

FuelX Installation Manual

Hero Xpulse 200 4V

Document Version	1	Release Date	18 July 2024
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Application information	Vehicle Specific
Vehicle	Hero
Model	Xpulse 200 4V
Year of manufacture	2019-2024

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 tend to heat up during the normal operation of the vehicle at any chance.
- FuelX 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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for Indian specification vehicles, the FuelX module will have a sticker indicating it.

 FOR INDIAN SPECIFICATION BIKES ONLY

The warranty/support will not be provided for international users with Indian specification FuelX purchased from unauthorized re-sellers.

SLNo	Chapter	Page
1	About FuelX and Kit Contents	3
2	FuelX Variants	4-5
3	FuelX Connectors FuelX	6
4	Installation	7-21
5	FuelX Configuration and Settings	22
6	FuelX LEDs	23

1. FuelX

FuelX is an electronic, plug-in, fuel-injection optimizer for modern engines. It either enriches or decreases the AFR in all operating regions according to the rider requirement. It autotunes the engine to best operational parameters, constantly monitoring, learning, and adapting to the engine condition, wear and tear, riding style, add-ons (such as air filter and/or exhaust), etc as well as the environmental conditions such as temperature, humidity, altitude, etc. always ensuring the engine performs in the safest and most optimal zones.



FuelX kit contains the following items

- FuelXModule
- WiringHarness
- Handlebarmapswitch(ProandPro+ versiononly)
- Zipties
- Decals
- QuickstartguideandWarrantycard



Image 1.1

2. FuelX Variants

FuelX Pro+

The FuelX Pro+ variant has 10 maps that can be changed depending on the preference of the rider. For the Pro+ version, the FuelX contains an additional connector (Refer to Image 2.3) for the Handlebar Map switch (Refer to Image 2.2).



Image 2.1



Image 2.2

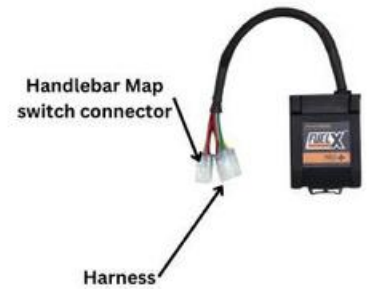


Image 2.3

FuelX Pro

The FuelX Pro variant has 10 maps that can be changed depending on the preference of the rider. For the Pro version, the FuelX contains an additional connector (Refer to Image 2.6) for the Handlebar Map switch (Refer to Image 2.5)



Image 2.4



Image 2.5

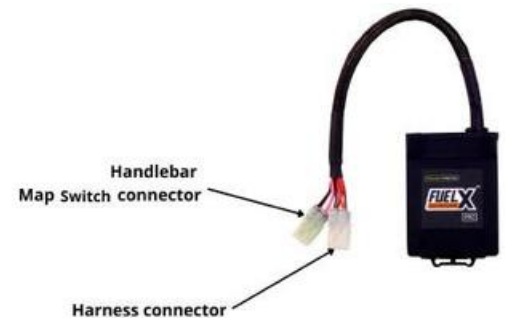


Image 2.6

FuelX Lite

The FuelX Lite variant has a single autotune map and only one connector for the harness.



Image 2.7

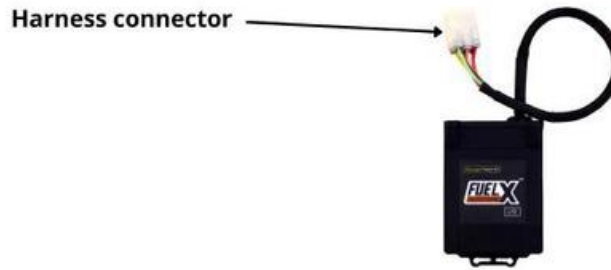


Image 2.7

3. FuelX Harness Connectors

The harness contains

- The Lambda connector(O2)
- FuelX connector
- Ignition coil connector
- Ground/battery negative connector.

The FuelX is connected between the Lambda sensor connector and the ECU. The male connector of FuelX is connected to the female of the Lambda sensor and vice versa.

