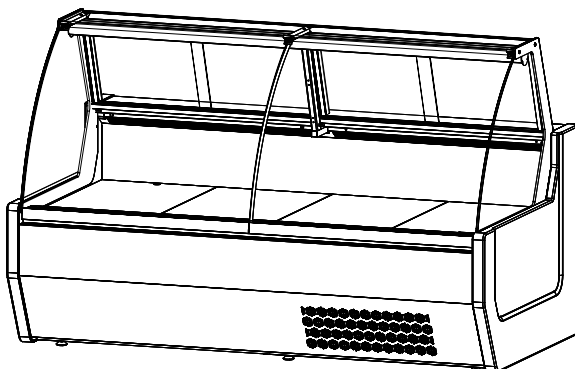
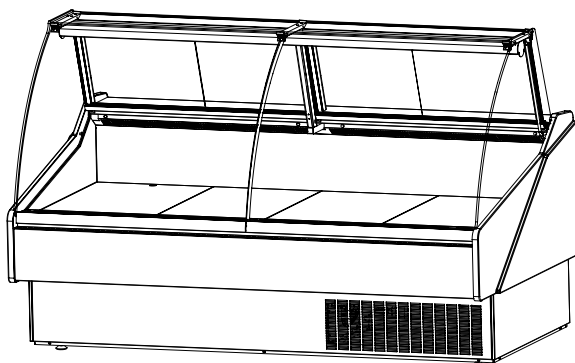




KFM | KCP

INSTALLATION AND OPERATION MANUAL - VO





MVP Group LLC
3560 N.W. 56th Street
33309- FT. LAUDERDALE
United States of America
Telephone: 786-600-4687
Email: sales@mvpgroupcorp.com
Website: www.mvpgroupcorp.com

SYMBOLS



For your own protection you must use gloves and safety shoes.



Equipment performance can be compromised.



Damage may include persons.



Flammable.

GENERAL WARNINGS

The instructions set in this manual should be read before using the appliance.

Make sure that this manual it's always available and on site.

The appliance must be handled only by qualified technicians.

Maintenance operations must be performed by qualified and authorized technicians.

All data, information and instructions are conformant to the applicable legal regulations and standards.

The manufacturer declines all responsibility regarding bad use of the appliance, non compliance with local regulations and standards, handling by non qualified and non authorized technicians, and non authorized replacements.

All appliances are type 1 (75F°F/55%HR) tested. If the environment exceed type 1 conditions, a deminuiting performance should be expected.

Always check the marking plate.

At the end of production HYDRACOOING products are carefully inspected.

No damaged units are sent out.

The appliance must be perfectly leveled.

The appliance must be located in an indoor environment.

The appliance must be connected to a grounded outlet.

Do not connect the appliance to a multiple block of outlets.

If the power cord gets damaged contact the manufacturer.

Do not storage explosive substances such as aerossol cans.

Always respect the loading lines.

Keep condenser area always free of obstacles.

The appliance has automatic defrost.

Do not use alternate means of defrosting besides the ones mentioned by the manufacturer.

Do not use electrical apparatus inside the refrigerated compartment other than ones authorized by the manufacturer

All maintenance actions must be done with the appliance fully disconnected.

Check regularly for dirt in the condenser.

For proper end of life of the appliance go to the appropriate local center.

All complaints must mention model and serial number.

To fully disconnect the appliance, power cable must be pulled out.

The instructions part of this manual, do not cover every situation, therefore the final user and installer are responsible for a careful use of the appliance.

Before powering the appliance hold 2 hours.

If any damage encountered contact the distributor.

The final user can only make the repairs pointed out in this manual.

Keep doors closed.

The set of instructions cover a range of models. Some might have different specifications.

In case of questions please contact the installer.

At the moment of shelf assembly, assure it properly.

Any change of the appliance location must be done with the technician knowledge.

Do not use alternate means to defrost.

For proper performance respect all maintenance schedules.

In order to promote energy efficiency, before closing the store, set lighting to off position, lower the night curtain, and make sure that all doors are closed.

The appliance it's only for temperature maintenance purposes.

Please make sure you have suitable electrical connections.

Power cable must be bend free.

After connected, do not move the appliance.

Remove all plastics and before turning ON the appliance.

After unpacking, certify a suitable end to all materials.

The source of light has an E classification.

For spare parts always refer to the serial number, model and part identified in the exploded view.

This manual can be found at www.hydracooling.pt.

GENERAL WARNINGS FLAMMABLES

Refrigeration system charged with flammable refrigerant. 

Make sure that personnel are aware that the appliance contains a flammable refrigerant. 

Maintenance operations must be performed by qualified technicians to handle flammable refrigerants. 

Keep clear of obstruction all ventilation openings in the appliance enclosure or in the structure for building-in. 

Do not damage the refrigerant circuit. 

Before any act of maintenance make sure safety conditions around the appliance are in place. 

Before plugging in the appliance make sure there is no leaks caused by shipping. 

If the appliance is damaged do not plug in. Contact the installer. 

Comply with all safety marks and appliance instructions. 

In case of a system leak remove all sources of ignition in a 9,8ft radius and keep all people away from the safe area. 

Do not install the appliance near heat sources and other flammable products. 

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1. WARRANTY, STANDARDS AND REGULATIONS

1.1. WARRANTY

The warranty do not cover any damage caused by the unpacking.

The warranty does not cover the poor performance by the poor use and installation.

The warranty does not cover any acts of negligence.

The warranty does not cover non suitable electrical infrastructure.

The warranty does not cover appliances with the marking plate changed or defaced.

The warranty does not cover the non compliance with all data and recommendations written on the manual.

The warranty doesn't cover broken glasses.

The warranty does not cover defects on appliances with non original parts.

The warranty does not cover the loss of foodstuff caused by any defect on the appliance.

The warranty does not cover defects caused by poor maintenance and cleaning pointed out on the manual.

The warranty does not cover the use by non qualified and non authorized technicians.

All claims must be done by stating the serial number and model.

The warranty complies with all regulations, regarding any agreement between the buyer and seller. The claiming period due to any defect or non compliance of the contract is 12 months.

The warranty does not cover damage or losses performed by the end user, unidentified on this manual.

1.2. CONFORMITY

The product respects all legal considerations and standards.

All safety and sanitary standards are respected and in compliance.

UL471- Standard for safety, commercial refrigerators and freezers

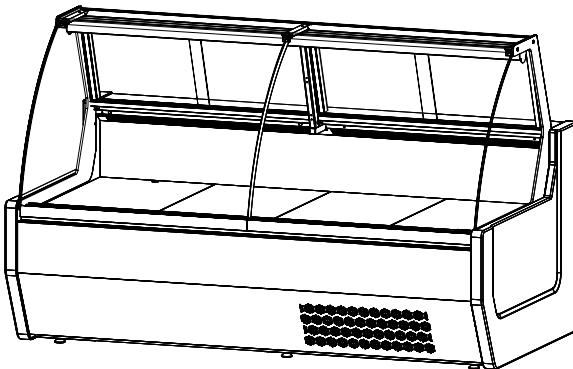
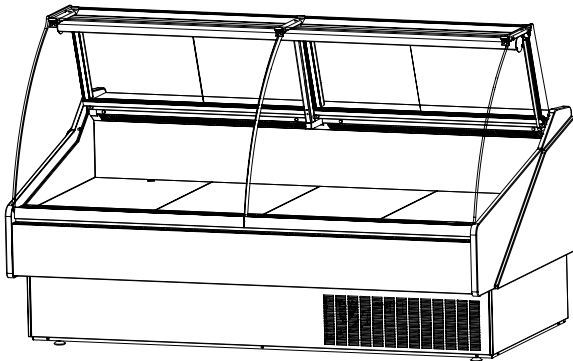
NSF7- Commercial refrigerators and freezers

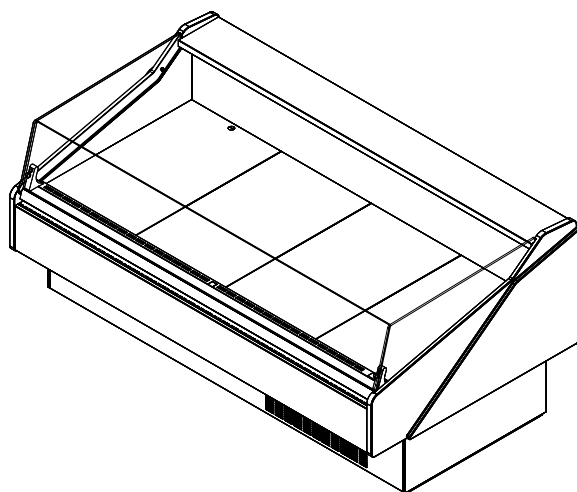
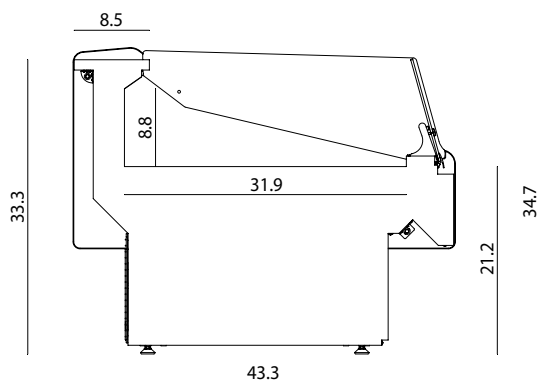
DOE compliance- ASHRAE 72

2. TECHNICAL SPECIFICATIONS

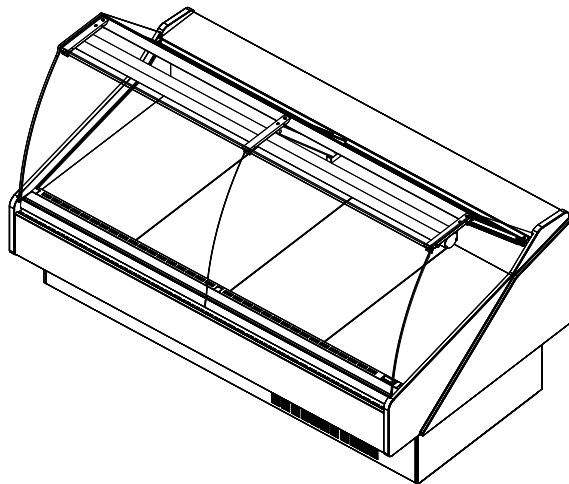
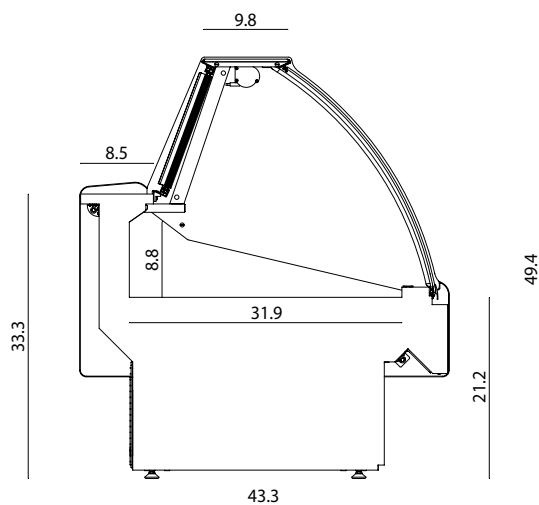
2.1. MODEL DESCRIPTION

KFM series models and KCP models, are open or closed horizontal service over counters refrigerated displays of food products, available in self contained and remote versions. The ventilated cooling system of these series provides balance and temperature maintenance for the 32°F operating range, ideal for self-service and assisted service of any packaged and unpackaged product. Designed for conservation and temperature maintenance only, this appliance will function ideally under class 3 conditions (75°F/55% RH). All models have light sources Energy class E LED.

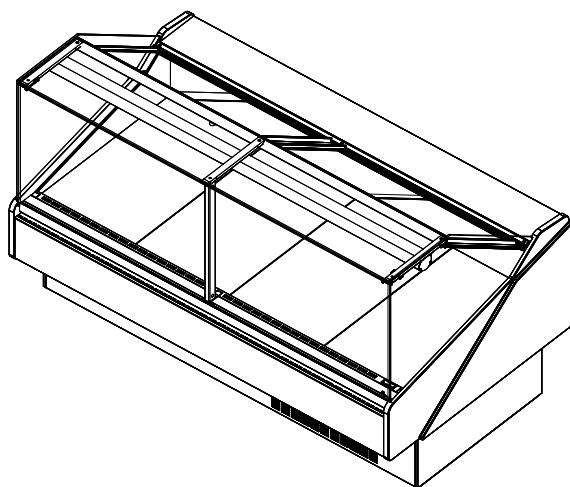
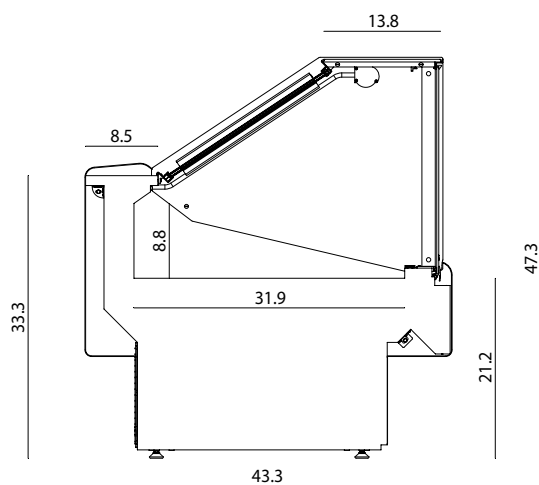




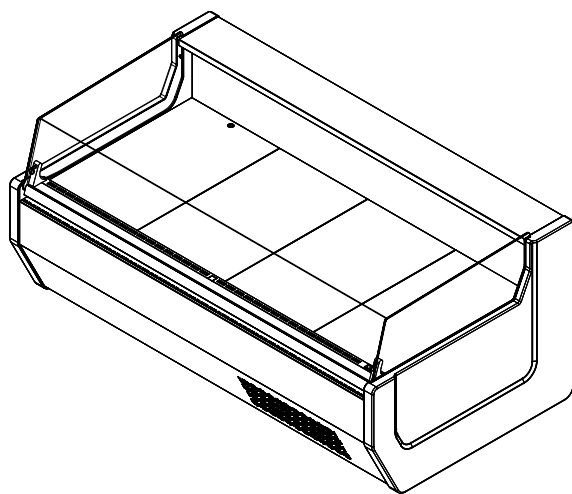
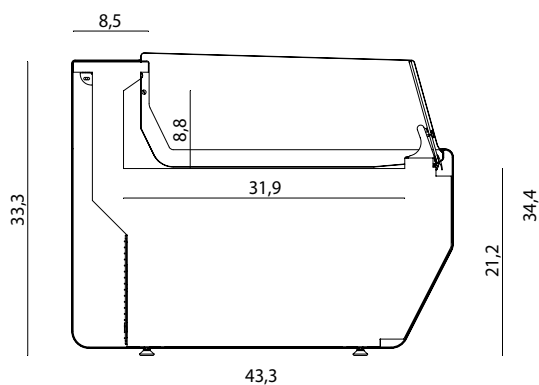
KFM-OF



