Tundra 3UR-FE / FBE EROM Patch

Version 1

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VF Tuner is proud to release Exclusive Map switching and Transmission custom controls for the 2018-2019 Toyota Tundra 3UR-FE / FBE. This patch version covers

1. Map Switching Controls
2. S Mode Gear Lock Control
3. Direct Shift Control

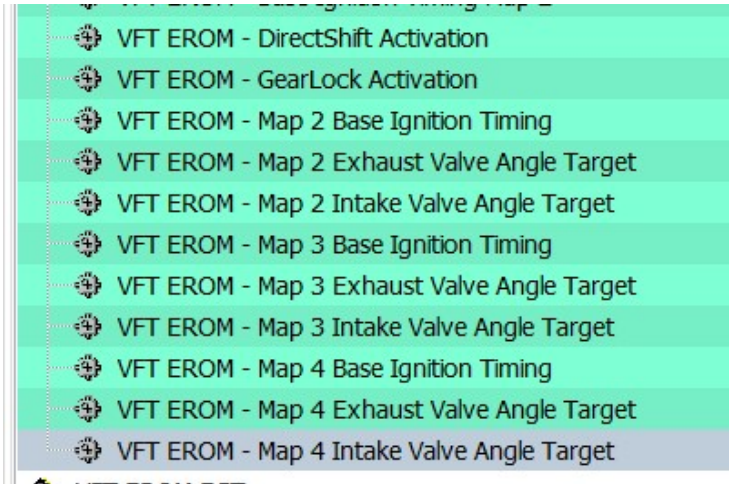
These exclusive features provided by VF Tuner allow a user to create secondary map / tune options based on the trucks TOW / Haul Mode. Exclusive Transmission controls allow the user to "LOCK" the gears from downshifting when S Mode is activated. Direct shift has modified the transmissions shift algorithm to enable automatic shifting up and down when the shift selector is pressed.

1.0. Map Switching Controls

Using VF Tuner, the user can select to setup *new Valve timing tables* and *Ignition Base tables* that are selected when the Tow/Haul Button is activated. These Tables have both extended load and RPM caps, and are larger than stock, allowing for expanded tuning capability.

1.1. How to activate

1.1.1. Tuning information / Map Switch Selection



Map 1: →Standard Tables

Map 2: →Activated When TOW / HAUL Button is pressed

Map 3: → Activated When the SHIFT SELECTOR is moved to S-MODE

Map 4: → Activated When the SHIFT SELECTOR is moved to S-MODE & TOW HAUL BUTTON IS ACTIVE

Fig 1.1 showing map switching tables

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Once you have flashed a Map Switch file to your ECU, the tables automatically become activated once you press the TOW / HAUL Button. When the Tow Haul button is not active, the ECU will use the *standard Ignition Timing Base* and *Valve Timing Base Tables*. Once the TOW / HAUL Button is activated, the ECU will switch the Ignition Base and Valve Timing Base tables to the "Map 2" tables as outlined in the VFT EROM" Map list.

