Rough Country 13231 Installation Instructions

4-Inch Lift Kit with N3 Struts and Shocks for Colorado/Canyon

Part number: 13231

trailfortress.com/4-inch-lift-kit-colorado-canyon-rough-country-13231

Scan for fitment, price and install help

ROUGH COUNTRY SUSPENSION SYSTEMS®

921133300

CHEVY 2023 COLORADO 4WD 4” / 6” LIFT KIT

Thank you for choosing Rough Country for all of your suspension needs.
Rough Country recommends a certified technician installs this system. In addition to these instructions, professional knowledge of disassemble/reassembly procedures as well as post installation checks must be known. Attempts to install this system without this knowledge and expertise may jeopardize the integrity and/or operating safety of the vehicle.

Please read all the instructions before beginning the installation. Check the kit hardware against the Kit Contents list on next page. Be sure you have all the needed parts and understand where they go. Also please review the tools needed list to be certain that you have the tools necessary to complete the installation.

PRODUCT USE INFORMATION

⚠WARNING As a general rule, the taller a vehicle is the easier it will roll. We strongly recommend, because of rollover possibility, that seat belts and shoulder harnesses should be worn at all times. Avoid situations where a side rollover may occur. Braking performance and capabilities are decreased when significantly larger/heavier tires and wheels are used. Take this into consideration while driving. Also, speedometer recalibration is necessary when larger tires are installed.

Do no add, alter, or fabricate any factory or after-market parts which increase vehicle height over the intended height of the Rough Country product purchased. Mixing component brands, lifts, with this suspension lifts voids all warranties. Rough Country makes no claims regarding lifting devices and excludes any and all implied claims. We will not be responsible for any product that is altered.

⚠NOTICE Due to differences in manufacturing, dimension and inflated measurements, tire and wheel combinations should be test fit prior to installation. A quality tire of radial design is recommended. **Factory wheels will not fit**.

For the **4”** lift application we recommend an 20” wheel not to exceed 9” in width with **+1mm offset** and a **33x12.50** tire.

For the **6”** lift application we recommend an 20” wheel not to exceed 9” in width with **+1mm offset** and a **35x12.50** tire.

⚠NOTICE **NOTICE TO DEALER AND VEHICLE OWNER**

Any vehicle equipped with any Rough country product must have the “Warning to Driver” decal installed on the sun visor or dash. The decal is to act as a constant reminder for whoever is operating the vehicle of its unique handling characteristics. INSTALLING DEALER—It is your responsibility to install the warning decal and to forward these installation instructions on too the vehicle owner for review and to be kept in the vehicle for its service life.

Torque Specs:

Size	Grade 5	Grade 8	Size	Class 8.8	Class 10.9
5/16”	15 ft/lbs	20ft/lbs	6MM	5ft/lbs	9ft/lbs
3/8”	30 ft/lbs	35ft/lbs	8MM	18ft/lbs	23ft/lbs
7/16”	45 ft/lbs	60ft/lbs	10MM	32ft/lbs	45ft/lbs
1/2”	65 ft/lbs	90ft/lbs	12MM	55ft/lbs	75ft/lbs
9/16”	95 ft/lbs	130ft/lbs	14MM	85ft/lbs	120ft/lbs
5/8”	135ft/lbs	175ft/lbs	16MM	130ft/lbs	165ft/lbs
3/4”	185ft/lbs	280ft/lbs	18MM	170ft/lbs	240ft/lbs

trailfortress.com/4-inch-lift-kit-colorado-canyon-rough-country-13231

4” Lift Kit

Kit Contents:

- 13230993
  - 13230BAG1
  - 13230BAG3
  - 13230BAG4
  - Dr. Side Sway Bar Drop Bracket
  - Pass. Side Sway Bar Drop Bracket
  - Dr. Side Differential Bracket
  - Pass. Side Differential Bracket
- 13230994
  - Skid Plate
  - 13230BAG2
- 13230992
  - Front Crossmember
  - Rear Crossmember
- 13230991
  - Dr. Side Lifted Knuckle
  - Pass. Side Lifted Knuckle
- 13230995
  - 10MMSTUDBAG-2
  - 2 - Strut Spacer
  - 4 - 9/16” x 2 1/2” x 10 1/2” U-bolt
  - 2 - Rear Lift Block
  - 9/16Bag
- 23141
  - 2 - Rear Shocks

Hardware Included:

- 13230BAG1
  - 4 - 16mm x 110mm Bolt
  - 8 - 16mm Flat Washer
  - 4 - 16mm Lock Nut
  - 4 - Cam Bolt
- 13230BAG2
  - 6 - 3/8” x 1 1/4” Bolt
  - 6 - 3/8” Flat Washer
  - 6 - 3/8” Lock Washer
- 13230BAG3
  - 2 - 14mm x 80mm Bolt
  - 2 - 14mm x 40mm Bolt
  - 2 - 14mm Lock Nut
  - 2 - 9/16” Lock Washer
  - 6 - 9/16” Flat Washer
  - 4 - 10mm x 25mm Bolt
  - 4 - 10mm Flat Washer
  - 4 - 10mm Flange Nut
- 13230BAG4
  - 1 - Dr. Rear Brake Line Bracket
  - 4 - Cable Clamp
  - 4 - 6mm x 20mm Button Head Bolt
  - 4 - 6mm Lock Nut
  - 2 - 5/16” x 3/4” Bolt
  - 2 - 5/16” Flat Washer
  - 2 - 5/16” Lock Nut
- 10MMSTUDBAG--2

6” Lift Kit

Kit Contents:

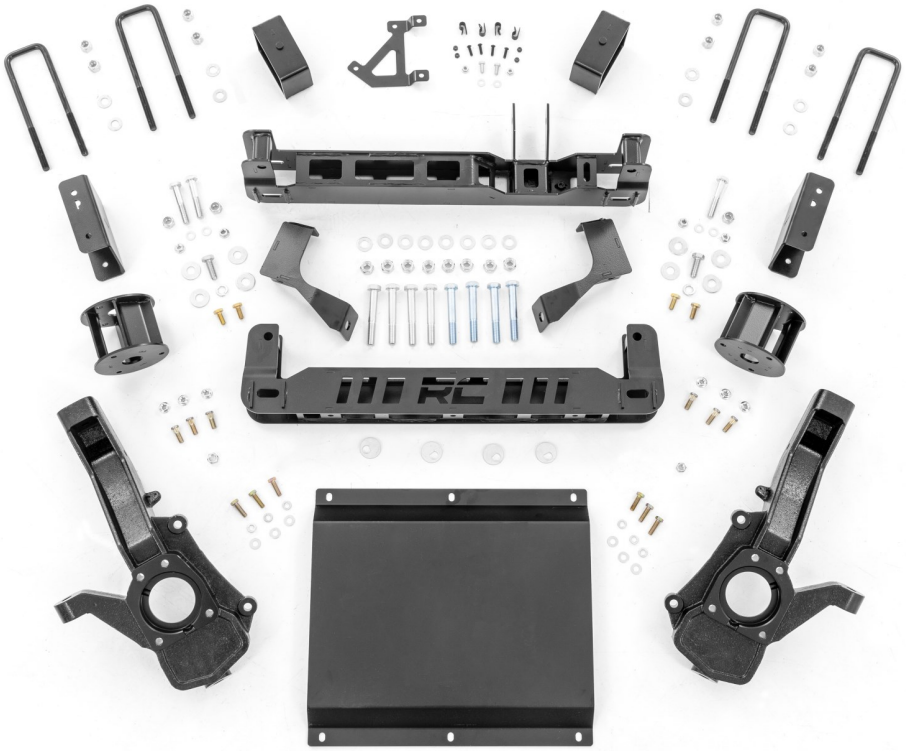
- 13230993
  - 13230BAG1
  - 13230BAG3
  - 13230BAG4
  - Dr. Side Sway Bar Drop Bracket
  - Pass. Side Sway Bar Drop Bracket
  - Dr. Side Differential Bracket
  - Pass. Side Differential Bracket
- 13230994
  - Skid Plate
  - 13230BAG2
- 13230992
  - Front Crossmember
  - Rear Crossmember
- 13230991
  - Dr. Side Lifted Knuckle
  - Pass. Side Lifted Knuckle
- 13330995
  - 10MMSTUDBAG-2
  - 2 - Strut Spacer
  - 4 - 9/16” x 2 1/2” x 12 1/2” U-bolt
  - 2 - Rear Lift Block
  - 2 - Preload Spacer
  - 9/16Bag
- 23220
  - 2 - Rear Shocks

Hardware Included:

- 13230BAG1
  - 4 - 16mm x 110mm Bolt
  - 8 - 16mm Flat Washer
  - 4 - 16mm Lock Nut
  - 4 - Cam Bolt
- 13230BAG2
  - 6 - 3/8” x 1 1/4” Bolt
  - 6 - 3/8” Flat Washer
  - 6 - 3/8” Lock Washer
- 13230BAG3
  - 3 - 14mm x 80mm Bolt
  - 2 - 14mm x 40mm Bolt
  - 3 - 14mm Lock Nut
  - 2 - 9/16” Lock Washer
  - 8 - 9/16” Flat Washer
  - 4 - 10mm x 25mm Bolt
  - 4 - 10mm Flat Washer
  - 4 - 10mm Flange Nut
- 13230BAG4
  - 1 - Dr. Rear Brake Line Bracket
  - 4 - Cable Clamp
  - 4 - 6mm x 20mm Button Head Bolt
  - 4 - 6mm Lock Nut
  - 2 - 5/16” x 3/4” Bolt
  - 2 - 5/16” Flat Washer
  - 2 - 5/16” Lock Nut
- 10MMSTUDBAG--2

Tools Required:
Pry Tool
10mm Wrench or Socket
13mm Wrench or Socket
15mm Wrench or Socket
17mm Wrench or Socket
18mm Wrench or Socket
21mm Wrench or Socket
22mm Wrench or Socket
24mm Socket
36mm Socket
3/32” Allen Wrench
T30 Torx
Paint Pen
Transmission Jack
Reciprocating Saw
Metal Cutting Blade

