Health And Hydrogen

Operating Manual

HAH-450

Advantages

One Click Run

Beauty accessories

Flow rate adjustment

1-8 timing

Hydrogen only

Oxygen only

Oxy-hydrogen

Hydrogen water

Product Specifications

Product Type	99.99% Hydrogen	Oxy-hydrogen 1:2
Flow Rate	450ml/min	
Size	193*285*300mm <50db	
Noise	110V/220V <150-500W	
Voltage		
Capacity		

Address: Unit 908, Prosperity Millenia Plaza, 663 King's Road, Quarry Bay, Hong Kong Island, Hong Kong. | Email: info@healthandhydrogen.com

Safety Notice

Keep away from fire
Smoking is prohibited during use, and open flames are strictly prohibited to prevent any potential danger

Prohibition

It is forbidden to repair or disassemble the product without authorization.
Non-professional maintenance personnel are prohibited from privately repairing and disassembling the machine, as it may result in fire, electric shock, and other hazards.

Prohibition

Confirm voltage
Before use, please ensure that the voltage meets the product's requirements.

Notice

Obstruction-free area around the machine
Please do not place any sundries around the machine to prevent blocking the gas outlet, which can lead to excessive temperature and cause the machine to shut down or a decrease in the concentration of gas. Grease or grease-like substances must not be used in any part of the machine. Do not block the gas outlet or bend the nasal pipe and be sure the pipe inside the bubbler cup is not touching the bottom of the cup.

Prohibition

Ventilation & Sunlight
The machine should be positioned indoors in a well-ventilated area, away from direct sunlight.

Prohibition

Room Temperature
Please select an appropriate indoor environment when the machine is in operation. The room temperature should not be lower than 10°C or higher than 30°C. Excessively low or high temperatures may result in the machine not functioning properly.!

Notice

The product must not be turned upside down or laid flat
Once unpacked the machine must not be placed upside down or laid flat. Keep it upright.
When preparing the machine longer term storage or transport see Health and Hydrogen .com /support page for detailed instructions titled 'Preparing for longer term storage and transportation'

Prohibition

Prohibit to use non-original accessories
Using non-original accessories for the machine is prohibited to prevent damage to the machine.

Prohibition

Switching the Machine Off
When the machine is not in use for an extended period, please turn off the power switch at back and disconnect the power plug.

Notice

Please follow these safety precautions:

1. Maintain a minimum distance of 20-30 cm between the machine and walls or other objects.
2. Ensure that the power plug is connected to a properly labeled power outlet with the voltage matching the rating plate.
3. If the wire becomes damaged, it must be replaced by a qualified service technician.
4. Verify that the power outlet is correctly connected, and avoid using the plug under heavy loads to prevent overheating
5. Avoid pushing, bending, squeezing, hitting, or inserting sharp objects into any part of the machine.
6. Turn off the power before cleaning or performing maintenance on the machine.
7. Please unplug the power before cleaning the machine.
8. To clean the product's body, use a soft, dry cloth to remove dust and dirt from the surface. Tip: If the contamination is severe, you can use a damp cloth to gently wipe off the surface, but do not use rough materials.

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Usage Guidance and Precautions

Instructions for first use and adding water

Before the initial use, please add 2.5 L of distilled water (with less than 1 TDS) to the machine's water tank. Then, open the drainage outlet, drain for approximately 15 to 20 seconds, close the drainage outlet, and start the machine. When adding water to the machine, if 2.5 L is correctly added, you can avoid overfiling. Use a funnel and have an absorbent cloth at hand to prevent water from overflowing into the interior of the machine, which could lead to equipment damage. More instructions are here in the manual and via the support videos at www.healthandhydrogen.com /support

Notice

Cannula Kits

Assign them for individual use. Please read our helpful cannula care instructions to insure the cannula kits are well maintained for your safety. www.healthandhydrogen.com /support

Notice

Water during testing.

Each machine undergoes testing the day before before leaving the factory, and there might be a little water in the window or in the water tank remaining after the testing. If you receive a machine with a little water in the bottom of the tank this is normal. If you notice excessive water dew on the machine, simply wipe it off with a dry clean cloth.

Notice

Water-Trap Piece

Before each use, please check and, if needed, empty any water from the water-trap piece on the cannula kit to prevent it from affecting the gas flow. After emptying, put it back together so the seal is tight; otherwise, gas can leak out.

