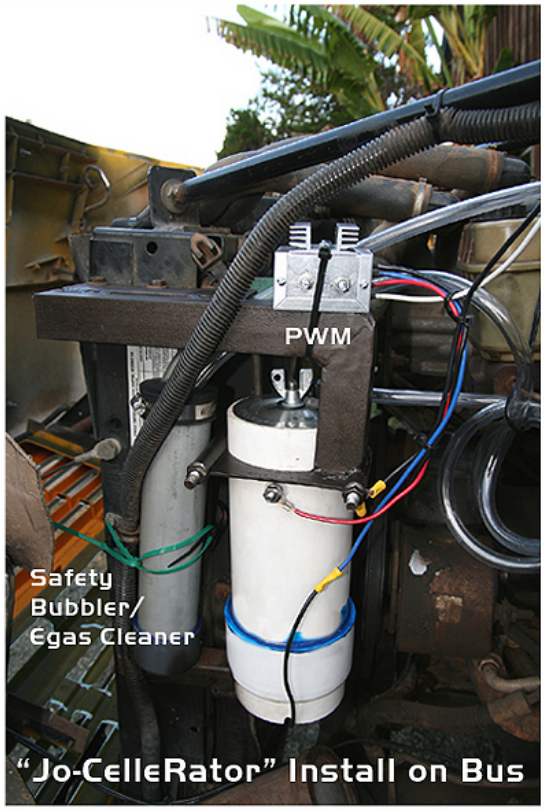
THE JO-CELLERATOR®
HYDROGEN • GENERATOR
hydrogengarage.com

"Jo-Cell-er-Rator" Assembly & Instructions

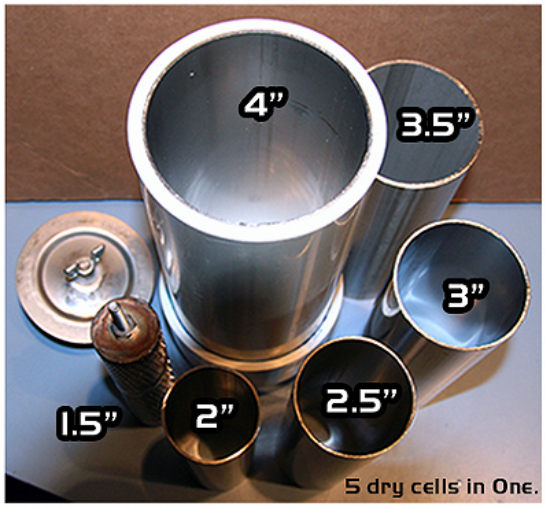
PARTS LIST

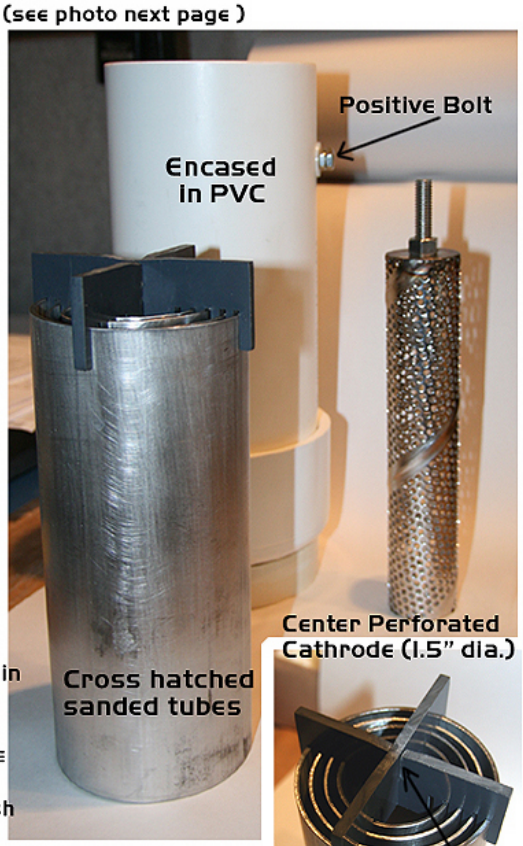
- 4" SS 304 tube, 10" tall, encased in white PVC
- 3.5" SS 304 tube, 8" tall
- 3" SS 304 tube, 8" tall
- 2.5" SS 304 tube, 8" tall
- 2" SS 304 tube, 8" tall
- 1.5" SS 316 perforted tube, 7.75"
- two - 5/16" & screw & nuts for perf. tube & positive tap bolt.
- SS lid and rubber gasket & wing nut
- black elbow 90° (outgas hose fitting)
- Bottom 4" white PVC CAP & 1" bottom collar
- Cross Seperator/cell divider gray CPVC
- one U-Bolt/Clamp

