

h₂spark
AGUA HIDROGENADA
www.h2-series.com

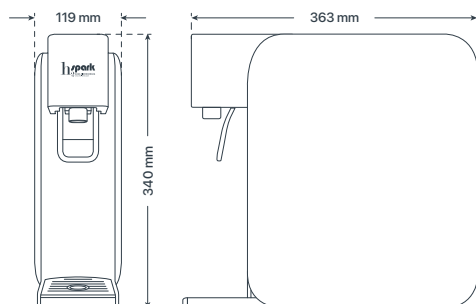


**User's
manual**
**Hydrogen
water system**

User's manual	
· Technical product data Accessories equipment	02
· Presentation and introduction Free radicals Quality of life	03
· What is the potential of oxide water reduction (ORP) What is the pH of the water Previous warning	04
· Installation	05
· Internal operation Parts of the scheme Cleaning and maintenance	06
Solution of system problems	08
Warranty	09
Equipment installation log	10
System control and monitoring	11

1. TECHNICAL PRODUCT DATA

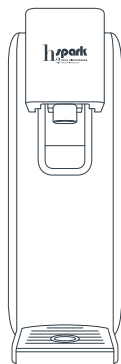
- **Model:** H2Spark.
- **Consumption:** 80W.
- **Hydrogen concentration:** Up to 1.000 ppb.
- **ORP:** entre 450 ~ 580 mV.
- **Working temperature:** 5 °C ~ 40 °C.
- **Working pressure:** 0 ~ 0,6 Mpa.
- **Valid water type:** reverse osmosis water.
- **Weight of the equipment:** 4,5 kg.
- **Dimensions:** 340 x 119 x 363 mm
- **Input and output voltage:** 100~240V / 50~60Hz.
- **Inlet water pressure:** 5 kg max. anti-leakage.



2. EQUIPMENT ACCESSORIES

1. Transformer (1)
2. Transformer (2)
3. ¼" white tubing





HYDROGENATED WATER SYSTEM

3. PRESENTATION AND INTRODUCTION

We welcome you. Thanks for trusting our product for water treatment of human consumption, which increases concentration of hydrogen dissolved in the water and reduces the ORP.

IMPORTANT: KEEP THIS MANUAL.

4. WATER

The World Health Organization recommends to drink between 1 and 3 liters of water per day. With the H2 Spark we are multiplying exponentially the benefits and reducing the need for daily consumption of water.

Hydrogen is a very beneficial element for our body, since the hydrogen molecule is a powerful antioxidant that eliminates free radicals - which causes the majority of diseases and premature aging - thus eliminating oxidative stress.

The secret of the force that contains hydrogen, is its molecular size. Being the first element of the periodic table, it has the smallest size of all the known elements. This is why it gets into all the cells, vessels and neurons of our body and reduces aging.

5. FREE RADICALS

The biggest problem that our body produces, comes from the contact with oxygen and the great amount of oxidants that it generates in our body. This happens no matter when we breath or when we come into contact with air. This effect is caused by the so-called free radicals. With H2 Spark we transform those free radicals into good oxygen, that prevents body aging thanks to that we change its oxidizing electrically charged molecules.

Drinking hydrogenated water with H2 Spark is recommended for all kinds of people, regardless of their age. It can be used even for pet and to cook or prepare infusions (remember that water may not boil, since the hydrogen is lost at 100 ° C).

The use of hydrogenated water also has varied applications, like applying it directly on the skin to counter free radicals that age the skin or the scalp.

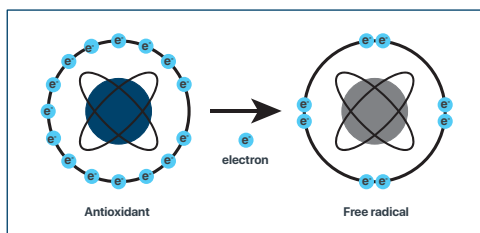


Figura 1

We can be calm when it comes to taking high doses of hydrogen, since an overdose is impossible due to the fact that excess hydrogen always evaporates without leaving a trace.

