OPERATION MANUAL

SERVE-OVER

EXO

freor

thinking green

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1. GENERAL INSTRUCTIONS

1.1. Sender information

Manufacturer, address	FREOR LT, UAB Katiliskiu St. 92, LT - 02212 Vilnius, Lithuania T: +370 5 232 9188	CE EN
	Made in Lithuania	

Customer	
Installation date	
Installation place	
Start of the product operation	

[PLACE FOR PRODUCT LABEL]

The commercial serve over EXO can be identified by its labelling sticker with technical data. The labelling sticker is attached to the inner ceiling of the right corner. The labelling sticker contains the following information: the model, voltage and the product number. Before starting any work on the serve-over, it is necessary to check this labelling sticker (**Fig. 1.**).

Labeling table

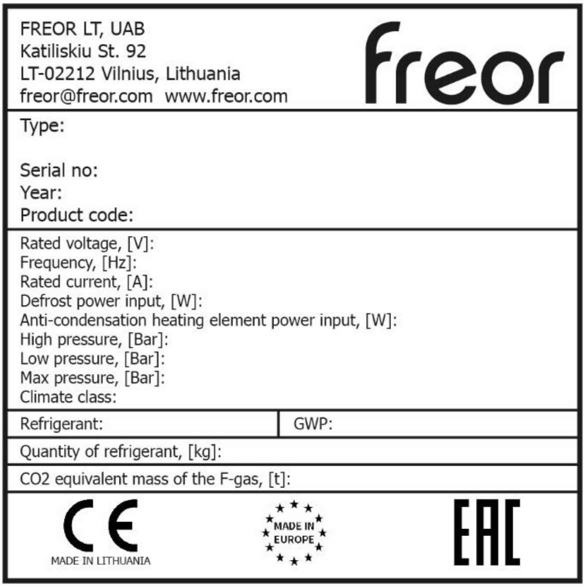
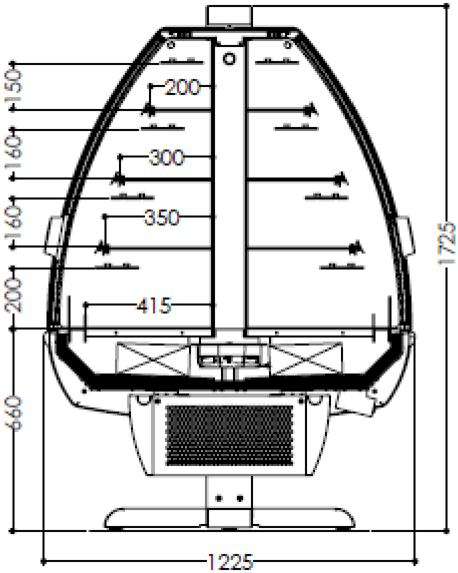
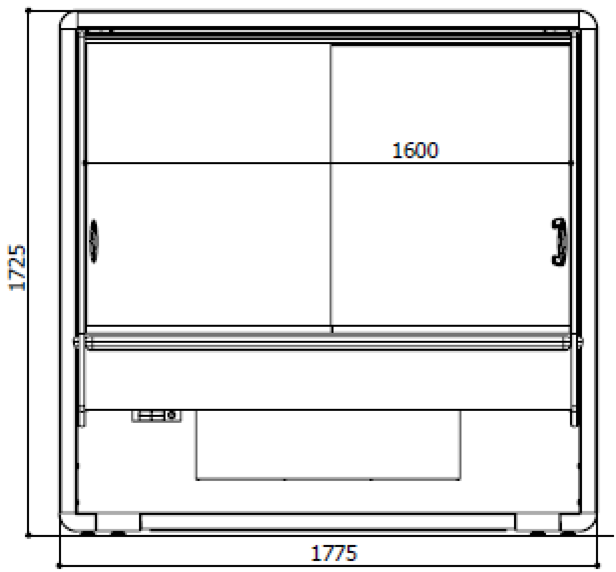


Fig. 1. Example of the labelling sticker

- The instructions are intended for maintaining and operating the serve-over EXO. The unit is equipped in according to the client’s specifications.
- According to the EU Directive and that of the Republic of Lithuania, the refrigeration units are electrical refrigeration machines; therefore, the focus is put on safety during operation.
- The operation manual of the serve over EXO must be kept at the place of operation. It must be available to technical staff, service personnel and repair specialists at any time.

1.2. Dimensions





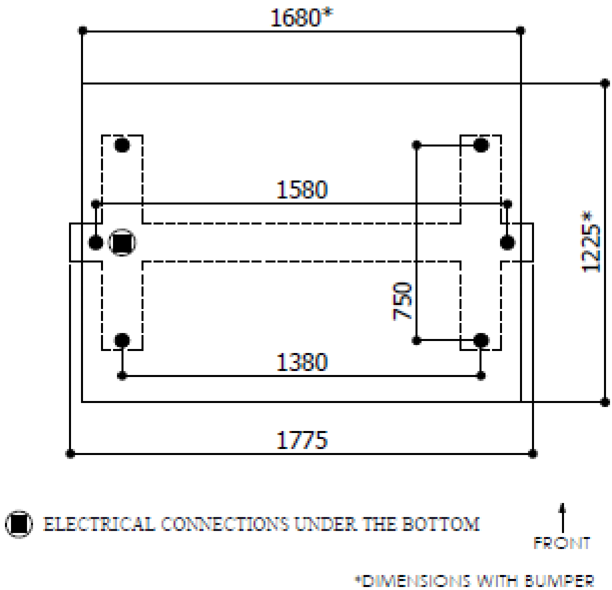


Fig. 2. Dimensions of EXO 1600

1.3. Packaging and dismounting

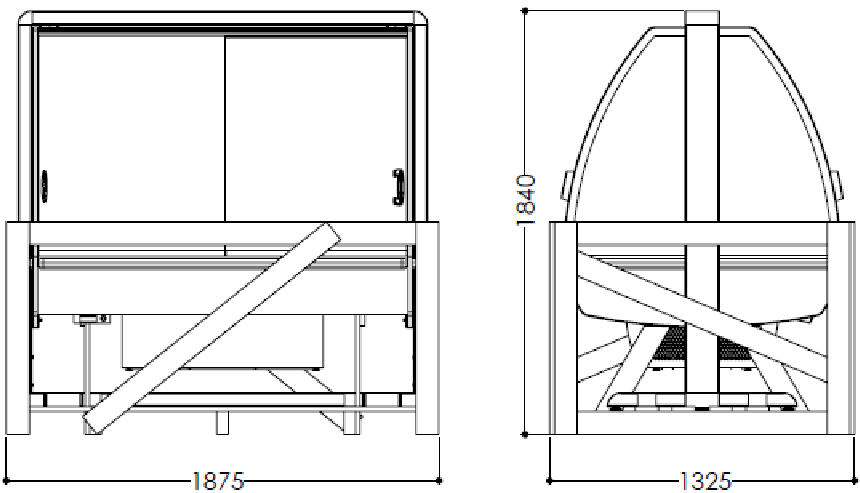
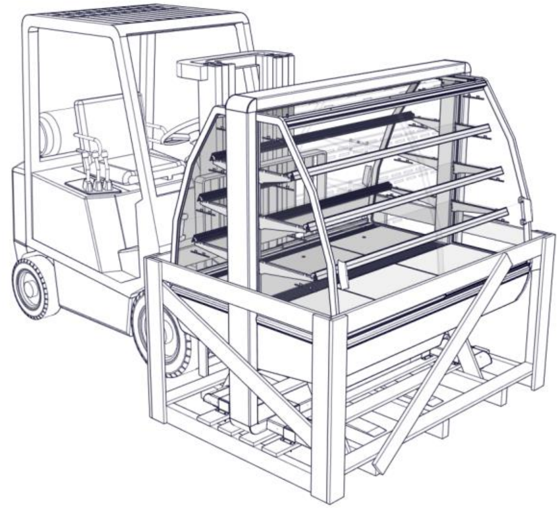
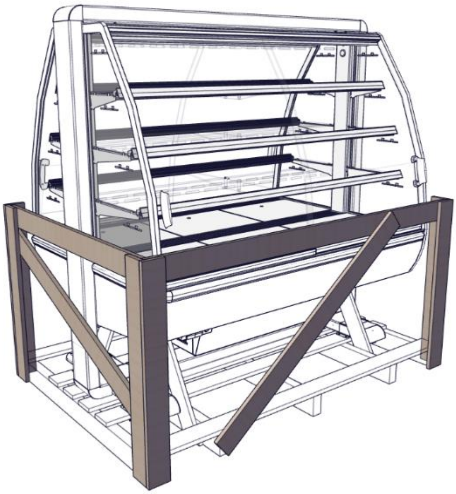


Fig. 3. Dimensions of package

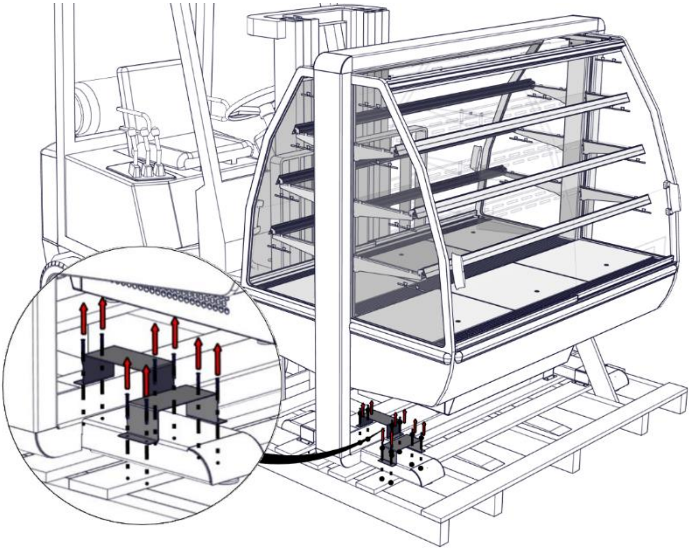
x 2 PH2 30 min



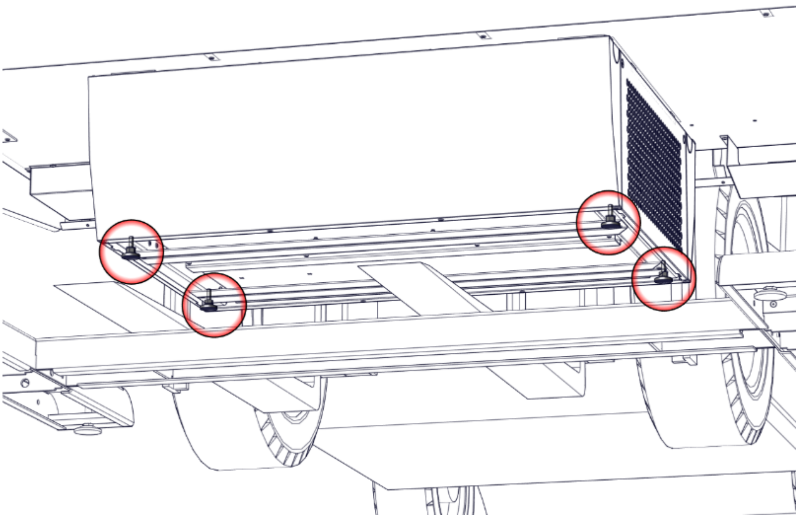
Move the serve-over to its standing location.



