TRAIL FORTRESS

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Rough Country 66030 Installation Instructions

66030

Part number: 66030

trailfortress.com/rough-country-6-inch-lift-kit-66030

Scan for fitment, price and install help

ROUGH COUNTRY SUSPENSION SYSTEMS®

61930BAG

2018 - UP JLU 4” & 6” Long Arm Kits

Thank you for choosing Rough Country for all of your suspension needs.

Rough Country recommends that 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 all the instructions before beginning the installation. Check the kit hardware against the ‘’Kit Contents’’ list below. If question exist, please call us @1-800-222-7023. We will be happy to answer any questions concerning this product. Check all fasteners for proper torque. Check to ensure for adequate clearance between all components. Check and retighten wheels at 50 miles and again at 500 miles. Periodically check all hardware for tightness. Be sure you have all the needed parts and understand where they go. Also, please review the “Tools Needed” list to be certain you have the necessary tools to complete the installation.

PRODUCT USE INFORMATION

⚠WARNING As a general rule, the taller a vehicle is the easier it will roll. We strongly recommend that seat belts and shoulder harnesses be worn at all times. Braking performance and capabilities are decreased when significantly larger/ heavier tires and wheels are used. Do not add, alter, or fabricate any factory or after-market parts which increase vehicle height over the intended height of the Rough Country product purchased. 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.

TIRE FITMENT

This kit was developed using a 37-12.5r18 for a no rub on 18 x 9 0 offset wheel. Due to differences in manufacturing, dimension and inflated measurements, tire and wheel combinations should be test fit prior to installation.

NOTICE TO DEALER AND VEHICLE OWNER

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



RC ROUGH COUNTRY

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2018 - UP JLU 4” Long Arm Kit

TOOLS NEEDED:

Jack
Safety Stands
Wheel Chocks
Pliers
Pry Tool
Reciprocating Saw
Hand Grinder
Sander
Paint
T50
Adjustable Wrench
Metric Wrench/Socket
10mm
13mm
15mm
18mm
21mm
24mm
SAE Wrench/Socket
7/16”
1/2”
9/16”
3/4”

11061 Track Bar Box

Front Track Bar

Shock Box

Front (2)
Rear (2)

5090.1 Front Driveshaft Box

Front Driveshaft (1)
Front Diff Yoke (1)
Trans Case Yoke (1)
U-Bolts (2)
5/16” x 1.25” Bolt (4)

61930 Box 1

Driver Front UCA (1)
Pass Front UCA (1)
Driver Front LCA (1)
Pass Front LCA (1)
Quick Disconnect Sway Bar End Link Kit (1)
Front Bump Stop (2)

1609Bag7 Hardware Bag

3/8” x 3” Bolt (2) FBS
3/8” Washer (2) FBS
3/8” Flange Nut (2) FBS

61930 Box 2

Rear UCA (2)
Rear LCA (2)
Rear Bump Stop (2)

1609Bag6 Hardware Bag

3/8” x .75” Bolt (4) RBS
3/8” Washer (4) RBS
3/8” Flange Nut (4) RBS

9238 Front Coil Spring Box

4 Door 4” Front Coil Spring (2)

9239 Rear Coil Spring Box

4 door 4” Rear Coil Spring (2)

61930 Box 3

Driver Front CA Bracket (1)
Pass Front CA Bracket (1)
Driver Rear CA Bracket (1)
Pass Rear CA Bracket (1)
Rear Track Bar Bracket (1)
Rear Sway Bar End Link (2)
Rear Sway Bar Spacer (2)
Front Middle Flag Nut (2)
Driver Front Forward Flag Nut (1)
Pass Front Forward Flag Nut (1)
Driver Front Rearward Flag Nut (1)
Pass Front Rearward Flag Nut (1)
Rear Short Flat Nut (2)
Rear Long Flat Nut (2)
Driver Rear Brake Line Bracket (1)
Pass Rear Brake Line Bracket (1)

61930Bag2 Hardware Bag

12mm x 90mm Bolt (2)
12mm Washer (4)
12mm Lock Nut (2)
16mm x 110mm Bolt (2)
16mm Washer (4)
16mm Lock Nut (2)

61930Bag3 Hardware Bag

1/4” x 1” Bolt (2)
1/4” Washer (2)
1/4” Lock Nut (2)
1/2” x 1.5” Bolt (16)
1/2” Washer (18)
1/2” Lock Washer (14)
1/2” Lock Nut (2)
Hose Clamp

65531Bag4 Hardware Bag

Crush Sleeve (1)
10mm x 55mm Bolt (4)
10mm Washer (4)
10mm Lock Washer (4)
12mm x 65mm Bolt (6)
12mm Washer (6)
12mm Flange Nut (6)
14mm x 80mm Bolt (1)
14mm Washer (2)
14mm Lock Nut (1)
7/16” x 1.25” Bolt (3)
7/16” Washer (6)
7/16” Lock Nut (3)

66830Bag2 Hardware Bag

Driver Front Brake Line Bracket (1)
Pass Front Brake Line Bracket (1)
1/4” x 1” Bolt (2)
1/4” Washer (4)
14” Lock Nut (2)

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2018 - UP JLU 6” Long Arm Kit

TOOLS NEEDED:

Jack
Safety Stands
Wheel Chocks
Pliers
Pry Tool
Reciprocating Saw
Hand Grinder
Sander
Paint
T50
Adjustable Wrench
Metric Wrench/Socket
10mm
13mm
15mm
18mm
21mm
24mm
SAE Wrench/Socket
7/16”
1/2”
9/16”
3/4”

11061 Track Bar Box

Front Track Bar

Shock Box

Front (2)
Rear (2)

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Front Driveshaft (1)
Front Diff Yoke (1)
Trans Case Yoke (1)
U-Bolts (2)
5/16” x 1.25” Bolt (4)

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Pass Front UCA (1)
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Pass Front LCA (1)
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3/8” x 3” Bolt (2) FBS
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3/8” Flange Nut (2) FBS

61930 Box 2

Rear UCA (2)
Rear LCA (2)
Rear Bump Stop (2)

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3/8” x .75” Bolt (4) RBS
3/8” Washer (4) RBS
3/8” Flange Nut (4) RBS

9409 Front Coil Spring Box

4 Door 6” Front Coil Spring (2)

9410 Rear Coil Spring Box

4 Door 6” Rear Coil Spring (2)

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Pass Rear CA Bracket (1)
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Rear Sway Bar Spacer (2)
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Driver Front Forward Flag Nut (1)
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Pass Rear Brake Line Bracket (1)

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1/2” x 1.5” Bolt (16)
1/2” Washer (18)
1/2” Lock Washer (14)
1/2” Lock Nut (2)
Hose Clamp

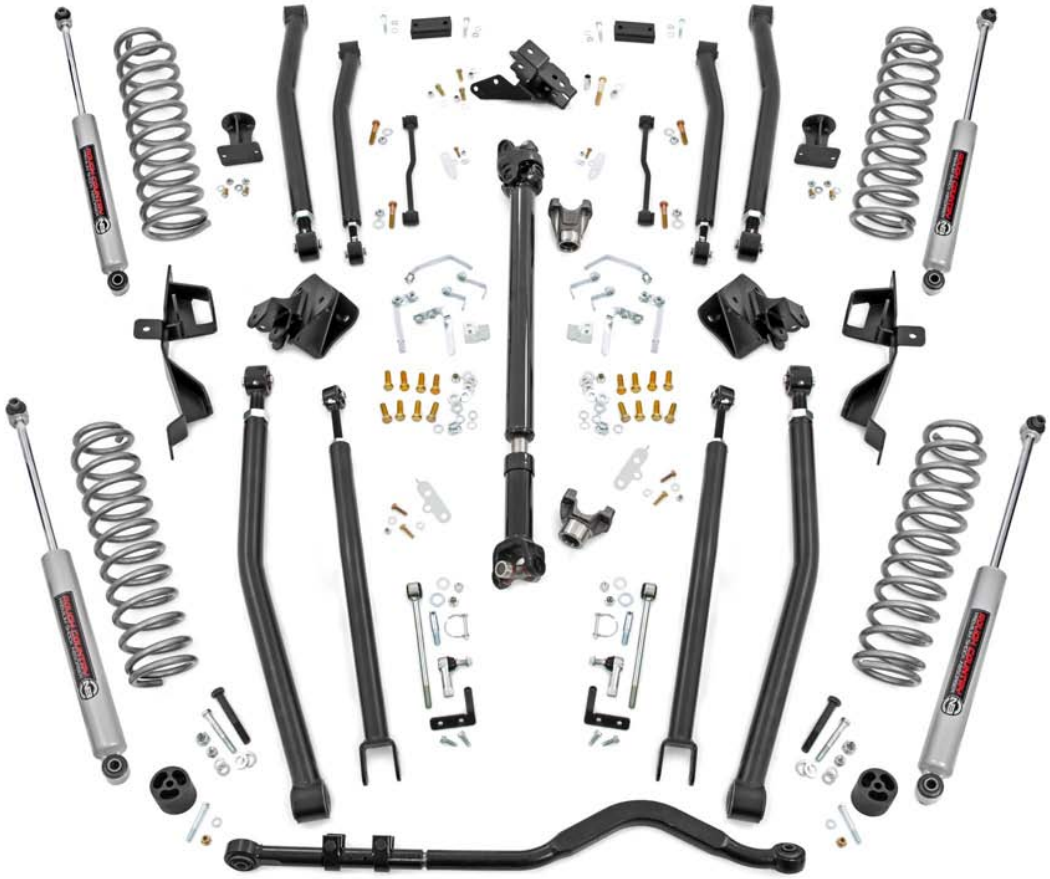
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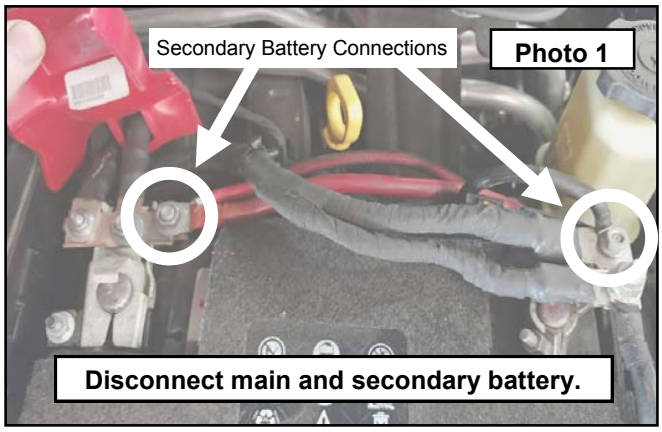
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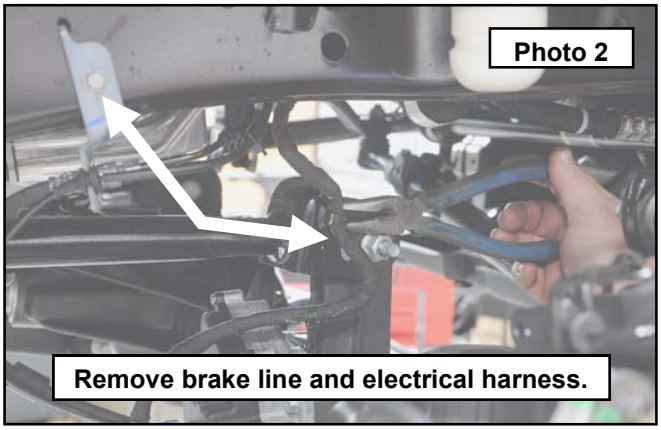
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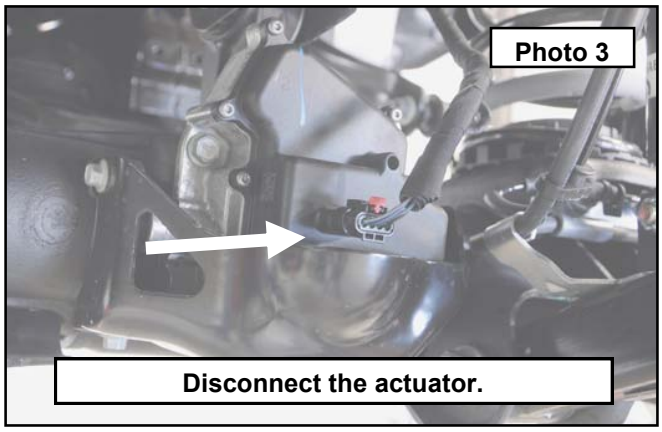
Front Installation

