

USER MANUAL

Modular Convenience Counter – Cold

Modular Convenience Counter – Ambient



WARNING

Read the instructions before using the machine.

KEEP THIS USER MANUAL FOR FUTURE USE

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We advise you to contact your supplier for the guarantee period and conditions. Further we refer to our General Terms and Conditions for Sales and Delivery that are available upon request.

The manufacturer does not accept any liability for damage or injury caused by failing to adhere to these regulations or by not observing the usual caution or care in actions, operation, maintenance or repair activities, even if not explicitly described in this manual.

As a result of constant commitment to improvement, it may happen that your unit deviates in detail from what is described in this manual. For this reason, the given instructions are only a guideline for the installation, use, maintenance and repair of the unit referred to in this manual.

This manual has been composed with the utmost care. The manufacturer shall, however, not be held responsible for any mistakes in this manual nor for any consequences thereof.

The user is allowed to copy this manual for own use. Further all rights are reserved and nothing in this manual may be reproduced and/or made public in any way.

Modifications:

In case of unauthorized modifications in or on the unit, every liability on the part of the manufacturer becomes null and void.

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1. INTRODUCTION

1.1 General

This manual is intended for the user of the Cold and Ambient MCC (Modular Convenience Counter). The features and controls are being described, along with directions for the safest and most efficient use, in order to guarantee a long life of the unit.

All pictograms, symbols and drawings in this manual apply to all available Cold and Ambient MCC (EU) models.

1.2 Identification of the unit

The identification plate can be found on the outside of the machine, and contains the following data:

- Name of the supplier or the manufacturer
- Model
- Serial number
- Year of construction
- Voltage
- Frequency
- Power consumption

1.3 Pictograms and symbols

In this manual, the following pictograms and symbols are used:



WARNING

Possible physical injury or serious damage to the unit, if the instructions are not carefully followed.



WARNING

Risk of Fire.



WARNING

Hazardous electrical voltage.



SAFETY

Wear safety gloves for installation and dismantling.



SAFETY

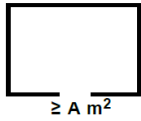
Wear eye protection when working on the refrigeration system.



Suggestions and recommendations to simplify indicated actions.



Recycling symbol.



Minimum room floor area.



WARNING

System contains refrigerant under high pressure.

1.4 Safety instructions



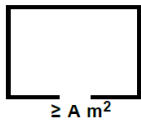
WARNING

Self-contained Cold units: Risk of Fire or explosion. Flammable refrigerant used.



WARNING

The maximum load on top of the unit may never exceed 10 kg.



MINIMUM ROOM FLOOR AREA

Self-contained Cold units: Refer to the data label on the unit for the required floor area.



WARNING

See installation instructions for grounding requirements.



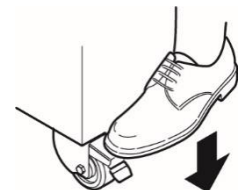
WARNING

Remote R744 (CO₂) units: The system contains refrigerant under high pressure. Do not tamper with the system. It must be serviced by suitably qualified persons only.



WARNING

Always use the brakes on both front wheels when applicable:



1.4.1 General

The user of the unit will be fully responsible for abiding the locally prevailing safety- rules and regulations.

The unit may be operated by qualified and authorized persons only. Anyone working on or with this unit must be familiar with the contents of this manual and carefully follow all guidelines and instructions. Never change the order of the steps to be performed. The management must instruct the personnel on the basis of this manual and follow all instructions and regulations.

The pictograms, labels, instructions and warning signs attached to the unit, are part of the safety measures. They may never be covered or removed, and have to be clearly visible during the entire lifetime of the unit.

Immediately repair or replace damaged or illegible pictograms, warnings and instructions.

- To avoid short-circuiting, never clean the unit using a water hose. For cleaning instructions, see section 5.
- The Cold unit must be cleaned regularly to ensure proper functioning and to avoid the outbreak of fire (overheating). Especially the back of the fan plate.
- Do not store explosive substances such as aerosol cans with flammable propellant in this appliance.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
- Children shall not play with the appliance.
- Cleaning and user maintenance shall not be performed by children without supervision.

1.4.2 Self-contained cold units with R290 (propane) refrigerant



Propane refrigerant is environmentally friendly but also highly flammable. It is non-toxic with zero Ozone Depletion Potential (ODP) and very low Global Warming Potential (GWP).

Read this manual carefully and follow all precautions described herein.



R290

WARNING

The propane refrigerant is highly flammable. All safety precautions must be followed. Keep all ventilation openings in the housing of the appliance or in the installation unobstructed.

Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.

Do not damage the refrigerating circuit.

Do not use electrical appliances inside the food/ice storage compartments unless they are of the type recommended by the manufacturer.

Propane refrigerant does not contain odorants.



SAFETY

Wear eye protection when working on the refrigeration system.

- Install the unit in a well ventilated area with sufficient floor space: refer to the data plate for minimum space requirement.
- Do not install the unit in basements, in area's with open flames or high surface temperatures.
- Do not tamper with the system.
- The system must be installed and maintained by qualified persons only.
- The ventilation openings of the cladding of the unit (including accessories) must not be blocked or covered. Ensure that the air circulation remain unobstructed.
- Electrical devices used within this unit must be certified by the applicable ATEX directive.

Residual risks:

- Sparks from electrical devices or hot surfaces may unintentionally ignite possible leaked refrigerant gas.

1.4.3 Cold units with remote CO₂ (R744) refrigerant



WARNING

Remote R744 refrigerant is environmentally friendly but under high pressure. It is non-toxic with zero Ozone Depletion Potential (ODP) and very low Global Warming Potential (GWP).



Read this manual carefully and follow all precautions described herein.



SAFETY

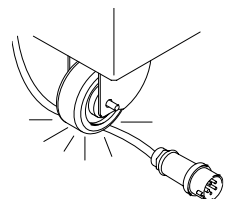
Wear eye protection when working on the refrigeration system.

- Do not tamper with the system.
- The system must be installed and maintained by suitably qualified persons only.
- Fixate the unit to the floor.
- The ventilation openings of the cladding of the unit (including accessories) must not be blocked or covered. Ensure that the air circulation remain unobstructed.
- A pressure relief device shall be installed in the high-pressure side of the refrigeration system between the motor-compressor and the gas cooler. There shall be no shut off devices or other components except piping between the motor-compressor and the pressure relief device that could introduce a pressure drop.
- The pressure relief device shall be mounted so that any refrigerant released from the system during its operation cannot cause harm to the user of the appliance. The aperture shall be located so that it is unlikely to be obstructed in normal use.
- The installed pressure relief device shall have no provisions for setting by the end user.
- The pressure setting of the installed pressure relief device shall be no higher than the design pressure of the high-pressure side.

1.4.4 Moving (when applicable)

When moving the unit:

- Before moving the unit, first switch off the mains voltage by pulling the plug from the wall socket.
- Remove pans containing a liquid product from the unit.
- Always keep the unit in upright position.
- Make sure that the wheels can move freely, so they never touch the power lead.



1.4.5 Outdoor use restrictions



WARNING

To avoid short-circuiting, the units may not be used outdoors or in a rainy or very moist environment.

1.5 Hygiene



WARNING

Immediately remove products in damaged packaging from the equipment and destroy the products. Clean all components that have come in contact with products from damaged packaging.

The quality of a fresh product always depends on hygiene. It is essential that products are packaged immediately after preparation. Prevent fresh raw vegetables or already prepared, cooled products from coming into contact with raw meat products to avoid transmitting salmonella. First thoroughly clean hands and/or tools that have touched raw meat.

Be aware that high humidity levels may encourage the growth of biological organisms in the environment.

Refer to the cleaning instructions of section 5.

1.6 Service and technical support

The electrical schematics of your unit is included. In case of malfunctions you can contact your dealer/service agent. Make sure you have the following data available:

- Model.
- Serial number.

This data can be found on the identification plate.

1.7 Storage

If the unit will not be used temporarily, and will be stored, follow these instructions:

- Clean the unit thoroughly.
- Wrap the unit from getting dusty.
- Store the unit in a dry, non-condensing environment.
- Do not expose units with propane (R290) refrigerant during storage and transport to temperatures higher than 70°C.
- Ensure good ventilation.

1.8 Disposal



WARNING

Self-contained cold units: Propane refrigerant is highly flammable. All safety precautions must be followed.



WARNING

Remote R744 (CO₂) units: The refrigeration system is under high pressure. Do not tamper with it. Contact qualified service personal before disposal.



Dispose of the machine, any components or lubricants removed from it safely in accordance with all local and national safety and environment requirements.

2. DESCRIPTION OF THE UNIT

2.1 Technical description

The panels are made of galvanized steel plating, stainless steel or aluminium. Some of the visible internal and external parts have been provided with a powder coating. The glass used is tempered or layered. The unit can be moved by means of a pallet truck. The controls for operating the appliance have been mounted on the operator side of the unit. The product contact parts are made of stainless steel AISI 304 or AISI 430 and tempered glass.

Cold Units:

Cooling is achieved by means of a thermostatic temperature-controlled cold airflow. The cold air is passed via the back and shelves over the products. Self-serve models have an additional set of fans mounted in the top to create a stable air curtain on the open side of the cabinet to minimize the infiltration of warm ambient air. The air on the front side passes through the suction grid in the bottom of the unit. The MCC Cold unit is available in a 2, 3 and 4 level execution.

The temperature of the airflow is controlled electronically. The electronically-controlled thermostat is factory programmed for the correct temperature. The set temperature can be changed from -1°C to +5°C.

The units can be connected to a fixed drainage system or an optional evaporation tray to evacuate condensation water. One LED-module per level provides for lighting of the products. Lighting will automatically go on when switching on the cooling. Self-serve models can be fitted with an option night curtain. For the Self-serve models there are two user variants; a solid back version and a pass through version which allows the user to (re)fill products via the back side.

Ambient Units:

The MCC Ambient unit is available in a 2, 3 and 4 level execution. One LED-module per level provides for lighting of the products.

