

USER GUIDE

Hydrogen 1000 & 2000 System

IMPORTANT – PLEASE READ CAREFULLY!

When checking or servicing the HydroGen system, please follow carefully all instructions and cautions below. If you have any questions or concerns about your HydroGen System, please contact your nearest dealer, or visit us at www.HydrogenPower.com to get in touch with a Customer Service Representative.

Dear Customer, congratulations on your purchase of the world's most advanced hydrogen hybrid fuel system available today! Your commercial-grade HydroGen System is produced from the finest quality workmanship and materials, and should provide many years of trouble-free service for you and your vehicle. We want you to get the most from your investment so please take a moment to read the following important information regarding installation of your HydroGen System.

WARNING! Before servicing the HydroGen system, ensure that your engine is OFF.

Explosive gases can cause blindness or injury. Do not smoke when servicing the HydroGen System.

Make sure there are no sparks or flames nearby when servicing the HydroGen System.

CAUTION! Liquid content may be hot. Always allow the HydroGen System to cool before servicing.

WARNING! The HydroBoost solution contains potassium hydroxide (1310-58-3 – under 20%). Do not drink solution. Avoid skin and eye contact. Do not inhale mist or hot vapors when adding any fluids to your HydroGen System.

KEEP OUT OF REACH OF CHILDREN.

FIRST AID

If swallowed: Do NOT induce vomiting. Immediately call poison control center or go to a hospital emergency department. If possible, immediately give large quantities of water or milk. This may be followed with dilute vinegar or fruit juice.

Eye contact: Flush eyes with water for 15 minutes. Call a physician. If one is not available, irrigate for another 15 minutes before going to a medical facility. Permanent corneal damage may result if not treated.

Skin contact: Remove contaminated clothing and wash skin thoroughly with soap and water. If irritation persists, seek medical attention.

If inhaled: Remove to fresh air. If breathing is difficult, call poison control center or go to a hospital emergency department.

CERTIFIED INSTALLATION AND 2-YEAR LIMITED WARRANTY

Proper installation of the HydroGen System is an important factor that can affect both the performance and reliability of the system. Failure to properly install the HydroGen System may result in personal injury, property damage, or both. For peak performance, your HydroGen System should be installed by a Certified Master Installer who will present you with a certificate entitling you to a 2-year Limited Warranty on your HydroGen System (see Warranty Sheet for more information). Should you have any questions or concerns, please contact your Product Representative or nearest Dealer —or visit us on the web at www.HydrogenPower.com.

OPERATION AND MAINTENANCE OF YOUR HYDROGEN SYSTEM

While the HydroGen System was designed for minimal maintenance, there are a few things that you will need to do in order to keep it running at optimum performance levels.

IMPORTANT: Read cautions at the top of this page and all instructions below before servicing your HydroGen System.

DO NOT add fluids when the HydroGen System is hot. Allow system to cool before adding any distilled water or HydroBoost.

DO NOT add fluids while your engine is running.

IMPORTANT: If your HydroGen System should run dry, always wait until it has completely cooled down before adding any fluids. When it is hot, the cooler temperature of the distilled water or HydroBoost can cause the enclosure to crack.

When a Certified Master Installer first installs your HydroGen System, it will contain the proper amounts of distilled water and HydroBoost. Over time, the distilled water will dissipate as hydrogen and oxygen gases are released. The HydroGen™2000 holds approximately 3 gallons of distilled water at the top of the plates, the HydroGen™1000 holds nearly 1 gallon of water at the top of the plates. The system will process approximately 1 gallon of water every 1,500 to 2,000 miles, depending on driving habits, as well as road, weather, and engine conditions. The water level in the unit should be checked as the vehicle is filled with fuel. This will ensure that a correct water level is maintained in the unit, providing optimum performance. Simply pour the distilled water into the refill location following the instructions below, and you are ready to go.

CHECKING AND FILLING

First, park on a level surface. Turn the engine off and wait for the HydroGen System to cool. Remove the filler cap (in the center of the unit) by pushing down on the circular tabs found on each side of the cap, and lifting the cap straight up. (When replacing the filler cap, make sure it is pushed down all the way on the receiving neck, and then pull up on the two circular tabs until they are seated in place.) The distilled water should just barely cover the top of the plates when looking into the unit (if necessary use a flashlight to determine water

level). When adding distilled water to your HydroGen System, we recommend using a turkey baster (found at most grocery stores). If one is not available, a small, clean funnel will do. Add distilled water in small increments until it covers the plates, and you are ready to go.

