INSTRUCTIONS FOR USE AND MAINTENANCE

COOLING EQUIPMENT

gastro.cz
PRODUCTION

www.gastro.cz

Instructions for use and maintenance

In compliance with European Directives

CE

The manufacturer assumes no responsibility for any modifications or technical changes in content or data contained in this user guide.

This user guide applies to all cooling equipment supplied by Gastro Production Ltd.

Contents

1. Introduction

1.1 Orientation in the user guide

This user guide has been designed so that the users can easily and quickly find the information necessary to manage the operation and maintenance of cooling equipment. The users should read the entire user guide with utmost attention and make sure they have perfectly understood all information contained in it. The user guide also serves for subsequent reference when needed. For this reason this user guide must be always available to the person operating the equipment. Searching this user guide is facilitated by the general table of contents, which allows immediately finding a specific location, and also by table of contents at the head of each section. Individual types of equipment are described in separate sections designated **A, B, C, D, E, F**. In addition, next to some paragraphs, there are signs inserted to emphasize the importance of the information contained in those paragraphs, **which should be read with special attention**.

1.2 Explanation of symbols used in the user guide

Warning - Danger of electrical injury - refers to parts, where there is a danger of electrical injury. Read especially carefully.

Warning - Rotating parts - refers to parts, where there is a danger from rotating parts.

Warning – Risk of injury - refers to parts, where there is a risk of injury while touching the equipment in operation. Read especially carefully.

Warning - Important - refers to parts, where danger might occur, or to parts otherwise important. Read especially carefully.

Do not wash with pressurized water – it is forbidden to wash a part so indicated with pressurized water for risk of damaging the equipment.

Forbidden handling procedures – refers to parts, where there is a risk of damaging the equipment by handling it in a forbidden way.

1.3 Description of the Equipment

1.3.1 Cooling Display Cabinets

Cooling display cabinets serve for cooling and preservation of foodstuffs that spoil at room temperature. These display cabinets are not permitted to be used for other purposes without express permission and eventual structural changes by Gastro Production s.r.o.

These display cabinets have been designed for best results provided that all instructions contained in this user guide are followed. For the display cabinets to be used in the best way possible and to be always kept in perfect condition, we recommend that you perform the maintenance work regularly.

The personnel operating the display cabinets must be necessarily familiarised with instructions regarding to operation, maintenance and safety, as contained in this user guide. The display cabinets utilize forced circulation of cooled air.

According to way of use we distinguish among self-service display cabinets open on the customer's side, self-service display cabinets closed on the customer's side by tiltable Perspex covers, and finally utility display cabinets closed by doors on the side of the operator.

1.3.2 Cooling Tables and Freezing Tables

Cooling tables serve for cooling and preservation of foodstuffs that spoil at room temperature. They also serve for cooling of beverages. These tables are not permitted to be used for other purposes without express permission and eventual structural changes by Gastro Production s.r.o.
Cooling tables are manufactured either as ventilated, utilizing forced circulation of cooled air, or as static, relying on spontaneous layering of cooled air.
According to way of use, cooling tables are manufactured either as allowing cooling of intermediate goods placed in GN containers, in drawers, or cooling tables allowing

cooling of beverages placed in drawers. Freezing tables are manufactured as ventilated, utilizing forced circulation of frozen air.

1.3.3 Cooling Basins

Cooling basins serve for cooling and preservation of foodstuffs placed in GN containers, that spoil at room temperature. They also serve for cooling of beverages. These basins are not permitted to be used for other purposes without express permission and eventual structural changes by Gastro Production s.r.o.

Cooling basins are manufactured either as ventilated, utilizing forced blowing by cooled air or as static basins, whose sides are cooled by cooling ducts.

1.3.4 Cooling Plates

Cooling plates serve for cooling of foodstuffs placed on trays. These plates are not permitted to be used for other purposes without express permission and eventual structural changes by Gastro Production s.r.o.

1.3.5 Cooling Boxes for Waste

Cooling boxes for waste serve for keeping biological and vegetable waste in cold state. These boxes are not permitted to be used for other purposes without express permission and eventual structural changes by Gastro Production s.r.o.
The boxes can be assembled in various sizes from individual panels. A surface-mounted cooling unit is added to the box, serving to cool the interior of the box by forced circulation of cooled air.

1.3.6 Cooling Boxes for KEG Barrels

Cooling boxes for barrels serve for keeping liquids inside the KEG barrels in cold state. These boxes are not permitted to be used for other purposes without express permission and eventual structural changes by Gastro Production s.r.o. The boxes can be assembled in various sizes from individual panels. A surface-mounted cooling unit is added to the box, serving to cool the interior of the box by forced circulation of cooled air.

2. Common Provisions

2.1 Transport and Unpacking

2.1.1 Transport

The client is obliged to check for the completeness and integrity of the packaging in which the equipment is transported, and seek compensation for potential damages caused during transport from the carrier in question. The equipment should be, if possible, transported onto the location designated for its operation in its original packaging.

2.1.2 Unpacking

After transporting the equipment on the location designated for its operation, remove all packaging.

Next remove all protective wrappings from outside and inside of the equipment. The consumer is obliged to dispose of all packaging in accordance with regulations valid in their respective countries!

2.1.3 Dismantling and Disposal

At the end of its service life, the equipment must be disposed of in accordance with regulations valid in the respective countries.

The equipment contains the following materials:

- Stainless steel
- Nonferrous metals - Aluminium, Copper
- Glass
- PVC
- Methacrylate (PMMA)
- Polystyrol (PS)
- ABS
- Moplen
- Nylon
- Polyethylene
- Lubricating oil
- Coolant gas
- Polyurethane
- Electric motors
- Power supply cable, wiring material

2.2 Test protocols, Warranty Conditions

2.2.1 Testing

All equipment is factory tested in accordance with applicable laws, technical standards and government regulations. For all equipment, a test report documenting the tests performed is drawn up and kept at the factory. The equipment is sent to the customer completely ready for use. An exception is equipment placed in a more complex dispensing lines and assembled on-site.

2.2.2 Warranty Conditions:

Equipment warranty is provided, if the equipment is used for purposes for which it is intended. The operation of equipment is always performed according to this user guide. The operators of the equipment are thoroughly and demonstrably trained in its operation and this user guide is available to them. The user guide must be at all time available to the operators!

2.2.3 Cases in which the warranty becomes void

- **In the event of damage during transport, since the products are shipped from the factory and the client assumes the risks during transport and the seller is not liable for missing or damaged parts. The buyer is therefore obliged to check and test the goods upon receiving them and, in the event of damage, to assert claims against the company providing the transport.**
- **In case of defects which arose through negligence on part of the user.**
- **In case of failure to comply with the instructions contained in this user guide.**
- **In case of damage to displayed products.**

2.3 Safety

2.3.1 Safety - electric current

The device is factory-fitted with a connecting cord for conducting the electric current, terminating in a non-detachable plug. This plug can be plugged into an outlet with voltage system 1, N, PE ~ 230V, 50Hz (an EURO socket with protective pin, a SHUKO socket with protective contacts).

Only qualified electricians are allowed to exchange the plug. The wiring of the equipment can be handled only by persons possessing electrotechnical qualification and only after the manufacturer‘s approval. Interfering with the wiring is dangerous to life and may cause electric injury!

It is forbidden to touch the power supply cord plug, the control panel and other electrical components with moist or wet hands, or to wash them with pressurized water. There is a danger of electric injury!

Before carrying out maintenance work, it is necessary to pull the power supply cord plug and to make sure no electric current is flowing through the equipment (e.g. by turning on the main power switch and observing if the equipment remains powered off). If the equipment is connected permanently to the mains, it is necessary to turn off the corresponding circuit breaker, make sure the equipment is not functioning and secure the deactivated circuit breaker, e.g. by putting an “equipment under maintenance” sign on it.

2.3.2 Safety - mechanics

While operating the equipment, special caution is necessary during following operations:

- When opening or closing the doors of cooling or freezing tables. The doors are spring loaded and parts of limbs may become caught in them.
- When opening the blinds covering the condenser. When acting carelessly, there is a danger of cutting oneself at the condenser lamellas.

- When handling the sliding glass doors of display cabinets, which, in order to ensure proper insulation, have a considerable weight. Rough handling may lead to their breaking up or falling out, possibly resulting in injury.
- When tilting the covering glass panels of display cabinets for maintenance. They have a considerable weight and may cause injury when falling out.
- When handling the glass shelves for displayed goods, an increased caution is necessary.
- When handling the drawers of cooling tables, especially when they are filled with glass beverage vessels. Full drawers have a considerable weight.
- Rough handling may cause the drawers to fall out of their slides, possibly resulting in injury.

- **During the operation of the cooling unit, do not put your fingers or other objects through the condenser fan covers, the evaporator fan covers, or other fan covers. There is a risk of limb injury from rotating fan blades.**

2.3.3 Safety - leaking substances

The coolant used does not pose any health risks.

2.3.4 Safety - thermal effects

- During the operation of the cooling unit, the compressor body and the pipe ducts can reach considerably high temperatures – touching them may cause burns to the limbs.
- During the operation of the equipment, the condensate liquid evaporates from the evaporator tank. The tank and the heating bodies reach considerably high temperatures – touching them may cause burns to the limbs.

2.3.5 Safety - other hazards

The risk of overloading the glass shelves. The user must be aware, that the weight limit of shelves is 20kg. This risk is indicated by the "**max. 20kg"** warning label.

2.3.6 Proper use of Equipment

- **The equipment is designed for normal use by an adult.**
- **It is not designed for rough handling or operation by children! The operators of the equipment must be thoroughly and demonstrably trained in its operation and a user guide must be available to them.**
- **The equipment must be operated in accordance with the instructions for use. The equipment can be used only for purposes for which it is intended.**
- **Do not place the equipment next to heat sources or on places directly illuminated by sunlight.**
- **Before filling the equipment with goods, let it cool to the target temperature first.**
- **Do not place any hot or warm dishes into the refrigerated space.**

- **Do not place any acidic foods into the refrigerated space, as this may cause damage to the evaporator.**
- **Keep the refrigerated space clean.**
- **Do not leave the doors to the refrigerated space open – this reduces the equipment performance and lifetime.**
- **Regularly check the equipment and perform maintenance work according to this guide.**

A - COOLING DISPLAY CABINETS

2.4 Ambient Conditions

The equipment is able to operate properly under these conditions:

- Altitude up to 1000m above sea level
- Ambient temperature near the equipment in the range from 15°C to 25°C
- Relative humidity max. 60%
- The equipment is not placed in direct sunlight
- The equipment is not placed close to sources of heat (heaters, deep fryers, heating dispensing basins, frying plates, cooling units of other devices etc.)
- The equipment is not placed close to steam generating devices (heating dispensing basins, pasta heaters, convection ovens, etc.)

2.5 Ordering spare parts

Under preparation

3. Technical Features

3.1 Technical Description

Cooling display cabinets are made from rigid self-supporting stainless structure. The base body of the refrigerated space is made from stainless metal sheet insulated with polyurethane foam. Display cabinet superstructure is made from stainless structure fitted with insulated double glazing.

Cooling display cabinets serve for cooling and preservation of foodstuffs that spoil at room temperature. These display cabinets are not permitted to be used for other purposes without express permission and eventual structural changes by Gastro Production s.r.o. These display cabinets have been designed for best results provided that all instructions contained in this user guide are followed. For the display cabinets to be used in the best way possible and to be always kept in perfect condition, we recommend that you perform the maintenance work regularly. The personnel operating the display cabinets must be necessarily familiarised with instructions regarding to operation, maintenance and safety, as contained in this user guide.

The display cabinets utilize forced circulation of cooled air. According to way of use we distinguish among self-service display cabinets open on the customer's side, self-service display cabinets closed on the customer's side by tiltable Perspex covers, and finally utility display cabinets closed by doors on the side of the operator.

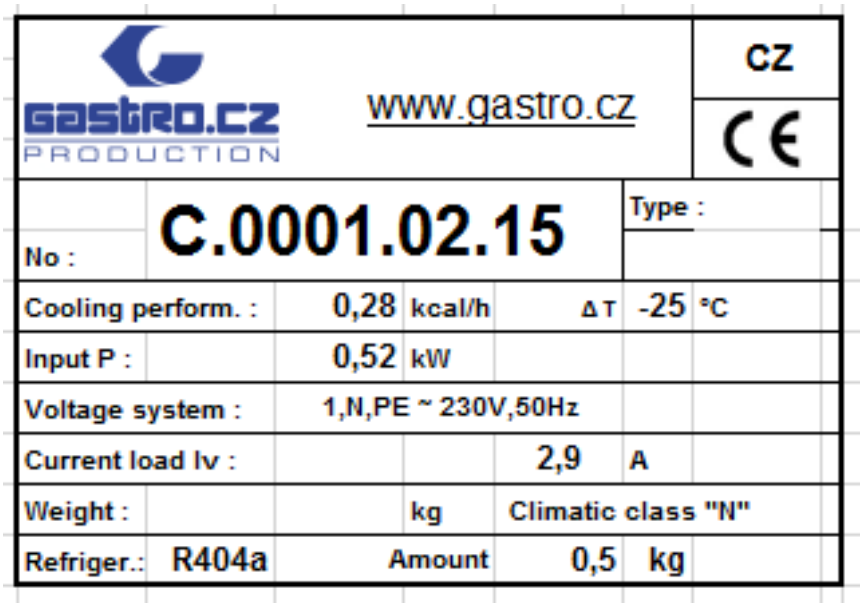
The temperature of the refrigerated space is adjustable **from 2°C to 15°C.** The temperature of the refrigerated space in the cooling table under the display cabinet is adjustable **from 2°C to 10°C.** The temperature of the refrigerated space is maintained by an electronic control unit. The electronic control unit automatically manages the process of cooling the refrigerated space and the process of defrosting the icing forming on the evaporator. The resulting condensate liquid is either evaporated automatically or discharged into the prepared drain.

3.2 Dimensions and Weight

Dimensions and weight of the equipment can be found according to the type of equipment at www.gastro.cz.

3.3 Type Labels

The type label is placed on the inner side of the cooling unit chamber.



3.4 Technical Specifications

	BK 1000	*BK 1200*	*BK 1600*	*KE 1200*	*KE 1600*
Temperature	+2°C +15°C	+2°C +15°C	+2°C +15°C		
Cooling	Vent.	Vent.	Vent.		
Coolant gas	R404a	R404a	R404a		
Amount					
Volume (l)					
Input power (W)					
Cooling output power at T - 10°C					
Voltage system	1, N, PE~230V, 50Hz				

4. Installation and Operation

4.1 Setting the Equipment

After unwrapping, set the equipment in a horizontal position on the location designated for its operation by adjusting the levelling feet. If the equipment does not have any levelling feet, use stainless metal sheets as pads.

4.2 Connecting to the electric network

The device is factory-fitted with a connecting cord for conducting the electric current, terminating in a non-detachable plug. This plug can be plugged into an outlet with voltage system 1, N, PE ~ 230V, 50Hz (an EURO socket with protective pin, a SHUKO socket with protective contacts). Insert the plug of the connecting cord into the outlet. Ensure that the plug remains accessible to the operator. The cord cable must be laid out visibly and without any sharp bends. The cord cable must not be laid out across sharp edges of any sheet metal or other components.

4.3 Turning on the Equipment

After setting the equipment, wait at least ½ hour before turning it on.

- Turn on the equipment by setting the main power switch to **position 1**. **The indicator light should come on**.
- For setting the temperature of the refrigerated space on the electronic control unit, refer to section **5**.
  (The standard initial factory setting is **+ 4°C**).

4.4 Filling the equipment with goods

After the refrigerated space reaches the target temperature, you may fill it with goods. **Please follow the principles of proper use of equipment outlined in section 2.3.6.**

- **Do not place any hot or warm dishes into the refrigerated space.**
- **Do not place any acidic foods into the refrigerated space, as this may cause damage to the evaporator.**

4.5 Operation of the Equipment

- **Keep the refrigerated space clean.**
- **Do not leave the doors to the refrigerated space open – this reduces the equipment performance and lifetime.**
- **Regularly check the equipment and perform maintenance work according to section 6 of this user guide.**

5. Electronic Control Unit

The cooling display cabinet is controlled by DIXELL XR70CX.

The cooling table under the display cabinet is controlled by DIXELL XR60CX.

The manufacturer takes no responsibility for any equipment malfunction resulting from interfering with the electronic control unit settings. This provision does not apply to settings permitted by this user guide.

5.1 Description and Dimensions

Models XR20CX, XR60CX, XR70CX are electronic thermostats with passive defrosting. They are fitted with a microprocessor and are suitable for refrigeration applications at normal temperatures. They are suitable for mounting on panels and their dimensions are 32x74 mm. They have one, two or three relay outputs to control compressor, fan, defrosting, lighting. It is possible to connect up to three PTC or NTC sensors to them.

Technical parameters

Wrapping: **self-extinguishing plastic ABS**

Case: **front panel: 32 x 74mm, depth: 60mm**

Mounting: **into the panel with cut-out aperture of 71 x 29mm**

Front panel cover: **IP65**

Attachment: **barrier strip for conductors with up to 2.5mm² cross section.**

Supply voltage: **230V~, ±10%; 50, 60Hz**

Input power: **3VA max**

Data memory: **EEPROM**

Working temperature range: **0 to 60°C**

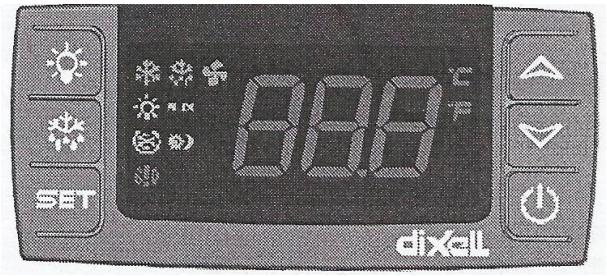
Temperature range for storage: **-30 to 85°C**

Relative humidity: **20 to 85%**

Accuracy (at ambient temperature of 25°C): **±0,7°C±1 digit**

5.2 Operating Mode

FRONT PANEL COMMANDS



Button description

SET	Displays the desired value. In programming mode serves for selecting a parameter or confirming an operation.
∧	**(UP)**: Displays maximum temperature recorded. In programming mode serves for navigating the parameter list and increasing the displayed value.
∨	**(DOWN)**: Displays minimum temperature recorded. In programming mode serves for navigating the parameter list and decreasing the displayed value.
⏻	Turns the device on and off.
☼	Turns the lighting on and off, if available.
❄	**(DEF)**: Initiates manual defrost.

Key combinations

∧ + ∨	Locks and unlocks the keyboard.
SET + ∨	Enters the programming mode.
SET + ∧	Returns to displaying the value of the refrigerated space temperature.

Explanation of LED functions

LED	REŽIM	FUNKCE
❄	Svítí	Kompresor v chodu
❄	Bliká	Zpoždění minimálního cyklu kompresoru
❄	Svítí	Probíhá odtávání
❄	Bliká	Probíhá odkapávání
	Svítí	Ventilátory v chodu
	Bliká	Probíhá časové zpoždění zapnutí ventilátorů po odtávání
	Svítí	Alarm
	Svítí	Probíhá nepřetržitý cyklus chlazení
	Svítí	Energy saving cyklus
°C/F	Svítí	Měřené jednotky
°C/F	Bliká	Režim programování

Displaying minimum recorded temperature

1. Press the button.
2. A **"Lo"** message appears on the display followed by minimum recorded temperature.
3. After another pressing of the button or a 5s wait the device returns to normal mode of operation displaying the measured temperature.

Displaying maximum recorded temperature

1. Press the button.
2. A "**Hi"** message appears on the display followed by maximum recorded temperature.
3. After another pressing of the button or a 5s wait the device returns to normal mode of operation displaying the measured temperature.

Resetting the recorded MIN. / MAX. temperatures

1. While viewing either of the MIN. / MAX. temperatures, press the SET button for more than 3s, until the **"rSt"** message appears.

2. Confirm the operation by again pressing the SET button. The **"rSt"** starts flashing. The device resumes displaying the current temperature.

MAIN FUNCTIONS

Displaying the Target Temperature

1. Shortly press the SET button. The device displays the target temperature.
2. To again display the current temperature, shortly press the SET button again or wait 5s.

Setting the Target Temperature

1. Hold the SET button for more than 2s.
2. The device starts displaying the target temperature and the °C warning light starts flashing.
3. The target temperature can be adjusted by pressing the ▽ or △ buttons (within 10s interval).
4. The new target temperature is confirmed either by again pressing the SET button or automatically after 10s interval.

Initiating Manual Defrost

1. Press and hold the ❄ for more than 2s.

Locking the Keyboard

1. Hold the ▽ + △ buttons simultaneously for at least 3s.
2. The **"POF"** message appears and the keyboard is locked. Now it is only possible to see the target temperature or the MIN. / MAX. recorded temperature.
3. Upon pressing any key for more than 3s, the **"POF"** message appears.

Unlocking the Keyboard again

1. Hold the ▽ + △ buttons simultaneously for at least 3s, until the **"PON"** message appears.

The Continuous Cycle

1. Unless there is defrost in progress, it is possible to initiate the continuous cycle by pressing the △ button for more than 3s. The compressor enters the

continuous cycle and operates to maintain the CCS setpoint for the time set through the CCt parameter. The cycle can be terminated before the end of the set time by pressing the  button for more than 3s.

The ON/OFF Function

1. The device can be turned off by pressing the  button. The **"OFF"** message appears. In this configuration, the regulation is disabled. To switch the controller on, again press the  button.

WARNING! - Loads connected to the normally closed contacts of the relays are always supplied and under voltage, even if the controller is in stand-by mode.

5.3 Programming Mode

Activating the programming mode is allowed only to servicing organisations with permission from the manufacturer.

5.4 Circuit Diagram

Display cabinet with cooling table - Appendix 1
Display cabinet - Appendix 2

6. Maintenance

6.1 General Safety Measures

- Before commencing maintenance, study this user guide thoroughly.
- Follow the instructions contained in section **2.3 Safety**.

