

## Standard Motor Products SC395

# Standard Motor Products SC395 ABS Wheel Speed Sensor User Manual

## 1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your Standard Motor Products SC395 ABS Wheel Speed Sensor. Please read this manual thoroughly before attempting any installation or service to ensure safe and correct usage. The SC395 is designed to accurately monitor wheel speed, a critical input for the Anti-lock Braking System (ABS) and other vehicle control systems.

## 2. SAFETY INFORMATION

- **Professional Installation Recommended:** Installation of automotive components, especially those related to braking systems, should ideally be performed by a qualified technician.
- **Disconnect Battery:** Always disconnect the vehicle's battery before beginning any electrical work to prevent electrical shock or damage to components.
- **Wear Protective Gear:** Use appropriate personal protective equipment, including safety glasses and gloves, during installation.
- **Vehicle Support:** Ensure the vehicle is securely supported on jack stands if lifted. Never work under a vehicle supported only by a jack.
- **Consult Vehicle Service Manual:** Refer to your specific vehicle's service manual for detailed instructions and torque specifications relevant to ABS sensor replacement.

## 3. PACKAGE CONTENTS

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

- 1 x Standard Motor Products SC395 ABS Wheel Speed Sensor

If any items are missing or damaged, please contact your retailer or Standard Motor Products customer support immediately.

## 4. PRODUCT OVERVIEW

The Standard Motor Products SC395 is an ABS Wheel Speed Sensor designed for precise measurement of wheel rotation speed. This sensor plays a crucial role in the vehicle's Anti-lock Braking System (ABS), Traction Control System (TCS), and Electronic Stability Control (ESC) by providing data to the vehicle's Electronic Control Unit (ECU). Accurate wheel speed data allows these systems to prevent wheel lock-up during braking, reduce wheel spin during acceleration, and maintain vehicle stability during maneuvers.



*Image: The Standard Motor Products SC395 ABS Wheel Speed Sensor, showing its typical form factor with a mounting flange and electrical connector.*

## 5. SETUP AND INSTALLATION

The installation process for an ABS wheel speed sensor can vary significantly depending on the vehicle make and model. The following steps are general guidelines. Always consult your vehicle's specific service manual for detailed instructions.

1. **Prepare the Vehicle:** Park the vehicle on a level surface, engage the parking brake, and disconnect the negative terminal of the battery. If working on a wheel, safely lift the vehicle and secure it with jack stands. Remove the wheel.
2. **Locate the Old Sensor:** Identify the existing ABS wheel speed sensor. It is typically mounted near the wheel hub or knuckle, often with a wire running to the vehicle's wiring harness.
3. **Disconnect Electrical Connector:** Carefully disconnect the electrical connector from the old sensor. Be gentle to avoid damaging the wiring or connector clips.
4. **Remove Old Sensor:** Unbolt or unclip the old sensor from its mounting location. Some sensors may be pressed into place and require careful prying. Note the routing of the sensor wire.
5. **Clean Mounting Area:** Thoroughly clean the sensor mounting surface and the tone ring (if accessible) to ensure proper seating and operation of the new sensor. Remove any rust, dirt, or debris.
6. **Install New Sensor:** Insert the new SC395 sensor into its mounting location. Ensure it is fully seated and properly aligned. Secure it with the retaining bolt or clip, tightening to the vehicle manufacturer's specified torque.
7. **Route Wiring:** Route the new sensor's wiring along the same path as the original, securing it with any clips or ties to prevent chafing or interference with moving parts.
8. **Connect Electrical Connector:** Reconnect the electrical connector, ensuring a secure and tight connection.
9. **Reassemble and Test:** Reinstall the wheel (if removed) and lower the vehicle. Reconnect the battery. Start the vehicle and check for any ABS warning lights. A test drive may be necessary to confirm proper operation and clear any stored fault codes. If the ABS light remains on, further diagnosis may be required.

