How does a Hydrogen generator Work?

We have a lot of general Inquiries about the basics of this new technology as it applies to cars and trucks. So we have written this quick summary for your review. If you want a much more detailed analysis and explanation including the types and sine of halo generators, how to get it to wort with modem oars, why it works (no-we are not violating any laws of physics!), etc, then sign up for our FREE email course (SEE ABOVE) that was just updated as of September 28, 2014.

What is HHO gas?

HHO as is a unique product based on the discoveries and patent work of Professor Yull Brown in the late 1980's. He discovered (in contradiction to the conventional wisdom of the time), that Iva indeed possible to create a unique electrolyzer that could separate the hydrogen and oxygen atoms out of water, WITHOUT separating them into different tanks. Prior to this, the common misconception by experts, was that the hydrogen end oxygen should NEVER be aimed to join together after electrolysis). The gas, he created, was tested and found to increase the combustion efficiencies of engines, could be used for welding undies with large enough generators, and was easily made. Unlike pure hydrogen, the new gas (dubbed °Brown's Gas at the time) could NOT be compressed and stored for long periods in a tank. It needed to be used immediately for best results.

His discovery was ground breaking, and he spent the latter years of his fife and a fortune ( I believe around $30 million dollars) hying to convince the general pubic of its got properties, but suffered from a lot of censorship and lack of media desire for coverage Much Re today). Thankfully, we have the Internet and youtube, which has allowed an explosion of experimenters and tinkerers around the world to advance and share the technology, and how it an be applied to the modem car. When we started in 2008, there were a few demo videos and three other companies willing to manufacture by hand. We are the oldest manufacturer of these hydrogen it today.

Our hydrogen kit use Yull Brown’s discovered method, and electrolyze the hydrogen and oxygen atoms (hotly out of the water, without separating it, creating
a unique and energetic form of gas containing H, O, H2, O2, and even H2O. The gas is filtered, then injected into the air intake, where it enters engine along with the air and normal fuel of the car. It blends with the normal gasoline or diesel fuel inside the engine, and upon combustion, it rapidly ignites acting as a "combustion catalyst", matting the fuel burn faster more thoroughly and much cleaner. The HHO gas upon exploding, simply reverts back into water in microseconds, which then turns into superheated steam, cleaning the inside of the engine of carbon deposits and sludge. Since the gas causes the existing fuel to burn faster and more complete, there is LESS waste, and the energy is extroded where it matte most-INSIDE the engine. This is why it tentributee to the extra mileage, better engine response, arid fewer emissions- by increasing combustion efficiencies. Remember that totter engines, with all the engineering advances, are still only about 18-21% efficient (depending on who you talk to), so just increasing the combustion efficiency a few percent makes a HUGE difference in mileage and emissions, and is why we see the results and do NOT violate any Laws of Thermodynamic in the emcees (sorry free energy guys there is no free energy in what we are doing-just good physics).

The clean and fast burning hydrogen fuel (H2 burns at 40,000 feet per second vs. gasoline at only 4000 fps), along with the 33% pure oxygen; burns the hydrocarbons foster and cleaner and extracts more energy out of the gasoline, diesel, or other fuel. So instead of wasting the energy during a partially incomplete combustion (requiring catalytic converters and other smog removal 'tame to chemically alter the emissions), you extract it where it matters most- inside the engine. that is why mileage goes up, and emissions drop drastically, We have even seen some engines run a few degrees cooler.

Can you run a car on hydrogen only?

First of all, let me dispel a common misconception: you cannot run a car on water only. If anyone tries to sell you something that they claim does that, ran the other way. Almost every other month a new "claim" is made that this person or that has discovered how to run their vehicle on water only, but further investigation proves these claims false and unverified. One example is the popular youtube video of a
man claiming his Dodge ram truck ran only on water. it is no coincidence that this 
man's name was 'Fast Freddy". Every one of his claims have been false. Only one 
man seems to have had that distinction - Stanley Meyer. He was poisoned before 
the product could make it to the market, and although many of us are researching 
trying to duplicate his work. No One has been able to do it yet So do not get 
suckered or caught up In false dabs.

Having said that, on demand hydrogen is the perfect alternative as a practical fuel 
saver, which is available right now to just about anyone in the world. The 
generators are compact, can be installed In a weekend, and are easy to maintain 
once sat up. Brown's Gas, HHO gas, Oxy hydrogen, hydroxy, etc, are all terms 
that refer to the same product AN On Demand Hydrogen Generator, which uses 
the spare electrical energy of your car's alternator to electrolyze water and cause 
the Instantaneous separation of hydrogen and oxygen atoms out of a lank of 
Tabled water with a very small amount of electrolyte added.

**HHO is a combustion catalyst**

I personally prefer to look at HHO as a "Combustion Catalyst", NOT a fuel 
replacement technology (at least not in this stage of development). HHO burns 
way too fast by itself and actually works better lid is "slowed down" by the 
hydrocarbons in gasoline, diesel, ONG, LPG, or biodiesel fuel. That makes it 
perfect in a gas saving application, where caw can barite fossil fuels faster, 
extracting more energy out of it inside the engine, instead of having to filter or 
convert it (which is what the Platinum in a catalytic converter does).

Our advanced HHO kits are comprised of a robust on demand hydrogen generator, 
an external water electrolyte reservoir, and a dry fitter to dean the gas of residue 
before it enters the engine. The kit does not need a tank to store or compress the 
gases in, but instead, uses them as they are made Con demand"'). It operates on the 
available extra energy of the car alternator, and generally uses less than 500 watts 
of energy to operate (less than one horsepower).
The Reports Are in!

25% decrease in fuel consumption - 1978 Cadillac Eldorado Biarritz 7 liter V8 - 4 barrel ... Everything works fine ... I certainly will soon order another kit for my son's Porsche.

-Bernard, France

Got the kit installed on my 2004 Nissan Xterra 3.3 liter.... All is going great! ... 8.6 MPG increase at 12 amps with 4300 miles now driven, couldn't be happier! ... I've also recorded a 6 degree drop in operating temperature and a 9 hp increase at wide open throttle.

-Mark, Ohio

My Toyota 4 Runner convened to run on propane ... without HHO 20 km per gallon in the city and 27 km on the highway ... with HHO 35 km per gallon in the city (+75%) and 43 km per gallon on the highway (+59%)

-Luis, Dominican Republic

Here are the numbers for a Toyota Tacoma 2000, 2.4 liter, 4 cylinder with 159 thousand miles. ... 3 years ago, no HHO yet ... City traffic, no highways: 16.3 MPG ... 70 - 75 MPG highway: 24.6 MPG ... 55 MPG roads: 26.2 MPG. Today with HydroClubUSA's kit ... city traffic, no highways: 22.1 MPG (+36%) ... 70 - 75 MPG highway: 39.2 MPG (+59%) ... 55 mph roads: 48.9 MPG (+87%). ... It performs 28% better than my previous HHO wet cell system, runs cooler, evaporates less water, takes less space, you can feel more power throughout all ranges of acceleration and speeds, and it blends in with the existing engine equipment. I am really happy!

