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Part#: **014303**

Product: **3" Suspension System**

Application: **Jeep Wrangler TJ Rubicon/Unlimited**

READ AND UNDERSTAND ALL INSTRUCTIONS AND WARNINGS PRIOR TO INSTALLATION OF SYSTEM AND OPERATION OF VEHICLE.

SAFETY WARNING BDS Suspension Co. recommends this system be installed by a professional technician. In addition to these instructions, professional knowledge of disassembly/ reassembly procedures and post installation checks must be known.

PRODUCT SAFETY WARNING Certain BDS Suspension products are intended to improve off-road performance. Modifying your vehicle for off-road use may result in the vehicle handling differently than a factory equipped vehicle. Extreme care must be used to prevent loss of control or vehicle rollover. Failure to drive your modified vehicle safely may result in serious injury or death. BDS Suspension Co. does not recommend the combined use of suspension lifts, body lifts, or other lifting devices.

You should never operate your modified vehicle under the influence of alcohol or drugs. Always drive your modified vehicle at reduced speeds to ensure your ability to control your vehicle under all driving conditions. Always wear your seat belt.

PRE-INSTALLATION NOTES

1. Special literature required: OE Service Manual for model/year of vehicle. Refer to manual for proper disassembly/ reassembly procedures of OE and related components.
2. Adhere to recommendations when replacement fasteners, retainers and keepers are called out in the OE manual.
3. Larger rim and tire combinations may increase leverage on suspension, steering, and related components. When selecting combinations larger than OE, consider the additional stress you could be inducing on the OE and related components.
4. Post suspension system vehicles may experience drive line vibrations. Angles may require tuning, slider on shaft may require replacement, shafts may need to be lengthened or trued, and U-joints may need to be replaced.
5. Secure and properly block vehicle prior to installation of BDS Suspension components. Always wear safety glasses when using power tools.
6. If installation is to be performed without a hoist, BDS Suspension Co. recommends rear alterations first.
7. Due to payload options and initial ride height variances, the amount of lift is a base figure. Final ride height dimensions may vary in accordance to original vehicle attitude. Always measure the attitude prior to beginning installation.

POST-INSTALLATION WARNINGS

1. Check all fasteners for proper torque. Check to ensure for adequate clearance between all rotating, mobile, fixed, and heated members. Verify clearance between exhaust and brake lines, fuel lines, fuel tank, floor boards and wiring harness. Check steering gear for clearance. Test and inspect brake system.
2. Perform steering sweep to ensure front brake hoses have adequate slack and do not contact any rotating, mobile or heated members. Inspect rear brake hoses at full extension for adequate slack. Failure to perform hose check/ replacement may result in component failure. Longer replacement hoses, if needed can be purchased from a local parts supplier.
3. Perform head light check and adjustment.
4. Re-torque all fasteners after 500 miles. Always inspect fasteners and components during routine servicing.

PARTS LIST

Part #	Qty	Description
034302	2	Front Coil Springs
034308	2	Rear Coil Springs
82380	1	Front Cam Bolt Kit
65077	1	1/8" x 1-1/4" Cotter Pin

Front Sway Bar Disconnects

A100	2	Sway Bar Disconnect (Assembled)
01302	2	Disconnect Stud
01316	2	12" Lanyard
01317	2	Lanyard Clip
01325	2	Sway Bar U-Bracket
45313	2	0.625 x 0.109 x 1.375 Sleeve
718	1	Bolt Pack
2		1/2-20 prevailing torque nut
4		1/2" SAE flat washer
2		1/2"-20 jam nut
2		3/8"-16 x 2-1/2" bolt
2		3/8"-16 prevailing torque nut
4		3/8" SAE flat washer
2		7/16"-14 x 1-1/2" bolt
2		7/16"-14 prevailing torque nut
2		7/16" SAE flat washer
2		7/16" USS flat washer
2		#10-16 x 5/8" self-drilling screw

