

PQ8 Item 241ND instruction – VOGÉ DS800 Rally

2026-03-15, Rev A

Applications

VOGÉ DS800 Rally from 2025



Product description

PQ8 Quickshifter system developed for Voge DS800 Rally. The quick shift is done by interrupt the ignition and features adjustable kill time, shift force, smooth and compus shift function.

Cordona use strain gauge sensor technology which gives a consistent and distinct shift performance. The GP SG M6 switch is based on same technology platform we have used in Moto3 World Championship together with KTM Factory Moto3 and Honda Factory bikes.

The Cordona PQ8 Quickshifter is maybe the most robust 'stand-alone' system on the market. It has been used in Moto2 Word Championship bikes, for racing bikes, street bikes and in many categories for years. It can be used with all variants of strain gauge sensors, like rod linkage, toe PEG or sensors integrated in shift levers.

The PQ8 Item 241ND includes:

PQ8 ND ECU –PQ8 ECU Version 1.20 with pre-sets for Voge DS800 Rally.

GP SG Switch – Digital GP SG switch with M6 size strain gauge sensor.

PQ8 241 loom – loom connecting PQ8 ECU, bike ground, ignition coils, injector and GP SG switch module.

Rod assembly kit

- 150mm aluminium rod with left and right hand M6 threads
- 1x M6 A4 marine stainless steel left nut
- 2x M6 A4 marine stainless steel right nut
- 1x M6 stainless steel left stud
- 2x M6 stainless steel right stud
- 8x cable ties
- 1x cable tie and plastic tube
- Velcro tape PQ8 ECU and GP SG module
- QR code for this manual
- Cordona stickers



Tools needed

- Wrenches 8mm and 10mm to tighten rod linkage
- Ratchet with 7/16 socket
- Nipper for cable ties
- Measuring tape
- Thread-locking fluid, Loctite 243 or similar



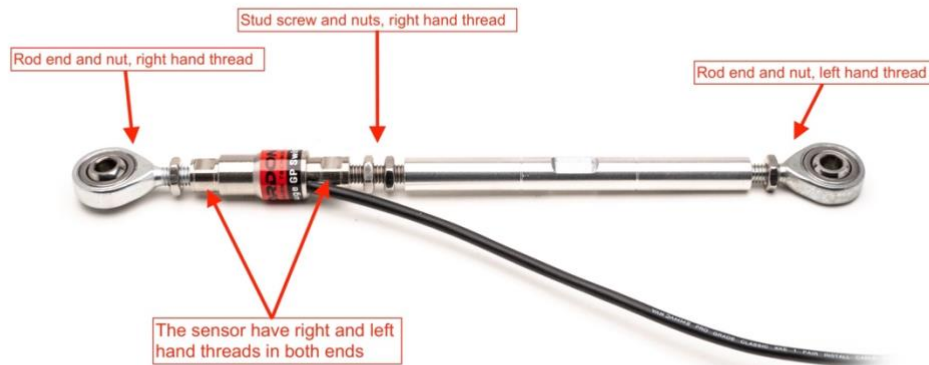
Installation

Prepare the bike for the quickshifter installation

- Remove the saddle, protection bars, right and left side panels, air intake and fuel tank. You need to have access to the bike ignition coils, injectors, bike main harness and battery.
- Measure the height of your toe peg at your preferred position.
- Remove shift rod from bike

****IMPORTANT NOTE;** always disconnect the battery minus before disconnect connectors to ignition coil and fuel injectors.

The sensor can be mounted in either direction, with the cable outlet facing down or up.



Gear shift linkage, recommended assembly.