Notice

6-Monthly Maintenance

It is necessary to change the water to clean the tank and flush out any impurities. Therefore, it is recommended to change the water in the machine once every 6 months. More details are found here on page 10. Step-by-step video instructions for the 6-monthly maintenance routine are available on our website at www.healthandhydrogen.com /support

Ensure Timely Heat Dissipation

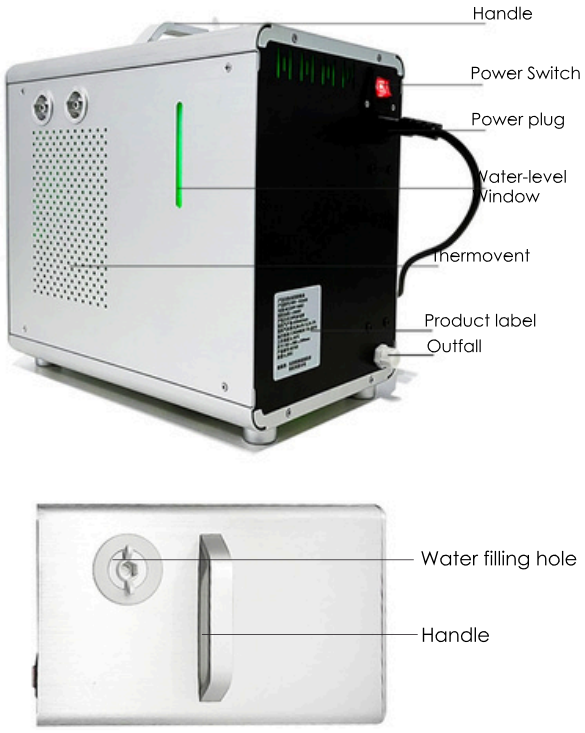
The machine should not operate continuously for more than 8 hours. Please turn off the power switch after 8 hours of operation and allow the machine to cool to avoid damage. It is okay to restart it after a 1-hour break.
If you need to run the machine during unusually hot weather limit the continuous run time to just 4 hours on with a break of one hour off. Reach out via our support page to discuss any hotter than average weather concerns

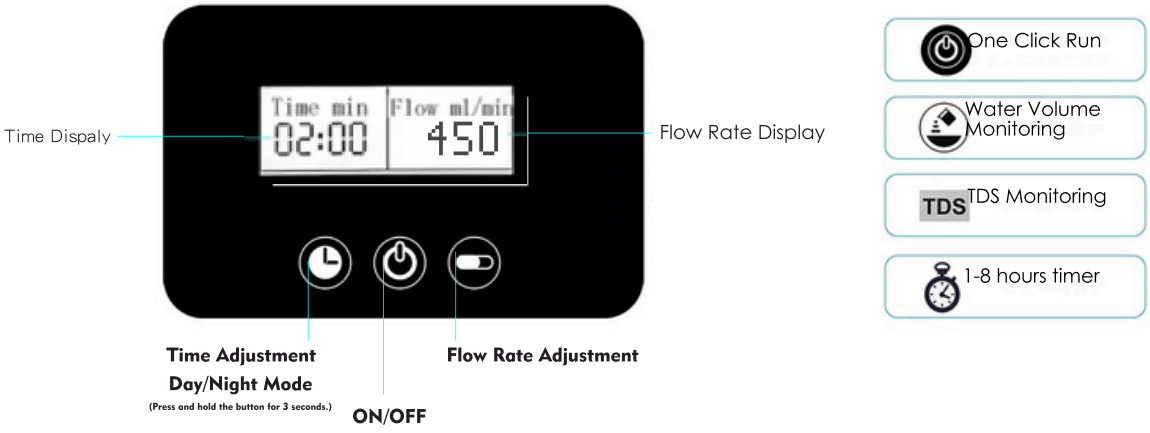
Notice

Warning

1. Do not insert or manipulate plugs with wet hands.
2. Do not use water, liquids, cleaners, or any flammable substances to clean or spray on this product.
3. Do not use an extension cord unless approved safe by local authorities.
4. Do not attempt to disassemble, repair, or modify the equipment.
5. If not using this product for an extended period, please unplug the power plug.
6. Do not use this product in environments with significant temperature fluctuations.
7. If this product emits abnormal sounds, burning odours, or smoke, immediately disconnect the power plug in a safe manner and contact info@healthandhydrogen.com
If the plug is not suitable for the socket, please contact qualified electrician to install an appropriate power socket.
8. Do not arbitrarily change plugs or use adapters.

