

Reprogramming Your Toyota Truck for Improved Efficiency:

More Horsepower and Better Mileage

New programmable engine tuners provide Toyota truck owners options to increase performance and save gas money.

Due to recent advancements in the field of engine tuning, aftermarket programmable tuners are now available that can improve engine horsepower and torque for Toyota trucks. Increases of over 25 horsepower and 30 lb/ft are available, depending on the application. At the same time, some truck owners have reported increases in gas mileage by double-digit percentages.

While the laws of physics have yet to be defeated, modern tuner technology has overcome the seemingly opposite goals of spurring horsepower while reining in gas consumption via operational efficiencies that result from remapping the original engine control parameters.

“I used to have a full size truck with a big engine that could really haul, but I bought my 2010 Tacoma to get better fuel mileage,” says Trevor Benson of Chubbuck, Idaho. “However, with my new programmable tuner, I have the best of both worlds. I can get the fuel economy of a small pickup when I keep my foot out of it, yet I also have performance approaching that of a race car when necessary.”

Striving for more

Like many truckers, Toyota owners enjoy customizing their vehicles. From bigger wheels, knobby tires, hi-intensity lights and electric winches to custom paint jobs, Toyota owners do it all. But until recently they have not been able to accomplish much in the way of custom engine tuning, as the factory engine control modules have remained inaccessible to all but the dealer and well equipped independent shops. As such, owners remained hogtied in their attempt to extract greater power and more mileage from their motors.

“Many reviewers complain that the four-cylinder engines on compact trucks like the Toyota Tacoma can feel sluggish, even with an empty bed,” so states a February 20, 2013, story from *U.S. News & World Report*. The story continued: “Full-size pickup trucks have bigger engines

and can tow and haul a lot more, but ...fueling a full-size truck is simply the price you have to pay for all that capability.”

Yet, within a matter of months since the above story appeared, manufacturers of engine performance tuners—also known as programmable gauge tuners—have since perfected tuners specifically for Toyota 4Runner, Tacoma, Sequoia, and Tundra truck models.

Consisting of a compact control panel, these programmable tuners are easily connected to the engine’s control module with wire leads. They operate by monitoring turbo boost pressure, engine RPMs, coolant temperature, air flow, fuel rail pressure and other operating considerations such as vehicle load, and then balancing these parameters by changing the electronic tuning characteristics of the engine management system to yield optimized performance.

Tuners provide multiple advantages

After installing these tuners, early-adopting Toyota truck owners are reporting positive results.

“Since I hooked up the tuner, I’ve got a lot more torque,” reports Benson. “When you floor it, it will push you back into the seat. Even with my 33-inch wheels I can still break loose the tires. I couldn’t do that before.”

“I installed the Bully Dog tuner and it feels like I added about 50 extra horses,” says Zac Rice of Pocatello, Idaho, owner of a 2008 Tundra 5.7 liter truck. “Like if I get on it at a stoplight, it will chirp the tires. The truck is powerful enough as stock, but you add extra horsepower and it becomes a beast.”

Since 1998, American Falls, Idaho-based Bully Dog Technologies has been designing and refining industry-leading gauge tuners for automotive and trucking applications. The company’s GT-T+ is specifically designed to optimize Toyota truck performance.

In most cases, tuners provide driver feedback through a display screen—which can be permanently attached to the dash or simply suction-cupped to the windshield. With some models

displaying over fifteen vehicle parameters, drivers can conveniently keep tabs on the measurements.

In the case of the Bully Dog tuner, a built in “driving coach” provides advice on how to improve fuel economy via a graphically-displayed “efficiency bar” to fully exploit one of the main advantages of installing a tuner. According to Edmunds.com, good driving habits can increase economy by up to 37%.

“The tuner calculates mpg for you instantly, and teaches you how to increase it,” says Rice. “During some long-distance interstate driving I recently did, my economy went up 6-8 mpg. I saved about \$250-300 on that trip. During regular driving I average about \$60 per-month savings.”

Feature rich

Today’s programmable tuners have advanced to the point where they even provide vehicle safety alerts and allow users to read and erase Diagnostic Trouble Codes (DTCs). This way, owners can run their own diagnostics check to find out what the “check engine” light means and then erase the codes themselves—helping to cut down on expensive service calls to the dealer.

“Before I got the tuner, I had a couple of check-engine issues, which is a pain in the butt,” recalls Rice. “Like when a fuel sensor went out. It put me in the limp mode and I had to go to the dealer and pay them. If I had had the tuner, I could have just bought the part at AutoZone and saved a lot of money.”

Tuners usually include additional features such as tuning options that allow changing the RPM level at which your automatic transmission will shift gears. Safety warnings monitor engine, coolant, and transmission temperatures. Even vehicle security functions such as vehicle locking and warning chimes can be adjusted.

Among the more optional features are functions such as data logging for short intervals. For example, a “Christmas Tree” display can count down a drag-strip start, and then record and store the elapsed time and trap speed through the quarter-mile.

In the dirt

The improved functionality of programmable tuners even extends to off-road capability.

“I go four-wheeling in the mountains a lot, and the Bully Dog tuner allows me to disengage, or engage, some functions at will,” says Benson. “If I get bogged down in mud, I don’t want to sit there and dig a hole.”

“We recently had some flash floods in Pocatello, and I was going through puddles that no one else could,” explains Rice. “I attribute that to the extra horsepower from the tuner. Some of the crossings were like mini rivers, and some trucks got stuck, but not me.”

Installation made simple

Aside from all the performance benefits, the ease of installation for most tuners will ensure their increasing acceptance by truck owners.

“I installed it myself, but it would be easy for a non-mechanically inclined person to put one in because there is an instruction sheet which provides simple step-by-step instructions,” explains Benson. “You don’t even need to wire it into your car’s fuse box if you don’t want to.

“Overall, it’s pretty amazing,” says Rice in summation. “You just install a little screen on your window and it saves you money and adds horsepower.”

For more information, contact Bully Dog Technologies, American Falls, ID; Phone: 877-285-5936; or visit the web site: www.bullydog.com.