

Operating instructions English

Please keep these operating instructions in a safe place.

Dear Customer!

Check this product for visible damage immediately upon receipt. Inform the shipper if there is any shipping damage. Note that damage resulting from improper handling or operation is not covered under the warranty. For further claims please refer to our conditions of sale and conditions of payment.

Before putting the device into operation:

Read all the operating instructions carefully.

Familiarize yourself with all controls.

Filling and preparation of the cooler may only be performed by authorized service technicians within the prescribed 3-month review, and my not by the operator itself.

Ask the service company installing the device to write its address down here for any subsequent repairs, emergencies, etc.

Address of your technical service company:

Name:	
City:	
Street:	
Telephone:	
Contact person:	••••••



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1. Introduction

Our foremost aim is to produce a quality product. The units are manufactured on high hygiene standard and correspond in full amount to the relevant standards. Each unit receives a special CORNELIUS hygiene label in proof. This label is beside the nameplate of the unit. If you should encounter any difficulty, which these operating instructions do not help you with, call or write us. We will be glad to be of assistance. If you write, please include the model and serial number of the unit.



Our address:

IMI Cornelius Deutschland GmbH Carl-Leverkus-Straße 15 40764 Langenfeld Phone: +49 (0)2173 / 793-0 Fax.: +49 (0)2173 / 77438

2. Safety regulations

2.1 General safety regulations

- This device is of leading-edge design and manufacture. If used and maintained in accordance with these operating instructions, it will be safe to operate. Please comply with the following safety instructions to avoid hazards and damage.
- The cooling device is operated with inflammable refrigerant. WARNING: The ventilation openings at the cooler must not be locked or covered! Refrigerant circuit must not be damaged! Attention when defrosting of coolers with ice bank. Do not use any tools to remove ice! Only use warm tap water. The cooler must be disposed by an authorized specialist.
- The device must be in satisfactory condition whenever operated. Any modifications which detrimentally affect the safety of the device are therefore strictly prohibited. Please contact your service company if you wish to obtain more information about safety.
- No safety equipment (such as safety valves, overload protection devices, etc.) is to be removed, modified or put out of commission (risk of injury or death!).
- Take care that only authorized persons work on the device and that the operators are trained. Make certain that no unauthorized persons change the settings on the device or tamper with it.
- The unit is filled by the service technician with water and adjusted to temperature or ice bank mode. The operator must not open the unit.
- You are obligated to check the device on a daily basis for externally discernible damage and defects. Immediately report modifications which affect safety and function to the service company nearest you. Discontinue operation if necessary.
- Note that only original CORNELIUS replacement parts and accessories which have been checked and approved are to be used. IMI Cornelius Deutschland GmbH assumes no liability whatsoever for damage resulting from the use of non-original parts and accessories or from improper handling.
- This device is not determined by persons (including children) with reduced physical, sensory or mental abilities or lack of experience and / or lack of knowledge to be used, unless they are fully supervised by a person who is responsible for their security or received their instructions, as the device is to use. Children should be supervised to ensure that they do not play with the device.

2.2 Safety instructions electricity

- An electric shock may be fatal or result in serious injury. For this reason, any unauthorized tampering is strictly prohibited. Water and electricity are a fatal mixture!
- It is strictly recommended to operate the device with an electrical fault protection switch (FI) only
- Always pull out the mains plug before any cleaning work on or near the device.
- As delivered, it features a moulded earthed-pin plug and it must be connected to a socket outlet with an earthed contact. If no appropriate socket outlet with an earthed contact is available, the connection must be made by



authorized persons only, with the regulations applicable at the installation site (EN standards in Germany, for example) being observed.

2.3 Safety instructions CO₂

- Place the carbon dioxide cylinder in an upright position next to the workstation and secure it against falling over.
- Protect it against heat (e.g., against sunshine). Minimum distance from heater 0.5 m (TRSK).
- Escaping carbon dioxide is heavier than air and may present danger of suffocation if large quantities collect in enclosed spaces.
- Use Food suitable CO₂ only
- Remember that parts of the device are at operating pressure. Do not loosen or dismantle any components at operating pressure.

3. Intended use

The Energize soda circuit cooler is designed for cooling non-alcoholic drinks (premix products and their base/syrup). Food suitable CO_2 is used for propellant. The cooling of other drinks or liquids is forbidden.

The inlet temperature of the liquids must not exceed 32°C otherwise the pressure in the refrigeration cycle will rise above specification.

Minimum ambient temperature 10°C, maximum ambient temperature 40°C

The energy exchange from the cooling coil to the drink takes place in a liquid bath with water. No other liquids are endorsed for use in the liquid bath other than water.

The unit is suitable only for fixed installations in a closed area and not for the mobile application. It is prohibited to use the unit in an area, where water jet is possible.

Cleaning with a water jet is forbidden.

4. System explanation

4.1 Energy reduction

Cooling of liquids takes significant amount of energy like electrical power. To keep the need on energy as low as possible in order to save costs and reduce environmental pollution, Energize cooler decides between dispense times and operational readiness. During operational readiness, for example over night, Energize runs in stand by mode. All functions are reduced to a minimum, that means the power input is minimal an supplies just enough energy to keep recirculation at required temperature. Energize recognizes when drinks are dispensed and switches to maximum power to wash required amount of ice to supply enough energy for dispensed drinks. After dispensing, energize switches back to stand by mode automatically. Biggest energy savings resulting in a combination of Energize cooler together with the Energize tower. By using Energize tower all connected product lines are being cooled inside the skeletal tower instead of inside the cooler. The product container are connected directly to the heat exchanger, thereby there are no energy losses in the Python.

4.2 Diagnostic

Energize has an on board diagnostic system. During operation the most important operating parameters are being recorded and stored in main controller of the machine. In case of malfunction or system overload, that could endanger entire machine. It's components or drink quality, the diagnostic system decides whether to indicate a warning or switch off machine or dispense tower. A list containing all messages of the systems is shown in appendix.

4.3 Communication module

The communication module allows Energize to send out an error warning via SMS or a remote read out of operating parameters by using IMIC Diagnostic Software. The communication module allows Energize to send an error warning or fault condition message directly to the cell phone of the responsible field service technician or field service provider. Based on the warning, the next scheduled maintenance inspection can be planed better or being initiated. The error warning describes the kind of faulty condition, which required spares could be prepared for next service. A online check



of the machine also allows an evaluation of operating parameters at any time, which gives a realistic overview over the machine, and it's condition. An online check can be done with any computer with installed browser.

4.3.1 IMIC Diagnostic software and field monitoring

The IMIC diagnostic Software allows the Operator to dial into an installed system to request current operating parameters. All parameters are displayed in a concise tabular form and warnings are marked up in "red". The status of each machine in the field is marked in green or red. Defective machines or error warnings are obvious by the first view. Each call one full set of parameter of each machine is stored in a database and allows further processing. Each machine needs a license to get onto the network. For more than one machine an additional license is required.

4.3.2 IMIC Diagnostic software and machine history

The collected data from field monitoring is stored in a database and allows further data processing of an individual machine or entire field installations. Conclusions of the cooler (or it's components) usage are possible. It is worth to have a look into machine history data before a service is scheduled.

4.4 Product consumption monitoring

Next to the operating parameters it is possible to collect consumption data of products and total water. A Flow meter device, which is connected to the skeletal tower and Python, is needed to gather this information. The flow meter device recognizes the opening times of each dispense head and calculates the throughput based on the product ratio, provided that product, product ratio and flow rates have been preset correctly during installation. Required values are listed on the installation protocol of the dispense tower. These values need to be adjusted when a product line or one of its components has changed.

5. Installation Requirements

5.1 Installation Sites

Comply with the valid national regulations for installation sites and electrical connections. Ventilation of the installation sites must be appropriate for device output. Inadequate ventilation of the device will result in its overheating and being destroyed. Always make certain that no intake or discharge vents are covered.

5.2 Electrical Connections

A socket outlet with an earthed contact featuring a maximum protection of 16 amperes is required. The line voltage must always be within following tolerances: 230 VAC + 6% / -10% / 50 Hz

6. Installation

The device must be installed by a trained service technician. Please take care, that the socket for the unit is always accessible.

There are no user serviceable items inside the equipment.

If the power supply cable to the unit is damaged, it has to be replaced by the manufacturer, the service partner or any other qualified person to avoid safety hazard.

The unit must be planar aligned. Max angle of $+/-2^{\circ}$ is permitted.

6.1 Water Connection

Connecting only to drinkable water!

Connect the device to a feed line with an inner diameter of 10 mm. We recommend using a water filter and a water pressure regulator for the water input. To permit flushing of the filter, a t-piece should be mounted downstream of the water pressure regulator. The water flow pressure must be minimum 2 bar (mount control pressure gauge on water pressure regulator).



6.2 CO₂-Connection

You will require minimum a stage-wire pressure regulator with 0.7 Mpa (7 bar). Using tubing with an inner diameter of 4mm, connect the pressure regulator to the carbonator. Set the CO_2 -pressure to 0.6 Mpa (6 bar). The unit includes a CO_2 -pressure switch to switch off the dispensing values at a CO_2 -pressure less than 0.4 Mpa (4 bar). The second connector is used for feeding the Syrup container in order to deliver the Syrup to tower. If Light Syrups are being used, a secondary Pressure regulator set to 0.05 Mpa –0.1 Mpa (0.5 bar-1.0 bar) is needed.

