

AQUATAP ULTIMO

INSTALLATION MANUAL



Table of contents

Contents

1	1 Introduction		1
	1.1	About this manual	1
	1.1.1	Purpose of the manual	1
	1.1.2	Signal words	2
	1.1.3	Safety symbols	2
	1.1.4	Design of safety instructions	3
	1.1.5	Design of installation / deinstallation step	3
	1.1.6	Design of fault description and solution	4
	1.1.7	Design of technical specification	4
2	Gene	eral safety information	5
	2.1	Target groups	5
	2.2	Intended use	5
	2.3	Unintended use	6
	2.4	Limitation of liability	6
	2.5	Safety notes	7
3	Desc	ription of the product	13
	3.1	Function of the product	13
	3.2	Name plate	16
	3.3	Tags attached to the product	17
4	Tran	sport, handling and storage of the product	18
	4.1	Delivery content	18

	4.2	Overview of the installation kit	19
	4.3	Packaging	22
	4.4	Transport	22
	4.5	Storage	23
5	Insta	llation of the product	24
	5.1	Installation requirements	24
	5.2	Installation scheme	27
	5.3	Installation procedure	29
	5.3.1	(A) Prepare the Installation	29
	5.3.2	(B) Install the safety valve	31
	5.3.3	(C) Connect the water supply	33
	5.3.4	(D) Connect the AQUATAPS CCU / CWU system	34
6	Start	up and operation of the product	38
	6.1	Start-up procedure	38
	6.2	User interface	42
	6.3	Parameterization via app	44
7	Main	tenance of the product	45
	7.1	Cleaning	45
	7.2	Consumables	49
	7.3	Repairs	56
	7.4	Removal	57

1 Introduction

1.1 About this manual

1.1.1 Purpose of the manual

This operation manual describes the Conditioned Water Unit CWU/CCU.

The manual is structured as follows and contains information on the following topics:

- General safety information
- Description of the product
- Transport, handling and storage of the product

Installation of the product

- Maintaining the product
- Removal and disposal of the product
- Troubleshooting
- Appendices
- Startup and operation of the product

Only use this product in accordance with the intended use as described in section 2.2. Read this manual carefully before using or working with the product in any way. This manual contains all necessary information on safety, transport, assembly, operation and maintenance of the product which are required for safe and proper working with it. Following the instructions helps to avoid hazards, increases the reliability and service life of the product and minimizes the need for repairs.

Keep this manual in a safe place for the entire life of the product and pass it on to any future buyer. As a result of the ongoing improvement of our products and/or systems, illustrations in this document may differ from the appliance as delivered.

1.1.2 Signal words

Signal words inform you about the risk of a hazard. The risk contains information on how serious the consequences of an injury are in connection with a hazard and how likely an injury is to occur.



WARNING indicates a hazardous situation that, if not avoided, could result in death or serious injury.

NOTICE

NOTICE indicates information considered important, but not hazard-related (e.g. messages related to property damage).

1.1.3 Safety symbols

The following symbols are used to indicate different warnings or precautions.

General danger	Flammable	Carbon Dioxide	Electric voltage

Scalding		

1.1.4 Design of safety instructions

This manual contains safety notes and warning messages that draw your attention to hazards. These notes and messages are structured as follows:

[Symbol]	SIGNAL WORD	
	 Description of the safety hazard What to do to avoid the endangerment. 	

1.1.5 Design of installation / deinstallation step



1.1.6 Design of fault description and solution

Fault	Possible Cause	Solution
Description of fault	Possible cause 1	Action to overcome the fault 1
	Possible cause 2	Action to overcome the fault 2
	Possible cause 3	Action to overcome the fault 3
Next fault descrip-		
tion		

1.1.7 Design of technical specification

Name of the group of technical data				
Description	Value unit			
Description 2	Value unit			
	Remark unit			
Description 3	Description			
Examples				
Power Supply	230 V _{AC}			
Tap volume chilled	1.7			
	below 10 °C			
Cooling refrigerant	R290			

2 General safety information

2.1 Target groups

Being familiar with the contents of this manual is a fundamental prerequisite for protecting persons from danger, avoiding errors and operating the product safely.

This manual is primarily intended to be used by trained installers with adequate training as well as end users. Any person assigned to transport, install, remove, operate, service or maintain the product must have thoroughly read and understood the operation instructions.

2.2 Intended use

- The AQUATAPS CCU system can filter, cool and carbonize tap water. It
 offers the option of filtered, chilled and carbonated water from a single
 faucet. The AQUATAPS CWU system can furthermore boil tap water. It
 offers the option of filtered, boiling, chilled and carbonated water from
 a single faucet.
- The system is designed for indoor use in a private kitchen in households, usually in the kitchen environment. It may also be used in semi-public places, such as a staff kitchen in stores, offices or other business establishments, if the performance limitations are observed.
- The operator is responsible for all cleaning and maintenance requirements.
- Any use beyond the intended use is considered misuse.

2.3 Unintended use

The installation of the AQUATAPS CCU / CWU system is not permitted in:

- Areas where there is an increased risk of contamination, e.g. in dusty, unventilated or humid environments or in areas around doors and windows.
- On uneven or sloping surfaces or in the immediate vicinity of toilets.
- In escape routes
- Directly next to a heat source e.g. heater (at least 20 cm away) and areas with direct sunlight over a long period of time.
- In places that make cleaning and maintenance of the unit difficult.
- In places without sufficient ventilation.
- Outdoors

2.4 Limitation of liability

The liability for defects will not cover the usual wear and tear or damages which are caused as a result of faulty or careless handling, overuse, unsuitable equipment, or due to special external influences that do not represent the intended use. Furthermore, Aquataps cannot be held liable for damage or injury resulting from the following:

- Improper installation
- Non-compliance with the instructions and safety information in this manual.
- Maintenance and/or installation by unqualified personnel.
- Improper maintenance (especially no regular filter change and cleaning).
- Unauthorized modifications
- Technical modifications
- Use of spare parts not recommended by the manufacturer.
- Use of additional parts not released by the manufacturer.