- **Before carrying out maintenance work, it is necessary to pull the power supply cord plug and to make sure no electric current is flowing through the equipment (e.g. by turning on the main power switch and observing if the equipment remains powered off).**
- **If the equipment is connected permanently to the mains, it is necessary to turn off the corresponding circuit breaker, make sure the equipment is not functioning and secure the deactivated circuit breaker, e.g. by putting an "equipment under maintenance" sign on it.**
- **During maintenance work, proceed with caution and without haste.**

- **Do not use pressurized water for washing the equipment, there is a risk of damage to ventilator fans, compressor, electronic components and to the whole equipment as a consequence!**
- **To clean the equipment use a common kitchen detergent approved for use with foodstuffs!**
- **It is forbidden to pour water into the cooling basin of the display cabinet. The drain pipe is intended only for discharging the condensate liquid. Pouring water into the basin would result in overflowing of the evaporator basin for the condensate liquid, possibly damaging the cooling unit!**

6.2 Regular Maintenance

6.2.1 Inspection

6.2.1.1 Evaporator

- Remove the cover **7.**

- Ascertain visually that the evaporator **5** is not iced. An iced evaporator must be left to defrost.
- If it is possible to lift the evaporator on its pivot points, lift the evaporator and wipe the basin dry with a rag.
- Take care when wiping, as the evaporator lamellas are sharp and there is a risk of limb injury.
- Check the drain hose to make sure that the condensate drainage is unobstructed. If the hose is clogged, clean it using a drain cleaning cable. Also remove any sediment from the evaporator tank **13**.

6.2.1.2 Evaporator fans

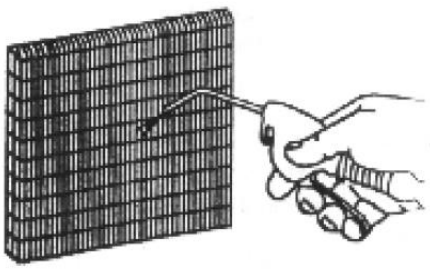
- Check manually that the evaporator fans 6 move freely. Have any immobile fans replaced.

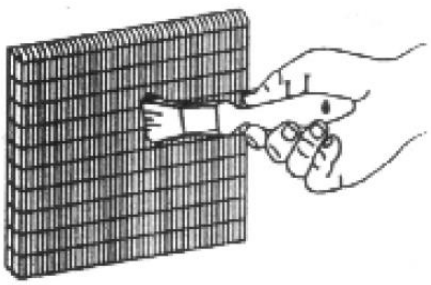
6.2.1.3 Compressor

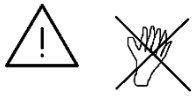
- Remove the covering blind of the cooling unit **4** by first lifting it gently upward, then sliding its lower part out and removing it completely.
- Remove any deposited dust from the compressor **1** by or using a compressed air blower.
- From the vicinity of the compressor, remove any undesirable material that would obstruct the free flow of air.

6.2.1.4 Condenser

- Check that there are no dust deposits or other particles on the condenser lamellas **2**. **While pointing a flashlight towards the lamellas, you should be able to see through them!**
- Remove any eventual impurities with a brush or a compressed air blower.







If it is not possible to clean the condenser, contact a servicing organisation. The condenser needs to be replaced, failing to do so would result in destruction of the whole cooling unit.

- **Use increased caution during cleaning, there is a danger of cutting oneself at the condenser lamellas.**
- **If the condenser fan 3 is readily accessible, check manually that the fan rotates freely. If the fan is inaccessible, it is necessary to check that the fan is functioning correctly during operation, in the following way: Provided that the condenser is clean, put an A4 sheet of paper against the front side of the condenser while the cooling unit is in operation. The sheet of paper should cling firmly to it and not fall off.**

6.2.1.5 Sealing surfaces

- Check all rubber sealing on doors, drawers, etc. Replace all damaged sealing.

6.2.1.6 Lighting

- Ascertain visually that the Perspex covers of the lights **10** are not damaged. Have any damaged covers replaced by a servicing organisation.

6.2.1.7 Hinges, sliding surfaces

- Check that all hinges rotate freely and are properly spring-loaded.
- Also check that all hinges are properly attached and do not show signs of deformation.
- Check that sliding surfaces move freely without snagging.
- **Do not lubricate the hinges or sliding surfaces with any petroleum jelly or oils!**
- Have any faulty hinges or sliding surfaces replaced by a servicing organisation.

6.2.1.8 Ventilation apertures

- Ensure that all ventilation apertures are unobstructed and clean. Mechanically remove any eventual impurities by vacuuming or using a compressed air blower.

Never place any obstacles in front of the ventilation apertures!

6.2.2 Maintenance

6.2.2.1 Daily maintenance

- During maintenance work, follow the instructions contained in section **6.1 General Safety Measures**.
- After finishing daily operation, turn off the equipment. Remove the foodstuffs from the equipment, clean the refrigerated space and wipe it dry. Leave the refrigerated space open to prevent any lingering odors.
- When performing maintenance work during continuous operation, turn the equipment off, remove any foodstuffs from it and place them in another refrigerated space. Clean the refrigerated space and wipe it dry. Turn the equipment on and let it cool to the target temperature. After that, put back the foodstuffs.
- **While the equipment is turned off, perform maintenance as detailed in sections 6.2.1.1-6.2.1.2 and 6.2.1.8.**

6.2.2.2 Monthly maintenance

- During maintenance work, follow the instructions contained in section **6.1 General Safety Measures**.
- During monthly maintenance perform tasks detailed in sections **6.2.1 Inspection and 6.2.2.1 Daily Maintenance.**

7. Forbidden handling procedures

- **Do not use the equipment for other purposes than intended!**
- **Do not interfere with the circuitry of the equipment!**
- **Do not perform any other activities forbidden elsewhere in this user guide!**
- **Do not wash the equipment with pressurized water!**
- **Do not overload the glass shelves and the drawers in the refrigerated space!**
- **Do not handle the equipment roughly!**
- **It is forbidden to operate the equipment without prior training and without having this user guide available!**

8. Table of possible malfunctions and their correcting

Malfunction name	***Control unit message***	***Possible correction method***
Malfunctioning refrigerated space probe	PF1	Replace thermal probe
Malfunctioning evaporator probe	PF2	Replace thermal probe
Display cabinet not cooling	HiA	Check the display cabinet as per section 6.2 Regular Maintenance. After inspection, turn the equipment on again and let it operate for at least 60 min. If the problem persists, contact a servicing organisation.
Light not working	No message	Check the light by pressing the  button. If the light does not turn on, there is a faulty current transformer **9**. Contact a servicing organisation.

9. Servicing Organisations

A list of servicing organisations can be found at www.gastro.cz.

B –COOLING TABLES AND FREEZING TABLES

2.4 Ambient Conditions

The equipment is able to operate properly under these conditions:

- Altitude up to 1000m above sea level
- Ambient temperature near the equipment in the range from 15°C to 25°C
- Relative humidity max. 60%
- The equipment is not placed in direct sunlight
- The equipment is not placed close to sources of heat (heaters, deep fryers, heating dispensing basins, frying plates, cooling units of other devices etc.)
- The equipment is not placed close to steam generating devices (heating dispensing basins, pasta heaters, convection ovens, etc.)

2.5 Ordering spare parts

Under preparation

3. Technical Features

3.1 Technical Description

Cooling tables serve for cooling and preservation of foodstuffs that spoil at room temperature. They also serve for cooling of beverages. These tables are not permitted to be used for other purposes without express permission and eventual structural changes by Gastro Production s.r.o.

Cooling tables are manufactured either as ventilated, utilizing forced circulation of cooled air, or as static, relying on spontaneous layering of cooled air.
According to way of use, cooling tables are manufactured either as allowing cooling of intermediate goods placed in GN containers, in drawers, or cooling tables allowing cooling of beverages placed in drawers.

Freezing tables are manufactured as ventilated, utilizing forced circulation of frozen air.

Cooling tables and freezing tables are made from rigid self-supporting stainless structure. The base body of the refrigerated space is made from stainless metal sheet insulated with polyurethane foam.
These tables have been designed for best results provided that all instructions contained in this user guide are followed. For the tables to be used in the best way possible and to be always kept in perfect condition, we recommend that you perform the maintenance work regularly. The personnel operating the tables must be necessarily familiarised with instructions regarding to operation, maintenance and safety, as contained in this user guide.

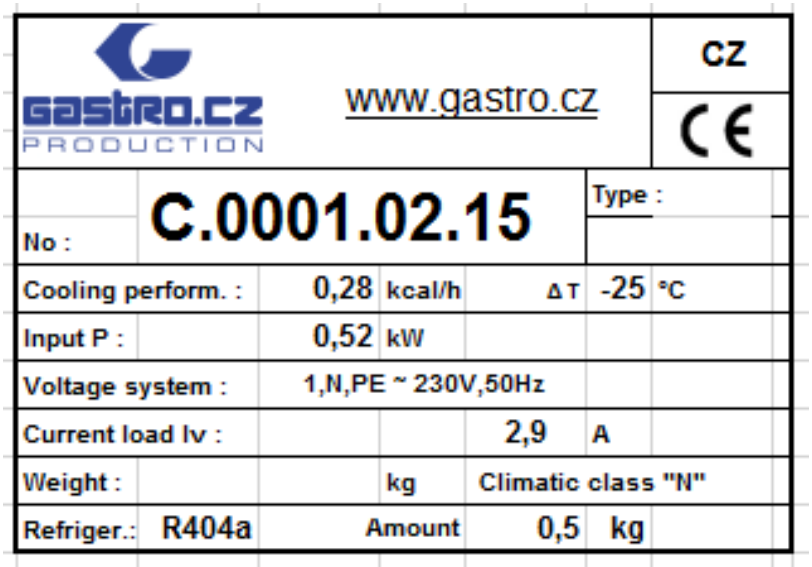
The temperature of the refrigerated space of the table is adjustable **from 2°C to 8°C.**
The temperature of the freezing space of the table is adjustable **from -10°C to -22°C.**
The temperature of the refrigerated space is maintained by an electronic control unit. The electronic control unit automatically manages the process of cooling the refrigerated space and the process of defrosting the icing forming on the evaporator. The resulting condensate liquid is either evaporated automatically or discharged into the prepared drain.

3.2 Dimensions and Weight

Dimensions and weight of the equipment can be found according to the type of equipment at www.gastro.cz.

3.3 Type Labels

The type label is placed on the inner side of the cooling unit chamber.



3.4 Technical Specifications

	72K12-02 *71K12-02*	*72K22-02* *71K22-02*	*72K32-02* *71K32-02*	*72K42-02* *71K42-02*	*GNM1*	*GNM2*
Temperature	+2°C - +8°C	+2°C - +8°C	+2°C - +8°C	+2°C - +8°C	-10°Caž - 22°C	-10°Caž - 22°C
Cooling	Vent.	Vent.	Vent.	Vent.	Vent.	Vent.
Coolant gas	R134a	R134a	R134a	R134a	R404a	R404a
Amount Volume (l)						
Input power (W)	260	350	460	460		
Cooling output power at T -10°C (W)	223	340	456	456		
Voltage system	1 ,N, PE~230V, 50Hz					

4. Installation and Operation

4.1 Setting the Equipment

After unwrapping, set the equipment in a horizontal position on the location designated for its operation by adjusting the levelling feet. If the equipment does not have any levelling feet, use stainless metal sheets as pads.

4.2 Connecting to the electric network

The device is factory-fitted with a connecting cord for conducting the electric current, terminating in a non-detachable plug. This plug can be plugged into an outlet with voltage system 1, N, PE ~ 230V, 50Hz (an EURO socket with protective pin, a SHUKO socket with protective contacts). Insert the plug of the connecting cord into the outlet. Ensure that the plug remains accessible to the operator. The cord cable must be laid out visibly and without any sharp bends. The cord cable must not be laid out across sharp edges of any sheet metal or other components.

4.3 Turning on the Equipment

1. After setting the equipment, wait at least ½ hour before turning it on.
2. Turn on the equipment by setting the main power switch to **position 1. The indicator light should come on**.
3. For setting the temperature of the refrigerated space on the electronic control unit, refer to section **5**.
   (The standard initial factory setting is **+ 2°C** for the cooling table and **-18°C** for the freezing table).

4.4 Filling the equipment with goods

After the refrigerated / freezing space reaches the target temperature, you may fill it with goods.

Please follow the principles of proper use of equipment outlined in section 2.3.6.

1. **Do not place any hot or warm dishes into the refrigerated / freezing space.**
2. **Do not place any acidic foods into the refrigerated / freezing space, as this may cause damage to the evaporator.**

4.5 Operation of the Equipment

1. **Keep the refrigerated space clean.**
2. **Do not leave the doors to the refrigerated space open – this reduces the equipment performance and lifetime.**
3. **Regularly check the equipment and perform maintenance work according to section 6 of this user guide.**

5. Electronic Control Unit

The cooling table is controlled by DIXELL XR60CX.

The freezing table is controlled by DIXELL XR60CX.

The manufacturer takes no responsibility for any equipment malfunction resulting from interfering with the electronic control unit settings. This provision does not apply to settings permitted **by this user guide**.

5.1 Description and Dimensions

Models XR20CX, XR60CX, XR70CX are electronic thermostats with passive defrosting. They are fitted with a microprocessor and are suitable for refrigeration applications at normal temperatures. They are suitable for mounting on panels and their dimensions are 32x74 mm. They have one, two or three relay outputs to control compressor, fan, defrosting, lighting. It is possible to connect up to three PTC or NTC sensors to them.

Technical parameters

Wrapping: **self-extinguishing plastic ABS**

Case: **front panel: 32 x 74mm, depth: 60mm**

Mounting: **into the panel with cut-out aperture of 71 x 29mm**

Front panel cover: **IP65**

Attachment: **barrier strip for conductors with up to 2.5mm² cross section.**

Supply voltage: **230V~, ±10%; 50, 60Hz**

Input power: **3VA max**

Data memory: **EEPROM**

Working temperature range: **0 to 60°C**

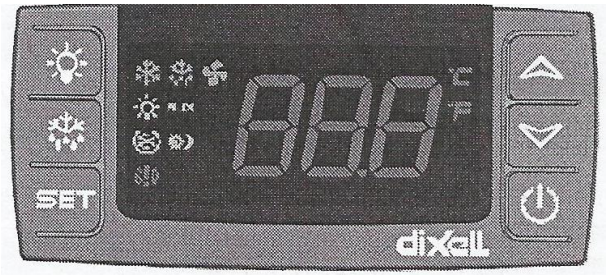
Temperature range for storage: **-30 to 85°C**

Relative humidity: **20 to 85%**

Accuracy (at ambient temperature of 25°C): **±0,7°C±1 digit**

5.2 Operating Mode

FRONT PANEL COMMANDS



Button description

SET	Displays the desired value. In programming mode serves for selecting a parameter or confirming an operation.
∧	**(UP)**: Displays maximum temperature recorded. In programming mode serves for navigating the parameter list and increasing the displayed value.
∨	**(DOWN)**: Displays minimum temperature recorded. In programming mode serves for navigating the parameter list and decreasing the displayed value.
⏻	Turns the device on and off.
☼	Turns the lighting on and off, if available.
❄	**(DEF)**: Initiates manual defrost.

Key combinations

∧ + ∨	Locks and unlocks the keyboard.
SET + ∨	Enters the programming mode.
SET + ∧	Returns to displaying the value of the refrigerated space temperature.

Explanation of LED functions

LED	REŽIM	FUNKCE
❄	Svítí	Kompresor v chodu
❄	Bliká	Zpoždění minimálního cyklu kompresoru
❄	Svítí	Probíhá odtávání
❄	Bliká	Probíhá odkapávání
	Svítí	Ventilátory v chodu
	Bliká	Probíhá časové zpoždění zapnutí ventilátorů po odtávání
	Svítí	Alarm
	Svítí	Probíhá nepřetržitý cyklus chlazení
	Svítí	Energy saving cyklus
°C/F	Svítí	Měřené jednotky
°C/F	Bliká	Režim programování

Displaying minimum recorded temperature

1. Press the button.
2. A **"Lo"** message appears on the display followed by minimum recorded temperature.
3. After another pressing of the button or a 5s wait the device returns to normal mode of operation displaying the measured temperature.

Displaying maximum recorded temperature

1. Press the button.
2. A "**Hi"** message appears on the display followed by maximum recorded temperature.
3. After another pressing of the button or a 5s wait the device returns to normal mode of operation displaying the measured temperature.

Resetting the recorded MIN. / MAX. temperatures

1. While viewing either of the MIN. / MAX. temperatures, press the SET button for more than 3s, until the **"rSt"** message appears.
2. Confirm the operation by again pressing the SET button. The **"rSt"** starts flashing. The device resumes displaying the current temperature.

MAIN FUNCTIONS

Displaying the Target Temperature

1. Shortly press the SET button. The device displays the target temperature.
2. To again display the current temperature, shortly press the SET button again or wait 5s.

Setting the Target Temperature

1. Hold the SET button for more than 2s.
2. The device starts displaying the target temperature and the °C warning light starts flashing.
3. The target temperature can be adjusted by pressing the ⌄ or ⌃ buttons (within 10s interval).
4. The new target temperature is confirmed either by again pressing the SET button or automatically after 10s interval.

Initiating Manual Defrost

1. Press and hold the ❄ for more than 2s.

Locking the Keyboard

1. Hold the ⌄ + ⌃ buttons simultaneously for at least 3s.
2. The **"POF"** message appears and the keyboard is locked. Now it is only possible to see the target temperature or the MIN. / MAX. recorded temperature.
3. Upon pressing any key for more than 3s, the **"POF"** message appears.

Unlocking the Keyboard again

1. Hold the ⌄ + ⌃ buttons simultaneously for at least 3s, until the **"PON"** message appears.

The Continuous Cycle

1. Unless there is defrost in progress, it is possible to initiate the continuous cycle by pressing the ⌃ button for more than 3s. The compressor enters the continuous cycle and operates to maintain the CCS setpoint for the

time set through the CCt parameter. The cycle can be terminated before the end of the set time by pressing the  button for more than 3s.

The ON/OFF Function

1. The device can be turned off by pressing the  button. The **"OFF"** message appears. In this configuration, the regulation is disabled. To switch the controller on, again press the  button.

WARNING! - Loads connected to the normally closed contacts of the relays are always supplied and under voltage, even if the controller is in stand-by mode.

5.3 Programming Mode

Activating the programming mode is allowed only to servicing organisations with permission from the manufacturer.

5.4 Circuit Diagram

Cooling table - Appendix 1

Freezing table - Appendix 2

6. Maintenance

6.1 General Safety Measures

- Before commencing maintenance, study this user guide thoroughly.
- Follow the instructions contained in section **2.3 Safety**.

- **Before carrying out maintenance work, it is necessary to pull the power supply cord plug and to make sure no electric current is flowing through the equipment (e.g. by turning on the main power switch and observing if the equipment remains powered off).**
- **If the equipment is connected permanently to the mains, it is necessary to turn off the corresponding circuit breaker, make sure the equipment is not functioning and secure the deactivated circuit breaker, e.g. by putting an "equipment under maintenance" sign on it.**
- **During maintenance work, proceed with caution and without haste.**

- **Do not use pressurized water for washing the equipment, there is a risk of damage to ventilator fans, compressor, electronic components and to the whole equipment as a consequence!**
- **To clean the equipment use a common kitchen detergent approved for use with foodstuffs!**

6.2 Regular Maintenance

6.2.1 Inspection

6.2.1.1 Evaporator

- Open the door to the refrigerated / freezing space. You might want to lift the drawers off the rails and place them aside off the table.

- Ascertain visually that the evaporator **5** is not iced. An iced evaporator must be left to defrost.

- Check the drain hose to make sure that the condensate drainage is unobstructed. If the hose is clogged, clean it using a drain cleaning cable. Also remove any sediment from the evaporator tank **13.**

6.2.1.2 Evaporator fans

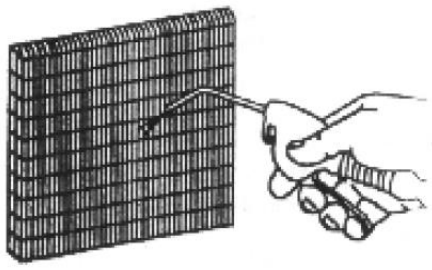
- Check manually that the evaporator fans 6 move freely. Have any immobile fans replaced.

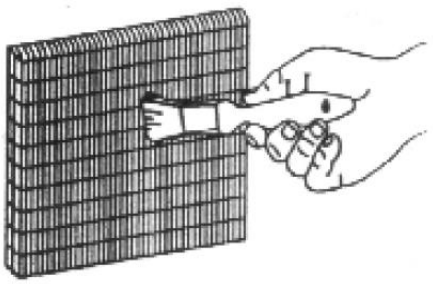
6.2.1.3 Compressor

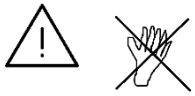
- Remove the covering blind of the cooling unit **4** by first lifting it gently upward, then sliding its lower part out and removing it completely.
- Remove any deposited dust from the compressor **1** by vacuuming or using a compressed air blower.
- From the vicinity of the compressor, remove any undesirable material that would obstruct the free flow of air.

6.2.1.4 Condenser

- Check that there are no dust deposits or other particles on the condenser lamellas **2**. **While pointing a flashlight towards the lamellas, you should be able to see through them!**
- Remove any eventual impurities with a brush or a compressed air blower.







If it is not possible to clean the condenser, contact a servicing organisation. The condenser needs to be replaced, failing to do so would result in destruction of the whole cooling unit.

- **Use increased caution during cleaning, there is a danger of cutting oneself at the condenser lamellas.**
- **If the condenser fan 3 is readily accessible, check manually that the fan rotates freely. If the fan is inaccessible, it is necessary to check that the fan is functioning correctly during operation, in the following way: Provided that the condenser is clean, put an A4 sheet of paper against the front side of the condenser while the cooling unit is in operation. The sheet of paper should cling firmly to it and not fall off.**

6.2.1.5 Sealing surfaces

- Check all rubber sealing on doors, drawers, etc. Replace all damaged sealing.

6.2.1.6 Lighting

- Not fitted.

6.2.1.7 Hinges, sliding surfaces

- Check that all hinges rotate freely and are properly spring-loaded.
- Also check that all hinges are properly attached and do not show signs of deformation.
- Check that sliding surfaces move freely without snagging.
- **Do not lubricate the hinges or sliding surfaces with any petroleum jelly or oils!**
- Have any faulty hinges or sliding surfaces replaced by a servicing organisation.

6.2.1.8 Ventilation apertures

- Ensure that all ventilation apertures are unobstructed and clean. Mechanically remove any eventual impurities by vacuuming or using a compressed air blower.

Never place any obstacles in front of the ventilation apertures!

