



» H2 INHALATION AND PRODUCTION OF HYDROGEN SATURATED WATER

HBS10 INSTRUCTION MANUAL

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DEVICE FOR INHALATION AND PRODUCTION OF HYDROGEN SATURATED WATER (HBS10)

Applications

The device for breathing hydrogen and producing hydrogen-saturated water is intended for everyday home use. It is used to saturate tap or mineral water with hydrogen, depending on your wishes. Inhalations can be made with the device using the included nasal cannula or mask. During inhalation, about 100 times more hydrogen is taken in than from water.

Start with inhalations of 20 minutes, increasing to 30 minutes per procedure several times a day. Hydrogen is **a non-toxic** gas and cannot harm a person in any way!

If you've recently been inhaling, it might make you overexcited - the effect is like you've had a few coffees. So gradually increase the time. In the beginning, we do not recommend inhalations before going to bed.

The device produces hydrogen-oxygen gas, also called HNO. Using electrolysis, water in the electrolyzer is broken down into 67% hydrogen and 33% oxygen.

Many official medical studies in recent years have proven the effectiveness of using hydrogen gas produced by this technology as an extremely effective therapeutic agent. It has been proven that **hydrogen is the strongest antioxidant**.

Hydrogen helps in the treatment of lung diseases, such as asthma and asthma of the liver, in cardiac diseases, arthritis, Parkinson's, skin diseases such as psoriasis, etc.

The therapy showed extremely good results in people with diabetes.

Hydrogen helps cancer patients and those recovering from chemotherapy and radiotherapy.

COVID patients respond very well to hydrogen breathing. Corona-virus lesions of the lung are eliminated after breathing several times a day. The World Health Organization (WHO) issued an official statement at the beginning of March 2020 that it recommends that patients with COVID be breathed with hydrogen-oxygen gas. In very seriously ill patients, for example pneumonia after COVID, breathing can be done at least for the first few days for 30 minutes, and if the person feels well - up to 45 minutes every two hours.

For people leading an active lifestyle, it is recommended to take about one liter of hydrogen water per day. In this way, they are always hydrated and vigorous and protected from the many diseases that are caused by free radicals.

Features of the Device

The device consists of three main modules housed in a stainless steel box: **A.** Electrolyzer/Cell; **C.** Water filter/Bubbler and **C.** Power supply unit

A. ELECTROLYSER/CELL - located under the right red cap labeled "CELL" (Fig. 1, item #2). An electrolyzer is a device in which the electrolysis process takes place and as a result we get hydrogen. The electrolyzer is charged with an aqueous potassium-based solution.

A.1 PREPARATION OF ELECTROLYTE

The electrolyte is prepared by adding 50 g of Potassium Base (KOH) - the white crystals in the kit - to 0.450 liters of distilled or deionized water.

Stir the solution until it becomes clear. The electrolyser/cell is charged by pouring the prepared electrolytic solution through the hole labeled "**CELL**"- the red cap (Fig. 1, item #2). Use a glass, plastic or stainless steel container to prepare the solution.

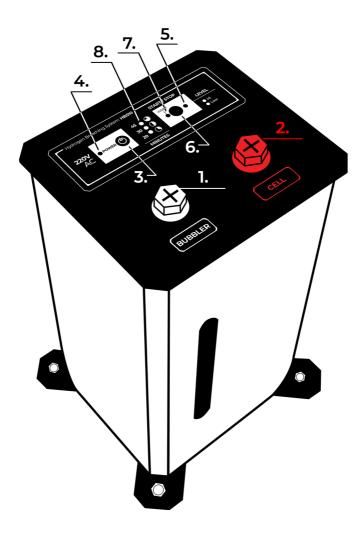


Fig. 1 Schematic of HBS10

- 1. Water Filter/Bubbler
- 2. Electrolyzer/Cell
- 3. "POWER" button
- 4. Voltage indicator

- 5. Electrolyte Level Indicator
- 6. "START/STOP" button
- 7. "ON" indicator (for operating mode)
- 8. Time Indicators

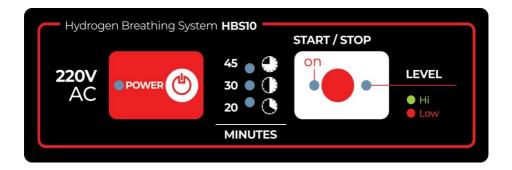


Fig. 2 Command display

The level of electrolyte in the electrolyzer is controlled by an electronic level gauge. The indicator that shows what is the exact level is located next to the red **START/STOP button** - located in the white rectangle, opposite the inscription **LEVEL** (Fig. 1, item #5)

A glowing red indicator indicates that the electrolyte level is low and it is necessary to add water. If a green light indicator lights up, it means you have reached the maximum level.