The operator is responsible for the proper installation, maintenance and use of the product. The warranty is void if the product and/or electrical components are damaged by improper assembly, improper use or any other kind of misuse.

2.5 Safety notes







A WARNING

Live parts inside the device!

- The device may only be opened by trained and qualified personnel.
- Install the product as described in this manual and in accordance with the applicable installation, safety and local water supply regulations.
- Do not use the product for purposes other than those for which it is intended as described in this manual.
- Modifications in or on the device are only permitted by NO-BILI or by qualified personnel trained by AQUATAPS.
- To ensure safe operation, use only the spare parts specified by the manufacturer. Otherwise, all warranty and liability claim against the manufacturer will be void.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities unless they are supervised or instructed in its use by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.
- This appliance can be used by children aged from 8 years and above.
- Cleaning and maintenance shall not be made by children.

- Keep the plug and the cable out of the reach of children.
- People who are not yet familiar with the AQUATAPS CCU / CWU system must be instructed how to use it safely and be in- formed of the potential hazards especially associated with the use of the boiling-water faucet.
- For immunocompromised persons or babies, it is generally recommended to boil the water. When using a filter with decalcification (C-filter), the water in the filter will be enriched with sodium and may cause problems for sodium-sensitive persons or babies. If necessary or in doubt, contact a physician or customer service.
- Restrictions of use for vulnerable individuals: According to the recommendations of the German Society for Hospital Hygiene and the Robert Koch Institute, drinking water from water dispensers is not recommended in health care facilities and nursing homes for the elderly, due to possible immune deficiencies of the patients caused by illness, therapy or age. Likewise, the consumption of tap water and thus also the use of water from drinking water dispensers is generally to be avoided for persons with immune deficiency.

- The device is designed for indoor operation in a closed room (usually a kitchen), e.g. below a sink. It may only be connected to a water supply with constant drinking water quality according to local specifications. In drinking water systems with pressure rinsers, pressure variations can lead to problems with the outflow pressure.
- The device may only be connected to a GFCI-protected mains connection.
- Always use the hose set delivered with the device. The current one, available in the installation, cannot be re-used.
- In the event of adverse changes to the water quality within the domestic installation due to construction work in the building, it must be ensured that the unit is cleaned and disinfected by the operator before recommissioning (see section 7.1). Any debris (e.g. rust particles) from the water line may harm the function of the AQUATAPS CCU / CWU system and must be avoided.
- At the installation location, the AQUATAPS CCU / CWU system, CO₂ cylinder and filter system shall be protected from me- chanical damage, heat and direct sunlight, open flames and the danger of frost.
- The device shall be placed in an upright position.

- The device requires a permanent air exchange to ensure that the installation site cannot heat up due to the warm exhaust air. An opening in the rear panel of the cabinet or a similar opening in the base plate must be provided (see section 5.1).
- The power cable shall be laid in such a way that no damage can occur. If the cable or the plug is damaged, it must be replaced by a specialist. If the signal cable to the faucet is damaged, the complete faucet must be replaced.
- Check the hose supply lines to the faucet and the device once a year. A leak at those points will immediately lead to water damage. If necessary, contact the customer service.
- All standard CO₂ cylinders without additional flavor with a volume of 425 g and a trapezoidal thread (TR 21×4) may be used in the unit. The actual sealing surface of the CO₂ cylinder should be clean and free of any scratches or dents. When screwing in the cylinder, always ensure that it is fitted tightly. When screwing in, there may be a slight hissing sound and a small amount of CO₂ may escape, which is normal.
- CO₂ cylinders are under pressure. Protect them from overheating by direct sunlight or other heat sources. Store the CO₂ cylinder in an environment where heating of the cylinders cannot occur. In case of using an external CO₂ cylinder, the instructions of the supplier shall be strictly followed. The CO₂ cylinder should never be laid down horizontally.

- If CO₂ escapes into the room, ventilate the room, and leave it for some time to ensure a sufficient supply of fresh air. Even the total amount inside of a 425 g cylinder is not sufficient to reach life-threatening concentrations in the air if it escapes.
- If you transport the unit, the CO₂ cylinder shall be uninstalled.
- Do not use osmosis water or highly filtered water in the system. It can lead to problems in the level control.
- It is not permitted to operate the AQUATAPS CCU / CWU system without a filter. If the AQUATAPS CCU / CWU system is con- nected to a water supply with a water softener and the water hardness is below 7 °dGH / °KH a freshwater filter (F-filter) should be used instead of a standard filter with decalcifica- tion (C-Filter).

3 Description of the product

The AQUATAPS CCU system can filter, cool and carbonize tap water. It offers the option of filtered, chilled and carbonated water from a single faucet. The AQUATAPS CWU system can furthermore boil tap water. It offers the option of filtered, boil- ing, chilled and carbonated water from a single faucet.

3.1 Function of the product

Faucet: The AQUATAPS CCU / CWU system can only be connected to designated electronic faucets from AQUATAPS with a compatible software version. The multi- functional faucets feature a classic single-lever mixer function with optional touchless operation. Conditioned water can be activated safely with an electronic interface - either with a push/turn knob or via an electronic keypad. The control concept of the faucet depends on the used variant. Please refer to the operation manual supplied with the faucet for further information.

Filter: To ensure good water quality and to protect the product against lime scale deposits, a filter must be connected to the AQUATAPS CCU / CWU system. The filter reduces unwanted flavor carriers and impurities in drinking water before it is dis- pensed by means of a flow-through process. The filter material binds heavy metal ions such as lead, copper and cadmium. The integrated activated carbon reduces unwanted turbidity, organic impurities, odors and flavors as well as chlorine res- idues in the filtrate. Depending on the mineralization and hardness degree of local tap water, a different kind of filter should be used If the AQUATAPS CCU / CWU system is connected to a water supply with a water softener and the water hard- ness is below 7 °dGH / °KH a freshwater filter (F-filter) should be used instead of a standard filter with decalcification (C-Filter).

