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# AquaVolta® EOS Touch Water Ionizer Manual



EOS  
AQUAVOLTA®

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# What is AquaVolta®?

# AQUAVOLTA®



The brand name AquaVolta® derives from the latin term for water (aqua) and the name of the inventor of the battery, Alessandro Volta. It stands for electro activated water. In Germany one originally spoke of electrolyte-water, afterwards of “activated water”. In English it is often referred to as „reduced“ or „ionized“ water. Electro-activated water is made with a water ionizer with the so-called diaphragm-electrolysis.

The characteristic of AquaVolta® is that a negative electrical tension with a measurement electrode shows a so-called negative redox potential. The lower the redox potential, the higher the willingness water has of giving off electrons. Per 0,018 Volt (18 Millivolt) lower redox potential does the willingness double. AquaVolta® has an about 400 to 800 Millivolt lower redox potential than tap water or mineral water from a bottle.

Because of its high willingness to give off electrons, AquaVolta® is also described as antioxidant water. It is not only used by doctors for therapeutic use, it has also established itself because of its good taste as a modern day to day drink. Responsible for the antioxidant power of AquaVolta® according to the current scientific view is the content of dissolved hydrogen, or  $DH_2$ . As well as that is the pH-value of the drinking water raised and is therefor called “alkaline activated water”.

# The 7 unique features of alkaline activated water

Even though electrically activated alkaline water has been drunk by more than 100 million people, until recently it was not clear how its effect can be explained. The lack of understanding of the procedures was concealed with popular terms such as “living water” or described with helpless scientific descriptions like “abnormal properties”. In particular, the low ORP that occurs with alkaline activated water was inexplicably low. These potentials can be nowadays explained with the means of conventional electrochemistry with the maximum saturation of hydrogen in alkaline activated water.

In nature, such high saturations exist with the very volatile hydrogen gas in very few medicinal springs that emerge from very deep wells. Also from these rare healing springs, hydrogen is not preservable. So these healing waters only work at the source and cannot be transported, for with hydrogen the negative redox potential is lost. Atomic and molecular hydrogen gives alkaline activated water its antioxidant properties.

It is produced in the electrolysis chamber of your ionizer in big amounts by ionizing water molecules and stored under pressure at its saturation limit.

Drinking alkaline activated water (within the pH range of 8,5 to 9,5) has the 7 following properties as a total composition:

**pH value: 1 to 2 pH levels above output water**

**Cations: ( $\text{Ca}^{++}$ ,  $\text{Mg}^{++}$ ,  $\text{Na}^+$  etc.) up to 50 % above output water)**

**Anions: ( $\text{NO}_3^-$ ,  $\text{Cl}^-$ ,  $\text{S}^{2-}$  etc.) up to 50 % above output water**

**Formation of free hydroxide ions ( $\text{OH}^-$ )**

**ORP value: 0,2 bis 0,5 V below output water  
(= a high electron content)**

**Hydrogen gas ( $\text{H}_2$ ) ca. 1,5 mg/l**

**Hydrogen ( $\text{H} + \text{H}_2$ ) as a mineral colloid**



# Hydrogen – The fundamental concepts

„I run on Hydrogen“. To see Hydrogen cars, out of which no emissions are emitted and only clear water drips out, is still seldom in our smog-laden cities. Yet there is no doubt that Hydrogen gas presents the most interesting form of alternative energies of the future. For 1 kg of Hydrogen brings 33,33 kWh/kg onto the road. Neither petrol (12 kWh/kg) nor natural gas (max. 13,1 kWh/kg) can keep up. Hydrogen, with the H symbol that stands for Hydrogenium (“The Water Producer”) is the most common element in the universe. It makes up 75% of the total mass of our solar system. Yet on our planet Earth it is more of a scarce good. Only 0.12% of the total mass consists of Hydrogen. Most of it is H<sub>2</sub>O which has bonded as “energy-less” water in our oceans. Water, H<sub>2</sub>O, is Hydrogen gas H<sub>2</sub> which has been combusted by oxygen. This occurs, for example, with sugar which is converted from food into energy. So Hydrogen doesn’t only provide energy for fuel cells for cars, but also for the cells in the body. The H Hydrogen atom is made up of one positively charged nucleus, the proton, which is orbited by a negatively charged electron. The smallest of all atoms is also called “nascent” Hydrogen: That means “hydrogen in its birth phase”, for an H-atom does not stay alone for long, it bonds with a second H-atom to make what we usually call Hydrogen, H<sub>2</sub>. A further description for this Hydrogen atom is “Hydrogen radical”.

Often Hydrogen gas H<sub>2</sub> is confused with the Hydrogen ion H<sup>+</sup>. This corresponds to an H-atom without an electron, in short, it is a single proton. Positively charged Hydrogen ions are the measure of “acidity”.

They occur by the splitting off of a hydroxide ion (OH<sup>-</sup>) from water (H<sub>2</sub>O). If there are more hydroxide ions in an aqueous solution, it is alkaline, if there are more H<sup>+</sup> ions (protons), then it is acidic.

Negatively charged Hydrogen ions H<sup>-</sup> (Hydride ions) theoretically also exist. Yet they are so unstable that they only occur as compounds.



# Activated water for the smartphone generation

EOS Hitec is a specialised, family run water ionizer company in the Korean University city of Wonju. On the 25 March 2016 the chairman Kim Eul Whan signed a cooperation contract with Engineer Yasin Akgün (Aquacentrum) and Karl Heinz Asenbaum (AquaVolta) to produce the most suited and modern water ionizers.

With the AquaVolta® EOS Touch we can now present you with the water ionizer for the smart phone generation. It is so easy to operate that using it, if you know basic English, is understood intuitively. Everything you need to know about installing and operating is shown in these two YouTube videos.

Installation and operation: [https://www.youtube.com/watch?time\\_continue=209&v=XQ-RV9OfVMU](https://www.youtube.com/watch?time_continue=209&v=XQ-RV9OfVMU)

Fine tuning: [https://www.youtube.com/watch?time\\_continue=7&v=f9kM58LnYYw](https://www.youtube.com/watch?time_continue=7&v=f9kM58LnYYw)





# General safety instructions

- Only use the device if you have read and understood the instruction manual.
- You are not allowed to use the device with water over 35 degrees C. Should you connect a mixer tap, be very careful that hot water does not flow into the device.
- Only operate the device with 220 Volt.
- Please ensure that children do not have access to the device.
- Never place the device under water. A moist cloth is enough to clean it. Do not use chemical cleaning products.
- Never drop the device.
- Do not place the device in direct sunlight or subject to temperatures over 50 Degrees.
- Do not place the device in moist or polluted rooms.
- Do not place the device outdoors.
- Do not use the power charger if it got damaged or the cable got kinked.
- Do not touch any of the components connected to the power grid with moist fingers.
- Only use water of the best drinking quality if you want to drink it afterwards.
- You cannot use de-ionized water, i.e. from a reverse osmosis device. A conductivity of at least 50 TDS-ppm is needed.
- In case the device is defect, do not turn on the tap and do not attempt to repair it. Disconnect it from the power supply immediately, close the water supply and inform your dealer.



# How does this water ionizer perform?

Molecular hydrogen, in addition to the alkaline pH value, is the most interesting point in the production of alkaline activated water. But this gaseous molecule is reluctant to dissolve in water. After all, up to 1.6 mg/Liter have under normal atmospheric pressure conditions enough space in the water. This is important because from 0.5 mg, international researchers speak of a “therapeutic” level.

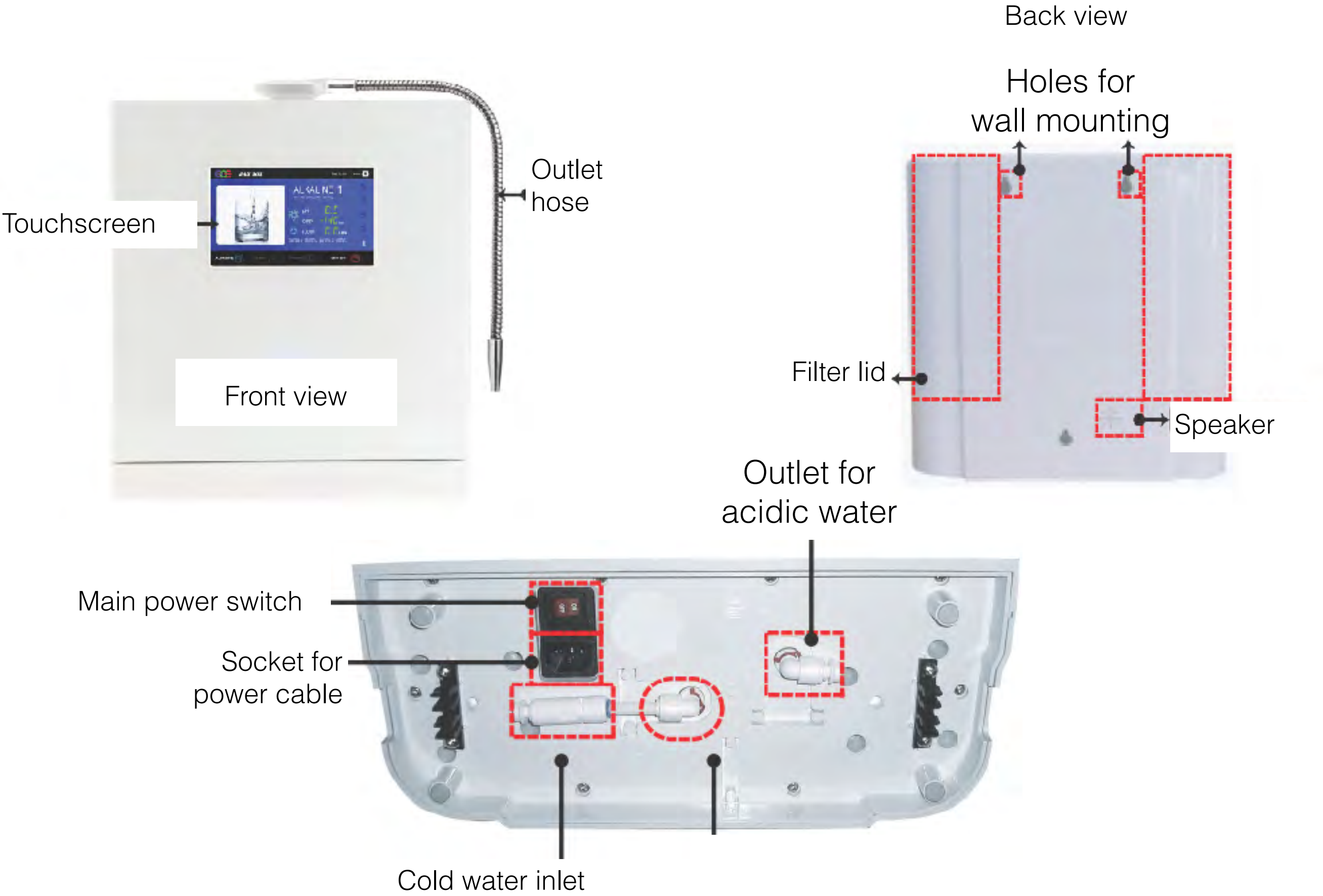
To achieve a desired level of 0.5 to 1.3 mg/Liter even at a flow rate of 1-2 Liters per minute, the AquaVolta® EOS Touch water ionizer produces significantly more hydrogen than can be dissolved in the water in a short time and thereby generates an overpressure which accelerates the dissolution of the gas in the water. You can see that, for example, in the hydrogen bubbles, which escape upwards, especially at higher water temperatures, shortly after filling into a glass. The remainder of invisible hydrogen bonds with the water.