Just wanted to say I'm impressed with the units I bought and have been having good results. I'm currently experimenting trying to find the best balance for amps and mileage increase. I have a 1997 Chevy K3500 Duallie crew cab ... when I tested the empty truck I was getting 13.5 MPG. When I use the HydroCells I get 19.5 MPG (+44%)

-Jim
I have a 1998 Mitsubishi Eclipse RS 2.0 liter.... I was originally getting 26-27 MPG. ...now 35-40 MPG (+30%).
Last month we ordered a HydroCell kit for a BMW e34 520i. ... After installation WP mane about 4SOA, fuel savings and it works perfect.

-Losip

2002 Chrysler Town and country van (3.3 liter V6) ... Best this van did in the past was 19-21 MPG.... 30 mile loop with some traffic stops, produced 28.5 MPG (+36% ). ... And that is without any fine tuning. ... I feel sure I can get it up to 30-31 MPG with some minor adjustments.

-Carey, Georgia

2000 Volkswagen Jetta ... Before install city 14 MPG highway 18 MPG.... After install city 19 MPG (+29%) highway 23 MPG (+28%).

-Gerardo

Before install I got 28-29 MPG on my Mustang 4.0 liters V6 manual transmission.... I drove 335 miles and got 37.5 MPG (+29%).

-Eddie, Arizona

The three systems are mounted on a BMW 330 i 2004 that operated on petrol and LPG (propane), a 2008 Ford Fusion and a 2002 Ford Fiesta — both diesel.... We have already achieved a reduction in consumption from 20 to 25%

-Ermanno, Italy

I have a 2006 Toyota Corolla, 264,000 miles. ... MPG before the install was 30 MPG highway ... After the HHO gas install 55 MPG (+83%). ... I bought a Volo chip and that increased it to 65-70 MPG (+117%) highway.

-John Bails

1993 Plymouth Voyager 3.3 liter V6. ... 21% increase no electronics just HydroCell.

-Paul Bilek
I installed this on a 1997 Mazda Protegee….For my first initial trial run I have gained 9.5 MPG ... I have not even started tweaking the system yet, so far I am pretty happy getting 39.5 MPG. ... Most of my travel is highway miles. This is pretty amazing stuff, we had to fill our gas tank up every two and a half days and now it is looking like we may only have to fill it every four days and should get even better as I tweak the system.

-Dale

I own a 2004 Mountain Aire 39 Ft Class A motorhome with a huge 580 cubic inch gasoline engine. The mileage we were getting before the HHO was about 4-6 MPG. With a single HydroCell we jumped to a steady 8 MPG (+33-100%).

-Jeremy Scheehl

We converted a 1996 GMC Suburban 5.7 liter 350 to HHO ... before 12 MPG in the city ... 17 MPG on highway.... We are getting about 30 MPG (+76%).

-Mirk, Central America

2005 Jeep Wrangler Unlimited ... It works great. ... Average city with stop and go was about 12.5 MPG. ... One quick test before the install on the highway was about 15 MPG.... Now 23 MPG (+53%) with good gas.

-John, Nebraska

2005 Ford Freestar ... before 15.8 MPG ... after 43.3 MPG (+174%)

-Jack Gouverneur

I have already installed the unit on a 2.5 liter diesel (4 cyl) generator. It has already given a 20% decrease of fuel consumption.

-Ioakim Kampouridis

84 Honda Accord ... 26 years ... I use 94 octane fuel ... always have ... costs a few cents more, but the mileage is worth it. ... before installing your unit I was getting about 22 MPG in town and 32 MPG highway ... Now I get 36 MPG (+64%) in town and 68 MPG (+112%) on highway.... I ordered another one of these for my lawn tractor
2010 Toyota Tacoma 18 M13(2. EPA estimate to 24 MPG (+33%) at 73 MPH! More power, smoother.

-Rick McKean

I installed the 2008 Galant kit. Went from 24 MPG to 35 MPG (+46%) ... Very satisfied.

-Bill Taylor

2009 Hyundai Genesis ... 1,000 miles of testing ... before 22 MPG city and 35 MPG highway…… after 35 MPG (+59%) city and 52 MPG (+49%) highway.

2003 Dodge Ram V8 3/4 ton pickup ... from 12 MPG to 18 MPG (+50%)

2003 Dodge Ram Diesel 5.9 liter Turbo Cummings ... from 18 MPG to 35 MPG (+94%)

1993 Honda Civic from 24 MPG to 42 MPG; to 47 MPG.. (+75%)

1998 Toyota Avalon 3 liter V6 ... from 25 MPG to 36 MPG (+44%)

1997 Lexus 300 ... from 22 MPG to 38 MPG (+73%)

2000 Saturn Ion ... from 26 MPG to 51 MPG (+96%)

We can't tell you exactly how our system will do in your vehicle but we can tell you these results are typical.
**Getting Started**

Thank you for your trust! New Horizons is here to stay and we are leading the way in the "Hydrogen On Demand" industry.

The simplicity of the technology is as follows. Using a safe process called electrolysis the hydrogen and oxygen in water are converted from a liquid to gas. This gas, called HHO, is pulled into the engine through the vacuum or air intake.

The result is a boost in engine efficiency, thus saving fuel, cooling down the engine while drastically reducing emissions. The fact is your engine only needs a small amount of HHO gas to give you the results you're looking for. We are very excited about helping this new industry move in the right direction. We are here to help you and others get the miles per gallon you deserve.

When you purchase our product you become a lifetime member of our New Horizons family. That's an exciting aspect of our business. We want all our members to take advantage of it through the members' area. The online members area gives you access to our installation manuals, our videos and active links to products and other resources. You can visit our members area at [www.newhorizonshydrogengenerators.com](http://www.newhorizonshydrogengenerators.com)

Our family is here to serve you seven hours a day five days a week. You want to get the best results possible for your vehicle. We are here to help you do that and if you haven't purchased already we want you to do so right away because we can save you money. We maintain a data base with all the test results we have achieved here at our location and with all the feedback that people have sent us about their own vehicle installations. And they are happy!

We need your help as much as you need ours to take this new industry forward. Please send us any information you have on how you have used our product. If you are not getting good results, then you should take advantage of our tech support. Our tech support team works with you one on one to help you gain the very best results for your vehicle. We are always looking for members who would
like to start their own home-based business marketing all our New Horizons
products. The last chapter in this book will give you a brief explanation of how
this could work for you.
Our Story

We want to share with you who we are and why we created New Horizons. But you can cut to the chase if you wish to go straight to Installation Process on page 19. It all started in the spring and summer of 2008. Just like everyone else we were paying close to $4.00 per gallon for low grade gasoline. Our vehicle used to take $20-$25 to fill up. We found ourselves paying almost $60 to fill our small gas tank. This really put a dent in our finances along with everyone else trying to cope with high gas prices.

We decided to take action. I studied on the Internet and found water being used as a supplement to fuel. At first I did not understand the concept and found myself very skeptical. Then I remembered a science project we did in high school. We conducted this experiment with a bowl of salt water and two electrical current probes. Adding current to the probes - a positive current to one probe and a negative current to the other - we created what is known as electrolysis. Instantly a cloud of HHO gas arose from the bowl. Remembering all of this from high school triggered my belief. Now I knew electrolysis could and would work because we had already done it in science class.