Bump Stop Extensions

2296	4	Bump Stop Extensions
B1080G5	4	10mm x 80mm Bolts

Rear Track Bar Relocation

01326	1	Track Bar Bracket
711	1	Bolt Pack
2		5/16"-18 x 1" bolt
2		5/16-18 prevailing torque nut
6		5/16" USS washer
1		3/8"-16 x 1" bolt
1		3/8"-16 prevailing torque nut
2		12mm-1.75 x 80mm bolt
2		12mm-1.75 prevailing torque nut
3		7/16" USS washer

Rear Sway Bar Links

911104	2	Sway Bar Link
45313	4	5/8" x 0.109" x 1.375" Sleeve
SB58RB	4	5/8" ID Hourglass Bushing
709	1	Bolt Pack
4		10mm-1.50 x 60mm bolt
4		10mm-1.50 prevailing torque nut
8		3/8" USS flat washer



INSTALLATION INSTRUCTIONS

1. Park the vehicle on a clean, flat surface and block the rear wheels for safety.
2. Measure from the center of the wheel up to the bottom edge of the wheel opening

LF _____ RF _____ LR _____ RR _____

3. Remove the forward transmission skid plate. Remove the two frame mount bolts (one per side) and three center skid plate bolts. Remove skid plate from vehicle.

As a result of the increased suspension travel obtained by the addition of this suspension system, the forward transmission skid plate cannot be reinstalled. Installation of this skid plate will result in contact between the front driveshaft and skid plate crossmember throughout normal suspension travel, possibly damaging the driveshaft.

Front Installation

4. Disconnect the front track bar from the passenger's side of the front axle (Fig 1). Retain hardware.

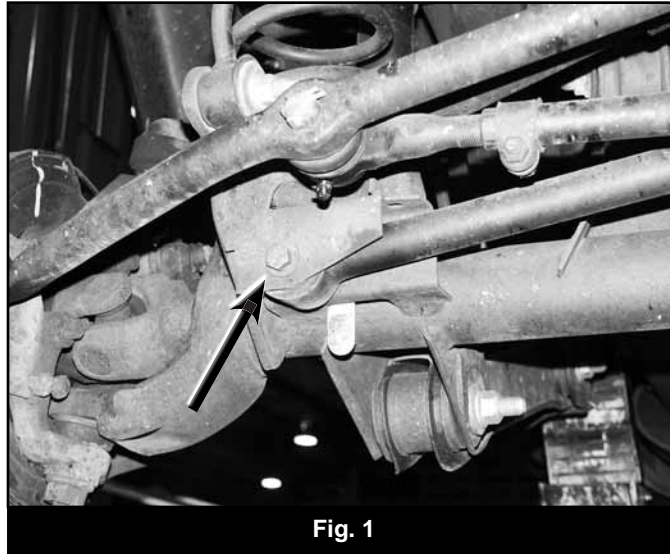


Fig. 1

5. Raise the front of the vehicle and support with jack stands at the frame rails just behind the lower control arm pockets.
6. Support the front axle with a hydraulic jack.
7. Remove the wheels.
8. Remove the OE shocks. Discard the shocks and upper mounting hardware. Retain the lower mounting bolts/nuts.
9. Remove the upper mounting nut from the sway bar links (Fig 2). Disconnect the links from the sway bar using a pickle fork to release the tapered seat.

