GB	AS/NZS

ORIGINAL USERAND MAINTENANCE MANUAL

Read carefully and keep for future use

LIBRA 70

R290

ORIGINAL INSTRUCTIONS

GALILEI
REFRIGERAZIONE & DESIGN

THANK YOU!

Dear customer,

We thank you very much for choosing a product of Galilei Refrigerazione.

We wish you a profitable and successful use of this cabinet, meanwhile we kindly ask you to read carefully the content of this manual before its installation and use. The instructions of this manual will provide you all the necessary information to guarantee a safe, effective, and long-lasting use of this equipment.

Galilei Refrigerazione's Team

Caution!! Read the content of this manual before installation and use of the equipment

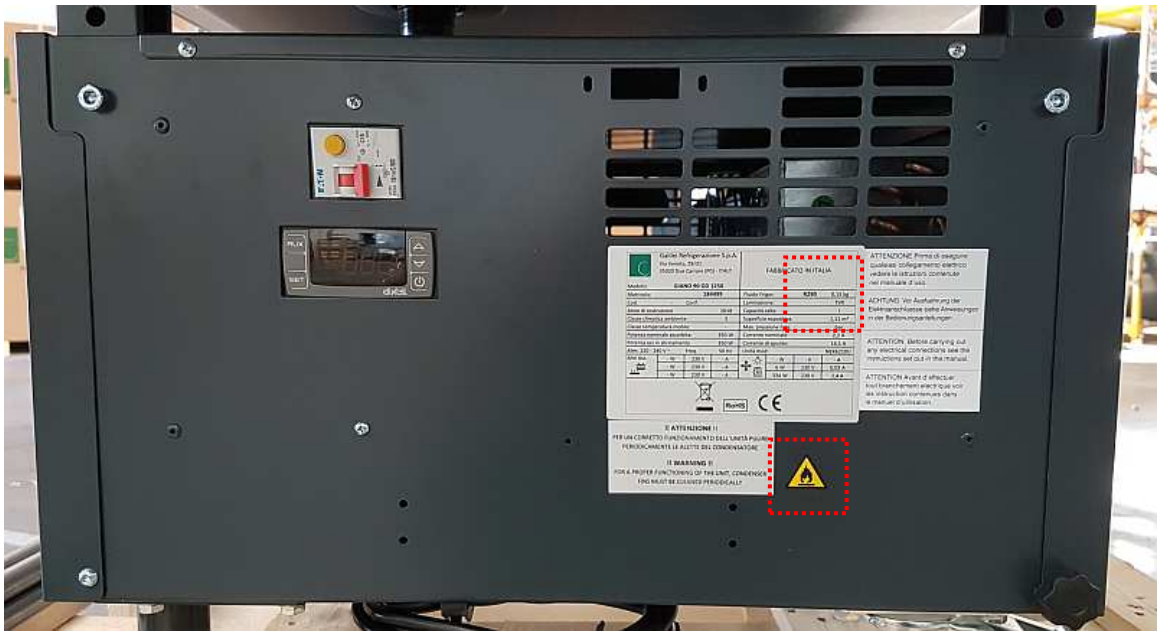
- ☞ Consider the User Manual as integral part of the equipment.
- ☞ Ensure that the Manual is at disposal of the personnel who will be using the cabinet and\or carrying out any maintenance operation on it.
- ☞ In case of resale ensure that the Manual is passed on to the subsequent owners.
- ☞ Keep the Manual in good conditions for the whole life of the equipment, and ensure its content remains undamaged. In case, ask for a copy to the manufacturer.

FOR YOUR SAFETY

Cabinets working with flammable refrigerant R290 (Propane)

End-users and service personnel are required to fully understand and observe the following instructions.

☞ Notice: cabinets working with **flammable refrigerant** are identified by a specific label applied to the side of the base. The Type of refrigerant is also specified in the rating plate, see below picture.



⚠ Each and every operator, as well as the maintenance personnel, must carefully read und fully understand or have these instructions explained before using this equipment.

⚠ Warning!! Do not damage the refrigerant circuit.

⚠ *Warning!! Do not* keep explosive substances such as aerosol cans with a flammable propellant inside the equipment.

⚠ *Warning!!* Do not use mechanical devices or other means to speed up the defrost process unless those (if any) expressly permitted by the producer.

⚠ *Warning!!* Do not use electric appliances inside the display area unless those (if any) expressly permitted by the producer.

⚠ *Warning!!* Keep clear of obstruction all ventilation openings in the appliance enclosure

⚠ *Do not* exceed the load limits of display decks and shelves, as reported in the “General Data and Features” section.

Warning!! In case the cable or the plug is damaged, ask for a prompt replacement by qualified maintenance personnel.

SERVICING, MAINTENANCE AND REFRIGERANT HANDLING

R290 is classified as **flammable refrigerant** of Class A3 according to ANSI/ASHRAE. It is a highly flammable and very easy to ignite. It can burn with explosive impacts.

R290 in contact with air can cause a risk of fire or explosion in presence of **open flames** or **sparks** generated by electrical equipment

Servicing can be only performed by **qualified personnel** holding a valid certificate from an accredited assessment authority which authorises:
- the competence to work on and break into a R290 refrigeration circuit
- the competence to handle refrigerants (including hydrocarbons) safely in accordance with the EN13313:2011

Service intervention must be carried out considering the mentioned above risk: **do not use electric tools and open flames**.

Components which require substitution: only use **original spare parts** for they have been specifically approved for the use with this kind of refrigerant gas.

The refrigerant circuit is hermetically sealed (closed loop) therefore refrigerant filling, draining or substitution of some components is **not possible without breaking the vacuum**. In such a case:
- the substitution **cannot be performed indoor** at the customer's premises.
- the cabinet should be **moved to a controlled workshop environment** suitable for the type of repair where work can be conducted safely.
- In any case, work in **confined spaces must be avoided.** Work area can be in the open or, alternatively, must be properly ventilated**.** Ventilation should be able to safely disperse any released refrigerant and expel it externally to the atmosphere.

While working on cabinet working with R290 during which the refrigerant can be possibly released to the surrounding space, all possible **ignition sources**, including cigarette smoking, must be reasonably far away from the place of installation, maintenance or disposal,

In case hot work is required (welding, brazing) **best practice must be applied**. This should require the following procedure to avoid risk of fire or explosion.
- remove refrigerant
- purge the circuit (with inert gas)
- evacuate
- purge again with inert gas
- open the circuit by cutting (or brazing)

Operator must be properly skilled and authorized to perform hot works on systems working with flammable refrigerants.

For Split-Systems: In order to reduce flammability hazards the installation of this appliance must only be carried out by a suitably qualified person.

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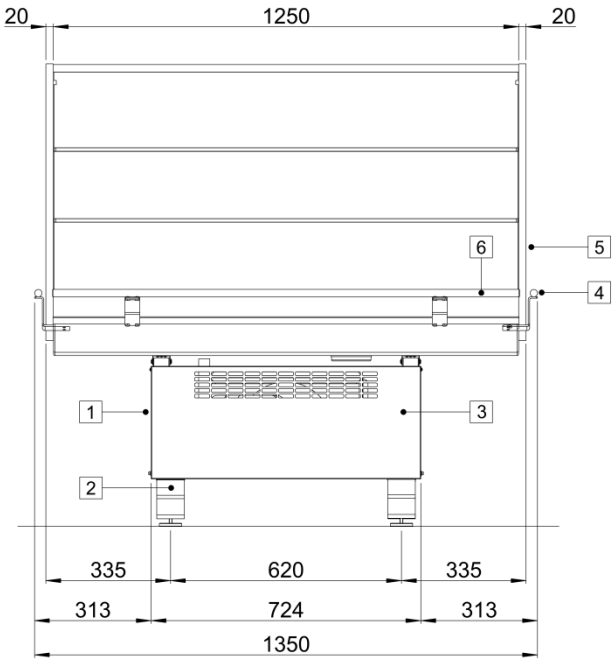
SECTION RESERVED TO INSTALLATION AND MAINTENANCE PERSONNEL

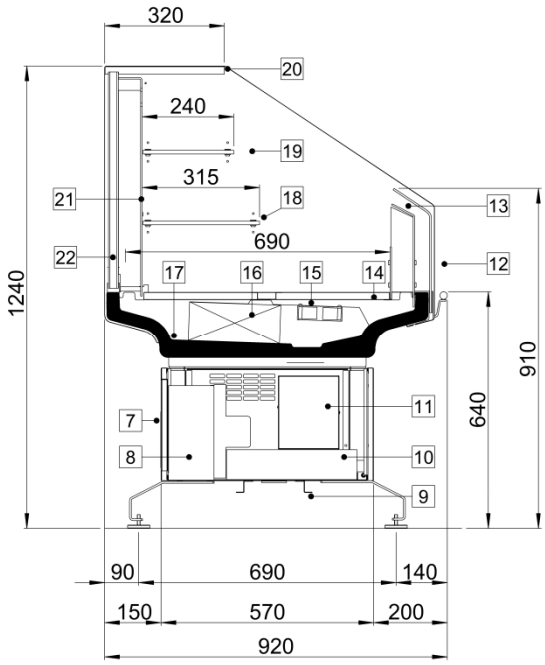
GENERAL DATA AND FEATURES

LIBRA 70 semivertical plug-in counter

Self-service refrigerated semivertical counter with forced air circulation and built-in condensing unit, suitable for the displaying and merchandising of pre-packed food such as salami and cold meats, cheese, milk and dairy products, delicatessen, fruits and vegetables. Complete with endwalls, display decks in galvanized steel powder-coated in RAL 9005, intermediate shelves in tempered glass adjustable both in height and inclination, front bumper-rail in stainless steel D. 20 mm, electronic control panel with safety circuit breaker as main switch, evaporator with thermostatic valve, electric defrost, automatic system for the re-evaporation of the defrost water. Base in RAL 9006 (silver grey) equipped with levelling feet. Foamed body multiplexable side-by-side with others.

General dimensions



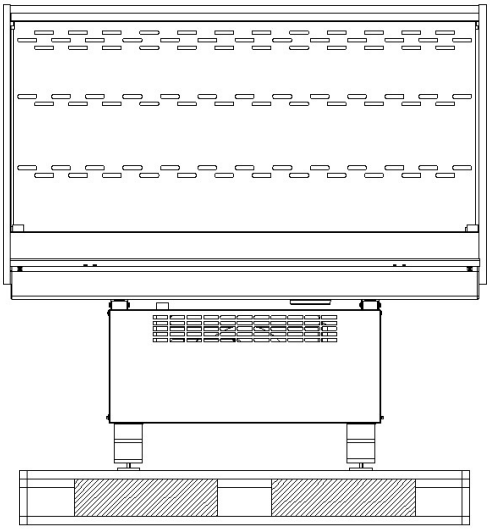


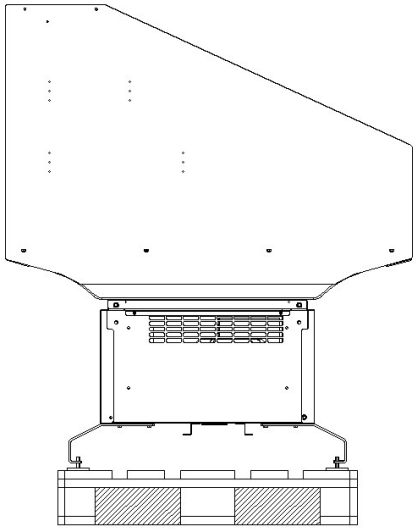
1 Basement front-panel
2 levelling feet
3 Removable front panel
4 Side bumper rail
5 Endwall
6 Front bumper-rail
7 Condenser cladding panel
8 Condensing unit
9 Cable wrap bracket
10 Defrost water tank
11 Control panel / terminal box
12 Front glass
13 Air intake baffle
14 Display decks
15 Fan panel
16 Evaporator
17 Insulated carcass
18 Intermediate shelf 315mm
19 Intermediate shelf 245mm
20 Plexiglass top canopy
21 Polycarbonate back-side panel
22 Thermopane external back-side

Unloading and handling of the cabinet

in order to be transported, the cabinet is delivered on a Europallet with standard dimensions (120 x 80 cm), and fixed by means of proper fixing plates. Unloading must be carried out by means of a forklift, using the designated handling points for this kind of pallet (along the stringerboards or deckboards, see hatched area on the below pictures). We take this opportunity to remind that the use of forklifts is exclusively allowed to authorized personnel who has been properly certified as "forklift operator".

⚠ For the placement of the unit on the final point of installation please refer to the section "GENERAL RECOMMENDATIONS" -> "PLACEMENT OF THE CABINET".





Once the cabinet is placed on the final point of installation, remove the protecting film and all fixing plates. The cabinet will look like the above pictures . Endwalls, bumper-rails and front-glasses are packaged separately and placed on the display decks inside the cabinet.

⚠ For the installation of the parts mentioned above, make reference to the section "SETTING-UP AND STARTING THE UNIT" of this manual. We remind you that the installation must be carried out by skilled personnel only, assembly instructions are therefore to be found in the section of this manual dedicated to technical staff ("SECTION RESERVED TO INSTALLATION AND MAINTENANCE PERSONNEL")

Weights

Cabinet without packaging: 200 kg
Cabinet with packaging: 225 kg

Noise level

Noise level of the cabinet can vary according to the environment conditions (temperature and humidity inside the P.o.S.) and to the cleaning level of the condenser. The tests carried out in our lab have recorded a noise level of 55 dBa (according the conditions defined in the norm EU 89/392/CEE).

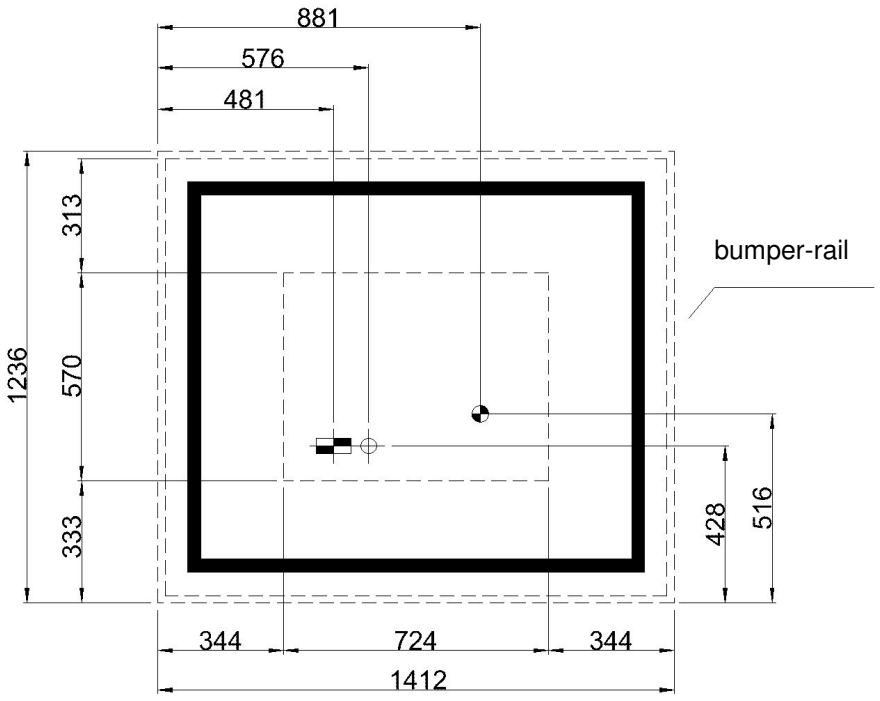
Maximum Loading

Top Canopy (width 350mm):	8 kg
Upper intermediate Shelf (width 240mm):	12 kg
Lower Intermediate Shelf (width 315mm):	16 kg
Lower display deck (width 690mm):	80 kg

Position of water draining outlet and power connection

The cabinet is equipped with a built-in condensing unit and an automatic system for the re-evaporation of the condensing water. In normal conditions (operation in the climate class certified for this model), no floor water-outlet or additional cable ducts are to be provided; they will have instead to be provided in case of possible remote versions, served by external condensing units.