6.2.2 Maintenance

6.2.2.1 Daily maintenance

- During maintenance work, follow the instructions contained in section **6.1 General Safety Measures**.
- After finishing daily operation, turn off the equipment. Remove the foodstuffs from the equipment, clean the refrigerated space and wipe it dry. Leave the refrigerated space open to prevent any lingering odors.
- When performing maintenance work during continuous operation, turn the equipment off, remove any foodstuffs from it and place them in another refrigerated space. Clean the refrigerated space and wipe it dry. Turn the equipment on and let it cool to the target temperature. After that, put back the foodstuffs.
- **While the equipment is turned off, perform maintenance as detailed in sections 6.2.1.1-6.2.1.2 and 6.2.1.8.**

6.2.2.2 Monthly maintenance

- During maintenance work, follow the instructions contained in section **6.1 General Safety Measures**.
- During monthly maintenance perform tasks detailed in sections **6.2.1 Inspection and 6.2.2.1 Daily Maintenance**

7. Forbidden handling procedures

- **Do not use the equipment for other purposes than intended!**
- **Do not interfere with the circuitry of the equipment!**
- **Do not perform any other activities forbidden elsewhere in this user guide!**
- **Do not wash the equipment with pressurized water!**
- **Do not overload the drawers in the refrigerated / freezing space!**
- **Do not handle the equipment roughly!**
- **It is forbidden to operate the equipment without prior training and without having this user guide available!**

8. Table of possible malfunctions and their correcting

Malfunction name	***Control unit message***	***Possible correction method***
Malfunctioning refrigerated space probe	PF1	Replace thermal probe
Malfunctioning evaporator probe	PF2	Replace thermal probe
Table not cooling	HiA	Check the table as per section 6.2 Regular Maintenance. After inspection, turn the equipment on again and let it operate for at least 60 min. If the problem persists, contact a servicing organisation.
Table cooling too much	LoA	Malfunctioning control unit relay – replace the control unit

9. Servicing Organisations

A list of servicing organisations can be found at www.gastro.cz.

C – COOLING BASINS

2.4 Ambient Conditions

The equipment is able to operate properly under these conditions:

- Altitude up to 1000m above sea level
- Ambient temperature near the equipment in the range from 15°C to 25°C
- Relative humidity max. 60%
- The equipment is not placed in direct sunlight
- The equipment is not placed close to sources of heat (heaters, deep fryers, heating dispensing basins, frying plates, cooling units of other devices etc.)
- The equipment is not placed close to steam generating devices (heating dispensing basins, pasta heaters, convection ovens, etc.)

2.5 Ordering spare parts

Under preparation

3. Technical Features

3.1 Technical Description

Cooling basins serve for cooling and preservation of foodstuffs placed in GN containers, that spoil at room temperature. They also serve for cooling of beverages. These tubs are not permitted to be used for other purposes without express permission and eventual structural changes by Gastro Production s.r.o.

Cooling basins are manufactured either as ventilated, utilizing forced blowing by cooled air or as static tubs, whose sides are cooled by cooling ducts.
Cooling basins are manufactured from stainless steel metal sheets clad on the outside by thermal insulation. The basins are usually set into a stainless structure together with the cooling unit and the control unit.

These basins have been designed for best results provided that all instructions contained in this user guide are followed. For the basins to be used in the best way possible and to be always kept in perfect condition, we recommend that you perform

the maintenance work regularly. The personnel operating the basins must be necessarily familiarised with instructions regarding to operation, maintenance and safety, as contained in this user guide.

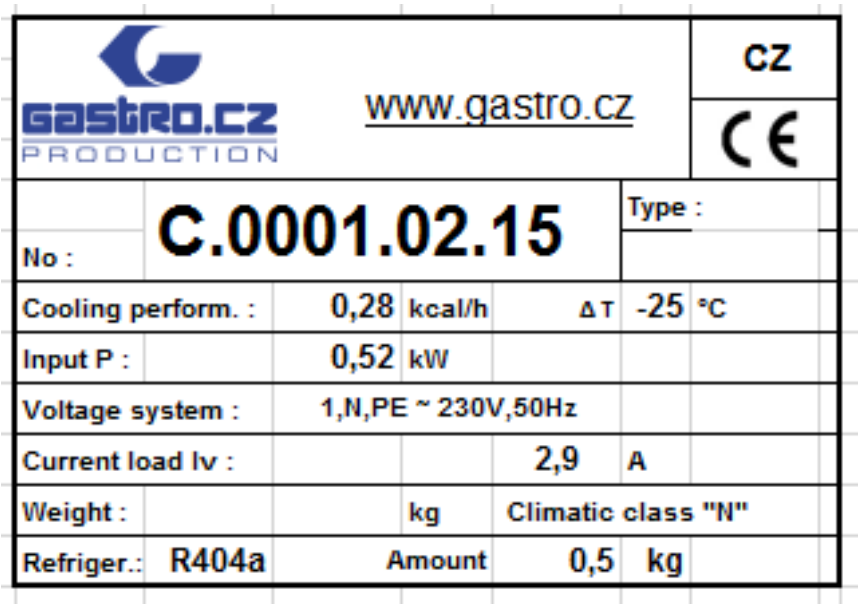
The temperature of the refrigerated space of the table is adjustable **from 2°C to 8°C.** The temperature of the refrigerated space is maintained by an electronic control unit. The electronic control unit automatically manages the process of cooling the refrigerated space and the process of defrosting the icing forming on the evaporator. The resulting condensate liquid is either evaporated automatically or discharged into the prepared drain.

3.2 Dimensions and Weight

Dimensions and weight of the equipment can be found according to the type of equipment at www.gastro.cz.

3.3 Type Labels

The type label is placed on the bottom cover of the cooling basin.



3.4 Technical Specifications

	1GN stat	*2GN stat*	*3GN stat*	*4GN stat*	*2GN vent*	*3GN vent*	*4GN vent*	*5GN vent*	*6GN vent*
Temperature	+1°C - +6°C	+1°C - +6°C	+1°C - +6°C	+1°C - +6°C	+3°C - +8°C	+3°C - +8°C	+3°C - +8°C	+3°C - +8°C	+3°C - +8°C
Cooling	Static	Static	Static	Static	Vent.	Vent.	Vent.	Vent.	Vent.
Coolant gas Amount Volume (l)	R134a	R134a	R134a	R134a	R404a	R404a	R404a	R404a	R404a
Input power (W)	210		330						1100
Cooling output power at T -10°C (W)	174		284						
Voltage system	1, N, PE~230V,50Hz								

4. Installation and Operation

4.1 Setting the Equipment

After unwrapping, set the equipment in a horizontal position on the location designated for its operation by adjusting the levelling feet. If the equipment does not have any levelling feet, use stainless metal sheets as pads.

4.2 Connecting to the electric network

The device is factory-fitted with a connecting cord for conducting the electric current, terminating in a non-detachable plug. This plug can be plugged into an outlet with voltage system 1, N, PE ~ 230V, 50Hz (an EURO socket with protective pin, a SHUKO socket with protective contacts). Insert the plug of the connecting cord into the outlet. Ensure that the plug remains accessible to the operator. The cord cable must be laid out visibly and without any sharp bends. The cord cable must not be laid out across sharp edges of any sheet metal or other components.

4.3 Turning on the Equipment

1. After setting the equipment, wait at least ½ hour before turning it on.
2. Turn on the equipment by setting the main power switch to **position 1. The indicator light should come on**.
3. For setting the temperature of the refrigerated space on the electronic control unit, refer to section **5**.
   (The standard initial factory setting for the refrigerated space temperature is **+2°C**).

4.4 Filling the equipment with goods

After the refrigerated space reaches the target temperature, you may fill it with goods. **Please follow the principles of proper use of equipment outlined in section 2.3.6.**

- **Do not place any hot or warm dishes into the refrigerated space.**
- **Do not place any acidic foods into the refrigerated space, as this may cause damage to the evaporator**

4.5 Operation of the Equipment

- **Keep the refrigerated space clean.**
- **Regularly check the equipment and perform maintenance work according to section 6 of this user guide.**

5. Electronic Control Unit

The cooling basin, Static is controlled by DIXELL XR20CX.

The cooling basin, Ventilated is controlled by DIXELL XR60CX.

The cooling basin, Ventilated, with a LED lighting superstructure is controlled by DIXELL XR70CX.

The manufacturer takes no responsibility for any equipment malfunction resulting from interfering with the electronic control unit settings. This provision does not apply to settings permitted by this user guide.

5.1 Description and Dimensions

Models XR20CX, XR60CX, XR70CX are electronic thermostats with passive defrosting. They are fitted with a microprocessor and are suitable for refrigeration applications at normal temperatures. They are suitable for mounting on panels and their dimensions are 32x74 mm. They have one, two or three relay outputs to control compressor, fan, defrosting, lighting. It is possible to connect up to three PTC or NTC sensors to them.

Technical parameters

Wrapping: **self-extinguishing plastic ABS**

Case: **front panel: 32 x 74mm, depth: 60mm**

Mounting: **into the panel with cut-out aperture of 71 x 29mm**

Front panel cover: **IP65**

Attachment: **barrier strip for conductors with up to 2.5mm² cross section.**

Supply voltage: **230V~, ±10%; 50, 60Hz**

Input power: **3VA max**

Data memory: **EEPROM**

Working temperature range: **0 to 60°C**

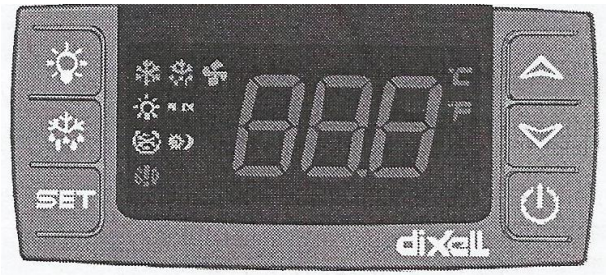
Temperature range for storage: **-30 to 85°C**

Relative humidity: **20 to 85%**

Accuracy (at ambient temperature of 25°C): **±0,7°C±1 digit**

5.2 Operating Mode

FRONT PANEL COMMANDS



Button description

SET	Displays the desired value. In programming mode serves for selecting a parameter or confirming an operation.
∧	**(UP)**: Displays maximum temperature recorded. In programming mode serves for navigating the parameter list and increasing the displayed value.
∨	**(DOWN)**: Displays minimum temperature recorded. In programming mode serves for navigating the parameter list and decreasing the displayed value.
⏻	Turns the device on and off.
☼	Turns the lighting on and off, if available.
❄	**(DEF)**: Initiates manual defrost.

Key combinations

∧ + ∨	Locks and unlocks the keyboard.
SET + ∨	Enters the programming mode.
SET + ∧	Returns to displaying the value of the refrigerated space temperature.

Explanation of LED functions

LED	REŽIM	FUNKCE
❄	Svítí	Kompresor v chodu
❄	Bliká	Zpoždění minimálního cyklu kompresoru
❄	Svítí	Probíhá odtávání
❄	Bliká	Probíhá odkapávání
	Svítí	Ventilátory v chodu
	Bliká	Probíhá časové zpoždění zapnutí ventilátorů po odtávání
	Svítí	Alarm
	Svítí	Probíhá nepřetržitý cyklus chlazení
	Svítí	Energy saving cyklus
°C/F	Svítí	Měřené jednotky
°C/F	Bliká	Režim programování

Displaying minimum recorded temperature

1. Press the button.
2. A **"Lo"** message appears on the display followed by minimum recorded temperature.
3. After another pressing of the button or a 5s wait the device returns to normal mode of operation displaying the measured temperature.

Displaying maximum recorded temperature

1. Press the button.
2. A "**Hi"** message appears on the display followed by maximum recorded temperature.
3. After another pressing of the button or a 5s wait the device returns to normal mode of operation displaying the measured temperature.

Resetting the recorded MIN. / MAX. temperatures

1. While viewing either of the MIN. / MAX. temperatures, press the SET button for more than 3s, until the **"rSt"** message appears.

2. Confirm the operation by again pressing the SET button. The **"rSt"** starts flashing. The device resumes displaying the current temperature.

MAIN FUNCTIONS

Displaying the Target Temperature

1. Shortly press the SET button. The device displays the target temperature.
2. To again display the current temperature, shortly press the SET button again or wait 5s.

Setting the Target Temperature

1. Hold the SET button for more than 2s.
2. The device starts displaying the target temperature and the °C warning light starts flashing.
3. The target temperature can be adjusted by pressing the ▽ or △ buttons (within 10s interval).
4. The new target temperature is confirmed either by again pressing the SET button or automatically after 10s interval.

Initiating Manual Defrost

1. Press and hold the ❄ for more than 2s.

Locking the Keyboard

1. Hold the ▽ + △ buttons simultaneously for at least 3s.
2. The **"POF"** message appears and the keyboard is locked. Now it is only possible to see the target temperature or the MIN. / MAX. recorded temperature.
3. Upon pressing any key for more than 3s, the **"POF"** message appears.

Unlocking the Keyboard again

1. Hold the ▽ + △ buttons simultaneously for at least 3s, until the **"PON"** message appears.

The Continuous Cycle

1. Unless there is defrost in progress, it is possible to initiate the continuous cycle by pressing the △ button for more than 3s. The compressor enters the

continuous cycle and operates to maintain the CCS setpoint for the time set through the CCt parameter. The cycle can be terminated before the end of the set time by pressing the  button for more than 3s.

The ON/OFF Function

1. The device can be turned off by pressing the  button. The **"OFF"** message appears. In this configuration, the regulation is disabled. To switch the controller on, again press the  button.

WARNING! - Loads connected to the normally closed contacts of the relays are always supplied and under voltage, even if the controller is in stand-by mode.

5.3 Programming Mode

Activating the programming mode is allowed only to servicing organisations with permission from the manufacturer.

5.4 Circuit Diagram

Cooling basin, Static	-	Appendix 5
Cooling basin, Ventilated	-	Appendix 6
Cooling basin, Ventilated with a LED superstructure	-	Appendix 7

6. Maintenance

6.1 General Safety Measures

- Before commencing maintenance, study this user guide thoroughly.
- Follow the instructions contained in section **2.3 Safety**.

- **Before carrying out maintenance work, it is necessary to pull the power supply cord plug and to make sure no electric current is flowing through the equipment (e.g. by turning on the main power switch and observing if the equipment remains powered off).**
- **If the equipment is connected permanently to the mains, it is necessary to turn off the corresponding circuit breaker, make sure the equipment is not functioning and secure the deactivated circuit breaker, e.g. by putting an "equipment under maintenance" sign on it.**
- **During maintenance work, proceed with caution and without haste.**

- **Do not use pressurized water for washing the equipment, there is a risk of damage to ventilator fans, compressor, electronic components and to the whole equipment as a consequence!**
- **To clean the equipment use a common kitchen detergent approved for use with foodstuffs!**
- **It is forbidden to pour water into the cooling basin. The drain pipe is intended only for discharging the condensate liquid. Pouring water into the basin would result in overflowing of the evaporator basin for the condensate liquid, possibly damaging the cooling unit!**

6.2 Regular Maintenance

6.2.1 Inspection

6.2.1.1 Evaporator

- Remove the evaporator cover **7** - by „snapping it out".

- Ascertain visually that the evaporator **5** is not iced. An iced evaporator must be left to defrost.
- If it is possible to lift the evaporator on its pivot points, lift the evaporator and wipe the basin dry with a rag.
- Check the drain hose to make sure that the condensate drainage is unobstructed. If the hose is clogged, clean it using a drain cleaning cable. Also remove any sediment from the evaporator tank **13.**

6.2.1.2 Evaporator fans

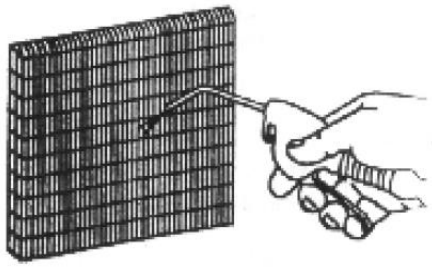
- Check manually that the evaporator fans 6 move freely. Have any immobile fans replaced.

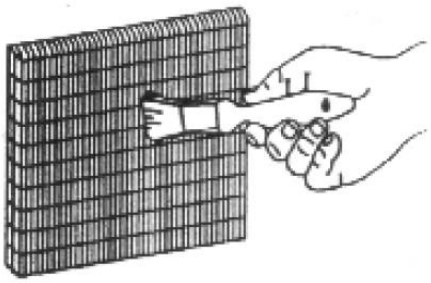
6.2.1.3 Compressor

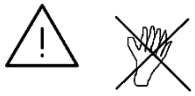
- Remove the covering blind of the cooling unit **4** (if it is fitted) by first lifting it gently upward, then sliding its lower part out and removing it completely.
- Remove any deposited dust from the compressor **1** by vacuuming or using a compressed air blower.
- From the vicinity of the compressor, remove any undesirable material that would obstruct the free flow of air.

6.2.1.4 Condenser

- Check that there are no dust deposits or other particles on the condenser lamellas **2**. **While pointing a flashlight towards the lamellas, you should be able to see through them!**
- Remove any eventual impurities with a brush or a compressed air blower.







If it is not possible to clean the condenser, contact a servicing organisation. The condenser needs to be replaced, failing to do so would result in destruction of the whole cooling unit.

- **Use increased caution during cleaning, there is a danger of cutting oneself at the condenser lamellas.**
- **If the condenser fan 3 is readily accessible, check manually that the fan rotates freely. If the fan is inaccessible, it is necessary to check that the fan is functioning correctly during operation, in the following way: Provided that the condenser is clean, put an A4 sheet of paper against the front side of the condenser while the cooling unit is in operation. The sheet of paper should cling firmly to it and not fall off.**

6.2.1.5 Sealing surfaces

- Not fitted.

6.2.1.6 Lighting

- Ascertain visually that the Perspex covers of the LED lights **10** are not damaged. Have any damaged covers replaced by a servicing organisation.

6.2.1.7 Hinges, sliding surfaces

- Check that all hinges rotate freely and are properly spring-loaded.
- Also check that all hinges are properly attached and do not show signs of deformation.
- Check that sliding surfaces move freely without snagging.
- **Do not lubricate the hinges or sliding surfaces with any petroleum jelly or oils!**
- Have any faulty hinges or sliding surfaces replaced by a servicing organisation.

6.2.1.8 Ventilation apertures

- Ensure that all ventilation apertures are unobstructed and clean. Mechanically remove any eventual impurities by vacuuming or using a compressed air blower.

Never place any obstacles in front of the ventilation apertures!

6.2.2 Maintenance

6.2.2.1 Daily maintenance

- During maintenance work, follow the instructions contained in section **6.1 General Safety Measures**.
- After finishing daily operation, turn off the equipment. Remove the foodstuffs from the equipment, clean the refrigerated space and wipe it dry. Leave the refrigerated space open to prevent any lingering odors.
- When performing maintenance work during continuous operation, turn the equipment off, remove any foodstuffs from it and place them in another refrigerated space. Clean the refrigerated space and wipe it dry. Turn the equipment on and let it cool to the target temperature. After that, put back the foodstuffs.
- **While the equipment is turned off, perform maintenance as detailed in sections 6.2.1.1-6.2.1.2 and 6.2.1.8.**

6.2.2.2 Monthly maintenance

- During maintenance work, follow the instructions contained in section **6.1 General Safety Measures**.
- During monthly maintenance perform tasks detailed in sections **6.2.1 Inspection and 6.2.2.1 Daily Maintenance.**

7. Forbidden handling procedures

- **Do not use the equipment for other purposes than intended!**
- **Do not interfere with the circuitry of the equipment!**
- **Do not perform any other activities forbidden elsewhere in this user guide!**
- **Do not wash the equipment with pressurized water!**
- **Do not handle the equipment roughly!**
- **It is forbidden to operate the equipment without prior training and without having this user guide available!**

8. Table of possible malfunctions and their correcting

Malfunction name	***Control unit message***	***Possible correction method***
Malfunctioning refrigerated space probe	PF1	Replace thermal probe
Malfunctioning evaporator probe	PF2	Replace thermal probe
Basin not cooling	HiA	Check the basin as per section 6.2 Regular Maintenance. After inspection, turn the equipment on again and let it operate for at least 60 min. If the problem persists, contact a servicing organisation.
Basin cooling too much	LoA	Malfunctioning control unit relay – replace the control unit

9. Servicing Organisations

A list of servicing organisations can be found at www.gastro.cz.

D – COOLING PLATES

2.4 Ambient Conditions

The equipment is able to operate properly under these conditions:

- Altitude up to 1000m above sea level
- Ambient temperature near the equipment in the range from 15°C to 25°C
- Relative humidity max. 60%
- The equipment is not placed in direct sunlight
- The equipment is not placed close to sources of heat (heaters, deep fryers, heating dispensing basins, frying plates, cooling units of other devices etc.)
- The equipment is not placed close to steam generating devices (heating dispensing basins, pasta heaters, convection ovens, etc.)

2.5 Ordering spare parts

Under preparation

3. Technical Features

3.1 Technical Description

Cooling plates serve for cooling of foodstuffs placed on trays inside the cooling zone, that spoil at room temperature. These plates are not permitted to be used for other purposes without express permission and eventual structural changes by Gastro Production s.r.o.

Cooling plates are manufactured as static, whose upper surface is cooled by cooling ducts placed beneath the cooling zone.

Cooling plates are manufactured as part of the upper desk of a work table. They are also manufactured as a separate cooling plate inserted into a pre-made aperture in the work desk. The upper part is made from stainless steel metal sheet. The underside of the plate is fitted with cooling ducts isolated with polyurethane foam. The plates are usually fitted with an underslung cooling unit. The control panel with a control unit can be fastened in up to 2m distance from the cooling unit.

These cooling plates have been designed for best results provided that all instructions contained in this user guide are followed. For the plates to be used in the best way possible and to be always kept in perfect condition, we recommend that you perform the maintenance work regularly. The personnel operating the cooling plates must be necessarily familiarised with instructions regarding to operation, maintenance and safety, as contained in this user guide.

The temperature of the refrigerated space is adjustable **from 2°C to 8°C.** The temperature of the refrigerated space is maintained by an electronic control unit. The electronic control unit automatically manages the process of cooling the refrigerated space. The defrosting of the plate is performed by turning the equipment off. The resulting condensate liquid must be wiped off with a rag.