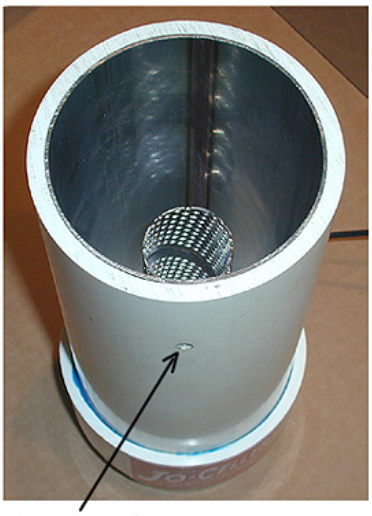


ASSEMBLY

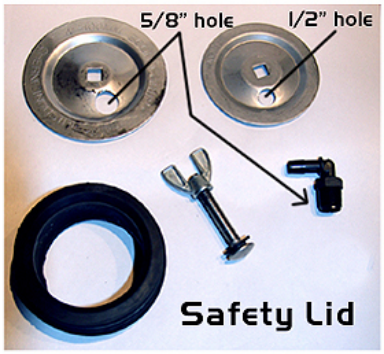
Start by washing all the stainless steel parts with dish soap and green scouring pad. 2) Cross hatch sand all pipes, inside and out with 60-80 grit sandpaper. (red or black sandpaper or emery cloth) Only sand in one direction, this is important, as you are trying to create/scratch micro- valleys and mts. Sharp edges for the hydrogen & oxygen molecules to collect onto. Even the perf. tube. 3) Sand the top of the 4" & PVC smooth, so rubber gasket will fit with out leaking out the egas. Place 5/16" bolt/screw to the cathrode (perf. tube) with 5/16" nut. Wrench down as tight as possible! Add a nylon washer to the screw/bolt and prepare to screw into the bottom PVC cap. Use the same glue described below on the nylon washer & cap threaded hole and also another nylon washer on the bottom. Before you glue in the cathrode/perf. tube and bolt. Sand the bottom around the 5/16" hole, cut off any cap manufacture's code #'s. smooth for the bottom nylon washer to sit flat. (see photo next page)



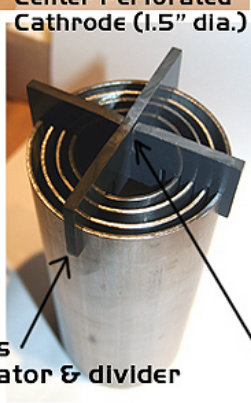




5) Drill a 5/16" hole for the 1.25" long positive tap bolt. Drill this hole 1.5" from the top lid. opposite the seam. The seam has a slight magnetic attraction due to the heat of the welded seam. Best to stay away from the seam with your positive (joe cell polarity) connection. 6) The grey CPVC Cross piece seperates the tubes form each other. We cut these pieces tight, so you will have to sand the edges to fit the cross piece over the tubes, when already and fit glue the center pieces together. You will also have to dish out center to fit the rounded botton of the lid bolt. You want a snug fit.



5) Drill 2 holes in upper & lower SS safety Lid. The bottom hole is a egas pass - thru & anti-slosh & the 5/8" hole is for the fitting of the black 90° elboa. Cement in generously with JB Weld® or Marine Goop® or Gorilla Glue® We have found these glues to be the strongest, heat proof & electrolyte resistant.



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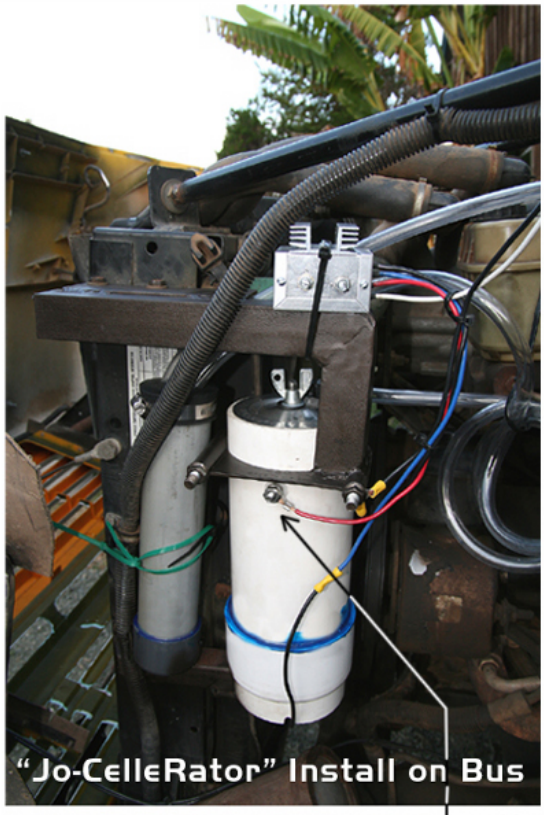
"Jo-Cell-er-Rator" Assembly & Instructions • page 2

