

PowerTRONIC Installation Manual - Bajaj RS 200 (2016-2019)

Document Version	1	Release Date	14 May 2019
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Application information	Vehicle Specific
Vehicle	Bajaj
Model	RS 200
Year of manufacture	2016-2019
PowerTRONIC application	All PowerTRONIC ECUs, from firmware version F.3.x onward

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"> • Can be connected in place of the PowerTRONIC to run the bike in stock mode if need be. • Used for the verification of the connectors involved.
3	Harness	Bike specific harness contains the following connectors <ul style="list-style-type: none"> • Fuel injector connector • Spark/Ignition coil connector • Throttle position sensor tapping wire (TPS) • Crankshaft position sensor tapping wire (CKP) • Map selection connector • Quick shifter connector • Ground terminal
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	Main tools	Optional tools
1	M8, M10 Hexagonal socket	Spinner handle
2	M4, M5 Hexagonal bit	Ratchet handle
3	Wire cutter	Extension bar or Sliding T bar
4	Phillips head screwdriver	M10 T Socket

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). Refer **Image 1**



Image 1

Note the position of the connector/hoses/wires to be removed. Refer **Image 2**

Locate the position of the Connectors/Wires/hoses



Image 2

3.1.1 Detach the pillion seat by inserting the key into the keyhole shown in **Image 3** and unlock the pillion seat.

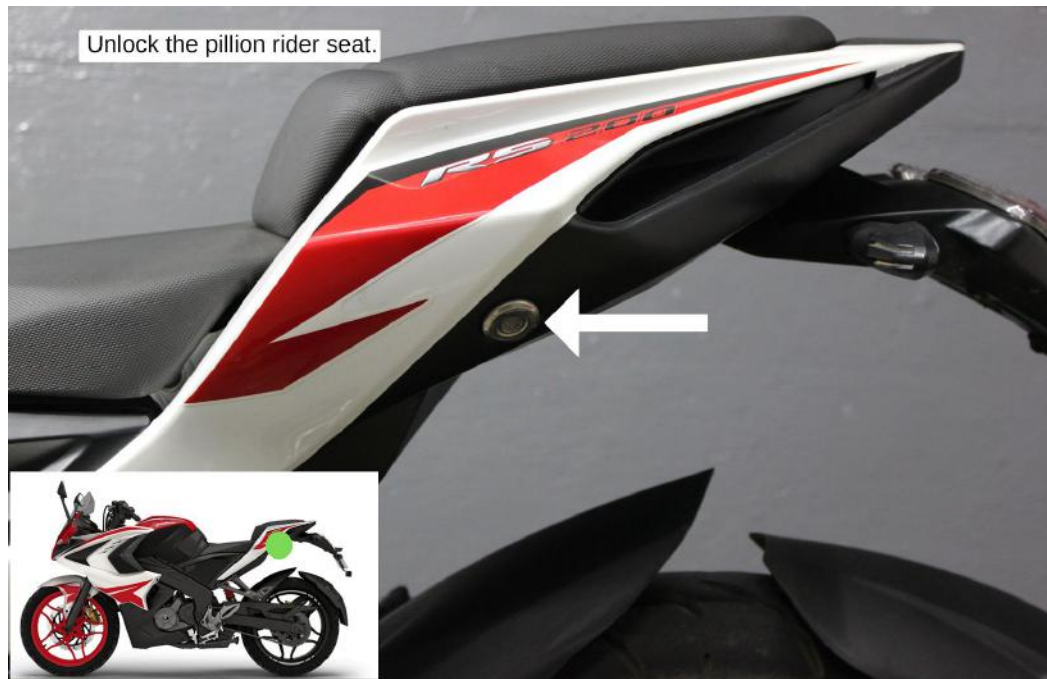


Image 3

3.1.2 Unscrew the rider seat bolts using M10 hexagonal sockets and detach the rider seat. Refer **Image 4**.

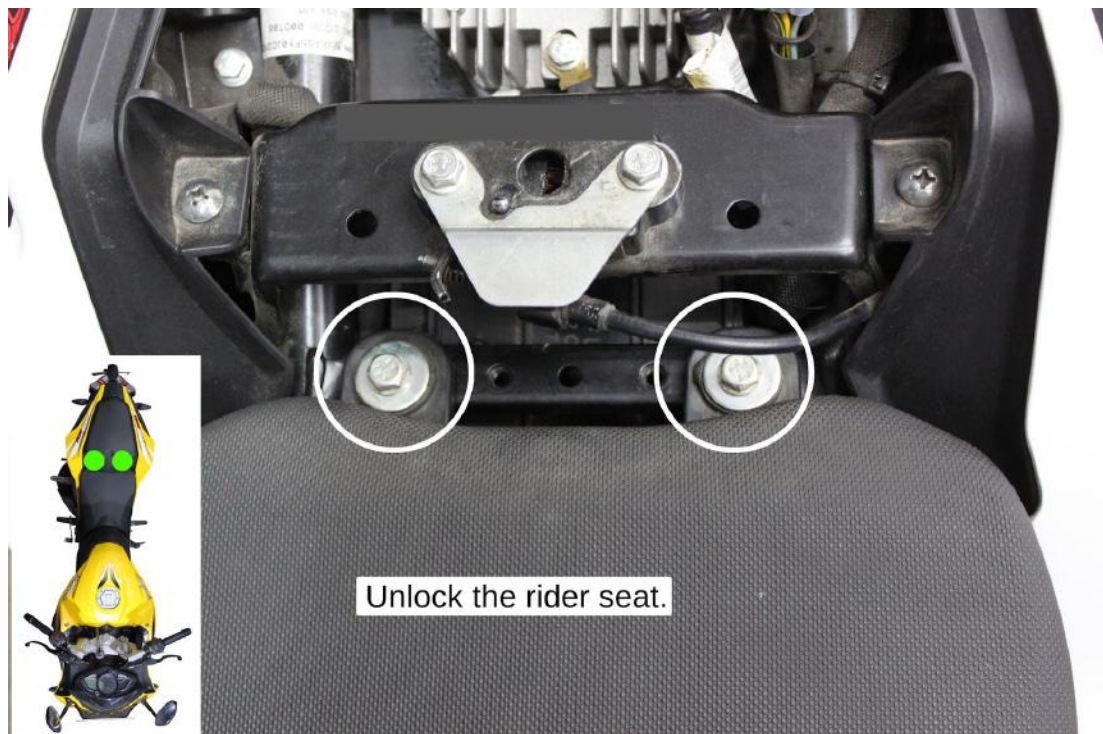


Image 4

3.1.3 Unscrew the front end meter console panel using M4 hex bit. Also unscrew the bolts on the tank cover using M5 Hex bit. Refer [Image 5](#).

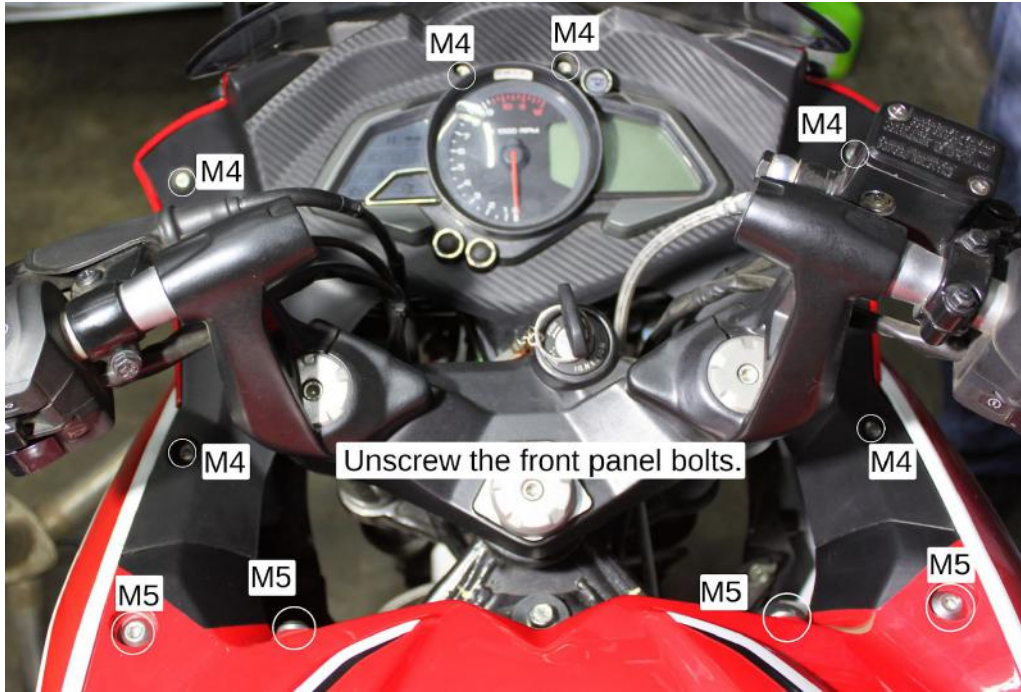


Image 5

3.1.4 After removing all the screws, unlock the front console panel from its locking slots and detach it carefully. Refer [Image 6](#)

