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Standard Motor Products SC403

Standard Motor Products SC403 Transmission Speed Sensor User Manual

Model: SC403 | Brand: Standard Motor Products

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your Standard Motor Products SC403 Transmission Speed Sensor. This sensor is a critical component designed for accurate vehicle speed measurement within the transmission system.

What's in the Box

- Standard Motor Products SC403 Transmission Speed Sensor (1 unit)



Figure 1: The Standard Motor Products SC403 Transmission Speed Sensor. This image shows the compact black sensor unit, featuring a threaded cylindrical end for connection and an integrated electrical connector housing.

2. PRODUCT OVERVIEW

The SC403 Transmission Speed Sensor is engineered to meet or exceed OEM specifications, ensuring reliable performance and accurate data transmission to your vehicle's control systems. It is designed for vehicle-specific fitment.

Key Features

- Accurate speed signal generation
- Durable construction for automotive environments
- Vehicle-specific fitment for ease of installation
- Manufactured in the United States

3. INSTALLATION GUIDE

Important: Installation of automotive components should ideally be performed by a qualified technician. Incorrect installation can lead to vehicle malfunction or damage. Always refer to your vehicle's specific service manual for detailed instructions and safety precautions.

Safety Precautions

- Ensure the vehicle is turned off and the battery is disconnected before beginning any work.
- Wear appropriate personal protective equipment (PPE), such as safety glasses and gloves.
- Allow hot engine or transmission components to cool down before handling.

General Installation Steps

1. **Locate the Old Sensor:** Identify the existing transmission speed sensor on your vehicle. Its location varies by make and model, but it is typically found on the transmission housing.
2. **Disconnect Wiring:** Carefully disconnect the electrical connector from the old sensor.
3. **Remove Old Sensor:** Use the appropriate wrench or socket to loosen and remove the old sensor from its mounting point. Be prepared for a small amount of transmission fluid to leak out.
4. **Inspect Mounting Area:** Clean the mounting surface to ensure a proper seal for the new sensor.
5. **Install New Sensor:** Insert the new Standard Motor Products SC403 sensor into the opening. Hand-tighten first, then use a wrench to tighten to the manufacturer's specified torque (refer to vehicle service manual). Do not overtighten.
6. **Reconnect Wiring:** Reconnect the electrical connector to the new sensor, ensuring it clicks securely into place.
7. **Reconnect Battery:** Reconnect the vehicle's battery.
8. **Test Operation:** Start the vehicle and check for proper operation of the speedometer and any related warning lights. Perform a test drive to confirm functionality.

4. OPERATION

The Standard Motor Products SC403 Transmission Speed Sensor operates by detecting the rotational speed of a component within the transmission, typically a gear or shaft. It converts this mechanical rotation into an electrical signal that is sent to the vehicle's Engine Control Unit (ECU) or Transmission Control Unit (TCU).

This signal is crucial for various vehicle functions, including:

- Accurate speedometer readings
- Proper transmission shift points
- Anti-lock braking system (ABS) operation
- Cruise control functionality

The sensor is designed to provide a consistent and reliable signal under various operating conditions.

5. MAINTENANCE

Transmission speed sensors are generally maintenance-free components. However, regular vehicle maintenance practices can help ensure their longevity and proper function.

Recommendations:

- **Regular Inspections:** During routine vehicle service, visually inspect the sensor and its wiring for any signs of damage, corrosion, or loose connections.
- **Fluid Leaks:** Address any transmission fluid leaks promptly, as prolonged exposure to fluid or contaminants

can affect sensor performance.

- **Cleanliness:** Keep the area around the sensor free from excessive dirt, debris, or metallic particles, which could interfere with its operation.

Do not attempt to disassemble or repair the sensor. If a malfunction is suspected, replacement is typically the recommended course of action.

6. TROUBLESHOOTING

If you experience issues that you suspect are related to the transmission speed sensor, consider the following common symptoms and potential causes. Always consult a qualified mechanic for accurate diagnosis and repair.

Symptom	Possible Cause	Action
Inaccurate or erratic speedometer readings	Faulty speed sensor, wiring issue, or ECU problem.	Check sensor connection. Consult a mechanic for diagnostic scan.
Harsh or incorrect transmission shifting	Sensor providing incorrect speed data to TCU.	Verify sensor integrity and wiring. Professional diagnosis recommended.
Check Engine Light (CEL) illuminated with speed sensor related codes (e.g., P0500)	Sensor failure, circuit open/short, or mechanical issue.	Retrieve diagnostic trouble codes (DTCs). Inspect sensor and wiring.
Cruise control not working	Lack of accurate speed signal.	Check sensor and related circuits.

If troubleshooting steps do not resolve the issue, it is recommended to seek professional automotive diagnostic services.

7. SPECIFICATIONS

Brand	Standard Motor Products
Model Number	SC403
Part Number	SC403
UPC	025623549637
Item Dimensions (L x W x H)	2 x 1.44 x 3.38 inches
Item Weight	15 Ounces (0.227 pounds package weight)
Mounting Type	Flange Mount
Output Type	Push Button (refers to signal type, not physical button)
Specific Uses For Product	Speed measurement in automotive transmissions
Country of Origin	United States

8. WARRANTY INFORMATION

Standard Motor Products, Inc. stands behind the quality of its products. For specific warranty terms and conditions applicable to the SC403 Transmission Speed Sensor, please refer to the warranty documentation included with your purchase or visit the official Standard Motor Products website. Warranty coverage typically addresses defects in material and workmanship under normal use and service.

Please retain your proof of purchase for any warranty claims.

9. CUSTOMER SUPPORT

Should you have any questions regarding the Standard Motor Products SC403 Transmission Speed Sensor, or require technical assistance, please contact Standard Motor Products customer support. Contact information can typically be found on their official website or on the product packaging.

For the most up-to-date contact details and support resources, please visit: www.smpcorp.com