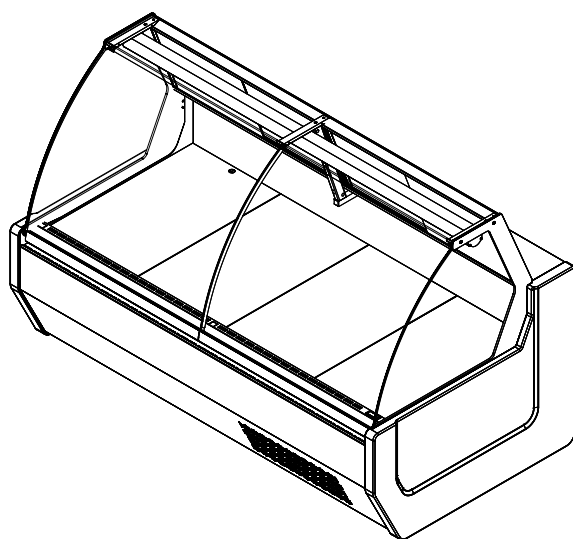
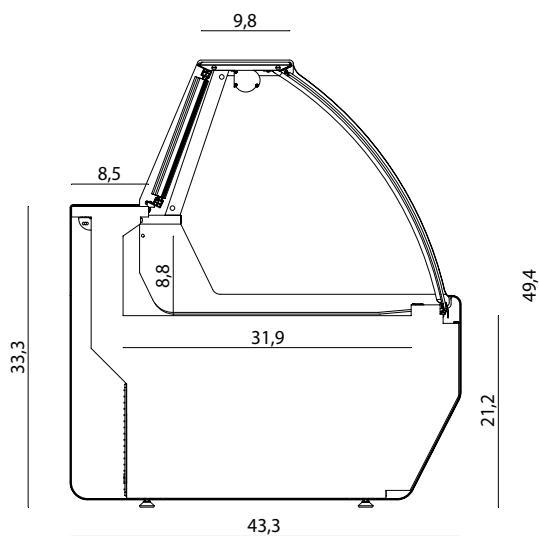
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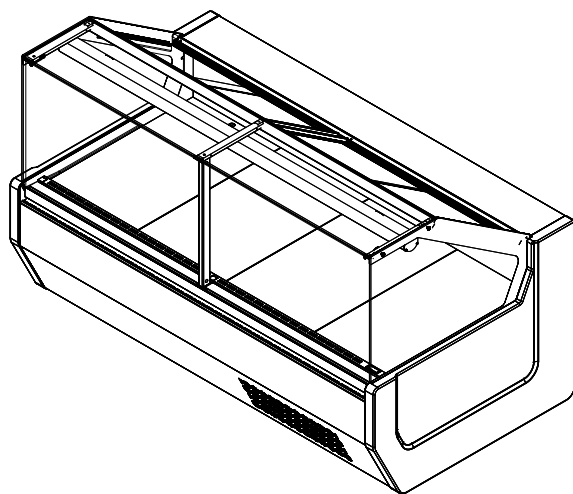
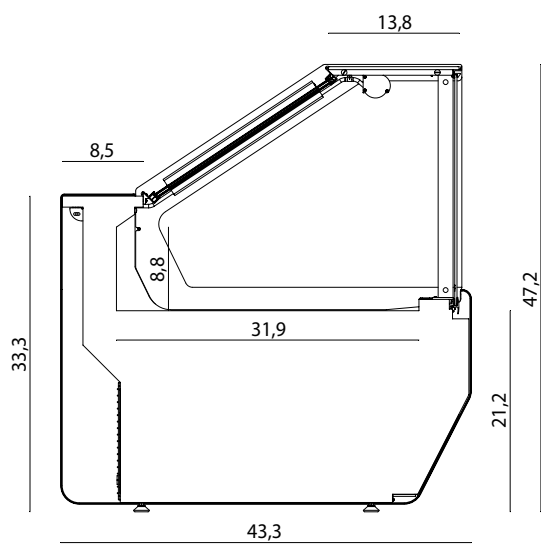
KFM-FG/KCP-KGA



KCP-BGA



KCP-GJA



KCP-KGA

Model KFM-OF

Specs	40	50	60
Dimensions (LxHxD) inches	40 ³ / ₁₆ " x 34 ¹¹ / ₁₆ " x 61 ¹ / ₁₆ "	52 ³ / ₁₆ " x 34 ¹¹ / ₁₆ " x 61 ¹ / ₁₆ "	60 ¹ / ₁₆ " x 34 ¹¹ / ₁₆ " x 61 ¹ / ₁₆ "
Gross Volume (ft ³)	6,0	8,0	9,3
Refrigerated Shelf Area (inch ²)	8,2	10,8	12,6
Weight per shelf (lb/ft ²)	31-5,5	31-5,5	31-5,5
Classification	Service Over Counter	Service Over Counter	Service Over Counter
Operating temperature (°F)	32	32	32
Refrigerant/charge amount (Oz)	R452A/-	R452A/-	R452A/-
Voltage (V) / Frequency (Hz)	120/60	120/60	120/60
Nema Plug	5-15P	5-15P	5-15P
Total Amps (A)	10,88	11,87	12
MOP	15	20	20

Specs	80	100	120
Dimensions (LxHxD) inches	77 ³ / ₁₆ " x 34 ¹¹ / ₁₆ " x 61 ¹ / ₁₆ "	101 ³ / ₁₆ " x 34 ¹¹ / ₁₆ " x 61 ¹ / ₁₆ "	116 ¹⁵ / ₁₆ " x 34 ¹¹ / ₁₆ " x 61 ¹ / ₁₆ "
Gross Volume (ft ³)	12,1	16,0	18,6
Refrigerated Shelf Area (inch ²)	16,5	21,7	25,2
Weight per shelf (lb/ft ²)	31-5,5	31-5,5	31-5,5
Classification	Service Over Counter	Service Over Counter	Service Over Counter
Operating temperature (°F)	32	32	32
Refrigerant/charge amount (Oz)	R452A/-	R452A/-	R452A/-
Voltage (V) / Frequency (Hz)	120/60	120/60	120/60
Nema Plug	5-15P	No Plug	No Plug
Total Amps (A)	11,33	16,24	16,8
MOP	15	30	30

Model KFM-CG

Specs	40	50	60
Dimensions (LxHxD) inches	40 ³ / ₁₆ " x 49 ⁹ / ₁₆ " x 61 ¹ / ₁₆ "	52 ³ / ₁₆ " x 49 ⁹ / ₁₆ " x 61 ¹ / ₁₆ "	60 ¹ / ₁₆ " x 49 ⁹ / ₁₆ " x 61 ¹ / ₁₆ "
Gross Volume (ft ³)	6,0	8,0	9,3
Refrigerated Shelf Area (inch ²)	8,2	10,8	12,6
Weight per shelf (lb/ft ²)	31-5,5	31-5,5	31-5,5
Classification	Service Over Counter	Service Over Counter	Service Over Counter
Operating temperature (°F)	32	32	32
Refrigerant/charge amount (Oz)	R452A/-	R452A/-	R452A/-
Voltage (V) / Frequency (Hz)	120/60	120/60	120/60
Nema Plug	5-15P	5-15P	5-15P
Total Amps (A)	10,94	11,97	12,09
MOP	15	20	20

Specs	80	100	120
Dimensions (LxHxD) inches	77 ⁹ / ₁₆ " x 49 ⁹ / ₁₆ " x 61 ¹ / ₁₆ "	101 ³ / ₁₆ " x 49 ⁹ / ₁₆ " x 61 ¹ / ₁₆ "	116 ¹ / ₁₆ " x 49 ⁹ / ₁₆ " x 61 ¹ / ₁₆ "
Gross Volume (ft ³)	12,1	16,0	18,6
Refrigerated Shelf Area (inch ²)	16,5	21,7	25,2
Weight per shelf (lb/ft ²)	31-5,5	31-5,5	31-5,5
Classification	Service Over Counter	Service Over Counter	Service Over Counter
Operating temperature (°F)	32	32	32
Refrigerant/charge amount (Oz)	R452A/-	R452A/-	R452A/-
Voltage (V) / Frequency (Hz)	120/60	120/60	120/60
Nema Plug	5-15P	No Plug	No Plug
Total Amps (A)	11,43	16,34	16,9
MOP	15	30	30

Model KFM-FG/KCP-KGA

Specs	40	50	60
Dimensions (LxHxD) inches	40 ³ / ₁₆ " x 44 ¹ / ₂ " x 61 ¹ / ₁₆ "	52 ³ / ₁₆ " x 44 ¹ / ₂ " x 61 ¹ / ₁₆ "	60 ¹ / ₁₆ " x 44 ¹ / ₂ " x 61 ¹ / ₁₆ "
Gross Volume (ft ³)	6,05	8,0	9,3
Refrigerated Shelf Area (inch ²)	8,2	10,8	12,6
Weight per shelf (lb/ft ²)	31-5,5	31-5,5	31-5,5
Classification	Service Over Counter	Service Over Counter	Service Over Counter
Operating temperature (°F)	32	32	32
Refrigerant/charge amount (Oz)	R452A/-	R452A/-	R452A/-
Voltage (V) / Frequency (Hz)	120/60	120/60	120/60
Nema Plug	5-15P	5-15P	5-15P
Total Amps (A)	10,88	11,87	12
MOP	15	20	20

Specs	80	100	120
Dimensions (LxHxD) inches	77 ³ / ₁₆ " x 44 ¹ / ₂ " x 61 ¹ / ₁₆ "	101 ³ / ₁₆ " x 44 ¹ / ₂ " x 61 ¹ / ₁₆ "	116 ¹ / ₁₆ " x 44 ¹ / ₂ " x 61 ¹ / ₁₆ "
Gross Volume (ft ³)	12,1	16,0	18,6
Refrigerated Shelf Area (inch ²)	16,5	21,7	25,2
Weight per shelf (lb/ft ²)	31-5,5	31-5,5	31-5,5
Classification	Service Over Counter	Service Over Counter	Service Over Counter
Operating temperature (°F)	32	32	32
Refrigerant/charge amount (Oz)	R452A/-	R452A/-	R452A/-
Voltage (V) / Frequency (Hz)	120/60	120/60	120/60
Nema Plug	5-15P	No Plug	No Plug
Total Amps (A)	11,33	16,24	16,8
MOP	15	30	30

Model KCP-BGA

Specs	40	50	60
Dimensions (LxHxD) inches	40 ³ / ₁₆ " x 34 ¹¹ / ₁₆ " x 61 ¹ / ₁₆ "	52 ³ / ₁₆ " x 34 ¹¹ / ₁₆ " x 61 ¹ / ₁₆ "	60 ¹ / ₁₆ " x 34 ¹¹ / ₁₆ " x 61 ¹ / ₁₆ "
Gross Volume (ft ³)	6,0	8,0	9,3
Refrigerated Shelf Area (inch ²)	8,2	10,8	12,6
Weight per shelf (lb/ft ²)	31-5,5	31-5,5	31-5,5
Classification	Service Over Counter	Service Over Counter	Service Over Counter
Operating temperature (°F)	32	32	32
Refrigerant/charge amount (Oz)	R452A/-	R452A/-	R452A/-
Voltage (V) / Frequency (Hz)	120/60	120/60	120/60
Nema Plug	5-15P	5-15P	5-15P
Total Amps (A)	10,88	11,87	12
MOP	15	20	20

Specs	80	100	120
Dimensions (LxHxD) inches	77 ³ / ₁₆ " x 34 ¹¹ / ₁₆ " x 61 ¹ / ₁₆ "	101 ³ / ₁₆ " x 34 ¹¹ / ₁₆ " x 61 ¹ / ₁₆ "	116 ¹⁵ / ₁₆ " x 34 ¹¹ / ₁₆ " x 61 ¹ / ₁₆ "
Gross Volume (ft ³)	12,1	16,0	18,6
Refrigerated Shelf Area (inch ²)	16,5	21,7	25,2
Weight per shelf (lb/ft ²)	31-5,5	31-5,5	31-5,5
Classification	Service Over Counter	Service Over Counter	Service Over Counter
Operating temperature (°F)	32	32	32
Refrigerant/charge amount (Oz)	R452A/-	R452A/-	R452A/-
Voltage (V) / Frequency (Hz)	120/60	120/60	120/60
Nema Plug	5-15P	No Plug	No Plug
Total Amps (A)	11,33	16,24	16,8
MOP	15	30	30

Model KCP-GJA

Specs	40	50	60
Dimensions (LxHxD) inches	40 ³ / ₁₆ " x 49 ⁹ / ₁₆ " x 61 ¹ / ₁₆ "	52 ³ / ₁₆ " x 49 ⁹ / ₁₆ " x 61 ¹ / ₁₆ "	60 ¹ / ₁₆ " x 49 ⁹ / ₁₆ " x 61 ¹ / ₁₆ "
Gross Volume (ft³)	6,0	8,0	9,3
Refrigerated Shelf Area (inch²)	8,2	10,8	12,6
Weight per shelf (lb/ft²)	31-5,5	31-5,5	31-5,5
Classification	Service Over Counter	Service Over Counter	Service Over Counter
Operating temperature (°F)	32	32	32
Refrigerant/charge amount (Oz)	R452A/-	R452A/-	R452A/-
Voltage (V) / Frequency (Hz)	120/60	120/60	120/60
Nema Plug	5-15P	5-15P	5-15P
Total Amps (A)	10,94	11,97	12,09
MOP	15	20	20

Specs	80	100	120
Dimensions (LxHxD) inches	77 ⁹ / ₁₆ " x 49 ⁹ / ₁₆ " x 61 ¹ / ₁₆ "	101 ³ / ₁₆ " x 49 ⁹ / ₁₆ " x 61 ¹ / ₁₆ "	116 ¹ / ₁₆ " x 49 ⁹ / ₁₆ " x 61 ¹ / ₁₆ "
Gross Volume (ft³)	12,1	16,0	18,6
Refrigerated Shelf Area (inch²)	16,5	21,7	25,2
Weight per shelf (lb/ft²)	31-5,5	31-5,5	31-5,5
Classification	Service Over Counter	Service Over Counter	Service Over Counter
Operating temperature (°F)	32	32	32
Refrigerant/charge amount (Oz)	R452A/-	R452A/-	R452A/-
Voltage (V) / Frequency (Hz)	120/60	120/60	120/60
Nema Plug	5-15P	No Plug	No Plug
Total Amps (A)	11,43	16,34	16,9
MOP	15	30	30

Model KCP-KGA

Specs	40	50	60
Dimensions (LxHxD) inches	40 ³ / ₁₆ " x 44 ¹ / ₂ " x 61 ¹ / ₁₆ "	52 ³ / ₁₆ " x 44 ¹ / ₂ " x 61 ¹ / ₁₆ "	60 ¹ / ₁₆ " x 44 ¹ / ₂ " x 61 ¹ / ₁₆ "
Gross Volume (ft³)	6,05	8,0	9,3
Refrigerated Shelf Area (inch²)	8,2	10,8	12,6
Weight per shelf (lb/ft²)	31-5,5	31-5,5	31-5,5
Classification	Service Over Counter	Service Over Counter	Service Over Counter
Operating temperature (°F)	32	32	32
Refrigerant/charge amount (Oz)	R452A/-	R452A/-	R452A/-
Voltage (V) / Frequency (Hz)	120/60	120/60	120/60
Nema Plug	5-15P	5-15P	5-15P
Total Amps (A)	10,88	11,87	12
MOP	15	20	20

Specs	80	100	120
Dimensions (LxHxD) inches	77 ³ / ₁₆ " x 44 ¹ / ₂ " x 61 ¹ / ₁₆ "	101 ³ / ₁₆ " x 44 ¹ / ₂ " x 61 ¹ / ₁₆ "	116 ¹ / ₁₆ " x 44 ¹ / ₂ " x 61 ¹ / ₁₆ "
Gross Volume (ft³)	12,1	16,0	18,6
Refrigerated Shelf Area (inch²)	16,5	21,7	25,2
Weight per shelf (lb/ft²)	31-5,5	31-5,5	31-5,5
Classification	Service Over Counter	Service Over Counter	Service Over Counter
Operating temperature (°F)	32	32	32
Refrigerant/charge amount (Oz)	R452A/-	R452A/-	R452A/-
Voltage (V) / Frequency (Hz)	120/60	120/60	120/60
Nema Plug	5-15P	No Plug	No Plug
Total Amps (A)	11,33	16,24	16,8
MOP	15	30	30

MARKING PLATE



The marking plate must not be removed or defaced.