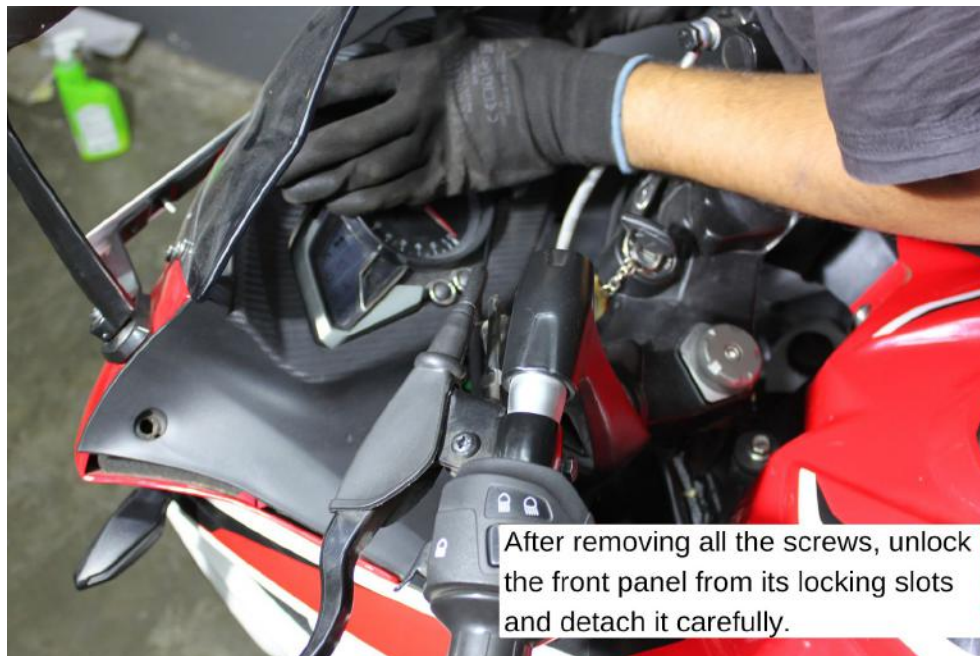


Image 6

3.1.5 Unscrew the underbelly side panels using a Phillips head screwdriver. Refer **Image 7**. Repeat the process on the other side also.



Image 7

3.1.6 Detach the underbelly rivets 1 and 2. Also unscrew the screw using a Phillips head screwdriver. **Image 8**. Repeat the process on the other side also.

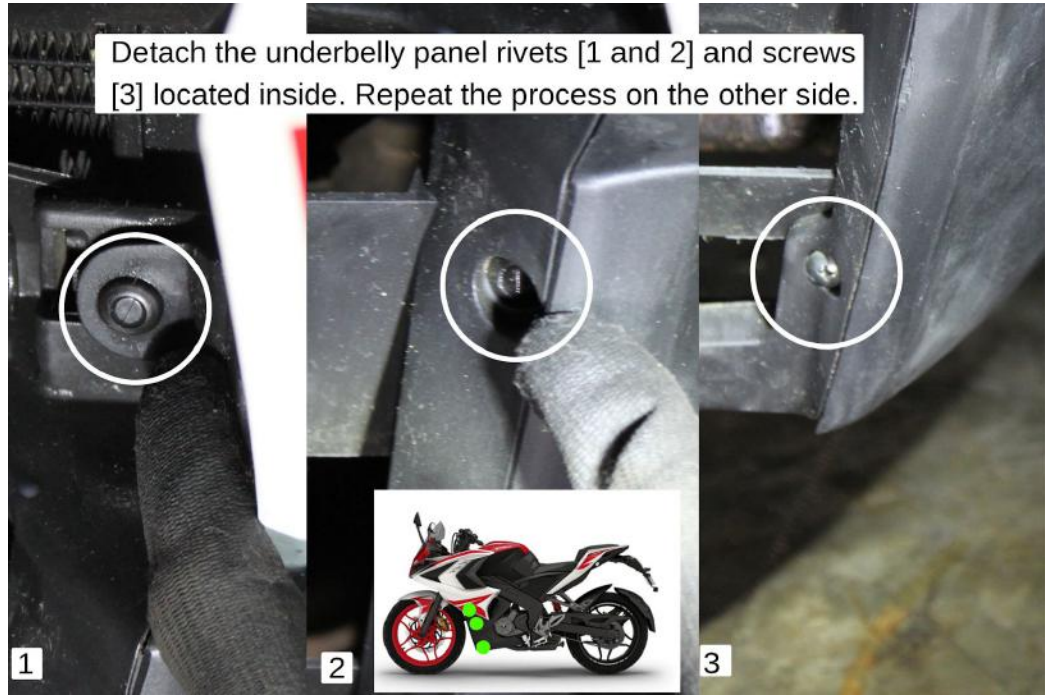


Image 8

3.1.7 Carefully detach the underbelly side panels. Refer **Image 9**.



Image 9

3.1.8 Carefully unscrew the bolts and screws on the side fairing. Repeat the process on the other side also.

Refer **Image 10**. [● symbol represent the bolts and ◆ symbol represent the screws]

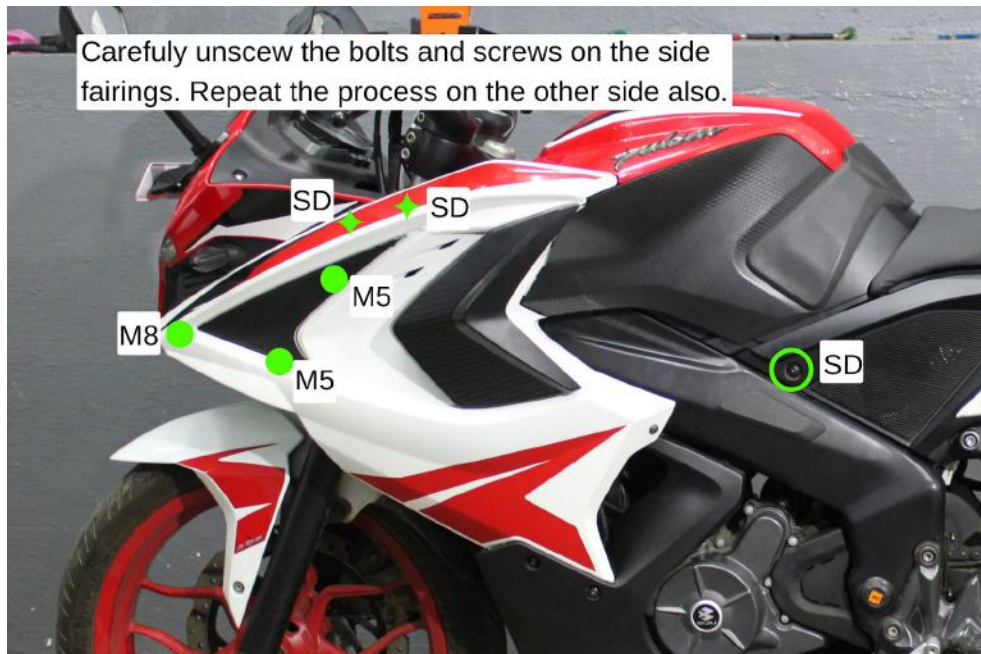


Image 10

3.1.9 After removing all the screws and bolts, carefully detach the panels from its locking slots and gently remove the side panels. Repeat the process on the other side also. Refer [Image 11](#).

