Rough Country 33830A Installation Instructions

5-Inch Lift Kit with N3 Shocks for 2019–2024 Ram 1500 4WD, Part 33830A

Part number: 33830A

trailfortress.com/rough-country-5-inch-lift-kit-33830a

Scan for fitment, price and install help

ROUGH COUNTRY SUSPENSION SYSTEMS®

RAM 2019-22 1500 AIR RIDE 5” LIFT KIT

⚠WARNING The Ram air ride system uses highly pressurized air, up to 220psi. Failure to properly disable the air ride system can result in damage to the air ride system and/or bodily injury.

⚠NOTICE Improper air pressure, caused by leaks or air line restrictions, can result in damage to the air ride system, vehicle error codes, and even an ASCM lock. **If the ASCM becomes locked, only a Ram dealership has the ability to reset the ASCM.** A recharge and recalibration of the air ride system may also be required to restore proper operation. Instructions must be **carefully** followed on the rear air bags to prevent damage to the air bag and air ride system.



Thank you for choosing Rough Country for all 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 kit contents list. Be sure you have all needed parts and know where they go. Also please review tools needed list and make sure you have the tools needed to install the kit.

⚠WARNING 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. Seat belts and shoulder harnesses should be worn at all times. Avoid situations where a side rollover may occur.

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. We will be happy to answer any questions concerning the design, function, and use of our products.

This 5" suspension system was developed using a 35 X 12.5 tire with aftermarket wheels. 20" wheels with 5 1/2" backspace. **This kit will not work with wheels smaller than 20".** As with any tire and wheel combination it is recommended to trial fit the tire / wheel to assure there are no clearance problems.

⚠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. By purchasing any item sold by Rough Country, LLC, the buyer expressly warrants that he/she is in compliance with all applicable Federal, State, and Local laws and regulations regarding the purchase, ownership, and use of the item. It shall be the buyers responsibility to comply with all Federal, State and Local laws governing the sales of any items listed, illustrated or sold. The buyer expressly agrees to indemnify and hold harmless Rough Country, LLC for all claims resulting directly or indirectly from the purchase, ownership, or use of the items.

INSTALLING DEALER - it is your responsibility to install the warning decal and forward these installation instructions on to the vehicle owner for review. These instructions should be kept in the vehicle for its service life.

Kit Boxes for Kits Without Factory 22” Wheels

33830A (6” Kit w/ N3 Rr Shocks):

334BOX1
338BOX1
33430BOX1
33430BOX2
33430BOX3
23207

33870 (6” Kit w/ V2 Rr Shocks):

334BOX1
338BOX1
33430BOX1
33430BOX2
33430BOX3
760815

Kit Boxes for Kits With Factory 22” Wheels

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334BOX1
338BOX1
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33930BOX2
33930BOX3
760815

KIT CONTENTS

NOTICE **Only fits models without 22" factory wheels.**

33430Box1 *Containing*:
- 1-*Fr Cross-member*
- *1-Rr Cross-member*

33430Box2 *Containing:*
- *1-Dr Knuckle*

33430Box3 *Containing:*
- *1-Pass Knuckle*

334Box1 *Containing:*
- *1-33430BAG2*
- *1-33430BAG13*
- *1-33430BAG6*
- *1-33430BAG12*
- *1-Dr Fr Sway Bar Drop*
- *1-Pass Fr Sway Bar Drop*
- *1-Rr Track Bar Bracket*
- *1-Dr Rr UCA Bracket*
- *1-Pass Rr UCA Bracket*
- *1-Skid Plate*
- *1-Driveshaft Spacer*
- *2-Rr Sway Links*
- *1-Pass Fr Diff Bracket*
- *1-Dr Rr Diff Bracket*
- *1-Dr Fr Diff Bracket*
- *2-Tie Rod Ends*
- *2-Rr Bump Stop Extensions*

338Box1 *Containing:*
- *1-10MMSTUDBAG-2*
- *2-Strut Spacers*
- *2-Rr Air Bag Spacers*
- *1-Dr Rr Height Sensor Bracket*
- *1-Pass Rr Height Sensor Bracket*

23207-
- 2-Rear N3 Shocks

69062-
- 1-N3 Strut

760815-
- 2-V2 Rear Shocks

Instructions:
- *1-921334000E*
- *1-921338000D-Air Ride Models*

33430BAG2 *Containing*

For Front and Rear Cross-Members:
- *4-18mm x 150mm Bolt*
- *4-18mm Lock Nut*
- *8-Square Washers*

33430BAG12 *Containing:*

For Rear Upper Driver Diff Mount:
- *3-12mm x 45mm Bolts*
- *3-Flat Washers*
- *3-12mm Flange Lock Nuts*

For Front Upper Driver Diff Mount:
- *2-12mm x 45mm Bolts*
- *2-Flat Washers*
- *2-12mm Flange Lock Nuts*

For Passenger Side Diff Mount:
- *2-12mm x 45mm Bolts*
- *2-12mm Flange Lock Nuts*
- *2-Flat Washers*
- *2-Wire Ties*

For Drive Shaft Spacer:
- *4-12mm x 45mm Bolts*
- *4-Flat Washers*

For Front Skid Plate:
- *4-3/8" x 1" Bolts*
- *4-Flat Washers*
- *2-3/8" Lock Nuts*

For Front Brake Line Brackets:
- *4-5/16" x 1" Bolts*
- *4-5/16" Flange Lock Nuts*
- *4-5/16" Flat Washers*
- *2-3/8" Flat Washers*
- *2-Wire Ties*

For Front Sway Bar Links:
- *4-3/8" x 1.25" Bolts*
- *4-3/8" Lock Nuts*
- *8-Flat Washers*

For Rear Diff Cooling Line:
- *1-Rear Diff Cooling Bracket*
- *2-5/16" x 1.25" Bolts*
- *2-5/16" Flange Lock Nuts*
- *2-5/16" Flat Washers*

10MMStudBag-2:

For Front Strut Spacer:
- *1-1/2" Jam Nut*
- *1-10mm Nut*
- *6-10mm Stud*
- *6-10mm Flange Nuts*

33430BAG6 *Containing:*
- *2-Fr Brake Line Brackets*
- *2-UCA Bracket Sleeves*
- *1-Track Bar Bracket Flag Nut*
- *1-Dr Rr Brake Line Bracket*
- *1-Pass Rr Brake Line Bracket*

For Rear Control Arm Brackets:
- *2-5/8" x 4.5" Bolts*
- *2-5/8" Lock Nuts*
- *4-5/8" Flat Washers*
- *8-3/8" x 1.25" Bolts*
- *16-3/8" Flat Washers*
- *8-3/8" Lock Nuts*

For Rear Brake Line Brackets:
- *2-5/16" x 3/4" Bolts*
- *2-5/16" Flange Lock Nuts*

For Rear Sway Links:
- *2-12mm x 65mm Bolts*
- *2-12mm Flange Lock Nuts*
- *2-Flat Washers*

33430BAG13 *Containing:*

For Rear Track Rod Bracket:
- *1-7/16" x 1.25" Bolt*
- *1-7/16" Flat Washer*
- *1-7/16" Lock Nut*
- *1-14mm x 80mm Bolt*
- *1-14mm Nylock Nut*
- *2-Flat Washer*
- *1-1/2" x 1.5" Bolt*
- *1-1/2" Flat Washer*
- *1-1/2" Lock Washer*

For Rear Bump Stops:
- *2-3/8" x 1.5" Bolts*
- *2-3/8" Flat Washers*
- *2-Flag Nuts*
- *2-5/16" x 1.5" Bolts*
- *2-5/16" Flat Washers*
- *2-5/16" Flange Lock Nuts*
- *2-3/8" Lock Washers*

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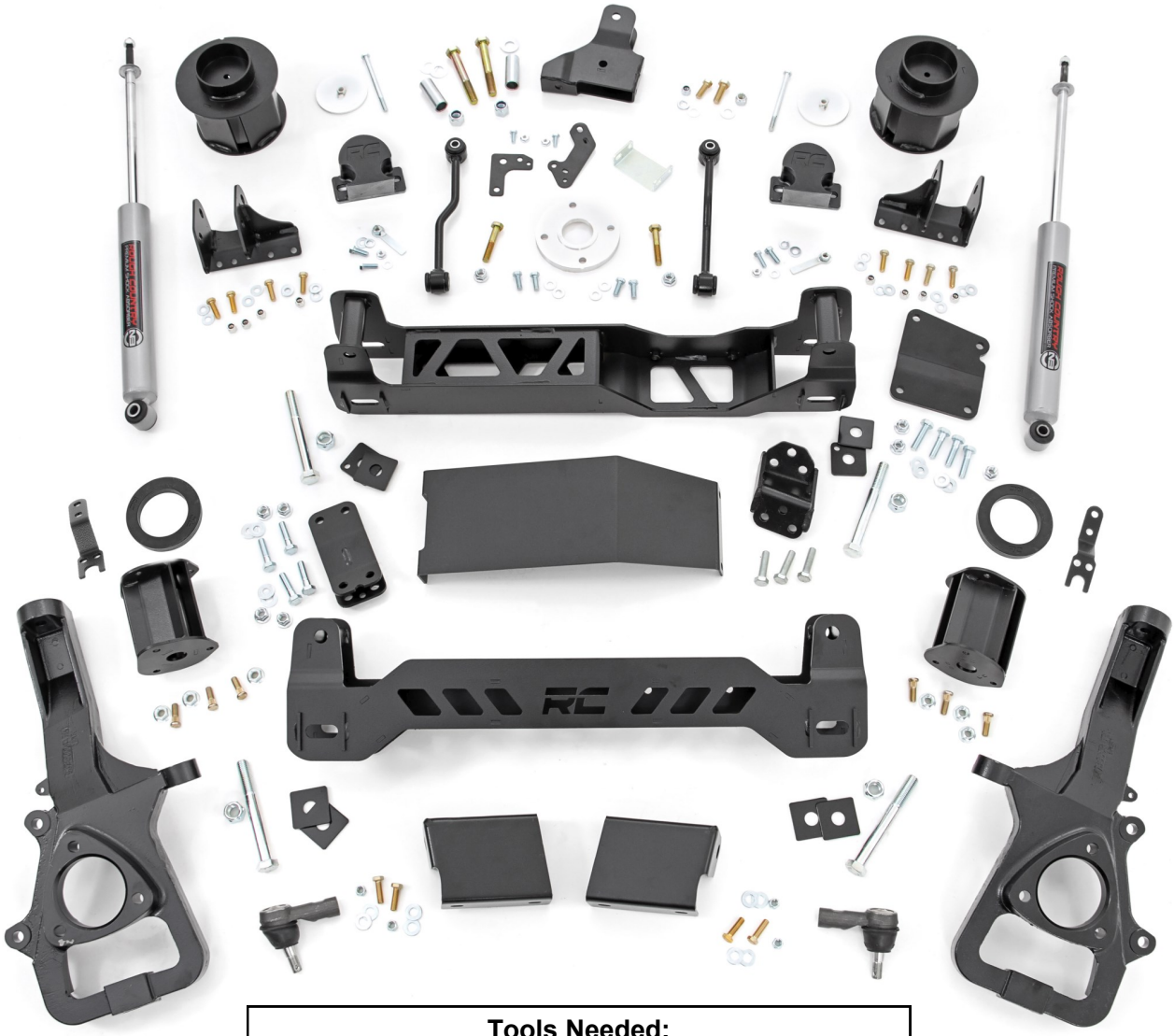
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6-10mm Stud
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33430BAG6 *Containing:*
2-Fr Brake Line Brackets
2-UCA Bracket Sleeves
1-Track Bar Bracket Flag Nut
1-Dr Rr Brake Line Bracket
1-Pass Rr Brake Line Bracket
For Rear Control Arm Brackets:
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2-5/8" Lock Nuts
4-5/8" Flat Washers
8-3/8" x 1.25" Bolts
16-3/8" Flat Washers
8-3/8" Lock Nuts
For Rear Brake Line Brackets:
2-5/16" x 3/4" Bolts
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1-1/2" Lock Washer
For Rear Bump Stops:
2-3/8" x 1.5" Bolts
2-3/8" Flat Washers
2-Flag Nuts
2-5/16" x 1.5" Bolts
2-5/16" Flat Washers
2-5/16" Flange Lock Nuts
2-3/8" Lock Washers

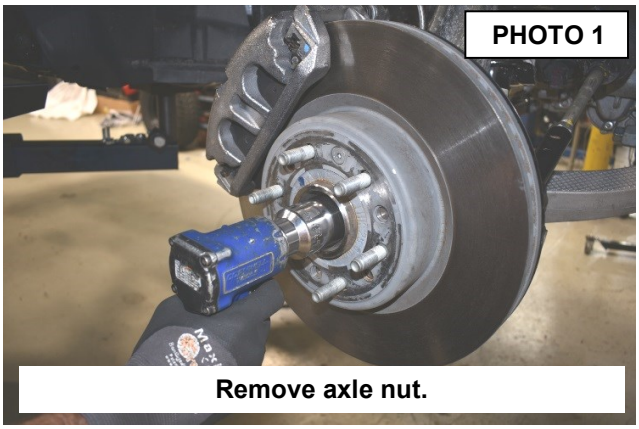


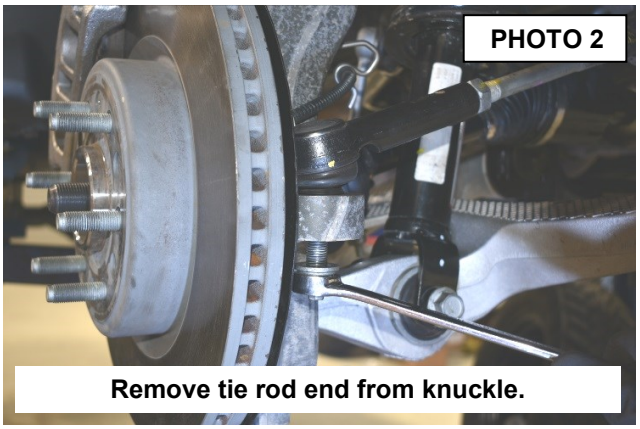
Tools Needed:	
WD-40 Loc-Tite Reciprocating Saw Hammer Dead Blow Hammer T30 Torx head bit 5mm Allen Wrench 8mm Socket / Wrench 10mm Socket / Wrench 13mm Socket / Wrench 14mm Socket / Wrench 15mm Socket / Wrench	16mm Socket / Wrench 17mm Socket / Wrench 18mm Socket / Wrench 19mm Socket / Wrench 21mm Socket / Wrench 22mm Socket / Wrench 24mm Socket / Wrench 35mm Socket 1 1/16” Socket Torque Wrench

Thank You for choosing Rough Country for your off road needs!!!

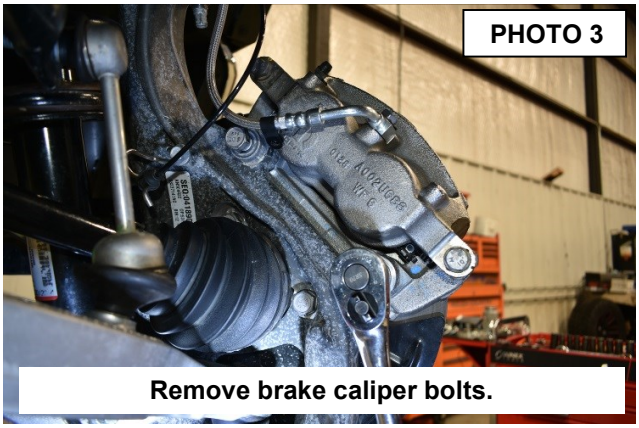
INSTALLATION INSTRUCTIONS

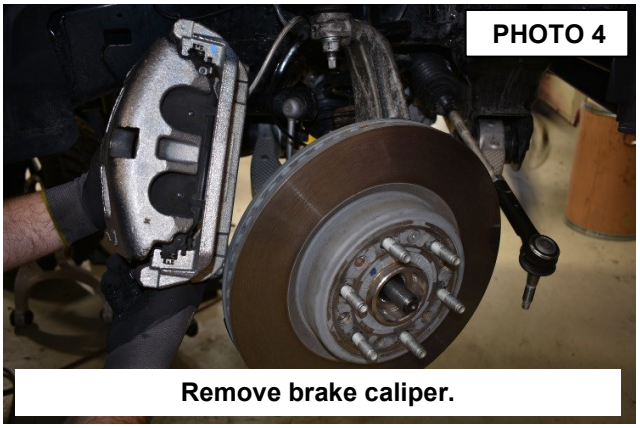
1. Park the vehicle on a flat surface and chock rear wheels.
2. Place the air suspension in Entry mode.
3. Disable the air suspension by placing it into Jack mode.
4. Disconnect the battery.
5. Using a jack, lift the front on the vehicle and support the vehicle with jack stands under the frame rails.
6. Remove wheel using 22mm socket.
7. Using a 36mm socket, remove the axle nut. Retain hardware. **See Photo 1**.
8. Using a 21mm wrench, remove the tie rod end from the knuckle. Retain hardware. **See Photo 2.**
9. Using a 21mm socket, remove the brake caliper hardware. Retain hardware. **See Photo 3.**



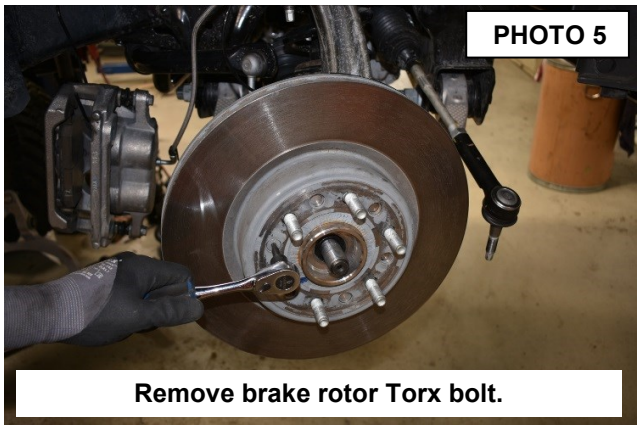


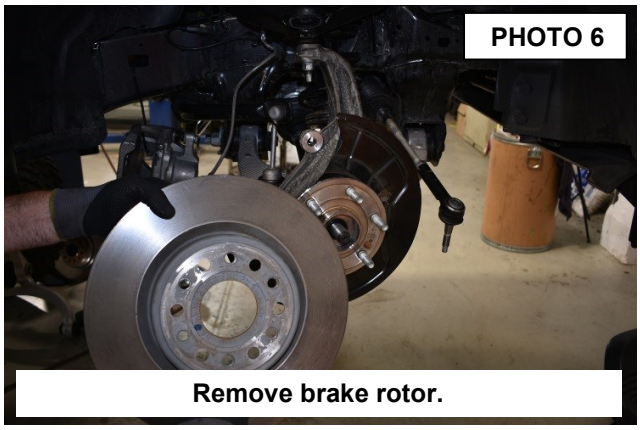
10. Remove the brake caliper, do not hang by the brake line. **See Photo 4.**



