TRAIL FORTRESS

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Rough Country 91230 Installation Instructions

6-Inch Lift Kit for 2020–2023 Jeep Gladiator 4WD

Part number: 91230

trailfortress.com/rough-country-6-inch-lift-kit-91230

Scan for fitment, price and install help

921912300

ROUGH COUNTRY SUSPENSION SYSTEMS®

91230BAG



Jeep 2020 JT Gladiator 6” Suspension Kit

Thank you for choosing Rough Country for your suspension needs.

Rough Country recommends a certified technician install 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 instructions before beginning installation. Check the kit hardware against the parts list. Be sure you have all needed parts and know where they go. Also please review tools needed list and make sure you have needed tools.

PRODUCT USE INFORMATION

⚠WARNING As a general rule, the taller a vehicle is, the easier it will roll. Seat belts and shoulder harnesses should be worn at all times. Avoid situations where a side rollover may occur.

Generally, braking performance and capability are decreased when larger/heavier tires and wheels are used. Take this into consideration while driving. Do not add, alter, or fabricate any factory or after-market parts to increase vehicle height over the intended height of the Rough Country product purchased. Mixing component brands is not recommended.

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.

This suspension system was developed using a 37x12.50x20 tire on a 20x9 wheel with -12 offset. Different wheel and tire combinations may be used but different tire manufactures designs may result in a tire width that could result in contact with the lower control arm and/or front sway bar link in a sharp turn. Please consult with your tire and wheel expert before purchasing. Also note that if wider tires are desired, offset wheels will be required. If question exist we will be happy to answer any questions concerning the design, function, and correct use of our products by calling 1-800-222-7023.

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

Any vehicle equipped with any Rough Country product should have a “Warning to Driver” decal installed on the inside of the windshield or on the vehicle’s dash. The decal should act as a constant reminder for whoever is operating the vehicle of its unique handling characteristics.

Prior to installing this kit, with the vehicle on the ground, measure the heights of your vehicle. This measurement can be recorded from the center of the wheel straight up to the top of the inner fender lip. Record the measurements.

LF:_____, RF:_____,

LR:_____, RR:_____,

trailfortress.com/rough-country-6-inch-lift-kit-91230

Kit Box & Bag Contents

Box Kit

91230BOX1
- 1146 (Quick Disconnects)-1
- 1609BAG7-1
- 66830BAG2-1
- 91230BAG-1
- 91230BAG1-1
- 91230BAG2-1
- 91230BAG3-1
- Pitman Arm-1
- Dr Rear Brake Line-1
- Pass Rear Brake Line-1
- 660823 Frt Shocks-2
- 660739 Rr Shcoks-2
- Rr Sway Links-2
- Frt Track Bar Bracket-1
- Carrier Bearing Drop Bracket-1
- Rr Track Bar Bracket Strap-1
- Rr Track Bar Bracket-1
- Bump Stop Spacers-2

9418
- Dr Frt Coil Spring-1
- Pass Frt Coil Spring-1

9419
- Rr Coil Springs-1

110602
- Driver Side Inner Bracket-1
- Driver Side Outer Bracket-1
- Pass Side Inner Bracket-1
- Pass Side Outer Bracket-1
- 65431BAG4-1

5093.1
- Drive Shaft-1

Kit Bags

91230BAG
- Instruction Sheet-1
- Warning to Driver Sticker-1

1609BAG7-*Front Bump Stop Hardware Bag*
- 3/8" x 3" Bolts-2
- 3/8" Flat Washers-2
- 3/8" Flange Lock Nuts-2

66830BAG2*-Front Brake Line Hardware Bag*
- Dr Frt Brake Line Bracket-1
- Pass Frt Brake Line Bracket-1
- 1/4" x 1" Bolts-2
- 1/4" Nylock Nuts-2
- 1/4" Flat Washers-4

91230BAG1*-Frt Track Bar Bracket Bag*
- Sleeve-1
- 3/8" x 1.25" Bolts-2
- 3/8" Flat Washers-2
- 3/8" Flange Lock Nuts-2
- 14mm x 80mm Bolt-1
- 14mm Nylock Nut-1
- 14mm Flat Washers-2
- Flag Nut-1

91230BAG2*-Rr Track Bar Bracket Bag*
- Sleeve-1
- 14mm x 90mm Bolt-1
- 14mm Washer-2
- 14mm Nylock Nut-1
- 3/8" x 1.25" Bolt-1
- 3/8" Flat Washer-1
- 3/8" Flange Lock Nut-1
- 7/16" x 1.25 Bolts-2
- 7/16" Flat Washers-2
- 7/16" Nylock Nuts-2

91230BAG3*-Rr Sway Link/Carrier Bearing Drop Bag*
- ***For Rear Brake Lines:***
- Crush Washers-4
- Cable Ties-6
- For ***Rear Sway Links:***
- 12mm x 60mm Bolts-2
- 12mm Flat Washers-4
- 12mm x 65mm Bolts-2
- 12mm Flange Lock Nuts-2
- For ***Carrier Bearing Drop Bracket:***
- 3/8"x 1" Bolts-2
- 3/8" Flat Washers-2
- 3/8" Flange Lock Nuts-2

Kit Bags

65431BAG4-*Control Arm Drop Hardware Bag*
- 16mm X 110mm Bolts-2
- 16mm Lock Nuts-2
- 16mm Cam Washers-4
- Flat Washers-2
- 12mm x 80mm Bolts-4
- 12mm Flange Lock nuts-4
- Flat Washers-2
- Upper Crush Sleeves-2
- Lower Crush Sleeves-2

Tools Needed:

6mm Allen
8mm Socket
10mm Socket & Wrench
12mm Socket & Wrench
15mm Socket & Wrench
16mm Socket & Wrench
17mm Wrench & Socket
18mm Socket & Wrench
19mm Socket & Wrench
21mm Socket & Wrench
22mm Deep Well Socket
24mm Socket & Wrench

Pliers
9/16” Socket & Wrench
3/4” Socket & Wrench
5/8” Socket & Wrench
1-11/16” Socket
Pitman Arm Puller
Jack
Jack Stands
Torque Wrench
3/8” Drill
7/16” Drill
Drill Motor

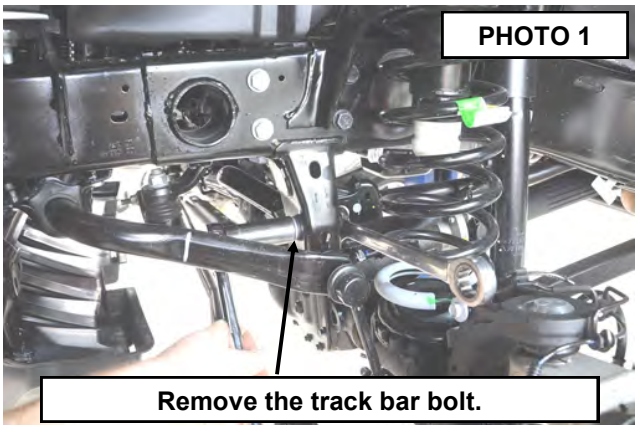


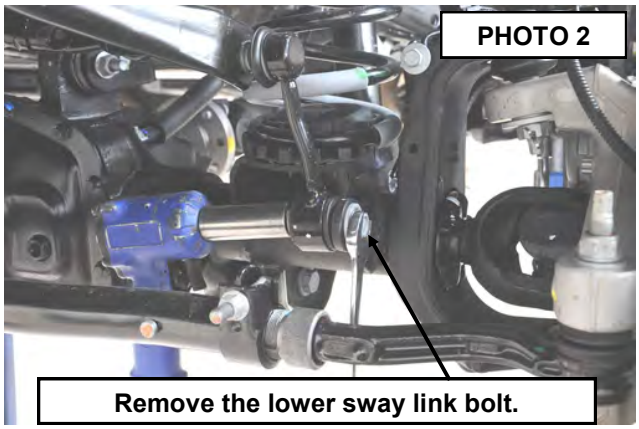
Torque Specs:

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

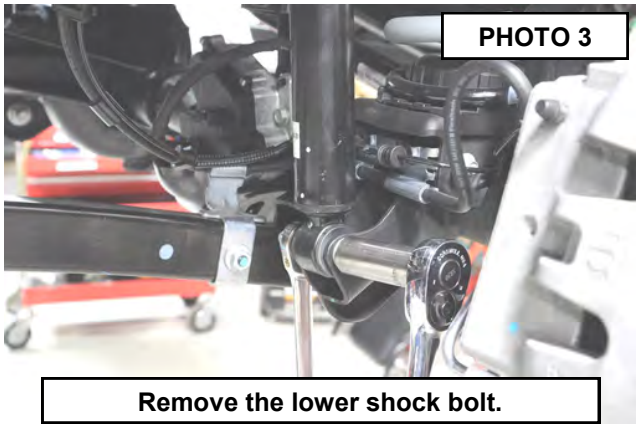
FRONT INSTALLATION INSTRUCTIONS

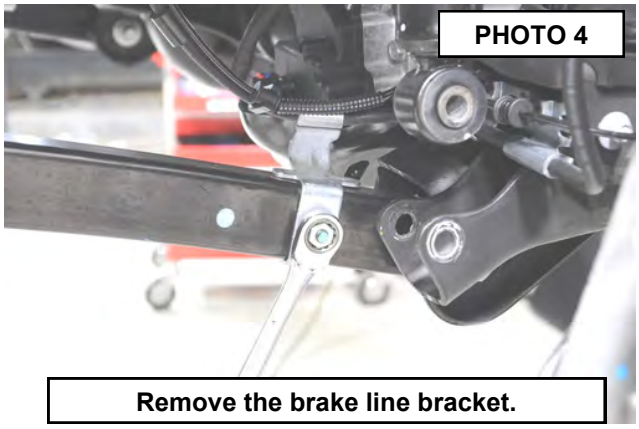
1. Place vehicle in park and chock the rear wheels. Raise the front of the vehicle with a jack and secure a jack stand beneath each frame rail behind the front control arms. Ease the frame down onto the stands. Place the jack under the front axle for support when removing the coil springs.
2. Remove the front tires/wheels, using a 22mm deep well socket.
3. Remove front driveshaft from axle and the transfer case, using a 15mm socket.
4. Using a 21mm socket and wrench, remove the bolt securing the front track bar to the frame. **See Photo 1.** Retain hardware for reuse.
5. Using an 18mm socket and wrench remove the bottom sway bar link bolts. Retain hardware for reuse. **See Photo 2**.



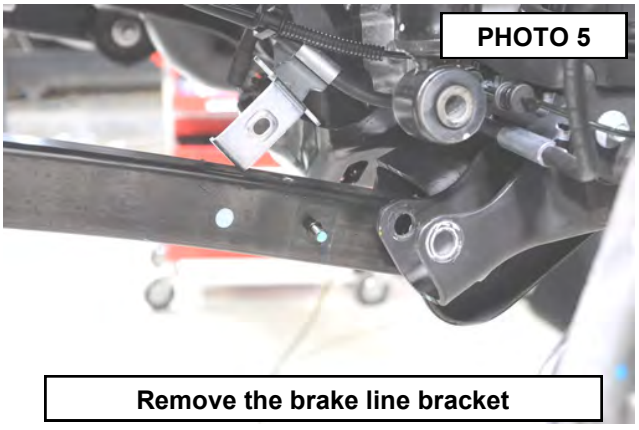


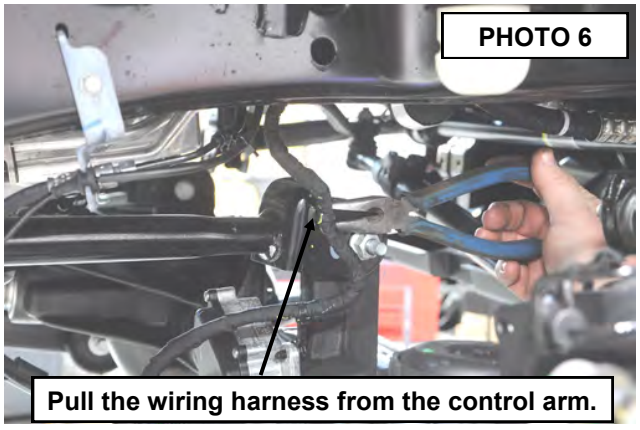
6. Remove the lower shock bolt using a 18mm socket and wrench. You may have to raise the axle with the jack and pull down on the shock to remove the bolt. **See Photo 3.** Retain stock hardware.
7. Using a 15mm wrench, remove the brake line bracket from the lower control arm. **See Photos 4 & 5.** Retain hardware for reuse.