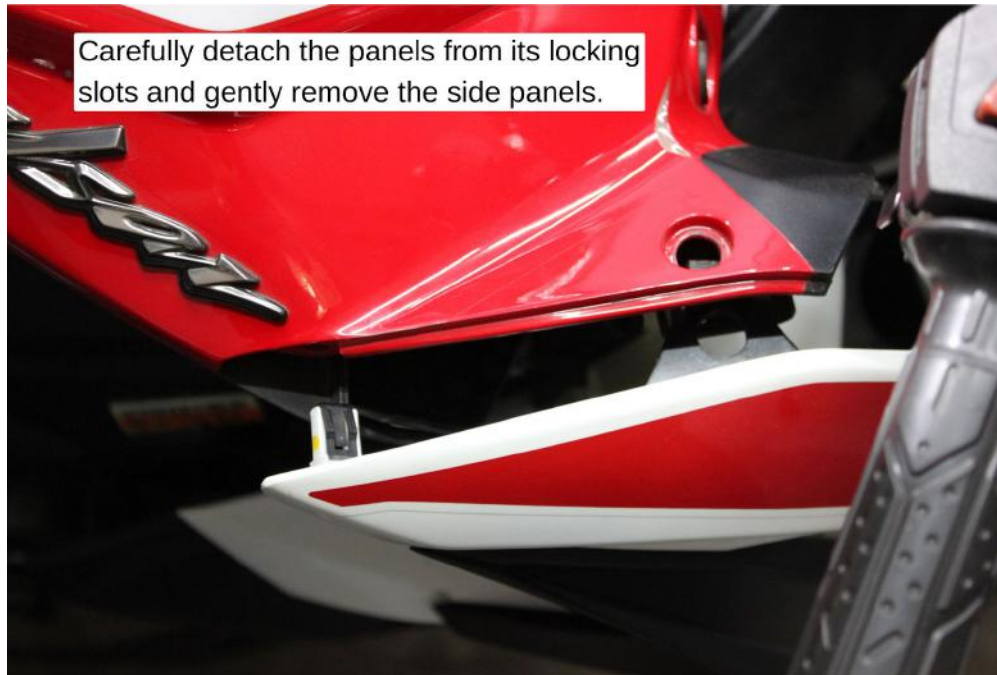


Image 11

3.1.10 Gently lift the fuel tank cover. Refer [Image 12](#).



Image 12

3.1.11 Unscrew the tank mounting bolt at the front end using M10 hex bit. Refer [Image 13](#).



Image 13

3.1.12 Unscrew the tank mounting bolts at the rear end using M10 hex bit. Refer [Image 14](#).



Image 14

3.1.13 Gently lift the fuel tank a little to have enough space to detach the connections. Refer **Image 15**.



Image 15

3.1.14 Detach the vacuum hoses. Refer **Image 16**

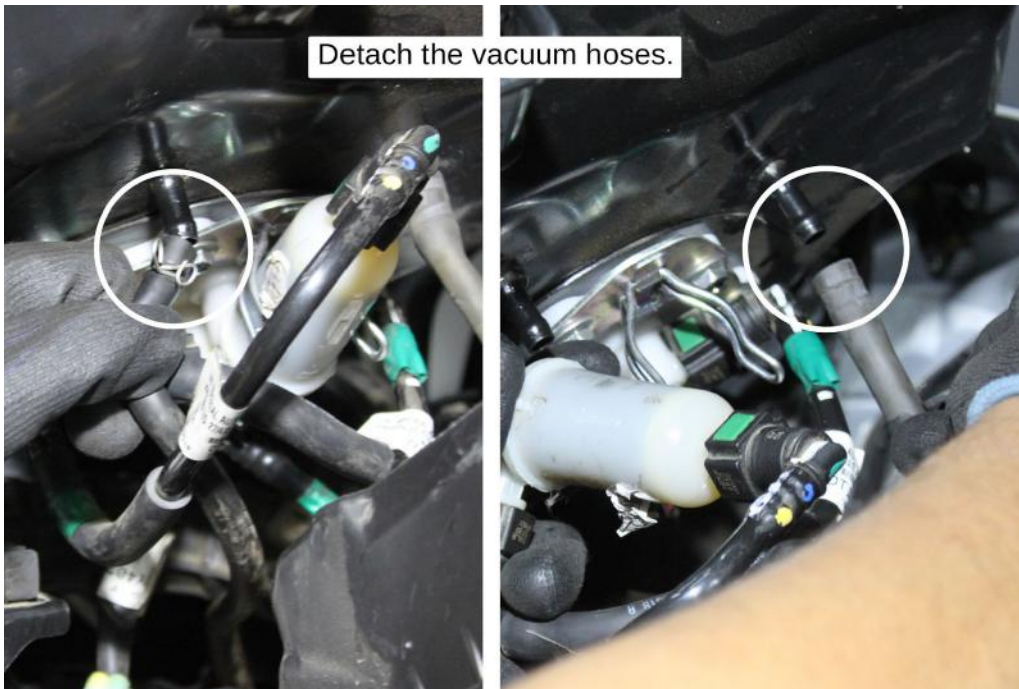


Image 16

3.1.15 Detach the fuel line. Refer **Image 17**.

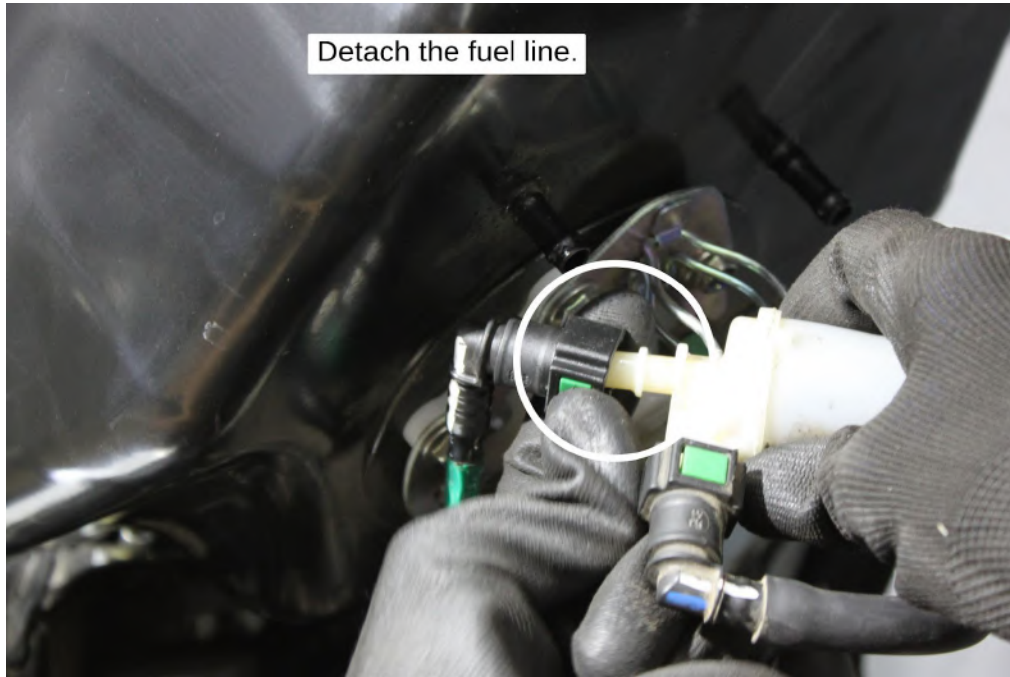


Image 17

3.1.16 Detach the fuel pump connector. Refer **Image 18**

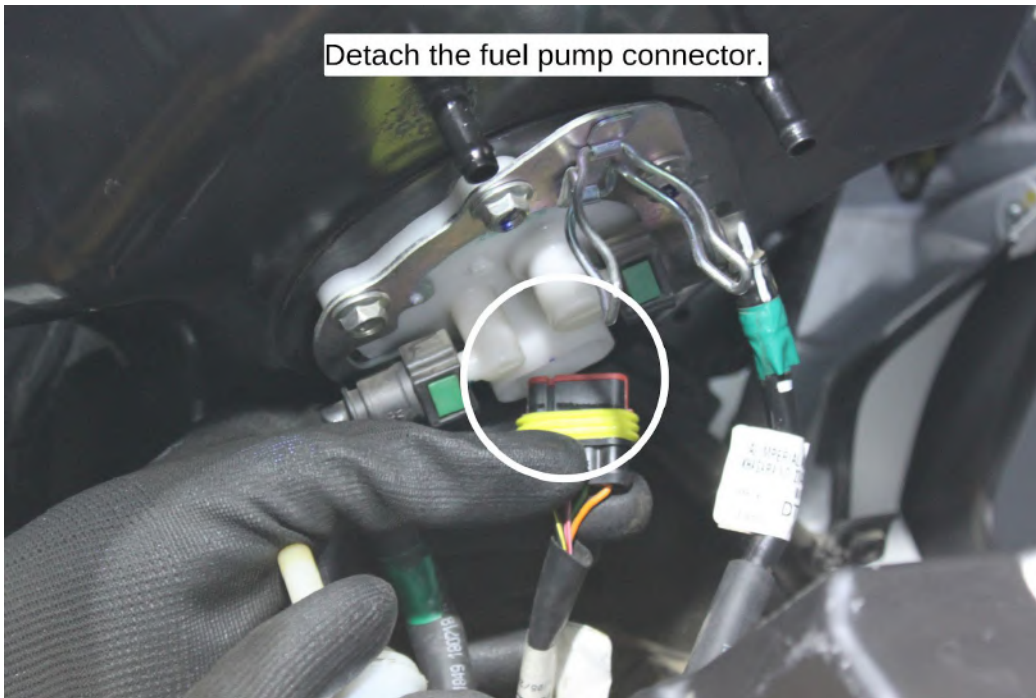


Image 18

3.1.17 After removing all the connections, lift the tank gently and place it safe. Refer [Image 19](#)



Image 19

3.1.18 Unscrew the air box screws at front end using a Phillips head screwdriver. Refer [Image 20](#)