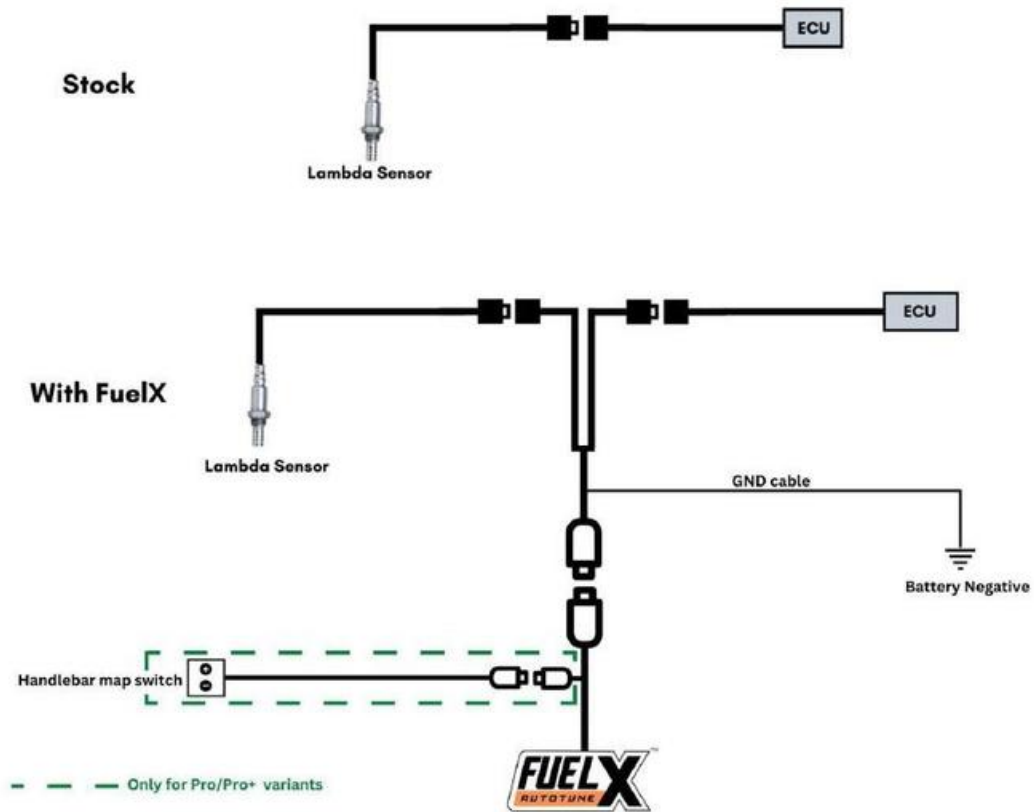


Image 3.4

Tools Required

- Allen keys- 3mm
- Philips head screw driver
- M12 Hexagonal socket

4. Installation procedure

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



Image 1

4.2 Locate the rider seat lock shown in [Image 2](#) and unlock the rider seat. Refer to [Image 3](#).



Image 2



Image 3

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



Image 4

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

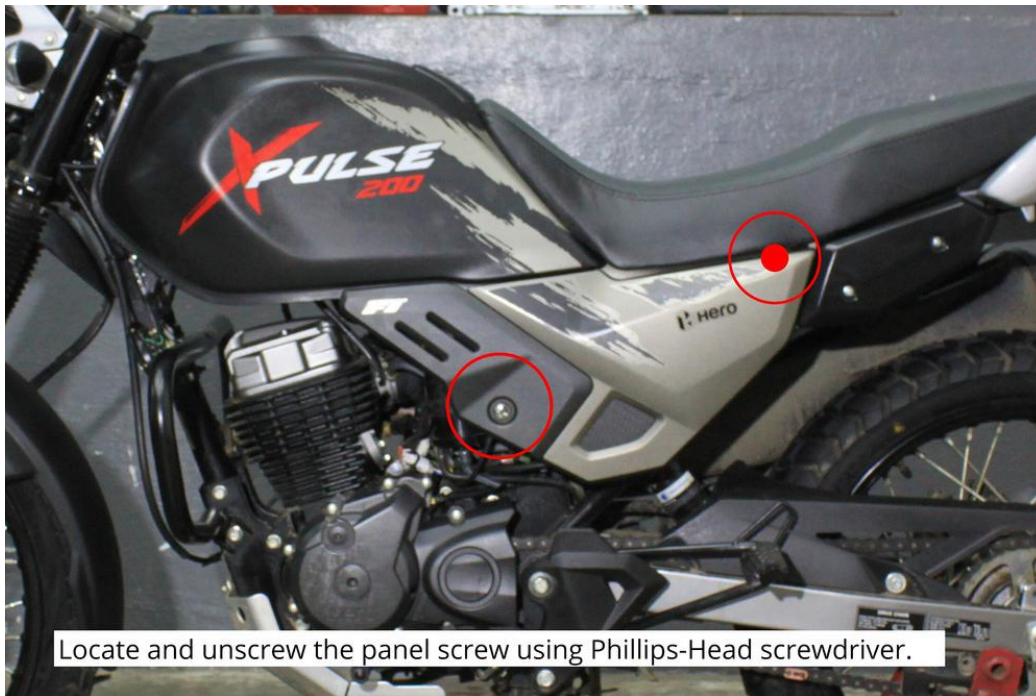


Image 5

