E-WM05-0000115
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.

Installation Procedure:

Axle: Front and Rear

Product: B8 5100 Lift Kit (5100 dampers and front springs)

NOTE: For the vehicle to have adequate clearances around the suspension components the following conditions need to be met:

Trims	Engine	Tire Note	Wheel note
Non-Rubicon	3.6L	Max 35" w/ stock fender	Compatible w/ factory 17” wheels.
Rubicon	3.6L	Max 35" w/ stock fender	Compatible w/ factory 17” wheels.

Installing aftermarket wheels and tires may cause steering instability. It is highly recommended that an aftermarket steering stabilizer be installed to minimize the steering shake caused by aftermarket wheel/tire combinations. Bilstein does offer a steering stabilizer (33-292984 LEFT HAND DRIVE ONLY!), but it is sold separately from this kit. On Gladiators not equipped with an electronic sway bar disconnect, a sway bar disconnect should be installed and the disconnect should be utilized for moderate to advanced terrain.

Component List		
Item No.	**Description**	**Qty.**
	Standard Lift	
1	Front B8 5100 Damper	2
2	Rear B8 5100 Damper	2
3	Front 1.5" Lift Springs	2
4	Front Mount Parts Kit	1
	Mount Parts Kit	
5	Front Sway Bar End Link Set	1
6	Front Lower Spring Isolator	2
7	Front Bumpstop Spacer	2
8	Flat Head Screw, M10x1.5, L=60mm	2
9	Plated washer, DIN 125-10.5-140 HV	2
10	Nylon-Insert Locknut, M10x1.5, DIN 985	2

IMPORTANT: Prior to beginning installation, do a thorough inspection of all steering, suspension, brake, and driveline components. This includes but is not limited to control arms and bushings, stabilizer bars and bushings, pitman arm, tie rods, wheel bearings and ball joints. Inspect all frame mounting points for stress cracks. Vehicle must be in excellent working condition and all damaged or worn components should be properly repaired or replaced before beginning installation. Note or mark all hardware that will be loosened in the steps below. This will help track hardware that needs to be retorqued at the end of this install.

Front Suspension Removal:

1. Using a chassis hoist, lift the vehicle and support the front axle using jack stands while ensuring the vehicle is secure and properly supported.
2. To access upper control arm bolts, remove the 10mm bolts securing the heat shields over the upper control arm mounts at the frame.

