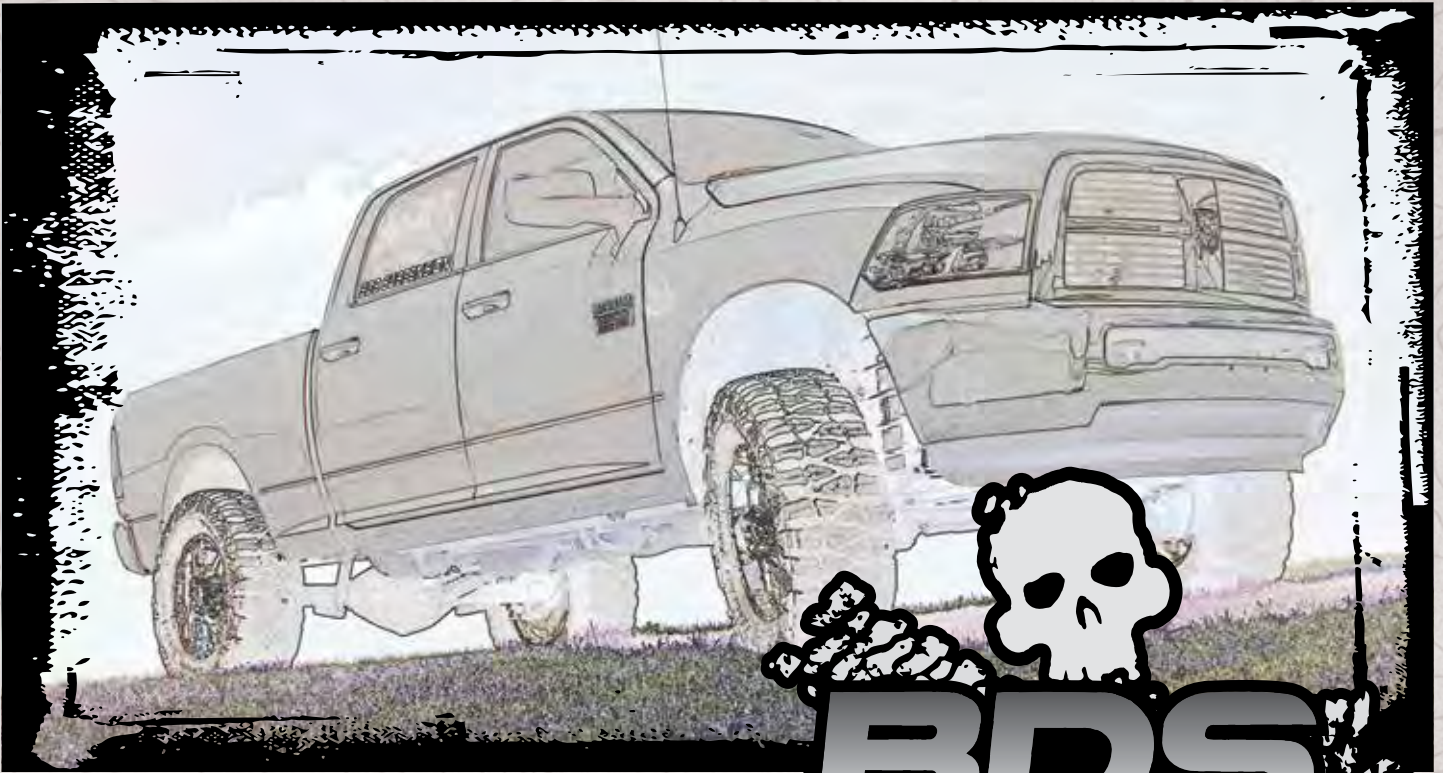


Installation instructions

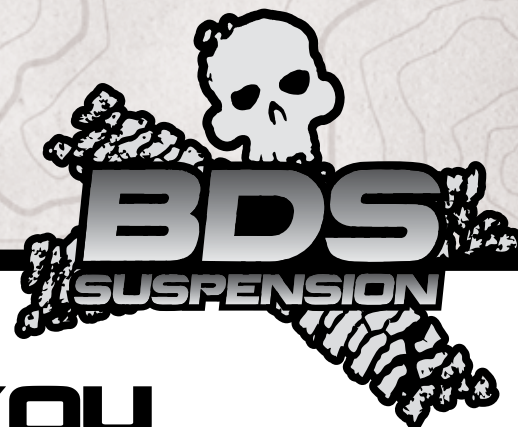


Part#: 012304

3" Coil Spring Suspension System

Dodge Ram 2500/3500 | 2003-2012

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.