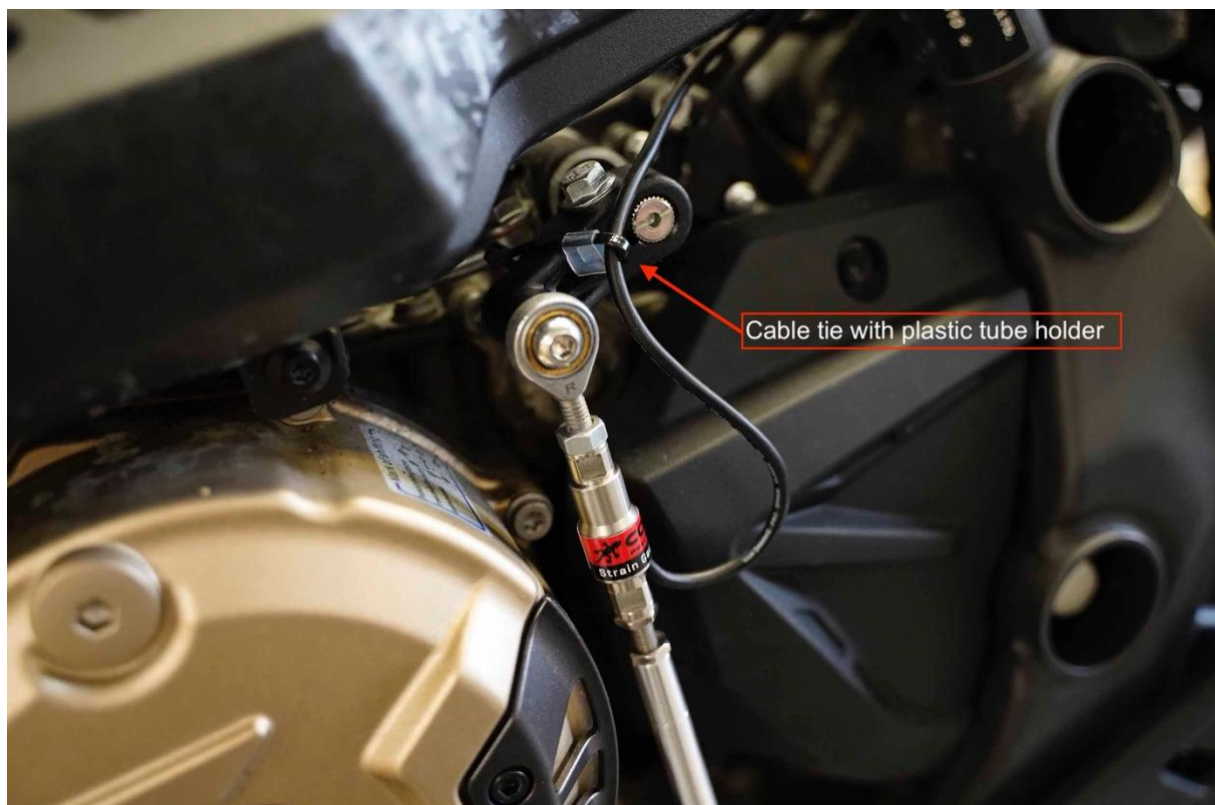
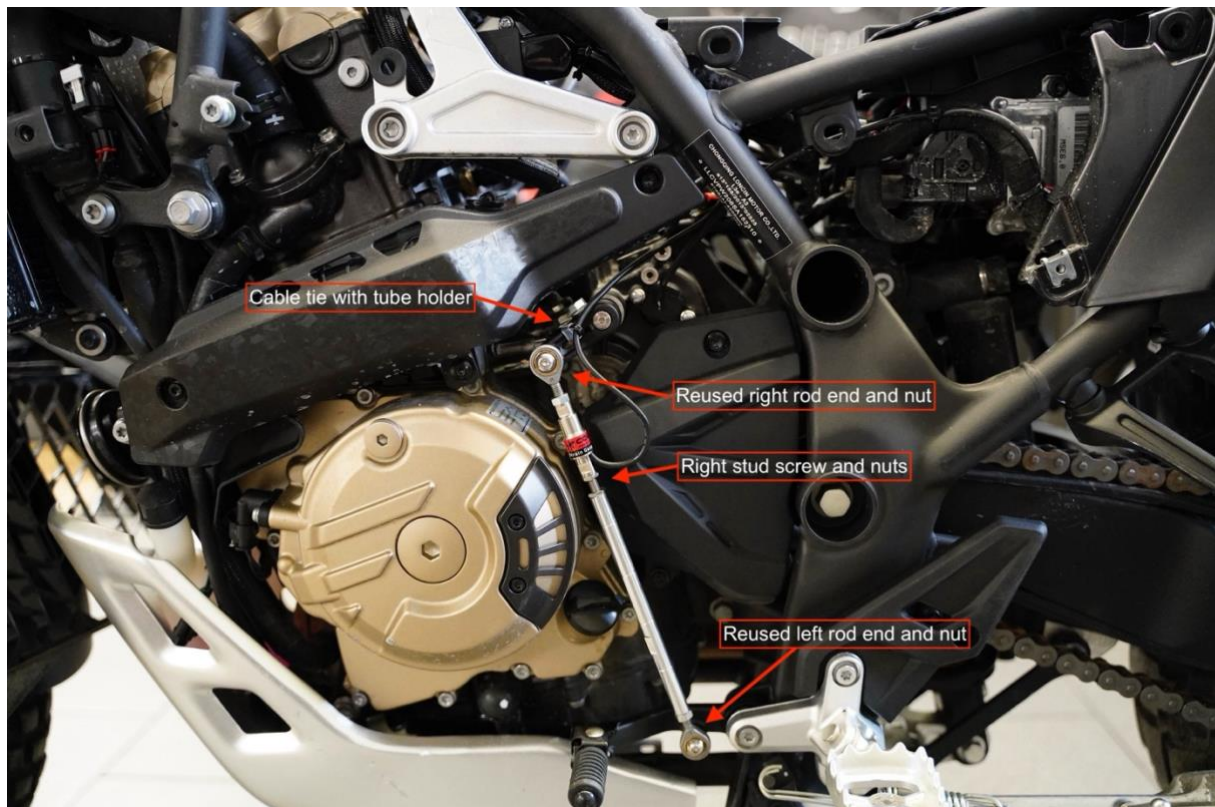
Assembly the quickshifter linkage 'loosely' according to the picture below. Reuse the original rod ends and nuts.