ASSEMBLY part 2

After you washed and cross hatched sand your tubes inside and out, you then can proceed with "marine goop" ing in the tubes. The cross hatching inside the tubes, can be done with a wooded dowel with sandpaper wrapped around it, or PVC pipe, you got laying around. 1.5" is what we use. Remember sand only one direction, down strokes or up strokes, but not both ways. Andrew twist the sanding stick to get the cross hatch. You should do the sanding part in about 5 minutes time. Cross the perf tube as well. Don't worry if you do not get the cross hatching every corner of the tubes. It will work with out the sanding, but seems to let off more egas and speeds up the conditioning process. 7) Glue on the 4" bottom cap with PVC glue, we use the "WeldOn®" clear type in the same can at any hardware store., in the photo to the left on the bus, they used blue glue. I like the clear it looks cleaner and you can add generous amounts of glue. Yes use alot of glue, have it ooze out & wipe off the extra with a towel or rag. 8) To create a dry cell, add "Marine Goop" to the bottom of each tube edge. "Marine Goop®" (bought at most hardware stores) or you can spread Marine Goop in all the bottom grooves, before cementing on the bottom cap, then quickly adding the tubes one at a time to fit snug in the round grooves below. Start with the 3.5" tube, then the 3", then the 2.5" and last the 2" tube. Marine Goop is best for this application, because it is not irritate by the electrolyte & dries semi-pliable. Can be taken out, if you would want to clean out your cell. No need to ever clean, maybe exchange the water, but not necessary. The tubes will bronze after awhile, but not decay, dues to the low voltage between the tubes. 9) After letting the Marine Goop dry (one day) Mix up some electrolyte solution. Use distilled or RO or spring water that has a 7.0 ph. Start with 3 tbs. (table spoon lads) of KOH or NaOH, please don't use baking soda or vinegar or ammonia or sulfuric acid. We use KOH, potassium hydroxide, buy from : saltcitysoapworks.com. Lowes® sells a "drain cleaner" with 100% sodium - hydroxide (NaOH) for $8.50

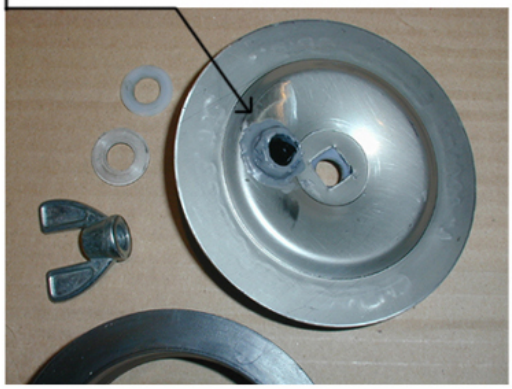


"Jo-CelleRator" Install on Bus

Always mix the electrolyte spoons into the water and stir with long stick, use gloves and eye wear. avoid splashing the solution. The Jo Cell takes approx. 1 .4 quarts of water. Fill to the tops of the tubes and stop. 10) Before adding the water, attach your (-) connection to the bottom of the cell. As shown here Attach (+) another 5/16" eyelet connector to the bolt on the outside that touches the outside 4" tube. Now it is time to bench test the cell. Hook up to a 12v car battery or battery recharger. If you add a PWM to the circuit (recommended) only connect to a car battery. The pulsing from the charger could damage the PWM. Let's construct the lid before testing.

Spread liberal amounts of JB Weld® to the elbow

11) Drilling out the 2 holes in the lid, and JB Weld® the black nylon 90° elbow in place. Drill with a drill press up to a 5/8" hole on the top ss lid plate. Stainless is hard steel. We mount the lid on an angle to get a straight drill hole with a drill press vise.



Drill a 1/2" hole in the bottom ss lid. This adds a anti-slosh feature to the cell, the egas goes up inside the 2 lid plates. Again, drill plate at an angle to drill a hole in the exact center between the outside edge and center hole. Allow one day for the JB Weld® to dry. JB Weld® can be bought at any hardware or auto parts store. Way better than some of those cheap epoxies they sell today in those double tube containers. Can take heat too! and electrolyte does not effect it. Now back to our bench test.

