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PRO COMP SUSPENSION

INDUSTRY FIRST
FMVSS 126 APPROVED FOR 37" TIRES
APPROVED FOR AUTO LEVELING HEADLIGHTS
APPROVED FOR ADAPTIVE VARIABLE SUSPENSION (AVS)

57058E/BX
57058EU/BXU
K5103E/BX
K5103EU/BXU
2022 AND UP TOYOTA TUNDRA 4WD LIFT KIT

IMPORTANT!: 20" OR LARGER WHEELS MUST BE USED IN CONJUNCTION WITH THIS LIFT KIT! THE STOCK WHEELS CANNOT BE REUSED.
See page 7 for details.

This document contains very important information that includes warranty information and instructions for resolving problems you may encounter. Please keep it in the vehicle as a permanent record.

Part #	Description	Qty.	Illus.	Page
Box 1 of 5/6-PN 57058B-1				
91-12454	22 TUNDRA FR XMBR	1	7,8	10,11
90-60853	HARDWARE PACK: Crossmember	1	8	10,11
71-1814025010900	M18-2.50X140 HHCS C10.9 Z	2	8,11	
71-1816025010900	M18-2.50X160 HHCS C10.9 Z	2		
72-180110900	M18-2.50 STVR NUT C10.9 Z	4		
73-18008942	M18 FLAT WSHR D125C8.8 Z	8		
91-12464	22 TUNDRA SKID PLATE	1	-	16
91-12466	22 TUNDRA FR DVR SB DRP	1	21,22	15
91-12467	22 TUNDRA FR PAS SB DRP	1	21,22	15
36-12468	22 TUNDRA FR DVR BRKLINE2	1	19,20	15
36-12469	22 TUNDRA FR DVR BRKLINE1	1	19,20	15
36-12470	22 TUNDRA FR PAS BRKLINE1	1	19,20	15
36-12471	22 TUNDRA FR PAS BRKLINE2	1	19,20	15
90-6299	HARDWARE PACK: Front Brake line	3	19,20	15
31C100HC8I/IMP	5/16-18 X 1 HEX BOLT J429 GR 8 ZINC II	2		
31C>NNLZ	5/16-18 NYLON INSERT LOCKNUT ZINC PLTD	2		
31RWHDI/IMP	5/16 ASTM F436 HARD WASHER	4		
90-6514	HARDWARE PACK: Front Sway Bar Drop	2	21,22	15
50C175HC8I/IMP	1/2-13 X 1-3/4 HEX CAP SCREW GR 8 ZINCI	2		
50CNPTZ/GRC	1/2-13 TOPLOCK GRADE C ZINC	2		
50RWHDI/SAE-IMP	1/2 ASTM F436 HARD WASHER	4		

Part #	Description	Qty.	Illus.	Page
Box 2 of 5/6-PN 57058B-2				
90-44220	22 TUNDRA KNUCKLE DVR	1	18	14
Box 3 of 5/6-PN 57058B-3				
90-44221	22 TUNDRA KNUCKLE PAS	1	18	14
Box 4 of 5/6-PN 57058B-4				
91-12472	22 TUNDRA RR XMBR	1	10,11	11,12
91-12480	22 TUNDRA FR DVR BMPSTP	1	12-14	12
91-12483	22 TUNDRA FR PAS BMPSTP	1	12-14	12
90-3342	3/8-16 NUT PLT RR XMBR	1	9	11
90-6445	HARDWARE PACK: Rear X-Member Nut Plate	3	9	11
70-0371001800	3/8" X 1" GR. 8 HEX BOLT	3		
72-037100816	3/8" SAE GR. 8 STOVER NUT-not used	3		
73-0370083	3/8" SAE GR. 8 FLAT WASHER	6		
90-6577	HARDWARE PACK: Bump Stop	2	14	12
70-0371001800	3/8" X 1" HEX BOLT GR. 8	4		
72-037100816	3/8" STOVER NUT GR. C	4		
73-03700034	3/8" HARDENED FLAT WASHER	8		
90-6441	HARDWARE PACK: Bump Stop	1	13	12
71-100301251000	10mm-1.25 X 30mm HEX 10.9	2		
72-01010932	10mm-1.25 STOVER NUT GR. C	2		
73-01010934	10mm HARDENED FLAT WASHER	4		
90-2765	1/4" Hose	1	-	11
90-60860	HARDWARE PACK: Cam Plate	1	8,10,11	11,12
35-5010	Tundra Cam Plate	8		
90-6623	HARDWARE PACK: Cotter Pin	1	-	14
15N200PC0Z	5/32" X 2" Cotter Pin	4		
12N150PC0Z	1/8" X 1 1/2" Cotter Pin	4		

Part #	Description	Qty.	Illus.	Page
Box 5 of 5/6-PN 57058B-5				
91-12486	22 TUNDRA TRKBR BRKT ASM	1	35,36	20
91-12491	22 TUNDRA RR SWY DRP DVR	1	34	20
91-12494	22 TUNDRA RR SWY DRP PAS	1	34	20
91-12500	22 TUNDRA RR COIL SPACER	2	30	19
91-12507	22 TUNDRA RR BMP STP DVR	1	28,29	18
91-12511	22 TUNDRA RR BMP STP PAS	1	28,29	18
91-12517	22TUNDRA RR SHOCK MNT DVR	1	40	22
91-12521	22TUNDRA RR SHOCK MNT DVR	1	40	22
35-12515	22 TUNDRA RR ABS REL	2	38	21
35-12516	22 TUNDRA RR ABS BRKT	2	37	21
35-11858	NUT PLT 3.57X3/8-16	2	31,32	19
90-44153	.2G COPPER ANTI SEIZE	1	40	22
90-6299	HARDWARE PACK: Rear Brake Lines/Bumpstop	5	37,38	21
70-0311001800	5/16" X 1" HEX BOLT GR. 8	2		
72-0531100816	5/16" NYLOCK NUT	2		
73-03100034	5/16" HARDENED FLAT WASHER	4		
90-6318	HARDWARE PACK: Rear Shock Brackets	1	40	22
50C300HC8I/IMP	1/2-13 X 3 HEX BOLT J429 GR 8 *IMP* ZINC II	2		
50CNPTZ/GRC	1/2-13 TOPLOCK GRADE C ZINC	2		
50RWHDI/SAE-IMP	1/2 ASTM F436 HARD WASHER	4		
90-60854	HARDWARE PACK: Rear Coil Spacer	1	30	19
37R200WFDZ	3/8 X 2 FENDER WSHR ZINC (.050) THICK	2		
37C125HC8I/IMP	3/8-16 X 1-1/4 HEX CAP SC GR 8 ZINC II	2		
90-60855	HARDWARE PACK: Rear Shock Brackets	1	40	22
50C375HC8I/IMP	1/2-13 X 3 3/4 HEX BOLTJ429 GR8 *IMP* ZINC II	2		
50CNPTZ/GRC	1/2-13 TOPLOCK GRADE C ZINC	2		
50RWHDI/SAE-IMP	1/2 ASTM F436 HARD WASHER	4		
90-60856	HARDWARE PACK: Rear Trackbar Bracket	1	35,36	20
56C125HC8I/IMP	9/16-12 X 1 1/4 HEX BOLT J429 GR 8 *IMP* ZINC II	1		
56C350HC8I/IMP	9/16-12 X 3 1/2 HEX BOLT J429 GR 8	1		
56CNPTZ/GRC	9/16-12 TOPLOCK GRADE C ZINC	2		
56RWHDI/IMP	9/16 ASTM F436 HARD WASHER	4		
50C125SCFZ	1/2-13 X 1 1/4 FLAT SOC CAP SCR ZINC	1		
50CNPTZ/GRC	1/2-13 TOPLOCK GRADE C ZINC	1		
50RWHDI/SAE-IMP	1/2 ASTM F436 HARD WASHER	2		
90-8233	Large Cross Member Sleeve	2	40	22

Part #	Description	Qty.	Illus.	Page
Box 5 of 5/6-PN 57058B-5 Continued				
90-60866	HARDWARE PACK: Rear Headlight Sensor/DS Spacer	1	28,31	18, 19
90-2022	SLEEVE: DRIVESHAFT SPACER	2		
90-13800	PASSENGER HEADLIGHT SENSOR BRACKET	1		

For K5103E and K5103EU, Box 6 of 6-PN 57058B-6

91-12496	22 TUNDRA 5.38CO SPCR ASM	2	16	13
90-6610	HARDWARE PACK: CO Spacer	1	16	13
43FNG8I	7/16-20 HEX NUT GR8 ZINC II	8		
43RLSRZ	7/16 SPLT LW ZINC PLTD	8		

For K5103BX and K5103BXU, Boxes 1-5 and:

57051BX-1	22 TUNDRA 2.5CO 5.5-6.5 PR	1		
57050BX-2	22 TUNDRA 2.5RR IR 2.5 PR	1		

Introduction:

- ◆ This installation requires a professional mechanic!
- ◆ We recommend that you have access to a factory service manual for your vehicle to assist in the disassembly and reassembly of your vehicle. It contains a wealth of detailed information.
- ◆ Prior to installation, carefully inspect the vehicle's steering and driveline systems paying close attention to the tie rod ends, ball joints, wheel bearing preload, pitman and idler arm. Additionally, check steering-to-frame and suspension-to-frame attaching points for stress cracks. The overall vehicle must be in excellent working condition. Repair or replace all worn or damaged parts!
- ◆ Read the instructions carefully and study the images before attempting installation! You may save yourself a lot of extra work.
- ◆ Check the parts and hardware against the parts list to assure that your kit is complete. Separating parts according to the areas where they will be used and placing the hardware with the brackets before you begin will save installation time.
- ◆ Check the special equipment list and ensure the availability of these tools.
- ◆ Secure and properly block vehicle prior to beginning installation.
- ◆ ALWAYS wear safety glasses when using power tools or working under the vehicle!
- ◆ Use caution when cutting is required under the vehicle. The factory undercoating is flammable. Take appropriate precautions. Have a fire extinguisher close at hand.
- ◆ Foot pound torque readings are listed on the Torque Specifications chart at the end of the instructions. These are to be used unless specifically directed otherwise.
- ◆ Apply thread lock retaining compound to all bolts.
- ◆ **Please note that while every effort is made to ensure that the installation of your Pro Comp lift kit is a positive experience, variations in construction and assembly in the vehicle manufacturing process will virtually ensure that some parts may seem difficult to install. Additionally, the current trend in manufacturing of vehicles results in a frame that is highly flexible and may shift slightly on disassembly prior to installation. The use of pry bars and tapered punches for alignment is considered normal and usually does not indicate a faulty product. However, if you are uncertain about some aspect of the installation process, please feel free to call our tech support department at the number listed on the cover page. We do not recommend that you modify the Pro Comp parts in any way as this will void any warranty expressed or implied by the Pro Comp Suspension company.**

Important!

Tire and wheel choice is crucial in assuring proper fit, performance, and the safety of your Pro Comp equipped vehicle. For this application a 20" wheel not to exceed 9" in width with a maximum backspacing of 5 3/4" for 35" tires and 5 1/2" for 37" tires must be used. Additionally, a quality tire of radial design, not exceeding 37" tall X 12.5" wide is recommended. Please note that the use of a 35" X 12.5" tire, or bigger may require the removal of the front inner fender mud flaps (front and rear), and 37" X 12.5" will require additional trimming. Violation of these recommendations will not be endorsed as acceptable by Pro Comp Suspension and will void any and all warranties either written or implied.

IMPORTANT!: 20" OR LARGER WHEELS MUST BE USED IN CONJUNCTION WITH THIS LIFT KIT! THE STOCK/ SPARE WHEELS CAN ONLY BE USED ON THE REAR OF THE VEHICLE.

SEE ADDITIONAL TRIMMING INSTRUCTIONS ON PAGE 24 AND 25 IF USING KIT IN CONJUNCTION WITH 37" TIRES.

Please Note:

- * Front suspension and head light realignment is necessary!
- * Speedometer and ABS recalibration will be necessary if larger tires (10% more than stock diameter) are installed.
- * Always use NEW cotter pins on re-assembly!
- * **IT IS ADVISABLE THAT YOU HAVE HELP AVAILABLE WHEN INSTALLING THIS KIT. SOME COMPONENTS ARE HEAVY AND AWKWARD. ADDITIONAL HELP IS GOOD INSURANCE AGAINST INJURY!**

Special Tools:

Please refer to your service manual for more information.
A special removal tool is required for safe removal of the tie rods.
These tools may be purchased at your local Toyota dealer.
You may be able to rent any of these tools at your local parts store.

Optional Equipment Available from your Pro Comp Distributor!

Coilover Upgrade Kit: 57051BX-1, 57050BX-2

22-Up Toyota Tundra Ball Joint Upper Control Arm Kit: 57023B

Also, Check out our outstanding selection of Pro Comp tires to compliment your new installation!

Front Installation:

1. Prior to installing this kit, with the vehicle on the ground. Measure the height 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 below.

