SERVICE & INSTALLATION MANUAL OF REFRIGERATION & FREEZING TABLES AND REACH-INS

REFRIGERATING AND FREEZING REACH-INS AND UNDERCOUNTERS SERVICE AND INSTALLATION MANUAL

INDEX

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1. GENERAL INFORMATION

This manual was made in an easy way so that you can know how our furniture works and how they should be maintained. A carefully reading is recommended, and it should be consulted in case of any doubt.

The manufacturer is not liable for damages to people or objects that may be caused by non-compliance with the prescriptions contained in this manual. To know all the advantages of this device, please read carefully before proceeding to install it. Anyone who uses this device is recommended to read this user manual. In case of any doubt consult your distributor.

This product has been manufactured under strict quality controls and meets all the requirements established by Infrico. Before leaving the factory, each unit has been tested, guaranteeing its quality. This equipment has been manufactured with recyclable materials, through a productive process that respects the environment.

This furniture complies with directive 2014/30/UE and 2014/35/UE. In addition, the CEI EN 60335-1, CEI EN 60335-2-89, EN 61000-3-2, EN 61000-6-1 y EN 61000-6-3 standards have been applied.

WARNING! This device must only be used for the purpose described in this manual.

The electrical/electronic device must be managed at the end of its useful life by an authorized manager.

2. SAFETY PRECAUTIONS

IMPORTANT: See the ***TECHNICAL LABEL*** inside of the furniture in order to find the ***REFRIGERANT TYPE***.

FOR MODELS WITH R290 REFRIGERANT / HYDROCARBONS:

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PRECAUTION – FIRE OR EXPLOSION RISK. FLAMMABLE REFRIGERANT. ONLY A QUALIFIED TECHNICIAN MUST REPEAIR IT. DO NOT DRILL THE REFRIGERANT PIPING.

When using electrical appliances, basic safety precautions should be followed, including the following:

- This refrigerator must be properly installed and located in accordance with this manual before it is used.
- Do not allow children to handle the device. They could damage the refrigerator and seriously injure themselves.
- Do not touch the cold surfaces in freezer compartments when hands are damp or wet. Skin may stick to these extremely cold surfaces.
- Do not store or use flammable products near the refrigerator.
- Unplug the refrigerator before cleaning and making repairs.

NOTE: We strongly recommend that any servicing be performed by a qualified technician.

3. SERIAL DATA PLATE

The technical data plate is a permanently affixed label in the interior of equipment's, which contains important electrical and refrigeration data about your product, as well as its model and serial number.

4. RECEPTION AND INSPECTION

- All Infrico products are factory tested for performance and are free from defects when shipped.
- When you receive your device, it should be carefully examined in order to detect any possible damage caused during delivery.
- If damage is detected, you should save all the crating material and make note on the carrier's bill of lading describing the damage. A freight claim should be filled immediately.
- If damage is subsequently noted during or immediately after installation, contact your distributor.

NOTE: Infrico is not responsible for damage incurred during shipment.

5. INSTALLATION

5.1 Location

This unit is intended for indoor use only. Ensure that the chosen location for your equipment provides a properly air circulation, so an efficient refrigeration is guaranteed.

Avoid locations near a heat source, such as ovens, fryers or heaters, as well as direct solar radiation where temperature can reach extreme values. Besides, do not choose a location where temperature and humidity exceed the climatic class specification of the product.

It must allow enough space between the equipment and the side walls, so that the opening lock of doors at 120 ° can be used. The doors must be able to open a minimum of 90º in order to use the maximum available door width.

Furthermore, the floor at the final location must be strong enough to support the total weight of the device plus the maximum product load. Also, it must be levelled and free of vibration. Reinforce the floor if necessary.

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5.2 Unpacking

These Infrico units are shipped from the factory on a wooden pallet and packaged in resistant wooden or cardboard boxes. The box is attached to the box base with the use of large screws. These should be first removed to avoid scratching the unit when lifting off the crate.

All packaging materials used are environmentally friendly and may be recycled or reused. Actively contribute to the protection of the environment by insisting on packaging recovery and removal methods that are environmentally friendly.

NOTE: Infrico does not recommend laying the unit down on its front, side or back. However, you must be certain to allow the unit to remain in an upright position afterwards for at least 24 hours before plugging it in so that the compressor oil and refrigerant may settle.

5.3 Ventilation

To assure the maximum efficiency of the device, this must be located in a place that provides a continuous air supply on the device underneath and back sides. We recommend installing the equipment 75 mm separated from the wall of each side; we also advise keeping a 300 mm separation between roof and reach-ins top.

Restricting the air supply will generate an excessive heat load on the condensing unit and adversely affect its operating efficiency. Never obstruct the grill area in the front of the cabinet in any way.

NOTE: Any restriction of the proper air flow, total or partial, will avoid the warranty on the unit.

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300 mm minimum space at the front of the unit, for AN models

300 mm minimum space at the top and front of the unit, for AGN/AGB models

300 mm minimum space at the front of the unit, for undercounters

5.4 Leveling

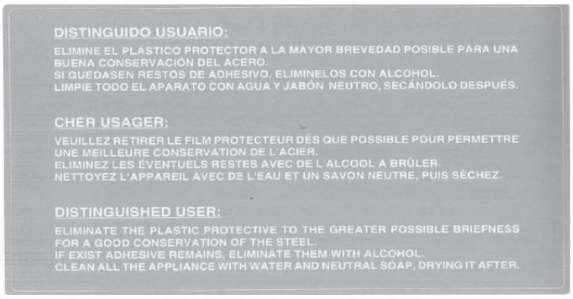
It's extremely important that the cabinet is perfectly levelled for proper operation so that the drain pan will drain properly, the doors will line up with the frames and the unit will not be subjected to undue strains.

This model are supplied with height adjustable legs (180 mm maximum height). In this case, to operate in a stable condition, ensure the floor where the unit is located is levelled.

