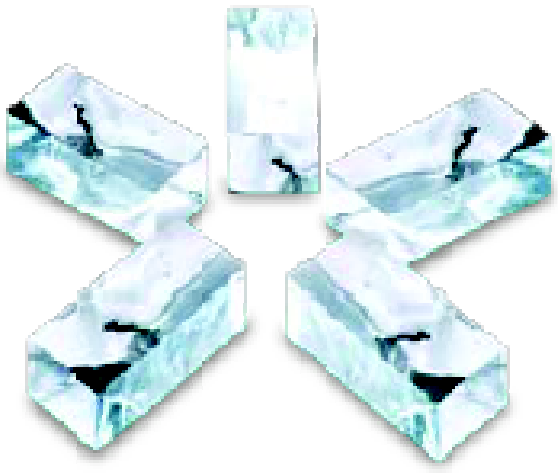
OPERATING MANUAL FOR
SWING
REFRIGERATED DISPLAY



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eurocryor
epta refrigeration

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INTRODUCTION AND QUALITY CONTROL

EURO'CRYOR congratulates you on your choice to purchase our display counter SWING.

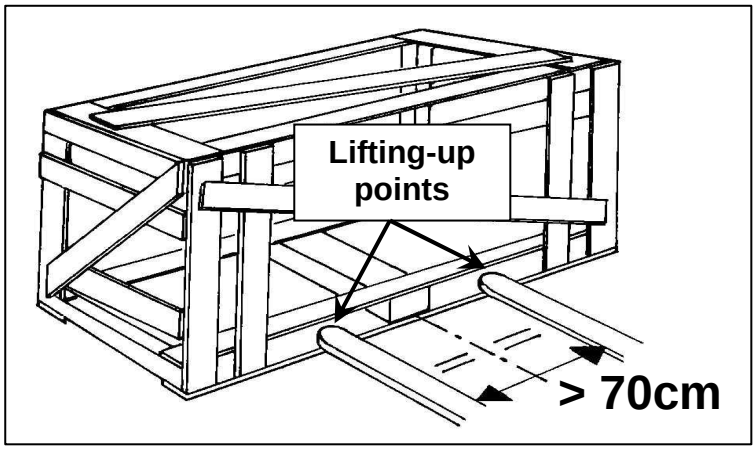
It is important to keep this manual with care for any further consultation.

It is recommended also, to pay particulary attention to the prescriptions appearing in black character and underlined next to the below symbol:

INCOLLARE QUI L'ETICHETTA PER IL CONTROLLO DI QUALITÁ

1. HANDLING AND STORAGE

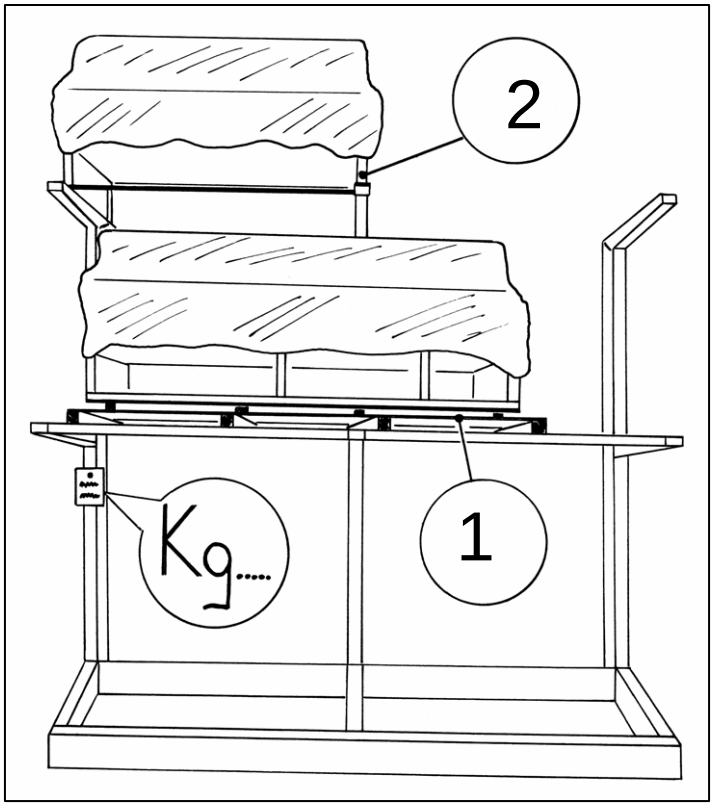
Transport carried out on pallet or wooden box



- Insert the forklift truck prongs in the shown points.
- Insert the forklift truck prongs right to the end to avoid overturning.
- There must be the greatest possible distance between the prongs to increase the stability.

Storage

The storage temperature must not be higher than +55 Deg C. The display case must be stored away from sunlight and bad weather.



If the display case must be stored for a long period before use, leave it in the original packing, which provides an optimal protection.

