

14. NOTES

1. Attempts to repair the refrigerated counter on your own and not following the instructions described in the Manual as for equipment connection and use will result in a loss of warranty.
2. Do not store inside the Equipment any substance that could explode, such as flammable aerosols filled with propellants.
3. LED strip can be replaced only at identical applied by the manufacturer.

The warranty card and conditions are effective only in the area of Poland.

The package should be removed according to the regulations of environmental protection.



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FLOWER REFRIGERATOR

TRANSLATED
FROM
ORIGINAL USER
MANUAL



www.rapapoland.com



Table of contents

1. Purpose	p. 3
2. Parameters.....	p. 4
3. Safety instructions	p. 4
4. Cooling system diagram.....	p. 4
5. Wiring system diagram	p. 5
6. General information	p. 5
7. Drawings	p. 6
8. Wiring system	p. 7
9. Transport and equipment.....	p. 8
10. Positioning, start-up and operation.....	p. 8
11. Maintenance.....	p. 9
12. Interferences.....	p. 9
13. Temperature controller manual instruction.....	p. 10
14. Notes.....	p. 12

Access for operator to parameters configuration and its modification

- press the „**SET**” switch for longer than 3 s. (in case there is alarm activated, switch the sound alarm first). On the display will appear the „PS” symbol (service parameter password protected);
- go to the next parameters by means of the “**UP**” and/or “**DOWN**” switches;
- press the “**SET**” switch to view the current value of parameter setting;
- increase or decrease setting value by means of the “**UP**” and “**DOWN**” switches;
- press the “**SET**” switch to temporarily save the entered new value – it will cause as well return to the parameters list;
- repeat the above operations – if it is necessary;
- press and hold the “**SET**” switch for longer than 3 s. – it will cause parameters saving and exit from the programming procedure.

Symbol	Parameter	Unit	Fabric setting	min.	max.
d8	Alarm bypass time after defrost	h	2	0	15
A0	Alarm and fan temperature differential	°C	2	0	20
AL	Absolute or relative temperature for low temperature alarm	°C	2	0	150
AH	Absolute or relative temperature for high temperature alarm	°C	8	0	150
Ad	Temperature alarm delay	min	60	0	199

High temperature alarm activation = setting + AH

High temperature alarm deactivation. = setting + AH – A0

Low temperature alarm activation = setting – AL

Low temperature alarm deactivation. = setting – AL + AHS

Warning:

If no button is pressed for 60 s., all the changes made to the parameters, temporarily saved in the RAM, will be cancelled and the previous settings restored.

If power is disconnected from the instrument before saving the settings (pressing the “**SET**” switch for 3 s.), all the changes made to the parameters and temporarily saved will be lost.

Description of the main signals and alarms

LED flashing - The activation of the corresponding function is delayed by a timer, awaiting an external signal or disabled by another procedure that is already in progress. e.g. if is a continuous cycle in progress and a defrost is called, the latter will remain pending until the end of the continuous cycle, and the corresponding LED (defrost) will flash.

E0 steady - control probe error (1) – active sound signal:

- probe not working: the probe signal is interrupted or short-circuited;
- probe not compatible with the instrument;

E0 flashing - control probe error (1) - the alarm signal E0 is steady if it is the only active alarm (the temperature value is not displayed), while it flashes if other alarms are active or the second probe is displayed.

E1 flashing - evaporator probe error (2):

- probe not working, the probe signal is interrupted or short-circuited;
- probe not compatible with the instrument;

Ed flashing - The last defrost ended after exceeding the maximum duration rather than when reaching the end defrost set point. The message disappears when the next defrost ends correctly.

EF displayed during operation or on power-up - operating parameter reading error (controller automatic reset). Alarm reappearance after automatic reset – it is necessary to check the controller as there is no guarantee to keep the original precision of the operation.