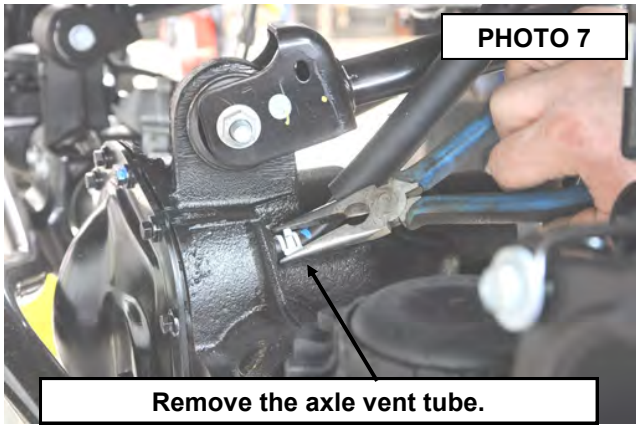


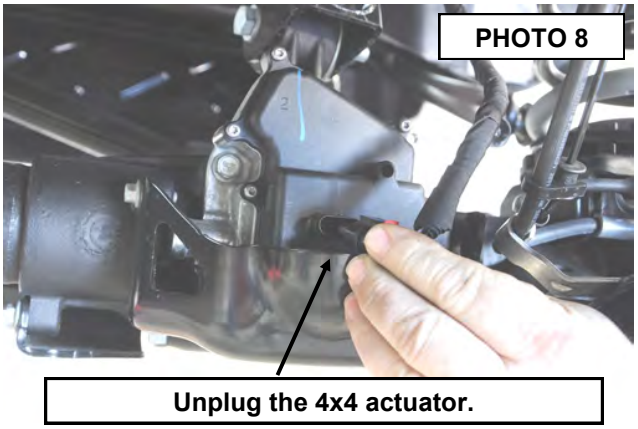
8. Using pliers, remove the wiring harness from the upper control arm. **See Photo 6.**
9. Loosen the upper control arms using a 18mm wrench.
10. Loosen the lower control arms but do not remove using a 21mm & 24mm wrench.



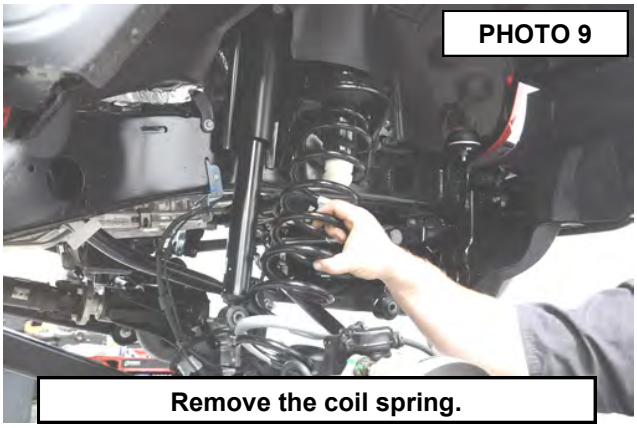


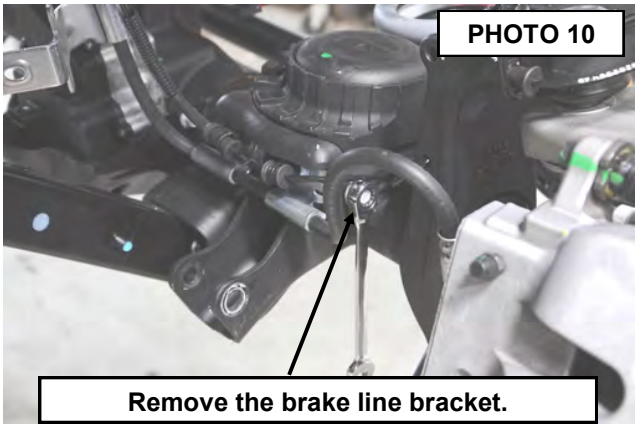
11. Using pliers, remove the axle vent tube from the differential housing. **See Photo 7**.
12. Unplug the 4x4 actuator for slack. **See Photo 8.**



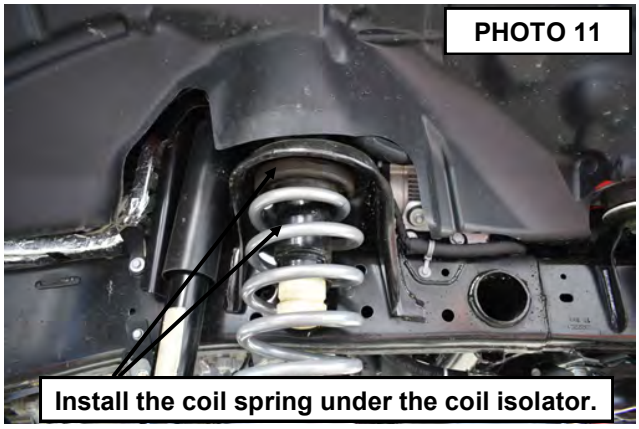


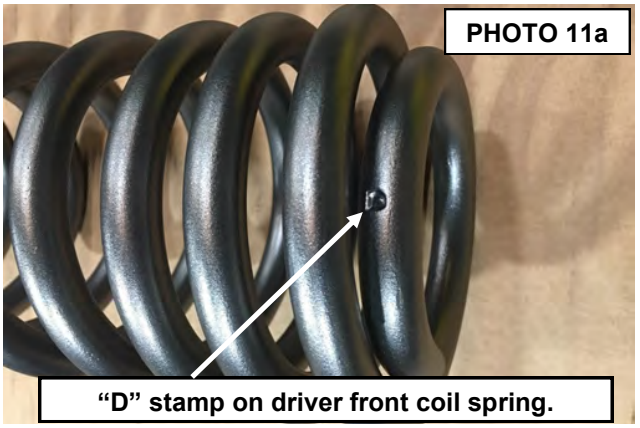
13. Lower the jack, careful not to let the axle reach full droop, and remove the coil spring and spring isolator. **See Photo 9.**
14. Using a 10mm wrench, remove the brake line bracket from the coil mount. Retain hardware for reuse. **See Photo 10.**



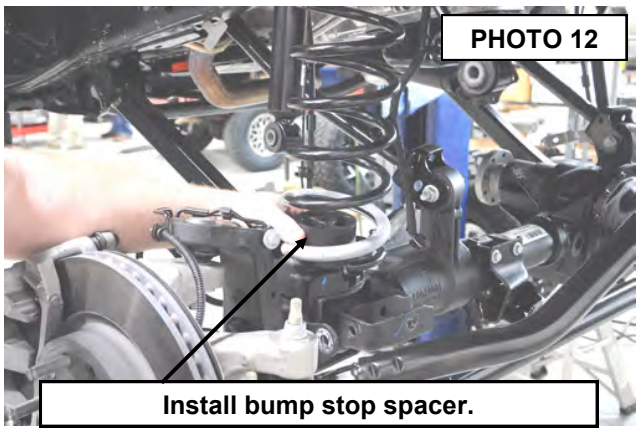


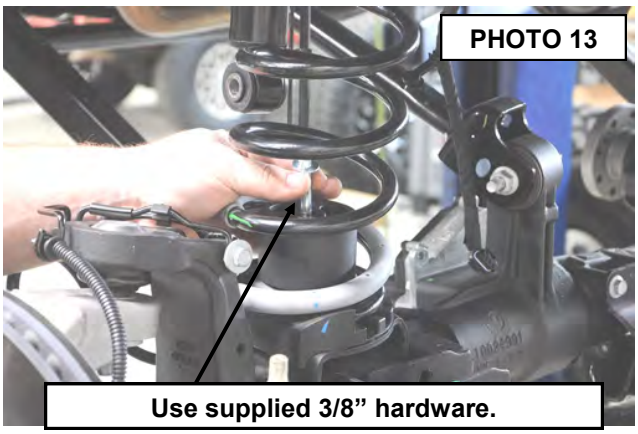
15. Install the supplied coil spring with the supplied spacers inside the coil, making sure the coil spring isolator is in the factory location. **NOTICE The front coil springs in this kit are driver and passenger side specific, this is noted on the driver coil with a "D" stamped on one end of the coil. See Photos 11 & 11a.**



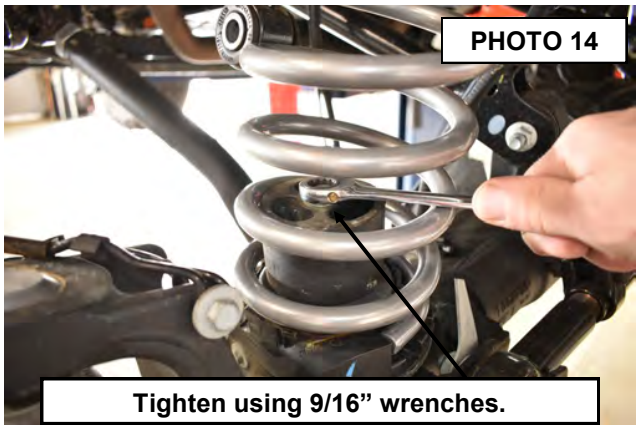


16. Locate the bump stop spacer installed with the coils onto the lower coil mount. **See Photo 12.**
17. Place the supplied 3/8" x 3" bolt, washers, and nut (1609BAG7) through the spacer and coil mount. **See Photo 13.**





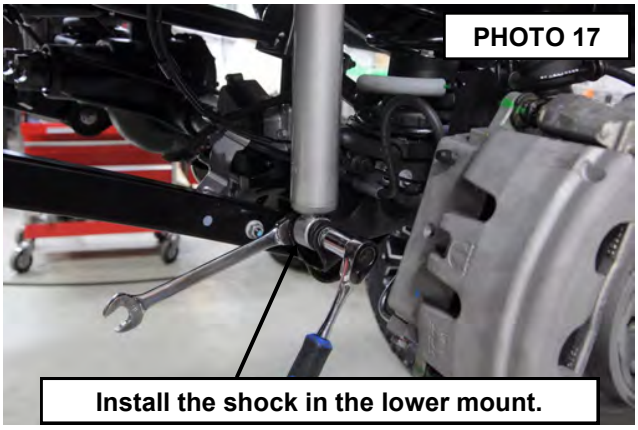
18. Torque to 30 ft-lbs. using 9/16" wrenches. **See Photo 14.**
19. Install the brake line bracket that was removed in step 14 on the lower coil mount using the factory hardware and a 10mm wrench. Torque to 5 ft-lbs.
20. Remove the upper shock mounting bolt using a 19mm wrench. Retain hardware for reuse. **See Photo 15.**



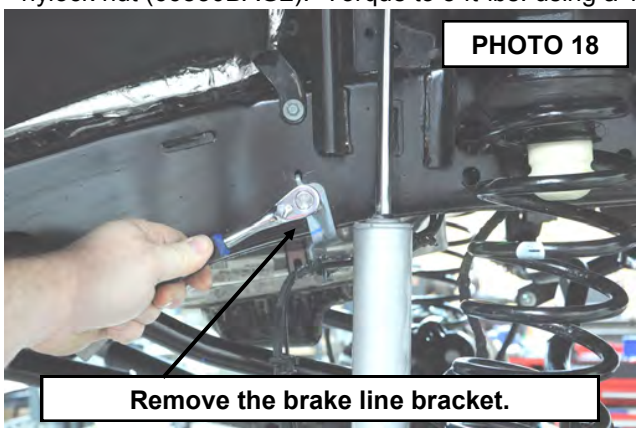


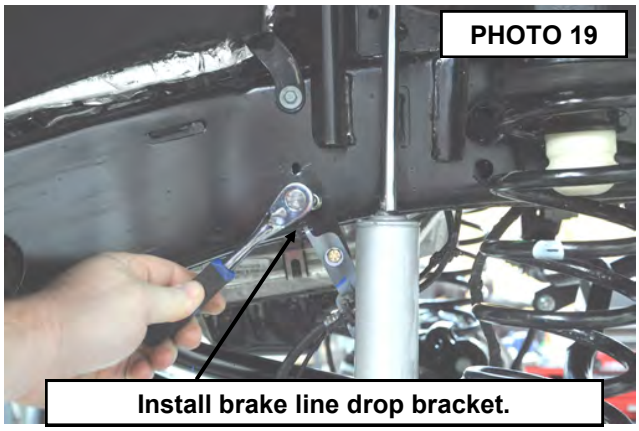
21. Install the supplied shock in the upper and lower mounts using the factory hardware. Torque to 55 ft-lbs. using a 19mm socket. **Make sure the upper eyelet is offset to the outside of the vehicle. See Photo 16.**
22. Torque the lower shock mounting bolt to 55 ft-lbs. using an 18mm wrench and socket. **See Photo 17.**