This bond is, for example, very sensitive to shaking and is influenced by environmental factors like temperature and air pressure. This can be easily understood if you think about a similar bond that we all know from everyday life: sparkling water that has been enriched with carbonic acid quickly degases and tastes flat if you leave the bottle open.

Therefor it is best with alkaline activated water to drink it soon after having poured a glass.



# Overview of the device





# Touchscreen



Sensor buttons and [display](#) for:

1. Mode: Alkaline activated water
2. Mode: Acidic activated water
3. Mode: Non-ionized, filtered water
4. On/Off
5. pH value display
6. ORP display (Redox potential)
7. Water flow display
8. Filter 1 remaining capacity
9. Filter 2 remaining capacity
10. Image (user guideline)
11. Level switch sensor: 5 levels for alkaline, 4 levels for acidic activated water
12. MODE-sensor to see the menus for fine tuning

# Delivery contents

The AquaVolta® EOS Touch comes in a box (1). Please keep the box in case you send it back for an inspection.

The device (2) is already fitted with both filter cartridges inside the housing.



Only the flexible, stainless-steel outlet hose has to be screwed into the device. Remove the rubber cap (3a) on top at the rotating outlet and screw the stainless-steel flex-hose in (3b).

Further components are inside the carton:

- ¼ inch hose to be cut at desirable length for inflow and outflow. (4)
- Adapter set (5a) for connecting the diverter valve with aerator (5b).
- Angle shut off valve ¾ inch with regulator switch (6) to connect the AquaVolta® EOS Touch to the angle valve. (Other sizes are available when exchanged).
- Indicator bottle with pipette and colour scale (7) to check the pH value.
- Replacement fuse (8) and screws and dowels for mounting on the wall. (No image)



- Also delivered are the descaling pump (9) with a connecting hose and 500g citric acid (10).
- You also receive a ¼ inch ball valve (11) for regulating the water flow.



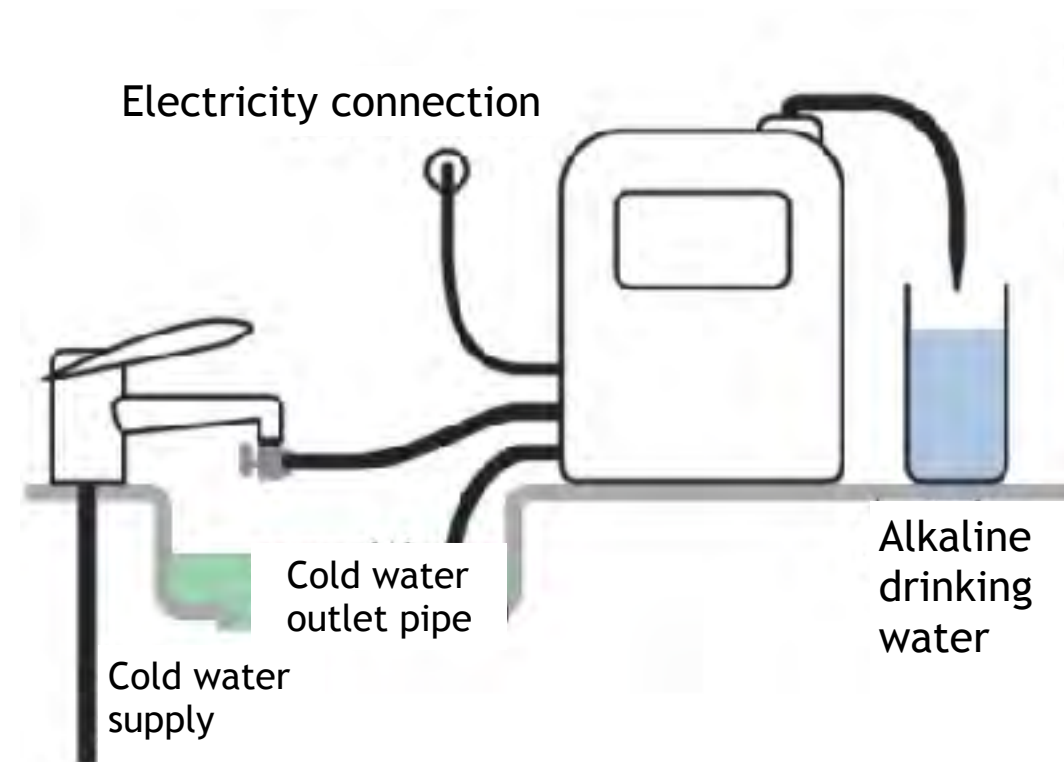


# Assembly: Placing the connectors

1. The outlets WATER INLET and ACIDIC Water on the bottom of the device are sealed with a transport rubber cap. [These have to be removed before assembling.](#)
2. To do this please follow the indications of the diagram. PUSH the ring down and at the same time PULL the cap or hose out of the socket.
3. With a bit of skill this can also be achieved with your fingers. If necessary you can use a flat spanner or a fondue fork. [Please keep the caps for transportation. This avoids any water leaking.](#)
4. If you want to plug the caps in: Simply press them in.
5. [In the same way you can plug the pipes into the device on the bottom and release them. Note: To release the pipes they cannot be under pressure.](#)
6. The pipe for the acidic outlet must be at least 40cm long.



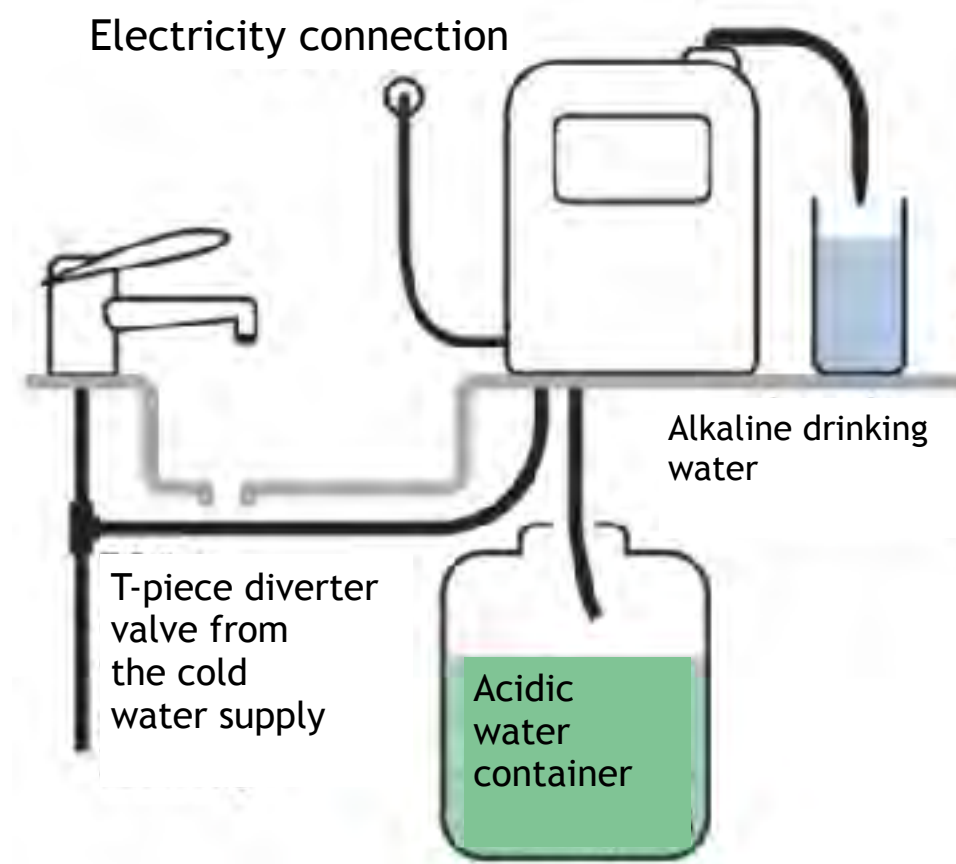
# The two connection possibilities of the device



It is a very easy method to connect the ionizer to the water tap, as you can see left in the diagram. This installation can be carried out by anyone.



Attention: The installation is not possible with a diversion from the cold water tap if the tap is connected to a low pressure boiler. Fitted adapters are usually supplied by your distributor. Send your distributor a photo of your tap.



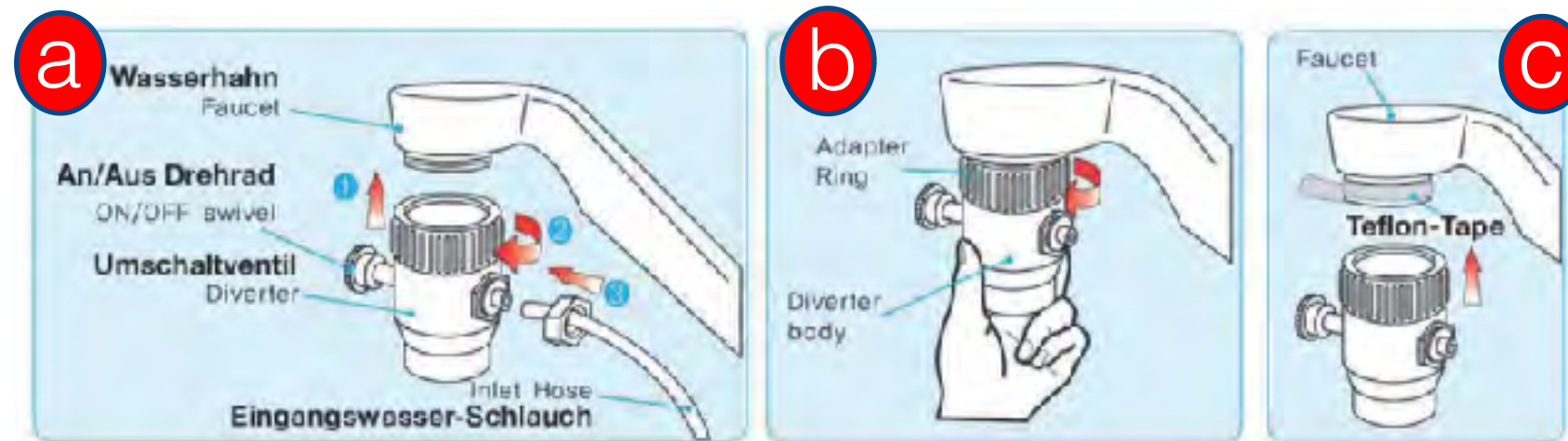
In the case of a permanent installation is the water ionizer connected directly to the cold water supply with the delivered T-piece.