Optionally, casters can be supplied for any model. In this case, in order to operate in a stable and levelled condition, the front casters must be locked. In the "Casters installation" section you will find detailed information about casters adjustment.

5.5 Initial cleaning procedure

NOTE: This sticker shows the procedure to be followed for the device exterior conservation.



Before the startup and loading product inside of the device, you should retire the protective plastic layer that covers the furniture and cleaning it. If adhesive rests are left, they should be eliminated with alcohol. It is

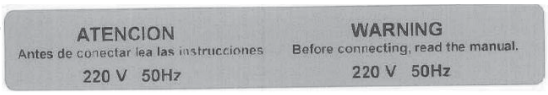
recommended to clean all stainless-steel surfaces of the furniture with warm water and a little neutral soap. After cleaning, a rinsed with abundant water and a drying with a soft cloth is recommended.

NOTE: Never use harsh or abrasive cleaners, concentrated detergents, solvents or chemicals to clean the equipment. Remember that products with bleach or ammonia are very dangerous for steel surfaces. Avoid iron particles contamination over steel surfaces.

6. ELECTRICAL INSTRUCTIONS

The supply voltage should be checked before connection to assure that proper voltage for the cabinet wiring is available. To determine correct unit voltage, please refer to the serial data plate located on an inner wall of the unit. Verify that this information exactly matches the electrical characteristics at the installation location.

NOTE: This sticker is placed on the power supply wire. It prevents us from the electrical risk of the device.



NOTE: The device must be plugged in to an exclusive circuit for this purpose. The violation of this requirement results in warranty cancellation.

NOTE: The unit is designed to operate with a voltage fluctuation of 5% of the voltage indicated on the cabinet serial data plate. Burnout of the compressor due to exceeding the high or low voltage limits will automatically void the factory warranty.

Devices are provided from factory with cord and plug as shown in the figure. If the correct electrical outlet is not provided, you should previously install it.

WARNING!: Any alterations to this cord and plug could cause an electrical hazard and will void the factory warranty.

WARNING!: Infrico will not warranty any units that are connected to an extension cord.

7. STARTUP PROCEDURE

After the cabinet has been installed, levelled, cleaned and electrically connected in accordance with this manual, it is ready to operate. Simply plug the unit in to begin operation.

The system should run smoothly and quietly in accordance with generally accepted commercial standards. If any unusual noises are heard, turn the unit off immediately and check for any obstructions of the fans.

All cabinets must be given enough time to reach normal operating temperature before placing any product inside cabinet. Continuous opening and closing of the doors will hamper the unit's ability to maintain optimum refrigeration performance.

NOTE: Before loading product, we recommend to run the unit empty during 24 hours.

NOTE: If the device is disconnected or shut off, wait five minutes before starting it again.

8. OPERATION

To see about the reach-ins and undercounters digital controller functioning, consult the attached manual.

8.1 Loading product

- Before introducing food into the cabinet, it is advisable to leave it empty while in operation until it reaches the working temperature. Once this has been reached, you can proceed to load the product.
- When introducing food, enough space must be left between the goods to enable air circulation.
- Never allow the goods to prevent doors from closing.
- Do not exceed the maximum weight per shelf of 25 Kg. In gusset-reinforced shelves, there can be loaded up to 75 Kg.
- Do not exceed the maximum weight per drawer of 40 Kg.
- Do not obstruct the fan with the load and assure that this never exceeds the maximum load level determined. The load must therefore always be situated underneath the fans.
- Never put hot food in the cabinet.

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- If the cabinet is going to remain shut down for prolonged periods, try to leave it unplugged, empty, clean and with door ajar.
- Food or drinks must be properly wrapped or stored in hermetic containers in order to avoid smells inside the unit. Besides, it should be considered that the presence of not properly wrapped food inside the chamber can cause the evaporator corrosion.

⚠ **WARNING!: Corrosion problems due to unwrapped food inside the device, cause the warranty cancellation.**

9. ACCESORIES

9.1 Grills

All equipment is supplied with rails, supports and grills, except AGB reach-ins, which have stampped rails and grills; all bakery reach-ins, which are only supplied with rails and fish reach-ins, which have rails and containers. Supports are easily removable for their cleanning, and rails are height adjustable.

9.2 Casters installation

This models are supplied with adjustable legs. Nevertheless, casters installation is a possible option. For the legs replacement and casters installation, these steps must be followed:

- Lay the unit down on its back carefully.
- Move the legs away by unscrewing them.
- Put casters over the same holes and screw them.
- Ensure the good adjustement of casters.
- Once casters are checked, return the device to its vertical position carefully.

⚠ **WARNING!: Once casters are installed, the device must keep vertical for 24 hours before beeing connected, in order to assure the oil return to the compressor.**

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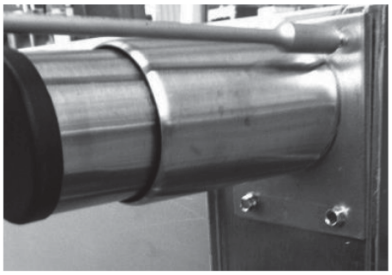


Unscrew the legs

Screw the casters in the same holes and ensure that the device is correctly levelled.

10. MAINTENANCE, CARE AND CLEANING

10.1 Cleaning procedure

Cleaning the cabinet

To clean the cabinet, the following instruction should be followed:

- Disconnect the unit from the power supply and remove all food products from inside.
- Open all doors and allow the cabinet to reach room temperature. Remove all accessories and clean them with a baking soda or mild soap and warm water solution. Dry all the accessories completely with a soft clean cloth.
- Once the cabinet has reach room temperature, wash the entire cabinet inside and outside with a baking soda or mild soap and warm water solution. Rinse thoroughly with clear water and dry with a soft clean cloth. Failure to dry all surface completely may cause water stains. There are also stainless-steel cleaners available which can restore and preserve the steel's surface protective layer.
- Return all accessories to their initial positions and plug the unit in.
- Early signs of stainless steel breakdown can consist of small pits and cracks. If this has begun, start to apply stainless steel cleaners in order to restore the passivity of the steel.
- Many product foods have an acidic content which can attack stainless steel, such as mustard, mayonnaise, lemon juice, tomatoes and other vegetables, and every food which contains salt.

