

# PowerTRONIC Installation Manual- Hero Xpulse 200 (2019-2023)

Document Version	1	Release Date	05 August 2023
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Application information	Vehicle Specific
Vehicle	<b>Hero</b>
Model	<b>Xpulse 200</b>
Year of manufacture	<b>2019-2023</b>
PowerTRONIC application	All PowerTRONIC ECUs,

**Note:**

- Read through all instructions before installation and use.
- Ensure that the bike is switched off and the key is out of the ignition before proceeding with the installation.
- Some parts of the bikes might be hot/sharp and may cause burns/cuts. Proceed with extreme caution or wait until the bike has cooled down. Always wear safety gloves.
- When the installation is complete, make sure to secure the wiring loom away from the movable parts or components which tends to heat up during the normal operation of the vehicle at any chance.
- PowerTRONIC is intended for motorsport use on a closed course, please check with your local laws before using this product. Race Dynamics / PowerTRONIC is not liable for consequences arising out of using the product.

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### 1. Parts list

1	PowerTRONIC	Piggyback ECU
2	Stock Coupler	Stand by unit <ul style="list-style-type: none"> <li>• Can be connected in place of the PowerTRONIC to run the bike in stock mode if need be.</li> <li>• Used for the verification of the connectors involved.</li> </ul>
3	Harness	Bike specific harness contains the following connectors <ul style="list-style-type: none"> <li>• Fuel injector connector</li> <li>• Spark connector</li> <li>• Throttle position sensor tapping wire (TPS)</li> <li>• Crankshaft position sensor connector (CKP)</li> <li>• Map selection connector</li> <li>• Quick shifter connector</li> <li>• Ground terminal</li> </ul>
4	USB cable	Can be used to connect the PowerTRONIC to a laptop for throttle calibration or changing maps
5	Nylon Tags	To secure wiring harness
6	User guide and Warranty card	Instructions

### 2. Tools required

Serial No	Item with description
1	M12 Hexagonal socket
2	Phillips-Head screwdriver
3	M12 T bar Hexagonal Socket wrench
4	Wire stripper
5	Nose plier

### 3. Installation procedure

#### 3.1 Removing panels, fairing

Begin at the left side of the bike.

Park the bike using the centre stand on a level surface (Or a paddock stand).



Image 1

3.1.1 Locate the rider seat lock shown in **Image 2** and unlock the rider seat. Refer to **Image 3**.



Image 2



Image 3



3.1.2 **Image 4** shows how the how the rider seat detached.



