

PowerTRONIC Installation Manual- Bajaj Dominar 400 (2016-2019)

Document Version	1	Release Date	05 March 2019
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Application information	Vehicle Specific
Vehicle	Bajaj
Model	Dominar 400
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	M10, M12, M14, M17 Hexagonal socket	Spinner handle
2	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 connectors/hoses/wires

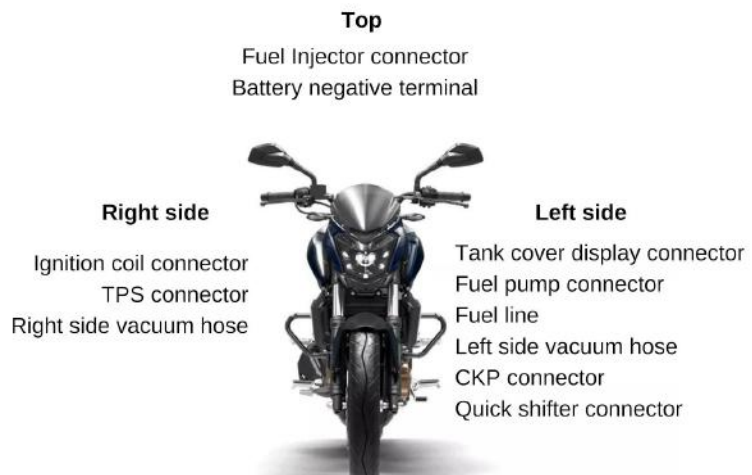


Image 2

3.1.1 Detach the pillion seat by inserting the key into the keyhole shown in **Image 3** and unlock the pillion seat. **Image 4** shows how the pillion seat is detached.



Image 3



Image 4

3.1.2 Unscrew the rider seat bolts using M10 Hexagonal Socket - Refer [Image 5](#)).

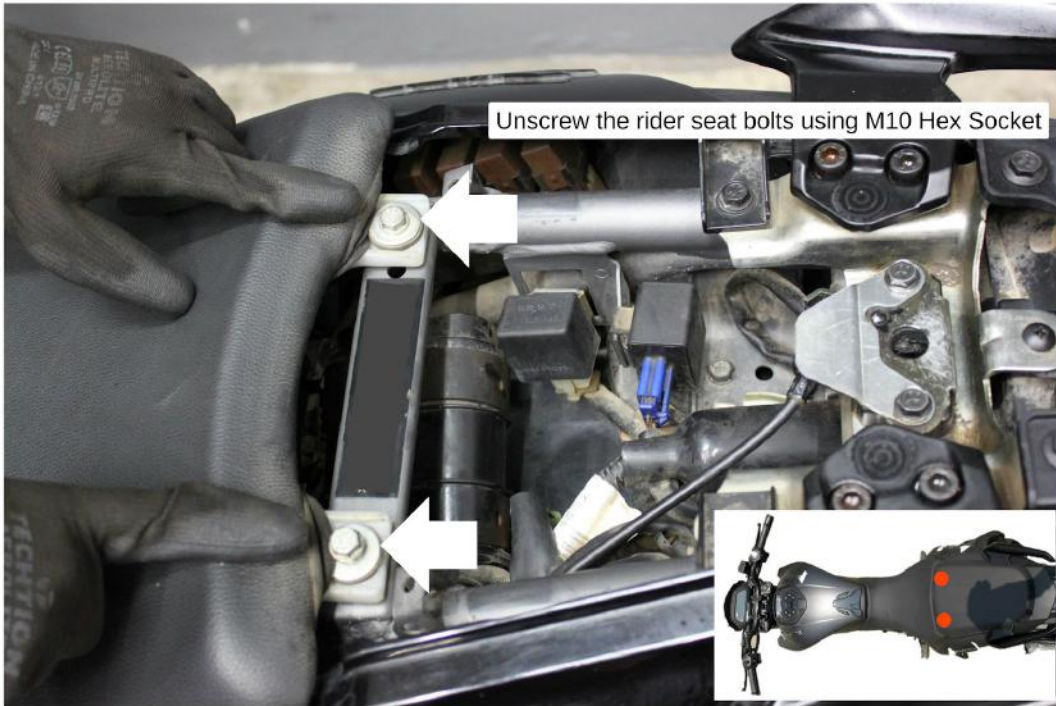


Image 5

3.1.3 Refer [Image 6](#)



Image 6

3.1.4 Once the rider seat bolts are removed, gently lift the seat. Refer [Image 7](#). Refer [Image 8](#) for detached view.

