# Aqua Volta® Cavendish Water Ionizer





### **Instruction Manual**

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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.

#### **DISCLAIMER**

- Even though the here described Aquavolta® water ionizer is certified in Japan and Korea, due to legal rights can these certificates not be transferred over to our European conditions. Therefore, we do not assume liability for medicinal claims or articles about the effect of alkaline ionized water or acidic disinfecting water, which the producers make in Korea and Japan with the valid legal framework conditions.
- Just like with other preventive measures you should consult your doctor or therapist before drinking alkaline ionized water regularly. This also counts if you are have regular medical treatment or take medication regularly.
- We recommend drinking alkaline water at a pH level of 8 to 9.5. Thanks to its user friendliness you have the choice, which pH value you want to set.

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## Intended use

The point of this device is to produce electro activated water with the help of diaphragm electrolysis. Like this two types of electrically activated water are made:

- Alkaline activated water or "catholyte"
- Acidic activated water or "anolyte"

This water treatment technology was first mentioned in Germany in the 1930's (Elektrolytwasser) and since the 80's it is referred to as water ionizing. Since then the Soviet Union, Japan and Korea have developed household treatment devices for electro activated drinking and functional water, so-called water ionizers.

The description "water ionizer" is no longer a standard term. There are also "water ionizers" on the market that produce alkaline water with the addition of chemical reagents. With this effect the treated water does become more alkaline than tap water and you even have a measurable, although very slight, decrease of the redox potential. Yet the water is missing the electrical activity. Here you are only dealing with a lye.

To make the difference clear with a chemical water ionizer, the description "Hydrionator" since 2011 is a registered and protected trade name in the German Patent and Trade Mark Office. It is a brand name only given to electric water ionizers like the AquaVolta® Moses and Cavendish.



#### **Henry Cavendish**



\* 10. October 1731 in Nice; † 24. February 1810 in London

#### The discovery of hydrogen

Cavendish reported his own work in "Three Papers Containing "Experiments on Factitious Air" in 1766. These papers added greatly to the knowledge of the formation of "inflammable air" (hydrogen) by the action of dilute acids (acids that have been weakened) on metals.

He destroyed the thousand year old myth that the ancient element water is just water and proved that it has an energy rich component, hydrogen. It was later that Lavoisier discovered the other component of water "oxygen". This flammable air is nothing other than the sole energy forecast of future generations when oil and natural gas are burnt up.

Therefore we have named this hydrogen machine after him: Henry Cavendish, Esq.

We thank you for your incredibly important discovery!

## The water ionizer: A milestone in the history of drinking water

Until the end of the 19th century was the search for the best drink for human consumption characterised with accidental discoveries. Which drink tastes the best and is at the same time easily digestible, was exclusively determined by experience and tradition. Human inventive richness came first into play with the improvement of the taste of drinks: Different civilisations developed different elaborate methods for producing "cultural beverages" like tea, beer, coffee, etc., whose health value is brought into question when excessively indulged.

Water as a drink did not count as a culture beverage even in the new times. Even today in many parts of the world is it graded as a hazardous drink. From no other nourishment can so many illnesses and diseases be spread. Water from naturally clean springs, especially healing or medicinal water was available to few and affluent people in privileged places. It was in the year 1821 - the year of chemistry - that the Dresden chemist Friedrich Adolph Gustav Struve "replicated natural water springs" and dispensed it in numerous curative water drinking events throughout Europe.

Yet this apothecary water remained an exclusive product to privileged members of society. Also the healing qualities did not correlate with the desired extent. Until the end of the 20th century it was assumed that a certain "electric factor", the redox potential was missing from this imitated healing water.

About 100 years later did the Berliner electrochemist Both Graf von Schwerin invent the first electric water treatment technique, known as electro-osmosis. The Munich engineer Alfons Natterer developed from that in the next decades Hydropuryl® Electrolyte waters, which he produced in three factories and distributed to chemists and doctors for drinking cures and for use in human and veterinary medicine for 50 years. His waters were even registered by the strict Federal Health Office and were even known in the U.S.A.

In the 1960's, Japanese researchers occupied themselves deeply with alkaline electrolyte water and developed in 1979 the first flow through water ionizer for the household, the ancestor of the Aquavolta® Cavendish. In Japan more than 20% of the population drink alkaline electrolyte water. That is also where the term "water ionizer" comes from.

