1. Operation Principle

- The electric control is consisted of three major parts: power supply, control panel and parameter acquisition.
- When the machine is working, the electrolytic water (which requires purified water or secondary distilled water, whose resistivity is greater than 1MΩ·cm) will be fed into the anode chamber of the electrolytic cell by gravity. With the principle of H₂O=H⁺+OH⁻ when the power is on, oxygen (O₂) is formed in the anode chamber and will be released through the hole at the upper lid of the tank.
- Hydrogen ions, in the form of hydronium ions (H⁺·H₂O), will move to the cathode to form hydrogen gas and water under the electric field force. Hydrogen and a small amount of water will be discharged from the cathode chamber. After the gas-liquid separation process, hydrogen with purity of 99.99% or higher is produced.

2. Technical Specifications

<table>
<thead>
<tr>
<th>Technical parameters</th>
<th>CH-300B</th>
<th>CH-500B</th>
<th>CH-600B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output flow (mL/min)</td>
<td>300</td>
<td>500</td>
<td>600</td>
</tr>
<tr>
<td>Output pressure (MPa)</td>
<td>Internal pressure 0.24~0.34</td>
<td>Internal pressure 0.24~0.34</td>
<td>Internal pressure 0.24~0.34</td>
</tr>
<tr>
<td>Overpressure protection value (MPa)</td>
<td>0.35</td>
<td>0.35</td>
<td>0.35</td>
</tr>
<tr>
<td>Supply voltage (V)</td>
<td>110V ±15% 50~60Hz</td>
<td>220V ±15% 50~60Hz</td>
<td></td>
</tr>
<tr>
<td>Input power (W)</td>
<td>150</td>
<td>300</td>
<td>320</td>
</tr>
<tr>
<td>Net weight of overall machine (Kg)</td>
<td>11.2</td>
<td>12.5</td>
<td>12.5</td>
</tr>
<tr>
<td>Overall dimensions (L<em>W</em>H) mm</td>
<td>425<em>200</em>335</td>
<td>425<em>200</em>335</td>
<td>425<em>200</em>335</td>
</tr>
</tbody>
</table>
3. Product Structure

4. Warnings

4.1 Using conditions
a. Environment temperature: 0-40 °C
b. Environment humidity: <85%
c. Good power grounding.
d. No exposure to direct sunlight. While operating, avoid fire/flame or smoking.
e. Avoid large particle dust, conductive ions, acidic gas, alkaline gas, and other corrosive gas.

4.2 The operating environment must be well ventilated. Must not use the machine in confined rooms.

4.3 Before using, fill the tank with 1400ml to 2000ml of water and wait for five minutes or longer (the tank volume is 2.3L).

4.4 Water Level
Keep 1400ml to 2000ml of water in the water tank.
When the water level is outside of the required range (no enough or too much water in the tank) before the machine starts, then the machine won’t be able to start.
When the water level does not meet the required level while the machine is running, the machine will keep running with an alert: the Enter sign will turn red and blink, and the buzzer will go off. Once the machine is turned off, it will be able to start again once the water is adjusted to the right level.

4.5 Water Quality Requirements
Purified water (deionized water or secondary distilled water) is required. The water resistivity should be greater than 1 MΩ·cm.
Unqualified water contains hard ions that will clog the micropore on the electrode, thus break the electrode.

4.6 Water Tank Cleaning
The water tank should be kept clean. Even if soft water is used strictly, there could be microbial contamination occurred. Once the tank is contaminated, not only the water would be polluted, but also the electrode could be damaged.
It’s required to clean the tank every 20-30 days. The cleaning procedure is: after adding purified water, gently shake the machine to the front, back, left and right in order to rinse the whole tank, then pour the water out. Repeat the process several times, until the water poured out is very clean and without water floccules.
The small hole on the upper lid of the sink is designed for oxygen release. No cover on the whole. Do not replace the current lid with another lid.

4.7 Empty the water tank during transportation in case of leakage caused damage.
4.8 Turn off the machine before repairing. Do not disassemble the machine while the machine is powered on, in case of electric shock.
Troubleshooting
6.Troubleshooting

Problems
1. The control panel and indication light is not on while the power cord is plugged in.
2. Blown Fuse.
3. The power switch is broken.

Maintenance Guide
1. Reconnect the power supply to the wall.
2. Replace a new fuse.
3. Repair or replace the power switch.