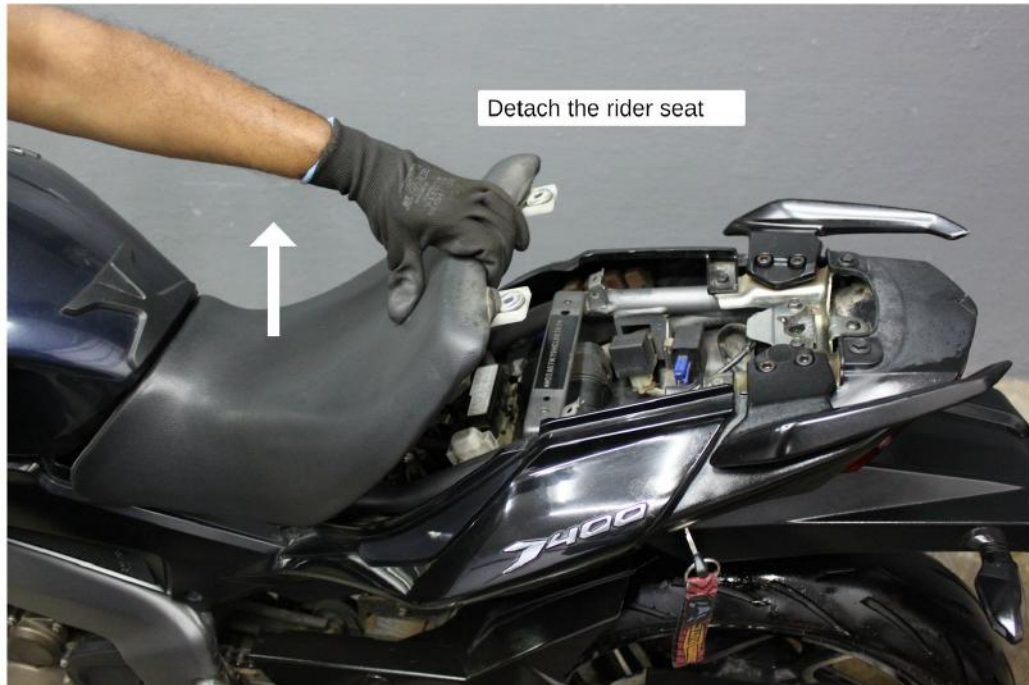


Image 7



Image 8

3.1.5 Locate and unscrew the bolts and screws (8 on sides and 2 in the front) using M5 Hexagonal bit and Phillips-head screwdriver. [The tank cover is attached by M5 screw and panel is attached by screws.] Refer **Image 9** for side view and **Image 10** for front view.



Image 9

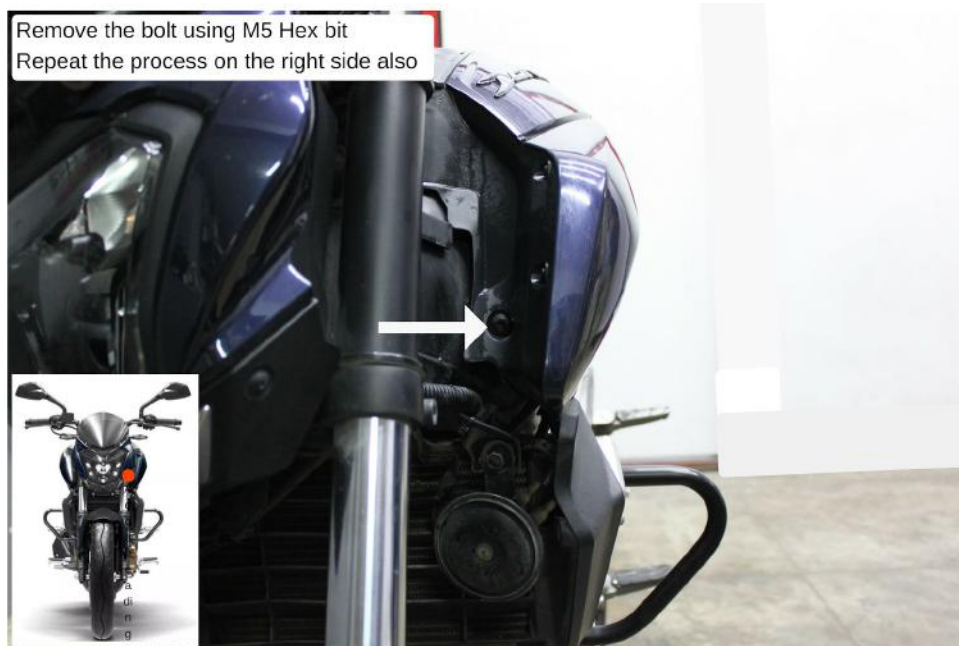


Image 10

3.1.6 Once the bolts and screws are removed, gently disconnect the side panel from the locks on both the sides. Refer **Image 11**.



Image 11

3.1.7 Unscrew the cover bolt using M10 Hexagonal T socket. Refer **Image 12** and **Image 13**.



Image 12



Image 13

3.1.8 Remove the cover. Refer **Image 14**.



Image 14

3.1.9 Gently lift the tank cover and locate the tank cover connector on the left side of the bike. Refer **Image 15**.



Image 15

3.1.10 Disconnect the connector. Refer **Image 16**.



Image 16

3.1.11 After removing the tank cover connector gently lift the tank cover and place it securely. Refer **Image 17**



Image 17

3.1.12 Locate the tank bolt in the front end and unscrew it with M14 Hexagonal socket. Refer **Image 18** and **Image 19**