DISTILLED WATER

Important: DO NOT use regular tap water in the HydroGen System –it can cause damage and will void the warranty.

The HydroGen System requires distilled water. The more pure the distilled water, the more hydrogen and oxygen it can produce. Sodium-free distilled water can be purchased from a variety of retail outlets. Pay close attention to the method of distillation. It is desirable to use the purest water available. Water distilled via reverse osmosis is recommended. Steamed distillation is accepted as well. However, any distilled water can be used for short durations.

Q. Do we need to keep the fluid levels full at all times? Will the HydroGen System still function okay at 3/4 full or lower?

A. This is a good question and the answer is a logical one. More hydrogen and oxygen is produced when the unit is full. This is a simple relationship of the amount of plates contacting fluid. It stands to reason that the more the plates are submerged, the greater amount of hydrogen and oxygen produced. While the unit could still function at only 1/3 full, this would substantially decrease its ability to produce hydrogen and oxygen, so our recommendation is that it be kept at no less than a fill level of 1/2 or greater.

HYDROBOOST (ELECTROLYTE)

Under normal conditions, you should only need to add one (1) ounce of HydroBoost every 6-8,000 miles. The best method for determining the need to add HydroBoost is to watch the amp gauge. When the HydroGen System is drawing less than the recommended amps for your engine (see *AMP GAUGE* section below), then you may need to add HydroBoost following the instructions below:

IMPORTANT: Be sure that you only add HydroBoost **AFTER** you have topped off the HydroGen unit with distilled water.

Adding HydroBoost:

1. If the amp gauge reading is below the specified range for your engine, turn off engine and allow the HydroGen System to cool down.
2. Top off with distilled water if necessary (follow instructions in the *CHECKING AND FILLING* section above).
3. Add one (1) ounce of HydroBoost. Replace the filler cap, start your engine and check the amp gauge.
4. If the amp gauge reading is within the specified operating range for your engine, you are done. If not, repeat steps 3 and 4.

In cold weather applications it may become necessary to add more HydroBoost to achieve the same results. This will only occur in extremely cold weather applications. Keep in mind that the recommended amp gauge readings are approximate. Each vehicle will vary, so please contact your Dealer if you have any questions.

IF YOUR HYDROGEN SYSTEM EVER RUNS DRY

Should this happen, we recommend that you have your HydroGen System checked by a dealer or Certified Master Installer. If there is no dealer or Certified Master Installer available in your area, then do the following to bring your System back to factory specifications:

Fill unit with distilled water:

1. Turn off engine and wait for the HydroGen System to cool down completely.
2. Remove filler cap and add enough distilled water to barely cover the plates (follow instructions in the *CHECKING AND FILLING* section above).
3. Replace filler cap, start engine and verify the amp gauge reading using the figures listed in the *AMP GAUGE* section below.
4. If the amp gauge reading is within the specified operating range for your engine, you are done. If not, follow the steps in the *HydroBoost (Electrolyte)* section above.

AMP GAUGE

For the HydroGen™ 1000: On smaller vehicles the system will draw approximately 4 to 6 amps when cold. After the unit warms up, it will draw around 8 to 12 amps. On larger engines the system may draw between 7 and 10 amps when cold, and approximately 14 to 18 amps once the system warms up.

Note: The numbers above are approximate. Each vehicle will vary. Please contact your Dealer if you have any questions.

For the HydroGen™ 2000: On mid-sized engines the system will draw approximately 9 to 11 amps when cold. After the unit warms up, it will draw around 18 to 22 amps. On very large engines, the system may draw between 12 and 15 amps when cold, and approximately 24 to 30 amps once the system warms up.

Note: The above numbers are approximate. Each vehicle will vary. Please contact your Dealer if you have any questions.

GENERAL MAINTENANCE

Visually check your unit, hoses and connectors often. Look for any wear and tear such as cracks, burns, fraying or melted areas—especially near the clamps. If any of these conditions exist, please contact the nearest Dealer or Certified Master Installer; such conditions could not only reduce the efficiency of the unit, but could pose a danger if left unchecked. Should you find that any connectors or clamps are loose, simply re-tighten them, making sure not to over tighten them.

If you have ANY questions or concerns about your HydroGen System, please contact the nearest Dealer, or visit us at www.HydrogenPower.com to get in touch with a Customer Service Representative.