

# E4-WM5-Y470A00

## 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 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.
- 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.

### **CAUTION!!!**

**Before disassembling the front 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.**

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- A. Remove the shock and spring unit from the vehicle following all procedures in the vehicle manufacturer's service manual. Note the position of the studs in the upper mount relative to the lower mount bearing (important for reassembly).
- B. Using an appropriate spring compressor, compress the coil spring until it can be rotated freely by hand. Then disassemble the shock and spring unit.
- C. Refer to Figure 1 and 2 to identify which original parts must be re-used.
- D. Refer to Figure 3 to identify Bilstein supplied parts.



Fig 1: 2007-2013 OE GM 1500/Avalanche and 2007-2014 Tahoe Top Mount Components



Fig 2: 2014+ OE GM 1500 and 2015+ Tahoe Top Mount Components

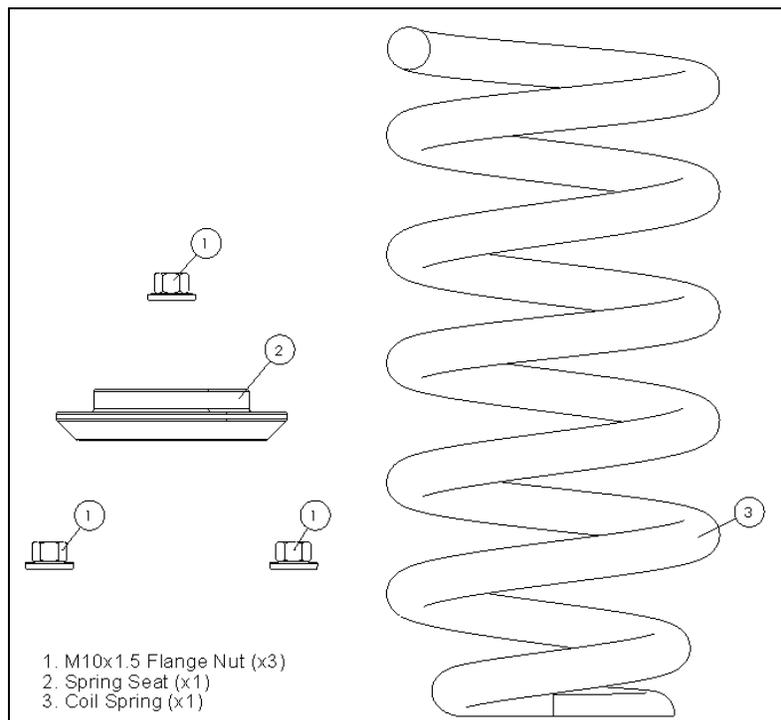


Fig 3: Bilstein supplied components

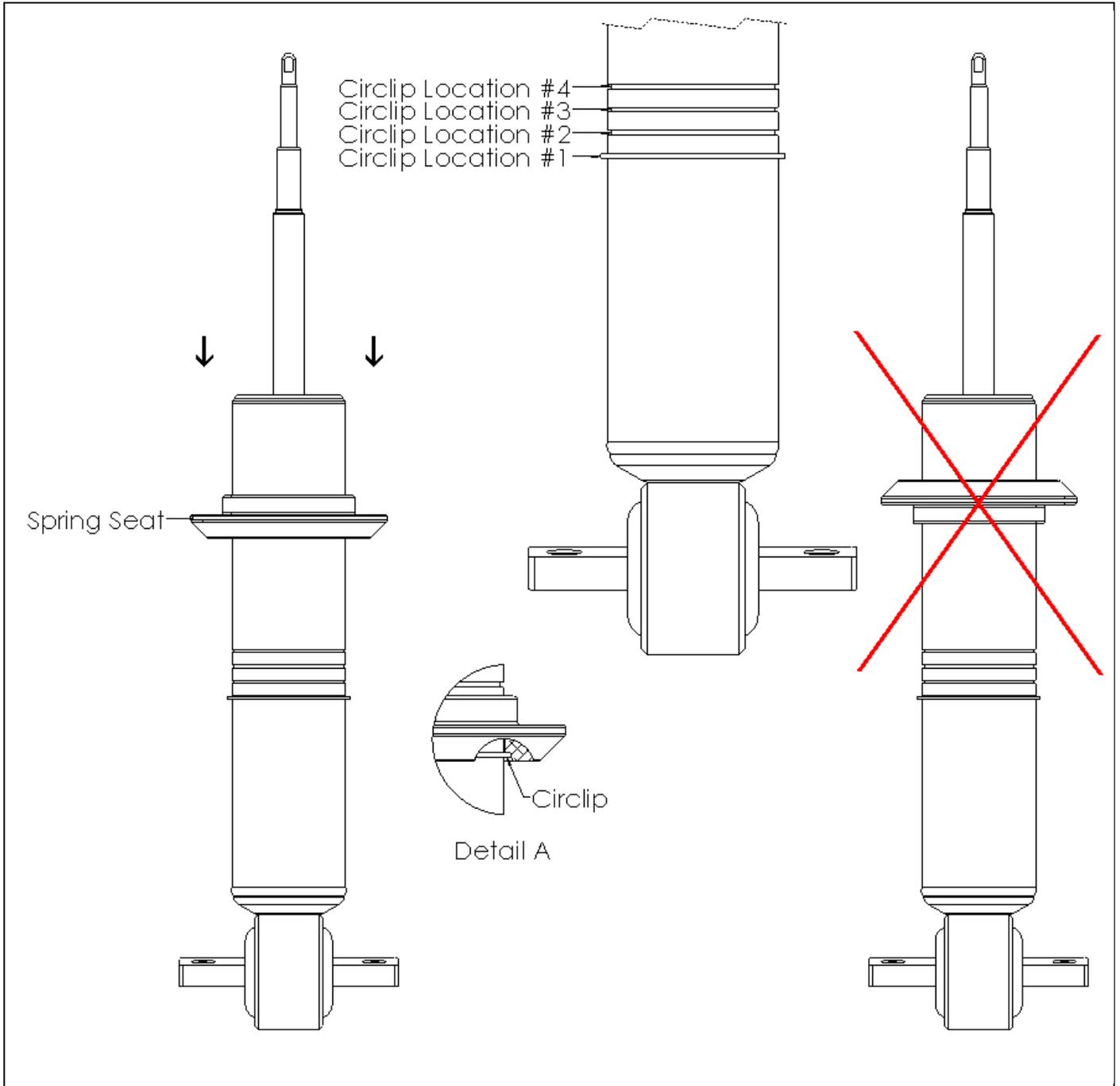
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## IMPORTANT:

### PLACE CIRCLIP IN APPROPRIATE GROOVE TO ADJUST RIDE HEIGHT.

Use appropriate tools to move the circlip. Ensure that the circlip is fully seated in the groove after moving it (you should be able to rotate it manually in the groove). Install the spring seat in the direction shown only. The circlip must fit completely in the groove inside spring seat (DETAIL A). **Improper installation will cause permanent damage to the shock!**



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Typical Lift Heights**					
