

## FuelX Autotune- Bajaj Dominar

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<b>Application information</b>	<b>FuelX</b>
Vehicle	<b>Bajaj</b>
Model	<b>Dominar</b>
Year of manufacture	<b>2016-2021</b>

**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 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.



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

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## 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 the 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

- FuelX Module
- Wiring Harness
- Handlebar map switch (Pro version only)
- Zip ties
- Decals
- Quick start guide and Warranty card



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

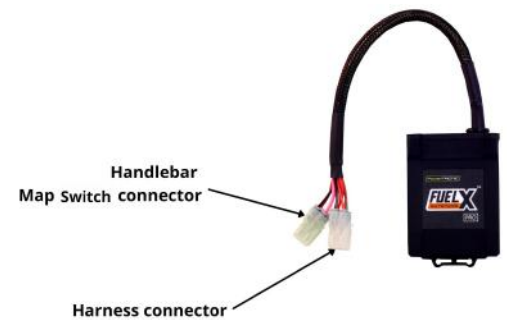


Image 2.3

### FuelX Lite

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



Image 2.4

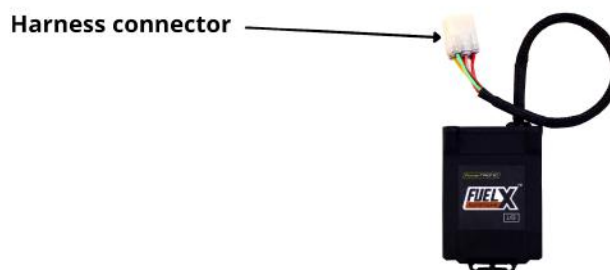


Image 2.5

### 3. FuelX Harness Connectors

The harness contains

- The Lambda connector (O<sub>2</sub>)
- FuelX connector
- Ground/battery negative connector.



Image 3.1

The type and number of connectors may vary depending on the vehicle, year of manufacture, and the number of cylinders. Examples of different types of Lambda sensor connectors are shown below.



Image 3.2

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.

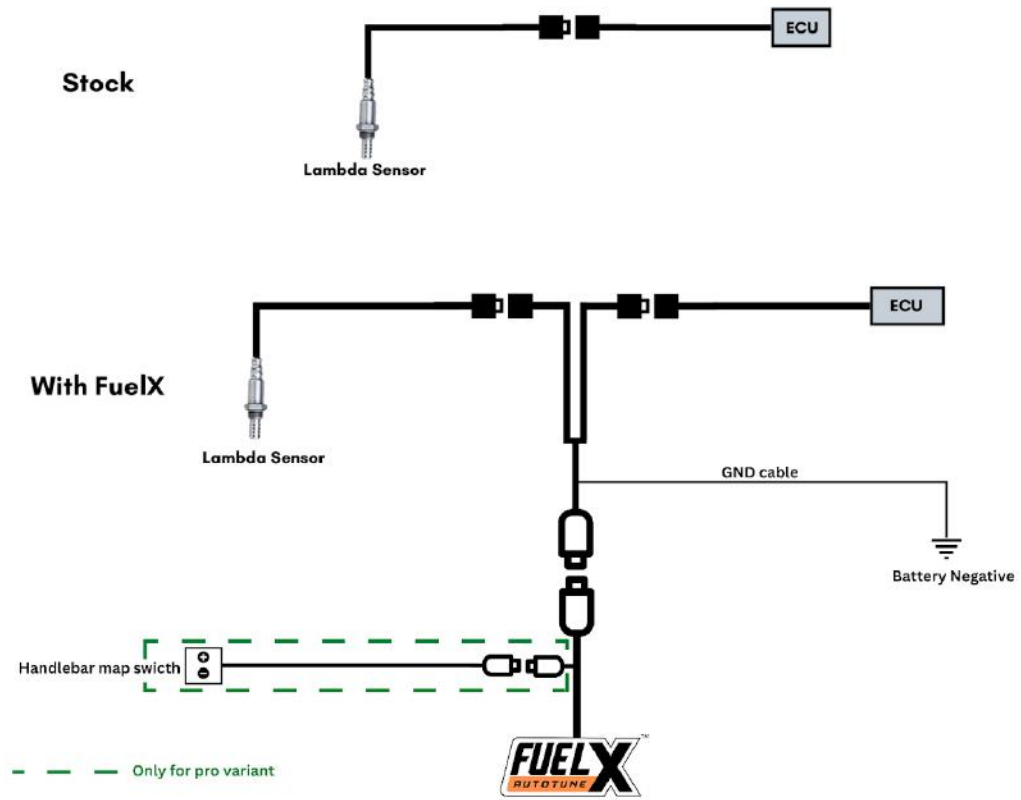


Image 3.3

## 4. Installation procedure

Begin at the left side of the bike.

