

## FuelX Autotune- Husqvarna All

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Application information	FuelX
Vehicle	Husqvarna
Model	All
Year of manufacture	Not Applicable

### 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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## 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

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

FuelX Module



Handlebar Map Switch



Wiring Harness



Zip Ties



Decals



Quick Start Guide & Warranty Card



Image 1

## 2. FuelX Variants:

### FuelX Pro

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



Image 2.1



Image 2.2

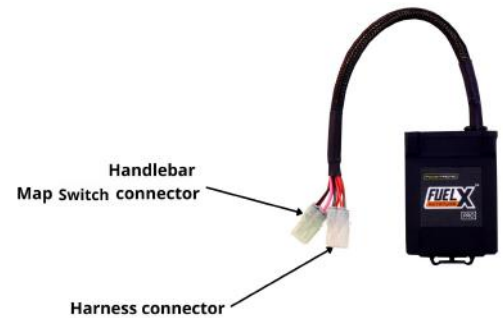


Image 2.3

### FuelX Lite

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



Image 2.4

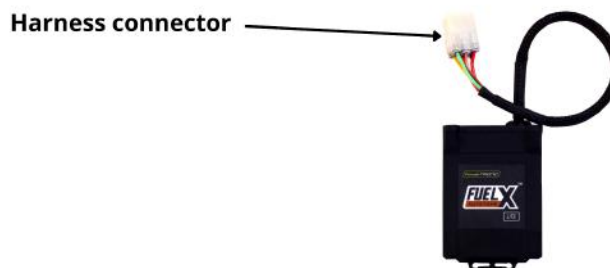


Image 2.5

### 3. FuelX Harness Connectors

The harness contains

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

**Examples of FuelX harnesses are given below. Refer to Image 5**



Image 5

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 6

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.

