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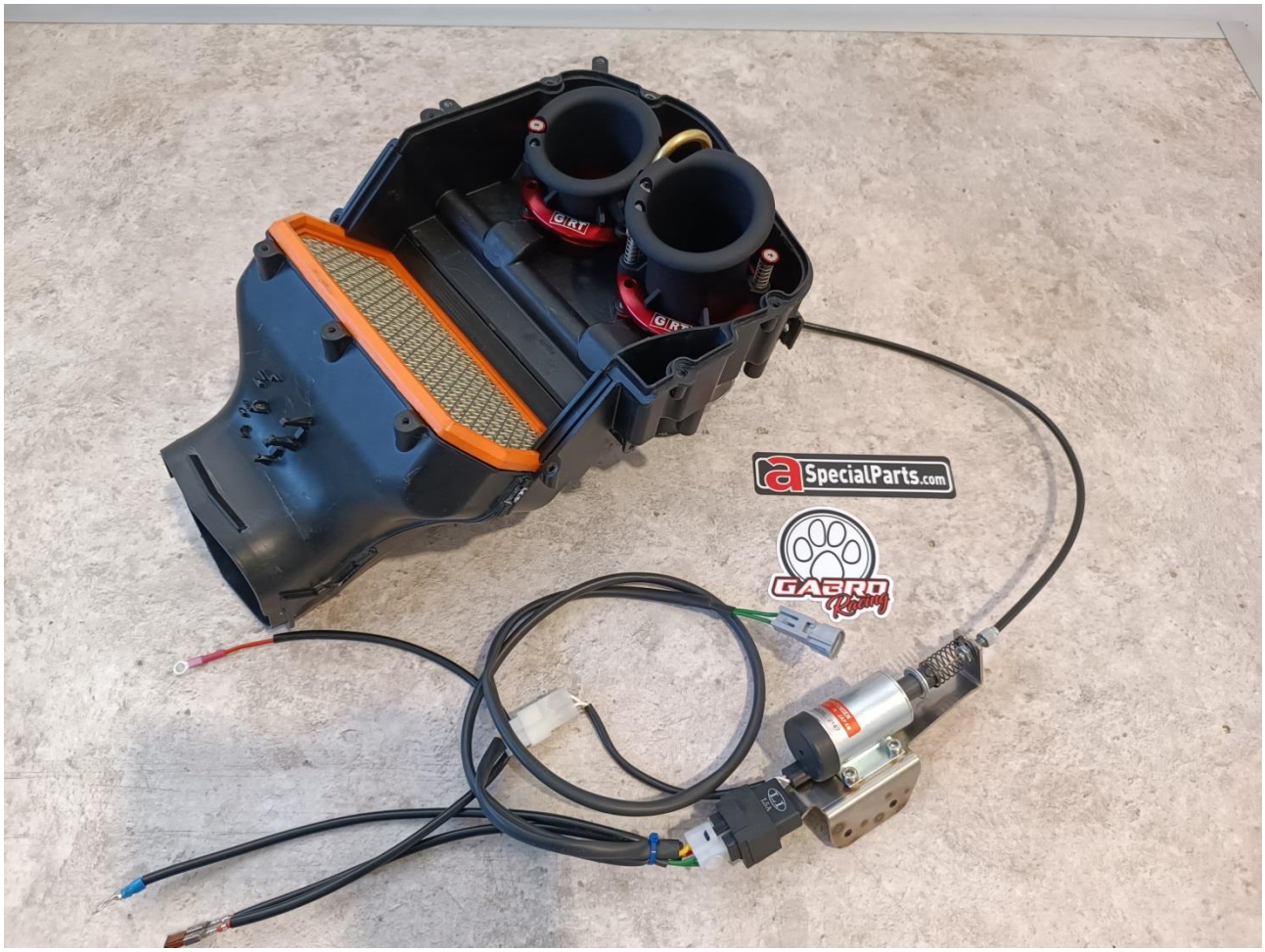
Thanks for purchasing the ASpecialParts / Gabro Racing Variable Intake Stacks Kit for Aprilia RS & Tuono 660
Cod: ASPVS660V



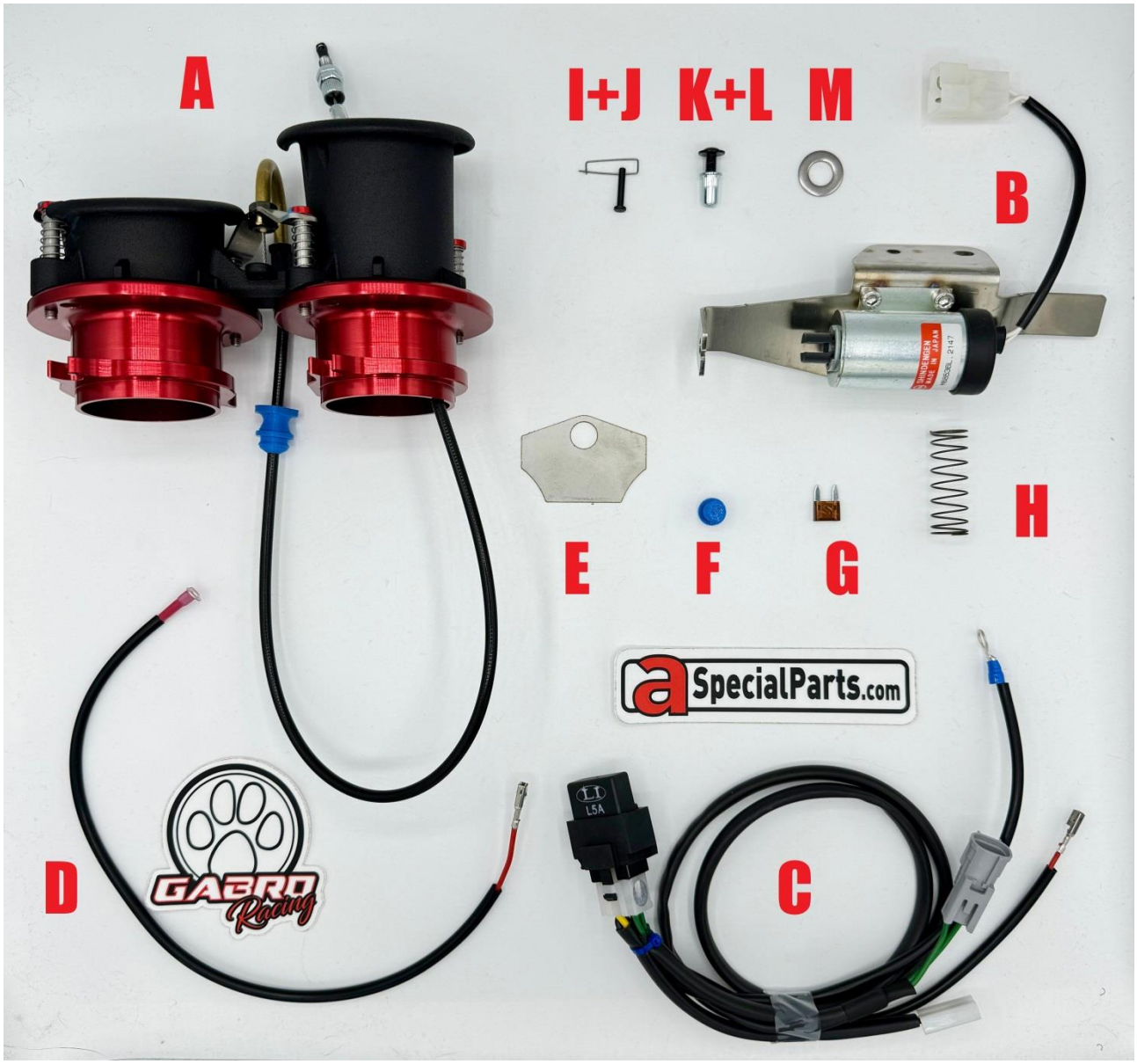
Note 0: *This manual is presently only a draft. Be sure to scan the QR code in last page and download the latest revision prior to starting the installation.*

Note 1: *This kit only works with special UpMap maps, available in UpMap maps e-commerce. In order to use those maps, you need to own a T800+ that is paired to your bike (T800+ sold separately). Use the coupon found in the Variable Stacks box to download the specific map for free.*

Note 2: *Variable stacks are actuated by the bike's stock ECU using the PAIR/SAS solenoid valve command, that has been redirected to drive the stacks actuator by the UpMap maps mentioned in Note 1. We suggest to completely removing the PAIR/SAS system from the bike using an eliminator flange at the engine head. If you don't want to do it, is very important to use the plug (**ITEM F**) to mechanically disable the system.*

Note 3: *This is a professional racing part for track use only.*
This kit is not a "fit and forget" accessory: parts will need frequent checks for conditions/lose items. Failure to comply with regular inspections and or incorrect service could lead to unwanted failures and possible engine damage. Never tamper with the painted screws.