Adjust the height of the shift peg with adjusting the rod anti clockwise to shorten the length of linkage. Ensure you have enough threads and use minimum 10mm at each rod end, stud screw and sensor threads before securing each part of the linkage.

Apply Loctite before tightening all nuts in the linkage.

Use the included cable tie and plastic tube holder to route the sensor cable with a distance to the upper gearbox lever, see picture.

****NOTE:** Check the rod end bearings for wear and play with regular intervals. Rod end bearings with play or a stuck bearing can affect shift performance.



Use the small cable tie and silicone tube to route the sensor cable according to photo. Tighten the cable tie loosely to avoid long term wear at sensor cable. See pictures below.

****IMPORTANT NOTE;** when route the sensor cable do not tighten cable ties to hard around the cable, avoid route the cable to sharp and hard edges. Always route the cable with large loops.

Installation of PQ8 ECU, GP SG switch module and loom

Mount the Velcro at bottom of PQ8 ECU and GP SG module.

Connect the system together, PQ8 ECU to loom, GP SG Switch to loom and route the loom parts loosely according to pictures below.

Installation of 241ND loom

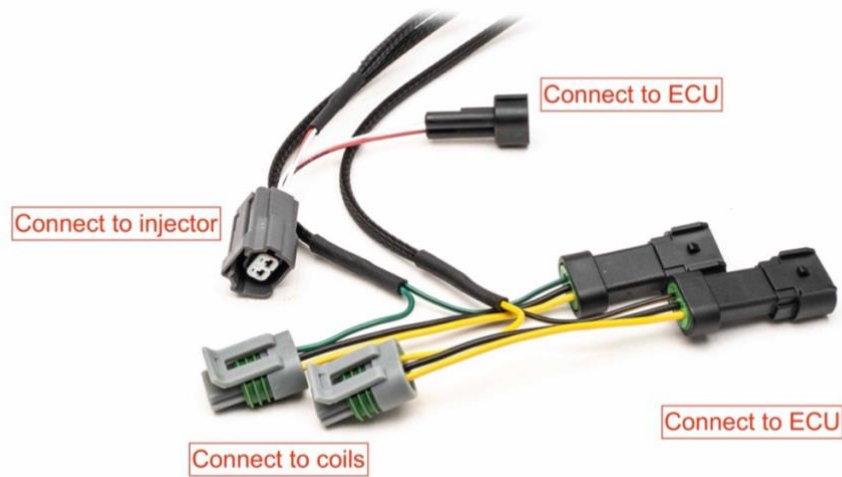
Route the loom with the two pairs of coil connectors according to the pictures below.
The routing can be done in different ways.

