

L663 Defender – dual „hotel” battery

General remarks:

Prepare outer **D-pillar box** as a base for the **electric panel**.

It was my deliberate choice. I know that the cost of these boxes is high 😊 but I want to have an easy access to the electricity on the camp site.

Boxes came with mounting plates that supposed to be mounted using rivets provided.

Following many advices, I've decided to mount them using rivnuts instead.

Fish wires:

This was the hardest part... both:

- from the trunk to the left D-pillar and
- from the main battery (under the passenger seat) to the back of the vehicle (where I've positioned my secondary battery)

Youtube provides info on how to deal with internal and external panels

Initial setup:

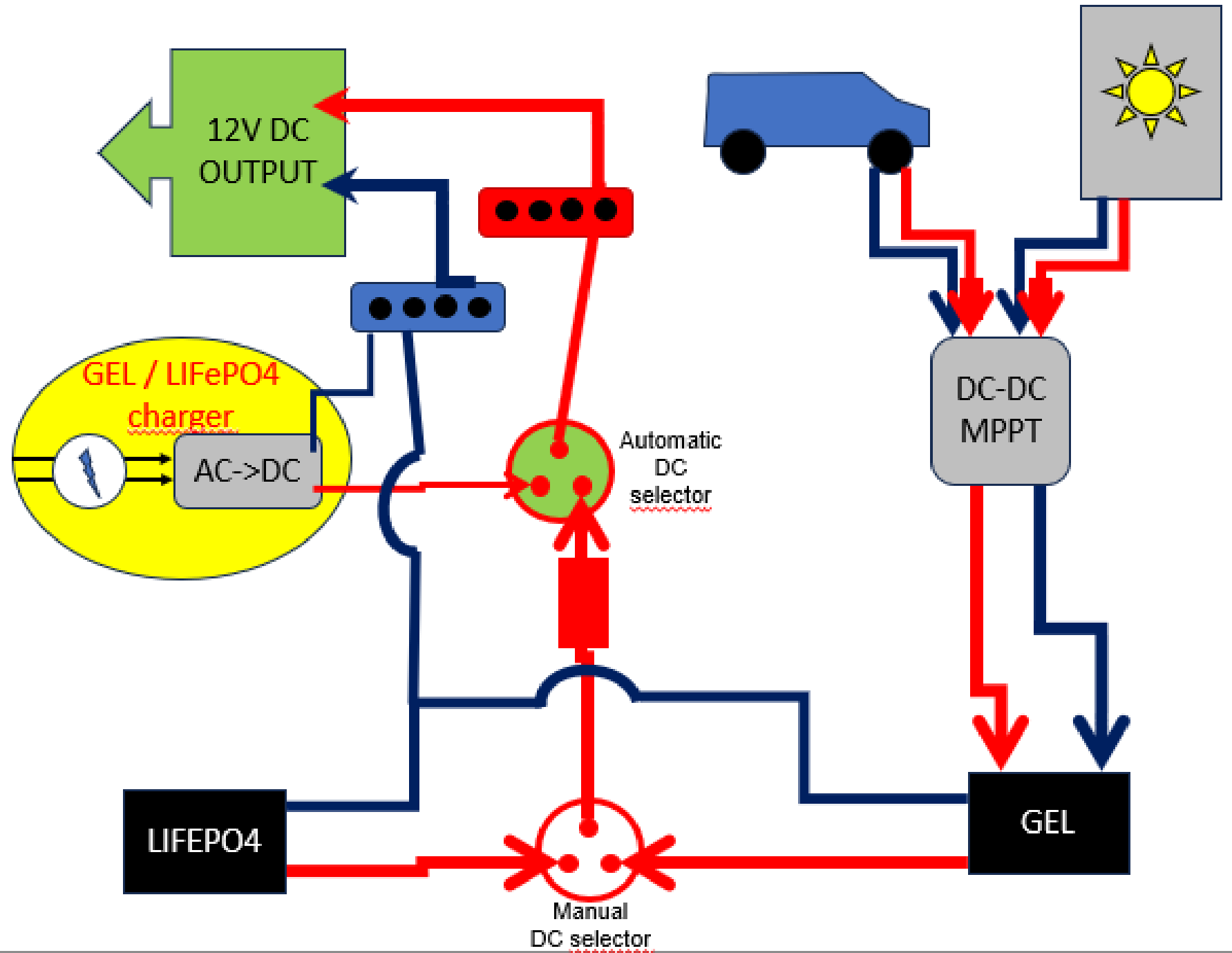
I plan to charge the **secondary battery in 3 modes**:

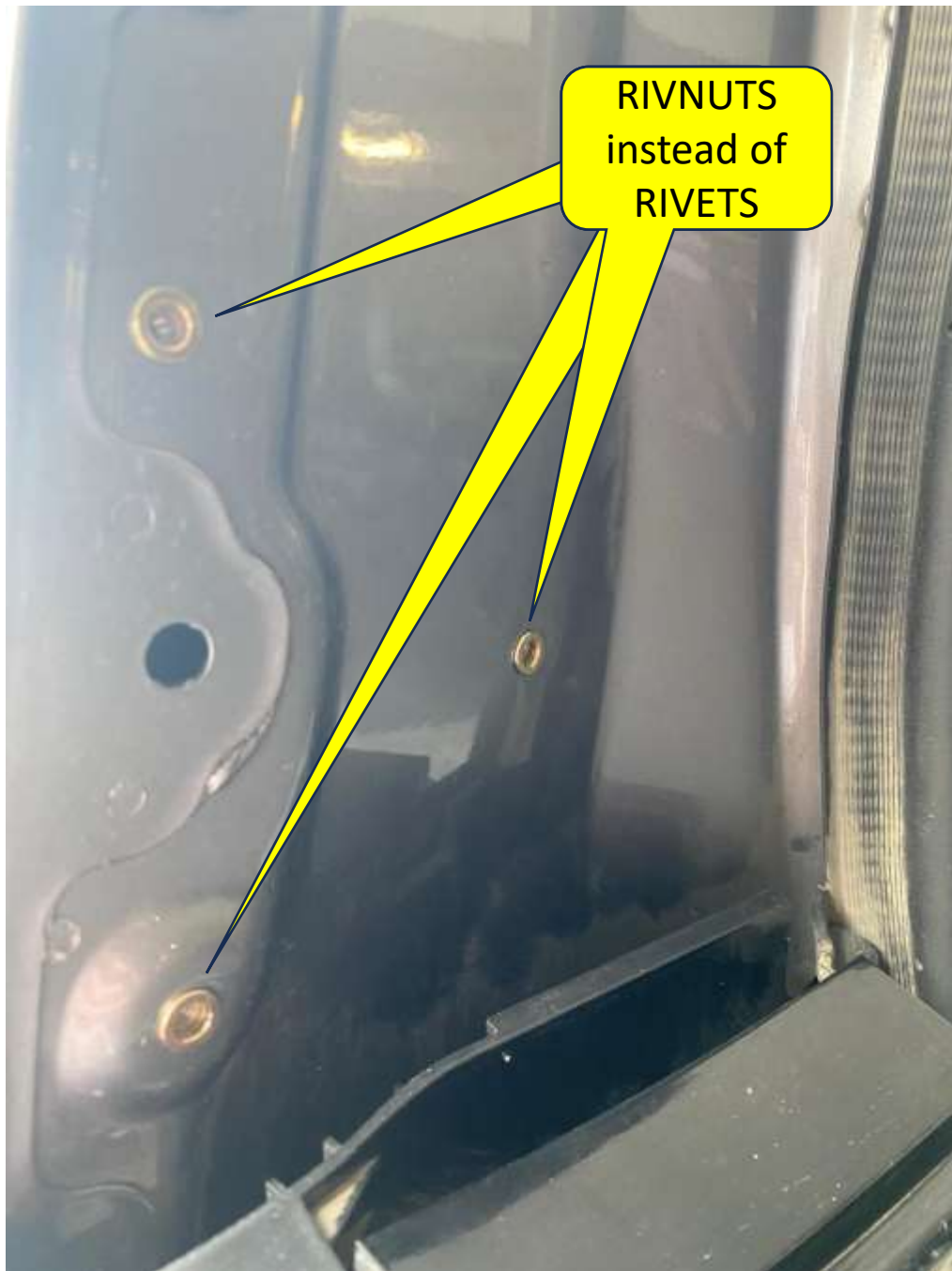
- the vehicle's alternator – underway;
- the solar panel (camping) or
- the battery charger using 230V AC (camping / home)