EE – data errors – In certain operating conditions, the instrument may detect errors in the data saved. These errors may compromise the correct operation of the instrument. If the microprocessor detects a data saving error, the display shows the message “**EE**”. If the fault persists, the controller needs to be replaced. If, on the other hand, the message disappears, it can continue to be used. When “**EE**” error occurs frequently and/or remains for some time, the controller should be checked, as the original precision may not be guaranteed.

LO flashing - low temperature alarm. The probe has measured a temperature lower than the set point by a value that exceeds parameter AL:

- check parameters AL, Ad and A0.

The alarm is automatically reset when the temperature returns within the set limits (see parameter AL).

HI flashing - high temperature alarm. The probe has measured a temperature higher than the set point by a value that exceeds parameter AH.

- check parameters AH, Ad and A0.

The alarm is automatically reset when the temperature returns within the set limits (see parameter AH).

2. PARAMETERS

- dimensions:
W (width) x D (depth) x H (height)
W = 120,5; 140,5; 160,5; 180,5; 200,5; 220,5 cm
D = 74,5 cm
H = 199,5 cm
- supply (voltage): **230V~ / 50Hz**
- compressor manufacturer: **CUBIGEL**
- refrigerant: **HFC-507**
(CHF₂CF₃/CH₃CF₃), ODP = 0, GWP = 3985
- operating temperature: **+1°C ÷ +10°C**

Climatic class means the maximum ambient temperature at which the equipment is designed to operate.

- max. permissible ambient temperature **+25°C**
- max. permissible ambient temperature for compressor **+32°C**

Climate conditions of the temperature test:

- ambient temperature: **+25 ± 1°C**
- humidity: **60% ± 3%**

3. SAFETY INSTRUCTIONS

1. Before removing the cooling unit guard, disconnect the device by unplugging it from the socket.
2. Do not connect the refrigerator to an electric installation without a grounding circuit.
3. An authorized electrician must check the suitability of the wiring system protective circuit.
4. Any repairs can be made only by an authorized fitter.
5. If sparking or breakdown occurs, immediately disconnect the refrigerator by unplugging it from the socket and call an authorized fitter.
6. Wash and clean the refrigerator only when it is disconnected.
7. Protect the wiring system and control systems against becoming wet and mechanical damage.

4. COOLING SYSTEM DIAGRAM

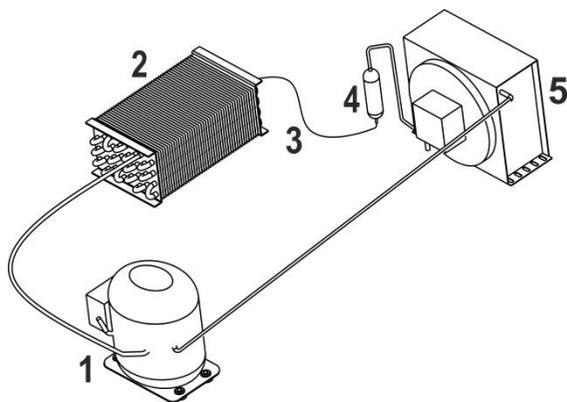


Fig. 1

1. Compressor
2. Evaporator
3. Capillary
4. Chemical filter
5. Condenser

11. MAINTENANCE

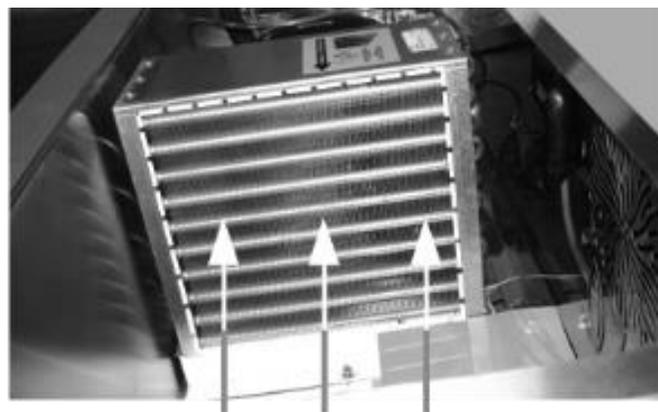
After disconnecting the refrigerator, the user should perform any required maintenance, i.e.:

1. Wash the device with warm water and washing agents suitable for the cleaned surfaces
2. Remove impurities from the condenser with a vacuum cleaner (**from top downwards – along the fins**) with the frequency adjusted to the ambient conditions so that the flow of the cooling air through the condenser fins is not impaired. Once a year (best before the first heatwave) clean the condenser with a vacuum cleaner and blow through the fins with compressed air from the fan side.

