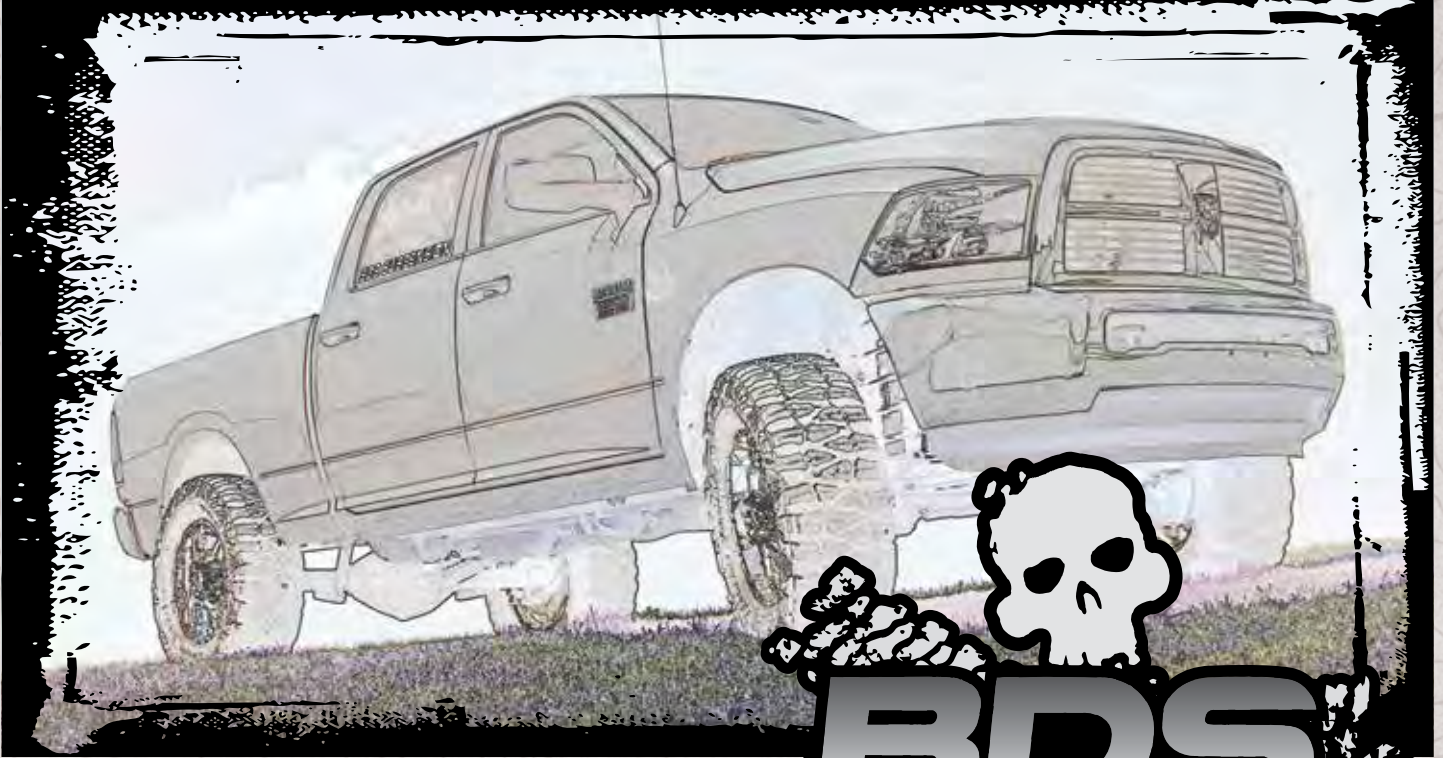


# INSTALLATION GUIDE



Part#: 012304



**HARDCORE LIMITED LIFETIME WARRANTY**

## 3" Coil Spring Suspension System

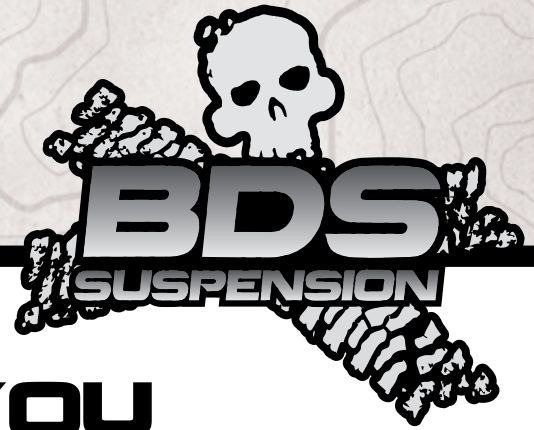
**Dodge Ram 2500/3500 | 2003-2012**

Rev.020416

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Web/live chat: [www.bds-suspension.com](http://www.bds-suspension.com) • E-mail: [tech-bds@sporttruckusainc.com](mailto:tech-bds@sporttruckusainc.com)

# 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.



Visit [560plus.com](http://560plus.com) for more information.

