

2" Rear Block Kit

Dodge Ram 3500 4WD | 2019-2022

Part #: 012215, 012216

Rev. 061522



491 W. Garfield Ave., Coldwater, MI 49036 • Phone: 517-279-2135

Web: www.bds-suspension.com • E-mail: tech-bds@ridefox.com

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.

Box Kit		
Part #	Qty	Description
03894	2	2" Block Painted - 3/4" Pin
964381212RB or 964381612RB	4	9/16" x 4-3/8" x 12-1/2" Round U-Bolt or 9/16" x 4-3/8" x 16-1/2" Round U-Bolt
N96FH	8	9/16" Fine High Nut
W96S	8	9/16" SAE Flatwasher
01599	2	Center Pin

INSTALLATION INSTRUCTIONS

1. Disconnect e-brake cable and reroute the line to give adequate slack in the cable at full droop, reattach once routed for extra slack. (Fig. 1, 2)

FIGURE 1

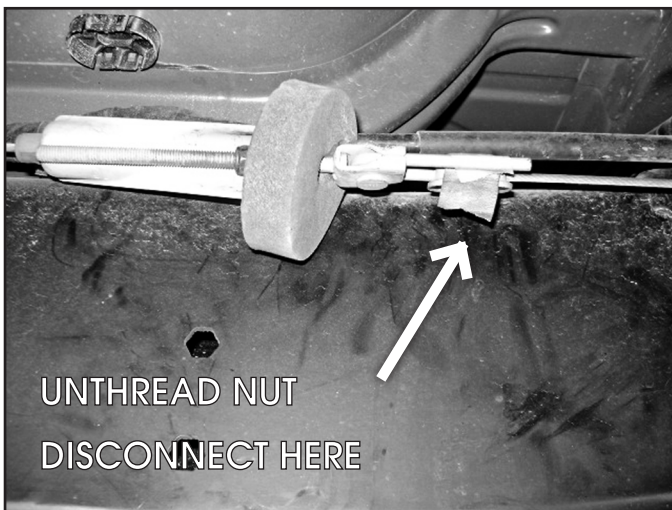


FIGURE 2



2. Remove the factory shocks, retain all mounting hardware.
3. Support the rear axle with a hydraulic jack. Remove the u-bolts and plates from one side of the vehicle only. Loosen the u-bolts on the opposite side slightly, but do not remove.
4. Remove the middle plastic center pin from the leaf pack and install the new press-in steel center pin provided.

5. Place the new block on the spring perch and align the pin in the axle perch hole.
6. Raise the axle to the spring while aligning the center spring pin to the hole in the block.
7. Install the new u-bolts and snug the assembly together. Final u-bolt torque should be done with the weight of the vehicle on the springs.
8. Repeat the procedure on the driver's side.
9. Grease bushings and sleeves, install them into both ends of the shocks with factory hardware. Tighten to 100 ft-lbs. If installing optional Fox Shocks, the body will be located at the frame mount. If installing NX2 shocks, the body will be located at the axle mount.



Tip *Rear shock numbers are Fox982244759 or 85759*

10. Reinstall wheels, torque to specification.
11. Lower the vehicle to the ground.
12. Torque the u-bolts to 100-120 ft-lbs.
13. Check all hardware for proper torque.
14. Check hardware after 500 miles.



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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 and post them on the BDS Fan Page on Facebook at 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.

TIME TO HAVE SOME FUN

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INSTALLATION GUIDE



Part#: 012312



HARDCORE LIMITED LIFETIME WARRANTY

3" Suspension System

Dodge Ram 3500 | 2013-2025

Dodge Ram 2500 | 2014-2025

2" Suspension System

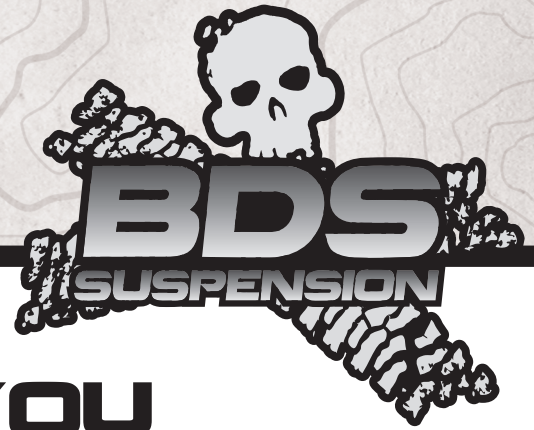
RAM POWER WAGON | 2019-2021

042425

491 W. Garfield Ave., Coldwater, MI 49036 • Phone: 517-279-2135

E-mail: tech-bds@ridefox.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

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FOR YOUR SAFETY

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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 for more information.

TIRES AND WHEELS

35x12.50x17 / 18 / 20
9" Wide Wheel With 4-1/2" ~ 5" Backspacing



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

Rear Box kits - See Separate Instruction Sheets

BDS012312 Main Box Kit		
Part #	Qty	Description
03855	1	Brake Line Bracket - Drv
03856	1	Brake Line Bracket - Pass
02378BK	2	Bump Stops
A432	1	Adjustable Track Bar
342701	1	Thread Locker
A239	(2)	Sway Bar Link Assembly
03012	2	Clevis
03029	2	Sleeve - Upper
149	2	Sleeve - Lower
M03212-BK-01	2	Offset Spacer
677	1	Bolt Pack
495	1	Bolt Pack - Brake Line Bracket
496		Bolt Pack - X-Member Wiring (2025+ models only)

BDS122321 Radius Arm Box Kit (DSL 3" only)		
Part #	Qty	Description
A243	2	Radius Arm Assembly
02802	2	Aluminum Logo Plate - In DRV Position
995	1	Bolt Pack
	4	Rivet

INSTALLATION INSTRUCTIONS

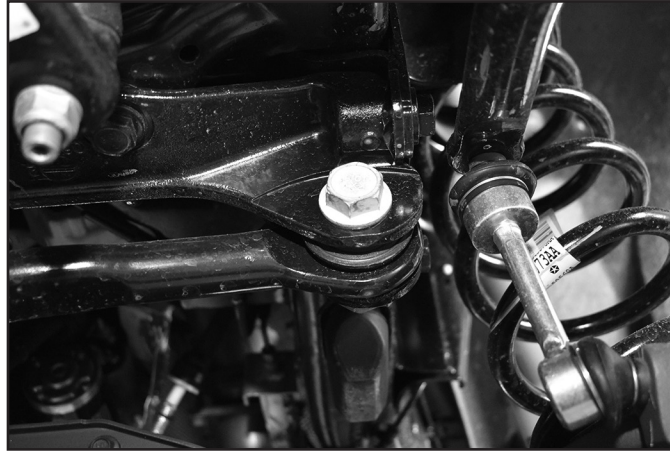
INSTALLATION INSTRUCTIONS

1. Park vehicle on clean, flat, and level surface. Block the rear wheels for safety.
2. Disconnect the front trackbar bolt from the frame while the vehicle is still on the ground. Retain bolt and nut tab. (Fig 1)

SPECIAL TOOLS

1-1/16" or 27mm Socket

FIGURE 1



3. Raise the front of the vehicle and support the frame rails with jackstands. Note: The radius arms will be removed during this installation; do not support the weight of the truck on the radius arms.
4. Remove the wheels.
5. Disconnect the front driveshaft from the front axle. Hang the drive shaft from the frame. Retain all hardware.
6. Remove the trackbar bolt from the axle, retain bolt and nut tab. (Fig 2)

FIGURE 2



7. Remove the factory sway bar links, they will not be reinstalled. (Fig 3)

FIGURE 3



8. Disconnect the brake line bracket from the top of the axle. Retain hardware (Fig 4)

FIGURE 4



9. Disconnect the brake line from the backside of the axle. Retain hardware (Fig 5)

FIGURE 5



10. It is recommended to disconnect the drag link from the pitman arm at this time. This will prevent the joint from binding while installing new coils. Use care not to damage the drag link joint boot. (Fig 6)

FIGURE 6



11. Detach the ABS and Central Axle Disconnect wires from retaining clips to allow for extra slack when new coils will be installed.
12. Support the front axle with a hydraulic jack.
13. Disconnect the shock hardware at lower and upper mounts; keep the lower bolt and nut tab. Remove the shocks. (Fig 7)

FIGURE 7



14. Lower the axle and remove the factory coils. Use care not to overextend any brake line, ABS, or CAD wires.

RADIUS ARM INSTALLATION: (DSL 3" ONLY, POWER WAGON 2" SKIP TO STEP 18)

15. Working on one side of the vehicle at a time, remove the factory radius arm. Retain all hardware.
16. Replace the radius arm with the new one, both sides are the same. Reattach with factory hardware. Adjust the cams so the bolt is centered. (Fig 8a Driver Side shown) Note: Due to increased caster built into the arms, it may not be possible to reinstall the factory hardware with the opposite side hardware in. Remove one of the opposing bolts at the axle to allow the axle to rotate. (Fig 8b)

FIGURE 8A



FIGURE 8B



17. Repeat radius arm installation on opposite side.
18. Tighten the upper bolt at the axle to 258 ft-lbs. Tighten lower cams to 258 ft-lbs. Do not tighten the pivot bushing hardware at the frame at this time.
19. **2025 DSL Models only** Disconnect the 2 christmas tree wiring harness clips from the top of the driver side cross member (Fig. 9A) Unplug the wiring harness at the plug shown in (Fig. 9B). Disconnect the 2 plugs shown in (Fig. 9C) Route the wiring up and over the drive shaft. Using the provided hardware in Bolt Pack 496, attach the wiring harness the existing bolt. See (Fig. 9D). This will provide the clearance needed for the front drive shaft.

