



4/3/13

**'07-'13 CHEVROLET/GMC 1500
2WD/4WD
6" SUSPENSION SYSTEMS
Without Delphi AutoRide**

P/N: 10-41407 (4WD) or 10-41207 (2WD)

INSTALLATION INSTRUCTIONS

NOTE: Each lift kit, and options to lift kits, are packaged separately. Therefore installation procedures are covered in separate instructions. Familiarize yourself with each specific set of instructions before beginning.

Part List

<u>Item</u>	<u>Description</u>	<u>Qty.</u>	<u>Illus.</u>
Box 1 of 6 (41407 ONLY)			
20-51007-1	Front Crossmember	1	9, 11
20-51007-2	Rear Crossmember	1	10, 11, 17
Box 1 of 6 (41207 ONLY)			
20-51207-1	Front Crossmember	1	
20-51207-2	Rear Crossmember	1	
Box 2 of 6 (ALL KITS)			
20-51007-5D	Front Spindle (Drvr.)	1	13
20-51007-6P	Front Spindle (Pass.)	1	
Box 3 of 6 (ALL KITS)			
20-51007-12	Lateral Compression Struts	2	17
20-51099-22	Bracket, Strut Mount	2	17
20-67889	Hardware Pack (Bushings)		
15-11148	Bushing, Red	8	17
20-830918	Sleeve, 3/4" x 2-3/4" Lg.	4	17
20-832738	Sleeve, 3/4" x 1.03" Lg.	2	
20-70837	Hardware Pack (Bolts)		
13-21404-Z	Hex Bolt, 1/2"-13 x 4-1/2"	2	17
13-20069-Z	Hex Bolt, 1/2"-13 x 4"	4	17
13-30034-Z	Flat Washer, 1/2" SAE	12	17
13-10038-Z	Nyloc Nut, 1/2"-13	6	17
Box 4 of 6 (41407 ONLY)			
20-51007-3	Bracket, Differential Drop (Drvr.)	1	8
20-51007-4	Bracket, Differential Drop (Pass.)	1	8
20-51007-7	Skidplate, Differential	1	11
F4-BE5-E294-T0	Front Strut Assembly	2	12
20-70850	Hardware Pack (Axle Spacers)		
13-23705-Z	Hex Bolt, 10mm x 55mm	12	14
13-30642-Z	Flat Washer, 10mm	12	14
13-90490	Loctite Compound	1	
20-51007-20	Spacer, Drive Axle	2	14

20-70863	Hardware Pack (Diff Drops)		
13-22665-Z	Hex Bolt, 9/16"-12 x 1-3/4"Gr. 8	2	8
13-30395-Z	Flat Washer, 9/16" Hrdn.	4	8
13-10397-Z	Top Lock Nut, 9/16"-12	2	8
13-22964-Z	Hex Bolt, 12mm-1.75 x 40mm	2	8
13-30356-Z	Flat Washer, 12mm	6	8
13-10696-Z	Top Lock Nut, 12mm	2	8
13-23562-Z	Hex Bolt, 12mm-1.75 x 35mm	2	8
13-30460-Z	Lock Washer, 12mm	2	8
20-70876	Hardware Pack (F/R Crossmember)		
13-22028-Z	Hex Bolt, 5/8"-11 x 4-1/2" Gr. 8	2	9
13-21950-Z	Hex Bolt, 5/8"-11 x 5-1/2" Gr. 8	2	10
13-30369-Z	Flat Washer, 5/8" Hrdn.	8	9, 10
13-10345-Z	Top Lock Nut, 5/8" -11	4	9, 10
20-70889	Hardware Pack (Sway Bar Drop)		
20-51007-8	Spacer, Sway Bar Drop	2	15
13-22236-Z	Hex Bolt, 10mm-1.5 x 80mm	4	15
13-30642-Z	Flat Washer, 10mm	4	15
20-70902	Hardware Pack (Skid Plate)		
13-22249-Z	Hex Bolt, 1/2"-13 x 3-1/2" Gr. 8	1	11
13-22938-Z	Hex Bolt, 3/8" -16 x 1-1/4" Gr. 8	4	11
13-30382-Z	Flat Washer, 1/2" Hrdn.	2	11
13-30408-Z	Flat Washer, 3/8" Hrdn.	6	11
13-30151-Z	Lock Washer, 3/8"	2	11
13-10514-Z	Top Lock Nut, 1/2" -13	1	11
13-10553-Z	Top Lock Nut, 3/8" -16	2	11
15-11174	Bushing, Small Red	2	11
20-832257	Sleeve, 3/4" x 1.52" Lg.	1	11
20-70125	Hardware Pack (Sway Bar Extension)		
20-833882	Sway Bar Extension (6-1/2")	2	16
13-22743-Z	Button Head Bolt, 1/2"-13 x 3"	2	16
13-30694-Z	Washer, Bushing Retainer 1-1/4"	6	16
13-10878-Z	Nyloc Nut, 1/2"-20	2	16
15-11616	Bushing, Swaybar Link Inner	2	16
15-11629	Bushing, Swaybar Link Outer	2	16
15-11746	Bushing, Swaybar Flex Joint	4	16
20-70941	Hardware Pack (Front Brake Lines)		
50-5107-1	Brakeline Assembly (Drvr.)	1	
50-5107-2	Brakeline Assembly (Pass.)	1	
20-68305	Hardware Pack (Universal)		
13-20447-Z	Unslot Hex, #10 x 1/2"	4	
15-10966	Clamp, 3/8" x 3/8" x .203"	4	
15-11395	Wire Tie, 6"	4	
15-11447	Wire Tie, 8"	2	
15-11460	Wire Tie, 11"	2	
20-71006	Hardware Pack (Preload Spacers)		
20-51007-11	Strut Preload Spacer	2	

Box 4 of 6 (41207 ONLY)

F4-BE5-E294-T0	Front Strut Assembly	2	12
20-70876	Hardware Pack (F/R Crossmember)		
13-22028-Z	Hex Bolt, 5/8"-11 x 4-1/2" Gr. 8	2	9
13-21950-Z	Hex Bolt, 5/8"-11 x 5-1/2" Gr. 8	2	10
13-30369-Z	Flat Washer, 5/8" Hrdn.	8	9, 10
13-10345-Z	Top Lock Nut, 5/8" -11	4	9, 10
20-69917	Hardware Pack (Sway Bar Extension)		
20-833739	Sway Bar Extension (9-1/2")	2	16
13-22743-Z	Button Head Bolt, 1/2"-13 x 3"	2	16
13-30694-Z	Washer, Bushing Retainer 1-1/4"	6	16
13-10878-Z	Nyloc Nut, 1/2"-20	2	16
15-11616	Bushing, Swaybar Link Inner	2	16
15-11629	Bushing, Swaybar Link Outer	2	16
15-11746	Bushing, Swaybar Flex Joint	4	16
20-70941	Hardware Pack (Front Brake Lines)		
50-5107-1	Brakeline Assembly (Drvr.)	1	
50-5107-2	Brakeline Assembly (Pass.)	1	
20-68305	Hardware Pack (Universal)		
13-20447-Z	Unslot Hex, #10 x 1/2"	4	
15-10966	Clamp, 3/8" x 3/8" x .203"	4	
15-11395	Wire Tie, 6"	4	
15-11447	Wire Tie, 8"	2	
15-11460	Wire Tie, 11"	2	
20-71006	Hardware Pack (Preload Spacers)		
20-51007-11	Strut Preload Spacer	2	

Box 5 of 6 (ALL KITS)

13-70013-1	Rear, Add-A-Leaf	2	18
20-68240	Hardware Pack (Pins)		
13-90750	Center Pin, 3/8"-24 x 6" w/Nut	2	
20-68344	Hardware Pack (Clamps)		
13-90737-1	Leaf Clip, 2-1/2"	4	18
13-90737-2	Leaf Cap, 2-1/2"	4	18

Box 6 of 6 (ALL KITS)

50-BE5-6134-T5	Shock Absorber (Rear)	2	
20-830658	Block, Rear-4"	2	19
13-90646	U-Bolt, 9/16"-18 x 12-1/2"	4	19
20-68188	Hardware Pack (U-Bolts)		
13-30330	Flat Washer, 9/16" Hrdn.	8	19
13-10423	High Nut, 9/16"-18	8	19
20-70954	Hardware Pack (Rear Bumpstop Extension)		
20-51407-15	Rear, Bumpstop Extension	2	20, 21
13-23718	Socket Head Bolt, 10mm-1.5 x 110mm	2	20
13-30577-Z	Lock Washer, 10mm	2	20
20-70980	Hardware Pack (Rear Brakeline Relocation)		
13-22717-Z	Bolt, 5/16" x 3/4" Self Tapping	2	21

INTRODUCTION

Installation by a professional mechanic is recommended. Use of the appropriate tools, a GM service manual, and a shop hoist can greatly reduce installation time.