Capacity: The AQUATAPS CCU / CWU system is equipped with a 425 g CO₂ cylinder that delivers approximately 60 liters of carbonated water. Optionally, an external CO₂ cylinder can be added for higher demands. In that case the pressure reducer of the external CO₂ cylinder has to be adjusted to 5 bar. The input pressure on the AQUATAPS CCU / CWU system should never exceed 6 bar. The reservoir of the

AQUATAPS CCU / CWU system holds 2.2 liters of chilled water and 0.6 liters of car- bonated water. The reservoir of the AQUATAPS CWU system holds an additional 4.0 liters of pressurized boiled water. In combination with a faucet with compensator, the AQUATAPS CCU / CWU system has a capacity of approx. 2.0 l/min of carbonated, chilled and boiling water at a pressure of 3 bar. The flow rate varies, depending on the water supply pressure and the type of faucet. When chilled or carbonated water is dispensed, the AQUATAPS CCU / CWU system immediately refills with cold tap water. The AQUATAPS CCU / CWU system can dispense an unlimited amount of filtered water.

Cooling principle: The temperature of the carbonated water depends on the temperature of cooled water in the AQUATAPS CCU / CWU system reservoir. The temperature range of chilled and carbonated water is internally adjusted on the optimal temperature set. The tap volume is approx. 1.7 liters of chilled water or approx. 2.2 liters of carbonated water below 10 °C. When completely emptied, it takes about 35 minutes for the 1.7 liters of chilled water or 2.2 liters of carbonated water.

Boiling principle (only for AQUATAPS CWU high pressure system): The temperature range of boiling water can be adjusted between 60 to 105 °C (EU-version) resp. 60 to 98 °C (UK-version). If the temperature setting is adjusted to 105 °C (EU- version) resp. 98 °C (UK-version), the tap volume is approx. 2.6 liters above 99 °C (EU-version) resp. 95 °C (UK-version). For higher output quantities, the hot water temperature will be lower while cold water flows into the boiler during the pro- cess of drawing water and begins to mix with the hot water. When completely emptied, it takes about 15 minutes for the 4.0 liters of boiling water to completely heat up again.

Carbonation: The CO₂ content of the carbonated water is approx. 5.0 to 5.5 g/l in optimal conditions. This value cannot be adjusted but a mixing with chilled water is possible to reach a lower degree of carbonation (see medium sparkling water function). The CO₂ content value is an indication and accuracy may vary depending on the water pressure, CO₂ pressure and water quality. After the with-drawal of carbonated water, there is a short follow-up run of chilled still water to

flush the remaining CO_2 out of the line. This function prevents the faucet from dripping which is caused physically due to the expansion of CO_2 .

Holiday mode: A holiday mode can be activated at the AQUATAPS CCU / CWU sys- tem (see section 6.2). Therefore, the device reduces the boiling temperature to 60 °C and the temperature of the chilled and carbonated water to 15 °C.

NOTICE

- The taste and appearance of conditioned water is dependent on many factors e.g. the mineralization and hardness degree of local tap water.
- Some faucet dripping is normal, especially together with carbonated water.
- If you are on vacation for more than two weeks, it is recommended to switch off the AQUATAPS CCU / CWU system. This is done via unplugging the device or switching it to holiday mode (see section 6.2).
- If no conditioned water is dispensed for approximately 14 days, we recommend flushing all conditioned water options (filtered, filtered / chilled, filtered / chilled / carbonated, filtered / boiling) for one minute each. This will refill the AQUATAPS CCU / CWU system reservoir with

3.2 Name plate

The name plate is located on the backside of the AQUATAPS CCU / CWU system. The CE marking is part of the nameplate.



Figure 1: Nameplate

[1]	Distributor	[9]	Safety symbol
[2]	Product description	[10]	WEEE mark
[3]	Article number	[11]	Climate class
[4]	Cooling refrigerant	[12]	Protection class
[5]	Maximum pressure CO ₂	[13]	Manufacturer location
[6]	Maximum pressure H₂O	[14]	Article number: Serial number
[7]	Supply voltage	[15]	Barcode
[8]	CE mark		

3.3 Tags attached to the product

Always keep safety tags and notes on the product in a legible condition. Replace damaged safety tags and notes immediately!



Figure 2: Tags attached to the product

4 Transport, handling and storage of the product

4.1 Delivery content

The package of the AQUATAPS CCU / CWU system contains the following components:

- 1) CCU / CWU device
- 2) Water filter cartridge
- 3) CO₂ cylinder
- 4) Installation kit



Figure 3: Delivery content

[1]	CCU/CWU device	[3]	CO ₂ cylinder
[2]	Water filter cartridge	[4]	Installation kit

4.2 Overview of the installation kit

AQUATAPS CWU system:



Figure 4: Overview of the CWU installation kit

AQUATAPS CCU system:



Figure 5: Overview of the CCU installation kit

The flat gasket (12) is an optional part and can be used as spare part if necessary.

CO₂ installation kit:

For connecting an external CO_2 cylinder to the AQUATAPS CCU / CWU system, the following installation kit is optionally available.



Figure 6: Overview of the CO₂ installation kit

[1]	Tie-wrap	[10]	Hat filter metal EU
[2]	Expansion water hose	[11]	Stem adapter ASA 0806M
[3]	Safety valve flat in/out	[12]	Flat gasket G3/8"
[4]	T-Joint drain	[13]	Cardboard folding box
[5]	Flexible water hose (red tag, 1 m, M15, G1/2'')	[14]	Label
[6]	Flexible water hose (blue tag, 1 m, G3/8'', G3/8'')	[15]	Grip bag
[7]	T-Piece 3/8"	[16]	Sheet metal open-end wrench 20/13
[8]	Clamp 20/22 mm	[17]	CO ₂ pressure reducer with hose (1 m, 3/16")
[9]	Screw clipboard 4 × 25 pc.	[18]	Flat gasket G1/2" (only for UK version)
		[19]	Adapter 1/2"F – 3/8"M (only for UK version)

Please check the delivery for completeness. Should any parts be missing or damaged, please immediately notify the carrier, the insurance company or Carlo Nobili SPA in writing.

