

E4-WM5-Y561A00 MOUNTING INSTRUCTION



IMPORTANT! READ THIS FIRST!

Installation of shock absorbers requires special tools and expert knowledge. Accordingly, installation of all BILSTEIN products must be performed by a qualified suspension specialist.

When replacing other brands, BILSTEIN shock absorbers should always be installed as a set. All BILSTEIN products must only be used for the specific, intended application as indicated in the application guide. **Any use of any BILSTEIN product other than for its intended use may result in serious bodily injury or death.**

Always use a chassis hoist for the installation of BILSTEIN products and make certain that the raised vehicle is securely attached to the hoist and/or supported to prevent the vehicle from slipping, falling, or moving during the installation process.

If you choose to install any BILSTEIN product without the necessary special tools, expertise or chassis hoist, you may subject yourself to the risk of serious bodily injury or death. If you elect not to use a chassis hoist, at least make sure the vehicle is on level ground, that all tires on the ground during installation are blocked to prevent movement, that at least two tires are on the ground at all times, and that adequately secured safety stands (jack stands) are used to support the chassis. **NEVER** get under the vehicle until you have checked to make sure all of these steps are performed.

BILSTEIN suspension products are gas-filled and are highly pressurized.

- Never place any BILSTEIN product in a vise or use a clamp on any BILSTEIN product.
- Never apply heat near any BILSTEIN product.
- Never attempt to open or repair any BILSTEIN product, in order to prevent **serious bodily injury or death.**

Any attempt to misuse, misapply, modify, or tamper with any BILSTEIN suspension product voids any warranty and **may result in serious bodily injury or death.**

While installing any BILSTEIN product:

- Do not use impact tools for loosening or tightening fasteners, because this may destroy the screw threads.
- Self-locking fasteners must only be used **once!**
- Reuse original equipment components only if they are in good condition, otherwise replace them with new components.
- Never remove the slight film of oil on the piston rod and seal.
- All mounting fasteners for shocks and struts must be securely tightened before tension is placed on the suspension system.

After installing any BILSTEIN product:

- The suspension caster and camber must be checked and/or adjusted to comply with the vehicle manufacturer's specifications.
- The (load dependent) brake compensator and the anti-lock brake system must be checked and/or reset to comply with the vehicle manufacturer's specifications.
- The headlight aim must be checked and adjusted.

BILSTEIN B8 5160 Reservoir Shock Absorbers are designed to fit your vehicle's original shock mounts with no modifications. With the exception of reservoir placement and ABS line bracket, the B8 5160 shocks are installed in the same manner as a standard replacement shock.

Note: The shocks/reservoirs/ABS line bracket depicted herein may differ slightly in appearance from the supplied components.

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WARNING: Due to the extended travel of the Bilstein B8 5160 Reservoir Shock Absorbers the passenger side (right rear) ABS line needs to be relocated downward to relieve tension at full droop. Do not proceed with shock installation until the provided ABS line bracket is installed. The ABS line bracket is in hardware kit #B4-KT1-Z352A01 which is included in the passenger side (right rear) shock #25-273915. Additionally, the breather hose bracket needs to be adjusted slightly.

ABS line bracket installation procedure:

1. Locate and detach the ABS line where it attaches to the frame on the passenger side. See the white circle in Figure 1 below and Figure 2 for a zoomed in view. In both Figures 1 and 2 the ABS line has already been detached from the OE ABS line mounting bracket.



Figure 1. passenger side rear

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Figure 2. passenger side rear zoomed in

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2. Install supplied ABS line bracket so it's fastened into the OE ABS line mounting bracket as shown in Figures 3 and 4 below with the provided hex head cap screw and lock nut. Torque lock nut to 25 N·m (19 lb·ft).
3. Insert the ABS line into the slot on the bracket as shown in Figures 3 and 4 below.
4. Carefully check for any possible dynamic interference between the ABS line bracket/ABS line and any other components on the vehicle. If no potential interference is found, proceed with shock installation.



Figure 3. ABS line bracket

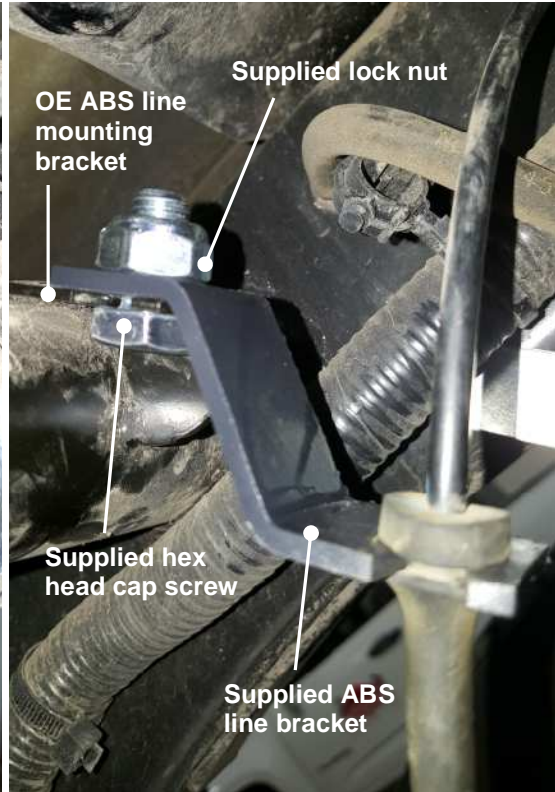


Figure 4. ABS line bracket

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Breather hose bracket adjustment procedure:

5. Locate the breather hose bracket shown in Figure 5 below. It's directly outboard of the ABS line bracket on the passenger side that was installed in the prior steps. Loosen the 10mm hex head cap screw just enough to be able to rotate the bracket. Rotate the bracket downwards (clockwise in Figure 5) until the bent tang circled in Figure 6 is contacting the upper edge of the hole in the frame as shown. This will relieve tension on the breather hose at full droop. Tighten the 10mm hex head cap screw to vehicle manufacturer's service manual torque specification.

Note: the B8 5160 shocks have approximately $\frac{3}{4}$ " more extended length than at static droop.

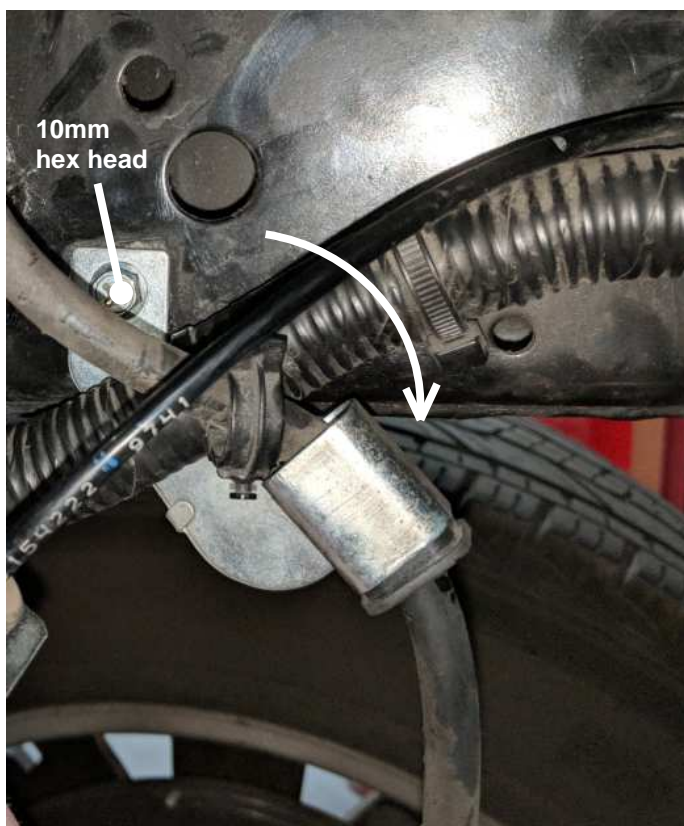


Figure 5. Breather hose bracket



Figure 6. Breather hose bracket

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Rear shock installation procedure:

- A. Remove the existing rear shocks from the vehicle following all procedures in the vehicle manufacturer's service manual.
- B. Before installing the shock/reservoir assemblies on the vehicle, use the supplied "piggyback" hardware to mount each reservoir to its shock body. Each reservoir is mounted using two polyurethane isolator blocks and two steel hose clamps. Position reservoir for the driver side (left rear) as depicted in Figures 7 and 8. Position reservoir for the passenger side (right rear) as depicted in Figures 9 and 10. The hose fittings are designed to swivel and will allow the reservoir and hose to be easily moved.
- C. The isolator blocks should be spaced approximately 6" apart. The hose clamps should be positioned in line with the isolator blocks.
- D. Tighten the hose clamps sufficiently to prevent the reservoir from slipping, but loose enough to allow for small subsequent adjustments of position. The hose clamps will be tightened further once the shock/reservoir assembly is installed on the vehicle and the proper reservoir position has been confirmed.



Figure 7. driver side rear



Figure 8. driver side rear

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Figure 9. passenger side rear



Figure 10. passenger side rear

- E. Install the upper and lower ends of the shock absorbers and attach the upper and lower mounts. Temporarily hand tighten.
- F. Orient the shock/reservoir assemblies as depicted in Figures 7-10.
- G. If a chassis hoist has been used, be sure to lower the vehicle such that its full weight is on the suspension prior to fully tightening the fasteners.
- H. Tighten upper and lower fasteners to the vehicle manufacturer's service manual torque specifications.
- I. Carefully check for any possible dynamic interference between the reservoirs and any other components on the vehicle, then make any necessary adjustments to the reservoir positions. The reservoir mounting locations depicted herein are appropriate for this application; however, some aftermarket components such as exhaust systems and/or lift kit combinations may create interference problems. It is the responsibility of the installer to determine if the reservoir is mounted appropriately and if there is any potential for interference.
- J. If no potential interference is found, tighten the hose clamps until the reservoirs cannot be manually moved independent of the shock body. This completes the installation.