FuelX Autotune - Installation Manual
Yamaha Aerox 155 (2022-2025)

Document Version	1	Release Date	18 Dec 2025

Application information	Vehicle Specific
Vehicle	**Yamaha**
Model	**Aerox 155**
Year of manufacture	**2022-2025**

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 time.
- 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 from 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.

Tools required

Serial No	Main tools	Optional tools
1	4mm, 5mm Hex bit	Spinner handle
2	10mm, 8 mm T bar Hexagonal Socket wrench	Ratchet handle
3	Wirecutter, screwdriver	Extension bar or Sliding T-bar

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's 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.

The FuelX kit contains the following items

- FuelX Module
- Wiring Harness
- Handlebar map switch (Pro and Pro+ versions 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 rider's preference. 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

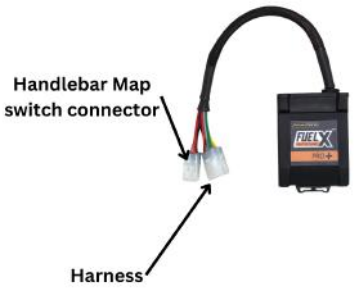


Image 2.3

FuelX Pro

The FuelX Pro variant has 10 maps that can be changed depending on the rider's preference. 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 m)

Image 2.4

Image 2.5

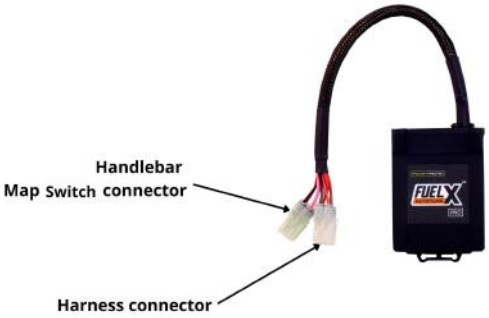


Image 2.6

FuelX Lite

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

Image 2.7

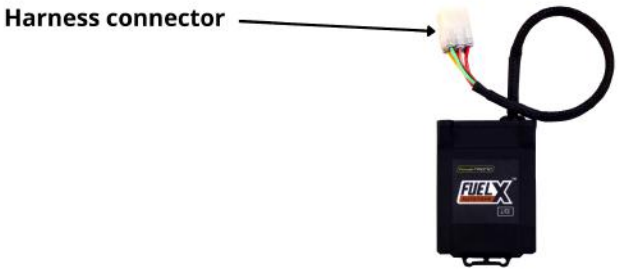


Image 2.7

3. FuelX Harness Connectors

The harness contains

- The Lambda connector(s) - Depending on the model, the harness may contain either only the Pre-cat branch or Pre-cat & Post-cat branches
- FuelX 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.

