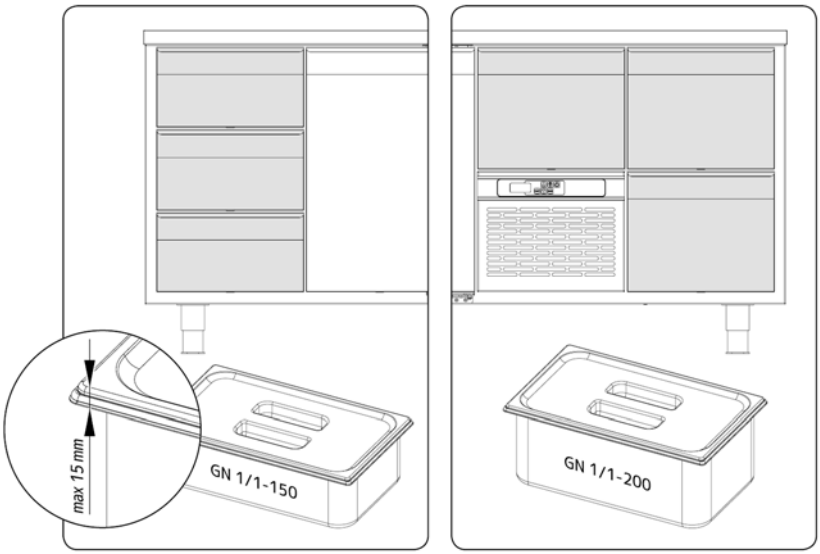
COOLING/FREEZING COUNTERS AND SALADETTE COUNTERS

Installation, Operation and Maintenance Manual

CE

VALID FROM 2018

1.3. GN container application for drawers



1.4. Instruction for use

To ensure that you get optimum use of your purchased product, please read these instructions carefully before putting it to use. Save these instructions for future reference.

Cooling counters and saladette counters are designed for short term chilled food storage (cooling counters and saladette counters with working temperature: -5 … +5 °C, +2 … +8 °C and -5 … +8 °C) and for short term frozen food storage (only cooling counters with working temperature: -20 … -18 °C).

1.5. Receiving equipment

Check the packaging and cabinet for shipping damage before and after unloading the unit, and after removing all the packaging.

The receiver of this product is responsible for filing freight damage claims. This equipment must be opened immediately for inspection. All visible damage must be reported to the freight company and must be noted on freight bill at the time of delivery.

1.6. Warranty terms

Manufacture provides a Manufacturer's warranty for all of the equipment against defects in materials and workmanship for a period of 1 year from the date of invoicing of the defective product or component to the distributor. Manufacturer undertakes to replace all inferior parts to proper quality parts or materials. In case of a fault, a properly filled claim is required and must contain all essential information relative to the fault. Faulty parts shall be returned to Manufacturer for further inspection.

Extended warranty

The extended warranty is solely applicable to certain equipment (indicated in the price list). The extended warranty costs extra of the item's list price. Standard warranty terms apply.

Warranty exclusions and limitations of liability

The warranty in these Terms shall be the distributor's exclusive remedy for defective products and components towards Manufacture. Manufacture shall not be liable for any costs, expenses, losses or claims (whether direct, indirect, consequential or otherwise) relating to defective products or components un-less otherwise explicitly stated herein or agreed in writing. Any expenses in connection with the installa-tion or costs of making adjustments (including service procedures, travel time costs) on the equipment to comply with the supply at the point of installation are not covered by this warranty.

The producer does not take any responsibility for damages that occur due to ignorance of cautions, improper maintenance or mechanical damages of the unit, including those, caused during the delivery. This warranty is not effective if damage occurs from improper installation, misuse; incorrect voltage supply, wear and tear from normal usage, accidental breakage, damage or if the equipment is operated contrary to the user instructions. The warranty does not cover if the damage occurs due to natural disasters; fire, if repair service was made by unauthorized person.

In case of a failure not covered by the warranty, we provide a possibility to purchase spare parts.

2. Safety regulations

2.1. Operating

These units are intended for indoor use only. This unit is not intended for use by persons with reduced physical, sensory, or mental capabilities except the case, when they are instructed about safe operating before. Ensure proper supervision of children and keep them away from unit. Make sure all operators are instructed on safe and proper use of unit. Do not operate unattended.