4” Lift Kit

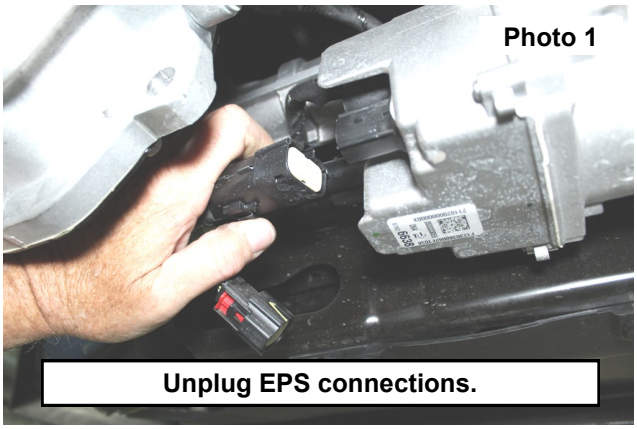


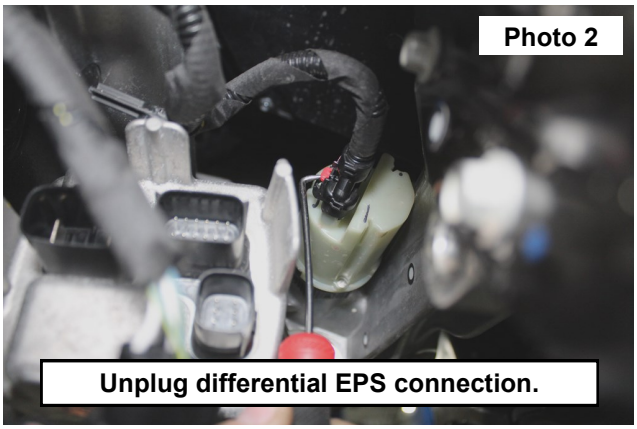
6” Lift Kit



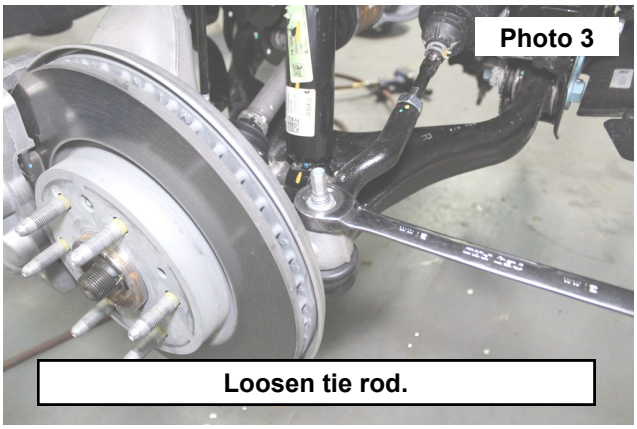
FRONT INSTALLATION INSTRUCTONS

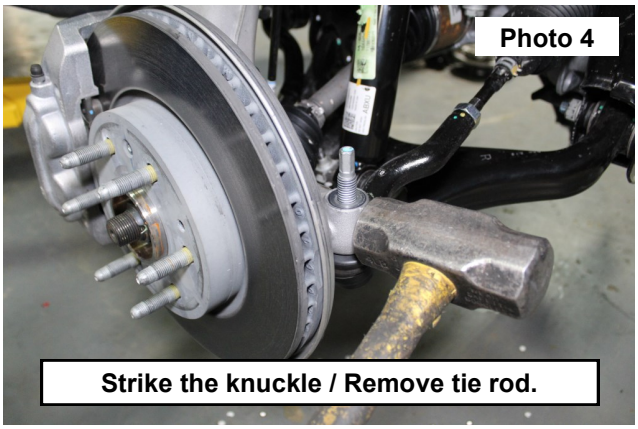
1. Chock the rear wheels and lift the front of the vehicle using a floor jack. Place jack stands under the frame rails and move the floor jack under the front differential.
2. Remove the front wheels using a 22mm socket.
3. Remove the four factory bolts holding the metal skid plate with a 13mm wrench.

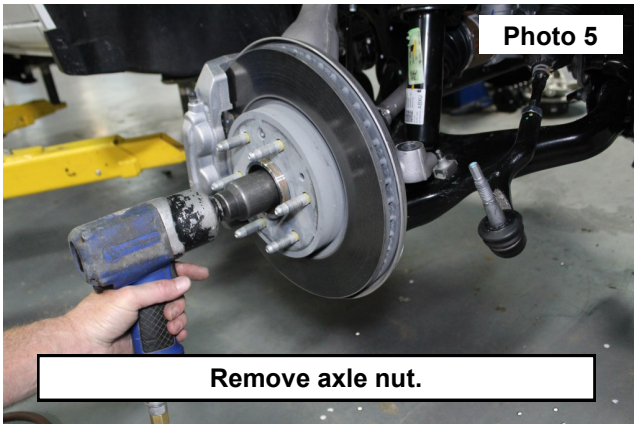


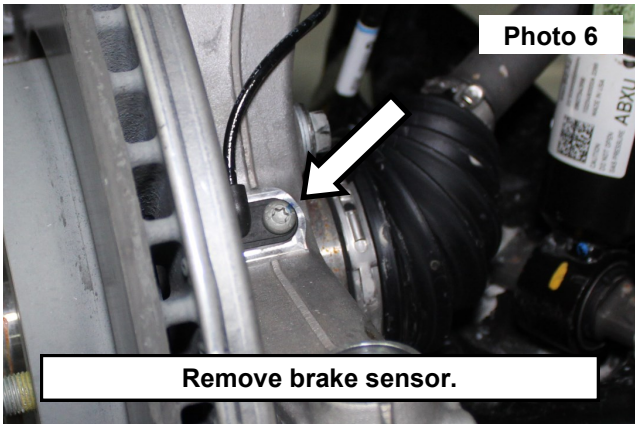


4. Unplug the EPS connections including the connection on the front differential. **See Photo 1 and Photo 2.**
5. Loosen the tie rod nut with a 21mm wrench. Do not remove at this time. **See Photo 3.**
6. Strike the knuckle at the tie rod with a hammer to release the taper. Once the knuckle is released, remove the tie rod nut and separate the tie rod end from the knuckle. Retain hardware for reuse. **See Photo 4.**
7. Remove the axle nut with a 36mm socket. Retain hardware for reuse. **See Photo 5.**
8. Remove brake sensor from the knuckle with a T30 torx. Pull the sensor out of the pocket. Retain hardware for reuse. **See Photo 6.**

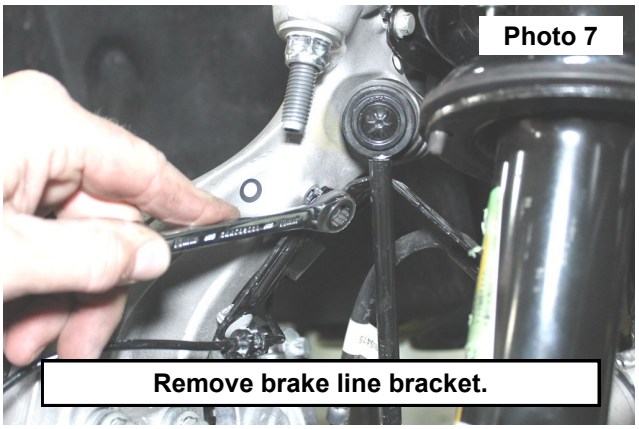


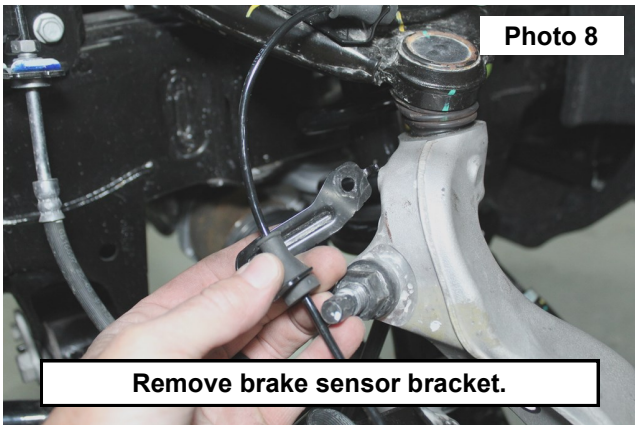




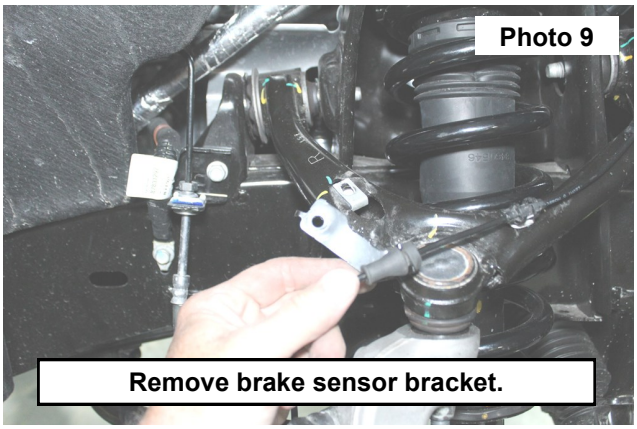


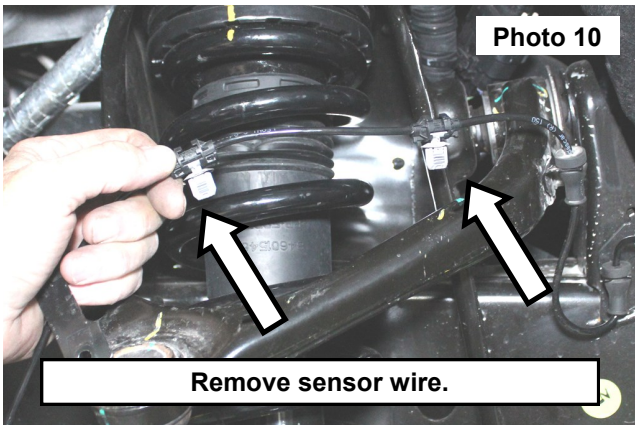
9. Remove the brake line bracket from the knuckle using a 10mm wrench. Retain hardware for reuse. **See Photo 7.**
10. Remove the brake sensor bracket from the knuckle using a 10mm wrench. Retain hardware for reuse. **See Photo 8.**