Product Introduction



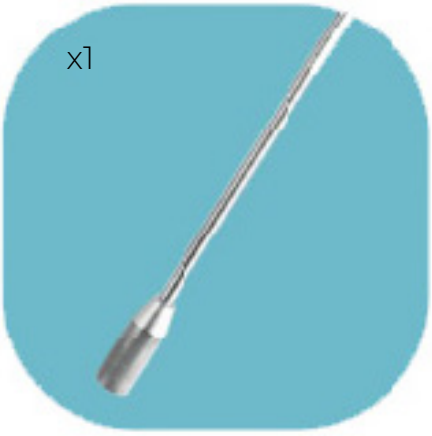


*The diagrams in this manual are for reference only, please refer to the actual product *if there is any technical change to this product in the future, such as the appearance and color of the product, It is subject to change without notice. *This product is limited to normal operation and must be used in accordance with the instruction manual

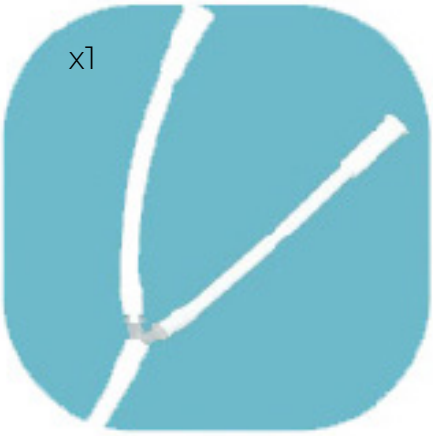
Accessories with the Machine

Silicone nasal cannula

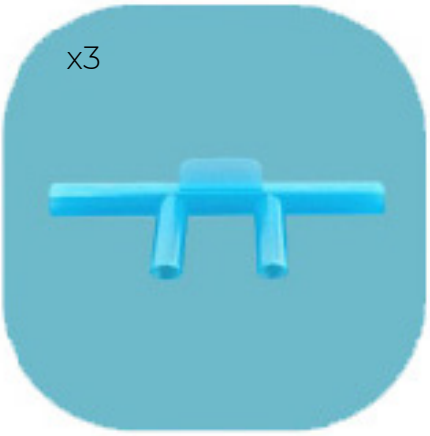
Water-trap piece



Hydrogen water rod



Y tube piece



Nostril piece

Bubble cup
(held in metal cup holder)

<1 TDS water is essential for set up and top-ups.

- <1 Total Dissolved Solids (TDS) water often known as Zero TDS water provides the optimal conditions for Hydrogen production. Using <1 TDS water ensures efficient electrolysis for hydrogen gas production. Impurities can decrease both the quantity and purity of hydrogen produced and shorten the lifespan of the machine.
- When shopping for <1 TDS water you will find it is often referred to as Zero TDS water and sold in car accessory stores for replacing the water in batteries.
- The initial set up will require 2.6 litres or 85 fluid ounces in total (tank fill + bubbler cup).
- It's a good idea to keep the same amount of this water on hand to make top-ups convenient for you during the the first few weeks.
- The amount and frequency of your top-ups is dependant on frequency and length of your inhalation sessions. Instead of waiting for the machine to pause and tell you to top up, you may find it easier to start recording your session durations and note the timing of the machine's top-up requests to you and how much water you pour in before it states that the maximum water level is reached. With this information you can create your own routine or at least a sense of knowing it is a good time to top-up prior to your session. Topping up the tank prior to relaxing into a session means you will not be interrupted by the machine pausing to tell you the water level is low during a session.

HAH-450 Getting Started Guide

- Watch our 'Getting started with the HAH-450' step-by-step video via our website's support page www.healhtandhydrogen.com/support
- Read through all the steps in this getting started guide prior to getting started.
- If you do have a second set of hands you might request this person reads aloud each next step of this getting started guide as you proceed.