Therefore, I've installed the ATEMPOWER „magic box” that controls and distributes 12V power.

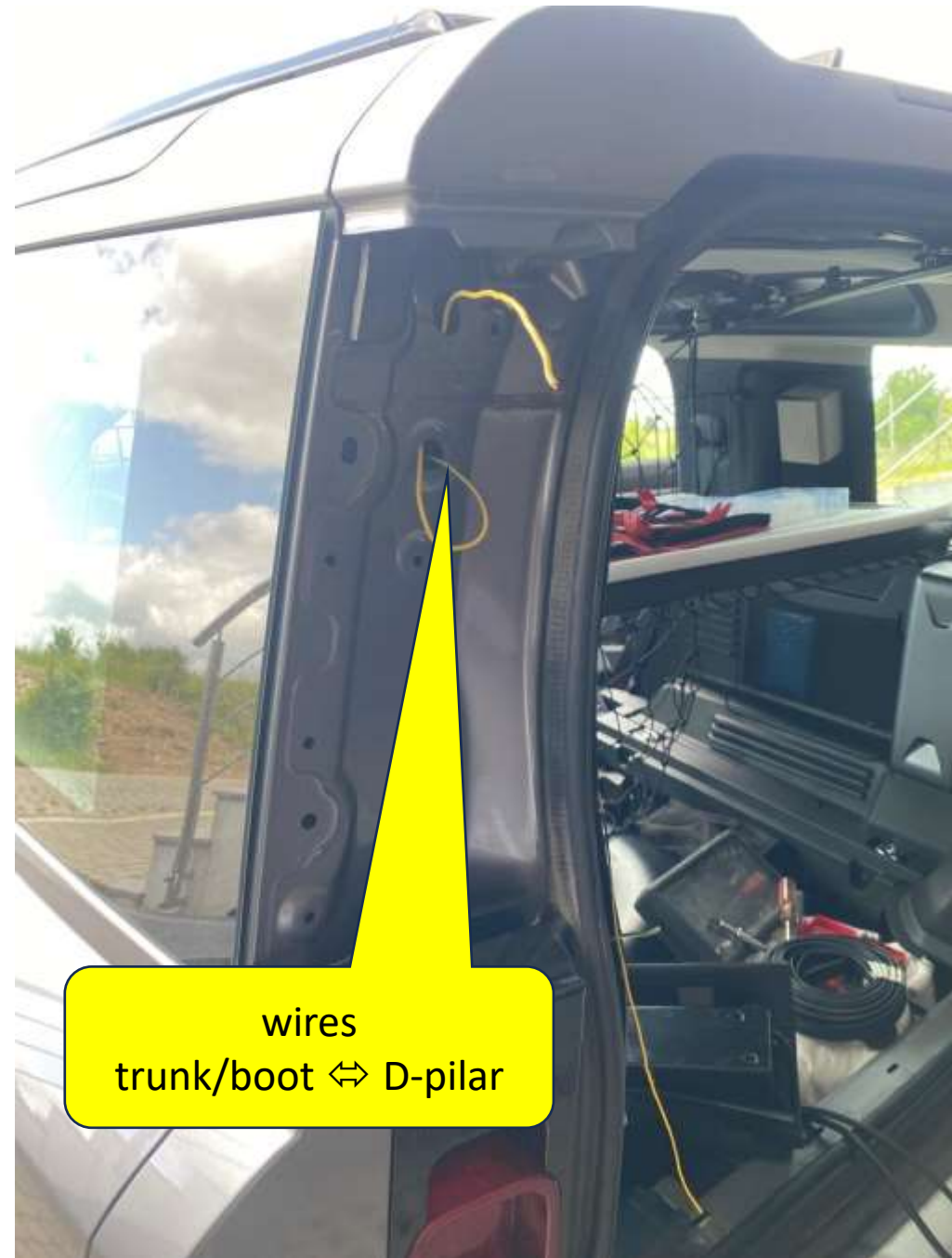
The **main control unit** (including additional 30A circuit breaker, fuses, connectors) is located where some may have installed the additional compressor.

The main idea:





RIVNUTS
instead of
RIVETS

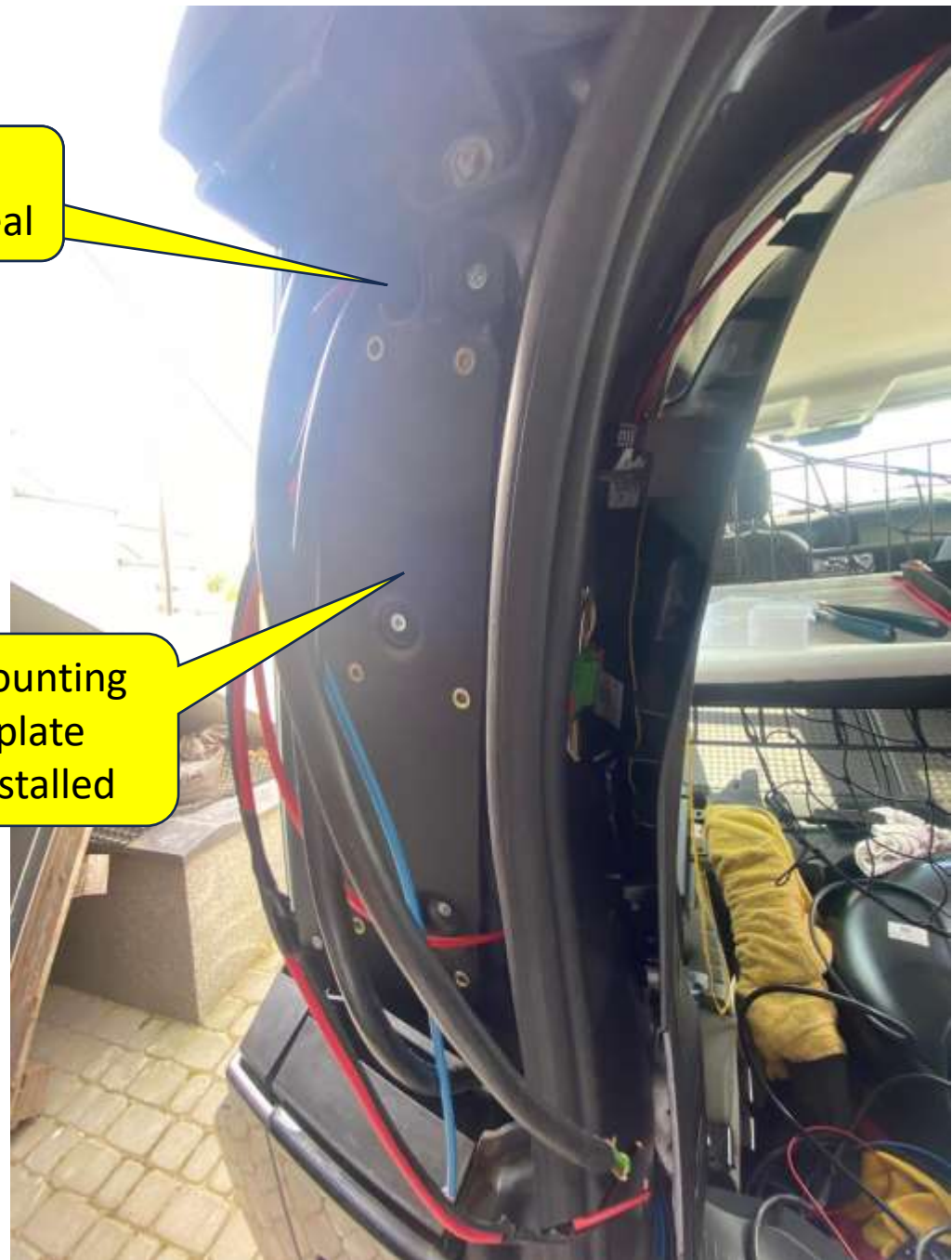


wires
trunk/boot ⇔ D-pillar

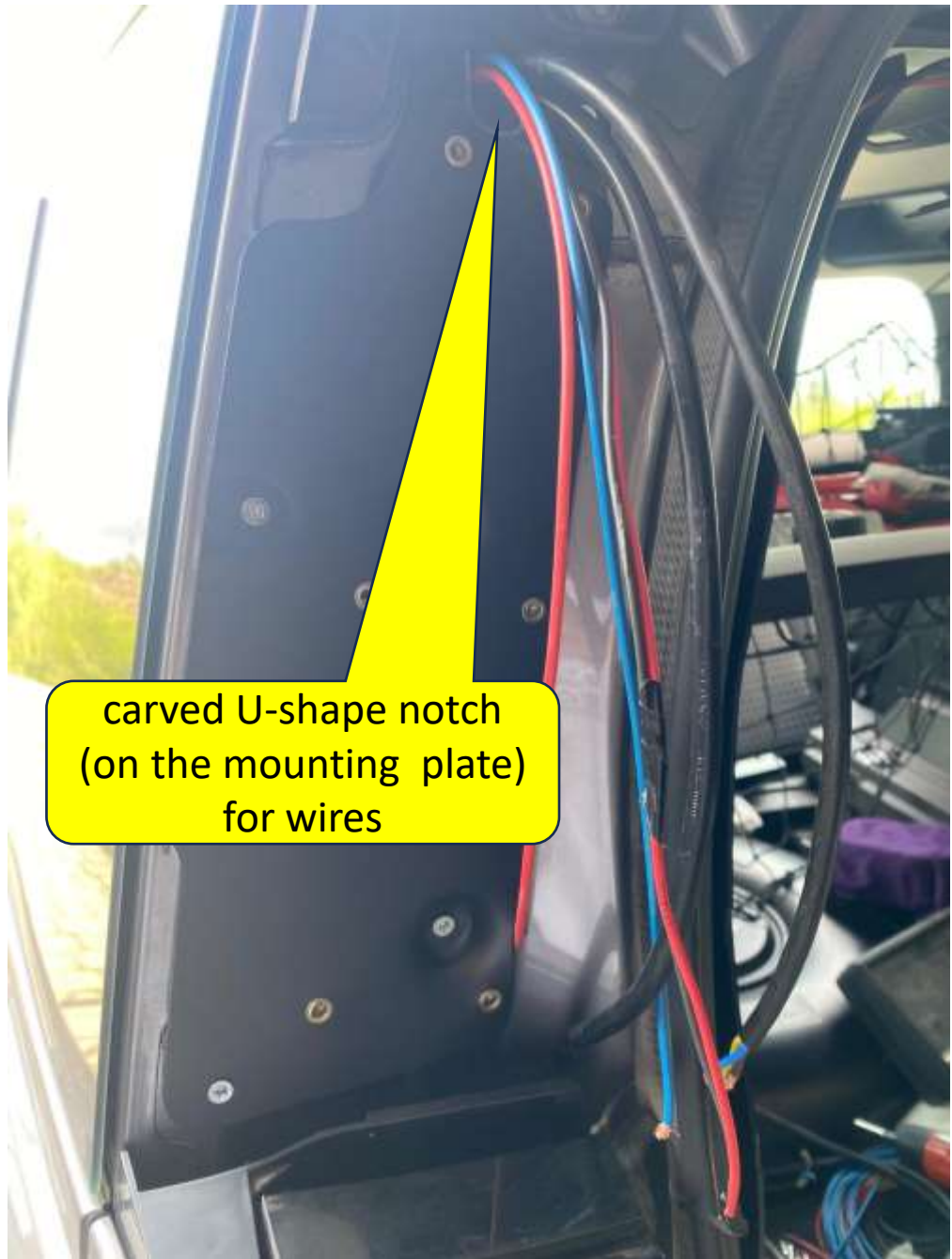


wiring installed

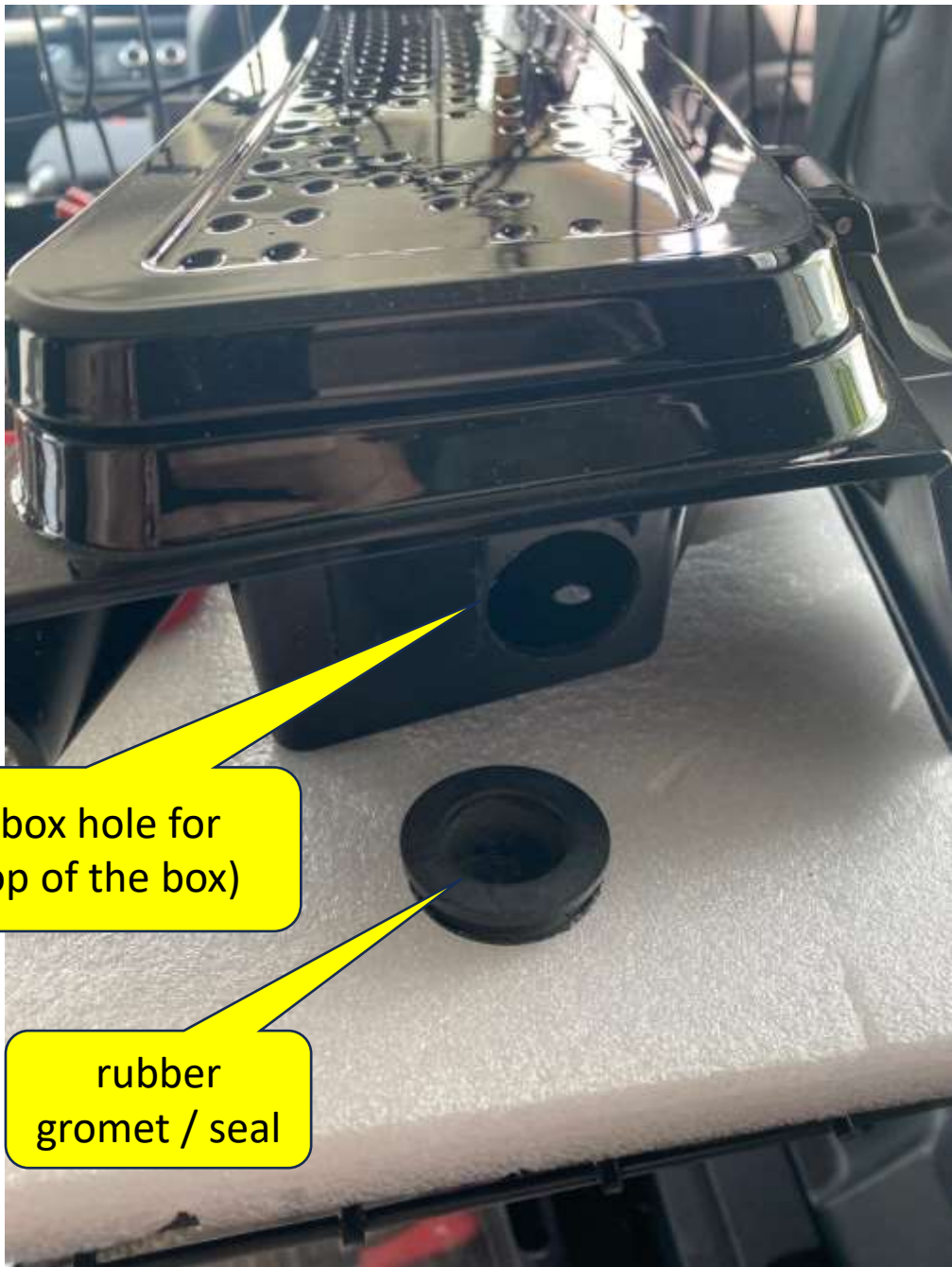
rubber grommet / seal



mounting plate installed