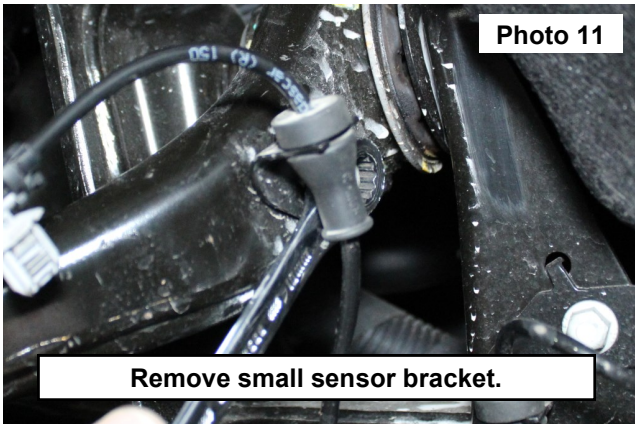


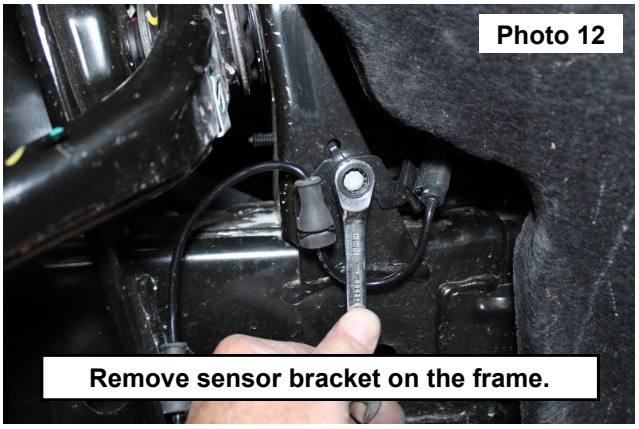
11. Remove the brake sensor bracket on the upper control arm using a 10mm wrench. Retain hardware for reuse. **See Photo 9.**
12. Use a pry too to remove the sensor wire from the upper control arm. **See Photo 10.**



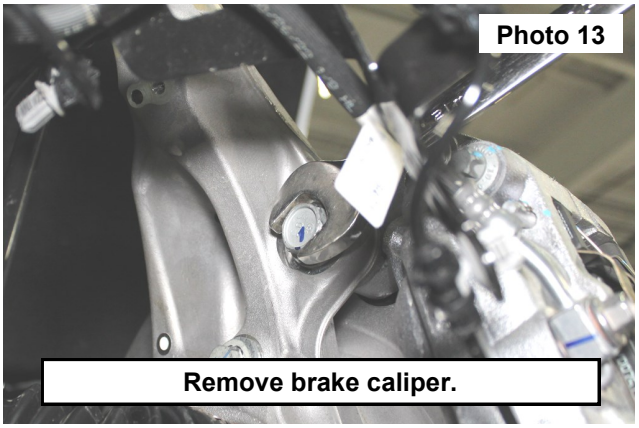


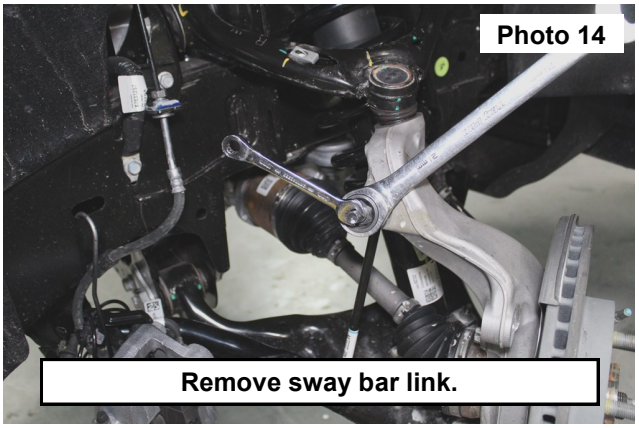
13. Remove small sensor wire bracket with a 10mm wrench. Retain hardware for reuse. **See Photo 11.**
14. Remove sensor wire bracket on the frame with a 10mm wrench. Retain hardware for reuse. **See Photo 12.**
15. Unplug the sensor.



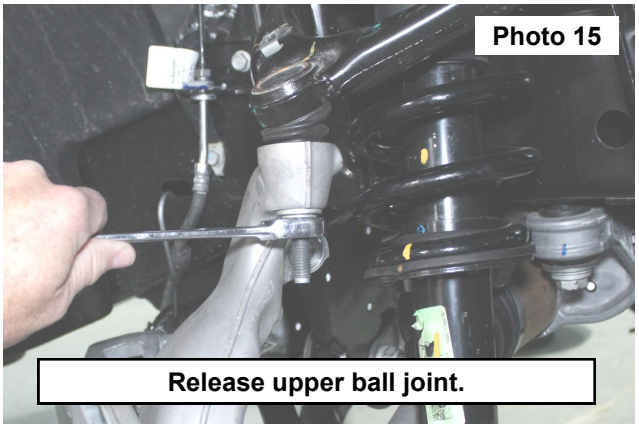


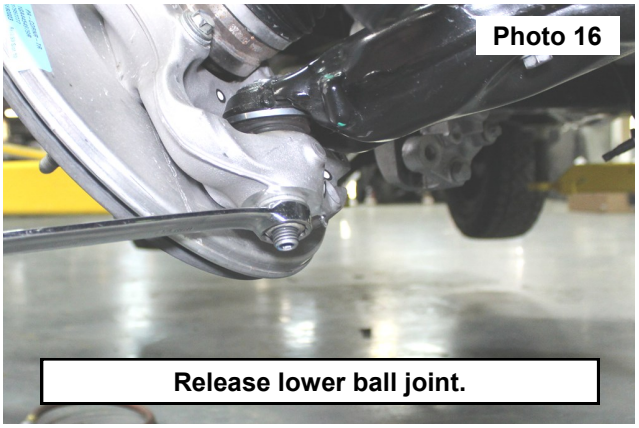
16. Remove the brake caliper bolts using a 21mm wrench. Retain hardware for reuse. **See Photo 13.**
17. Hang or suppoer brake caliper so the brake lines are not being pulled.
18. Remove the sway bar link using a 21mm wrench and 10mm wrench. Retain hardware for reuse. **See Photo 14.**



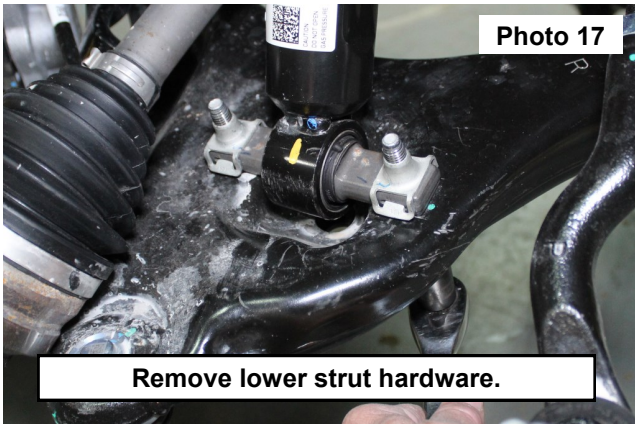


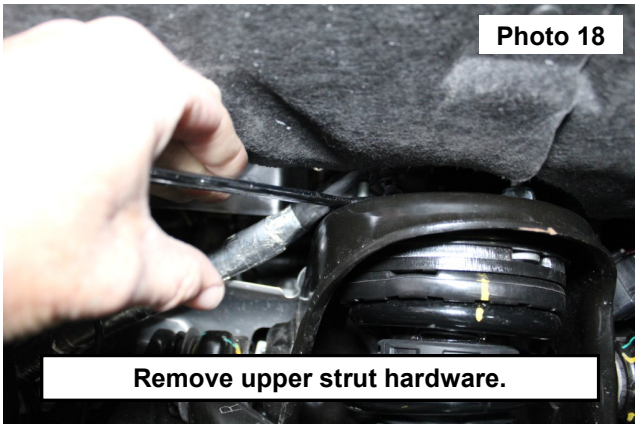
19. Use a 18mm wrench to loosen the nut on the upper ball joint. Do not fully remove. Strike the knuckle at the upper ball joint to release the taper. Remove the upper ball joint nut. Retain hardware for reuse. **See Photo 15.**
20. Use a 24mm wrench to loosen the nut on the lower ball joint. Do not fully remove. Strike the knuckle at the lower ball joint to release the taper. Remove the lower ball joint nut. Retain hardware for reuse. **See Photo 16.**



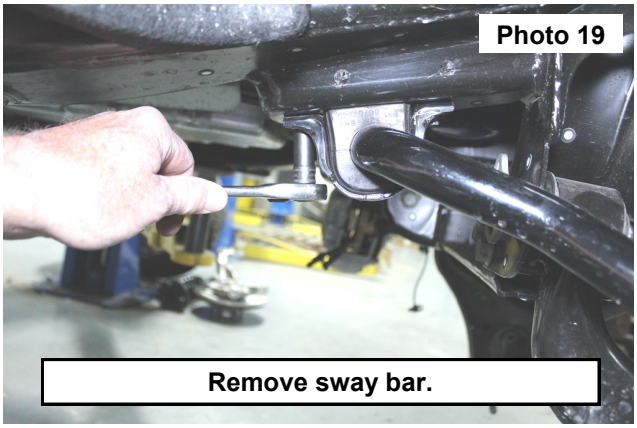


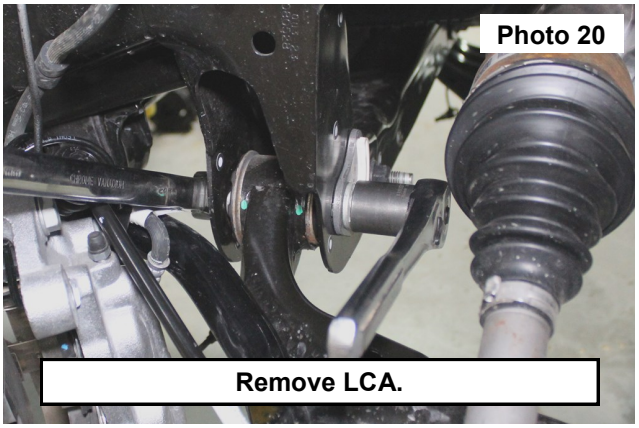
21. Remove the knuckle from the vehicle and set aside.
22. Remove the lower strut bolts with a 15mm wrench. Retain hardware for reuse. **See Photo 17.**
23. Remove the upper strut nuts using a 18mm wrench. Retain hardware for reuse. **See Photo 18.**
24. Remove the strut from the vehicle.



