

# BEDIENUNGSANLEITUNG



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## DRAWING OF THE DEVICE.

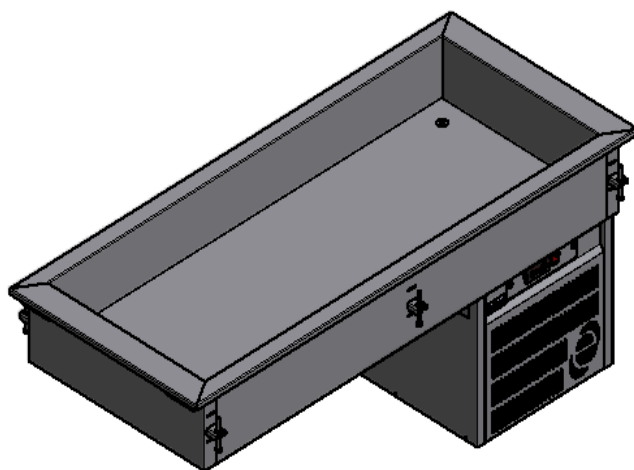
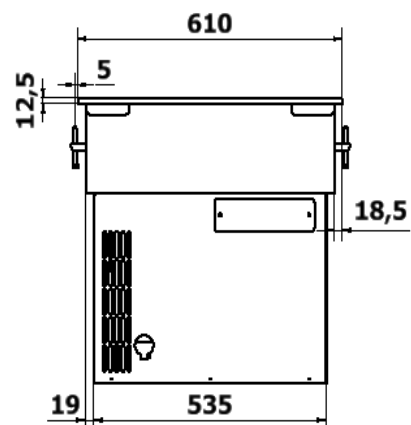
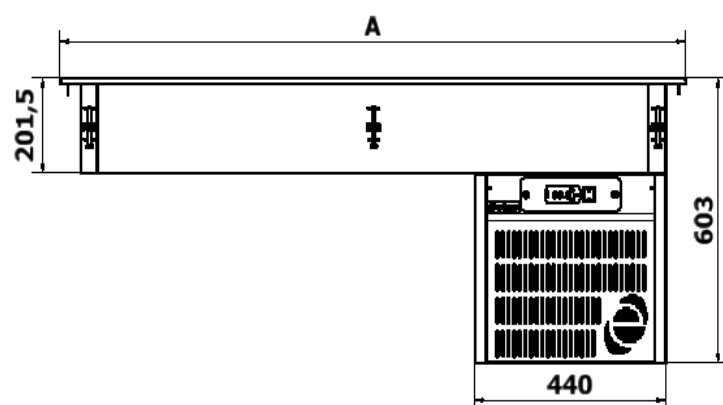
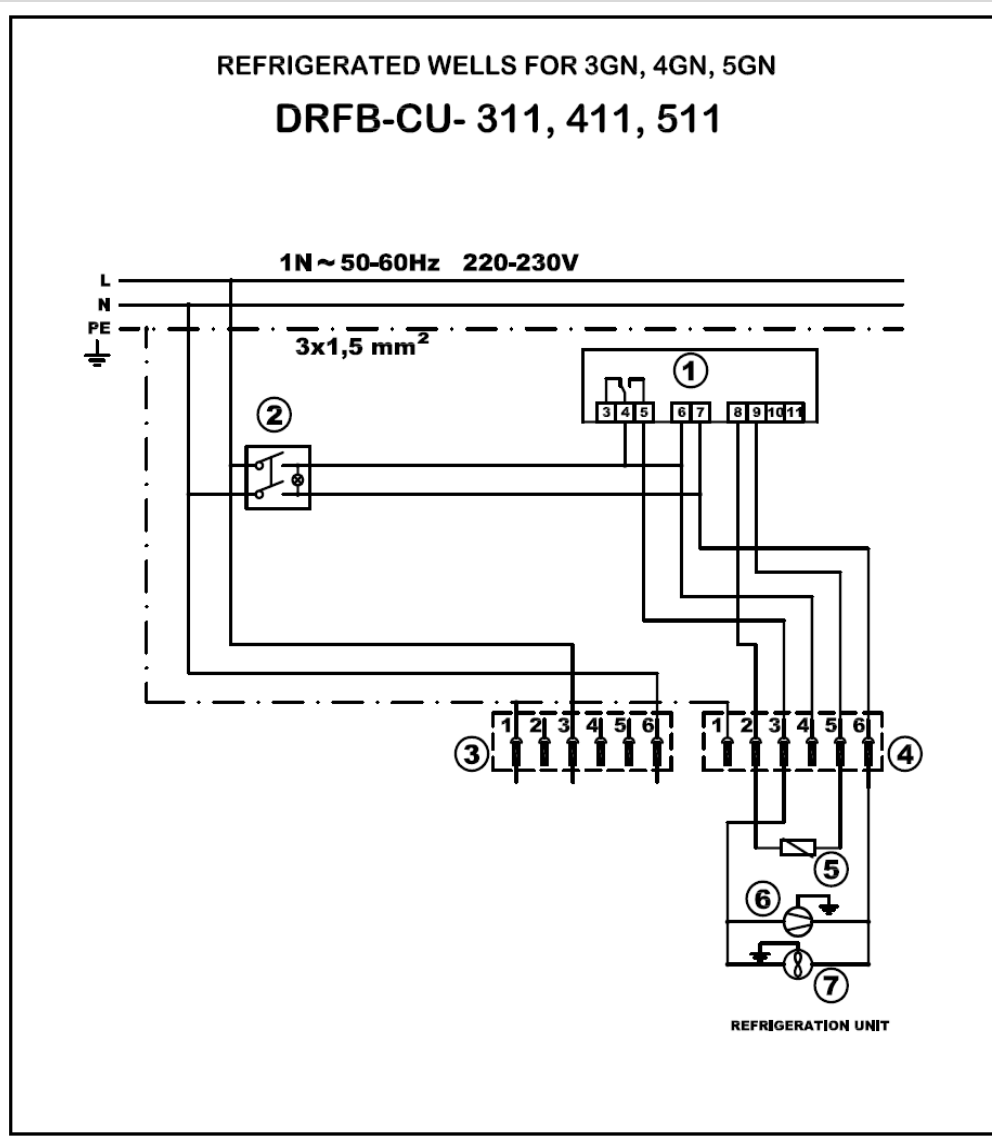