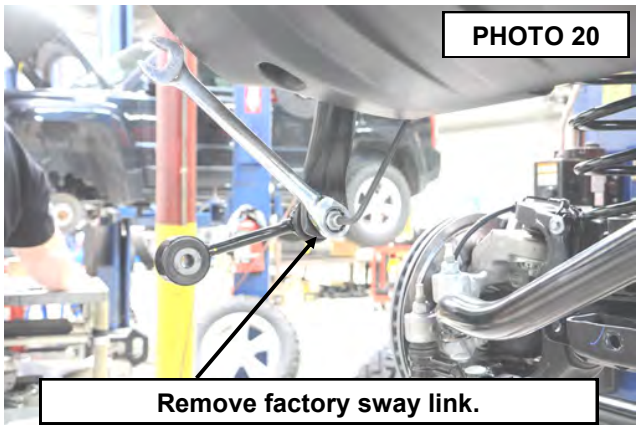


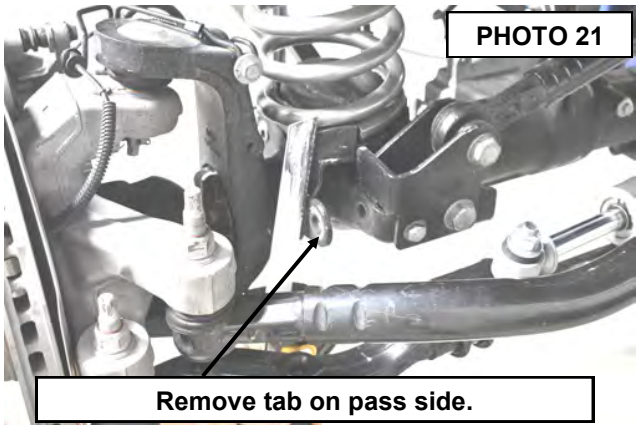
23. Reinstall the factory brake line bracket removed in Step 14 on the coil mount using the factory hardware. Torque to 5ft-lbs. using a 10mm wrench.
24. Remove the brake line bracket from the frame using a 10mm wrench. Retain hardware for reuse. **See Photo 18.**
25. Install the supplied brake line bracket using the factory bolt for the frame and the supplied 1/4" x 1" bolt, washer, and nylock nut (66830BAG2). Torque to 5 ft-lbs. using a 10mm wrench for the frame bolt. **See Photo 19.**



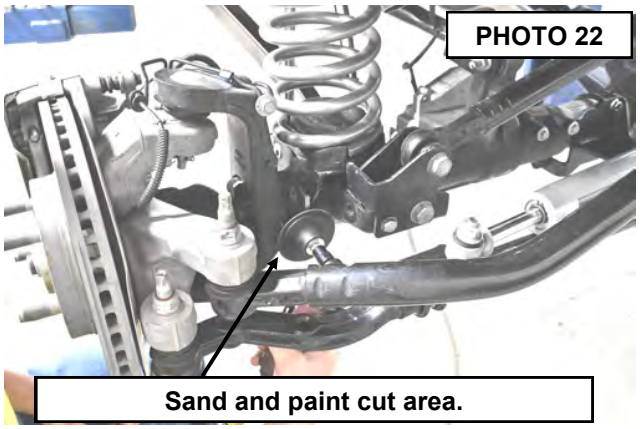


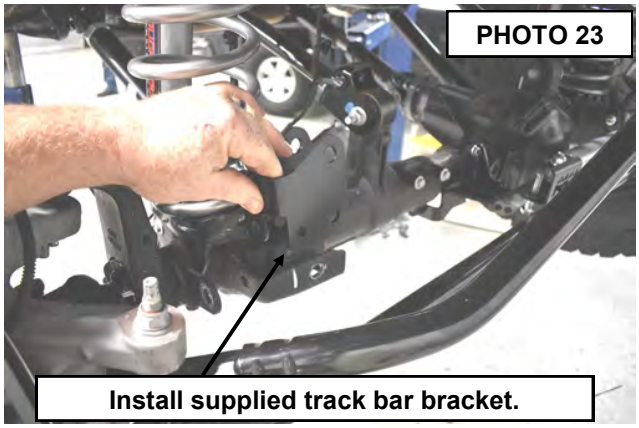
26. Remove the sway link from the sway bar using a 6mm Allen and an 18mm wrench. **See Photo 20.**
27. **Pass Side Only!** Using a reciprocating saw, cut the outer sway link bracket off of the axle housing. **See Photo 21.**



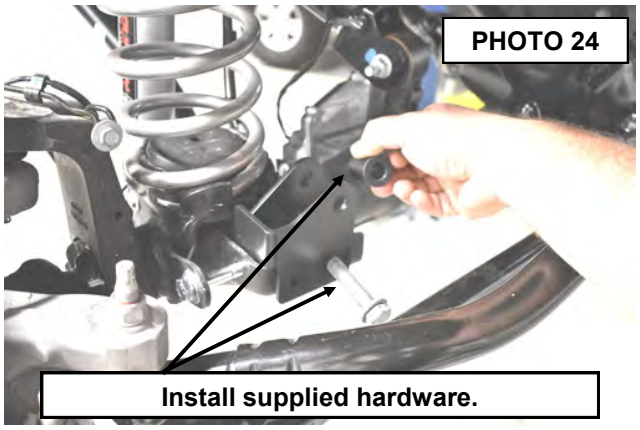


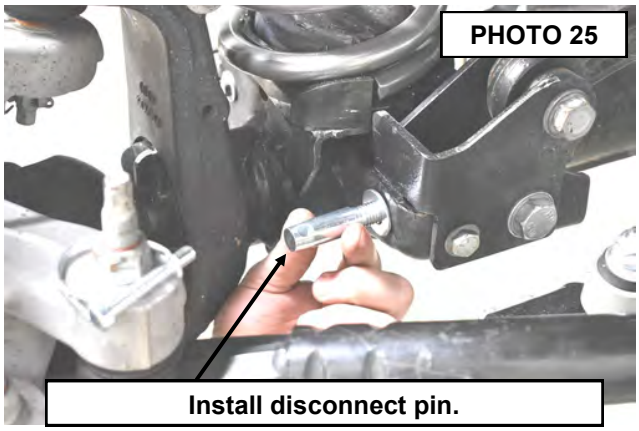
28. Sand the cut edge smooth and paint to prevent rust. **See Photo 22.**
29. Place the supplied front track bar bracket over the factory track bar bracket as shown in **Photo 23.**



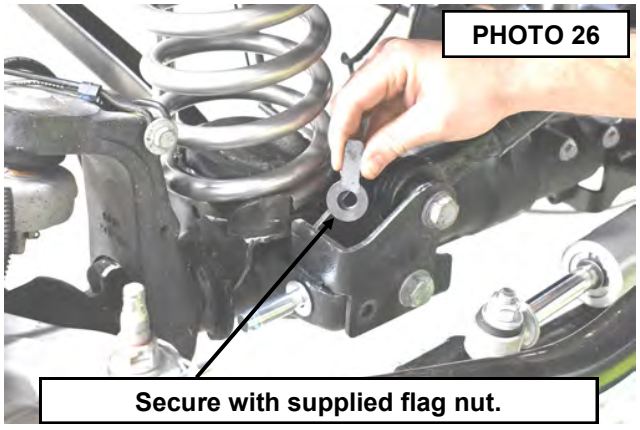


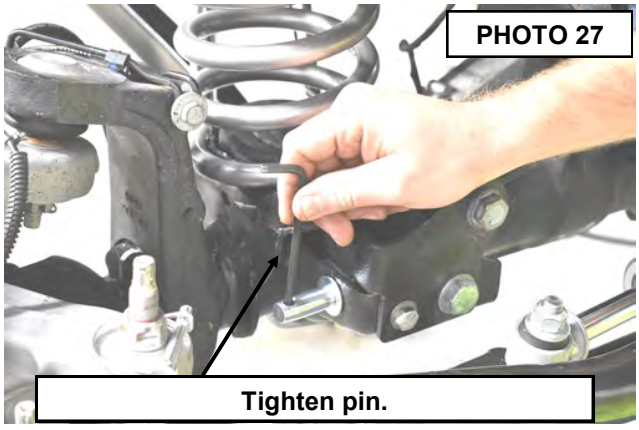
30. Insert the supplied sleeve (91230BAG1) into the lower hole using the factory bolt and flag nut. Do not tighten at this time. **See Photo 24.**
31. Locate the supplied sway bar disconnect box, Part # 1145 and install the supplied sway link quick disconnect pin with washer into the hole on the outside of the track bar bracket. **See Photo 25.**



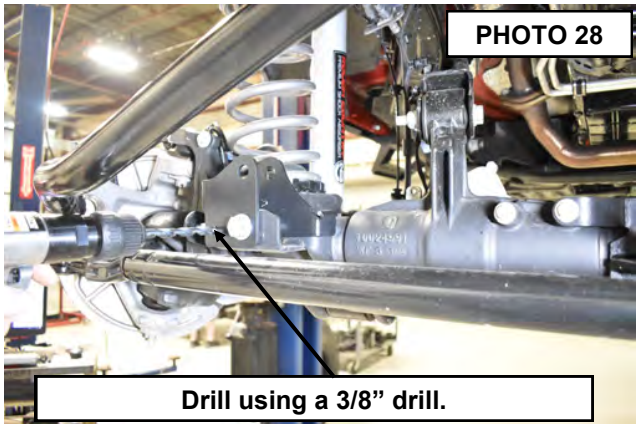


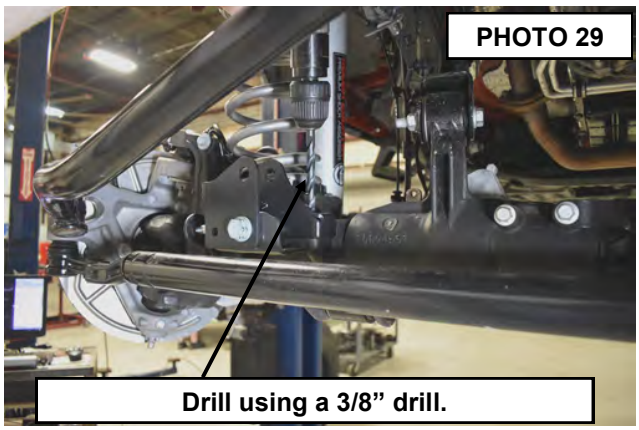
32. Use the supplied flag nut (91230BAG1), on the inside of the track bar bracket, to attach the quick disconnect pin to the track bar bracket. **See Photo 26.**
33. Using an Allen wrench or small screwdriver, insert through the hole in the quick disconnect pin and tighten the pin. **See Photo 27.**



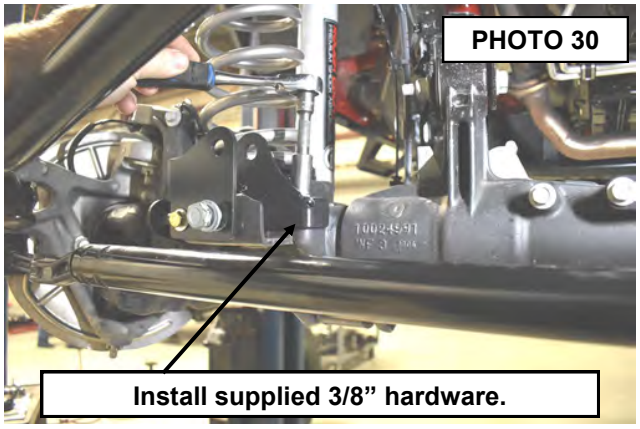


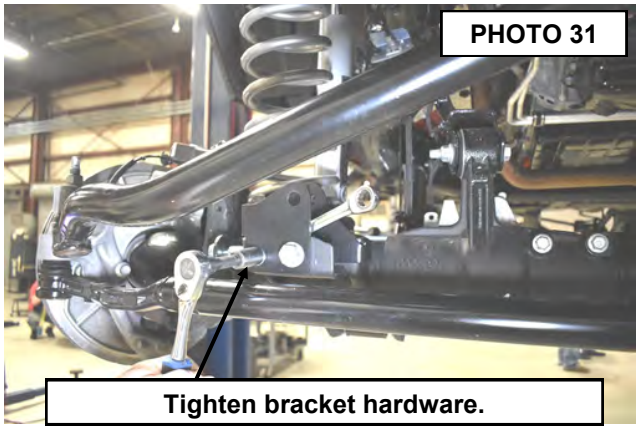
34. Using a 3/8” drill and the supplied track bar bracket as a guide, drill the front and top holes in the factory mount. **See Photos 28 & 29.**