Monitor temperatures closely for safety. *Manufacture* is not responsible for actual food product serving temperature. It is the responsibility of the user to ensure that food product is held and served at a safe temperature.

 **ELECTRIC SHOCK, FIRE OR BURN INJURIES CAN OCCUR IF THIS EQUIPMENT IS NOT USED PROPERLY. TO REDUCE RISK OF INJURY:**

1. 

Flammable refrigeration agent, do not use open flames near the unit. Repairs must only be carried out by suitably qualified personnel in a well-ventilated room;
2.  **Do not use electrical devices inside the cabinet;**
3. **Have the unit installed by qualified service personnel;**
4. **Plug only into grounded electrical outlets matching the required voltage;**
5. **Unit should be used in a flat, level position;**
6. **Unplug the unit before cleaning or moving.**
7. **During normal operation, parts in the refrigeration system might reach high temperatures;**
8. **Touching these components might cause burns or injuries;**
9. **Do not damage the refrigeration system parts.**
10. **Do not use mechanical devices or other means to accelerate the defrosting process, except for those recommended by the manufacturer;**
11. **Do not damage the cooling system pipeline.**

To ensure correct and efficient air flow in the counter, there must be an air gap free of products left (see fig. 1) for best air circulation between the sides, bottom and top.

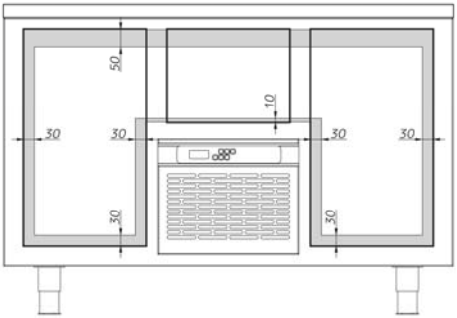


Fig. 1. Air gap left for circulation

All the unwrapped and unpacked products must be covered to avoid corrosion of the interior parts of the counter. Foods containing acetic acid or yeast should be wrapped up in plastic film. Otherwise they may accelerate corrosion of evaporator and metal parts, resulting failure.
Bottles stored near the air outlet may freeze up and break, causing a risk of injury. Moist and fresh foods with strong smell should be wrapped up in plastic film or packed container. Otherwise the food may dry up or give their smell to other foods.

If any controller parameters are changed from default, this could cause that the appliance is not functioning normally. Harmful temperatures could damage products, kept inside the unit.
If the appliance is turned off, wait minimum for 4 minutes before turning the appliance again. This must be done in order to protect compressor from damage.

Tabletop cannot be in contact with stuff/surface hotter than 60°C (hot cookware, equipment, etc.)

2.2. Service

To avoid serious injury or damage, never attempt to repair this equipment or replace a damaged power cord yourself. Contact a qualified professional repair service.

Always disconnect the product before servicing or replacing any electrical component.

If operating fails first look to see whether the unit has been unfortunately switched off, or whether the fuse has blown. If failure cannot be found, contact your supplier quoting Model and Serial No. of the product. This information is on the nameplate of the unit.

The refrigeration system and the hermetically sealed compressor require no maintenance. However the condenser and air filter requires regular cleaning.

The compressor compartment and in particular the condenser must be kept free from dust and dirt. This is best done with a vacuum cleaner and a brush.

It is recommended to clean the air filter weekly. Otherwise the producer does not guaranty the efficiency of the product.

To remove the air filter for cleaning, take off the door of cooling unit's chamber by pulling towards yourself. The filter is attached by velcro and can be easily removed (see fig. 2) and cleaned in a dishwasher at max 50°C.

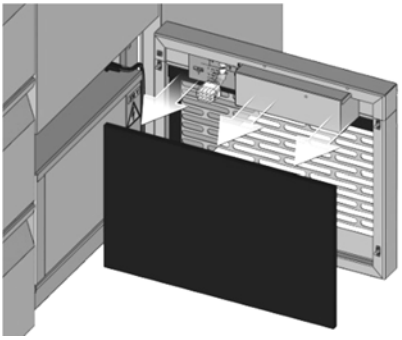


Fig. 2. Removal of the air filter

The cooling unit can be easily replaced with new one (fig. 3).

