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# Rough Country 68344 Installation Instructions

6-Inch Lift Kit with M1R Shocks for 2007–2017 Jeep Wrangler Unlimited

Part number: 68344

trailfortress.com/rough-country-6-inch-lift-kit-68344

Scan for fitment, price and install help

921683X00

ROUGH COUNTRY SUSPENSION SYSTEMS®

1683XBAG1

# JEEP JK 6” 4 DR X-SERIES SUSPENSION KIT

**Thank you for choosing Rough Country for your suspension needs.**

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

Please read instructions before beginning installation. Check the kit hardware against the parts list. Be sure you have all needed parts and know where they go. Also please review tools needed list and make sure you have needed tools.

## PRODUCT USE INFORMATION

**⚠WARNING** As a general rule, the taller a vehicle is, the easier it will roll. Seat belts and shoulder harnesses should be worn at all times. Avoid situations where a side rollover may occur. Generally, braking performance and capability are decreased when larger/heavier tires and wheels are used. Take this into consideration while driving. Do not add, alter, or fabricate any factory or after-market parts to increase vehicle height over the intended height of the Rough Country product purchased. Mixing component brands is not recommended.

Rough Country makes no claims regarding lifting devices and excludes any and all implied claims. We will not be responsible for any product that is altered.

This 6” suspension system was developed using a 37X12.50X17 tire with 4.5” to 4.75” of back spacing on aftermarket wheels. Stock wheels can be used with this kit with up to a 35x12.5 tire, but different tire manufactures designs may result in a tire width that could result in contact with the lower control arm and/or front sway bar link in a sharp turn. Please consult with your tire and wheel expert before purchasing. Also note that if wider tires are desired, offset wheels will be required.

**⚠NOTICE IMPORTANT NOTE : Upon completing the install of this kit the draglink must be adjusted to center the steering wheel BEFORE the vehicle is driven. Failure to do so will cause a computer error, odd handling, and poor performance.**

**Drive-shafts are available from Rough Country. The stock drive-shafts DO NOT have enough range of motion, thus the shaft joints bottom out and damage will occur. The stock shafts can NOT be used and new yoke style shafts are necessary. Additionally on 2012 Models, additional exhaust modification on the passenger side crossover pipe will be required for adequate clearance on the front driveshaft.**

If question exist we will be happy to answer any questions concerning the design, function, and correct use of our products by calling 1-800-222-7023.

## ⚠NOTICE NOTICE TO DEALER AND VEHICLE OWNER

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

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

**Tools Needed:**

| | | |
|---|---|---|
| 10mm Wrench | 21mm Socket | Jack |
| 21mm Wrench | Jack Stand | Grinder |
| 18mm Wrench | 7/16” Wrench | 13/32” Drill Bit |
| 18mm Socket | 9/16” Wrench | Drill |
| 19mm Wrench | 9/16” Socket | Pitman arm puller |
| 19mm Deep Well Socket | | Reciprocating Saw |
| 33mm Socket | 13/16” Socket | |
| 7/8” Wrench | | |

**Kit Includes:**

***9248*** Fr Coil Springs

***9249*** Rr Coil Springs

***1683XBox3:***

- 2-Fr Upper Adj Arms
- 2-Fr Lwr Adj Arms
- 1-Rr Pass Upper Arm
- 1-Rr Dr Upper Arm
- 2-Rr Lower Adj Arm
- 4-Lower Arm Flex Joints
- 2-Rear Upper Flex Joints
- 2-Fr Upper Flex Joints
- 2-Rr Coil Shims

***1683XBox4:***

- 1-Fr Track Rod Bracket
- 1-Fr Stab Brkt
- 1-Rear Track Rod Bracket
- 2-Fr Brake Lines
- 2-Rr Brake Lines
- 1-Pitman Arm
- 2-Fr Sway Bar Links
- 1-Dr Fr Disconnect Bracket
- 1-Pass Fr Disconnect Bracket
- 2-Rear Sway Bar Links
- 1-1683Bag2
- 1-1681Bag3
- 1-1146Bag1

***1179***

- 1- Fr Adjustable Track Bar

***1683XBox5***– N3 Shock Absorbers

**Poly Bags:**

***1683Bag2:***

*For Fr Track Rod Bracket:*
- *3-3/8" x 1 1/4" Bolt*
- *3-3/8" Flat Washer*
- *5-3/8" Flange Lock Nuts*
- *1-3/8" X 2 1/2" X 3 1/4" U-bolt*
- *1-14mm x 80mm Bolt*
- *1-14mm Lock Nut*
- *2-14mm Flat Washer*
- *1-Crush Sleeve*

*For Upper Pass Control Arm:*
- *1-10mm x 80mm Bolt*
- *1-10mm Lock Nut*

*For Fr Brake Lines:*
- *2-Frame Brackets*
- *2-Brake Clips*
- *4-Crush Washers*

*For Rear Brake Lines:*
- *2-Frame Brackets*
- *2-Brake Clips*
- *4-Crush Washers*

*For Rear Track Rod Bracket:*
- *3-3/8" x 1" Bolt*
- *3-3/8" Flat Washers*
- *3-3/8" Flange Lock Nuts*
- *1-14mm x 80mm Bolt*
- *1-14mm x 75mm Bolt*
- *2-14mm Lock Nuts*
- *1-Crush Sleeve*

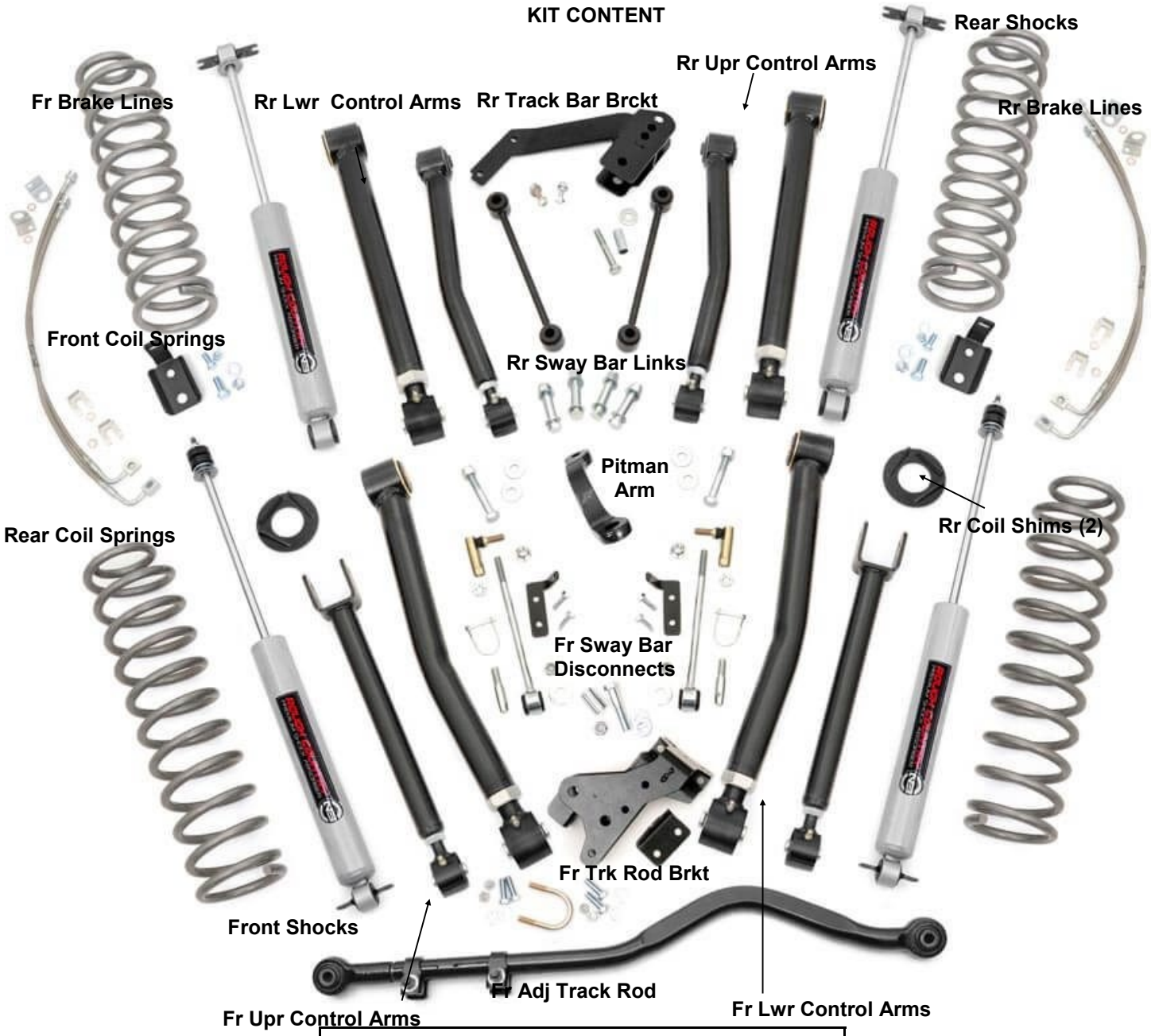
***1681Bag3:***

*For Rear Sway Bar Links:*
- *4-Sleeves*
- *4-1/2" x 2 3/4" Bolts*
- *4-1/2" Lock Nuts*
- *8-1/2" Flat Washers*

***1146Bag1:***

*For Fr Sway Bar Disconnects:*
- *4-*5/16" x 1" Self Tap Bolt
- *2-Link Ends*
- *2-Mounting Pins*
- *2-1/2" Nut*
- *2-1/2" Flat Washers*
- *2-12mm Jam Nuts*
- *2-12mm Flange Lock Nut*
- *2-Hitch Pin*

## KIT CONTENT




| TORQUE SPECIFICATIONS | | | |
|---|---|---|---|
| Size | Grade 5 | Grade 8 | |
| 5/16” | 15 ft/lbs | 20 ft/lbs | |
| 3/8” | 30 ft/lbs | 35 ft/lbs | |
| 7/16” | 45 ft/lbs | 60 ft/lbs | |
| 1/2” | 65 ft/lbs | 90 ft/lbs | |
| 9/16” | 95 ft/lbs | 130 ft/lbs | |
| 5/8” | 135 ft/lbs | 175 ft/lbs | |
| 3/4” | 185 ft/lbs | 280 ft/lbs | |
| | | | |
| Metric (Grade) | 8.8 | 10.9 | 12.9 |
| 14MM | 85ft/lbs | 120ft/lb. | 145ft/lbs |

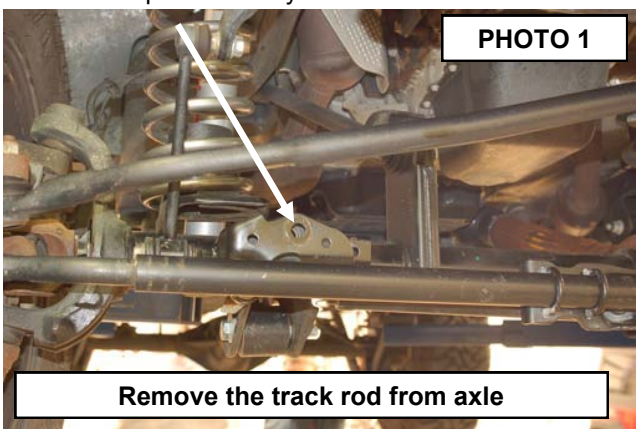
## FRONT INSTALLATION INSTRUCTIONS

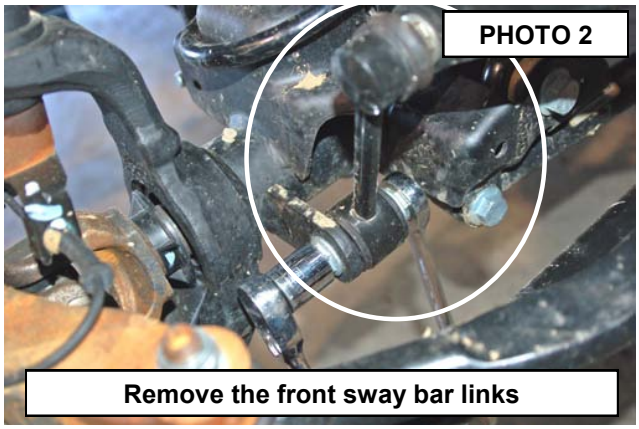
1. Prior to installing this kit, with the vehicle on the ground, measure the heights of your vehicle. This measurement can be recorded from the center of the wheel straight up to the top of the inner fender lip. Record the measurements.

**LF:_____ ,RF:_____,**

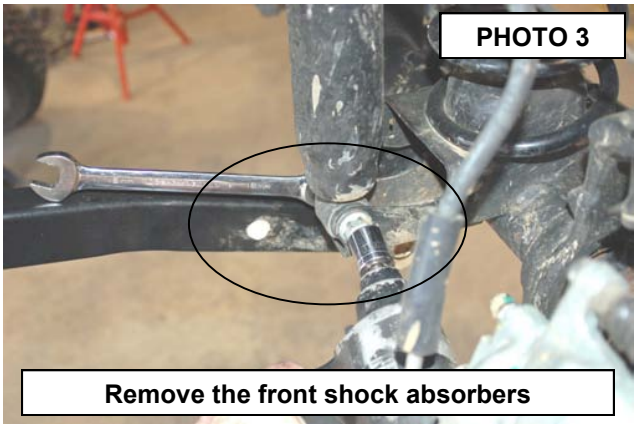
**LR:_____, RR:_____**

2. Place vehicle in park and chock the rear wheels. Raise the front of the vehicle with a jack and secure a jack stand beneath each frame rail behind the front control arms. Ease the frame down onto the stands.
3. Remove the front tires/wheels, using a 19mm deep well socket.
4. Using a 21mm socket, remove bolt securing the front track bar to the frame. Retain stock hardware. **See Photo 1**.
5. Using a 18mm socket and wrench remove the bottom sway bar bolts. Using a 21mm socket and 21mm wrench, remove the top of the sway bar link. Retain hardware for later use. **See Photo 2**.




6. Remove the lower shock bolt using a 18mm socket and wrench. Using a 14mm wrench unbolt the top of the shock and remove. **See Photo 3.** Retain the lower stock hardware.
7. Using a 21mm socket and wrench loosen the upper and lower control arm bolts at the axle and frame, but do not remove.
8. On some models it will be necessary to remove the brake line bracket from the frame to allow the coils to be removed. Using a 10MM socket, remove the brake line bracket from the stock location.
9. Push down on the axle to allow room for the coils to be removed. Remove stock coil springs. Retain coil isolators.
10. Using a 21mm wrench, remove the bolts that secure the lower link arms to the axle.

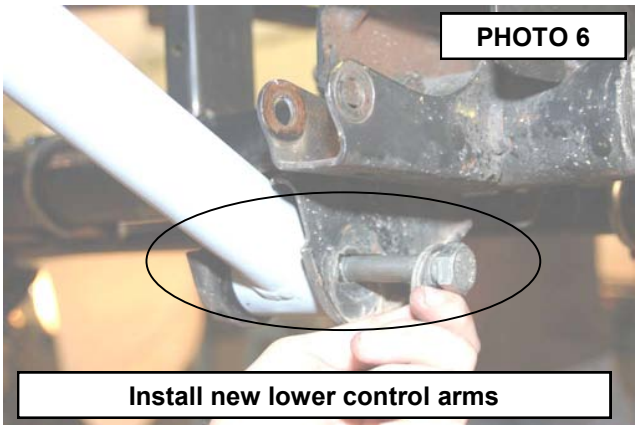


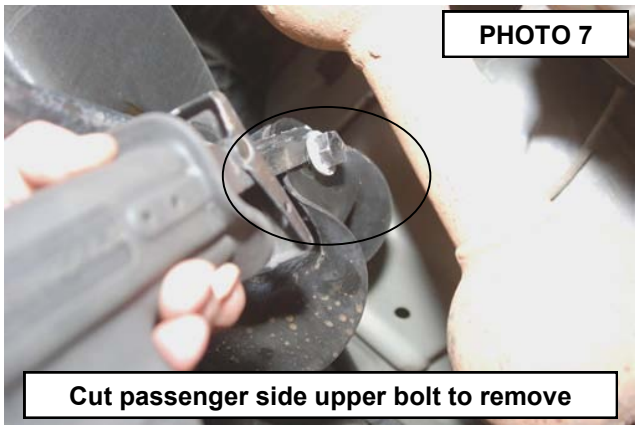

11. Remove the drive shaft from the differential using a 15mm wrench. **See Photo 4.**
12. Remove the driveshaft from the transfer case by removing the 8-8mm bolts as shown in **Photo 5**. Remove the shaft from the Jeep. Driveshaft install will be performed in a later step.





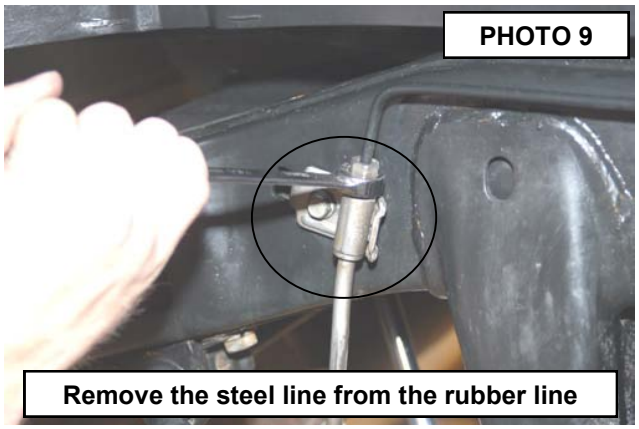

13. Adjust the lower control arms to a length of 22 7/8” from center of hole to center of hole and tighten the jam nut using a 1 7/8” wrench. Install the adjustable heim end in the frame mount and the other end in the axle mount. Do not tighten arms in the mounts at this time. **See Photo 6**. The bend on the lower control arm should be facing inward to allow for the tires to achieve full lock to lock turning.
14. Remove the bolts securing the upper control arms to the axle using a 18mm wrench/socket. It will be necessary to cut out the passenger side upper bolt as shown in **Photo 7** to remove the control arm.



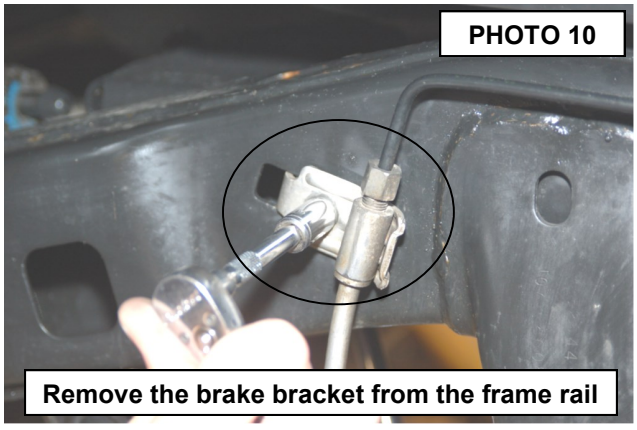



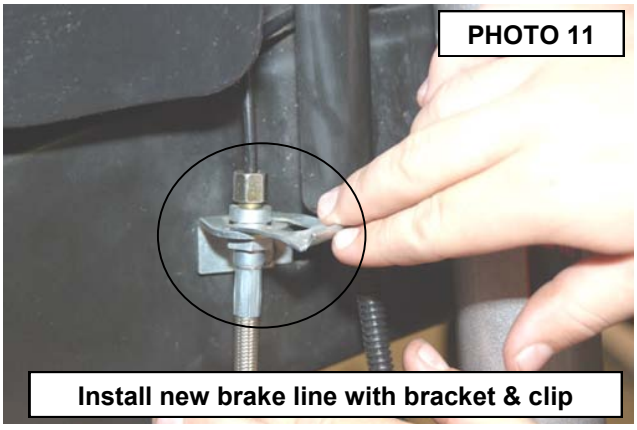

15. After the stock control arms have been removed assemble the bushings /sleeves in the upper control arms with the heim joints. Adjust the arms to a length of 18 3/4” from center of hole to center of hole and tighten the jam nut using a 1 1/8” wrench. Install in the heim joint in the upper mounts with supplied 12mm x 80mm bolt on the passenger side frame and stock hardware on the driver side.
16. Install the opposite end on the axle with stock hardware. Do not fully tighten at this time. **See Photo 8.**
17. Loosen the stock brake line from the metal line on the frame rail shown in **Photo 9** using a 12 mm line wrench**.** A catch pan will be needed to catch the brake fluid.



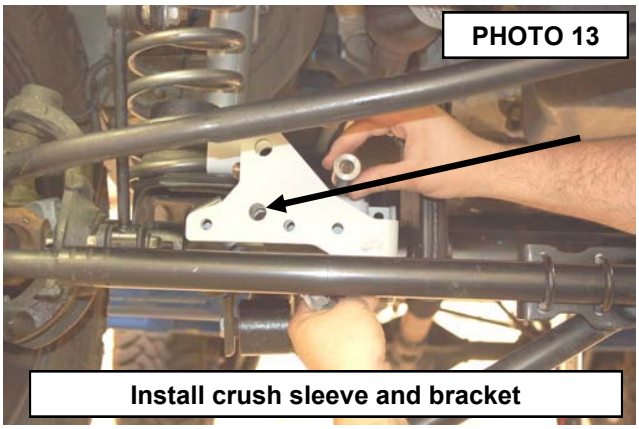

18. Remove the line from the frame rail using a 10mm socket as shown in **Photo 10.** Remove the brake line from the caliper and replace the brake line with the supplied stainless steel lines and brackets as shown in **Photo 11.** Reattach at the caliper with new supplied crush washers, tighten line and install the spring clip.
19. Be sure the factory rubber isolators are in place and install the front coil springs. Insert the coil into the upper tower first, followed by the lower seat. Be sure that the coils are rotated so that they seat properly. Raise the axle enough to hold the coil springs in place.



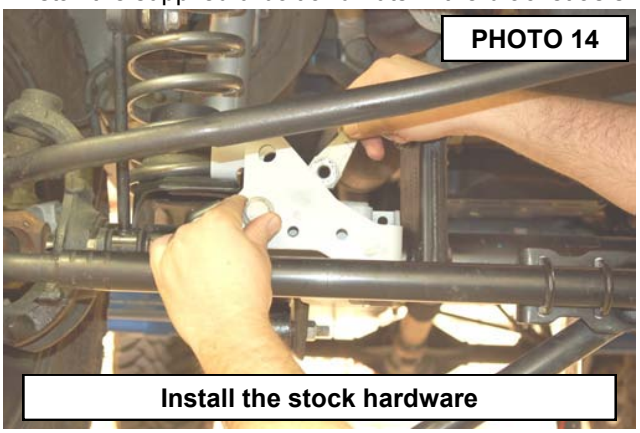



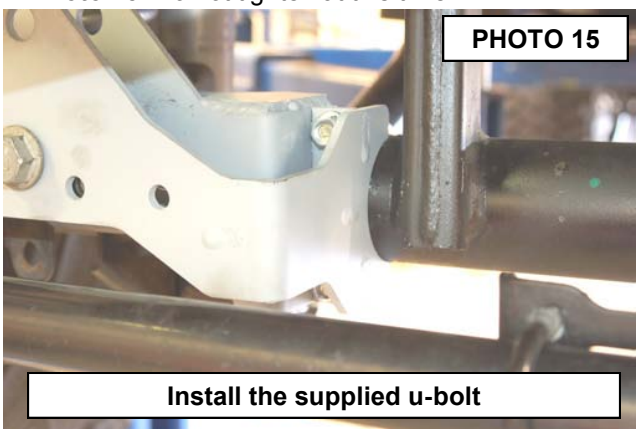
20. Install the shock absorber **Part # 660740**. Position the cup washer and stem bushing on the stem end of the shock and insert the stem in the upper shock tower. Install the remaining bushing and washer and loosely secure using the supplied nut. Tighten until the bushing swells slightly using a 9/16” wrench.
21. Attach the lower end of the shock to the axle and secure using the stock hardware. Tighten to 80 ft/lbs.
22. Remove the stock stabilizer and bracket from the axle mount using a 18mm wrench **See Photo 12.**
23. Install the track rod bracket as shown on the stock mount. Install the crush sleeve as shown in **Photo 13.**



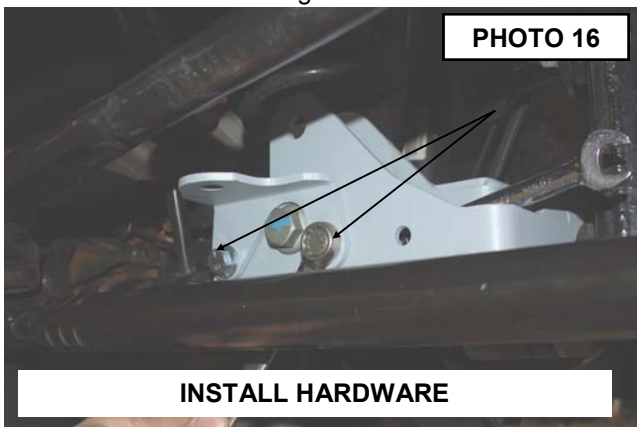



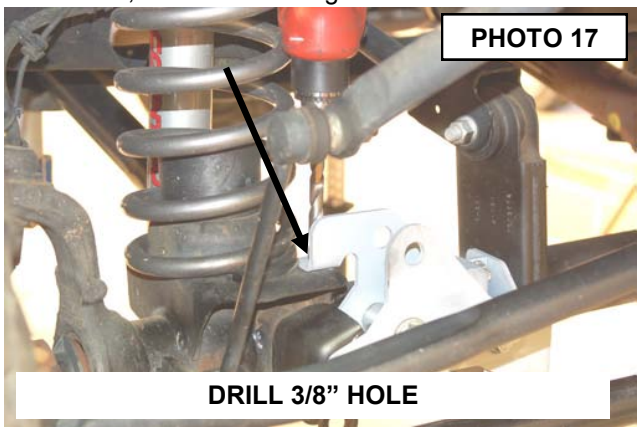

24. Install the stock hardware in the bracket as shown. **See Photo 14.** Do not tighten at this time.
25. Install the supplied u-bolt and nuts in the bracket as shown in **Photo 15**. Do not tighten at this time



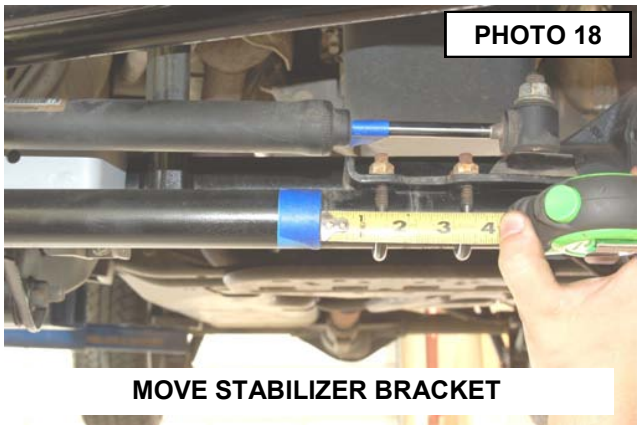



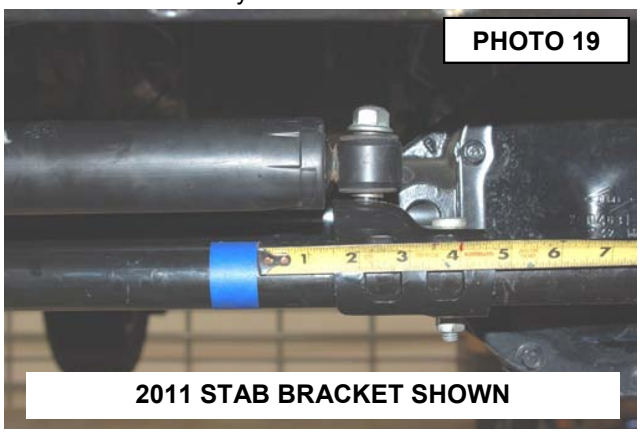

26. Install the two 3/8” x 1 1/4” bolts, washer and nuts in the new bracket and supplied stabilizer bracket if reusing the stock stabilizer in the far left holes as shown. If not installing the stock stabilizer, the two 3/8” x 1 1/4” bolts will be installed in the two far left holes in the bracket with out the supplied stabilizer bracket. **See Photo 16.**
27. Drill the rear mount using a 3/8” drill bit and install the 3/8” x 1 1/4” bolt, washer and flange lock nut. **See Photo 17.**



28. Tighten all 3/8” hardware using a 9/16” wrench.
29. **This next two steps will be performed if the stock stabilizer is retained.** On 07-10 Models mark the location on the factory tie rod bracket on the tie rod and loosen the u-bolt nuts using a 13mm wrench. Slide the bracket down 1 1/4” rotate to position the stud up as shown and retighten tie rod end bracket. **See Photo 18.**
30. On 2011 models loosen the tie rod bracket using a 15mm wrench. Mark original location and move the bracket 1 1/2” and rotate the tie rod bracket as shown to allow full stroke of the stabilizer cylinder. **See Photo 19.**

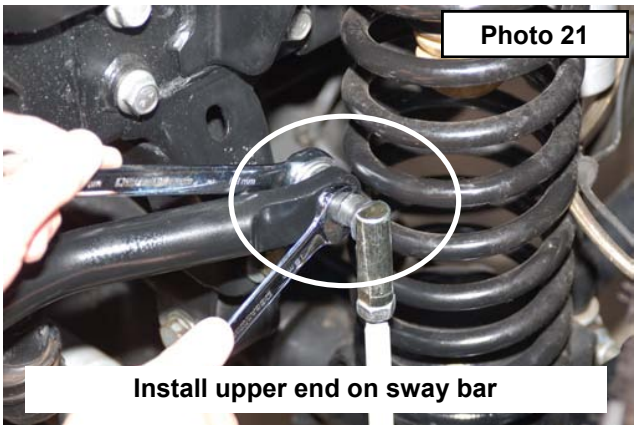

PHOTO 18
MOVE STABILIZER BRACKET

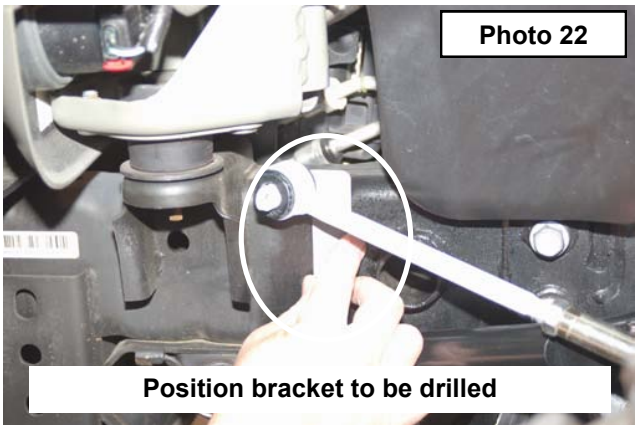

PHOTO 19
2011 STAB BRACKET SHOWN

31. Install the factory stabilizer in the new track rod / stabilizer mount with the body of the stabilizer on the axle mount with stock hardware and tighten using a 18mm socket / wrench. **See Photo 20**
32. Adjust the track bar to a length of 32 7/8” center of hole to center of hole. Install the new track bar into stock frame bracket using the stock hardware.
33. Check to make sure the body is centered over the axle and install the stock track bar into the new track rod bracket using the supplied 14mm x 80mm bolt, washers and lock nut. Tighten using a 21mm & 22 mm socket / wrench. Tighten jam nuts with a 18mm wrench. **It may be necessary to turn the steering wheel to align the track rod end with the axle.**

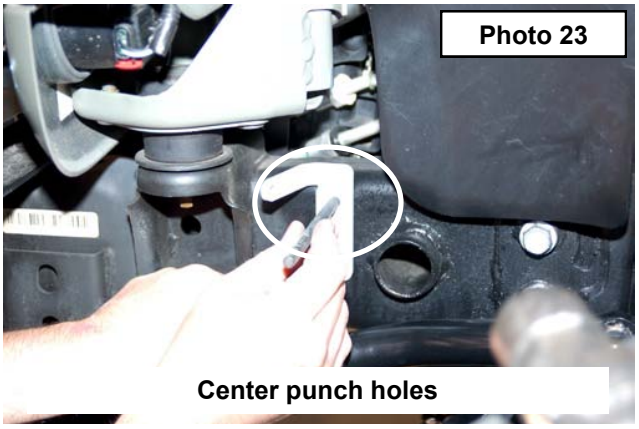

PHOTO 20
INSTALL STOCK STABILIZER IN MOUNT

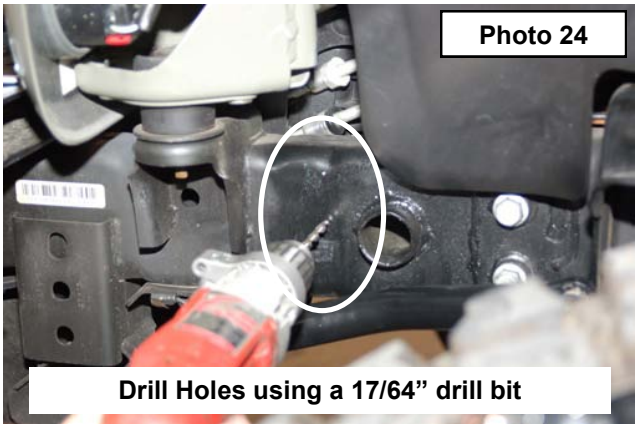
34. On the front sway disconnects, assemble the supplied jam nut and end link on the sway bar link body. Adjust the sway bar to approximately 11” for a 4” & 6” kit measuring end to end. Tighten the end and jam nut using a 18mm wrench.
35. Install the new sway bar link on the factory sway bar as shown in **Photo 21** with the supplied 12mm Flange lock nut using a 16mm & 18mm wrench.
36. Install the new sway bar link on the sway bar bracket and swing up the assembly to the frame rail. **See Photo 22.** Remove the sway bar link from the bracket while holding the bracket in place.


Photo 21
Install upper end on sway bar

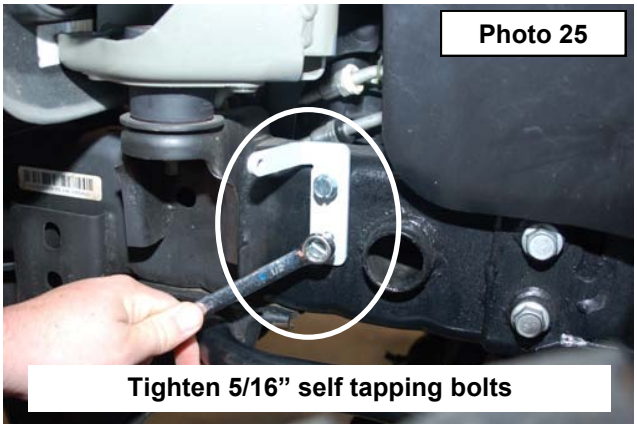

Photo 22
Position bracket to be drilled

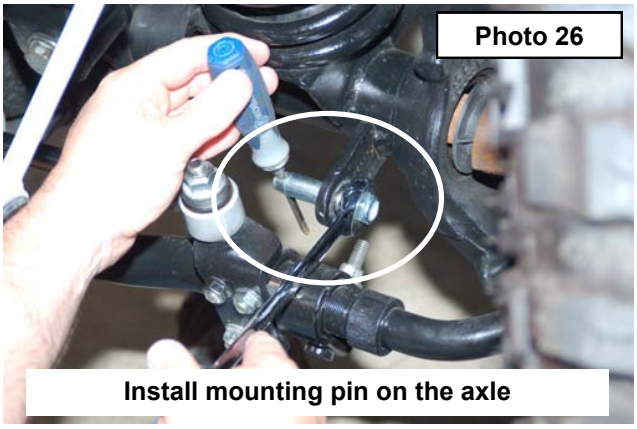
37. Mark the holes to be drilled and remove the bracket from the frame. **See Photo 23.**
38. Drill the two holes per side using a 17/64” drill bit. **See Photo 24.** Be sure to only drill through the outside




39. Install the frame bracket with the supplied 5/16” self tapping bolts (2 per bracket) using a 1/2” wrench. **See Photo 25.**
40. Install the supplied mounting pin as shown in **Photo 26.** Tighten using 19mm socket / wrench.

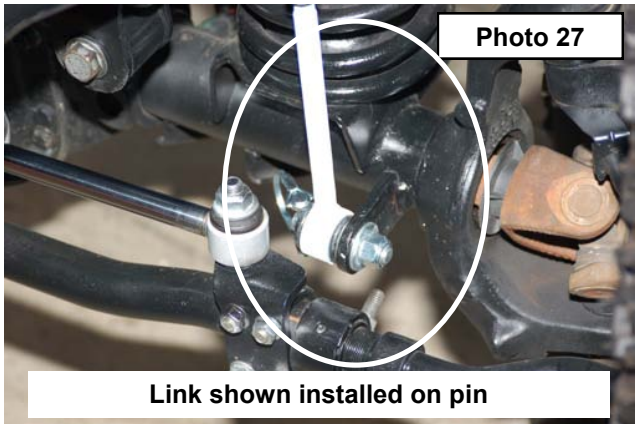



41. Swing the new sway bar link down and secure on the mounting pin using the supplied quick disconnect pin. **See Photo 27.**
42. Using a 21mm socket remove the tie rod end from the pitman arm. Remove the pitman arm nut using a 33mm sock-
43. Using a pitman arm puller, remove factory pitman arm. **See Photo 28**.
44. Install the new pitman arm with the stock hardware an using a 33mm socket. **See Photo 29.** Reinstall the drag link the new pitman arm with the stock nut and using a 21mm wrench.
45. Reinstall the front tires/wheels, using a 19mm deep well socket. Lower the vehicle to the floor.

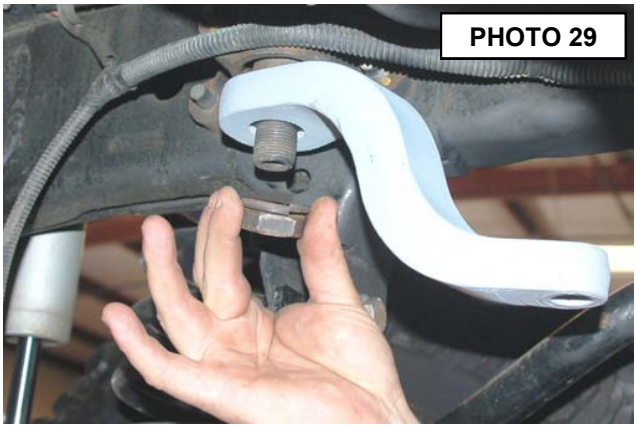
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## REAR INSTALLATION INSTRUCTIONS

1. Chock front wheels. Jack up the rear of the vehicle and support the vehicle with jack stands, so that the rear wheels are off the ground. Position a jack so it supports, but does not raise the rear axle.
2. Remove the rear tires/wheels, using a 19mm deep well socket.
3. Using a 21mm socket remove the track bar from the frame on the passenger side. Using a 21mm socket remove the track bar bolt at the axle and remove the track bar from the vehicle. Retain the frame side stock hardware for reuse.
4. Using a 21mm socket loosen, but do not remove the bolts securing the lower control arms at both the axle and frame.
5. On the rear of the vehicle remove the factory sway bar link using a 18mm socket and wrench on the lower. Remove the upper hardware using a 18mm wrench and a 19mm wrench on the ball joint end.
6. Using a 10mm wrench, unbolt the brake hose bracket at the frame. Retain hardware for later use.
7. Remove and discard the rear shocks using a 18mm wrench. Retain stock hardware.
8. Lower the axle enough to remove the stock coil springs.
9. Remove the upper control arms from the frame and axle using a 18mm wrench. Retain the upper flag nut in the frame and all other factory hardware. **See Photo 1.**
10. Assemble the  in the heim joints upper control arms. **The rear upper heim joint is labeled as "Rear Upper" on the heim joint.** Adjust to a length of 18 3/4" from center of hole to center of hole and tighten the jam nut using a 1 1/8" wrench. Install in the heim end on the frame with stock flag nut and the lower on the axle with factory hardware using a 18mm wrench. **See Photo 2. Photo 3** showing rear axle install. Do not fully tighten at this time.

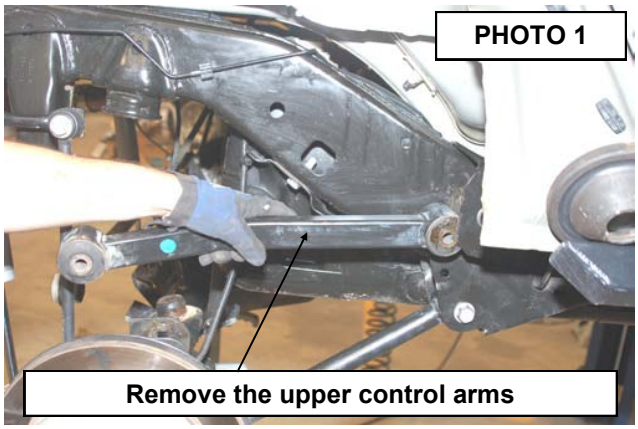
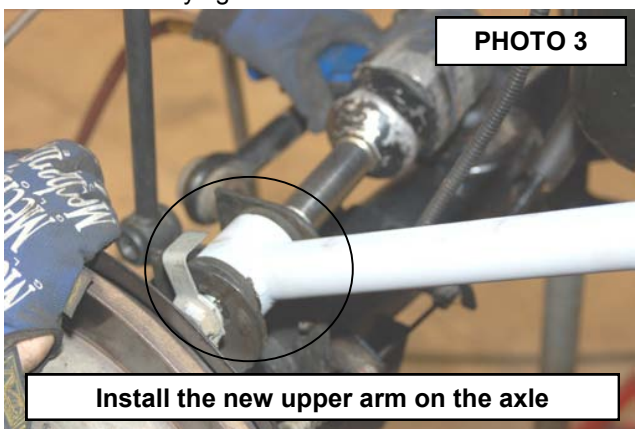
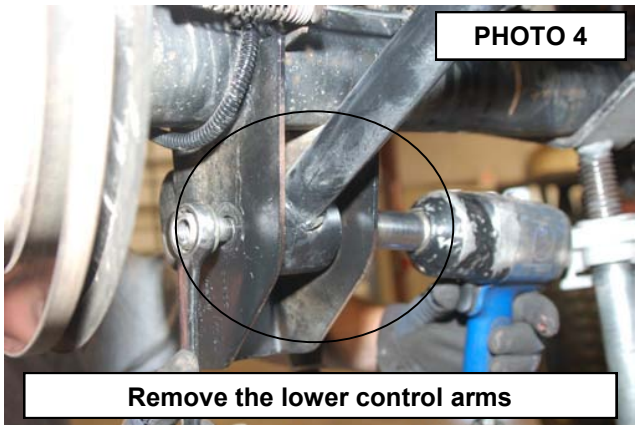
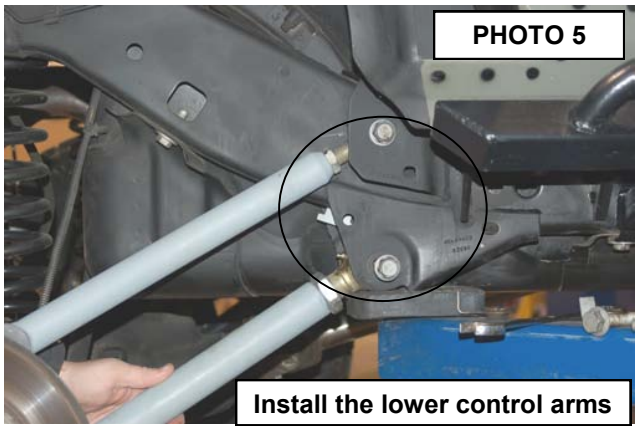

PHOTO 1
Remove the upper control arms


PHOTO 2
Install the new upper control arms on frame


PHOTO 3
Install the new upper arm on the axle

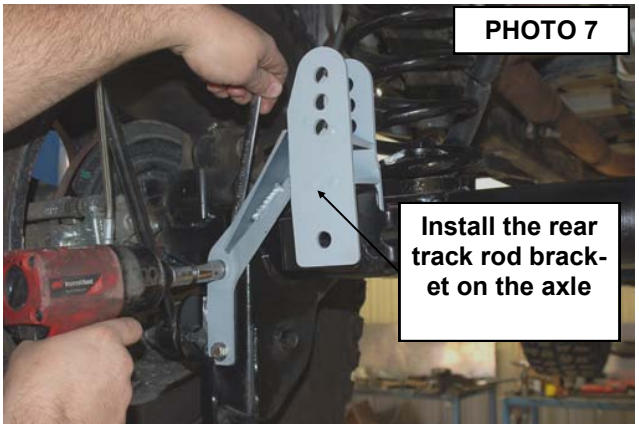
11. Using a 21mm socket remove the bolts securing the lower control arms at both the axle and frame. Passenger side lower shown in **Photo 4.** Remove the control arms and retain the hardware for reuse.
12. Assemble the heim joints in the new lower control arms and adjust them to a length of 20 1/2" from center of hole to center of hole and tighten the jam nut using a 1 7/8" wrench. Install the hiem on the frame and the opposite end on the axle with the factory hardware using a 21mm wrench. **See Photo 5**. Do not fully tighten at this time.

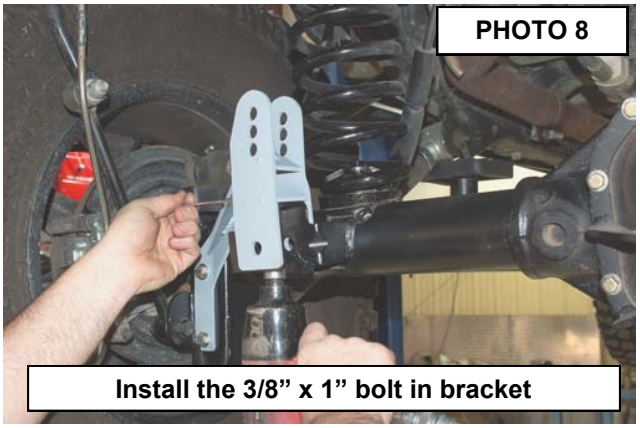

PHOTO 4
Remove the lower control arms


PHOTO 5
Install the lower control arms

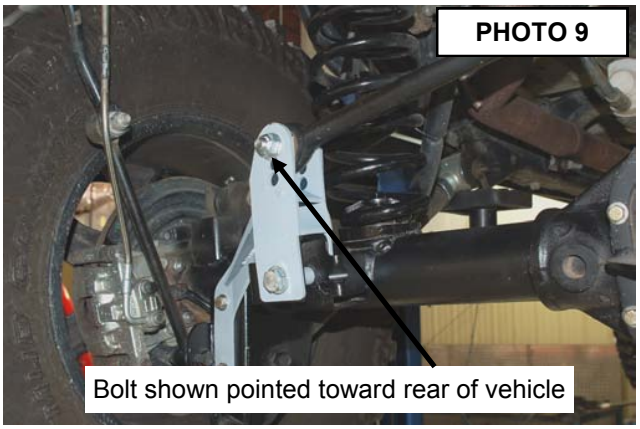
13. Install the supplied rear coil shim as shown in **Photo 6.**
14. Install the rear coil springs. Rotate the coils so that they seat properly, raise the axle enough to seat the coils.
15. Place the bracket on the factory mount and install the supplied 3/8" x 1" Bolts , washers and Flange lock nuts in the factory holes. Do not tighten at this time. **See Photo 7.**
16. Verify the original track bar mounting hole and the hole in the track bar bracket are aligned vertically. Using the track bar bracket as a template mark and drill a 13/32" hole in the top of the original track bar mount from the top.
17. Install using the .375-16 x 1" bolt, washer through the drilled hole from the top and secure with flange nut using a 9/16" wrench and socket. Do not fully tighten. **See Photo 8.**

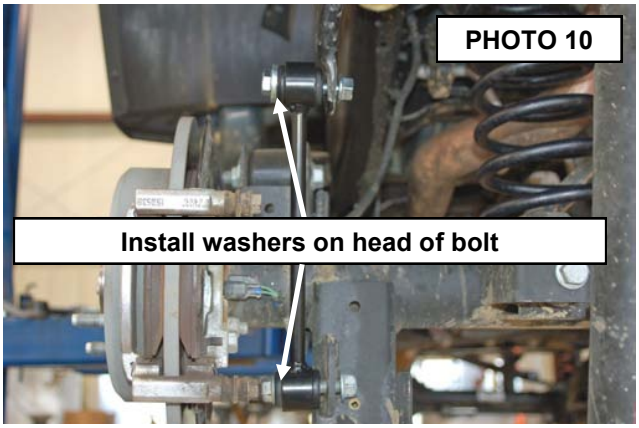


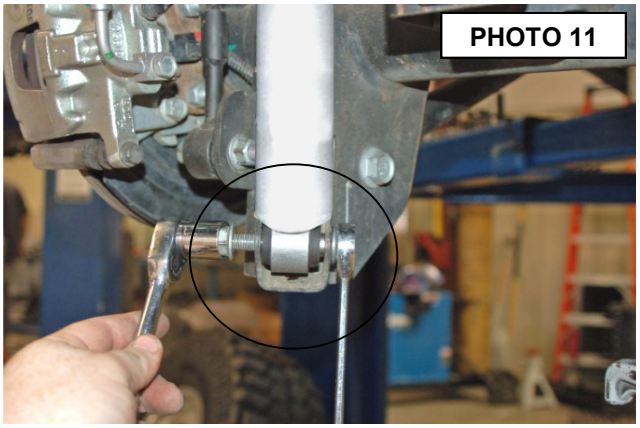



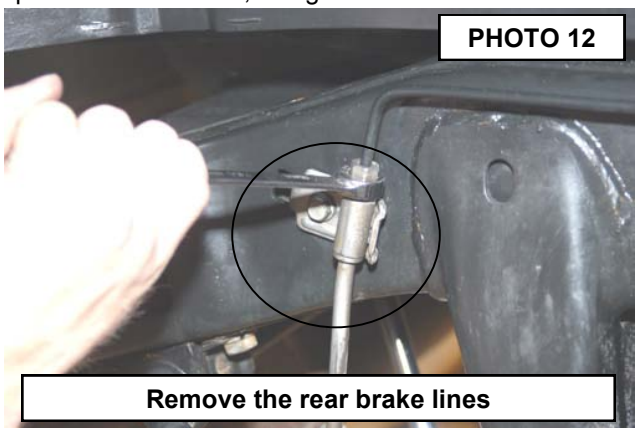

18. Insert the supplied sleeve, inside the factory track bar mount. Insert the supplied 14mm" x 80mm" bolt through the bracket, factory mount, and sleeve secure using the washer and nut. Do fully tighten. **See Photo 9.**
19. Tighten all track rod bracket hardware.
20. Install the factory track bar with the supplied 14mm x 75mm bolt washer & flange nut (upper hole) with the head of the bolt on the front by the coil spring. **See Photo 9**. The passenger side mount on the track bar will be installed in a later step.
21. Locate the 4 sway bar link sleeves. Insert the supplied 1/2" inner diameter sleeves into the sway bar link bushings. Using the supplied .500-16 x 2.75" bolts, washers and nuts from 1681bag, install the sway bar links to the sway bar, and axle mount., and tighten using a 13/16" socket and 7/8" wrench. **See Photo 10**. **Make sure the bolts are installed with the head of the bolt toward the tire as shown.**
22. Install the shocks using the factory hardware, using a 18mm socket for the top, and a 18mm socket for the bottom. **See Photo 11**.

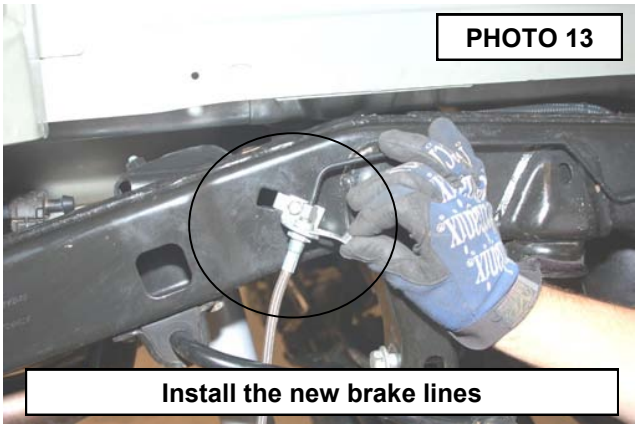


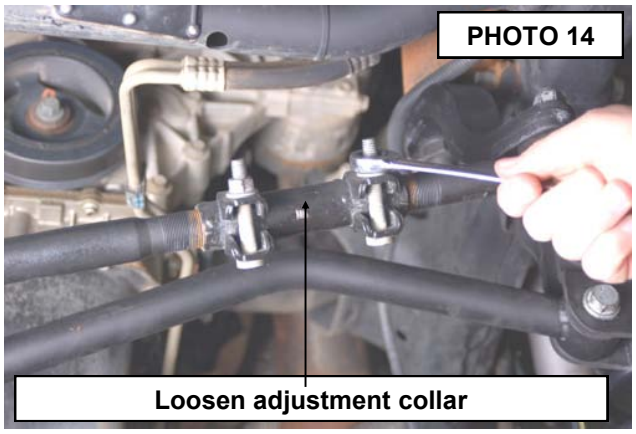



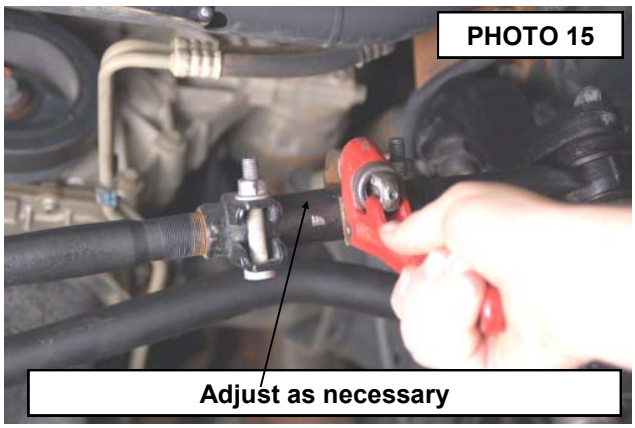
23. Remove the rubber brake line from the steel line using a 12mm wrench as shown in **Photo 12** and remove the brake line from the caliper using a 15mm wrench.
24. Install the new brake line bracket using a 10mm wrench and stock hardware to secure to factory location. Install the new brake line on the hard line and tighten. Install spring clip as shown in **Photo 13**. Install on the caliper with supplied crush washers, using a 15mm wrench.




25. Reinstall the rear tires/wheels, using a 19mm deep well socket
26. Lower the vehicle to the floor.
27. Using a 21mm socket tighten the front and rear lower control arms, both ends to 130 ft.lbs.
28. Using a 18mm socket tighten the front upper control arms, both ends to 80 ft.lbs
29. Using a 21mm socket tighten the rear upper control arms to 130 ft. lbs. **Note** Make sure flex joint housing is centered in mount before tightening jam nut. Should not be touching either side.****
30. Install the rear track bar into the factory location on the frame, using the factory hardware, make sure the body is centered over the rear axle, use a 21mm wrench and socket to tighten.
31. Adjust front draglink to center the steering wheel before driving by loosening the two bolts and turning the adjustment collar. **See Photo 14 & 15.**




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

## POST INSTALLATION

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

| | | | |
|---|---|---|---|
| Caster | preferred | 4.6 degree | range +,- 1 degree |
| Camber | preferred | –0.25 degree | range +,- 0.63 degree |
| Toe-in | preferred | 0.15degree | range +,- 0.15 degree |

## MAINTENANCE INFORMATION

It is the ultimate buyers responsibility to have all bolts/nuts checked for tightness after the first 500 miles and then every 1000 miles. Wheel alignment steering system, suspension and driveline systems must be inspected by a qualified professional mechanic at least every 3000 miles.

**JK Receiver Hitch**
**$99.95**





**Winch Mount / D-ring Kit**
**$379.95**

**Spare Tire Spacer**
**$39.95**









**Rough Country**
**9500lb Winch**
**$299.95**






**Quick Disconnects**
**$59.95**

Thank you for purchasing a Rough Country Suspension System.