ΣΗΜΕΙΩΣΕΙΣ

ENGLISH (UK/US)

FOREWORD

Before installing the appliance, please read this instruction booklet carefully since there are some important recommendations concerning safety operations for installation, use and maintenance. This booklet contains information about different models of refrigerators, so you may read about technical features that do not apply to your model. Keep this booklet and refer to it for any further operations.

USE AND RESTRICTIONS

This appliance is designed for the refrigeration and preservation of food, meat, drinks and other products that require temperatures from -18 °C to +10 °C

The refrigeration system is ventilated for rapid cooling and even temperature distribution.

ATTENTION

These appliances are not suitable for operation in exterior spaces or in spaces that are affected by atmospheric factors (rain, sun, sea etc). You can not use the appliance in explosive use area and you can not store explosive materials, for example aerosol container..

The manufacturer has no responsibility in case of improper use of its products.

TEST

Our appliances are ready for use after having been tested first and having passed all the proportional tests (optical control, electric test, test of operation) successfully.

SAFETY NORMS – APPLIED MODELS

The appliance conform with the European Low Voltage Directive 2006/95/EC, and is designed, manufactured and tested, in conformity with the European standards EN 60335-1:2012 and EN 60335-2-89:2010.

MATERIALS and MANUFACTURE

The main parts of which the appliance is composed and come into contact with the products are manufactured from stainless steel AISI 304 18/10 or from non toxic plastic. Moreover, the refrigeration gas and the polyourethane that we use are in accordance with current legislation. All the internal corners (**series Modular**) are rounded throughout to meet the highest hygiene standards, to prevent the growth of microbes and to make cleaning easier. In addition, the doors have magnetic clipped gaskets with sanitary sides. The type of gas in the unit is indicated on the plate of technical characteristics.

INSTALLATION

Before unpacking the appliance, check that the packaging and any protective pieces are intact. Any damage should be immediately reported to the carrier. Under no circumstance should a damaged appliance be returned to the manufacturer without warning and without having the written approval of the constructor.

REMOVAL OF PACKING AND PLACING

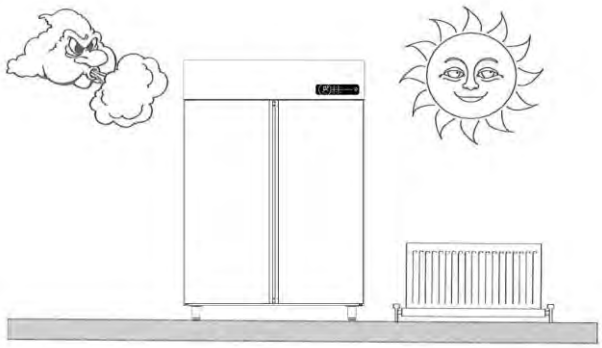
To avoid damage, the appliances should always be lifted in perpendicular position and always from the side that is indicated on the packaging (doors of refrigerator). Remove packaging carefully. With a fork-lift truck lift the appliance away from the wooden pallet, if it exists, making sure that the load is balanced. Remove the protective film very slowly, taking care not to scratch the surface if scissors or blades are used. If any glue remains on the steel surface, clean it thoroughly by using a non-corrosive solvent that is **special for the stainless steel.** Then, use a fork-lift truck to lift the appliance and take it to the place of installation.

DISPOSAL OF PACKAGING

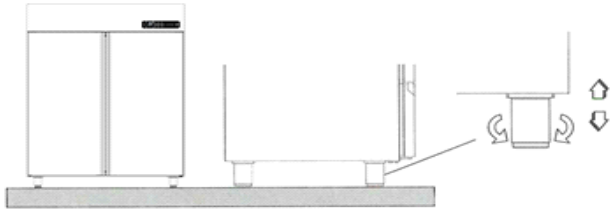
All packaging materials are environmentally friendly, and they can be used again. The materials should be disposed of in conformity with the laws and regulations in force in the country where the appliance is to be used.

LOCATION

Install the appliance in a well-ventilated room away from saline environment, sources of heat (radiators or air conditioning systems…) and protect it from direct sunlight, draft and salt.
For better operation of the refrigerator avoid placing it at rooms with ambient temperature less than +10 °C and more than +43 °C., and with relative humidity 40%. If the refrigerator should be very close to another heat unit it is recommended that an insulate material be placed between the two appliances to prevent malfunction.



The engine side and mainly the condensing unit must be free from anything that could obstruct good circulation of air around it, even temporarily, otherwise its operation and that of the appliance could be jeopardized.



Place the appliance on a flat surface and level it by using the heightadjustable feet. At the same time check that the doors and the drawers close properly.

Especially, the refrigerated counters for fishes, should have, the front legs adjusted 6-7mm higher so that the apply will always be leaned back, for better function

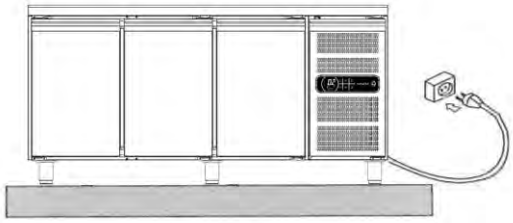
When the appliance has drawers, they should not all open at the same time, to prevent overturning.