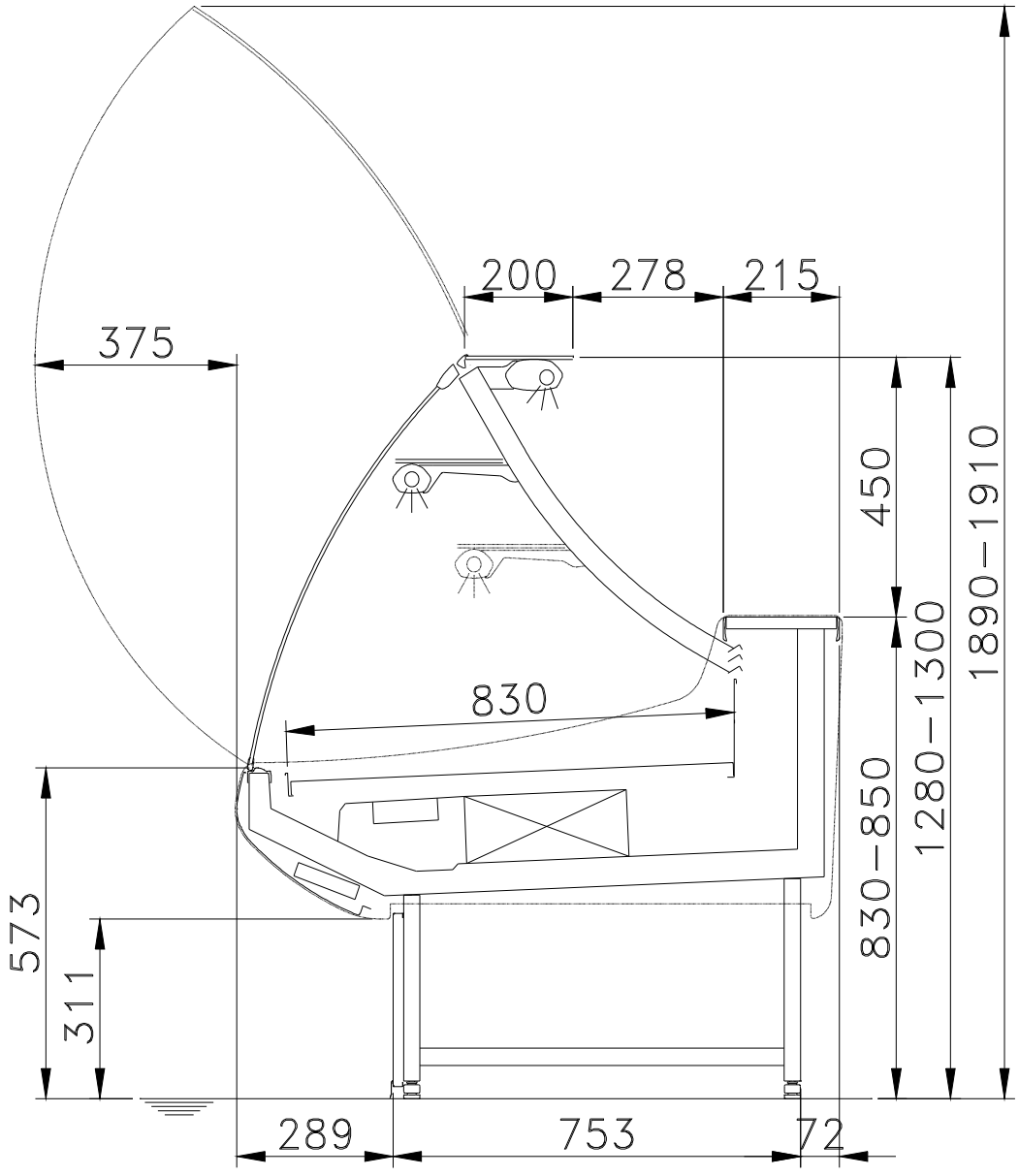
- If the display case will be stored on shelves, check the capacity of them.
- Store the display cabinet packed in the wooden case / board on the shelves “1”, if these have been used for transport.
- If on the contrary the wooden case / board have not been used, the display cabinet aluminium frame “2” must rest on the rack shelf.

2. DESCRIPTION OF COUNTER

The refrigerated counter SWING is suitable for the display and sale of patisserie products.
It is standard model, with or without compressor unit.

Technical features:

- Goods temperature class: M1.
- Refrigerant: R404A.
- Ventilated cooled air circulation.
- Painted display decks.
- Condensing water tray with automatic evaporation.
- Double lighting, protectid against bumps.
- Tempered lifting-up curved glasses.
- Electronic Thermostat.



3. REGULATIONS, USAGE AND PROHIBITIONS

Euro'Cryor's display cases have been designed and produced exclusively for the display of fresh foodstuffs and beverages inside the refrigerated sections.

It is absolutely forbidden to use the case to display pharmaceutical products.

Before using the cabinet, read carefully the instructions quoted in this manual and instruct the operator about the use.

Do not allow children or people with handicaps to use the display case without suitable supervision.

Do not remove protection or panels which require tools to detach them.

It is absolutely forbidden any tampering or alteration of the product.

Any other use not described in this operating manual is to be considered dangerous and the manufacturer cannot be held responsible for any damage caused by inappropriate, wrong or unreasonable use.

4. ENVIRONMENTAL CONDITIONS FOR INSTALLATION

The display case must be installed indoors and never exposed to rain or bad weather conditions.

