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## Bosch YR6LDE

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Model: YR6LDE

## PRODUCT OVERVIEW

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The Bosch YR6LDE Copper with Nickel Spark Plug is engineered for reliable ignition and extended service life in compatible vehicles. It features a yttrium-enhanced nickel-copper center electrode designed for durability and consistent performance.

Key features include:

- **Yttrium Enhanced Nickel-Copper Center Electrode:** Provides superior reliability and durability, offering up to 50% longer performance life compared to standard copper plugs.
- **Copper Core:** Ensures efficient heat transfer, which helps resist pre-ignition and prevents deposit build-up.
- **Nickel-Plated Rolled Threads:** Offers excellent resistance to corrosion and eliminates the need for anti-seize compound, simplifying installation and removal.
- **Angled, Ribbed Insulator Design:** Prevents misfires caused by flash-over.
- **Metal Glass Fused Resistor:** Maximizes interference suppression for optimal engine operation.





Figure 1: Bosch YR6LDE Copper with Nickel Spark Plug. This image shows the complete spark plug unit, highlighting its robust construction and design.

## INSTALLATION (SETUP)

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Proper installation is crucial for optimal spark plug performance and engine health. Always refer to your vehicle's service manual for specific torque specifications and procedures.

1. **Preparation:** Ensure the engine is cool before beginning. Disconnect the negative terminal of the vehicle's battery. Identify the location of the spark plugs, typically under the ignition coils or spark plug wires.
2. **Removal of Old Spark Plugs:** Carefully remove the ignition coil or spark plug wire from the old spark plug. Use a spark plug socket to loosen and remove the old spark plug. Inspect the old spark plug for signs of wear or engine issues.
3. **Inspection of New Spark Plugs:** Visually inspect the new Bosch YR6LDE spark plug for any damage. These spark plugs are designed with nickel-plated rolled threads, which means **anti-seize compound is not required**.
4. **Installation of New Spark Plugs:** Hand-thread the new spark plug into the cylinder head to avoid cross-threading. Once finger-tight, use a torque wrench to tighten the spark plug to the manufacturer's specified torque. Overtightening or undertightening can lead to damage or poor performance.
5. **Reassembly:** Reinstall the ignition coil or spark plug wire, ensuring a secure connection. Reconnect the negative battery terminal.

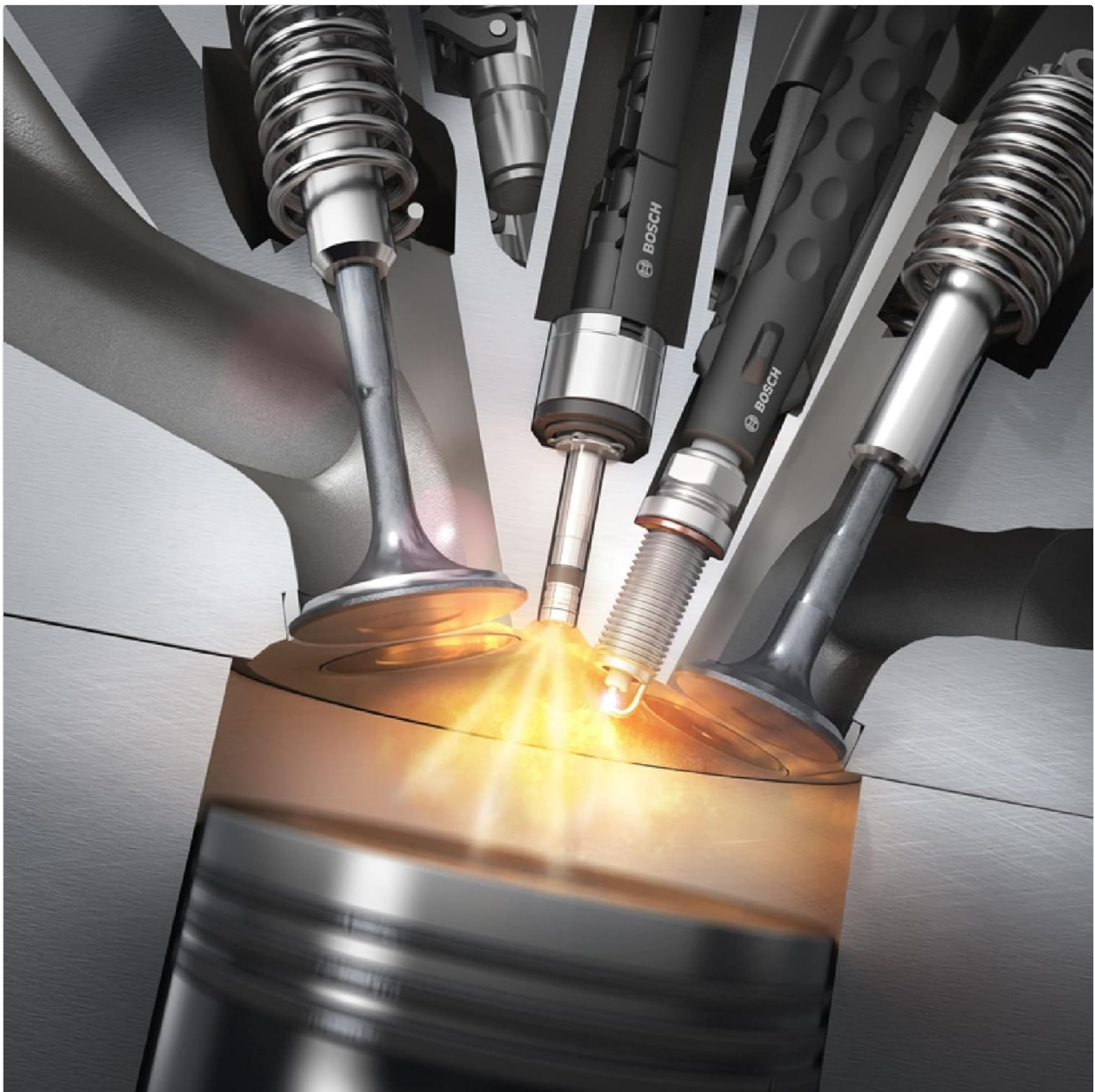


Figure 2: Illustration of a spark plug installed within an engine cylinder, demonstrating its role in the combustion process.

The best of **original equipment technology**

**Exclusive 360° continuous laser weld** fuses corrosion-resistant precious metal firing pin to base for durability and longest life.\*



Copper core ground electrode (when required) provides better heat transfer

Fine wire firing pin reduces voltage requirement

Nickel-plated shell with rolled threads requires no anti-seize

Ribbed insulator design prevents flashover

Copper core provides better heat transfer



OE Replacement

Longer Service Life

No Gapping Needed

No Anti-Seize

Figure 3: Detailed diagram illustrating the internal components and design features of a Bosch spark plug, including the copper core, ribbed insulator, and nickel-plated shell.

## OPERATING PRINCIPLES

Spark plugs are critical components in gasoline engines, responsible for igniting the air-fuel mixture in the combustion chamber. The Bosch YR6LDE spark plug generates a precisely timed electrical spark across its

electrodes, initiating combustion and driving the engine's pistons.

The copper core facilitates rapid heat dissipation, preventing the spark plug from overheating and causing pre-ignition. The yttrium-enhanced nickel-copper electrode material ensures a consistent spark and extends the plug's operational life, contributing to efficient fuel combustion and reduced emissions.

## MAINTENANCE

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While Bosch YR6LDE spark plugs are designed for extended service intervals, regular inspection is recommended as part of your vehicle's routine maintenance schedule. Consult your vehicle's owner's manual for recommended spark plug replacement intervals.

- **Inspection:** During routine maintenance, visually inspect the spark plugs for signs of wear, fouling, or damage. A healthy spark plug should have a light tan or grayish-white deposit on the insulator tip.
- **Replacement:** Replace spark plugs according to your vehicle manufacturer's recommendations or if signs of wear are observed. Worn spark plugs can lead to reduced fuel efficiency, engine misfires, and decreased performance.
- **No Gapping Needed:** Bosch spark plugs are typically pre-gapped from the factory. Attempting to re-gap them can damage the fine wire electrode.

## TROUBLESHOOTING COMMON ISSUES

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If you experience engine performance issues, spark plugs can sometimes be a contributing factor. Here are some common symptoms and potential causes related to spark plugs:

Symptom	Potential Spark Plug Related Cause
Engine Misfires or Rough Idling	Worn electrodes, fouled plug, incorrect gap (though Bosch plugs are pre-gapped), or damaged insulator.
Reduced Fuel Economy	Inefficient combustion due to worn or fouled spark plugs.
Difficulty Starting	Weak or inconsistent spark from worn or damaged plugs.
Loss of Engine Power	Poor combustion efficiency from degraded spark plugs.

If you encounter these issues, inspect your spark plugs. If they appear worn or fouled, replacement may be necessary. Always consult a qualified mechanic if you are unsure about diagnosing or repairing engine problems.

## SPECIFICATIONS

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Specification	Detail
Brand	Bosch
Model Number	YR6LDE
Core Material	Copper
Top Material Type	Ceramic, Nickel
Vehicle Service Type	Car (compatible with select BMW models: 2001-06 M3, 2001-02 Z3, 2006-09 Z4)
Item Weight	3.17 ounces
Product Dimensions	0.34 x 0.37 x 1.27 inches
Manufacturer Part Number	0242140504
OEM Part Numbers	12120022902, 12127671302, 12127681415
GTIN/UPC	789102353923, 826732923932, 766194521850, 700358850240, 642213006921, 03165143353226

## OFFICIAL PRODUCT VIDEO

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Watch this official video from Bosch for more information on Bosch spark plugs and their benefits.

Your browser does not support the video tag.

Video: Bosch Spark Plugs for your vehicle. This video provides an overview of Bosch spark plugs and their application in vehicles.

## WARRANTY AND SUPPORT

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For warranty information, technical support, or further inquiries regarding your Bosch YR6LDE Spark Plug, please refer to the official Bosch Automotive website or contact Bosch customer service directly. Keep your purchase receipt for warranty claims.

You can visit the official Bosch Automotive website for more details:[Bosch Auto Parts](#)