"Jo-Cell-er-Rator" Assembly & Instructions • page 3

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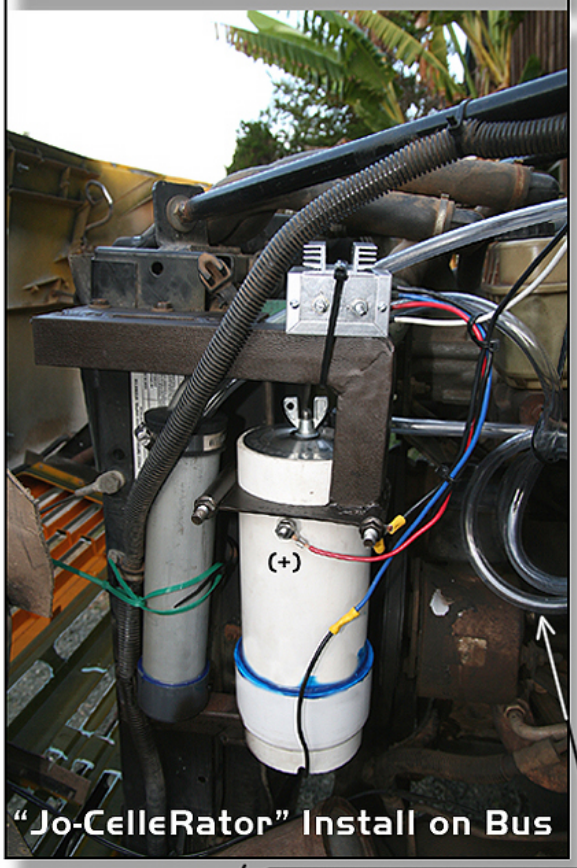
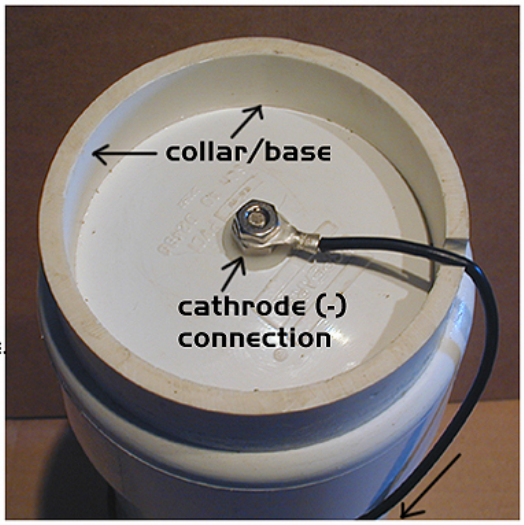


"Jo-CelleRator" Install on Bus

ASSEMBLY part 3

Almost forgot the bottom collar, it is a 4" white PVC pipe, 1.5" tall, that as to be cemented to the bottom of the 4" PVC white cap. It acts as a base and stand and also keeps the the negative connection of the cathrode (-) to touch and ground. Even though it is (-) we best have the negative connection coming from the PWM circuit. If no PWM, then you can ground the bottom to a good ground on your frame. Use PVC cement to cement on the 4" collar base/stand. Drill a 1/4" hole or slot for your gauge 12 wire connector that you solder on.
I like to solder all connections. We use 12 gauge colored coded wire (stranded copper) for all under the hood wiring.

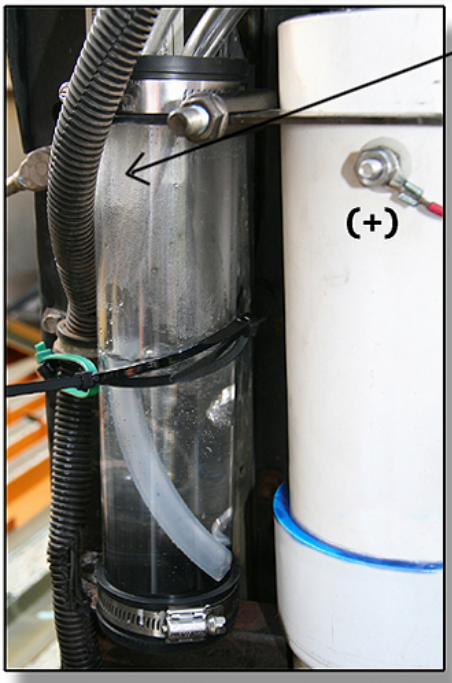


to the (-) out of the PWM.

To get a good solid contact wit the base to the bottom cap, is to take a grinder disc to the inside contact ege of the collar. Shapped to the contour of the cap surface. Use alot of PVC glue, be generous.

PART 4

We recommend you to use a saftey "Bubbler/Spark-Arrestor" We sell for $28.00 Comes with 3/8" ID clear pvc tubing and a clear bubbler tube. It serves 3 purposes : 1) spark arrestor, will take a flash back easier than your cell would. 2) a egas cleaner, keeps any electrolyte vapors & water from entering your combustion area. 3) "check value" stops air from entering your cell. The outgas hose from the cell is coiled a few times, then goes to the bottom of the bubbler.