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Electrolysis is chemical decomposition produced by passing an electric current through a liquid or solution containing ions. Electrolytes are substances that become ions in solution and acquire the capacity to conduct electricity. With electrolysis the two probes used are called the anode and cathode. The anode is the negative probe and the cathode is the positive probe. The hydrogen moves out of the solution to the anode and oxygen moves to the cathode in the process.

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As far as using this as a fuel though I was still unsure. So doing more research I found a lot of positive and a lot of negative discussion. We decided our only option to know the truth was to test the technology for ourselves. My father-in-law and I began building and testing HHO cells. We built one of the mason jar setups...
and placed it on his Toyota Canary. The next gas station we found ourselves
dancing a jig in the parking lot after receiving 85 MPG. You may be wondering
how such high MPG is possible. Our initial joy was short lived because that much
economy was too good to be true.

On the trip home our oxygen sensors picked up the extra oxygen.

This began our journey of learning. This Toyota is a 1989 and ran for years on
gasoline alone. We figured out that over time the engine had developed engine
gunk on the pistons and valves. We now know that HHO will actually use this
built up gunk as fuel because that is all it is, unused fuel. We learned how to
control the air/fuel ratio on fuel injected vehicles for HHO use. Along the way we
tried several different electronic devices for controlling this ratio. Most of the
devices we tried were junk which could never accurately and consistently control
air/fuel ratio. This is one of the main reasons for all the negative reports out there
claiming this technology does not work.

We began designing and testing different HHO cell designs. Like most people we
started out with wet cells. No matter how good the design of a wet cell they still
have problems. A wet cell is completely submerged in liquid. There is no
circulation so it runs hot and takes up a lot of space even with the small thin
designs. We saw several people using what is known as a dry cell design and
believed this was the future of HHO production.

We had several goals in mind while developing our HHO dry cell.
1. We wanted it to be small enough to fit on all vehicles.
2. We knew it had to be powerful enough to supplement all vehicles on the road.
3. We definitely were going to make it out of only the best materials
4. We wanted to bring our HHO dry cell to market as inexpensively as possible.

We met and exceeded all our expectations on the way to developing our
HydroCell. As a matter of fact we did such a good job people began to copy our
design immediately. They say imitation is the sincerest form of flattery.
But they do not know the secrets. They do not know the three step process our steel goes through to create as much HHO as our HydroCell produces. They cannot get their cells to circulate nearly as well as our design.

We want to keep this technology as green as possible that's why we produce our nine plate design. We tested every HHO dry cell design that we knew possible and this design was clearly the most economical. We continually see great results and have not had any major problems with any of the HHO HydroCells we have produced. There are a lot of myths floating around about HHO dry cells, but the biggest myth of all is that they don't work. Our family started this whole project to help the average person save fuel on a daily basis. We know first hand how it is keep up with rising gas prices. So go ahead and set yourself free. Don't be held hostage by high gas prices ever again. I started out a skeptic. But I was a skeptic willing to dig out the facts. I am converted! And if you give yourself a chance you will be too. Be proactive and let us help you convert your vehicle to a hydrogen hybrid today. Let’s get started!
Product and Process Explanation

If you already are convinced and good to go, just jump to the next section on the Installation Process on page 19. But you might want to read this to encourage you along the way.

You are going to have some friends who think you are crazy for trying this. They may laugh at you now but the last laugh will be your own when you start saving outrageous amounts of money on fuel. You can't get something for nothing. Most scientists end the discussion before it starts based on that fact. And so HHO proponents barely get a hearing. But there are other factors to consider. It is of course incomplete science if all factors are not taken into account. IF something works in spite of the known variables, true science will look for the hidden elements.

The hidden element usually overlooked in using HHO as an on board fuel assist is the fact that there is an abundance of excess energy available on your car right now. Your alternator charges your battery from the power of the engine running. There is so much excess energy you can power your headlights, run your air conditioner and have your windshield wipers on all at once with no problem. You can use the excess energy in your vehicle to power a large radio system with subwoofers. So who cares if it takes some of your energy to produce HHO, you already have an excess on your vehicle not being used. This is why HHO fuel assists fits so perfectly with our current vehicles. We use a small amount of the extra energy already available to power the process to produce a clean, usable fuel.

Only those with an open mind listen carefully to these additional facts. The internal combustion engine is very inefficient. Most will concede that tact. It it were possible to increase that efficiency we could all save fuel and thus money. Clearly, it is possible. Vehicles today are much more efficient than they once were; that is common knowledge. In the year 2000 the calculation for the average mileage for passenger vehicles in the United States of America was 21.9 MPG. By 2008 that was up to 22.6 MPG (+4.7%). However, there is still a great deal of room for improvement. HHO is one place to look for improvement.
The need for alternatives is front and center in public consciousness but we are years away from some of those alternatives becoming commonplace. The new alternatives such as hybrid gas/electric or electric cars are still expensive. And there is no possibility to retrofit all the existing vehicles. The need for alternative clean reusable fuels is today's major crisis and we can help solve it by getting the word out.

In 2008 the average passenger car in the United States traveled 11,788 miles and consumed 522 gallons of gasoline yielding 22.6 MPG.* If each of those vehicles had our New Horizons HydroCell system in operation and received a modest 25% improvement to 28.2 MPG average, each car would save 104 gallons of gasoline on average. Even if we averaged $3.50 a gallon that would mean a saving or enough fuel in one year to pay for our basic kit. Our reports show that many users get much more than a 25% improvement. This is doable now! We don't have to wait for things like the new pure hydrogen vehicle to make a huge difference.

There can be no doubt that invention always proceeds through a series of trials and failures before success. Some get to the market too soon and create the illusion that all kits belong in the trash with hundreds of other claimed inventions that don't work. Imagine how many failures Thomas Edison went through and the ridicule he endured before he created a serviceable light bulb. How about the wacky idea that you could send your voice through a wire? Or better yet talk on a phone with no wires to some one in China and be able to speak to them in real time.

The inventive process will always face ridicule but someone must see value in the vision despite of the ridicule. That is the phase we are in with HHO generators for vehicles. Some systems work better than others; some don't work at all. But in terms of mainstream acceptance, none are widely endorsed. There are lots of people who will tell you why this can't he done. This doesn't mean there isn't a system that works. There is. I have it in my vehicle and soon you will have it in yours! Here are four basic facts to keep in mind about the HHO advantages. These facts all combine to make HHO a sensible alternative for those -with an open mind who want to save a pile of money and help clean up the environment.
1. There is no need for a storage system on board for volatile liquids, gases or electricity. H140 systems are not like natural gas, propane or electric systems that require you to have a way to move the fuel from somewhere, into the vehicle through a hose or wire. This is a critical point. All you need is water with the right substance added to make an electrolyte solution. With KOH (potassium hydroxide) and water in a small reservoir similar to your windshield washer fluid container you are good to go. The fuel is made from this simple non-volatile water and chemical mixture. There are substances other than KOH that could be used to create the electrolyte mixture but we have found that they leave a flaky residue over time.