4.5 Locate and unscrew the side screw using a Phillips Head screwdriver. Refer to **Image 6**.

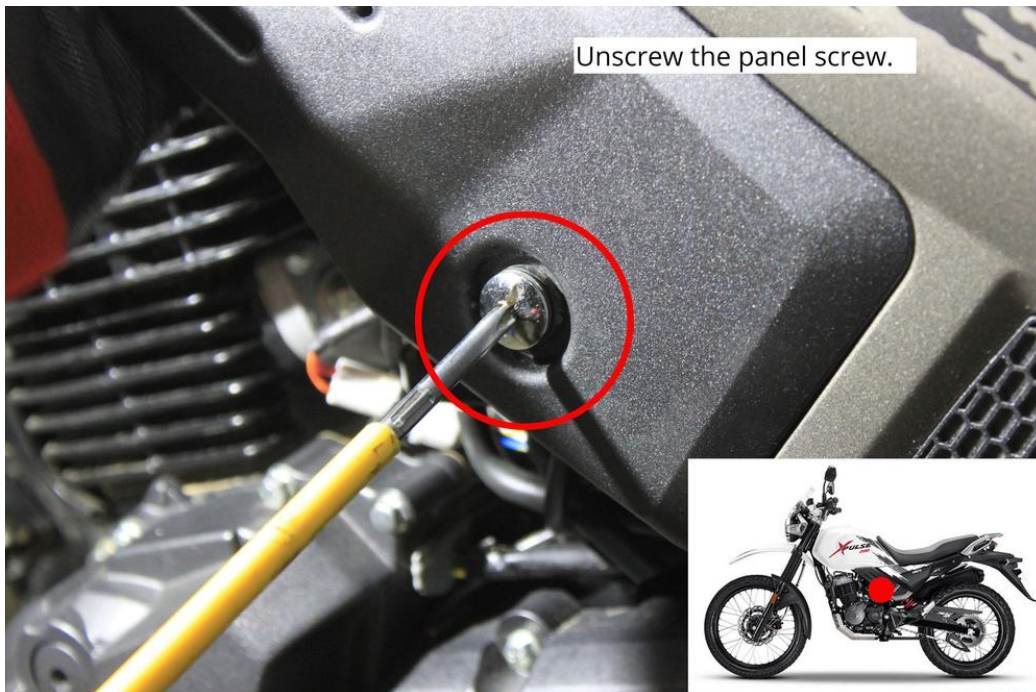


Image 6

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

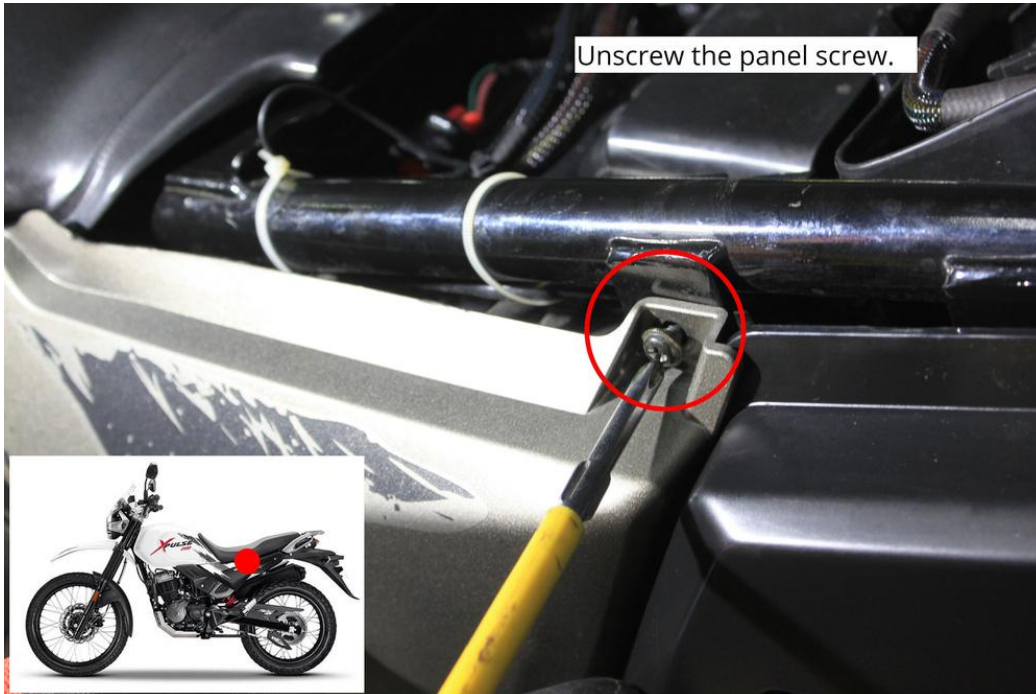


Image 7

4.7 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

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



Image 9

4.9 Detach the fuel line carefully. Refer to **Image 10**

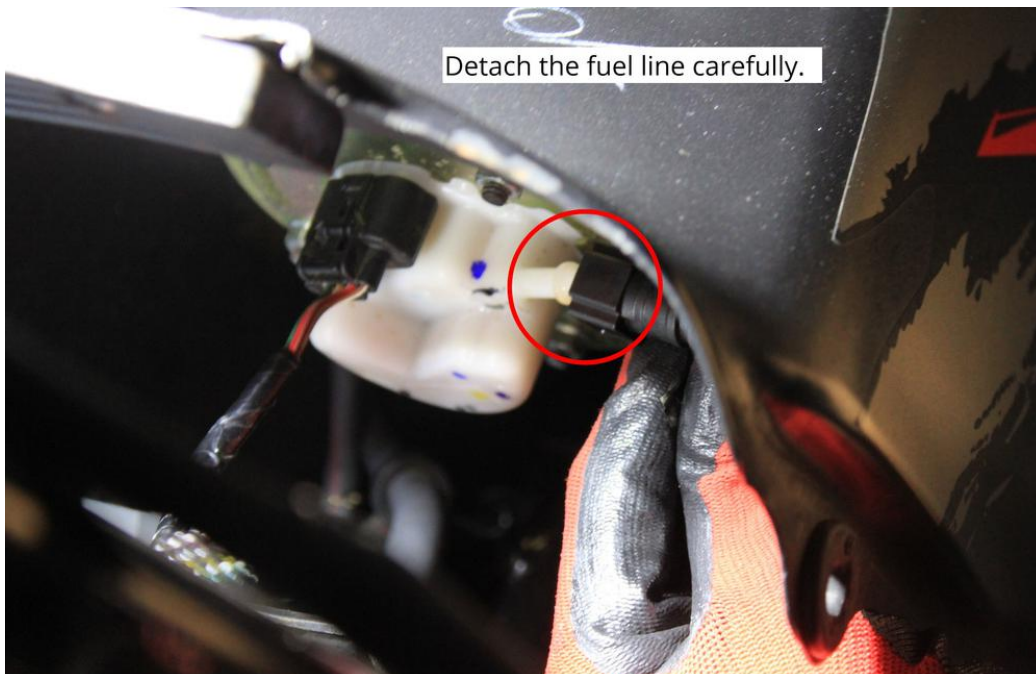


Image 10

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

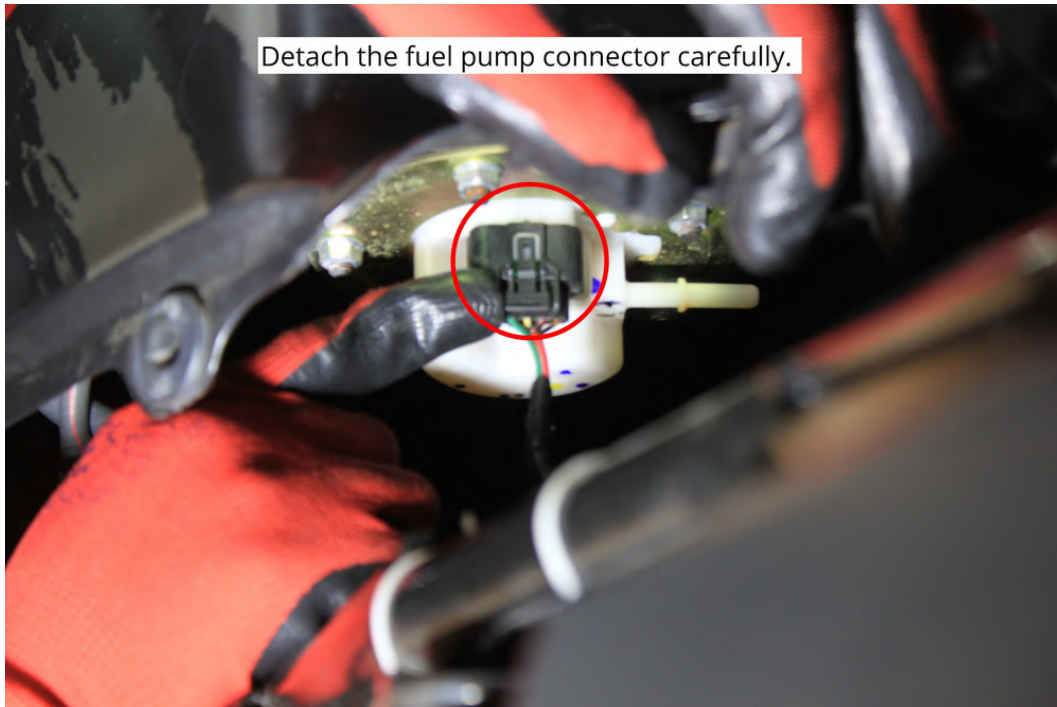