Additionally, there is no explosive risk either, since the hydrogen produced by H2 Spark is completely beneficial and not dangerous or harmful.

6. QUALITY OF LIFE

One of the biggest advantages of H2 Spark is that it contributes to a decrease in oxidation levels, because when these are too high, our body has difficulties to turn food into energy and it ends in becoming fat.

That's why hydrogen is so important, because its antioxidant charge of hydrogenated water regulates

the oxidation level of our body and facilitates the transformation of those foods into energy.

Although the presence of hydrogen is imperceptible in the water, you will notice a slight difference when you drink it. By removing the free radicals, you will notice that the water will have a different electronic charge.

To get a maximum hydrogenated water concentration, you must fully fill bottles so that the H2 Spark has the time to reach its maximum hydrogenated power. As well it is better to keep the hydrogenated water in the refrigerator, so that it retains the hydrogen up to 8 hours. In case you want to maximize it's power even more, keep it in glass bottles and do not shake it too much once the bottle is closed, so that it does not recover the oxygen contained inside the bottle.

Remember that once the water has lost its hydrogenated capacity, it can rehydrogenate as many times as necessary, since this does cause any harm.

7. WHAT IS THE POTENTIAL OF OXIDE WATER REDUCTION (ORP)?

The ORP measures the tendency of water and it's compounds in solution, to produce oxidation (positive potential) and to produce a reduction (potential negative).

8. WHAT IS THE PH OF THE WATER?

The pH is an indicator of the acidity of a substance. It is determined by the number of free hydrogen ions (H⁺) in a substance. The pH of the water can vary between 0 and 14.

When the PH of a substance is greater than 7, it is a basic substance. When the PH of a substance is below 7, it is an acidic substance.

The farther the PH goes above or below 7, the more basic or acidic the solution will be.

9. PREVIOUS WARNINGS

! Attention: read carefully the warnings described in the corresponding section of the Technical manual.

! Check the box and the state of the equipment. Check if it has not suffered any damage during the transport. Please notify your supplier within 48 hours if you observe any damage.

! Take out the equipment and remove the corresponding protections. The materials used in the packaging are recyclable and they should be discarded in containers.

! Throw away or keep plastic bags and small items that could be harmful, out of the reach of children.

! Water treatment equipment needs a periodic maintenance, performed by qualified technical staff, with a view to guarantee the quality of the supply of the produced water.

! Attention: these equipments ARE NOT PURIFIERS OF WATER. They should not be supplied with water of unknown origin and / or does not meet the required potability requirements by the European directive 98/83 and / or RD 140/2003.

! Its application as aftercare is recommended as a domestic water treatment system using reverse osmosis with a pressurized tank.

! In case of supplying the equipment with hard or calcified water, it may result into a reduction of the equipment's lifetime, which could cause malfunction.

! The maximum water inlet pressure is 5 Bar. Install a regulator at the water inlet, set to a pressure of less than 5 bars, if necessary.

! Attention: If the equipment is powered with water coming from a reverse osmosis equipment controlled by a mechanical cut-off valve or SHUT-OFF and the network pressure of the installation exceeds (or can exceed) 5 bars, the pressure of water dispensed by the equipment may exceed 5 bars, which will make it necessary to install a pressure regulator between the output of the osmosis equipment and the equipment of the hydrogenator input.

! Attention: The equipment can not be installed, inclined or laid down. Do not install the equipment in inclined or unstable places. Doing this could cause a malfunction or the fall of it.

! The intended place for its installation should have enough space for your own apparatus, its accessories, connections and for carrying out a comfortable maintenance.

10. INSTALLATION

The equipment must be installed by authorized technical personnel. It is recommended to install a low reverse osmosis equipment prior to the hydrogen equipment H2Spark.

This osmosis equipment will normally be installed under the kitchen sink. To install the equipment, follow the following procedure:

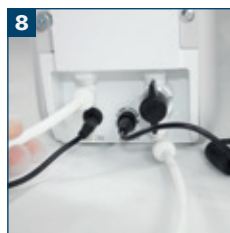


1. Remove the plug from the rear connection of the water entrance.
2. It is advisable to install a cut-off valve between the H2Spark inlet and the reverse osmosis equipment outlet to facilitate maintenance.
3. Insert the power connectors into the network and into the back of the computer. Pay attention because it has a 12V connection and a 24V connection.