NOTE: Never use steel pads, wire brushes or scrapers to clean the cabinet.

NOTE: Cleaning solutions need to be alkaline based or non-chloride cleaners. Any cleaner containing chlorides will damage the protective film of the stainless steel.

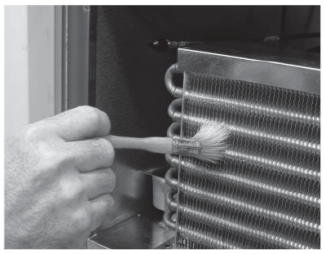
Door gaskets maintenance

- Door gaskets require a regular cleaning that protects its elasticity, in order to guarantee an appropriate closure and prevent from the growth of molds. Door gaskets can be cleaned with soapy water. Avoid the use of strong cleaners and sharp utensils.
- Door gaskets can be easily removed by removing them from the edge of the door and replacing them by pressing them against it.

NOTE: if the door gasket is contaminated with fat and is not cleaned, it will lose its elasticity and will break soon.

Cleaning the condenser

The condenser, which is located behind the rear or frontal panel grill, depending on the model, must be checked periodically, at least every **6 months.** The frequency of cleaning depends on the operating environment. Air must be able to freely circulate through the condenser, so the surface of the condenser must be kept free of dirt and fat for proper system operation. Dirty condensers result in functioning failure and product loss. If the condenser coil is dirty or blocked, follow this instruction:



- Disconnect the power supply.
- Remove the lower grill on the rear of the cabinet.
- In some models it would be necessary to retire the screws that adjust the condenser unit to the skirting, and extract it in order to clean the condenser.
- If the condenser has a protective case, you must unscrew and extract it.
- Once that condenser's surface is free, it should be cleaned using a soft brush or a vacuum. Never use a wire brush.
- Heavier dust builds up may require compressed air to blow through the condenser.
- Once it is cleaned, reintroduce the protective case, return the condenser unit to its original position and reinstate all the screws.

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- Finally, replace the lower rear panel and reconnect electrical power supply.

WARNING!: Never use water for this cleaning procedure as water can damage the electrical components located near the condenser.

Doors / hinges maintenance

With the passage of time and the use of the doors, the hinges can move slightly. If you notice that the door is starting to misalign, you must adjust the screws that attach the hinge brackets to the cabinet.

Drainpipes maintenance

Those units equipped with interior drainpipe for water draining must be checked after cleaning in order to ensure that the drainpipes are free of any obstruction, generally produced by food loading.

Drawers maintenance

If you decided to configure your device with drawers instead of doors, periodically check if guides slide correctly, and if the final closure mechanism works so that the drawer does not keep open. Also check that drawer's load is not over the recommended level (40 Kg.).

While using low temperature furniture, drawers' guides can be blocked by ice. In order to avoid this effect, we advise to switch off the equipment every 15/20 days for one night so that guides are free of ice.

10.2 Replacements and technical service

WARNING!: Make sure that the appliance is disconnected from the mains before carrying out any maintenance or repair operation. These jobs must be carried out by qualified personnel.

After performing the pertinent checks, DO NOT MAKE YOURSELF ANY REPAIRS. Contact your Technical Assistance Service, providing the model and serial number of the device (located on the characteristics label),

receive a list of companies that can offer an adequate technical service.

Servicio Asistencia Técnica Infrico

Tel: 00 34 957 51 14 68

Fax: 00 34 957 59 51 06

Email: sat@infrico.com

www.infrico.com

NOTE: If you need a spare part, always insist on factory authorized spare parts.

11. TROUBLE SHOOTING CHART

Many operating problems are derived from causes that can be easily eliminated without the need to contact the Technical Department. The following page shows a table with types of problems that may come up, their cause, and how to resolve them.

PROBLEM	POSSIBLE CAUSE	POSSIBLE SOLUTION
The apparatus does not work	1. It is not plugged into the electrical socket. 2. No electrical current is reaching the plug because the fuse has blown or the automatic power limiter has been tripped.	1. Insert the plug into the electrical socket and check that there is electrical current. 2. Replace the fuse or reconnect the automatic power limiter.
The device is not cooling very much	1. Check the cut-off temperature in the controller. 2. The door has not been closed properly or has been opened very frequently. 3. The device's ventilation grilles have been obstructed. 4. Condenser is dirty. 5. The device is directly exposed to sunlight or a heat source.	1. Reduce the cut-off temperature. 2. Ensure that the door is not kept open for long. 3. Keep these areas unobstructed as indicated in the "installation" section of this manual. 4. Clean with compressed air or a hard-bristle brush (not a steel one). 5. Move the refrigerator to a different location or shield it from the heat sources.

