperature, if the information relative to the preceding anomaly hasn't been visualised by the operator, this latter will be overwritten by the more recent data.

If the high temperature alarm is on, the compressor keeps working; if the low temperature alarm is on, the compressor stops.

! If the card is set to the stand-by mode, the min. / max. temperature memorized and any alarms will not be saved.

BLACKOUT ALARM

	The defrost led blinking at high frequency indicates a blackout
	Pushing the <u>enter</u> button the [bLO] label will be visualised on the display.
	Pushing the <u>enter</u> button the maximum temperature recorded in the chamber will be visualised on the display.
	Pushing the <u>enter</u> button the defrost led is reset to standard operation. The display shows [rES] after the abnormal event.

OPEN DOOR ALARM

In case of door open the display visualises the message [dA] alternating with the current visualisation whilst the buzzer sounds the event with a beep of five seconds repeated every 10.

The alarm will reset upon the closure of the door and is registered in memory (high frequency flashing defrost LED).

HIGH CONDENSATION TEMPERATURE ALARM

If the condensation temperature is too high, due to dirty condenser, the label [HtC] and the room temperature alternate on the display.
The buzzer sounds.

The buzzer can be turned off by pressing the key



The visual warning signal stays on until the condensation temperature returns to normal range.

HIGH PRESSURE ALARM

If the refrigerating appliance pressure is above the specified limit, the label [HP] and the room temperature alternate on the display.
The buzzer sounds.

The buzzer can be turned off by pressing the key



The visual warning signal stays on until the card is set to stand-by.

! If the problem causing the alarm reoccurs on restarting the system, the signal [HP] will be displayed again.

In this case, all the relay outputs are de-activated except the condenser fan output.

DEFROSTING

Defrost may be either **manual** type or **automatic** type.

Manual defrost

	Push the button <u>defrost</u> for 4 sec seconds to immediately activate the defrost cycle. Just before the defrosting process begins, the temperature of the blocked cell is displayed.
---	---

The defrosting process can be stopped manually by pressing the  key again for 4 seconds. When the process is stopped, a signal blinks on the label display [ndF].

Automatic defrost

Automatic defrost is started during the conservation phase and is regulated by the card set-up.

The defrosting process can be stopped manually by pressing the "up" key again for 4 seconds. When the process is stopped, a signal blinks on the label display [ndF].

STOPPING

Press this key  for 3 seconds and release it as the display shows the [Sby] to set the appliance to the stand-by mode.

WARNING: the main switch  DOES NOT insulate the machine from the electric current.

Set the general cut-out in OFF position.

To isolate the unit from electrical tension disconnect its plug from the outlet.

WORKING IRREGULARITIES

In case of working irregularities, before to call the technical service in zone verify that:

- the main switch  is lighting and the current is present;
- the regulated temperature is the wished one;
- that the door is perfectly closed;
- the machine is not near heat sources;
- the condenser is clean and the fan works regularly;
- an excess of hoarfrost does not cover the evaporating pannel.

In case of negative result, contact the nearest service centre indicating the model and the serial number shown on the rating placed on the appliance instrument panel.

DAILY CLEANING

To guarantee perfect hygiene and conservation of the unit it is well to carry out regular and/or daily cleaning operations.

Avoid using abrasive creams or stainless steel wool pads, acetone, chlorylene or ammonia.

Use only a solution of water and bicarbonate.

Any food stains or residue on the outside surface should be removed with water before they harden.

If residues are already hardened used a sponge soaked in a solution of water and bicarbonate.

Daily cleaning of all inside surfaces of the appliance is recommended.

Clean the shelves and the interior of the unit with a lightly dampened cloth.

The space around and under the refrigerator must also be cleaned and held in perfect hygiene.

Clean using water and neutral soap or detergent.

GENERAL CLEANING AND MAINTENANCE

For regular and constant service of the unit it would be well to regularly carry out general cleaning and maintenance operations.

WARNING: The cleaning and mantainance of the refrigerating engine and the compressor area needs the intervention of a skilled technician, therefore it cannot be done by other persons.