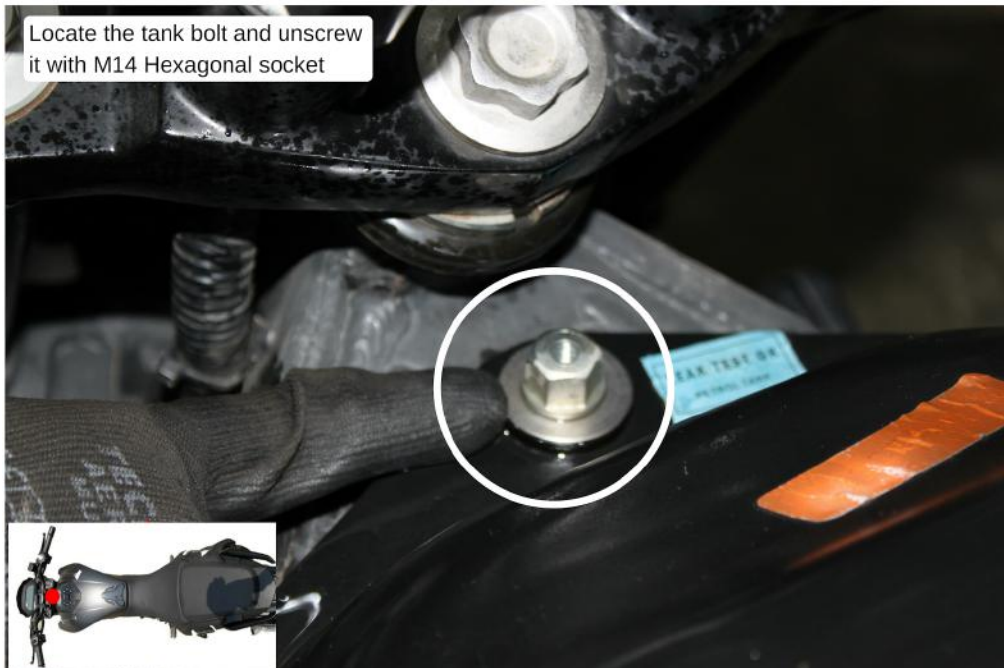


Image 18



Image 19

3.1.13 Locate the tank side bolt on both sides of the bike. Unscrew it with M12 Ring . Refer [Image 20](#) and [Image 21](#)



Image 20



Image 21

3.1.14 Gently lift the tank. Refer [Image 22](#)



Image 22

3.1.15 Locate and identify the connections under the tank. Note that while removing the fuel line, remove the connector which goes to the throttle body. Refer [Image 23](#)