LF: _____ RF: _____

LR: _____ RR: _____

2. Ensure that your work space is of adequate size and the work surface is level. Place the vehicle in neutral. Disconnect the negative battery cable from the battery. Place your floor jack under the front cross member and raise vehicle. Place jack stands under the frame rails behind the front wheel wells and lower the frame onto the stands. Remove the jack and place the vehicle back in park, set the emergency brake, and place blocks both in front of and behind the rear wheels. Remove the front wheels.
3. Unbolt and remove OE skid plate and dust shield from vehicle and discard. **Keep one M8 bolt to be reused in installing headlight sensor on page 19.** If your vehicle was equipped with OE air dam, remove and keep for reinstallation.
4. Unbolt the sway bar from the lower A-arm, and the frame and remove from vehicle. Save hardware and sway bar for reuse.

NOTE: Work on one side of the vehicle at a time.

5. Loosen but do not remove tie rod jam nuts. Using the appropriate tool, remove the outer tie rod end nut. Separate from knuckle using the appropriate tool.
6. Unclip and unbolt the ABS wire from the back of the knuckle. Unbolt the anti-lock brake sensor from the hub. Unbolt the upper brake line bracket from the knuckle.
7. Remove the brake caliper from the rotor and secure them clear from the work area. **DO NOT** let the caliper hang by the brake

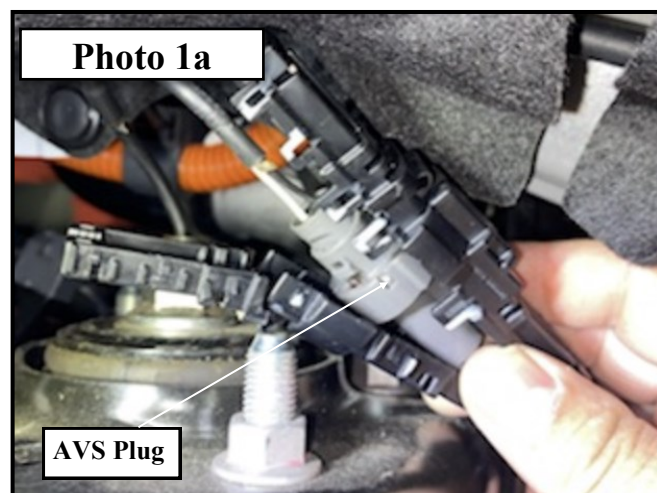
line or damage may result.

8. Remove the front rotor from the front hub.
9. Remove the dust cap from the hub. Remove the cotter pin and retaining nut from the center of the bearing hub, and save for reinstallation.
10. Support the knuckle and remove the upper ball joint nut from the knuckle. Separate using the appropriate tool.
11. Remove the (2) bolts from the lower ball joint bracket.
12. Remove the knuckle from vehicle and set to the side.

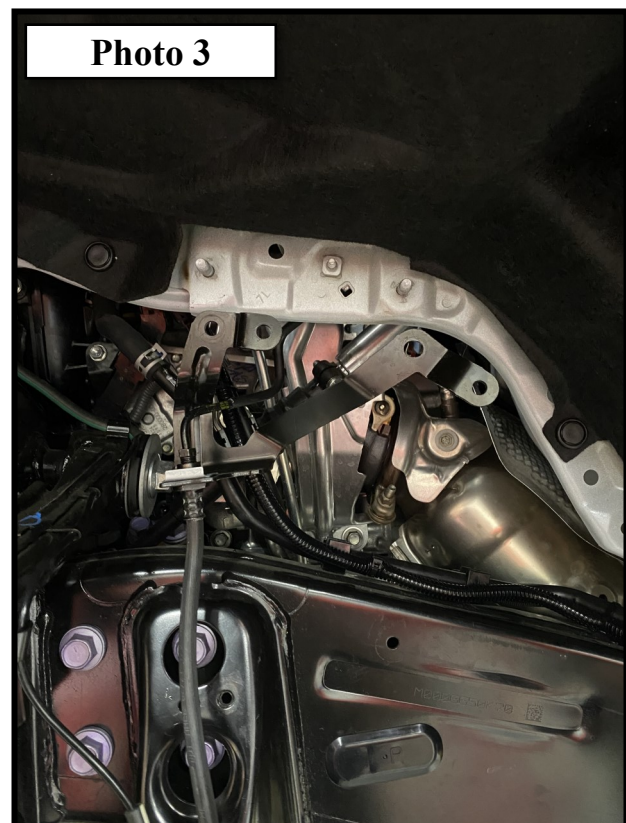
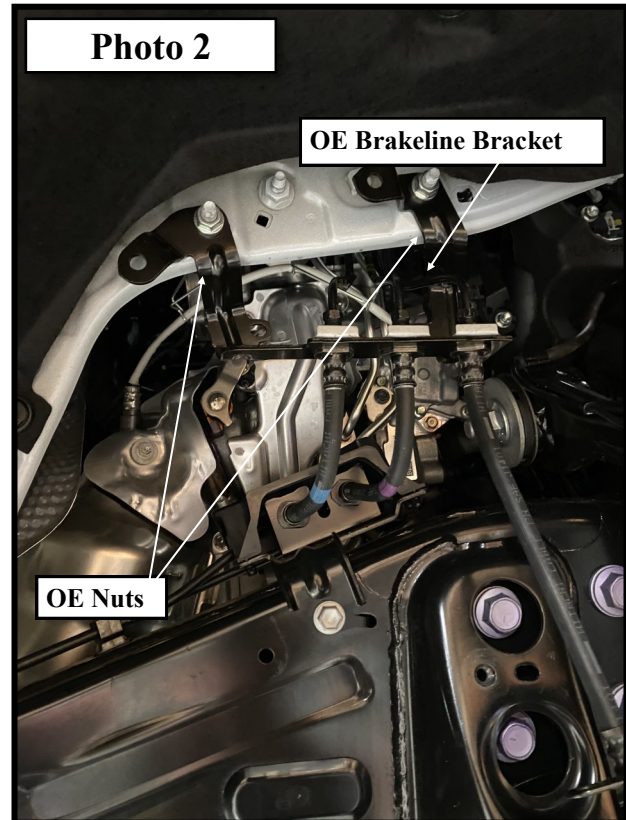
NOTE: Be sure to support the CV axles before removing the lower A-arm. DO NOT allow the axles to hyperextend or damage to the bearings might result.

NOTE: The lower A-arm bolts may need to be loosened in order to release pressure on the strut.

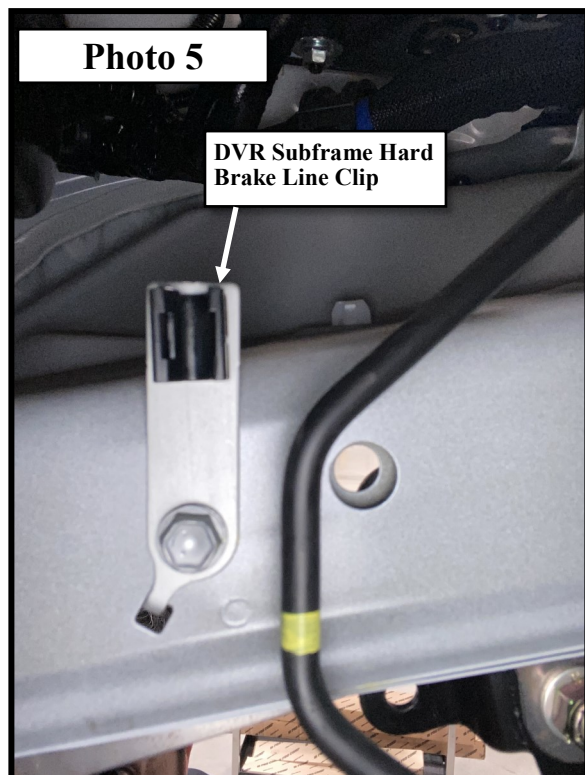
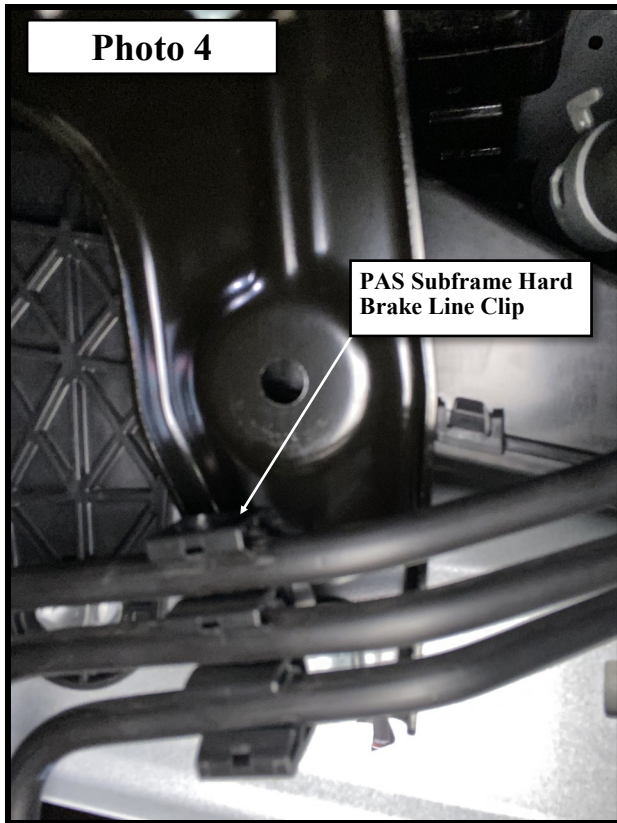
13. Unbolt and remove the lower A-arm from the vehicle. Save cam bolts for reinstallation. Remove OE bumpstops and save for reinstall.
14. If vehicle is equipped with AVS (adaptive variable suspension) unplug the AVS shock wiring plug. You may need to unclip ABS bracket mounted on the side of the coil bucket, then separate the plastic shield covering the AVS plug. See **Photo 1a**.



15. Unbolt and remove the factory strut assembly from the vehicle. Save the hardware and strut assembly for reuse.
16. Remove the fender shield by unscrewing the (4) plastic bolts. See **Photo 1b**. Unscrew the two nuts to remove the brake line brackets. See **Photos 2 and 3**. Remove the push-in rivet holding the hard brake lines to the back of the subframe. Keep the brake lines in the plastic clip. Save hardware for reuse. See **Photos 4 and 5**.

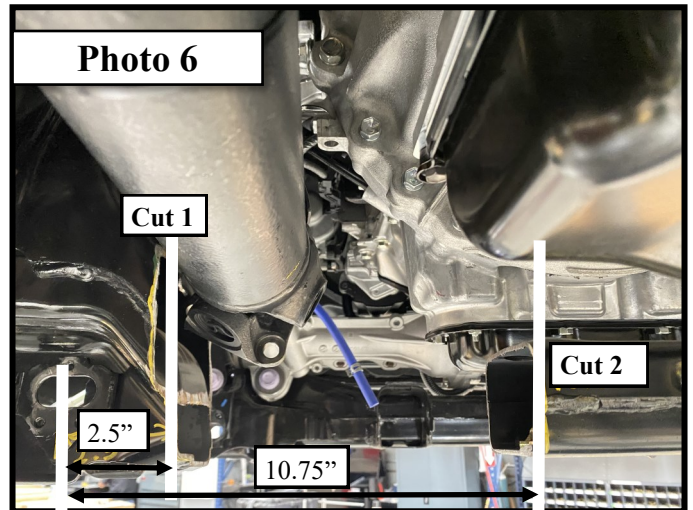


17. Repeat steps 6 through 17 on the remaining side of the vehicle.
18. Unbolt the front driveshaft from the differential. Secure the driveshaft up and out of the work area.
19. Unclip all electrical wiring and vent line from the differential.
20. Support the differential with a jack and unbolt the rear differential mount nut.
21. Unbolt the (2) front differential mount bolts from the front crossmember. Carefully remove the differential from the vehicle.