Image 4

3.1.3 Locate and unscrew the side screw using a Phillips-head screwdriver. Refer to **Image 5**.

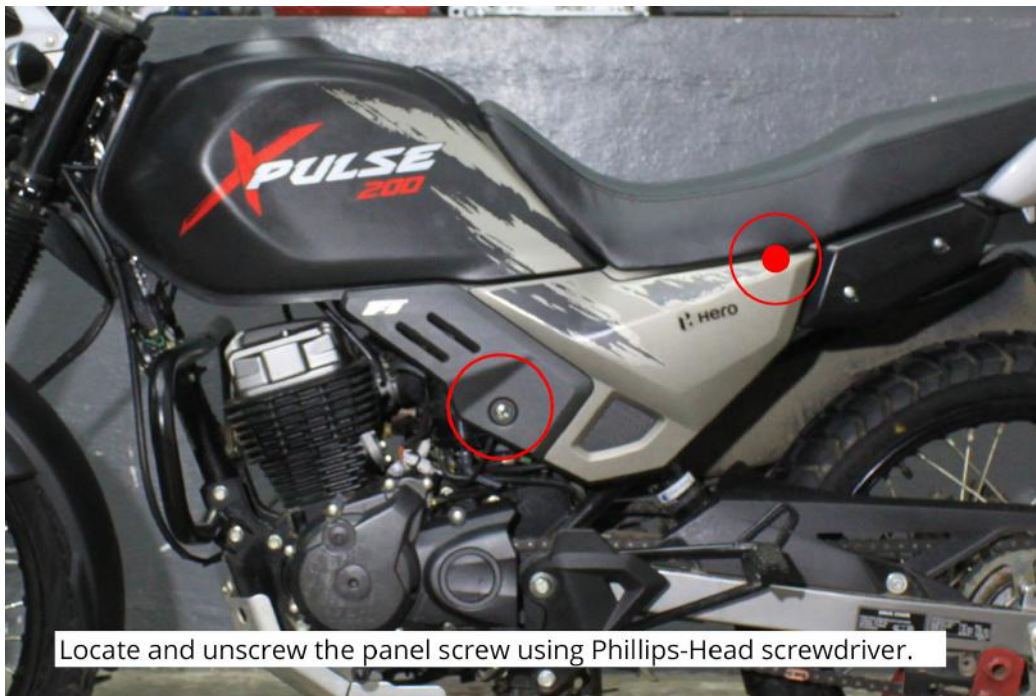


Image 5

3.1.4 Locate and unscrew the side screw using a Phillips Head screwdriver. Refer to [Image 6](#).

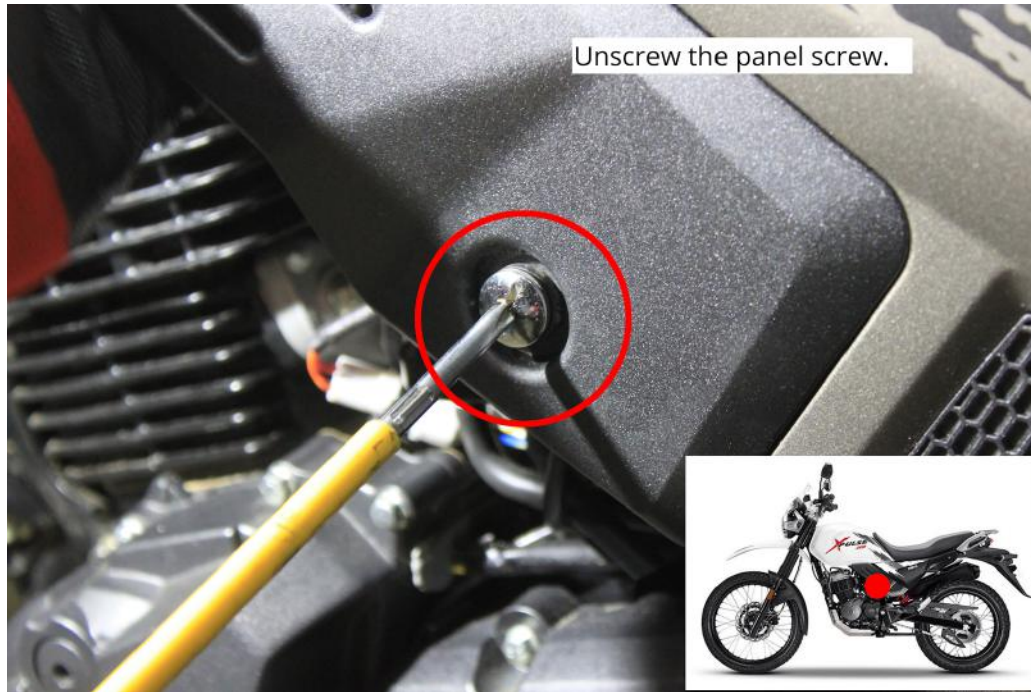


Image 6

3.1.5 Locate and unscrew the side screw using a Phillips Head screwdriver. Refer to the [Image 7](#)

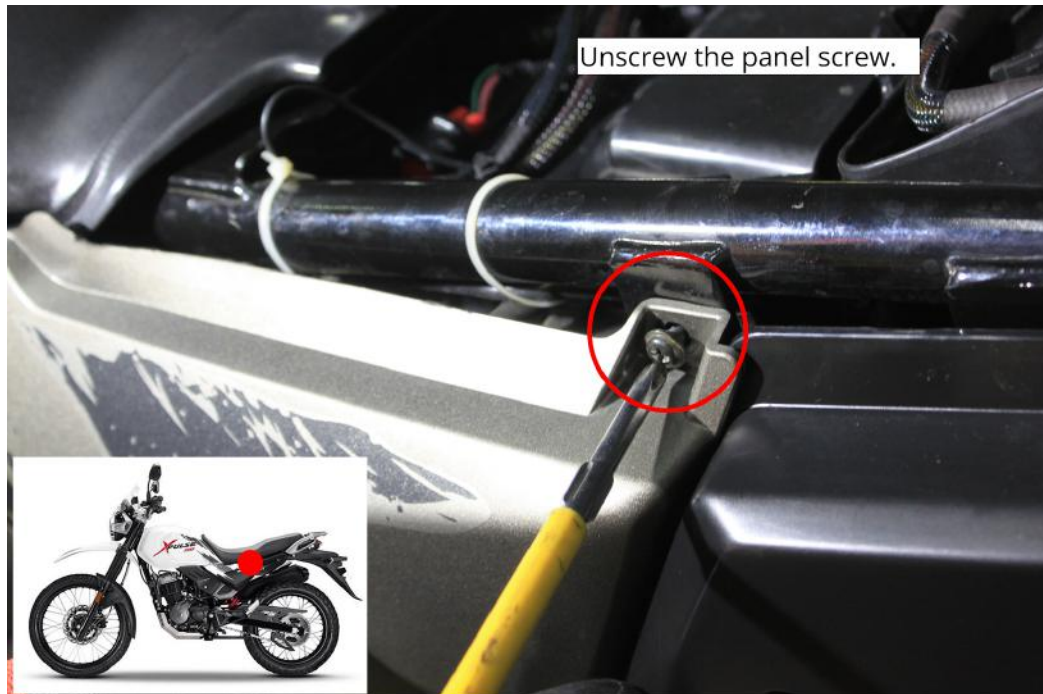


Image 7



**3.1.6** After removing the screw and the bolt from side panel, gently detach the panel. Repeat the process on the other side also. Refer to the **Image 8**



