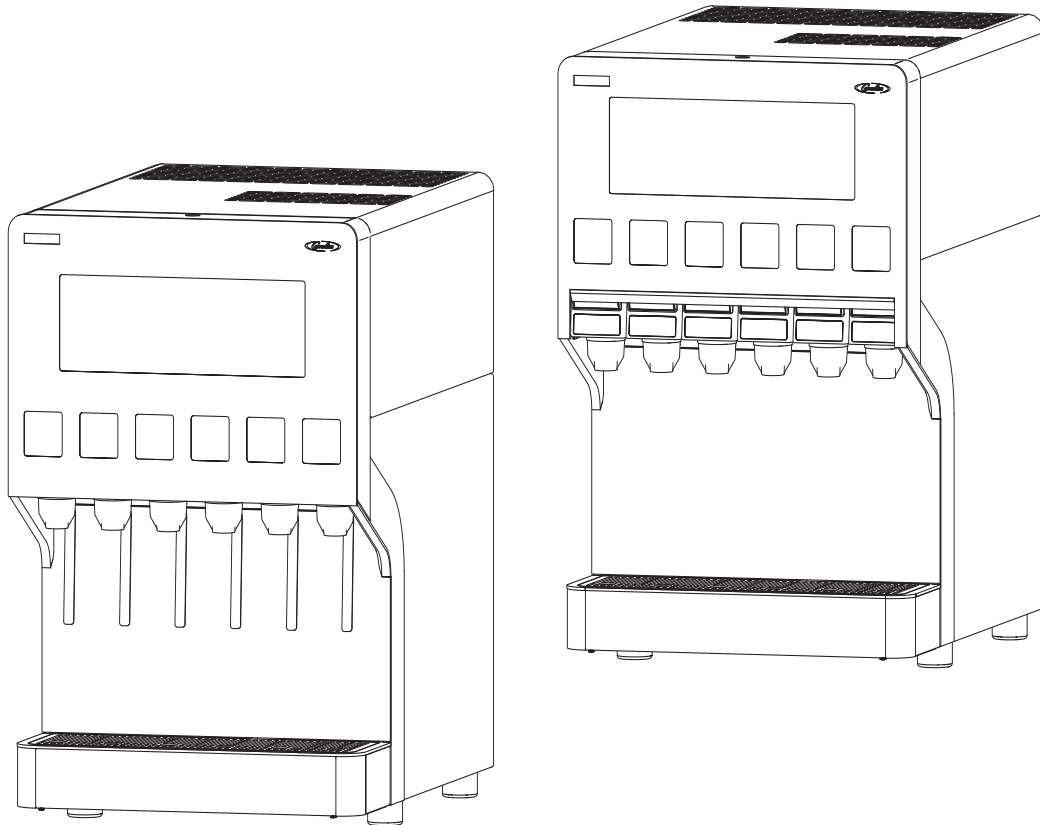


Installation and service manual



Overcounter cooler

LOOP Pro



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Installation and service manual (Original)

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Overcounter cooler
Unit ID no.: 2210027xx

LOOP Pro

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NOTICE!

This unit comes with a complete installation and service manual for the dispensing valves used in the unit. The manual may also be downloaded from the website below or requested as a printed copy from the address below.

Installation and service manual

Overcounter cooler

Table of contents

1	Safety	3
1.1	Intended use	3
1.2	Improper use	3
1.3	Staff	3
1.4	Presentation of warnings	3
1.5	Safety information	3
1.5.1	Safety information to prevent personal injury and equipment damage	3
1.5.2	Safety information for using electrical assemblies	3
2	Transport and packaging	5
2.1	Storage	5
2.2	Disposal	5
3	Description	6
3.1	Overcounter cooler	6
3.2	Drain set (optional)	7
3.3	Dispensing valves	7
3.4	Functions within the dispensing system	8
3.5	Functions of the unit	8
3.6	Technical data	9
3.6.1	Overcounter cooler	9
3.6.2	Dispensing valves	9
3.6.3	Labelling positions	9
3.6.4	Connections	10
3.6.5	CO ₂ operating pressures	10
3.7	Control and display panels	10
3.7.1	Control system	10
3.7.2	Dispensing valves	10
4	Preparing the unit	11
4.1	Disconnecting the unit from power	11
4.2	Moving the promotional panel into the service position	12
4.3	Depressurising the unit	12
5	Installation/removal	13
5.1	Installation location	13
5.2	Preparing the installation location	14
5.3	Installing the unit	15
5.4	Installing the drain set	16
5.5	Removing the unit	17
5.6	Removing the drain set	17
5.7	Still water option	18
6	Maintenance	19
6.1	Maintenance table	19
6.2	Cleaning the tubes and valves	20
6.3	Changing the water in the water bath	21
6.4	Cleaning the condenser fins	22
6.5	Bleeding the carbonator tank	22
6.6	Thawing the ice build-up	22

7	Repairs	23
7.1	Replacing the dispensing valves	23
7.2	Replacing the drain set	23
7.3	Replacing the drip tray, the drip tray frame and the grill	24
7.4	Replacing the front panel	24
7.5	Replacing the On/Off switch	25
7.6	Replacing the key switch	25
7.7	Replacing the promotional panel	26
7.8	Replacing the illuminant	26
7.9	Replacing the promotional panel	27
7.10	Replacing the product labels	27
7.11	Replacing the cover	27
7.12	Replace the unit fuse	28
7.13	Replacing the transformer	28
7.14	Replacing the transformer fuse	29
7.15	Replacing the carbonator pump pressure switch	29
7.16	Replacing the air duct	30
7.17	Replacing the carbonator pump	30
7.18	Replacing the carbonator pump motor	32
7.19	Replacing the fan motor	33
7.20	Replacing the starting capacitor for the compressor	34
7.21	Replacing the starter relay	34
7.22	Replacing the control system	35
7.23	Replacing the agitator	36
7.24	Replacing the refrigeration system support	37
7.25	Replacing the ice build-up probe	38
7.26	Replacing the solenoid valve for the carbonator tank	38
7.27	Replacing the non-return valve for the carbonator tank	39
7.28	Replacing the water pressure control valve	40
7.29	Replacing the non-return valve CO ₂ -IN	40
7.30	Replacing the level electrode for the carbonator tank	41
7.31	Replacing the drain valve for the carbonator tank	42
7.32	Replacing the carbonator tank	43
8	Commissioning/shutdown	44
8.1	Commissioning	44
8.2	Shutdown	46
9	Errors and malfunctions	47
9.1	Troubleshooting table	48
10	Applicable documents	50
10.1	Flowchart	50
10.2	Declaration of conformity	51
10.3	Cable diagram/circuit diagram	52

1 Safety

1.1 Intended use

By using the unit as intended you will not only protect yourself, but also prevent damage occurring to the unit and its components! You can find further information about the intended use of the unit in the overcounter cooler operator manual, document no. TD1019000.

1.2 Improper use

Improper use of the unit and unauthorised modifications to the unit and its components may cause personal injury and equipment damage for which Cornelius Deutschland GmbH shall assume no liability. Improper use of the unit is prohibited.

You can find further information about the improper use of the unit – and the meaning of improper use – in the overcounter cooler operator manual, document no. TD1019000.

1.3 Staff

There is a clear definition as to what group of people is permitted to carry out what type of work on the unit. You can find further information about who is authorised to carry out what type of work on the unit in the overcounter cooler operator manual, document no. TD1019000.

1.4 Presentation of warnings

The documents supplied with the unit provide warnings regarding any dangers or hazards that might exist. You can find more information about the design and presentation of warnings in the overcounter cooler operator manual, document no. TD1019000.

1.5 Safety information

1.5.1 Safety information to prevent personal injury and equipment damage

Any work on the unit and its components which goes beyond operation and beyond the servicing and maintenance tasks that the operator is authorised for, may only be performed by **experts** (for a definition of experts, see the overcounter cooler operator manual, document no. TD1019000). Furthermore, it is crucial that when performing work on the unit all safety information is observed; this information is set out in the following sections. Some of the tasks may have additional safety information which highlights the specific dangers or hazards associated with such work.

1.5.2 Safety information for using electrical assemblies



DANGER!

To prevent risks to health and safety, please always observe the following five safety rules:

These five safety rules are to be applied before carrying out work on the electrical system and in the order stated below. Once work is completed, the safety rules are to be undone again in reverse order.

- 1. Disconnect from power.
- 2. Secure against reconnection.
- 3. Check that the system is disconnected from power.
- 4. Ground and short-circuit the system.
- 5. Cover or separate adjacent live parts.



WARNING!

Risk of burns when touching hot parts of the unit!

Touching parts of the unit after it has been in continuous use over an extended period of time will result in a risk of burns.

- Take appropriate safeguard measures, such as by wearing heat-resistant protective gloves.



DANGER!

Risk of poisoning and risk of explosion due to improper handling of CO₂ cylinders!

Risk of death from CO₂!

- Observe all information on occupational safety for the safe operation of dispensing systems as applicable in the relevant country of installation.



NOTICE!

- Make sure that the cable markers are not removed from the cables and/or mark or label the cables such that they can be correctly assigned during installation.

**ATTENTION!****Cables must be fixed in place using cable ties.**

When fixing cables in place using cable ties, observe the following points:

- Once work on the unit is completed, return the area to the same state that you found it in.
 - Using cable ties, combines cables in a meaningful way.
 - When installing cables, be mindful of any bending radiuses that the manufacturer may have specified.
 - To fix cables in place using cable ties, use the mounting bases provided.
-

2 Transport and packaging

Choose a suitable packaging when returning the unit itself or one of its components to Cornelius Deutschland GmbH, e.g. for repairs. In particular, make sure that the unit and any components are protected from shock/impact, moisture, dirt and electrostatic discharge (ESD). This will prevent transport damage to the unit and to the components, for which the manufacturer shall assume no liability.

2.1 Storage

Avoid excessive temperature fluctuations as condensate may form, which in turn may cause damage to the unit or to the components.

The permissible storage temperature is -10 °C to +50 °C.

The acclimatisation period is 6 hours.



ATTENTION!

Damage due to improper storage!

Dirt or moisture entering a unit, as well as certain weather conditions (e.g. condensate forming in the unit, sunlight) will cause damage to the unit and its components.

- Protect the unit and its components by storing the unit in a clean and dry place, and by ensuring stable ambient conditions.
 - If possible, store the unit in its original packaging. Unpacked units must be covered with a dustproof cover. No condensate must form under the cover.
-



ATTENTION!

Risk of electrostatic charge!

Improper handling or storage may result in electrostatic charges.

- If possible, store units and/or any electronic components in their original packaging.
 - Keep units and/or electronic components away from charged objects, fields and insulators.
 - Avoid electrostatic charges when removing packaging and/or handling electronic assemblies and components by working at an ESD-protected workstation or work area.
 - When working at the unit or its components, wear a grounding (antistatic) wrist strap at the very least and wear antistatic gloves if necessary.
-



ATTENTION!

Component damage due to material ageing!

Material can age due to long storage periods, thereby affecting the material's properties (e.g. plastics and seals may become brittle). The properties of lubricants may change due to long storage periods.

- Check the assemblies and components for damage before each use/before installing them. Do not install assemblies or components that show visible signs of ageing.
-



ATTENTION!

Component damage due to freezing liquids!

Ambient temperatures that are below freezing will lead to the freezing of any water or cleaning agent residue remaining inside the unit. This will lead to damage to internal components.

- Before shipment, storage or relocation of the unit, the unit is to be cleaned and the cleaning solution is to be fully drained from the unit.
-

2.2 Disposal

Disposal of the units must be carried out in compliance with the applicable local and/or national and international regulations. Units must not be disposed of with household waste.

If the unit contains fuels or lubricants in liquid, paste-like or gaseous form, such as oil, grease, cooling agents etc., such fuels or lubricants are to be collected using appropriate measures and disposed of in compliance with the applicable local and/or national and international regulations. Such fuels or lubricants must always be prevented from seeping into the ground, the sewage system and any bodies of water, and must always be prevented from entering the atmosphere.

3 Description

3.1 Overcounter cooler

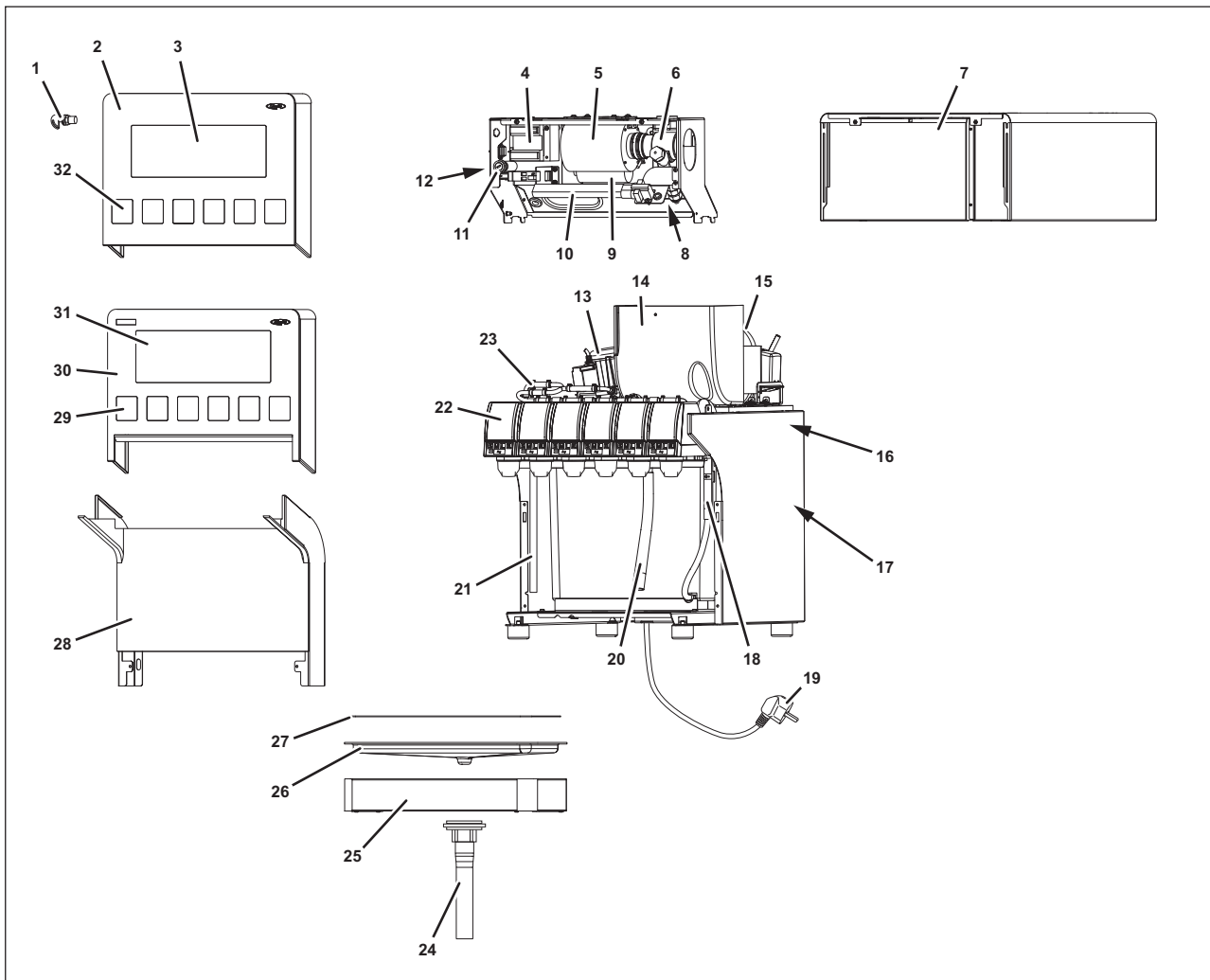


Fig. 1

- | | |
|---|--|
| 1 Key switch | 17 Water bath |
| 2 Promotional panel for dispensing valves with dispensing lever | 18 Water level gauge |
| 3 Promotional sign | 19 Mains plug |
| 4 Transformer | 20 Overflow tube |
| 5 Carbonator pump motor | 21 CO2 connection tube |
| 6 Carbonator pump | 22 Dispensing valves ¹ |
| 7 Cover | 23 Soda dispenser |
| 8 Pressure switch for carbonator pump | 24 Drain set (optional) |
| 9 Starting capacitor carbonator pump motor | 25 Drip tray frame |
| 10 230-V lamp | 26 Drip tray |
| 11 Unit fuse | 27 Grill |
| 12 On/Off switch | 28 Front panel |
| 13 Agitator | 29 Product labels |
| 14 Air duct | 30 Promotional panel for dispensing valves with button |
| 15 Condenser | 31 Promotional sign |
| 16 Ice build-up probe | 32 Product labels |

1. Information on the dispensing valves installed on your unit can be found in the binding documentation for the respective dispensing valve.

