IMPORTANT!

PLEASE READ ALL INSTRUCTIONS FIRST!

In case of doubt please contact your local BILSTEIN dealer or our sales department before installation.

When replacing other brands, BILSTEIN shock absorbers should always be installed as a set. Installation of shock absorbers, struts and cartridges requires special tools and expert knowledge. Accordingly, installation of all BILSTEIN products must be performed by a qualified suspension specialist.

Always use a chassis hoist for the installation of BILSTEIN products, and make certain that the raised vehicle is securely attached to the hoist 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 things are done.

All BILSTEIN product 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.

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, and 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.**

All mounting fasteners for struts must be securely tightened before tension is placed on the suspension system. Make sure that the bump stop and dust cover are correctly and properly fastened.

Do not use impact tools for loosening or tightening fasteners, because this may destroy the screw threads.

Self- locking nuts must only be used once!

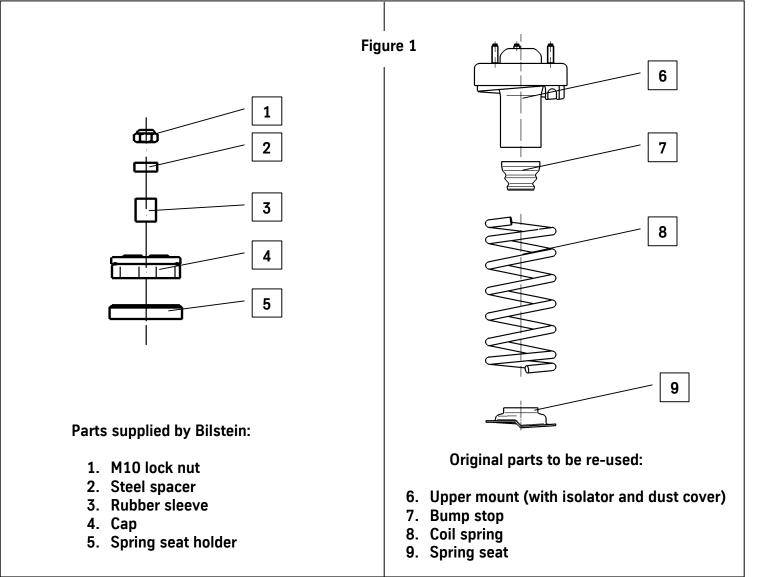
Suspension springs are <u>**PRELOADED**</u>! The suspension spring must be compressed with the assistance of an appropriate strut vise and spring compressor. The top mount must not be removed until the preload pressure is no longer present and the spring can be moved by hand, or **serious bodily injury or death may result.**

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.

After installing any BILSTEIN product, the suspension caster and camber must be checked and/or adjusted to comply with the vehicle manufacturer's specifications. Also, 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. Also the headlight aim must be checked and adjusted.

Be sure to properly dispose of all old parts.





- **A.** Read all instructions on page 1.
- **B.** Remove shock and spring unit from vehicle, following all procedures in the vehicle manufacturer's service manual. Note position of studs in upper mount (6) relative to lower mount bearing (for re-assembly).
- **C.** Using an appropriate spring compressor, compress the coil spring until the spring can be rotated freely by hand. Then disassemble the shock and spring unit.
- **D.** Refer to Figure 1 to identify which original parts must be re-used.

(Refer to Figure 2):

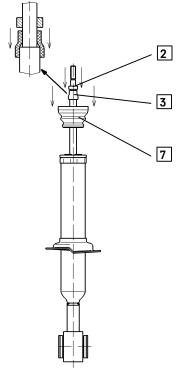
- **E.** Install spring seat holder (5) onto shock body (tapered side towards top. Make sure the spring seat holder fits squarely over the circlip on the shock body.
- F. Install original spring seat (9) onto shock, over spring seat holder (5)



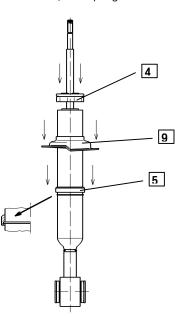
G. Tap or press cap (4) onto top of shock body

(refer to figure 3):

- H. Install bump stop (7) over piston rod.
- I. Install rubber sleeve (3) over piston rod. Push rubber sleeve onto chromed part of piston rod (see detail).
- J. Install steel spacer over piston rod, above rubber sleeve.





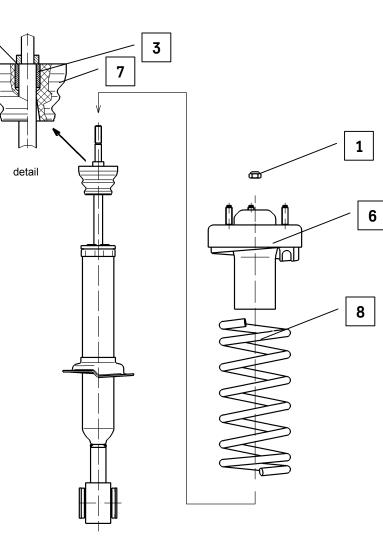






refer to Figure 4):

- K. Fit bumpstop (7) over rubber sleeve (3) as shown (see detail).
- L. Using appropriate spring compressor, compress coil spring (8) and install to shock absorber, aligning lower coil end with end of ramp in spring seat.
- **M.** Install upper mount (6) over piston rod end and onto top of coil spring. Rotate upper mount (6) so that studs are in original position relative to lower mount bearing (see step B). Align end of coil spring with the rubber isolator in the upper mount.
- N. Install M10 hex nut (1) and tighten to 25 Nm (19 lb/ft).
- **O.** Release spring compressor, ensuring that the ends of the coil spring remain aligned with the spring seat (lower) and isolator (upper).
- **P.** Install completed assembly onto vehicle and tighten all fasteners to vehicle manufacturer's specifications.
- **Q.** Check wheel alignment and if necessary adjust to vehicle manufacturer's specifications.



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