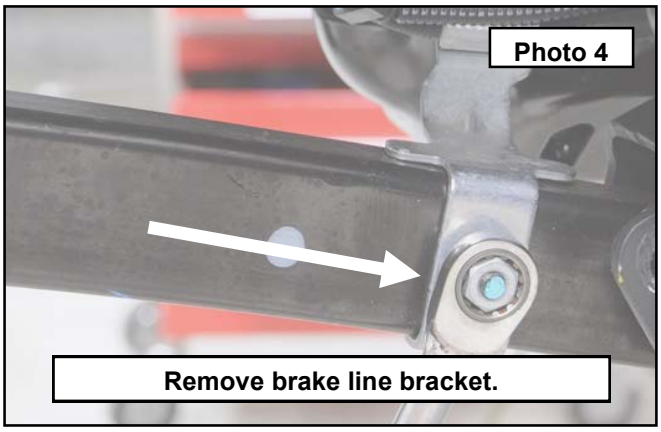
1. Park your vehicle on a clean flat surface, engage the parking brake and block the rear tires.
2. Jack the front of the vehicle up and place safety stands at the indicated lift points for the frame in the service manual. Remove the front wheels and set aside.
3. **Save all hardware removed from the vehicle unless otherwise noted.**
4. Open the hood and disconnect the negative terminal on the main battery and all models with AutoStart/Stop will need to disconnect the secondary battery by removing the cables from the main battery connectors as well. Failure to do so will still allow all electrical systems to still have 12 volt power. **Photo 1**
5. Use a jack to support the axle, remove the brake line bracket at the frame using a 10mm socket and the ABS harness clips from the frame and control arm. **RUBICON MODELS:** Remove the locker electrical connector and harness clips on the driver side frame rail. (At the frame rails on the driver side will be the locker harness that is held in with two clips. Remove both clips and put the upper clip in the lower clip hole. On the passenger side you will find the harness has a service loop held up by a zip tie. Cut this zip tie to extend the harness.) **Photo 2**



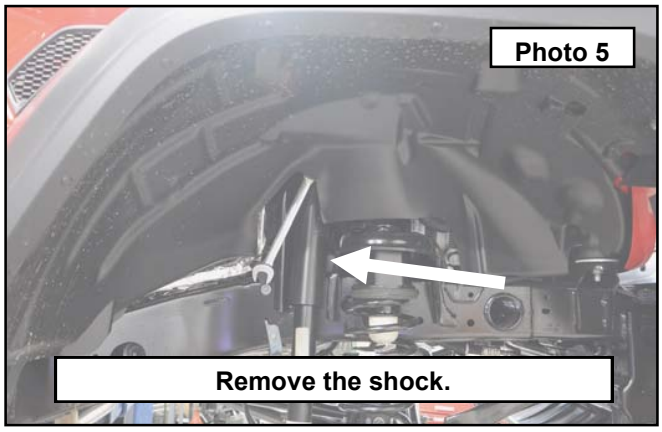


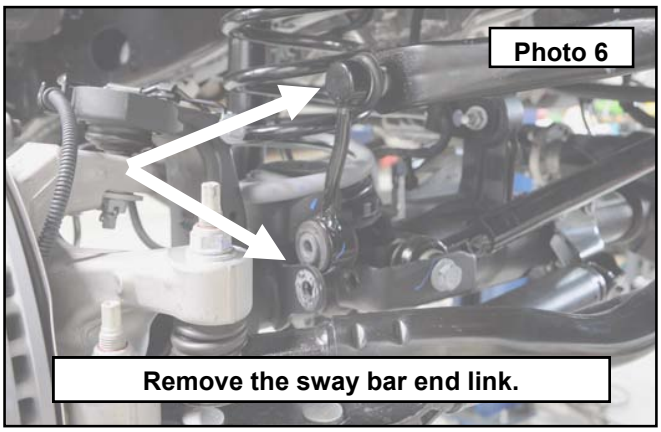
6. Disconnect the electrical connector at the axle actuator. **Photo 3**
7. Remove the brake line bracket on the lower control arm using a 15mm wrench. **Photo 4**





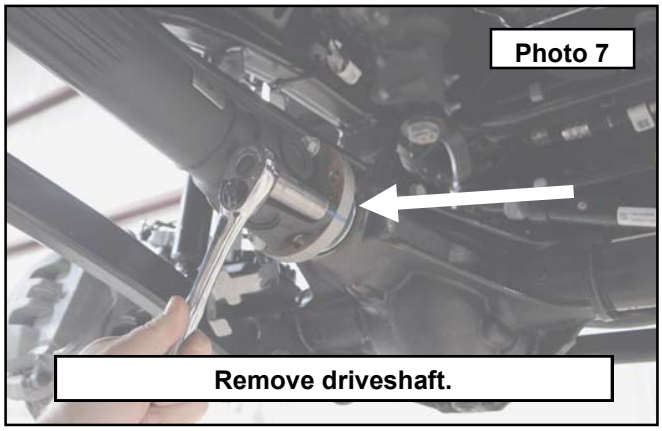
8. Remove the upper and lower shock hardware using a 18mm wrench. **Photo 5**
9. Remove the sway bar end links from the axle and sway bar using a 18mm wrench. Swing the sway bar up and out of the way. **Photo 6**

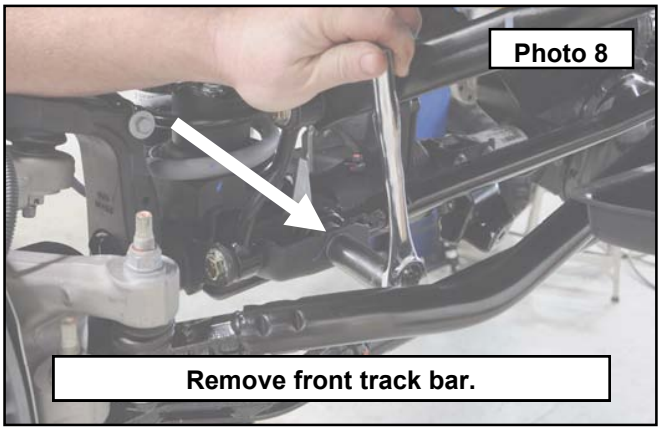




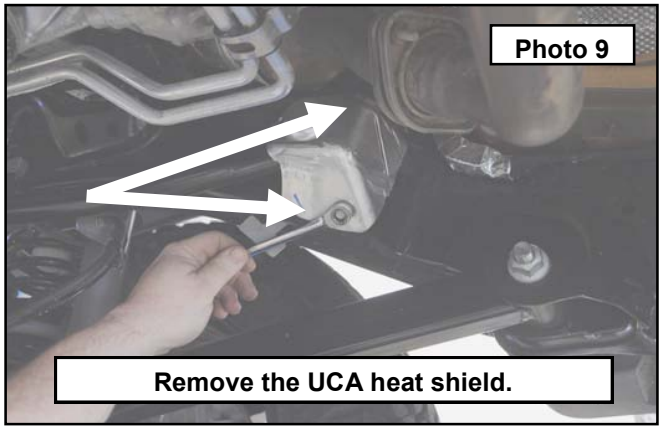
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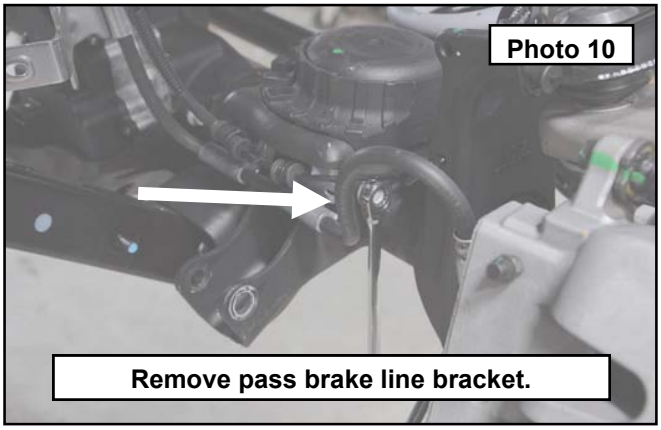
10. Remove the front driveshaft from the pinion using a 15mm socket and from the transfer case using a T50 Torx bit and discard all. You will be replacing the yokes and the driveshaft with supplied parts in a later step using the provided instructions with the driveshaft. **Photo 7**
11. Remove the front track bar at the axle and the frame using a 21mm wrench/socket. **Photo 8**



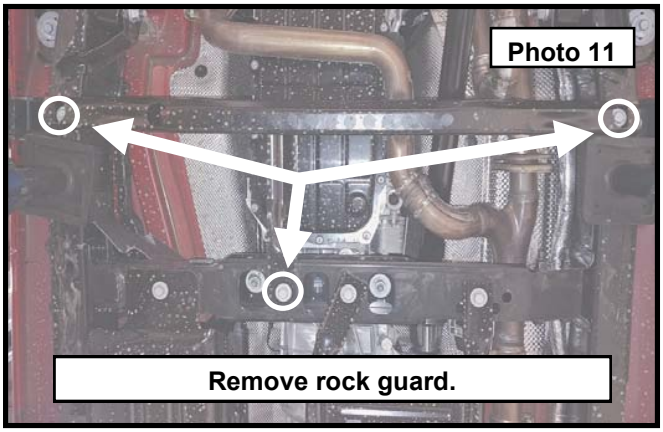


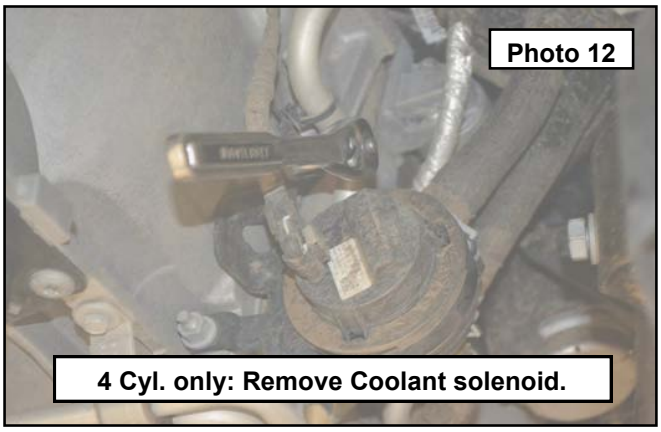
12. Remove the upper control arm heat shield using a 10mm wrench and discard. Loosen but do not remove the upper and lower control arms at the frame and axle using 21mm, 24mm wrench/sockets. **Photo 9**
13. Lower the axle low enough to remove the front springs making sure to not over extend any brake, ABS, or electrical lines. Adjust as necessary.
14. Remove the brake line bracket on the passenger side spring mount using a 10mm wrench and let hang out of the way. This allows access to install the bump stop at a later step. **Photo 10**