Prior to installation, carefully inspect the vehicle's steering and drive train systems, paying close attention to the tie-rod ends, rack & pinion unit, ball joints and wheel bearing preload. Also check steering-to-frame and suspension-to-frame attachment points for stress cracks. The overall vehicle must be in excellent working condition; repair or replace worn parts.

Read instructions carefully and study illustrations before attempting installation. **RCD Suspension** is not responsible for damage, failure or injury resulting from improper installation or parts substitution of this kit.

Check parts and hardware against the parts list to assure that your kit is complete. The parts and hardware supplied are of high-grade material and must not be replaced by inferior parts or failure may result. Do not begin installation if parts are missing.

Separate parts according to the areas they will be used. Placing the hardware with brackets before you begin will save installation time.

This kit is supplied as a bolt-on assembly. Do not weld anything to the components and do not weld the components to the vehicle.

All components in this kit come with a protective coating. Do not plate (i.e. chrome, cadmium, zinc etc.) or otherwise alter the finish in any way. This could decrease the structural strength of the components.

Secure and properly block vehicle prior to beginning installation.

Always wear safety glasses when using power tools.

Foot-Pound torque readings are listed on the Torque Specifications chart at the end of the instructions unless specifically stated in an instruction. **DO NOT USE AN IMPACT WRENCH TO TIGHTEN ANY OF THE BOLTS.**

PLEASE NOTE

WARNING: DO NOT USE WHEEL SPACERS

Front-end realignment is necessary.

Speedometer recalibration is necessary if larger tires (10% more than stock diameter) are installed.

Brake system will need to be bled by a professional brake technician.

System is designed to work with factory "Stabilitrac" systems. Stabilitrac systems may be more sensitive than stock under certain driving conditions.

System will not work on vehicles with electronic and / or air ride suspension systems.

System is designed to accommodate up to a 35" x 12.50" tire on a wheel size of 17x 9" with a maximum of 4.5" backspacing.

Trimming of the bumper, fender, and inner fender will be required to accommodate oversize tires & wheels.

RCD Suspension DOES NOT recommend or endorse the use of a "body lift" in conjunction with our suspension systems or components.

Special tools are required for safe removal and installation of the ball joints, and tie-rods. These tools can be purchased from your GM Dealer.

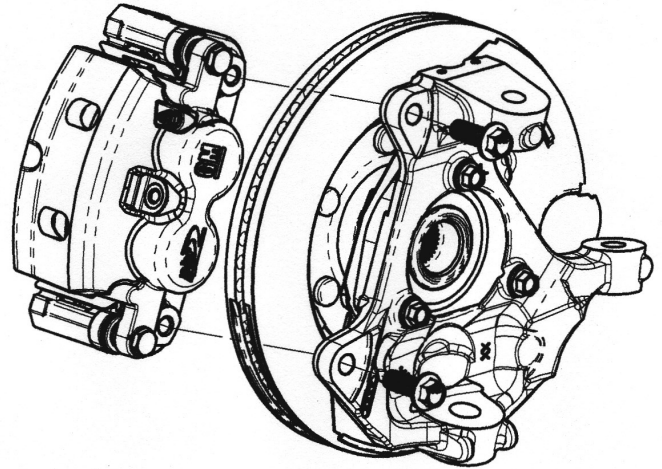
Ball Joint Separator Tool # J43631
Steering Linkage Puller Tool # J24319

Front Installation Instructions

1. Raise the vehicle. If working without a shop hoist, support vehicle with suitable safety jack stands. Put vehicle in gear, set emergency brake and block rear wheels, both in front and behind tires. Loosen front wheel lug nuts. Place floor jack under the lower control arm's front crossmember and raise vehicle. Place safety jack stands under frame rails, behind front wheel wells, and lower the frame onto the stands. Once securely on jack stands remove floor jack. Remove front wheels.

Illustration 1

2. Remove any chassis skidplates (if equipped) including front splash shield.
3. Beginning with the Driver's side, unclip the ABS sensor line, and disconnect at the frame. Remove the screw attaching the brakeline to the upper control arm.



4. Remove the bolts holding the Caliper Anchor Bracket to the Steering Knuckle (**Illustration 1**). Pull the Bracket and Caliper assembly away from the Brake Rotor and hang out of the way with a length of wire, careful not to damage the brake lines.
DO NOT let the Caliper hang from the brake line.
5. Remove the Brake Rotor from the Hub and set aside.
6. Remove the Axle-to-Wheel Hub Nut (**Illustration 2**).
7. Remove the nut from the steering Tie Rod. Separate the Tie Rod from the Steering Knuckle.

8. Remove the nut from the Upper Ball Joint. Separate the Upper Ball Joint from the Steering Knuckle.

9. Remove the nut from the Lower Ball Joint. Separate the Lower Ball Joint from the Steering Knuckle and set the Steering Knuckle aside.

10. Mark the differential flange and drive axle flange for installation reference.

11. Remove six existing bolts fastening drive axle to differential and remove axle (**Illustration 2**).

12. Remove anti-sway bar extensions connecting bar body to lower control arms (**Illustration 3**).

Illustration 2

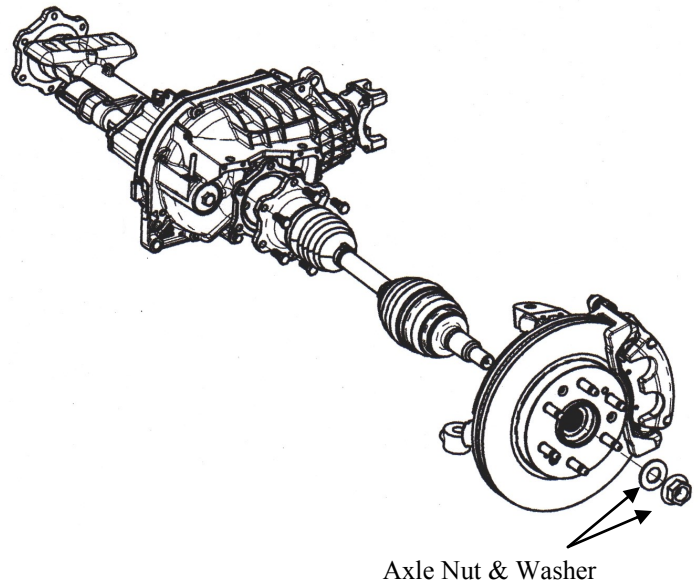
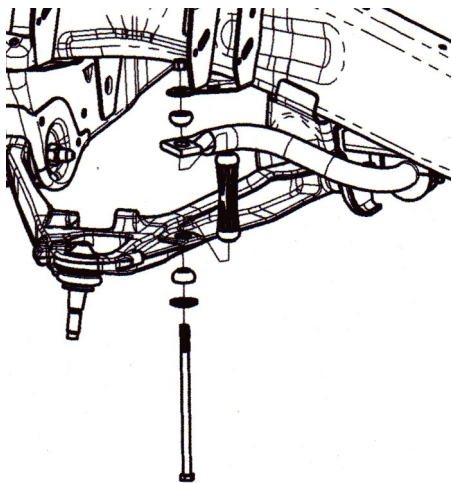
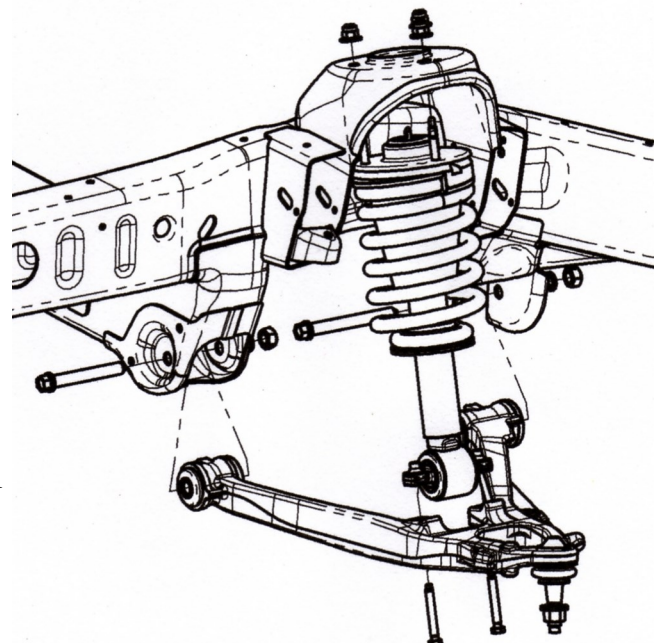