FIGURE 9A

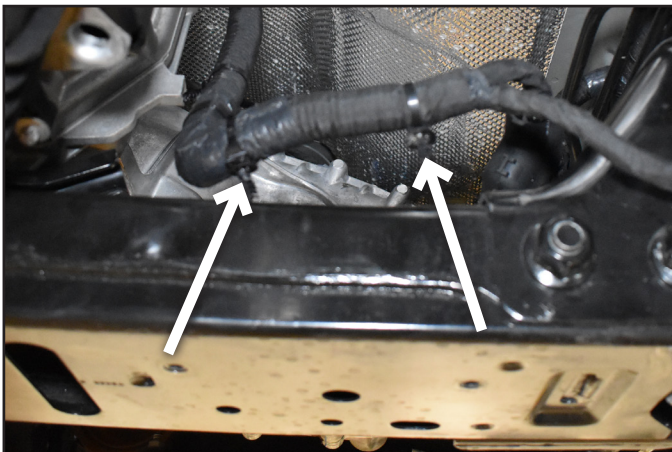


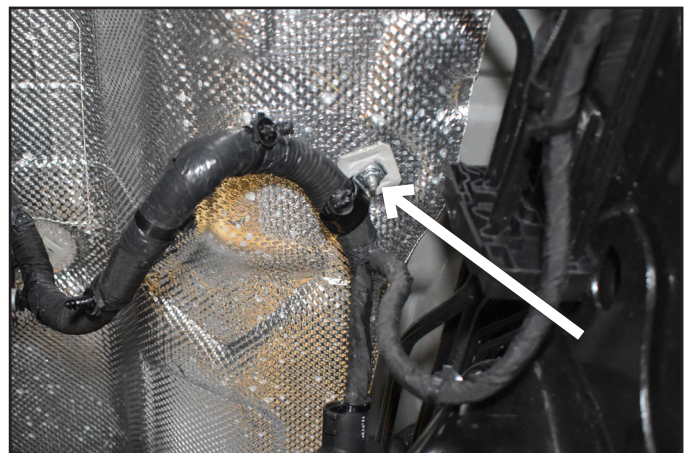
FIGURE 9B



FIGURE 9C



FIGURE 9D



20. Re-connect wiring harness plugs shown in (Fig. 9B and 9C).

BUMP STOP INSTALLATION:

21. Remove the factory bump stops. It is easiest to hit them from the side with a hammer to get them to pop out. (Fig 10A)
22. Lightly grease and install new bump stops by compressing the axle and pressing the bump stops into position. (Fig 10B)

FIGURE 10A



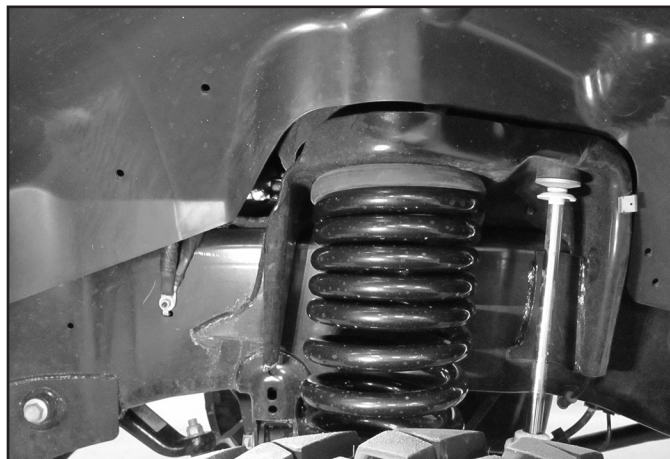
FIGURE 10B



COIL / SHOCK INSTALLATION:

23. See Instruction provided in Coil Spring box for proper indexing of the Passenger side coil spring.
24. Install new coils with the factory isolator on top of the coil. The end of the spring with the windings closer together will go at the top, do not install upside down. Use hydraulic jack to raise the axle to seat the coils. Ensure that the coils are seated properly. Driver's side – Figure 11

FIGURE 11 - DRIVER'S SIDE



25. Grease and install bushings into new shocks. Install new shocks on vehicle with factory lower hardware and new cup washers, bushings, and nut on the top. Tighten the upper nut until the bushings begin to swell, do not over tighten. Note: It is easiest to install the lower hardware first, compress the shock and allow it to expand up into the upper mounting position. Ensure that the upper mount is centered in the factory hole. Tighten lower mount to 89 ft-lbs.)



Tip Front shock numbers for 2019+ are Fox982244710 or 85713.

Front shock numbers for 2013/14-2018 are Fox98224700 or 85700

26. Lower the axle and allow the axle to hang from the shocks.

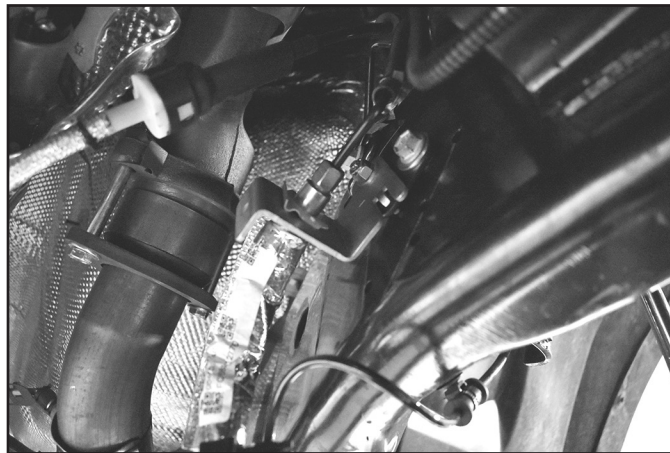
TRACKBAR INSTALLATION:

27. Grease and install bushings and sleeves into the trackbar assembly. Adjust length to 39-1/8".
28. Remove the bolts on the adjusting collar, apply thread locker to threads, and reinstall into adjusting collar.
29. First, tighten pinch bolts on track bar left-to-right at 30 ft-lbs.
30. Repeat left-to-right torque sequence at 30 ft-lbs until all pinch bolts meet 30 ft-lbs specification.
31. Install into the vehicle by attaching the axle end first with factory bolt and nut tab. Do not tighten at this time; do not attach the frame mount at this time.
32. Reattach the factory drag link to the pitman arm with factory nut. Tighten to 65 ft-lbs.

BRAKE LINE BRACKET:

33. Unbolt the Brake lines from the frame. Retain hardware. Install the provided brake line relocation brackets onto the frame, driver and passenger side. Attach the brake line to the relocation bracket. Some manipulation of the hard line will be required. Ensure the tab on the factory line is located in the relocation bracket. Brake line relocation hardware in BP495. Tighten factory hardware to 15 ft-lbs, tighten provide hardware to 209 in-lbs. (Fig 12)

FIGURE 12



34. Reattach the brake line to the axle with factory bolts and locations, tighten to 15 ft-lbs.

SWAY BAR LINKS:

35. Install new sway bar links. The clevis bracket will be a tight squeeze to get over the factory sway bar (keeps it from rotating). It may be necessary to slightly clear the widest part of the sway bar to get the bracket to fit over it. Attach with hardware as shown. (Fig 13a, 13b, 13c, & 13d). Torque upper 10mm button bolts to 30 ft-lbs, lower bolt to 88 ft-lbs. Check clearance on wiring ground stud and cut for clearance if needed. (Fig. 13e)

FIGURE 13A



FIGURE 13B



FIGURE 13C

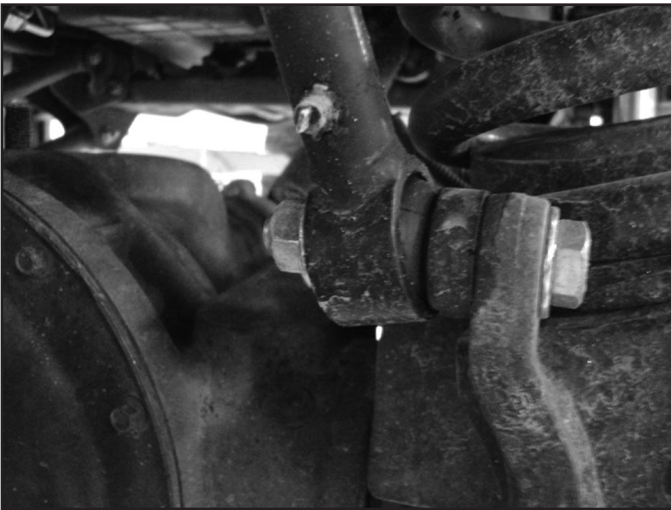


FIGURE 13D

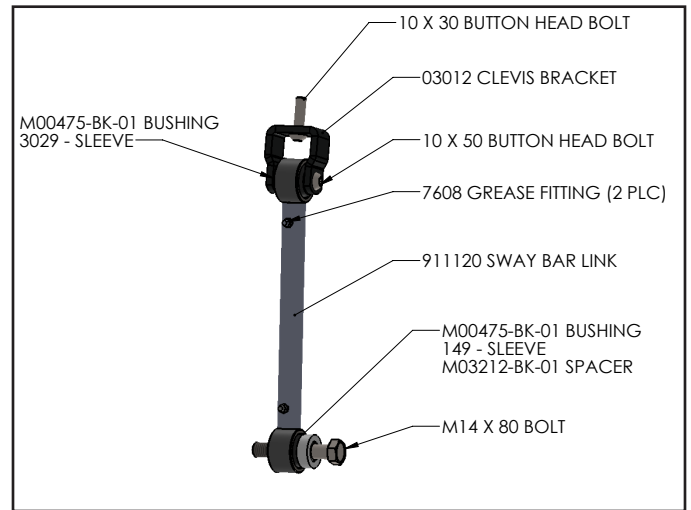
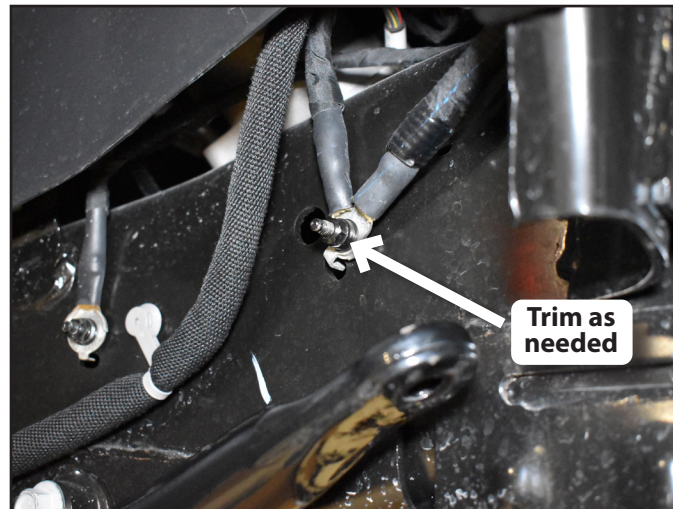


