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1500 Avalanche, Denali, Escalade, Pick-Up, Suburban Tahoe & Yukon 3" Suspension lift

REQUIRED TOOL LIST:

- * Metric and Standard wrenches and sockets
- * Allen Wrenches
- * Assorted Drill Bits
- * Floor Jack
- * Jack Stands
- * Measuring Tape
- * Torsion Bar Tool
- * Torque Wrench
- * Reciprocating Saw
- * Grinder



Before beginning the installation, read these instructions and the enclosed driver's WARNING NOTICE thoroughly and completely. Also affix the WARNING decal in passenger compartment in clear view of all occupants. If any of these items are missing from this instruction packet, do not proceed with installation, but call SKYJACKER[®] to obtain needed items. If you have any questions or reservations about installing this lift kit, call SKYJACKER[®] at 318-388-0816 for Technical Assistance or Customer Service departments.

Make sure you park the vehicle on a level concrete or asphalt surface. Many times a vehicle is unlevel (side-to-side) from the factory, but usually not noticed until a lift kit has been installed which makes the difference more visible. Using a measuring tape, measure the front and rear (both sides) from the ground up to the center of the fender opening above the axle. Record below for future reference.

Driver Side Front: _____

Passenger Side Front: _____

Driver Side Rear: _____

Passenger Side Rear: _____

IMPORTANT NOTES:

- Please refer to Parts List to insure that all parts and hardware are received prior to disassembly of vehicle. If any parts are found to be missing, contact your dealer as soon as possible.
- If larger tires (10% more than stock diameter) are installed, speedometer recalibration is necessary (see GM dealer or Tire Store). Larger tire will not fit on factory wheel. Contact Dealer for details.
- This lift is determined from the front while only lifting the rear to a position level with the front.
- After installation occurs, a qualified alignment facility is required to align the vehicle to factory specs.

Kit Box Breakdown:

C9331:

Note: Component Boxes C933PA & C934PA will be the same as listed below but will also include Auto Ride Shock relocation brackets and hardware.

<u>ITEM#</u>	<u>DESCRIPTION</u>	<u>QTY</u>
C963L	3" 1/2TON LEFT KNUCKLE	1
C963R	3" 1/2TON RIGHT KNUCKLE	1
C963FCM-S	3"GM FRONT CROSSMEMBER	1
C963RCM1-D	3"GM REAR DRIVE XMEMBER	1
C963RCM2-P	3"GM REAR PASS XMEMBER	1
C963PDB-B	3"GM DIFF PASS UPPER BRACKET	1
C963CVS-D	CV SPACER,DRIVER 1.99"	1
C963CVS-P	CV SPACER,PASS .813"	1
C963TBD-S	3" 1/2T, PICK-UP TORSION BAR BRACKET	2
BSS275-B	BUMP STOP SPACER,2.75" TALL	2
HB-C963-CVS	HDWR BAG:3",C963 CV SPACERS	1
HB-C963-CM	HDWR BAG:3",C963 CROSS-MEMB	1
HB-C963-SBBS	HDWR BAG:3",GM SWAY,BUMP	1
HB-C963-DB	HDWR BAG:3",C963 DIFF BRKTS	1
HB-C966-TBB	HRDWR BAG/TORSION BAR BRKTS	1

Hardware Bag Breakdown:

HB-C963-CVS

<u>ITEM#</u>	<u>DESCRIPTION</u>	<u>QTY</u>
10MMX50MMB	10 X 50 METRIC BOLT/10.9	6
10MMX80MMB	10 X 80 METRIC BOLT/ 10.9	6
LT100	NUTS N' BOLTS 427 1 ML TUBE	1
38HDCC-S	3/8 HEAVY DUTY CABLE CLAMP	4
5MMX12SHB	5MM X 12MM.80 KNUCKLE BOLTS	2