Park the bike using the center stand on a level surface (Or a paddock stand). Refer to [Image 1](#)



Image 1

Note the position of the Lambda sensor connector. connector/hoses/wires to be removed. Refer to [Image 2](#)



Image 2

4.1.1 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



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

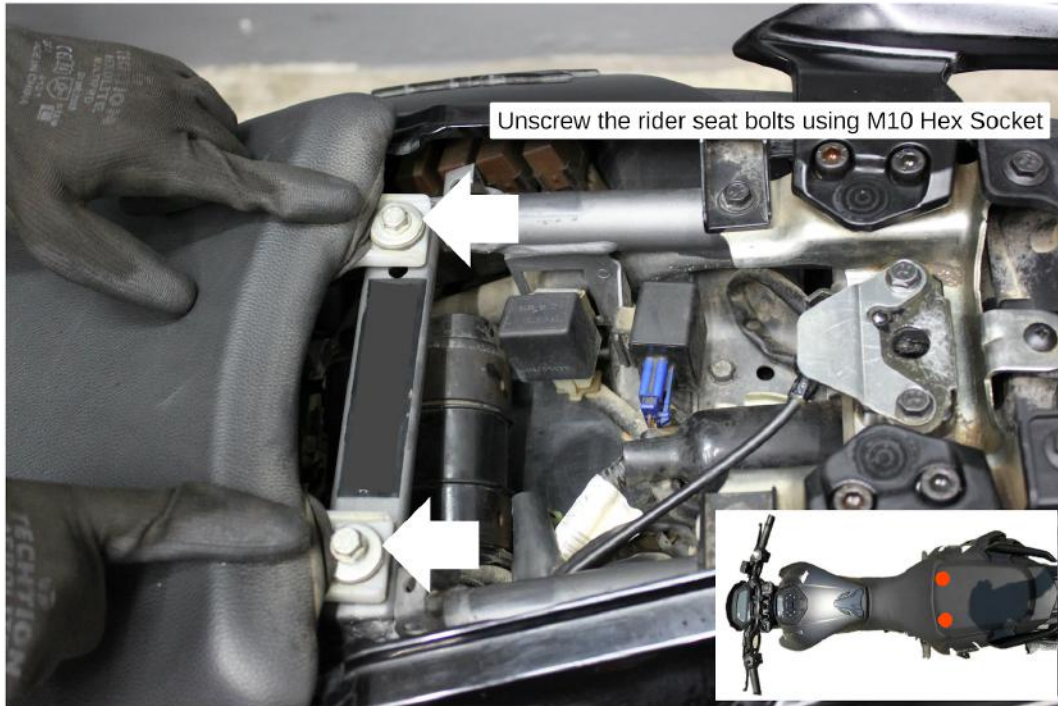


Image 5

3.1.3 Refer to [Image 6](#)



Image 6

4.1.4 Once the rider seat bolts are removed, gently lift the seat. Refer to **Image 7**. Refer to **Image 8** for a detached view.

