E-WM05-0000113
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.

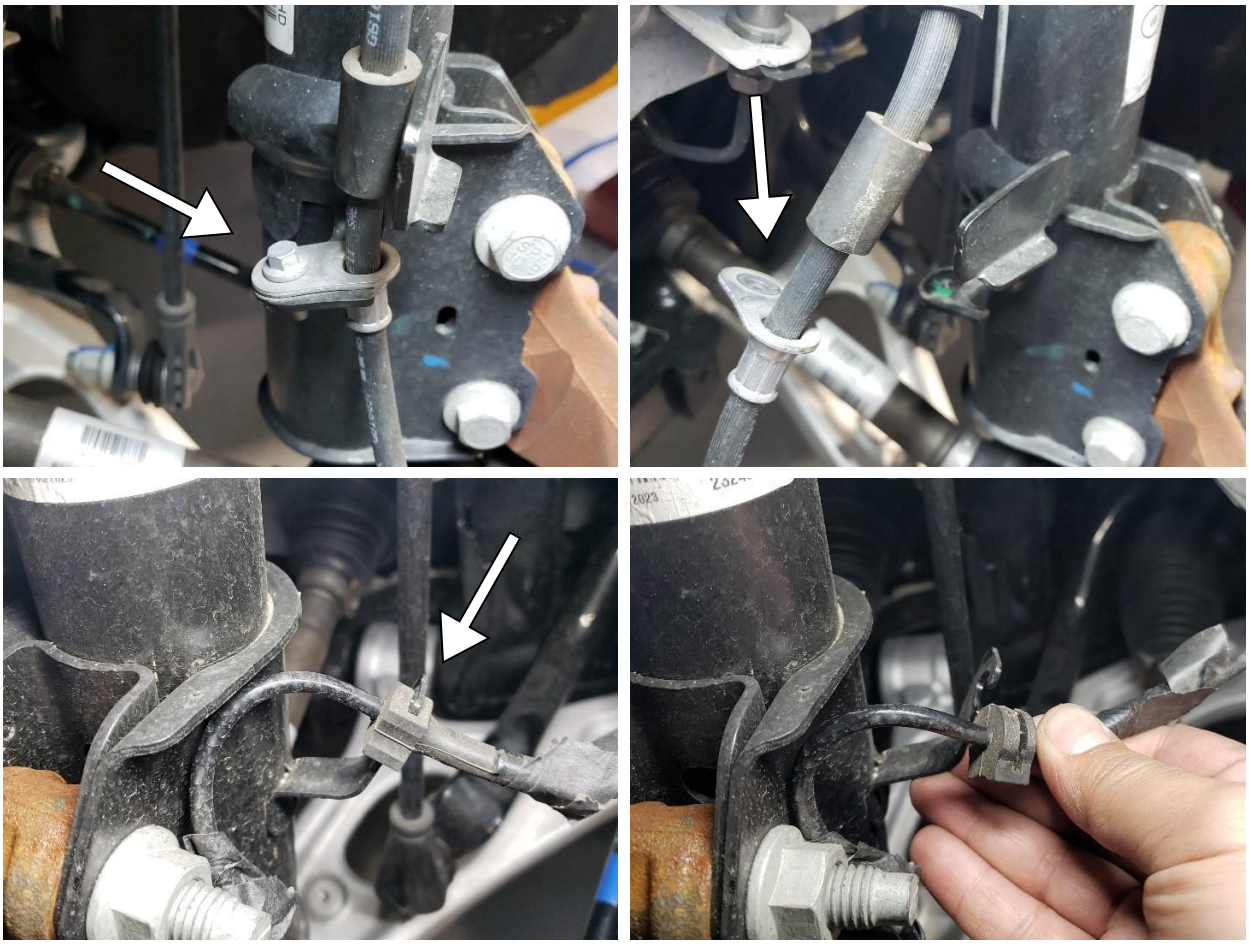
IMPORTANT!!!
This BILSTEIN product may or may not be compatible with non-BILSTEIN aftermarket products and/or vehicle modifications. It is the responsibility of the professional automotive suspension technician performing the installation to identify any non-OEM components and/or modifications on the 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.