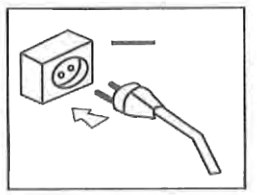
After the placement of the unit the electric cable should be accessible to the user.

As the operating temperature had been pre-set, allow the cabinet to reach its normal operating temperature before loading. Notice that the freezers are for conservation of frozen products AND NOT FOR FREEZING FRESH FOOD. To do that put one plate inside after the device reaches the desired temperature and after 5 hours put another one. Repeat until you install all your desired quantity

ELECTRIC CONNECTION

The refrigerator works on single phase supply voltage in a power point at 220V~,50Hz, by simply inserting the plug in a well grounded socket.
Before plugging the appliance let your qualified technician check the efficiency of the ground, the electric line and the safety standards.
Carefully check that the voltage and frequency of the electric line matches those indicated on the data plate. Then, to switch on the appliance, insert the plug into the mains socket, which should be accessible. To prevent accidents it is better not to use extensions and multi sockets.
The appliance now is activated and the temperature of the inside part of the refrigerator appears on the display of the electronic thermostat.





ATTENTION:THE MAXIMUM WATTAGE THAT ABSORTED FROM ELECTICAL NETWORK IS, FOR CONSERVATION REFRIGERATORS 2000 W AND FOR FREEZER REFRIGERATORS 3600 W
The constructor is not responsible for any damage to persons or things resulting from not following the electric safety standards

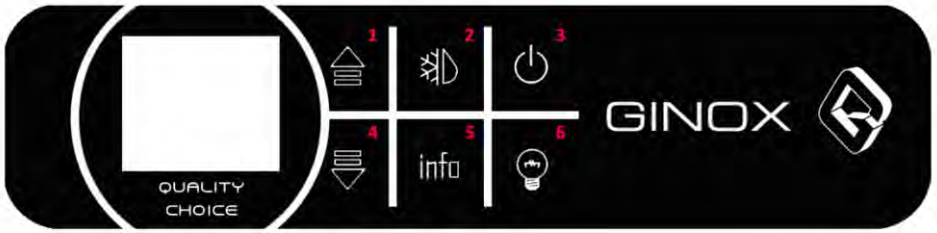
WATER CONNECTION

It does not need a water connection, because the appliance has a storage basin where the cell's water is collected and evaporated automatically

CONNECTION FOR MODELS WITHOUT COMPRESSOR

The models without compressor are not considered a complete appliance ready for use. It is up to the responsibility of your specialized technician the proper completion of the cooling and the and the electrical installation.

OPERATION



DESCRIPTION

The refrigerator is operated through a digital electronic thermostat which is composed of the following parts: the digital thermostat display, which shows the various appliance functions, the keyboard and the indicative lamps. For safety reasons, the keyboard is delivered locked and the parameters are already adjusted.

INDICATIONS

- Thermostat output Fan output
- Defrost output
- Activation of 2nd parameter set
- Alarm

Any change of the parameters can be programmed only by your technician.

DISPLAY

During normal operation, the display shows either the temperature measured or one of the following indications:

dEF	Defrost in progress	Condenser high pressure alarm	hP
oFF	Controller in stand-by	Room high temperature alarm	hI
cL	Condenser clean warning	Room low temperature alarm	Lo
do	Door open alarm	Probe T1 failure	E1
hc	Condenser high temperature alarm	Probe T2 failure	E2
		Probe T3 failure	E3
t1	Instant probe 1 temperature	Maximum probe 1 temperature recorded	tH
t2	* Instant probe 2 temperature	Minimum probe 1 temperature recorded	tLo
t3	* Instant probe 3 temperature	** Compressor working weeks	cnd
		Keypad state lock	Loc

: displayed only if enabled (see §Configuration Parameters) **: displayed only if* **ACC > 0

INFO button [5] Access to menu and information displayed

- Press and immediately release button [5]**.**
- With button [4] and [1] select the data to be displayed.
- Press button [5] to display value.
- To exit from the menu, press button [3] or wait for 5 seconds.

Reset of THI, TLO, CND recordings

- With button [4] and [1] select the data to be reset.
- Display the value with button [5].
- While keeping button [5] pressed, use button [3].

SETPOINT: display and modification

- Press button [1] or button [4] for at least half second; the display shows “set“ and then the setpoint value.
- By keeping button [5] pressed, use button [4] and [1] to set the desired value (adjustment is within the minimum **SPL** and the maximum **SPH** limit),
- When button [5] is released, the newly programmed value is stored and the following parameter is displayed.
- If we do not want to set a new SET POINT simply press the key [3] and go out of the general information menu.

ON/FF and STAND-BY button [3]

- Button **[3]** when pressed for 3 seconds, allows the controller to be put on a standby or output control to be resumed (with **SB**=YES only).