Image 8

**3.1.7** Locate and unscrew the tank rear bolt using M12 Hexagonal socket. Refer to **Image 9**.



Image 9

**3.1.8** Detach the fuel line carefully. Refer to **image 10**

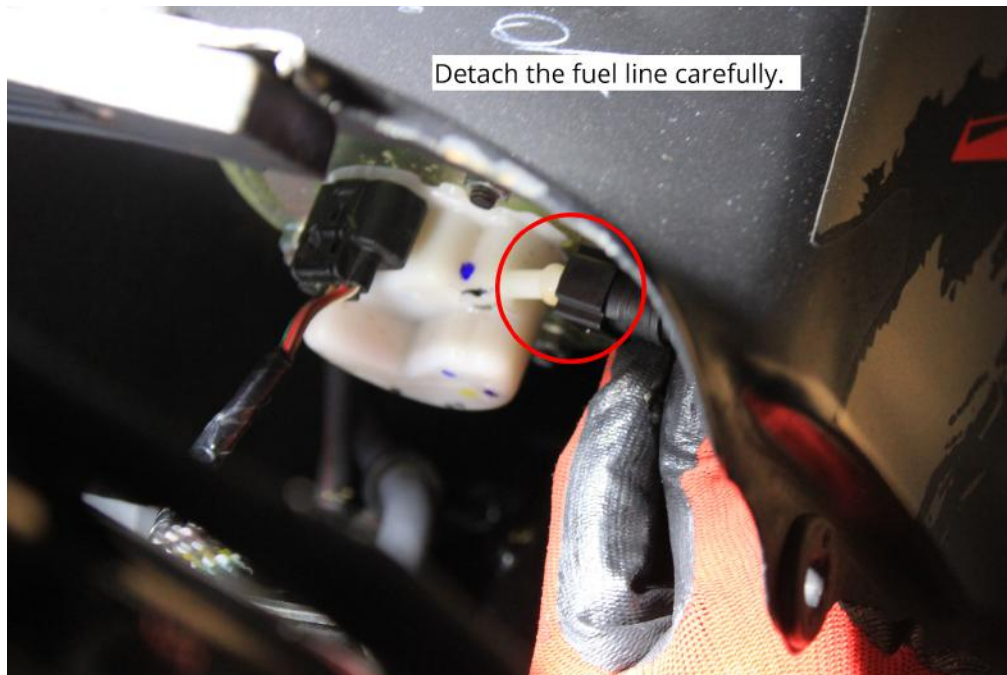


Image 10

**3.1.9** Detach the fuel pump connector carefully. Refer to **Image 11.**

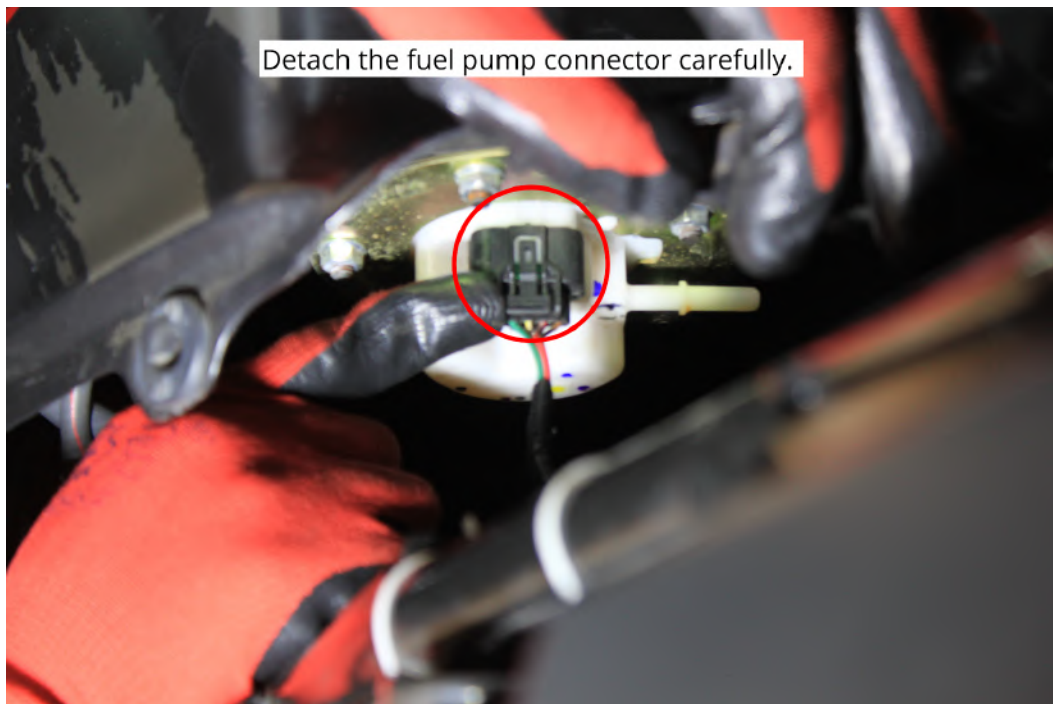


Image 11



**3.1.10** Detach the vacuum hoses carefully. Refer to **Image 12**



Image 12

**3.1.11** After disconnecting all the connections from the tank, lift the tank gently and carefully place it safe..

### 3.2 Routing the harness

3.2.1 Start from the rear end and route each connector to the front. Refer to **Image 13**.



Image 13

3.2.2 Starting from the glove compartment, route each connector terminal between the welded plate and the mud guard. Refer to **Image 14** and **Image 15**.