### 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)
<b>OR</b>		
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.

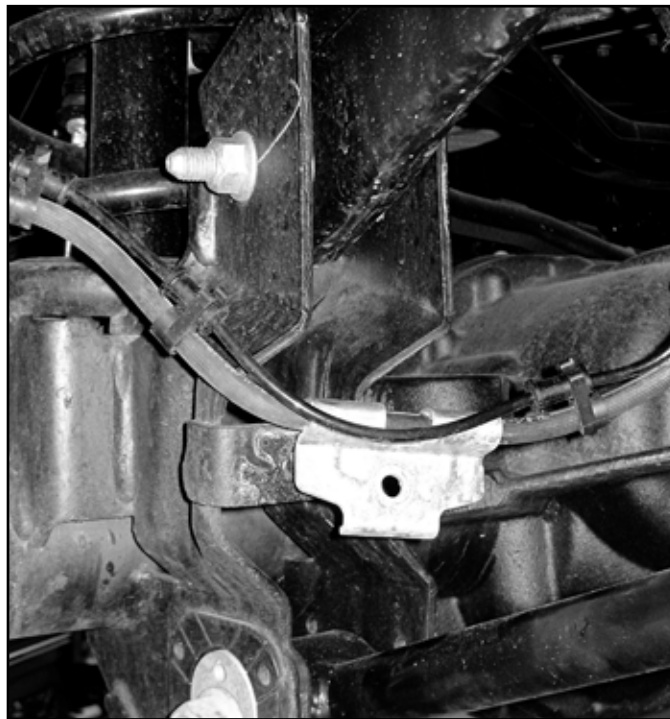
## INSTALLATION INSTRUCTIONS

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**



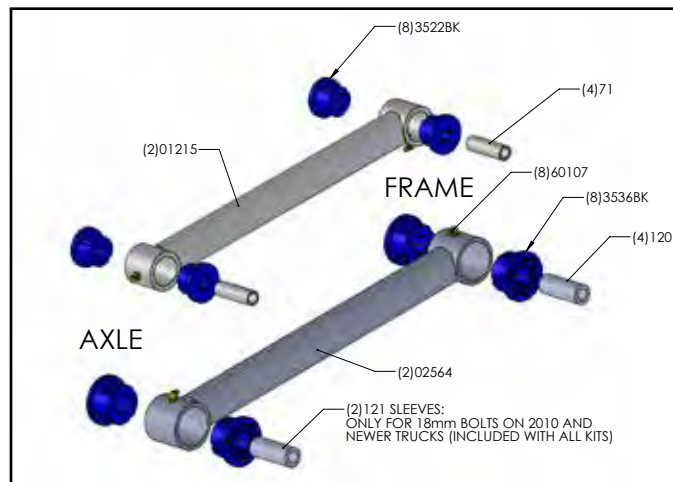
7. Disconnect the drag link from the pitman arm (Fig 3).

**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**



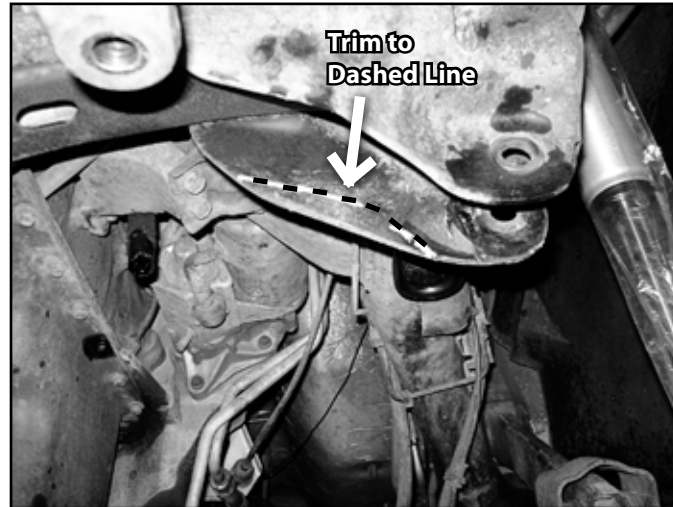
- Repeat installation on Driver's side of vehicle.