#### What is a water ionizer?

A water ionizer is a water flow through electrolysis device which includes integrated water filters. So it purifies tap water and subsequently activates it electrically. By doing this you produce two types of water

- 1. Alkaline water, saturated with hydrogen and activated, suitable for drinking according to the specifications of table water. It has a negative redox potential (ORP) especially because of the dissolved hydrogen.
- 2. Acidic oxidative activated water. This is made by separating the acidic parts from tap water during electrolysis as a byproduct. It is not drinking water, yet qualifies for household cleaning and body cleansing. Acidic water has a positive electric redox potential (ORP).

Background: Water contains different electrically charged particles (ions), that can be directed with a continuous current. One has to differentiate from the <u>water ions that are produced by the water itself</u> (from H O you make H+ and OH-) and the foreign ions (such as mineral salts) which are dissolved in water (such as Ca++ and Cl-).

Normal water is capable with its own power to dissolve <u>foreign ions</u> with hydrogen bonding. The water ionizer ensures with the applied electricity for electrolysis that more of <u>its own ions from water</u> (H+ and OH-) are produced than what water can produce from its own power.

So it is the water itself which is ionised and not the dissolved foreign ions which are contained inside.

# 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 it's 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 seldom healing springs is hydrogen not preservable. So these healing waters only work at the source and cannot be transported, for with hydrogen is the negative redox potential 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 ionising water molecules and stored under pressure at its saturation limit. Japanese research has discovered that stable hydrogen atoms partly remain in the water in the form of mineral colloids, which are also antioxidant. Drinking alkaline activated water (within the pH range of 8,5 to 9,5) has the following 7 properties as a total composition:

pH value: 1 to 2 pH levels above output water

Cations: (Ca<sup>++</sup>,Mg<sup>++</sup>, Na<sup>+</sup> etc.) up to 50 % above output water)

Anions: (NO3-, Cl-, S2- etc.) up to 50 % above output water

Formation of free hydroxide ions (OH-)

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

Hydrogen gas (H<sub>2</sub>) ca. 1,5 mg/l

Hydrogen (H + H<sub>2</sub>) as a mineral colloid

Incidentally is also an eighth property mentioned, the existence of the increased amount of smaller ("hexagonal") water clusters.

Such clusters exist yet in almost all waters as socalled exclusion zones. Additional hexagonal clusters do indeed emerge with electrolysis in a water ionizer. They are very temperature dependent and are stable for a maximum of seconds, so in practice a decisive meaning is not significant.

The circumstances are the other way around with acidic water. It is sufficient for the control measurement of the water quality to ascertain the pH value with the help of the pH indicator drops that are delivered with your ionizer.

Other measurements can only be carried out with laboratory instruments, yet they are not necessary for functional control of the water ionizer. This is because the electrolytic increase/decrease of the pH value with the left over activation processes of water is directly linked.

This link is not only obtained with a chemical increase of the pH value, for example with non-electric water ionizers based on metal ions (such as metallic magnesium) and mineral ceramic. With hydrogen formation cations are added that cause a slight decrease in the ORP: From the lack of removal of anions and gas forming oxygen is a complete saturation not made with hydrogen gas and the formation of free OH- ions which is what defines the alkaline character of this water.

To learn more about the theory of activated water, you can read Karl Heinz Asenbaum's book: "Electrically Activated Water - An invention with extraordinary potential" and go to the website:

www.euromultimedia.de.

#### **Front view**



- Display

  Display which indicates operational status when device is activated.
- b Function selecting button

  Button which is used when each function is selected.
- C Alkaline water discharging nozzle
  Passage through which alkaline water comes
- d Water supplying valve
  which supplies/blocks raw water to main body

The AquaVolta® Cavendish is a high quality fabricated water ionizer with a built in exchangeable filter and a flow through electrolysis cell with 9 electrodes made by IONIA. These electrodes are a revolutionary development, for they are not coated once but three times. They also feature a substantially bigger platinum catalyst surface area compared to so-far usual electrodes with a simple galvanic coating.

Dimensions: H x W x D: 38cm x 27cm x 14cm

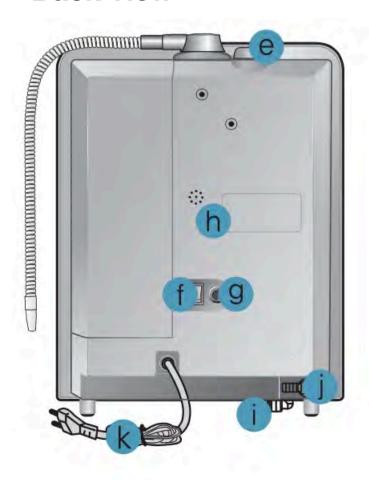
Installation possibilities: Either to the faucet or to the cold water mains.