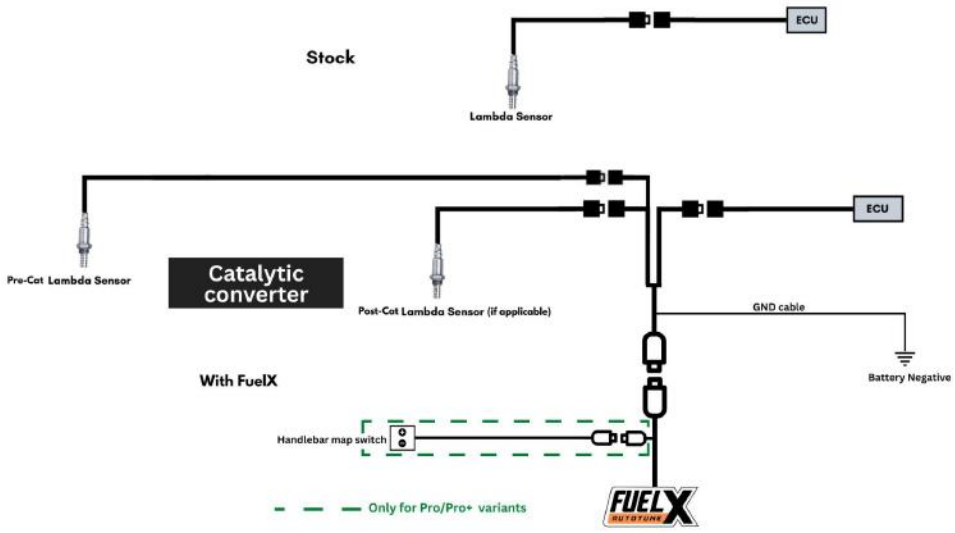
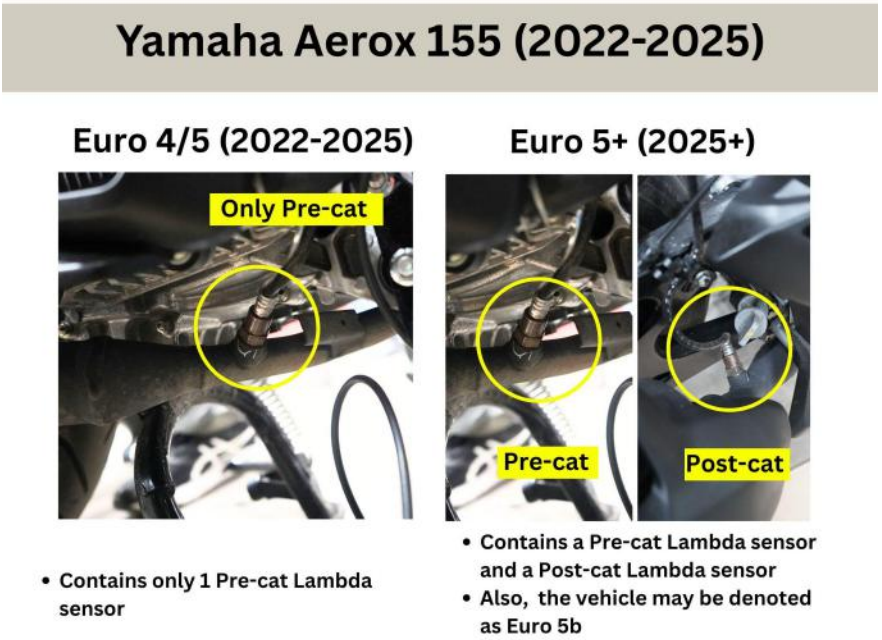