The acidic water outlet is, in rare cases, diverted to an acidic water container under the sink. Usually the outlet hose is placed in the sink.

Attention: The installation to the angle valve should be done by a plumber. A hole has to be drilled into the kitchen counter and usually a 1/4 inch hose is attached.

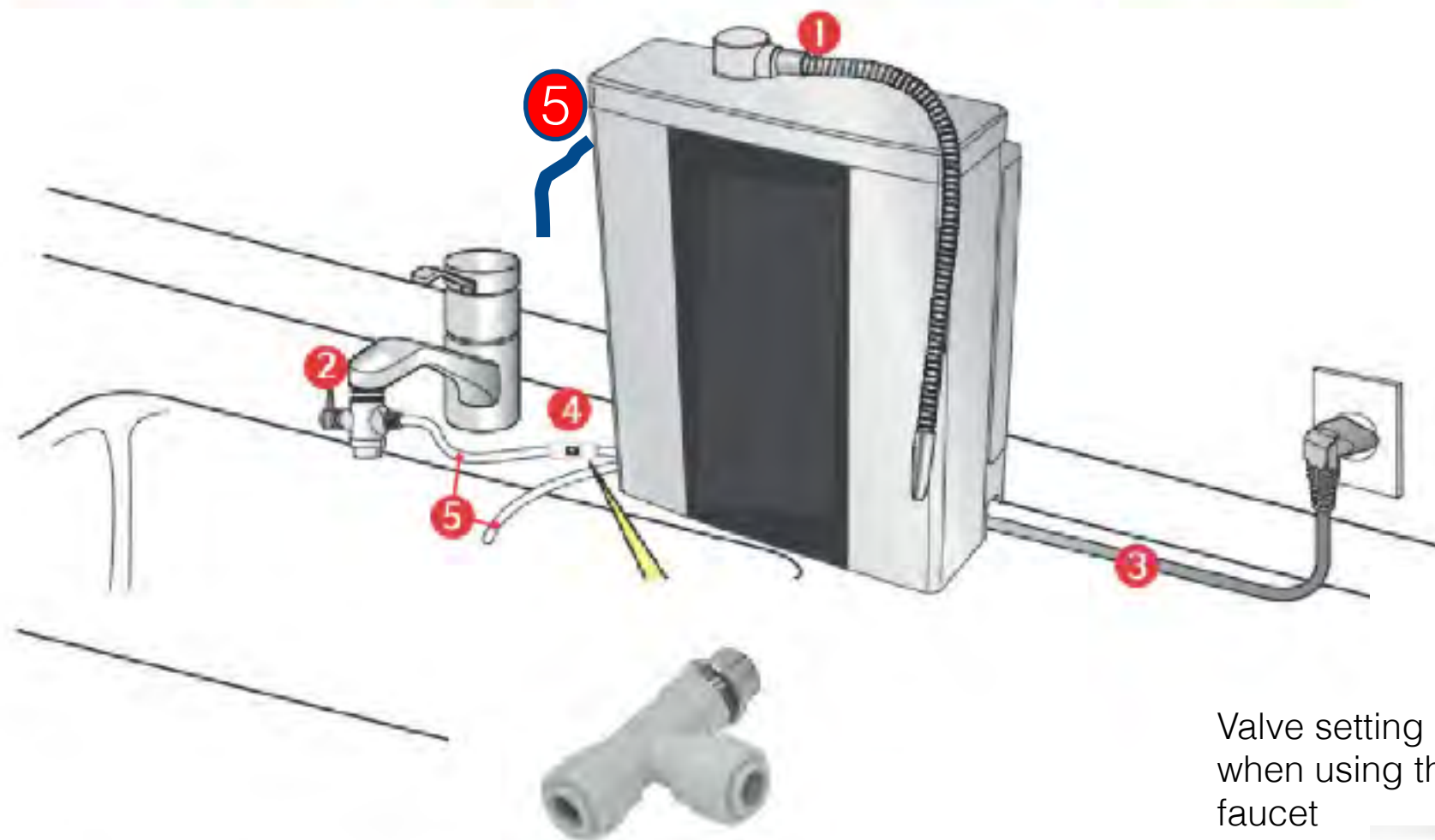


# Connection diagram for connecting to the tap



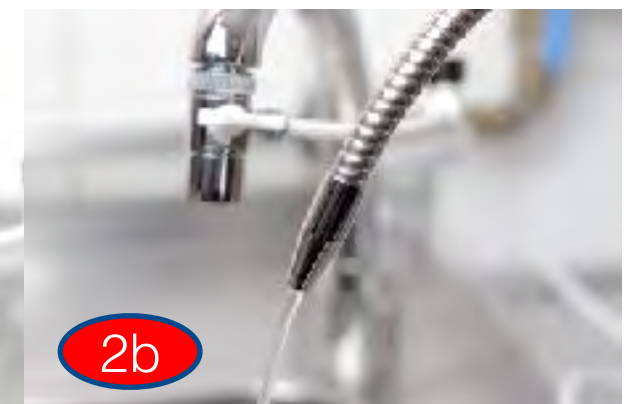
After removing the aerator from the faucet can an adapter ring, if required, with a rubber seal be screwed into the tap (a) and the diverter body (b) is screwed off. To seal it, if necessary, teflon tape can be used (c).

- The water flow regulator (4) should be inserted in between the supply hose (5) and the ionizer. When in the position 2a can the faucet be used normally. When in 2b and the cold water is turned on full, is the water pressure diverted to the ionizer.
- Ensure that the outlet hose of the function water (5) is pointing to the sink.
- When you have checked that all connections are watertight, then you can plug the ionizer in (3).



Valve setting  
when using the  
faucet

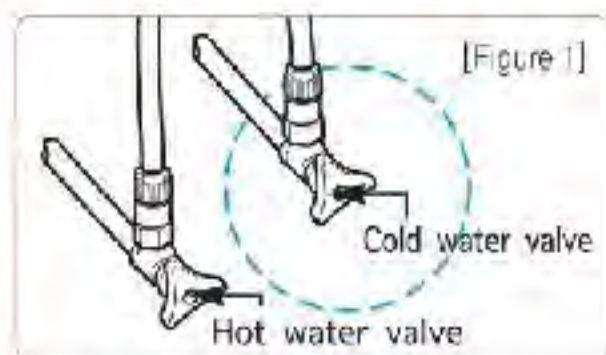
2a



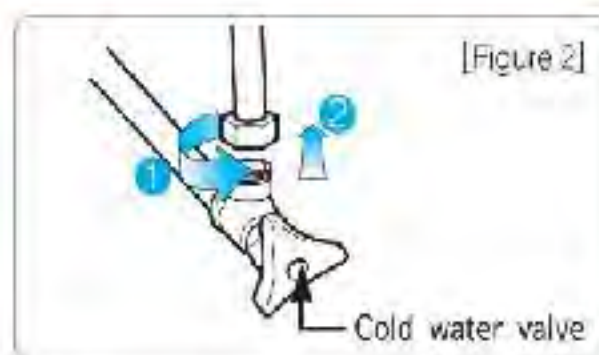
Valve setting when  
using the ionizer

1. Flexible outlet hose  
2. Diverter valve with aerator  
4. Water flow regulator  
5. Cold water supply hose from the tap to the water ionizer

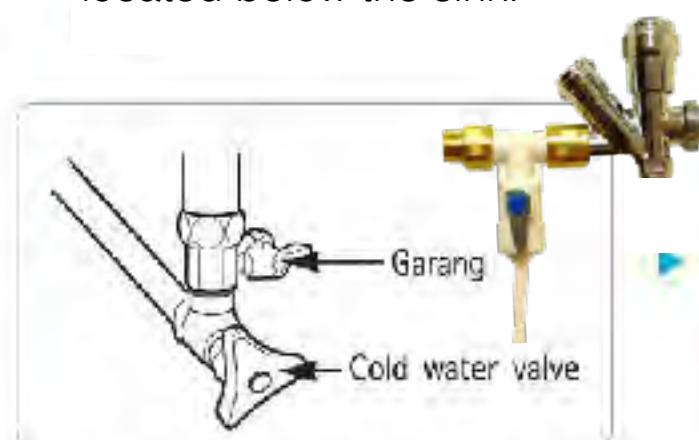
# Connection diagram for the angle valve (plumber)



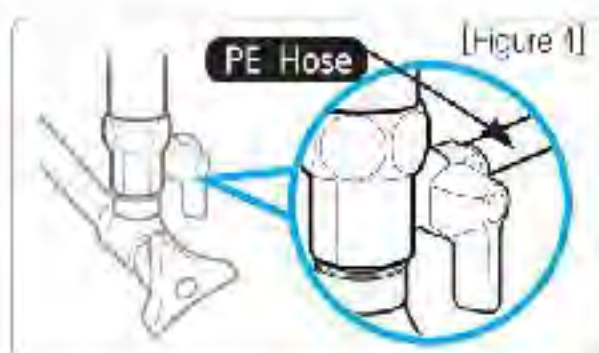
01 Close the cold water valve located below the sink.



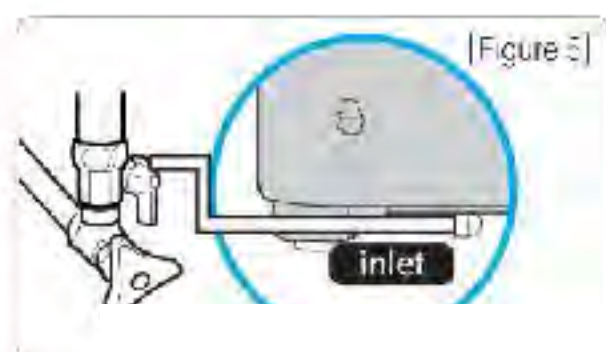
02 Loosen the nut of the cold water valve.



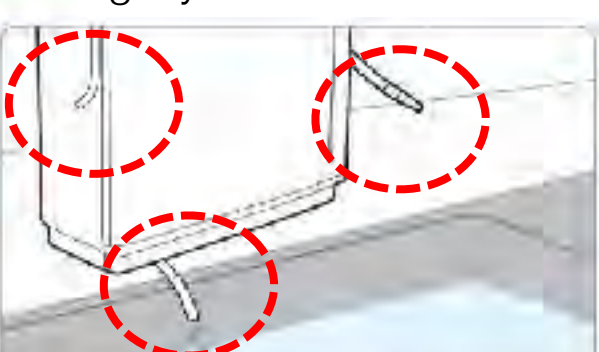
03 Insert the 3/8 inch shut off valve (white/gold) in between the angle valve and the cold water valve.



04 Connect the 1/4 inch hose (PE Hose), which leads downwards from the ionizer, tightly to the T-diverter.



05 After you have connected the ionizer and the cold water tap with the angle shut-off valve to the water supply, can you open the water supply at the angle valve.