TIRES AND WHEELS

35x12.50 Tire w/
5" Backspace Wheel



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

032301

Part #	Qty	Description
032301R	2	3" Progressive Coil Springs (Diesel)

OR

032501

Part #	Qty	Description
032502R	2	3" Coils (Gas)

122322

Part #	Qty	Description
01215B	2	Upper Control Arm (17.25" long)
3522BK	8	UCA Bushing (BSDG-2)
71	4	0.75 x 0.095 x 2.40 DOM sleeve
60107	4	90 degree grease zerk fitting
N14MPT	2	14mm-2.00 prevailing torque nut
B14150G8	2	14mm-2.00 x 150mm bolt
W96S	4	9/16" SAE flat washer
90-402A8	1	B100 - 8 x 10 poly bag
02564	2	Lower Control Arm (19.25" long)
3536BK	8	LCA Bushing
120	4	1.00 x 16mm ID x 2.60 DOM Sleeve
121	2	1.00 x 18mm ID x 2.60 DOM Sleeve
60107	4	90 degree grease zerk fitting
A197	1	Adjustable Track Bar Assembly
B108		Trackbar bag kit
3565	4	Bushing
134	2	Trackbar Sleeve 14mm ID (03-07)
135	2	Trackbar Sleeve 16mm ID (08-12)
B56x114g8	4	5/16"-18 x 1-1/4" Allen Bolt
02129	2	Sway bar u-brackets
911116	2	Sway bar links (6")
SB35BK	2	EB1 - 3/4" ID - wide bushing
SB58BK	2	EB1 - 5/8" ID - narrow bushing
91	2	0.750 x 0.095 x 2.288
136	2	1.25 x 0.219 x 0.70 spacer sleeve
45313	2	5/8" x 10mm ID x 1.375 Rolled Sleeve
	1	Loc-Tite

Rear Box Kit

Part #	Qty	Description
2kb-w34	2	2" rear block - 3/4" centerpin
963121112R	4	9/16 x 3.50 x 12-1/2" U-bolt
or		
964001112R	4	9/16" x 4.00 x 12-1/2" U-bolt
or		
964001412R	4	9/16" x 4.00 x 14-1/2" U-bolt for overload applications
W96S	8	9/16" SAE Washer
N96FH	8	9/16" High Nuts
01599	2	Metal center pin

TROUBLESHOOTING INFORMATION FOR YOUR VEHICLE

1. Picking a tire and wheel combination outside of the recommended range will require the inner fender liner to be modified. Drastic deviation will require pinch weld modification on the body, which is then covered by the inner fender liner.

**TECH
TIPS**

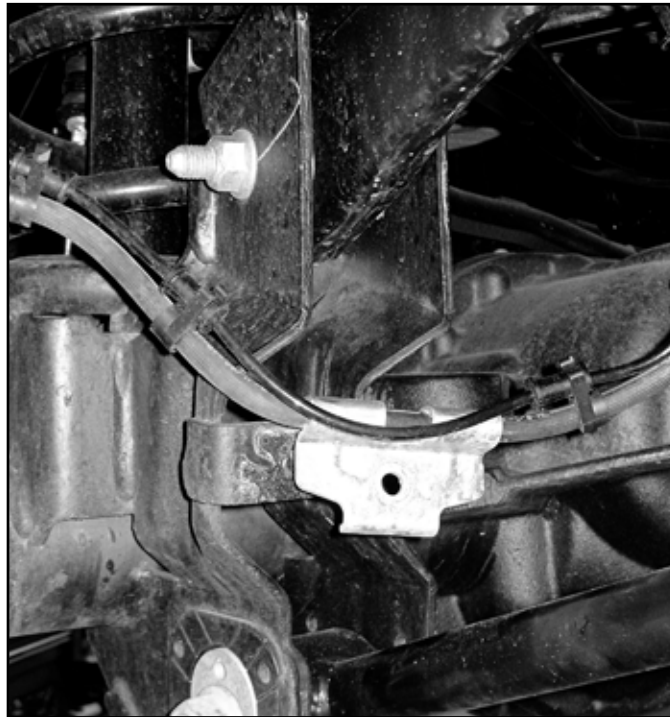
INSTALLATION INSTRUCTIONS

1. Park vehicle on clean flat and level surface. Block rear wheels for safety.
2. Disconnect the factory trackbar from the axle and frame, retain hardware for reinstallation.
3. Raise the front of the vehicle, support the frame rails with jack stands and support the axle with a hydraulic jack.
4. Remove wheels.
5. Disconnect brakeline retaining bracket from axle (Fig 1).

SPECIAL TOOLS

27mm socket (08-12 model year trucks)
Cutoff Tool / Plasma Cutter (recommended)

FIGURE 1



6. Disconnect sway bar links from axle and sway bar, they will not be reused (Fig 2).

FIGURE 2



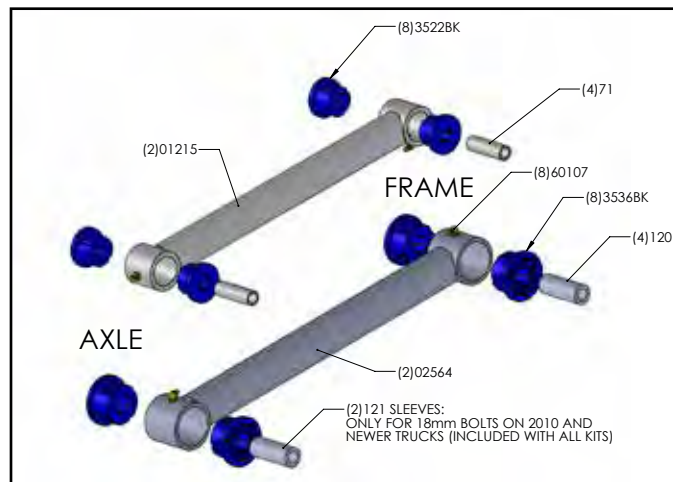
7. Disconnect the drag link from the pitman arm (Fig 3).