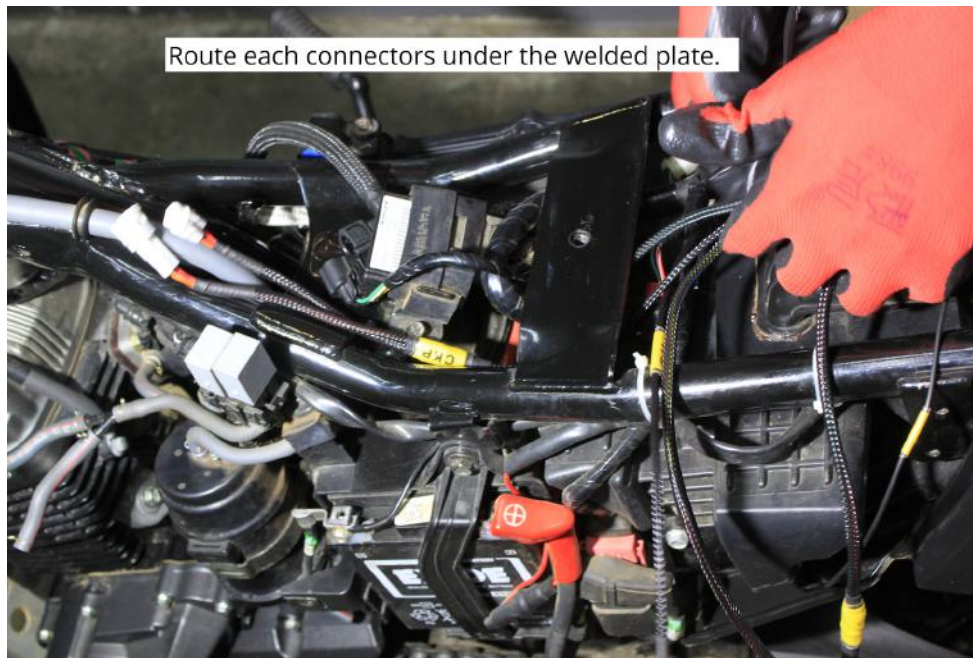


Image 14





Image 15

3.2.3 Refer to the completed view. Refer to **Image 16**.

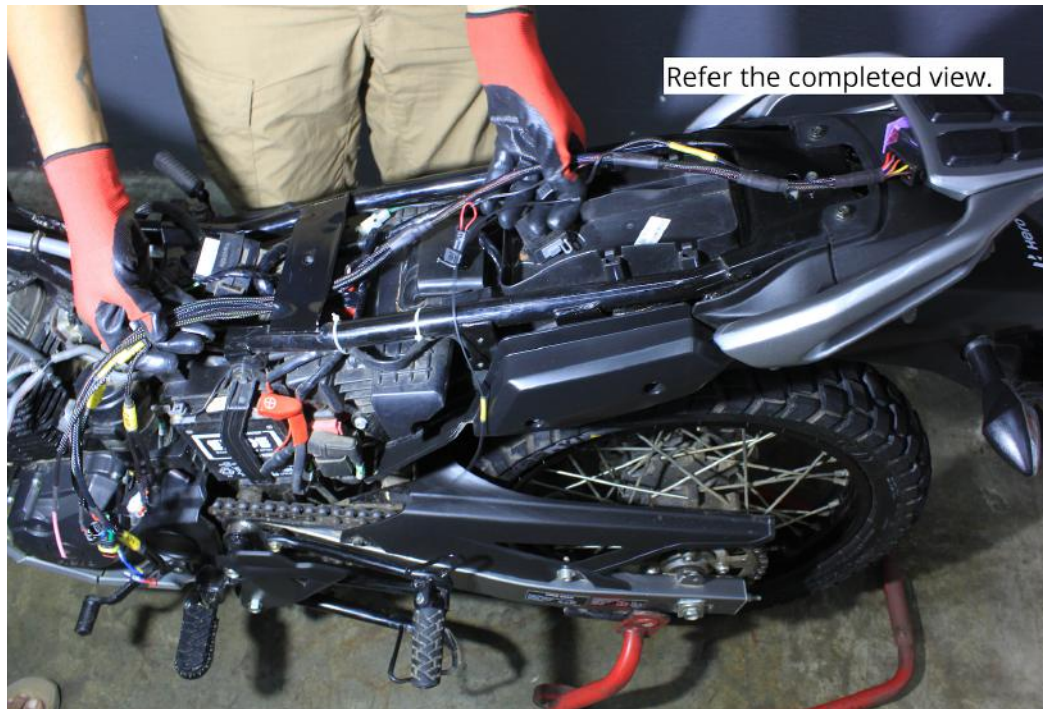


Image 16



3.2.4 Refer to the completed view. Refer to **Image 17**.

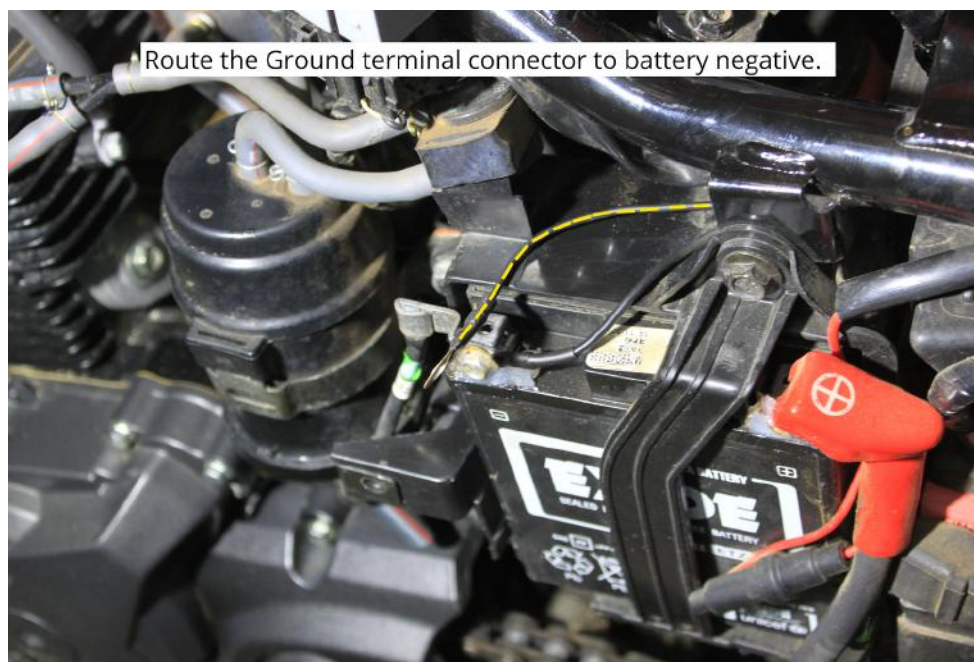


Image 17

### 3.3 Fuel Injector Connector

3.3.1 Locate the injector connector. Refer to **Images 18**



Image 18

3.3.2 Identify the fuel injector connector in the PowerTRONIC wiring harness. The connectors are labeled 'INJ'

3.3.3 Disconnect the injector connector on your bike. Refer to the zoomed view (**Image 19**)



Image 19

**3.3.4** Connect the female PowerTRONIC injector connector to the stock male injector connector. Refer to **Image 20**



Image 20

**3.3.5** Connect the stock female injector connector to the PowerTRONIC male injector connector. Refer to **Image 21**



Image 21



### 3.4 Ignition Coil Connector

3.4.1 Locate the Ignition coil. Refer to **Images 22** and **Image 23**

