



THE IGNITION SPECIALIST™

PARTSMARTS

Insight and intelligence from The Ignition Specialist™

Correlation Between Ignition Coil Efficiency and Spark Plugs

THE PROBLEM

Ignition coil efficiency, durability and lifetime declines when spark plugs are not changed at the appropriate service interval.

Keeping spark plugs new.

Optimal voltage.

Improved ignition coil durability.

Ignition coil lifecycle testing shows that durability **decreases by 15%** for every additional 1kV generated by the ignition coil needed to complete the spark event.



Electrode Degradation



Increased coil voltage



Decreased coil durability



Electrode within service life



Normal coil voltage



Increased coil durability

Following the manufacturers recommended replacement interval for spark plugs is pivotal for the health of your vehicle's Ignition System. Spark Plugs that operate beyond their "Recommended Service Interval" can cause the ignition system to work harder than needed and can lead to diminished engine performance.

What happens to coils if plugs are not replaced?

If plugs are not replaced, the center electrode will become worn, causing the ignition system to produce a higher current which in turn generates increased heat in the ignition coil.

Figure 1: Failed ignition coil in a Ford application.



How do you know when to replace Spark Plugs?

NGK provides Spark Plug OE Service Intervals in their catalog data and website for customers to quickly reference the proper mileage replacement for their vehicle model. Additionally, NGK uses high performance thermoplastics in their ignition coil designs for heat resistance and superior durability.

Pairing NGK products such as spark plugs and coils can give customers the confidence that they are using premium components together in order to achieve the best performance possible for their Ignition system.

Technical Support: 1-877-473-6767

Monday – Friday, 8:30am - 5:00pm EST



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