

# E-WM05-0000122

## 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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\*\* Lift heights indicated are typical. Actual lift height is influenced by which factory suspension the vehicle is equipped with and its condition; optional equipment and accessories on your vehicle, and other vehicle modifications such as replacement coil springs, wheel and tire combinations, etc.

Modifying/lifting the suspension to your vehicle may raise its center of gravity and may make it more susceptible to loss of control and/or rollover, which may result in death or serious injury. We strongly recommend that you offset the loss of rollover resistance as much as possible by increasing tire track width, and that you equip the vehicle with a functional roll bar and cage system.

Wear seat belts and shoulder harnesses at all times, and avoid situations where a side rollover may occur.

### Instructions for disassembly of the front OE strut and spring unit:

- A. Remove the existing strut and spring unit from the vehicle following all procedures in the vehicle manufacturer's service manual.
- B. Note how the top and bottom coil of the spring is indexed in the spring seat and isolator (important for reassembly alignment: mark a line down the OE coil spring isolators and spring.)
- C. Using an appropriate spring compressor, compress the spring until the strut can be rotated freely by hand. Then, disassemble the strut and spring unit.

### Instructions for assembly of the front Bilstein strut and spring unit:

[Refer to Figure 1 on page 3 for steps D-I]

- D. Install the OE bump stop and OE dust boot onto the piston rod.
- E. Using an appropriate spring compressor, compress the OE spring and assemble it along with its isolator onto the Bilstein strut. Align the bottom coil of the spring so it's indexed into the spring seat/isolator as noted in step B.
- F. Install the OE upper spring isolator on top of the spring and align it with the line marked in step B.
- G. Install the OE strut bearing on top of the upper isolator and align it with the line marked from step B.
- H. Install the OE top mount plate over the threaded stem and onto the OE strut spacer.
- I. Install the supplied locknut and tighten to 38 ft-lb (52 Nm) using a 6mm Allen key to keep the piston rod from rotating while torqueing the locknut.

**\*\*\*\* DO NOT USE AN IMPACT WRENCH TO TIGHTEN THE LOCKNUT! \*\*\*\***

- J. Slowly release the spring compressor.
- K. Install the strut and spring unit onto the vehicle and tighten all fasteners to vehicle manufacturer's specifications.
- L. Check wheel alignment and adjust to the vehicle manufacturer's specifications. This completes the front installation.

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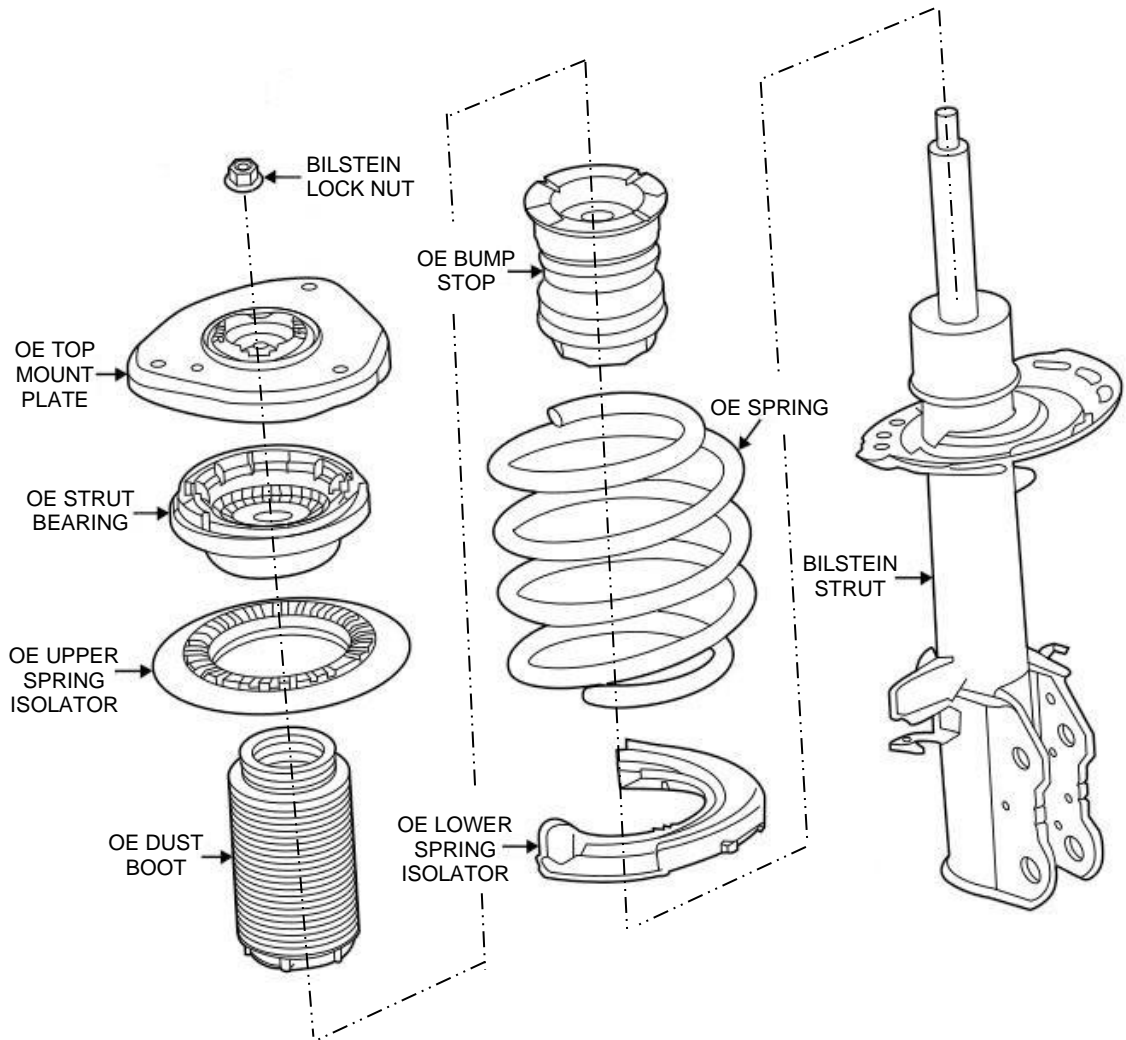


Figure 1  
Driver's side depicted