

ROUGH COUNTRY

SUSPENSION SYSTEMS®

2014 GM 2" FRONT & 4" REAR LOWERING KIT

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

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

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

PRODUCT USE INFORMATION

⚠ WARNING Generally, braking performance and capability are decreased when larger/heavier tires and wheels are used. Take this into consideration while driving. Do not add, alter, or fabricate any factory or after-market parts to decrease vehicle height over the intended height of the Rough Country product purchased. Mixing component brands is not recommended.

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

⚠ NOTICE The electric power steering must be unplugged before any steering components are removed. Failure not to do so can cause damage to the electric power steering.

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

⚠ NOTICE NOTICE TO DEALER AND VEHICLE OWNER

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

Tools Needed:

- 24mm Wrench
- 22mm Wrench
- 21mm Wrench
- 18mm Wrench
- 15mm Wrench
- 13mm Wrench
- 12mm Wrench
- 10mm Wrench
- 8mm Allen Wrench
- Drill Motor
- Drill Bit 11/32
- Drill Bit 15/32
- Vise Grips
- Die grinder
- Floor Jack
- Jack Stands



FRONT INSTALLATION INSTRUCTIONS

1. Lift the front of the vehicle using a jack and support the vehicle with jack stands, so that the front wheels are off the ground
2. Remove the front tires/wheels., using a 21mm deep well socket
3. Loosen the (3) nuts on top of the strut using an 18mm wrench as shown in **Photo 1**. Do not remove nuts completely.
4. Remove lower strut bolts using a 15mm wrench as shown in **photo 2**.

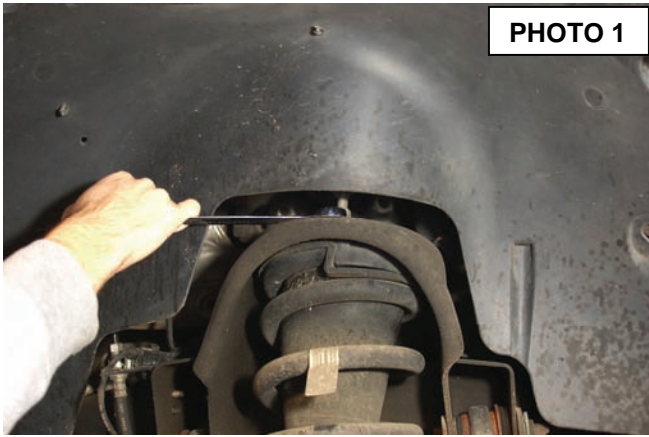


PHOTO 1



PHOTO 2

5. Remove them bolt clips from the strut as shown in **Photo 3**.
6. Use disc sander on the front right corner relative to the front of vehicle and grind corner off bar pin to fit as shown in **Photo 4**.



PHOTO 3



PHOTO 4

7. Position the strut to bottom of the control arm. Using the provided 1/4" spacer, place between control arm and bar pin as shown in **photo 5**. Flat side of plate will face the inside of vehicle as shown.
8. Using the provided 7/16" grade 9 bolts, nuts and washers install as shown in **Photo 6**. Using a 5/8" & 11/16", torque 60 ft/lbs.

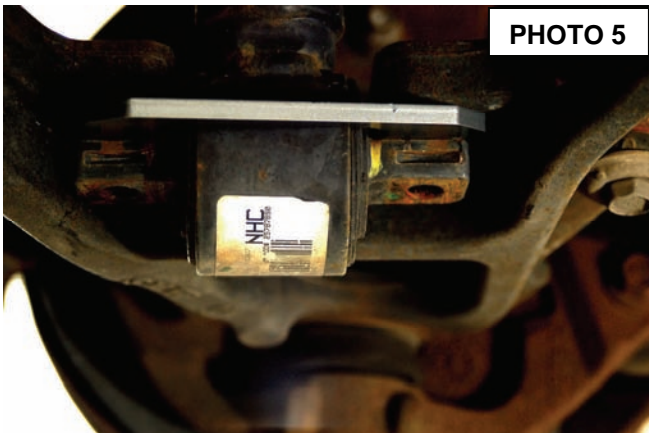


PHOTO 5



PHOTO 6

***ONLY USE PROVIDED 7/16 GRADE 9 BOLTS*
DO NOT REPLACE**

9. Retighten upper strut bolts to correct torque spec with 18mm wrench. Install the wheels / tires, using a 21mm deep well socket. Repeat steps 3-9 on Driver Side.
10. Jack up the vehicle and remove the jack stands. Lower the vehicle to the floor and torque all bolts to factory specifications.