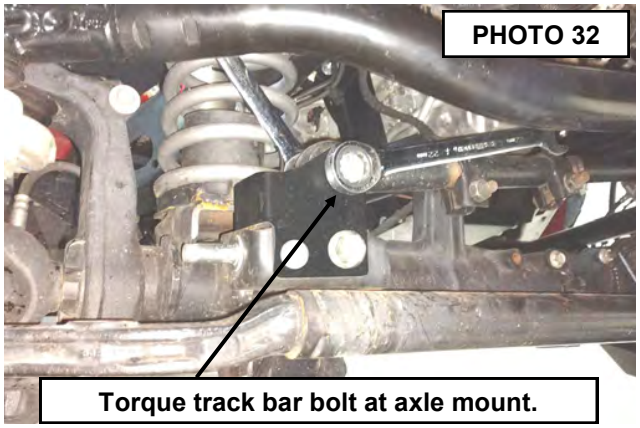


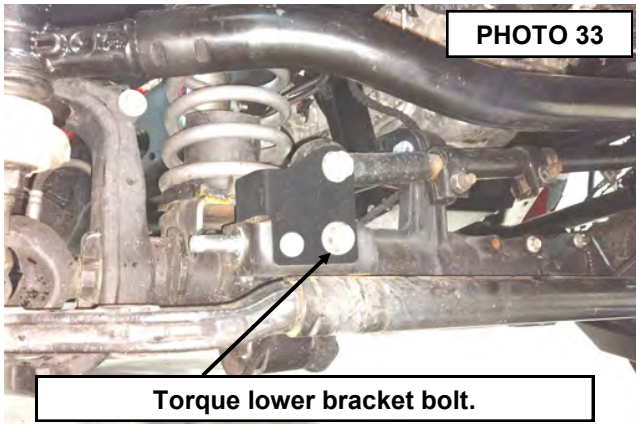
35. Install the supplied 3/8” x 1.25” bolts, washers, and flange locknuts into the drilled holes. Torque to 35ft-lbs using a 9/16” socket and wrench. **See Photos 30 & 31.**



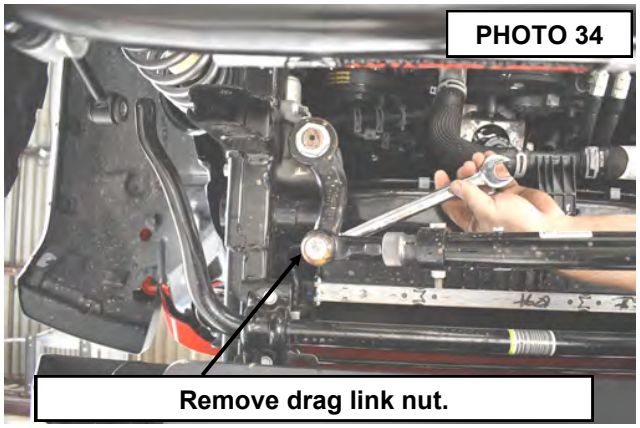


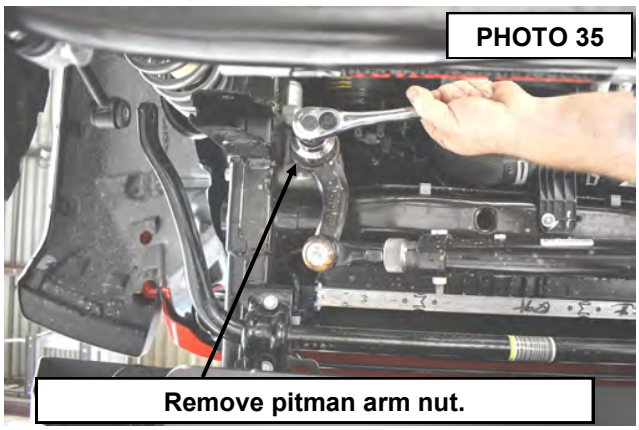
36. Install the track bar into the upper hole in the relocation bracket using the supplied 14mm x 80mm bolt, washers, and nut. Torque to 120ft-lbs using a 21mm socket and 22mm wrench. **See Photo 32.**
37. Torque the lower track bar bracket bolt to 120ft-lbs using a 21mm socket. **See Photo 33.**



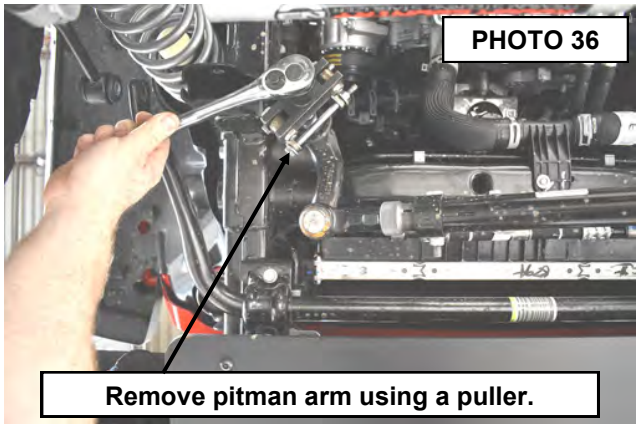


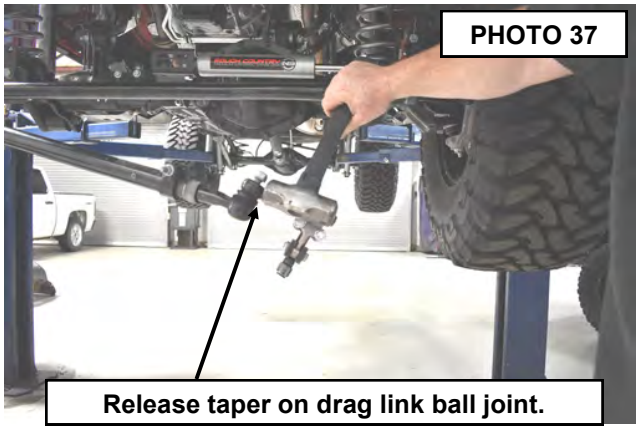
38. Using a 21mm wrench, remove the nut from the drag link. Retain hardware. **See Photo 34.**
39. Using a 1-11/16 socket, remove the pitman arm nut. Retain hardware. **See Photo 35.**



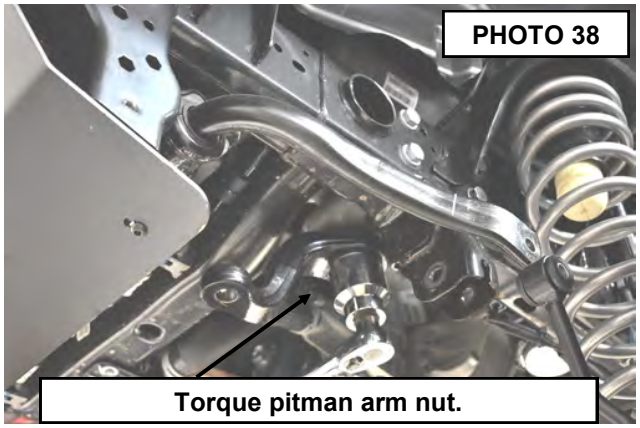


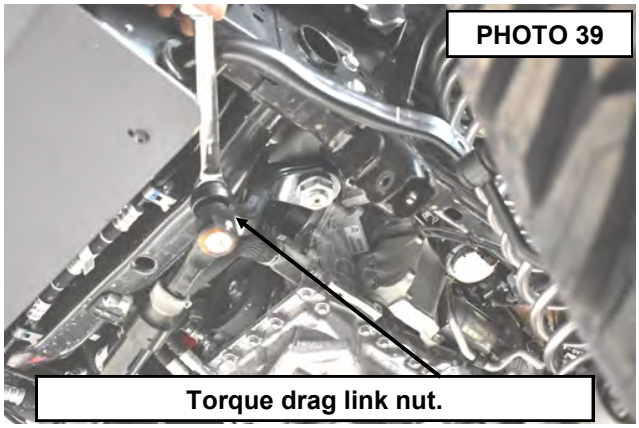
40. Use a pitman arm puller to remove the pitman arm from the sector shaft. **See Photo 36.**
41. Use a hammer to strike the pitman arm at the drag link to dislodge the taper, and remove the pitman arm from the drag link. **See Photo 37.**



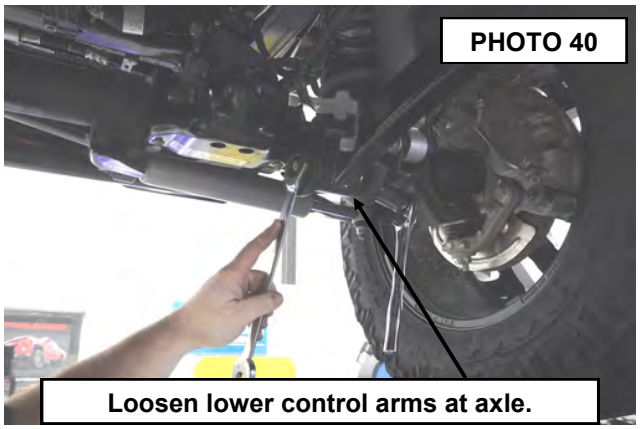


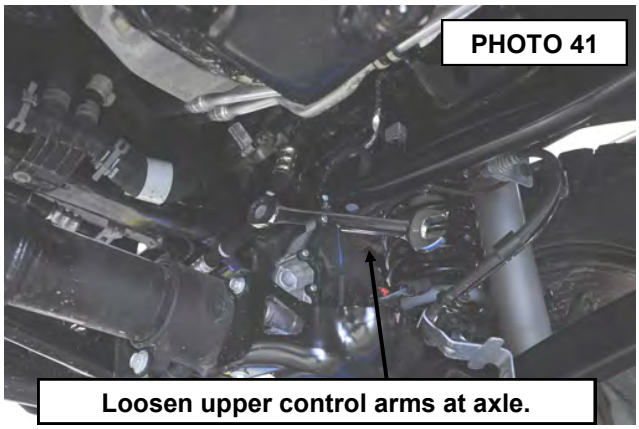
42. Install the supplied pitman arm using a quality thread locker and the factory hardware. Torque to factory specs using a 1-11/16" socket. **See Photo 38.**
43. Install the drag link ball joint into the pitman arm using the factory hardware. Torque to factory specs using a 21mm socket. **See Photo 39.**



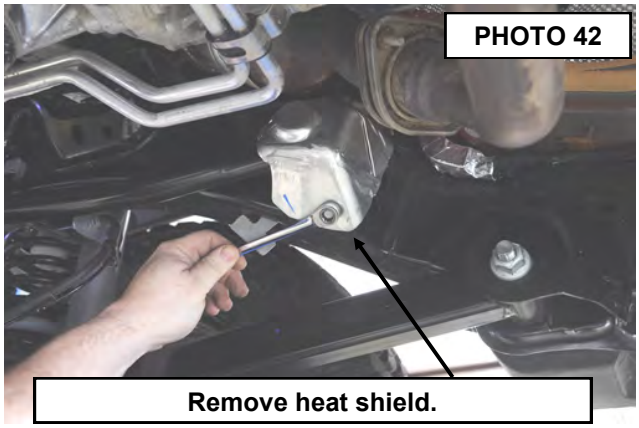


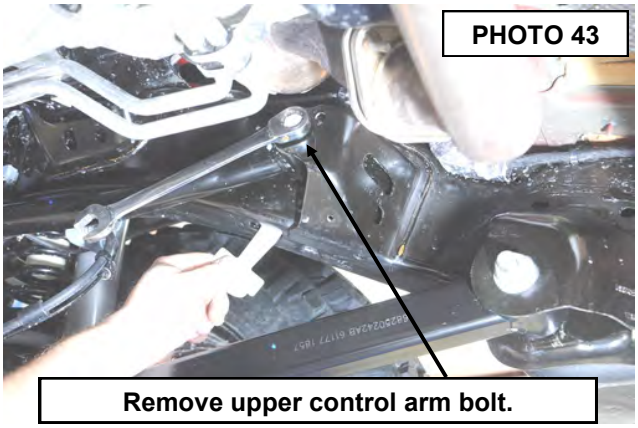
44. Steps 45– 56 should be performed on one side at a time.
45. Loosen the lower control arm axle bolts using 21mm and 24mm wrenches. **See Photo 40.**
46. Loosen the upper control arm axle bolts using 18mm wrenches. **See Photo 41.**