2.2 Intended use

Self-serve models (SS models) have been designed solely to keep packaged products cold and/or to display them. Full serve models can be used for unpacked foodstuff as well. Any other use will not be regarded as intended use.

The manufacturer accepts no liability whatsoever for loss or injury caused by failing to strictly adhere to the safety guidelines and instructions in this manual or due to carelessness during installation, use, maintenance and repair of the unit referred to in this manual and any of its accessories.

Use the unit in perfect technical condition only.

2.3 Accessories

Your unit contains the following standard accessories:

- User manual,
- Plinth set,
- Front doors (when applicable).

For optional accessories contact customer.service@frijado.com.

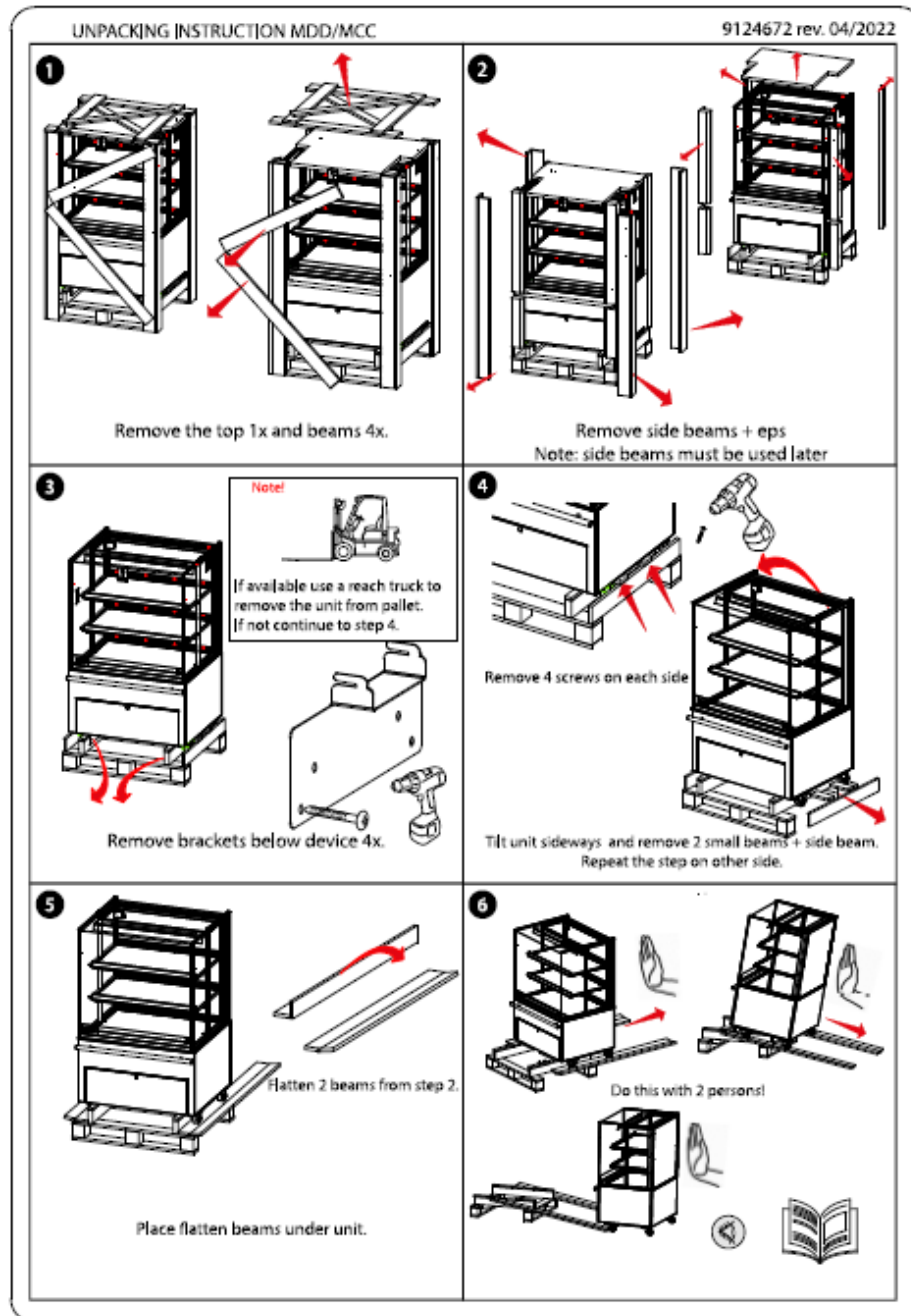
3. INSTALLATION AND FIRST USE



All packing materials used for this unit are suited for recycling.

Before and during unpacking, check the state of the unit. In case of damage, store the packing material, and contact the transporter within fifteen working days after receiving the goods.

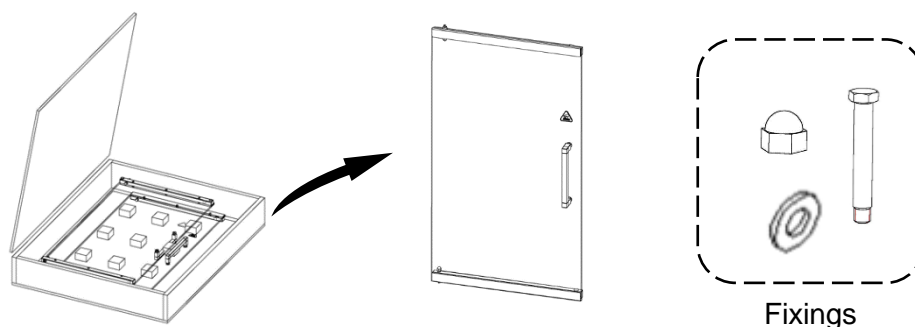
3.1 Unpacking the unit



1. Unpack the unit as initiated on the unpacking instruction on the packaging.
2. Remove all remaining packing materials from the unit.
3. Remove the protective foil from the metal parts.
4. Take off the standard accessories.

3.1.1 Unpacking the front doors (optional)

The front door(s) (1-3) and fixings are placed in a crate during transport.



3.2 Installation and positioning



WARNING

Self-contained Cold units: Propane refrigerant is highly flammable. All safety precautions must be followed.



WARNING

Electric shock hazard. Grounding instructions: only connect the appliance to an alternating current provided by a grounded wall socket, with a mains voltage in accordance with the information indicated on the data plate of the appliance.

It is the consumer's responsibility to make sure the electrical installation conforms with current national and local codes and wiring regulations.

Do not use a multi plug or extension cord. Such can result in fire, electrical shock, or other personal injury.

Failure to follow these instructions can result in death or serious injury.



WARNING

Position the unit on a flat and horizontal surface. A temporally inclined plane of maximum 5° is allowed.

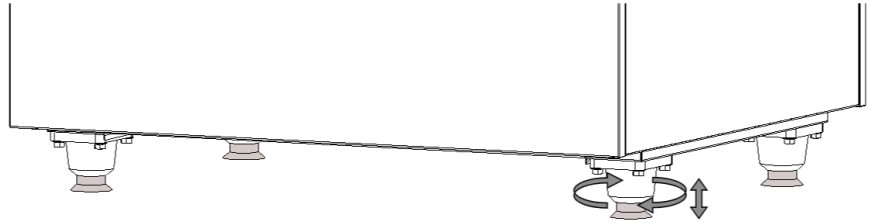
- Place the unit level on a sufficiently sturdy floor. Keep the weight of the unit in mind. Use a levelling instrument to level the unit by adjusting the unit's legs.
- Be sure that the personnel have sufficient room to work with the unit.
- Keep a distance of at least 150 mm between the back wall and the unit.
- While positioning, keep the unit out of children's reach.
- The unit has a mains plug, and must be connected to a wall socket with the proper mains voltage. The wall socket must be mounted by a certified electrician.

Cold Units:

- Do not position a unit near a doorway, a ventilation device or a refrigerator in order to avoid any negative effects on the unit's operation by a cold airflow. The unit is designed for a maximum draft of 0,2 m/s.
- Do not place into direct sunlight.
- Be sure that the ambient temperature remains between 15°C – 25°C and that the relative air humidity remains below 60%. The units have been designed to operate at climate class 3 according to ISO 23953.
- Keep the plinth free from any obstacles to ensure ventilation.
- Remote units: The system must be installed by qualified persons only. Refer to section 1.4.3.
- Remote units: Fixate the unit to the floor.

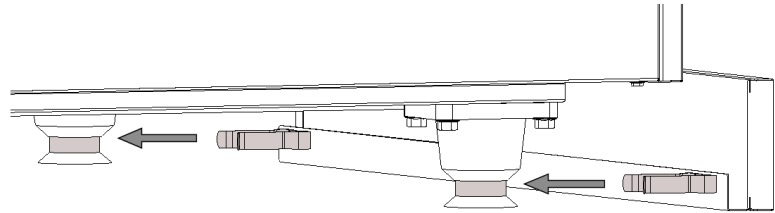
3.2.1 Level the unit

Place the unit on a sturdy, flat surface and level the unit by adjusting the unit's legs (max. +15 mm).