Figure 1: Driver Side heat shield

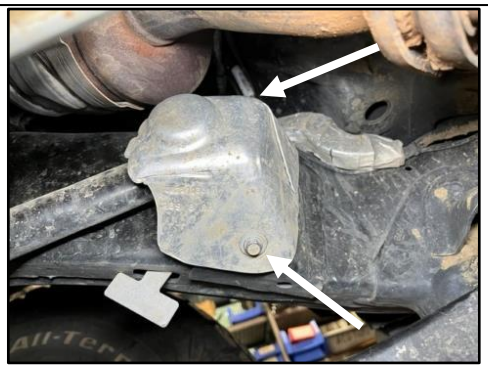

Figure 2: Passenger Side Heat Shield

3. Loosen the 2 track bar bolts and the 8 front control arm bolts enough to allow the joints to swing freely.

Figure 3: Track bar bolts

Figure 4: Driver Side Control Arm

Figure 5: Passenger Side Control Arm

4. Remove both front stabilizer links. Retain the lower hardware for reuse.

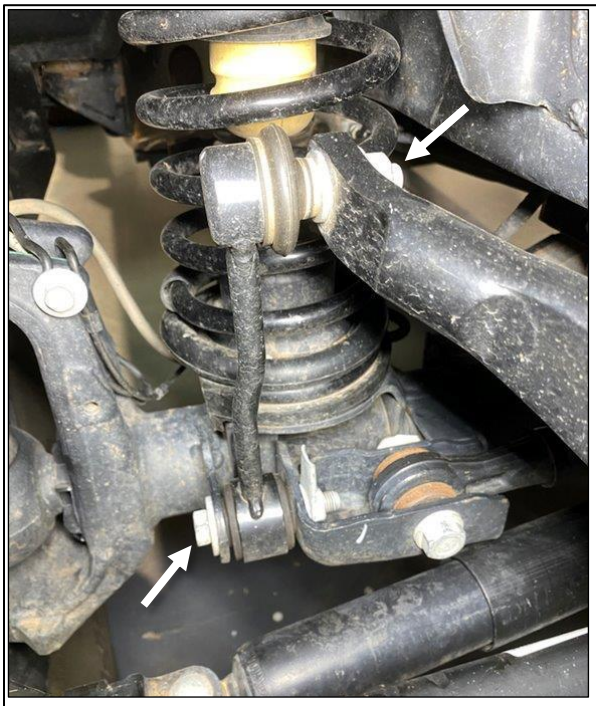

Figure 6: Driver Side Stabilizer Link

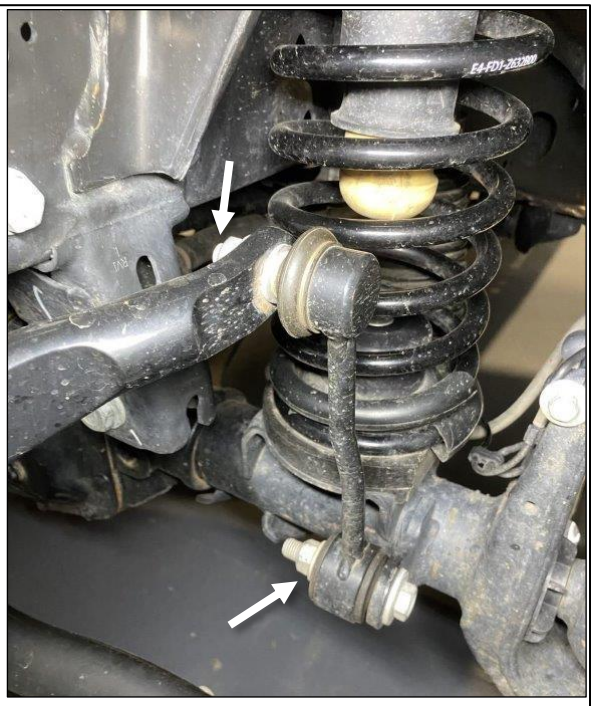

Figure 7: Passenger Side Stabilizer Link

5. With the axle supported securely, remove both front shock absorbers, retaining all hardware.

Figure 8: Driver Side shocks removed

Figure 9: Passenger Side shocks removed

6. Note the orientation of the upper spring isolator on both sides to ensure they are reinstalled with the same orientation.
7. Lift the vehicle to extend the suspension until the spring can be removed. Pay close attention to the front driveline angle and brake lines. Only extend the suspension enough to allow spring removal. Discard the lower spring isolator after removing the springs.

Figure 10: Driver Side spring removed

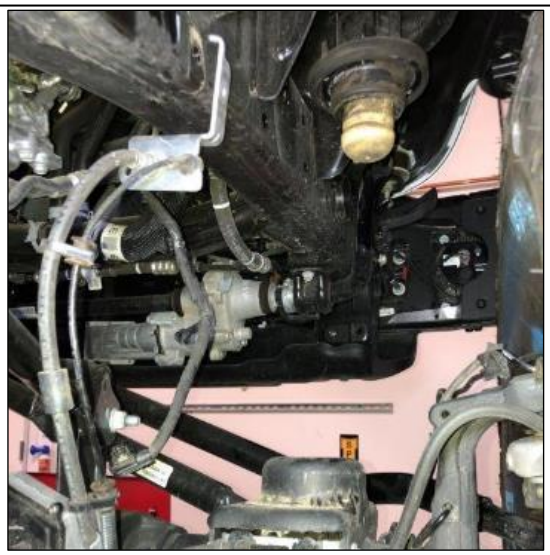

Figure 11: Passenger Side spring removed

Front Suspension Installation:

8. Install the Bilstein supplied lower spring isolators (BOM item #6) onto the lower spring seats as shown. Install the front springs (BOM item #3) and front bump stop spacers (BOM item #7) at the same time. Ensure the upper spring isolator is still oriented the same as it was in step 6. Lower the vehicle until sufficient pressure is on the spring to keep it in position.

Figure 12: Driver Side lower isolator installed

Figure 13: Driver Side bumpstop spacer and spring installed

9. Install front bump stop bolt (BOM item #8), washer (BOM item #9), and nut (BOM item #10). Torque to 32.5 ft-lb(44Nm).
10. Install the Bilstein front shocks (BOM item #1) on the vehicle by attaching the upper mounts. All original fasteners can be reused. Do not install the lower mount yet.