FIGURE 3



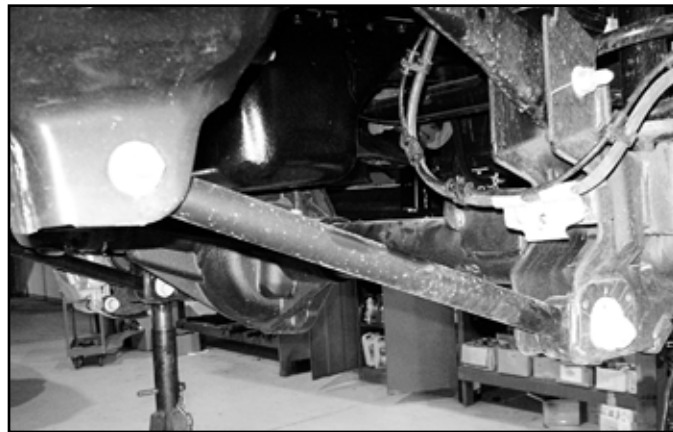
8. Lightly grease and install control arm bushings into control arms. Thread the grease fittings into the arms so they will be accessible (Fig 4). The arm hardware is the same for all models except 2010 and newer at the axle, these models will require a 18mm ID sleeve that is included in all kits. There will be one extra set of sleeves left over when the installation is complete.

FIGURE 4



9. Loosen all control arm hardware, this will allow the axle to move more easily for removal and installation of control arms (Fig 5).

FIGURE 5



10. Start on the passenger's side, remove the upper and lower control arms. The upper arm at the frame will need the bolt head cut off and remove, the remainder of the bolt pulled towards the outside of the vehicle.



Tip The lower cam bolts are commonly frozen into the lower control arms. The best way to remove them is to cut the bolts and purchase new ones from a Chrysler dealership.

11. Install the new controls arms with factory hardware. New hardware is included for the passenger's side upper control arm at the frame. Leave hardware loose at this time. (Fig 6a, 6b)

FIGURE 6A



FIGURE 6B



12. Repeat installation on Driver's side of vehicle.



Tip

An extra bolt is included for gas models. Not all gas models will require the upper arm bolt to be cut, some will.

13. Disconnect lower shock hardware, remove upper shock stem nut, bushings and washers. The lower hardware will be reused.
14. Allow the axle to droop and remove the factory coil and shock.
15. Cut out template at the rear of the instruction sheet, place over the trackbar bracket at the frame. Trim the small area indicated (Fig 7)

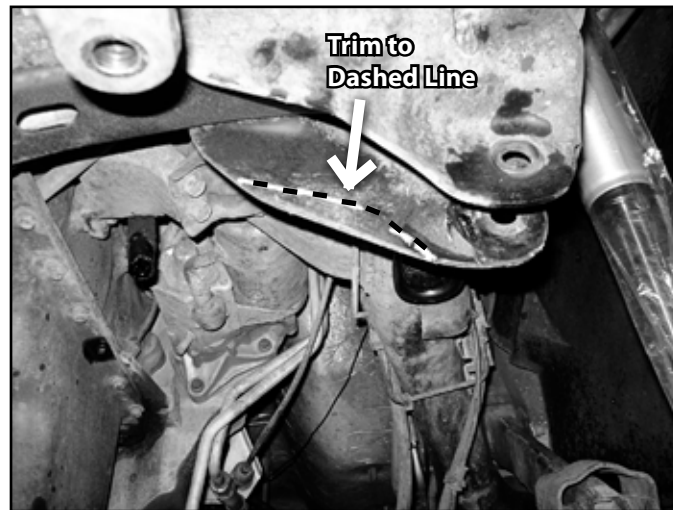


FIG 7

16. Grease and install bushings and sleeves into front shocks. Place stem washer and bushing on top of the shock.
17. Install new shock inside of replacement coil and install both of them. Attach the shock to the lower mount with factory hardware. Tighten to 95 ft-lbs.
18. Compress the axle enough to attach the shocks to the upper mounting bracket. Install stem bushing, washer, and ½" nut. Tighten until the bushings begin to swell.
19. Install bushings and sleeves into sway bar links. The wide bushing will go in the lower end with the larger ID sleeve. Early model year trucks may require the sway bar mounting hole on the axle to be enlarged to clear the 14mm hardware. (Fig 8)
20. Install the clevis bracket to the sway bar with 5/8" hardware.
21. Install sway bar links with 3/8" hardware at the sway bar clevis mount and 14mm hardware in the lower mount with the spacer sleeve. Tighten 3/8" hardware to 35 ft-lbs, 14mm hardware to 50 ft-lbs. (Fig 9)

