

Dorman BW1011

Dorman BW1011 Front Disc Brake Pad Wear Sensor: Installation and Maintenance Manual

Model: BW1011 | Brand: Dorman

1. INTRODUCTION

The Dorman BW1011 Front Disc Brake Pad Wear Sensor is a direct replacement component designed to monitor the wear level of your vehicle's front disc brake pads. This sensor plays a critical role in vehicle safety by alerting the driver when brake pads require replacement, preventing potential damage to brake rotors and ensuring consistent braking performance. It is engineered to match the fit and function of the original equipment part on specified BMW models.

Key Features

- **Direct Replacement:** Engineered to match the performance and specifications of the original equipment sensor.
- **Essential Safety Component:** Informs the driver of remaining brake pad life, indicating when replacement is necessary.
- **Durable Construction:** Manufactured to strict specifications for reliable and long-lasting performance.
- **Broad Compatibility:** Designed for specific BMW models, ensuring proper fit and function.

2. PACKAGE CONTENTS

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

- 1 x Dorman BW1011 Front Disc Brake Pad Wear Sensor



Figure 2.1: The Dorman BW1011 Front Disc Brake Pad Wear Sensor, showing the full assembly.

3. SAFETY INFORMATION

Before beginning any work on your vehicle's braking system, it is crucial to observe proper safety precautions. Brake system work can be complex and should ideally be performed by a qualified technician. If you choose to proceed yourself, ensure you have the necessary tools and knowledge.

- Always wear appropriate personal protective equipment, including safety glasses and gloves.
- Ensure the vehicle is securely supported on jack stands on a level surface before working underneath it. Never rely solely on a jack.
- Disconnect the vehicle's battery to prevent accidental electrical shorts or activation of vehicle systems.
- Allow brake components to cool down before handling, as they can become extremely hot during operation.
- Refer to your vehicle's specific service manual for detailed instructions and torque specifications.
- Keep children and pets away from the work area.

4. SETUP AND INSTALLATION

This section outlines the general procedure for replacing the front disc brake pad wear sensor. Specific steps may vary slightly depending on your vehicle model. Always consult your vehicle's service manual for precise instructions.

4.1 Pre-Installation Checklist

- New Dorman BW1011 Brake Wear Sensor.
- Appropriate jack and jack stands.
- Wheel lug wrench.
- Basic hand tools (e.g., screwdrivers, pliers, wire cutters).
- Clean rags or shop towels.
- Vehicle service manual (recommended).

4.2 Installation Steps

1. **Prepare the Vehicle:** Park the vehicle on a level surface, engage the parking brake, and block the rear wheels. Loosen the lug nuts on the wheel where the sensor is to be replaced. Using a jack, lift the vehicle and secure it with jack stands. Remove the wheel.
2. **Locate the Old Sensor:** The brake wear sensor is typically attached to one of the front brake pads and routed along the brake line or suspension components. Identify the existing sensor and its routing.
3. **Disconnect the Old Sensor:** Carefully disconnect the electrical connector of the old sensor. This usually involves pressing a tab or releasing a clip.
4. **Remove the Old Sensor:** Detach the sensor from the brake pad and unclip it from any mounting points along its route. Dispose of the old sensor responsibly.
5. **Install the New Sensor:** Carefully attach the wear tip of the new Dorman BW1011 sensor to the designated slot on the new brake pad (if replacing pads simultaneously) or the existing pad. Ensure it is securely seated. Route the new sensor cable exactly as the old one was routed, securing it with any clips or ties to prevent it from interfering with moving parts.



Figure 4.1: Close-up of the sensor's wear tip, which makes contact with the brake rotor.

6. **Connect the New Sensor:** Plug the electrical connector of the new sensor into the vehicle's wiring harness. Ensure a firm and secure connection.



Figure 4.2: The electrical connector of the Dorman BW1011 sensor.

7. **Reassemble:** Reinstall the wheel, hand-tighten the lug nuts, then lower the vehicle. Torque the lug nuts to the manufacturer's specifications.
8. **Test System:** Start the vehicle and check for any brake warning lights. If the light persists, refer to the Troubleshooting section or consult a professional.

5. OPERATING PRINCIPLES

The Dorman BW1011 brake pad wear sensor operates on a simple electrical principle. It contains a conductive loop embedded within a plastic housing. As the brake pad wears down, the rotor eventually makes contact with the sensor's wear tip, breaking the electrical circuit. This interruption in the circuit signals the vehicle's onboard computer, which then illuminates a brake wear warning light on the dashboard, indicating that the brake pads have reached their minimum safe thickness and require replacement.

6. MAINTENANCE

The Dorman BW1011 brake pad wear sensor is designed to be a maintenance-free component. However, it is crucial to inspect the sensor and its wiring during routine brake service or whenever brake pads are replaced. Look for:

- **Physical Damage:** Check for cuts, abrasions, or cracks in the sensor wire or housing.
- **Proper Routing:** Ensure the sensor wire is securely clipped and not rubbing against any moving parts or hot surfaces.
- **Secure Connection:** Verify that the electrical connector is clean, dry, and firmly seated.

If any damage is observed, the sensor should be replaced to ensure accurate brake wear indication.

7. TROUBLESHOOTING

If you encounter issues after installing the Dorman BW1011 brake wear sensor, consider the following troubleshooting steps:

- **Brake Warning Light Remains On:**

- Verify that the new sensor is correctly installed and fully seated in the brake pad.
- Check the electrical connection for tightness and ensure no pins are bent or corroded.
- Inspect the entire length of the sensor wire for any damage or pinching.
- Ensure the brake pads themselves are not excessively worn, as the sensor will trigger if they are.
- Some vehicles may require the brake wear light to be reset using a diagnostic tool after sensor replacement. Consult your vehicle's service manual or a qualified technician.

- Brake Warning Light Does Not Come On (and pads are worn):**

- This indicates a potential fault with the sensor or its wiring. Re-inspect the sensor for proper installation and any damage.
- Ensure the sensor's wear tip is making proper contact with the rotor when the pads are worn.
- A diagnostic scan may be necessary to identify electrical faults in the circuit.

If troubleshooting steps do not resolve the issue, it is recommended to seek assistance from a certified automotive technician.

8. SPECIFICATIONS

Attribute	Specification
Brand	Dorman
Model Number	BW1011
Manufacturer Part Number	BW1011
OEM Part Number	34356791958
Item Weight	1.6 ounces
Product Dimensions	9 x 6 x 0.25 inches
UPC	194883957442
Application	Front Disc Brake Pad Wear Sensor
Compatibility	Select BMW Models (verify fitment for your specific vehicle)

9. WARRANTY INFORMATION

Dorman products are manufactured to high-quality standards and are backed by a commitment to customer satisfaction. For specific warranty details regarding your Dorman BW1011 Front Disc Brake Pad Wear Sensor, please refer to the warranty documentation included with your purchase or visit the official Dorman website. Warranty terms typically cover defects in materials and workmanship under normal use and service.

10. SUPPORT

If you require further assistance, have questions about installation, or need to report a product issue, please contact Dorman customer support. You can typically find contact information on the Dorman website or

through the retailer where the product was purchased. When contacting support, please have your product model number (BW1011) and purchase details readily available.