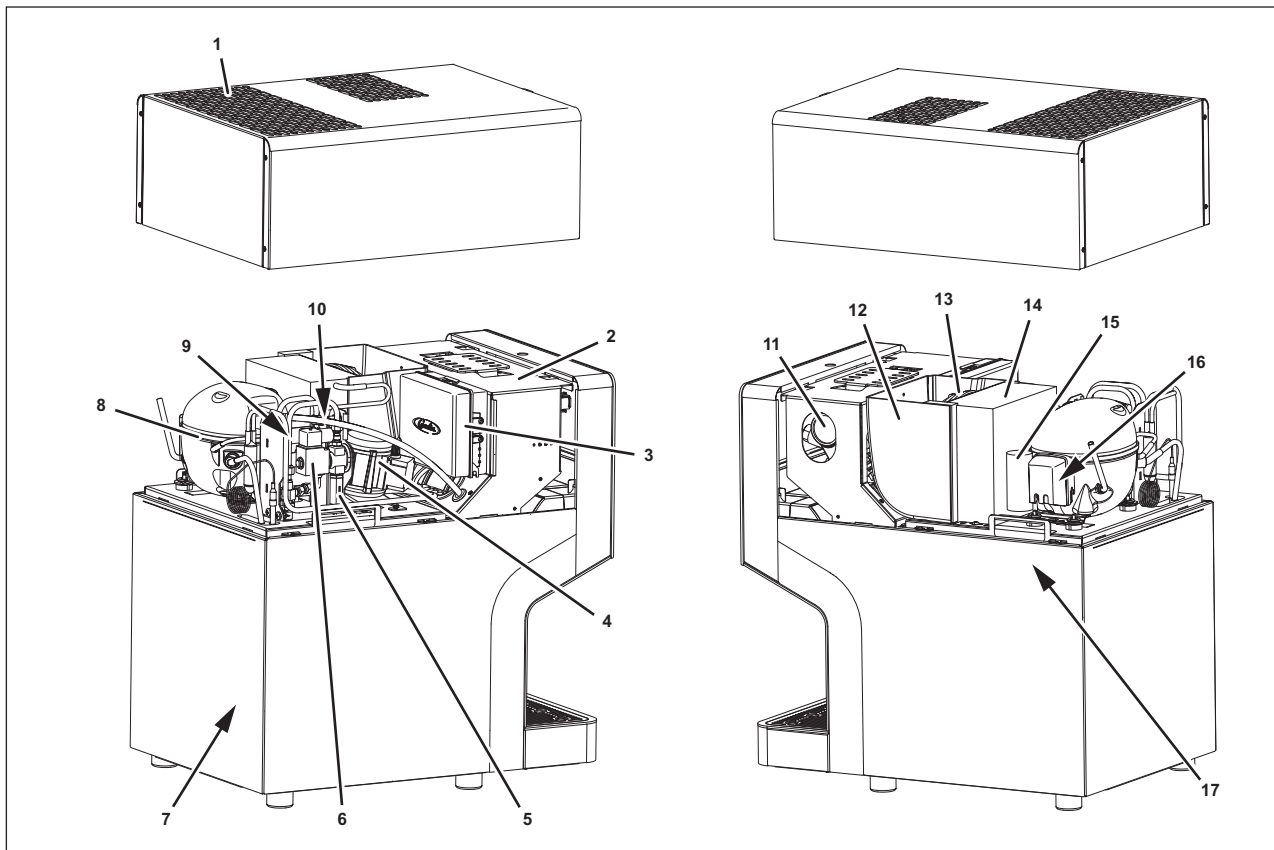


Fig. 2

- | | |
|--|---|
| 1 Cover | 10 Water pressure control valve |
| 2 Pump cross member | 11 Carbonator pump with carbonator pump motor |
| 3 Control system | 12 Air duct |
| 4 Agitator motor | 13 Fan |
| 5 Non-return valve for carbonator tank | 14 Condenser |
| 6 Solenoid valve carbonator tank | 15 Starting capacitor compressor |
| 7 Water bath | 16 Electrical assembly compressor |
| 8 Compressor | 17 Ice build-up probe |
| 9 Non-return valve CO ₂ -IN | |

3.2 Drain set (optional)

- Fig. 3/1 Straight or angled drain fitting
 Fig. 3/2 Flat seal
 Fig. 3/3 Fastening nut
 Fig. 3/4 Tubing clamp
 Fig. 3/5 Tube

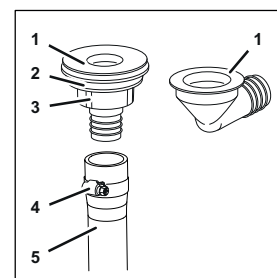


Fig. 3

3.3 Dispensing valves



NOTICE!

Information on the dispensing valves installed on your unit can be found in the binding documentation for the respective dispensing valve.

3.4 Functions within the dispensing system



NOTICE!

The description of how the unit works within the dispensing system is included in the relevant operator manual for this unit; see the document "Overcounter cooler operator manual", document no. TD1019000.

3.5 Functions of the unit



NOTICE!

Flowchart; see chapter 10.1

The four basic functions of the unit are:

- Refrigeration
- Carbonisation
- Conveying
- Dispensing beverages

All functions are controlled by the sensor logic of the unit's internal control system.

The carbonator pump forces the mains water into the carbonator tank at a constant pressure.

The water in the carbonator tank has CO₂ added to it to produce soda.

Ice is built up in the water bath to refrigerate the products. The agitator keeps the products refrigerated. The ice build-up probe prevents excessive freezing of the ice build-up.

Each individual beverage type is dispensed by opening the valve assigned to the respective beverage component.

Valve control takes place via the unit's control electronics and depends on the inputs made via the control panel. The beverage components flowing from the valves are supplied to the diffuser, where they are mixed. From there, they are poured into the cup via the dispensing nozzle.

Cold generator

A cold generator refrigerates the water bath by means of a heat exchanger. In the process, a defined ice build-up is generated around the heat exchanger.

To stop the water bath from freezing up and to maintain more efficient heat exchange, an agitator constantly agitates the cooling water.

Once the unit has been filled with water, the refrigerant compressor automatically starts up after 3 minutes if the compressor is in position "I". Once the maximum ice build-up has been achieved, the refrigerant compressor automatically switches off.

In ice build-up mode, certain minimum runtimes and operation intervals arise. After switching on the refrigeration circuit, the runtime is at least 5 minutes, even if a shutdown has been signalled beforehand. After switching off the refrigeration circuit, the operation intervals are at least 3 minutes, even if switching on has been signalled beforehand. The operation intervals of 3 minutes also apply to start-up or after a power failure.

Control system and sensor logic

There is a sensor for the water level in the carbonator tank and a probe for controlling the ice build-up in the refrigerating unit.

The power supply is cut off in good time to prevent the carbonator tank being pumped empty. Once the carbonator tank has been refilled, the power supply is automatically switched on again.

If the fill level drops below the minimum, the carbonator pump will automatically switch on and fill the carbonator tank.

The carbonator pump switches off when the carbonator tank has been filled to maximum, or after 20 minutes at the latest. Longer runtimes indicate leaks or excessive beverage dispensing. The pump can only be restarted by a reset (temporarily unplugging the mains plug for approx. 10 seconds).

Water supply

The system's drinking water supply is provided by the mains water which flows through pressure-reducing valves and filters to the carbonator pump on the unit. If still water is requested, the water flows via a heat exchanger in the refrigerated water bath to the dispensing valve.

CO₂ connection

The CO₂ is supplied by the pressurised gas cylinder and pressure-reducing valve to the unit's CO₂ connection.

Syrup supply

The syrup containers are connected directly to the syrup connections on the unit.

The BiBs are connected to the syrup pumps and from there to the syrup connections on the unit.

Dispensing beverages

Each individual beverage type is dispensed by opening the valve assigned to the respective beverage component in each respective dispensing valve.

The valves are controlled in accordance with the buttons on the control panels, which are pressed on the respective dispensing valve, or the dispensing lever.



NOTICE!

Information on the dispensing valves installed on your unit can be found in the binding documentation for the respective dispensing valve.

3.6 Technical data

3.6.1 Overcounter cooler

Description	Parameter	Value	Unit
Dimensions	Height	640/25.2	mm/in.
	Width	413/16.3	mm/in.
	Depth	610/24	mm/in.
Dispensing capacity	at a dispensing rate of 2 drinks of 0.3 litres a minute	80 2/min	pcs.
Ambient temperature	Storage	-10 to +50	°C
	Operating environment	+16 to +32	°C
Ice build-up size	Weight	10	kg
Ice build-up capacity		800	kcal/h
Power supply	Supply voltage	230	V
	Frequency	50	Hz
Power input	max.	900	W
Current consumption	max.	4.5	A
Supply requirements	Max. pressure	0.4 (water) 0.45 (syrup, sugar) 0.2 (syrup, diet)	MPa
	Min. pressure	0.2 (flow pressure)(water) 0.35 (syrup, sugar) 0.15 (syrup, diet)	MPa
Compressor	Output	724	W (hp) ¹
Carbonator pump capacity	at 0.2 MPa	300	L/h
Cooling capacity ² /in the working area		350	W
		301	kcal/h
Protection class		III / IP 21	
Flow rate	Depending on dispensing valve design		
Postmix		6	pcs.
Still water		0 to 2	pcs.
Key switch		I/O	
Sound emission		< 65	dB(A)
Shipping weight		65	kg

1. at -10 °C evaporation temperature

2. Specifications on cooling capacity and dispensing capacity at an ambient temperature of 32 °C and beverage dispensing temperatures of < 5 °C

3.6.2 Dispensing valves



NOTICE!

Information on the dispensing valves installed on your unit can be found in the binding documentation for the respective dispensing valve.

3.6.3 Labelling positions



NOTICE!

The applicable operator manual includes illustration of the labelling positions for this unit; see the document "Overcounter cooler operator manual", document no. TD1019000.

3.6.4 Connections

Connection	Type/connection assignment
Water inlet	6 mm ID ¹ , 8 mm OD ²
Postmix inlets	6.7 mm ID, 9.5 mm OD
Cable 1	Power supply to the overcounter cooler
Cable 2	Power supply to the key switch
Cable 3	Power supply to the dispensing valves
Cable 4	Power supply to the 230-V lamp
Cable 5	Power supply to the CO ₂ pressure switch (optional)
Cable 6	Power supply to the "TELEMETRY" (optional)

1. ID = inside diameter
2. OD = outside diameter

3.6.5 CO₂ operating pressures



NOTICE!

The applicable operator manual for this unit includes specifications for the CO₂ working pressures for the unit; see the document "Overcounter cooler operator manual", document no. TD1019000.

3.7 Control and display panels

3.7.1 Control system

- Fig. 4/1 Carbonator pump switch
Fig. 4/2 Compressor switch
Fig. 4/3 LED red - alarm
Fig. 4/4 LED green - power/mains

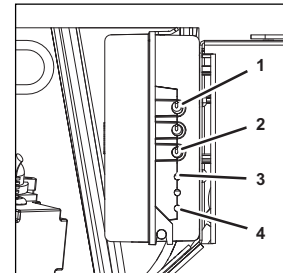


Fig. 4

LED	Status	Description	Comment
Alarm (red)	Off	OK	No existing error
	On	Not OK	see chapter 9
	Flashing 1 Hz	Not OK	see chapter 9
	Flashing 4 Hz	Not OK	see chapter 9
Power/mains (green)	On	OK	Voltage in permitted section
	Flashing 1 Hz	Not OK	see chapter 9
	Flashing 4 Hz	Not OK	see chapter 9
Alarm (red) + power/mains (green)	flash alternately	Not OK	see chapter 9

3.7.2 Dispensing valves



NOTICE!

Information on the dispensing valves installed on your unit can be found in the binding documentation for the respective dispensing valve.

4 Preparing the unit



DANGER!

Risk of personal injury and equipment damage due to non-compliance with safety information!

Failure to observe the safety information will result in a risk of bringing about operating conditions at the unit, which may cause personal injury or equipment damage.

- Please always strictly observe all safety measures and information/instructions; see chapter 1.

This chapter describes the tasks that may be required before carrying out any actual maintenance or repair work.



DANGER!

Risk of personal injury due to applied voltage.

You may only continue working on the unit if the unit carries no voltage.

If the unit still carries a voltage after you have disconnected it from power, this indicates a defect.

- Resolve this defect before continuing the checks/inspections or any work.

4.1 Disconnecting the unit from power

Required tools/materials	ID/reference	Qty/ amount	Comment
Overcounter cooler cable diagram	TD1019700	1	

1. Turn the key switch (Fig. 5/1) to position "0".
2. Remove the black cover cap (Fig. 5/3).
3. Turn the On/Off switch (Fig. 5/2) to position "0".

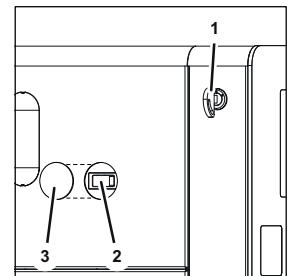


Fig. 5

4. Pull the mains plug out of the earthed socket.

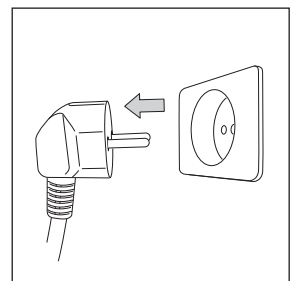


Fig. 6



ATTENTION!

Risk of death from electric shock!

The mains plug may still have residual current.

- Wait a minimum of 1 minute before continuing work on the unit.

4.2 Moving the promotional panel into the service position

1. Remove the fastening bolt (Fig. 7/1) from the promotional panel (Fig. 7/2).

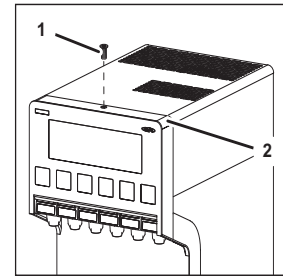


Fig. 7

2. Lift the promotional panel (Fig. 8/1) off the unit.

3. Suspend the promotional panel (Fig. 8/1) in the uppermost position (Fig. 8/3) on the unit with the assistance of the mounts (Fig. 8/2).

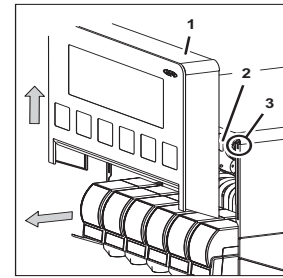


Fig. 8

4.3 Depressurising the unit

Required tools/materials	ID/reference	Qty/amount	Comment
Document on the CO ₂ system	Document no. Various	1	
Document for the water system	Document no. Various	1	
Dispensing valve documentation	Document no. Various	1	

1. Close the CO₂ bottle valve; see documentation on the CO₂ system.
2. Close the CO₂ shut off valves; see documentation on the CO₂ system.
3. Close the valve of the water supply; see documentation on the water system.
4. Open a dispensing valve for approx. 1 second (see dispensing valve documentation).

5 Installation/removal



DANGER!

Risk of personal injury and equipment damage due to non-compliance with safety information!

