

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 product layout and kit contents information on these instructions. 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

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. If question exist we will be happy to answer any questions concerning the design, function, and correct use of our products.

Note this kit will only fit a S-10 pickup ext. cab.

This suspension system was developed using a 265/75-16, tire with 16" x 8" wide wheel with a 4.5" to 5" backspacing with minor trimming. If wider tires are used, offset wheels and trimming will be required. This kit was developed to obtain a front ride height of 25" on newer body style and 26" older body style as measured from the center of the front wheel to the bottom of the fender well.

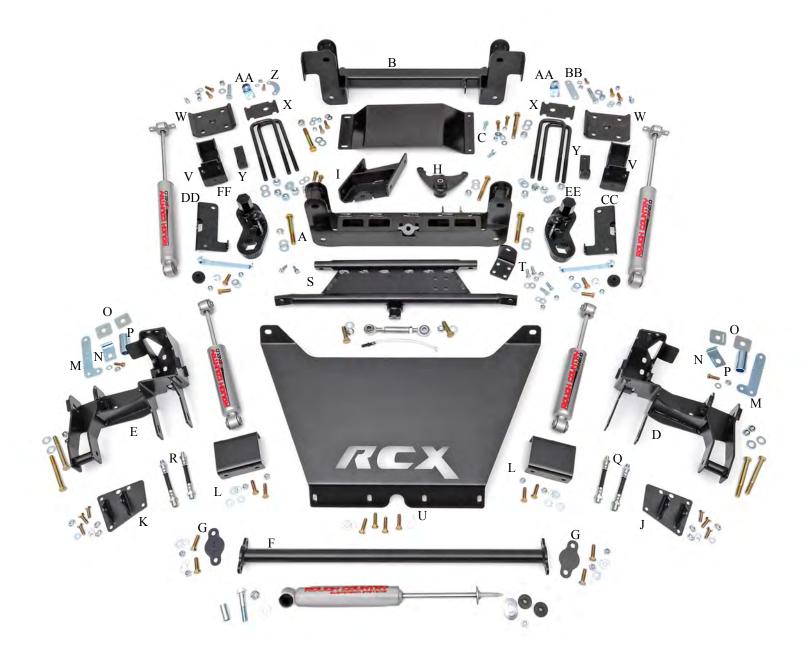
NOTICE TO DEALER AND VEHICLE OWNER

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.

	Torque Specs:	Torque Specs:
Tools Needed7mm Socket248mm Socket/Wrench3310mm Socket/Wrench9411mm Socket5413mm Socket/Wrench34	5/16" 15 ft/lbs 20 ft/ 3/8" 30 ft/lbs 35 ft/l 7/16" 45 ft/lbs 60 ft/	5/16"15 ft/lbs20 ft/lbs3/8"30 ft/lbs35 ft/lbs7/16"45 ft/lbs60 ft/lbs
14mm Socket/Wrench 15mm Socket/Wrench 16mm Socket/Wrench	9/16" 95 ft/lbs 130 ft	9/16" 95 ft/lbs 130 ft/lbs
17mm Socket/Wrench 18mm Socket/Wrench 19mm Socket/Wrench 21mm Socket/Wrench 22mm Socket/Wrench	6MM 5 ft/lbs 9 ft/l 8MM 18ft/lbs 23 ft 10MM 32ft/lbs 45ft/ 12MM 55ft/lbs 75ft/	6MM 5 ft/lbs 9 ft/lbs 8MM 18ft/lbs 23 ft/lbs 10MM 32ft/lbs 45ft/lbs 12MM 55ft/lbs 75ft/lbs
14mm Socket/Wrench 15mm Socket/Wrench 16mm Socket/Wrench 17mm Socket/Wrench 18mm Socket/Wrench 19mm Socket/Wrench 21mm Socket/Wrench	9/16" 95 ft/lbs Class 8 6MM 5 ft/lbs 8MM 18ft/lbs 10MM 32ft/lbs	9/16" 95 ft/lbs Class 8 6MM 5 ft/lbs 8MM 18ft/lbs 10MM 32ft/lbs 12MM 55ft/lbs