Circlip Location	GM 1500 4x4 V8; Crew Cab; 2014-; kit #s 47-273702, 47-310834 & 47-278936	GM 1500 4x4 V8; Crew Cab; 2007-2013; kit #s 47-244641, 47-310858 & 47-278943	Chevy Tahoe 4x4 V8; 2015-; kit #s 47-251922, 47-311176 & 47-278950	Chevy Tahoe 4x4 V8; 2007-2014; kit #s 47-244641, 47-310858 & 47-278943	Chevy Avalanche 4x4 V8; 2007-2013; kit #s 47-244641, 47-310858 & 47-278943
#4	1.85"	1.85"	1.85"	2.75"	2.65"
#3	1.25"	1.25"	1.25"	2.2"	2.1"
#2	0.6"	0.6"	0.6"	1.65"	1.5"
#1	stock	stock	stock	1.1"	0.9"

\*\* Ride heights indicated are typical. Actual ride 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 assembly of shock absorber module:

1. Install the supplied spring seat onto the shock body as shown. Ensure that the groove inside the spring seat fits over the circlip on the shock body [see page 3 (DETAIL A)].
2. Install the supplied coil spring.
3. Reinstall all OEM upper mount parts including the upper spring hat, spring isolator, dust boot, and bump stop, in their original positions.
4. Install one of the Bilstein supplied flange nuts on the piston rod and tighten to 25 Nm (19 lb/ft). Do not re-use OE nut.
5. Install the assembly on to the vehicle and tighten all fasteners to the vehicle manufacturer's specifications- with exception to the lower T bar bolts. Install the OEM lower T bar bolts up through the control arm and T bar. Then install the Bilstein supplied flange lock nuts on to the OEM T-Bar bolts and tighten the supplied flange lock nuts to 72 Nm (53 lb/ft). Do not re-use the original lock nuts. This completes the installation.
6. Check and adjust vehicle front-end alignment after installation.

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