MODERN EXPO

REFRIGERATED MULTIDECK COOLES DECK

OPERATING MANUAL

Warranty card

Date of commissioning_____

Content

1. Introduction

This operating manual for COOLES Deck cabinets contains the operating and maintenance conditions for the above-mentioned refrigeration equipment. This document is intended for the service personnel during the installation and operation of the multideck cabinet and should be kept near the product at all times.

Installation, launching, maintenance and repair of multideck may be carried out only **by specially trained specialists.** All personnel authorized to work with the multideck **are obliged to get acquainted with this operating manual and comply with all conditions of operation and maintenance of the equipment (Section 14).** The equipment is supplied complete with other necessary documents in accordance with the requirements of applicable standards.

Take care to keep this manual properly stored for the entire service period of the equipment. The document must be treated with care and protected from damage. This document must be stored in a place protected from moisture and high temperatures.

The operating instructions must be kept for the entire service period of the equipment and, if the equipment is transferred to another owner, must be transferred with it.

WARNING! The manufacturer is not responsible for:

- losses incurred by the equipment as a result of breakdowns, accidents or failures that occurred as a result of non-compliance with the instructions given in this manual (Section 12);
- the consequences of unauthorized modification of existing or installation of new equipment components not provided by the manufacturer;
- use of the multideck for other purposes;
- incorrect installation and connection of the multideck;
- violation of the rules and terms of maintenance;
- partial or complete violation of the rules of this manual;
- power outages.

RECOMENDATIONS:

1. Install voltage protective relays or voltage stabilizers.

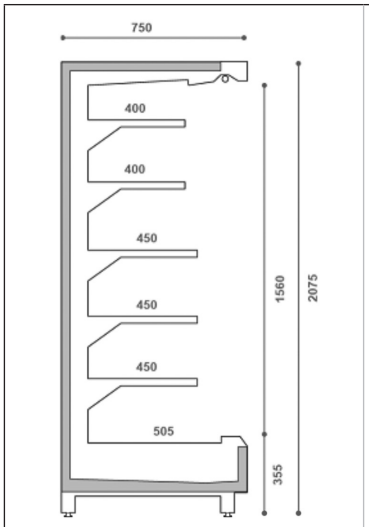
2. 2.All routine operations (maintenance, commissioning, repairs) shall be recorded in this manual (Section 14) or on the portal (Section 11).

Since the operating instructions are intended for service personnel with the appropriate level of training and experience in working with refrigeration equipment, it does not include the principles of operation of the refrigeration machine and automation devices.

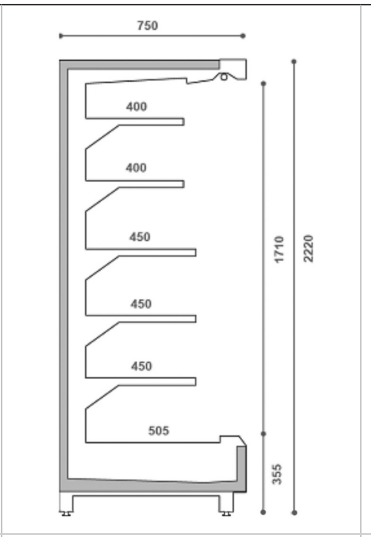
3. For equipment that has to work with such products as raw fish, salted fish, or prepared products containing vinegar, it is necessary to use cabinets with internal elements made of AISI 304 stainless steel and evaporators with epoxy coating to extend the service life of the equipment (Section 3).

The manufacturer reserves the right to change the brand of components and accessories without notice, provided that the performance characteristics are maintained.

2. Model line of multideks



Open H-2075 W-750



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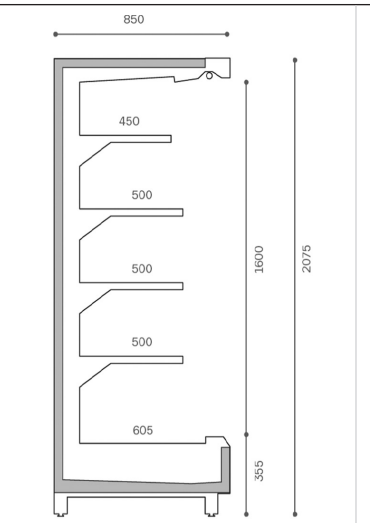

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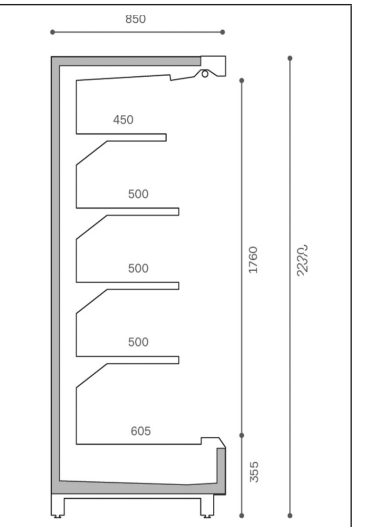

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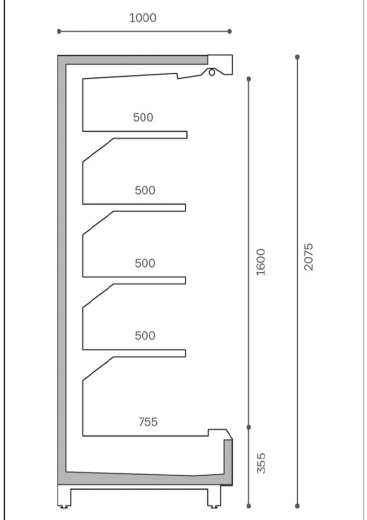

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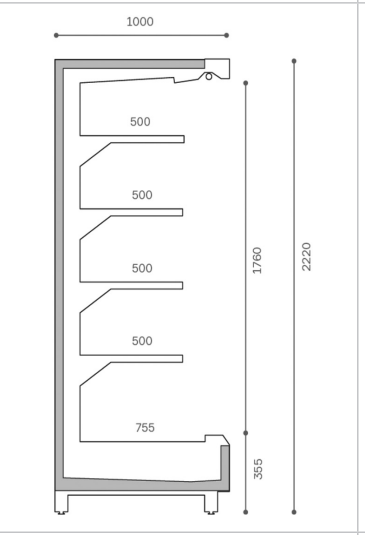

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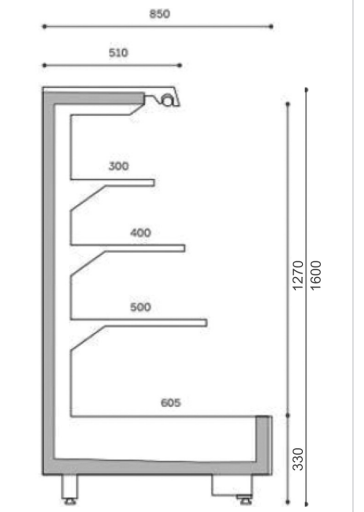

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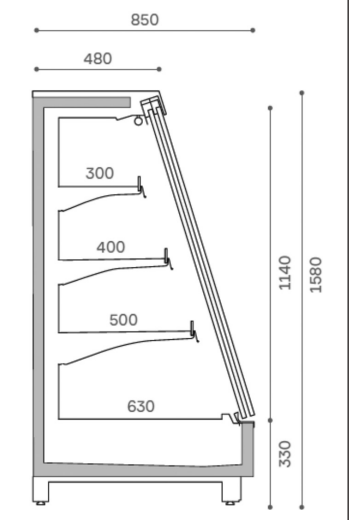
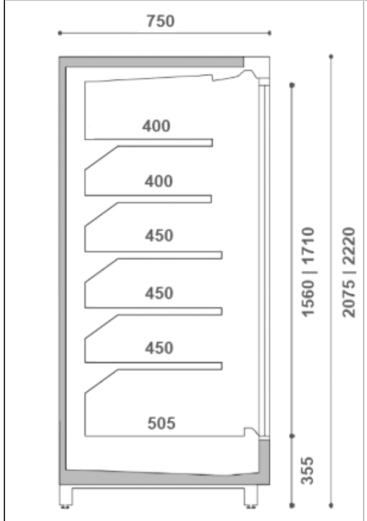
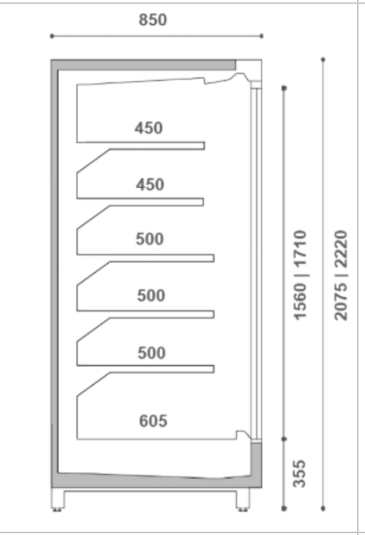


Doors H-1600 W- 850



Doors H-2075/2220 W- 750



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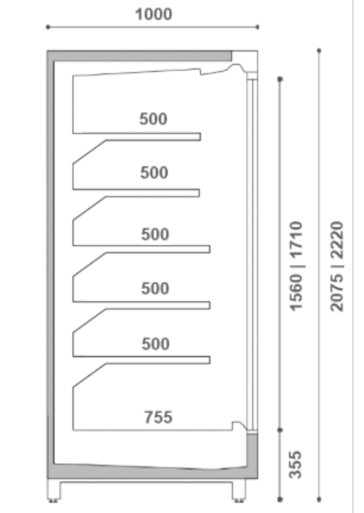
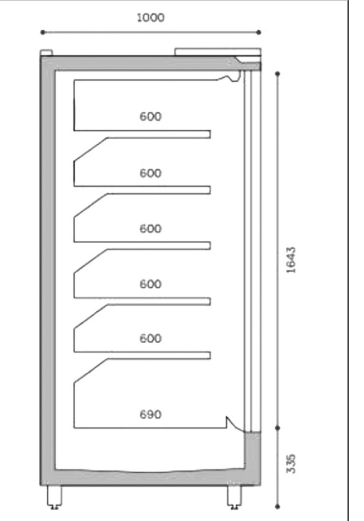


Doors H-2075/2220 W- 1000



Freezer H-2075 W-1000

3. Prohibitions and regulations of use

During the operation of the multideck, it is recommended to constantly monitor the temperature in the cabinet according to the screen of the control unit (Fig. 6). In case of failure to ensure the specified mode, it is necessary to call a service center specialist, taking measures to avoid product spoilage, namely by moving them from the multideck to another storage.

The product must be delivered to the installation place in compliance with all rigging rules, carefully, avoiding shocks and jolts. **The product must be prepared and put into operation only by specialists of the organization who have a certificate for the right to install and maintain refrigeration equipment.**

If the local legislation of the consumer's country (for the EU country - REGULATION (EU) 2024/573) requires registration or a license for the use of the working refrigerant and reporting on its use, this must be ensured by a service organization that ensures the installation and filling of the showcase with the refrigerant in accordance with the relevant requirements legislation.

Before connecting the display cabinet to the mains, make sure that the supply voltage is in accordance with the one indicated on the product's rating plate. Make the correct connection according to the power of the display cabinet, selecting the cable cross-section and circuit breaker. **The multideck must be grounded.**

Disconnect the multideck from the power supply before performing maintenance, repair or cleaning.

Upon receiving the product, make sure that none of the elements of the cooling circuit are damaged. In the case of refrigerant leakage, avoid open flames or other sources of ignition in the multideck.

Recommendations for the care of refrigerated multideck, accessories or their structural elements made of stainless steel:

-carefully remove the protective film without using steel cutting tools;

-wash and wipe the products dry immediately after use, avoiding the drying of dirt and food residues. During the natural drying of water residues, yellowish scale may appear on stainless steel surfaces, which can be removed with special detergents;

-to clean the products, use specialized detergents for the care of stainless steel. Do not use cleaning and disinfecting agents containing chlorine, hard abrasives, acids, and soda;

-do not use hard, fine-grained substances, hard sponges, brushes, or other objects that may scratch the surface;

-soft wipes, pieces of fabric, and specialized neutral detergents for the care of stainless steel products are recommended;

-it is recommended to soak old and hardened dirt first. Grease can be easily removed with warm water and a special solution;

-do not store or transport stainless steel products near chemicals.

NOTE! In case of violation of the requirements for the operation and care of stainless steel products and elements, the manufacturer is not responsible for maintaining the appearance of the products, their quality and properties necessary for full operation.

If any signs of malfunctioning appear, as well as if faults are detected in the electrical system or if refrigerant leakage is detected, immediately disconnect the multideck from the power supply and notify the service department. No unauthorized persons should be allowed to access the product until the service technician arrives.

3.1 For the multideck.

Regulations for use:

-refrigeration equipment maintains the temperature of the goods, but does not reduce it;

-the use of refrigeration equipment is allowed only indoors;

-refrigeration equipment is intended for storage and display of fresh, freshly frozen and frozen products (according to the class of the display case);

-all parts/components of the refrigeration equipment must be installed and all fasteners must be fixed in accordance with this operating manual. The manufacturer not responsible for incorrect operation of the refrigeration equipment in case of non-compliance with the above requirements;

-be sure that the power supply is turned off before performing any work related to the maintenance of the equipment;

-carefully perform all work operations (loading/unloading of goods, washing and maintenance, service at the counter, etc.) Wear appropriate protective equipment when performing these operations;

-To ensure correct and proper operation of the equipment. All preventive maintenance operations must be carried out with special care. Periodically every 2 months. Must be prescribed in this manual (Section 14) or registered on the service portal (Section 11).

PROHIBITIONS:

-it is forbidden to operate refrigeration equipment:

• with removed or defective automation

devices;

• in case of damage to the insulation of electrical cables;

• when the protection circuit is broken;

-do not remove the protection from moving parts of the refrigeration equipment without first disconnecting the product from the power supply;

-do not touch the display cabinet with wet or damp hands;

-do not touch the display cabinet while barefoot;

-do not remove frost from the evaporator surface mechanically with sharp objects;

-do not operate the display cabinet with damaged elements and sharp edges;

-Persons with physical or mental disabilities, as well as children, are prohibited from servicing the equipment. Persons with insufficient experience and knowledge must work under the supervision of experienced professionals or in accordance with the operating instructions provided;

- it is forbidden to operate the display cabinet in a broken condition;

- it is forbidden to operate the display cabinet with a damaged power cable;

- do not operate the display cabinet with unstable mains voltage.