FIGURE 13E



REAR KIT (2500, 3500, & POWER WAGON SEE SEPARATE INSTRUCTION SHEET):

36. Reattach the front drive shaft to the axle with OE hardware and thread locker, torque to 85 ft-lbs. rotate the front drive shaft to ensure it spins freely and clears exhaust and crossmember. It may be necessary to move the wiring harness rearward on crossmember. To do this carefully remove the push-in ziptie and move to the hole located further rear on the crossmember.
37. Reinstall wheels, torque to specification. Lower vehicle to the ground and torque u-bolts to 120 ft-lbs.
38. Reinstall wheels, lower vehicle to the ground and torque lug nuts to specification.
39. Tighten the radius arm mount at the frame to 258 ft-lbs.
40. If trackbar was disconnected from axle side for any reason, tighten trackbar axle hardware to 285 ft-lbs Turn the steering wheel to get the trackbar sleeve to align with the hole in the frame bracket. Attach with factory bolt and nut tab. Tighten to 74 ft-lbs plus 160deg.
41. Straighten the steering wheel by adjusting the drag link adjuster. Do not drive the vehicle for extended periods of time with the steering wheel off center.
42. Recheck all hardware for proper torque, check again after 500 miles, and at regularly scheduled maintenance intervals.
43. An alignment is now recommended. The caster should fall between 4.00 and 5.50 (between 5.00 and 5.50 is recommended), adjustment for better driving characteristics may be required.



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INSTALLATION GUIDE



Part#: 122321



HARDCORE LIMITED LIFETIME WARRANTY

2"-4" Replacement Radius Arm System

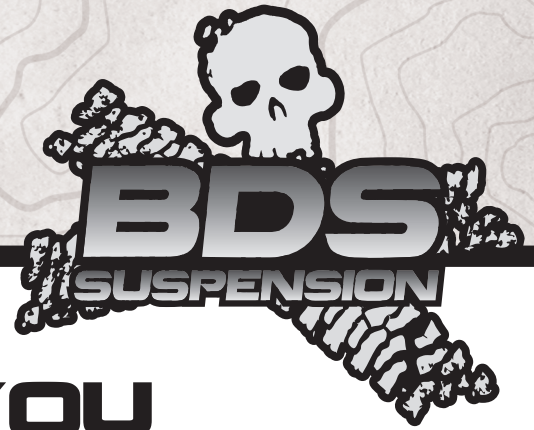
Dodge Ram 3500 | 2013-2024
Dodge Ram 2500 | 2013-2025

Rev. 051425

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FOR YOUR SAFETY

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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 for more information.

TIRES AND WHEELS

Designed to work with 2"-4" lift and:
35x12.50x17 / 18 / 20
9" Wide Wheel With 4-1/2" ~ 5" Backspacing



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

BDS122321 Radius Arm Box Kit

Part #	Qty	Description
A243	2	Radius Arm Assembly
02804	2	Dodge Radius Arm
868190	2	Rubber Bushing
B1441	2	Bag Kit- Badge
02802	2	Aluminum Logo Plate
995	1	Rivet Bolt Pack



INSTALLATION INSTRUCTIONS

INSTALLATION INSTRUCTIONS

1. Park vehicle on clean, flat, and level surface. Block the rear wheels for safety.
2. Raise the front of the vehicle and support the front axle with jackstands.

SPECIAL TOOLS

1-1/16" or 27mm Socket

Note: The radius arms will be removed during this installation; do not support the weight of the truck on the radius arms. Do not allow the suspension to droop out, this will cause the radius arm bushings to be in a slight bind.

3. Remove the wheels.
4. Disconnect the shock hardware at lower mount; keep the lower bolt and nut tab. Swing the shock out of the way enough to allow removal of the upper radius arm bolt. (Fig 1)

FIG 1



5. Working on one side of the vehicle at a time, remove the factory radius arm. Retain all hardware.
6. Replace the radius arm with the new one. Reattach with factory hardware. Note: Due to increased caster built into the arms, it may not be possible to reinstall the factory hardware with the opposite side hardware in. Remove one of the opposing bolts at the axle to allow the axle to rotate. (Fig 2a, 2b)

FIG 2A



FIG 2B



7. Repeat radius arm installation on opposite side.
8. Tighten the upper bolt at the axle to 258 ft-lbs. Adjust the lower cam as indicated below Do not tighten the pivot bushing hardware at the frame at this time:
2" kits: Adjust the cam so the head of the bolt is towards the rear of the vehicle and tighten to 258 ft-lbs.
3" kits: Center the lower cams and tighten to 258 ft-lbs.
4" kits: Adjust the cam so the head of the bolt is towards the front of the vehicle and tighten to 258 ft-lbs.
Additional adjustment may be required when an alignment is performed. These settings should give approximately 0.5 to 1.0 degree of extra caster over stock, which is recommended for use with oversized tires.
9. Affix the included 'BDS' logo plate to each radius arm, facing out toward the wheel. Blind rivets are included in Bag kit B1311.
10. Reattach lower shock to the factory mount with factory hardware. Tighten to 55 ft-lbs.
11. Reinstall wheels, lower vehicle to the ground and torque lug nuts to specification.
12. Tighten the radius arm mount at the frame to 258 ft-lbs.
13. Recheck all hardware for proper torque, check again after 500 miles, and at regularly scheduled maintenance intervals.
14. An alignment is now recommended. The caster should fall between 4.00 and 5.50 (between 5.00 and 5.50 is recommended), adjustment for better driving characteristics may be required.
15. The badges can now be riveted on to the radius arms using the provided 1/8" rivets. Any residue on the badge can be cleaned up using alcohol or brake cleaner before install. The badge can be painted to what ever color you desire, or left raw as a stainless steel badge.



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2013 RAM 3500/ 2014 RAM 2500

2-4" REPLACEMENT RADIUS ARM SYSTEM

TORQUE SPECIFICATIONS

COMPONENT	TORQUE (FT-LBS)
Upper Control Arms	180
Lower Shocks	55
Radius Arm to Frame	180

INSTALLATION GUIDE



Part#: 122331



HARDCORE LIMITED LIFETIME WARRANTY

Front Coil Over Conversion

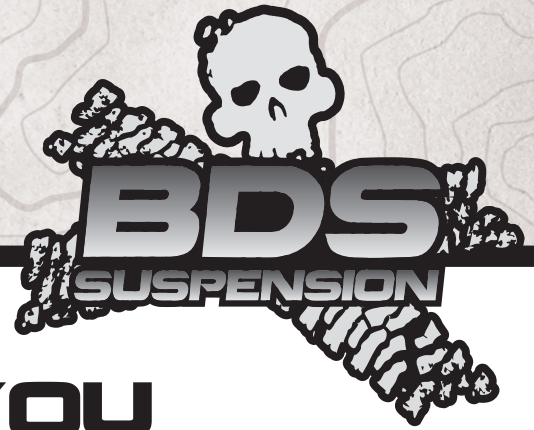
Ram 2500/ 3500 | 2019-2025

Rev.81925

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Visit 560plus.com for more information.

TIRES AND WHEELS

See main instructions



BEFORE YOU DRIVE

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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

122331 Box Kit

Part #	Qty	Description
B1678	1	Bag Kit
	1	1.250 X 5/16 X 1.65" DOM Sleeve
	1	Passenger Lower Bolt Hole Adapter
	1	Front Bump Cutout Template - Pass
	1	Spacer
BP1106	1	Bolt Pack
	1	8mm-1.25 x 45mm, Class 8.8, Clear Zinc
	1	5/16" SAE Washer, Yellow Zinc
BP1082	1	Coilover Conversion Bolt Pack
	4	1/4" X 5/8" SS Button Head Hex Drive Screw
	2	1/2" X 3-1/2" Grade 8 - Bolt - Black
	2	1/2" X 1-1/4" Grade 8 Bolt - Yellow Zinc
	6	1/2" SAE Flat Washer - Yellow Zinc
	1	18mm Flat Washer - Clear Zinc
	1	5/8" X 3-1/4" Bolt Partial thread - Yellow Zinc
	1	5/8" SAE Washer - Yellow Zinc
	8	7/16" X 1-1/2" Bolt Full thread - Yellow Zinc
	16	7/16" SEA Flat Washer - Yellow Zinc
	8	7/16"-14 Grade 8 Nylock Nut - Yellow Zinc
	2	1/2" X 3" Bolt Partial Thread - Yellow Zinc
	2	1/2"-13 Prevailing Torque Nut - Yellow Zinc
B1442	2	Bag Kit
	2	1/8" X .187" SS Blind Rivet
	1	BDS Badge (3.920")
A475	2	Upper Coilover Mount w/sleeve
05501	1	Lower Coilover Mount - DRV
05502	1	Lower Coilover Mount - PASS
5503	2	Reservoir Mount
05603	1	Front Bump Cutout Template - DRV
05674	1	Coilover Bucket Gusset
FOX88326101	1	Rear, 2.5 Truck PES, P/B, 2-3.5" Lift, DSC
FOX88406517	1	Front Coilover, 2.5 Truck PES, R/R
FOX88302155	1	Gen2, Bump Stop 2.0 Series, IFP
FOX88326066	1	Rear, 2.5 Truck PES, P/B, 10.6", 3-4" Lift, DSC
FOX88406518	1	Front Coilover, 2.5 Truck PES, R/R, 4" Lift, DSC
FOX88326067	1	Rear, 2.5 Truck PES, P/B, 11.1", 6" Lift, DSC
FOX88406519	1	Front Coilover, 2.5 Truck PES, R/R, 6" Lift, DSC