TABELA 1		
A (mm)	MODEL	KOD
1115	DRFB-CU-311	3752501
1440	DRFB-CU-411	3752502
1765	DRFB-CU-511	3752503

## WIRING DIAGRAM.



### LEGEND FOR ELECTRIC DIAGRAM

- ① Controller,
- ② Power switch,
- ③ Conector cover A,
- ④ Conector cover B,
- ⑤ Temperature sensor,
- ⑥ Compresor,
- ⑦ Condenser fan,

FIGURE 1

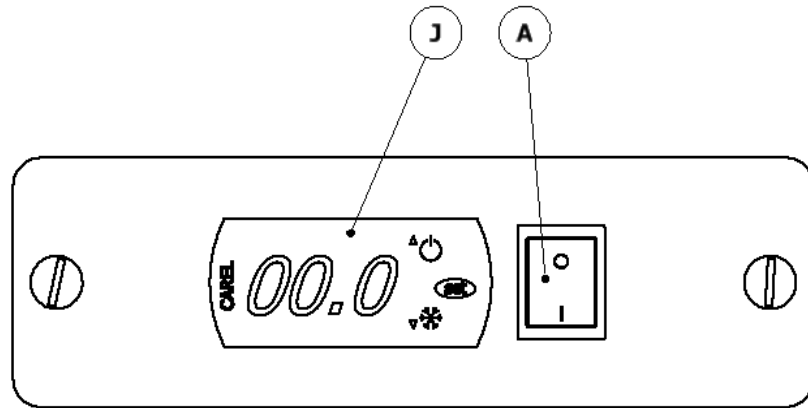
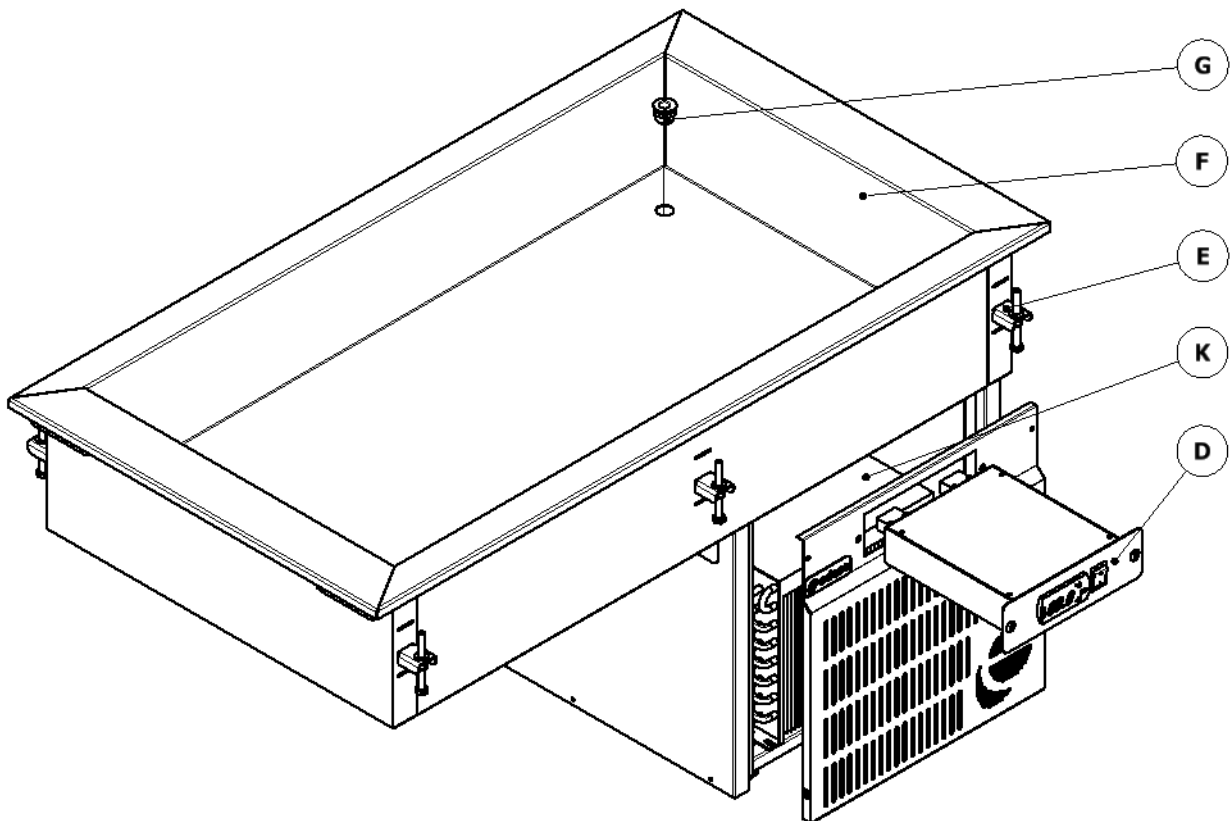


FIGURE 2



# CONTENTS

<b>English</b> .....	
<i>1. Introduction</i> .....	
1.1 Description of the device and its specific models	
1.2 Important safety guidelines	
1.3 Technical parameters.	
<i>2. Installation</i> .....	
2.1 General information.	
2.2 Transport, lifting, unpacking, storage.	
2.3 Intended use and limitations.	
2.4 Layout and description of the manufacturer's rating label.	
2.5 Installation and assembly.	
2.6 Connections (electricity, gas, and water).	
<i>3. Operation</i> .....	
3.1 General information.	
3.2 Description of the control panel.	
3.3 Operation modes and configuration of the device.	
<i>4. Maintenance</i> .....	
4.1 General safety requirements.	
4.2 Cleaning and general maintenance.	
4.3 Disposal of the device.	
<i>5. Trouble-shooting</i> .....	
5.1 Trouble-shooting information.	