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Noisy operation	1. The device is not properly levelled. 2. Some of the internal tubes are touching. 3. Loose screws in a particular part. 4. Condenser or evaporator fan causes vibrations. 5. Too low oil charge in compressor. 6. Lose parts on condensing unit.	1. Level it as indicated in the “installation” of this manual. 2. Separate the tubes in contact. 3,6. Tighten the loose screws. 4. Level the equipment and tighten any loose screw. 5. If equipment was layed down on any of its faces, remain it 24 hours in an upright position without plugging it in, in order that oil returns to compressor. Also check for oil leaks.
The device creates too much ice in the evaporator	1. Doors not properly closed. 2. Doors opened too often. 3. It has not been defrosted.	1,2. Ensure that the door is not kept open for long. 3. Defrost the device.
Compressor does not start working	1. Disconnect switch open. 2. Blown fuse. 3. Defective wiring. 4. Overload protector tripped. 5. Open control contacts. 6. Defective relay. 7. Low gas charge in the system.	1. Close the disconnect switch. 2. Replace the blown fuse. 3. Check electrical wiring. 4. Check if there is an unusual low voltage in the power point. 5. Control may be defective, or unit location may be too cold. 6. Replace the relay. 7. Check for leaks.
Compressor does work, but stops on overload	1. Low voltage. 2. Defective unit wire. 3. Starting capacitor defective. 4. Defective compressor.	1. Check if there is an abnormal low voltage at the power point. 2. Check electrical wiring and installation. 3. Replace starting capacitor. 4. Replace compressor.
High head pressure	1. Overcharged with hot product unit. 2. Air or non-condensable gases in system. 3. Dirty condenser. 4. Defective condenser fan. 5. Unit location too hot.	1. Check product temperature and keep it out of the equipment for its chilling, if it is very hot. 2. Vacuum seal the system. 3. Clean the condenser. 4. Replace the condenser fan.

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	6. Restriction in expansion valve, strainer. 7. Discharge valve partially closed. 8. Discharge line obstructed.	5. Move the unit away from very hot locations. 6. Adjust expansion valve or strainer. 7. Adjust discharge valve. 8. Check and adjust discharge line.
Low head pressure	1. Insufficient refrigerant charge. 2. Leak in the system. 3. Cold unit location.	1. Check for possible refrigerant gas leaks. 2. Repair system leaks. 3. Move the unit away from very cold locations.
Compressor short cycles	1. Differential control set too close. 2. Refrigerant undercharge. 3. Refrigerant overcharge. 4. Discharge valve leaking. 5. Cutting out on high pressure control. 6. Dirty condenser.	1. Adjust the differential with the controller. 2. Check pressure control. 3. Adjust refrigerant level. 4. Replace discharge valve. 5. Adjust refrigerant charge to avoid overpressures. 6. Clean the condenser.

12. WARRANTY MANAGEMENT

Distinguished customer, we inform you of the rules on management of guarantees granted by our company to your products:

- Firstly, we inform you that products manufactured and sold by INFRICO SL are equipment destined for an industrial use, not for domestic use. Because of this, the applied warranty is not regulated by Consumers Law, but by the trade guarantee laws.

- INFRICO SL warranty, covers for the period of **one year** every manufacturing defect or any hidden defect of the product. The warranty that Infrico as a manufacturer gives to its commercial network is based on defective parts replacement sent with the shipping charge paid, being responsibility of the distributor covering the repair warranty (labour and consumables); and, of course, the equipment start-up in the first installation in the establishment.

- It is responsibility of the distributors to take care about final users guarantees, requesting INFRICO SL the necessary components for repairs or replacements.

- The warranty does not cover panes breaking after having been delivered by Infrico; nor damaged parts due to a bad use or the normal wear of them.

- If during the first three months of function a fault whose repair is disproportionate in comparison with the device value is detected, there could be conceded the total equipment replacement.
- Any intervention in the device that affects the electrical connection, cooling part or electronic microcontroller not authorized by our SAT (Technical Assistance Service) will result in the loss of the guarantee period remaining of the device.

- If exceptionally the distributor is unable of making a repair, there could be conceded, prior SAT authorization, the gathering of a device for its repair at INFRICO SL facilities, being afterwards returned to the client. If the repair takes place in a period out of warranty, the repair and transport costs will be charged to the client.

- Every SAT authorized return, for its repair or replacement is inspected in our facilities. If different faults than the ones complaint external to our manufacturing or caused by bad use or wear are detected, INFRICO SL will not take charge of the repair or replacement costs, which will be assumed by the client.

- Warranty conditions will not be modified unless prior written agreement is reached with the client regarding the modification of the conditions of the supply contract.

12.1 Warranty certificate

Please, complete the following report:

FOR THE CLIENT

User: _____

Address:_____ Tel:_____

Postal code / Town:_____

Distributor:_____

Purchase date:_____

Model:_____ Serial No:_____

Compressor No: _____

Seller Signature Purchaser Signature

FOR THE DISTRIBUTOR

Ask your distributor to fill in:

User: _____

Address:_____ Tel:_____

Postal code / Town:_____

Distributor:_____

Purchase date:_____

Model:_____ Serial No:_____

Compressor No: _____

Seller Signature Purchaser Signature

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EVJ 200

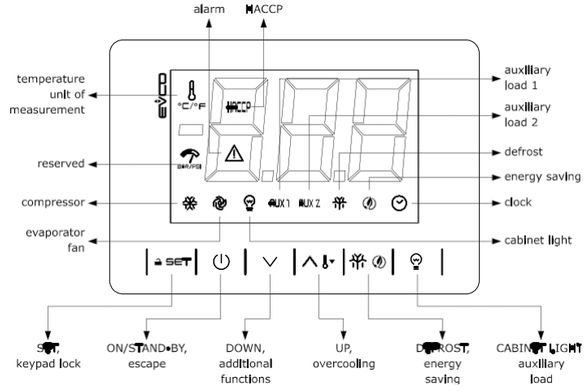
Extra-large controllers for refrigerated and freezers tables, with energy-saving strategies

PLEASE READ CAREFULLY and save this document
CONSIDER THE ENVIRONMENT

General characteristics

- Controllers for low temperature units.
- Power supply 230 VAC.
- Incorporated clock (according to the model).
- Cabinet probe and evaporator probe (PTC/NTC).
- Door switch input.
- Compressor relay 16 A res. @ 250 VAC or 30 A res. @ 250 VAC (according to the model)
- Alarm buzzer.
- TTL MODBUS slave port for EV connect APP or BMS.
- Port for SD card data-logger module EVBD05 (according to the model).
- Models in plastic container or open-frame (according to the model)

1. User interface and main functions



1.1. Switching the device on and off

1. | | ⏻ | | If POF = 1 (default), touch the ON/STAND-BY key for 2s.

