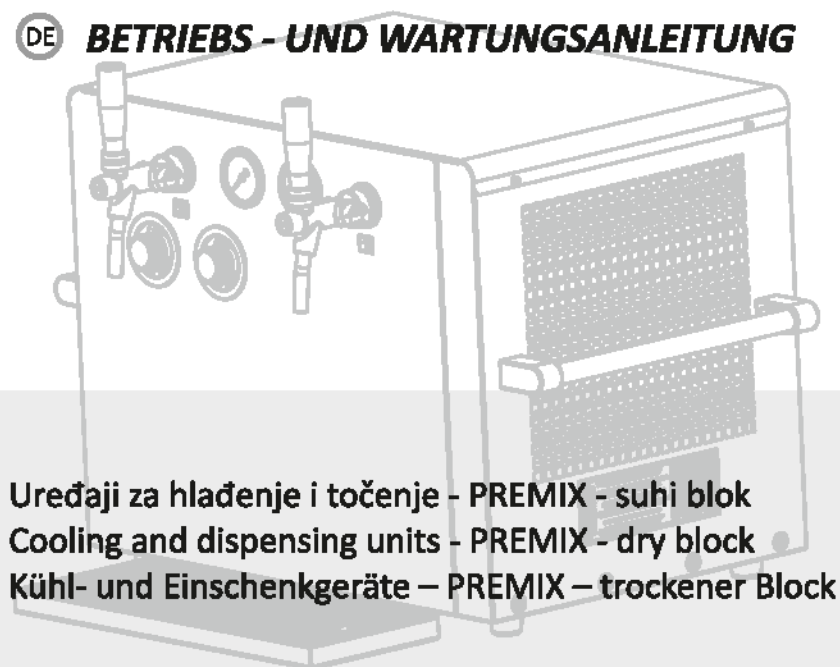




- HR UPUTSTVO ZA RAD I ODRŽAVANJE**
- EN USER MANUAL**
- DE BETRIEBS - UND WARTUNGSANLEITUNG**



Uređaji za hlađenje i točenje - PREMIX - suhi blok
Cooling and dispensing units - PREMIX - dry block
Kühl- und Einschenkgeräte – PREMIX – trockener Block

Code 399042

Original Instructions v1.5 (03/2020)

OPREMA
Catering equipment

E-mail: info@oprema.com
Web: www.oprema.com

Oprema d.d.
Gospodarska 5
42230 Ludbreg
Hrvatska / Croatia
+385 42 819 183



Symbols used on Instructions for use



Danger

This symbol indicates the existence of either imminent danger to life on or around the device, or the possibility of serious danger to the user or any other person nearby; high caution is required and continued work with care.



Warning

This symbol indicates the existence of potential risk of serious injury on the device or around it to the operator or any person near the device high caution is required and continued work with care.



Danger

This symbol means that the device is live. Prior to working with the device, switch off electricity in order to prevent any damage or threat to health.



Danger

This symbol indicates that the device is filled with refrigerating inflammable gas R290 of high level of ecological.



Notes

Contains information which helps ensure accurate operation of the device.

Instructions for operation

The Instructions contain instructions for installation, use and device operation. The Instructions constitute an inseparable part of the device and should be kept along the device in order to be used by the technical staff during any removal or device installation. Prior to the installation and use of device, please read the instructions carefully as they contain important information, so that each procedure can be performed correctly and safely.



Warning

See „Important safety information“ (code 399036), which is attached to these Instructions for operation.



Notes

These Instructions refer to standard device versions. Non-standard devices may contain minor differences which are not described in these Instructions. The Instructions can also be found on our web page (www.oprema.com)



This device is intended for professional use only and is not meant for households.



Installation of this device is possible in places where its usage and maintenance are restricted to trained staff only. The device is not suitable for outdoors usage.



The device can be operated by children 8 years of age and above as well as by people with reduced physical, sensory or mental capabilities or by persons lacking in experience or knowledge, on condition they are provided with safe supervision, and that they were given instructions on the use of the device and understand the implied dangers. Children are not allowed to play with the device. Unattended children are not allowed to use or maintain the device.



WARNING: - Take care that electricity cable does not get entangled or damaged during installation.

WARNING: Do not switch on multiple portable adapters or portable electricity cables at the back of the device.



Terms which are used further in the text. Gas bottle (which has to be suitable for alimentary use: CO₂, N₂, Argon, mixture of CO₂ and N₂ or similar) further in the text CO₂, whose purpose is to press the premix beverage (beer, juice, water or similar) further in the text beer from containers (container, barrel, bag in box or similar) further in the text barrel.