6.3 Connecting Premix and Postmix Syrup

Connect one tube with an inner diameter of 6 mm to each device connection. Connect the tube end to the correct cooling coil inputs of the cooler circuit carbonator.

6.3.1 Connecting Premix and Postmix Syrup to Energize Cooler

As Energize in basic specification (without Energize Tower) the cooler will be connected to the syrup container directly by a tube ID 8.0mm (Premix) or tube ID 6.0mm (Postmix).

6.3.2 Connecting Premix and Postmix Syrup to Energize Tower

With connected Energize Tower the syrup container will be connected directly to the Tower connectors by a tube ID 8.0mm (Premix) or tube ID 6.0mm (Postmix).

6.4 Connecting Soda Water and Still Water

Connect the soda water to the forward and backward fittings at the Energize. The inside diameter of the tubes should be 13 mm.

The still water has to be connected to the still water outlet of the Energize. The flow pressure is adjusted to 0.32 Mpa (3.2 bar). If necessary, it can be adapted to the local requirements.

6.5 Power Supply of the Electric Valves

Energize units are equipped with a transformer (not in basic specification) with 24 Volts for the electric power supply of the valves in the tower.

For the power supply of the valves these are connected to the connecting bus (see wiring diagram) at the Energizes inner panel according to the circuit diagram.

In the case of insufficient CO_2 -pressure at the carbonator inlet, the power supply to the valves is switched off. In addition to this a LED on the main controller panel indicates low pressure.

A complete emptying of the carbonator bowl is prevented by switching off the power supply of the valves in time. The power supply is switched on automatically after the carbonator bawl has been refilled.

Caution: A short circuit in the power supply to the valves caused a transformer switch off or a damage of the level board.

6.6 Connection of Still Water Control

For still water, one switching cable $(1 \times 0.75 \text{ mm}^2)$ per still water tap must run from the soda circuit carbonator to the still water tap. The electronic control system is actuated via this cable. An additional cable from one of the still water valves is necessary to close the circuit.

Alternatively, there are some units which can be controlled by a pressure switch for the still water. It is recommended to adjust the still water flow pressure to 3.2 bar and the switching point of the pressure switch to minimum 4.2 bar. If a different flow pressure is required the switching point of the pressure switch must be set accordingly. Refer to the circuit diagram for the connection. The flow rate of the still water should be 300 ml each 4seconds.



7. Putting into and out of Service

7.1 Putting into Service

Comply with the cleaning regulations defined by law before beginning each operation. Clean the couplings on the container for beverage/syrup every time before you attach them. Connect coupling to container for beverage/syrup. **Note!**: Keep attention to colour coded couplings of CO₂ and beverage/syrup. Check the CO₂-pressure at the pressure regulator. It should be within the following standard values: Open the cylinder valve on the CO₂-cylinder and the valve on the pressure regulator.

Syrup: 3.5 to 4.0 bar CO₂-carbonization pressure: 6 bar Light products: 0.5 to 1.0 bar Drinking water: 4.0 to 4.5 bar

Set the CO₂-pressure by turning the control screw at the regulator valve.

- Clockwise to increase the pressure.
- Counter-clockwise to reduce the pressure.

Afterwards check the CO_2 -lines for leaks by closing the valve of bottle. The set pressure displayed at the pressure regulator should not drop. If it does, notify the service technician immediately. Do not forget to re-open the CO_2 -valve after the check.

Open the water feed line and check the flow pressure in it (minimum value: 2.0 to 3.0 bar). Set it at the control screw on the water pressure regulator (not in scope of delivery).

Check the beverage/syrup lines for leaks. Only a visual inspection is possible. If liquid is leaking, call a service technician.

7.2 Turning on the Unit

The water bath must be filled up to the overflow with tap water. Refer to the technical data for the amount required. To prevent algae from forming in the water, add the disinfectant Molco (PN 14-9670-150). The 150 ml container of disinfectant is sufficient for 30 litres of water.

Insert the mains plug for the cooler into a socket outlet with an earthed contact. Ice bank controlled units start working after the water bath fills with water and switch off automatically (3 minutes delay) after the ice bank is built up.

The control board of the unit has a time delay for switching on and off the cooling system, when it runs in ice bank mode. After the cooling system is switched on the running time is not less then 5 minutes. Switch off signals will be ignored during this time. After the cooling system is switched off the break time is not less then 3 minutes. Switch on signals will be ignored during this time. The break time of 3 minutes is valid for turning on the device and after a break down of the power supply. These units containing a 3-pin ice bank probe.

When water inlet pressure is within specification, the carbonator pump switches on automatically and fills the carbonator bowl. The carbonator pump switches off when upper fill level is reached or the preset maximum run time of 20 min has been exceeded. Long run periods are signs of leaks or too large extraction. It is then only possible to turn the pump back on by a power network reset (pulling out the mains plug briefly).

Attention! At the Energize FF the second carbonator pump do not start working before the carbonator bowl has been filled to the maximum level one time. Release air from the carbonator container by pulling the safety valve for about 2 to 4 seconds. The circulation pump has to be switch on manual by using the switch at the controller. The circulation pump does runs in any case.

Attention! Dry running of the circuit pump coursed a damage.



7.3 Functional description of carbonator level probe

In the case the carbonator bowl is so emptied that the empty probe is out of water the electric dispensing valves in the tower is switched off or, at the Energize FF, the second carbonator pump is switched on. That prevents CO_2 in the soda water circuit and trouble during dispensing soft drinks.

The dispensing valves are switched back on again, or the second carbonator pump is switched off when the carbonator bowl is filled up to the maximum level.

Attention! The switching off of the dispensing valves works only by using the factory fitted transformer for power supply to the dispensing valve.

7.4 End of Operation (End of dispense–time)

It is imperative that the CO₂-cylinder and water line be turned off each time operation is ended!

7.5 Daily Inspection

- Check whether carbon dioxide and water lines are open.
- Check the beverage/syrup lines for leaks. Only a visual inspection is possible. If liquid escapes, call a service technician.
- Check the CO₂-lines for leaks by closing valve on the CO₂-cylinder. The inlet pressure indicated on the pressure regulator should not drop. If it does, call a service technician immediately.
- Do not forget to re-open the CO₂-cylinder valve afterwards.

7.6 Putting out of Service (Vacation, end of season)

Perform the following steps in case of longer standstill periods:

- Close the CO₂-cylinder, the CO₂-stopcocks on pressure regulators and the water feed line.
- Pull the mains plug out of socket outlet with earthed contact.
- Detach the couplings from beverage containers.
- Have the system emptied and cleaned.
- Only trained specialists are carry out this procedure.

7.7 Disposal and Environment Protection

Since many years the technical designers of IMI Cornelius work together with the customers to manufacture devices which do not contain dangerous materials. They were designed in such a way that over 95% of the used materials can be easily recycled separately.

All devices of IMI Cornelius therefore comply with the EC Directives 2002/95EG, 2002/96/EG and the requirements of the electrical and electronic equipment of March 2005.

IMI Cornelius is registered under the registration number WEEE Reg.-No. DE26128839.

Please dispose this unit at your local Recycling Company.

Attention! Do not dispose into the containers of the public collecting points for private devices.

If necessary give back your equipment free of charge at your suppliers or at all service center of the IMI Cornelius in Langenfeld.

8. Cleaning instructions

8.1 Daily Inspection

Comply with the national regulations for cleaning dispense equipment which are valid at the particular installation site. Clean connection parts and tap fittings in advance whenever making connections or changing the type of beverage.

Clean parts coming into contact with air and beverage, the nozzle of the tap for example, on a daily basis.

The risk of serious etching exists when handling liquid cleaners. Always wear safety glasses and appropriate clothing during cleaning jobs. Follow the instructions of the cleaner manufacturer.

The condenser fins must be cleaned at regular intervals which vary according to the amount of dirt on the fins (approximately every three months). This is best done with a brush and a vacuum cleaner.

The level of the water bath must be checked regularly and the contents must be exchanged at least once annually. Algae formation can be reduced by adding disinfectant.



The device is to be cleaned by trained on the basis of the following recommendations:

To be cleaned by specialists only	CO ₂ -Lines	Beverage lines	Syrup lines	Soda lines
Before operation		Х	Х	Х
Before each change		Х	Х	
Before and after a pause of 1 week		Х	Х	
Every 2 weeks		Х		
Every 3 month			Х	Х
Every 12 month	Х			

8.2 **Cleaning and Disinfection Procedure before use**

In order to achieve a proper hygienic performance of the dispense equipment, it is crucial to run the initial and recurring sanitization procedure (intervals according to DIN 6650-6) on all product and water lines of the system.

Attention !: Cleaning / sanitizing agents are harmful and may cause severe health injuries ! During the work with any



agents make sure to always wear proper clothing (gloves, safety goggles, etc.). Special attention must be taken during the flushing of the agent at the dispense valves. It must be made sure, that no operator uses the dispense equipment during sanitation (e.g. use clear signs on the valves, etc) !

Take care of an adequate behaviour towards hygiene while working on the equipment (e.g. disinfecting hands prior to work, etc) in order to professionally deal with the matter. The unit should be cleaned / sanitized starting as close as possible from the mains water connection (wall outlet), to make sure that also the tubing is being treated.

Remark -> Water filters :

In case the system is equipped with a water filter, the filter cartridge needs to be removed before doing the cleaning / sanitization and replaced by a blind plug that allows bypassing the filter. Do not use any empty service filter cartridges to flush the sanitizing agent into the system, as this will not allow a proper and consistent level of sanitizing agent in the unit.

