IGNITION COIL PROGRAM

1. Standard® and Blue Streak® provide aftermarket-leading coverage with over 700 Ignition Coils available

2. Every Ignition Coil is subjected to extensive testing and end-of-line product validation

3. Popular Blue Streak® OE Durability Improved Coils are available in multipacks for a complete coil service

What's in your box?™ Here's what's in ours.

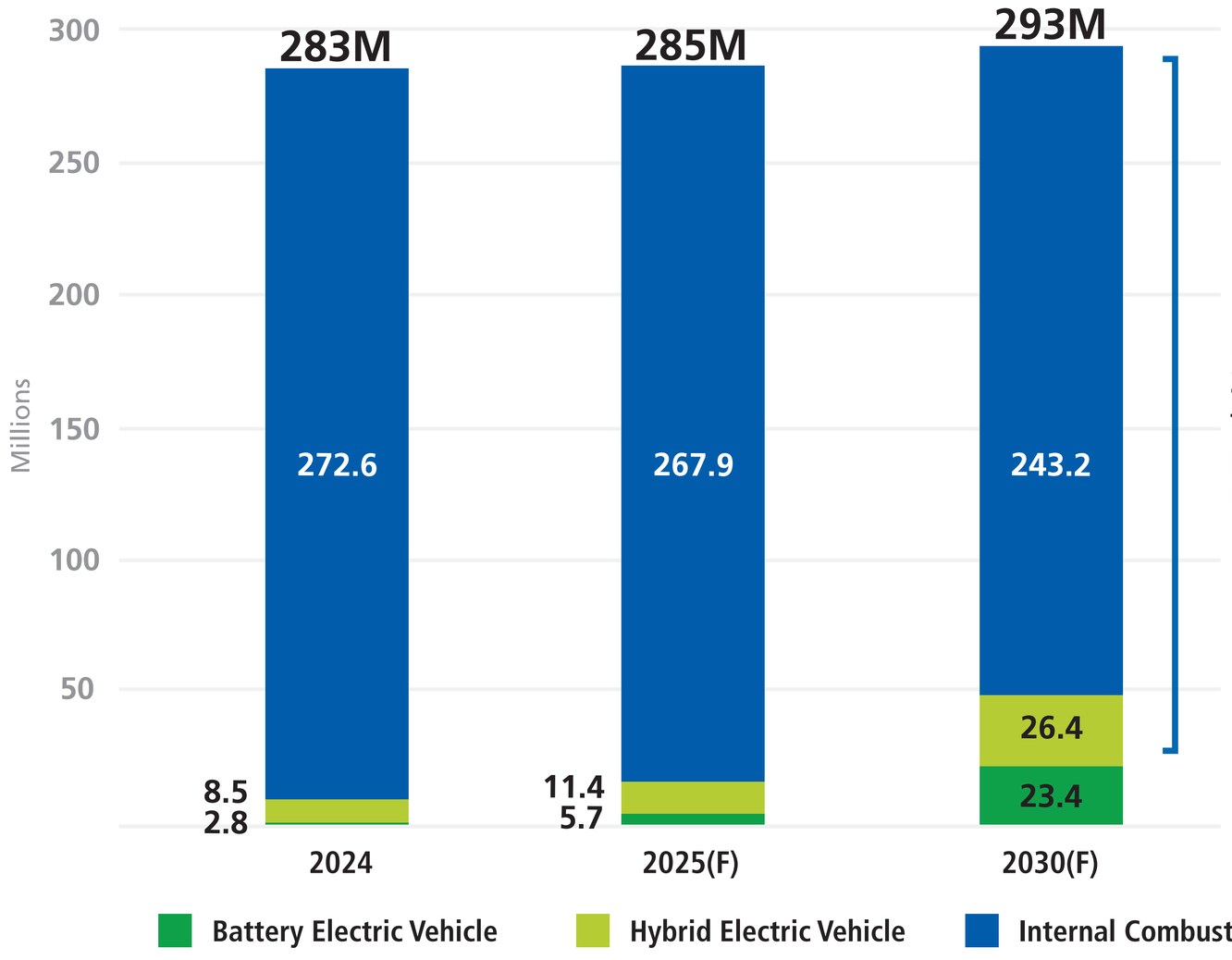
Market Trends

Even with all of the news and attention around electric vehicles, the number of vehicles on the road with ICE powertrains requiring ignition coils will remain largely unchanged through the end of the decade.

Newer vehicles with smaller displacement engines are also operating at higher RPM, putting additional demand on their ignition coils. High OE failure rates have made ignition coils one of the largest underhood categories, and it will remain one well into the future.