C.V Spacers

DESCRIPTION

HB-C963-CM

<u>ITEM#</u>	<u>DESCRIPTION</u>	<u>QTY</u>
58X412FTB	5/8 X 4 1/2 FINE THREAD BLT	2
58X112FTB	5/8 X 1 1/2 FINE THD,GR. 8	2
58X112BHB	5/8 X 1 1/2 BUTTON HEAD BLT	2
916X412FTB	9/16 X 4 1/2 FINE THRD BOLT	1
916X1FTB	9/16 X 1 FINE THD BOLT,GR 8	1
58FTN	5/8-18 NYLON INSERT LOCKNUT	4
58CTN	5/8-11 NYLON INSERT LOCKNUT	2
58SAEW	5/8 SAE WASHERS	10
916SAEW	9/16 SAE WASHERS	3
916STVFTN	9/16-18 STOVER NUT,GRADE C	1
916FTN	9/16-18 NYLON INSERT LOCKNUT	1
10MMN	10 MM N/I LOCKNUT	2
CS2750-S	CRUSH SLEEVE,3"FRT X-MEMBER	2

Cross-Members

DESCRIPTION

HB-C963-SBBS	Front Sway Bar and Bump Stops	
ITEM#	DESCRIPTION	QTY
C766SBL-S	OE STYLE SWAY BAR LINK 3"GM	2
38X4BHB	3/8 X 4 BUTTON HEAD BOLT	2
38CTN	3/8-16 COARSE N/I LOCK NUT	2
38SAEW	3/8 SAE WASHER	2

HB-C963-DB	Differential Brackets	
ITEM#	DESCRIPTION	QTY
916X4FTB	9/16 X 4 FINE THREAD BOLT	1
916X112FTB	9/16 X 1 1/2 FINE THRD BOLT	2
916FTN	9/16-18 NYLON INSERT LOCKNUT	3
916SAEW	9/16 SAE WASHERS	4
C968SHIM	GM,SHIM-PASS DIFF BRKT	2
CS2265-S	CRUSH SLEEVE,DRIV DIFF BRKT	1
C963DDB-B1	3"GM DRIVER DIFF BRACKET	1
C963DDB-B2	3"GM DRIVER DIFF PLATE	1

HB-C963-TBB	Torsion Bars	
ITEM#	DESCRIPTION	QTY
916X3FTB	9/16 X 3 FINE THREAD BOLT	2
916FTN	9/16-18 NYLON INSERT LOCKNUT	2
916SAEW	9/16 SAE WASHERS	4
12X112FTB	1/2 X 1 1/2 FINE THRD BOLT	8
12FTN	1/2-20 FINE N/I LOCK NUT	8
12SAEW	1/2 SAE WASHER	16
SP3445	GM 1/2T,3/4T TORSION BUSHG	4
TBBS1590	TORSION BAR SLEEVE,1.590"L	2

Kit Box Breakdown:

C933R / C934R:

Note: Component Boxes C933PAR & C934PAR will be the same as listed below but will also include Lower rear control arms with hardware and Auto Ride Shock relocation brackets with hardware.

ITEM#	DESCRIPTION	QTY
C963TBD-C	3"CAD ESC,DENAL TORSION BRACKET	2
RBSB322-B	3"GM/CAD,REAR BUMP STOP EXT	2
SBE506-L	SWAY BAR END LINK, SINGLE	2
TJ90RS	3" REAR COIL SPRINGS	2
HB-RSBL963	HDWR BAG:REAR END LKS/C9631	1
HB-C963-RBS	HDWR BAG:C963 REAR BUMP STOP	1
HB-C963-TBB	HDWR BAG:C963 TORSION BAR BRACKET	1

Hardware Bag Breakdown:

HB-RSBL963	Rear Sway Bar End Links	
<u>ITEM#</u>	<u>DESCRIPTION</u>	<u>QTY</u>
HOURGLASS 5/8	HOURGLASS 5/8 SHOCK BUSHING	4
141509	ES25 SLEEVE/403646 1.50"	4
12X3FTB	1/2 X 3 FINE THREAD BOLT	4
12FTN	1/2-20 FINE N/I LOCK NUT	4
12SAEW	1/2 SAE WASHER	8
HB-C963-RBS	Rear Bump Stops	
<u>ITEM#</u>	<u>DESCRIPTION</u>	<u>QTY</u>
38X1FTB	3/8 X 1 FINE THREAD BOLT	2
38FTN	3/8-24 FINE N/I LOCK NUT	2
38SAEW	3/8 SAE WASHER	2
HB-C963-TBB	Torsion Bar Brackets	
<u>ITEM#</u>	<u>DESCRIPTION</u>	<u>QTY</u>
916X3FTB	9/16 X 3 FINE THREAD BOLT	2
916FTN	9/16-18 NYLON INSERT LOCKNU	2
916SAEW	9/16 SAE WASHERS	4

FRONT DISASSEMBLY:

1. With vehicle on flat level ground set the emergency brake and block the rear tires. Place floor jack under the lower control arm's front cross member and raise vehicle. Place jack stands under frame rails, behind the front wheel wells then and lower the frame onto the stands.
2. Remove both front factory skid plates located in front of and under the front differential using 15mm socket. (See Photo #1).

WARNING: Be extremely careful when loading or unloading the torsion bars; there is a tremendous amount of stored energy (load pressure) in the bars. Keep your hands and body clear of the adjuster arm assembly and puller tool in case anything slips or breaks.

NOTE: A special PULLER TOOL is required for SAFE REMOVAL/INSTALLATION of the Torsion bars. This special puller can be purchased from a GM Dealer (Tool #J36202) or from Kent Moore Tool Group, Roseville, MI (800) 345-2233 or (313) 774-9500 (Part #J-22517-C).

3. Locate the torsion bar adjuster bolt on the bottom of the rear cross member, measure and record the length of the torsion bar adjusting bolt that is exposed below the nut, and remove the torsion bar adjusting bolt. Apply a small amount of lubricating grease to the puller threads and the puller shaft-to-adjuster arm contact point. Position puller and load adjuster arm until the adjuster nut can be removed from the cross member. With the bar unloaded, slide it further forward into the lower control arm. If the bar seems lodged, use a hammer and punch through the hole in back of the cross member. When the bar shifts forward, the adjuster will fall free. (See Photo #2). Repeat this process on passenger side.
4. With torsion bars removed from rear cross member, remove torsion bar cross member using 21mm socket. With cross member removed, remove the torsion bars from the vehicle, be sure to mark driver and passenger for reinstallation. (See Photo #3).
5. Remove front tires and remove the front shocks using 21mm socket and 15mm wrench. Remove front sway bar links using 9/16 wrench. Be sure to save sway bar link bushings. They will be reused in further installation.
6. Remove the tie rod end nut from knuckle using 18mm socket. Remove the tie rod end from the knuckle by striking the knuckle to dislodge the tie rod end. Be careful not to damage the tie rod end. (See Photo # 4).



Photo #1



Photo #2



Photo #3



Photo #4

7. Disconnect the ABS line at the top of the frame rail. Remove the brakeline retaining bracket from the top of the steering knuckle using 10mm wrench. It will not be necessary to disconnect the actual banjo fitting at the caliper. Remove Caliper using 18mm socket. Then wire caliper out of the way so that there is no stress on brakeline. With caliper removed, remove the rotor. (See Photo # 5).
8. Remove outer axle nut dust cover to allow access to outer axle nut. Remove outer axle nut and washer using 1 7/16 socket. (See Photo # 6).
9. Mark C.V. shaft prior to removal so that shaft can be reinstalled the same as removed. Also be sure to mark left and right. Remove C.V. shaft from front differential using 15mm socket. Then, remove C.V. shaft. (See Photo #7).
10. Remove upper and lower A - Arm ball joints from knuckle using 18mm socket. Once again it may be necessary to strike the knuckle to allow the tie rod end to dislodge. Remove knuckle from vehicle.
11. Remove the spindle bearing from knuckle using 15mm socket. (See Photo # 8).
12. Remove Lower A -Arm from frame using 18mm socket and 15/16 Wrench. (See Photo #9).
13. Disconnect front driveshaft using 7/16 wrench. **Caution:** Be sure to mark U-Joint and Yoke at differential. The drive shaft **must** be installed the same way during reinstallation. Failure to realign the U-Joint and Yoke in the exact same point could result in vibration after install. (See Photo #10). Do not remove the driveshaft all together. Simply strap it out of the way.

