

H₂Hybrid – Fuel Cell Automotive Trainer

You just obtain the car system H₂Hybrid Fuel Cell Automotive Trainer for your community, and we hope it will satisfy you.

This vehicle works with a hybrid system. It has 2 different types of energy in it, hydrogen with the hydrogen fuel cell and a Ni-Mh battery.

For a better working of the fuel cell, the integrated hydrogen battery(ies) and cartridge(s) has to be correctly embedded and connected to the vehicle.

Important recommendation

Your vehicle has been delivered in a “zippable” pack. After each use, the vehicle has to be put back in the **safety pack** to preserve power and service life of the hydrogen fuel cell.

It is not recommended to operate with the fuel cell without hydrogen. Which gives a chance to the fuel cell membrane to be dried out.

The connection of hydrogen has to be done by the admission valve situated in the upper part. The exhaust valve is situated in the lower part (see figure 1).

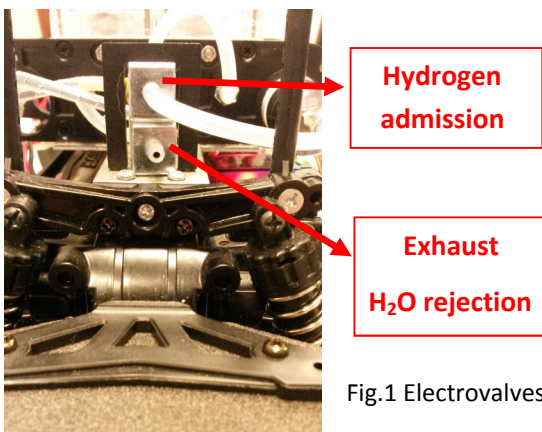


Fig.1 Electrovalves

You have the possibility to connect one or two cartridges on the vehicle, the second cartridge only allow to enhance self-sufficiency.

We advise you to use only one hydrogen cartridge (Hydrostik) directly linked with the admission electrovalve (input – on the top and front of the car) with the provided pressure regulator (to be aim on the cartridge), as indicated on figure 2.

If you want to connect 2 hydrogen cartridges, you have to connect them as indicated on figure 3 (pressure sensor's version) or as figure 3 bis (with pressure sensor)

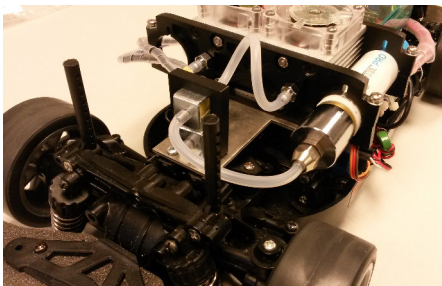


Fig.2 Connection of one hydrogen cartridge

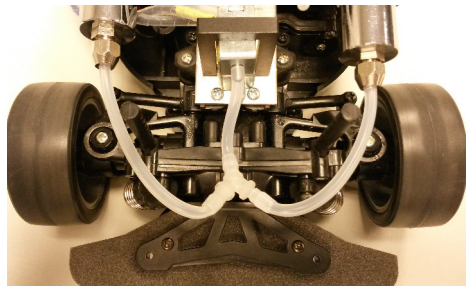


Fig. 3 Connection of two hydrogen cartridges

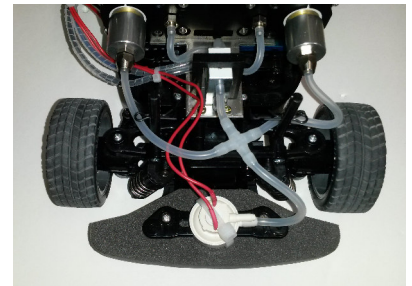
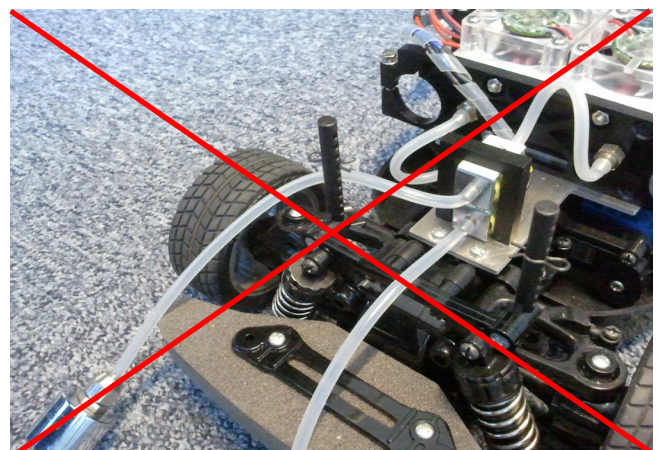