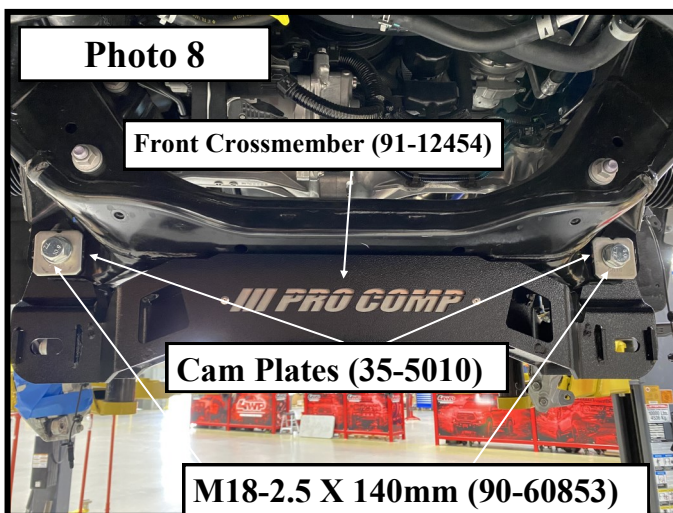
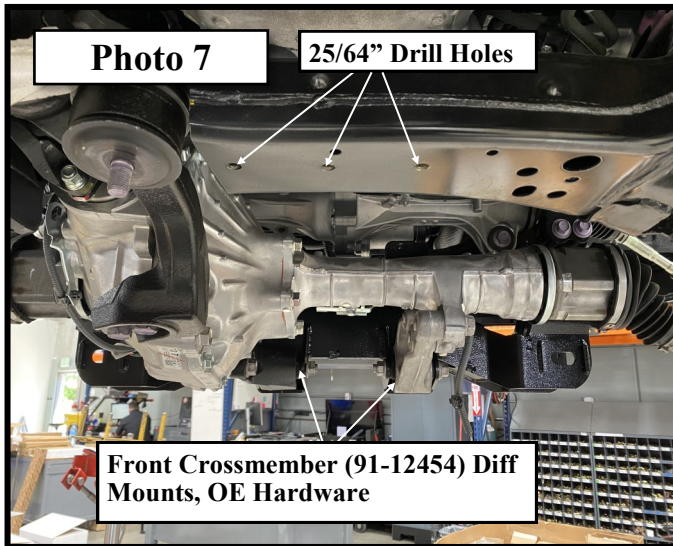
22. Parts of the rear crossmember must be removed to properly drop and align the differential. For the first cut, measure from the center of the rear driver lower control arm mounting pocket $2\frac{1}{2}$ " inboard and mark a vertical line. From the center of the same pocket, measure $10\frac{3}{4}$ " inboard and mark a vertical line. See **Photo 6**.

NOTE: Make sure the measurement is square and mark a line around the frame.



23. Using a suitable cutting tool, (abrasive cut-off wheel, Sawz-all, etc.) cut the frame along the previously marked lines as shown in **Photo 6**. Temporarily install the rear crossmember (91-12472) and mark the (3) holes in the rear crossmember lip for drilling.
24. Remove the rear crossmember and center punch and drill out the previously marked holes in the frame using a $\frac{25}{64}$ " drill bit. After cutting the section out of the frame, clean the area thoroughly and paint the exposed metal with a good quality paint. See **Photo 7**.
25. Install the front crossmember (91-12454) into the front lower control arm mounting pockets using the supplied cam block off plates (90-60860, 35-5010) and the M18-2.50 X 140mm 10.9 bolts from pack (90-60853). The head of the bolts should face

the front of the vehicle. Hand tighten the hardware. **Important: Use 140mm for the front crossmember.** See **Photo 8.**



NOTE: Due to variations in frame tolerances from the factory, the holes in the cam block off plates are offset to provide adjustability. If the bolt holes do not line up with the cam block off plate notches facing down they can be rotated to aid in installation of the cam bolts. In order for the crossmember to stay centered in the vehicle the notches in the cam block off plates must be facing the same way on both driver and passenger sides. Ex. Both notches facing up, down, in or out.

26. Replace **OE Front Differential** vent line with the supplied 1/4" hose (**90-2765**) using the **OE** hose clamps.
27. Support the CV axles and carefully raise the differential assembly into the front crossmember differential pockets. Secure using previously removed **OE** hardware. See **Photo 7.**

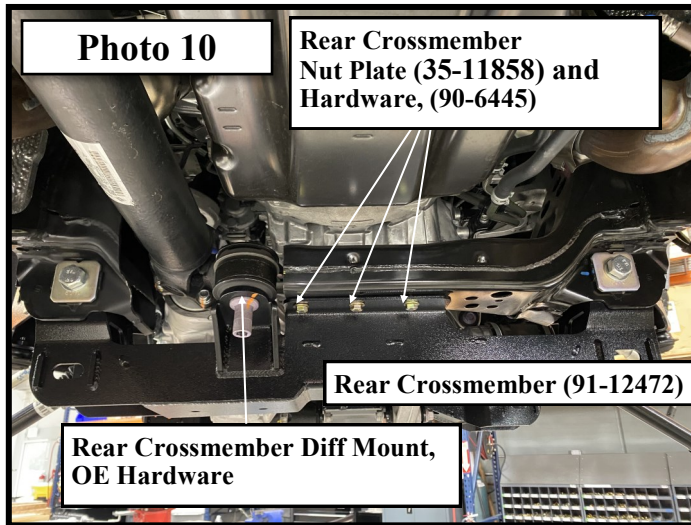
NOTE: DO NOT allow the axles to hyperextend or damage to the bearings might result.

28. Insert the rear crossmember nut plate (**90-3342**) inside the previously drilled frame section. See **Photo 9.**

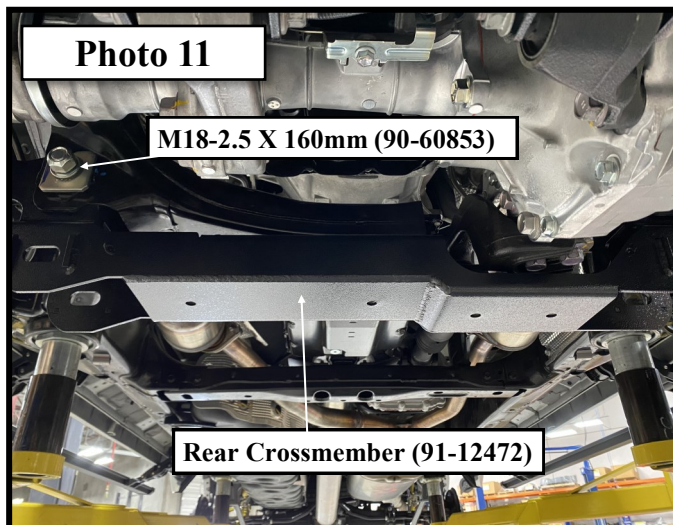


29. Install the rear crossmember (**91-12472**) into the rear frame mounting pockets using the supplied cam block off plates (**35-5010**) and the **M18-2.5 X 160mm 10.9** bolts from pack (**90-60853**). The head of the bolts should face the rear of the vehicle. Hand tighten the hardware. See **Photo 10.**
30. Secure the rear crossmember lip to the nut plate (**90-3342**) using the supplied 3/8" X

1" bolts and washers from pack (90-6445).
Torque according to the chart on page 27.
See **Photo 10**.

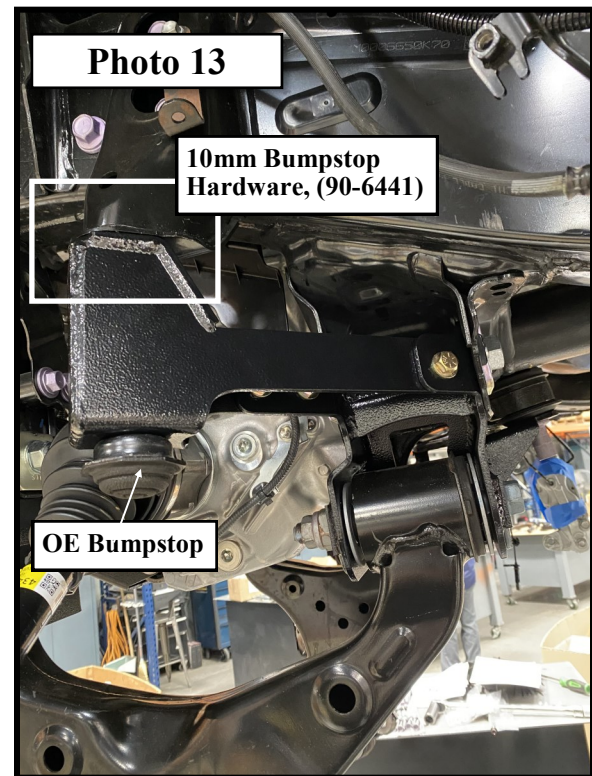
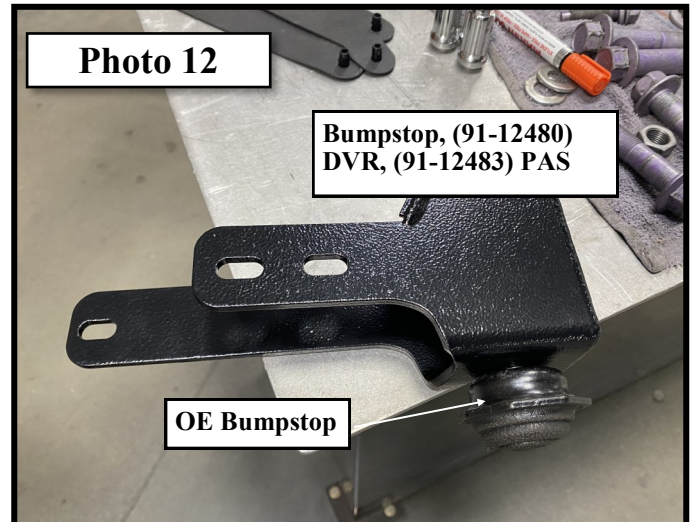


31. Secure the rear differential mount to the rear crossmember with the **OE** hardware. See **Photo 11**.



32. Install the previously removed **OE** bump stops into the bump stop reinforcement plates (91-12480 and 91-12483) using the supplied nut and washer from pack (90-6441). Torque according to the chart on page 27. See **Photo 12**.

33. Install the rear bump stop reinforcement plates (91-12480 DVR and 91-12483 PAS) and secure the upper mounting hole to the frame using the supplied **M10 X 30mm** bolt and washer from pack (90-6441). Hand tighten the hardware. See **Photo 13**.

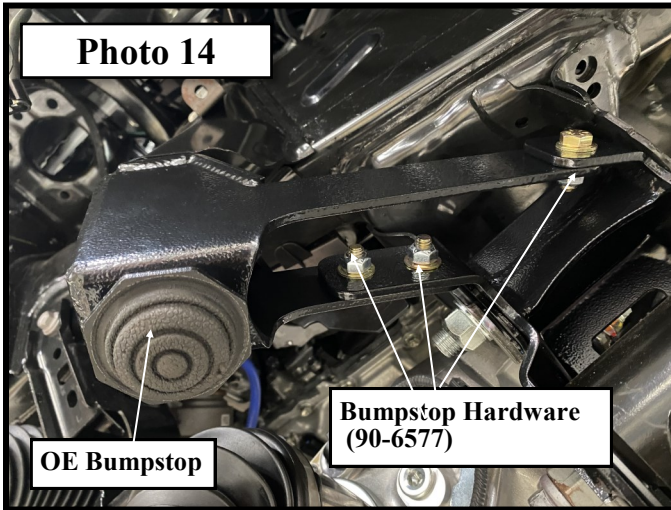


34. Install the **3/8" X 1"** bolts from hardware pack (90-6577) through the side mounting holes. Be sure that the heads of the bolts are facing toward the outside of the crossmember. Hand tighten the hardware. See **Photo 14**.

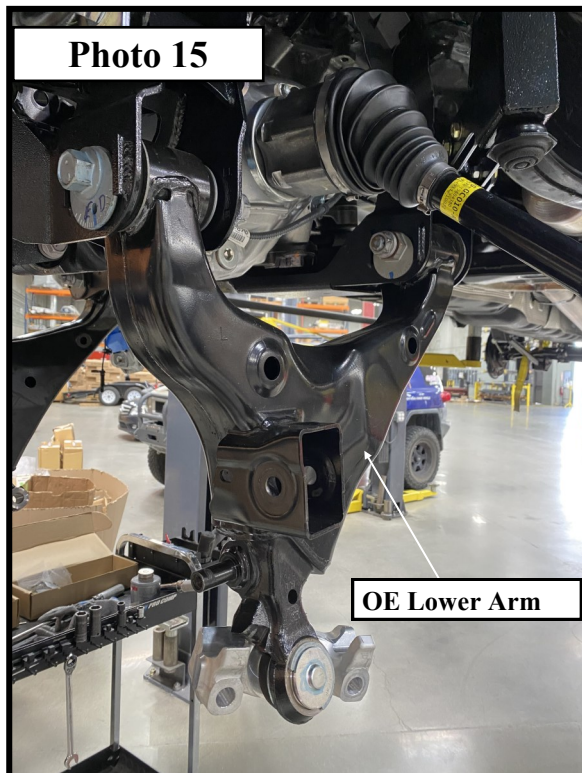
NOTE: The side holes are slotted for easier alignment.