REAR INSTALLATION INSTRUCTIONS

1. Lift the rear of the vehicle using a jack and support the vehicle with jack stands, so that the rear wheels are off the ground.
2. Remove the rear tires/wheels., using a 21mm deep well socket.
3. Remove bump stop. Using a cutoff wheel, cut all 4 sides of the bump stop and remove as shown in **Photo 1**.
4. Using the 2 existing “underneath” welds on the frame, measure to center and mark for new bump stop location. **Photo 2**.

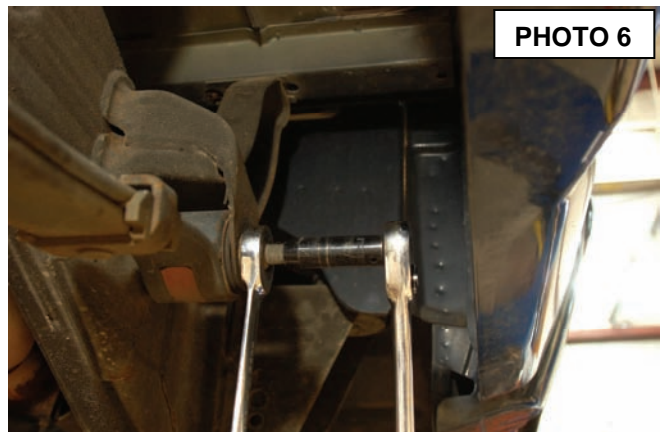


Drill a 11/32” hole and install the stock bolt along with the factory bump stop.

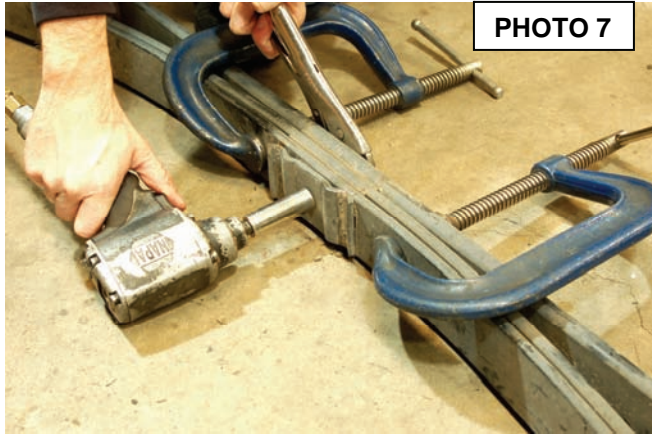
6. Using a 21mm socket and wrench, remove the shocks. Retain hardware for re-use with new provided RC shock. **Photo 3**.
7. Remove the bolt holding the brake line bracket to the rear-end. **Photo 4**.



8. Supporting rear axle, use a 21mm socket and remove the u-bolts on both driver and passenger side. **Photo 5**.
9. On the passengers side, using a 24mm wrench for nut and a 12mm for bolt on front 21mm for nut and 10mm for bolt on rear, remove the leaf spring bolts and remove from vehicle. **See photo 6. *Note* If equipped with tow hitch, this must be removed**



10. Using same wrenches as passenger side leaf, remove the rear bolt in the frame mount and the shackle on the drivers side. **Only loosen the front bolt. Do not remove!**



13. As shown in **Photo 7**, using a 15mm wrench and vise grips on the end of the pin, remove the ubolt plate and bolt.
14. After removing plate, flip bolt in insert on the opposite side as shown in **Photo 8**.
15. Using a 15mm and vise grips, re-tighten pin into the shown position in **Photo 9**.