## 6. OPERATION

Once installed, the Standard Motor Products SC395 ABS Wheel Speed Sensor continuously monitors the rotational speed of the wheel. It generates an electrical signal proportional to the wheel's speed, which is then transmitted to the vehicle's ABS control module. The control module uses this data to:

- **Prevent Wheel Lock-up:** During hard braking, if a wheel begins to lock, the ABS module rapidly modulates brake pressure to that wheel, allowing it to continue rotating and maintaining steering control.
- **Manage Traction:** In conjunction with the Traction Control System (TCS), the sensor helps detect wheel

spin during acceleration, allowing the system to reduce power or apply brakes to regain traction.

- **Enhance Stability:** For vehicles equipped with Electronic Stability Control (ESC), the sensor's data contributes to detecting and correcting skids by selectively applying brakes to individual wheels.

The sensor operates passively or actively, depending on its design, converting mechanical rotation into an electrical signal without direct user intervention after installation.

## 7. MAINTENANCE

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The Standard Motor Products SC395 ABS Wheel Speed Sensor is generally a maintenance-free component. However, periodic inspection can help ensure its longevity and proper function:

- **Visual Inspection:** During routine vehicle service (e.g., tire rotations, brake inspections), visually inspect the sensor and its wiring for any signs of physical damage, corrosion, or fraying.
- **Cleanliness:** Ensure the sensor head and the tone ring (if visible) are free from excessive dirt, rust, or metallic debris, which can interfere with accurate readings. Use a non-abrasive cleaner if necessary.
- **Secure Connections:** Verify that the electrical connector is securely attached and free from moisture or corrosion.
- **Avoid Impact:** Protect the sensor from impacts during other vehicle repairs or maintenance, as physical damage can impair its function.

## 8. TROUBLESHOOTING

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If you experience issues related to your ABS system, such as an illuminated ABS warning light, consider the following troubleshooting steps. Note that advanced diagnostics often require specialized scan tools.

### Common Symptoms:

- ABS warning light illuminated on the dashboard.
- Traction Control System (TCS) or Electronic Stability Control (ESC) warning light illuminated.
- Erratic speedometer readings.
- ABS engaging at low speeds or during normal braking.

### Troubleshooting Steps:

1. **Check for Diagnostic Trouble Codes (DTCs):** Use an OBD-II scanner to retrieve any stored ABS-related fault codes. These codes can pinpoint the specific wheel sensor or circuit experiencing an issue.
2. **Inspect Wiring and Connectors:** Visually inspect the sensor's wiring harness for cuts, chafing, or damage. Ensure all connectors are clean, dry, and securely seated.
3. **Inspect Sensor and Tone Ring:** Check the sensor head for physical damage, excessive dirt, or metallic debris. Inspect the tone ring (if applicable) for broken teeth or excessive rust.
4. **Verify Resistance/Voltage (Advanced):** A multimeter can be used to check the sensor's resistance or output voltage (for active sensors) according to vehicle-specific specifications. This often requires disconnecting the sensor and may need specialized knowledge.
5. **Professional Diagnosis:** If basic checks do not resolve the issue or if you are uncomfortable performing these steps, it is highly recommended to seek diagnosis from a certified automotive technician.

## 9. SPECIFICATIONS

Attribute	Value
Brand	Standard Motor Products
Model Number	SC395
Product Type	ABS Wheel Speed Sensor
Material	Acrylonitrile Butadiene Styrene (ABS)
Item Weight	1 Pounds (approx.)
Product Dimensions (L x W x H)	2 x 4 x 2 inches (approx.)
Mounting Type	Flange Mount
Specific Uses For Product	Speed Sensing

## 10. WARRANTY AND SUPPORT

Standard Motor Products offers a warranty on its products against defects in material and workmanship. The specific terms and duration of the warranty may vary. Please retain your proof of purchase for warranty claims.

For technical assistance, warranty inquiries, or to locate a distributor, please visit the official Standard Motor Products website or contact their customer service department. Contact information can typically be found on the product packaging or the manufacturer's website.

**Website:** [www.smpcorp.com](http://www.smpcorp.com)