FIGURE 8**FIGURE 9**

22. Reattach brake line brackets to the axle with the factory bracket and factory bolt. Tighten to 15 ft-lbs.
23. Reattach drag link to pitman arm. Tighten nut to 65 ft-lbs.
24. Reinstall wheels, torque to factory specifications. Lower vehicle to the ground.
25. Lightly grease and install bushings and sleeves into the trackbar. There are 2 sets of sleeves included. 03-07 model years will use 134 sleeves that have the smaller ID, 08 -12 models will require 135 sleeves that clear the factory 16mm bolt. (Fig 10a / 10b) All of the hardware, bushings, and sleeves are in Bag Kit B108.
26. Remove the (4) allen bolts from the track bar adjusting collar. Apply loc-tite to the threads.

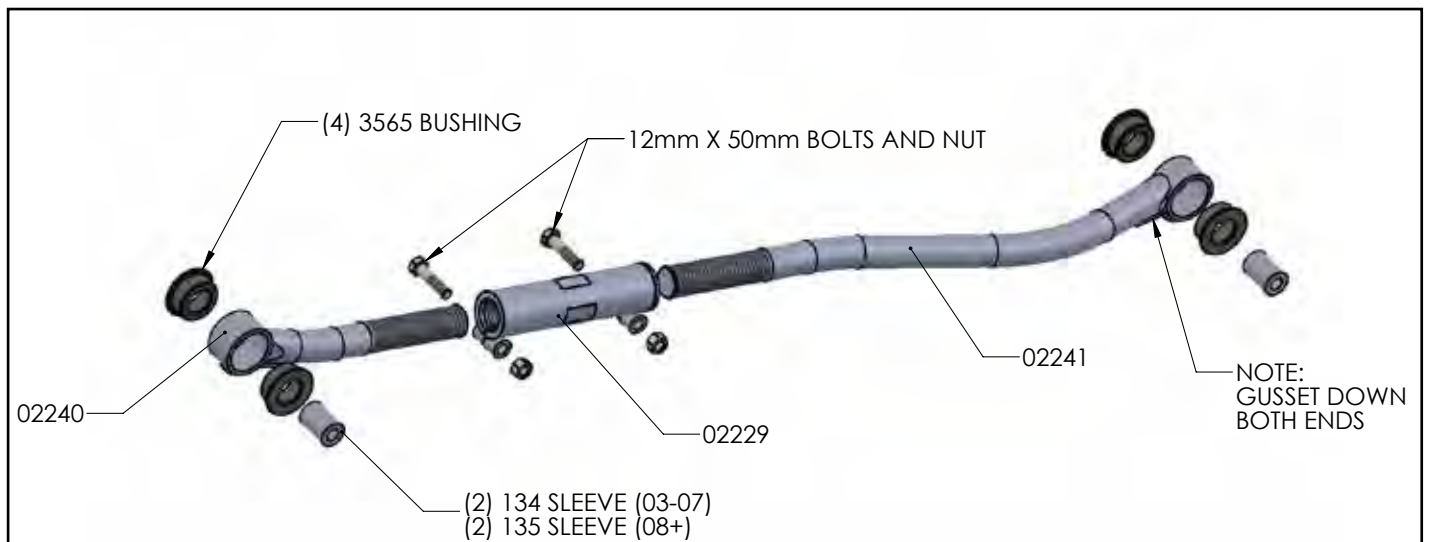
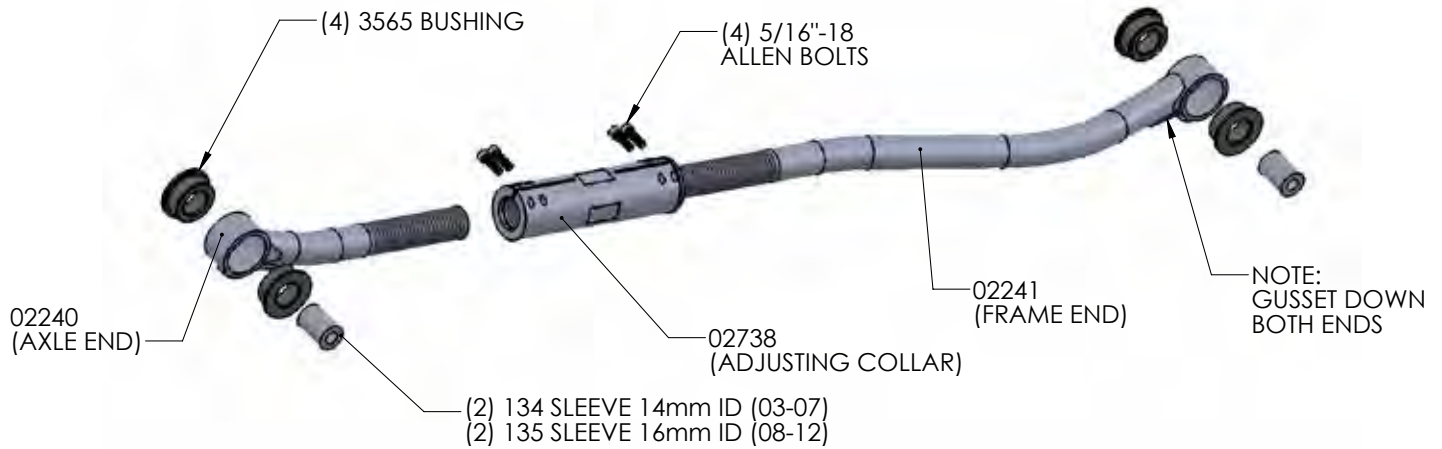
FIGURE 10A