For this purpose, the positions of water draining-outlet, evaporator piping opening and cable-exit are shown in the below picture. Dimensions are referred to the points located on the bottom part of the injected carcass, respect the basement of the cabinet itself. The below dimensions are related to a cabinet in horizontal position.



Water draining outlet (PVC pipe D.40mm)

Evaporator piping opening

Bottom cable-exit

GENERAL RECOMMENDATIONS

It is hardly necessary to pay attention to the following instructions and guidelines, as well as to the pictograms and their meanings. The topics included in this section of the manual have been categorized and grouped according the following criteria:

☞ *NOTICE: information for a correct and effective use of the equipment.*

⚠ *DANGER: topics related to potential risks for users and third persons.*

⚠ *WARNING: topics related to potential risks for things and/or for the equipment itself.*

Placement of the cabinet

⚠ For unloading and handling of the counter by means of a forklift make reference to the handling/lifting points described in this manual. The use of forklifts is exclusively allowed to skilled and authorized personnel who has been certified as “forklift operator”. During unloading, placement and installation of the cabinets the use of proper protective equipment is required (e.g. protective gloves and eyewear).

☞ **The cabinet cannot be used in open spaces**. Verify the environment conditions in which the unit is going to be installed (temperature and relative humidity) and make sure they are not higher than those of the climate class indicated in the identification plate (e.g. climate class 3, max. temp. 25°C, R.H. 60%). Higher levels of temperature and/or relative humidity can possibly cause a higher energy consumption and poorer performances of the cabinet. Such possible conditions are therefore likely to cause a shortening of the shelf-life and a rapid deterioration of the displayed products.

☞ **Avoid the exposure of the cabinet to direct sunlight**, or a placement of the unit in proximity of hot sources like cooking ovens, heating radiators, high-intensity lighting systems and any other possible heating source.

☞ It is hardly recommended to place the unit away from doors, windows, AC air-grills. In any case, **it must be avoided that air drafts with speed higher than 0.2 m/sec may hit the cabinet**.

☞ Cabinets with built-in condensing unit (plug-in): assure a frequent change of air in the environment in which the cabinet is operating, also during closing time/closing holidays of the P.o.S.

⚠ Cabinets with built-in condensing unit (plug-in): the basement of the cabinet has been engineered to guarantee a proper ventilation of the condensing unit, it is therefore recommended **not to obstruct the air-intake grills by placing materials, of whatever nature, along its external perimeter**.
Warning: **installation of further covers or customized cladding systems of the basement is not allowed**.

⚠ Cabinets with built-in condensing unit (plug-in): some plug-in units (e.g. promotional stand-alone units) can be multiplexed side-by-side and/or back-to-back, to form larger shop-around-islands. In this case it is recommended to observe the instructions and the arrangement drawings included in this manual, and not to exceed the indicated number of multiplexed units. The failure to observe these requirements lead to a higher energy consumption and, as result of an insufficient ventilation, also to possible damages of the condensing unit itself.

⚠ Cabinets with built-in condensing unit (plug-in): In case the cabinet is placed with its backside to a wall, make sure to leave at least 5cm between the wall and the backside of the unit.

☞ Once the cabinet is placed in the final point of installation, remove the packaging and the possible protecting film. For remote counters, remove the handling bars (if present) fixed to the levelling feet.

☞ Before operating the cabinet, feet/supports must be adjusted so that the unit is stable and perfectly horizontal. Such condition is necessary to guarantee a proper drainage of the defrost water and a running of the equipment without vibrations and noises. In case, adjust the levelling feet (if present) checking at the same time the horizontal alignment with a spirit level, both along the length and the width of the cabinet.

⚠ In case of cabinets equipped with tank for the evaporation of the defrost water, check the correct installation of the tank inside the basement. Check also the correct mounting position of the drain trap and related piping, and its connection to the drainage outlet of the cabinet.

☞ Before to wire/plug the unit to the power supply, it is necessary to clean both the internal and external surfaces of the cabinet, particularly those of the display decks. For this purpose, it is recommended the use of simple luke-warm water possibly combined with neutral detergents. Use a soft and non-abrasive cloth for drying.

Electric connections

⚠ The power supply to which the cabinet is going to be connected must have been realized according, and in keeping with, the regulations and the laws of the country in which the unit is installed. Frequency and voltage rating of the power supply must correspond to those listed in the identification plate of the cabinet. Before switching on the power, make sure that the voltage rating matches the one required, within the allowed limits of ± 10%.

⚠ Upstream of the socket it is recommended the installation of an omni-polar power isolator switch, with air gap between the contacts of at least 3mm. This measure is to be considered mandatory if the connected load exceeds 1000W, or if the equipment is connected directly to the power supply without the use of a plug. As power isolator switch it is recommended the use of a proper high-sensitivity differential circuit breaker.

⚠ **Connection to a state-of-the-art grounding system is mandatory and necessary to guarantee a safe use of the equipment.**

⚠ In order to avoid a hazard due to inadvertent resetting of the thermal cutout, this appliance must not be supplied through an external switching device, such as a timer, or connected to a circuit that is regularly switched on and off by the utility.

⚠ Cabinets equipped with supply cord: do not use patch cords, power adaptor sockets and multiple sockets. Do not allow the cable to bend sharply. Avoid that compression, stretching and twisting forces may damage the cord. Avoid the contact with hot surfaces and sharp edges. In case the cable or the plug is damaged, ask for a prompt replacement by qualified maintenance personnel.

⚠ Cabinets equipped with supply cord: in case the socket does not match the shape of the plug, ask for the replacement of the socket with a suitable type by qualified personnel. The replacement of the socket also requires a check of the suitability of the cables (cross-sectional area and length) in respect of the connected load.

⚠ Cabinets equipped with supply cord: before inserting the plug in the socket, make sure that the power switch (according the model, differential safety circuit breaker or master switch) is in open position (“0”, OFF, or green position). Insert the plug and then turn the power switch on (“1”, ON or in red position). In case of long inactivity periods, turn the power switch off (“0”, OFF or in green position) and then **pull out the plug**. Proceed in reverse order to restart the unit.

⚠ Cabinets equipped with supply cord: **If the supply cord is damaged**, it must be replaced by the manufacturer, its service agent, or similarly qualified persons or its service agent. Use original spare part only (Supply cord with Y-Type attachment)

⚠ Cabinets with remote condensing unit: electric connections and start-up must be carried out exclusively by qualified technical personnel.

⚠ Cord plugs of external devices/equipment produced by third parties (e.g. slicing machines, weighing machines etc.), and/or power lines for additional sockets (possibly delivered as accessories), will have to be connected to **separated power lines** installed by qualified personnel, properly sized and protected in respect of the loads to be connected.

⚠ Setting-up working parameters: for the adjustment of the "set-point" temperature and the other working parameters make reference to the instructions of the control panel included in this manual. Attention!! When setting up the set-point, make sure that the resulting temperature inside the cabinet is coherent with the temperature class of the cabinet and/or with the kind of product to be displayed. Setting up a too low temperature may cause the evaporator to ice up, compromising a proper circulation of the air inside the cabinet.

☞ **The working temperature of the cabinet** is displayed by the digital thermometer installed inside the cabinet (most commonly in the air-intake grill), and not by the display of the electronic controller. The readings provided by the electronic controller, or by possible other devices (if present), cannot be considered as reference to assess the preserving temperature and the performances of the unit. This is due to the mounting position of the temperature sensors, which are placed according technical criteria related to the temperature inside the cabinet and not directly related to the product temperature.

Preserving the displayed products

☞ The refrigerated cabinets are designed with the aim to guarantee the displaying and the preserving of **pre-cooled products**. Products must therefore have been previously refrigerated and stored in refrigerated warehouses or cold-rooms, at a temperature as close as possible to the ideal one. The quality of the displayed products is strictly related to the effectiveness of the "cold chain" through which they are processed before the final placement in the cabinet. **Products not previously precooled placed in the refrigerated cabinet cause a worsening of its performances**, with possible damages to the goods already displayed. It is therefore of fundamental importance to avoid a standing of the products, even temporarily, in not refrigerated places, since this condition would increase the core temperature of the products. At the delivery of the products from the supplier, make sure that they are promptly stored in cold rooms or directly in the cabinet. Meats in particular, must be kept in refrigerated environment throughout the whole manufacturing process (sectioning, boning, slicing, packaging etc.); if not, and in case the duration of the process lasts for more than 2 minutes, make sure they are quickly brought back to a coldroom.

☞ For a proper and effective running of the unit, avoid a placement of the product inside the cabinet which may hinder the correct circulation of the refrigerated air. Furthermore, it is important to observe the load limit (red line) __▼___▼__. When stacking the products or packages in the cabinets, the stacking height must not exceed the loading limit. The product exceeding the loading limit would not be properly refrigerated and that would cause air turbulence with negative effects on the performances of the cabinet (massive formation of frost inside the evaporator with loss of heat transfer). Such condition would increase the core temperature of the product, also for the one properly displayed.

☞ It is hardly recommended **not to place the product on the air-intake grills** (commonly placed close to the display decks, on the front side of the cabinet). Such condition reduces the refrigerated air-flow inside the cabinet, and a consequent rise of the product core-temperature.

☞ In order to reduce the loss of cold air as much as possible, drawers / doors of the refrigerated cabinets (if present), doors of multideck counters or cold-rooms, can be kept open only for the time necessary to perform the loading and unloading of the product.

☞ The cabinets are equipped with an **automatic system for the cyclic defrost of the evaporator**. This system is handled by the electronic controller of the control panel. Defrost parameters are pre-set in factory according the necessities and specificities of each unit. In particular cases it may be necessary to manually initiate a defrost cycle, by operating the related function of the electronic controller (make reference to the section of the manual dedicated to the electronic controller). A manual defrost will have to be activated whenever a loss or a reduction of air flow is detected at the air-discharge grill. Such condition occurs when the evaporator is clogged by frost, thus hindering a proper circulation of the refrigerated air. A massive or too fast formation of frost inside the evaporator may require the manual defrost to be activated with anomalous frequency. This is an indication of improper environment conditions, not suitable for the use of the cabinet (too high temperature and relative humidity inside the p.o.s.), or a wrong placement of the product inside the cabinet itself (see previous chapter, "preserving the displayed products").

☞ During closing time or closing holidays, it is recommended to use the so called "night blinds" or "night covers". This measure provides a substantial reduction of the energy consumption, and a better preservation of the products.

Cleaning

⚠ **Warning: safety first!! Before starting any cleaning operation, it is MANDATORY to switch-off the cabinet and to disconnect it from the main power supply by operating the sectionalising switch upstream of the corresponding power line.** (open position in "0", OFF or green condition). It is recommended to apply a lockout-tagout procedure (isolation, lock and tag of all energy sources). The Lock and tag of the isolation points lets others know not to de-isolate the cabinet during the cleaning operation. In case of plug-in cabinets, switch off the unit and disconnect the plug from the electrical outlet.

⚠ Warning: for the cleaning of the cabinet **do not use in any case** jets or streams of water, water hose **or high-pressure machines**. In case, only for the cleaning of the internal part of the carcass, pour lukewarm water gently inside the carcass from a container. Pay attention **not to wet the electric parts** such as fan motors, sensors, defrost heaters, thermometers, electronic expansion valves (if present), wiring plugs etc. The non-observance of these requirements may lead to irreversible damages, and a consequent need of replacement of the devices mentioned above.

⚠ Warning: the evaporator inside the carcass is made up of a tight pack of aluminum fins; the fins represent, because of their nature, an actual **risk of injuries** (cuts and abrasions) to hands and arms. On counters equipped with electric defrost, electric heaters could still be hot even after the cabinets is turned off (e.g. just after a defrost cycle) with a potential risk of burns. For the above reasons the use of protecting gloves is hardly recommended.

⚠ Warning: hot cabinets for the displaying and merchandising of pre-cooked food are equipped with infrared lamps, typically installed inside the top canopy. The supporting structure and the lamps itself may cause serious burns. Before any cleaning operation, let the lamps and any other hot surface cool down properly.

☞ For the cleaning only use lukewarm water possibly with neutral detergents and, for drying, a clean soft cloth. **Do not use** abrasive pads**,** abrasive or corrosive detergents, thinners, alcohol or solvents of any kind.

☞ Cleaning of the internal parts: frequency of the cleaning depends on the nature of the displayed product. Cabinets used for the displaying of fresh product such as meat, sausages and dairy products, require the cleaning on daily basis of all display surfaces (display decks, shelves, air grills etc.), in order to prevent the growth and developments of bacteria. On weekly basis it is also necessary to clean the internal bottom surface of the carcass, mostly in those cases in which the displaying cause the product to release liquids, grease or debris. For low-temperature cabinets (for frozen products) cleaning operations should be planned on monthly basis.

☞ Cleaning of the external parts: a frequent cleaning routine helps to keep the cabinets presentable, to preserve it for a long-term use and to convey a sense of cleanliness and hygiene to the customers. It is therefore recommended to clean frequently the external parts of the cabinets, such as glass superstructure, backshelves, cladding panels, aluminium profiles, etc.

Maintenance

⚠ **Any Maintenance task, as well as any access to technical parts, are strictly reserved to qualified and authorized service personnel (refrigeration technicians, electricians, etc.). In case, switch-off the cabinet and disconnect it from the main power supply by operating the sectionalizing switch upstream of the corresponding power line.** (open position in "0", OFF or green condition). It is recommended to apply a lockout-tagout procedure (isolation, lock and tag of all energy sources). The Lock and tag of the isolation points lets others know not to de-isolate the cabinet during the maintenance operation**. In case of plug-in cabinets equipped with chord plug, switch off the unit and disconnect the plug from the electrical outlet.**

For cabinets working with flammable refrigerant R290 (Propane) see specific safety warnings provided at the beginning of this manual.