4. Connect a $\frac{1}{4}$ " tube that comes from the reverse osmosis equipment or from a water inlet that meets the recommended operating limits.
5. Once the H2Spark equipment is installed, let the water circulate for 2 minutes before consuming the water.

Note: Note: If you want to connect a 2 or 3 way tap instead of using the front pushbutton, you can do so by connecting a $\frac{1}{4}$ " tube to the rear of the H2Spark system, as shown in this image:



6. Congratulations! The installation of the H2Spark system has been completed. Enjoy hydrogenated water and all its benefits.



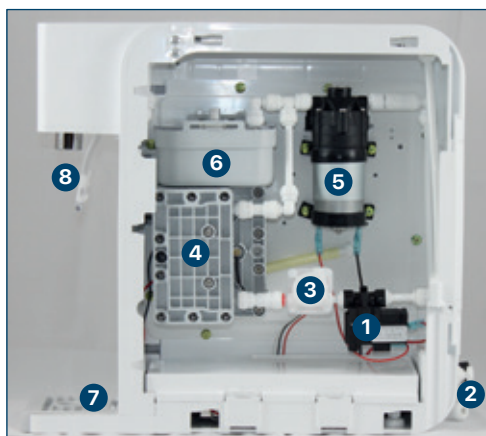
11. INTERNAL OPERATION

What process does the water follow inside your equipment?

1. The water enters through the inlet connection, passing through a pressure pump and entering the hydrogenator module, where the water acquires hydrogen.
2. It comes out of the hydrogenator module to reach the flow meter, where the inlet flow is regulated to maintain the correct pressure for its perfect hydrogenation.
3. Next, the water flows through a high pressure switch to check whether the pressure is correct. If the pressure is not correct for its perfect operation, the H2Spark equipment will stop.
4. From here the water flow is divided into a T towards the dispenser or towards the rear outlet of the equipment to connect to other devices, such as a 3-way tap.

12. PARTS OF THE SCHEME

1. High pressure pressure switch
2. Input and output connections
3. Flow regulating valve
4. Hydrogen generator module
5. Pump
6. Automatic purge system
7. Drainage tray
8. Dispensing tap



13. CLEANING AND MAINTENANCE OF THE SYSTEM

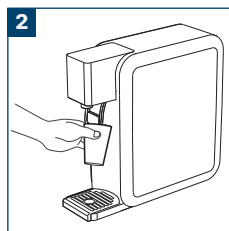
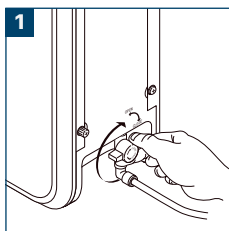
PREVIOUS ADVICE

1. Our hydrogenator module, unlike the competition, is designed so that it does not put the negative part of the plate in contact with the water, thus avoiding the incrustation of minerals and subsequent maintenance.
2. For cleaning, an annual drainage of the module is recommended for the elimination of precipitated minerals, and before an abrupt drop of hydrogen dissolved in water of at least 50%, a change of polarity of the cables (during x time).
3. The change of polarity should only be done by the authorized technical service.

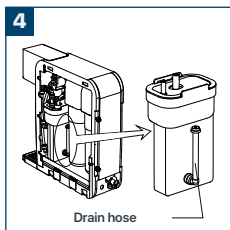
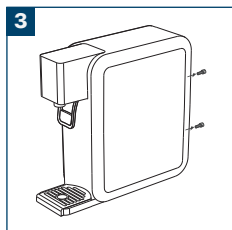


HOW TO REMOVE REMAINED ELECTROLYTIC WATER:

1. Shut off the adapter valve and the middle valve.
2. Make sure the water has been completely drained from the system.
3. Remove the screws at the rear and slide the right-hand panel to open the cover.

