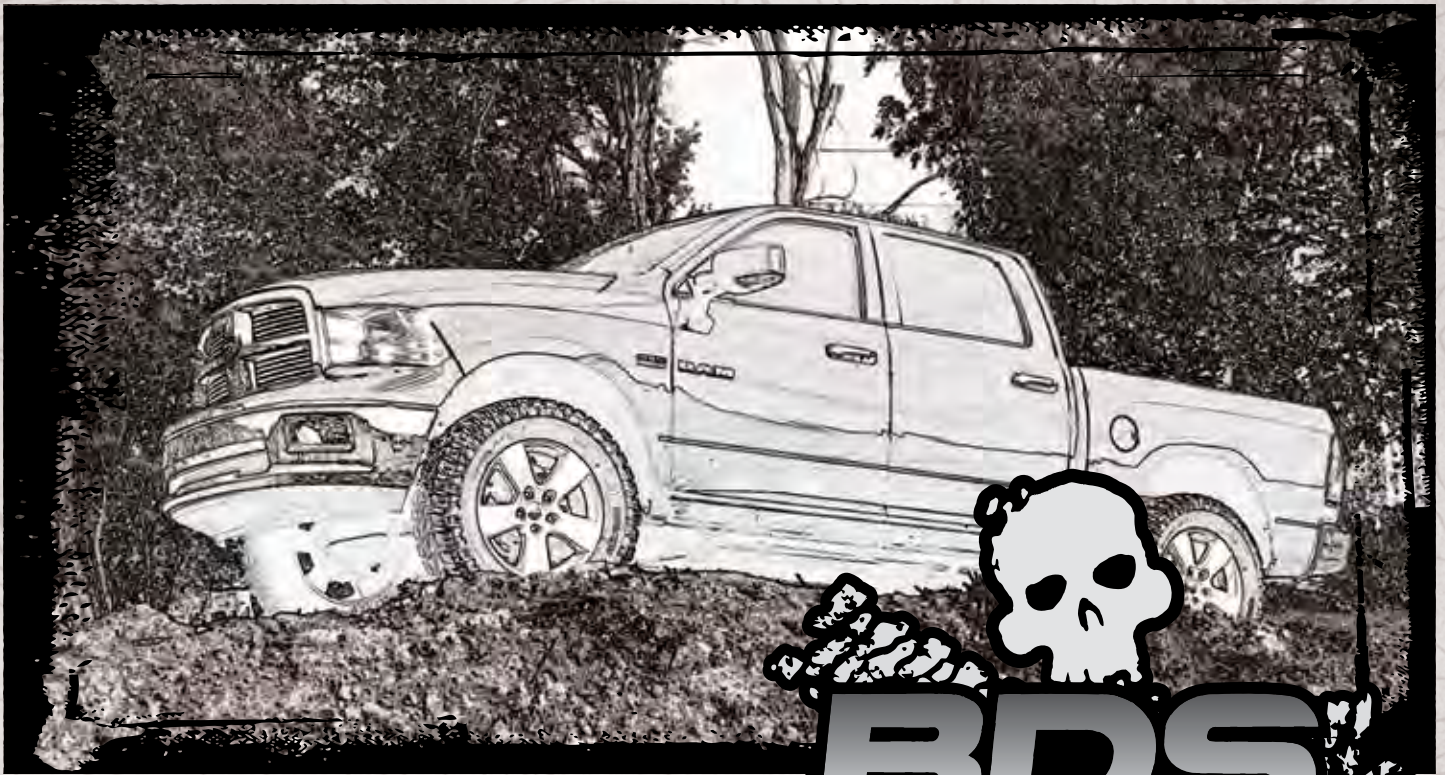


Installation instructions



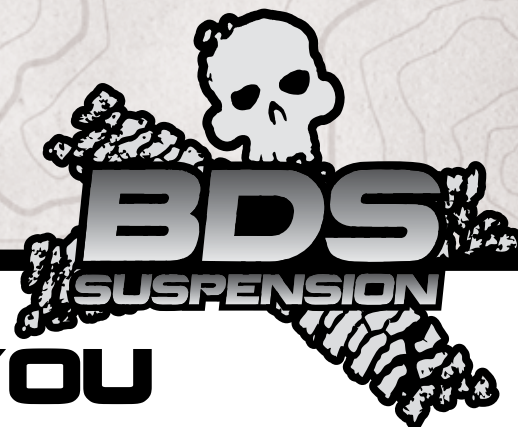
Part#: 022605



4" & 6" High Clearance Suspension System

Dodge 1500 4WD | 2006-2011

Read And Understand All Instructions And Warnings Prior To Installation Of System And Operation Of Vehicle.



THANK YOU

Your truck is about to be fitted with the best suspension system on the market today. That means you will be driving the baddest looking truck in the neighborhood, and you'll have the warranty to ensure that it stays that way for years to come. Thank you for choosing BDS Suspension!

BEFORE YOU START

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.

FOR YOUR SAFETY

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.

BEFORE INSTALLATION

Special literature required: OE Service Manual for model/year of vehicle. Refer to manual for proper disassembly/reassembly procedures of OE and related components.

Adhere to recommendations when replacement fasteners, retainers and keepers are called out in the OE manual.

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.

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.

Secure and properly block vehicle prior to installation of BDS Suspension components. Always wear safety glasses when using power tools.

If installation is to be performed without a hoist, BDS Suspension Co. recommends rear alterations first.

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.

BEFORE YOU DRIVE

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.



TRACTION CONTROL

In an effort to reduce the risk of rollover crashes the National Highway Traffic Safety Administration (NHTSA) established the Federal Motor Vehicle Safety Standard (FMVSS) No. 126 requiring all new passenger vehicles under 10,000 lbs GVWR include an electronic stability control (ESC) system as standard equipment. Effective August 2012 this law requires after-market products to be compliant with these same standards.



TIRES AND WHEELS

FITMENT GUIDE

6" Lift:

37x12.50 on 17x9 with 4.5" backspacing
37x12.50 on 18x9/20x9 with 5" backspacing

4" Lift:

35x12.50 on 17x9 with 4.5" backspacing
35x12.50 on 18x9/20x9 with 5" backspacing

Some trimming required



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.

Perform head light check and adjustment.

Re-torque all fasteners after 500 miles. Always inspect fasteners and components during routine servicing.