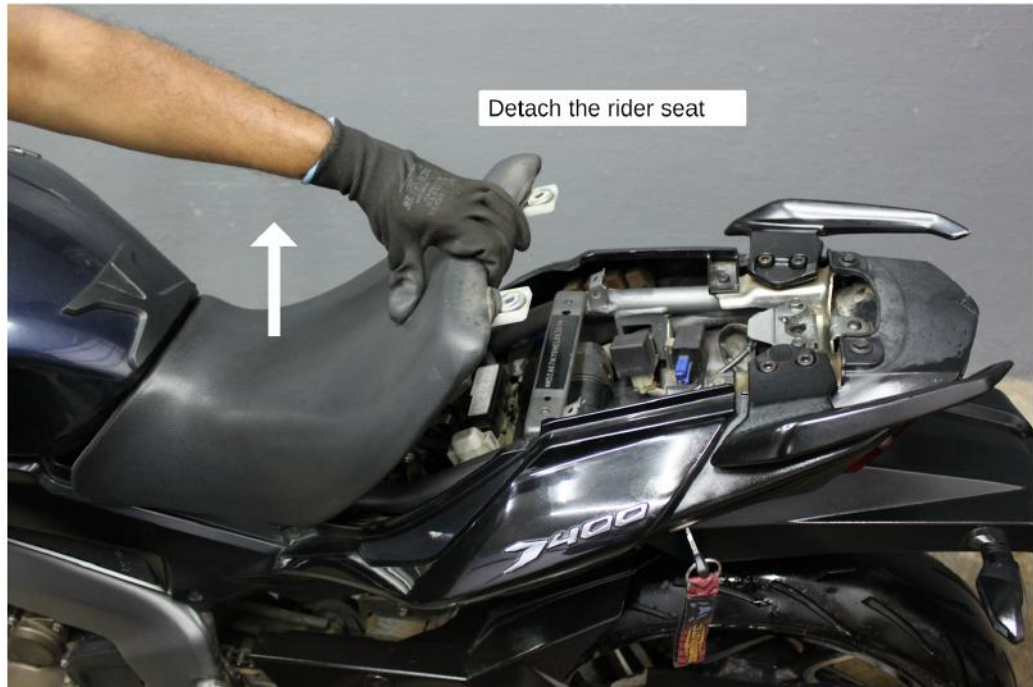


Image 7



Image 8

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



Image 9

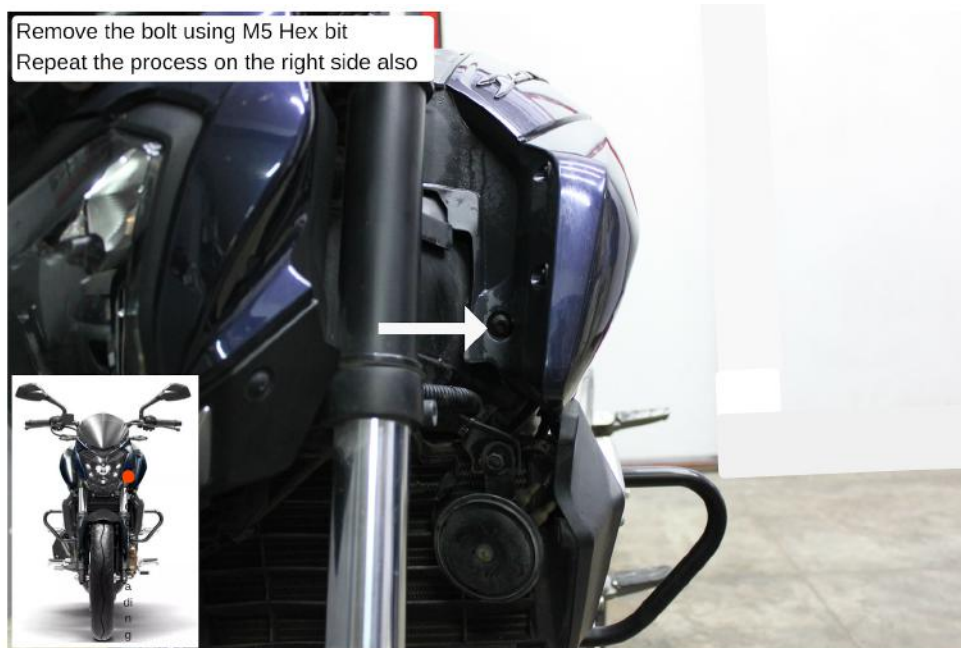


Image 10

**4.1.6** Once the bolts and screws are removed, gently disconnect the side panel. Refer to **Image 11**.



Image 11

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



Image 12



Image 13

**4.1.8** Remove the cover. Refer to **Image 14**.



Image 14

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