Image 20

3.1.19 Unscrew the air box screws at rear end using a Phillips head screwdriver. Refer **Image 21**



Image 21

3.1.20 Carefully detach the air filter chamber. Refer **Image 22**



Image 22

3.1.21 Remove the rubber cover carefully from its slots. Refer [Image 23](#)



Image 23

3.2 Routing the harness

3.2.1 Understand the direction of routing the harness. Refer **Image 24**

Routing of the wiring harness

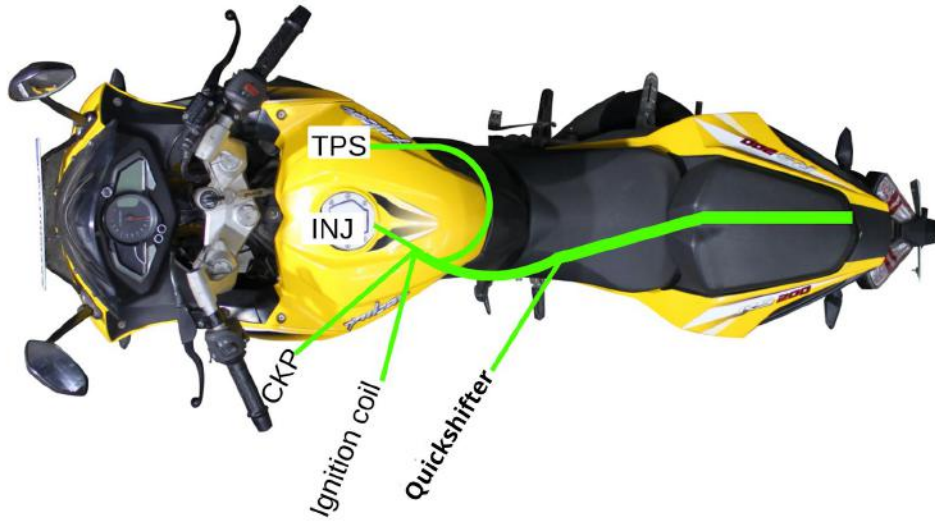


Image 24

3.2.2 start at the front end. Refer **Image 25**.

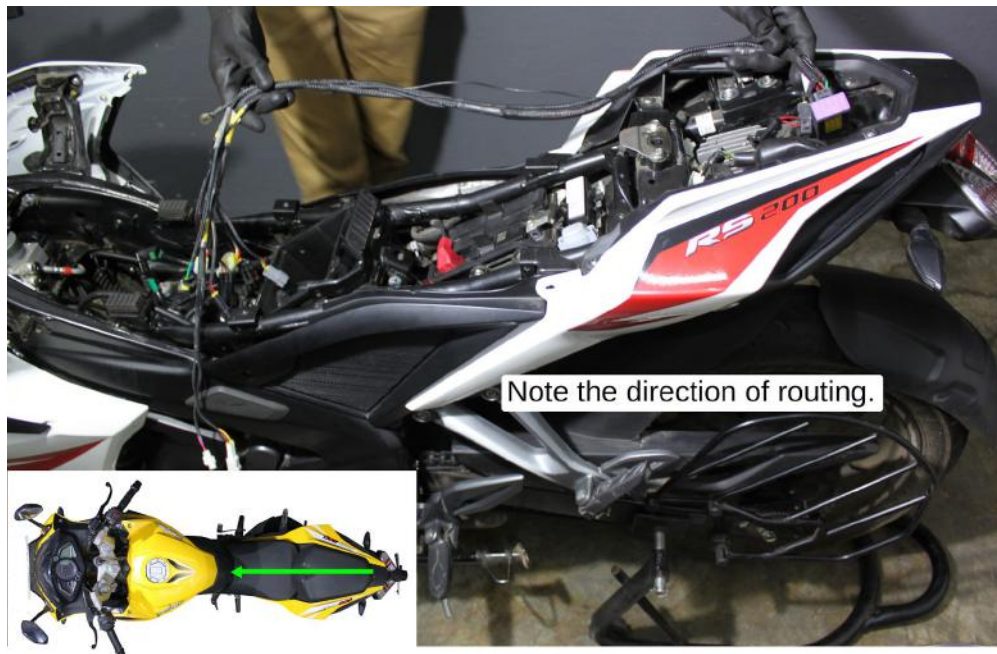


Image 25

3.2.3 Route the harness under the metal plate and inside the side fairing. Refer **Image 26** and **Image 27**

Note: Make sure the map connector is accessible at the pillion rider seat section.

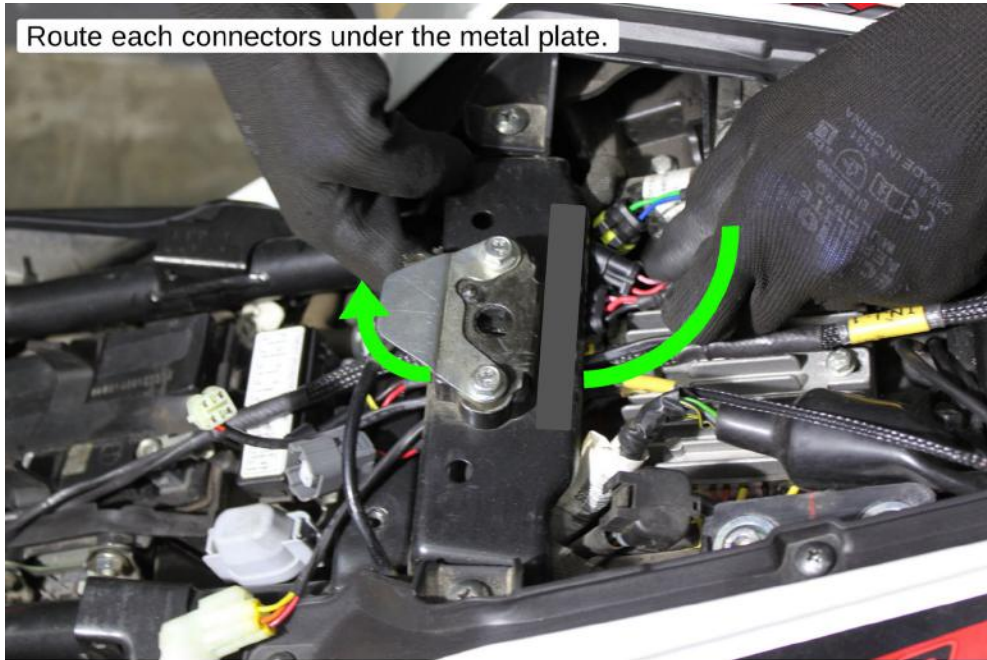


Image 26



Image 27

3.2.4 Route the harness on the left side of the bike through the frame and side fairing. Refer [Images 28](#) and [Image 29](#)