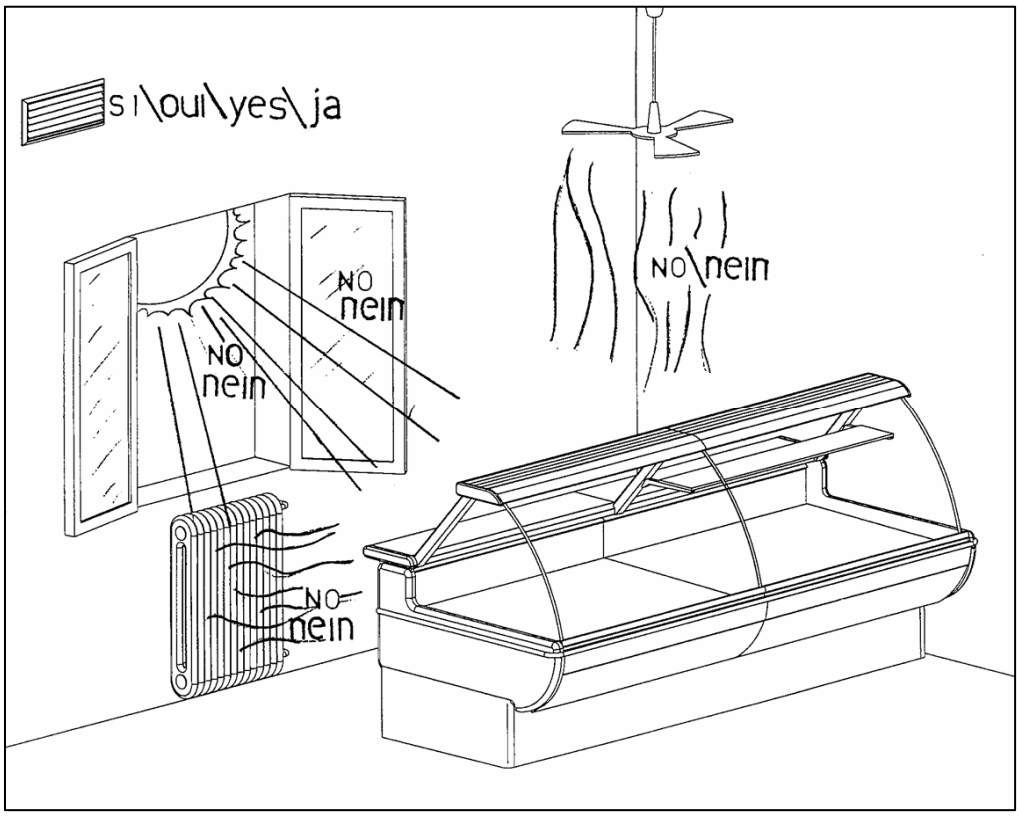
The display case must not be installed in places where there are explosive materials.

Ensure that the display case is installed away from direct sunlight, concentrated lighting units and/or sources of heat such as radiators, stoves and ovens; besides, avoid the installation near windows, fan coils, air openings and fans.

It is absolutely forbidden to put any objects around the display case if they can obstruct the air circulation on the condensing unit.

The non-respect of the above mentioned requirements can be the cause of a quick deterioration and of an incorrect working of the display case, such as:

- A greater power consumption.
- Condensation on the cool surfaces.
- Wrong food conservation.



(installation conditions example)

5. TECHNICAL FEATURES

5.1 General features

General features (25℃ / 60% R.H.)	
Operating temperature	0℃ / +4℃
Climatic class (EN441)	3
Goods temperature class (EN 441)	M1
Refrigeration type	Ventilated
Evaporating temperature	-10℃
Refrigerant	R404A
Defrosting type	Stop compressor
Liquid pipe entry size	6 mm
Suction pipe exit size	14
Valve type	Flared joint
Valve model	Danfoss TS
Drain outlet size	40mm

5.2 Features

Electrical features (230V/50Hz)				
Lenght (mm)	**938**	**1250**	**1875**	**2813**
Anti-mist heater (W)	40	40	80	120
Canopy light (W)	30	42	75	95
Evaporator fans (W)	20	20	40	60
Mezzanine shelf light (W)	30	42	75	95
Rated output without condensing unit (W)	**120**	**145**	**270**	**370**
Condensing unit (W)	270	360	430	530
Rated output with condensing unit (W)	**390**	**505**	**700**	**900**

Technical features (25℃/60%R.H.)				
Lenght (mm)	**938**	**1250**	**1875**	**2813**
Extraction rate (W)	250	330	490	735
Refrigerant mass (kg)	1,2	1,3	1,4	1,9
Compressor model	NB6152GK	NB6165GK	NE6210GK	NE9213GK
Max load capacity on display decks	50kg	75kg	100kg	150kg
Display deck area (m^2)	0,8	1,02	1,53	2.3
Display volume (m^3)	0.144	0.183	0.275	0.414
Weight of counter (kg) without C.U. / With C.U.	93 118	125 150	190 220	290 330

5.3 Features

Electrical features (230V/50Hz)				
Lenght (mm)	**90 DX**	**90 SX**	**270 DX**	**270 SX**
Anti-mist heater (W)	80	80	80	80
Canopy light (W)	70	70	70	70
Evaporator fans (W)	60	60	60	60
Mezzanine shelf light (W)	70	70	70	70
Rated output without condensing unit (W)	**280**	**280**	**280**	**280**
Condensing unit (W)	430	430	430	430
Rated output with condensing unit (W)	**710**	**710**	**710**	**710**

Technical features (25℃/60%R.H.)				
Lenght (mm)	**90 DX**	**90 SX**	**270 DX**	**270 SX**
Extraction rate (W)	250	330	490	735
Refrigerant mass (kg)	------	------	------	------
Compressor model	NE6210GK	NE6210GK	NE6210GK	NE6210GK
Max load capacity on display decks	----------	----------	----------	----------
Display deck area (m^2)	1,88	1,88	1,96	1,96
Display volume (m^3)	0,35	0,35	0,35	0,35
Weight of counter (kg) with C.U. / Without C.U.	220 190	220 190	200 170	200 170

6. INSTALLATION

The operations described in this chapter must be carried out exclusively by qualified personnel.