Failure to observe the safety information will result in a risk of bringing about operating conditions at the unit, which may cause personal injury or equipment damage.

- Please always strictly observe all safety measures and information/instructions; see chapter 1.
-



NOTICE!

All installation, maintenance and repair work at the unit is to be carried out by an expert only.



WARNING!

Risk of personal injury and equipment damage due to operation by non-qualified staff!

It is dangerous for non-qualified staff to operate the unit!

- Service operations on this unit may only be carried out by trained and certified experts who have been trained in carrying out service operations on this unit.
 - All wiring and plumbing must be carried out in compliance with national and local laws, regulations and guidelines. Non-compliance with these laws, regulations and guidelines may result in death, serious injury or equipment damage.
-

5.1 Installation location



NOTICE!

Observe all rules and regulations regarding installation rooms and electric connections as applicable in the individual countries, as well as accident prevention regulations.



WARNING!

Risk of death due to insufficient load capacity!

If the unit is installed in a location with insufficient load capacity, this can result in serious injuries and material damage!

- Install the unit at an installation location that offers a load capacity of at least 220 lbs (approx. 100 kg) remaining for this unit.
-



NOTICE!

Many units include additional equipment, such as an ice maker. When using additional equipment, it is mandatory to check with the equipment manufacturer as to how much additional weight the product can accommodate while still ensuring safe installation.



ATTENTION!

Damage due to inadequate ventilation!

If the unit is inadequately ventilated, it will overheat and become damaged.

- During installation of the unit, make sure the site of installation is adequately ventilated.
 - Always make sure that the supply and exhaust air grilles are not covered.
 - When installing the unit, keep a minimum distance of 10 mm from the rear wall.
-

The unit must be set up and installed horizontally close to a drain (angle of inclination $< 2^\circ$). This is to allow the tube of the drain set and, if applicable, the tube of the ice compartment to be connected properly.

The unit must be set up and installed close to an earthed mains socket. The electric circuit must be fuse-protected, and no additional units or devices must be connected to the electric circuit.

All connections and outlets/drains must comply with the applicable local and/or national and international regulations.

If the unit is intended for operation by untrained staff, the installation location must be selected in such a way that the unit can be supervised by trained staff.

The unit must be set up on a horizontal surface.

5.2 Preparing the installation location

Prerequisites	References
The load capacity of the supporting structure must be at least that of the weight of the unit.	
There must be no objects at the installation location that might get in the way.	
The installation location must offer easy access to the unit, assemblies and components.	

Required tools/materials	ID/reference	Qty/ amount	Comment
Drill template	143532222	1	
Pen/pencil		1	
Scissors or knife		1	
Compass saw		1	
Power drill		1	
Drill bit	Ø 10 mm	1	

1. Use drill templates only in their original size.
2. Draw the drill template onto the supporting structure.
3. Saw or drill the opening for the drain set into the supporting structure.
4. Saw the opening for the tubes and cables into the supporting structure as indicated on the drill template.
5. Remove any dirt or dust from the supporting structure.

5.3 Installing the unit

Prerequisites	References
The unit has been unpacked.	See the document "Overcounter cooler operator manual", document no. TD1019000
Preparation of the installation location is complete.	see chapter 5.2
The CO ₂ bottle has been set up properly.	See the document on the CO ₂ system
The pressure-reducing valves have been mounted on the CO ₂ bottle.	See the document on the CO ₂ system
The pressure-reducing valves have been mounted on the water supply line.	See the document on the drinking water system
The syrup containers and BIBs have been set up.	

Required tools/materials	ID/reference	Qty/ amount	Comment
Quick disconnect couplings			
Overcounter cooler cable diagram	TD1019700	1	see chapter 10.3
Overcounter cooler operator manual	Document no.: TD1019000	1	
Document on the CO ₂ system	Document no.: Various	1	
Document for the water system	Document no.: Various	1	



DANGER!

Risk of personal injury and equipment damage due to non-compliance with rules and regulations!

Risk of death in the case of non-compliance with rules and regulations regarding connection of the water supply!

- In accordance with the current state of the art, install the water supply on the product using an air gap protection back flow system, a vacuum control valve or some other method that has proved effective during tests. Installation must be carried out in compliance with all federal, state and local laws.
- Water pipe connections and fixtures that are directly connected to the drinking water supply must be installed and serviced in compliance with federal, state and local laws.

1. Place the unit onto the prepared supporting structure at the installation location.
2. Remove the front panel; see chapter 7.4.
3. Feed the tubes and cables through the opening into the unit in an upwards motion.
4. Connect the basic ingredient tubes/beverage tubes (Fig. 9/1) at the respective points on the unit.
Observe the labels on the individual tubes and connections in the connecting process; see chapter 3.6.4.
5. Mount the front panel; see chapter 7.4.
6. Mount the drain set; see chapter 5.4.
7. Perform a visual inspection. See the document "Overcounter cooler operator manual", Document no.: TD1019000.
8. Put the unit into service ("commissioning"); see chapter 8.1.

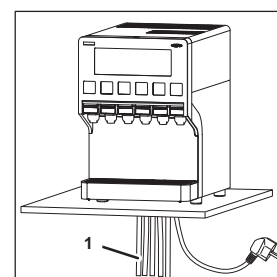


Fig. 9

5.4 Installing the drain set

Prerequisites		References	
The unit has been installed.		see chapter 5.3	
Required tools/materials	ID/reference	Qty/ amount	Comment
Angled drain fitting	220117452	1	
Straight drain fitting	220117453	1	
Tube	440002404	1	
Tubing clamp	220113421	1	



NOTICE!

step 1 to step 2 are only to be carried out for a drain set which has not been pre-installed.
If the drain set has already been pre-installed on the unit, continue with step 3, Seite 16.

1. Position the drain fitting (Fig. 10/1) in the bottom of the unit from above.
2. Slide the flat seal (Fig. 10/2) over the thread from below and use the fastening nut (Fig. 10/3) to attach the drain fitting (Fig. 10/1).

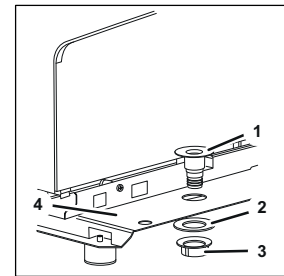


Fig. 10

3. Attach the tube (Fig. 11/3) to the drain fitting (Fig. 11/1) with a tubing clamp (Fig. 11/2).

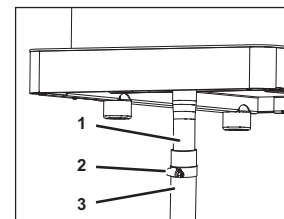


Fig. 11

4. Position the drip tray in the drip tray frame.

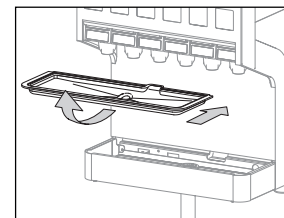


Fig. 12

5. Position the grill in the drip tray.

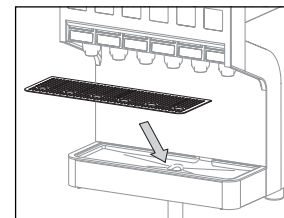


Fig. 13

5.5 Removing the unit

Prerequisites	References
The unit has been shut down.	see chapter 8.2
The drain set has been removed.	see chapter 5.6
The front panel has been removed.	see chapter 7.4

1. Disconnect the basic ingredient tubes/beverage tubes (Fig. 14/1) from the respective point on the unit.
2. Pull the tubes and cables through the opening out of the unit in a downwards motion.
3. Mount the front panel; see chapter 7.4.
4. Lift and remove the unit from the supporting structure and pack it as described in chapter 2.

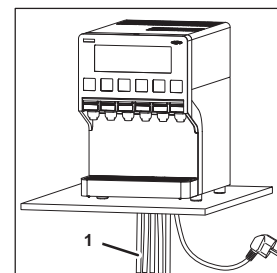


Fig. 14

5.6 Removing the drain set

1. Remove the tubing clamp (Fig. 15/2).
2. Remove the tube (Fig. 15/3) from the drain fitting (Fig. 15/1).

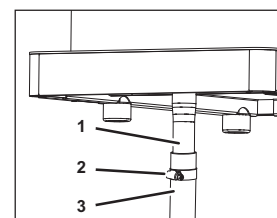


Fig. 15

3. Remove the grill.

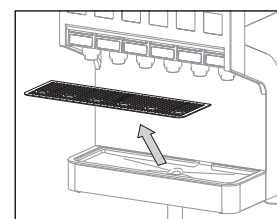


Fig. 16

4. Remove the drip tray.

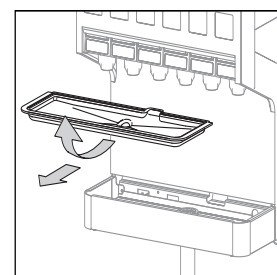


Fig. 17

5. Remove the fastening nut (Fig. 18/3).
6. Remove the fastening nut (Fig. 18/3) and pull the flat seal (Fig. 18/2) down from the drain fitting (Fig. 18/1).
7. Pull the drain fitting (Fig. 18/1) through the opening of the bottom of the unit in an upward motion.

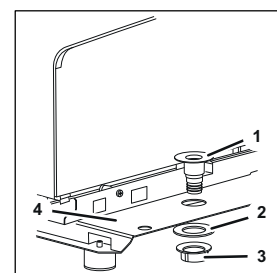


Fig. 18

5.7 Still water option

Prerequisites		References	
The unit has been shut down.		see chapter 8.2	
The front panel has been removed.		see chapter 7.4	
The unit is fully depressurised.		see chapter 4.3	
Required tools/materials	ID/reference	Qty/ amount	Comment
Document on the CO ₂ system	Document no.: Various	1	
Document for the water system	Document no.: Various	1	
Spare parts	ID/reference	Qty/ amount	Comment
Soda dispenser 6/0	220117144	1	
Soda dispenser 5/1	220117254	1	
Soda dispenser 4/2	220116509	1	

A soda dispenser is installed in the unit. There is the option of supplying the dispensing valves 5 and 6 with either still water or soda water via the soda dispenser. The soda dispenser always supplies dispensing valves 1, 2, 3 and 4 with soda water, see Fig. 19 - Fig. 21.

The following dispensing valve configurations are possible:

Standard configuration 6/0

- Fig. 19/1 Soda water line dispensing valve 1
- Fig. 19/2 Soda water line dispensing valve 2
- Fig. 19/3 Soda water line dispensing valve 3
- Fig. 19/4 Soda water line dispensing valve 4
- Fig. 19/5 Soda water line dispensing valve 5
- Fig. 19/6 Soda water line dispensing valve 6
- Fig. 19/7 Soda water line (inlet)

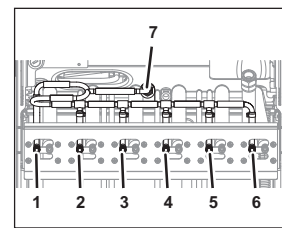


Fig. 19

Configuration 5/1

- Fig. 20/1 Soda water line dispensing valve 1
- Fig. 20/2 Soda water line dispensing valve 2
- Fig. 20/3 Soda water line dispensing valve 3
- Fig. 20/4 Soda water line dispensing valve 4
- Fig. 20/5 Soda water line dispensing valve 5
- Fig. 20/6 Still water line dispensing valve 6
- Fig. 20/7 Still water line (inlet)
- Fig. 20/8 Soda water line (inlet)

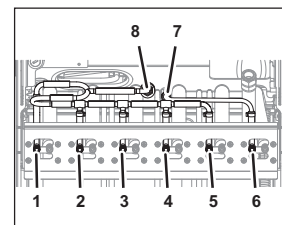


Fig. 20

Configuration 4/2

- Fig. 21/1 Soda water line dispensing valve 1
- Fig. 21/2 Soda water line dispensing valve 2
- Fig. 21/3 Soda water line dispensing valve 3
- Fig. 21/4 Soda water line dispensing valve 4
- Fig. 21/5 Still water line dispensing valve 5
- Fig. 21/6 Still water line dispensing valve 6
- Fig. 21/7 Still water line (inlet)
- Fig. 21/8 Soda water line (inlet)

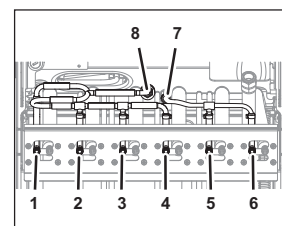


Fig. 21

Finishing tasks

1. Mount the front panel; see chapter 7.4.
2. Open the valve of the water supply; see documentation on the water system.
3. Open the CO₂ shut off valves; see the document on the CO₂ system.
4. Open the CO₂ bottle valve; see the document on the CO₂ system.
5. Start up the unit; see chapter 8.1.

6 Maintenance



DANGER!

Risk of personal injury and equipment damage due to non-compliance with safety information!

Failure to observe the safety information will result in a risk of bringing about operating conditions at the unit, which may cause personal injury or equipment damage.

- Please always strictly observe all safety measures and information/instructions; see chapter 1.



NOTICE!

All installation, maintenance and repair work at the unit is to be carried out by an expert only.



WARNING!

Risk of personal injury and equipment damage due to operation by non-qualified staff!

It is dangerous for non-qualified staff to operate the unit!

- Service operations on this unit may only be carried out by trained and certified experts who have been trained in carrying out service operations on this unit.
- All wiring and plumbing must be carried out in compliance with national and local laws, regulations and guidelines. Non-compliance with these laws, regulations and guidelines may result in death, serious injury or equipment damage.



NOTICE!

Information on maintenance of the dispensing valves installed on your unit can be found in the relevant binding documentation for the valves.

6.1 Maintenance table



NOTICE!

The following table provides information on recommended maintenance intervals to be adapted to the relevant installation situation.

Interval	Components	Action
Daily	Overcounter cooler, exterior	Perform a visual inspection. See the document "Overcounter cooler operator manual", Document no.: TD1019000
Every 3 months	Overcounter cooler, exterior	Cleaning. See the document "Overcounter cooler operator manual", Document no.: TD1019000
Every 3 months	Condenser fins	Clean; see chapter 6.4
Every 3 months	Overcounter cooler	Clean the tubes/valves; see chapter 6.2
Annually	Overcounter cooler, interior	Change the water in the water bath; see chapter 6.3
As required	Overcounter cooler, interior	Thaw the ice build-up; see chapter 6.6

6.2 Cleaning the tubes and valves

Prerequisites		References	
The outside of the unit has been cleaned.		See the document "Overcounter cooler operator manual", document no. TD1019000	
The unit is fully depressurised.		see chapter 4.3	
Required tools/materials	ID/reference	Qty/amount	Comment
Disinfectant	103050300	a. n. ¹	TM DesanaMay fp – Alkaline (syrup) - active oxygen - chlorine-free – Powder 45 g (1 sachet) per 4.5 litres of water – Dyed
Disinfectant	220112962	a. n.	TM Desanacid fp – Acid (water) - active oxygen - chlorine-free – Powder 45 g (1 sachet) per 4.5 litres of water – Dyed
Disinfectant	Hydrogen peroxide	a. n.	– Acid (water) – Max. 3 % solution – 135 ml per 4.5 litres of water – Colourless
Test strips	220100192	a. n.	For testing the content of hydrogen peroxide
Clear water			
Cleaning container		1	
Overcounter cooler operator manual	Document no.: TD1019000	1	
Dispensing valve documentation	Document no.: Various	1	

1. a. n. = as needed

1. Fill the cleaning container (Fig. 22) with water.
2. Disconnect all basic ingredient/beverage tubes at the inlet of the overcounter cooler, see chapter 5.5.
3. Connect all basic ingredient tubes/beverage tubes to the cleaning container (Fig. 22).
4. Rinse all tubes with water, one after the other, by requesting a beverage from the respective dispensing valve; see dispensing valve documentation.
 - Continue requesting a beverage until the water coming out of the dispensing valve runs clear.

You can only continue to the next step if and when all tubes have been rinsed with water. In the next step, the tubes will be rinsed with a disinfectant solution.