3.2 Dimensions and Weight

Dimensions and weight of the equipment can be found according to the type of equipment at www.gastro.cz.

3.3 Type Labels

The type label is placed on the cooling unit's condenser.

gastro.cz PRODUCTION		www.gastro.cz				CZ	
						CE	
No :	C.0001.02.15				Type :		
Cooling perform. :		0,28	kcal/h	ΔT	-25	°C	
Input P :		0,52	kW				
Voltage system :		1,N,PE ~ 230V,50Hz					
Current load Iv :				2,9	A		
Weight :			kg	Climatic class "N"			
Refriger.:	R404a		Amount	0,5	kg		

3.4 Technical Specifications

	1GN stat	*2GN stat*	*3GN stat*	*4GN stat*	*5GN stat*	*6GN stat*
Temperature	+1°C - +6°C	+1°C - +6°C	+1°C - +6°C	+1°C - +6°C	+1°C - +6°C	+1°C - +6°C
Cooling	static	static	static	static	static	static
Coolant gas Amount Volume (l)	R134a	R134a	R134a	R134a	R134a	R134a
Input power (W)			250	320		
Cooling output power at T -10°C (W)			223	340		
Voltage system	1, N, PE~230V,50Hz					

4. Installation and Operation

4.1 Setting the Equipment

After unwrapping, set the equipment in a horizontal position on the location designated for its operation by adjusting the levelling feet. Alternatively, set the unwrapped cooling plate concentrically into the pre-made aperture in the desk. Paste some of the glue provided onto the underside of the overlapping part of the cooling plate and weight it down properly while the glue hardens completely.

Warning! Set the plate so that the cooling unit condenser remains accessible – it needs to be cleaned regularly.

4.2 Connecting to the electric network

The device is factory-fitted with a connecting cord for conducting the electric current, terminating in a non-detachable plug. This plug can be plugged into an outlet with voltage system 1, N, PE ~ 230V, 50Hz (an EURO socket with protective pin, a SHUKO socket with protective contacts). Insert the plug of the connecting cord into the outlet. Ensure that the plug remains accessible to the operator. The cord cable must be laid out visibly and without any sharp bends. The cord cable must not be laid out across sharp edges of any sheet metal or other components.

4.3 Turning on the Equipment

After setting the equipment, wait at least ½ hour before turning it on.

- Turn on the equipment by setting the main power switch to **position 1**. **The indicator light should come on**.
- For setting the temperature of the refrigerated space on the electronic control unit, refer to section **5**.

  (The standard initial factory setting for the refrigerated space temperature is **+ 2°C**).

4.4 Filling the equipment with goods

After the refrigerated space reaches the target temperature, you may fill it with goods. **Please follow the principles of proper use of equipment outlined in section 2.3.6.**

Do not place any hot or warm dishes into the refrigerated space.

Do not place any acidic foods into the refrigerated space, as this may cause damage to the evaporator.

4.5 Operation of the Equipment

- **Keep the refrigerated space clean.**
- **Regularly check the equipment and perform maintenance work according to section 6 of this user guide.**

5. Electronic Control Unit

The cooling plate is controlled by DIXELL XR20CX.

The manufacturer takes no responsibility for any equipment malfunction resulting from interfering with the electronic control unit settings. This provision does not apply to settings permitted by this user guide.

5.1 Description and Dimensions

Models XR20CX, XR60CX, XR70CX are electronic thermostats with passive defrosting. They are fitted with a microprocessor and are suitable for refrigeration applications at normal temperatures. They are suitable for mounting on panels and their dimensions are 32x74 mm. They have one, two or three relay outputs to control compressor, fan, defrosting, lighting. It is possible to connect up to three PTC or NTC sensors to them.

Technical parameters

Wrapping: **self-extinguishing plastic ABS**

Case: **front panel: 32 x 74mm, depth: 60mm**

Mounting: **into the panel with cut-out aperture of 71 x 29mm**

Front panel cover: **IP65**

Attachment: **barrier strip for conductors with up to 2.5mm² cross section.**

Supply voltage: **230V~, ±10%; 50, 60Hz**

Input power: **3VA max**

Data memory: **EEPROM**

Working temperature range: **0 to 60°C**

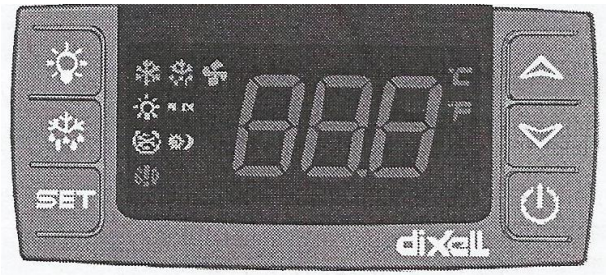
Temperature range for storage: **-30 to 85°C**

Relative humidity: **20 to 85%**

Accuracy (at ambient temperature of 25°C): **±0,7°C±1 digit**

5.2 Operating Mode

FRONT PANEL COMMANDS



Button description

SET	Displays the desired value. In programming mode serves for selecting a parameter or confirming an operation.
∧	**(UP)**: Displays maximum temperature recorded. In programming mode serves for navigating the parameter list and increasing the displayed value.
∨	**(DOWN)**: Displays minimum temperature recorded. In programming mode serves for navigating the parameter list and decreasing the displayed value.
⏻	Turns the device on and off.
☼	Turns the lighting on and off, if available.
❄	**(DEF)**: Initiates manual defrost.

Key combinations

∧ + ∨	Locks and unlocks the keyboard.
SET + ∨	Enters the programming mode.
SET + ∧	Returns to displaying the value of the refrigerated space temperature.

Explanation of LED functions

LED	REŽIM	FUNKCE
❄	Svítí	Kompresor v chodu
❄	Bliká	Zpoždění minimálního cyklu kompresoru
❄	Svítí	Probíhá odtávání
❄	Bliká	Probíhá odkapávání
	Svítí	Ventilátory v chodu
	Bliká	Probíhá časové zpoždění zapnutí ventilátorů po odtávání
	Svítí	Alarm
	Svítí	Probíhá nepřetržitý cyklus chlazení
	Svítí	Energy saving cyklus
°C/F	Svítí	Měřené jednotky
°C/F	Bliká	Režim programování

Displaying minimum recorded temperature

1. Press the button.
2. A **"Lo"** message appears on the display followed by minimum recorded temperature.
3. After another pressing of the button or a 5s wait the device returns to normal mode of operation displaying the measured temperature.

Displaying maximum recorded temperature

1. Press the button.
2. A "**Hi"** message appears on the display followed by maximum recorded temperature.
3. After another pressing of the button or a 5s wait the device returns to normal mode of operation displaying the measured temperature.

Resetting the recorded MIN. / MAX. temperatures

1. While viewing either of the MIN. / MAX. temperatures, press the SET button for more than 3s, until the **"rSt"** message appears.

2. Confirm the operation by again pressing the SET button. The **"rSt"** starts flashing. The device resumes displaying the current temperature.

MAIN FUNCTIONS

Displaying the Target Temperature

1. Shortly press the SET button. The device displays the target temperature.
2. To again display the current temperature, shortly press the SET button again or wait 5s.

Setting the Target Temperature

1. Hold the SET button for more than 2s.
2. The device starts displaying the target temperature and the °C warning light starts flashing.
3. The target temperature can be adjusted by pressing the ▽ or △ buttons (within 10s interval).
4. The new target temperature is confirmed either by again pressing the SET button or automatically after 10s interval.

Initiating Manual Defrost

1. Press and hold the ❄ for more than 2s.

Locking the Keyboard

1. Hold the ▽ + △ buttons simultaneously for at least 3s.
2. The **"POF"** message appears and the keyboard is locked. Now it is only possible to see the target temperature or the MIN. / MAX. recorded temperature.
3. Upon pressing any key for more than 3s, the **"POF"** message appears.

Unlocking the Keyboard again

1. Hold the ▽ + △ buttons simultaneously for at least 3s, until the **"PON"** message appears.

The Continuous Cycle

1. Unless there is defrost in progress, it is possible to initiate the continuous cycle by pressing the △ button for more than 3s. The compressor enters the

continuous cycle and operates to maintain the CCS setpoint for the time set through the CCt parameter. The cycle can be terminated before the end of the set time by pressing the  button for more than 3s.

The ON/OFF Function

1. The device can be turned off by pressing the  button. The **"OFF"** message appears. In this configuration, the regulation is disabled. To switch the controller on, again press the  button.

WARNING! - Loads connected to the normally closed contacts of the relays are always supplied and under voltage, even if the controller is in stand-by mode.

5.3 Programming Mode

Activating the programming mode is allowed only to servicing organisations with permission from the manufacturer.

5.4 Circuit Diagram

Cooling plate - Appendix 8
Cooling plate with LED superstructure - Appendix 9

6. Maintenance

6.1 General Safety Measures

- Before commencing maintenance, study this user guide thoroughly.
- Follow the instructions contained in section **2.3 Safety**.

- **Before carrying out maintenance work, it is necessary to pull the power supply cord plug and to make sure no electric current is flowing through the equipment (e.g. by turning on the main power switch and observing if the equipment remains powered off).**
- **If the equipment is connected permanently to the mains, it is necessary to turn off the corresponding circuit breaker, make sure the equipment is not functioning and secure the deactivated circuit breaker, e.g. by putting an "equipment under maintenance" sign on it.**
- **During maintenance work, proceed with caution and without haste.**

- **Do not use pressurized water for washing the equipment, there is a risk of damage to ventilator fans, compressor, electronic components and to the whole equipment as a consequence!**
- **To clean the equipment use a common kitchen detergent approved for use with foodstuffs!**

6.2 Regular Maintenance

6.2.1 Inspection

6.2.1.1 Evaporator

- No maintenance necessary

6.2.1.2 Evaporator fans

- Not fitted.

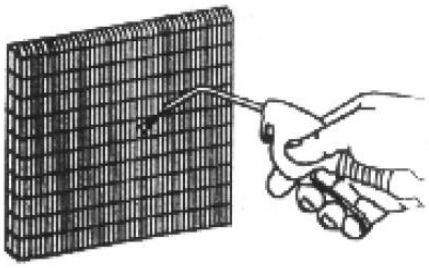
6.2.1.3 Compressor

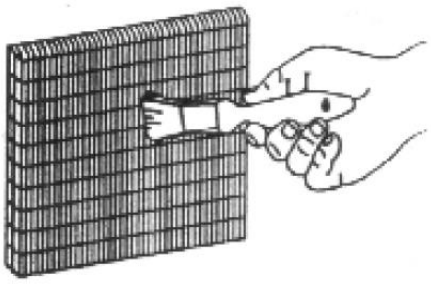
- Take off the covering blind of the cooling unit **4** (if it is fitted) after unscrewing the fastening screws **14**.
- Remove any deposited dust from the compressor **1** by vacuuming or using a compressed air blower.

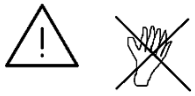
- From the vicinity of the compressor, remove any undesirable material that would obstruct the free flow of air.

6.2.1.4 Condenser

- Check that there are no dust deposits or other particles on the condenser lamellas **2**. **While pointing a flashlight towards the lamellas, you should be able to see through them!**
- Remove any eventual impurities with a brush or a compressed air blower.







If it is not possible to clean the condenser, contact a servicing organisation. The condenser needs to be replaced, failing to do so would result in destruction of the whole cooling unit.

- **Use increased caution during cleaning, there is a danger of cutting oneself at the condenser lamellas.**
- **If the condenser fan 3 is readily accessible, check manually that the fan rotates freely. If the fan is inaccessible, it is necessary to check that the fan is functioning correctly during operation, in the following way: Provided that the condenser is clean, put an A4 sheet of paper against the front side of the condenser while the cooling unit is in operation. The sheet of paper should cling firmly to it and not fall off.**

6.2.1.5 Sealing surfaces

- Not fitted.

6.2.1.6 Lighting

- Ascertain visually that the Perspex covers of the LED lights **10** are not damaged. Have any damaged covers replaced by a servicing organisation.

6.2.1.7 Hinges, sliding surfaces

- Not fitted.

6.2.1.8 Ventilation apertures

- Ensure that all ventilation apertures are unobstructed and clean. Mechanically remove any eventual impurities by vacuuming or using a compressed air blower.

- **Never place any obstacles in front of the ventilation apertures!**

6.2.2 Maintenance

6.2.2.1 Daily maintenance

- During maintenance work, follow the instructions contained in section 6.1 General Safety Measures.
- After finishing daily operation, turn off the equipment. Remove the foodstuffs from the equipment, clean the refrigerated space and wipe it dry.
- **While the equipment is turned off, perform maintenance as detailed in sections 6.2.1.1-6.2.1.2 and 6.2.1.8.**

6.2.2.2 Monthly maintenance

- During maintenance work, follow the instructions contained in section **6.1 General Safety Measures**.
- During monthly maintenance perform tasks detailed in sections **6.2.1 Inspection and 6.2.2.1 Daily Maintenance.**

7. Forbidden handling procedures

- **Do not use the equipment for other purposes than intended!**
- **Do not interfere with the circuitry of the equipment!**
- **Do not perform any other activities forbidden elsewhere in this user guide!**

- **Do not wash the equipment with pressurized water!**
- **Do not handle the equipment roughly!**
- **It is forbidden to operate the equipment without prior training and without having this user guide available!**

8. Table of possible malfunctions and their correcting

Malfunction name	***Control unit message***	***Possible correction method***
Malfunctioning refrigerated space probe	PF1	Replace thermal probe
Malfunctioning evaporator probe	not fitted	Replace thermal probe
Plate not cooling	HiA	Check the plate as per section 6.2 Regular Maintenance. After inspection, turn the equipment on again and let it operate for at least 60 min. If the problem persists, contact a servicing organisation.
Plate cooling too much	LoA	Malfunctioning control unit relay – replace the control unit

9. Servicing Organisations

A list of servicing organisations can be found at www.gastro.cz.

E - COOLING BOXES FOR WASTE

2.4 Ambient Conditions

The equipment is able to operate properly under these conditions:

- Altitude up to 1000m above sea level
- Ambient temperature near the equipment in the range from 15°C to 25°C
- Relative humidity max. 60%
- The equipment is not placed in direct sunlight
- The equipment is not placed close to sources of heat (heaters, deep fryers, heating dispensing basins, frying plates, cooling units of other devices etc.)
- The equipment is not placed close to steam generating devices (heating dispensing basins, pasta heaters, convection ovens, etc.)

2.5 Ordering spare parts

Under preparation

3. Technical Features

3.1 Technical Description

Cooling boxes serve for keeping biological and vegetable waste in cold state. These boxes are not permitted to be used for other purposes without express permission and eventual structural changes by Gastro Production s.r.o.
Cooling boxes are manufactured as ventilated, utilizing forced blowing by cooled air.

Cooling boxes are manufactured from insulated panels made from either stainless steel or galvanized steel metal sheets. The box is assembled by means of special locks. The cooling unit is mounted on the side of the box. The cooling unit is fitted with a control panel with a control unit.

These cooling boxes have been designed for best results provided that all instructions contained in this user guide are followed. For the boxes to be used in the best way possible and to be always kept in perfect condition, we recommend that you perform the maintenance work regularly. The personnel operating the boxes

must be necessarily familiarised with instructions regarding to operation, maintenance and safety, as contained in this user guide.

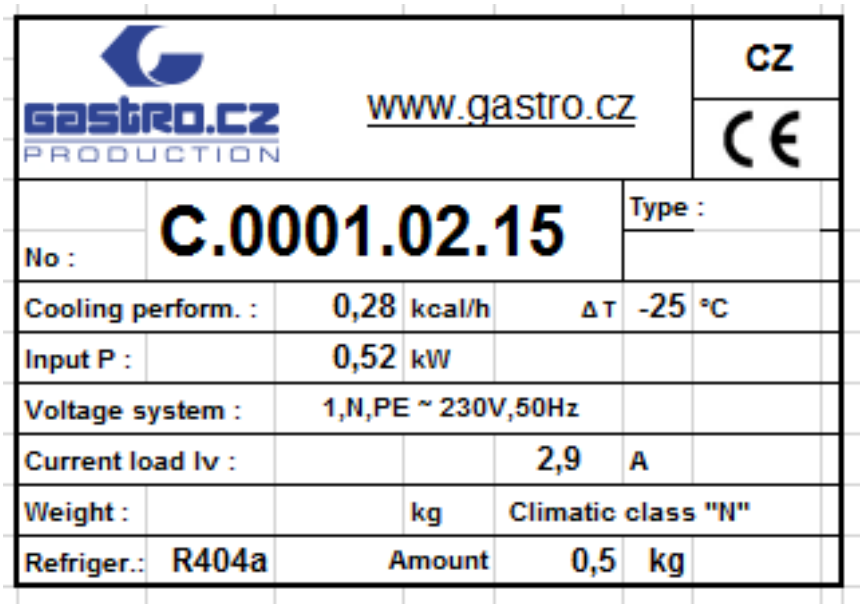
The temperature of the refrigerated space is adjustable **from 2°C to 8°C**. The temperature of the refrigerated space is maintained by an electronic control unit. The electronic control unit automatically manages the process of cooling the refrigerated space and the process of defrosting the icing forming on the evaporator. The resulting condensate liquid is either evaporated automatically or discharged into the prepared drain.

3.2 Dimensions and Weight

Dimensions and weight of the equipment can be found according to the type of equipment at www.gastro.cz.

3.3 Type Labels

The type label is placed on the outer cover of the cooling unit.



3.4 Technical Specifications

	AKG 2240	*AKG 3240*
Temperature	+2°C - +8°C	+2°C - +8°C
Cooling	Vent.	Vent.
Coolant gas	R134a	R134a
Amount		
Volume (l)		
Input power (W)	320	470
Cooling output power at T - 10°C (W)	340	456
Voltage system	1, N, PE~230V, 50Hz	

4. Installation and Operation

4.1 Setting the Equipment

After unwrapping, assemble the equipment on the location designated for its operation according to the assembly diagram provided. If the equipment does not have any levelling feet, it must be oriented horizontally by means of stainless metal sheets used as pads.

4.2 Connecting to the electric network

The device is factory-fitted with a connecting cord for conducting the electric current, terminating in a non-detachable plug. This plug can be plugged into an outlet with voltage system 1, N, PE ~ 230V, 50Hz (an EURO socket with protective pin, a SHUKO socket with protective contacts). Insert the plug of the connecting cord into the outlet. Ensure that the plug remains accessible to the operator. The cord cable must be laid out visibly and without any sharp bends. The cord cable must not be laid out across sharp edges of any sheet metal or other components.

4.3 Turning on the Equipment

After setting the equipment, wait at least ½ hour before turning it on.

- Turn on the equipment by setting the main power switch to **position 1**. **The indicator light should come on**.
- For setting the temperature of the refrigerated space on the electronic control unit, refer to section **5**.

  (The standard initial factory setting for the refrigerated space temperature is **+ 2°C**).

4.4 Filling the equipment with goods

After the refrigerated space reaches the target temperature, you may fill it with goods. **Please follow the principles of proper use of equipment outlined in section 2.3.6.**

- **Do not place any hot or warm dishes into the refrigerated space.**
- **Do not place any acidic foods into the refrigerated space, as this may cause damage to the evaporator.**

4.5 Operation of the Equipment

- **Keep the refrigerated space clean.**
- **Regularly check the equipment and perform maintenance work according to section 6 of this user guide.**

5. Electronic Control Unit

The cooling box is controlled by DIXELL XR60CX.

The manufacturer takes no responsibility for any equipment malfunction resulting from interfering with the electronic control unit settings. This provision does not apply to settings permitted by this user guide.

5.1 Description and Dimensions

Models XR20CX, XR60CX, XR70CX are electronic thermostats with passive defrosting. They are fitted with a microprocessor and are suitable for refrigeration applications at normal temperatures. They are suitable for mounting on panels and their dimensions are 32x74 mm. They have one, two or three relay outputs to control compressor, fan, defrosting, lighting. It is possible to connect up to three PTC or NTC sensors to them.

Technical parameters

Wrapping: **self-extinguishing plastic ABS**

Case: **front panel: 32 x 74mm, depth: 60mm**

Mounting: **into the panel with cut-out aperture of 71 x 29mm**

Front panel cover: **IP65**

Attachment: **barrier strip for conductors with up to 2.5mm² cross section.**

Supply voltage: **230V~, ±10%; 50, 60Hz**

Input power: **3VA max**

Data memory: **EEPROM**

Working temperature range: **0 to 60°C**

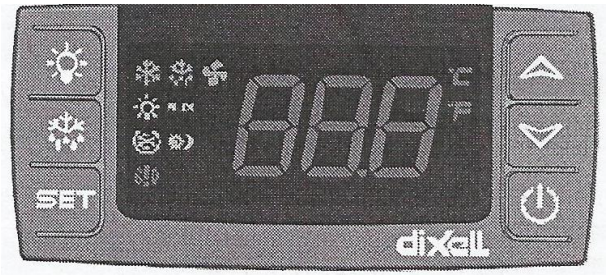
Temperature range for storage: **-30 to 85°C**

Relative humidity: **20 to 85%**

Accuracy (at ambient temperature of 25°C): **±0,7°C±1 digit**

5.2 Operating Mode

FRONT PANEL COMMANDS



Button description

SET	Displays the desired value. In programming mode serves for selecting a parameter or confirming an operation.
∧	**(UP)**: Displays maximum temperature recorded. In programming mode serves for navigating the parameter list and increasing the displayed value.
∨	**(DOWN)**: Displays minimum temperature recorded. In programming mode serves for navigating the parameter list and decreasing the displayed value.
⏻	Turns the device on and off.
☼	Turns the lighting on and off, if available.
❄	**(DEF)**: Initiates manual defrost.

Key combinations

∧ + ∨	Locks and unlocks the keyboard.
SET + ∨	Enters the programming mode.
SET + ∧	Returns to displaying the value of the refrigerated space temperature.

Explanation of LED functions

LED	REŽIM	FUNKCE
❄	Svítí	Kompresor v chodu
❄	Bliká	Zpoždění minimálního cyklu kompresoru
❄	Svítí	Probíhá odtávání
❄	Bliká	Probíhá odkapávání
	Svítí	Ventilátory v chodu
	Bliká	Probíhá časové zpoždění zapnutí ventilátorů po odtávání
	Svítí	Alarm
	Svítí	Probíhá nepřetržitý cyklus chlazení
	Svítí	Energy saving cyklus
°C/F	Svítí	Měřené jednotky
°C/F	Bliká	Režim programování

Displaying minimum recorded temperature

1. Press the button.
2. A **"Lo"** message appears on the display followed by minimum recorded temperature.
3. After another pressing of the button or a 5s wait the device returns to normal mode of operation displaying the measured temperature.