Always ensure there is a suitable pressure regulator for the type of valve on the bottle.



In order to prevent the risk of injuries or damages, the CO₂ bottle always needs to be positioned vertically and fastened to the support on the wall. If gas leakage is suspected, especially in smaller rooms, it is necessary to air the potentially contaminated area.



The measured value of sound level is below 70dB!



According to the valid legal regulations, installation and starting the device operation needs to be executed by the specialist or adequately trained technical staff only.



Do not block the airing openings.
Ensure sufficient air flow for the fan!



Each device filled with R290 (see Technical data) needs to be installed in an area of minimum 19 m³ capacity for devices filled with 150 gr. (max 8g/m³). The device must not be installed in areas used as hallways or emergency exits. The device which uses the filling cooling system group 3, less than 150gr, may be installed anywhere without taking additional precautionary measures according to the norm EN-60335-2-89.



The device needs to be placed in an adequate and clean area whose temperature is between 0-40°C. Do not place devices one upon another and make sure that they are positioned vertically as indicated on the package, on a surface with maximum allowed inclination angle of 2 degrees.



The device needs to be installed in such a way that it is protected from the rain and sprinkling water, in a place where temperature corresponds to its climate class (written on the label Technical data); otherwise the guarantee rights are void, but also the operation may become faulty.

Possible climate classes are the following:

SN – Ambient temperature from 10°C to 32°C

N – Ambient temperature from 16°C to 32°C

ST – Ambient temperature from 18°C to 38°C

T – Ambient temperature from 18°C to 43°C



Danger

During installation of the device electricity needs to be switched off, until the end of installation and start of trial operation. The device can only be switched on having rested for two hours after installation in its place.



Danger

Only the trained staff can carry out the servicing and maintenance jobs. All electrical and water installation parts have to correspond to the national and local legal requirements (when replacing parts, please use original parts only). Never use a damaged device!



Danger

If the electricity cable is damaged, it needs to be replaced by the producer, his servicing electrician or another professional, in order to avoid danger.



Danger

Do not use open fire or other potential sources of sparkles when the device using refrigerant gas R290 is in operation in the vicinity!



Danger

You must not damage the cooling circuit!



Danger

Do not place explosive aerosol containers (sprays, tubes) around the device



Warning

Rad zračne pumpe bez prestanka vremenski je ograničen na: 30 sekundi "On" te 5 minuta "OFF"



Warning

The device is not to be switched off from electricity at the closure of the bar.



Warning

It is not allowed to use water jet for washing the device.



Danger

Switch off electricity at the time of cleaning the device.



Devices which contain the symbol  are filled with refrigerant R290 (propane). Since the device contains inflammable gas, please make sure that you dispose of the expired device according to legal requirements. Contact the dealer or your local responsible services when you intend to dispose of the old device.



Danger

**Contents:**

Title	Page
1. Introduction	17
1.1 Symbols used in Instructions for Operation	17
1.2 Instructions for Operation	17
2. Safety notes	18-20
3. Contents	21
4. General information	22
4.3 Compliance with regulations	22
4.1 Device code and characteristics	22
4.2 Guarantee	24
4.3 Transportation and storage	24
4.4 Package disposal	24
4.5 Surrounding conditions	25
4.6 Procedures in case of malfunction	25
4.7 Procedures at dispensing	25
5. Principles of operation and installation	26
5.1 Principles of operation	26
5.2 Installation and assembly	27
5.3 Device handling	28
6. Cleaning and maintenance	29
6.1 Cleaning and maintenance of the system	29
6.2 Servicing and repairs	29
7. Additional instructions	30
7.1 Instructions for device disassembly	30
8. Faults	31
8.1 Cooling system faults	31
8.2 Dispensing faults	32
9. Annex	49
9.1. Diagrams of connecting	49
9.2. Electrical diagram	50-52



Compliance with regulations

Company **Oprema d.d.** produces professional catering devices, with special emphasis on beer cooling and dispensing devices, as well as devices for cooling and dispensing juices, wine, water and soda water. The policy of quality management, environment management, health protection, safety at work and safety of products and components in contact with beverages are the basis of business processes management at **Oprema d.d.**



All our devices comply with
the following EU directives:

Directive 2014/35/EU (LVD)

- Electric safety of devices (low voltage equipment)

Directive 2014/30/EU (EMC)

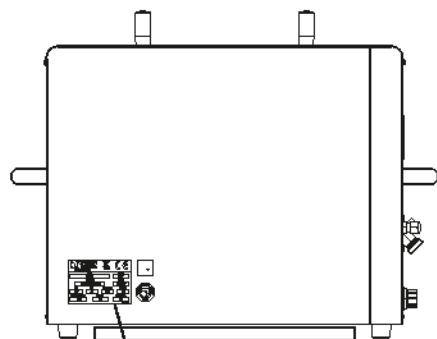
- Electromagnetic compatibility



**his product complies with all the essential
requirements of EU regulations related to it**

Device code and characteristics

Each device has its own identification number/code. The code can be found on the plate "Technical data". The plate/label with technical data is the only way to identify the device; it contains the necessary information about the device for the user/servicing staff for identification in a fast and simple way.