In addition, the high levels of agent passing through the dispenser when using such cartridges may damage components such as sealing, O-rings, etc. in the dispenser.

Remark -> Carbonator- / Circulation pumps

With units such as Triton, Apexx and Energize the carbonator- and soda circulation pumps must be turned off during the cleaning / sanitization process (otherwise foaming issues will occur).

Remark -> Stillwater lines inside the cooler

In case your equipment has still water lines, it must be made sure that these are also being cleaned / sanitized. In case your equipment currently does not use Stillwater, the line must be equipped with a stopcock to manually drain sanitizing agent from this tube.

In case the Stillwater line is in general not being used on the cooler, it is recommended to disconnect this line as close as possible from the water cycle and close the water line with a blind plug (this avoids areas within the circuit which might not be sufficiently flushed).

Remark -> Electrical post-mix valves, which can not be manually operated

These type of taps must be operated electrically. When doing this, it needs to be considered that on some dispense equipment the 24V electrical power supply to the valves is cut, when the empty electrode in the carbonator bowl is reached. In that case the empty sensing must be bypassed, by e.g. short circuiting all connectors on the plug of the level probe connection.

Remark -> CO₂- or Water pressure sensors on the dispense equipment

Depending on the type of equipment you may have CO2- or water pressure sensors installed, which will in case of low CO₂ or low water supply cut the 24V power supply to the valves.

In order to still be able to operate the system during the sanitization process, it is required to short circuit such sensors (make sure to put them back into operation after service).

Remark -> Post-mix valve blocks

It is recommended to clean / sanitize the valve blocks separately. Especially valve blocks with an integrated stop cock (e.g. Lancer block) need special care, as the gap in the stop cock allows bacteria to collect, which might not be sufficiently treated with the sanitizing agent.



In case the dispenser is out of operation (without cooling) for more than 10 days, it is necessary to run the cleaning- and sanitization procedure prior to putting the unit back into operation.

Should it be necessary, to open a once sanitized system again (e.g. to install a new water filter) all opened connections must be disinfected with a sanitization spray prior to reconnecting.

8.2.1 Flushing-in of sanitization agent into syrup side (e.g. P3 Ansep CIP from Ecolab)

• The product lines filled with syrup must first be flushed with water. For this an external water distributor can be used to connect and flush several syrup lines simultaneously. The post-mix valves should be operated on the syrup side only for flushing.

<u>Attention !</u>Gas driven syrup pumps must not see any positive pressures on the incoming side of the pump, as this may damage the pumps.

- Connect the water distributor to the CO₂ supply in order to drive the water out of the syrup lines. This avoids that the sanitizing agent is being diluted in the tubing. Afterwards close the CO₂ gas and depressurize the complete system again.
- Fill your cleaning tank with the cleaning / sanitizing agent according to the mixing ratios given by the manufacturer of the agent. (e.g. when using P3 from ECOLAB -> 50ml for 1 litre water = 5% solution) In order to achieve a proper mixing in the cleaning tank, it is recommended to first fill in the agent and then top-of with clean water.
- Connect the syrup lines to the cleaning tank and dispense cleaning / sanitization agent from every single dispense valve. Make sure that agent leaves from all installed taps.

8.2.2 Flushing-in of sanitization agent into water side (e.g. P3 Ansep CIP from Ecolab)

- Close the water- + the CO_2 supply to the unit and depressurize the system with the taps
- Disconnect the water supply to the unit and cut the power supply to the carbonator pump in order to avoid dry running of the pump (e.g. by pulling the plug of the pump).
- Connect the water line feeding the dispenser to CO₂ gas pressure and drain all water from the tubing of the system. This ensures that the sanitizing agent that is afterwards flushed into the dispenser is not being diluted e.g. in the carbonator bowl. Afterwards close the gas supply again and depressurize the system.
- Connect the cleaning tank to the water inlet of the dispenser and pressurize the tank with approx. 3 bars pressure (Attention ! Remove any water filters before doing this !)
- Pull the safety relieve valve on the carbonator bowl and carefully let some sanitizing agent leave the valve. This ensures, that the carbonator bowl is flooded completely with sanitizing agent all the way to the top.



Attention !: Avoid that excessive amounts (= >50ml) of agent is being introduced into the water bath, as this will carry the risk of corrosion of metal parts in the water bath. In case larger amounts were spilled, the water in the water bath needs to be replaced.

Flood the complete dispense system with the cleaning / sanitizing agent by operating the post-mix valves. Ensure, that on <u>all</u> valves clearly visible agent is being drawn.

Effect- / working time for the cleaning / sanitizing agent is min. 20 minutes !!

In the meantime remove the dispense nozzles from the valves and sanitize them manually by putting them for 20 minutes into sanitizing agent. In case it is seen that the nozzles are heavily dirty, clean the nozzles mechanically by using a clean brush and sanitization agent.

8.2.3 Flushing-out of sanitization agent out of syrup side (e.g. P3 Ansep CIP from Ecolab)

• Disconnect the cleaning tank and bring out any remaining sanitizing agent from the syrup lines by using CO₂ gas. Afterwards close the CO₂ supply and depressurize the system via the dispense valves.



• Connect the water distributor and sufficiently flush clean water through the syrup lines (for this please open only the syrup side of the dispense valves). In case a hygiene water filter is being used with the dispenser, it is recommended to use for this flushing the water coming from the hygiene filter.



Attention ! It must be ensured, that no cleaning / sanitizing agent remains in the dispense system after service (risk of health injuries) ! The prove that all agent residues have been removed must be tested with indicator or test papers (contact agent manufacturer) & must be documented

• Connect the syrup containers again to the syrup lines and dispense syrup on the post-mix valves until a consistent flow of syrup occurs again.

8.2.4 Flushing-out of sanitization agent out of water side (e.g. P3 Ansep CIP from Ecolab)

- Pressurize the water line to the cooler with CO₂ pressure and dispense all sanitizing agent from the valves. This makes it easier to flush out any remaining agent from the system.
- Close the gas again and depressurize the unit via the dispense valves.
- Install a new water filter cartridge and reconnect the unit via the filter to the mains water line again (refer to filter manufacturer guidelines in case the filter needs priming prior to use).
- In case a hygiene filter is being used on the dispenser, it must be ensured that the new filter cartridge is inserted prior to flushing the system with water. This ensures that a just sanitized system is not being contaminated again by using poor quality mains water to flush out any remaining sanitizing agent. Spray the filter head and the connecting position of the filter cartridge with an adequate sanitizing spray to avoid any introduction of bacteria again.
- Open the mains water supply. Pull the safety relieve valve on the carbonator bowl until only clean water leaves the valve, to ensure that there are no residues of sanitizing agent left in the head area of the carbonator bowl.
- Open the CO₂ gas supply to the carbonator and reconnect the carbonator pump to the power supply.
- Dispense sufficiently water from the post-mix valves to ensure that no sanitizing agent is left in the system.
- Depending on the unit type (Over counter dispenser / large soda circuit installation with long python runs, etc.) the amount of water that needs to be dispensed may vary.



Attention ! It must be ensured, that no cleaning / sanitizing agent remains in the dispense system after service (risk of health injuries) ! The prove that all agent residues have been removed must be tested with indicator or test papers (contact agent manufacturer) & must be documented

• Dispense from each tap a few beverages to fully put the system back into operation again. The cleaning / sanitization procedure must be documented accordingly and the documentation must remain at the cooler (this may vary depending on local regulations).



9. **Technical Data**

Devices with refrigerant R134a 9.1

	Energize 2 22-1002-200	Energize 3 22-1001-300	Energize 4 22-1001-400	Energize 5 22-1002-500	Energize 5 Dual 22-1002-501
Dispense capacity at rate of X drinks a minute, 0.3 1 each**	160 @ 2/min	400 @ 2/min	430 @ 4/min	950 @ 4/min	950 @ 4/min
Ice bank weight in kg	11	20	30	60	60
Ice bank capacity in kcal	880	1600	2400	4800	4800
Initial pull down time min. without Python	132	125	218	250	250
Supply voltage	230V / 50Hz				
Energy consumptions in Watt	950W (5.5A)	1200W (5.5A)	1700W (9A)	1850W (9A)	2000W (10A)
Compressor power in Watt (PS)*	400 (1/3)	800 (2/3)	885 (3/4)	1437 (1)	1437 (1)
Refrigerant R134a in kg	0.240	0.420	0.490	0.800	0.800
Carbonator pump power in litre / h	280	280	2 x 280	2 x 280	2 x 280
Recirculation pump power in litre / h	120	320	320	320	2 x 320
Cooling capacity / Ice bank capacity					
in Watt	400	768	825	1160	1160
in kcal/h	464	660	709	1000	1000
Heat emission in Watt	950	1670	2200	2900	2900
Air quantity emission in m3/h	290	570	900	1300	1300
Cooling coils					
Syrup (optional)	6 (Standard)	6	8	8	8
Premix (optional)	1	2	2	2	2
Still water (optional)	1	1	1	1	1
Outer dimensions in mm					
Height	635	605	660	810	810
Width	620	850	950	1080	1080
Depth	410	470	515	690	690
Dispatch weight in kg	55	80	110	115	115

* at -10°C evaporator temperature. ** with 15m python (Energize 2,3,4) and 30m python (Energize 5). Test condition with Energize python and Tower with Heat-Exchanger.

