

Manual Book for Hydrogen Generator 21 Plate - efficient and environmentally friendly

e-mail – infocsmade@gmail.com

website: www.csmade.co.uk



Functions ; To be used as a hybrid (supplements) for land vehicles , marine and electric .

All kinds of torches , cleaners , welders etc.

Thank You for choosing 21 plate hydrogen generator from Hydro-Tech. Please read installation guide carefully in order to produce the best of this unit . Everything You need to run this unit will be described step by step .

This hydrogen generator Dry Cell has been constructed so that HHO gas could be produced with relatively small electric current that can be adjusted from 6 – 22 amperes with voltage from 12 to 24V.

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1. Please before You will start make sure You have following :

- safety gloves ,
- safety glasses ,

Electric connections . Please make sure that You have power regulator (please follow instructions provided by power regulator seller)hho suitable and easy access to "ON" and "OFF" switch . All connections need to be clean and have no connection to any flammable fuels as petrol etc. Generator can be used both at 12V or 24V Voltage or any other based on power supply you have access to. You need to be careful not to exceed 260W so for example :

For 12V 22amps

For 24V 11 amps.

In case you need to get more gas out of your generator you can increase amperage however you need to monitor generators temperature. When increasing amperage measure temperature of very first positive plate next to bolt “plus is connected to”. This is the best spot avoid gasket or end plate melting down. If generator will be part of your own project and therefore “boxed” fan would be good idea.