Note 4: *Professional installation is mandatory. Special tools are required.*



A- Stacks assembly (lower stacks, upper stacks, actuating cable)
B- Actuator assembly (actuator, actuator bracket)
C- Main wiring loom
D- Powering loom
E- Airbox drilling template
F- Pair system eliminator plug
G- Fuse 7,5A
H- Actuator spring
I- Cable spindle
J- Cotter Pin for cable spindle
K- M5 rivnut
L- M5 screw
M- Washer

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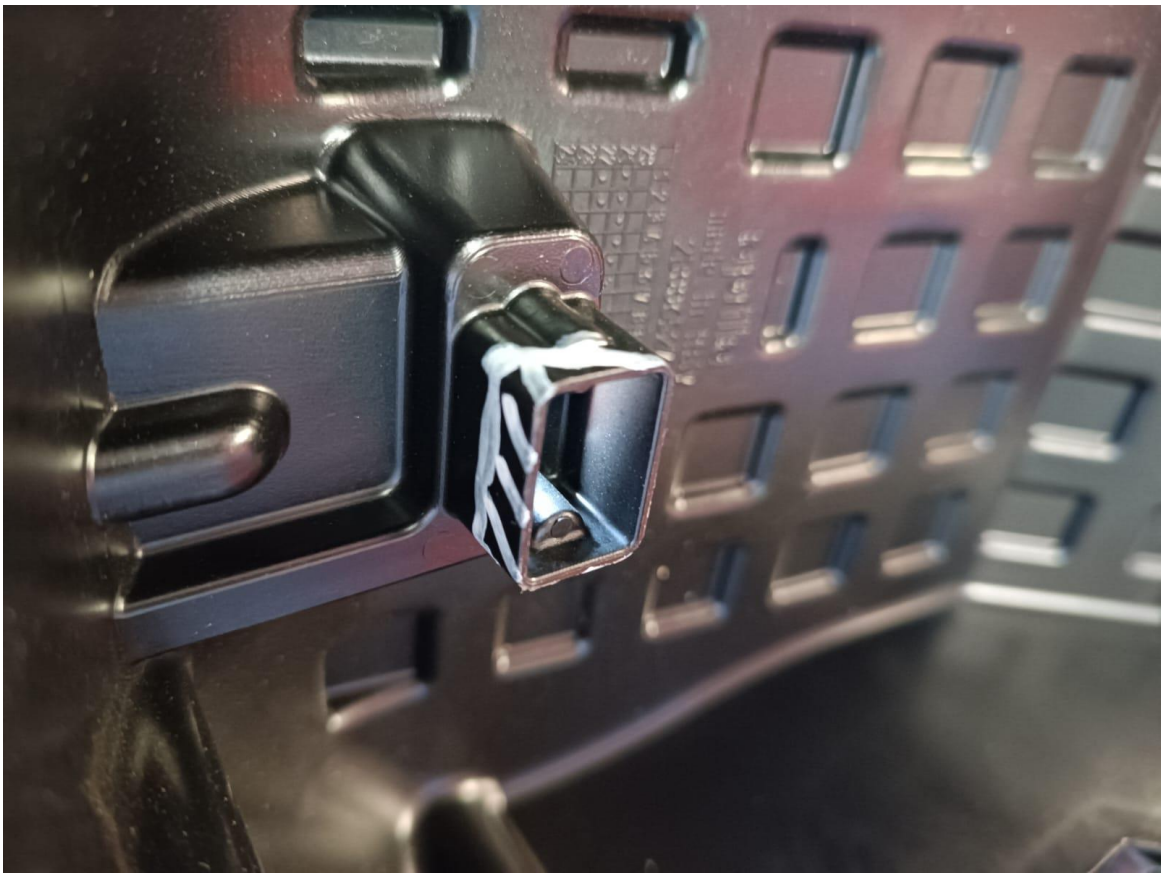
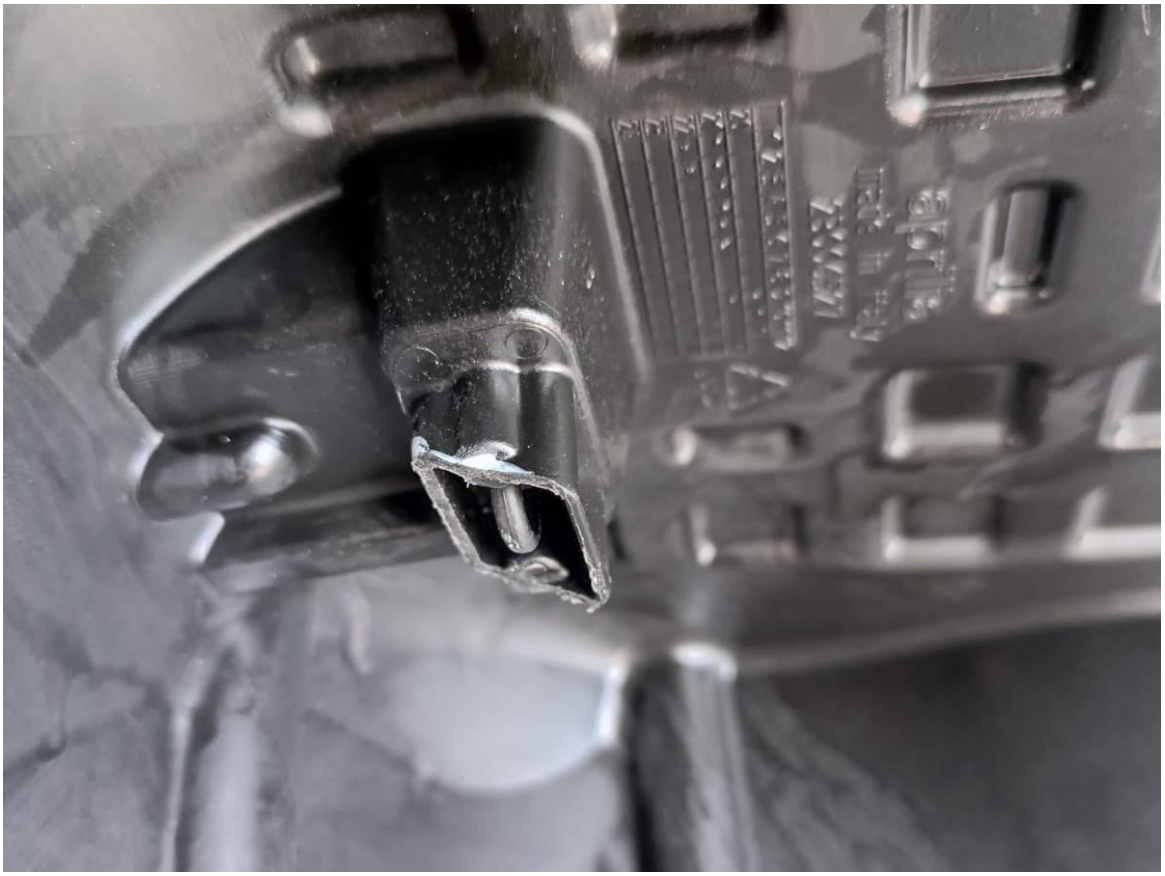
Attention:
- LH/RH side of the bike are intended as per rider view.
- When not specified use the bike shop manual procedures and torque settings.
- This manual shows normal service activities like tank or airbox removal and reinstallation. Please follow the bike shop manual.