**Tip**

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

- Disconnect lower shock hardware, remove upper shock stem nut, bushings and washers. The lower hardware will be reused.
- Allow the axle to droop and remove the factory coil and shock.
- 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**

- Grease and install bushings and sleeves into front shocks. Place stem washer and bushing on top of the shock.
- 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.
- Compress the axle enough to attach the shocks to the upper mounting bracket. Install stem bushing, washer, and 1/2" nut. Tighten until the bushings begin to swell.
- 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)
- Install the clevis bracket to the sway bar with 5/8" hardware.
- 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**

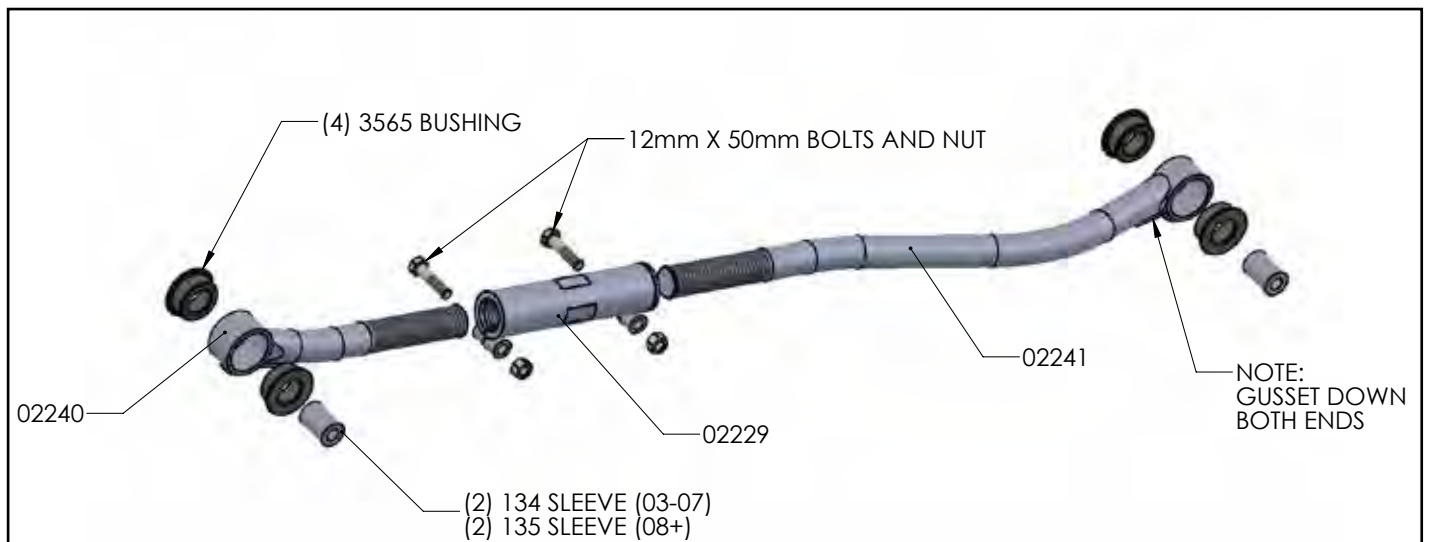


**FIGURE 9**



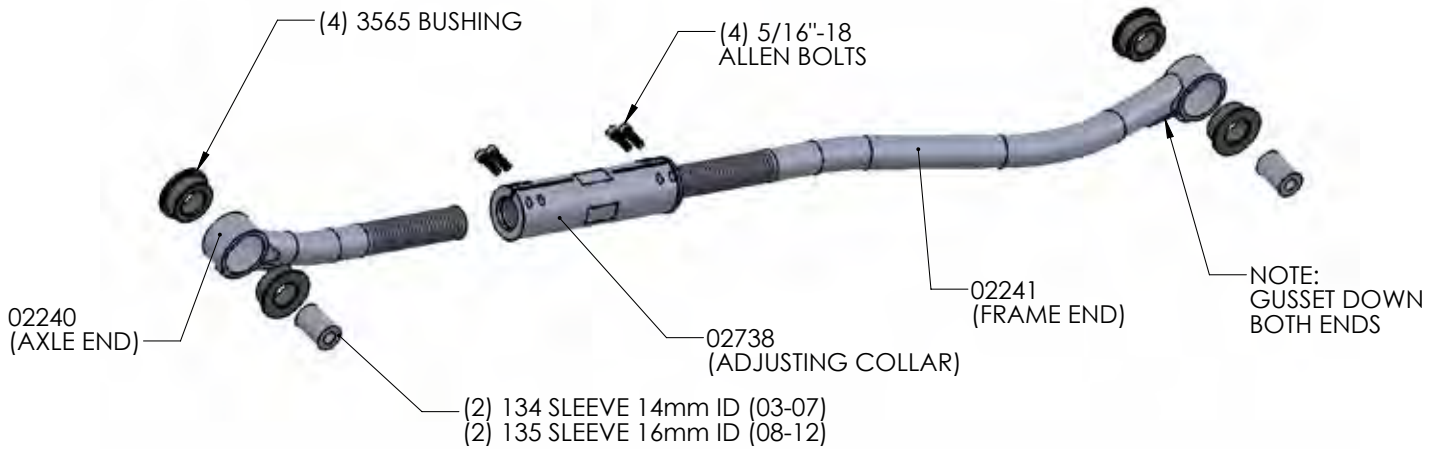