FIGURE 10B



27. Adjust trackbar length to 39-1/8" for 3" of lift.
28. Install trackbar with the gussets on the 'bottom' side with factory hardware. Apply loc-tite to threads of factory hardware.
29. Adjust length of trackbar to center axle.



Tip

Adjusting to longer than 39-1/8" will require longer than factory bump stops to keep the lower coil bucket on the axle from contacting the factory trackbar mount at the frame. Additional bump stop will be required if a larger than factory differential cover is installed. (Fig 11)

FIGURE 11

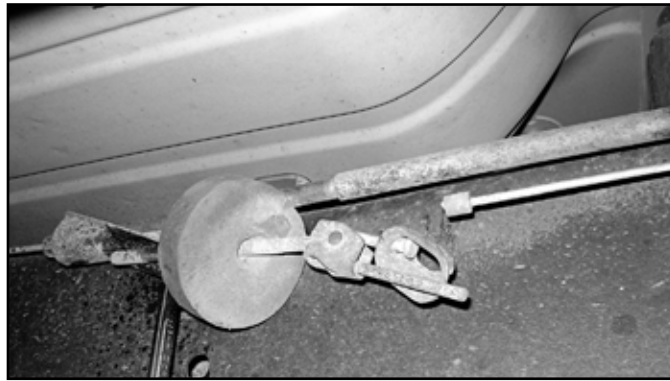


30. Tighten trackbar mounting hardware to 150 ft-lbs (03-07 model years) or 200 ft-lbs (08+ model years).
31. Tighten pinch bolts on trackbar until the collar is unable to be rotated, this should be no more than 40 ft-lbs max.
32. Tighten control arm hardware as follows: Upper 120 ft-lbs, Lower 16mm 150 ft-lbs, Lower 18mm 180ft-lbs
33. Recheck all hardware for proper torque, check again after 500 miles.

REAR INSTALLATION

34. Block front wheels for safety. Raise rear of vehicle and support frame rail with jack stands.
35. Support the axle with a hydraulic jack.
36. Remove the wheels.
37. Disconnect the e-brake cable at the junction below the cab. (Fig 12)

FIGURE 12



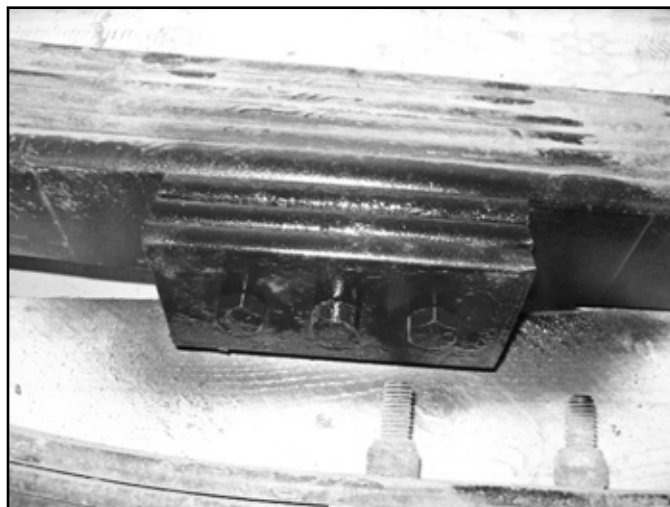
38. Reroute the e-brake line through the spring hanger bracket to give more slack at full droop (Fig 13). Reattach e-brake cable at junction.