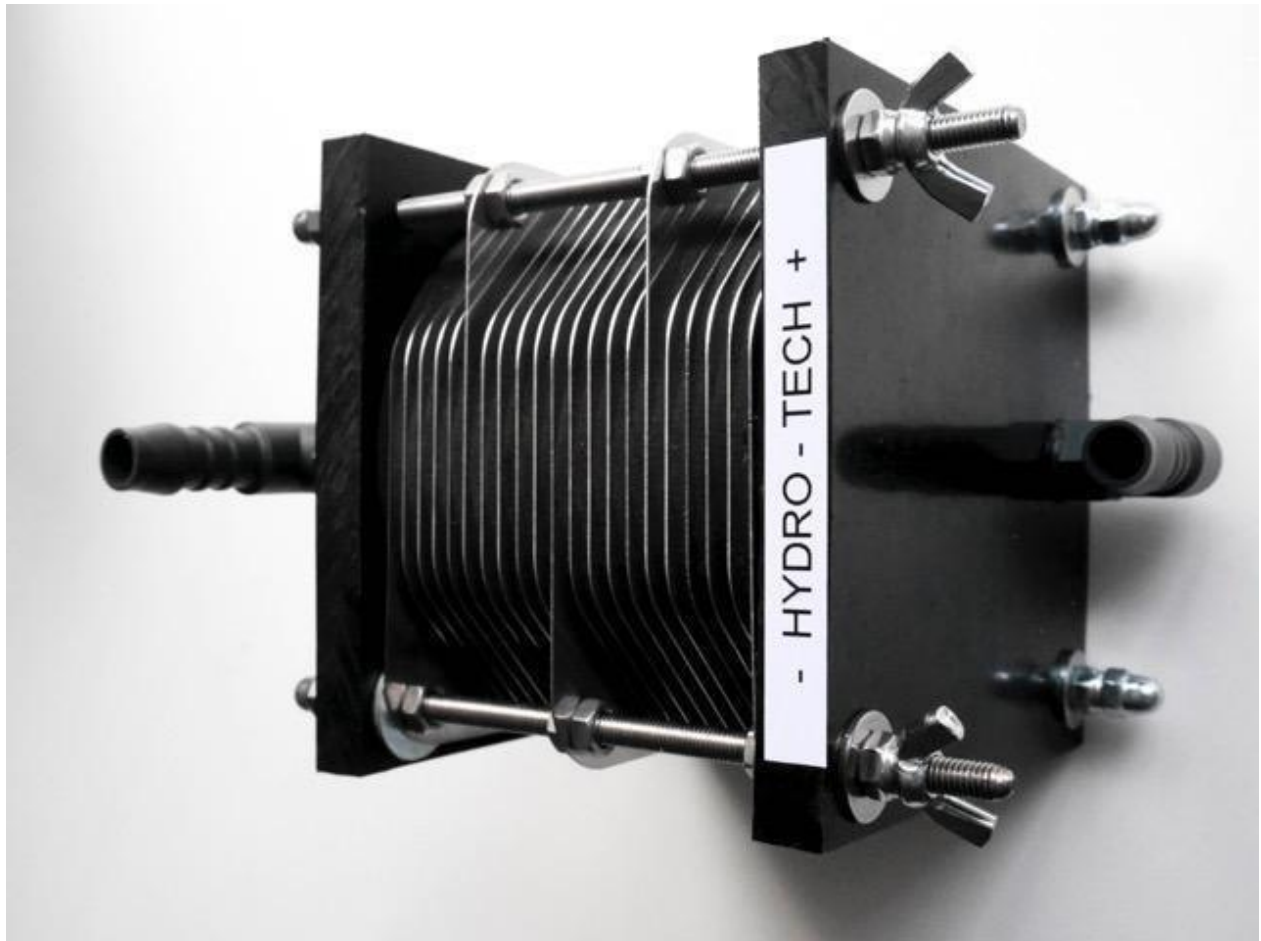


Solution connections . All connections need to be secured with cable ties etc. Hose need to be made out of acid resistant materials only (silicone for example) otherwise may melt due to be subject to acid like solution . Please make sure that if solution will make contact with skin You will immediately wash Your hand with soap using warm water .

Gas storage . HHO gas is never to be stored . Gas MUST be used as it is made as it is highly explosive . Storage of gas is not recommended at any instance and could result in fatality or serious harm and loss of property.