VEHICLES IN OPERATION

Total U.S. Car Parc, Millions of Cars

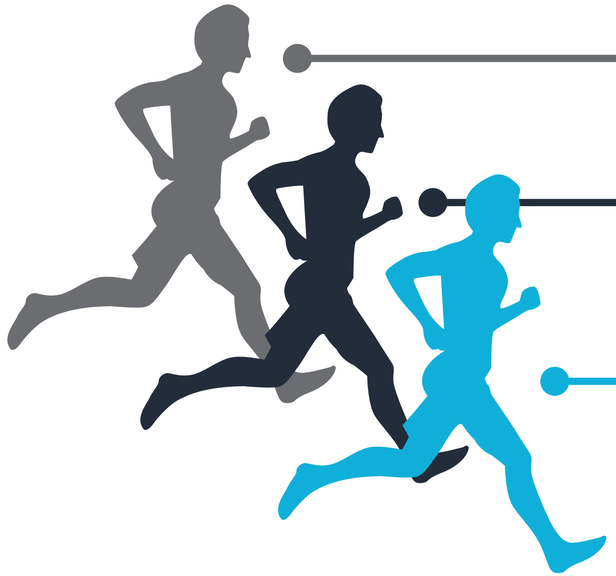


By 2035, over 262M vehicles on the road (90%) are projected to still use ignition coils

Source: 2024 Joint EV Trends and Outlook Forecast, Auto Care Association and MEMA Aftermarket

Ignition Coil Capabilities

The capabilities of a coil matter. Any component that doesn't have to work at it's maximum all of the time will perform better and last longer. That is why we design our Ignition Coils to not just match OE spark energy and discharge duration, but to exceed it. Let's think about ignition coils as runners to demonstrate how our parts last longer.

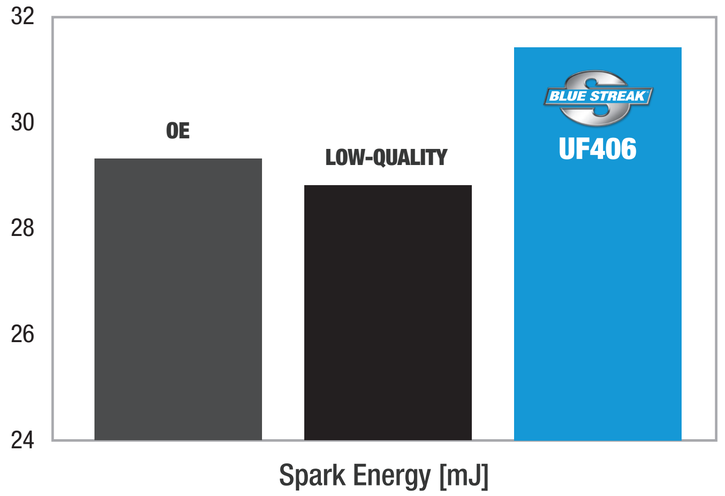


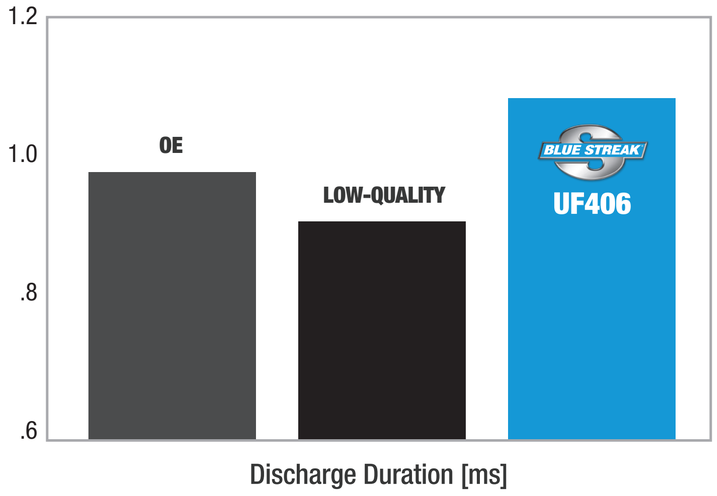
Low-Quality Coil: Limited capabilities are similar to a runner who is only capable of running 8 mph, being asked to run 10 mph

OE Coil: This is a runner capable of running 10 mph being asked to run 10 mph

Blue Streak® by Standard®: This runner is also being asked to run 10 mph, but is capable of running 12 mph. Their additional performance capabilities mean they won't have to work as hard, allowing them to run longer.