NOTE: GM front drive shafts are balanced on each vehicle due to driveline vibrations. It is **very** important that drive shaft is reinstalled same as factory.

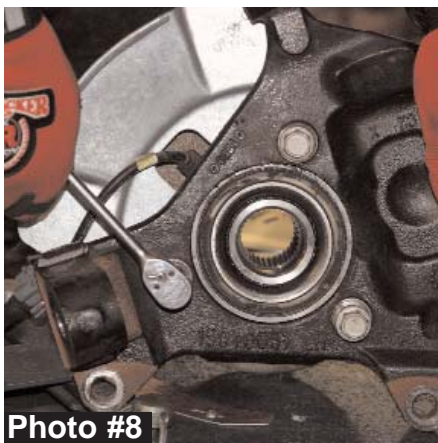
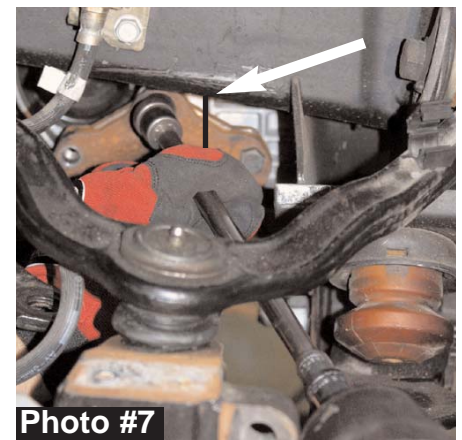


Photo #8
I-C933

Photo #9

Photo #10

14. Locate the factory rear 2 piece differential cross member.
Locate the point on the driver side where the cross member is welded to the frame, it will be necessary to grind off the welds so that the cross member can be removed. (See Photo #11).
15. With welds ground off, remove cross member mounting bolts using 18mm wrench. Remove rear cross member assembly. (See Photo #12).
16. While supporting front differential with transmission jack, remove passenger side differential mounting bolts using 21mm socket. Also disconnect actuator line from passenger side of front differential. (See Photo #13).
17. Remove driver side upper differential bolt using 21mm socket. Disconnect vacuum hose on driver side of front differential. (See Photo # 14). Then remove differential using transmission jack.
18. On passenger side differential tube pad, locate the rearward mounting hole. Measure 1/2" from outside edge of hole to outside edge of mount and make a mark. Using a reciprocating saw, cut along mark. (See Photo #15 and 16).
19. To install the new front cross-member bracket, the tabs located on the rear of the factory A-Arm mount must be ground off. (See Photo #17 and #17A) Install front cross-member using 5/8 x 4 1/2 fine thread bolt, washers and nuts. Be sure to use the supplied anti-crush sleeve as well. Mark the locations on the frame that must be ground, remove cross-member, and grind these locations.



Photo #11



Photo #12



Photo #13



Photo #14

REAR mounting point on passenger side diff tube.



Photo #15



Photo #16



Photo #17



Photo #17A

FRONT ASSEMBLY:

20. Attach new driver side differential brackets to factory mount on the frame using the factory bolt and supplied anti-crush sleeve. Install as shown in Photo #18. The bracket on the rearward side will have a tab that fits under the factory mount to lock the assembly in place. Do not tighten at this time.
21. Attach new passenger side differential bracket to factory mount on frame using factory hardware. Bracket will install with open side towards the center of the vehicle. Tighten at this time. (See Photo #19)
22. Install front differential. Attach to driver side bracket using the 9/16 x 4" fine thread bolt, washers and nut. Attach to passenger side bracket using the 9/16 x 1 1/2" fine thread bolt, washers, and nuts. No washers will be used under the nut. Be sure to use the supplied support shims under the head of the bolt at the differential. (See Photo #20)
23. Install new driver side rear cross-member bracket. Install using the 5/8 x 1 1/2 BUTTON HEAD BOLT for the upper front holes. NOTE: Button Head Bolts must be used in upper front holes for clearance. Use a washer behind the nut, not behind the head of the bolt. Install 5/8 x 1 1/2 fine thread bolts, washers, and nut at the upper rear mount. Be sure to use washers on both sides of this bolt. Attach backside of bracket to frame using the 9/16 x 1" fine thread bolt, washer, and nuts. (See Arrow in Photo #21)
24. Place a washer on the 9/16x 4 1/2" fine thread bolt. Install bolt through the factory rear differential mount, new cross-member bracket and frame.
25. Attach passenger side cross-member bracket using 5/8 x 1 1/2 BUTTON HEAD BOLT for the upper front holes. Use a washer behind the nut, not behind the head of the bolt. Install 5/8 x 1 1/2 fine thread bolts, washers, and nut at the upper rear mount. Attach factory rear cross-member to new brackets using factory hardware. (See Photo #22)
26. Install front cross-member using the 5/8 x 4 1/2" fine thread bolts, washers, and nuts. Be sure to install the anti-crush sleeves. (See Arrow in Photo #23). If installing dual stabilizer, see those instruction sheets at this time.
27. Attach lower A-Arms to new cross-members using factory bolts. (See Photo #24)



Photo #18

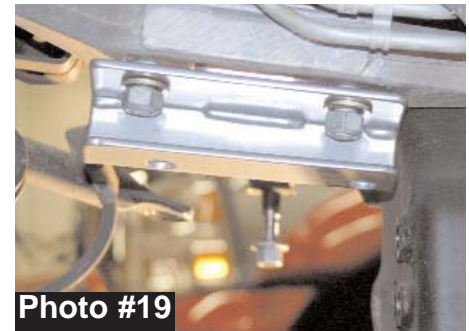


Photo #19



Photo #20

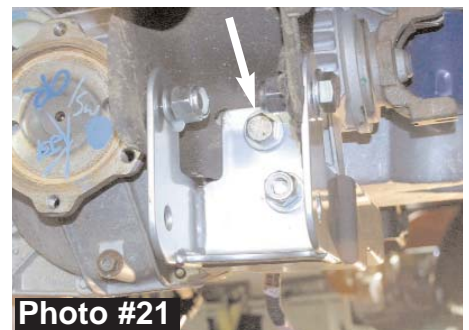


Photo #21



Photo #22

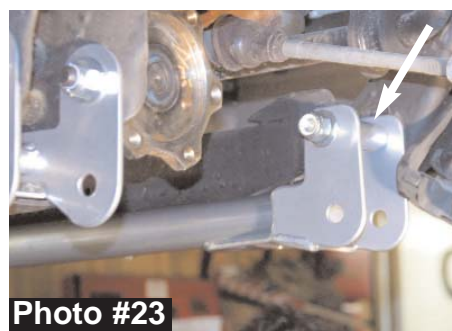
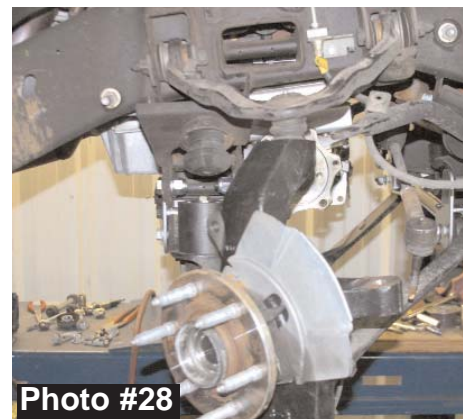
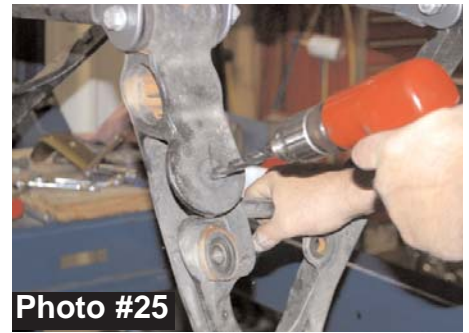