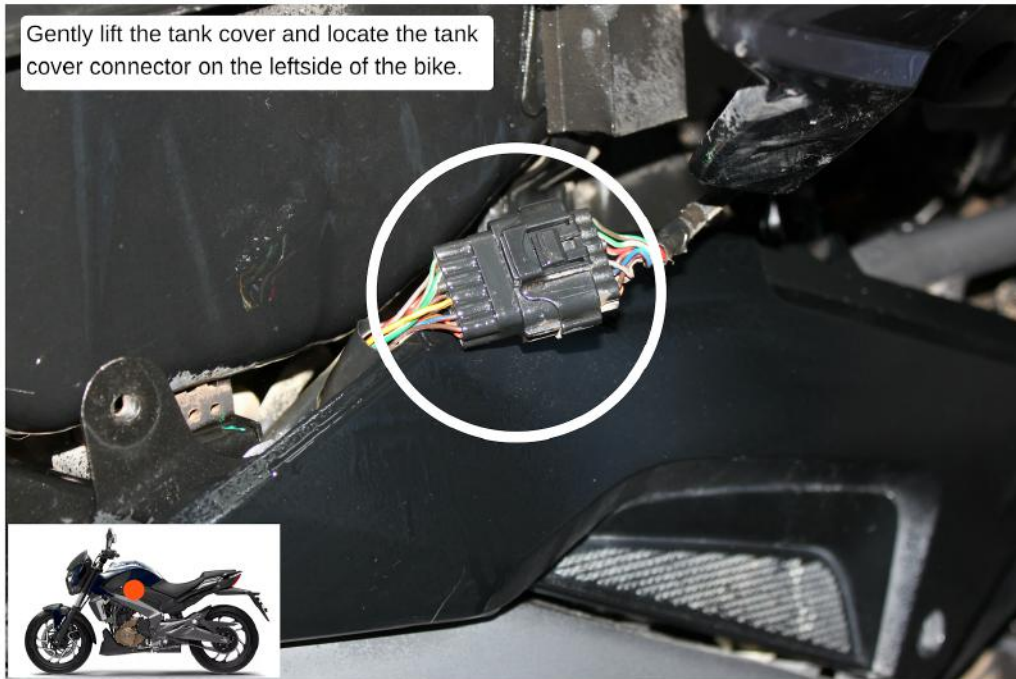


Image 15

**4.1.10** Disconnect the connector. Refer to **Image 16**.



Image 16

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



Image 17

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

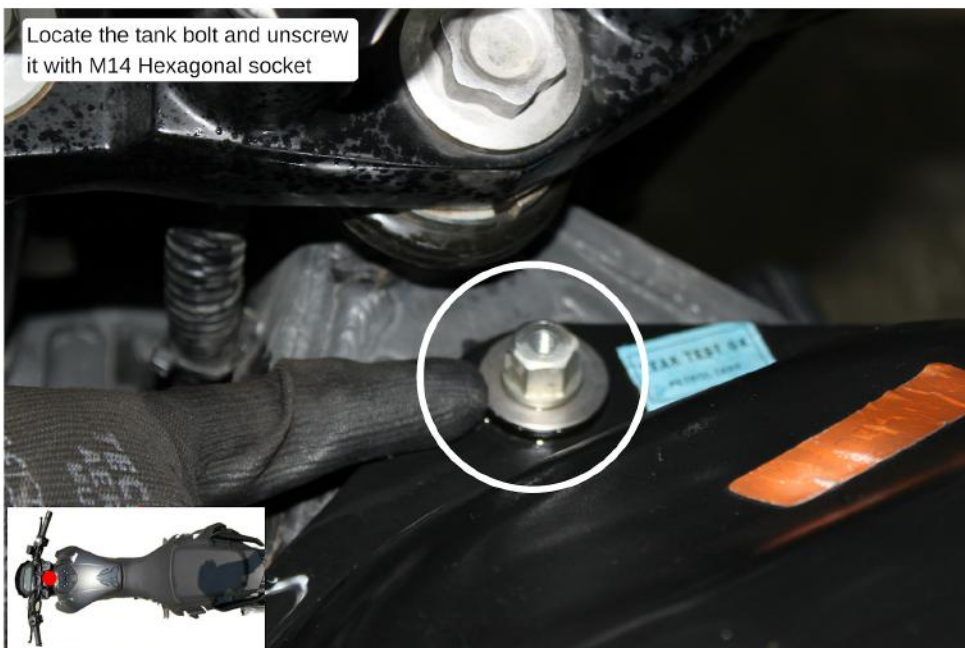


Image 18



Image 19

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



Image 20





Image 21

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



Image 22