35. Reconnect all the differential electrical and vent connections. Reattach the front driveshaft and torque the **OE** nuts to **OE**

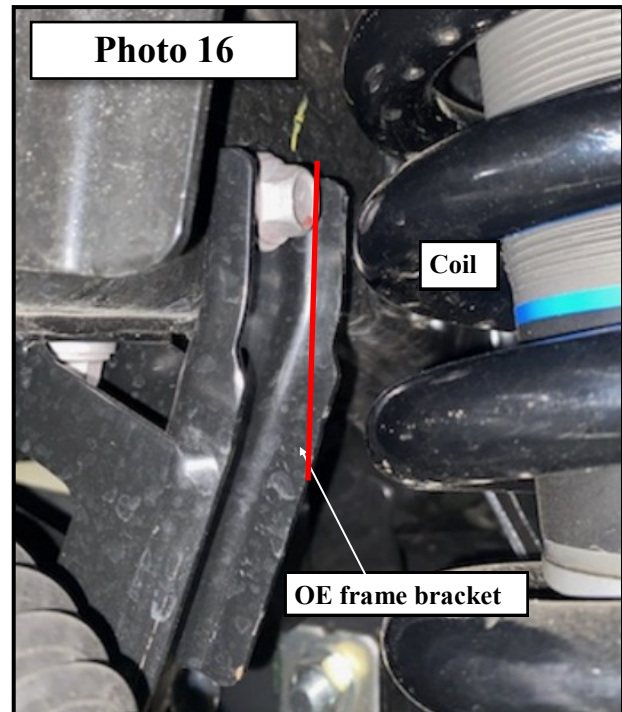
specs.



36. Install the lower A-arms into the front and rear crossmember mounting pockets. Secure using the **OE** cam bolts. ***DO NOT*** torque the lower cam bolts until the vehicle is back on the ground. See **Photo 15**.

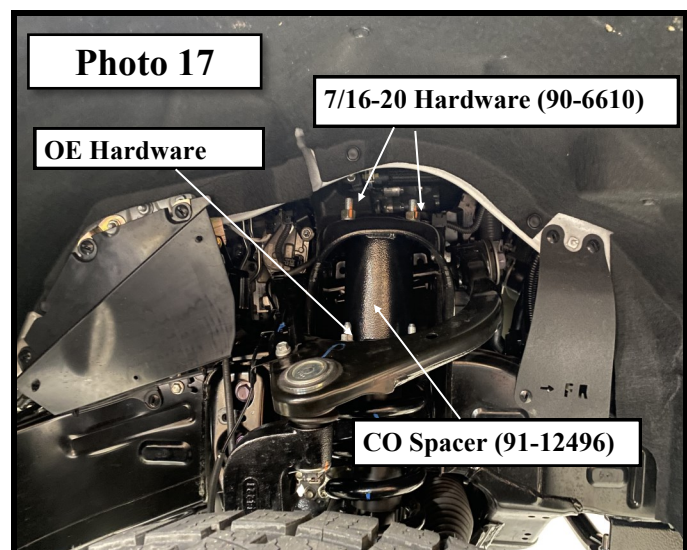


37. Torque all other crossmember and differential hardware according to the torque chart on page 27 and torque OE hardware to OE specs. Be sure torque the upper bump stop



mounting hardware first. ***DO NOT*** over tighten the differential bolts.

38. Due to frame variances, it may be necessary to trim an OE frame bracket to allow clearance for coil. See **Photo 16**. Using a suitable cutting tool, (abrasive cutoff wheel, Sawz-all, etc.) trim bracket for adequate clearance. After trimming the bracket, clean the area thoroughly and paint the exposed metal with a good quality paint.



39. Attach the new strut spacers (91-12496) to the top of the shock using the OE hardware. Torque to OE specs. Fit the strut assembly and spacer into the stock mounting locations. Make sure the notches on the parts are aligned. Fasten using the supplied hardware on the top from pack (90-6610). Torque according to the chart on page 27. See Photo 17.

NOTE: Be sure that the notch in the strut spacers (91-12496) are facing the outside of the vehicle.

40. Install the OE bolt through the lower strut mount and a-arm. Torque to OE specs once the vehicle is back on the ground. See Photo 18. If installing 6" kit in conjunction with 57023B Ball Joint Upper Control Arm Kit, see 57023B instructions for Upper A arm installation.



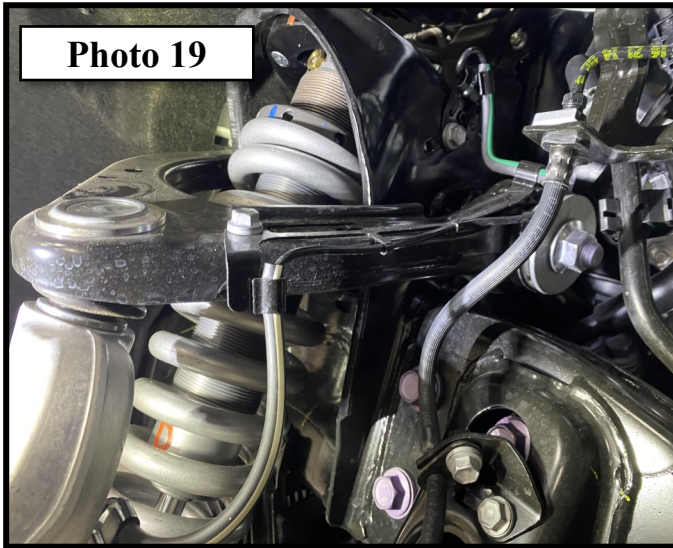
41. If vehicle is equipped with AVS, reconnect AVS wiring plug.
42. If installing K5103BX or K5103BXU install 57051BX-1 Front Coilovers instead of Coilover spacer. Repeat steps 39 and 40 (for use with

strut spacer) for remaining side of vehicle.

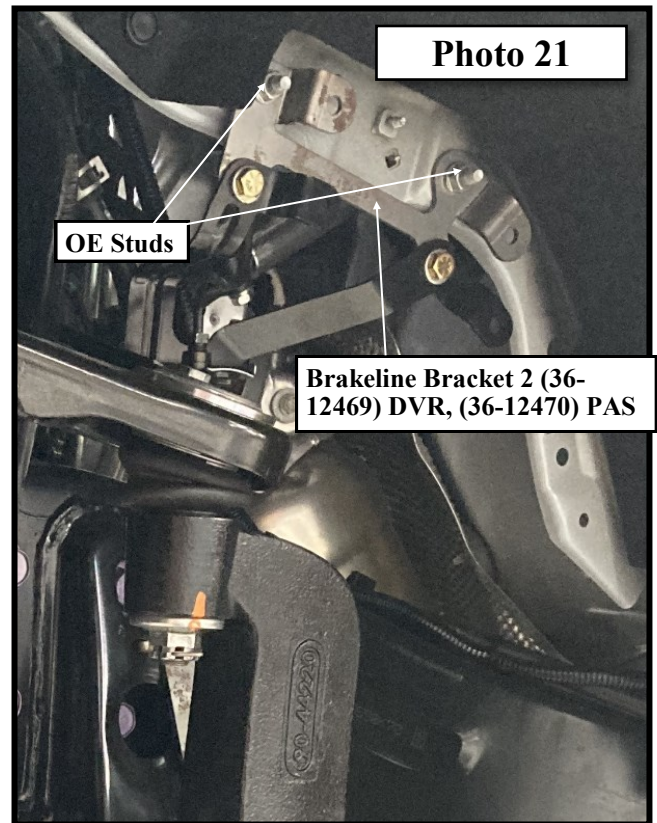
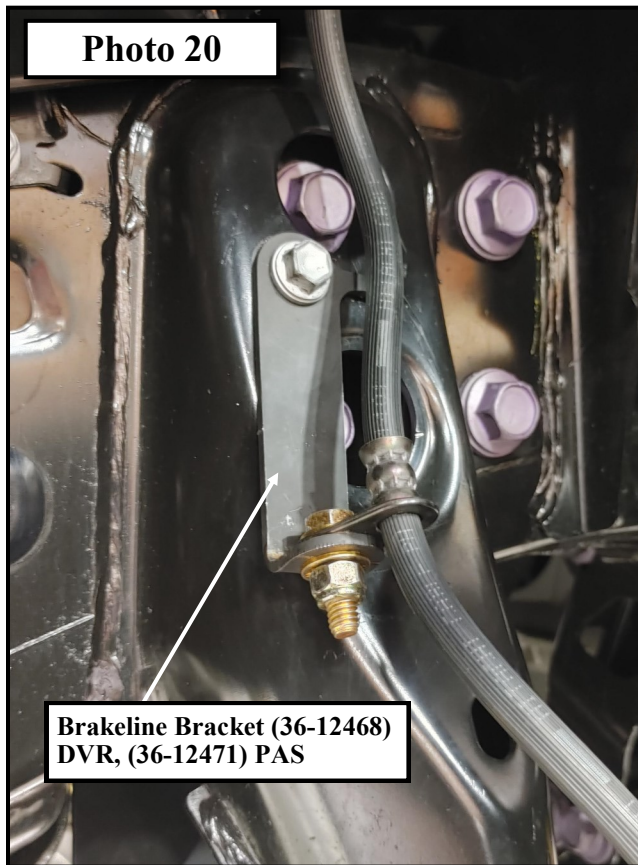
43. Transfer rear dust seal, hub bearing, and backing plate from OE knuckle to Pro Comp Knuckle (90-44220 DVR and 90-44221 PAS). Make sure the backing plate clears the rotor.

NOTE: Be sure to transfer the O-ring with the hub assembly. The factory backing plates will be reused.

44. Support the lower A-arms and position the new knuckle (90-44220 DVR and 90-44221 PAS) in place. Slide the CV axle through the knuckle from the rear and attach the knuckle to the upper ball joint. Reinstall a OE Hardware. Torque to OE specs.
45. Secure the knuckle to the lower ball joint bracket using the (2) OE mounting bolts. Apply thread locking compound to the bolts. Torque the bolts to OE specs.
46. Attach the previously removed OE retaining nut to the end of the CV shaft. Torque to OE specs. Install a 5/32 cotter pin (15N200PC0Z) from pack (90-6623) and reattach the dust cap.
47. Install the front rotors on to the front hubs. Reinstall the brake calipers to the new knuckle using the previously removed OE bolts. Torque to OE specs.
48. Unbolt ABS bracket from the side of the coil bucket to provide an adequate amount of slack and discard. See Photo 19.
49. Bolt the anti-lock brake wiring sensor to the hub. Reroute the ABS wire and secure the line to the threaded hole on the back of the new knuckle wire retaining bolt.
50. Loosen the tie rod jam nuts and remove the OE outer tie rod ends. Flip flop the outer tie rods and reinstall the Driver OE outer tie rod on the Passenger side, and Passenger on the Driver side.
51. Insert from the top and secure the tie rod end to the knuckle and torque to OE specs. Install a new 1/8" cotter pin from pack (90-6623).



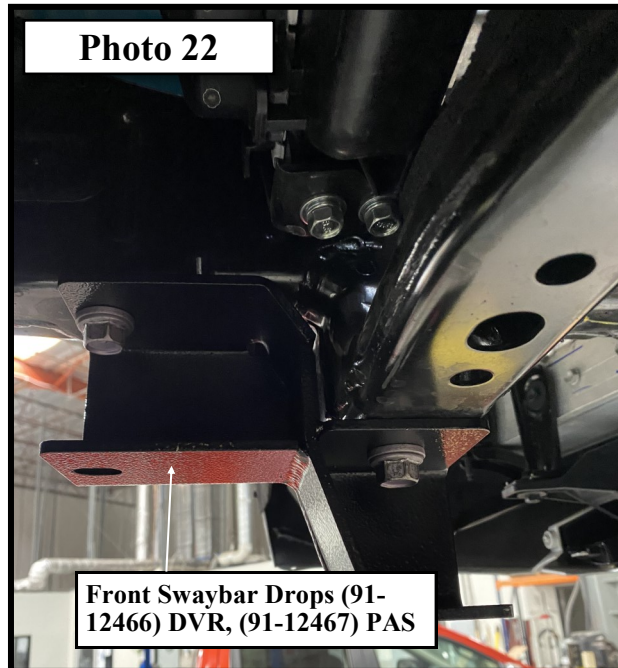
52. Install the front brake line drop brackets (36-12468 and 36-12469 DVR and 36-12470 and 36-12471 PAS), to the original brake line mounting hole and studs in the frame. Secure using the previously removed OE bolt. See Photos 20 and 21.



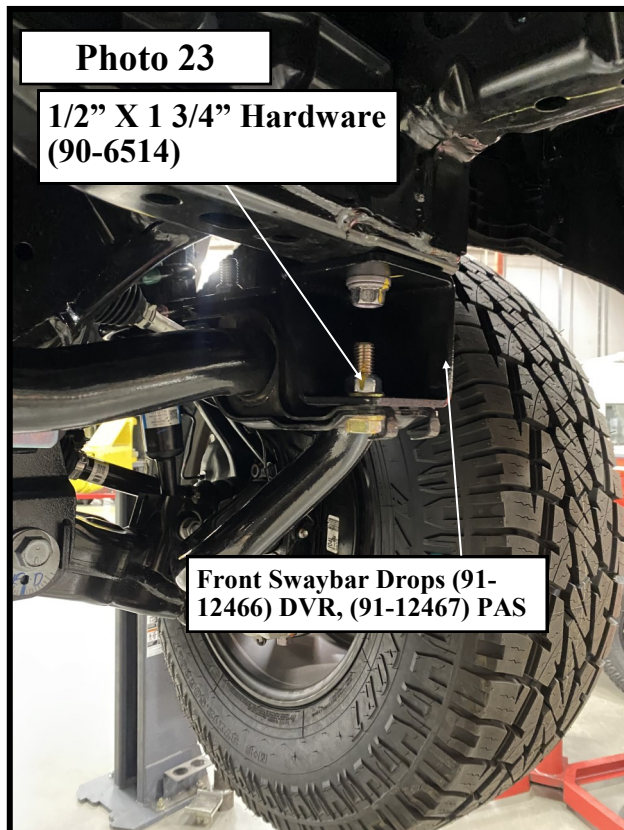
53. Bolt the OE brake line bracket to the new drop bracket using the supplied 5/16" X 1" bolts and hardware from pack (90-6299). Torque according to the chart on page 27.