Image 11

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



Image 12

4.12 After disconnecting all the connections from the tank, lift the tank gently and carefully place it aside..

4.13 Route the FuelX harness through the frame as shown in **Image 13** and **Image 14**.

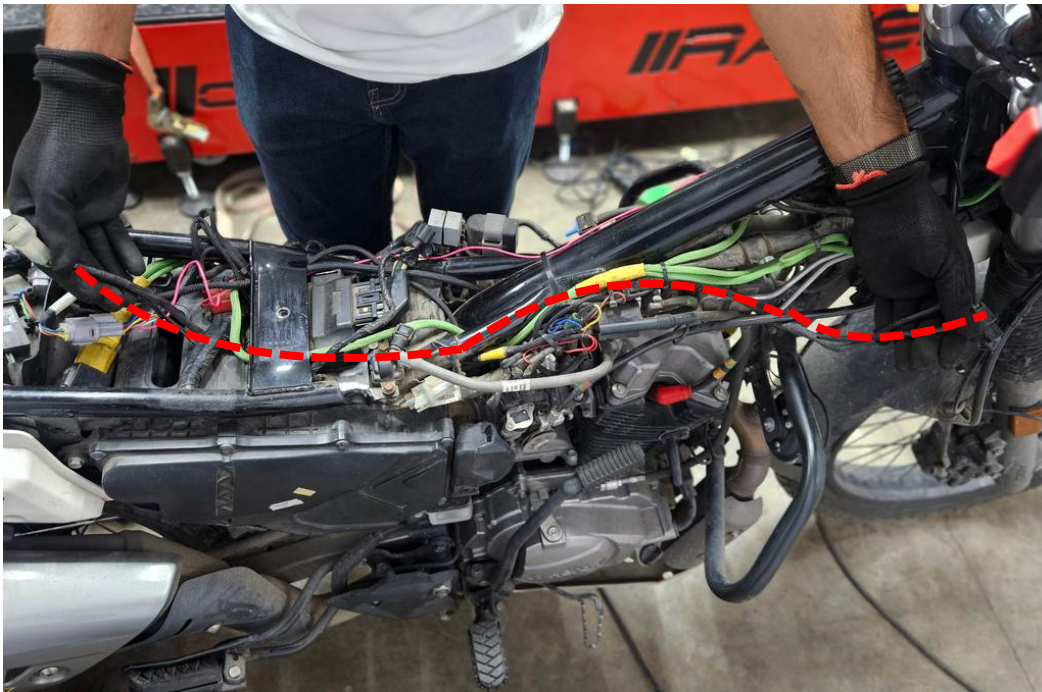


Image 13

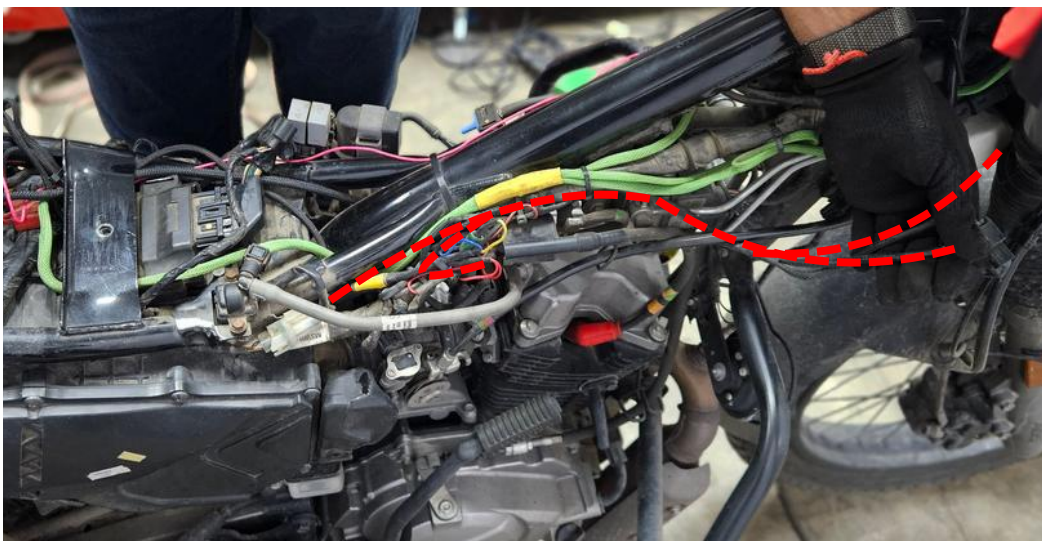


Image 14

4.14 Locate the Ignition coil. Refer to Images 15 and Image 16

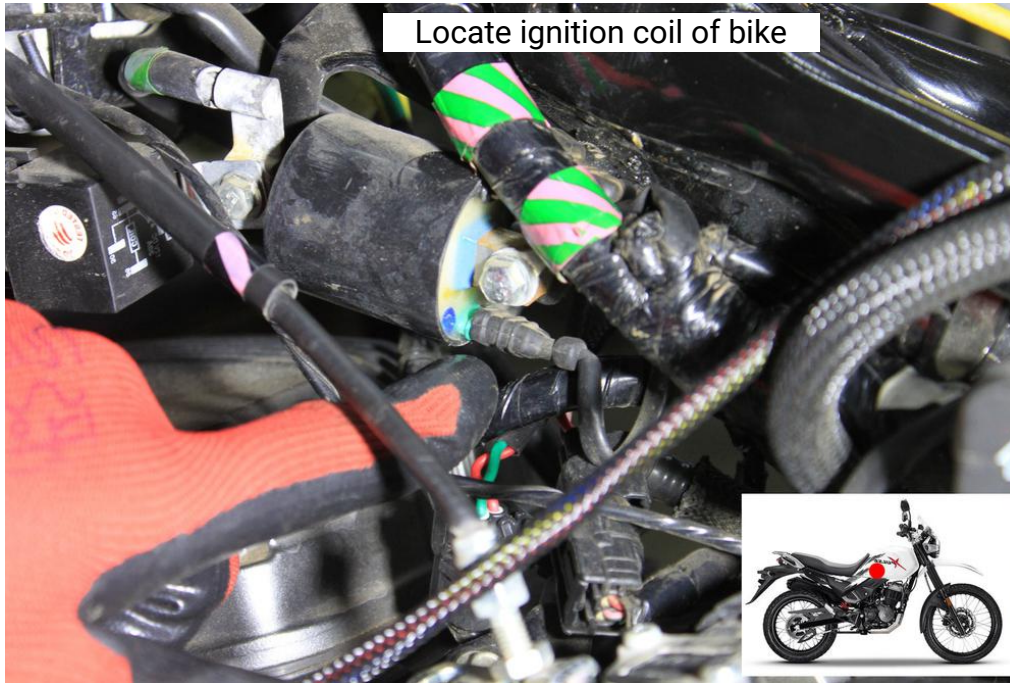


Image 15

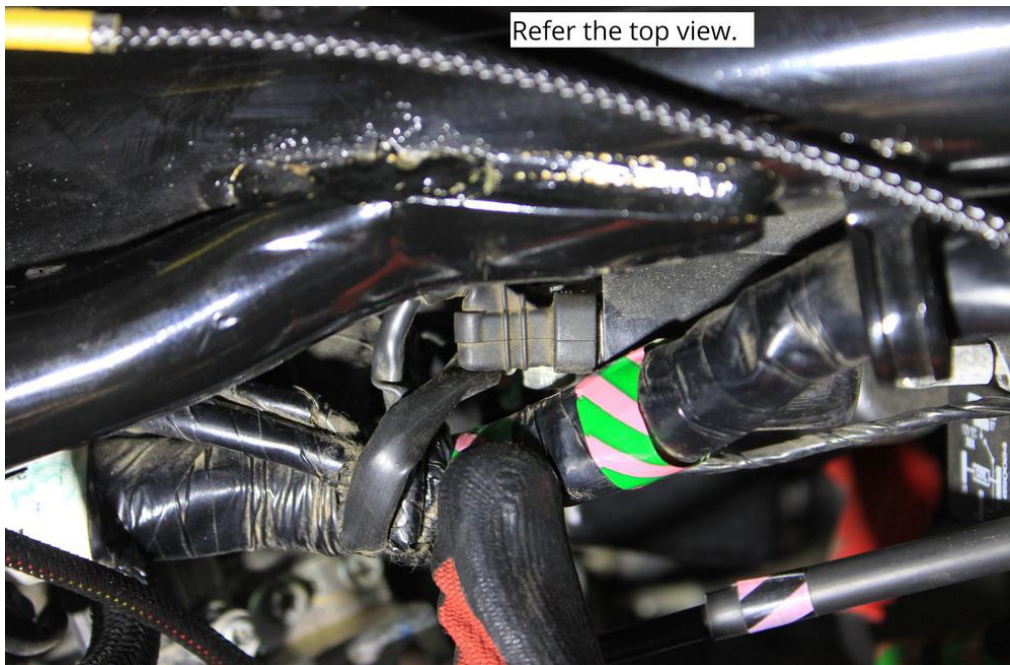


Image 16