Installation:
1- Remove from the bike: fuel tank, seats, LH and RH seat panels, battery tray, airbox, intake stacks. Disconnect battery terminals (remove the ground first).
2- Using a Dremel tool with a cutting disk, cut the air temperature sensor housing in the airbox lid, as shown in **PIC 1, 2**. Take care not to cut the temperature sensor (temporally remove it).
3- Using the airbox drilling template **ITEM E**, mark the airbox base and drill it out to 12mm. Flare both drilling edges as per **PIC 3, 4, 5**.
4- If the bike is still fitted with the PAIR system, fit the rubber plug **ITEM F** in the PAIR air pickup line in the airbox base as shown in **PIC 6** (if your bike already has the PAIR system removed, you should already have this port plugged and hose fitted).
5- Using the actuator bracket as a template (**ITEM B**) mark and drill for the M5 rivnut **ITEM K** on the RH rear subframe beam. Fit the rivnut (**PIC 7, 8**)
6- Using a Dremel tool with a cutting disk, cut the battery tray as shown in **PIC 9, 10**. Test fit actuator bracket and the modified battery tray often per **PIC 11, 12.**
7- Fit the round power terminal of the cable **ITEM D** to the starting relay terminal where the power wire from the battery is fitted **PIC 13, 14**.
8- install the other end of cable **ITEM D** in bike's fuse box B, using the spare "5" location (**PIC 15, 16**).
9- Route the main loom **ITEM C**, connect the grey connector to the green PAIR solenoid connector **PIC 17** (on engine right side, just above the clutch). Fit the spade connector at the fusebox from the **step 8** above, fit the 7.5A fuse **ITEM G**, reinstall +12V battery terminal and finally the ground to the battery terminal, adding the variable stack ground to it (**PIC 18)**.
10- Insert the stacks assembly **ITEM A** cable in the airbox base though the hole made in the **step 3**, tape the end of the cable (**PIC 19**) and route it down near coolant temperature sensor (**PIC 20**) then route it on bike right side above the clutch (**PIC 21**). Finally route it back in the rear subframe (**PIC 22**).
11- fit the stacks assembly **ITEM A** on the throttle body. Screw-in rear screws by one turn only, slide in the stacks assembly, then fit front screw. Tighten all screws down. **Use a tiny drop of Loctite on all 4 screws.** Fit the cable rubber grommet in the airbox hole (**PIC 23**)
12- install the cable on the actuator, setting it loose. using the spring **ITEM H** and the pin with cotter pin **ITEM I and J** as per **PIC 24.**
13- Key-on the dash. At key-on, with the bike's red button in ON position, the stacks upper part will rise. Pushing the safety button OFF will cause the stacks to drop in rest position. Adjust cable length using the set screw in the actuator support in order to get 13-14mm upper stacks lift, **being sure all 4 coil springs do not bind at full lift.** To fine tune the length you can also use the register at the stacks end of the cable.
14- complete actuator bracket installing using the screw and washer **ITEM L and M**, reinstall airbox lid, fuel tank and battery tray.
15- Download and flash the specific Variable Stacks UpMap map. Start the bike and enjoy.

PIC 1:



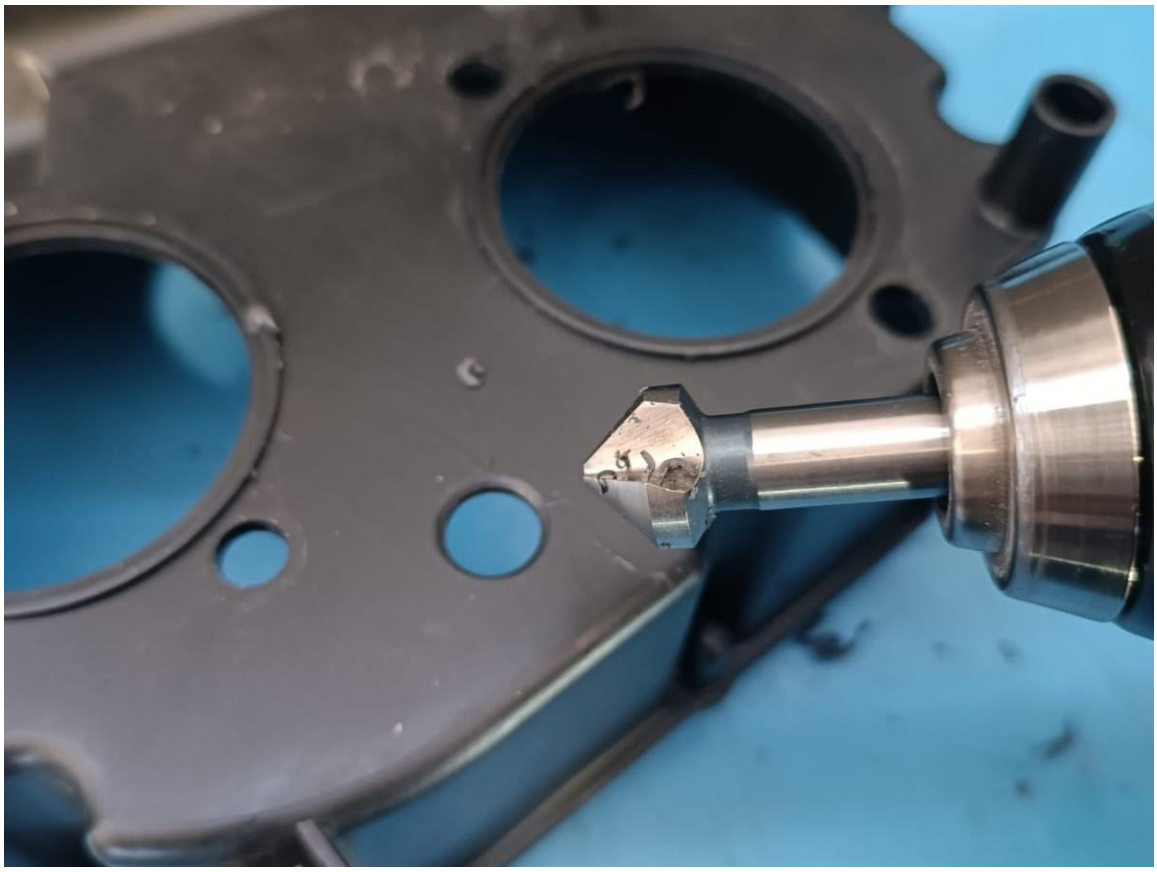
PIC 2:



PIC 3:

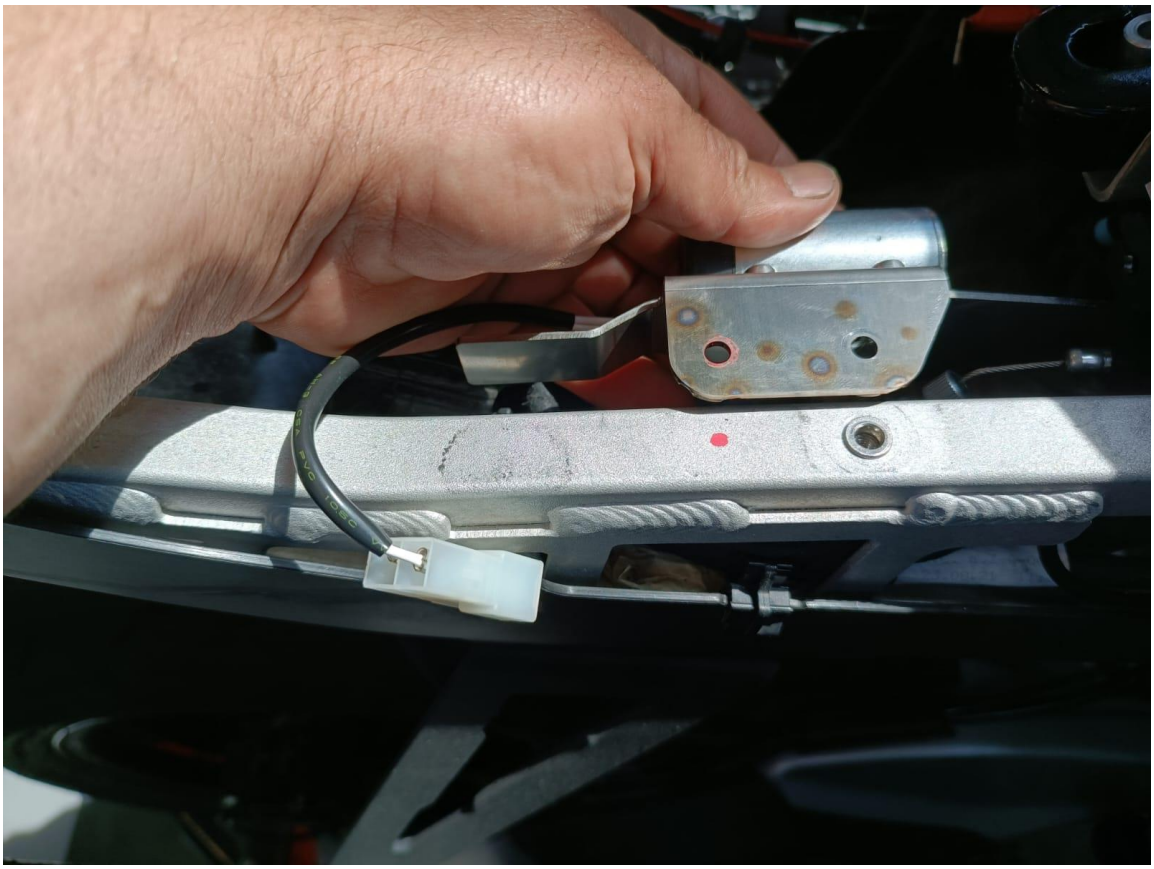
PIC 4:

PIC 5:



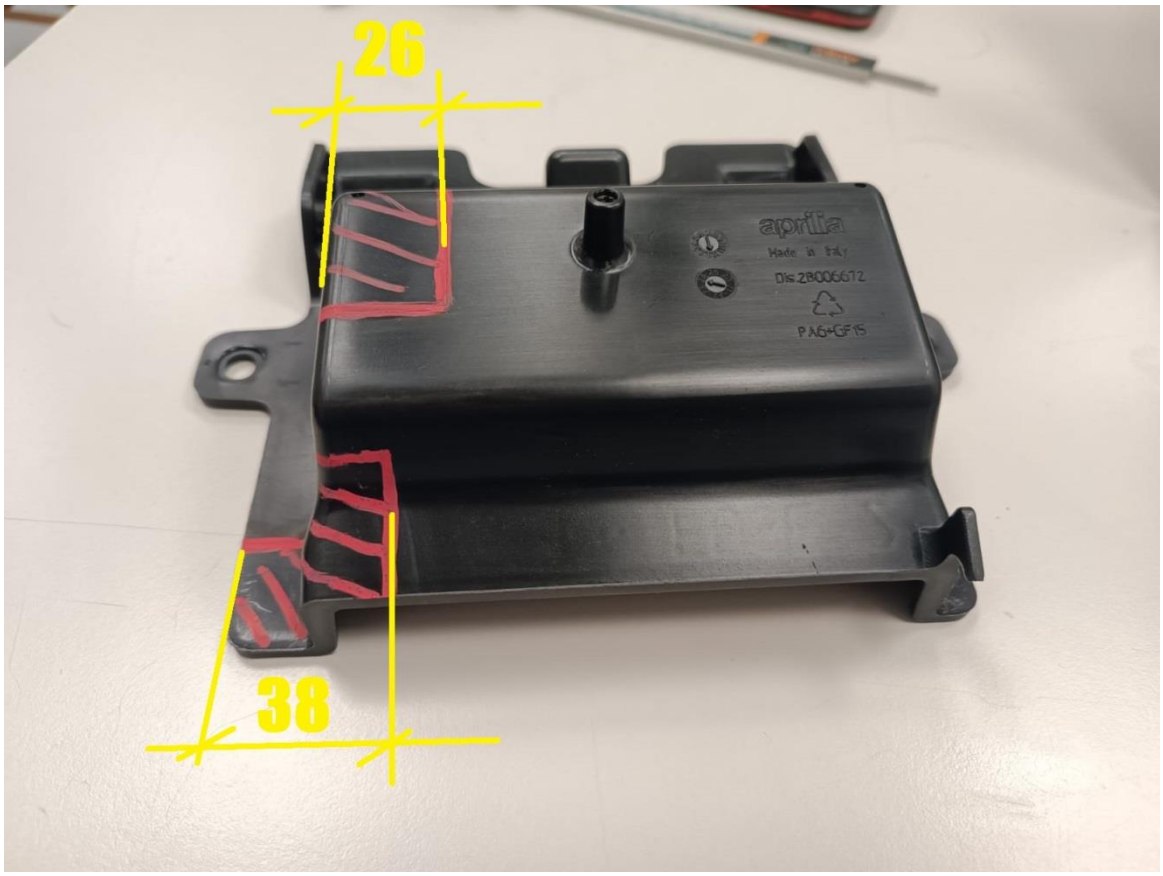
PIC 6:

PIC 7:

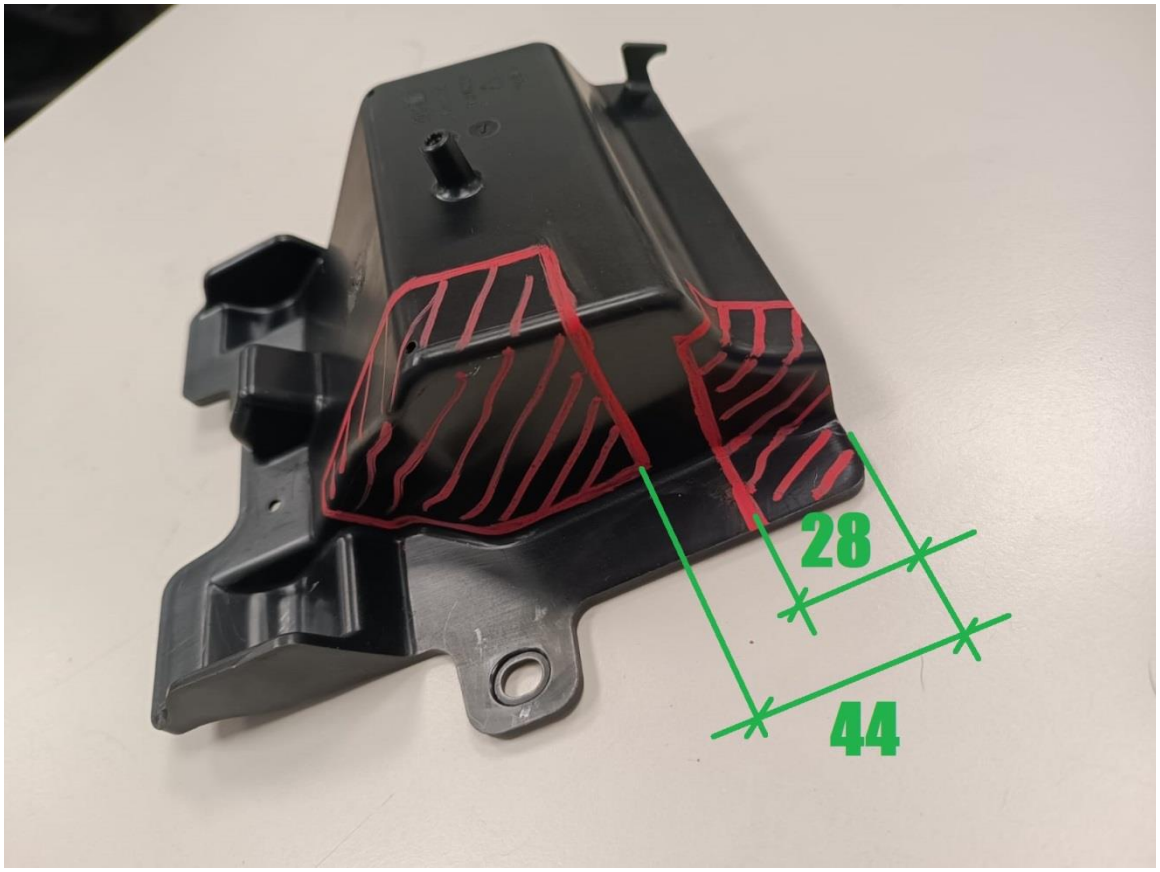


PIC 8:

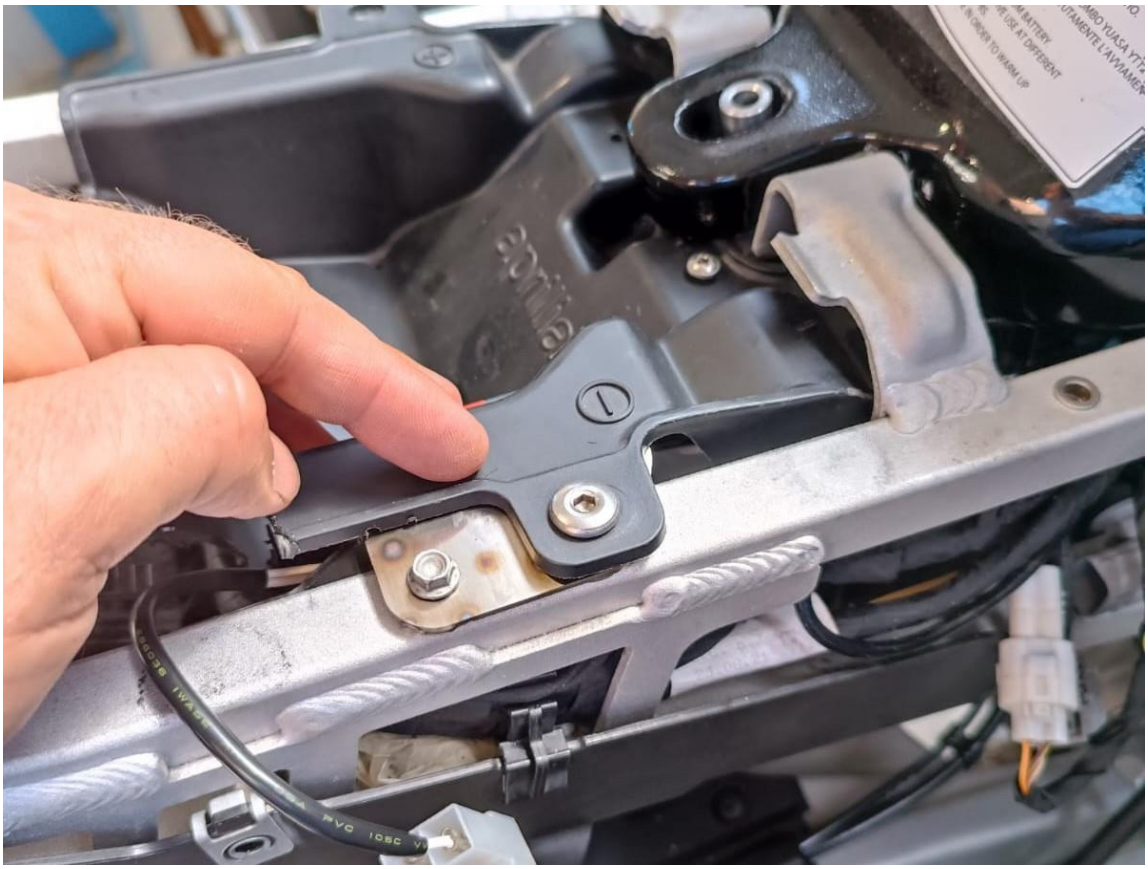
PIC 9:



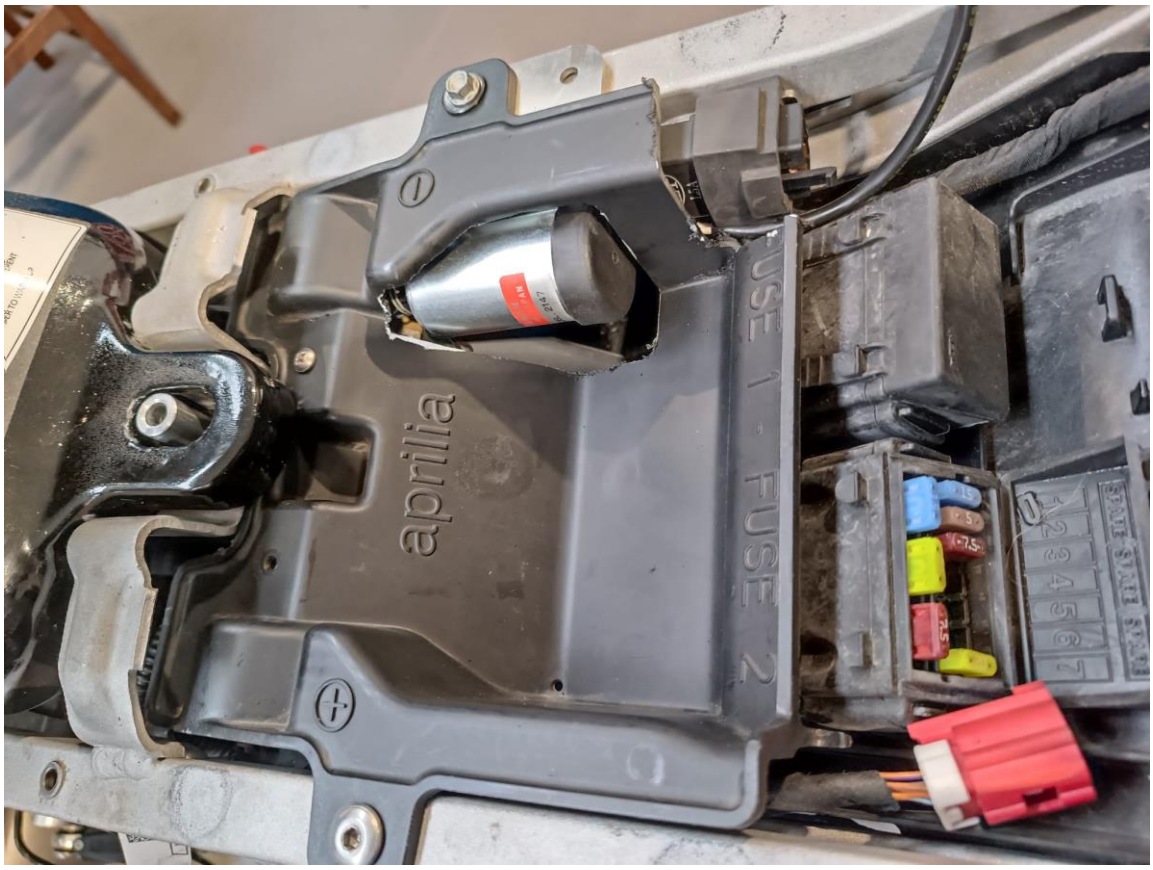
PIC 10:



