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> Champion Copper Plus 406 (RV12YC) Spark Plug Instruction Manual

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Model: 406 (RV12YC)



Image: Champion Automotive Spark Plugs. This banner illustrates the product category.

1. INTRODUCTION AND PRODUCT OVERVIEW

The Champion Copper Plus 406 (RV12YC) spark plug is engineered for dependable performance and durability in various automotive applications, including 1970-1997 Chevrolet C1500 and K1500 models. This spark plug features a copper core center electrode, which provides precise control over the heat range, contributing to a longer service life and consistent engine operation. It is designed to inhibit corrosion and is manufactured to meet ISO and SAE standards, ensuring proven performance and reliability.

This manual provides essential information for the correct installation, operation, and maintenance of your Champion Copper Plus 406 spark plugs.



Image: Champion Copper Plus 406 Spark Plug, Carton of 1. This image displays the packaging for a single Champion Copper Plus 406 spark plug.

2. INSTALLATION INSTRUCTIONS

Proper installation is critical for the optimal performance and longevity of your spark plugs. Always refer to your vehicle's service manual for specific torque specifications and procedures.



Image: Spark Plug Installation Tips. This diagram illustrates key steps for correct spark plug installation, including gap verification, thread cleaning, and tightening procedures for both gasket and taper seat plugs.

- 1. Verify Gap:** Before installation, ensure the spark plug gap is correct for your engine. Use a gapping tool to adjust the gap if necessary. Refer to your vehicle's manufacturer specifications for the precise gap setting.

2. **Clean Threads:** Make sure the spark plug hole and threads are free of dirt, debris, and old gasket material. Clean threads prevent cross-threading and ensure proper seating.

3. **Tightening the Spark Plugs:**

- **Gasket Seat Plugs:** For new spark plugs with a gasket, hand-tighten until the gasket makes contact with the cylinder head. Then, tighten an additional 1/2 to 2/3 turn clockwise (approximately 12 to 3 o'clock position).
- **Taper Seat Plugs:** For new spark plugs with a taper seat (no gasket), hand-tighten until the plug seats. Then, tighten an additional 1/16 to 1/8 turn clockwise (approximately 12 to 2 o'clock position).

Always use a torque wrench to achieve the manufacturer's specified torque settings to prevent overtightening or undertightening, which can lead to damage or poor performance.

3. OPERATING PRINCIPLES

The Champion Copper Plus 406 spark plug functions by delivering an electrical spark to ignite the air-fuel mixture within the engine's combustion chamber. The copper core electrode enhances conductivity, allowing for efficient heat transfer and maintaining optimal operating temperatures. This controlled ignition process is essential for smooth engine operation, fuel efficiency, and reduced emissions.