Operation: Turn dial

Displayed information: Ionizing level, water flow, Liter flow through, filter life, pH-value (adjustable).

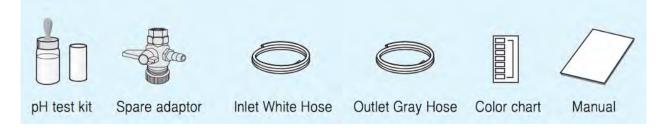
Descaling mechanism: Automatic pole reversal with flow reversal before and after every use.

#### **Back view**

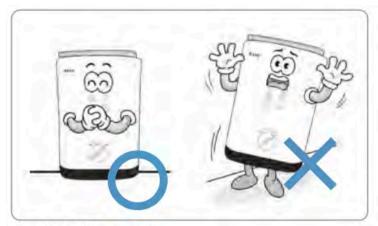


- e Calcium Cap
- f Power Switch
  To supply or block power to the product
- 9 Fuse Holder A safety device against over-load
- h Volume Control Switch
  To adjust voice volume
- Water Input
  The passage of water entering to the product
- The passage of acidic water discharged from the product
- A/C Power Cord
  A cord for power connection

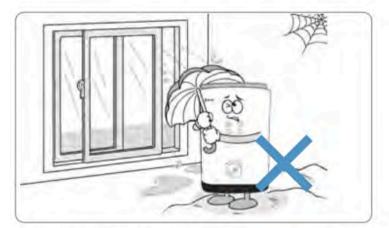
#### **Accessories**



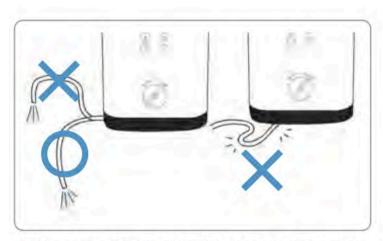
#### Please take note of this before installing your ionizer



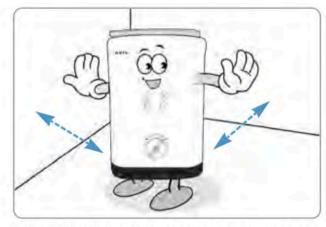
Do not tilt the product



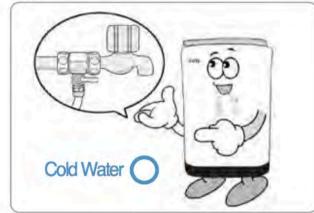
Keep the product in dry places, avoid high moisture areas or direct sunlight.



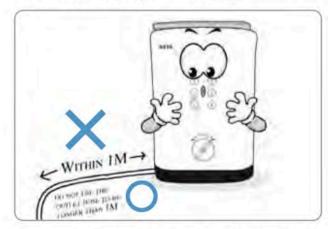
Acidic water tubing must not be raised higher than the base of the product.



Install the product at least 10 cm away from walls.



Connect the ionizer only to cold water supply. Damage resulting from connecting the ionizer to hot water supply is not covered by the warranty.



Within 1M, do not use the outlet hose to be longer than 1M

#### General safety instructions

- Only operate the device with 220-240 Volt
- Do not use dirty plugs
- Conductive components cannot be damaged. Otherwise strict operating ban!
- Do not operate with moist hands
- Do not bend cables or hoses
- The device can only be opened by experts
- Do not use in moist rooms or outdoors
- Do not place objects on the device
- Only to be used with cold water!
- Do not move the device when in use
- Never throw or drop
- Only clean the device with gentle detergents
- Avoid direct sunlight on the device
- Only use with approved drinking water
- Change the filter after 6 months
- Read the manual before use and do not throw away

## Connection to the kitchen faucet

- 1. Unscrew the aerator from your faucet and replace it with the delivered diverter valve. A pair of pliers could be needed. Depending on the screw thread size you connect the suitable adapter. Should it not be sealed around the diverter valve, use plumbing teflon tape to seal the leak. Your dealer will have suitable adapters for unusual faucets.
- 2. Important: The diverter valve cannot be connected to a faucet with a pressure-less boiler or to a faucet with a rinsing spray.
- 3. Connect the thin white pipe to the diverter valve. Remove the small compression nut on the back of the lever. Slide the nut over the opposite end of the white 1/4 inch pipe. Soaking the pipe in hot water for 30 seconds softens it and facilitates the connection.
- 4. The other end of the white pipe you connect to the water inlet nozzle on the bottom of the device. Also place the thick white pipe on the water outlet nozzle and let the pipe hang into the sink.
- 5. When the lever is vertical, you can use your faucet normally with hot and cold water. When it is horizontal water flows directly into the ionizer and cannot be hotter than 30 degrees.