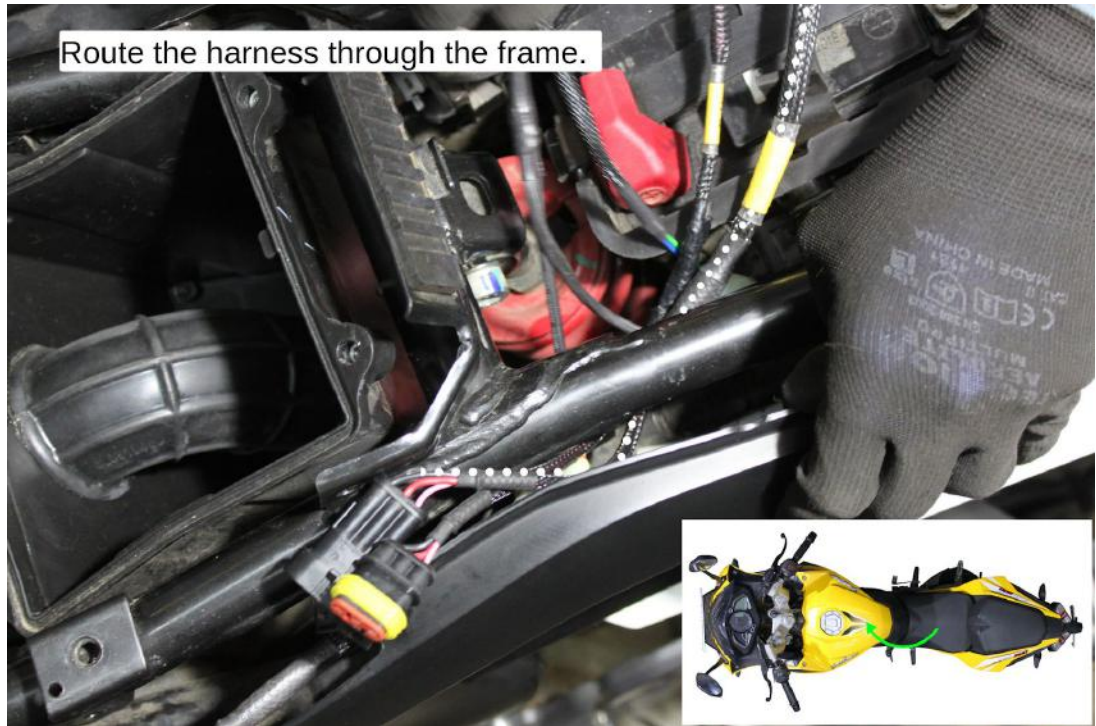


Image 28



Image 29

3.2.5 Route the TPS harness from the left side to around the air filter box. Refer [Images 30](#)

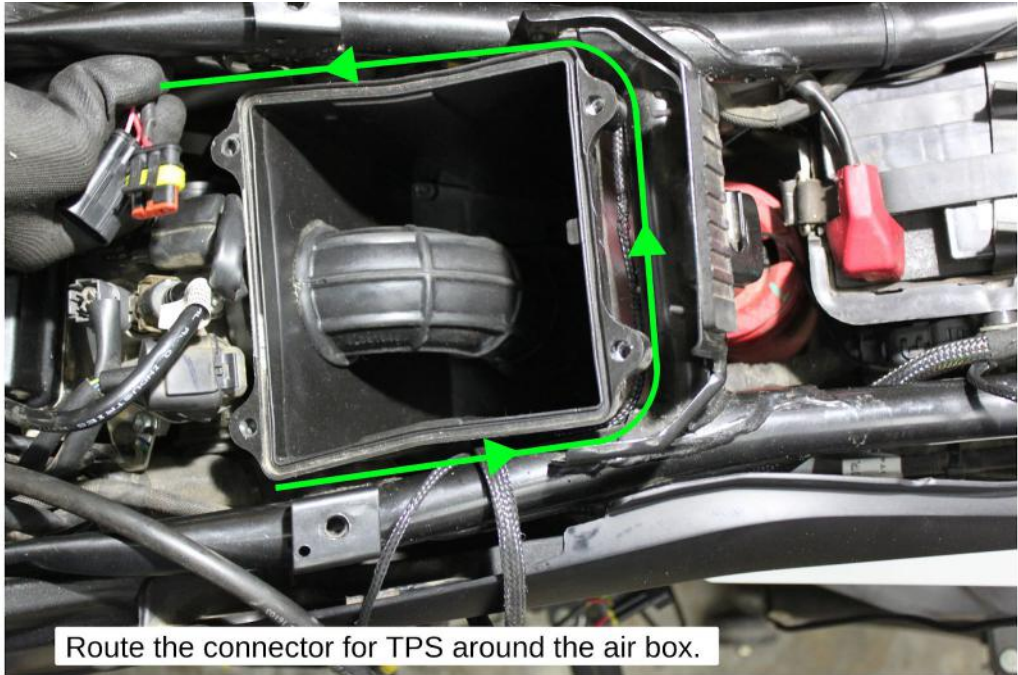


Image 30

3.3 Fuel Injector Connector (Top of the bike)

3.3.1 Locate the stock injector connector of your bike. Refer the **Images 31** and **Image 32** below

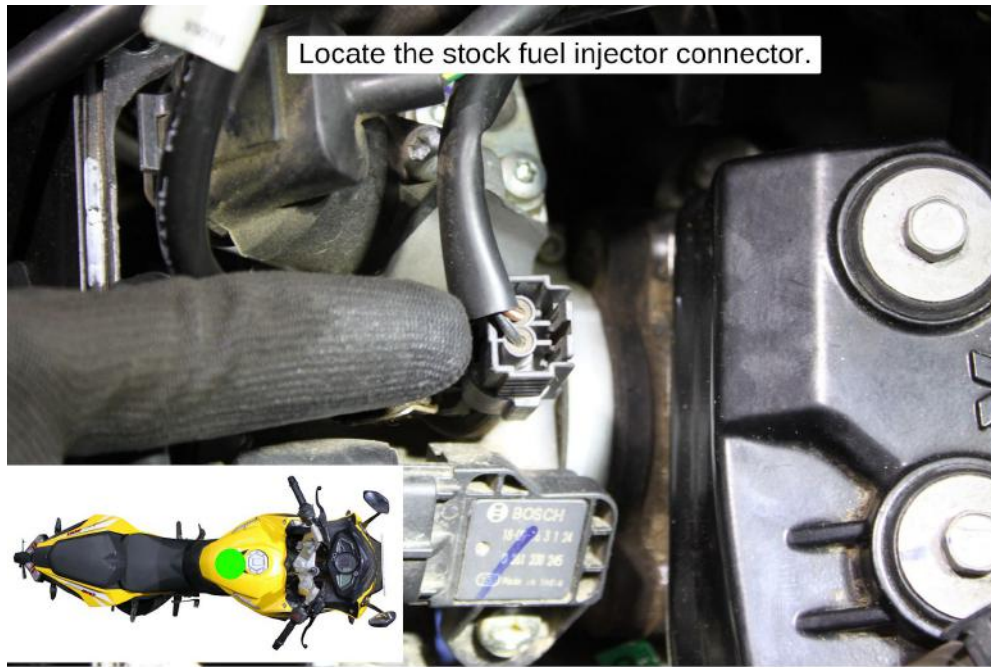


Image 31



Image 32

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 the zoomed view (**Image 33**) below