6.1 Positioning

Unwrap the cabinet with care, remove the protective thin plastic from the cabinet surfaces.

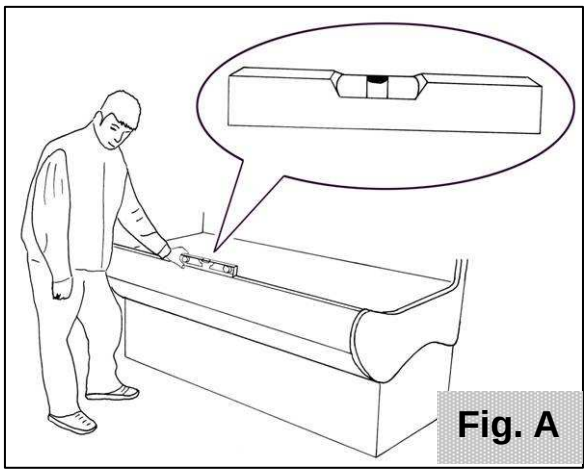


Fig. A

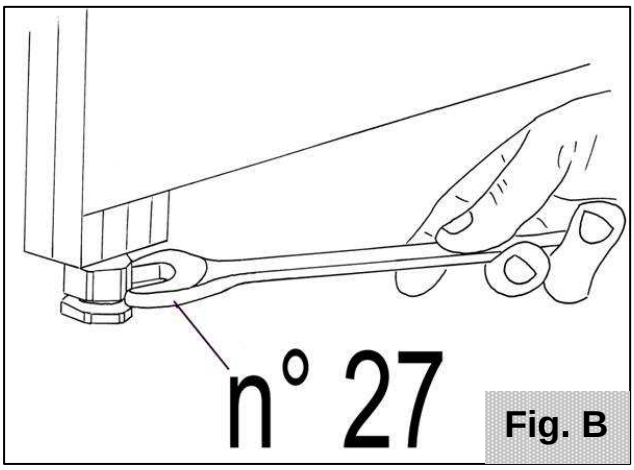


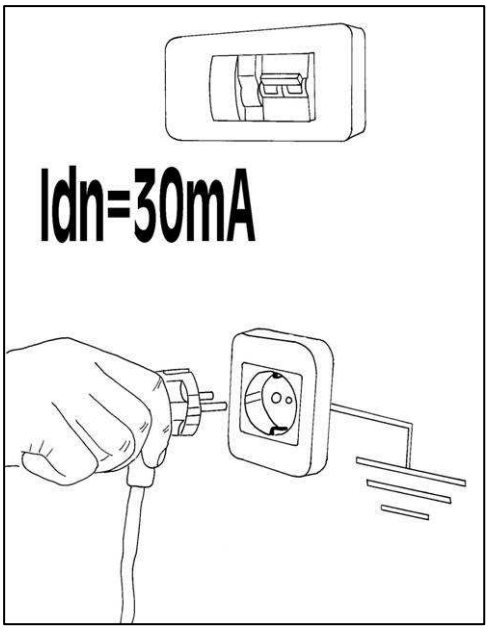
Fig. B

For a correct functioning, the display cabinet must be installed on a levelled floor (fig. A); in the opposite case adjust the display cabinet feet (Fig. B).

6.5 Electrical connection

The operations described in this chapter must be carried out exclusively by qualified personnel.

Warning: before proceeding with the following operations, check that the electrical installation complies with the standard laws regulating such installation in the country concerned.



The device's power supply must be independent from the other supplies and separately insulated; before the supply socket, it is compulsory to install a differential bipolar magnetothermic switch.

The electric socket must comply to the device's plug (type "SCHUKO"); do not use adaptors. Besides, the socket must be provided with an efficient earthing contact.

Ensure that the supply voltage and the frequency correspond to that on the rating plate and check that the maximum difference on values details must be 10% for the voltage and 2% for the frequency.

THIS DEVICE IS IN CLASS 1: IT IS COMPULSORY TO PUT IT TO EARTH.
The manufacturer declines all responsibility if these accident prevention regulations are not applied.

7. DISPLAY CASE SET-UP

7.1 First Start-up

Before making the display case working, we recommend to clean it using a neutral soap and non-abrasive sponges, then wipe it away.

Warning: the cabinet is set at 2℃. If a different temperature is required, see chapter 10.

The frequency and the duration of the defrosting operation are regulated in conformity with the standard environmental values (25 Deg C/60% R.H.). If the environmental conditions should be unfavourable, we recommend to increase both the number and the duration of the defrosting operations.

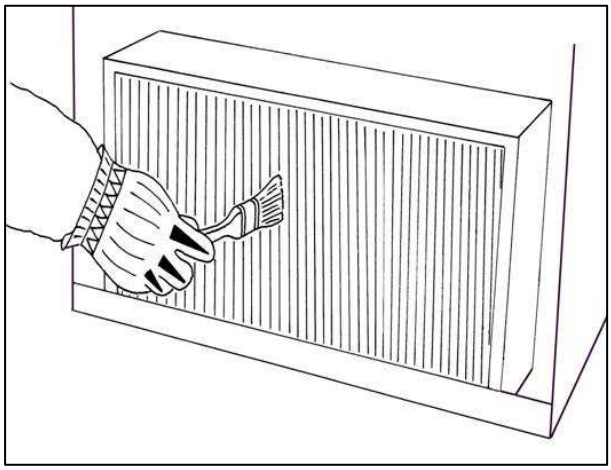
7.2 Product loading

WARNING: BEFORE PLACING THE GOODS INTO THE DISPLAY CASE, ENSURE THAT THEY HAVE THE SAME TEMPERATURE OF THE CABINETS.