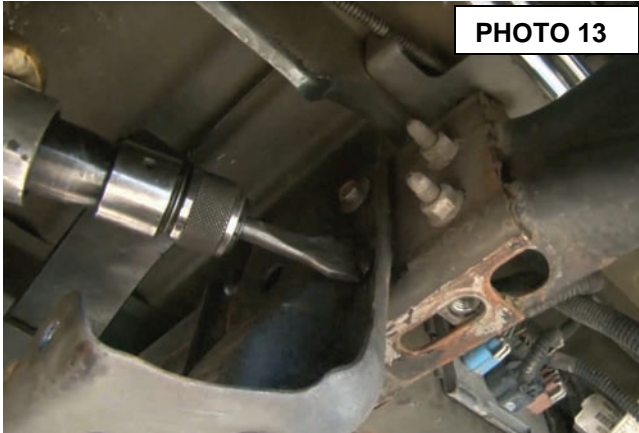
16. Install Socket Head Bolt and nut into the plate as shown in **Photo 10**. *Note direction of plate when placing bolt*
17. Using a 9/16 wrench and 5/16 Allen wrench, tighten bolt in place. **Photo 11**



18. Using 21mm socket and wrench, remove the stock shackle and retain stock hardware. **Photo 12**

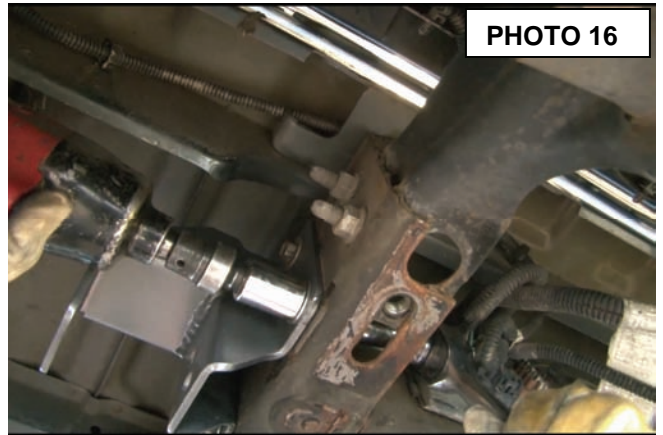
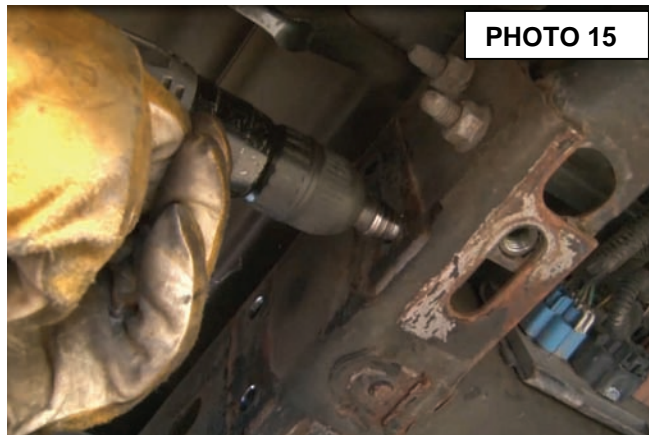
19. Using a die-grinder or air chisel remove the three factory rivets on the hanger bracket. **See Photo 13.**

20. Use a 15mm socket to remove the top rear bolt on the hanger bracket. **See Photo 14.**



21. Drill out the three rivet holes to 15/32" (clearance for a 7/16" bolt). **See Photo 15.**

22. Install the new hanger bracket on the frame, insert the factory bolt in the top rear hole and hand tighten. Use the supplied 7/16" x 1 1/4" long bolts, washers, and nuts for the other three holes in the hanger bracket. Tighten 7/16" bolts with a 16mm and 17mm socket and wrench and the stock bolt with a 15mm socket. **See Photo 16.**



23. Reinstall the driver leaf spring using the stock bolts with axle on top side of leaf. You will need the 24mm wrench with the 12mm on end and the 21mm wrench with 10 mm on end. Tighten to correct torque spec.

24. Install the factory shackle in the lower hole of the hanger bracket, using the stock hardware and previous wrenches used. **See Photo 17.** The lower hole is a 4" drop in the rear and the upper hole of the hanger bracket is a 4.5" drop.

25. On the drivers side frame, remove the e brake cable hanger using a 13mm socket.

26. Install the provided axle saddle with the spring hole positioned to the front of the truck .. **See Photo 18.**



27. Place the u-bolt plate with bolt head side in axle as indicated in **Photo 19**.
28. Install the provided u-bolts and new bottom plate as shown in **Photo 19 and Photo 20**.