Step 1. Prepare by positioning the machine on a sturdy flat surface near a power point. Have an absorbent clean cloth at hand to quickly dry any accidental water spills.
Have a clean funnel, the Y tube piece, the water bubbler cup, metal cup holder, a clean pouring jug and 2.6 litres/85 ounces of <1 TDS water close at hand.
Step 2. Place the metal cup holder in place. It sits on the screws already in place on the side of the machine. Position it flat against the machine with the holder hoop at top and slide it downwards to secure it over the screws. You may need to turn the screws carefully with a screw driver to secure the cup holder.
Step 3. Open the bubbler cup. Pour a little of the <1 TDS water in the water bubbler cup so it is just above the minimum fill line. Minimum and maximum levels are indicated on the cup when you look carefully. Screw the lid back on tight.
Step 4. Locate the Y tube piece and attach the end of the longest piece of the Y piece into the side of the bubbler cup that has the more complex of the two Chinese symbols pointing to it. Apply firmly to avoid gas leakage. Place the cup in the cup holder on the side of the machine.
Step 5. Place the two shorter ends of the Y tube piece onto each of the gas outlets. One side of the shorter Y piece goes on the H outlet and the other short piece goes on the O outlet.
Step 6. Connect the power supply, turn on the power switch, the red light is always on.
Step 7. Unscrew the tank cover lid on the top of the machine.
Step 8. Using a funnel slowly add 2.5 litres/85 ounces of pure distilled water (less than 1 TDS). Be sure to measure your 2.5 litres/85 ounces accurately. Use a clean contaminant-free measuring jug and funnel. The machine's sensor might provide a voice prompt when the maximum water level is reached letting you know to stop adding water. Leave the tank cover lid open for the next step.
Step 9. Turn off the machine and locate the position of the water outlet on the backside of the machine. Position the water outlet so it sits just far enough over the edge of the table that the water will flow into your clean jug. This is where a second set of hands may be helpful.
Step 10. Unscrew the outlet cap off take out the tiny silicon plug and drain the water for 15-20 seconds into the jug. When draining water, pay attention to observe the state of the water, water must be released until the water flow continues to flow and without bubbles. Replace the outlet plug and cap . Replace the lid of the tank. *Note: The final 15-20 second outlet opening step is* ***not*** *required each time we top-up the tank. After a few sessions the machine pauses and provides a voice prompt to inform you that it requires a top up of <1 TDS water so be sure to have some extra bottles of it at hand.*
Return the machine to a stable position away from the edge of the table and switch it on.

Control Panel Operation

Right Button

Flow Rate ml/min The button on the right is used to select your flow rate.
A flow rate of 450 ml per minute is the highest setting option and provides 66% Hydrogen and 33% oxygen. Approximately 600ml/min pure molecular hydrogen and 300ml/min pure oxygen. You are most likely to leave it set on this flow rate to make the most of your session however you can also select from two lower flow rate options with this button.

Left Button

Timer Adjustment **Doubles as Day/Night Mode**

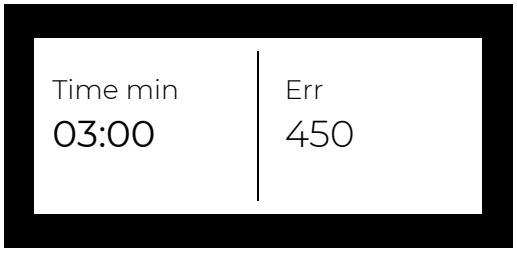
The clock face button on the left doubles as the timer and the day/night mode button. Select the time you want the machine to remain on from 30min/1hr/2hr/4hr/6hr or 8hrs. Note: You can pause the machine or turn it off before the set time is up if you need to. Switch the machine mode from day mode being lights on, voice broadcast to night mode being lights off and mute by holding your finger on this button for a few seconds.

Middle Button

Start/Pause

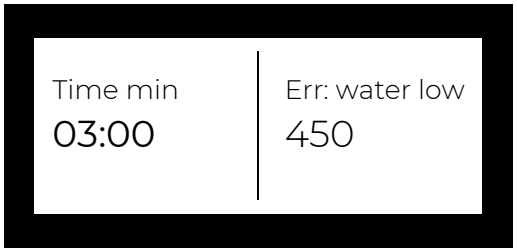
The button in the middle is the one you press to start your session and to pause your session.