**4.1.15** 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 to **Image 23**



Image 23

**4.1.16** Use a nose plier to loosen the metal clamp. Refer to **Image 24**

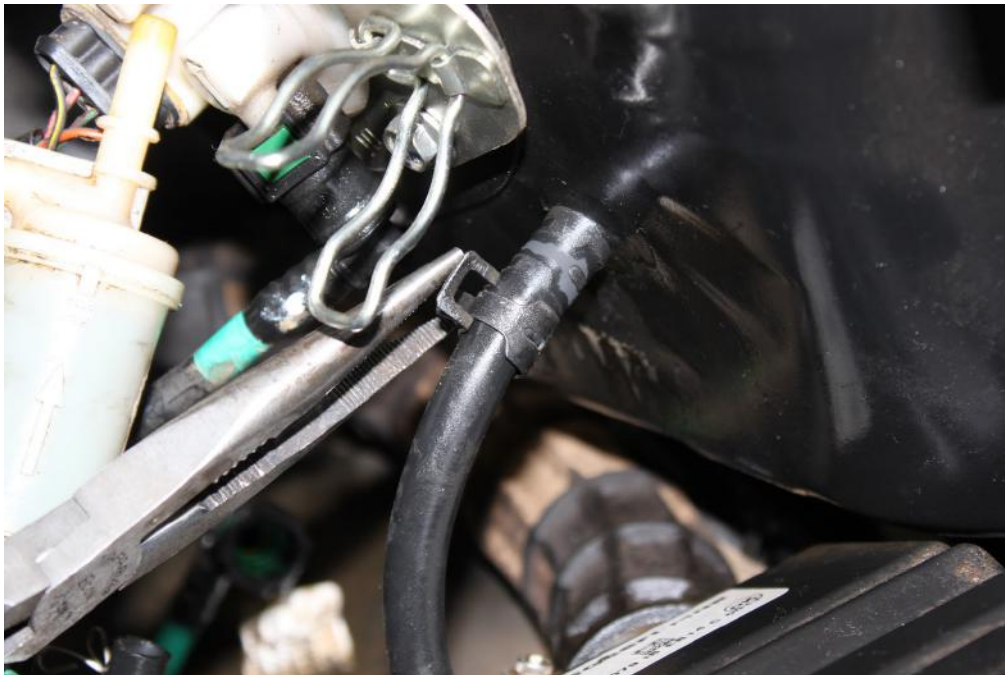


Image 24

4.1.17 Refer to **Image 25** for the detached view of the tank.

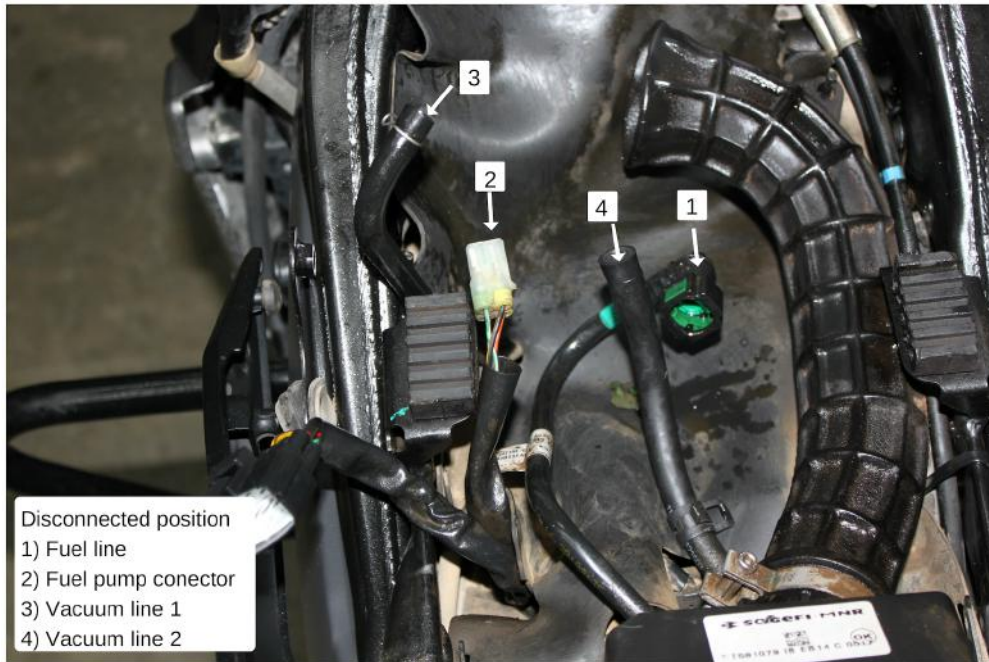


Image 25

4.1.18 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 to **Image 26**) and two screws are in front of the air-filter chamber(Refer to **Image 27**)]