IGNITION COIL PERFORMANCE CAPABILITIES





Source: SMP Poland Testing Lab

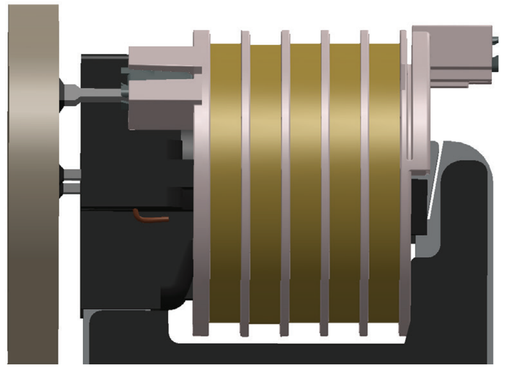
Opportunities

Our engineers determined the root cause of ignition coil failure on Ford 4.6L and 5.4L V8s was that too much energy passed through each internal bobbin segment, resulting in high operating temperatures. SMP engineers designed a coil with two additional bobbin segments to reduce heat and increase spark energy. The result is a coil which operates at lower temperatures, allowing it to last longer.

This popular Blue Streak® Coil is also available in a multipack (FD503K8) to help technicians solve this known problem, once and for all.

OE Problem:

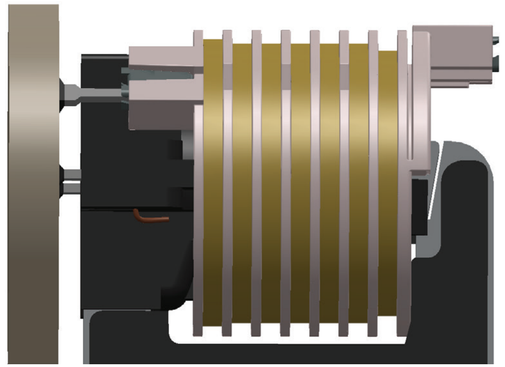
Ignition coils on Ford 4.6L and 5.4L V8 engines generate excess heat, leading to premature coil failure



OE coil uses 5 bobbin segments with 27kV (5.4kV per section)

Blue Streak® Solution:

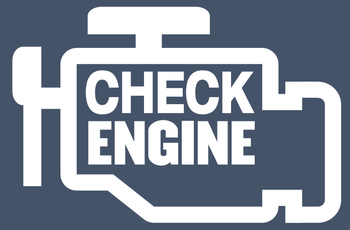
We added two bobbin sections to better distribute energy, resulting in less heat and a longer service life



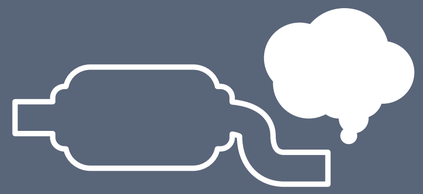
FD503 features 7 bobbin segments for 29kV (4.1kV per section) 32% reduction in energy per section

Impact on Engine Systems

Ignition coils work together to ignite fuel thousands of times per minute. As one coil wears, the others will typically wear evenly. Worn ignition coils can reduce fuel economy and engine performance



On many newer vehicles, an ignition misfire will also shut off the fuel injector on that cylinder



An ignition-related misfire can inject excess fuel into the hot exhaust system, damaging the catalytic converter

What's New

Standard® and Blue Streak® are committed to releasing new Ignition Coils regularly. With over 700 Ignition Coils already available and more coming, Standard® and Blue Streak® have what technicians need to service their customers' vehicles.

For the most recent applications, check the online catalog at StandardBrand.com.

UF877
Subaru Cars & SUVs
(2024-20) VIO: 715K

UF933
Ford Trucks
(2023-21) VIO: 380K

UF936
VW Cars & SUVs
(2024-22) VIO: 321K

UF924
GM SUVs
(2023-20) VIO: 345K

Top Movers: Ignition Coils

IMPORT APPLICATIONS

UF596
Toyota / Lexus / Scion
Cars & SUVs
(2022-08)

UF549
Nissan / Infiniti
Cars, Trucks, SUVs & Vans
(2022-06)

UF575
Audi / Volkswagen
Cars & SUVs
(2019-04)

UF667
BMW
Cars & SUVs
(2022-01)

UF487
Toyota / Lexus
Cars, Trucks & SUVs
(2024-05)

DOMESTIC APPLICATIONS

FD503
Ford / Lincoln / Mercury
Cars, Trucks, SUVs & Vans
(2019-97)

UF648
Chrysler / Dodge / Jeep / RAM
Cars, Trucks & SUVs
(2023-11)

UF504
Chrysler / Dodge / Jeep / RAM
Cars, Trucks & SUVs
(2024-05)

FD508
Ford / Lincoln / Mercury
Cars, Trucks & SUVs
(2009-04)

UF270
Chrysler / Dodge / Jeep
Trucks & SUVs
(2008-99)

Additional Coils and Related Parts

Standard® offers a wide array of ignition components beyond coil-on-plug. From coil packs to service kits, Standard® has the ignition components needed to keep cars on the road.