****Note:** Make sure the bundled connectors to the coils do not build above the coils as the clearance to the fuel tank is very limited.

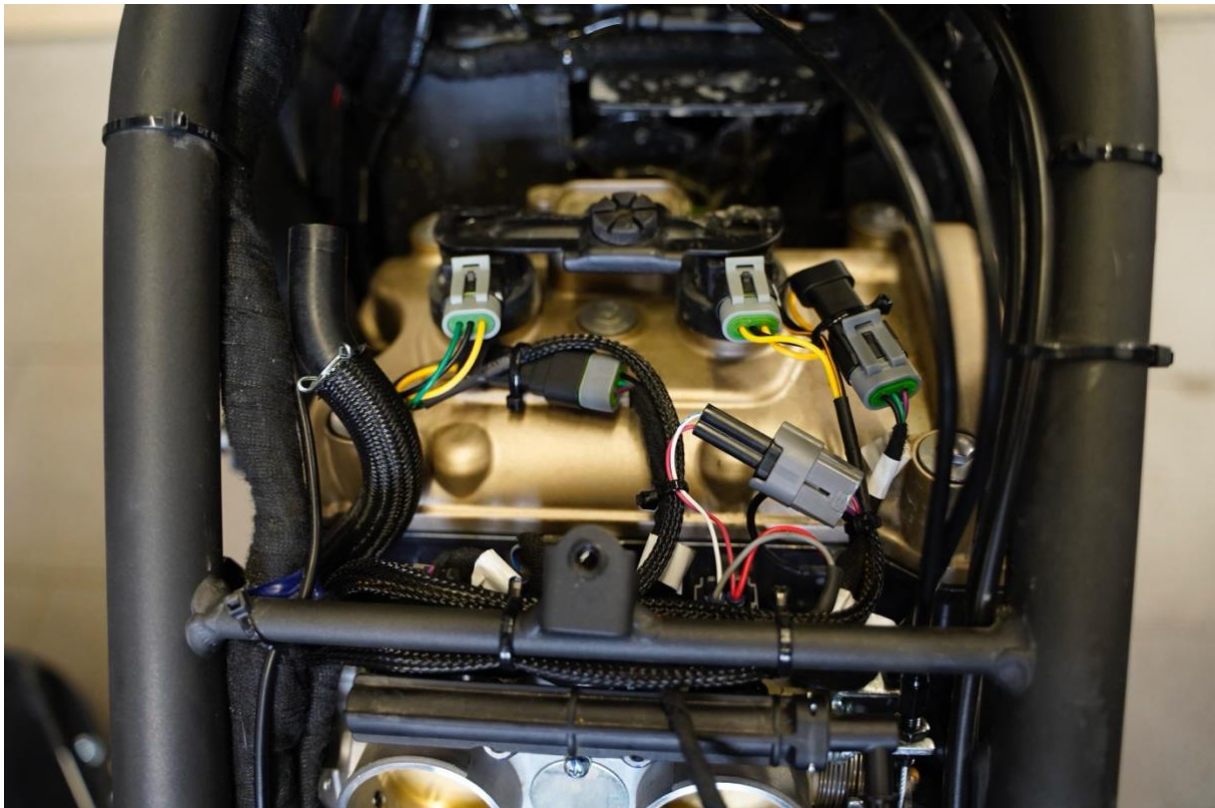
****IMPORTANT NOTE:** Use cable ties to ensure proper cable installation with the cables loosely bundled together. Be careful not to overtighten to prevent tension in the cables. Avoid pulling the cables over sharp edges.

****Note:** the two pairs of ignition connector pairs, green and yellow, can be connected to either coil no 1 or 2. This does not matter.

****The connection to the injector pick up +12V (red wire) and engine rpm (grey or white wire) to the PQ8 Quickshifter system.**
Connect this PQ8 connector pair to either 1st or 2nd injector-ECU.