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

4.16 Disconnect the stock ignition coil 12 V connector pins. The root of the male 12V pin is **Black**. Refer to [Image 17](#)



Image 17

4.17 Connect the PowerTRONIC Ignition coil 12 V female pins to the stock ignition coil mating pins on the coil. Refer to [Image 18](#).



Image 18

4.18 Connect the PowerTRONIC Ignition coil 12 V male pins to the stock ignition coil female pins on the coil. Refer to **Image 19**

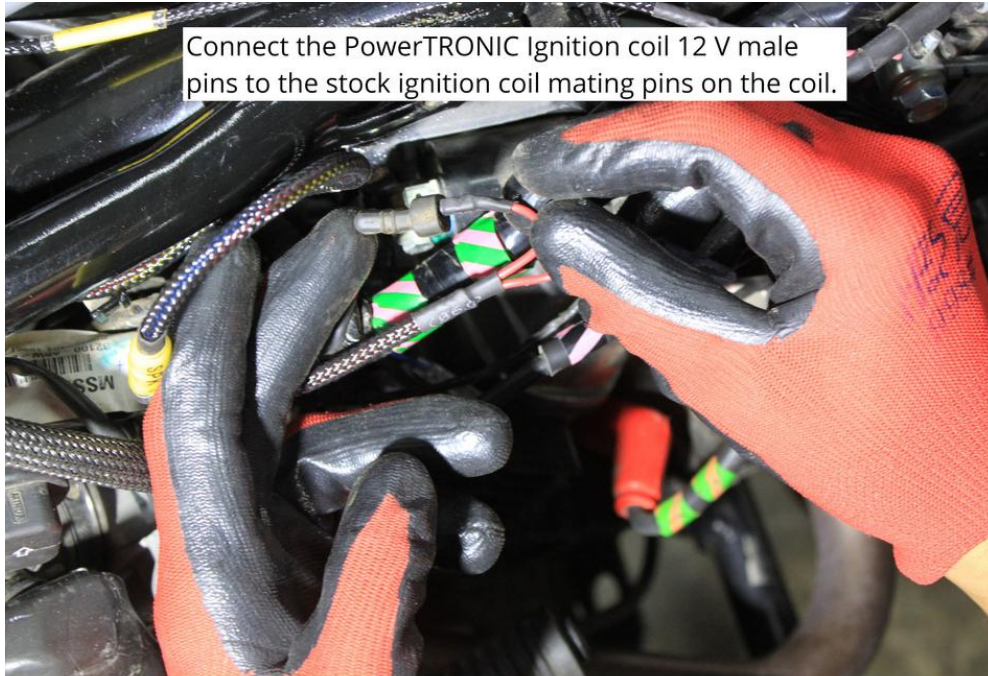


Image 19

Caution: The ignition coil connector needs to be connected only to the 12V terminal. Wrong connection can lead to failure of the unit and will void the warranty of the product.

A **multimeter** can be used to identify the 12V terminal on the coil by disconnecting both terminals and then using the beep function on the multimeter. In case of

4.19 Locate and disconnect the lambda sensor as shown in **Image 20**.



Image 20

4.20 Connect the FuelX male connector to the lambda sensor female connector and the female FuelX connector to the male lambda sensor connector. Refer to **Image 21**.