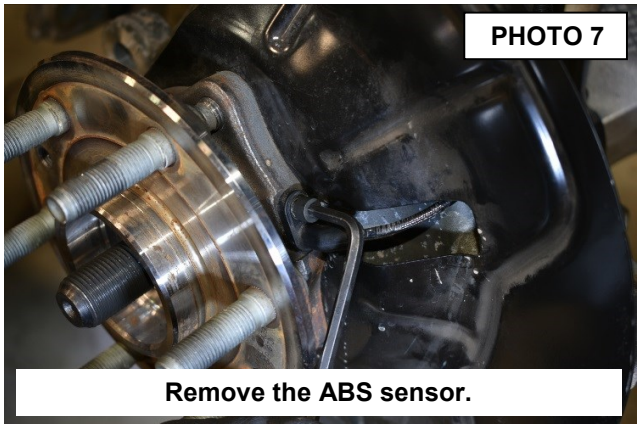


11. Using a T30, remove the brake rotor bolt. Retain hardware. **See Photo 5.**
12. Remove the brake rotor and place out of the way. Retain for reuse. **See Photo 6.**
13. Using a 5mm Allen, remove the ABS sensor from the hub. Retain hardware. **See Photo 7.**

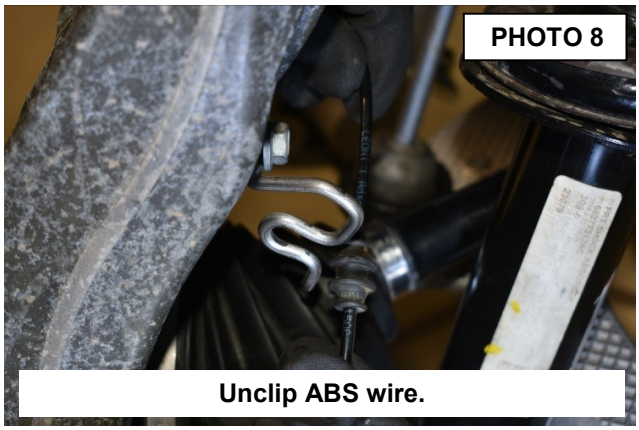




14. Unclip the ABS wire from the clip on the knuckle. **See Photo 8.**
15. Using a 21mm wrench, **loosen** the upper ball joint nut. Do not remove. **See Photo 9.**

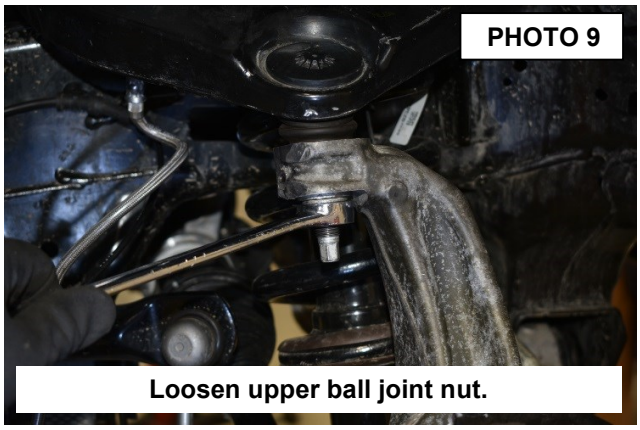


Remove the ABS sensor.



Unclip ABS wire.

16. Using a hammer, strike the knuckle at the upper ball joint to release the taper. **See Photo 10.**
17. Using a 24mm wrench, **loosen** the lower ball joint nut. Do not remove. **See Photo 11.**

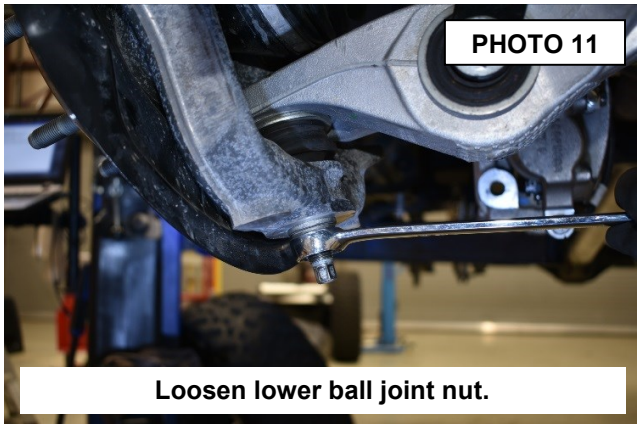


Loosen upper ball joint nut.



Strike knuckle to release ball joint taper.

18. Using a hammer, strike the knuckle at the upper ball joint to release the taper. **See Photo 12.**
19. Remove the knuckle from the vehicle. **See Photo 13.**

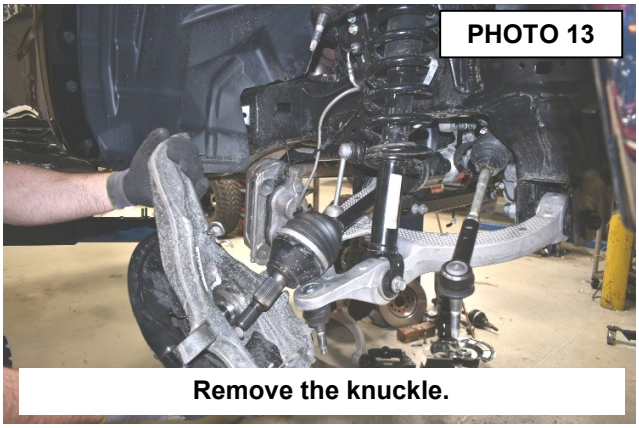


Loosen lower ball joint nut.

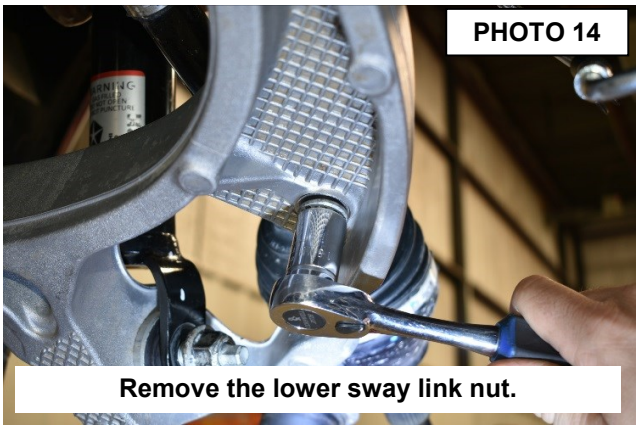


Strike knuckle to release ball joint taper.

20. Using an 18mm socket, remove the sway bar link nut from under the lower control arm. Retain hardware. **See Photo 14.**
21. Using a 24mm wrench and 21mm socket, remove the lower strut hardware. Retain hardware. **See Photo 15.**

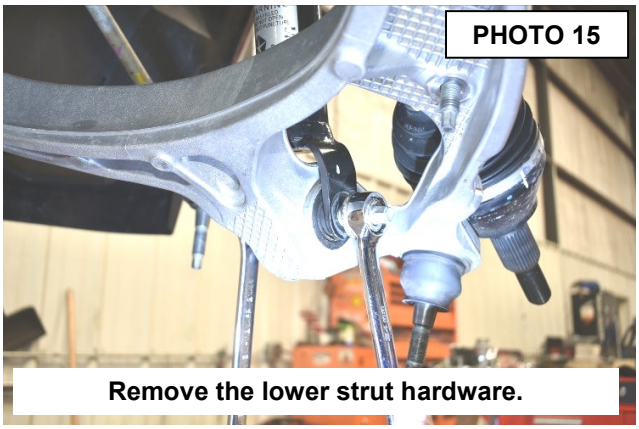


Remove the knuckle.

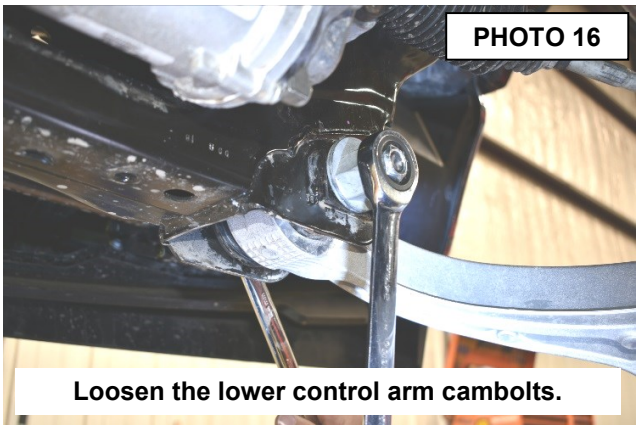


Remove the lower sway link nut.

22. Using 24mm wrenches, loosen the lower control arm cambolts and let the lower control arm swing down. **See Photo 16.**
23. Using a small flat screwdriver, **carefully** release the air line. **See Photo 17.**

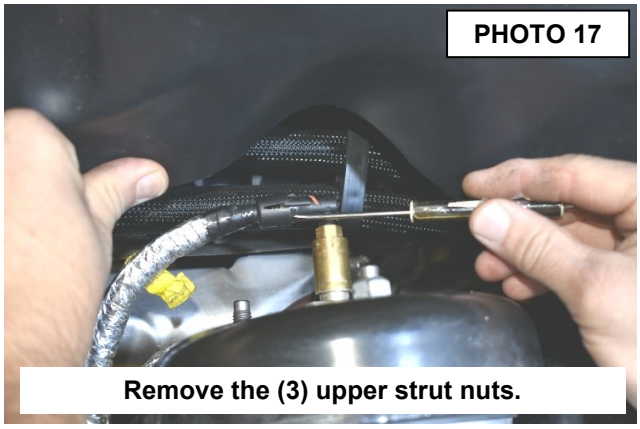


Remove the lower strut hardware.

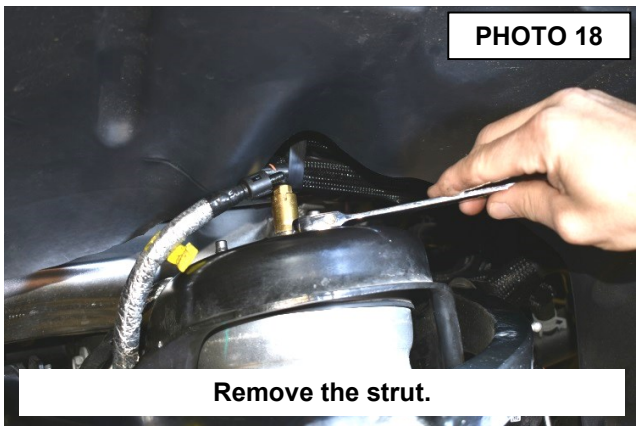


Loosen the lower control arm cambolts.

23. Using a 16mm wrench, remove the (3) upper strut nuts. Retain hardware. **Carefully** remove the strut from the vehicle **See Photo 18.**
24. Remove the lower control arm. Retain hardware. **See Photo 19.**

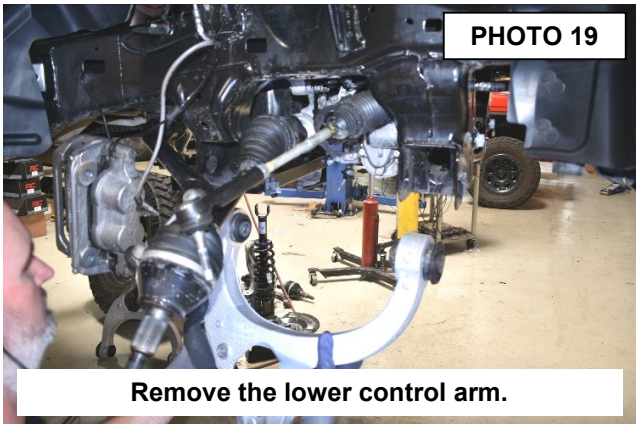


Remove the (3) upper strut nuts.

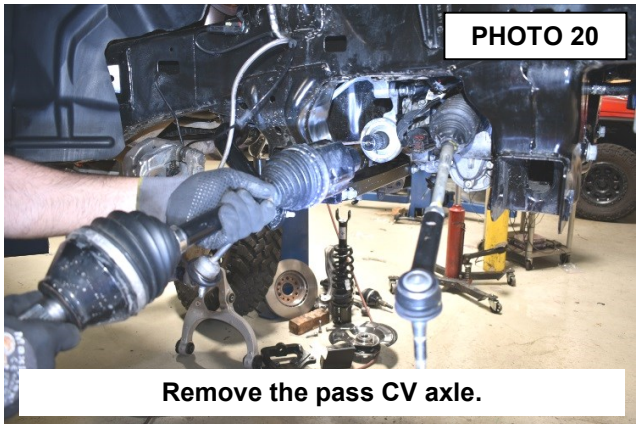


Remove the strut.

25. Remove the passenger side CV axle. **See Photo 20.**
26. Using a 15mm socket, remove the factory sway bar hardware. Retain hardware. **See Photo 21**.

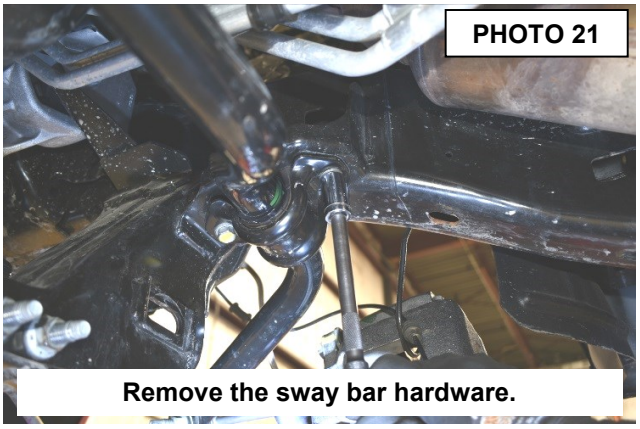


Remove the lower control arm.



Remove the pass CV axle.

27. Remove the sway bar and sway links from the vehicle. **See Photo 22**.
28. Using a 15mm wrench and an 18mm socket, remove the (4) bolts holding the rear crossmember. **See Photo 23.**

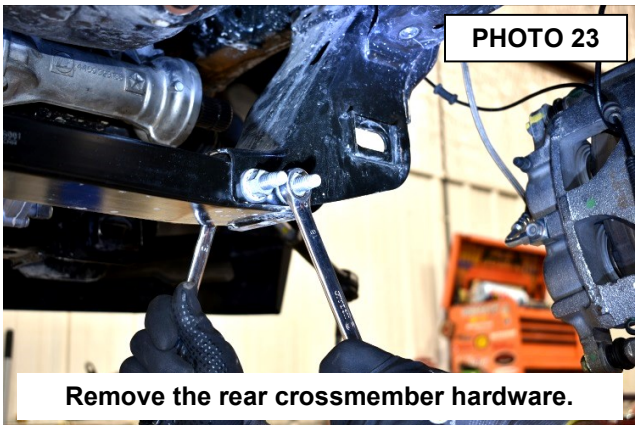


Remove the sway bar hardware.



Remove the sway bar.

29. Remove the rear crossmember from the vehicle. **See Photo 24.**
30. Unplug the diff actuator on the pass side of the differential. **See Photo 25.**

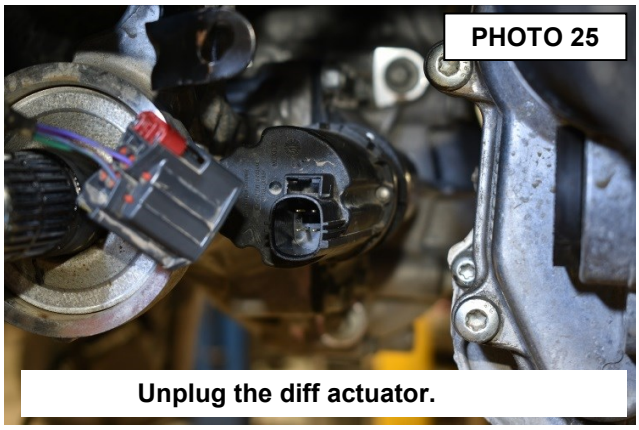


Remove the rear crossmember hardware.

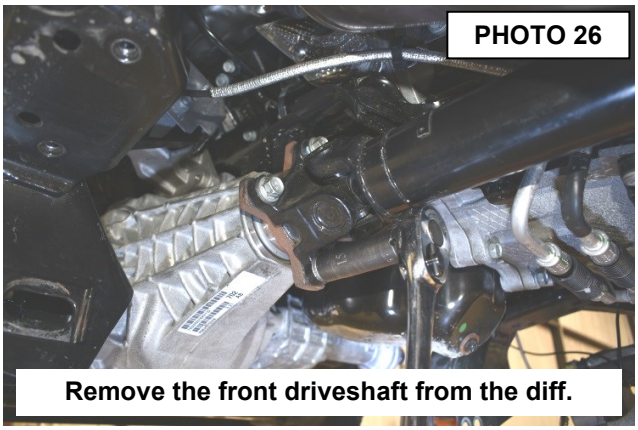


Remove the rear crossmember.

31. Using a 15mm socket, remove the front driveshaft from the front diff. **See Photo 26.**
32. Support the front diff using a jack or jack stand.

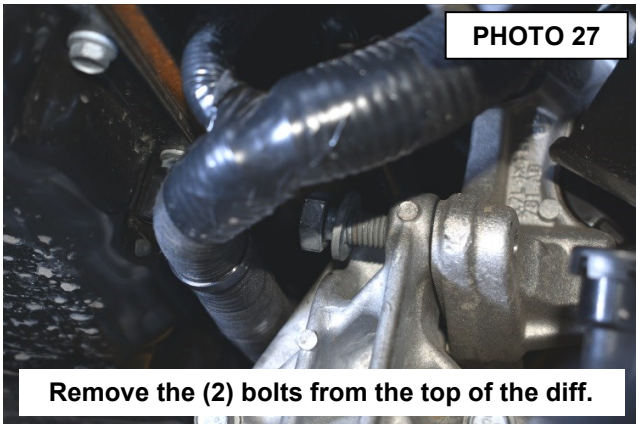

PHOTO 25

Unplug the diff actuator.

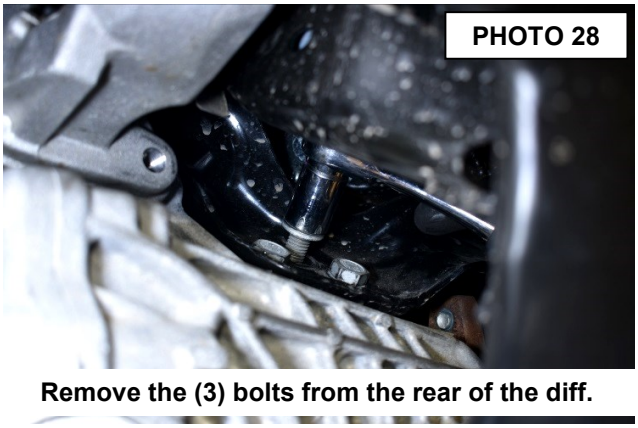

PHOTO 26

Remove the front driveshaft from the diff.

33. Using an 18mm wrench, remove the (2) bolts from the top of the diff. Retain hardware. **See Photo 27**.
34. Using an 18mm socket, remove the (3) bolts from the rear of the diff. Retain hardware. **See Photo 28.**
35. Using an 18mm wrench, remove the (2) bolts from the pass side of the diff. Retain hardware. **See Photo 29.**

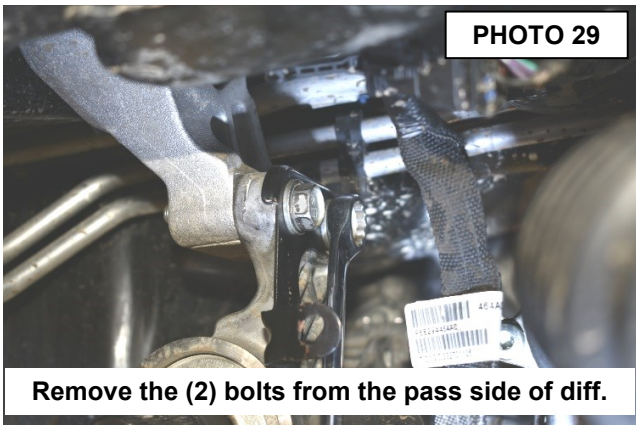

PHOTO 27

Remove the (2) bolts from the top of the diff.

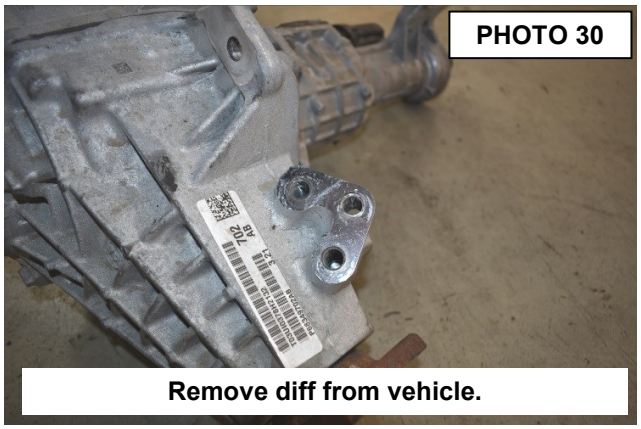

PHOTO 28

Remove the (3) bolts from the rear of the diff.

36. Remove the front differential from the vehicle. **See Photo 30.**
37. On the front side of the driver rear crossmember mount, measure 1” from the cam tab and mark. **See Photo 31.**

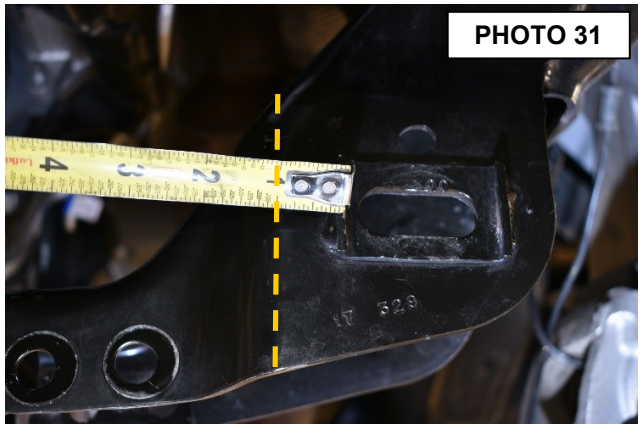

PHOTO 29

Remove the (2) bolts from the pass side of diff.


PHOTO 30

Remove diff from vehicle.

38. Using a reciprocating saw, cut the crossmember mount off using the mark made in step 35. Sand and paint cut edges to prevent rust.
39. On the front side of the driver rear crossmember mount, measure down 1.5” from the cam bolt hole and cut the inside corner off. Sand and paint cut edges to prevent rust. **See Photo 32.**
40. On the front side of the pass rear crossmember mount, measure down 1.5” from the cam bolt hole and mark. Also, mark a line straight down from the inner cam tab, creating a triangle. **See Photo 33.**


PHOTO 31

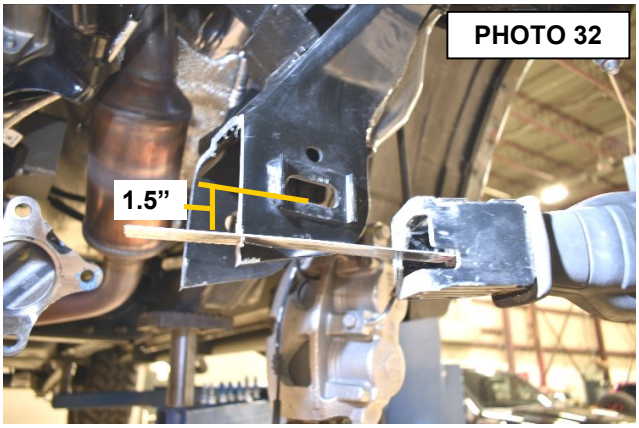


PHOTO 32

41. Using a cutoff wheel, cut along the marks made in step 38. This is done for clearance of the supplied rear crossmember. Check the clearance by placing the supplied rear crossmember in the factory control arm pockets. Sand and paint cut edges to prevent rust **See Photos 34 & 35.**
42. Install the supplied driver rear diff bracket using the factory hardware. Torque to factory specs using an 18mm socket. **See Photo 36.**

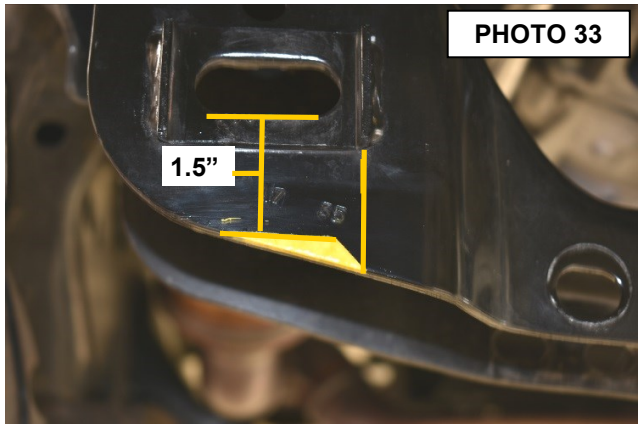
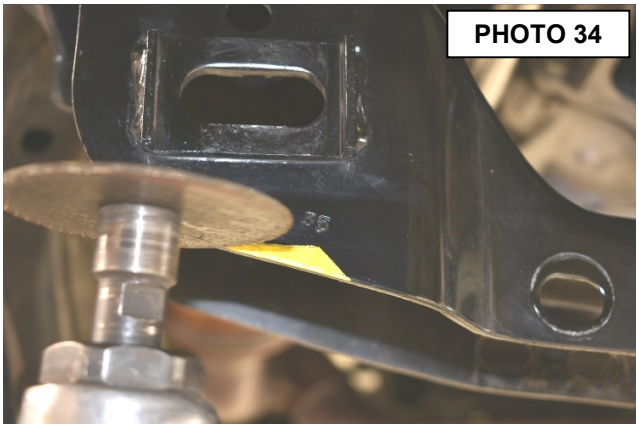
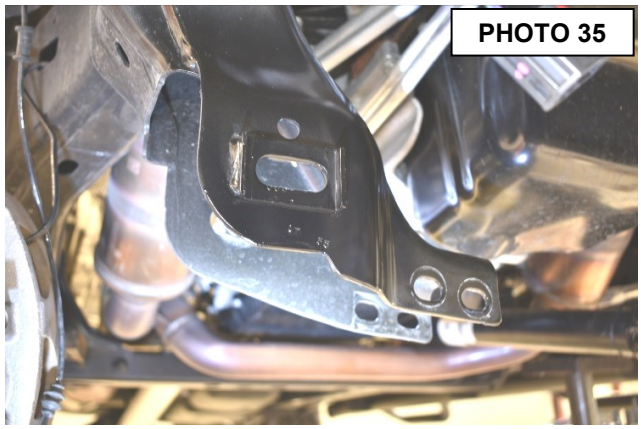
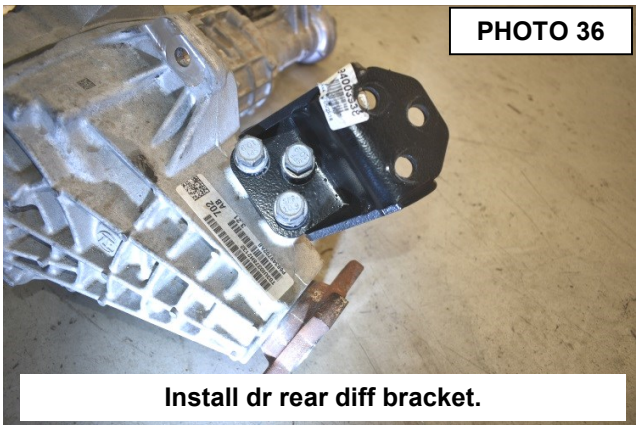


PHOTO 33


PHOTO 34

43. Install the supplied pass side front diff bracket, with the factory wire clip, using the factory hardware. Torque to fac-


PHOTO 35


PHOTO 36

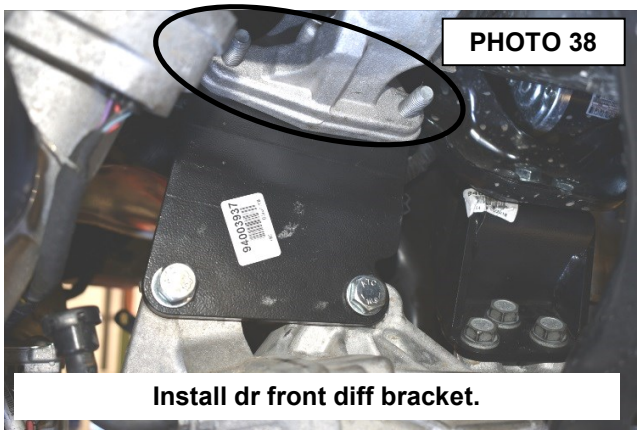
Install dr rear diff bracket.

tory specs using an 18mm socket. **See Photo 37.**

44. Install the supplied dr side front diff bracket using the factory hardware. Torque to factory specs using an 18mm socket. **See Photo 38.**
45. Raise the differential up to the vehicle.

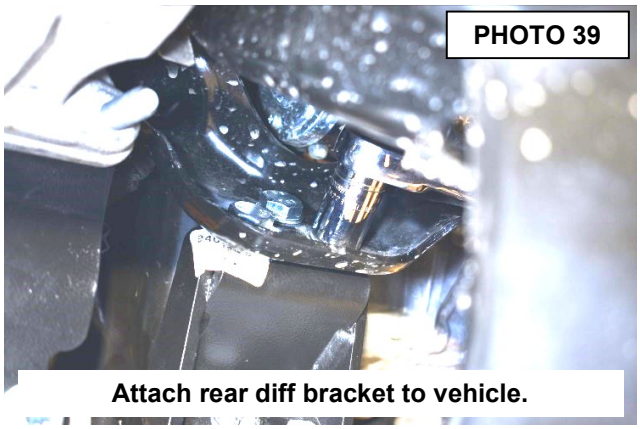


Install pass front diff bracket.

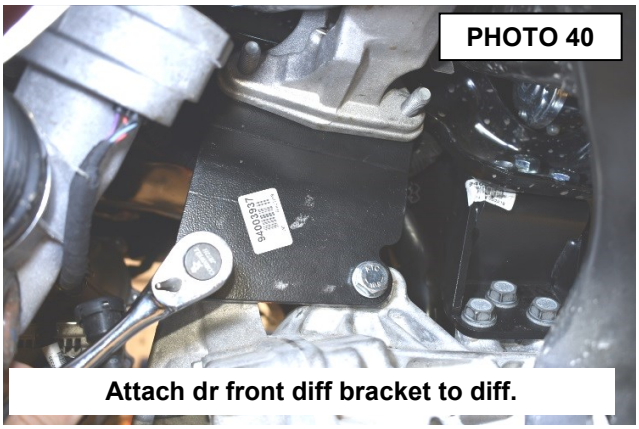


Install dr front diff bracket.

46. Attach the rear mounting bracket using the supplied 12mm x 45mm bolts, washers, and flange lock nuts (33430BAG12). Do not tighten at this time. **See Photo 39.**
47. Attach the front driver side mount to the diff using the supplied 12mm x 45mm bolts, washers, and flange lock nuts (33430BAG12). Do not tighten at this time. **See Photo 40.**

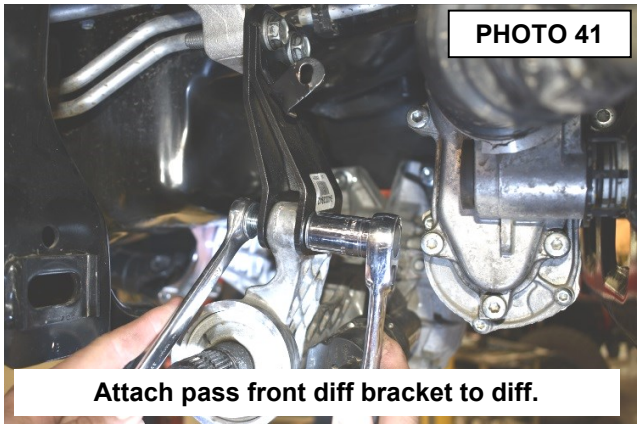


Attach rear diff bracket to vehicle.

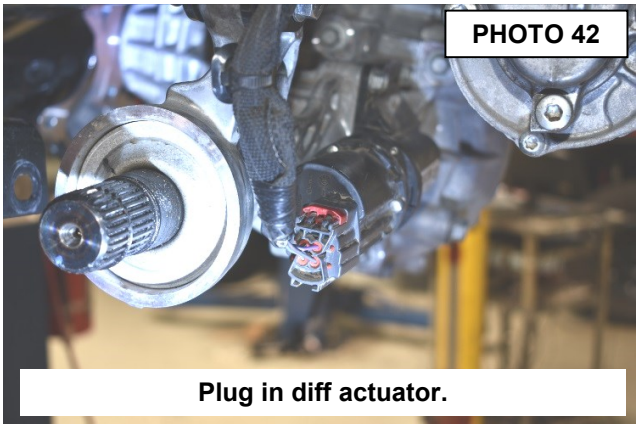


Attach dr front diff bracket to diff.

48. Attach the front pass bracket to the diff using the supplied 12mm x 45mm bolts, washers, and flange lock nuts (33430BAG12). **See Photo 41.**
49. Torque all differential hardware to 55ft/lbs using an 18mm socket and 19mm wrench.
50. Plug in the diff actuator. **See Photo 42.**

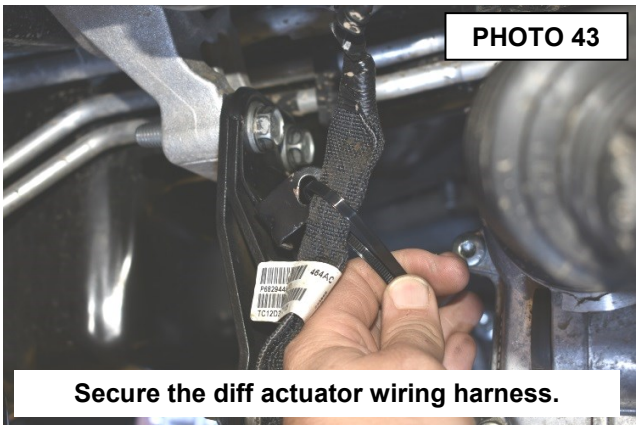


Attach pass front diff bracket to diff.

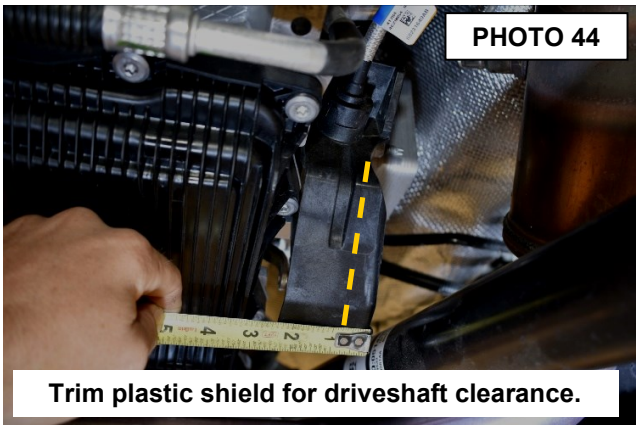


Plug in diff actuator.

51. Wire tie the diff actuator wiring harness to the clip on the pass front diff drop bracket. **See Photo 43.**
52. Measure over 3/4" and trim this plastic shield for driveshaft clearance. **See Photo 44.**

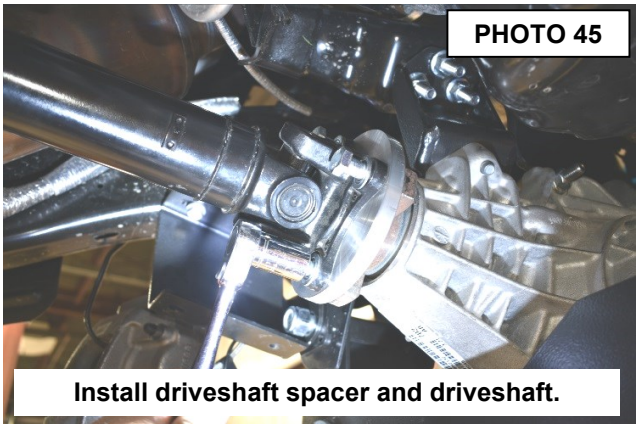


Secure the diff actuator wiring harness.

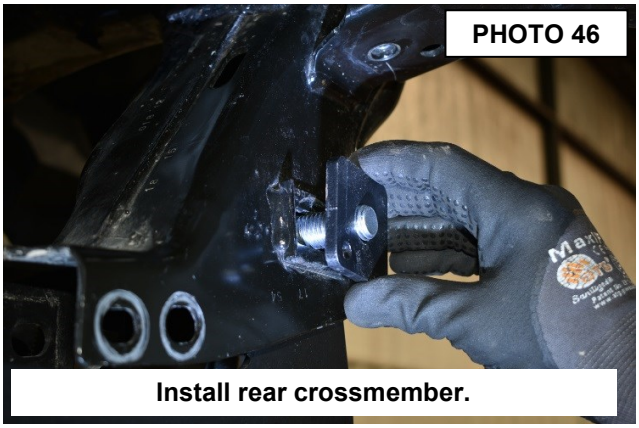


Trim plastic shield for driveshaft clearance.

53. Install the supplied driveshaft spacer and the driveshaft using the supplied 12mm x 45mm grade 10.9 bolts and washers (33430BAG12). Torque to 75ft/lbs using an 18mm socket. **See Photo 45.**
54. Install the supplied rear crossmember using the supplied 18mm x 150mm bolts (33430BAG2) with the square washers **(thin goes in front & thick goes in the back of the crossmember**). **See Photo 46.**

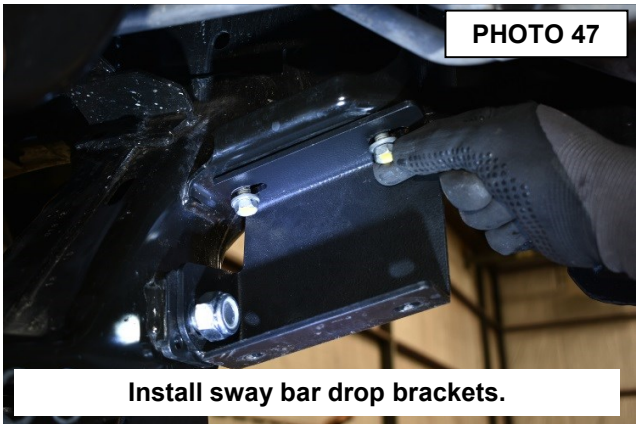


Install driveshaft spacer and driveshaft.



Install rear crossmember.

55. Install the supplied sway bar drop brackets on the crossmember bolts, using the supplied 18mm nylock nuts (33430BAG2), and attach to the frame using the factory hardware. Do not tighten at this time. **See Photo 47.**
56. Install the supplied front crossmember using the supplied 18mm x 150mm bolts, square washers, and nylock nuts (33430BAG2). Do not tighten at this time. **See Photo 48.**

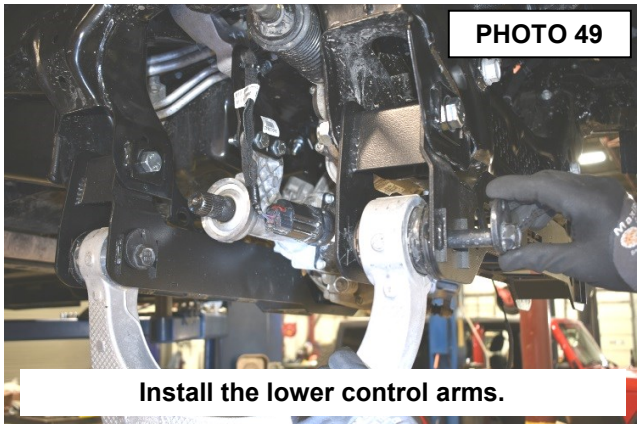


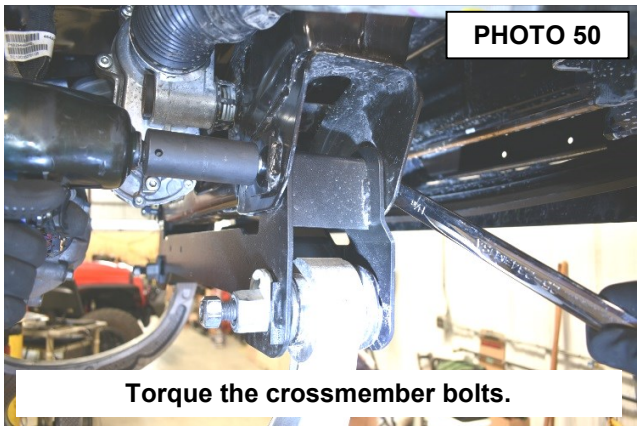
Install sway bar drop brackets.



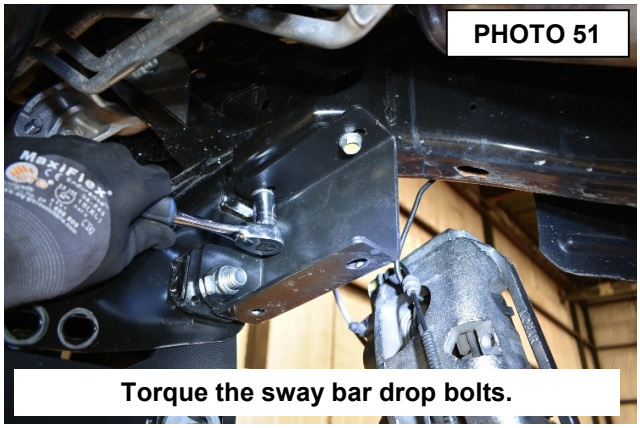
Install front crossmember.

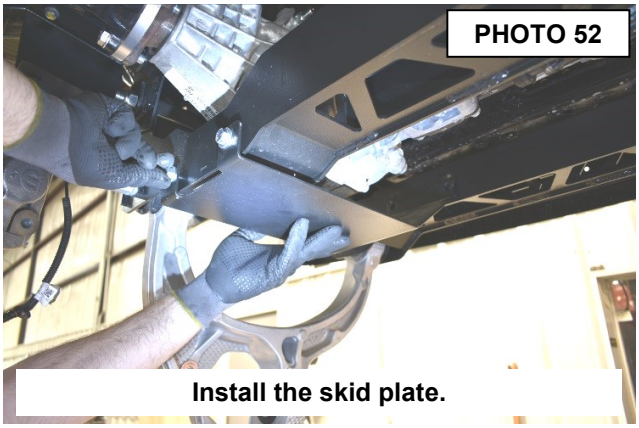
57. Install the lower control arms using the factory cam bolts. **See Photo 49.**
58. Torque the upper crossmember bolts to 170ft/lbs using a 27mm socket and wrench. **See Photo 50.**


PHOTO 49
Install the lower control arms.

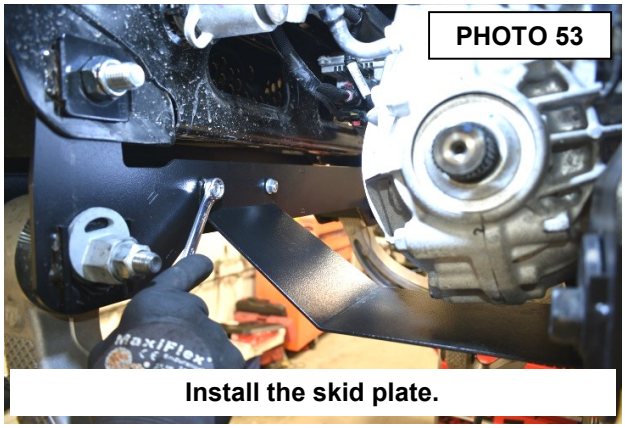

PHOTO 50
Torque the crossmember bolts.

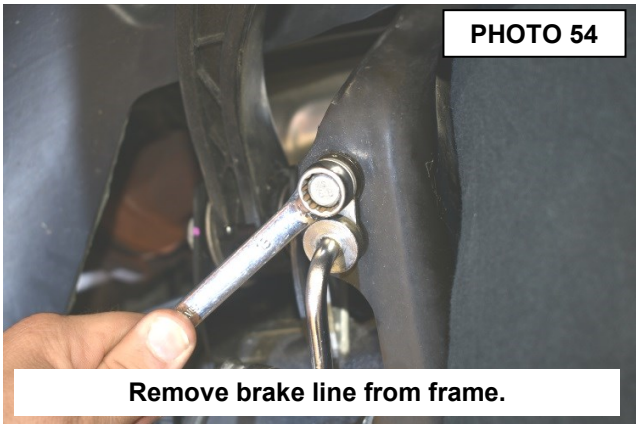
59. Torque the sway bar drop bolts to factory specs using a 15mm socket. **See Photo 51**.
60. Install the supplied skid plate on the rear crossmember using the supplied 3/8" x 1" bolts and washers (33430BAG12). Torque to 30ft/lbs using a 9/16" socket and wrench. **See Photo 52**.


PHOTO 51
Torque the sway bar drop bolts.

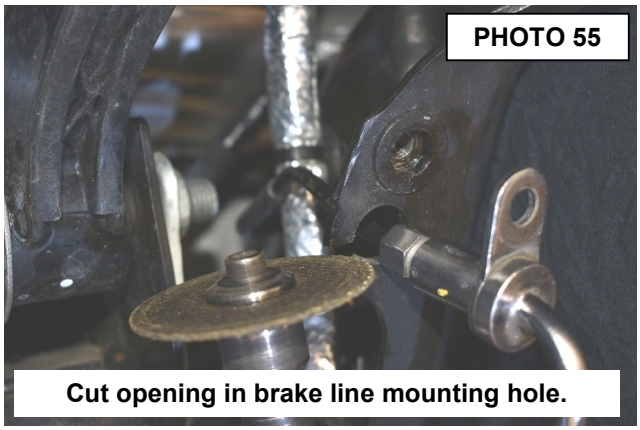

PHOTO 52
Install the skid plate.

61. Install the supplied skid plate on the front crossmember using the supplied 3/8" x 1" bolts, washers, and flange lock nuts (33430BAG12). Torque to 30ft/lbs using a 9/16" socket and wrench. **See Photo 53.**
62. Using a 13mm wrench, remove the factory brake line bolt. Retain hardware. **See Photo 54.**

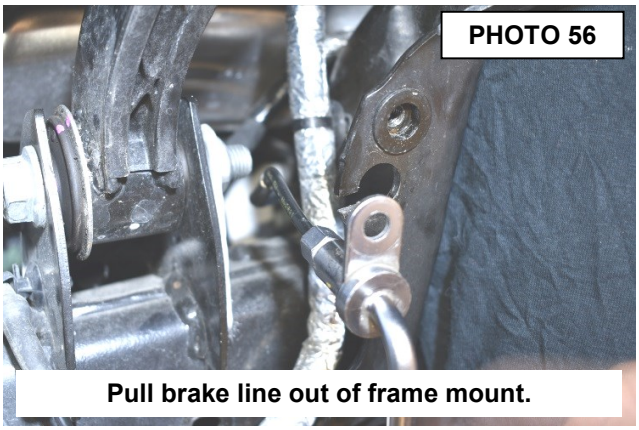

PHOTO 53
Install the skid plate.


PHOTO 54
Remove brake line from frame.

63. Using a cutting wheel, **carefully**, cut a slot in the frame mounting hole. **See Photo 55**.
64. **Carefully**, remove the brake line from the frame mounting hole. **See Photo 56**.

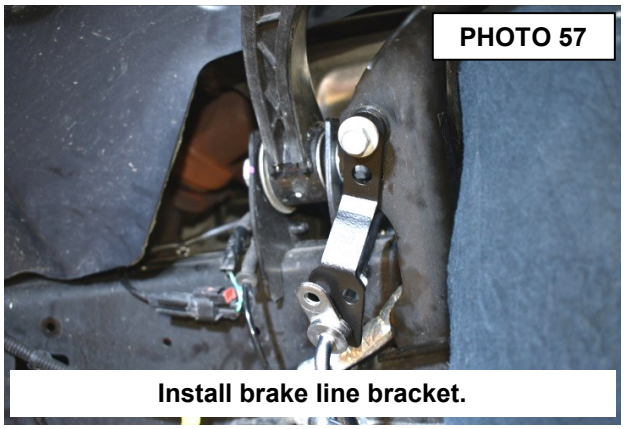


Cut opening in brake line mounting hole.

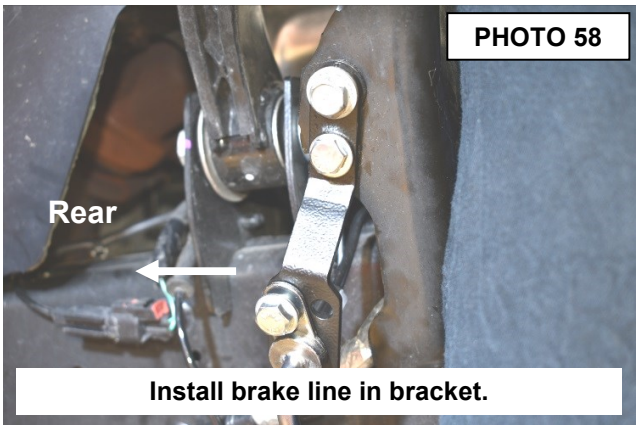


Pull brake line out of frame mount.

65. Install the supplied brake line bracket (33430BAG6) using the factory hardware. Do not tighten at this time. Install the brake line in the lower hole. **See Photo 57.**
66. Install the supplied 5/16" x 1" bolts and 5/16" flat washer (33430BAG12) through the 2nd hole from the top of the brake line bracket using the supplied 3/8" large washer and 5/16" flange nut (33430BAG12) on the backside. Do not tighten at this time. **See Photo 58.**
67. Install the supplied 5/16" x 1" bolt, 5/16" washers, and 5/16" flange lock nut (33430BAG12) in the **rear** mounting hole, securing the brake line to the bracket. **See Photo 58.**

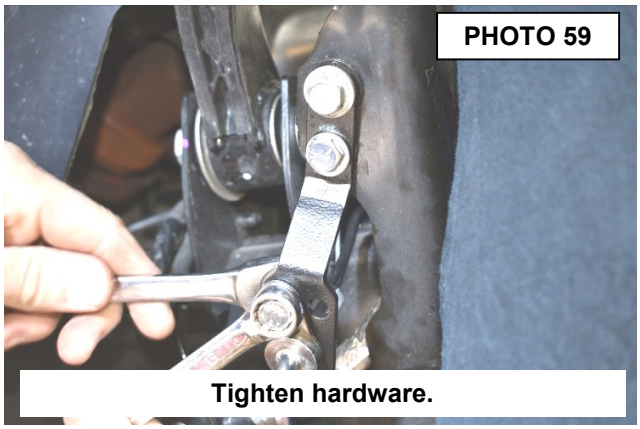


Install brake line bracket.

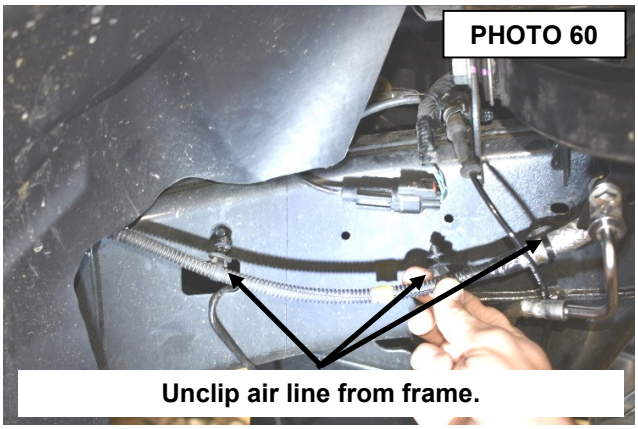


Install brake line in bracket.

68. Tighten hardware using 1/2" wrenches for the 5/16" hardware and a 13mm wrench for the factory bolt. **See Photo 59.**
69. Unclip the 3 air line clips from the frame. **See Photo 60.**

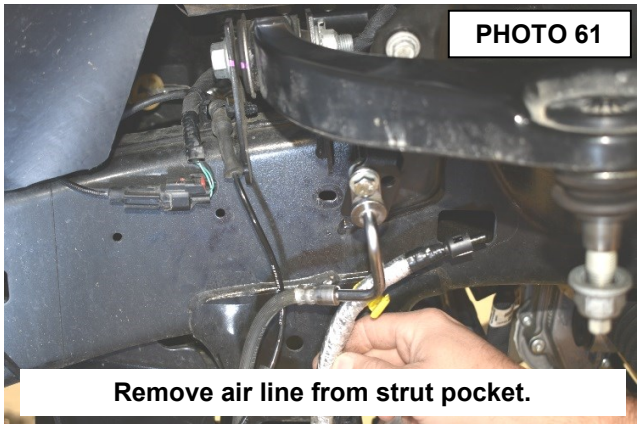


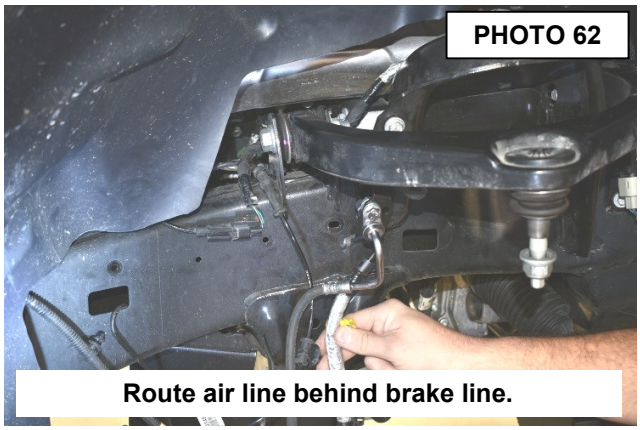
Tighten hardware.



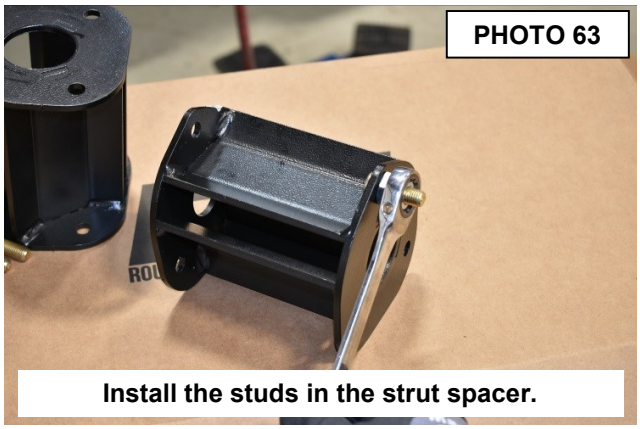
Unclip air line from frame.

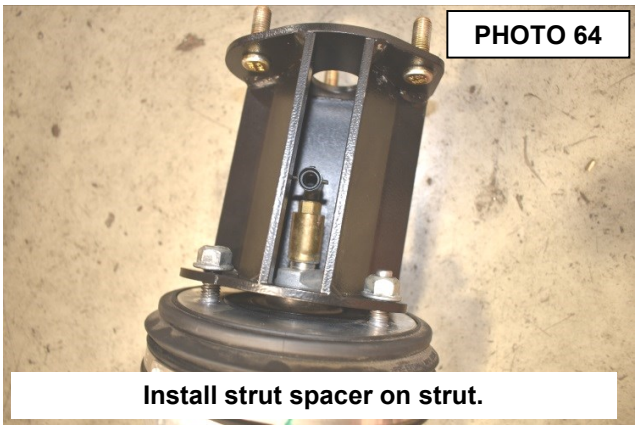
70. Carefully pull the air line down from above the strut pocket. **See Photo 61.**
71. Re-route the air line, brake line and ABS wire. **See Photo 62.**


PHOTO 61
Remove air line from strut pocket.


PHOTO 62
Route air line behind brake line.

72. Place the supplied 10mm studs in the supplied strut spacer. Place the supplied 1/2" jam nut then a flat washer over a stud and then thread a supplied 10mm nut onto the stud (10MMSTUDBAG-1). Using a 17mm wrench, tighten the 10mm nut to pull the stud into the spacer **Do not use an impact on the studs. See Photo 63**.
73. Install the assembled strut spacers on the struts using the factory hardware. **See Photo 64**.


PHOTO 63
Install the studs in the strut spacer.


PHOTO 64
Install strut spacer on strut.

74. Tighten the strut hardware using a 16mm wrench. **See Photo 65.**
75. Install the air strut assembly into the vehicle, using the supplied 10mm hardware (10MMSTUDBAG-1) for the (3) upper studs. Tighten using a 17mm wrench. **See Photo 66.**

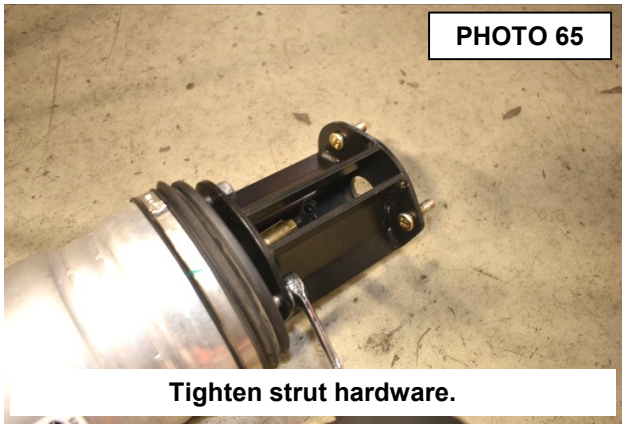
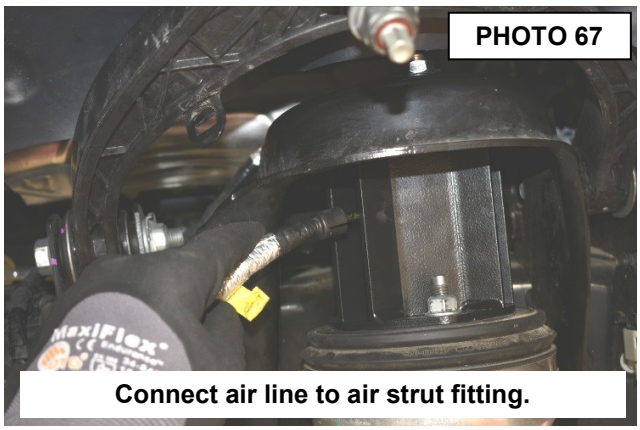
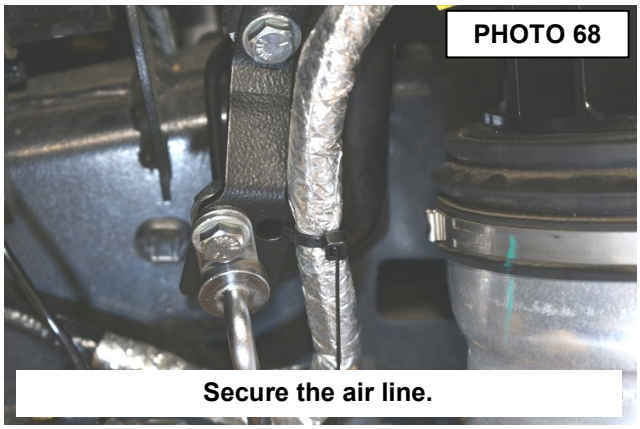

PHOTO 65
Tighten strut hardware.


PHOTO 66
Install strut assembly in vehicle.

76. Route the air line through the gap in the spacer. **While supporting the back side of the air fitting**, **carefully** connect the air line to the air strut. Failure to support the fitting could result in damage to the 90° fitting. **See Photo 67.**
77. Place a wire tie (33830BAG1) through the brake line bracket and secure the air line. **See Photo 68**.

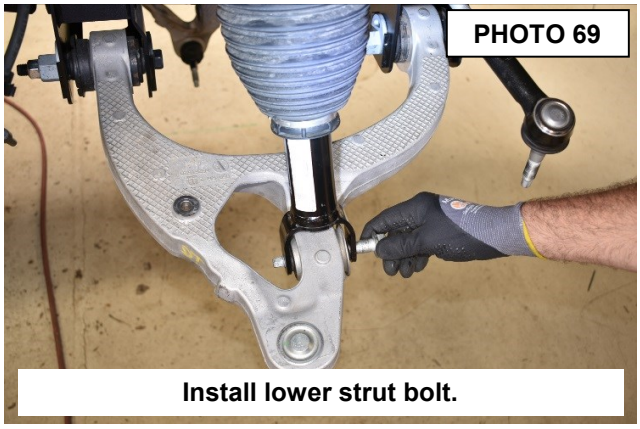


Connect air line to air strut fitting.

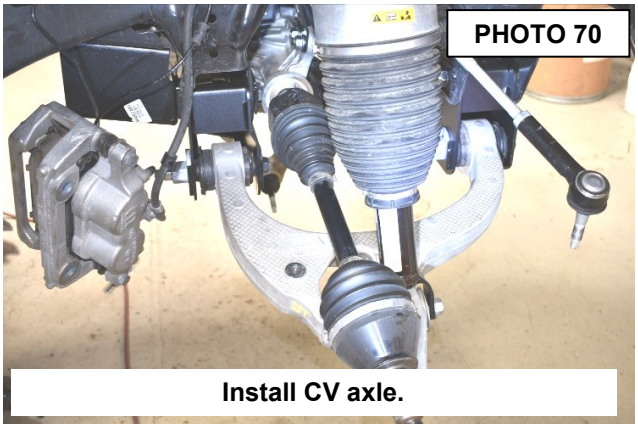


Secure the air line.

78. Install the factory hardware into the lower mount. Do not tighten at this time. **See Photo 69**.
79. Install the pass side CV axle. **See Photo 70.**



Install lower strut bolt.



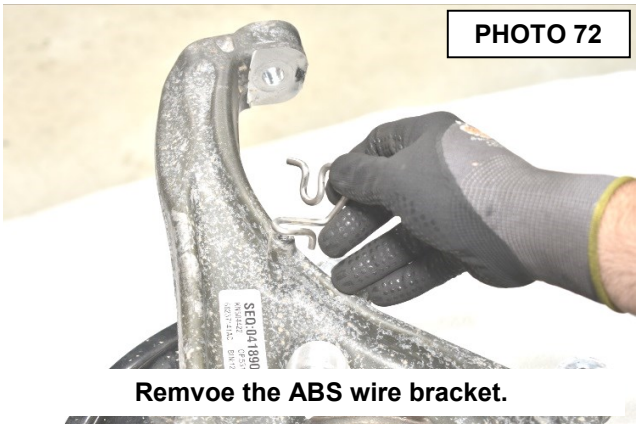
Install CV axle.

80. Using a 21mm socket, remove the hub bolts. Retain hardware. **See Photo 71.**



Remove hub bolts.

81. Using a 13mm socket, remove the ABS wire bracket from the factory knuckle. Retain hardware. **See Photo 72.**
82. Remove the factory knuckle from the hub. **See Photo 73.**



Remvoe the ABS wire bracket.

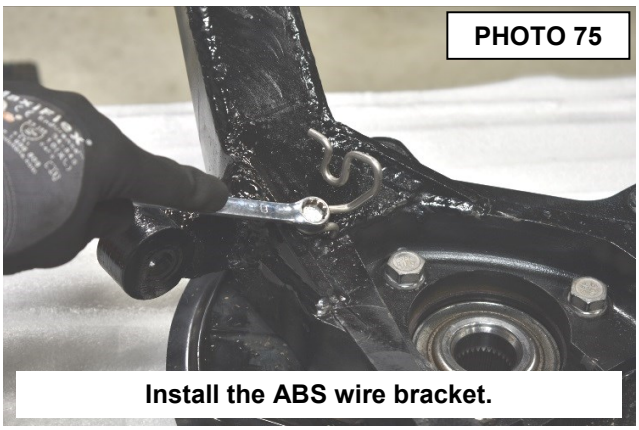


Remove the knuckle from the hub.

83. Place the supplied lift knuckle on the factory hub using the factory hardware. Torque the hub bolts to factory spec using a 21mm socket. **See Photo 74.**
84. Install the ABS wire bracket on the lift knuckle using the factory hardware. Tighten using a 13mm wrench. **See Photo 75**.



Install the supplied knuckle on the hub.

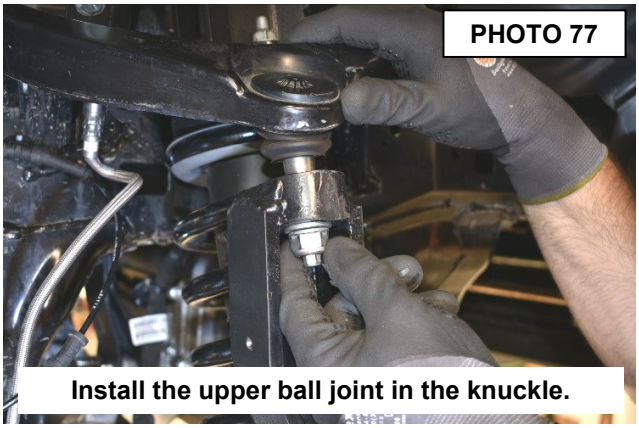


Install the ABS wire bracket.

85. Install the CV axle into the hub on the knuckle and knuckle on the lower ball joint. **See Photo 76.**
86. Using the stock nut, lower the upper control arm and attach the ball joint to the knuckle. **See Photo 77.**

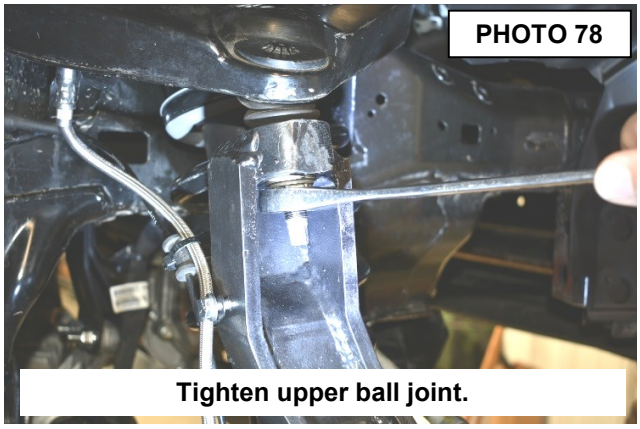


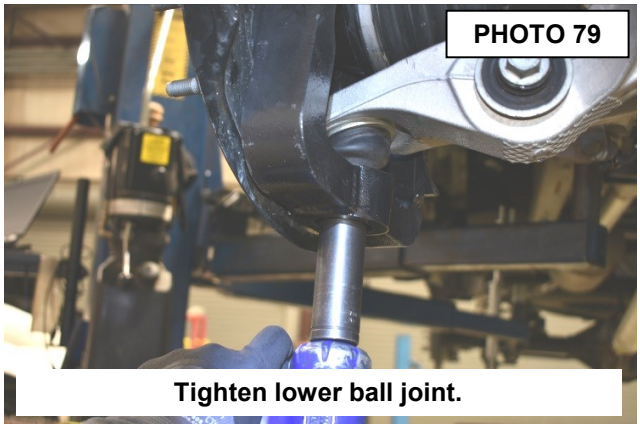
Install the knuckle on the vehicle.



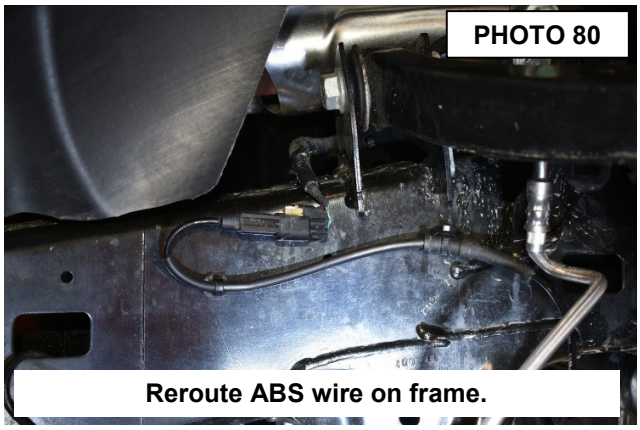
Install the upper ball joint in the knuckle.

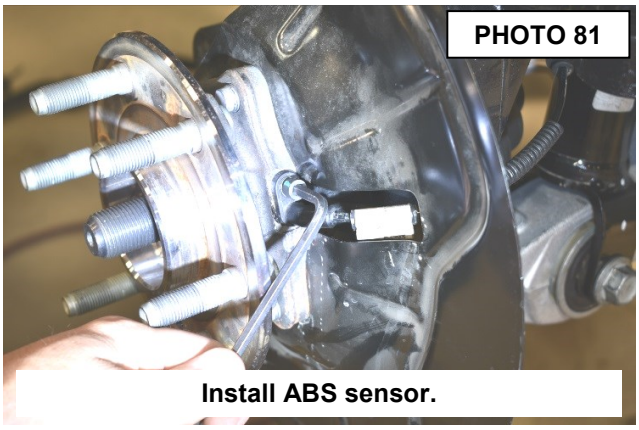
87. Tighten the upper ball joint using a 21mm wrench.. **See Photo 78.**
88. Tighten the lower ball joint using a 24mm socket. **See Photo 79.**



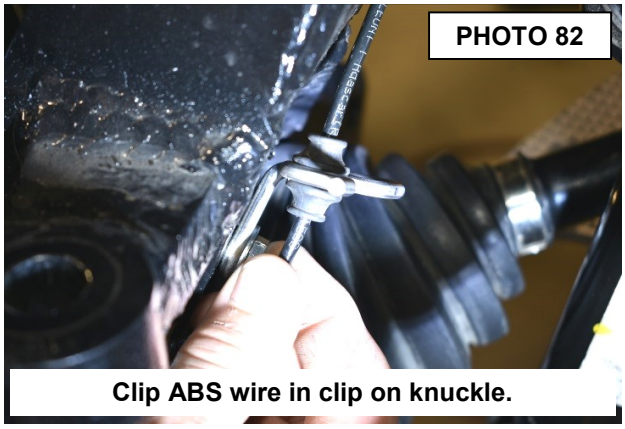


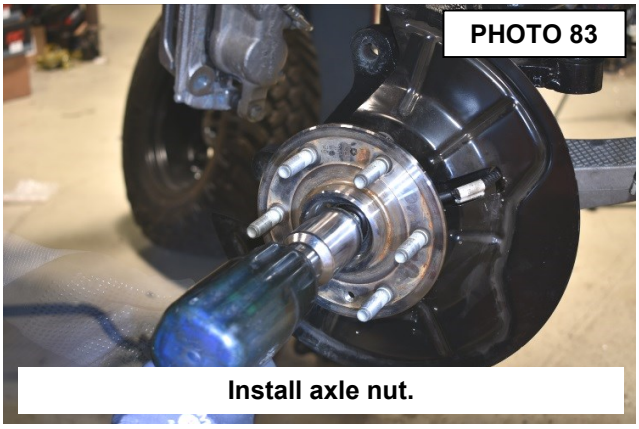
89. Reroute the ABS wire on the frame. **See Photo 80**.
90. Install the ABS sensor into the hub using the factory hardware. Tighten using a 5mm Allen. **See Photo 81**.



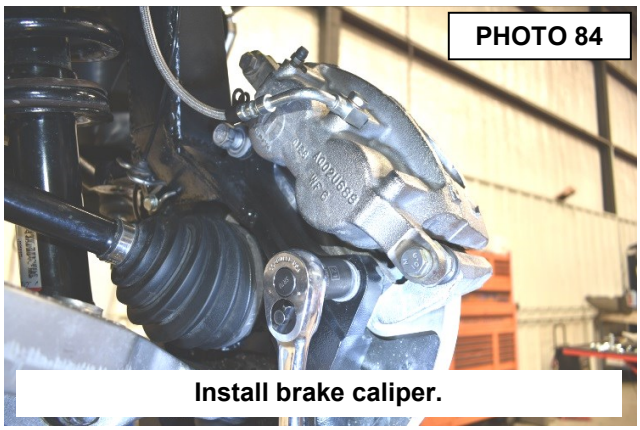


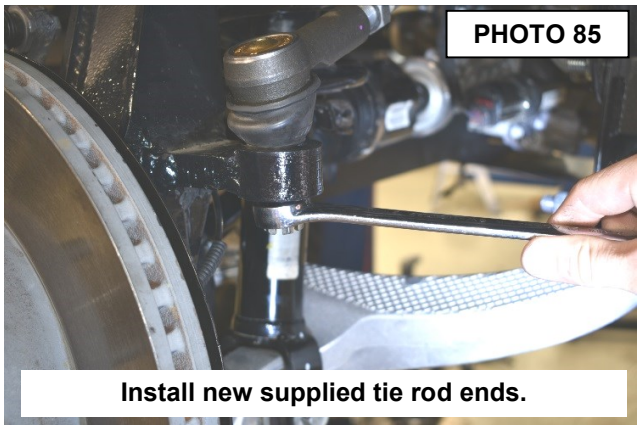
91. Secure the ABS wire in the clip on the knuckle. **See Photo 82.**
92. Install the factory axle nut and torque to factory spec using a 36mm socket. **See Photo 83.**



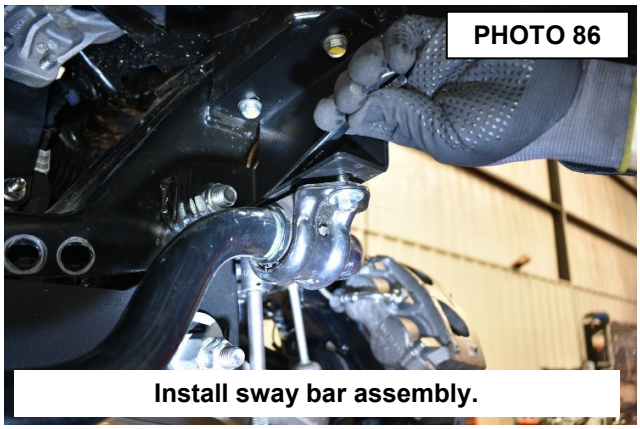


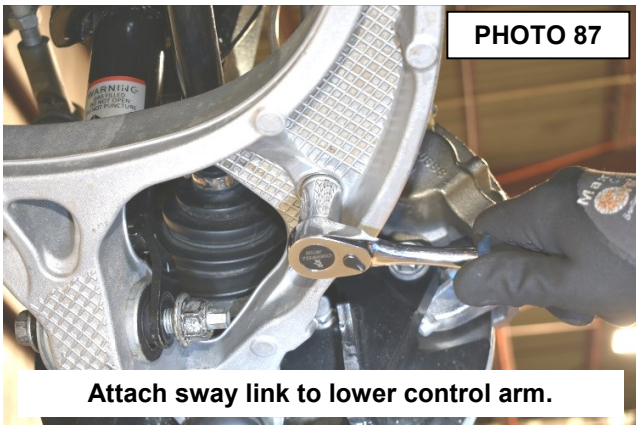
93. Install the brake caliper using the factory hardware. Torque to factory spec using a 21mm socket. **See Photo 84.**
94. Remove the factory tie rod ends and install the supplied tie rod ends using a 24mm wrench. Attach the tie rod end to the knuckle using the supplied hardware. Tighten using a 21mm wrench. **See Photo 85**.


PHOTO 84
Install brake caliper.

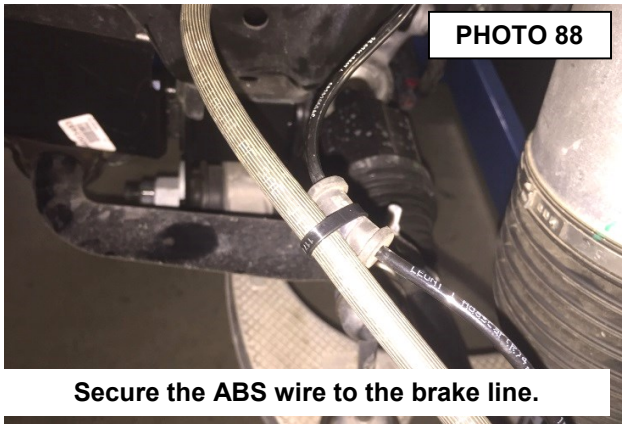

PHOTO 85
Install new supplied tie rod ends.

95. Install the sway bar assembly on the drop brackets using the supplied 3/8" x 1.25" bolts, washers, and nuts (33430BAG12). Torque to 30ft/lbs using a 9/16" wrench and socket. **See Photo 86**.
96. Install the sway link in the lower control arm using the factory hardware. Tighten using a 18mm socket. **See Photo 87.**


PHOTO 86
Install sway bar assembly.

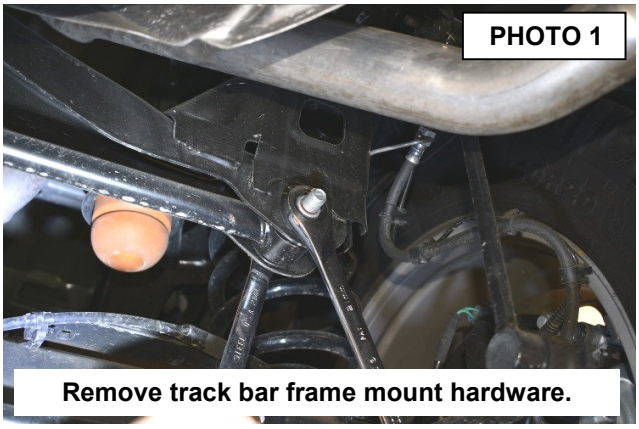

PHOTO 87
Attach sway link to lower control arm.

97. Secure the ABS wire to the brake line using the supplied wire ties. **See Photo 88.**
98. Install wheels and tires and lower the vehicle to the ground.
99. Torque the lower strut bolts to factory spec using a 24mm socket and 21mm wrench.
100. Tighten the lower control arm cam bolts using a 24mm wrench and socket.

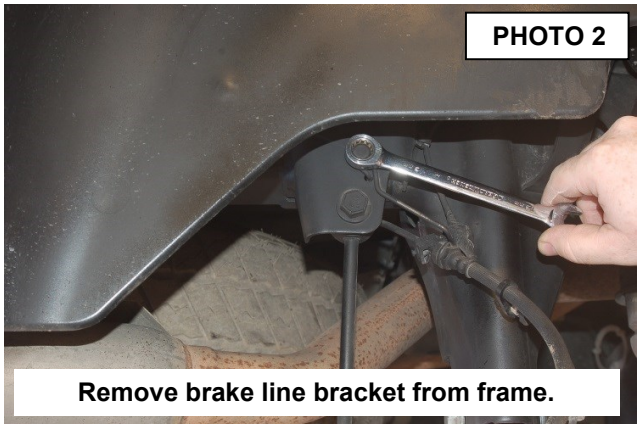

PHOTO 88
Secure the ABS wire to the brake line.

REAR INSTALLATION INSTRUCTIONS

1. Chock the front tires. Raise rear of the vehicle with floor jack.
2. Support the rear with jack stands
3. Support the rear axle with a jack.
4. Remove wheels using a 22mm socket.
5. Using a 21mm socket and wrench, remove the track bar frame mounting hardware. Retain hardware. **See Photo 1**.
6. Remove the plastic ABS bracket from the frame.
7. If equipped with an inner fender liner, remove using an 8mm socket. Retain hardware.
8. Using a 13mm wrench, remove the brake line bracket from the frame. Retain hardware. **See Photo 2.**



Remove track bar frame mount hardware.

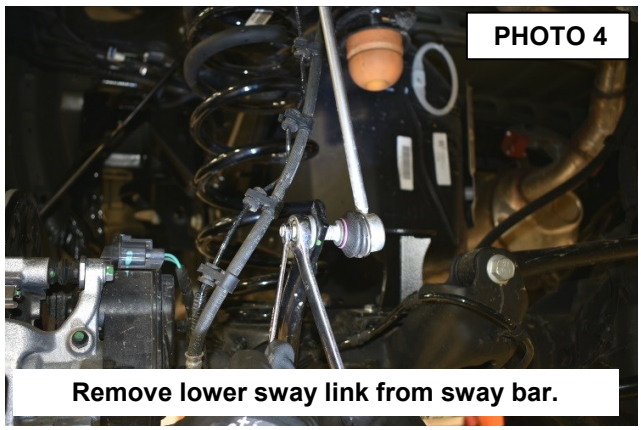


Remove brake line bracket from frame.

9. Remove the upper sway link hardware using an 18mm wrench. Retain hardware. **See Photo 3.**
10. Remove sway-bar link using 8mm and 18mm wrench for lower end and 18mm for top end. **See Photo 4.**

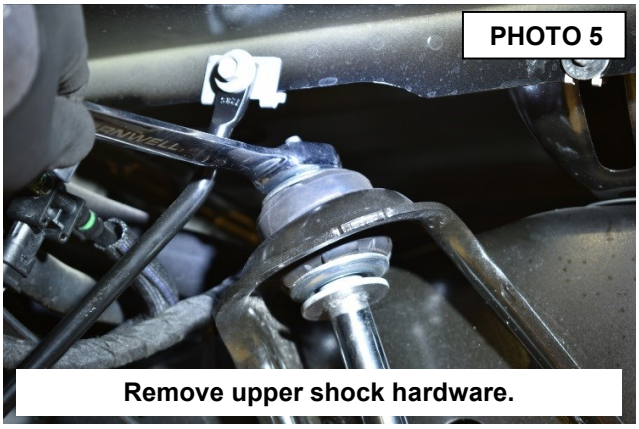


Remove upper sway link hardware.

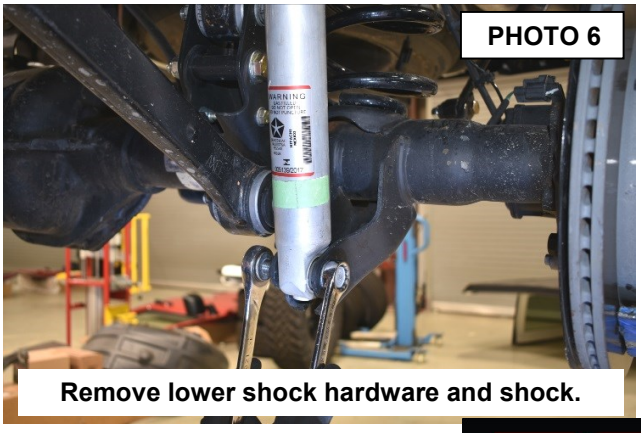


Remove lower sway link from sway bar.

11. Remove the upper shock nut using a 9mm wrench. **See Photo 5.**
12. Using 18mm wrenches, remove the lower shock hardware and remove the shock from the vehicle. Retain hardware. **See Photo 6**.

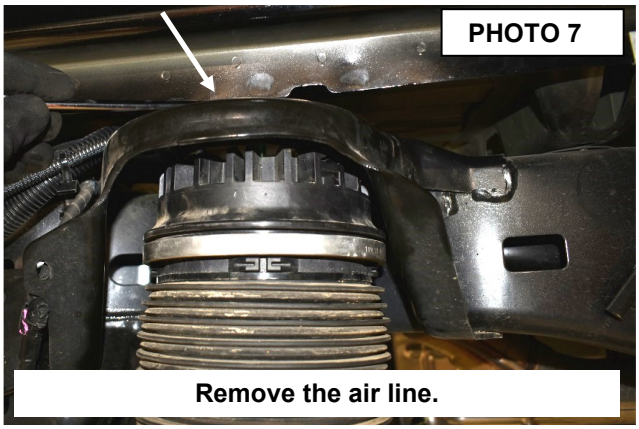


Remove upper shock hardware.

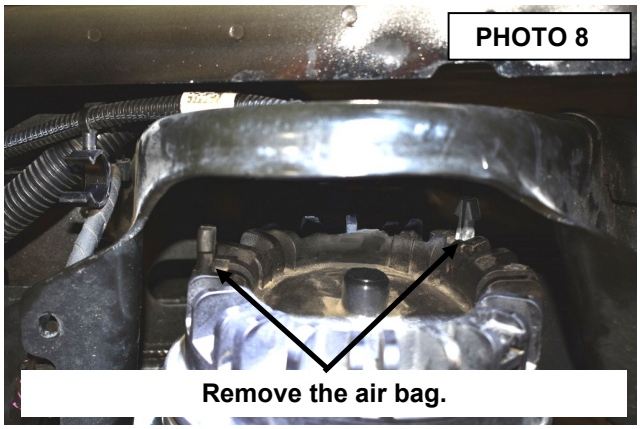


Remove lower shock hardware and shock.

13. Using a 12mm wrench, remove the air line from the air bag. **See Photo 7.**
14. Carefully, squeeze the 2 upper pins to remove the air bag from the upper seat. **See Photo 8.**



Remove the air line.

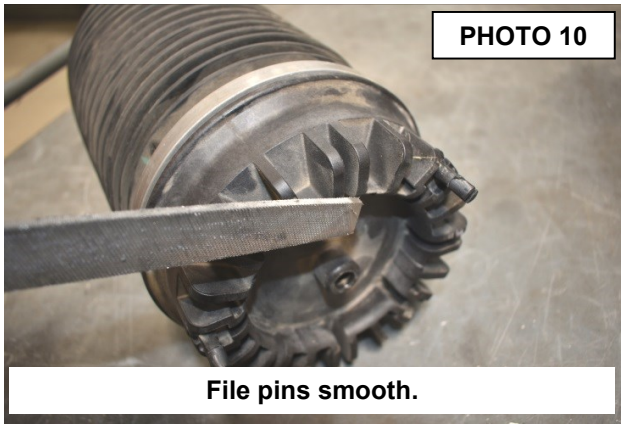


Remove the air bag.

15. Using side cutters, cut the 3 locating pins from the top of the air bag. **See Photo 9.**
16. File the cut pins smooth with the top of the air bag mount. **See Photo 10.**



Clip off the 3 locating pins.



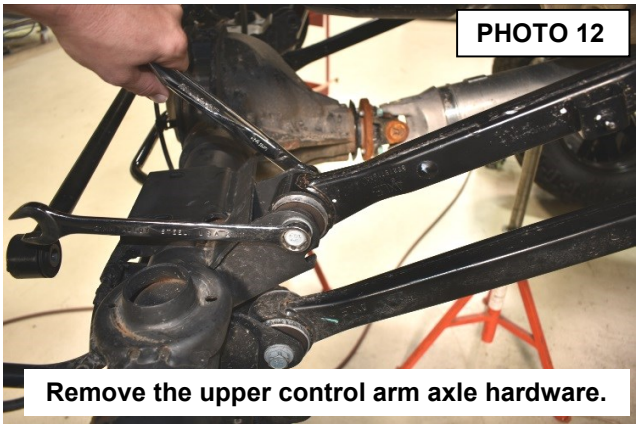
File pins smooth.

17. Place the supplied 10mm studs in the supplied strut spacer. Place the supplied 1/2" jam nut then a flat washer over a stud and then thread a supplied 10mm nut onto the stud (10MMSTUDBAG-1). Using a 17mm wrench, tighten the 10mm nut to pull the stud into the spacer **Do not use an impact on the studs. See Photo 11.**

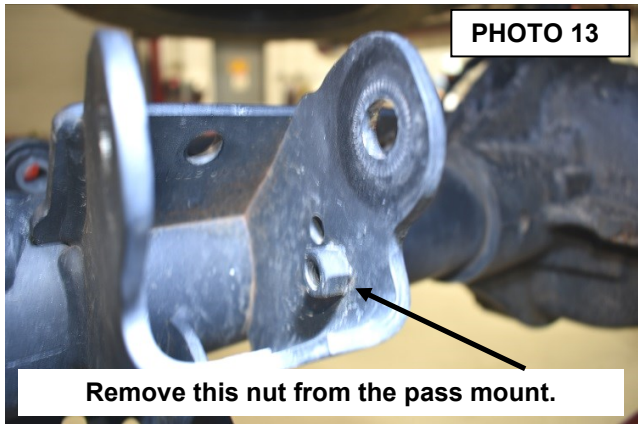


Install studs in air bag spacer.

18. Gently pull to remove the ride height sensor arm from the upper control arm ball stud. Using a 21mm wrench and a 24mm wrench, remove the hardware from the axle end of the upper control arm. Retain hardware. **See Photo 12.**
19. Using a punch and hammer, remove the welded nut from the inside of the pass upper control arm mount. **See Photos 13 & 14.**



Remove the upper control arm axle hardware.

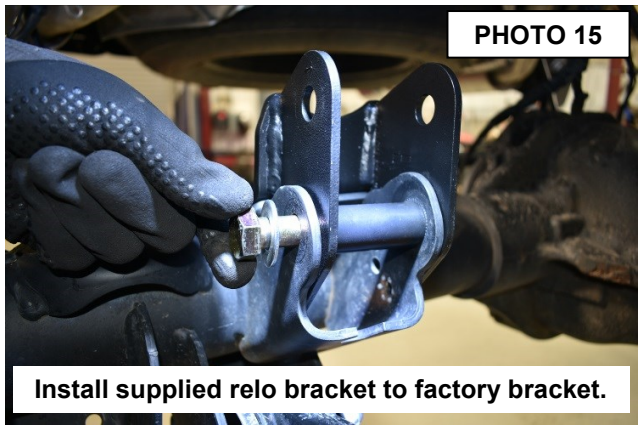


Remove this nut from the pass mount.

20. Install the supplied upper control arm relocation bracket in the factory bracket using the supplied sleeve and 5/8" x 4.5" bolt, washers, and nylock nut (33430BAG6). Do not tighten. **See Photo 15.**

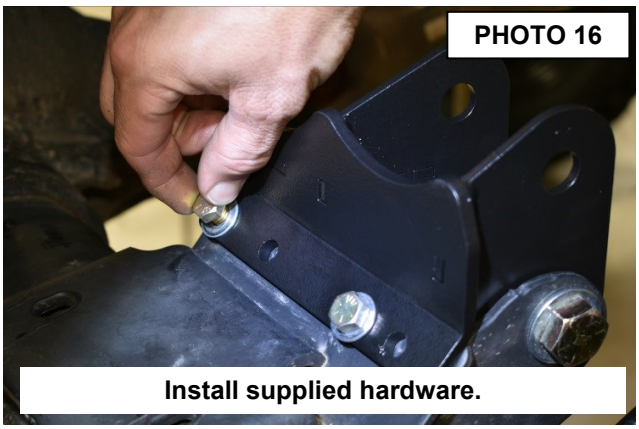


Use a hammer and punch to remove nut.



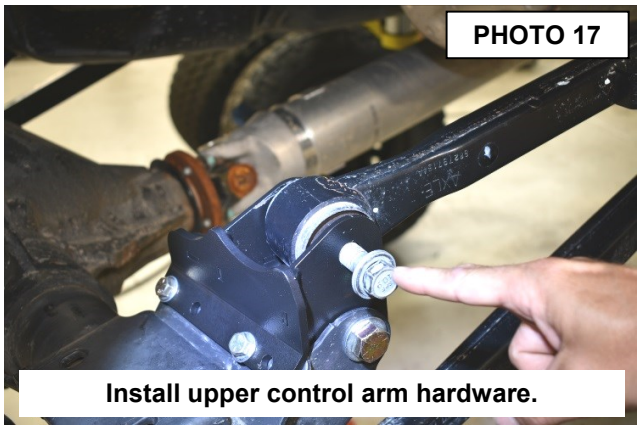
Install supplied relo bracket to factory bracket.

21. Install the supplied 3/8" x 1.25" bolts, washer, and nylock nuts into the rear of the mount. Do not tighten. **See Photo 16.**



Install supplied hardware.

22. Install the upper control arm in the relocation bracket using the factory hardware. Do not tighten. **See Photo 17.**
23. Torque the 3/8” hardware to 30ft/lbs using a 9/16” socket and wrench. **See Photo 18.**

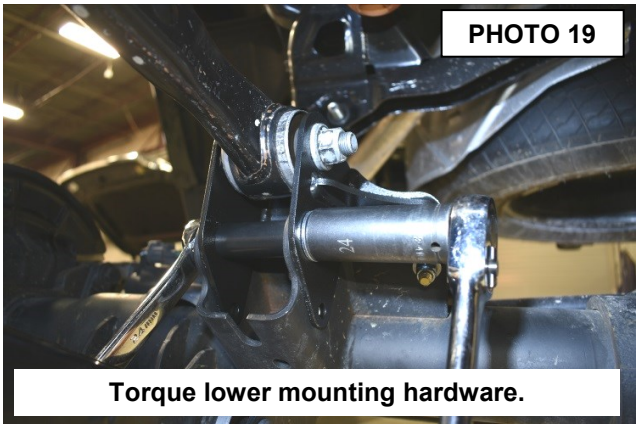


Install upper control arm hardware.

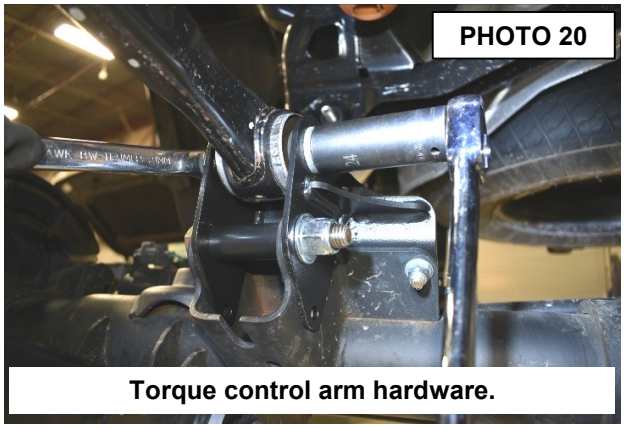


Torque rear 3/8” hardware.

24. Torque the 5/8” hardware to 135ft/lbs using a 15/16” wrench and socket. **See Photo 19.**
25. Torque the factory hardware to factory specs using a 24mm socket and 21mm wrench. **See Photo 20.**

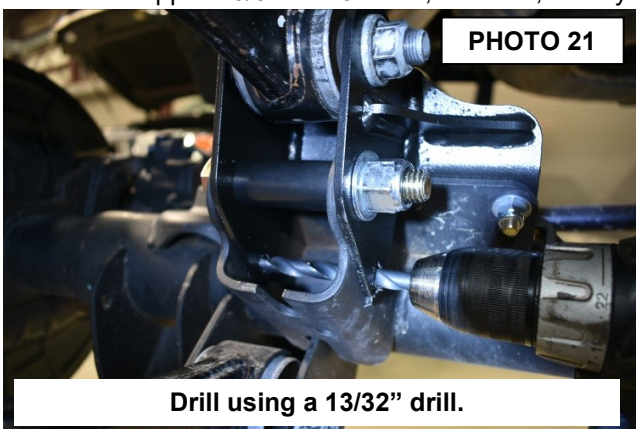


Torque lower mounting hardware.

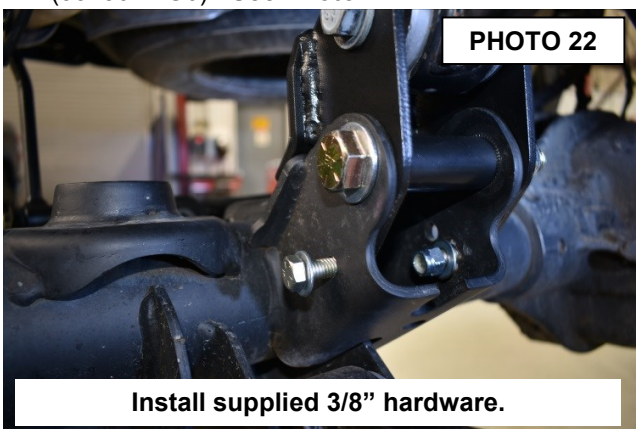


Torque control arm hardware.

26. Using a 13/32” drill, drill the side mounting holes using the bracket as a guide. **See Photo 21.**
27. Install the supplied 3/8” x 1.25” bolts, washers, and nylock nuts (33430BAG6). **See Photo 22.**

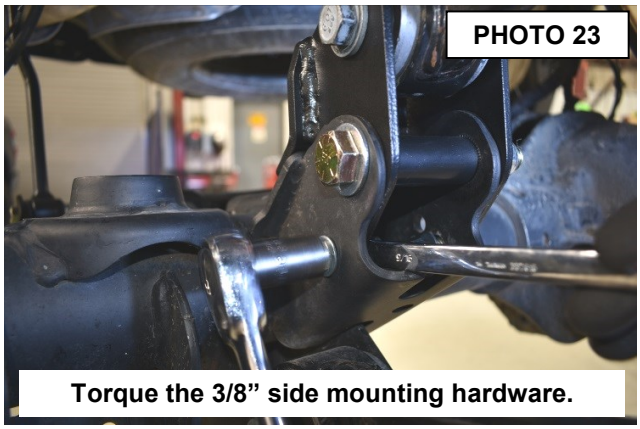


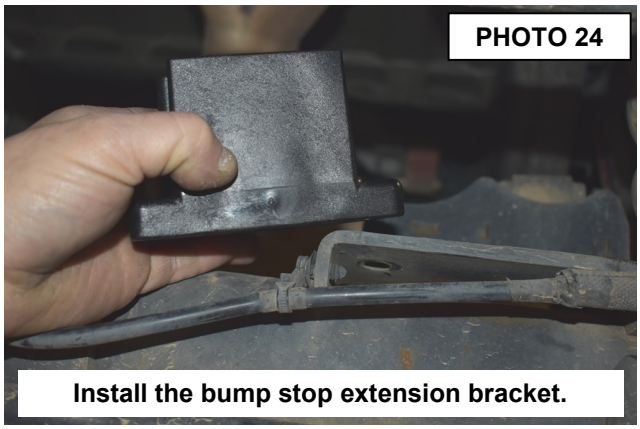
Drill using a 13/32” drill.



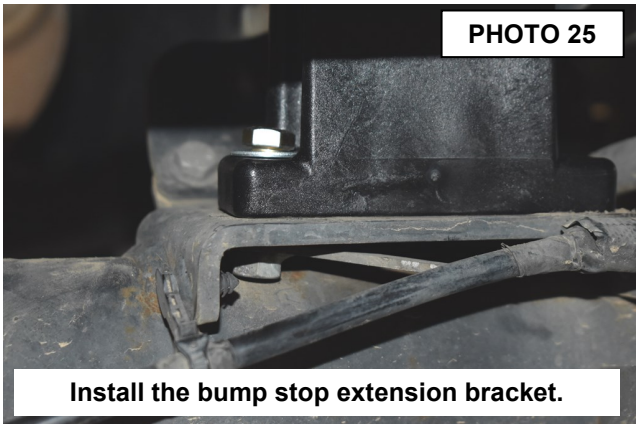
Install supplied 3/8” hardware.

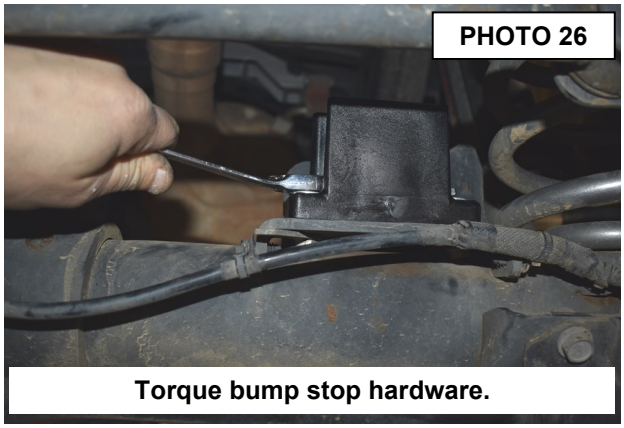
28. Torque the 3/8” side mounting hardware to 30ft/lbs using a 9/16” socket and wrench. **See Photo 23.**
29. Install the supplied bump stop extension bracket using the supplied flag nut, 3/8” x 1.5” bolt, and flat washer (33430BAG13) on the differential side. **See Photo 24.**


PHOTO 23
Torque the 3/8” side mounting hardware.

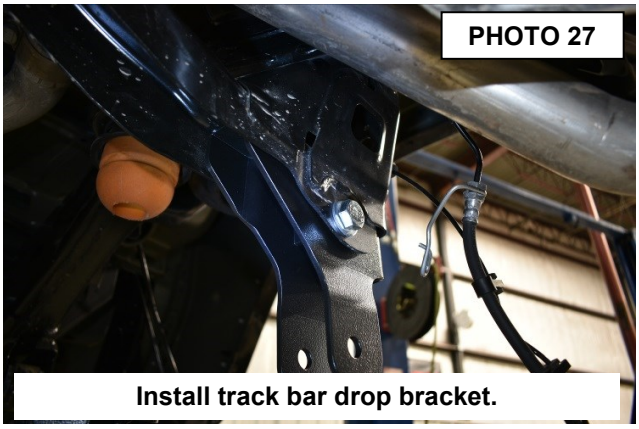

PHOTO 24
Install the bump stop extension bracket.

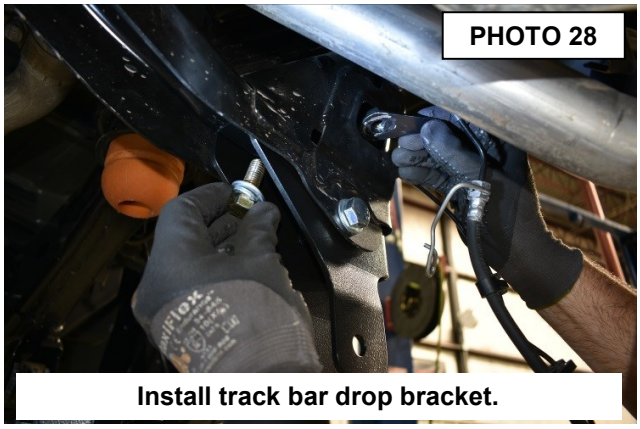
30. Install the supplied 5/16” x 1.5” bolt, washer, and flange nut (33430BAG13) on the wheel side of the bump stop. **See Photo 25.**
31. Torque the 3/8” bump stop hardware to 30ft/lbs using a 9/16 socket and wrench and the 5/16” hardware to 15ft/lbs using a 1/2” socket and wrench. **See Photo 26.**


PHOTO 25
Install the bump stop extension bracket.

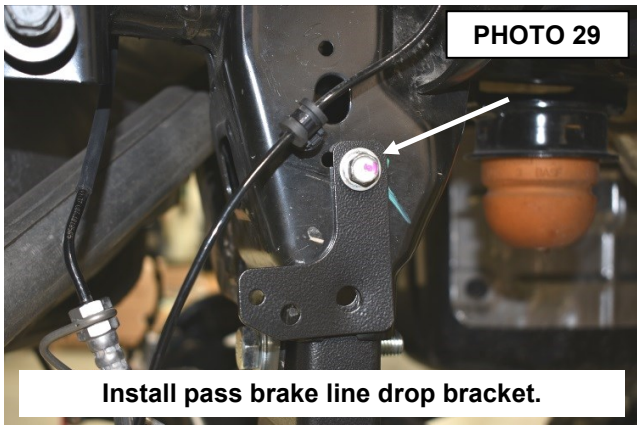

PHOTO 26
Torque bump stop hardware.

32. Install the supplied track bar drop bracket on the frame mount using the supplied 14mm x 80mm bolt, washers, and nut (33430BAG13). Do not tighten. **See Photo 27.**
33. Install the supplied flag nut through the square hole in the rear of the frame bracket and secure using the supplied 1/2” x 1.5” bolt and washer (33430BAG13). Torque to 65ft/lbs using a 34” socket. **See Photo 28.**
34. Torque the 14mm hardware using a 21mm socket and wrench to 120ft/lbs.

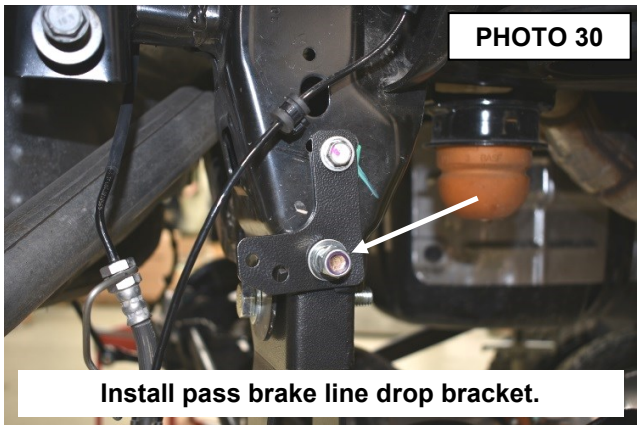

PHOTO 27
Install track bar drop bracket.


PHOTO 28
Install track bar drop bracket.

35. Install the pass side brake line drop bracket on the track bar bracket using the factory hardware in the upper hole. **See Photo 29.**
36. Install the supplied 7/16” x 1.25” bolt, washer, and nylock nut (33430BAG13) in the lower hole, inserting the bolt from the inside of the track bar bracket. **See Photo 30.**

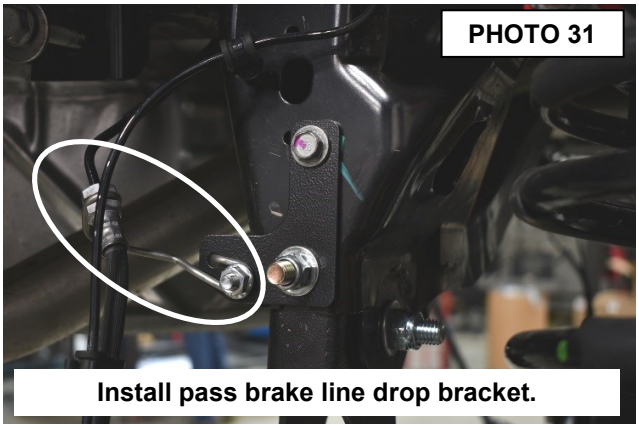


Install pass brake line drop bracket.

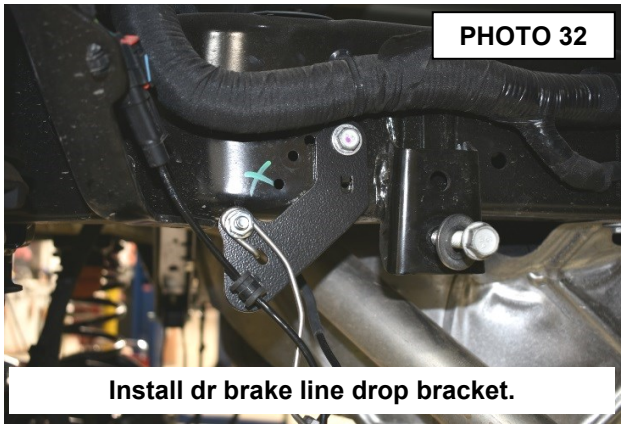


Install pass brake line drop bracket.

37. Attach the factory brake line holder to the drop bracket using the supplied 5/16” x 3/4” bolt and flange nut (33430BAG6). Tighten using 1/2” wrenches. **See Photo 31.**
38. Install the driver brake line drop bracket using the factory hardware to secure the bracket to the frame and the supplied 5/16” x 3/4” bolt and flange nut. Tighten using 1/2” wrenches. **See Photo 32.**



Install pass brake line drop bracket.

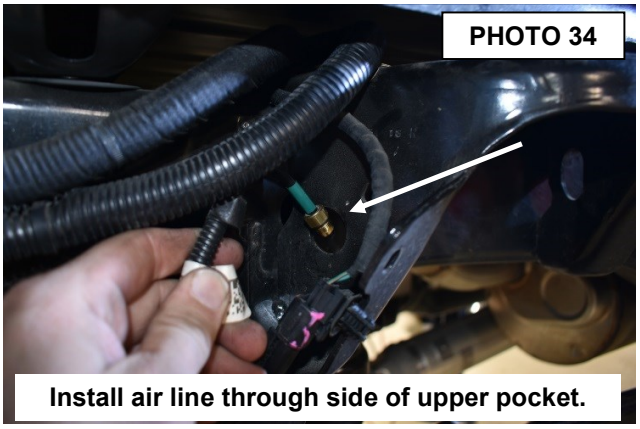


Install dr brake line drop bracket.

39. Carefully remove the air line from the top side of the upper air bag pocket. **See Photo 33.**
40. Carefully route the air line through the hole in the side of the upper air bag pocket. **See Photo 34.**

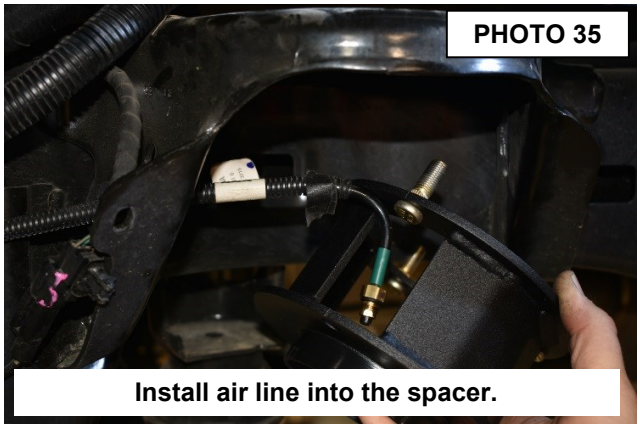


Remove the air line from the upper pocket.

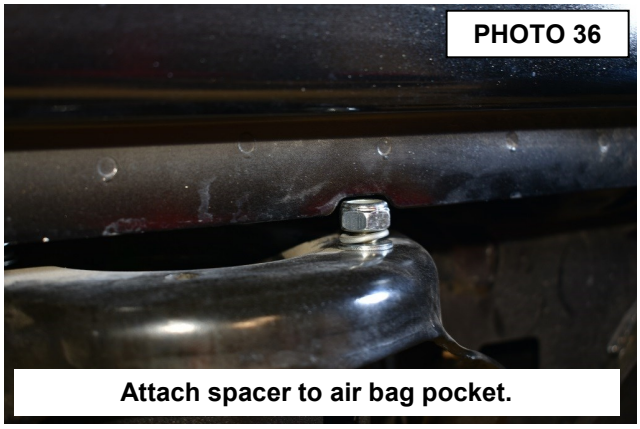


Install air line through side of upper pocket.

41. Place the upper air bag spacer in the upper pocket, making sure the air line is inserted into the spacer through the gap on the side. **See Photo 35.**
42. Attach the upper air bag spacer to the pocket using the supplied 10mm hardware (10mmstudbag-1). Tighten using a 17mm wrench. **See Photo 36.**

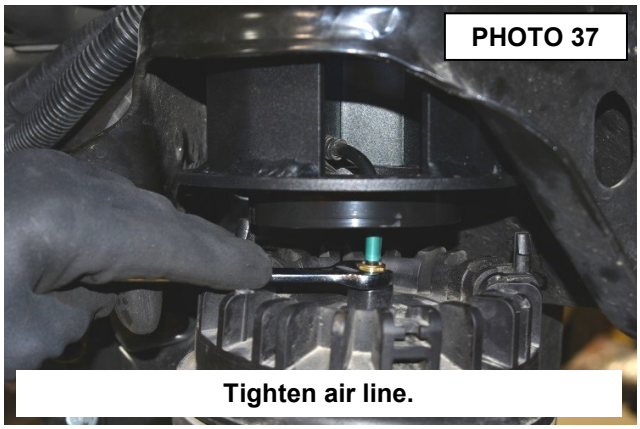


Install air line into the spacer.



Attach spacer to air bag pocket.

43. Before connecting the air line, it may be necessary to slightly inflate the air bag to allow it to extend to meet the axle. Using your finger over the air line hole, trap as much air as possible in the air bag, before installing the air line.
44. Install the air line into the air bag and **carefully** tighten using a 12mm wrench. **Take care to not overtighten. See Photo 37.**
45. Push the air bag pins into the spacer and align the air bag on the axle seat. **See Photo 38.**
46. Install the supplied sway links in the upper mount using the factory hardware. Torque to factory specs using a

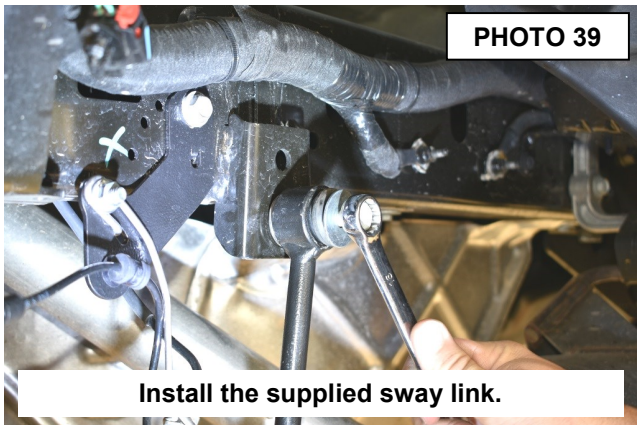


Tighten air line.

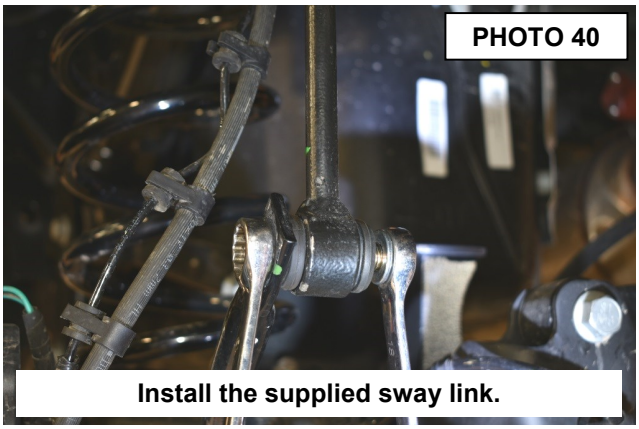


Install air bag.

13mm socket. **See Photo 39.**
47. Install the sway link on the sway bar using the supplied 12mm x 65mm bolt, large washer, and flange lock nut (33430BAG6). Torque to 55ft/lbs using an 18mm socket and wrench. **See Photo 40.**

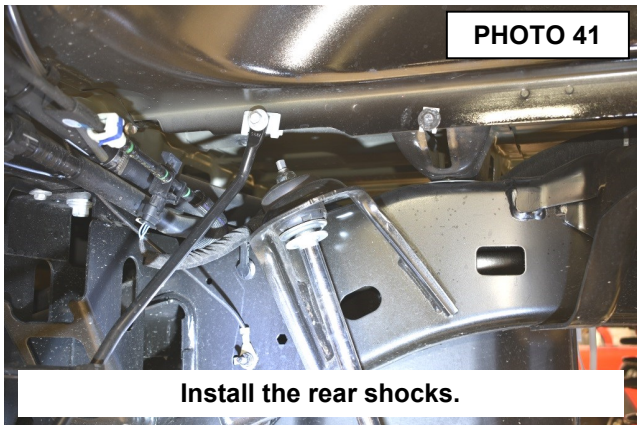


Install the supplied sway link.

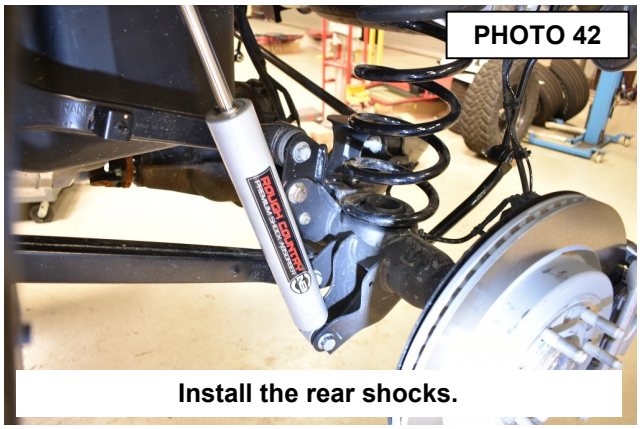


Install the supplied sway link.

48. Install the supplied rear shock 660815 using the factory hardware in the lower mount and the supplied hardware in the upper mount. Tighten the upper shock nut just until the bushings start to bulge under the washers. **See Photos 41 & 42.**

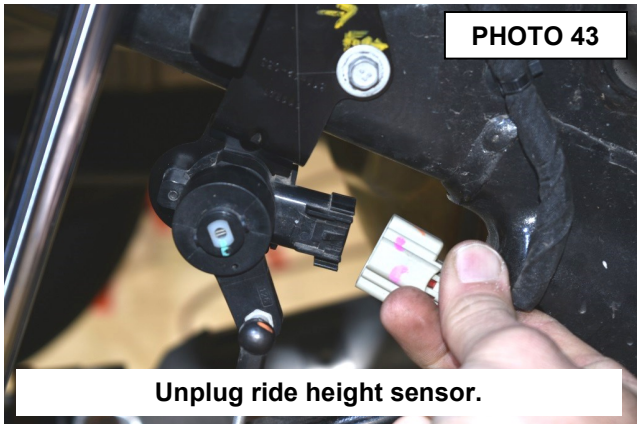


Install the rear shocks.

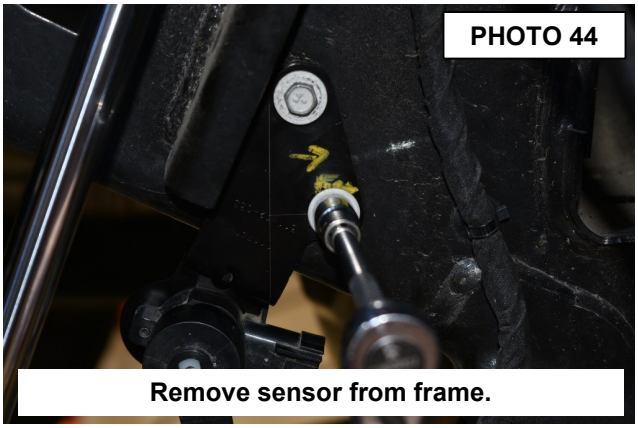


Install the rear shocks.

49. Unplug the ride height sensor. **See Photo 43.**
50. Using a 10mm socket, remove the ride height sensor and bracket from the frame. Retain hardware. **See Photo 44.**

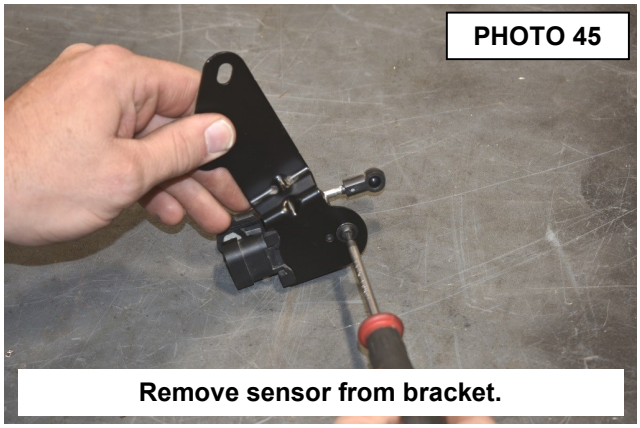


Unplug ride height sensor.

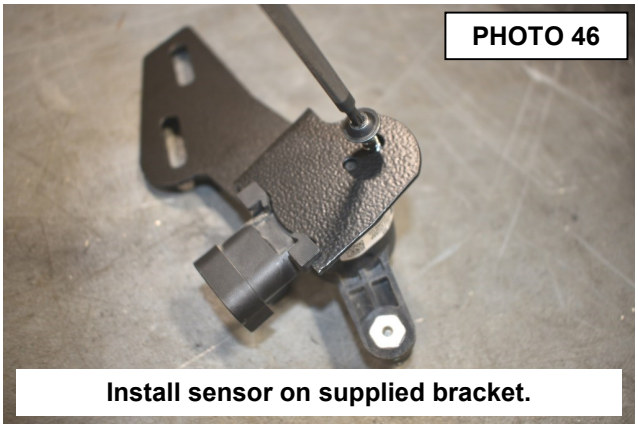


Remove sensor from frame.

51. Using a T20 torx, remove the sensor from the mounting bracket. Retain hardware. **See Photo 45.**
52. Install the ride height sensor on the supplied drop bracket using the factory hardware. Tighten using a T20 torx. **See Photo 46.**

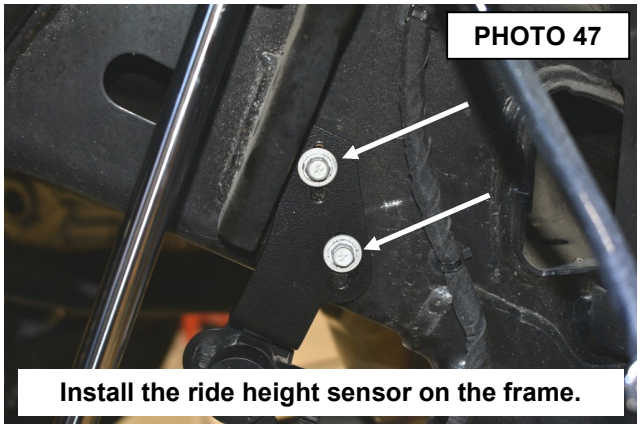


Remove sensor from bracket.

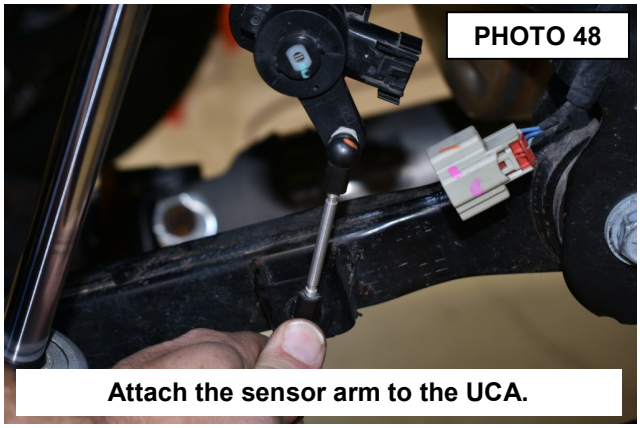


Install sensor on supplied bracket.

53. Install ride height sensor and bracket on the frame using the factory hardware. Do not tighten at this time. **See Photo 47.**
54. Attach the ride height sensor arm to the ball stud on the upper control arm. **See Photo 48.**

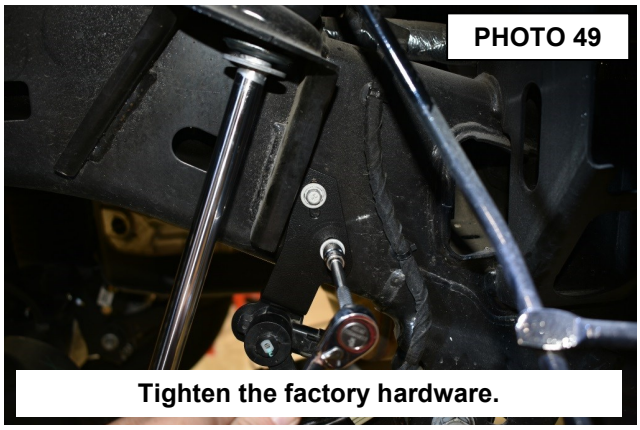


Install the ride height sensor on the frame.

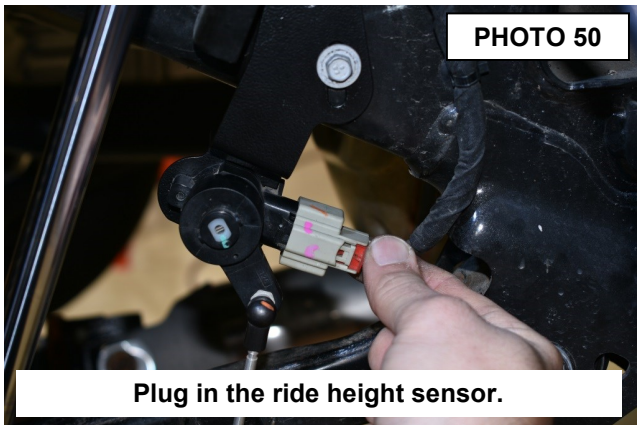


Attach the sensor arm to the UCA.

55. Slide the bracket up and tighten the ride height sensor bolts using a 10mm socket. **See Photo 49.**
56. Plug in the ride height sensor harness. **See Photo 50**.

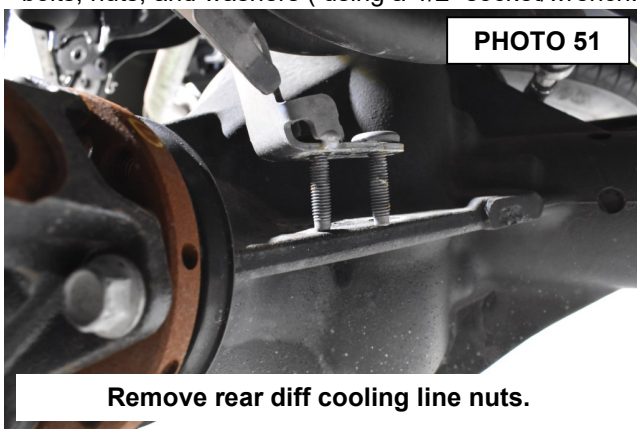


Tighten the factory hardware.

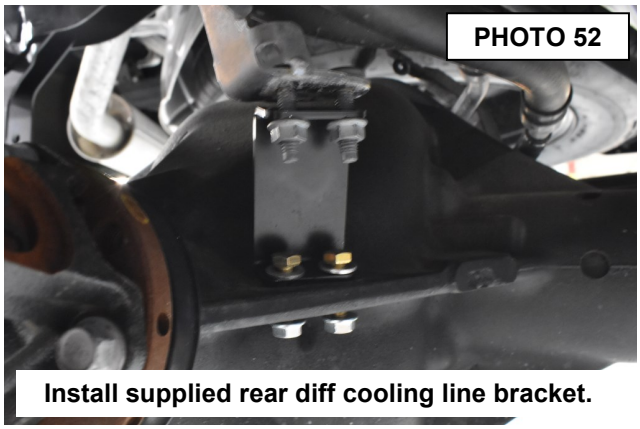


Plug in the ride height sensor.

57. Remove the rear differential cooling line nuts and pull the line up to make space. **See Photo 51**.
58. Install the supplied rear diff cooling line bracket with the stock hardware on the top and the supplied 5/16” x 1-1/4” bolts, nuts, and washers (using a 1/2” socket/wrench. **See Photo 52**.



Remove rear diff cooling line nuts.



Install supplied rear diff cooling line bracket.

59. Install the wheels and tires and lower the vehicle to the ground, while ensuring the rear air bag is inflated properly.
60. Attach the track bar using the factory hardware. Torque to factory specs using a 21mm socket and wrench.
61. Connect the battery.
62. Set the air suspension to the normal ride height setting.
63. Check air lines, connections, and air bags for leaks.

⚠ NOTICE Improper air pressure, caused by leaks or air line restrictions, can result in damage to the air ride system, vehicle error codes, and even an ASCM lock. **If the ASCM becomes locked, only a Ram dealership has the ability to reset the ASCM.** A recharge and recalibration of the air ride system may also be required to restore proper operation. Instructions must be **carefully** followed on the rear air bags to prevent damage to the air bag and air ride system.

POST INSTALLATION

1. 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.
2. 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.
3. Re torque all fasteners after 500 miles. Visually inspect components and re torque fasteners during routine vehicle service.
4. Readjust headlights to proper settings and take truck in for a front-end alignment to a qualified alignment professional.

Alignment Specifications

Front	Min	Max	Total
Total Toe	+0.14°	+0.54°	+0.34°
Front Camber	-0.65°	+0.65°	+0.00°
Caster	+4.35°	+5.65°	+5.00°
King-Pin	———	———	———
Incl. Angle	———	———	———
Rear			
Total Toe	°	°	°
Rear Camber	°	°	°
Thrust Angle	-.025°	+0.00°	+0.25°

Thank You for choosing Rough Country for your off road needs!!!

By purchasing any item sold by Rough Country, LLC, the buyer expressly warrants that he/she is in compliance with all applicable , State, and Local laws and regulations regarding the purchase, ownership, and use of the item. It shall be the buyers responsibility to comply with all Federal, State and Local laws governing the sales of any items listed, illustrated or sold. The buyer expressly agrees to indemnify and hold harmless Rough Country, LLC for all claims resulting directly or indirectly from the purchase, ownership, or use of the items.


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