Attention: if the display decks are painted don't put the foodstuffs directly on them.

7.3 Periodical checks

For the good maintenance of the exposed goods, check every day the inner temperature of the display cabinet.



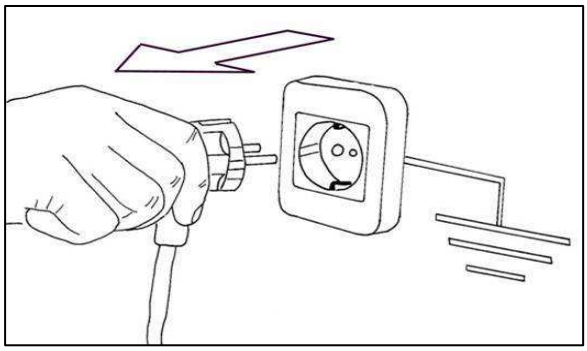
In display cabinets with motor incorporated in heavy environment conditions, the production of condensing water can become excessive even for the automatic evaporation system; in these conditions it is advised to carry out the emptying operation by hand.

The display cabinets without the incorporated group are not equipped with the water discharge evaporating system. Therefore it is highly recommended to empty frequently the drip pan in order to avoid unpleasant overflows.

Please, lubrificate the guide of the sliding doors using lubrificating oil suitable for foodstuff.

8. CLEANING AND MAINTENANCE

BEFORE ANY OPERATION, REMOVE THE POWER SUPPLY PLUG



IT IS RECOMMENDED TO USE PROTECTIVE GLOVES.

8.1 Cleaning

NEVER USE DIRECT OR INDIRECT JETS OF WATER FOR CLEANING THE DISPLAY CASE

Clean all internal and external parts frequently with warm water, neutral soaps and non-abrasive sponges and dry using a soft cloth.
For the display cabinets with condensing unit, the condenser must be cleaned at least once a month.
Using a brush or a vacuum cleaner.
Pay attention not to damage the cooling fins.

Attention: a regular cleaning of the condensing unit is important to ensure a correct function of the counter and energy saving.

Periodically check the normal downflow of the condensing water.

8.2 Ordinary maintenance

Carry out, at least once a year by skilled personnel, a general check of the **glasses opening system, on the electric system and on the refrigerating circuit.**

Should it be necessary to top up with refrigerating gas, use a station equipped with two **¼ SAE** valves, to screw on the appropriate fittings placed near the compressor

8.3 Extraordinary maintenance

Any other operation not listed in the previous point, must be carried out by skilled personnel.

9. WASTE DISPOSAL

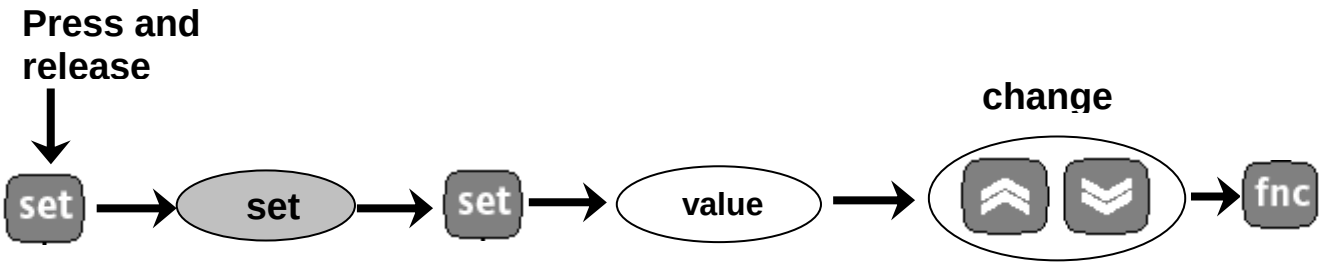
The waste disposal operation of the display case must be carried out in compliance with regulations relating to waste disposal applicable in individual countries. All informations on the materials used for manufacturing the display case can be required directly to Euro'cryor.
Before proceeding with the display case waste disposal, we recommend to entrust a specialized company for collecting the refrigerant and the oil which is in the cooling system.

10. CONTROL PANEL

10.1 Electronic Thermostat

We recommend to the final user not to programm the instrument; for any changement of the set parameters, unless it is the changement of the temperature setpoint, we suggest to contact the installer.