⚠ At regular intervals, and at least once a year, the cabinet and its structural and electric components should be carefully checked by maintenance personnel, (condensing unit if present, controllers and control panels, thermometers, defrost heaters, fan motors, solenoid valves, etc.). Check for possible coolant leaks, as well as water leaks from coupling points (in case of multiplexed cabinets), from the drainage piping and water taps placed under the carcass. Make sure that the state of maintenance of the electric system guarantee a correct and safe use.

⚠ Cabinets with lift-up front glasses: during loading and unloading of the cabinets, as well as cleaning and maintenance operations, front glasses must be lifted until they reach the maximum opening position and kept in this position only for the time strictly necessary to carry out the required operation. In normal conditions of use frontglasses must remain closed (in lowered position). Gas springs ("pistons"), with which every glass module is equipped, are an aid for the lifting and a safety measure to prevent the glass to fall down accidentally. The efficiency and the correct fixing of the gas springs to their supporting structure must be checked on monthly basis. If the opening of the front glass requires an effort higher than usual, that means that one or both gas springs are losing their efficiency. In this case have both of them be replaced by qualified personnel.

⚠ Cabinets with built-in condensing unit: in normal conditions of use, the condenser should be cleaned at least once a month, by using a brush with soft bristles and a vacuum cleaner. A condenser clogged with dirt causes a higher electric consumption, and an overload of the compressor which may drastically shorten its service life. The aluminium fins of the condenser represent a risk of injuries to hands and arms, the use of protective gloves is therefore recommended.

⚠ Cabinets equipped with lighting system and fluorescent lamps: **before** to replace any burn-out lamp, switch-off the cabinet and disconnect it from the main power supply by operating the sectionalizing switch upstream of the corresponding power line (open position in "0", OFF or green condition). In case of plug-in cabinets, switch off the unit and disconnect the plug from the electrical outlet. Wear protective gloves. Take the lamp at the two ends and turn it 90° until a slight click is heard, then remove it being careful not to knock it against anything. Remove the transparent plastic protection from the lamp ("sleeve") and keep it for the new lamp. Apply the protection to the new lamp and fit the assembly following the above procedure in the reverse order.

Safe use of the cabinet

⚠ This appliance **cannot be used** by people, including young children, whose physical, sensorial or mental capacities are reduced, or by people who are not properly trained unless they are supervised by a person responsible for their safety.

⚠ Young children should be supervised to ensure that they do not play with the appliance

⚠ Unsuitable use of the unit, or part of it, is strictly forbidden.

⚠ Using the cabinet, avoid overloading of display decks, shelves and top canopy and observe the loading limits declared in this manual (see section “General Data and Features”). Do not place product or any other object over the front glasses unless the superstructure is provided with supporting stanchions (valid for serve-over cabinets).

Note for plug-in unit running on R290 (Propane): see specific safety warnings provided at the beginning of this manual.

Dismantling and disposal

⚠ For the preservation of the environment, all parts and materials composing this counter have to be sorted in accordance with the waste disposal regulations in force in the country where the disposal occurs. These parts cannot be considered in any case as common household waste. In particular, the components of the refrigerating circuit must not be dismantled separately, and proper measure must be taken to prevent a release of refrigerant gas in the environment.

⚠ The dismantling of the refrigerating circuit must be carried out by authorized center, specialized in recycling of refrigerant gases.
Note for plug-in unit running on R404A – R134A: The cabinet contains fluorinated green-house gasses covered by the Kyoto protocol.

English - This product contains fluorinated green house gasses covered by the Kyoto Protocol -			
Chemical name of the Gas	R134a	Chemical name of the Gas	R404A
Global Warming Potential (GWP) of the Gas	1300	Global Warming Potential (GWP) of the Gas	3784
(Caution)			
Remote units			
(a)	Paste the enclosed refrigerant label adjacent to the charging and/or recovering location.		
(b)	Clearly write the charged refrigerant quantity on the on the refrigerant label using indeleble ink.		
(c)	Prevent emission of the contained fluorinated gas. Ensure that the fluorinated gas is never vented to the atmosphere during installation, sevice or disposal. When any leakage of the contained fluorinated gas is detected, the leak shall be stopped and repaired as soon as possible.		
(d)	Only qualified personnel are allowed to access and service this product.		
(e)	Any handling of the fluorinated gas in this product, such as when moving the product or recharging the gas, shall comply under Regulation No. 842/2006 on certainfluorinated greenhouse gasses and any relevant legislation.		
(f)	Contact dealers, installers, etc., for any question.		
Self contained units			
(a)	Hermetically sealed system.		
(c)	Prevent emission of the contained fluorinated gas. Ensure that the fluorinated gas is never vented to the atmosphere during installation, sevice or disposal. When any leakage of the contained fluorinated gas is detected, the leak shall be stopped and repaired as soon as possible.		
(d)	Only qualified personnel are allowed to access and service this product.		
(e)	Any handling of the fluorinated gas in this product, such as when moving the product or recharging the gas, shall comply under Regulation No. 842/2006 on certainfluorinated greenhouse gasses and any relevant legislation.		
(f)	Contact dealers, installers, etc., for any question.		

Note for plug-in unit running on R290 (Propane): see specific safety warnings provided at the beginning of this manual. The operator must be properly skilled and authorized to handle **equipment working with flammable gas, in a controlled workshop environment where work can be conducted safely.**
After the safe removal of refrigerant, the system should be flushed with OFN (Oxygen Free Nitrogen) to render the unit safe. The process should be repeated several times until satisfied that no R290 is still within the system.

NAMEPLATE

☞ The nameplate is normally placed beside the control panel, or inside the counter in case of multideck or island unit. The plate contains all the necessary information to identify the unit, and the technical specifications for its correct installation and functioning.

	Galilei Refrigerazione S.p.A Via Veneto, 29/31 35020 Due Carrare (PD) - ITALY				MADE IN ITALY				
1	Model:								
2	Serial No:				Refrigerant:				12
2	Code Config.				Expansion type:				13
3	Year of constuction				Additional ref. storage:				14
4	Climate class:				Display area:				15
5	Temperature class:				Max. operating pressure:				16
6	Input power:				Nominal current:				17
7	Defrosting input:				Inrush current:				18
8	Power source: 220 - 240 V ~ 50 Hz				Compressor model:				19
9	Others		230 V						20
10			230 V						21
11			230 V						22

RoHS

CE

The cabinet is subject to WEEE European Directive 2002/96/EC (only for plug-in cabinets)

RoHS The cabinet is compliant with RoHS European Directive 2002/95/EC (only for plug-in cabinets)

If present, it indicates the cabinet has IMQ certificate

Meaning of the rating plate fields	
1	Model name, with length in centimeters and possible additional marks identifying a given version **Attention: this information must always be provided when requiring any spare-part**
2	Serial number, code and/or configuration number (if present) **Attention: this information must always be provided when requiring any spare-part**
3	Year of manufacturing
4	Climatic class, indicating the proper environment conditions in which the unit operates correctly. 3 – the unit is suitable for operating in an ambient with temperature of 25°C and a relative humidity of 60% 4 – the unit is suitable for operating in an ambient with temperature of 30°C and a relative humidity of 55%
5	Temperature class of the unit, indicating the category of products that can be displayed and preserved in the cabinet: L1: suitable for the preservation of frozen food or ice-creams M1: suitable for the preservation of fresh products such as meat and poultry M2: suitable for the preservation of fresh products such as salamis, sausages, dairy products H: suitable for the preservation of fresh products such as fruits and vegetables S: suitable for preservation of products with special classification
6	Maximum power absorbed by the unit, with the required optional installed, operating in the temperature class for which the unit has been built (see point 5)
7	Power absorbed during the defrost; includes the electric heater (if present) and all the other electric devices operating during the defrost cycle, such as controllers, fan motors, lighting etc.
8	Rated supply voltage, number of phases and frequency to which the cabinet must operate. Before installation, check that the data on the rating plate is compatible with mains power supply.
9	Electrical power absorbed, rated voltage and current of other electric devices installed (e.g. automatic re-evaporation of the defrost water, hot cases, automatic night blinds, etc.)
10	Electrical power absorbed, rated voltage and current of the defrost heaters (if present)
11	Electrical power absorbed, rated voltage and current of the demisting heaters (if present)
12	Type and quantity of refrigerant used
13	Indicates the kind of lamination device. CT = capillary tube TVX = thermostatic valve
14	Net volume of the additional refrigerated storage (if present)
15	Refrigerated display area available for displaying the goods
16	Maximum operating pressure inside the refrigeration circuit of the unit
17	Rated electrical power absorbed by the unit in normal operating conditions
18	Rated electrical power absorbed by the unit at the compressor starting phase (starting current)
19	Kind of condensing unit or compressor installed
20	Electrical power absorbed, rated voltage and current of the lighting system (if present)
21	Electrical power absorbed, rated voltage and current of the fan motors (if present)
22	Electrical power absorbed, rated voltage and current of the condensing unit (if present)

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TECHNICAL SECTION

W A R N I N G

This section of the manual is intended only for installation technicians and maintenance personnel.

INSTALLATION AND START-UP

Installation of the front glass

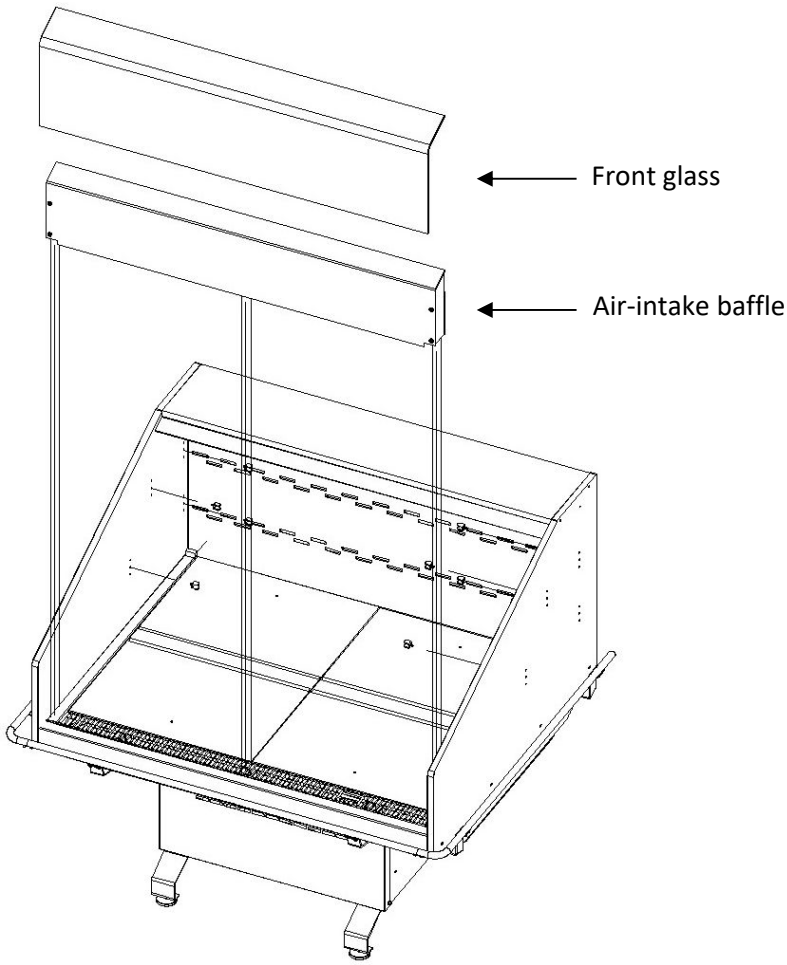
⚠ The front glass is kept in its mounting position by a longitudinal slot made on the top side of the front facia. Once removed the packaging of the front glass and its protecting film (if present), insert the lower rim of the glass inside the slot gently pressing downwards, until it reaches the bottom of the slot.

⚠ Caution: glasses may be made of acrylic glass (PMMA) or, in some models, of real tempered glass. In this latter case they have chamfered and deburred edges, nevertheless the use of protecting gloves is required for all the installation, maintenance and cleaning operations which involve the handling of tempered glasses.

Installation of the air-intake baffle

The installation of the air-intake baffle does not require the use of any tool. The air baffle just need to be inserted in the slots between the display decks and the air-intake grills, as shown in the drawing below. Once the air baffle is set in position, remove the protecting film (valid for front glasses in Plexiglas).

⚠ Caution: the installation of the air-intake baffle is obligatory, as functional part of the aeraulic circuit. The possible non-installation of such component compromises a proper functioning of the unit and its capability to preserve the displayed product.



Removing the perforated backside panel

The perforated backside panel, made of transparent polycarbonate (see section “General Data and Features”, part no. 21) can be easily removed for the usual cleaning operations.

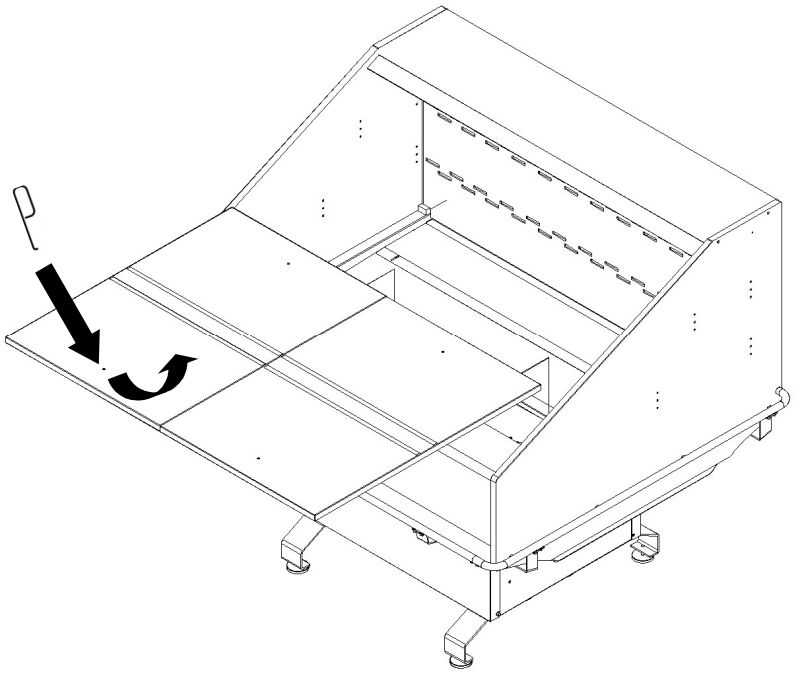
⚠ **Caution**: **before starting any cleaning operation it is MANDATORY to switch-off the cabinet and to disconnect the plug from the electrical outlet**. It is recommended to strictly observe all safety procedures described in the chapter “General Recommendations”, section “Cleaning”, included in this manual.

In order to remove the backside panel proceeds as per the following instructions:

Remove the product from display decks and mezzanine shelves. Empty the cabinet completely, removing the displayed product from display decks and mezzanine shelves. It is of fundamental importance to avoid a standing of the products, even temporarily, in not refrigerated places, since this condition would increase the core temperature of the products. It is recommended to strictly observe the all safety contenute nel capitolo “Conservazione del prodotto esposto”, sezione “Avvertenze generali”.