KEYPAD LOCK

The keypad lock avoids undesired, potentially dangerous operations, which might be attempted when the controller is operating in a public place. In the INFO menu, set parameter **LOC**=YES to inhibit all functions of the buttons. To resume normal operation of keypad, adjust setting so that **LOC**=NO

SELECTION OF SECOND PARAMETER GROUP

It's possible to select control parameters between two different pre-programmed groups, in order for the fundamental control parameters to be adapted quickly to changing needs. Changeover from Group **I** to Group **II** (and vice versa) may take place MANUALLY by pressing button **[6]** for 2 seconds (with **IISM**=MAN), or AUTOMATICALLY when ECO conditions are detected (with **IISM**=ECO), or when **IISM**=DI, **DxO**=IISM and the digital input is activated (the activation of DIx selects Group **II**, x=1,2,3). If **IISM**=NON, switchover to Group **II** is inhibited. The activation of Group **II** is signalled by the lighting up of the relevant LED on the controller display

DEFROST button [2]

Automatic defrost. Defrost starts automatically as soon as the time set with parameter **DFT** has elapsed.Noticed that for fish cabinets the defrost is made by electrical resistance

■ Timed defrost. With **DFM**=TIM defrosts take place at regular intervals when the timer reaches the value of **DFT**. For example, with **DFM**=TIM and **DFT**=06, a defrost will take place every 6 hours.

■ Optimized defrost. With **DFM**=FRO the timer is only increased when the conditions occur for frost to form on the evaporator, until the time set with parameter **DFT** is matched. If the evaporator works at 0°C, defrost frequency depends on the thermal load and climatic conditions. With setpoints much lower than 0°C, defrost frequency mainly depends on the refrigerator operating time.

■ Synchronised defrost. With **D3O**=DSY and when more units are linked to each other, synchronised defrosts of all linked controllers will take place. The first controller which will start defrost, will also get all other controllers synchronised.

■ Defrost time count backup. At the power-up, if **DFB**=YES, the defrost timer resumes the time count from where it was left off before the power interruption. Vice versa, with **DFB**=NO, the time count re-starts from 0. In stand-by, the accumulated time count is frozen.

Manual or remote defrost start. It's possible to manually start a defrost, by pressing button [6] for 2 seconds, or defrost may be started remotely, if **DxO**=RDS, through the activation of the auxiliary contact Dix.

Defrost type. Once defrost has started, Compressor and Defrost outputs are controlled according to parameter **DTY**. If **FID**=YES, the evaporator fans are active during defrost.

Defrost termination. The actual defrost duration is influenced by a series of parameters.

■ Time termination: **T2**=NO and **T3** different from 2EU: the evaporator temperature is not monitored and defrost will last as long as time **DTO**.

■ Temperature monitoring of one evaporator: **T2**=YES and **T3** different from 2EU. In this case, if the sensor T2 measures the temperature **DLI** before the time **DTO** elapses, defrost will be terminated in advance.

■ Temperature monitoring of two evaporators: **T2**=YES, **T3**=2EU, **AOx**=2EU. This function is for the control of two independent evaporators and it switches off the individual heating of the evaporator which gets to temperature **DLI** first, waiting for the second evaporator to get to that temperature before the time **DTO** elapses.

Resuming thermostatic cycle. When defrost is over, if **DRN** is greater than 0, all outputs will remain off for **DRN** minutes, in order for the ice to melt completely and the resulting water to drain. Moreover, if probe T2 is active (**T2**=YES), the fans will re-start when the evaporator gets to a temperature lower than **FDD**; Vice versa, if probe T2 is not active (**T2**=NO) or after defrost has come to an end, such condition does not occur by end of the time **FTO**, after **FTO** minutes have elapsed the fans will be switched on anyway.

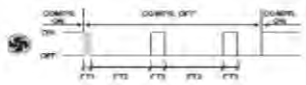
*Caution: if **DFM**=NON or **C-H**=HEA all defrost functions are inhibited; if **DFT**=0, automatic defrost functions are excluded. During a high pressure alarm, defrost is suspended. During defrost, high temperature alarm is bypassed.*

CONFIGURATION PARAMETERS

■ To get access to the parameter configuration menu, press button [3] and [6] for 5 seconds.
■ With button [4] and [1] select the parameter to be modified.
■ Press button [5] to display the value.
■ By keeping button [5] pressed, use button [4] and [1] to set the desired value.
■ When button [5] is released, the newly programmed value is stored and the following parameter is displayed.
■ To exit from the setup, press button [3] or wait for 30 seconds.