(Single cell HHO kit)

2. The alternator of the vehicle is already producing sufficient extra electricity to run through the system and break down the water molecules into two gases. Those two gases are hydrogen and oxygen.

3. If you throw a match into gasoline it goes boom! If you put a match to water and KOH it just fizzes.

4. Your vehicle doesn't actually run on gasoline. It runs on a mixture of gasoline and air. The carburetor or fuel injection system sprays the gasoline into the air to make a gas. That gas explodes inside your engine thousands of times per minute when small sparks from the spark plugs ignite it.
Now the question still remains about what is going on to make a good HHO system work. Here are some of the facts to consider.

1. The alternator in a vehicle makes an excess of power. The HHO generator only uses some of the extra capacity while the vehicle is running. This is analogous to your headlights. The vehicle doesn't slow down or fail when you turn your lights on. You are not aware that you are using extra energy which ultimately comes from your fuel tank because you are not taxing the system. It is another matter if you leave those lights on once the vehicle is stopped! Our HHO system draws power only when the vehicle is turned on.

2. Every internal combustion engine sucks in air from the atmosphere. That air contains nearly 80% nitrogen which is useless to the vehicle. It also contains around 20% oxygen. That is the gas the fuel mix uses. (There are trace amounts of other gases in the air such as argon, carbon dioxide, krypton and other gases but these amount to only about 1% in total.) All we are doing with a good HHO system is putting better "air" into the fuel —that is "air" that is much more useful for combustion.

3. Because HHO gas is simpler in construction than the gasoline molecule, it burns faster and acts as a stimulant to ignite the gasoline sooner and more completely.

4. The mixture's higher oxygen content allows more of the gasoline to burn, which also increases efficiency. It is like adding wind to a fire. The combustion consumes other material in the cylinder such as excess lubricants and carbon residue resulting in cleaner engine combustion chambers.

5. HHO combusts at a higher rate than gasoline so HHO allows you to use more of your fuel. When HHO is not in use the extra unused fuel going through the engine is known as blow by. This is the engine gunk which forms on your pistons.

6. An HHO converted vehicle creates less pollution because the regular fuel burns more efficiently since it is combining with "air" that is more valuable for combustion so you can burn all your fuel. A more efficient combustion cycle allows you to use less fuel at the same throttle setting. Also, the efficiency increase allows a lower throttle setting for a
given horsepower production and therefore reduces the fuel consumed for traveling a given distance.

7. This increased efficiency reduces pollutants such as hydrocarbons, carbon monoxide and nitrogen oxides that would otherwise come out your exhaust.

Every vehicle on the road is inefficient. Adding to your air intake system increases this efficiency dramatically. This is how you can expect about a 30%-50% MPG increase with the right system.

**HHO is three atoms. Specifically there are two hydrogen atoms which end to pair up as one molecule and one oxygen atom. They are not chained together. Hydrogen burns at 560°C. Oxygen on its own will not burn. In a vehicle you need fuel such as gasoline, diesel, propane, or hydrogen. When a spark and compression are added the mini-explosions necessary to make the engine work are created. The liquid used to produce HHO won't burn if you throw a match at it. But please, don't try this part at home!**

It takes energy to create the electricity to break the water down into hydrogen and oxygen. Some would argue that it takes more gasoline to create that energy we have to put in to get enough hydrogen out to add additional value. However, when you consider the efficiencies we just covered, that argument breaks down because all of the factors mentioned create additional efficiency in the entire system so the gasoline is not wasted but utilized to a higher degree.

One of the secrets many have missed is that a good HHO system has to trick the computerization of the vehicle. This part is called the ECU meaning Engine Control Unit. In broader terms ECU may refer to Electronic Control Unit. Your vehicle can't understand this new efficiency and will readjust itself to push more fuel into the system than the vehicle needs. This can eliminate all the gains of the HHO generator if the electronics aren't carefully tweaked.

Most modern fuel injected vehicles use such 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. Fuel injected vehicles have
one or more oxygen sensors installed in them. The computer determines what the air/fuel ratio is, based on the amount of oxygen in the exhaust, as reported by the oxygen sensor. When a HHO generator is installed, the petroleum based fuel is burned more completely. One of the results 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 an undesirable condition with not enough fuel in the mix. The computer will direct the fuel injectors to increase the amount of fuel pumped into the engine. The end result is that the oxygen sensor and computer prevent efficient combustion from occurring because the computer is pre-programmed by the manufacturer for a different set of conditions. It mistakenly will cancel out most of the improvement we have just made. With supplemental electronics we make the necessary compensation to keep the ECU happy.

What we are about to show you is amazingly simple science but it has escaped the vision of so many who want to make this more complicated than it is. We are going to use an electrical process to break water down into its constituent parts. You know that water is \( H_2O \). That is one molecule made up of three atoms. We are simply going to use electricity to separate them. Then the individual atoms which are all gas are going to appear as big as big bubbles coming up through what looks to be pure water. The water has an extra component because the electricity we put through the water won't break down the water without it actually being an electrolyte solution. Those bubbles are like air; they are odorless and colorless.

Gasoline is made of a mixture of hydrocarbons, which are molecules composed of carbon and hydrogen atoms. Typically, in gasoline there are eight carbon atoms along with 18 hydrogen atoms forming each molecule. On average diesel fuel is 12 carbon atoms and 23 hydrogen atoms per molecule. If you throw a match at gasoline it will burn; diesel fuel won't because it requires compression as well as heat. Don't try this at home!
If full combustion takes place, the products are carbon dioxide and water. This ideal is not achieved in a vehicle engine. Gasoline burns at about 260°C in air. Propane by contrast is a molecule of eight hydrogen atoms and three carbon atoms. It burns at around 540°C. Methane (natural gas) has one carbon atom and four hydrogen atoms per molecule. It burns at about 1650°C. These are only general concepts because many factors can change the way these fuels respond. Factors which may cause variation include partial pressure of oxygen, altitude, humidity and the amount of time required for ignition. The flames produced are much hotter than the ignition temperatures suggested here which are approximations of auto ignition temperatures or kindling points.

Just for comparison purposes the phosphorous on a wooden match starts to burn at 1600°C. Then the match settles back to the temperature of wood burning at about 270°C.

We are going to feed those bubbles into your combustion process in place of some of the air you would otherwise be using. Because this "enhanced air" has a gas (hydrogen) in it that will burn at a very high temperature. The new air can actually burn. In the end you are going to turn your vehicle into a kind of hybrid. For a vehicle it would take a major mechanical conversion to run completely on HHO. It is possible but impractical. So practically speaking we still need the gasoline, diesel fuel, propane or natural gas. However, with a smaller engine like a riding lawn mower it is possible to make it run completely on the hydrogen without any other carbon based fuel because the engine runs at a steady rate of RPM’s (revolutions per minute)

We have videos of cars with the complete conversion to run on only HHO. There is also a video of a lawn mower running on only one of our HydroCells. You Will not be using much water at all compared to gasoline. It only takes a quart of water to supplement your vehicles fuel for hundreds of miles. The hydrogen you will use comes out of the water moments before it is burned. There is no storage tank. There is no pressurized system as with propane. It is a lll simple and safe. The big boys are working on hydrogen cars but they currently seem to be
stuck on the idea of filling a tank on board with hydrogen even if they do collect their hydrogen using electrolysis just like we do. And of course, they have to create filling stations. All we need is a gallon of electrolyte in the trunk in case of a need to refill on the road.