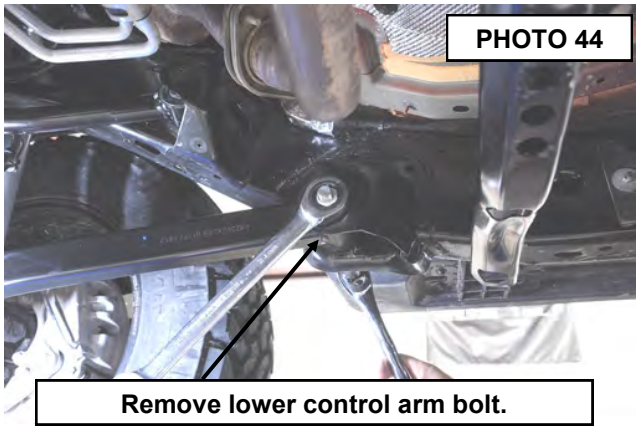


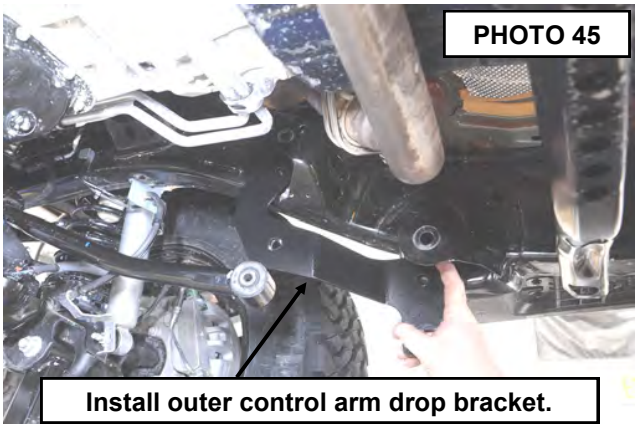
47. Remove the upper control arm heat shield bolts using a 10mm wrench. **See Photo 42.**
48. Remove the upper control arm bolt and flag nut using an 18mm wrench. Retain hardware for reuse. **See Photo 43.**



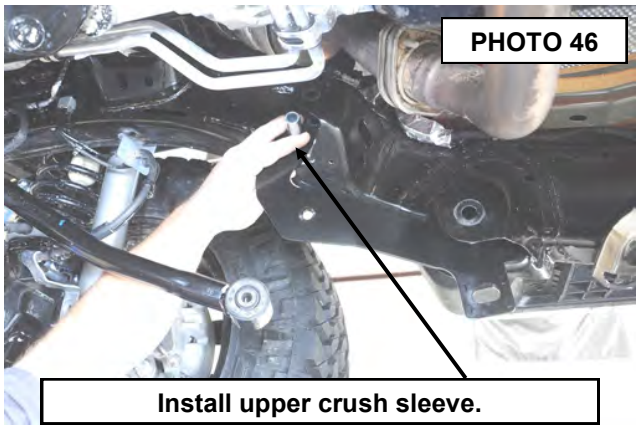


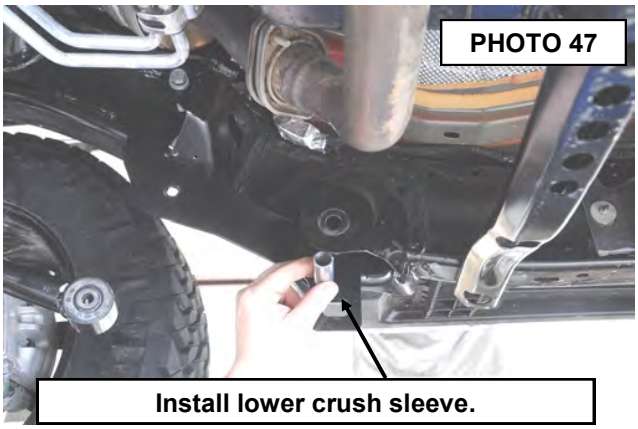
49. Remove the lower control arm bolt using 21mm and 24mm wrenches. Retain hardware for reuse. **See Photo 44.**
50. Install the outer control arm drop bracket (94004230 Dr or 94004231 Pass) into the factory control arm pocket. **See Photo 45.**



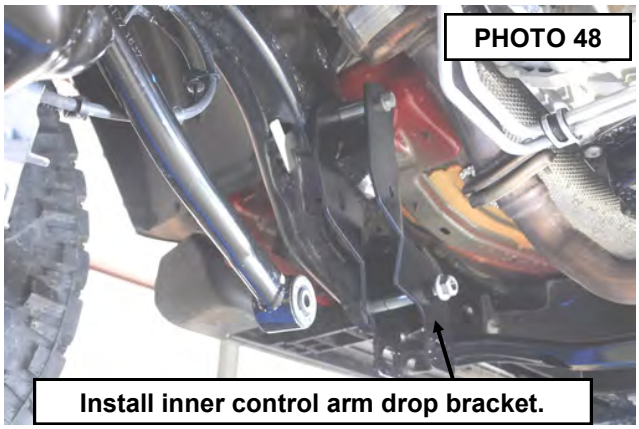


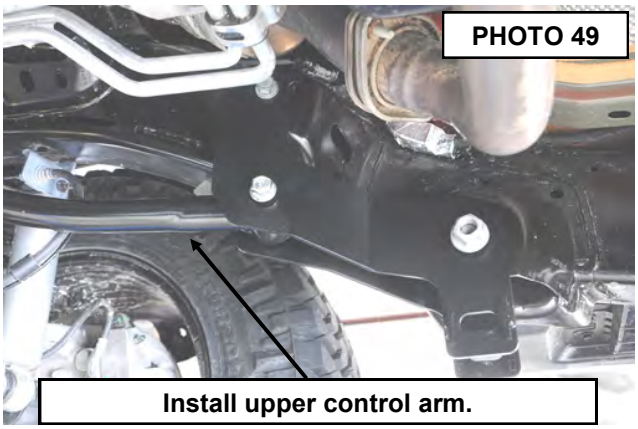
51. Install the upper 3/4” od sleeve into the upper control arm pocket. **See Photo 46.**
52. Install the lower 7/8” od sleeve into the lower control arm pocket. **See Photo 47.**



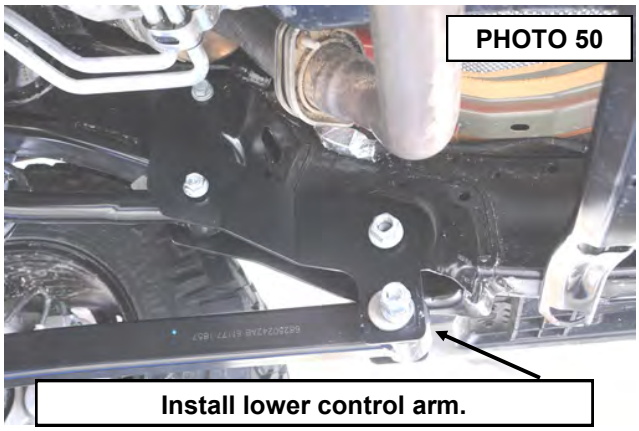


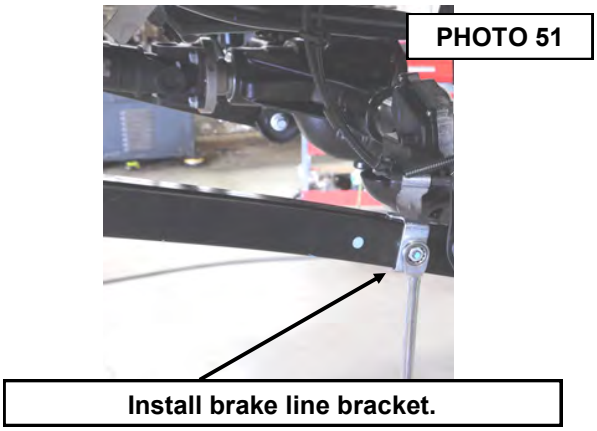
53. Install the inner control arm drop bracket (94004232 Dr or 94004233 Pass) on the outside of the control arm pockets using the factory hardware. **Do not tighten at this time. See Photo 48.**
54. Install the upper control arm in the drop bracket using the supplied 12mm x 80mm bolts, washers, and flange lock nut (65431BAG4). **Do not tighten at this time. See Photo 49.**



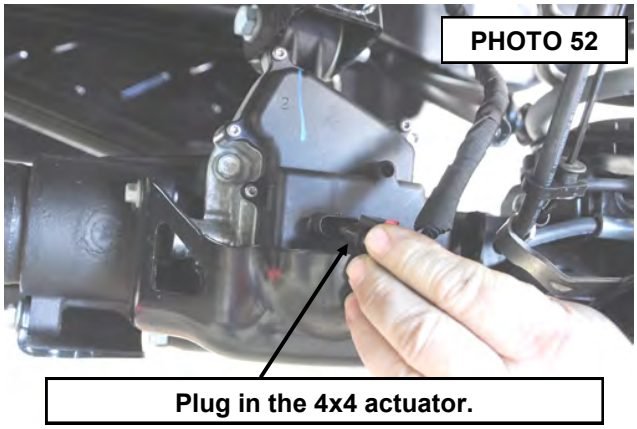


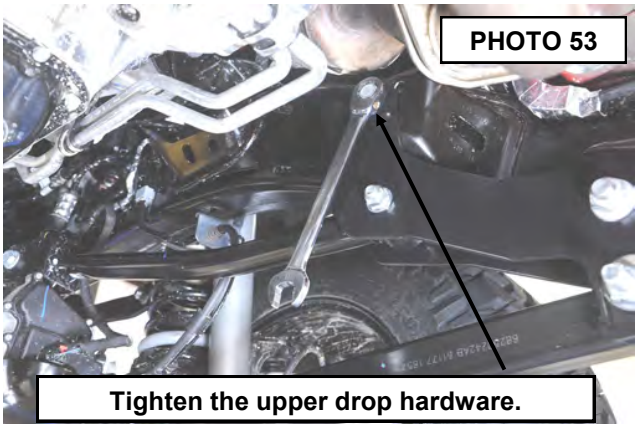
55. Install the lower control arm in the drop bracket using the supplied 16mm cam bolts, cam washers, and nylock nuts (65431BAG4). **Do not tighten at this time. See Photo 50.**
56. Install the brake line bracket on the lower control arm using the factory hardware and a 15mm wrench. **See Photo 51.**
57. Install the supplied 5093.1 driveshaft using the instructions included with the driveshaft.