DIGITAL THERMOSTAT PARAMETERS

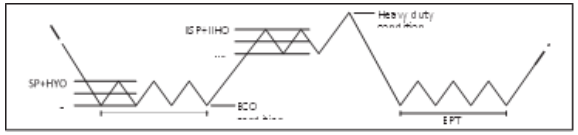
		POSITIVE / FREEZER		
Parameter		Description	GINOX setting Positive	GINOX setting Freezer
SPL	-50 ..SPH	Minimum limit for SP setting	---	-20°C
SPH	SPL ..110°	Maximum limit for SP setting.	---	+10°C
SP	SPL .. SPH	Setpoint (value to be maintained in the room).	+1°C Counters 0°C Cabinets -1°C Fish Cabinet	-18°C
C-H	REF; HEA	Refrigerating (REF) or Heating (HEA) control mode.	REF	REF
HYO	1 ..10°	Thermostat OFF -> ON differential.	+2°C Counters +3°C Cabinets	+2°C
HY1	0 ..10°	Thermostat ON -> OFF differential.	0°C	0°C
CRT	0 ..30min	Compressor rest time. The output is switched on again after CRT minutes have elapsed since the previous switchover. We recommend to set CRT=03 with HY0<2.0"	0min	1min
CT1	0 ..30min	Compressor/Heater output run when probe T1 is faulty. With CT1=O the output will always remain OFF.	4min	4min
CT2	0 ..30min	Compressor/Heater output stop when probe T1 is faulty. With CT2=0 and CT1>O the output will always be ON. Example: CT1=4, CT2= 6: In case of probe T1 failure, the compressor will cycle 4 minutes ON and 6 minutes OFF.	6min	6min
DFM Liquid	NON; TIM; FRO	Defrost start mode **NON**: defrost function is disabled *(the following parameter will be FCM)*. **TIM**: regular time defrost. **FRO**: the defrost time count is only increased when the conditions occur for frost to form on the evaporator (optimized time increase). If the evaporator works at 0°C, defrost frequency depends on the thermal load and climatic conditions. With setpoints much lower than 0°C, defrost frequency mainly depends on the refrigerator operating time.	FRO	FRO
DFT	0...99 hours	Time interval among defrosts. When this time has elapsed since the last defrost, a new defrost cycle is started. For example, with **DFM**=TIM and **DFT**=06, a defrost will take place every 6 hours.	6h	6h
DFB	NO/YES	Defrost timer backup. With DFB=YES, after a power interruption, the timer resumes the count from where it was left off with ±30 min. approximation. With DFB=NO, after a power interruption, the defrost timer will re-start to count from zero.	YES	YES
DU	-50 ...110°	Defrost end temperature.	+10°C	+10°C
DTO	1 ..120min	Maximum defrost duration	20min	20min
DTY	OFF; ELE; GAS	Defrost type **OFF**: off cycle defrost (Compressor and Heater OFF). **ELE**: electric defrost (Compressor OFF and Heater ON). **GAS**: hot gas defrost (Compressor and Heater ON).	OFF	ELE
DSO	OFF; LO; HI	Defrost start – thermostat cycle synchronization **OFF**: none. The defrost will occur without delay. **LO**: defrost start will be postponed to compressor cut-out (SOD = max delay). **HI**: defrost start will be postponed to compressor cut-in (SOD = max delay).	LO	LO
SOD	0 ..30 min	Timeout for defrost start – thermostat cycle synchronization. If 0, defrost will start immediately	0min	2min
DPD	0 ..240sec	Evaporator pump down. At the beginning of defrost, defrost outputs (determined by DTY) are OFF for DPD seconds.	0sec	15sec

DRN	0 ..30min	Pause after defrost (evaporator drain down time).	0min	3min
DDM	RT; LT; SP; DEF	Defrost display mode. During defrost the display will show: **RT**: the real temperature **LT**: the last temperature before defrost **SP**: the current setpoint value **DEF**: "dEF"	DEF	DEF
DDY	0 ..60min	Display delay. The display shows the information selected with parameter DDM during defrost and for DDY minutes after defrost termination	5min	5min
FD	NO/YES	Fans active during defrost.	YES	NO
FDD	-50 ...110°	Evaporator fan re-start temperature after defrost.	0°C	-10°C
FTO	0 ..120min	Maximum evaporator fan stop after defrost	0min	3min
FCM	NON; TMP; TIM	Fan mode during thermostatic control. **NON**: The fans remain ON all the time; **TMP**: Temperature-based control. The fans are ON when the compressor is ON. When the compressor is turned OFF, the fans remain ON as long as the temperature difference Te-Ta is greater than FDT. The fans are turned ON again with FDH differential. (Te = Evaporator temperature, Ta = Air temperature). **TIM**: Timed-based control. The fans are ON when the compressor is ON. When the compressor is OFF, the fans switch ON and OFF according to parameters FT1, FT2, FT3 (See Fig.2)  *Fig.2 Time-optimized fan control (FCM=TIM)*	TMP	TMP
FDT	-12...0°	Evaporator-Air temperature difference for the fans to turn OFF after the compressor has stopped.	-5°C	-2°C
FDH	1..12°	Temperature differential for fan re-start. Example: FDT = -1, FDH=3. In this case, after the compressor has stopped, the fans are OFF when Te> Ta - 1 (FDT), whereas the fans are ON when Te < Ta - 4 (FDT-FDH).	+2°C	+3°C
FT1	0 ..180sec	Fan stop delay after compressor/heater stop.	—	30sec
FT2	0 ..30min	Timed fan stop. With FT2=0 the fans remain on all the time.	—	1min
FT3	0 ..30min	Timed fan run. With FT3=0, and FT2 > 0, the fans remain off all the time .	—	1min
ATM	NON ABS; REL	Alarm threshold management. **NON**: all temperature alarms are inhibited *(the following parameter will be ACC).* **ABS**: the values programmed in ALA and AHA represent the real alarm thresholds **REL**: the alarm threshold is obtained by the sum of setpoint, thermostat differential and ALR/AHR.	ABS	ABS
ALA	-50 .. 110°	Low temperature alarm threshold.	-3°C	-24°C
AHA	-50 .. 110°	High temperature alarm threshold.	+10°C	+12°C
ALR	-12 .. 0°	Low temperature alarm differential. With ALR=O the low temperature alarm is excluded.	—	—
AHR	0 .. 12°	High temperature alarm differential. With AHR=O the high temperature alarm is excluded	—	—
ATI	T1; T2; T3	Probe used for temperature alarm detection.	T1	T1
ATD	0 ..120min	Delay before alarm temperature warning.	90min	90min