Coil Near Plugs (CNP)

Reinforced bobbins prevent voltage flashover for extended service life

High-dielectric epoxy is injected into the case and pulled into vacuum to eliminate air pockets and prevent moisture intrusion or thermal breakdown

Cassette Coils

Heat-resistant housing compound and coil boots withstands heat stress for durability

100% pure copper windings in the primary and secondary bobbins improve durability and provide higher resistance against internal shorts and dielectric breakdown

Coil Packs

Housing made from thermoplastic compounds to withstand heat stress

Full E-Lam core of silicon steel and solid brass high-voltage terminals protects against corrosion

Ignition Coil Connectors

Utilizes high-grade materials to ensure peak conductivity and perfect connections

Coil-On-Boot Service Kits

Multiple-piece design features a phenolic tube and silicone tip

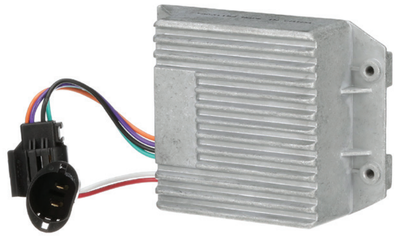
Includes spring and resistor

Other Ignition Systems

In addition to newer-style Coils, Standard® offers multiple ignition components for classic vehicles. These components help restore performance on older, higher-mileage vehicles.

Did You Know

Older ignition systems are typically comprised of primary (module and coil) and secondary (cap, rotor, wires, plugs) components. If a primary component has failed, it is typically due to high resistance in the secondary components. Newer coil-on-plug assemblies include the primary and secondary in one piece.



Ignition Modules

Standard® Ignition Modules use top-of-the-line technology to ensure perfect timing every time

Matches the OE part and ensures better connections, greater dependability, and longer life despite being subjected to intense vibrations and the tough operating environment of the engine

Distributor Assemblies

High-dielectric-strength cap ensures accurate energy transfer and spark timing, while stainless steel screws protect against corrosion

Improved gear design for enhanced performance in high-torque applications

Available for GM 4.3L V6 and 5.0/5.7L V8 applications

Spark Plug Wire Sets

Designed, built, and tested to meet or exceed tough international IATF 16949 quality standards

Popular Standard® Spark Plug Wire Sets feature matching boots, a wire core and jacket, and extras like clips, trays, looms and numbered leads

Available for domestic and import vehicles

Blue Streak® Ignition Coil Multipacks

Ignition coils lose spark energy over time. A failed coil suggests the others may have endured the same heat and stress. To help restore performance and fuel economy, Blue Streak® offers matched sets of our OE Durability Improved Ignition Coils.

To help technicians replace all coils at once for a complete repair, many of the most popular Blue Streak® OE Durability Improved Coils are offered in multipacks. These multipacks are available for both import and domestic vehicles.

A total of 15 Blue Streak® Coil Multipack Kits are currently available with more to come.

Popular Applications

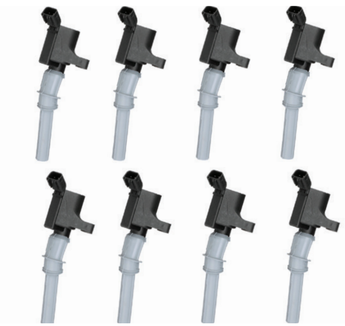
Blue Streak® Ignition Coil Multipacks are available for various 4, 6, and 8 cylinder applications.

For the most recent applications, check the online catalog at StandardBrand.com

UF596K4
Toyota / Lexus / Scion
Cars & SUVs (2022-08)
VIO: 4.5M

UF667K6
BMW
Cars & SUVs (2019-99)
VIO: 1.9M

UF487K6
Toyota / Lexus
Cars, Trucks & SUVs (2019-05)
VIO: 7.5M



FD503K8
Ford / Lincoln / Mercury
Cars, Trucks, SUVs & Vans (2016-97)
VIO: 5.1M

Engineering Improvements

When choosing the correct replacement ignition coil for your customers, consider the engineering improvements available. Each Blue Streak® Ignition Coil is engineered with upgraded features that ensure they will perform under the most extreme conditions and outlast the original design.