When cleaning the condenser be careful not to deform the fins.

Not following the instructions in p.2 will increase the energy consumption, decrease the cooling efficiency and eventually result in cooling unit overheating, which can lead to a fault and loss of the warranty.

It is not recommended to clean the condenser with a brush as it makes dust stick deep inside the fins and finally block the air flow completely.



CLEAN THE CONDENSER WITH A VACUUM CLEANER HERE!

12. INTERFERENCES

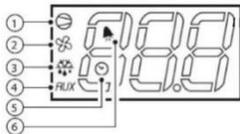
The most often occurring operation disturbances:

SYMPTOMS	REASONS
The refrigerating unit works permanently or with breaks, the device cools little or not at all, the refrigerating unit emits a lot of heat.	The condenser is dirty or covered, the condenser fan does not work, ambient temperature or temperature of loaded food is too high.
The refrigerating unit works properly, but cooling is not sufficient, the evaporator is frosted.	The door is not closed properly, the door is opened too often, the products are too warm and humid, wrong automatic defrosting. The device should be switched off until complete defrosting.

13. TEMPERATURE CONTROLLER MANUAL

DISPLAY DESCRIPTION

The display is three digits with decimal point and 6 symbols (compressor, fan, defrost, AUX, alarm and clock).



1. Compressor: the symbol is visible when the compressor operates. It flashes when the compressor's start-up is delayed because of protective procedure. It flashes in the cycle: two flashes – break when there is continuous operation mode activated.

2. Fan: the symbol is visible when there are evaporator fans switched on. It flashes when the fans start-up is delayed by means of external switching off or when there is other procedure in progress.

3. Defrost: the symbol is visible when there is defrost function switched on. It flashes when the defrost start-up is delayed by means of external switching off or when there is other procedure in progress.

4. AUX: the symbol is visible when there is additional AUX output activated.

5. Clock: the symbol is visible when there is clock switched on – switching on by means of „tEn” switch or when there is time limit set. When switching on the symbols appears for few seconds as clock function availability.

6. Alarm: the symbol is visible when there is alarm activated.

SWITCHES DESCRIPTION

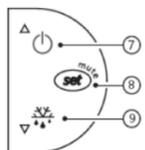
Information: Short pressing of any of the switches causes appearance of message related to the currently active function.

7. UP/ON OFF

During normal operation of the controller; pressed for longer than 3 s. will cause change of controller ON/OFF operation state, pressed along with the “DOWN” switch at the same time for longer than 3 s. will cause activation or deactivation of continuous operation function (after pressing there will be shown on the display “CC” symbol). In the parameters setting mode: enable going to the next parameters settings. During setting parameter values: it causes parameter value increase.

8. SET/MUTE

Pressed during normal controller operation switches the alarm sound signal off; pressed for longer than 3 s. shows setting point; pressed along with the “DOWN” switch at the same time while switching power supply of the controller on will cause return to the parameters fabric settings (there will be shown “CF” symbol on the display). In the parameters setting mode: its pressing changes the information shown on the display: parameter name/parameter value, pressed for longer than 3 s. will cause saving of the set parameters. During setting parameter values: pressed it will cause saving of the entered parameter value.



9. DOWN/DEFROST

During normal operation of the controller; pressed for longer than 3 s. will cause switching on/off of the manual defrost mode. In the parameters setting mode: it allows to go to previous parameter setting. During setting parameter values: it decreases setting value.