IMPORTANT: No more water should be added. If none of the indicators are lit, the level is normal. After the first charging with electrolyte, only water is added to the cell.

If the water level drops, a red light signal will light up and the device will not be able to start. We recommend adding 100 to 150 milliliters of distilled water to the cage using the syringe from the kit. Close the red cap tightly so that the O-ring at its base seals well and turn on the device. **Never tighten the cap with a wrench or** screwdriver, always by hand!

IMPORTANT: The device is delivered without electrolyte. After a month of use, we recommend replacing the electrolyte with a solution to prepare as described above.

During normal use, if you notice that the amount of hydrogen released in the Water Filter has decreased, you should change the electrolyte. Pour out the old solution and make a new one as directed above.

IMPORTANT: We recommend changing the electrolyte for the first time in the second month of operation and then every 6 months. The replacement is done by putting the silicone hose from the kit on the syringe and withdrawing the electrolyte from the cell.

You should withdraw **at least 350 to 450 milliliters**. Dispose of the withdrawn amount directly down the drain. Try not to touch electrolyte-soaked components with your bare hands. If electrolyte gets directly on the skin - **wash thoroughly with water and vinegar**.

B. WATER FILTER - the transparent cylindrical container located on the left with the inscription "filter" under the red cap, behind the vertical opening.

The water filter serves to filter the gas produced by steam fractions, as a backfire prevention check valve and an expansion vessel. Pure distilled water is poured into it.

During the operation of the device, periodically drain or add water from the Water Filter so that it is about 2/3 full (about 350 milliliters) and if it becomes cloudy, replace it. If the level in it rises with the help of the syringe, pour water until reaching level 2/3. When it drops below half of the window, top up to 3/4 of the window level.

Make sure there is always water no less than 1/2 of the window in the filter and gas bubbling through it. We recommend changing the water in the FILTER every month during intensive use or at least once every 3 months if the device is used 1-2 times a day.

C. POWER SUPPLY - located under the rectangular control panel:

When the device is plugged into the 220V socket on the panel, an orange light indicator will light up.

From the **POWER button** (white round button in a red rectangle - Fig. 1, item #3), we turn on the power to the device. A blue LED (indicating any of the three times) indicates that mains power has been applied.

The round red button with the words **START/STOP on top** (located in the white rectangle - Fig. 1, item #6) is the button to start the device. Pressing it starts the production of hydrogen. The blue indicator labeled **ON will light up on the panel** - it indicates that the electrolyzer is producing hydrogen. During operation, the **ON indicator** will change its brightness smoothly.

Working with the Device

SETTING UP THE HOURS:

Run times are set when the unit is plugged in, the white **POWER button is pressed**, and any of the three blue time indicators are lit. Press and hold the red **START/STOP button** for three seconds until an audible signal is heard and the next working time value changes.

PAUSE OF THE PROCEDURE:

If you wish to interrupt the gas production during a procedure, press the red **START/STOP** button. Gas production will stop and the blue indicators will start flashing. Once you decide to continue the procedure again, press the red button again and the procedure will continue until the preset time expires. The maximum pause time is 15 minutes, after which the device will turn off automatically.

If you are not using the device, turn it off with the white **POWER button** for mains power.

HYDROGEN INHALATIONS

When hydrogen is inhaled, it takes about 24 minutes for it to reach all organs. After cessation of inhalation, within 3 hours the hydrogen has either reacted with free radicals and been excreted through the excretory system or has been exhaled.

We recommend that people with more serious illnesses, such as cancer or undergoing chemotherapy, should inhale for 30 minutes every 3 hours.

For people with lung problems such as bronchitis after COVID and difficulty breathing - for example with asthma, we recommend 45 minutes of inhalation, several times a day.

For people who want better tone - twice a day for 30 minutes is enough.

For people actively involved in sports, we recommend inhalation before training for better results and increased endurance. After training, for faster and better recovery, it is recommended to drink hydrogen water.