### Fixed installation to the cold water mains

- Please have the installation done by a professional.
- Turn off the cold water supply for example at the angle valve. (Image 1)
- Unscrew the cold water pipe from the angle valve. Screw the delivered 3/8" T-piece adapter onto the angle valve and screw the cold water supply pipe tightly onto the golden connectors. Use suitable adapter pieces for different screw thread sizes. These are available in DIY shops. Your dealer can also send you a suitable 1/2" T-piece. All connections are to be sealed with teflon tape if needed.
- The water is diverted to the ionizer and the small grey lever on the T-piece connector is to shut off or regulate the water flow to the ionizer. Maximum flow takes place when the lever is set in the water flow direction (image right).
   If it is set across the direction of the water flow, is the water supply to the ionizer blocked.
- Attention: Only open the cold water mains when the faucet as well as the ionizer are tightly sealed to the T-piece and tested for leaks. For that you have to lead the 1/4" white pipe through the kitchen counter or through the sink to the water ionizer. You most probably have to drill a hole for this.
- Lastly, connect the other end of the white 1/4" pipe firmly to the water ionizer, as described on the previous page. Also connect the grey outlet pipe.
- Afterwards the cold water angle valve can be opened carefully. Please check the whole system for leaks, if it is properly sealed.

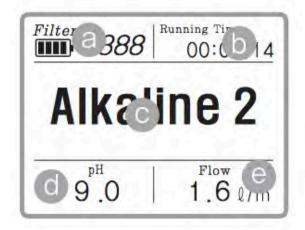








# Operational controls





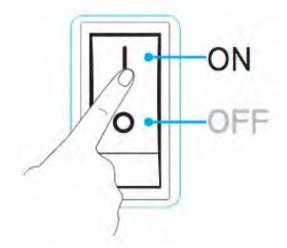
- Displaying filter lifespan Indicating total amount of filter use
- Displaying water discharging time Indicating time during which water is discharged
- Displaying number of grade in use Indicating number of grade in alkali/acid and purification currently in use
- Displaying pH Indicating pH for each grade
- Displaying quantity of supplied water Indicating total water flow per minute
- Setting display

  Method to use lamp which is on when each function is selected
- Alkali selection button
  Button which is used when function of alkaline water is selected
- Water purification button
  Button which is used when function of water purification is selected
- Acid selection button

  Button which is used when function of acidic water is selected
- Filter Identify button
  Button which is used to check filter status
- Melody button (muting melody sound)
  Function that can make melody sound on/off which is
  made when each function is selected
- Setting button
  Button which sets each function

# Start up of the device

Turn the black switch on the back of the device "ON". This main switch should always stay on. After being in use the ionizer switches automatically to its energy saver mode. Once the ionizer detects a water flow it automatically switches back on and reverts back to its last setting.

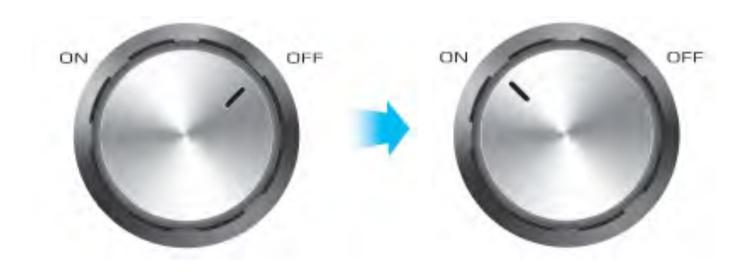


You will hear a signal tone and the display panel will light up for 2-3 seconds. When the main switch is on and the display panel is not illuminated the ionizer is in standby mode.



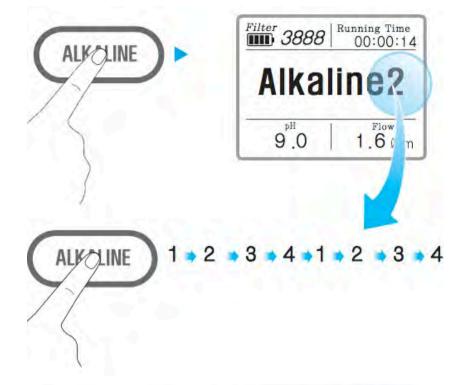
Depending on the connection (faucet or T-piece) you then open the water supply. The white supply pipe is now under pressure. Check again the water supply connections to make sure they are properly sealed.