5. Fill the cleaning container with a suitable disinfectant solution.
 - For syrup tubes: TM DesanaMax fp.
 - For water lines: either TM Desanacid fp or hydrogen peroxide.
6. Vent the carbonator tank; see chapter 6.5.
7. Rinse all tubes with the disinfectant solution, one after the other, by requesting a beverage from the respective dispensing valve; see dispensing valve documentation.
 - Continue requesting a beverage for the syrup tubes until you can see the disinfectant solution, recognisable by its dye, coming out of the dispensing valve.
 - Using TM Desanacid fp as a disinfectant for the water lines, continue requesting a beverage until you can see the disinfectant solution, recognisable by its dye, coming out of the dispensing valve.
 - Using hydrogen peroxide as a disinfectant for the water lines, continue requesting a beverage until you can determine hydrogen peroxide levels using a test strip.

Make sure that the tubes remain exposed to the disinfectant solution for a minimum of 15 minutes. You can only continue to the next step if and when all tubes have been rinsed with the disinfectant solution. In the next step, the tubes will be rinsed with clear water.

8. Depressurise the cleaning container and the tubes by using the pressure relief valve on the cleaning container.
9. Fill the cleaning container with clear water.

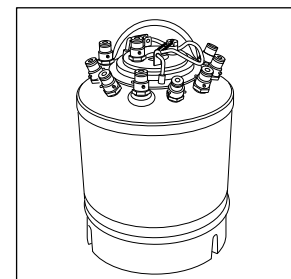


Fig. 22

10. Rinse all tubes with water, one after the other, by requesting a beverage from the respective dispensing valve; see dispensing valve documentation.
 - Continue requesting a beverage for the syrup tubes until the water coming out of the dispensing valve runs clear.
 - Using TM Desanacid fp as a disinfectant for the water lines, continue requesting a beverage until the water coming out of the dispensing valve runs clear.
 - Using hydrogen peroxide as a disinfectant for the water lines, continue requesting a beverage until you can no longer detect any hydrogen peroxide levels using test strips.

You can only continue to the next step if and when all tubes have been rinsed with water.
In the next step, the tubes of the unit will either be filled, see step 11, or the unit will be shut down, see chapter 8.2.
11. Depressurise the cleaning container and the tubes by using the pressure relief valve on the cleaning container.
12. Disconnect all basic ingredient/beverage tubes of the overcounter cooler from the cleaning container.
13. Connect the basic ingredient/beverage tubes on the overcounter cooler; see chapter 5.3.
14. Fill the tubes by requesting a beverage from the respective dispensing valve until the beverage is being dispensed; see dispensing valve documentation.

6.3 Changing the water in the water bath

Prerequisites	References
The unit has been disconnected from the power supply.	see chapter 4.1
The front panel has been removed.	see chapter 7.4



NOTICE!

To prevent algae building up in the water, the disinfectant Molco (PN 14-9670-150) can be added. The container size with 150 ml disinfectant is sufficient for 30 litres of water.

1. Remove the tube (Fig. 23/1) of the water level gauge with the mount (Fig. 23/2).
2. Leave the tube (Fig. 23/1) of the water level gauge in position until the water bath is empty.
3. Insert the tube (Fig. 23/1) of the water level gauge with the mount (Fig. 23/2).
4. Remove the cover; see chapter 7.11.
5. Fill the water bath up until the level on the water level gauge is between minimum and maximum.

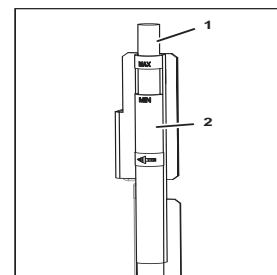


Fig. 23

6. Mount the cover; see chapter 7.11.

Finishing tasks

1. Mount the front panel; see chapter 7.4.
2. Start up the unit; see chapter 8.1.

6.4 Cleaning the condenser fins

Prerequisites	References
The cover has been removed.	see chapter 7.11

Required tools/materials	ID/reference	Qty/amount	Comment
Brush		1	
Vacuum cleaner		1	

1. Clean any dirt off the condenser fins (Fig. 24/1) using a brush and a vacuum cleaner.

Finishing tasks

1. Mount the cover; see chapter 7.11.

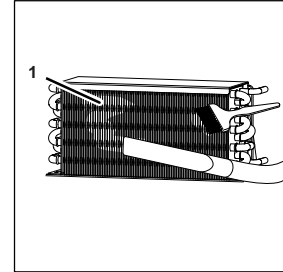


Fig. 24

6.5 Bleeding the carbonator tank

Prerequisites	References
The cover has been removed.	see chapter 7.11

1. Open the drain valve (Fig. 25/1) of the carbonator tank until liquid starts coming out of the drain valve (Fig. 25/1).

Finishing tasks

1. Mount the cover; see chapter 7.11.

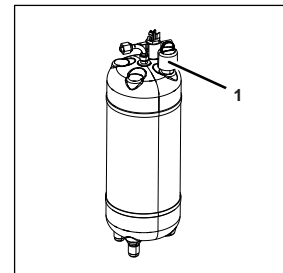


Fig. 25

6.6 Thawing the ice build-up

Prerequisites	References
The unit has been disconnected from the power supply.	see chapter 4.1

1. Wait until the ice has completely thawed.
2. Drain the water from the water bath; see chapter 6.3.

7 Repairs



DANGER!

Risk of personal injury and equipment damage due to non-compliance with safety information!

Failure to observe the safety information will result in a risk of bringing about operating conditions at the unit, which may cause personal injury or equipment damage.

- Please always strictly observe all safety measures and information/instructions; see chapter 1.



NOTICE!

All installation, maintenance and repair work at the unit is to be carried out by an expert only.



WARNING!

Risk of personal injury and equipment damage due to operation by non-qualified staff!

It is dangerous for non-qualified staff to operate the unit!

- Service operations on this unit may only be carried out by trained and certified experts who have been trained in carrying out service operations on this unit.
- All wiring and plumbing must be carried out in compliance with national and local laws, regulations and guidelines. Non-compliance with these laws, regulations and guidelines may result in death, serious injury or equipment damage.

7.1 Replacing the dispensing valves



NOTICE!

Information regarding the replacement of the dispensing valves installed on your unit can be found in the binding documentation for the respective dispensing valve.

7.2 Replacing the drain set

Required tools/materials	ID/reference	Qty/ amount	Comment
Angled drain fitting	220117452	1	
Straight drain fitting	220117453	1	
Tube	440002404	1	
Tubing clamp	220113421	1	

1. Remove the drain set; see chapter 5.6.
2. Mount the new drain set; see chapter 5.4.

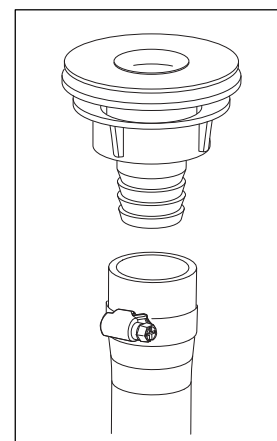


Fig. 26

7.3 Replacing the drip tray, the drip tray frame and the grill

Spare parts	ID/reference	Qty/amount	Comment
Grill	220116394	1	
Drip tray	220116388	1	
Drip tray frame	220116396	1	

1. Remove the grill.

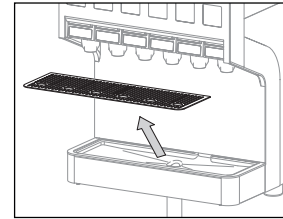


Fig. 27

2. Remove the drip tray.

3. Remove the drain set; see chapter 7.2.

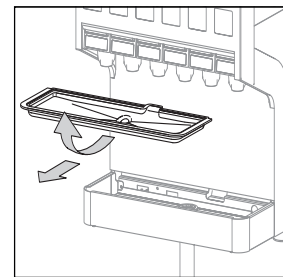


Fig. 28

4. Remove the drip tray frame.

5. Position the new drip tray frame on the unit.

6. Mount the drain set; see chapter 7.2.

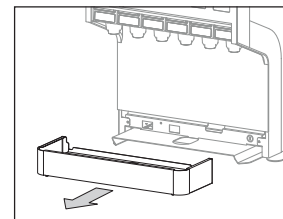


Fig. 29

7. Insert the new drip tray into the drip tray frame.

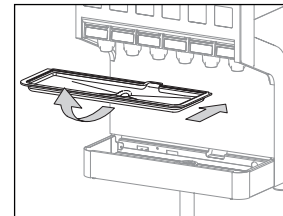


Fig. 30

8. Insert the new grill in the drip tray.

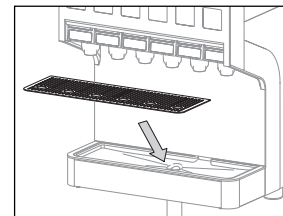


Fig. 31

7.4 Replacing the front panel

Spare parts	ID/reference	Qty/amount	Comment
Front panel	220116929	1	

1. Remove the front panel; see the document "Overcounter cooler operator manual", document no. TD1019000.

2. Mount the new front panel; see the document "Overcounter cooler operator manual", document no. TD1019000.

7.5 Replacing the On/Off switch

Prerequisites		References	
The cover has been removed.		see chapter 7.11	
The front panel has been removed.		see chapter 7.4 Replacing the front panel	
Required tools/materials	ID/reference	Qty/amount	Comment
Document on the CO ₂ system	Document no.: Various	1	
Document for the water system	Document no.: Various	1	
Spare parts	ID/reference	Qty/amount	Comment
On/Off switch	141647819	1	

1. Disconnect the electrical cables (Fig. 32/2) from the switch (Fig. 32/1).
2. Press the retaining clips of the switch (Fig. 32/1) together from the inside.
3. Take the switch (Fig. 32/1) out of the unit.
4. Insert the switch (Fig. 32/1) in the unit. The switch must audibly click into place.
5. Connect the electrical cables (Fig. 32/2) to the new switch (Fig. 32/1).

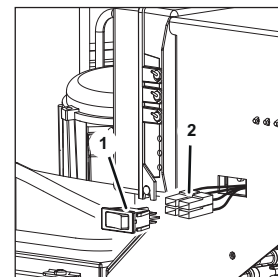


Fig. 32



NOTICE!

Pay attention to the plug assignment and the cable colours brown and blue.

Finishing tasks

1. Mount the cover; see chapter 7.11.
2. Mount the front panel; see chapter 7.4.

7.6 Replacing the key switch

Prerequisites		References	
The promotional panel is service position.		see chapter 4.2	
Spare parts	ID/reference	Qty/amount	Comment
Key switch with electrical cable	070000005	1	

1. Disconnect the electrical cable (Fig. 33/3) (cable no. 2) of the key switch (Fig. 33/1).
2. Remove the nut (Fig. 33/2) of the key switch (Fig. 33/1).
3. Remove the (Fig. 33/1) key switch from the unit.
4. Position the new key switch (Fig. 33/1) within the unit.
5. Attach the key switch (Fig. 33/1) using the nut (Fig. 33/2) in the unit.
6. Connect the electrical cable (Fig. 33/3) (cable no. 2) of the key switch (Fig. 33/1).

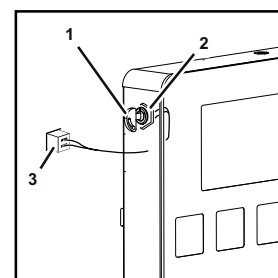


Fig. 33

Finishing tasks

1. Mount the promotional panel; see chapter 7.7.

7.7 Replacing the promotional panel

Prerequisites		References	
The unit has been disconnected from the power supply.		see chapter 4.1	
Spare parts	ID/reference	Qty/ amount	Comment
Promotional panel	220116897	1	for dispensing valves with button
Promotional panel	220116928	1	for dispensing valves with dispensing lever

1. Remove the fastening bolt (Fig. 34/2) from the promotional panel (Fig. 34/1).
2. To the extent permitted by the electrical cables, lift the promotional panel (Fig. 34/1) from the unit.
3. Disconnect the plug (Fig. 34/3) of the electrical cables (cable no. 2) of the key switch.
4. Connect the plug (Fig. 34/3) of the electrical cables (cable no. 2) of the key switch.
5. Position the new promotional panel (Fig. 34/1) on the unit.
6. Attach the promotional panel (Fig. 34/1) on the unit using the fastening bolt (Fig. 34/2).

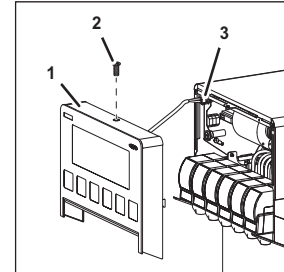


Fig. 34

Finishing tasks

1. Start up the unit; see chapter 8.1.

7.8 Replacing the illuminant

Prerequisites		References	
The promotional panel has been removed.		see chapter 7.7	
Spare parts	ID/reference	Qty/ amount	Comment
Lamp	141647817	1	
Lamp socket	149957515	1	
Required tools/materials	ID/reference	Qty/ amount	Comment
Velcro tape	Various		

2. Remove the lamp (Fig. 35/1) from the lamp socket (Fig. 35/2).
3. Position the new lamp (Fig. 35/1).
4. Push the lamp (Fig. 35/1) into the lamp socket (Fig. 35/2).

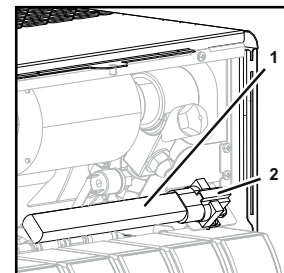


Fig. 35

Finishing tasks

1. Mount the promotional panel; see chapter 7.7.

7.9 Replacing the promotional panel

Prerequisites	References
The promotional panel has been removed.	see chapter 7.7

Spare parts	ID/reference	Qty/amount	Comment
Promotional sign	22011688x	1	

1. Remove the promotional sign (Fig. 36/1) from the promotional panel (Fig. 36/2).
2. Slide the new promotional sign (Fig. 36/1) into the promotional panel (Fig. 36/2).

Finishing tasks

1. Mount the promotional panel; see chapter 7.7.

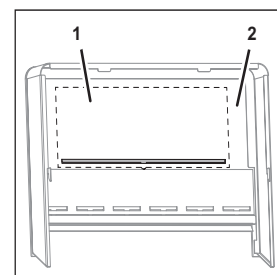


Fig. 36

7.10 Replacing the product labels

Prerequisites	References
The promotional panel has been removed.	see chapter 7.7

Spare parts	ID/reference	Qty/amount	Comment
Product labels	22011687x	6	

1. Remove the respective product label (Fig. 37/2) from the promotional panel (Fig. 37/1).
2. Slide the new product label (Fig. 37/2) into the promotional panel (Fig. 37/1).

Finishing tasks

1. Mount the promotional panel; see chapter 7.7.

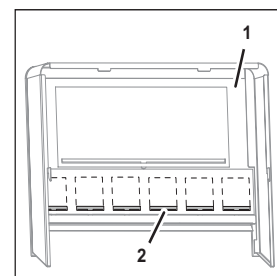


Fig. 37

7.11 Replacing the cover

Prerequisites	References
The promotional panel has been removed.	see chapter 7.7

1. Remove the fastening bolts (Fig. 38/1) of the cover (Fig. 38/2).
2. Slide the cover (Fig. 38/2) backwards.
3. Lift the cover (Fig. 38/2) upwards and away from the unit.

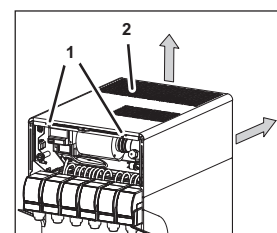


Fig. 38

4. Position the new cover (Fig. 39/2) on the unit.
5. Attach the cover (Fig. 39/2) on the unit using the fastening bolts (Fig. 39/1).