Cooling capacity and dispense capacity at 32°C ambient temperature and 32°C water inlet respectively 32°C Syrup inlet temperature and drink temperatures of less than 5°C.

We reserve the right to make modifications.



9.2 Devices with refrigerant R290 (Propan)

	Energize 3 Propan 22-1002-307	Energize 4 Propan 22-1002-406	Energize 5 Propan 22-1002-534	
Dispense capacity at rate of X drinks a minute, 0.3 l each**	320 @ 4/min	330 @ 4/min	930 @ 4/min	
Ice bank weight in kg	16.6	27.5	63.5	
Ice bank capacity in kcal	1330	2200	5080	
Initial pull down time min. without Python	138	235	261	
Supply voltage	230V / 50Hz	230V / 50Hz	230V / 50Hz	
Energy consumptions in Watt	882W (4.4A)	1350W (6.7A)	1800W (8,6A)	
Compressor power in Watt (PS)*	660 (1/3)	846 (3/8)	2 x 846 (3/8)	
Refrigerant R290 in kg	0.15	0.15	2 x 0.127	
Carbonator pump power in litre / h	280	2 x 280	2 x 280	
Recirculation pump power in litre / h	320	320	320	
Cooling capacity / Ice bank capacity				
in Watt	660	652	1358	
in kcal/h	568	561	1168	
Heat emission in Watt	1163	1320	2306	
Air quantity emission in m ³ /h	570	900	900	
Cooling coils				
Syrup (optional)	6	8	8	
Premix (optional)	2	2	2	
Still water (optional)	1	1	1	
Outer dimensions in mm				
Height	605	660	810	
Width	850	950	1080	
Depth	470	515	690	
Dispatch weight in kg	80	110	115	

* at -10°C evaporator temperature. ** with 15m python (Energize 2 and 3) and 30m python (Energize 4 and 5). Test condition with Energize python and Tower with Heat-Exchanger.

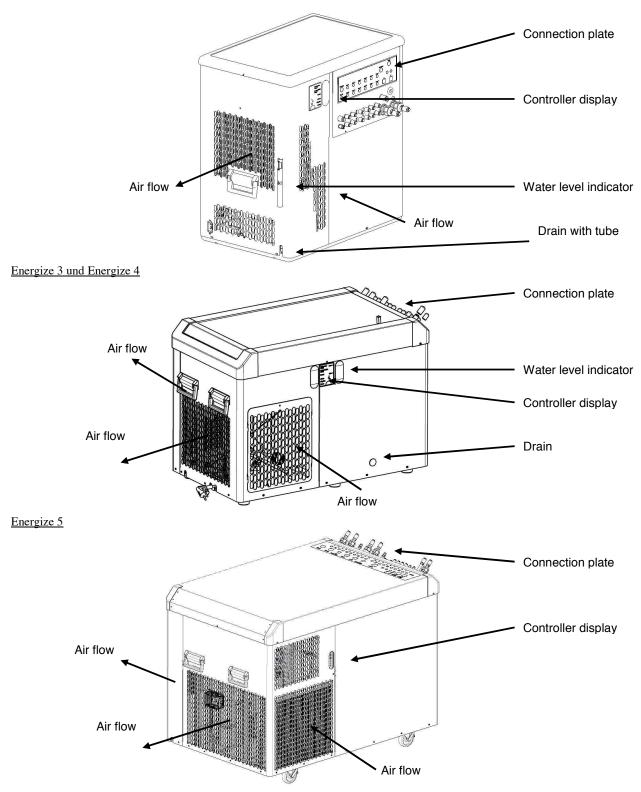
Cooling capacity and dispense capacity at 32°C ambient temperature and 32°C water inlet respectively 32°C Syrup inlet temperature and drink temperatures of less than 5°C.

We reserve the right to make modifications.



10. Technical picture

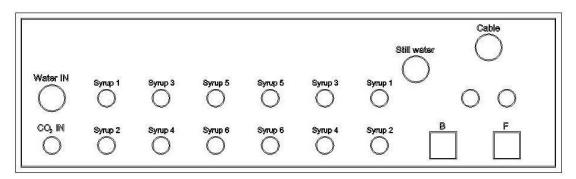
Energize 2



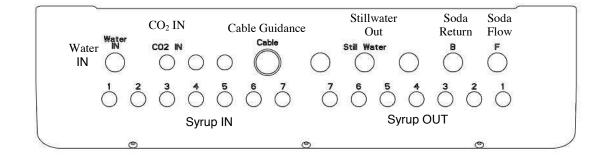


10.1 Connection plate

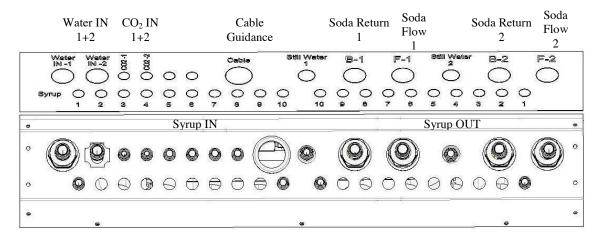
Energize 2



Energize 3 and Energize 4



Energize 5





11. Problems and Troubleshooting

Before looking for problems with the dispensing equipment, first check: Is the electricity to the device interrupted? Is the flow of water to the device interrupted? Are the beverage containers empty? Is the CO₂-cylinder empty?

Type of problem	Cause	Remedy
Beverage too warm compressor is running	Condenser dirty	Use brush to clean condenser louvers
Beverage too warm, compressor not running	Compressor defective Electric control defective	Call service technician Check whether the carbonator motor is running; if not, call service technician
Beverage foams at a tap	Syrup stored too long	Connect with fresh product
Beverage foams at all taps	CO ₂ -pressure too high All syrups enriched with CO ₂ All beverages stored too warm Too much beverage being dispensed Air in carbonator	Set CO ₂ pressure Connect container with fresh product Check storage temp Note out-put capacity Bleed air
CO ₂ -volume in the beverage is too low	Beverage dispense rate at capacity CO_2 -cylinder empty Valve on CO_2 -cylinder is closed Valve on pressure regulator is closed CO_2 -pressure too low Water temperature to high	Reduce dispense rate Change CO_2 cylinder Open CO_2 valve Open valve Adjust valve to pressure Ice bank used up, allow time to build new ice bank
Too much or not enough syrup in the beverage	Regulator in tap is blocked Tap is misaligned Pressure for syrup too low or to high	Call service technician Call service technician Adjust CO ₂ -pressure
Tap just outputs concentrate Note! Only with mechanical taps	Carbonator pump is not running	Check if water feed line is open Check if water flow pressure of 2 bar Check if Carbonator pump is running, if not call service technician



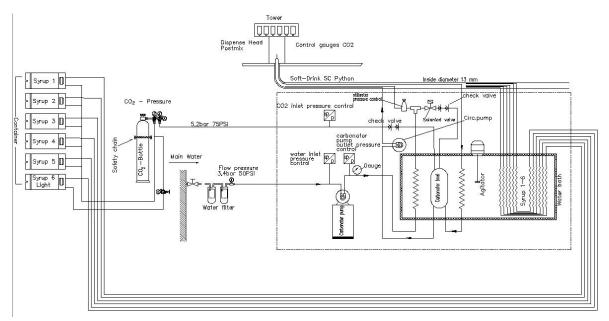
12. Diagnostic messages

Message	Cause	Remedy
CO ₂ pressure NOK	CO ₂ inlet pressure below operating pressure of 6 bar	Check CO ₂ supply Change CO ₂ cylinder Adjust pressure regulator Check CO ₂ pressure switch
Carbonator pump NOK	Carbonator pump pressure below operation pressure of 10 bar	Check electric connections Check carbonator bowl Check CO ₂ supply Change carbonator pump Change carbonator pump motor Check Carbonator pressure switch Check electric connections
Water inlet pressure NOK	H2O inlet pressure below operating pressure of 0,2 bar	Check H2O supply Check electric connections
Agitator NOK	Agitator RPM speed below adjusted settings of 1570 min ⁻¹ respectively 3880 min ⁻¹	Check agitator motor Check electric connections
Water bath temperature NOK	Water bath temperature above operating temperature of or dispense rate at capacity	Check temperature probe Check electric connections Ice bank used up, allow time to build new ice bank and / or reduce dispense rate
Ambient temperature NOK	Ambient temperature above maximum specification of 40°C	Check temperature probe Check electric connection Improve room ventilation
Soda temperature NOK	Soda return temperature above operating temperature of max. 2°C, or dispense rate is at capacity	Check temperature probe Check electric connection Ice bank used up, allow time to build new ice bank and / or reduce dispense rate
Hot gas temperature NOK	Condenser temperature above operating temperature of max. 120°C	Check temperature probe Check electric connections Provide sufficient ventilation Clean condenser fins
Compressor run time		For information only
Carbonator pump run time		For information only
Voltage check NOK	Power supply out of specification	Check power supply conditions