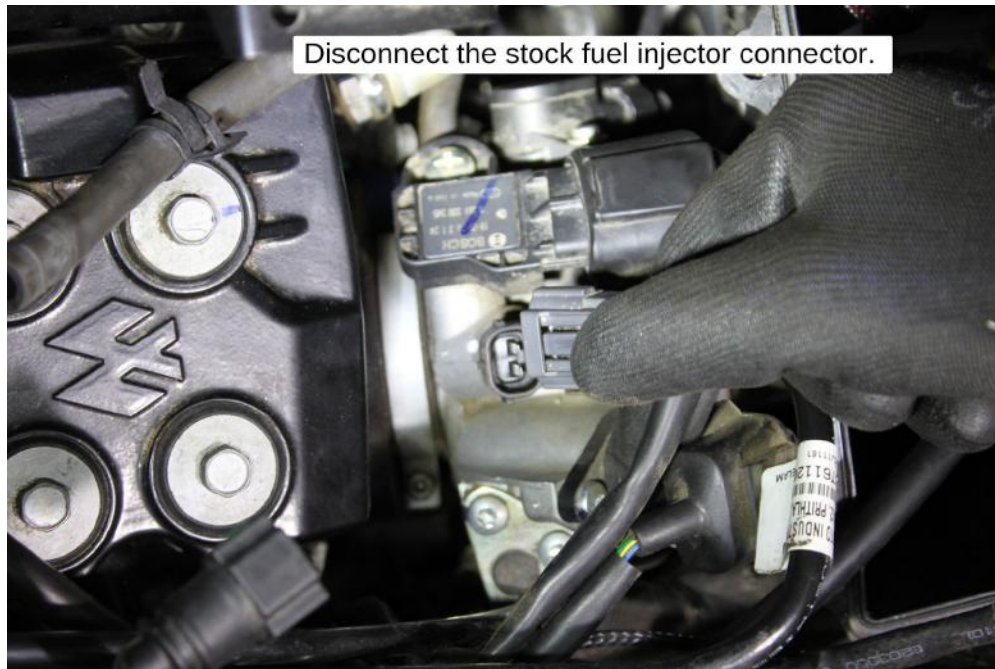


Image 33

3.3.4 Connect PowerTRONIC male injector connector to the stock female injector connector. Refer **Image 34**

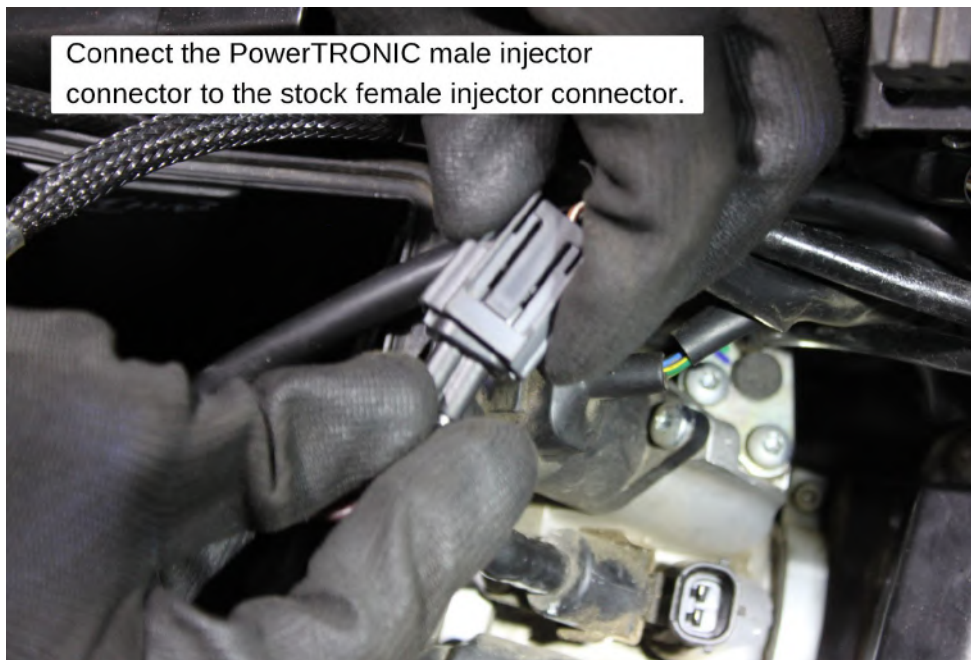


Image 34

3.3.5 Connect the PowerTRONIC female injector connector to the stock male injector connector. Refer [Image 35](#)

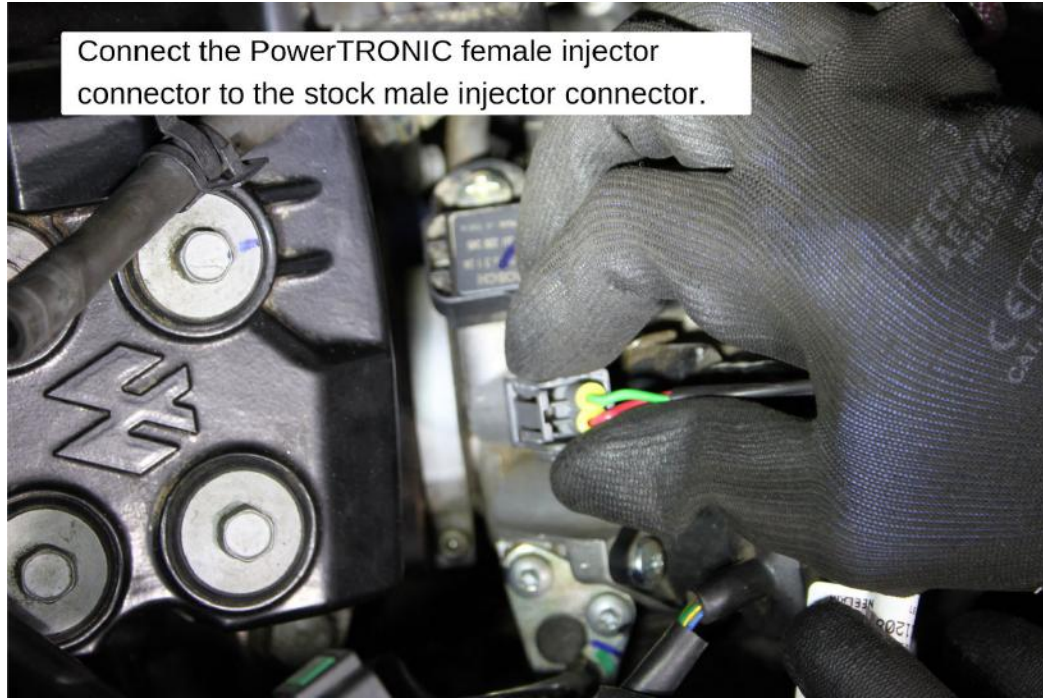


Image 35

3.4 Crank position sensor (Left side of the bike)

3.4.1 Locate the stock crankshaft position sensor connector on the bike. Usually located above the engine attached to the left side of the chassis. Refer **Images 36** and **Image 37** below.

To identify the CKP connector, locate the connector which include red-white striped wire.

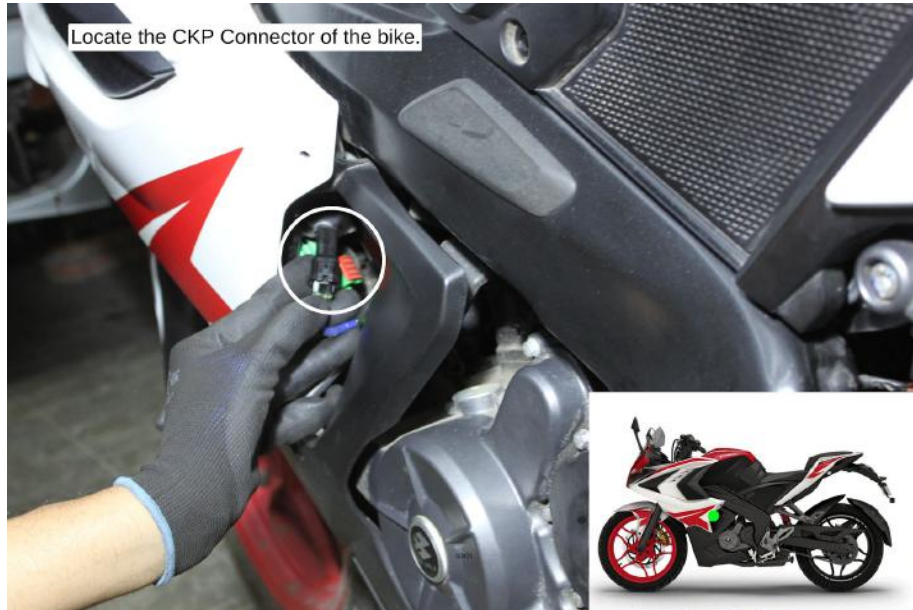


Image 36



Image 37

3.4.2 Disconnect the stock CKP connector. Refer [Image 38](#).



Image 38

3.4.3 Connect PowerTRONIC male CKP connector to the stock female CKP connector. Refer [Image 39](#)



Image 39

3.4.4 Connect the PowerTRONIC female CKP connector to the stock male connector. Refer [Image 40](#)

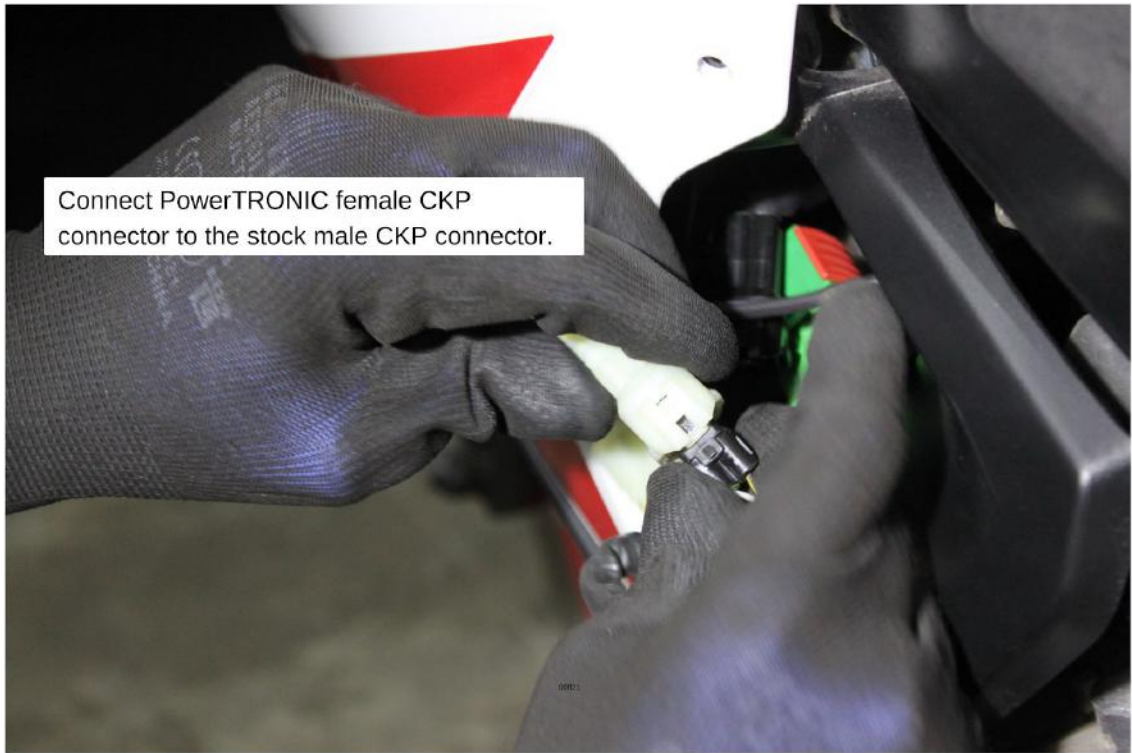


Image 40

3.5 Ignition Coil Connector (left of the bike)

3.5.1 Locate the stock Spark/Ignition coil connector on the left side of the bike. Refer **Images 41** and **Image 42** below.

Important note: RS 200 has two ignition coils. Please connect SPK1 to the one on the left side of the bike as shown.