PRODUCTION OF HYDROGEN SATURATED WATER

The device for producing hydrogen-saturated water is intended for everyday home use. With it, tap or mineral water is saturated with hydrogen - depending on your wishes.

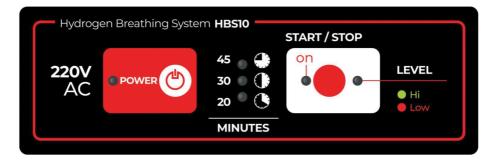
To achieve the maximum effect, if you use tap water, it is good to let it stand for 8-12 hours before processing - so that the oxygen and chlorine in it can escape.

It is best if the water you are treating is pre-purified with an activated carbon filter to remove the chlorine that is used to treat tap water. We supply you with a kettle in the kit, which is equipped with a filter. Tap water that is filtered is perfectly suitable for hydrogen enrichment. **Treated water is immediately suitable for consumption.**

Working with HBS10 (illustrative table)

1	Plug the device into the outlet. An orange LED signal will light up in front of the inscription "POWER"	Fig. 1 "POWER" button and orange indicator light	Whenever the device is connected to the power network, the orange indicator will light up (Fig. 1)	
2	Press the "POWER" button (Figure 1) . You will hear a beep, the blue time indicators will light up (Figure 2) and go out. A blue indicator remains lit only in front of the selected procedure duration time (as indicated in Fig. 3, which shows 30 minutes of selected procedure duration time) . The water filter window lights up blue.	45 30 20 MINUTES Fig. 2 Illuminated indicators for time	button - white round button located on the left of the panel in a red rectangle (Fig. 1)	
3	Check what time for the duration of the procedure is selected - 20, 30, 45 minutes	45 30 20 MINUTES Fig. 3 Indicator showing 30 minutes selected duration	The selected duration of the procedure is indicated by a light blue ice signal in front of one of the durations – 20, 30 or 45 minutes.	
4	If it is necessary to change the time, please press the "START/STOP" button and hold for at least 3 seconds. The change of time will be indicated by a sound signal and by a change of the light blue ice signal in front of the time duration.	START / STOP	"START/STOP" button - red round button located on the right of the panel in a white rectangle (Figure 4). Press for more than three seconds until you hear a beep.	
5	Start a procedure by pressing the "START/STOP" button . You will see gas bubbles being released in the blue lit filter window. IMPORTANT: When starting the procedure, DO NOT keep the "START/STOP" button pressed for more than a second or two . Otherwise, you will trigger the function to change the duration of the procedure.	START / STOP	When you release the "START/STOP " button, you will hear an audible signal. To start a procedure, DO NOT keep the button pressed for more than two seconds, because you will activate the time change function.	

6	 PAUSE THE DEVICE: If you want to interrupt the procedure for a short time (up to 15 minutes), press the START/STOP button for a short time - 1-2 seconds. CONTINUATION OF THE PROCEDURE: Press the START/STOP button briefly again . 	START / STOP	When "PAUSE" is set, an audible signal is heard and the blue ice time indicators and the ON ice signal start flashing.
7	The device can be turned off during operation by pressing the START/STOP button and holding it for more than three seconds until it turns off.		An audible signal sounds and gas production stops.
8	Automatic shutdown of the device after 15 minutes of rest.	press and hold until power off	If you turned on the device and did not start a procedure or after a procedure it was not turned off with the " POWER" button , after 15 minutes it will turn itself off.
9	Red LED signal for low electrolyte level - "LEVEL" (Figure 4) . Add water up to 200 milliliters in the "CAGE" by unscrewing the red cap on the right.	STOP LEVEL Hi Eg. 4 Glowing red indicator indicating low electrolyte level	START/STOP button is pressed, a triple beep is heard and the blue "on" indicator lights up. No gas production is started.



Hydrogen content in water

With the help of our device, you can easily supply your body with hydrogen - by directly breathing the gas and/or by saturating water with hydrogen and then drinking it.

At normal atmospheric pressure and room temperature, up to 1.6mg of hydrogen per liter can be dissolved in water.

Molecular hydrogen leaves the water relatively quickly and within a few hours reaches a level where it is no longer detectable. Compare it to a bottle of sparkling water. When you open such a bottle, the gas begins to flow out immediately, and after a few hours you hardly have any gas left in the water. So enjoy the H2 enriched water immediately.

1. SATURATION OF WATER WITH HYDROGEN (H2)

The time to reach the maximum concentration of H $_2$ in the water depends on the tank and the amount of water to be enriched.