OPREMA											
<small>Oprema d.d. Maslovačkova ulica 8 40000 Ljubljana - Croatia</small>											
TYPE		MODEL		CLIMATE CLASS		POWER (kW)		RUN (A)		COMPR. (cc)	
1		2		3		4		5		6	
SERIAL N°		CODE		TOTAL EQ. CO2		GWP		WEIGHT (kg)		TINJO	
3		4		7		8		9		10	
(V)		(Hz)		POWER (kW)		RUN (A)		COMPR. (cc)		TINJO	
8		7		6		5		4		3	
R290 (g)		TOTAL EQ. CO2		GWP		WEIGHT (kg)		TINJO		TINJO	
11		12		13		14		15		16	



1. Type: Device name
2. Model: Device model
3. Serial No: Device serial number
4. Code: The device code
5. Climate class: Climate class
6. (V): Voltage in Volts
7. (Hz): Frequency in Hz
8. Power: Electricity in kW with normal operation
9. Run: Electricity intensity in Amperes with normal operation
10. Compressor: Working capacity of compressor in cm³
11. Type and quantity of refrigerating gas in the system in grammes
12. Total EQ. CO2: CO2 equivalent in tonnes
13. GWP: Global warming potential
14. Weight: Mass of unpacked device in kilograms
15. Quality control: Device was tested for safe operation
16. Oprema: Produced in Oprema d.d. (by destroying or removing this label the guarantee right is void!)

This instruction refers to the following cooling devices:
DRY XS, DRY S, DRY M, DRY L, DRY XL, PRO EVENT



This device is intended for professional use only and is not meant for household use.

Guarantee

Duration of guarantee on device is 24 months starting with the date of production except when contract regulates it otherwise. We recommend that original cardboard package as well as packing material and invoice at least is stored for the period of guarantee duration.

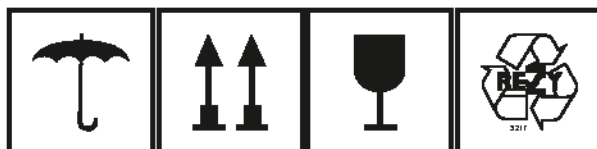
Transportation and storage

In order to avoid damages to the device it is important to handle it with care during loading and unloading.

Cranes may be used for device removal only when it is removed on a pallette.

- **DO NOT turn device over**
- **DO NOT shake device or packag**

Device needs to be stored in an adequate and clean area at a temperature between 0-40°C, with measures to be taken allowing no residual water in the cooling device. Do not place devices on top of each other and make sure they are positioned vertically as indicated on the package.



Disposal of packaging

When the device is unpacked it is necessary to check it is free of defects. In case of any doubts related to the safety of device in the package, do not install or use the device. When disposing of the packaging, please respect the local regulations related to the waste disposal. Do not burn parts of the packaging or throw them into environment. The package of this device can be fully recycled. Keep the package out of reach of children.



Surrounding conditions

The device needs to be installed in such a way that it is protected from rain and sprinkling water, in a place where the temperature is corresponding to its climate class (given on the label Technical data); otherwise the guarantee right is void, but defects in operation may also appear. The following climate classes are possible:

SN – Ambient temperature from 10°C to 32°C

N – Ambient temperature from 16°C to 32°C

ST – Ambient temperature from 18°C to 38°C

T – Ambient temperature from 18°C to 43°C

Procedures in case of malfunction

Most technical problems can easily be solved with simple interventions. For this purpose we would like you to read this Instruction carefully prior to calling the servicing staff or the producer. In case it is not possible to solve the problem by means of this Instruction, please contact the dealer who delivered the device. Keep the device in good condition and do not allow any changes to it unless they are permitted by the producer

Procedures at dispensing liquids

WHEN DISPENSING LIQUIDS, PLEASE USE OPEN CONTAINERS ONLY

This type of cooling device has to be used for beverage dispensing into open containers for immediate consumption (i.e. glasses, bottles, ...). The dispensed product needs to be consumed immediately: it must not be kept and/or stored in bottles. Any other form of use is considered inadequate and therefore potentially dangerous for consumer's health. The device producer declines any responsibility for the damages caused by inadequate use of this dispensing device.