10.2 Changing of SET-TEMPERATURE



10.3 Chart of the set parameter

Parameter	Unit	ID 961	Parameter	Unit	ID 961
SET	℃	4	**Doh**	Min	0
Dif	℃	2	**Det**	Min	40
HSE	℃	14	**Dst**	℃	----------
LSE	℃	-2	**Dpo**	Flag	N
ref	flag	----------	**Dt**	Min	----------
Ont	Min	7	**Loc**	Flag	N
Oft	Min	4	**PA1**	Number	0
Don	Sec	0	**Ndt**	Flag	----------
Dof	Min	1	**CA1**	℃	0
Dbi	Min	1	**CA2**	℃	----------
Odo	Min	0	**Ddl**	Flag	1
Dty	Flag	----------	**Dro**	Flag	0
Dit	hours	6	**H00**	Flag	1
Dct	Flag	1	**H42**	Flag	----------

10.4 Use and function of the key

Spare parts:
- ID 961: cod. 30004064
- Probe: cod. 30000004

LED description

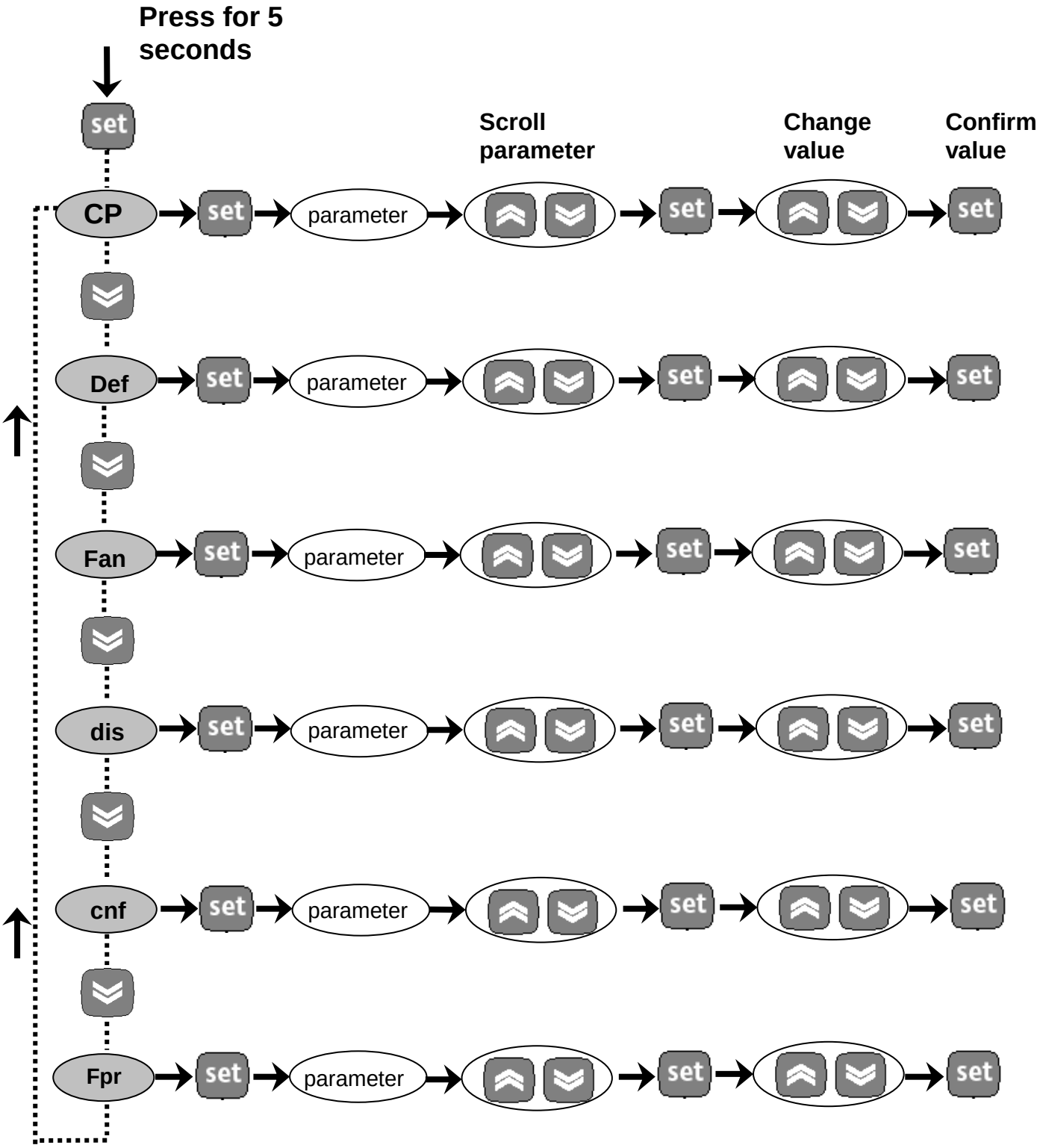
Position	Related Function	Status
❄	Compressor or relay 1	ON when the compressor is started up; blinking in case of delay, protection or blocked enabling
❄	Defrost	ON when defrosting; blinking in case of manual enabling
((•))	Alarm	ON when the alarm is enabled; blinking when the alarm is silenced

KEYS description

UP key	⌃⌃	Scrolls through the menu items Increases the values Activates manual def. function
DOWN key	⌄⌄	Scrolls through the menu items Decreases the values Programmable by parameter
fnc key	fnc	ESC function (exit) Programmable by parameter
set key	set	Accesses the setpoint Accesses the menus Confirms the commands Displaying the alarms (if present)

10.5 In order to change the parameters

To change the set parameters (chapter 10.3) follow the diagram below.



Press this key to go back.
Warning: after having modified the parameters switch off and then switch on the instrument.

10.4.1 Starting up of the manual defrost

To manually activate the defrosting cycle, press the “UP” key for 5 seconds. If defrosting conditions are not present, (for example the evaporator probe temperature is higher than defrost stop temperature), the display will blink three (3) times, in order to indicate that the operation will not be performed.