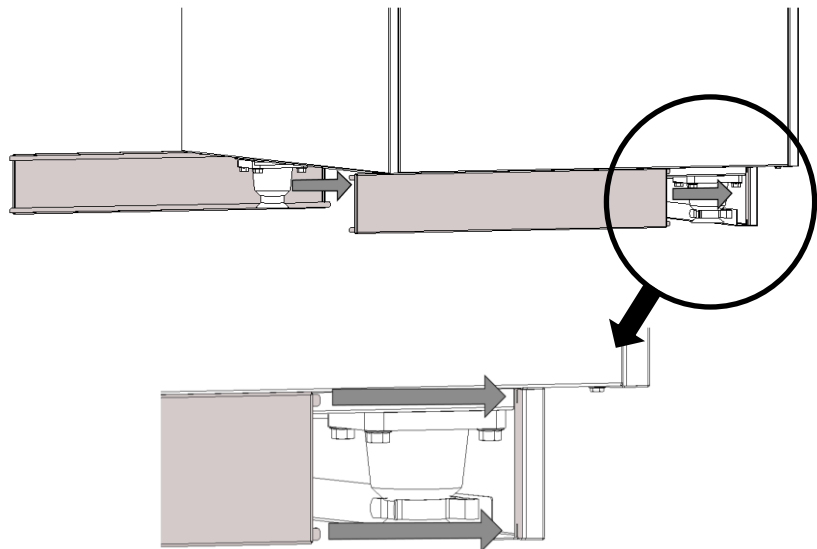


3.2.2 Mounting the plinths

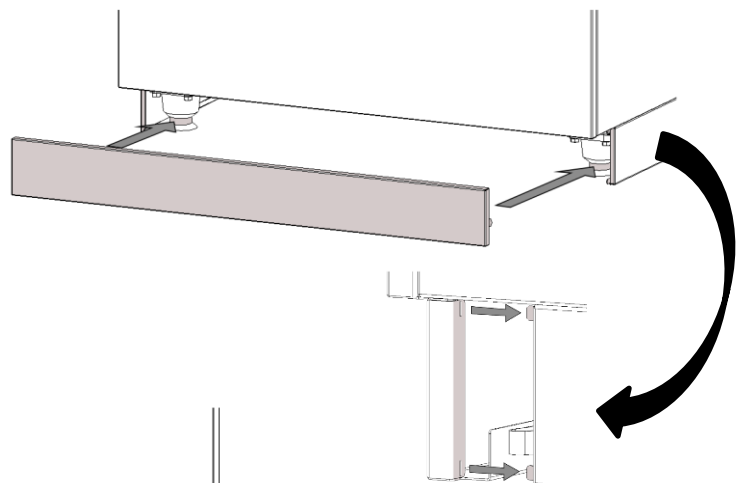
Place the rear plinth by attaching it to both rear adjustable legs using its two clamps.



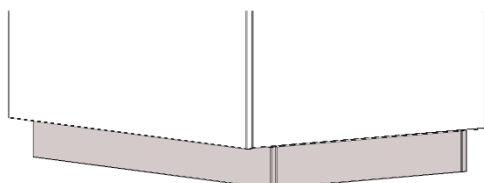
Insert the pegs of both side plinths into the slots of the rear plinth.



Secure the side plinths by inserting the pegs into the slots of the front plinth, while clamping the front plinth to the front adjustable legs.

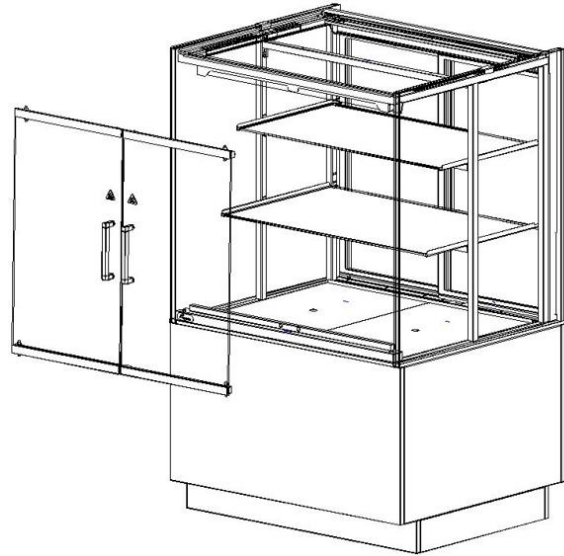


Result

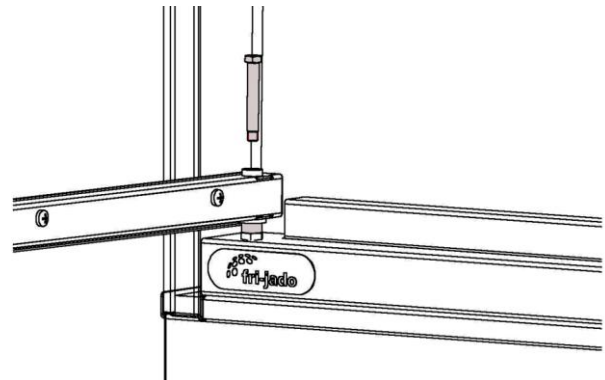


3.2.3 Mounting front doors (optional)

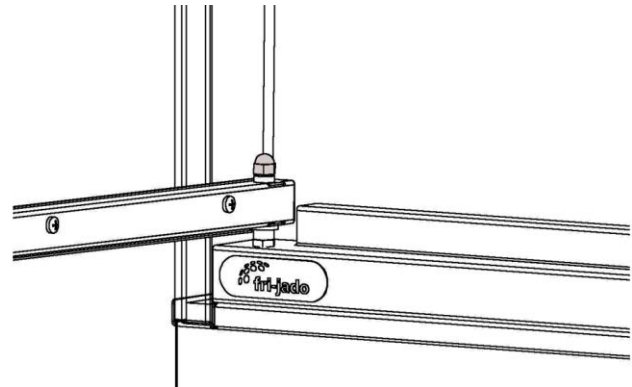
Position the doors with the handles to the outside and with the warning sticker above the handle.



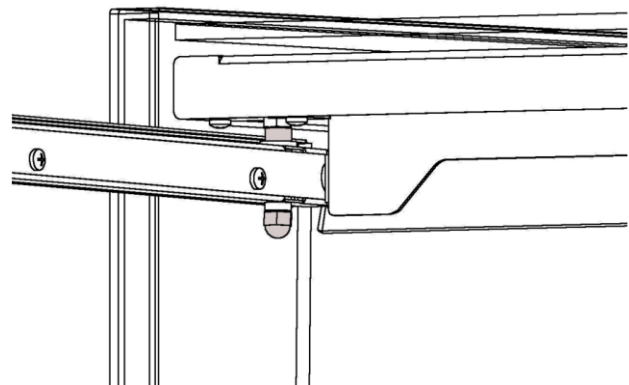
Position the door over the bottom profile and place a plastic spacer between the bottom profile and the collar bearing. Insert the retaining bolt from the top and tighten.



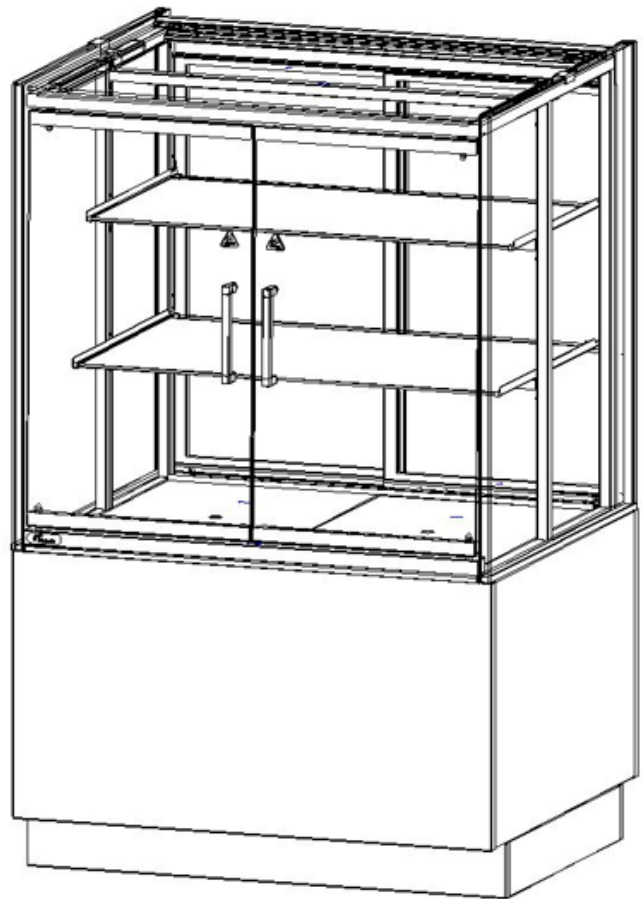
Place a protective cap over the bolt head.



Repeat the same process on the upper part of the door.



Result



3.2.4 Applying price rail

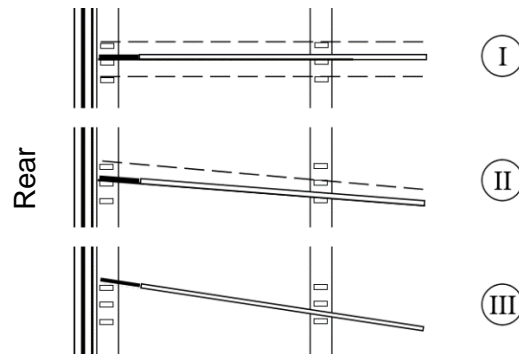
Price rails for full serve models can be mounted on the air inlet grill and on the glass shelves. Self-serve models are supplied with price rails as standard. Refer to installation manual.

3.3 Drop-in units

For installation of the Drop-in units refer to instruction 9124589.

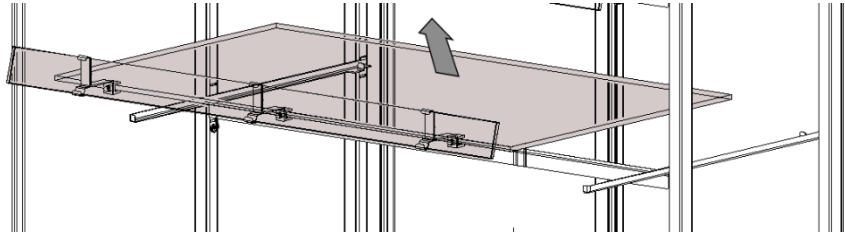
3.4 Repositioning the glass shelves

The glass shelves can be positioned at three horizontal levels (I), or one of the three angled positions (II and III) by changing the positions of the LED-armature with respect to the rear.