Finishing tasks

1. Mount the promotional panel; see chapter 7.7.

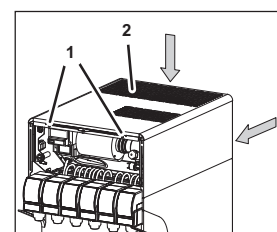


Fig. 39

7.12 Replace the unit fuse

Prerequisites		References	
The promotional panel has been removed.		see chapter 7.7	
Spare parts	ID/reference	Qty/amount	Comment
Fuse	141647634	1	10A 5x20 type FSM (slow-blow)

1. Turn and remove the fuse holder (Fig. 40/1).

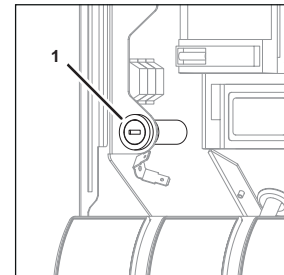


Fig. 40

2. Remove the fuse (Fig. 41/1) from the fuse holder (Fig. 41/2).
3. Position the new fuse (Fig. 41/1) within the fuse holder (Fig. 41/2).
4. Attach the fuse holder (Fig. 40/1) within the unit.

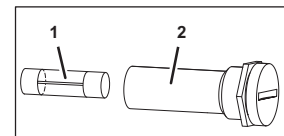


Fig. 41

Finishing tasks

1. Mount the promotional panel; see chapter 7.7.

7.13 Replacing the transformer

Prerequisites		References	
The promotional panel has been removed.		see chapter 7.7	
Spare parts	ID/reference	Qty/amount	Comment
Transformer	141647545	1	

1. Disconnect all electrical cables from the transformer (Fig. 42/1).
2. Remove the fastening bolts (Fig. 42/2) from the transformer (Fig. 42/1).
3. Remove the transformer (Fig. 42/1) from the unit.
4. Position the new transformer (Fig. 42/1) within the unit.
5. Attach the transformer (Fig. 42/1) to the unit with the attachment bolts (Fig. 42/2).
6. Connect all electrical cables to the transformer (Fig. 42/1).

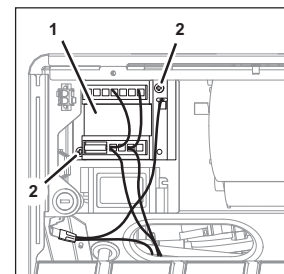


Fig. 42

Finishing tasks

1. Mount the promotional panel; see chapter 7.7.

7.14 Replacing the transformer fuse

Prerequisites		References	
The promotional panel has been removed.		see chapter 7.7	
Spare parts	ID/reference	Qty/amount	Comment
Fuse		1	4 A type slow-blow fuse 5x20

1. Remove the fuse (Fig. 43/1) from the transformer (Fig. 43/2).
2. Insert the new fuse into the (Fig. 43/1) transformer (Fig. 43/2).

Finishing tasks

1. Mount the promotional panel; see chapter 7.7.

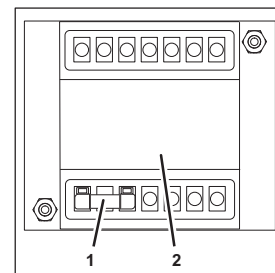


Fig. 43

7.15 Replacing the carbonator pump pressure switch

Prerequisites		References	
The promotional panel has been removed.		see chapter 7.7	
The lamp has been removed.		see chapter 7.8	
The unit is fully depressurised.		see chapter 4.3	

Required tools/materials	ID/reference	Qty/amount	Comment
Document on the CO ₂ system	Document no.: Various	1	
Document for the water system	Document no.: Various	1	

Spare parts	ID/reference	Qty/amount	Comment
Water inlet pressure switch	220107390	1	
Thread adhesive	Loctite 243		

1. Disconnect the plugs (Fig. 44/3) from the water inlet pressure switch (Fig. 44/2).
2. Turn the water inlet pressure switch (Fig. 44/2) and remove it from the carbonator pump (Fig. 44/1).
3. Apply thread adhesive to the thread of the new water inlet pressure switch (Fig. 44/2).
4. Attach the new water inlet pressure switch (Fig. 44/2) to the carbonator pump by turning it (Fig. 44/1).
5. Connect the plugs (Fig. 44/3) on the water inlet pressure switch (Fig. 44/2).

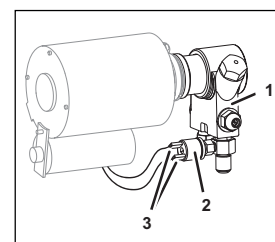


Fig. 44

Finishing tasks

1. Install the lamp; see chapter 7.8.
2. Mount the promotional panel; see chapter 7.7.
3. Open the valve of the water supply; see documentation on the water system.
4. Open the CO₂ shut off valves; see the document on the CO₂ system.
5. Open the CO₂ bottle valve; see the document on the CO₂ system.

7.16 Replacing the air duct

Prerequisites	References		
The cover has been removed.	see chapter 7.11.		
Spare parts	ID/reference	Qty/amount	Comment
Air duct	220116513	1	
Insulation	Armaflex		

1. Remove the insulation from the air duct (Fig. 45/1).
2. Remove the fastening bolt (Fig. 45/2) from the air duct (Fig. 45/1).
3. Lift and remove the air duct (Fig. 45/1) from the unit.
4. Position the new air duct (Fig. 45/1) on the unit.
5. Attach the insulation to the air duct from inside (Fig. 45/1).
6. Attach the air duct (Fig. 45/1) on the unit using the fastening bolt (Fig. 45/2).

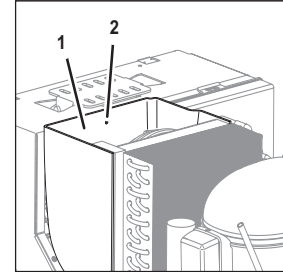


Fig. 45

Finishing tasks

1. Mount the cover; see chapter 7.11.

7.17 Replacing the carbonator pump

Prerequisites	References		
The pressure switch has been removed.	see chapter 7.15		
The air duct has been removed.	see chapter 7.16		

Required tools/materials	ID/reference	Qty/amount	Comment
Document on the CO ₂ system	Document no. Various	1	
Document for the water system	Document no. Various	1	

Spare parts	ID/reference	Qty/amount	Comment
Carbonator pump	440000761	1	
Seal	311304000	1	Plastic, black 5/8"
Seal	178025200	1	Plastic, red 1/2"
Thread adhesive	Loctite 243		

1. Disconnect the water outlet line (Fig. 46/2) by releasing the coupling from the carbonator pump (Fig. 46/1).

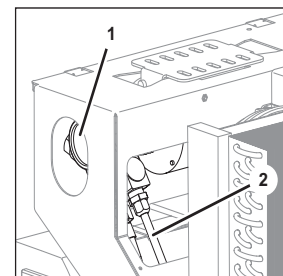


Fig. 46

2. Disconnect the water inlet line (Fig. 47/4) by releasing the coupling from the carbonator pump (Fig. 47/3).
3. Remove the clamp (Fig. 47/2).
4. Disconnect the carbonator pump (Fig. 47/3) from the carbonator pump motor (Fig. 47/1).
5. Lift the carbonator pump (Fig. 47/3) out of the unit.

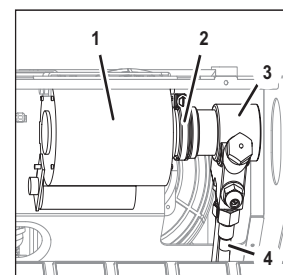


Fig. 47

6. Disconnect the fittings (Fig. 48/2) from the carbonator pump (Fig. 48/3).
7. Apply thread adhesive to the threads of the fittings (Fig. 48/2) and attach the fittings (Fig. 48/2) to the new carbonator pump (Fig. 48/3).
8. Replace the seals (Fig. 48/1) of the carbonator pump (Fig. 48/3).
9. Position the new carbonator pump (Fig. 47/3) on the carbonator pump motor (Fig. 47/1).
10. Attach the carbonator pump (Fig. 47/3) to the carbonator pump motor (Fig. 47/3) with the clamp (Fig. 47/2).
11. Connect the water inlet line (Fig. 47/4) to the carbonator pump (Fig. 47/3) with the assistance of the coupling.
12. Connect the water outlet line (Fig. 46/2) to the carbonator pump (Fig. 46/1) with the assistance of the coupling.

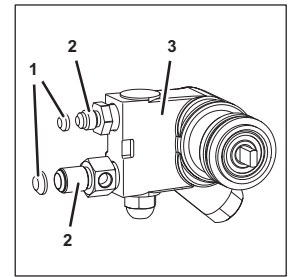


Fig. 48

Finishing tasks

1. Mount the pressure switch; see chapter 7.15.
2. Mount the air duct; see chapter 7.16.

7.18 Replacing the carbonator pump motor

Prerequisites	References		
The control system cover has been removed.	see chapter 7.22		
The unit is fully depressurised.	see chapter 4.3		
Required tools/materials	ID/reference	Qty/amount	Comment
Document on the CO ₂ system	Document no.: Various	1	
Document for the water system	Document no.: Various	1	
Spare parts	ID/reference	Qty/amount	Comment
Carbonator pump motor	440000849	1	

1. Disconnect the plug (Fig. 49/2) of the carbonator pump motor from the control system (Fig. 49/1).

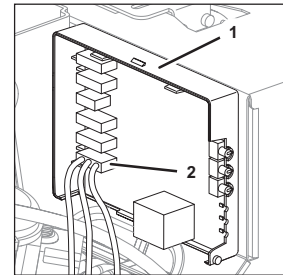


Fig. 49

2. Remove the fastening bolts (Fig. 51/1) of the carbonator pump motor mount (Fig. 51/2) from the carbonator pump motor (Fig. 50/3).

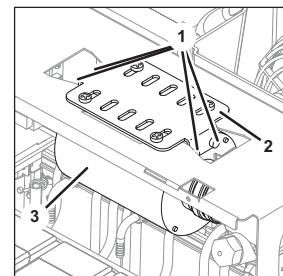


Fig. 50

3. Remove the clamp (Fig. 51/3).
4. Disconnect the carbonator pump motor (Fig. 51/1) from the carbonator pump (Fig. 51/2).
5. Lift the carbonator pump motor (Fig. 51/1) out of the unit.
6. Position the new carbonator pump motor (Fig. 51/1) on the carbonator pump (Fig. 51/2).
7. Attach the carbonator pump motor (Fig. 51/1) to the carbonator pump (Fig. 51/2) with the clamp (Fig. 51/3).
8. Attach the carbonator pump motor (Fig. 51/1) to the carbonator pump motor mount (Fig. 50/2) using the fastening bolts (Fig. 50/1).
9. Connect the plug (Fig. 49/2) of the carbonator pump motor to the control system (Fig. 49/1).

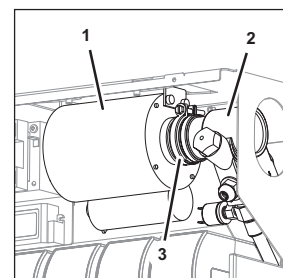


Fig. 51

Finishing tasks

1. Mount the cover of the control system; see chapter 7.22.
2. Open the valve of the water supply; see documentation on the water system.
3. Open the CO₂ shut off valves; see the document on the CO₂ system.
4. Open the CO₂ bottle valve; see the document on the CO₂ system.

7.19 Replacing the fan motor

Prerequisites	References
The air duct has been removed.	see chapter 7.16

Spare parts	ID/reference	Qty/amount	Comment
Fan motor	44000022	1	

1. Remove the cover (Fig. 52/2) from the electrical assembly.
2. Disconnect the cable (Fig. 52/3) of the fan (Fig. 52/1) from the electrical assembly.

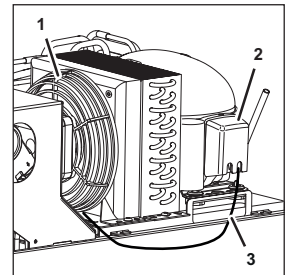


Fig. 52

1. Remove the fastening bolt (Fig. 53/2) from the fan (Fig. 53/1).
2. Lift the fan (Fig. 53/1) out of the cladding (Fig. 53/3).

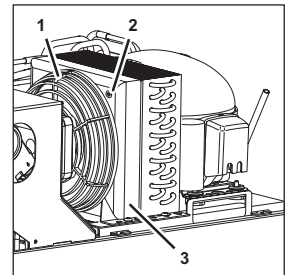


Fig. 53

3. Remove the fastening bolts (Fig. 54/1) of the fan motor (Fig. 54/2).
4. Remove the fan motor (Fig. 54/2) from the fan blade (Fig. 54/3).
5. Position the new fan motor (Fig. 54/2) on the fan blade (Fig. 54/3).
6. Attach the fan motor (Fig. 54/2) on the fan blade (Fig. 54/3) using the fastening bolts (Fig. 54/1).
7. Position the fan (Fig. 53/1) in the cladding (Fig. 53/3).
8. Attach the fastening bolt (Fig. 53/2) of the fan (Fig. 53/1).
9. Connect the cable (Fig. 52/3) of the fan (Fig. 52/1) to the electrical assembly.
10. Attach the cover (Fig. 52/2) of the electrical assembly.

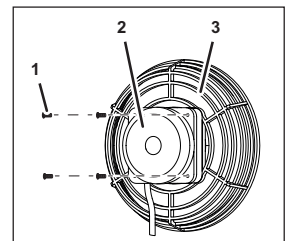


Fig. 54

Finishing tasks

1. Mount the air duct; see chapter 7.16.

7.20 Replacing the starting capacitor for the compressor

Prerequisites		References	
The cover has been removed.		see chapter 7.11	
Spare parts	ID/reference	Qty/amount	Comment
Starting capacitor	440005137	1	

1. Discharge the starting capacitor.
2. Remove the cover (Fig. 55/2) from the electrical assembly.
3. Disconnect the electrical cables.
4. Loosen the tightening strap (Fig. 55/3) of the starting capacitor (Fig. 55/1).
5. Remove the starting capacitor (Fig. 55/1) from the unit.
6. Position the new starting capacitor (Fig. 55/1) within the unit.
7. Attach the starting capacitor (Fig. 55/1) within the unit using the tightening strap (Fig. 55/3).
8. Connect the electrical cables.
9. Attach the cover (Fig. 55/2) of the electrical assembly.

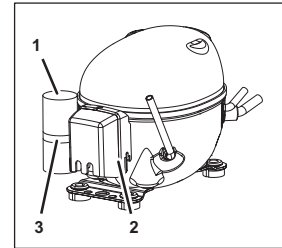


Fig. 55

Finishing tasks

1. Mount the cover; see chapter 7.11.

7.21 Replacing the starter relay

Prerequisites		References	
The cover has been removed.		see chapter 7.11	
Spare parts	ID/reference	Qty/amount	Comment
Starter relay	440005138	1	

1. Discharge the starting capacitor.
2. Remove the cover (Fig. 56/2) from the electrical assembly.
3. Disconnect the electrical cables (Fig. 57/2) from the starter relay (Fig. 57/1).
4. Remove the starter relay (Fig. 57/1) from the unit.
5. Position the new starter relay (Fig. 57/1) on the unit.
6. Connect the electrical cables (Fig. 57/2) of the starter relay (Fig. 57/1).
7. Attach the cover (Fig. 56/2) of the electrical assembly.