Photo #23

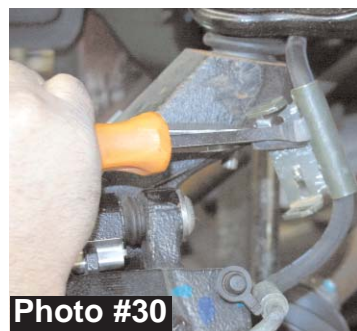
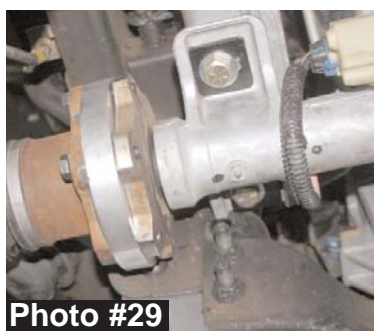


Photo #24

28. Locate the factory bump stop pads on the lower A-Arms. It will be necessary to drill these locations to allow for mounting of the new lower bump stop spacer. Mark center of the pad using a punch and drill using a 3/8" drill bit. (See Photo #25) It is recommended to drill using a smaller pilot bit first.
29. Attach new polymer bump stop spacer to the lower A-Arms using the 3/8 x 4" button head bolt, washers and nut. (See Photo #26) Tighten the 3/8" bolt until the top of the upper washer is flush with the top of the bump stop.
30. Reinstall the hub bearing assembly to the new knuckle using factory hardware. Torque flange bolts to 125 lbs.
31. Install driver and passenger side C.V. shaft using larger 1.99" wide spacer on driver side, and the smaller .813" spacer on the passenger side. Spacer will install between C.V. shaft and differential. Spacer should install with male end against the differential. Be sure to use the 10 x 110mm bolts on driver side and the 10 x 60mm bolts on the passenger side. Be sure to use thread lock compound on bolts. (See Photo #29) Torque bolts to 45 lbs. Reinstall C.V. retaining nut and outer dust cover.
32. Reinstall factory rotor and caliper. Disconnect ABS lines from the frame and remove factory clip located at the middle of the line. Remove factory brakeline bracket from the factory line as shown in Photo #30. This bracket is easily removed by prying apart using screw driver. Be sure not to damage brakeline. Attach ABS line and brakeline using the cable clamps and 5mm bolt provided on the backside of the knuckle. (See Photo #30A). Route ABS line under the A-Arm instead of on top and re-attach at the frame. Attach outer tire rod to new mount on the axle.
33. Install new sway bar extended links (See Photo #31). Be sure to install the pivoting end at the lower A-Arm. The gold washer will go on top of the A-Arm, the nut on the bottom.



Passenger Side shown with .813" C.V. Spacer.



34. Reinstall front drive shaft, and install front shocks. (See Photo #32). If vehicle is equipped with Auto-Ride shocks, Skyjacker shock relocation brackets must be installed. Attach new shock bracket to the factory shock using 9/16 x 3" fine thread bolts, small SAE washers, and nut. Be sure to use the anti-crush sleeve inside the factory shock mount.
35. Hold new shock bracket up flush against the factory shock. Mark the two upper mounting holes. Drill using 5/16" drill bit. (See Photo #33)
36. With upper mounting holes drilled, install one 5/16 x 1" fine thread bolt, washer, and nut in each mounting location. Only use a washer under the head of the bolt, not the nut. (See Photo #34)
37. Install shock assembly onto factory mounts. Attach to lower A-Arm using the 9/16 x 3" fine thread bolts, small SAE washers, and nuts. Be sure to install the large 9/16" thick washers between the new bracket and each side of the factory mount. (See arrow in Photo #35)



Photo #32



Photo #33

Torsion Bar Brackets:

There are 2 sets of Torsion Bar brackets supplied with this lift. One set fits all sport utility models, the other fits only the K1500 pick-ups.