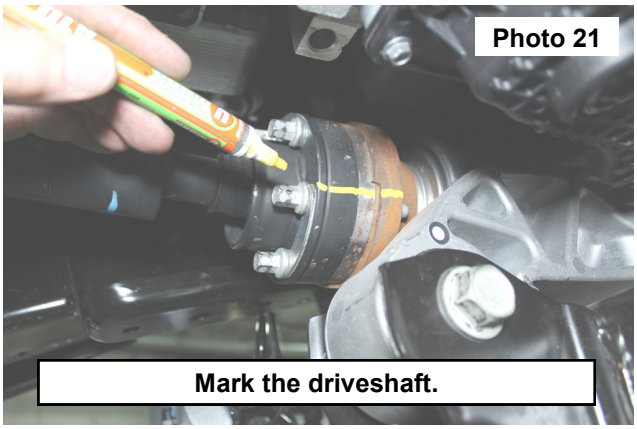


25. Use a 10mm wrench to remove the sway bar from the vehicle. Retain hardware for reuse. **See Photo 19.**
26. Use two 24mm wrenches to remove the cam bolts. Remove the lower control arm. **See Photo 20.**
27. Repeat disassembly for other side of the vehicle.



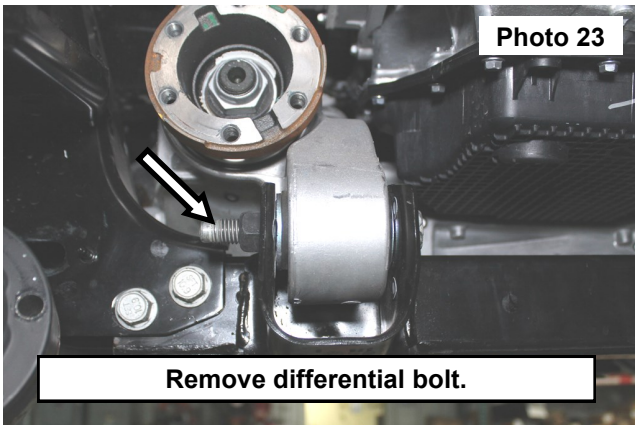


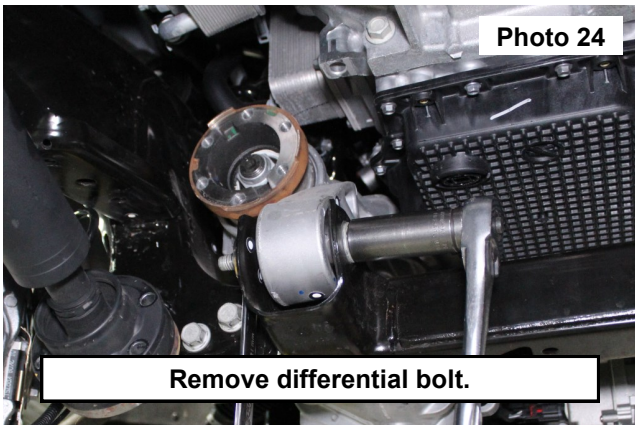
28. Use a paint pen to mark the position of the driveshaft by the front differential. **See Photo 21.**
29. Remove front driveshaft bolts by the front differential with a 10mm wrench. **See Photo 22.**



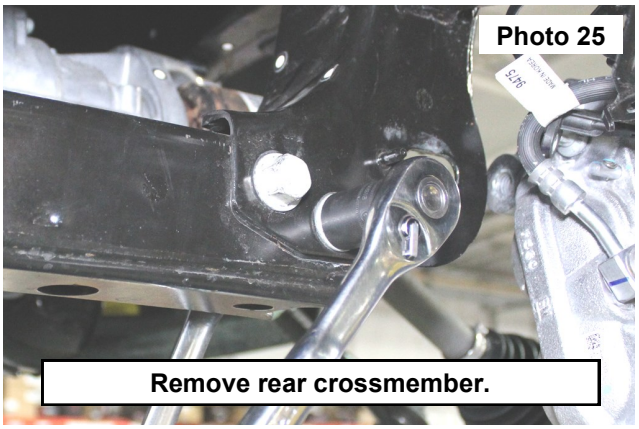


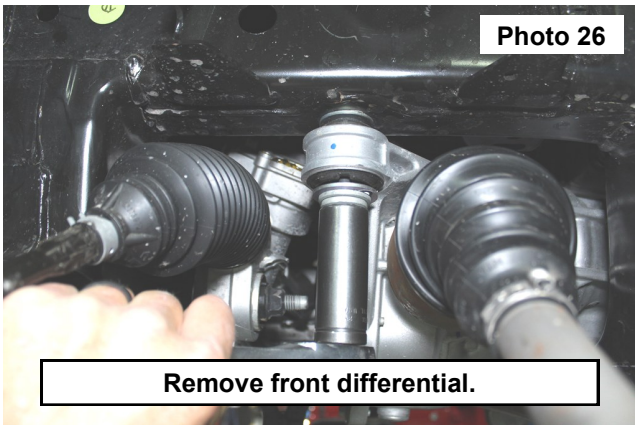
30. Remove rear bolt on the front differential using a 21mm wrench and socket. Retain hardware for reuse. **See Photo 23 and 24.**



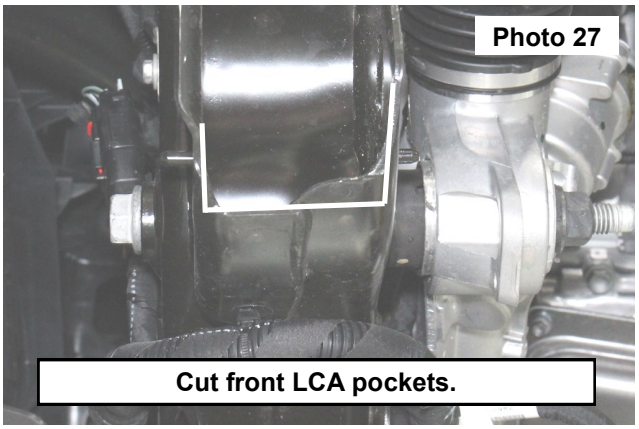


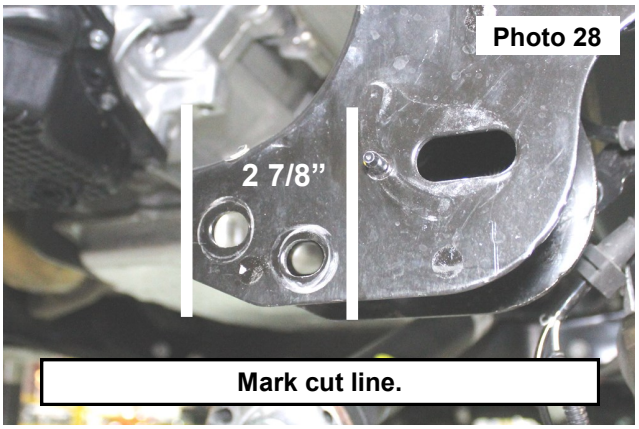
31. Remove the four rear crossmember bolts using an 18mm wrench and socket. **See Photo 25.**
32. Place a transmission jack under the front differential.
33. Remove the driver side differential mount and then remove the passenger side differential mount with a 21mm socket. Set front differential aside. **See Photo 26.**



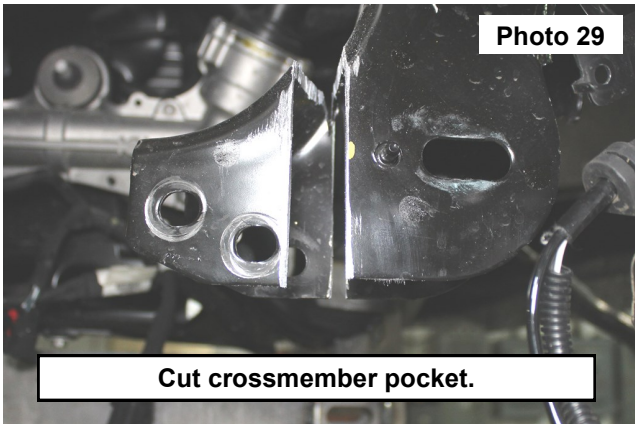


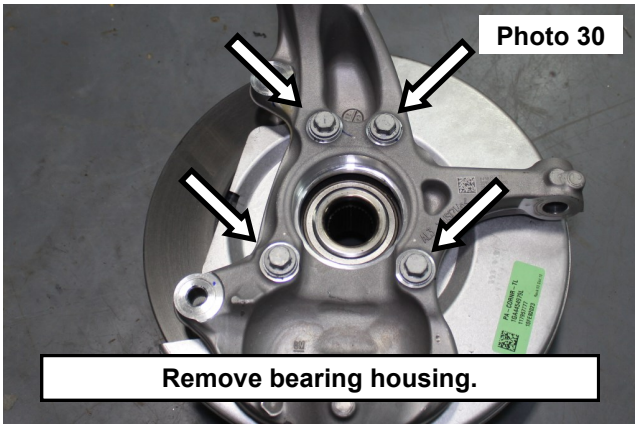
34. Cut or grind front lower control arm pockets along the lines to make room for crossmember. **See Photo 27.**
35. On driver side rear crossmember pocket, measure 2 7/8” from the inside to the outside edge and mark a line with a paint pen. Mark both sides. **See Photo 28.**





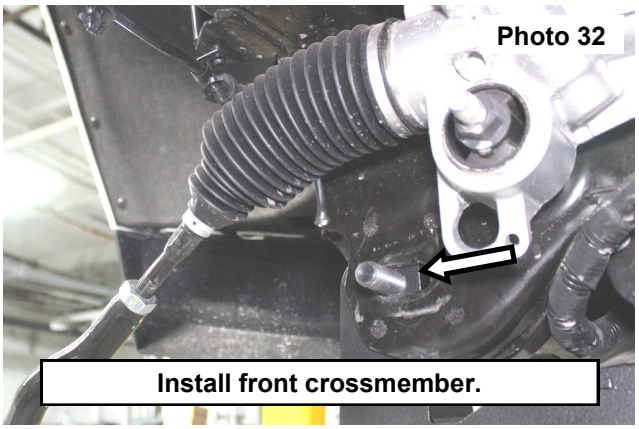
36. Use appropriate cutting tool to cut along the marked positions. **See Photo 29.**
37. Sand and paint bare metal to reduce the risk of rust.
38. Remove the four bolts holding the factory bearing housing to the factory knuckle with a 15mm socket. Retain hardware for reuse. **See Photo 30.**