3.2 For the product

Regulations of use:

-The refrigerated display cabinet (main and additional volume) is designed to maintain the required temperature of the products laid out. Accordingly, only food products of the appropriate temperature can be loaded products of the appropriate temperature (Table 1);

Table 1. Recommended storage and loading temperatures for products depending on the class of display cabinet

Cabinet class	Temperature range of products in the cabinet	Product temperature range required at loading	Temperature range in the working volumes of the cabinet	Set value for the corresponding display cabinet class
3M1	-1/+5	0/+2	0/+2	0
3M2	-1/+7	+2/+4	+2/+4	+2
3H1	+1/+10	+4/+6	+4/+6	+4
3L1	-18/-15	-22/-25	-22/-25	-22
3L2	-18/-12	-21/-23	-21/-23	-18

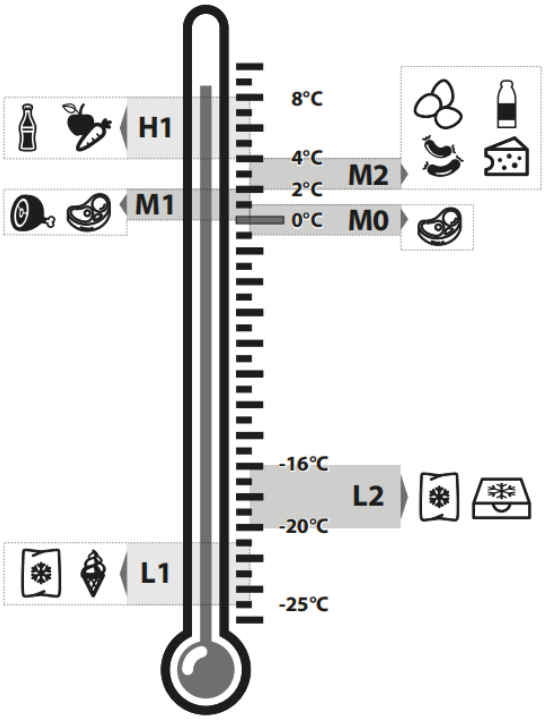


Fig. 1. Controlling the operating temperature of the cabinet

-storage of dairy products or products of high acidity (pickles, fish, etc.), without packaging or in opened form, can lead to corrosion on certain elements of the equipment and significantly reduce its service period;

-to store the goods and avoid leakage into the cabinet, it is necessary to use appropriate containers;

-it is necessary to regularly monitor the operating temperature of the display case to avoid malfunctions and further damage to the goods (Fig. 1).

PROHIBITIONS:

• do not load hot, warm or frozen products into the display cabinet if its temperature class does not allow it (Table 1). If the appropriate conditions are not met, condensation may form under the products in the main and additional volumes;

• it is forbidden to store explosive substances and items with flammable mixtures inside the display case;

• •it is forbidden to load the goods, covering the air circulation grilles in the volume.

3.3 For operating

Regulations for use:

-the temperature and moisture values in the room where the equipment is installed must not exceed the limit values indicated on the technical labeling of the product (Section 5.2). An excessive moisture level (including that caused by weather conditions) may cause fogging of the glass elements of the equipment and/or condensation on some parts of it;

-to avoid problems with condensation in retail outlets, it is necessary to always maintain a stable climatic background in the place of installation, using climate systems, heating and ventilation;

-in case of an unusually large amount of condensation, not related to the above situations (excessive ambient humidity, non-compliance with the temperature regime of products during display and storage) - contact a refrigeration specialist.

4. Configuration, structure, and operation of the multideck

COOLES Deck refrigerated multidecks are a wall-standing shelving unit with a heat-insulated case (Fig. 2). This line of cabinets is available in a modification with a night curtain and doors (sliding/hinged) (Fig. 3).

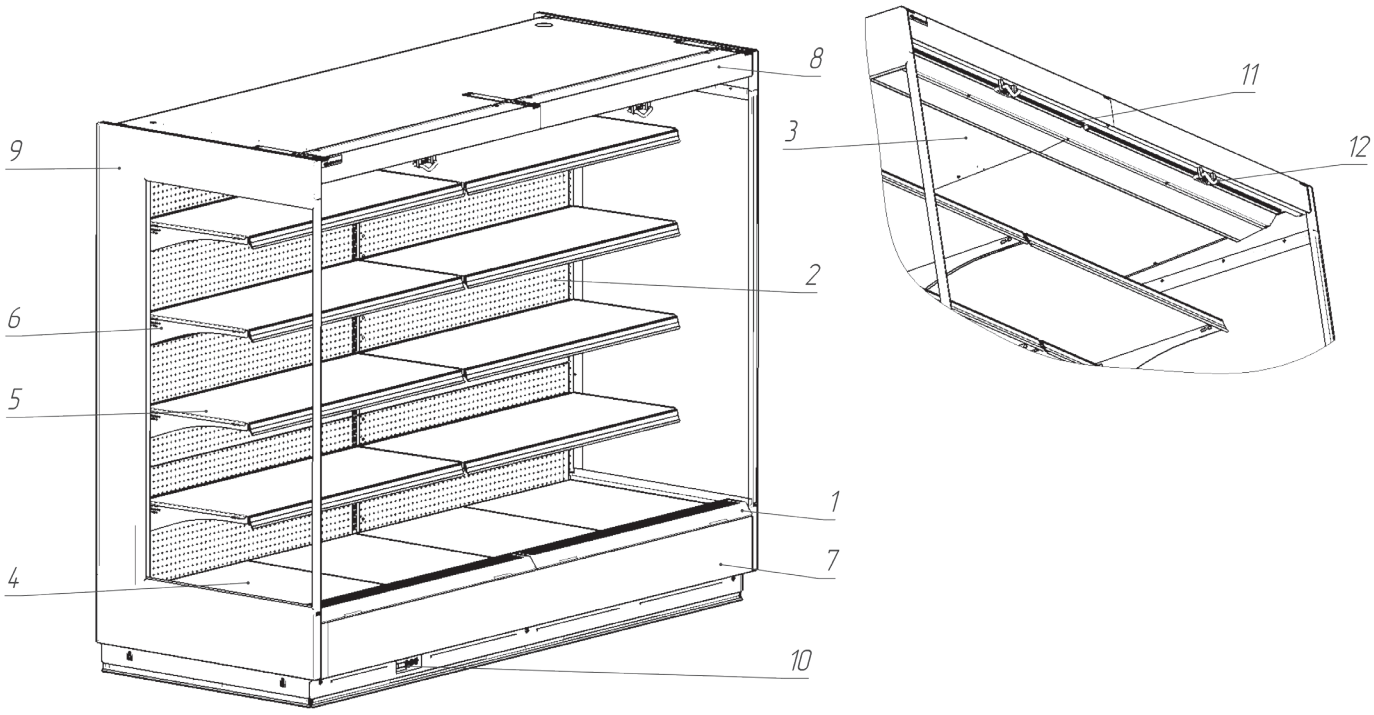


Fig. 2. Multideck COOLES Deck with night curtain

1 – air intake; 2 – perforated walls; 3 – top panel; 4 – basic shelves;
5 – shelves; 6 – brackets; 7 – lower decorative panel; 8 – upper decorative panel; 9 – sidewall;
10 – control unit; 11 – lighting lamp; 12 – night curtain.

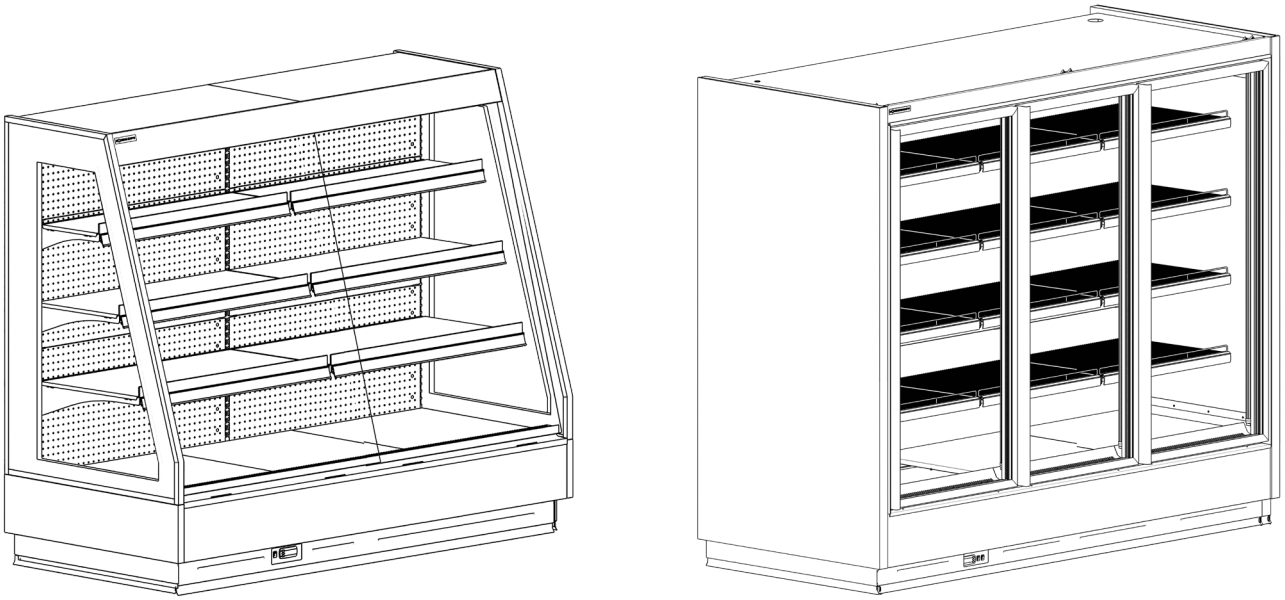


Fig. 3. COOLES Deck with sliding and hinged doors

The multideck is bounded on the sides by sidewalls. The design of the cabinets allows them to be assembled into a line (Fig. 4) or an island (Fig. 5).

At the same time, the sidewalls are installed only on the last cabinets on the right and left, and partitions are installed between the cabinets, if necessary. The left or right sidewall is considered to be from the buyer's point of view.

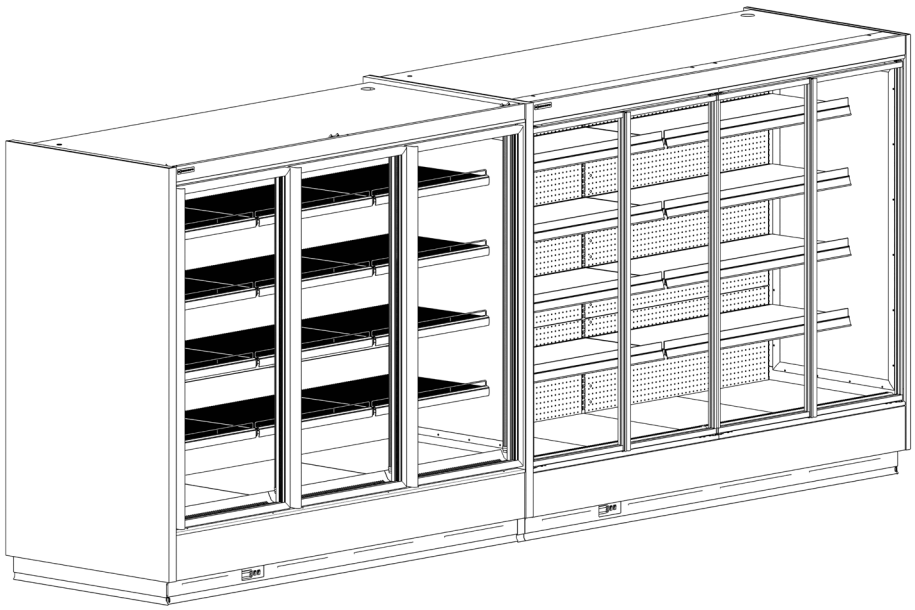


Fig. 4. The line of multidecks

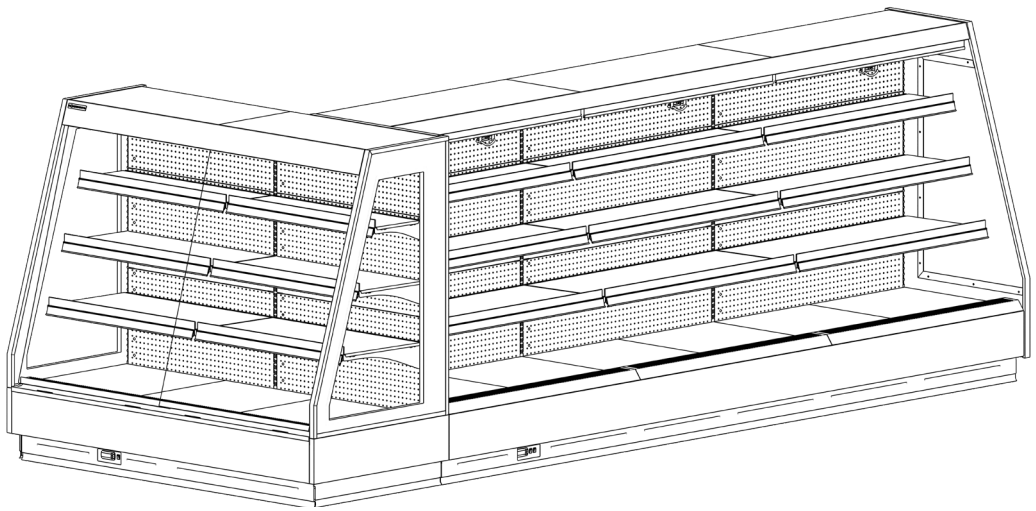


Fig. 5. The island of multidecks

For a better view of the goods, LED lighting strips are installed in the upper part behind the top panel. On the left side, at the bottom of the display case, there is a control unit for the cooling system and a display case lighting switch (Fig. 6).

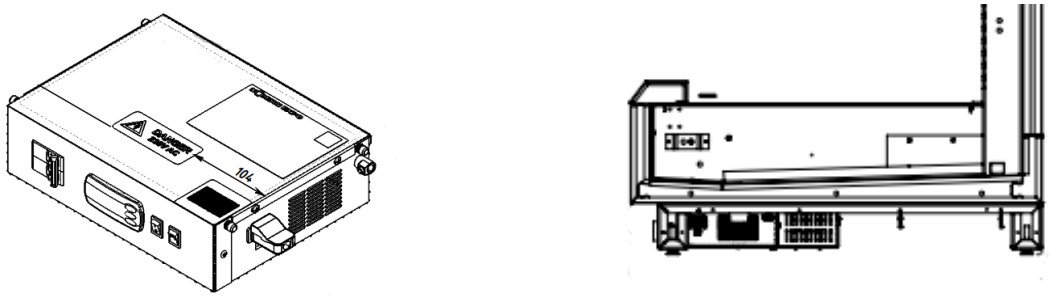


Fig. 6. Control unit and lighting unit

Maintaining the required temperature inside the multideck used for displaying and storing products is ensured by circulating cooled air.

The operation of the multideck is controlled by the Danfoss EKC202D1 electronic unit (or similar), which is located in the control unit (Fig. 6), through a temperature sensor. The sensor is installed at the air outlet of the evaporator and monitors the temperature of the air supplied to the exposure volume.