Image 3.4



4. Installation procedure

4.1 Removing panels and tank.

Begin at the right 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

4.1.1 Unlock the seat by pressing the button as shown in **Image 2**. **Image 3** shows the seat unlocked.

Image 2

Image 3

4.1.2 Unscrew the Phillips head screws as shown in the image. Refer to **Image 4**.

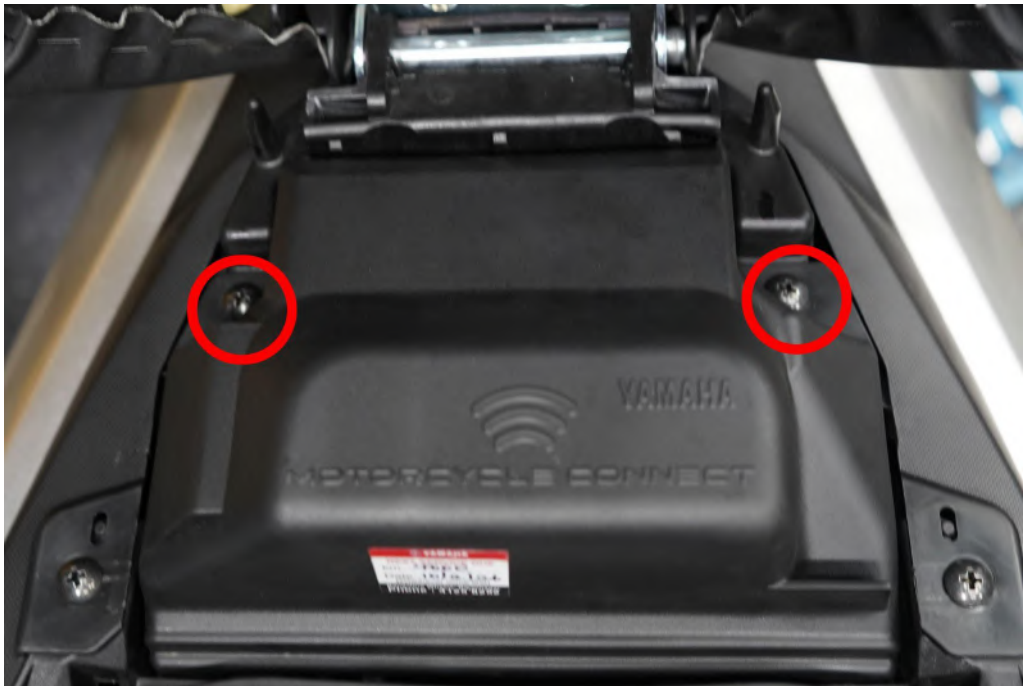


Image 4

4.1.3 Gently detach the battery cover. Refer to **Image 5**.

Image 5

4.1.4 Detach the connectors from the cover. Detach all the connections in the case. Refer to **Image 6**.

Image 6

4.1.5 Locate and unscrew the battery terminal bolts and carefully take the battery out. Refer to **Image 7.**

Image 7

4.1.6 Unscrew the battery case mounting bolts. Refer to **Image 8.**

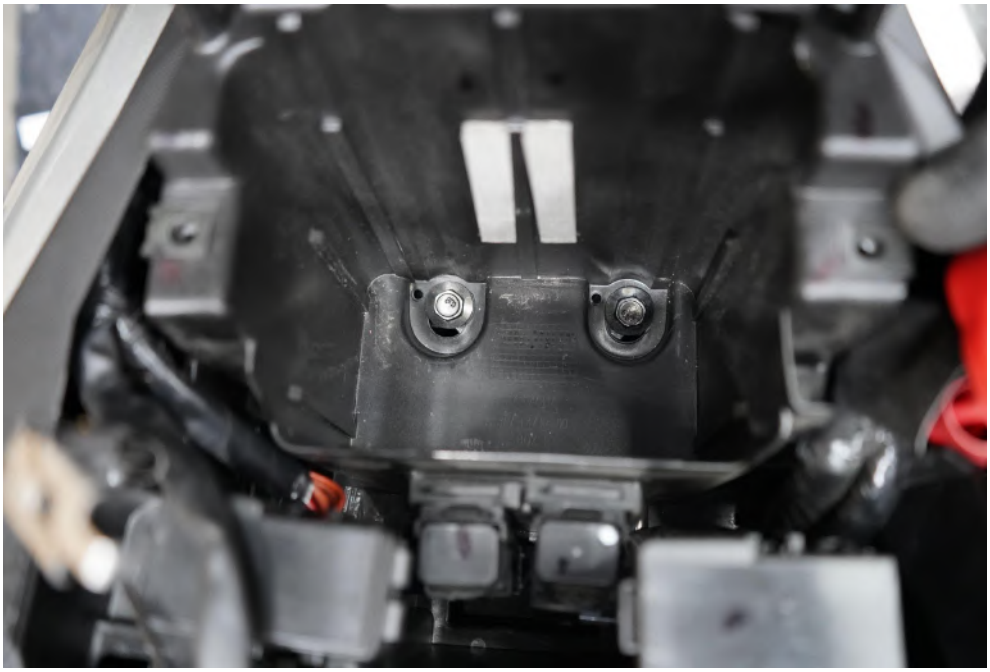


Image 8

4.1.7 Unscrew the bolts using a Phillips head screwdriver. Refer to **Image 9.**

Image 9

4.1.8 Unscrew the bolts using a Phillips head screwdriver. Refer to **Image 10.**

Image 10

4.1.9 Locate the side panel bolts and unscrew them. Refer to **Image 11**

Image 11

4.1.10 Locate and unscrew the screws. Refer to **Image 12**.

Image 12

4.1.11 Once all the connectors are detached from the boot, gently lift and place it carefully. Refer to **Image 13**

Image 13

4.2 Routing the harness

4.2.1 Route the harness. Refer to **Image 14**.

Image 14

4.2.2 Route the harness as shown in the image. Refer to **Image 15**.

Image 15

Pre-Cat Lambda sensor connector

4.3.1 Locate the Pre-Cat Lambda sensor and trace the line to locate the Pre-Cat Lambda sensor connector. Refer to **Image 16**.