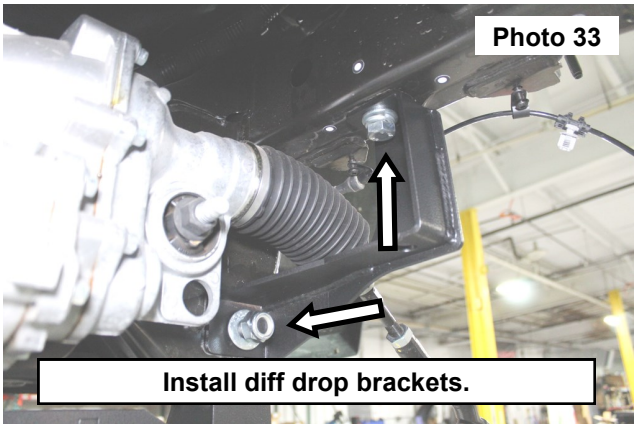


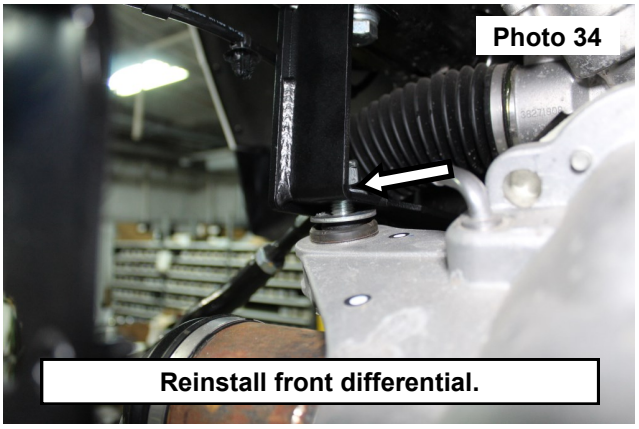
39. Apply blue thread locker to the factory bolts for the bearing housing and install the supplied lifted knuckle onto the bearing housing. Tighten with a 15mm socket. **See Photo 31.**
40. Install the front crossmember using the supplied 16mm bolt and (1) washer. **NOTE:** Do not install the lock nut or rear washer yet. **See Photo 32.**



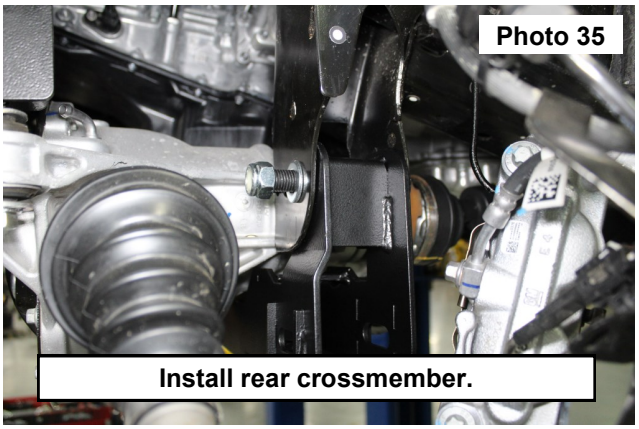


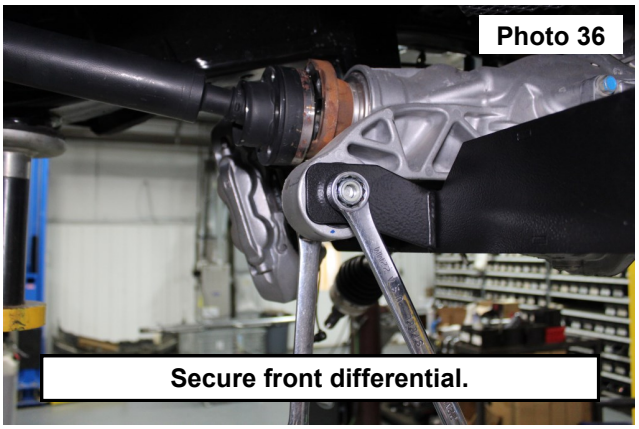
41. Install the diff drop brackets on both the driver and passenger side using the supplied 14mm x 40mm hardware. Use the front crossmember rear washer and lock nut where the diff drop bracket connects to the lower control arm pocket. Tighten the crossmember hardware with a 24mm wrench and tighten the hardware going into the frame with a 22mm wrench. **See Photo 33.**
42. Install the front differential on both sides with the supplied 14mm x 80mm hardware. Tighten with a 21mm wrench and socket. **See Photo 34.**



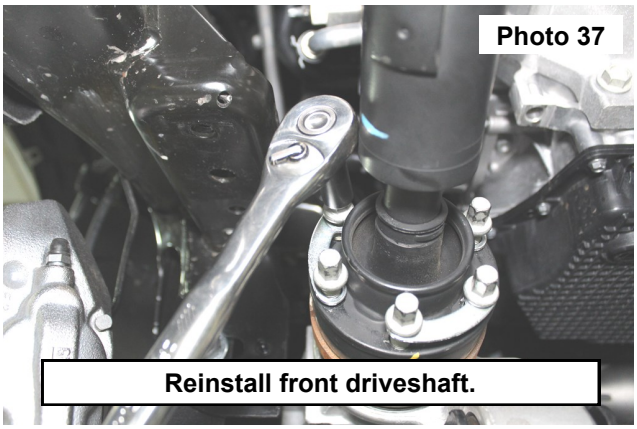


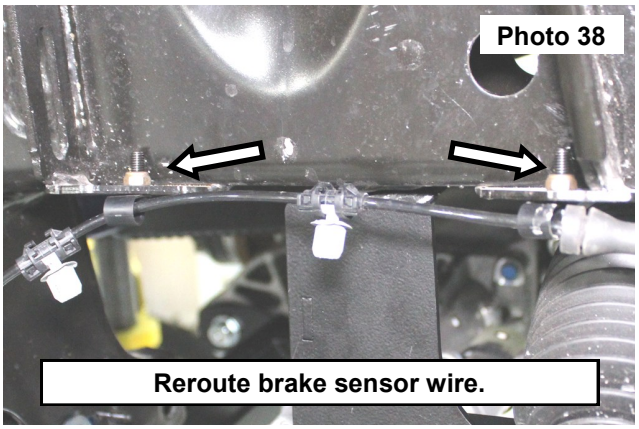
43. Install rear crossmember using supplied 16mm hardware for the lower control arm pockets and tighten with a 24mm wrench and socket. **See Photo 35.**
44. Use factory bolt to secure the front differential to the rear crossmember. Tighten with a 22mm wrench. **See Photo 36.**



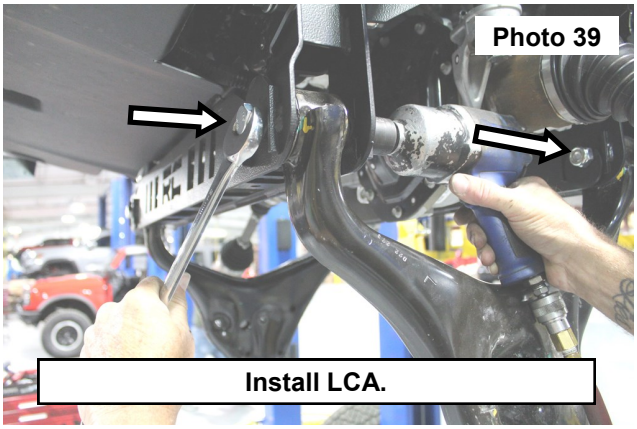


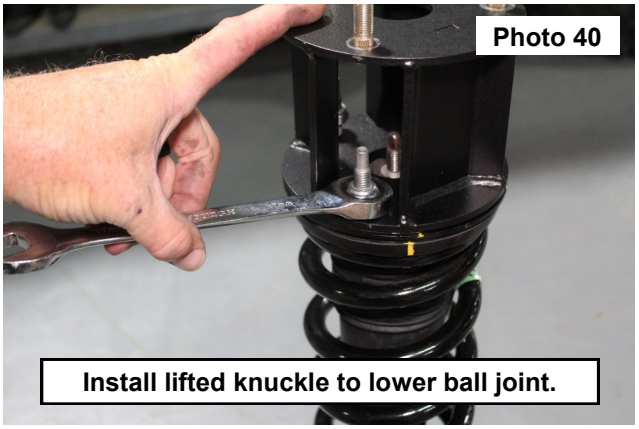
45. Reinstall the front driveshaft at the differential using the factory hardware and a 10mm wrench. **NOTE:** Be sure to align driveshaft using the marks previously drawn. **See Photo 37.**
46. Install supplied 6mm hardware to relocate the brake sensor wire to the underside of the strut tower. Tighten with a 4mm Allen wrench and 10mm wrench. **See Photo 38.**





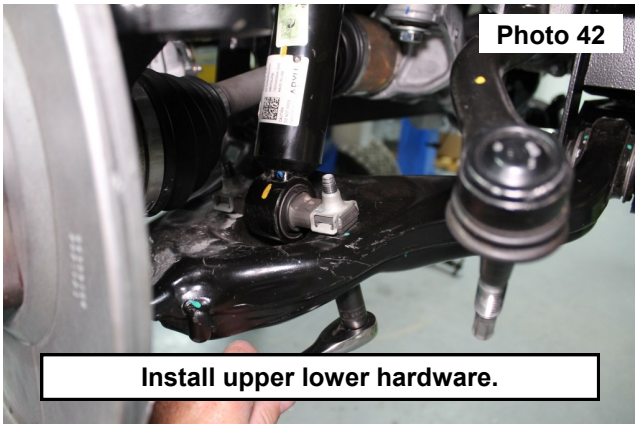
47. Install the lower control arms using the supplied cam bolts, cam washers, flat washers, and lock nuts. Tighten with a 24mm wrench and socket. **See Photo 39.**
48. IF USING FACTORY STRUTS: Press the supplied 10mm studs into the supplied strut spacer. Install the strut spacer onto the factory strut using the factory hardware. Tighten with a 17mm wrench. **See Photo 40. NOTE:** 6" kits need to install preload spacers on the front strut. Refer to **Page 15** for instructions.