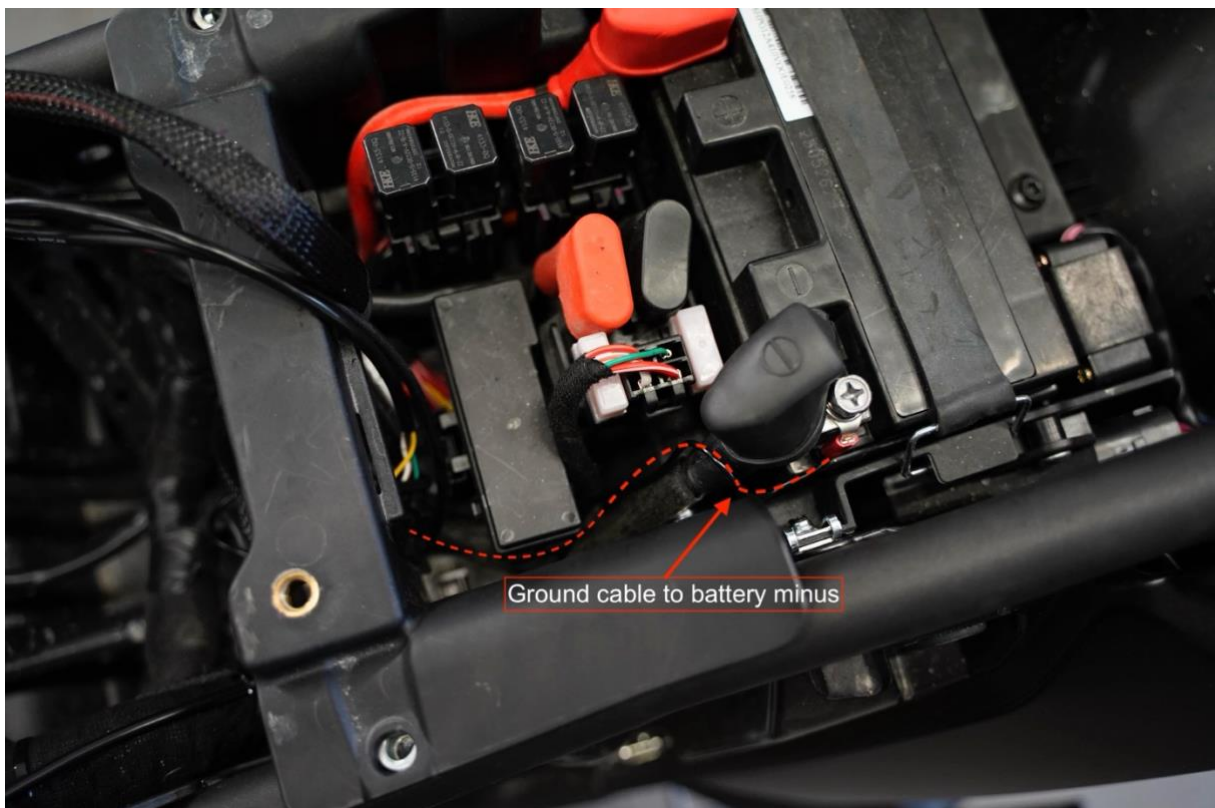
Disconnect the bike ECU connector to the ignition coils.
Connect the Cordona PQ8 harness according to the pictures.