Turn the dial to the desired filling point and ensure that the acidic drain hose leads to the sink or a collection jar.



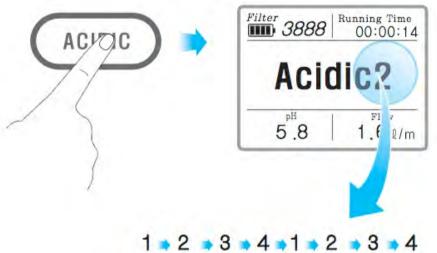
With the turn dial you regulate the water flow from 0 (OFF) to Maximum (ON). Once water flows, the display indicates the operating status and an announcement is made in English. Tip: How far you turn the dial has a direct influence on the ionising performance of your water ionizer. With a slower flow does contact time and therefore ionization of water increase.

# Water dispensing

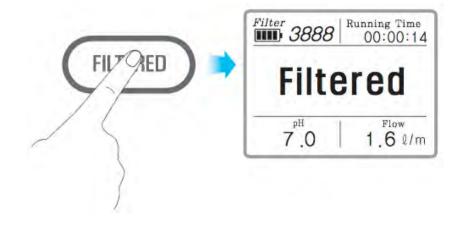


In general you will want to draw alkaline activated water (ALKALINE) from the Stainless Steel flex-hose. You have 4 different strong levels to choose from by pressing the ALKALINE button repeatedly.

To stop drawing water you just have to turn the turn dial to the right which switches off the water flow.

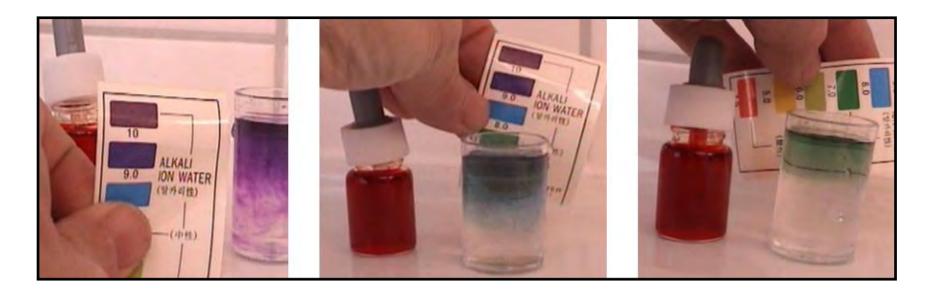


When alkaline water flows out of the Stainless Steel flex-hose, acidic activated water flows out of the outlet pipe into the sink. The reverse happens when you choose ACIDIC, which can also be set to 4 levels. You will always get the selected water type from the Stainless Steel flex-hose. Acidic water can be used to rinse fruit and vegetables, for skin care and to water the plants.



When you choose the FILTERED mode the electrolysis cell is not in use. So no electrically activated water is being produced. The device functions then solely as a mechanical water filter. In this case filtered water comes out of both outlet hoses simultaneously. If you take prescription medication, it should be taken with filtered water unless your doctor has advised something else.

# pH measuring



You have received with your water ionizer the red 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. Acidic water cannot be tailored.