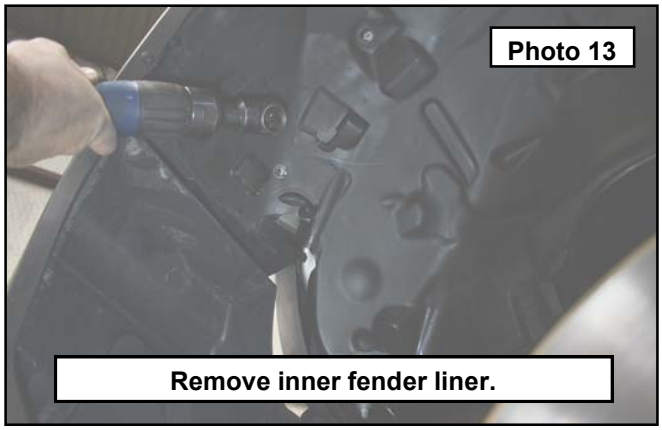
15. Remove the exhaust / transmission rock guard from the frame and transmission cross member using a 18mm socket. **Photo 11**
16. Fully support the axle with stands. Remove the upper and lower control arms completely to prepare the frame for cutting of the pockets.
17. **4 Cylinder Models Only:** To remove the upper UCA bolt on the passenger side, the coolant solenoid on the engine block must be moved up and out of the way. Remove the bracket holding this to the engine block using a 13mm socket. Pull off the stud and push up out of the way. Once UCA bolt is out, reinstall and torque to **10 ft-lbs**. **Photo 12**

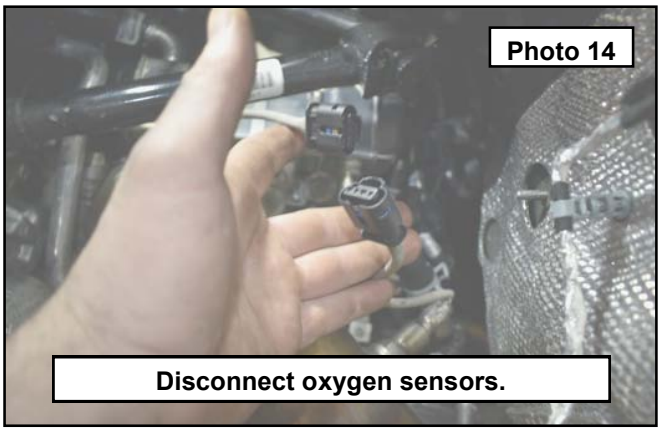




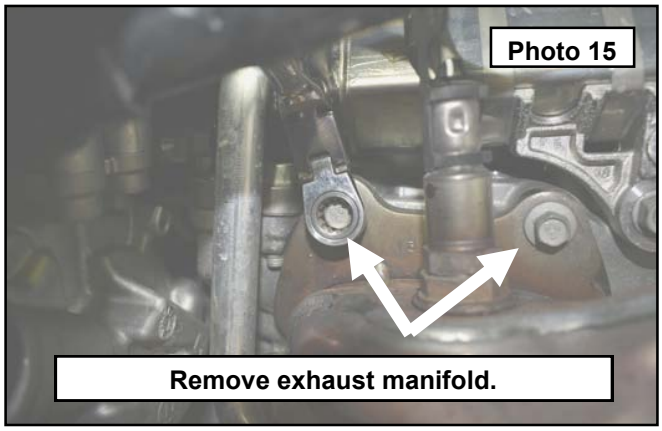
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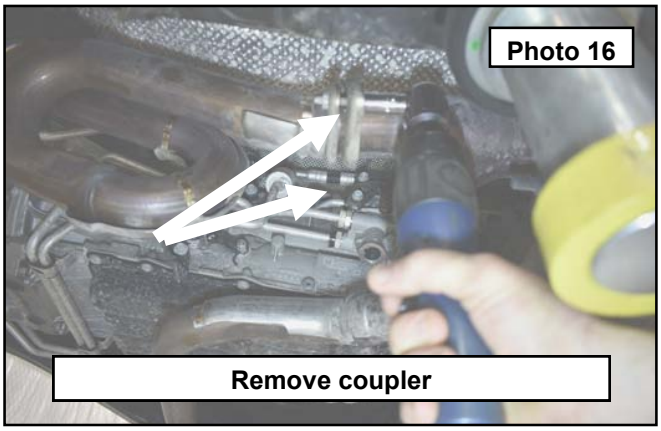
18. **Exhaust Steps 18 to 22 for 6 Cylinder Only:** To aid in drilling out the holes for the new brackets on the driver side, you will want to remove the exhaust manifold and trumpet pipe. Start by removing the inner fender liner on the driver side using a 8mm socket and pry tools. **Photo 13**
19. Disconnect the electrical connectors for the oxygen sensors and let hang out of the way. **Photo 14**



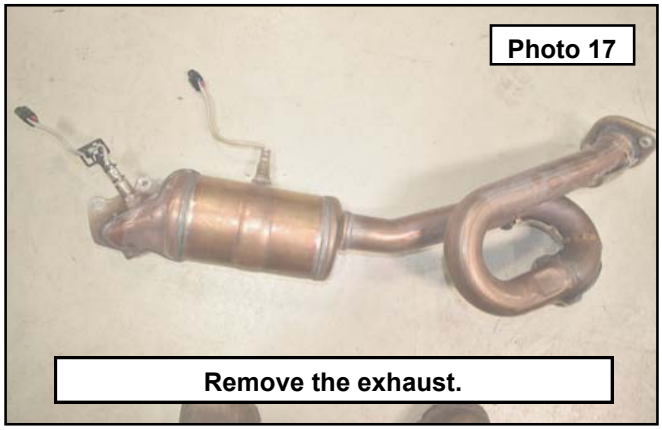


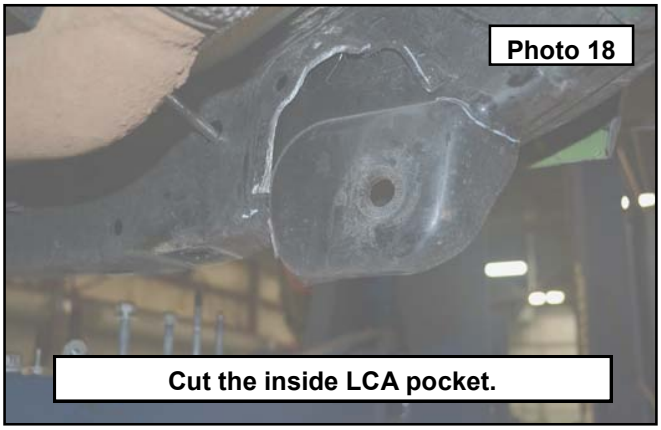
20. Remove the manifold bolts using a 15mm wrench. **Photo 15**
21. Remove the exhaust coupler using a 13mm socket. **Photo 16**





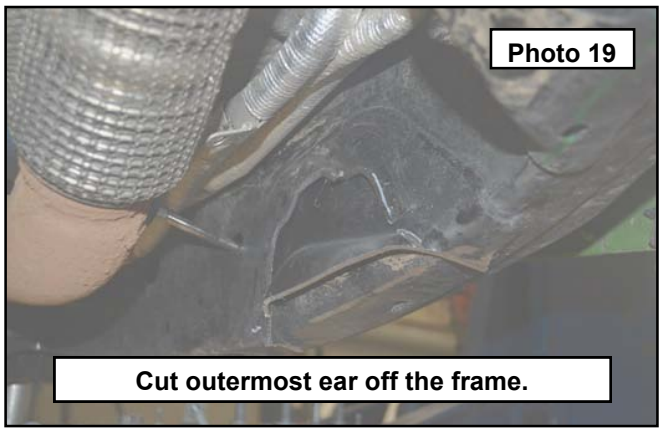
22. Remove the exhaust assembly from the vehicle and set aside. **Photo 17**
23. On the driver side lower control arm mount there are transmission and fuel lines. Remove any clamps holding these to the frame rail and control arm pocket. Push the lines up and out of the way so that you have a clear area to work with when cutting off the control arm pockets. Use of a punch in a frame hole used to hold the lines out of the way will help to hold the lines out of the way. **DO NOT** bend, crimp, or cut the lines when moving/working around.
24. Mark the upper and lower control arm pockets following the welds as a guide. Use a suitable cutting tool (reciprocating saw with a metal cutting blade recommended), cut the LCA pocket ear off inside the frame rail. **Photo 18**

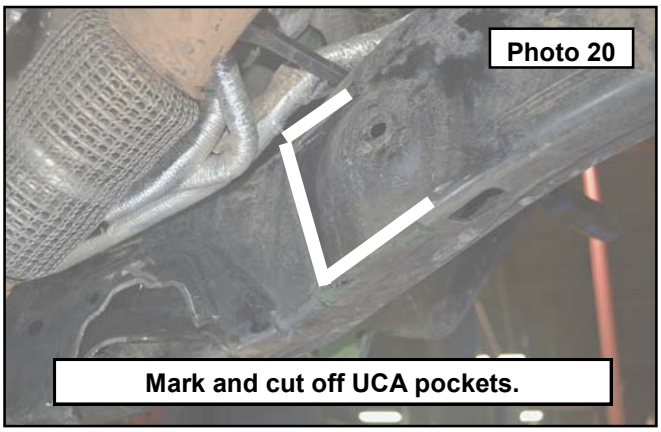




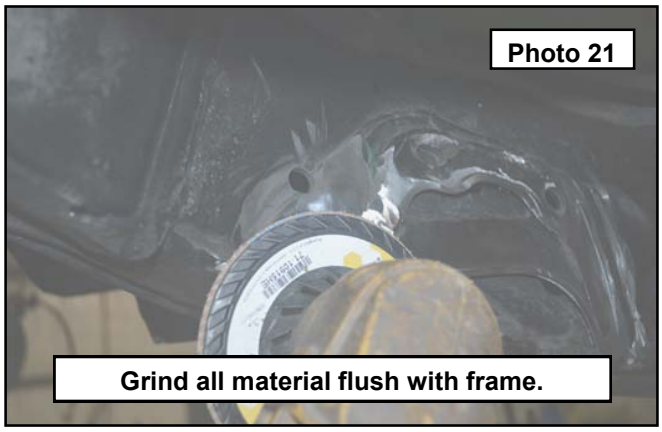
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25. Cut the outside pocket off the frame**. Photo 19**
26. Mark the upper control arm pocket as shown. Cut off the pocket using the marks made. **Photo 20**