38. **Pick-Up models skip to step #40.** Attach brackets to the factory mounts on the frame using the 9/16 x 3" fine thread bolts with washers and nuts. (See Photo #36).
39. With brackets installed, Reinstall factory torsion bar cross member using factory bolts. Skip to Step #42.
40. Install bracket onto frame. Line up the rivets in the bottom of the frame with the holes in the bottom of the bracket. Be sure bracket sits flush. May be necessary to grind the frame smooth where the frame brace is attached to the frame. Using a C-Clamp, hold the bracket so the outer and bottom holes can be marked and drilled. Once holes are marked, drill holes using 1/2" drill bit. Once all holes are drilled, install bracket using 1/2 x 1 1/2 fine thread bolts, washers, and lock nuts. Tighten bottom bolts first then the outer bolts. Install poly bushings and sleeves into drop bracket. (See Photo #37).
41. With brackets installed, Reinstall factory torsion bar cross member using factory bolts.
42. Reinstall factory torsion bars. (See Photo #38) Be sure to install adjuster bolts to the same length as factory.
43. Reinstall front tires and let weight of the vehicle on the ground. At this time, check all bolts and hardware for proper installation and tightness.
44. Reinstall front factory skid plates. Lower skid plate will attach to the new front Skyjacker cross-member. Attach to the tabs on the Skyjacker cross-member using the factory bolts and the 10mm nuts supplied. (See Photo #39)



Photo #34



Photo #35

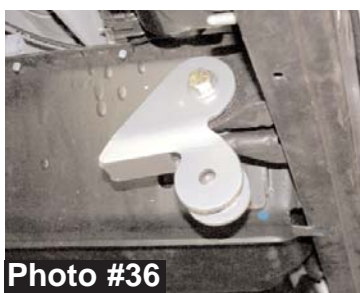


Photo #36



Photo #37



Photo #38



Photo #39

Rear Installation:

45. Raise the rear of the vehicle and support frame rails using jack stands.

Pick up models w/ Rear Leaf Springs skip to step # 54.

46. Remove rear shocks using 21mm socket. Models equipped with Air Ride rear shocks (Escalade and Denali) must first disconnect the air supply line from the top of the shock, and disconnect the sensor link from the frame and the mount on top of the upper control arm.

47. Disconnect rear sway bar end links. (See Photo #40)

48. Disconnect lower control arm (only disconnect one side at a time so that the axle is not free to move). (See Photo #41)

49. Locate factory bump stop pad on the axle. Install new bump stop bracket at this location. Install so that the lip on the new bracket is towards the front and catches on the front of the factory bracket. Attach using the 3/8 x 1" fine thread bolt, washers and nut. Bolt will install from under the factory bracket through the new bracket. (See Photo #42)

50. Reinstall factory lower control arm.

Escalade and Denali models only: Locate new lower control arms. Install the supplied zirc fittings into new control arms. Zirc fitting can be tapped in with the use of a 1/4" socket. Grease the supplied bushings and sleeve and install into control arms. Install the new lower control arms being sure to install so that the grease fittings are pointing down. (See Photo #43)

51. Lower axle down far enough to allow for installation of new rear coil springs. Remove the factory coil spring and replace with the new Softride® coil spring. Lower vehicle to the ground with weight on the coil springs.

52. Install new Skyjacker Shocks

Auto and Air Ride Models: Locate new rear shock relocation brackets. Attach bracket to factory shock location using the 9/16 x 3 1/2" fine thread bolt, washers and nuts. Attach to bottom side of factory bracket using the 9/16 x 1 1/2" fine thread bolt, washers, and nut. Attach factory shock to new bracket using the 9/16 x 3 1/2" fine thread bolt, washers and nuts. Be sure to install 1 thick 9/16" washer between the inside of the shock and new bracket. Install 2 thick 9/16" washers between the outside of shock and new bracket. (The Arrow in Photo #44 shows the location for the 2 thick 9/16" washers). Air Ride models must also replace the factory sensor link removed in step# 46 with the longer supplied link.

