Chrysler 5149077AB

Chrysler Genuine 5149077AB Coolant Temperature Sensor

INSTRUCTION MANUAL

1. Introduction

This manual provides essential information for the proper installation, operation, and maintenance of your Chrysler Genuine 5149077AB Coolant Temperature Sensor. This sensor is a critical component of your vehicle's engine management system, responsible for accurately measuring the engine coolant temperature and relaying this data to the Engine Control Unit (ECU).

Accurate temperature readings are vital for optimal engine performance, fuel efficiency, and emissions control. Please read these instructions carefully before proceeding with installation or any related procedures.

2. Setup and Installation

Installing a coolant temperature sensor requires careful attention to detail and adherence to safety protocols. If you are not comfortable performing this procedure, it is recommended to seek assistance from a qualified automotive technician.

Safety Precautions:

- Ensure the vehicle's engine is completely cool before beginning any work.
- Disconnect the negative terminal of the vehicle's battery to prevent electrical hazards.
- Wear appropriate personal protective equipment, including gloves and eye protection.
- Have a drain pan ready to collect any coolant that may spill.

Installation Steps:

1. **Locate the Sensor:** Identify the location of the existing coolant temperature sensor in your vehicle. Consult your vehicle's service manual for the exact position.
2. **Drain Coolant:** Partially drain the engine coolant to a level below the sensor's location.
3. **Disconnect Wiring:** Carefully disconnect the electrical connector from the old sensor.
4. **Remove Old Sensor:** Using an appropriate wrench, unscrew and remove the old coolant temperature sensor. Be prepared for some coolant spillage.
5. **Prepare New Sensor:** The Chrysler Genuine 5149077AB sensor typically comes with pre-applied thread

sealant. Ensure the threads are clean and the sealant is intact.

6. **Install New Sensor:** Carefully thread the new sensor into its port by hand to avoid cross-threading. Tighten it with a wrench to the manufacturer's specified torque. Do not overtighten.
7. **Reconnect Wiring:** Reconnect the electrical connector to the new sensor, ensuring a secure connection.
8. **Refill Coolant:** Refill the cooling system with the appropriate type and amount of coolant, following your vehicle's specifications. Bleed any air from the system as required.
9. **Reconnect Battery:** Reconnect the negative battery terminal.
10. **Check for Leaks:** Start the engine and allow it to reach operating temperature. Carefully inspect the sensor area for any coolant leaks. Monitor the temperature gauge for proper operation.

For vehicle-specific instructions, always refer to your vehicle's official service manual.



Figure 1: Overview of the Chrysler Genuine 5149077AB Coolant Temperature Sensor, showing the brass body and electrical connector.



Figure 2: Close-up view of the electrical connector on the Chrysler Genuine 5149077AB Coolant Temperature Sensor.

3. Operating Principles

The Chrysler Genuine 5149077AB Coolant Temperature Sensor functions as a thermistor, meaning its electrical resistance changes in response to temperature variations. As the engine coolant heats up, the sensor's resistance decreases, and as it cools down, the resistance increases.

The ECU uses this resistance data to determine the engine's operating temperature. This information is crucial for:

- Adjusting fuel injection timing and duration.

- Controlling ignition timing.
- Operating the cooling fan.
- Providing temperature readings to the dashboard gauge.

A properly functioning sensor ensures the engine operates within its optimal temperature range, preventing overheating or running too cold, both of which can lead to damage or reduced efficiency.

4. Maintenance

The Chrysler Genuine 5149077AB Coolant Temperature Sensor is a sealed unit and is not designed for user maintenance or repair. Its lifespan is generally long, but it can fail due to age, corrosion, or electrical issues.

Regular maintenance of your vehicle's cooling system, including periodic coolant flushes and checks for leaks, can help ensure the longevity and accurate operation of the sensor. If the sensor is suspected to be faulty, replacement is the recommended course of action.

5. Troubleshooting

A malfunctioning coolant temperature sensor can lead to various engine performance issues. Below are common symptoms and basic troubleshooting steps:

Common Symptoms of a Faulty Sensor:

- **Check Engine Light (CEL):** Often accompanied by diagnostic trouble codes (DTCs) such as P0128 (Coolant Thermostat (Coolant Temperature Below Thermostat Regulating Temperature)).
- **Inaccurate Temperature Gauge:** The dashboard temperature gauge may show readings that are consistently too high, too low, or erratic.
- **Poor Fuel Economy:** The ECU may receive incorrect temperature data, leading to an overly rich or lean fuel mixture.
- **Engine Performance Issues:** Difficulty starting, rough idling, or reduced power, especially when the engine is cold.
- **Cooling Fan Malfunction:** The cooling fan may run constantly or not at all, regardless of engine temperature.

Basic Troubleshooting Steps:

1. **Visual Inspection:** Check the sensor and its wiring for any visible damage, corrosion, or loose connections.
2. **Electrical Connector:** Ensure the electrical connector is securely attached and free of debris.
3. **Coolant Level:** Verify that the coolant level in the reservoir and radiator is correct. Low coolant can affect sensor readings.
4. **Diagnostic Scan:** Use an OBD-II scanner to retrieve any stored DTCs. This can help pinpoint the issue.

If symptoms persist after these basic checks, it is recommended to consult a professional automotive technician for a thorough diagnosis and repair.

6. Specifications

The following are technical specifications for the Chrysler Genuine 5149077AB Coolant Temperature Sensor:

Specification	Detail
Part Number	5149077AB

Specification	Detail
Brand	Chrysler
Material	Aluminum, Stainless Steel
Item Weight	0.02 Pounds (approx. 0.352 ounces)
Measuring Range	150 to 230 degrees Fahrenheit
Mounting Type	Flange Mount
Output Type	Analog
Specific Uses For Product	Temperature Sensing
UPC	635322943836
Package Dimensions	5.43 x 5.43 x 0.79 inches



Figure 3: Size reference for the Chrysler Genuine 5149077AB Coolant Temperature Sensor, indicating approximate dimensions.

7. Warranty Information

Specific warranty details for the Chrysler Genuine 5149077AB Coolant Temperature Sensor are typically provided by the manufacturer or the authorized seller at the time of purchase. Please retain your proof of purchase and refer to any documentation included with your product for warranty terms and conditions. For further inquiries, contact the point of sale or Chrysler customer service.

8. Support

For technical assistance, installation guidance, or troubleshooting beyond the scope of this manual, please contact your authorized Chrysler service center or the seller from whom you purchased this product. When contacting support, please have your vehicle information and the sensor's part number (5149077AB) readily available.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

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

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question