Unmount upper parts of package.



Remove holders of bottom legs.



Use lifting pads under hydraulic unit to unload serve-over.

1.4. Rules for operating R290-based refrigeration cabinets

According to the standard DIN EN 378-1, the refrigerant R290 (propane gas) is assigned to the group of A3 refrigerants (flammable and explosive). Within the limits of a certain area, the refrigerant together with the air and respective ignition power (source of ignition) can cause an exothermic reaction.

Ventilation openings at the front and rear sides of the unit must be free. To avoid disturbance of air circulation, make sure to maintain the minimum distance between the bordering walls and other units. Otherwise, in the event of leakage of the refrigeration system, a mixture of flammable gases and air can occur.

Cover the ventilation opening with a protective cover of the unit (accessory) because they overlap. Otherwise, in the event of leakage of the refrigeration system, a mixture of flammable gases and air can occur.

Do not damage the cooling coil of the unit: dangerous due to the escaped and unexpectedly ignited a mixture of gas and air.

Only the manufacturer's approved electrical devices may be used for shelves of food products.

The opening of the refrigerant circuit and pumping of the refrigerant are allowed only in the well-ventilated rooms or outdoors. Only qualified maintenance personnel who are trained to work with flammable refrigerants may perform the work related to it.

When properly disposing of the unit, pay attention that the flammable refrigerant R290 (propane) and the thermal insulation material, polyurethane foam, would be disposed of in a safe and environmentally friendly manner.

1.5. Conditions for use and ambient temperature

The serve-over must be operated under suitable ambient conditions (climate class 3):

- Ambient temperature +25°C.
- Relative humidity 60%.
- Front airflow rates up to 0.2 m/s.

1.6. Intended use

The serve-over EXO is intended to be used for the display of chilled products. EXO is provided for maintaining of average temperature (1...+10°C; -1...+7°C; -1...+5°C) in the inner space of the serve-over.

It is forbidden to upload the serve-over with warm products with a higher temperature than that of the serve-over. The temperature of the uploaded products is set by standards that are constantly updated by the respective organizations. The temperatures of upload products provided below are based on DIN10508 requirements:

≤+10 ºC	Fruits, vegetables, butter, cheese and cheese products
≤+8 ºC	Products of pasteurized, sour milk
≤+7 ºC	Milk and dairy products, delicacies, ready-made food, snacks, sandwiches, green salad, game, salad with mayonnaise sauce, cooked meat products, eggs and their products, sauces
≤+4 ºC	Household poultry, minced meat and products, rabbit meat, wild hare meat
≤+3 ºC	By-products
≤+2 ºC	Pre-packed minced meat, fresh fish (on ice)

Serve-over EXO must be protected against external mechanical damage. The shelf load may not exceed the set values.

In the event of the use for the unintended purpose, the manufacturer will be exempted from warranty obligations.

1.7. Unpacking and use

To protect the equipment from damage, it may be transported and kept only in the use condition. Before and during unpacking of the device, perform the inspection control to determine possible transportation damage. Pay attention whether there are no loose parts, curvatures, scratches, noticeable fluid leaks, etc. Inform immediately FREOR LT sales department or an official partner of FREOR LT about possible violations before starting operation. Before disposing of the packaging material, you should check that there are no unconfirmed functional parts.

1.8. Requirements for setting down the serve-over

When setting down the unit pay attention to the following issues:

- The unit must be aligned horizontally in all directions (depth, length) and set down stably.
- At the place of the setting down, avoid draughts and higher heat. Do not set down the equipment in front of heating radiators, heaters and near air outlets.
- Do not direct the heat sources or spot radiators (such as incandescent lamps) to the unit. Any heat emitted to the unit increases operating costs and may affect the power of the unit.
- Promotional posters that are only in the form of a thin film may be attached to the serve-over. Do not attach them to ventilation openings (air grids), temperature indicators, safety instructions, and performance data tables.

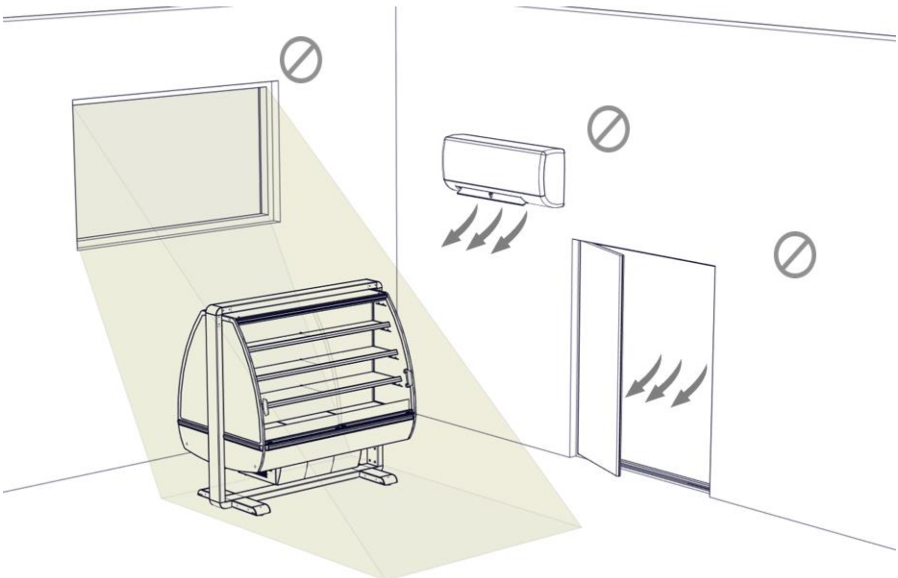


Fig. 5. Unsuitable ambient conditions

2. ALLOWABLE LOAD

Serve-over EXO is equipped with a bottom shelf, the maximum allowable load is specified in the main layout (**Fig. 6**). It is forbidden to exceed the indicated maximum load. For EXO 1600 the maximum load **cannot be greater than 130kg/m²**.

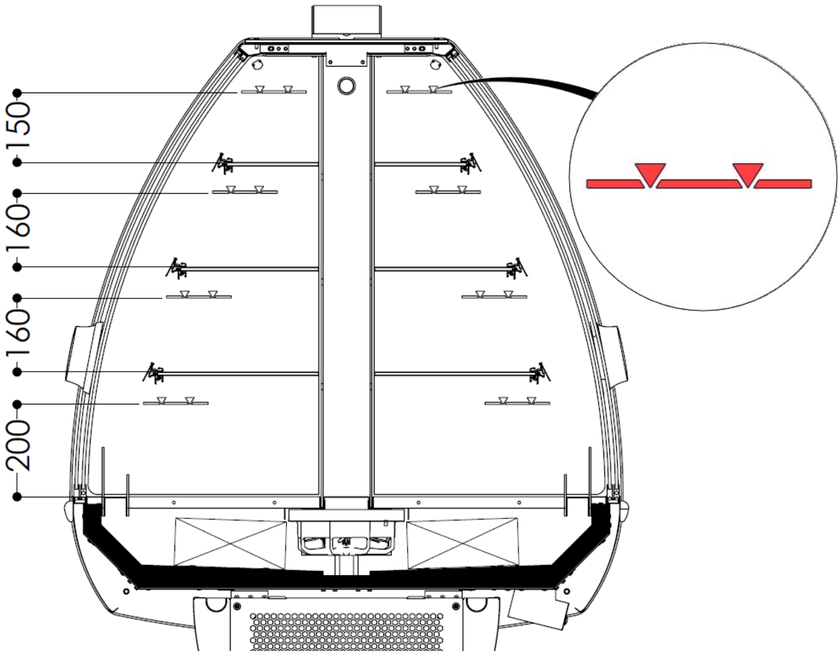


Fig. 6. Products cannot be placed higher than the height indication sticker

3. CONNECTION OF THE POWER SUPPLY

INSTRUCTIONS

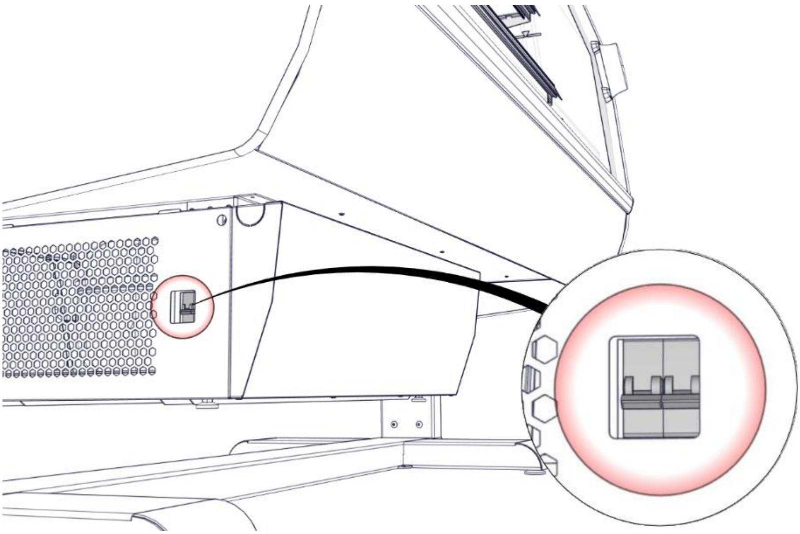
It is necessary to regard and follow requirements of the local power supply company in force in the respective region and the nationally valid and applicable standards as well as safety rules!

The network voltage and frequency must match the nominal values indicated on the operating data table of the unit!

The main power supply parameters:

1.Nominal voltage: ~230V/50Hz/1ph.

2.Protection switch: C16 30mA (see the Technical Specifications and the identification tag).



Emergency stop of the system

In the event of an emergency, switch off the power switch on the general power supply panel.

4. GENERAL INSTRUCTIONS FOR OPERATION

4.1. Requirements for proper operation

- A responsible person must be appointed to monitor the functionality of the serve-over, to record accidents, to train personnel on how to use serve-overs by intended use.
- The serve-overs are intended for the display of chilled products but not for their chilling.
- The serve-overs must be installed in premises with the ambient temperature up to +25°C and relative humidity up to 60%. Temperature changes impact the performance of the serve-over. Excess humidity in the premise can cause the occurrence of condensate on cold surfaces of the serve-over.
- The serve-over must be protected against exposure to sunlight. The minimum distance to the heat-transmitting devices is 3.5 m.
- The airflow of the ventilation systems should not be directed towards the serve-over.
- If you notice the failure of the serve-over, stop its operation. Unload the products into the refrigeration storage chamber. Switch off the power supply to the serve-over.