Fig. 3 bis Connection of 2 hydrostiks with pressure sensor

Important!

Never connect the hydrogen simultaneously on the exhaust and the admission! It will destroy the hydrogen fuel cell and invalidate the guarantee.

**BAD
CONNECTION**



Start the car

Always turn on the remote control first in order to avoid risks of sudden movements of the vehicle.

The vehicle is equipped with 3 different switches, the acquisition card switch (figure 4), that of the chassis (figure 5 : left side, under the car), and that of the energy management card Hcell (figure 6).

It is important to switch on the hydrogen fuel cell with its own switch (figure 6).

If the acquisition card switch stays ON it can allow to switch on the card itself and chassis. (figure 5).

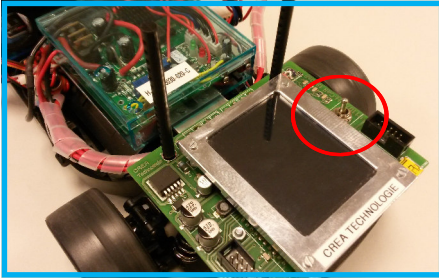


Fig.4 general switch

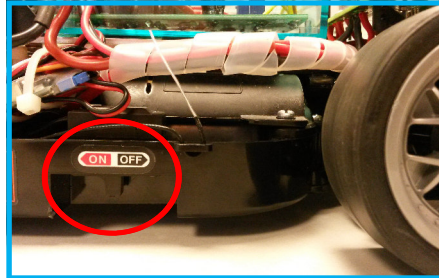


Fig.5 chassis switch

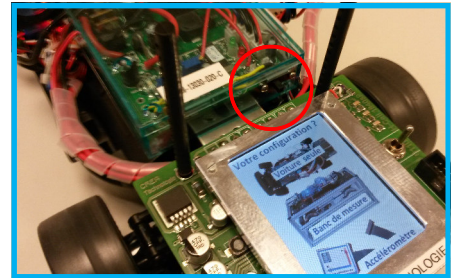


Fig.6 switch management card Hcell

Vehicle extinction

Important : The energy management card must be turned off (switch figure 6), whether for turning off the vehicle or because there is hydrogen missing.

The main switch (figure 4) can then switch. It is not necessary to switch one of the chassis.

Don't forget to switch off the remote control !

Steering

Familiarize yourself with the steering of the vehicle in an area without obstacles, outdoor for example. Thanks to its rapid implementation, its measuring and recording device embedded in the SD card, it is very easy to perform a series of measurements on fields in a small amount of time. We remind you that to secure the vehicle, it is possible to prevent the reverse in variator level.

Hydrogen, hydrosticks and electrolyser

The Hydrofill refilling station allows to create hydrogen and store it in the provided cartridges (4 cartridges)

Fill in the right tank with demineralized water to the upper edge. Powered up, the device should indicate a flashing green light. Screw the cartridge into its place, the light turns into fixed red.

The charging takes almost 3 hours to fill the cartridge, the fixed green light indicates the end of the charging.

Small bags of malic acid are provided with the electrolyser for occasional use as part of the cleaning for the circuit device.

Never let any water in the device if it is not used.

To restart a charging, it is best to unplug and then plug the power supply of the electrolyser.

Important : See the specific instructions of your hydrofill in the product documentation.