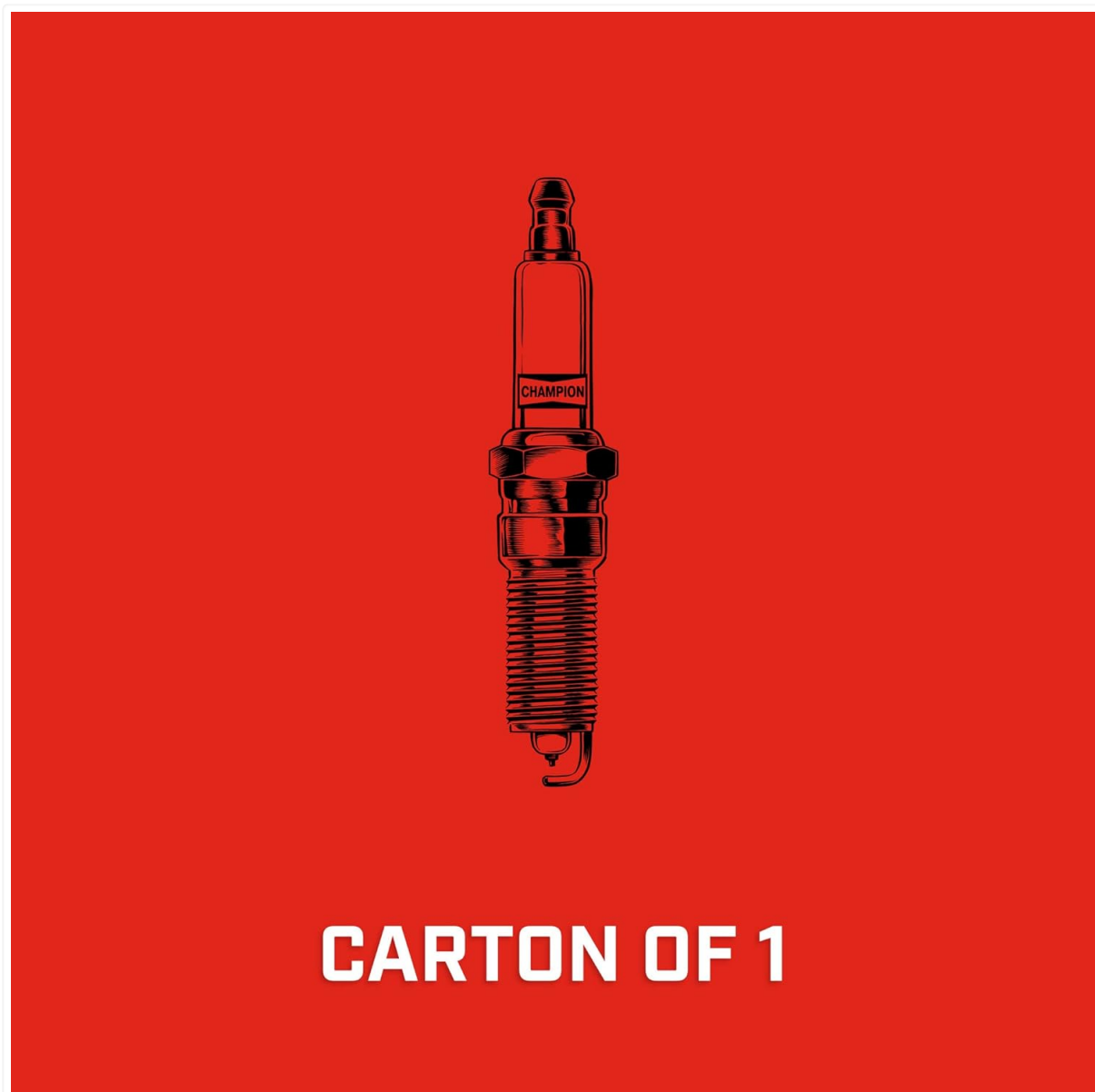


Image: Close-up of Champion Copper Plus 406 Spark Plug. This image provides a detailed view of the spark plug's construction.

4. MAINTENANCE AND REPLACEMENT

Regular inspection and timely replacement of spark plugs are vital for maintaining engine health and performance. While Champion Copper Plus spark plugs are designed for durability, they are wear items.

- **Inspection:** Periodically inspect spark plugs for signs of wear, fouling, or damage. Look for excessive electrode wear, carbon deposits, oil fouling, or blistering.
- **Replacement Interval:** Consult your vehicle's owner's manual for recommended spark plug replacement intervals. These intervals can vary significantly based on engine type and driving conditions. Replacing spark plugs at recommended intervals helps prevent misfires, poor fuel economy, and potential engine damage.
- **Proper Tools:** Always use appropriate spark plug sockets and torque wrenches during removal and installation to avoid damaging the spark plugs or cylinder head threads.

5. TROUBLESHOOTING COMMON ISSUES

While spark plugs are generally reliable, certain symptoms can indicate a need for inspection or replacement:

- **Engine Misfires or Rough Idling:** A worn or fouled spark plug can cause an engine cylinder to misfire, leading to rough idling or hesitation during acceleration.
- **Reduced Fuel Economy:** Inefficient combustion due to old spark plugs can lead to increased fuel consumption.
- **Difficulty Starting:** Weak or inconsistent spark can make the engine harder to start, especially in cold weather.
- **Loss of Power:** An engine with failing spark plugs may experience a noticeable decrease in power and acceleration.

If you experience any of these symptoms, it is advisable to have your spark plugs and ignition system checked by a qualified mechanic.

6. SPECIFICATIONS

Key specifications for the Champion Copper Plus 406 (RV12YC) spark plug:

Feature	Detail
Brand	Champion
Model Number	406 (RV12YC)
Core Material	Copper
Top Material Type	Metal
Vehicle Service Type	Truck (Universal Fit)
Item Weight	0.88 ounces
Product Dimensions	4 x 1 x 1 inches
OEM Part Number	CCH406
UPC	037551000203

7. WARRANTY AND SUPPORT

Information regarding specific warranty terms for the Champion Copper Plus 406 (RV12YC) spark plug is not provided in this document. For warranty details or technical support, please refer to the official Champion product website or contact Champion customer service directly. Always retain your proof of purchase for any warranty claims.