Set point setting (desired temperature value)

To view and modify the set point:

- press the “SET” switch for 1 s. - the set value will start flashing;
- increase or decrease the value using the “UP” or “DOWN” switches;
- press the “SET” switch to confirm the new value

If the “SET” switch is not pressed for 60 s., then the controller returns to previous settings.

Manual defrost

In order to activate the manual defrost press the “DOWN” switch for more than 3 s. The essential condition is the temperature has to be lower than +6°C.

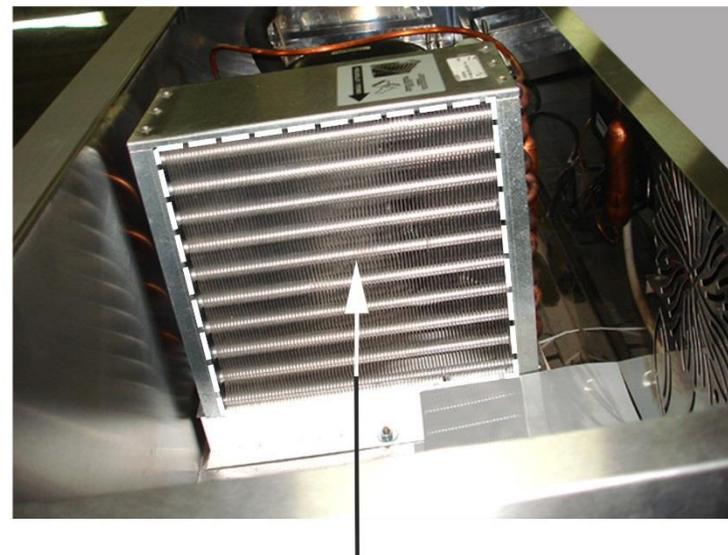
Temperature checking on the defrost probe

- press the “SET” switch for longer than 3 s. (in case there is the alarm is activated it is necessary to switch the sound alarm off first). On the display there will appear “PS” symbol (password);
- go to the “d/” parameter by means of the “UP” and/or “DOWN” switches, then press the “SET” switch – there will appear temperature of defrost probe and the symbol;
- hold the “SET” switch for longer than 3 s. (after 60 s. automatic return) – return to the temperature probe indication.



WARNING!

Switch off the equipment **before cleaning** the condenser.



CLEAN THE CONDENSER WITH A VACUUM CLEANER HERE

Cleaning guidelines – see MAINTENANCE

Please read the user manual before using the flower refrigerator, and keep the manual for future reference.

Following the guidelines in the manual guarantees long-lasting, failure-free use of the refrigerator.

1. PURPOSE

The flower refrigerator is stationary-type equipment intended for storing and displaying cut flowers.



The equipment is not intended for household use.