1. Disconnect the power supply;
2. Take off the door of cooling unit's chamber by pulling towards yourself;
3. Disconnect the power cable of the cooling unit;
4. Disconnect pin-and-socket connector from counter controller which is placed on chamber's cover (fig. 4)
5. Disconnect grounding wire;
6. Pull out cooling unit;
7. Take new cooling unit and place it in (also opening the above-drawer beforehand);
8. Connect grounding wire;
9. Connect control wires to counter's controller as showed on wiring diagram (fig. 7);
10. Connect the power wire;
11. Put on the cover of cooling unit's chamber;
12. Connect power supply and turn on counter.

For the counters FP*-P*** (-20 … -18), the cooling unit must be plugged in as shown in Fig. 5.

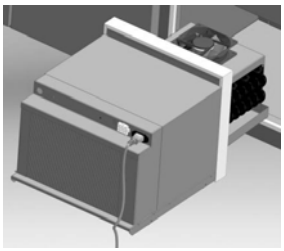


Fig. 3. Replacement of the cooling unit

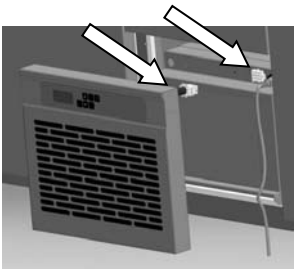


Fig.4. Pin-and-socket connector

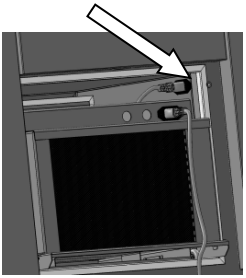


Fig. 5. Plugging the cooling unit

3. Installation

3.1. General requirements

This unit must be installed by qualified, trained installers. Installation must conform to all local electrical codes. Check with local electrical inspectors.

After the transportation, the counter must stand upright at least 2 hours before it is started to allow the liquids of the system to run back. Before starting to operate the equipment, protective film must be taken off from all the surfaces of the counter and the unit must be cleaned internally with a mild soap solution and checked thoroughly before it is put into operation.

If the additional tabletop (Wood, Granite) is applied F0*-P*** cooling counter, use adhesive for metal, wood and granite. We recommend that the adhesive is resistant to moisture and chemicals.

IMPORTANT!

In places where warning triangles and/or screws are used to secure covers around electrical parts, there is a risk of severe injury if covers are removed. Therefore, covers must only be removed by a service technician.

3.2. Location

The counter should be located in a dry and adequately ventilated room. To ensure efficient operation, it must not be placed facing draft winds, in direct sunlight or against heat-emitting surfaces.

Set up-place must be level and horizontal. If the counter is fitted with legs, the legs must be adjusted to ensure that it stands level and not distorted in any way. If the unit is fitted with castors, it must stand on a flat floor; the wheels have to be locked when the counter is in place. In time, an uneven floor might distort the appliance to the extent that door and drawer operation becomes difficult.

If the counter is to be fixed on a wall, make sure that it stands level and undistorted.

Avoid placement of the counter in a chlorine/acid-containing environment (swimming-bath etc.) due to risk of corrosion.

IMPORTANT!
Do not block vent holes in the front panel.
Do not damage the refrigeration system.
Do not use electrical devices inside the cooling/freezing table.

The units must have minimum 90 mm air gap between the bottom and any surfaces or objects below and also between the sides of the unit and surrounding planes.

3.3. Electrical connection

All the units are tested by producer to assure proper operation. Power must be connected via a wall socket. The wall socket should be easily accessible.

The unit is intended for connection to alternating current. The connection values for voltage (V) and frequency (Hz) are given on the nameplate.

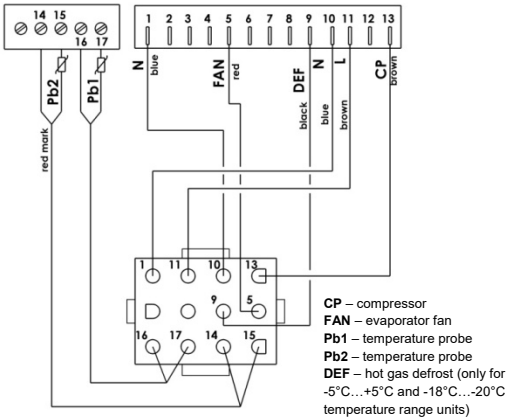


Fig. 7. The wiring diagram

WARNING!

This appliance must be earthed.