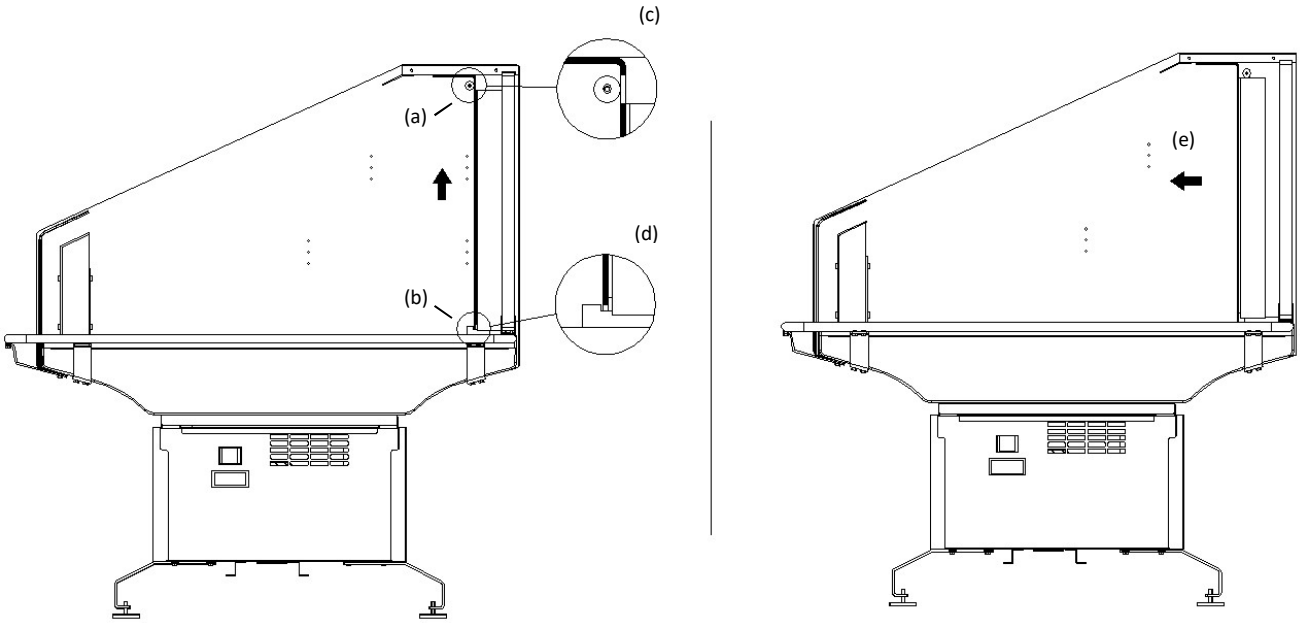
1) **Remove the mezzanine shelves.** Follow the procedure described above (“Installation of the glass mezzanine-shelves”), proceeding in reverse order.

2) **Removing the display decks.** This operation requires the use of a specific tool provided with the unit. This tool allows to hook and lift the front side of the display deck (see drawing below).



3) **Extraction of the backside panel**

The backside panel is kept in its mounting position by 2 Plexiglas pins (a) fixed to the internal upper side of both endwalls, and by 2 polyethylene ledges (b) fixed to both side rims of the injected body. In order to extract the backside panel it is necessary to lift it vertically up until its side upper slots are aligned to the Plexiglas pins (upper “release” position, see the detail “c” below). In this position, also the lower side of the backpanel is no more stopped by the polyethylene ledges (lower “release” position, see the detail “d” below); it is therefore free to move between the endwalls (see details “e”) toward the front side of the counter for the final extraction. Pay particular attention in this phase in order to avoid scratches and damages to the internal surfaces of both. For the reinstallation of the backside panel proceed in reverse order.



RIPIANI INTERMEDI–ZWISCHENAUSLAGEN

ÉTAGÈRE INTERMEDIAIRE – INTERIM SHELVES

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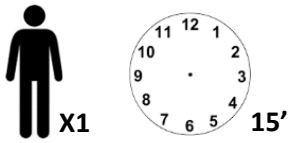

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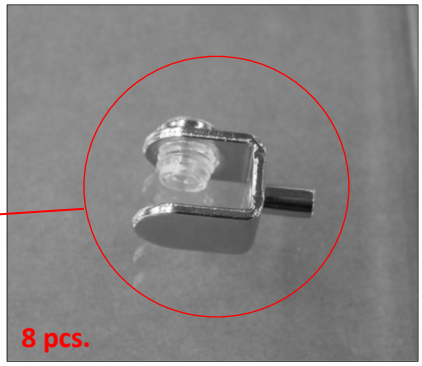

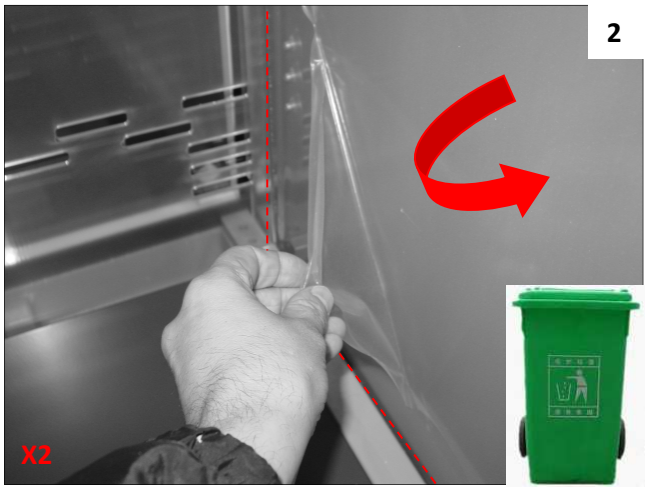

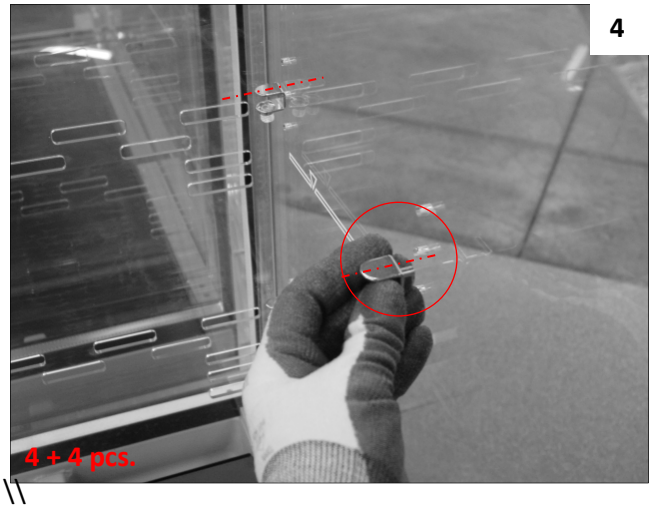
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4 + 4 pcs.


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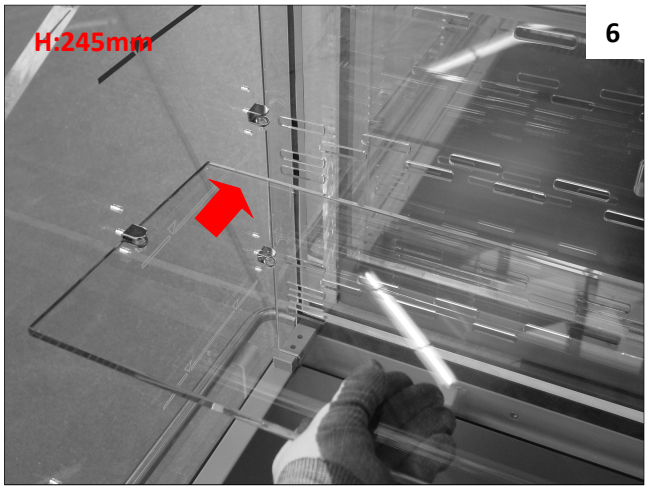
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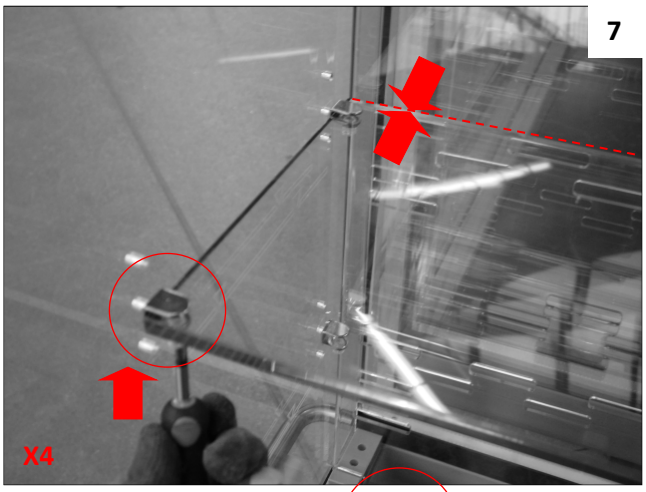
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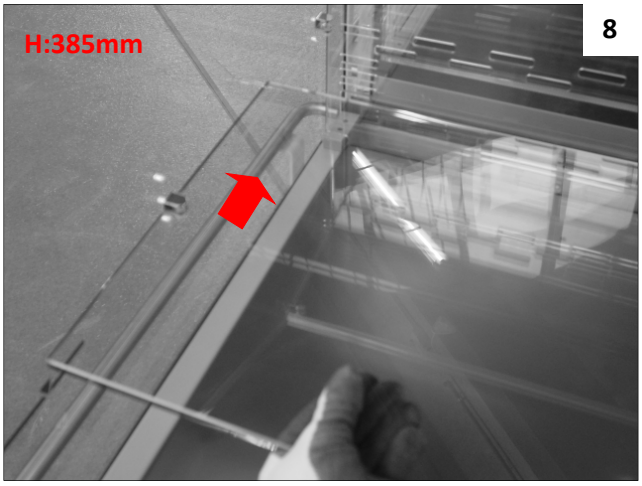
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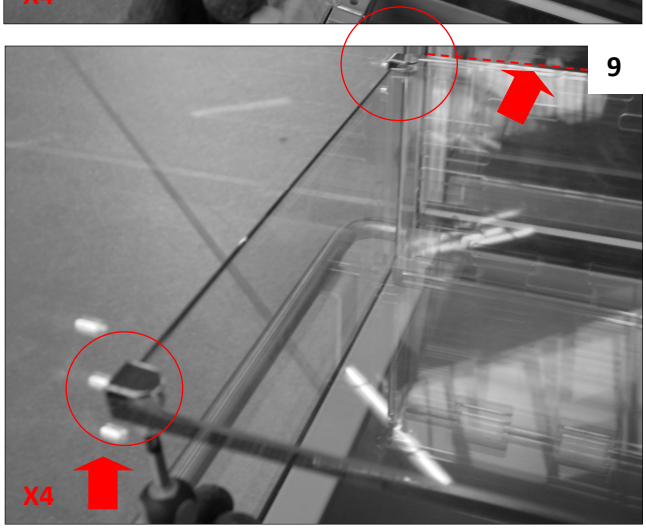
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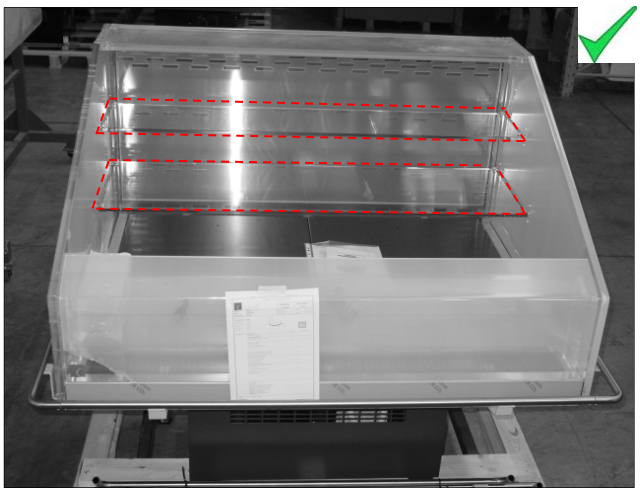

BATTICARRELLO–STOßLEISTE–PARE CHOC–BUMPER RAIL

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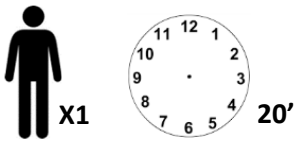

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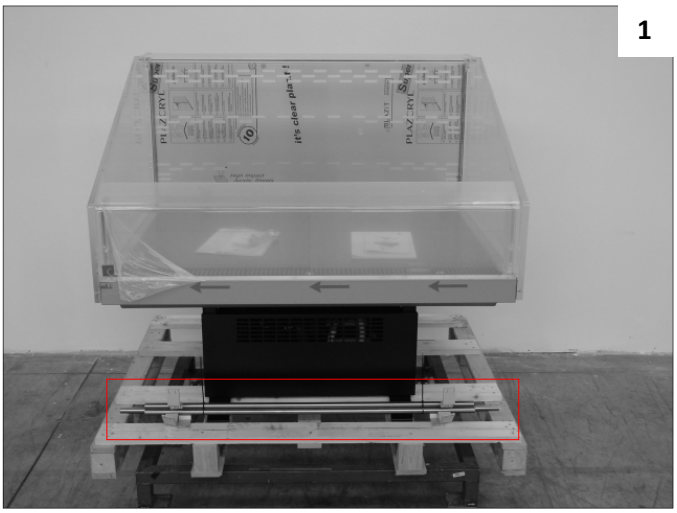

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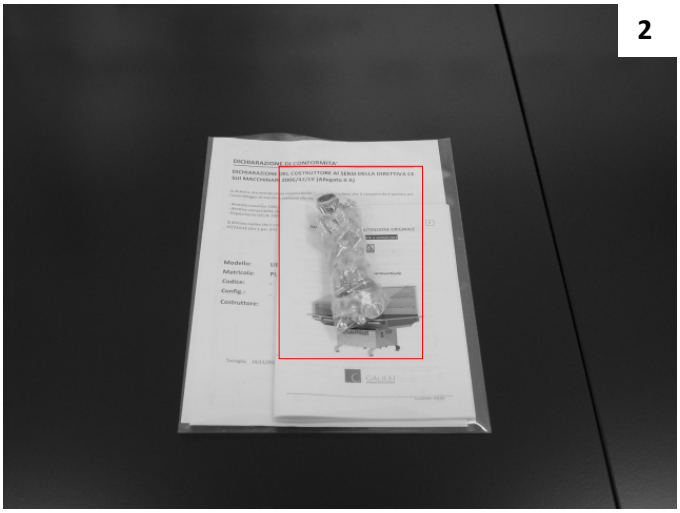