FIGURE 13



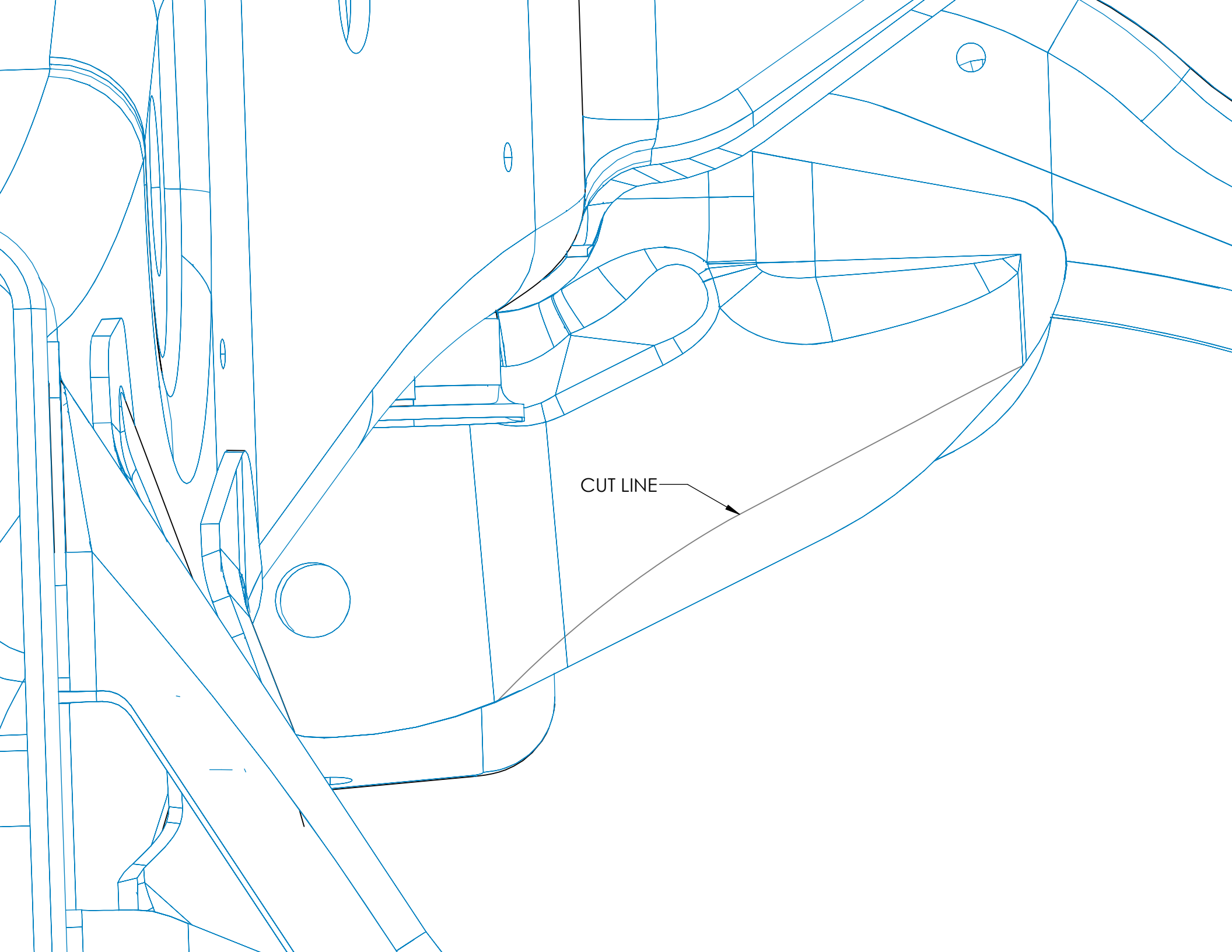
39. Disconnect shocks, remove from vehicle. Retain hardware for reinstallation.
40. Work on one side of the vehicle at a time. Support axle and remove u-bolts.
41. Allow axle to droop out, remove factory plastic center pin. Install replacement metal center pin. It will need to be pressed into the lower leaf. (Fig 14)

FIGURE 14



42. Install lift block with new u-bolts. Snug but do not tighten at this time.

43. Repeat block and pin installation on opposite side.
44. Grease bushings and sleeves, install into new shocks.
45. Attach shocks with factory hardware. Tighten shocks hardware to 95 ft-lbs.
46. Check brake line for adequate slack. Form upper mounting tab to aim down slightly if more slack is required.
47. Reinstall wheels, tighten to factory specifications, lower vehicle to the ground.
48. Tighten u-bolts to 125 ft-lbs.
49. Check u-bolts for proper torque after 100 miles, 500 miles and at regular maintenance intervals.



CUT LINE

Coil-Over Mounting Kit

Dodge Ram 2500/3500 Pickup | 2003-2012

Part #: 122810

Rev. 10/2014



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.



SPECIAL TOOLS

A plasma cutter is highly recommended for this installation, if one is not available a 4-1/2" hole saw will suffice. A welder is also required. This kit is designed to specifically work with the BDS 4-link long arm system with an indexing ring kit installed. Use with other systems is not recommended due to the extra wheel travel gained with this kit.