Illustration 3



13. Disconnect Front Strut from lower control arm and frame and remove (**Illustration 4**).

Illustration 4



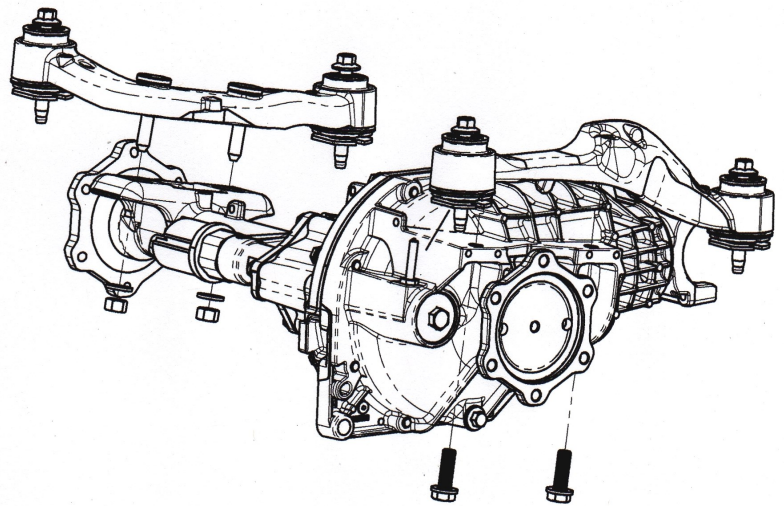
14. Remove the lower control arm pivot bolts and remove lower control arm (**Illustration 4**).

15. Repeat steps 3 thru 14 on opposite side.

16. Locate the front drive shaft U-joint to differential yoke. Place an index mark for installation reference on both the drive shaft U-joint and differential yoke. Remove the hardware from the yoke and slide the shaft rearward to disengage. Tape the bearing cap assemblies and secure the shaft out of the way.

Illustration 5

17. Remove the Anti-sway Bar from the frame and set aside.
Note: On 2wd models, this will not be necessary.

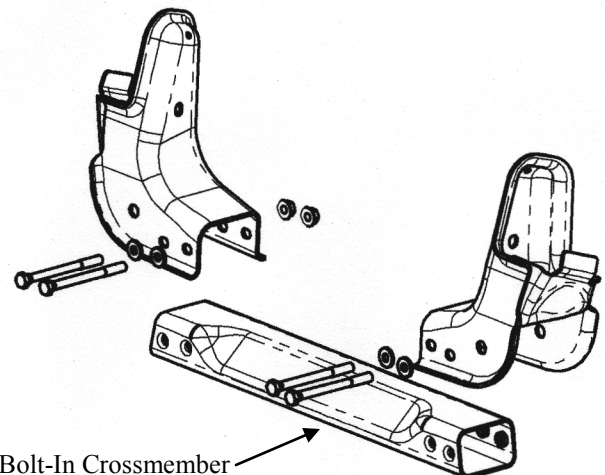


18. Disconnect the electrical connector and vent hose from differential assembly.

19. Support front differential assembly with a floorjack. Remove the two bolts on the drivers side and the two nuts on the passenger side (**Illustration 5**). Slowly remove the differential assembly from vehicle, and lower it to the floor.

Illustration 6

20. Remove the rear bolt-in crossmember (**Illustration 6**).



21. Using a suitable cutting tool, cut off the rear lower control arm mount bracket (driver's side), per diagram (Illustration 7). **Note: On 2wd models cutting will not be necessary.**

22. Loosely attach the Differential Drop Brackets (20-51007-3, 20-51007-4), to the differential axle. Use hardware provided (Illustration 8).

23. Raise Front Differential Assembly into position and attach with hardware provided on drivers side, and original hardware on the passengers side. Tighten all Differential hardware at this time.