06 Please ensure that the acidic and alkaline water hose can drain into the sink.



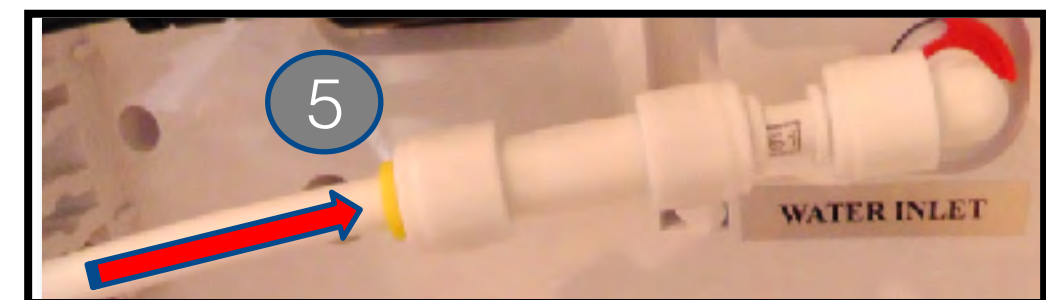
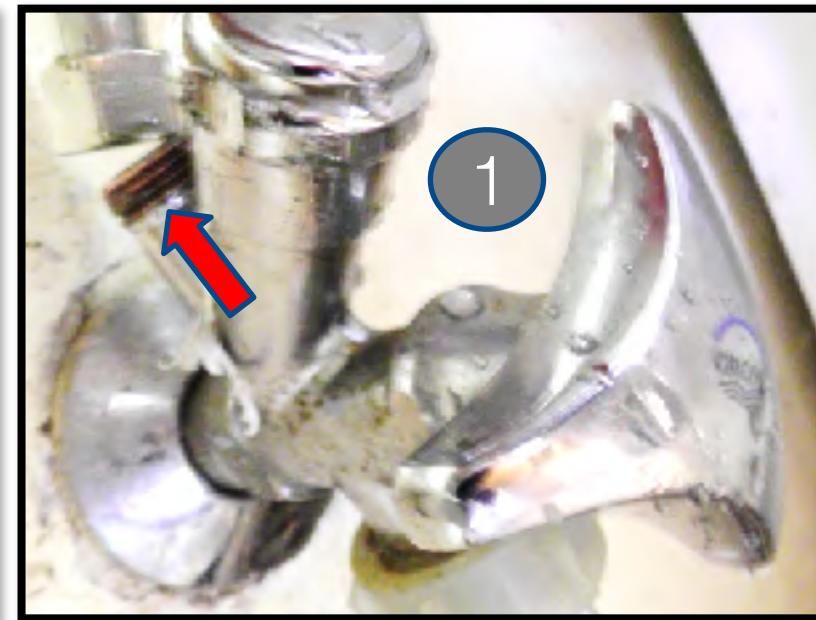
Kitchen counter



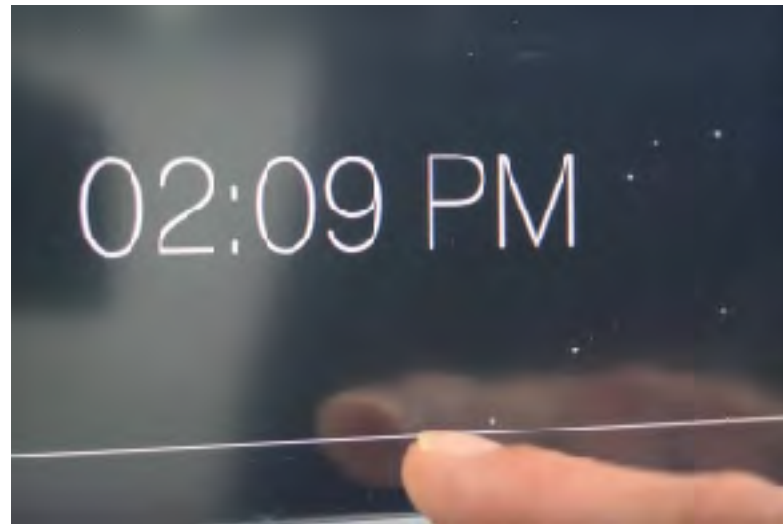


# Installation for the water supply (done by a specialist)

1. Turn the water mains off and release the supply hose to the kitchen tap at the 3/8" angle valve.
2. Insert the shut off valve (white/gold) in between the angle valve and the cold water valve.
3. Stick the end of the 1/4" pipe firmly into the socket of the angle shut off valve.
4. Watch out that the grey switch of the angle shut off valve is OFF (4). Only like this can you open the water supply at the 3/8" angle valve.
5. Then the 1/4" pipe is connected to the cold water inlet of the water ionizer (5) and then you turn the grey handle to regulate how much water (6) (7) flows into it.



## Initial operation – Drawing filtered water



For the initial operation of the device, the red switch on the bottom has to be switched “ON”. After a few seconds the screen switches on with the displays.

Once you touch the screen anywhere you will see the start page.



Press the sensor “PURIFY”. From both water outlets filtered water will flow out. For the first two minutes the filters will be flushed. Activated carbon dust will also pour out and will darken the water for a few seconds. Please check during this time if all connections are sealed.

What does “filtered Water” mean (Purify) ?

All water that passes through your ionizer will be filtered. First of all it flows through both filters and the electrolysis cell. The PURIFY mode only means that the electrolysis cell is not in use when in this mode. The water from the PURIFY mode is not ionized. The electrolysis cell is only in use when you choose the modes ALKALINE or ACIDIC.



# System setting in the MODE-Menu



Touch the screen, then press the MODE sensor (red circle). Then press the LANGUAGE SELECTION sensor button to get to the languages in the settings.



Choose with the sensor arrows up/down English or another desired language (German, Korean, Chinese, Russian, Italian and English are available). This concerns the language of the voice prompter, not the menus. Choose the selected language by pressing CONFIRM.



With TIME SELECTION you can set the clock by pressing the up/down arrows. Choose either AM (0:00 -12 o'clock) or PM (12:01 - 24 o'clock). Then the hours can be selected as well as the minutes. Choose the selected time by pressing CONFIRM.

# MODE default settings: screen, volume, bottling volume



By pressing the MODE sensor you reach the default settings. Choose WAITING SCREEN SETTING and change that with both arrow keys if the screen should also display when not in use (ON). If you wish to switch the clock off, switch it to OFF. Select the modified display by pressing CONFIRM.



Now choose VOLUME SETTING and select a comfortable volume for the voice prompt. Select the modified volume by pressing CONFIRM.



Now choose AUTOMATIC CLEANING and select with both arrows the value 10 L if it is not already shown. Select the modified display by pressing CONFIRM. Like this you apply a safety measure for the device to switch off if it has been running for 10 Liters uninterrupted. We recommend to fill up to 5 Liters at a time. After the device is switched off automatically or manually, a short cleaning cycle will take place.



# MODE default settings: tap water, pH- and ORP display



Choose the RAW WATER PH SETTING and select with both arrow sensors the value 6,6, even if your tap water should have a higher pH value. Select the modified display with CONFIRM.

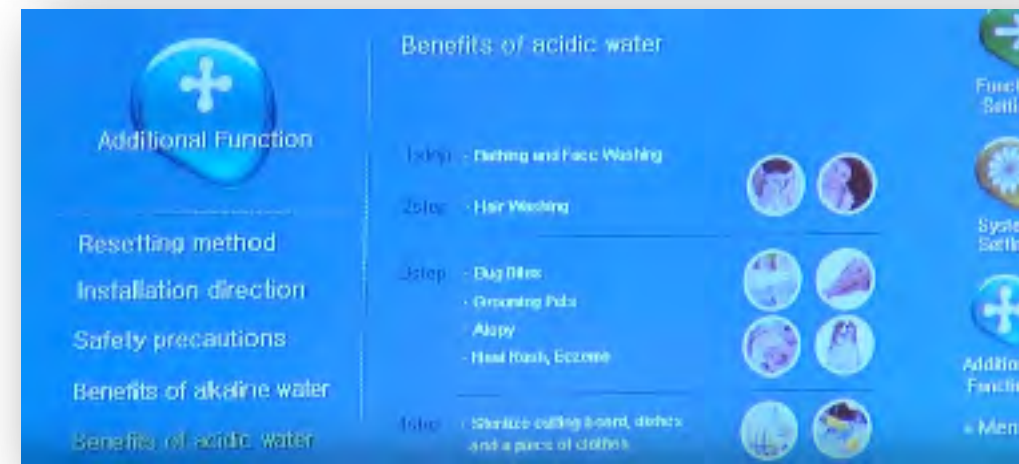
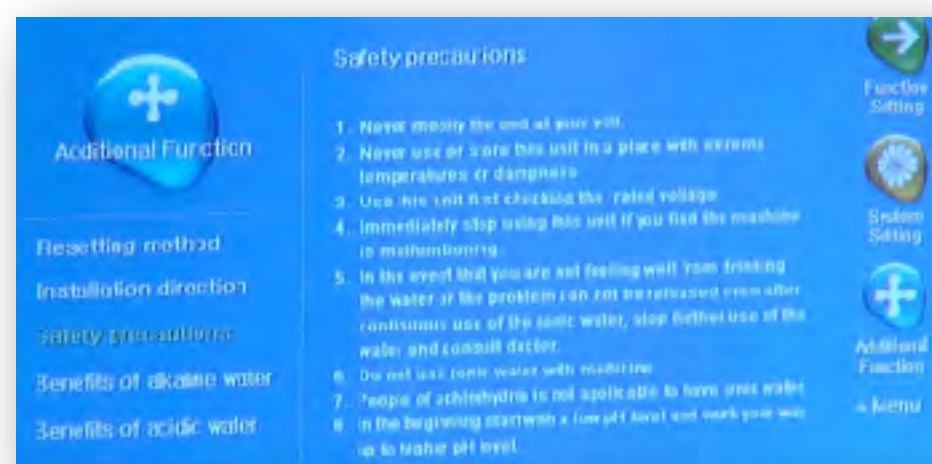
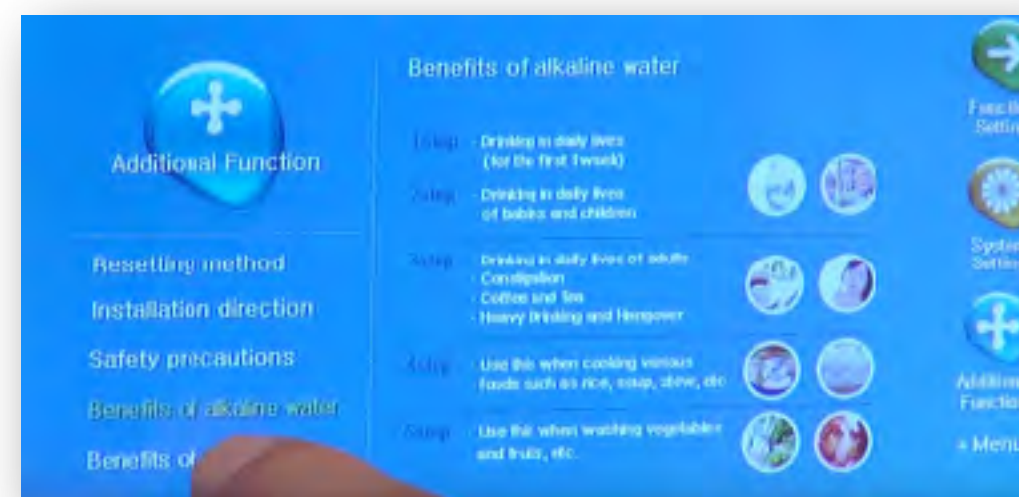
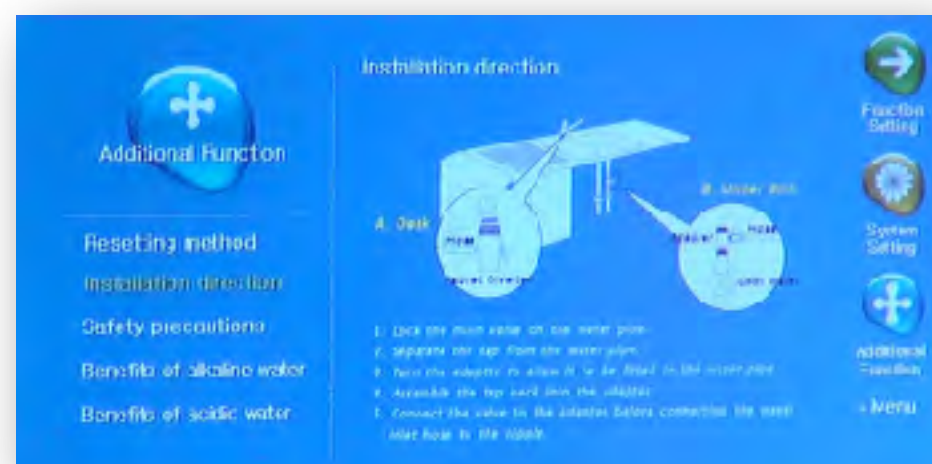