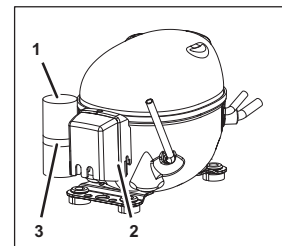


Fig. 56

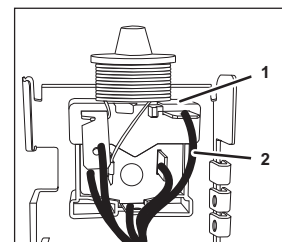


Fig. 57

Finishing tasks

1. Mount the cover; see chapter 7.11.

7.22 Replacing the control system

Prerequisites		References	
The cover has been removed.		see chapter 7.11	
Spare parts	ID/reference	Qty/amount	Comment
Control system	141647605B	1	

1. Open the cover (Fig. 58/1) of the control system.

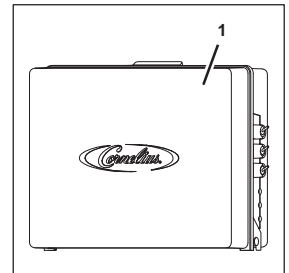


Fig. 58

2. Disconnect all necessary electrical cables and plugs from the control system (Fig. 59/1).

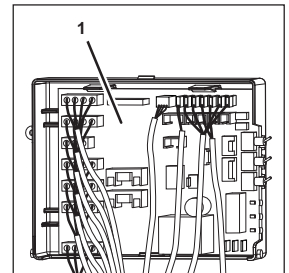


Fig. 59

3. Remove the fastening bolt (Fig. 60/1) from the control system (Fig. 60/2).
4. Slide the control system (Fig. 60/2) to the left or right and lift the control system (Fig. 60/2) out of the unit.
5. Position the new control system (Fig. 60/2) within the unit.
6. Slide the control system (Fig. 60/2) to the left or right and push the control system (Fig. 60/2) down until the control system (Fig. 60/2) locks into place.
7. Attach the control system (Fig. 60/2) on the unit using the fastening bolt (Fig. 60/1).
8. Connect all electrical cables and plugs of the control system (Fig. 59/1).
9. Close the cover (Fig. 58/1) of the control system.

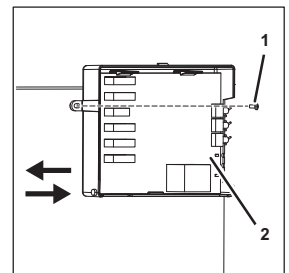


Fig. 60

Finishing tasks

1. Mount the cover; see chapter 7.11.

7.23 Replacing the agitator

Prerequisites		References	
The cover has been removed.		see chapter 7.11	
The control system cover has been removed.		see chapter 7.22	
Spare parts	ID/reference	Qty/amount	Comment
Agitator motor	440000105	1	
Agitator blade	143350000	1	
Agitator motor mount	220116374	1	
Required tools/materials	ID/reference	Qty/amount	Comment
Thread adhesive	Loctite		

1. Disconnect the plug (Fig. 61/1) of the agitator motor from the control system (Fig. 61/2).

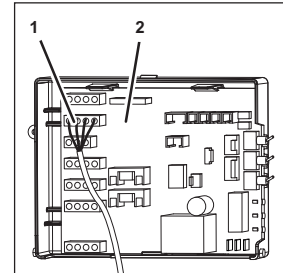


Fig. 61

2. Remove the fastening bolts (Fig. 62/2) from the agitator motor mount (Fig. 62/3).
3. Lift the agitator motor mount (Fig. 62/3) with agitator motor (Fig. 62/1) out of the unit.

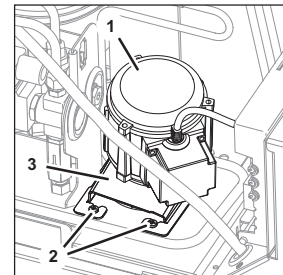


Fig. 62

4. Remove the agitator blade (Fig. 63/3) from the agitator motor (Fig. 63/1).
5. Remove the fastening bolts (Fig. 63/2) from the agitator motor (Fig. 63/1) on the agitator motor mount (Fig. 63/4).
6. Attach the new agitator motor (Fig. 63/1) to the agitator motor mount (Fig. 63/4) using the fastening bolts (Fig. 63/2).
7. Apply the thread adhesive to the thread of the shaft of the agitator motor.
8. Attach the new agitator blade (Fig. 63/3) to the new agitator motor (Fig. 63/1).
9. Position the agitator motor (Fig. 62/1) in the unit together with the agitator motor mount (Fig. 62/3).
10. Attach the agitator motor mount (Fig. 62/3) within the unit with the fastening bolts (Fig. 62/2).
11. Connect the plug (Fig. 61/1) of the agitator motor to the control system (Fig. 61/2).

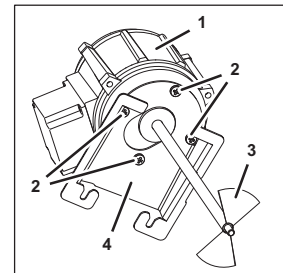


Fig. 63

Finishing tasks

1. Mount the cover of the control system; see chapter 7.22.
2. Mount the cover; see chapter 7.11.

7.24 Replacing the refrigeration system support

Prerequisites	References
The air duct has been removed.	see chapter 7.16
The agitator motor has been removed.	see chapter 7.23
The ice build-up has thawed.	see chapter 6.6

Spare parts	ID/reference	Qty/amount	Comment
Refrigeration system support	220116504	1	

1. Disconnect the CO₂-IN line (Fig. 64/1) at the bolted connection (Fig. 64/2).

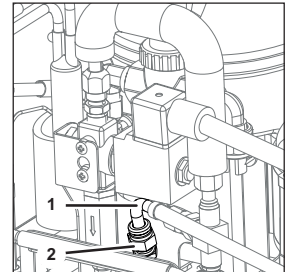


Fig. 64

2. Disconnect the plug (Fig. 65/1) of the compressor from the control system (Fig. 65/3).
3. Disconnect the plug (Fig. 65/2) of the solenoid valve from the control system (Fig. 65/3).
4. Disconnect the plug (Fig. 65/4) of the ice build-up probe from the control system (Fig. 65/3).
5. Disconnect the plug (Fig. 65/5) of the level electrode from the control system (Fig. 65/3).

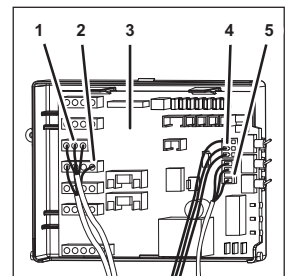


Fig. 65

6. Remove the fastening bolts (Fig. 66/1) of the refrigeration system support (Fig. 66/2).
7. Lift the refrigeration system support (Fig. 66/2) up out of the unit.
8. Position the new refrigeration system support (Fig. 66/2) within the unit.
9. Attach the refrigeration system support (Fig. 66/2) within the unit with the fastening bolts (Fig. 66/1).
10. Connect the plug (Fig. 65/4) of the level electrode to the control system (Fig. 65/2).
11. Connect the plug (Fig. 65/3) of the ice build-up probe to the control system (Fig. 65/2).
12. Connect the plug (Fig. 65/1) of the compressor to the control system (Fig. 65/2).
13. Connect the CO₂-IN line (Fig. 64/1) with the bolted connection (Fig. 64/2).

Finishing tasks

1. Mount the agitator motor; see chapter 7.23.
2. Mount the air duct; see chapter 7.16.

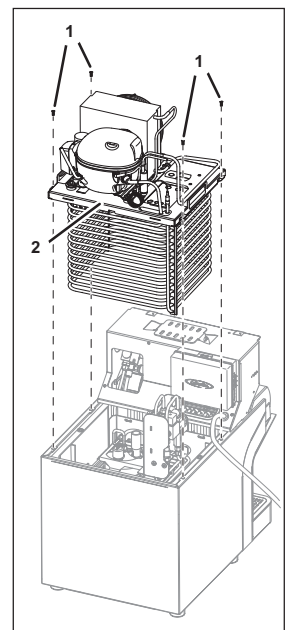


Fig. 66

7.25 Replacing the ice build-up probe

Prerequisites		References	
The cover has been removed.		see chapter 7.11	
Required tools/materials	ID/reference	Qty/amount	Comment
Cable ties	Various		
Spare parts	ID/reference	Qty/amount	Comment
Ice build-up probe	220117567	1	

1. Remove the two bolts (Fig. 67/1).
2. Slide the ice build-up probe mount (Fig. 67/2) out of the receptacle.
3. Pull the ice build-up probe mount (Fig. 67/2) out of the unit.
4. Remove the ice build-up probe (Fig. 67/3) from the ice build-up probe mount (Fig. 67/2).
5. Attach the new ice build-up probe (Fig. 67/3) in the ice build-up probe mount (Fig. 67/2) using cable ties.
6. Slide the ice build-up probe mount (Fig. 67/2) into the unit.
7. Slide the ice build-up probe mount (Fig. 67/2) into the receptacle.
8. Attach the ice build-up probe mount (Fig. 67/2) using the two bolts (Fig. 67/1).

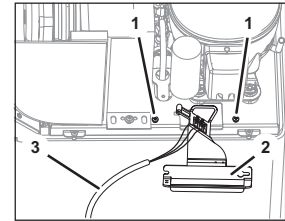


Fig. 67

Finishing tasks

1. Mount the cover; see chapter 7.11.

7.26 Replacing the solenoid valve for the carbonator tank

Prerequisites		References	
The cover has been removed.		see chapter 7.11	
Spare parts	ID/reference	Qty/amount	Comment
Solenoid valve	440000672	1	
Seal	178025200	2	Plastic, red 1/2"
Thread adhesive	Loctite 243		

1. Disconnect the plug (Fig. 68/1) of the solenoid valve (Fig. 68/3); remove the fastening bolt for this purpose (Fig. 68/2).

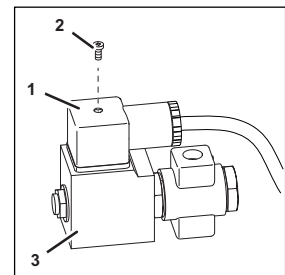


Fig. 68

2. Release the coupling (Fig. 69/1) on the solenoid valve (Fig. 69/2).
3. Release the coupling (Fig. 69/3) on the non-return valve (Fig. 69/4).
4. Remove the fastening bolts (Fig. 69/5) from the solenoid valve (Fig. 69/2).
5. Lift the solenoid valve (Fig. 69/2) with the non-return valve (Fig. 69/4) out of the unit.

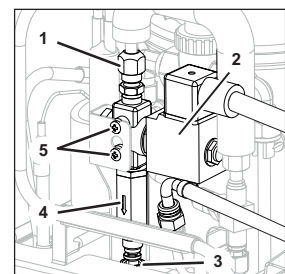


Fig. 69

6. Disconnect the non-return valve (Fig. 70/2) from the solenoid valve (Fig. 70/1).
7. Apply thread adhesive to the thread of the non-return valve (Fig. 70/2).
8. Attach the new solenoid valve (Fig. 70/1) to the non-return valve (Fig. 70/2).
9. Check the seals (Fig. 70/3) for damage.
Replace any damaged seals (Fig. 70/3).
10. Position the solenoid valve (Fig. 70/1) with the non-return valve (Fig. 70/2) within the unit.

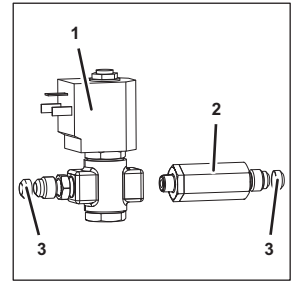


Fig. 70

11. Attach the solenoid valve (Fig. 69/2) and the non-return valve within the unit (Fig. 69/4) with the assistance of the couplings (Fig. 69/1 and Fig. 69/3).
12. Attach the solenoid valve (Fig. 69/2) on the unit using the fastening bolts (Fig. 69/5).
13. Connect the plug (Fig. 68/1) of the solenoid valve (Fig. 68/3) and secure the plug (Fig. 68/1) with the fastening bolt (Fig. 68/2).

Finishing tasks

1. Mount the cover; see chapter 7.11.

7.27 Replacing the non-return valve for the carbonator tank

Prerequisites	References
The solenoid valve for the carbonator tank has been removed.	see chapter 7.26

Spare parts	ID/reference	Qty/amount	Comment
Non-return valve	220105624	1	
Seal	178025200	1	Plastic, red 1/2"
Thread adhesive	Loctite 243		

1. Disconnect the non-return valve (Fig. 71/2) from the solenoid valve (Fig. 71/1).
2. Apply thread adhesive to the thread of the new non-return valve (Fig. 71/2).
3. Attach the non-return valve (Fig. 71/2) to the solenoid valve (Fig. 71/1).

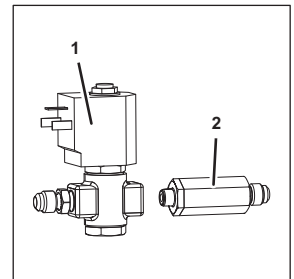


Fig. 71

4. Check the seals (Fig. 72/2) for damage.
Replace any damaged seals (Fig. 72/2).

Finishing tasks

1. Mount the solenoid valve for the carbonator tank; see chapter 7.26.

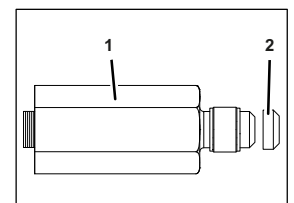


Fig. 72

7.28 Replacing the water pressure control valve

Prerequisites	References
The solenoid valve for the carbonator tank has been removed.	see chapter 7.26

Spare parts	ID/reference	Qty/amount	Comment
Water pressure control valve	440000752	1	
Thread adhesive	Loctite 243		

1. Release the couplings (Fig. 73/1 and 2) of the water pressure control valve (Fig. 73/3).
2. Take the water pressure control valve (Fig. 73/3) out of the unit.

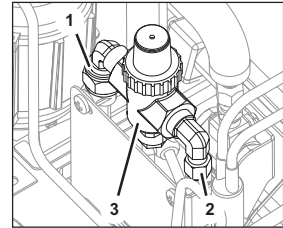


Fig. 73

3. Disconnect the fittings (Fig. 74/1) from the water pressure control valve (Fig. 74/2).
4. Apply thread adhesive to the threads of the fittings (Fig. 74/1) and attach the fittings (Fig. 74/1) to the new water pressure control valve (Fig. 74/2).



NOTICE!

Pay attention to the direction of flow when screwing the fittings into the water pressure control valve.

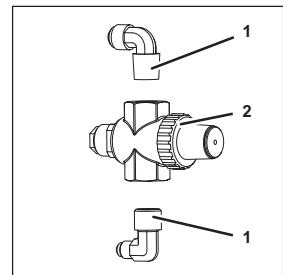


Fig. 74

5. Position the new water pressure control valve (Fig. 73/3) within the unit.
6. Attach the water pressure control valve within the unit (Fig. 73/3) with the assistance of the couplings (Fig. 73/1 and 2).

Finishing tasks

1. Mount the solenoid valve for the carbonator tank; see chapter 7.26.

7.29 Replacing the non-return valve CO₂-IN

Prerequisites	References
The solenoid valve for the carbonator tank has been removed.	see chapter 7.26
The refrigeration system support has been removed.	see chapter 7.24

Spare parts	ID/reference	Qty/amount	Comment
Non-return valve	149799020	1	
Seal	178025100	1	Plastic, white 7/16"
Thread adhesive	Loctite 243		

2. Disconnect the fitting (Fig. 75/1) from the inlet pipe of the non-return valve (Fig. 75/2).
3. Remove the non-return valve (Fig. 75/2) from the carbonator.
4. Check the seal for damages.
Replace any damaged seals.
5. Position the new non-return valve (Fig. 75/2) on the carbonator.
6. Attach the non-return valve (Fig. 75/2) to the carbonator.
7. Attach the fitting (Fig. 75/1) of the inlet pipe to the non-return valve (Fig. 75/2).

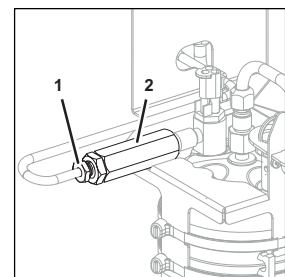


Fig. 75

Finishing tasks

1. Mount the solenoid valve for the carbonator tank; see chapter 7.26.
2. Mount the cooling system support; see chapter 7.24.