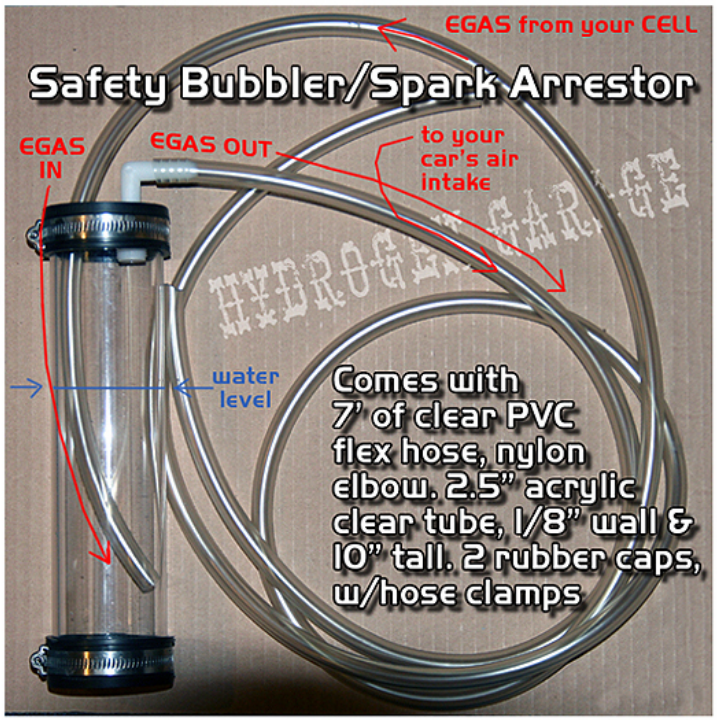


2.5" clear Bubbler (10" tall with rubber plumber's caps on top & bottom.

The Out to the air clearner box in only in to the Bubbler Tube about 1" from the top of the rubber cap.

PART 5

Bench testing is after cell assembly, We will skip that step for now. Mountung the cell is the most time spent installing a cell. We have to gerry rig a different bracket for each different install. We usually weld onto the clamp/bolt that we supply and a bottom rest for the cell. It is 15 lbs when all filled with water. We fix about 3 tablespoons of KOH or NaOH (lye) to 1 .3 quarts of water, mix it up in a plastic milk jug. Use distilled , RO, good well water or rain water. KOH or NaOH (lye).



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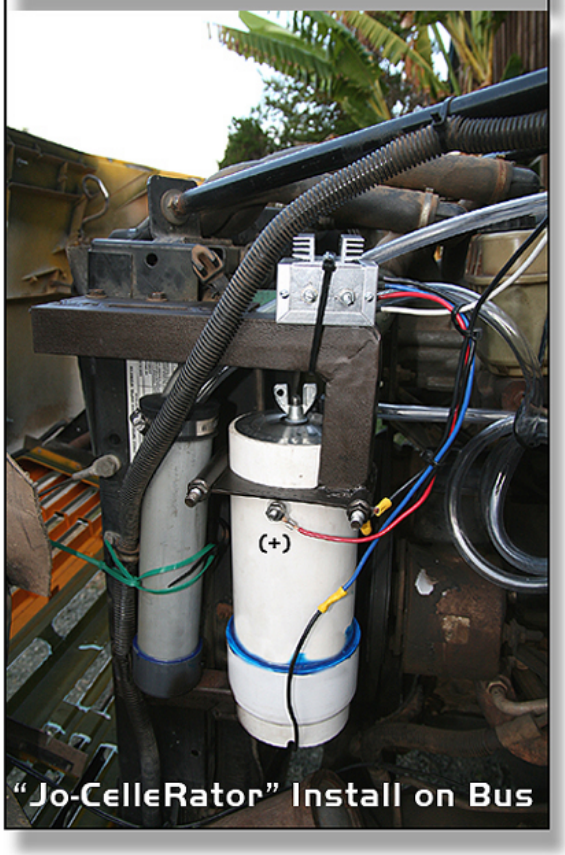