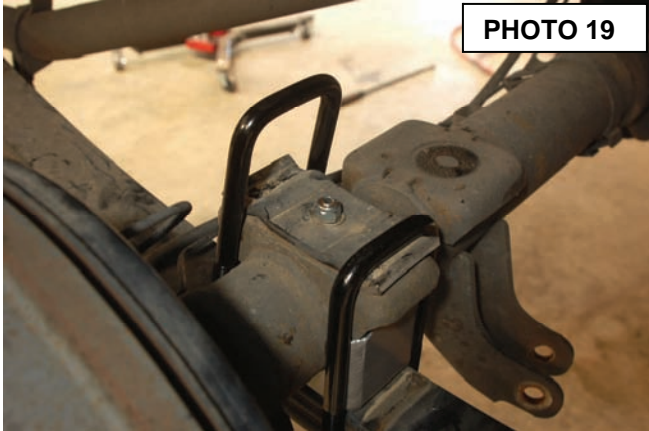


PHOTO 19

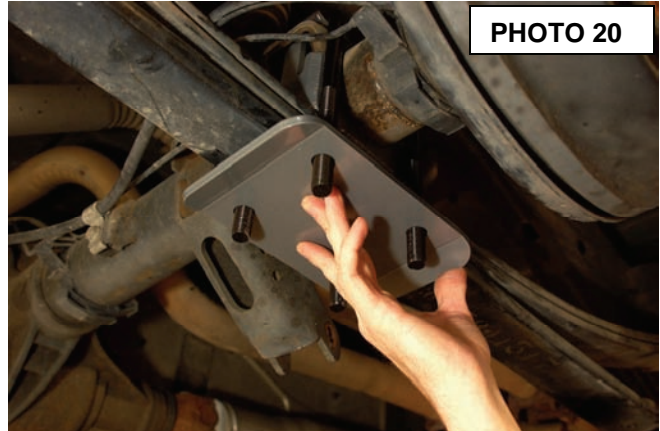


PHOTO 20

29. Using a 22 mm socket, install and tighten nuts to the u-bolt to correct torque. **See Photo 21**
30. Repeat steps 3-25 for passenger side.
31. Reinstall the brake line bracket to the axle using a 13mm wrench.
32. Reinstall the bolt in the e-brake hanger on the drivers side frame using a 13mm wrench.
33. Install the new 2.0 shocks with existing hardware with a 21mm wrench and a 21mm socket. **Photo 22 & 23.**

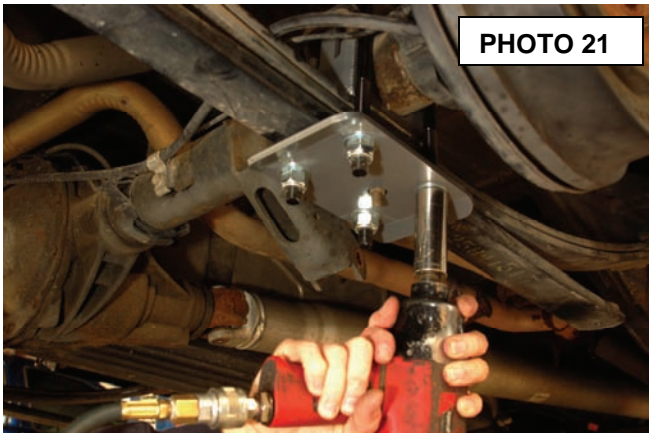


PHOTO 21



PHOTO 22

34. If truck was equipped , reinstall the factory hitch.
35. Install the rear tires/wheels., using a 21mm deep well socket.
36. Using a 15mm socket remove the 2 bolts from the transmission crossmember and jack up the transmission.. **See Photo 24.**
37. Install the (2) transmission shims along with the bolts and washers from 1296BAG3. **See Photo 25.**
38. Let the transmission down and tighten the hardware using a 16mm socket. Torque to 32 ft-lbs.
39. Remove all jack stands.
40. Lower vehicle and follow post installation instructions low.