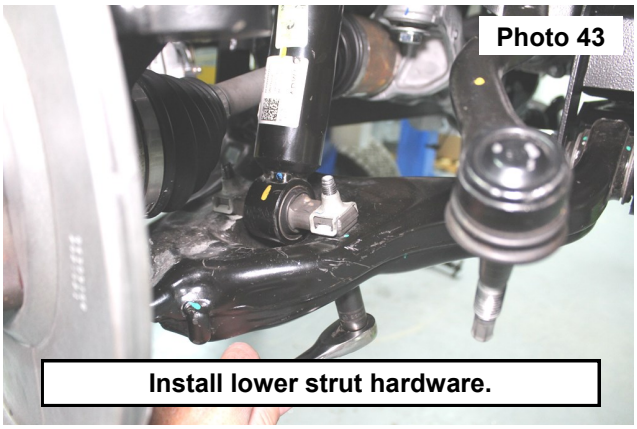


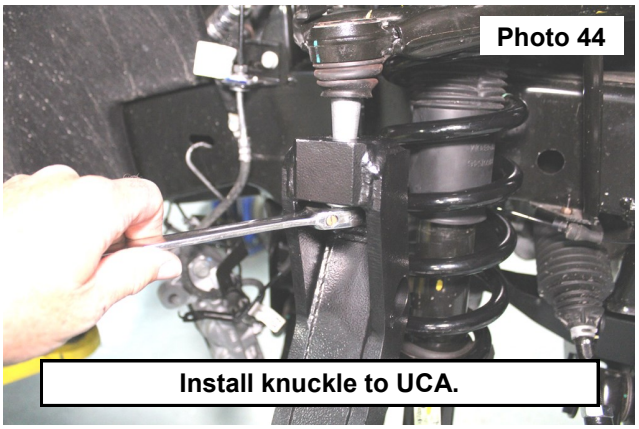
49. Install the supplied upper strut nuts using a 15mm wrench. **See Photo 41.**
50. Secure the strut to the lower control arm using the factory hardware. Tighten with a 15mm socket. **See Photo 42.**



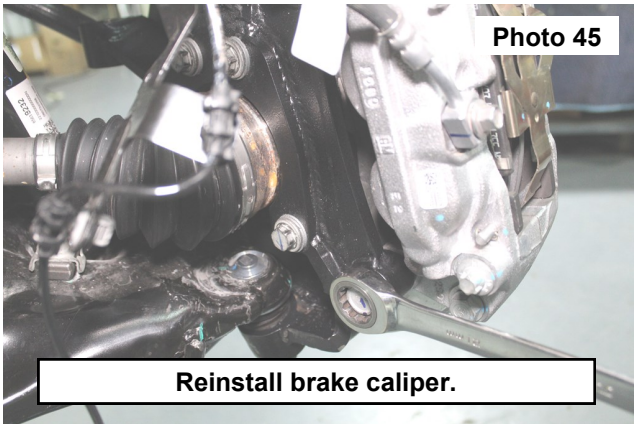


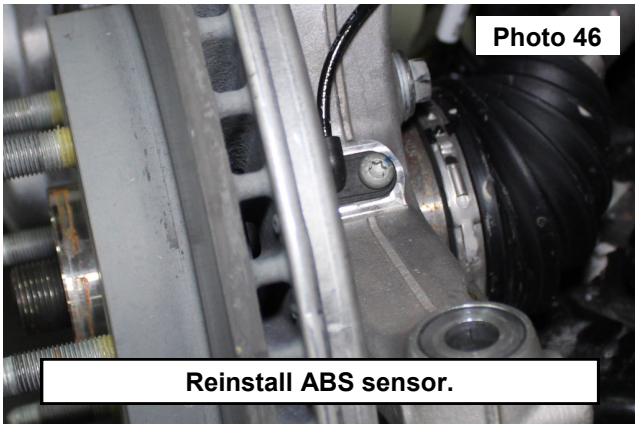
51. Place lifted knuckle assembly onto the axle. Secure the lifted knuckle to the lower ball joint using the factory hardware. Tighten with a 24mm wrench and socket. **See Photo 43.**
52. Secure the lifted knuckle to the upper control arm using the factory hardware. Tighten with an 18mm socket. **See Photo 44.**



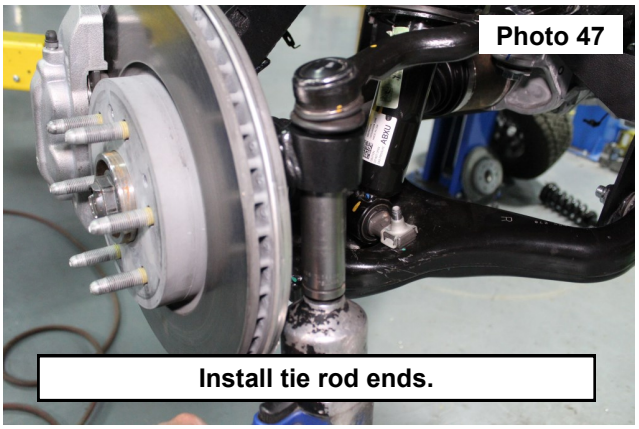


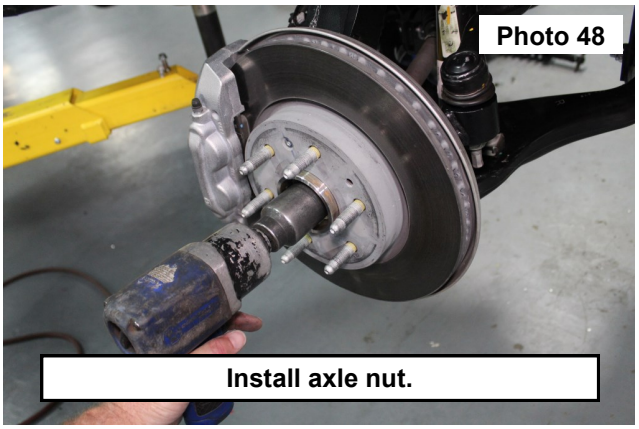
53. Reinstall the brake caliper using the factory hardware and tighten with a 21mm wrench. **See Photo 45.**
54. Reinstall ABS sensor using the factory hardware and a T30 torx. **See Photo 46.**
55. Remove both tie rod ends with an adjustable wrench.
56. Place the driver side tie rod end on the passenger side and vice versa with an adjustable wrench.



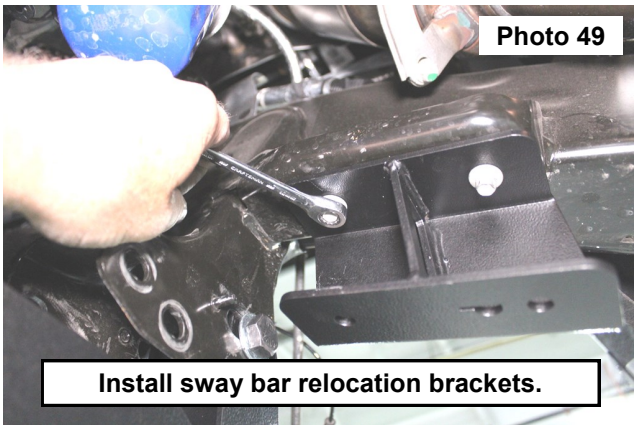


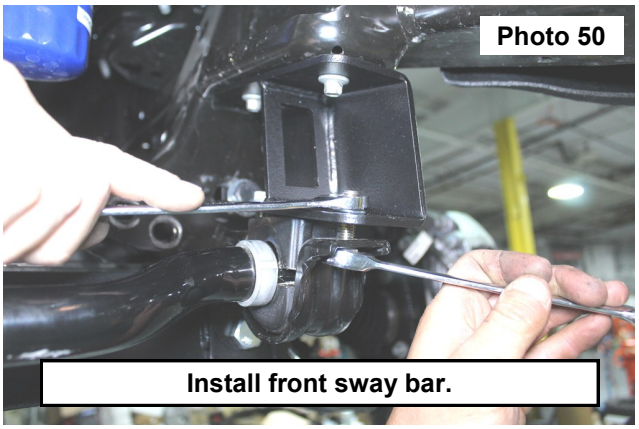
57. Attach the swapped tie rod ends to the knuckle using factory hardware and a 21mm socket. **See Photo 47.**
58. Install the factory axle nut using a 36mm socket. **See Photo 48.**
59. Locate the previously removed front sway bar.
60. Use a 21mm wrench and 12mm wrench to remove the sway bar links.
61. Install the right sway bar link on the left side and the left sway bar link on the right side with a 12mm and 21mm wrench.



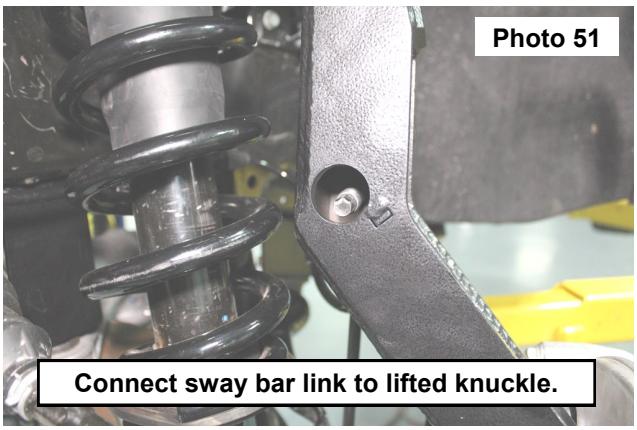


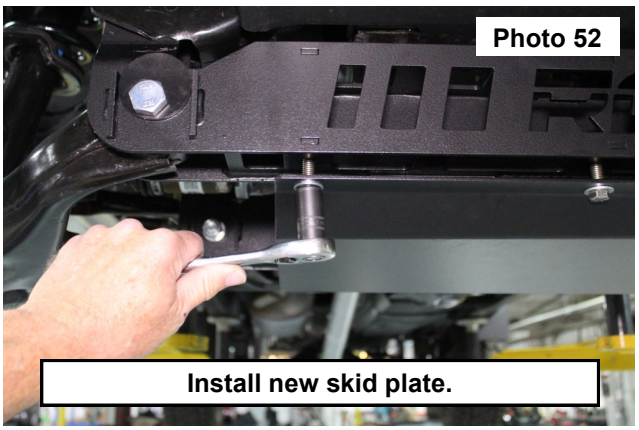
62. Install the sway bar relocation brackets in the factory sway bar mount location using the factory hardware and a 10mm wrench. **NOTE:** Driver and passenger side relocation brackets are marked. **See Photo 49.**
63. Connect factory sway bar to the relocation brackets using the supplied 10mm hardware. Tighten with two 17mm wrenches. **See Photo 50.**