## 1. INTRODUCTION

- 1.1 Description of the device and its specific models
- 1.2 Important safety guidelines
- 1.3 Technical parameters

### 1.1 DESCRIPTION OF THE DEVICE AND ITS SPECIFIC MODELS.

The refrigeration tray is designed for displaying and keeping drinks and products refrigerated in the GN containers on a short-term basis.

**Note:** *The refrigeration tray is not intended for displaying products on ice.*

Its structure is based on one water chamber (Figure 2, 'F'). Depending on the model, the chambers may vary in size, being adapted to a different number of GN containers: DRFB-CU-311 – 3 GN 1/1 containers; 411 – 4 GN 1/1 containers; 511 – 5 GN 1/1 containers. Below the refrigeration chamber, on the right-hand side a control panel is located (Figure 2, 'D') (Figure 1 – switch 'C', controller 'A').

There is a ½" condensation drain in the chamber, below which a container is located where condensation is automatically evaporated (Figure 2, 'G').

### 1.2 IMPORTANT SAFETY GUIDELINES.



The refrigeration tray is powered by electricity. It may be operated only by personnel trained to use professional gastronomic equipment.

Only personnel skilled in the servicing of professional gastronomic equipment may maintain the refrigeration tray.

While using the refrigeration tray, strictly adhere to the safety instructions below:

- before starting a cleaning procedure, make sure that the power switch is set to 0, and the whole device is disconnected from the electricity supply;
- communicate the principles of safe operation to the personnel;
- in case of a fault, disconnect the device from power supply and contact service personnel;
- the device may be repaired only by an authorised person;
- the device may be connected to power supply only after the fault is removed.

The following is strictly forbidden:

- cleaning and repairing when the refrigeration tray is operating;
- leaving the device unsupervised when it is operating;
- keeping up the maximum power of the device for a long time;

- covering the blinds of the condensing unit chamber;
- using the device when it is not earthed;
- operating without protective clothing;
- carrying or transporting the device without a pallet or a suitable platform.

The manufacturer shall not be held liable for any damage attributable to the failure to follow the instructions contained in this manual, hence it is recommended that you carefully read all information herein.

Keep the manual for later use.

**WARNING!!!**

Do not use the device if it is faulty.

**1.3 TECHNICAL PARAMETERS**

MODEL	EXTERNAL DIMENSIONS (mm)			CAPACITY GN 1/1	*CUTOUT DIMENSIONS (mm)		VOLTAGE (V/Hz)	POWER (W)	WEIGHT (kg)
	length	width	high		length	width			
DRFB-CU-311	1115	610	603	3 x GN1/1	1095	585	230/50	310	
DRFB-CU-411	1440	610	603	4 x GN1/1	1420	585	230/50	310	55
DRFB-CU-511	1765	610	603	5 x GN1/1	1745	585	230/50	310	

**2.INSTALLATION**

- 2.1 General information.
- 2.2 Transport, lifting, unpacking, storage.
- 2.3 Intended use and limitations.
- 2.4 Layout and description of the manufacturer's rating label.
- 2.5 Installation and assembly.
- 2.6 Connections (electricity, gas, and water).

**2.1 GENERAL INFORMATION.**

The refrigeration tray should be unpacked, installed and tested by qualified service personnel. After bringing it into the room where it is going to be installed, the device should be left for approximately 6 hours so that it can reach the ambient temperature. Then it can be connected to power supply.

The conductor diameter of the power cable should not be smaller than the values given in the table below.

Model	Designation of the power cable (type, number of conductors, cross-section area of conductors)
DRFB-CU-311, 411, 511	PCG 3 x 1.5 mm <sup>2</sup>

The power switch should be connected directly to the power terminal (electric cabinet), while making it possible to safely and reliably disconnect all phases powering the device. When the circuit is broken, the gap between the jumpers of the switch should not be smaller than 3mm.

After installation, the device must be checked for leakage conductance. The value of leakage conductance per 1kW of the power of the device should be lower than 1mA.