When the lower value of the temperature range is reached, the control unit sends a command to close the solenoid valve, thereby stopping the refrigerant supply to the evaporator. When the upper value of the temperature range is reached, the control unit sends a command to open the solenoid valve, which restores the evaporator to operation.

Since the refrigerant boils in the evaporator at sub-zero temperatures, a “snow coat” forms on the walls and fins of the evaporator tubes, which requires periodic defrosting. The frequency of the defrosting procedure is set on the control unit of the display cabinet, set by the manufacturer and can be adjusted by service personnel during operation. The start of the defrosting process is set by the time parameter, and the termination of this process is determined by the evaporator surface temperature, which is controlled by a temperature sensor (Section 13).

At the same time, in COOLES Deck models with the evaporator located under the base shelves, air is taken through the air intake from the exposition volume, then it is pumped by fans through the evaporator, where it is cooled. The cooled air is drawn through the perforated wall and through a honeycomb in the ceiling into the display space. At the same time, the air flow from the honeycomb acts as an air curtain that prevents cold air from leaking into the environment. Then the cycle is repeated (Fig. 7).

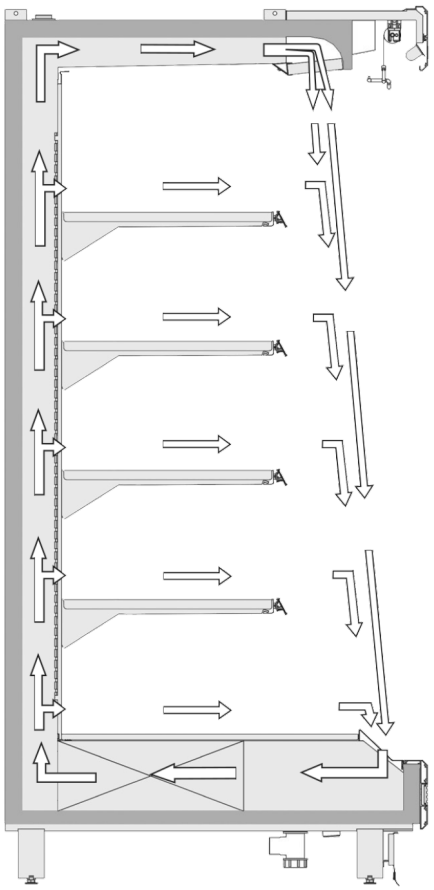


Fig. 7. Defrosting procedure

5. Intended use of the equipment

The equipment must be used in strict accordance with the requirements and

recommendations described in this manual, so you should carefully read the instructions for its installation, connection and demounting (when moving to another place of operation). Compliance with the relevant standards and requirements will ensure the safety and functioning of the product during transportation and operation.

The product should be delivered to the installation site in compliance with all rigging rules, carefully, avoiding shocks and jolts. The product should be prepared and put into operation only by the organization's specialists.

5.1 Purpose

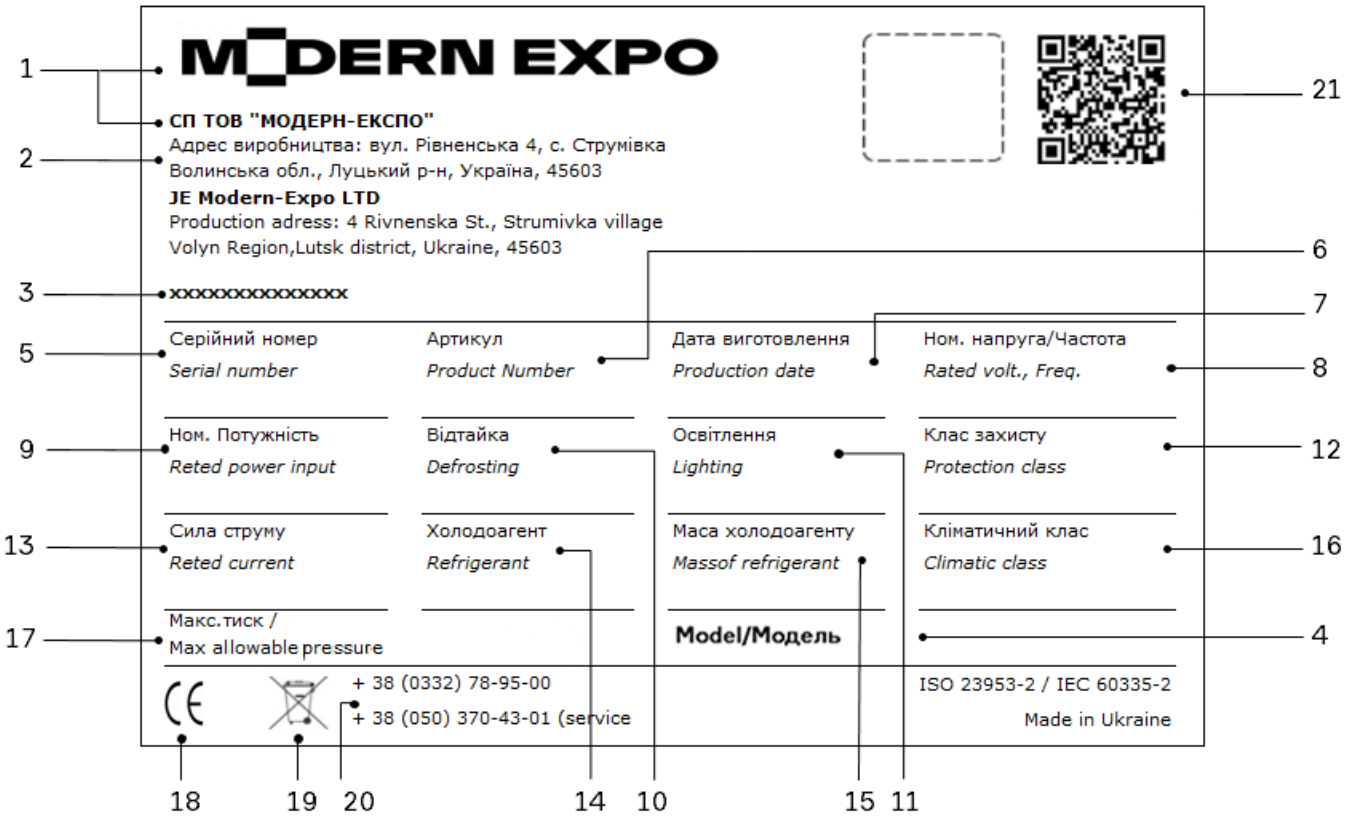
COOLES Deck multidecks are universal equipment for short-term storage, display and sale of food products pre-cooled to the storage temperature at trade and catering enterprises. The cabinets are designed to operate from a centralized refrigeration system or on a built-in unit.

Multidecks, which are designed to work from a centralized cooling system, in order to prevent corrosion of the cooling system and ensure its tightness, are supplied by the manufacturer filled with technical nitrogen gas (chemical formula N2).

The refrigerated multideck is designed for indoor use at a temperature not exceeding +25° and humidity not exceeding 60%. Optimal operation of the product is not guaranteed if the actual environmental conditions differ from the specified values. In order to maintain optimal climatic conditions in the room, air conditioning should be provided.

5.2 Technical labeling

Each multideck has a label with the following information on it:



1. Name, trademark of the manufacturer;
2. Manufacturer's address;
3. Name of the product;
4. Model;
5. Serial number;
6. Product number;
7. Date of manufacture in month/year format;
8. Rated voltage and frequency;
9. Rated power in cooling mode;
10. Rated power consumption in defrost mode;
11. Rated total power of the lighting lamps;
12. Equipment protection class according to DSTU EN 60529;
13. Rated amperage in cooling mode;
14. Type of refrigerant;
15. Refrigerant mass;
16. Climatic class of the site;
17. Maximum allowable pressure;
18. A special mark indicating that the product meets the basic requirements of EU directives and European Union standards;
19. The WEEE sign;
20. Telephone numbers of the manufacturer and customer service;
21. Service QR code.

During installation. After refueling with gas. It is necessary to indicate the actual amount of refueled refrigerant on the label located near the refueling point.

Functioning relies upon fluorinated greenhouse gases
Refrigerant for charging - R404; GWP - 3922

Amount of refrigerant charged at the manufacturing	Amount of refrigerant charged during installation	Total amount of refrigerant agent
0 g	_____ g	_____ g
for transport charged with Nitrogen -N2, pres. 1 bar	(to be filled in by the installation organization after charging the equipment)	(to be filled in by the installation organization after charging the equipment)

Contains fluorinated greenhouse gases
(after charging of refrigerant and commissioning equipment)

Fluorinated greenhouse gases are contained in hermetically sealed equipment.
(Refrigerants must be charged in accordance with EU 2024/573)

The electrical switchgear has a tested leakage rate of less than 0,1 % per year

From 1 January 2030 ‘Prohibited to be operated unless required by safety requirements that have to be applied at the site of operation’, according to points 5(c) of Annex IV to Regulation (EU) 2024/573

This technical marking is located inside of the multideck on the top left side (Fig. 8).

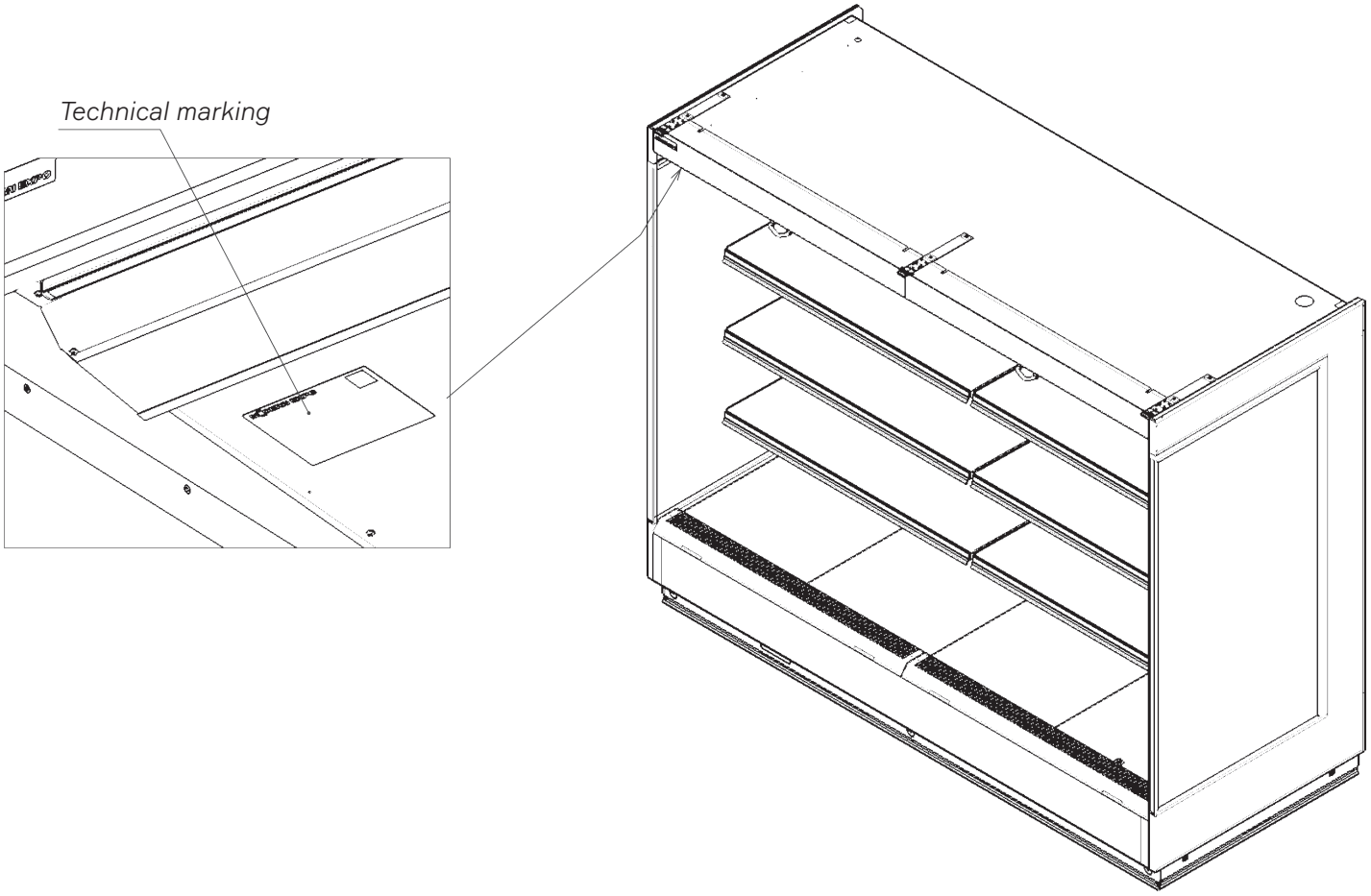


Fig. 8. Placement of technical labeling

6. Transportation and storage

The packaged display case can be transported by all types of transport, except for air, in accordance with the rules of cargo transportation applicable to this type of transport.

Before being sent for storage, the display cabinet must be cleaned, washed and dried. During storage, the display case must be powered off, protected from dust and solar radiation. The temperature in the room where the multideck is stored should be no lower than -35° and no higher than +40°, relative humidity - no more than 70%. Vibration of the floor and the rack where the display case is stored is unacceptable.

7. Installation of the multideck

After delivery of the multideck to the installation site, it is necessary to carry out its technical inspection. The inspection is carried out for completeness and absence of damage that may have occurred due to careless transportation.