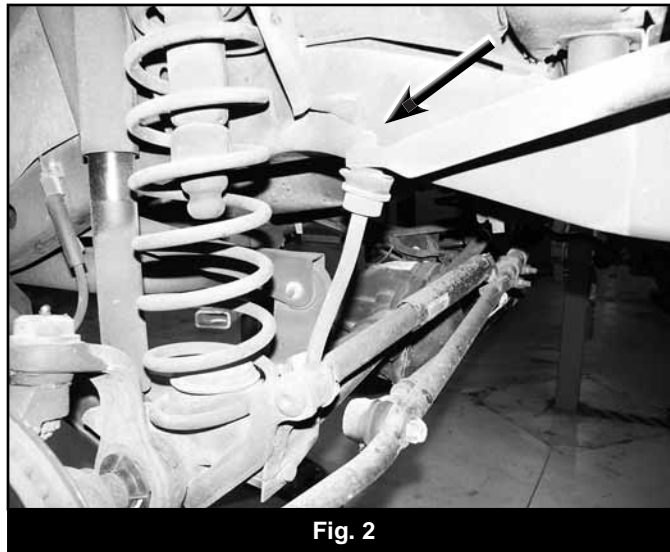
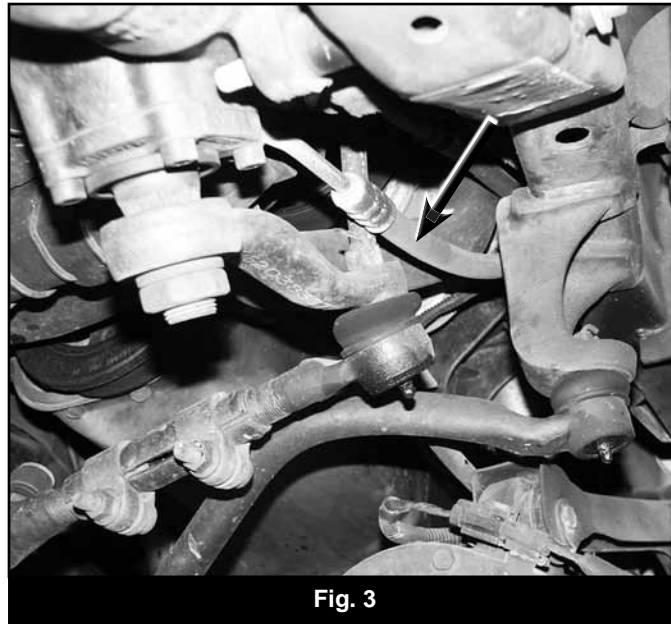
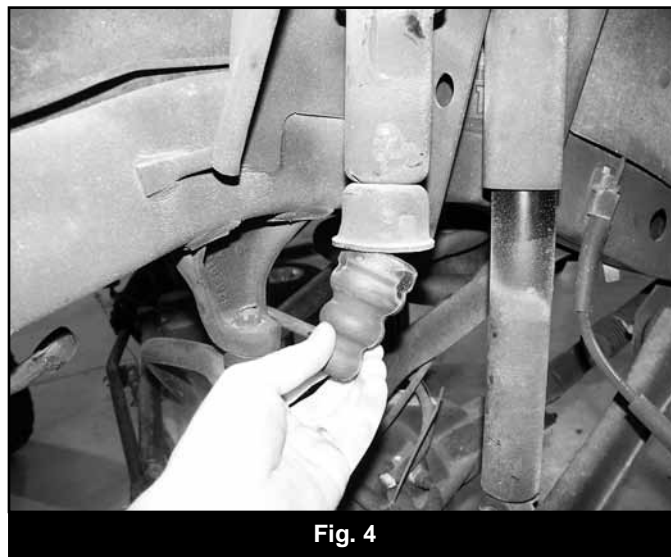


Fig. 2

10. Disconnect the sway bar links from the axle. Remove the OE lower sway bar link bolt from the axle bracket. This bolt has a serrated neck that is set in the bracket so it cannot rotate in the bracket. It will need to be pounded out with a hammer or pressed out with an appropriate puller. Discard bolt and
11. Disconnect the drag link from the pitman arm (Fig 3). Retain OE castellated nut.