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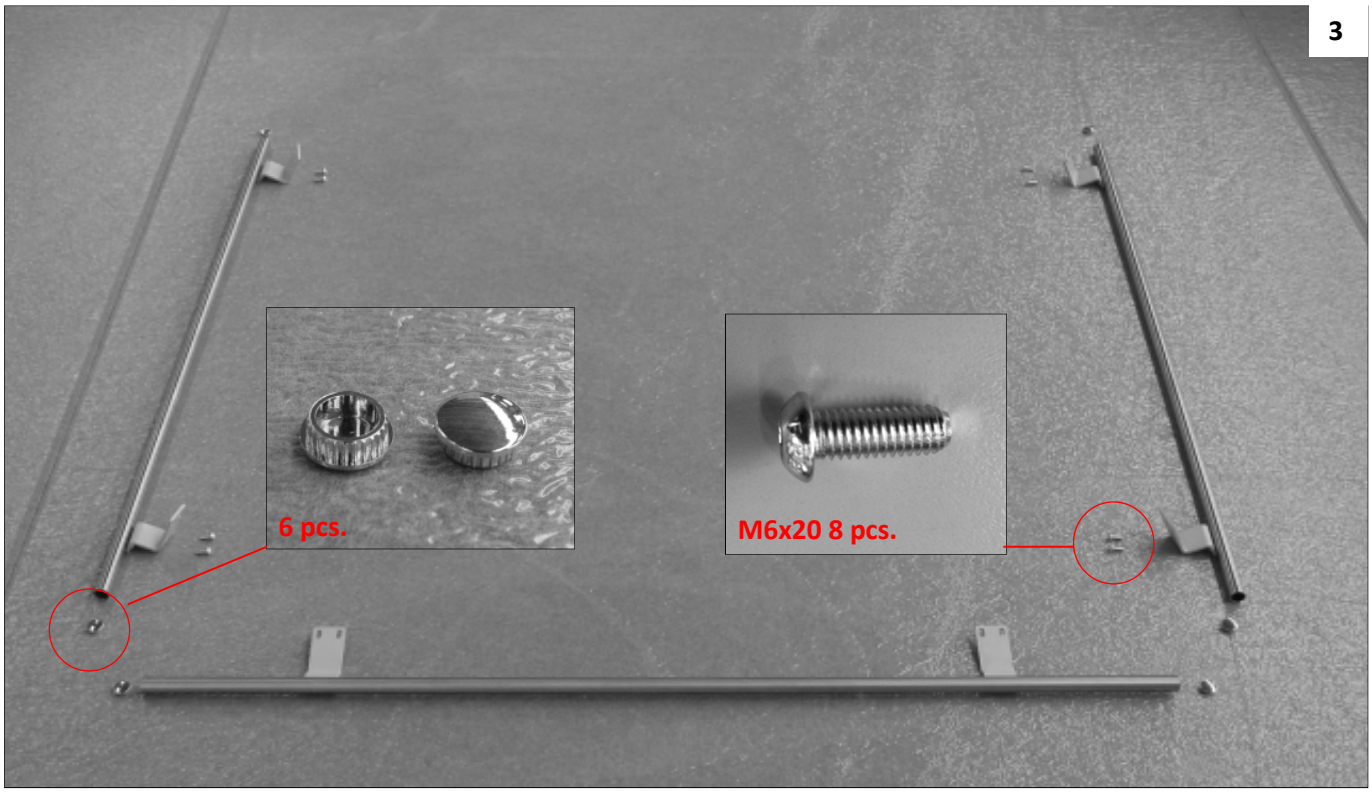


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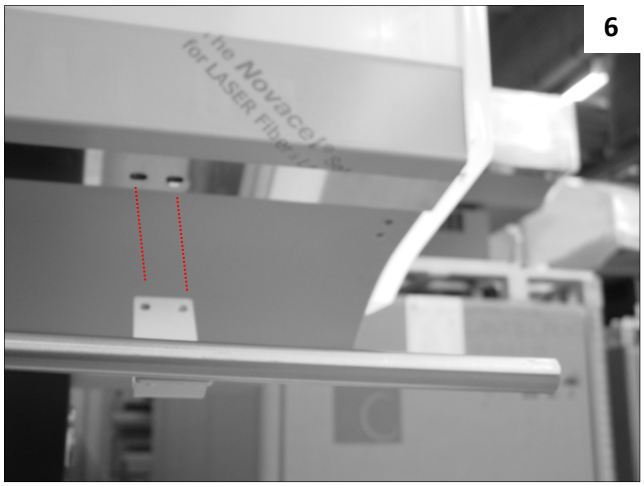
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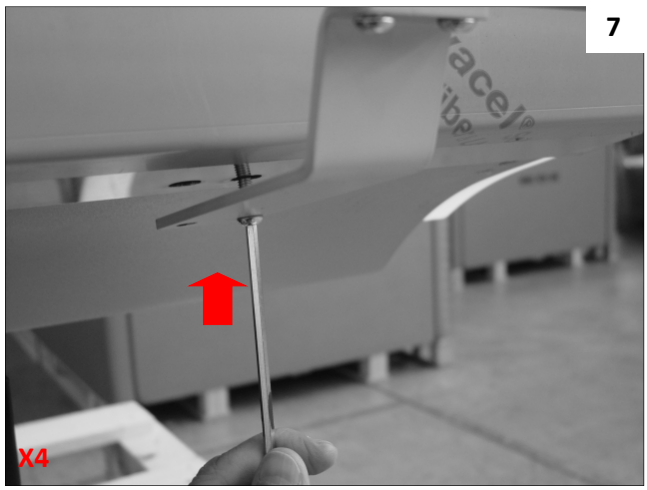
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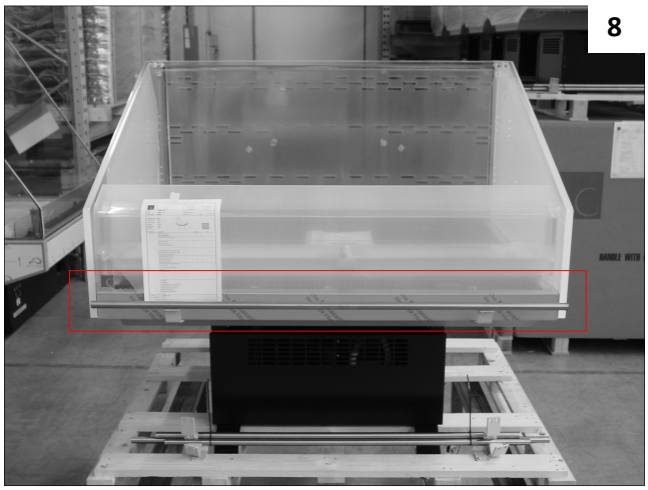
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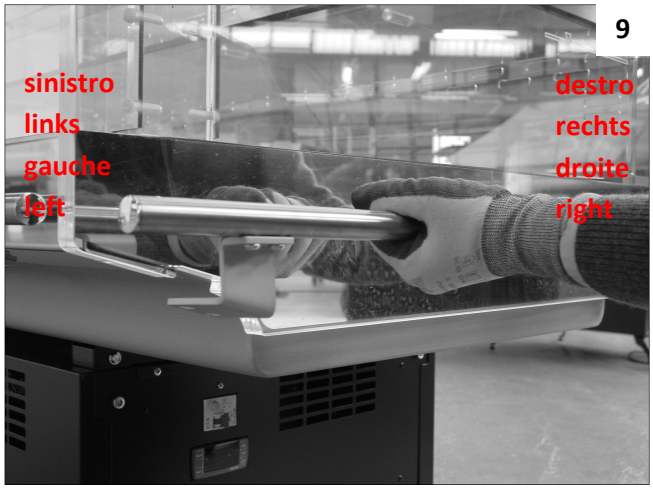
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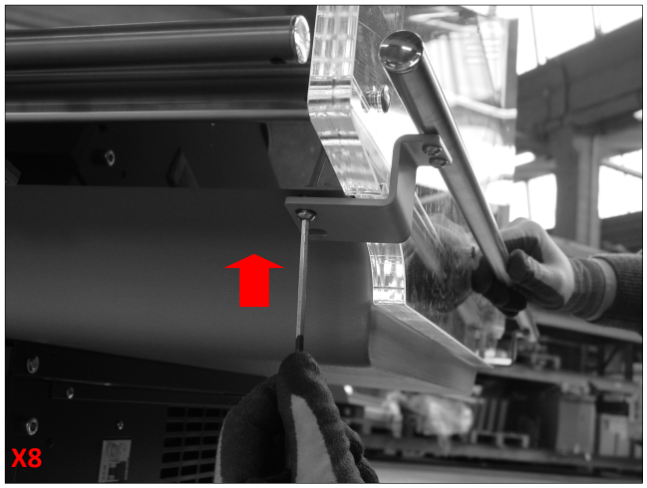
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CANALIZZAZIONE–ZUSAMMENBAU

CANALISATION-MULTIPLEXING

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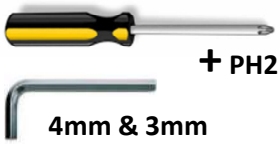

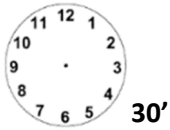

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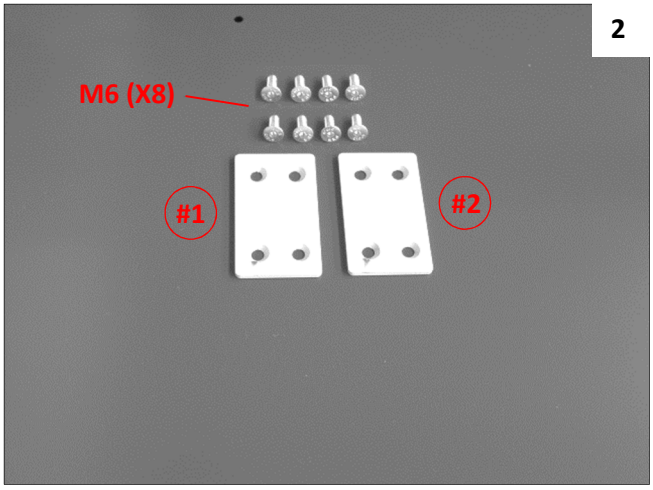

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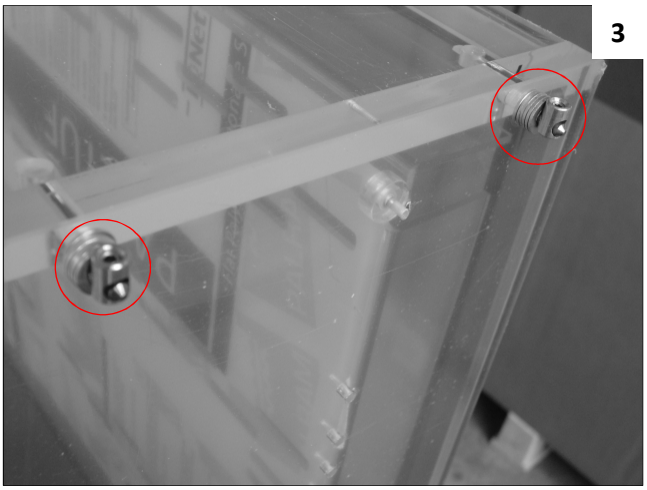

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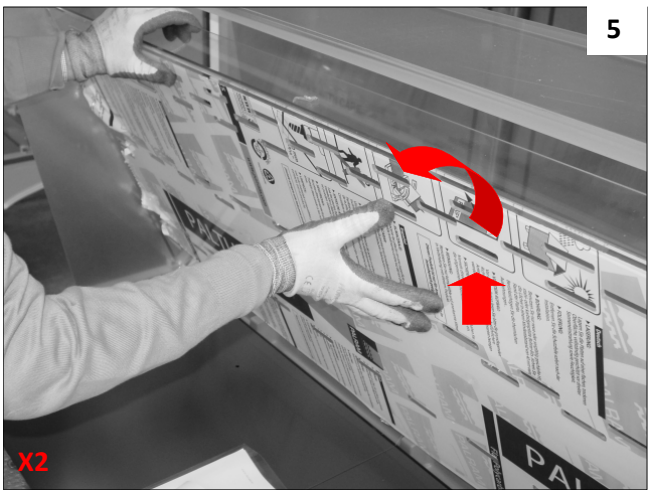