<u>Kit Picture</u>



<u>Kit Boxes</u>

1243BOX1-

1-Front Cross Member (A) 1-Rear Cross Member (B) 1-Lower Skid Plate (C) 1-1243BAG3

1243BOX2-

1-Driver Side Upper Control Arm Drop (D) 1-Passenger Side Upper Control Arm Drop (E) 1-Upper Control Arm Brace (F) 2-Control Arm Brace Shims (G) 1-Diver Diff Drop (H) 1-Passenger Diff Drop (I) 1-Driver Front Shock Mount (J) 1-Passenger Front Shock Mount (K) 2-Sway Bar Drop Brackets (L) 2-Front Brake Line Brackets (M) 2-Upper Control Arm Flag Nuts (N) 4-Cam Block Off Plates (O) 2-Upper Control Arm Crush Sleeves (P) 2-Brake Line Ext. 84-97 Models (Q) 2-Brake Line Ext. 98-up Models (R) 1-1243BAG1 1-1243BAG4 1-1243BAG5 1-1243BAG6

1243BOX3-

1-Steering Link (S) 1-1243BAG2 1-Stabilizer Bracket (T) 1-Stabilizer Cylinder 1-87334BAG1

1243BOX4-

1-Front Skid Plate (U)

1243BOX5-

2-Rear Axle Perches (V) 2-Lower U-bolt Plates (W) 2-Upper U-bolt Plates (X) 2-Rear Shock Brackets (Y) 1-Rear Brake Line Bracket (Z) 2-Rear Disk Brake Brackets (AA) 1243BAG8 1-Emergency Brake Bracket (BB) 1-9/16BAG 4-9/16" Square U-bolts 2-N2.0 Front Shocks 2-N2.0 Rear Shocks 1244BOX1-

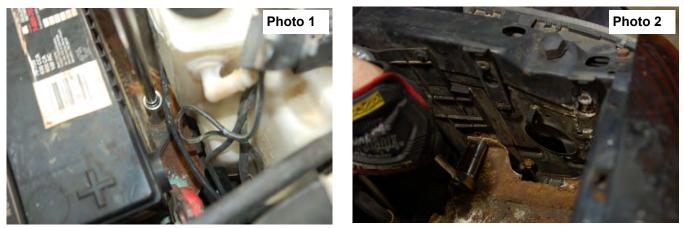
- 1-Driver NTD Bracket (CC) 1-Passenger NTD Bracket (DD) 2-NTD Flag Nuts 1-Driver Side Torsion Bar Relocation Bracket (EE) 1-Passenger Torsion Bar Relocation Bracket (FF) 1-1244BAG1
- 1-1244BAG2

<u>Kit Bags</u>

1244BAG1-1-Instructio Sheet 1-Warning to Driver 5-N2.0 Stickers 1243BAG2-4-3/8" x 1" Bolt 4-3/8" Washers 4-3/8" Nylocks 2-1/2" x 2.5" Bolts 4-1/2" Washers 4-1/2" Top Locks 2-1/2" x 1.75" Bolts 2-1/2" Hiems Joint 2-1/2" Jam Nuts 1-Threaded Steering Link 1-1.38" Long Sleeve 1243BAG3-4-9/16" x 4" Bolts 8-9/16" x 8" Washers 4-9/16" Nylocks 1243BAG4-2-Diff Bushings 1-1/2" x 3/4" x 1.90" Sleeve 1-1/2" x 3.5" Bolt 2-1/2" Washers 1-1/2" Nylock 2-7/16" x 1.25" Bolts 4-7/16" Washers 2-7/16" Nylocks 1-5/16" x 7" Vent Hose 1-5/16" Vent Hose Coupler 2-5/16" x 1" Self Tapping Bolts 1243BAG5-4-7/16" x 4" Bolts 4-7/16" Washers 4-7/16" Nylocks 8-3/8" x 1.25" Bolts 16-3/8" Washers 8-3/8" Nylocks 6-5/16" x 1" Bolts 6-5/16" Washers 6-5/16" Flange Locks 1243BAG6-8-3/8" x 1.25" Bolts 12-3/8" Washers 2-3/8" x 1" Self Tapping Bolts 4-3/8" Nylocks 2-5/16" x 1" Bolts 2-5/16" Washers 2-5/16" Flange Locks