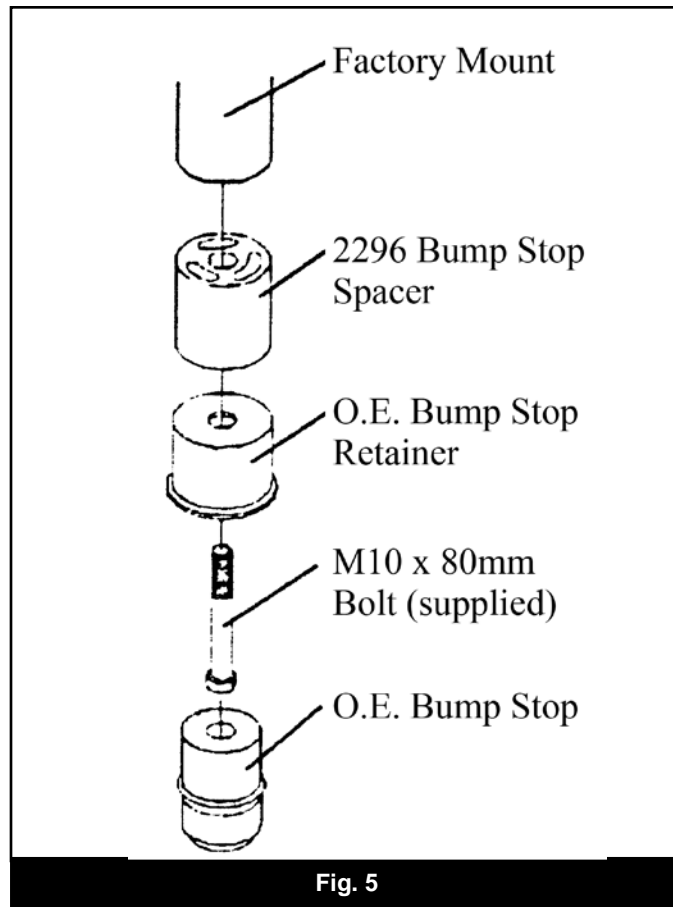


12. If equipped, remove the coil spring retainer clips from the coil mount on the axle. Retain clip and bolt.
13. Remove lower control arm-to-axle bolt. Discard hardware, it will be replaced with the new provided eccentric bolts.
14. Lower the axle and remove the coil spring. Take care not to overextend any lines or hoses.
15. Remove the OE rubber bump stop from the upper coil mount (Fig 4). Large pliers can be used to pull it out.



16. Install the provided bump stop spacer (2296) between the OE retainer cup and the frame with a 10mm x 80mm bolt. Use Loctite on the bolt threads and torque to 30 ft-lbs. Install the OE bump stop in the retainer cup (Fig 5).

🔧 *Note: A small amount of grease will ease installation of the bump stop.*



17. Install the new coil spring (034302). Rotate the coil so it is seated properly in the axle mount. Install the OE spring retainer clip with the original bolt and torque to 20 ft-lbs. Once again, take care not to overextend any lines or hoses while installing the springs.
18. Once both sides are complete, install the lower control arms in the axle mounts and fasten with the provided eccentric bolts, washers and nuts (82380). Snug the hardware just so the cams are in the mounts. The bolt should still turn freely. Final torque will be done with the weight of the vehicle on the suspension.
19. Locate the OE track bar mount on the passenger's side axle. A new track bar mounting hole must be drilled in the bracket. Measure $\frac{3}{4}$ " from the center of the OE hole to the driver's side and mark. Drill a $\frac{13}{32}$ hole at the mark.
 - ⓘ *Note: Make sure that there will be adequate material left between the new hole and the edge of the bracket, if not move the hole location up slightly. Do not install the track bar in the bracket at this time.*
20. Attach the drag link to the pitman arm with the OE castellated nut and supplied new cotter pin. Torque nut to 60 ft-lbs.
 - ⓘ *Note: Never loosen the castellated nut to align the cotter pin hole, always tighten.*
21. Install the new lower ball stud (01302) to the OE sway bar link axle mount (Fig 6) with a $\frac{1}{2}$ " nut and two $\frac{1}{2}$ " SAE washers (BP 718). The washers mount on each side of the OE mount. The ball mounts toward the inside of the vehicle. Torque nut to 60 ft-lbs.
 - ⓘ *Note: It may be necessary to clean the axle mount hole of burrs from the OE serrated mounting bolt to provided clearance for the new ball stud.*