Displaying maximum recorded temperature

1. Press the button.
2. A "**Hi"** message appears on the display followed by maximum recorded temperature.
3. After another pressing of the button or a 5s wait the device returns to normal mode of operation displaying the measured temperature.

Resetting the recorded MIN. / MAX. temperatures

1. While viewing either of the MIN. / MAX. temperatures, press the SET button for more than 3s, until the **"rSt"** message appears.

2. Confirm the operation by again pressing the SET button. The **"rSt"** starts flashing. The device resumes displaying the current temperature.

MAIN FUNCTIONS

Displaying the Target Temperature

1. Shortly press the SET button. The device displays the target temperature.
2. To again display the current temperature, shortly press the SET button again or wait 5s.

Setting the Target Temperature

1. Hold the SET button for more than 2s.
2. The device starts displaying the target temperature and the °C warning light starts flashing.
3. The target temperature can be adjusted by pressing the ▽ or △ buttons (within 10s interval).
4. The new target temperature is confirmed either by again pressing the SET button or automatically after 10s interval.

Initiating Manual Defrost

1. Press and hold the ❄ for more than 2s.

Locking the Keyboard

1. Hold the ▽ + △ buttons simultaneously for at least 3s.
2. The **"POF"** message appears and the keyboard is locked. Now it is only possible to see the target temperature or the MIN. / MAX. recorded temperature.
3. Upon pressing any key for more than 3s, the **"POF"** message appears.

Unlocking the Keyboard again

1. Hold the ▽ + △ buttons simultaneously for at least 3s, until the **"PON"** message appears.

The Continuous Cycle

1. Unless there is defrost in progress, it is possible to initiate the continuous cycle by pressing the △ button for more than 3s. The compressor enters the

continuous cycle and operates to maintain the CCS setpoint for the time set through the CCt parameter. The cycle can be terminated before the end of the set time by pressing the  button for more than 3s.

The ON/OFF Function

1. The device can be turned off by pressing the  button. The **"OFF"** message appears. In this configuration, the regulation is disabled. To switch the controller on, again press the  button.

WARNING! - Loads connected to the normally closed contacts of the relays are always supplied and under voltage, even if the controller is in stand-by mode.

5.3 Programming Mode

Activating the programming mode is allowed only to servicing organisations with permission from the manufacturer.

5.4 Circuit Diagram

Cooling box for waste - Appendix 10

6. Maintenance

6.1 General Safety Measures

- Before commencing maintenance, study this user guide thoroughly.
- Follow the instructions contained in section **2.3 Safety**.

- **Before carrying out maintenance work, it is necessary to pull the power supply cord plug and to make sure no electric current is flowing through the equipment (e.g. by turning on the main power switch and observing if the equipment remains powered off).**
- **If the equipment is connected permanently to the mains, it is necessary to turn off the corresponding circuit breaker, make sure the equipment is not functioning and secure the deactivated circuit breaker, e.g. by putting an "equipment under maintenance" sign on it.**
- **During maintenance work, proceed with caution and without haste.**

- **Do not use pressurized water for washing the equipment, there is a risk of damage to ventilator fans, compressor, electronic components and to the whole equipment as a consequence!**
- **To clean the equipment use a common kitchen detergent approved for use with foodstuffs!**

6.2 Regular Maintenance

6.2.1 Inspection

6.2.1.1 Evaporator

- Remove the cover **7.**

- Ascertain visually that the evaporator **5** is not iced. An iced evaporator must be left to defrost.

6.2.1.2 Evaporator fans

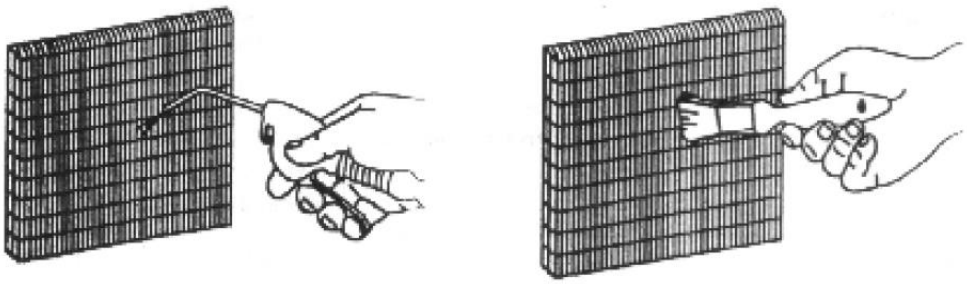
- Check manually that the evaporator fan 6 moves freely. Have an immobile fan replaced.

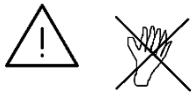
6.2.1.3 Compressor

- Take off the cooling unit cover **4** after unscrewing the fastening screws.
- Remove any deposited dust from the compressor **1** by vacuuming or using a compressed air blower.
- From the vicinity of the compressor, remove any undesirable material that would obstruct the free flow of air.

6.2.1.4 Condenser

- Check that there are no dust deposits or other particles on the condenser lamellas **2**. **While pointing a flashlight towards the lamellas, you should be able to see through them!**
- Remove any eventual impurities with a brush or a compressed air blower.





If it is not possible to clean the condenser, contact a servicing organisation. The condenser needs to be replaced, failing to do so would result in destruction of the whole cooling unit.

- **Use increased caution during cleaning, there is a danger of cutting oneself at the condenser lamellas.**
- **If the condenser fan 3 is readily accessible, check manually that the fan rotates freely. If the fan is inaccessible, it is necessary to check that the fan is functioning correctly during operation, in the following way: Provided that the condenser is clean, put an A4 sheet of paper against the front side of the condenser while the cooling unit is in operation. The sheet of paper should cling firmly to it and not fall off.**

6.2.1.5 Sealing surfaces

- Check that the sealing on doors and insertion aperture lids is not damaged (cracked, hardened, missing). Have all damaged sealing replaced by a servicing organisation.

6.2.1.6 Lighting

- Not fitted

6.2.1.7 Hinges, sliding surfaces

- Check that all hinges rotate freely and are properly spring-loaded.
- Also check that all hinges are properly attached and do not show signs of deformation.
- Check that sliding surfaces move freely without snagging.
- **Do not lubricate the hinges or sliding surfaces with any petroleum jelly or oils!**
- Have any faulty hinges or sliding surfaces replaced by a servicing organisation.

6.2.1.8 Ventilation apertures

- Ensure that all ventilation apertures are unobstructed and clean. Mechanically remove any eventual impurities by vacuuming or using a compressed air blower.

Never place any obstacles in front of the ventilation apertures!

6.2.2 Maintenance

6.2.2.1 Daily maintenance

- During maintenance work, follow the instructions contained in section **6.1 General Safety Measures**.
- After finishing daily operation, turn off the equipment. Remove the waste from the equipment, clean the refrigerated space and wipe it dry. Leave the refrigerated space open to prevent any lingering odors
- **While the equipment is turned off, perform maintenance as detailed in sections 6.2.1.1-6.2.1.2 and 6.2.1.8.**

6.2.2.2 Monthly maintenance

- During maintenance work, follow the instructions contained in section **6.1 General Safety Measures**.
- During monthly maintenance perform tasks detailed in sections **6.2.1 Inspection and 6.2.2.1 Daily Maintenance.**

7. Forbidden handling procedures

- **Do not use the equipment for other purposes than intended!**
- **Do not interfere with the circuitry of the equipment!**
- **Do not perform any other activities forbidden elsewhere in this user guide!**

- **Do not wash the equipment with pressurized water!**
- **Do not handle the equipment roughly!**
- **It is forbidden to operate the equipment without prior training and without having this user guide available!**

8. Table of possible malfunctions and their correcting

Malfunction name	***Control unit message***	***Possible correction method***
Malfunctioning refrigerated space probe	PF1	Replace thermal probe
Malfunctioning evaporator probe	Not fitted	Replace thermal probe
Box not cooling	HiA	Check the box as per section 6.2 Regular Maintenance. After inspection, turn the equipment on again and let it operate for at least 60 min. If the problem persists, contact a servicing organisation.
Box cooling too much	LoA	Malfunctioning control unit relay – replace the control unit

9. Servicing Organisations

A list of servicing organisations can be found at www.gastro.cz.

F - COOLING BOXES FOR “KEG“ BARRELS

2.4 Ambient Conditions

The equipment is able to operate properly under these conditions:

- Altitude up to 1000m above sea level
- Ambient temperature near the equipment in the range from 15°C to 25°C
- Relative humidity max. 60%
- The equipment is not placed in direct sunlight
- The equipment is not placed close to sources of heat (heaters, deep fryers, heating dispensing basins, frying plates, cooling units of other devices etc.)
- The equipment is not placed close to steam generating devices (heating dispensing basins, pasta heaters, convection ovens, etc.)

2.5 Ordering spare parts

Under preparation

3. Technical Features

3.1 Technical Description

Cooling boxes serve for cooling KEG beer barrels and other beverages stored independently in bottles or crates. These boxes are not permitted to be used for other purposes without express permission and eventual structural changes by Gastro Production s.r.o.
Cooling boxes are manufactured as ventilated, utilizing forced blowing by cooled air.

Cooling boxes are manufactured from insulated panels made from either stainless steel or galvanized steel metal sheets. The box is assembled by means of special locks. The cooling unit is mounted on the side of the box. The cooling unit is fitted with a control panel with a control unit.

The cooling boxes have been designed for best results provided that all instructions contained in this user guide are followed. For the boxes to be used in the best way possible and to be always kept in perfect condition, we recommend that you perform

the maintenance work regularly. The personnel operating the boxes must be necessarily familiarised with instructions regarding to operation, maintenance and safety, as contained in this user guide.

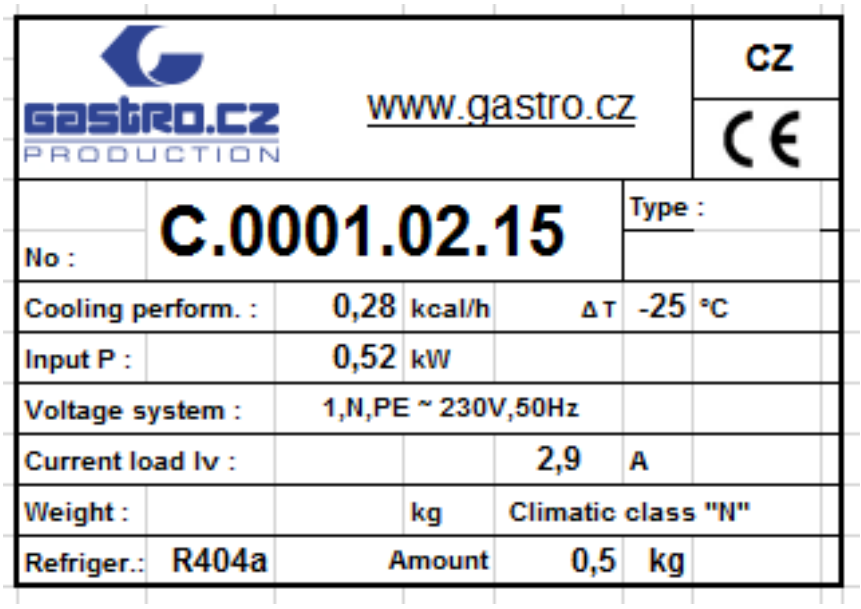
The temperature of the refrigerated space is adjustable **from 2°C to 8°C**. The temperature of the refrigerated space is maintained by an electronic control unit. The electronic control unit automatically manages the process of cooling the refrigerated space and the process of defrosting the icing forming on the evaporator. The resulting condensate liquid is either evaporated automatically or discharged into the prepared drain.

3.2 Dimensions and Weight

Dimensions and weight of the equipment can be found according to the type of equipment at www.gastro.cz.

3.3 Type Labels

The type label is placed on the outer cover of the cooling unit.



3.4 Technical Specifications

	CHBK 4	*CHBK 6*	*CHBK 8*
Temperature	+2°C - +8°C	+2°C - +8°C	+2°C - +8°C
Cooling	Vent.	Vent.	Vent.
Coolant gas	R134a	R134a	R134a
Amount			
Volume (l)			
Input power (W)	310		
Cooling output power at T -10°C (W)	340		
Voltage system	1, N, PE~230V,50Hz		

4. Installation and Operation

4.1 Setting the Equipment

After unwrapping, assemble the equipment on the location designated for its operation according to the assembly diagram provided. If the equipment does not have any levelling feet, it must be oriented horizontally by means of stainless metal sheets used as pads.

4.2 Connecting to the electric network

The device is factory-fitted with a connecting cord for conducting the electric current, terminating in a non-detachable plug. This plug can be plugged into an outlet with voltage system 1, N, PE ~ 230V, 50Hz (an EURO socket with protective pin, a SHUKO socket with protective contacts). Insert the plug of the connecting cord into the outlet. Ensure that the plug remains accessible to the operator. The cord cable must be laid out visibly and without any sharp bends. The cord cable must not be laid out across sharp edges of any sheet metal or other components.

4.3 Turning on the Equipment

After setting the equipment, wait at least ½ hour before turning it on.

- Turn on the equipment by setting the main power switch to **position 1**. **The indicator light should come on**.
- For setting the temperature of the refrigerated space on the electronic control unit, refer to section **5**.

  (The standard initial factory setting for the refrigerated space temperature is **+ 4°C**).

4.4 Filling the equipment with goods

After the refrigerated space reaches the target temperature, you may fill it with goods. **Please follow the principles of proper use of equipment outlined in section 2.3.6.**

- **Do not place any hot or warm dishes into the refrigerated space.**
- **Do not place any acidic foods into the refrigerated space, as this may cause damage to the evaporator.**

4.5 Operation of the Equipment

- **Keep the refrigerated space clean.**
- **Regularly check the equipment and perform maintenance work according to section 6 of this user guide.**

5. Electronic Control Unit

The cooling box is controlled by DIXELL XR60CX.

The manufacturer takes no responsibility for any equipment malfunction resulting from interfering with the electronic control unit settings. This provision does not apply to settings permitted by this user guide.

5.1 Description and Dimensions

Models XR20CX, XR60CX, XR70CX are electronic thermostats with passive defrosting. They are fitted with a microprocessor and are suitable for refrigeration applications at normal temperatures. They are suitable for mounting on panels and their dimensions are 32x74 mm. They have one, two or three relay outputs to control compressor, fan, defrosting, lighting. It is possible to connect up to three PTC or NTC sensors to them.

Technical parameters

Wrapping: **self-extinguishing plastic ABS**

Case: **front panel: 32 x 74mm, depth: 60mm**

Mounting: **into the panel with cut-out aperture of 71 x 29mm**

Front panel cover: **IP65**

Attachment: **barrier strip for conductors with up to 2.5mm² cross section.**

Supply voltage: **230V~, ±10%; 50, 60Hz**

Input power: **3VA max**

Data memory: **EEPROM**

Working temperature range: **0 to 60°C**

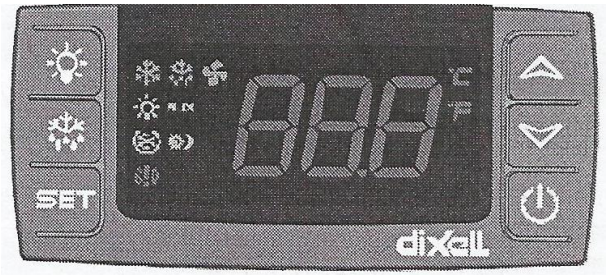
Temperature range for storage: **-30 to 85°C**

Relative humidity: **20 to 85%**

Accuracy (at ambient temperature of 25°C): **±0,7°C±1 digit**

5.2 Operating Mode

FRONT PANEL COMMANDS



Button description

SET	Displays the desired value. In programming mode serves for selecting a parameter or confirming an operation.
∧	**(UP)**: Displays maximum temperature recorded. In programming mode serves for navigating the parameter list and increasing the displayed value.
∨	**(DOWN)**: Displays minimum temperature recorded. In programming mode serves for navigating the parameter list and decreasing the displayed value.
⏻	Turns the device on and off.
☼	Turns the lighting on and off, if available.
❄	**(DEF)**: Initiates manual defrost.

Key combinations

∧ + ∨	Locks and unlocks the keyboard.
SET + ∨	Enters the programming mode.
SET + ∧	Returns to displaying the value of the refrigerated space temperature.

Explanation of LED functions

LED	REŽIM	FUNKCE
❄	Svítí	Kompresor v chodu
❄	Bliká	Zpoždění minimálního cyklu kompresoru
❄	Svítí	Probíhá odtávání
❄	Bliká	Probíhá odkapávání
	Svítí	Ventilátory v chodu
	Bliká	Probíhá časové zpoždění zapnutí ventilátorů po odtávání
	Svítí	Alarm
	Svítí	Probíhá nepřetržitý cyklus chlazení
	Svítí	Energy saving cyklus
°C/F	Svítí	Měřené jednotky
°C/F	Bliká	Režim programování

Displaying minimum recorded temperature

1. Press the button.
2. A **"Lo"** message appears on the display followed by minimum recorded temperature.
3. After another pressing of the button or a 5s wait the device returns to normal mode of operation displaying the measured temperature.

Displaying maximum recorded temperature

1. Press the button.
2. A "**Hi"** message appears on the display followed by maximum recorded temperature.
3. After another pressing of the button or a 5s wait the device returns to normal mode of operation displaying the measured temperature.

Resetting the recorded MIN. / MAX. temperatures

1. While viewing either of the MIN. / MAX. temperatures, press the SET button for more than 3s, until the **"rSt"** message appears.

2. Confirm the operation by again pressing the SET button. The **"rSt"** starts flashing. The device resumes displaying the current temperature.

MAIN FUNCTIONS

Displaying the Target Temperature

1. Shortly press the SET button. The device displays the target temperature.
2. To again display the current temperature, shortly press the SET button again or wait 5s.

Setting the Target Temperature

1. Hold the SET button for more than 2s.
2. The device starts displaying the target temperature and the °C warning light starts flashing.
3. The target temperature can be adjusted by pressing the ▽ or △ buttons (within 10s interval).
4. The new target temperature is confirmed either by again pressing the SET button or automatically after 10s interval.

Initiating Manual Defrost

1. Press and hold the ❄ for more than 2s.

Locking the Keyboard

1. Hold the ▽ + △ buttons simultaneously for at least 3s.
2. The **"POF"** message appears and the keyboard is locked. Now it is only possible to see the target temperature or the MIN. / MAX. recorded temperature.
3. Upon pressing any key for more than 3s, the **"POF"** message appears.

Unlocking the Keyboard again

1. Hold the ▽ + △ buttons simultaneously for at least 3s, until the **"PON"** message appears.

The Continuous Cycle

1. Unless there is defrost in progress, it is possible to initiate the continuous cycle by pressing the △ button for more than 3s. The compressor enters the

continuous cycle and operates to maintain the CCS setpoint for the time set through the CCt parameter. The cycle can be terminated before the end of the set time by pressing the  button for more than 3s.

The ON/OFF Function

1. The device can be turned off by pressing the  button. The **"OFF"** message appears. In this configuration, the regulation is disabled. To switch the controller on, again press the  button.

WARNING! - Loads connected to the normally closed contacts of the relays are always supplied and under voltage, even if the controller is in stand-by mode.

5.3 Programming Mode

Activating the programming mode is allowed only to servicing organisations with permission from the manufacturer.

5.4 Circuit Diagram

Cooling box for KEG barrels - Appendix 11

6. Maintenance

6.1 General Safety Measures

- Before commencing maintenance, study this user guide thoroughly.
- Follow the instructions contained in section **2.3 Safety**.

- **Before carrying out maintenance work, it is necessary to pull the power supply cord plug and to make sure no electric current is flowing through the equipment (e.g. by turning on the main power switch and observing if the equipment remains powered off).**
- **If the equipment is connected permanently to the mains, it is necessary to turn off the corresponding circuit breaker, make sure the equipment is not functioning and secure the deactivated circuit breaker, e.g. by putting an "equipment under maintenance" sign on it.**
- **During maintenance work, proceed with caution and without haste.**

- **Do not use pressurized water for washing the equipment, there is a risk of damage to ventilator fans, compressor, electronic components and to the whole equipment as a consequence!**
- **To clean the equipment use a common kitchen detergent approved for use with foodstuffs!**

6.2 Regular Maintenance

6.2.1 Inspection

6.2.1.1 Evaporator

- Remove the cover **7.**

- Ascertain visually that the evaporator **5** is not iced. An iced evaporator must be left to defrost.

6.2.1.2 Evaporator fans

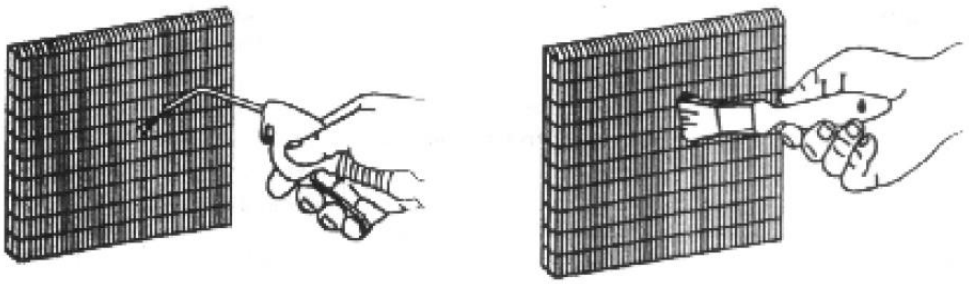
- Check manually that the evaporator fan 6 moves freely. Have an immobile fan replaced.

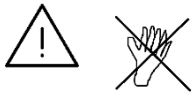
6.2.1.3 Compressor

- Take off the cooling unit cover **7** after unscrewing the fastening screws.
- Remove any deposited dust from the compressor **1** by vacuuming or using a compressed air blower.
- From the vicinity of the compressor, remove any undesirable material that would obstruct the free flow of air.

6.2.1.4 Condenser

- Check that there are no dust deposits or other particles on the condenser lamellas **2**. **While pointing a flashlight towards the lamellas, you should be able to see through them!**
- Remove any eventual impurities with a brush or a compressed air blower.