Each type of vessel has its own water saturation limit with hydrogen (less than or equal to 1.6mg/l) – simply put, the smaller the water surface to volume ratio, the higher the maximum concentration of hydrogen (H $_2$). Make sure that when enriching water with hydrogen (H $_2$), the vessel is as full as possible so that you can reach higher values.

As the temperature increases, the maximum value of hydrogen (H $_2$) saturation in drinking water also decreases, as no hydrogen can be dissolved in boiling water (molecular hydrogen content 0.0ppm).

Fig. 3 and **Fig. 4** show the different saturation curves of water with hydrogen (H $_2$) in different containers. The data and curves refer to the corresponding hydrogen (H $_2$) saturation limit of maximally filled vessels.

1.1 WATER SATURATION WITH HYDROGEN OF A FULL 1-LITER BOTTLE*

Using the hydrogen water saturation device, you can saturate water in a 1 liter bottle to the individual saturation limit in about 30 minutes. In 15 minutes, the water is already about 83% saturated with H $_2$

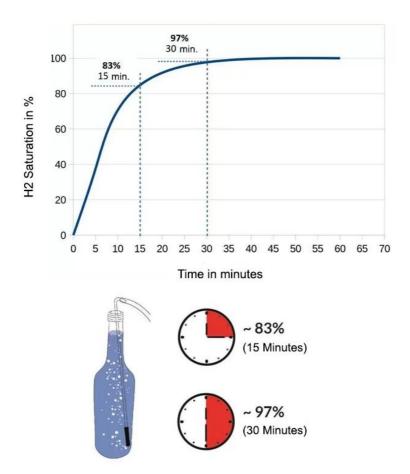


Fig. 3 Enrichment of water with hydrogen in a 1 liter bottle.

* Test conditions: water temperature 21 °C, pH 7, mineral water, total mineralization approximately 300 mg/L, hydrogen is determined by the H2 Blue Hydrogen Test Reagent treatment method.

1. 2 SATURATION OF WATER WITH HYDROGEN IN A 2.5L GLASS JUG*

In a 2.5L glass jug filled with water, it reaches about 75% of the individual water saturation limit with hydrogen after 15 minutes. After about 30 minutes, the water reaches the individual saturation limit.

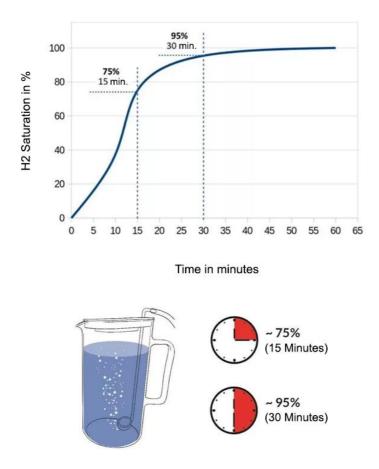


Fig. 4 Enrichment of water with hydrogen in a jug of 2.5 I.

* Test conditions: water temperature 21 °C, pH 7, mineral water, total mineralization approximately 300 mg/L, hydrogen is determined by the H2 Blue Hydrogen Test Reagent treatment method.

2. H 2 DESATURATION

Desaturation is slower than saturation. In an open 2.5 liter glass jug, the concentration decreases within a few hours.

The concentration of hydrogen H $_2$ in a drinking bottle, on the other hand, is retained significantly longer. This is due to the narrow opening, which reduces the release of hydrogen. A closed bottle prolongs the time to desaturation. The smaller the water surface, the slower molecular hydrogen escapes. Closed opening increases durability.

2.1 H 2 DESATURATION IN A 2.5L GLASS JACK*

Molecular hydrogen flows relatively quickly into a 2.5 L glass beaker. Water 6 hours after completion of hydrogen enrichment contains about 63% of the original value.

2.2 H 2 DESATURATION IN A GLASS OF WATER*

For example, take a bottle of water or a 2.5 L jug to saturate water with hydrogen H 2 and then pour hydrogen water into a glass. Molecular hydrogen escapes already during the overflow.

After 30 minutes, the hydrogen water contains about 60% of the original H 2 content

Therefore, enjoy hydrogen water in a timely manner.