Some operations can be made by the shop personnel, including:

- Observance of operation of the serve-over. Temperature control.
- Replacement of the shelf brackets. Washing and cleaning of components.
- Uploading and loading of products to/from the cabinet. The products must be evenly distributed in the internal space of refrigerated cabinet; it is not recommended to leave free space on the shelves of the serve-over or to load the shelves on one side and under load the shelves on the other side. The load of products may not exceed the indicated load.
- Air circulation openings must not be covered.
- If you notice an unusual operation of the serve-over, switch off power supply of the serve-over and call the service department.
- If you notice frequent and strong icing of the evaporator, make sure the products are chilled before placing them into the serve-over and call the service department to check the defrosting elements.

4.2. Operation

- The serve-over EXO is installed in the shopping premises at a predefined location.
- The cabinets must be interconnected in accordance with the **furniture installation manual**.
- Connection of the condensate drainage systems.
- Connection of the power supply.

- Setting of the internal space temperature using the furniture controls.
- The serve-over must be uploaded with chilled products when the set temperature is reached in the internal space.

4.3. Safe operation

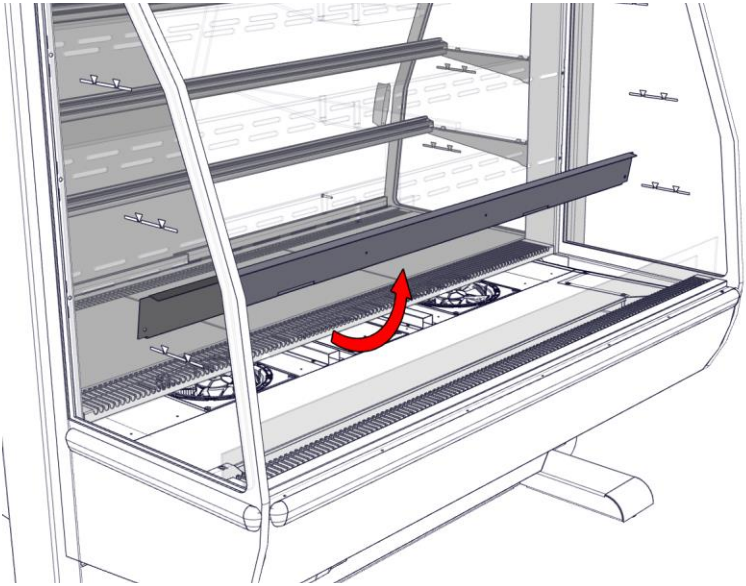
The serve-over must be installed and operated following manufacturer's instructions and recommendations. The serve-over must be equipped in such a way that would not cause any danger to customers, service personnel and other people in the building. Use of the unit for unintended purpose can pose risk to customers and the staff of shopping premises and affects the functionality of the serve-over.

5. DRAINAGE

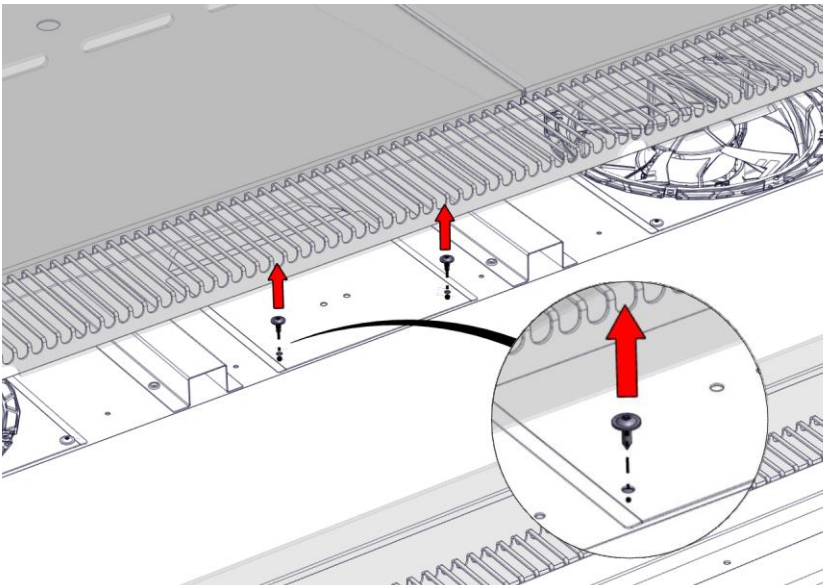
The serve-over EXO is equipped with drainage into the condensate collection tub that is mounted under the serve-over. It is necessary to check the condensate collection tub for any food remains, sand or larger dust particles.

PH2 15 min

Take out bottom shelfs of the side where is control display.

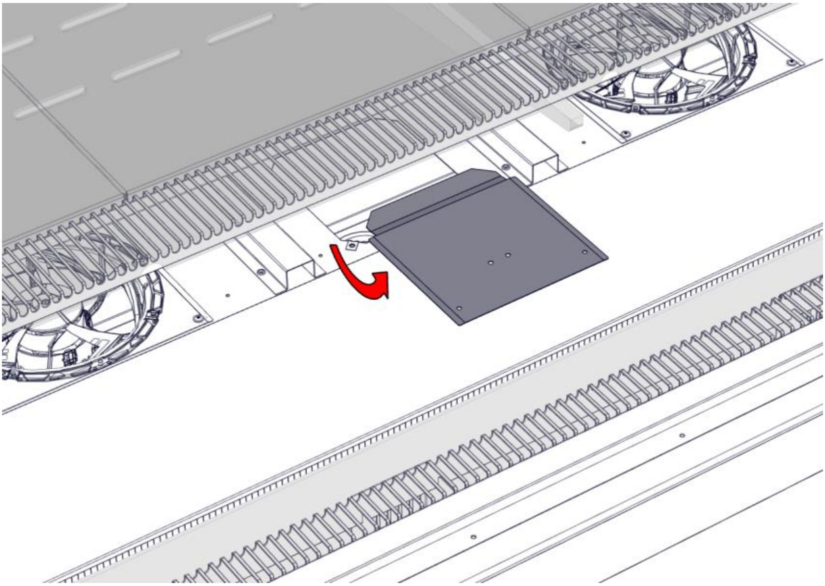


Unmount holder of shelfs.

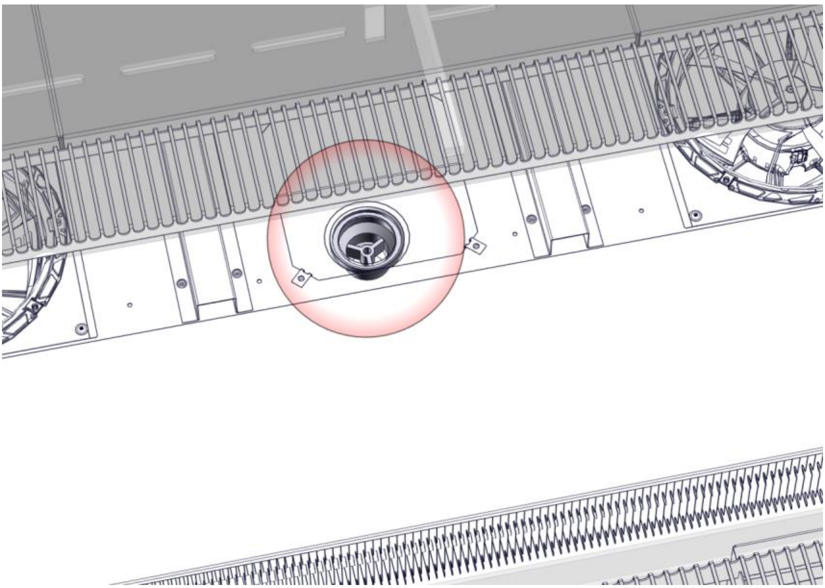


Unscrew 2 bolts in middle plate.

![freor logo]



Unmount middle plate of cooling unit.



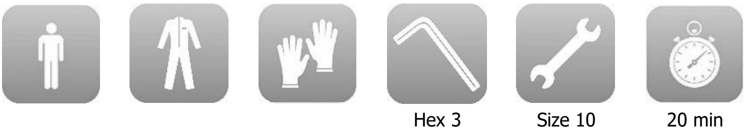
It is necessary to clean any food remains, sand or larger dust particles.

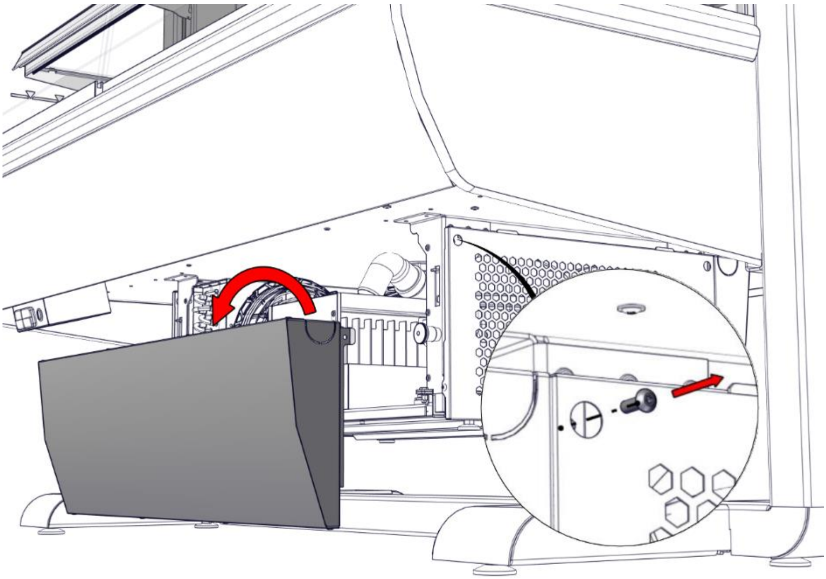
6. MAINTENANCE, DEFROSTING, CLEANING

6.1. Maintenance

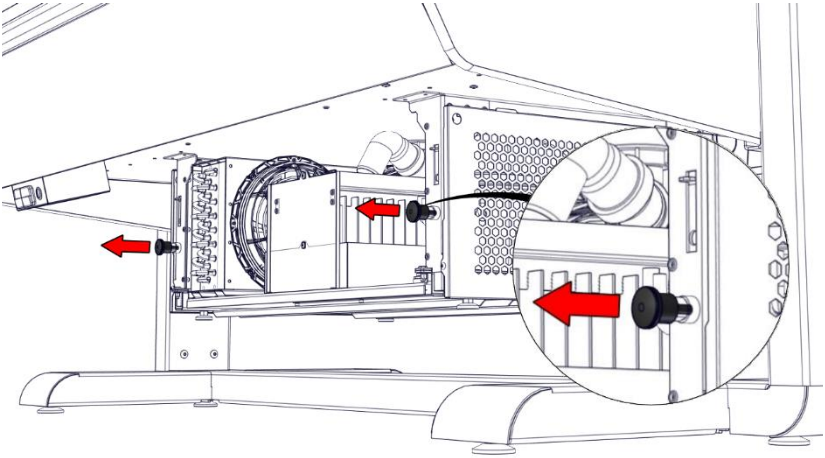
In general, this unit does not need any maintenance. However, defrosting and cleaning is necessary.

6.2. Hydraulic unit



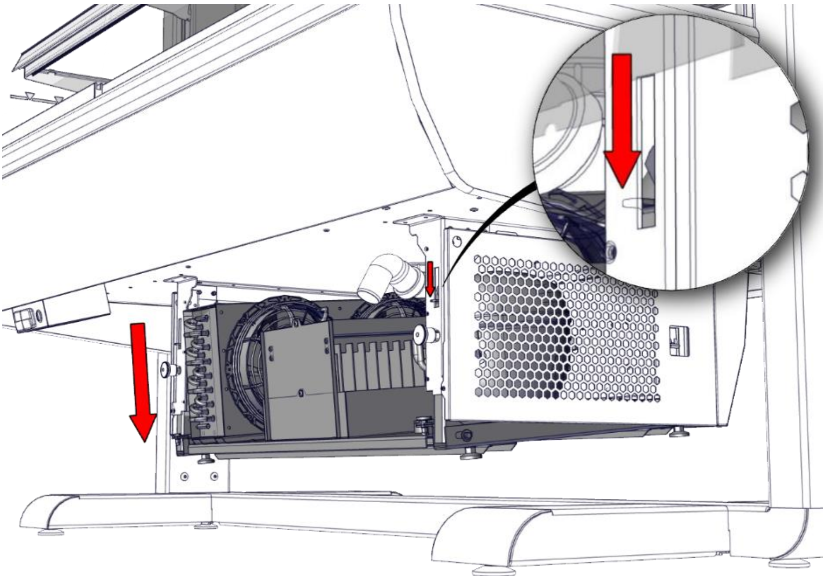


Unscrew 2 bolts from the side plates and unmount front plate.

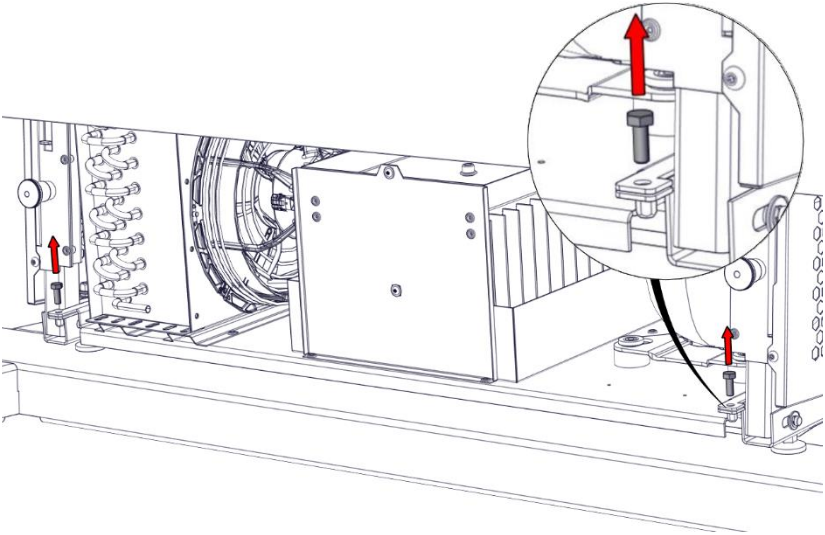


Pull out the handles to unlock the unit.

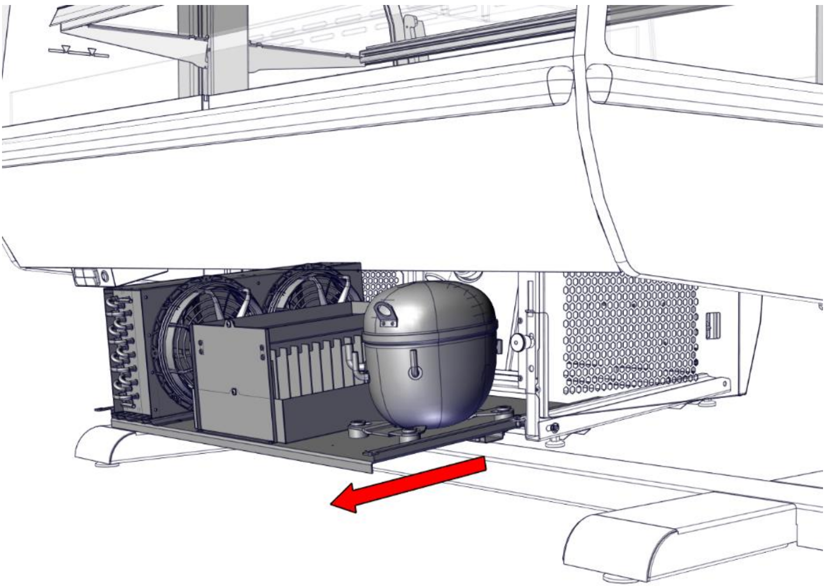
Caution: Hold up the unit when unlocking. Sudden fall is possible.



Lift down unit until it will be stable.

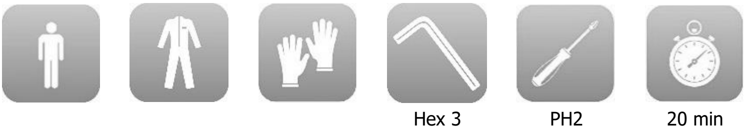


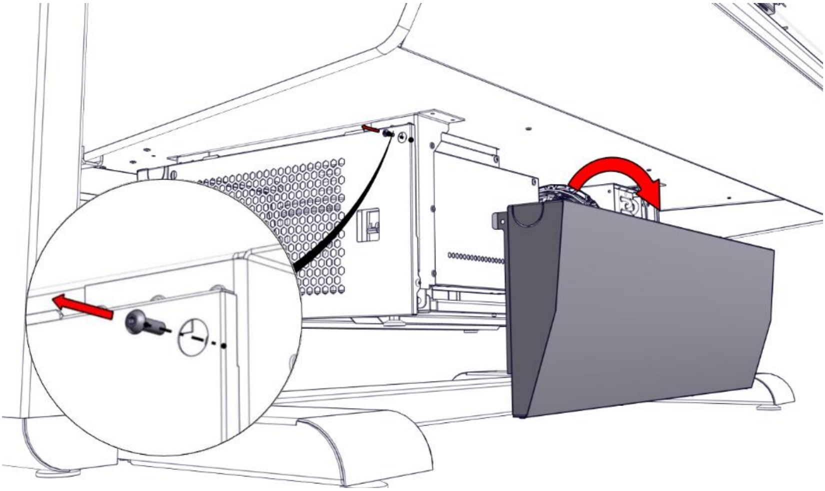
Unscrew 2 bolts from the main board of hydraulic unit.



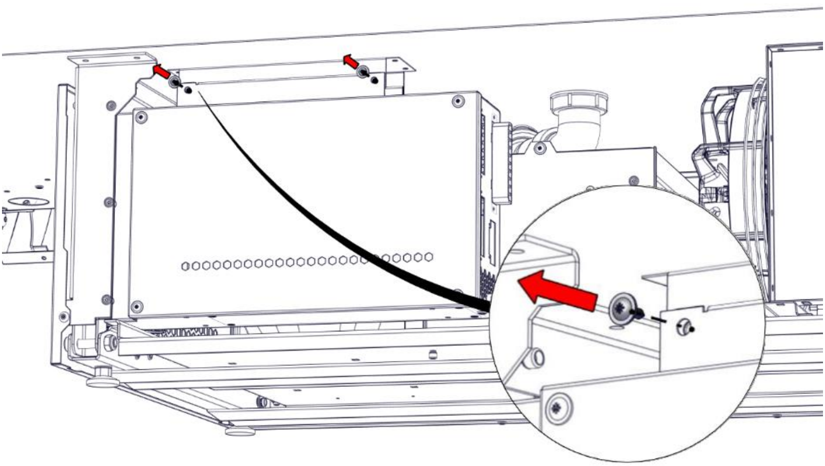
Pull out hydraulic unit. After cleaning or repairing mount everything in reverse order.

6.3. Electric unit

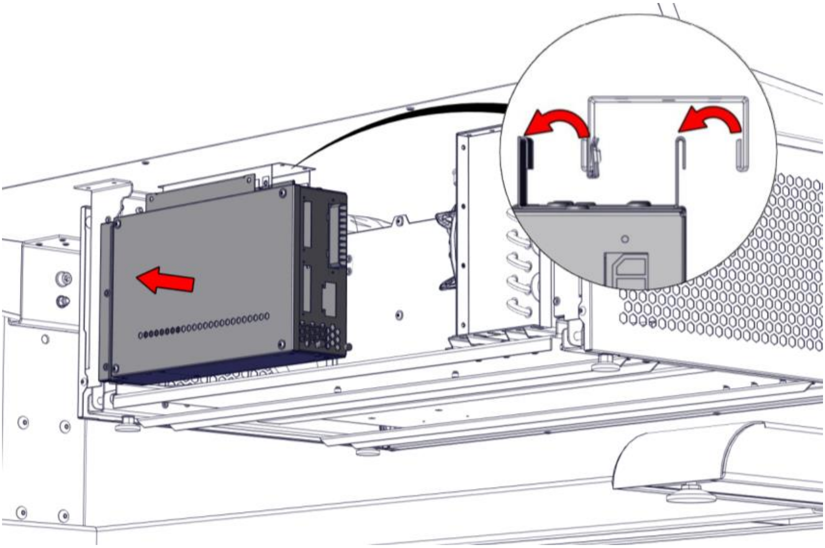




Unscrew 2 bolts from the side plates and unmount front plate.

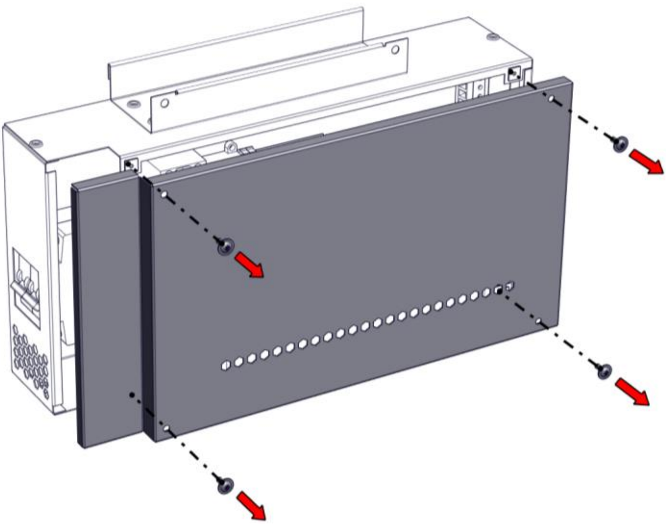


Unscrew 2 bolts from the electric box holder.



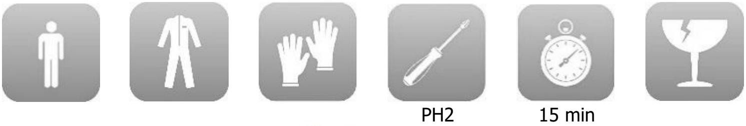
Unmount electrical box.

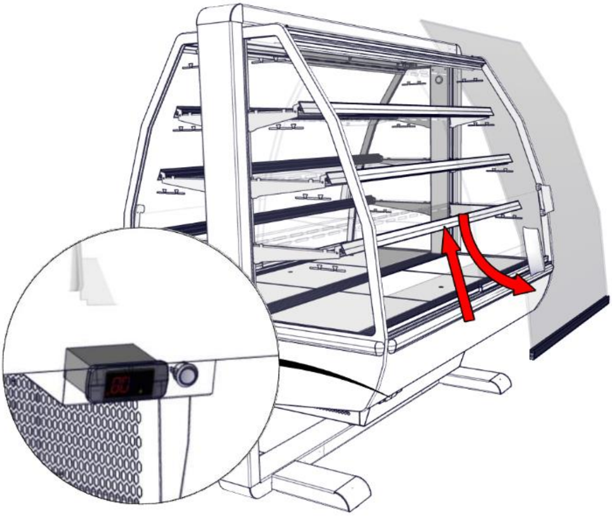
Caution: Be careful with electrical connections, unplug them if needed.



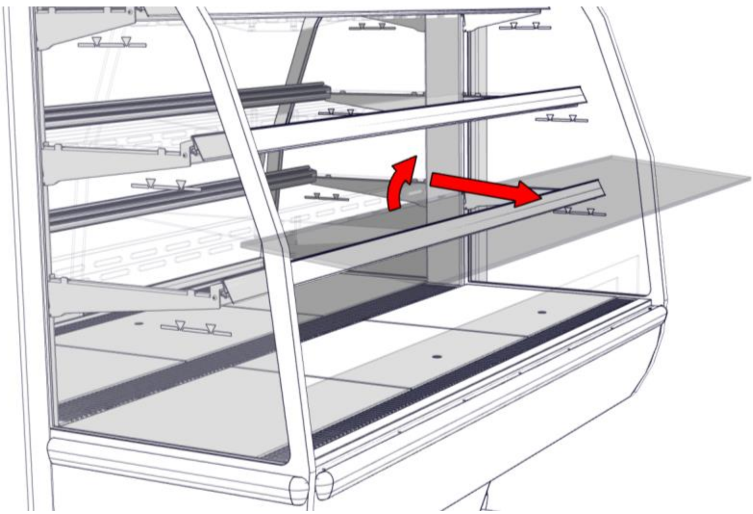
Unscrew 4 bolts to open the electrical box.

6.4. Fans and TRV

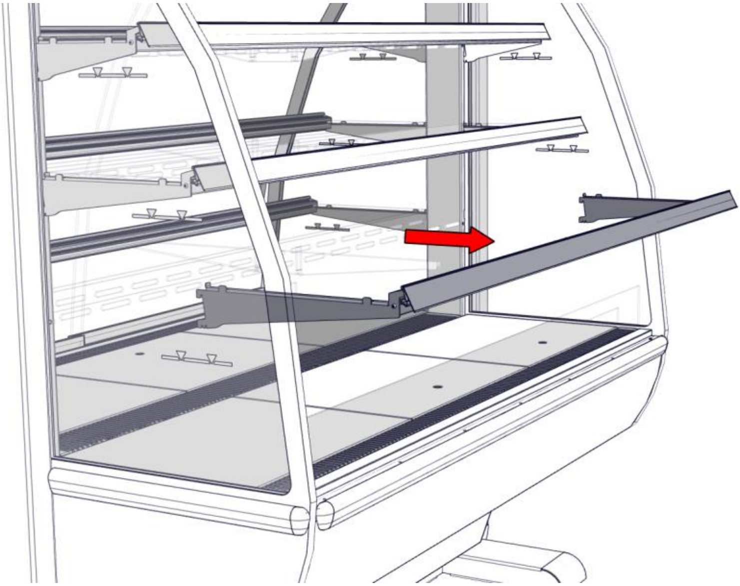




Unmount the front glass doors of the serve-over.



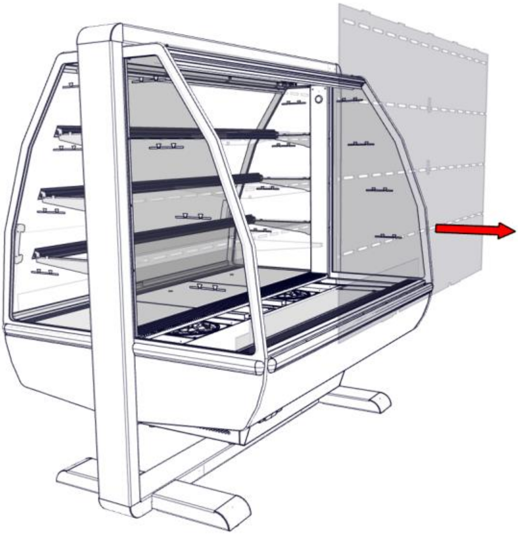
Unmount glass of shelfs.



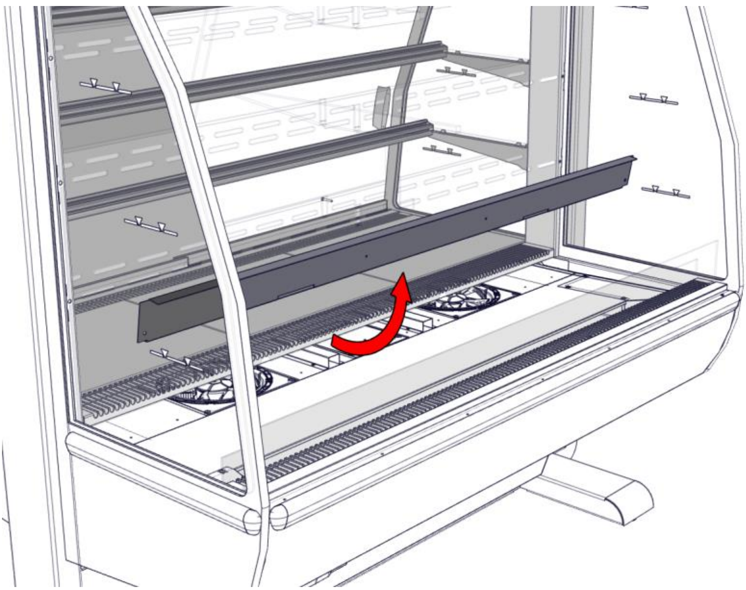
Unmount frames of shelfs.

Note: disconnect LED lighting plugs.

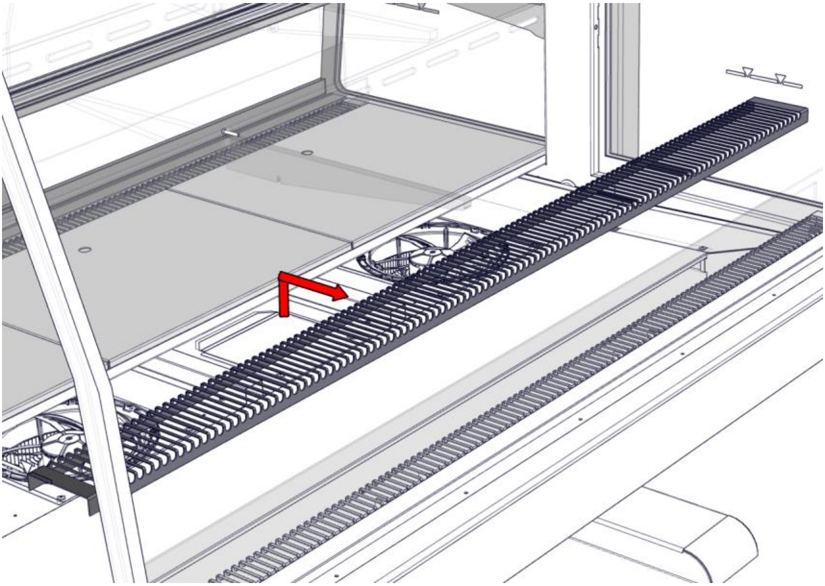
Remove bottom shelfs.



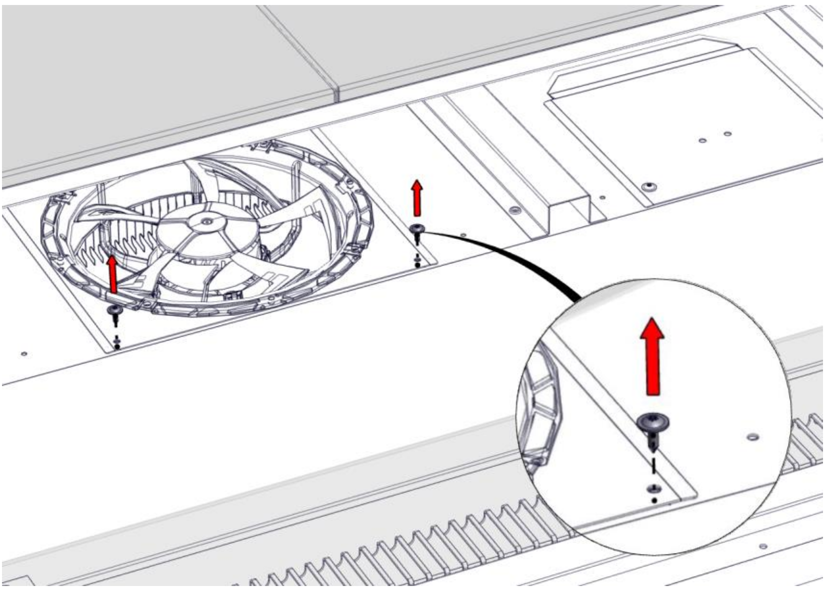
Remove plexiglass of one side.



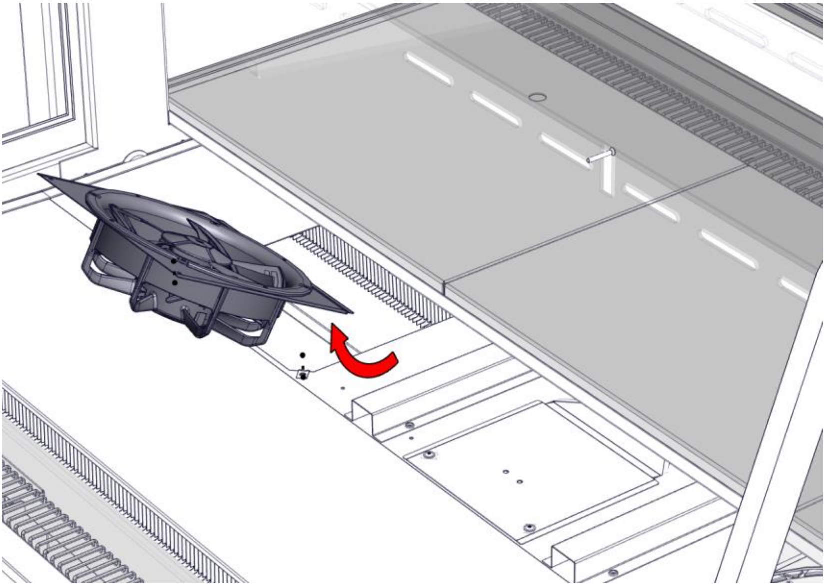
Remove the holder of shelfs.



Unmount the middle grate.

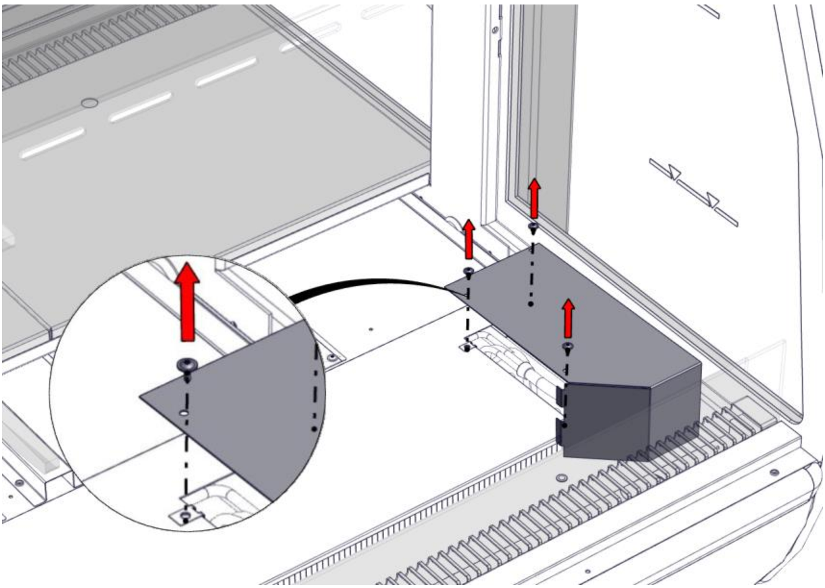


Unscrew 2 bolts of fan plate.



Unmount the fan with a plate.

Note: be careful with electrical connections, disconnect them if needed.



Unmount side plate of cooling unit, to reach TRV and piping connections if needed.

6.5. Defrosting

Warm ambient air can get into the serve-over. It is particularly probable when the showcase is without doors or its door is left open. Due to it, the evaporator can frost. Evaporators must be regularly defrosted in accordance with programs set in the control. During the defrosting refrigeration is not run.

Evaporators of high-temperature cabinets can be defrosted using recirculation air flows. Evaporators of medium- and low-temperature can be defrosted using electrical heating elements.

The ventilator operation during defrosting is described in the technical characteristics.

6.6. Cleaning

The serve-over must be regularly cleaned as food products are sensitive to bacteria and microorganisms. Also, the packaging of displayed products may be damaged, liquid products may damage the metal parts of the serve-over and small products can enter drainage openings and affect condensate drainage.

Food products are sensitive to bacteria and microorganisms; therefore, it is necessary to clean the serve-over regularly as liquid products, as well as damaged packaging of the displayed products, may damage metal parts of the serve-over and small products can enter drainage openings and affect condensate drainage.

Regular maintenance

- The serve-over should be cleaned at least once a week. When damaged packaging is detected, the cabinets must be cleaned more often.
- During cleaning, the internal space, shelves, interior, and exterior plastic and glass parts of the serve-over must be thoroughly cleaned as well as the floor at the serve-over must be washed.
- Plastic parts should be washed with warm water and a non-abrasive cleaning agent purposed for plastics.
- Metal components must be cleaned using warm water and a non-aggressive, corrosion-free cleaning agent. After washing, it is necessary to remove any moisture residue and to dry up the surface. Chrome surfaces must be cleaned with special cleaning agents. After cleaning, they must be dried up with a soft cloth that does not leave dust (linen, chamois, and cotton).
- Dyed components must be cleaned with liquid cleaning agents without abrasive materials. It is recommended to use special detergents purposed for dyed surfaces. After washing the surfaces must be well dried up. The paint damage can cause metal corrosion at the scratch place.
- Glass parts can be washed with household window cleaning agents.

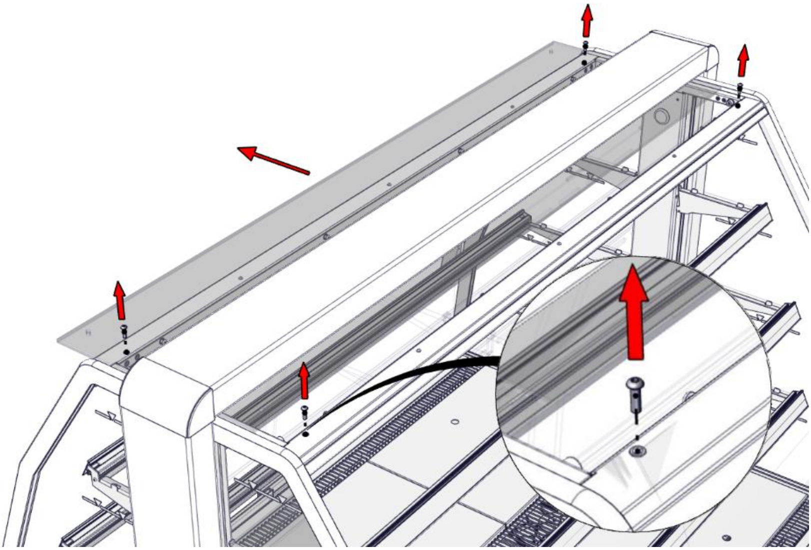
- Some parts of the unit have a wooden finish. Wood and surfaces of wooden products must be cleaned dry; also, wood polishers can be used. If necessary, surfaces can be cleaned with a damp cloth and then dried thoroughly.
- Moisture must not get into electrical installations when cleaning.
- It is necessary, to regularly check drainage openings.

Sanitary day:

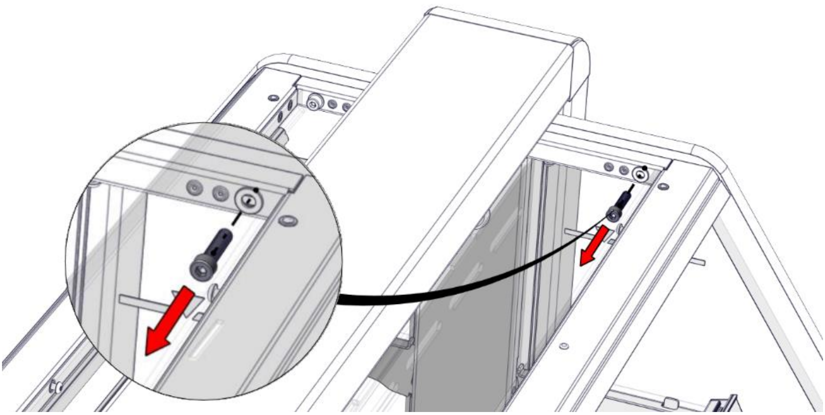
General cleaning of the refrigerated furniture must be performed once in every 4 weeks. The serve-over must be cleaned and disinfected to eliminate pathogenic microorganisms.

- Make sure that defrosting is in progress.
- Remove the products from the serve-over and temporarily place them in the freezer compartment.
- Disconnect electrical installations.
- Remove the bottom shelves, air circulation grids, and evaporator covers.
- Clean the ventilator of serve-over from the plaque. Clean foreign bodies from the structures of the evaporator and ventilators.
- Make sure that the drainage openings are not clogged, and condensate drains freely.
- Remove dust, possible residues of food products and the condensate residue from surfaces.
- Disinfect the internal space of the serve-over.
- Clean and disinfect detached parts and dry them.
- Assemble the detached components into the structure.
- Switch on the power supply to the serve-over.
- When the temperature in the internal space reaches the one that is specified in the control, return cooled products into the cabinet.

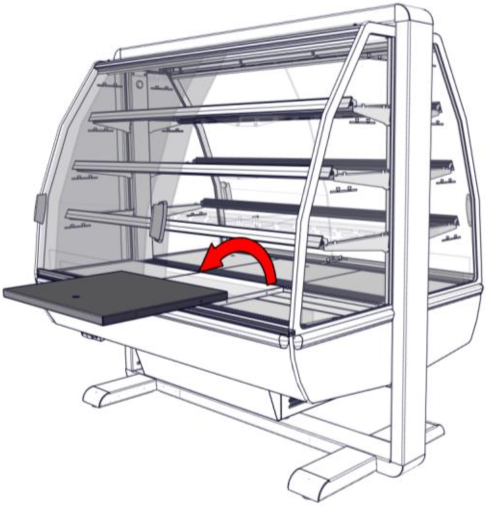
7. REPLACEMENT OF ENDWALL



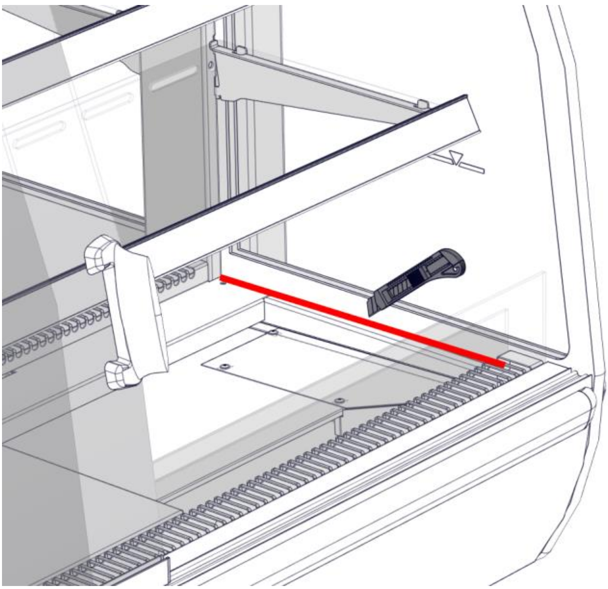
Unscrew 4 bolts from the upper glass and remove this glass.



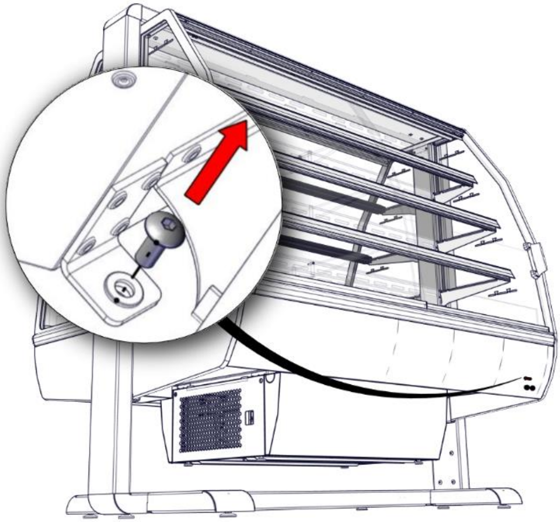
Unscrew the upper bolt from endwall.



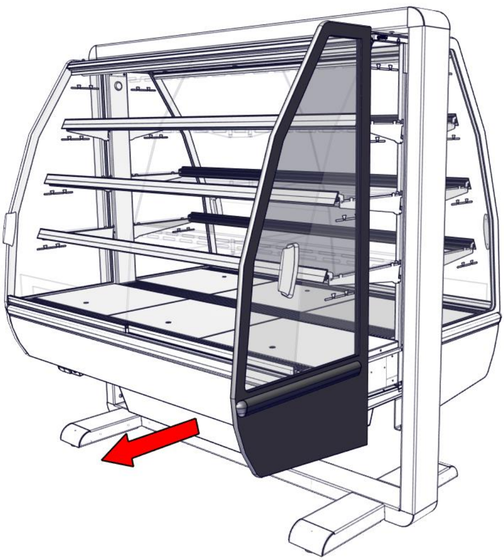
Fix sliding glass doors and take out bottom shelf.



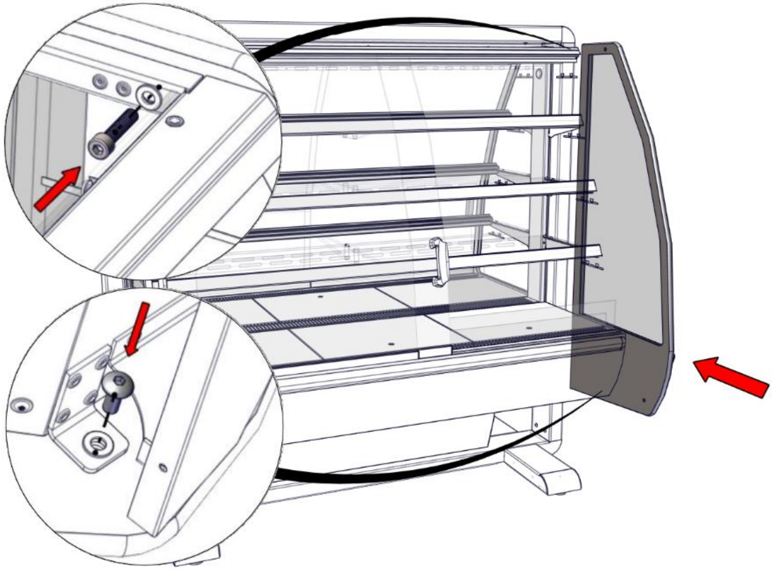
Cut and clean hermetic between endwall and frame.



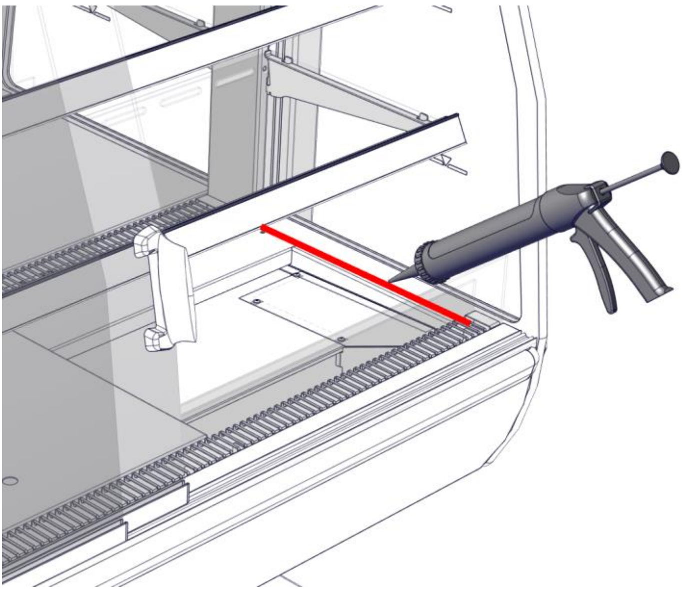
Unscrew the bottom bolt from endwall.



Remove endwall and clean place of insertion.



Put new endwall to the place and screw bolts back.



Fill the gap between endwall and frame with hermetic.

8. DISPOSAL

A used serve-over can be restored and reused. If it is necessary to completely stop the operation of the refrigerated cabinet, the following steps must be taken:

- Turn off the power supply.
- Disconnect the glycol piping.
- Collect the refrigerant from the freezing coil.
- The main elements of the refrigerated cabinet require specific disposal; therefore, it is necessary to apply to organizations that dispose certain types of materials.

9. STORAGE

If temporary storage and subsequent use of the serve-over is foreseen (during repair of the shopping premise or change of the cabinet operation place), the equipment must be stored in a well-ventilated room with positive temperature. It is forbidden to leave the cabinets outdoors. It is necessary to put on transportation protections or to make other structures protecting the unit against external damage. For protection against dust and debris, it is recommended to cover the serve-over with protective envelopes.

10. TRANSPORTATION

The serve-over is transported partially dismounted: shelves, side parts, and partitions are packed separately. During transportation, all components must be firmly fastened. Before mounting it is necessary to remove all transportation fasteners, screws, and packages. After transportation of the serve-over to the facility, carefully inspect the whole equipment and all its components. In the event of violations, it is necessary to capture them (take pictures); it will help the insurance company, the manufacturer and the customer to establish causes of the violation.

11. TESTING

Each refrigerated cabinet is factory tested. During the testing, the following checks are carried out:

- Hermetic tightness.
- Pressure tests of the freezing coil.
- Checks of electrical installation.
- Load tests.

After the serve-over is installed, each serve-over and the overall system must be inspected before their start-up.

12. TECHNICAL DATA

12.1. Technical information

Climatic class	3
Humidity	60%
Ambient temp	25°C
Air speed	0,2m/sec

		Module	160
Dimensions and weights	Module Lengthwithout end walls, mm		1600
	Display area, m²		4,05
	Capacity, m^3		0,69
	Weight, kg		203

Refrigeration data	Refrigeration demand Q (kW)	H1	T_{case}/=+1/+10 °C	T_e/= -8 °C	Tk. = 45 °C	1,044
		M2	T_{case}/= -1/+7 °C	T_e= -8 °C		1,090
		M1	T_{case}/= -1/+5 °C	T_e= -9 °C		1,135
	Refrigerant quantity in operation				R290, g	0,150
	Capillary tube					

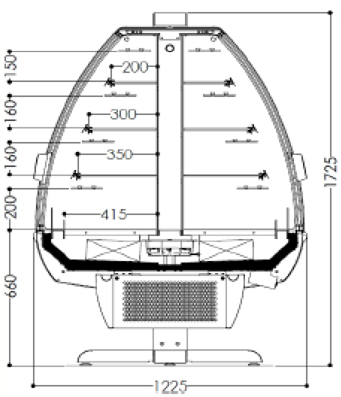
Electrical installations	Lighting	Canopy lighting LED, W	Qty	2
			W	58
	Fans	Energy saving fans (D200 art.Nr.6.06W1G200FA9112)	Qty	2
			W	-
	Defrost		Defrost heater, W	300
	Refrigeration unit		Compressor, W	615
			Condenser fans, W	29 x2

Power input	**230V/50Hz/1ph**
Protection switch	1P C16A
Power cable	3x2,5mm - 3,5m Length. 16A Plug

Defrost settings	Defrost safety times	4x/24h
	Max. evaporator temperature the end of defrost	8°C
	The maximum allowable time of defrost	30 min
	Operation of fans during the defrost	OFF

Sectional view

Exo



12.2. Electric diagrams

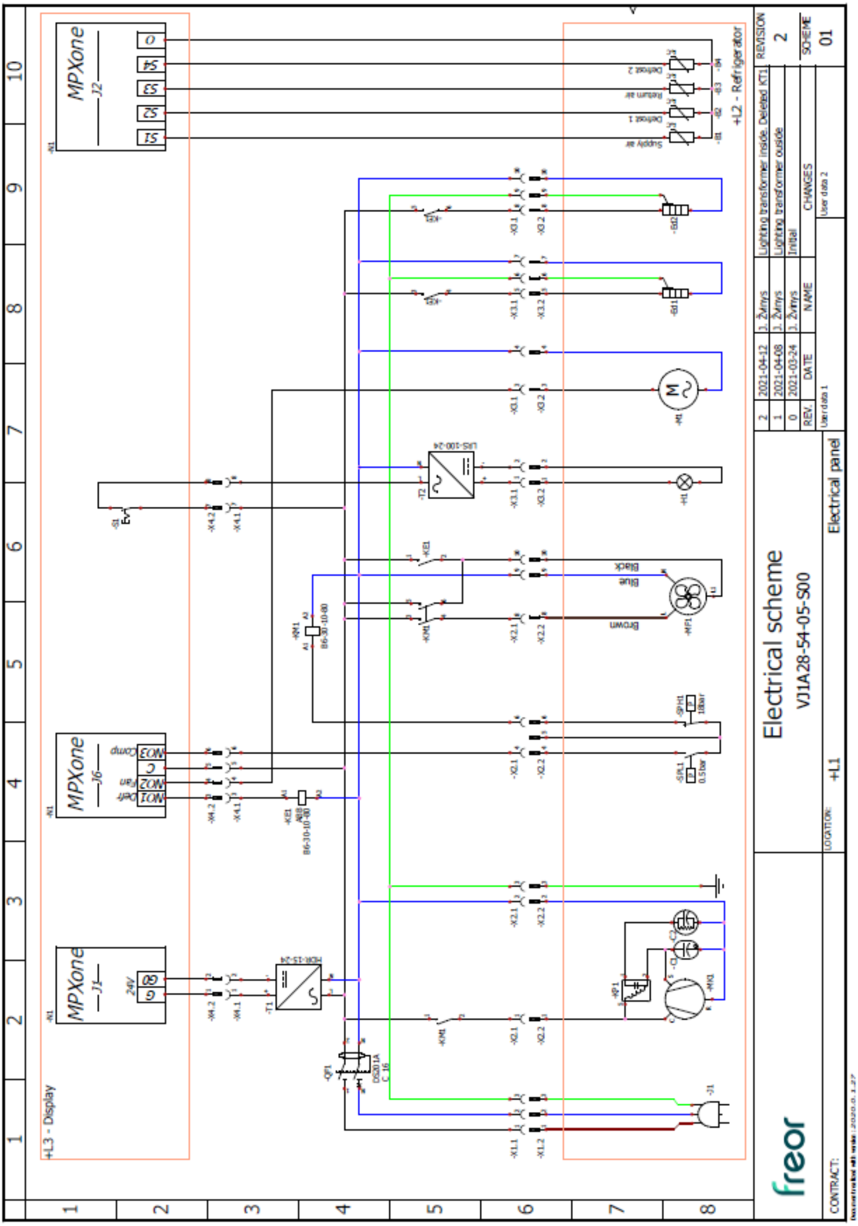
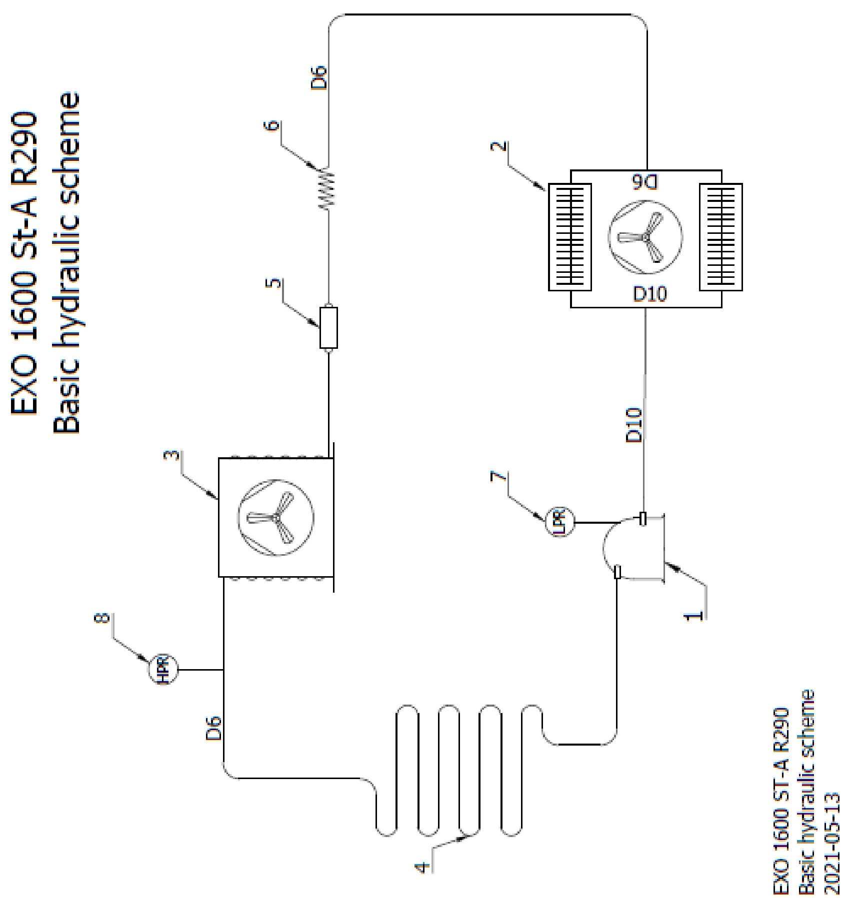