If the device is switched on, the display will show the P5 value ("cabinet temperature" default); if the display shows an alarm code, see the section *ALARMS*.

LED	ON	OFF	FLASHING
❄	COMPRESSOR ON	COMPRESSOR OFF	-COMPRESSOR PROTECTION ACTIVE -SETPOINT BEING SET
	EVAPORATOR FAN ON	EVAPORATOR FAN OFF	EVAPORATOR FAN STOP ACTIVE
	CABINET LIGHT ON	CABINET LIGHT OFF	CABINET LIGHT ON BY DIGITAL INPUT
AUX 1	AUXILIARY FUNCTION 1 ON	AUXILIARY FUNCTION 1 OFF	- AUXILIARY FUNCTION 1 ON BY DIGITAL INPUT - AUXILIARY FUNCTION 1 DELAY ACTIVE
AUX 2	AUXILIARY FUNCTION 2 ON	AUXILIARY FUNCTION 2 OFF	- AUXILIARY FUNCTION 2 ON BY DIGITAL INPUT - AUXILIARY FUNCTION 2 DELAY ACTIVE
	DEFROST OR PRE-DRIP ACTIVE	-	-DEFROST DELAY ACTIVE -DRIPPING ACTIVE
	-ENERGY SAVING ACTIVE -LOW CONSUMPTION ACTIVE	-	-
	VIEW TIME	-	SET DATE, TIEM AND DAY OF THE CURRENT WEE
°C/°F	VIEW TEMPERATURE	-	QUICK COOLING ACTIVE
HACCP	SAVED HACCP ALARM	-	NEW HACCP ALRMA SAVED
	ALARM ACTIVE	-	-

If Loc = 1 (default) and 30s have elapsed without the keys being pressed, the display will show the "**Loc**" label and the keypad will lock automatically.

1.2. Unlock keypad

Touch a key for 1s: the display Will show the label **"UnL".**

1.3 Set the setpoint (if r3 = 0, default)

Check that the keypad isn't locked.

1.	| SET |	Touch the SET key.
2.	∧ / ∨	Touch the UP or DOWN key within 15s to set the value within the limits r1 and r2 (default "-40... 50")
3.	| SET |	Touch the SET key (or do not operate for 15s).

1.4 Activate manual defrost

Check that the keypad isn't locked, and that quick cooling isn't active.

1. | | ❄ | | Touch the DEFROST key for 2s.

If P3 = 1 (default), defrost is activated provided that the evaporator temperature is lower than the d2 threshold.

1.5 Cabinet light on/off (if u1, u3, u4 or u6 = 5, default)

1. | | 💡 | | Touch the CABINET LIGHT key.

1.6 Button-operated load on/off (if u1, u3, u4 or u6 = 9 or 10)

1. | | 💡 | | Touch the CABINET LIGHT key (for 2s if u1, u3, u4 or u6 = 5).

If u1 or u11 = 6, the **demisting** switch on for the u11 duration.

1.7 Silence buzzer (if u14 = 1, default)

Touch a key.
If u1 or u11 = 11 and u9 = 1, the alarm output is deactivated.

2. Additional functions.

2.1 Activate/deactivate energy saving in manual mode

Check that the keypad isn't locked.

1. | | ❄ | | Touch the DEFROST key.

The setpoint becomes "setpoint + r4", at maximum for HE2 duration.

2.2 View/delete compressor functioning hours

Check that the keypad isn't locked.

1.	∨	Touch the DOWN key for 1s.
2.	UP/DOWN	Touch the UP or DOWN key within 15s to select a label.

LAB.	DESCRIPTION
CH1	view compressor functioning hundreds of hours
CH2	view second compressor functioning hundreds of hours
rCH	delete compressor and second compressor functioning hours

3.	SET	Touch the SET key.
4.	UP/DOWN	Touch the UP or DOWN key to set "149" (to select rCH).
5.	SET	Touch the SET key.
6.	⏻	Touch the ON/STAND-BY key (or do not operate for 60s) to exit the procedure.

2.3 View the temperature detected by the probes

Check that the keypad isn't locked.

1.	∨	Touch the DOWN key for 1s.
2.	UP/DOWN	Touch the UP or DOWN key within 15s to select a label.

LAB.	DESCRIPTION
Pb1	cabinet temperature (if P4 = 0, 1 or 2) inlet air temperature (if P4 = 3)
Pb2	evaporator temperature (if P3 = 1 or 2)
Pb3	auxiliary temperature (if P4 = 1, 2 or 3)
Pb4	calculated product temperature (CPT; if P4 = 3)

3.	SET	Touch the SET key.
4.	⏻	Touch the ON/STAND-BY key (or do not operate for 60s) to exit the procedure.

3. Settings

3.1 Setting configuration parameters

1.	SET	Touch the SET key for 4s: the display will show the label "PA".
2.	SET	Touch the SET key.
3.	UP/DOWN	Touch the UP or DOWN key within 15s to set the PAS value (default "-19").
4.	SET	Touch the SET key (or do not operate for 15s): the display will show the label "SP".
5.	UP/DOWN	Touch the UP or DOWN key to select a parameter.
6.	SET	Touch the SET key.
7.	UP/DOWN	Touch the UP or DOWN key within 15s to set the value.
8.	SET	Touch the SET key (or do not operate for 15s).
9.	SET	Touch the SET key for 4s (or do not operate for 60s) to exit the procedure.

3.2 Set the date, time and day of the week (available in EVJ213 and EVJ214 or in EVJ203 and EVJ204 with interface EVIF25TBX connected)

N.B.

-If the device is connected to the interface EVIF25TBX, do not disconnect the device from the mains within two minutes since the setting of the time and day of the week.

- If the device communicates with the APP EVconnect, the date, time and day of the week will automatically be set by the smartphone or tablet.