By pressing the sensors PH SETTING BY STEPS, you can adjust the separate pH values to the individual levels. There are 5 ALKALINE levels and 4 ACIDIC levels that can be set to 70 levels. Please do not alter the preset levels! These functions can only be changed by experts.



By pressing the ORP SETTING BY STEPS sensors you can adjust the displayed estimates of the redox potential (ORP) to the individual levels. There are 5 ALKALINE levels and 4 ACIDIC WATER levels. Please do not alter the preset levels! Also the submenu CALIBRATION can in no way be changed unless expressly stated by qualified personnel.

# Additional Function when in the Menu-MODE

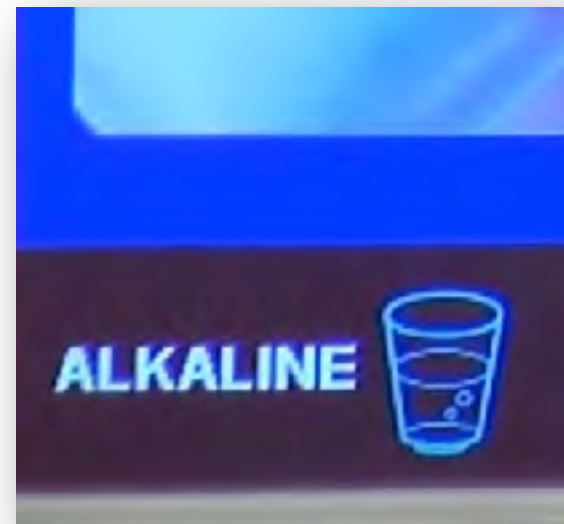
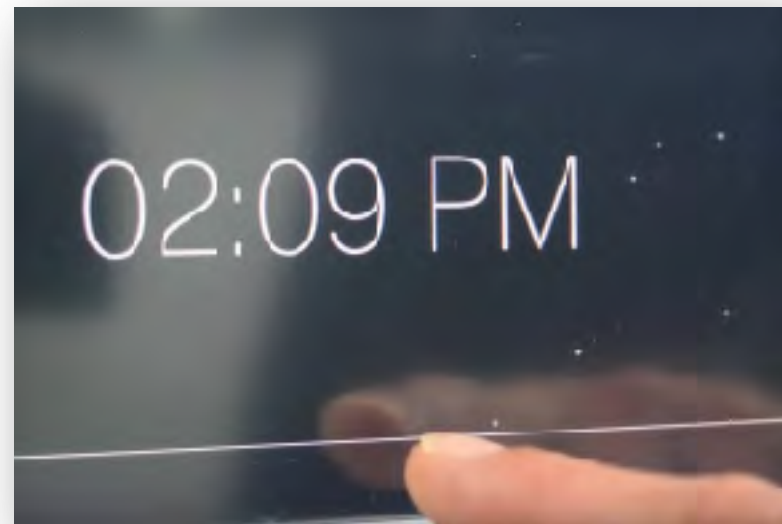


In the Menu MODE you will find ADDITIONAL FUNCTION. There you have additional indications on assembly, operation and use for individual water types. These indications are non-binding and comply with the individual European rules and regulations.

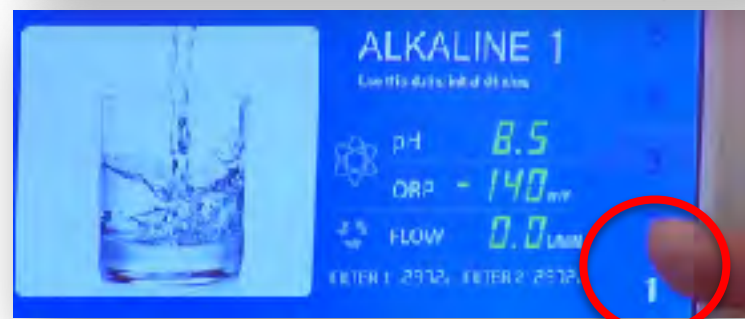
Exclusively binding is this manual. If you do not have this user manual at hand, please resort to your dealer who can offer a replacement as quickly as possible.



# Operation – Drawing alkaline activated water



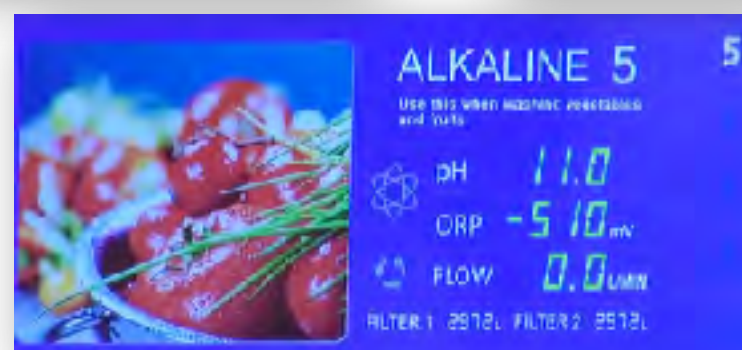
By touching the idle screen and then the ALKALINE sensor, below left, you will reach the mode for drawing alkaline activated water. This will then flow out of the flex-hose at the top of the device.



By pressing the digits 1 to 5 on the right hand side you can select the different levels.

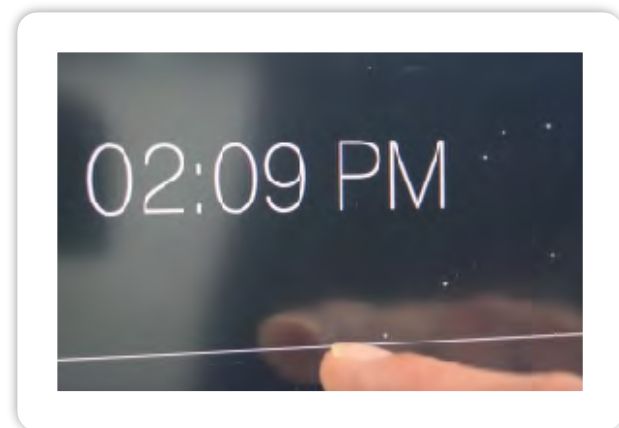


Important note: The displayed pH and ORP values of the individual levels are estimated and, depending on the composition of your water, can differ from the true values.



Also the flow rate (FLOW) influences the ionization results. The FLOW display only shows the amount of water flowing out of the flex-hose, not all the water including acidic water.

# Operation – Drawing acidic activated water



By touching the idle screen and then the ACIDIC sensor, below, you will reach the mode for drawing acidic activated water (not for drinking!)

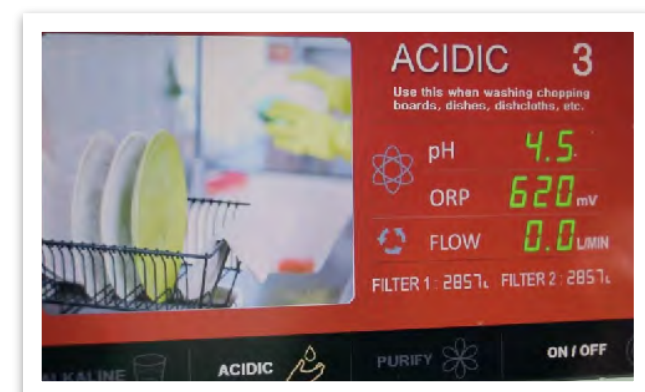
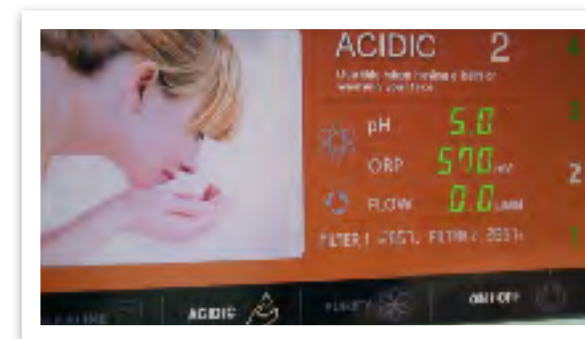
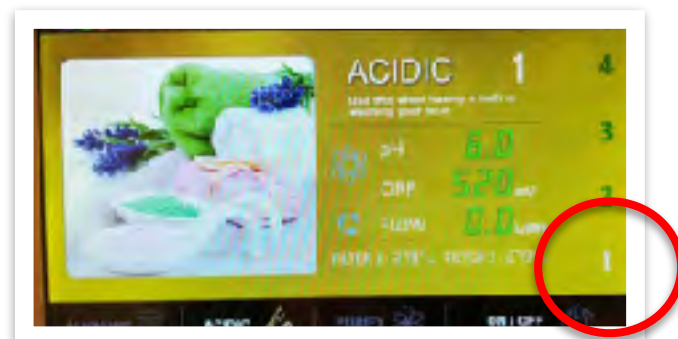
This will flow not out of the waste water hose, but out of the flex-hose on top of the device, whilst simultaneously the produced alkaline activated water will flow out of the waste water hose.