1243BAG8-4-3/8" x 1.25" Bolts 4-3/8" Washers 4-3/8" Nylocks 2-5/16" x 1" Self Tapping 2-1/2" x 2.5" Bolts 2-1/2" Washers 2-1/2" Nylocks 2-5/16" x 1" Bolts 2-5/16" Washers 2-5/16" Flange Locks 9/16BAG-8-9/16" Nylocks 8-9/16" Washers 87334BAG1-2-Stem Bushings 2-Cup Washers 1-3/8" Nut 1244BAG2-4-7/16" x 1.25" Bolts 10-7/16" Washers 4-7/16" Nylocks 2-9/16" Nylocks

- 1. Jack the front of the truck up and place jack stands under the frame rail. Lower truck on stand and remove front tires.
- 2. Using a 8mm or 5/16 wrench remove battery cables. Using a 13mm remove bolt from battery holder. Remove battery. Remove the two bolt from battery tray using a 13mm socket. Note on some earlier models you may have to remove the grill to gain access to one of the bolts just under headlight. **See Photo 1 & 2.**



 Find the two bolts holding the 4x4 actuator that are on the inner fender well. Using a 13mm socket remove the bolts. Then turn the metal clip to release cable from actuator and use a pair of needle nose to release the plastic clip to remove cable from bracket. Remove actuator. See Photo 3 & 4.



- 4. Using a 15mm and a 13mm socket remove all 3 skid plates from truck
- 5. With the truck on jack stands measure the torsion bar adjusting bolts and write it down for later. Unload torsions bar using a 18mm socket and a torsion bar tool. **See Photo 5.** After torsion bars are unloaded remove the torsion bar cross-member using a 18mm socket one side at a time while removing the torsion key. Remove torsion bars. Remove the torsion bar hangers using a 15mm wrench and socket. **See Photo 6.**



6. Remove the sway-bar using a 13mm socket a pair vise grips on the lower control arm. A 10mm socket and 15mm wrench on the frame. See Photo 7 & 8.



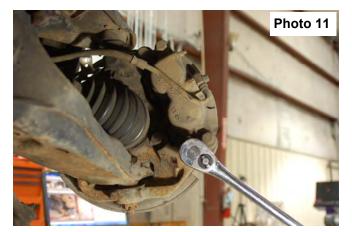
- 7. Remove the abs and brake line from upper control arm using two 13mm wrenches
- 8. Using a 10mm wrench remove the abs line from the ball joint mount. See Photo 9.
- 9. Remove tie rod using a 19mm wrench and use a hammer to strike the side of the knuckle to dislodge the taper on the tie rod. **See Photo 10.**

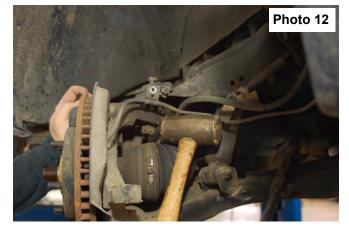




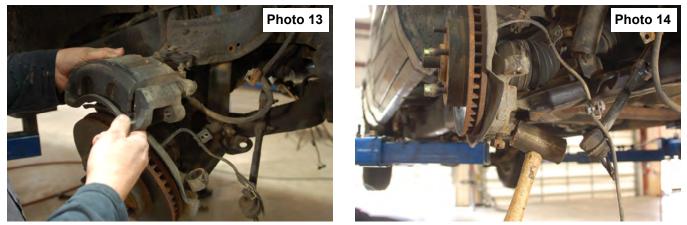
Photo 8

- 10. Remove brake caliper bolts using a 18mm socket. See Photo 11.
- 11. Remove the brake line bracket using a 13mm wrench on the frame
- 12. Remove the cotter pin and then the nut on the upper ball joint using a 22mm wrench. Use a hammer to strike the side of the knuckle to dislodge the taper on the upper ball joint. See Photo 12.





- 13. Now remove the brake caliper, swing the caliper and line to front of truck and hang safely. Remove axle nut using a 35mm socket. See Photo 13.
- 14. Remove the lower ball joint cotter pin and with a 24mm socket loosen the nut. Using a hammer strike the side of the knuckle to brake the taper loose. **See Photo 14.**
- 15. Hold the knuckle and finish removing the lower ball joint nut.