7.30 Replacing the level electrode for the carbonator tank

Prerequisites	References
The cover has been removed.	see chapter 7.24

Spare parts	ID/reference	Qty/amount	Comment
Socket spanner and extension		1	
Level electrode	440000802	1	
O-ring	180024000	1	

1. Disconnect the plug (Fig. 76/1) of the level electrode (Fig. 76/2).
2. Disconnect the earth cable (Fig. 76/3).

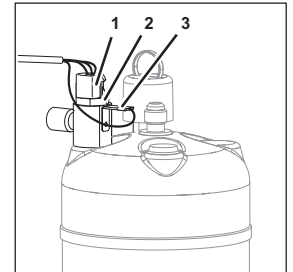


Fig. 76

3. Turn the level electrode (Fig. 77/1) out of the carbonator tank (Fig. 77/2) using a socket spanner and extension.

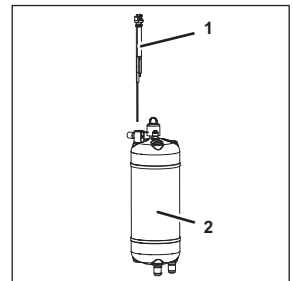


Fig. 77

4. Check the O-ring (Fig. 78/1) of the level electrode (Fig. 78/2) for damage. Replace any damaged O-rings (Fig. 78/1).
5. Attach the new level electrode (Fig. 77/1) to the carbonator tank (Fig. 77/2) by turning it.
6. Connect the earth cable (Fig. 76/3).
7. Connect the plug (Fig. 76/1) of the level electrode (Fig. 76/2).

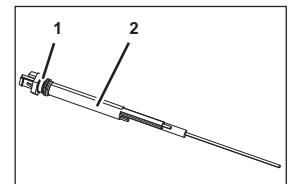


Fig. 78

Finishing tasks

1. Mount the cover; see chapter 7.24.

7.31 Replacing the drain valve for the carbonator tank

Prerequisites	References
The refrigeration system support has been removed.	see chapter 7.24

Spare parts	ID/reference	Qty/amount	Comment
Drain valve	000001116	1	

1. Push the drain lever (Fig. 79/2) away from the drain valve (Fig. 79/1) until the system is depressurised.

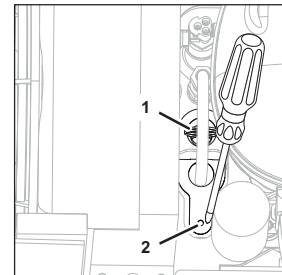


Fig. 79

2. Turn the drain valve (Fig. 80/1) and remove it from the carbonator tank (Fig. 80/2).
3. Attach the new drain valve (Fig. 80/1) to the carbonator tank (Fig. 80/2) by turning it.

Finishing tasks

1. Mount the cooling system support; see chapter 7.24.

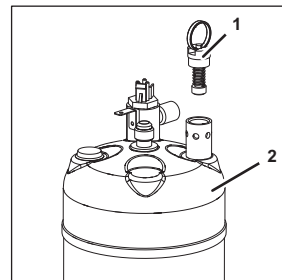


Fig. 80

7.32 Replacing the carbonator tank

Prerequisites	References
The level electrode has been removed.	see chapter 7.30
The non-return valve for carbonator tank has been removed.	see chapter Fig. 82
The non-return valve CO2-IN has been removed.	see chapter Fig. 82
The drain valve for the carbonator tank has been removed.	see chapter 7.31

Spare parts	ID/reference	Qty/amount	Comment
Carbonator tank	440000782	1	3 litres

1. Disconnect the soda water line at the push-in fitting (Fig. 81/1).
2. Remove the cable tie with which the carbonator tank is secured to the cooling coil basket.

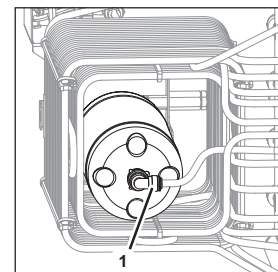


Fig. 81

3. Disconnect the still water connecting line to the carbonator tank at the coupling (Fig. 82/1).
4. Remove the cable ties (Fig. 82/3) from the carbonator tank (Fig. 82/2).
5. Remove the carbonator tank (Fig. 82/2) from the unit.
6. Position the new carbonator tank (Fig. 82/2) within the unit.
7. Attach the carbonator tank (Fig. 82/2) using cable ties (Fig. 82/3).
8. Attach the still water connecting line to the carbonator tank at the coupling (Fig. 82/1).

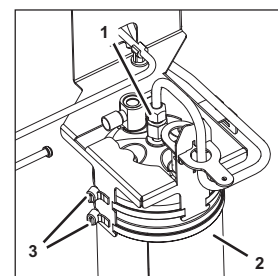


Fig. 82

9. Attach the carbonator tank to the cooling coil basket using a cable tie.
10. Attach the soda water line at the push-in fitting (Fig. 81/1).

Finishing tasks

1. Mount the drain valve for the carbonator tank; see chapter 7.31.
2. Mount the non-return valve CO2-IN; see chapter 7.29.
3. Mount the non-return valve for carbonator tank; see chapter 7.27.
4. Mount the level electrode; see chapter 7.30.

8 Commissioning/shutdown



DANGER!

Risk of personal injury and equipment damage due to non-compliance with safety information!

Failure to observe the safety information will result in a risk of bringing about operating conditions at the unit, which may cause personal injury or equipment damage.

- Please always strictly observe all safety measures and information/instructions; see chapter 1.



NOTICE!

All installation, maintenance and repair work at the unit is to be carried out by an expert only.



WARNING!

Risk of personal injury and equipment damage due to operation by non-qualified staff!

It is dangerous for non-qualified staff to operate the unit!

- Service operations on this unit may only be carried out by trained and certified experts who have been trained in carrying out service operations on this unit.
- All wiring and plumbing must be carried out in compliance with national and local laws, regulations and guidelines. Non-compliance with these laws, regulations and guidelines may result in death, serious injury or equipment damage.

8.1 Commissioning



NOTICE!

The following describes how the unit is put back into service by an expert following a longer shutdown period (> 24 hours).

If the unit is to be put back into operation after a temporary shutdown (< 24 hours), this may be carried out by the operator or user; see the document "Overcounter cooler operator manual", document no. TD1019000.

Prerequisites	References
The unit has been disconnected from the power supply.	see chapter 4.1

Required tools/materials	ID/reference	Qty/ amount	Comment
Document on the CO ₂ system	Document no.: Various	1	
Document for the water system	Document no.: Various	1	
Overcounter cooler operator manual	Document no.: TD1019000	1	

1. Remove the front panel; see chapter 7.4.
2. Check the water level gauge (Fig. 83) to make sure the water pan is filled up with tap water. The water level must be between the MIN and MAX marks. If necessary, fill up the water bath with tap water.
3. Mount the front panel; see chapter 7.4.
4. Remove the cover; see chapter 7.11.

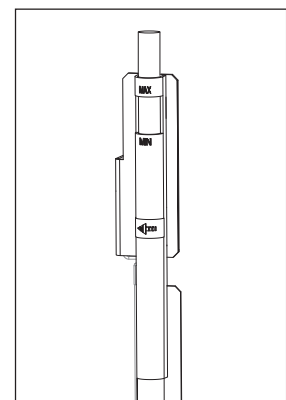


Fig. 83

5. Turn the compressor switch (Fig. 84/2) to position "I".
6. Turn the carbonator pump switch (Fig. 84/1) to position "I".
7. Mount the cover; see chapter 7.11.
8. Check the pressure-reducing valve on the CO₂ bottle to make sure the CO₂ pressure for carbonation is set as specified (for the setpoint, see the document "Overcounter cooler operator manual", document no. TD1019000).
9. **Only for types with CO₂-operated syrup pumps:** Check the second pressure-reducing valve on the CO₂ bottle to make sure the CO₂ pressure for pressurising the syrup pumps is set as specified (for the setpoint, see the document "Overcounter cooler operator manual", document no. TD1019000).
10. Check that the CO₂ shut off valves are open; see documentation on the CO₂ system. If necessary, open the CO₂ shut off valves.
11. Check that the water supply valve is open; see documentation on the water supply valve. If necessary, open the water supply valve.
12. Check that the CO₂ bottle valve is open; see documentation on the CO₂ system. If necessary, open the valve on the CO₂ bottle.
13. Check the pressure-reducing valve on the water supply pipe to make sure the water pressure is set as specified (for the setpoint, see the document "Overcounter cooler operator manual", document no. TD1019000).
14. Check the fill level and the connection of the syrup containers and BIBs and replace the empty containers with full ones; see the document "Overcounter cooler operator manual", document no. TD1019000.
15. Clean the unit, assemblies and components; see the document "Overcounter cooler operator manual", document no. TD1019000.
16. Plug the mains plug into the earthed socket.

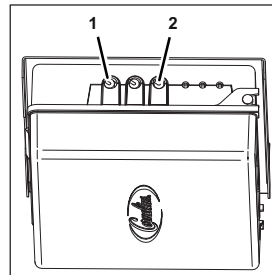


Fig. 84

17. Switch the On/Off switch (Fig. 86/2) to position "I" and attach the cover cap (Fig. 86/3).
18. Turn the key switch (Fig. 86/1) to position "I".
19. Position the drip tray on the unit.
20. Clean the tubes; see chapter 6.2.

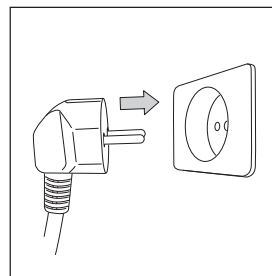


Fig. 85

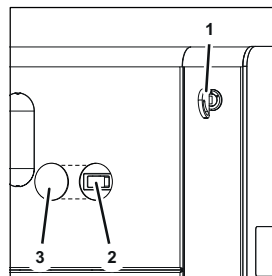


Fig. 86

8.2 Shutdown



NOTICE!

The following describes how the unit is shut down by an expert for a longer period (> 24 hours).
If the unit is to be shut down temporarily (< 24 hours), this may be carried out by the operator or user; see the document "Overcounter cooler operator manual", document no. TD1019000.

Required tools/materials	ID/reference	Qty/ amount	Comment
Document on the CO ₂ system	Document no.: Various	1	
Document for the water system	Document no.: Various	1	
Dispensing valve documentation	Document no.: Various	1	
Overcounter cooler operator manual	Document no.: TD1019000	1	

1. Clean the tubes and valves as described in chapter 6.2 up to and including step 10.
2. Drain the unit as follows:
 - a) Empty the cleaning container.
 - b) Connect the valve of the water supply; see documentation on the water system.
 - c) Keep dispensing beverages for each dispensing valve (see dispensing valve documentation) until only CO₂ comes out of the dispensing nozzle.
 - d) Disconnect all basic ingredient/beverage tubes of the overcounter cooler from the cleaning container.
 - e) Connect the basic ingredient/beverage tubes on the overcounter cooler; see chapter 5.3.
3. Close the CO₂ bottle valve; see documentation on the CO₂ system.
4. Close the CO₂ shut off valves; see documentation on the CO₂ system.
5. Close the valve of the water supply; see documentation on the water system.
6. Disconnect the unit from power; see chapter 4.1.
7. Remove the cover; see chapter 7.11.
8. Turn the compressor switch (Fig. 87/2) to position "0".
9. Turn the carbonator pump switch (Fig. 87/1) to position "0".
10. Vent the carbonator tank; see chapter 6.5.
11. Thaw the ice build-up; see chapter 6.6.
12. Empty the water bath; see chapter 6.3.
13. Mount the cover; see chapter 7.11.
14. Clean the unit, assemblies and components; see the document "Overcounter cooler operator manual", document no. TD1019000.

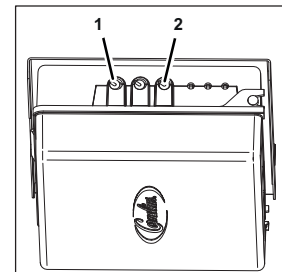


Fig. 87

9 Errors and malfunctions



DANGER!

Risk of personal injury and equipment damage due to non-compliance with safety information!

Failure to observe the safety information will result in a risk of bringing about operating conditions at the unit, which may cause personal injury or equipment damage.

- Please always strictly observe all safety measures and information/instructions; see chapter 1.
-



NOTICE!

All installation, maintenance and repair work at the unit is to be carried out by an expert only.



WARNING!

Risk of personal injury and equipment damage due to operation by non-qualified staff!

It is dangerous for non-qualified staff to operate the unit!

- Service operations on this unit may only be carried out by trained and certified experts who have been trained in carrying out service operations on this unit.
 - All wiring and plumbing must be carried out in compliance with national and local laws, regulations and guidelines. Non-compliance with these laws, regulations and guidelines may result in death, serious injury or equipment damage.
-



NOTICE!

Information on faults and troubleshooting of the dispensing valves installed on your unit can be found in the relevant binding documentation for the valves.

9.1 Troubleshooting table

Fault	Probable cause	Remedy
Unable to dispense	No mains/power supply connected	Start up the overcounter cooler; see chapter 8.1
	Transformer defective	Replace the transformer; see chapter 7.13
	Transformer fuse defective	Replace the fuse; see chapter 7.14
	Unit fuse defective	Replace the fuse; see chapter 7.12
	Fault or error on the dispensing valve	See dispensing valve documentation
Beverage is too warm and the compressor is not running	Compressor not running	Switch on the compressor; see chapter 8.1 Please contact your refrigeration engineer
	Excessive beverage dispensing	Do not exceed the maximum dispensing capacity (see the document "Overcounter cooler operator manual")
Beverage is too warm and the compressor is running	Condenser is dirty or covered	Clean the condenser; see chapter 6.4
	Agitator motor is defective	Replace the agitator motor; see chapter 7.23
	Soda water is too warm	Thaw the ice build-up; see chapter 6.6 and then allow the ice to build up again
Beverage foams for all products	CO ₂ feed pressure for the soda circuit is too high on the relevant pressure-reducing valve	Adjust the CO ₂ feed pressure to the required value (see documentation on the CO ₂ system)
	Syrup has been stored too long and has had CO ₂ added	Connect a new syrup container (see the document "Overcounter cooler operator manual")
	Contaminated tubes	Clean the tubes; see chapter 6.2
	CO ₂ feed pressure for the syrup circuit is set incorrectly on the relevant pressure-reducing valve	Adjust the CO ₂ feed pressure to the required value (see documentation on the CO ₂ system)
Only soda is being dispensed	Syrup container is empty	Connect a new syrup container (see the document "Overcounter cooler operator manual")
	Connections on the syrup container are not properly connected	Connect the connections on the syrup container properly (see documentation on the syrup container)
	Syrup tube is not connected to the overcounter cooler	Connect the syrup tube (see the document "Overcounter cooler operator manual")
	CO ₂ feed pressure for the syrup circuit is set incorrectly on the relevant pressure-reducing valve	Adjust the CO ₂ feed pressure to the required value (see documentation on the CO ₂ system)
	Syrup tube is contaminated	Clean the syrup tube; see chapter 6.2
	Incorrectly set valve on the dispensing valve	Adjust valve (see dispensing valve documentation)
	Defective valve on the dispensing valve	Replace valve (see dispensing valve documentation)
	Water pressure too high	Check the water pressure on the pressure-reducing valve and adjust, if necessary; see chapter 8.1
Only syrup is being dispensed	Shut-off valve or pressure-reducing valve for the fresh water supply is closed	Open the shut-off valve and pressure-reducing valve for the fresh water supply (see documentation on the drinking water system)
	Carbonator pump is switched off	Switch on the carbonator pump; see chapter 8.1
	Carbonator pump is defective	Replace the carbonator pump; see chapter 7.17
	Carbonator pump motor defective	Replace the carbonator pump motor; see chapter 7.18
	Water in the cooling coils is frozen	Thaw the ice build-up; see chapter 6.6
Soda/syrup ratio is incorrect	Fault or error on the dispensing valve	See dispensing valve documentation
	CO ₂ feed pressure for the syrup circuit is set incorrectly on the relevant pressure-reducing valve	Adjust the CO ₂ feed pressure to the required value (see documentation on the CO ₂ system)
Insufficient amount of CO ₂ in the beverage	CO ₂ pressure for soda is set incorrectly on the relevant pressure-reducing valve	Correctly adjust the CO ₂ pressure for soda on the relevant pressure-reducing valve (see documentation on the CO ₂ system)
	Air in the carbonator tank	Bleed the carbonator tank; see chapter 6.5
	CO ₂ supply is contaminated	Clean the CO ₂ supply; see chapter 6.2