Ford Bronco Sport ’21+; 1.25” Lift**

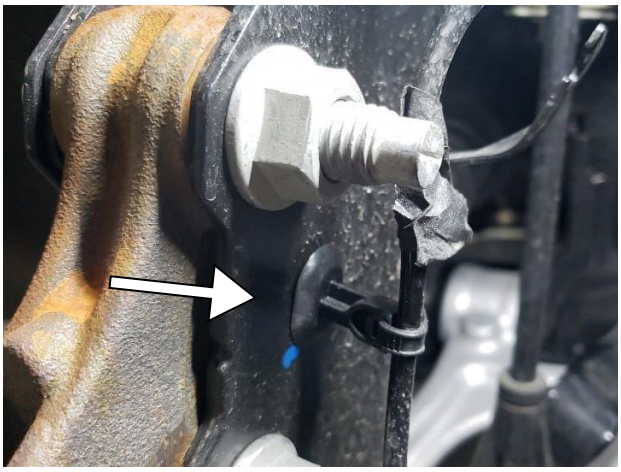
** Lift heights indicated are typical. Actual lift height is influenced by which factory suspension the vehicle is equipped with and its condition; optional equipment and accessories on your vehicle, and other vehicle modifications such as replacement coil springs, wheel and tire combinations, etc.
Modifying/lifting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

Front B8 Terrasport Twin-Tube Strut (Driver side shown, passenger side is a mirror image and the same steps will be followed as shown below);

1. Disconnect brake hose and ABS wiring from strut assembly. (Handle both lines with care.)
    a. Using an 8mm socket, remove the brake hose bracket.
    b. Remove ABS line rubber gromet from strut.
    c. Using a clip tool, remove ABS plastic clip from strut.

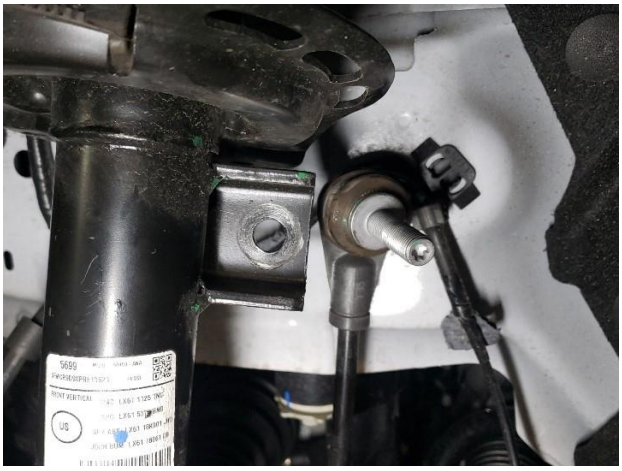


Note: Struts and shocks depicted herein differ in appearance from the supplied components.

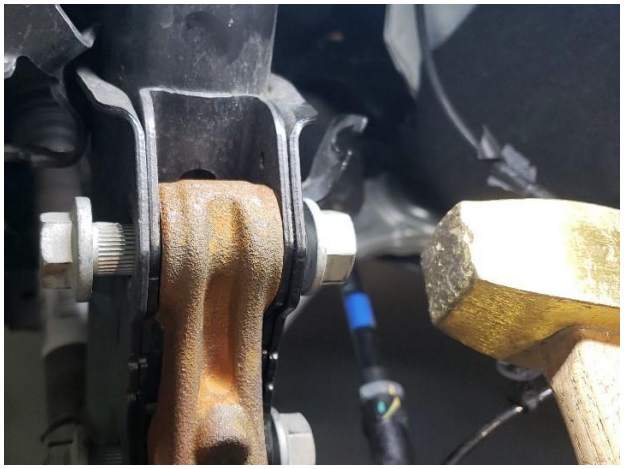
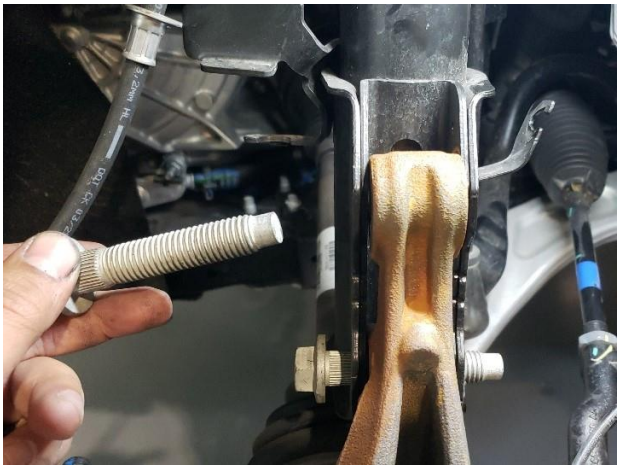



2. Remove the sway bar link from the front strut assembly.
    a. 18mm socket, or wrench, to break the nut loose.
    b. A T40 torque bit with a 18mm wrench may be required if the nut and bolt spin during removal.