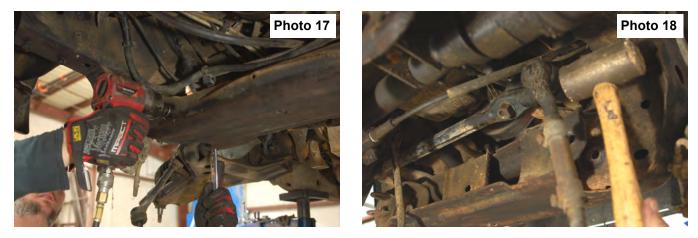


- 16. Remove the bolts from the upper and lower shock mounts with a 18mm wrench and socket. See Photo 15.
- 17. Remove the upper control arm using a two 18mm wrenches. See Photo 16.





- 18. Removing the lower control arm using a 21 mm socket and wrench. **See Photo 17.**
- 19. Remove the center link using a 21mm socket and a hammer to strike the end of the steering link to dislodge the taper of the inner tie rod end. See Photo 18.



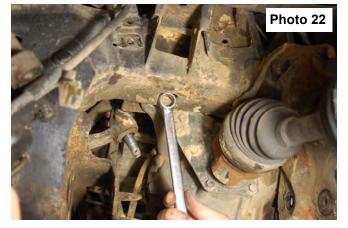
- 20. Repeat steps 6-19 on opposite side.
- 21. Now is a good time to inspect and replace any worn tie rods, ball joint, pitman arm, or cv shafts.

- 21. To remove the diff use a 7mm socket remove bolt from bracket holding the 4x4 light wire to diff. Unplug 4x4 light wire from diff. remove driveshaft using 11mm socket. **See Photo 19.**
- 22. Cut the rear lower dif mount out using a sawzall. See Photo 20.



- 23. Remove the two passenger side nuts from diff using a 18mm socket. Remove the lower diff bole using 18mm wrench and socket. **See Photo 21.**
- 24. There's a hole in the frame to access the nut for the upper diff mount. Support diff and use a 18mm wrench and socket to remove upper diff bolt. Then remove the diff. **See Photo 22.**



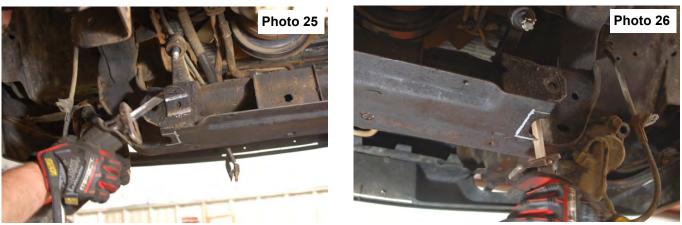


- 25. Remove both bumper stops from frame using 13mm socket
- 26. Using a sawzall cut the upper control arm pocket one inch up from bottom on the rear of the front control arm pocket a shown. See Photo 23.
- 27. Cut the upper control arm bump stop bracket off of rear control arm pocket. See Photo 24.

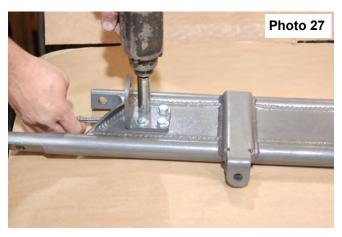


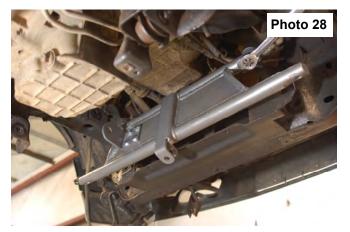


- 27. Cut the factory stabilizer mount off the frame. See Photo 25.
- 28. Cut the front lower control arm pocket 11/4 inch from the outside on each side of the truck. Clean and paint all cut areas. See Photo 26.



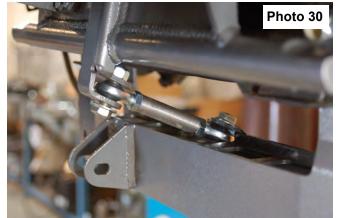
- 29. Install stabilizer bracket onto new steering link as shown using 14mm socket and wrench. Use the supplied 3/8 x 1inch bolts, washers, and nuts. **See Photo 27.**
- 30. Install steering link on to pitman arm and idle arm using stock hardware with the stabilizer bracket point toward rear of truck. Use a 21mm and/or 19mm to tighten and install cotter pin. See Photo 28.