22. Reattach brake line brackets to the axle with the factory bracket and factory bolt. Tighten to 15 ft-lbs.
23. Reattach drag link to pitman arm. Tighten nut to 65 ft-lbs.
24. Reinstall wheels, torque to factory specifications. Lower vehicle to the ground.
25. Lightly grease and install bushings and 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**

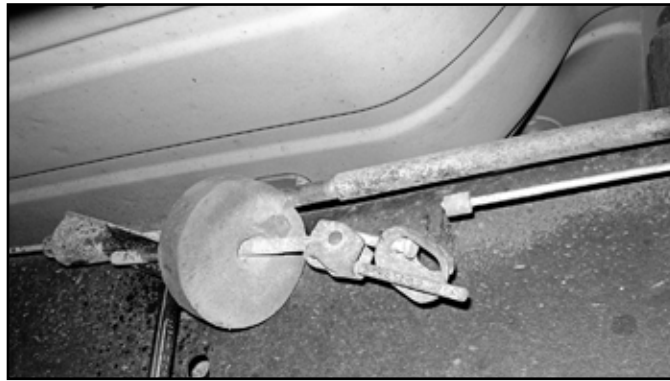


30. Tighten trackbar mounting hardware to 150 ft-lbs (03-07 model years) or 200 ft-lbs (08+ model years).
31. Tighten pinch bolts on trackbar until the collar is unable to be rotated, this should be no more than 40 ft-lbs max.
32. Tighten control arm hardware as follows: Upper 120 ft-lbs, Lower 16mm 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**



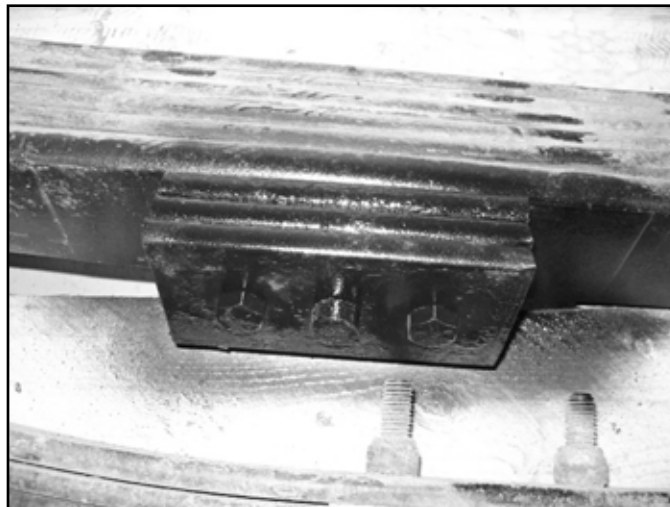
38. Reroute the e-brake line through the spring hanger bracket to give more slack at full droop (Fig 13). Reattach e-brake cable at junction.