Check that the keypad isn't locked.

1.	∨	Touch the DOWN key for 1s.
2.	UP/DOWN	Touch the UP or DOWN key within 15s to select the label "rtc".
3.	SET	Touch the SET key: the display will show the label "y" followed by the last two figures of the year.
4.	UP/DOWN	Touch the UP or DOWN key within 15s to set the year.
5.	Repeat actions 3 and 4 to set the next labels.	

LAB.	MEANING OF THE NUMBERS FOLLOWING THE LABEL
n	month (01… 12)
d	day (01… 31)
h	time (00… 23)
n	minutes (00… 59)

6.	SET	Touch the SET key: the display will show the label for the day of the week.
7.	UP/DOWN	Touch the UP or DOWN key within 15s to set the day of the week.

LAB.	DESCRIPTION
Mon	Monday
tuE	Tuesday
UEd	Wednesday
thu	Thursday
Fri	Friday
Sat	Saturday
Sun	Sunday

8.	SET	Touch the SET key: the device will exit the procedure.
9.	⏻	Touch the ON/STAND-BY key to exit the procedure beforehand.

3.1 Reset the factory settings

N.B.

Check that the factory settings are appropriate; see the section CONFIGURATION PARAMETERS.

	SET	
1.	SET	Touch the SET key for 4s: the display will show the label "PA".
2.	UP/DOWN	Touch the SET key.
3.	SET	Touch the UP or DOWN key within 15s to set "149".
4.	SET	Touch the SET key (or do not operate for 15s): the display will show the label "dEF".
5.	UP/DOWN	Touch the SET key.
6.	SET	Touch the UP or DOWN key within 15s to set "1".
7.	Interrupt the power supply to the device.	Touch the SET key (or do not operate for 15s).
8.	SET	Touch the SET key for 2s before action 6 to exit the procedure beforehand.
9.		

4. Configuration Parameters

N.	PAR.	SETPOINT	MIN... MAX.	EVJ203
1	SP	setpoint	r1... r2	32
N.	PAR.	ANALOGUE INPUTS	MIN... MAX.	EVJ203
2	CA1	cabinet probe offset	-25... 25 °C/°F si P4 = 3, air in probe offset	0
3	CA2	evaporator probe offset	-25... 25 °C/°F	0
4	CA3	auxiliary probe offset	-25... 25 °C/°F	0
5	P0	enable type	0 = PTC; 1 = NTC	1
6	P1	enable ºC decimal point	0 = no; 1 = sí	0
7	P2	temperature unit measurement	0 = °C; 1 = °F	1
8	P3	evaporator probe function	0 = disabled 1 = defrost + fan 2 = fan	1
9	P4	configurable input function	0 = digital input 1 = condenser probe 2 = critical temperature probe 3 = air out probe si P4 = 3, regulation temperature = product temperature (CPT)	0
10	P5	value displayed	0 = regulation temperature 1 = setpoint 2 = evaporator temperature 3 = auxiliary temperature 4 = air in temperature	0
11	P7	inlet air weight for calculated product temperature (CPT)	0... 100 % CPT = {[(P7 x (inlet air T)] + [(100 - P7) x (outlet air T)]: 100}	50
12	P8	tiempo actualización display	0... 250 s: 10	5
N.	PAR.	REGULATION	MIN... MAX.	EVJ203
13	r0	setpoint differential	1... 15 °C/°F	7
14	r1	minimum setpoint	-99 °C/°F... r2	28
15	r2	maximum setpoint	r1... 199 °C/°F	68
16	r3	enable setpoint block	0 = no 1 = yes	0
17	r4	setpoint offset in energy saving	0... 99 °C/°F	0
18	r5	regulation for heat or cold	0 = for cold 1 = for heat	0
19	r6	setpoint offset in overcooling	0... 99 °C/°F	0

N.	PAR.	REGULATION	MIN... MAX.	EVJ203
20	r7	overcooling duration	0... 240 min	0 min
21	r12	Position of the r0 differential	0 = asymmetric 1 = symmetric	0
N.	PAR.	COMPRESSOR	MIN... MAX.	EVJ203
22	C0	compressor o delay afer poqer-on	0... 240 min	1 min
23	C1	delay between 2 compressor switch-ons	0... 240 min	1 min
24	C2	compressor off minimum time	0... 240 min	1 min
25	C3	compressor on minimum time	0... 240 min	0 s
26	C4	compressor of time during cabinet probe alarm	0... 240 min	10 min
27	C5	compressor on time during cabinet probe alarm	0... 240 min	10 min
28	C6	threshold for high condensation warning	0... 199 °C/°F differential = 2ºC / 4ºC	158
29	C7	threshold for high condensation alarm	0... 199 °C/°F	176
30	C8	high condensation alarm delay	0... 15 min	0 min
31	C10	compressor hours for service	0... 999 h x 100 0 = disabled	0 GG
32	C11	second compressor switch-on delay	0... 240 s	20 s
N.	PAR.	DEFROST	MIN... MAX.	EVJ203
33	d0	automatic defrost interval	0… 99 h 0 = only manual Si d8 = 3, maximum interval	4 h
34	d1	defrost type	0… 99 h 0 = only manual Si d8 = 3, maximum interval	2
35	d2	threshold for defrost end	-99… 99 ºC / ºF	46
36	d3	defrost duration	0… 99 h Si P3 = 1, maximun duration	30 min
37	d4	enable defrost at power-on	0 = no; 1 = yes	0
38	d5	defrost delay after power-on	0… 99 min	0 min
39	d6	value displayed during defrost	0 = regulation temperature 1 = display locked 2 = dEF label	1
40	d7	dripping time	0… 15 min	1 min
41	d8	defrost Interval counting mode	0 = device on hours 1 = compressor on hours 2 = hours evaporator temperature < d9 3 = adaptive 4 = real time	0