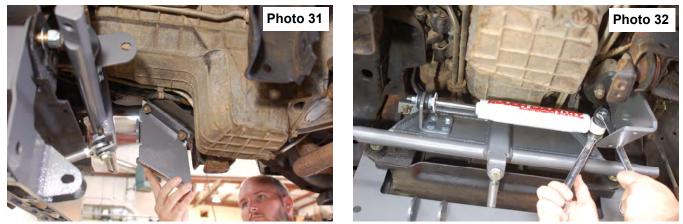


- 31. Install front cross-member using the supplied 9/16 x4 inch bolt, washers, and nuts. Do not tighten at this time. **See Photo 29.**
- 32. Assemble the 2 rod ends with the rod end sleeve and jam nuts. Adjust to 6 inch 9/16 end to end or 5 1/4 center to center for a starting point. Tighten jam nuts using 19mm wrench. Install the link using the supplied 1/2" x 1.75" long bolts, washer, nuts. The bolt on the steering link will point up and the bolt on the cross-member will point down. Tighten the steering lower link using 19mm socket and wrench. See Photo 30.





- 33. Install the passenger side diff drop bracket using stock hardware. Tighten bolts using two18mm wrenches. **See Photo 31.**
- 34. Install stabilizer #81274 using supplied hardware sleeve 1/2" x 2 1/2" bolt, washer, and nut. Tighten using a 14mm for the stud end and a 19mm for the diff drop bracket side. **See Photo 32.**



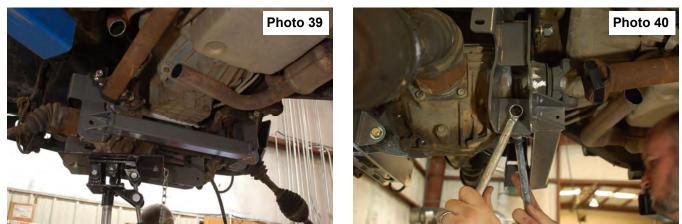
- 35. With the diff on a table cut the top diff ear off. STAY ABOVE THE VENT TUBE. Cutting to low may cause a leak. Clean area so there is no sharp edges. Remove the fins from the drive side of diff from the yoke back without cutting into the body of the diff. Sand area so there are no sharp edges. Install the two bushing and sleeve into front diff bracket. Install front diff bracket by remove 3 of the diff bolts on front side using a 15mm socket. See Photo 33, 34, & 35.
- 36. Using template cut the shown areas on the driver side lower control arm pocket. Sand and paint area. **See Photo 36.**



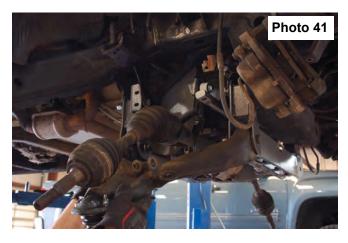
- 37. Cut the exhaust to make room for driveshaft. Cut 41/4 inches below the oxygen sensor and just below the transmission. See Photo 37.
- 38. Install the diff back into truck using the supplied 1/2" x 3.5" bolts, washers, and nut for driver front diff mount and 7/16" x 1.25" bolts, washers, and nuts for passenger side diff mount. **See Photo 38.**



- 39. Install the rear cross-member using supplied 9/16" x 4" bolt, washers, and nuts. Use stock bolt for lower diff mount. At this time make sure that there are no clearance issues with the steering and lower control arm pocket with the diff. make adjustment now before going any further. **See Photo 39.**
- 40. Tighten lower diff mount bolt using 18mm wrenches. Install diff vent tube ext. Using the supplied 5/16 hose 7' long with the 5/16 coupler. See Photo 40.