10.4.2 Blocking of the keys

The instrument includes a facility for disabling the keyboard, by programming the “Loc” parameter (see folder with “diS” label). If the keyboard is locked, you can still access the programming menu by pressing the “set” key. The Setpoint can also be viewed.

10.4.3 Display of the errors

The alarm condition is always signalled by the buzzer (if present) and by the led of the alarm icon (see**”LED description”,** chapt. 10.4). The alarm signal produced by a faulty thermostat probe (probe 1) is shown as E1 on the instrument display. The alarm signal produced by a faulty evaporator probe (probe 2) is shown as E2 on the instrument display.

10.4.4 Parameters description

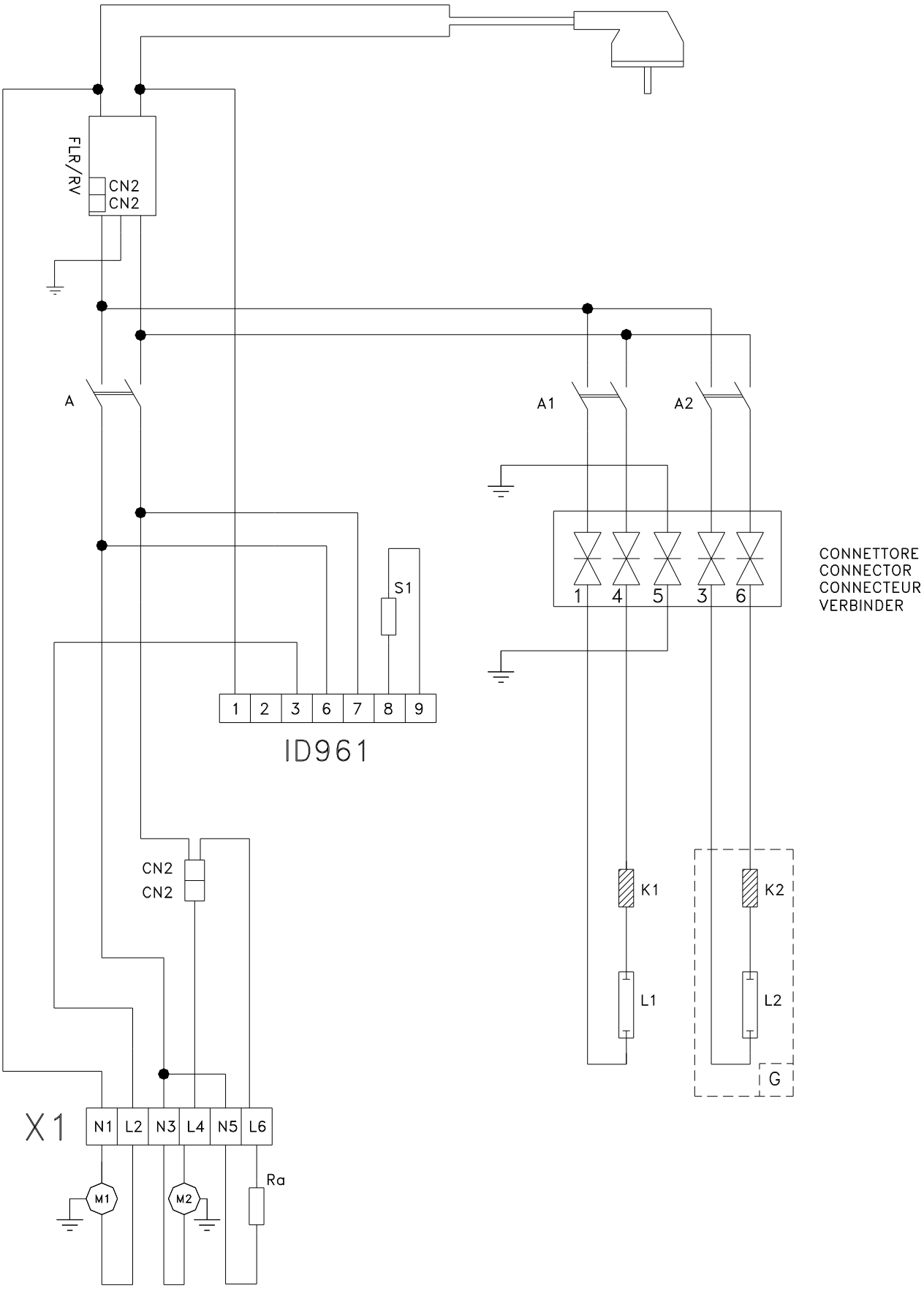
PAR.	DESCRIPTION	U.M.
	COMPRESSOR REGULATOR (folder with “CP” label)	
diF	diFferential. Relay compressor tripping differential. The compressor stops on reaching the Setpoint value (as indicated by the adjustment probe), and restarts at temperature value equal to the Setpoint plus the value of the differential. Note: the value 0 cannot be assumed.	°C/°F
HSE	Higher SEt. Maximum possible setpoint value.	°C/°F
LSE	Lower SEt. Minimum possible setpoint value.	°C/°F
	COMPRESSOR PROTECTIVE DEVICE (folder with “CP” label)	
Ont	On time (compressor). Compressor activation time in the event of faulty probe. If set to “1” with Oft at “0” the compressor is always on, while at Oft >0 it functions always in duty cycle mode.	min
OFt	OFF time (compressor). Compressor in disabled state time in the event of a faulty probe. If set to “1” with Ont at “0” the compressor is always off, while at Ont >0 it functions always in duty cycle mode.	min
dOn	delay (at) On compressor. Delay time in activating the compressor relay after switch-on of instrument	sec
dOF	delay (after power) OFF. Delay after switch off; the indicated time must elapse between switch-off of the compressor relay and the successive switch-on.	min
dbi	delay between power-on. Delay between switch-ons; the indicated time must elapse between two successive switch-ons of the compressor.	min
OdO	delay Output (from power) On. Delay time in activating the outputs after switch-on of the instrument or after a power failure.	min
	DEFROSTING REGULATOR (folder with “dEF” label)	
dty	defrost type. Type of defrosting. 0 = electric defrost; 1 = reverse cycle defrost (hot gas); 2 = Free defrost (compressor hot).	flag
dit	defrost interval time. Interval between the start of two successive defrosting operations.	hours
dCt	defrost Counting type. Selection of count mode for the defrosting interval. 0 = compressor operating hours (DIGIFROST® method); 1 = Real Time – appliance operating time; 2 = compressor stop.	flag
dOH	defrost Offset Hour. Start-of-defrosting delay time from start up of instrument.	min