Before installing the multideck, you need to:

- **check the integrity of the package (Fig. 9);**
- **remove the packaging film;**
- **remove the components out of the multideck (Fig. 10);**

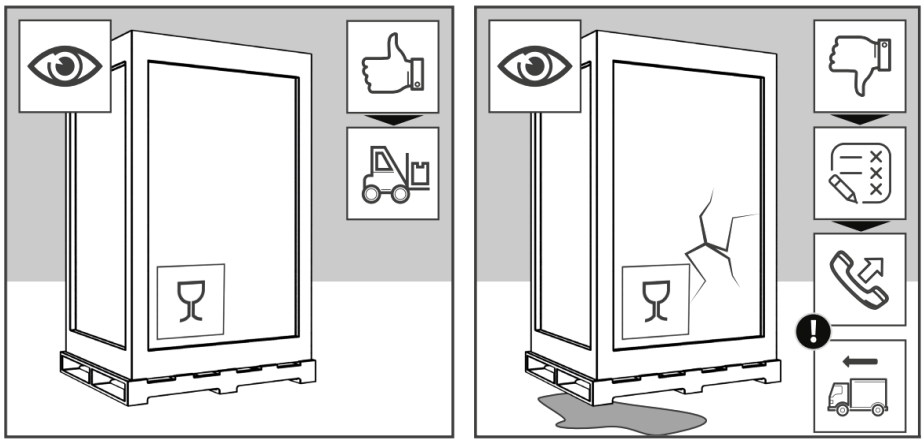


Fig. 9. Checking the integrity of the multideck packaging

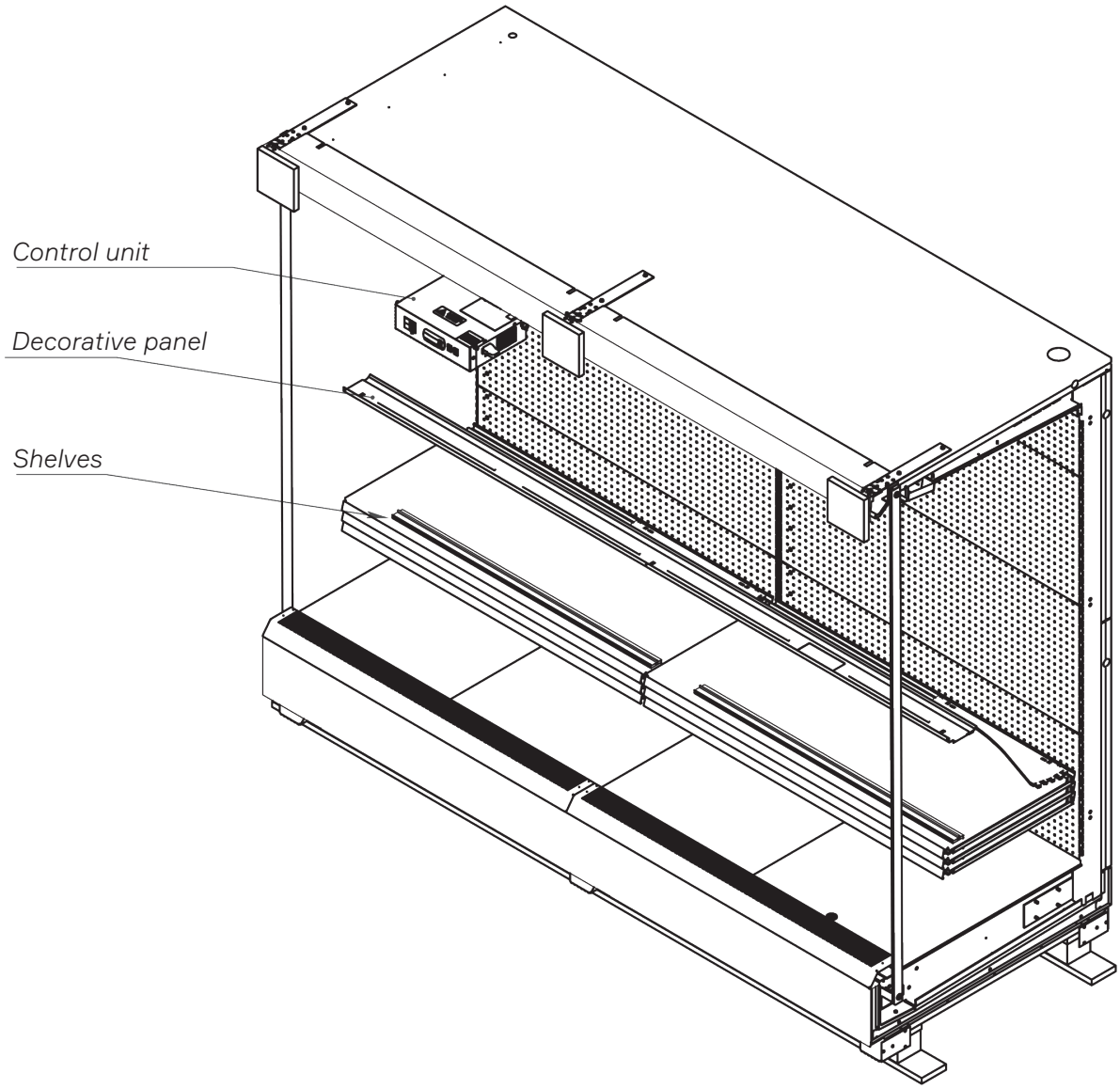


Fig. 10. Components of the multideck

• **dismount the multideck fixture (Fig. 11);**

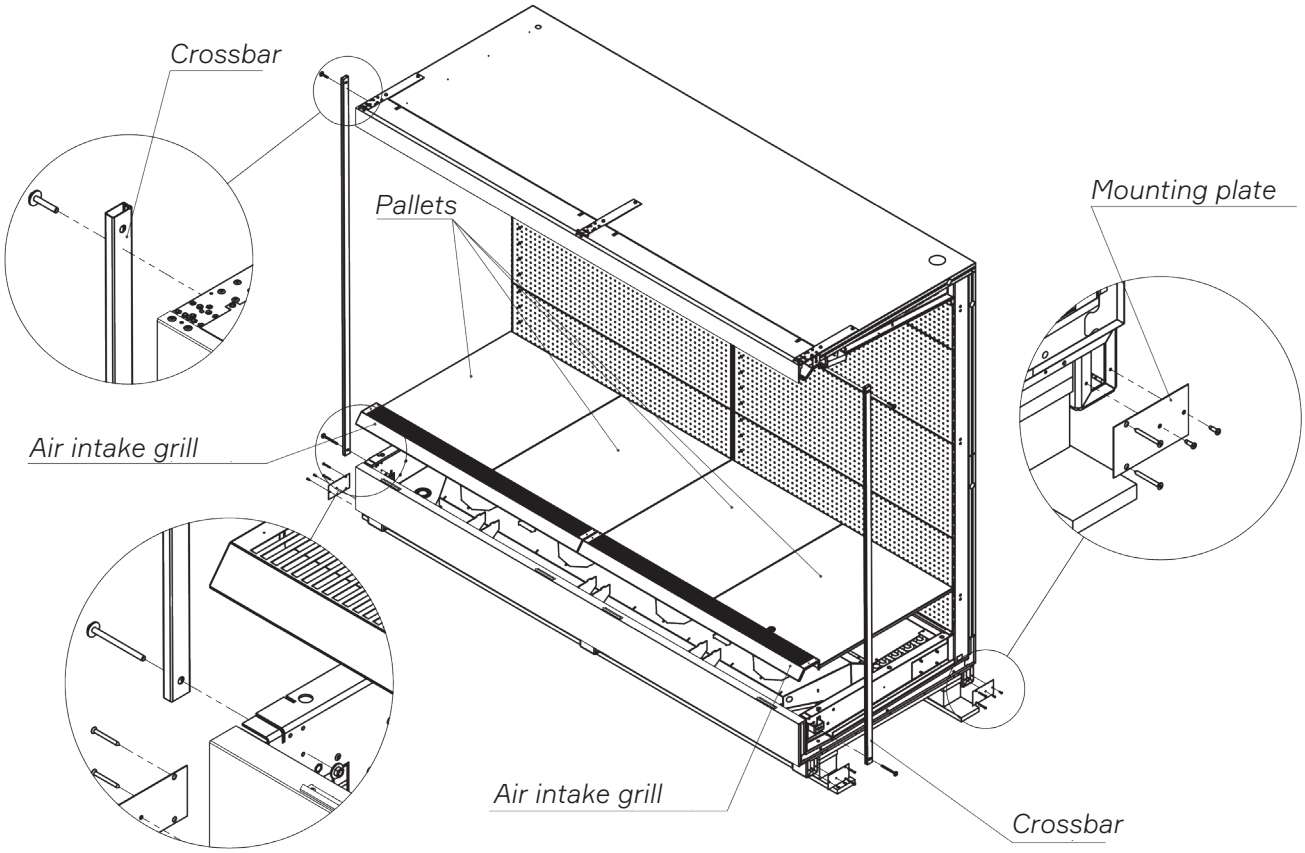


Fig. 11. Dismount the multideck fixture

• **remove the multideck from the pallet (Fig. 12);**

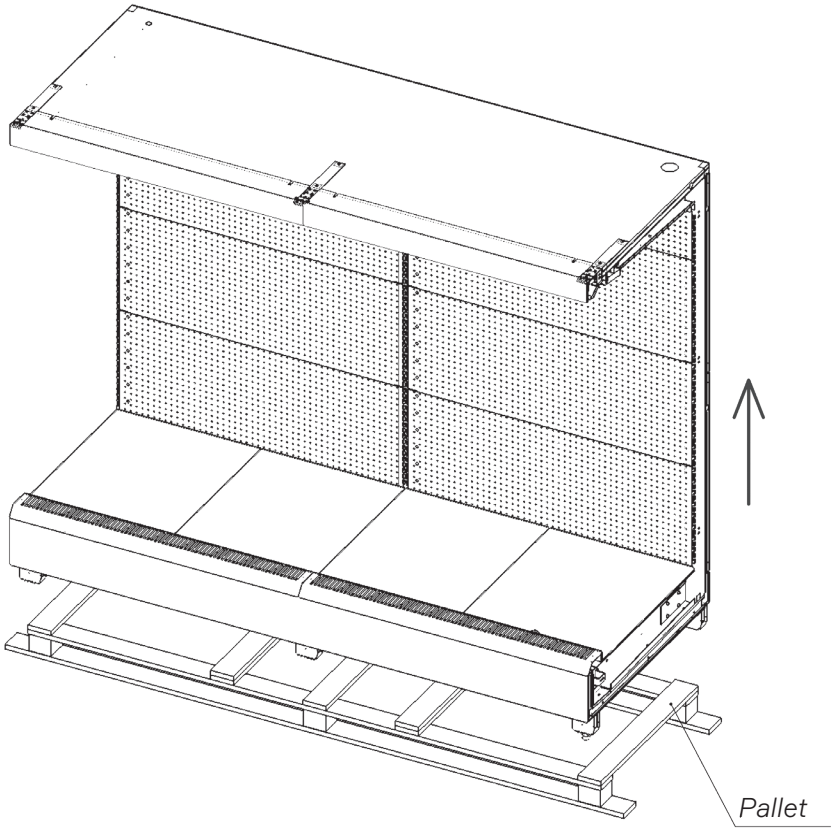


Fig. 12. Remove the multideck from pallet

• install the multideck at the place of operation (in a niche, in a line, island);

The following requirements must be met when installing the cabinets at the place of operation:

• the minimum required technological gap between the display cabinet and the wall is 50 mm. The placement of the multideck in a niche should provide free access to the control unit for maintenance purposes (Fig. 13);

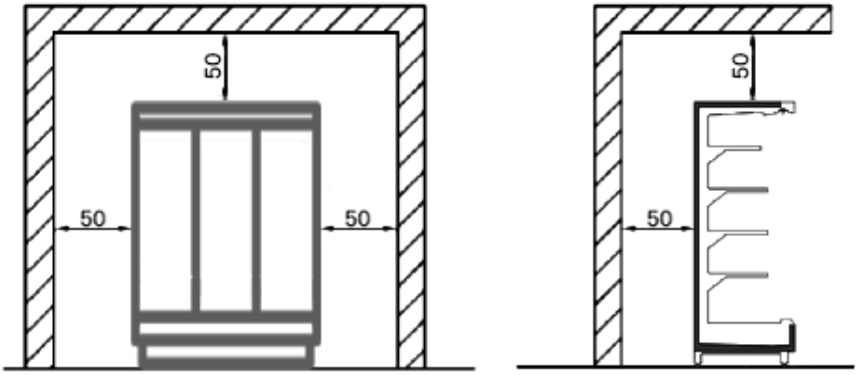


Fig. 13. Placement of a multideck in a niche

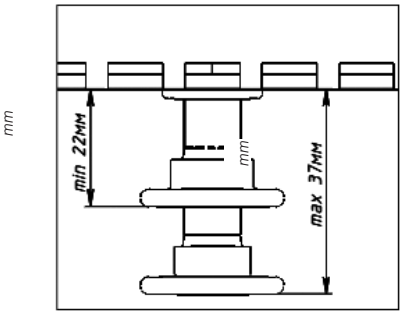
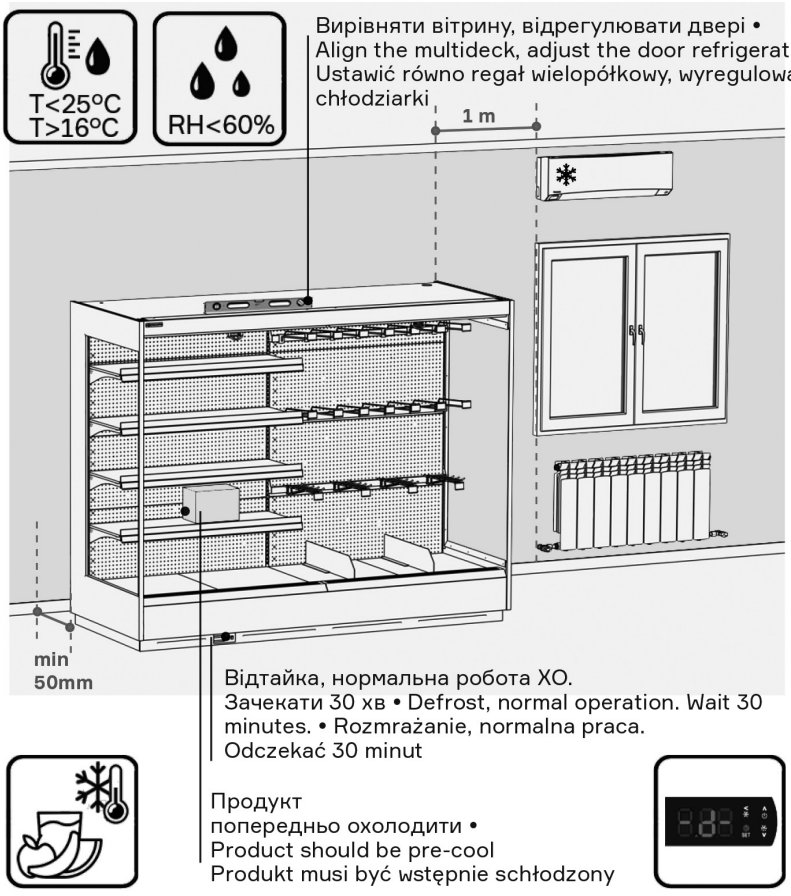


Fig. 14. Foot

• the back wall of the multideck shall not deviate from the vertical by more 2°;

• the multideck should be placed horizontally relative to the floor;

• do not install the multideck near the door or in places where the speed of air flow exceeds 0.2 m/s (outlets of air conditioning and ventilation systems) (Fig. 15);



• the multideck should be protected from solar radiation, and the distance to the nearest heat sources should be at least 2 m;

• when installing the multideck, take into account the minimum and maximum size of the feet (Fig. 14);

• do not install the multideck in fire and explosion hazardous areas;

• protect the multideck from possible impacts by washing machines and cargo trolleys;

• do not use drainage pipes as a support for refrigerant lines.