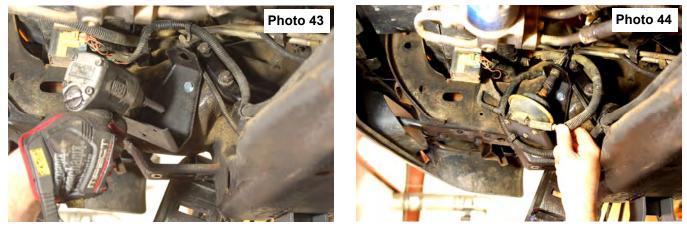


- 41. Install lower control arm using stock hardware. Do not tighten at this time. See Photo 41.
- 42. Tighten all diff bolts using a 19mm wrench for front diff bolt and 16mm wrench and socket for passenger side diff mount bolts. Tighten all cross-member bolts using a 21mm socket and 22mm wrench. Reinstall drive shaft with stock hardware. Use a 11mm to tighten. Pull some slack down on the 4x4 light wire and plug it up. See Photo 42.

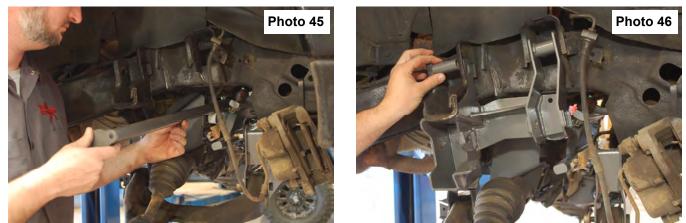




43. Route the 4x4 cable around the back side of diff up an over the stabilizer and over the lower radiator hose. Make sure cable is not in harms way. Route the vacuum hose that went to the 4x4 actuator over to the 4x4 cable. Using a 7mm socket remove the 4x4 actuator from the bracket it is mounted to. Remove the clip holding the ABS wire from the frame using some needle nose pliers. Adjust hard brake line out of the way. Drill the hole out on the 4x4 actuator bracket to 11/32. Take the bracket and place it on the frame as flat as possible with the small end pointing toward the 4x4 cable and mark holes. See pic. Drill the marked hole using a 1/4 drill bit. Using the supplied 5/16" self tapping bolts and install bracket to frame. Use a 13mm socket to tighten. See Photo 43. Reinstall the actuator to the bracket using stock hardware and a 7mm socket to tighten. Reinstall 4x4 cable into actuator and vacuum line. Adjust hard brake line away from moving parts on idler arm. See Photo 44.



44. Install control arm drop support bar above the stabilizer at this time. Make sure all wires, hoses and cable are above this bar. See Photo 45.



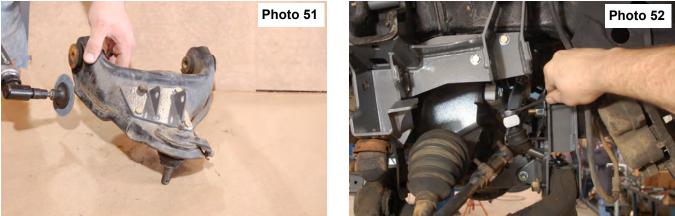
45. Install upper control arm drops using the supplied 7/16" X 4" bolts, washer, and nut with the painted square washers on the front side and use the flag washer and sleeve on the back side. See Photo 46,47,48. Install the supplied 3/8" x 1.25" bolts, washers, and nut into the upper control arm drop and attach the support bar. NOTE SHIM maybe needed if bar is to short. Install two of the 3/8 bolts into the upper control arm drop bracket to rear cross-member on both sides. Tighten all 3/8" bolt using 14mm socket and wrench. Tighten all 7/16" bolts using 5/8 socket and wrench.





- 46. Install factory bump-stop to upper control arm drop in the last hole with stock hardware. Tighten using 13mm wrench. See Photo 49.
- 47. Remove the bump-stop from the upper control arm using a14mm socket and install the lower shock bracket using the bump-stop to a- line the shock bracket and tighten the bump-stop nut. Use the shock bracket for a template and drill the 3 holes using a11/32 drill bit. Install the supplied 5/16" x 1" bolts, washers, and nuts to the upper control arm. Tighten using 13mm socket and wrench. Test fit the upper control arm in the drop bracket and make sure rear of control arm does not contact the control arm drop if so grind the rear edge of the upper control arm and paint grinded area. See Photo 50 & 51.