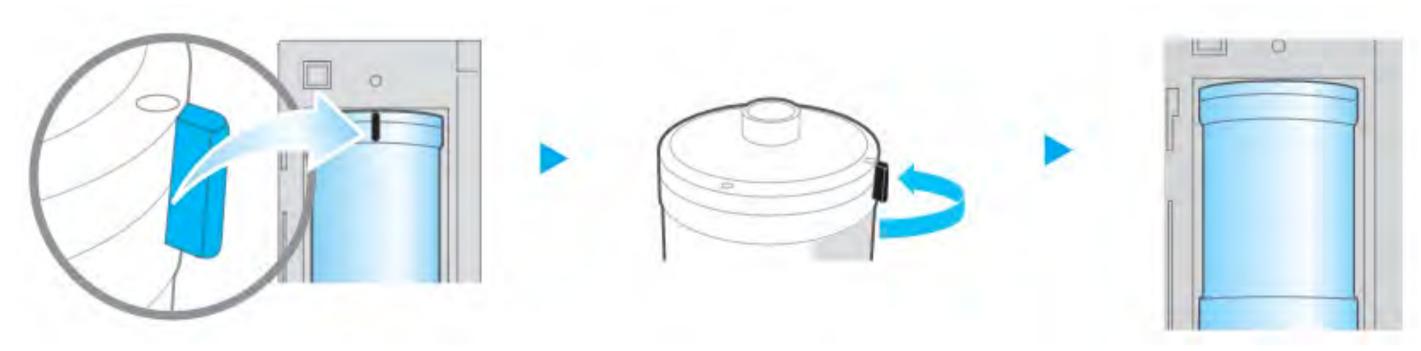
# Filter change

The multifunctional filter cartridge in your water ionizer is not only used to remove contaminants from your tap water which can still be present even though the water has been treated by your water supplier.

The filter also protects the electrolysis cell and its high grade diaphragm membrane from particles such as iron, limescale, rust, etc., which have dissolved in the water pipelines and make their way to your household. Therefore the filter cartridge should fundamentally be exchanged after 6 months. This is also advised if after half a year the display indicates that the cartridge still has a lifespan.

The filter cartridge has a capacity of 4000 Liters which is normally sufficient for the whole 6 months. If you use more than this amount before the 6 months are up, the filter symbol will start to blink and the remaining service life of the filter is indicated at 0000.

Before you change the filter, switch the main switch OFF, open the filter flap at the back of the device and twist the filter out by turning it anticlockwise. The new filter you place inside and twist in a clockwise direction until it reaches the marker.





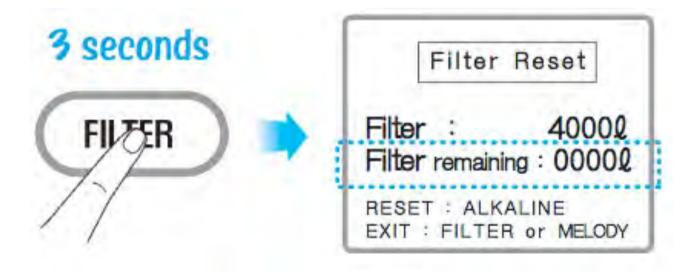
Now switch the main switch ON again, open the water supply with the turn dial and test the new filter to see if it is sealed for 2-3 minutes.

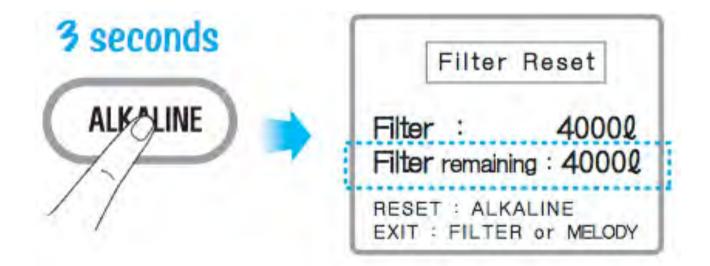
Then you can close the filter flap and set the filter display.

The process is ended by pressing the MELODY button shortly.

Before you drink the water, you have to please flush the filter in the cleaning mode for 2 minutes.

If the water ionizer has not been used (> 4 weeks) you should keep the filter in a sealed plastic bag in the fridge (not the freezer) so that it does not dry out until you use the ionizer again.





Press the FILTER button for 3 seconds until Filter RESET is displayed. Now press the ALKALINE button for 3 seconds until the remaining service life of the filter indicates 4000 L.

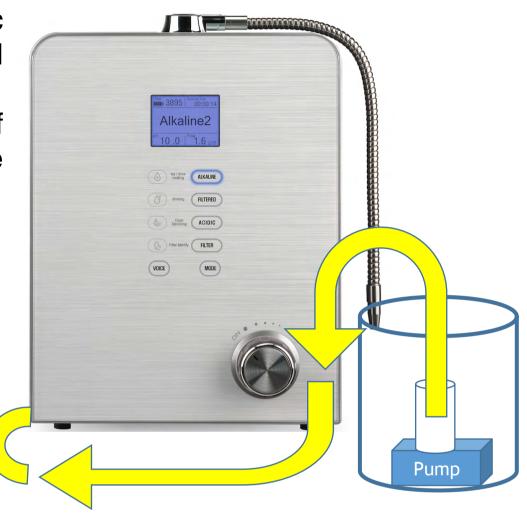
The shelf life of a filter is 6 months, even if you have only used it once!