Principles of operation

CO₂ goes out of the bottle, goes through the pressure regulator and through the CO₂ pipe further to the head which is firmly attached to the beer barrel. By means of CO₂ pressure, which is higher than the pressure in the barrel, the beer is pressed through the valve on the attached head and through the beer pipe goes to the cooling device. The beer is cooled by passing through the cooling coils which are connected to the beer dispensing taps (for undercounter device version they are mounted on the console) which is poured into glasses (mugs).

Beer cooling devices with aluminium block

Each device consists of a cooling aggregate and an alu block. The device can be placed in every type of room which makes it highly adaptable for placement. It has to be installed in the indoors area, within a room that is not directly exposed to the sunrays, and where the temperature does not exceed the climate class, which could eventually reduce the device cooling efficiency.

The device needs to be correctly positioned on the surface:

where the maximum inclination angle is 2 degrees. During the air cooled device installation make sure the device has enough free space, which provides 0,4 m in front of both air intake and exit. The device needs to be positioned on a flat horizontal surface in the airy area, away from the source of heat, with minimum 7 cm from the wall and 30 cm distance from the next device. The area surrounding the device has to provide free air circulation.

The socket for external unit needs to be installed in compliance with the applicable IEE regulations. Measures have to be taken that there is no source of heat in the immediate vicinity of any device. The right surrounding / ambient temperature is essential for the cooling capacity of the device operation, which is particularly important for air cooled devices. It is general rule that higher ambient temperature reduces the cooling effect of the device and increases the consumption of electricity.



Devices come with a single phase cable so that grounded socket needs to be provided in the vicinity, with the voltage of 230 V 50 Hz. Voltage deviation must not exceed 10% of the nominal value because it can cause damages to electrical components. Beer barrels and CO₂ bottle can be placed under the counter, in the nearby room or another ancillary room.



Notes

The same instructions for installation are applicable to wine and premix juices cooling and dispensing devices and with other types of gases.

Installation

- Install the CO₂ pressure reducing valve on the bottle (which has to be closed).
- For devices with high pressure pipe, connect the bottle via the high pressure pipe.
- Connect the CO₂ entry to the barrel head.
- Connect the exit of the beverage from the barrel head to the device connector (cooling coil).
- Connect the device to electricity. At that moment the cooling aggregate and the fan begin running.
- Open the CO₂ bottle valve marked area, the bottle needs and in case the pressure is within the red to be replaced.
- Set the CO₂ pressure on pressure recommended the barrel to pressurize the beer to the by the individual beer producer, which is most often 2,5 bar. In case the beer barrel is positioned away from the device or under the device, it is necessary to correct the pressure (increase) by 0,02 (bar) for each metre of the length and 0,1 (bar) for each height difference.
- Pour several glasses using the dispensing valve and set the desired flow by means of the regulating screw.
- For air pump devices the air line from the air pump needs to be firmly connected to the head of the barrel.



Handling the device

1. Open the main valve on the CO₂ bottle.
2. During the operation follow the drop in pressure on the CO₂ bottle and when the manometer hand comes into the red area, the bottle needs to be replaced.
3. When the barrel is emptied it needs to be replaced, at which occasion the barrel connector and connecting head need to be washed. The device which comes with the air pump needs to be disconnected («on/off» switch) if the barrel is not connected.
4. Upon finishing the working hours, the valve on the CO₂ bottle needs to be shut off.
5. Set the air pressure regulator to 3 bar.
6. Set the electronic thermoregulator to 2°C / hysteresis 1°C

System cleaning and maintenance

System cleaning and maintenance is divided into:

1. Daily jobs
2. Monthly jobs
3. Sanitation of the system

Daily jobs:

It is necessary to keep hygiene around the dispensing device as well as the hygiene of taps and collectors.

Monthly jobs:

It is necessary to clean the device of possible dirt or dust once a month, special attention to be paid to the condenser on the air cooled device because if too much dust sets, the cooling effect will be lower. Do not use high pressure for cleaning as it may dent the condenser lamellas. Use a vacuum cleaner or lamella cleaning brush.



