



THUNDERMAX

EFI made simple.

HOW TO USE THE DECEL FUEL CUT FEATURE

SmartLink IV Tuning Manual Excerpt
Pages 85-87
SOFTWARE Version 2008.1.14 For
ThunderMax High Resolution ECM
For 2001-2009 Delphi®-Based Air Cooled Motorcycles
(Except 2008-09 Touring Models)
Manual V.20090528

The ThunderMax EFI controller is not legal for use or installation on motor vehicles operated on public highways in the State of California or other States where similar emission control laws may apply.

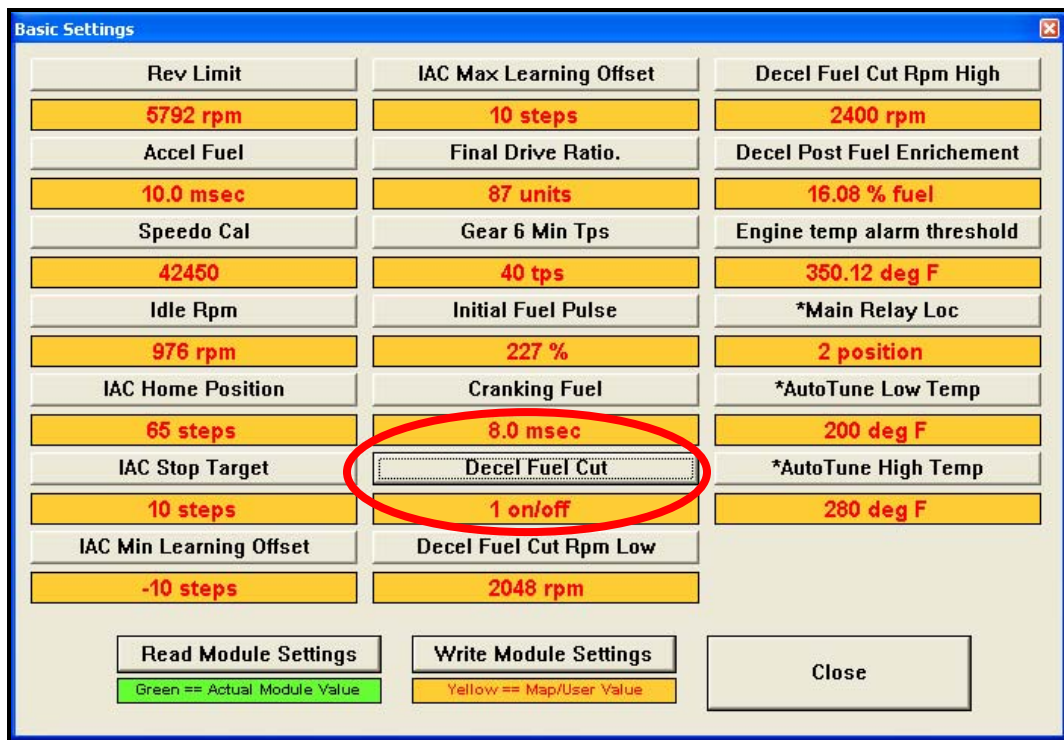
The user shall determine suitability of the product for his or her use. The user shall assume all risk and liability in violation of regulations and any incurred financial obligations due to vehicle inspections or emissions tests.

Email Technical Questions to:
ProductSupport@ZippersPerformance.com
www.Thunder-Max.com

The Decel Fuel Cut option is a feature of the SmartLink Software that comes standard with the ThunderMax EFI System. If you have installed the ThunderMax with AutoTune on your motorcycle, ridden your bike, and discovered that your bike backfires at specific RPMs on deceleration – this feature can be turned on to quickly and easily correct the problem. **The Decel Fuel Cut feature does not turn on by default**, but must be applied manually in the SmartLink software. Use the information provided below to adjust this feature for your specific needs.

Decel Fuel Cut Location:

The Decel Fuel Cut option is located in the **TUNING MAPS TREE** under **BASIC SETTINGS**, then **MODULE CONFIGURATION**.



Decel Fuel Cut:

The “Decel Fuel Cut” option is the ON / OFF switch for the Decel Fuel Features.

Using a value of (0) turns the feature off, and a value of (1) turns on this option. For example, if your motorcycle does not currently pop on deceleration, it is not recommended to activate this feature. **If you are experiencing deceleration popping, set this value to (1) and proceed forward to setting the Decel Fuel options.**

Basic Setting Value Entry

Decel Fuel Cut

Activates Deceleration Fuel
Enable to help reduce Deceleration exhaust popping.

Disabled = 0
Enabled = 1

[Requires Firmware Version 4.5 or higher.]

Valid Range = 0 - 1

0

OK Cancel

A screenshot of a software dialog box titled "Basic Setting Value Entry". The main heading is "Decel Fuel Cut". Below the heading, there is explanatory text: "Activates Deceleration Fuel" and "Enable to help reduce Deceleration exhaust popping." followed by "Disabled = 0" and "Enabled = 1". A note in brackets states "[Requires Firmware Version 4.5 or higher.]". A horizontal bar indicates the "Valid Range = 0 - 1". Below this, a text input field contains the number "0". At the bottom, there are two buttons: "OK" and "Cancel".

Decel Fuel Cut OFF

Basic Setting Value Entry

Decel Fuel Cut

Activates Deceleration Fuel
Enable to help reduce Deceleration exhaust popping.