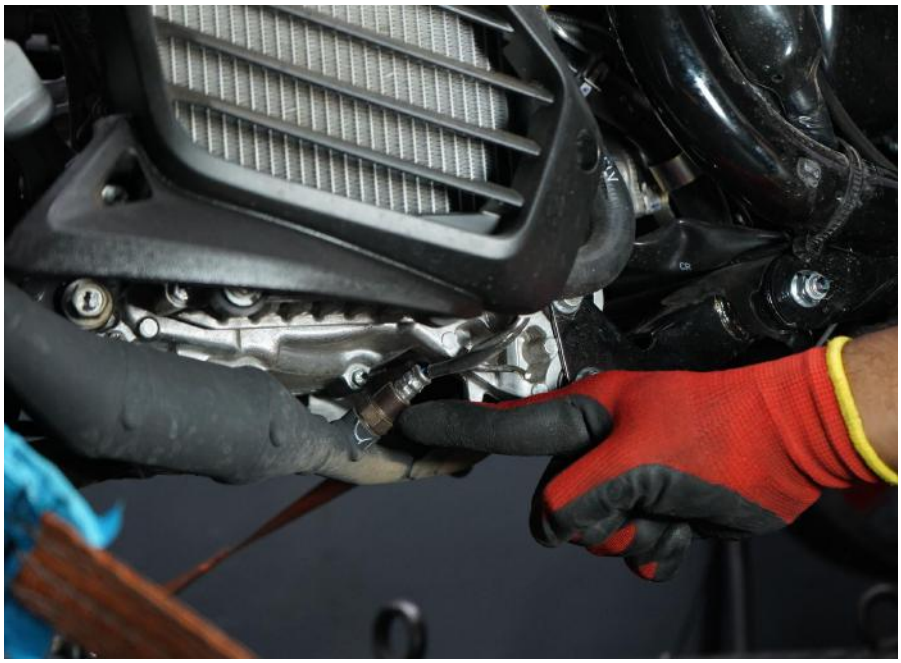


Image 16

4.3.2 Locate the stock Pre-cat Lambda sensor connector. Refer to **Image 17**.

Image 17

4.3.3 Disconnect the stock Pre-Cat Lambda sensor connector. Refer to **Image 18**.

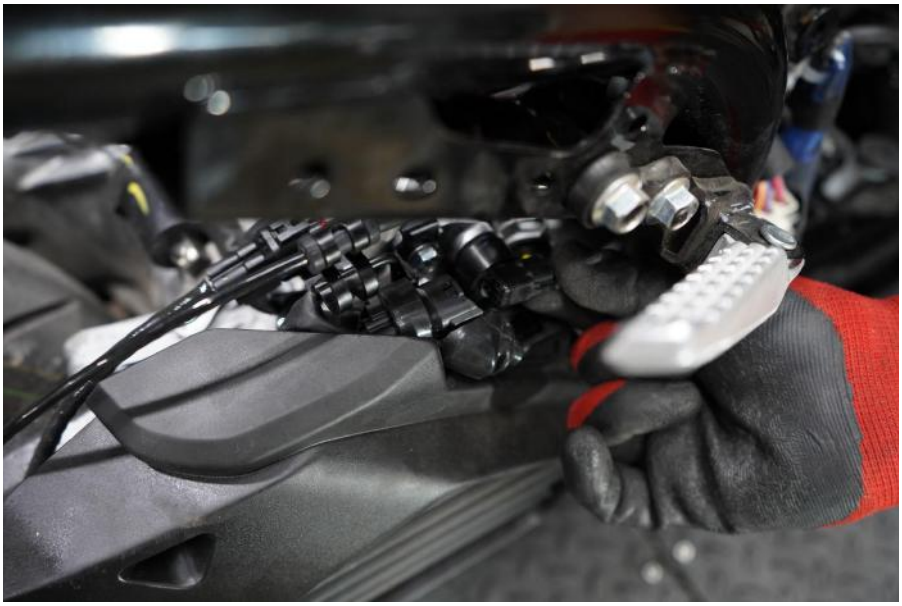


Image 18

4.3.4 Route the Pre-cat branch to the connector. Refer to **Image 19.**

Image 19

4.3.5 Connect the FuelX male Pre-cat Lambda sensor connector to the stock female connector. Refer to **Image 20.**

Image 20

4.3.6 Connect the FuelX female Pre-cat Lambda sensor connector to the stock male connector. Refer to **Image 21.**

Image 21

4.3.7 Refer to the completed view. Refer to **Image 22.**

Image 22

Post-Cat Lambda sensor connector

(If your vehicle has a post-cat Lambda sensor, please proceed to the next steps.)

4.4.1 Locate the Post-cat Lambda sensor and trace the line to locate the Post-Cat Lambda sensor connector. Refer to **Image 23**.

Image 23

4.4.2 Locate the stock Post-cat Lambda sensor connector. Refer to **Image 24**.

Image 24

4.4.3 Disconnect the stock Post-Cat Lambda sensor connector. Refer to **Image 25**.

Image 25

4.4.4 Route the Post-cat branch to the connector. Refer to **Image 26.**

Image 26

4.4.5 Connect the FuelX male Post-cat Lambda sensor connector to the stock female Post-cat connector. Refer to **Image 27.**

Image 27

4.4.6 Connect the FuelX female Post-Cat Lambda sensor connector to the stock Post-cat male connector. Refer to **Image 28.**