7. DRAWINGS

Fig. 3 Cross-section of the flower refrigerator

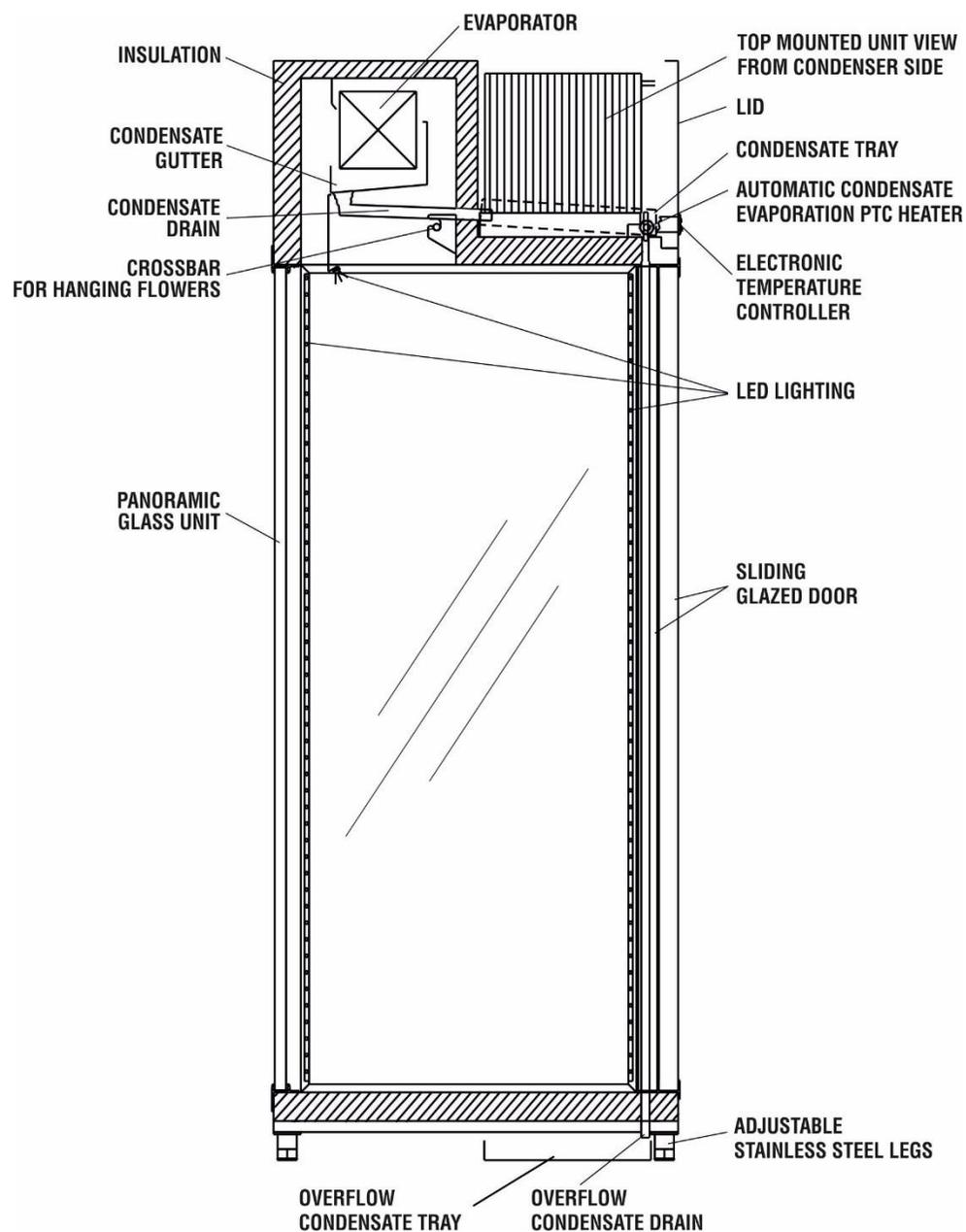
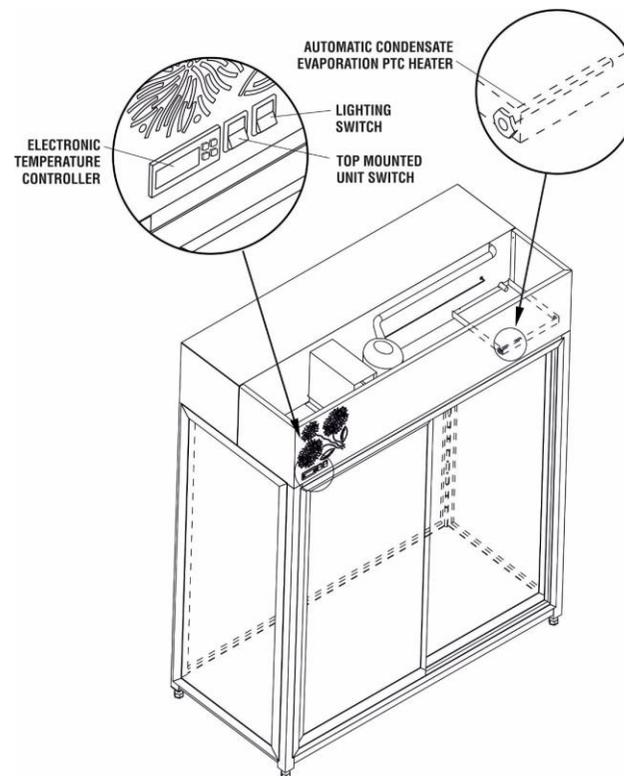