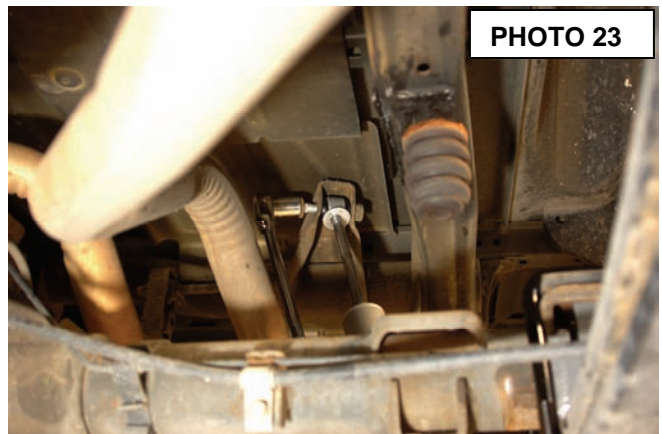


PHOTO 23

us-
be-



Photo 24



Photo 25

POST INSTALLATION

1. Check all fasteners for proper torque. Check to ensure there is adequate clearance between all rotating, mobile, fixed and heated members. Check steering for interference and proper working order. Test brake system.
2. Perform steering sweep. The distance between the tire sidewall and the brake hose must be checked closely. Cycle the steering from full turn to full turn to check for clearance.
3. Re torque all fasteners after 500 miles. Visually inspect components and re torque fasteners during routine vehicle service.
4. Readjust headlights to proper settings and take truck in for a front-end alignment to a qualified alignment professional.

SIZE	SAE GRADE 5		SAE GRADE 8		L9
	ASSEMBLY TORQUE DRY	LUBRICATED	ASSEMBLY TORQUE DRY	LUBRICATED	ASSEMBLY TORQUE LUBRICATED
1/4-20	8	75*	12	9	11
1/4-28	10	86*	14	10	13
5/16-18	17	13	20	18	21
5/16-24	19	14	25	20	23
3/8-16	30	23	45	30	33
3/8-24	35	25	50	35	38
7/16-14	50	35	70	55	60
7/16-20	55	40	80	60	65
1/2-13	75	55	110	80	95
1/2-20	90	65	120	90	105
9/16-12	110	80	150	110	140
9/16-18	120	90	170	130	150
5/8-11	150	110	220	170	185
5/8-18	180	130	240	180	205
3/4-10	250	200	380	280	290
3/4-16	300	220	420	320	355

BOLT TORQUE CHART
 ITEMS WITH * = INCH POUNDS
 ALL OTHERS = FOOT POUNDS

- Kit Contents
- 1721BOX2 -
 - 07-13 Driver Knuckle
 - 07-13 Passenger Knuckle
 - OR
 - 1722BOX1-
 - 99-06 Driver Knuckle
 - 99-06 Passenger Knuckle
 - 1722BOX1-
 - Axle Flip Bracket-2
 - U-bolt Plate-2
 - U-bolts-4
 - 9/16BAG-1
 - 1722BAG1-1
 - Rear Shocks-2
 - Rear Hanger Brackets-2

Thank you for purchasing a Rough Country Lowering System.

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.





GM 99-14 PLUS 1 DEGREE CAM WASHERS

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PRODUCT USE INFORMATION

This kit was designed to add an additional 1 degree of alignment adjustment for any 1999 to 2014 GM 1500 trucks.

NOTICE TO DEALER AND VEHICLE OWNER

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

Tools Needed:

21 mm Socket/Wrench
Grinder
Die grinder
Carbide cutting tool
Floor Jack
Jack Stands



INSTALLATION INSTRUCTIONS

1. Lift the front of the vehicle using a jack and support the vehicle with jack stands, so that the front wheels are off the ground. Remove the front tires and wheels.

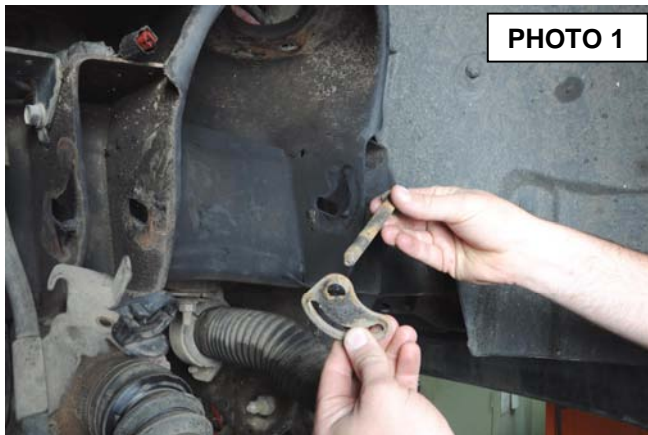


PHOTO 1



PHOTO 2

2. Using a 21mm socket and wrench remove the factory upper control arm bolts. Remove the factory cam plate as shown in **Photo 1**. Insert the new cam plate onto the bolt as shown in **Photo 2**.