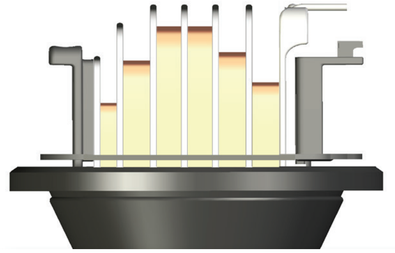
1

A Low-Quality Part:

Less spark energy and capabilities than the original design

May operate at higher temperatures, leading to premature failure

Outsourced manufacturing with limited engineering resources



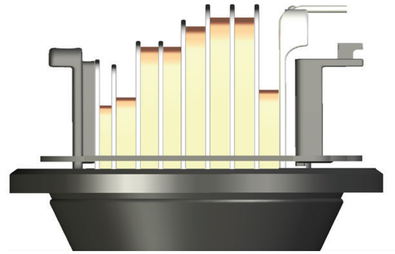
6 bobbin segments

2

An OE Part:

The same part that just failed on the vehicle

Many OE service coils are made in different factories and have less capabilities compared to the actual OE coil



8 bobbin segments

3

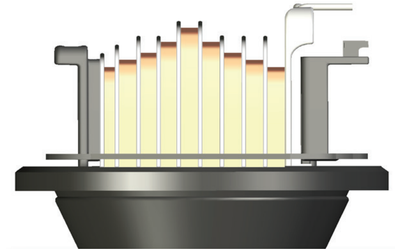
Precision-Engineered Replacement from Blue Streak®:

Design improvements to reduce heat for performance and reliability

Feature more spark energy and a longer discharge duration

In-house design, manufacturing, testing and validation

Industry-leading coverage makes it easier to find the Coils your customers need



UF349, 9 bobbin segments

Additional precision-wound bobbin segment improves energy distribution, resulting in less heat and a longer service life

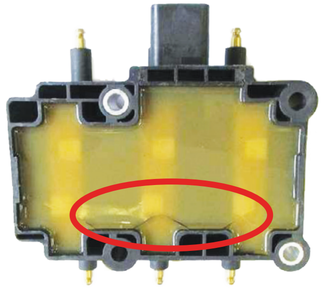
Engineering Improvements

Overheating and moisture intrusion are some of the main reasons why OE coils fail. We have identified the root cause of these issues on many popular applications and have engineered ignition coils with design improvements to solve them.

Solving OE Problems

OE Problem:

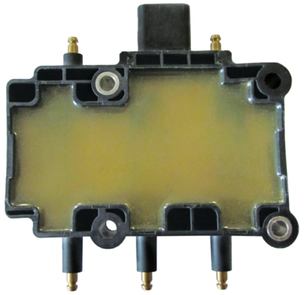
Heat causes the steel core to expand, cracking the epoxy, leading to moisture intrusion and coil failure



OE epoxy cracks after temperature test

Solution:

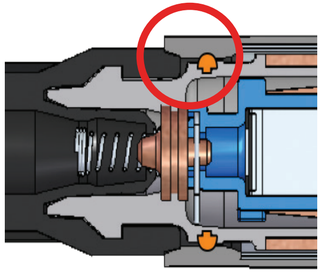
An elastomer overmold improves insulation and high-temperature epoxy resists cracking, even in high-heat conditions



No cracks after temperature test

OE Problem:

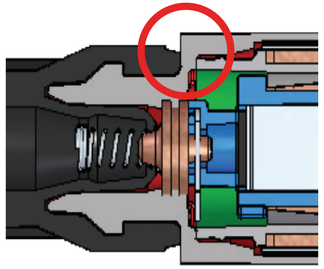
Many OE coils use a two-piece design that requires an O-ring. Over time, the O-ring breaks down, allowing moisture to enter the coil which results in coil failure



Two-piece design with O-ring

Solution:

Our engineers created a sealed, one-piece design that doesn't require an O-ring, eliminating the risk of moisture intrusion