Fig. 15. Requirements for installing the multideck

When assembling several multidecks into one module (line), it is necessary to observe the order of arrangement of the individual elements of the module in accordance with the project. Before connecting the counters, make sure that each counter has connecting elements and ensure that the cabinets fit tightly together. Before installing sides, hermetic partitions or connecting in a line, it is necessary to stick paralon tape on both sides of the multideck.

(Fig. 16).

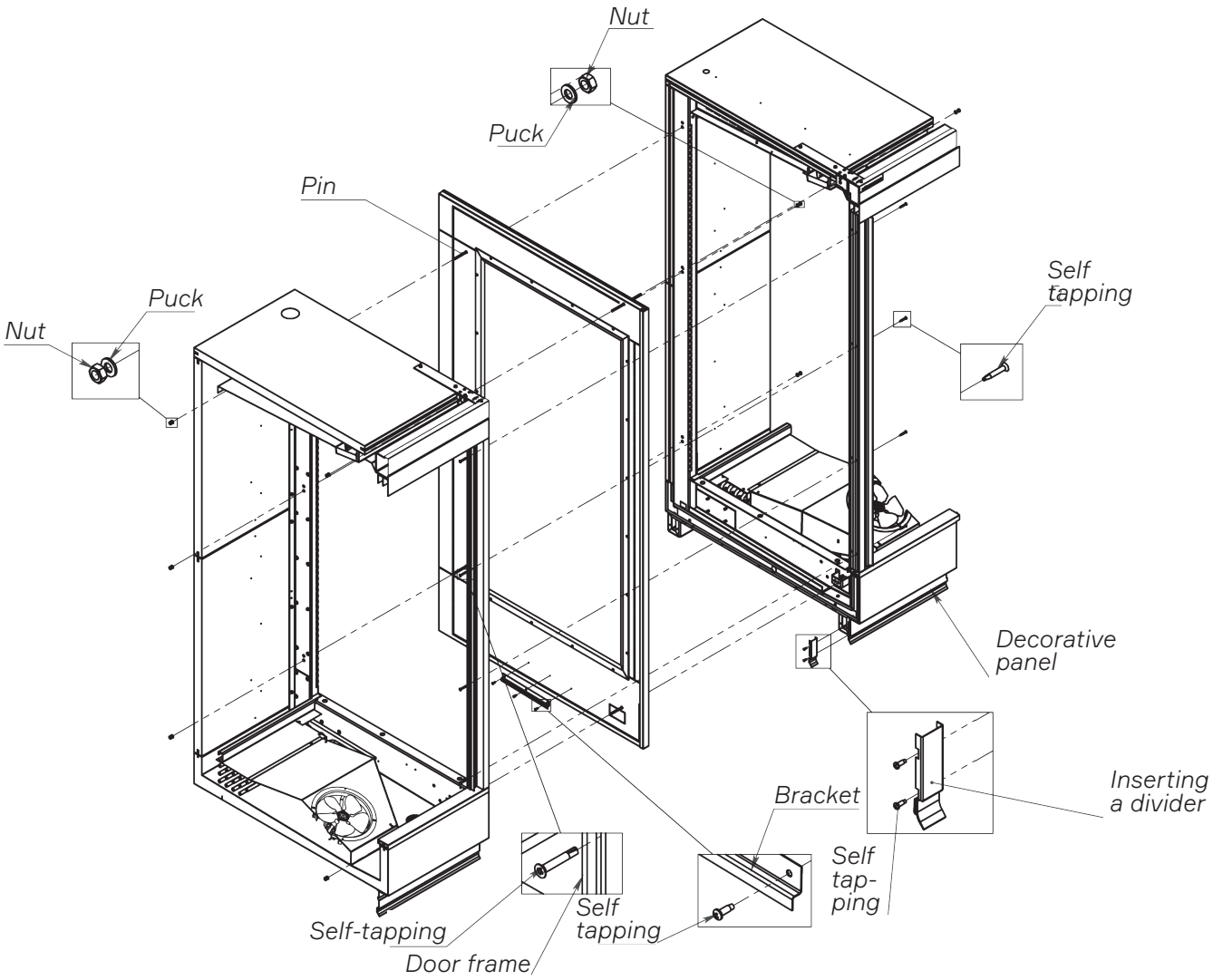


Fig. 16. Installing the divider

The sequence of actions when assembling multidecki in a line:

1. Remove the base shelf.
2. Remove the perforated wall.
3. Remove the air intake.
4. Glue the seal around the perimeter of the multideck.
5. Install the neighboring multideck next to it and adjust it to the level of the first cabinet.
6. Take the assembly kit and connect the cabinets according to the holes on the divider (Fig. 16).
7. Assemble all the components of the display cabinet in the reverse order.

ATTENTION! First of all, the sidewall/devider must be fixed on the latch (Fig. 17).

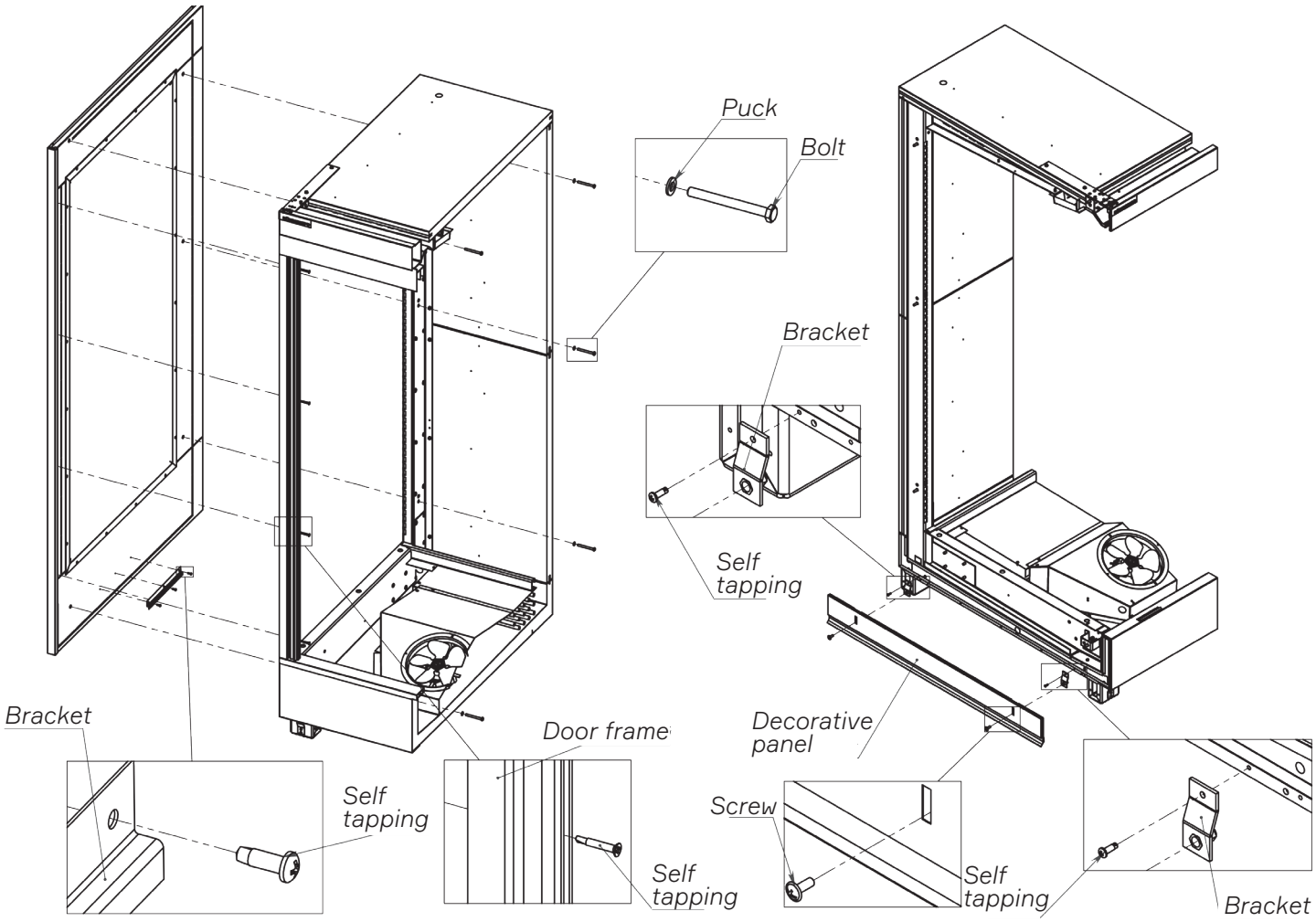


Fig. 17. Installing the sidewall

The sequence of actions when assembling multidecks into an island:

1. Remove the base shelf.
2. Remove the perforated wall.
3. Remove the air intake.
4. Glue the seal around the perimeter of the multideck.
5. Set each subsequent multideck to a level before connecting them together.
6. Take the assembly kit and connect the cabinets according to the holes on the divider (Fig. 18).
7. Connect the multidecks to the end multideck (Fig.19).
8. Assemble all the components of the display cabinet in the reverse order.

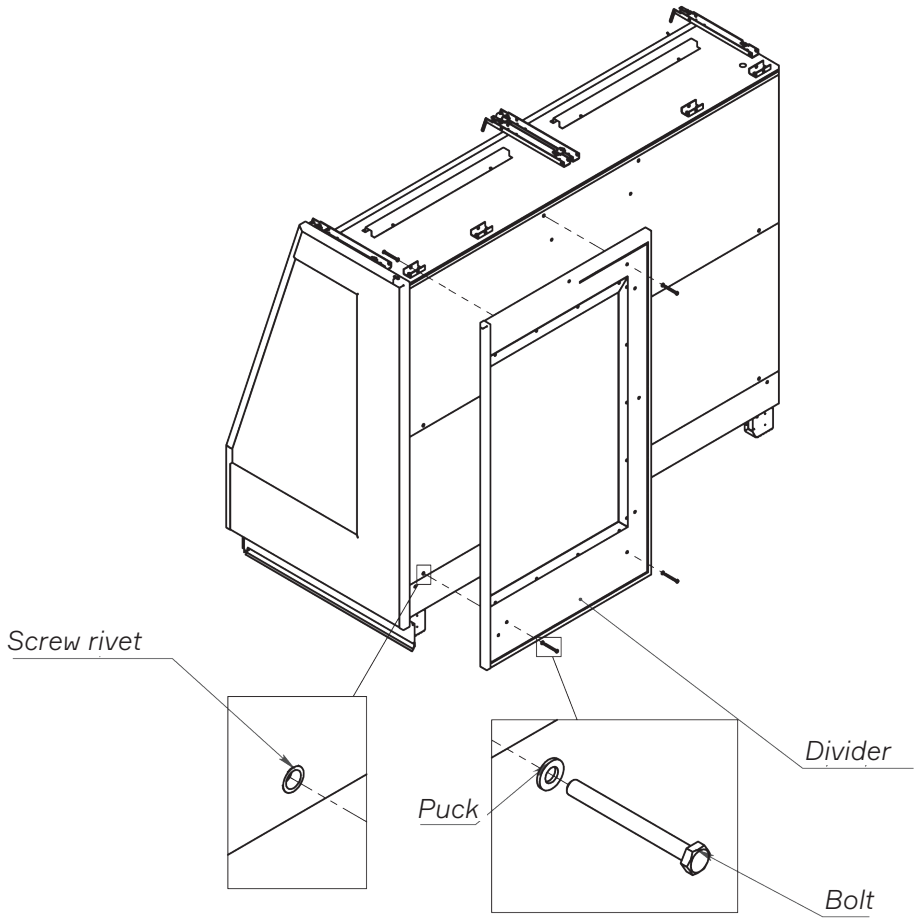


Fig. 18. Installing the divider

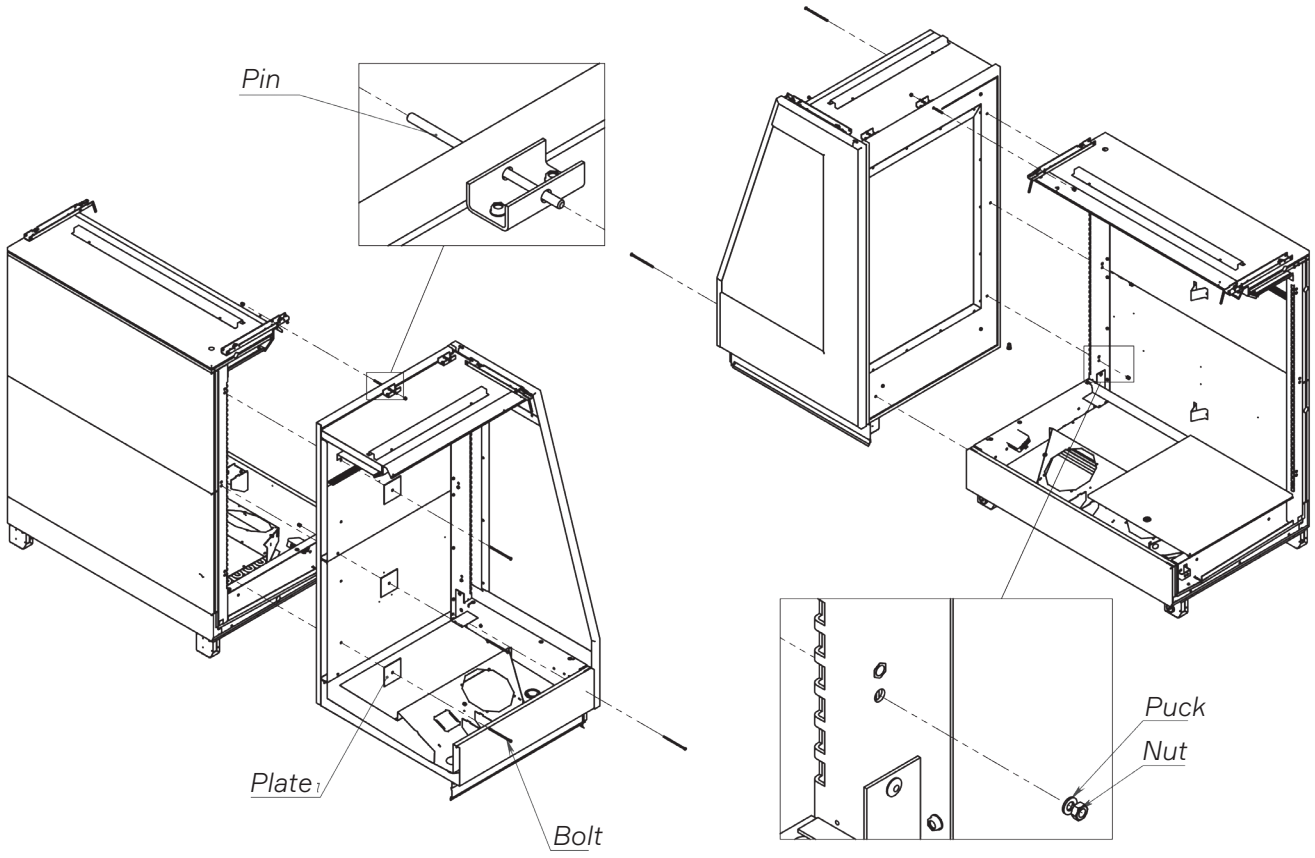


Fig. 19. Tightening end and linear multidecks

When connecting the cabinets to the refrigeration system (when soldering the pipelines), it is necessary to protect the cabinet from the open flame of the burner. The cabinets as part of the system must be tested for leaks. The system must meet the requirements of the leakage and strength test in accordance with the properties of refrigerants.