4.3 Packaging

The AQUATAPS CCU / CWU system is delivered packed in foil and/or cardboard boxes.

- Dispose of the packaging materials at the recycling sites intended for this purpose. Please observe the valid national regulations for waste disposal.
- Labeling: Label attached to the outside of the box.
- If a CO₂ cylinder is included in the scope of delivery, the following hazard warning label must be attached to the packaging.



4.4 Transport

- Transportation only in original packaging by qualified personnel
- Avoid hard impacts and vibrations.
- Transport temperature: -20 °C to 60 °C, max. 20 K/hour fluctuation for an empty device.
- Transport temperature: +5 °C to 60 °C, max. 20 K/hour fluctuation for a device filled with water.
- Transport air humidity: Relative humidity max. 75 %, non-condensing.
- If the packaging is damaged, check the device for visible damage. Contact the responsible shipping company.

4.5 Storage

- Only store the device in the original packaging
- Storage temperature: -15 °C to 45 °C, max. 20 K/hour fluctuation for an empty device.
- Transport air humidity: Relative humidity max. 75 %, non-condensing
- Store the device for a maximum of 2 years.



Risk of damaging! Device shall always be stored in upright position!

5 Installation of the product

5.1 Installation requirements

The AQUATAPS CCU / CWU system can only be connected to designated electronic faucets from AQUATAPS with a compatible software version. These instructions as- sume that a suitable faucet has already been installed. For the installation of the faucet, please refer to the operation manual supplied with the faucet.

Please check the following requirements before you start the installation:

- Ambient conditions: The device may only be connected to a water supply with constant drinking water quality according to local specifications and a constant flow pressure between 1 and 10 bar at a water temperature of 5°C to 30°C. The ambient temperature must be between 10 °C and 32 °C (climate rating: SN) with a relative air humidity of max. 75% and a max. installation altitude of 2000 m above sea level. At the installation location, the AQUATAPS CCU / CWU system, CO₂ cylinder and filter system must be protected from mechanical damage, heat and direct sunlight, open flames and the danger of frost.
- Connections: For the installation of the AQUATAPS CCU / CWU system, a mains water connection and a GFCI-protected separate power circuit with a suitable mains connection fused by at least 10 A and a permanent voltage supply of 230 VAC / 50 Hz are necessary. Angle valves must already be installed. If no separate power connection is available and other devices e.g. a dish washer is connected to the same power circuit, it is recommended to use a power meter from AQUATAPS ("Smart Socket") to protect the power circuit from excessive load (see Figure 7). Use only the supplied power cable directly connected on the AQUATAPS CCU / CWU sys- tem. A damaged power cable must be replaced with an identical one by AQUATAPS or by qualified personnel trained by AQUATAPS. Always use the hose set delivered with the device. The current one, available in the domestic installation, cannot be re-used.



Figure 7: Connection with Smart Socket

- Water hardness: It is not permitted to operate the AQUATAPS CCU / CWU system without a filter. If the AQUATAPS CCU / CWU system is connected to a water supply with a water softener and the water hardness is below 7 °dGH / °KH a freshwater filter (F-filter) should be used instead of a standard filter with decalcification (C-Filter).
- Placement of the AQUATAPS CCU / CWU system: Ensure sufficient space in the kitchen cabinet and easy accessibility for service and maintenance work. There must be enough space at the back of the AQUATAPS CCU / CWU system for the warm air from the exhaust to escape (min. 5-10 cm). Therefore, AQUATAPS recommends a depths of min. 550 mm, a width of min. 200 mm and a height of min. 440 mm for the cabinet.
- Ventilation of the kitchen cabinet: For a good performance of the NO-BILI CCU / CWU system, the kitchen cabinet in which the AQUATAPS CCU / CWU system is installed must be sufficiently ventilated. Therefore, an opening of approx. 20 × 40 cm (800 cm²) in the rear panel of the cabinet or similar openings in the base plate with at least 5 cm clearance to the floor and at the sides must be provided.



Figure 8: Space requirements

Tools required for installation: 1 × wrench size 24 mm, 1 × wrench size 20 mm, 1 × wrench size 19 mm, carpet knife, crosshead screwdriver (or screwdriver & PZ bit), handsaw, tape measure, pencil. Depending on the existing infrastructure additional tools may be required, e.g. slotted screwdriver for corner valve. Never use serrated tools to avoid damage. Where necessary, always use the appropriate tools for tightening the coupling.



• **Cleanliness and hygiene during installation:** Contamination of waterbearing parts (e.g. seals, hose connections, threads, etc.) must be strictly avoided during installation. We recommend thorough hand cleaning and avoiding skin contact with surfaces that will later be in contact with drinking water.

5.2 Installation scheme

AQUATAPS CWU system Aquatap Ultimo:



Figure 9: Installation scheme CWU

[A]	Faucet hot water	[1]	Tie-wrap
[B]	Faucet cold water	[2]	Expansion water hose
[C]	Faucet conditioned water	[3]	Safety valve flat in/out
[D]	Communication cable	[4]	T-joint drain
[E]	Cold water house installation	[5]	Flexible water hose (red tag, 1 m, M15, G1/2'')
[F]	Drain house installation	[6]	Flexible water hose (blue tag, 1 m, G3/8'', G3/8'')
[G]	Hot water house installation	[7]	T-Piece 3/8"
[H]	CO ₂ hose	[8]	Clamp 20/22 mm
		[9]	Screw clipboard 4 x 25 pc.
		[10]	Hat filter metal EU
		[11]	Stem adapter ASA 0806M
		[17]	CO ₂ pressure reducer with hose (1 m, 3/16")

NOTICE

The **AQUATAPS CWU** system does not have a separate boiling water outlet for con- necting a mixing valve. If the house installation does not have a hot main water supply that can be directly connected to the faucet, it is not possible to draw hot water by adjusting the single-lever mixer on the faucet. Alternatively, the temperature of the boiling water can be set between 60 and 105 °C using the app.