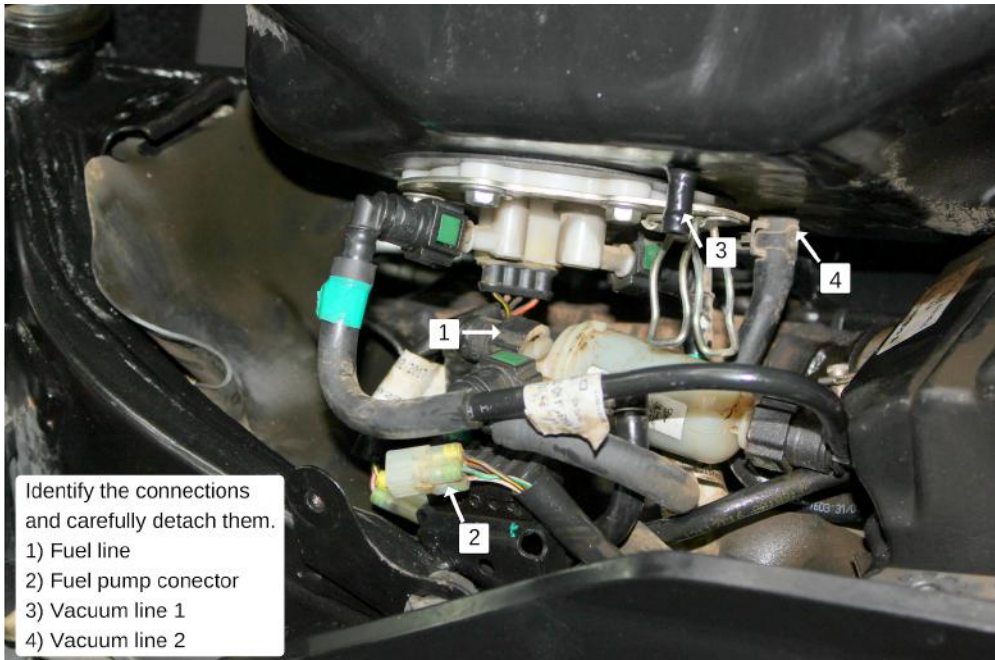


Image 23

3.1.16 Use a nose plier to loosen the metal clamp. Refer [Image 24](#)

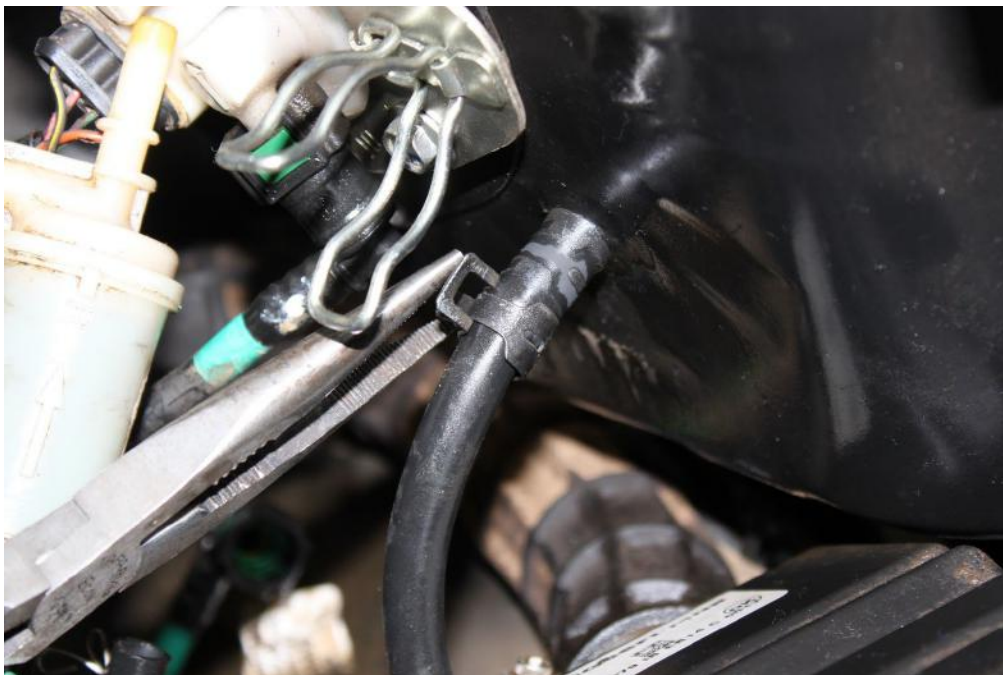


Image 24

3.1.17 Refer **Image 25** for detached view of tank.

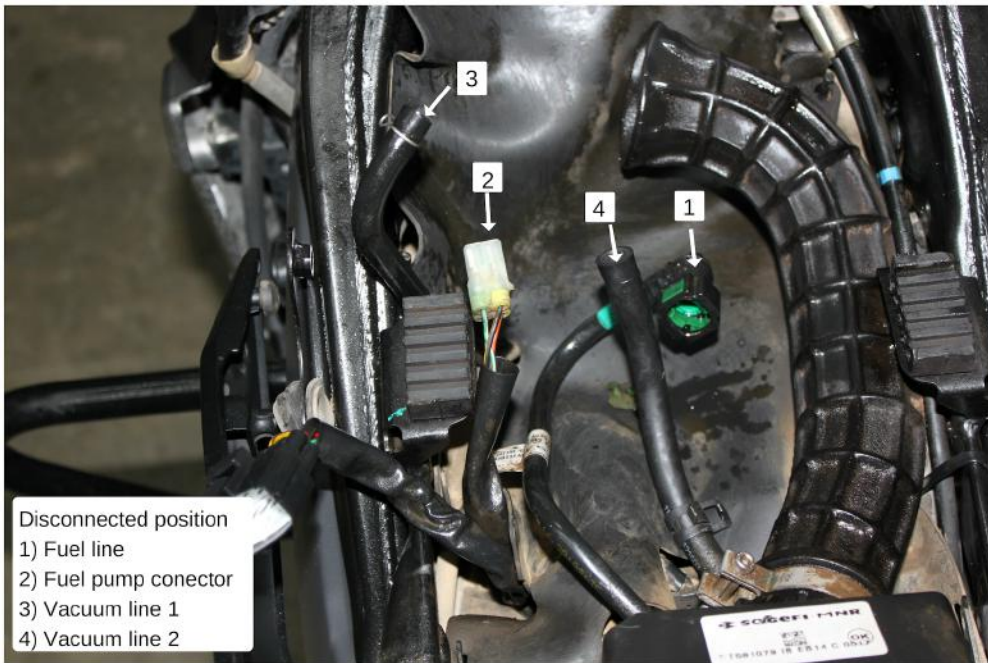


Image 25

3.1.18 Locate and unscrew the Phillips head screws of the air filter box. [Two screws are at the rear side of the air-filter box (Refer **Image 26**) and two screws are in front of the air-filter chamber(Refer **Image 27**)]

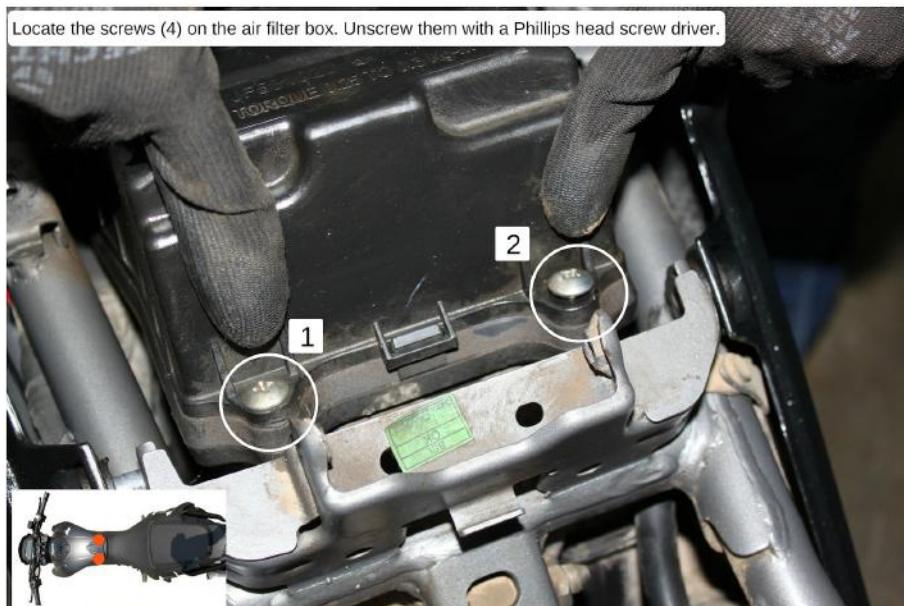


Image 26



Image 27

3.1.19 Once all the screws are removed, detach the top part of the air-filter box with air-filter and keep it securely. Refer [Image 28](#)



