



NAPA® Echlin® designs, engineers and manufactures a full line of engine control replacement parts including the finest fuel injection components with one goal in mind; to make them the very best. With NAPA® Echlin® you'll get premium quality parts that meet or exceed OE, featuring the latest technology, with the best coverage in the industry. No one provides you with more.

#### The NAPA® Echlin® Promise:

- Top-of-the-line quality, coverage and performance
- Designs that always meet or exceed OE specifications
- Quality Tested. As a basic manufacturer, NAPA® Echlin® has complete control
  of the manufacturing process from componentry to finished product

#### NAPA® Echlin® Camshaft & Crankshaft Sensors Key Features:

- Designed and manufactured to be equal or better than the failed OE component
- Advanced circuitry protection increases resistance to electro-magnetic interference (EMI)
- Manufactured in our TS16949 certified facility
- Extensive testing throughout production and are 100% end-of-line tested to ensure proper signal frequency, amplitude, and timing

# From the Lab: NAPA® Echlin® Coils Match or Outperform the OES in Every Performance Test

### **The Testing Method**

We performed an extensive engineering analysis of OES DG500 & DG508 to NAPA® Echlin® IC369 & IC386 – measuring winding resistance, inductance and output voltage, spark energy, waveform peak voltage and ringing, plus a complete physical and sectioned comparison to OES.

### **The Findings**

NAPA® Echlin® Ignition Coils look, fit and perform like the original they replace with 100% end of the line production testing. Plus they feature an improved secondary winding design (additional winding bays) to help prevent internal arcing and high-voltage breakdown.

## **Comparative Performance Data**

- The NAPA® Echlin® coils tested 3.7% higher than OES in output voltage
- The NAPA® Echlin® coils were equal to OES in spark energy
- In waveform testing, NAPA® Echlin® coils' peak output voltage was about 1000 volts higher than OES
- The NAPA® Echlin® coils had a longer spark duration than the OES, resulting in more energy supplied to the spark plugs

#### Conclusion

The NAPA® Echlin® coils match or exceed the OES coils in all categories and are an excellent replacement exceeding the OES performance.

For more information, contact your NAPA® Echlin® Under Hood DSM

