

E4-WM5-Y469A00

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.

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

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

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 as depicted in Figures 1 and 2. Position reservoir for the passenger side as depicted in Figures 3 and 4. Insure that the hose is not rubbing against the shock tube in the static position. 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 2" 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 1. rear driver side



Figure 2. rear driver side

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Figure 3. rear passenger side



Figure 4. rear passenger side
(close-up)

- E. Install the lower end of the shock absorber with the bolt and nut. Temporarily hand tighten.
- F. Install the new supplied lower washer, lower bushing, and support washer onto the shock stem. Refer to Figure 5.
- G. Pull down on shock body and insert stem into shock mount.
- H. Orient the shock/reservoir assemblies as depicted in Figures 1-4.
- I. Install the new supplied upper bushing, upper washer, and nut onto the shock stem. Refer to figure 5. **Torque nut to 20 N•m (204 kgf•cm, 15ft•lbf)**
- J. 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.
- K. Tighten lower fasteners to the vehicle manufacturer's service manual torque specifications.
- L. Carefully check for any possible dynamic interference between the reservoirs and any other components on the vehicle (specifically the E-brake cable, exhaust, leaf springs, and upper mount frame buckets), 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 tires and/or lift kit combinations may create

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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.

- M. 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.