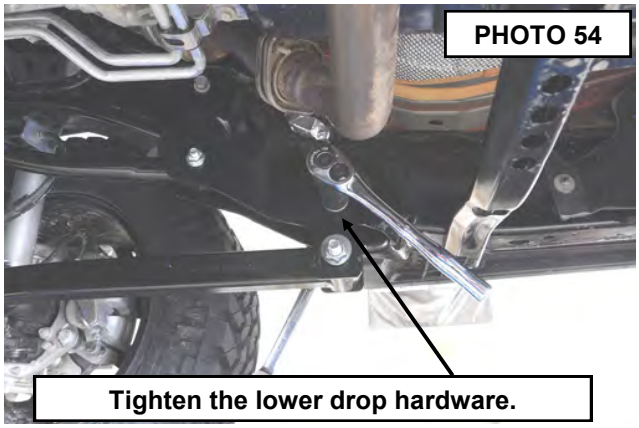


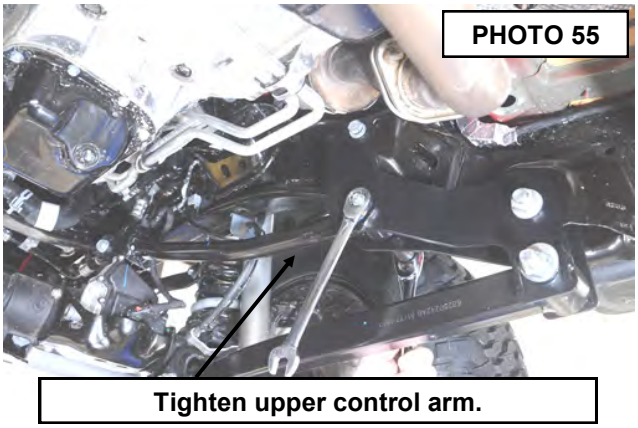
58. Clip the wiring harness into the upper control arm.
59. Attach the axle vent tube to the differential using a pair of pliers.
60. Plug-in the 4x4 actuator. **See Photo 52.**
61. Install the front tires/wheels, using a 22mm deep well socket.
62. Lower the vehicle to the floor.
63. Tighten the front upper drop bracket bolt using an 18mm wrench. Torque to factory specs. **See Photo 53.**



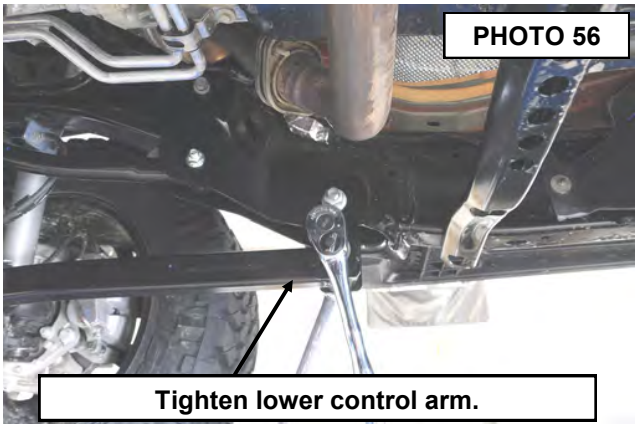


57. Tighten the rear upper drop bracket bolt using a 21mm wrench and 24mm socket. Torque to factory specs. **See Photo 54.**
58. Tighten the upper control arm on the axle using 18mm wrenches. Torque to factory specs.
59. Tighten the upper control arm in the drop bracket using an 18mm wrench and socket. Torque to 55ft/lbs. **See Photo 55.**



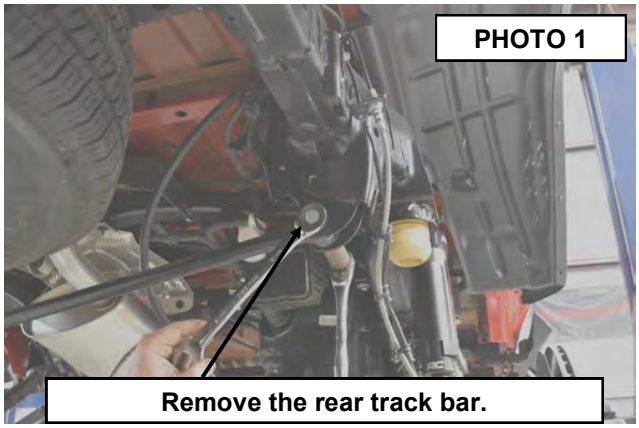


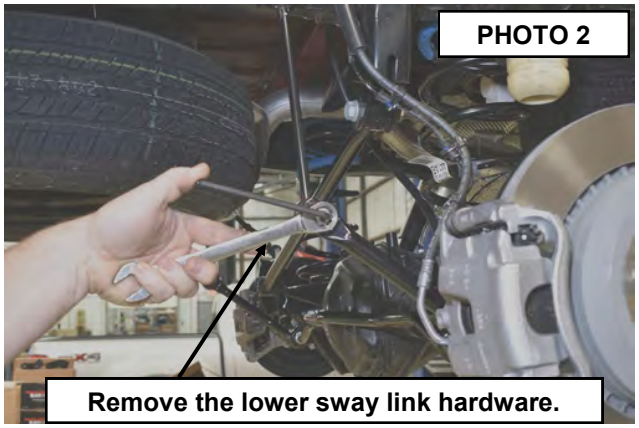
60. Tighten the lower control arm at the axle using a 21mm wrench and 24mm socket. Torque to factory specs.
61. Center the cam bolts and tighten using a 24mm wrench and 24mm socket. Torque to 165ft/lbs. **See Photo 56.**
62. Torque the track bar mounting bolts to factory specs using a 21mm socket.



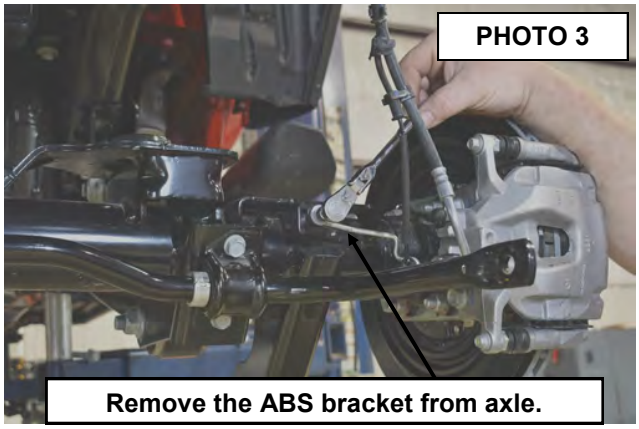
REAR INSTALLATION INSTRUCTIONS

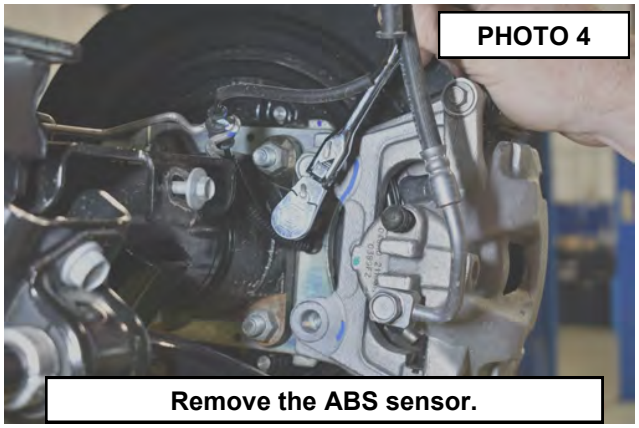
1. Jack up the rear of the vehicle and support the vehicle with jack stands, so that the rear wheels are off the ground. Chock front wheels. Position a jack so it supports, but does not raise the rear axle.
2. Remove the rear tires/wheels, using a 22mm deep well socket.
3. Using a 21mm socket and wrench remove the track bar. Retain the stock hardware for reuse. **See Photo 1.**
4. Using a pair of pliers, disconnect the vent tube from the rear axle.
5. Using an 18mm socket and 6mm Allen, disconnect the sway link from the sway bar. **See Photo 2.**



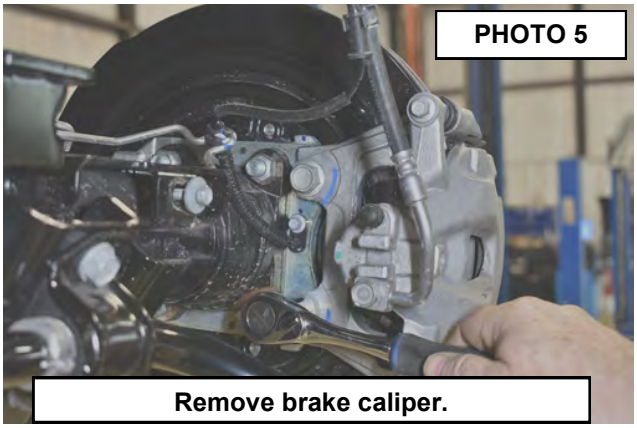


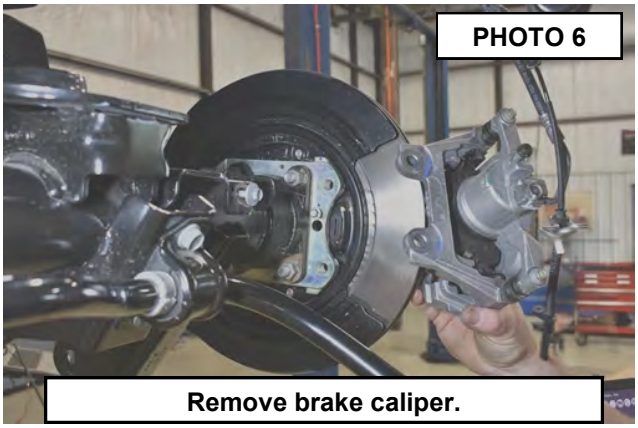
6. Using a 10mm socket, remove the ABS bracket from the axle. Retain hardware. **See Photo 3.**
7. Using an 8mm socket, remove the ABS sensor from the brake caliper bracket. Retain hardware. **See Photo 4**.



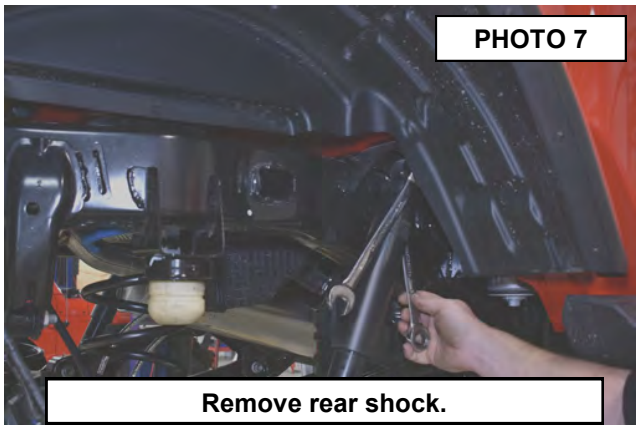


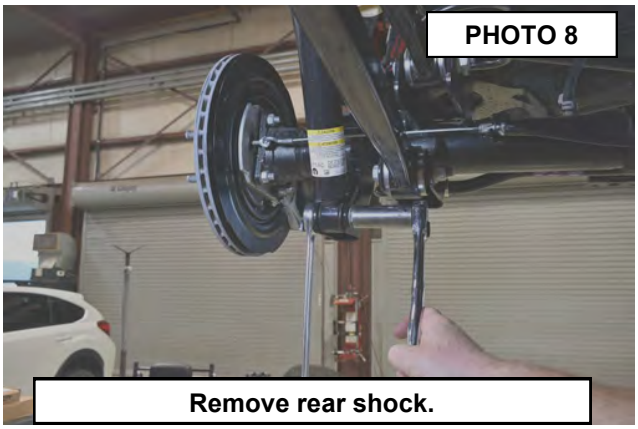
8. Using an 18mm socket, remove the brake caliper bolts. Retain hardware. **See Photo 5.**
9. Remove the brake caliper and hang out of the way. **See Photo 6. Do not hang the caliper by the brake line.**



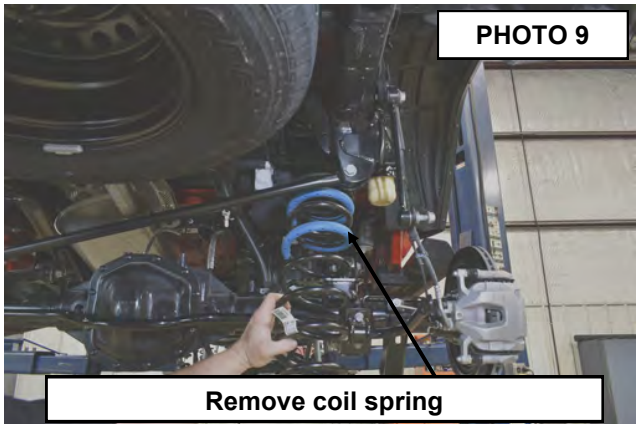


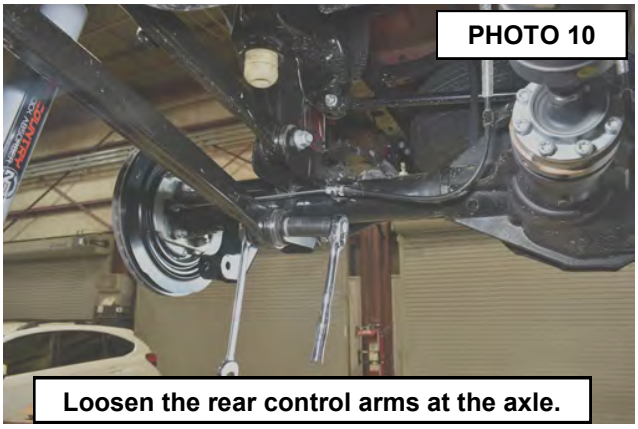
10. Support the rear axle using a jack or jack stands.
11. Using a 21mm wrenches, remove the upper and lower shock hardware. Retain hardware. **See Photos 7 & 8.**