NOTE: It may be necessary to carefully bend the metal brake line to provide adequate slack for it's new position. Be sure to cycle and turn wheel to confirm proper brake line orientation.

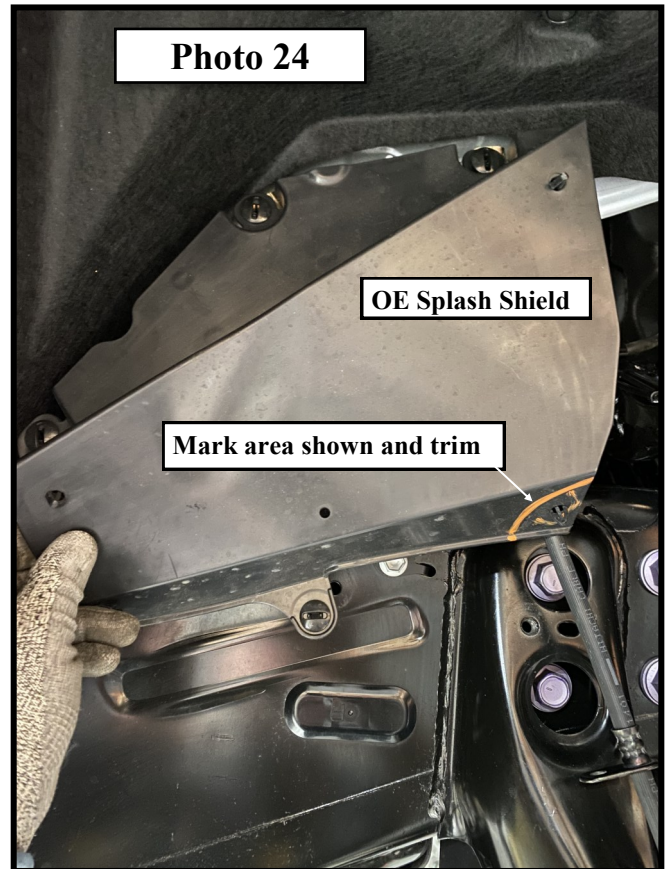
54. Reattach the upper OE knuckle brake line bracket to the new knuckle using the OE hardware. Torque to OE specs.
55. Install the sway bar drop brackets (91-12466 DVR and 91-12467 PAS) to the original sway bar mounting holes in the frame using the OE bolts. Torque to OE specs. See Photo 22
56. Reinstall the sway bar to the new sway bar drop brackets (91-12466 DVR, and 91-12467 PAS) using the supplied 1/2" X 1 3/4" bolts and hardware from pack (90-6514). Leave hardware loose at this time.

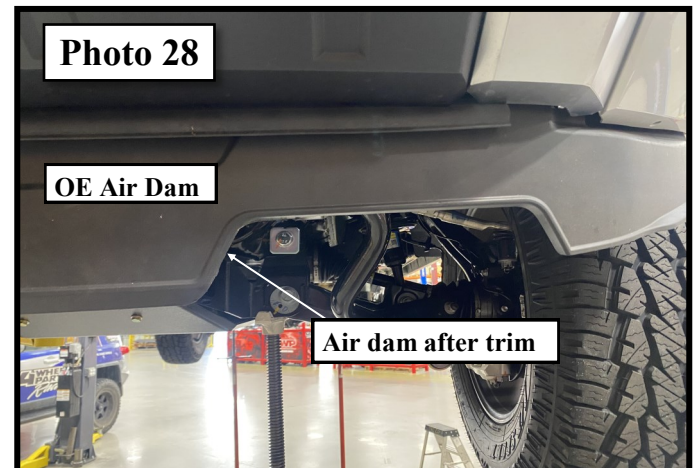
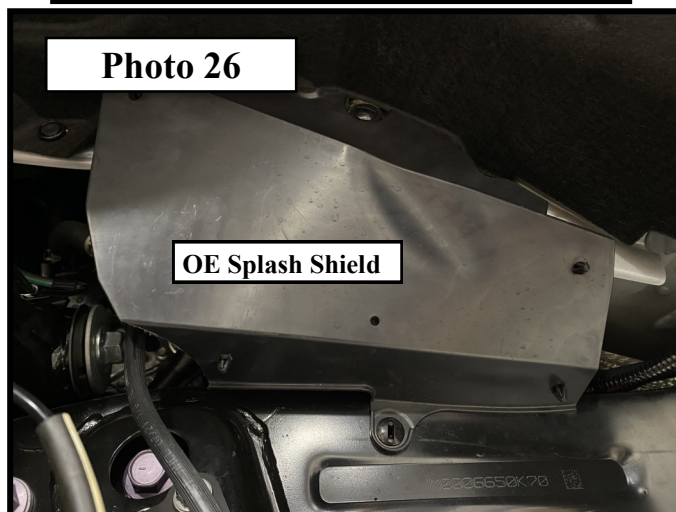
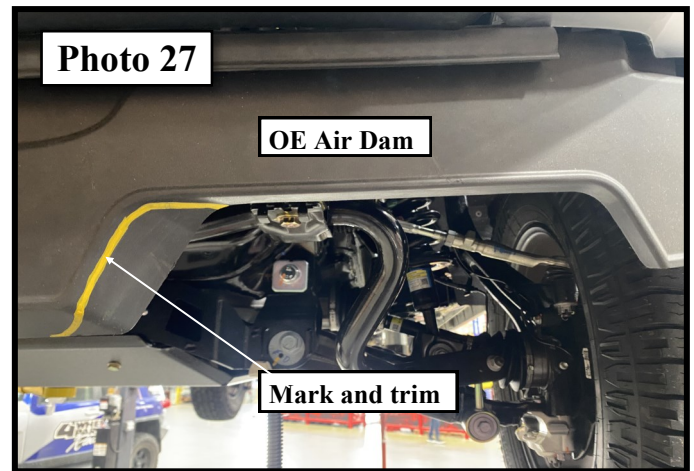
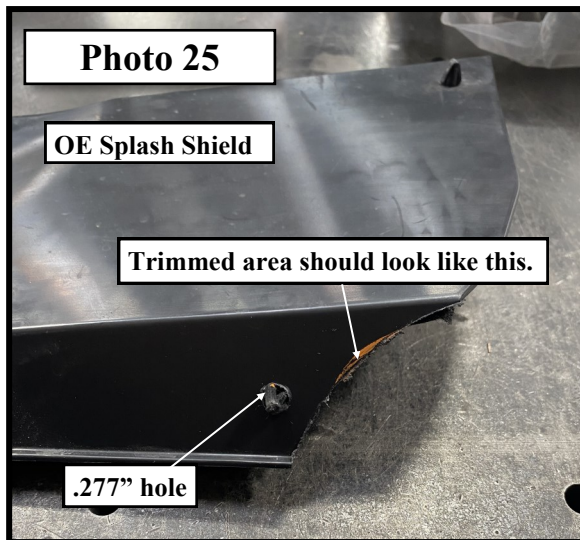


See Photo 23.



57. Reattach the **OE** sway bar end links to the lower A-arm using the **OE** hardware. Torque the sway bar end link to lower A-arm bolts to **OE** specs once the vehicle is on the ground. Torque the remaining sway bar mounting hardware according to the chart on page 27 once the vehicle is back on the ground.
58. Install the skid plate (**91-12464**) using the hardware from pack (**90-6445**). Torque according to the chart on page 27.
59. Remove retaining clip from splash shields in the area shown in **Photos 24 and 25**. Trim splash shields 1 3/4" from edges as shown in **Photos 24, 25, and 26**. Drill a .277" hole 3/4" from the edges as shown in **Photo 25** and insert the previously removed retaining clip. Reinstall the splash shields.





60. Trim 0.25" from edges of the front air dam as shown in **Photos 27 and 28**. Reinstall front air dam using the **OE** hardware. Torque to **OE** specs.
61. On both sides of the vehicle, check the routing of the brake lines and the ABS wire harnesses. There must be no pinching, rubbing, or stretching of either component. Use zip ties to secure these items to the steering components. At full droop, cycle the steering from lock to lock while observing the reaction of these components. Reposition them if needed.
62. Reconnect the negative battery cable to the battery.
63. Reinstall the wheels and lower the vehicle to the ground. Torque the lug nuts accord-

ing to the wheel manufacturers recommendations.

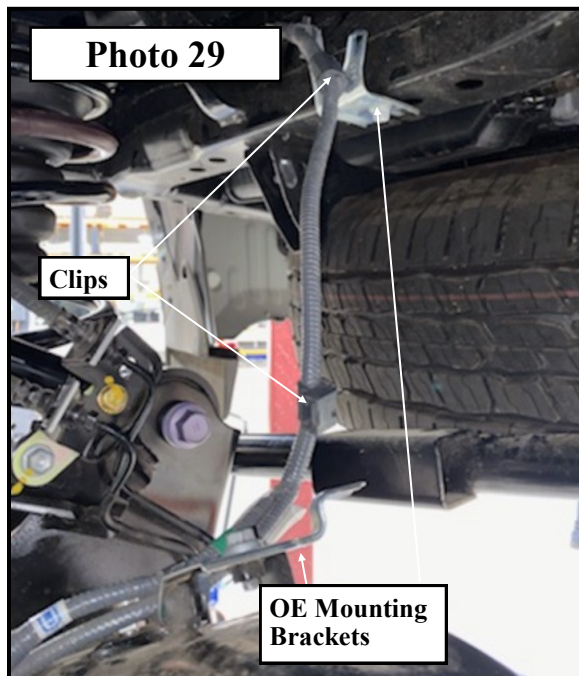
64. With the truck on the ground center the lower A-arm cam bolts and torque to OE specs.
65. Center the steering wheel and lock it in place. Set the toe by adjusting the tie rod ends properly.

IMPORTANT!: IF THE STEERING WHEEL IS NOT CENTERED PROPERLY IT WILL TRIGGER THE ANTI-LOCK BRAKE AND TRACTION CONTROL WARNING LIGHTS.

67. Lock the outer tie rod ends by tightening the **OE** jam nuts.
68. Recheck all hardware for proper installation and torque at this time.

Rear Installation:

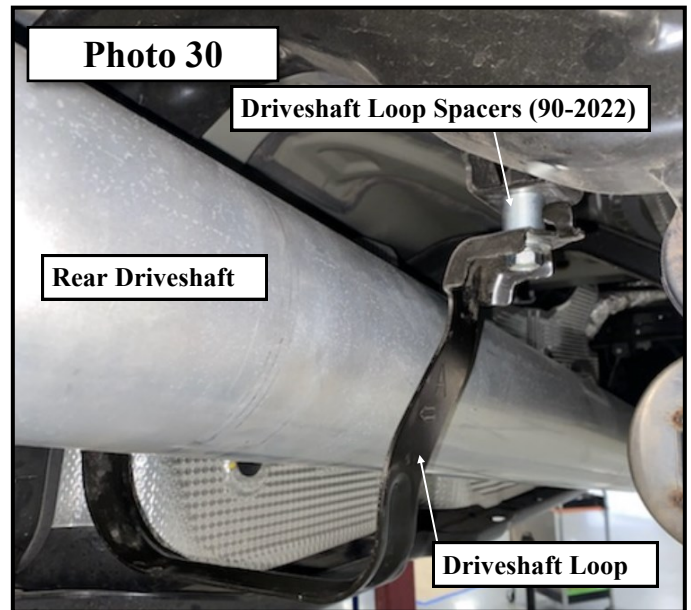
1. Block the front tires and raise the rear of the vehicle. Support the frame with jack stands forward of the rear springs. Support the axle as well.
2. Remove the rear wheels.
3. On PAS and DVR side unbolt the ABS wire mount located on the rear differential. Unbolt the brake line bracket from on top of the differential and from the frame.
4. If vehicle is equipped with wire harness from rear axle to frame, unclip clips holding them to OE mounting brackets. Do not reattach. Should look like **Photo 29**.



