



OPERATING MANUAL

REFRIGERATED COUNTER WITH A REFRIGERATING UNIT

CAUTION!!!

**BEFORE USING THE APPLIANCE, DO READ THROUGH THIS MANUAL
CAREFULLY**



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I UNPACKING AND HANDLING THE APPLIANCE

In order to protect a refrigerating unit from damage, the appliance must be transported and stored in the position for use only. The warranty will be invalidated if aforesaid regulation is not observed.

Before unpacking the appliance you must make a visual control for possible damage. Much attention must be paid to not-fastened elements, convexities, scratches and visible oil leakages, etc.

All possible damages must be reported to transport company urgently (acc. to "the Regulations Binding In Case of the Damage")

Prior to disposal you must control packages for possible loose functional elements.

2 GENERAL DESCRIPTION AND TECHNICAL DATA

The cooling (freezing) counter is a universal appliance designed for exposition, transitory depositing and direct sale of foodstuffs at the lowered temperature. For the range of temperatures of the given type of the counter see the attached index. Temperatures may differ slightly in various places of the counter, depending on the distance between commodity and an evaporator of the counter with a static refrigeration system or a cold air output for the forced air circulation (dynamic cooling)

The appliance has a closed refrigeration system together with the evaporator which is supplied either by means of capillary tube (static cooling) or by a thermostatic expansion valve (dynamic cooling). In case of dynamic refrigerated counters there are cooling fans in the evaporator. Water emerging when automatic defrosting is drained through a hole into the container which is situated in the bottom part of the appliance.

The cooling (freezing) counter is a self-supporting structure placed on a steel frame. The inner surfaces are made of stainless sheet steel, while the outer surfaces are made of painted steel sheet and stainless steel sheet. The insulation layer is made of polyurethane foam. The surface of exposition shelves are made of planished stainless sheet covered with a protective foil or stainless sheet steel.

A heater is installed in some models in the lower part of the appliance's front pane to provide protection from dew formation if air humidity is raised in the ambient air.

In the upper part of the appliance's lighting panel a fluorescent lamp is located to ensure commodity's proper exposition. On the Customer's request what can be also installed is fluorescent lamps of different colour of light e.g. for meat exposition. From shop assistant's side there is a worktop on which a scales or slicer can be placed. The control panel and the door of the lower chamber (if included any) are situated below the worktop. The cooling unit is fixed on the frame which has adjustment feet that enable leveling of the appliance.



3 INSTALLING AND LOCATING THE REFRIGERATED COUNTER

LOCATING AND POSITIONING

The cooling (freezing) counter was designed for the shop conditions that are in compliance with the standard EN-441-4 climatic class 3, i.e. the ambient temperature +25°C, the relative humidity below 60% and the saturation point temperature +17°C.

Air flow

The ambient air velocity cannot exceed 0.2m/s; thus, the appliance should be installed neither next to any door nor in an often ventilated place. Should it be installed in such a place it may malfunction.

Heat emission

Do not place the appliance close to heat sources (heaters, heating units, heat air outlets) and avoid prolonged exposure to direct sunlight. No radiators may be directed to the appliance. Avoid, if possible, the lighting with bulbs. The luminescent lamps generate less heat quantity!

Any thermal radiation directed towards the appliance causes both the increase in operating costs and malfunction of the appliance.

Dew formation

Dew formation or in other words so-called sweating, is the process of steam condensation that takes place when the air which is too humid borders on surfaces which are colder than the dew point.

It should be emphasized though that glass sweating is an ordinary occurrence as long as it is transitory, e.g. while defrosting when ambient air humidity increases suddenly.

Long-lasting and frequent glass sweating calls for the analysis of ventilation system of the place the appliance is placed in.

Levelling

The appliance must be placed on a firm surface resting level and stable on tapped levelling feet the appliance is equipped with.

Levelling must be performed before installation of the panes!!!

Adjust levelling feet until the appliance reaches a stable position and is free from vibration. Control the appliance's positioning by means of a level placed on a flat surface of the appliance. All the leveling feet must rest on the ground. Poor levelling may result in the appliance's malfunction (e.g. poor draining of water).

After adjustment and leveling, remove protective films from night blinds and exposition shelves. Prior to putting commodities into the appliance, clean and wipe it dry.