Illustration 7

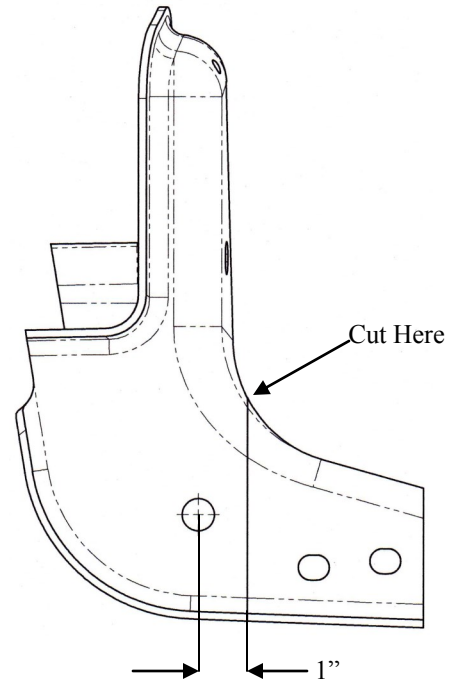
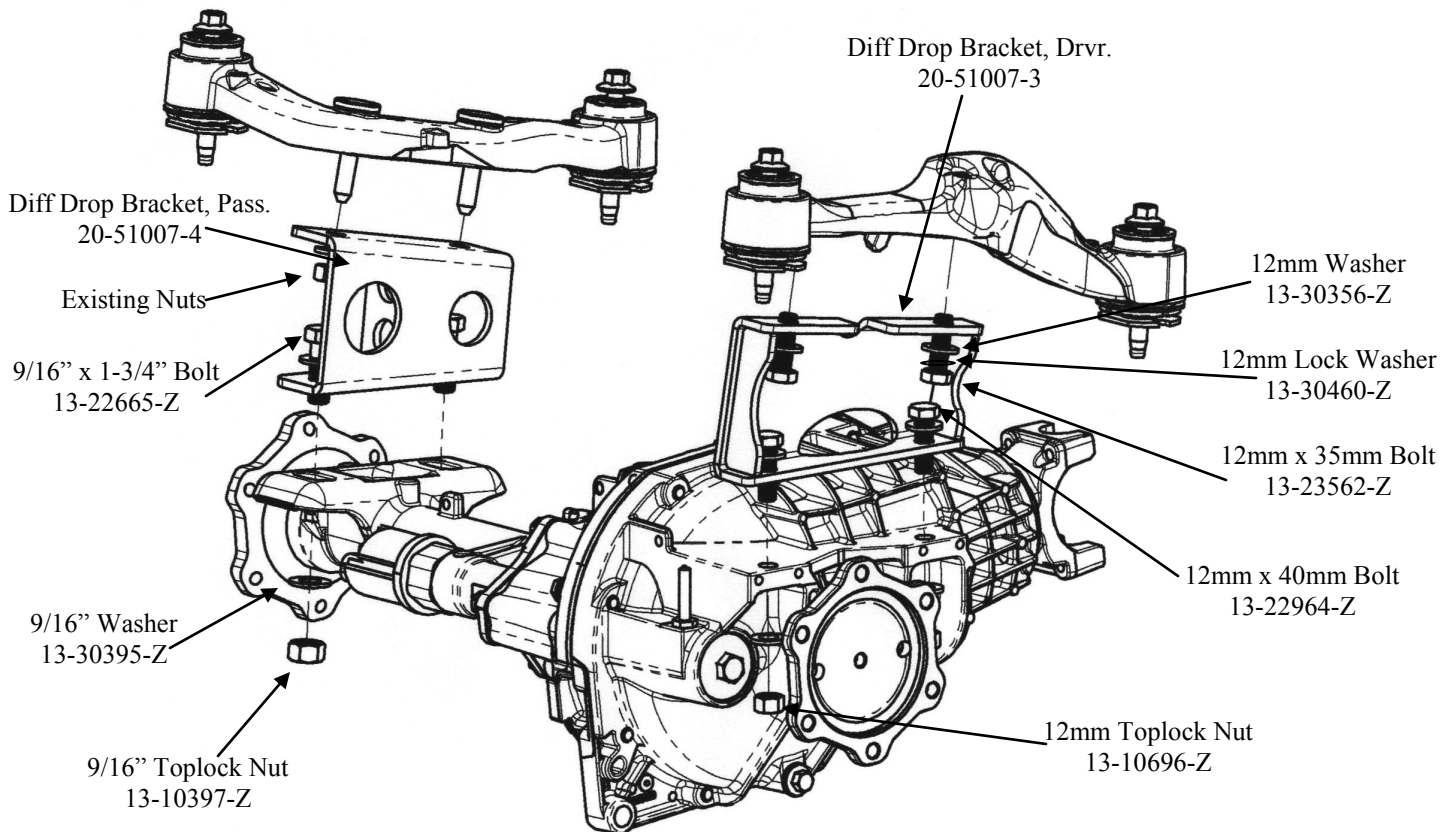
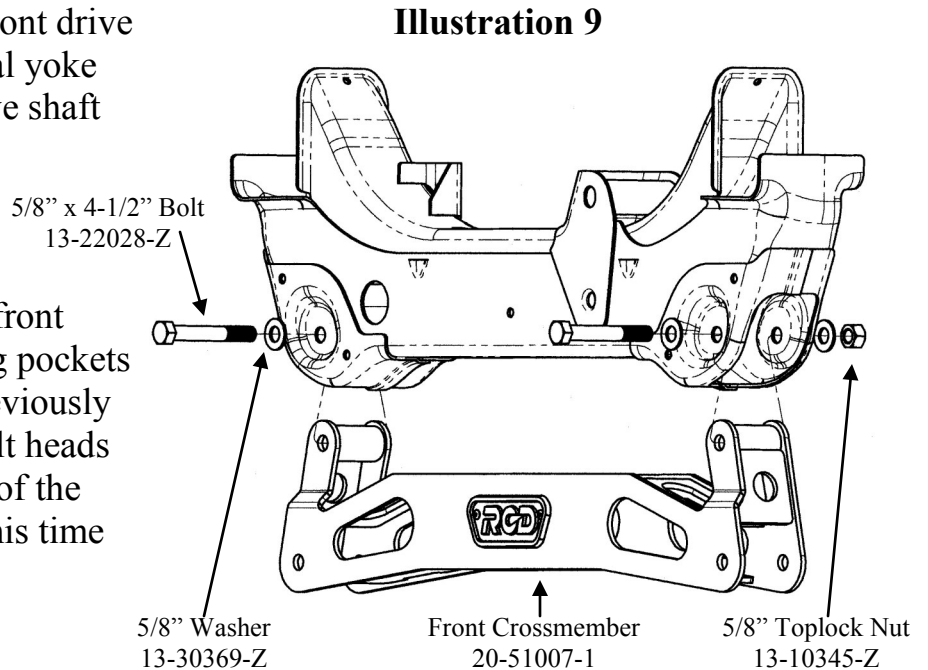


Illustration 8



24. Align marks made on the front drive shaft U-joint and differential yoke and reconnect the front drive shaft to the differential.

25. Install Front Crossmember (20-51007-1) into existing front lower control arm mounting pockets using existing hardware previously removed. Make sure the bolt heads are facing toward the front of the vehicle. Do not tighten at this time (**Illustration 9**).



26. Install Rear Crossmember (20-51007-2) into existing rear lower control arm mounting pockets, use the 5/8" hardware provided. Make sure the bolts heads are facing toward the front of the vehicle. Do not tighten at this time (**Illustration 10**).

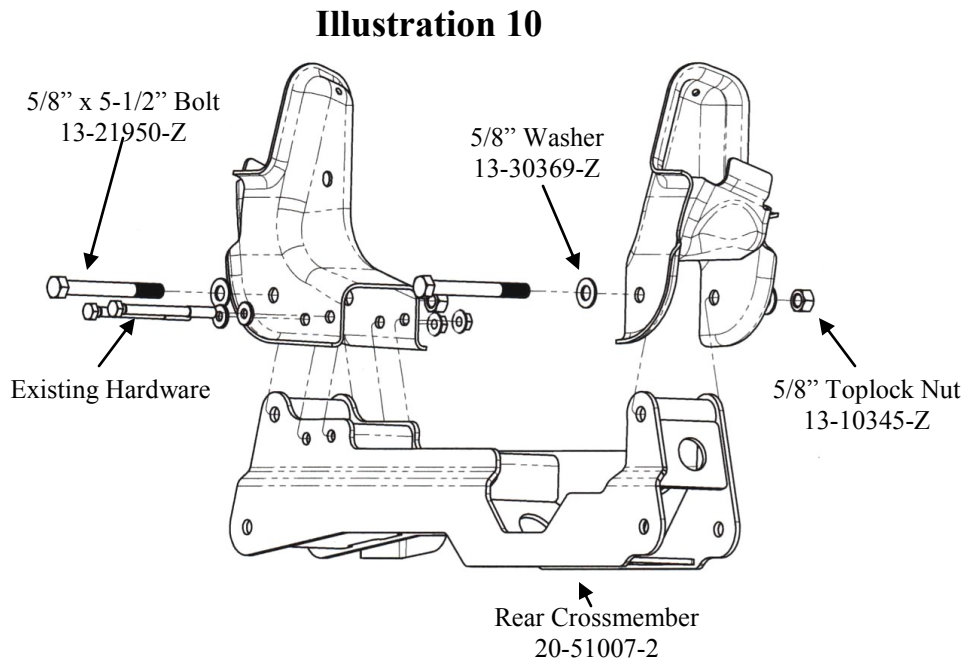
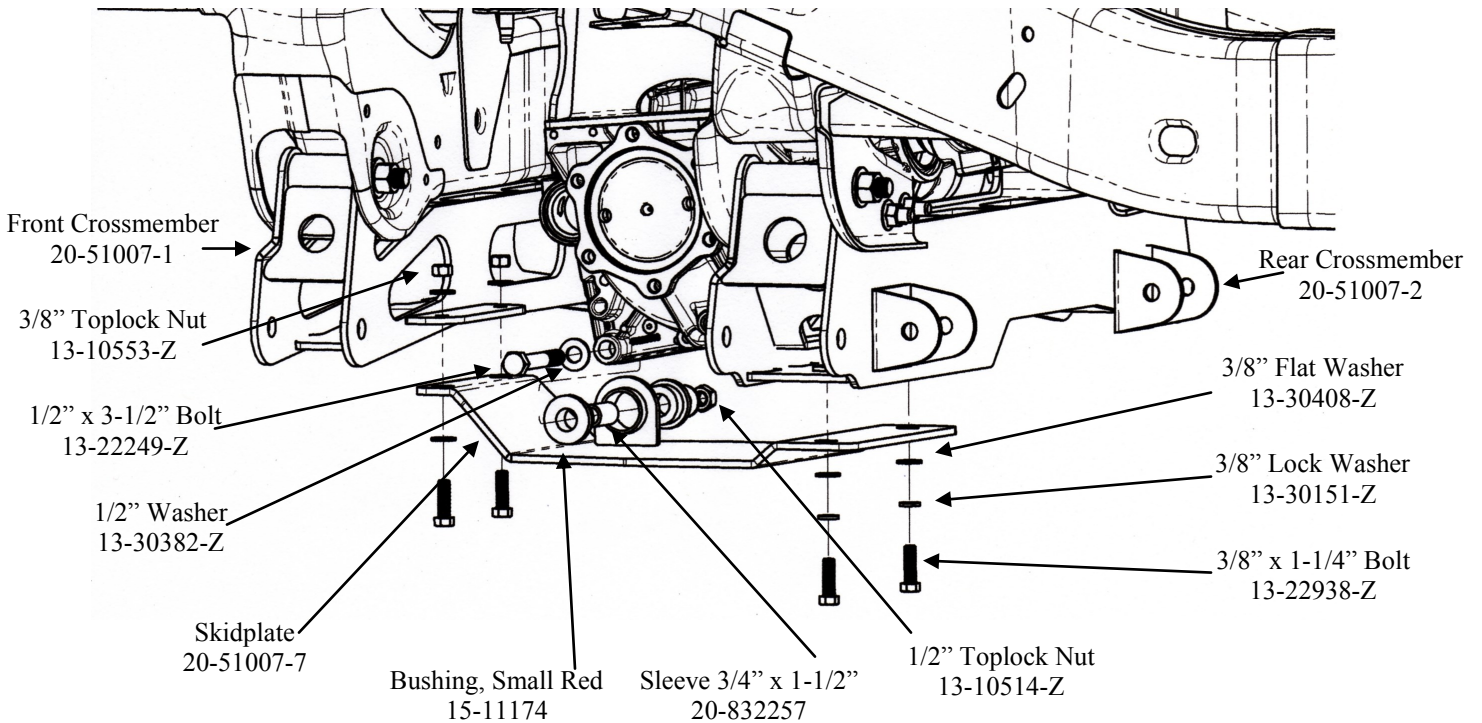