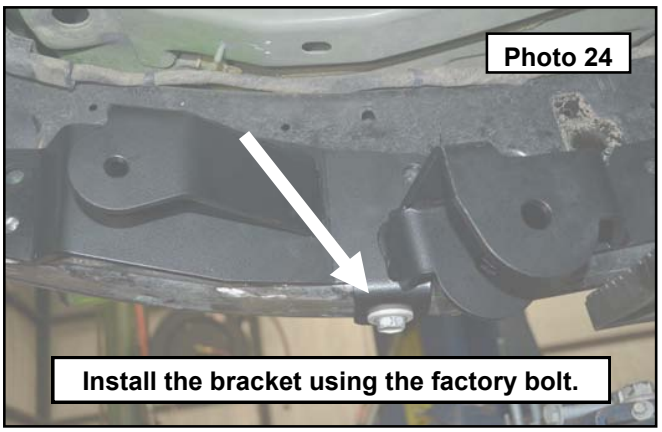
27. Using a grinder, grind all of the remaining material off flush with the frame. **DO NOT** cut or grind into the frame rail. **Photo 21**
28. On the passenger side, remove and discard the plastic shield on the frame and transmission cross member using a 10mm socket. **Photo 22**





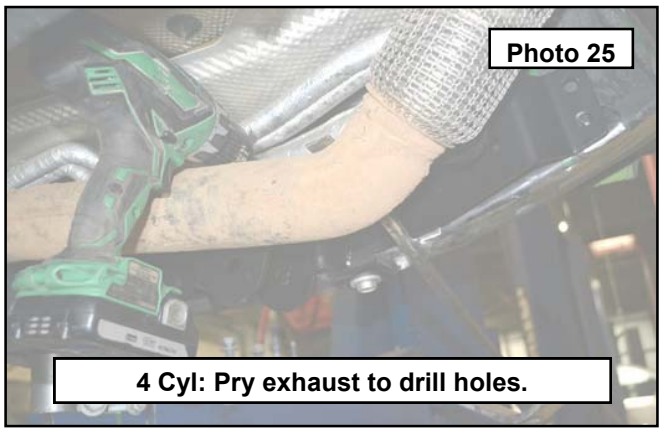
29. 4 Cylinder Models Only: Remove the exhaust hanger on the transmission mount using a 13 mm socket. This will allow you to maneuver the exhaust out of the way for drilling the driver side frame rail. **Photo 23**
30. Install the long arm brackets to the frame using the previously removed frame hardware from the transmission rock guard on the bottom of the frame rail. Run tight to hold the bracket in place. Mark the 5 remaining bolt holes with a paint pen. Center punch the holes. **Photo 24**

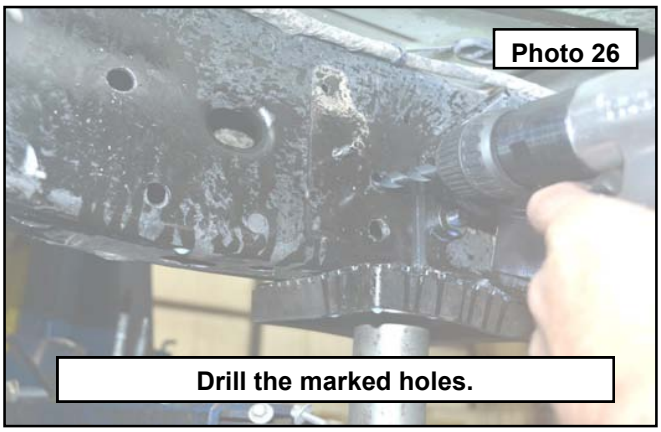




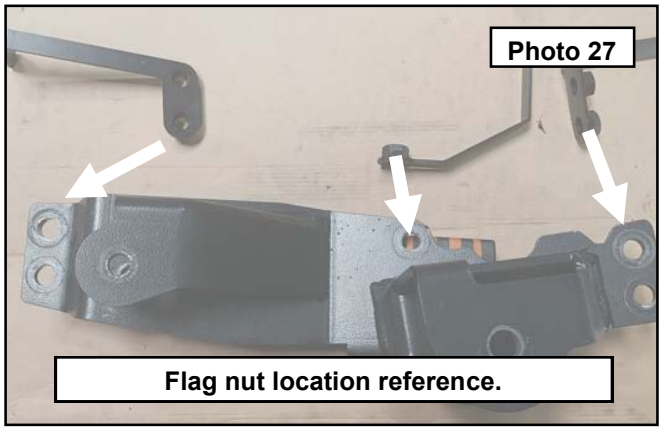
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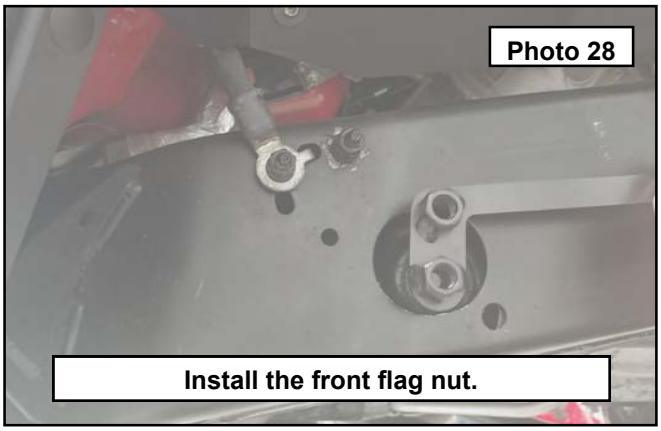
31. 4 Cylinder Models: Use a pry bar to maneuver the exhaust so that you can drill the frame. **Photo 25**
32. Remove the bracket to cleanly drill the holes. Drill the marked points with a 1/2” drill bit. **DO NOT** drill through both sides of the frame rail. You only need to drill through the inner frame rail. Once the holes are drilled, clean any burrs and paint all the exposed metal with a quality rust preventative paint. **Photo 26**



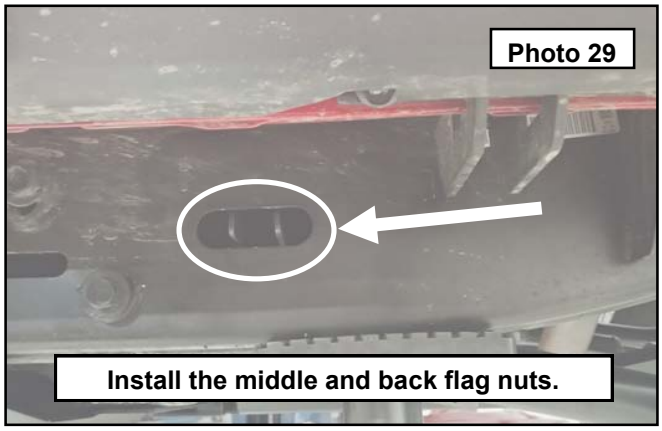


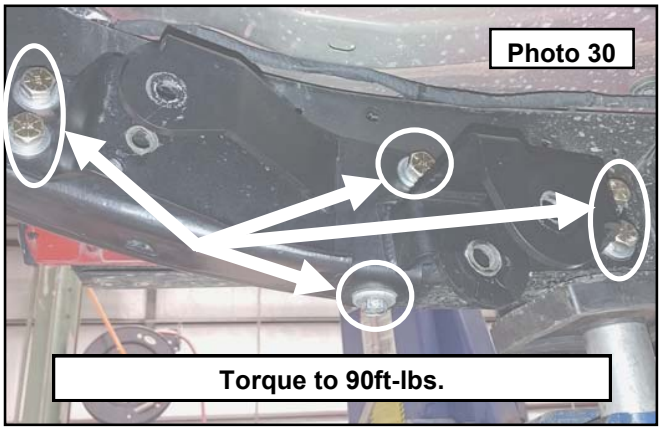
33. Install the bracket back to the frame using the factory hardware and the provided 1/2” bolts, lock / flat washers, and flag nuts. The photo shows the locations of each flag nut as they pass through the frame from the outside. The front and rear flag nuts are driver and passenger side specific to line up. Make sure to use the correct ones in the correct sides. (Passenger side shown.) **Photo 27**
34. The front flag nut will go into the round hole on the frame located on the outside of the frame in the back of the front wheel well. **Photo 28**





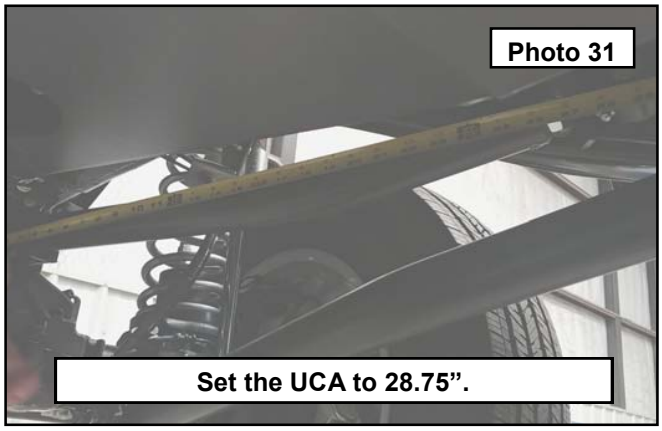
35. The remaining two flag nuts for the middle and the rearmost holes in the bracket will enter the outer frame rail oval hole behind the front body mount. The middle flag nut is universal for either side while the rear is pass and driver specific to line up. **Photo 29**
36. Start the 1/2” hardware, and once all are started torque all the bolts to **90 ft-lbs** using a 3/4” and 18mm socket. **Photo 30**

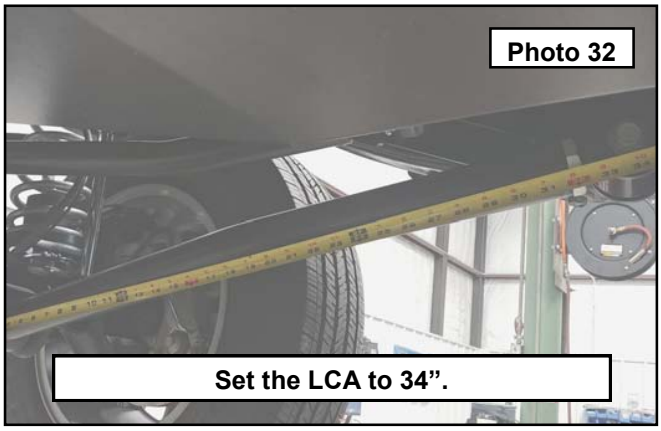




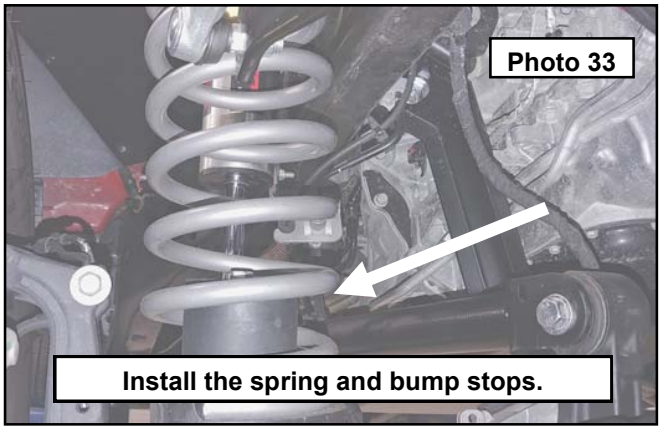
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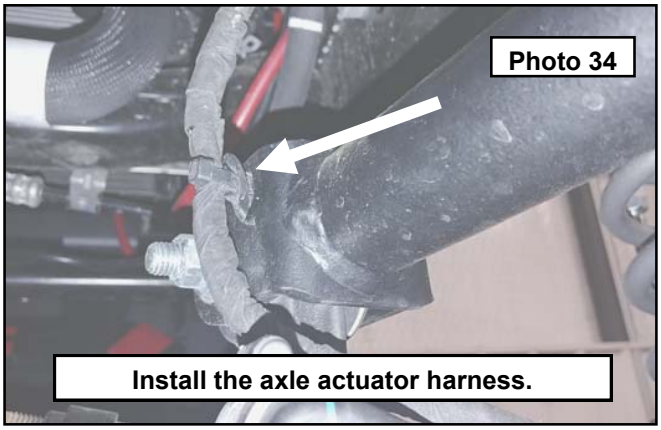
37. Install the upper arms to the axle end with the bend towards the engine bay and the ground using the factory hardware. **DO NOT** tighten at this time. Adjust the control arm to 28.75” when measured from the center of eyelet to eyelet and install to the bracket using the factory hardware. Make sure the Zerk fitting is installed pointing to the ground for ease of maintenance. **Photo 31**
38. Install the front lower control arms with the bend in and up towards the engine bay using the factory hardware. **DO NOT** tighten at this time. Adjust the control arm to 34” when measured from the center of the eyelet to eyelet and install to the bracket using the factory hardware. Make sure the Zerk fitting is pointing to the body for protection from obstacles. **All measurements are a base line and may need to be adjusted once on an alignment rack to insure proper caster, pinion angle, and thrust angle. Photo 32**