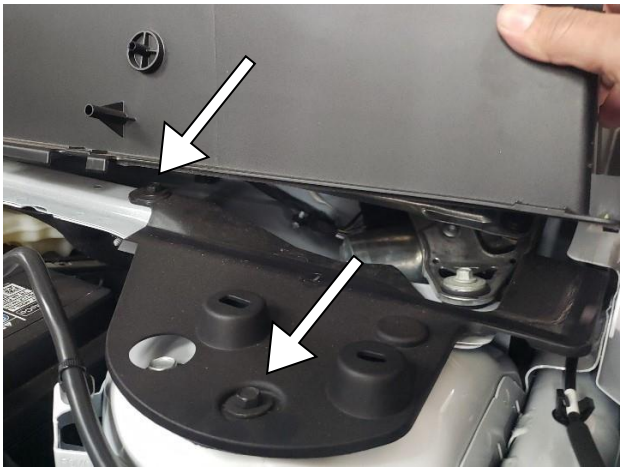




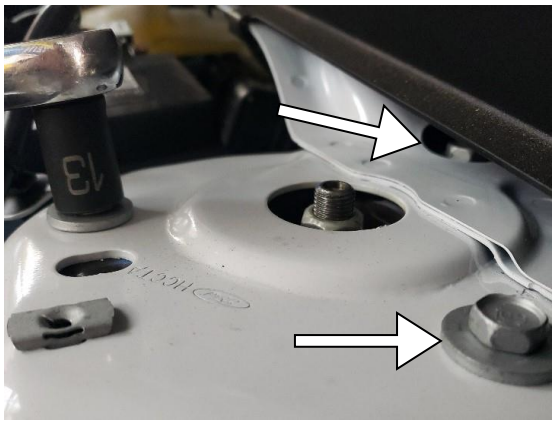
3. Remove the lower strut mounting bolts and support the knuckle assembly.
    a. 21mm wrench, or socket, to remove/back off nut from press fit bolt.
    b. Before removing both lower mount bolts, secure the knuckle assembly with a bungee cord, or bailing wire, to prevent the assembly from swinging downward and pulling the CV shaft out from its housing.
    c. Use a hammer to dislodge press fit bolts from knuckle/strut housing. Keep the nut on and flush with the end of the bolt to protect the bolts thread when hammering.

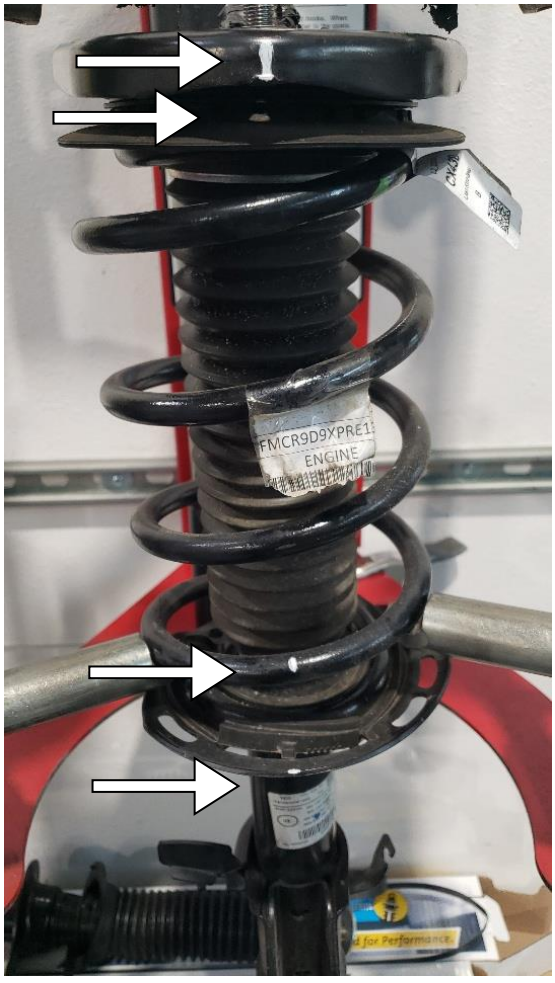





4. Remove cowl and strut tower covers.
    a. Remove all six retaining clips on the cowl. Use caution to not drop in the engine bay. (May need to pinch close with pliers before reinstallation.)
    b. Pull cowl back far enough to reach 10mm bolts on the strut cover. Remove bolts.
    c. Remove strut tower cover to expose top mount strut nuts.