Ventilation of the positioning place

The cooling units remove heat into ambient air through condensers from the space cooled along with the heat generated from electric energy used by refrigerating system. For this reason making air circulation difficult in vicinity of the appliance is not allowed.

4 CONNECTION TO ELECTRICAL SYSTEM

- The appliance is a compact device ready for connection.
- Feeding terminals of electrical system must be replaced by a qualified producer's service staff.
- A fuse, at least 16 A.

The appliance must be connected only with a socket with a protective contact and its own current circuit with a 16 A time delay cut-out. In no circumstances more than one appliance is allowed to be connected to current circuit.

CAUTION: Voltage and frequency of the mains must be compliant with the rated values provided on identification board of the appliance.

The electrical system must be installed only by a qualified service staff and in compliance with the safety provisions.

5 TEMPERATURE CONTROL AND REGULATION

In the standard version the appliance is equipped with an electronic controller for cooling (freezing) counters with two probes for measuring temperature: for the chamber and defrosting process. The programmed working cycle ensures correct operation of the appliance in nominal conditions.

The digital electronic thermostat operates as a direct action thermostat (i.e. it controls the refrigeration appliance). In the appliance it also serves as a display, which, depending on the work mode, shows:

11. within the regular mode - the temperature value measured by the chamber probe;
12. within the parameter selection mode – parameter code or the value related;
13. in the emergency – alarm code

The electronic thermostat display may show depending on the type being used the modes of the appliance like:

- compressor running (cooling);
- fans running;
- defrosting in progress.

In order to recognize possible alarm code a user should read the instruction manual of the particular electronic thermostat.

The thermostat is an industrially-set appliance; set temperature for the given type of the appliance is provided in the catalog card. The change of setting of the thermostat causes the change of the internal temperature of the appliance. It is always necessary to check the



setting with a thermometer and, if necessary, set the temperature a little bit higher or lower in value.

The temperature of the appliance is controlled automatically by an electronic thermostat. The change in temperature value is made through changing the parameters of the electronic controller (see: Thermostat Instruction Manual).

It should be emphasized that any decrease in temperature causes the prolongation of refrigerating unit operation and, as result, operating costs are increased. The temperature should not be set lower than the storage temperature of the commodity.

Apply the storage temperature which is specific for the given products! Attention must be paid to the fact that the products are to be stored at the proper temperature.

Defrosting is carried out automatically and is regulated by the electronic thermostat. Should there be a need for some additional defrosting caused by e.g. too high humidity of the ambient air, loading foodstuff that is not cooled down enough etc., manual defrosting is possible by means of the button on the electronic thermostat panel. The thawing water flows through the holes of the bottom wall to the tray. From time to time check the patency of outlet openings and should there be a need remove any dirt. Otherwise, it may cause damage to the appliance.

Special attention must be paid to the fact that the refrigerated counter must be entirely defrosted and cleaned down once a month.

6 LOADING PRODUCTS

Cooled (frozen) foodstuffs that are intended for the exposition and direct sale should be placed on the exposition surface, and attention must be paid neither to exceed the permissible loading limit nor a maximum one as per given data plate for each individual length of the refrigerated counter.

Before loading products, clean the appliance and wipe it dry. In order to properly load the appliance, follow a few important rules:

- Place foodstuff within the display area below the edge of permissible loading;
 - Place foodstuff in such a way so as not to block airflow and not to cover air-inlet and air-output (even partially);
 - Uniform loading, i.e. with no empty spaces, ensures the best functioning of the appliance;
 - Never overload the display shelves;
 - Always remember to keep distances (channels) between products minimum 2 cm wide, they will ensure proper flow of cooled air.
- **Remember to cool the foodstuff to the right temperature before loading it into the appliance.**

Should the aforementioned rules not be followed the refrigeration appliance may malfunction and thus cause losses in foodstuff.



7 CLEANING THE REFRIGERATED COUNTER

Foodstuff is very delicate and can easily be infected with various bacteria and for that reason obeying the hygiene norms is crucial. Small-sized products which are likely to fall out of broken packages can easily get into the bottom of the cabinet and block outlets of drainage system.

Cleaning can be divided into two phases:

External cleaning (every day/ once a week)

Cleaning the external parts ensures the improvement of the appliance visual appearance. The main part of the appliance, glasses, profiles, label handles, price handles etc. should always be cleaned with great care; therefore use cleaning materials that are suitable to the surfaces cleaned. Do not use cleaning materials that can enter into chemical reaction with aluminium, copper, steel or lacquer.