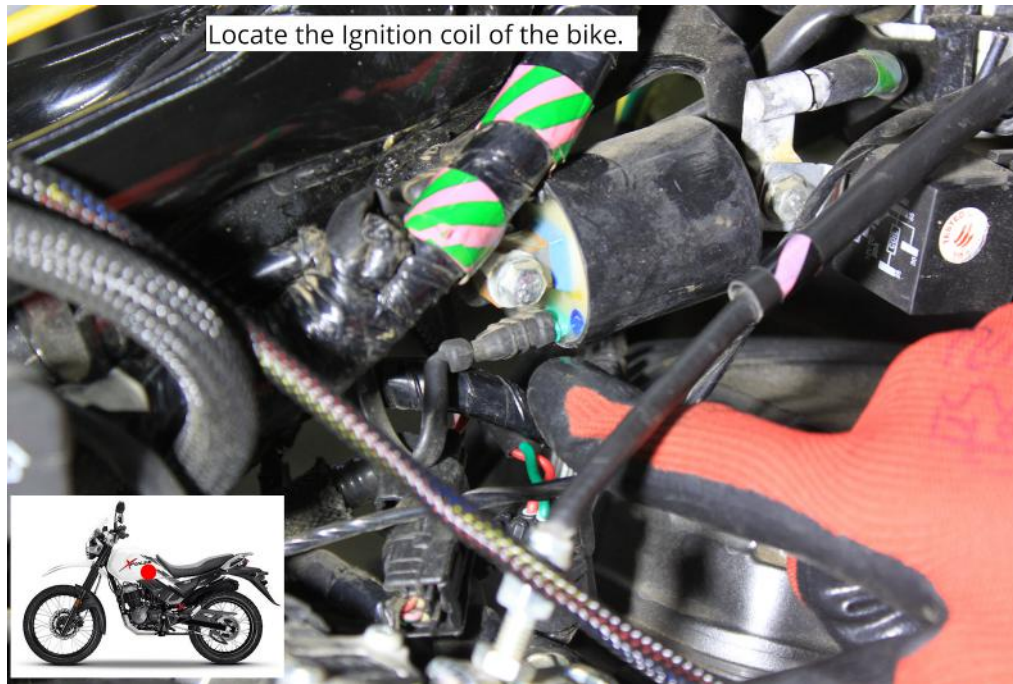


Image 22

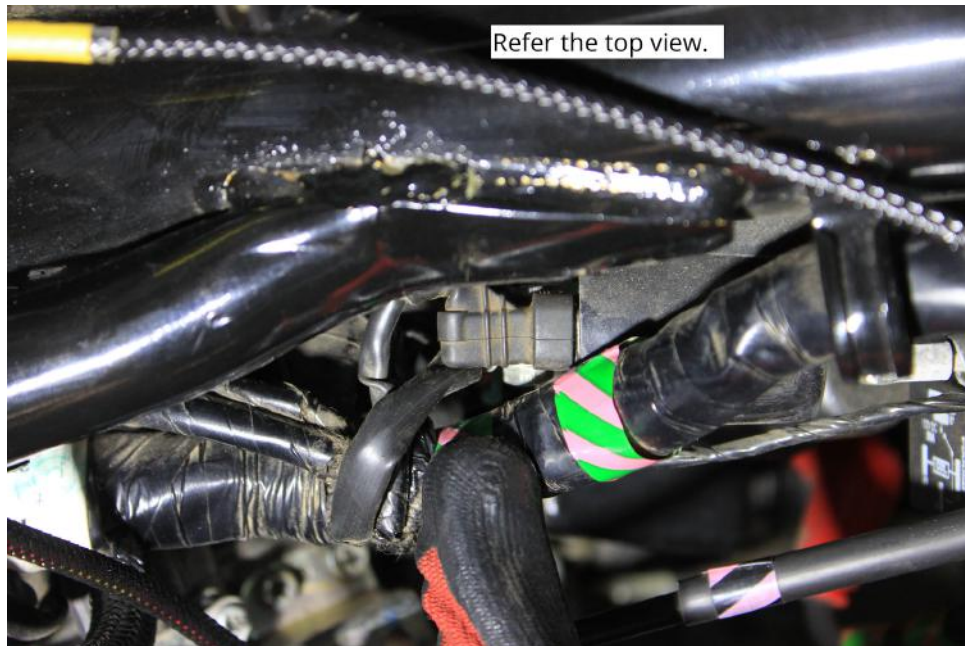


Image 23

3.4.2 Identify the Spark/Ignition coil connector in the PowerTRONIC wiring harness. The connectors are labelled 'SPK'.

3.4.3 Disconnect the stock ignition coil 12 V connector pins. The root of the male 12V pin is **Black**. Refer to [Image 24](#)



Image 24

3.4.4 Connect the PowerTRONIC Ignition coil 12 V female pins to the stock ignition coil mating pins on the coil. Refer to [Image 25](#).



Image 25



**3.4.5** Connect the PowerTRONIC Ignition coil 12 V male pins to the stock ignition coil female pins on the coil. Refer to **Image 26**

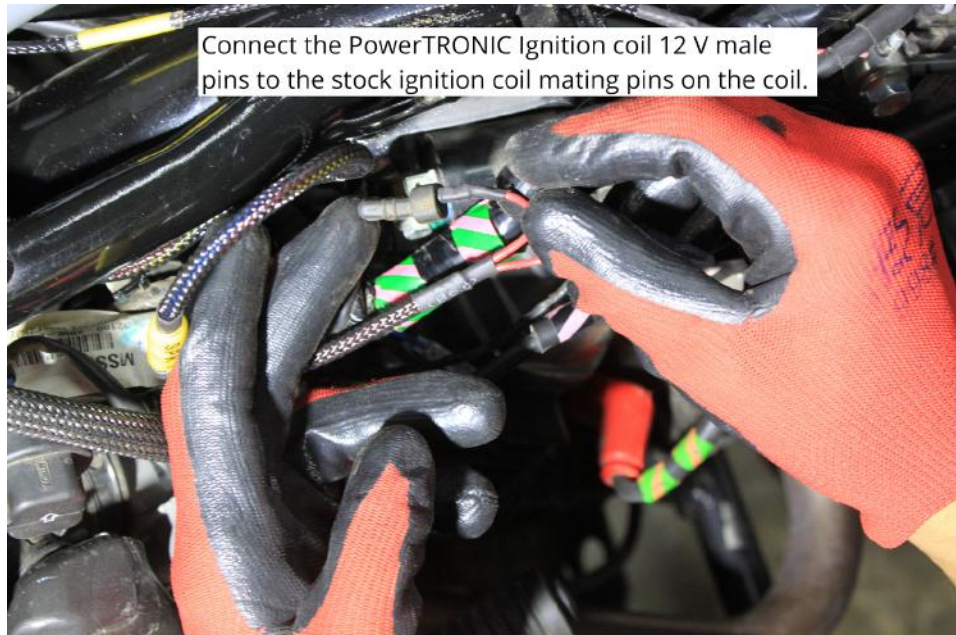


Image 26

**3.4.6** Disconnect the stock ignition coil signal connector pins. The root of the male signal pin is **Green**. Refer to **Image 27**



Image 27



**3.4.7** Connect the PowerTRONIC Ignition coil signal male pins to the stock ignition coil mating female pins. Refer to **Image 28**