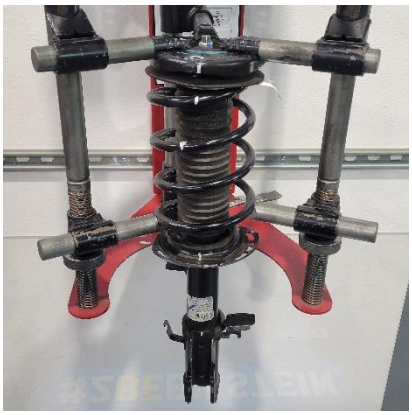




5. Support strut while removing the upper strut mounting bolts and remove strut assembly from vehicle. Be cautious of brake and ABS line mentioned in step 1 when removing the strut assembly. (Note the top hat orientation from the housing during removal and mark the spring's upper coil orientation to the upper spring isolator.)
    a. 13mm wrench or socket.
    b. Paint pen or marker.



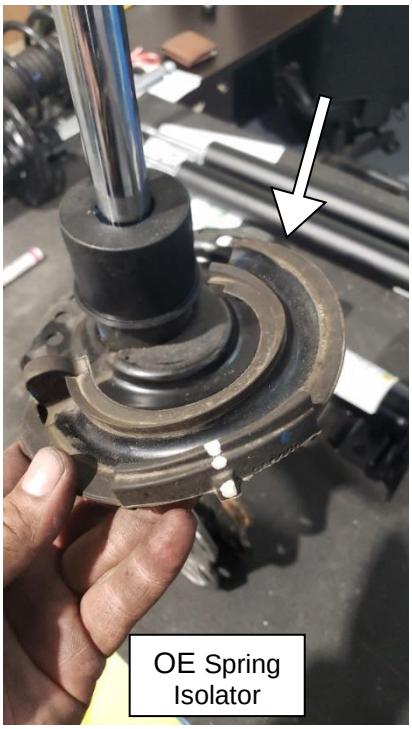


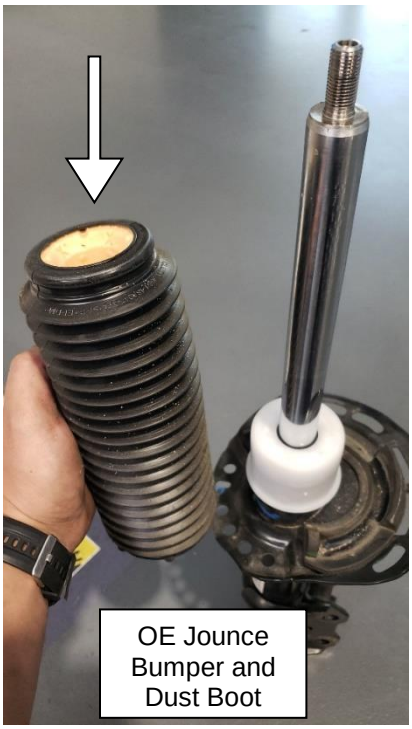
6. Using a spring compressor, compress the spring until the spring is no longer seated on the lower isolator and remove the stem nut from the top hat.
    a. Spring Compressor.
    b. 18mm thin wall deep socket or wrench.
    c. 7mm allen wrench.