Use this function when you want to use this water for washing, cleaning, rinsing or watering the plants. Do not drink this water.

By touching the digits 1 to 4 on the right hand side you can select the different levels.

Important note: The displayed pH and ORP values of the individual levels are estimated and, depending on the composition of your water, can differ from the true values.

Also the flow rate (FLOW) influences the ionization results. The FLOW display only shows the amount of water flowing out of the flex-hose, not all the water including acidic water.





# What role does the composition of your water play?

Water contains more or fewer dissolved particles, for example minerals which can be measured in PPM/particles per million as a **TDS conductance** (Total Dissolved Solids). Example: Aachen tap water 160 ppm, Munich 246 ppm, Berlin Kreuzberg 375 ppm, Würzburg 820 ppm. The TDS limit of the drinking water ordinance in Germany lies at 1785 ppm.

Very different to central Europe, where the average values of 500 ppm prevail, is in the countries that produce water ionizers, Korea and Japan, where the average values are under 100 ppm. There the following applies:

- Soft water: up to 17 ppm
- Slightly hard water: 17,1 – 60 ppm
- Medium hard water: 60,1 – 120 ppm
- Hard water: 120,1 – 180 ppm
- Very hard water: Over 180 ppm



Originally, water ionizers from the Far East are designed for relatively mineral poor water. The more dissolved particles a water ionizer has to treat, the more efficient and powerful it has to be. Therefore all AquaVolta® Water Ionizers are equipped with bigger and more efficient electrolysis units. However this applies to hard water areas:

- Use a preferably slow water flow
- As a rule, set to the highest level



With the very powerful AquaVolta® EOS Touch can water be ionized up to 450 ppm, so that alkaline activated water can reach a good drinking value from pH 9 to 9,5. With this value you achieve a redox potential up to -630 mV (CSE) with a concentration of 1,4 ppm dissolved hydrogen. (This is an example of tap water in Munich. Can vary, depending on water, temperature and air pressure).

# Using the pH indicator drops



This red liquid is used for determining the pH-value of the water produced by comparing the tested water with the colour scale.

- Do not place the pH drops near extreme heat, an open fire or naked flames. The pH reagent is easily flammable.
- Do not drink the pH reagent liquid and keep away from children. Avoid contact with the eyes and skin. Should this happen then rinse your eyes with plenty of water and immediately contact your doctor. If the liquid is swallowed, you must induce vomiting and immediately see a doctor.
- When using the drops please proceed with caution and do not pour the drops on fabric.
- To measure pH-values fill a small glass with water and add 2-3 measuring drops.
- The colour change occurs immediately and the desired pH-value can be determined from the colour scale.
- Tap water (above right, green) is usually neutral at pH 7.
- Weak alkaline water (above centre, blue) has a value of pH 8-9
- Alkaline activated water for drinking (above left) should colour light purple at a value of pH 9-9,5.
- Attention: Please dispose of this testing liquid in the sink down the drain. Do not drink!
- Should your alkaline activated water at level 4 not discolour to your desired pH-value with the drops, then modify your water flow until the indicated pH-value is reached: A lower water flow —> higher pH because a slower flow means longer contact with the electrodes. Remember: in Europe the displayed acidic water values are rarely reached. It is sufficient to adjust the alkaline drinking level by changing the water flow. How that occurs, you will see on the following page.





# Measuring the pH-value and setting the optimal water flow

pH 0	10.000.000	0,0000001
pH 1	1.000.000	0,000001
pH 2	100.000	0,00001
pH 3	10.000	0,0001
pH 4	1.000	0,001
pH 5	100	0,01
pH 6	10	0,1
pH 7	1	1
pH 8	0,100000000000	10
pH 9	0,010000000000	100
pH 10	0,001000000000	1.000
pH 11	0,000100000000	10.000
pH 12	0,000010000000	100.000
pH 13	0,000001000000	1.000.000
pH 14	0,000000100000	10.000.000
H <sup>+</sup> (H <sub>3</sub> O <sup>+</sup> ) - Ionen		OH <sup>-</sup> (Hydroxid) - Ionen
H <sub>2</sub> (H <sub>2</sub> O) - Ionen		OH <sub>2</sub> (H <sub>2</sub> O <sub>2</sub> ) - Ionen

1. The pH value indicates the amount of H<sub>3</sub>O<sup>+</sup> -ions found in the water. The fewer the water contains, the more alkaline it is. Alkaline activated water should be about 100 times more alkaline than tap water (pH 7). It is therefore 10.000 times more alkaline than coffee or a fizzy mineral water and 1 million times more alkaline than a lemonade.
2. Optimal drinking has been proven to be at a pH value between 9 and 9.5, these are the top limits of the German drinking water ordinance. [When starting your device you have pH indicator drops with a colour scheme for you to measure and obtain the desired pH level with your chosen water, if necessary by adjusting the flow rate/per minute when measuring the pH. This is applied especially when you have set the highest alkaline level and the desired pH values cannot be reached.](#)
3. Even though there is no exact predictability of the ionizer results, because each type of water has a different composition, as a thumb rule it is said to achieve of a drink with a pH of 9 - 9,5:

- soft water up to dH hardness 9: Flow amount approx. 2,3 L/Min.
- medium hard water dH 10 – 15: Flow amount approx. 1,9 L/Min
- hard water dH 16 – 19: Flow amount approx. 1,6 L/Min.
- very hard water dH 20 - 24: Flow amount approx. 1,4 L/Min
- extremely hard water over dH 24: Flow amount approx. 1,2 L/Min



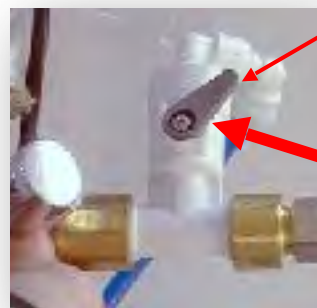
The desired water flow you can regulate with the flow regulator at the supply hose to the water tap or with the small grey lever at the angle shut off valve under the sink.

You only have to do the test once for each water type, unless in your region you have strong seasonal hardness fluctuations. You receive information about this from your water supplier.

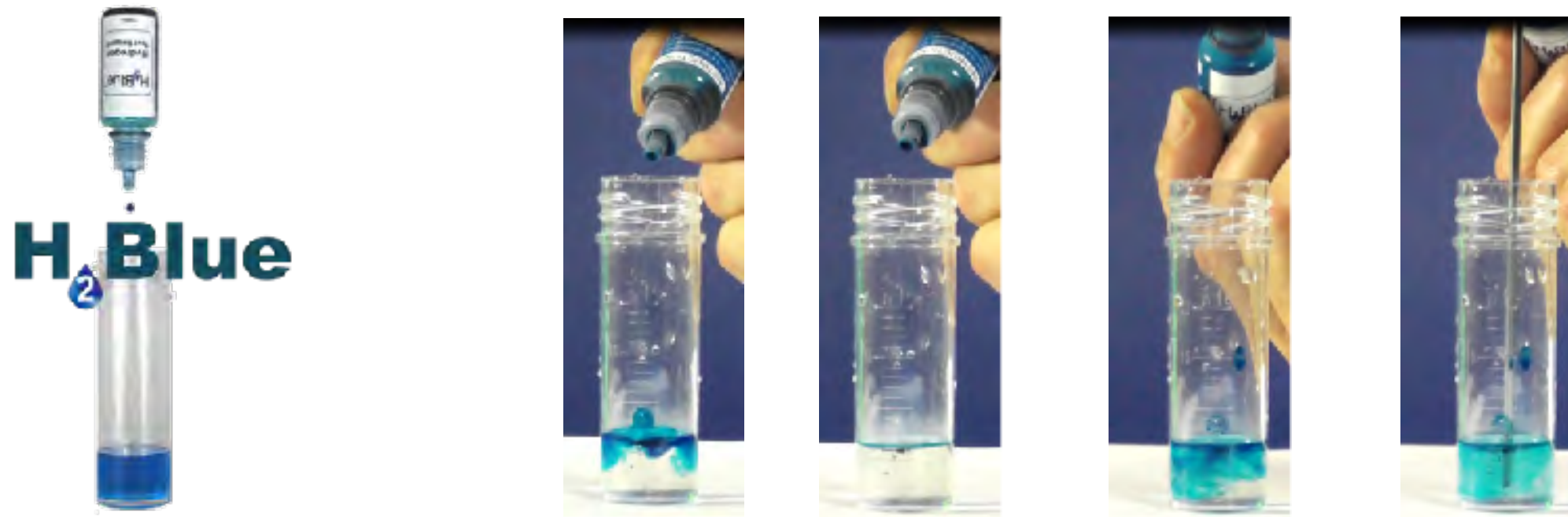
It is easy to carry out the test: (Do not drink the test liquid and keep it away from children!)

Draw a small amount, as pictured and add 2 drops of the indicator fluid.

Compare the desired value with the colour scheme and [adjust the water flow with the grey lever at the angle shut off valve under the sink.](#)



## Optional accessory: Hydrogen measuring drops



Testing the amount of molecular hydrogen is carried out immediately after production with the optional H<sub>2</sub> Blue® Kit.

A water sample of 6 ml is filled carefully into the measuring cup and one drop of the blue measuring liquid is added.

Each drop that discolours means 0,1 ppm (=100 ppb) dissolved hydrogen gas. If a drop does not discolour automatically one can stir gently.

If the liquid still does not discolour, then the last drop does not count. Water under normal air pressure can contain up to 1,6 ppm hydrogen gas (full saturation).

With the AquaVolta® EOS Touch you can dissolve in one minute up to 1,2 ppm = 1,2 mg/Liter hydrogen in water. The electrolysis cell produces five times as much, yet with the short time the water stays in a flow through ionizer, the hydrogen does not have enough time to dissolve completely. If you want to drink more hydrogen, then place the flex-hose when filling inside the glass or bottle so that it is inside the water. Like this the water becomes cloudy from the hydrogen bubbles. Then drink immediately, as long as the water remains cloudy. Or fill a container to the brim so that there are no air bubbles!

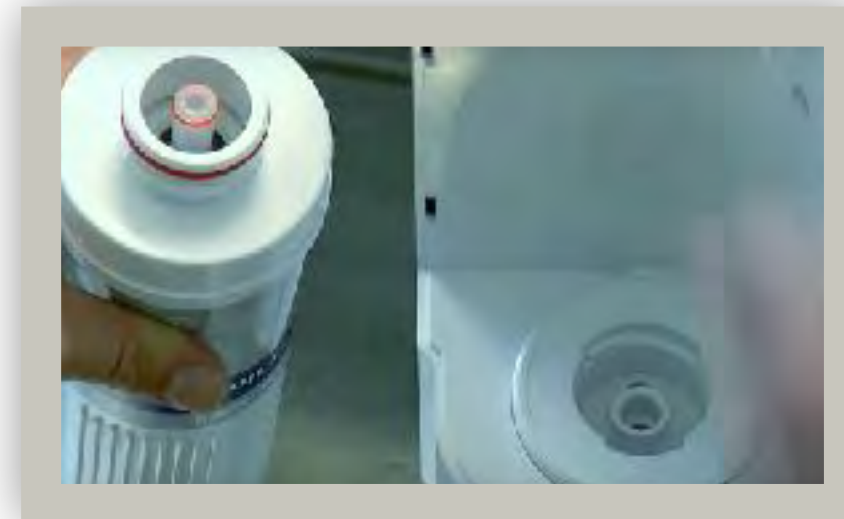
Do not drink the test liquid and keep out of reach from children! When testing use protective gloves and a wipeable surface and watch out for clothing. The drops contain methylene blue, a very intensive dye.