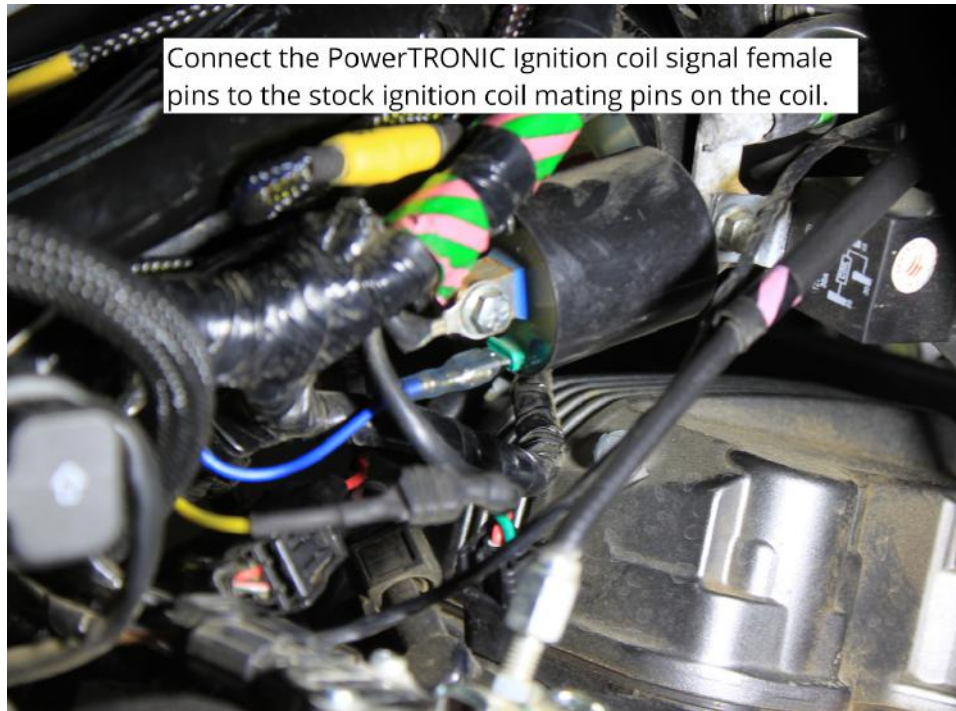


Image 28

**3.4.8** Connect the PowerTRONIC Ignition coil signal female pins to the stock ignition coil mating male pins. Refer to **Image 29**