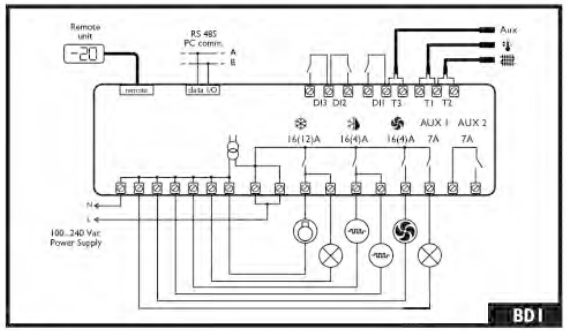
ACC	0...52 weeks	Condenser periodic cleaning. When the compressor operation time, expressed in weeks, matches the weeks ACC value programmed, "CL" flashes in the display. With ACC=O the condenser cleaning warning is disabled and CND disappears from Info Menu.	---	—
IISM	NON; MAN; ECO; DI	Switchover mode to second parameter set **NON**: inhibition to use the second parameter group (the following parameter will be SB). **MAN**: button [6] switches the two parameter groups over. **ECO**: automatic switchover to the second parameter group, when ECO conditions are detected **DI**: switchover to the second parameter group when DIx input is on.	ECO	ECO
IISL	-50 .. IISH	Minimum limit for IISP setting.	-3°C	-24°C
IISH	IISL .. 110°	Maximum limit for IISP setting.	+10°C	+12°C
IISP	IISL .. IISH	Setpoint in mode 2.	+2°C	-17°C
IIHO	1 .. 10°	Thermostat OFF->ON differential in mode 2.	+2°C	+2°C
IIH1	0 .. 10°	Thermostat ON->OFF differential in mode 2.	---	---
IIDF	0...99 hours	Time interval among defrosts in mode 2.	6h	6h
IIFC	NON; TMP; TIM	Fan control in mode 2. See FCM.	TMP	TMP
ECS	1...5	Controller sensitivity for the automatic switchover from Group I to Group II (1=minimum, 5=maximum).	3	3
EPT	0...240min	Eco pull-down time. Only with IISM=ECO. Group I parameters are used in regulation for at least EPT minutes. See Fig.3	20min	20min
SB	NO/YES	Stand-by button ⏻ enabling.	YES	YES
DSM	NON; ALR; STP	Door switch input mode: **NON**: door switch inhibited **ALR**: when DIx=DOR and the digital input is on, an alarm is generated after ADO minutes **STP**: when DIx=DOR and the digital input is on, in addition to the alarm, the fans are immediately stopped and the compressor is stopped after CSD minutes.	STP Cabinets NON Counters	STP Cabinets NON Counters
DAD	0...30min	Delay before door open alarm warning.	10min	1min
CSD	0...30min NO	Compressor/heater stop delay after door has been opened. If CSD=NO compressor/heater never stops due to the door opening	1min	1min
D1O	NON; DOR; ALR; IISM; RDS	DI1 digital input operation **NON**: digital input 1 not active. **DOR**: door input. **ALR**: when the input is on, an alarm is generated (if AHM=STP, the compressor is stopped and the defrosts are suspended). **IISM**: when the input is on, the controller will use group 2 parameters. **RDS**: when the input is on, a defrost is started (remote control).	DOR Cabinets NON Counters	DOR Cabinets NON Counters
D1A	OPN; CLS.	**DI1** digital input activation. **OPN**: on open **CLS** : on close	OPN	OPN
D2O	See D1O	DI2 digital input operation. See D1O.	—	NON
D2A	OPN; CLS.	DI2 digital input activation. See D1A.	---	—