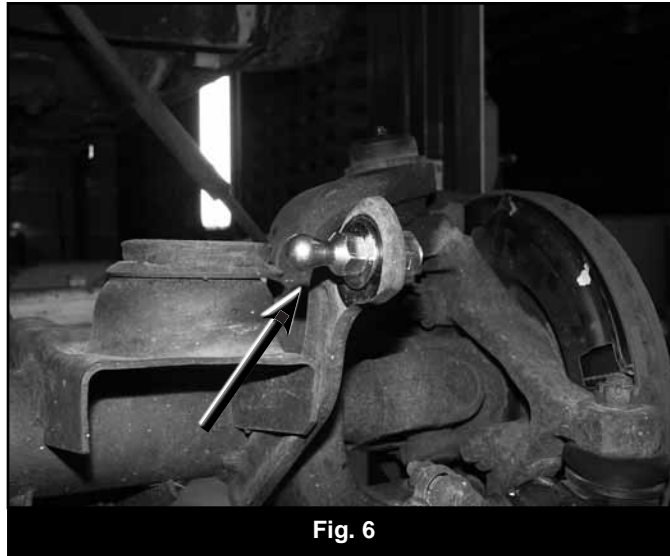


Fig. 6

22. The sway bar link hole in the sway bar must be clearance to accept the new 7/16" mounting bolts. This can be done using a 7/16" drill or rotary grinding tool.
23. Install the provided upper u-bracket (01325) to the sway bar using with a 7/16" x 1-1/2" bolt, nut, 7/16" SAE washer and 7/16" USS washer (BP 718). Install the bolt up through the u-bracket with an SAE washer into the sway bar. Fasten with the nut and USS washer (Fig 7). Position the bracket so that the thru-holes are parallel to the ball stud on the axle. Torque 7/16" hardware to 45 ft-lbs.

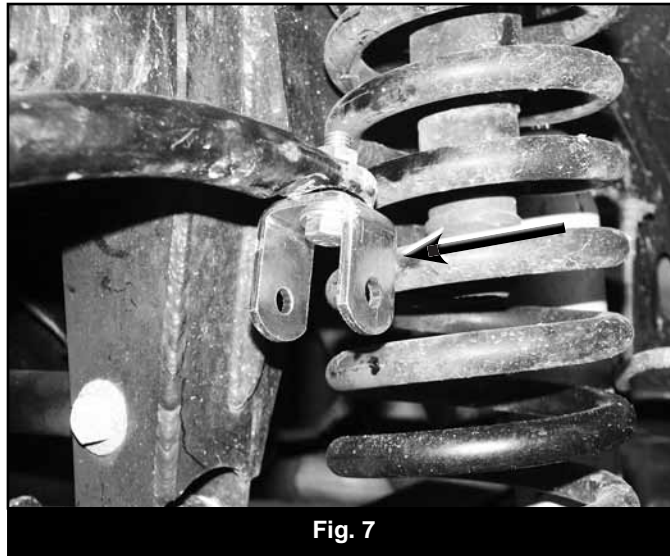


Fig. 7

24. The BDS front sway bar disconnects (A100) come pre-assembled with the hourglass bushings installed (Fig 8). Lightly grease and install the provided sleeve (45313) in the sway bar link bushings.