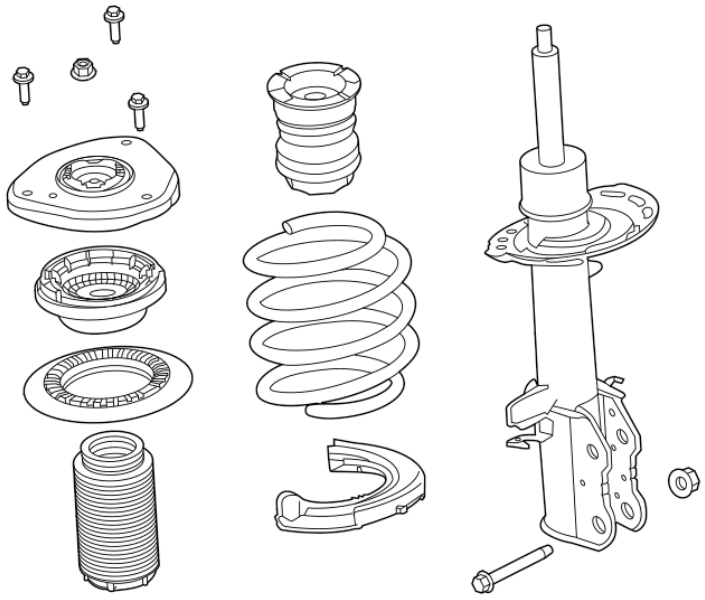


7. Priming the BILSTEIN B8 Terrasport twin tubes.
    a. To prime, hold the strut assembly vertical and fully compress the shock until it bottoms and allow to return to fully extended.
    b. Repeat this process 4-5 times until the movement is smooth and consistent.
    c. Keep the B8 strut vertical at all times after priming and during installation, or repeat the priming process.

8. Transfer the lower spring isolator and jounce bumper/dust boot to the B8 Terrasport strut. Reinstall in the spring and top hat using the BILSTEIN supplied stem nut ensuring the correct orientation noted in step 5.
    a. 19mm deep socket or wrench.
    b. 7mm allen wrench.







9. Install the assembled B8 Terrasport strut in the reverse order, using all the original fasteners. Hand tighten the top mount. Torque lower mount nuts/bolts to the manufacturer's specifications.

10. Repeat all installaion procedures for the passenger side.

11. Remove jack stands and lower vehicle. Once on the ground, torque all fasteners to the manufacturer's specifications. (Driver and passenger sides pictured below.)

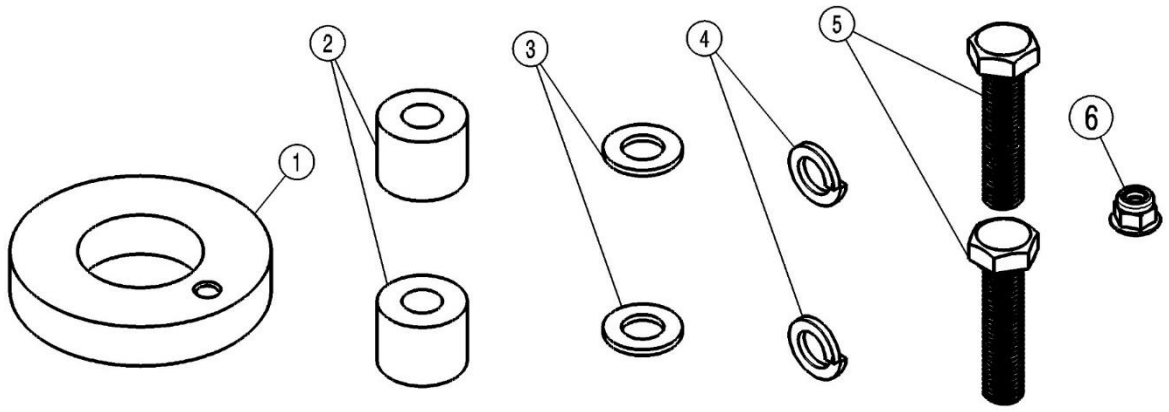
Final Assembly of B8 Terrasport Front Struts

Driver Side

Passenger Side

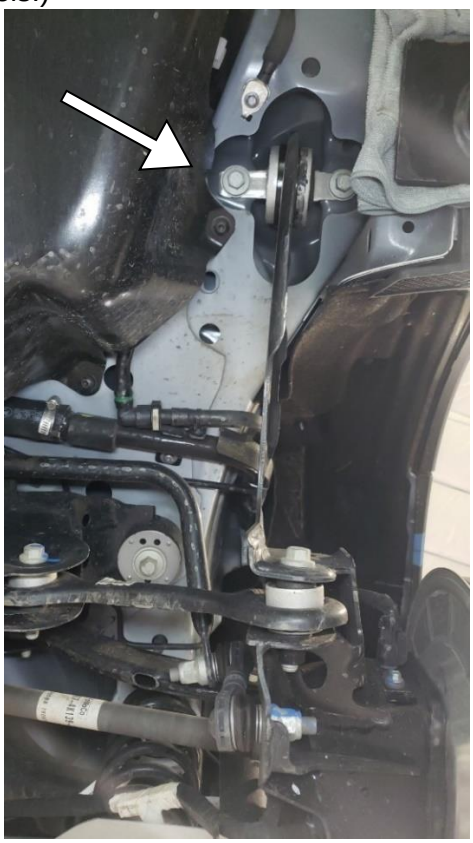
B8 Terrasport Rear Parts Kit (per side/shock);