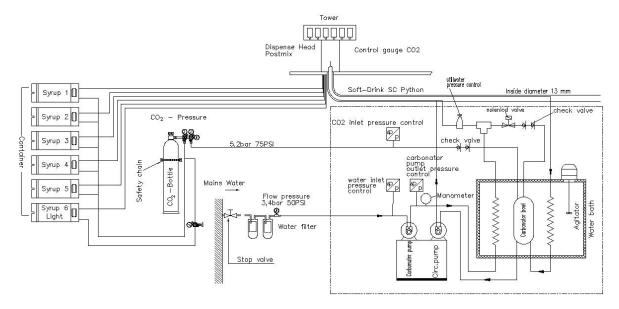


13. Flow Charts and Circuit Diagrams

13.1 Flow Chart 148387170 Energize 2

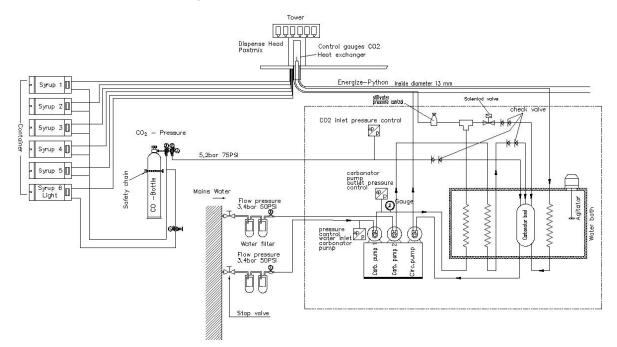


13.2 Flow Chart 142387157 Energize 3

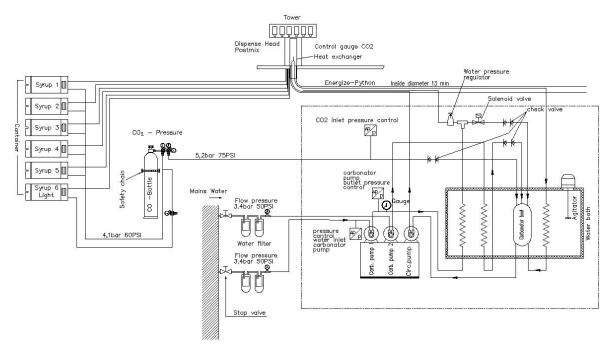




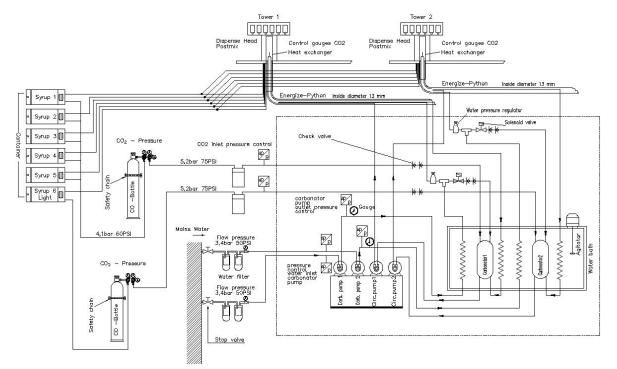
13.3 Flow Chart 142387164 Energize 4



13.4 Flow Chart 142387167 Energize 5 single recirculation

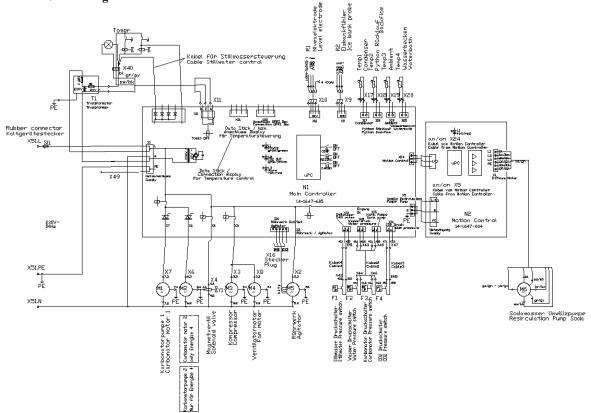






13.5 Flow Chart 142387169 Energize 5 dual recirculation

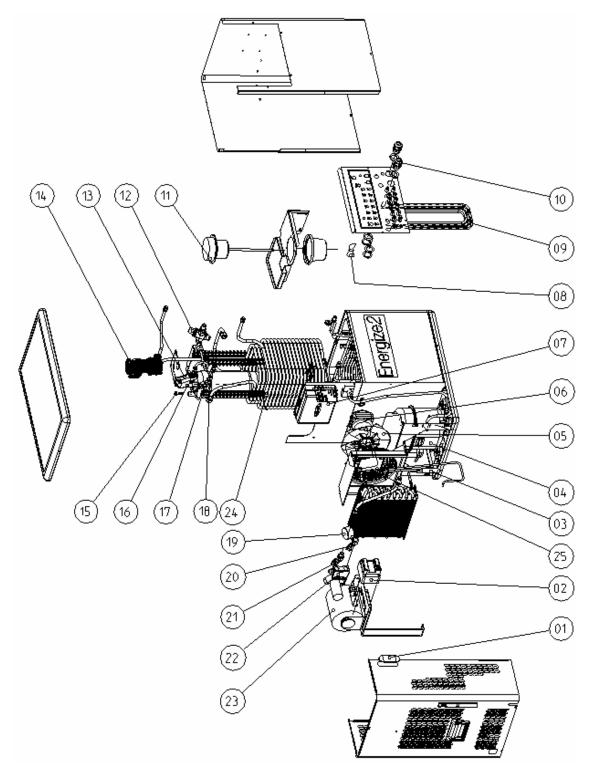
13.6 Circuit diagram





14. Exploded Views / Sprengzeichnungen

Energize 2



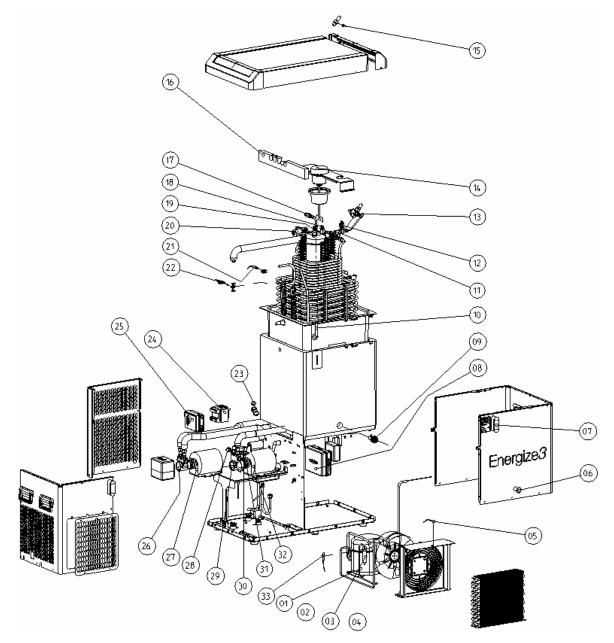


Nr.	Part-Nr.	Description	Bennennung	Recommended
				Spare parts
1	22-0105-715	Vision Panel MC	Vision Panel MC	
2	14-1647-545	Transformator 100VA	Transformator 100VA	
3	14-9539-000	Dryer 2 x 6,1/2,5 - R134a	Trockner 2 x 6,1/2,5 - R134a	
4	44-0000-295	Compressor KK AE4440Y 12,05	Kompressor KK AE4440Y 12,05 cc	Yes
5	44-0000-053	Fan blade D200mm blowing	Lüfterflügel D200mm drückend	
6	44-0000-007	Fan motor 6 WATT	Lüftermotor 6W	Yes
7	14-1647-605	Main Controller Energize V20	Main Controller Energize V20	Yes
8	14-3350-000	Propeller Ø60 M5	Rührwerkflügel Ø60 M5	
9	22-0107-870	Assembly Syrup	Syrupschlangenpaket	
10	22-0108-440	Assembly Insulation bushing	Baugruppe Isolierverschraubung	
11	44-0000-115	Agitator EBM 60W	Rührwerkmotor 60W	Yes
12	44-0000-752	Water pressure regulator G3/8"	Wasserdruckregler G3/8"	
13	44-0000-672	Solenoid valve	Magnetventil	Yes
14	06-0-240149	Totton pump HBM6/8 230-1-50	Pumpe HBM6/8 230-1-50	Yes
15	00-0001-116	Release valve Carbonator 11,2bar	Ablassventil Karbonator 11,2bar	
16	44-0000-802	Level probe 3-pin	Niveauelektrode 3-pin	
17	22-0107-389	Pressure switch CO2 IN 50/60psi	Druckschalter CO2 Eingang 50/60psi	Yes
18	22-0105-782	Double-check-valve CO2	Doppelrückflussverhinderer CO2	
19	14-2440-100	Low pressure gauge 0-25bar	ND-Manometer 0-25bar	Yes
20	22-0107-391	Pressure switch Carb OUT 130/145psi	Druckschalter Carb. AUS 130/145psi	Yes
21	22-0107-390	Pressure switch H2O IN 7/15 psi	Druckschalter H2O Eingang 7/15 psi	Yes
22	44-0000-761	Water pump 100 GPH MS	Wasserpumpe 100 GPH MS	Yes
23	44-0000-842	Carbonator motor 400W-185W	Karbonatormotor 400W-185W	Yes
24	22-0105-778	Probe Waterbath	Fühler Wasserbad	
25	22-0105-775	Probe Hot gas tube	Fühler Heißgasrohr	