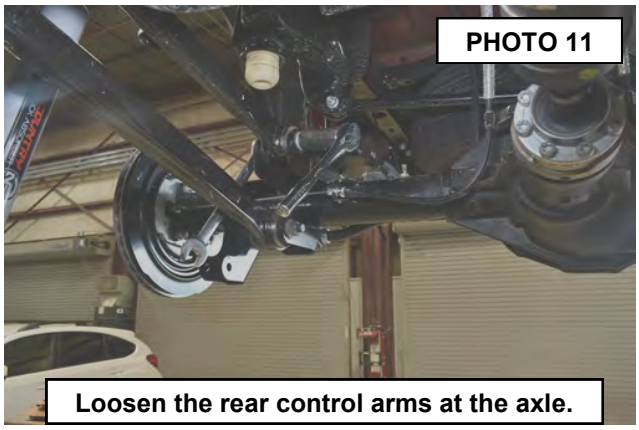


12. Lower the axle and remove the rear coil springs. **See Photo 9.**
13. Using 21mm wrench and 24mm socket, loosen (**do not remove**) the upper and lower control arm hardware at the axle. **See Photos 10 & 11.**



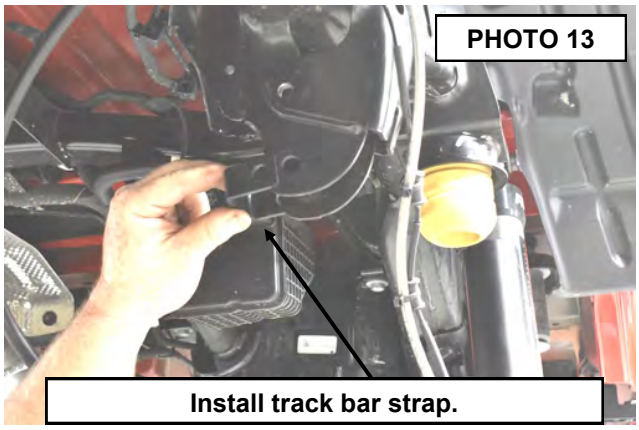


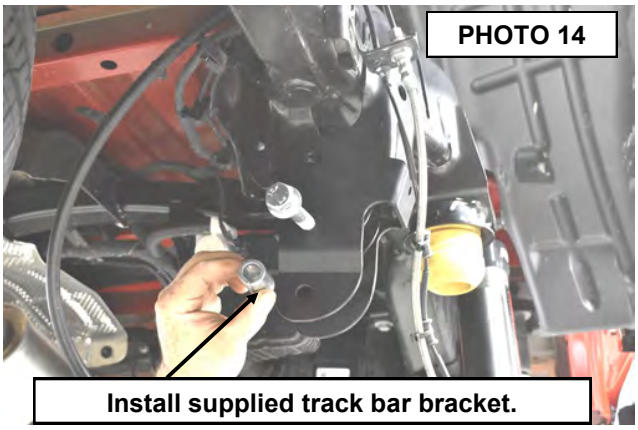
14. Place upper coil spring isolator in the upper coil bucket and mark its orientation on the isolator and the upper coil bucket. **See Photo 12**.



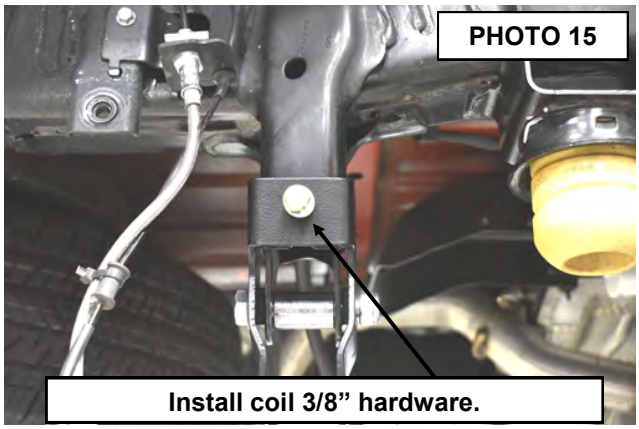


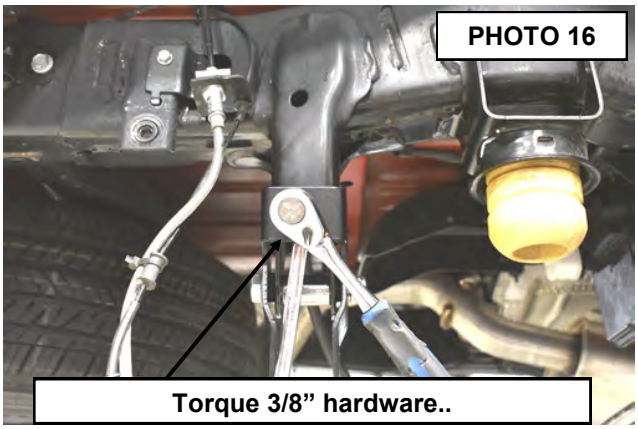
15. Install the supplied track bar strap onto the factory track bar bracket. **See Photo 13.**
16. Install the supplied track bar bracket over the factory bracket using the supplied crush sleeve, 14mm x 90mm bolt, (2) 14mm flat washers, and 14mm nylock nut. (91230BAG2). Do not tighten at this time. **See Photo 14.**



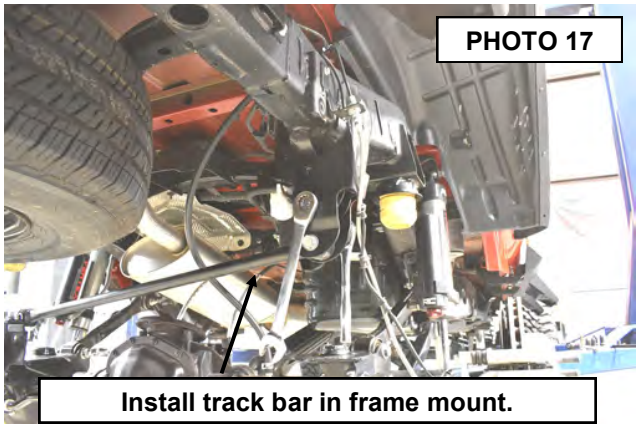


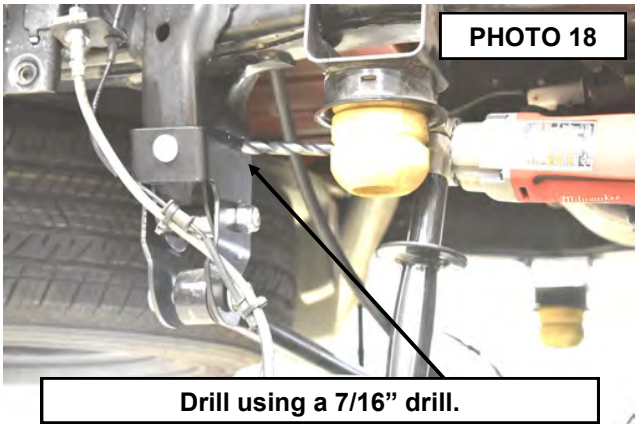
17. Install the supplied 3/8” x 1.25” bolt, washer, and flange lock nut in the outside hole on the supplied track bar bracket. Torque to 35ft-lbs using a 9/16” socket and wrench. **See Photos 15 & 16.** Make sure the bracket is pushed up.



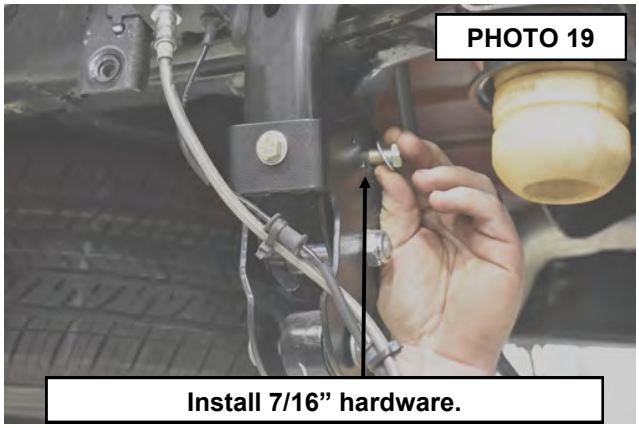


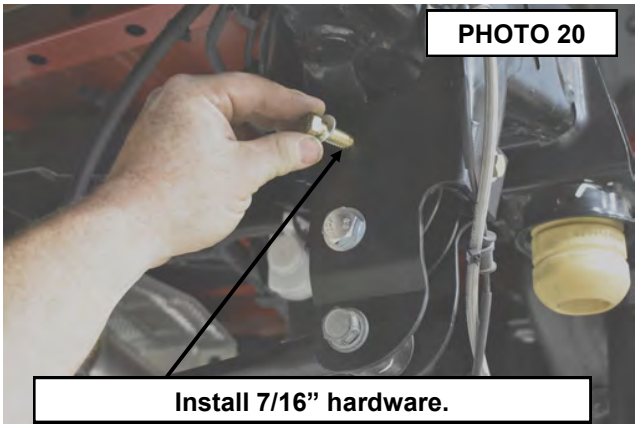
18. Install the track bar in the relocation bracket using the factory hardware. Do not tighten at this time. **See Photo 17**.
19. Torque the supplied 14mm bolt to 120ft-lbs using a 22mm socket and wrench. **See Photo 17.**
20. Using a 7/16 drill and the supplied bracket as a guide, drill the holes in the front and rear of the factory track bar bracket. **See Photo 18.**



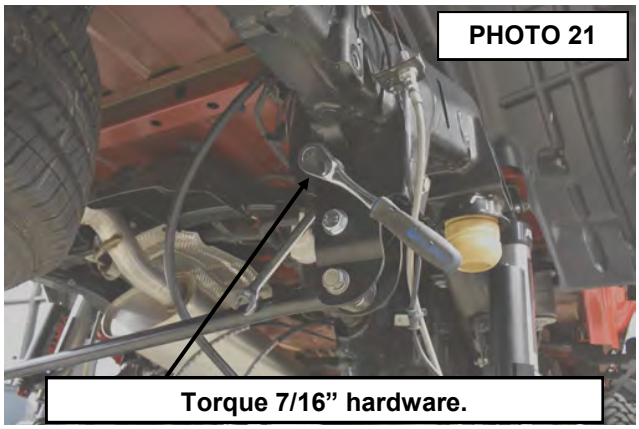


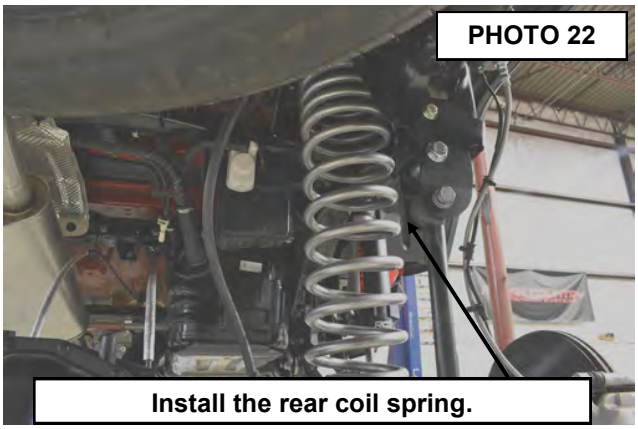
21. Install the supplied 7/16” x 1.25 bolts, washers, and nylock nuts into the drilled holes. **See Photos 19 & 20.**





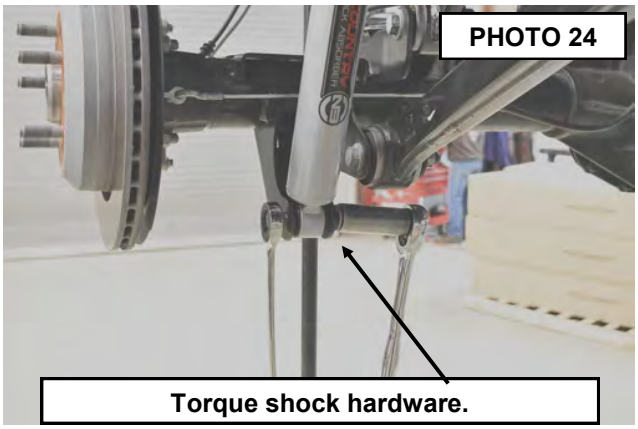
22. Torque 7/16” hardware to 60ft-lbs using a 5/8” socket and wrench. **See Photo 21.**
23. Align the upper coil isolator with the marks made in step 14 and install the supplied rear coil spring, making sure the spring is seated in the upper isolator and on the axle mount. **See Photo 22.**