Image 28

3.1.20 Remove the rubber cover carefully from its slots.

3.2 Routing the harness

3.2.1 Place the harness on the bike. Route all the connectors under the welded part. Refer [Image 29](#).



Image 29

3.2.2 Refer [Image 30](#) for completed view.

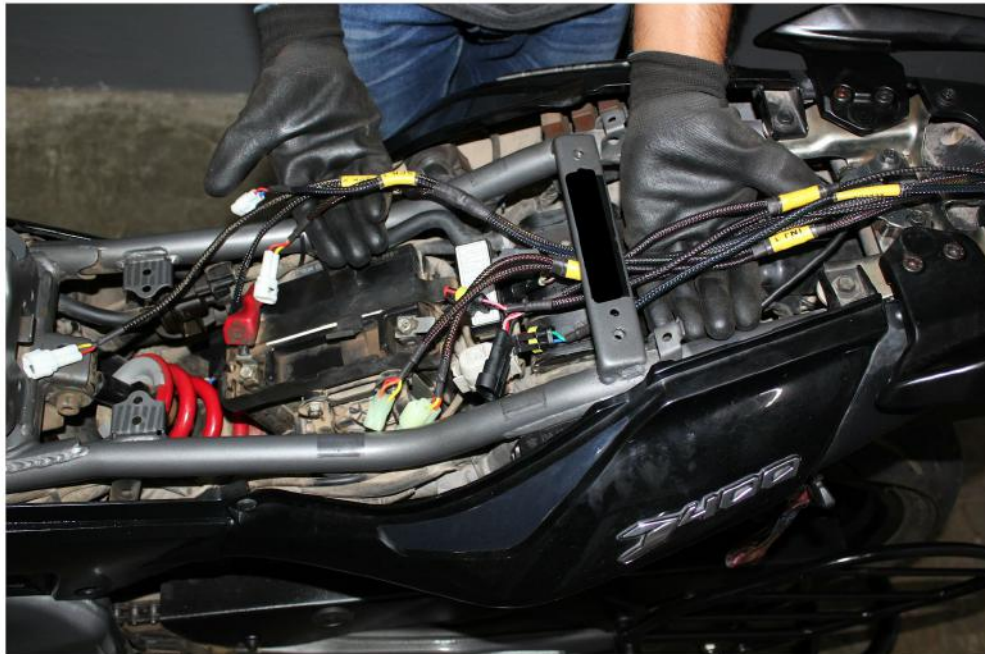


Image 30

3.2.3 Route the harness under the frame and inside the side fairing. Refer [Image 31](#)

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



Image 31

3.2.4 Route the TPS connector around the air-filter chamber. [Image 32](#)

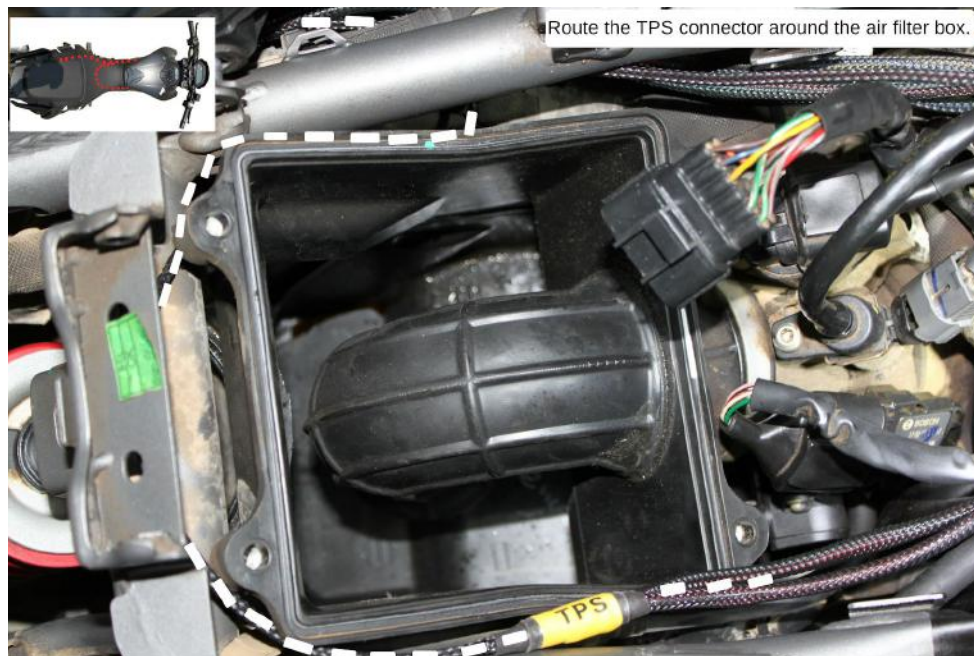


Image 32

3.2.5 Refer Images 33 for completed view.



Image 33