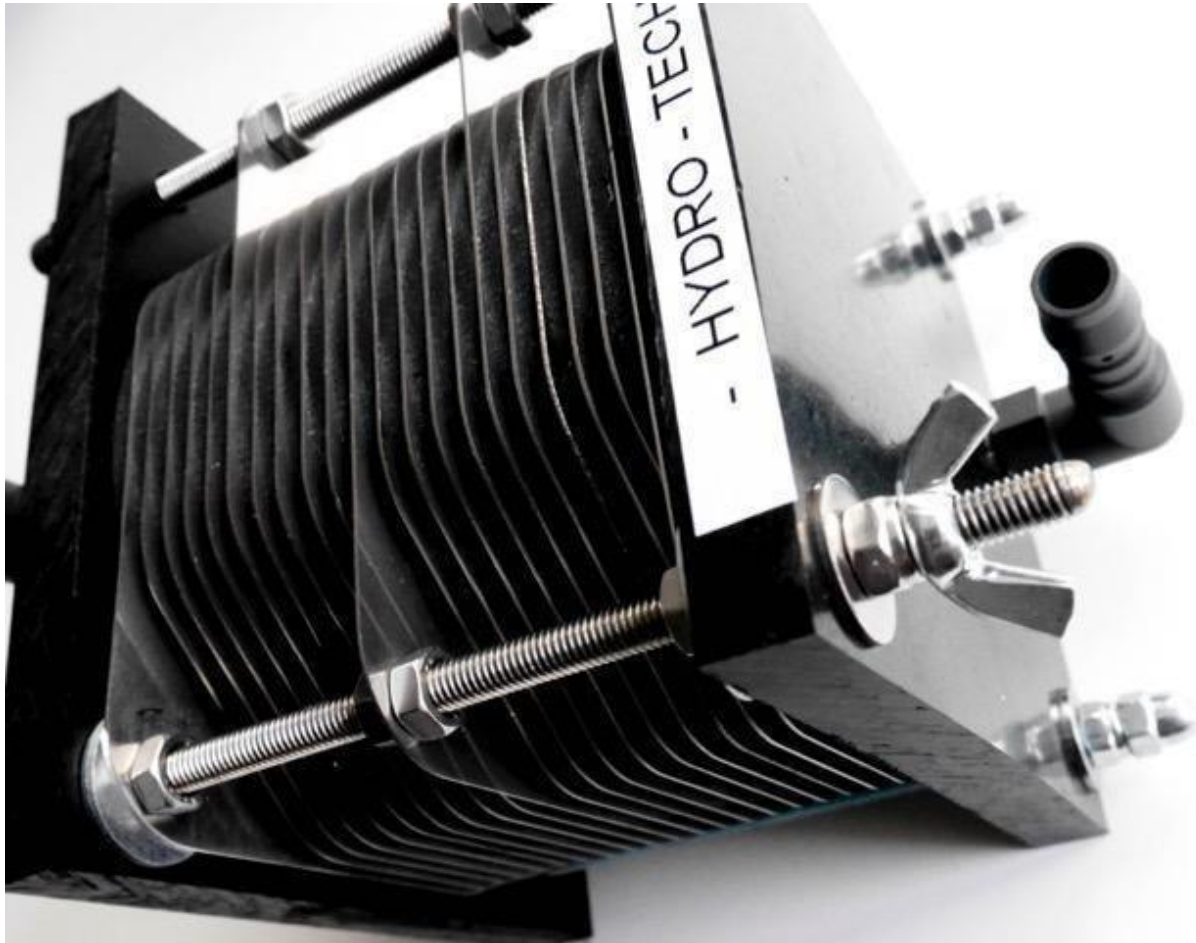
Pressure

Generator is build to withstand 0.2 bars of pressure however you can increase that by increasing tension on bolts. Please be careful as too much tension can cause end plates to crack however HDPE material they build out off is very strong and will not break easily. It is normal that end plates can bend when under tension however of you bend corners for more than 5mm from generators centre you are at risk of damaging your generator.



2. Hydrogen generator general description

This unit has got four basic connection - two solution and two electrical connections . Hydrogen generator when working needs to always be in upright position . Inlet hose has to always be filled with water to prevent hydrogen generator from overheating . Maximum generators temperature is 55 C .



a) solution connections ,

Inlet connection . This is Your bottom elbow connector for which You will need 10 mm id hose . Hose should be crystal clear secured with cable tie as mentioned above .

Outlet connection is Your top elbow connector - should be secured as well and proper hose to be used .

b) Solution requirements

You will need KOH –make sure it is as pure as possible or performance may be affected. You will need to use distilled water - please make sure You buy genuine distilled water as You will not be able to produce HHO gas out of tap water. The perfect ratio will be 3 tablespoons per 1 liter of distilled water. For laboratory use solution mix of 15% or higher would be recommended.

c) Electrical connection . Your hydrogen generator has got two build in electrical connection marked with black on white stickers . On the left minus marked with - and on the right plus marked with + . Please use butterfly screws provided to secure Your electrical connections . It is warranty requirement that power regulator is used therefore make sure You are using one

3. Product design

Product is made out of following :

-21 316L stainless steel plates - acid resistant and laser cut ,

- 2 nylon hose elbow connectors - acid resistant ,

- 14 rubber gaskets ,

-Stainless steel bolts , screws and washers .

Product is design to last 5 years when being used continuously . Class of components used is backed by certificates provided by suppliers .



4. How to clean my cell?.

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

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

stressed about this discoloration, although we do want to try and keep the system clean as possible because of its importance.

INSTRUCTIONS ON HOW TO FLUSH:

1. Empty system of current electrolyte (drain the system of the water which it is currently holding).
2. Replace with Distilled White Vinegar.
3. With Tank Cap OFF, Turn HHO system on for 5-10 minutes allowing the vinegar to flow through the system and cleanse from inside out.

4. Empty Again (repeat step 1).

5. Replace with new distilled water/KOH mixture.

Cell should be now clean and ready to use.

5. Warranty procedures .

This product can be returned to seller within 30 days after purchase .

Warranty for this product lasts six months however product is build to work for 5 continuous years .

You will loose You warranty if You :

- Overheat generator over 55C or run it at more than 16amps and melt it ,
- If You dismantle product , try to expand it by adding plates , loose bolts or other parts ,

Seller reserves right to decide if He will replace parts or give full refund. Your invoice or date of purchase (ebay customers) is beginning of Your warranty .

Thank You for buying our product . Hope that You will be happy with Your purchase and come back to us in the future .

THANK YOU !!!