Illustration 11



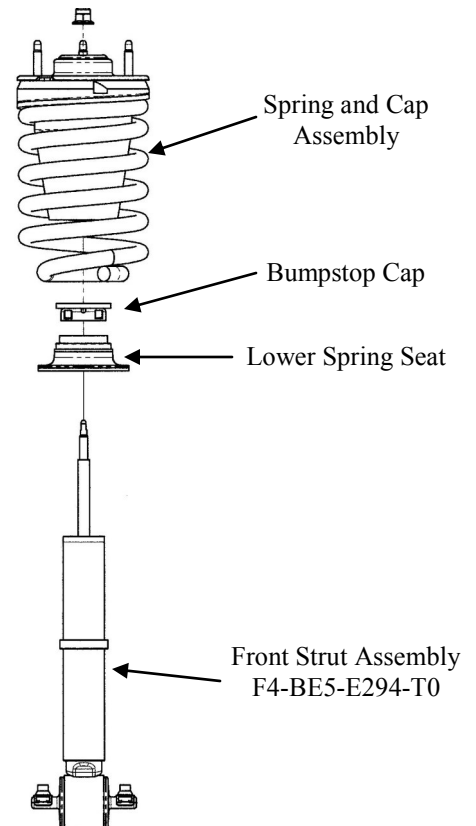
27. Insert Bushings (15-11174) and Sleeve (20-832257) into Front Differential Skid Plate, and install Skid Plate using hardware provided (**Illustration 11**).

Illustration 12

28. Connect the differential vent hose and electrical connector.

29. Install lower control arms into the front and rear crossmembers using existing hardware previously removed. Do not tighten at this time.

30. Place the Strut Assembly in a heavy duty strut compressor and compress the spring enough to take tension off of the shock. Make note of the orientation of the Spring Cap to the bottom crossbar for re-assembly. Remove the Nut at the top of strut and carefully remove strut assembly. Tap Bumpstop Cap off of strut body and slide Lower Spring Seat off.



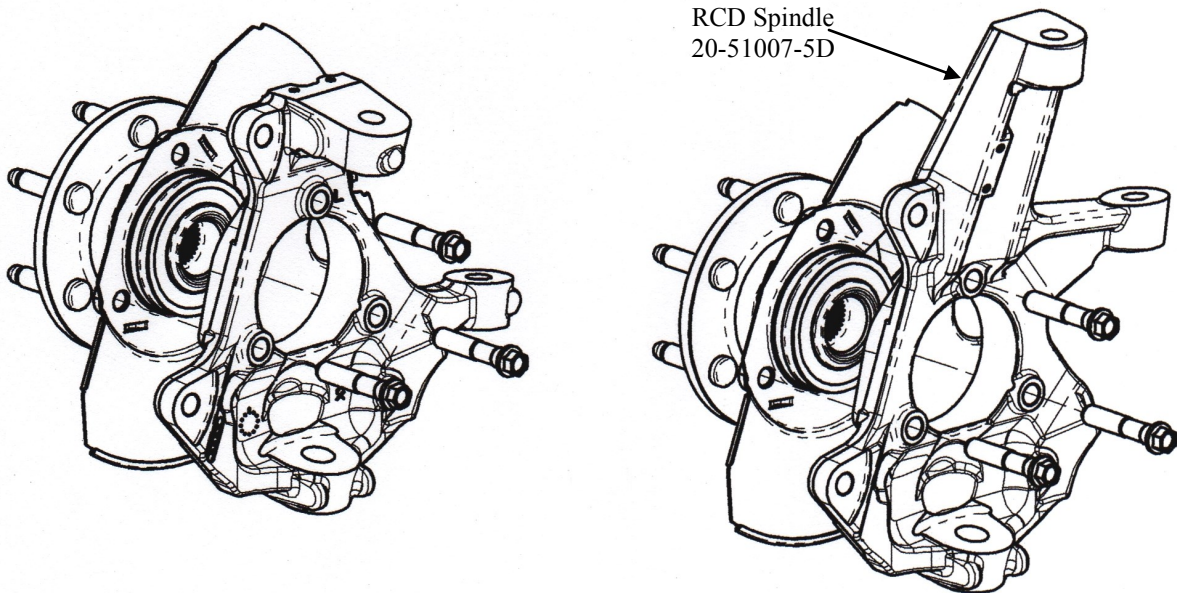
31. Install Lower Spring Seat and Bumpstop Cap onto new strut (F4-BE5-E294-T0). The Cap will need to be tapped on with a rubber hammer. Re-assemble the Strut Assembly into the Spring Assembly, aligning to the Spring Cap as noted, and tighten the nut to 37 lb./ft. (**Illustration 12**).

32. Install Front Strut Assembly to frame and lower control arm using original hardware. Torque upper nuts and lower bolts to 37 lb/ft.

33. Remove the splash shield, hub and bearing assembly from existing front spindles. Reinstall the splash shield, hub and bearing assembly to new Front Spindles (20-51007-5D Drvr. and 20-51007-6P Pass.) (**Illustration 13**).

NOTE: Make sure that hub and bearing assemblies are reinstalled on the same side they were removed from. Apply Loctite compound to existing hardware. Torque bolts to 133 ft. lbs.