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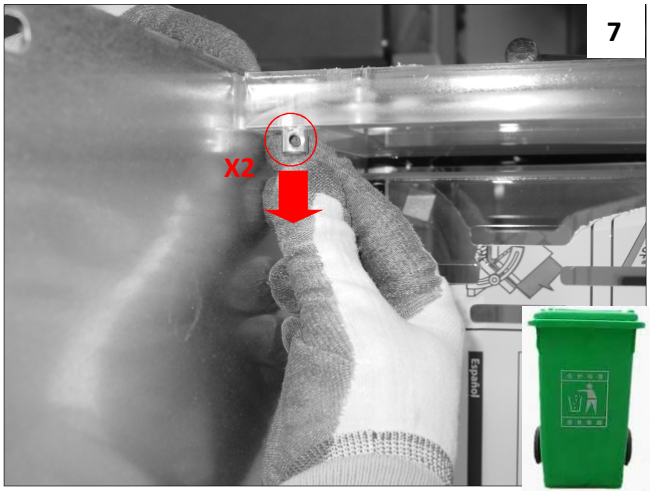
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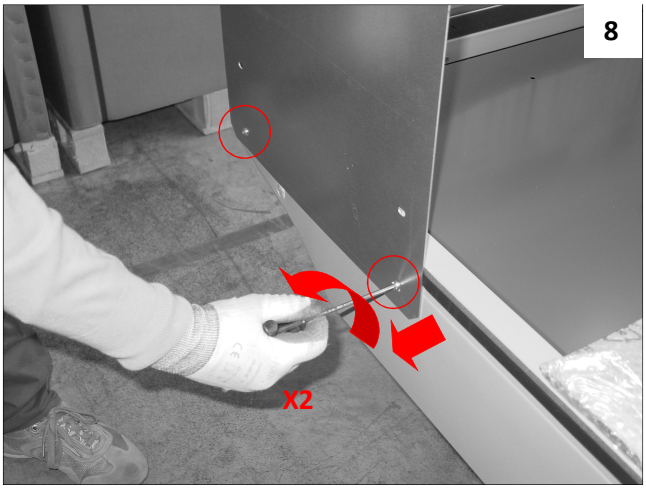
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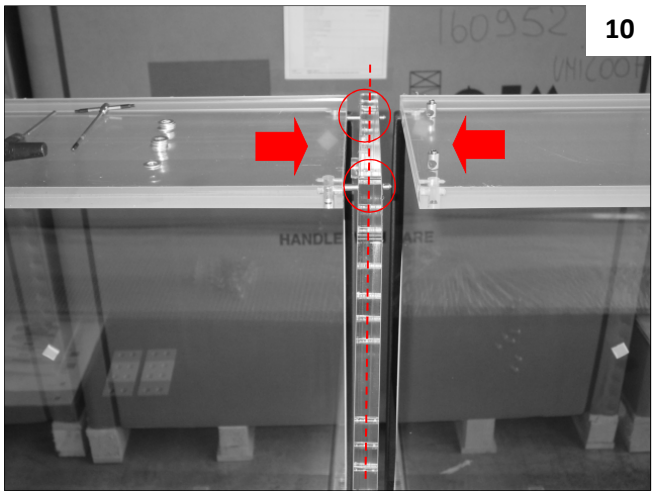
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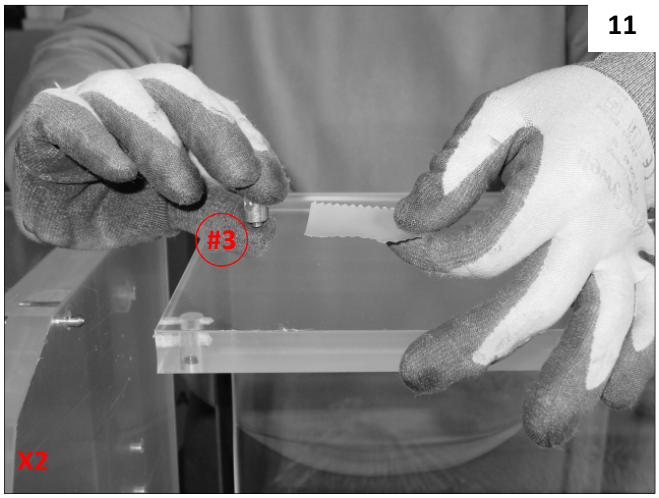
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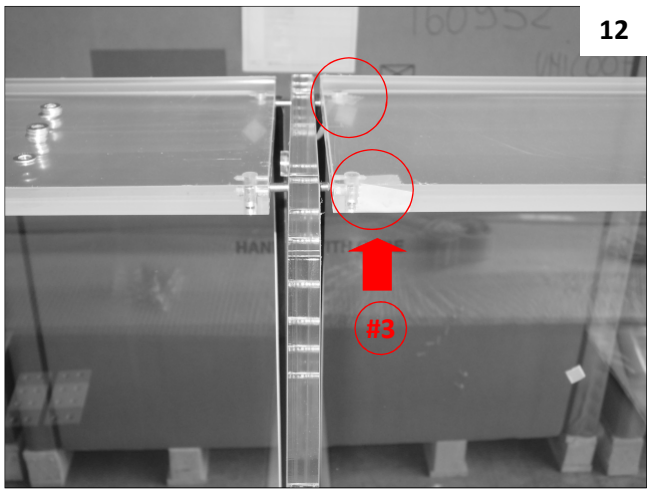
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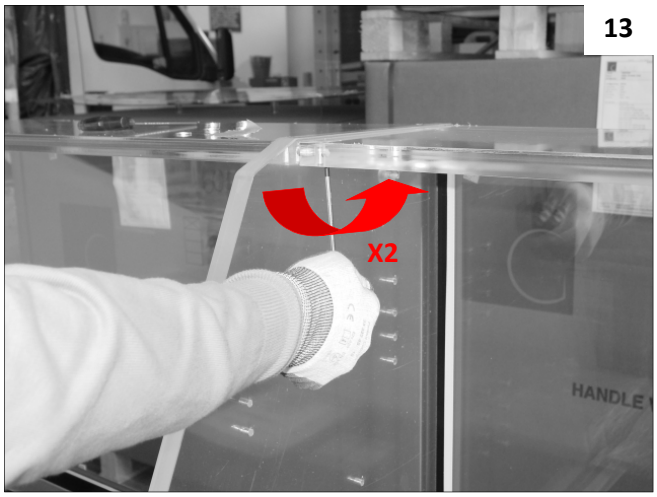
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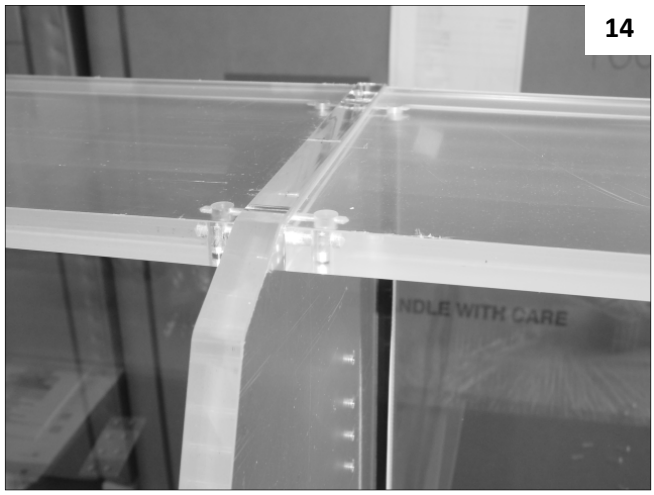
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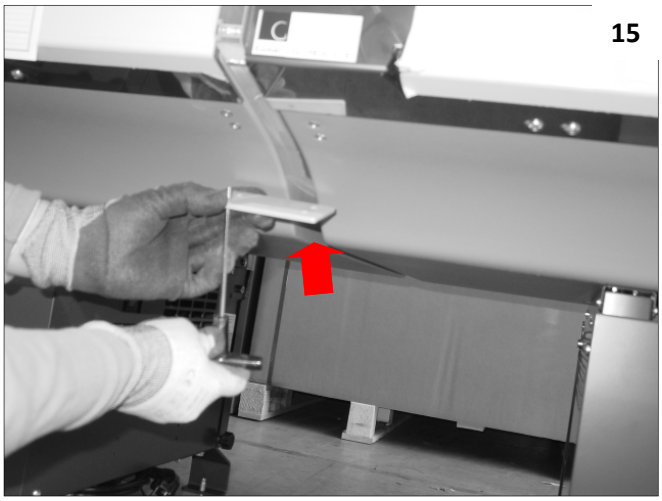

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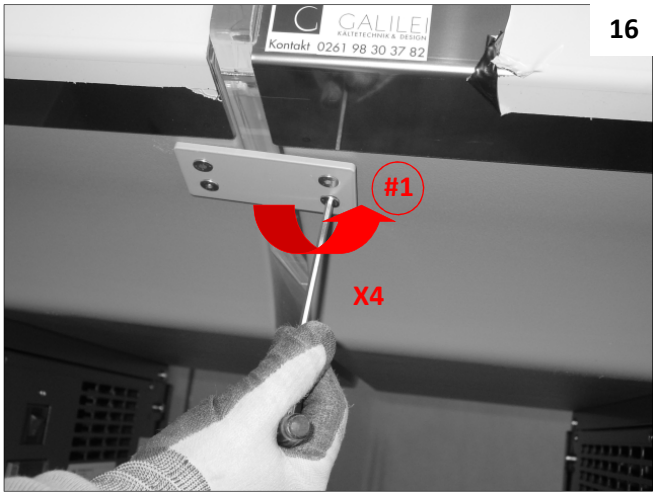
GALILEI
KÄLTETECHNIK & DESIGN
Kontakt 0261 98 30 37 82
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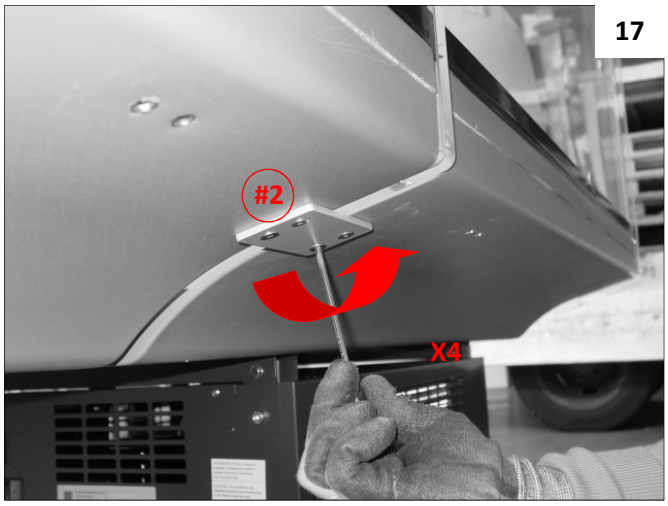
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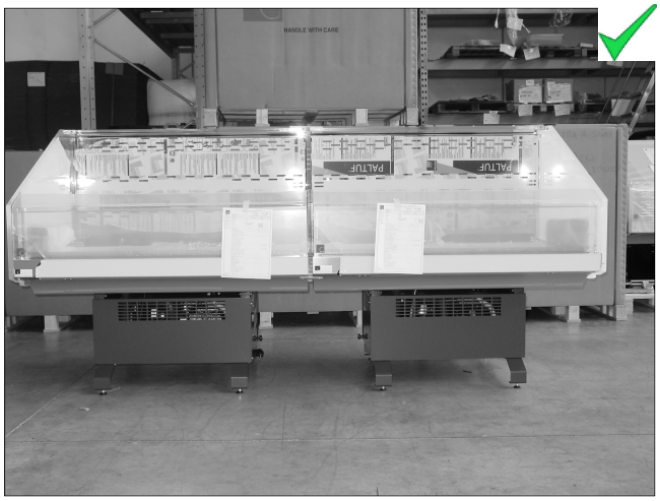
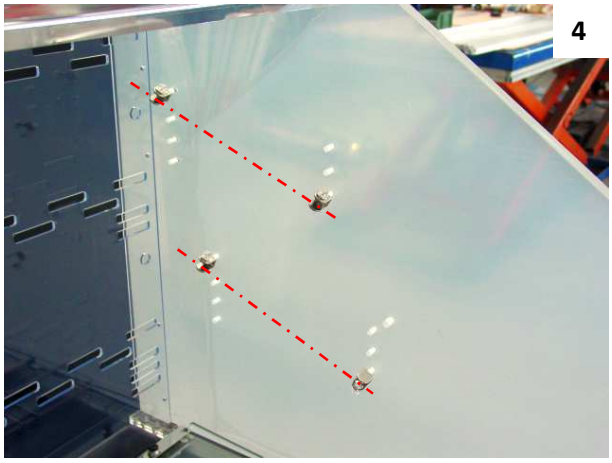
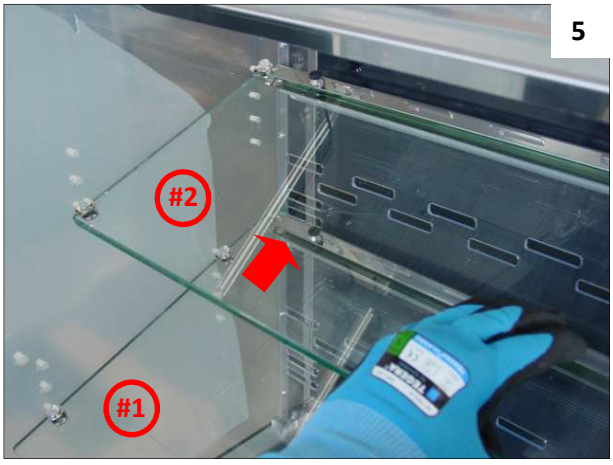
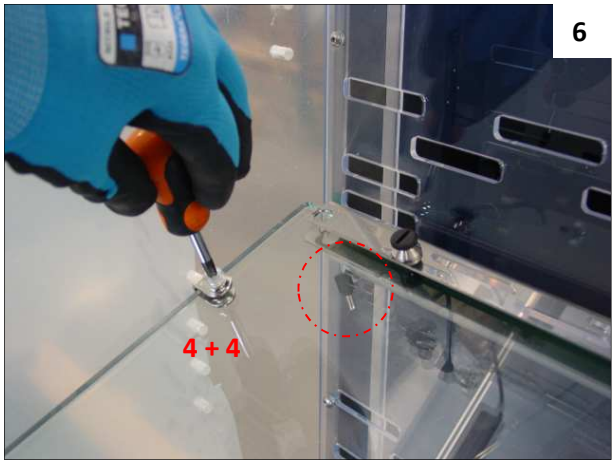


LIGHTING FOR INTERMEDIATE SHELVES

Mod.:







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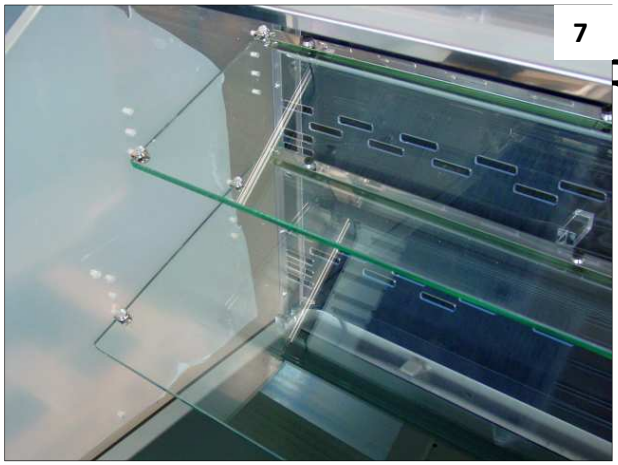

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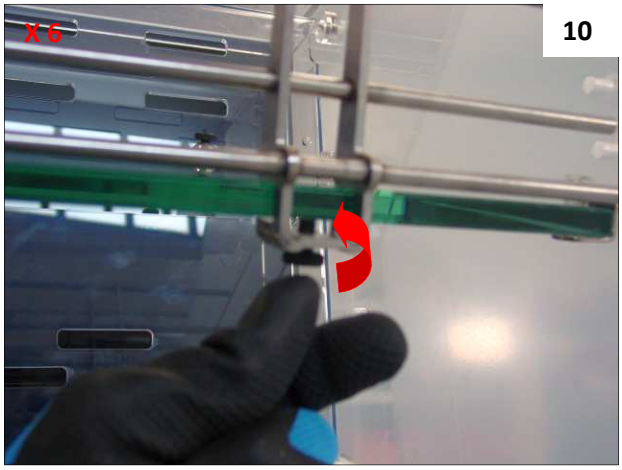

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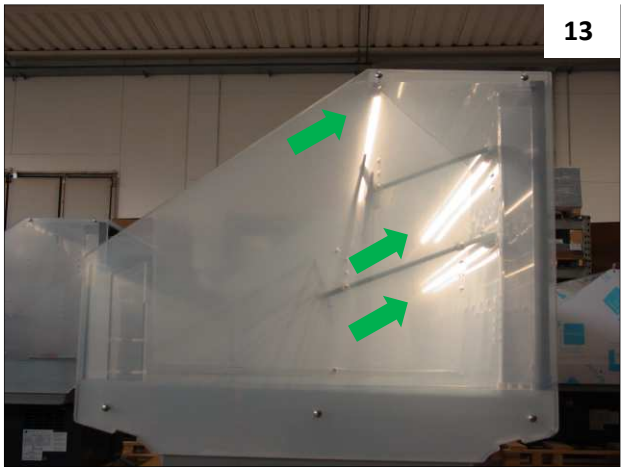