# Manual descaling procedure

The descaling set consists of a pump with a hose and an organic degradable descaling powder, citric acid. Additionally you will need a measuring jug or something similar with a capacity of at least 1 Liter. The citric acid has to dissolve in the water and with help of the pump is a cycle created which pumps the water through the ionizer.



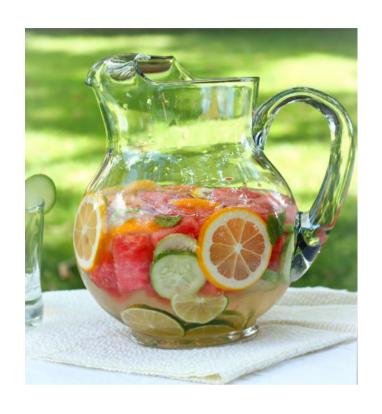




- 1. The pump cannot run dry, always plug in when in water!
- 2. Plug the pump in and check if it works. A new pump will immediately start to function and you will know this from the humming sound. A used pump might need to be soaked in water (up to 15 minutes) for it to start working. This is because it was not rinsed completely after its last use.
- 3. Now pour 3 heaped tablespoons of citric acid into a 1/4 Liter pot of water and heat up the water until the powder has dissolved.
- 4. Pour 3/4 Liters of cold water into the measuring jug and add the 1/4 Liter of citric acid water.
- 5. Place the pump with the hose nozzle on the base of the jug and connect the acidic water pipe to the hose of the pump. If too short you can extend it with the extra hoses we sent you.

- 6. Now place the flex-hose in the jug or above so that the descaling water pouring out goes into the jug. This is how the cycle is created.
- 7. Now open the water supply to the ionizer for 5 seconds. This removes any air inside the pipes.
- 8. If the pump takes longer than 5 minutes to pump the water through the ionizer, it helps to place the jug with the pump inside above the ionizer.
- 9. Allow the cycle to flow for 1-3 hours. If heavily calcified then exchange the descaling water and repeat. The pump is designed to run for 24 hours continuously. <u>Important: Avoid destabilisation and unauthorised access.</u>
- 10. If white crystals are in the descaling water during the descaling process, then the solution is saturated and has to be replaced. This is a clear indication that you are not descaling frequently enough.
- 11. Once the ionizer is descaled, unplug the pump and dispose of the descaling solution. Before you remove the pump from the waste water hose, start the ionizer on the FILTERED mode (neutral) and allow water to flow through the pump. Like this you rinse the pump for 3-4 minutes with filtered water. This is important so that no crystals accumulate inside the pump and block it.
- 12. Now separate the pump and its hoses from the ionizer and store. It is best to make a note in your calendar when the next descaling process should take place. In case the pump does not work next time, place it in lukewarm water for 10 minutes and try again. It is very rarely defective.
- 13. Lastly make sure with a pH test that the same values are reached of your preferred ionisation level.
- 14. Should the pH-values be too low, then you probably have not rinsed the ionizer completely after the descaling process and there is still citric acid in the cycle. Rinse again for 3-4 minutes by setting it to the FILTERED mode.
- 15. In case the values have still not levelled to the normal pH-values of your ionisation level, was the descaling process not sufficient and the ionizer has to be descaled again with fresh descaling water.
- 16. Limescale damage is excluded from the guarantee, just as with household boilers or coffee makers. Should greater limescale damage be present then you can always send the device to be professionally serviced (for a fee). In the worst case would the electrolysis cell be replaced. The cost of this does not overstep 20% of the price of a new device. Your dealer will definitely advise you beforehand about the costs.

# Drink activated water - Not just a drink



- Drink up to 0,3 I of water per 10 kg of bodyweight daily with a pH-value between 8,5 and 9,5. With high temperatures and / or strenuous physical activity respectively more.
- Mix milk powders, diet powders, fitness powders etc. with hydrogen water. Dissolve mineral and vitamin mixes with this water. Also like this the ORP sinks favourably thanks to the dissolved hydrogen.
- Buy juice concentrates preferably organic. Like this you put an end to carrying the juice cartons and consequential pollution. No seller on the market can deliver juices with a better ORP. See: Asenbaum, K. H., Electro Activated Water, Munich 2016, page 42 ff.
- Lay fruit, salads, cut flowers, raw eggs and vegetables in fresh, Hydrogen rich, electrolysis water for 15-30 minutes. These refresh themselves by absorbing Hydrogen, which is even absorbed through eggshells. With the absorption of hydrogen does the ORP of the foods sink, something the foods inspector Dr. Manfred Hoffmann regards as a sign of higher quality of nourishment.\* \*Hoffmann et. al.; Lebensmittelqualität und Gesundheit (Nourishment Quality and Health), Schwerin 2007. Also Hoffmann ed. Vom Lebendigem in Lebensmitteln (From Life in Nourishment), Bad Dürkheim, 1997.