D3O	NON; ..... RDS; DSY	DI3 digital input operation **NON ... RDS**: See D1O. **DSY**: defrost synchronization. The controllers will all start, and end defrost together. The first controller in defrost will get defrost of all the others started. The last controller ending defrost will get defrost of all the others stopped.	NON	NON
D3A	OPN; CLS.	DI3 digital input activation. See D1A.	---	---
LSM	NON; MAN; ECO; DI1; DI2; DI3.	Light control mode **NON**: light output not controlled **MAN**: light output controlled through [6] button (if OAx=LGT). **ECO**: lights activated/deactivated following the ECO state **DIx**: lights activated/deactivated following the DIx state	DI1 Cabinets MAN Counters with lamp	DI1 Cabinets MAN Cabinets with glass door
LSA	OPN; CLS	Light activation (only with LSM=ECO or LSM=DIx). OPN: lights on with DIx open or ECO mode deactivated. CLS: lights on with DIx closed or ECO mode activated	OPN	OPN
OA1	NON; LGT; 0-1; 2CU; 2EU; ALO; ALC	AUX 1 output operation **NON**: output disabled (always off). **LGT**: output enabled for light control. **0-1**: the relay contacts follow the on/standby state of controller. **2CU**: output programmed for the control of an auxiliary compressor. **2EU**: output enabled for the control of the electrical defrost of a second evaporator **ALO**: contacts open when an alarm condition occurs. **ALC**: contacts make when an alarm condition occurs.	LGT	LGT
OA2	See OA1	AUX2 output operation. See OA1.	NON	NON
2CD	0...120 sec	Auxiliary compressor start delay. If OAx=2CU the auxiliary output is switched on with a delay of 2CD seconds after the main compressor has cut-in. Both compressors are turned off at the same time.	—	—
OS1	-12...12°	Probe T1 offset.	—	—
T2	NO/YES	Probe T2 enabling (evaporator).	YES	YES
OS2	-12...12°	Probe T2 offset.	—	—
T3	NON; DSP; CND; 2EU	Auxiliary probe T3 operation **NON**: probe T3 not fitted. **DSP**: temperature T3 to be displayed. **CND**: condenser temperature measurement. **2EU**: second evaporator temperature measurement.	---	---
OS3	-12...12°	Probe 3 offset.	—	—
AHM	NON; ALR; STP;	Operation in case of high condenser alarm **NON**: high condenser alarm inhibited. **ALR**: in case of alarm, "HC" flashes in the display and the buzzer is switched on. **STP**: in addition to the alarm symbols displayed, the compressor is stopped and defrosts are suspended.	STP	STP
AHT	-50,..110°	Condensation temperature alarm (referred to T3 probe).	63°C	63°C
TLD	1...30 min	Delay for minimum temperature (TLO) and maximum temperature (THI) logging.	30min	30min
TDS	T1; 1-2; T3	Selects the temperature probe to be displayed. **T1**: probe T1 **1-2**: the AVG-weighted average between T1 and T2 **T3**: probe T3	T1	T1
AVG	0...100%	The relative weight of T2 on T1 (if TDS = 1-2) Example 1: T1 = -5°, T2 = -20°, AVG = 100%. The displayed temperature will be - 20° (T1 has no effect). Example 2: T1 = -5°, T2 = -20°, AVG = 60%. The displayed temperature will be -14.	—	—
SCL	1°C; 2°C; °F	Readout scale. 1°C: measuring range -50...110°C (0.1°C resolution within -9.9 ÷ 19.9°C interval, 1°C outside) 2°C: measuring range -50 ... 110°C °F: measuring range -55 ... 180°F	1°C	1°C
SIM	0...100	Display slowdown.	3	3
ADR	1...255	BD1-28 address for PC communication.	1	1

Fig.3 EPT parameter



WIRING DIAGRAM



Model Outout	BD1-28…. S…-	BD1-28….Q… -
Compressor	16A resistive 12 FLA 72 LRA	12A resistive 12 FLA 72 LRA
Evap. Fan	16A resistive 3.6 FLA 21.6 LRA	12A resistive 3.6 FLA 21.6 LRA
Defrost	16A resistive 3.6 FLA 21.6 LRA	12A resistive 3.6 FLA 21.6 LRA
Auxiliary loads 1	7A resistive 1 FLA 4 LRA	7A resistive 1 FLA 4 LRA
Auxiliary loads 2	7A resistive 1 FLA 4 LRA	7A resistive 1 FLA 4 LRA

Input
NTC 10KΩ@25°C, LAE-Part No SN4...