If it is not possible to clean the condenser, contact a servicing organisation. The condenser needs to be replaced, failing to do so would result in destruction of the whole cooling unit.

- **Use increased caution during cleaning, there is a danger of cutting oneself at the condenser lamellas.**
- **If the condenser fan 3 is readily accessible, check manually that the fan rotates freely. If the fan is inaccessible, it is necessary to check that the fan is functioning correctly during operation, in the following way: Provided that the condenser is clean, put an A4 sheet of paper against the front side of the condenser while the cooling unit is in operation. The sheet of paper should cling firmly to it and not fall off.**

6.2.1.5 Sealing surfaces

- Check that the sealing on doors is not damaged (cracked, hardened, missing). Have all damaged sealing replaced by a servicing organisation.

6.2.1.6 Lighting

- Not fitted

6.2.1.7 Hinges, sliding surfaces

- Check that all hinges rotate freely and are properly spring-loaded.
- Also check that all hinges are properly attached and do not show signs of deformation.
- Check that sliding surfaces move freely without snagging.
- **Do not lubricate the hinges or sliding surfaces with any petroleum jelly or oils!**
- Have any faulty hinges or sliding surfaces replaced by a servicing organisation.

6.2.1.8 Ventilation apertures

- Ensure that all ventilation apertures are unobstructed and clean. Mechanically remove any eventual impurities by vacuuming or using a compressed air blower.

Never place any obstacles in front of the ventilation apertures!

6.2.2 Maintenance

6.2.2.1 Daily maintenance

- During maintenance work, follow the instructions contained in section **6.1 General Safety Measures**.
- After finishing daily operation, turn off the equipment. Clean the refrigerated space and wipe it dry. Leave the refrigerated space open to prevent any lingering odors
- **While the equipment is turned off, perform maintenance as detailed in sections 6.2.1.1-6.2.1.2 and 6.2.1.8.**

6.2.2.2 Monthly maintenance

- During maintenance work, follow the instructions contained in section **6.1 General Safety Measures**.
- During monthly maintenance perform tasks detailed in sections **6.2.1 Inspection and 6.2.2.1 Daily Maintenance.**

7. Forbidden handling procedures

- **Do not use the equipment for other purposes than intended!**
- **Do not interfere with the circuitry of the equipment!**
- **Do not perform any other activities forbidden elsewhere in this user guide!**
- **Do not wash the equipment with pressurized water!**
- **Do not handle the equipment roughly!**

- **It is forbidden to operate the equipment without prior training and without having this user guide available!**

8. Table of possible malfunctions and their correcting

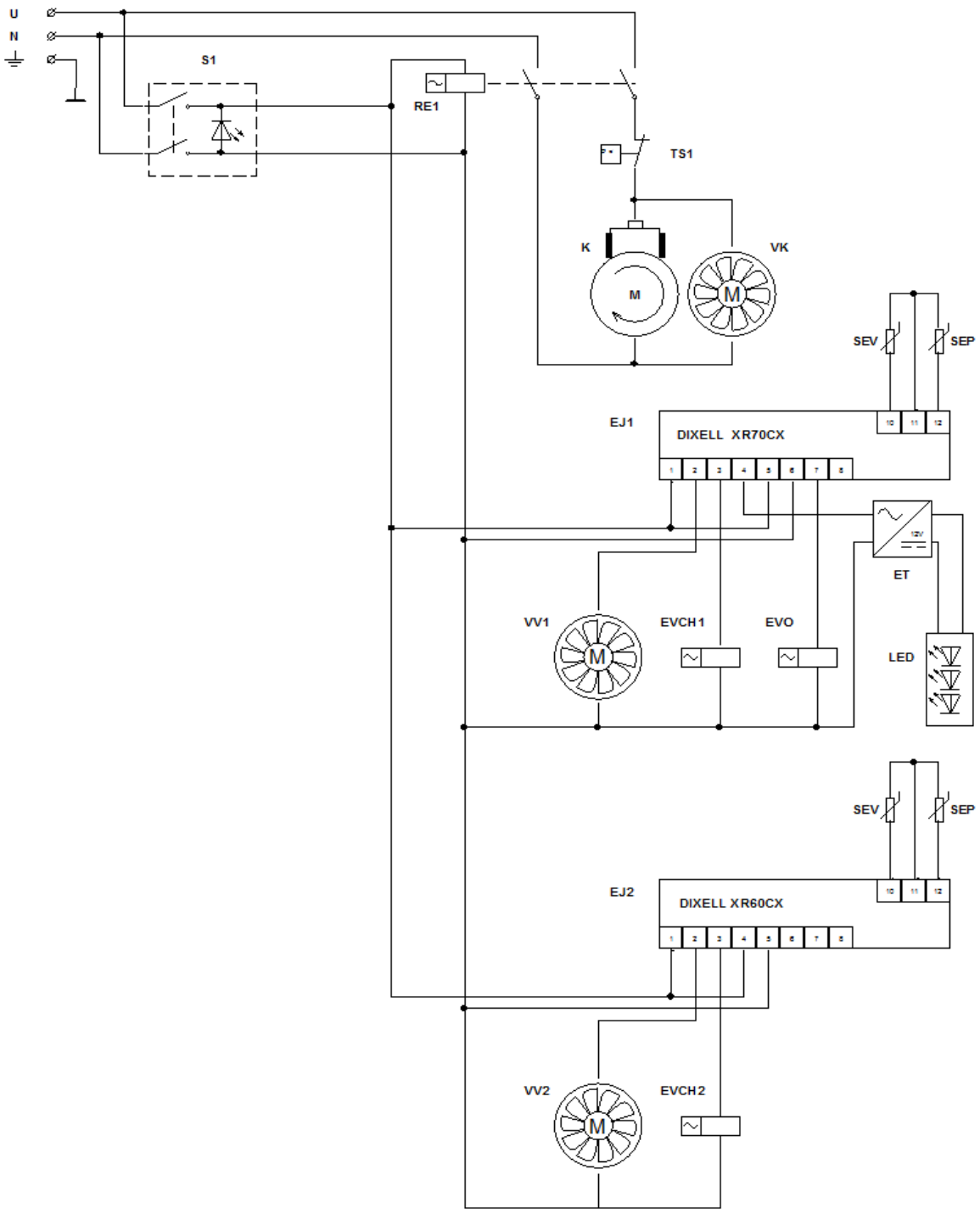
Malfunction name	***Control unit message***	***Possible correction method***
Malfunctioning refrigerated space probe	PF1	Replace thermal probe
Malfunctioning evaporator probe	Not fitted	Replace thermal probe
Box not cooling	HiA	Check the box as per section 6.2 Regular Maintenance. After inspection, turn the equipment on again and let it operate for at least 60 min. If the problem persists, contact a servicing organisation.
Box cooling too much	LoA	Malfunctioning control unit relay – replace the control unit

9. Servicing Organisations

A list of servicing organisations can be found at www.gastro.cz.

Appendix 1.1

Cooling Display Cabinet with a Cooling Table– Wiring diagram

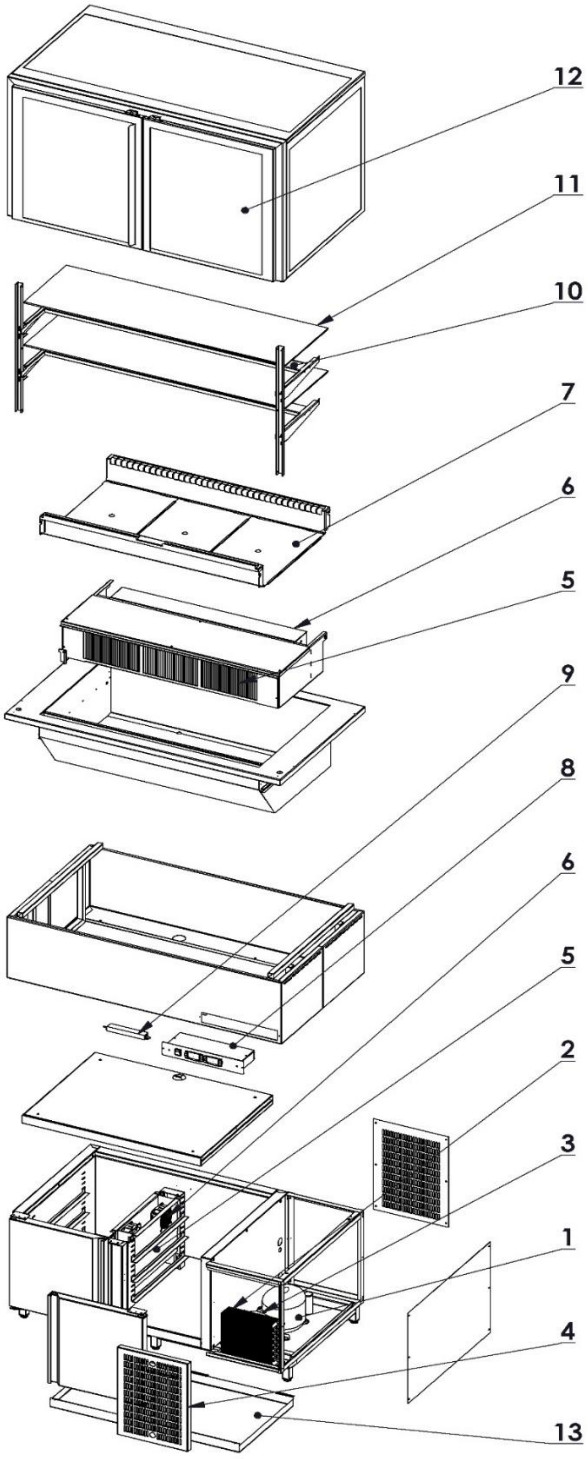


Legend:

S1	-	Main power switch
TS1	-	Pressure switch
VK	-	Condenser fan
SEV	-	Evaporator probe
ET	-	Electronic source
EVCH1	-	Electrovalve, cooling, display cabinet
LED	-	LED lighting
VV2	-	Evaporator fan, cooling table
RE1	-	Power relay
K	-	Compressor motor
EJ1	-	Control unit, display cabinet
SEP	-	Refrigerated space probe
VV1	-	Evaporator fan, display cabinet
EVO	-	Electrovalve, defrosting, display cabinet
EJ2	-	Control unit, cooling table
EVCH2	-	Electrovalve, cooling, cooling table

Appendix 1.2

Cooling Display Cabinet with a Cooling Table – Technical drawing

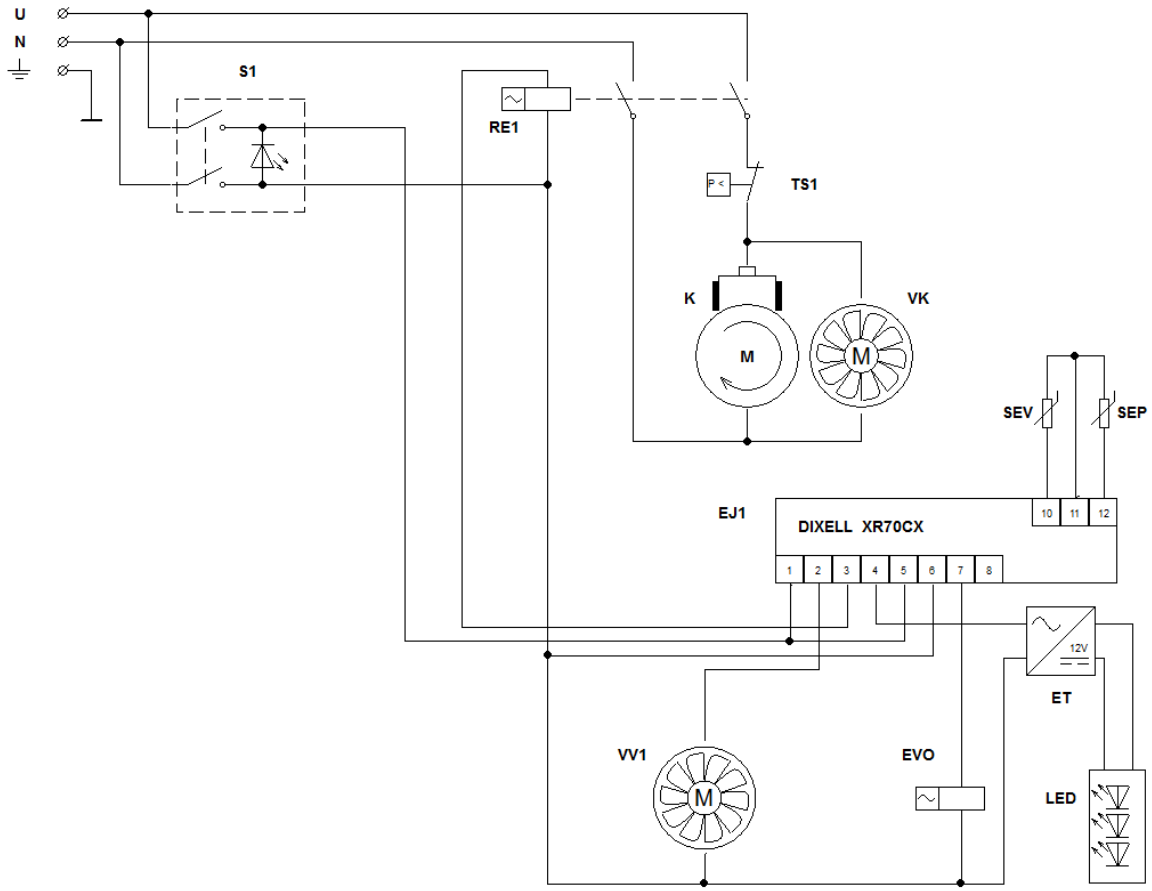


Legend:

1. Compressor
2. Condenser
3. Condenser fan
4. Covering blind
5. Evaporator
6. Evaporator fan
7. Evaporator cover
8. Electronic control unit
9. Current transformer
10. LED lighting
11. Glass shelf
12. Sliding door
13. Evaporator tank

Appendix 2.1

Cooling Display Cabinet - Wiring diagram

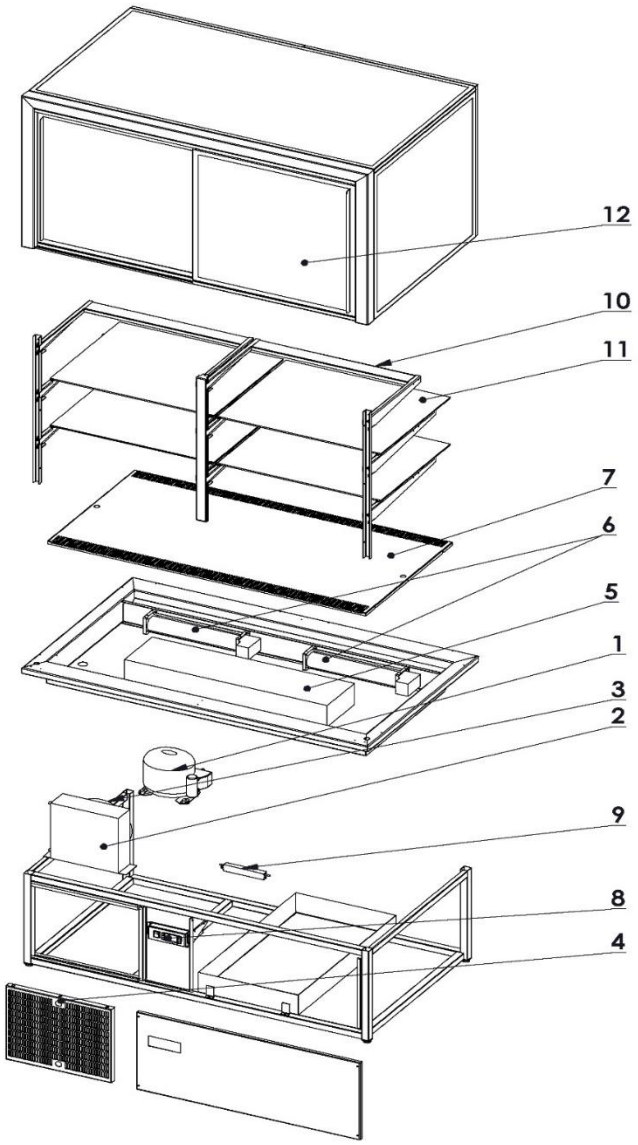


Legend:

S1	-	Main power switch
RE1	-	Power relay
TS1	-	Pressure switch
K	-	Compressor motor
VK	-	Condenser fan
EJ1	-	Control unit, display cabinet
SEV	-	Evaporator probe
SEP	-	Refrigerated space probe
ET	-	Electronic source
VV1	-	Evaporator fan, display cabinet
EVCH1	-	Electrovalve, cooling
EVO	-	Electrovalve, defrosting, display cabinet
LED	-	LED lighting

Appendix 2.2

Cooling Display Cabinet - Technical drawing

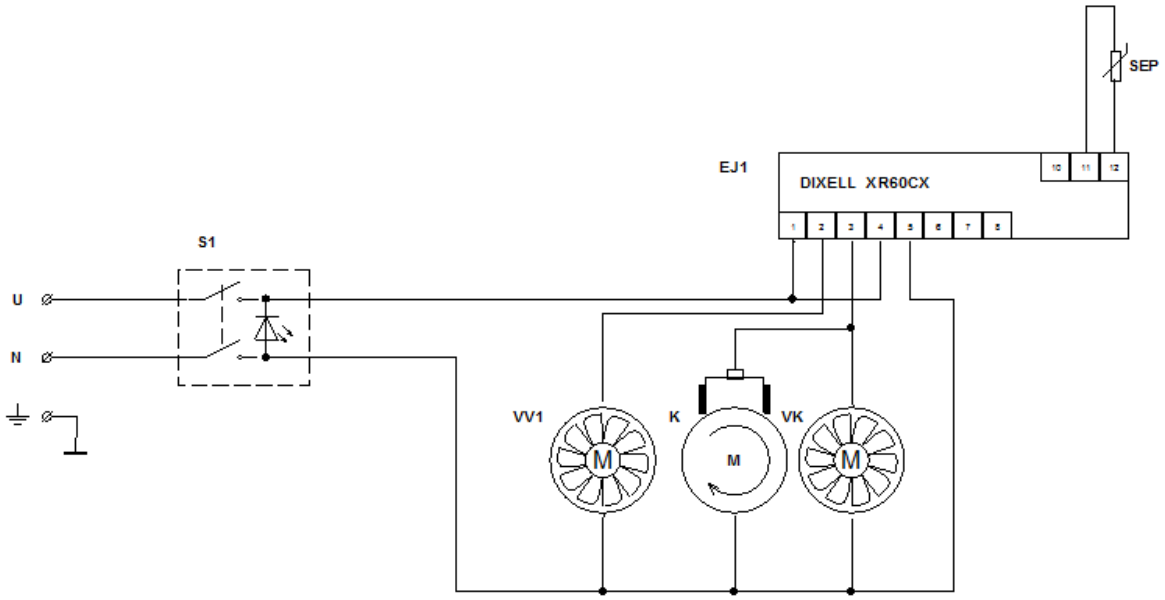


Legend:

1. Compressor
2. Condenser
3. Condenser fan
4. Covering blind
5. Evaporator
6. Evaporator fan
7. Evaporator cover
8. Electronic control unit
9. Current transformer
10. LED lighting
11. Glass shelf
12. Sliding door
13. Evaporator tank

Appendix 3.1

Cooling Table - Wiring diagram

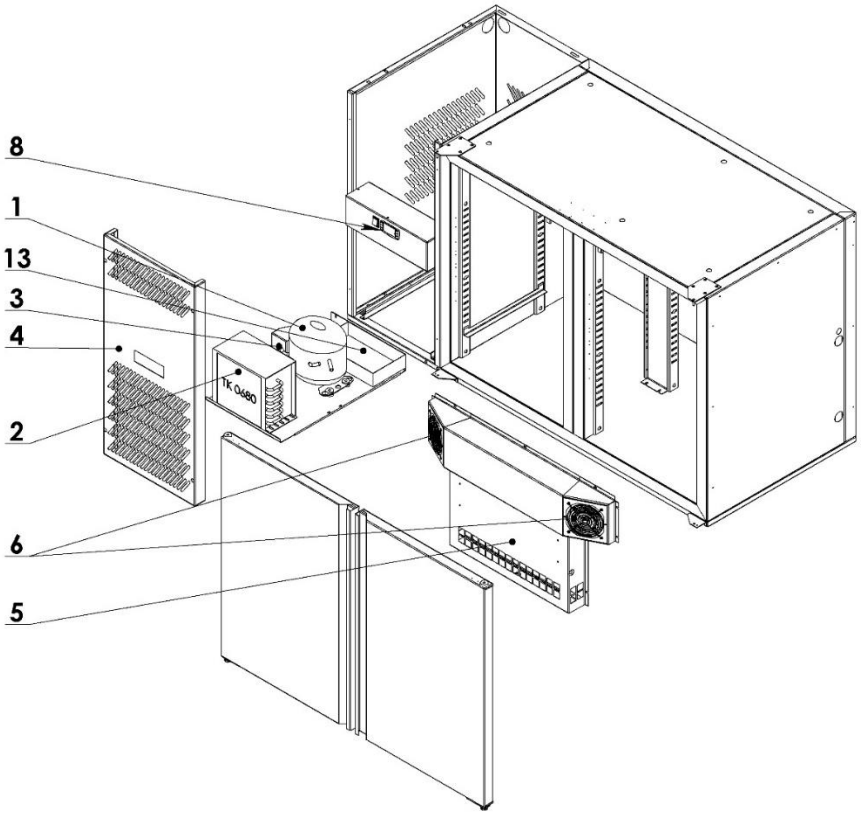


Legend:

S1	-	Main power switch
K	-	Compressor motor
VK	-	Condenser fan
EJ1	-	Control unit
SEP	-	Refrigerated space probe
VV1	-	Evaporator fan