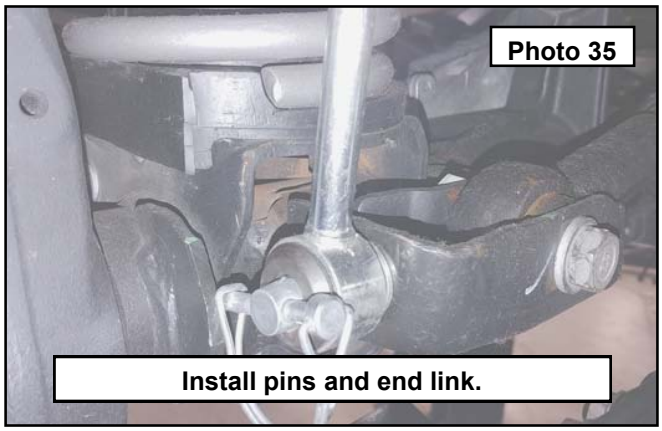


39. Install the springs and the bump stop extensions using the provided 3/8” x 3” bolts, flat washers, and nuts with 9/16” wrench / socket. Torque to **35 ft-lbs**. **Photo 33**
40. Reconnect the axle actuator connector on the passenger side and install the wire harness clip to the hole in the upper control arm. **RUBICON MODELS:** Reconnect the locker connector and install the wire harness clip to the hole in the driver side upper control arm. **Photo 34**





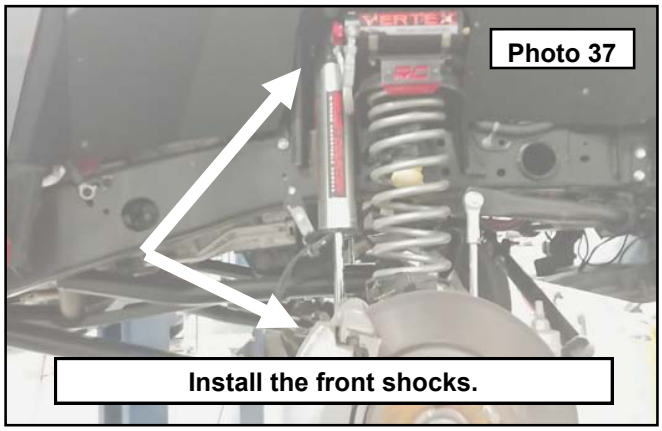
41. Install the quick disconnect end links according to the provided instructions using the provided hardware. **Photo 35**
42. Install the front track bar to the axle and the frame using the factory hardware. **DO NOT** tighten at this time. Adjust the length of the track bar using the on car adjuster to 34.25” when measured from the center of the eyelets. **This measurement is a starting point and will need to be verified once the vehicle is on the ground for axle centerline. Photo 36**

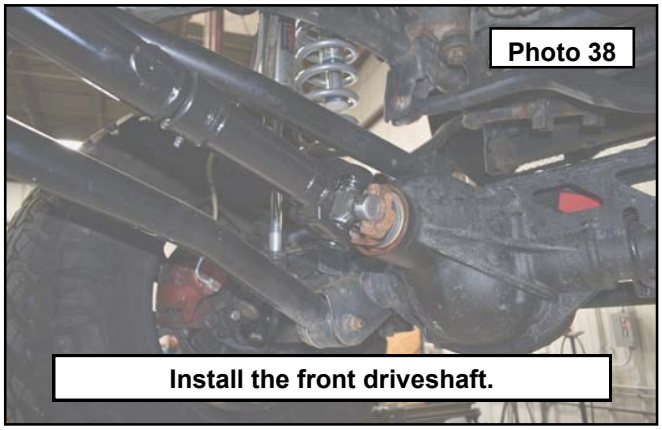




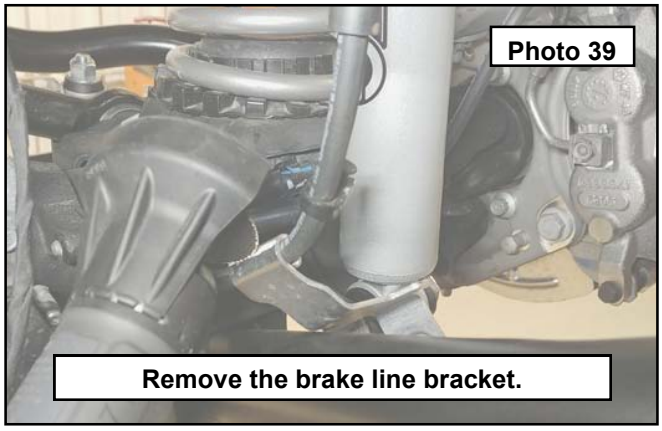
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43. Install the front shocks using the factory hardware. Vertex and N3 shocks will use the provided instructions for those shocks. **DO NOT** tighten at this time. **Photo 37**
44. Install the front driveshaft according to the provided instructions and using the provided hardware in the driveshaft box. **Photo 38**



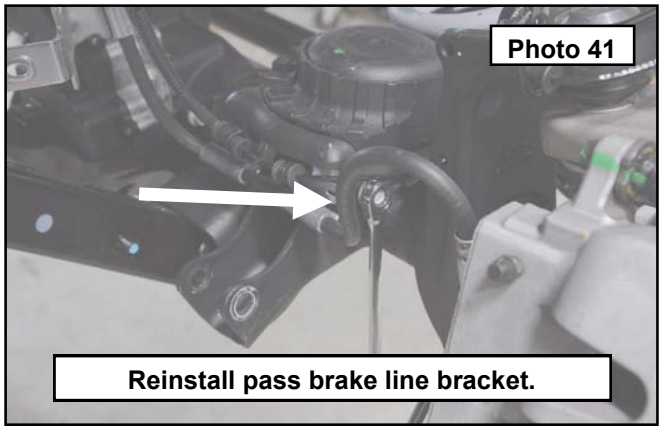


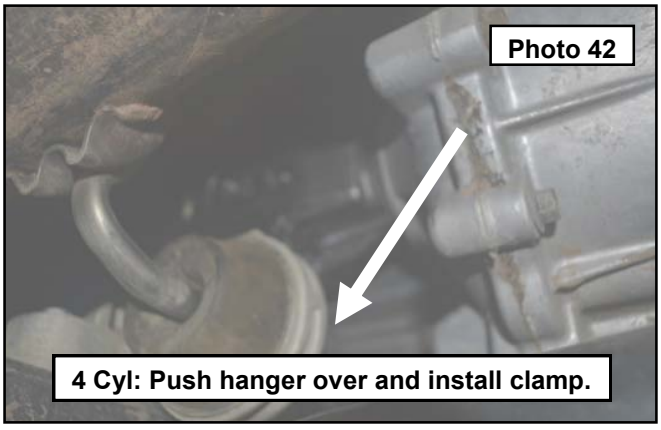
45. Use a suitable cut off tool (cut off disc shown), score a line into the brake line bracket taking care to not cut into the rubber line. Once the score is deep enough, use a pair of pliers to open the bracket and discard. **Photo 39**
46. Install the front brake line extension brackets to the frame using the factory hardware and 10mm socket. Install the factory brake line bracket to the extension using the provided 1/4" x .75" bolts, washers, and nuts and 7/16" wrench/ socket. **Photo 40**





47. Reinstall the pass brake line bracket to the axle using the factory hardware and 10mm wrench. Torque all to **5 ft-lbs**. **Photo 41**
48. **4 Cylinder Models Only:** Reinstall the exhaust hanger onto the transmission cross member using the factory hardware and 13mm socket. Torque to **10 ft-lbs**. Once installed, push the exhaust pip to the passenger side so that you gain 1/4" clearance between the control arm bracket and pipe. Install the provided hose clamp onto the hanger shaft closest to the transmission and tighten down to prevent the exhaust from swinging over and making contact with the bracket. **Photo 42**



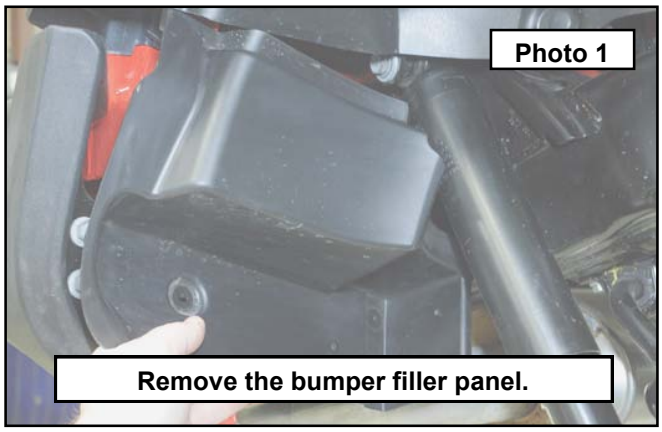


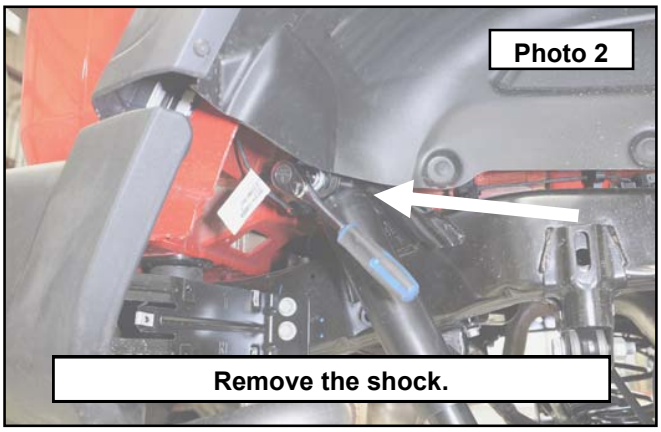
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49. 6 Cylinder Models Only: Reinstall the removed exhaust pipe reversing the disassembly steps using the factory hardware. Torque all to **35 ft-lbs**.
50. Install the wheels/tires and lower the vehicle to the ground. Torque the lug nuts to the wheel manufacture's specs.
51. Torque the upper and lower shock hardware to **45 ft-lbs,** and the front track bar hardware to **165 ft-lbs**. If you do not have access to an alignment rack after the rear installation is completed and have to drive the vehicle to another shop, torque the upper control arm hardware to **75 ft-lbs** and the lower control arm hardware to **165 ft-lbs** at this time. Tighten the jam nuts as well. Other wise these points are best left loose to aid in the event that adjusting the control arms is necessary to gain proper alignment and clearances.