Spare Part List Energize 2 / Ersatzteilliste Energize 2



Energize 3



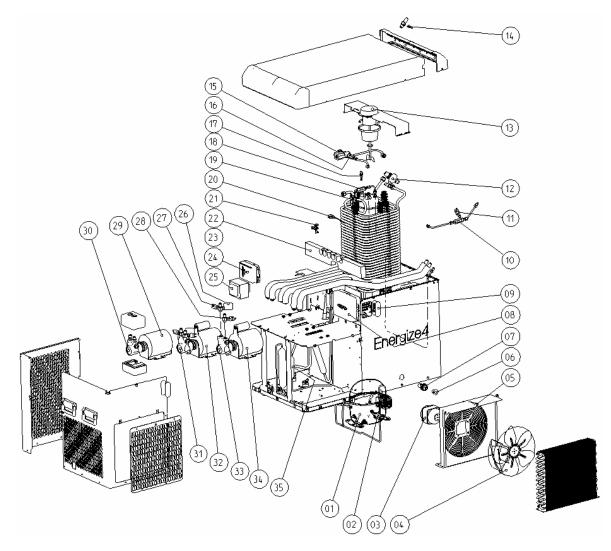


Nr. Part-Nr. Description Bennennung Recommended 1 44-0000-291 18cc Kompressor KK AE9437Y-SR Yes 2 44-0000-007 Fan motor 6W / 230V 50Hz Lüftermotor 6W / 230V 50Hz Yes 3 14-9539-000 Dryer 2 x 6,1/2,5 - R134a Trockner 2 x 6,1/2,5 - R134a Yes 4 44-0000-058 Fan D250mm sucking Lüfterflügel D250mm saugend Yes 5 22-0105-775 Probe Hot gas / Ambient Fühler Heißgas / Ambient Yes 7 22-0105-715 Vision Panel MC Vision Panel MC Yes 8 14-1647-605 Main Controller Energize V20 Main Controller Energize Peso 10 22-0105-782 Floating ball Water-level-indicator Energize Peso 11 24-0105-782 Double-check-valve CO2 Doppelrückflussverhinderer CO2 Yes 12 22-0105-782 Probub-check-valve CO2 Doppelrückflussverhinderer Wasser Yes 13 44-0000-752 Water pressure regulator G3/8" Wasserdruckregler G3/8" Yes	<u> </u>				
1 44-0000-291 Compressor KK AE9437Y-SR 18cc Kompressor KK AE9437Y-SR 18cc Yes 2 44-0000-007 Fan motor 6W / 230V 50Hz Lüftermotor 6W / 230V 50Hz Yes 3 14-9539-000 Dryer 2 x 6, 1/2, 5 - R134a Trockner 2 x 6, 1/2, 5 - R134a Yes 4 44-0000-058 Fan D250mm sucking Lüfterflügel D250mm sugend 5 22-0105-775 Probe Hot gas / Ambient Fühler Heißgas / Ambient 6 22-0105-715 Vision Panel MC Vision Panel MC 8 14-1647-605 Main Controller Energize V20 Main Controller Energize 9 22-0105-782 Double-check-valve CQ2 Doppelrückflussverhinderer CO2 11 22-0107-389 Pressure switch CO2 IN 50/80psi Druckschalter CO2 Eingang 50/80psi Yes 13 44-0000-752 Water pressure regulator G3/8" Wasserdruckregler G3/8" 14 44-0000-752 Water pressure switch CO2 IN 50/80psi Druckschalter CO2 Eingang 50/80psi Yes 15 22-0105-776 Probe Soda return Fühler Soda	Nr.	Part-Nr.	Description	Bennennung	Recommended
1 44-000-291 18cc Kompressor KK AE9437Y-SR 18cc Yes 2 44-000-007 Fan motor 6W / 230V 50Hz Lüftermotor 6W / 230V 50Hz Yes 3 14-9539-000 Dryer 2 x 6,1/2,5 - R134a Trockner 2 x 6,1/2,5 - R134a Yes 4 44-000-058 Fan D250mm sucking Lüfterflügel D250mm saugend Yes 5 22-0105-775 Probe Hot gas / Ambient Fühler Heißgas / Ambient Abdeckkappe 22,0-25,5 6 22-0105-715 Vision Panel MC Vision Panel MC Sin Panel MC 8 14-1647-605 Main Controller Energize V20 Main Controller Energize Pessure 10 22-0106-425 Floating ball Water-level-indicator Energize Energize 11 22-0105-782 Double-check-valve CO2 Doppelrückflussverhinderer CO2 Yes 13 44-0000-752 Water pressure sregulator G3/8" Wasserdruckregler G3/8" 1 14 44-0000-752 Water uproba 3 a separator wall 1 Schottwand 1 1 16 22-0105-776 Probe Soda return Fühler Soda return 1<					Spare Part
1 44-000-207 Fan motor 6W / 230V 50Hz Kömpressor KK AE943/Y-SH 18cc 2 44-0000-007 Fan motor 6W / 230V 50Hz Lüftermotor 6W / 230V 50Hz Yes 3 14-9539-000 Dryer 2 x 6,1/2,5 - R134a Trockner 2 x 6,1/2,5 - R134a Yes 5 22-0105-775 Probe Hot gas / Ambient Fühler Heißgas / Ambient Fühler Heißgas / Ambient 6 22-0105-775 Vision Panel MC Vision Panel MC Yes 7 22-0105-715 Vision Panel MC Vision Panel MC Yes 8 14-1647-605 Main Controller Energize V20 Main Controller Energize V20 Yes 9 22-0105-432 Doable-check-valve C02 Doppelrückflussverhinderer C02 Yes 11 22-0107-389 Pressure switch C02 IN 50/60psi Druckschafter C02 Eingang 50/60psi Yes 13 44-0000-121 Agitator Motor Rührwerkmotor Yes 15 22-0105-776 Probe Soda return Fühler Soda return Fühler Soda return 16 22-0105-778 Probe Soda return Fühler Wasserbad Yes <tr< td=""><td></td><td></td><td></td><td></td><td>Yes</td></tr<>					Yes
3 14-9539-000 Dryer 2 x 6, 1/2,5 - R134a Trockner 2 x 6, 1/2,5 - R134a 4 44-0000-058 Fan D250mm sucking Lútterflügel D250mm saugend 5 22-0105-775 Probe Hot gas / Ambient Fühler Heißgas / Ambient 6 22-0105-775 Probe Hot gas / Ambient Fühler Heißgas / Ambient 7 22-0105-775 Vision Panel MC Vision Panel MC 8 14-1647-605 Main Controller Energize V20 Main Controller Energize V20 9 22-0105-782 Double-check-valve CO2 Doppefrückflussverhinderer CO2 12 22-0107-389 Pressure switch CO2 IN 50/60psi Druckschatter CO2 Eingang 50/60psi 14 44-0000-121 Agitator Motor Rührwerkmotor Yes 15 22-0105-776 Probe Soda return Fühler Soda return 1 16 22-0105-776 Probe Soda return Fühler Soda return 1 17 22-0105-776 Probe Soda return Fühler Soda return 1 17 22-0105-776 Probe Soda return 1 1 12-0105-624 Doubl	-				
4 44-0000-058 Fan D250mm sucking Lüfterflügel D250mm saugend 5 22-0105-775 Probe Hot gas / Ambient Fühler Heißgas / Ambient 6 22-0105-775 Vision Panel MC Vision Panel MC 7 22-0105-705 Vision Panel MC Vision Panel MC 8 14-1647-605 Main Controller Energize V20 Main Controller Energize V20 Yes 9 22-0105-890 Drain Assy Energize Ablauf Energize Energize 11 22-0105-782 Double-check-valve CO2 Doppelrückflussverhinderer CO2 Yes 12 22-0107-389 Pressure switch CO2 IN 50/60psi Druckschatter CO2 Eingang 50/60psi Yes 13 44-0000-752 Water pressure regulator G3/8" Wasserdruckregler G3/8" Yes 14 44-0000-753 Seperator wall 1 Schottwand 1 Schottwand 1 17 22-0105-776 Probe Soda return Fühler Soda return Fühler Soda return 16 22-0105-778 Probe Vateratort 11,2bar Ad-0000-802 Level probe 3-pin Niveauelektrode 3-pin 18 44-0000-672 Solencid valve Magnetventil Yes Yes </td <td></td> <td></td> <td></td> <td>Lüftermotor 6W / 230V 50Hz</td> <td>Yes</td>				Lüftermotor 6W / 230V 50Hz	Yes
5 22-0105-775 Probe Hot gas / Ambient Fühler Heißgas / Ambient 6 22-0106-407 Cap 22,0-25,5 Abdeckkappe 22,0-25,5 7 22-0105-715 Vision Panel MC Vision Panel MC 8 14-1647-605 Main Controller Energize V20 Main Controller Energize V20 Yes 9 22-0105-890 Drain Assy Energize Ablauf Energize Kugel für Wasserstandanzeige 10 22-0106-425 Floating ball Water-level-indicator Energize Energize 12 22-0107-389 Pressure switch CO2 Doppelrückflussverhinderer CO2 Yes 13 44-0000-752 Water pressure regulator G3/8" Wasserdruckregler G3/8" Yes 14 44-0000-752 Water pressure regulator G3/8" Wasserdruckregler G3/8" Yes 15 22-0105-776 Probe Soda return Fühler Soda return Yes 16 22-0107-903 Seperator wall 1 Schottwand 1 Yes 17 22-0105-624 Double-check-valve Water Doppelrückflussverhinderer Wasser 14 18 44-0000-802 Level probe 3-pin Niveauelektrode 3-pin Yes	3	14-9539-000	Dryer 2 x 6,1/2,5 - R134a	Trockner 2 x 6,1/2,5 - R134a	
6 22-0106-407 Cap 22,0-25,5 Abdeckkappe 22,0-25,5 7 22-0105-715 Vision Panel MC Vision Panel MC 8 14-1647-805 Main Controller Energize V20 Main Controller Energize V20 Yes 9 22-0105-890 Drain Assy Energize Ablauf Energize Yes 10 22-0106-425 Floating ball Water-level-indicator Energize Energize 11 22-0105-782 Double-check-valve CO2 Doppelrückflussverhinderer CO2 Yes 12 22-0105-782 Double-check-valve CO2 Doppelrückflussverhinderer CO2 Yes 13 44-0000-752 Water pressure seyulator G3/8" Wasserdruckregler G3/8" Yes 14 44-0000-121 Agitator Motor Rührwerkmotor Yes 15 22-0105-776 Probe Soda return Fühler Soda return 1 16 22-0107-903 Seperator wall 1 Schottwand 1 1 17 22-0105-624 Double-check-valve Water Doppelrückflussverhinderer Wasser 1 18 44-0000-802 Level probe 3-pin Niveauelektrode 3-pin 1 19 00-0001-		44-0000-058	Fan D250mm sucking	Lüfterflügel D250mm saugend	
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8 14-1647-605 Main Controller Energize V20 Main Controller Energize V20 Yes 9 22-0105-890 Drain Assy Energize Ablauf Energize Kugel für Wasserstandanzeige 10 22-0106-425 Floating ball Water-level-indicator Energize Energize 11 22-0105-782 Double-check-valve CO2 Doppelrückflussverhinderer CO2 Yes 12 22-0107-389 Pressure switch CO2 IN 50/60psi Druckschalter CO2 Eingang 50/60psi Yes 13 44-0000-752 Water pressure regulator G3/8" Wasserdruckregler G3/8" Yes 14 44-0000-121 Agitator Motor Rührwerkmotor Yes 15 22-0105-776 Probe Soda return Fühler Soda return 1 16 22-0105-624 Double-check-valve Water Doppelrückflussverhinderer Wasser 1 17 22-0105-624 Double-check-valve Water Doppelrückflussverhinderer Wasser 2 18 44-0000-602 Level probe 3-pin Niveauelektrode 3-pin 2 19 00-0001-116 Release valve Carbonator 11,2bar Ablassventil Karbonator 11,2bar 2 22 20105-778	6	22-0106-407	Cap 22,0-25,5	Abdeckkappe 22,0-25,5	
922-0105-890Drain Assy EnergizeAblauf Energize1022-0106-425Floating ball Water-level-indicatorKugel für Wasserstandanzeige1122-0105-782Double-check-valve CO2Doppelrückflussverhinderer CO21222-0107-389Pressure switch CO2 IN 50/60psiDruckschalter CO2 Eingang 50/60psi1344-0000-752Water pressure regulator G3/8"Wasserdruckregler G3/8"1444-0000-121Agitator MotorRührwerkmotorYes1522-0107-903Seperator wall 1Schottwand 11722-0105-624Double-check-valve WaterDoppelrückflussverhinderer Wasser1844-0000-802Level probe 3-pinNiveauelektrode 3-pin1900-001-116Release valve Carbonator 11,2bar2044-000-672Solenoid valveMagnetventilYes2122-0108-337Assembly Ice bank probeBaugruppe Eisbankfühler2222-0108-337Assembly Ice bank probeBaugruppe Eisbankfühler2322-0104-965Cable 24V curstomer-supplyKabel 24V Kundenseite2414-1647-564Motion Control for 3x180V motorMotion Control für 3x180V MotorYes2744-0000-731Water pump 100 GPH VAWasserpump 100 GPH VAYes2822-0107-391130/145psiDruckschalter Carb. AUS 130/145psiYes2944-0000-761Water pump 100 GPH MSWasserpumpe 100 GPH MSYes3122-0107-390Pressure switch Carb OUTDruckschalter Carb. AUS 130/145psi	7	22-0105-715	Vision Panel MC	Vision Panel MC	
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32 44-0000-842 Carbonator motor 400W-185W Karbonatormotor 400W-185W Yes	30	14-2440-100		ND-Manometer 0-25bar	Yes
32 44-0000-842 Carbonator motor 400W-185W Karbonatormotor 400W-185W Yes	31		· · · · · · · · · · · · · · · · · · ·	Druckschalter H2O Eingang 7/15 psi	Yes
	32	44-0000-842			Yes
	33	22-0105-775	Probe Hot gas / Ambient	Fühler Heißgas / Ambient	