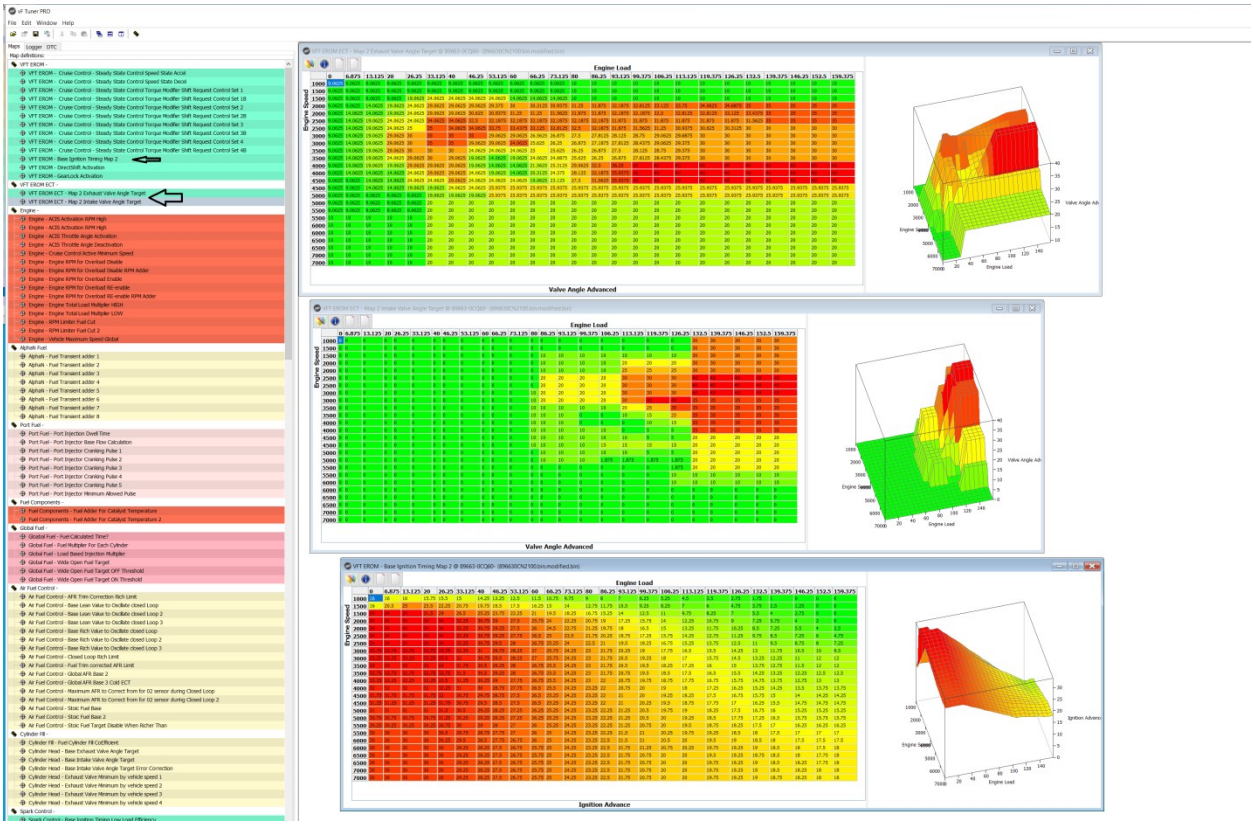

Fig 1.2 showing tables when tow haul is ACTIVE

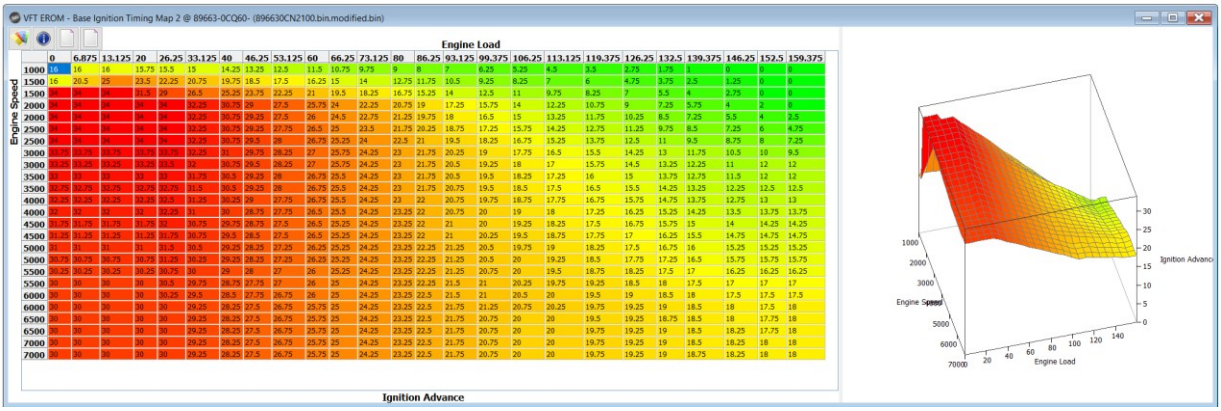

Fig 1.3 showing table of Ignition Base when Tow haul is ACTIVE

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The tables are 25x25 in size and have 150+% Resolution of a standard / OEM Table. This increased resolution and load cap allows for boost tuning at extremely high loads.