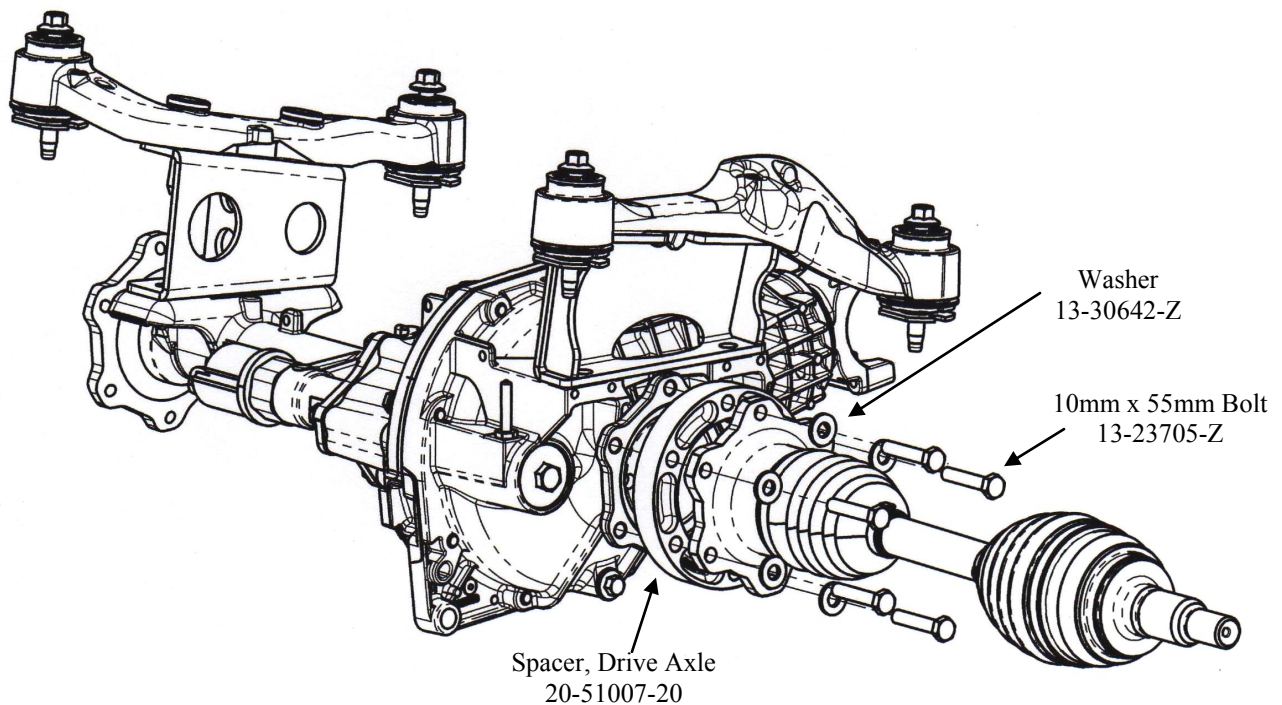
Illustration 13



34. Connect driver side front spindle assembly to the upper and lower control arm ball joints. Torque upper ball nut to 37 ft lbs. Torque lower ball joint nut to 74 ft. lbs.

35. Rotate tierod so that stud is pointing down and attach the tire rod to the front spindle. Torque nut to 46 ft. lbs.
36. Re-install the drive axle into front spindle, using hardware previously removed. NOTE: Do not lubricate the drive axle splines and front spindle with grease.
37. Place Drive Axle Spacer (20-51007-20), against the differential flange (**Illustration 14**). Align the reference marks on the axle flange and differential flange, making sure all mounting holes are aligned with each other. Attach using Loctite compound and hardware provided, torque bolts to 58 ft. lbs.

Illustration 14



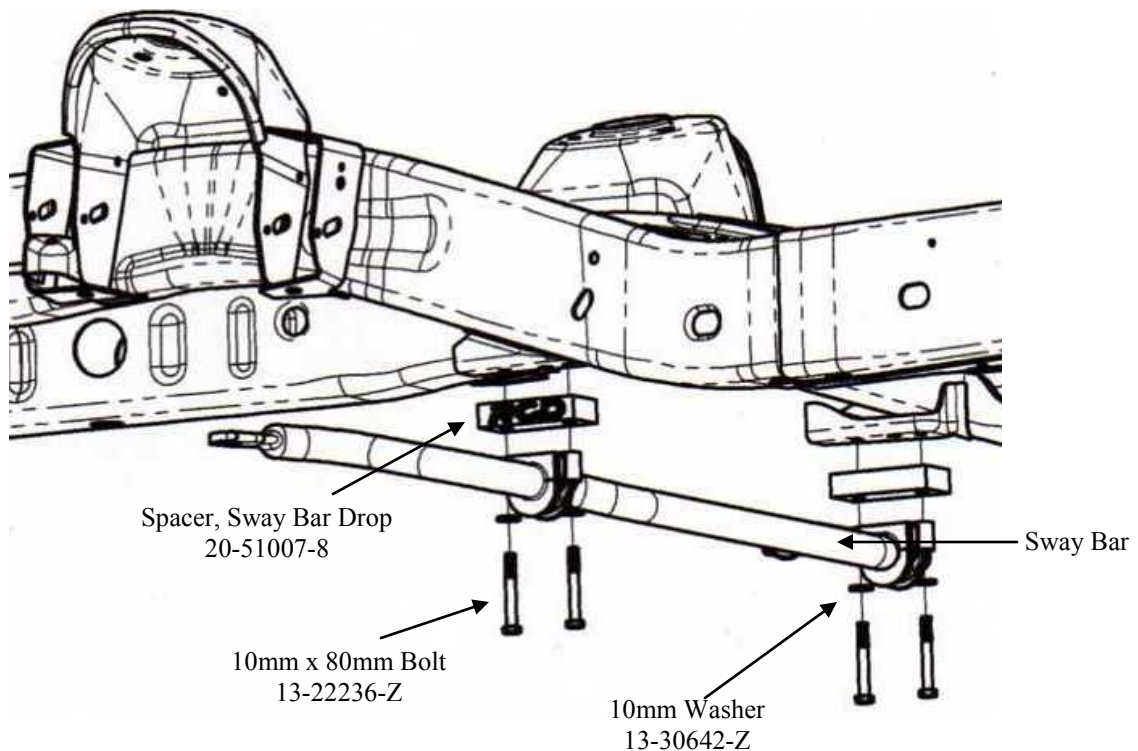
38. Torque axle hub to 165 ft. lbs.
39. Install brake rotor. Reattach the front caliper with existing hardware. Torque caliper mounting bracket hex bolts (to spindle) to 129 ft. lbs.

40. Remove the brake hose, and replace it with the new Driver's Side Stainless Steel Braided Brake Line (50-5107-1). Note that the Driver and Passenger's Side Brake Lines are not interchangeable. Reinstall the Banjo Bolt at the Caliper with two new crush washers (50-5700-4) and torque to 20 ft. lbs. Secure the upper end of the new Brake Line using the original clip. Reinstall the hard brake line to the new Stainless Steel Braided Brake Line (at the frame bracket) and torque to 14 ft. lbs. Cycle the suspension and steering to make sure the new brake lines do not interfere with any moving parts, and are secured with the supplied plastic Zip-ties. Also secure the Speed Sensor Line at this time.

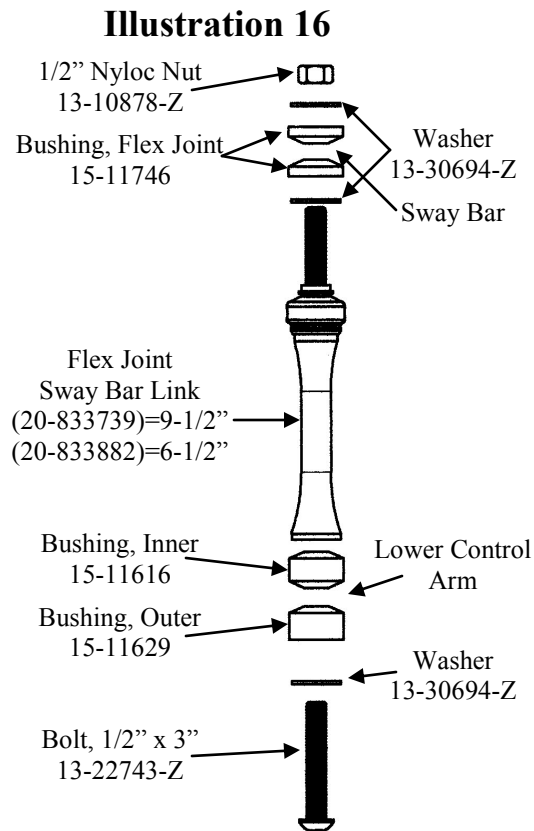
41. Repeat steps 33 thru 39 on opposite side.

42. Install Anti-sway bar to frame using Sway Bar Drops (20-51007-8) and hardware provided (**Illustration 15**). Note: On 2wd models, this step will not be necessary.