Image 41

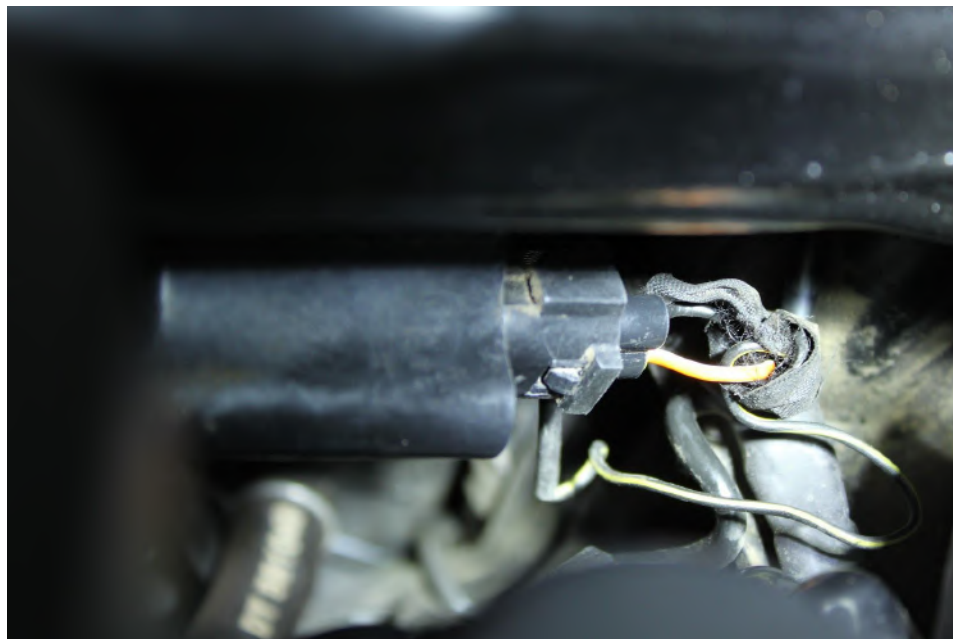


Image 42

3.5.2 Identify the Spark/Ignition coil connector in the PowerTRONIC wiring harness. The connectors are labelled 'SPK 1'

3.5.3 Disconnect the stock right side ignition coil connectors. Refer **Image 43** below.

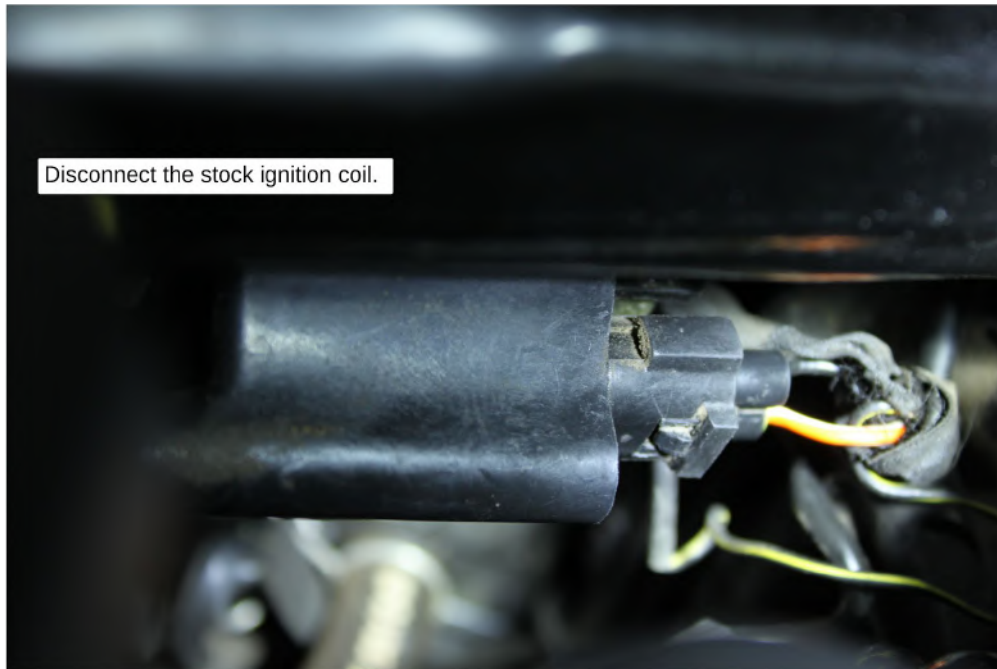


Image 43

3.5.4 Connect the PowerTRONIC Ignition coil male connector to the stock ignition coil female connector. Refer **Image 44** below.

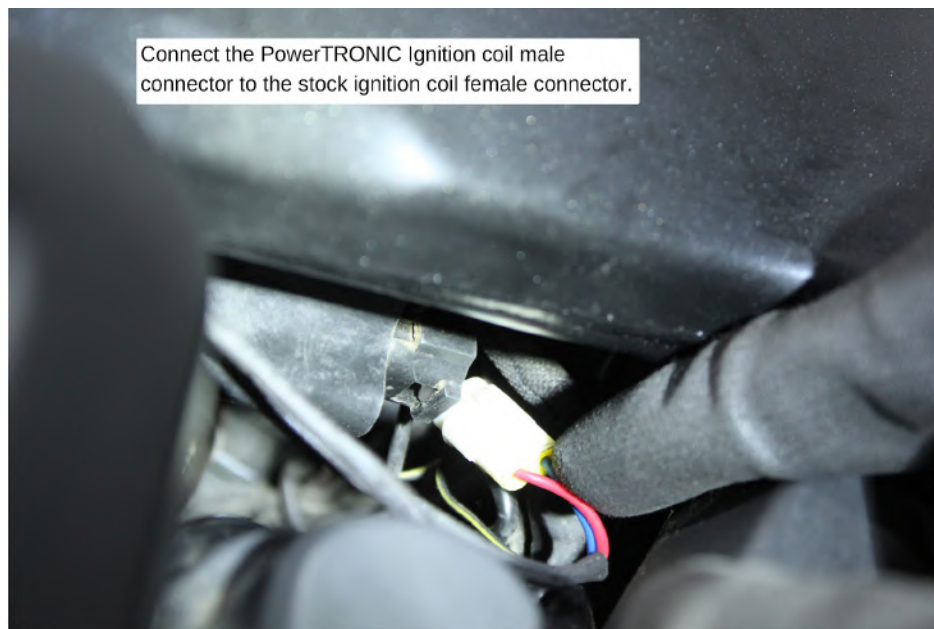


Image 44

3.5.5 Connect the PowerTRONIC Ignition coil female connector to the stock ignition coil male connector. Refer [Image 45](#).

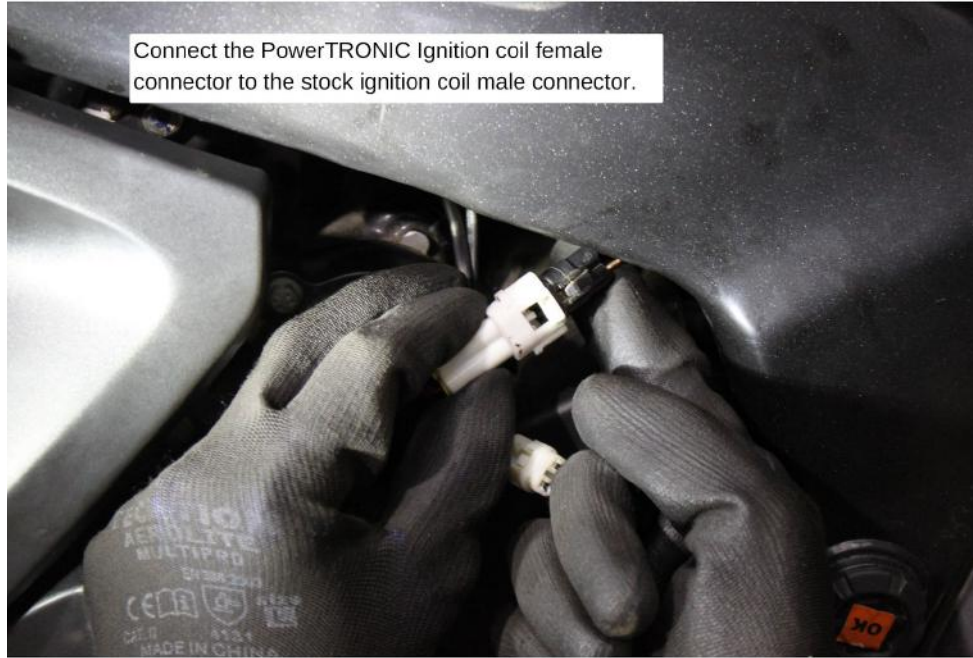


Image 45

3.6 Throttle position sensor connector (Right side of the bike)

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 [Image 46](#) and [Image 47](#)

