

HYDROGEN BREATHING AND HYDROGEN SATURATED WATER PRODUCTION MACHINE HBS10

The device for breathing hydrogen and producing hydrogen saturated water is designed for everyday home use. It saturates tap or mineral water with hydrogen, depending on your wishes. The device can be used for inhalations using the included nasal cannula or mask. Inhalations provide about 100 times more hydrogen than water. Start with 20 minute inhalations, increasing to 30 minutes per procedure several times a day. Hydrogen is a non-toxic gas and can not harm a person in any way. In case you have been inhaling recently, it may excite you - the effect is as if you drank a few coffees. Therefore, gradually increase the time. In the beginning we do not recommend to do inhalations before going to bed.

The device produces hydrogen-oxygen gas, also called HHO. With the help of electrolysis, water in the electrolyzer is decomposed into 67% hydrogen and 33% oxygen.

The device consists of three main modules housed in a stainless steel box:

1. Electrolyzer / cell - located under the right red cap labeled "cell" - a device in which the electrolysis process is performed and as a result hydrogen is produced. It is filled with an water-based solution of potassium hydroxide. The electrolyte is prepared by adding 50 g of Potassium hydroxide (white crystals in the set) to 0.45 liters of distilled water. Stir the solution until it clears and fill the cell, pouring through the bore. Use a glass, plastic or stainless steel container to prepare the solution.

The electrolyte level in the cell is monitored through an electronic level meter. The indicator that shows the level is next to the red **START/STOP** button. A lit red indicator indicates that the electrolyte level is low and you need to add water. If the green indicator light is on, you have reached the maximum level. No more water should be added. If none of the indicators are lit, the level is normal. After the first electrolyte fill, only distilled water is added to the cell.

If the water level drops, a red light will illuminate and the machine will not be able to start. We recommend that you add 100 to 150 milliliters of distilled water into the cell with the syringe from the kit. Close the red cap tightly by hand and turn on the appliance. Never tighten the cap with a wrench or screwdriver.

After a month of use, we recommend that you replace the ectrolyte with new solution prepared as described above.

During normal use, in case you notice that the amount of hydrogen released in the water filter has decreased, you must change the electrolyte. Pour out the old solution and make a new one as described above. It is recommended that you change the electrolyte at least once a year (or more often depending on the rate of use). The change is made by placing the piece of hose from the kit on the syringe and withdrawing the electrolyte from the cell. You need to withdraw at least 400 to 450 milliliters. Dispose of directly in the sewer. Avoid touching electrolyte-covered components with bare hands. If you get electrolyte on your skin, wash thoroughly with water and vinegar.

2. Water filter - the transparent container located under the left red cap, labeled "filter" - it serves to filter the gas

produced from steam fractions. It also serves as a one-way valve against backfire and expansion vessel. The filter is only filled with distilled water.

During the operation of the device periodically pour or add water from the Water Filter so that it is about 2/3 full (about 350 milliliters). Use the syringe included in the kit.

Always make sure that the filter is at least ½ full.

3. Power supply unit - located under the control panel:

When the appliance is connected to the AC socket, an **orange indicator LED** will light up on the panel.



From the **POWER** button (white round button in the red rectangle) turn on the power to the device. When one of the **blue timer LEDs** lights up, power has been turned on.

The round red button (located in a white rectangle) labeled **START/STOP** is the button to start the device. Pressing it starts the production of hydrogen. A **blue ON** indicator will light up on the panel - it indicates that the cell is producing hydrogen. During operation, the **ON** indicator will smoothly change its brightness.

Setting the operating times:

The operating times are set when the appliance is plugged in, the **POWER** is on and one of the three blue time indicators lights up. Press and hold the red **START/STOP** button for three seconds until a beep sounds and the operating time value changes.

PAUSE of the procedure - if you want to pause gas production during the procedure, press the red **START/STOP** button. Gas production will pause and the blue indicators will start flashing. After you decide to continue the procedure, press the red button again and the procedure will continue until the time expires. Maximum pause time 15 minutes, after which the device will turn off.

If you do not use the appliance, disconnect it from the white **POWER** button for mains power.

PRODUCTION OF HYDROGEN SATURATED WATER

The device for production of hydrogen saturated water is designed for everyday home use. It saturates tap or mineral water with hydrogen, depending on your wishes. To achieve the maximum effect, use tap water and leave it for 8-12 hours before treatment, so that oxygen and chlorine can come out of it.

It is best if the water you enrich is purified with an activated carbon filter in order to remove the chlorine that is used to treat tap water.

A water filter jug is included in the kit. Filtered tap water is completely suitable for hydrogen enrichment.

Hydrogen saturated water is ready for immediate consumption.

- ✓ Avant-garde design;
- ✓ Stainless steel housing;
- ✓ Powder coated details.

Two operating modes:

- Hydrogen Water production;
- Hydrogen Breathing.