**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.



## **WE WANT TO SEE YOUR RIDE!**

Grab photos of your BDS-equipped truck in action and send them in for a chance to be featured. Send it in to our Bad Ass Rides customer gallery at [bds-suspension.com/bar](http://bds-suspension.com/bar) and post them on the BDS Fan Page on Facebook at [facebook.com/BDSSuspensions](https://facebook.com/BDSSuspensions). Don't forget about your BDS swag! BDS offers t-shirts, hoodies, decals and more available on the BDS website or through your local BDS distributor.

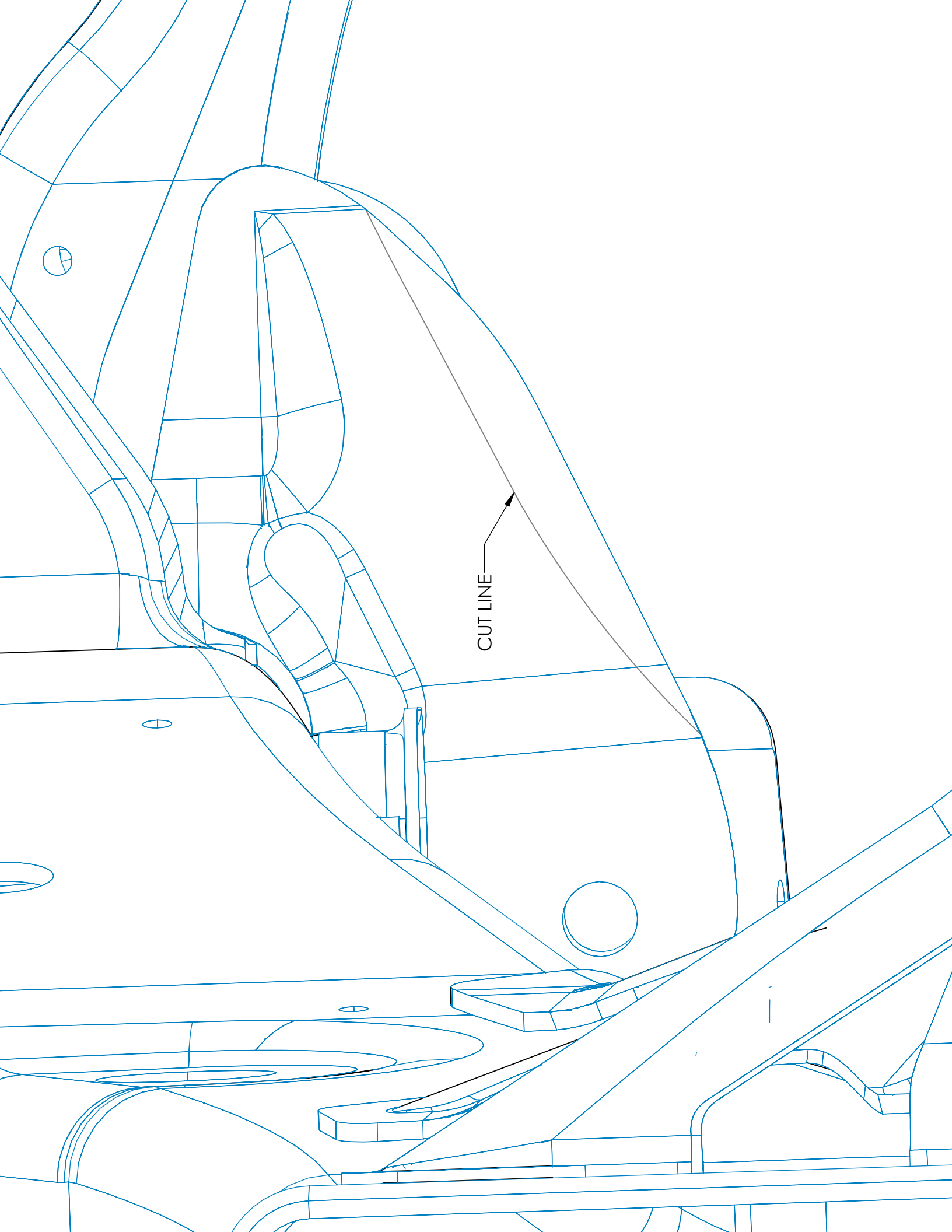
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## **TIME TO HAVE SOME FUN**

**Thank you for choosing BDS Suspension.**

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





CUT LINE