E-WM05-0000046 MOUNTING INSTRUCTION



IMPORTANT! READ THIS FIRST!

Installation of shock absorbers or other suspension components 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 or other suspension components 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 shock absorbers in a vise or use a clamp on any BILSTEIN shock absorber.
- Never apply heat near any BILSTEIN shock absorber.
- 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 shock absorber piston rod and seal.
- All mounting fasteners for shock absorbers and other suspension components 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. Or, if applicable, adaptive headlights must be checked and recalibrated to comply with the vehicle manufacturer's specifications.
- If applicable, any/all Advanced Driver Assistance Systems (ADAS) must be checked and recalibrated to comply with the vehicle manufacturer's specifications.

CAUTION for COILOVER TYPE SUSPENSIONS!!!

If disassembling a coilover type suspension, refer to the vehicle manufacturer's service manual for proper procedures. The coil spring is preloaded and must be compressed with a spring compressor to release load before the upper mount is disassembled. Failure to follow the vehicle manufacturer's procedures may cause serious injury or death, and may damage the vehicle.

IMPORTANT!!!

This BILSTEIN product may or may not be compatible with non-BILSTEIN aftermarket products and/or vehicle modifications. It is the responsibility of the professional automotive suspension technician performing the installation to identify any non-OEM components and/or modifications on the vehicle that may interact with the suspension system. These must be evaluated for any potential physical static or dynamic interference with and/or effect on the function of this BILSTEIN product.

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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.

Shock Installation Procedure:

- A. Remove the existing shocks from the vehicle following all procedures in the vehicle manufacturer's service manual.
- B. Before installing the shock/reservoir assemblies on the vehicle, apply non-permanent thread locker to the supplied reservoir bracket screws. Then use the supplied billet aluminum "piggyback" reservoir bracket to mount each reservoir to its shock body. The hose fittings are designed to swivel and will allow the reservoir and hose to be easily moved. Please note that the position of each reservoir relative to its shock body is different for each side of the vehicle. These positions are depicted in Figures 1-2.

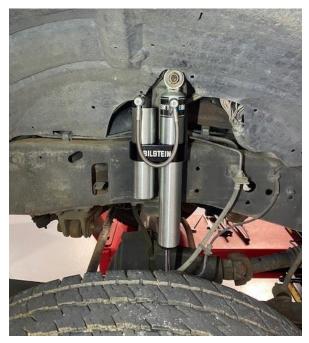






Figure 2. front passenger side

- **C.** Before installation of the shock/reservoir assemblies on the vehicle, the billet reservoir clamps should be positioned on the shock body as shown in the images above.
- D. Tighten the billet reservoir clamp sufficiently to prevent the reservoir from slipping, but loose enough to allow for small subsequent adjustments of position. The billet reservoir clamp will be tightened further once the shock/reservoir assembly is installed on the vehicle and the proper reservoir position has been confirmed.
- E. Install the complete shock/reservoir assemblies on the vehicle. All original fasteners can be reused.
- **F.** Be sure to lower the vehicle such that its full weight is on the suspension prior to fully tightening all fasteners.

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- **G.** Please refer to the factory service manual for the proper order of installation of the upper and lower mount hardware.
- H. Carefully check for any possible 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 most trucks for which this kit is intended, however, some wheel/tire 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.
- I. Tighten the reservoir bracket screws to approximately 6 ± 1 ft-lb $(8 \pm 1 \text{ Nm})$.
- **J.** Tighten all remaining fasteners to the vehicle manufacturer's service manual torque specifications. This completes the shock installation.

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