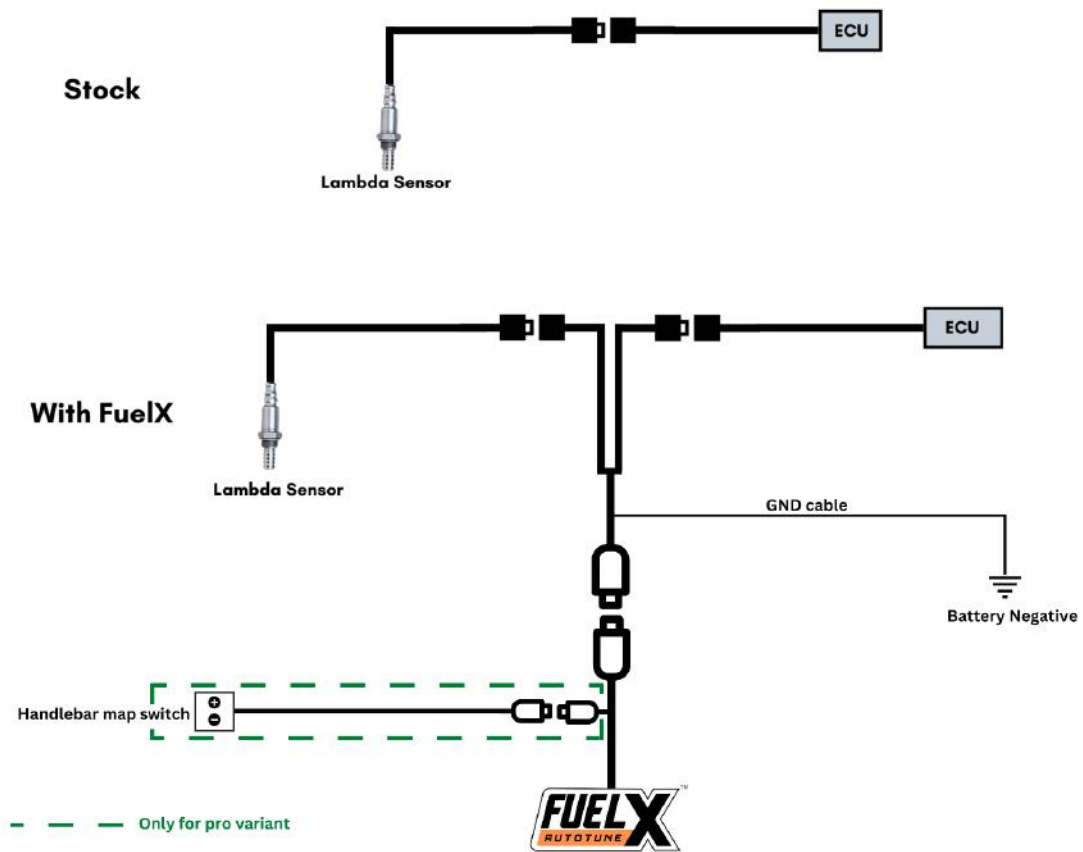


Image 7

## 4. FuelX Installation:

### 4.1 Removing panels and fairing

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 connector. Refer [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. **Images 4.1 and 4.2** show the pillion-seat detached.



Image 3



Image 4.1





Image 4.2

**4.1.2** Detach the rider seat. (Gently lift and slide it towards the rear end - Refer to **Image 5**).



Image 5

**4.1.3** Carefully unscrew the left side panel bolt using the 4 mm Allen key. Refer to [Images 6.1 and 6.2](#)

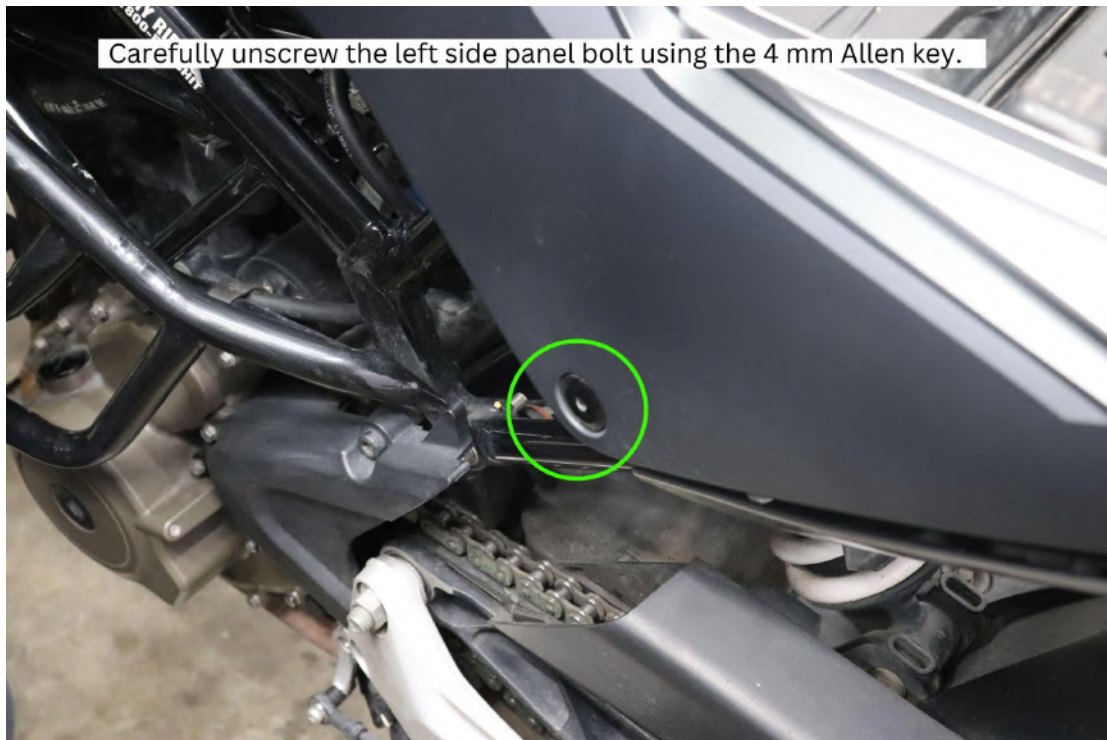


Image 6.1



Image 6.2



**4.1.4** Carefully unscrew the left side panel bolt using the 10 mm T handle Refer to [Images 7](#) and [Image 8](#)



Image 7



Image 8

**4.1.5** Route the harness of the FuelX module to the front end of the vehicle. Refer to **Image 9**



Image 9

**4.1.6** Route the harnesses shown in the image. Refer to **Image 10**



Image 10



**4.1.7** Unscrew the ignition coil cover and remove the ignition coil to access the Lambda sensor connectors. Refer to **Image 11**