carved U-shape notch
(on the mounting plate)
for wires



D-pillar box hole for
wires (top of the box)

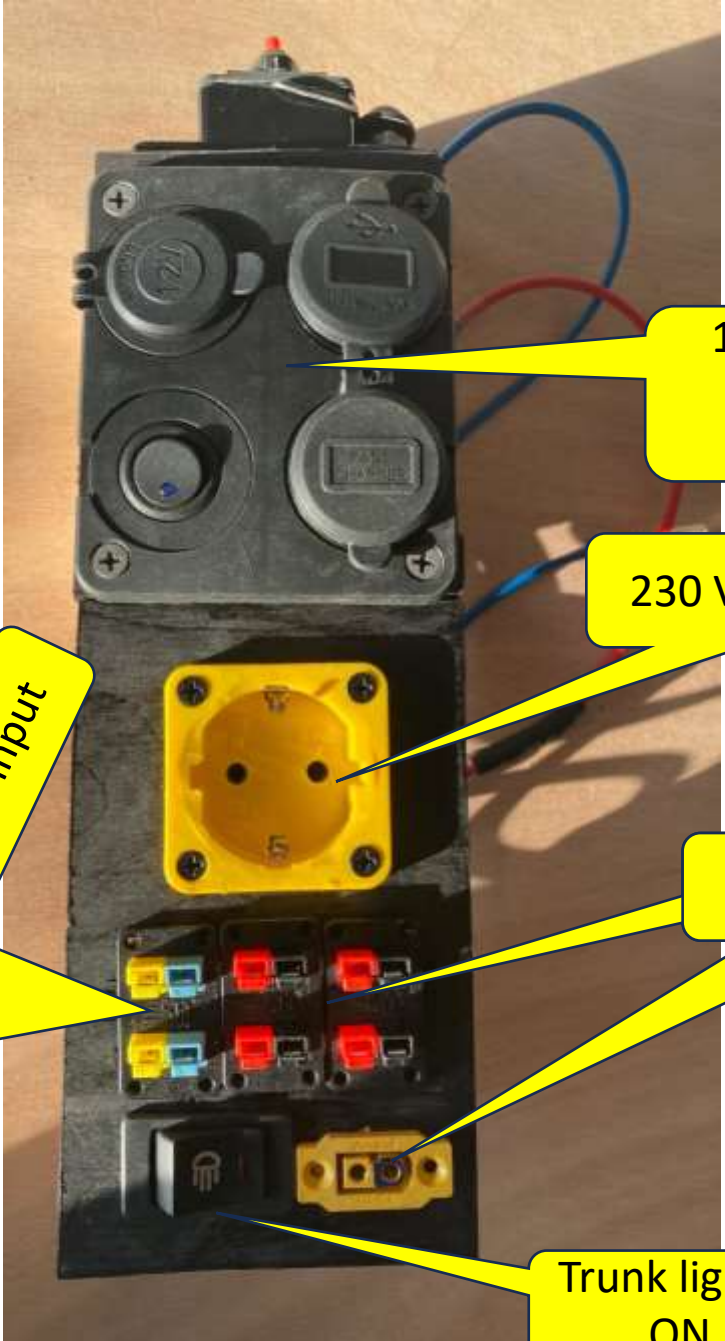
rubber
gromet / seal



Box mounted



D-pilar control panel:
some plywood, connectors, switches, hot glue, screws etc.