dEt	defrost Endurance time. Defrosting time-out; determines duration of defrosting.	min
dSt	defrost Stop temperature. Defrost stop temperature (defined by the evaporator probe).	°C/°F
dPO	defrost (at) Power On. Determines if at the start-up the instrument must enter defrosting (if the temperature measured by the evaporator allows this operation). y = si; n = no.	flag
	FANS REGULATOR (folder with "FAn")	
dt	drainage time. Dripping time.	min
	DISPLAY (folder with "diS" label)	
LOC	(keyboard) LOCk. Keyboard locking. However, you can enter parameter programming modify them along with the status of this parameter in order to allow keyboard locking. y = yes; n = no	flag
PA1	PAssword 1. When enabled (value other than 0) it constitutes the access key for level 1 parameters.	number
ndt	number display type. View with decimal point. y = yes; n = no	flag
CA1	CAlibration 1.Calibration 1. Positive or negative temperature value added to the value read by probe 1, based on "CA" parameter settings.	°C/°F
CA2	CAlibration 2.Calibration 2. Positive or negative temperature value added to the value read by probe 1, based on "CA" parameter settings.	°C/°F
ddL	defrost display Lock. Viewing mode during defrosting. 0 = shows the temperature read by the thermostat probe; 1 = locks the reading on the temperature value read by thermostat probe when defrosting starts, and until the next time the Setpoint value is reached; 2 = displays the label "deF" during defrosting, and until the next time the Setpoint value is reached.	flag
dro	display read-out. Select °C or °F for displaying the temperature read by the probe. 0 = °C, 1 = °F.	flag
	CONFIGURATION (folder with "CnF" label)	
H00 (1)	Probe type selection, PTC or NTC. 0 = PTC; 1 = NTC.	flag
H42	Evaporator probe present.	flag

11. ELECTRICAL DIAGRAM

- **A:** main switch.
- **A1,2:** light switch.
- **K1:** L1 canopy ballast.
- **K2:** L2 ballast (mezzanine shelf light).
- **FLR/RV:** net filter plus adjustment fan.
- **L1:** Canopy light, Mezzanine shelf light
- **L2**: second Mezzanine shelf light
- **M:** Condensing Unit.
- **V:** Evaporator fans.
- **Vm:** Condensing unit fans

Electrical diagram



12. WARRANTY CONDITIONS

EURO' CRYOR guarantees the perfect operation, the high quality of materials used, and the good performance of all its products under normal work conditions for a period of twelve months from the date of shipping, and pledges to replace free-of-charge either directly or through its local dealer all parts it deems defective in terms of materials or fabrication at its own inalienable discretion.
Warranty coverage will be provided only for defects reported by means of either fax or registered letter with notice of receipt that indicate the counter's model, serial number, and the defect in quality or any other visible or latent defect not immediately evident on arrival within 8 days of delivery.
The replacement materials will be sent carriage payable on arrival, and the purchaser is obliged to return the defective materials postage paid within 15 days of their replacement.
Whenever the direct intervention of the manufacturer's personnel is required, the purchaser must bear the travel and transfer expense required.
Warranty coverage will not be provided for components subject to normal wear that must be routinely replaced in any case, such as fluorescent neon tubes, light bulbs, neon tubes, starters, ballast, contactors, gas springs, fans, timers, signal lights, and fuses, etc, or for malfunctions and inefficiency ascribed to any cause beyond the manufacturer's control, such as erroneous installation or tampering, modification or repair by personnel not previously authorised in written form by the manufacturer, the deterioration of the material caused by the corrosive action of inappropriate detergents, negligence, insufficient maintenance, improper use, insufficient or irregular power supply, irregular electrical line voltage, or any damages caused during transport and unloading which the purchaser is required to report to the shipper at the moment of delivery.

Warranty coverage will be withdrawn whenever the client fails to respect the payment obligations assumed.

13. ADJUSTEMENT AND MAINTENANCE NOTES

OPERATION DESCRIPTION	OPERATOR	DATE

eurocryor
eptarefrigeration
Via dell'Industria
35047 Solesino (PD) ITALY
Tel. 0429.707311
Fax 0429.706000
http: \\www.eurocryor.it
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