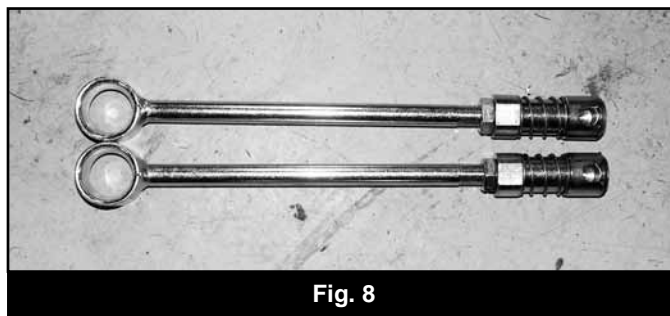


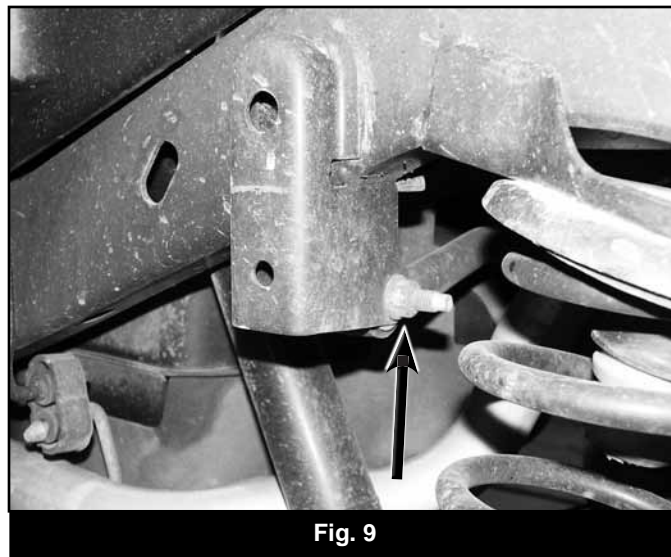
Fig. 8

25. Ensure that the sway bar disconnect ends are threaded all the way on to the link. Compare the two links side by side to see that they are adjusted to the same length. Leave the jam nut loose at this time.

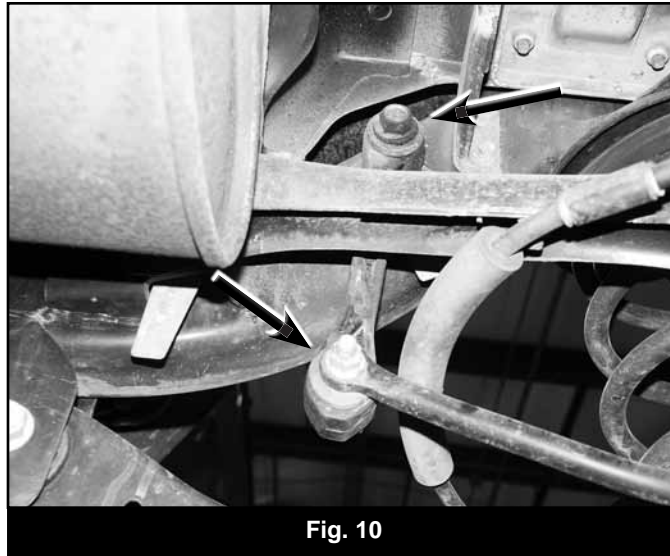
26. Install the sway bar link assembly to the upper u-bracket with the provided 3/8" x 2-1/2" bolt, nut and 3/8" SAE washers (BP 718) running from inside out. Torque bolt to 30 ft-lbs.
27. Install the appropriate BDS shocks with the new upper hardware and OE lower hardware. Tighten the upper nut until the bushing begins to swell. Torque the lower hardware to 22 ft-lbs.
28. Install the wheels and lower the front of the vehicle to the ground.
29. Install the track bar in the new hole that was drilled earlier in the axle mount with the OE bolt and nut tab. Turn the steering wheel will help to line up the track bar with the hole. Torque the bolt to 40 ft-lbs.
30. Ensure that the vehicle is setting level. Pull the spring collar up on the disconnect end and attach it to the ball stud on the axle. Make sure the stud hole in the disconnect end is square with the ball stud and tighten the link jam nut securely. The disconnect allows for 1/2" of adjustment (1/2" longer from fully bottomed out). If necessary, adjust the links side-to-side to compensate for any unevenness in the vehicle. This allows for the easiest possible disconnecting of the ends.
31. Check the jam nuts to be sure they are securely locked off. Disconnect both end links and fold them up against the sway bar. Clip the provided lanyard/clip assembly (01316, 01317) around the sway bar/end link and find the best position for the mounting lanyard. This position will vary from vehicle to vehicle and with different suspension setups. Use your best judgment. Use the provided self-drilling screws (BP 718) to mount the lanyard to the body/frame.
32. With the lanyards installed reconnect the sway bar links to the axle. The lanyards can be reattached to themselves so that they remain out of the way of moving parts when not in use.