Measurement range
-50…110°C, -58…180°F
-50 / -9.9…19.9 / 110°C

Measurement accuracy
<0.5°C within the measurement range

Operating conditions
-10 … +50°C; 15…80% r.H.
Pollution degree 2

Approvals and Reference Norms
RoHS 2001/65/UE
EN50082-1; EN55022 (Κατηγορία B);
EN60730-1; EN60730-2-9;
UL60730, File SA32385

FOOD STORAGE and SAVING of ENERGY

Optimal performance of refrigerators can be obtained by observing the following rules:

- Proper distribution of food inside the refrigeration, so as not to obstruct air circulation.
- Keep at least a 10cm distance from the funs; avoid placing sheets of paper, cardboard etc… on the shelves: they can obstruct the air passage.
- At the drawers, place items until the permitted weight and height of each drawer operation.
- Avoid frequent door or drawer openings.
- Avoid putting warm food inside the refrigerator.
- Always cover the food with special films or strips.
- All GN containers should always be placed and covered at the models that have an opening at the top, thus preventing refrigeration loss.
- Avoid putting various things in front of the refrigerating unit and on the glasses.

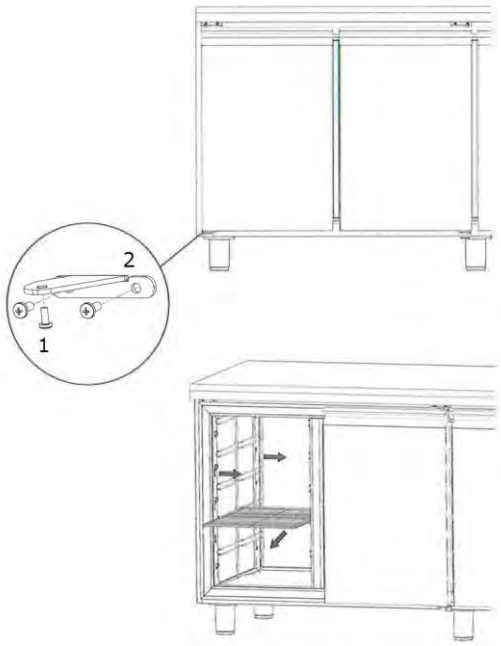
REPLACING THE DOOR WITH A DRAWER UNIT

The new refrigerated counters **line Modular** have been designed with a modular structure. This makes it easy to dismantle or assemble the refrigerator without having any technical knowledge and without using any special tools. The middle and the horizontal columns of the refrigerator can be unclenched and removed in one step, providing easy access in order to modify it by placing drawers instead of doors and vise versa.

The body of the freezer counters is equipped with frame heater, so the removal of the counters columns should be done only by a technician.

To replace the door with a drawer unit proceed as follows:

- Unscrew the screw (1) of the down door hinge.
- Unscrew and remove the upper door hinge.
- Remove the door and then, unscrew the rest screws (2) and remove the down door hinge

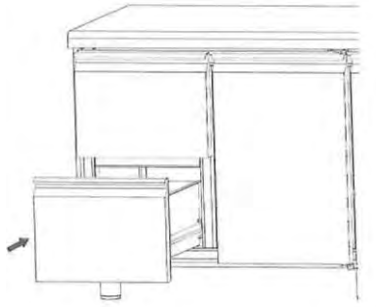


- Draw out the grid shelves from the metal supporting structure
- Unclench and remove the metal supporting structure.

- Remove all plastic that supports the metal structure and the plastic that covers the slide guides inputs.

- Place the plastic that supports the horizontal column in their corresponding inputs (depending on the size of the drawer), in the middle column and in the body of the refrigerator.
- Place the horizontal column with only one move..

- Place the slide guides of the drawers in their corresponding inputs (depending on the size of the drawer).
- In case an empty input is left, is covered by the corresponding plastic cover.



- Finally place the drawers.

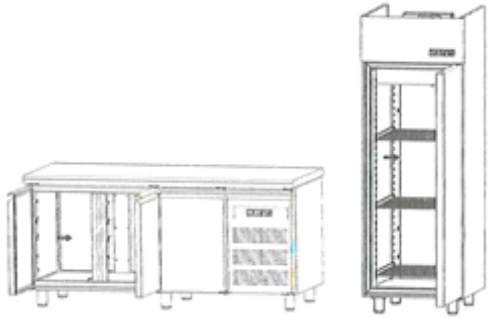
MAINTENANCE

Routine maintenance operations may be carried out by non-specialized personnel provided they scrupulously follow the instructions given in this chapter.

ATTENTION: Before carrying out any cleaning or maintenance operation, disconnect the appliance from the mains supply and always use protective equipment (safety gloves).

PERIODIC CLEANING OF THE APPLIANCE AND THE ACCESSORIES

- Remove all the products.
- Open the doors and remove the drawers- where they exist.
- For the good operation of drawers, the slide guides should always be clean.
- Then remove the grilles and the supporting fittings.
- **Clean all internal parts of the refrigerator and the accessories with tepid water and a neutral detergent for stainless steel.**
  Repeat the same in the exterior part.
- Wipe gaskets with a clean soft cloth.
- The refrigerated counters and cabinets have magnetic clipped gaskets with sanitary sides, which are easy to clean.
- Then dry thoroughly.
- The refrigerated counters **line Modular** have been designed so that the user can easily unclench and remove with one move the slide guides, the insert kit, the columns and any other component considered essential fo the cleaning of the refrigerator, having a completely open space with easy access. Moreover, all inter surfaces angles and corners are rounded so there is no danger of injury and so that the cleaning becomes faster and more efficient.