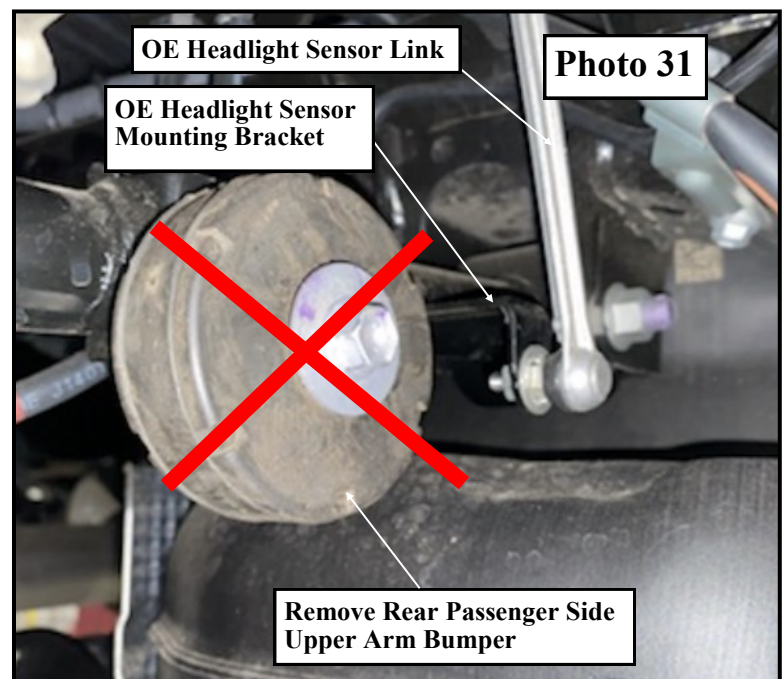
5. On both sides of the vehicle remove the bolts connecting the shocks to the axle. Loosen but do not remove the upper shock bolts at the frame. It may be necessary that you slightly raise the axle to unload the shocks. Save hardware for reuse.

NOTE: *Be sure not to over extend the rear brake line and rear axle vent line.*

6. Remove the bolt connecting the rear PAS upper link to the axle. Loosen but do not remove the remaining upper DVR and both lower DVR and PAS link bolts at the axle.



7. Disconnect the sway bar from the sway bar brackets. Disconnect the sway bar brackets from the frame. Remove the rear bump stops from the frame. Save bump stops and hardware for reuse.
8. Remove rear driveshaft loop. Install driveshaft loop spacers (90-2022) from hardware pack (90-60866) between loop and frame using OE hardware. Torque according to the chart on page 27. See **Photo 30**.



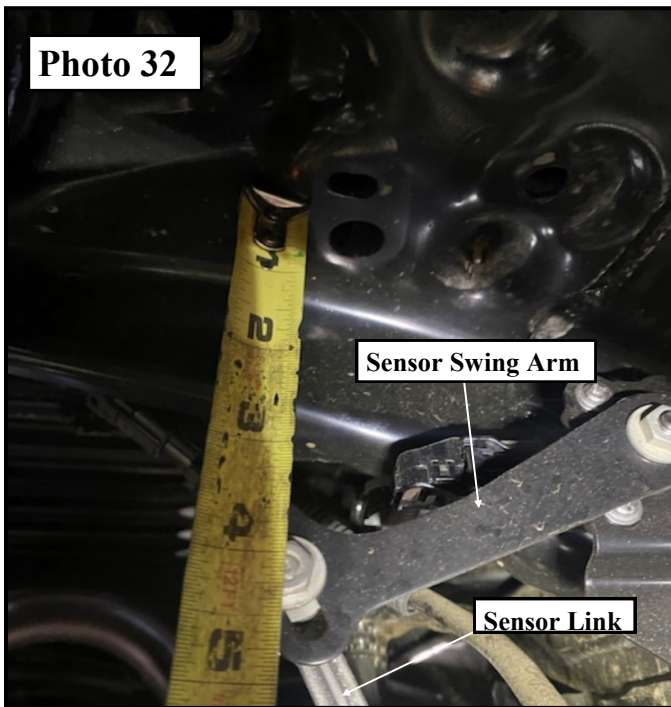


Photo 32

9. Lower the axle and remove the rear springs. Save springs for reuse.
10. Loosen the track bar at the frame. Disconnect the track bar from its lower mount at the axle. Save hardware for reuse.

Work on one side of the vehicle at a time.

10. If equipped with headlight sensors on the rear upper control arms, disconnect sensor link from upper control arm, save link hardware for reinstallation. Mark around mounting bracket on upper control arm. Using a sufficient cutting tool, cut and remove mounting bracket. Clean the area thoroughly and paint the exposed metal with a good quality paint. See **Photo 31**.
11. Remove rubber bumper from passenger side only to allow for full droop without contact of bumper and gas tank. Measure from bottom of the swing arm on sensor vertically to the frame. Should be about 4 3/16" at ride height. See **Photos 31 and 32**.
12. Using the sensor link hardware, and previously removed M8 bolt from the front skidplate, install headlight sensor relocation bracket (90-13800) from hardware pack (90-60866). See **Photo 33**. Install sensor link

on the furthest hole for 6" kits.

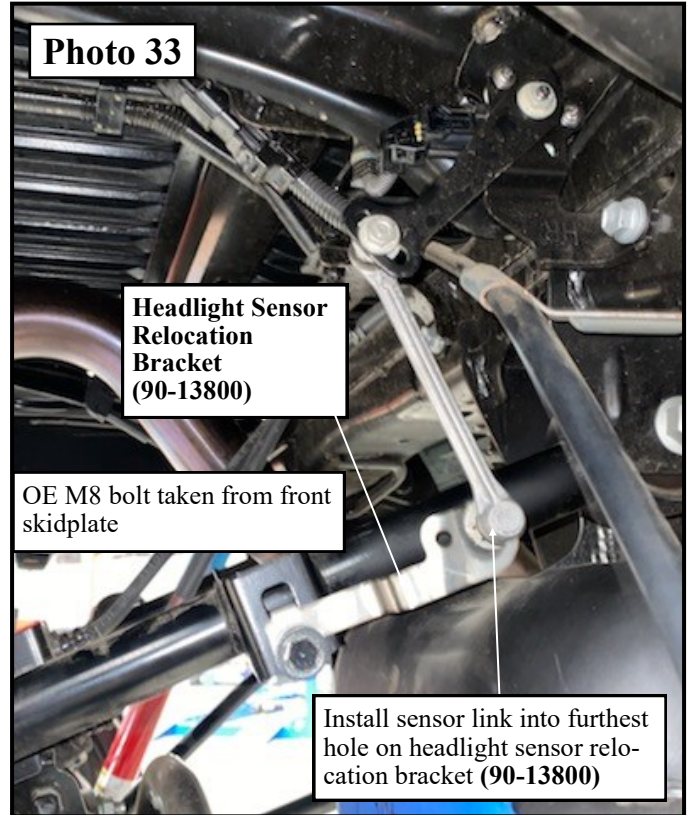


Photo 33

Headlight Sensor Relocation Bracket (90-13800)

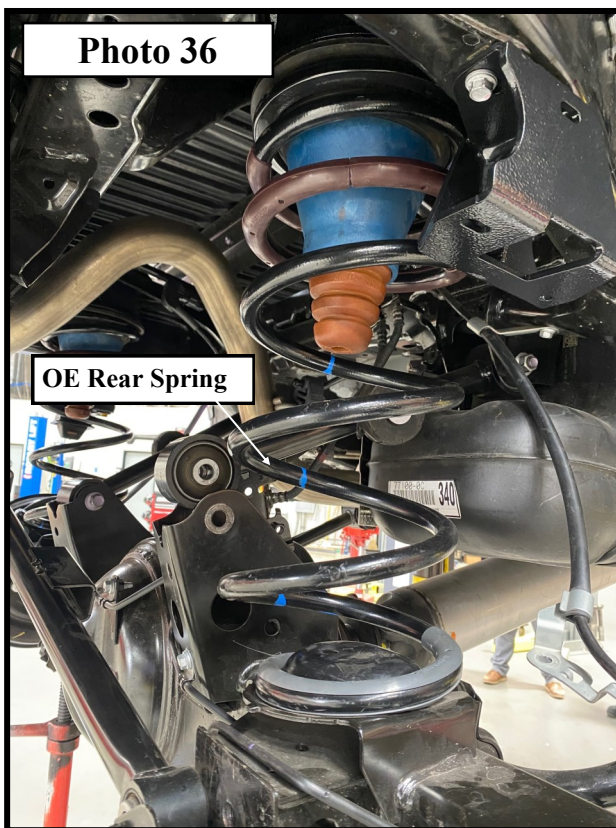
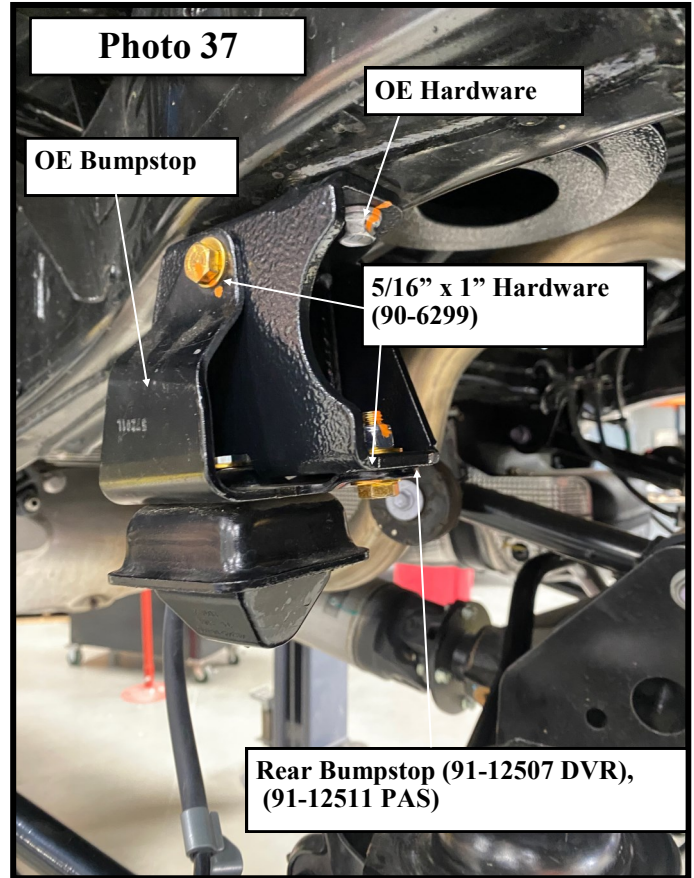
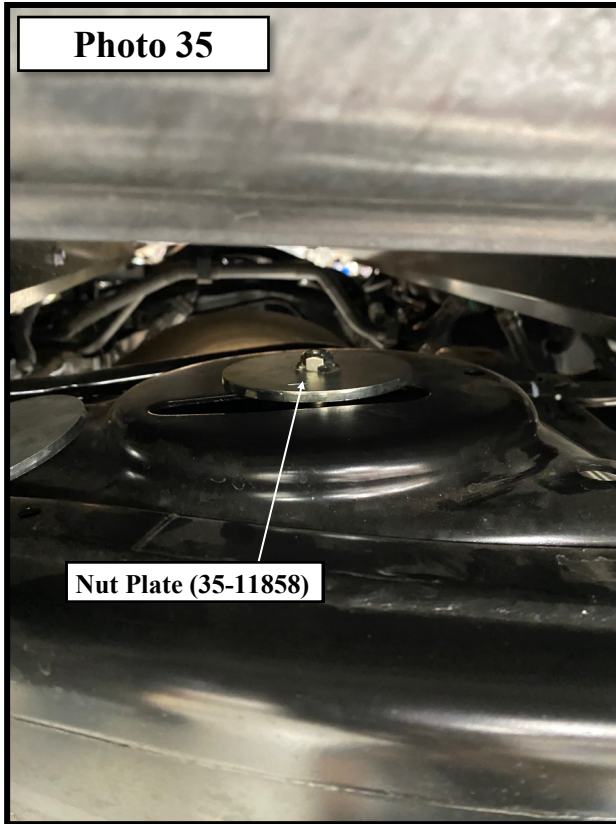
OE M8 bolt taken from front skidplate

Install sensor link into furthest hole on headlight sensor relocation bracket (90-13800)