3.3 Fuel Injector Connector (Top of the bike)

3.3.1 Locate the stock injector connector of your bike. Refer the [Images 34](#) and [Image 35](#) below



Image 34



Image 35

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 36**) below



Image 36

3.3.4 Connect the female PowerTRONIC injector connector to the stock male injector connector. Refer **Image 37**

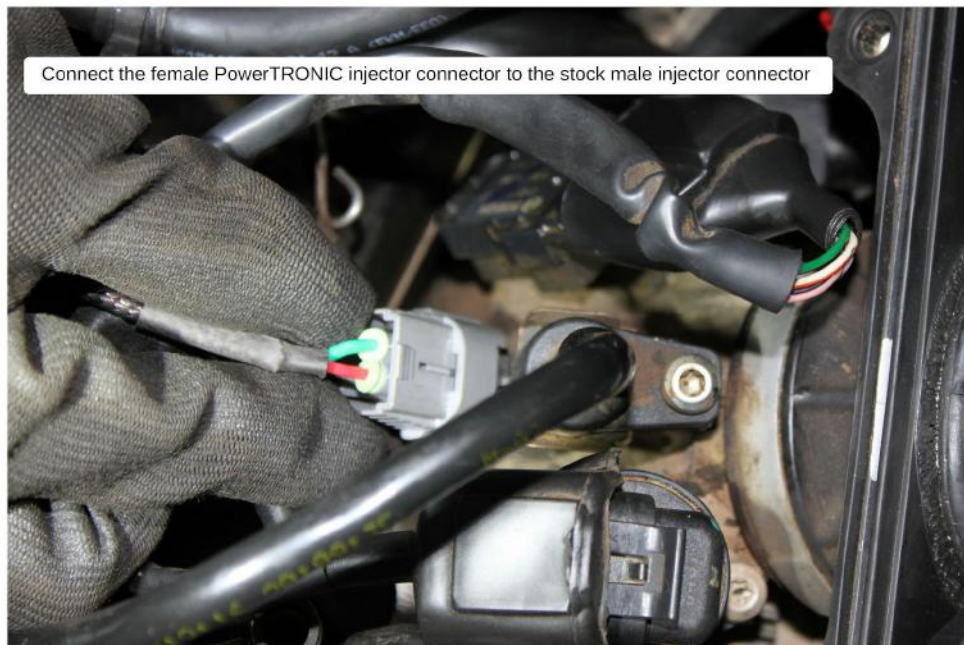


Image 37

3.3.5 Connect the stock female injector connector to the PowerTRONIC male injector connector. Refer [Image 38](#)

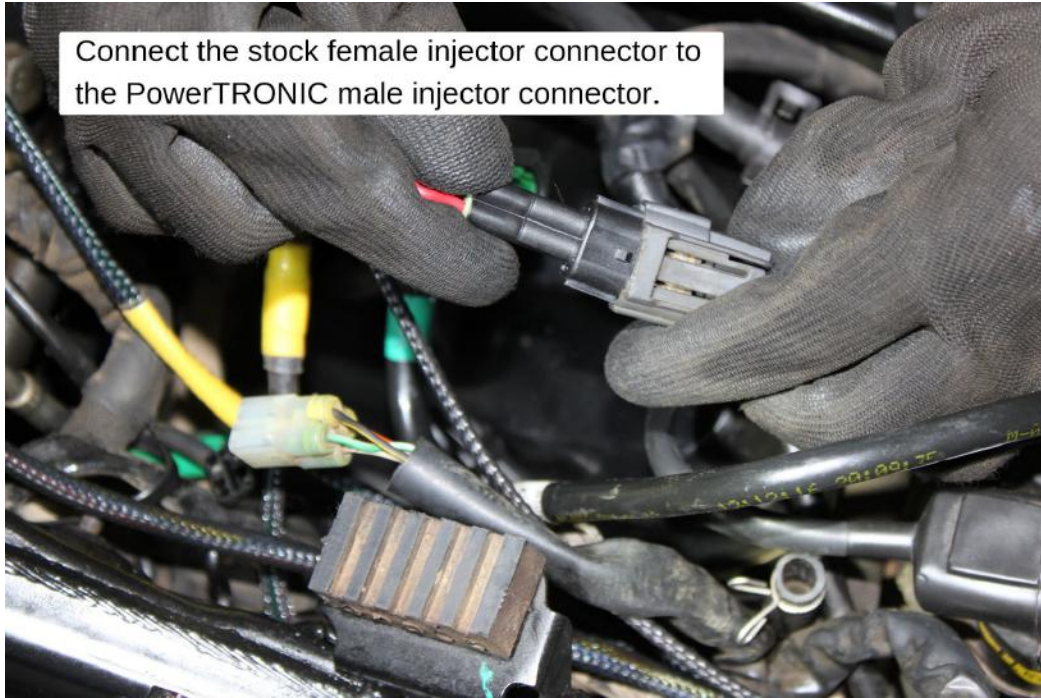


Image 38

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 39** and **Image 40** below.