Spare Part List Energize 3 / Ersatzteilliste Energize 3



Energize 4





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44-0000-842

14-9590-845

35 14-9539-000 Dryer 6,1/6,1 - R134a

Energize

Nr. Part-Nr. Description Bennennung Recommended Spare Part Compressor ACC GX23TB 230V 50 Kompressor ACC GX23TB 230V Yes 1 44-0000-289 50Hz Ηz 44-0000-262 Compressor CAJ 4476 Y 220V 60Hz Kompressor CAJ 4476 Y 220V 60Hz Yes 2 22-0105-775 Probe Hot gas / Ambient Fühler Heißgas / Ambient Yes 3 44-0000-009 Fan Motor 25 WATT Fan Motor 25 WATT 4 44-0000-060 Fan D275mm sucking Lüfterflügel D275mm saugend 5 Fühler Heißgas / Ambient 22-0105-775 Probe Hot gas / Ambient 6 22-0106-407 Cap 22.0-25.5 Abdeckkappe 22,0-25,5 7 22-0105-890 Drain Assy Energize Ablauf Energize 8 14-1647-605 Main Controller Energize V20 Main Controller Energize V20 Yes 9 22-0105-715 Vision Panel MC Vision Panel MC 10 22-0105-782 Double-check-valve CO2 Doppelrückflussverhinderer CO2 Druckschalter CO2 Eingang Yes 22-0107-389 Pressure switch CO2 IN 50/60psi 50/60psi 11 12 44-0000-752 Water pressure regulator G3/8" Wasserdruckregler G3/8" 13 44-0000-121 Agitator Motor Rührwerkmotor Yes Fühler Soda return 14 22-0105-776 Probe Soda return 15 44-0000-672 Solenoid valve Magnetventil 16 22-0105-624 Double-check-valve Water Doppelrückflussverhinderer Wasser 00-0001-116 Release valve Carbonator 11,2bar Ablassventil Karbonator 11,2bar 17 Doppelrückflussverhinderer Wasser 18 22-0106-873 Double-check-valve Water 19 22-0096-822 Level probe with cable Elektrode mit Kabel 22-0105-778 Probe Waterbath Fühler Wasserbad 20 Baugruppe Eisbankfühler 21 22-0108-442 Assembly Ice bank probe 22 22-0107-927 Seperator wall 1 Schottwand 1 23 22-0046-965 Cable 24V customer-supply Kabel 24V Kundenseite Yes 24 14-1647-604 Motion Control for 3x180V motor Motion Control für 3x180V Motor 25 22-0107-889 Tranformator 200VA Tranformator 200VA ND-Manometer 0-25bar Yes 26 14-2440-100 Low pressure gauge 0-25bar Pressure switch Carb OUT Druckschalter Carb. AUS Yes 27 22-0107-391 130/145psi 130/145psi Yes 28 22-0107-390 Pressure switch H2O IN 7/15 psi Druckschalter H2O Eingang 7/15 psi 29 Yes 44-0000-838 Pump motor 3x180V 50Hz 3Ph Pumpenmotor 3x180V 50Hz 3Ph Yes 30 44-0000-771 Water pump 100GPH VA Wasserpumpe 100 GPH VA Yes 31 44-0000-761 Water pump 100 GPH MS Wasserpumpe 100 GPH MS Yes 32 44-0000-842 Carbonator motor 400W-185W 50Hz Karbonatormotor 400W-185W 50Hz Carbonator motor 400W-185W 60Hz Karbonatormotor 400W-185W 60Hz Yes 14-9590-845 33 44-0000-761 Water pump 100 GPH MS Wasserpumpe 100 GPH MS Yes Yes