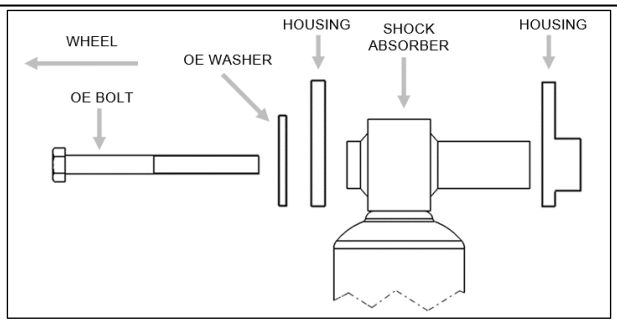

Figure 18: Driver Side upper mount

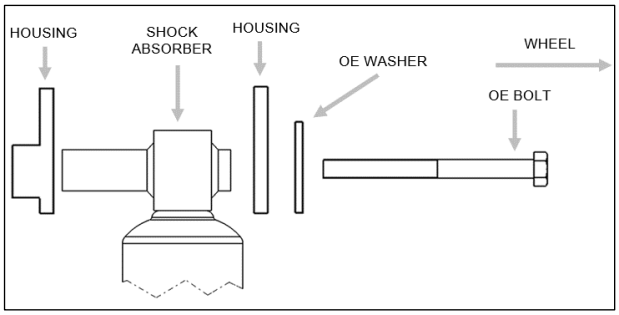

Figure 14: Passenger Side upper mount

11. Lower the vehicle to compress the suspension until the lower shock mount can be installed on the axle.

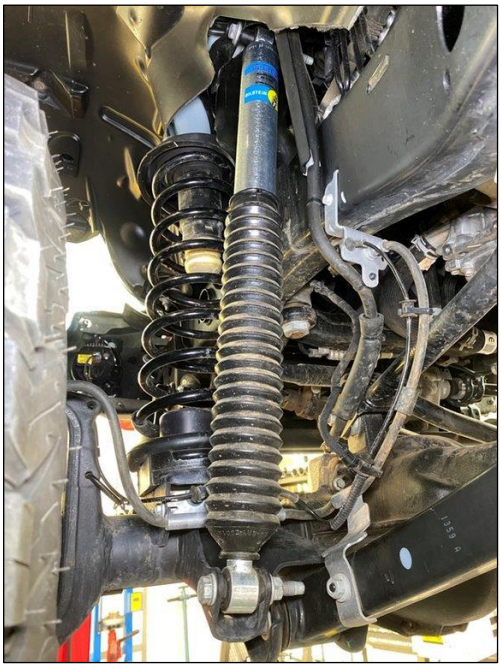

Figure 15: Driver Side lower mount installed

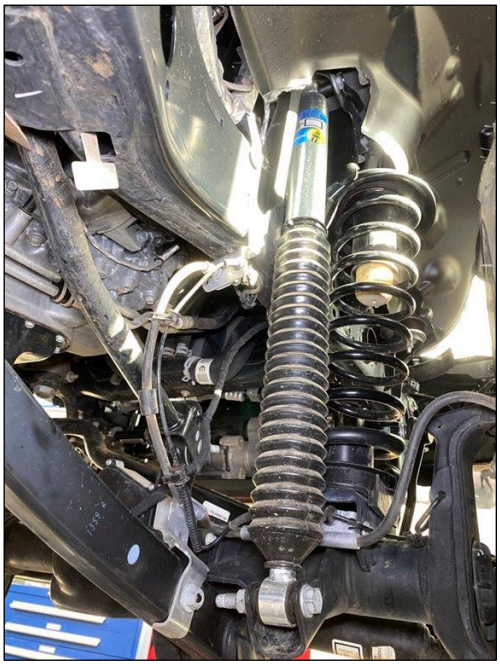

Figure 16: Passenger Side lower mount installed

12. Install Bilstein supplied front sway bar links (BOM item #5) reusing the OE lower hardware. Do not torque at this time.

Figure 17: Driver Side sway bar link

Figure 18: Passenger Side sway bar link

13. Lift the vehicle to fully extend the suspension. Hardware will be torqued after completing the rear suspension installation.

Rear Suspension Removal:

14. If you have not already done so, use a chassis hoist to lift the vehicle. Support the rear axle using jack stands while ensuring the vehicle is secure and properly supported.
15. With the axle supported securely, remove the lower and upper bolts attaching both rear shock absorbers by following the manufacturer's service manual. Retain all hardware.