N.	PAR.	DEFROST	MIN... MAX.	EVJ203
42	d9	evaporation threshold for automatic defrost Interval counting	-99... 99 °C/°F	32
43	d11	enable defrost timeout alarm	0 = no; 1 = yes	0
44	d15	compressor on consecutive time for hot gas defrost	0… 99 min	0 min
45	d16	pre-dripping time for hot gas defrost	0… 99 min	0 min
46	d18	adaptive defrost interval	0... 999 min if compressor on + evapora-tor temperature < d22 0 = only manual	40 min
47	d19	threshold for adaptive defrost (relative to optimal evaporation temperature)	0... 40 °C/°F optimal evaporation temperature - d19	6
48	d20	compressor on consecutive time for defrost	0... 999 min 0 = disabled	180 min
49	d21	compressor on consecutive time for defrost after power-on and overcooling	0... 500 min if (regulation temperature - setpoint) > 10°C/20 °F 0 = disabled	200 min
50	d22	evaporation threshold for adaptive defrost interval counting (relative to optimal evaporation temperature)	-10... 10 °C/°F optimal evaporation temperature + d22	-4
51	d25	enable air out probe for defrost during evaporator probe alarm	0 = no 1 = yes	0
52	d26	defrost interval during evaporator probe alarm	0... 99 h 0 = only manual if d25 = 1	6 h
N.	PAR.	ALARMS	MIN... MAX.	EVJ203
53	A0	select value for high/low temperature alarms	0 = regulation temperature 1 = evaporator temperature	0
54	A1	threshold for low temperature alarm	-99... 99 °C/°F	9
55	A2	low temperature alarm type	0 = disabled 1 = relative to setpoint 2 = absolute	1
56	A4	threshold for high temperature alarm	-99... 99 °C/°F	18
57	A5	high temperature alarm type	0 = regulation temperature 1 = evaporator temperature 2 = auxiliary temperature	1
58	A6	high temperature alarm delay after power-on	0... 240 min	120 min
59	A7	high/low temperature alarms delay	0... 240 min	15 min
60	A8	high temperature alarm delay after defrost	0... 240 min	60 min
61	A9	high temperature alarm delay after door closing	0... 240 min	15 min

N.	PAR.	ALARMS	MIN... MAX.	EVJ203
62	A11	high/low temperature alarms reset differential	1… 15 °C / °F	4
N.	PAR.	FANS	MIN... MAX.	EVJ203
63	F0	evaporator fan mode during normal operation	0 = off 1 = on 2 = on if compressor on 3 = thermoregulated (with regulation temperature + F1) 4 = thermoregulated (with regulation temperature + F1) if compressor on 5 = according to F6 6 = thermoregulated (with F1) 7 = thermoregulated (with F1) if compressor on	7
64	F1	threshold for evaporator fan operation	-99… 99 °C / °F	50
65	F2	evaporator fan mode during defrost and dripping	0 = off 1 = on 2 = according to F0	1
66	F3	evaporator fan off maximum time	0... 15 min	10 min
67	F4	evaporator fan off time during energy saving	0... 240 s x 10 if F0 ≠ 5	30 s x 10
68	F5	evaporator fan on time during energy saving	0... 240 s x 10 if F0 ≠ 5	30 s x 10
69	F6	high/low humidity operation	0 = low humidity (with F17 and F18 if compressor off, on if compressor on) 1 = high humifity (on)	0
70	F7	threshold for evaporator fan on after dripping (relative to setpoint)	-99... 99 °C/°F setpoint + F7	9
71	F8	threshold for evaporator fan operation differential	1... 15 °C/°F	4
72	F9	evaporator fan off delay after compressor off	0... 240 s if F0 = 2 or 5	10 s
73	F10	condenser fan mode	0 = thermoregulated (with F11) 1 = thermoregulated (with F11) if compressor off, on if compressor on 2 = thermoregulated (with F11) if compressor off, on if compressor on, off during defrost, pre-dripping and dripping	1
74	F11	threshold for condenser fan on	0... 99 °C/°F differential= 2 °C/4 °F	59
75	F12	condenser fan off delay after compressor off	0... 240 s if P4 ≠ 1	120 s

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N.	PAR.	FANS	MIN... MAX.	EVJ203
76	F17	evaporator fan off time with low humidity	0... 240 s	60 s
77	F18	evaporator fan on time with low humidity	0... 240 s	10 s
N.	PAR.	DIGITAL INPUTS	MIN... MAX.	EVJ203
78	i0	door switch input function	0 = disabled 1 = compressor + evaporator fan off 2 = evaporator fan off 3 = cabinet light on 4 = compressor + evaporator fan off, cabinet light on 5 = evaporator fan off + cabinet light on	0
79	i1	door switch input activation	0 = with contact closed 1 = with contact open	1
80	i2	open door alarm delay	-1... 120 min - 1 = disabled	5 min
81	i3	regulation inhibition maximum time with door open	-1... 120 min - 1 = until the closing	15 min
82	i5	multi-purpose input function	0 = disabled 1 = energy saving 2 = iA alarm 3 = iSd alarm 4 =button-operated load 1 on 5 =button-operated load 2 on 6 = device on/off 7 = LP alarm 8 = C1t alarm 9 = C2t alarm	0
83	i6	multi-purpose input activation	0 = with contact closed 1 = with contact open	1
84	i7	multi-purpose input alarm delay	0... 120 min if i5 = 3 or 7, compressor on delay after alarm reset	0 min
85	i8	number of multi-purpose input activations for high pressure alarm	0... 15 0 = disabled if i5 = 3	0