Image 29

### 3.5 Crankshaft position sensor connector

3.5.1 Locate the CKP connector of your bike. Refer to **Image 30** and **Image 31**

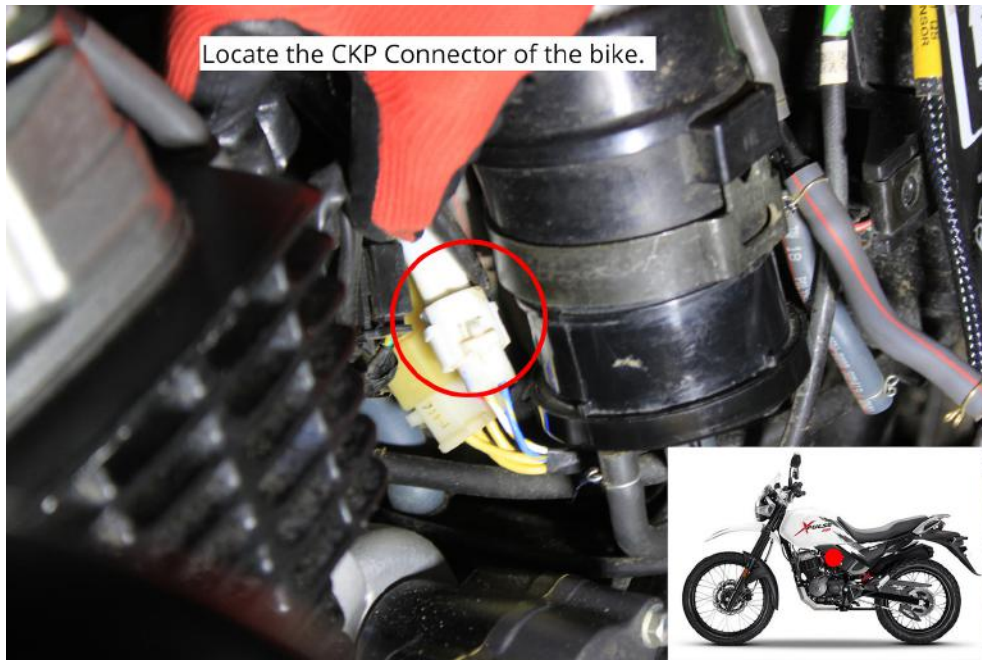


Image 31

3.5.2 Identify the Throttle Position sensor connector in the PowerTRONIC wiring harness, labeled as 'CKP'

3.5.3 Disconnect the stock CKP connectors. Refer to **Image 32**.



Image 32



**3.5.4** Connect Stock male CKP a connector and PowerTRONIC female connector. Refer to **Image 33**.

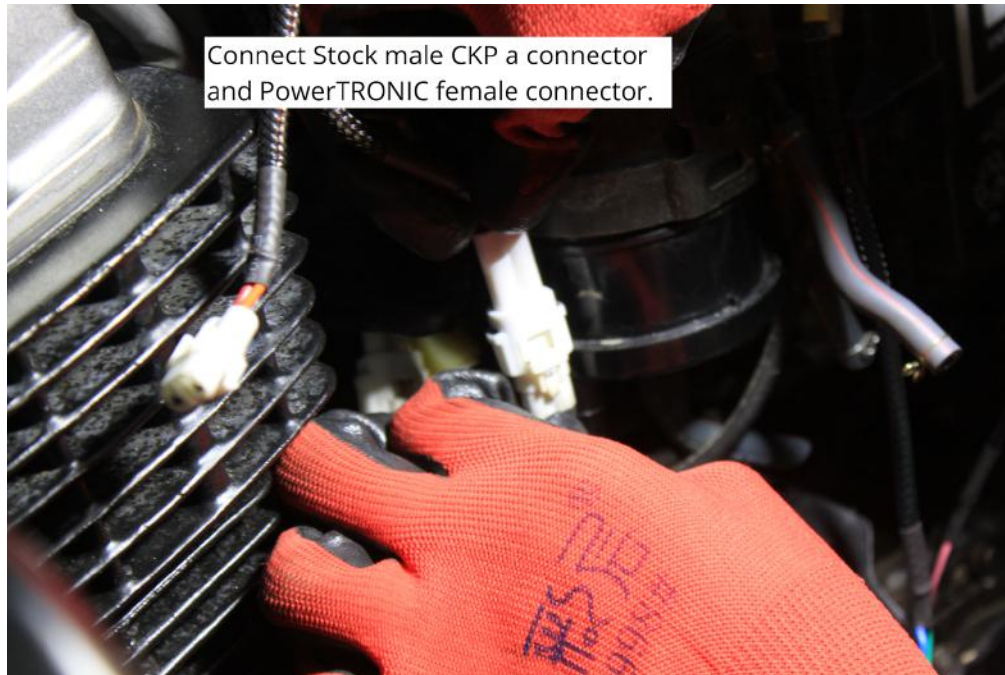


Image 33

**3.5.5** Connect Stock female CKP connector and PowerTRONIC male connector. Refer to **Image 34**.



Image 34



### 3.6 Throttle position sensor connector

**3.6.1** Locate the TPS connector of your bike. It is generally located on the throttle body, parallel to the throttle cable return springs. Refer to [Image 35](#).