122332 Box Kit

Part #	Qty	Description
B1096	1	Bag Kit - Ram Front Bump Stop
	2	Pyramid Bushing - black
785	1	Bolt Pack
	4	3/18" x 1-1/4 Self Tapping screws - Hex
	4	3/8"-16 x 2" Bolt, Grade 5, Clear Zinc

	6	3/8" SAE Washer, Clear Zinc
	2	3/8" Split Lock Washer, Clear Zinc
	2	3/8"-16 Nut, Grade 5, Clear Zinc
05611	2	C/O Conversion 3" Bump Stop Ext

122432 Box Kit

Part #	Qty	Description
B1096	1	Bag Kit - Ram Front Bump Stop
	2	Pyramid Bushing - black
785	1	Bolt Pack
	4	3/18" x 1-1/4 Self Tapping screws - Hex
	4	3/8"-16 x 2" Bolt, Grade 5, Clear Zinc
	6	3/8" SAE Washer, Clear Zinc
	2	3/8" Split Lock Washer, Clear Zinc
	2	3/8"-16 Nut, Grade 5, Clear Zinc
05612	2	C/O Conversion 4" Bump Stop Ext

122632 Box Kit

Part #	Qty	Description
B1096	1	Bag Kit - Ram Front Bump Stop
	2	Pyramid Bushing - black
785	1	Bolt Pack
	4	3/18" x 1-1/4 Self Tapping screws - Hex
	4	3/8"-16 x 2" Bolt, Grade 5, Clear Zinc
	6	3/8" SAE Washer, Clear Zinc
	2	3/8" Split Lock Washer, Clear Zinc
	2	3/8"-16 Nut, Grade 5, Clear Zinc
05613	2	C/O Conversion 6" Bump Stop Ext

PRE INSTALLATION

IMPORTANT

It is required that ride height measurements be taken before and after installation. Measure from the **WHEEL AXLE CENTER** up to the **FENDER LIP** of the wheel opening. Do this for all 4 wheels. Record measurements below.**

BEFORE

Left Front _____ *Right Front* _____

Left Rear _____ *Right Rear* _____

AFTER

Left Front _____ *Right Front* _____

Left Rear _____ *Right Rear* _____



****These ride heights will be required if you have any ride height concerns after installation. Please be prepared to provide these to Technical Support.**

PRE-INSTALLATION INSTRUCTIONS

1. Park vehicle on clean, flat, and level surface. Block the rear wheels for safety.
2. Raise the front of the vehicle and support the frame rails with jackstands.
3. Remove the front wheels.

SPECIAL TOOLS

Torque Wrench
8677 Chrysler Ball Joint Separation Tool (or Equiv)

FRONT DISASSEMBLY

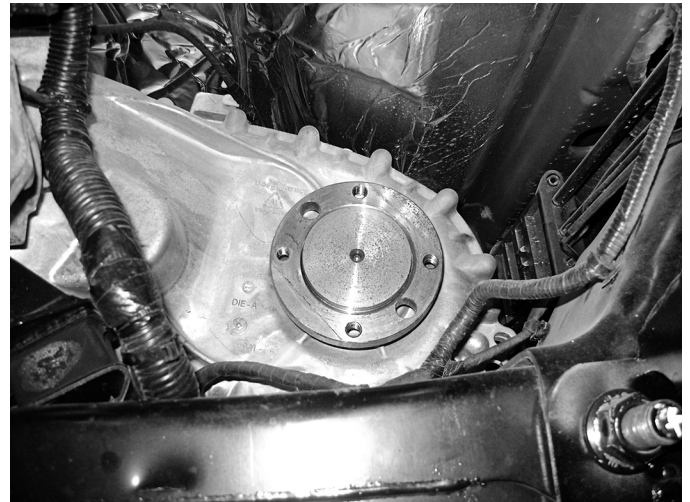
See front main instructions for disassembly of the sway bar, track bar, shock, coil spring, and relevant steps.

4. Remove the rear driveshaft, retain hardware. Disconnect the front driveshaft from the transfer case. **(Fig 1a, 1b)**
5. Remove front drive shaft completely. 2013-2018 **(4", 6", and 8")** and 2019+ **(all lift heights)** insert photo's from 122623 for 13-18 photos of front drive shaft removed. Insert Photo's from 122624_122625_122626_122421 of front drive shaft removal photo's and instructions.

FIGURE 1A



FIGURE 1B



6. Remove the rear driveshaft, retain hardware. Disconnect the front driveshaft from the transfer case. It will be necessary to remove the forward most clamp on the front drive shaft boot to access the retaining clip to slide the front drive shaft off. Replacement clamps are provided **(Fig 2, 3, 4)**

FIGURE 2

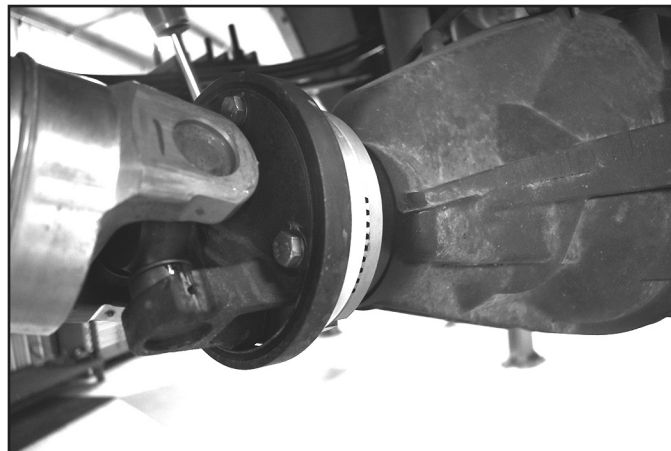


FIGURE 3

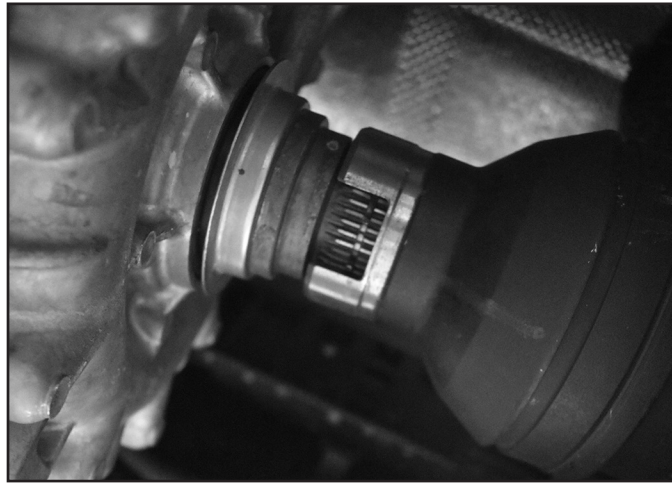


FIGURE 4



HYDRO BUMP INSTALLATION

If installing Hydraulic bump stop please follow the following steps. If you are installing the Bump stop extensions please skip ahead to the next section.

PASSENGER SIDE HYDRO BUMP INSTALLATION

7. Remove the rubber OE bump stop by knocking it out with a hammer. (Fig. 5)

FIGURE 5



8. Remove the OE bump stop mount by cutting the two welds.
9. Using the passenger side template, install to the oe holes on the frame with the notch out Using the 3/8 self tapping screws provided in Bolt Pack 785. Use the center hole to drill a 3/16" pilot hole into the frame,. **(Fig. 6)**

FIGURE 6



10. Remove the template and Drill the pilot hole with a 3/16". Remove the template and using a 2-1/2" metal cutting hole saw cut, centering on the pilot hole. **(Fig. 7)**

FIGURE 7



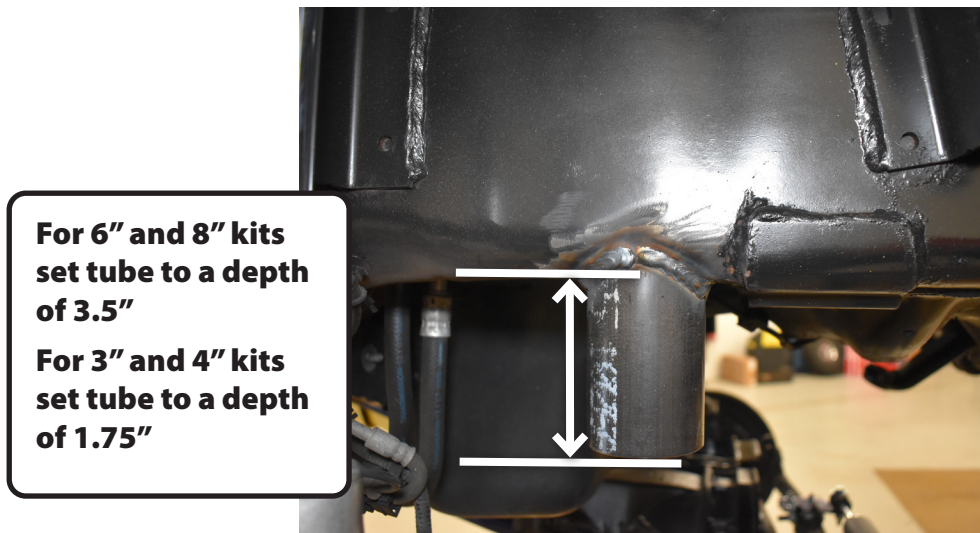
11. Prep the surface around the hole for welding. **(Fig. 8)**

FIGURE 8



12. Insert the bump tube. For 6" and 8" kits set tube to a depth of 3.5" measuring from the bottom of the frame to the bottom of the tube. For 3" and 4" kits the tube depth should be set at 1.75". Tack into place and check for level. Once level weld the tube to the frame. (Fig. 9)