INSTALLATION INSTRUCTIONS

1. Park vehicle on clean, flat, and level surface.
2. Disconnect the battery, welding is required for this installation.
3. Raise the front of the vehicle and support the frame rails with jack stands.
4. Support the front axle with a hydraulic jack.
5. Remove the front wheels.
6. Remove the inner fenders, retain all fasteners. (Fig 1)

Box Kit

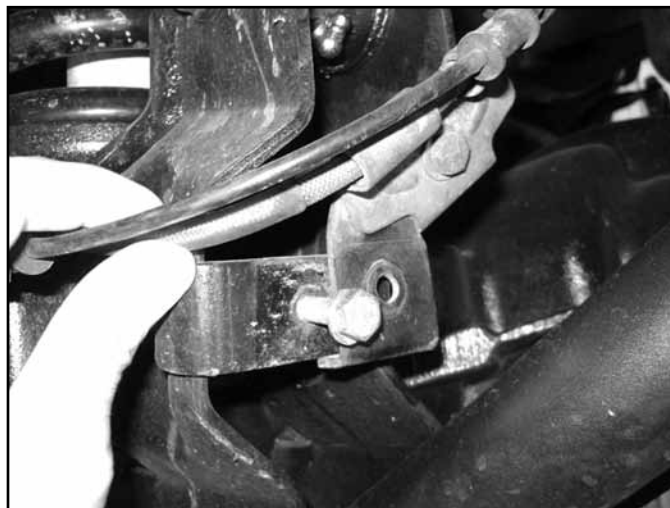
Part #	Qty	Description
2700	2	03-12 Dodge Coilover Upper Mount
2703	1	03-12 Dodge Coilover Drill / Cut Template
2704	2	Coilover Lower Support
2705	2	Coilover Lower Support w/ Nut
2737	2	Reservoir Mount
	1	loc-tite
820	1	bolt pack - Coilover Mount
	2	1/2"-13 x 6" bolt - grade 8 - yellow zinc
	16	1/2"-13 x 1-1/4" bolt - grade 8 - yellow zinc
	26	1/2" SAE Thru hardened washer - yellow zinc
	10	1/2"-13 Serrated edge flanged nut - clear zinc
	8	1/2"-13 Prevailing torque nut - yellow zinc
	2	9/16"-12 x 3-1/2" bolt - grade 8 - yellow zinc
	2	9/16" SAE Thru hardened washer - yellow zinc

FIGURE 1



7. Disconnect the brake lines from the axle, retain the hardware. Disconnect / adjust ABS wires to allow for extra droop later in the installation. (Fig 2)

FIGURE 2



8. Disconnect the sway bar links from the sway bar clevis bracket which is included in the long arm kits (Fig 3).

FIGURE 3



9. Disconnect the drag link from the pitman arm (retain nut), disconnect the trackbar from the frame bracket. (Fig 4)

FIGURE 4



10. Vehicles WITHOUT transfer case indexing ring kit installed or gas model trucks: Disconnect the driveshaft from the front axle. Note: It may be necessary to heat the front axle yoke to get the loc-tite to break free. Retain all hardware. (Fig 5) (Diesel trucks w/ indexing ring kit installed may skip this step)

FIGURE 5



11. Disconnect the front shocks and allow the axle to droop out. Remove the coil springs, remove the front shocks. Check for adequate clearance of brake lines, ABS wires, driveshaft to exhaust (gas models), etc.
12. Prep the axle for welding, remove corrosion and paint from the lower coil bucket, remove the factory lower shock nut clips, and test fit the weld on support plates. A minor amount of modification to the weld in support plates may be required due to variations in the lower coil bucket on the axle.
13. Install new 9/16" shock hardware bolt into the lower mount to hold the plates into place - SNUG THE BOLT, do not tighten. Weld the support plates into place, allow to cool, and coat with paint. (Fig 6a, 6b)

FIGURE 6A



FIGURE 6B



14. Remove the upper shock towers.
15. Drill the 3 factory shock tower mounting holes out to 1/2" ~9/16". Bolt the included template (#02703) in place and drill the remaining 3 holes out to 1/2" ~9/16". Repeat on opposite side. The template is only used for drilling holes and will not be installed on the vehicle once drilling is completed. (Fig 7a)
16. The ID of the template will also be used for material removal. Place the template on top of the coil bucket and use bolts to locate it in place. Use the plasma cutter to remove the lip of the stock coil bucket. If a plasma cutter is not available, a 4-1/2" hole saw can be used to remove the lip and create clearance for the coilover assembly. Use lots of lubrication, the factory lip of the frame will keep the hole saw centered. (Fig 7b)

FIGURE 7A



FIGURE 7B



17. Place the upper coilover mount on top of the coil bucket. Do NOT bolt it in at this time. Install the coilover assembly at this time, the hose will point FORWARD out of the coilover body. Route the reservoir through the coil bucket hole and the new upper coilover mount.
18. Attach the upper coilover mount to the coilover with new 1/2" x 6" bolt, washers, and prevailing torque nuts (BP #820). Note: The bracket to the coilover will be a tight fit. (Fig 8a)
19. Attach the upper coilover mount to the frame with (6) 1/2" x 1-1/4" bolts, washers, and nuts, use loc-tite on hardware. 5 places will use a serrated edge flanged nut, due to difficult access, the front easily accessible spot will require a washer and prevailing torque nut. See figure for nut location. (Fig 8b, 8c, 8d)