Appendix 3.2

Cooling Table- Technical drawing

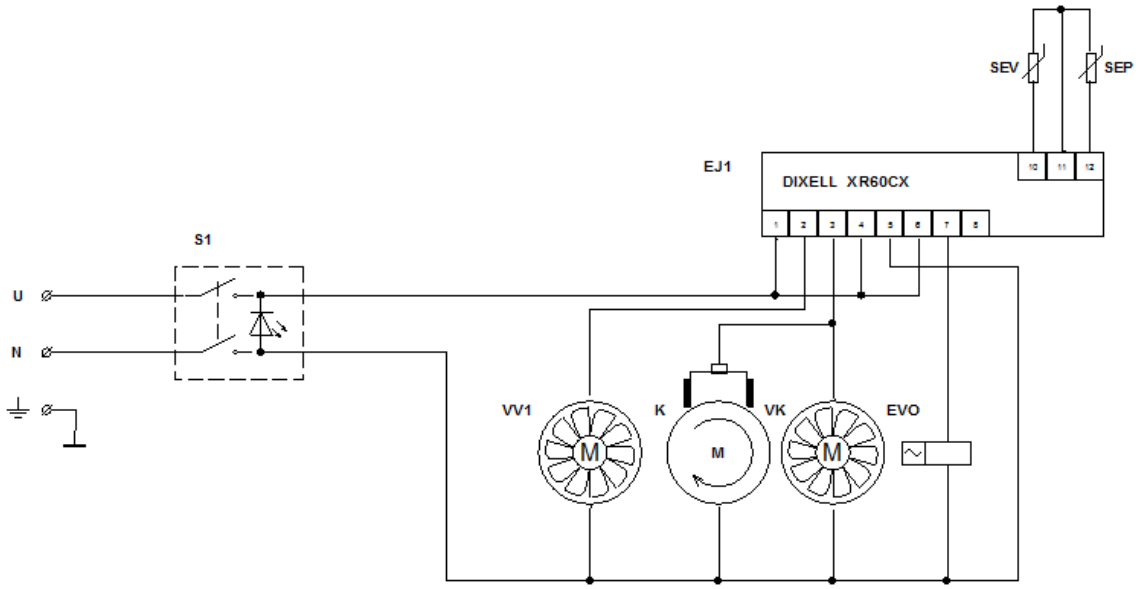


Legend:

1. Compressor
2. Condenser
3. Condenser fan
4. Covering blind
5. Evaporator
6. Evaporator fan
7. Evaporator cover
8. Electronic control unit
13. Evaporator tank

Appendix 4.1

Freezing Table - Wiring diagram

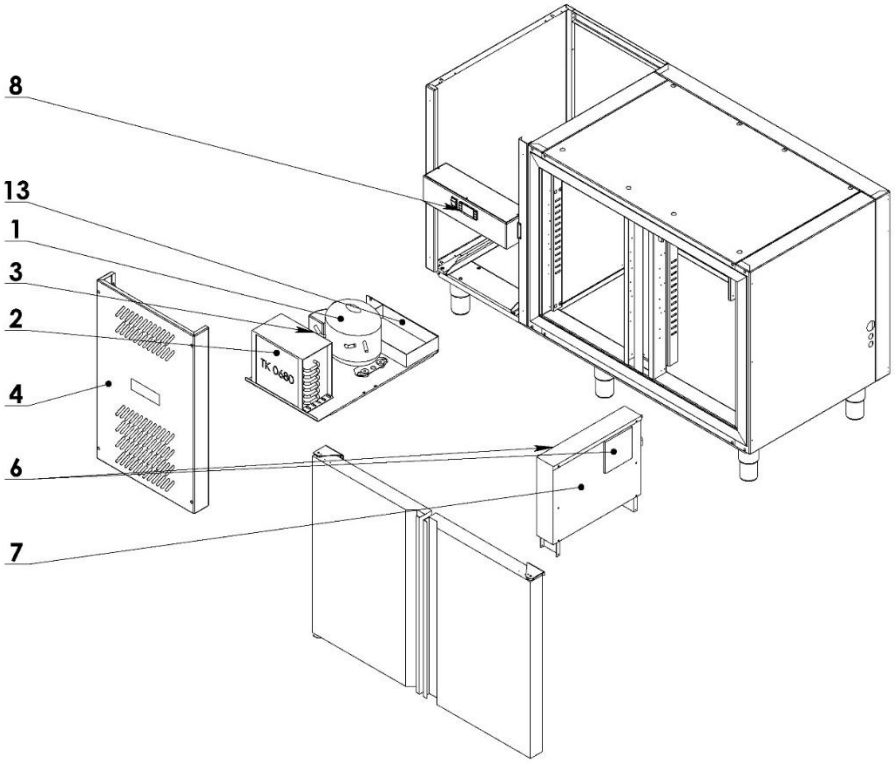


Legend:

S1	-	Main power switch
K	-	Compressor motor
VK	-	Condenser fan
EJ1	-	Control unit
SEV	-	Evaporator probe
SEP	-	Refrigerated space probe
VV1	-	Evaporator fan
EVO	-	Electrovalve, defrosting

Appendix 4.2

Freezing Table - Technical drawing

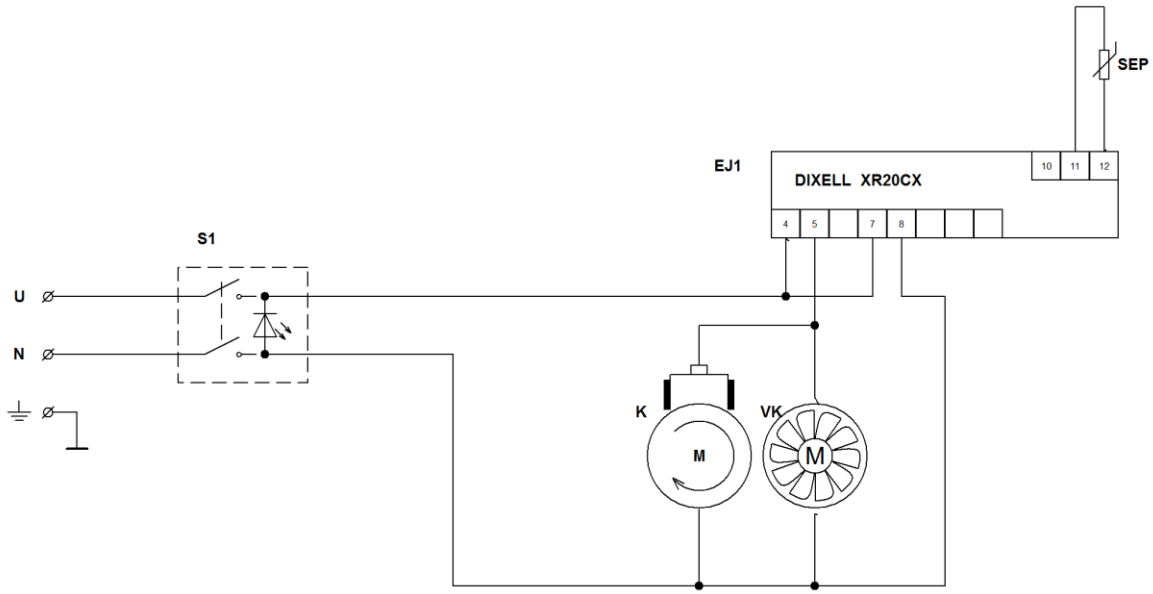


Legend:

1. Compressor
2. Condenser
3. Condenser fan
4. Covering blind
5. Evaporator
6. Evaporator fan
7. Evaporator cover
8. Electronic control unit
13. Evaporator tank

Appendix 5.1

Cooling Basin, Static - Wiring diagram

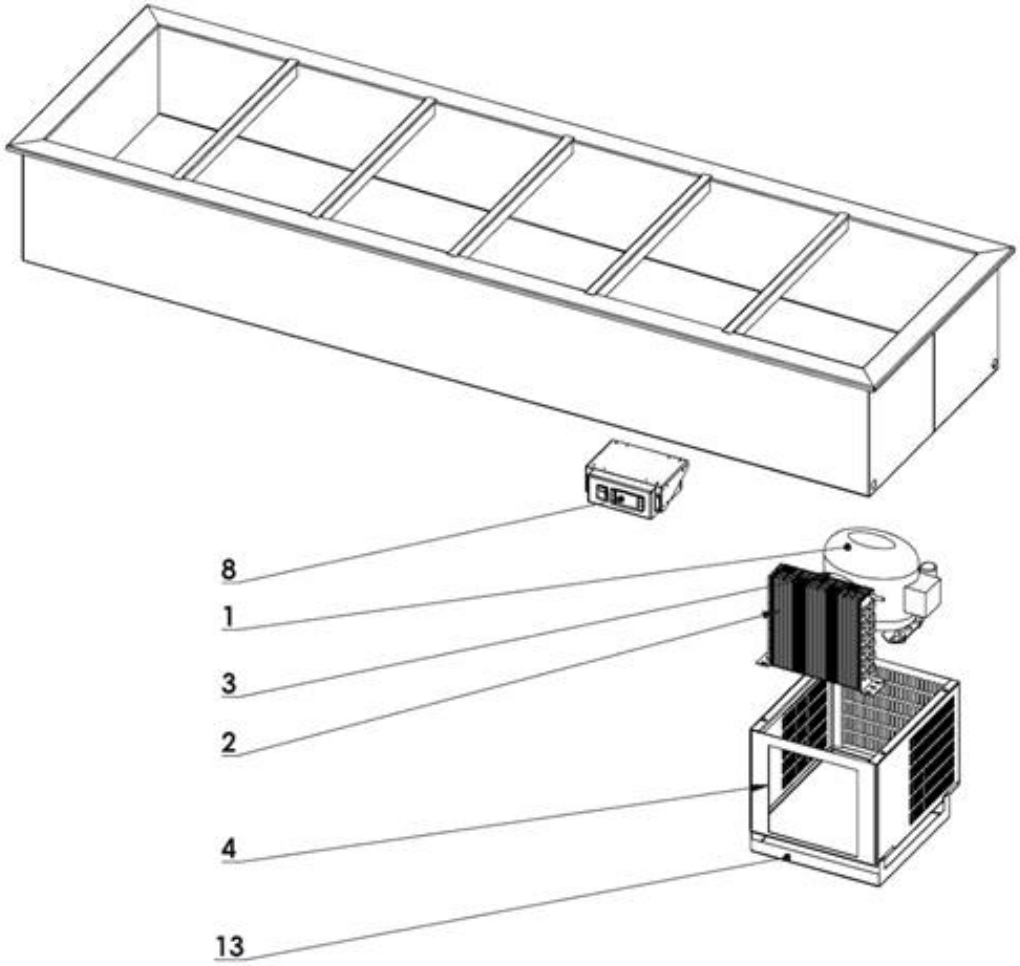


Legend:

S1	-	Main power switch
K	-	Compressor motor
VK	-	Condenser fan
EJ1	-	Control unit
SEP	-	Refrigerated space probe

Appendix 5.2

Cooling Basin, Static - Technical drawing

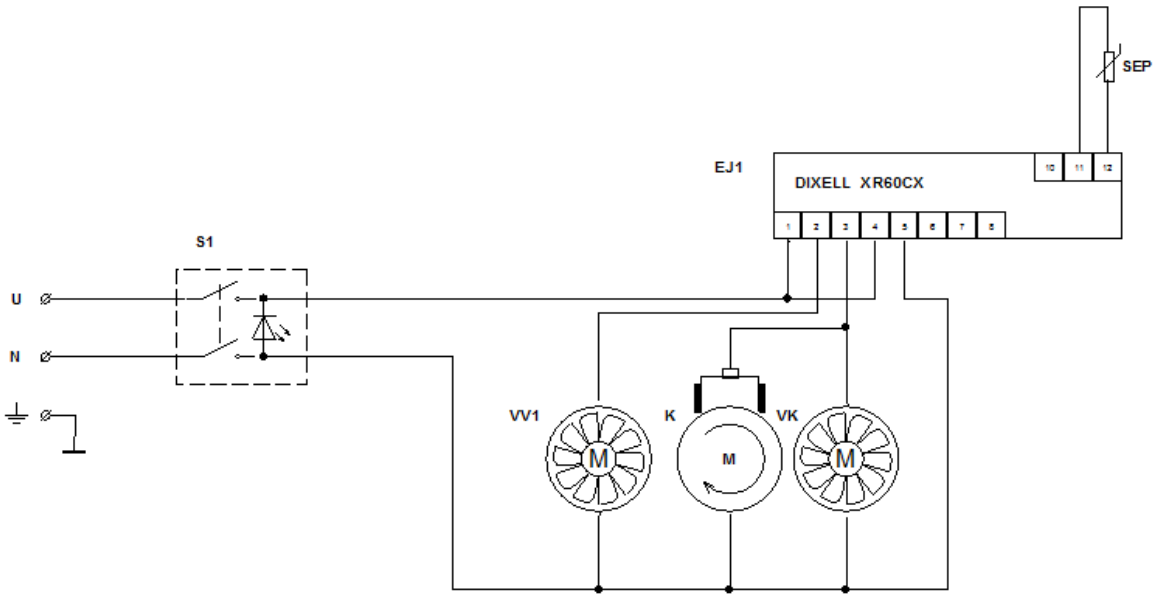


Legend:

1. Compressor
2. Condenser
3. Condenser fan
4. Covering blind
8. Electronic control unit
13. Evaporator tank

Appendix 6.1

Cooling Basin, Ventilated - Wiring diagram

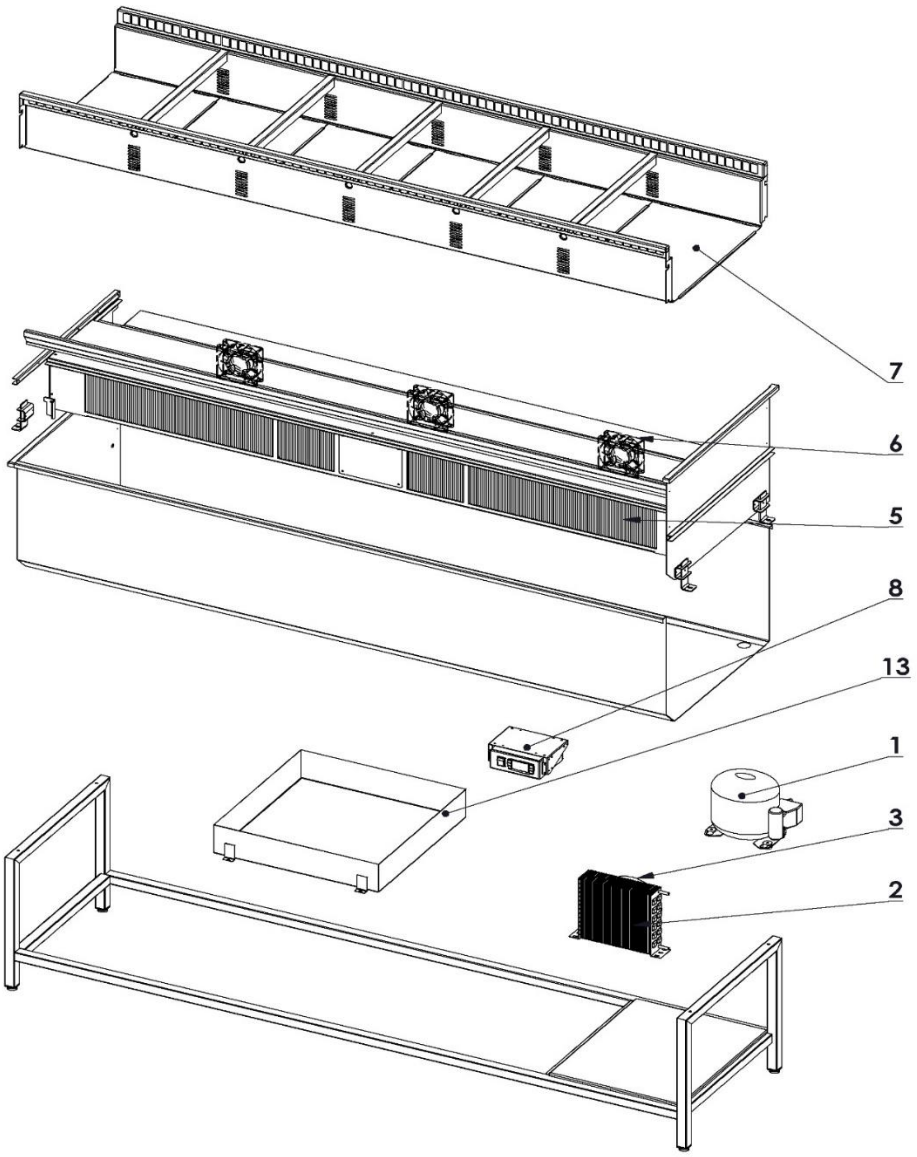


Legend:

S1	-	Main power switch
K	-	Compressor motor
VK	-	Condenser fan
EJ1	-	Control unit
SEP	-	Refrigerated space probe
VV1	-	Evaporator fan

Appendix 6.2

Cooling Basin, Ventilated - Technical drawing

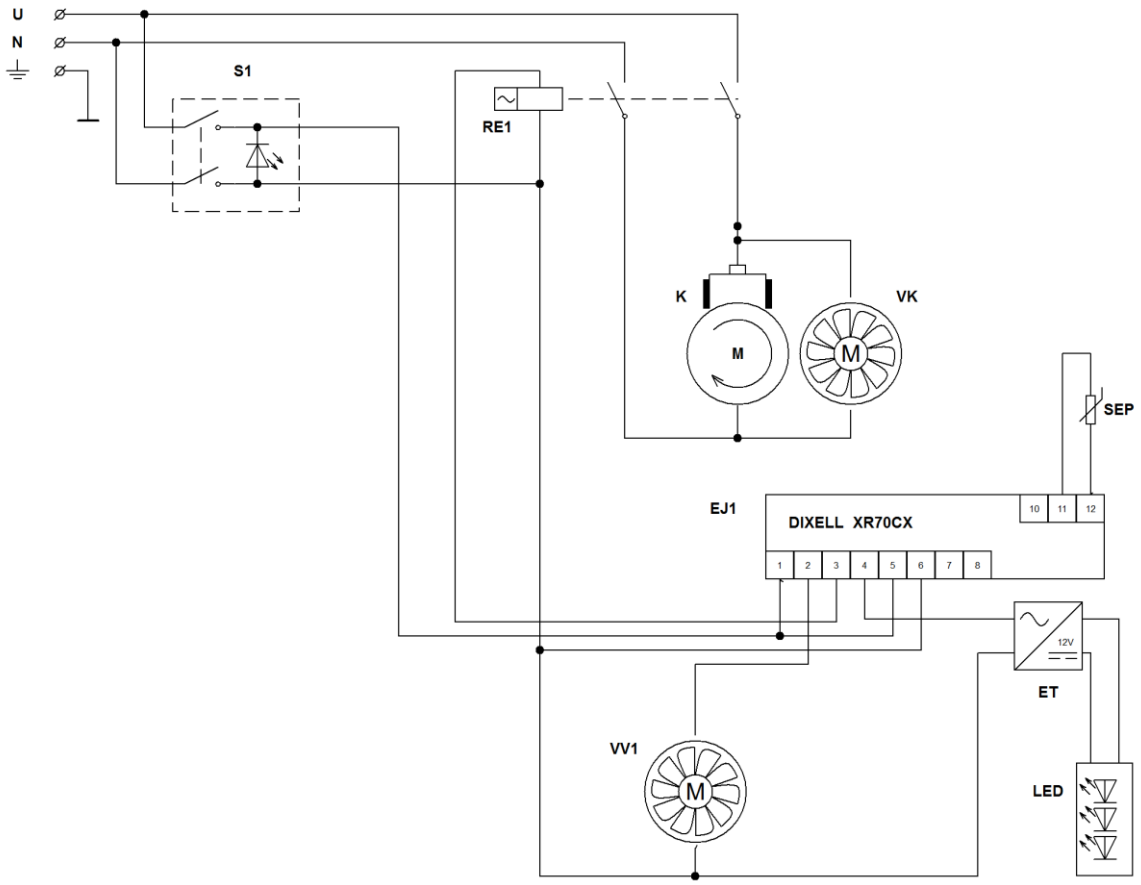


Legend:

1. Compressor
2. Condenser
3. Condenser fan
5. Evaporator
6. Evaporator fan
7. Evaporator cover
8. Electronic control unit
13. Evaporator tank

Appendix 7

Cooling Basin, Ventilated + LED - Wiring diagram

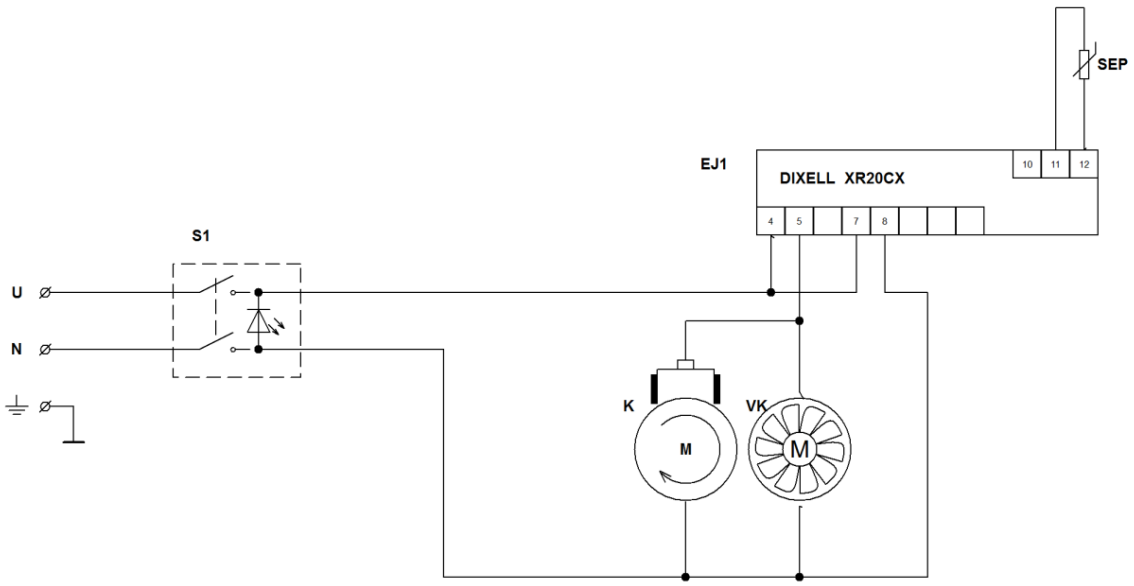


Legend:

S1	-	Main power switch
RE1	-	Power relay
K	-	Compressor motor
VK	-	Condenser fan
EJ1	-	Control unit
SEP	-	Refrigerated space probe
ET	-	Electronic source
VV1	-	Evaporator fan
LED	-	LED lighting