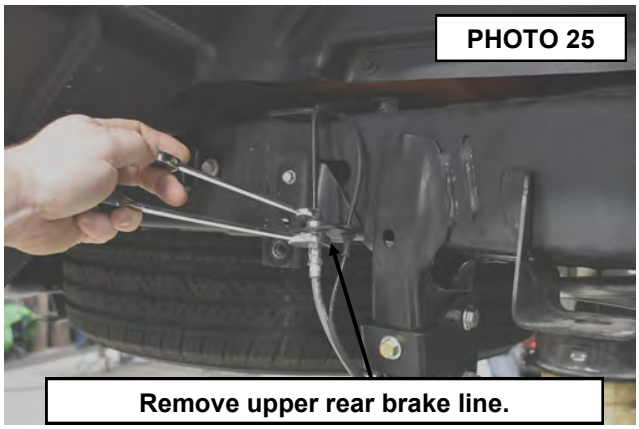


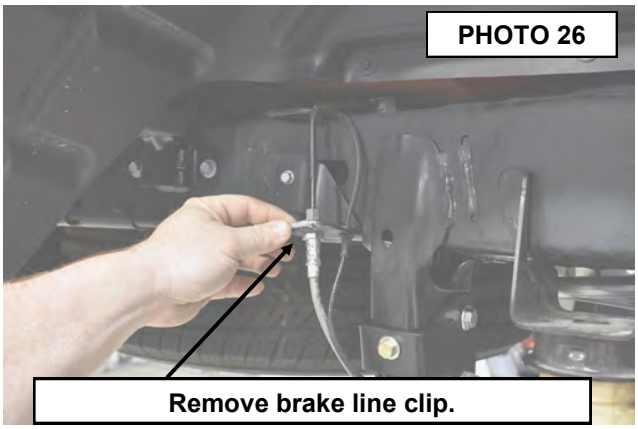
24. Install the supplied rear shock using the factory hardware. Torque to 85ft-lbs using a 21mm socket and wrench. **See Photos 23 & 24.**



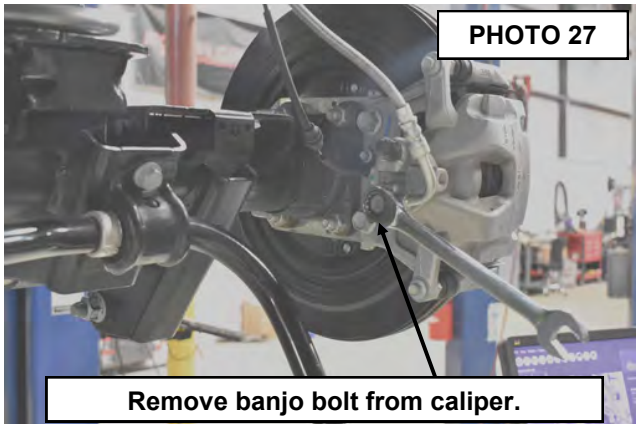


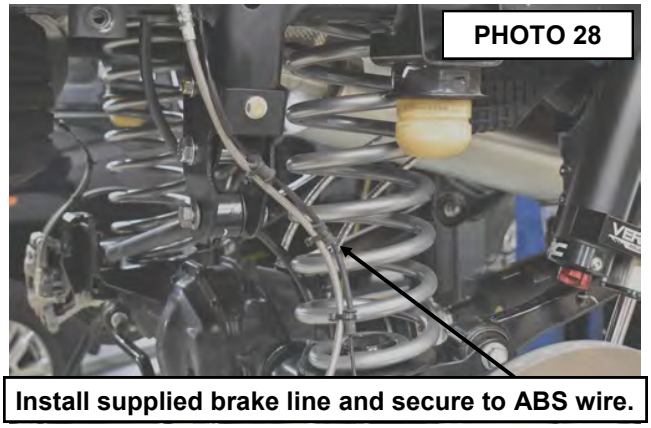
25. Using a 12mm wrench and a 16mm wrench, loosen the upper rear brake lines. **See Photo 25.**
26. Remove the factory brake line clip. **See Photo 26.**





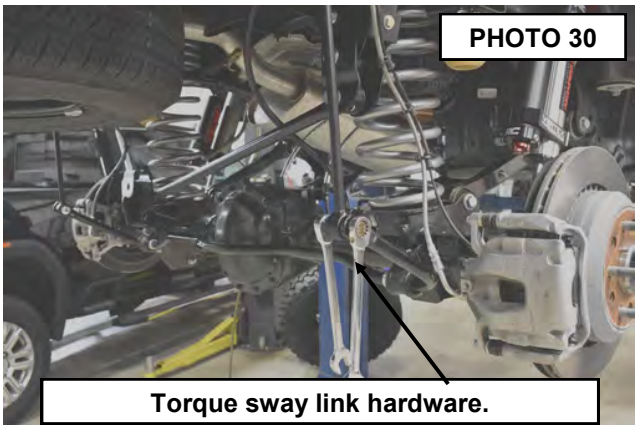
27. Using a 15mm socket, remove the banjo bolt from the brake caliper. **See Photo 27.**
28. Install the supplied rear brake lines, side specific and using the supplied 10mm crush washers (91320BAG3), reversing steps 25-27.
29. Use the supplied cable ties (91230BAG3) to secure the brake lines to the ABS wire. **See Photo 28. Make sure the brake line doesn't rub or become pinched by anything.**



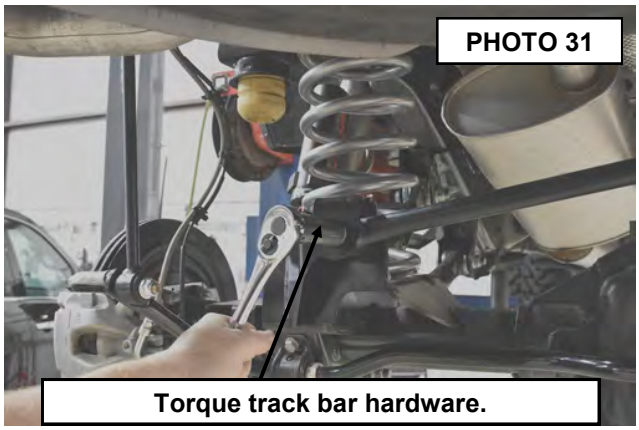


30. Install the supplied sway bar links, in the upper mount using the supplied 12mm x 60mm **fine thread** bolt and washer (91230BAG3). Torque to 55ft-lbs using an 18mm socket. **See Photo 29.**
31. Attach the sway link to the lower mount using the supplied 12mm x 65mm bolt, flat washer, and 12mm flange lock nut (91230BAG3). **Make sure to install the bolt, with washer, through the sway link then into the sway bar. The nut should tighten against the sway bar.** Torque to 55 ft-lbs using an 18mm wrench and 19mm socket. **Only turn the nut when tightening**. **See Photo 30.**





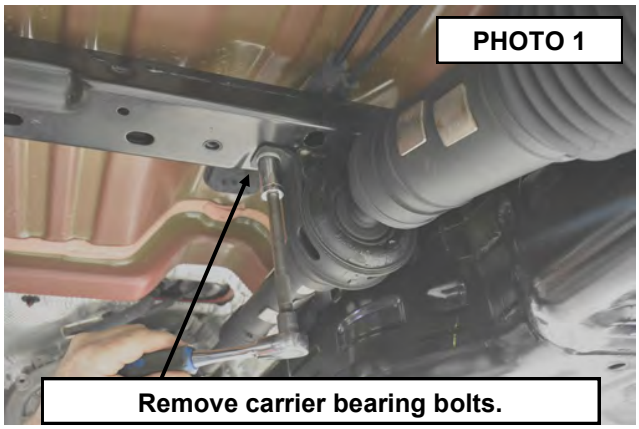
32. Install the brake caliper using the factory hardware. Torque to 55ft-lbs using an 18mm socket.
33. Install the ABS sensor into the brake caliper bracket using the factory hardware. Tighten using an 8mm socket.
34. Attach the ABS wire bracket to the axle using the factory hardware. Adjust wire as needed. Tighten using a 10mm socket.
35. Connect the axle vent tube to the axle using pliers.
37. Reinstall the rear tires/wheels, using a 22mm deep well socket.
38. Lower the vehicle to the ground.
39. Torque the upper and lower control arm hardware to 217ft-lbs using a 21mm wrench and 24mm socket.
39. Torque the factory track bar hardware to 130ft-lbs. using a 21mm socket and wrench. **See Photos 31 & 32.**
40. **WARNING Bleed brake system to ensure no air is trapped in the lines.**

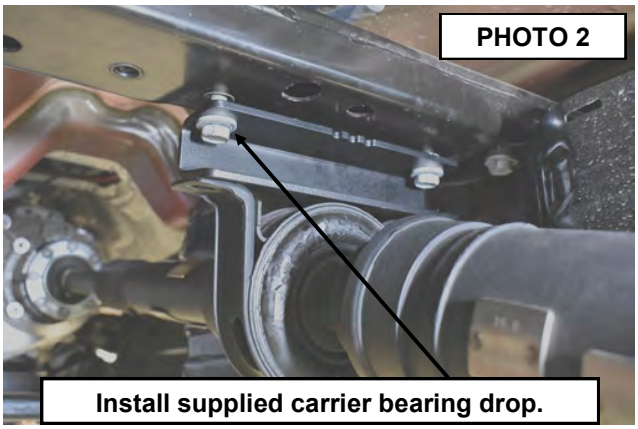




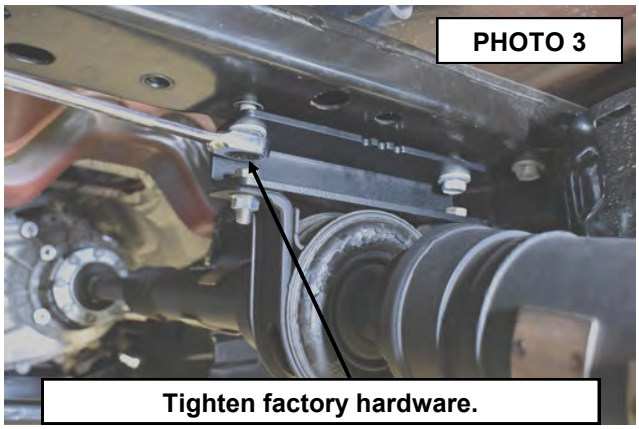
Carrier Bearing Drop Install

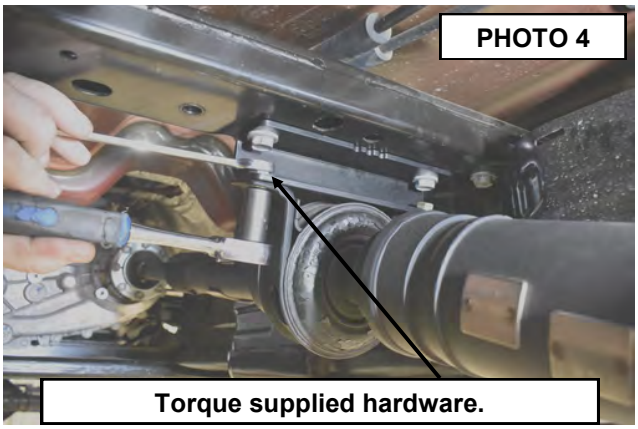
1. Support the rear driveshaft with a jack or jack stand.
2. Using a 16mm socket, remove the carrier bearing bolts. Retain hardware. **See Photo 1.**
3. Install the supplied carrier bearing drop bracket, notches against crossmember and to the rear of the vehicle, using the factory hardware. Tighten using a 16mm wrench. **See Photos 2 & 3.**





4. Attach the carrier bearing to the drop bracket using the supplied 3/8” x 1” bolts, washers, and flange locknuts. Torque to 30ft-lbs using a 9/16” socket and wrench. **See Photo 4.**





POST INSTALLATION

1. Confirm that the draglink was adjusted to the center steering wheel **BEFORE** the vehicle is driven. Failure to do so will cause a computer error, odd handling, and poor performance.
2. Check all fasteners for proper torque. Check to ensure there is adequate clearance between all rotating, mobile, fixed and heated members. Check steering for interference and proper working order. Test brake system.
3. Perform steering sweep. The distance between the tire sidewall and the brake hose must be checked closely. Cycle the steering from full turn to full turn to check for clearance. Failure to perform inspections may result in component failure.
4. Re-torque all fasteners after 500 miles and recheck after 1000 miles. Alignment must be checked by a qualified mechanic. Visually inspect components and re-torque fasteners during routine vehicle service.
5. Readjust headlights to proper settings.
6. Have a qualified alignment center realign the front end, to the factory specifications immediately.

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