5.3 Installation procedure

We recommend installing the AQUATAPS CCU / CWU system in the following order:

- (A) Prepare the Installation.
- (B) Install the safety valve.
- (C) Connect the water supply.
- (D) Connect the AQUATAPS CCU / CWU system.

Description of Steps When transporting the AQUATAPS 1 CCU / CWU system to the installation site, cooling fluid may have run into the lines. To ensure that the cooling fluid has run back, the device may only be switched on following a 2 hours pause of at least 2 hours. NOTICE The installation can be prepared, but the power supply for the device must not be made. Check if all installation requirements 2 (see section 5.1) are fulfilled e.g. space, connections etc.

5.3.1 (A) Prepare the Installation

3	Turn off the mains water supply and close the angle valves. If not available, mark the existing cold and hot water connection.
4	 Ensure that a suitable faucet is installed with the following connections: A) Faucet hot water B) Faucet cold water C) Faucet CCU / CWU water connection D) Communication cable
	NOTICE
	Particular attention must be paid when inspecting the O-rings and gas- kets.
5	Unpack CCU / CWU system compo- nents, check the completeness of the contents (see chapter 4.1) and check all parts for any damage.
	NOTICE
	Particular attention must be paid when inspecting the O-rings and gas- kets.

5.3.2 (B) Install the safety valve

The installation of the safety valve is only relevant for the AQUATAPS CWU system.



4		Mount the safety valve (3) at the high- est point below the deck in the cabinet using clamp 20/22 mm (8) and screw clipboard 4 x 25 pc. (9).
	8 9	NOTICE
		The Safety valve (3) must be posi- tioned clearly above the connection to the drain. This ensures that the water flows only into the drain and not back to the safety group. The distance to the AQUATAPS CWU system must be < 1 m to use the enclosed flexible water hose.
5	4 F ♠ 2	Connect the T-join drain (4) to the drain of the house installation (F) and tighten it. Connect the other end of the expansion water hose (2) to the T-joint drain (4).
		NOTICE
	F F	The drain of the safety valve needs to be placed after the Syphon. If neces- sary, the expansion water hose can be shortened with a knife. Make sure the cut edge is straight. Ensure that the hose is fully inserted.
6		Form a water lock with the expansion water hose (2) and secure it with the tie-wrap (1). The bend creates a si- phon that prevents bad odors from escaping from the drain.

		Description of Steps
1		Connect the T-piece (7) and hat filter (10) to the cold water house installation (E) and cold water con- nection (B) of the faucet and tighten it with the wrench size 19 mm. For UK: Connect the adapter (19) and flat gasket (18) between the cold water house installation (E) and the T-piece (7) and tighten it.
		NOTICE
		It is extremely important to install the hat filter.
2	7 G 3/8" G 3/8"	Connect the flexible water hose (6, blue tag) to the T-piece (7) and tighten it with the wrench size 19 mm.
3	A	Connect the hot water connection (A) of the faucet to the hot water house installation (G) and tighten it with the wrench size 19 mm.
	▲ G	For UK: Connect the adapter (19) and flat gasket (18) between the cold water house installation (E) and the T-piece (7) and tighten it.

5.3.3 (C) Connect the water supply
4	C	Connect the CCU / CWU connection (C) of the faucet to the stem adapter (11) and tighten it with the wrench size 20 mm.
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5.3.4 (D) Connect the AQUATAPS CCU / CWU system

		Description of Steps
1	min. 5 cm	Position the CCU / CWU at the de- sired location underneath the faucet in the kitchen cabinet (see section 5.1).
2	6 Water IN	Connect the flexible water hose (6, blue tag) to the CCU / CWU ("Water IN" connection) and tighten it with the wrench size 19 mm. The rotata- ble outlet must be held in place with the sheet metal open-end wrench size 13 mm (16).
		NOTICE
		Make sure that the hose is not blocking any other connection.

3	5 Safety Valve	Connect the flexible water hose (5, red tag) to the CWU ("Safety Valve" connection) and tighten it with the wrench size 19 mm. The rotatable outlet must be held in place with the sheet metal open-end wrench size 20 mm (16).
		NOTICE
		Make sure that the hose is not blocking any other connection.
4		Connect the stem adapter (11) at the end of the CCU / CWU water con- nection (C) to the CCU / CWU ("Wa- ter OUT" connection).
		NOTICE
	Water OUT	Make sure that the hose is not blocking any other connection.
5		Connect the communication cable (D) of the faucet to the CCU / CWU ("Com" connection).
		NOTICE
		Make sure that the plug is fully in- serted.



9	Remove the protective cap from the filter cartridge.
10	Insert the filter cartridge into the fil- ter head and turn the filter cartridge by approx. 90 degrees to the right until it cannot be tightened any fur- ther. Tilt the filter head backwards.
	NOTICE
	NOTICE After storage at a temperature be- low 0° C the filter cartridge must first be stored at room temperature for at least 24 hours.

6 Startup and operation of the product

6.1 Start-up procedure

During the start-up, the AQUATAPS CCU / CWU system must be flushed once; this is done automatically during the process.

To prepare the AQUATAPS CCU / CWU system for use, we recommend the start-up in the following order:

	Description of Steps
1	Make sure that the faucet is correctly aligned above the sink.
2	Check the cold and warm water con- nection with the manual handle to make sure that the water supply is working.
3	Plug in the power cord to initialize the start-up process.
	NOTICE
	Make sure that the power cord is not bent, trapped or damaged.

4	20 sec.	The first start-up process takes approx. 20 seconds.
	A A A A A A A A A A A A A A A A A A A	NOTICE
		Please do not interrupt the process by pressing any button or unplug- ging the device.
5		After the device starts up, the LEDs on the user interface will light up as shown on the left.
	t	Press the Reset / Standby button (E) on the CCU / CWU briefly (<2 s) to run the first flushing program.
6	5-6 min	The first flushing program takes ap- prox. 5-6 minutes. In the meantime, a countdown will be visible on the user interface. First, all LEDs light up green and then gradually switch off one by one.
		NOTICE
		Please do not interrupt the process by pressing any button or unplug- ging the device. Otherwise, a full re- start is required. The device must be unplugged and the process must be restarted from step 3.