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



Image 39



Image 40

3.4.2 Disconnect the stock CKP connector. Refer [Image 41](#).



Image 41

3.4.3 Connect PowerTRONIC male CKP connector to the stock female CKP connector. Refer [Image 42](#)



Image 42

3.4.4 Connect the PowerTRONIC female CKP connector to the stock male connector. Refer [Image 43](#)



Image 43

3.5 Ignition Coil Connector (Right of the bike)

3.5.1 Locate the stock Spark/Ignition coil connector on the right side of the bike. Usually located right above the engine. Refer **Images 44** and **Image 45** below.

Important note: Dominar has an ignition coil on both sides. Please connect SPK1 to the one on the right side of the bike as shown.



Image 44



Image 45

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 46](#) below.



Image 46

3.5.4 Connect the PowerTRONIC Ignition coil male connector to the stock ignition coil female connector. Refer [Image 47](#) below.



Image 47

3.5.5 Connect the PowerTRONIC Ignition coil female connector to the stock ignition coil male connector. Refer [Image 48](#).

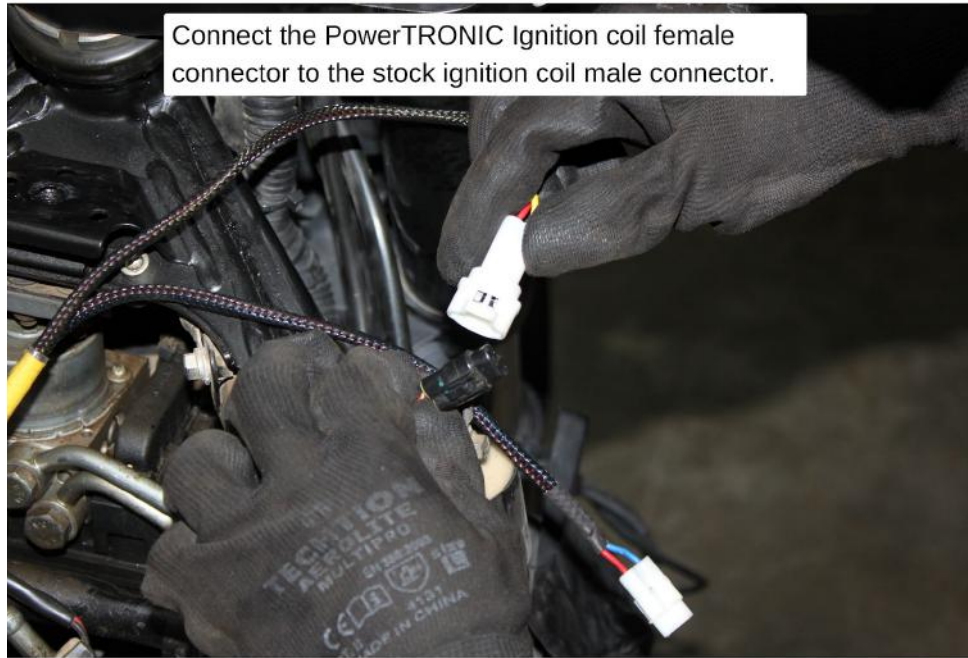


Image 48

3.5.6 Refer [Image 49](#) for completed view



Image 49

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 50](#) and [Image 51](#)

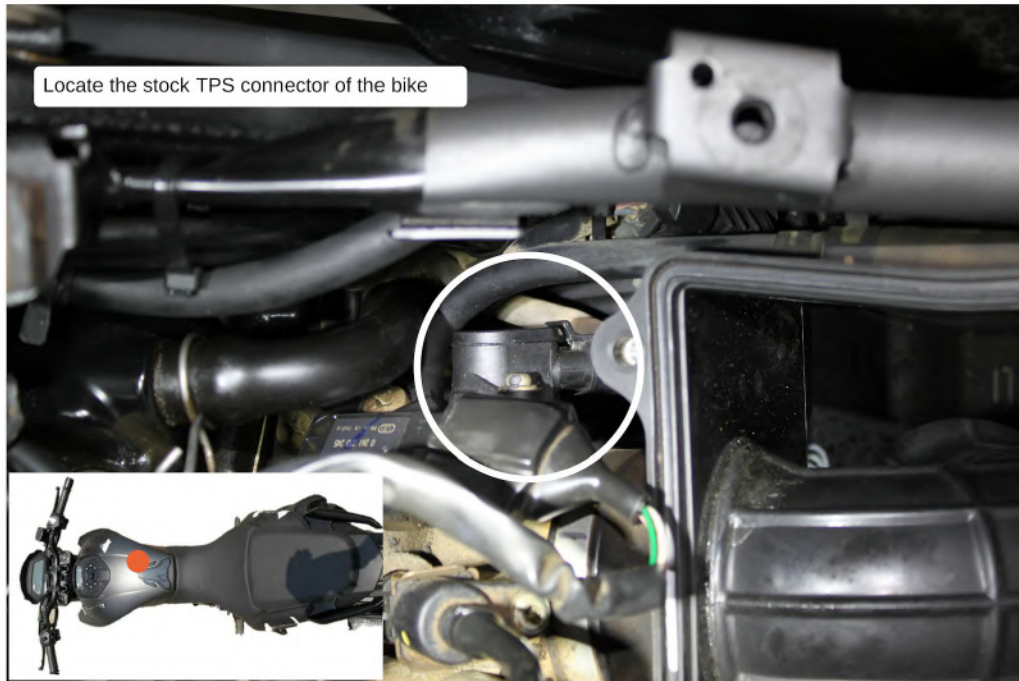


Image 50



Image 51

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 52](#)