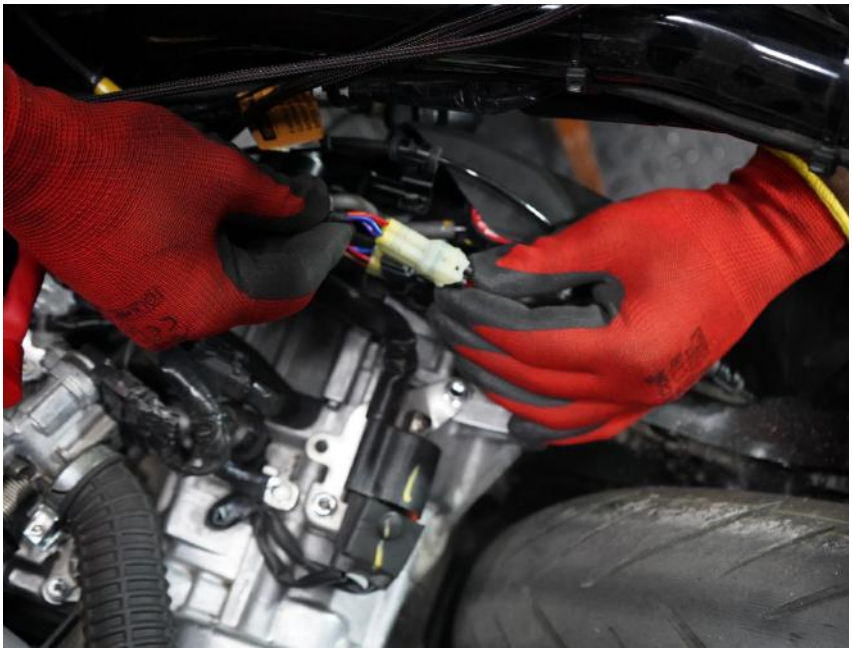


Image 28

4.4.7 Refer to the completed view. Refer to **Image 29.**

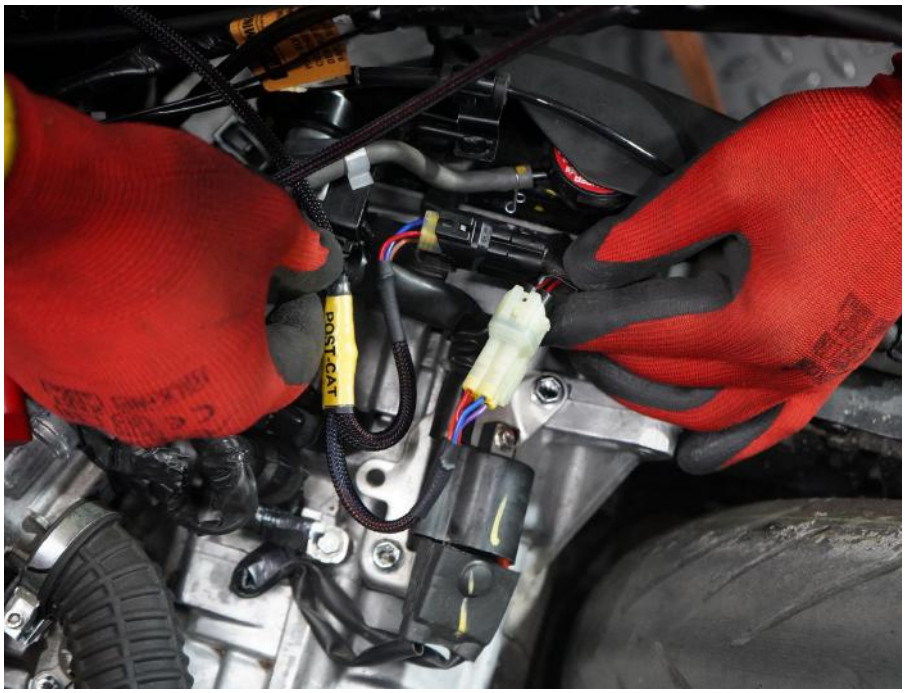


Image 29

4.4.8 Secure the connectors using the zip ties provided. Refer to Image **30**

Image 30

4.4.9 Connect the FuelX connector to the harness. Refer to **Image 31.**

Image 31

4.4.10 Connect the 4-pin FuelX connector to the handlebar map switch harness. Refer to **Image 32**

Image 32

4.4.11 Place the FuelX module on the side and secure it using the zip ties provided. Refer to **Image 33.**

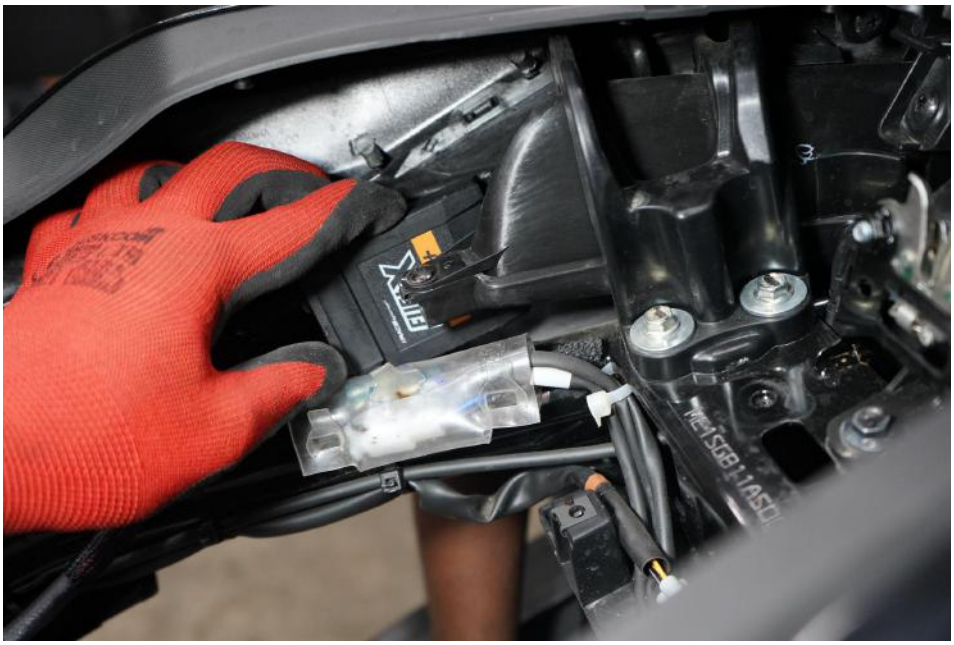


Image 33