# Changing the filter

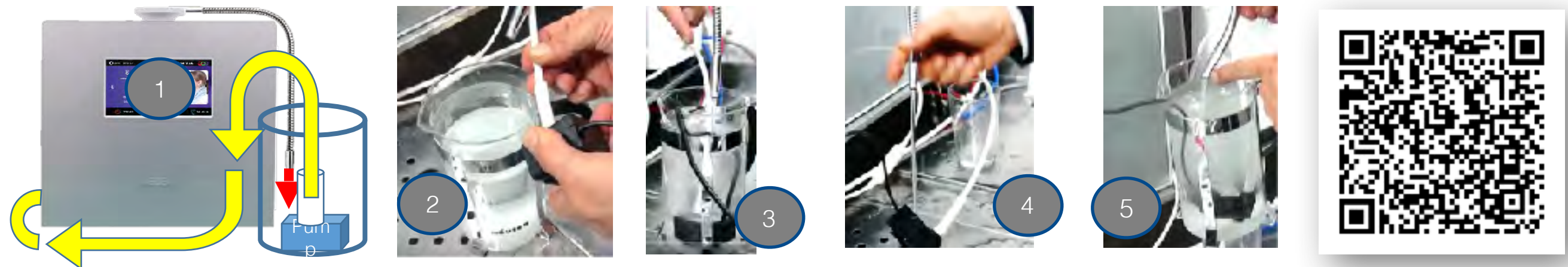


1. To change the filter after max. 1 year or after the device has prompted you to, please open the respective filter lid at the back and unplug the filter monitoring cable. Then twist the filter out of the housing. Filter 1 is on the right hand side of the back, filter 2 is on the left. Have a towel handy since some water can drip out of the filter.
2. The old filters are removed by twisting them to the left. The new filter is inserted into the socket and twisted to the right. Make sure it clicks into place and is fixed. When you test the new filter leave the lid open to check it does not leak if it is not in place. You will see this immediately.
4. After plugging the filter monitoring cable in, the remaining filter capacity is set automatically to 3000 Liters.



# Manual standard decalcification

[https://www.youtube.com/watch?annotation\\_id=annotation\\_2579653663&feature=iv&src\\_vid=cEAWuFV1XYE&v=oFB62mWKZ9M](https://www.youtube.com/watch?annotation_id=annotation_2579653663&feature=iv&src_vid=cEAWuFV1XYE&v=oFB62mWKZ9M)

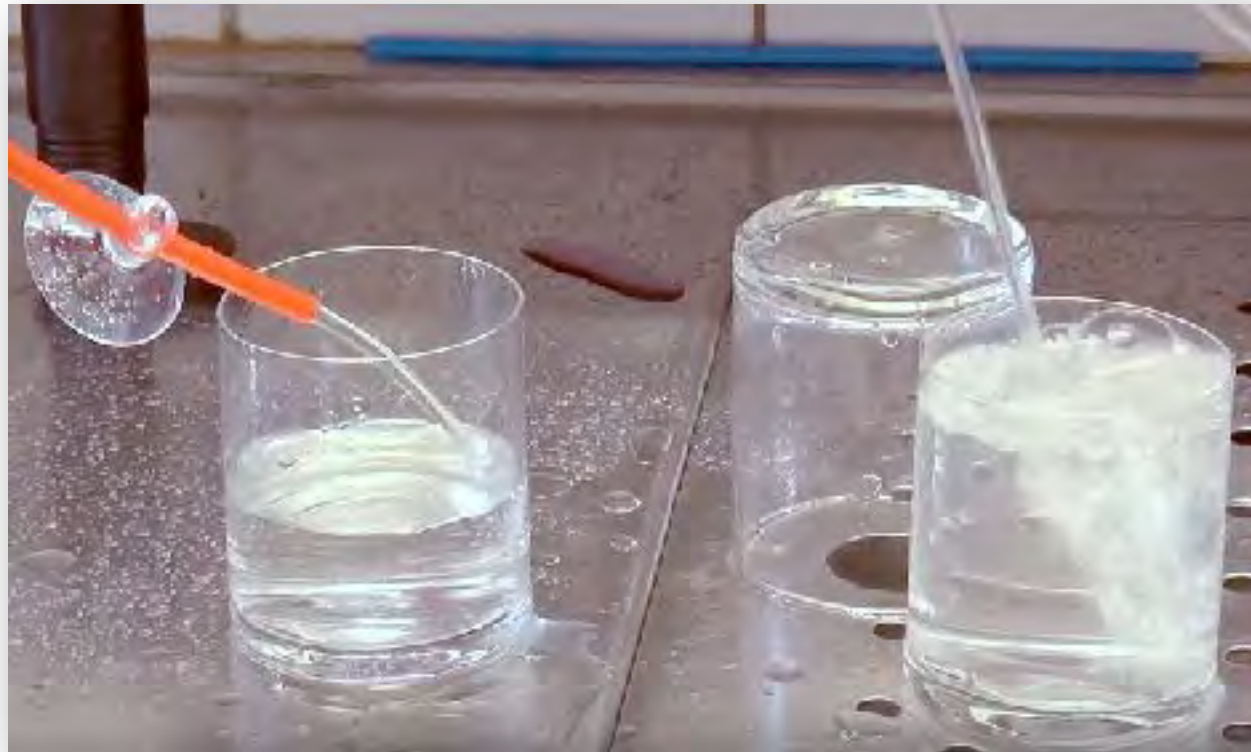


Manual descaling should take place every 1 - 6 months, depending on your water hardness and the amount of water that has been ionized. The YouTube link above and the QR-Code is a comprehensive video on descaling.

- Connect the pump to the waste water pipe and prepare a 1 Liter solution: 30-40 Degrees C warm water with 3 tablespoons of citric acid (2). Place the pump in the descaling solution.
- Position the Stainless-Steel flex-hose over the jug of descaling solution so that the water flows into the jug. This creates the cycle as pictured in image 1.
- Now set the operating mode PURIFY for 5 - 10 seconds. Like this any air bubbles are removed. Then stop the water flow by pressing OFF.
- Now plug the pump in (220 V) and wait until the pump creates a cycle. You will see the water flowing from the pump into the waste water pipe and out of the flex-hose. The descaling solution is now flowing through the ionizer in reverse (3).
- The effects of descaling are mostly noted when the descaling solution appears more cloudy (5). This is due to the acid/limescale reaction.
- After about 1 hour, unplug the pump and place it over the sink for cleaning (4). Then also turn the water ionizer on to the PURIFY mode for about 1 minute. Then the pump is rinsed of any remaining citric acid and/or limescale (4).
- Attention: When using citric acid please use rubber gloves.



## Performance increase - Tricks



If you fill two glasses simultaneously with the flex-hose and the waste water hose, you will see [that only half the amount flows out of the waste water hose](#). Like this water is saved.

Yet the flow rate has a significant influence on the ionization performance. So the water from the waste water hose is always more strongly ionized than that of the flex-hose since it spends more time in the electrolysis cell. This can be taken advantage of:

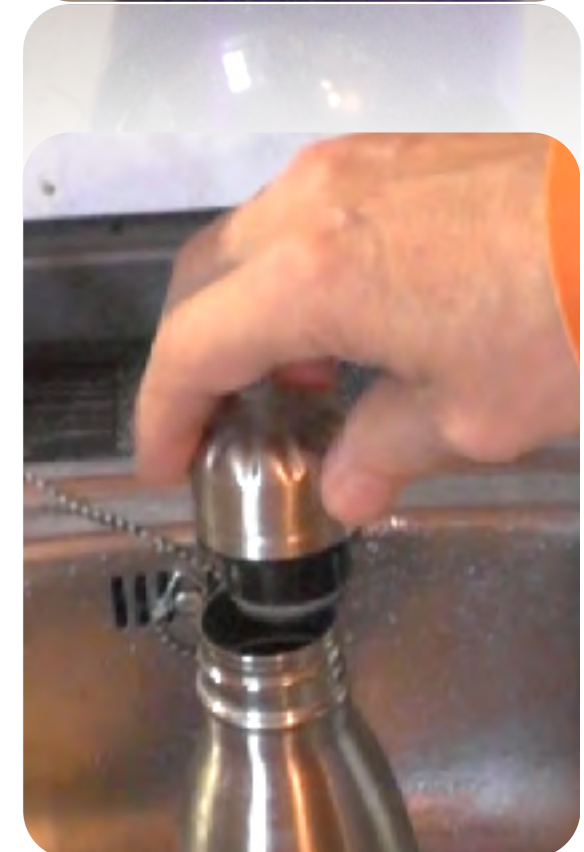
When you turn the device on to level ACIDIC 4, from the waste water hose you get a stronger alkaline activated water than you would from ALKALINE level 5. [If you want to produce an especially high pH value, in this manner you can achieve a higher output of the device.](#)

Yet we are obliged to point out that water with a pH value over 9,5 is not considered drinking water according to the drinking water ordinance in Germany. In other countries a maximum pH limit is pH 9. If you, nevertheless, still want to produce water with a higher pH value because it has a higher content of dissolved hydrogen, you can sink the too high pH value with a few drops of lemon juice. One drop of lemon juice in 1 Liter of water sinks the pH value by about 0,3 pH. In this manner you do not obtain standard drinking water, but a very hydrogen rich, lemon mix drink with the perfectly reasonable pH value of 9 - 9,5. For the increased hydrogen content is not affected by mixing the water with lemon juice!

