

NGK 48058

NGK Ignition Coil U3007 (Model 48058) Instruction Manual

Comprehensive guide for installation, maintenance, and troubleshooting.

1. PRODUCT OVERVIEW

The NGK Ignition Coil U3007, Model 48058, is a critical component in your vehicle's ignition system. It is responsible for transforming the low voltage from the vehicle's battery into the high voltage required to create a spark at the spark plugs, igniting the fuel-air mixture in the engine's cylinders. This ensures efficient engine operation and optimal fuel combustion.



Figure 1: Front view of the NGK Ignition Coil U3007 (Model 48058). This image displays the main body of the ignition coil, including its electrical connectors and the high-voltage output terminals.

2. SAFETY INFORMATION

Always prioritize safety when working on your vehicle's electrical system. Failure to follow these safety guidelines can result in serious injury or damage to the vehicle.

- **Disconnect Battery:** Before beginning any work, always disconnect the vehicle's negative battery terminal to prevent accidental electrical discharge.
- **Wear Protective Gear:** Use appropriate personal protective equipment, including safety glasses and gloves.
- **High Voltage Warning:** Ignition coils generate extremely high voltage. Avoid contact with the coil or spark plug wires when the engine is running or the ignition is on.
- **Cool Engine:** Ensure the engine is cool before handling components to prevent burns.
- **Professional Installation Recommended:** If you are unsure about any step, it is highly recommended to seek assistance from a qualified automotive technician.

3. PACKAGE CONTENTS

Upon opening the package, verify that all components are present and undamaged.

- 1 x NGK Ignition Coil U3007 (Model 48058)
- (Additional components may vary by specific vehicle application or kit. Refer to your vehicle's service manual for exact requirements.)

4. INSTALLATION / SETUP

The following steps provide a general guide for replacing an ignition coil. Specific procedures may vary depending on your vehicle's make and model. Always consult your vehicle's service manual for detailed instructions.

1. **Prepare Vehicle:** Park the vehicle on a level surface, engage the parking brake, and ensure the engine is off and cool. Disconnect the negative terminal of the battery.
2. **Locate Ignition Coils:** Identify the location of the ignition coils. They are typically mounted directly on top of the spark plugs (coil-on-plug system) or in a coil pack assembly.
3. **Disconnect Electrical Connector:** Carefully disconnect the electrical connector from the old ignition coil. Press any release tabs or clips as necessary.
4. **Remove Fasteners:** Remove any bolts or screws securing the ignition coil to the engine or valve cover.
5. **Remove Old Coil:** Gently pull the old ignition coil straight up and out. If it's a coil-on-plug design, it may be seated firmly on the spark plug.
6. **Inspect Spark Plug Well:** Inspect the spark plug well for any debris, oil, or moisture. Clean if necessary.
7. **Install New Coil:** Insert the new NGK Ignition Coil U3007 into position, ensuring it seats properly over the spark plug (if applicable).
8. **Secure Coil:** Reinstall any fasteners removed in step 4 and tighten them to the manufacturer's specifications.
9. **Reconnect Electrical Connector:** Reconnect the electrical connector to the new ignition coil, ensuring it clicks securely into place.
10. **Reconnect Battery:** Reconnect the negative battery terminal.
11. **Test Operation:** Start the engine and check for proper operation. Listen for any misfires or unusual engine behavior.

Note: Some vehicles may require an ECU (Engine Control Unit) reset or relearn procedure after replacing ignition components. Consult your vehicle's service manual for specific requirements.

5. OPERATION

Once correctly installed, the NGK Ignition Coil U3007 operates automatically as part of your vehicle's engine management system. It receives signals from the engine control unit (ECU) to generate high voltage at the precise moment required for spark plug firing, ensuring optimal engine performance and fuel efficiency.

6. MAINTENANCE

Ignition coils are generally maintenance-free components. However, regular inspection during routine

vehicle servicing can help identify potential issues early.

- **Visual Inspection:** Periodically check the ignition coil and its connectors for any signs of cracking, corrosion, or damage.
- **Spark Plug Condition:** Ensure spark plugs are replaced according to the vehicle manufacturer's recommended intervals. Worn spark plugs can put additional strain on ignition coils.
- **Wiring Integrity:** Check the wiring harness connected to the coil for fraying or damage.

7. TROUBLESHOOTING

If you experience engine performance issues, a faulty ignition coil could be a contributing factor. Common symptoms include:

- **Engine Misfires:** The engine may run rough, especially during acceleration.
- **Reduced Fuel Economy:** Inefficient combustion can lead to increased fuel consumption.
- **Check Engine Light:** The "Check Engine" light may illuminate, often accompanied by specific diagnostic trouble codes (DTCs) related to ignition system faults.
- **Rough Idling:** The engine may shake or vibrate excessively at idle.
- **Difficulty Starting:** The engine may crank but fail to start, or start with difficulty.

If you suspect a faulty ignition coil, it is recommended to have your vehicle diagnosed by a qualified technician using appropriate diagnostic tools.

8. SPECIFICATIONS

Feature	Detail
Brand	NGK
Model Number	48058 (U3007)
Product Dimensions (L x W x H)	10 x 9 x 9.2 cm
Item Weight	457 g (0.46 kg)
Manufacturer Part Number	48058
OEM Part Numbers	70863021, 708630215, 7700863021, 7701041608

9. WARRANTY AND SUPPORT

For warranty information or technical support regarding your NGK Ignition Coil U3007 (Model 48058), please refer to the official NGK website or contact their customer service directly. Keep your purchase receipt as proof of purchase for any warranty claims.

For general automotive advice or to find a certified technician, you may consult reputable automotive resources or local service centers.