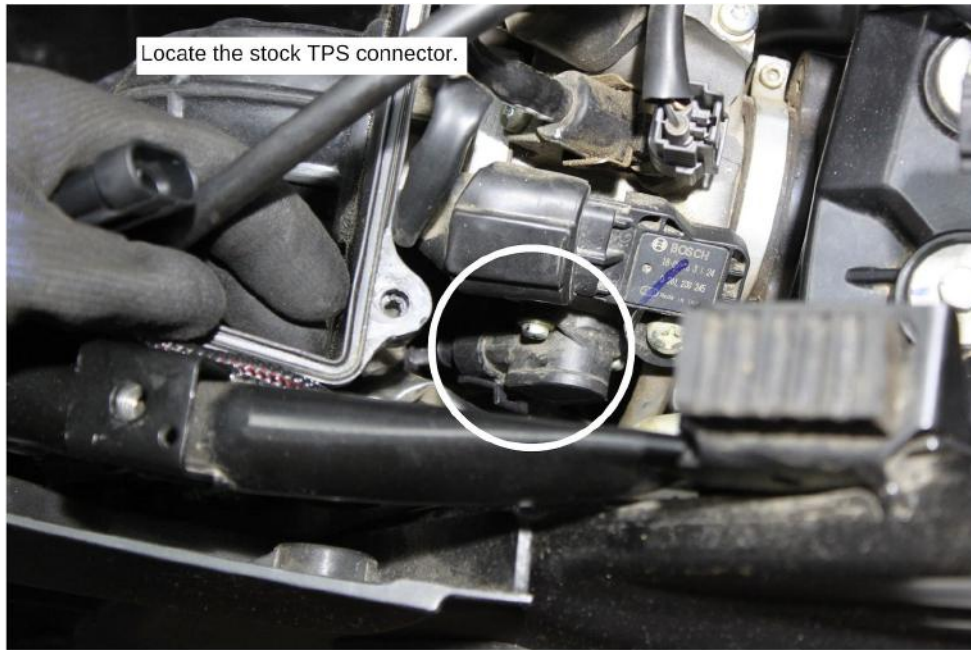


Image 46

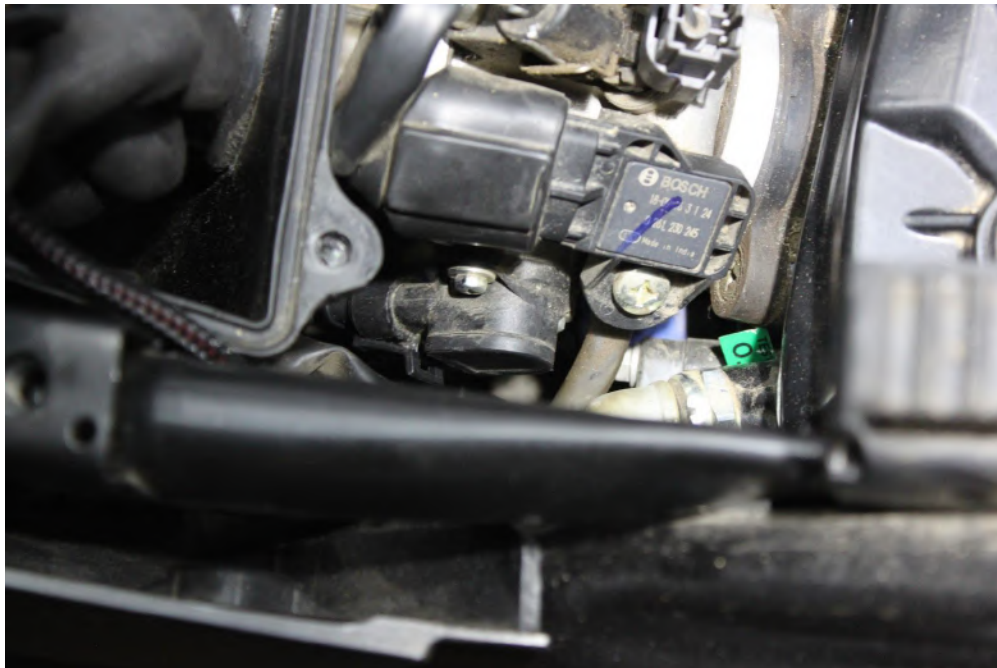


Image 47

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

3.6.3 Disconnect the stock TPS connector. Refer **Image 48**

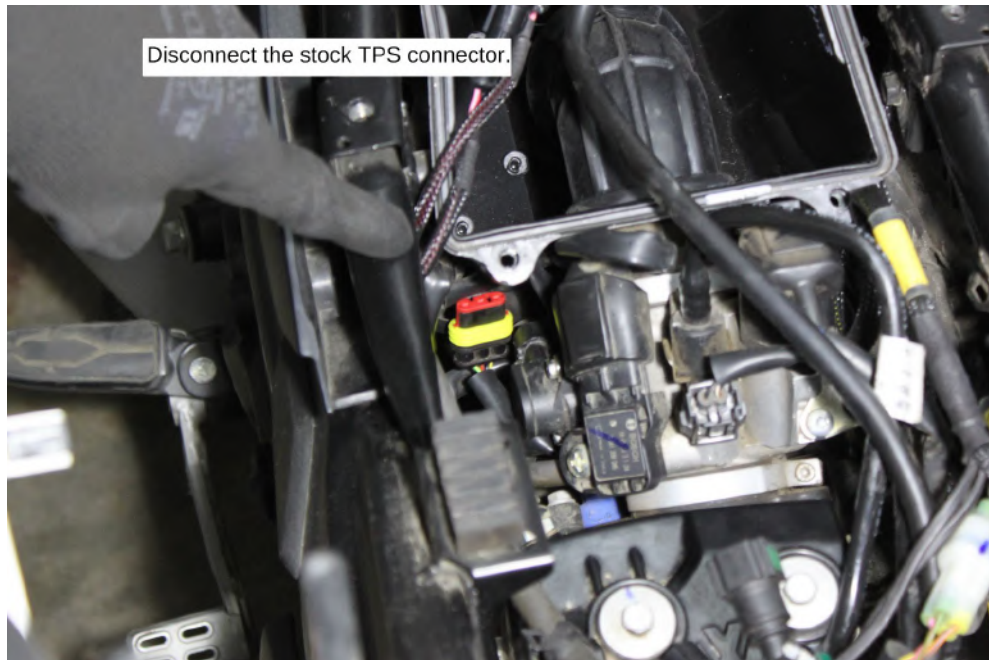


Image 48

3.6.4 Connect the PowerTRONIC male TPS connector to stock female connector. Refer **Image 49**.



Image 49

3.6.5 Connect the PowerTRONIC female TPS connector to stock male connector. Refer [Image 50](#).

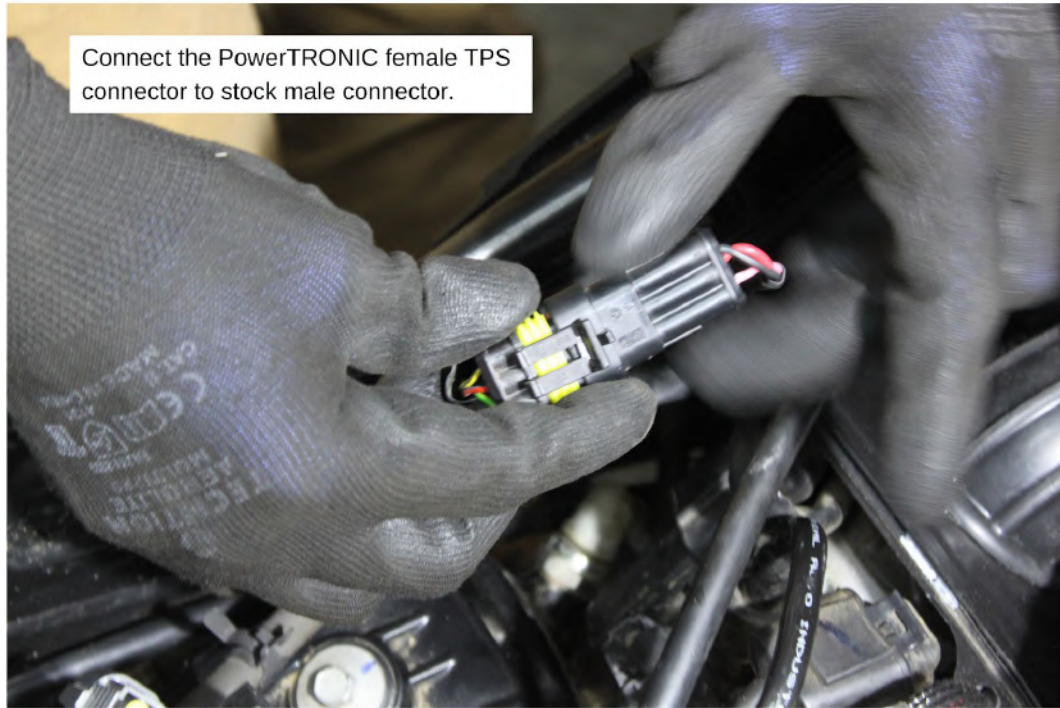


Image 50

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

3.7 Ground Terminal Connector

3.7.1 Identify the Ground terminal connector labelled GND

3.7.2 Connect the ground terminal connector to the negative terminal of the battery.. Refer the [Image 51](#) and [Image 52](#).



Image 51



Image 52

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 the **Image 53**



Image 53

Important note: The powerTRONIC harness contains Quick shifter connector. If you have bought the Quickshifter please attach the connector to it.

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 [Image 54](#). Refer detailed Stock coupler test document.



Image 54

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 [Image 55](#).



Image 55

3.11 Attaching the panels fairing etc

Attach the panels, fairing as removed from the bike.