Our product is better than any other alternative because of our careful testing and tweaking to optimize the system.

In summary, here are a few facts that make us stand out. Our technology uses a unique three-step process with our steel to assure the best performance over the short and long terms.

We optimized our design to make the Hydro-Cell as small as possible and at the same time produce as much HHO as possible. All the HHO liters per minute tests we conduct are completed from a cold start with reasonable amperage to approximate real use. We do this to provide the most accurate HHO test possible. We don't exaggerate output by running the amperage up too high. That would stress the vehicle if you used high amperage in real world situations.

Before releasing our HydroCell we performed thousands of tests and found our nine-plate design to be the most productive and most efficient. When you add more plates than that it restricts the flow of the liquid and requires twice the electrolyte. This extra corrosive electrolyte is not good for the HHO dry cell. We strive to keep our HydroCell kit technology as green as possible and we will always do so. We are bringing the absolute best HHO dry cell technology to market. We want you to be proud and confident when you recommend our products to your friends and family.

When you get your system installed you will be able to tune it to run optimally for your vehicle. Every vehicle is a little different. Once you get the recipe right you will love the fantastic fuel savings, the cooler quieter engine and the peace if mind knowing you are doing your part to cut down on the pollution of our environment.
Safety Precautions
Incorrectly installing or incorrectly using our HydroCell 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 gloves and only use professional tools. Use common sense and general safety procedures used for automotive installations and maintenance. If you are not sure, ask!

Do not let people who have no understanding of the system intimidate you or tell you this can’t work. HHO is combustible, but what the HHO your HydroCell will produce is used by your engine immediately. Your New Horizons system does not store hydrogen when installed properly, so there is no fire hazard due to hydrogen storage. The electrical components to the system are carefully engineered to assure safe conditions when installed properly as described. As with all electrical adaptations in vehicles, if you incorrectly install the system it is possible for you to create an electrical fire hazard.
Installation Process

In this installation section we will walk you step by step through installing the New Horizons kit. If you are reading this book to understand the potential of Hydrogen as a fuel assist you will enjoy reviewing this section as it shows exactly how simple this technology is.

We will show you in detail how to install each part. Actual installation will take about three hours exclusive of reading and planning time. You are not alone! You may always contact us with any questions you have along the way. There are a few major components to a complete kit. These are:

1. Water Reservoir or Bubbler (We will use the word reservoir even though this tank also bubbles the gases toward their end use.)

![Reservoir](image1.png) ![Cell](image2.png)

2. Dry Fuel Cell (HydroCell is our term and when we refer to our specific product we will always use that term in this book.)

3. Electronics (We have two options to explain here but that comes later.)

There are several minor but essential components such as hoses, clamps and wires to hook everything up.

Then there is the water. But water without an added substance to create the electrolyte solution will not work by itself.

To give you a head start purchase some KOH flakes. We recommend only using KOH (Potassium hydroxide) in flake form and Distilled water.
I usually locate KOH within driving distance or within the state by searching the Internet; this helps a lot in shipping cost.

Using Google or another search engine type "soap maker koh + your local area or state". Raw materials are another great key word. We normally are able to find a few options this way.

Otherwise, www.essentialdepot.com will supply it. 4 lbs. is a good amount to start with.

Installation on gas and diesel engines is very similar. Where there is a difference it will be noted with bold type for diesel. The same will be true for the dual HydroCell install. The bold type will guide you to the additional steps.

**Step #1: Read the Manual**  
**Time Estimate = 30 minutes**
For best results read through the entire installation manual before attempting to install the kit; it will save you time. For ease of understanding and installation we have broken the install down into several steps. The pattern we use is to encourage you to plan out exactly what you are to do next and then do it. You don't have to know the whole plan when you start but you will have much more confidence if you read the whole manual first. Some of the fuzzy things will become much clearer if you are patient with your reading. Always refer to any pictures or diagrams that will be placed near the text at the point you need to refer to them.

If you are a mechanic or familiar with working on vehicles you can scan the manual more easily than the novice. We have intentionally included detail here to make the installation as simple as possible for those who do best with precise instructions.

**Step #2: Plan HydroCell and Reservoir Installation Locations**  
**Time Estimate = 10 minutes**
After you familiarize yourself with your New Horizons kit and installation manual, make a plan for how you will mount your system. You will want to find a location that will work best for your vehicle.

The first part to review is the plumbing of your HydroCell, reservoir and hoses. The idea is to find a vacant vertical corridor with the footprint of your reservoir that runs from just under your hood down to the frame of the vehicle. The reservoir will be mounted at the top of this space. The HydroCell will be mounted directly below it about 12 inches under the reservoir. A dual cell installation needs a 16-inch drop.

Be sure that the reservoir is installed where you can access it to add liquid from time to time, similar to adding windshield washer fluid. This system works off of gravity and will not work properly if it is installed on angles or in different positions. Your HydroCell should have a 12-inch drop from the bottom of the reservoir to the top of HydroCell. Any more or less of a drop will effect the circulation. In a dual HydroCell installation the two HydroCells will be plumbed together as in the picture.

Gravity feeds the liquid into the HydroCell through one hose and the gas bubbles back up through the other hose and bubbles through the liquid exiting the reservoir from the top hose.

The HydroCell is the heart of the system. It generates the HHO gas. You will need to find a place in the engine compartment to mount your HydroCell. It should be mounted and secured in such a manner as to assure that it cannot bounce around when the vehicle hits bumps. Your HydroCell comes with mounting holes which make it easier to install. Be sure to install it so that you can access it and inspect, clean and service it about twice a year. Many people mount it on the frame under the vehicle. Consider a location in front of the radiator. There is often ample space between the radiator and the grill down near the bumper. This could mean you need to undo a few screws to remove part of the grill so you can access the space. The reservoir can be mounted on the other side of the radiator as long as you keep the hoses as vertical as possible.
Steel strapping used to hang plumbing may work or you could use large stainless steel gear clamps or other general purpose brackets. These are available at your local lumber store. Find an inexpensive, bendable and easy to use solution. Plan to install your HydroCell as far away from the heat of your engine as you can. We cannot give you an exact number here for what is too hot because there is a combination of heating factors such as weather, engine, and the electrolysis process itself.

If you are unsure about where to mount your unit ask for tech support and we will work it out with you.

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**Why is the fuel cell called "dry" when there is liquid in it?**

Good question! With the other kind of HHO generator the whole cell is sub-, merged into an open bath of electrolyte solution without a separate reservoir. The water in HHO dry cells is held in a reservoir above the cell. This allows the liquid to circulate through the HHO dry cell and back to the reservoir. This acts like a radiator cooling the water before it returns to the HHO dry cell. Not only does this make your HHO dry cell run cooler but also it allows your HHO dry cell to be more efficient. Although submerged wet cells had their day and were valuable for HHO experiments they are no longer cutting edge HHO technology. HHO dry cells run cooler and more efficient than HHO wet cells.