Image 52

3.6.4 Connect the PowerTRONIC male TPS connector to stock female connector. Refer [Image 53](#).

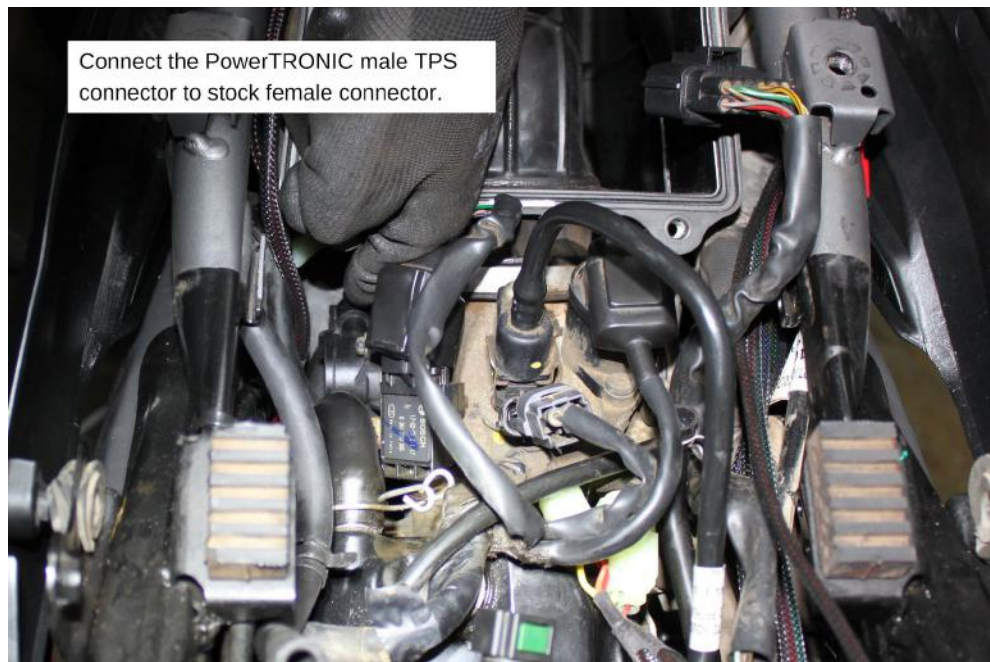


Image 53

3.6.5 Connect the PowerTRONIC female TPS connector to stock male connector. Refer [Image 54](#).



Image 54

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 55](#) and [Image 56](#).



Image 55

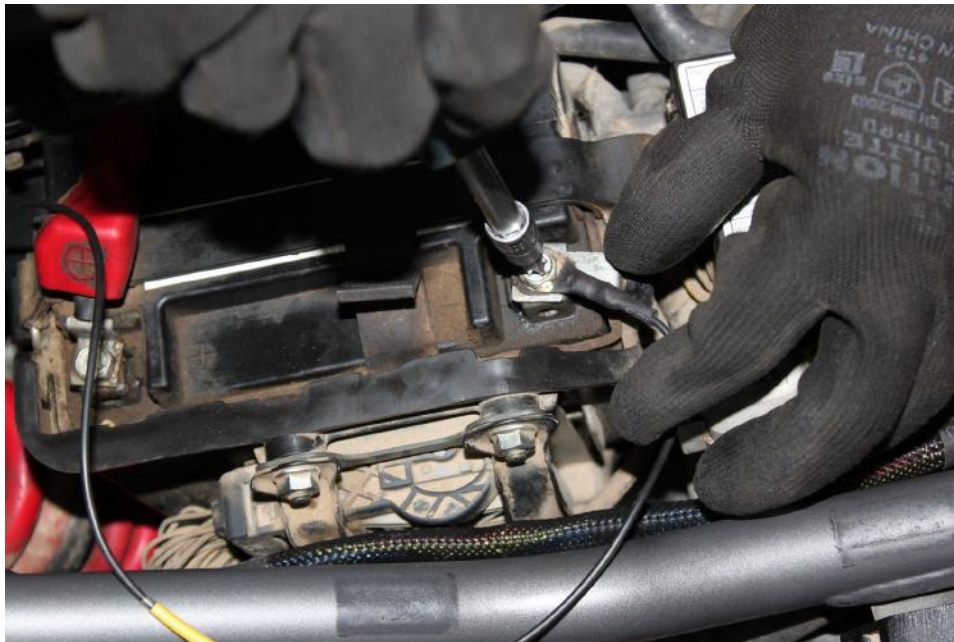


Image 56

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 57**



Image 57

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 58](#). Refer detailed Stock coupler test document.



Image 58

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 59](#).



Image 59

3.11 Attaching the panels fairing etc

Attach the panels, fairing as removed from the bike.