N.	PAR.	DIGITAL INPUTS	MIN... MAX.	EVJ203
86	i9	reset counter time for high pressure alarm	1... 999 min	240 min
87	i10	door closed consecutive time for energy saving	0... 999 min after regulation temperature < SP 0 = disabled	0 min
88	i13	number of door openings for defrost	0... 240 0 = disabled	180
89	i14	door open consecutive time for defrost	0... 240 min 0 = disabled	32 min
N.	PAR.	DIGITAL OUTPUTS	MIN... MAX.	EVJ203
90	u1c	K1 output configuration	0 = compressor 1 1 = compressor 2 2 = evaporator fans 3 = condenser fans 4 = defrost 5 = cabinet light 6 = demisting 7 = door heaters 8 = heater for neutral zone 9 = button-operated load 1 on 10 = button-operated load 2 on 11 = alarm 12 = on/stand-by	0
91	u2c	K2 output configuration	0 = compressor 1 1 = compressor 2 2 = evaporator fans 3 = condenser fans 4 = defrost 5 = cabinet light 6 = demisting 7 = door heaters 8 = heater for neutral zone 9 = button-operated load 1 on 10 = button-operated load 2 on 11 = alarm 12 = on/stand-by	2
92	u3c	K3 output configuration	0 = compressor 1 1 = compressor 2 2 = evaporator fans 3 = condenser fans 4 = defrost 5 = cabinet light 6 = demisting 7 = door heaters 8 = heater for neutral zone 9 = button-operated load 1 on 10 = button-operated load 2 on 11 = alarm 12 = on/stand-by	5

N.	PAR.	DIGITAL OUTPUTS	MIN... MAX.	EVJ203
93	U4c	K4 output configuration	0 = compressor 1 1 = compressor 2 2 = evaporator fans 3 = condenser fans 4 = defrost 5 = cabinet light 6 = demisting 7 = door heaters 8 = heater for neutral zone 9 = button-operated load 1 on 10 = button-operated load 2 on 11 = alarm 12 = on/stand-by	-
94	u2	enable cabinet light and button-operated load in stand-by	0 = no 1 = yes manual	0
95	u4	enable alarm output off silencing the buzzer	0 = no 1 = yes	1
96	u5	threshold for door heaters on	-99... 99 °C/°F differential = 2 °C/4 °F	30
97	u6	demisting on duration	1... 120 min	5 min
98	u7	neutral zone threshold for heating (relative to setpoint)	-99... 99 °C/°F differential = 2 °C/4 °F setpoint + u7	-9
99	u9	enable alarm buzzer	0 = no 1 = yes	1
N.	PAR.	REAL TIME CLOCK	MIN... MAX.	EVJ203
100	Hr0	enable clock	0 = no; 1 = yes	0
N.	PAR.	ENERGY SAVING	MIN... MAX.	EVJ203
101	HE2	energy saving maximum duration	0... 999 min - 1 = until the door opening	0’
N.	PAR.	REAL TIME ENERGY SAVING	MIN... MAX.	EVJ203
102	H01	energy saving time	0... 23 h	0 h
103	H02	energy saving máximum duration	0... 24 h	0 h
N.	PAR.	REAL TIME DEFROST (if d8 = 4)	MIN... MAX.	EVJ203
104	Hd1	1st daily defrost time	h- = disabled	-h
105	Hd2	2nd daily defrost time	h- = disabled	-h
106	Hd3	3rd daily defrost time	h- = disabled	-h
107	Hd4	4th daily defrost time	h- = disabled	-h
108	Hd5	5th daily defrost time	h- = disabled	-h
109	Hd6	6th daily defrost time	h- = disabled	-h
N.	PAR.	SAFETIES	MIN... MAX.	EVJ203
110	POF	enable ON/STAND-BY key	0 = no 1 = yes	1
111	Loc	enable keypad lock	0 = no 1 = yes	1
112	PAS	password	-99... 999	-

N.	PAR.	SAFETIES	MIN... MAX.	EVJ203
113	PA1	contraseña 1er Nivel	-99... 999	-
114	PA2	contraseña 2º Nivel	-99... 999	-
N.	PAR.	DATA-LOGGING EVLINK	MIN... MAX.	EVJ203
115	rE0	data-logger sampling interval	0... 240 min	15 min
116	rE1	recorded temperature	0 = none; 1 = cabinet 2 = evaporator 3 = auxiliary 4 = cabinet and evaporator 5 = tall	4
N.	PAR.	MODBUS	MIN... MAX.	EVJ203
117	LA	MODBUS address	1... 247	247
118	Lb	MODBUS baud rate	0 = 2,400 baud 1 = 4,800 baud 2 = 9,600 baud 3 = 19,200 baud	2
119	LP	parity	0 = none 1 = odd 2 = even	2
N.	PAR.	BLUETOOTH	MIN... MAX.	EVJ203
120	bLE	enable Bluetooth	0 = no 1 = yes	0

5. Alarms

COD.	DESCRIPTION	RESET	TO CORRECT
Pr1	cabinet probe alarm	automatic	-check P0
Pr2	evaporator probe alarm	automatic	-check probe integrity
Pr3	auxiliary probe alarm	automatic	-check electrical connection
rtc	clock alarm	manual	set date, time and day of the week
AL	low temperature alarm	automatic	check A0, A1 and A2
AH	high temperature alarm	automatic	check A4 and A5
id	open door alarm	automatic	check i0 and i1
PF	power failure alarm	manual	-touch a key -check electrical connection
COH	high condensation warning	automatic	check C6
CSd	high condensation alarm	manual	-switch the device off and on -check C7
iA	multi-purpose input alarm	automatic	check i5 and i6
iSd	high pressure alarm	manual	-switch the device off and on -check i5, i6, i8, i9
LP	low pressure alarm	automatic	check i5 and i6
C1t	compressor thermal switch alarm	automatic	check i5 and i6
C2t	second compressor thermal switch alarm	automatic	check i5 and i6
dFd	defrost timeout alarm	manual	-touch a key -check d2, d3 and d11
FUL	SD card full alarm	manual	free up space on the SD card or replace it
Sd	No SD card inserted alarm	manual	insert the SD card or replace it