Bosch 13138

BOSCH 13138 Premium OE Fitment Oxygen Sensor Instruction Manual

Model: 13138 | Brand: Bosch

Introduction

This manual provides essential information for the proper installation, operation, and maintenance of your BOSCH 13138 Premium OE Fitment Oxygen Sensor. Oxygen sensors are critical components in your vehicle's emission control system, monitoring the oxygen content in the exhaust gases to help the engine control unit (ECU) optimize fuel combustion. Proper functioning of the oxygen sensor ensures efficient engine performance, reduced emissions, and optimal fuel economy.

Safety Information

Always prioritize safety when working on your vehicle. Failure to follow safety precautions can result in personal injury or damage to the vehicle.

- Ensure the vehicle is turned off, cooled down, and properly supported on jack stands before beginning any work.
- Disconnect the vehicle's battery to prevent electrical hazards.
- Wear appropriate personal protective equipment, including safety glasses and gloves.
- Refer to your vehicle's service manual for specific instructions and torque specifications.
- Exhaust components can be extremely hot. Allow sufficient time for the exhaust system to cool before handling.
- Exercise caution when handling electrical connectors to avoid damage.

Proposition 65 Warning:
This product may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit www.P65Warnings.ca.gov.

Product Overview

The BOSCH 13138 Oxygen Sensor is engineered for superior performance and durability. Key features include:

- **Innovative Technology:** Benefits from decades of Bosch's experience in oxygen sensor production, ensuring long-lasting, superior performance.
- **Factory Tested:** Each sensor undergoes 100% functional quality testing to meet Bosch's rigorous standards.
- **Stainless Steel Body:** Features an exclusive double laser-welded stainless steel body, fully submersible and sealed to protect against exhaust emission damage, extending service life.
- **Fast-Acting Heater:** Optimizes sensor operation on Planar and 3, 4, and 5 wire Thimble type sensors, allowing it to

reach operating temperature quickly for optimal performance.

- **Ready to Install:** Equipped with true Direct-fit OE connectors and harnesses, and threads pre-coated with anti-seize compound for simple, hassle-free installation.



Figure 1: BOSCH 13138 Premium OE Fitment Oxygen Sensor.

This image displays the complete BOSCH 13138 oxygen sensor, highlighting its robust construction and integrated wiring harness with the OE-style connector. The sensor tip, designed for accurate exhaust gas measurement, is visible at one end, while the electrical connector is at the other.

What's in the Box

- 1 x BOSCH 13138 Premium OE Fitment Oxygen Sensor

Compatibility

The BOSCH 13138 Oxygen Sensor is compatible with select vehicles. Always verify specific fitment details, including sensor position (upstream or downstream), using a vehicle fitment checker or your vehicle's service manual.

Compatible Vehicle Models:

- **CHRYSLER:** 2001-04 Concorde, 2001-04 Intrepid, 2001 LHS, 2001-04 Sebring, 2001-04 300M
- **DODGE:** 1996-97 B1500, 1996-97 B2500, 1996-97 B3500, 1997-00 Dakota, 1998-00 Durango, 2001-04 Intrepid, 2001-04 Stratus
- **JEEP:** 1996-01 Cherokee, 1994-00 Grand Cherokee, 1997-00 TJ, 1997-00 Wrangler

Setup and Installation

Proper installation is crucial for the optimal performance and longevity of your oxygen sensor. If you are unsure about any step, consult a qualified automotive technician.

Tools and Materials Required:

- Oxygen sensor socket or wrench (typically 7/8 inch or 22mm)
- Ratchet and extension
- Torque wrench
- Anti-seize compound (if not pre-applied)
- Safety glasses and gloves
- Vehicle jack and jack stands

Installation Steps:

1. **Prepare the Vehicle:** Park the vehicle on a level surface, engage the parking brake, and allow the engine and exhaust system to cool completely. Raise the vehicle using a jack and secure it with jack stands. Disconnect the negative terminal of the battery.
2. **Locate the Old Sensor:** Identify the oxygen sensor(s) to be replaced. Refer to your vehicle's service manual for exact locations (upstream sensors are typically before the catalytic converter, downstream sensors are after).
3. **Disconnect Electrical Connector:** Carefully disconnect the electrical connector from the old oxygen sensor. Avoid pulling directly on the wires.
4. **Remove Old Sensor:** Use an oxygen sensor socket or wrench to loosen and remove the old sensor. It may be tight due to heat and corrosion.
5. **Prepare New Sensor:** The BOSCH 13138 sensor comes with anti-seize compound pre-applied to the threads. If not, apply a thin layer of high-temperature anti-seize compound to the threads of the new sensor, being careful not to get any on the sensor tip.
6. **Install New Sensor:** Thread the new oxygen sensor into the exhaust bung by hand to prevent cross-threading. Once hand-tight, use the oxygen sensor socket or wrench to tighten it to the manufacturer's specified torque.
7. **Connect Electrical Connector:** Reconnect the electrical connector to the new oxygen sensor, ensuring it clicks securely into place.
8. **Final Steps:** Reconnect the negative battery terminal. Lower the vehicle. Start the engine and check for any exhaust leaks or illuminated check engine lights.



Figure 2: Close-up of BOSCH 13138 Oxygen Sensor connector and tip.

This image provides a detailed view of the BOSCH 13138 oxygen sensor's electrical connector and the sensor tip. The connector is designed for direct fitment, ensuring a secure and reliable electrical connection. The sensor tip is the active element that measures oxygen levels in the exhaust.

Operating Principles

The BOSCH 13138 Oxygen Sensor functions by generating a voltage signal that varies with the oxygen content in the exhaust gas. This signal is sent to the vehicle's ECU. The ECU uses this information to adjust the air-fuel mixture, ensuring optimal combustion. A properly functioning oxygen sensor helps maintain the correct air-fuel ratio, which is essential for engine efficiency, reduced harmful emissions, and preventing damage to the catalytic converter.

Maintenance

Oxygen sensors are wear-and-tear items and require periodic replacement to maintain optimal vehicle performance and emissions compliance. Vehicle manufacturers typically recommend replacement intervals, which should be followed diligently.

- **Recommended Replacement:** Replace oxygen sensors at the intervals suggested by your vehicle manufacturer. This is typically between 80,000 to 100,000 miles, but can vary.
- **Benefits of Timely Replacement:**
  - Prevents long-term damage to the vehicle's engine.
  - Reduces harmful carbon dioxide (CO2) emissions.
  - Improves fuel economy, saving money on refueling.
  - Ensures accurate engine diagnostics and prevents false "Check Engine" light illumination.

Troubleshooting

If you experience issues after installing or while using your oxygen sensor, consider the following common troubleshooting steps:

- **Check Engine Light (CEL) On:** If the CEL illuminates, retrieve the diagnostic trouble codes (DTCs) using an OBD-II scanner. Codes related to oxygen sensors (e.g., P0130-P0167) indicate a potential issue.
- **Poor Fuel Economy:** A faulty oxygen sensor can cause the engine to run rich or lean, leading to decreased fuel efficiency.
- **Rough Idling or Stalling:** Incorrect air-fuel mixture due to a malfunctioning sensor can cause engine instability.
- **Failed Emissions Test:** An oxygen sensor that is not reporting correctly can lead to increased emissions and failure

of vehicle inspections.

- **Installation Check:** Verify that the sensor is securely tightened, the electrical connector is fully seated, and there are no damaged wires.
- **Professional Diagnosis:** If issues persist, it is recommended to have the vehicle diagnosed by a professional technician.

Specifications

Specification	Detail
Brand	Bosch
Model Number	13138
Item Weight	4 ounces (0.25 Pounds)
Product Dimensions	2.2 x 1.97 x 5.83 inches
Material	Stainless Steel
Style	Oxygen Sensor
Measurement Accuracy	±1%
Mounting Type	Flange Mount
Output Type	Electrical Signal
Response Time	5 seconds
UPC	028851131384
Manufacturer Part Number	13138
OEM Part Number	56041344AD

Warranty and Support

For warranty information and customer support, please refer to the official Bosch Automotive website or contact their customer service directly. Keep your purchase receipt as proof of purchase for any warranty claims.
Online Resources: For additional product information, technical specifications, and support, visit the Bosch Automotive website.
Contact Information: Refer to the product packaging or the official Bosch Automotive website for the most current customer support contact details.

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Example: How do I reset this device or fix this error?

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