Fig. 4 Flower refrigerator



8. WIRING SYSTEM

The refrigerator should be supplied by a separate circuit with a protective cable of **230V~ / 50Hz** voltage with **I=10A** protection before the earthed/grounded plug socket. The wiring system forms a protective system with a PE cable.

The refrigerator has a permanently fixed feeder cable with a plug; free access to the plug should be possible after the refrigerator has been positioned and connected. A damaged cable can be replaced only with an identical one available at the producer's and the replacement can only be made by a qualified and authorized electrician or the manufacturer's service agent.

Do not connect the refrigerator using an extension cord or a multiple socket unit.

WARNING! Connecting too many devices to the same outlet 230V can cause a voltage drop, leading to performance degradation or damage to the flower refrigerator!



WARNING!

INCORRECT CONNECTION TO THE ELECTRICAL POWER SUPPLY MAY CAUSE AN ELECTRIC SHOCK

9. TRANSPORT AND EQUIPMENT

The supplied flower refrigerator is completely assembled. Secure the refrigerator during transport to prevent its overturning and breaking of the glass elements. When handling the refrigerator do not press the glass elements, do not grab the door or protective covers to lift the device. It is best to use belts and place them under the frame, between the feet (so that the belts do not slide). The flower refrigerator can be moved directly with a forklift truck without a pallet but it should be approached with caution.

Transport only in a vertical position.



The refrigerator comes with:

- user manual
- additional condensate container
- special stools for flowers – 2 pcs
- cross-beam for hanging flowers
- wrench for legs

10. POSITIONING, START-UP AND OPERATION

To ensure correct operation, the refrigerator should be placed in an area with a good air circulation, away from sources of heat and sunlight, free from dust (the device is not dustproof), at ambient temperature from +16°C to +25°C. Do not cover the air inlet and outlet of the cooling unit. Place the refrigerator vertically and connect it to the electrical power supply according to the guidelines in p. 11 "Wiring system". The manufacturer is not responsible for disturbances in device operation at temperatures below +16°C (defrosting cycle is too long) and over +25°C.

Actions before start-up

Position the refrigerator in the required location and make sure all the feet are fully screwed home (almost as far as they can go). Now unscrew the feet and, using a level, adjust the refrigerator until it is level.

Note: When adjusting the feet, lift the flower refrigerator, so that the adjustable foot does not touch the ground. Feet twist with a special key attached to the device.

You can check whether it is level as follows: grip the refrigerator at the door side in the middle and lift it so that the feet do not touch the ground and then lower it. If both feet touch the floor at the same time when the refrigerator is being lowered, the level adjustment is correct.