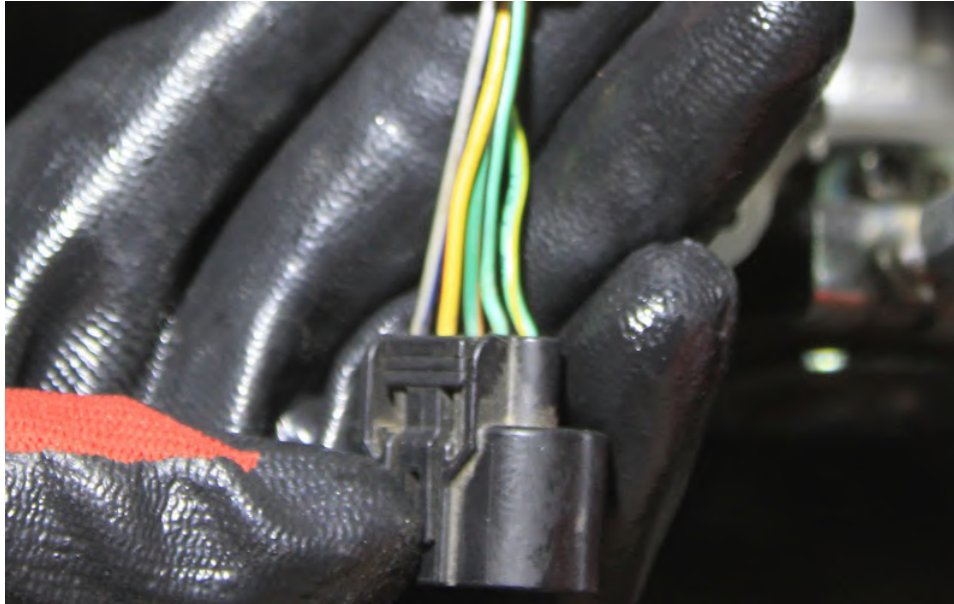


Image 35

**3.6.2** Identify the Throttle Position sensor connector in the PowerTRONIC wiring harness, labeled as 'TPS'

**3.6.3** Tap the Black-Green stripe wire using the tapping clip provided. Refer to [Image 36](#) and [Image 37](#).

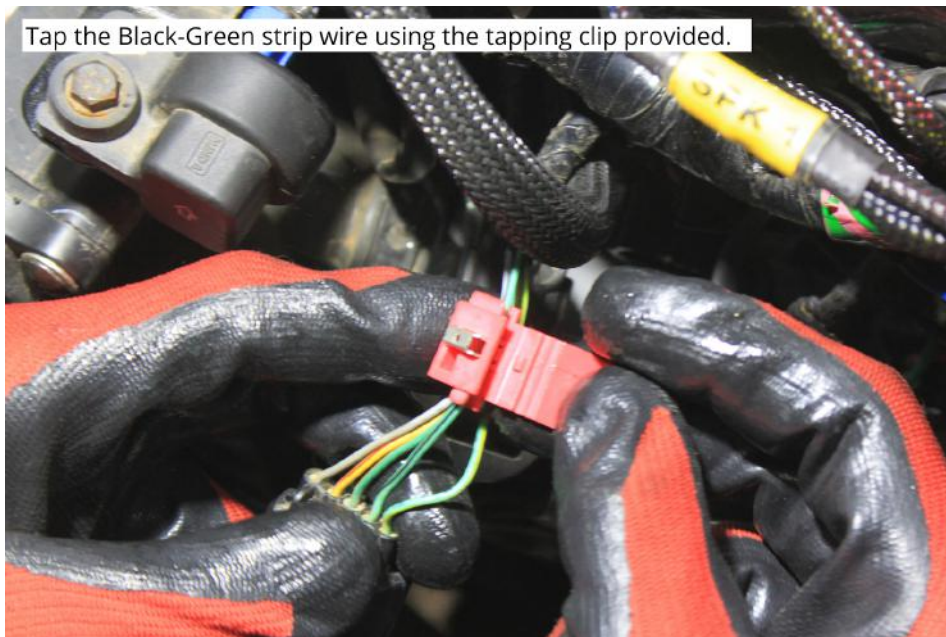


Image 36

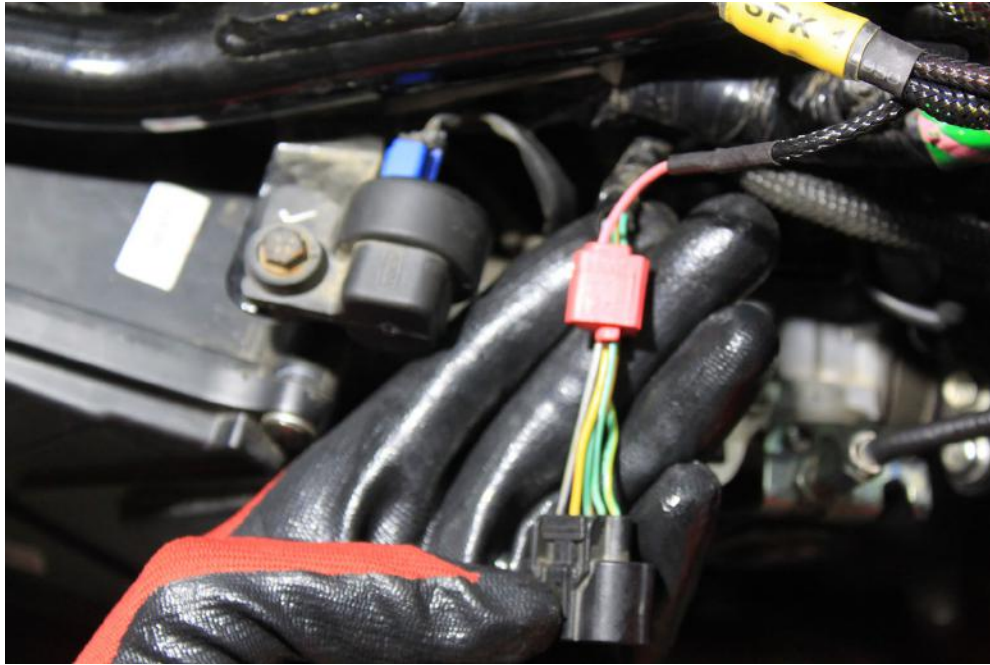


Image 37

**3.6.4** We advise you to perform a TPS calibration after the installation of PowerTronic ECU.  
Refer to the detailed TPS calibration document.

### 3.7 Ground Terminal Connector

3.7.1 Identify the Ground terminal connector labeled as GND and connect it to the negative terminal of the battery.  
Refer to **Image 38**

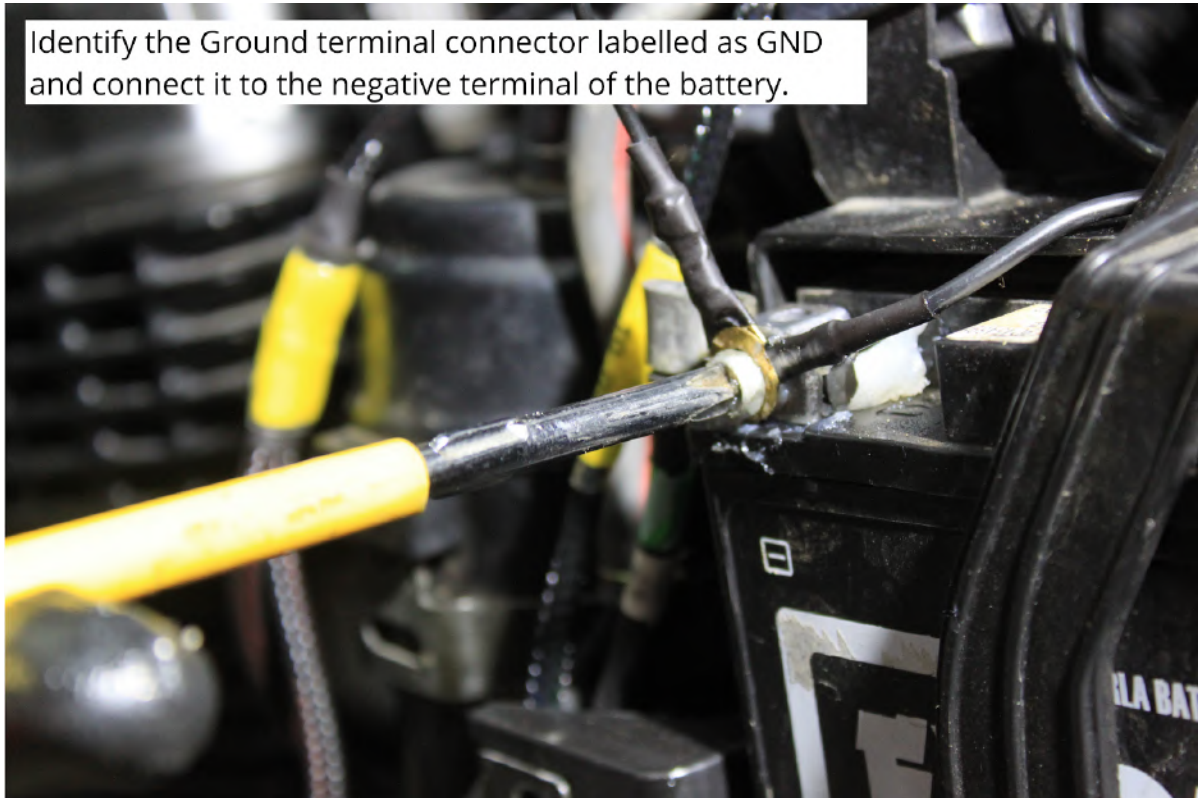


Image 38



### 3.8 Securing the harness using ties

**3.8.1** Secure the harness away from general heating areas by attaching it to the chassis or frame using the zip ties provided wherever necessary. Refer to **Image 39**



Image 39

**Important note:** The PowerTRONIC harness contains a Quickshifter connector. If you have bought the Quickshifter please attach the connector to it. [Please Refer to Quickshifter installation manual]

If you have not bought the quickshifter, you can leave it disconnected but make sure the harness is secured using zip ties provided.

### 3.9 Testing with the stock coupler

3.9.1 Attach the fuel tank.

3.9.2 You can verify the connections by attaching the stock coupler. Refer to detailed Stock coupler test document. Refer to **Image 40**



Image 40

3.9.3 **DO NOT** proceed with PowerTRONIC ECU without verifying the connections with stock coupler.

### 3.10 Plugging in the PowerTRONIC

Connect the PowerTRONIC to the harness by connecting the 24 pin connector. Secure it in the glove box. Refer to [Image 41](#)



Image 41

### 3.11 Attaching the panels fairing etc

Attach the panels, fairing as removed from the bike.