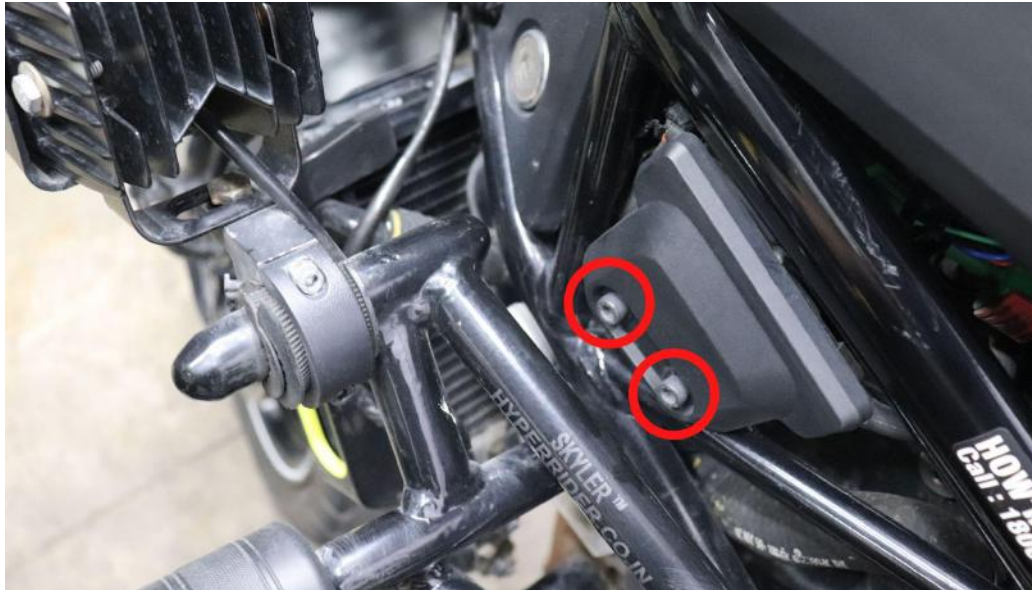


Image 11

**4.1.8** Locate the OEM Lambda sensor connector behind the ignition coil. Refer to **Image 12**.



Image 12



**4.1.9** Connect the FuelX female connector to the OEM male connector. Refer to **Image 13**



Image 13

**4.1.10** Connect the FuelX male connector to the OEM female connector. Refer to **Image 14**.



Image 14

**4.1.11** Refer to the completed view. Refer to **Image 15**.



Image 15

**4.1.12** Connect the Ground wire to the battery negative terminal of the vehicle. Refer to **Image 16**.



Image 16

**4.1.13** For Pro models, connect the Handlebar map switch on the handlebar, using the dovetail and using the 2.5 mm Allen key. Refer to [\*\*Image 17\*\*](#)



Image 17

**4.1.14** Rouse the Handlebar map switch wire as shown in the image below. Refer to [\*\*Image 18\*\*](#)



Image 18



**4.1.15** Route the handlebar map switch wire inside the panels carefully. Refer to **Image 19**



Image 19

**4.1.16.** For pro models, connect the handlebar map switch connector to the matching connector on the FuelX pro module. Refer to **Image 20**



Image 20

**4.1.17** Connect the 6-pin connector on the harness to the matching 6-pin connector on the FuelX module. Refer to **Image 21**