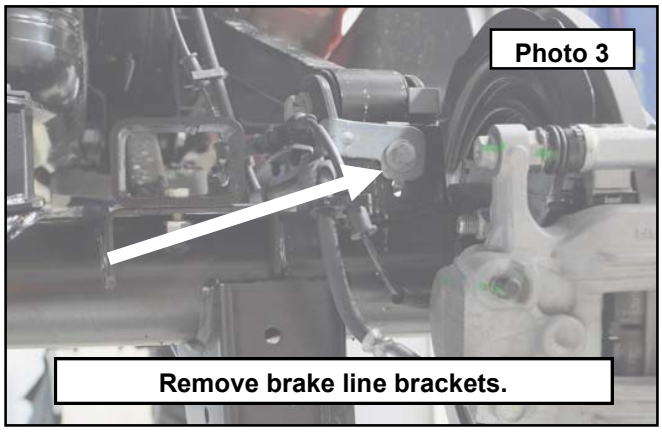
Rear Installation

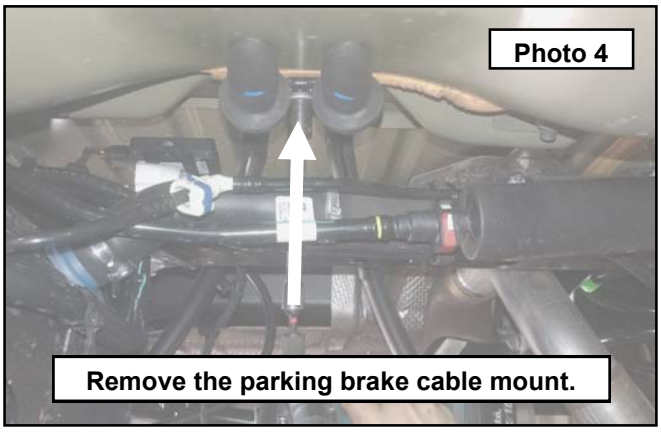
1. Block the front tires and jack the rear of the vehicle up and place safety stands at the indicated lift points for the frame in the service manual. Remove the rear wheels and set aside. Support the axle with a jack or stands.
2. Remove the bumper filler panel using a 7mm socket. **Photo 1**
3. Remove the upper and lower shock hardware using a 18mm socket / wrench. **Photo 2**



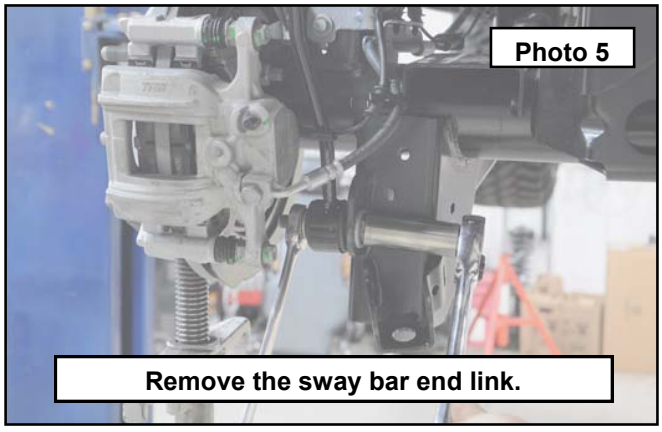


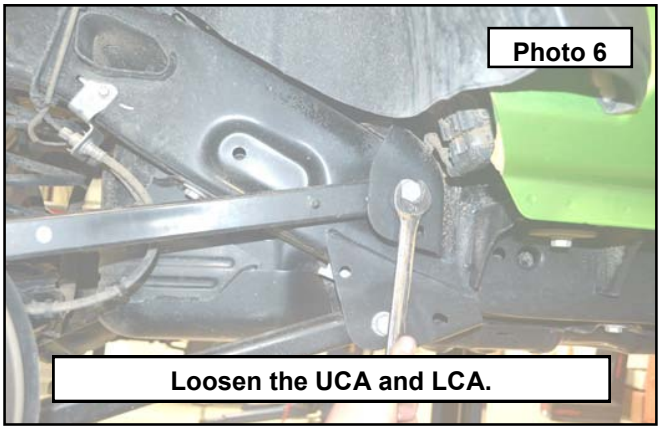
4. Remove the brake line bracket from the axle and frame using a 10mm socket and let hang out of the way. **Photo 3**
5. Remove the parking brake cable mount from the body using a 13mm socket. Discard all as this bracket will not be reused. **Photo 4**





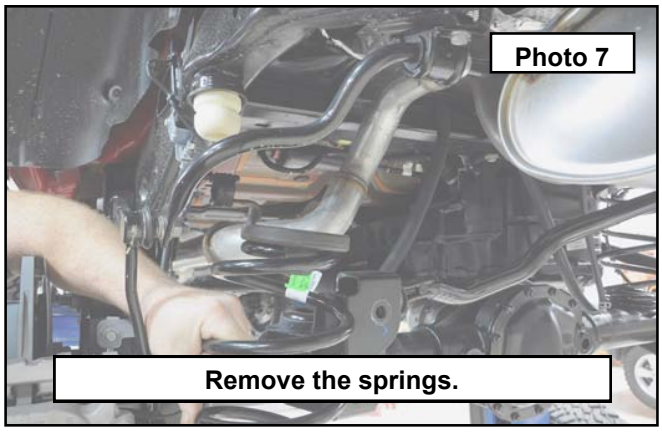
6. Remove the sway bar end links from the axle and sway bar using a 18mm socket / wrench. **Photo 5**
7. Loosen but do not remove the upper and lower control arm hardware at the frame and axle using a 18mm, and 21mm wrench. Remove the track bar from the frame and axle using a 21mm wrench. **Photo 6**

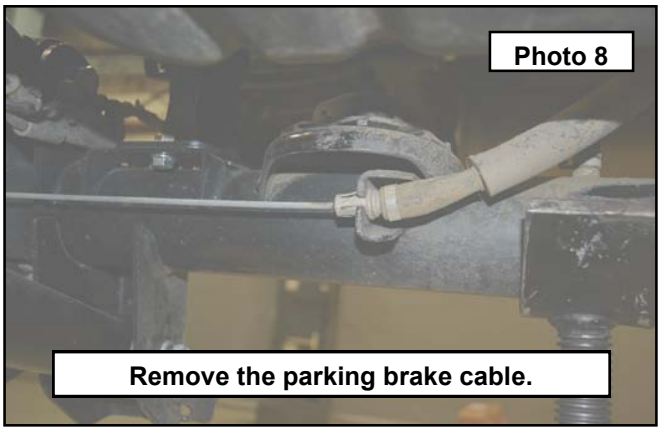




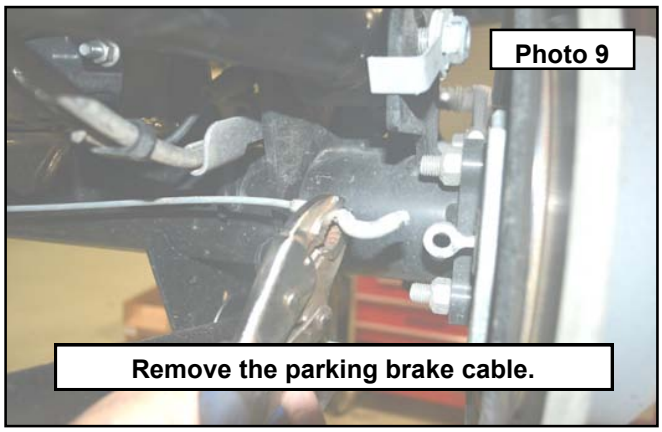
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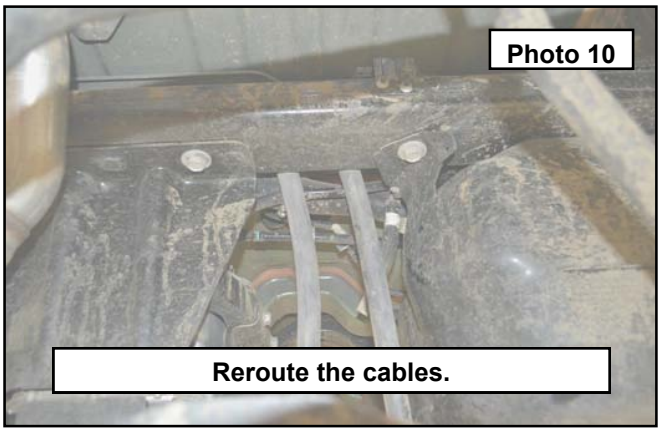
8. Lower the axle enough to remove the rear springs. **Photo 7**
9. Remove the parking brake cable from the axle by pressing in the clip tabs and pulling the housing. **Photo 8**



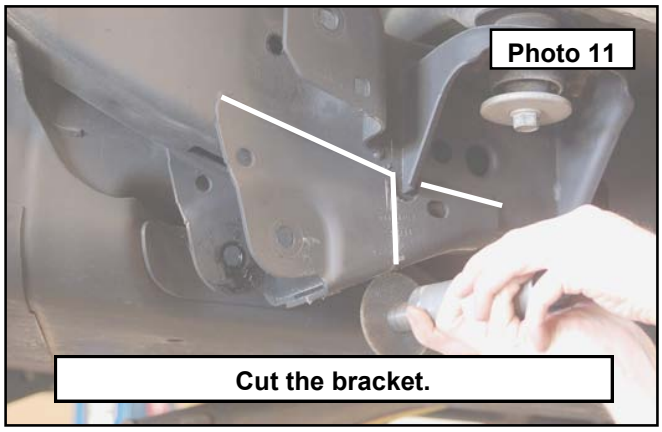


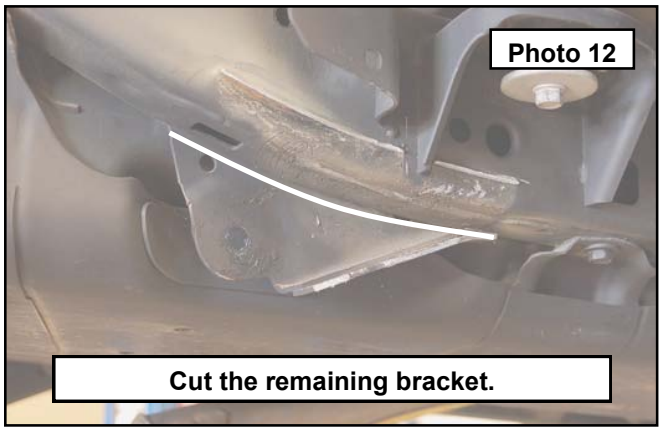
10. Remove the cable from the parking brake lever. **Photo 9**
11. Reroute the cables over the cross member and reinstall to the lever and axle. **Photo 10**