FIGURE 9



**For 6" and 8" kits
set tube to a depth
of 3.5"**

**For 3" and 4" kits
set tube to a depth
of 1.75"**

DRIVER SIDE HYDRO BUMP INSTALLATION

13. Remove the driver side bump stop and install the driver side templates. (Fig. 10)

FIGURE 10



14. Using a plasma cutter, cut out the hole as indicated by the template. (Fig. 11A,11B)

FIGURE 11A

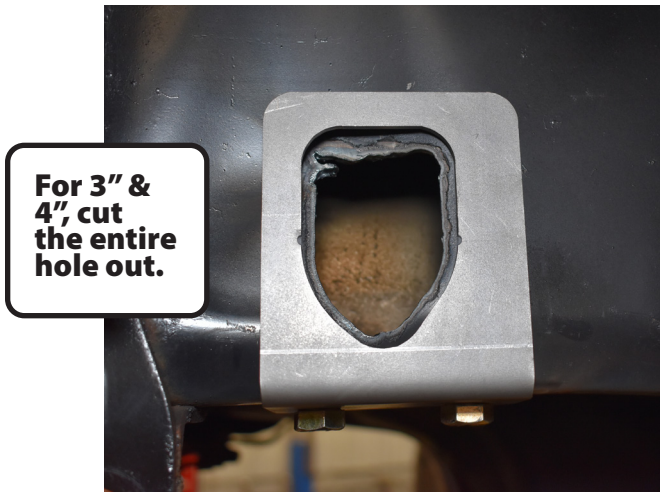
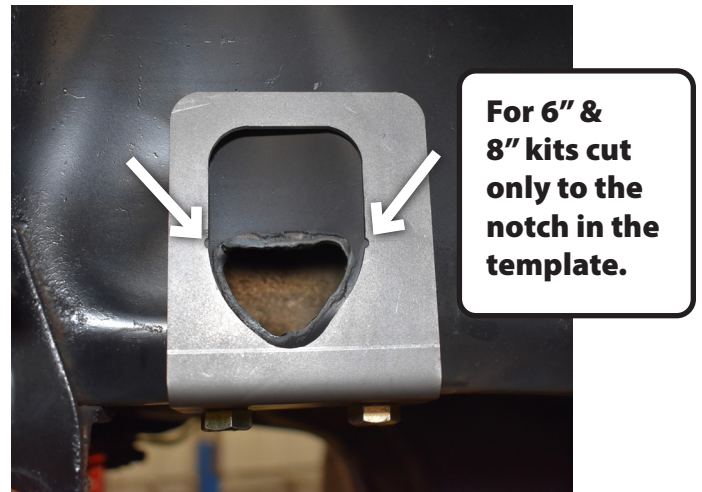
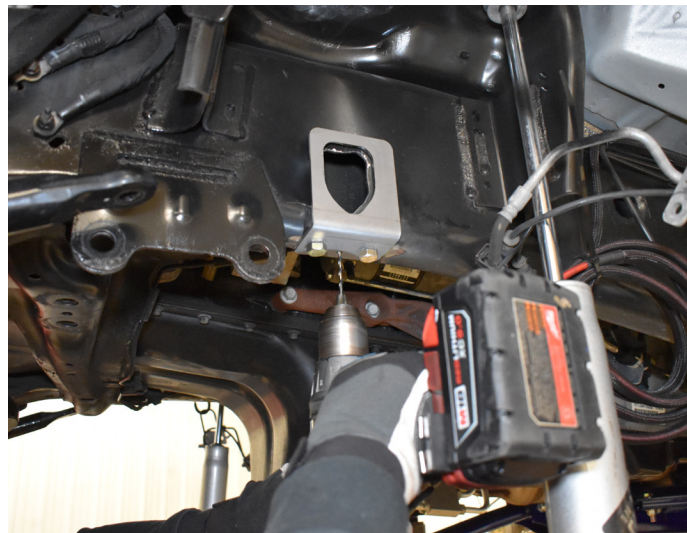


FIGURE 11B



15. On the bottom of the frame, drill the template hole into the frame. (Fig. 12)

FIGURE 12



16. Remove the template and using the same hole saw as the passenger side, cut a hole in the frame. (Fig. 13)

FIGURE 13



17. Clean and prep the surface for welding. (Fig. 14)

FIGURE 14



18. Insert the bump tube. For 6" and 8" kits set tube to a depth of 3.5" measuring from the bottom of the frame to the bottom of the tube. For 3" and 4" kits the tube depth should be set at 1.75". Tack into place and check for level. Once level weld the tube to the frame. (Fig. 15)

FIGURE 15

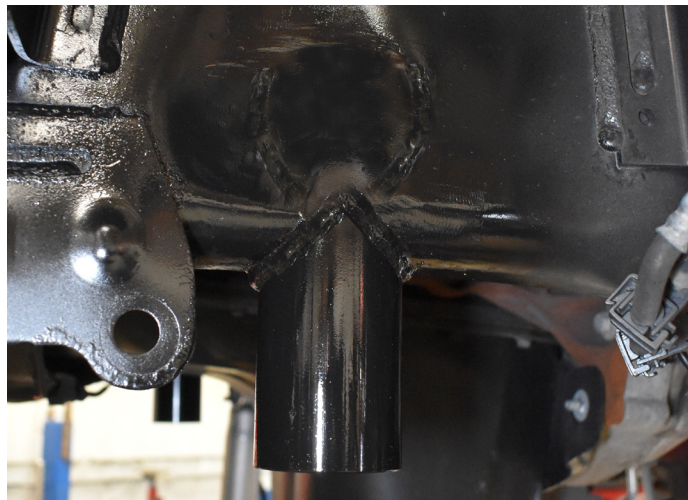
**For 6" and 8" kits
set tube to a depth
of 3.5"**

**For 3" and 4" kits
set tube to a depth
of 1.75"**



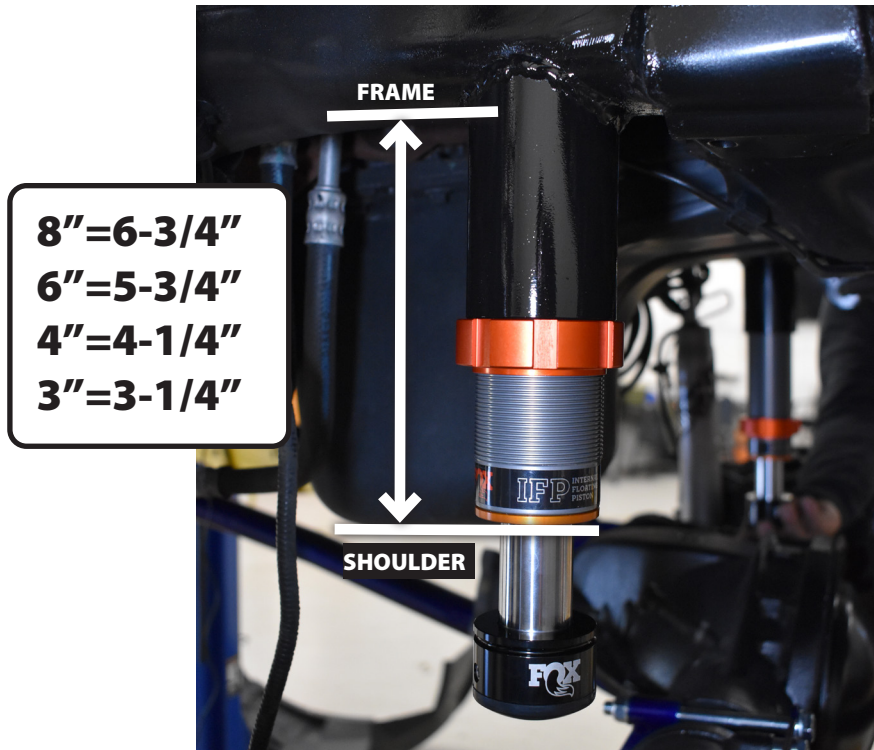
19. Once the tube is welded in place, clean up any rough welds and coat with paint to prevent rust. (Fig. 16)

FIGURE 16



20. Install the hydro bumps into the frame tubes. Set the distance from the frame to shoulder of the bump stop as shown in (Fig. 17).

FIGURE 17



NON-HYDRO BUMP STOP INSTALLATION:

If not installing a hydro bump stop, follow steps 5,6.

21. Located the 2 existing holes in the frame rail inside the factory bump stop cup. If these holes do not exist, they must be drilled out to 21/64", use the bump stop extension as a guide for drilling the holes. Use the 3/8" self threading bolts to cut new threads into the frame rail., impact gun highly recommended (Fig 18a). Attach bump stop to bracket with washer, lock washer, and regular nut, tighten securely. Attach bracket with 3/8" x 2" bolts with washers, tighten to 30 ft-lbs. (Fig 18B) Hardware is in bolt pack # 785. Note: On the passenger's side only, there may be interference with the factory plate, this small amount will need to be trimmed off for clearance to the bump stop bracket if the bracket can not sit flush.

If installing coilovers, DO NOT use the rubber bump stops. (Fig. 18C)

FIGURE 18A



FIGURE 18B



FIGURE 18C



PASSENGER SIDE COILOVER INSTALLATION

1. Working on the pass. side first.
2. Using a sawzall, cut coil spring bucket hole flange to flatten underside surface. Grind to smooth. (Fig. 19, 20, 20)

FIGURE 19



FIGURE 20



FIGURE 21



3. Mark and drill holes to mount coil over to coil spring bucket. Use provided template at the end of the instructions to Mark the 4 holes and drill out to 1/2". On the driver side be care not to drill the ABS module on top of the coil spring bucket. (Fig. 22)

FIGURE 22



4. Coat with paint to prevent rust. (Fig. 23)

FIGURE 23



- Using a plasma cutter, cut the lower spring bucket from axle. (Fig. 24)

FIGURE 24



- Grind clean a spot to ground your plasma cutter.
- Wear eye protection.
- Cut the welds using as plasma cutter as shown in the following images. (Fig. 25A- 25D - Pass. Side), (Fig. 26A-26D - Driver Side) It may be necessary to cut some of the areas with a cut off wheel to get a cleaner cut.