Appendix 8.1

Cooling Plate - Wiring diagram

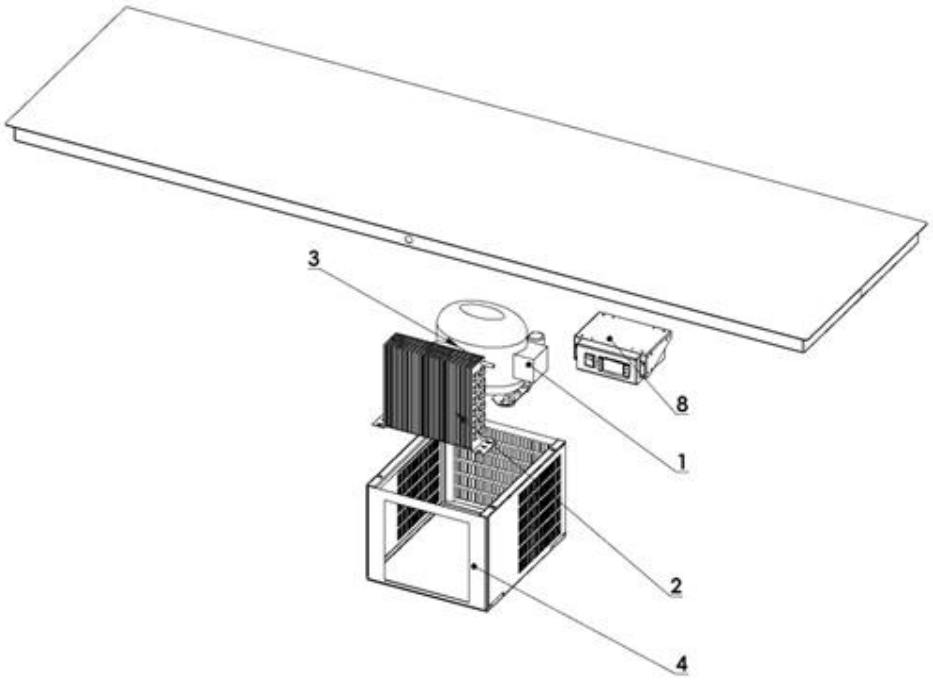


Legend:

S1	-	Main power switch
K	-	Compressor motor
VK	-	Condenser fan
EJ1	-	Control unit
SEP	-	Refrigerated space probe

Appendix 8.2

Cooling Plate - Technical drawing

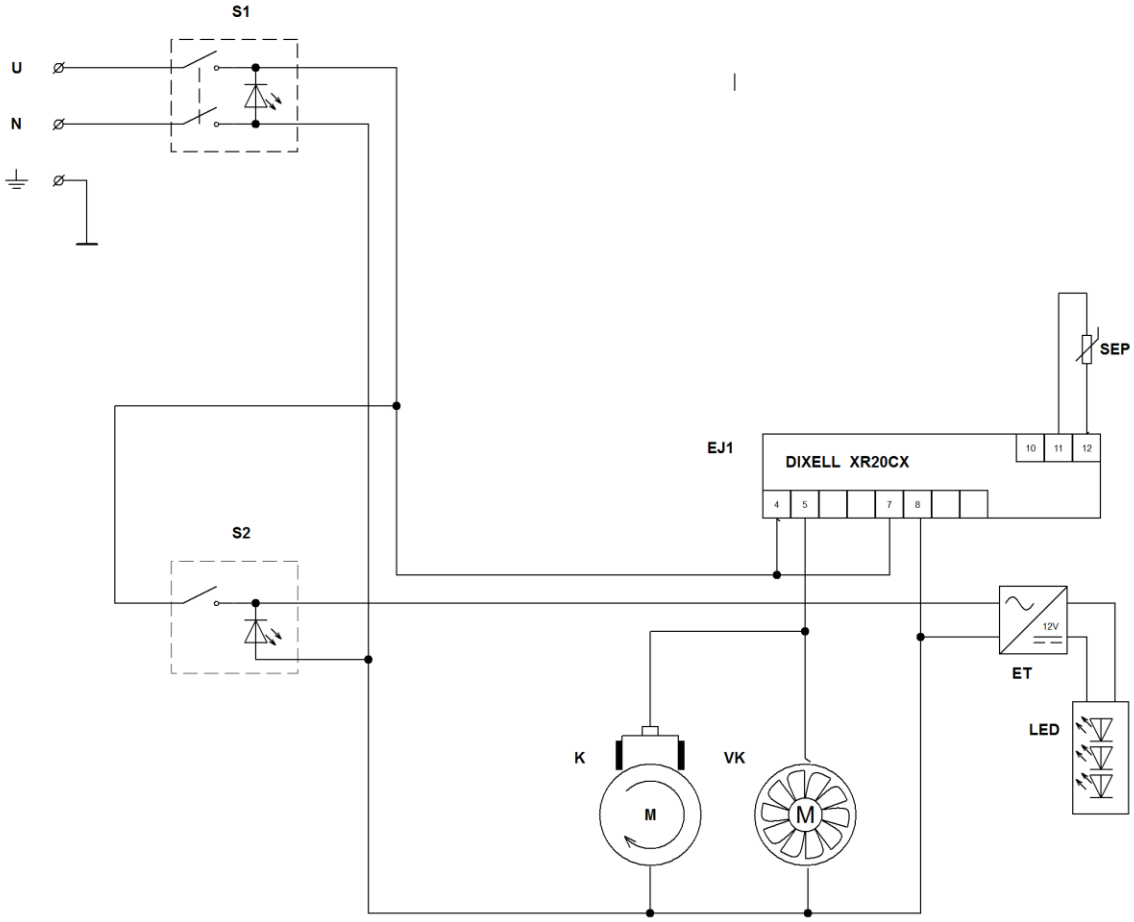


Legend:

1. Compressor
2. Condenser
3. Condenser fan
4. Covering blind
8. Electronic control unit

Appendix 9

Cooling Plate + LED - Wiring diagram

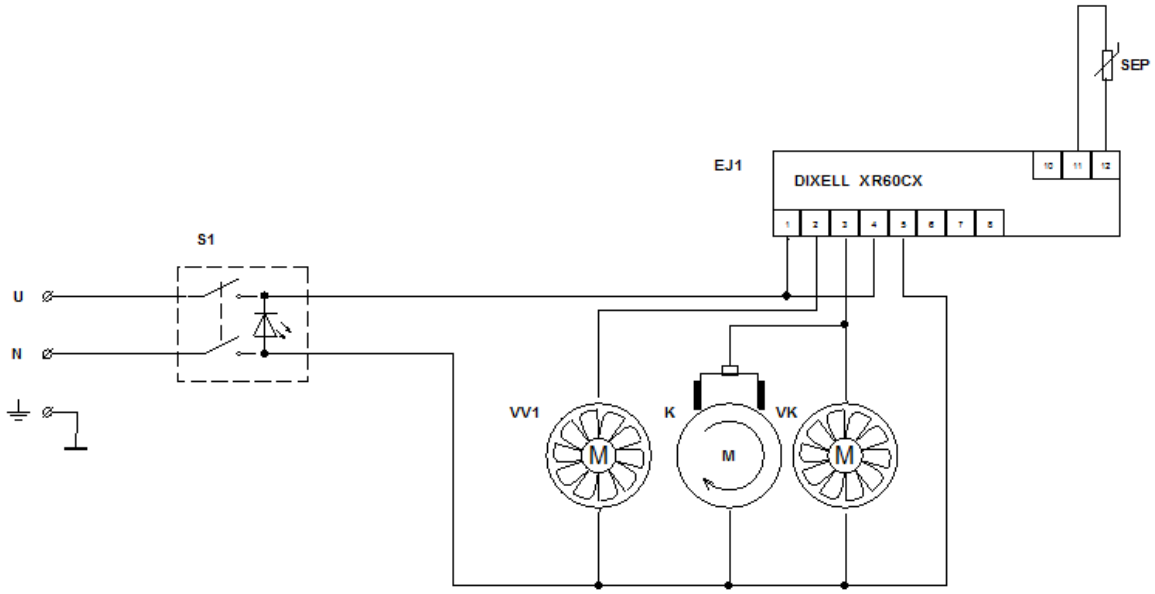


Legend:

S1	-	Main power switch
S2	-	Lighting switch
K	-	Compressor motor
VK	-	Condenser fan
SEP	-	Refrigerated space probe
ET	-	Electronic source
LED	-	LED lighting
EJ1	-	Control unit

Appendix 10.1

Cooling Box for Waste - Wiring diagram

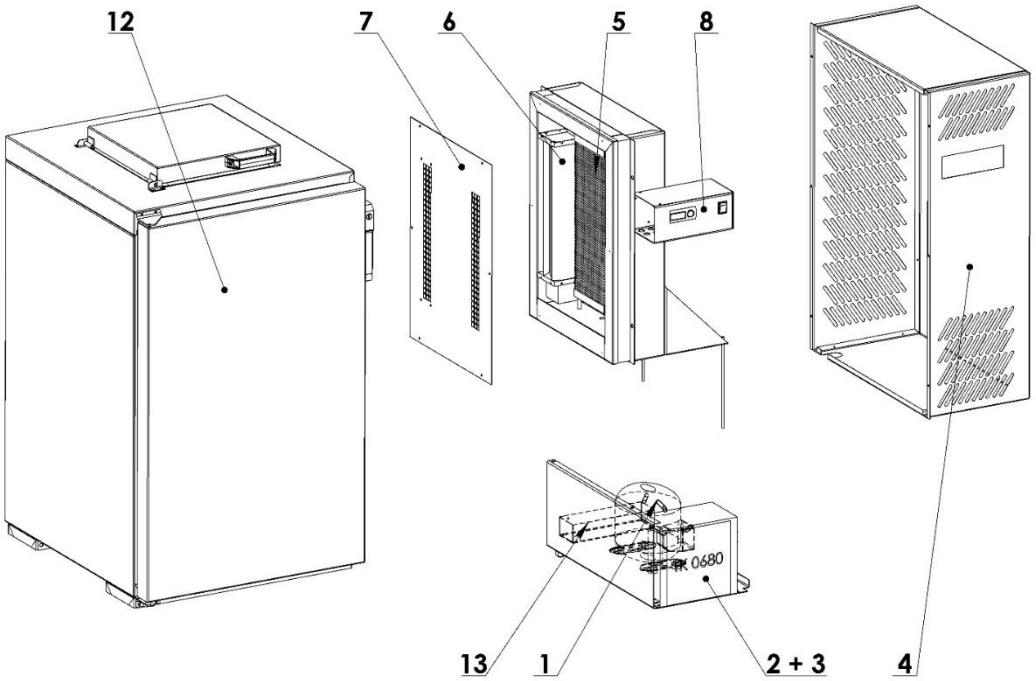


Legend:

S1	-	Main power switch
K	-	Compressor motor
VK	-	Condenser fan
EJ1	-	Control unit
SEP	-	Refrigerated space probe
VV1	-	Evaporator fan

Appendix 10.2

Cooling Box for Waste - Technical drawing

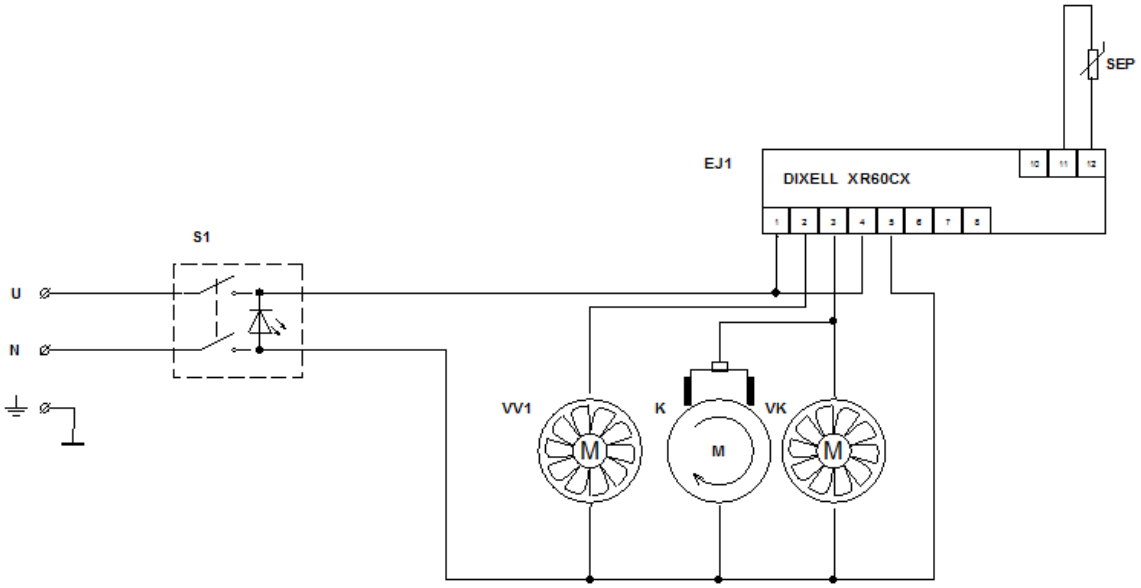


Legend:

1. Compressor
2. Condenser
3. Condenser fan
4. Covering blind
5. Evaporator
6. Evaporator fan
7. Evaporator cover
8. Electronic control unit
13. Evaporator tank

Appendix 11.1

Cooling Box for KEG Barrels - Wiring diagram



Legend:

S1 - Main power switch

K - Compressor motor

VK - Condenser fan

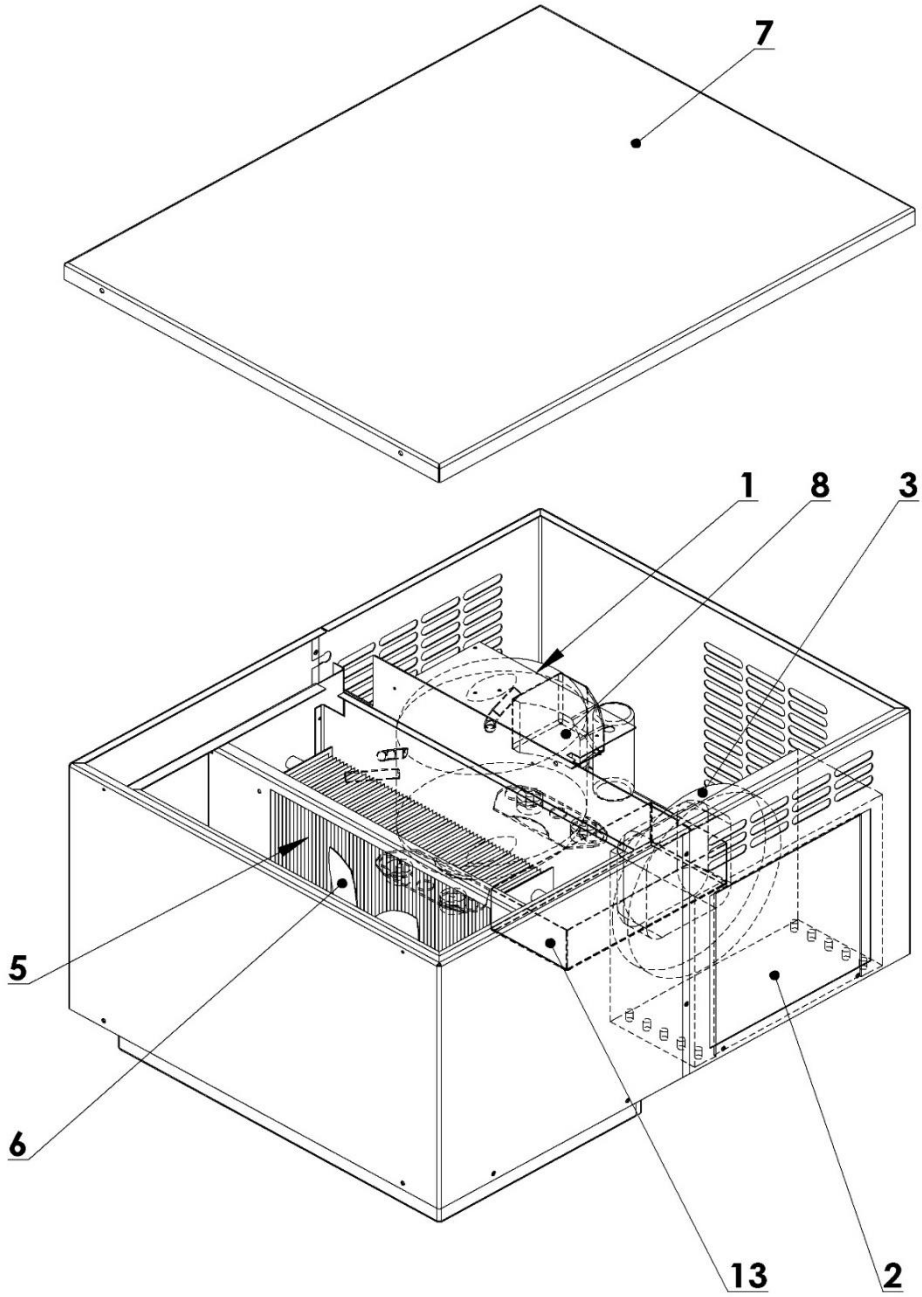
EJ1 - Control unit

SEP - Refrigerated space probe

VV1 - Evaporator fan

Appendix 11.2

Cooling Box for KEG Barrels – Cooling Unit - Technical drawing

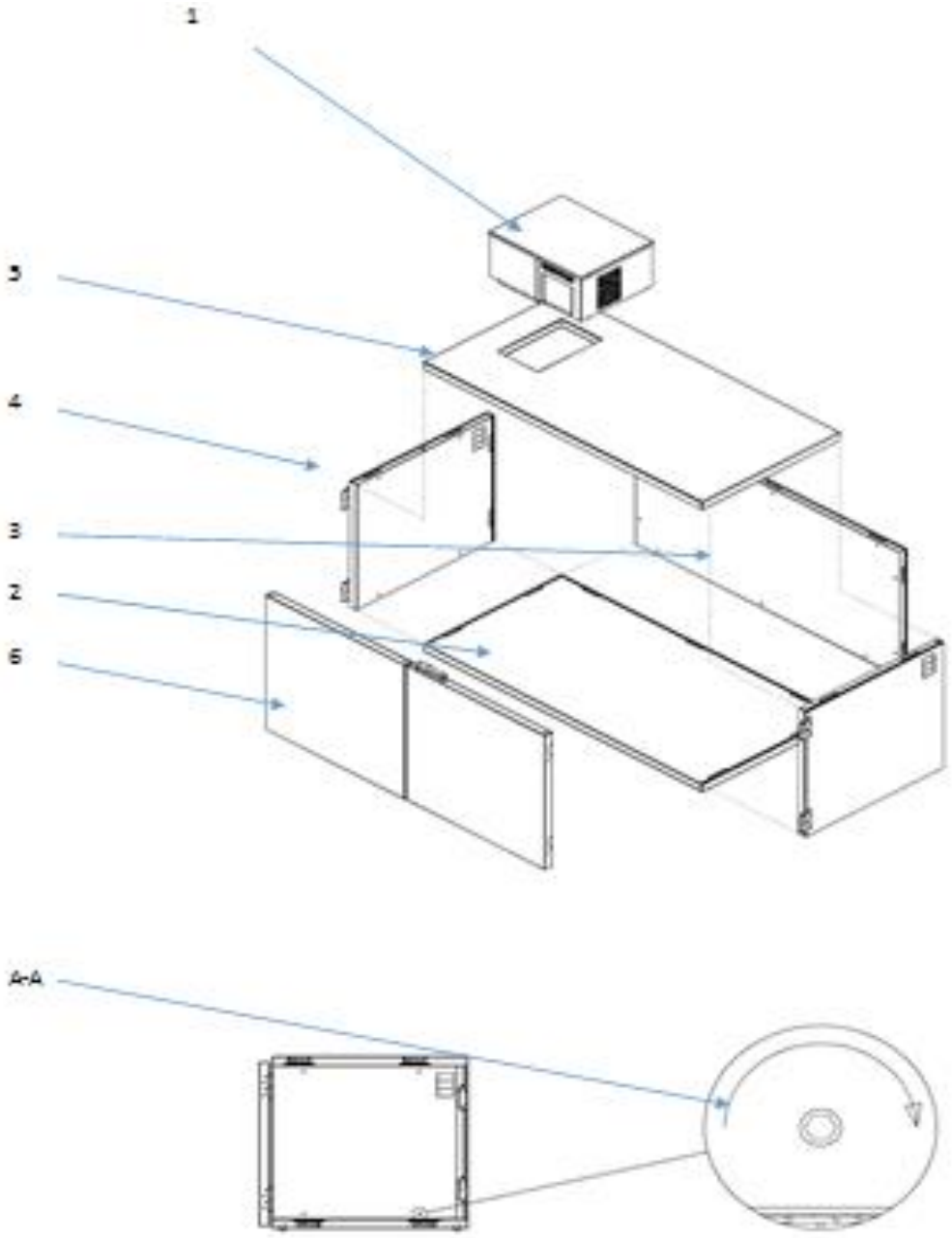


Legend:

1. Compressor
2. Condenser
3. Condenser fan
5. Evaporator
6. Evaporator fan
7. Evaporator cover
8. Electronic control unit
13. Evaporator tank

Appendix 11.3

Cooling Box for KEG Barrels - Assembly - Technical drawing



Legend:

1. Cooling unit
2. Bottom
3. Back
4. Sides
5. Ceiling
6. Door

A-A Detail of lock fastening and the rotational direction of the Allen key

Assembly Description for the Cooling Box for KEG Barrels

1. Set the box bottom **2** on a horizontal surface. If the surface is not horizontal, use pads to achieve the horizontal orientation of the box bottom.
2. Set the back panel **3** of the cooling box on the bottom according to the drawing. Draw the back panel to the bottom by using an Allen wrench on the locks. Tighten the locks by turning the Allen wrench to the right.
3. Next set the side panel **4** according to the drawing so that the front edges of the bottom and side panels form a single surface. Tighten the locks using an Allen wrench.
4. Set the other side panel in the same way.
5. Set the ceiling panel **5** on top of the back and side panels and tighten the locks using an Allen wrench.
6. Set the cooling unit **1** on top of the ceiling panel over the pre-made aperture so that the condenser of the cooling unit is oriented towards the door of the box with the connecting cord cable to the right.
7. Set the door **6** on the hinges of the side panels and close it using the handle. The door can be locked.