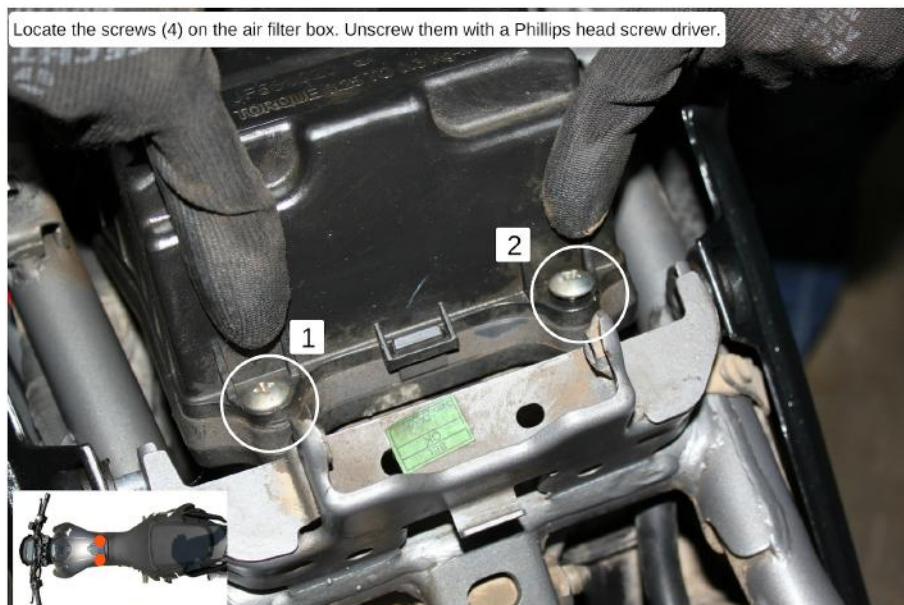


Image 26



Image 27

4.1.19 Route the FuelX harness to the rear end of the vehicle. Refer to [Image 28](#)

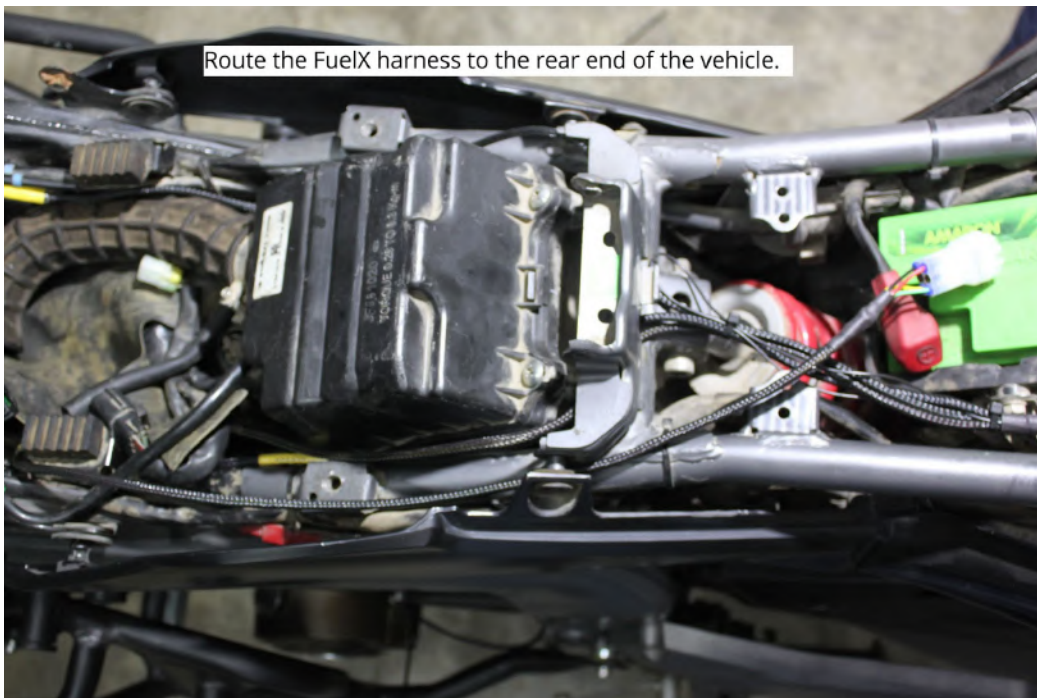


Image 28

**4.1.20** Locate the Lambda Sensor connector on the vehicle. Refer to **Image 29**

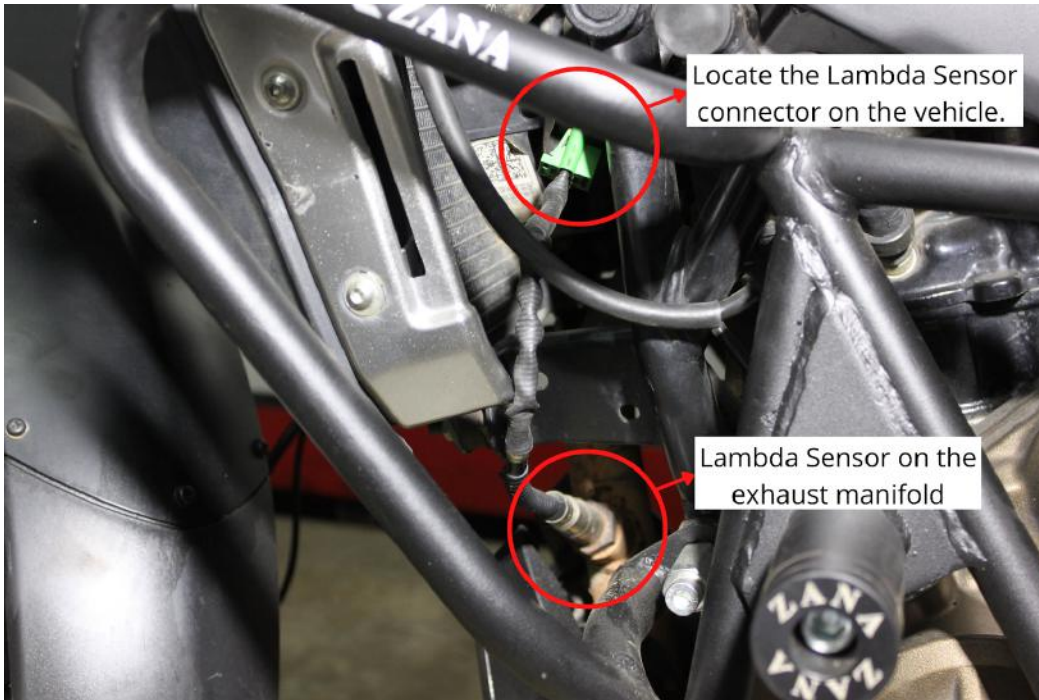


Image 29

**4.1.21** Gently pull the connector out of the rubber cover. Refer to **Image 30**



Image 30

**4.1.22** Carefully pull the red lock and disconnect the connectors. Refer to **Image 31**



Image 31

**4.1.23** Connect the lambda stock male connector to FuelX female connector. Refer to **Image 32**



Image 32

**4.1.24** Connect the lambda stock female connector to FuelX male connector. Refer to **Image 33**



Image 33

**4.1.25** Attach the handlebar map switch on the handlebar. Refer to **Image 34**



Image 34