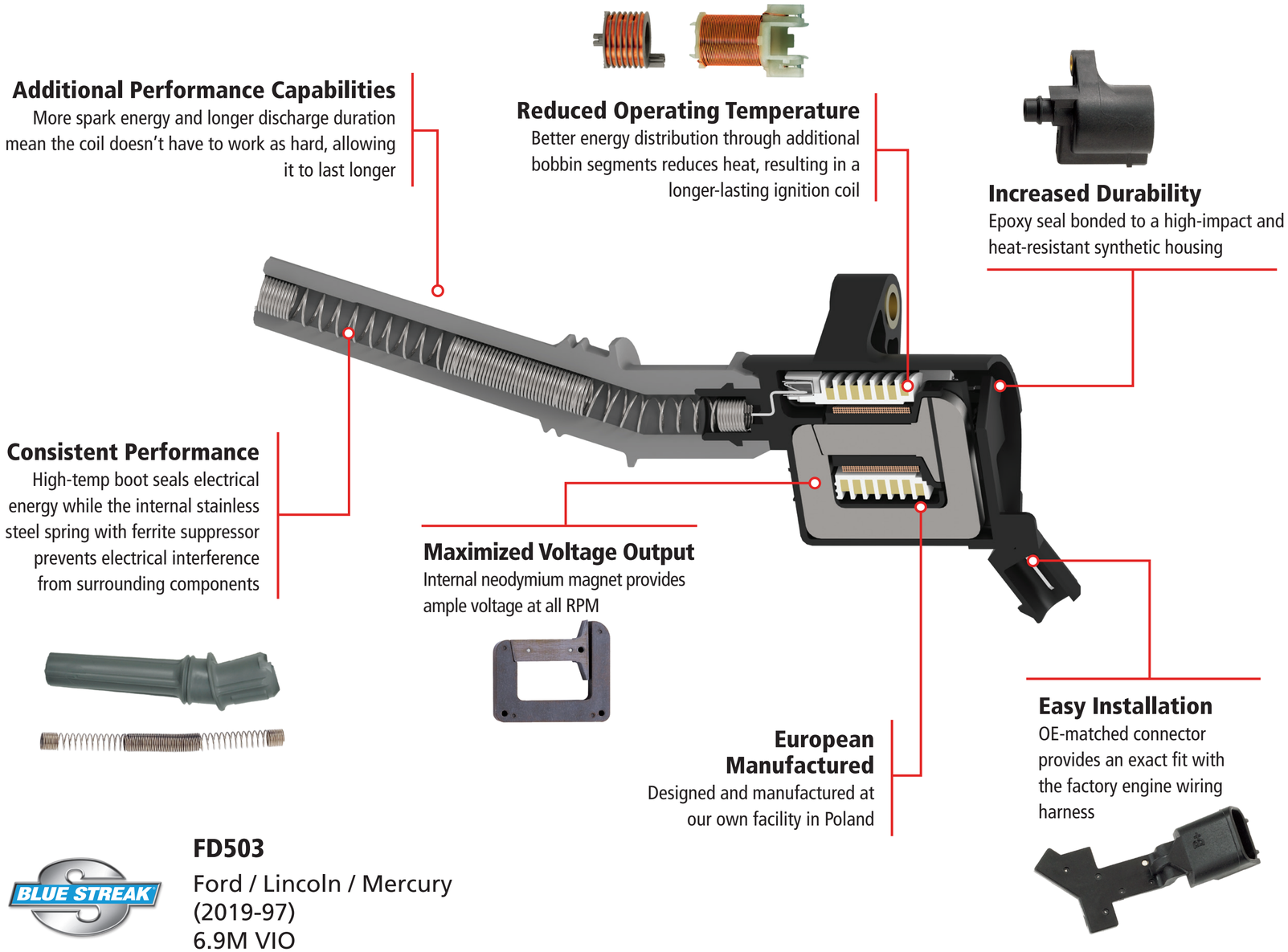
Sealed, one-piece design

Precision Engineering

High OE failure rates mean room for improvement upon many existing designs. Blue Streak® engineers design Ignition Coils with problem-solving upgrades throughout. Let's take a look at some of those featured upgrades on our popular Ford 4.6L and 5.4L V8 Ignition Coil, FD503.

Did You Know

Many low-quality ignition coils lose voltage output at high RPM, when it is most critical. Blue Streak® Ignition Coils are designed to produce the same amount of energy through the entire RPM range, maintaining proper engine performance.