Illustration 15



43. Install Sway Bar End Links (20-833882 on 4wd, 20-833739 on 2wd) using hardware provided (**Illustration 16**).

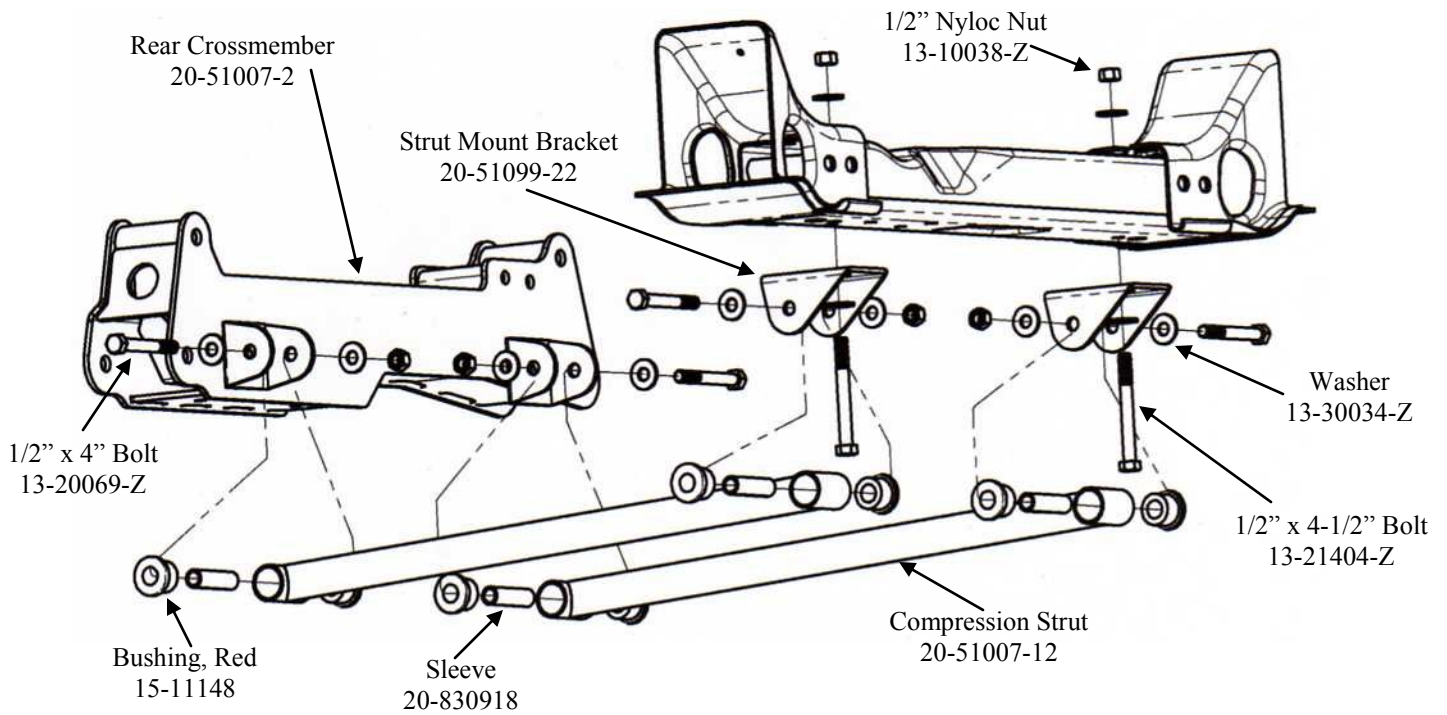


44. Install Bushings (15-11148) and Sleeves (20-830918) into both ends of the Lateral Compression Struts (20-51007-12). Attach Lateral Compression Strut to Strut Mount bracket located on rear crossmember using hardware provided (**Illustration 17**). Do not tighten at this time.

45. Remove transfer case skid plate, if equipped.

46. Attach Strut Mount Bracket (20-51099-22) to opposite end of the compression strut. Rotate the compression strut assembly upward until bracket contacts the bottom of the transmission crossmember. Use the bracket as a guide to mark and then center punch the mounting hole locations. Drill 1/2" hole at each of the marked locations. Install using the 1/2" hardware provided. Torque the nuts to 65 ft. lbs.

Illustration 17



47. If vehicle is equipped with a transfer case skid plate, notch the skid plate for clearance of the strut mount bracket. Reinstall the skid plate using existing hardware.

48. Bleed the brakes, checking for leaks at the newly installed fittings. Install the wheels and tires, and lower the vehicle to the ground. Torque lug nuts to 140 ft-lbs.

49. When the vehicle is at ride height, torque the lower control arm to front and rear crossmember pivot nuts to 121 ft. lbs.

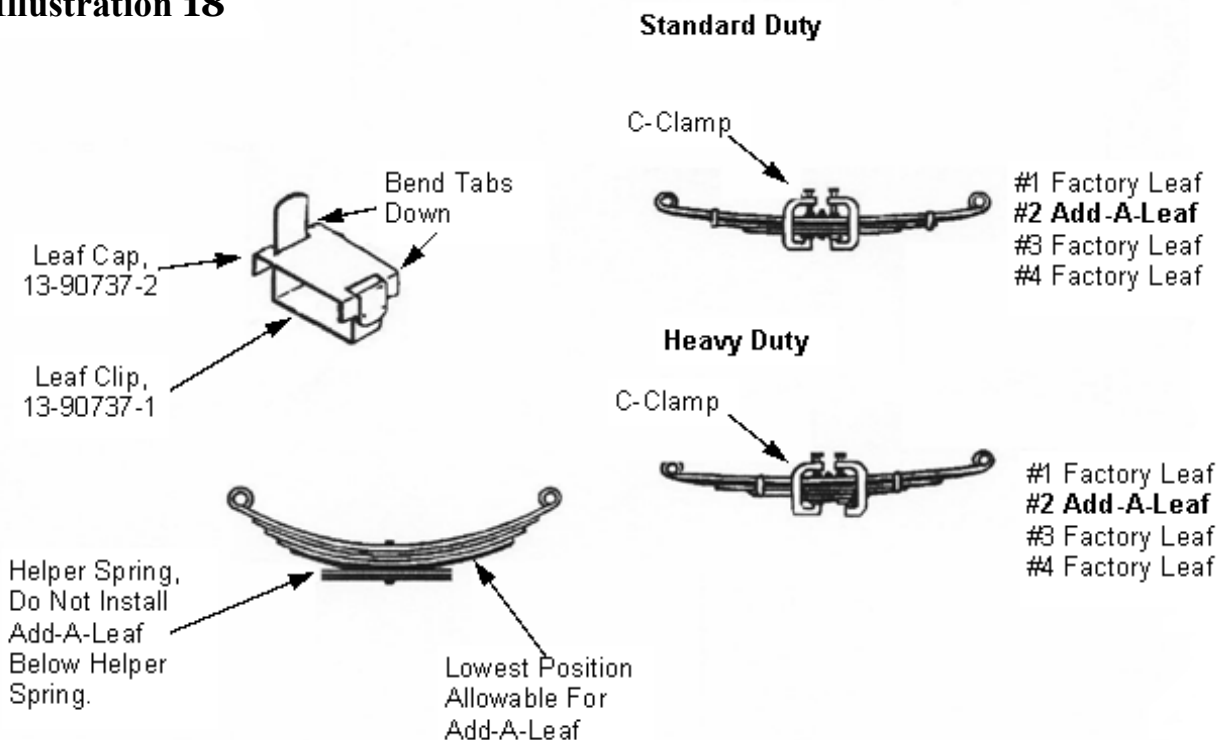
50. Torque Sway Bar Extension 1/2"-13 x 3" Button Head bolts to 66 ft. lbs.

Rear Installation Instructions

1. Raise the vehicle. If working without a shop hoist, support vehicle with suitable safety stands. To do this put vehicle in gear, block front wheels, both in front and behind tires, then disengage emergency brake. Place floor jack underneath rear axle and raise vehicle. Place safety jack stands under frame to support vehicle and lower vehicle onto safety stands. Remove rear tire/wheel assemblies.
2. Use a floor jack to raise the rear axle just enough to relieve tension from the shock absorbers and remove them.
3. Remove the two bolts holding the brake line bracket to the top of frame and carefully relocate the bracket to the bottom of the frame.
4. Remove rear U-bolts attaching rear axle to driver side leaf spring. Carefully lower rear axle.