The connection of the multideck to the power supply network must be made in accordance with the diagram on the control unit. The cabinet is equipped with a circuit breaker that provides protection against overload and short circuits. The conductors of the L, N, PE circuits are laid together and connected in accordance with the wiring diagram on the inside of the control unit.

The display cabinet should be connected to the mains only with a good grounding (Fig. 20).

The connection can be made by a cable to the panel of the multideck or via a socket.

It is recommended to locate the socket above the level of the multideck so that it is always accessible and can be disconnected at any time if necessary.

The wiring diagrams for the display cabinets are located on the inside of the control unit (Fig. 6).

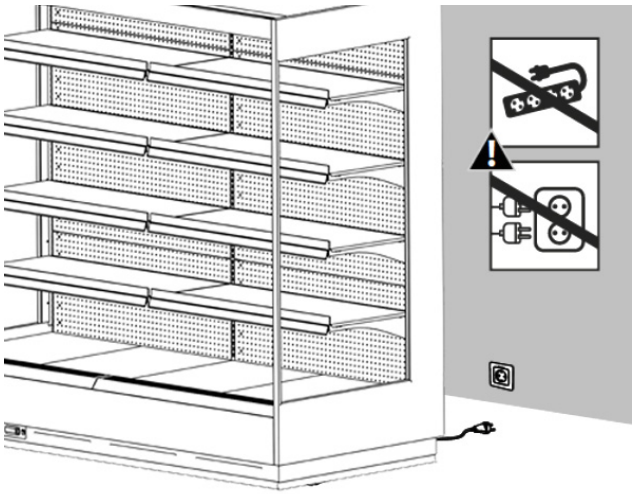


Fig. 20. Connecting to the power supply

• install shelves and accessories (Fig. 21).

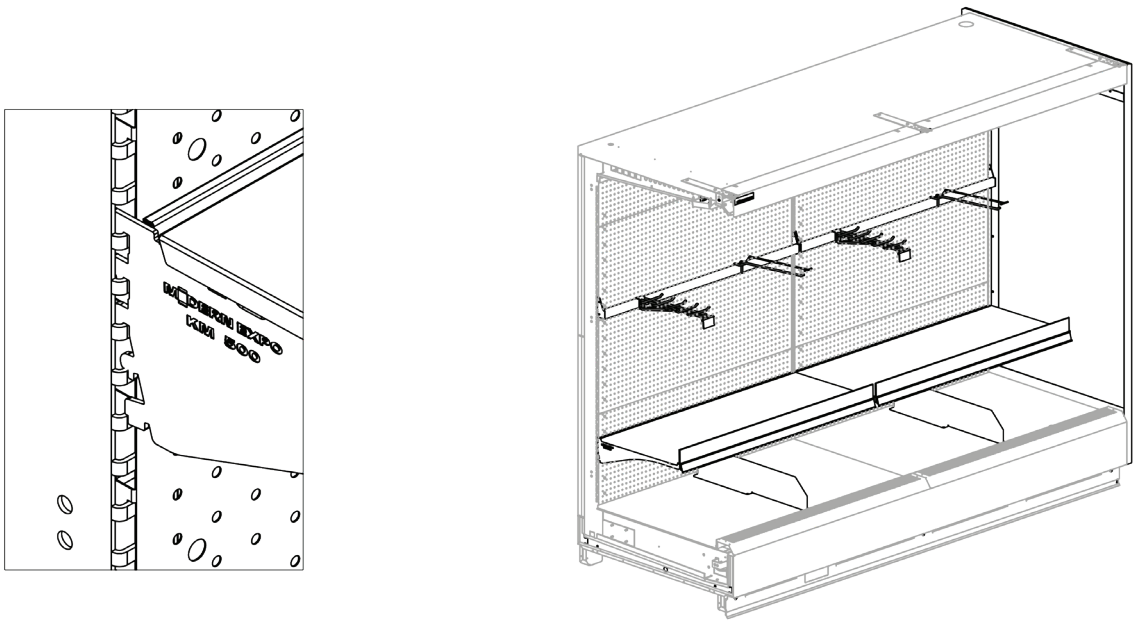


Fig. 21. Installing shelves and accessories

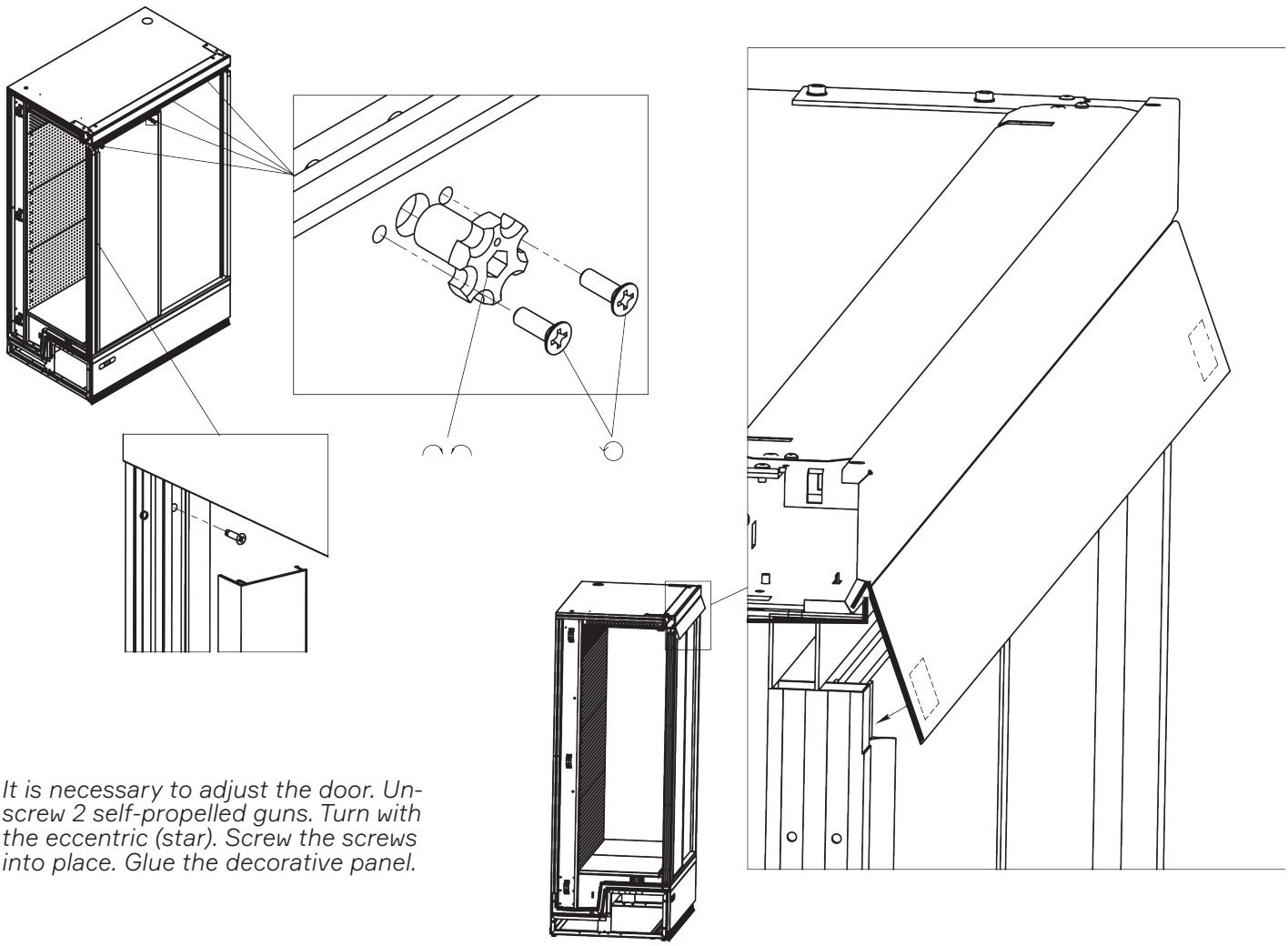
8. Adjustment of the multideck operation

Such parameters of the multideck as the duration of defrosting and their number are based on the results of laboratory tests and operating experience (Section 13). If necessary, the adjustment of the level of maintenance of the multideck temperature must be carried out by the engineering and technical personnel responsible for the operation of the multideck or by the specialists of the installation organization and **MUST** be prescribed in the maintenance table or registered on the portal (Section 11, Section 14).

The thermostatic valve settings are made by the manufacturer. If necessary, the thermostatic valve must be adjusted by a specialist in such a way as to ensure that the evaporator of the multideck is properly filled with refrigerant and **MUST** be specified in the maintenance table or registered on the portal (Section 11, Section 14).

Upon completion of the work, the organization that carried out the installation draws up an "Act of putting the product into operation" or through the service portal (Section 11, Section 14).

Adjustment of sliding doors (Fig. 22):



It is necessary to adjust the door. Unscrew 2 self-propelled guns. Turn with the eccentric (star). Screw the screws into place. Glue the decorative panel.

Fig. 22. Adjusting the sliding door

Adjustment of the hinged door (Fig. 23):

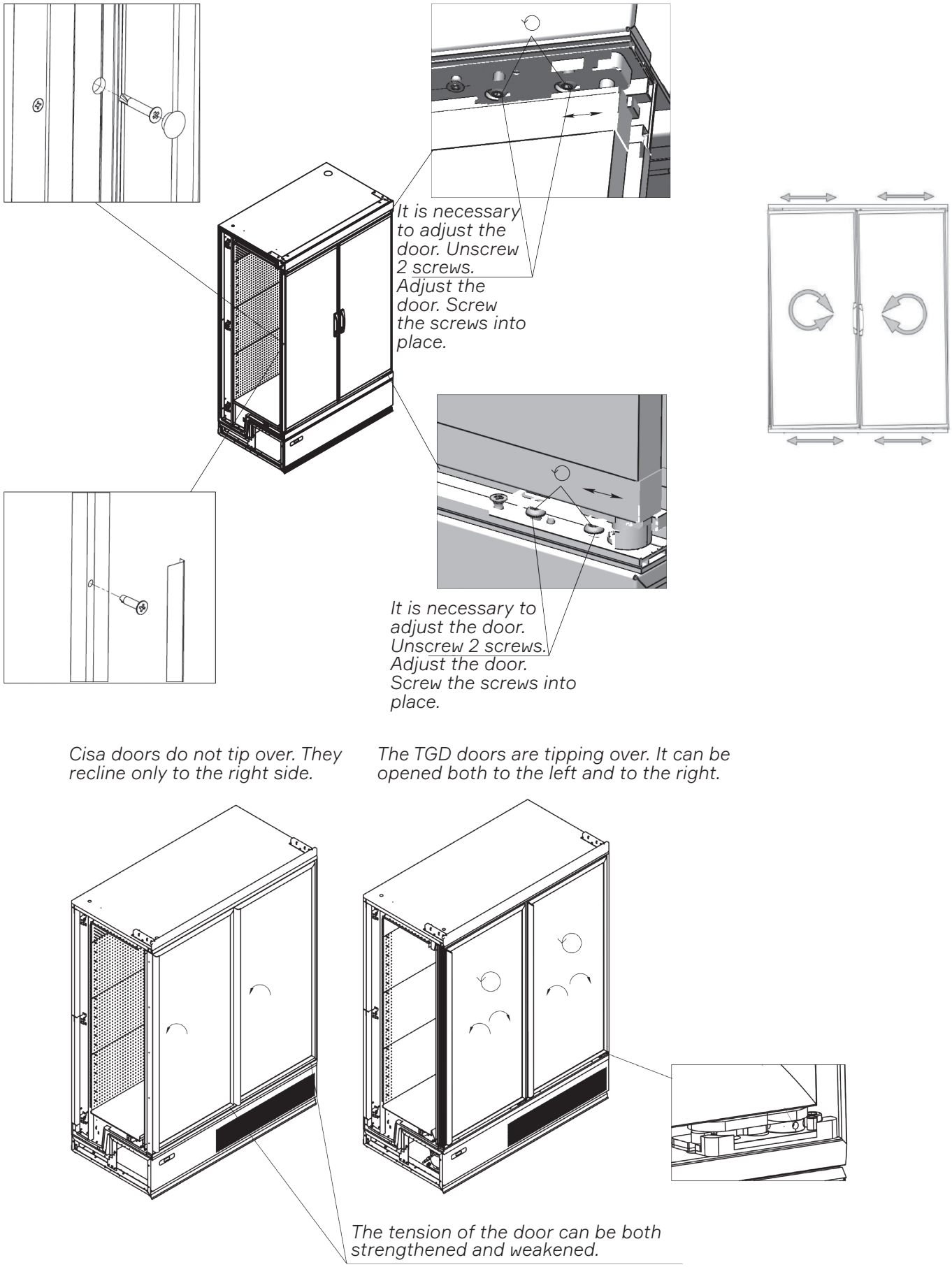


Fig. 23. Adjusting the hinged doors

Frame connection (Fig. 24)