PASSENGER SIDE

FIGURE 25A



FIGURE 25B



FIGURE 25C



FIGURE 25D



DRIVER SIDE

FIGURE 26A



FIGURE 26B



FIGURE 26C



FIGURE 26D



9. Grind to clean up and square the bracket. (Fig. 27, 28)

FIGURE 27

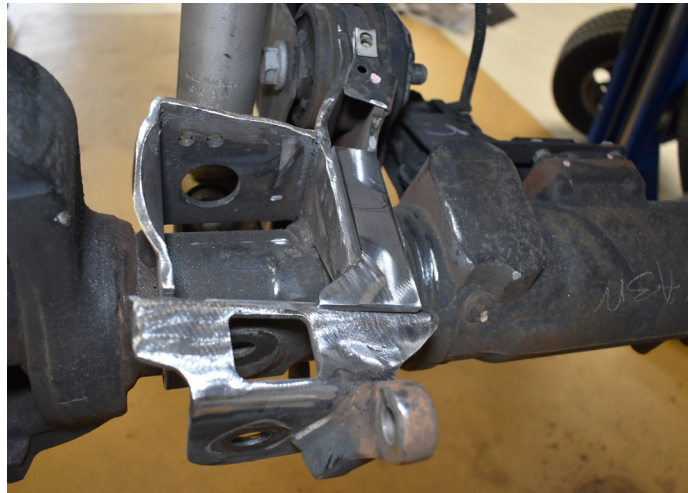


FIGURE 28



10. Prep surface for welding gusset on pass. side. (Fig. 29)

FIGURE 29



11. Weld gusset in place as shown in images, grind if needed. (Fig. 30, 31)

Note: The Gusset is required for additional strength due to the fact that the track bar attaches on the passenger side.

FIGURE 30



FIGURE 31



12. Coat with paint to prevent rust.
13. Test fit the coil over upper mount to make sure all the holes align properly.
14. Fit the coil over top bracket to the coilover making sure that the 2 threaded holes are out. This is where the reservoir bracket will mount. **(Fig.32)**

FIGURE 32



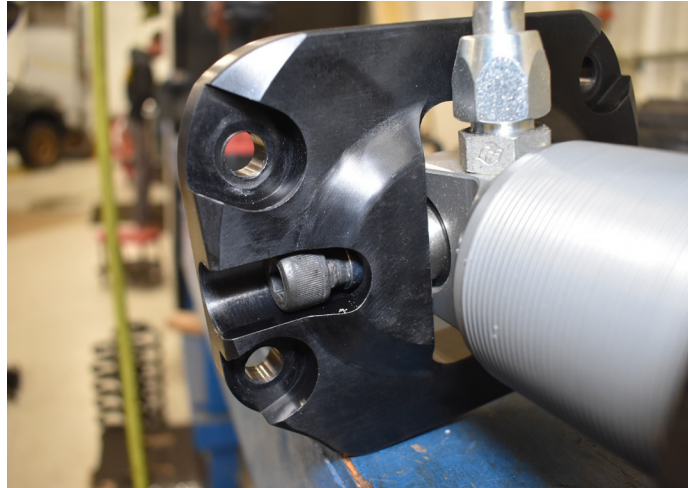
15. Loctite the upper coilover 1/2" x 3-1/2" socket head bolt before installing. **(Fig. 33)**

FIGURE 33



16. Install bolt into the upper coilover bracket. Torque Bolts to 30 ft-lbs. (Fig. 34)

FIGURE 34



17. Test fit lower coilover bracket into the lower bucket to confirm orientation. Coilover hardware can be found in bolt pack BP1082. (Fig.35A, 35B)

FIGURE 35A - PASSENGER SIDE

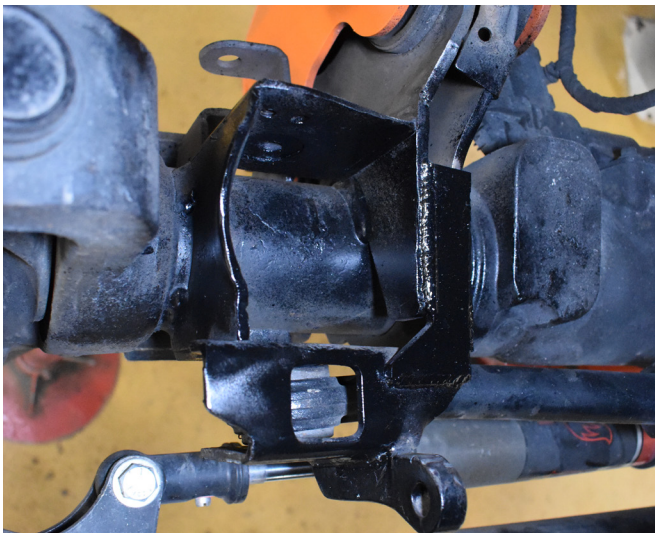
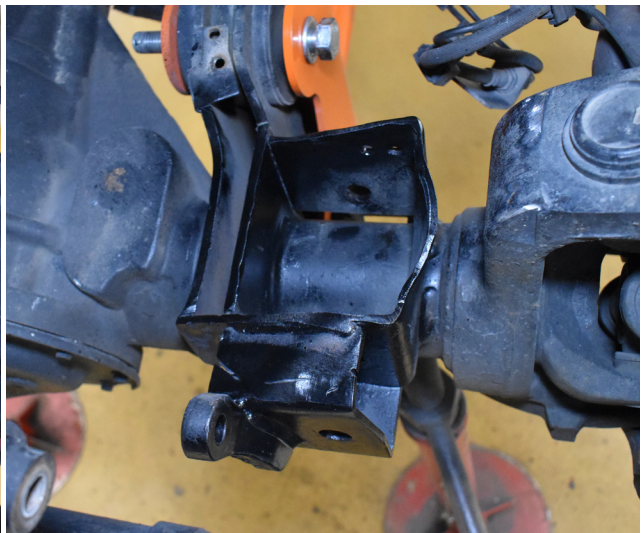
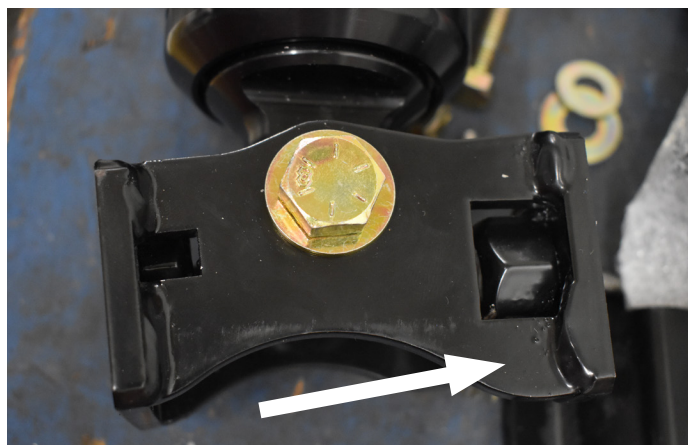


FIGURE 36B - DRIVER SIDE



18. Install lower coil over bracket to coilover using the provided hardware. 1/2" x 3" Hex Bolt, nut and washers. NOTE: Wider part goes toward front of vehicle (Fig. 36)

FIGURE 36



19. Fit coilover in to the bottom coilover bucket then position the top bracket into the upper strut tower. (Fig. 37)

FIGURE 37



20. Passenger side coil bucket on 2025 models. Unbolt the transmission cooler lines (Fig. 38A) and space them up to clear the bolts using the provided spacer, bolt and washer found in B1678. (Fig. 38B)

FIGURE 38A



FIGURE 38B



21. Align the 4 holes and Install coilover using the 4 provided 7/16" x 1-1/2" Bolt, washers & nuts. Leave loose. On 2025 models the bolts should be ran top down to prevent rubbing on cooler lines. (Fig. 39)

FIGURE 39



22. Install the factory track bar bolt through the track bar bracket and track bar. Through the lower coil bucket bracket. And thread it into the lower coil over bracket weld nut. Do not tighten at this time. **(Fig. 40)**

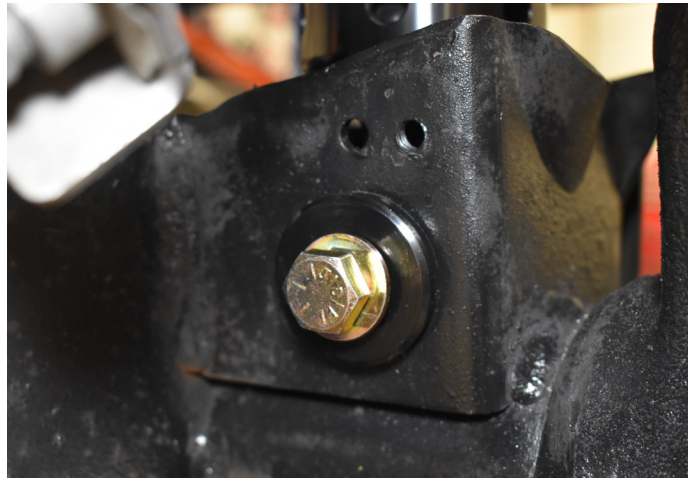
Note: If replacing the factory track bar. Now is a good time to install the axle side of the new track bar.

FIGURE 40



23. Install the provided step washer into the large hole on the backside of the axle coil bucket.
24. Using the provided hardware 1/2" x 1-1/4" Hex head bolt and washer install the back side bolt through step washer and strut bucket into the lower strut brackets weld nut. Torque 1/2" hardware to 80 ft-lbs. **(Fig 41)**

FIGURE 41



DRIVER SIDE COILOVER INSTALLATION

Driver side installation does not require the weld in gusset as the track bar does not connect on driver side.

Repeat steps 3 through 7 and 9 through 20.