**4.1.26** Using a 2.5 mm Allen key, tighten the screws. Refer to **Image 35**



Image 35

**4.1.27** Route the map switch to the rear end of the vehicle. Refer to **Image 36**



Image 36



**4.1.28** Route the map switch to the rear end of the vehicle. Refer to **Image 37**



Image 37

**4.1.29** Place the FuelX module on the vehicle. Refer to **Image 38**



Image 38

**4.1.30** Connect the FuelX female 6-pin connector to the harness female 6-pin connector. Refer to **Image 39**

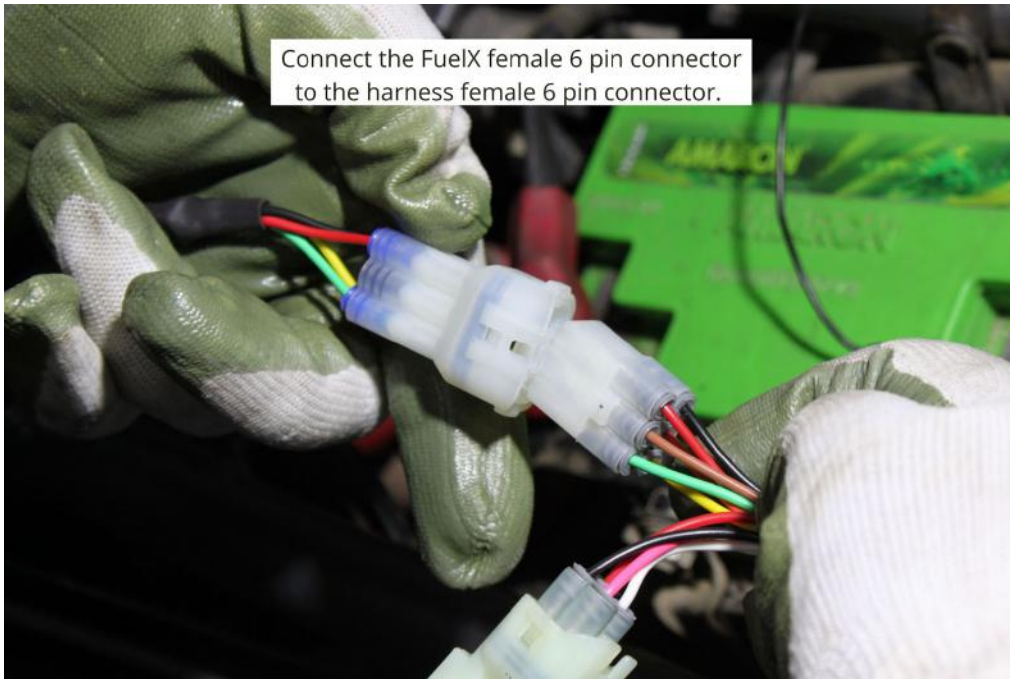


Image 39

**4.1.31** Connect the Ground connector to the battery negative terminal of the battery. Refer to **Image 40**



Image 40

**4.1.32** Connect the FuelX female 4-pin connector to the handlebar map switch female 4-pin connector. Refer to [Image 41](#)