Image 21

4.21 Mount the FuelX map switch on the handlebar, wherever convenient, using a 3mm Allen key.



Image 22

4.22 Route the map switch harness through the frame as shown in **Image 23**.

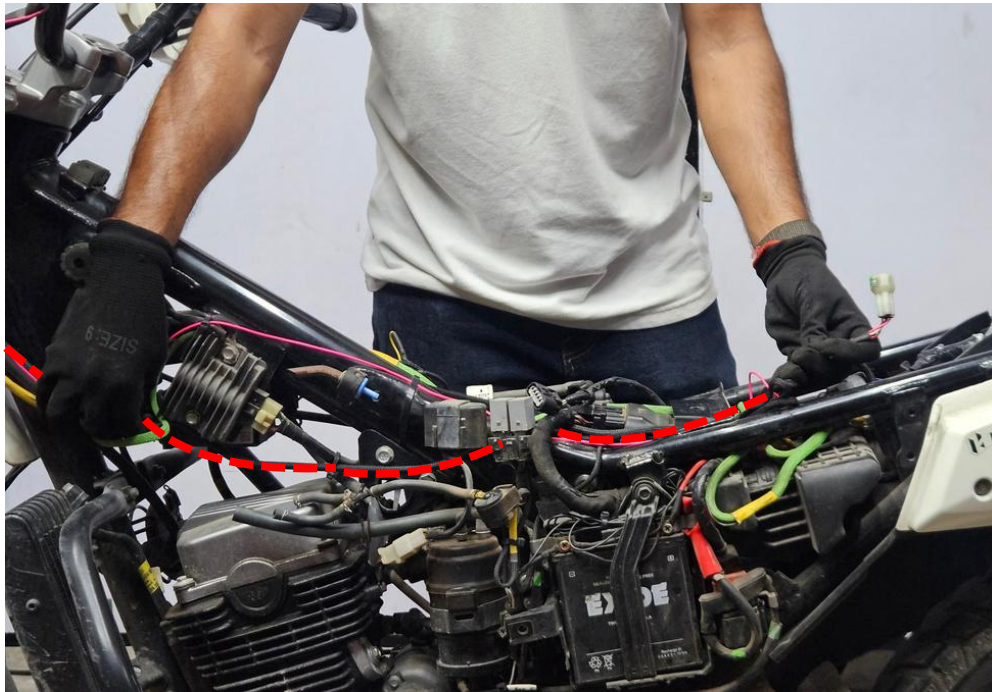


Image 23

4.23 Place the FuelX unit in the space under the seat. Refer to **Image 24**.



Image 24

4.24 Connect the 6 pin male connector on the unit to the main harness. Refer to **Image 25**.



Image 25

4.25 Connect the 4 pin male connector on the unit to the map switch harness harness. Refer to **Image 26**.

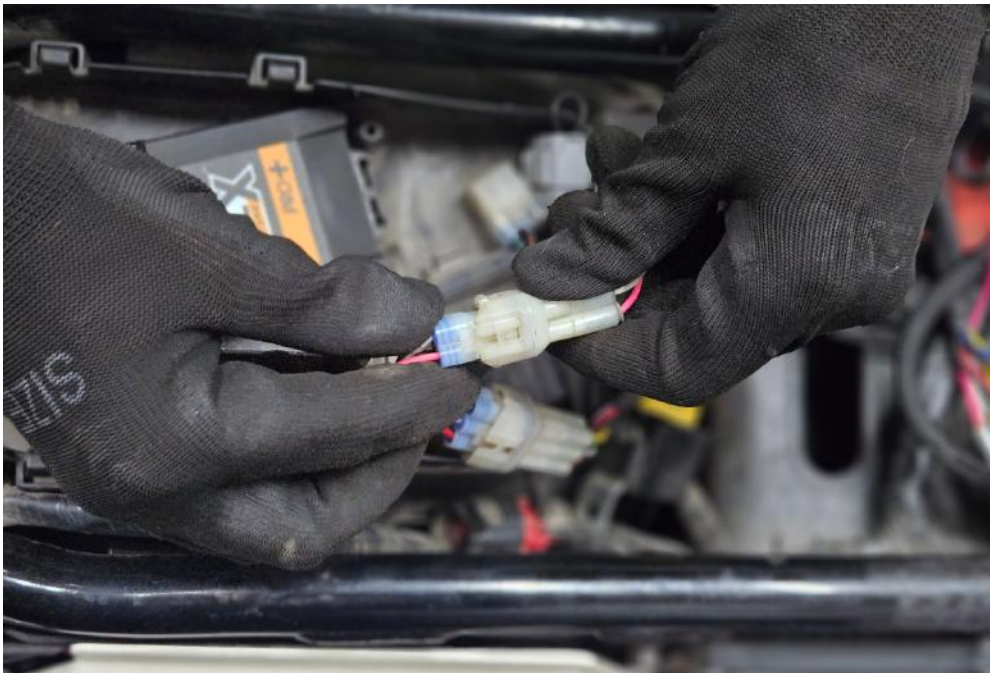


Image 26

4.26 Connect the ground connector on the main harness to the negative terminal of the battery. Refer to **Image 27**.

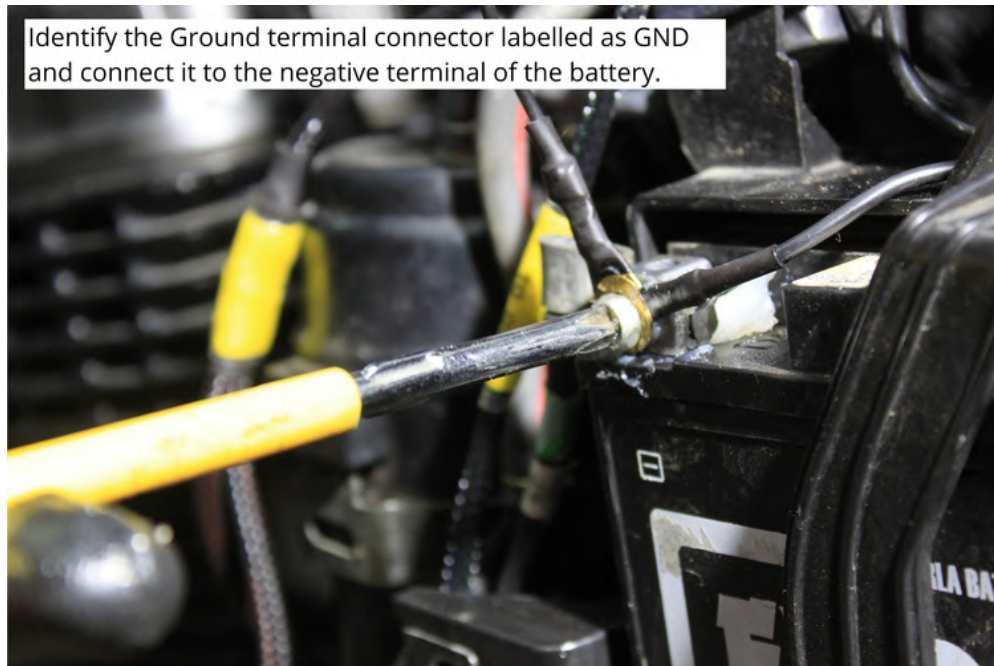


Image 27

4.27 Once the connections are complete, use zip ties to secure the harnesses away from any heating elements.



Image 28

4.28 Attach the fuel tank and the side panels on the bike. Check the working of the unit and then attach the seat on the bike.

5. FuelX Configurations and Settings

