HHO Hydrogen Generator Dry Cell Installation Manual Instructions
Presented by LaBella’s HHO http://labellashho.com

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WHAT WILL MY MILEAGE GAIN BE?

We have that question frequently asked. The fact is the answer to that question cannot properly be answered without stipulation. We might add, if one does so—we will be polite here—he may be ignorant to the real extenuating facts. First of all, supplemental hydrogen induced into any engine will not produce effective results UNLESS the engine is in VERY GOOD running condition. This means if your engine has ANY of the following problems: piston rings and/or valve(s), engine miss, check engine light on, oil burning consumption, unusual smoke emitting from exhaust and/or breather system, or overheating, or has not been tuned according to factory recommendations, DO NOT expect any fuel mileage improvement. And don’t install anyone’s HHO system until it is rectified by a professional that does mechanical work for a living and has ASE (Automotive Service Excellence) certification credentials (see company profile: http://www.labellashho.com/index.htm#profile). Simply stated, HHO is not a fix-all; but it is a proven fact that supplemental hydrogen reduces engine emissions and increases fuel economy on average by 30%. Scientific documented proof of this fact can be read here: http://www.labellashho.com/bettermileage_howto.htm. However, supplemental hydrogen must be installed properly and the engine and its computer, where applicable, must be properly tuned for each application to accommodate the HHO induction. Placing any kind of supplemental hydrogen generator system onto any engine, without addressing the aforesaid, will yield little or no fuel mileage improvement. And if anyone leads you to believe otherwise, you will inevitably be rudely awakened. Make no mistake about it, we are not saying you cannot do successful business with other companies that may be different in their operations. We are only saying be vigilant. Make sure before you make a purchase that there's real support if you have questions and need help. We have a support form link on our website located on the navigation menu top left of any page under “contact us support” http://www.labellashho.com/contact_us.htm that is monitored regularly to narrow down and pinpoint installation issues. Please do not call us on our phone number for support as questions that require answers to diagnosing are too extensive to do over the phone. Nonetheless, we can say with reasonable confidence that those who have followed the aforesaid have gotten satisfactory results from supplemental hydrogen installation and development—no matter where they’ve made the purchase. The information herein is provided to ALL viewers of our website with the idea of improving both fuel mileage and environmental conditions. Best wishes from LaBella’s HHO and Company....

SAFETY PRECAUTIONS:

Incorrectly installing or incorrectly using our Hydrogen Dry Cell (or hydrogen generator)
may result in serious damage to your automobile or bodily injury. Read and follow the instructions and safety precautions given here and in relevant places throughout this manual to avoid these hazards. If you do not understand these instructions or do not like working on vehicles, have your mechanic do the installation. Be sure to work outside, no smoking; make sure the engine is not hot.

Be sure to wear goggles and rubber gloves and only use professional tools; use common sense and general safety procedures used for automotive installations and maintenance. If you're not sure, ASK! Yes, HHO is combustible – AFTER IT ENTERS THE ENGINE – that's the whole point. Your Hydro Fuel Dry Cell system does not store hydrogen when installed properly, so there is no fire hazard due to hydrogen storage. So, don't let people who have no understanding of the system intimidate you or tell you about non-existent hazards. Hydrogen dry cell technology cools down the engine and adds safety to any car.

The article “Shade Tree Safety” By Mike Bumbeck of autoMedia.com is a recommended reading that will give more education for the do it yourself mechanic.

**WORD OF CAUTION:** Avoid unnecessary fears and that includes listening to self-appointed “experts”. Because the safety notes in this manual are not intended to intimidate or stop you, only to add to your safety.