FIGURE 8A

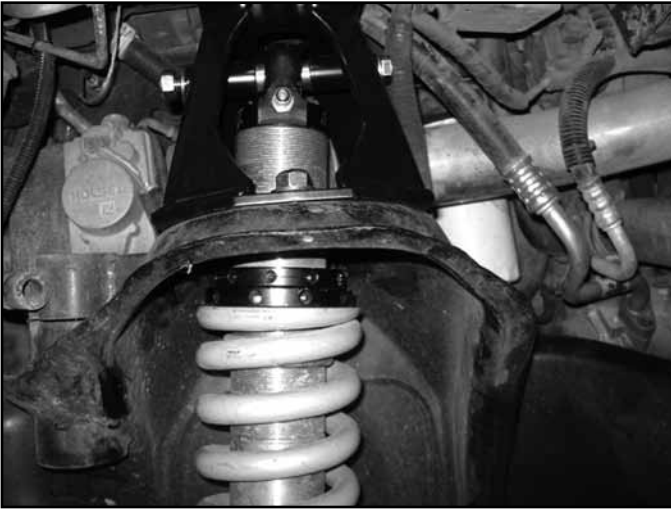


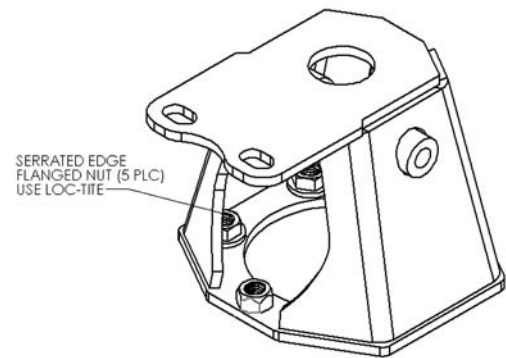
FIGURE 8B



FIGURE 8C



FIGURE 8D



20. Tighten all 1/2" upper coilover hardware to 65 ft-lbs.
21. Raise the axle and attach the lower coilover mount to the axle with new 9/16" bolt with washer. Tighten to 95 ft-lbs.
22. Loosely reinstall the inner fender well and mark areas that will need to be trimmed to clear the upper coilover mount. Trim area from the inner fender and reinstall with factory hardware. (Fig 9)

FIGURE 9



23. Attach the reservoir mount to the upper coilover mount with ½" hardware with washers and loc nuts. Tighten to 65 ft-lbs. Attach reservoir to the mount with hose clamps included with Fox Coilover Box Kit. (Fig 10a, 10b)

FIGURE 10A

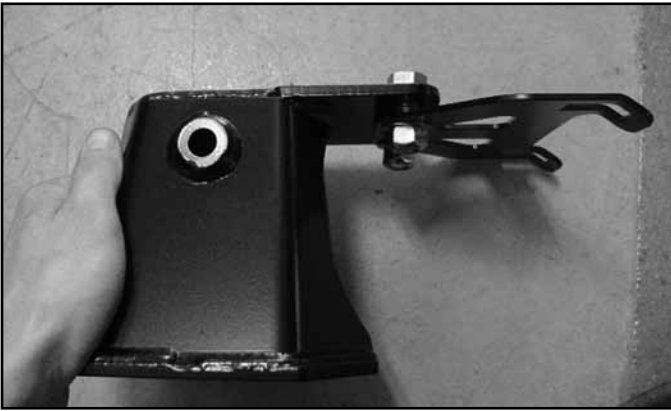


FIGURE 10B



24. Allow the axle to droop out fully, reattach the driveshaft with factory hardware with loctite, tighten to factory specifications. If axle is unable to be reattached it may be necessary to clearance the dual cardan at the transfer case to allow for extra droop, additionally an indexing ring kit may be required as indicated in the pre-installation notes. Gas models may require exhaust modification at this time for driveshaft clearance at full droop.
25. Reattach brake line relocation brackets to the axle with factory hardware, slide the brake line in the holding bracket if additional slack is required. Secure ABS wires at this time.
26. Reattach sway bar links to the sway bar, tighten to 35 ft-lbs.
27. Reattach the drag link to the pitman arm with factory nut, tighten to 65 ft-lbs.
28. Reinstall wheels, lower vehicle to the ground, torque lug nuts to factory specifications.
29. Turn the steering wheel to get the trackbar to link up with the frame bracket. Attach with correct hardware and tighten to 120 ft-lbs 03-07 / 150 ft-lbs 08-12 model years.
30. Perform a steering sweep, check the brake lines / ABS wires for any interference issues.
31. Check for clearance between upper coilover bracket and any other lines or wires. Reroute as necessary.
32. Recheck all hardware after 500 miles.