Spare Part List Energize 4 / Ersatzteilliste Energize 4

Karbonatormotor 400W-185W 50Hz

Karbonatormotor 400W-185W 60Hz

Trockner 6,1/6,1 - R134a

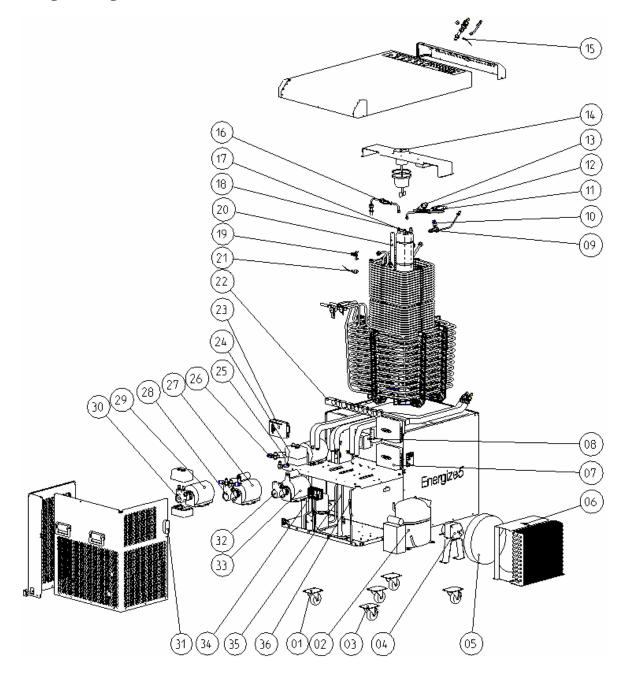
Yes

Carbonator motor 400W-185W 50Hz

Carbonator motor 400W-185W 60Hz



Energize 5 Single Carbonator



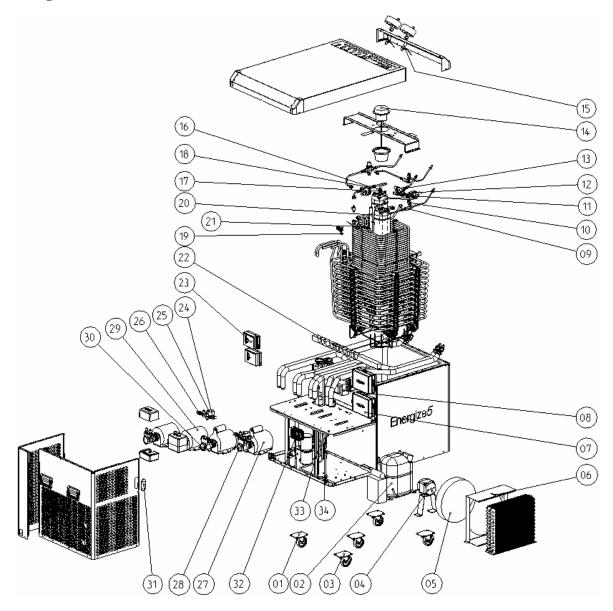


Nr.	Part-Nr.	Description	Bennennung	Recommended
			~	Spare Part
1	22-0107-782	Castor lockable	Rolle feststellbar	
2	44-0000-236	Compressor GS 34 TB 230V 50Hz	Kompressor GS 34 TB 230V 50Hz	Yes
	44-0000-263	Compressor CAJ 4511 220V 60Hz	Kompressor CAJ 4511 220V 60Hz	Yes
3	22-0107-781	Castor	Rolle	
4	44-0000-018	Fan motor 34W 230V 50/60Hz	Fan motor 34W 230V 50/60Hz	Yes
5	44-0000-061	Fan blade 300mm sucking	Lüfterflügel 300mm saugend	
6	22-0105-775	Probe Hot gas / Ambient	Fühler Heißgas / Ambient	
7	14-1647-605	Main Controller Energize V20	Main Controller Energize V20	Yes
8	22-0107-889	Tranformator 200VA	Tranformator 200VA	
9	22-0105-782	Double-check-valve CO2	Doppelrückflussverhinderer CO2	
10	22-0107-389	Pressure switch CO2 IN 50/60psi	Druckschalter CO2 Eingang 50/60psi	Yes
11	22-0105-624	Double-check-valve Water	Doppelrückflussverhinderer Wasser	
12	44-0000-672	Solenoid valve	Magnetventil	Yes
13	44-0000-752	Water pressure regulator G3/8"	Wasserdruckregler G3/8"	
14	44-0000-121	Agitator Motor	Rührwerkmotor	Yes
15	22-0105-776	Probe Soda return	Fühler Soda return	
16	22-0106-873	Double-check-valve Water	Doppelrückflussverhinderer Wasser	
17	00-0001-116	Release valve Carbonator 11,2bar	Ablassventil Karbonator 11,2bar	
18	22-0096-822	Level probe with cable	Elektrode mit Kabel	
19	22-0108-442	Assembly Ice bank probe	Baugruppe Eisbankfühler	
20	22-0108-400	Drain tube	Ablaufrohr	
21	22-0105-778	Probe Waterbath	Fühler Wasserbad	
22	22-0108-288	Seperator wall 1	Schottwand 1	
23	14-1647-604	Motion Control for 3x180V motor	Motion Control für 3x180V Motor	Yes
24	22-0107-390	Pressure switch H2O IN 5/10 psi	Druckschalter H2O Eingang 5/10 psi	Yes
25	14-2440-100	Low pressure gauge 0-25bar	ND-Manometer 0-25bar	Yes
26	22-0107-391	Pressure switch Carb OUT 130/145psi	Druckschalter Carb. AUS 130/145psi	Yes
27	44-0000-842	Carbonator motor 400W-185W	Karbonatormotor 400W-185W	Yes
28	44-0000-761	Water pump 100 GPH MS	Wasserpumpe 100 GPH MS	Yes
29	44-0000-838	Pump motor 3x180V 50Hz 3Ph	Pumpenmotor 3x180V 50Hz 3Ph	Yes
30	44-0000-771	Water pump 100GPH VA	Wasserpumpe 100 GPH VA	Yes
31	22-0105-715	Vision Panel MC	Vision Panel MC	
32	44-0000-761	Water pump 100 GPH MS	Wasserpumpe 100 GPH MS	Yes
33	44-0000-842	Carbonator motor 400W-185W 50Hz	Karbonatormotor 400W-185W 50Hz	Yes
	14-9590-845	Carbonator motor 400W-185W 60Hz	Karbonatormotor 400W-185W 60Hz	Yes
34	14-7051-000	Pressostat KP 7 W	Pressostat KP 7 W	
35	14-7047-134	Dryer 8,1/8,1 - R134a	Trockner 8,1/8,1 - R134a	
36	22-0105-775	Probe Hot gas / Ambient	Fühler Heißgas / Ambient	

Spare Part List Energize 5 Single Carbonator / Ersatzteilliste Energize 5 Single Karbonator



Energize 5 Dual Carbonator





Nr.	Part-Nr.	Description	Bennennung	Recommended
			Č	Spare Part
1	22-0107-782	Castor lockable	Rolle feststellbar	-
2	44-0000-236	Compressor GS 34 TB 230V 50Hz	Kompressor GS 34 TB 230V 50Hz	Yes
	44-0000-263	Compressor CAJ 4511 220V 60Hz	Kompressor CAJ 4511 220V 60Hz	Yes
3	22-0107-781	Castor	Rolle	
4	44-0000-018	Fan motor 34W 230V 50/60Hz	Fan motor 34W 230V 50/60Hz	Yes
5	44-0000-061	Fan blade 300mm sucking	Lüfterflügel 300mm saugend	
6	22-0105-775	Probe Hot gas / Ambient	Fühler Heißgas / Ambient	
7	14-1647-605	Main Controller Energize V20	Main Controller Energize V20	Yes
8	22-0107-889	Tranformator 200VA	Tranformator 200VA	
9	22-0105-782	Double-check-valve CO2	Doppelrückflussverhinderer CO2	
10	22-0107-389	Pressure switch CO2 IN 50/60psi	Druckschalter CO2 Eingang 50/60psi	Yes
11	22-0105-624	Double-check-valve Water	Doppelrückflussverhinderer Wasser	
12	44-0000-672	Solenoid valve	Magnetventil	Yes
13	44-0000-752	Water pressure regulator G3/8"	Wasserdruckregler G3/8"	
14	44-0000-121	Agitator Motor	Rührwerkmotor	Yes
15	22-0105-776	Probe Soda return	Fühler Soda return	
16	22-0106-873	Double-check-valve Water	Doppelrückflussverhinderer Wasser	
17	00-0001-116	Release valve Carbonator 11,2bar	Ablassventil Karbonator 11,2bar	
18	22-0096-822	Level probe with cable	Elektrode mit Kabel	
19	22-0108-442	Assembly Ice bank probe	Baugruppe Eisbankfühler	
20	22-0108-400	Drain tube	Ablaufrohr	
21	22-0105-778	Probe Waterbath	Fühler Wasserbad	
22	22-0108-288	Seperator wall 1	Schottwand 1	
23	14-1647-604	Motion Control for 3x180V motor	Motion Control für 3x180V Motor	Yes
24	22-0107-390	Pressure switch H2O IN 5/10 psi	Druckschalter H2O Eingang 5/10 psi	Yes
25	14-2440-100	Low pressure gauge 0-25bar	ND-Manometer 0-25bar	Yes
26	22-0107-391	Pressure switch Carb OUT 130/145psi	Druckschalter Carb. AUS 130/145psi	Yes
27	44-0000-842	Carbonator motor 400W-185W	Karbonatormotor 400W-185W	Yes
28	44-0000-761	Water pump 100 GPH MS	Wasserpumpe 100 GPH MS	Yes
29	44-0000-838	Pump motor 3x180V 50Hz 3Ph	Pumpenmotor 3x180V 50Hz 3Ph	Yes
30	44-0000-771	Water pump 100GPH VA	Wasserpumpe 100 GPH VA	Yes
31	22-0105-715	Vision Panel MC	Vision Panel MC	
32	44-0000-761	Water pump 100 GPH MS	Wasserpumpe 100 GPH MS	Yes
33	44-0000-842	Carbonator motor 400W-185W 50Hz	Karbonatormotor 400W-185W 50Hz	Yes
	14-9590-845	Carbonator motor 400W-185W 60Hz	Karbonatormotor 400W-185W 60Hz	Yes
34	14-7051-000	Pressostat KP 7 W	Pressostat KP 7 W	
35	14-7047-134	Dryer 8,1/8,1 - R134a	Trockner 8,1/8,1 - R134a	
36	22-0105-775	Probe Hot gas / Ambient	Fühler Heißgas / Ambient	

Spare Part List Energize 5 Dual Carbonator / Ersatzteilliste Energize 5 Dual Karbonator





15. Declaration of Conformity / Konformitätserklärung