- Cook vegetables in alkaline activated water, like this taste and colour is preserved, bitter aftertastes are softened.
- Defrost frozen foods in Alkaline activated water.
- If you make sticky rice, for example for sushi, wash and cook the rice 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 in alkaline activated water before cooking. 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.

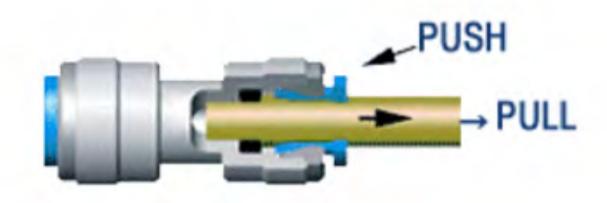
### Electrolysis fine tuning

The available power to electrolyse your water in the different levels of the device can be corrected higher or lower in the expert mode with the following steps:

• Press the MODE and the FILTER button simultaneously for 3-4 seconds whilst water is flowing at the level that you wish to change.

# Tipps for dismantling

The water pipes connected to the device are secured with pressure-resistant plug caps. The ring fastener that seals the water entrance can be released. Please view the diagram below. The ring-fastener is pressed inwards and the pipe is pulled simultaneously outwards.



If you do not have long finger nails it can be difficult. A screwdriver or knife can help. Attention: The pipe can only be released if it is not under pressure. Please ensure that you have released the pressure by shutting off the flowing water supply at the T-piece or the faucet. Like this the pressure is released safely and the plug caps can be released in the above described manner. For safe transportation is the original packaging suitably the best, which should be kept if possible.

### Further information

When operating an ionizer many questions are asked that go beyond the sheer technical operating instructions of this manual.

These questions I answer comprehensively in my book: "Electrically Activated Water - An invention with extraordinary potential" (Elekroaktiviertes Wasser - eine Erfindung mit außergewöhnlichem Potential), available in bookshops under the ISBN 978-3-981120431.

Should you have any further questions, then you can contact me per email: <a href="mailto:asenbaum@web.de">asenbaum@web.de</a>

I drink alkaline activated water daily since 12 years and use it to freshen up foods or mix it with other drinks. Your AquaVolta® water ionizer offers you a huge scope of application.

With warm regards,

Karl Heinz Asenbaum.



## **Data sheet**



Model:

AquaVolta® Cavendish Water Ionizer (2016)

Producer:

IONIA, Seoul, Korea, oldest Korean producer of water ionizers

Model specifications:

SM-V112 TL Aquacentrum

Intended use:

Production of filtered alkaline and acidic activated water with diaphragm

electrolysis as well as filtered drinking water.

Tension/Frequency:

Alternating Current 220 V, 50 Hz

Energy consumption:

Max. 150 W when in use. Standby: 1,5 W

Size and weight:

270 (W) x 383 (H) x 135 (D) mm. Weight: 4,5 kg

Device type:

Counter top water ionizer

Water supply:

With a diverter valve at the faucet or a T-piece at the angle valve

Operational controls:

Touch sensitive buttons

Operating temperature:

5 to 30°C. Automatic shutdown when overheating

Water pressure:

0.7 to 5,0 kgf/cm2 (0,69 to 4,9 Bar)

Display function:

Display. Filter rest-Lifespan. pH-value. Water flow/min. Filling time.

Electrolysis method:

Sensor regulated flow through-diaphragm-membrane-electrolysis

Electrolysis amount:

For alkaline activated water: 0,9 bis 2,8 Liter/Min., depending on water composition

Setting possibilities:

4 levels alkaline, 4 levels acidic electrolyte water. 1 level pH neutral water

Electrolysis cell:

9 platinum coated titanium 3 layer special electrodes

Electrode descaling: Cleaning the device: Flow and pole reversal after each use. (DARC)

AquaVolta® Special descaling set. Periodic manual descaling depending on water hardness.

Filter control:

Electronic. Displayed capacity.

Filter:

Activated carbon, silver steamed, calcium, turmaline, hollow fibre membrane.

Capacity 4000 Liter.