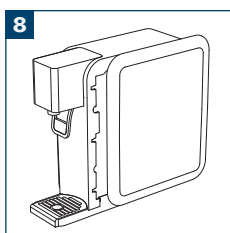
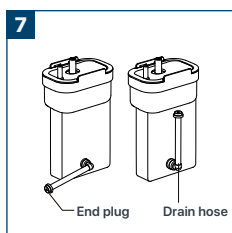
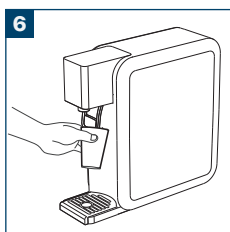
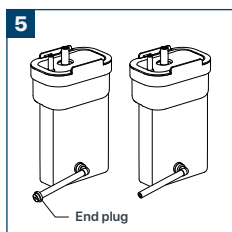


4. Remove the plug from the end of the drain hose on the right side of the electrolyzer.
5. Rotate the hose low enough to allow the water inside the electrolyzer to come out.
6. Push the button to remove any water remaining in the electrolyzer (If you did not use the product for a long time, be sure to remove any water remaining in the electrolyzer).



7. After emptying the remaining water, insert the end plug into the drain hose and rotate it to its original position.
8. Align the cover with the groove of the body and slide it forward, then fix it with the fixing screw.

! Storing electrolyzer for a long period without removing water may contaminate the inside of the electrolyzer.



PROBLEM	POSITION	SOLUTION
The front LED's are off and the device does not work.	Equipment without electrical power.	Check that the power cord is firmly connected to both the equipment and the wall socket. Check disconnectors and protections of the electrical installation or consult a professional. If the problem is not solved, contact the TAS (Technical Assistance Service).
	Rear switch in OFF position	Turn the switch to ON position.
Does not dispense water when requested.	If the front flow indicator is RED, there is no supply water pressure.	Check the water supply / Fill the carafe (depending on the model). If the problem is not solved, contact the TAS (Technical Assistance Service).
The progress indicator flashes in unison.	Electrically connect and disconnect the equipment using the rear switch.	If the problem is not solved, contact the TAS (Technical Assistance Service).
Bad taste.	Check the characteristics of the water to be treated.	If the problem is not solved, isolate and disconnect the equipment and contact the SAT (Technical Assistance Service).
Smells burned during operation.		Isolate and disconnect the equipment and contact the TAS (Technical Assistance Service).

CUSTOMER INFORMATION:

Mr. / Mrs: _____
Address: _____
ZIP Code and location: _____
Phone number: _____
Email: _____

SELLER'S DETAILS:

Business name: _____
Address: _____
ZIP Code and location: _____
Phone: _____
FAX: _____
Email: _____

EQUIPMENT GUARANTEE DIRECTED TO THE
END CUSTOMER:

All of our products have a two-year warranty as established by law upon purchase. If any repairs were to be made, it would have a 3 month warranty, regardless of the general warranty. In order to cover this guarantee, the product purchase date must be verified.

The company undertakes to guarantee the parts whose **manufacture is defective**, provided that they are sent to us for examination at **our facilities** at the customer's expense.

In order to claim the warranty, it is necessary that the defective part be accompanied by this warranty voucher, duly completed and stamped by the seller. The warranty will always be given in our warehouses.

In all cases our responsibility is **exclusively to replace or repair the defective materials** and not to pay compensation or other expenses.

No returns or reclamations of material will be admitted after 15 days of its reception. In case of agreement within this term, the material will have to be sent to us perfectly packed and **DIRECTED PAID CARRIAGE TO OUR WAREHOUSE**.

THE GUARANTEE DOES NOT EXTEND TO:

- 1. Replacement, repair of parts caused by wear, due to normal equipment use, such as resins, polyphosphates, sediment cartridges, etc. ... as indicated in the instruction manual of the equipment.
- 2. Damages caused by bad use of the device and those caused by transportation.
- 3. Handling, modifications or repairs made by third parties.
- 4. Malfunctions due to bad installation, outside the technical service, or if the assembly instructions have not been followed correctly.
- 5. Improper use of the equipment or that the working conditions are not those indicated by the manufacturer.
- 6. The use of non-original company parts.