25. The driver side requires that a mounting hole be drilled for the attachment of the coilover to the lower strut bucket on the back side. Align template with 2 factory holes, mark and drill lower strut mounting hole to 9/16" (**Specialty tool 9/16" drill bit**). (**Fig. 42, 43**)

FIGURE 42

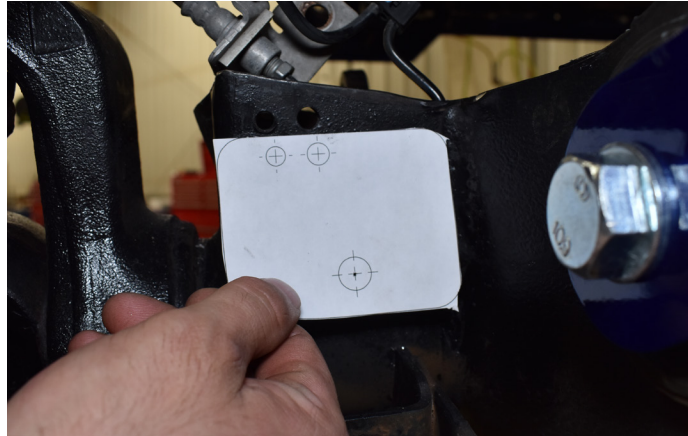
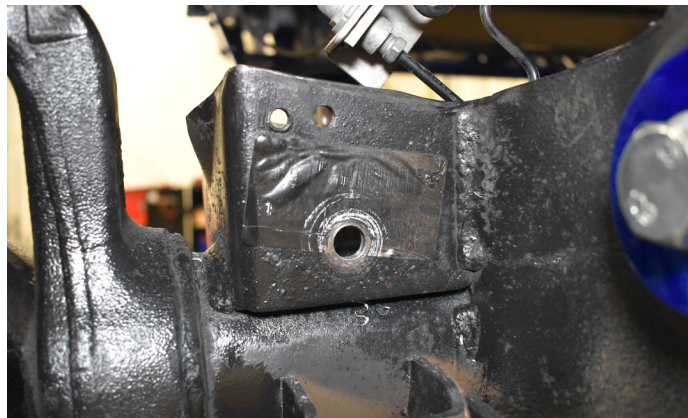
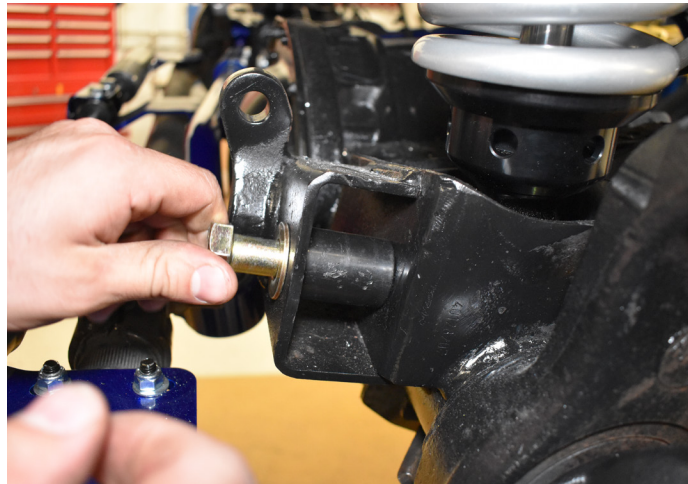


FIGURE 43



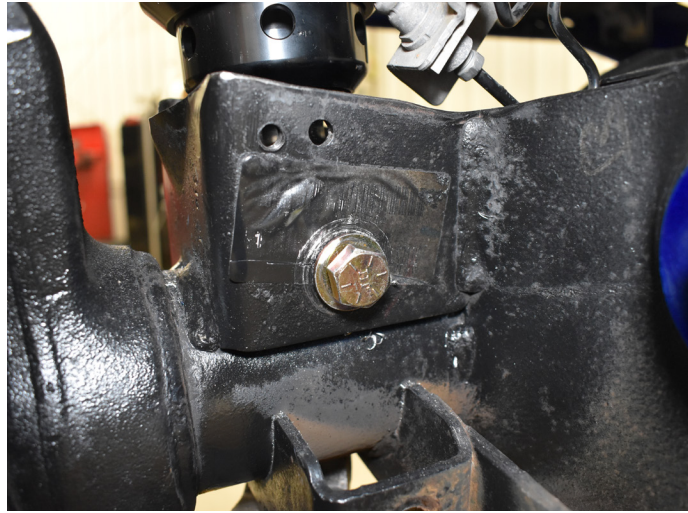
26. Attach the bottom coilover bracket to the lower strut bucket using the 5/8" x 3-1/4" bolt, washer, and sleeve (**1.25" OD x 1.65" Long**) and thread into the weld nut of the lower mount. Do not tighten yet. (**Fig. 43**)

FIGURE 44



27. Attach the coilover bracket on the back side with provided 1/2" x 1-1/4" hex bolt and washer through drilled hole. Torque the 1/2 hardware to 80 ft-lbs. Then torque the 5/8" hardware to 120 ft-lbs. (Fig. 45)

FIGURE 45



28. Install the 2 reservoir brackets to the coil over hat on both the drivers and passenger sides. Use thread locker. 1/4" x 5/8" stainless button head bolts. Torque to 61 in-lbs. (Fig. 46)

FIGURE 46



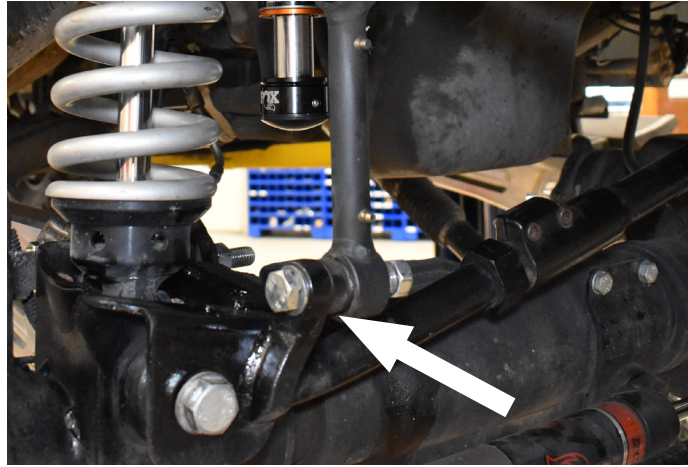
29. Install reservoir to the brackets using the provided clamps and coilovers and rivet on the provided BDS badge. Bolt Pack 887. (Fig. 47)

FIGURE 47



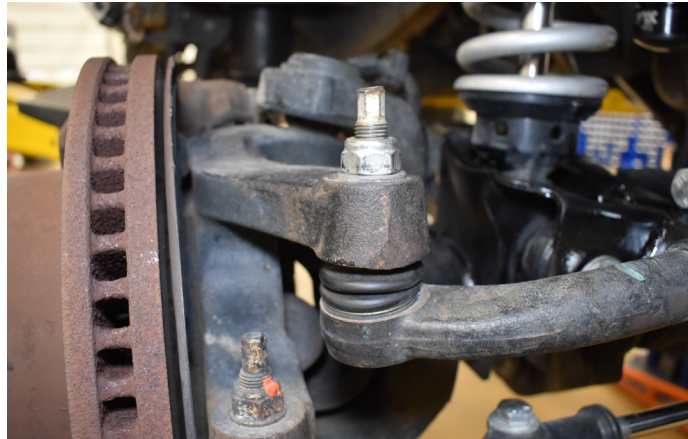
30. Reconnect the sway bar links. (Fig. 48)

FIGURE 48



31. Reattach the tie rod to the knuckle. (Fig. 49)

FIGURE 49



32. Reattach drive shaft to differential. (Fig. 50A, 50B)

FIGURE 50A

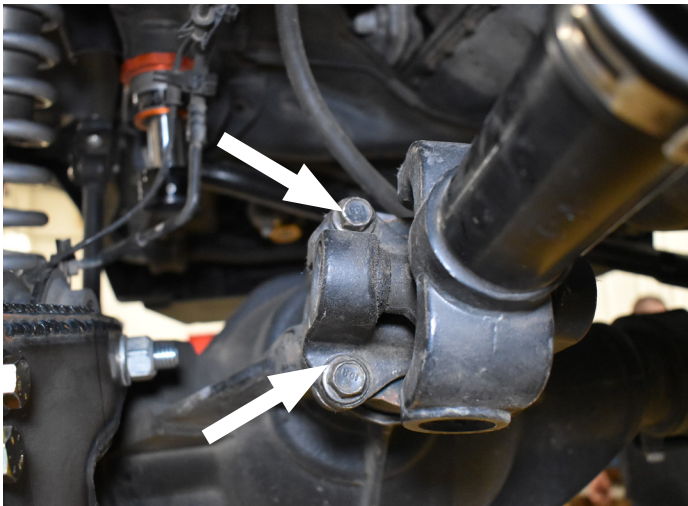
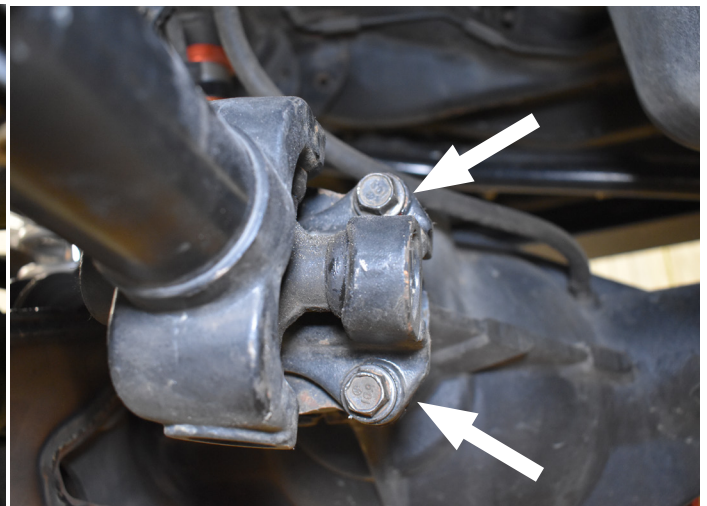


FIGURE 50B



33. Check your aftermarket drive shaft for clearance at the axle at full droop. Depending on lift and aftermarket drive shaft. Some require to be grounded to prevent contact. Mark the points where contact occurs, disconnect the drive shaft and using either a die grinder or grinding wheel clearance the drive shaft yoke. Re-attach the drive shaft to the front axle and verify clearance. If clearance is good loc-tite the bolts and torque to 85 ft-lbs. (Fig. 51A, 51B, 51C, 51D)

FIGURE 51A

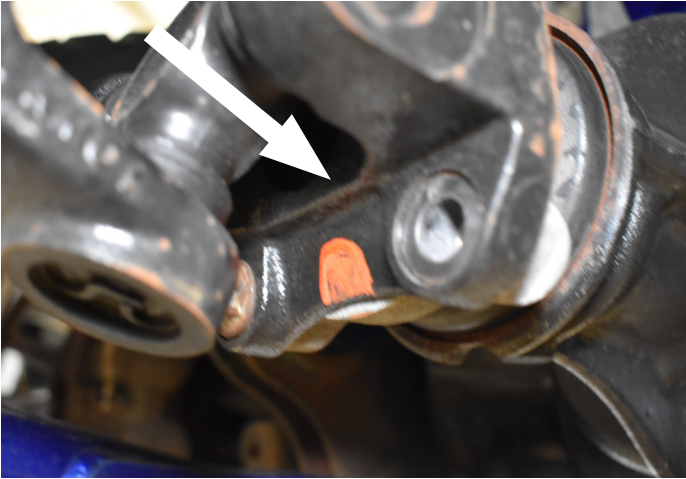


FIGURE 51B



FIGURE 51C



FIGURE 51D



34. Reattach the brake line brackets. (Fig. 51A, 51B)

FIGURE 52A



FIGURE 51B



35. Continue with the main front instructions.
36. Once complete and on the ground. Torque the axle track bar bolt to 285 ft-lbs. and the driver side 5/8" lower coilover bolt to 127 ft-lbs.
37. A front end alignment is recommended.
38. Check all hardware after 500 miles.