9		For an alternative external CO_2 supply, connect the 3/16" hose (H) with pressure reducer (17) to the CCU / CWU ("CO ₂ IN" connection).
		NOTICE
		The pressure reducer of the external CO_2 cylinder must be adjusted to 5 bar. The input pressure on the NO-BILI CCU / CWU system should never exceed 6 bar.
10		After the CO ₂ cylinder is assembled, the LEDs on the user interface will light up as shown on the left.
11		Install the front cover using the hook on the lower side.
12	12 25 min	The CCU / CWU cools down and heats up for approx. 25 minutes, af- ter which the unit is ready for use.
		NOTICE
	Maria I water	The final carbonation quality will set in after a period of operation/use of a few days.

6.2 User interface

Remove the front cover to get access to the user interface:



Figure 11: User interface

(A) CO₂-level

Status LED	Color Code	Meaning
Constant: Green		CO ₂ > 3 bar
Flashing: Red		CO ₂ < 3 bar / CO ₂ cylinder empty

(B) Filter runtime (the device works only with filters GIOIA AQUATAPS w/REID)

VARID)		
Status LED	Color Code	Meaning
Constant: Green	V	Remaining filter capacity > 10%
Flashing: Red	\bigtriangledown	Remaining filter capacity ≤ 10%
Constant: Red		Remaining filter capacity ≤ 0% or last filter change > 6-12 months depending on water hardness i.e. filter change required

(C) Cleaning

Status LED	Color Code	Meaning
Constant: Green	(****) (***	No cleaning required
Flashing: Red		Cleaning required if last cleaning > 6 months
Flashing: Blue (countdown)		Cleaning process running

To start the cleaning program, press the button for 5 seconds.

(D) Connectivity

Status LED	Color Code	Meaning
Constant: White		Connection active
Flashing: Blue		Connection pairing mode

The device can be connected to an app via BLE. To activate the connection, press the button for 5 seconds until all LEDs are flashing blue. The app can then be opened and connected to the device. The pairing mode is automatically terminated if no successful connection can be established within 60 seconds.

The device is Wi-Fi capable and can be connected to an IoT platform for update management.

(E) Reset / Holiday mode

Status LED	Color Code	Meaning
Constant: Green	\bigcirc	Operation mode active
Flash: Green		Device restarts
Flash: Red		Holiday mode activated

To reset / restart the AQUATAPS CCU / CWU system, press the button for 5 seconds. To start the holiday mode, press the button briefly for less than 2 seconds. To wake up the AQUATAPS CCU / CWU system from holiday mode, press any button.

In the event of an error, all buttons flash red (4 seconds) alternating with an error code in the form of a permanently lit LED (3 seconds):

- (C): Boiler error
- (D): Compressor error
- (E): The leakage sensor detects water

Disconnect the power supply for at least 10 sec and restart the device. If that does not help, please contact the customer service.

6.3 Parameterization via app

The device can be parameterized via an app to adjust different settings e.g. the temperatures. The app can be downloaded in the App store or Google Play store.

7 Maintenance of the product

7.1 Cleaning

For hygienic and health reasons, the AQUATAPS CCU / CWU **system must be cleaned every 6 months**. We recommend the cleaning of the AQUATAPS CCU / CWU system in the following order:



4		Tilt the filter head forward, turn the filter cartridge by approx. 90 de- grees to the left and pull it down. This will unlock it from the filter head and enable it to be removed.
	1	NOTICE
		During this process, incoming tap water supply and outgoing filtered water valves in the filter head shut- off automatically. It may happen that a small amount of expansion water leaks from the filter head due to peaks in pressure. Please keep this in mind and place some kitchen paper or a towel underneath the filter head.
5		Insert one cleaning tablet (recom- mendation: Bevi Tab aqua with arti- cle number 88.305.020) into the cleaning cup.
		NOTICE
		Using alternate cleaning tablets may result in the device not being cleaned properly.
6		Insert the cleaning cup into the filter head and turn the cleaning cup by approx. 90 degrees to the right until it cannot be tightened any further. Tilt the filter head backwards.



10	10	Tilt the filter head forward, turn the cleaning cup by approx. 90 degrees to the left and pull it down. This will unlock it from the filter head and en- able it to be removed.
		NOTICE
		During this process, incoming tap water supply and outgoing filtered water valves in the filter head shut- off automatically. It may happen that a small amount of expansion water leaks from the filter head due to peaks in pressure. Please keep this in mind and place a some kitchen pa- per or a towel underneath the filter head. The cleaning cup is required for the regular cleaning procedure and shall be kept.
11		Insert the filter cartridge (new or a used one with remaining filter valid- ity) into the filter head and turn the filter cartridge by approx. 90 de- grees to the right until it cannot be tightened any further. Tilt the filter head backwards.
		NOTICE
		After storage at a temperature be- low 0° C the filter cartridge must first be stored at room temperature for at least 24 hours.



Furthermore, we recommend to clean the ventilator fan of the AQUATAPS CCU / CWU system once a year with a brush or a vacuum cleaner.

7.2 Consumables

Replacing the CO₂ cylinder:

- After approx. 60 liters of carbonated water have been drawn, the water jet becomes weaker and the carbon dioxide content lower. Below 3 bar, the device shows a signal on the keyboard and on the faucet to replace the CO₂ cylinder.
- If it is completely empty, no carbonated water can be drawn from the AQUATAPS CCU / CWU system.
- The initially enclosed CO_2 cylinder must not be sent back. It can be refilled locally.
- Please use standard CO₂ cylinders without additional flavor with 425 g and a trapezoidal thread (TR 21x4) from the local bottle deposit system.