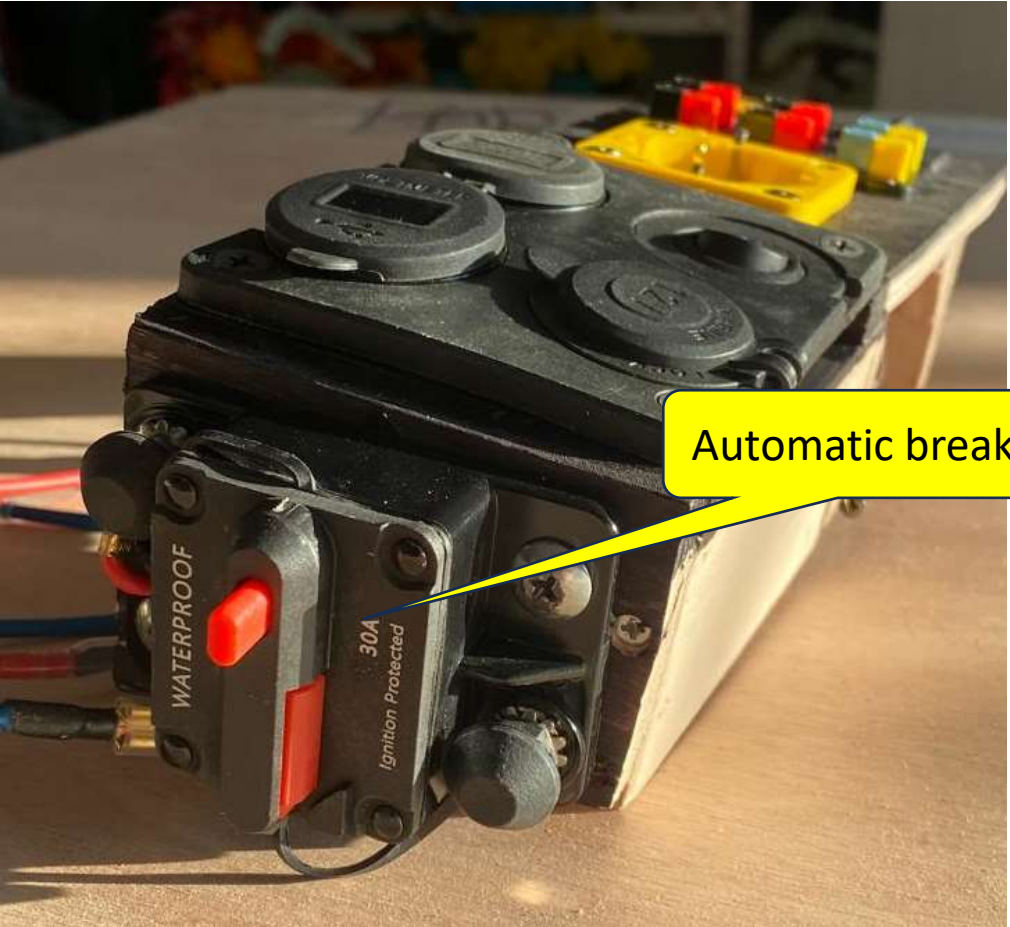
2 x SOLAR panel input

12V DC output
- lighter
- USB

230 V AC input

12V DC output

Trunk lights switch
ON / OFF



Automatic breaker



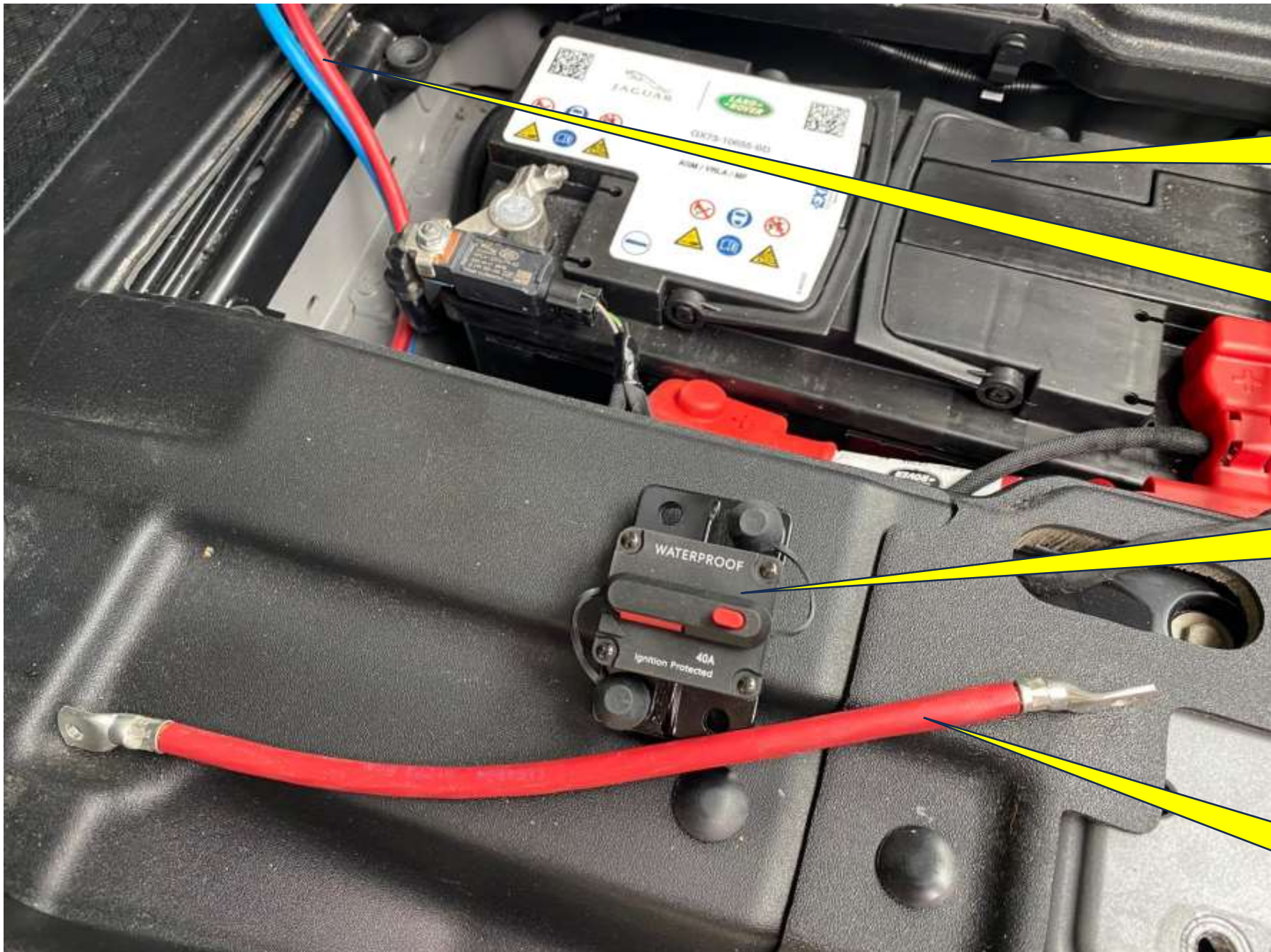
Panel installed

A close-up photograph of the electrical panel installed on the side of a silver SUV. The panel is housed in a black plastic enclosure and is open, revealing various components. At the top, there are several electrical terminals with red and blue wires. Below these are four circular outlets: two on the left and two on the right. In the center, there is a yellow square AC outlet. At the bottom, there is a fuse block with several fuses of different colors (yellow, red, blue) and a yellow battery disconnect switch.



External AC input

A photograph showing the rear of a silver SUV with the electrical panel and external AC input highlighted. The panel is mounted on the side of the vehicle, and a yellow AC input cable is plugged into it. The vehicle is parked on a paved surface, and the background shows a clear blue sky and some greenery.