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GB

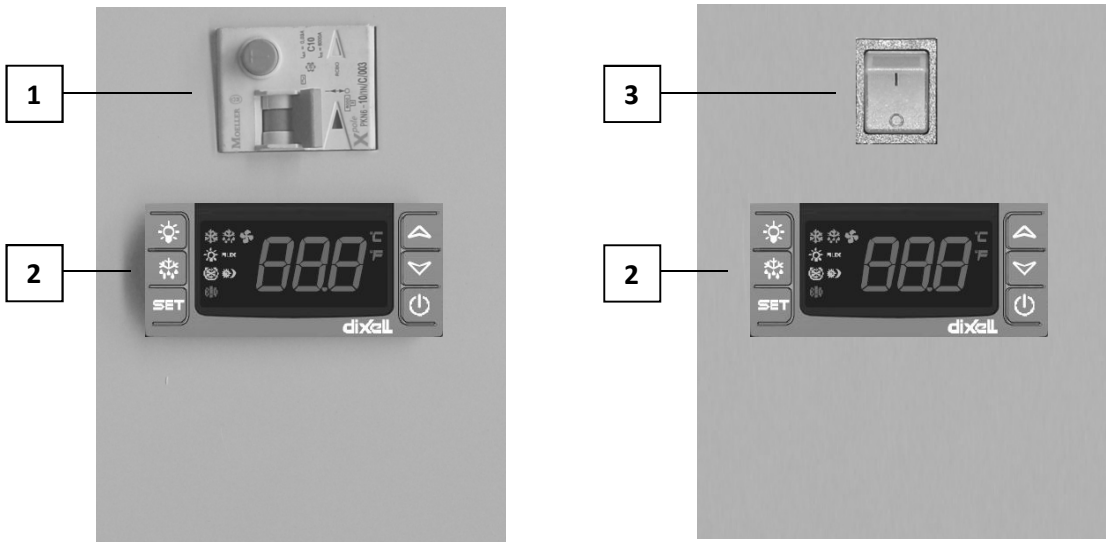
LIBRA R290 DIXELL XR50CX

INDEX

SECTION RESERVED TO INSTALLATION

AND MAINTENANCE PERSONNEL

CONTROL PANEL (DIXELL XR50CX)



This cabinet with built-in condensing unit has a control panel equipped with an electronic controller **(pos.2)** *DIXELL mod. XR50CX*. This microprocessor-based controller is equipped with a LED display and has been specifically developed for the management of refrigerating units, display cabinets and showcases. The LED display contains 3 digits and a decimal point, for an easy reading of temperatures, parameters and their respective values. The display also contains a set of graphic icons, for an intuitive graphical representation of the working status of the cabinet. The controller is also characterized by a 6-buttons keypad, which allows the activation/deactivation of the main functions, and the storage/modification of the working parameters. The switch-on and switch-off of the cabinet is operated, according to the model, through a **differential isolator (also known as RCCB, Residual Current Circuit Breaker – see pos. 1)** or through a **bipolar main-switch (pos.3).**

Switch-on and switch-off of the unit

In order to switch-on the cabinet and the related functions, turn the isolator switch (safety circuit breaker – pos.1) or the bipolar switch (pos.3) to "ON" or in "condition 1" or in "red position" (according the possible different kind of switch installed). At the switch-on, the display will show all icons and the 3-digits panel for few seconds, then the current temperature and the compressor status. To switch-off the unit , turn the isolator switch/bipolar switch to "OFF" or in condition "0" or in "green condition".

⚠ **Attention:** in case of cleaning and/or maintenance operations it is necessary to rigorously observe the requirements and instructions provided in the section "General recommendations"

☞ **Attention**: for some models, at the switch-on of the unit the starting of the compressor is intentionally delayed (parameter "odS") by some minutes. This is a normal condition, therefore such occurrence does not represent an anomaly or a technical fault.

Normal conditions of operation

At the switch-on of the cabinet, the controller will automatically manage the functioning of the condensing unit, in order to reach the set-point temperature and then to keep it stable. The set-point is set in factory to a mean value, nevertheless it could be necessary to adjust its value to make it more suitable for the preserving temperature of the displayed product (make reference to the information indicated on the

product label). For the modification of the set point make reference to the following chapter of this manual.

☞ **Attention:** The cabinet is equipped with a digital thermometer placed inside the display area, (commonly inside the air-intake grill, just behind the front glass). The preserving temperature is exclusively displayed by this thermometer, and not by the display of the electronic controller. The readings provided by the display of the controller cannot be directly considered as reference to assess the preserving temperature and the performances of the cabinet. This is due to the mounting position of the temperature sensors, which are placed according technical criteria related to the temperature inside the cabinet, but not directly expressing its value. For this reasons, the temperature readings may be significantly different. This is a normal condition, therefore such occurrence does not represent an anomaly or a technical fault.

In order to modify the working temperature (preserving temperature) it is necessary to consider the temperature displayed by the digital thermometer inside the cabinet, and then apply the desired increase / decrease to the set-point value. Before to check again the temperature inside the cabinet, wait some minutes after the modification of the set-point parameter. If necessary, repeat this procedure to fine-tune the preserving temperature inside the cabinet.

User Level Settings

User Interface - display structure and meaning of the graphical icons

The below pictures and table show the layout of the display, the keyboard, and the meaning of the LED icons and their behaviour (standing or blinking icons) during the normal operation of the cabinet. According to the model, the upper button on the left side can have the symbol “light” or the writing “AUX”. In some cases this button is used to activate special functions (e.g. additional heaters for reevaporation of defrosting water). The different symbol of this button does not affect the function. The intermediate button on the left side is used to operate a manual defrost, and has this function also in the case the button is blank. The below table shows the led-symbols and their related meaning (standing or blinking light) in the normal conditions of operation or in case of alarm.

LED	MODE	FUNCTION
❄	ON	Compressor enabled
❄	Flashing	Anti-short cycle delay enabled
❄	ON	Defrost enabled
❄	Flashing	Drip time in progress
(!)	ON	An alarm is occurring
❄	ON	Continuous cycle is running
☀	ON	Energy saving enbled
°C/°F	ON	Measurement unit
°C/°F	Flashing	Programming phase

User Interface – keypad

The keypad consist of 6 buttons, whose multiple functions are described below.

SET: To display target set point; in programming mode it selects a parameter or confirm an operation.

(DEF) To start a manual defrost

(**UP**): To see the max. stored temperature; in programming mode it browses the parameter codes or increases the displayed value.

(**DOWN**) To see the min stored temperature; in programming mode it browses the parameter codes or decreases the displayed value.

To switch the instrument off, if onF = oFF.

Not enabled.

KEY COMBINATIONS:

+ To lock & unlock the keyboard.

SET + To enter in programming mode.

SET + To return to the room temperature display.

⚠ **ATTENTION:** The "On/Off" ⏻ button **is not an isolator switch** and, as factory default, it is **disabled** by a specific parameter ("onF" parameter). It is recommended not to change this factory setting. In case this function must be enabled, ask the service personnel to modify the parameter mentioned above.

CAUTION: in case the "On/Off" button is enabled, be aware that in "off" condition the controller is in "stand-by" status and the condensing unit is switched off, but **the terminal block is still connected to the power supply and UNDER VOLTAGE. Besides, all electric devices downstream of the terminal block are potentially still connected to the phase line.**

In all cases, DO NOT carry out any maintenance/cleaning operation without disconnecting completely the cabinet from the power supply (See "General Recommendations" sections "Cleaning" and "Maintenance").

Check and Modification of the set-point temperature

The controller manages the desired temperature (set point) inside the cabinet directly and dynamically.

How to display the current set point:

- Push and immediately release the **SET** button; the display will show the current Set Point value
- Push and immediately release the **SET** button or wait 5 sec. to display the sensor value again.
-

How to change the current set point:

- Push the **SET** key for more than 2 seconds to change the Set point value
- The value of the set point will be displayed and the "**°C" (or "°F)** LED starts blinking
- To change the Set value push the **UP** or **DOWN** arrows within 10s
- To memorize the new set point value push the **SET** key again or wait 10s

Min. Temperature recorded

- Press and release the **DOWN** button.
- The “Lo” message will be displayed followed by the minimum temperature recorded.
- By pressing the **DOWN** button again or by waiting 5sec. the normal display will be restored.

Max. Temperature recorded

- Press and release the **UP** key.
- The **“Hi”** message will be displayed followed by the maximum temperature recorded.
- By pressing the **UP** key again or by waiting 5s the normal display will be restored.

Reset of the Min. and Max. Temperature recorded

- Hold press the **SET** button for more than 3s, while the max. or min temperature is displayed. (**“rSt”**
- message will be displayed).
- To confirm the operation the “rSt” message starts blinking and the normal temperature will be displayed.

Defrostings

The controller is programmed in factory to perform a given number of defrost cycles during the 24 hours. Duration of defrost cycles can vary, and it depends on the temperature detected by a specific sensor placed inside the evaporator (defrost sensor). Such sensor determines the end of the defrost, unless a maximum (settable) safety duration is reached.

Manual defrostings

Push the **DEF** button for more than 2 seconds and a manual defrost will start. The defrost cycle will take place according the criteria mentioned above (once reached the defrost temperature- detected by the defrost sensor, or in case the defrost exceed the safety duration).

Alarm warnings

When an alarm is activated, the display shows the corresponding message. The alarm codes are shown in the table below:

Message	Cause	Outputs
“P1”	Room probe failure	Compressor output acc. to par. “Con” and “COF”
“P2”	Evaporator probe failure	Defrost end is timed
“P3”	Third probe failure	Outputs unchanged
“P4”	Fourth probe failure	Outputs unchanged
“HA”	Maximum temperature alarm	Outputs unchanged.
“LA”	Minimum temperature alarm	Outputs unchanged.
"HA2"	Condenser high temperature	It depends on the “Ac2” parameter
"LA2"	Condenser low temperature	It depends on the “bLL” parameter
“dA”	Door open	Compressor according to rrd
“EA”	External alarm	Output unchanged.
“CA”	Serious external alarm (i1F=bAL)	All outputs OFF.
“CA”	Pressure switch alarm (i1F=PAL)	All outputs OFF

Alarm Recovery

Probe alarms P1", "P2", "P3" and "P4" start some seconds after the fault in the related probe; they automatically stop some seconds after the probe restarts normal operation. Let the connections to be checked by maintenance personnel before replacing the probe.

Temperature alarms "HA", "LA" "HA2" and "LA2" automatically stop as soon as the temperature returns to normal values.

Alarms "EA" and "CA" (with i1F=bAL) recover as soon as the digital input is disabled.

Alarm "CA" (with i1F=PAL) recovers only by switching off and on the instrument.

⚠ **Attention:** in case of persisting warnings, caused by an alarm condition, inform the maintenance personnel for a check of the equipment.

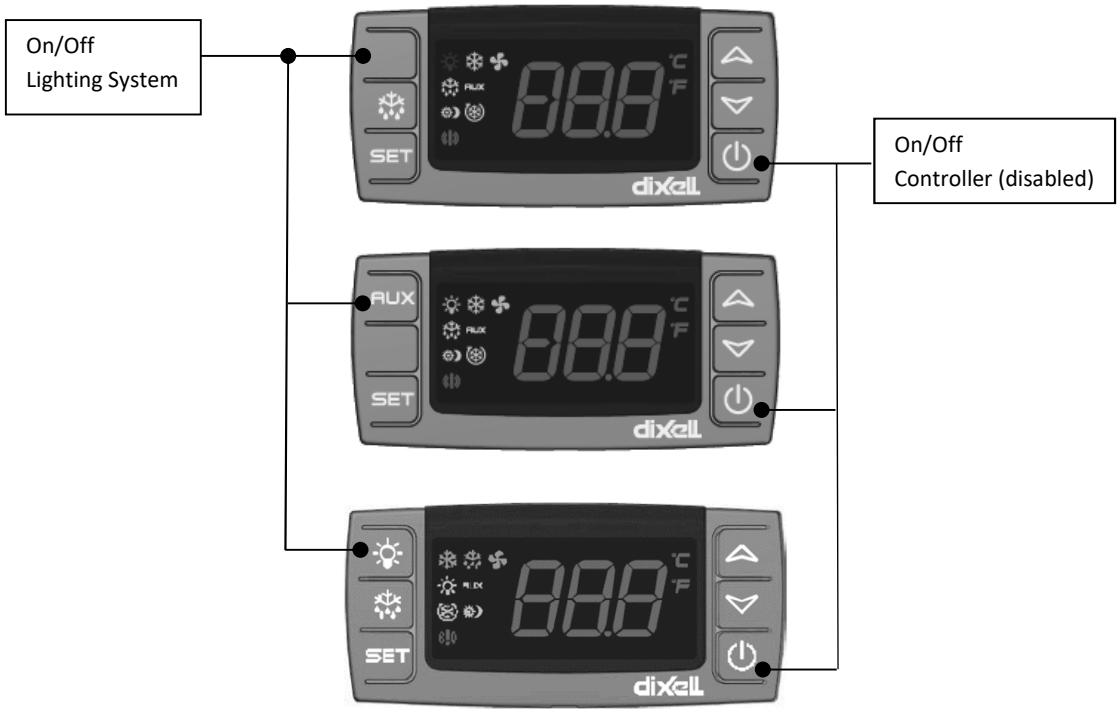
Other Messages

- **Pon** Keyboard unlocked
- **PoF** Keyboard locked
- **noP** in programming mode: none parameter is present in Pr1
  in display mode (or dP2, dP3, dP4): the selected sensor is not enabled
- **noA** none alarm recorded

LED LIGHTING SYSTEM

On/Off switching via Dixell XR50CX

If installed, the optional LED lighting system is operated via the keyboard of the electronic controller, by pressing the button shown in the below pictures. Please note that the icon on the button can vary according to the different versions of the same controller.



By pressing the indicated button a specific on-board relay is engaged, thus powering the related lighting system. The "Switch-On **status"** is also confirmed by the message "AUX" on the display and memorized by the controller itself. This status remains stored and active also in case of switching-off of the cabinet (operated by the cabinet's main switch) or temporary black-out. At the restart of the unit, or once the power has been restored after a blackout, the lighting system will be automatically powered.

☞ **Attention**: In case the controller's "On/Off" button has been activated by third parties (this function is instead normally "factory disabled") and the related button is used to operate the cabinet, the "Switch-On Status" of the lighting system is not memorized by the controller.

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TECHNICAL SECTION

W A R N I N G

This section of the manual is intended only for installation technicians and maintenance personnel.

PROGRAMMING OF THE CONTROLLER (DIXELL XR50CX)

⚠ **Attention**: the access to the programming menus and the modification of the parameters are exclusively reserved to installation and maintenance personnel. A wrong or improper modification of the parameters can lead to malfunctions and/or to a lack of performances.

Parameters categories and access to the menus

Working parameters are grouped in two different categories:

1. **"Pr1" parameters** (user level – see parameter table)
2. **"Pr2" parameters** (Hidden Menu – see parameter table)

Access and setting type "Pr1" parameters (user level)

To change the parameter's value operate as follows:

- Enter the Programming mode by pressing the **SET** + **DOWN** buttons for 3sec. (the "°C" or "°F" LED starts blinking).
- Select the required parameter. Press the **SET** button to display its value.
- Use **UP** or **DOWN** buttons to change the parameter value.
- Press **SET** to store the new value and move to the following parameter.
- To exit: Press **SET** + **UP** or wait 15sec. without pressing a key.