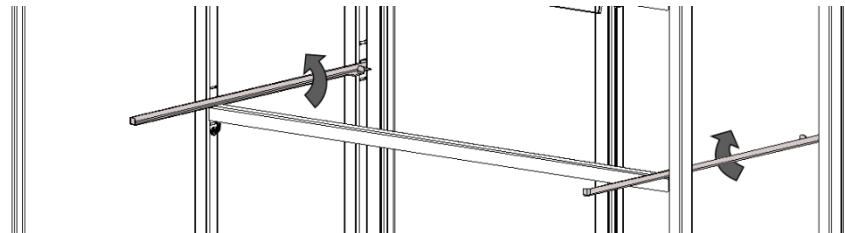


In order to change to any of these positions, follow the steps in the example below to change from a horizontal to an angled position. Reverse the steps to change to a horizontal position from an angled position.

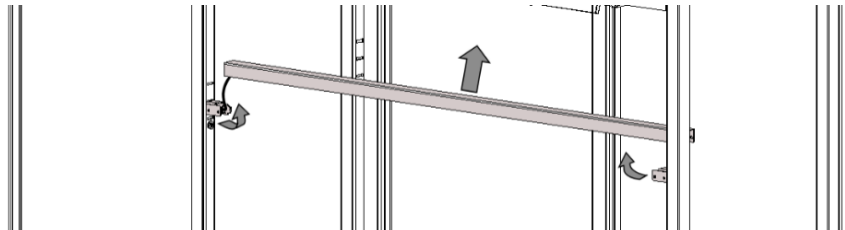
1. Carefully lift the glass shelf out of its side supports.



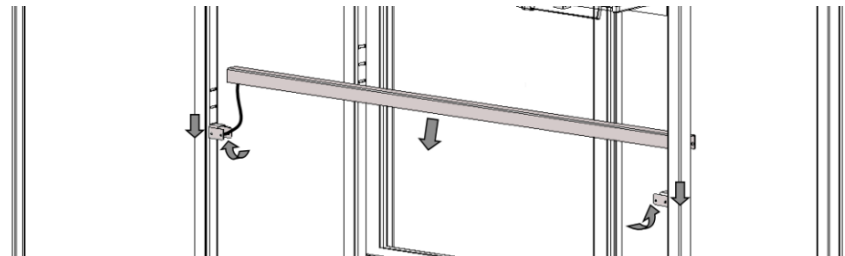
2. Remove the side supports from the rear columns by rotating them out.



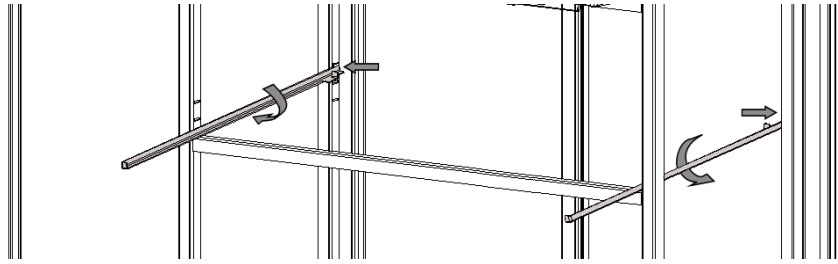
3. Lift the LED-armature from its supports, but be careful to not strain, clamp or otherwise damage the cable.



4. Reposition the LED-armature supports by taking them out of the central column and inserting them back in at the desired level.

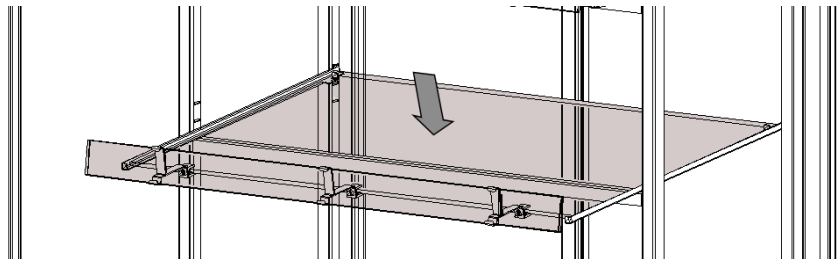


5. Position the side supports at the desired height by inserting them into the rear column. Let the front end rest on the LED-armature.



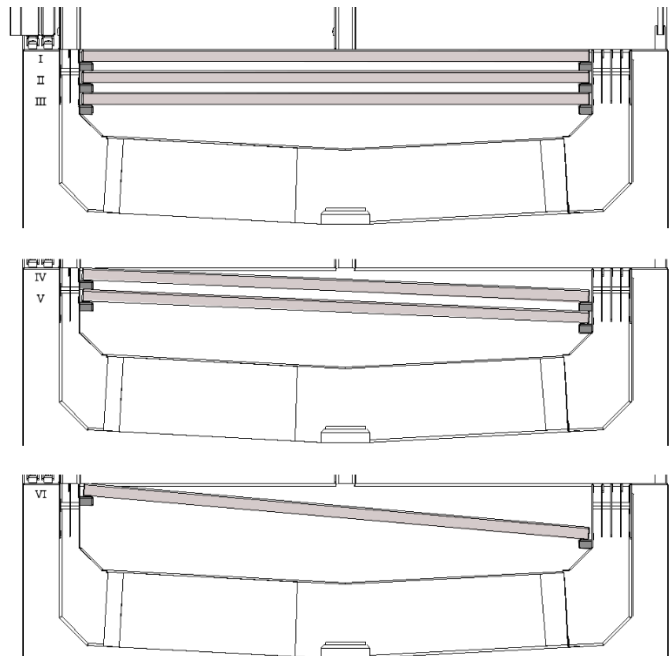
Please note that the rear level is supposed to be located at an equal or higher level than the LED-armature.

6. Place the glass shelf back onto its supports.



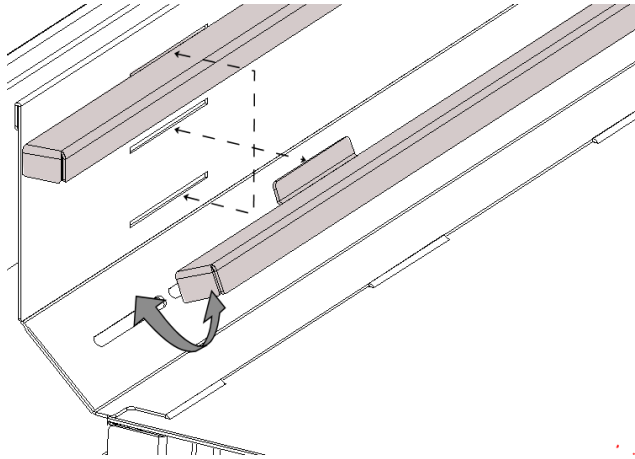
3.5 Plateau Options

The bottom presentation deck can be set at a variety of horizontal levels (I, II, III) and angles (IV, V, VI) as seen in the sideview cross-section for different display experiences.



To change to a different position:

- Remove the plateaus from the unit.
- Reposition the supports at the front and the back to the desired positions.
- Place the plateaus back in the unit.



3.6 First use

Before starting to use the unit, clean the inside thoroughly with mild detergent and water.

After cleaning it wipe it with a cloth moistened with clean water to remove residual detergent, then dry the entire unit.

4. OPERATION AND USE



The display and/or set value is not the product/unit temperature.



Cold units are factory programmed to maintain a product temperature $\leq 5^{\circ}\text{C}$.
The temperature can be changed from -1°C to $+5^{\circ}\text{C}$.

4.1 Control Panel Cold Units

4.1.1 Control Panel - Self-contained units

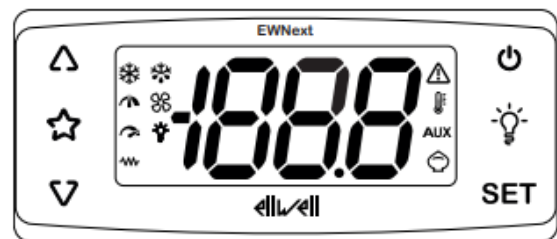
Temperature controller

Up (\wedge) and Down (\vee) button

On/off and -Escape button *

Lamp button

Enter button



* Switch on/off: hold for approx. 3 sec.

Switching-on the unit

- Switch the cooling on by means of the temperature controller.
- Switch the lighting with the lamp button.
- Let the unit cool for approx. 30 minutes.

Loading the unit

- Only load products of which the temperature is maximum 4°C .
- The maximum loading height is 50 mm below the bottom of the shelf/air guide above.
- The maximum carrying-capacity per shelf is 30 kg/m, by equal load.



Load the cold unit only with pre-cooled products.
The unit will only maintain the product temperature.

Checking the SET temperature

1. Scroll through the folders with the Δ and ∇ buttons until you find the folder **Pb1**, **Pb2** or **Pb3**.
2. Press **SET** to view the value measured by the corresponding probe.

Adjusting the SET Temperature

1. During operation the display of the thermostat shows the temperature in the unit.
2. Push twice on the **SET**-button. The set temperature will appear on the display.
3. Push the Δ and ∇ button within 15 sec.

4. Adjust the set temperature by means of the Δ and ∇ buttons.
5. Push once on the **SET**-button to store the new set temperature.

Checking the product temperature

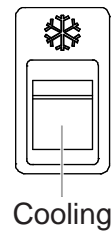
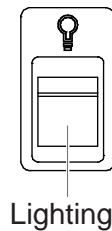
- Once every hour, the product temperature should be checked using a digital thermometer.
- Write down the measured values in a log.

Switching off

- Remove all products from the unit. In order to avoid temperature rise of the products, store them in another cooling unit.
- Switch the lighting off.
- Switch the cooling off.

4.1.2 Control Panel - Remote units

On/Off Switches



Switching-on the unit

- Switch the cooling on.
- Let the unit cool for approx. 30 minutes.
- Switch the lighting on.

Loading the unit

- Only load products of which the temperature is maximum 4°C.
- The maximum loading height is 50 mm below the bottom of the shelf/air guide above.
- The maximum carrying-capacity per shelf is 30 kg/m, by equal load.