022620 & 022621 Box Kits

Part #	Qty	Description
02230	1	Steering Knuckle - DS
02231	1	Steering Knuckle - PS
44066	2	Tie Rod End

022605 Box Kit

<i>Part #</i>	<i>Qty</i>	<i>Description</i>
01234B	1	Diff Drop Bracket - PS
01236B	1	Diff Drop Bracket - DS Front
01237B	1	Diff Drop Bracket - DS Front
01238B	1	Diff Bracket - DS Rear
01295B	1	HC Front Crossmember
6865833	1	CV Boot Clamp
617	1	Bolt Pack
	4	1/2" x 2-3/4" bolt
	7	1/2" x 2-1/2" bolt
	11	1/2" prevailing torque nut
	25	1/2" SAE flat washer
	3	12mm x 30mm bolt

022309/022509 Box Kit (09-12 models only)

See instructions located in box kit

012418 Box Kit (06-08 4" Kits Only)

Part #	Qty	Description
4KB-W96	2	4in Block
963121212R	4	9/16 x 3-1/2 x 12-1/2 Round U-bolt
N96FH	8	9/16 Fine High Nut
W96S	8	9/16 SAE Flat Washer
01716	1	Rear Brake Line Relocation Bracket
01278	2	Strut Preload Spacer
01224B	2	Rear Bump Stop Extension
422	1	Bolt Pack - Rear Bump Stop
	4	3/8" x 1-1/4" bolt
	4	3/8" prevailing torque nut
	8	3/8" USS flat washer
704	1	Bolt Pack

012218 Box Kit (06-08 4" kits only)

Part #	Qty	Description
2KB-W96	2	2in Block Painted w/ 9/16in Pin
963121012R	4	9/16 x 3-1/2 x 10-1/2 Round U-bolt
W96S	8	9/16 SAE Flat Washer - Yellow Zinc
N96FH	8	9/16 Fine High Nut

022401/022623 Box Kit		
Part #	Qty	Description
4801811AA	1	Wiring Harness
01240	1	Front Driveshaft Spacer
02002ZP	4	M18-2.5 x 150 Class 10.9 Bolt
N18MPT	4	M18-2.5 Prevailing Torque Nut
01264	8	Square Washer
342701	2	Loctite
99000	4	11.5in Nylon Cable Tie
911114	2	Sway Bar Link Extension
02281	1	Front Brake Bracket (022401 only)
02282	1	Front Brake Bracket (022401 only)
768	1	Bolt Pack (022401 only)
02267B	2	Strut Spacer
01298B	1	HC Diff Skid Plate
01296B	1	HC Rear Crossmember
022531	2	Front Brake Line (022623 only)
5188	2	Snap In Brake Line Clip (022623 only)
CCW-03-050	4	Brake Line Crush Washer (022623 only)
01274	1	Brake Line Bracket (022623 only)
631	1	Bolt Pack - Brake Line Hardware
	2	1/2" x 1-1/4" bolt
	2	1/2" prevailing torque nut
	4	1/2" SAE flat washer

022401/022623 Box Kit		
654	1	Bolt Pack - Sway Bar Links
	2	10mm x 65mm bolt
811	1	Bolt Pack - Main Hardware
	4	12mm x 45mm bolt
	4	12mm flat washer
	4	1/2" x 1-1/4" bolt
	4	1/2" SAE flat washer
	2	1/4" x 1/2" bolt
	2	1/4" prevailing torque nut
	4	1/4" SAE flat washer
	2	Wire Clip
	6	10mm Prevailing torque nut
	6	10mm flat washer

012519 Box Kit (06-08 6" leaf spring kit only)		
Part #	Qty	Description
963120912R	4	9/16 x 3-1/2 x 9-1/2 Round U-bolt
N96FH	8	9/16 Fine High Nut
W96S	8	9/16 SAE Flat Washer - Yellow Zinc
01716	1	Rear Brake Line Relocation Bracket
422	1	Bolt Pack
704	1	Bolt Pack
01224B	2	Rear Bump Stop Extension
01278	2	Strut Preload Spacer
002506	2	Leaf Spring

TROUBLESHOOTING INFORMATION FOR YOUR VEHICLE

1. These trucks vary 1"-3" tail high from the factory. Measure your vehicle prior to achieve the desired stance. Part numbers 022209, 022309, and 022509 can all be substituted to achieve the desired stance.
2. The rack and pinion steering system is sensitive to an out of round or out of balance tire & wheel. As you increase tire diameter and decrease the wheel backspacing, the more sensitive the system becomes and can cause minor steering wheel shimmy.
3. Not recommended for AWD models.
4. Stock 17" and 18" wheels cannot be reinstalled. Stock 20" wheels can be installed with factory tires.
5. TRX models with achieve about 1" additional lift. The 6" lift is not recommended for use on the TRX model due to possible CV shaft vibration caused by the additional lift. Instead consider a 4" lift system for 5" of lift or replace the TRX struts with standard struts for use with this system.

**TECH
TIPS**

INSTALLATION INSTRUCTIONS

PRE-INSTALLATION NOTES

- The factory service manual specifically states that striking the knuckle to loosen the ball joints or tie rod ends is prohibited. Striking the aluminum knuckle can damage it. A special puller tool #8677 (or equivalent ball joint tool) is recommended to be used to separate these components from the knuckle.
- On some vehicles an exhaust modification will be required to clear the front driveshaft in its new, lower position.
- For 2009-2017 models w/rear coil spring suspension, refer to the instructions provided with the rear component box kit.
- Due to factory ride height variation, Front strut preload spacers are included in the 4" and 6" 09-17 kits and 6" 06-08 kits. Be sure to measure your truck to know how much rake it has from the factory to determine whether or not it is necessary to have these installed.

SPECIAL TOOLS

High Quality Strut Compressor
Reciprocating saw or equivalent

PRE-INSTALLATION MEASUREMENTS

Measure from the center of the wheel up to the bottom edge of the wheel opening

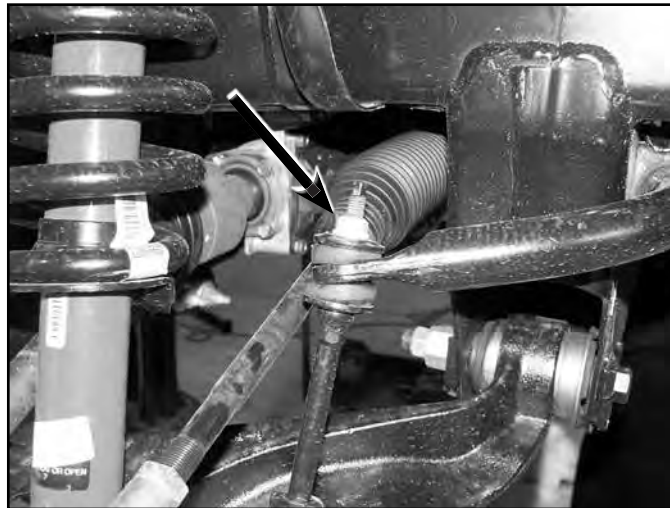
LF _____ RF _____ LR _____ RR _____

INSTALLATION INSTRUCTIONS

FRONT INSTALLATION

1. Park the vehicle on a clean, flat surface and block the rear wheels for safety.
2. Raise the front of the vehicle and support with jack stands under the frame rails.
3. Remove the wheels.
4. Disconnect the sway bar links from the sway bar (Fig 1). Retain the mounting bushings, washers and nuts.

FIGURE 1



5. Remove and discard the OE front skid plate, if equipped.
6. Disconnect the tie rod ends from the steering knuckles. Remove and retain the mounting nuts. Use the appropriate puller to separate the tie rod end from the steering knuckle. Take care not to damage the tie rod end.
7. If equipped, disconnect the ABS brake line at the frame. Remove it from any retaining clips.
8. **6" kit only:** Disconnect the driver's side front brake hose from the caliper. Retain the banjo bolt and discard the crush washers.
9. **6" kit only:** Disconnect the hard line from the brake hose fitting at the frame. Remove the hose fitting retaining bolt and remove the hose from the vehicle. Retain the hose fitting mounting bolt.

10. **6" kit only:** Attach the provided brake line relocation bracket (01274) to the frame where the original line mounted. Fasten the bracket with the OE fitting bolt through the original threaded hole and the corresponding small hole in the new bracket (Fig 2a). Align the other mounting hole in the bracket with the brake line hole in the frame and fasten with a ½" x 1-1/4" bolt, nut and ½" SAE washers (BP #631). Torque the OE bolt to 10 ft-lbs and the ½" bolt to 50 ft-lbs. Note: The third hole in the bracket should be hanging out past the edge of the frame.

FIGURE 2A



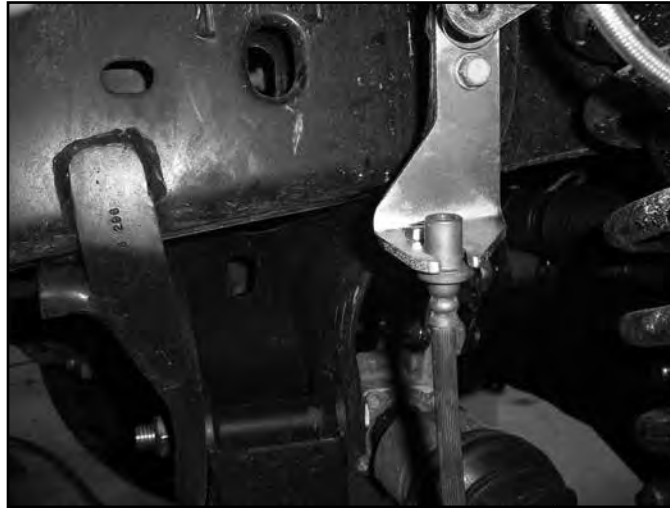
11. **6" kit only:** Route the new stainless steel brake line through the relocation bracket and attach it to the hard line. Tighten the fitting securely. Fasten the line to the bracket with the provided retaining clip.
12. **6" kit only:** Attach the opposite end of the new brake line to the caliper with the OE banjo bolt and one new crush washer on each side of the fitting. Torque the banjo bolt to 18 ft-lbs.
13. **6" kit only:** Repeat brake line installation on the passenger's side of the vehicle.
14. **4" kit only:** Disconnect the brakeline hardware from the strut tower and pull the brakeline through the mount. Cut a slot to allow the brakeline to be removed from the frame. If you do not wish to cut on the coil bucket, the line can be disconnected and reconnected after it is removed from the frame. If the line is disconnected the brakes must be bled at the end of the installation (Fig. 2b)

FIGURE 2B



15. **4" kit only:** Attach the provided brake line relocation bracket to the frame where the original line mounted. The brakeline bracket will offset towards the rear of the vehicle. Torque the factory bolt to 10 ft-lbs and the ½" bolt to 50 ft-lbs.
16. **4" kit only:** Carefully reform the hardline to gain additional length. Attach to the relocation bracket with 1/4" hardware (Fig. 2c)

FIGURE 2C



17. **4" kit only:** Repeat brake line relocation bracket installation on the passenger's side of the vehicle.
18. Remove the brake caliper anchor bracket bolts and pull the caliper free from the steering knuckle and rotor. Hang the caliper securely out of the way. Retain caliper mounting hardware. Remove the brake rotor from the hub.



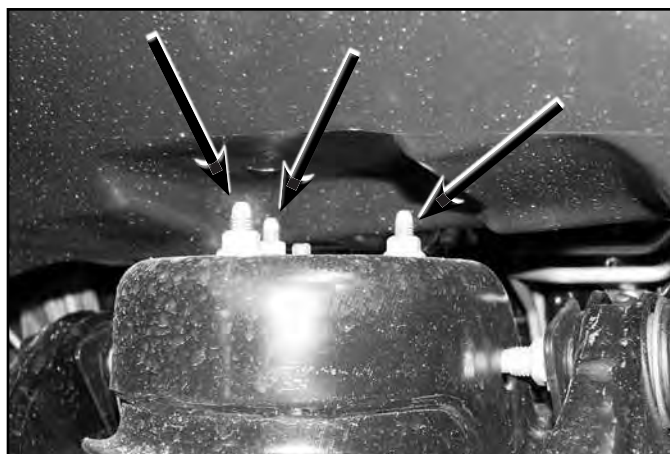
Tip Do not allow the brake caliper to hang from the brake hose.

19. Remove the hub axle nut. Retain nut.
20. Loosen but do not remove the lower control arm bolts.
21. Disconnect the CV axles from the differential by carefully prying CV out at the differential to disengage the internal retaining clip. Pry the shaft out just enough to release the clip and leave the axle on the differential at this time.
22. Support the lower control arm with a hydraulic jack. Remove the three strut-to-frame mounting nuts (Fig 3).



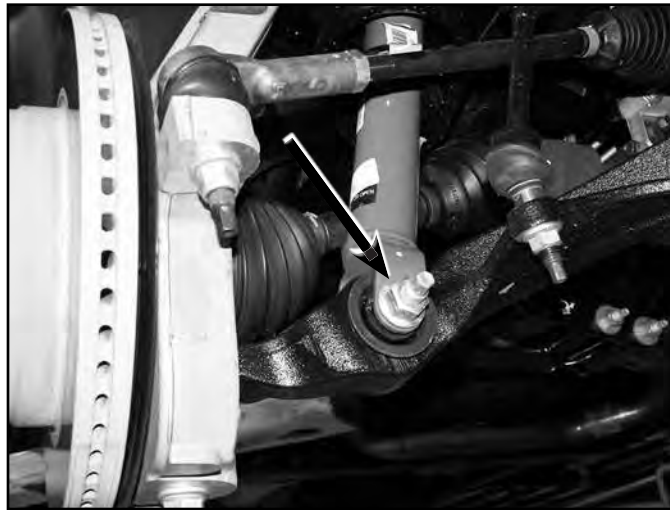
Caution DO NOT loosen the middle strut nut.

FIGURE 3



23. Loosen the strut-to-lower control arm hardware (Fig 4). Remove the nut from the bolt and leave the bolt in place to temporarily retain the strut to the lower control arm. Retain the nut.

FIGURE 4



24. Remove the upper and lower ball joint nuts. Reinstall the nuts a few turns by hand. Separate the upper and lower ball joints from the steering knuckle using the appropriate puller. Take care not to damage the ball joint.
25. Remove the upper ball joint nut. Lower the jack enough to allow removal of the strut. Remove the lower strut bolt and remove the strut from the vehicle. Mark the strut from the appropriate side (driver's or passenger's). Retain mounting bolt and upper ball joint nuts.
26. Continue to lower the jack allowing the knuckle/CV axle and lower control arm to swing down. Slide the CV axle off of the differential. Remove the CV axle from hub.
27. Remove the lower ball joint nut and remove the knuckle from the lower control arm. Retain the lower ball joint nut.
28. Remove the three bolts mounting the hub bearing assembly to the OE steering knuckle. Retain the mounting bolts. Remove the hub assembly and dust shield from the knuckle.



Tip

It may be necessary to press the hub out of the knuckle as a result of excessive corrosion on some vehicles.

29. Install the hubs in the corresponding new knuckles (01230, 01231) and fasten with the stock mounting bolts (Fig 5). Index the hub so that the ABS line runs out the front side of the knuckle toward the steering arm. Use Loctite on the bolt threads and torque to 125 ft-lbs.

FIGURE 5



30. Remove the lower control arms from the frame. Retain hardware.
31. Make indexing marks on the front drive shaft and differential input flange for realignment later. Remove the four bolts and disconnect the drive shaft from the differential. Support the driveshaft to keep the CV boot from binding. Discard mounting bolts.



Tip

Failure to support the driveshaft can lead to pinching the rubber boot at the CV joint which can damage the seal causing a leak and premature wear on the joint.

32. Remove the four bolts mounting the OE rear crossmember to the frame rails and remove the crossmember from the vehicle. Discard the crossmember and the hardware.
33. Disconnect the vent hose and wiring from the differential.
34. Using a jack, support the differential. Loosen and remove the two forward-most differential mounting bolts on the driver's side (Fig 6). Loosen but do not remove the three rear driver's side bolts (Fig 7) and the two passenger's side bolts (Fig 8).

FIGURE 6



FIGURE 7

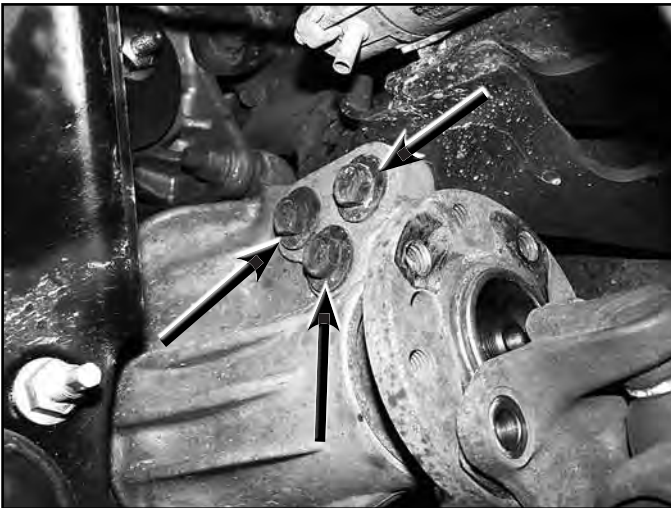


FIGURE 8



35. With the differential securely supported, remove the remaining bolts and lower the differential from the vehicle.
36. The driver's side rear lower control arm pocket must be trimmed to provide clearance for the differential in its lowered position. Measure inward from the center of the outer OE crossmember mounting hole $9/16"$ and mark. Repeat on the opposite side of the pocket. Make a continuous line connecting the two marks over the top edge of the pocket. Trim the pocket on the line with a saw-zall or cut off wheel. Paint any exposed metal to prevent corrosion (Fig 9).

FIGURE 9



37. Locate the front differential wiring harness. Connect the provided extension harness. Leave the provided extension tied up as it was supplied as it will give adequate length to attach to the differential once it is lowered.
38. Install the provided passenger's side differential drop bracket (01234) to the original frame mount with two $\frac{1}{2}$ " x $2\frac{3}{4}$ " bolts, nuts and $\frac{1}{2}$ " SAE washers (BP #617) '08 models will use OE hardware. Leave hardware loose. (Fig. 10)

FIGURE 10



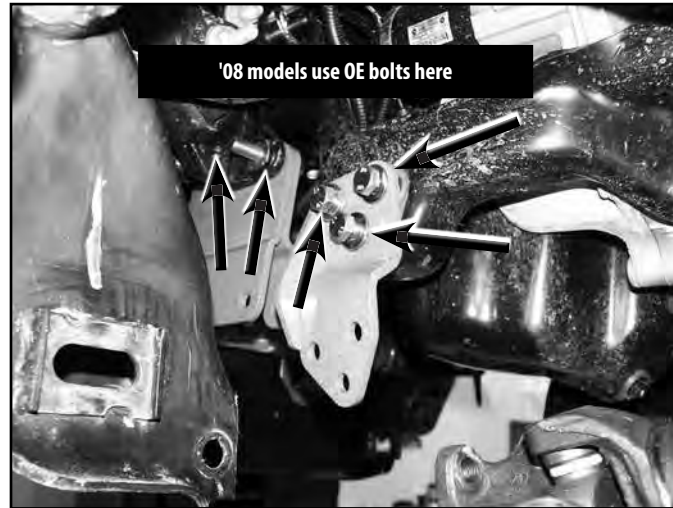
39. Install the two front driver's side differential drop brackets so that the bracket with the small offset (01236) is toward the outside of the vehicle (offsetting out) and the one with the bigger offset (01237) is on the inside (offsetting in). The brackets should taper down in height as they go toward the rear of the vehicle. Fasten the brackets to the frame with two $\frac{1}{2}$ " x $2\frac{1}{2}$ " bolts, nuts and $\frac{1}{2}$ " SAE washers (BP #617). Leave hardware loose. (Fig. 11)

FIGURE 11



40. Install the driver's side rear differential drop bracket (01238) to the frame with three 12mm x 30mm bolts and ½" SAE washers (BP #617) into the existing welded nuts on the frame. (Fig. 12) The bracket will offset toward the outside of the vehicle with the gusset to the front. Leave hardware loose.

FIGURE 12



41. Using a jack (and an assistant to aid in balancing) raise the differential up to the new brackets.
42. Attach the differential to the driver's side front and rear brackets with ½" x 2-1/2" bolts, nuts and washers (BP #617). Attach the passenger's side to the differential with ½" x 2-3/4" bolts, nuts and ½" SAE washers (BP #617). Leave all differential hardware loose.
43. Torque all 14 differential mounting bolts. Torque the ½" hardware to 65 ft-lbs and the 12mm hardware to 50 ft-lbs.
44. Attach the breather hose and wiring harness extension to the differential.
45. Install the new front crossmember (01295) in the OE front lower control arm pockets (Fig 13a) and loosely fasten with the provided 18mm x 150mm bolts, nuts in conjunction with the provided rectangle cam slot washers (01264).



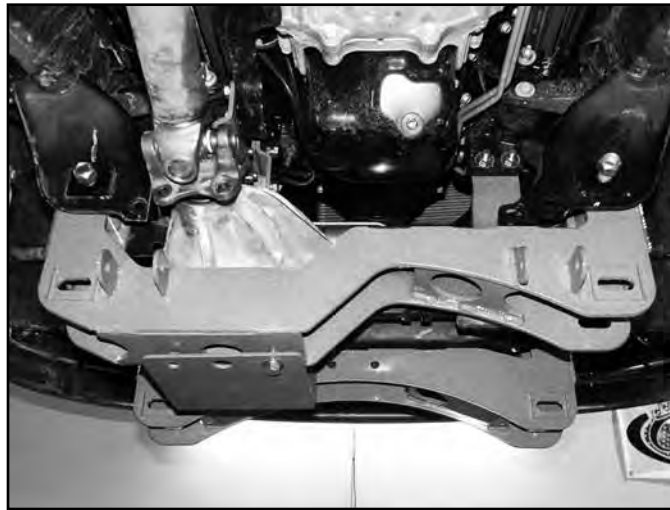
Tip *The offset in the crossmember goes to the front, bolts run from front to rear.*

FIGURE 13A



46. Install the new rear crossmember (01296) in the OE rear lower control arm pockets and loosely fasten with the provided 18mm x 150mm bolts, nuts in conjunction with the provided rectangle cam slot washers (01264). Run the bolts from front to rear and leave loose at this time. (Fig. 13b)

FIGURE 13B



47. Install the new differential skid plate to the front crossmember with $\frac{1}{2}$ " x 1-1/4" bolts and $\frac{1}{2}$ " SAE washers (BP #811) into the welded nuts in the crossmember. Install the back of the skid plate to the rear crossmember with $\frac{1}{2}$ " x 1-1/4" bolts and $\frac{1}{2}$ " SAE washers (BP #811) into the welded nuts in the crossmember. Leave hardware loose.
48. Install the lower control arms in the front and rear crossmembers. Attach the control arms to the crossmembers with the OE cam bolts, washers and nuts running from front to rear. Leave hardware loose.
49. With the lower control arms installed, torque the 18mm crossmember mounting bolts to 220 ft-lbs. Torque the $\frac{1}{2}$ " differential skid plate hardware to 65 ft-lbs.
50. Install the provided drive shaft spacer (01240) on the differential input flange. Attach the front driveshaft to the differential by aligning the marks made earlier. Fasten the driveshaft and spacer to the differential flange with 12mm x 45mm bolts and 12mm washers (BP #811). Use loctite on the bolt threads and torque to 55 ft-lbs.
51. **Steps 51-54 - 06-11 6" & 09-11 4" kits only.** In order to give a close to level stance after installation, preload spacers are included in these systems. Install the preload spacers if a more level stance is desired. The preload spacer will reduce the rake by an additional 5/8". Place indexing marks on the strut body, strut cap and upper coil seat (Fig 14a,b) for realignment of the components when the strut is reassembled.

FIGURE 14A

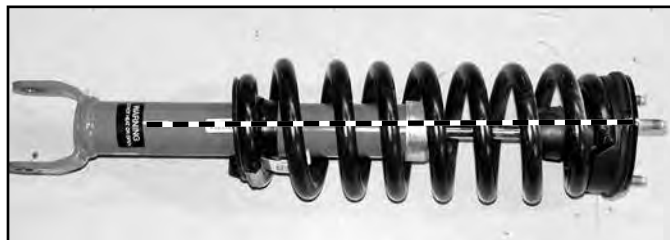


FIGURE 14B



! Caution *Coil spring is under extreme pressure. Improper removal/installation of coil spring could result in serious injury or death. Use only a high-quality spring compressor and carefully read and follow the manufacturer's instructions.*

52. Using an appropriate strut compressor, compress the coil spring and remove the upper strut nut (Fig 14c). Remove the strut, strut cap and upper coil seat from the coil spring.

FIGURE 14C



53. Place the provided preload spacer (01278) between the plastic coil seat and the rubber isolator (Fig 14d).

FIGURE 14D



54. Reassemble the strut as it was taken apart by aligning the index marks made earlier. Fasten the assembly with the OE strut nut. Torque nut to 50 ft-lbs.
55. **4" kits only:** The top strut plate will need to be rotated 180 degrees. Once reinstalled this will make the coil bow 'out' and give enough clearance to the frame rail. Compress the coil slightly and rotate the top plate, and only the top plate 180 degrees.
56. Install the provided strut spacers (01267 6in / 02267 4in) on the struts with the original strut mounting hardware. Torque nuts to 30 ft-lbs.
57. Loosely install the strut assemblies on the appropriate sides of the truck with the provided 10mm nuts and washers (BP #811) on the strut spacer studs.
58. Install the new driver's side steering knuckle to the driver's side lower control arm ball joint and loosely attach with the original nut. Install the driver's side CV axle in the hub and loosely fasten with the original axle nut. Swing the knuckle/CV assembly up while aligning the axle with the differential output shaft. Loosely attach the strut to the lower control arm with the original hardware. Push the CV axle all the way onto the differential output to seat the internal retaining clip.
59. Support the lower control arm with a hydraulic jack and attach the knuckle to the upper ball joint with the OE nut.
60. Torque the upper ball joint nut to 55 ft-lbs and the lower ball joint nut to 60 ft-lbs. Torque the axle nut to 185 ft-lbs. Torque the upper strut-to-frame nuts to 30 ft-lbs.
61. Repeat knuckle/CV installation on passenger's side.

62. Install the brake rotor and caliper on the knuckle/hub. Torque the OE caliper bolts to 130 ft-lbs. Use loctite on the caliper bolts.
63. Remove the OE tie rod ends. Trim 3/8"-7/16" from the male thread on the tie rod end. To make sure enough has been removed, thread the jam nut flush with the last thread followed by the new tie rod end. There should be no visible threads. Take care not to trim too much off from the male threads.
64. Attach the tie rod ends to the new steering knuckles with the OE nut. Torque to 55 ft-lbs.
65. If equipped, connect the ABS wire at the frame.
66. Route the brake and ABS lines around the back side of the knuckle. Attach the brake line and ABS wire with 1/4" hardware and clamps bolt pack #823 / 662 to the threaded hole in the backside of the steering knuckle. There is an included large diameter clamp that is not used with this kit. Secure the ABS wire with zip ties at other locations to prevent any contact with rotating / moving parts. Ensure there is adequate slack and clearance between the brake line and suspension components. (Fig 15a)
67. Apply Loctite to the OE sway bar link threads and install the provided link extension (911114). Tighten the extension securely on the link.
68. Attach the sway bar link extensions to the sway bar with the OE bushings, washers and new 10mm bolt (BP #654) (Fig 15b). Loc-tite the threads on the bolt and tighten until the bushings begin to swell.

FIGURE 15A



FIGURE 15B



69. Reinstall front wheels. Torque to OE specifications, see owner's manual.
70. Lower the vehicle to the ground and bounce the front to settle the suspension.
71. Torque lower control arm hardware to 125 ft-lbs. Torque the strut-to-lower control arm bolt to 125 ft-lbs.
72. If the front brakelines were disconnected or replaced, the front brakes must be bled before driving vehicle. Also do a final check to ensure the brake lines will not contact the tire or other moving components.
73. Remove the stock CV boot clamp on the front driveshaft at the transfer case. Slide the boot rearward approximately 1/4" and install the new boot clamp, rotate the driveshaft to ensure that the clamp does not interfere with the lip on the front driveshaft. (Fig 16a, 16b)

FIGURE 16A



FIGURE 16B



74. Check all fasteners for proper torque. Recheck all fasteners after 500 miles and at regularly scheduled maintenance intervals.
75. A complete front end alignment is required.

REAR INSTALLATION - 2006-2008 MODELS



Tip 2009-11 models see individual instruction sheet within rear box kit.

1. Block the front wheels for safety. Raise the rear of the vehicle and support the frame with jack stands.
2. Remove the wheels.
3. Support the axle under the differential with a hydraulic jack.
4. Remove the OE shocks. Retain the mounting hardware.
5. Remove the parking brake cable retaining ring from the driver's side frame rail (Fig 17). Remove the driver's side parking brake cable from the ring and reinstall the ring on the frame with the passenger's side cable still in it.
6. Disconnect brakeline bracket from frame rail.

FIGURE 17



LEAF SPRING INSTALLATION

7. Remove the passenger's side u-bolts. Lower the axle from the leaf spring.
8. Remove the spring-to-frame pivot bolt and the spring-to-shackle pivot bolt and remove the spring from the vehicle. Retain mounting hardware.
9. Install the new spring in the vehicle with the OE frame and shackle bolts. Leave hardware loose. Install the spring so that the end marked "FRT" is toward the front of the vehicle and the thick end of the wedge is at the back edge of the axle mount. Lower the axle enough to install the spring while taking care not to over-extend any wires or hoses. Make adjustments where necessary.
10. Attach the new spring to the axle with the provided u-bolts, high nuts and washers. Snug u-bolts. The final u-bolt torque is performed with the vehicle on the ground.
11. Repeat installation on the driver's side of the vehicle. Note: In some cases the new rear spring may contact the OE exhaust on the passenger's side of the vehicle at full suspension droop. If this occurs the tail pipe clamp can be loosened and the tail pipe rotated down slightly to gain clearance.

BLOCK INSTALLATION

12. Remove the passenger's side u-bolts. Lower the axle from the leaf spring enough to install the provided 4" lift block.



Tip Take care not to over-extend any wires or hoses. Make adjustments where necessary.

13. Install the 4" block so that the short end of the block is toward the front of the vehicle. Fasten the spring, block and axle together with the provided u-bolts, high nuts and washers. Snug u-bolts. The final u-bolt torque is performed with the vehicle on the ground.
14. Repeat installation on the driver's side of the vehicle.

BOTH LIFT OPTIONS

15. Remove the two bolts mounting each of the rear OE bump stops to the frame (Fig 18). Retain hardware.

FIGURE 18



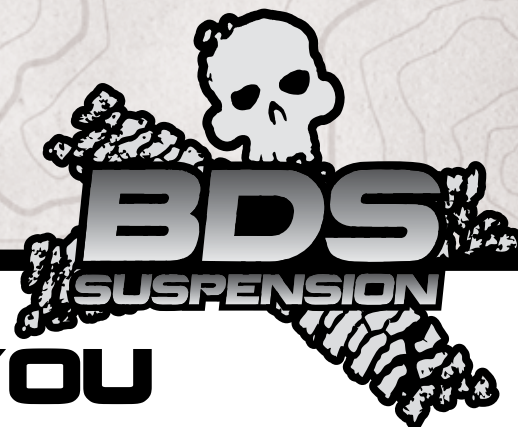
16. Attach the bump stop to the provided bump stop extension (01224) with 3/8" x 1-1/4" bolts, nuts and washers (BP #422). Torque hardware to 30 ft-lbs.
17. Attached the modified bump stop assembly to the frame in the original holes using the OE hardware. Torque hardware to 35 ft-lbs. The open end of the bracket should face the inside of the vehicle.
18. Install rear brakeline relocation bracket (01716) with OE bolt into frame and attach 1/4" nut and washer on new bracket (BP#704). (Fig 19)

FIGURE 19



19. Install the new BDS shocks with the OE hardware.
20. Install the wheels.
21. Lower the vehicle to the ground and bounce the vehicle to settle the suspension.
22. Torque the u-bolts to 100-120 ft-lbs.
23. If installing new rear springs, torque spring bolts to 95 ft-lbs.
24. Check all hardware for proper torque.
25. Check all hardware after 500 miles.

Read And Understand All Instructions And Warnings Prior To Installation Of System And Operation Of Vehicle.



THANK YOU

Your truck is about to be fitted with the best suspension system on the market today. That means you will be driving the baddest looking truck in the neighborhood, and you'll have the warranty to ensure that it stays that way for years to come. Thank you for choosing BDS Suspension!

BEFORE YOU START

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.

FOR YOUR SAFETY

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.

BEFORE INSTALLATION

Special literature required: OE Service Manual for model/year of vehicle. Refer to manual for proper disassembly/reassembly procedures of OE and related components.

Adhere to recommendations when replacement fasteners, retainers and keepers are called out in the OE manual.

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.

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.

Secure and properly block vehicle prior to installation of BDS Suspension components. Always wear safety glasses when using power tools.

If installation is to be performed without a hoist, BDS Suspension Co. recommends rear alterations first.

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.



TRACTION CONTROL

In an effort to reduce the risk of rollover crashes the National Highway Traffic Safety Administration (NHTSA) established the Federal Motor Vehicle Safety Standard (FMVSS) No. 126 requiring all new passenger vehicles under 10,000 lbs GVWR include an electronic stability control (ESC) system as standard equipment. Effective August 2012 this law requires after-market products to be compliant with these same standards.



BEFORE YOU DRIVE

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.

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.

Perform head light check and adjustment.

Re-torque all fasteners after 500 miles. Always inspect fasteners and components during routine servicing.

CONTENTS OF YOUR KIT

Box Kit		
Part #	Qty	Description
02280B	1	Track Bar Bracket
109	1	1.00 x 0.125 x 1.360 DOM Sleeve
01294	2	Nut tab - bump stops / trackbar brkt
01292	1	Drv side relocation brkt
01293	1	Pass side relocation brkt
110	2	1.00 x 0.125 x 2.375 sleeve
SBLA	2	Brakeline relocation brackets
911112	2	Sway bar links (15" long) 5" kit or
911103	2	Sway bar links (13" long) 2/3" kit
SB58BK	4	EB1 bushings - blk
01894	2	Coil retaining clip (3" kit only)
599	1	Bolt pack - Coil retain (3" kit only)
2195	2	Coil locating blocks (3" kit only)
62147	4	5/8"OD x 12mm ID x 1.375 Sleeve
01290	2	Upper shock nut tabs
01999	2	Rear bump stop 5" kit or
01928	2	Rear bump stops 3" kit
034653R	2	5" Rear Coil or
034453R	2	3" Rear Coil or
02533BK	2	2" Rear Coil Spacer

Box Kit		
807	1	Sway bar bolt pack
	4	12mm x 60mm bolt
	8	7/16" USS washer
	4	12mm Prevailing torque nut
808	1	Bolt pack - rear bump stops
	4	3/8" x 7/8" bolt
	4	3/8" SAE washer
813	1	Bolt pack - main rear kit
	3	9/16" x 3" bolt
	1	9/16" Prevailing torque nut
	4	9/16" SAE washer
	2	5/8" x 4-1/2" bolt
	2	5/8" Prevailing torque nut
	4	5/8" SAE washer
	9	3/8" x 1-1/4" Bolt
	9	3/8" Prevailing torque nut
	18	3/8" SAE T washer
	1	8mm x 30mm bolt
	1	5/16" USS washer
	2	1/4" x 3/4" bolt
	2	1/4" nylock nut
	4	1/4" SAE washer

TROUBLESHOOTING INFORMATION FOR YOUR VEHICLE

1. These trucks vary from 1-3" tail high from the factory. Measure your vehicle before installing. The 022209, 022309, and 022509 can all be substituted to achieve the desired stance.
2. Will not fit adjustable air suspension equipped models.

**TECH
TIPS**

INSTALLATION INSTRUCTIONS

PRE-INSTALLATION MEASUREMENTS

Measure from the center of the wheel up to the bottom edge of the wheel opening

LF_____ RF_____ LR_____ RR_____

INSTALLATION INSTRUCTIONS

1. Park the vehicle on clean, flat, and level surface. Block the front wheels for safety.
2. Disconnect the rear trackbar from the axle, retain hardware.
3. Raise the rear of the vehicle and support the frame rails with jackstands.
4. Remove the wheels.
5. Support the axle with a hydraulic jack.
6. Remove the OE shocks. Retain the mounting hardware.
7. Remove the parking brake cable retaining the ring from the driver's side frame rail (Fig 1). Remove the driver's side parking brake cable from the ring and reinstall the ring on the frame with the passenger's side cable still in it.



Tip

Newer models this step is not necessary because the cable bracket is connected to the control arm instead of the frame.

FIGURE 1



8. Disconnect brake line brackets from the outside of the frame rails. Remove the ABS wires from the retaining clips. (Fig. 2)

FIGURE 2



9. Remove rear sway bar links, retain hardware.
10. Lower the rear axle and remove the coils, retain the rubber isolators.
11. Disconnect the upper control arm from the axle. Loosen the upper control arm bolt at the frame rail, but do not remove. Retain hardware.
12. Place the upper control arm relocation bracket over the pocket. The plate will be offset towards the inside of the vehicle. The upper plate will only use 2 of the 4 holes that go from the top down. Mark the center of the holes and drill to 7/16". (Fig 3 - pass side, Fig. 4a, b – drv side)

FIGURE 3

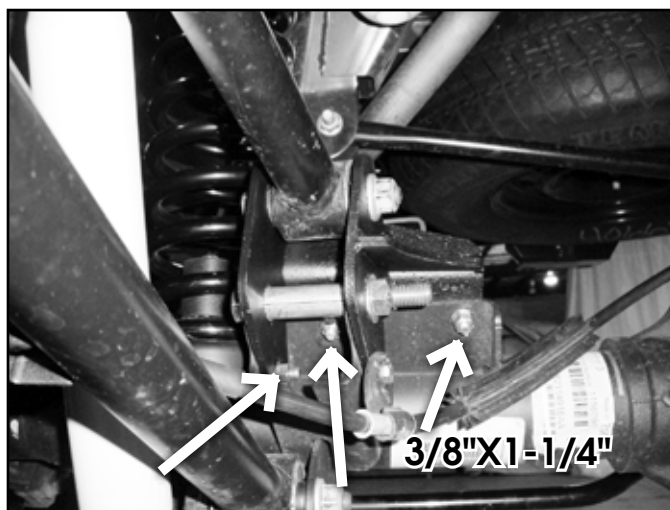
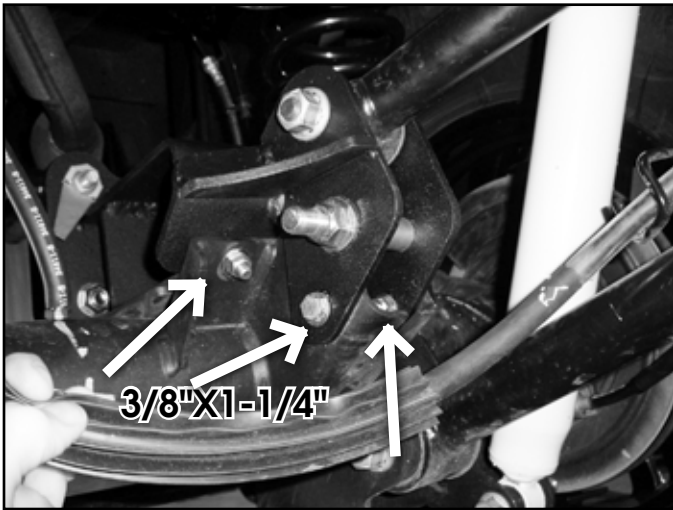
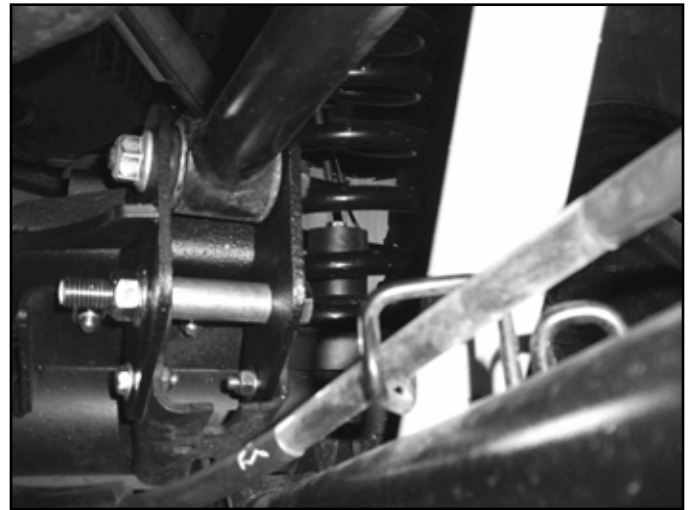


FIGURE 4A**FIGURE 4B**

13. The lower holes can be marked by offsetting the plate to the opposite side of the control arm pocket, or cutting out the template at the end of the instruction sheet, aligning it with the bracket profile, and translating the hole onto the frame bracket. Mark the lower hole centers and drill out to 3/8 to 7/16".
14. Attach relocation brackets with 3/8" x 1-1/4" bolts, washers, and nuts. The inside passenger hole will require the 8mm bolt and the tab on the e-brake cable bracket to be formed slightly for clearance. Use 5/8" x 4-1/2" bolt with crush sleeve through the original upper arm mounting hole. Hardware is located in bolt pack 813.
15. Install the upper arm with the OE bolt. Leave control arm hardware loose at this time. Tighten 8mm bolt to 25 ft-lbs, 3/8" hardware to 35 ft-lbs, and 5/8" hardware to 95 ft-lbs.
16. 3" rear coil kit only: Drill the center of the lower coil mounting seat to 5/16" ~ 21/64" and tap the hole to 3/8" with the included self threading bolt (#599).
17. Lower the axle and install the new coil springs with OE rubber isolator. If installing optional kit with 2" spacers, place spacers against the frame with the OE isolator below (Fig 5a). Reinstall the coil assembly with spacer as shown (either new coil or coil and spacer). 3" rear kit only: Attach the coil to the upper frame mount with the provided coil retaining clip (#01894) through the factory hole and through the coil to keep it secured to frame. The hole is located towards the rear of the vehicle. Attach upper mount with 3/8" x 1-1/4" hardware (Fig 5b), attach lower coil centering block to the axle with 3/8" x 2" bolt with washer (Bolt Pack #599). (Fig 5c)

FIGURE 5A

18. Install the new rear shocks. Use new 9/16" x 3" bolts at the top mount with the new nut tabs (01290). Tighten shock hardware to 75 ft-lbs.
19. Place rear track bar bracket (02280B) over original mount. Mark hole center to be drilled. Remove bracket and drill hole to 7/16".
20. Install the track bar bracket back on the factory mount. Fasten with the provided 9/16" hardware through the original track bar hole. Place the provided crush sleeve (109) in the factory bracket when installing the hardware (Fig 6a). Attach bracket with 3/8" x 1-1/4" bolt, nuts and washers through the hole drilled in the previous step. Tighten 3/8" hardware to 35 ft-lbs and 9/16" to 95 ft-lbs. (Fig 6b)

FIGURE 5B

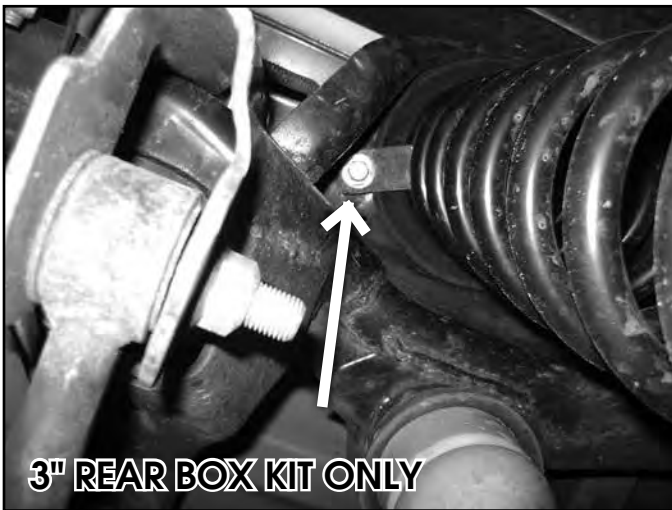


FIGURE 5C



FIGURE 6A

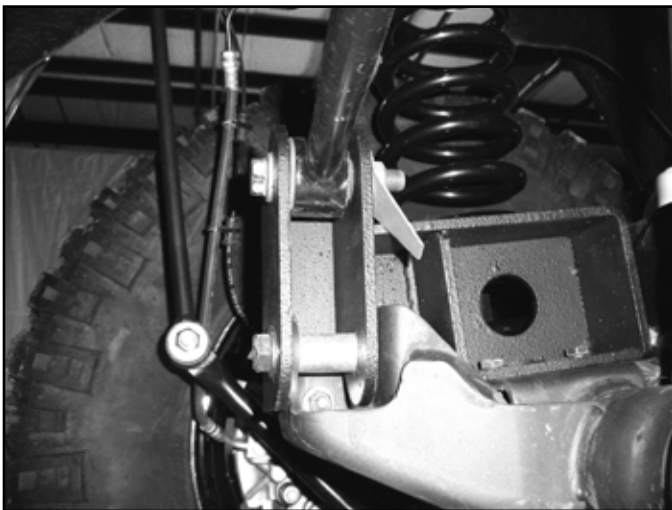
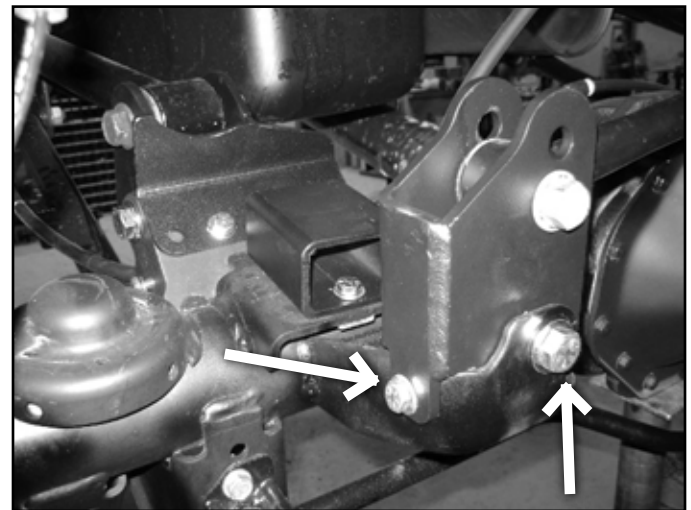


FIGURE 6B



21. Attach bump stop extensions (01999 - 5in kit / 01928 2-3in kit) to driver's and passengers's side with 3/8" x 7/8" bolts with washers (BP 808) into the provided threaded plates (01294). Tighten to 35 ft-lbs. 2-3" rear kits orientate the block so that it is the short (2") setup (Fig 6b). When installing the 5in system, install the extension with the offset going forward.
22. Install hourglass bushings into sway bar links. Install sleeves into bushings.
23. Install sway bar links (15" long - #91112 - 5 inch kit / 13" long - #911103 - 3 inch kit) on vehicle with 12mm x 60mm bolts, washers and nuts. (#807) Tighten to 55 ft-lbs. (Fig 8)

FIGURE 7



24. Install brakeline drop brackets on the side of the frame rail. Attach brakeline to bracket with $\frac{1}{4}$ " x $\frac{3}{4}$ " bolt, washers, and nut. Tighten to 20 ft-lbs. (Fig 9)

FIGURE 8



25. Reattach ABS wire to clips on brakeline.
26. Install wheels and lower vehicle to the ground.
27. Tighten upper control arm hardware to 120 ft-lbs.
28. Install rear trackbar into relocation bracket with OE bolt and nut. Tighten to 95 ft-lbs.
- 5 inch rear lifts (022509) use the upper hole.
- 2-3 inch rear lifts (022209/022309) use the lower hole.
29. Recheck all fasteners for proper torque. Check again after 500 miles and at regularly scheduled intervals.

Rear Template 09+ Dodge 1500