- 48. Remove the tie-rod ends from the center link using a 18mm socket and install the tie-rod onto the new center link using stock hardware. See Photo 52.
- 49. Install upper control arm into upper drop bracket using stock hardware. Do not tighten at this time
- 50. Install knuckle using stock hardware. Make sure brake line is run under the upper control arm. Tighten upper ball joint using a 22mm wrench and lower ball joint using a 22mm wrench. Install cotter keys. Tighten axle nut using 35mm socket. Install rotor and brake caliper with stock hardware. Tighten brake caliper using 18mm socket. Install tie-rod end into knuckle use a 19mm to tighten. Install cotter key. See Photo 54.





51. Install the two sway-bar drop using stock hardware use a 10mm socket and a 15mm wrench. Remove the last two bolts from the tow hooks using a 15mm socket. Install front skid plate using stock bolts for upper mount and the supplied 3/8" x 1.25" bolts and washers for lower mount. Install lower skid plate using two of the lower front skid plate bolts and the supplied 3/8" self -tapper for the rear. Use a 14mm socket to tighten all lower bolts and a 15mm for the upper bolts. See Photo 55 & 56.



- 52. Install the sway-bar using the supplied 3/8" x 1.25" bolts, washers, and nut onto the sway-bar drop mounts. Use a 14mm socket and wrench to tighten. Use stock hardware to attach sway-bar to lower control arm. Use a 13mm wrench and a pair of pliers to tighten. **See Photo 57.**
- 53. Install the new front shock using stock hardware install shock onto truck. Use 18mm wrenches to tighten bolts . See Photo 58.

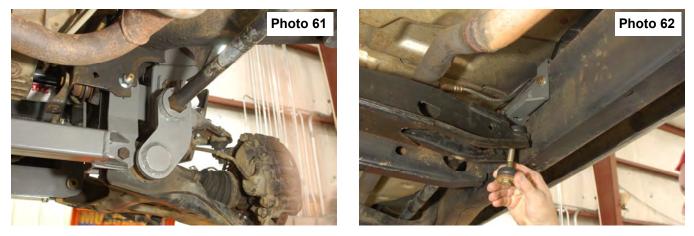


54. THIS NTD ONLY FITS EXT. CAB TRUCKS (note on driver side the wiring harness will need to be moved to install bracket) Enlarge the stock hole on the frame where the torsion bar cross-member hanger was mounted using a 7/16 drill. Using the supplied 7/16" x 1.25"bolts, washers, and nuts. Install the new torsion bar mount onto frame. Use the torsion bar bracket as a template and drill the other hole in frame using a 7/16 drill. Place a washer between the torsion bar bracket and frame while install second bolt into hole. Tighten the first bolt using 5/8socket and wrench. Then install flag nut into hole on outside of frame and start the second bolt into it. Tighten using 5/8 socket and a pair of vise grips to hold on to flag nut .Repeat step for other side. See Photo 59 & 60.





55. Install the new none torsion bar drop brackets into the control arms as shown then install torsion bar. Install the torsion bar cross-member onto the brackets using the supplied 7/16" x 2.75" bolts, washers, nuts, and bushing using the stock washers off of old bolt. (note the new bushing will be very tight on the new bolt Tighten bolts using 5/8 socket and wrench. Install torsion bars and keys make sure keys are all the way on the torsion bar and load bars using a torsion bar tool. Set torsion bar set bolt to measurement taken at the beginning. **See Photo 61 & 62.**



- 56. Install transfer case skid plate if equipped with stock hardware.
- 57. Using a 9/16 line wrench and a 5/8 wrench remove the rubber brake line from the hard line. Take care when doing this the line maybe brittle. Install the new brake line ext. to rubber line first using two 5/8 wrenches to tighten. Note 97 and down models use the 3/8"-24 fitting lines and the 98-up models use the 7/16"-24 fitting lines. Then brake line ext. to hard line using 9/16 line wrench and a 3/4 wrench. See Photo 63. (Note wrench size may be different on some year models)
- 58. Install new brake line bracket to the stock brake line bracket using the 5/16" x 1" bolt, washer, and nut. Tighten using a 13mm wrench. Attach the new brake line bracket to frame using stock hardware and a 13mm wrench to tighten. Reinstall ABS wire and brake line to upper control arm with stock hardware using 13mm wrench and 10mm wrench. See Photo 64. Make sure lines are out of harm way. Bleed the brakes and check for leaks.