Load the cold unit only with pre-cooled products.
The unit will only maintain the product temperature.

Checking the product temperature

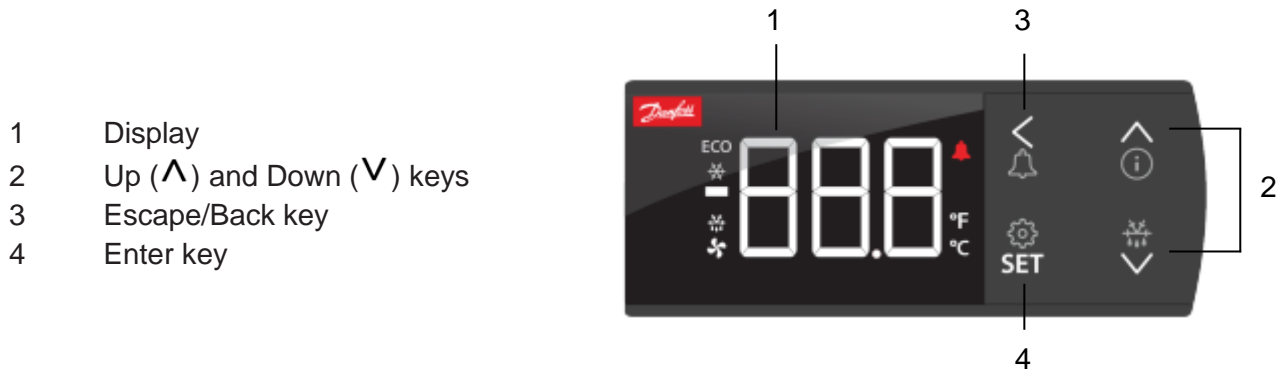
- Once every hour, the product temperature should be checked using a digital thermometer. Write down the measured values in a log.
- Always use a disinfected thermometer sensor.

Switching off

- Remove all products from the unit. In order to avoid temperature rise of the products, store them in another cooling unit.

- Switch the cooling and lighting off using the corresponding switches.

4.1.2.1 Danfoss Temperature Controller



Checking the temperature

- During operation the display of the thermostat shows the temperature in the unit. The maximum reading must not exceed 5°C with the factory settings.
- The indication ❄️ will light when the cooling is active.

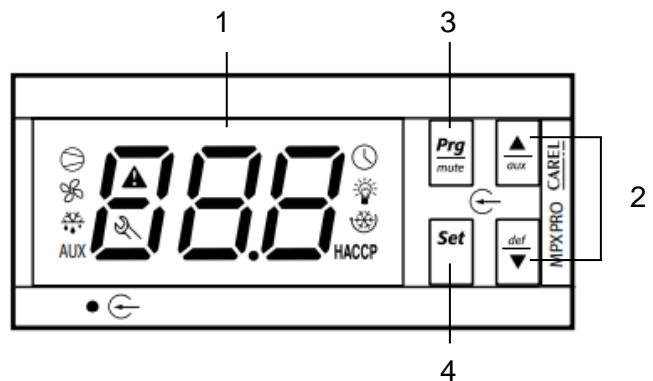
Adjusting the SET Temperature

1. Press and release **SET** to view the current setpoint.
2. Change the setpoint value using Λ and V within 15 seconds.
3. To confirm the value press **SET**, or let a timeout occur (15 seconds).


For more information please refer to the Danfoss user guide for the specific controller model.

4.1.2.2 Carel Temperature Controller

- 1 Display
- 2 Up (▲) and Down (▼) keys
- 3 Escape/Back key
- 4 Enter key



Checking the temperature

- During operation the display of the thermostat shows the temperature in the unit. The maximum reading must not exceed 5°C with the factory settings.
- The indication  will light when the cooling is active.

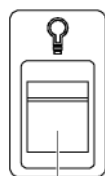
Adjusting the SET Temperature

- Press **Set** until the display shows the current temperature setpoint flashing.
- Change the setpoint value using ▲ and ▼ within 15 seconds.
- To confirm the value press **Set**, or let a timeout occur (15 seconds).

For more information please refer to the Carel user manual for the specific controller model.

4.2 Control Panel Ambient Units

On/Off Switches



Lighting

5. CLEANING AND MAINTENANCE



WARNING

Never use a water hose for cleaning. Water can seep into the unit through the ventilation holes of the unit.

Appliances must be disconnected from their power supply during cleaning or maintenance and when replacing parts.



Because of hygiene aspects and optimum condition of the unit it is of utmost importance to keep a daily cleaning pattern from first use onwards.

5.1 Maintenance schedule

Item	Action	Frequency
Inside	<ul style="list-style-type: none"> Clean, see section 5.2. 	Daily
Outside	<ul style="list-style-type: none"> Clean, see section 5.3. Use Stainless Steel cleaning spray to remove stains, and restoring the gloss. 	Weekly
Glass panes	<ul style="list-style-type: none"> Clean, see section 5.4. 	Weekly
Interior bottom	<ul style="list-style-type: none"> Clean, see section 5.5. 	Weekly
Condenser	<ul style="list-style-type: none"> Clean, see section 5.6. 	Yearly

5.2 Daily Cleaning

- Clean the inside of the unit with hot water and a suitable cleaner.
- After cleaning wipe the inside with a clean wet cloth. Be sure that the detergent is removed properly.
- Do not use excess water in case a cold unit is fitted with an evaporation tray as it could overflow.

5.3 Weekly Cleaning



WARNING

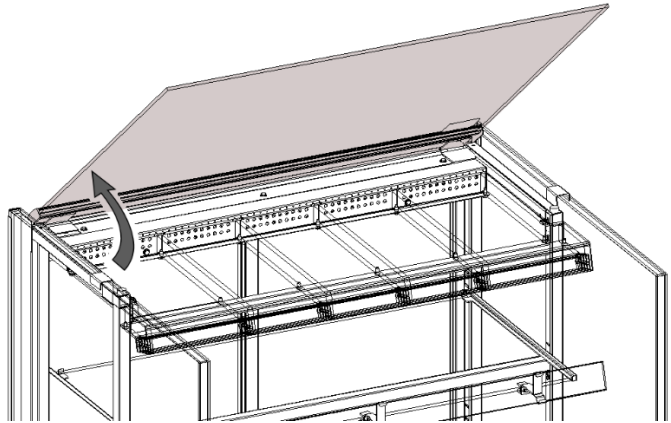
The control panel may only be cleaned using a damp cloth.

- Clean the outside of the unit with a small amount of hot water and a mild cleanser and using a soft brush or sponge. After cleaning it dry the outside with a cloth.
- Treat all cleaned surfaces with a suitable antibacterial agent.
- Rub dry with a soft cloth or a paper towel.

5.4 Cleaning Glass Panes

Cleaning the top glass pane

- For all MCC variants, lift and hold the top glass while cleaning the top glass pane.



Cleaning the top air guide

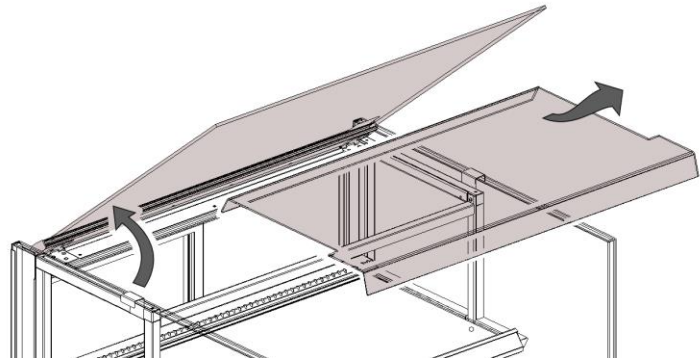


WARNING

Do not use detergents and other cleaning products that may damage polycarbonate. Using inappropriate products to clean may tarnish, scratch or even crack any polycarbonate surfaces.

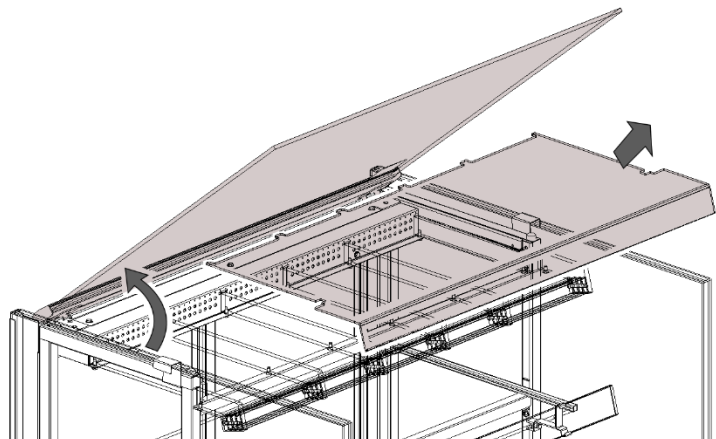
For all the MCC Models, the transparent air guide pane can be removed for cleaning.

- Lift and hold up the top glass pane throughout the process.
- The air guide pane is laid up freely and somewhat flexible and can as such easily be removed from its support on the rear by applying a light amount of torsion.
- After cleaning, place the air guide pane back by applying some light torsion.
- Close the top glass pane.



For the MCC Cold SS model only: It is imperative to maintain both hygiene and transparency on the in and outside of the top air box.

- Lift and hold up the top glass pane throughout the process.
- Remove the air box cover by sliding it out and clean it.
- Clean each of the air box's compartments.
- Slide the air box cover back in place.
- Close the top glass pane.