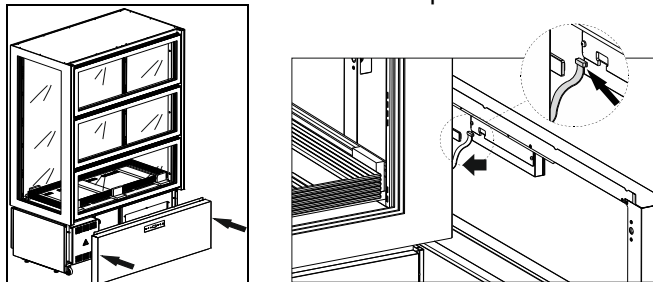
Clean the exterior and interior surfaces with soap or a neutral detergent and water: a little vinegar added to the water will eliminate any eventual foul odours.

Before to begin with the operations proceed as following:

- set the general cut-out in OFF position;
- remove the plug from the socket and wait till the complete entfrostring of the unit.

To access the condenser it is necessary to remove the front dashboard:

1. Remove the lower instrument panel, grasping it on the side, freeing it from the four retaining bolts
2. Remove the cable from the panel control board



WARNING: to assure a regular use of the machine it is necessari to clean the copper-alluminium condensator at least every 30 days.

Accurately clean the condenser in the refrigerating unit and the inner evaporator with either a vacuum cleaner, a bristle brush or a non-wire brush after removing the protections.

The cleaning and mantainance operations have now come to end.

USAGE INTERRUPTIONS

In case of longer inactivity of the refrigerator and for maintaining it in the best state act as following:

- set the general cut-out in OFF position.
- remove the plug from the socket.
- empty the refrigerator and clean it as described In the chapter "CLEANING".
- let the door open to avoid the forming of bad smell.

MALFUNCTIONING

Malfunctioning during operation is often due to banal causes , which may nearly all be resolved without the help of a specialised technician. Consequently, before getting in touch with a service centre, check the following:

PROBLEM	POSSIBLE CAUSES
The appliance does not start	Check that the plug is properly inserted into the socket.
	Check that there is voltage at the socket
The internal temperature is too high	Check the electronic card adjustment
	Check for a heat source in the vicinity
	Check that the door closes properly
The appliance is excessively noisy	Check that the appliance is standing level. A lopsided appliance could set off vibrations
	Check that the appliance is not touching other appliances or parts which could resonate
Some condensation is produced on the appliance	Room humidity is very high
	The door is not closed properly

Upon completion of the above checks, if the fault persists, contact an authorised service centre. Always indicate:

- the nature of the fault
- the model and the serial number of the unit can be found on the electrical specifications plaque, located on the unit's instrument panel.

WASTE DISPOSAL AND DEMOLITION

WASTE STORAGE

At the end of the product life, avoid release to the environment. The doors should be removed before disposal.

Temporary storage of special waste is permitted while waiting for disposal by treatment and/or final collection. Dispose of special waste in accordance with the laws in force with regard to protection of the environment in the country of the user.

PROCEDURE FOR ROUGH DISMANTLING THE APPLIANCE

All countries have different legislation; provision laid down by the laws and the authorised bodies of the countries where the demolition takes place are therefore to be observed.

A general rule is to deliver the appliance to specialised collection and demolition centres. Dismantle the refrigerator grouping together the components according to their chemical nature. The compressor contains lubricating oil and refrigerant, which may be recycled. The refrigerator components are considered special waste, which can be assimilated with domestic waste.

Make the appliance totally unusable by removing the power cable and any door locking mechanisms in order to avoid the risk of anyone being trapped inside.

DISMANTLING OPERATIONS SHOULD BE CARRIED OUT BY QUALIFIED PERSONNEL.

THE SAFE DISPOSAL OF WASTE FROM ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE DIRECTIVE 2002/96/EC)

Do not dump pollutant material in the environment. Dispose of it in compliance with the relevant laws.

Under the WEEE (Waste Electrical and Electronic Equipment) Directive 2002/96/EC, when scrapping equipment the user must dispose of it at the specific authorised disposal centres, or reassign it, still installed, to the original seller on purchase of new equipment.