Power must be connected via a wall socket. Only the supplied cord is to be used. The wall socket should be easily accessible. Products must only be connected to such a network (grid), which is protected by circuit breakers.

Never use an extension cord for this appliance. If a wall socket is placed in a longer distance than the length of the supplied power cord, contact an electrician to install a wall socket within the range of the supplied power cord.

All earthing requirements stipulated by the local electricity authorities must be observed. The cooling/freezing table plugs and wall socket should then give correct earthing. If in doubt, contact your local supplier or authorized electrician.

3.4. Defrosting water

Defrost water is led through a pipe, from the evaporator and into a tray below compressor and condenser. Here, water is evaporated by the heat from hot Freon gas from compressor and hot air from condenser.

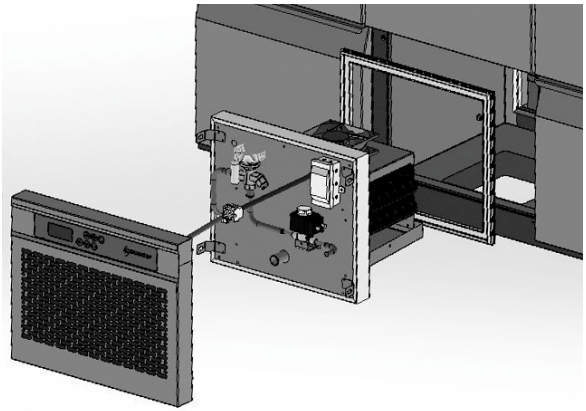
Never use sharp or pointed objects to accelerate the defrosting process.

3.5 Cooling counters connected to the central refrigeration system

Connect the following in advance to the future location of the refrigeration table to be connected to the central refrigeration system:

1. Refrigeration systems piping;
2. Power supply connection;
3. Condensate discharge pipe to sewer system.

Connection of the refrigeration system to the central refrigeration system and launching can be performed only by properly qualified personnel or companies.



4. Operation

4.1. User interface

The user interface is represented by the front panel, which features: up to 6 keys. A 9 mm, 4-digit display where 3½ digits plus negative/positive sign are used to display as symbols or numbers the resources being studied, plus 14 LED icons to provide a visual indication of states or alarms.

Fig. 8. The display

Fig. 9. The keypad

4.3. Basic operations

Press and hold the ON/STAND BY (ESC) for a few seconds. To set up the temperature, press SET and choose the needed temperature using arrows (2) (to increase the temperature press and to decrease it press), after selection press again. To manually turn defrost on, press and hold the defrost button for 4 seconds and defrost will start immediately.

4.4. Display icons

The display icons are not configurable; they are associated with one particular system operation event. The associated functions are:

FUNCTION	LED STATE	N.B.
Degrees Celsius **°C**	*On* = Indicates that the measurement is in degrees Celsius *Off* = otherwise	Depends on parameter drO
Degrees Fahrenheit **°F**	*On* = Indicates that the measurement is in degrees Fahrenheit *Off* = otherwise	Depends on parameter drO
Standby	*On* = controller off *Off* = controller on	Device off = Stand-by
Overcooling	*On* = Overcooling active *Off* = Overcooling not active	Overcooling activates manually (see keypad function above) and depends on parameters tOC and OrC
Compressor	*On* = compressor on. *Blink* = modify set point, compression protection with activation blocked. *Off* = otherwise	A protection may intervene depending on how parameters have been programmed
Defrost/dripping	*On* = defrost on *Blink* = dripping underway *Off* = otherwise	When Defrost is requested but the compressor is set to defrost protection, the defrost will be postponed
Evaporator fan	*On* = fan running. *Off* = fan off *Blink* = fan stopped	The Fan Block depends on parameter F3
Alarm	*On* = in the event of alarm or error *Off* = normal function	

4.5. Indication, alarm and error codes

CODE	SIGNIFICANCE
rhL	Function in low relative humidity
rhH	Function in high relative humidity
Loc	Keypad locked
UnL	Keypad unlocked
----	Function not available
AL	HACCP low temperature alarm
AH	HACCP high temperature alarm
id	HACCP door switch alarm
Pr1	Cold Room Probe Error
Pr2	Evaporator probe error

4.6. Maximum and minimum temperature alarms

PARAME-TER	DESCRIPTION	RANGE	DE-FAULT	UM	NOTE
Att	Alarm parameters mode	0/1/2	0	num	0 = absolute, 1 = relative
LAL	Minimum alarm	50.0 … HAL	-10	°C/°F	
HAL	Maximum alarm	LAL … 150	10	°C/°F	
Afd	Alarm set differential	0.1 … 15.0	2	°C/°F	
tAO	Alarm signalling. delay	0 … 240	10	min	Refers solely to high or low cold room probe temperature alarms.
PAO	Exclude alarm on switching on	0 … 240	1	ora	Refers solely to high or low cold room probe temperature alarms.