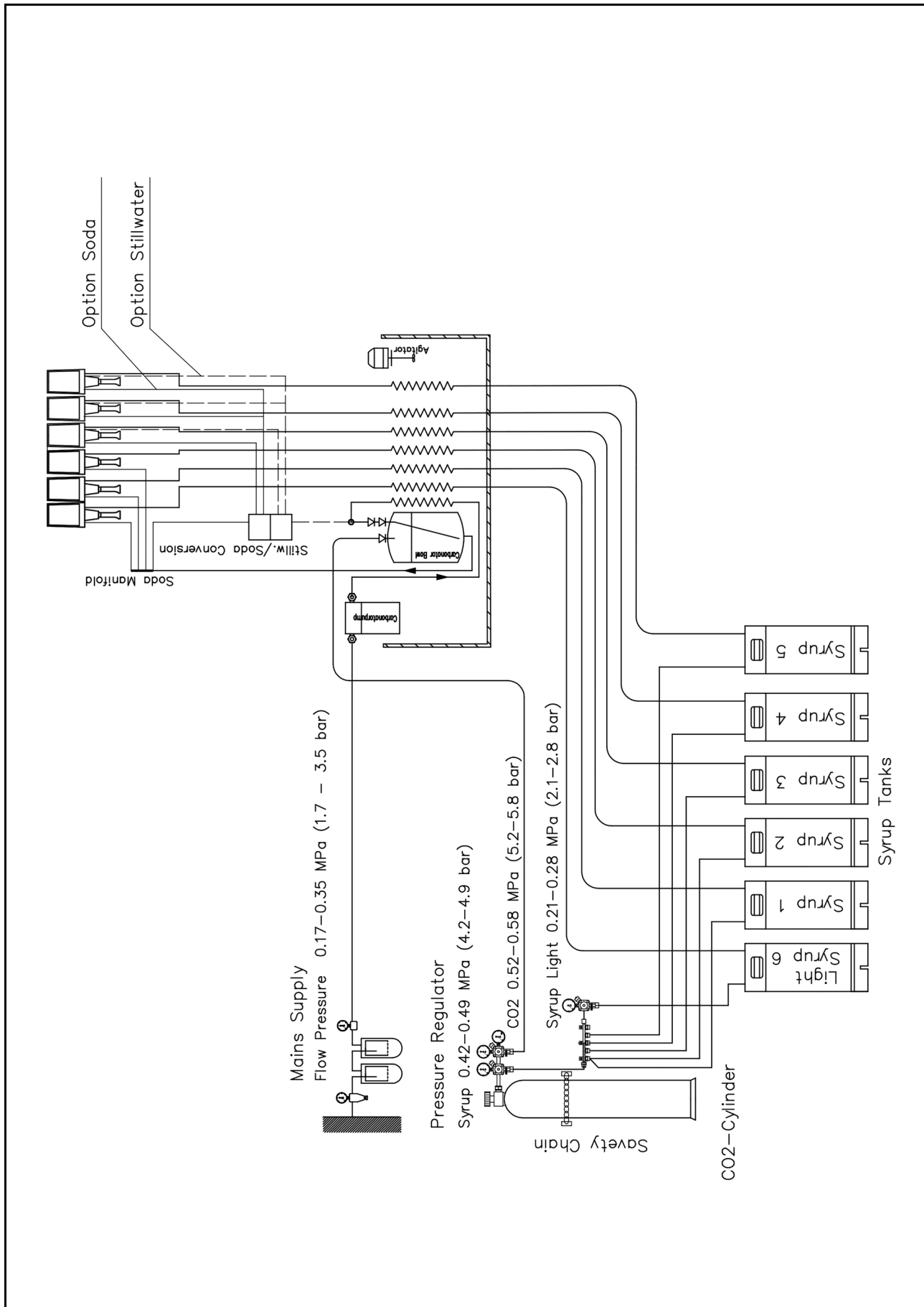
Fault	Probable cause	Remedy
Alarm on (red)	Time out on pump cycle; carbonator pump is blocked	Check the water pressure, see chapter 8.1 Briefly stop operation of the overcounter cooler; see chapter 8.2
Alarm (red) flashes approx. 1x per second	Time out due to insufficient water (pressure fluctuations), carbonator pump is blocked.	Check the water pressure, see chapter 8.1 Briefly stop operation of the overcounter cooler; see chapter 8.2
Power/mains (green) flashes approx. 1x per second	Low voltage < 190 V, consumers are blocked	Automatic reset is performed
Power/mains (green) flashes approx. 4x per second	Overvoltage > 260 V, consumers are blocked	Automatic reset is performed
Power/mains (green) + alarm (red) flash alternately	Carbonator system is blocked	Disconnect the overcounter cooler from power; see chapter 4.1
	Control system defective	Replace control system; see chapter 7.22


NOTICE!

Crushed ice in the cup may also cause decarbonisation.
When the finished beverage comes into contact with sharp-edged ice, CO₂ is released from the dispensed drink.

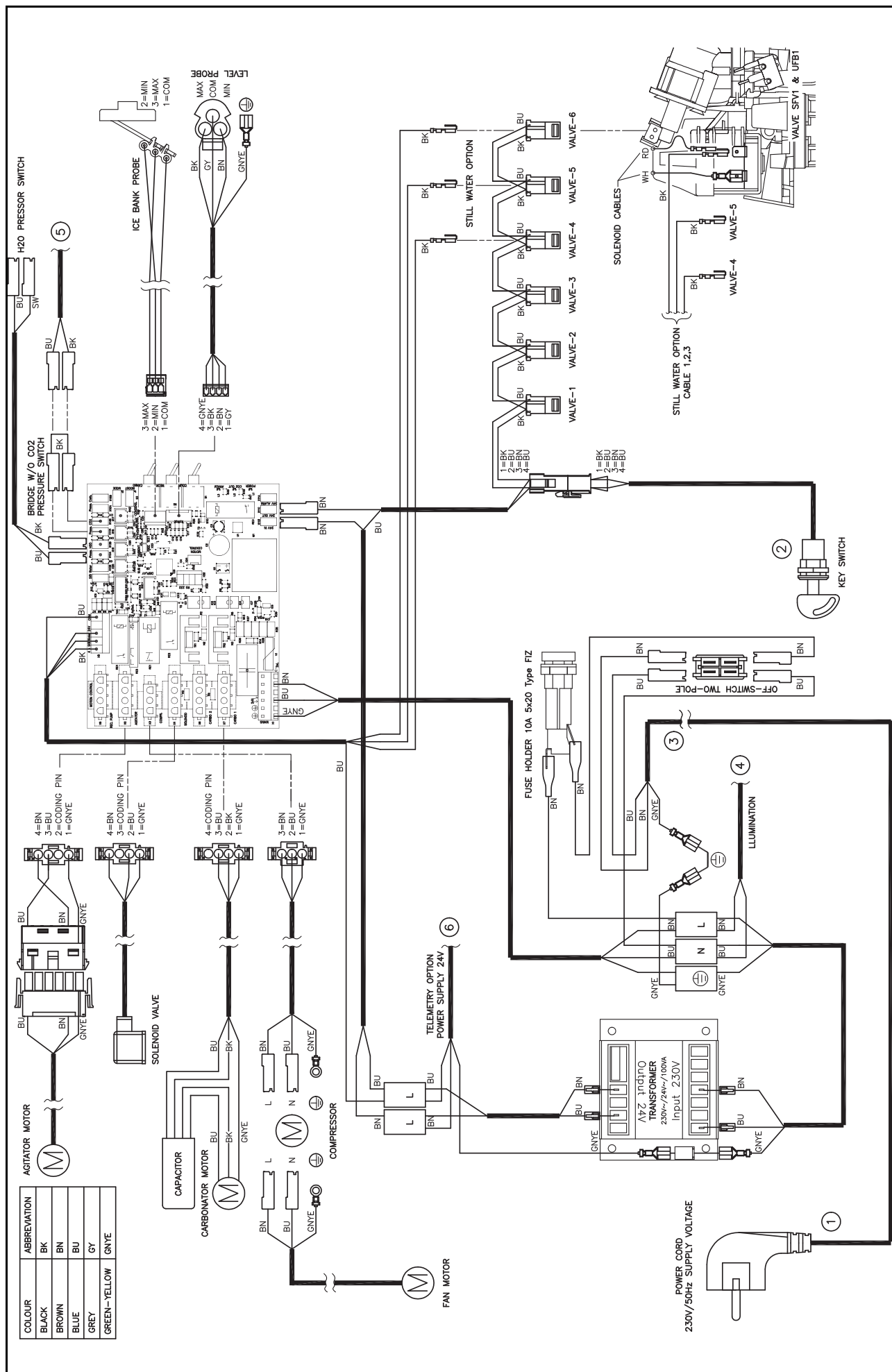
10 Applicable documents

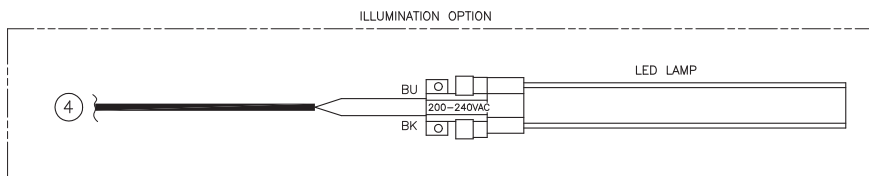
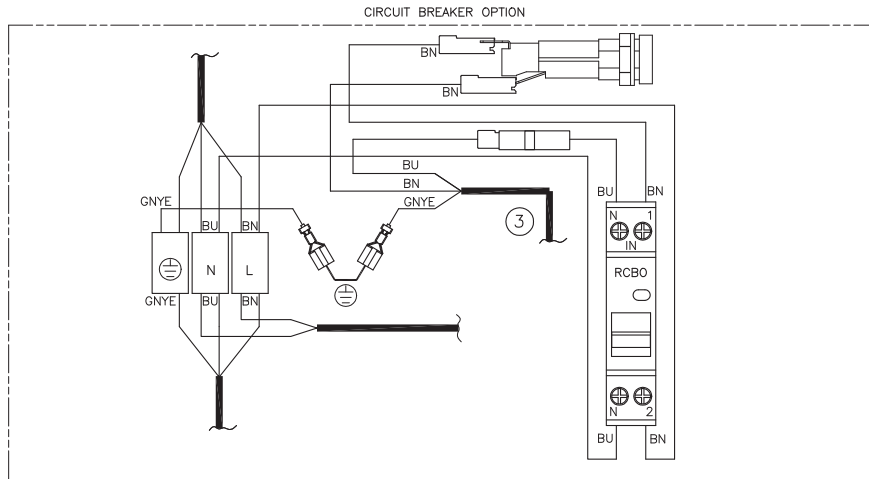
10.1 Flowchart



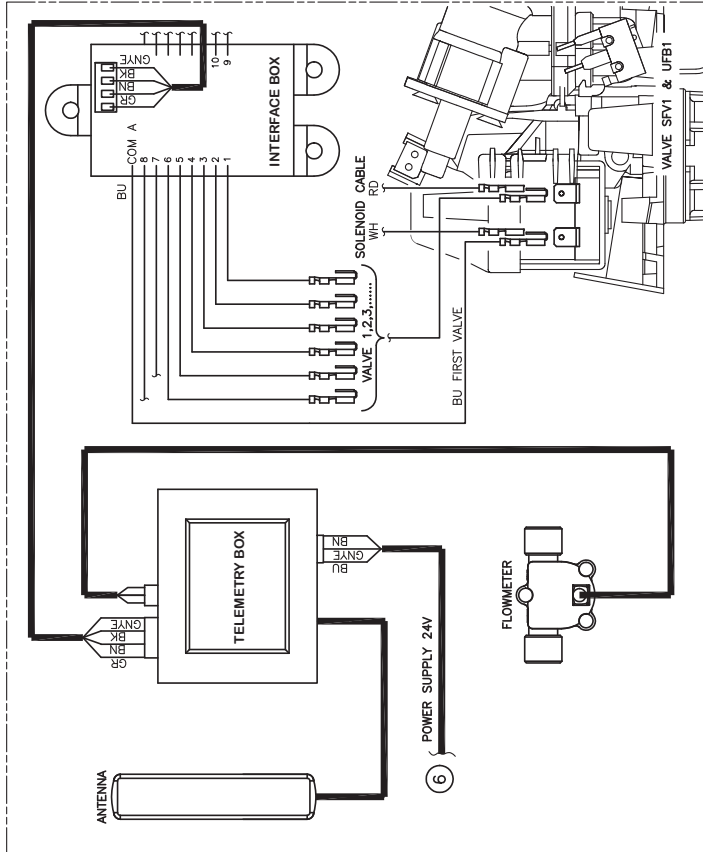
10.2 Declaration of conformity

10.3 Cable diagram/circuit diagram

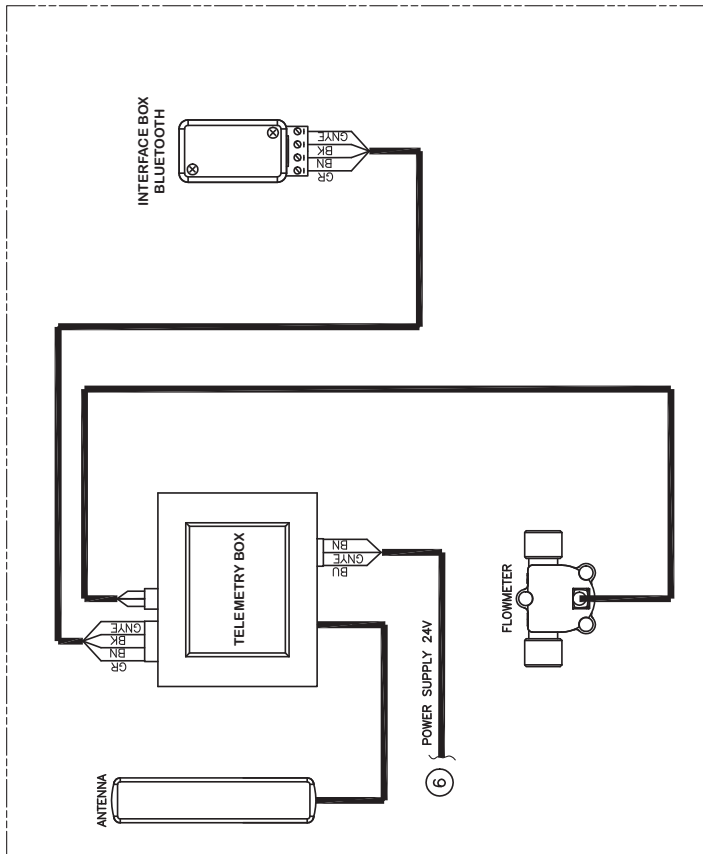




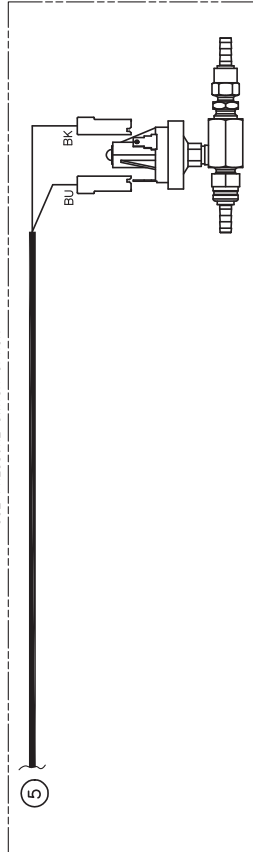
TELEMETRY OPTION



TELEMETRY OPTION BLUETOOTH



CO2 PRESSURE SWITCH OPTION





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