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We have many members in frigid parts of the northern US, and Canada. There is a lot of great information across the web to keep your solution from freezing. If you allow your Hydro Cell to freeze it will push out the 0-rings and damage the cell. The best thing you can do to keep your system from freezing is to go to your local Lowe's or Home Depot store and get some Yellow "Multi-Purpose Fiber
Glass Roll". It comes in a 2" Thick x 16" wide x 48" roll. Then wrap your cell and the bubblier at least three times around. Just leave your cap exposed. Completely cover your cell; you don't need to see it. Don't be afraid to use too much fiber.

This is what plumbers use under houses to keep pipes from freezing. I cannot guarantee you won't have a freezing problem if it gets way below freezing, but this has worked very well in most cold weather states. If you live in a really cold climate we have some members who have used this approach. Purchase a small fish tank heater and install this on your tank or under your cell. Use a power converter to plug in your heater. You can still need wrap your cell for additional protection if needed.

I personally think this one is the best solution: "BATTERY WARM-ERS" are being sold online for as little as $19.20. Battery Warmers from InfinitiPartsPeople.com or www.JCwhitney.com work on 110 volts, while Warming Pads from www.PadHeaters.com are good for 12 volts.

Both types of warmers take little energy (about 60 Watts) so you can keep it on all night. Wrap the battery warmer around any water-holding device in your system. You may also wrap the device WITH THE WARMER with Mylar® or aluminum foil to minimize heat loss. Disconnect the warmer before driving, because the Hydro Cell will keep itself warm when active. The heated pipe wraps work as well. New Horizons is not responsible for damage cause by freezing. Freezing
weather is the only thing that will cause the o-rings to fail on the HydroCell. Please take precaution to eliminate this problem before it occurs. Some members choose to just drain their system in extremely cold temperatures.

Once you have your plan in place you are ready to move on to the actual install. We will get to the electrical part of the install at Step # 7. If you are planning on a tight location you may wish to attach the wires and hoses before you finally attach the HydroCell and the reservoir to make things easier.

Another method to prevent freezing is to use a PWM to control your amp draw but be able to add much more KOH. The KOH acts as an anti freeze. If your temps are getting below ten degrees you need to be able to prevent your system from freezing.

Step #3: Install HydroCell(s) Time Estimate = 30 minutes

Now that you know where you are going to place your HydroCell you can prepare for installation.

In many cases there are convenient existing bolts under the hood of your vehicle, possibly on the frame, that you can use to mount your cell. However you may need to design your own attachment mechanism. It is impossible for us to predict what you might need and thus include it in the kit. Wherever you attach the HydroCell you will need to assure that it cannot come loose over time and that it is in an upright position. The liquid cannot flow properly if it is not.

You may wish to pre-attach the appropriate length of hoses to the HydroCell before you actually mount it. Be sure to use the hose clamps supplied. You must use hose clamps on all the connections where there is liquid. There are the correct number of clamps supplied in your kit.

(Flashback Arrestor)
You will need to have access to the electrical connections on the HydroCell as well. We will discuss this later but you may wish to attach the wires in advance of permanently attaching the HydroCell to the vehicle.

**Step #4: Install Reservoir**  
**Time Estimate = 30 minutes**
Use the mounting holes on the reservoir to mount the reservoir directly above the HydroCell or as close as possible. Assure there is about 12 inches of space between the bottom of the reservoir and the top of the HydroCell. This separation is easier on larger vehicles. If you are unsure about the best plan, ask for tech support. Don't be shy! We are here to help. Our success is in your success.

**Step #5: Plan HHO Connections**  
**Time Estimate = 10 minutes**
The hose connection off the top of the reservoir is used to introduce the HHO produced by your HydroCell into the air system of the engine. There are several options.

But first, some logistics. We will not be using clamps on the hose that delivers the HHO gas because the vacuum in the system will hold the parts together and they are a snug force fit in the first place.

From the top of the reservoir the HHO must go into the engine in such a way as to replace some of the air normally used to mix with the fuel.

Generally speaking, air is about 20% oxygen and 80% nitrogen. All the other gases and pollutants squeeze in the crack between those percentages. All we are going to do is change the "air" by adding more oxygen and the hydrogen. The hydrogen will combust along with the carbon and hydrogen supplied by the regular fuel. The oxygen doesn’t actually burn but it must be present for combustion to occur in the engine. Because we are adding more oxygen it messes with the vehicle's brain and we have to solve that with electronics but that comes later.
The HHO will come out of your reservoir and go along the hose across a drain too. This removes any possible moisture that could get into the hose instead of allowing it to go into the engine. The drain tee has a shut off valve at the bottom. The next stop along the route is the flashback arrestor or check valve. This flashback arrestor is added to the HHO hose in the un-likely event that a backfire flames back up the hose. This will keep the flame from reaching the reservoir.

Do you remember from high school science that hydrogen is the lightest element on the periodic table? So it naturally rises in air. Oxygen is slightly heavier than air but both gases float along the hose by suction from the engine and leave any moisture to fall to the bottom.

Your HydroCell kit is designed to introduce the HHO gas into the engine through your air intake. Once in operation the hose will be full of HHO ready to enter the engine.

Insert the HHO into your air intake tube. The large tube running into the engine via the fuel injection system is the air intake tube. Insert the HHO hose into this tube as close to engine as possible and on the under side (bottom) of your air intake tube because the gas likes to rise. There is a 90 degree 3/8” hose barb supplied in the kit for this air intake insertion.

(Tee Barb) (Hose barb 90 degree)

The process for installation on a diesel engine is the same as the third option above. When connecting the system to a diesel vehicle the only line available to
insert HHO is the air intake line. Connect as close to the engine as possible and on the underside of the air intake. Generally a diesel will have a turbo. If so, connect pre-turbo but as close to the turbo as possible. You need suction on your HHO system - never pressure.

*Hooking to the post turbo part of the tube would be on the pressurized side and could result in injury to you or damage to your system.*

**Step #6: Install HHO Hose**

Time Estimate = 10 minutes

The HHO hose included with your kit is the same quality as used on fuel lines. You will have ample hose length to complete your install. Since you have mapped out the route from your reservoir to the entry points to your engine you will easily be able to measure the correct length.

Install the hose from the reservoir to the entry point first. Allow enough hose length so you can cut the hose and insert the drain tee in a place where it is accessible for you to see. This will allow you to let out excess water from time to time using the shut off valve at the bottom end.

*Be sure you keep your hose securely away from all moving parts and locations with extreme heat.*

Install the flash arrestor in the HHO hose by cutting the hose in a similar way. Be sure that you install the flash arrestor (check valve) so that the flow is open so the HHO gas can flow to the engine. You will be able to blow through one side of the flash arrestor with ease; you will not be able to blow through the opposite end.