- 59. Reinstall battery tray using stock hardware and a 13mm socket to tighten. Install battery and battery holder use a 13mm socket to tighten. Reinstall battery cable using a 8mm wrench. Reinstall grill if it was removed.
- 60. Install the front tires and wheels and remove truck from jack stands.

Rear Installation

- 1. Raise the rear of the truck and place jack stands under the frame. Lower the truck on the stands and remove the rear tires.
- 2. Remove both shocks using a 13mm socket for top bolts and a 21mm socket for bottom. See Photo 1.
- 3. Remove the brake line bracket from axle housing and the emergency cable using a 13mm socket. See Photo 2.



- 4. Remove bolt from the emergency brake cable bracket on frame on driver side. See Photo 3.
- 5. Remove the U-bolts using a 21mm socket. See Photo 4.

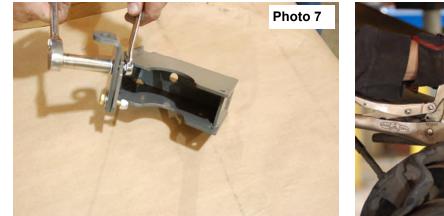


- 6. Support both side of rear end and remove the leaf springs one side at a time using a 21mm socket and wrench. You may need to support the driveshaft. **See Photo 5.**
- 7. Remove both brake line clips from bracket on axle if your S10 has rear disc brakes. If you have drum brakes skip this step. Pull rubber brake line out of bracket and cut the factory brake line bracket with cut off wheel or sawzall so you can remove line from bracket. Cut the factory bracket off the axle. Clean and paint area. **See Photo 6.**





- Install lower shock bracket to the new spring perch block using the supplied 3/8" x 1.25 bolts ,washer, and nuts. Tighten with 14mm socket and wrench. Flip shock bracket for other side. Shock bracket will point to the inside of truck. See Photo 7.
- 9. Reinstall leaf spring so that it is on top of axle. Use stock hardware. With two C-clamp remove the center pin and flip it. Use a pair of vise grips with a 15 mm socket or wrench. **See Photo 8.**





10. Install new spring perch block onto axle. Lower axle onto block. Install the U-bolt top plate on to leaf spring with the short side to the back and install the U-bolts. Install the new lower U-bolt plate using the supplied 9/16" nuts and washers. Tighten using a 22mm socket. See Photo 9 & 10.

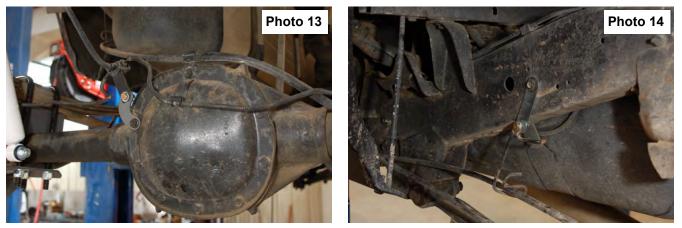


- 11. Install new brake line bracket using the 5/16" self-tapper use a13mm socket do not tighten all the way. Place the brake line into bracket and use stock clip to secure. Make sure brake lines are not in harms way. **See Photo 11.**
- 12. Install new shock using stock hardware up top and the supplied 1/2" x 2.5" bolt, washer, and nut for lower. Use a 13mm socket for upper bolts and a 19mm socket and wrench for bottom. **See Photo 12.**





8. Install new brake line ext. onto rear diff using stock hardware and attach the stock brake line bracket to new bracket using the supplied 5/16" x 1 bolt, washers, nut. Tighten using a 13mm socket and wrench. Install emergency brake cable ext. bracket using stock hardware to frame and using the supplied 5/16" x 1 bolt, washer, and nut to attach cable to bracket ext. Use a 13mm socket and wrench to tighten. See Photo 13 & 14.



- 9. Install wheels and lower vehicle on the ground and tighten leaf spring bolts using 21mm socket and wrench. Tighten lower control arm bolts using 21mm socket and wrench.
- 10. Inspect all brake lines, wires and hoses make sure they are not in harms way.