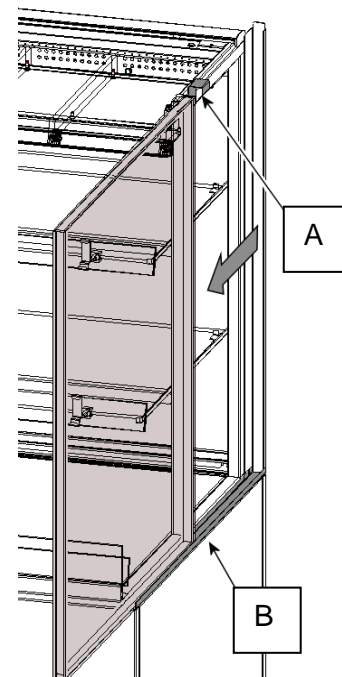
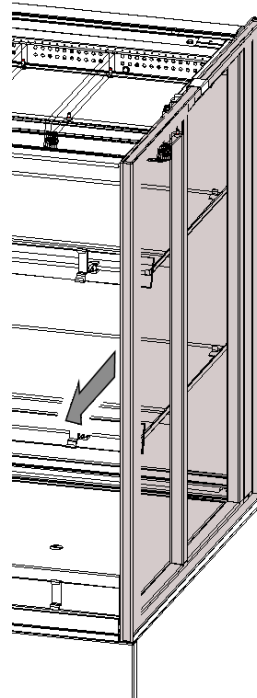


Cleaning the side double-glass pane

- Slide the double glass pane towards the front along the top (A) and bottom (B) guiding rails. The side pane can be removed from the unit once it has slid in its entirety past the top guide.

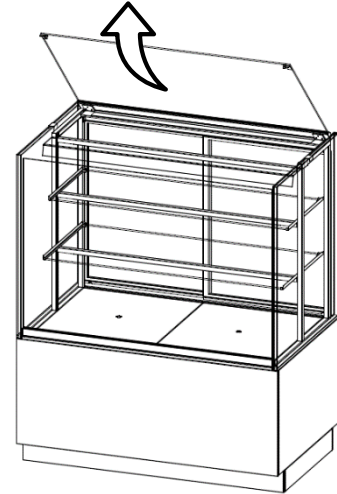
CAUTION: Once past the top guide, the glass pane might fall if not properly held. Hence do not leave it standing upright without being supported by both guide rails or holding it.

- It is recommended to only move the pane to such an extent that the pane areas next to the support columns can be cleaned.
- To clean the guiding rails, the pane can be removed in its entirety.
- If the pane was removed and needs to be placed back in, before sliding the pane back into the rails, ensure the transparent sides of the pane are facing forwards and up. Then slide it all the way back till the front of the pane is in line with the front plating.

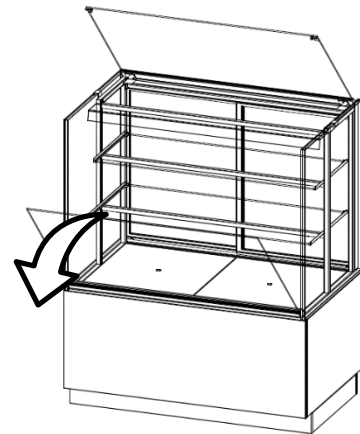


Cleaning front window

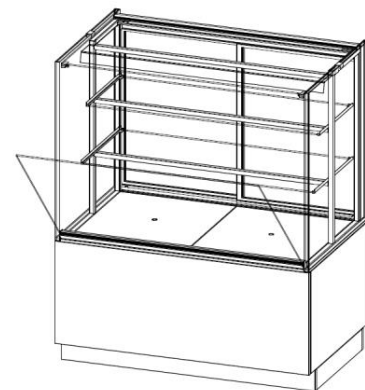
- Lift and hold the top glass, the front glass will automatically remain in position



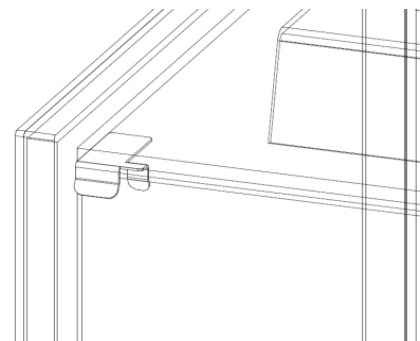
- Gently tilt the front glass forward (do not drop) whilst holding the top glass



- Lower the top glass back in place.
- Clean the front glass.



- **Closing:**
Lift and hold the top glass whilst closing the front glass.
A positive snap will make sure it stays into the upright position
- Gently lower the top glass back in place.
Ensure the tabs on the edge of the top glass fit over the edge of the front glass.

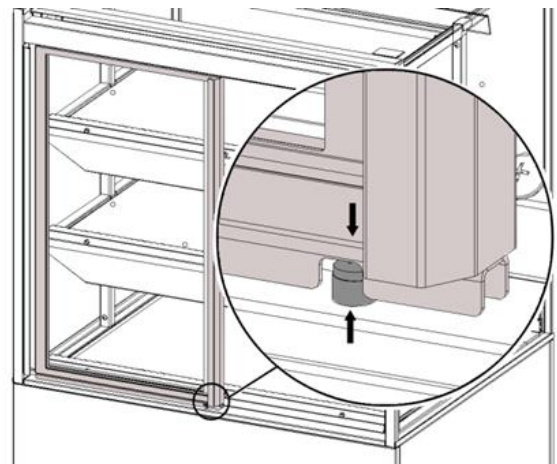
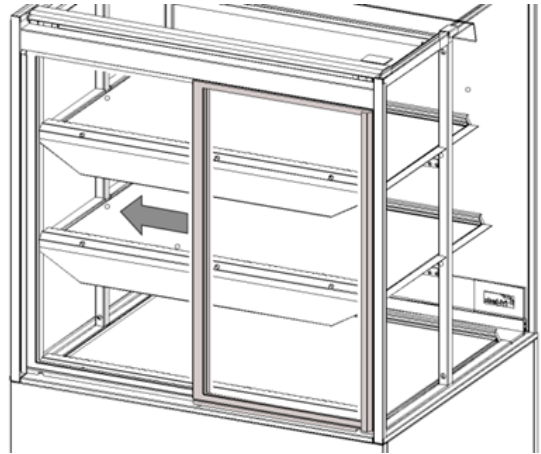


Cleaning sliding doors and rear of shelves

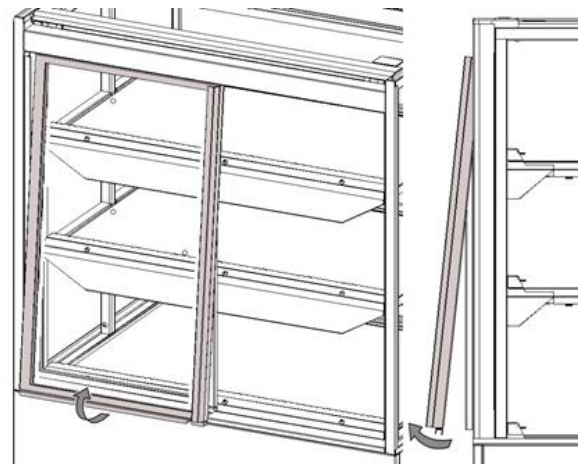


Always keep the sliding doors closed as much as possible, or the unit cannot maintain its climate. Cleaning the sliding doors is therefore recommended during off-hours. Follow the following steps to access the inner sides of the sliding doors and the rear of the shelves for cleaning.

- Slide the right (outermost) door open until its slot aligns with the guiding pin.

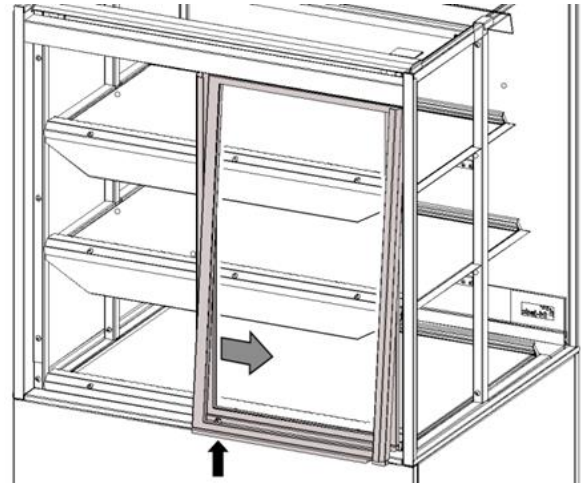


- Turn the outermost door outwards along the guiding pin. Clean the outermost door.

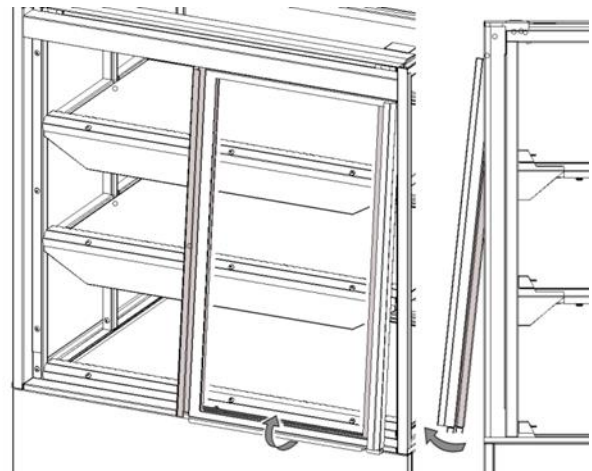


- To clean the left (innermost) door, slide both doors to the right until the innermost door's slot aligns with the guiding pin.

NOTE: The outermost door should still be in its rotated position.



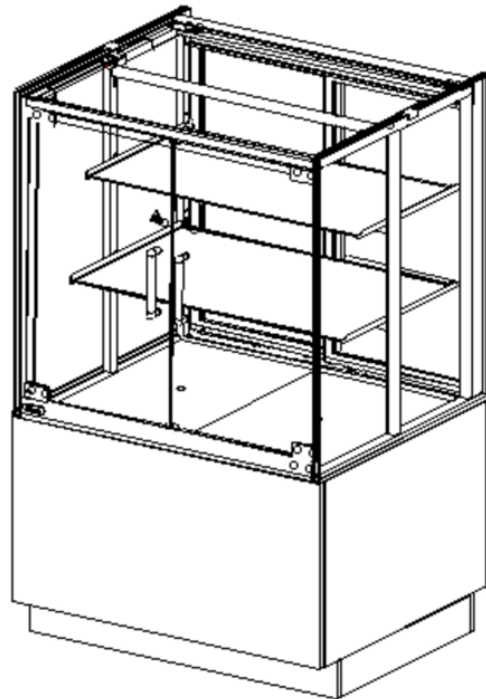
- Turn the innermost door outwards as well to clean it.