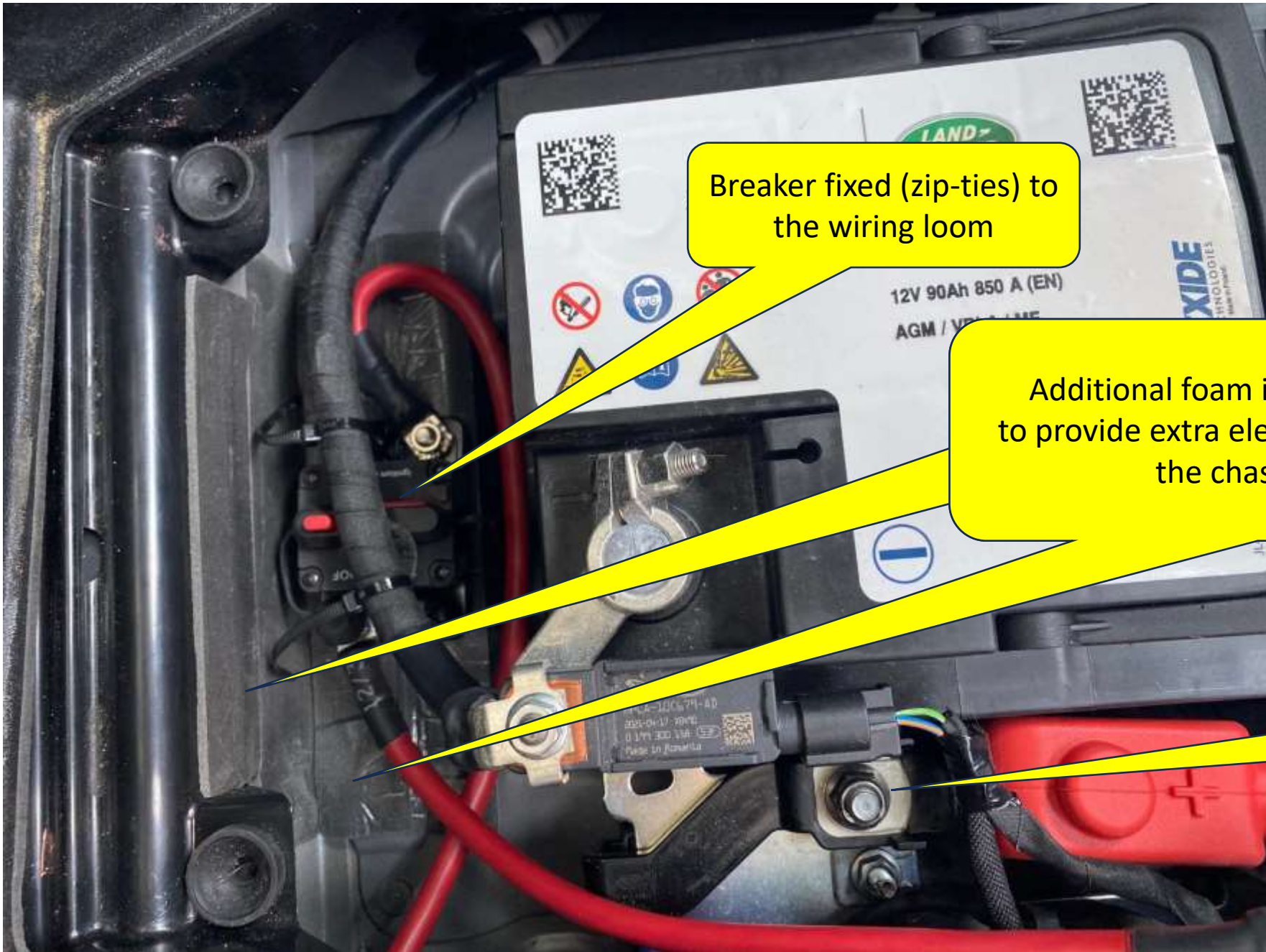


main vehicle's battery

25 mm² wires (+) and (-)

40A automatic breaker

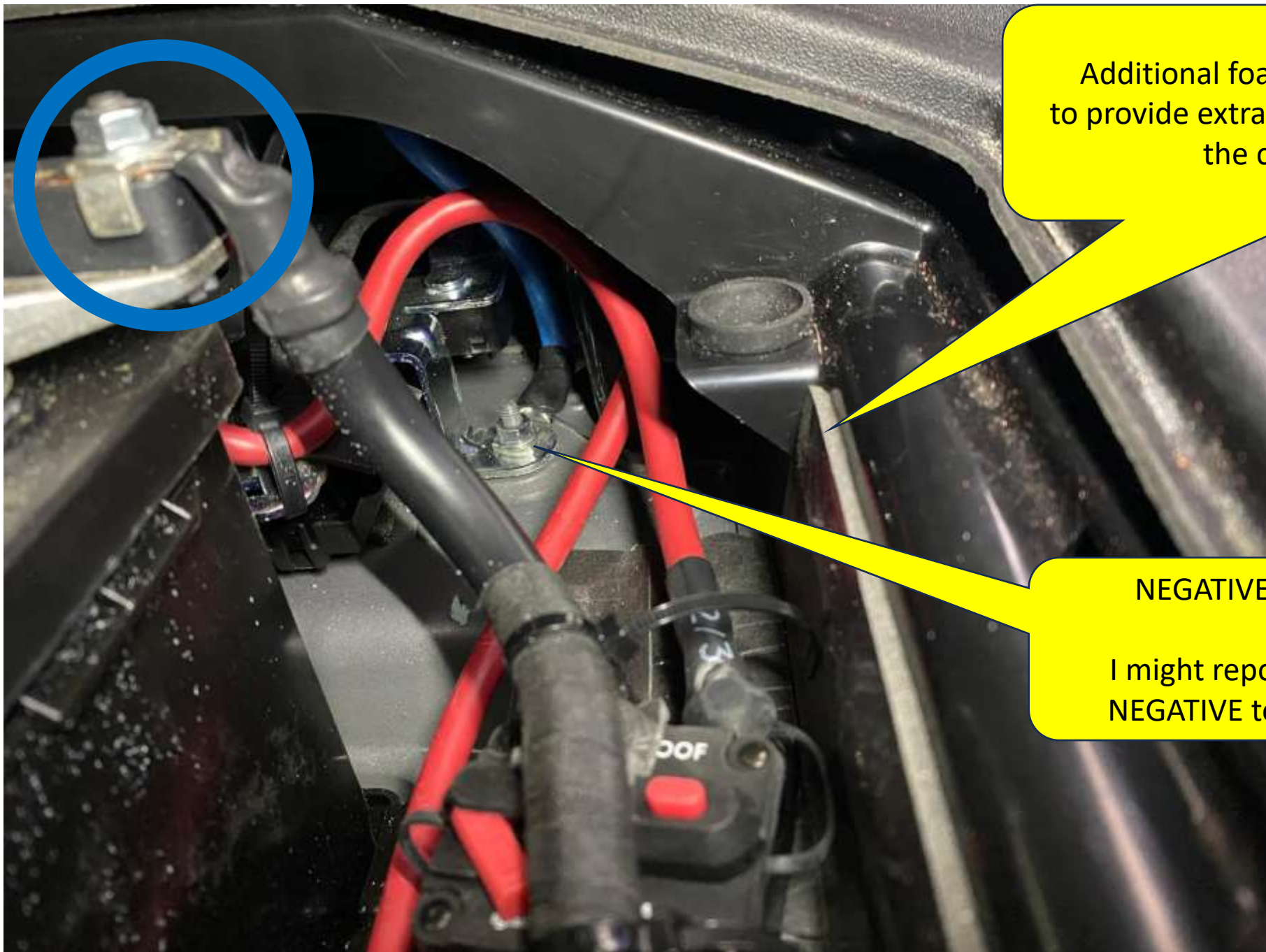
battery-breaker connector



Breaker fixed (zip-ties) to the wiring loom

Additional foam isolation (side & bottom) to provide extra electrical protection between the chassis and breaker

Positive (+) connection point



Additional foam isolation (side & bottom) to provide extra electrical protection between the chassis and breaker