- CO₂ cylinders shall be maintained or repaired only by authorized personnel.
- At the end of its life, if for example the sealing is insufficient, it must be disposed of locally in accordance with the applicable regulations or better be returned with the local bottle deposit system.

We recommend replacing the CO₂ cylinder in the following order:



4	Remove the new CO ₂ cylinder from its packaging and check for any damages.
5	Remove the CO_2 protective cap from the new CO_2 cylinder and screw the CO_2 cylinder into the CO_2 pressure reducing valve by turning it to the right until it cannot be tightened any further. Tilt the CO_2 connection backwards.
	NOTICE
	It is important that the CO ₂ cylinder is thoroughly tightened so that a tight sealing is formed. Some gas may escape, and a hissing noise may be heard. Keep tightening, until it cannot get any further. No more gas should be heard escaping.
6	After the CO ₂ cylinder is assembled, the LEDs on the user interface will light up as shown on the left.
7	Install the front cover using the hook on the lower side.

Replacing the filter cartridge:

- A reliable system function can only be achieved if the filter cartridge is replaced on a regular basis. The change cycles depend on the application and associated water consumption.
- We recommend replacing the filter cartridge after 6 months and no later than **12 months depending on usage**.
- Failure to replace the filter will void the warranty.
- If the filter is not used for more than four weeks, the filter cartridge must be replaced.
- Reprocessing of used filter cartridges is not possible. Used filter cartridges can be disposed of hazard-free in domestic waste.
- The filter cartridge must not be opened or damaged.

We recommend replacing the filter cartridge in the following order:

	Description of Steps
1	Make sure that the faucet is correctly aligned above the sink.



5	Remove the new filter cartridge from its packaging and check for any damages.
6	Remove the protective cap from the new filter cartridge.
7	Insert the filter cartridge into the fil- ter head and turn the filter cartridge by approx. 90 degrees to the right until it cannot be tightened any fur- ther. Tilt the filter head backwards.
	NOTICE
	After storage at a temperature be- low 0° C the filter cartridge must first be stored at room temperature for at least 24 hours.



7.3 Repairs

The device shall only be repaired by AQUATAPS or by qualified personnel trained by AQUATAPS. Opening the AQUATAPS CCU / CWU system by unqualified personnel voids the warranty.

To ensure safe operation, use only the spare parts specified by the manufacturer. Otherwise, all warranty and liability claims against the manufacturer will be void. Removal and disposal of the product

7.4 Removal

We recommend the removal of the AQUATAPS CCU / CWU system in the following order:

	Description of Steps
1	Make sure that the faucet is correctly aligned above the sink.
2	Unplug the power cord.
3	Turn off the mains water supply and close the angle valves.







7.5 Disposal



This marking on the product, accessories or on the associated documentation indicates that the product and accessories must not be disposed of together with normal household waste at the end of their service life. Please dispose of this device and accessories separately from other waste to avoid harming the environment or human health through uncontrolled waste disposal. Help to dispose

of the old device and accessory parts properly in order to promote sustainable recycling of material resources.

Private users should contact the dealer from whom the product was purchased or the relevant authorities to find out where they can take the waste equipment or accessories for environmentally friendly disposal. Commercial users should contact their supplier and proceed according to the terms of the sales contact. This product and electronic accessories must not be disposed of with other commercial waste.

8 Troubleshooting

Fault	Possible Cause	Solution
Water discharge at	Connecting pipe of	Tighten with an open-jaw
the faucet connec-	cold/hot water loose	spanner
tion	Connecting pipe of	Replace the seal
	cold/hot water union seal	
	faulty or damaged	
Water discharge at	Too little insertion depth	Check the insertion depth
the connection to the drain	or the pipe has not been cut straight	of the hose and the cut- ting edge
	Angled installation of the	Check that the safety
	safety valve	valve is installed horizon-
		tally and there is no gap
		to the drain hose
Water discharge at	Connecting pipe of	Tighten with an open-jaw
the connections of the device	cold/hot/conditioned wa- ter loose	spanner
the device	Connecting pipe of	Replace the seal
	cold/hot/conditioned wa-	
	ter union seal faulty or	
	damaged	
Water discharge at	Brittle or broken hose	Replace the leaking hose
a hose		- 3
Water discharge at	Leakage in the device	Unplug the device and
the device		contact customer service
The safety valve	Expansion during water	No failure, normal func-
drops	heating	tioning
	Continuous dropping due	Manually operate the
	to dirt	knob on the expansion re-
		lief valve to eliminate dirt
		particles
		Replace the safety valve

There are hissing noises audible from the unit	The CO ₂ cylinder is not correctly screwed in The internal pressure re-	Rotate the CO_2 cylinder to the right with decent force until it cannot be tightened any further Use a new CO_2 cylinder as the sealing surface might be damaged Contact customer service
Water cannot be drawn at the faucet	The angle valves of the water supply installation are shut off	Open the angle valves, check the working of the hot and cold water
	The main water valve is shut off Hoses are kinked	Open the main water valve Straighten the kinked
	Faucet is clogged	Inspect the faucet and clean the aerator
Filtered, chilled, carbonated, boiling water cannot be drawn	Filter not installed cor- rectly	Rotate the filter cartridge to the right with decent force until it cannot be tightened any further
	No connection between the faucet and the device	Plug in the cable con- nector of the communica- tion cable securely
	The installation kit is in- stalled incorrectly	Check the correct installa- tion of the installation kit
Boiling water can- not be drawn	Device was used without filter in areas with high content of lime in drinking water	Contact customer service
	The boiler is faulty	Contact customer service