For Pro+ and Pro versions, maps on the FuelX can be changed according to the preference of the customer. By just pressing the +/- button on the Handlebar map switch. The Green LED on the FuelX Handlebar map switch will help the customer know which map is active. Ie the number of blinks on the handlebar switch indicates the number of maps.

Map No	Map Description
1	LEAN (Less Fuel)
2	
3	STOCK
4	
5	
6	
7	
8	
9	
10	RICH (More Fuel)

Image 32

The rider can choose the map according to the fuel enrichment he wants.

The first two maps are lean.

Map 3 runs with stock AFR set by the OEM manufacturer.

Maps 4 from 10 make the AFR richer as the numbers go higher.

For Lite versions, a single autotune map is provided for adjusting the AFR for the best operational parameters.

6. FuelX LEDs

FuelX has LEDs on the module to indicate the operation.

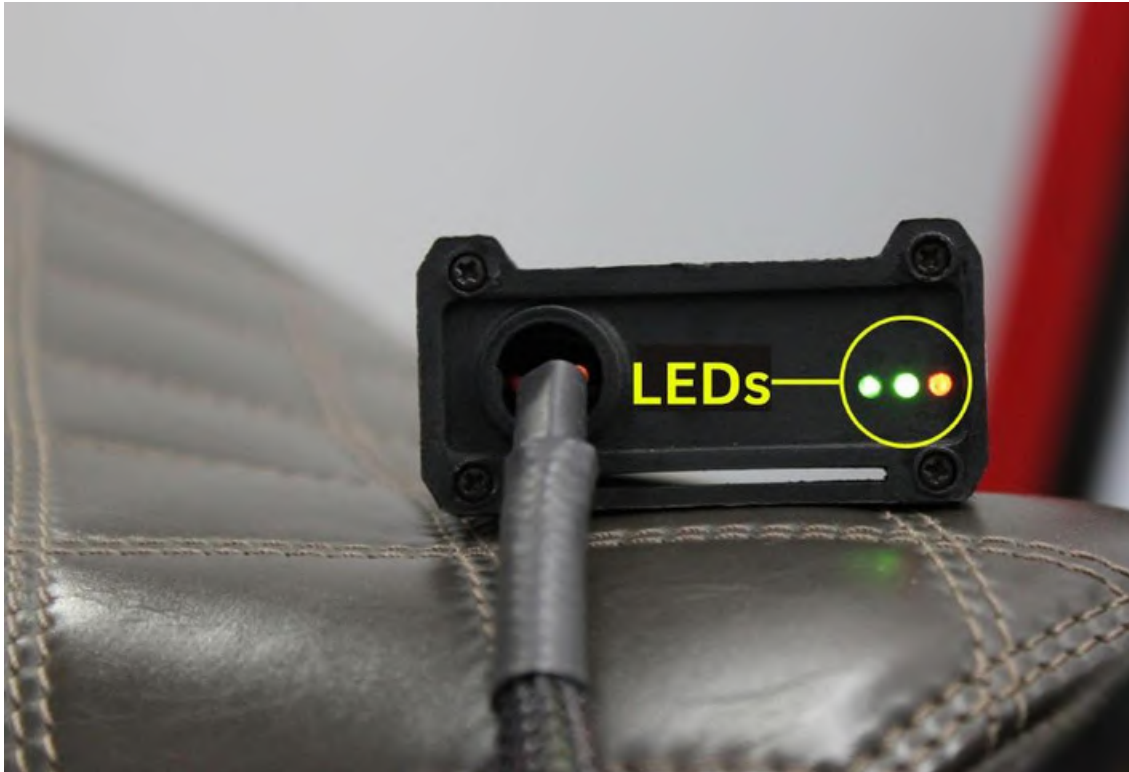


Image 33

The blinking of the **Red LED** indicates that the Map on the FuelX is being activated. The Red LED starts blinking after the key and the kill switch are on.

The blinking of the **Green LEDs** during the idling of the engine indicates that the FuelX is working in sync with the OEM ECU.

The working of both Green and Red LEDs indicates the FuelX Functioning as intended.