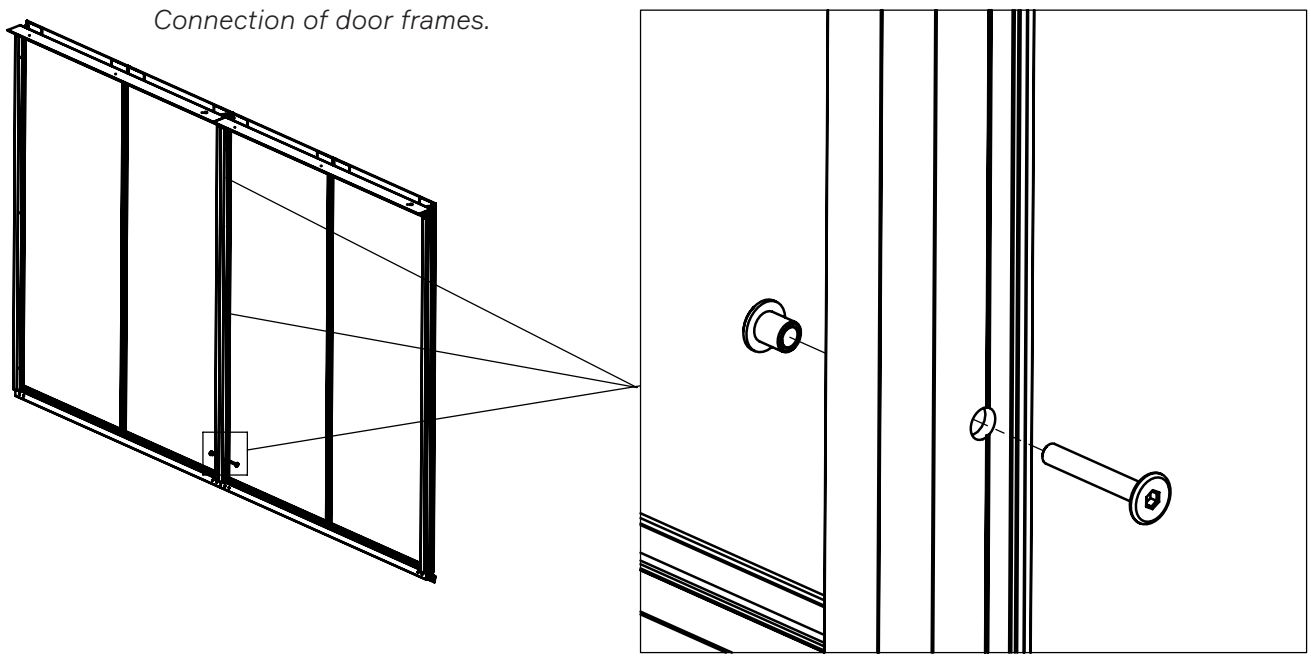


Fig. 24. Frame connection

Installing of the protective profile (Fig. 25)

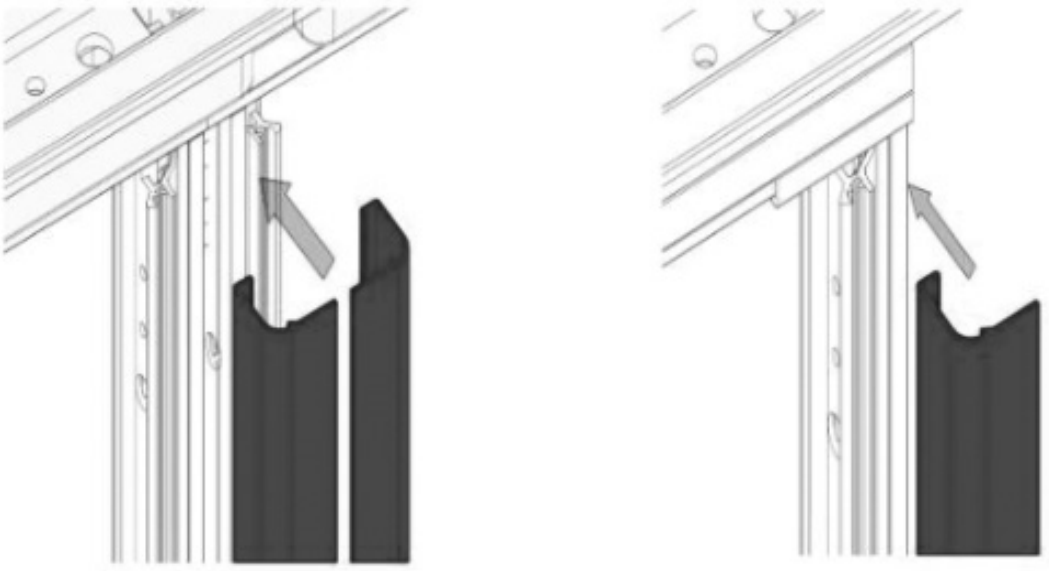
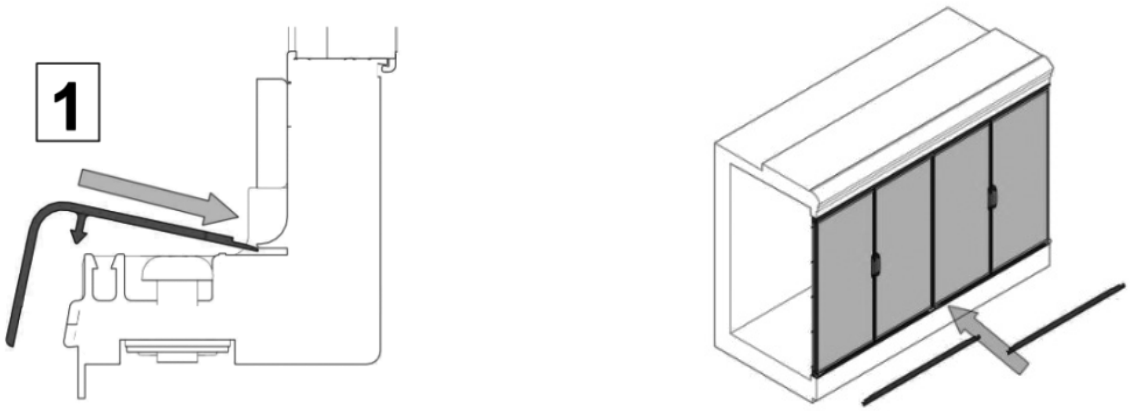


Fig. 25. Installing of the protective profile

Installation of decorative strips (Fig. 26, Fig. 27):



Installation of a decorative overlay

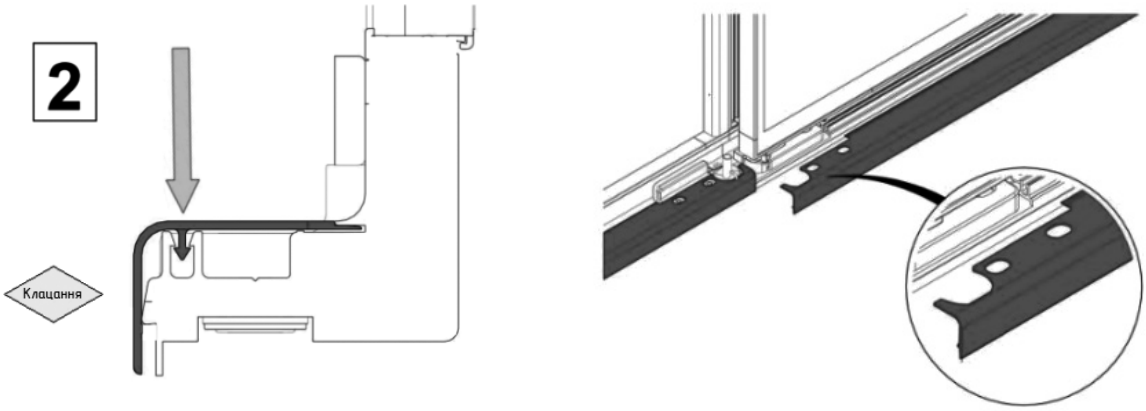


Fig. 26. Installation of the upper decorative bar Fig. 27. Installation of the lower decorative bar

Installation of the handle on the door (Fig. 28) (before installing the handle for opening the door, degrease the location before gluing).

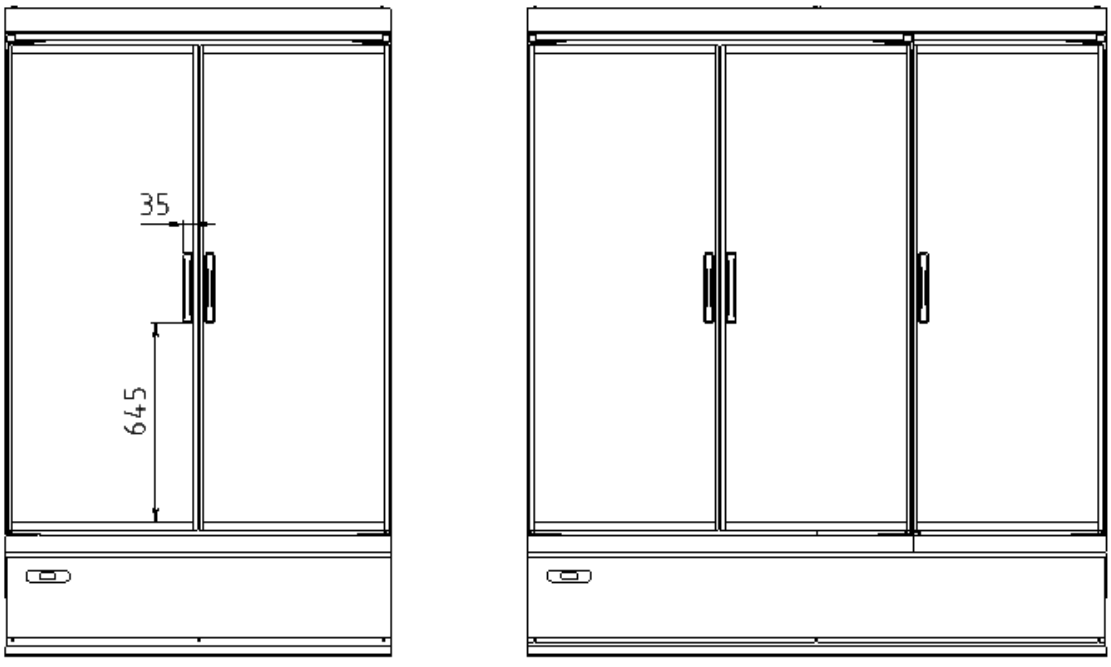


Fig. 28. Mounting the handle on the door

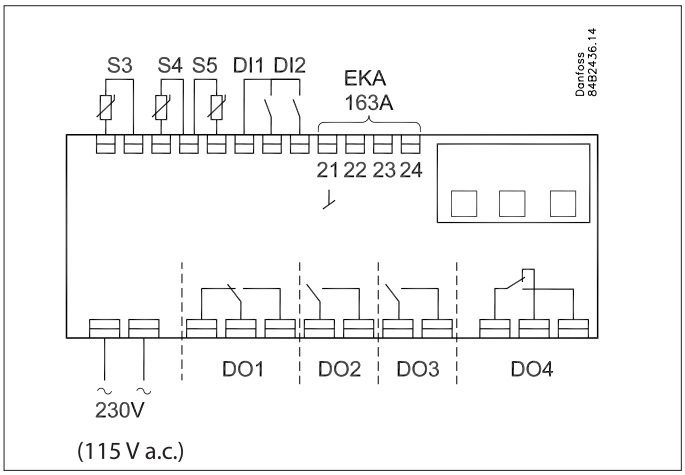
Master/slave functionality

Master/slave functionality in Danfoss and Carel controllers for refrigeration equipment used when it is necessary to ensure the synchronous operation of several refrigerators aggregates. When one controller (master) acts as a controller, and others (slave) follow its settings and signals. If there is a defrost on any of the controllers is over, it goes into standby mode. While this process is not on another showcase will end.

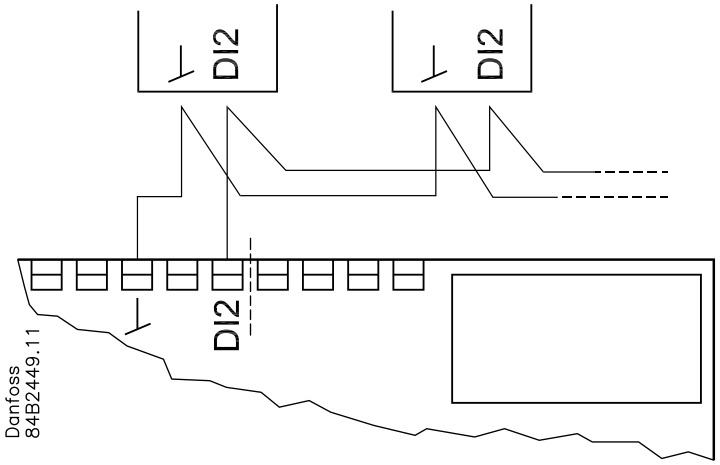
Connecting the Master/slave functionality

We consider the option with a cable connection of two controllers (Scheme 1, Scheme 2). For to activate the **Master/slave** function on the controller, the digital input must be activated DI2. For example: connect brown to terminal №20 of one and the second controller conductor. Connect the blue conductor to terminal №21 of one and the second controller.

SCHEME 1



SCHEME 2



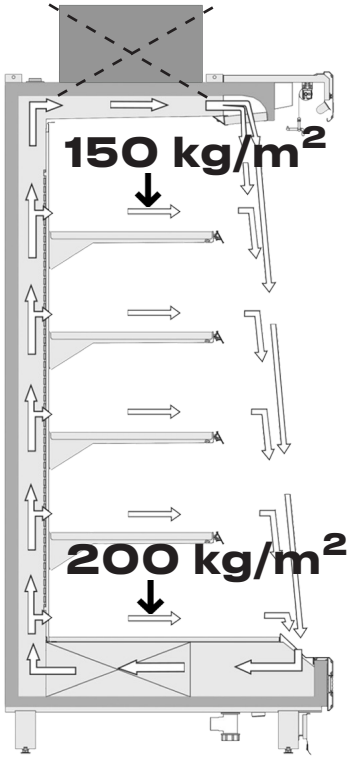
Settings

Parameters	Functionality settings
o02	Install 4 (1st Frezze master)
o37	Install 12 (2nd slave)
o16	Install 20 min

In order to configure this functionality, it is enough to change only these parameters to controllers. All other parameters remain unchanged.

9. The order of loading the multideck with products

When loading the display cabinet with products, the following requirements must be met (Fig. 29):



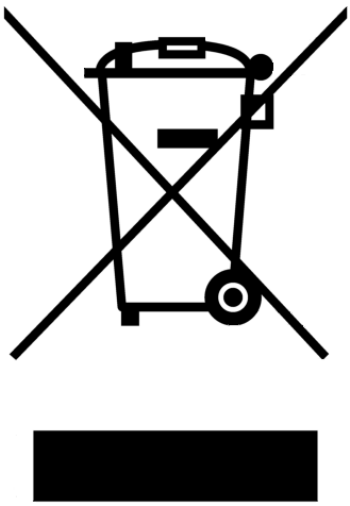
- during the first loading, to ensure normal air circulation, the distance between the products should be at least 30 mm;
- it is forbidden to block the air intake and exit points with products;
- it is prohibited to load the display case with products that have a temperature higher than the temperature in the display case;
- maximum permissible load on the shelf is 150 kg/m²;
- the maximum permissible load on the base shelf (pallet) is 200 kg/m²;
- the maximum permissible load per one section of the display case is 350 kg;
- it is prohibited to place boxes, packages and other items on top of the display case.

Fig. 29. Loading requirements

After loading the showcase with goods, you need to check the door adjustment, if necessary, re-adjust the door.