Bill of Materials		
Item #	**Description**	**Qty.**
1	Spring Spacer Assembly	1
2	Trailing Arm Spacer	2
3	Trailing Arm Washer; M14	2
4	Split Lock Washer; M14	2
5	Hex Head Cap Screw; M14x2	2
6	Nyloc Nut; M8x1.25	1



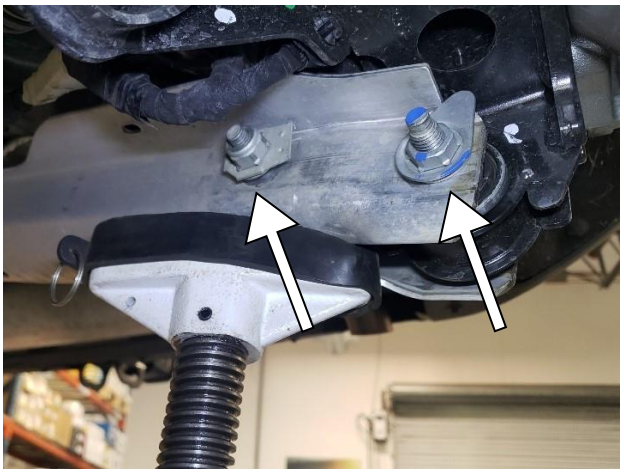
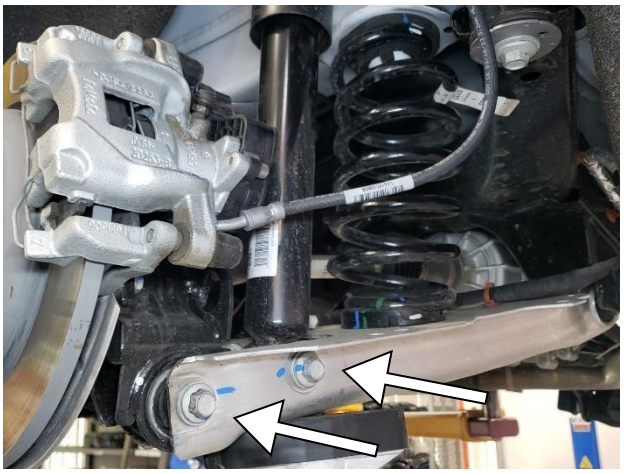
Rear B8 Terrasport shock and spacer kit (Driver side shown, passenger side is a mirror image and the same steps will be followed as shown below);

12. To access the trailing arm bolts, remove the 10mm nuts and plastic retaining pins, with a clip tool, on the rear portion of the air deflector panel. The panel can be pulled back to gain access to the trailing arm bolts. (Badlands and First Edition trim models will not have the trailing arm bolts obstructed from the air deflector panel. The panel does not need to be removed on those trim models.)



13. Remove plastic wiring clip from control arm with clip tool.

14. While supporting the lower control arm with a jack, remove the 15mm bolts from the lower knuckle and the shock. Once the bolts are removed and set aside, slowly lower the jack to drop the control arm from the knuckle and shock. (A pry tool, or large flat head screw driver, may be needed to dislodge the knuckle and shock from the control arm. Do so with a jack below the control arm to prevent the control arm from swinging down uncontrolled.)
    a. 15mm Socket.

15. Make alignment markings on the upper spring isolator, the spring, the lower spring isolator, and the control arm. Note the OE green and blue paint markings. Make your own markings to ensure these parts are realigned to their exact current position upon reassembly. Lower control arm enough for the spring to separate from upper or lower spring isolator. Spring should now be free to remove.
    a. Paint pen.