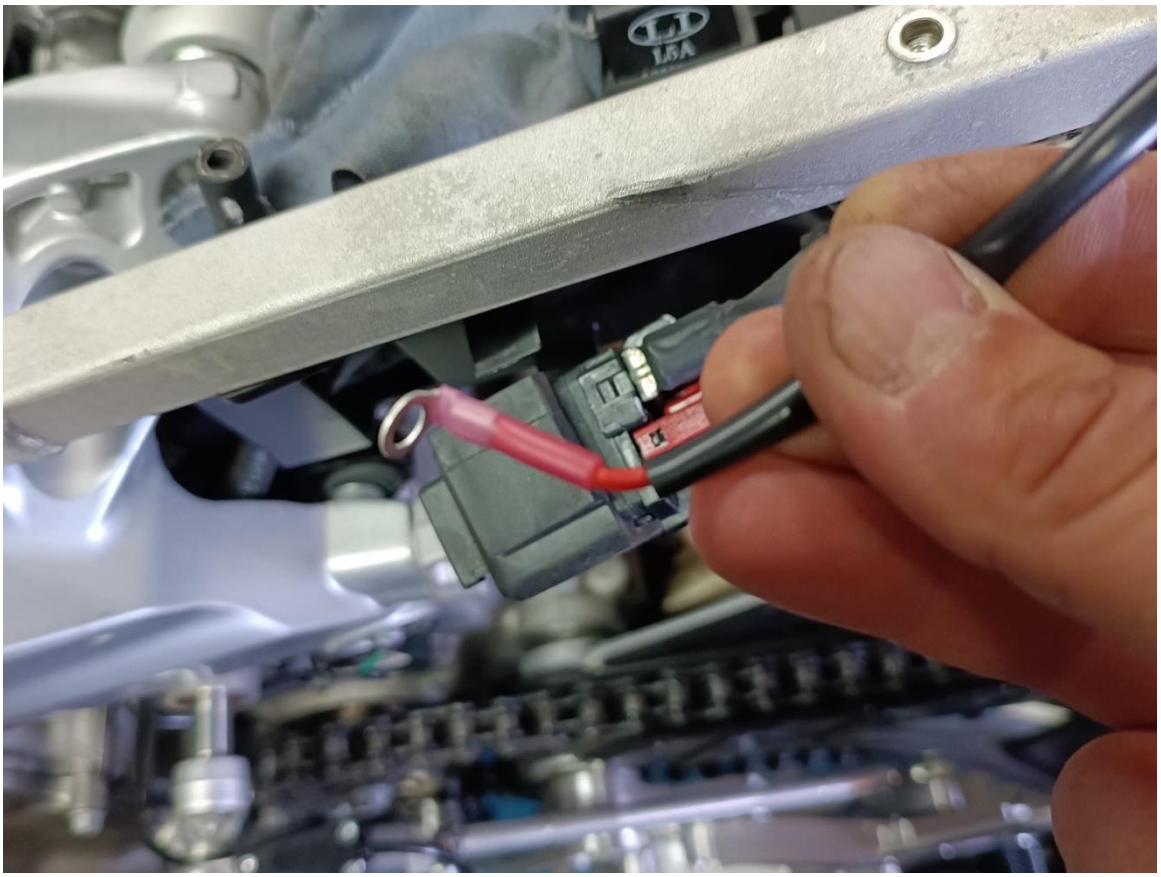
PIC 11:



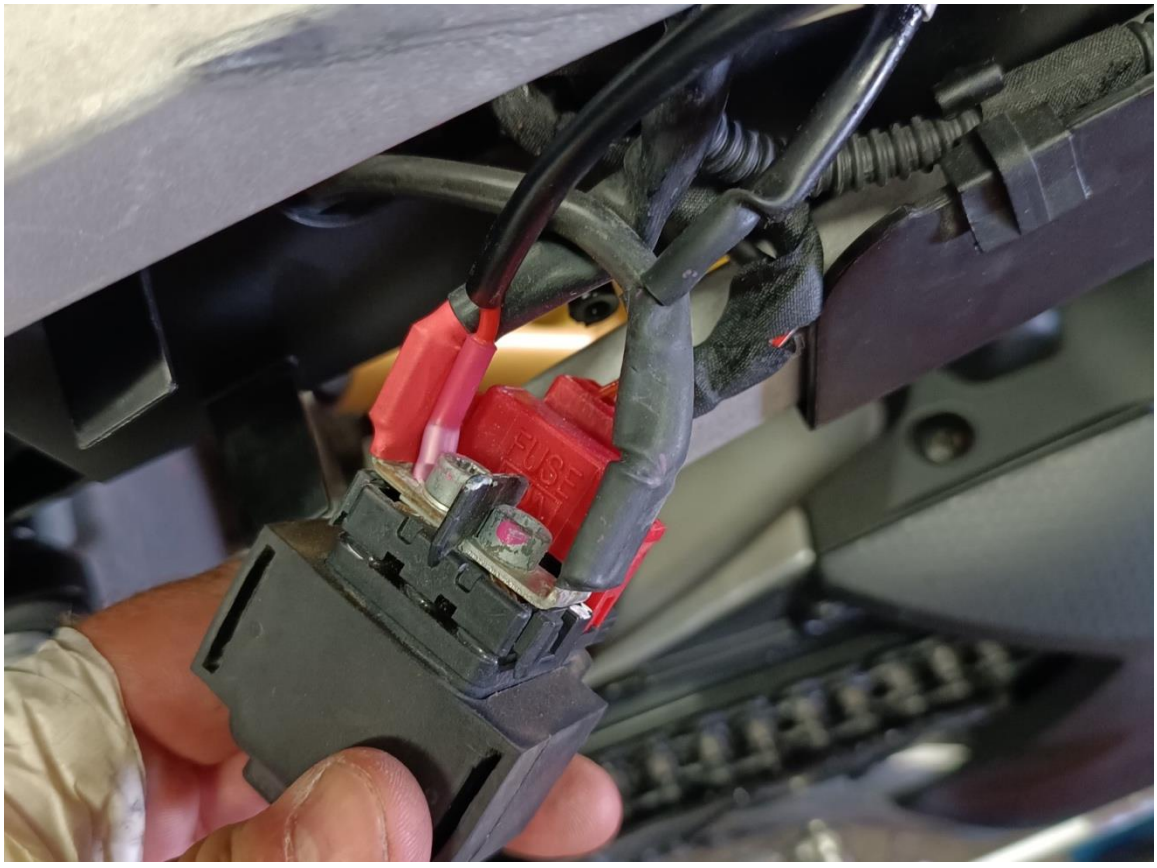
PIC 12:



PIC 13:

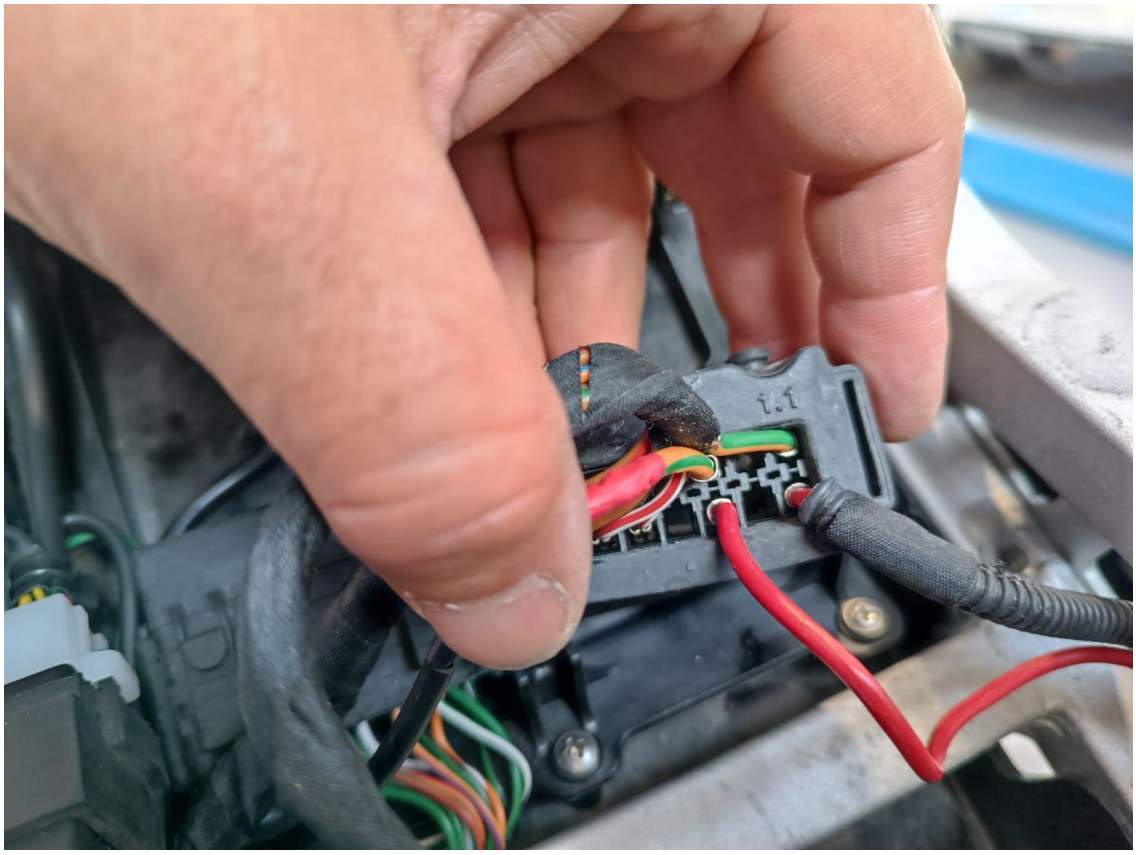


PIC 14:

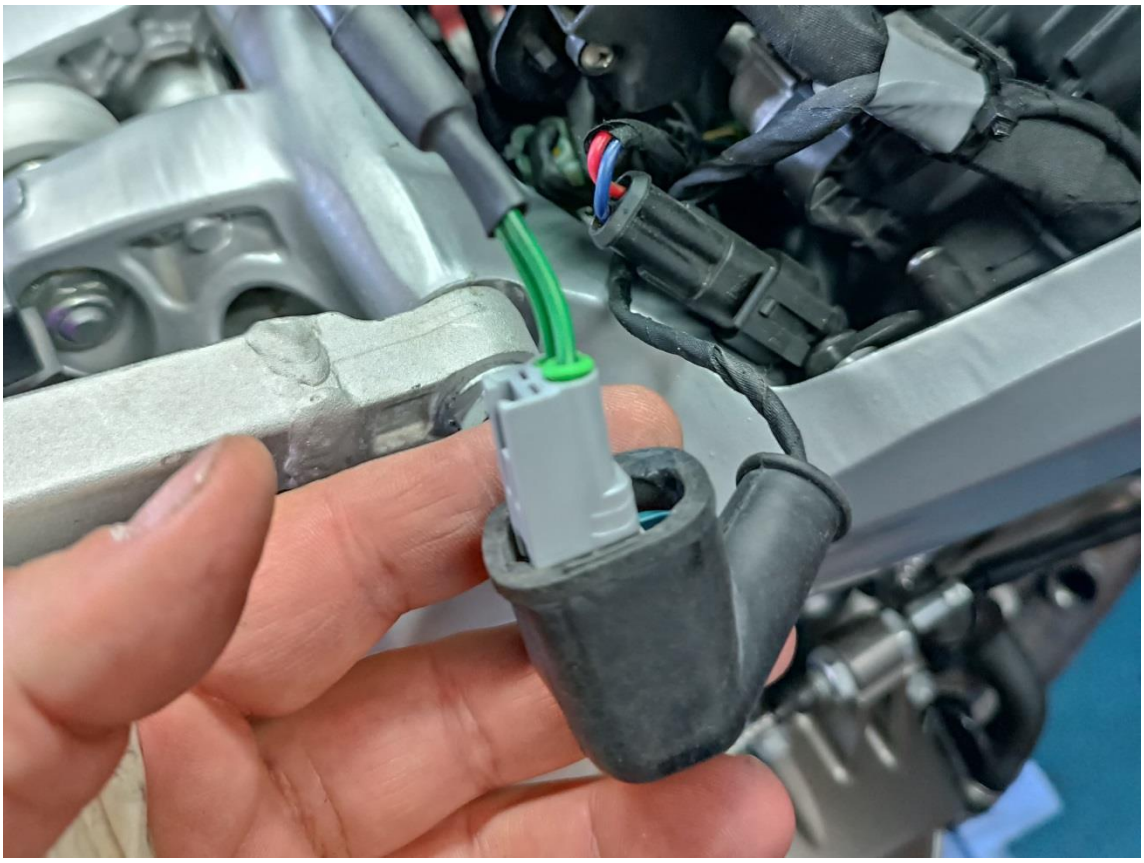


PIC 15:

PIC 16:

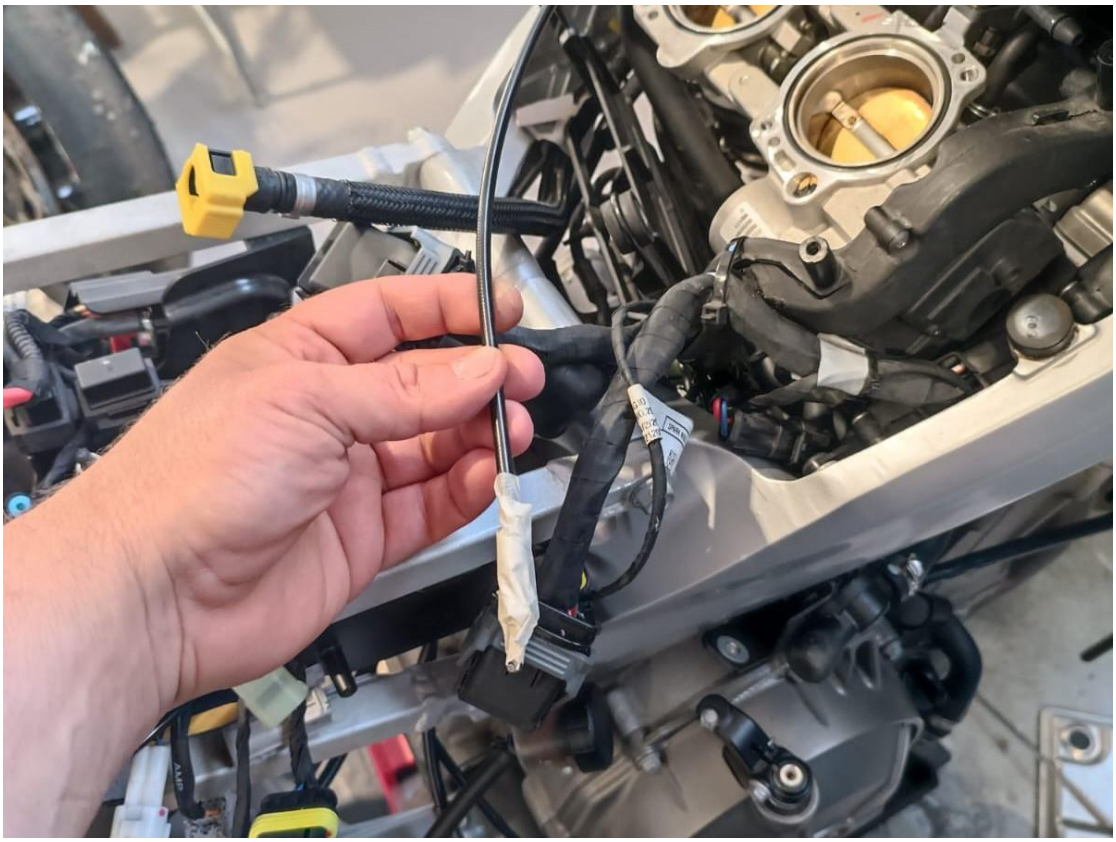


PIC 17:



PIC 18:

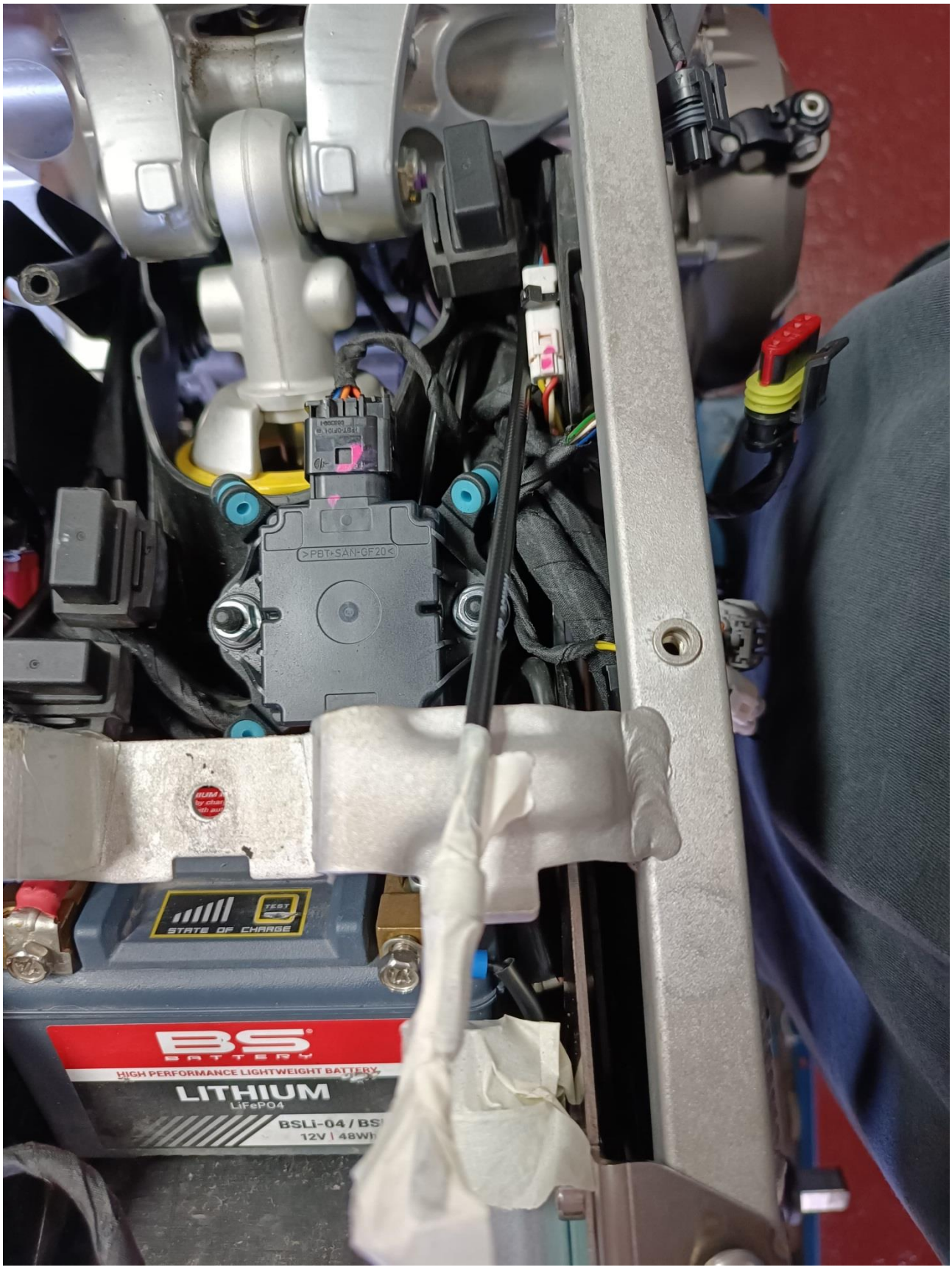
PIC 19:



PIC 20:

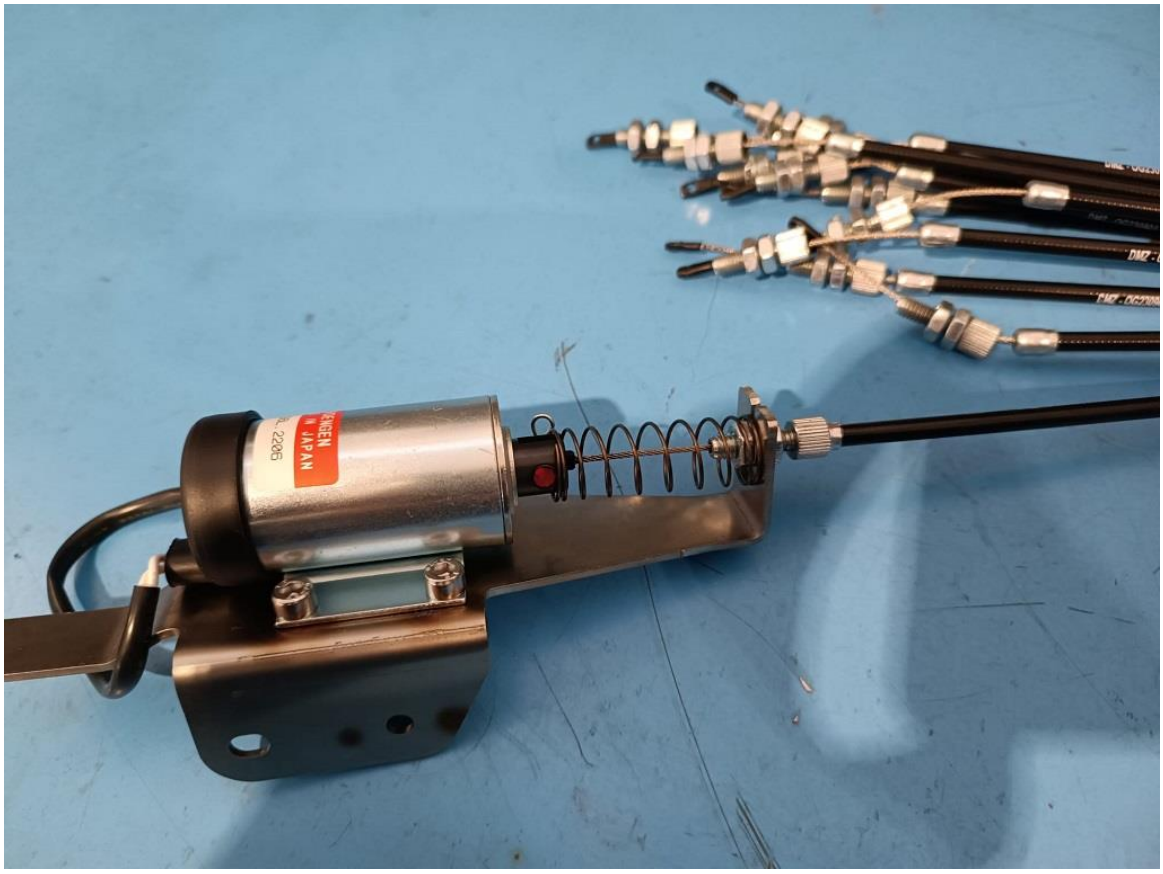
PIC 21:

PIC 22:


STATE OF CHARGE
BS
BATTERY
HIGH PERFORMANCE LIGHTWEIGHT BATTERY
LITHIUM
LiFePO4

PIC 23:

PIC 24:



PIC 25:

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ATTENTION: this is a race product intended to be used on closed courses only.