Problems
No hydrogen output flow from the outlet.
1. Hydrogen breathing tube folding
2. The hydrogen breathing tube is not connected to the hydrogen outlet.
3. The diameter of the interface of the hydrogen breathing tube does not match the diameter of the hydrogen outlet.

Maintenance Guide
Stop using immediately if such malfunctions are found. Must send it to the manufacturer maintenance replacement, must not disassemble by yourself or face the consequences!

Problems
Screen level check sign flashing.
1. Hydrogen breathing tube folding
2. The hydrogen breathing tube is not connected to the hydrogen outlet.
3. The diameter of the interface of the hydrogen breathing tube does not match the diameter of the hydrogen outlet.

Maintenance Guide
Add water to the tank until it reaches 2/3 of the water when lacking water. Open the drain plug and drain some of the water until the icon doesn’t flicker if there is too much water.

Problems
The control panel light turns red, the screen pops up “55”, “66”, and beeps twice.
Abnormal pressure or voltage inside the instrument, which may be damaged and the machine will stop working automatically.

Maintenance Guide
Send it to the factory to inspect and repair, do not disassemble by yourself!

Instructions
5.Instructions

5.1 The working environment conditions of this instrument shall meet the requirements of 4.1 in the instruction.
5.2 Connect the power cord to the power supply and the instrument. After the power cord is plugged in, turn on the power switch and the control panel will show the start animation and enter the set time interface.
5.3 Open the outer cover of the sink and add deionized water or secondary distilled water to 2/3 of the tank. The lower left-hand corner of the screen shows the water level in real-time. The instrument is equipped with an upper and lower alarm. When the outer cover is reached (lower level < 1200ml), the panel will show the water level to be empty and the icon will remain blinking and not work. When the water level reaches the upper limit (upper limit > 2000ml), the water level sign will be displayed as full and it is forbidden to add water if there is a flashing warning. Please drain excess water from the rear drain until the icon is not flashing to prevent clogging or overflowing the sink, causing the machine to work abnormally.
5.4 After adding the proper amount of electrolyzed water, the instrument is in the set state, the current ambient temperature, water level state can be seen on the panel. Press “+”, “-” to set working time. When the working time is reached, press “Enter”, and the machine will start working. The pressure parameters will be displayed on the panel and the hydrogen outlet will normally produce hydrogen. Connect one end of the tube to the instrument hydrogen outlet and the other end to breathe.
5.5 Set Working Time Description: Press the “+” and “-” key to set the working time. The upper limit is 120 minutes, the lower limit is 10 minutes, and the default is 60 minutes. When the water level is less than 1400ml (the lowest water level), the work cannot be opened. You will not be able to increase your working hours when you are already working.
5.6 Pause: When the device is producing hydrogen, press the “Enter” key and red light will indicate that the device has entered the pause state. Press “Enter” key again, the device will resume working.
5.7 After the device is running for about a minute, place the other end of the hydrogen breathing tube in a container filled with water to ensure that there is hydrogen output. If the hydrogen breathing tube bubbling in the water, this means the equipment is working properly. If not, please get the after-sales service by visiting our official website: www.chuanghuisz.com,
7. Warranty and Warranty Card

7.1. Warranty

- For the faults that occur under normal use, the warranty period is one year from the date of purchase. The paid repair will be offered (at the cost of repair only) after the expiration of the warranty (including artificial damage or damage due to improper operation).
- The company shall not be held responsible for any fault or damage to the product resulting from such human causes as unauthorized disassembly & assembly, fall, and improper operation within the warranty period.
- The warranty voids in case of false product number, content or alteration on the warranty card.
- Where the warranty card is lost or incompletely filled out, the date of manufacture of this product should be taken as the start of the warranty period. The warranty does not cover any damage caused by the repair performed by any other person than our maintenance personnel.

7.2. Warranty Card

<table>
<thead>
<tr>
<th>Date purchased</th>
<th>YYYY / MM / DD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address, name, and postal code of the dealer (or user):</td>
<td></td>
</tr>
<tr>
<td>Symptom:</td>
<td></td>
</tr>
<tr>
<td>Factory number:</td>
<td></td>
</tr>
<tr>
<td>Phone number:</td>
<td></td>
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</table>

8. Packing list

<table>
<thead>
<tr>
<th>Item</th>
<th>Hydrogen Inhalation Machine</th>
<th>Power Cord</th>
<th>Hydrogen Tube</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
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</table>