53. Locate new Skyjacker rear sway bar end links. Insert 5/8 hour-glass bushings and steel sleeves provided. Attach to factory sway bar and frame using the 1/2 x 3" fine thread bolts, washers and nuts. (See Photo #45)

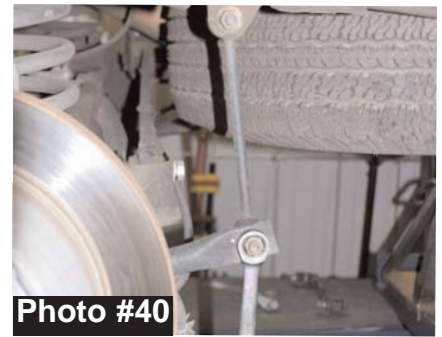


Photo #40



Photo #41

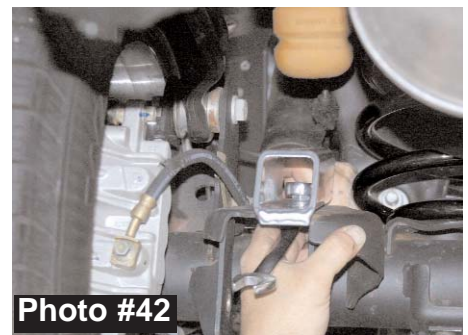


Photo #42



Photo #43



Photo #44

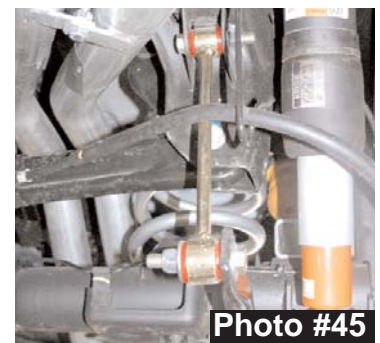
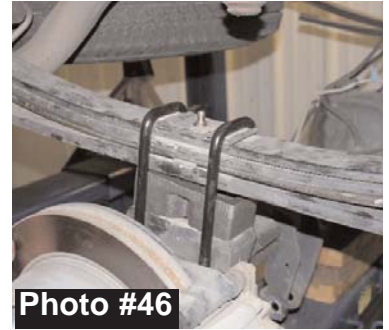


Photo #45

Pick-Up Models with Rear Leaf Spring

53. Remove rear shocks and U-Bolts using 21mm socket. Lower axle down far enough to allow for installation of rear block.
(If installing rear add-a-leaf follow instructions supplied w/ add-a-leaf) Install block so that the shorter end is towards the front of the vehicle. (See Photo #46)
54. Raise axle up to rear springs. Make sure block is properly seated on axle and the tie bolt in the spring seats properly into the block. Install new 9/16" U-Bolts and torque to 100 ft. Lbs.
(See Photo #47)
55. With rear tires installed, set vehicle on the ground.



FINAL NOTES:

- After installation is complete, double check that all nuts and bolts are tight. Check all brackets for proper installation.
- If new tires are installed that are more than 10% taller than original tires, the speedometer must be recalibrated for the rear wheel anti-lock brake system to function properly. Contact an authorized GM dealer for details on recalibration.
- With the vehicle on the floor, cycle steering lock to lock and inspect steering, suspension and driveline systems for proper operation, tightness and adequate clearance. Recheck brake hose/fittings for leaks. Be sure all hoses, including the rear, are long enough.
- Have headlights readjusted to proper settings.
- Have a qualified alignment center realign front end to factory specifications. Be sure vehicle is at desired ride height prior to realignment.
- Retorque all bolts after the first 100 miles.



Seat Belts Save Lives, Please Wear Your Seat Belt.