**WARNING!!!**

If an equipotential bonding bar is required, its connections must be checked.

**2.2 TRANSPORT, LIFTING, UNPACKING, STORAGE.**

**Correct and safe transport:**

- use equipment appropriate for the weight and structure of the devices;
- cover corners and sharp edges;

**Before carrying:**

- secure the area against unauthorised personnel;
- make sure that the load is properly secured;
- check all loose components lest they should fall when being lifted;
- try to lift the load as vertically as possible so as not to make any dents in it;
- while carrying the load, make sure that it is as near the ground as possible.

**Warning!!!**

The device must be transported in the operating position. Tilting the device may damage it.

**2.3 INTENDED USE AND LIMITATIONS.**

The refrigeration tray is designed for displaying and keeping drinks and products refrigerated in the GN containers.

Before using the refrigeration tray, the electrical system must be checked for efficiency and reliability.

After work, set the power switch (A) to zero (Figure 1).





Disconnect the power cable of the refrigeration tray.



**WARNING!!!**

Before the refrigeration tray is first put into operation, it is necessary to remove the protective film and the protective substance from the surface of the device by wiping it with soapy water, concentrating on the inner surfaces of the chamber.

**2.4 LAYOUT AND DESCRIPTION OF THE MANUFACTURER'S RATING LABEL.**

		Made in E.U.			
SERIAL NUMBER		YYMM0000P			
<small>NR. SERyjNY</small>				<small>YYMM0000P</small>	
MODEL		DRFB-CU-411		PRODUCTION YEAR	
<small>MODEL</small>				<small>ROK PRODUKCJI</small>	
<small>MODELO</small>		.3752502		<small>ANO CONSTRUCCION</small> 2013	
VOLTAGE	V	230	WORK RANGE	C°	.2-8
NAPIĘCIE			ZAKRES PRACY		
INTENSITY	Amax	1.5	CAPACITY	GN 1/1	4
NATEŻENIE			POJEMNOŚĆ		
REFRIGERANT GAS		R134A	POWER	W	310
GAZ CHŁODNICZY			MOC CAŁKOWITA		
FREQUENCY	Hz	50/60	QUANTITY	GRAM	350
CZĘSTOTLIWOŚĆ			ILOŚĆ GAZU		
CLIMATE CLASS		N	WEIGHT	kg	55
KLASA KLIMATYCZNA			WAGA NETTO		
MODEL		DRFB-CU-411		PRODUCTION YEAR	
<small>MODEL</small>				<small>ROK PRODUKCJI</small>	
<small>NR. SERyjNY</small>		.3752502		2013	
<small>NR. SERyjNY</small>		SERIAL NUMBER			
		YYMM0000P			

The label of the device should contain the following information:

1. Manufacturer's logo.
2. Country of origin.
3. Year of production.
4. Serial number.
5. Model.
6. Operating voltage.
7. Current frequency.
8. Rated power.
9. CE marking.
10. Disposal symbol
11. Amount of gas.
12. Climate class.
13. Type of gas.

## 2.5 INSTALLATION AND ASSEMBLY.

The refrigeration tray should be installed in the following order:

- remove the protective film from all metal surfaces; the refrigeration tray must be installed in a well ventilated room; while enclosing the device, make sure that the refrigerating unit will be properly ventilated; it can be located on a standalone device or as part of a row consisting of other display devices as well;
- the power supply should be connected to the refrigeration tray in compliance with applicable regulations;
- install and connect the refrigeration tray in such a way that live wires cannot be accessed without tools; the fuses of the power system of the tray should be designed for 25A current;
- put the refrigeration tray in the proper opening prepared in the worktop; fix the device using mounting holders (Figure 2, 'E') on the outer vertical walls; the height and the levelling of the device should be adjusted before it is installed on the base;
- the control panel can be installed in a decorative enclosure;
- connect the earth system of the device to the earth bar in such a way that it cannot be disconnected inadvertently or unexpectedly; the power cable should contain a protective conductor;
- to connect the refrigeration tray, use a cable of an appropriate length, so that it can hang freely from the device (on no account may it be tight) when firmly and permanently attached to the terminals of the connection block and the terminals of the power plug.