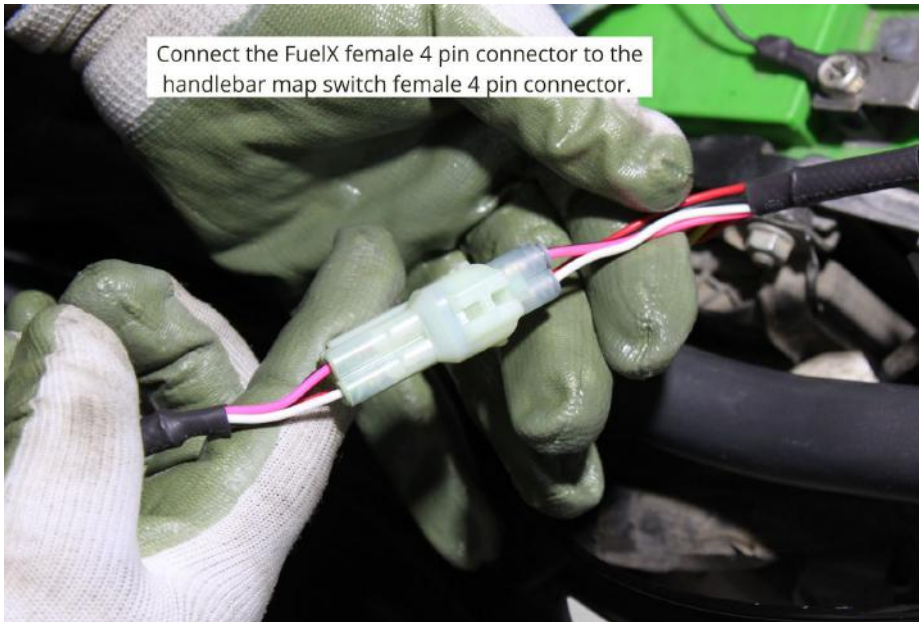


Image 41

**4.1.33** Tag the wires securely using the nylon tags provided within the kit. Refer to [Image 42](#)



Image 42

**4.1.33** Attach the panels back after the installation.

## 5. FuelX Configurations and settings

For 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 5.1

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

**The first two maps are lean maps.**

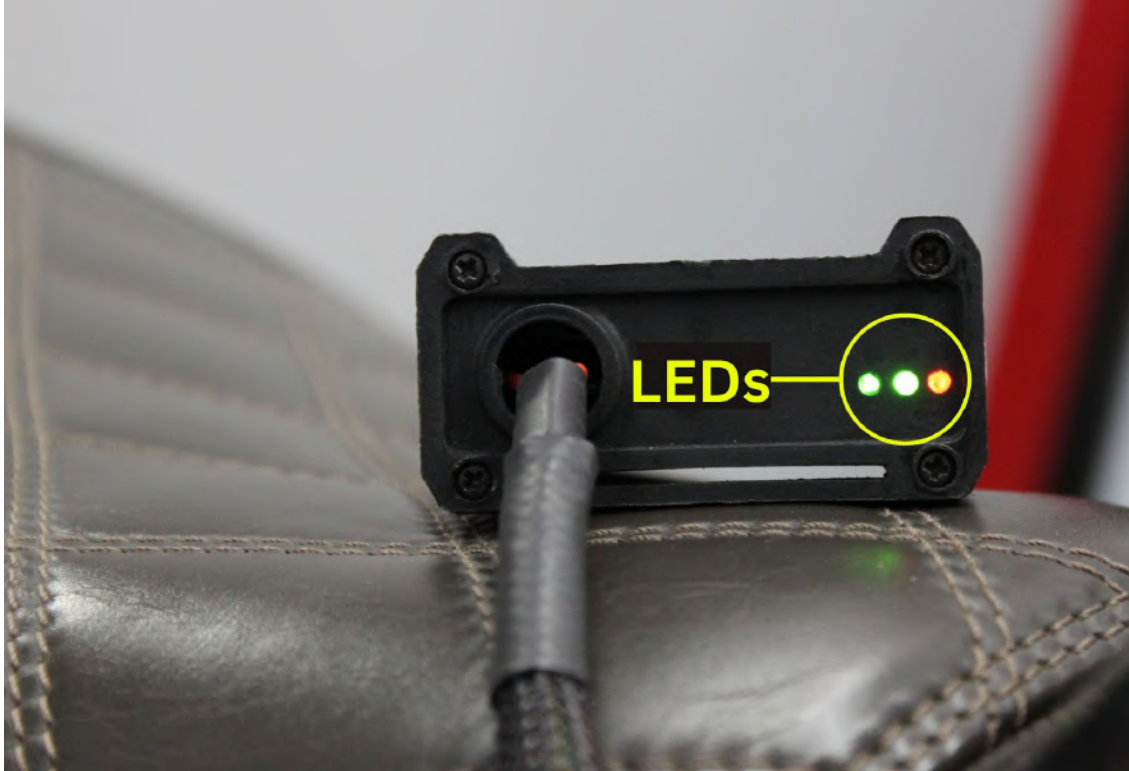
**Map 3 runs with stock AFR set by the OEM manufacturer.**

**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.



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.