

About Boostfueller

Boostfueller controls/triggers additional fuel injectors

The unit is capable to drive up to 6 High Ohm injectors or 2 low Ohm Injectors.

Special versions for more injectors can be delivered if required by customer.

Boostfueller has a MAP sensor integrated, and get trigger/rpm pulse from the engine`s standard injection system.

Thru simple and intuitive design, Boostfueller is easy to install and adjust.

Boostfueller contains a user programmable fuel curve which can be adjusted in steps of 1000 rpm. The unit interpolates between the set points pr 1000 rpm.

Boostfueller comes pre programmed with basic settings for your innstallation.

Installation:

Boostfueller has four wires and a pressure hose connected to the MAP sensor.

Electrical connections:

- RED - Connects to live +12V when ignition is ON and when the engine is running. 10A fuse/circuit breaker shall be installed on this wire.
- BLACK - Connected to Chassis ground (minus).
- YELLOW - RPM signal in to Boostfueller. Connects to one of the existing injectors.
- BLUE - Trigger signal out (negativ pulse) to additional injector(s)

For the additional injector(s), +12V is required. It is a good idea to get supply for this at the same point for which RED wire is connected.

Pressure connection for MAP Sensor:

The pressure connection for the MAP sensor must be connected at the intake manifold AFTER the throttle/butterfly valve.

1. Determine correct RPM signal in

Without correct rpm signal in, Boostfueller will not operate as intended.

This is a critical point in the installation process, do NOT skip this step!

All EFI systems has two wires for the injectors, this step is to assure Boostfueller get the right trigger signal in when installed in your application.

A minimum of wires must be connected for performing this step:

- RED - Connected to live +12V with ignition ON and engine running.
- BLACK - Connected to chassie ground (minus)
- YELLOW - Connected to one of the wires for the original injectors on the engines standard efi system.

When ignition is turned ON, Boostfueller recieves 12V, and LED1 will lit up continuously.

Start the engine.

Lower and Increase the engine RPM. If LED1 is changing brightness/illumination, you have connected to the correct wire on the Standard EFI injector.

If you Lower and Increase the engine RPM and LED1 is not changing brightness/illumination, you have connected to the wrong wire on the Standard EFI injector.

Change yellow wire over to the other wire on the Standard EFI injector.

Verify that LED1 is changing brightness/illumination.

You now have RPM signal in to your Boostfueller 😊

2. Customize Boostfueller for your innstallation.

Boostfueller must be adapted to your spesific innstallation.

You only have to perform this step once, the unit will store your settings.

Step 1 must gave been carried out before you perform this step.

Increase engine rpm up towards 4000 Rpm. Intensity in LED1 will change a little, but should lit up notably stronger when passing the 4000 rpm point.

If LED 1 lits up markedly brighter when passing 4000 rpm, your set up is correct, and you have completed this step.

If LED 1 does not lit up markedly brighter when passing 4000 rpm, but more so at 2000 rpm and then decreasing in intensity as Rpm increases, you have to do the following:

- Turn of the ignition,+12V to Boostfueller is disconnected.
- Press and hold all three push buttons (+, - and STORE) while turning on ignition.
- Release all three push buttons

- LED1 and LED2 blink two long blinks together.
- LED2 then blinks two short blinks.
- LED1 then lights up continuously (as normal).

Now repeat from start of step2, and verify that LED1 lights up markedly stronger when the engine is passing the 4000 rpm point.

Boostfueller is now correctly configured for your installation, and you are ready for dialing in correct fueling values for your set up.

3. Adjusting fuelling

All adjustments are done by means of the three push buttons inside the enclosure.

Before proceeding with adjustments it is required that Boostfueller is correctly wired and set up for your installation, sufficient injector capacity and fuel pump capacity etc are provided, Wide band Lambda system installed and that the operator has the skills required for tuning a boosted engine.

All use and adjustments of Boostfueller is on end user's responsibility.

This step describes how Boostfueller works and how correct fuel values are dialed in.

LED1 indicates how the table/values stored in Boostfueller looks.

This is best described as a VE Table (Volumetric efficiency).

Weak light – low value/shorter injector opening times.

Bright light – Higher value/longer injector opening times.

As delivered, Boostfueller provides most fuel/LED1 brightest/Longest injector opening times at 4000 rpm.

If you after completed adjustments have great variation in intensity of LED1, your VE table is not correct – you have “holes/too big variations” in the VE Table.

- LED2 is a diode for performed commands. LED2 is blinking every time you push +, - or STORE. LED 2 is also used to show other set up functions executed.
- + push button provides more fuel/longer opening times.
- - push button provides less fuel/shorter opening times.
- STORE push button saves settings into Boostfueller.

Start by adjusting settings in Boostfueller at low/modest boost levels. If you adjust for good settings at low/modest boost levels, this will provide good settings for higher boost levels when you are increasing boost pressure.

Start adjusting by lowering or increasing the whole VE table until you get good lambda/afr readings in the lower rpm register/low boost levels.

This is how to adjust the whole VE table/all Rpm setpoints:

- Press and hold STORE button for 3 seconds or more. This will make LED2 light up continuously.
- By pushing + or – push button you will increase or lower all set points in the whole VE table at all rpm set points.

LED2 will blink every time you press + or minus push button.

Lower or increase all values until you are getting lambda/afr values preferred for your set up.

When you are satisfied with settings, press store and LED2 will stop illuminating continuously.

You are now ready to continue adjusting Boostfueller at set rpm points.

Further adjustments are done by means of using engine rpm as input to which set point you wish to adjust.

It's easiest to keep rpm stable if you are driving the car in one of the higher gears. Like 4.th or 5.th gear

The next point is extremely important to understand, so it will be mentioned in highlighted text three times.

You always keep engine Rpm at half the rpm you want to adjust!!!

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If you want to adjust settings @4000 rpm you keep engine rpm @ 2000 rpm when you push the + or – button.

To make sure Boostfueller pick correct rpm point keep rpm a little over ½ the rpm set point shown in tachometer.

Example:

Keep tacho @1600 rpm – press + button 5 times: This will increase values @ 3000 rpm.

Keep tacho @2600 rpm – press - button 5 times: This will lower values @ 5000 rpm.

Press store button - Saves settings in Boostfueller.

Press + button - Increases settings in VE table @ DOUBLE the Rpm you have when pushing the button

Press - button - Lowers settings in VE table @ DOUBLE the Rpm you have when pushing the button!

It is highly recommended to use enclosed sheet for notes to write down adjustments you have done to keep track of progress, but also to save time when doing adjustments.

Tip:

Please keep in mind that LED2 gives a good indication how your VE table/settings look like. If you have great variations in illumination of LED2 something is wrong with your settings.

Boostfueller arrives with basic settings providing high settings @ 4000 rpm. It is very likely that you have to adjust values down quite a bit @4000 rpm set point.

And YES, to adjust settings @ 4000 rpm you keep engine at a little over half the rpm (2100) when pushing + or - button!

If you get completely "lost", and have no idea what you have done and what your settings are, you can return to basic settings by doing the following:

- Press og hold STORE, press og hold -, let go store button, let go - button.

LED2 will blink twice, and basic settings are now present in Boostfueller.

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