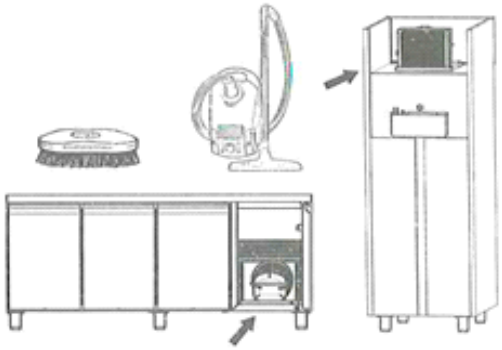
The body of the freezer counters is equipped with frame heater, so the removal of the counters columns should be done only by a technician.

PERIODIC CLEANING OF THE CONDENSER

At least once a month the condenser should be cleaned by removing the dust and the dirt accumulated on the same. If the appliance is installed in a dusty or poorly ventilated environment, the condenser should be cleaned more often about once a week.

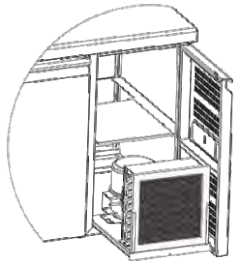
Cleaning is done as follows:

- Unplug the unit.
- Clean the dust of the condenser with a brush or with a vacuum. In the refrigerated counters you should first unscrew the punch control panel.
- Reconnect the plug.



The refrigerated counters with a sliding panel compressor type MG have a filter that protects the condenser from dust, but the filter should be removed and cleaned regularly.

Caution: do not wash the appliance with high pressure water jets.



INACTIVITY PERIODS

If the refrigerator is not to be used for several months take the following precautions: Proceed as periodic cleaning paragraphs. Leave the doors slightly open to prevent odor and mold growth. Periodically ventilate the room.

ASSISTANCE

WHAT HAPPENS WHEN SOMETHING DOES NOT FUNCTION?

In many cases the malfunction of a unit is due to simple reasons, which can be resolved by you. Therefore, review this list before calling a technician. It may save you time and expense.

NOTE

Extraordinary maintenance operations like the replacement of the power supply cable or any other electric components should be carried out by **specialized personnel only.**

SOLUTIONS TO COMMON PROBLEMS

a. The appliance does not function

- Check that the plug is inserted correctly in the outlet.
- Check that there is voltage at the outlet by trying an alternative grounded outlet.

b. The appliance loses water

- The frame heater that evaporates the water has a problem (call your technician)

c. The internal temperature is too high

- Check for ice inside and defrost
- Check the thermostat setting
- Check for a heat source in the vicinity
- Check that the doors and the drawers close properly
- Check the proper distribution of food
- Check if the GN containers are placed properly at the refrigerators with an opening at the top
- Check that the condenser is clean.

d. The cooling element has ice

- Check if the temperature is too high or too low and decrease or increase 1-2 degrees accordingly.

e. Wet foods or humidity round the doors

- Weather is hot and humid
- Check that the doors and the drawers close properly
- The door is opened too frequently or kept open too long
- Clean or change the gaskets if needed
- If the refrigerator is a fish counter, check that is 6-7mm leaned back

f. The appliance is excessively noisy

- Check that the appliance is leveled and if not level it by using the adjustable legs. Check that the appliance has not come into contact with other appliances or items which could resonate.

g. Odor in the refrigerator

- The refrigerator needs cleaning
- Cover the food with intense smell well

h. The compressor of the upright refrigerator does not function

- Check the door. The refrigerated cabinets have an electromagnetic door terminal. Every time that the door is open more than 5 min. the compressor does not run.

If after following these instructions the problem remains, contact your specialized technician.

Only your technician can advise you properly.

TECHNICAL DATA

SUPPLY: 220-240V ~50HZ 3.9A Ip21

CLIMATE CLASS 5: temperature/humidity of 40°C/40

INSULATION GAS IN THE THERMAL INSULATION : R134

DESCRIPTION: 1,1,1,2 TETRAFLOURETHAN

CHEMICAL FORMULA OF COOLING MATTER : CF3CH2

POWER CONSUPTION PF HEATING ELEMENT : 230

MODELS WITH DRAWERS : max load for every drawer – 70k

MAX LOAD OF THE GRILLS : 75kg evenly distribute

MAX LOAD OF THE SURFACE (for refr. counters) : 200kg/m2

WASTE DISPOSAL AND DEMOLITION

Appliances that have reached the end of their service life should be suitably disposed of. All countries have different legislation, so the disposal and demolition should be carried out in accordance with the laws of the respective countries. A general rule is to deliver the appliance to specialized collection/demolition centers. Dismantle the refrigerator by grouping together the components according to their chemical composition. 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, the doors and drawers and any door locking mechanisms, in order to prevent anyone from being trapped inside.

DISMANTLING OPERATIONS SHOULD BE CARRIED OUT BY QUALIFIED PERSONNEL.