PHOTO 3

MARK GUIDE PIN FLUSH WITH CAM PLATE

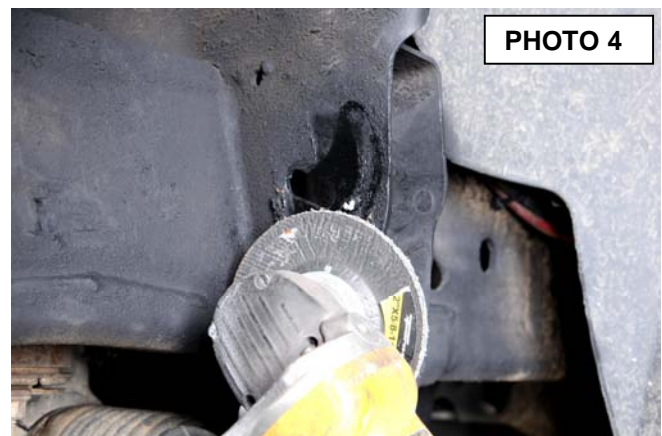


PHOTO 4

3. Pull the control arm down out of the way. Insert the bolt and cam washer into the control arm pocket and mark the guide pin so it can be ground flush with the alignment plate. **See Photo 2 & 3**.

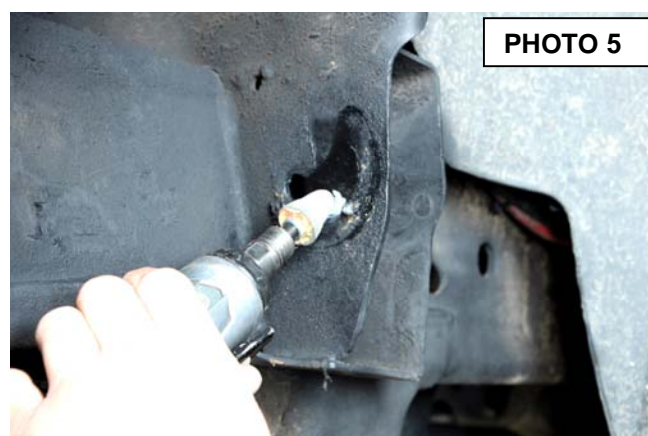


PHOTO 5

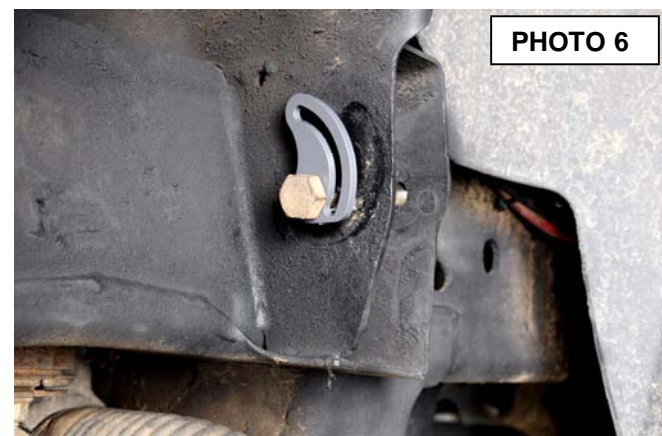


PHOTO 6

4. Next grind 3/16+ out of the end of the factory slot for the cam bolt closed to the guide pin. This will allow more travel of the cam bolt with the new cam plate. **See Photo 5 & 6**. Repeat these steps on the other cam slots and guide pins.
5. Install the upper control arms in stock locations and tighten control arm bolts with the new cam plates installed.
6. Install the tires and wheels and remove the jack stands.
7. A new alignment is required after installing the cam plates.