* TEST CONDITIONS:

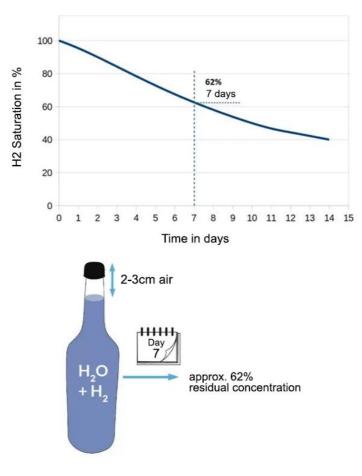
- ☑ water temperature 21 °C,
- ☑ pH 7,
- ☑ mineral water,
- ☑ total mineralization approximately 300 mg/L,
- ✓ hydrogen is determined by the method of treatment with H2 Blue Hydrogen Test Reagent.

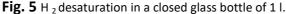
2.3 DESATURATION OF HYDROGEN FROM WATER IN A CLOSED LITER BOTTLE*

Instructions for filling a drinking bottle:

Fill a glass bottle with water. Then enrich the water with hydrogen and close the cap.

It is recommended that the bottle is made of colored glass and stored lying down in the refrigerator. Bottled in this way, the water will still contain about 62% of the original H $_2$ value after 7 days.





WARRANTY

1. The user has the right to complain about the goods for non-conformity 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 and factory number, name and address of the manufacturer, date of commissioning and warranty period.

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

I. User rights

4. The user's rights listed herein may be exercised within the warranty period.

5. The warranty period starts from the day the product is put into operation and the present warranty card is certified, but no later than 30 days from the date of purchase.

6. In the event of a discrepancy, the user has the right to request repair of the product or replacement, except for cases in which the performance of the service requested by him is impossible or will be associated with disproportionately high costs compared to the other service.

7. In the event that the discrepancy is not remedied, the consumer has the right to request an appropriate discount on the price or to cancel the sales contract. The user has no right to cancel the contract in the event of a minor discrepancy.

8. The manufacturer or a service authorized by him is obliged to repair the goods within a period of up to one month.

9. If, within three days of the installation or purchase of the product, the user notices a defect that prevents its use, he can request a replacement and the trader has no right to justify disproportionate additional costs.

10. When a repair is carried out within the framework of the warranty service, the date of acceptance and the date of submission are noted on the card. The warranty period is extended by the period of the repair.

11. The guarantee affects the user's rights arising from the law in the Republic of Belarus.

II. Filing a claim

1. The user can make a complaint to the Merchant, but can also contact an authorized service center or the manufacturer directly, with a request for repair or replacement according to item 6 of section II of the Warranty Terms.

III. warranty service may be denied

1. Warranty service is not provided when the defects are a consequence of the causes listed below and their removal:

2. The product is not used as intended.

3. Non-professional maintenance or modification of the product;

4. Use of spare parts, accessories or consumables that are not approved and recommended for use by the manufacturer.

5. Operation of the product inconsistent with its characteristics;

6. Any intervention or repair causing a defect or cause of malfunction which was not carried out by the manufacturer or a service authorized by him.

7. Mechanical or electrical damage caused by poor fastening, accident, catastrophe, natural disaster or otherwise other than the normal use of the goods.

8. Warranty service may be refused when 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.

9. When submitting a complaint, the user must attach an original Warranty Card and a document proving the date of purchase. Complaints are not accepted if the serial number of the product is missing or illegible.

10. If the defect is due to the reasons mentioned above, the repair is at the user's expense, even if it is within the specified warranty period.

11. Cleaning and maintenance of the product as well as 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 flush the entire system.

MANUFACTURER

"Hydrogen Technologies" EOOD Varna, Bulgaria, 5 "Hadji Dimitar" str., apartment 6, tel. 0897 23 01 03

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WARRANTY CARD

Apparatus for the production of hydrogen-saturated water (HBS10)

Factory number: _____

Name of Buyer: Buyer's address:

Warranty period -24 months from the date of certification of this warranty card, but no more than 25 months from the date of purchase of the Hydrogen-saturated water production device.

To use the warranty, it is necessary to have the system inspected every 6 months in a service authorized by the manufacturer and this inspection to be reflected in the warranty card.

Date:....

Signature:....

no	Date received	Damage/review	Issue date	signature

Please read this instruction manual completely and follow the instructions carefully before using the equipment in the kit!





by "Hydrogen Technologies" Ltd Varna, Bulgaria, 5 "Hadji Dimitar" str., apartment 6, phone: +359 878 21 78 10