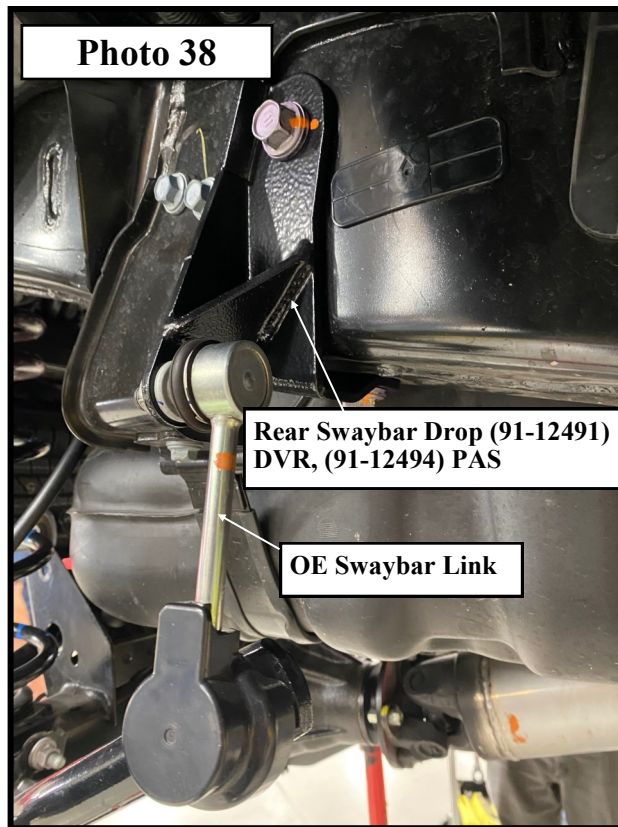


Photo 34

Rear Coil Spacer (91-12500)

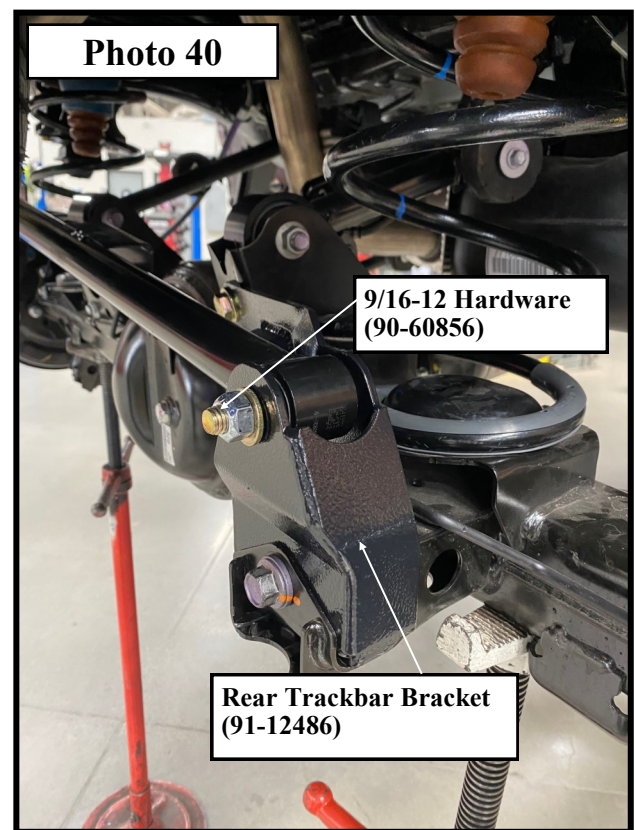
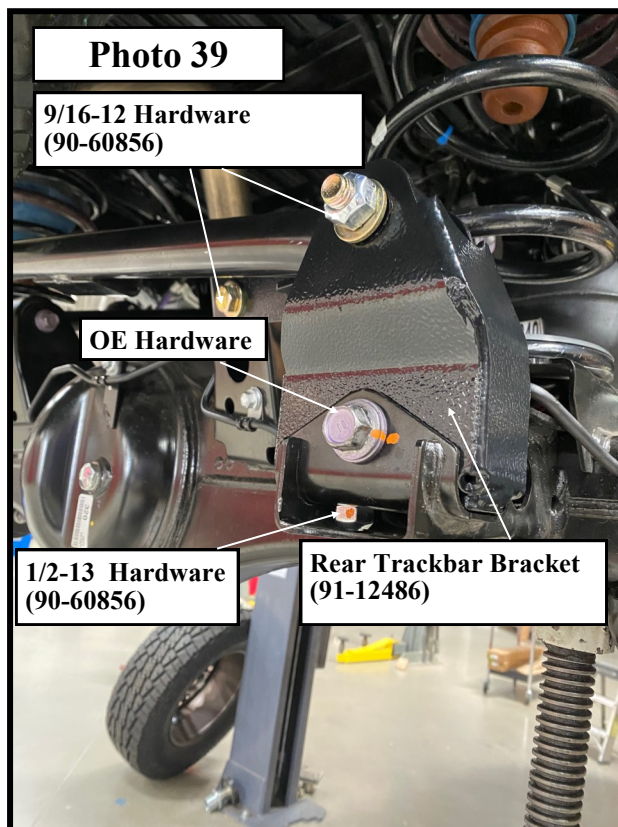


13. Install the rear coil spring spacer (91-12500) to the frame using the 3/8" hardware from pack (90-60854) and the nut plate (35-11858). You will need to reach over the frame to install the nut plate. Torque according to the chart on page 27. See **Photos 34, and 35**.
14. Reinstall the OE coil spring and bump stop. You will need to compress the spring and lift the axle to hold it in place for the remainder of the installation See **Photo 36**.
15. Install the OE bump stop on the bump stop bracket (91-12511 & 91-12507) using the 5/16" x 1" bolts and washers from pack (90-6299). Torque according to the chart on page 27. See **Photo 37**.
16. Install the bump stop assembly to the frame using the OE hardware. Torque to OE specs. See **Photo 37**.
17. Using OE hardware install the rear sway

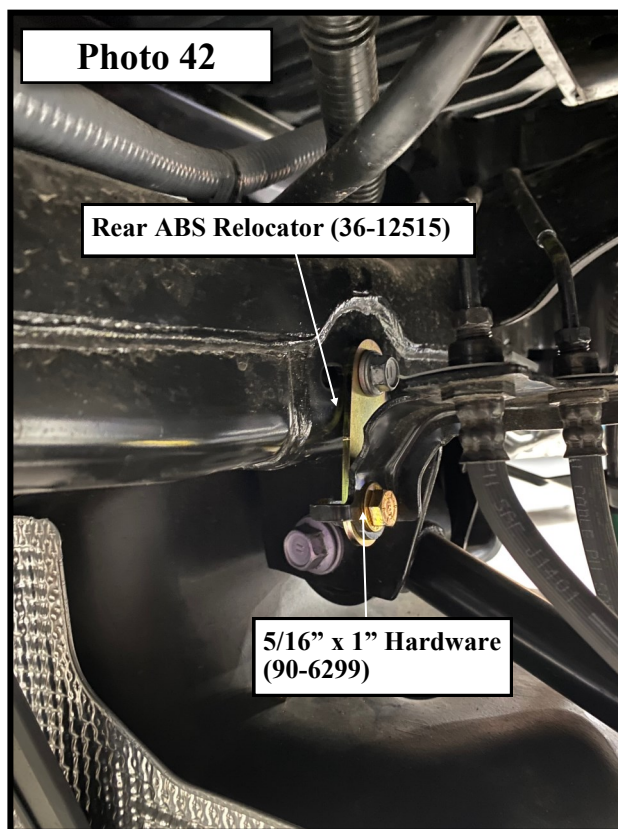
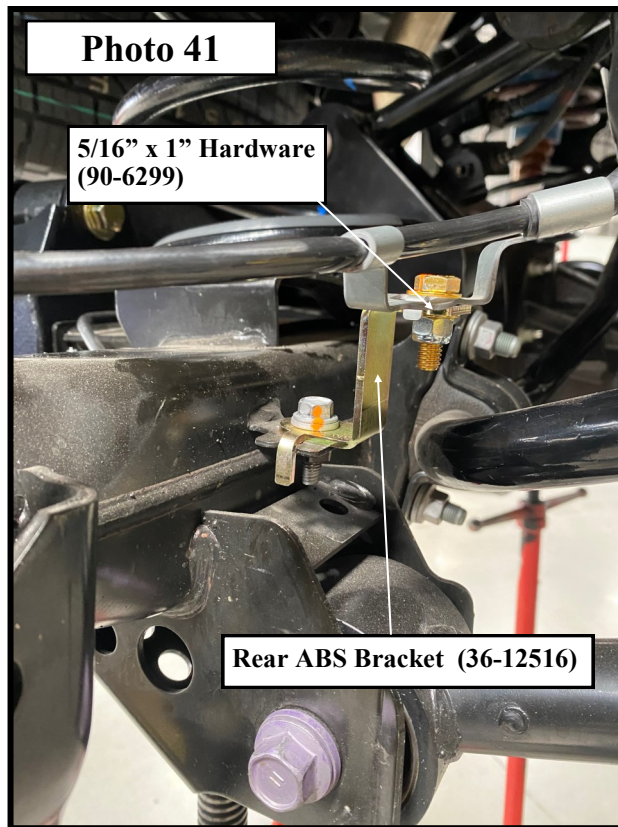


bar drop (91-12491 DVR & 91-12494 PAS). Torque to OE specs. See **Photo 38**.

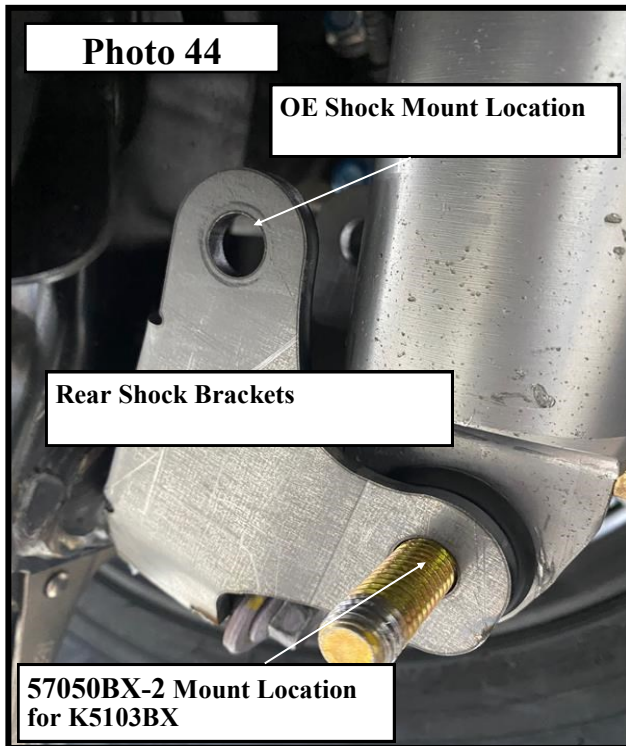
18. Reinstall the OE sway bar to the sway bar drops and axle using OE hardware.
19. Secure the track bar bracket (91-12486) to the track bar mount using pack (90-60856) and OE hardware. First hand tighten the 1/2-13 x 1 1/4 bolt and (2) washers through the top of the bracket while the nut goes beneath the bracket. Next hand tighten the OE hardware. Now use the 9/16-12 x 1 1/4" bolt to secure the track bar bracket to upper link axle mount. Now you may torque the bolts in the following order: first the 1/2 hardware, then the OE hardware, and finally the 9/16" hardware. Torque OE bolts to OE specs and torque supplied hardware according to the chart on page 27. See **Photo 39**.



20. Now connect the track bar to the track bar bracket using the 9/16-12 x 3 1/2 bolt form pack (90-60856). Hand tighten with the head of the bolt facing the front of the vehicle. See **Photo 40**.



21. Raise the rear axle the align the PAS upper link with the axle mount. Secure by hand tightening the OE hardware. See **Photo 40**.
22. Install rear ABS bracket (36-12516) using the OE hardware and (1) 5/16" x 1" bolt from pack (90-6299). One hardware pack will have enough bolts for both the DVR and PAS side. Torque according to the chart on page 27. See **Photo 40**.
23. Install the rear inboard brake line relocation (36-12515) using the OE hardware and (1) 5/16" x 1" bolt from pack (90-6299). One hardware pack will have enough bolts for both the top and bottom. Torque OE bolts to OE specs and torque supplied hardware according to the chart on page 27. See **Photos 42 and 43**.
24. Apply anti seize from pack (90-44153) to the inside bore of the tube of the rear shock extensions (91-12517 & 91-12521) and install using OE hardware and hardware



packs (90-60855 & 90-6318). Secure by installing the OE bolt through the lower shock mount. Insert the large crossmember sleeve (90-8233) into the shock eyelet. The supplied 3" bolt goes through the sleeve and the 3 3/4" bolt goes through the axle. Torque the 3 3/4" bolt to 70 ft-lbs. Torque OE bolts to OE specs and torque the remaining supplied hardware according to the chart on page 27. See **Photo 44**.

NOTE: *If installing K5103E or K5103EU, reinstall OE rear Shocks in the upper mounting location on Rear Shock Brackets, (91-12517 DVR, 91-12521 PAS). If installing K5103BX or K5103BXU, install Rear Shocks in lower mounting hole.*

25. Check all hardware at this time to ensure that everything is tight. Check for adequate clearance on all repositioned brake lines and emergency brake cables. Make sure you check with the suspension fully extended, and compressed.
26. Reinstall the wheels and lower the vehicle to the ground. Torque the lug nuts according to the wheel manufacturers recommendations.

27. Torque remaining fasteners. Torque OE bolts to OE specs and torque supplied hardware according to the chart on page 27.