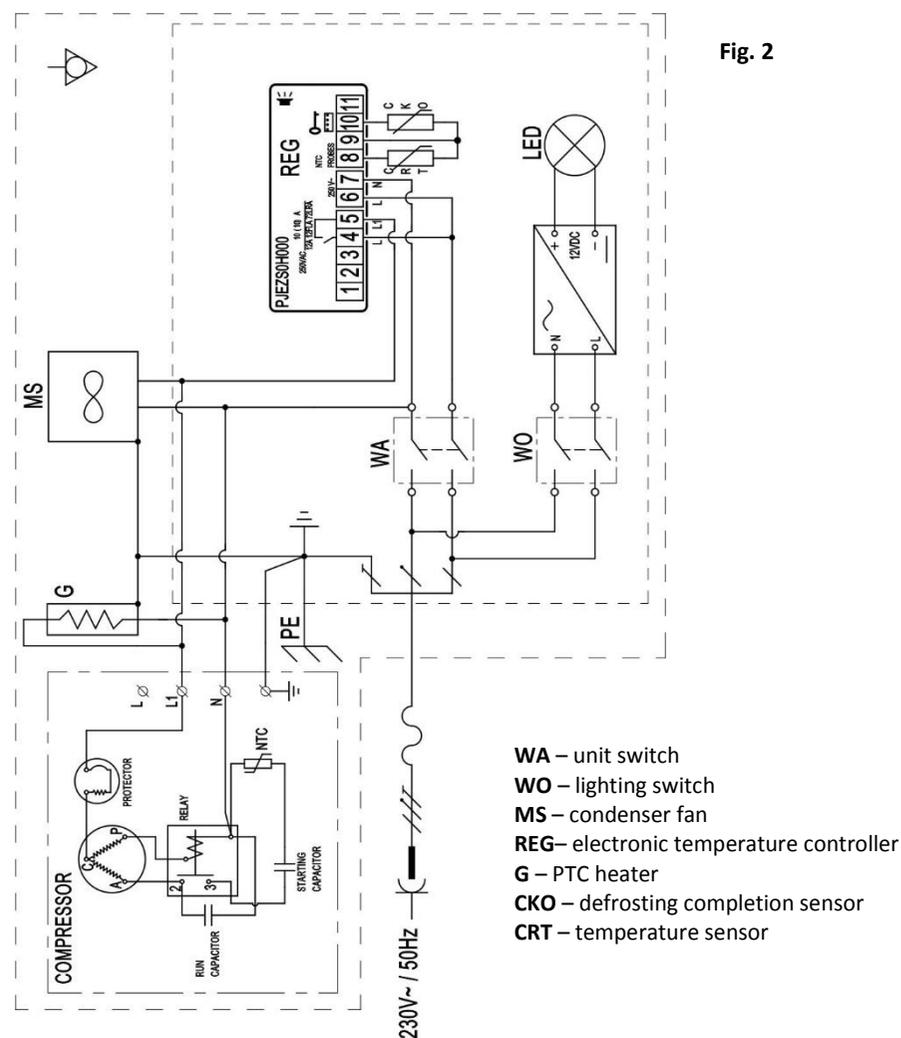
Start-up and beginning operation

The cooling unit and lighting are switched on and off using the switches shown in Fig. 5. The temperature inside is adjusted by the thermostat, according to the instructions in p. 5. At the bottom of the device in a place the overflow container as shown in Fig. 4. It is used to collect excess water which may arise in case of failure of the condensate heater or other causes which led to the achievement of the level of the overflow in upper tray for condensate. After switching the refrigerator on, leave it empty until it switches off for the first time. Now it is ready to be filled with products.

In the case of glitches coming from the condensate container disconnect the unit from the mains, wait until the heater cool down (approx. 10 min.) And clean the heater and a container with a cloth.

Attention: The load of hanged shelf is maximum 20 kg wherein it supposed to be evenly placed on whole surface of the shelf. At the load of shelf up to 20 kg there is possibility of hanging 3 shelves one under the other. It is allowed to hang maximum 4 shelves at the maximum load of 15 kg of each shelf (load to be evenly placed on whole surface of the shelf). The shelf can be hanged in the flower refrigerators designed for its assembly – required hooks for hooking the cords.

5. WIRING SYSTEM DIAGRAM



6. GENERAL INFORMATIONS

The flower refrigerator has a permanently fixed rating plate located on the top side part of the body. The body is made of H17 stainless steel sheet and profiles. The flower refrigerator's bottom is made of patterned H17 stainless steel sheet. It is illuminated by LED stripes. Low-E insulating glass panels are made of tempered glass. To ensure cooling the refrigerator has an energy-saving, sealed cooling system, automatically controlled and defrosted by an electronically controlled chamber thermostat, with a temperature display inside. The flower refrigerator has an automatic condensate evaporation system.