

# E4-WM5-Y748A00

## 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 professional automotive suspension technician.

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 install any BILSTEIN product without the necessary special tools, expertise, and chassis hoist, you may subject yourself to the risk of serious bodily injury or death.**

BILSTEIN shock absorbers 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, unless otherwise specified in the manufacturer's service manual or in this instruction.

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

**Note:** These instructions are applicable to 2019+ Ford Ranger models. 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 billet aluminum "piggyback" reservoir bracket to mount each reservoir to its shock body. Position the reservoir for the driver side as depicted in Figure 1. Position the reservoir for passenger side as depicted in Figure 2. Ensure 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.

**Note: Before mounting the reservoir with the reservoir bracket, apply non-permanent thread locker on the 2 socket head cap screws.**

- C. The reservoir and reservoir bracket should be placed as shown in the locations pictured below.
- D. Tighten the socket head cap screws into the reservoir bracket sufficiently to prevent the reservoir from slipping, but loose enough to allow for small subsequent adjustments of position. The socket head cap screws will be tightened further once the shock/reservoir assembly is installed on the vehicle and the proper reservoir position has been confirmed.



Figure 1. Driver Side (Rear View)

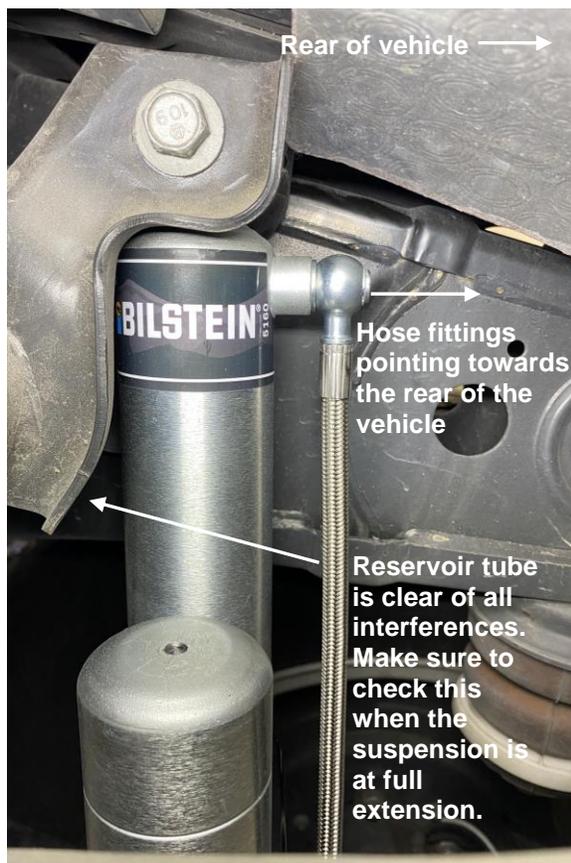


Figure 2. Passenger Side (Rear View)

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**Figure 3. Driver Side**



**Figure 4. Passenger Side**

- E. Install the upper and lower ends of the shock absorbers. Temporarily hand-tighten.
- F. Orient the shock/reservoir assemblies as depicted in Figures 1-4.
- 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 the 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, similar to those in Figures 3 and 4, and 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 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 reservoir bracket's socket head cap screws to approximately  $6 \pm 1$  ft-lb ( $8 \pm 1$  Nm). This completes the installation.