CAUTION: Do not allow axle to hang by any hoses or cables.

Illustration 18



5. Hold the spring assembly securely together with C-Clamps (**Illustration 18**). Remove any spring leaf alignment clamps. Remove the spring center bolt. If necessary, use a hammer and punch to drive it out.
6. Carefully remove C-Clamps and set the helper spring aside.

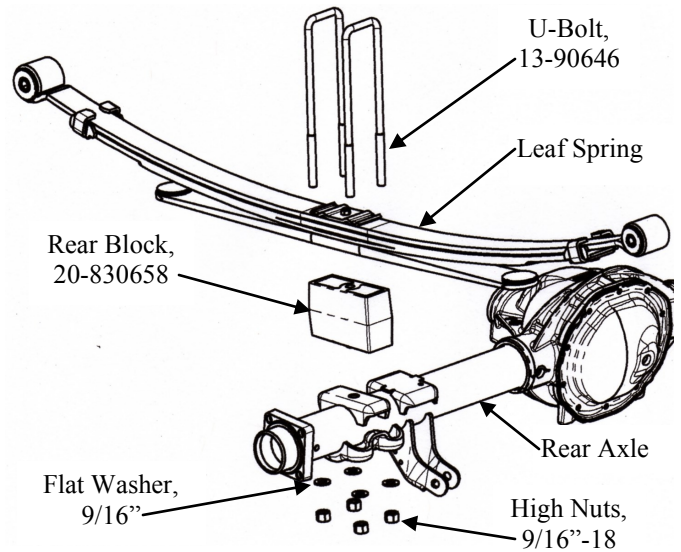
NOTE: Add-a-Leaf will be placed in the spring assembly progressively according to length. For example, if existing leaves are 32" long and 25" long and the Add-a-Leaf is 28" long, place the Add-a-Leaf between the existing leaves.

7. Apply a small amount of grease to the end of the Add-a-Leaf. Place leaf in the spring assembly as described in the note above and reassemble the leaf spring using C-Clamps.
8. Insert new center bolt and torque center bolt nut to 20 ft. lbs.

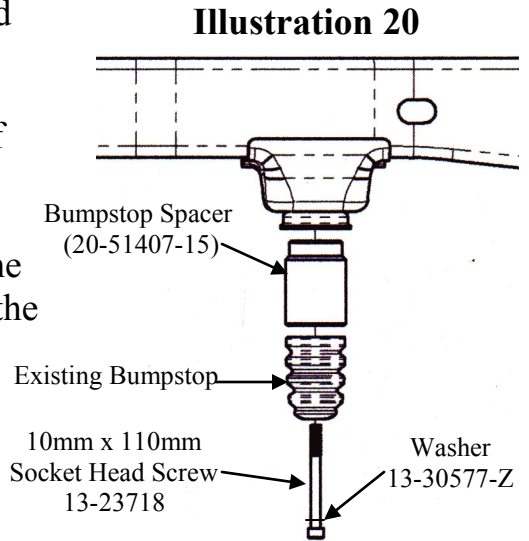
CAUTION: Do not try to compress the spring with the center bolt.

9. Install new Leaf Clips (13-90737-1) and Leaf Caps (13-90737-2) as shown in (**Illustration 18**).
10. Insert new riser Block (20-830658) on axle pad. Make sure the pin in the block indexes into the hole of the axle housing spring pad. The short end of the block goes toward the front of the vehicle. Carefully raise rear axle until block makes contact with leaf spring. Make sure center bolt is aligned with hole in block (**Illustration19**).
11. Re-mount axle to spring using the new U-bolts, Washers and High Nuts with existing spring plates. Torque U-bolts nuts to 85-100 ft.-lbs.

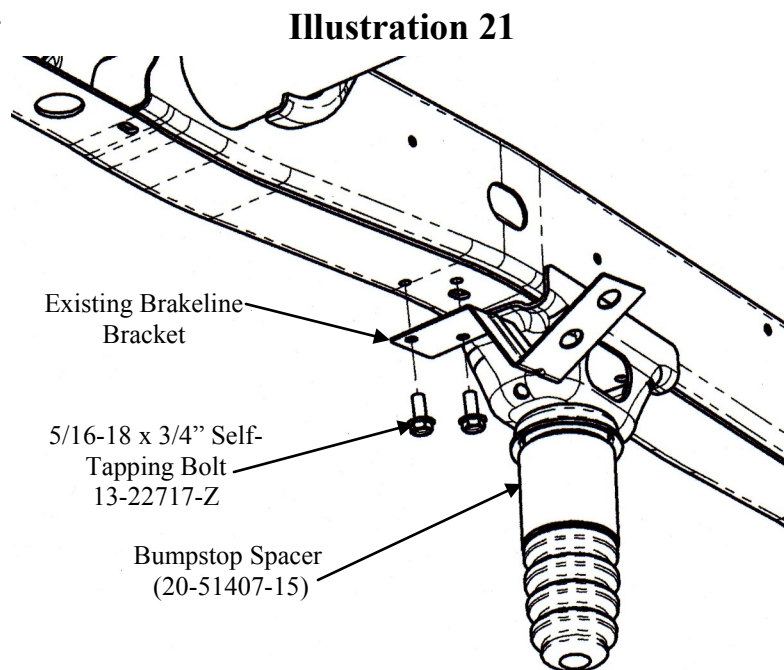
Illustration 19



12. Repeat steps 4 through 11 on passenger side.
13. Install new longer Shock Absorbers (BE5-6134-T5).
Using the existing hardware attach the shock to lower axle mount. Attach shock to upper frame mount and Torque the nuts to specifications listed on page 21.
14. Remove existing rear bumpstop from the bottom of the frame rail.
15. Install rear bumpstop assembly (20-51407-15) to the frame rail at the original bumpstop location, using the 10mm x 110mm bolt provided (**Illustration 20**).
16. Repeat steps 13 thru 15 on opposite side.



17. Reform brakelines so that bracket sits flush with bottom of frame directly below original mounting location. Mark and drill two 17/64" holes in frame. Use the 5/16" self tapping screws provided, to secure the bracket to the frame (**Illustration 21**).
18. Install rear tire/wheel assemblies and lower the vehicle. Torque lug nuts to 140 ft-lbs.



Torque Specifications

General Torque Specifications:

5/16"	20 ft. lbs.	M6	9 ft. lbs.
3/8"	35 ft. lbs.	M8	23 ft. lbs.
7/16"	60 ft. lbs.	M10	45 ft. lbs.
1/2"	90 ft. lbs.	M12	75 ft. lbs.
9/16"	160 ft. lbs.	M14	120 ft. lbs.
5/8"	175 ft. lbs.	M16	165 ft. lbs.
3/4"	250 ft. lbs.	M18	220 ft. lbs.

Existing Hardware Torque Specifications:

Wheel Hub-to-Wheel Knuckle Bolts	133 ft. lbs.
Front Differential Mounting Nuts, Pass. Side	75 ft. lbs.
Front Differential Mounting Bolts 12mm	87 ft. lbs.
Front Driveshaft/Front Differential Pinion Flange Bolts	19 ft. lbs.
Sway Bar to Frame Mounting Bolts	50 ft. lbs.
Lower Control Arm Mounting Bolts	129 ft. lbs.
Lower Ball Joint Nut	94 ft. lbs.
Axle Nut	148 ft. lbs.
Upper Ball Joint Nut	37 ft. lbs.
Tie Rod Nut	37 ft. lbs.
Caliper Mount to Steering Knuckle Bolts	129 ft. lbs.
Front Brakeline Banjo Bolts	26 ft. lbs.
Hard Brake Line to Brake Hose Fitting	13 ft. lbs.
Front Shock, Upper Mount Nuts	37 ft. lbs.
Front Shock, Lower Mount Bolts	37 ft. lbs.
Wheel Lug Nuts	140 ft. lbs.
Front Halfshaft to Differential Bolts	58 ft. lbs.
U-Bolt Nuts	110 ft. lbs.
Rear Shock, Upper and Lower Mount Nuts	52 ft. lbs.