E-WM05-0000151
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.

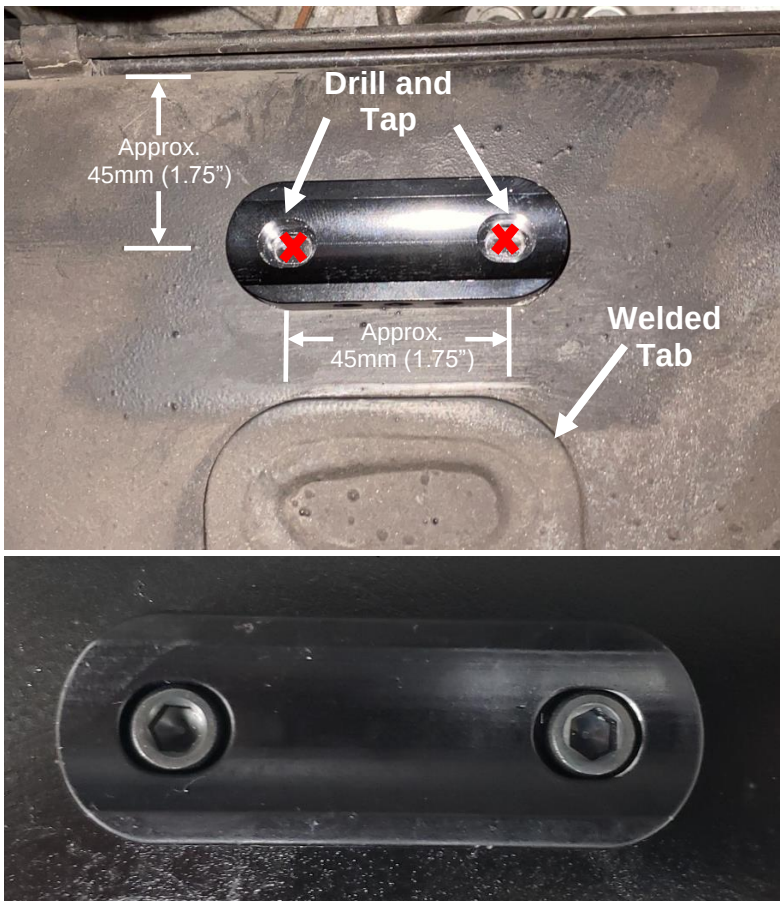
BILSTEIN 5160 Series Reservoir Shock Absorbers are designed to fit your vehicle's original shock mounts with no modifications. With the exception of the remote reservoir/bracket placement, the 5160 Series shocks are installed in the same manner as a standard replacement shock.

RESERVOIR MOUNT BRACKET BASE INSTALLATION

The reservoirs are intended to be mounted in front of the coil spring directly to the frame rail. Two holes will need to be drilled and tapped in order to mount the reservoir. Follow the below procedure in order to mount the reservoir mount bracket base.

1. Directly in front of the coil spring, mark 2 hole locations approximately 45mm (1.75") down from the top of the frame rail 45mm (1.75") apart. Center the 2 hole locations in the middle of the frame rail from front to back. Take note of the welded tab on the frame rail and be sure the reservoir clamp will clear this before drilling holes. See Figure 4 for approximate reservoir placement.

Figure 1



2. Using a punch and hammer, punch the 2 hole marks.
3. Using a # 7 (0.201 in. or 5mm) metal drill bit, drill the 2 holes in the frame rail.
4. Tap both holes with a ¼"-20 tap.
5. Mount the base bracket with the 2, ¼"-20 x ¾ in. bolts.
   TORQUE BOTH BOLTS TO 14 N·m (10 ft-lbs)

6. Repeat this on the opposite side of the vehicle.

SHOCK AND RESERVOIR INSTALLATION

A. Remove the existing front shocks from the vehicle following all procedures in the vehicle manufacturer's service manual.