2.0. S Mode Gear Lock Control

VF Tuner has rewritten the code in the transmission to allow for gear locking –No automatic downshift even when you floor it; when the truck is in S MODE. During S Mode, Direct shift is activated when you press the selector Up (upshift) or Down (Downshift). Direct shift tells the transmission to ignore the preset tables and to automatically shift as quickly as it can to the next gear. VF Tuner has made activating these features very simple. By setting the table 1, the Feature is ACTIVE while setting the table to 0, the Feature is DISABLED.

2.1. Activation and Deactivation

To enable or disable these controls requires setting the bit in VF Tuner and flashing the file to the ECU. It is Important to note that you **MUST** flash in order to activate or disable the tables. (**There is No on the fly switching**).

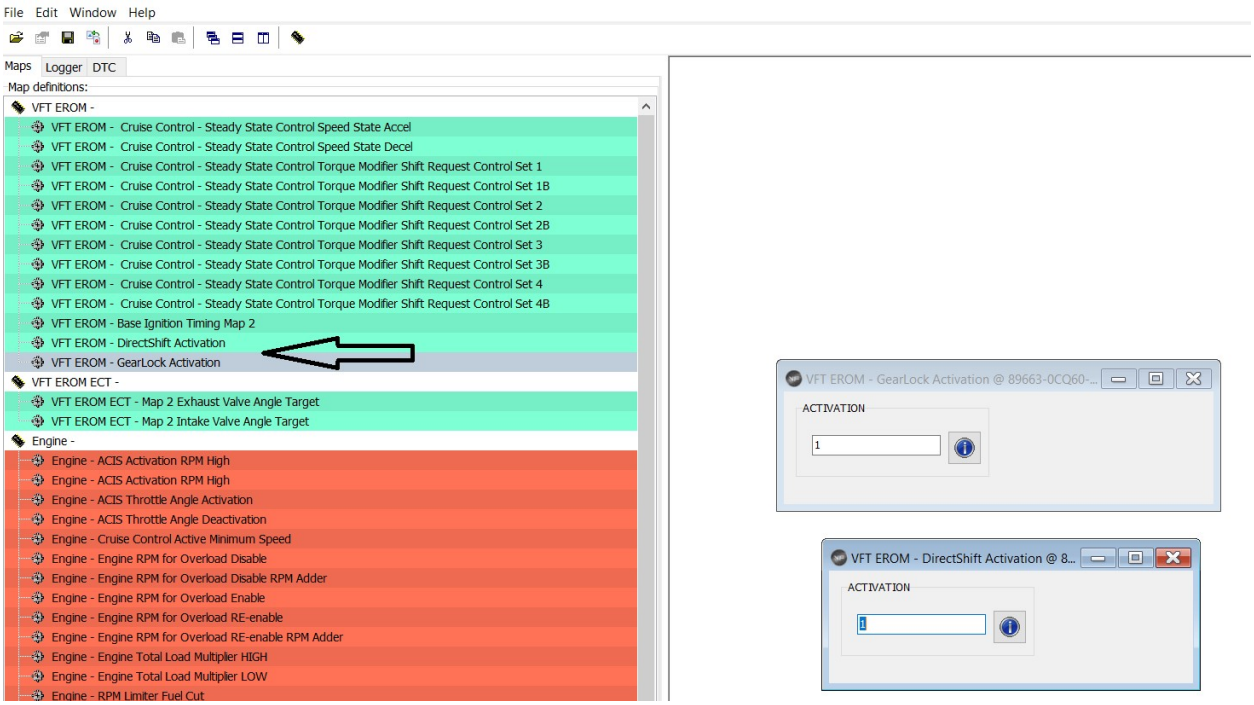

Fig 2.1 showing Gearlock activation map and how to Activate (set table value to 1) and how to DISABLE (set table value to 0)

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FAQ

- Can I apply these features to a tune I have already created?

  Answer: *No, you must open the modified / patched file and copy your tune onto it.*

- Can I activate these without flashing the ECU?

  Answer: *You must first flash the file onto the ECU once. And then the features like map switching, gearlock, directshift are then available.*

- Are the preset Maps already tuned?

  Answer: *The preset maps are similar to that of stock and requires the user to finalize tuning for maximum performance*

GLOSSARY

ECU → Engine Control Unit

EROM →

OEM →