NOTE: the set value is stored even when the procedure is exited by waiting the time-out period.

Access and setting type "Pr2" parameters (Hidden Menu)

- Enter the Programming mode by pressing the **SET**+**DOWN** buttons for 3sec. (the "°C" or "°F" LED starts blinking on the display).
- Release the buttons, then push them again and keep pressed for more than 7sec. The **Pr2** label will be displayed immediately followed by the **HY** parameter (first parameter of the list). The complete list of parameters is now accessible and modifiable.

- Select the required parameter scrolling the list with the **UP** or **DOWN** buttons.
- Press the **SET** button to display the value
- Use **UP** or **DOWN** to change the parameter value.
- Press **SET** to store the new value and move to the following parameter.
- To exit: Press **SET** + o or wait 15s without pressing any button.

NOTE: the set value is stored even when the procedure is exited by waiting the time-out period.

☞ **Attention :** in case of a power black-out before the save procedure, all parameter changes previously applied are lost.

Special Functions

Enable / disable the keypad

Used to prevent the set point and the other working parameters from being changed when the equipment is located in a place accessible to the public.

In order to activate the keyboard lock, keep pressed simultaneously the **UP** + **DOWN** buttons for a few seconds, until the blinking message “PoF” (keyboard lock) is displayed. The keyboard is now locked, and the only functions available are the displaying of Set-Point temperature and the Min. e Max temperatures recorded. Any possible change of parameters, as well as the activation of any function, are disabled.

In this status, by pressing a button of the keyboard for more than 3 sec., the message “PoF” is displayed (keyboard locked). In order to enable the keyboard, keep pressed again the **UP** + **DOWN** buttons for a few seconds, until the blinking message “PoN” (keyboard unlocked) is displayed.

Duty Setting

The Duty Setting mode is a safety function that in case of sensor fault (typically the environment sensor P1) starts the compressor at a set time intervals.

If a sensor alarm occurs (message “P1” on the display), the duty setting function ensures the operation of the compressor until the fault is resolved. By such occurrence the compressor, not being able to be operated according to the temperature detected by the sensors P1, works cyclically with an assigned ON time of 15 minutes (parameter Con=15), and an Off time of 15 minutes as well (Parameter CoF=15).

 By such occurrences, the sensor P1 is likely to be replaced by a new one. Let the equipment to be checked by the service personnel as soon as possible.

PARAMETERS TABLE

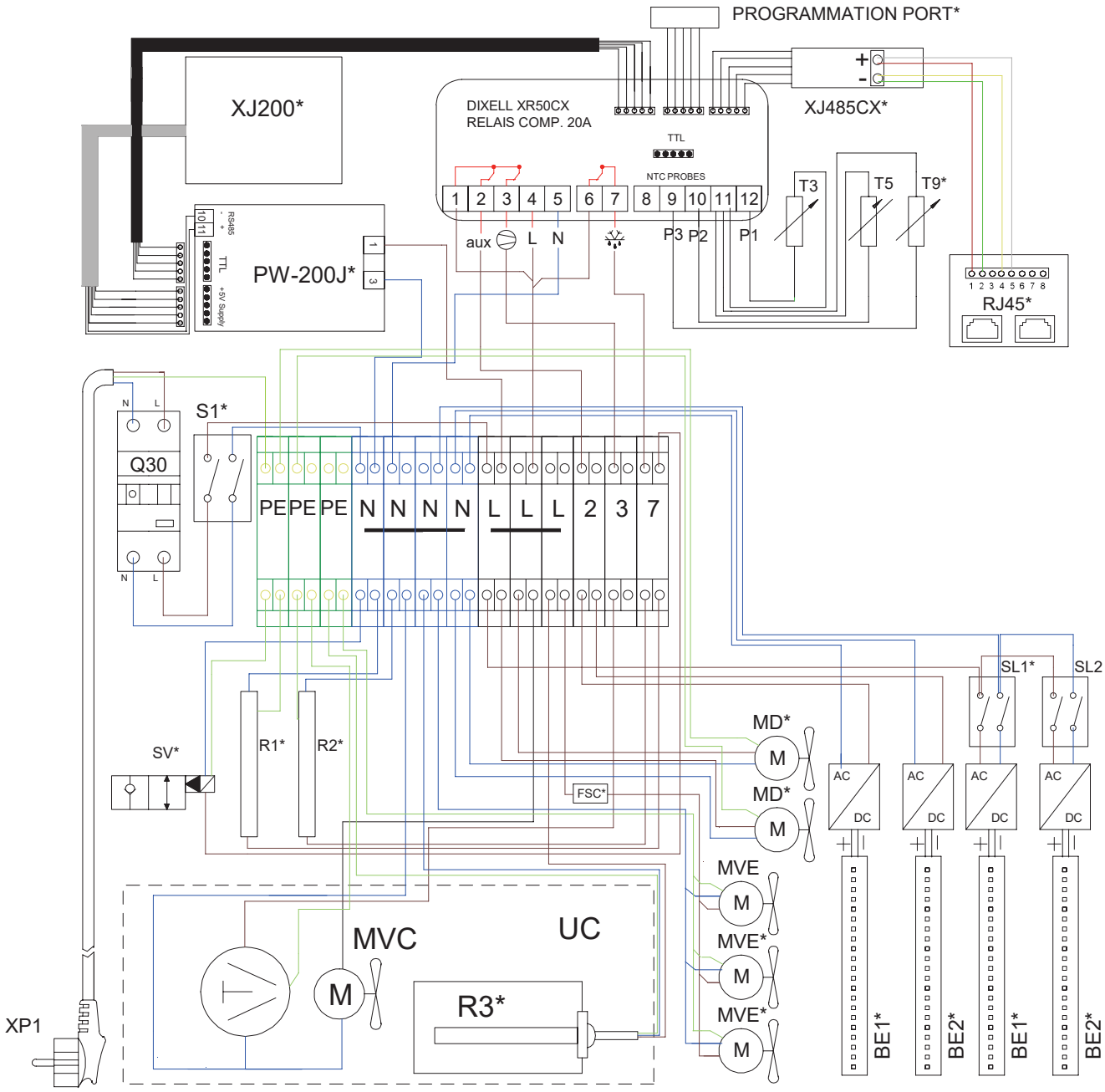
⚠ **Attention**: the access to the programming menus and the modification of the parameters are exclusively reserved to installation and maintenance personnel. A wrong or improper modification of the parameters can lead to malfunctions and/or to a lack of performances.

Cabinet type: **Libra R290**

Controller: **Dixell XR50CX**
Defrost: **Hot gas**
Release Tabella: **80004180 – 04.04.2018**
Programmation Table: **80004000**

Parametertabelle					
Cod.	**Type**	**Parameter description**	**u.o.m.**	**Range**	**Def.**
SET	-	Set Point (valid only for stand-alone counters)	°C	LS÷US	**3**
Hy	Pr1	Differential (Hystheresis)	°C	0.1÷25.5	2
LS	Pr2	Minimum Set Point	°C	-50÷Set	-2
US	Pr2	Maximum Set Point	°C	Set÷110	10
ot	Pr1	Thermostat sensor calibration	°C	-12÷12	0.0
P2P	Pr1	Evaporator sensor presence	-	n÷Y	Y
oE	Pr2	Evaporator sensor calibration	°C	-12÷12	0
P3P	Pr2	Third sensor presence	-	n÷Y	N
o3	Pr2	Third sensor calibration	°C	-12÷12	0
odS	Pr2	Outputs delay at startup	min.	0÷255	2
AC	Pr1	Min. time between Compressor Off and successive start	min.	0÷50	4
rtr	Pr2	P1-P2 percentage for regulation (100=P1, 0=P2)	-	0÷100	80
CCt	Pr2	Continuous cycle duration	H	0÷24	0
CCS	Pr2	Set Point for continuous cycle	°C	-55÷150	4
Con	Pr2	Continuous ON time with faulty sensor	min.	0÷255	10
CoF	Pr2	Continuous OFF time with faulty sensor	min.	0÷255	10
CF	Pr2	Temperature measurement unit	-	°C÷°F	°C
rES	Pr1	Resolution (in=integer; de=decimal point)	-	In÷de	De
Lod	Pr2	Probe displayed	-	P1÷on	on
dLy	Pr2	Display temperature delay	Min.	0÷20	0
dtr	Pr2	with Lod=dtr, percentage of visualization betw. temp. P1 and P2	-	1÷99	99
tdf	Pr1	Defrost type (El=el.heater, in=hot gas)	-	El÷in	in
dFP	Pr2	Probe selection for defrost termination (nP,P1,P2,P3,P4)	-	-	P2
dte	Pr1	Defrost termination temperature	°C	-50÷50	7
idF	Pr1	Interval between defrost cycles	h	1÷120	4
MdF	Pr1	Maximum length of defrost	min.	0÷255	30
dSd	Pr2	Start defrost delay	min.	0÷99	0
dFd	Pr2	Displaying mode during defrost (rt, it, Set, DEF)	-	-	SET
dAd	Pr2	Max display delay after defrost	min.	0÷255	0
Fdt	Pr2	Draining time	min.	0÷120	5
dPo	Pr2	First defrost after startup (n=after idF, y=immed.)	-	n÷y	Y
dAF	Pr2	Defrost delay after fast freezing (0÷23h 50')	-	-	0
ALC	Pr2	Temperature alarm config. (rE=related to Set, Ab=absolute)	-	rE÷Ab	rE
ALU	Pr1	Maximun temperature alarm	°C	Set÷110	10
ALL	Pr1	Minimum temperature alarm	°C	-50÷Set	5
AFH	Pr2	Differential for temperature alarm recovery	°C	0.1÷25.5	1
ALd	Pr2	Temperature alarm delay	min	0÷255	15
dAo	Pr2	Delay of temperature alarm at startup	h	0÷23h50'	2

AP2	Pr2	Sensor for temperature alarm of condenser (np,P1,P2,P3,P4)	-	np÷P4	np
AL2	Pr2	Condenser low temperature alarm	°C	-55÷150	-40
AU2	Pr2	Condenser high temperature alarm	°C	-55÷150	110
AH2	Pr2	Differential for condenser temp. alarm recovery	°C	0.1÷25.5	5
Ad2	Pr2	Condenser temperature alarm delay	min	0÷254	15
dA2	Pr2	Delay of cond. temp. alarm at start up	h	0÷23h50’	1.3
bLL	Pr2	Compressor Off for condenser low temp. alarm	-	n÷y	n
AC2	Pr2	Compressor Off for condenser high temp. alarm	-	n÷y	n
tbA	Pr2	Alarm relay disabling	-	n÷y	n
oA2	Pr2	3rd relay configuration *ALr= do not select it* *dEF=do not select it* *dF2= do not select it* *Lig= do not select it* ***Aus=Aux*** *onF= do not select it* *Fan=do not select it* *db=do not select it* *dF2= do not select it*			AUS
Aop	Pr2	Alarm relay polarity (oP=opening, CL=closing)	-	oP÷CL	oP
i1P	Pr1	Digital input polarity (oP=opening, CL=closing)	-	oP÷CL	oP
i1F	Pr1	Digital input configuration *Aus=disabled* *dor=door switch input* *EAL=generic alarm* *bAL=serious alarm mode, CA alarm is displayed* *PAL=pressure switch (comp. OFF in case of alarm)* *dFr= start defroston digital input* *Htr= inversion heating-cooling* *ES=Energy saving, change the setpoint -> SET+HES*			AUS
did	Pr1	Digital input alarm delay	min.	0÷255	5
Nps	Pr2	Number of activation of pressure switch	-	0÷15	15
odc	Pr2	Comp. status with open door (no, Fan=cmp.On /CPr;F_C cmp. OFF)	-	-	no
rrd	Pr2	Regulation restart with open door alarm	-	n÷Y	n
HES	Pr2	Differential energy saving (e.g. night time)-activation via dig. input	°C	-30÷30	0
Adr	Pr2	Serial address	-	0÷247	1
PbC	Pr2	Kind of probe	-	ptc÷ntc	ntc
OnF	Pr2	on/off key enabling	-	pu÷ES	nu
LPC	Pr2		-	nu÷FHU	AUS



	(I)	(D)	(GB)	(F)
BE1, BE2	Illuminazione	Beleuchtung	Light system	Système d'éclairage
FSC	Regolatore velocità ventolatori	SDB Widerstand	Fan speed controller	Côntroleur de vitesse du ventilateur
MD	Ventilatore disappannante	Lüfter des Antibeschlagssystems	Fan for anti-mist system	Ventilateur pour système anti-buée
MVC	Ventilatore condensatore	Verflüssigerlüfter	Condenser fan motor	Moteur de ventilateur de condenseur
MVE	Ventilatore evaporatore	Verdampferlüfter	Evaporator fan motor	Moteur de ventilateur d'evaporateur
Q30	Magnetotermico differenziale	FI-Schalter	Safety circuit Breaker	Disjoncteue de sécurité
R1, R2	Resistenza sbrinamento	Abtauheizung	Defrost Heater	Chauffaghe de dégivrage
R3	Resistenza PTC per rievaporazione dell'acqua di condensa	PTC-Heizstab fuer das Wasserverdunstung-System	PTC-Heater for re-evaporation of the condensing water	PTC chauffage pour la ré-évaporation de l'eau de condensation
S1	Interruttore di accensione	Hauptschalter	Master switch	Interrupteur principal
SL1, SL2	Interruttore luci	Lichtschalter	Light switch	Light switch
SV	Valvola solenoide	Magnetventil	Solenoid Valve	Electrovanne par gaz chaud
T3	Sonda temperatura: aria in aspirazione	Fühler: Rückluft	Sensor: air return	Sonde de repris d'air
T5	Sonda temperatura: fine sbrinamento	Fühler: Abtauung	Sensor: end defrost	Sonde de dégivrage
T9	Sonda condensatore	Fühler: Kondensator	Sensor: condenser	Sonde de condenseur
UC	Unità condensatrice	Verflüssingungssatz	Condensing Unit	Unité de condensation
XP1	Cavo alimentazione con spina	Zuleiungskabel mit Stecker	Power feed cable with plug	Cable d'alimentation avec prise
*	- se installato (secondo il modello)	- wenn eingebaut (je nach Modell)	- if installed (according the model)	- si installé (selon le modéle)

a	aggiornato schema	Beato V.	06.03.2018

MATERIALE CONFORME ALLA DIRETTIVA 2002/95/CE ROHS E SUCCESSIVI AGGIORNAMENTI

DENOMINAZIONE: SCHEMA ELETTRICO PLUG-IN DIXELL XR50CX STANDARD

GALILEI REFRIGERAZIONE & DESIGN

Scala:	Materiale:
Dis. : BEATO	Peso:
Rev. :	Data : 03-08-2016

80002830

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GALILEI
REFRIGERAZIONE & DESIGN

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