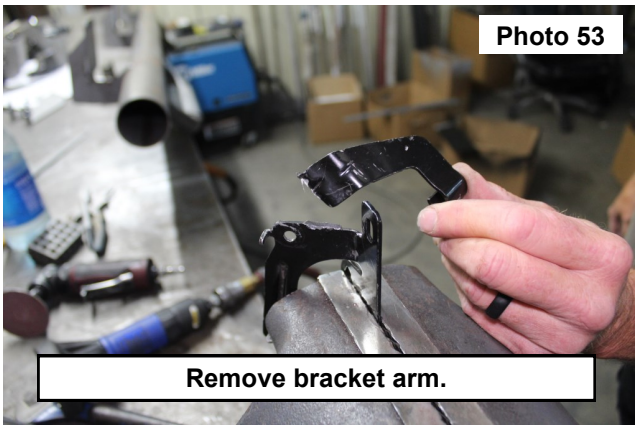


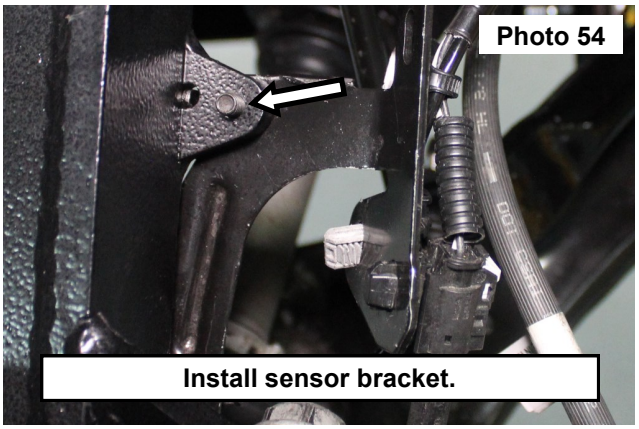
64. Connect the sway bar links to the knuckle using factory hardware and the supplied spacer. Tighten with a 21mm socket. **See Photo 51.**
65. Install the skid plate using the supplied 3/8 x 1 1/4" hardware. Tighten with a 9/16" wrench. **See Photo 52.**





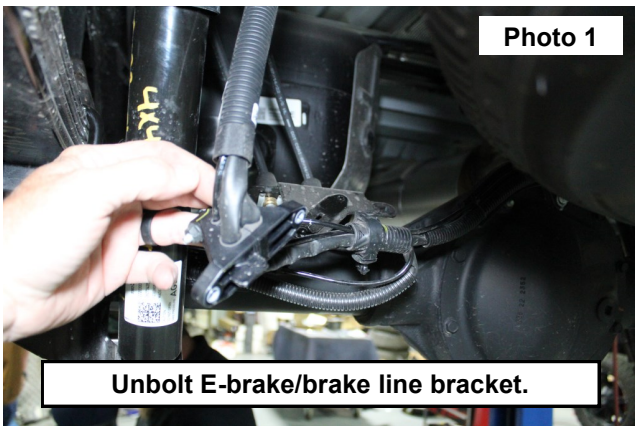
66. Locate previously removed brake line bracket.
67. Use appropriate metal cutting tool to remove the arm of the brake line bracket. **See Photo 53.**
68. Install the brake line bracket onto the lifted knuckle using the factory hardware. Tighten with a 10mm wrench. **See Photo 54.**
69. Install the front wheels and lug nuts with a 22mm socket.
70. Lower the vehicle.

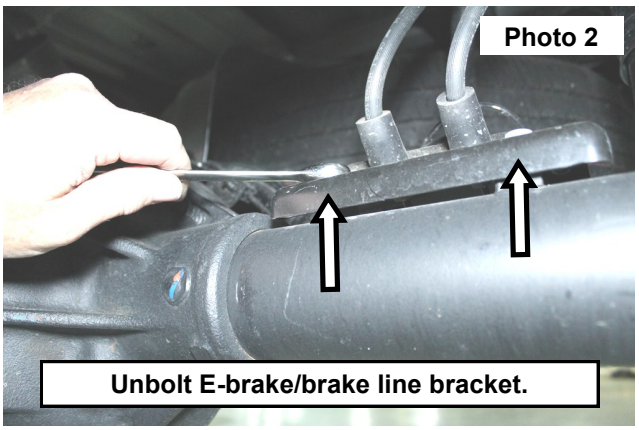




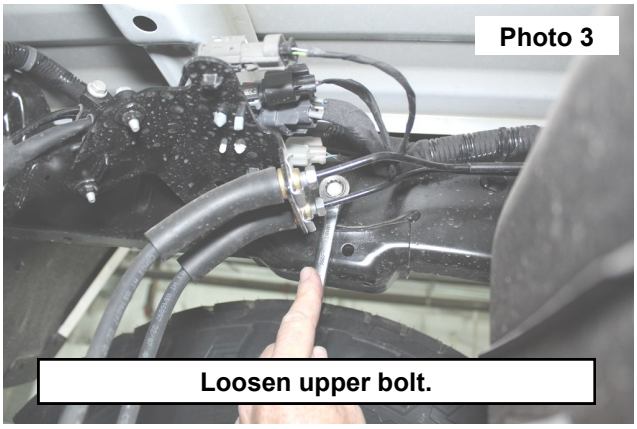
REAR INSTALLATION INSTRUCTONS

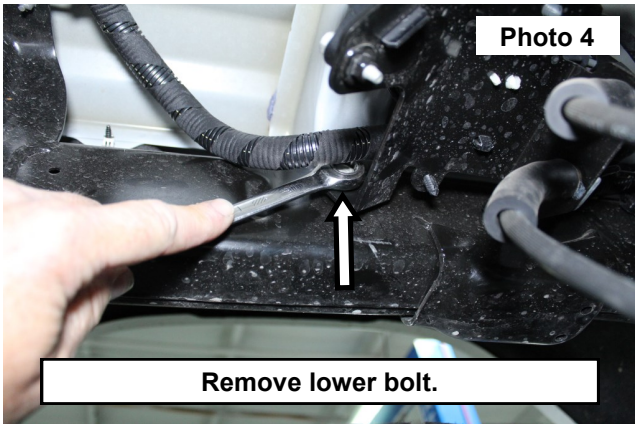
1. Chock the front wheels and lift the rear of the vehicle. Place jack stands under the frame rails just forward of the front leaf spring hangers and lower the frame on the jack stands.
2. Remove the rear wheels using a 22mm socket.
3. Reposition floor jack under the rear differential and apply slight pressure for support.
4. Use a 13mm wrench to remove the E-brake and brake line bracket from the rear axle. Retain hardware for reuse. **See Photo 1 and Photo 2.**



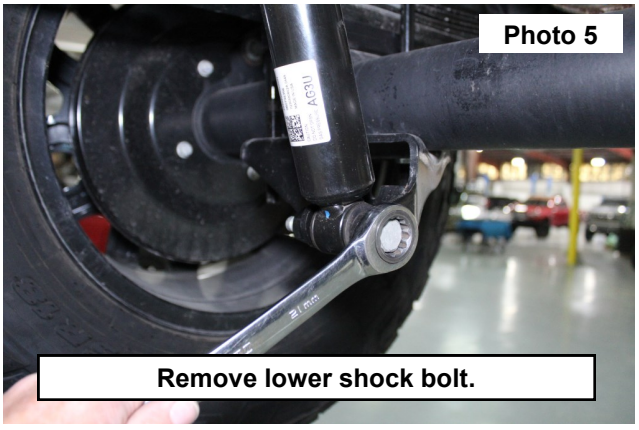


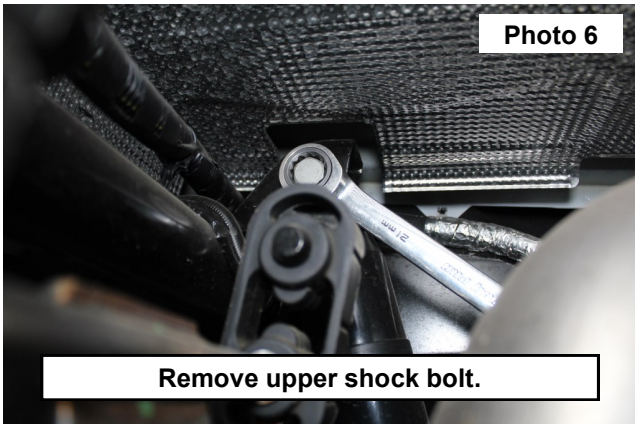
5. Loosen the higher bolt on the brake bracket located on the frame with a 13mm wrench. **See Photo 3.**
6. Remove the lower bolt on the brake bracket with a 13mm wrench. Retain hardware for reuse. **See Photo 4.**



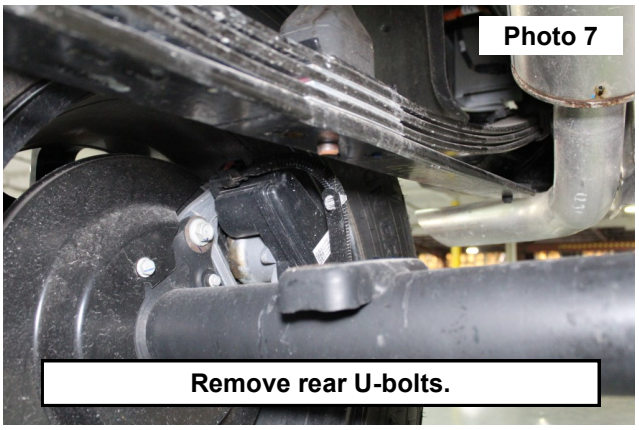


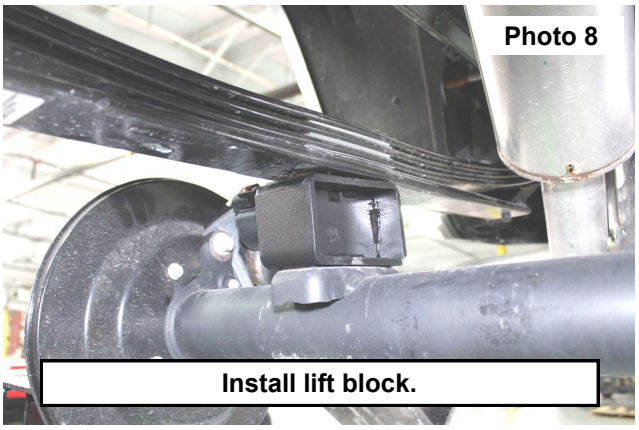
7. Remove the lower shock bolt using a 21mm wrench. Retain hardware for reuse **See Photo 5.**
8. Remove the upper shock bolt using a 21mm wrench. Retain hardware for reuse. **See Photo 6.**
9. Remove rear shock from the vehicle.