The alarm temperature always refers to the cold room and never to the evaporator. Alarm regulation is based on the cooling table probe. There are two possible types of alarm: maximum and minimum alarm.

The temperature limits defined in parameters HAL and LAL are determined by parameter Att, which specifies if they represent the absolute temperature value or set point differential.

N.B.: relative alarm values are considered with no sign and subtracted in the event of a minimum alarm and summed for maximum alarms. Alarm delays refer to power on, end of defrost and end of evaporator stop.

5. Maintenance and cleaning

Always disconnect the equipment before cleaning. Do not flush compressor compartment and evaporator with water as this may cause short-circuits in the electrical system.

Wipe the interior metal surfaces with a paper towel to remove any remaining food debris. Clean interior with a damp cloth or sponge and any good commercial detergent at the recommended strength.

Clean the stainless steel by using a soft cloth and mild soap solution. If it is not sufficient, try a non-abrasive liquid stainless steel polish.

The equipment should be checked before it is put into operation again. Be sure they are completely rinsed away with clear water, immediately after cleansing. Chemical residue could corrode surface of unit. For the external maintenance, use stainless steel polish.

The compressor compartment and in particular the condenser must be kept free from dust and dirt. This is best done with a vacuum cleaner and a brush. The air filter on the condenser and the front panel can be removed and cleaned in a dishwasher at max 50°C.

To avoid damaging organic glass, do not use cleaners containing alcohol.

Cleaning of counter with drawers:

If the cooling/freezing table is equipped with drawer and the bottom, sides or back wall require cleaning, the drawer can be removed as follows:

Pull out the drawer by lifting it up and pulling the drawer off the extension rails.

After cleaning, the drawer can be replaced. Place the drawer on the outer wheels on the telescopic rails. Lower the drawer into a horizontal position and push it into a closed position.

Cleansing agents containing chloride or compounds of chlorine as well as other corrosive means, may not be used, as they might cause corrosion to the stainless panels of the unit.

Do not spray outside of unit or controls with liquid or cleaning product. **Liquid could enter the electrical compartment and cause a short circuit or electric shock.**

To avoid damaging the finish, do not use abrasive materials, scratching cleaners or scouring pads. Always rub along the grain of stainless steel polish.

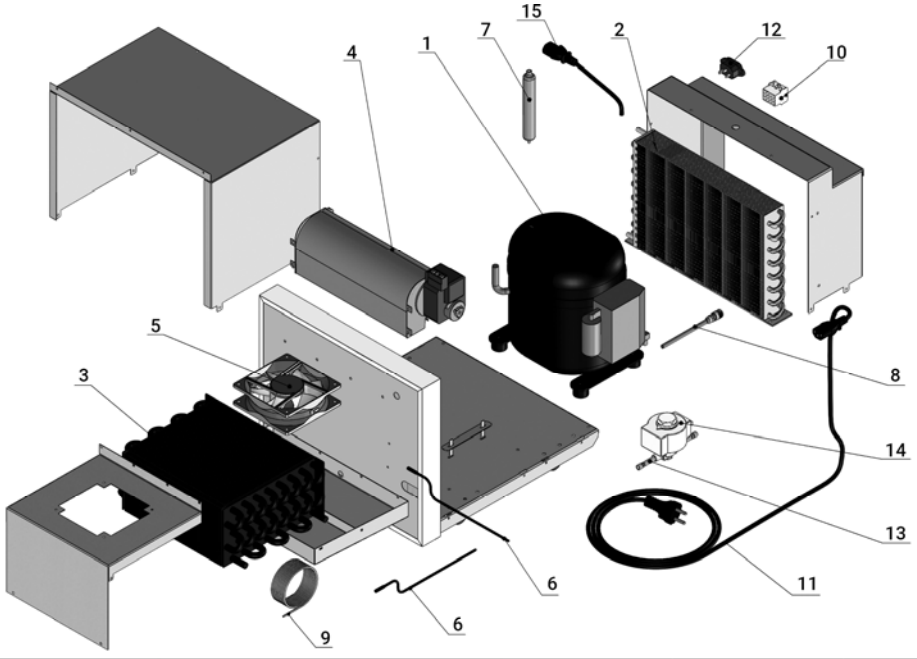
BEFORE CLEANING ALWAYS BE SURE THE UNIT IS TURNED OFF.

