ACCEL 59124

ACCEL 59124 Distributor - Performance Replacement Opti-Spark I User Manual

Brand: ACCEL | **Model:** 59124

Product Overview

The ACCEL 59124 Distributor is a performance replacement unit designed for GM Opti-Spark I systems. This component is crucial for the ignition system, ensuring precise timing and reliable spark delivery to the engine's cylinders.

Key Features:

- Cast aluminum housing with precision bearing for durability and accurate operation.
- Epoxy overmold with brass terminals for enhanced insulation and conductivity.
- Rotor is balanced with a brass blade and stainless steel spring for consistent performance.
- Compatible with high output CD ignition systems, offering versatility.
- Features a spline drive for secure fitment.

Installation Guide

Installation of the ACCEL 59124 Distributor requires mechanical aptitude and specific tools. It is highly recommended that installation be performed by a qualified automotive technician to ensure proper function and avoid damage to the component or vehicle.

General Installation Steps (Consult Vehicle Service Manual for Specifics):

1. **Safety First:** Disconnect the vehicle's battery before beginning any work. Ensure the engine is cool.
2. **Access:** Locate the existing distributor. Depending on the vehicle model, this may require removing other components such as the water pump or power steering pump.
3. **Marking Position:** Before removal, carefully mark the position of the rotor and the distributor housing relative to the engine block. This is critical for correct timing upon reinstallation.
4. **Disconnect Wiring:** Disconnect all electrical connectors and vacuum lines attached to the old distributor.
5. **Remove Old Distributor:** Unbolt and carefully remove the old distributor. Be mindful of any seals or O-rings.
6. **Install New Distributor:** Apply a thin coat of clean engine oil to the new distributor's O-ring. Align the new ACCEL 59124 distributor with the marks made earlier and carefully insert it into the engine block. Ensure the gear meshes

correctly with the camshaft.

7. **Secure and Connect:** Bolt the new distributor into place. Reconnect all electrical connectors and vacuum lines.
8. **Timing Adjustment:** After installation, the engine timing must be checked and adjusted according to the vehicle manufacturer's specifications using appropriate diagnostic tools.
9. **Final Checks:** Reconnect the battery. Start the engine and check for proper operation, ensuring no warning lights are illuminated and the engine runs smoothly.

Image 1: Top view of the ACCEL 59124 Distributor, showing the branding and spark plug wire connections. This view highlights the overall compact design and the arrangement of the high-voltage terminals.

Image 2: Bottom view of the ACCEL 59124 Distributor, revealing the cast aluminum housing, precision bearing, and the spline drive mechanism. This perspective shows the critical components for mechanical engagement with the engine.

Operating Principles

The ACCEL 59124 Distributor functions as a critical component in the vehicle's ignition system. Once installed and properly timed, it works in conjunction with the engine's computer (ECM/PCM) to precisely distribute high-voltage electricity from the ignition coil to the correct spark plug at the optimal moment for combustion. Its design ensures reliable signal generation for the engine's electronic control unit, which then manages fuel delivery and ignition timing.
This unit is engineered to be compatible with high-output capacitive discharge (CD) ignition systems, allowing for improved spark energy and combustion efficiency, particularly beneficial in performance applications.

Maintenance

The ACCEL 59124 Distributor is designed for long-term, maintenance-free operation under normal conditions. However, periodic inspection can help identify potential issues before they become critical.

- **Visual Inspection:** Periodically check the distributor for any signs of physical damage, cracks in the housing, or loose connections. Ensure all electrical terminals are clean and free of corrosion.
- **Wiring Integrity:** Inspect the wiring harness connected to the distributor for fraying, cuts, or heat damage.

- **Environmental Factors:** Keep the area around the distributor clean and free from excessive oil, dirt, or moisture, which can degrade performance over time.
- **Professional Check:** If you experience any ignition-related issues, it is advisable to have the system, including the distributor, inspected by a qualified technician.

Troubleshooting

If you encounter issues after installing or while using the ACCEL 59124 Distributor, consider the following common troubleshooting steps. Always consult a professional mechanic if you are unsure about any diagnostic or repair procedures.

- **Engine Misfires or Rough Idling:**
  - Check spark plug wires for proper connection and damage.
  - Verify engine timing is set correctly. Incorrect timing is a common cause of poor engine performance.
  - Inspect the distributor cap and rotor for wear or carbon tracking.
- **No Start Condition:**
  - Ensure all electrical connections to the distributor are secure and clean.
  - Confirm the ignition coil is functioning correctly and receiving power.
  - Check for diagnostic trouble codes (DTCs) using an OBD-II scanner, which may indicate a sensor or module issue related to ignition.
- **Intermittent Engine Stalling:**
  - This could indicate an intermittent electrical connection or a failing internal component. Professional diagnosis is recommended.
  - Check for signs of moisture intrusion into the distributor, especially after washing the engine or driving in wet conditions.

Note: Due to the complexity of modern ignition systems, advanced diagnostics may be required for accurate troubleshooting.

Product Specifications

Brand	ACCEL
Model Name	ACCEL 59124 Distributor - Performance Replacement GM Opti-Spark I
Part Number	59124
Color	Black
Material	Aluminum, Brass
Exterior Finish	Machined
Item Dimensions (L x W x H)	10.8 x 9.7 x 4.4 inches
Package Weight	1.4 Kilograms

Vehicle Service Type	Car, Truck
UPC	743047107454

Warranty Information

The ACCEL 59124 Distributor comes with a manufacturer's warranty. For detailed information regarding the terms, conditions, and duration of the warranty, please refer to the official ACCEL website or contact ACCEL customer support directly. Keep your purchase receipt as proof of purchase for any warranty claims.

Customer Support

For technical assistance, installation questions, or warranty inquiries regarding your ACCEL 59124 Distributor, please contact ACCEL customer support. You can typically find contact information, including phone numbers and email addresses, on the official ACCEL website (www.accel-ignition.com - *Note: This is a placeholder URL, please verify the actual official website for ACCEL products*).
When contacting support, please have your product model number (59124) and purchase details readily available.

Safety Information

CALIFORNIA WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.
Always wear appropriate personal protective equipment (PPE) such as safety glasses and gloves when handling automotive components. Ensure proper ventilation when working in enclosed spaces.

Ask a question about this manual

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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.

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