CO ₂ is drawn out of the faucet instead of water	The high-pressure pump is faulty	Contact customer service
The drawn water contains no or little	The CO ₂ cylinder is empty or not connected	Replace or correctly con- nect the CO ₂ cylinder
CO ₂		Tap about 1 liter of spar- kling water if the CO ₂ cyl- inder was empty before
		Check the connecting hoses for correct installa- tion
		If an external CO ₂ cylinder is used, the pressure re- ducer must be adjusted to 5 bar
		Use only standard CO ₂ cylinders with 425 g and a trapezoidal thread (TR 21×4)
	The water is not cooled sufficiently and therefore cannot absorb enough CO ₂ .	Wait until the cooling unit has cooled the water to a sufficient level
	The pressure reducer in the device is faulty	Contact customer service
The drawn chilled and carbonated water is too hot	A lot of water was drawn within a very short time	Wait until the cooling unit has cooled the water to a sufficient level
	The cooling is faulty (com- pressor is not running)	Contact customer service

	Overheating of the device	Ensure sufficient ventila- tion in the cabin and re- duce ambient tempera- ture
The device oper- ates with less per- formance	The hot water mains con- nection is used for the wa- ter inlet of the device	Ensure that the cold water mains connection is used for the inlet of the device
The device cannot be switched on	The mains plug is not in- serted	Insert the mains plug into a GFCI-protected wall plug socket
	The mains plug or cable is damaged or defective	Contact customer service
	No power supply	Check the socket fuse, if any, and the GFCI
		Contact your electrical system installer
	Leakage sensor active	Unplug the device and contact customer service
	Software problem	Disconnect the power supply for at least 10 sec and restart the device
	Short-circuit in the device	Unplug the device and contact customer service
The cleaning pro- cess is not running	Cleaning cup not installed correctly	Rotate the cleaning cup to the right with decent force until it cannot be tightened any further
The device cannot	Connectivity on the device	Activate the connection
connect to the app	is deactivated	(see section 6.2)
The device shows	Failure of the device	Disconnect the power
an unknown color code		supply for at least 10 sec and restart the device.
		Contact customer service

8.1 Technical data

The following specifications are average values.

General specifications		
Dispensing water types	CCU / CWU: Filtered chilled water	
	CCU / CWU: Filtered carbonated water	
	CWU: Filtered boiling water	
Domestic water supply	Unfiltered warm water,	
	directly connected to the faucet	
	Unfiltered ambient water,	
	directly connected to the faucet	
Operation	Operation via electronic faucet	
Parametrization	Parametrization via app (BLE)	
Device dimension	Height = 440 mm	
	Width = 200 mm	
	Depth = 495 mm (w/o connectors) / 525 mm	
	(with connectors); all connections on back side	
Minimum installation dimen-	Height > 440 mm	
sions	Width > 200 mm	
	Depth ≥ 550 mm	
Weight netto (empty)	CWU: 20 kg	
	CCU: 18 kg	
Weight netto (filled)	CWU: 27 kg	
	CCU: 21 kg	
Supply voltage	230 VAC / 50 Hz	
Load	7.5 A	
Plug	EU-version = Type E+F acc. to CEE7/7	
	UK-version = Type G acc. to BS 1363	
Connection	Wall socket with earth wire,	
	protected via a 10 A fuse	

Max. power consumption	CWU: 1725 W (±10%)
	CCU: 230 W (±10%)
Standby power consumption	CWU: 19 W (cooling & boiling on)
	CCU: 5.5 W (cooling on)
Power consumption in holi-	CWU: 8 W
day mode	CCU: 1.9 W @ 20 °C ambient temperature
System working pressure (water)	1-10 bar (3 bar pressure reducer at inlet point)
Flow rate with faucet and compensator	approx. 2.0 l/min @ 3 bar
System working pressure	5 bar (pressure reducer at inlet point for inte-
(CO ₂)	grated CO ₂ cylinder, no pressure reducer at in-
	let point for external CO ₂ cylinder – external
	pressure reducer necessary with max. 6 bar in-
	put pressure)
Ambient temperature	10-32°C
Relative air humidity	Max. 75%
Max. altitude	2000 m above sea level
Sound pressure level (free-	$37 \pm 4 dB$ in operation mode
standing)	0 dB in standby mode
IP rating	IPx1
Certifications	CE
Filtered chilled water	
Volume of reservoir	2.2
Cooling refrigerant	R290 – 35 g
Cooling principle	Direct cooling
Temperature control range	approx. 4-10 °C, not adjustable
Flow rate w/o compensator	approx. 2.5 l/min @ 3 bar
Tap volume	approx. 1.7 l below 10 °C
Cooling time	$\Delta T = 10 \text{ K in 8 minutes}$ (25 °C to 5 °C: approx. 35 minutes)

Filtered carbonated water	
Volume of reservoir	0.6
Cooling principle	Tank-in tank setup
Carbonation	Injection booster pump
Temperature control range	approx. 4-10 °C, not adjustable
Flow rate w/o compensator	approx. 3.3 l/min @ 3 bar
Tap volume	approx. 2.2 l below 10 °C
Carbonation level	approx. CO ₂ content 5.0-5.5 g/l
CO ₂ Cartridges	Standard 425 g CO ₂ cylinder integrated / op-
	tional port for external CO ₂ cylinder
Filtered boiling water (only CWU)	
Volume of reservoir	4.0 l, pressurized boiler
Temperature control range	EU: approx. 60-105 °C, adjustable via app
	UK: approx. 60-98 °C, adjustable via app
Tap volume	EU: approx. 2.6 l above 99 °C @ 105 °C setting
	UK: approx. 2.6 I above 95 °C @ 98 °C setting
Flow rate w/o compensator	approx. 2.7 l/min @ 3 bar
Boiling time	15 °C to 100 °C: approx. 15 minutes
Energy efficiency class	А
Filter	
Filter type	Protection Filter (C-Filter or F-Filter)
Diameter filter cartridge	95 mm
Height filter cartridge	245 mm
Filter head	Bayonet
Filter lifetime	Depending on usage and water hardness
	(approx. 6-12 month)
Filter disposal residual waste	Decarbonization, Odors, Chlorine, Particle,
	Heavy metal, etc.
Filter capacity	Approx. 1700 liter at 10 °dH
Filter lifetime depending on	<10 °dH = 12 months
water hardness	10-15 °dH = 10 months
	15-20 dH = 8 months
	> 20 °dH = 6 months

8.2 Drawings