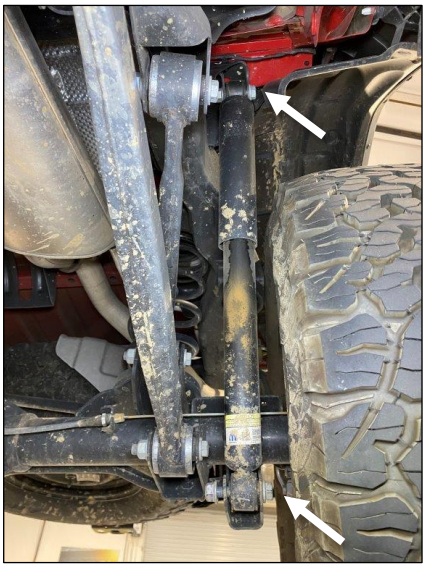

Figure 19: Shock, driver side

Figure 20: Shock, passenger side

Rear Suspension Installation:

16. Install the rear Bilstein shocks (BOM item #2) by installing the upper and lower mounting bolts. Re-use the original hardware. Do not tighten the hardware at this point. Lift vehicle to fully extend the suspension as needed for bolt hole alignment.

Figure 21: Shock, driver side

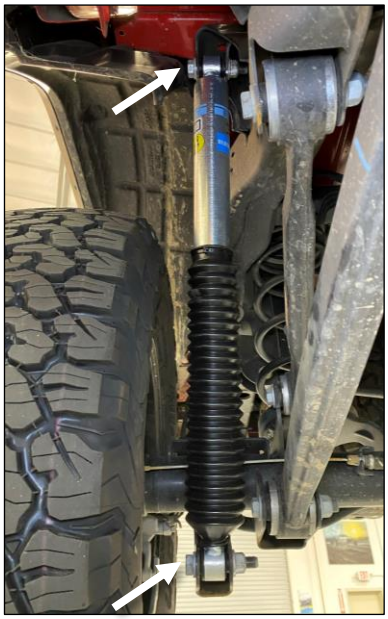

Figure 22: Shock, passenger side

Complete the Installation

17. At this point all front and rear components should be installed and ready for final torque as shown below.

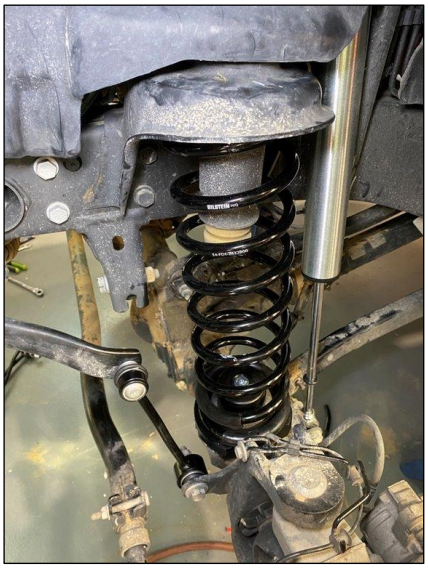

Figure 23: Front components installed, driver side

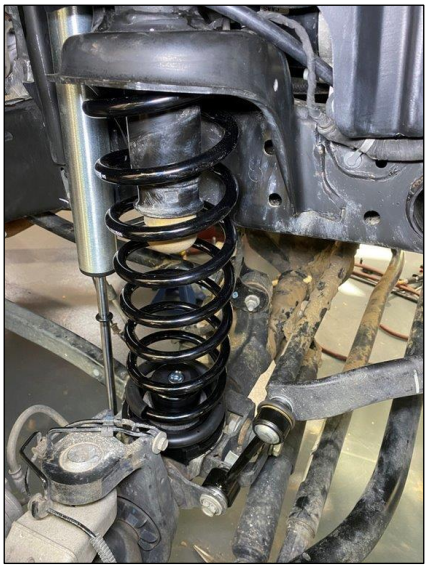

Figure 24: Front components installed, passenger side

Figure 25: Rear components installed, driver side

Figure 26: Rear components installed, passenger side

18. Remove all jack stands supporting the axles and lower the vehicle to the ground so the full weight of the vehicle is supported by the suspension. Torque all the hardware to manufacturer's specifications that was noted/marked for loosening or removal including the sway bar links and shocks.
19. After all the suspension components are properly torqued, reinstall the upper control arm heat shield that was removed in previous steps. Torque the bolts to the manufacturer's specification.
20. Following completion of the installation, the vehicle should be properly aligned, and headlamps should be adjusted to the manufacturer's specifications.