Three-time timer:

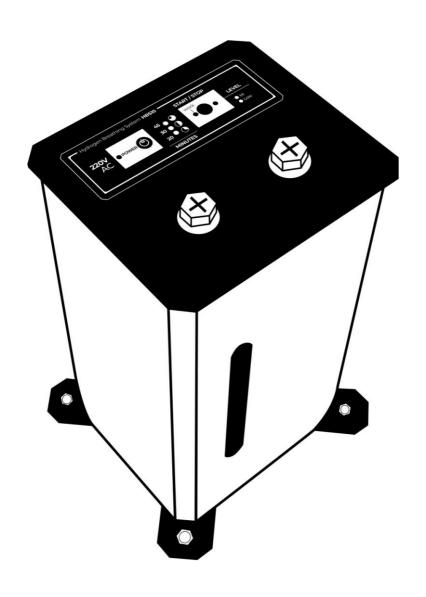
• 20, 30 and 45 min.

Gas production: 450 ml/min

Produced gas: Hydrogen 66,67% + Oxygen 33,33%;

Overall size: H30/L19/W20 cm

- ✓ Sound and light signals during operation
- ✓ Electronic level gauge on the cell;
- ✓ START lock at low level:
- ☑ Water filter for gas purification and humidification;
- ✓ Visual level control in the water filter;



Hydrogen cell: wet type

Cell material: stainless steel **Cell electrodes:** steel 316

Weight: 6,5 kg

Power: 1.7A / 115VAC 0.9A / 230VAC 0.7A/277VAC

Work temperature: 0 – 50 degrees Celsius

Working pressure: 0,1 – 1 bar max

CERTIFICATES

CE LVD

• CE Certificates for the materials used

CERTIFIED POWER SUPPLY MODULE:

- CE Declaration
- EMC Certificate
- IP 65

WARRANTY CARD

HBS10

Na 	me of the Buyer:				
Bu	yer's address:				
••••					
thi	arranty period - 24 months from the date of certification of s warranty card but not more than 25 months from the te of purchase.				
Da	te: Signature:				
	I. Warranty II. General terms:				
1.	The consumer has the right to claim the goods for non-compliance of the goods with the agreed.				
2.	The warranty card must contain the following information: - name of the person certifying the warranty, name of the product, name and address of the				

manufacturer, date of commissioning and warranty period.

In case he has noticed a discrepancy in the product, the customer informs the trader or the manufacturer or his representative about it according to the chapter "Submitting a complaint".

III. Consumer rights

- The consumer rights listed herein may be exercised within the warranty period.
- The warranty period starts from the day the product is put into operation and this warranty card is certified, but not later than 30 days from the date of purchase.
- In the event of non-compliance, the consumer has the right to request repair of the product or replacement, except in cases where the performance of the service requested by him is impossible or will involve disproportionately high costs compared to the other service.
- If the discrepancy is not remedied, the consumer has the right to request an appropriate discount or cancel the contract of sale. The user has no right to terminate the contract in case of minor non-compliance.
- The manufacturer or a service authorized by him shall be obliged to repair the goods within one month.
- If, within three days of the installation or purchase of the product, the consumer notices a defect which prevents its use, he may request a replacement and the trader shall not be entitled to justify disproportionate additional costs.
- When a repair is performed within the warranty service, the date of acceptance and the date of delivery shall be noted in the card. The warranty period is extended by the period of repair.
- 8. The guarantee affects the rights of the consumer arising from the law in the Republic of Bulgaria.

IV. Filing a complaint

 The User may make a complaint to the Merchant, but may also contact the authorized service center or the manufacturer, with a request for repair or replacement in accordance with item 6 of Section II of the Warranty Conditions.

V. Cases in which warranty service may be refused

Warranty service shall not be provided where the defects are due to the following causes and their elimination:

- 1. The product is not used for its intended purpose.
- 2. Non-professional maintenance or modification of the product;
- Use of spare parts, accessories or consumables that are not approved and recommended during operation by the manufacturer.
- 4. Operating the product inconsistent with its characteristics;
- Any intervention or repair that causes a defect or cause of failure that has not been performed by the manufacturer or a service authorized by him.
- Mechanical or electrical damage caused by poor attachment, accident, catastrophe, natural disaster or otherwise other than the normal operation of the goods.
- Warranty service may be refused if the user does not comply with the
 operating conditions specified in the instructions for use of the product as a
 result of which the defect occurred.
- When submitting a complaint, the consumer must enclose the original of the Warranty Card and a document proving the date of purchase.
- If the defect occurs due to the above reasons, the repair is at the expense of the consumer even if it is within the specified warranty period.
- 10. The cleaning and maintenance of the product as well as the periodic replacement of consumables are not subject to warranty service. In order to comply with the warranty conditions, it is necessary to regularly change the electrolyte of the cell and to flush the entire system.
- After work, rinse the burner with warm water and periodically clean with a solution of boric acid, then blow with air.

Manufacturer:

"Hydrogen Technologies" Ltd., Varna, Bulgaria, 5 "Hadji Dimitar" Str., Apartment 6, tel. +359 897 23 01 03. www.HHO-Bulgaria.com

No	Date of admission	Damage / inspection	Date of issue	signature



HHO BULGARIA HYDROGEN TECHNOLOGIES

Household, Healthcare and Industrial Hydrogen Equipment

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Please read this instruction manual completely and keep it for reference before using this machine



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