## 2.6 CONNECTIONS (ELECTRICITY, GAS, AND WATER).

The power cable used with the device should have 3 cords, the diameters of which may not be smaller than suggested in the manual.

Designed to be powered by 230V, 50-60Hz mains power, the device's power cable is equipped with a PE protective conductor.

The electrical connection is at the base, in the side part of the device's cover.

While installing the device, remember to make a ventilation opening in the enclosure to ensure that the cooling air for the condenser can flow freely.

### **WARNING!!!**

Prior to operation, it is necessary to remove the protective film and the protective substance from the surfaces of the refrigeration tray, by wiping them with a soft cloth moistened with soapy water.

### 3. OPERATION

- 3.1 General information.
- 3.2 Description of the control panel.
- 3.3 Operation modes and configuration of the device.

#### 3.1 GENERAL INFORMATION.

Follow the instructions below to make work and operation safe, as well as to ensure the durability and fault-free operation of the device:

- provide training for the personnel who is to use the device in the operation of professional electrical gastronomic equipment;
- the condenser of the refrigerating unit (K) should be cleaned at least once a month, using a soft brush or a vacuum cleaner;
- the device may be repaired only by an authorised person;
- damaged components or subassemblies should be replaced with the same items or ones with similar durability, features and technical parameters.

The following must always be observed:

- do not connect the device to the mains via a socket that is **NOT** provided with an earthing pin;
- do not connect the device to an electrical system that has not been checked for fire safety;
- covering the blinds of the condensing unit chamber;
- do not clean or have the device maintained when connected to the power supply.

#### **WARNING!!!**

DO NOT clean the refrigeration tray with a water jet, since this might damage the electrical or electronic components ensuring the proper operation of the device.

#### **WARNING!!!**

The manufacturer shall not be held liable if the device is used without the observation of this manual or outside of its intended use.

#### **WARNING!!!**

The manufacturer shall not be held liable for any damage of the unit attributable to the condenser being dirty.





#### 3.2 DESCRIPTION OF THE CONTROL PANEL.

The control panel is on the right-hand side, under the refrigerating chamber (Figure 2, 'D'). It features a controller (J) (see Figure 1) and a power switch (C). The device is turned on and off by setting the switch to 1 or 0 respectively. The controller regulates the operation of the refrigerating device.

### 3.3 OPERATION MODES AND CONFIGURATION OF THE DEVICE.

Featuring a three-digit display with a decimal point and 6 symbols (compressor, fan, defroster, AUX, alarm, clock), the controller (Figure 1, J) is used to adjust the temperature of the chamber of the refrigeration tray.

In order to program the desired temperature, do the following:

- Keep the button  pressed for more than 1 second; the current value will appear; after 2 seconds it will start to blink.
- 
- Press the button  to increase the temperature value.
- Press the button  to decrease the temperature value.
- Press the button  again to confirm the value entered

#### IMPORTANT!!!

Interfering with the system parameters of the controller is forbidden since this may lead to serious problems, even a breakdown.

## 4. MAINTENANCE

- 4.1 General safety requirements.
- 4.2 Cleaning and general maintenance.
- 4.3 Disposal of the device.

### 4.1 GENERAL SAFETY REQUIREMENTS.

All outer steel surfaces and all inner surfaces of the tray chamber must be cleaned daily using a small amount of detergent and lukewarm water. After being cleaned, the surfaces should be rinsed with cold water and dried.

Do not clean acid-resistant steel surfaces with scrapers or wire cleansers, since they can scratch the surfaces.

If the device is not going to be used for a long time, cover its surfaces, particularly the inner surfaces of the refrigeration tray chamber, with a thin coat of Vaseline or a preservative that may come into contact with food.

#### IMPORTANT!!!

*Do not wash the refrigeration tray using a water jet, since this may damage the electrical or electronic components important for the proper operation of the device.*

The device may be maintained only by trained and specialized personnel using suitable protective clothing (shoes, gloves, goggles, etc), tools, instruments, and accessories.