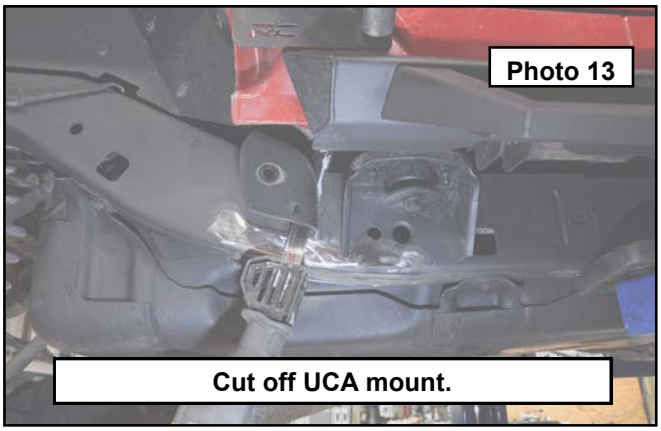
12. Fully support the axle with stands. Remove the upper and lower control arms completely to prepare the frame for cutting of the pockets.
13. Mark the factory mounts as shown and use suitable cutting tool (cut off disc shown) to cut the bracket, make sure to not cut into the frame rail. You are only removing the bracket. Cutting along the lines shown and cutting the mount down the middle on the bottom on the passenger side will allow you to cut the other half off without removing the fuel tank. On the driver side you can skip cutting the bracket in half, but it does make the mount easier to remove. **Photo 11**
14. Cut the remaining bracket off even with the frame rail taking care to not cut into the fuel tank. **Photo 12**

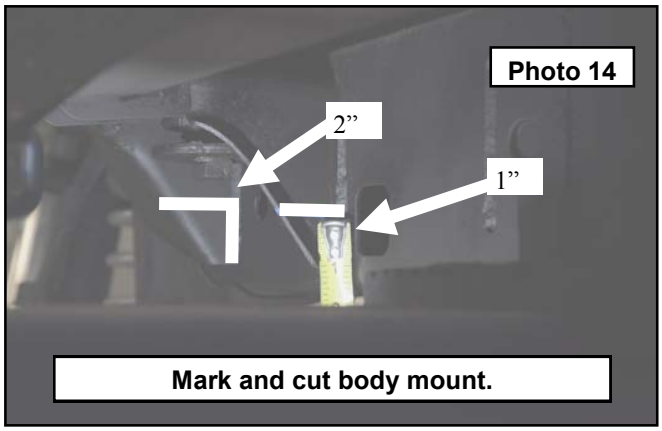




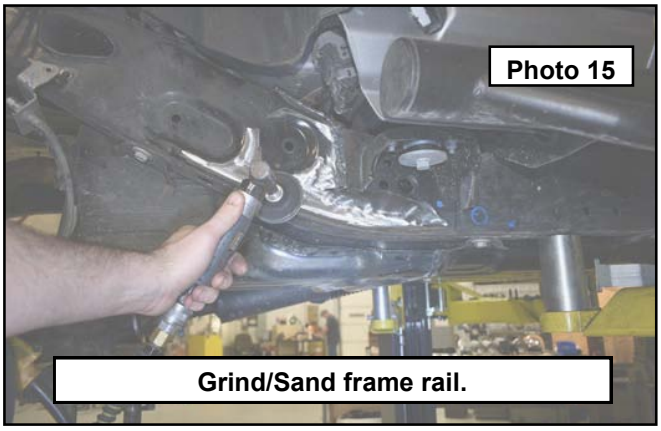
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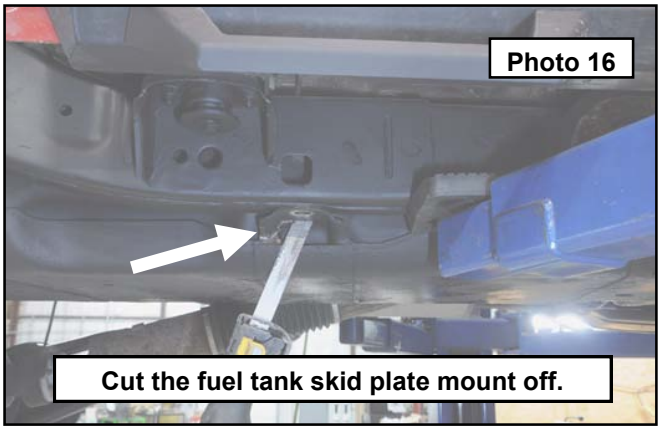
15. Cut off the upper control arm bracket flush with the frame. (Reciprocating saw shown) **Photo 13**
16. On the body mount forward edge, measure up 1”, on the back edge measure up 2.5” and mark a horizontal line across to the frame. Cut this piece off. The front cut is so the new bracket can mount and the back cut is for the upper control arm clearance when the suspension articulates. **Photo 14**



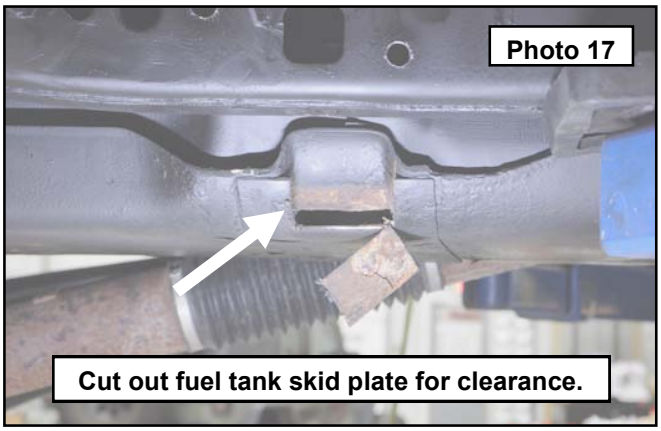


17. Once all cuts are made on the frame rail, grind the frame rail smooth. **Photo 15**
18. On the passenger side, use a suitable cutting tool (reciprocating saw shown) to remove the skid plate mount. Cut this flush with the edge of the skid plate. Take care to not cut into the fuel tank. **Photo 16**





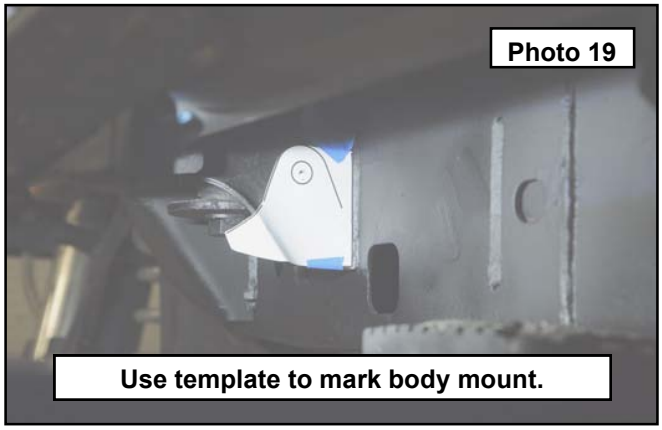
19. Make a mark a 1” down on either side of the mount inside the “pocket” of the skid plate under the mount removed in the previous step. Use a cutting tool and remove this marked area. This is for bolt and nut clearance with the new bracket. Sand off any left over burrs and paint the exposed metal with a quality rust preventative paint. **Photo 17**
20. Bolt the brackets to the frame rail using the factory fuel skid plate bolt on the passenger side and the left over bolt from the front transmission rock guard on the driver side. Once in place, mark the mounting and nut plate access holes on the side of the frame rail. You will need to drill out the mounting holes with a 1/2” drill bit and the nut plate access hole with a 2” hole saw. **Photo 18**

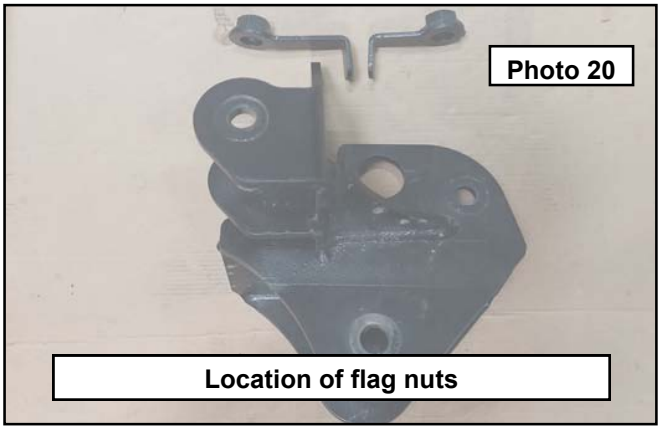




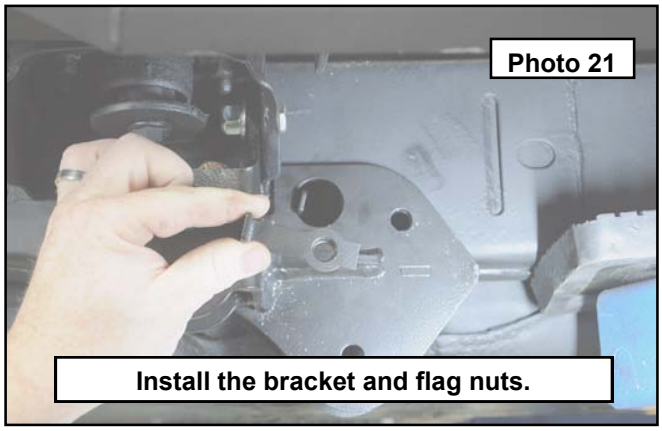
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21. Cut out the template provided in the back of this instruction booklet and place onto the front of the body mount using the previously made cut as the lower guide and the frame rail as the other. Use a center punch to mark the center of the hole and drill out using a 9/16" drill bit. Install the bracket and verify your hole lines up with the hole in the bracket. Adjust as necessary. **Photo 19**
22. Sand any burrs smooth. Paint all exposed metal with a quality rust preventative paint.
23. Locate the remaining flag nuts. You will have two long and two short flag nuts. The flag nuts will enter the access hole on the bracket and the hole you previously drilled. The long bracket will go towards the rear of the frame and the short to the front of the frame. Photo shows the orientation of the flag nuts. **Photo 20**





24. Install the brackets to the frame rail using the factory hardware, the flag nuts, the provided 1/2" x 1.5" bolts, lock washers, and flat washers. Once all are started by hand, torque all to **90 ft-lbs** using a 3/4" and 18mm socket. **Photo 21**
25. Install the upper control arm to the axle using the factory hardware. **DO NOT** tighten at this time. Set the length of the arm to 25.25" when measured from the center of eyelet to eyelet. Install the control arm to the bracket using the provided M12 x 90mm bolts, washers, and locking nut. **DO NOT** tighten at this time. **Photo 22**





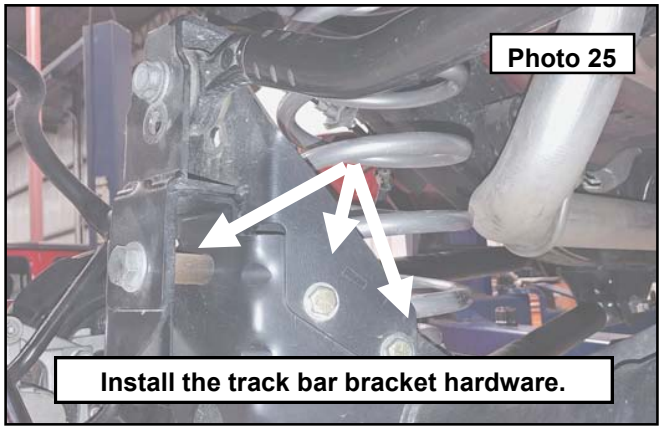
26. Install the lower control arm to the axle using the factory hardware. **DO NOT** tighten at this time. Set the length of the arm to 31.5" when measured from the center of the eyelet to eyelet. Install to the bracket using the provided M16 x 90mm bolts, washers, and locking nut. **DO NOT** tighten at this time. **Photo 23**
27. Install the track bar bracket to the axle. Mark the mounting holes on to the factory mount. Drill out using a 7/16" drill bit. There are two holes on the passenger side of the factory mount and one on the driver side. **Photo 24**

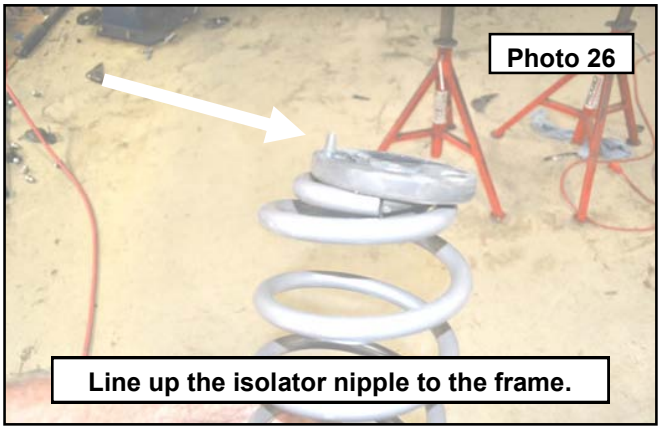




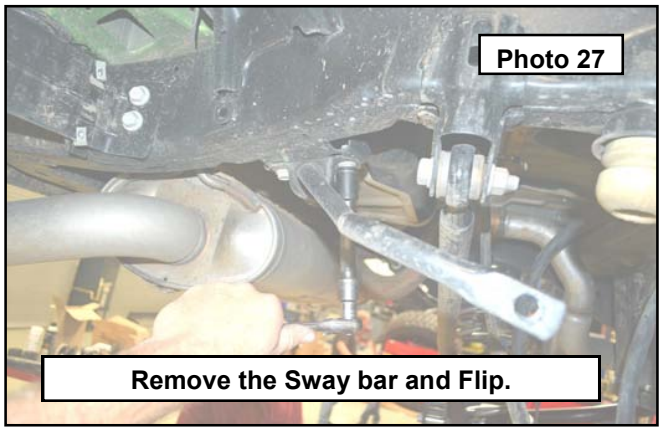
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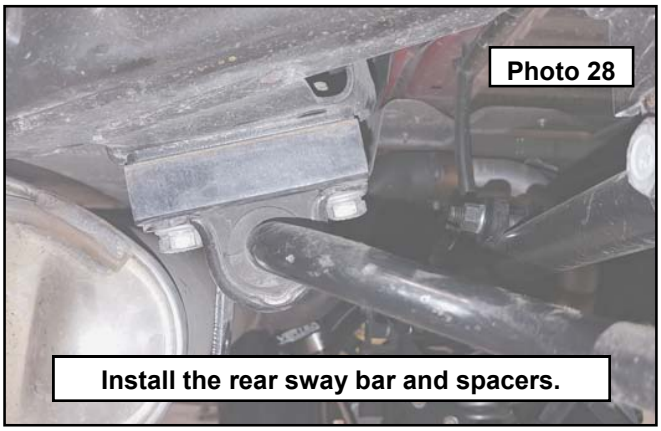
28. Install the track bar into the mount without hardware, then install the track bar to the axle using the provided 14mm x 100mm bolt, washer, crush sleeve and locking nut, 7/16” x 1.25” bolts, washers, and locking nuts. Once all are started, install the track bar using the factory hardware to the lower hole for the 4” lift height and the top hole for the 6” lift height. Torque the 7/16” hardware using a 1/2” socket/wrench to **60 ft-lbs**, and the 14mm hardware using a 22mm socket/wrench to **120 ft-lbs**. **DO NOT** tighten the track bar hardware at this time. **Photo 25**
29. Install the springs using the factory isolators making sure to line up the nipple into the frame rail to orientate the springs correctly. **Photo 26**





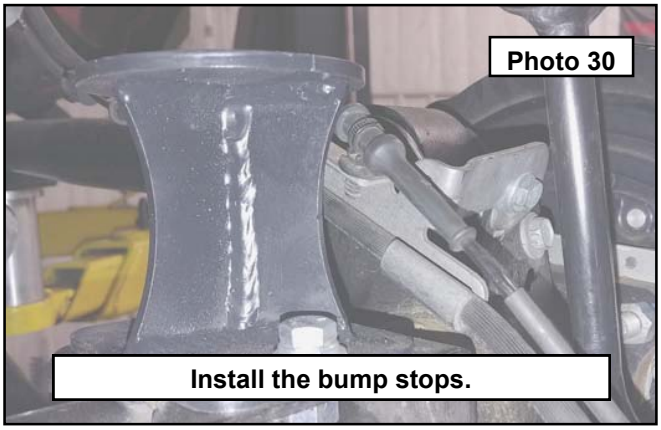
30. Remove the rear sway bar from the frame and flip 180 degrees (driver to passenger side). **Photo 27**
31. Install the sway bar to the frame using the provided 10mm bolts, lock and flat washers and spacers. **Photo 28**





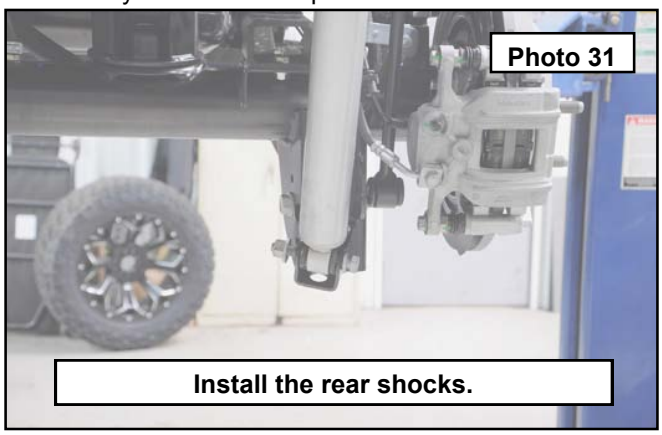
32. Install the rear sway bar end links using the provided hardware making sure the end links are inset as shown. **Photo 29**
33. Install the bump stops using the provided 3/8” bolts, washers, and locking nuts. **Photo 30**

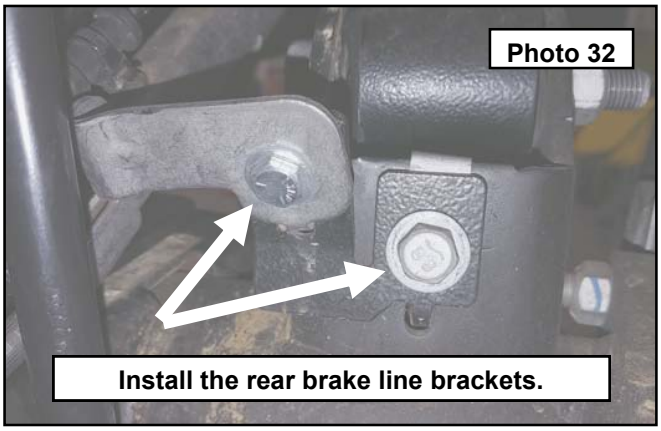




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34. Install the rear shocks using the factory hardware. Vertex and N3 shocks will use the provided instructions for those shocks. **DO NOT** tighten at this time. **Photo 31**
35. Install the provided rear brake line brackets to the axle using the factory hardware, and the factory brake line bracket using the provided 1/4" x .75" bolts, washers and locking nuts. Reinstall the brake line bracket at the frame using the factory hardware. Torque all to **5 ft-lbs**. **Photo 32**





36. Install the wheels/tires and lower the vehicle to the ground.
37. Torque the lug nuts to the wheel manufacturer's specs.
38. Torque the upper and lower shock hardware to **45 ft-lbs,** and the rear track bar hardware to **165 ft-lbs**. If you do not have access to an alignment rack after the rear installation is completed and have to drive the vehicle to another shop, then torque the upper control arm hardware to **75 ft-lbs** and the lower control arm hardware to **165 ft-lbs** at this time. Tighten the jam nuts as well. Other wise these points are best left loose to aid in the event that adjusting the control arms is necessary to gain proper alignment and clearances.
39. Adjust the front track bar until the front axle is offset to the driver side 1/4". This is done so that as the suspension travels upwards, the track bar pushes the axle to the passenger side and centers the axle with the rear axle. This front track bar position crosses the rear axle center line as both axles travel upwards helping to eliminate the "rear steer" feel that is common with linked front and rear suspension systems.
40. Reconnect the vehicle power source at both batteries. Adjust the steering wheel until straight using the adjuster on the steering link. Failure to do so before driving can result in warning dash lights that will have to be reset using a scanner.
41. Have the alignment checked. If your camber is off on the front axle, you may need to have offset upper ball joints installed. This needs to be done first before setting anything else as this requires disassembly of the front knuckles. Proper front camber is essential for optimal front tire wear with larger wheel/tire combinations as well as vehicle drifting to one side. With factory sized tires you will not notice the camber being off as much, but as soon as larger wheel / tires are installed it becomes more noticeable.
42. After the front camber is set, pay particular attention to the thrust angle and wheel base next. Have this set to as close to 0 as possible. Thrust angle being off will make the vehicle "dog or crab walk" when viewed from behind while driving straight down the road. This may mean having to adjust the upper and lower control arms longer on one side.
43. Once the thrust angle is set to 0, have the rear pinion angle checked. To adjust pinion angle on the rear, adjust the lower control arms the same amount per side until the desired angle is achieved. To adjust for wheel base and to center the rear tires in the wheel well or to gain clearance against any body at the forward edge of the rear fender well and body pinch weld under articulation, adjust the upper and lower arms evenly to set the axle centerline.
44. Now that the rear axle is set square, use the upper front arms to set the pinion angle and caster. Pay particular attention to caster. You will want to set caster to a **minimum** of 3.5 degrees and maximum of 4.5 degrees. More caster will help with wondering at high speed but will sacrifice slow speed ease of turning with larger/heavier wheel/tire combinations. Once this is achieved, adjust for wheel base to center the front tires in the wheel well or to gain clearance against the body at the rear of the front fender under articulation, adjust the upper and lower arms evenly to set the axle centerline.
45. Set the toe by adjusting the drag link adjuster.
46. Set the steering wheel level by adjusting the steering link adjuster. Set the steering wheel angle sensor to
47. All these steps may seem cumbersome at first, but care taken at this time to set everything correctly will insure that the vehicle handles properly. This is a one time set up and once locked down should not have to be touched again unless components are damaged, replaced, or lift height is changed.
48. Once all the arms are set properly, add a drop of thread locker to the threads for the jam nuts and tighten all while making sure to keep the ball sockets set square to the mounts. This may require you to hold the housing with a pry bar or large pair of pliers while tightening the jam nuts.
49. Torque the upper control arm mounting hardware to **75 ft-lbs**, and the lower control arm hardware to **165 ft-lbs**.
50. Test drive the vehicle after making sure all hardware is torqued properly. Adjust any and all as necessary.

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