[The above test with 2 glasses can also be used as a calcification check. More than a half full glass on the left from the waste water hose means: manual descaling is due!](#)

# Storing activated water

1. Next to its alkaline properties, the most important advantage of alkaline activated water is the maximum amount of dissolved hydrogen. Hydrogen is a very volatile gas and because of its minute molecule size can only very dense materials like glass, HD Polyethylene or Stainless-Steel impede it from escaping water in a few hours. Always watch out when filling or decanting, [that the containers are filled to the brim and no air bubbles remain](#). After opening, the contents should be drunk quickly and the rest decanted into smaller containers which also should be filled to the brim.
2. Cool temperatures favour the continuity of hydrogen in water. We recommend [horizontal storage in the fridge](#). Apart from the practical 2 Liter bottles, for example swing top bottles are also very suitable. The colour of the glass makes a slight difference. Decisive is the thickness of the glass and the horizontal storage.
3. Very suitable when on the go are double walled thermos flasks made of Stainless-Steel. They keep the water cool even without refrigerating it. By being able to screw the cap on can all air bubbles be pressed out of the water. Like this a very long storage life is assured.
4. [Acidic activated water keeps for weeks. It should not be kept in metal containers.](#)





# Alkaline activated water – Not just a drink



- Daily drink up to 0,3 L per 10 kg bodyweight of water with a pH value from 8,5 to 9,5. Drink more with high temperatures or more physical effort.
- Lay fruit, salad, raw eggs and vegetables for 15-30 minutes in fresh alkaline activated water. It can also be water with a pH value of 9,6 to 11. Do not use catholyte water for this. Such foods will freshen up by absorbing hydrogen, which even passes through eggshells. The absorption of hydrogen lowers the ORP of the foods. This is a sign of higher food quality according to Dr. Manfred Hoffmann.\* \*Hoffmann, M. et al.; Lebensmittelqualität und Gesundheit (Foods and health), Schwerin 20007. And Hoffmann, M. Hrsg. Vom Lebendigen in Lebensmitteln (Life in foods), Bad Dürkheim, 1997
- Mix milk powders, diet powders, fitness powders, etc with alkaline activated water. Dissolve mineral and vitamin mixes in it. The ORP also sinks favourably because of the dissolved hydrogen.
- Buy juice concentrates - preferably an organic brand. Like this you avoid carrying and environmental pollution from beverage containers. No brand can deliver a juice with a better ORP. See: Asenbaum, K. H., Electro Activated Water, Munich 2016, S. 42 ff.
- Cook vegetables with alkaline activated water, taste and colour are preserved, bitter tastes are softened.
- Defrost frozen foods in alkaline activated water.
- If you make sticky rice for Sushi, for example, then wash and cook it in alkaline activated water.
- Seedlings sprout faster if you soak them in alkaline activated water. For example soya, alfalfa, mung beans, lentils, etc.
- Soak legumes in alkaline activated water - cooking them will be quicker.
- Meat and fish can be soaked for 10 minutes before cooking in alkaline activated water. It will be more tender.
- Mix alcoholic drinks with hydrogen rich alkaline water. It becomes more mild, the taste can be more appreciated. Make ice-cubes out of alkaline activated water.
- After alcohol indulgence drink 2 glasses in the evening and 2 glasses the next morning on an empty stomach.
- Give your pets (cats, dogs ...) hydrogen rich alkaline activated water to drink and see how the fur and general health changes positively.

# Uses of acidic activated water

- Rinse your hair after shampooing it with acidic water instead of the chemical conditioner. Your hair will become soft and the scalp is disinfected
- Wash impure skin that has acne, blackheads first with alkaline activated water. Then spray spots and blackheads with acidic activated water.
- Rinse your mouth before teeth cleaning with acidic water and place it in your mouthwash. It disinfects and therefore protects gums and teeth. Afterwards use toothpaste.
- Rinse and gargle if you are suffering from throat and tonsil ailments. Treat burns and light skin abrasions, scrapes or cut wounds every 10 minutes with acidic water. It disinfects and aids the healing process
- Bathe sweaty feet regularly in warm acidic water
- Use acidic water as an after shave lotion and for facial skin care. It tightens the skin.
- Use acidic activated water for all cleaning jobs in the household.
- Water plants with acidic activated water that prefer acidic soil.





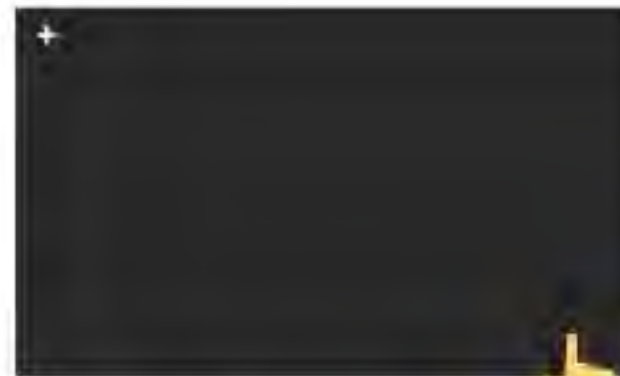
# Troubleshooting

Symptom	Check	Possible solutions
No electricity. Start/Stop does not light up	Properly plugged in? Fuse defect?	Plug in correctly. Change the fuse.
Even though Start/Stop lights up, very little or no water flows out.	<ul style="list-style-type: none"> <li>• Corner valve or angle shut off valve closed?</li> <li>• Hose bent?</li> <li>• Water pressure too low?</li> <li>• Water frozen?</li> <li>• Filter blocked?</li> </ul>	<ul style="list-style-type: none"> <li>• Open valves.</li> <li>• Straighten hose.</li> <li>• Raise pressure to minimum pressure (1,0 l/Minute).</li> <li>• Wait until pipes are defrosted.</li> <li>• Exchange filter.</li> </ul>
Activated water not alkaline enough	<ul style="list-style-type: none"> <li>• Is the water flow too fast?</li> <li>• Does acidic water flow out?</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce the water flow with the grey lever on the angle shut off valve.</li> <li>• Consult your dealer.</li> </ul>
Suddenly water stops when filling	Where more than 10 L filled at a time?	Automatic deactivation when overloaded. Please wait until the Start/Stop display is lit up.
Water leak at the filter	<ul style="list-style-type: none"> <li>• Not correctly installed?</li> <li>• Does water come out of the device?</li> </ul>	In case the filter has not been placed correctly, stop the water supply and unplug the device. Please inform your dealer.
Water tastes strange.	<ul style="list-style-type: none"> <li>• Not used in a long time?</li> <li>• Too alkaline?</li> <li>• Overlooked the filter exchange?</li> </ul>	<ul style="list-style-type: none"> <li>• Rinse device for 3-5 minutes in the PURIFY mode.</li> <li>• Raise the water flow with the grey lever on the angle shut off valve.</li> <li>• Exchange the filter.</li> </ul>
Activated water is milky or secretes limescale.	Does the milkiness not disappear after 10 seconds?	This is normal sedimentation of calcium carbonate during the relaxation of activated water. Traces can be removed with the descaling solution.

# Troubleshooting - System crash



1. Please turn on the power by pressing lcd screen of right lower end. Under the condition of turn on, please touch continuously left upper end for getting "+" sign.



2. The "+" sign appears on the left upper end.



3. If the "+" sign appears on the left upper end, please touch the "+" sign with finger or pen.



4. Also, if the "+" sign appears on the right lower end, please touch the "+" sign with finger or pen.



5. If the screen returns to the normal condition, please check if the buttons operate normally.

Touchscreen controlled devices sadly suffer sometimes from a short system crash.

Should you see a completely black screen when the device is on, apply a new system startup in the following way:

1. Press on the lower right hand corner until a "+" sign appears.
2. The "+" sign is visible in the top left hand corner.
3. Press the "+" sign until below right another "+" sign appears.
4. Press the "+" sign below right until the time is displayed again on the screen.
5. When you see the time display, the device has been set back to the factory settings and is functioning normally. Also the filter capacity is automatically determined. In any case the basic settings (language, time) have to be carried out again as if it was a new device.



## Exterior cleaning and storage of filters when on holiday, etc.



- If you have the device permanently installed, remove the protective film from the front.
- Always wipe the exterior of the device with a soft, moist cloth.
- Store the device at room temperature and not in direct sunlight.
- **When not in use for over a week** or after transporting, the device has to be flushed for 3 - 5 minutes in the PURIFY mode.
- **When not in use for over 3 weeks**, you should remove the filters and keep in a sealed plastic bag in the fridge. Do not forget when returning to place them inside again. Then for 3 - 5 minutes please flush the device in the PURIFY mode.

# Legal imprint

An instruction book by AquaVolta UG (limited liability). Georgenstrasse 110, 80798 Munich. Author and copyright: Karl Heinz Asenbaum. Email: AquaVolta@email.de

## IMPORTANT NOTES

This instruction book contains important information. Read the whole book and if necessary repeatedly. Do not throw it away in case you wish to read it again!

You can and should ask questions and queries. The contact address is shown above.

No responsibility is taken for improper handling, mounting and/or operation.

## DISPOSAL INSTRUCTIONS

The device contains batteries and cannot be disposed of with household waste. If you would like to dispose of the device, you are obliged to return it to the sales point or send it to the producer. Upon request you can receive a parcel label from the sales point or the producer for returning it.

## EXCLUSION OF LIABILITY

Molecular Hydrogen is a naturally and continually occurring gas in the human body, produced amongst other things in the intestinal flora. Risks and side effects from consuming hydrogen rich water have not been mentioned in scientific literature. Therefore, we do not assume liability for medicinal claims or articles about the effect of ionized water, hydrogen water and/or electrolyte water.

Author, publisher and producer do not bear liability for decisions and practices made by someone because of the statements made in this publication. Never use this publication as the sole source for health related measures.

With health related complaints please seek advice from an accredited doctor or therapist.



# Service and Guarantee



Your responsible contact person for guarantee services is your dealer. This applies, in particular, to commitments which have surpassed the two-year legal warranty. All guarantee assurances will be listed on your dealers purchase receipt (invoice).

Manufacturer (main importer and service centre):

Aquacentrum, Owner: Yasin Akgün,  
Fraunhoferstr. 13,  
80469 Munich, Germany.

[www.aquacentrum.de](http://www.aquacentrum.de)  
[www.aquacentrum.com](http://www.aquacentrum.com)



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# Data sheet

Model:	AquaVolta® EOS Touch, counter top ionizer. Aquacentrum version 2017
Producer:	EOS Hitec, South Korea, in cooperation with Aquacentrum + AquaVolta, Munich
Intended use:	Production of multiple filtered, alkaline and acidic activated water with diaphragm electrolysis from tap water as per drinking water ordinance.
Tension/Frequency:	AC 220 – 240 V, 50 Hz. SMPS switching power supply.
Energy consumption:	Max. 500 W in operation. 12 Amp with 30 V DC. Standby: 1,5 W
Size :	340 (H) x 340 (L) x 150 (W) mm. Weight: 6,5 kg
Electrolysis cell:	9 Titanium electrodes, 3 times dip coated galvanisation. Surface contact 1337 cm².
Water connections:	T-piece for 3/8" angle valve (DVGW-certified) or diverter valve for tap (M18xM22, M20xM22 external thread, M20xM22 (AG) long) No low pressure tap.
Operational controls:	Touchscreen
Operating temperature:	4 to 30°C. Automatic switch off when overheated.
Water pressure:	2 to 6 Bar
Display functions:	Touch-sensitive. Display of filter running time, pH, ORP, flow rate.
Electrolysis control:	5 Alkaline levels. 4 Acidic levels. pH neutral level.
Descaling technology:	EOS Hitec Reverse Polarity Interval after each use.
Filter technology:	Multiple layer double filter system, each with 3000 L capacity. Electronic monitoring. Active carbon part with germ protection from silver steaming.
Language prompts:	German, Italian, English, Russian, Korean, Chinese.
Certificates (international):	CE, IEC, IECEE, FC