REAR INSTALLATION

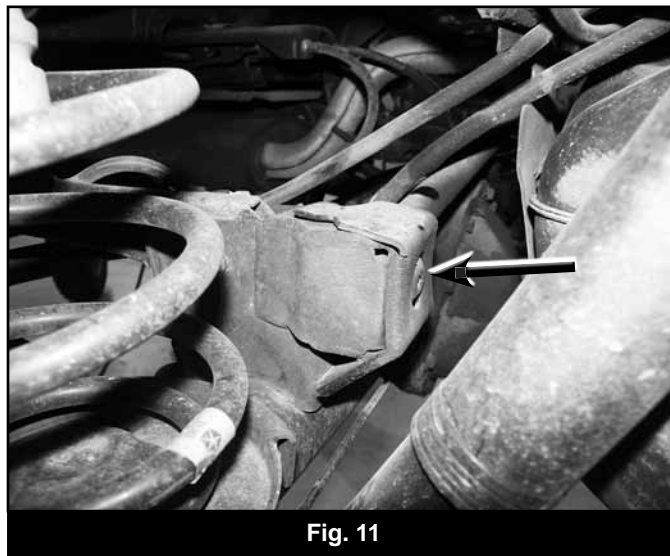
33. Block the front wheels for safety. Raise the rear of the vehicle and support with jack stands under the frame rails just ahead of the lower control arm mounts.
34. Remove the wheels.
35. Support the axle at the differential with a hydraulic jack.
4. Disconnect the track bar at the passenger's side frame (Fig 9). Retain hardware.



36. Remove the OE rear shocks. Retain the upper and lower mounting hardware.
37. Remove the OE sway bar links (Fig 10). The links will not be reused.



38. Disconnect the lower control arms from the axle. Retain hardware.
 39. Lower the axle until the coil springs can be removed. Take care not to over-extend any lines or hoses.
 40. Remove the OE rubber bump stop from the upper coil mount. Large pliers can be used to pull it out. Remove the OE bump stop retainer cup by remove the bolt from the center of the cup.
 41. Install the provided bump stop spacer (2296) between the OE retainer cup and the frame with a 10mm x 80mm bolt. Use Loctite on the bolt threads and torque to 30 ft-lbs. Install the OE bump stop in the retainer cup (Fig 5).
- ⓘ *Note: A small amount of grease will ease installation of the bump stop.*
42. Remove the plastic cover from the track bar mount on the driver's side of the axle (Fig 11). Discard the cover.



43. Disconnect the track bar (Fig 10) from the axle by remove the Torx head bolt (T55). Note how the track bar is positioned in vehicle. It can rest in the vehicle or be removed for reinstallation later.
 44. Position the supplied track bar relocation bracket (01326) on the original track bar axle mount (Fig 12). Install the supplied 1.600" long sleeve (6-1) in the original track bar mounting point (Fig 13). Install a 12mm x 80mm bolt and 7/16" washer (BP 711) through the supplied bracket, OE mount, sleeve and out through the other side of the mount. Loosely fasten the bolt with the OE nut tab.
- ⓘ *Note: If the nut tab is damaged use a provided 12mm nut (BP 711).*