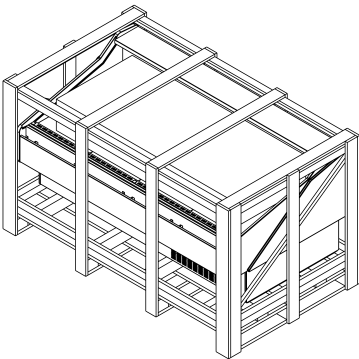
MVP GROUP CORP. For service, please call: (514) 737-9701 www.mvpgroupcorp.com MADE IN PORTUGAL ETL MODEL _____ CASE FAMILY _____ SERIAL NO. _____ DATE MFG _____	COMMERCIAL REFRIGERATOR CONFORMS TO UL STANDARD 471 AND NSF STD 7 CERTIFIED TO CAN/CSA STD C22.2 NO. 120												
													
	Intertek 4004083						Intertek						
	120V CIRCUIT												
EVAP PAN		DOOR HEATER		LIGHTS		ANTI-S FANS		EVAP FANS		COND FANS		COMP	
REF AMOUNT		REF TYPE											
PSI HIGH SIDE		PSI LOW SIDE											
OZ		R452A											
nsia		nsia											
TOTAL CASE AMPS													
										--AMPS--			
										---QTY---			
										-PHASE-			
										---HRTZ---			
										LRA---			
										MINI BRANCH			
										CIRCUIT AMPACITY			
										MAX OVERCURRENT			
										PROTECTION AMPS			

3. INSTALLATION

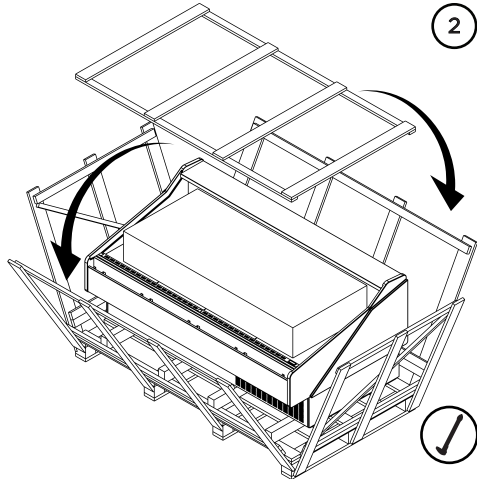
3.1. UNPACKING



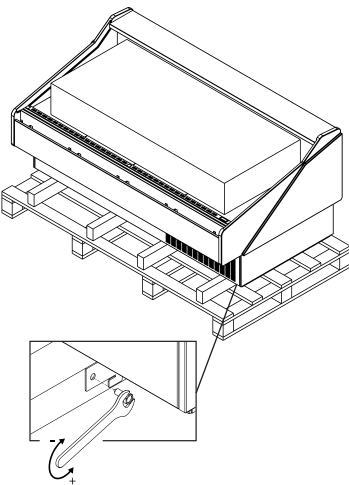
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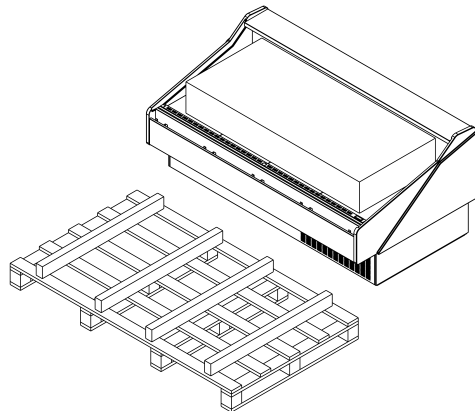
2



3



4



All materials must be removed from the installation area, and routed to proper handling centers.

3.2. PACKAGING CONTENTS

The package received with your KFM/KCP series model includes the items arranged in the table below.

Item	Model
Installation and operation manual	KFM/KCP
EU declaration	KFM/KCP
Electrical diagram	KFM/KCP
Exhibition	KFM/KCP

3.3. DAMAGE VERIFICATION

After rigorous inspection, all units leave HYDRA KOOL without any damage or defect. HYDRACOOLING shall not be liable for any defect occurred at the time of transportation or unpacking.

In order to complain to the carrier, possible damage, must be checked in the following points:

- Doors
- Outdoor panels
- Shelves
- Glasses
- Painting
- Knobs
- Structure
- Base

3.4. LOCATION



Use a pallet truck to handle the appliance. Do not drag it!



All operations necessary for the installation of the appliance must be performed by a qualified technician.



This appliance is intended for indoor use only.



This appliance must not be exposed to direct or indirect sunlight.



Make sure that the temperature and humidity conditions do not exceed the 75,2°F and 55% relative humidity.



Avoid air from air conditioning units directly on the appliance.



Keep unobstructed ventilation openings, in the enclosure of the or fitting structure.



Avoid drafts in the vicinity of the appliance.



The air surrounding the appliance must not be more than 0,2m/s.



The appliance must be perfectly level.



Avoid placing the appliance in the heat rejection zone of other refrigeration/ air conditioning.



In the case of centrally controlled appliances, prepare sewage for water.



Place the appliance on a level floor.



After connecting the unit, do not move it.



At the time of installation, it prevents unhindered area condenser.



On appliances against the wall, provide 2,4 inches distance.



Keep the manual available and accessible.



Provide adequate training for use and handling to the personnel.

3.5. ELECTRICAL CONNECTIONS



Voltage / Frequency: 120V / 60Hz.



Check power and current values on the marking plate to prevent installation of circuit breakers and safe installation.



Make sure the outlet is grounded.



Do not connect the appliance to multiple block outlets.



The power grid must not have voltage fluctuations greater than 6% (+/-6%).



To unplug the appliance completely, unplug it from the wall outlet.



Electrical diagram of the KFM/KCP model must be consulted in Annex A.



In case of power cable damage the replacement must be done by a qualified and authorized technician

3.6. JOINING/ASSEMBLY

SHELVES AND PRODUCT STOPPERS ASSEMBLY

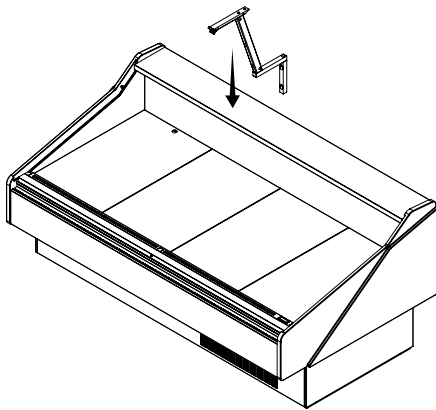


During any installation always use protective equipment.

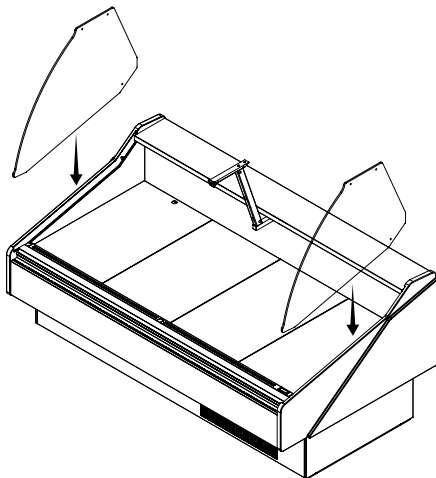


Operations to be performed are dangerous.

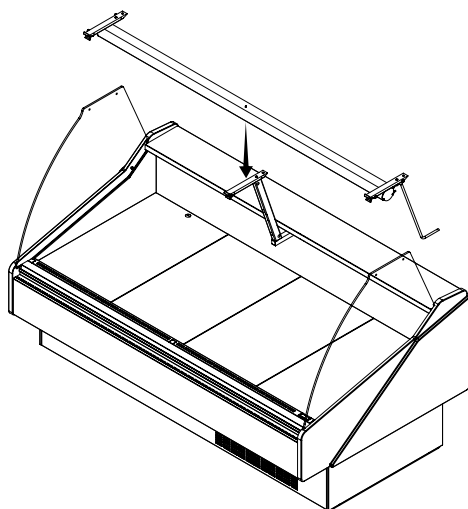
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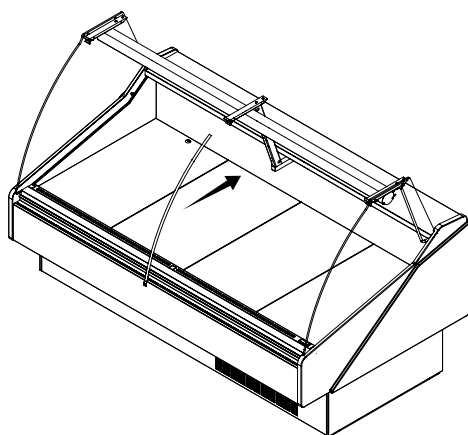
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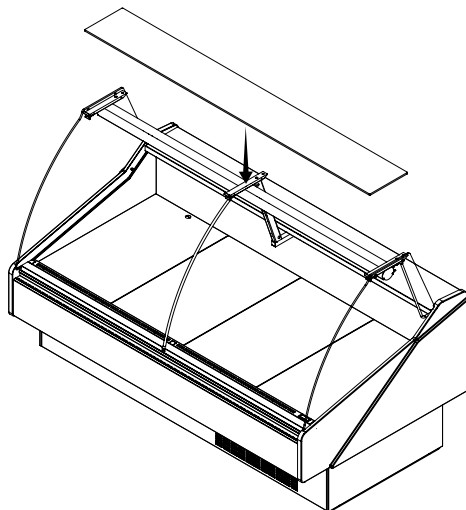
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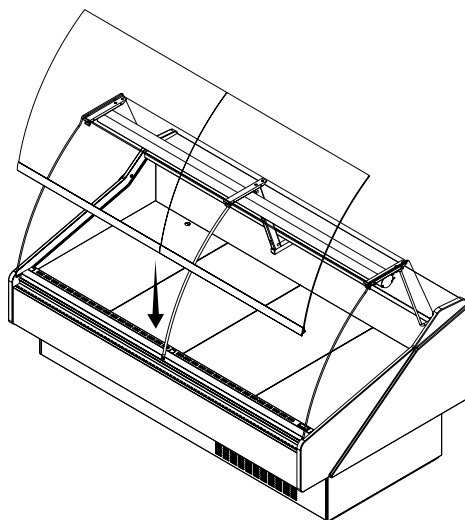
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5



6



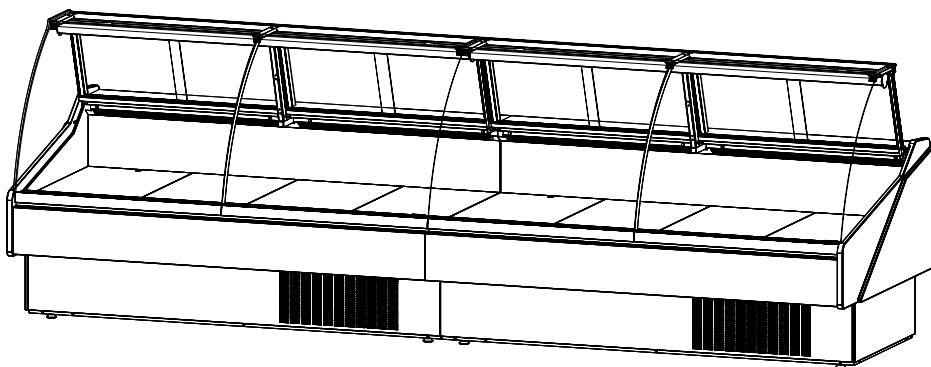
MULTIPLEXING



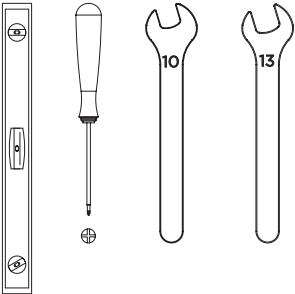
During any installation always use protective equipment.



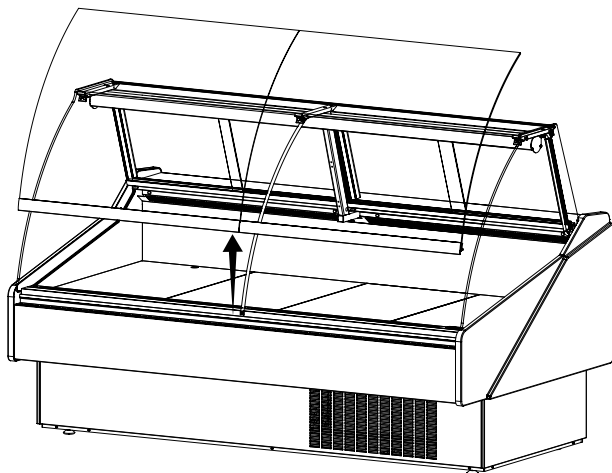
Operations to be performed are dangerous.



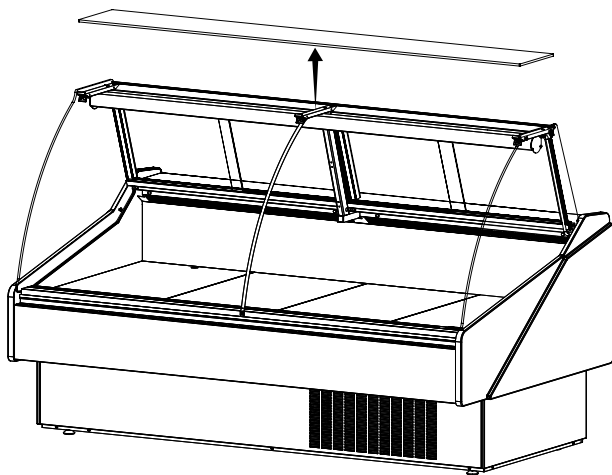
Quantity	Code	Description	Image
3	PA-000000387	Bolt DIN 933 - M6 x 80	
4	PA-000000382	Bolt DIN 933 - M6 x 20	
14	PA-000000735	Washer DIN 9021 - M6	
7	PA-000000708	Hex nut DIN 934 - M6	
1	PA-000000829	Socket set screw DIN 916 - M6 x 16	
2	PA-000000426	Bolt DIN 7380-1 - M5 x 50	
2	PA-000000420	Bolt DIN 7380-1 - M5 x 10	
2	PA-000000449	Bolt DIN 912 - M5 x 12	



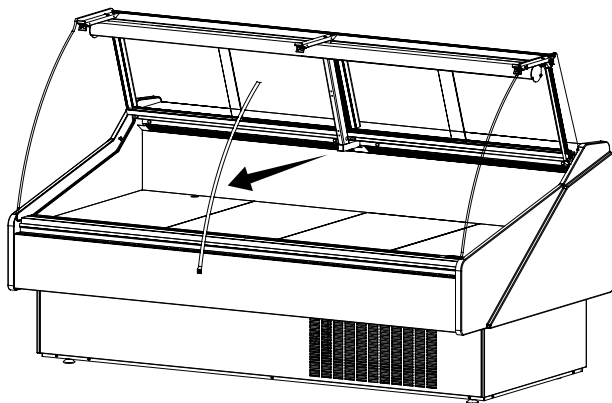
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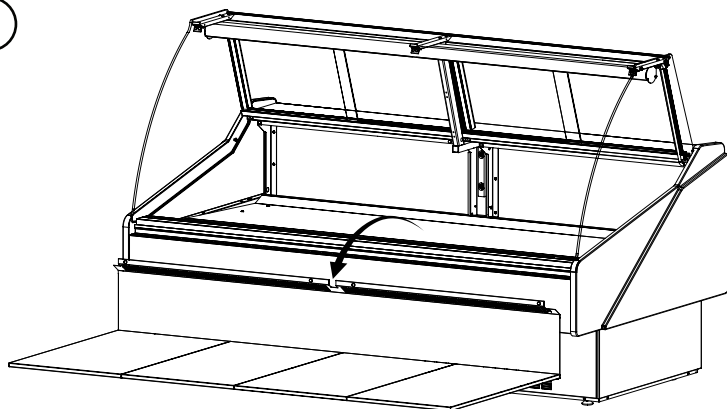
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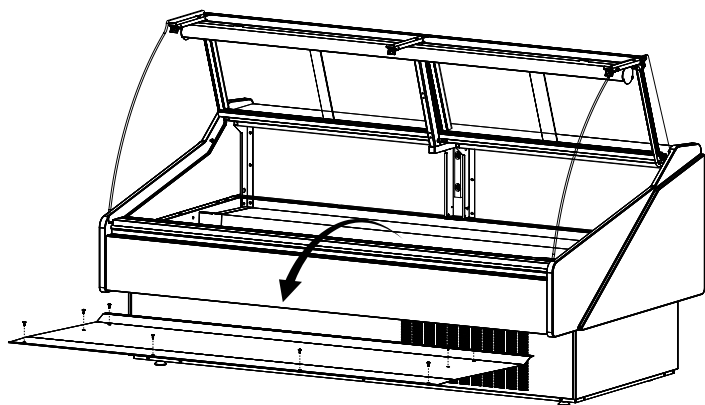
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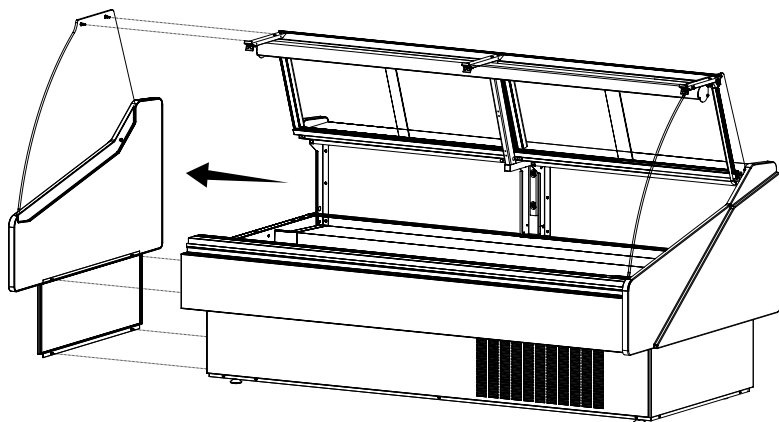
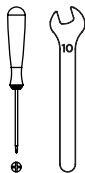
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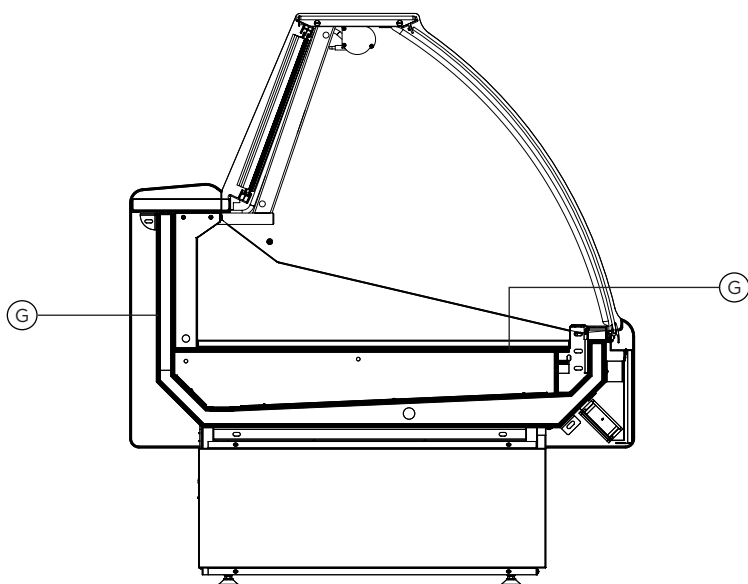


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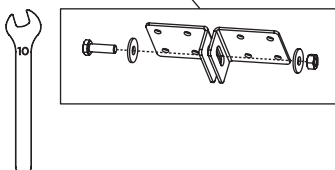
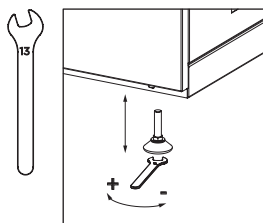
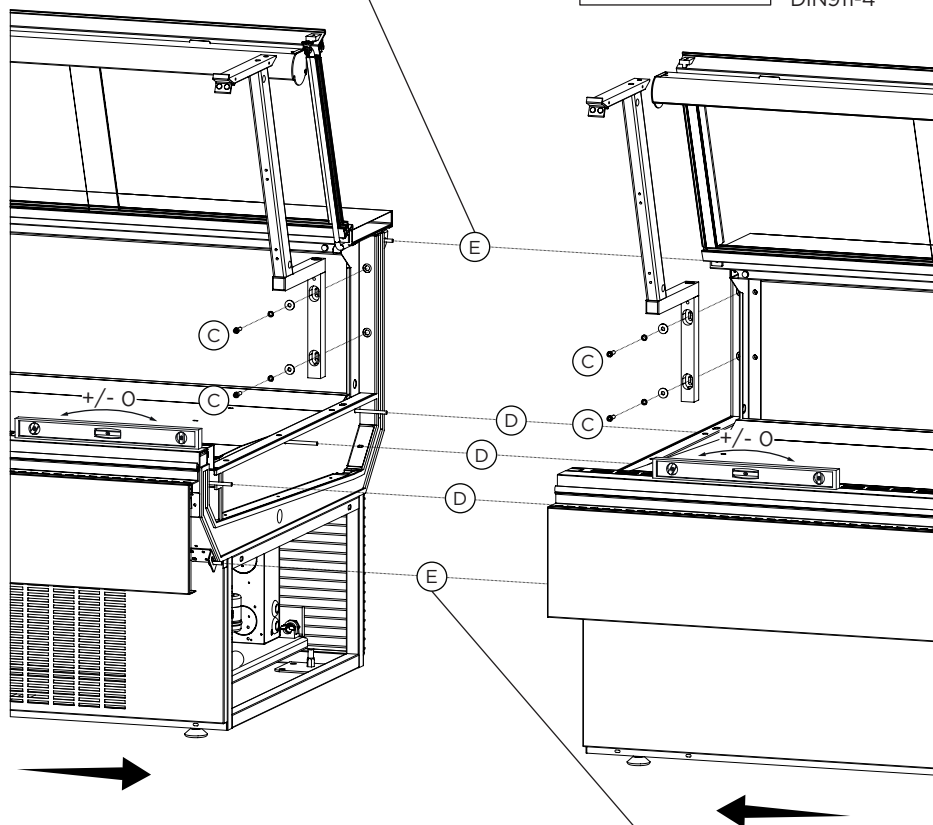
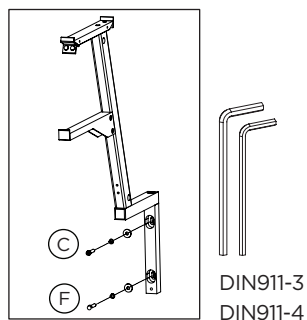
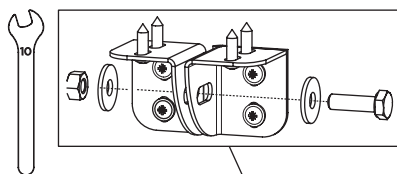


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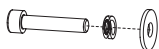




FIT00000427



(C)



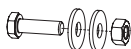
DIN912 8.8 M6x30
DIN127-B
DIN9021 M6

(D)



DIN933 M6x80
DIN9021 M6
DIN934 M6

(E)

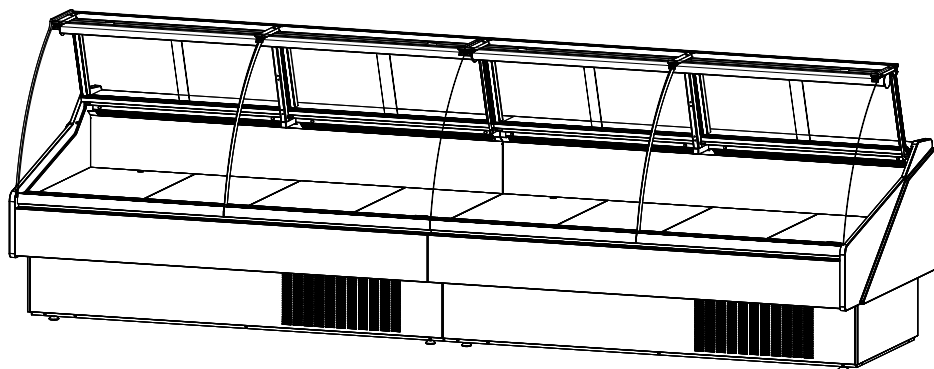


DIN933 M6x20
DIN9021 M6
DIN934 M6

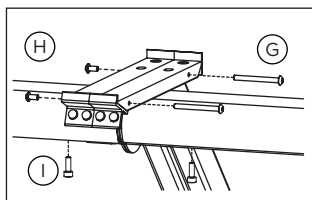
(F)



DIN916 M6x16



DIN911-3



(G)



DIN7380 M5x50

(H)



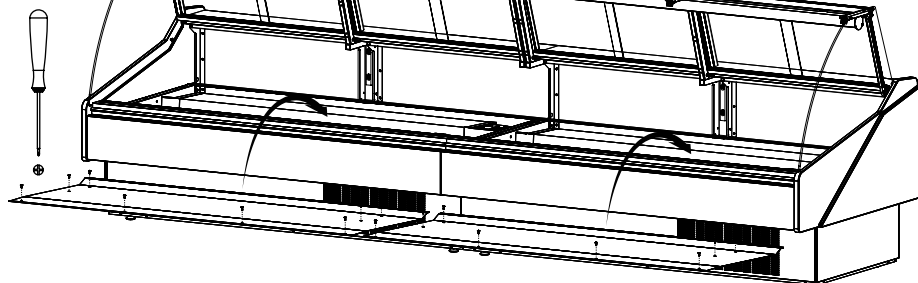
DIN7380 M5x10

(I)

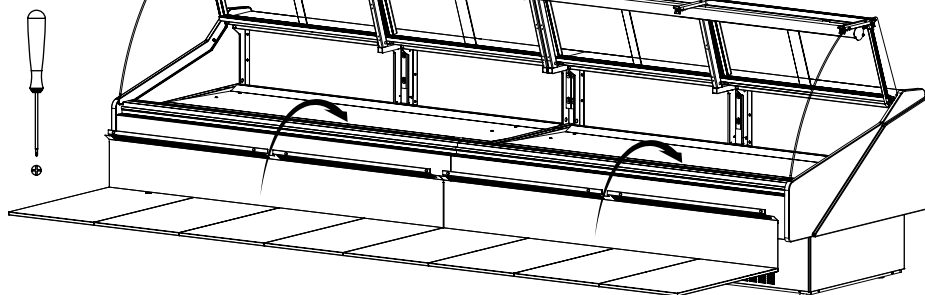


DIN912 M4x12

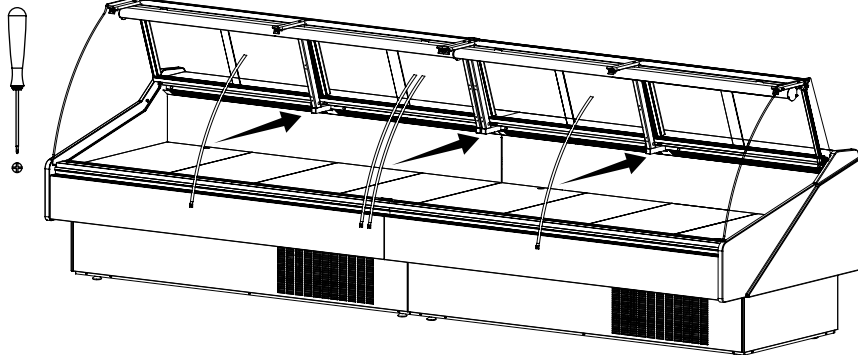
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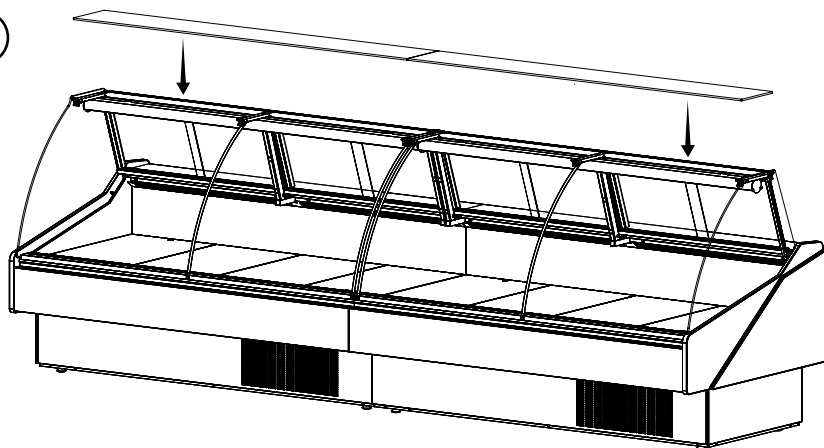
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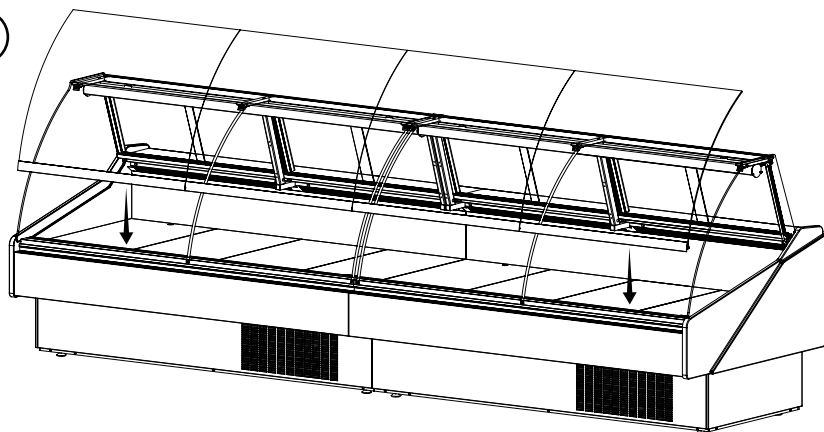
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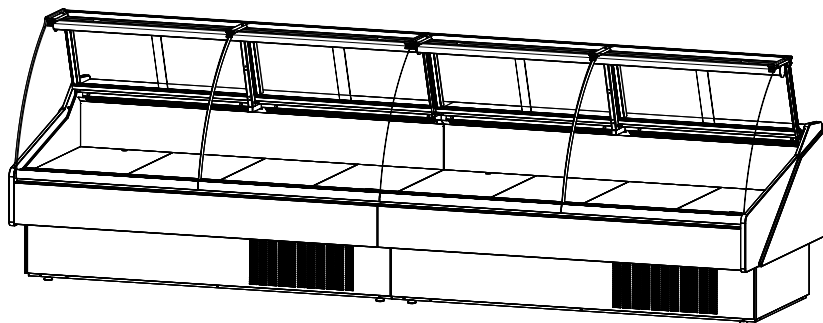
4



5



6



3.7. REMOTE SYSTEMS

To connect remote appliances wiring and refrigeration piping, operations must be carried out. For perfect operation adjustment may be required on the expansion valve and refrigerant amount function of the installation. Hydracooling models come prepared with simplified system for quick connections.



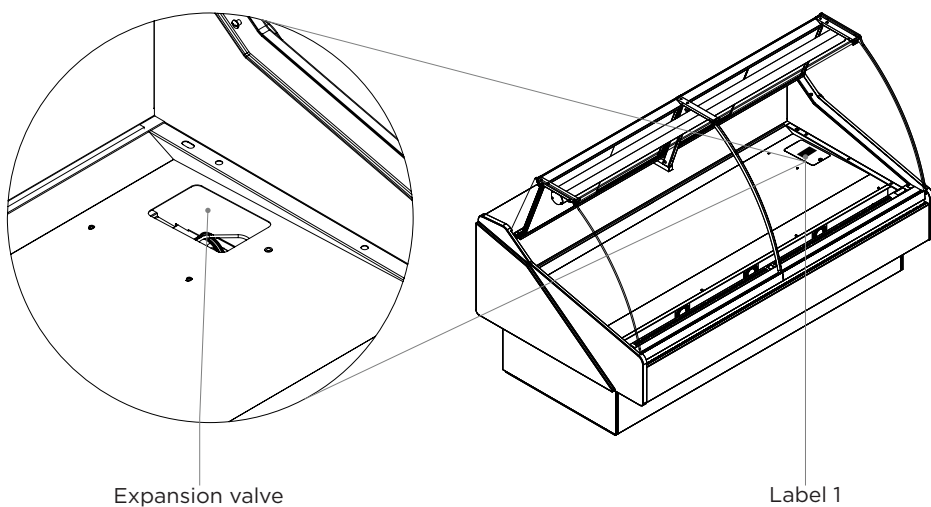
All operations must be carried out by a qualified and authorized technician.



Nitrogen under pressure.



Check the power supply values and the current on the marking plate to assure the breakers installation and a safe installation.



Expansion valve

Label 1



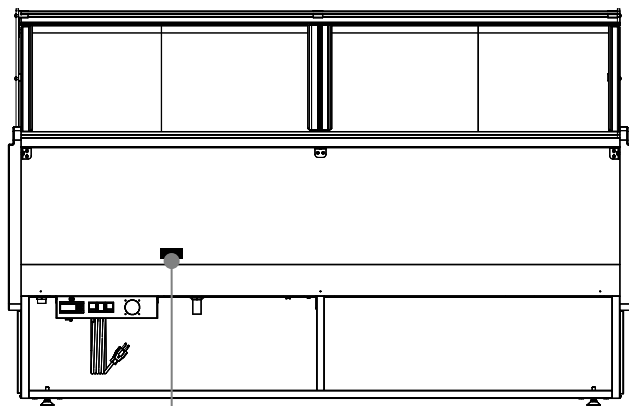
During any installation always use protective equipment.



Operations to be performed are dangerous.



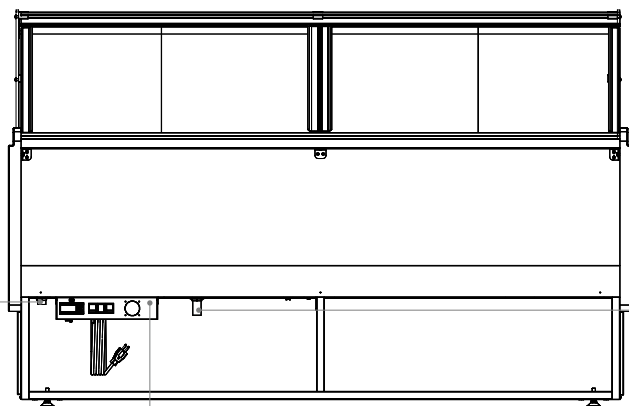
Use proper copper wiring.



Label 1

Label 1

ATENÇÃO EQUIPAMENTO
SOB PRESSÃO DE AZOTO
ATTENTION EQUIPEMENT
SOUS PRESSION D'AZOTE
CAUTION EQUIPMENT
UNDER NITROGEN PRESSURE



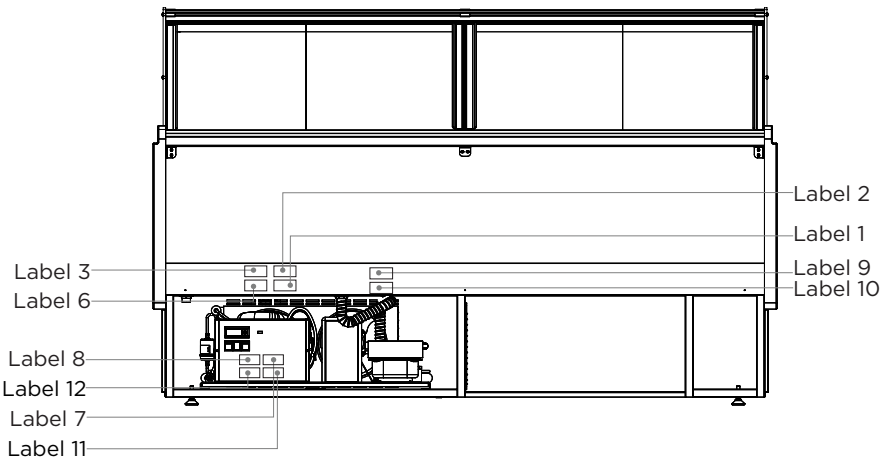
Equipment for remote installation come with nitrogen under pressure and an easy preparation kit (required pipe connections only).

All electrical connections must be done from the electrical board.

Prepare sewage for water.

4. MARKS

4.1. SAFETY MARKS



Label 1

ATTENTION

PIÈCES MOBILES.
NE FAIRE PAS
FONCTIONNER AVEC
DES PIÈCES ENLEVER

Label 2

CAUTION

MOVING PARTS.
DO NOT OPERATE UNIT
WITH (PART) REMOVED

Label 3

-NOTE-

THIS A TYPE 1 CASE AND IS
DESIGNED TO OPERATE AT
THE FOLLOWING STORE
CONDITIONS THAT DOES NOT EXCEED
75 F AND 55% R.H.

Label 4

-NOTE-

THIS EQUIPMENT IS INTENDED FOR
THE STORAGE
AND DISPLAY OF PACKAGED
FOOD PRODUCTS ONLY

Label 5

-NOTE-

CET EQUIPEMENT EST PREVU UNIQUE-
MENT POUR LE
STOCKAGE ET EXPOSITION DE
PRODUITS ALIMENTAIRES
EMBALLER

Label 6

-NOTE-

CETTE VITRINE TYPE 1 EST CONÇUE
POUR FONCTIONNER SELON LES CON-
DITIONS DU MAGASIN ET NE DOIT
DÉPASSER
75 F AND 55% R.H.

Label 7

CAUTION

DISCONNET ALL POWER.
MAY HAVE MORE THEN
ONE DISCONNET SWITCH

Label 8

CAUTION

RISK OF ELECTRIC SHOK.
DISCONNECT ALL
POWER BEFORE
SERVICING UNIT

Label 9

CAUTION

HOT PARTS.
DO NOT OPERATE UNIT
WITH (PART) REMOVED

Label 10

ATTENTION

PIÈCES BRULANTES.
NE FAIRE PAS
FONCTIONNER AVEC LES PIÈCES
ENLEVER

Label 11

ATTENTION

DEBRANCHER TOUTE
COURANT.
IL PEUT AVOIR PLUS D'UN
INTERRUPTEUR

Label 12

ATTENTION

RISQUE DE CHOC
ELECTRIQUE.
AVANT TOUT TRAVAIL
COUPER LE COURANT

Label 13

CAUTION

HAZARDOUS MOVING PARTS.
DO NOT OPERATE UNIT
WITH DECK PANS

Label 14

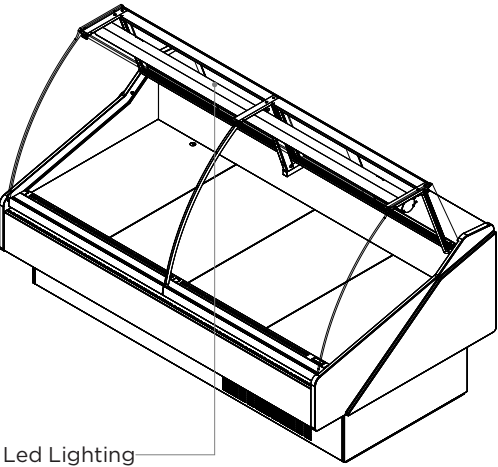
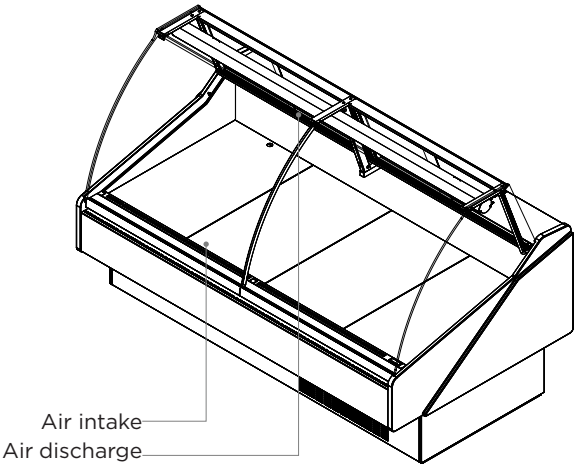
ATTENTION

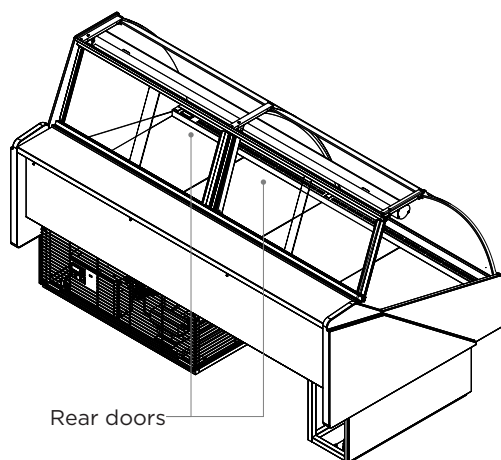
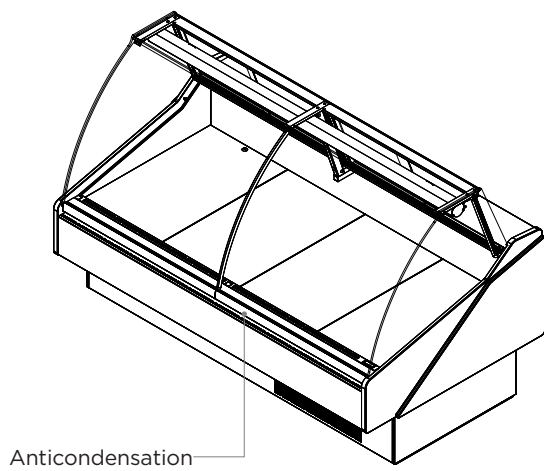
PIÈCES MOBILES
DANGEREUSES. NE FAIRE
PAS FONCTIONNER AVEC
DES PIÈCES ENLEVER

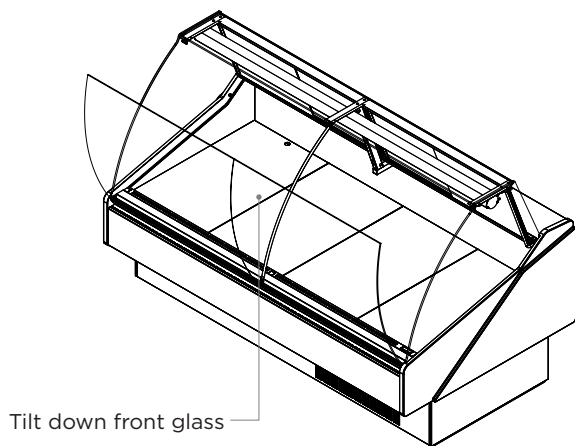
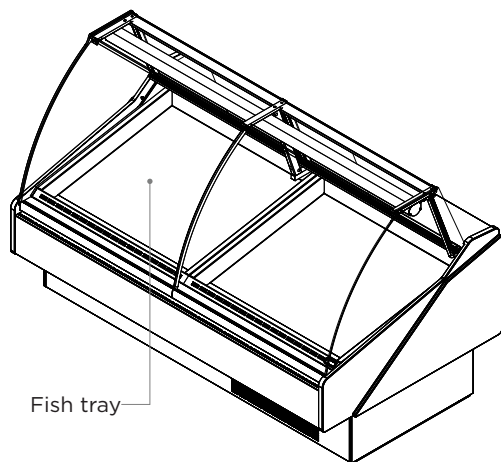
4.2. CONTROL PANEL AND FEATURES



The presented control panel may differ from the model purchased

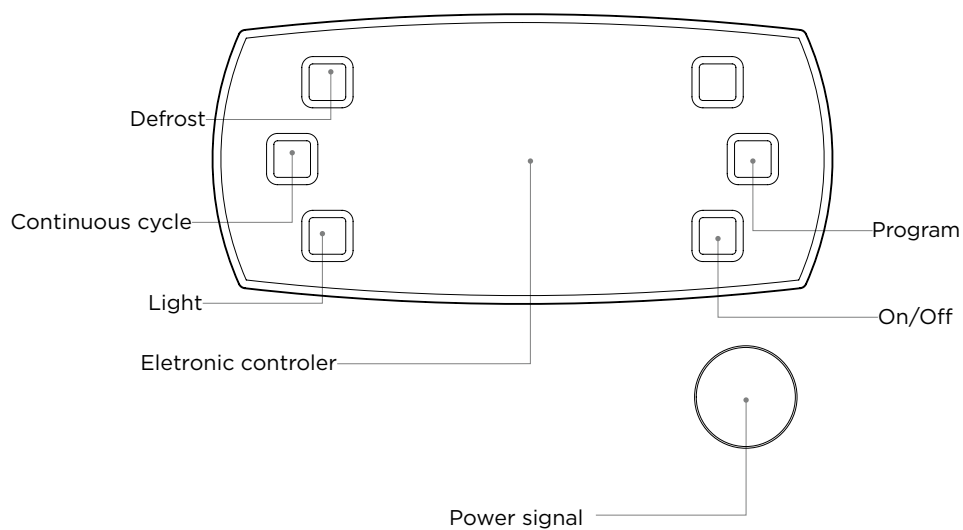








The presented control panel may differ from the model purchased.



Control panel

4.3. LOADING



Before loading the appliance leave it running for two hours.



Loading must be carried out by a qualified and authorized technician.



The appliance is intended for the preservation of packaged products only.



Make sure the sequence of stocking products obeys to FEFO (First expire, First out). Products with shorter expiration date should come out first.



Make sure products respect the refrigerated shelf area.

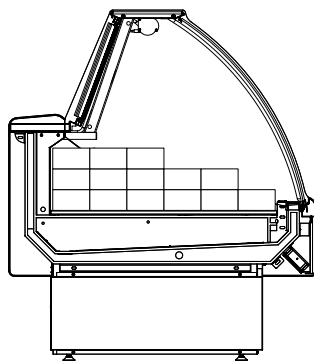
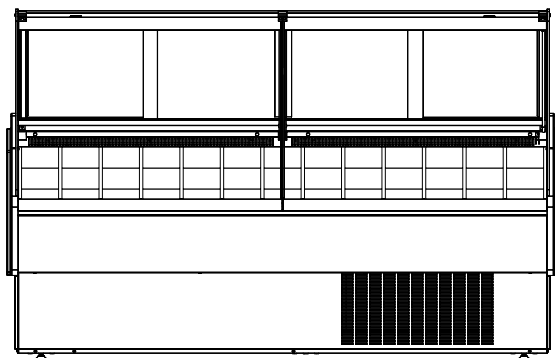


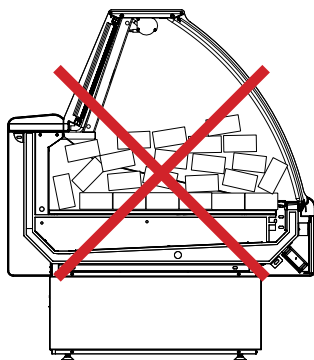
Check twice a day temperature of products and appliance.



Before store closing, make sure doors properly closed, night curtain down, lighting off, for better product conservation.

The KFM/KCP series is designed for temperature maintenance only. The goods must be at the appropriate temperature for display. The loading must be done evenly and uniformly on the shelves, respecting the load limits. The maximum height of the products must not exceed the 1" distance from the upper shelf. The products must have a space of 1" between them along the length.





In order to comply with and prevent personal injury, always use protection.



Observe the loading limits on the unit.



Make sure the shelves are against the perforated back.



Ensure the discharge air and intake are not blocked



Make sure operating mode suited for the product inside



After products going in/out, please keep doors closed

4.4. TEMPERATURE REGULATION

The temperature regulation is carried out at the factory in a type 1 environment (75°F/55% HR), so this is the ideal operating condition.

The temperature displayed does not match the actual temperature in the product.

The parameterization of the appliance must be adjusted due to the product to be placed in your appliance and store environment.

-  Any interference with the parameters must be carried out by a qualified and authorized technician.
-  Check twice a day temperature of products and appliance.

For energy savings, keep doors closed and night curtain down during closing store period.

4.5. DEFROST

-  Any interference with the parameters must be carried out by a qualified and authorized technician.
- The appliance has automatic defrost program. Do not use alternate means to force a defrost, beyond the ones on the manual.

MODEL	DEFROST
KFM/KCP	8/8h - 30min

-  The poor control of ambient conditions, bad temperature settings or incorrect loading, may lead the appliance to abnormal operation, and consequent water overproduction exceeding pan capacity.

4.6. ELECTRONIC CONTROLLER

-  Handling of the controller is reserved for qualified and authorized personel.
-  The position of the controller may vary depending on the variant.



Carel IJ

4.6.1. APP

The Carel apps can be used to configure the controller from a mobile device (smartphone, tablet), via NFC (Near Field Communication) or BLE (Bluetooth Low Energy). Supported devices: Android 5.1, iOS 10, Bluetooth* 4.0 and higher.

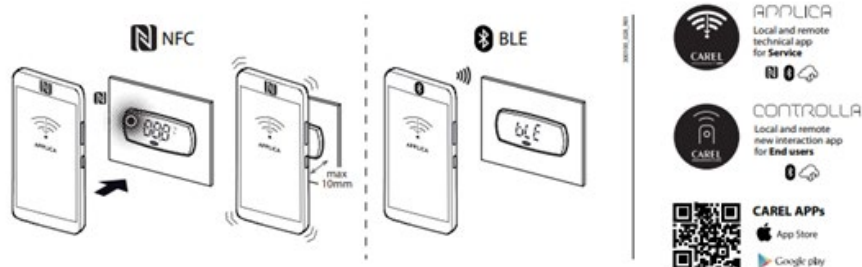


Fig. 3.c

Procedure (modify parameters):

- download the CAREL "Applica" or "Controlla" app from Apple Store or Google Play;
- (on the mobile device) enable NFC and/or Bluetooth communication and mobile data;
- open Applica (or Controlla);
- select NFC or Bluetooth* communication, depending on the model of iJF model;
- move the mobile device near to the user terminal, maximum distance 10 mm (for NFC only), so as to recognise the configuration;
- select the access profile and enter the required password (*);
- set the parameters as needed;
- move the mobile device near to the user terminal again to upload the configuration parameters (for NFC only).

(*) pre-assigned by the unit manufacturer to allow maintenance only by authorised service technicians, default "44". See the parameter table.

Notice:

- make sure NFC or Bluetooth have been enabled. Some smartphones may experience problems if location is not enabled.
- during Bluetooth* connection, the iJF user terminal is disabled and shows the message "bLE".



Password Service: 22

4.6.2. PANEL HANDLING

Code	Description	Def.	Min	Max	UOM	User	User terminal
/5	Unit of measure: 0 = °C; 1 = °F	0	0	1	-	S	YES
/6	Display decimal point: 0 = Yes; 1 = No	0	0	1	-	S	NO
/A1	Display on user terminal:	9	0	15	-	S	NO
	0 Not configured	6-8	not available				
	1 value of S1	9	control probe				
	2 value of S2	10	virtual probe				
	3 value of S3	11-14	not available				
	4 value of S4	15	actual control				
	5 value of S1H		set point				
d6	Display on terminals during defrosts: 0 = temperature alternating with 'dEF'; 1 = freeze display; 2 = 'dEF'	1	0	2	-	U	NO

Tab. 4.a

Keypad

Icon/button	Description	On	Flashing
	Set point/Up arrow	Increase value Scroll menu	-
	Program	Pressed briefly: • enter menu branch • save value and return to the parameter code Pressed and held (3 s): • from standby, unlock keypad and enter programming mode • when scrolling, go to the previous parameter	-
	On-Off/Down arrow (DOWN)	• Unit ON • Decrease value • Scroll menu • Switch unit on/off	-
	Defrost	Active/stop	Awaiting/start
	Continuous cycle	Active/stop	Awaiting/start
	Lights	Active/stop	Activation
	HACCP	• HACCP alarms present • Direct access to HACCP menu	-
	Alarm log	• Logged alarms present • Direct access to the alarm log menu	-
	Auxiliary output	Active	-
	Compressor	Active	Awaiting
	Evaporator fan	Active	-
	Clock	Scheduler active	-
	°C	Unit of measure °C	-
	°F	Unit of measure °F	-
	Service Maintenance	Active alarms	-

5. EXTERIOR AND INTERIOR SURFACES CLEANING



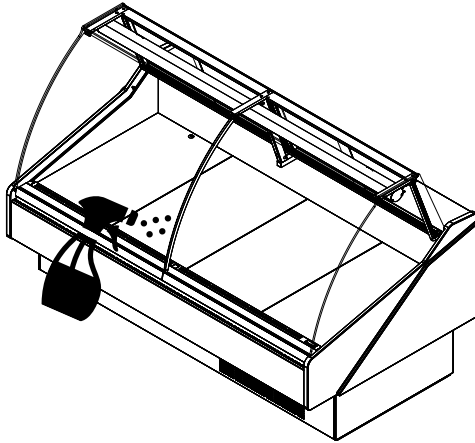
During cleaning operations always use protective equipment.



All operations must be carried out with the appliance switched off.



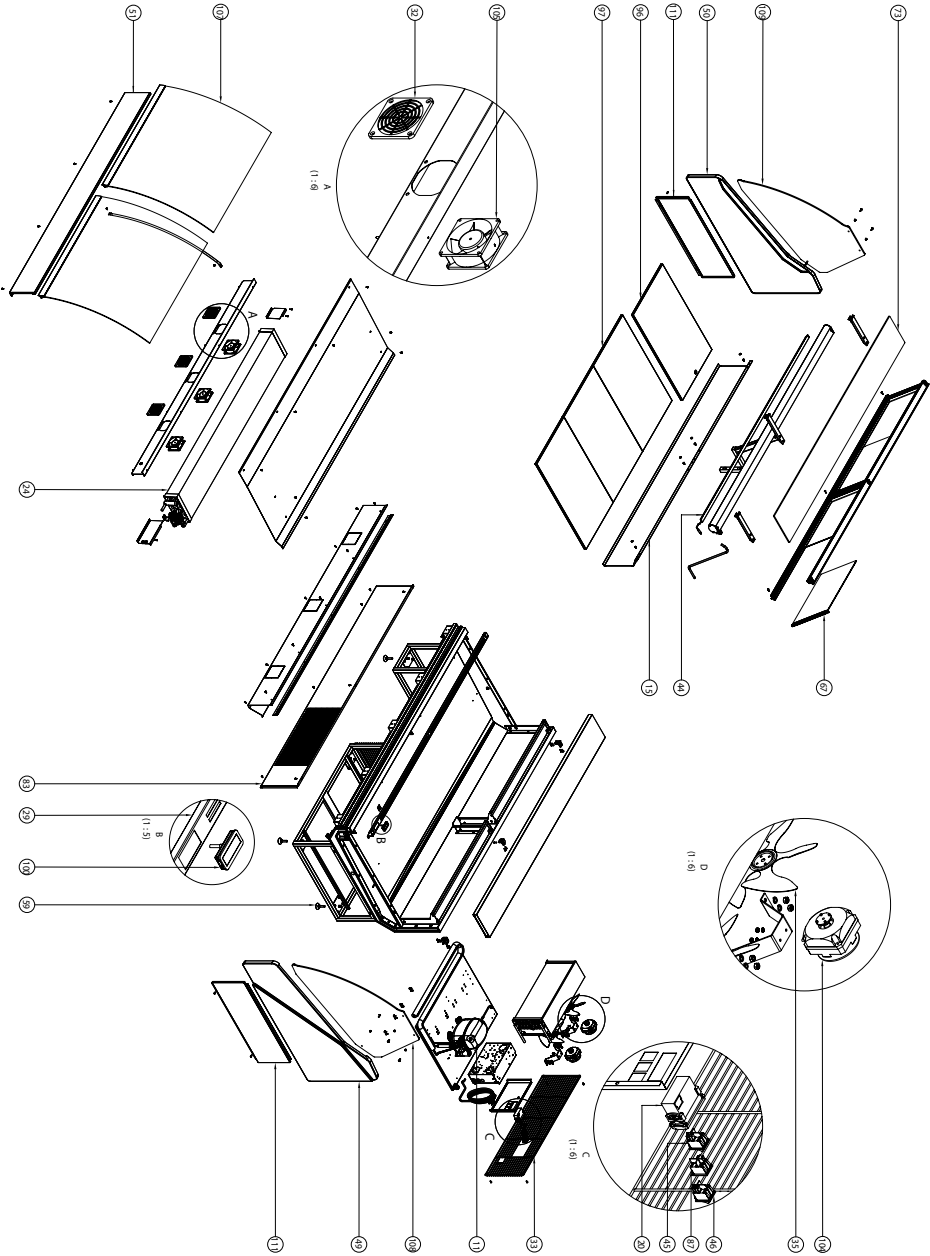
Do not use cleaning equipment with jets under pressure.



MATERIAL	PROCEDURE
Glass	Use cleaned cloth with warm water, neutral detergent. Dry with cleaned cloth.
Plastic	Use cleaned cloth with warm water, neutral detergent.
Aluminium	Use cleaned cloth with warm water, neutral detergent. Dry with cleaned cloth. Don't use abrasive materials.
Stainless steel	Use nylon sponge with soft and neutral detergent cleaning in the correct direction. Don't scratch the material.
Skinplate	Use cleaned cloth with warm water, neutral detergent.

6. MAINTENANCE

6.1. EXPLODED VIEW



01	Front acrylic
02	LED driver
03	Damper
04	Evaporator pan (electric)
05	Evaporator pan (PVC)
06	Tab terminal block
07	Tab terminal block
08	Power cord
09	Compressor electrical box
10	Electric roller shutter switches
11	Compressor
12	Condenser
13	Start capacitor of compressor
14	Air intake duct
15	Air discharge duct
16	Bracket
17	Bracket A
18	Bracket B
19	Bracket C
20	Controller
21	Night blind
22	Perforated interior back panel
23	Hinge
24	Evaporator
25	Honeycomb core
26	Connector cable
27	Hermetic filter drier universal
28	Light support
29	Air intake
30	Display grid
31	Insufflation grid
32	Guard grill
33	Rear protection grid
34	Anti-condensation propeller
35	Propeller CND
36	Propeller EVP
37	-
38	-

39	-
40	-
41	Ice connect - component E
42	Lighting
43	Bottom lighting
44	Upper lighting
45	Switch
46	Switch
47	Switch
48	Switch
49	Right side panel
50	Left side panel
51	Bottom front panel
52	Top front panel
53	Right side panel
54	Left side panel
55	Bumper
56	Bumper front
57	Bumper rear
58	Product stopper
59	Foot
60	Price-holder profile door frame
61	Price-holder profile shelves/grids
62	Electric shutter
63	Manual shutter
64	Right door
65	Left door
66	Front door
67	Rear door
68	Display shelf
69	Display shelf A
70	Display shelf B
71	Display shelf C
72	Bottom shelf
73	Upper shelf
74	Electrical board cover protection assembly
75	EVP fan protection
76	Door handle

77	Relay	115	Ceiling assembly
78	Compressor relay	116	Side panel
79	Defrost resistance relay	117	Plinth
80	Defrosting resistance	118	Front plinth
81	Gutter defrosting resistance	119	Side plinth
82	Caster	120	Left side plinth
83	Front kickplate	121	Right side plinth
84	Right side kickplate	122	Rear plinth
85	Left side kickplate	123	Front decorative panel
86	Rear kickplate	124	Back decorative panel
87	Indicator	125	Shutter motor
88	Temperature probe	126	Shutter
89	Defrosting probe	127	Upper left side
90	Central glass hardware	128	Upper right side
91	Honeycomb core bracket	129	Reservation door
92	Right glass hardware	130	Lower front glass
93	Door profile support	131	Upper front glass
94	Left glass hardware	132	Honeycomb core A
95	Display tray	133	Honeycomb core B
96	Display tray A	134	Top interior panel A
97	Display tray B	135	Top interior panel B
98	Display tray C	136	Bottom back panel
99	Service deck	137	Top back panel
100	Thermometer	138	Tab terminal block
101	Top interior panel	139	-
102	Joints de porte	140	-
103	Anti-condensation fan	141	Defrosting resistance A
104	Fan CND	142	Defrosting resistance B
105	Fan EVP	143	Time delay
106	Top glass	144	Air intake duct A
107	Front glass	145	Air intake duct B
108	Right side glass	146	Air discharge duct A
109	Left side glass	147	Air discharge duct B
110	Side glass		
111	Side kickplate		
112	Evaporator pan		
113	Kickplate		
114	Back assembly		

6.2. MAINTENANCE PERIODS

MATERIAL	PROCEDURE
Condenser cleaning	Every month
Evaporator cleaning	Every month
Drain inspection	Every month
Evap pan cleaning	Every month
Parts inspection	Every month

6.3. LIGHTING REPLACEMENT



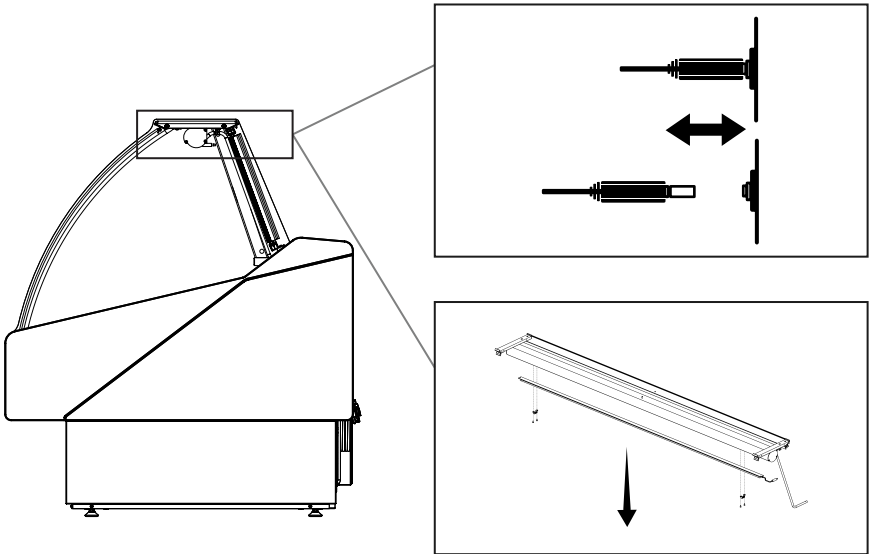
During maintenance operations always use protective equipment.



All operations must be carried out with the appliance switched off.



All operations must be carried out by a qualified and authorized technician.



6.4. GRILLES AND PANELS REMOVAL



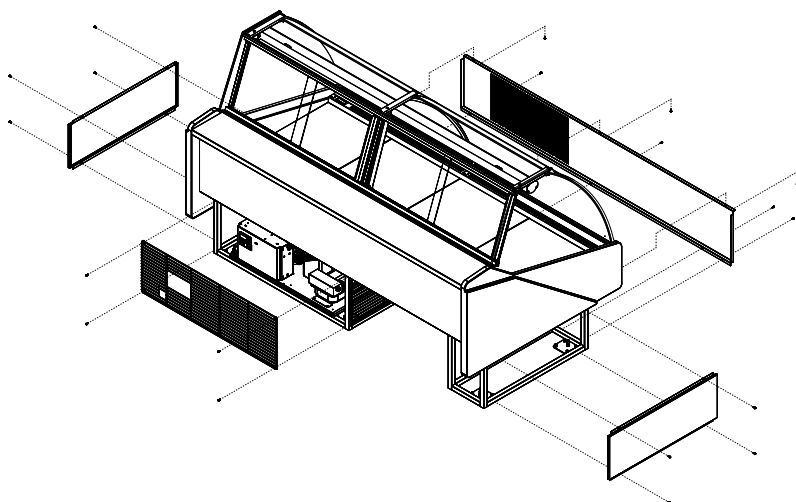
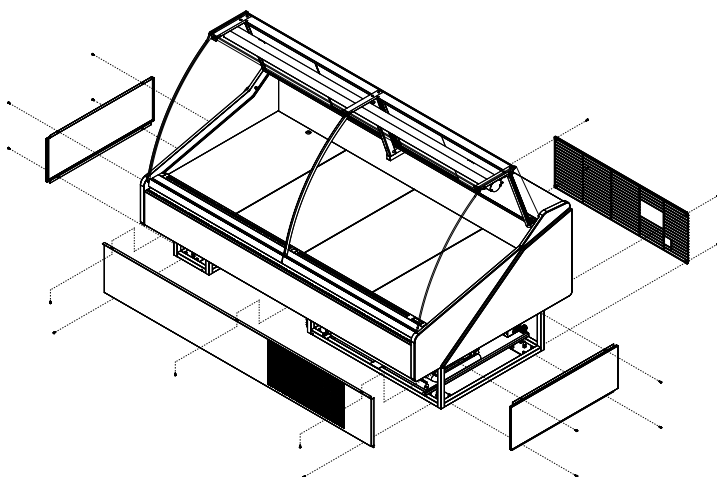
During maintenance operations always use protective equipment.



All operations must be carried out with the appliance switched off.



All operations must be carried out by a qualified and authorized technician.



6.5. CONDENSER CLEANING



During maintenance operations always use protective equipment.



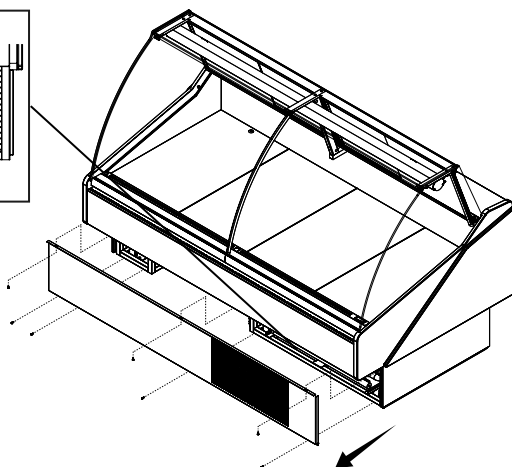
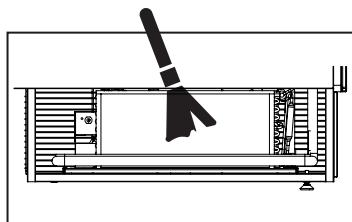
All operations must be carried out with the appliance switched off.



All operations must be carried out by a qualified and authorized technician.



The condenser should be cleaned monthly.



6.6. EVAPORATOR CLEANING



During maintenance operations always use protective equipment.



All operations must be carried out with the appliance switched off.

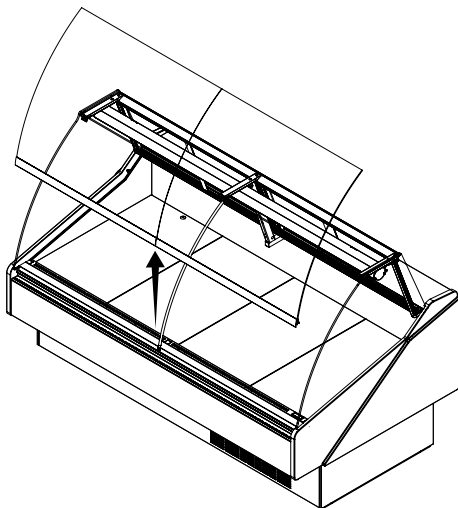


All operations must be carried out by a qualified and authorized technician.

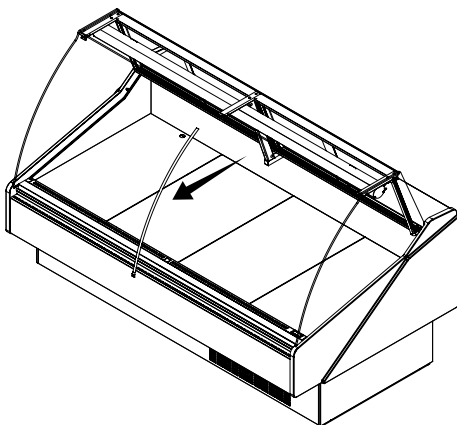


The evaporator should be cleaned monthly.

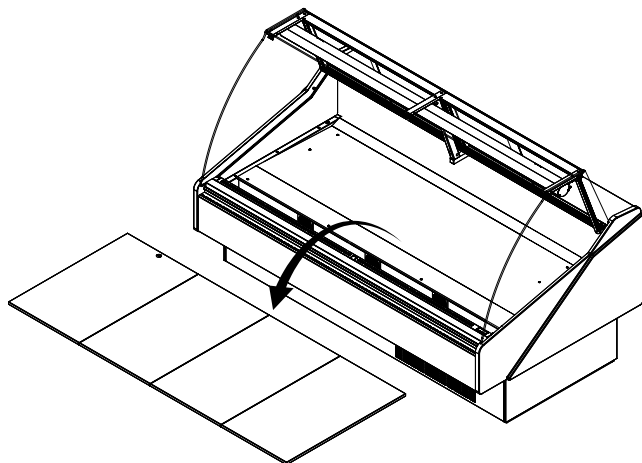
1



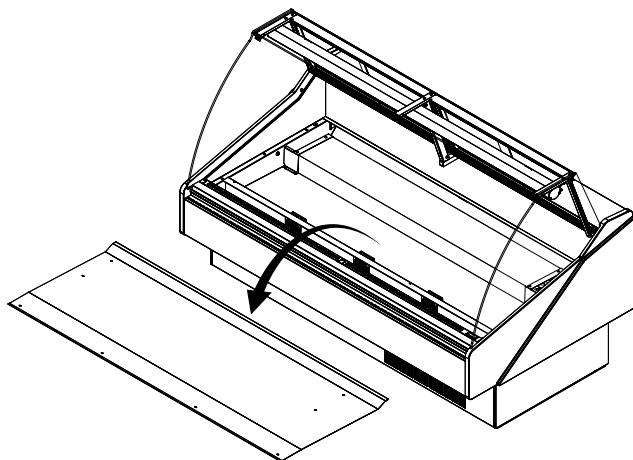
2



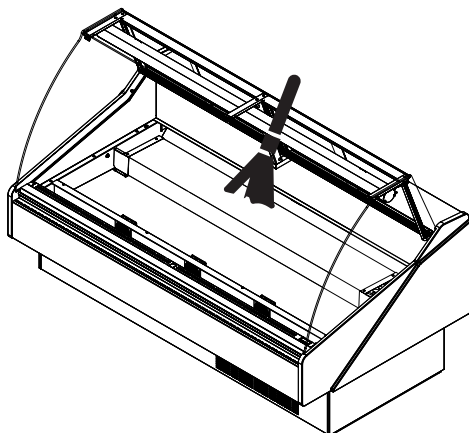
3



4



5



6.7. DRAIN



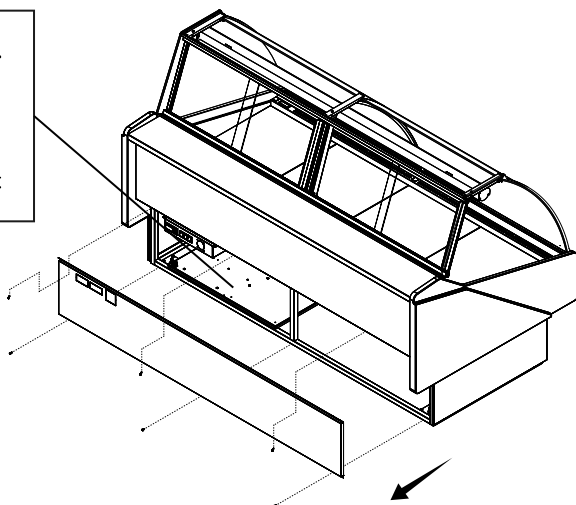
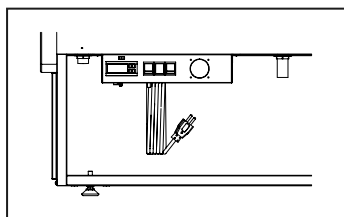
During maintenance operations always use protective equipment.



All operations must be carried out with the appliance switched off.



All operations must be carried out by a qualified and authorized technician.



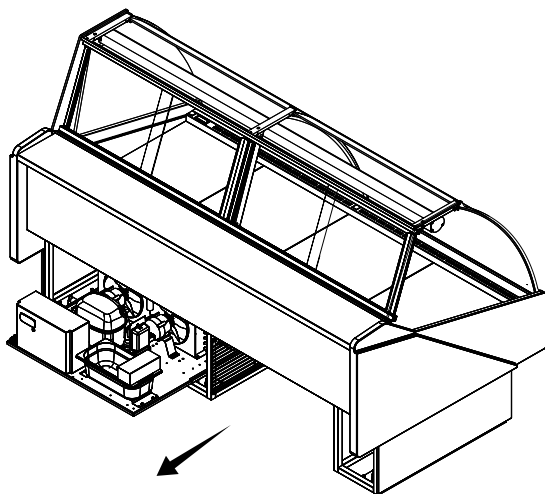
6.8. SLIDING CONDENSING UNIT



During maintenance operations always use protective equipment.



All operations must be carried out by a qualified and authorized technician.



6.9. EVAP PAN CLEANING



During maintenance operations always use protective equipment.



All operations must be carried out with the appliance switched off.