*Make sure that the flow through your flash arrestor is going to-ward your engine.*

This 3/8" flash arrestor will stop a possible backfire into the reservoir. This valve will most likely only stop one backfire. If you have a backfire you will have to replace it with a new one.
Step #7: Plan Your Main Wiring

So far we haven't touched on the electrical part of the installation. Now we must prepare to deliver 12 volts and up to 30 amps of electricity to the HydroCell. In order to do this we use 10 gauge wire. This wire is thick so that it won't overheat when drawing power at the maximum.

Study the accompanying wiring diagram for your kit. There is a diagram for a single cell install and a dual cell install. We will take this one step at a time but first familiarize yourself with the wiring. Decide where to mount the additional components. Plan where you will run the wires.

Ohm's Law defines the relationship amongst four electrical factors. For our purposes the two we mention are volts and amperes. Volts are a measure of the push or pressure behind the current flow through a circuit. The voltage in a vehicle system stays near 12-14 volts at all times. The amperes (amps for short) are a measure of current or the amount of electricity that flows on a wire or conductor like the amount of water flowing down a river.

Each component in a vehicle that draws electricity draws a different amperage. We assure that the wiring in our systems is thick enough to take the current required. If the wires were too thin another element in Ohm's law would become relevant to us and that is resistance. If there is too much resistance in a wire it overheats. The lower the number on the gauge of a wire the thicker it is.

Your kit includes a length of red 10 gauge wire and a length of black 10 gauge wire. The black wire will go from the terminal on the HydroCell that has a black wing nut ultimately to the ground terminal on your vehicle battery after passing through your ammeter apparatus.

Your HydroCell will be drawing power directly from your battery through the 10 gauge red wire. Starting from the positive terminal on the battery, the red wire will
run through the bladed circuit breaker that looks like a fuse, in and out of the relay and meet up with the other terminal on the HydroCell with the red wing nut.

Instead of a standard auto fuse we use a bladed auto reset circuit breaker. This will shut the system down in the event the current goes over 30 amps and resets itself in around 10 seconds.

(10 Gauge)                                                            (Fuse Holder)

The term relay may be new to you. The relay allows us to use a small current from one source with a thinner 18 gauge wire to turn on the full power in the 10 gauge wire. The relay has a built in switch to do this for us.

Examine the diagram to understand this flow. But of course, it won't actually look like this in your vehicle.

The ammeter must be located inside the passenger compartment where it can be seen while you drive. To achieve this we will drill one hole in the firewall on the driver's side of the vehicle. Find the easiest location to avoid hitting other active wires. Decide where to mount the ammeter on the inside of the vehicle where it can be seen by the driver but not so that it obscures other instrumentation or switches. Generally, somewhere near the driver's left knee works out well.

You need to be able to access the fuse holder on the red wire in the and working your way up till you have reached a PEAK, or "sweet spot" for your vehicle.
We are getting great results with our kits. Some come right away, and some have required some fine tuning. Either way, if you need any help, have a question, or want to give us feedback to better the industry, our phone is always on 9am-5pm Monday through Friday EST. Give us a call, we are here to help all of our members get results.
Trouble Shooting

1. **My HydroCell is not producing bubbles.**
First check all power connections and ensure you are getting power to and through all your connections (battery, pre and post fuse holder, pre and post relay, HydroCell).

If you verify your HydroCell is getting power ensure the ground (black wire) is connected to a good ground location. The best location is the negative terminal on your battery. Verify that all connections are snug. Sometimes it appears to be a good connection but still no grounding occurs. If this seems to be the issue because you are producing too little HHO, then remove this ground connection and ensure it is grounding properly by cleaning/roughing up the connections with a wire brush.

If the power and ground connections are correct, the only option left (if there are no bubbles coming from the HydroCell back into the reservoir) is failure in the electrolyte solution. Be sure you are using 2 teaspoons of KOH per one quart of distilled water. Also be sure you mix this solution in a separate container and then pour into the reservoir.

If you pour water in your reservoir and then add KOH the cell will not work. This must be mixed before pouring into your reservoir to ensure the correct electrolyte ratio is getting to the HydroCell.

2. **My reservoir is deforming or collapsing.**
See "My system is experiencing too much vacuum."

3. **My system is experiencing too much vacuum.**
Your kit has an additional on/off valve provided with kit. This is the valve used in the drain tubes. Cut your hose going from the reservoir to the engine vacuum between the filter and the flash arrestor. Now insert this on/off valve and rejoin the hoses to it. This will allow you to adjust exactly how much vacuum is getting to
your reservoir. Also drill a small hole (as small as you can) in the reservoir cap to allow air to come in.

4. My ammeter is reading incorrectly.
This happens if the ammeter is experiencing electromagnetic interference. Do this. From the ammeter to shunt there are two wires (yellow and green). Make these as short as possible and braid these together then reconnect. If the ammeter is still not reading accurately use a wire cover designed to deter electromagnetic interference for these wires.

5. My electrolyte is changing color.
Be sure you are using distilled water and a good pure KOH (above 90%). If you use any other water besides distilled, any chemicals or minerals will burn up in the electrolysis process causing discoloration.

If your electrolyte solution is correct but discoloration is still occurring, this means your KOH is burning up. This is a sign your cell is not circulating well. This will not occur when the circulation is correct. You can improve your circulation by adjusting your hoses. Be sure you are getting a 12 inch drop between the reservoir and the HydroCell. More or less than this designated drop will prevent the HydroCell from circulating correctly. Also be sure our drop is straight down to the HydroCell and not on an angle. On some applications it is impossible to get all these factors perfect. In this case you can use a small pump to circulate the electrolyte properly. You can find several of these by typing in “HHO pump” in the eBay search engine.

If your electrolyte has burned up you will need to flush your system.

To flush you system start by emptying your reservoir. To do this, use a turkey baster or a similar tool that can suction out the electrolyte mixture. Then unhook a hose from the bottom of the reservoir. Dismount the HydroCell and empty it out. Then hook the hose back up and put one part bleach to two parts water solution in the reservoir and HydroCell. Let this set for several hours then empty both the
same as first time and then refill with electrolyte. You may also use white vinager to clean your cell.

6. **All the water is out of my HydroCell and reservoir and there is an o-ring which has visibly moved.**
   This means your cell has frozen. The frozen water has expanded and developed a condition so your o-ring could move out of place.

7. **Everything seems to be installed correctly but I am not getting an increase in fuel economy.**
   For HHO to work correctly all your factors must be just right. More than likely something simple is not correct and this is normally an easy adjustment. This could be from a variety of factors. Be sure you keep good accurate MPG tests conducted under the same conditions. For instance, a different number of red lights or stop and go traffic can greatly vary your test. The most important thing you can do is to note if your MPG is staying exactly the same, increasing slightly or decreasing slightly. All three of these conditions require different solutions so keeping accurate MPG tests is the easiest and most accurate way to determine the adjustment needed for your vehicle. Contact us here on newhorizonshydrogengenerator.com and let us know which of these three test conditions you are experiencing and we will work with you to get this issue corrected.
FAQs

1. QUESTION: How do I refill with water and how much?
   ANSWER: The HydroCell has a removable cap for easy refill. Just add your mixed electrolyte to the bubblier/reservoir you are using.