6. Disposal

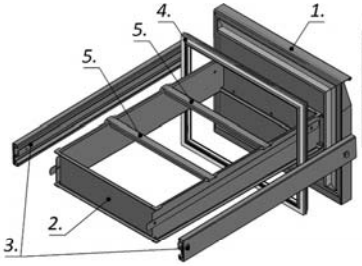
EU regulations require refrigeration product to be disposed of by specialist companies who remove or recycle any gas, metal and plastic components.

Consult your local waste collection authority regarding disposal of your appliance. Local authorities are not obliged to dispose of commercial refrigeration equipment but may be able to offer advice on how to dispose of the equipment locally.

7. Spare parts list

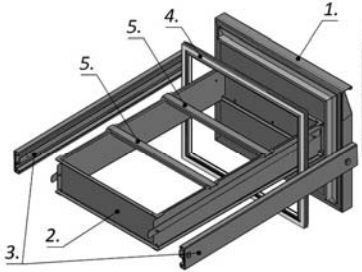


Pos.	Name	R134a				R404a	R290	
		+2 ... +8°C		-5 ... +5°C		-20 ... -18°C	-5 ... +8°C	-20 ... -18°C
		1½ - 2½ sections	3½ - 4½ sections	1½ - 2½ sections	3½ - 4½ sections	1½ - 2½ sections	1½ - 4½ sections	1½ - 2½ sections
1	Compressor	N-G-ESK-T-1-2	N-G-ESK-T-3-4	N-G-ESK-T-1-2	N-G-ESK-TN-3-4	N-G-ESK-N-1-2	K-ESKP-360	K-ESKP-417
2	Condenser	N-G-DK-2E	N-G-DK-2E	N-G-DK-2E	N-G-DK-3E	N-G-DK-3E	N-G-DK-3E	N-G-DK-3E
3	Evaporator	N-G-DG	N-G-DG	N-G-DG	N-G-DG	N-G-DG	N-G-DG	N-G-DG
4	Fan for condenser	N-G-EOV-K	N-G-EOV-K	N-G-EOV-K	N-G-EOV-K	N-G-EOV-K	N-G-EOV-K	N-G-EOV-K
5	Fan for evaporator	N-G-EOV-GM	N-G-EOV-GM	N-G-EOV-GM	N-G-EOV-GD	N-G-EOV-GM	N-G-EOV-GM	N-G-EOV-GM
6	Temperature probe	NTC	NTC	NTC	NTC	NTC	NTC	NTC
7	Filter drier	N-G-DF-20	N-G-DF-20	N-G-DF-20	N-G-DF-20	N-G-DF-20	N-G-DF-20	N-G-DF-20
8	Schreder's service valve	N-G-DV-1-4	N-G-DV-1-4	N-G-DV-1-4	N-G-DV-1-4	N-G-DV-1-4	N-G-DV-1-4	N-G-DV-1-4
9	Capillary tube	N-G-DV-0,9x2,4	N-G-DV-1,0x2,4	N-G-DV-0,9x2,4	N-G-DV-1,1x2,4	N-G-DV-0,8x1,8	N-G-DV-0,9x2,8	N-G-DV-0,8x1,7
10	Power connector	K-EJD12M	K-EJD12M	K-EJD12M	K-EJD12M	K-EJD12M	K-EJD12M	K-EJD12M
11	Power cable black 2.5 m	N-G-EKKJ-3x1	N-G-EKKJ-3x1	N-G-EKKJ-3x1	N-G-EKKJ-3x1	N-G-EKKJ-3x1	N-G-EKKJ-3x1	N-G-EKKJ-3x1
12	Plug ICE panel mount	N-G-EVJ-10A	N-G-EVJ-10A	N-G-EVJ-10A	N-G-EVJ-10A	N-G-EVJ-10A	N-G-EVJ-10A	N-G-EVJ-10A
13	Solenoid valve soldering	N/A	N/A	N-G-EVV1	N-G-EVV1	N-G-EVV1	N-G-EVV1	N-G-EVV1
14	Coil for solenoid valve	N/A	N/A	N-G-EVV2	N-G-EVV2	N-G-EVV2	N-G-EVV2	N-G-EVV2
15	Plug IEC cable mount	N/A	N/A	N/A	N/A	N-G-EKJ-6A	N/A	N-G-EKJ-6A