"CE" DECLARATION OF CONFORMITY:

We declare under our sole responsibility that the water purification system for water filtration for human consumption is adapted per the following norms or normative documents:

**"EN-12100-1, EN12100-2,
EN-55014-1:2000/A1:2001,
EN-61000-3-2:2000/2001,
EN61000-3-3:1995/A1:2001, EN1558-2-6".**

And it is in conformity with the essential requirements of the directives: **98/37/CE, 73/23/CEE, 89/336/-CEE.**

STAMP OF THE AUTHORISED SELLER

 ORDER NO PRODUCT CODE SERIAL NUMBER

NOTICE: Read this manual carefully. If you have any questions, please contact the technical support service (T.S.S.) of your distributor. The data marked with (*) must be stamped by the installer and transcribed by him to the company.

ORDER NO

PRODUCT CODE

SERIAL NUMBER

INFORMATION PRIOR TO EQUIPMENT INSTALLATION:

Origin of the water to be treated:

☐ Public supply network.

☐ Other: _____

Previous treatment? _____

Hardness inlet water: _____ °F

Inlet TDS: _____ ppm

Inlet pressure: _____ Bar

Chlorine concentration at the inlet: _____ ppm

CONTROL OF INSTALLATION STEPS:

☐ Washing of carbon prefilters.

☐ Carbon post filter wash.

☐ Membrane assembly.

☐ Sanitation according to the described protocol.

☐ Chlorine concentration in tap after rinsing: _____

☐ Flow restrictor check.

☐ Maximum pressure switch setting.

☐ Inspection and fittings.

☐ Pressurized system tightness.

☐ * TDS produced water (countertop tap): _____ ppm

☐ Clearly inform about the use, handling and maintenance required by the equipment to ensure proper operation of water. Given the importance of proper equipment maintenance to guarantee quality water, the owner must be issued a maintenance contract made by trained technicians.

EQUIPMENT GUARANTEE DIRECTED TO THE DISTRIBUTOR:

The selling company will be responsible solely and exclusively for the replacement of parts in the event of lack of conformity. Equipment repair and associated expenses (labor, shipping, travel, etc.) will not be borne by the selling company, since the manufacturer and / or distributor guarantees it is done at their facilities.

COMMENTS:

*Result of installation and service commissioning:

☐ Correct (equipment installed and operating correctly. Water produced is suitable for the application).

☐ Other: _____

AUTHORIZED INSTALLER:

CONFORMITY OF THE OWNER OF THE EQUIPMENT:

The client owner has been informed about the maintenance of the equipment and how to contact the technical assistance service.

Comments: _____

NOTICE	DATE	TECHNICAL DATA
☐ Installation ☐ Maintenance ☐ Warranty ☐ Inspection ☐ Repair		Name: _____ Signature or stamp:
☐ Installation ☐ Maintenance ☐ Warranty ☐ Inspection ☐ Repair		Name: _____ Signature or stamp:
☐ Installation ☐ Maintenance ☐ Warranty ☐ Inspection ☐ Repair		Name: _____ Signature or stamp:
☐ Installation ☐ Maintenance ☐ Warranty ☐ Inspection ☐ Repair		Name: _____ Signature or stamp:
☐ Installation ☐ Maintenance ☐ Warranty ☐ Inspection ☐ Repair		Name: _____ Signature or stamp:

OBSERVATIONS: _____

NOTICE	DATE	TECHNICAL DATA
☐ Installation ☐ Maintenance ☐ Warranty ☐ Inspection ☐ Repair		Name: Signature or stamp:
☐ Installation ☐ Maintenance ☐ Warranty ☐ Inspection ☐ Repair		Name: Signature or stamp:
☐ Installation ☐ Maintenance ☐ Warranty ☐ Inspection ☐ Repair		Name: Signature or stamp:
☐ Installation ☐ Maintenance ☐ Warranty ☐ Inspection ☐ Repair		Name: Signature or stamp:
☐ Installation ☐ Maintenance ☐ Warranty ☐ Inspection ☐ Repair		Name: Signature or stamp:

OBSERVATIONS:

h₂spark
AGUA HIDROGENADA
www.h2-series.com