Additional Performance Capabilities
More spark energy and longer discharge duration mean the coil doesn't have to work as hard, allowing it to last longer

Reduced Operating Temperature
Better energy distribution through additional bobbin segments reduces heat, resulting in a longer-lasting ignition coil

Increased Durability
Epoxy seal bonded to a high-impact and heat-resistant synthetic housing

Consistent Performance
High-temp boot seals electrical energy while the internal stainless steel spring with ferrite suppressor prevents electrical interference from surrounding components

Maximized Voltage Output
Internal neodymium magnet provides ample voltage at all RPM

European Manufactured
Designed and manufactured at our own facility in Poland

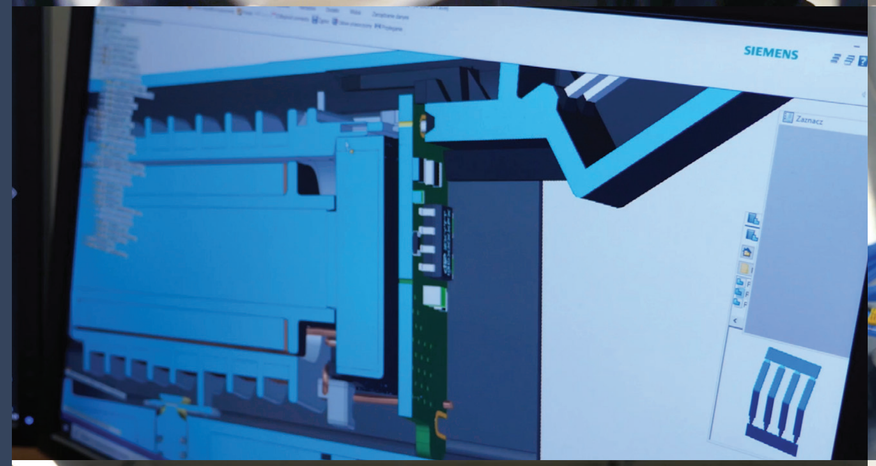
Easy Installation
OE-matched connector provides an exact fit with the factory engine wiring harness

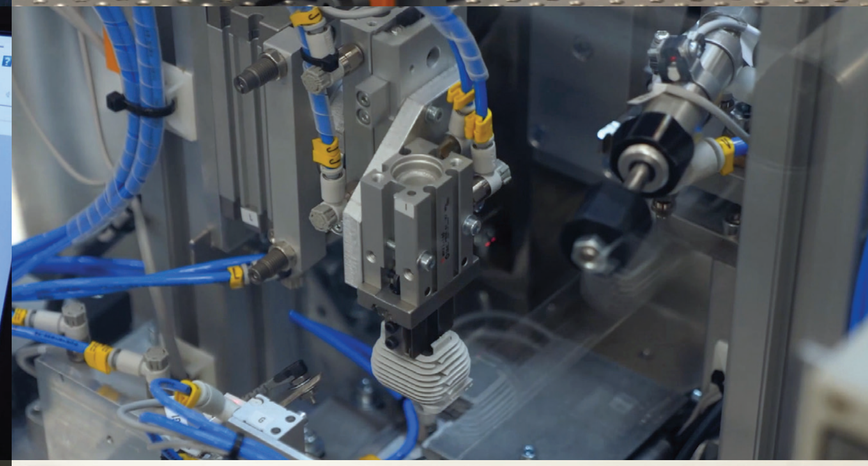
FD503
Ford / Lincoln / Mercury
(2019-97)
6.9M VIO

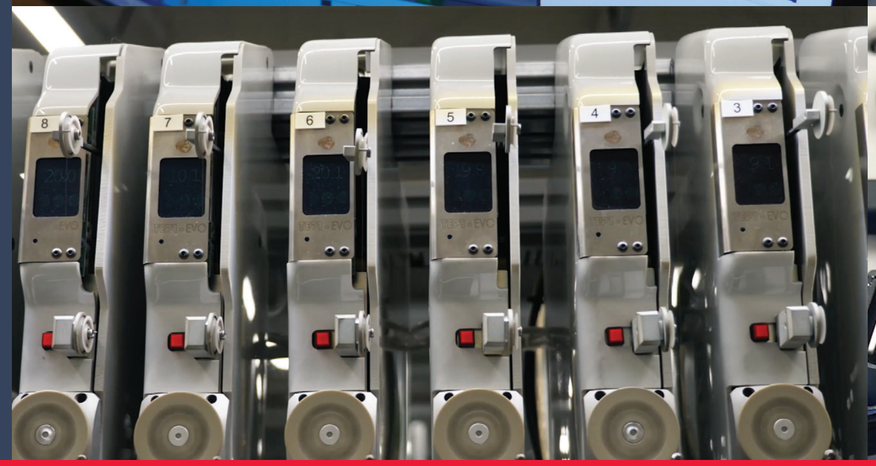
Manufacturing

Standard® engineers and manufactures high-quality Ignition Coils and components at our state-of-the-art facility in Bialystok, Poland. We are able to maintain complete control over the entirety of the manufacturing process, ensuring only the highest-quality Ignition Coils leave our facility.

Highlights of the IATF 16949 and ISO 9001-certified facility include lean manufacturing methods and vertically integrated manufacturing processes that include multi-spindle winding, injection molding, potting, curing, and welding.







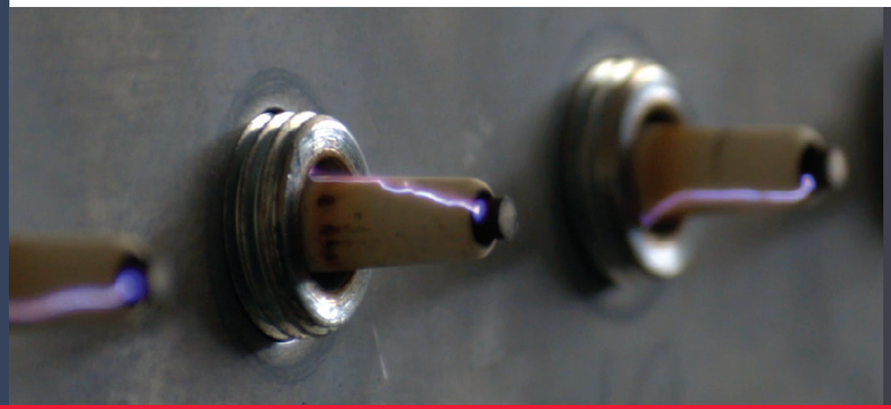
Testing and Validation

To ensure quality, all products manufactured at the SMP Poland facility undergo a full spectrum of measurement and life testing in addition to a full range of environmental analysis including thermal shock, thermal cycling, salt spray, vibration, and storage tests.

The result of all these extra steps is a line of premium ignition components that perform flawlessly and stand up to real-life conditions.

Salt Spray Test

The upgraded brass bushing featured on Blue Streak® UF549 remains unaffected and greatly outperforms the OE and competitor components in a 200-hour salt spray test



Blue Streak® OE Durability Improved Ignition Coils are extensively tested and thoroughly validated to be the best-performing Coils available on the market.

Standard® Pro Training Tech Tip

As experienced ASE-certified automotive technicians themselves, Standard® Pro Trainers are experts in ignition system technology.

Here's what they say to look out for during an ignition coil install.

Replacing ignition coils as a set will help restore performance, which may be noticeable to customers (this can be especially true for customers who use their vehicles for towing and hauling)

Ignition coil connectors on higher-mileage engines can become brittle and fail. Always inspect these connectors and considering replacing them when installing new ignition coils

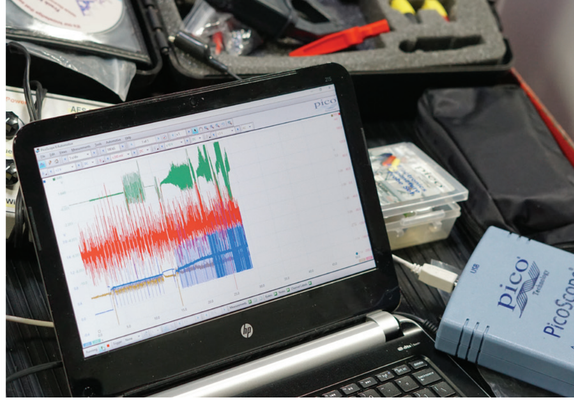
If oil is found in the spark plug well(s) it is likely a valve cover seal leak lead to coil failure. Repair the oil leak to avoid new ignition coils failing sooner

Standard® Professional Training

Award-Winning In-Person, Live Virtual, and Online Learning

Standard® Pro Training delivers accredited classes that educate technicians in the latest automotive repair technologies, and techs can earn CEU credits.

An extension of Standard® training, our extensive YouTube video library has over 700 technical and installation videos.



PRO TRAINING ON-DEMAND

Available Classes

- Automotive Ignition Fundamentals
- Diagnosing Ignition Problems
- Diagnosing Low Power
- Essential Driveability Diagnostic Skills
- Misfire Diagnostics 101
- Misfire Diagnostics 102
- Misfire Troubleshooting Tips

PRO TRAINING ON-SITE

Available Classes

- Advanced Driveability Diagnostics
- Ignition System and Cam/Crank Synchronization
- Lab Scope Power User
- Misfire Diagnosis
- Powertrain Electronics
- Unleash the Power of Your Scan Tool