"Jo-CelleRator" Install on Bus

BENCH TEST part 6

The Bench Test. We only fill to the top of the tubes. The cell is actually more efficent when the water is below the tubes and the water is in it's seperate cells of water. 5 isolated cells. We add a 12 guage wire to the bolt we attach to the outside tube throught the outer casing, at 1.5" down from the top edge of the 4" outer tube. The center perf. tube (1.5" dia.) is the cathrode (-) electrode, in which the hydrogen comes off. The outside tube is the anode (+) inwhich the oxygen comes off of. We will be applying 12 volts, but actually the voltage between the tubes will be divided up evenly to about 2.4v between each tube to tube. Pour your mixed up electrolyte solution of water and hook it up to a 12v car battery, or battery recharger, (do not hook up a battery recharger to the PWM, you might damage it.) A battery recharger is OK for intitial hookup and testing. Don't cross the polarity, always the same, (+) outside and (-) inside cathrode. This is the Joe Cell polarity, an energy devise We have found this polarity with the PWM produces more egas per liter, also the anode erodes irst in electrolysis, due to oxidation, but with less than 3vs your dealing with cold electrolysis and no erdoing of the eletrodes! So this Jo-Cell should last for years and years. The stainless stell tubes and parts are all 304ss (non-magnetic stainless) the bolts and nuts are 316ss stainless. A magnetic alignment will happen at the first time you hook up the 12volts. The Joe Cells tap it 3 times to set it off, kinda of like a Christianing of the cell. I believe the positive outside is an energy capture, especaily when you pulse the DC with a square wave pulse. Try 3 tablespoon loads of lye or KOH to 1.3 quart of water. No lid on yet. hook up and watch it bubble. It is always slower at first. Also hook up a DC ammeter to one of the wires going to the cell. Start with 5-10 amps, it will gin more amps later as the cell conditions. Hook up for 5 minutes or so at a time. hook up the cell many times during the day. Letting it sit with water inside the cell also helps int eh conditioning process. Many force condition the cell, with high amps and volts to clean the cell, the heavy oxidation comes off as brown sludge or black. I don't force conditon I just run it for a few days and then install in the car. Condition as you drive. The hydrogen wants to absorb into all the metal it touches and also the water is taking a charge with the help of the electrolyte. The water eventually becomes a "dielectric" I watched the Stan Meyers tapes and the scientific addiance booed when he said this. Most university professors don't study Joe cells, or electrolysis, because many claim "overunity" & that we can break Faradays' Laws of electrolysis. They are taught of it breaks the law of physics then it WILL NOT WORK. So there is a big window of study here, not tapped, the only info. on the subject is online. I'm fascinated with tis field and I am continually learning. It does not leave me, I quest to learn more! I hope your the same type as me. Check the voltage between each individual tube from one to another, it should read below 3 volts. The closer to the center tubes will have more volts 2.4 - 2.8v as the center tubes will be slightly less. The 4 neutral tubes are voltage dividers. The electricity through the water has to jump from tube to tube. It is a magnetic equation where the polarity will be different on each side of the tube. One side will be (+) and the other side of the tube will be (-) as if each tube is now a magnet with N and S poles. Also H and O gases are being made on every tube, just just the center cathrode. Yo may ask why the center tube has holes in it. For more surface area? No, for the reason that the perf. tubes or plates put off more egas. My theory is that the holy metal does not know which way to go (-) or (+) so it ovulates and with the PWM added the square wave on , off, on , off it rips the hydrogen and oxygen molecules apart, and the back and forth action near the holes, visually is making more egas than a solid tube of plate. More liters per minute too!. Also there is power in the circle. I was stoked to place a Jo-Celler-Rator on the native American bus, used for the longestwalk.org, the native Americans believe in the power of the circle, they slept in round teepee, their dream catcher is circular, they always believed the earth was round. It was white man that thought it was flat and lived in square houses. This same bus went to a CA SMOG test and would not pass, even after they re-built the carburetor and put the smog pump back on. The carbon count of HC and C is about 200 on a bus like this to pass the test. It was right at 213 or so, until the driver flipped the JoeCell switch and they waited a few minutes and the HC and C count went down to 23! The same emission as a 2008 Honda Accord! Proof again that hydrogen combats the carbon and burns it up! Your engine will be cleaned after about a month of running/ We like to get the cell up to about 10 amps before installing. Everyday the amps will creep up. So except more amps later. Download the"simple under the hood wiring diagram" to show you how to hook up the Cell. We use a simple auto 30-40 amp relay, a DC ammeter, 4 different colors of 12 gauge wire. (stranded copper) a switch for the dash board. We always mount the DC ammeter on the dash, so you can monitor the cell. You will need 3/8"ID hose for the transporting of your electrical gas (egas) that you are now producing and " take it the combustion chamber as fast as she can!" The hydrogen molecules are tiny and will escape the tiniest cracks, and also the lightest element so it escapes upward. Burn it before it escapes is the idea. Most today put there outgas hose into the air filter box, to be safe of a "flash back".

Part 7 • the Installation.