Sanitation of the device:

The device sanitation is to be carried out by a trained person. Sanitation is carried out for the purpose of hygienic safety and quality of draft beer. The frequency of sanitation is determined by the beer producer. It is recommended to be performed at least once every three months. Prior to the device sanitation, please carefully read the sanitation product instruction given by the producer, and make sure the protective equipment (gloves, masks etc.) is used correctly. Make sure the rooms are properly aired. Certain device components may be damaged during aggressive cleaning procedure. Producer declines any responsibility for damages caused by the use of aggressive and/or toxic cleaning agents.



In case the device is out of order due to the faulty maintenance or for some other reason, we recommend that you put a notice on the device.

Servicing and repairs

In the interest of your safety and in accordance with legal regulations all repairs need to be performed by authorized persons.

Servicing and repairs on R290 systems need to be performed by servicing experts specifically trained for handling inflammable substances. This includes knowledge of tools, operating compressors and cooling units, basic applicable legal regulations as well as precautionary measures to be taken during servicing and repairs.



Instructions for the device disassembly

Device disassembly procedure has to be performed in compliance with legal regulations.

- steel, plastic and other waste material need to be disposed of by the responsible persons
- insulation material has to be disposed of by the authorized persons and authorized companies
- each form of refrigerant (see indicated on the label) has to be removed with special equipment by an authorized company and authorized persons.

Refrigerant may at no circumstances be spread in the area.



Devices carrying the symbol  are filled with refrigerant R290 (propane). Since the device contains Inflammable gas, please dispose of the device with the expired service life according to legal regulations. When you intend to dispose of an old device contact your dealer or a local responsible service.

In compliance with the Regulations on Electric and Electronic Devices Waste Management and EU Directive **2012/19/EU**, the symbol containing crossed out bin shown on the equipment or on the packaging, means that at the end of its life cycle the product needs to be separated from the rest of the waste, in relation to the reduction of usage of dangerous substances in electronic and electric equipment as well as to adequate waste disposal. Separate collection and recycling of such equipment contributes to avoiding possible negative impact upon environment and health, enabling the reuse and recycling of some of the material used for building of the components of the equipment. Unauthorized disposal of this product by the user implies the possibility of application of legal sanctions, in accordance with applicable legal regulations.





Cooling system faults

Description of fault	Possible cause	Description of repair
Compressor not working	1. Cooling device disconnected from electricity.	1. Connect device to electricity
	2. Cable connector to the cooling system is not connected.	2. Connect the connector.
	3. Too low voltage.	3. Minimal voltage on which device safely works is 208V.
	4. Socket faulty/ defective or connecting cable torn	4. Call service.
	5. Starter relay faulty/defective, condenser or working condenser of the compressor faulty.	5. Call service.
	6. Faulty electronic circuit or thermoregulator.	6. Call service.
	7. Faulty compressor.	7. Call service.
	8. Activated compressor protection due to its overheating.	8. Call service.



Beverage dispensing faults

Description of fault	Possible cause	Description of repair
Beverage does not flow from the tap	1. Barrel is empty. 2. CO ₂ bottle is empty. 3. Valve on CO ₂ bottle is off. 4. Insufficient pressure in the barrel. 5. Inadequately fastened head to barrel. 6. Beverage is frozen in the coil	1. Replace barrel. 2. Replace bottle. 3. Open valve. 4. Set pressure again. 5. Correctly set the head on barrel. 6. Call service.
Beverage flows too slowly from the tap	1. Tap compensator is partly open. 2. Head is not correctly fastened to barrel. 3. CO ₂ pressure too low.	1. Turn Tap regulator anti-clockwise. 2. Adjust the head. 3. Adjust pressure again or if bottle is empty – replace bottle.
Dispensed beverage is warm or has bad taste	1. Cooling is inadequately adjusted 2. Beverage in the barrel too old. 3. Sanitation of lines and accessories not properly done	1. Call service. 2. Replace the barrel. 3. Repeat sanitation or call service/repairs.
Clear beverage comes out but with too much foam	1. Glass too warm. 2. Inadequate dispensing technique 3. Too low or too high pressure	1. Cool the glass. 2. Apply adequate technique. 3. Regulate pressure.
Foam comes out in hits	1. Glava nije pravilno pričvršćena na bačvu. 2. U bačvi nema napitka.	1. Adjust the head. 2. Replace the barrel.
Crown of foam does not stay	1. Residual grease or glass washing liquid. 2. Beverage in barrel is too old.	1. Wash glass with adequate washing agent and rinse in clean water. 2. Replace the barrel.
Beverage drips from tap	1.	1. Call service/repairs.
CO₂ bottle empties too fast	1.	1. Call service/repairs.



**FLOW DIAGRAM
OVERCOUNTER DRY COOLER
OVERCOUNTER DRY COOLER WITH AIR PUMP**