4.4.12 Connect the Ground cable to the battery **negative terminal**. Terminal position may vary. Refer to **Image 34**

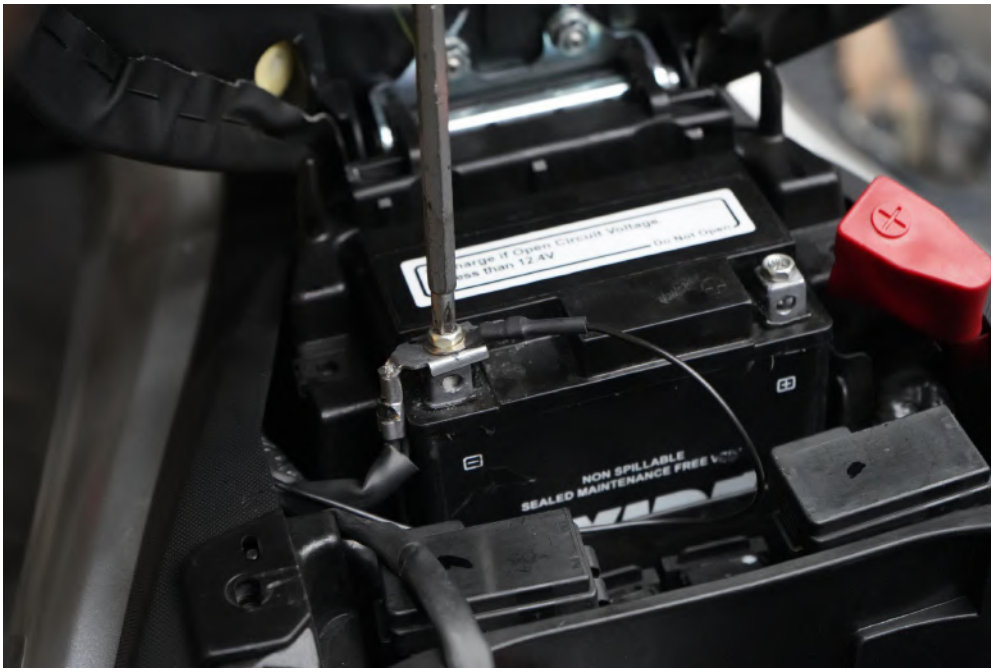


Image 34

4.4.13 Secure the harness from hot and moving parts using the zip ties provided. Secure the handlebar map switch inside the boot.

4.4.14 Attach the panels and the tank back.

5. FuelX Configurations and Settings

For Pro+ and Pro versions, maps on the FuelX can be changed according to the customer's preference. 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. i.e., the number of blinks on the handlebar switch indicates the number of maps.