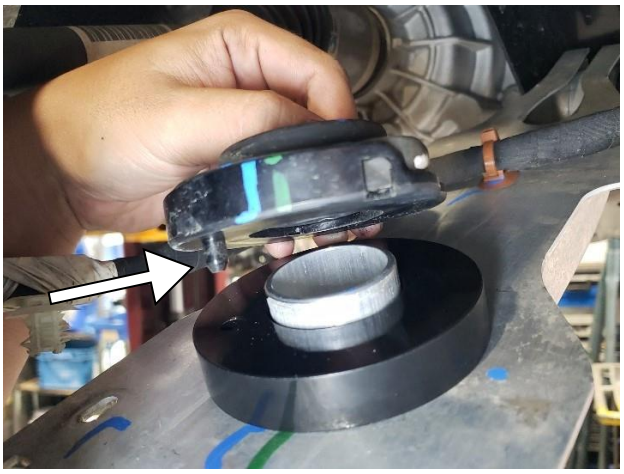
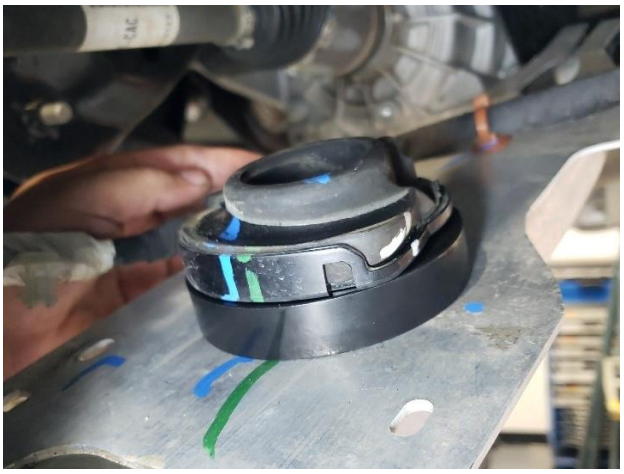



16. Use a pry tool, or large flat head screw driver, to pry lower spring isolator from control arm.

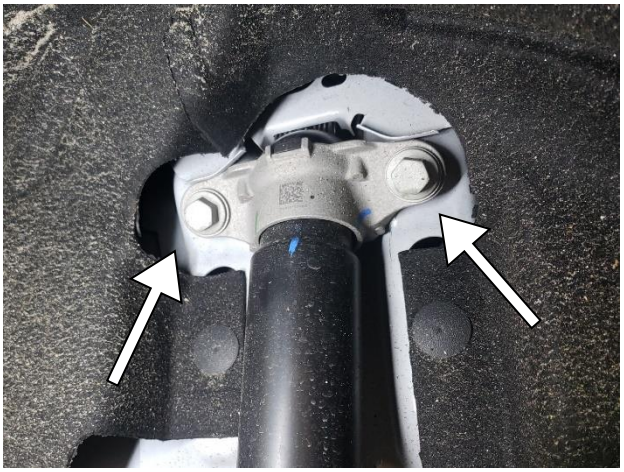

17. Once the lower spring isolator is removed, clean the lower control arm of any dirt or debris from where the spring spacer will sit.


18. Install the BILSTEIN spring spacer (item #1) making sure to align the locator pin into the hole on the control arm.

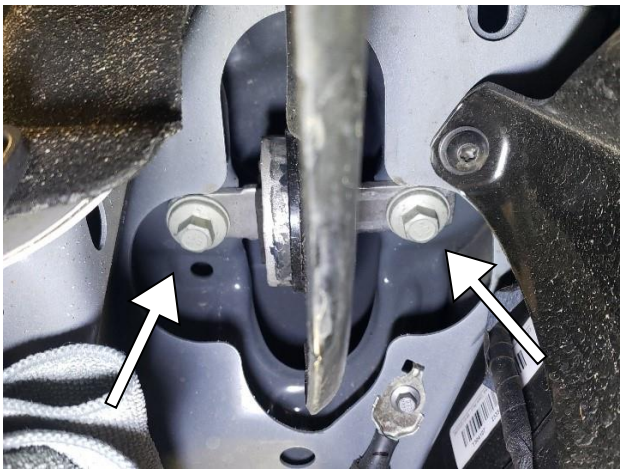

19. Install the lower spring isolator onto the installed spring spacer using the locator pin to align with the locator hole on the spring spacer.

20. Remove the mount bolts from the top of the OE shock and remove shock assembly. Make sure to support the shock when removing the second bolt. Set rear shock assembly aside for now.
    a. 18mm Socket.

