

Proving Grounds

PULSTAR PULSE PLUGS

A NEW GENERATION OF SPARK PLUGS IS HERE

Parts Tested: Pulstar Pulse spark plugs

Car: 2006 Nissan 350Z Roadster

Engine: 3.5-liter "RevUp" VQ35DE V6

Relevant Modifications: SG Motorsport custom cold-air intake and Y-pipe back three-inch exhaust



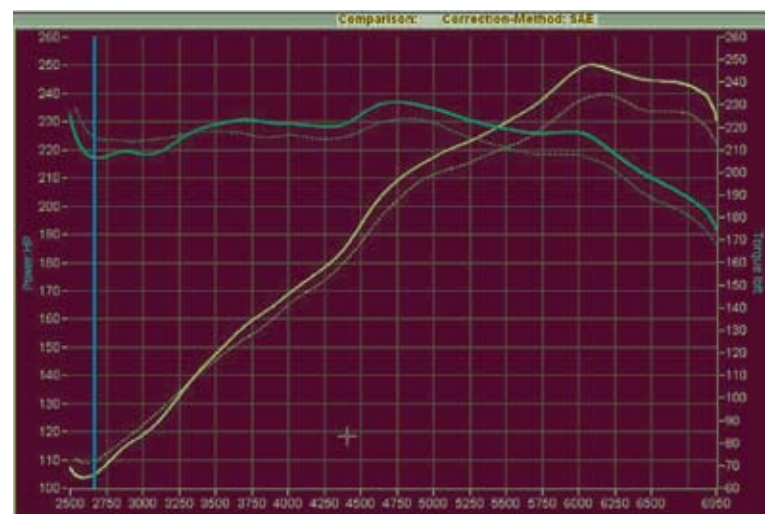
FEATURES

- Improved throttle response
- Better fuel economy, reduced unburned hydrocarbons and reduced misfires
- Contain inconel alloy electrode
- Integrated peaking capacitor to store and release incoming ignition energy
- 50,000-mile expected life
- Made in the USA

DESCRIPTION

Spark plugs that make horsepower and torque while improving fuel efficiency? Seems like some snake oil scam, right? Wrong. Pulstar plugs aren't your average spark plugs. They are radically different. Pulse plugs contain a capacitor called a "pulse circuit" that compresses electrical energy, much like a camera flash compresses light. The capacitor stores incoming electrical energy from the ignition system (rather than wasting it in heat generation the way a standard spark plug does) and releases it in a much larger and faster

spark, igniting the fuel more quickly and producing a more complete burn. This creates greater cylinder pressure, resulting in more torque to the crankshaft, which translates to more horsepower and improved fuel efficiency. According to Enerpulse, Pulstar's parent company, tests conducted at independent certified labs and at Enerpulse's lab have demonstrated that pulse plugs improve engine performance and fuel economy by an average of six percent. Impressive numbers, but would our test support this claim? Read on.



► Pulstar plugs showed outstanding gains on our test mule 350Z Roadster compared to the OE plugs, with peak gains of 10.4 whp and 7.2 whp.

RESULTS

Although we haven't had our tester Pulstar plugs long enough to test for fuel efficiency, we did put them to the test on U2Ndyno.com's DynaPack hub dyno with the help of SG Motorsport and their 2006 Nissan 350Z Roadster. This car has only 1,200 miles on the odometer, so the motor and OE spark plugs are basically brand new. The car has been run hard on this dyno for many runs as SG developed their intake and exhaust systems, posting a best of 239 whp after dozens of pulls. When we baselined the car we got a best of 239.7 whp, which was right on the mark with all of SG's previous testing.

After that we installed the Pulstar pulse plugs and made five consecutive pulls on the dyno. The best run was a shocking 250.1 whp. That's a gain of 10.4whp, - or almost a five-percent increase - very close to Pulstar's reported six-percent average gain in testing. Before the test we were joking about seeing no gains over the stock spark plugs, but we weren't laughing any more.

Considering how promising (ok, we were shocked) this initial test was, we're going to do some serious follow-up testing on a variety of different engines, including in our K24-powered EG Civic, Project Silvia (SR20DET) and Project Low Key (H22A), so we can verify that Pulse plugs are the real deal. At \$25 a pop, they ain't cheap, but if the engines found in many of the most popular sport compact platforms see similarly impressive gains, then these plugs could very well be the new bang-for-the-buck king. ■

GAINS MADE

+10.4 WHP
+ 7.2 TQ

BEFORE PULSTAR PLUGS: 239.7 WHP & 223.8 TQ

AFTER PULSTAR PLUGS: 250.1 WHP & 231.0 TQ

{ SOURCE BOX }

Pulstar Plugs
W: www.pulstarplug.com

U2Ndyno.com
W: www.u2ndyno.com

SG Motorsport
W: www.sg-motorsport.com

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