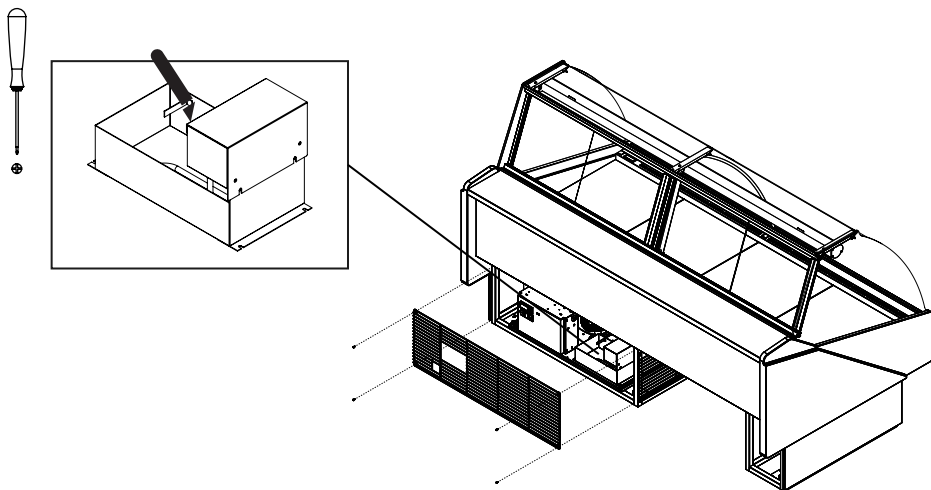


All operations must be carried out by a qualified and authorized technician.



Evap pan can be hot.

Use liquid vacuum, soft detergent and brush for debris removal.



6.10. R290 SYSTEM ASSISTANCE



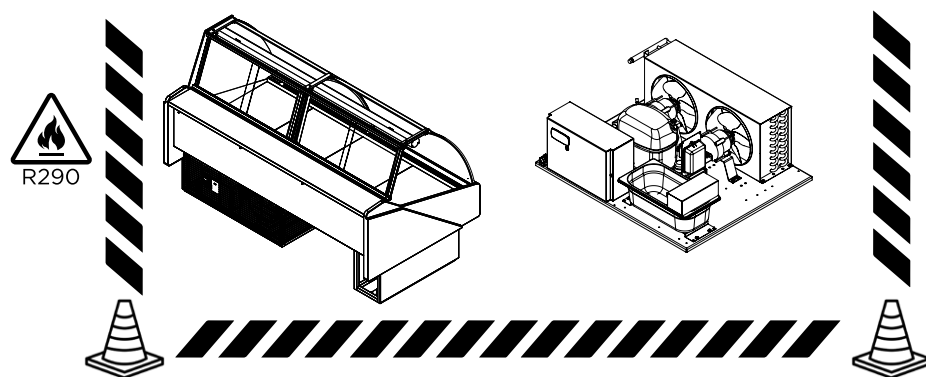
During maintenance operations always use protective equipment.



All operations must be carried out with the appliance switched off.



All operations must be carried out by a qualified and authorized technician.



Actions and tooling must be suitable to the operations in a potential explosive environment.



Assure safety conditions in the appliance surroundings.



Keep people at a safe distance.



Check for any ignition source in a 9.84ft radius.



Assure proper airflow.



Check for leak accumulation.

The system it's sealed, so in order to get access, a puncture must be done. Check for leakage. All refrigerant charge must be removed from the system. Operation must be quick. After repairing, perform pressure test. Perform vacuum test, charge system with the amount on the naming plate.

7. TROUBLESHOOTING



All operations must be carried out by a qualified and authorized technician.



Use only original parts for warranty purposes



Spares on the exploded view

To evaluate any situation, check for all necessary equipment, namely, thermometers, thermohigrometer, air speed meter, manifolds, light, and refrigeration tools.

Doors not closing:

- Check for leveled floor;
- Check for obstruction;
- Remove doors and check the bearings.

Lights not working:

- Check light switch position;
- Check light connections.

Warm case temperature:

- Check for air return grille obstruction;
- Check for air drafts;
- Check store temperature;
- Check for condenser obstruction and cleaning;
- Check for frozen evaporator;
- Check set point;
- Display area is over filled.

Case not aligning:

- Check for leveled floor;
- Check instructions for joining.

Fans not working:

- Check electrical connections;
- Check for any debris.

Display not working:

- Check main power switch position;
- Check electrical connections.

Compressor not starting:

- Disconnect switch open;
- Blown fuse;
- Overload protective tripped;
- Low charge of refrigerant;
- Relay defective.

Equipment runs constantly:

- Condenser dirty;
- Condenser fan malfunction;
- Temperature and relative humidity too high.

Starting relay burns out:

- Low voltage;
- High voltage;
- Compressor short cycles;
- Incorrect running capacitor;
- Incorrect relay.

Head pressure too high:

- Unit overcharged;
- Air or other non condensable gases in the system;
- Clogged condenser;
- Defective condenser fan motor;
- Unit location too hot;
- Restriction in charge line.

Head pressure too low:

- Insufficient refrigerant charge;
- Leak in the system;
- Cold location.

Noisy unit:

- Compressor oil charge low;
- Fan blade causing vibrations;
- Tube rattle;
- Loose parts;
- Case not leveled.

8. SERVICE



This operation must be performed by a qualified technician.



Use only original parts for warranty purposes.



Spares on the exploded view.

Service by	Type of action	Date	Serial number and model

9. END OF LIFE



HYDRA KOOL products are designed and manufactured in accordance with Directive 2012/19/EU on electrical and electronic waste (WEEE). Concerning preservation, protection and improvement of environmental quality, the products HYDRA KOOL must be selectively collected and not confused with household waste.



At the appliance end of life, the owner must go to the recovery and selective local collection center.

HYDRA KOOL products contain the following materials:

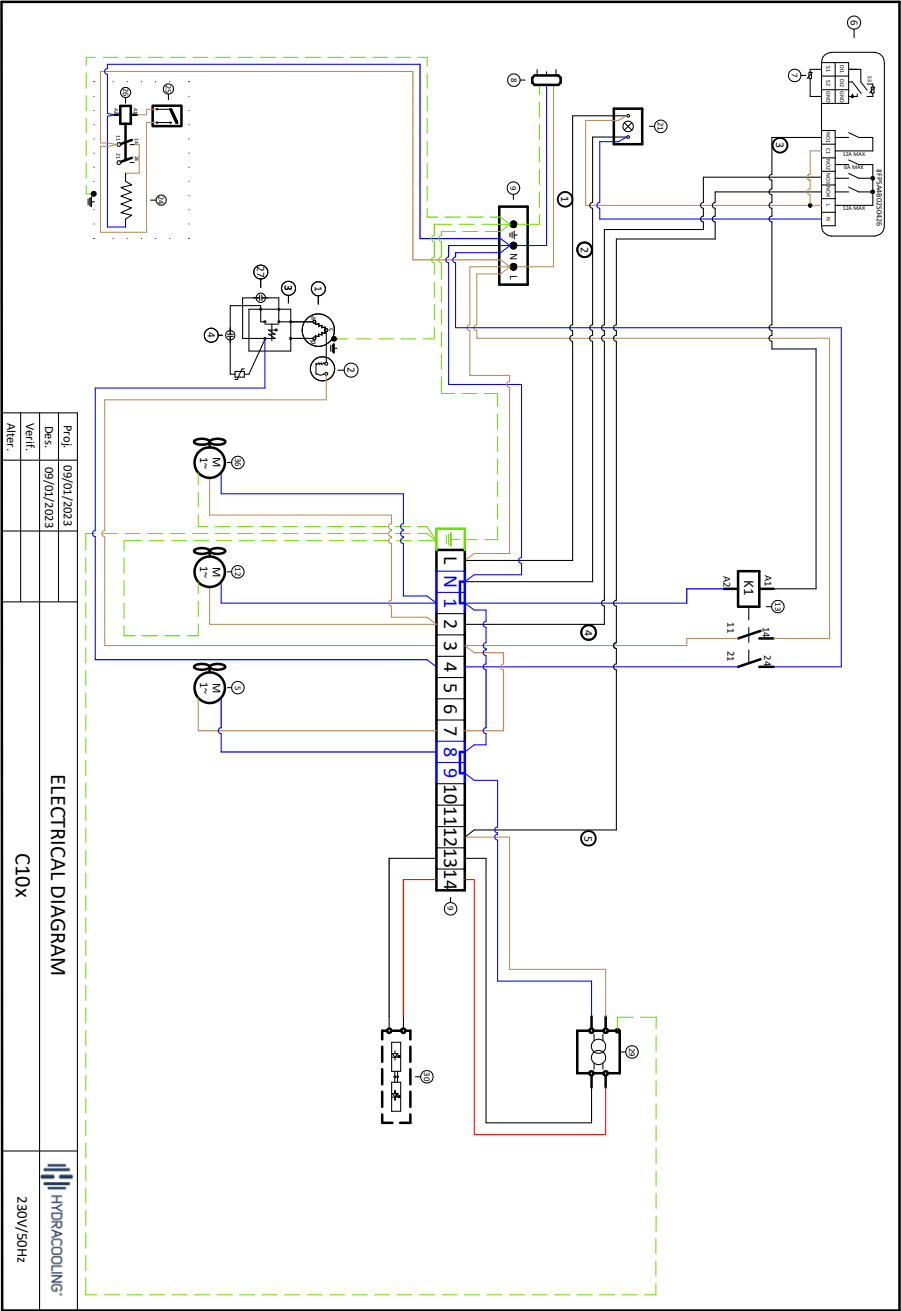
- Wood
- Metals (aluminum, steel)
- Oil - HFC refrigerants
- HC refrigerants
- Glass
- Plastic
- Lamps
- Copper

The recovery of refrigerating fluids requires a special collection process.

10. NOTES

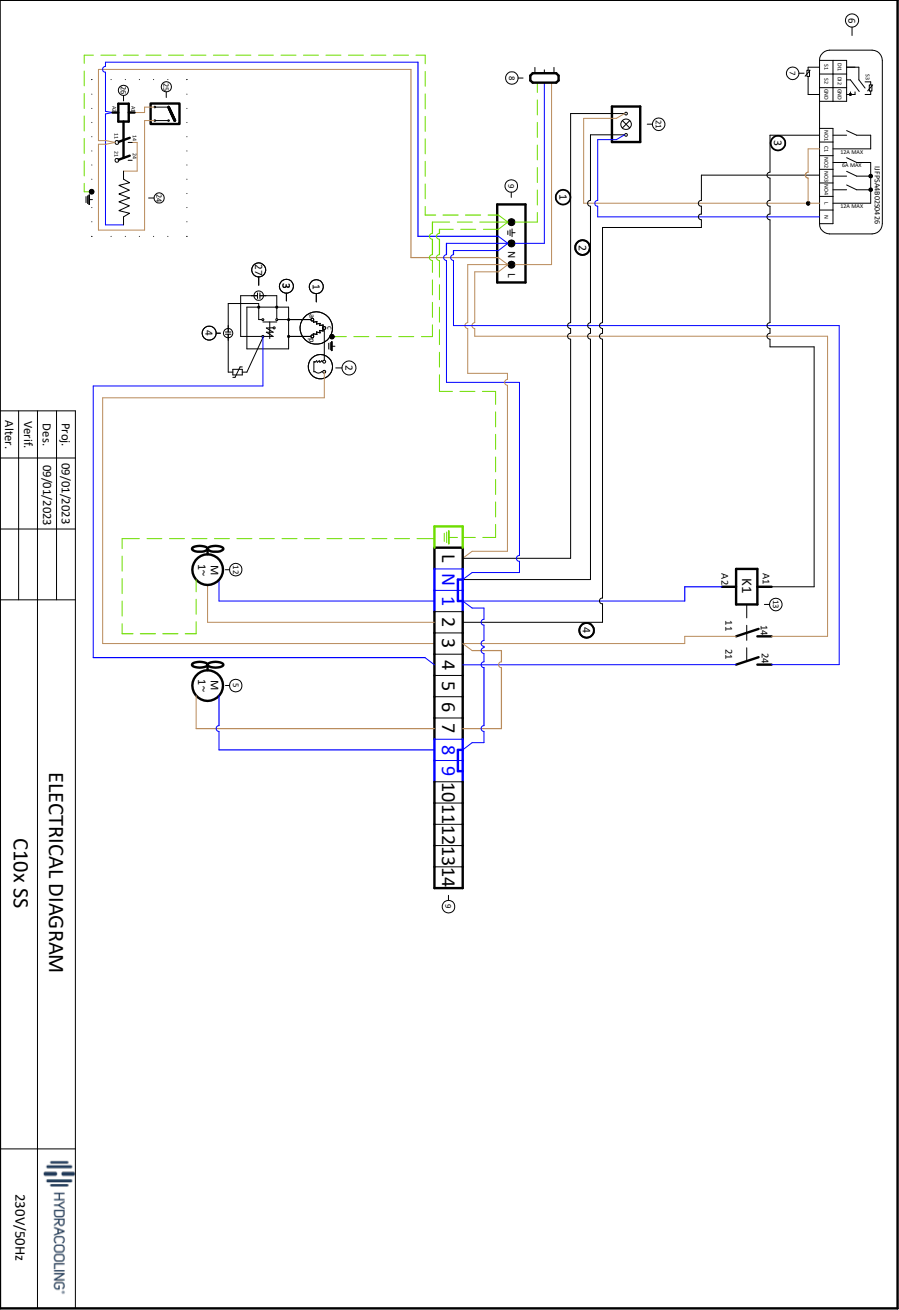
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ANNEX A



PR02-Mod017V00

Nº	DESCRIÇÃO DESCRIPTION	DESCRIPTION BESCHREIBUNG
1	Compressor Compressor	Compresseur Kompressor
2	Protector térmico Overload	Protecteur thermique Termischer schutzer
3	Relé Relay	Relais Relais
4	Condensador de arranque Start capacitor	Condensateur demarrage Kondensator anlasser
5	Ventilador do condensador Condenser fan	Ventilateur condensateur Ventilator kondensator
6	Termostato Thermostat	Thermostat Thermostat
7	Sonda de temperatura Temperature probe	Sonde de temperature Temperaturfühler
8	Ficha bipolar com terra Earth two pin plug	Prise bipolaire + terre Zweipoliger stecker + erde
9	Ligadores Terminal block	Connections électriques Verbinder
12	Ventilador do evaporador Evaporator fan	Ventilateur évaporateur Vardampfer ventilator
13	Relé do compressor Compressor relay	Relai du compresseur Kompressorrelais
21	Sinalizador de tensão Tension signal	Temoin de tension Spannungsanzeiger
24	Resistência de evaporação Heater	Resistance Winderstand
25	Interruptor de boia Float switch	Interrupteur à bouée Bojenfchalter
26	Relé da resistência Resistor relay	Relai de resistance Relais von resistance
27	Condensador permanente Run capacitor	Condensateur permanent Kondensator
29	Transformador Transformer	Transformateur Transformator
30	Iluminação Led Led lighting	Éclairage à LED Led-Beleuchtung
36	Ventilador anti-condensação Fan anti-condensation	Verflüssigungsfühler Ventilator anti-kondensation



Proj.	09/01/2023	ELECTRICAL DIAGRAM	
Des.	09/01/2023		
Verif.			
Alter.			
C10x SS		230V/50Hz	

Nº	DESCRIÇÃO DESCRIPTION	DESCRIPTION BESCHREIBUNG
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www.hydracooling.pt