



6.4L POWER STROKE 4-WAY TUNER TEST

**DIABLOSPORT PREDATOR VS.
BULLY DOG PMT VS. SUPERCHIPS
CORTEX VS. EDGE EVOLUTION**

BY RYAN HARRIS

If fuel economy is important on diesel pickups, it's crucial on Ford's 6.4L Power Stroke.

The new International-built engine has been plagued with fuel efficiency issues since its release in late 2007. We've had experience with several F-250 and F-350 6.4L Power Strokes, each of which hover around the 9-10 miles per gallon empty. Why the 6.4's fuel economy is so much worse than previous generations is a lengthy discussion in itself (let's just say the EPA's Clean Diesel Act of 2007 could be renamed the "Fuel Economy Reduction Act"). The fact is these engines are providing much satisfaction to their owners when it comes to paying at the pump.

Cyclone Performance's Chris Russman proposed a tuner test centered



around fuel economy improvements. Some claims of efficiency gains by some of the programmer manufacturers are very impressive. But do they really live up to the numbers?

We wanted to find out.

BASELINE

The 6.4L Power Stroke makes great power. Its strong sales in Ford's Super Duty trucks proves that it's an engine that gets the job done. We were impressed with the stock power output and delivery of the common-rail V8 twin-turbo diesel.

We selected our test truck based on its travel schedule. This 2008 F-250 Super Crew commutes 110 miles daily on a state highway (with 65 mph speed limit) and another 20 miles or so of city driving. The route to and from work

FOUR-WAY TUNER TEST HORSEPOWER RESULTS

PROGRAMMER	SETTING	ADDED HP
Stock	Stock	+0
Edge Evolution	Economy	+24.8
Edge Evolution	Tow	+20.3
Edge Evolution	Race	+60.4
Edge Evolution	Extreme	+75.1
DiabloSport Predator	Tow	+16.3
DiabloSport Predator	Economy Perf.	+36.0
DiabloSport Predator	High Perf.	+39.5
DiabloSport Predator	Extreme	+92.2
Superchips Cortex	Tow	+37.2
Superchips Cortex	Performance	+51.9
Bully Dog PMT	Tow	+11.7
Bully Dog PMT	Performance	+24.5
Bully Dog PMT	Extreme	+66.4



FOUR-WAY TUNER TEST FUEL ECONOMY RESULTS

PROGRAMMER	SETTING	MPG INCREASE	INCREASE %
Stock	Stock	+0 (11.4 mpg)	+0%
Edge Evolution	Economy	No gain	+0%
Edge Evolution	Tow	n/a	n/a
Edge Evolution	Race	+0.96	+8.4%
Edge Evolution	Extreme	No gain	+0%
DiabloSport Predator	Tow	n/a	n/a
DiabloSport Predator	Economy Perf.	+0.33	+2.8%
DiabloSport Predator	High Perf.	+1.88	+16.5%
DiabloSport Predator	Extreme	+0.67	+5.8%
Superchips Cortex	Tow	+1.08	+9.5%
Superchips Cortex	Performance	+0.18	+1.6%
Bully Dog PMT	Tow	+0.39	+3.4%
Bully Dog PMT	Performance	+1.27	+11.1%
Bully Dog PMT	Extreme	No gain	+0%

for this truck is consistent, giving us a test mule that racks up miles quickly between fill-ups.

It should be noted that our test truck does have a Fabtech lift and is running 37-inch tires. These factors are consistent across all test runs. Our focus of this test will be on the difference or improvement between running the PCM's stock programming and the aftermarket programmers.

Additionally, there is a possibility that if you own a 6.4L Power Stroke, your results may vary from our, mainly because whenever your truck is returned to the Ford dealership for service, the technician will automatically reflash your truck's PCM with the latest map



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from Ford. These updated flashes have not always been improvements. Some customers have reported seeing their truck's fuel economy drop by up to two mpg after having the PCM reflashed. If your truck fits into one of these cases, you may see a larger difference between the poor reflash map and the aftermarket tuner's programming. Most 6.4 owners have figured out that if they're getting over 10 mpg, they shouldn't let the dealership touch the truck again.

We did all of our dynamometer testing on Custom Auto's portable Super-Flow unit.

All fuel economy figures are hand-calculated.

STACKABLE WITH THE PREDATOR FOR
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THE TUNERS EDGE EVOLUTION

The Evolution is a simple-install unit that plugs into the truck's OBDII port and mounts on the truck's dashboard. The Evolution monitor displays up to four vehicle parameters at one time. The Evolution reads EGT temps through the OBDII port so no drilling is required. Four power levels are available and the ability to correct for tire sizes and speed limiters. The Evolution also displays diesel particulate filter (DPF) regeneration status, displays and clears diagnostic trouble codes, displays alerts and can perform 0-60 mph and quarter-mile tests and reaction times.

DIABLOSPORT PREDATOR

The Predator is a hand-held flash programmer that uploads Predator tunes to the truck's PCM. There are four different tunes in the Predator. The Predator also has the ability to read and

clear diagnostic trouble codes, change gear ratio and tire sizes, adjust shift points and change speed limiters.

SUPERCIPS CORTEX

The Cortex is a hand-held flash programmer. It connects to the truck's OBDII port and reflashes the PCM. There are two programs available and the Cortex can also read and clear diagnostic trouble codes. The Cortex can also change for tire sizes and gear ratios.

BULLY DOG PMT

The Performance Management Tool is an on-board downloader with full gauge functions. It connects to the truck's OBDII port and displays four vehicle parameters at once, with 20 parameters to choose from. The color monitor features on-the-fly performance tune changes. The PMT will also read and clear diagnostic trouble codes and adjust for tire and gear changes. **DT**



SOURCE:

Cyclone Diesel Performance
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Custom Auto
208-522-7166

BY THE NUMBERS:

- The test truck was strapped to the dynamometer for 30 runs.
- 6,290.2 miles were driven during this test.
- 541.12 gallons of diesel fuel were used over test period.
- At \$4.40 per gallon (average price during our test window), that's \$2,380.93 worth of fuel.
- Averaged out, the truck got 11.62 mpg over the test period.
- 6,290.2 miles driven at the stock truck's 11.4 mpg would have used 551.82 gallons of fuel or \$2,428 worth of fuel at \$4.40 per gallon.
- 6,290.2 miles driven at DiabloSport Predator High Performance's 13.28 mpg would have used 473.18 gallons of fuel or \$2,082 worth at \$4.40 per gallon. That's a \$346 savings over 6,290.2 miles. On a truck that logs more than 24,000 miles annually, the savings add up to over \$1,300 per year.