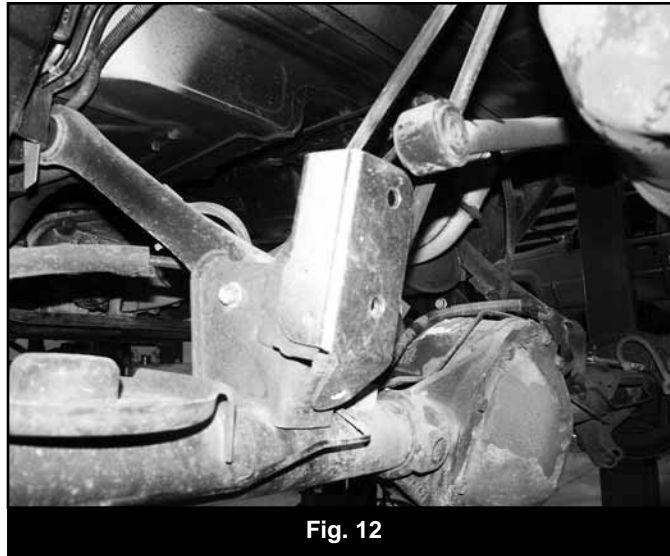


Fig. 12

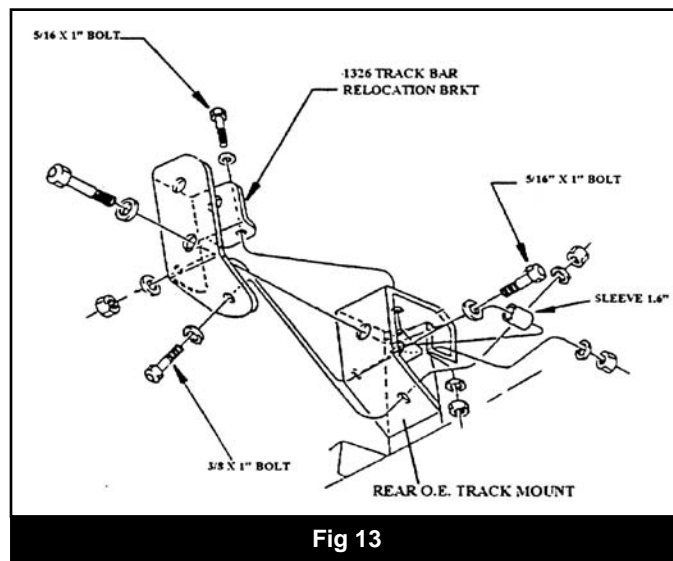



Fig 13

45. Using the new bracket as a template, mark the two additional mounting holes to be drilled. Note: The lowest hole in the bracket will line up with an existing hole that may need to be widened slightly.
46. Remove the bracket and drill 5/16" holes at the top two marks and widen the lower hole, if necessary, to accept the 3/8" bolt.
47. Reinstall the bracket as instructed before in addition to install the provided 5/16" x 1" bolts, nuts and washers (BP 711) in the upper two newly drilled mounting holes and the 3/8" x 1" bolt, nut and washers (BP 711) in the lower hole. Leave hardware loose until all bolts are installed.
48. Torque all mounting bolts: 12mm hardware- 60 ft-lbs, 3/8" hardware- 30 ft-lbs, 5/16" hardware- 15 ft-lbs.
49. Install the track bar in the new track bar bracket with the provided 12mm x 80mm bolt, nut and 7/16" USS washers. Be sure to run the bolt from back to front. Leave bolt loose at this time.
50. Install the provided new coil springs (034308).
51. Install the appropriate BDS shocks OE upper and lower hardware. Torque the lower hardware to 60 ft-lbs. Torque the upper hardware to 22 ft-lbs.
52. Reinstall the lower control arms in the axle mounts with the OE hardware. Leave hardware loose.
53. The new rear sway bar links (911104) come with the bushings already installed. Lightly grease and install the provided sleeves (45313) in each of the bushings.
54. Install the rear sway bar links to the original frame mount and the sway bar with the provided 10mm x 60mm bolts, nut and washers (BP 709). Torque the bolts to 30 ft-lbs. The OE 10mm nut tab can be reused at the frame.
55. Install the wheels and lower the vehicle to the ground.

 Note: Make sure the track bar doesn't get pitched when lowering the vehicle.

56. Torque the lower control arm bolts at the axle to 125 ft-lbs.
57. Attach the track bar to the original frame mount with the OE hardware. The body may need to be shifted slightly side-to-side to align the bolt. Torque both upper and lower track bar bolts to 60 ft-lbs.

POST INSTALLATION

58. Check the vehicle for any interference of any moving parts. Check all brake and fuel lines. Perform a steering sweep to ensure full turning radius without interference.
59. Double check all fasteners for proper torque.
60. Install warning card rear view mirror for vehicle operator.
61. A complete front end alignment should be performed after the installation of this kit. A head light adjustment should also be performed.
62. The steering wheel can be centered by adjusting the front steering center link.
63. Check all fasteners after 500 miles.

NOTICE TO DEALER/INSTALLER

These instructions, the warning card, and included decals must be given to the owner of this BDS Suspension product.

For questions, technical support and warranty issues relating to this BDS Suspension product, please contact your distributor/installer before contacting BDS Suspension directly.

Sold/Installed by: