

921399000

ROUGH COUNTRY
SUSPENSION SYSTEMS®**1399BAG1**

94-02 2500/3500 Dodge 5" Long Arm Upgrade Kit

Thank you for choosing Rough Country Suspension for your Off Road needs.

Rough Country recommends a certified technician installs 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. Average professional install time for this kit is 4-6 hours.

Please read all the instructions before beginning the installation. Check the kit hardware against the kit contents list on the last page. Be sure you have all the needed parts and understand where they go.

⚠ WARNING

Product Use Information

As a general rule, the taller a vehicle is the easier it will roll. We strongly recommend, because of roll-over possibility, that the vehicle be equipped with a functional roll-bar and cage system. Seat belts and should harnesses should be worn at all times. Avoid situations where a side rollover may occur.

Also check the steering stabilizer. It is a good idea when adding larger than stock tires to go with a larger bore steering stabilizer or a dual unit for tires 35" and above. Inspect the stabilizer and replace as necessary.

Braking performance and capability are decreased when significantly large/heavier tires and wheels are used. Take this into consideration while driving.

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. Mixing component brands, lifts, and/or combining body lift with suspension lifts voids all warranties. 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.

⚠ NOTICE

This suspension system was developed for 35x12.50 tire on the stock 17" x 9" or 20" wheels at 5" of lift. On an aftermarket wheel you will need to purchase a 8" wide wheel with minimum of 4-5/8" of backspacing. When larger tires are installed, speedometer recalibration is necessary. Due to ride height inconsistencies from the factory you may need to slightly trim the front plastic valance for proper tire clearance.

This kit can also be used a 3500 single rear wheel truck. Use of this kit on a dual rear wheel pickup is not recommended. Block and u-bolt combinations may vary with 3500 models.

⚠ NOTICE

Notice to Dealer and Vehicle Owner

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

INSTALLING DEALER—It is your responsibility to install the warning decal and to forward these installation instructions to the vehicle owner for review and to be kept in the vehicle for its service life.

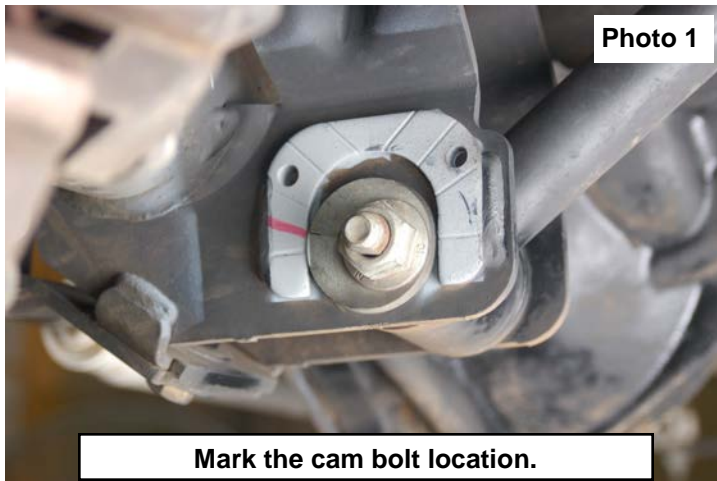


Tools and Supplies Needed to Install Kit

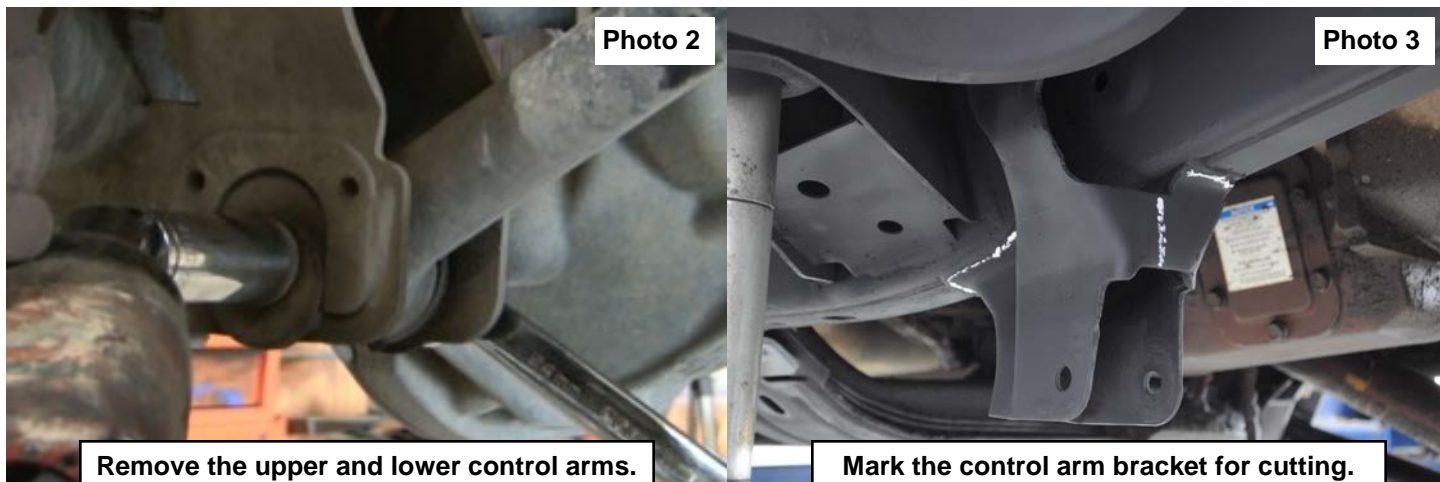
1. Torque Wrench	8. Pitman Arm Puller
2. ½" Drive Ratchet and Sockets	9. Hammers
3. Assorted Combination Wrenches	10. 17/32" Drill Bit
4. Heavy Duty Jack Stands	11. 9/16" Drill Bit
5. Hydraulic Floor Jacks	12. Die Grinder with Cut Off Wheel
6. Center Punch	13. Safety Glasses
7. Grinder	14. WD-40

FRONT SUSPENSION INSTALLATION

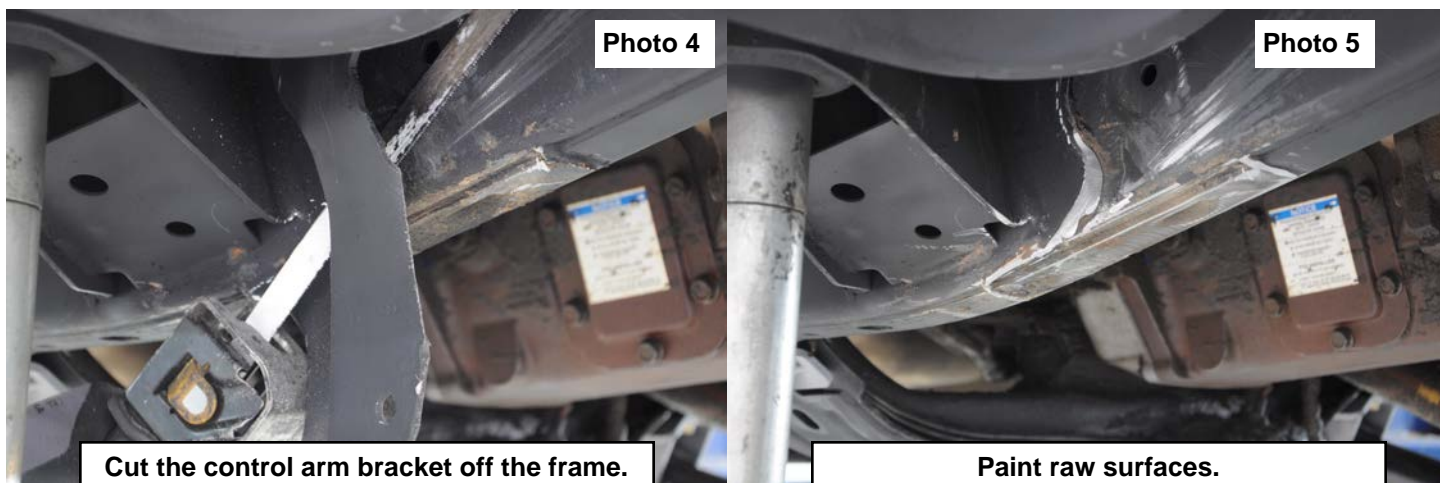
1. Secure and block the rear tires of the vehicle on a level concrete or asphalt surface
2. Open the hood and remove the shock nuts, retaining washers and rubber bushings from both upper shock mounts located inside the engine compartment. The shocks will be removed when the coils are removed.
3. Raise the front of the vehicle and support the frame with jack stands. Remove the front wheels and tires and set aside. Position a hydraulic jack under the front axle and raise the jack until the front suspension begins to compress
4. On both sides of the vehicle, scribe alignment marks on the adjustment cam and axle bracket at the lower link to axle attachment point for later reference. **See Photo 1.**
5. Unbolt the brake line brackets from the control arm mount on the axle using a 13mm wrench to ensure brake line free play during the suspension system installation.



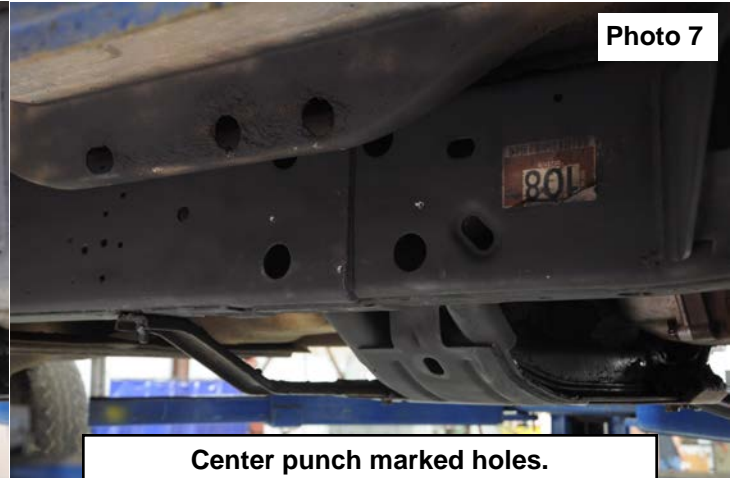
- 6 The new control arms will be installed one side at a time on the vehicle. This is done to make it easier to remove the hardware from the arms and to not cause bind in the front suspension. Remove the lower suspension arm nut, cam, and cam bolt from the axle using a 21mm and a 24mm socket and wrench. Remove the nut and bolt from the frame attachment point and remove the lower suspension arm from the vehicle. **See Photo 2.** Retain hardware for reuse.
- 7 Using a 21mm socket remove the upper control arm from the axle and frame. Note—the passenger side upper control arm frame bolt will have to be cut or remove the exhaust before the bolt can be removed.
- 8 Use a cut off wheel on a die grinder and cut the welds around the lower control arm frame bracket. The frame bracket has to be removed to allow clearance for the new longer arms. **See Photo 3.**



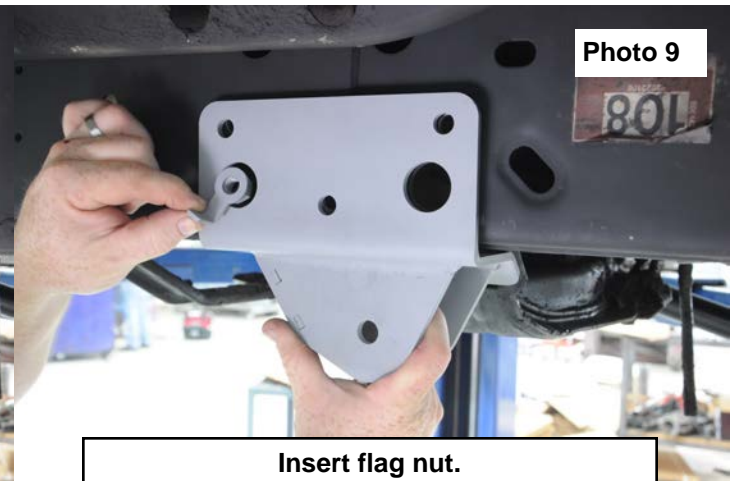
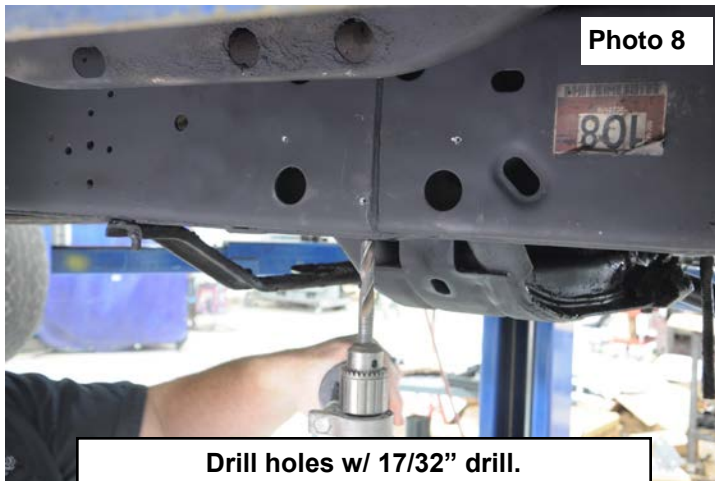
- 9 Use a reciprocating saw to cut the bracket off of the outside of the frame rail. **See Photo 4.**
10. After the factory bracket has been removed grind the frame smooth and paint to prevent rust. **See Photo 5.**



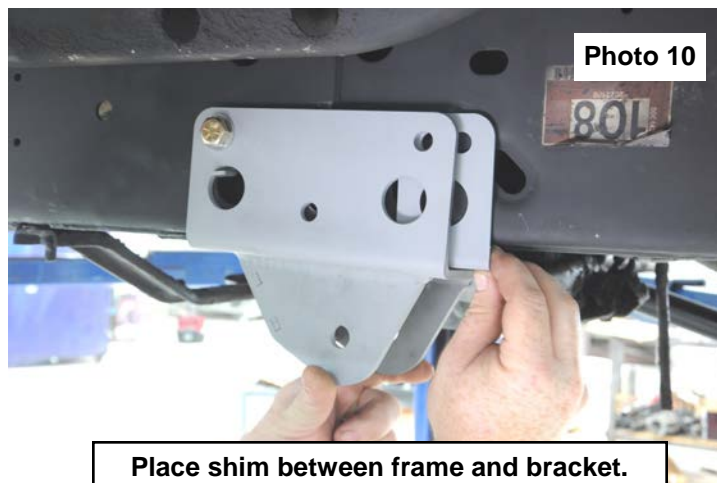
11. Use the new supplied control arm bracket as a template, aligning the 2 larger holes in the frame, and mark the 3 holes on the side of the frame to be drilled. **See Photo 6.**
12. Punch all marked holes with a center punch. **See Photo 7.**



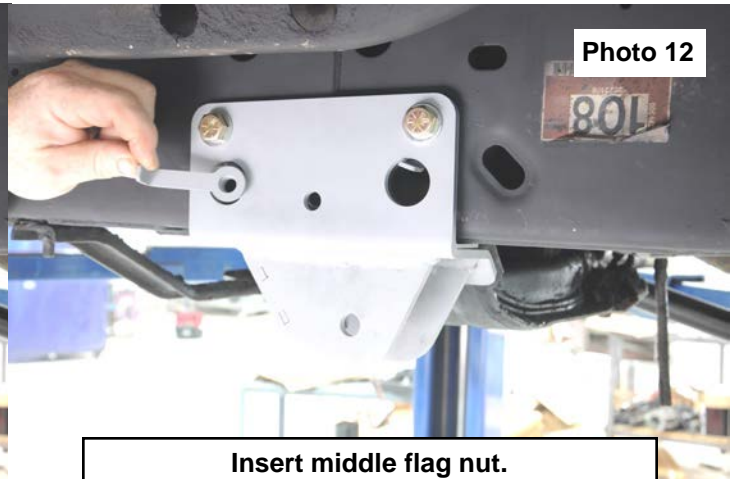
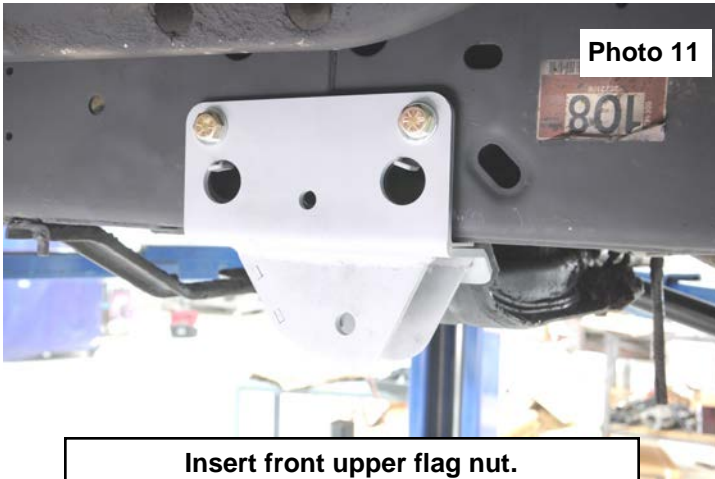
13. Using a 17/32" drill, drill the 3 marked holes in the frame. **See Photo 8.**
14. Insert the short rear upper flag nut and start the 1/2" x 1.5" supplied bolt. **See Photo 9.** Do not tighten at this time.



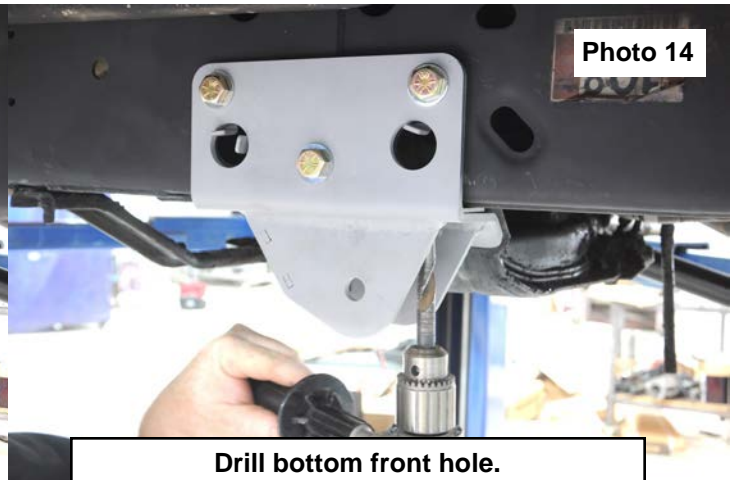
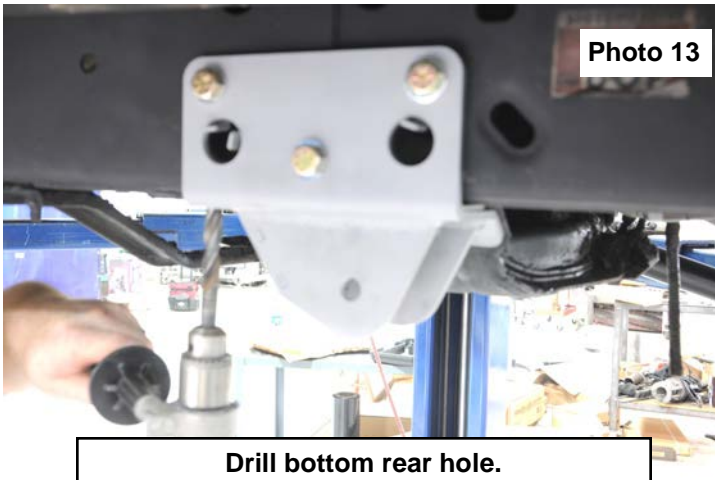
15. Insert the frame bracket shim on the front side between the bracket and the frame. **See Photo 10.**



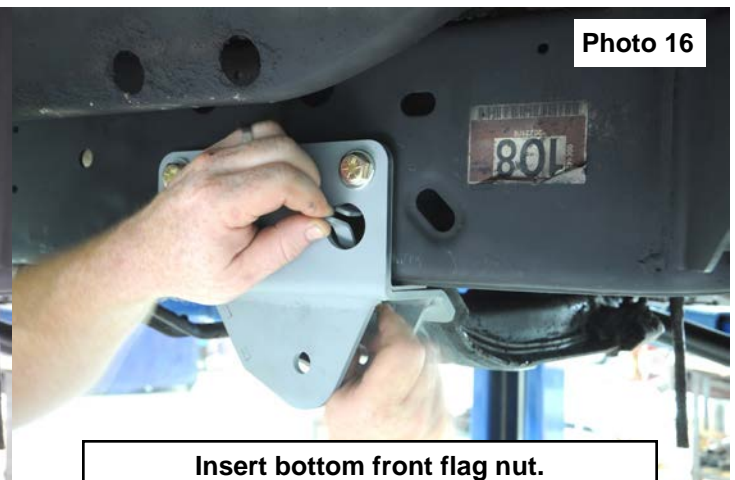
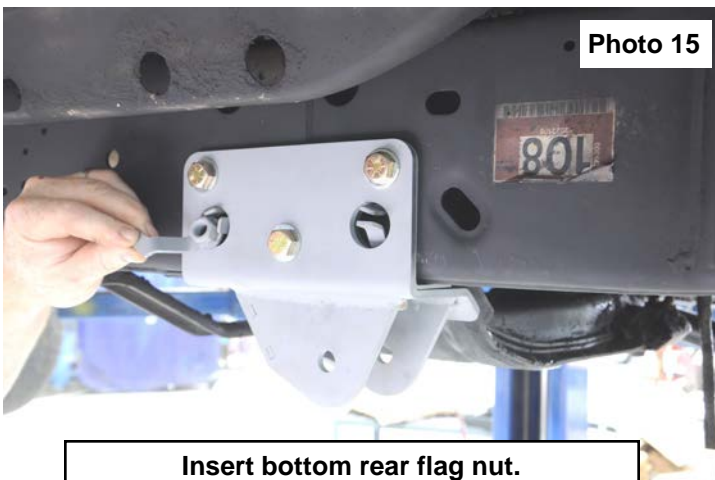
16. Install a short flag nut into the front upper corner with a supplied 1/2" x 1.5" bolt and washer. **See Photo 11.** Do not tighten.
17. Install the long flag nut into the center of the bracket with the supplied 1/2" x 1.5" bolt and washer. **See Photo 12.**



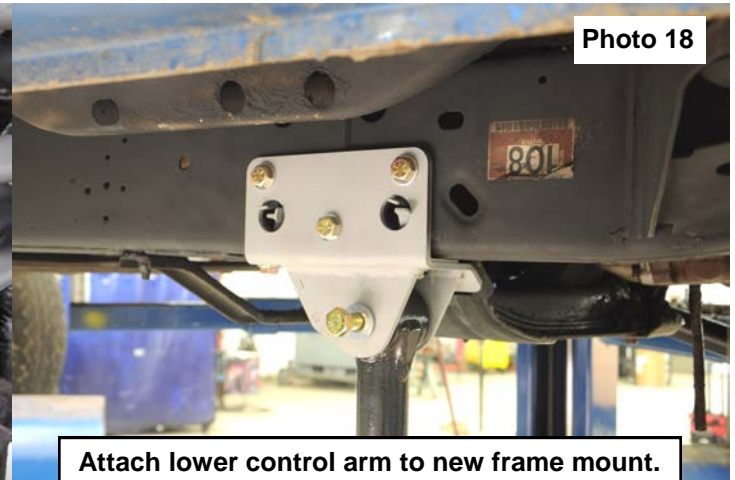
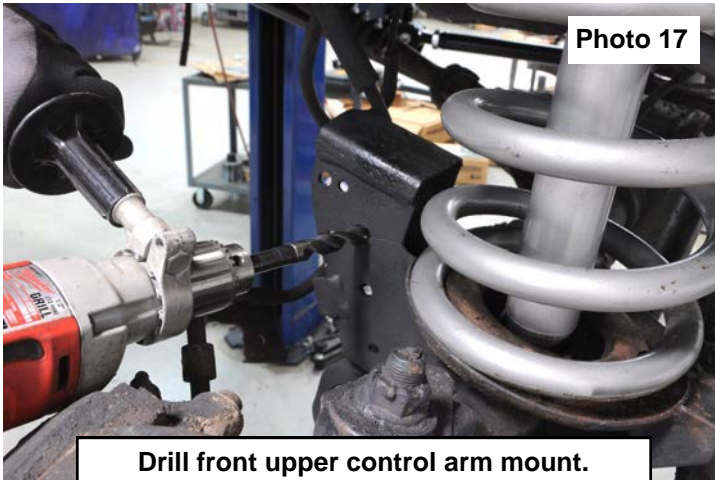
18. Tighten the (3) 1/2" bolts using a 3/4" socket.
19. Using the control arm bracket as a guide, drill the (2) bottom holes in the frame with a 17/32" drill. **See Photos 13 & 14.**



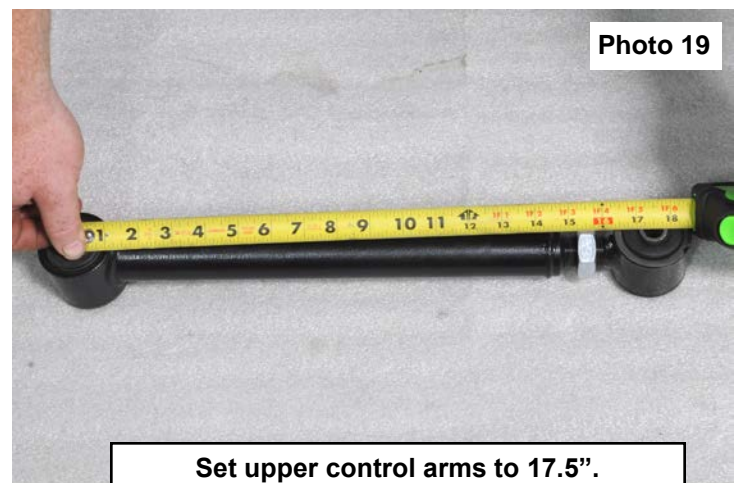
20. Install the curved flag nut in the rear of the frame and the double bent flag nut on the front with the supplied 1/2" x 1.5" bolts and washer **See Photos 15 & 16.** Tighten using a 3/4" socket.
21. Repeat steps 11-24 for the opposite side of the vehicle.



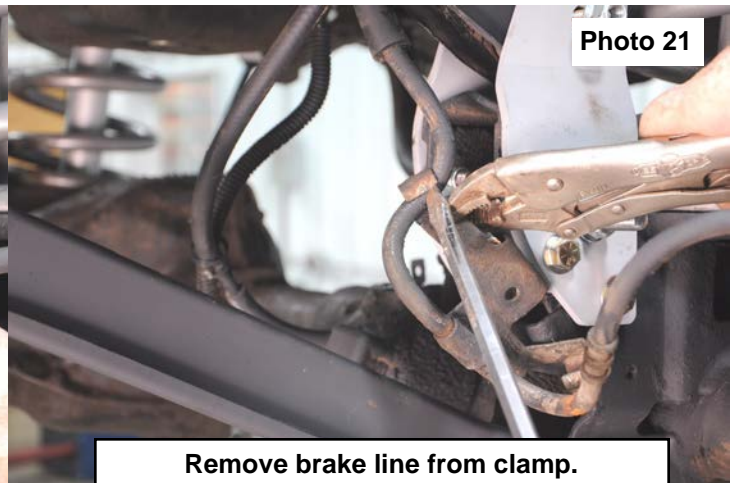
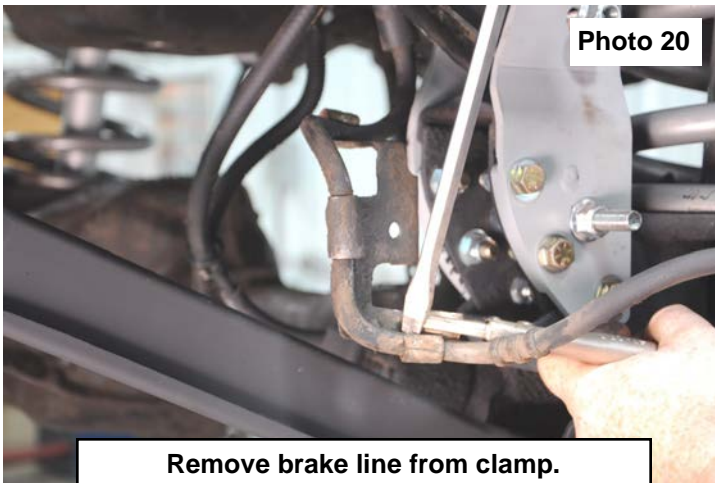
22. Using a 9/16" drill, drill the upper control arm mount on the axle. **See Photo 17.**
23. Install the lower control arm in the frame mount using the supplied 5/8" x 4.5" bolts, washers, and nylock nuts. **See Photo 18.** Do not tighten.



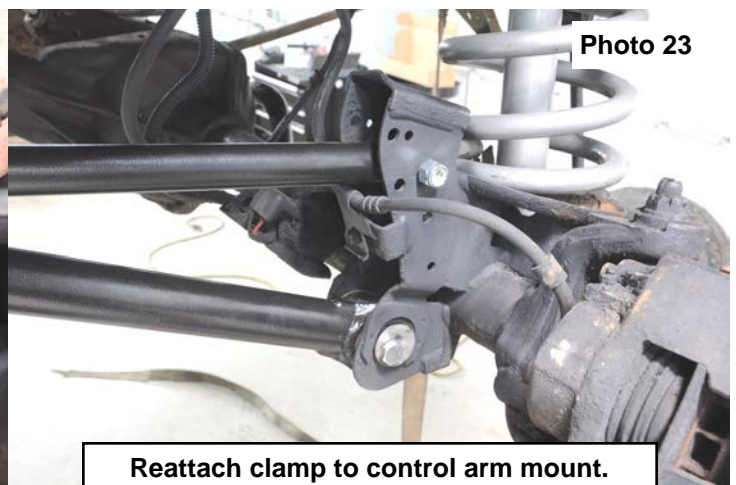
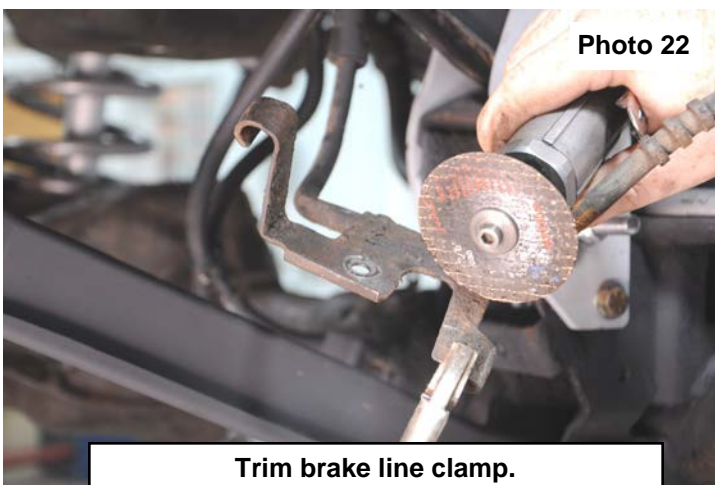
24. Adjust the new upper control arms to 17.5" on center. **See Photo 19.**
25. Attach the upper control arm to the lower using the supplied 9/16" x 3.5" bolts, washers, and nuts.



26. Using a 13mm wrench, remove the brake line bracket from the control arm pocket.
27. Using a flat screwdriver and vise grips, pry the bracket open and remove the brake line. **See Photos 20 & 21.**



28. Using a cutoff tool, cut the brake line bracket as shown in **Photo 22**.
29. Attach the upper control arm to the axle using the supplied 9/16" x 3.75" bolts, washers, and nuts.
30. Attach the lower control arm to the axle using the stock cam bolts. Align marks from step 4.
31. Attach the brake line bracket to the control arm mount to using the stock hardware. **See Photo 23.** Tighten using a 13mm wrench.



40. Repeat steps 36-45 on opposite side of the truck.
55. Install the tires / wheels. Lower vehicle to the ground.
56. Turn the wheels to make sure the brake lines are adjusted properly, re-crimp the clamp around the line if necessary.
57. Torque the fasteners to the following specifications:
 Lower suspension arm cam nut.....110 ft/lbs
 Lower suspension arm rear nut.....88 ft/lbs
 Upper suspension arm axle nut.....89 ft/lbs
 Upper suspension arm frame nut.....62 ft/lbs

POST INSTALLATION INSTRUCTIONS

Check all fasteners for proper torque. Check to ensure there is adequate clearance between all rotating, mobile, fixed and heated members. Check steering gear for interference and proper working order. Test brake system. Perform steering sweep. Check to ensure brake hoses have sufficient slack and will not contact rotating, mobile, or fixed members, adjust lines/brackets to eliminate interference and maintain proper working order. Failure to perform inspections may result in component failure.

Re-torque all fasteners after 500 miles. Visually inspect components and re-torque fasteners during routine vehicle service.

Readjust headlights to proper settings.

It is the buyer's responsibility to have all bolts/nuts checked for tightness after the first 100 miles and then every 1000 miles. Suspension components every 3000 miles.

Alignment Specs

Front			
Total Toe	-0.00°	+0.10°	+0.20°
Front Camber	-0.75°	-0.25°	+0.25°
Caster	+2.25°	+3.25°	+4.25°
King-Pin	—	—	—
Incl. Angle	—	—	—
Rear			
Total Toe	°	°	°
Rear Camber	°	°	°
Thrust Angle	-.025°	+0.00°	+0.25°

Kit Contents:	Poly Bags:
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2-Lower Control Arm Brackets
10-Control Arm Bracket Flag Nuts
1-Driver Lower Control Arm
1-Passenger Lower Control Arm
2-Upper Adjustable Control Arms
1-1399BAG1
1-1382BAG3

1399BAG1:
Instructions
Warning To Driver
1382BAG3:
10-1/2" x 1.5" Bolts
10-1/2" Flat Washers
2-9/16" x 3.5" Bolts
2-9/16" x 3.75" Bolts
4-9/16" Flat Washers
4-9/16" Lock Nuts
2-5/8" x 4.5" Bolts
2-5/8" Nylock Nuts
4-5/8" Flat Washers





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