On page 4, I mentioned a "flashback". A flash-back is when the hydrogen/oxygen gas coming out of your hose comes in contact with a spark, the hydrogen & oxygen flashes bright with clear hosing, you can see a flash of light head right for your "safety bubble, check value, spark arrestor tube." Flashback will only occur when your hose is lose to the carb. throat. and a carburetor back fires. Flashback can also occur at high pressures when producing ortho hydrogen. As low as 10 lbs of pressure, it may explode back to the para-hydrogen state. I forgot to mention, with a PWM, square waved pulsed signal, you will be making the ortho-hydrogen, 2.4 to 4 x's more powerful than hydrogen in it's para-hydrogen state. Also ortho hydrogen will produces deuterium, in which a grey matter will build up on the walls of your cylinders values and engine, acts like a lubricant. Read Herman P Anderson and Yull Brown studies on this material. All plus -es. The only deal is that the ortho-hydrogen mixed with oxygen and maybe nitrogen from the air is very powerful in the combustion measuring, It has a lower BTU heat as well. It burns so clean, with carbon and hydrogen-carbon is out of the formula. Someday we will be able to buy a 100% water powered car, but not yet. For now we can only get away with hydrogen boosters. Many are trying it out in large amounts since 2000. The rate of hydrogen booster people has gown to thousands, all from almost underground sources. You are apart of the awareness and education of the planet's needs. You will be helping be a green citizen by operating this cell in your car.

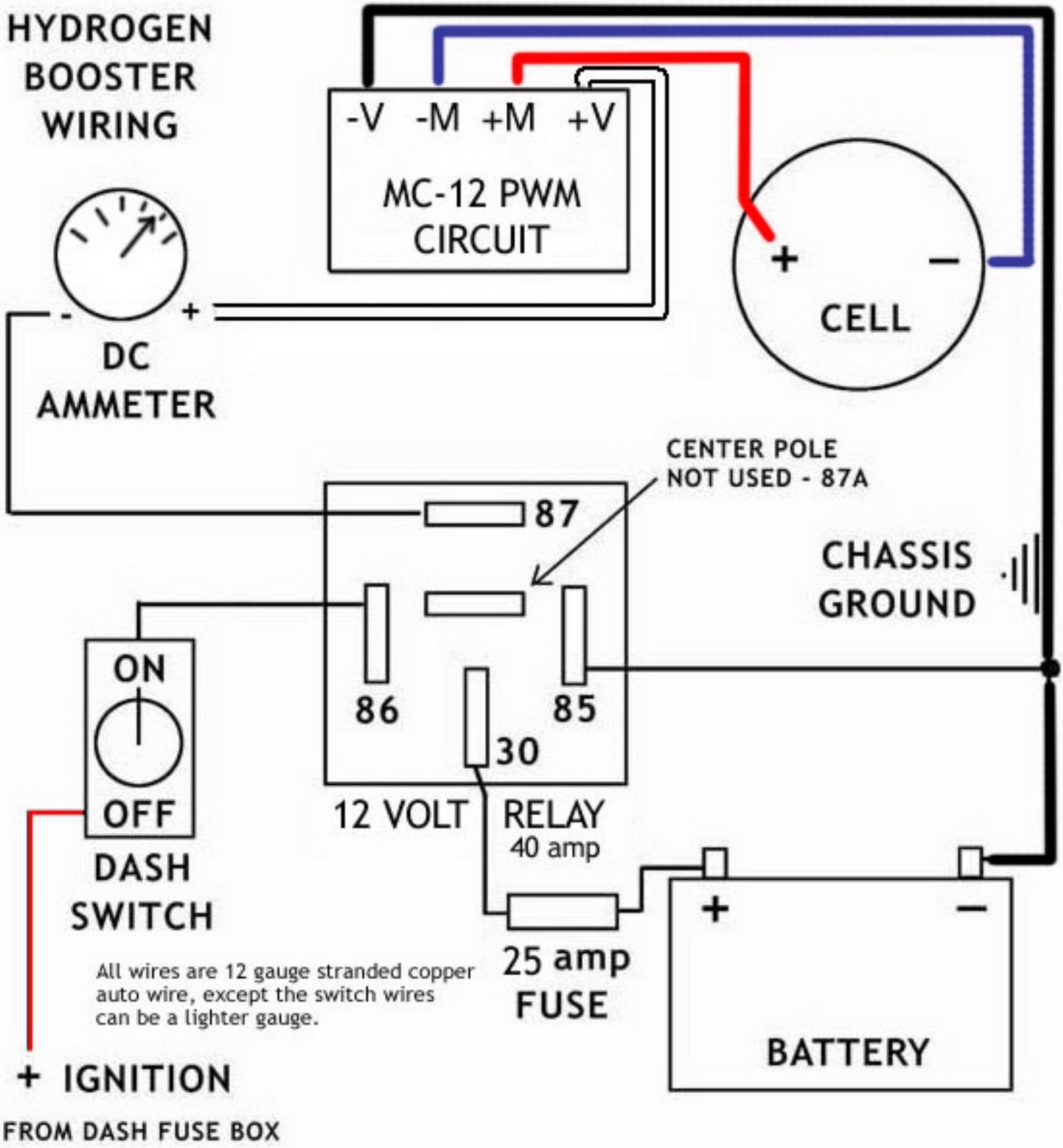
Hopefully you will be installing this cell on a Carburetor or diesel engine. This way you can get up to 50% better MPG's! and clean up your engine, Cut oil changes in half. Your engine will last twice as long too. Hydrogen Boosters have been around since 1916. The first patent, since then there are thousands of patents on hydrogen cells of all sorts an shapes. This design of the "Jo-Cell-er Rator" is a take off of the Joe Cell, this design in not patentable and is given away to the public for mankind to live on. You can copy it and man-facture them if you want. The only take will be, we are the producers of the original "Jo-Cell-er-Rator" We are proud of it's results and to offer it to you!

Cell Location. Place your cell anywhere you can. Not much room under the hood in modern cars. The cooler the location the better. In front of the radiator is best, really. Or a place under the hood where the wind is blowing on the cell, to cool it. Also the PWM is near the cell all ventilated and with cool wind blowing on it. Winter time no worries. Long hot summer drives, things change a little. We like to install the bubbler tube away from the cell, for safety reasons. No Jo Cells in the passenger compartment, please. The trunk is better than nothing. At least it is cool back there. Long 12 volt wires and long egas lines may make it difficult.

Adding a **"Automatic Water Level System"** Can be easily adapted to a Joe Cell for diesel truckers. You can easily manually fill the cell with water as she needs it. Remember water can gets 100 mpg! . All you have to do is drill 2 - 1/4" holes, through the side right at water of the cell. One hole for 3 wire probes that go down inside the cell wall. Between tube 4" and 3.5" The 3 wires are ground, low level and the 3rd wire is the high level. The other hole is for your 1/4" water refill tube to come into the cell. We sell them as well. Go read the "Automatic Water Level circuit" info. on the instructions page.

If you have to install on a new car 1982 and newer you will have to do a little more homework & work, I'm sorry to tell you. Our modern ECM fuel controls are done at the factory and they built a redundant system with a catalytic converter system. Their plan to hide the SMOG is to your engine at it's hottest temp. at 14.7/1 air/fuel ratio. This is also a very rich mixture and it needs to be it's hottest so that the fuel can re-burn in the catalytic convertor, to try and hide the extra fuel that is partially burned and dirtying up your engine. They have 250 patents on carb and fuel injection systems that get 150-250 MPG!! since 1932 and NOT one is being made today. Just recently at the LA Car Show a company made an add on fuel injection system that will get 150 MPG! and they were kicked out of the show!! No lie, just facts here.The main problem is them02 sensor in the exhaust pipe, it will find the extra 02 for sure after about a week of driving. Every car is different is the only problem, some have a MAP (manifold air pressure, that controls your fuel injectors) and some have a MAF, (mass air flow, that measures the air coming into the intake. There are many ways to fake a signal to tell your engine to run lean. One is an EFIE, or a dual 02 and we have the MAP potentiometer on the dash to help lean the fuel. For you to get better MPG, you have to mess with the leaning of your fuel. Most mechanics that can tear apart an engine and put it back in one day, don't know about the air/fuel ratios, but the SMOG guy is well trained well in this field. Also there are NOT many open minded mechanics so will laugh at the hydrogen booster idea and will tell you, your wasting your time. They have alot to learn and by 2012 if we are still around, they will be common knowledge of of this. For you to enjoy more horsepower and better fuel economy, you have to lean your engine's fuel and that is a challenge. Every single car has a different reaction to the newly added hydroxy egas. It loves it, it is a catalyst to the air/fuel mix you have already. Adding a fuel heater is also a plus, we sell for $75.00 for those who don't mind cutting their metal fuel lines to add rubber hoses to the heater attached to your "coolant system" gets the gasoline up to 200°, or the "coolant temp." of your vehicle. It helps vaporize the fuel faster, extending MPG! To have the hydrogen /oxygen gas that you add to your fuel mix. Read http://hydrogengarage.com/efie.html We also recommend to read as much as you can.

Download all the material on this page : http://hydrogengarage.com/instructions.html Download the "II Plate Educational Clear Cell" Now called,the "Bender Cell" After seen producing a white milk shake inside the container. We believe in giving out our founded information, to share with others, hoping that you will even make it better. Any more questions feel free to e-mail or call us at 805-995-2669 or e-mail : customerservice@hydrogengarage.com


HYDROGEN
BOOSTER
WIRING
-V -M +M +V
MC-12 PWM
CIRCUIT
+
-
CELL
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DC
AMMETER
CENTER POLE
NOT USED - 87A
87
CHASSIS
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12 VOLT RELAY
40 amp
DASH
SWITCH
All wires are 12 gauge stranded copper
auto wire, except the switch wires
can be a lighter gauge.
25 amp
FUSE
+
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BATTERY
+ IGNITION
FROM DASH FUSE BOX