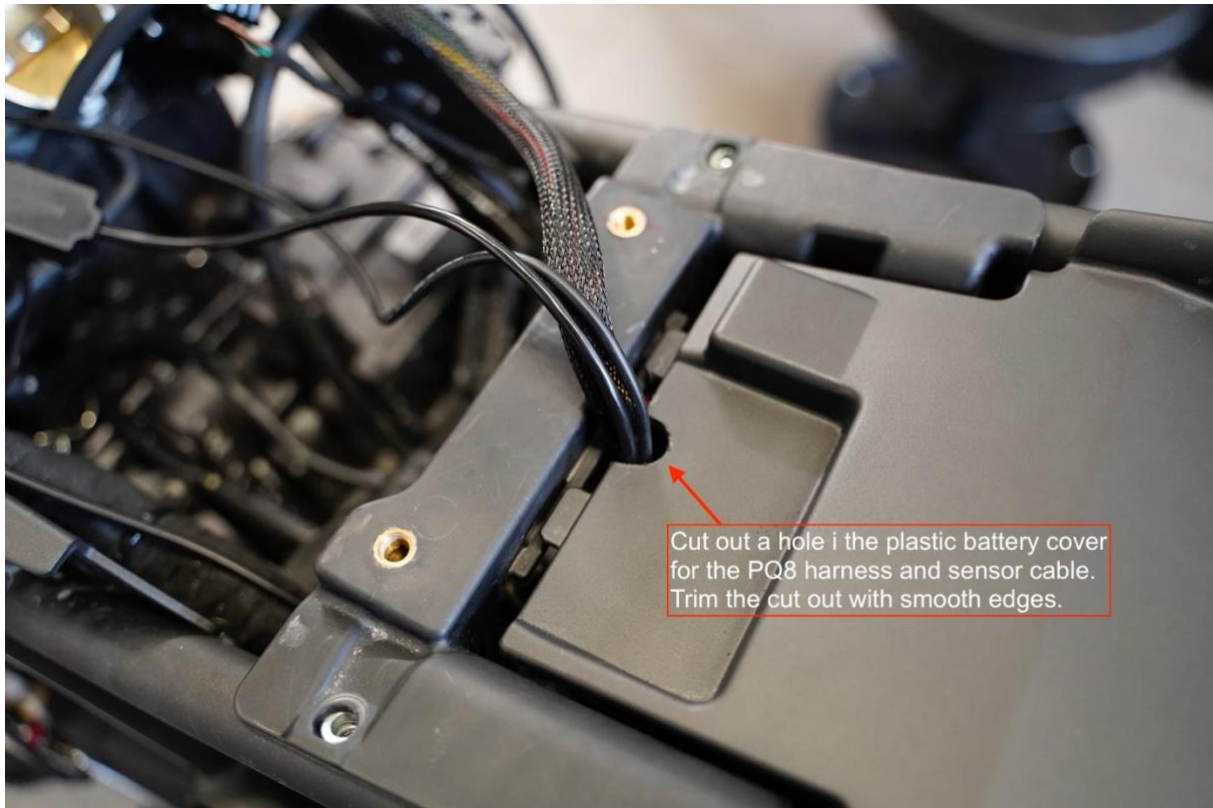
Below: Route the PQ8 loom under the main bike loom at left side of bike in order to not interfere with the fuel tank re-installation.



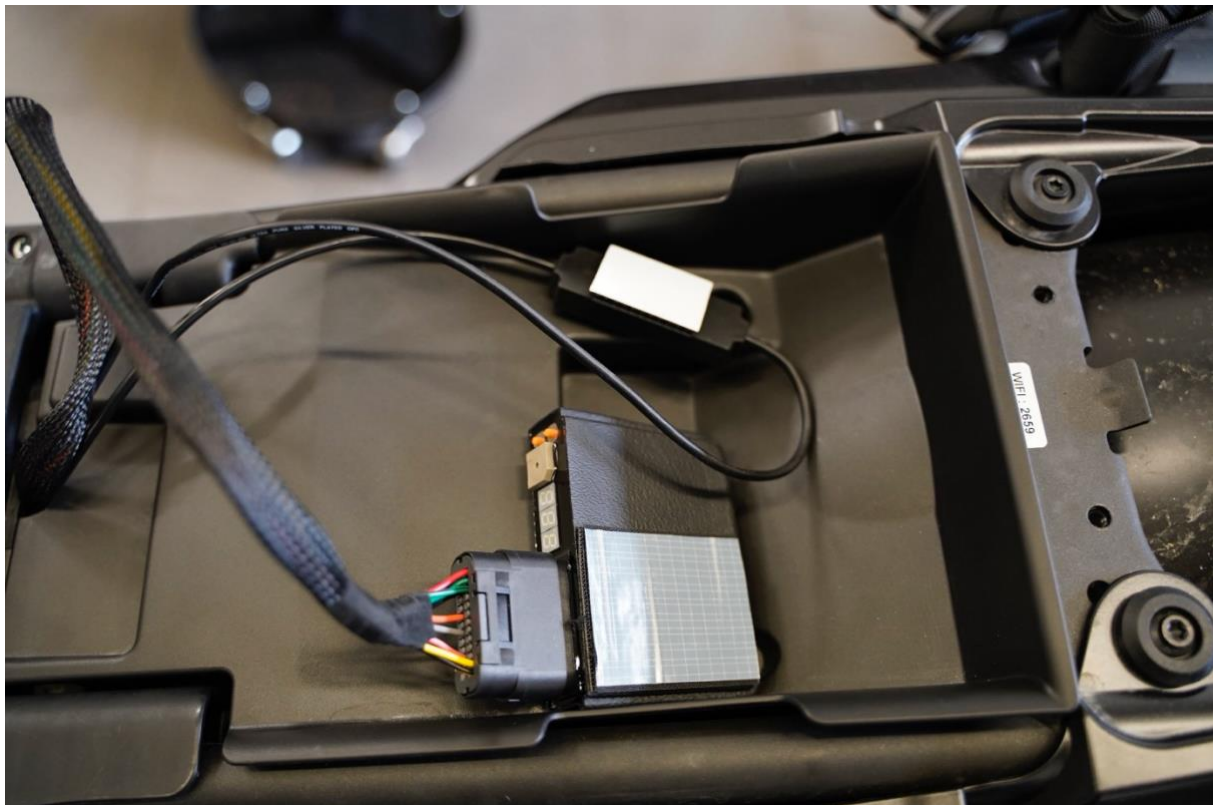
Route the PQ8 harness Ground cable according to the picture. Connect to battery minus