Before using or repairing the device, read the instruction manual containing proper procedures and safety information.

## 4.2 CLEANING AND GENERAL MAINTENANCE.

All outer steel surfaces and all inner surfaces of the tray chamber must be cleaned daily using a small amount of detergent and lukewarm water. After cleaning, the surfaces must be rinsed with cold water and dried, with special attention paid to the lower inner surface of the refrigeration tray chamber.

Do not clean acid-resistant steel surfaces with scrapers or wire cleansers, since they can scratch the surfaces.

If the device will not be used for a long time, cover its surfaces, particularly the outer surfaces of the refrigeration tray, with a thin coat of Vaseline or a preservative that may come into contact with food.

### IMPORTANT!!!

Do not wash the refrigeration tray using a water jet, since this may damage the electrical or electronic components important for the proper operation of the device.

**Before starting a cleaning or maintenance procedure, disconnect the device from the mains. After cleaning, leave the device open to dry.**

**When the device is being serviced, the power cable and the plug should be in sight and on hand so that the person working can easily access them.**

## 4.3 DISPOSAL OF THE DEVICE.

When its lifetime comes to an end, the device must be carried to an electronic and electronic waste disposal facility.

This is indicated by a symbol on the product, in the instruction manual, and on the packaging.

In order to prepare the refrigeration tray to be disposed of, it is necessary to sort the elements of the device according to the materials they are made of.

Depending on the material these elements are made of (see the symbols on the components), they can be recycled. Having electric waste and electronic equipment recycled means an active contribution to the protection of the environment.

Contact local authorities to obtain more information on the nearest electrical waste collection facility.

To protect the environment, deliver waste equipment to a suitable facility in compliance with applicable regulations.

Make sure that the electrical equipment is delivered to a facility in which it will be disposed of properly. Some of the materials used may be stored temporarily, and some must be delivered immediately to a suitable facility. In each case the environmental protection regulations must be observed.

Before disposing of the device, check its technical condition. In particular, check the construction elements which may cause leakage when disposed of. Different parts of the device are disposed differently, depending on their features (e.g. metals, oils, lubricants, plastic, rubber, etc.).

## 5. TROUBLE-SHOOTING

5.1 Trouble-shooting information.

### 5.1 TROUBLE-SHOOTING INFORMATION.

**IMPORTANT!!!**

**Electrical subassemblies may be replaced only by an authorised service technician.**

It must be made a principle to disconnect the power cable from the power supply before electrical components are replaced.

It must be made a principle to disconnect the power cable from the power supply before electrical components are replaced.

FAULT	POSSIBLE CAUSE	REMEDY
The refrigeration tray does not work.	<ul style="list-style-type: none"> <li>- Power supply failure.</li> <li>- The terminals of the conductors loosened on the power strip.</li> <li>- The switches are damaged.</li> </ul>	<p>Connect to power supply. Appropriately fix the conductors to the power strip. Replace the damaged components.</p>
Wrong temperature	<ul style="list-style-type: none"> <li>- The tray absorbs warm air from the environment.</li> <li>- The temperature in the room exceeds +32°C.</li> <li>- High temperature of the products inside.</li> <li>- Dirty condenser.</li> </ul>	<p>Check that there is no heat source in the vicinity. Reduce the temperature in the room below 32°C. Make sure that enough time has elapsed since the products were put in. Clean the condenser using a soft brush or a vacuum cleaner.</p>
Unpleasant or loud noises	<ul style="list-style-type: none"> <li>- The device is wrongly levelled.</li> <li>- Foreign object in the chamber of the refrigerating unit.</li> </ul>	<p>Level the device.  Make sure that no object comes into contact with the moving parts of the refrigerating unit.</p>

**The guarantee does not cover the following:**

Bulbs, rubber elements, heating elements damaged by boiler scale, panes, any mechanical damage or any damage caused by improper use of the device in violation of the instructions.

**In case of a fault, remove the food kept in the device to prevent it from going bad. EDESA is not responsible for any commodities wasted as a result of a fault.**