Fig. 4 Electric diagram without lightning

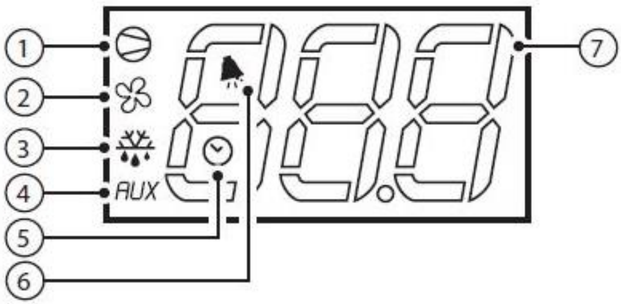
Reference	Mark	Description	article number	Quantity
B6-30-10-80	-KE1, -KM1	3–pole contactor with auxiliary contacts	6.04B6-30-10	2
DS201A	-QF1	RCBO	6.1016A30MA-01	1
HDR-15-24_	-T1	24V 0.63A power supply	6.1624V0.63A	1
LRS-100-24	-T2	24V100W LED power supply	6.24LRS-100-24	1
DFK-MSTB 2,5/10-G-5,08	-X3.1, -X3.3, -X4.1	Feed-through header	6.09MSTB2.510G-5	3
DFK-PC 4/3-GF-7,62	-X1.1	Base strip	6.09PC4/3-7.62	1
HCC 4-F	-X2.1	Female insert	6.09HCC-4-F	1
HCC 4-M	-X2.2	Plug	6.09HCC-4-M	1
MSTB 2,5/10-ST-5,08	-X3.2, -X3.4, -X4.2	Feed-through header	6.09MSTB2.510ST5	3
PC 5/ 3-STF1-7,62	-X1.2	PCB connector	6.09PC5/3-7.62	1
MSTB 2,5/10-ST-5,08	-X5	Feed-through header	6.09MSTB2.510ST5	1

12.3. Principle hydraulic scheme

No.	Title
1	Compressor
2	Evaporator
3	Condenser
4	Coil pipe
5	Filter
6	Capillary
7	Low pressure relay
8	High pressure relay



12.4. Control settings



but.no.	function	normal operation			start up
		ON	OFF	flash	
1	compressor	on	off	call	ON
2	fan	on	off	call	ON
3	defrost	on	off	call	ON
4	auxiliary output (AUX)	output active	output not active	-	ON
5	clock (RTC)	RTC available, enabled (tEN=1) and at least one time band has been set	RTC not available or not enabled (tEN=0) or no time band set		ON (if the clock is fi tted)
6	alarm	alarm in progress	no alarm in progress	-	ON
7	digits	three digits with decimal point and range -199 to 999. See parameters /4, /5, /6 for the type of probe displayed, values in °C/°F and decimal point			

Par.	Description	Type	Min	Max	UOM.	Def.	IDA
PS	password	F	0	200	-	22	22
/2	probe measurement stability	C	1	15	-	4	4
/4	select probe displayed	F	1	3	-	1	1
/5	select °C/°F	C	0(°C)	1(°F)	-	0	0
/6	disable decimal point	C	0	1	-	0	0
/7	enable probe 2 alarm (model M only)	C	0	1	-	0	0
/C1	probe 1 offset	F	-50	50	(°C/°F)	0	0
/C2	probe 2 offset	F	-50	50	(°C/°F	0	0
/C3	probe 3 offset	F	-50	50	(°C/°F)	0	0
St	set point	S	r1	r2	°C/°F	4	2
rd	control differential	F	0	19	°C/°F	2	2
r1	maximum set point value	C	-50	r2	°C/°F	-50	-50
r2	select direct/reverse operation	C	r1	200	°C/°F	90	90
r3	night-time set point delta	C	0	2	-	0	0
r4	control differential	C	-50	50	°C/°F	3	3
c0	compressor and fan start delay on power-up	C	0	100	min	0	1
c1	minimum time between consecutive compressor starts	C	0	100	min	0	0
c2	minimum compressor off time	C	0	100	min	0	1
c3	minimum compressor on time	C	0	100	min	0	0
c4	compressor on time with duty setting	C	0	100	min	0	0
cc	continuous cycle duration	C	0	15	h	4	4
c6	temperature alarm bypass after continuous cycle	C	0	15	h	2	2
d0	type of defrost	C	0	4	-	0	0
dI	interval between defrosts	F	0	199	h/min (see dC)	8	4
dt	end defrost temperature set point/defrost temperature	F	-50	130	°C/°F	4	10
	threshold with temp. control						
dP	maximum defrost duration	F	1	199	min/s (see dC)	30	30
d4	defrost when switching the instrument on	C	0	1	-	0	0
d5	defrost delay on power-up or when enabled by digital inpu	C	0	199	min	0	0
d6	freeze control temperature display during defrost	C	0	1	-	1	1
dd	dripping time	F	0	15	min	2	2
d8	alarm bypass time after defrost	F	0	15	h	1	1
d9	defrost priority over compressor protectors	C	0	1	-	0	0
d/	defrost probe reading (2)	F	-	-	°C/°F	-	-
dC	time base	C	0	1	-	0	0
A0	alarm and fan temperature differential	C	-20	20	°C/°F	2	2
AL	absolute/relative temperature for low temperature alarm	F	-50	250	°C/°F	0	0
AH	absolute/relative temperature for high temperature alarm	F	-50	250	°C/°F	0	0
Ad	temperature alarm delay	C	0	199	min	0	0
A4	3rd input configuration	C	0	11	-	0	0
A7	digital input alarm delay	C	0	199	min	0	0
A8	enable alarm “Ed” (end defrost by timeout)	C	0	1	-	0	0
Ac	set point dirty condenser alarm	C	-50	250	°C/°F	70	70
AE	dirty condenser alarm differential temperature	C	0,1	20	°C/°F	5	5.0
Acd	dirty condenser alarm delay	C	0	250	min	0	0
F0	enable evaporator fan control	C	0	1	-	0	0
F1	evaporator fan control set point	F	-50	130	°C/°F	5	5
F2	stop evaporator fan if compressor off	C	0	1	-	1	0
F3	evaporator fan status during defrost	C	0	1	-	1	0
Fd	post-dripping time	F	0	15	min	1	1
H0	serial address	C	0	207	-	1	1
H1	AUX output configuration	C	0	3	-	0	0
H2	enable keypad	C	0	1	-	1	1
H4	disable buzzer	C	0	1	-	0	0
H5	ID code (read-only)	F	0	199	-	-	-
EZY	rapid parameter set selection	C	0	4	-	0	0

Instructions:

Set Point

PRESS & HOLD "SET" for 1 Second
"SET POINT" Value will be displayed

PRESS ARROW "UP" or "DOWN"
to set the desired value. **

PRESS "SET" to confirm the value

Frequent (F) Parameters

PRESS & HOLD "SET" for
approx 5 seconds

"PS" will be displayed

A) PRESS "ARROW UP" or "DOWN"
to select the parameter to be changed.
eg rd = differential

B) PRESS "SET"

The Value Set for this parameter will
be displayed

C) PRESS ARROW "UP" or
"DOWN" to set the desired value.**

D) PRESS "SET"
to confirm the value

REPEAT A-D Until all desired
parameters have been set.

PRESS & HOLD "SET" until temp is
displayed (approx 5 seconds)
to confirm all changes

All Parameters

PRESS & HOLD "SET"
for approx 5 seconds

"PS" will be displayed

PRESS "SET" then "ARROW UP" till
the password value "22" is displayed

PRESS "SET" to confirm

"PS" will be displayed

A) PRESS "ARROW UP" or "DOWN" to
select the code the of parameter to be
changed. eg rd = differential

B) PRESS "SET"
The Value Set for this parameter will be
displayed

C) PRESS "ARROW UP" or "DOWN"
to set the desired value.

D) PRESS "SET"
to confirm the value

REPEAT A-D Until all desired
parameters have been set.

PRESS & HOLD "SET" until temp is
displayed (approx 5 seconds)
to confirm all changes

12.5. Alarms and signals

Alarm code	buzzer and alarm relay	LED	alarm description	reset	ENABLE ALARM parameters involved
E0	active	ON	probe 1 error= control	automatic	-
E1	not active	ON	probe 2 error= defrost	automatic	d0= 0 / 1 / 4, F0= 1
E2	not active	ON	probe 3 error= condenser/product	automatic	[A4=10/11]
IA	active	ON	external alarm	automatic	[A4 = 1] [+A7]
dOr	active	ON	open door alarm	automatic	[A4=7/8][+A7]
LO	active	ON	low temperature alarm	automatic	[AL] [Ad]
HI	active	ON	high temperature alarm	automatic	[AH] [Ad]
EE	not active	ON	unit parameter error	not possible	-
EF	not active	ON	operating parameter error	manual	-
Ed	not active	ON	defrost ended by timeout	on first defrost ended correctly	[dP] [dt] [d4] [A8]
dF	not active	OFF	defrost running	automatic	[d6=0]
cht	not active	ON	dirty condenser pre-alarm	automatic	[A4=10]
CHt	active	ON	dirty condenser alarm	manual	[A4=10]
EtC	not active	ON	clock alarm	by setting the time	if bands are active

13. MEANINGS OF SYMBOLS

Symbol	Meaning	Type
	Qualified specialist	
	Work clothing	
	Protective gloves	
	Brittle surfaces	
	Wrench	Sizes: 7, 10, 17, 32
	Screwdriver	PH2
	Rubber hammer	
	Protective goggles	
	Silicone pistol	
	Clamp	

Date	Work	Name

Date	Work	Name

Date	Work	Name

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