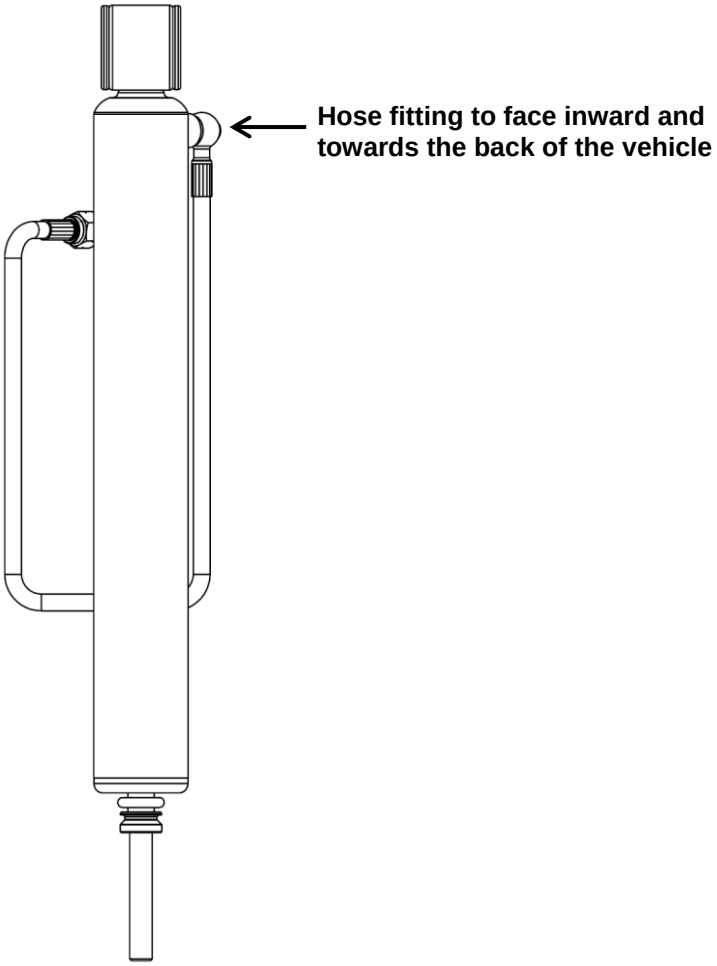
B. Mount both front shocks being sure to use the correct shock on the driver and passenger side.

Driver side Part No. **25-312157**
Passenger side Part No. **25-312164**

C. When installing the top of the shock, clock the hose and mount so the hose fitting is facing inward towards the engine of the vehicle, Figure 2. If the shock is not clocked correctly, the hose will not clear and could cause damage to the shock. This is also necessary to ensure proper hose routing.

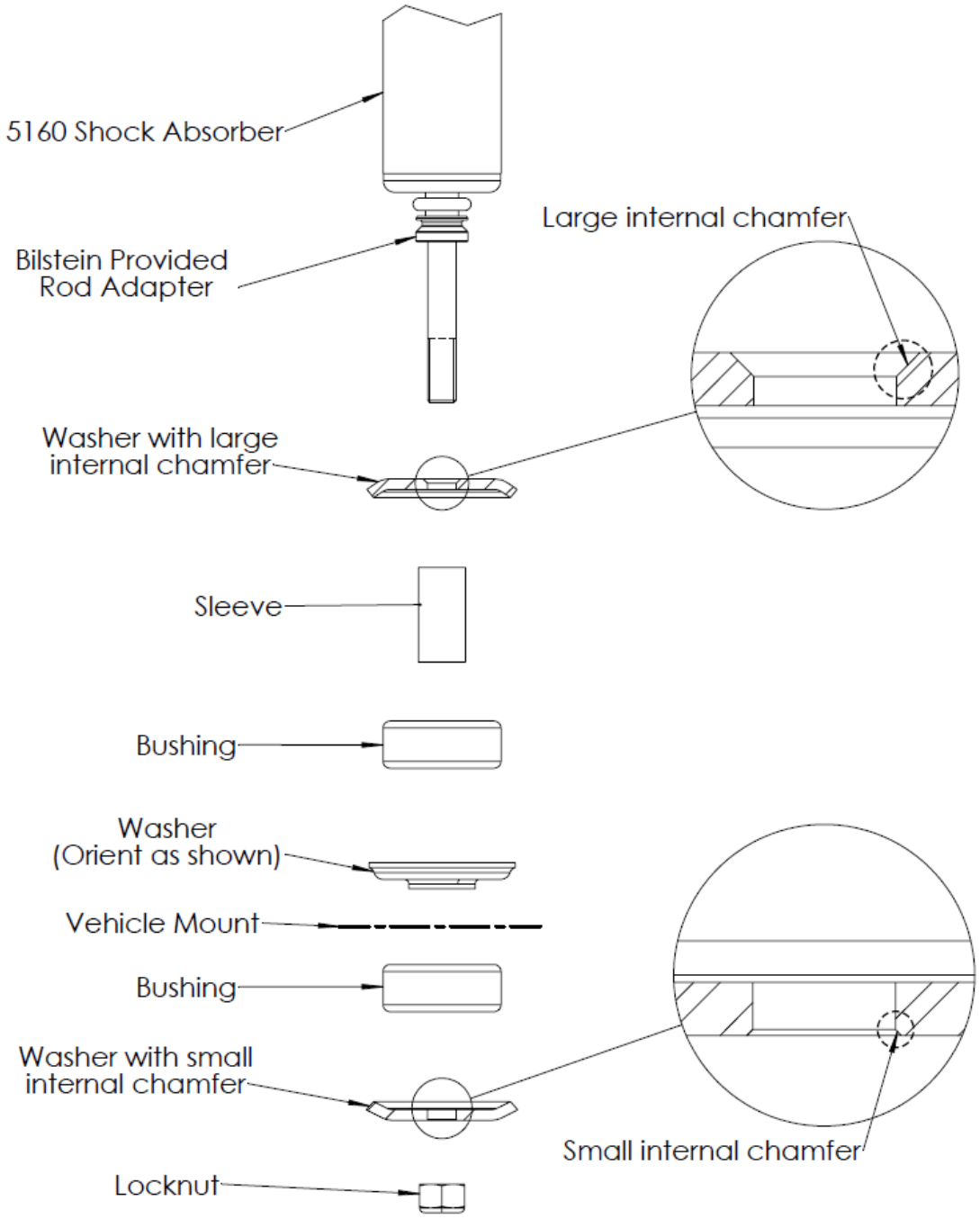
TORQUE ALL FASTENERS TO VEHICLE MANUFACTURER'S SPECIFICATION.

Figure 2



D. For the lower mount, refer to Figure 3 below for proper bushing and washer order and orientation. Torque nut until the washers bottom out on the sleeve.

Figure 3

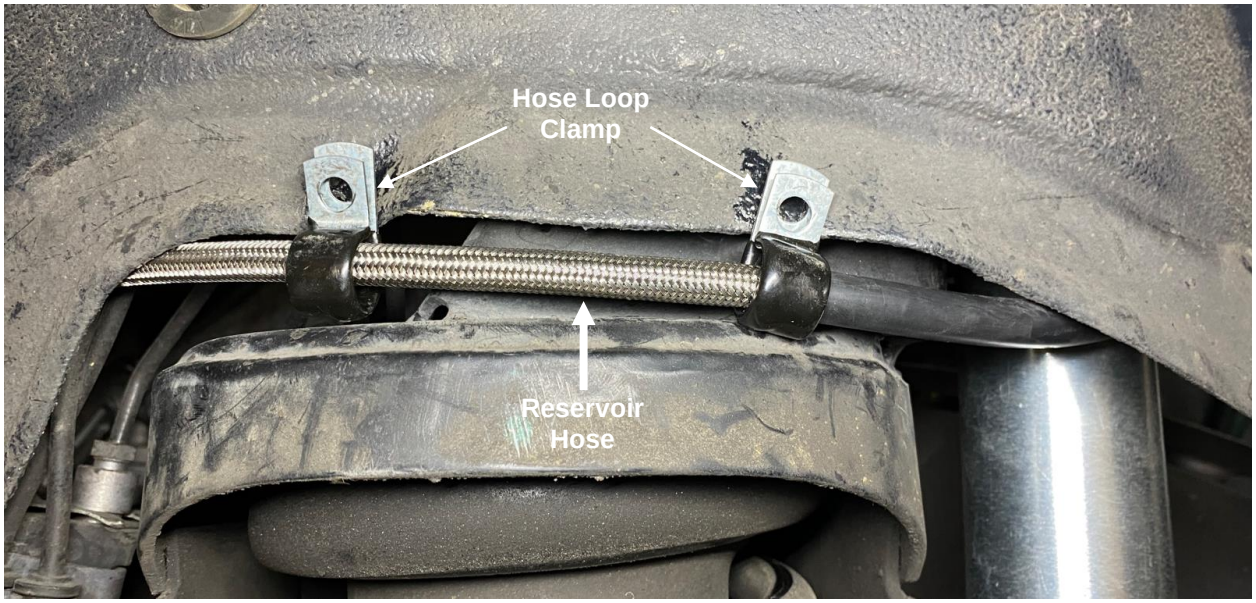


E. Route the reservoir and hose as pictured below in Figures 4,5 and 6.

Figure 4

F. Route the hose around the top of the spring bucket with the hose loop clamps positioned as shown. Be sure to keep the hose in front of the brake lines and then down towards the frame rail as shown in Figure 5.

Figure 5



G. Place the reservoir clamp bracket on the reservoir tube as shown below in Figure 6. Using the 3 included stainless steel ¼”-20 x 1 in. bolts, mount the reservoir tube to the base bracket. Make sure to clock the reservoir tube so that the hose is not putting a lot of pressure on the brake lines.
TORQUE RESERVOIR BRACKET PINCH BOLTS TO 8 N·m (6 ft-lbs)
Figure 6

H. Attach the hose loop clamp to the fender panel above the spring bucket using the provided self-tapping screws, Figure 7.

Figure 7

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 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. Passenger side is a mirror image and can be installed in the same manner as described in the previous steps.

Final Driver Side 25-312157 B8 5160 Installation

Final Passenger Side 25-312164 B8 5160 Installation