**LET'S GET FAMILIAR WITH YOUR NEW DRY FUEL CELL:**
**INSTALLATION:**

The dry cell is the heart of the system that generates the HHO gas and cools down the engine. You will need to find a place in the engine compartment to mount your new dry cell. It **MUST BE MOUNTED UPRIGHT WITH THE CHANNEL IRON MOUNTS LEVEL TO THE GROUND & The fitting openings facing NORTH to the sky**, and NOT side mounted or it will not work properly and you will have unstable amp draw that could blow the fuse. It should be mounted and secured in such a manner as to assure that it cannot bounce around when the vehicle hits bumps etc. Your dry cell comes with mounting holes which make your cell easy to install. Be sure to install your new dry cell so that it can easily be accessed and can be conveniently cleaned and serviced or inspected from time to time. Your new dry cell comes with a Reservoir/Bubbler that looks similar to the one above.
Make sure that your Reservoir/Bubbler is installed the same as you see in the illustration. As you can see, the Reservoir/Bubbler needs to be higher than your dry cell. The distance below the bubbler tank should be as follows: single dry cell 12-14 inches below. Multi dry cells 14-16 inches below. It is important to make sure you have a nice straight drop from your reservoir down to your dry cell with no snaking of the hoses. If that’s not possible an assistant small water pump will be needed to optimize circulation and to minimize water browning. For configurations where the distance from the tank to the cell are greater than the suggested drop (over 12-16 inches) I recommend using a larger pump. See full details from our associate HHO provider: https://hydroclubusa.wordpress.com/hhopumps/. Furthermore, heat the hose in warm water before use to aid in flexibility and make sure ALL hose connections to the fittings are securely tightened with hose clamps (with the exception of the hoses connecting at the one way check valve) and seal all fitting threads with the use of any brand Goop glue or similar product following the product’s instructions. This system works off of gravity when the recommend hose drop distance is met, it will not work properly if it's not installed right. If using twin (double) dry cells, connect them only in parallel as seen in illustration above, including the wiring; “in series” method should not be used as it will not work. It is particularly noteworthy that if you are unable to keep the amp draw in specifications as outlined in the electrolyte mix instructions, two other items will prove to be invaluable: a “vaporizer” (sometimes known as a scrubber) and the “anti foam agent.” These items are not included in the kit, as it is not necessarily mandatory unless the aforementioned is applicable to you. But be aware that it can be a risky challenge to keep the amp draw in specification with the electrolyte mix alone and without the use of a pulse width modulator controller (PWM). As noted in the electrolyte mix instructions, too high of amp draw is the main cause of electrolyte water vapor and foaming in the bubbler tank. In any event, if you decide to utilize a vaporizer, it must be installed upright as depicted in the illustration and preferably above the bubbler tank. If the latter isn't possible, the vaporizer may need to be drained periodically by disconnecting the lower hose or dismounting it and positioning it upright and above the bubbler tank so that it can drain back into the bubbler tank. In the event electrolyte water vapor happens to enter the engine intake, it can trigger the check engine light and could cause issues with the throttle body components. In such a case, an engine diagnostic scan will have to be performed to pinpoint the issue. Engine code scans can be performed for free at many auto parts stores. The vaporizer, anti foam agent and pulse width modulator can be purchased on our website via the navigation menu located top left of any page at labellashho.com and clicking the link: "Hydrogen Dry Cell Kits" and scroll down to locate these items and read all the description of them.

NOTE: Alternative For No Room Under Hood Installation:
If your under-hood area is too constricted for the HHO generator kit installation, the hydrogen generator kit can be placed in other areas like the trunk of the vehicle or the back bed of the truck, following the same installation principles as the under the hood installation. You will just run the HHO output hose from the top of the bubbler tank to the intake of the engine via the shortest route back to the engine compartment, away from high heat generated by the exhaust system and manifolds. You can fabricate a box, or use a large marine battery box, but you will have to utilizing a small electric water pump for
the electrolyte water mixture to flow from the bubbler tank to the HHO generator, wherein the distance is too short for gravity feed to fill the HHO generator sufficiently.

**DRY CELL PERFORMANCE NOTES:**

Multiple dry cells can be used to increase HHO output capacity (LPM) if fuel mileage gain is unsatisfactory. Keep in mind, however, for fuel mileage gain, follow the proper electrolyte mix for your size engine for the correct amp draw. Too much amp draw causes steam and over heating of the dry cell and produce less HHO gas. Also leaning of the engine is necessary in most cases with the proper electronic devices which are outlined herein. When proper leaning of the engine is accomplished but mileage is not increased, you can try another dry cell in parallel and test the vehicle's fuel mileage, carefully using the proper electrolyte mix ration to produce the correct amp draw for your engine size. It is possible to use pairs of dry fuel cells with the same PWM and bubbler tank accommodating them with added fitting at the bubbler tank as illustrated above. Pairs of separate dry cells will run cooler than one large dry cell in most cases. If you try running the extra pair of dry fuel cells using the same fittings, the electrolyte mix and gas won’t flow as well and the use of a small electric water pump will be needed as aforementioned. Nonetheless, the dry cell will only perform best after the engine has reached full running temperature with the factory recommended engine thermostat (engines that run too cool or do not reach factory recommended running temperature will not experience the best fuel mileage gain). Experience has shown that short runs will yield less fuel mileage gains whereby the longer the run the better the fuel mileage gain because the dry cell must warm up to run at its full performance capacity. Average warm up time is 10 minutes. Thus if you drive short runs of that duration with a full cooling down of the engine in between the runs, you will not see much fuel mileage gain.

**PREVENT DRY CELL FROM FREEZING:**

In regard to freezing temperatures, the electrolyte mix information addresses how to keep the dry cell from freezing, which can damage the sealing gaskets, causing it to leak.

**VIEW OUR YOUTUBE HHO DRY CELL DEMO VIDEO:**

http://www.youtube.com/watch?v=X6p_udDj0zA

**INSTALLING THE DRY CELL AWAY FROM EXCESSIVE HEAT:**

Try to install your new dry cell as far away from the heat of your engine. Locate the coolest available place in the engine area. We cannot give you an exact number here for what is “too hot”, because there is a combination of heating factors here. There is a situation called Thermal Runaway, where an increase in ambient temperature combined with too high of electrolyte mix can lead to a destructive result to the dry cell. You can prevent this from happening by following instructions below and utilizing what’s called a
pulse width modulator (PWM) to keep a stable amp draw to the dry cell. The electrolyte mix information addresses this more in detail.

**THE DRY CELL OPERATES ON 12 VOLTS:**

Your new dry cell device is operated by vacuum pressure from your vehicle’s engine, plus a 12 Volt supply from your vehicle’s electrical system. The device is designed to operate on 12 Volts. Refer to the wiring diagrams.

**CONNECTING THE POWER SOURCE:**

Before proceeding to connect the HHO system to electrical power, which utilizes 12 volts, there are some factors to consider as to where to make the connection that powers the hydrogen generator, depending on the type of vehicle. It is mandatory on **Hybrid and **Stop-Start engine applications that the electrical power source for the HHO generator is activated by means of the 12 volt positive circuit for the electric fuel pump, and likewise on all fuel injected engine applications as well (See ** below). This is #85 in the wiring diagrams below. The reason is so that power to the HHO generator, which is activated via the 12 volt positive wire for the electric fuel pump, is only supplied when the engine is running and shuts off automatically even if the key is left on and the engine stops running- a safety feature designed into the vehicle by the manufacturers.

**Hybrid Engine:** Internal combustion engine and one or more electrical motors which uses energy stored in batteries.

**Stop-Start Engine:** Internal combustion engine that shuts down and restarts automatically when ready to move again.

It is to be noted that it is advantageous in all HHO generator applications to use the aforesaid wiring diagrams and the components depicted therein, either with or without the PWM (Pulse Width Modulator). As far as the basic wiring diagram labeled: “Optional Method” this is shown to get the elementary understanding of how the voltage is supplied to the HHO generator.

For mechanical fuel pumps and carbureted engines, the “Optional Method” wiring configuration can be used for powering the HHO generator, but caution must be exercised not to leave the ignition key in run position when the engine is not running since this would produce HHO gas in the bubbler tank that’s not being used and it could cause a backfire when ignition is applied to the engine when starting. Hydrogen generator systems always perform best when using a PWM (Pulse Width Modulator) with the rest of the components depicted in the diagram: “Typical PWM wiring Diagram With Amp Meter.” In any case, if not using a PWM, use diagram: “Typical Wiring Diagram Without PWM.” In the diagram that uses a PWM, keep in mind that some PWMs may or may not use a cooling fan. **PWM NOTE:** If you are employing a PWM with your installation, **DO NOT REMOVE THE KNOB** once installed or the circuit board may be damaged and will not operate. All PWMs are pre-tested before you receive them. To open the case, use a small screw driver, remove any packing. The back of the case may be cut to accommodate any wiring. Carefully examine the PWM diagram below and read ALL the
notes therein. In some cases the PWM knob may be already installed and in other cases it
will be inside the enclosure for damage-free shipping purposes. Do not mount the PWM
near high heat or it will self destruct. See Contact Us Support Form link in the top left of
any page on our website in the navigation menu and read items #21 and #26 for details,
including the break-out messages when cursor is placed over the question boxes.

**Optional Method:**

Amp meter connects as shown if no PWM is used. If a PWM is used, connect amp meter as
shown in illustration titled: Typical PWM Wiring Diagram With Amp Meter.

Connect this black wire to the frame or body for a good ground.
INSTRUCTIONS:
Pry open cover with a small screw driver, remove any packing, do not remove knob once installed or PWM circuit board will damage, you may cut back area to accommodate wiring. This is an air cooled PWM. NO Fan Required.

Wiring Diagram, Internal Components and Connection View
TYPICAL WIRING DIAGRAM WITHOUT PWM

Fuse → Relay → Batt → Amp Meter → HHO Cell → PWM

On/Off Sw → Grd → Ign Sw

Relay Connections ID:

#87: Positive side of battery
#86: Grd.
#85: Ignition run/on/off or elect. fuel pump hot wire
#30: To PWM 12+

or if not using PWM, to + side HHO generator
HOW TO RUN YOUR HHO GAS INTO YOUR VEHICLE:

Now it's time to connect the HHO gas output hose from the top of the bubbler tank (or top of the vaporizer if employed) to your engine's intake. The following illustrated diagrams will assist in this step and by closely reading all of earmarked notes within the pictures.
Inline with continuous vac source at engine - break off to accommodate the correct full size hose

1/8 1/4 3/8

3/8 hose pushed up to the 3/8 shoulder

Don't cut this end. Leave it 1/8 opening.
If you get a check engine light on, eliminate this modification.

3/8 Hose

To HHO output hose
HOW TO USE YOUR VACUUM:

For the hydrogen gas to be delivered into the engine’s intake, it must be connected from the HHO gas output hose from the top of the bubbler tank (or top of the vaporizer if employed) to the closest area to the throttle throat entrance (throttle body), and for more efficiency, also connected directly to a continuous intake manifold vacuum source as well (i.e. PCV valve hose). Carefully examine the illustration above. If you decide not to use the optional “HHO Dual Connection Gas Output Method” to the engine, eliminate both of the T fittings and run a single hose from the top of the bubbler tank (or top of the vaporizer if employed) directly to the area right before the throttle body throat-detailed in the following instructions. IMPORTANT NOTE: If you do employ the “HHO Dual Connection Gas Output Method” and you get a check engine light, eliminate this modification altogether as aforementioned.

For supplemental hydrogen to take place, hydrogen gas must be sucked from the top of the bubbler tank (or top of the vaporizer if employed) into carburetor throat or fuel injection throttle body throat when accelerating the engine, and if employing the optional “HHO Dual Connection Gas Output Method,” also into the intake manifold at idle via a continuous vacuum port, such as the PCV valve hose. However, before proceeding to make any connections to the intake, install the one-way check valves at the HHO gas output hoses going to engine as illustrated above with the one-way valve flow toward the engine. Do not install any clamps on the one-way valve, so in the event a flash back occurs, the hose will blow off, preventing HHO gas from entering into the bubbler tank. Now for connecting the main HHO gas output hoses to the engine’s intake. The best connection spot on carburetors and throttle body type injection (centrally located injector(s) in a throttle body) is at the closest location to the entrance area of the throttle body throat. In both of the aforesaid type fuel delivery systems, connect the HHO output hose from the top of the bubbler tank (or top of the vaporizer if employed) to the air filter cover assembly, right above the intake throttle throat, closest to the center of the air filter cover. You will need to drill a hole into the air filter cover and Goop glue a 3/8 x ¼ npt fitting into it to accommodate the hose connection. On multiport fuel injection systems (injectors over each cylinder), the HHO output hose from the top of the bubbler tank (or top of the vaporizer if employed) connects to a place right before the throttle body as seen in the illustration above, earmarked: “Before throttle throat.” In most cases there’s a rubber duct hose that connects to the throttle body from the air filter, and in other cases it may be a metal or plastic duct. In any case, a 3/8 x ¼ npt fitting must be placed at this point to accommodate the HHO output hose from the top of the bubbler tank (or top of the vaporizer if employed). On rubber duct type hoses, you can use a soldier gun and melt a hole in the rubber duct closest to the entrance of the throttle body throat and Goop glue the fitting into the hole, being careful not to get the glue inside the fitting. NOTE: On metal or hard plastic ducts, remove the duct hose and drill the hole, thread it, and install fitting, and then clean the shavings out of the duct before reinstalling it.

The following applies if you decide to use the optional “HHO Dual Connection Gas Output Method.” Referencing the illustration above, a break-off T fitting goes inline with a continuous vacuum source at the intake manifold, such as a PCV valve hose or other like vacuum source. Do NOT use the vacuum source for the brake booster. The break-off
T fitting is not part of the HHO kit, but can be purchased at any auto parts store. Please reference the illustration details above very carefully, taking note of the break-off points of the universal break-off T fitting nipple for the HHO gas hose from the bubbler tank and the other 2 break-off nipples for the continuous vacuum source connections (ie. PCV valve hose). Note in the illustration that the break-off T fitting at the nipple connection for the HHO gas output hose is left intact, not broken off, so that the existing opening in the nipple is utilized in its original size of 1/8 for restriction purposes. The HHO gas output hose from the bubbler tank is pushed over this nipple up to the 3/8 ribbed shoulder. The other 2 nipples of the fitting are connected inline with the continuous vacuum source, where the fitting can be broken off to accommodate whatever size hose it happens to be.

**WARNING:** If you connect the main HHO gas output hose from the top of the bubbler tank to just a continuous vacuum source ONLY (i.e. PCV valve hose), without connecting the other hose to the intake throttle body throat area, the bubbler tank will collapse, since continuous vacuum will be pulled on the bubbler tank and the bubbler tank utilizes a non-vented cap.

*On diesel or gas engines with turbo charger(s), the HHO output hose goes into the intake system BEFORE the turbo charger.* In such cases the safest spot would be immediately after the air filter where the duct connects to the air filter canister. On twin turbo chargers you will have to use a 3/8 T fitting at the end of the HHO output hose to run 2 additional hoses, one each, to each intake system BEFORE each turbo charger. 2, 3/8 x ¼ npt elbow fittings will be needed to tap into the intake system to connect the output hoses to. **WARNING:** If you put the HHO output hose into the intake manifold AFTER the turbo charger(s), the HHO system will become pressurized, damaging the HHO system. Diesel engines may require more than 2 dry cells and they can be connected in the same manner as the 2 cells but with the use of 4 or 5 way 3/8 vacuum connectors in place of the T connectors in the 2 dry cell diagram. The use of a small water pump will be needed as earlier outlined.

**HHO GAS DIRECTIONAL NOZZLE:**

Another trick in optimizing the HHO gas induction is to direct the HHO gas as close as possible into the throttle throat by fabricating a directional nozzle(s) so that it directs the HHO gas right over the primary throat(s) be it a carbureted or fuel injected throttle body. This also works on ALL non-turbo diesel and non-propane burning engines. It is advantageous to direct the HHO gas into the throttle throat making sure that the directional nozzle(s) do not obstruct any of the moving parts, like the choke flap or throttle plate. This can be fabricated with the use of 3/8 x ¼ NPT elbow fittings, a 3/8 vacuum T fitting and 3/8 OD clear tubing, copper tubing, or plastic tubing assembled with Goop glue as depicted in the illustration. Sanding of the mating areas may be needed to get the fittings to tightly fit into one another before gluing.
**FINAL SETUP:**

Filling the Reservoir/Bubbler with DISTILLED WATER & THE ELECTROLYTE (KOH):

**ELECTROLYTE:**

Our website is available to anyone on the Internet. There is some information that is only for those who paid for the product. For example, we have our own formula for the electrolyte we use in our dry cells. This formula runs cleaner and more efficient then most things on the market today. To access the electrolyte mix pdf go to our navigation menu at labellashho.com and on the top left of any page locate the link “Electrolyte Mix.” You will need the password. The preliminary instructions that came inside your kit explains how to access the electrolyte information with password. Please read all of the preliminary instructions as well. It is critical to follow all of the electrolyte mix instructions carefully.

If in some rare event you don’t have the preliminary instructions on how to access the electrolyte mix information, for the password contact us through the contact us/support form with proof of purchase: [http://www.labellashho.com/contact_us.htm](http://www.labellashho.com/contact_us.htm). Once you have your mixture ready, pour it into the top of the Reservoir/Bubbler to just cover the lower hole but not the upper one. This allows the dry cell to self bleed. Fill the bubbler up to the water level line. (see sample diagram below) This is just a sample of a 2 quart Reservoir/Bubbler. Keep the tank only 75% full. While you are filling the unit, you
should be able to see water running down to your dry cell. If you don't see any water going down the tube, this could mean you don't have the Reservoir/Bubbler high enough above your dry cell or lines are kinked and bent. Always try to install your dry cell at the recommended distance below the tank as afore outlined. The dry cell system should be bled of all air before operating or unstable amp draw will occur and may cause main power fuse to blow. There should be no need to use any other method for bleeding the dry cell when properly mounted. If in the event there’s an issue bleeding the air out, you can use a vacuum pump gun (like a Mityvac http://www.mityvac.com/) and collector jar to perform the bleeding as indicated in image below at the outlet line to bubbler tank connection. Also, low controlled air pressure (below 5 psi) may be utilized if a vacuum gun it not available at the bubbler tank cap opening area with a wet rag around a regulated air nozzle while blocking off all openings but the one at the dry cell outlet line which would be placed in a container (jar or bucket) while utilizing eye, face, and breathing protection.

**TEST RUN:**

1. Start by checking all your connections. Make sure your amp meter and inline fuse have
been installed.

2. Now start your vehicle. While it's running, watch for bubbling action inside of your Reservoir/Bubbler. You should be able to see the gas entering the Reservoir/Bubbler tank.

3. Now it's time to check how many amps your dry cell is pulling as outlined in the electrolyte mix information. This dry cell was made to run at 10-12 amps without overheating at all. It will produce over 1 liter of HHO gas per minute if you have everything hooked up according to the instructions; that's all the hydrogen your vehicle will need to see an improvement in fuel mileage when used in conjunction with the proper EFIE’s.

4. If you have done everything right, within a short time, you will notice that the engine starts to sound dramatically different. It will sound smoother and quieter. Your RPM's may be unstable for a couple of minutes. This is normal. The HHO is starting to change the combustion cycle and cancels the pinging and the engine is now adjusting to the changes. Your RPM's will normalize in a couple of minutes.

For HHO fuel mileage gain you will need to lean out the engine for the HHO gas to take effect. Depending on the vehicles you have installed the dry cell on, you will need to use the proper EFIE’s to accomplish this, such as a computer chip, or O2 sensor devices.

**YOU WANT FUEL MILEAGE GAIN?? YOU MUST LEAN THE SYSTEM:**

Most modern-day fuel injected vehicles use a computer and oxygen sensing devices to monitor and maintain the correct oxygen/fuel ratio. One of the key sensing devices is the oxygen sensor or exhaust sensor, in some cases the AFR (air fuel ratio) sensor. Fuel injected vehicles have one or more oxygen sensors installed in them. The computer extrapolates what the air/fuel ratio is, based on the amount of oxygen in the exhaust, as reported by the oxygen sensor.

When a fuel saving device is installed, such as an oxy hydrogen generator, the petroleum based fuel is burned more completely. One of the results of this is that there is more oxygen (and less unburned hydrocarbons) in the exhaust stream. This is a good thing, and is in fact, what we are trying to achieve. However, the computer will perceive this condition as a “too lean” air/fuel mix. In other words, what is now a desirable condition in the exhaust will be interpreted as “not enough fuel”, and the computer will direct the fuel injectors to increase the amount of fuel being pumped into the engine. The result is that the oxygen sensor and computer prevents efficient combustion from occurring! In other words, it cancels out most of the improvement we have just made.

**The Solution**

**NOW AVAILABLE: HHO COMPUTER CHIP for OBDII: (systems from Jan. 1996)**
The Volo Performance company has developed a computer chip that takes care of properly leaning out all the engine computer sensors without having to individually addressing them. If you choose not to use this chip, you will have to at least address the O2 sensor(s) before, and where applicable, after the catalytic converter if you expect to have fuel mileage gain. If you already have any other electronic fuel injection enhancers (EFIEs) on the engine they will need to be removed when using the Volo chip, as they will interfere with the Chip’s performance. You can be purchased the Volo chip on our website via the navigation menu located top left of any page at labellashho.com and clicking the link: "Hydrogen Dry Cell Kits" and scroll down to locate this item and read all the description.

Here’s What the HHO Chip Does:

This chip is dynamic, which means it will consider oxygen levels in the exhaust, along with engine speed and load, intake air temperature and volume, and many other variables to determine the most efficient fuel delivery rate and timing at up to 256 separate load points. When using HHO as a fuel supplement, the chip will adjust fuel delivery and timing to optimize efficiency. It’s compatible with factory equipped Turbo/Superchargers, diesel engines, Flex-Fuel, & HHO supplement systems. It is NOT compatible with propane or natural-gas. It is simple to install by following the instructions that accompanied the chip. Depending on the Volo chip you received, it either plugs it into the vehicle’s computer DLC (Data Link Connector) or it taps into the wires behind the DLC according to the instructions that came with your chip. The Volo chip can be programmed specific to your vehicle, but it can also program itself to your vehicle after driving 100 miles.

IF YOU DECIDE NOT TO USE THE HHO CHIP:

Of foremost importance is the leaning of the oxygen sensor(s) which “tells” the computer what the oxygen content is by providing a voltage on its signal wire between 0 and 1 volt. 450 millivolts (.45 volts) means that the fuel/air mixture is correct. Higher values means the mix is rich (has too much gas), and lower voltages means the mix is lean. By adding voltage to the sensor’s output, we can compensate for the additional oxygen in the exhaust and lean out the vehicle to get maximum MPG.

You must use device(s) that enhances the signal to the (ECU), such as an EFIE (electronic fuel injector enhancer) which goes on the oxygen sensor(s) BEFORE the catalytic converter(s) and in other cases, also down stream oxygen sensor(s).

THE BEST ALTERNATIVE METHODS:
For 95 & older fuel injected vehicles with O2 sensors, you will need the Oxygen Sensor EFIE to lean the engine. It can be purchased from Magnum Tuning. You will need to know which type oxygen sensor you have on your vehicle before ordering it. Find them at Magnum Tuning: https://www.magnumtuning.com/en/subcategorylist/car-truck-suv-ecu-performance-chips-fuel-savers-water4gas/hho-water4gas-hydrogen-generators-efie-adjusters
For OBDII 1996 and newer vehicles, please refer back to the Volo chip information above under topic:

“NOW AVAILABLE: HHO COMPUTER CHIP for OBDII: (systems from Jan. 1996)”

LEAST ALTERNATIVE METHODS:

While it’s true map enhancers have been in use for supplemental hydrogen on vehicles, we have found that these devices do very little if anything for leaning the engine out for HHO use. The better alternative as mentioned earlier is either the Volo chip or addressing the O2 sensors. See details above under topic: THE BEST ALTERNATIVE METHODS:

In regard to the use of O2 sensor isolators, these also do very little if anything to lean the engine for HHO use. They are prone to triggering the check engine light.

ENGINEERS AND SCIENTIST HAVE PROVEN SUPPLEMENTAL HYDROGEN WORKS GOING BACK TO THE 1800’S:

Despite all criticism as to whether supplemental hydrogen works to improve mileage, performance and cleaner emissions, recognized engineers and scientist have proven that it does. See the documentation on our website labellashho.com in the navigation menu top left of any page under: “Proof Hydrogen Works.”

Other notable proof of hydrogen use in gasoline engines was a genius ahead of his time named Stanley Meyer. He was a threat to the big giant oil companies and died a mysterious death. The story is intriguing even to this day. Read it in Wikipedia titled: “Stanley Meyer’s Water Fuel Cell.” Related links and videos:

Article: https://en.wikipedia.org/wiki/Stanley_Meyer%27s_water_fuel_cell
Videos: https://youtu.be/staL1wr07Sg

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CLEANING THE DRY FUEL CELL- MY WATER IS BROWN:

Browns Gas: My water is getting Very dirty, NOW WHAT? . . .

With all HHO systems the water color will change over time, which is why we implement a 6 month periodic flush. Since the beginning of HHO, systems that produce” Browns Gas” share this common problem. The name “Browns Gas” seems quite fitting as
you will see a slight browning of the water in these systems (as well as the inventors name being Yull Brown).

Although this is something seen across the board in the industry, we have always been interested in how clean our cells stay compared to others. So not to worry, this is something you will notice but also something to monitor. Proper flow will help keep the KOH from burning up at an advanced rate, which is one of the causes of an advanced browning. If your system is healthy your water should remain transparent for up to 4-6 months depending on use. Even if there is slight change in tint, you should still be able see through your water.

The pump definitely helps in keeping good flow in any situation where the recommended configuration is not able to be met. If you notice your water becoming murky, very dark or browning at an advanced rate, you may begin to suspect that something foreign may have entered into the process which led to this discoloration. It also may be possible that your circulation is poor. I do not want you to get become stressed about this discoloration, although we do want to try and keep the system clean as possible because of its importance.

**INSTRUCTIONS ON HOW TO FLUSH:**

1. Empty system of current electrolyte (drain the system of the water which it is currently holding).

2. Replace with Distilled White Vinegar.

3. With Tank Cap OFF, Turn HHO system on for 5-10 minutes allowing the vinegar to flow through the system and cleanse from inside out.

4. Empty Again (repeat step 1).

5. Replace with new distilled water/KOH mixture.

If your drop is not of 12-14 inches for single dry cell and not 14-16 inches for multiple dry cells with close to straight down with little to no snaking of the lines, you may be experiencing poor circulation, which can speed up this browning process. See link below on adding a small pump to your system

https://hydroclubusa.wordpress.com/hhopumps/

**EXTRA TIP FOR YOUR DIRTY LINES:**

This should clear things up. If you suspect your lines may be dirty, you can run a 1 parts bleach/ 2 part water mixture through them to cleanse them of anything polluting your system before firing it back up with the new clean mixture.