Disabled = 0
Enabled = 1

[Requires Firmware Version 4.5 or higher.]

Valid Range = 0 - 1

1

OK Cancel

A screenshot of a software dialog box titled "Basic Setting Value Entry". The main heading is "Decel Fuel Cut". Below the heading, there is explanatory text: "Activates Deceleration Fuel" and "Enable to help reduce Deceleration exhaust popping." followed by "Disabled = 0" and "Enabled = 1". A note in brackets states "[Requires Firmware Version 4.5 or higher.]". A horizontal bar indicates the "Valid Range = 0 - 1". Below this, a text input field contains the number "1". At the bottom, there are two buttons: "OK" and "Cancel".

Decel Fuel Cut ON

Decel Fuel Cut Rpm Low:

The **“Decel Fuel Cut RPM Low”** setting should reflect the lowest RPM where the deceleration popping is occurring. This feature is set at 2048 RPM by default however the setting is adjustable from 1280 to 3040 RPM. Simply take note of the RPM where the popping stops and set the “Decel Fuel Cut Rpm Low” value approximately 50 RPM below this point. This is where the fuel cut process is terminated. Fuel delivery is returned to normal below this RPM.

Decel Fuel Cut Rpm High:

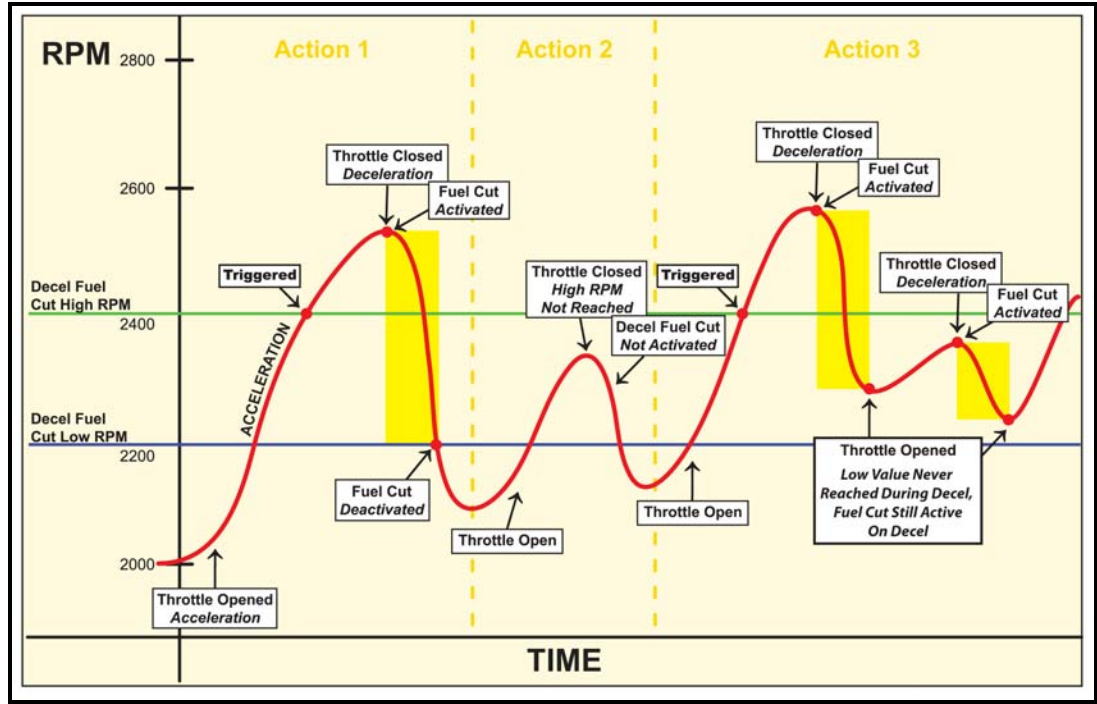
The **“Decel Fuel Cut RPM High”** setting should reflect the highest RPM where the deceleration popping occurs. This feature is set at 2400 RPM by default; however the High setting is adjustable from 2048 to 4064 RPM. Simply take note of the RPM where the popping begins and set the Decel Fuel Cut Rpm High value approximately 50 RPM above that RPM. This setting will be the RPM at which the Decel Fuel Cut is triggered during acceleration.

The following graph depicts three scenarios to aide in your understanding of the Decel Fuel Cut function.

“Action 1” represents a situation where both the Low and High Fuel Cut RPMs are achieved; the Decel Fuel Cut is triggered, activated, and deactivated.

“Action 2” shows a situation where the High RPM was NOT achieved, and the Decel Fuel Cut is neither triggered nor activated.

“Action 3” shows how once the Decel Fuel function is triggered, it will not deactivate until after the engine RPM falls below the Decel Fuel Cut Low RPM.



Decel Post Fuel Enrichment:

The Decel Post Fuel Enrichment feature is similar to an accelerator pump on a carburetor. **This enrichment feature smoothes the transition from an OFF to ON throttle condition and makes it as seamless as possible.** This seamless transition is achieved by not allowing the manifold to enter a “dry” condition that can occur on long periods of deceleration, which may cause a pause, or a lag, in throttle response once the blade is opened. The Decel Post Fuel Enrichment has a range from 0 to 100, with the default setting of 16.08.