2. QUESTION: Will I still get the same power I have come to expect from my vehicle?
   ANSWER: Yes, Adding HT-TO to the fuel system on an internal combustion engine increases the combustion of the gasoline (or diesel). This can be compared to putting a super high grade of gasoline in your engine. You will get better overall performance, increased horsepower and gas mileage. You can expect 30-50% increase in gas mileage. It will all depend on the type of vehicle, engine size and driving habits.

   (Important Note) You must fool the computer on all vehicles that have fuel injectors. If you don't do this, you might see a couple MPG drop after the computer picks up the extra oxygen.

3. QUESTION: Is it difficult to install?
   ANSWER: No, it is very simple. All our cells and kits have complete detailed installation instruction located on our members’ website. Along with our installation video. The procedure is pretty straightforward and we have good pictures, so it should not take longer than a few of hours.

4. QUESTION: Where should the HydroCell be installed?
   ANSWER: Anywhere in the engine compartment that is lower than the bubblier/reservoir you will be using, but preferably in a place where it will have a constant airflow (like in front of the radiator).

5. QUESTION: What happens if my HydroCell runs dry?
   ANSWER: Your HydroCell can be damaged if ran for a long period of time dry. The easiest way to prevent this is to keep a gallon of mix in your vehicle and simply top off reservoir when refueling.
6. QUESTION: Do I need a PWM for your system?
ANSWER: You can control your amperage by your mix and can be viewed any time through your amp gauge without using a PWM. However a PWM is a nice addition to easily adjust your cell's amp draw in the cab of your vehicle with the turn of a knob.

7. QUESTION: If I run my vehicle with the HydroCell, will I get rust or corrosion in my engine?
ANSWER: No. When HHO burns and converts back to water, the engine temps are high enough to keep it as a vapored steam until it exits the exhaust. A little moisture is actually good for your engine. There are several water injection system available for vehicle conversions today.

8. QUESTION: What happens if my water turns brown?
ANSWER: Simply flush unit with bleach water solution. This should not occur but every six months or so. When water is brown it is simply used KOH. If you have your cell circulating well this will not occur.

Members noted that running a mixture of white distilled vinegar through the system while the unit is running (cap off) resulted in a nice cleaning effect on the system. Run for 5-15 minutes at most. And he cure to cleanse the system afterwards.

9. QUESTION: Do I need to turn the unit off when not in use?
ANSWER: No. If you have followed our manual, then your unit should be connected to the ignition switch so, every time you turn the engine off, the unit will turn off with it.

10. QUESTION: How do I service/clean my HydroCell?
ANSWER: It's very simple. Just flush the unit once every six months with bleach water solution.
11. QUESTION: Will It Void My Warranty?

ANSWER: Your car or truck is being damaged right now by un-burned fuel! Our technology will help not only eliminate carbon deposits caused by unburned gasoline but will actively clean out your engine every time you drive. Over the first few weeks you will notice that the engine becomes smoother and smoother. Then it will level off at a new level at which the engine continues to steam clean itself.

Your new HydroCell makes the engine quiet, and calm. The engine stops knocking or "pinging". The hydrogen changes the combustion cycle into a more even or "round" cycle. This happens immediately upon installation, and from that moment on, your engine works in a new way. The effect is not only less noise, it also has less vibration, resulting in reduced strain on the transmission (thus smoother gear shifts), cleaner pistons and valves, and generally better engine operation.

Water cools down the engine. For years, heavy trucks have been using water injection systems that cost up to $15,000 to cool their engines. Truck owners are very sensitive to maintenance expenses and they know from years of experience that water reduces their breakdowns and overall operating costs.

Our Dry Fuel Cell system will widen the torque range and make vehicles accelerate faster. After acceleration, you don't have to press the gas pedal as much to keep going. Trucks pull better uphill with HHO Gas. Less strain on that Detroit diesel engine must result in less wear and tear over the life of the engine.

Our technology does not change your vehicle's engine or computer, so if you ever decide that you don't want this system, you can un-hook it in less than a minute and your engine is just as it was - only cleaner!

You can always consult your warranty's outlines if you are unsure or worried.
Fuel Saving Tips

You care about saving fuel; that's just why you are here!

Perhaps you already know some of these things but a helpful re-minder might not hurt. There is no one complete answer but there are a series of things you can do.

1. Be sure your vehicle is in good working order before installing your New Horizons HydroCell kit.

2. Be sure all scheduled maintenance is done including replacing the oxygen sensor after the designated mileage for your vehicle.

3. Slow down! Studies show aggressive driving hurts fuel economy by as much as 30%. Set cruise control and enjoy the ride. Let the vehicle pace itself up to cruising speed. Jack rabbit starts are part of the problem not just the traveling speed.

4. Check your tire pressure. Maintaining correct tire pressure not only improves economy, but improves safety and reduces tire wear.

5. Clean out your vehicle. The extra junk rolling around in your vehicle can easily add up to 50-100 pounds. This extra weight results in more load for the engine to carry and thus lower fuel economy.

6. Get a tune up. An engine tune up will improve your fuel economy by 1 MPG average.

7. When you are driving above 60 MPH keep your windows up. Studies show you use less fuel by having your windows up and the air conditioner on at speeds above 60 MPH. The aerodynamics lost by having wind come in your vehicle decreases fuel economy.
How to Build a Business

More than ever before people are looking for ways to make some extra money. Here are some simple ways!

• With your hybrid HHO / Gasoline vehicle you have bragging rights in your network! Simply tell people about it. Lift the hood; point out the components; start the vehicle and show them the bubble machine! Some will think you are nuts. Some won't show any reaction. Some will want to get a kit right away. One option, since you know how to get this kit installed is to help others with their installs. Hire yourself out on an hourly rate to help them with their planning steps. Or, if you like, you can get your hands dirty and charge a fair fee to do the installation yourself.

• Find a local mechanic willing to do the install. You charge the client and pay the mechanic a portion of what you charge.

• You can go around to the independent garages in your area and show your system. The machine will be fascinated and each one will want a system to try on their own vehicles.

• You can put a sign on your vehicle. "Hydrogen / Gasoline Con-version Car - call for details 555-1212."

• Make a list of everyone who would come to your wedding or funeral and call them up and say this. "Hi Harry! I only have a moment but I wanted to ask you one quick question, would that be OK? Do you have any interest in finding a way to save a lot of money on gasoline because I have found a way? Would it be OK if I drop a small book off for you to read and then pick it up again in 72 bouts after you glance at it?" If Harry says anything other than “Sure!” move on. Don’t bother explaining it over the phone. He is very unlikely to take the next step if he won't look at your book. What book? This one of course!
You may choose to purchase kits and distribute them yourself. We have a generous discount for all our products sold by distributors. You can start your distribution business for less than $1,000.

You might expect to pay a lot of money for a franchise system like this. We supply all the information, create all the products, do all the delivery and courteously complete all the customer service.

Once you are totally familiar with our products and systems you can take it to whatever level you decide. If you are serious and willing to put in the time you can be part of the next best thing!

New Horizons Hydrogen Generating Systems
1506 S 3rd St Ozark, Mo. 65721
(417)485-0044
# Fuel Efficiency Log

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This line goes into the bottom side of the air intake, closest to the engine.

Make sure valve is off.