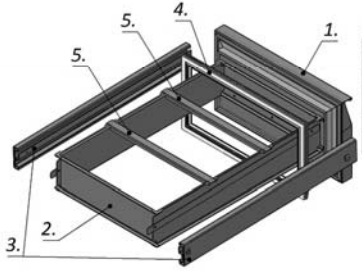
Parts for drawer above cooling unit F00-010-40.00 SB

Pos.	Name	Model
1	Drawer's front	F00-010-41.00 SB
2	Drawer for GN container	F00-010-42.00 SB
3	Telescopic slides	K-FBEG-COMPEX
4	Drawer above cooling unit gasket	K-FTS-SK
5	Drawer divider for GN set	F-SSGN



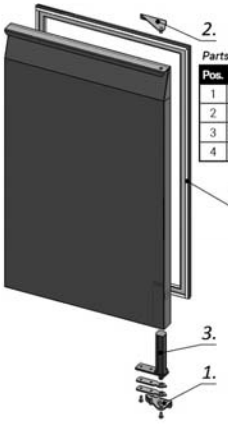
Parts for big drawer F00-010-43.00 SB

Pos.	Name	Model
1	Drawer's front	F00-010-44.00 SB
2	Drawer for GN container	F00-010-42.00 SB
3	Telescopic slides	K-FBEG-COMPEX
4	Big drawer gasket	K-FTS-SD
5	Drawer divider for GN set	F-SSGN



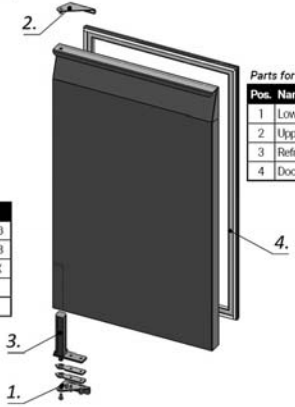
Parts for small drawer F00-010-45.00 SB

Pos.	Name	Model
1	Drawer's front	F00-010-46.00 SB
2	Drawer for GN container	F00-010-42.00 SB
3	Telescopic slides	K-FBEG-COMPEX
4	Small drawer gasket	K-FTS-SM
5	Drawer divider for GN set	F-SSGN



Parts for right hand door F00-010-31.00 SB

Pos.	Name	Model
1	Lower hinge	F00-010-34.00 SB
2	Upper hinge	F00-010-38.00 SB
3	Refrigerator door hinge	K-FDVS
4	Door gasket	K-FTS-D



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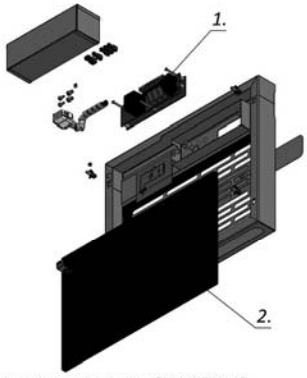
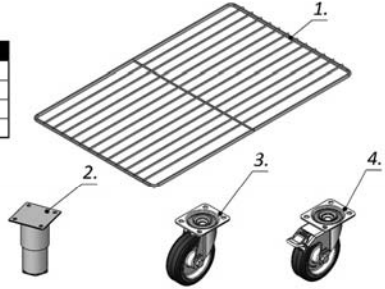


Parts for cooling unit chamber door F00-010-50.00 SB

Pos.	Name	Model
1	The controller open	K-EVS-A
2	Air filter	K-BFP-407x261x10
3	Power connector	K-EJD12B
4	Cover	F00-010-50.03



Parts for cooling counters

Pos.	Name	Model
1	Refrigerator grill	K-DMLG-530x325
2	Screw-on height-adjustable leg	K-KP-90x89-REG
3	Swivel castor	K-RPX125-150NCG-BLIC
4	Swivel castor with 'stop-fix' brake	K-RPS125-150NCG-BLIC
5	Grill guide	F00-010-20.10