Screen Display Instruction



Err

Voice Prompt: best water level is reached, please stop addling water



Err:water low

Voice Prompt: the water level is low, please add water in time

Err:TDS

Voice Prompt: the water quality is not qualified, please replace pure water

Err:overheat

Voice Prompt: the temperature is high, please stop using

Err:pressure

Voice Prompt: the hydrogen pressure is high, please check whether the hydrogen suction pipe is bent or squized

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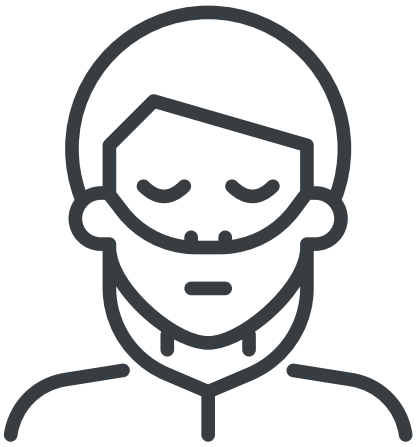

Figure of nasal cannula wearing

Daily Care for the Cannula Pieces and What to Watch Out For.

1. Nostril Pieces: Wipe the nostril pieces with an alcohol swab after each use to prevent bacterial buildup. Rubbing alcohol is recommended for its effectiveness in killing bacteria. Ensure your hands are clean before handling the nostril pieces.

2. Water Trap: Open the water trap to release any moisture, minimising bacterial growth. When left open to dry, place it between two sheets of clean paper towel to avoid contamination from household dust. Clean your hands thoroughly before reassembling the tra.

3. Bubbler Cup: Each time you turn the machine on make a habit of checking that the bubbler cup is bubbling away at the right level (just above minimum line). If it's not, pause the machine and make adjustments.

4. Overfilling During a Top-up: If you happen to overfill the machine the excess water comes out the oxygen outlet and into the bubbler cup and this can then overflow into the cannula and you could get water in your nose. So have the machine on when topping up and pour slowly so as to hear the voice prompt at the earliest point in time. The maximum tank level is indicated on the back of the machine and if you forget to have the machine on during a top up you can place a clean index finger in the machine to see if you can feel water to this maximum level.

Maintenance Method

A routine tank cleaning process to be done once every 6 months.
Worth placing a reminder on your phone calendar now.

Requiring 7.5L or 255 fluid ounces of <1 TDS water, your funnel, and a clean cloth to clean up any spills, and a clean measuring/pouring jug.

Step 1
Drain out the all the water from the water tank.

Step 2
Fill 2.5 L of pure <1 TDS water

Step 3
Drain the water completely from the tank.

Step 4 Repeat the process one more time for thorough cleaning.

Step 5
Refill with 2.5L/ 85 fluid ounces. Open the drainage outlet, drain for approximately 15 to 20 seconds, close the drainage outlet, close the tank lid, stabilise the machine, make sure the area and the machine is dry and has had a light clean with your cloth. Turn it on.

How to Make Hydrogen-rich Water

Step-by-Step Instructions

1. Connect the Hydrogen Rod to the Tube

Begin by connecting the hydrogen rod directly to the tube that comes with your machine.

2. Connect the Tube to the Hydrogen Output

Attach the other end of the tube to the H outlet on the front of the machine.

3. Place the Hydrogen Rod in Water

Place the hydrogen rod into a jar or container filled with water. Ensure the rod is fully submerged for optimal infusion.

4. Turn On the Machine

Turn on your hydrogen machine to start the hydrogen generation process.

See our website's support page for more detailed information about how long it takes to make various quantities of hydrogen-rich water at the maximum concentration using the HAH-450

FAQs

Q: Why you have no gas-out feeling when using the machine?

A: It's very normal to have no sensation in the nose when hydrogen gas is coming out. Hydrogen breathing does not feel like the sensation of oxygen machine. The air flow of oxygen machine is generally several times that of hydrogen machine, which can not be compared with each other.

Q: How to simply test if your machine is working well?

A: The user can put the nasal cannula which hooked on the machine in a cup of water, to check if it is bubbling well.

Q: What if you have more questions about hydrogen breathing?

A: The user can check our support page where you will find links to our support group, summaries of the latest research, book a call or connect via email with our molecular hydrogen institute certified H2 advisor.

After-sales support:

Thank you for purchasing the HAH-450 Hydrogen inhalation device. Please ensure to read the instructions carefully before use the machine so as to avoid unnecessary damages.

For troubleshooting beyond the instructional manual and our support articles found at **www.healthandhydrogen.com/support** please reach out to our after-sales service department via email: **info@healthandhydrogen.com** for a prompt attention.

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Health And Hydrogen

Want to see how it's done?

Scan the QR code and watch the tutorial on our YouTube channel