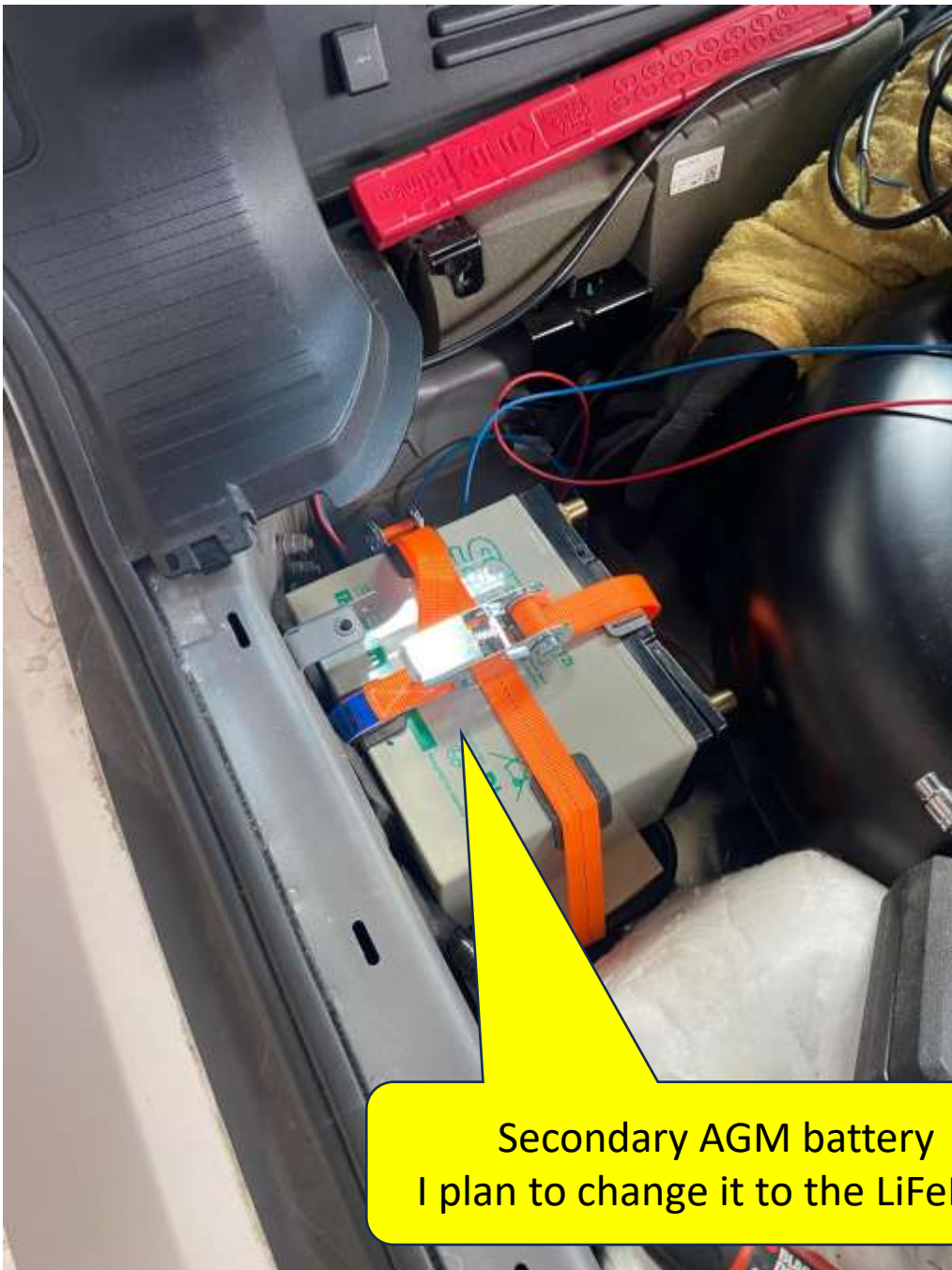
NEGATIVE (-) connection point
I might reposition it to the battery NEGATIVE terminal (marked **BLUE**)