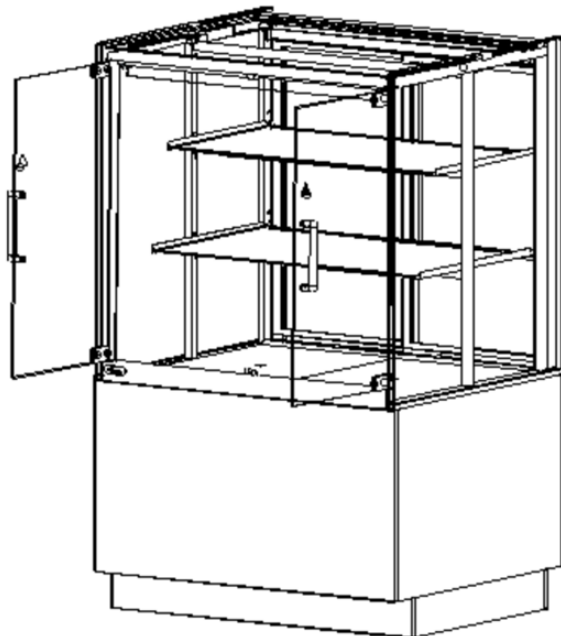
- Follow the above steps in reverse order to return both doors to their original positions. And close both doors.

Cleaning front door(s) (optional)

- Clean the outside of the front doors.

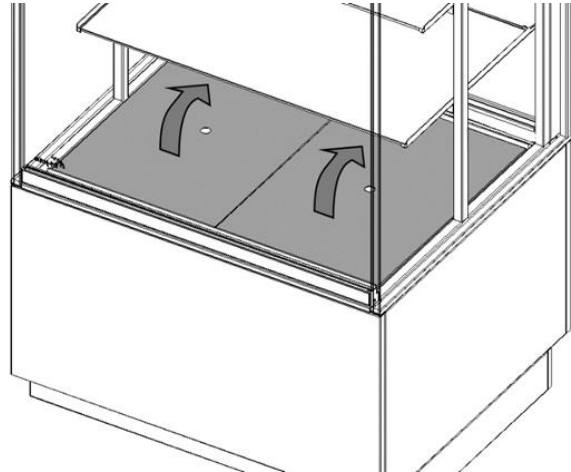


- Open the front doors and clean the inside of the doors in the same way as the outside.



5.5 Cleaning interior bottom

- Remove the plating of the lower presentation deck to clean the bottom.



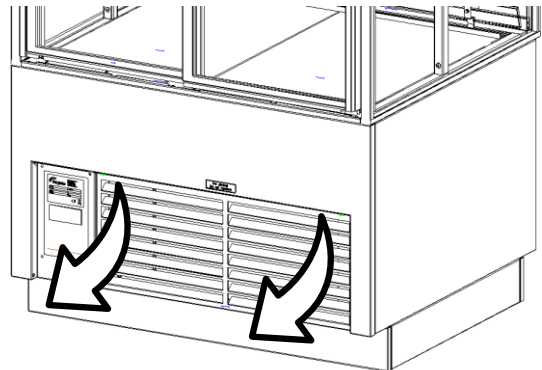
5.6 Cleaning the condenser – Self-Contained Cold units



WARNING

Cleaning of the condenser must be performed by qualified persons and in a well ventilated environment.

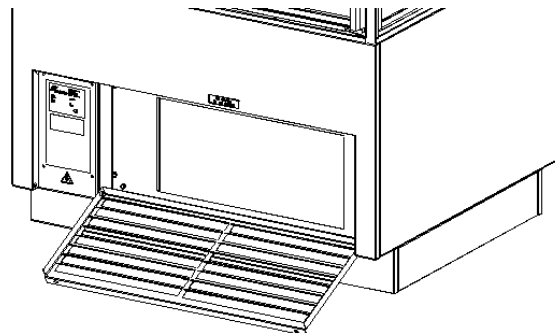
- Unscrew the condenser cover and open it.



WARNING

Do not damage the aluminium condenser plates.

- Clean the condenser using a long haired soft brush and a vacuum cleaner.



- Close the cover and screw the bolts back.

6. MALFUNCTIONS AND SERVICE



WARNING

All service operations on the refrigeration system and gas charging must be performed by qualified persons and in a well ventilated environment.

Before you consult your dealer or the service agency when there is a fault, you can check the following points yourself:

- Is the power supply OK? Check the fuses and the earth leakage switch in the meter cupboard.
- Are all the switches in the correct position?

Item	Malfunction	Possible action
Unit	Unit does not work	<ul style="list-style-type: none"> • Check the power supply. • Are all switches in the correct position.
Unit	Display shows error code	<ul style="list-style-type: none"> • Contact your supplier or service agency.
Lamp	Does not light up	<ul style="list-style-type: none"> • Switch ON.
Mains cord	Damaged	<ul style="list-style-type: none"> • Replace, see section 6.1.
Window	Damaged	<ul style="list-style-type: none"> • Replace, contact your supplier or service agency.

6.1 Replace the mains cord



WARNING

Hazardous electrical voltage.

If the mains cord is damaged, it must be replaced by the manufacturer, his service agent or a similarly qualified person in order to avoid hazards.

7. TECHNICAL SPECIFICATIONS



WARNING

Consult the identification plate to get the proper specifications of the unit.
The electrical data may vary from country to country.

Self-contained – Cold self-service models

Model	MCC	90-2-C SS	120-2-C SS	150-2-C SS
Approved for		EU	EU	EU
Width		900 mm	1200 mm	1500 mm
Depth		750 mm	750 mm	750 mm
Height on stand		1420 mm	1420 mm	1420 mm
Height above worktop		520 mm	520 mm	520 mm
Weight Net Approx.		170 kg	200 kg	230 kg
Ambient Temperature		min. 15°C – max. 25°C	min. 15°C – max. 25°C	min. 15°C – max. 25°C
Relative humidity		max. 60%	max. 60%	max. 60%
Noise level (at workplace)		<70 dB(A)	<70 dB(A)	<70 dB(A)
Voltage		1N~ 230V	1N~ 230V	1N~ 230V
Frequency		50 Hz	50 Hz	50 Hz
Max. nominal Current ¹		3 A	4.6 A	5.1 A
Plug		2 pole earthed plug 16A	2 pole earthed plug 16A	2 pole earthed plug 16A
Length power cord approx.		1.5 m	1.5 m	1.5 m
Climate Class (EN-ISO 23953-2)		3 (25 °C/60%RH)	3 (25 °C/60%RH)	3 (25 °C/60%RH)
Minimum room floor area		8.13 m ²	10.53 m ²	12.92 m ²
Refrigerant ²		R290	R290	R290
Refrigerant charge		170 g	210 g	250 g

Model	MCC	90-3-C SS	90-4-C SS	120-3-C SS	120-4-C SS	150-3-C SS	150-4-C SS
Approved for		EU		EU		EU	
Width		900 mm		1200 mm		1500 mm	
Depth		750 mm		750 mm		750 mm	
Height on stand		1420 mm		1420 mm		1420 mm	
Height above worktop		840 mm		840 mm		840 mm	
Weight Net Approx.		195 kg	202 kg	225 kg	234 kg	255 kg	266 kg
Ambient Temperature		min. 15°C – max. 25°C		min. 15°C – max. 25°C		min. 15°C – max. 25°C	
Relative humidity		max. 60%		max. 60%		max. 60%	
Noise level (at workplace)		<70 dB(A)		<70 dB(A)		<70 dB(A)	
Voltage		1N~ 230V		1N~ 230V		1N~ 230V	
Frequency		50 Hz		50 Hz		50 Hz	
Max. nominal Current ¹		3.1 A		4.8 A		5.3 A	
Plug		2 pole earthed plug 16A		2 pole earthed plug 16A		2 pole earthed plug 16A	
Length power cord approx.		1.5 m		1.5 m		1.5 m	
Climate Class (EN-ISO 23953-2)		3 (25 °C/60%RH)		3 (25 °C/60%RH)		3 (25 °C/60%RH)	
Minimum room floor area		8.13 m ²		10.53 m ²		12.92 m ²	
Refrigerant ²		R290		R290		R290	
Refrigerant charge		170 g		210 g		250 g	

¹ Excluding optional evaporation tray (additional 2.5 A)

² R290 = Propane gas

Self-contained – Cold Full-service models

Model	MCC	90-2-C FS	120-2-C FS	150-2-C FS
Approved for		EU	EU	EU
Width		900 mm	1200 mm	1500 mm
Depth		750 mm	750 mm	750 mm
Height on stand		1420 mm	1420 mm	1420 mm
Height above worktop		520 mm	520 mm	520 mm
Weight Net Approx.		170 kg	200 kg	230 kg
Ambient Temperature		min. 15°C – max. 25°C	min. 15°C – max. 25°C	min. 15°C – max. 25°C
Relative humidity		max. 60%	max. 60%	max. 60%
Noise level (at workplace)		<70 dB(A)	<70 dB(A)	<70 dB(A)
Voltage		1N~ 230V	1N~ 230V	1N~ 230V
Frequency		50 Hz	50 Hz	50 Hz
Max. nominal Current ³		3.7 A	3 A	4.6 A
Plug		2 pole earthed plug 16A	2 pole earthed plug 16A	2 pole earthed plug 16A
Length power cord approx.		1.5 m	1.5 m	1.5 m
Climate Class (EN-ISO 23953-2:2015)		3 (25 °C/60%RH)	3 (25 °C/60%RH)	3 (25 °C/60%RH)
Minimum room floor area		8.13 m ²	10.53 m ²	12.92 m ²
Refrigerant ⁴		R290	R290	R290
Refrigerant charge		170 g	210 g	250 g

