

## Bilstein 24-276061

# Bilstein B8 5100 Shock Absorber

MODEL: 24-276061

## Introduction

The Bilstein B8 5100 series shock absorbers are engineered as a direct-fit solution for lifted trucks and SUVs. These high-performance shock absorbers feature a monotube design, ensuring consistent, fade-free performance under various driving conditions. The B8 5100 shock absorbers incorporate a unique, velocity-sensitive digressive piston that adapts to changing road conditions, providing superior ride quality and handling. Each B8 5100 shock absorber is specifically tuned for its intended application to guarantee optimal performance and significantly enhance ride comfort, handling, and overall vehicle stability.

## Safety Information

**Warning:** Installation of automotive suspension components requires specialized tools and knowledge. Improper installation can lead to serious injury, vehicle damage, or loss of vehicle control. It is highly recommended that installation be performed by a qualified professional.

- Always wear appropriate personal protective equipment (PPE), including safety glasses and gloves.
- Ensure the vehicle is securely supported on jack stands before beginning any work. Never rely solely on a jack.
- Refer to your vehicle's service manual for specific torque specifications and procedures.
- Do not modify the shock absorber or its components.
- Keep hands and clothing clear of moving parts.

## Package Contents

Verify that all components are present before beginning installation. The package typically includes:

- Bilstein B8 5100 Shock Absorber (Model 24-276061)
- Mounting hardware (nuts, washers, and bushings as applicable for your specific application)



Image: The Bilstein B8 5100 Shock Absorber (Model 24-276061) shown with its associated mounting hardware, including a nut, several washers, and rubber bushings, laid out against a white background.

## Specifications

|                      |                               |
|----------------------|-------------------------------|
| Brand                | Bilstein                      |
| Model Number         | 24-276061                     |
| Placement on Vehicle | Rear                          |
| Style                | Unique Monotube               |
| Fitment Type         | Truck                         |
| Exterior Finish      | Painted                       |
| Item Weight          | 3 kg (approximately 7 pounds) |

|                                           |                                                  |
|-------------------------------------------|--------------------------------------------------|
| Unit Count                                | 1.0                                              |
| Material                                  | Steel body with plastic boot and rubber bushings |
| Extended Length                           | 23.96 inches                                     |
| GTIN (Global Trade Identification Number) | 00651860807324                                   |
| UPC                                       | 651860807324                                     |

### Installation (Setup)

This section provides general guidelines for installing a shock absorber. Specific steps may vary depending on your vehicle make and model. Always consult your vehicle's service manual.

- 1. Prepare the Vehicle:** Park the vehicle on a level surface. Engage the parking brake. Loosen the lug nuts on the wheels that need to be removed. Jack up the vehicle and support it securely with jack stands. Remove the wheels.
- 2. Remove Old Shock Absorber:** Locate the upper and lower mounting points of the existing shock absorber. Use appropriate wrenches or sockets to remove the nuts and bolts securing the shock. You may need to compress the suspension slightly to relieve tension on the shock. Carefully remove the old shock absorber.
- 3. Prepare New Shock Absorber:** If the new shock absorber comes with a retaining strap, cut it only when the shock is ready for installation. Install any supplied bushings, washers, and sleeves onto the shock absorber shaft and eyelets as per the manufacturer's instructions.
- 4. Install New Shock Absorber:** Position the new Bilstein B8 5100 shock absorber into its mounting locations. Secure the upper and lower mounting points with the provided hardware. Hand-tighten the nuts and bolts initially.
- 5. Torque Fasteners:** Once both ends are loosely attached, lower the vehicle until the suspension is at its normal ride height (or as specified by your vehicle's manual for final torque). Torque all mounting nuts and bolts to the vehicle manufacturer's specifications.
- 6. Reassemble:** Reinstall the wheels and torque the lug nuts to specification. Lower the vehicle completely.
- 7. Final Check:** After installation, check all fasteners for tightness. Take the vehicle for a short test drive to ensure proper function and no unusual noises.



Image: A close-up view of the Bilstein B8 5100 Shock Absorber, highlighting its silver body, blue and yellow Bilstein logo, and black protective boot, indicating its robust construction for vehicle suspension.

## Operation

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The Bilstein B8 5100 shock absorber is a gas-pressure monotube design. This design separates the oil from the gas with a floating piston, preventing aeration and maintaining consistent damping performance even under demanding conditions. The velocity-sensitive digressive piston automatically adjusts damping forces based on the speed of suspension movement, providing a firm yet comfortable ride. It effectively controls unwanted suspension oscillations, improving vehicle stability and tire contact with the road surface.

## Maintenance

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Bilstein B8 5100 shock absorbers are designed for durability and require minimal maintenance. However, regular inspection is recommended to ensure optimal performance and safety.

- **Visual Inspection:** Periodically inspect the shock absorbers for any signs of damage, leaks (oil residue), bent shafts, or worn bushings. Check the protective boot for tears or damage.
- **Mounting Hardware:** Ensure all mounting nuts and bolts are tight. Re-torque if necessary, following vehicle manufacturer specifications.
- **Cleaning:** Keep the shock absorbers clean from excessive dirt, mud, and road salt, especially around the shaft and seals, to prevent premature wear.
- **Performance Check:** If you notice a decrease in ride quality, excessive bouncing, or unusual noises from the suspension, have the shock absorbers inspected by a qualified technician.

## Troubleshooting

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If you experience issues with your Bilstein B8 5100 shock absorbers, consider the following common problems and potential solutions:

- **Excessive Bouncing or Poor Ride Quality:** This could indicate a worn or damaged shock absorber. Inspect for leaks or physical damage.
- **Unusual Noises (Clunking, Squeaking):** Check all mounting hardware for tightness. Worn or improperly installed bushings can also cause noise. Ensure no components are rubbing.
- **Oil Leaks:** Any visible oil leaking from the shock body indicates a seal failure. A leaking shock absorber needs to be replaced.
- **Vehicle Sagging or Uneven Ride Height:** While shocks primarily control damping, severe issues might be related to other suspension components like springs. However, a completely failed shock can contribute to poor ride height.

If troubleshooting steps do not resolve the issue, consult a professional automotive technician.

## Warranty and Support

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Bilstein products are known for their quality and often come with a manufacturer's warranty. For specific warranty terms and conditions applicable to your Bilstein B8 5100 Shock Absorber (Model 24-276061), please refer to the official Bilstein website or contact Bilstein customer support directly. Warranty coverage typically addresses manufacturing defects.

For technical assistance, installation guidance, or warranty claims, please visit the official Bilstein website or contact their authorized service centers.

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