ATEMPOWER unit mount
DC-SOLAR



ATEMPOWER unit
DC-SOLAR



Secondary AGM battery
I plan to change it to the LiFePo4

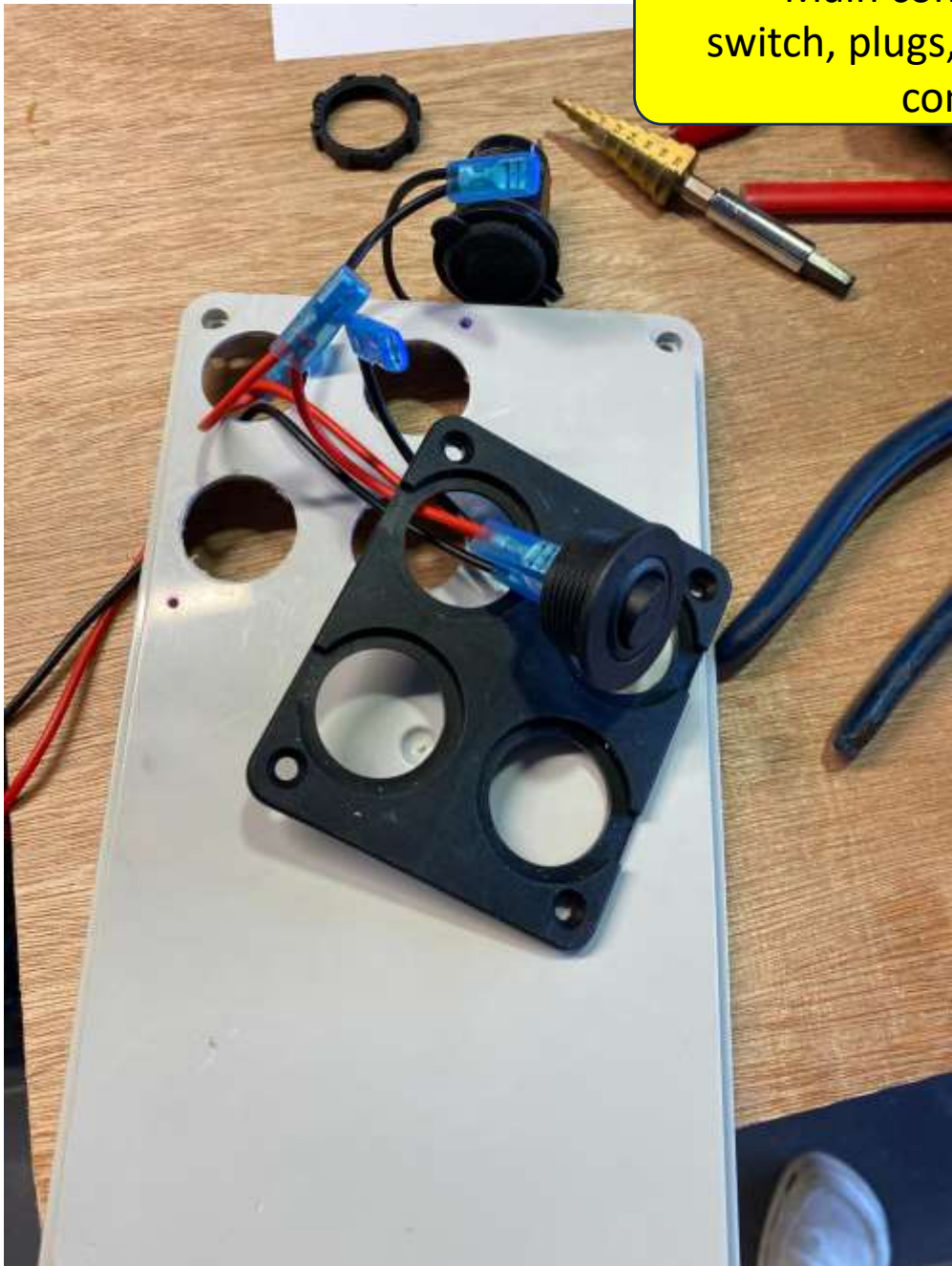


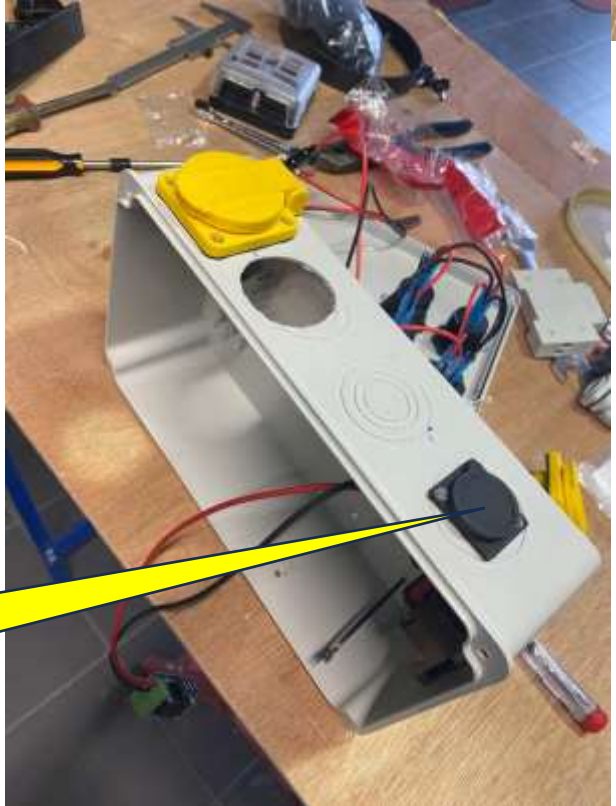
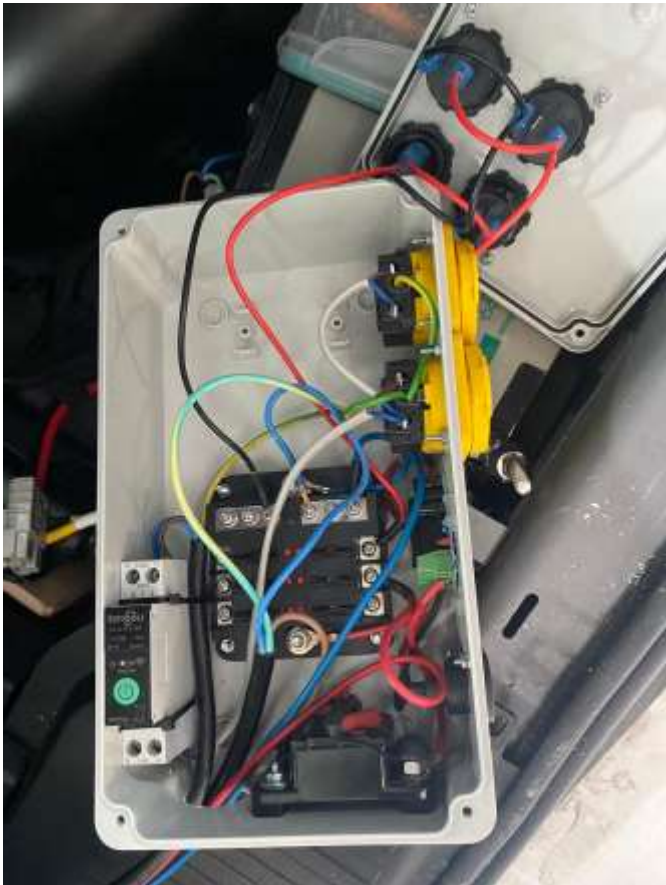
Wiring loom opening

Wires to / from the main
control unit
Rubber grommet / seal

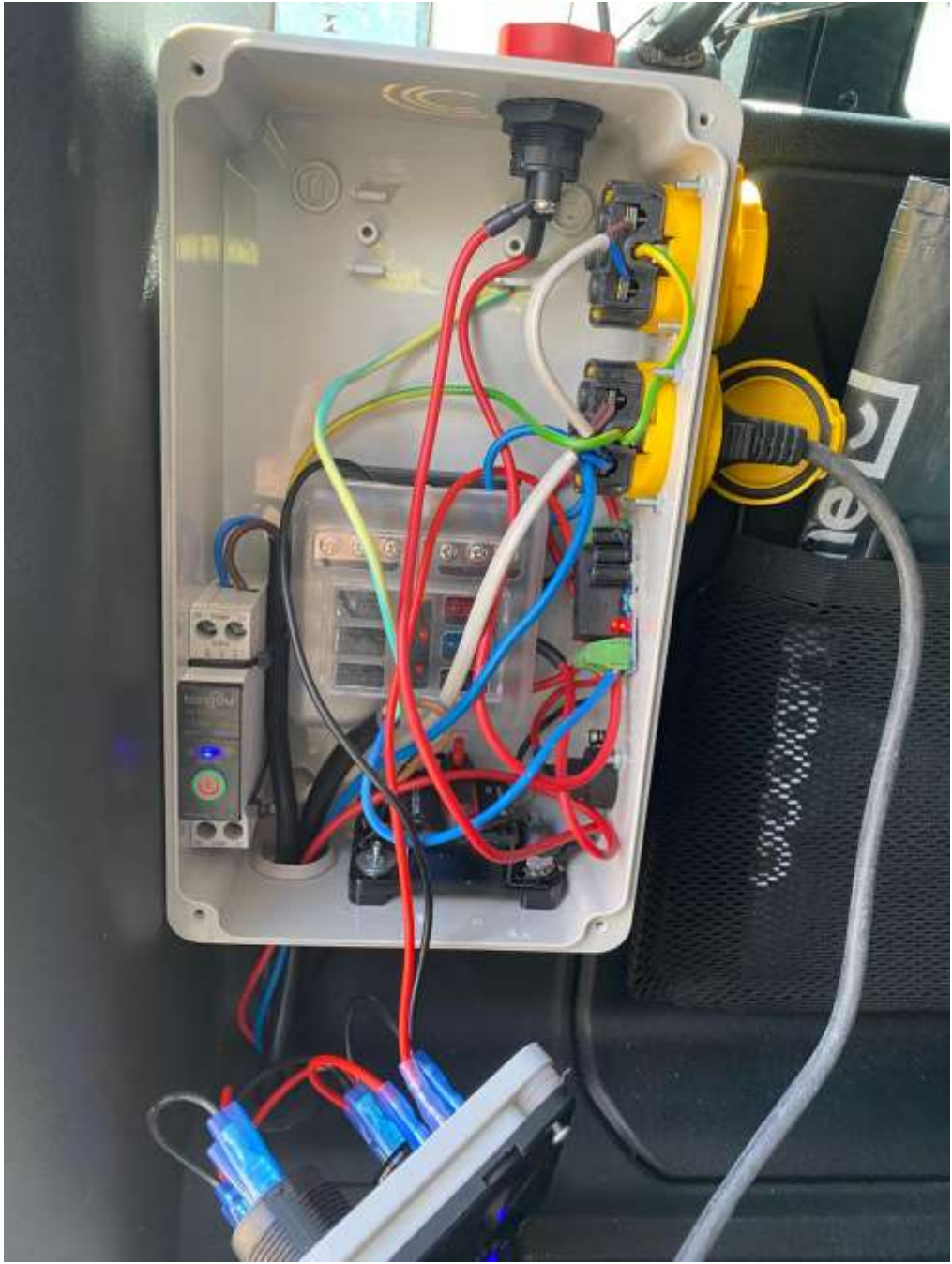


Main control unit assembly:
switch, plugs, 30A breaker, fuse box,
connectors etc.





External 12V DC input



GRANDE FINALE