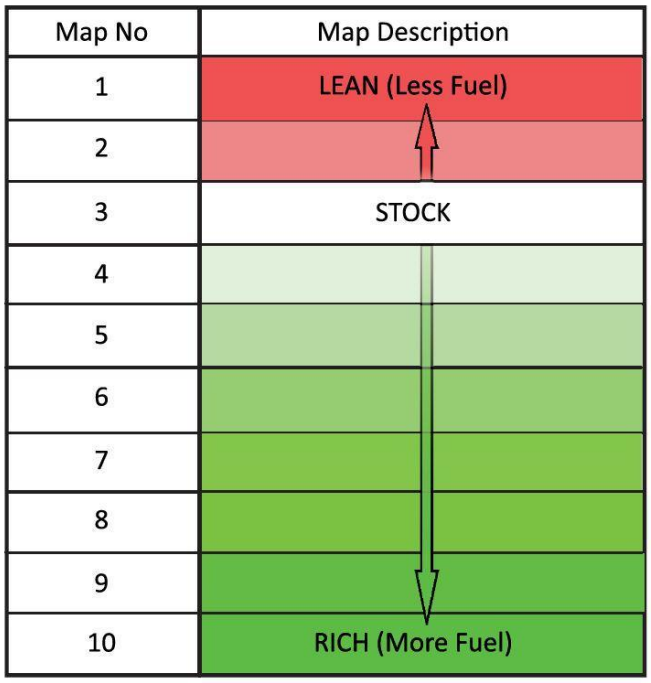


Image 32

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.

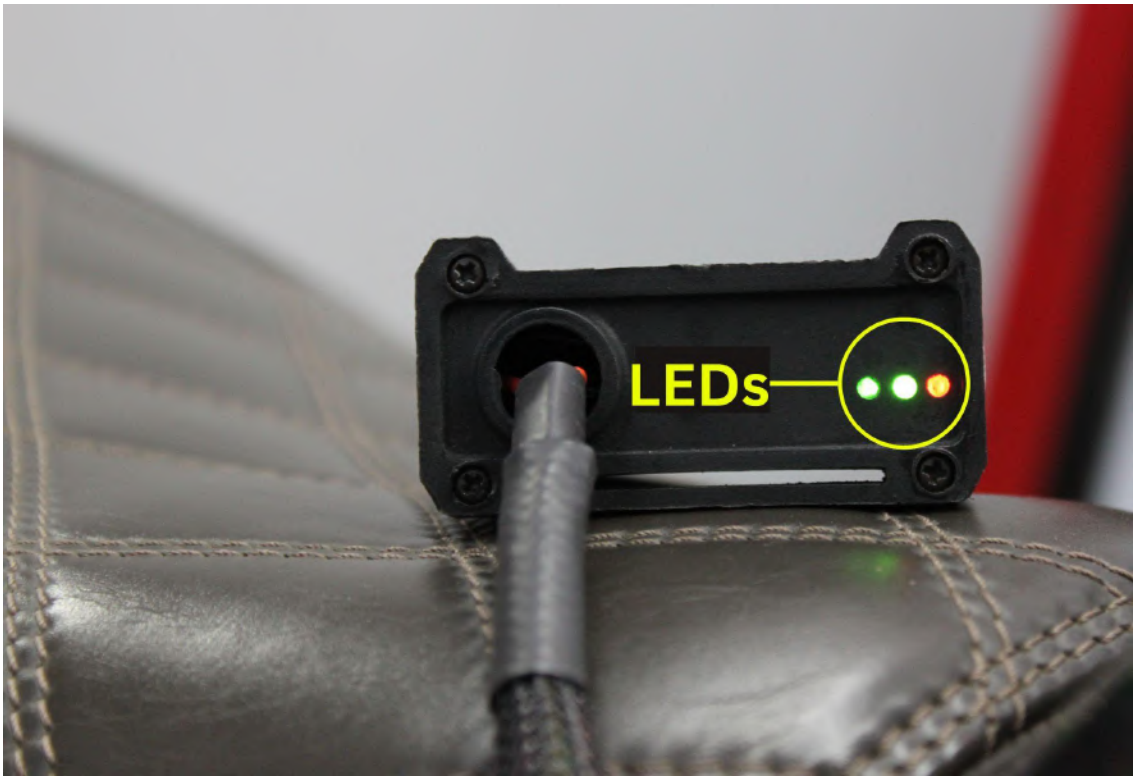


Image 33

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 that the FuelX is functioning as intended.