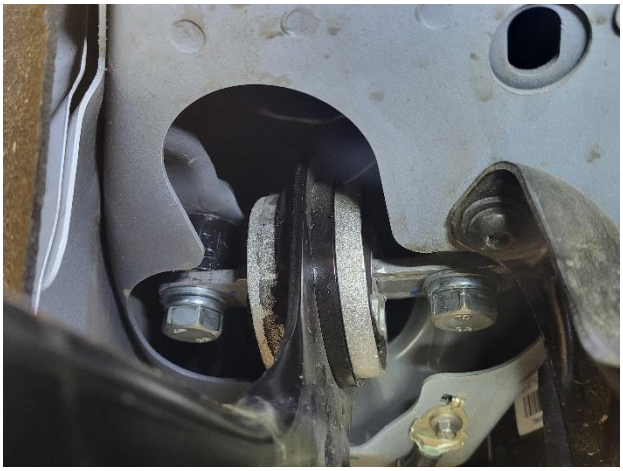



21. Remove bolts from the trailing arm connected to the chassis. OE bolts can be discarded.
    a. 15mm Socket and extension.



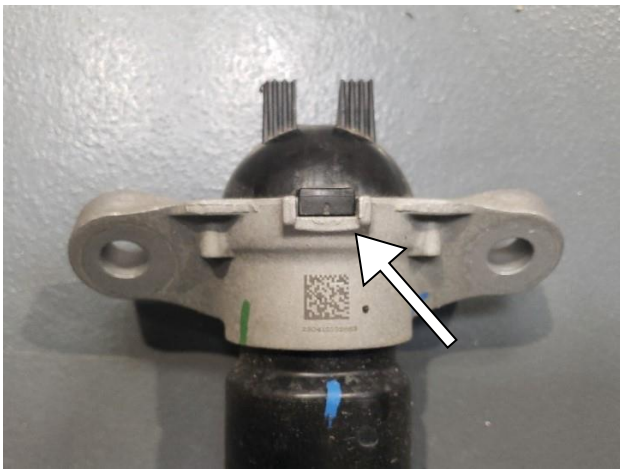

22. Place the BILSTEIN trailing arm spacers (items #2) in position between the trailing arm mount and the chassis. Then place the provided split lock washer, and trailing arm washer, onto the M14x2 bolt (items #4, #3, and #5, respectively) and insert through the trailing arm mount hole and trailing arm spacer. Tighten by hand until the first bolt has at least 2-3 threads engaged to the chassis and then repeat the process for the other bolt. Once both bolts are threading into the chassis you can tighten to manufacturer's torque specs.
    a. 22mm Socket and extension.





23. If you have a non-Badlands/First Edition trim model, you will need to reattach the air deflector panel removed in step 10.
    a. 10mm Socket.

24. Remove the plastic cap of the OE rear shock assembly by prying the tab on the cap from the top mount. Disassemble the top mount from the shock.
    a. 13mm Socket.



25. Reassemble the OE dust boot/jounce bumper and OE top mount onto the BILSTEIN rear shock. Torque the supplied nyloc nut (Item #6) from the rear parts kit to the manufacturer's suggested specificiation. Reinstall the plastic cap to the top mount.
    a. 13mm deep socket.


26. Install BILSTEIN rear shock assembly to the top mounts and torque to manufacturer's suggested specificiation
    a. 18mm socket.

27. Reinstall the OE spring onto the upper & lower spring isolators. Make sure to align markings on the spring with the markings on the top and bottom spring isolators mentioned in step 13.

28. Reposition a jack under the control arm and guide the shock into position. Raise the jack to move the control arm into alignment with the eye of the lower shock mount enough to get the OE shock bolt inserted and hand tighten the nut with the bolt.
    a. 15mm Socket.

29. Raise the jack until the lower knuckle is in alignment to install and hand tighten the OE knuckle bolt.
    a. 15mm Socket.

30. Repeat all installaion procedures for the passenger side.

31. Loosen all ruber bushing hardware throughout the suspension. Install wheels and lower vehicle onto the ground. Torque all suspension components to the manufacturer's suggested torque specifications.

32. Check wheel alignment and headlight aim, and adjust to the vehicle manufacturer's specifications. This completes the installation. (Driver and passenger sides pictured on following page.)

Final Assembly of B8 Terrasport Rear Kit

Driver Side

Passenger Side