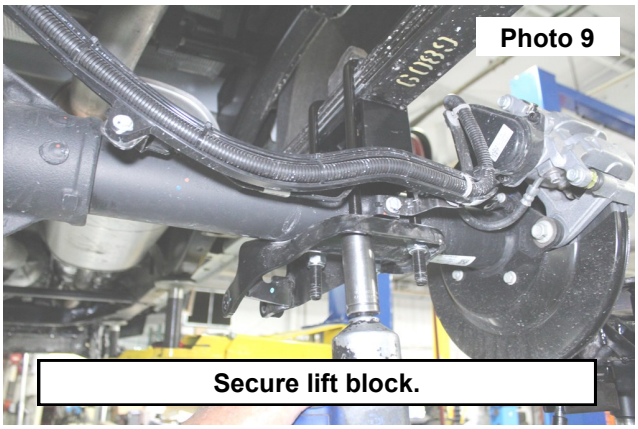


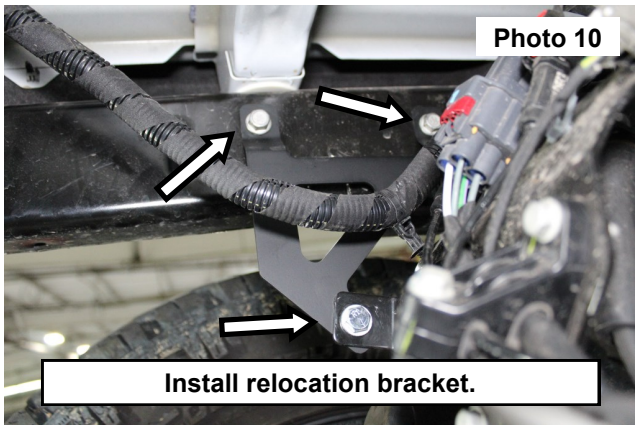
10. Remove the nuts on the U-bolts with a 22mm wrench. Remove the axle bracket and U-bolts. If equipped, remove the factory rear lift block. **See Photo 7.**
11. Install supplied lift block between the leaf spring and axle pad. The thicker end of the block goes to the rear of the vehicle. **NOTE:** The 4" kit uses a 3.5" block and the 6" kit uses a 5.5" block. **See Photo 8.**



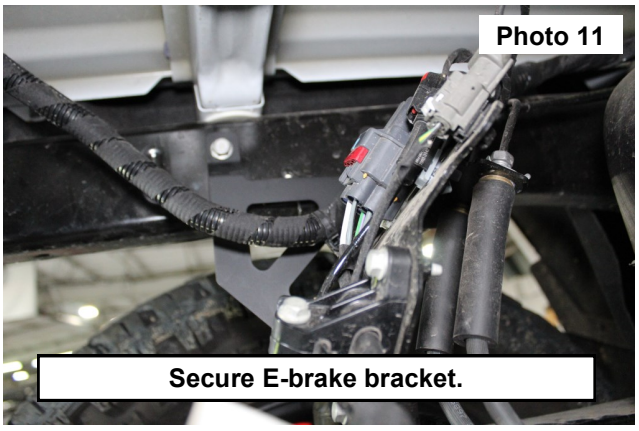


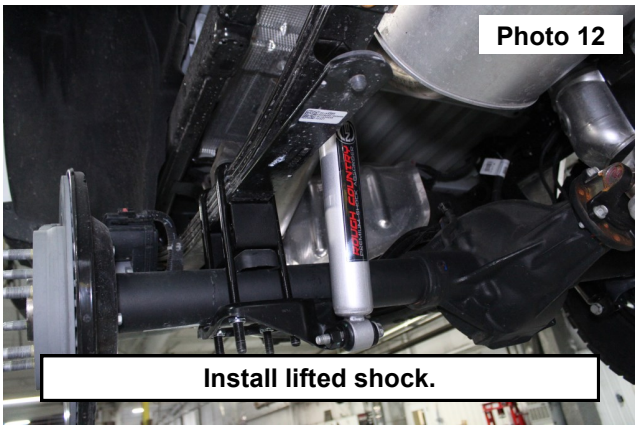
12. Install the supplied U-bolts over the leaf spring with the factory axle plate. Secure using the supplied 9/16" lock nuts. Tighten with a 13/16" socket. **See Photo 9.**
13. Install the brake line relocation bracket using the factory hardware to secure the bracket to the frame. Tighten with a 13mm wrench. **See Photo 10.**



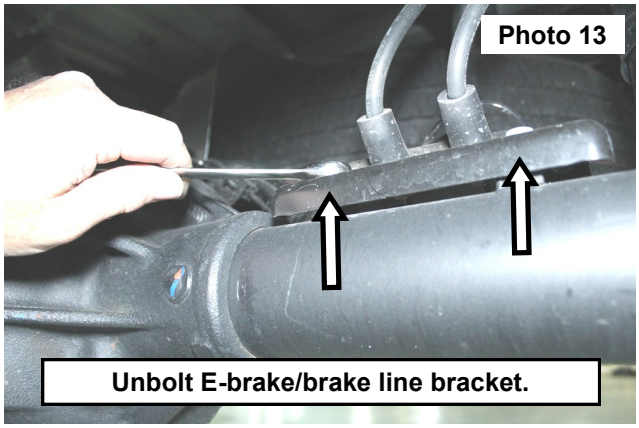


14. Tilt the E-brake bracket down and connect the E-brake bracket to the relocation bracket using the supplied 5/16" hardware. Tighten with a 1/2" wrench. **See Photo 11.**
15. Install supplied lifted shock to the vehicle using factory hardware. Tighten with a 21mm wrench. **See Photo 12.**



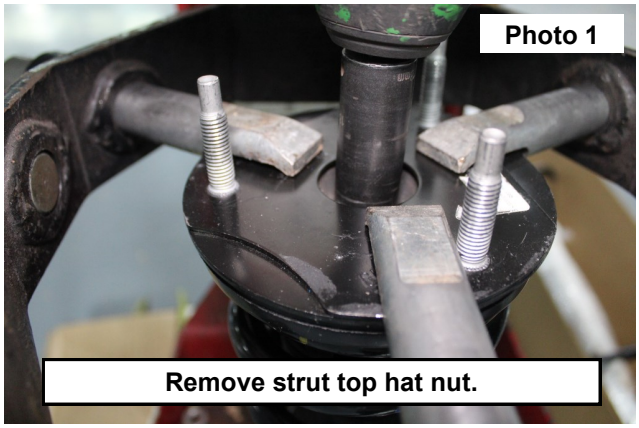


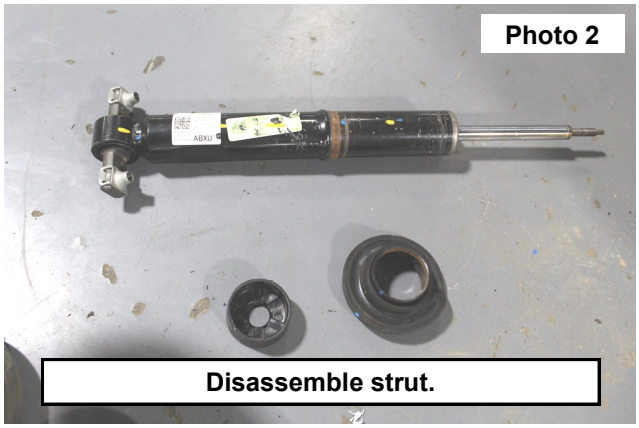
16. Attach the E-brake and brake line bracket to the rear axle using a 13mm wrench and the factory hardware. **See Photo 13.**
17. Reinstall the wheels and lower vehicle to the ground.



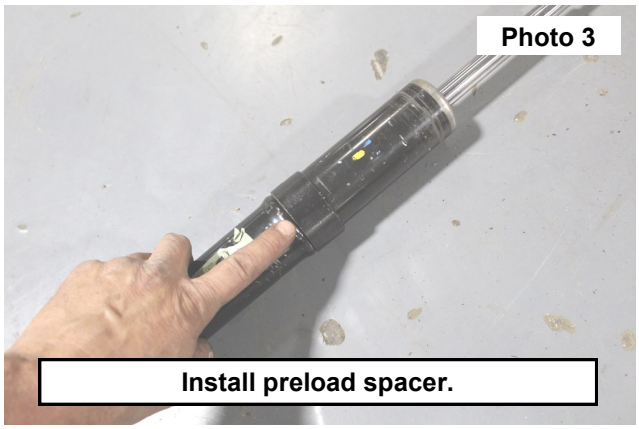
6” Lift Preload Install

1. Place the factory strut in a strut compressor and compress the spring. Remove the top hat nut using an 18mm socket. **See Photo 1**.
2. Remove the strut from the spring and pull the isolator and cap off. **See Photo 2**.





3. Install the supplied preload spacer onto the strut. **See Photo 3**.
4. Reassemble the factory strut.



POST INSTALLATION INSTRUCTIONS

1. Check all fasteners for proper torque. Check to ensure for adequate clearance between all rotating, mobile, fixed, and heated members. Verify clearance between exhaust and brake lines, fuel lines, fuel tank, floor boards and wiring harness. Check steering gear for clearance. Test and inspect brake system.
2. On some vehicles the front lower skirting will need to be trimmed if using certain wheel /tire combinations and with heavy offset wheels. Trim only as needed.
3. Activate four wheel drive system and check front hubs for engagement.
4. Have a qualified alignment center align the vehicle immediately. Realign to factory specifications. Have headlights adjusted to proper settings.
6. Perform head light check and adjustment to proper settings.
7. Check and retighten wheels at 50 miles and again at 500 miles.
8. Recheck lifted height and adjust torsion bar as necessary.
9. All kit components must be retightened at 500 miles and then every three thousand miles after installation. Periodically check all hardware for tightness.
10. Install “Warning to Driver” decal on sun visor.

Installation of larger tires will require speedometer recalibration.

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