10. Disposal

If the equipment is unsuitable for its intended use, it must be disposed of (Fig. 30)



Do not dispose of it with household waste. In order to prevent adverse effects on the environment and human health resulting from improper disposal of the product, as well as to save natural resources and encourage the reuse of materials, the product must be recycled separately from other types of waste.

Components and materials such as lamps, glass, plastic, seals, panels, polyurethane foam, electrical controls and any other electrical parts must be collected and disposed of at specially authorized sites and/or by an official waste disposal center. Refrigerant and oil must be collected in special containers. Do not discharge into the sewer system. Waste must be disposed of in accordance with the laws of the country in which the equipment was installed.

Corporate users should contact the supplier for disposal of the product and check the terms and conditions of the supply contract.

For disposal, contact the nearest official waste disposal and recycling center.

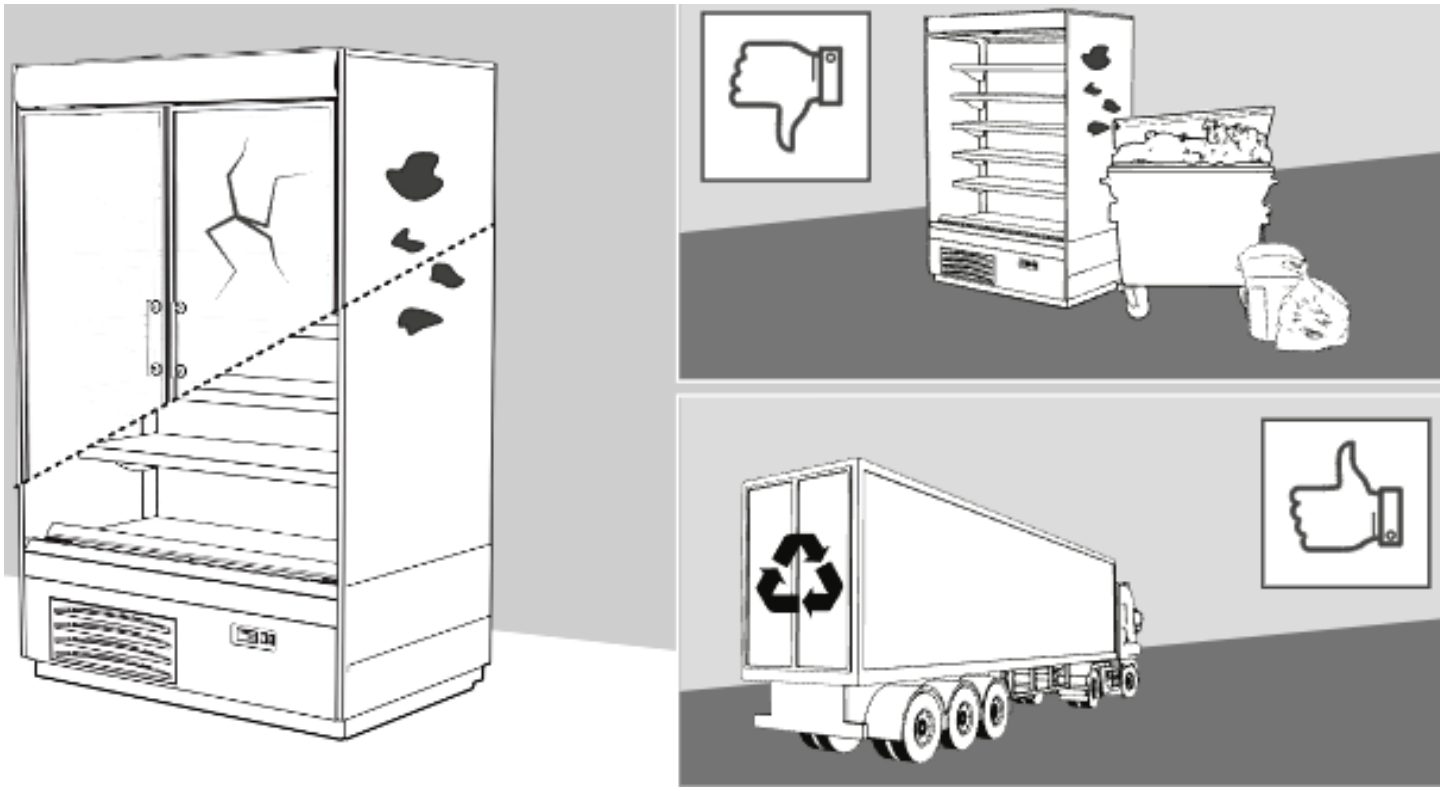


Fig. 30. Disposal of the product

11. Act of launching a multideck into operation

It is necessary to fill out an operating certificate or activate the equipment on the portal (by scanning the QR-code located in the technical marking).

ACT OF COMMISSIONING OF EQUIPMENT

Representative of the installation organization

_____

(Position, full name, contact phone number)

Installation address_____

QR code to the service portal

Checking the correct installation of equipment:

BASIC REQUIREMENTS	YES	NO
1. The equipment is leveled according to these operating instructions		
2. Mains voltage is checked		
3. Equipment performance is checked		
4. A separate circuit breaker is installed near the equipment		
5. Checking the tightness of the system		

Notes:

1) The user receives a warranty for the equipment only after commissioning by the service center and activation of the equipment on the service portal.
2) The user of the equipment is responsible for the operation of the equipment until the arrival of the service center engineer.

Acquainted:

User_____

(Full name, signature)

When contacting the manufacturer, you need to provide:

1. Photo of the exterior of the equipment (loaded with goods)
2. Photo of the technical marking of the refrigerator (Section 5.2)
3. Photo of the controller display signal (temperature) (Fig. 6)
4. Availability of service equipment (which organization serves?) (Section 14)
5. Contact person at the facility (full name, phone number)
6. Name of the retail outlet (gas station, shop, market, cafe)
7. Document certifying the purchase of goods (check, invoice)
8. Equipment passport with the date of commissioning (Section 11)
9. Which organization carried out the installation?
10. Description of the failure, problems of equipment operation (high temperature, leakage, electrical problems, etc.)

12. Equipment warranty

Warranty obligations:

1. The user receives a warranty for the equipment only after filling out the Commissioning Certificate or after activating the equipment on the portal (Section 11);

2. The equipment must be serviced by a specialized, certified specialist;

3. Provide on time and high-qualified maintenance of the equipment (once every 2 months) (Section 14);

4. All the details of the refrigeration equipment warranty are specified in the contract.

The warranty does not cover:

1. On glass elements;

2. Consequences of unauthorized modification of existing or installation of new equipment components not provided by the manufacturer;

3. Use of the refrigerated display cabinet for other purposes;

4. Incorrect installation and connection of the multideck;

5. Violation of the rules and terms of maintenance (Section 14);

6. Interruptions in the power supply;

7. In case of violation of the rules of operation of the equipment prescribed in this manual;

8. Repair and development of the multideck during the warranty period;

9. In case of damage or improper transportation;

10. In case of violation of the requirements for the operation and maintenance of stainless steel products and elements.

Acquainted:

User_____

(Full name, signature)

13. The main problems during the operation of refrigeration equipment:

1) The equipment does not turn on:

-check the display's network connection;

-turn on the circuit breaker on the power unit (Fig. 5);

-turn on the power button on the control unit (Fig. 5) (red button).

2) Shelf lighting does not work:

-turn on the shelf lighting button (top or vertical lighting) on the control unit (Fig. 5), (button green);

-check the connector on the lighting itself and the lighting connection cord.

3) High temperature in the internal volume of the multideck:

-check what is displayed on the controller (the controller is a screen with temperature indications located in the control unit (Fig. 5))

-if a snowflake is displayed, contact the service department;

-if a droplet is displayed, everything is fine, the multideck has entered the defrost mode (you need to check the condition of the multideck in a while).

4) How to change the temperature class of the multideck:

-check the correct connection of the multideck to the drainage system (according to this operating manual);

-check if the drainage system is not clogged (clean it).

5) How to change the temperature class of the multideck:

Consider the most common controller Danfoss 202 of various modifications (Fig. 31)

-first, press the SET button (in the middle);

-look what temperature is set;

-if you need to change the temperature, then use the buttons on the top or bottom to add or decrease the temperature;

-when you have selected the desired temperature, wait a few seconds (until the temperature in the volume appears on the display);

-to check if you have set the temperature correctly, press the SET button again.

WARNING! Before changing the temperature class of the multideck, check with the service company or the manufacturer whether it is possible to change the temperature on this equipment.

Fig. 31. Controller Danfoss 202

6) How to connect the power to the control unit:

-on the control unit, remove the unplugged connector (Fig. 32);

-unscrew the two screws and remove the top cover (Fig. 33);

-connect the cables according to the polarity of the connectors and tighten the contacts with screws (Fig. 34);

-then reassemble everything in the reverse order and insert it into the control unit.

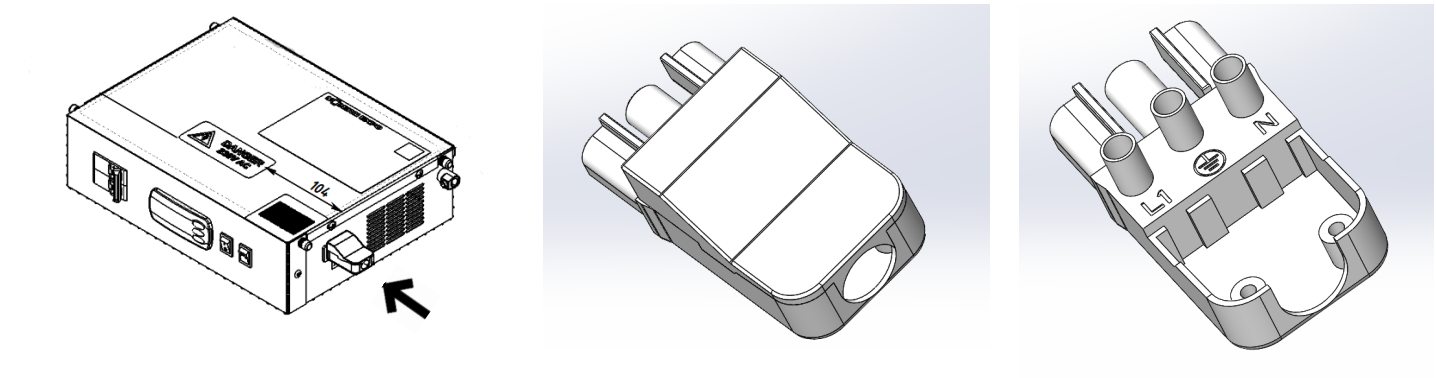


Fig. 32. Control unit

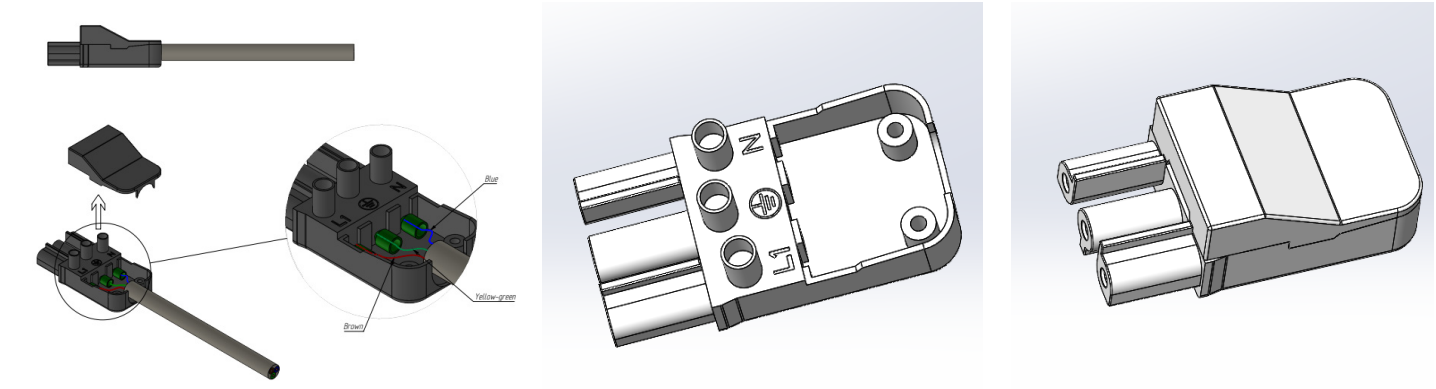


Fig. 34. Connecting the cables

Fig. 33. Removing the top cover

14. REGISTER OF MAINTENANCE AND REPAIRS

Necessary actions and the sequence of their implementation	Technical requirements	Date 20___ 20___ 20___ 20___ 20___ 20___ Notes
Checking the completeness and technical condition of the product - by external inspection with the pallets removed.	1. Absence of visible damage to parts, showcase components, glass, doors, shelves, pallets, control and lighting devices. 2. 2.No damage to the electrical elements of the equipment.	
Checking the reliability of the connections in the protection (grounding) circuit of the PE.	The connections must not be twisted, damaging of the insulation or oxidizing the connections is not allowed.	
Check contacts and connections of control devices, lighting lamps, contacts of terminal boxes of fan motors.	The wire ferrule is tightly fixed on the contact surfaces and there are no traces of carbon deposits. Screws of the contact clamps are tightened.	
Checking the resistance between **the PE contact clamp and the metal parts** of the multideck, which may be under dangerous voltage as a result of insulation failure (remote control, electric motors, shades, fans).	The resistance should be no more than 0,1 Ohm.	
Checking the insulation resistance of power and control circuits between each other in relation to the PE contact clamp.	The resistance should be at least 2MOhm.	
Checking the temperature settings of the multideck in the center of the exposition volume.	The temperature should correspond to the temperature class of the multideck.	
Check the temperature settings of the multideck in the center of the exposition volume.	Refrigerant leakage is not allowed.	

For multidecks with an plug-in compressor-condenser unit, clean the condenser and evaporator tray. Check the serviceability of the electric evaporator if present.	The condenser must be free of contamination and well ventilated: align the fins if necessary. The evaporator must be free of foreign objects and dirt.						
Check the evaporator's automatic defrost mode and, if necessary, relocate the defrost sensor to the area of greatest frost build-up. Check the final defrost temperature and change the settings if necessary.	No "snow coat" on the evaporator.						
Check the operation of the evaporator and condenser fans.	There is an evaporator and condenser cooling.						
Inspection of the drainage system for leaks and tightness.	No condensate accumulation in the volume, no condensation under and near the equipment.						
If any malfunctions are detected, they must be eliminated and a protocol filled out.	The equipment must work properly and reach the set temperature regime.						
Position, full name and signature of the responsible person		_____(Position),_____ (Full name),_____(Signature)	_____(Position),_____ (Full name),_____(Signature)	_____(Position),_____ (Full name),_____(Signature)	_____(Position),_____ (Full name),_____(Signature)	_____(Position),_____ (Full name),_____(Signature)	_____(Position),_____ (Full name),_____(Signature)

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