Model	MCC	90-3-C FS	90-4-C FS	120-3-C FS	120-4-C FS	150-3-C FS	150-4-C FS
Approved for		EU		EU		EU	
Width		900 mm		1200 mm		1500 mm	
Depth		750 mm		750 mm		750 mm	
Height on stand		1420 mm		1420 mm		1420 mm	
Height above worktop		840 mm		840 mm		840 mm	
Weight Net Approx.		195 kg	202 kg	225 kg	234 kg	255 kg	266 kg
Ambient Temperature		min. 15°C – max. 25°C		min. 15°C – max. 25°C		min. 15°C – max. 25°C	
Relative humidity		max. 60%		max. 60%		max. 60%	
Noise level (at workplace)		<70 dB(A)		<70 dB(A)		<70 dB(A)	
Voltage		1N~ 230V		1N~ 230V		1N~ 230V	
Frequency		50 Hz		50 Hz		50 Hz	
Max. nominal Current ³		3.8 A		3.1 A		4.8 A	
Plug		2 pole earthed plug 16A		2 pole earthed plug 16A		2 pole earthed plug 16A	
Length power cord approx.		1.5 m		1.5 m		1.5 m	
Climate Class (EN-ISO 23953-2:2015)		3 (25 °C/60%RH)		3 (25 °C/60%RH)		3 (25 °C/60%RH)	
Minimum room floor area		8.13 m ²		10.53 m ²		12.92 m ²	
Refrigerant ⁴		R290		R290		R290	
Refrigerant charge		170 g		210 g		250 g	

³ Excluding optional evaporation tray (additional 2.5 A)

⁴ R290 = Propane gas

Remote – Cold Self-service models

Model	MCC	90-2-C SS	120-2-C SS	150-2-C SS
Approved for		EU	EU	EU
Width		900 mm	1200 mm	1500 mm
Depth		750 mm	750 mm	750 mm
Height on stand		1420 mm	1420 mm	1420 mm
Height above worktop		520 mm	520 mm	520 mm
Weight Net Approx.		150 kg	180 kg	210 kg
Ambient Temperature		min. 10°C – max. 25°C	min. 10°C – max. 25°C	min. 10°C – max. 25°C
Relative humidity		max. 60%	max. 60%	max. 60%
Noise level (at workplace)		<70 dB(A)	<70 dB(A)	<70 dB(A)
Voltage		1N~ 230V	1N~ 230V	1N~ 230V
Frequency		50 Hz	50 Hz	50 Hz
Max. nominal Current ⁵		0.3 A	0.4 A	0.5 A
Plug		2 pole earthed plug 16A	2 pole earthed plug 16A	2 pole earthed plug 16A
Length power cord approx.		1.5 m	1.5 m	1.5 m
Climate Class (EN-ISO 23953-2)		3 (25 °C/60%RH)	3 (25 °C/60%RH)	3 (25 °C/60%RH)
Refrigerant ⁶		R744 (CO ₂)	R744 (CO ₂)	R744 (CO ₂)
Circuit volume		1.58 dm ³	2.22 dm ³	2.83 dm ³

Model	MCC	90-3-C SS	90-4-C SS	120-3-C SS	120-4-C SS	150-3-C SS	150-4-C SS
Approved for		EU		EU		EU	
Width		900 mm		1200 mm		1500 mm	
Depth		750 mm		750 mm		750 mm	
Height on stand		1420 mm		1420 mm		1420 mm	
Height above worktop		840 mm		840 mm		840 mm	
Weight Net Approx.		175 kg	182 kg	200 kg	209 kg	230 kg	241 kg
Ambient Temperature		min. 10°C – max. 25°C		min. 10°C – max. 25°C		min. 10°C – max. 25°C	
Relative humidity		max. 60%		max. 60%		max. 60%	
Noise level (at workplace)		<70 dB(A)		<70 dB(A)		<70 dB(A)	
Voltage		1N~ 230V		1N~ 230V		1N~ 230V	
Frequency		50 Hz		50 Hz		50 Hz	
Max. nominal Current ⁵		0.3 A		0.4 A		0.5 A	
Plug		2 pole earthed plug 16A		2 pole earthed plug 16A		2 pole earthed plug 16A	
Length power cord approx.		1.5 m		1.5 m		1.5 m	
Climate Class (EN-ISO 23953-2)		3 (25 °C/60%RH)		3 (25 °C/60%RH)		3 (25 °C/60%RH)	
Refrigerant ⁶		R744 (CO ₂)		R744 (CO ₂)		R744 (CO ₂)	
Circuit volume		1.58 dm ³		2.22 dm ³		2.83 dm ³	

⁵ Excluding optional evaporation tray (additional 2.5 A)

⁶ Default refrigerant, other on request

Remote – Cold Full-service models

Model	MCC	90-2-C FS	120-2-C FS	150-2-C FS
Approved for		EU	EU	EU
Width		900 mm	1200 mm	1500 mm
Depth		750 mm	750 mm	750 mm
Height on stand		1420 mm	1420 mm	1420 mm
Height above worktop		520 mm	520 mm	520 mm
Weight Net Approx.		182 kg	218 kg	254 kg
Ambient Temperature		min. 15°C – max. 25°C	min. 15°C – max. 25°C	min. 15°C – max. 25°C
Relative humidity		max. 60%	max. 60%	max. 60%
Noise level (at workplace)		<70 dB(A)	<70 dB(A)	<70 dB(A)
Voltage		1N~ 230V	1N~ 230V	1N~ 230V
Frequency		50 Hz	50 Hz	50 Hz
Max. nominal Current ⁷		0.2 A	0.3 A	0.3 A
Plug		2 pole earthed plug 16A	2 pole earthed plug 16A	2 pole earthed plug 16A
Length power cord approx.		1.5 m	1.5 m	1.5 m
Climate Class (EN-ISO 23953-2)		3 (25 °C/60%RH)	3 (25 °C/60%RH)	3 (25 °C/60%RH)
Refrigerant ⁸		R744 (CO ₂)	R744 (CO ₂)	R744 (CO ₂)
Circuit volume		1.58 dm ³	2.22 dm ³	2.83 dm ³

Model	MCC	90-3-C FS	90-4-C FS	120-3-C FS	120-4-C FS	150-3-C FS	150-4-C FS
Approved for		EU		EU		EU	
Width		900 mm		1200 mm		1500 mm	
Depth		750 mm		750 mm		750 mm	
Height on stand		1420 mm		1420 mm		1420 mm	
Height above worktop		840 mm		840 mm		840 mm	
Weight Net Approx.		175 kg	182 kg	200 kg	209 kg	230 kg	241 kg
Ambient Temperature		min. 10°C – max. 25°C		min. 10°C – max. 25°C		min. 10°C – max. 25°C	
Relative humidity		max. 60%		max. 60%		max. 60%	
Noise level (at workplace)		<70 dB(A)		<70 dB(A)		<70 dB(A)	
Voltage		1N~ 230V		1N~ 230V		1N~ 230V	
Frequency		50 Hz		50 Hz		50 Hz	
Max. nominal Current ⁷		0.3 A		0.4 A		0.4 A	
Plug		2 pole earthed plug 16A		2 pole earthed plug 16A		2 pole earthed plug 16A	
Length power cord approx.		1.5 m		1.5 m		1.5 m	
Climate Class (EN-ISO 23953-2:2015)		3 (25 °C/60%RH)		3 (25 °C/60%RH)		3 (25 °C/60%RH)	
Refrigerant ⁸		R744 (CO ₂)		R744 (CO ₂)		R744 (CO ₂)	
Circuit volume		1.58 dm ³		2.22 dm ³		2.83 dm ³	

⁷ Excluding optional evaporation tray (additional 2.5 A)

⁸ Default refrigerant, other on request

Ambient models

Model	MCC	60-2-A	90-2-A	120-2-A	150-2-A
Approved for		EU	EU	EU	EU
Width		600 mm	900 mm	1200 mm	1500 mm
Depth		750 mm	750 mm	750 mm	750 mm
Height on stand		1420 mm	1420 mm	1420 mm	1420 mm
Height above worktop		840 mm	840 mm	840 mm	840 mm
Weight Net Approx.		100 kg	130 kg	160 kg	190 kg
Noise level (at workplace)		<70 dB(A)	<70 dB(A)	<70 dB(A)	<70 dB(A)
Voltage		1N~ 230V	1N~ 230V	1N~ 230V	1N~ 230V
Frequency		50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Max. nominal Current		0.4 A	0.4 A	0.4 A	0.4 A
Plug		2 pole earthed plug 16A	2 pole earthed plug 16A	2 pole earthed plug 16A	2 pole earthed plug 16A
Length power cord approx.		1.5 m	1.5 m	1.5 m	1.5 m

Model	MCC	60-3-A	60-4-A	90-3-A	90-4-A	120-3-A	120-4-A	150-3-A	150-4-A
Approved for		EU		EU		EU		EU	
Width		600 mm		900 mm		1200 mm		1500 mm	
Depth		750 mm		750 mm		750 mm		750 mm	
Height on stand		1420 mm		1420 mm		1420 mm		1420 mm	
Height above worktop		840 mm		840 mm		840 mm		840 mm	
Weight Net Approx.		125 kg	130 kg	155 kg	162 kg	185 kg	194 kg	215 kg	226 kg
Noise level (at workplace)		<70 dB(A)		<70 dB(A)		<70 dB(A)		<70 dB(A)	
Voltage		1~ 115V		1~ 115V		1~ 115V		1~ 115V	
Frequency		60 Hz		60 Hz		60 Hz		60 Hz	
Max. nominal Current		0.4 A	0.4 A	0.4 A	0.4 A	0.4 A	0.4 A	0.4 A	0.4 A
Plug		2 pole earthed plug 16A		2 pole earthed plug 16A		2 pole earthed plug 16A		2 pole earthed plug 16A	
Length power cord approx.		1.5 m		1.5 m		1.5 m		1.5 m	

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