IMPORTANT! BE SURE TO BRING THE VEHICLE IMMEDIATELY TO A REPUTABLE ALIGNMENT SHOP TO BE ALIGNED!

RECOMMENDED ALIGNMENT SPECS*		
ANGLE (Degrees)	MIN	MAX
CAMBER	+1.36	-1.35
CASTER	+2.24	+6.14
TOE-IN	+0.65	-0.41

NOTES:

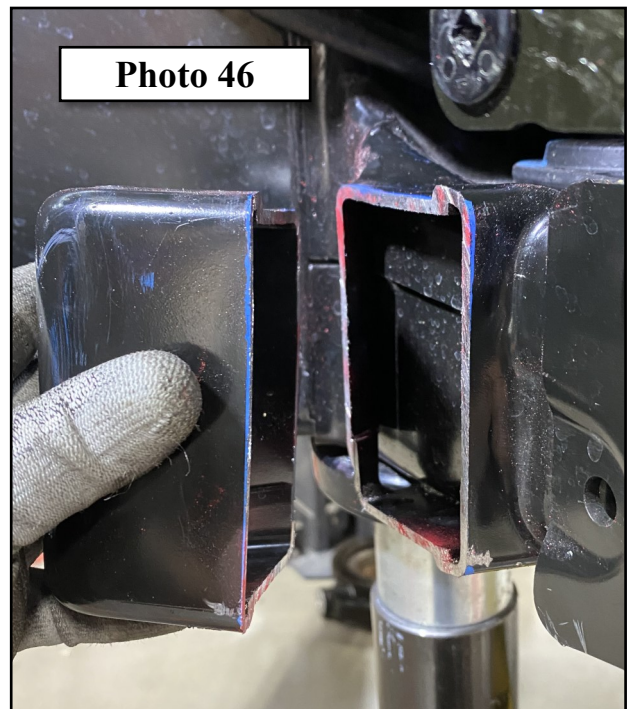
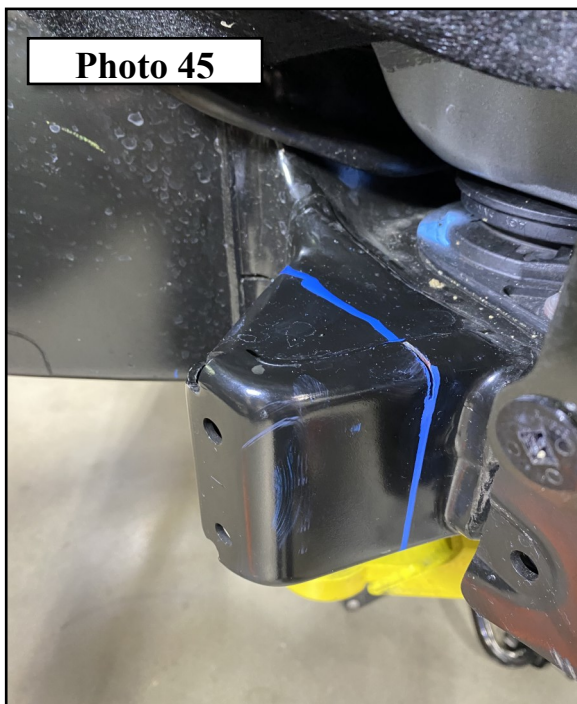
- ⇒ **On completion of the installation, have the suspension and headlights re-aligned.**
- ⇒ **After 100 miles recheck for proper torque on all newly installed hardware.**
- ⇒ **Recheck all hardware for tightness after off road use.**

37" Tire Front Trim Instructions:

1. In order to fit 37" tires, portions of the frame in the front wheel wells must be removed. Mark a line all the way around the horn the closest you can to the frame. See **Photo 45**.

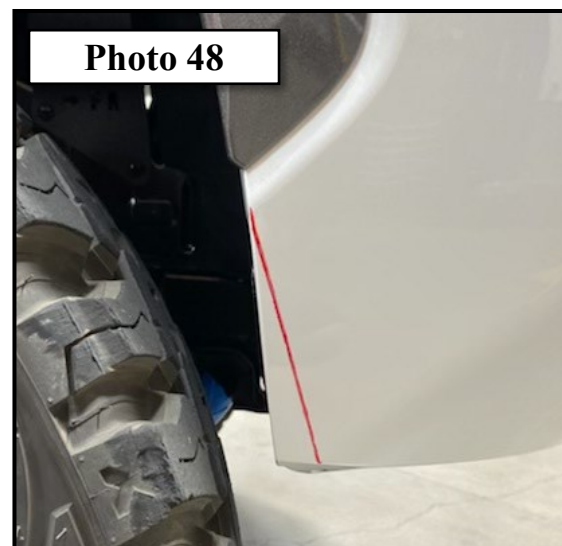
NOTE: Make sure the measurement is square and mark a line around the frame.

2. Using a suitable cutting tool, (abrasive cut-off wheel, Sawz-all, etc.) cut the frame along the previously marked lines as shown in **Photo 46**.
3. After cutting the section out of the frame, clean the area thoroughly and paint the exposed metal with a good quality paint.



4. On the front of the fender liner, mark and trim the felt up to the steel backing with appropriate tool. Approximately 2.75". See **Photo 47**.
5. If installing with 20x9 +0 offset wheels and 37's, use a paint pen, mark a line, and trim front fender until tire clears. Approximately the same as **Photo 48**.

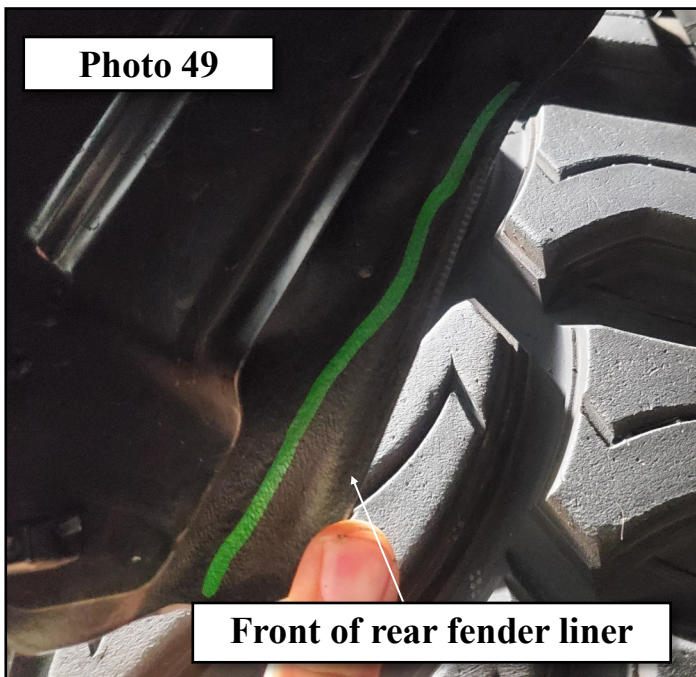
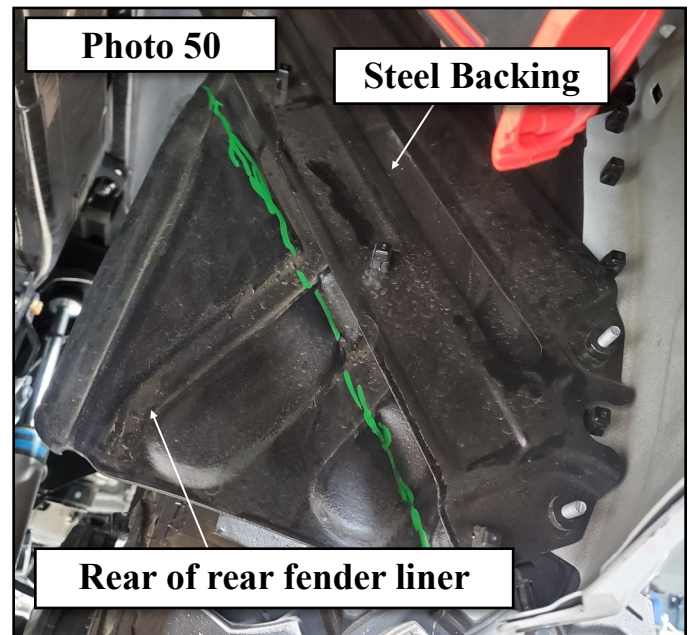
NOTE: 37" tires may still contact fender liner in certain circumstances.



37" Tire Trim Instructions:

4. On the front and rear of the rear fender liners, mark along the inside of the lining as close as you can to the steel backing. See **Photos 49 and 50**.
5. Using a heat gun heat the fender lining until it is pliable, and bend around the steel backing away from the tire. Bend it enough so that it stays angled away from the tire when cooled.

NOTE: *Be careful not to overheat the fender lining.*



Revisions Page:

Use this only as a guide for hardware without a called out torque specification in the instruction manual.

Bolt Torque and ID						
Decimal System			Metric System			
All Torques in Ft. Lbs. Maximums						
Bolt Size	Grade 5	Grade 8	Bolt Size	Class 9.8	Class 10.9	Class 12.9
5/16	15	20	M6	5	9	12
3/8	30	45	M8	18	23	27
7/16	45	60	M10	32	45	50
1/2	65	90	M12	55	75	90
9/16	95	130	M14	85	120	145
5/8	135	175	M16	130	165	210
3/4	185	280	M18	170	240	290

1/2-13x1.75 HHCS **Grade 5 Grade 8**
(No. of Marks + 2)

D T L X

G = Grade (Bolt Strength)
D = Nominal Diameter (Inches)
T = Thread Count (Threads per Inch)
L = Length (Inches)
X = Description (Hex Head Cap Screw)

M12-1.25x50 HHCS

D T L X

P = Property Class (Bolt Strength)
D = Nominal Diameter (Millimeters)
T = Thread Pitch (Thread Width, mm)
L = Length (Millimeters)
X = Description (Hex Head Cap Screw)



The PRO COMP PROMISE WARRANTY

At Pro Comp, we know you have many choices when selecting products to personalize your vehicle. You should demand nothing but the highest quality available and have total confidence that the products you selected are the best in the industry. It is for these reasons that Pro Comp Suspension products are backed by the best warranty in the industry...the Pro Comp Promise!

Pro Comp promises that its products will last a lifetime or we will replace it free of charge. It's that simple! Because of our commitment to quality and manufacturing excellence, we are able to stand behind our products. FOREVER.

It is Pro Comp's Promise that if one of our suspension products breaks not due to misuse, neglect or vandalism, we will replace it. Whether you are the original purchaser or not, you can be assured that we will make it right. The Pro Comp Promise covers all suspension products including shocks and steering stabilizers. Buy Pro Comp Suspension today and enjoy it for the rest of your life!

That's our Pro Comp Promise!

Notice to Owner, Operator, Dealer and Installer:

Vehicles that have been enhanced for off-road performance often have unique handling characteristics due to the higher center of gravity and larger tires. This vehicle may handle, react and stop differently than many passenger cars or unmodified vehicles, both on and off-road. You must drive your vehicle safely! Extreme care should always be taken to prevent vehicle rollover or loss of control, which can result in serious injury or even death. Always avoid sudden sharp turns or abrupt maneuvers and allow more time and distance for braking! Pro Comp reminds you to fasten your seat belts at all times and reduce speed! We will gladly answer any questions concerning the design, function, maintenance and correct use of our products.

Please make sure that the Dealer / Installer explains and delivers all warning notices, warranty forms and instruction sheets included with Pro Comp product.

Warranty and Return Policy:

Pro Comp warrants its full line of products to be free from defects in workmanship and materials for the life of the product. Pro Comp's obligation under this warranty is limited to repair or replacement, at Pro Comp's option, of the defective product. Any and all costs of removal, installation, freight or incidental or consequential damages are expressly excluded from this warranty. Pro Comp is not responsible for damages and / or warranty of other vehicle parts related or non-related to the installation of Pro Comp product. A consumer who makes the decision to modify his vehicle with aftermarket components of any kind will assume all risk and responsibility for potential damages incurred as a result of their chosen modifications. Warranty coverage does not include consumer opinions regarding ride comfort, fitment and design. Warranty claims can be made directly with Pro Comp or at any factory authorized Pro Comp dealer.

IMPORTANT! To validate the warranty on this purchase please be sure to mail in the warranty card.

Claims not covered under warranty

* Parts subject to normal wear; this includes bushings, bump stops, ball joints, tie rod ends and heim joints.

* Finish after 90 days.

* Damage caused as a result of not following recommendations or requirements called out in the installation manuals.

Pro Comp MX Series coil-over shocks are considered a serviceable shock with a one-year warranty against leakage only. Rebuild service and replacement parts will be available and sold separately by Pro Comp. Contact Pro Comp for specific service charges. Pro Comp accepts no responsibility for any altered product, improper installation, lack of or improper maintenance or improper use of our products.

E-Mail: info@procompusa.com
Website: www.procompusa.com
Fax: (310) 747-3912
Ph: 1-800-776-0767

PLACE
WARRANTY REGISTRATION
NUMBER
HERE: _____