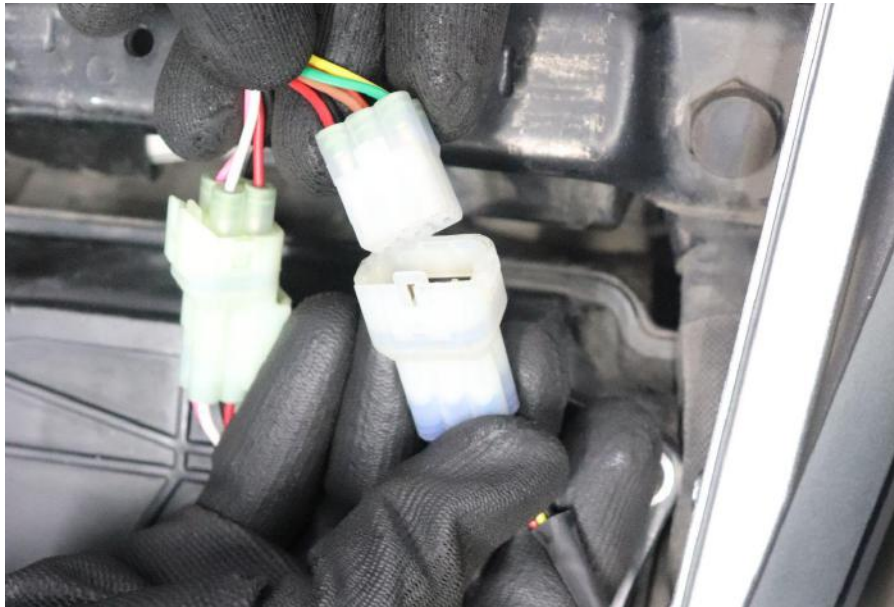


Image 21

**4.1.178** Place the FuelX module securely inside the glove compartment. Refer to **Image 22**



Image 22

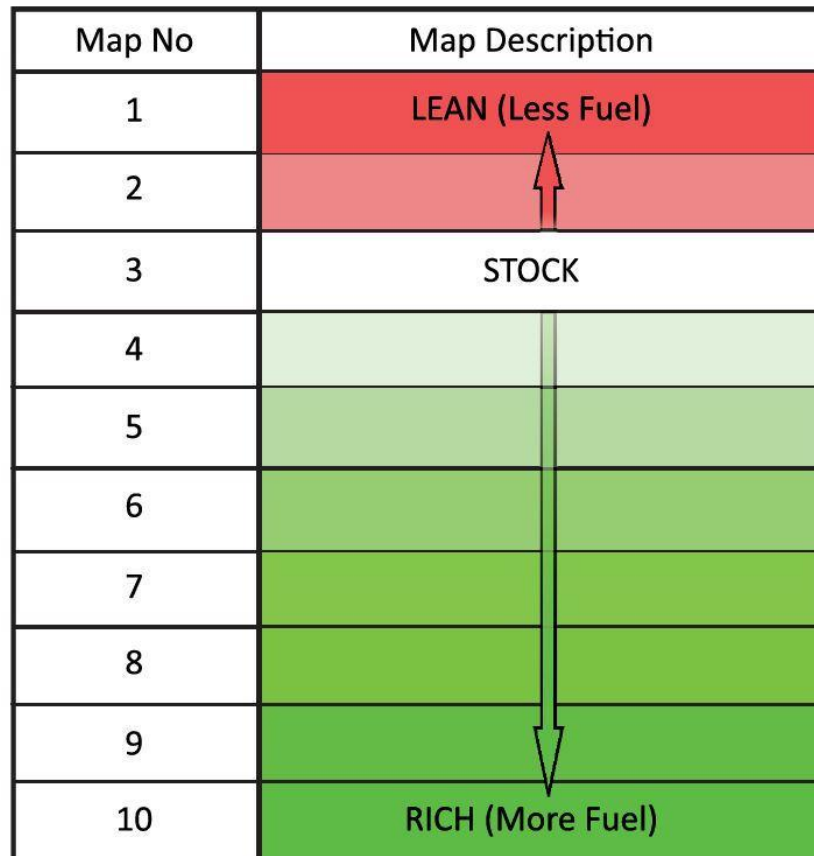
**4.1.19** Use zip ties to secure the harness wherever necessary. Attach the panels back. The installation is complete and you can use the FuelX.



## 5. FuelX Configuration

Depends on the version, the Red/Green LED on the FuelX module blinks once the FuelX activates.

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 to know which map is currently 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.