Cut out a hole in the plastic battery cover for the PQ8 harness and sensor cables. Trim the cut out with smooth edges.



Mount the Velcro at bottom of PQ8 ECU and GP SG module.



Place the PQ8 ECU, GP SG module and cables according to the picture. Secure the cables with cable ties. Do not tighten to hard.



Quickshifter settings

The PQ8 Item 241ND comes 'plug & play' pre-set with all settings from our test bike. To adjust settings according to your preferences, follow the procedures below:

General procedure to change PQ8 ECU settings:

1. Toggle up or down with the two buttons, select the setting to be changed.
2. Press both buttons simultaneously for 1 second to be able to change the setting.
3. The LED display will flash.
4. Change values by toggle the buttons.
5. Save new value by simultaneously press both buttons for 1 second. Two 'beeps' will confirm the new setting is locked.

Display defaults PQ8 Item 241ND

At power up the PQ8 display shows FW version 1.20: **1.20**

If engine is running, engine rpm is shown.

If left for 4 sec showing 0.0

Lowest rpm for quick shift

Default factory Lowest rpm for quick shift 3000rpm, 'On3': **On3**
Adjustable 0-9000 rpm in steps of 1000rpm, On0 to On9.

Shift light, max rpm for shift

Default factory max rpm for shift, 9500rpm; 'S9.5': **S9.5**

Kill time, how long the ignition or fuel injection will be interrupted at max rpm, in milli sec (ms).

Default factory Kill time, 70ms, 't70': **t70**

4stroke, rpm reading.

Default factory rpm reading 'St4': **St4**

Can be adjusted between St1 to St4 to set correct rpm reading compared to the tachometer.

Autoshift, this function is not supported in this PQ8 Quickhifter kit.

Default factory Autoshift off, 'Aof': **Aof**

Adjustable Aon or Aof.

Rpm sense input.

Default factory rpm sense input 'In2': **In2**

In 'In1' rpm through green wire pair. 'In2' rpm through grey-white aux wire to injector.

General procedure change GP SG settings:

Change shift direction

Default factory shift direction, t1 '*compress sensor for an upshift*'.

Change setting:

Hold both buttons simultaneously and turn on ignition/power.

Release the buttons and the display flashes UP- UP- UP

Up-up-up.

Move shift lever in a simulated upshift from 2nd to 3rd gear and hold the shift lever for about 2-3 seconds until a small dot flash in right bottom corner in the LED display.

To confirm you have set the upshift direction correctly, check the small dot flash in the display when do a simulated upshift without engine running.

Change shift force

Default factory setting GP SG, 12kg **12**

Change setting:

Press right button and you will see the shift force set.

Press right button and hold, press left button, and hold both buttons for three seconds.

The LED display starts to flash.

Change shift force up or down with the buttons.

Set the new setting pressing both buttons at the same time for 3 seconds.

Change shift loop settings

The factory default loop setting is 'commonly open' loop; **t1**

Change setting:

With this loop setting you will hear a short 'beep' when do shift, if the PQ8 system is powered up (ignition on at bike).

If you hear a constant 'beep', the loop setting is wrong, and set to 'commonly closed' loop; **t2**

Change the setting to t1