All equipment which must be disposed of in accordance with the WEEE Directive 2002/96/EC is marked with

a special symbol .

The improper disposal of Waste Electrical and Electronic Equipment is liable to punishment under the relevant laws in the countries where the offence is committed.

Waste electrical and Electronic Equipment may contain hazardous substances with potential harmful effects on the environment and human health. You are urged to dispose of them properly.

REFRIGERANT MATERIAL SAFETY DATA SHEET

1) R404a: fluid components

- | | | |
|---------------------|------------|-----|
| • trifluoroethane | (HFC 143a) | 52% |
| • pentafluoroethane | (HFC 125) | 44% |
| • tetrafluoroethane | (HFC 134a) | 4% |

GWP = 3750

ODP = 0

2) Hazard identification

Overexposure through inhalation may cause anaesthetic effects. Acute overexposure may cause cardiac rhythm disorders and sudden death. Product mists or sprays may cause ice burns of eyes and skin.

3) First aid procedures

- Inhalation:

keep injured person away from exposure, warm and relaxed. Use oxygen, if necessary. Give artificial respiration if respiration has stopped or is about to stop. In case of cardiac arrest give external cardiac massage. Seek immediate medical attention.

- **Skin:**
use water to remove ice from affected areas. Remove contaminated clothes.
CAUTION: clothes may adhere to skin in case of ice burns.
In case of contact with skin, wash with copious quantities of lukewarm water. In case of symptoms (irritation or blisters) seek medical attention.
- **Eyes:**
immediately wash with ocular solution or fresh water, keeping eyelids open for at least 10 minutes. Seek medical attention.
- **Ingestion:**
it can cause vomit.. If conscious, rinse mouth with water and drink 200-300 ml of water. Seek medical attention.
- **Other medical treatment:**
symptomatic treatment and support therapy when indicated. Do not administer adrenaline or sympathetomimetic drugs after exposure, due to the risk of arrhythmia and possible cardiac arrest.

4) Environmental data

Persistence and degradation

- **HFC 143a:**
slow decomposition in lower atmosphere (troposphere). Duration in atmosphere is 55 years.
- **HFC 125:**
slow decomposition in lower atmosphere (troposphere). Duration in atmosphere is 40 years.
- **HFC 134a:**
relatively rapid decomposition in lower atmosphere (troposphere). Duration in atmosphere is 15.6 years.
- **HFC 143a, 125, 134a:**
does not affect photochemical smog (not included in volatile organic components – VOC – as established in the UNECE agreement). Does not cause ozone rarefaction.
Product exhausts released in the atmosphere do not cause long-term water contamination.

The instruction handbook contains a wiring diagram on the last page

Pos	DESCRIPTION	Pos	DESCRIPTION
1	COMPRESSOR	44	RELAY COMPRESSOR
2	COMPRESSOR FAN	69	GROUNDING TERMINAL
3	GENERAL TERMINAL BOARD	70	COLD DELIVERY SOLENOID VALVE
8	PLUG	70A	WARM DELIVERY SOLENOID VALVE
9	EVAPORATOR FUN	76	MAGNETIC MICRO-SVITCH
12	SOLENOID VALVE DEFROSTING	103	HUMIDITY SENSOR
20	DOOR ANTICONDENSING RESISTOR	119	TN DISPLAY CASE ELECTRONIC DATA CARD
20A	SIDE GLASS ANTICONDENSATION RESISTANCE HEATER	120	BT DISPLAY CASE ELECTRONIC DATA CARD
20B	SIDE GLASS ANTICONDENSATION RESISTANCE HEATER	121	LED SWITCHING POWER SUPPLY
20C	REAR GLASS ANTICONDENSATION RESISTANCE HEATER	122	LED LAMPS
20D	SECTION ANTICONDENSATION RESISTANCE HEATER	122A	TOP LED LAMPS
22	RESISTANCE FOUND BASIN	125	ELECTRONIC DATA CARD PRALINERY DISPLAY CASE
22A	RESISTANCE HEATER EXHAUST PIPE	126	CAPACITIVE BUTTONS DISPLAY BOARD