Never spray water or detergent onto electrical parts.

Internal cleaning (once a week)

Internal cleaning not only improves the visual appearance of the inside but also eliminates pathogenic micro-organisms and helps to protect foodstuff better.

What to do before cleaning:

- 1 remove all foodstuff and take it to the place with proper temperature;
- 2 disconnect all power circuits.

Before any internal cleaning you must disconnect the appliance from the electrical power supply!

- Wait till frost melts and thus emerging water flows down into the sewage system.
- Having disassembled all removable elements like shelves, nets etc. you must wash them with warm water and mild detergent.
- Any external materials that could get into the interior of the appliance through the net of air inflow must be removed.
- Check the bottom of the cabinet and clean the inlets of water. Do not use cleaning materials that can enter into chemical reaction with aluminium, copper, steel or lacquer.
- Replace the previously disassembled elements (only if you dried them beforehand) and reconnect power circuits.
- Let the cabinet cool to the sufficient temperature and load the foodstuff back.

Cleaning condenser

The condenser must be kept clean. Any impurities of the condenser's fins affect directly the refrigerated counter. To keep the condenser clean you must:

- turn off the condenser on the control panel;
- disconnect power voltage through unplugging;
- remove the cover of the appliance marked with the sticker with an inscription "condenser"; grasping the cover at special cuts and moving the cover upwards and downwards;
- clean the condenser with a wire brush moving along the fins of the condenser (to assure free airflow during normal operation, clean the condenser with an air stream e.g. by using the vacuum cleaner);



- remove impurities from both the base of a compressor and from the condenser;
- fix the cover;
- connect power voltage;
- turn on the appliance on the control panel.

Extreme caution should be exercised during the internal cleaning. Inside the appliance there are metal elements of sharp edges. To avoid injuries or cuts protect your hands.

8 LIGHTING

The appliance is delivered with its inner lighting system and a lighting switch situated on the lighting panel at the thermostat. On the Customer's request what can be also installed is fluorescent lamps of different colour of light e.g. for meat products exposition.




To exchange a fluorescent lamp you should:

- turn off the light system by means of the lighting switch;
- disconnect power voltage on the control panel **ON/OFF**;
- disconnect the appliance from the mains through unplugging;
- pull out the protective tube of fluorescent lamp;
- remove the damaged fluorescent lamp and insert a new one;
- fix the protective tube of fluorescent lamp;
- connect power voltage;
- connect power voltage on the control panel **ON/OFF**;
- turn on the light system by means of the lighting switch.

9 INSTRUCTION FOR USE OF THE CONTROLLER

CONTROLLER PJ32(Y, C, S)

DESCRIPTION OF BUTTONS:

	UP	Changes parameters and increases their values Continuous operation of the compressor
	DOWN	Changes parameters and decreases their values Activates manual defrosting mode
	SET	Menu input Setting display

SETTING OPERATING TEMPERATURE:

- keep the button **SET** pressed for 1 sec. , on display appears a leading value;
- after two seconds this value starts pulsating;
- increase or decrease leading value by pressing the buttons **UP** and **DOWN**, till the required value is reached;
- press **SET** again to confirm a new setting.





MANUAL DEFROSTING:

Defrosting is carried out automatically. Any time, if required, defrosting process may be forced by pressing and keeping the button **DOWN** pressed for at least 5 seconds.



CONTROLLER ID971 (974)

DESCRIPTION OF BUTTONS:

 UP	Changes parameters and increases their values Activates manual defrosting mode
 DOWN	Changes parameters and decreases their values
 FNC	Output
 SET	Setting display Menu input Command confirming

SETTING OPERATING TEMPERATURE:

- press and release the button **SET**, **.set** appears on display;
- press the button **SET** again, a set value appears on display;
- change the value by pressing the button **UP** or **DOWN**;
- press **FNC** twice, or press no button;
- after 15 seconds the controller returns to normal operating mode.

MANUAL DEFROSTING:

Defrosting is carried out automatically. Any time, if required, defrosting may be activated by keeping the button **UP** pressed for at least 5 seconds.

10. WARRANTY AND POST-WARRANTY SERVICE

When purchasing the appliance a user receives a numbered warranty certificate which includes the list of service points all over the country.

The manufacturer reserves the right to make alternations into the structure of the appliance!