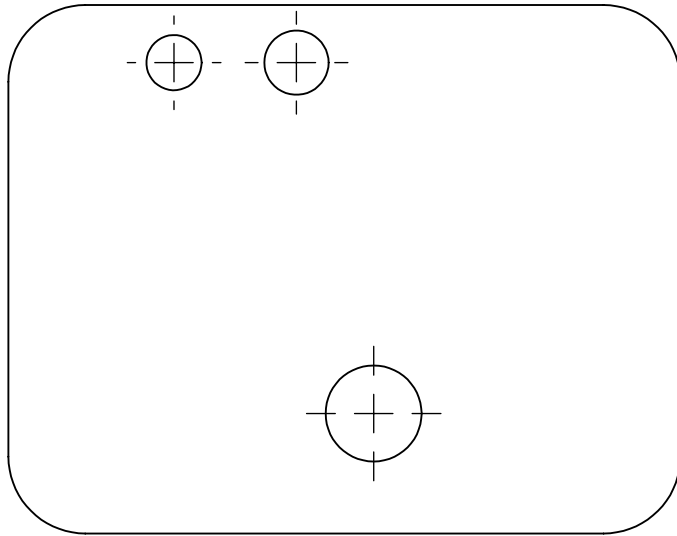
WE WANT TO SEE YOUR RIDE!

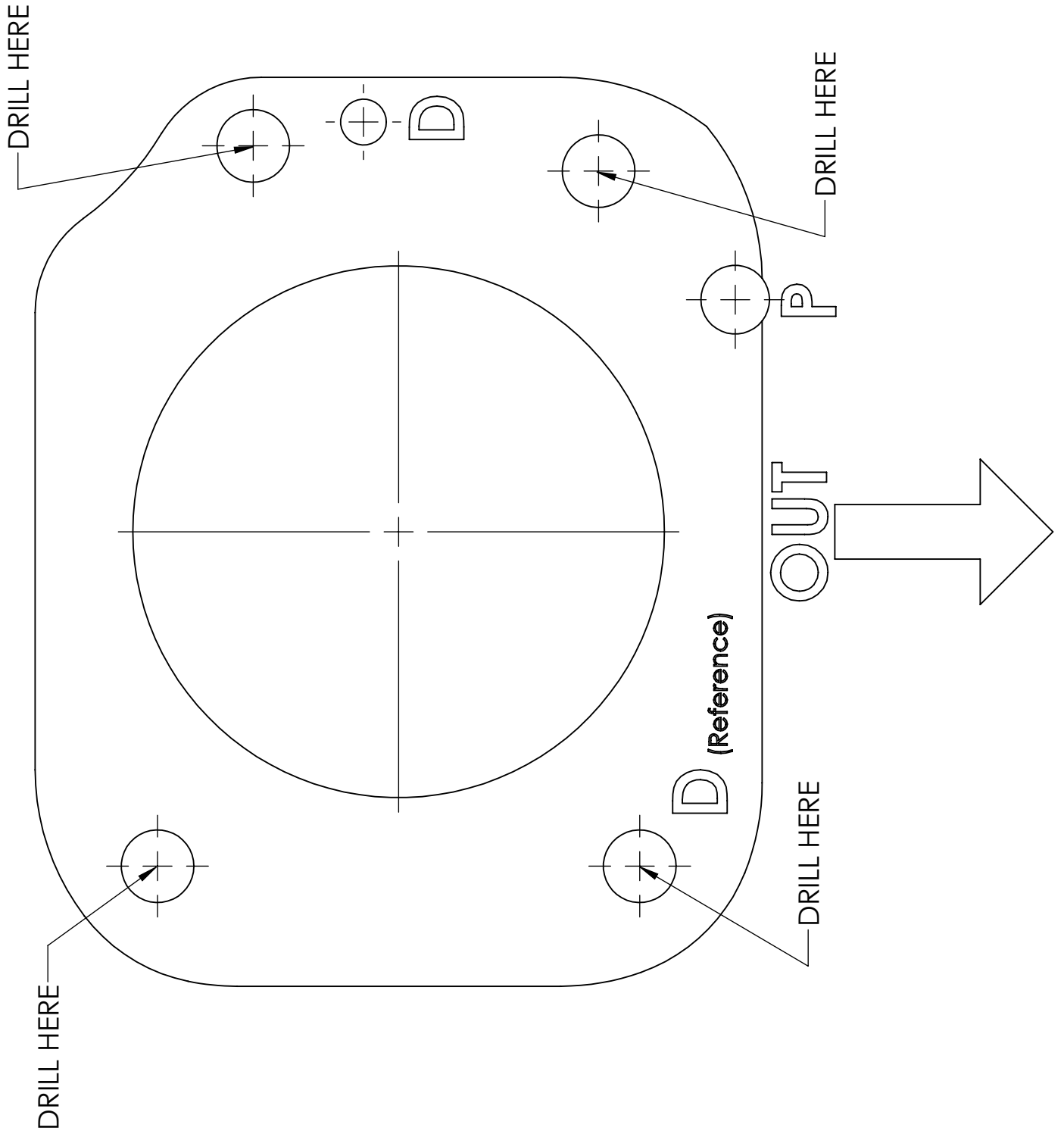
Grab photos of your BDS-equipped truck in action and send them in for a chance to be featured. Send it in to our Bad Ass Rides customer gallery at bds-suspension.com/bar and post them on the BDS Fan Page on Facebook at facebook.com/BDSSuspensions. Don't forget about your BDS swag! BDS offers t-shirts,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

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.





INSTALLATION GUIDE



Part#: 122624, 122625, 122626,
122421



HARDCORE LIMITED LIFETIME WARRANTY

Transfer Case Indexing Ring Kit

Dodge 2500 | 2019-23

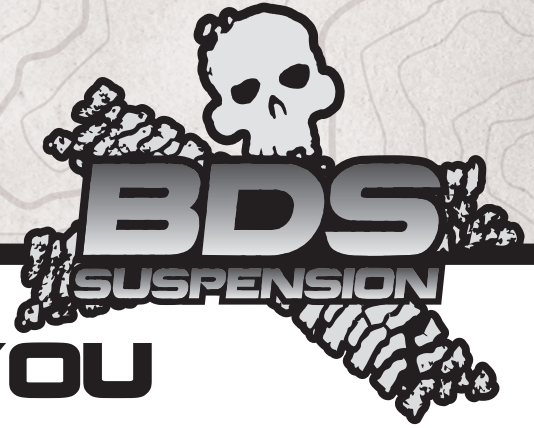
Dodge 3500 | 2019-21

Rev. 090325

491 W. Garfield Ave., Coldwater, MI 49036 • Phone: 517-279-2135

E-mail: tech-bds@ridefox.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.

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.

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 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

Transmission Crossmember Kit

Part #	Qty	Description
03835	1	2019 Dodge transmission x-member
02489	1	2013 Dodge Transmission mount
02490	6	2013 Dodge Transmission Spacers (1/4" thick)
099000	4	Zip Tie
099002	2	Push-in Zip Tie
944	1	Bolt Pack
487	6	1/2"-13 x 2" bolt, grade 5, yellow zinc
	12	1/2" SAE Washer, yellow zinc
	6	1/2"-13 Prevailing torque nut, yellow zinc
	1	Bolt Pack (Diesel Only)
	1	5/8"-11 x 8" Bolt, grade 8, yellow zinc
496	2	5/8" SAE Washer, yellow zinc
	1	5/8"-11 Prevailing torque nut, yellow zinc
	1	Bolt Pack
	1	Hose Clip
	1	6mm-1.00 Prevailing Torque Nut, Clear Zinc
	1	1/4" SAE Washer, Clear Zinc

Indexing Ring

Part #	Qty	Description
A349	1	Indexing Ring Assembly (6-Bolt Only)
A351	1	Indexing Ring Assembly (8-Bolt Only)
03815	1	Transmission Output Spacer (8-Bolt Only)
UIS64x78x8	1	Output Seal (8-Bolt Only)
342701	1	Thread locker
950	1	Bolt Pack (6-Bolt Only)
	6	10mm-1.50 x 30mm FHSCS (flat head socket cap screw)
	6	3/8"-24 hex nut
	6	3/8" NAS Spec. Washer
486	1	Bolt Pack (8-Bolt Only)
	8	10mm-1.50 x 30mm FHSCS (flat head socket cap screw)
	8	3/8"-24 hex Nut
	8	3/8" NAS Spec. Washer
357	1	Bolt Pack (Gas Only)
	8	8mm-1.25 x 60mm, Class 8.8, Clear Zinc
	8	5/6" SAE Washer, Clear Zinc
159	8	Air Tank Spacer
124	4	Power Hop Damper Spacer (122626 Only)
695	1	Bolt Pack (122626 Only)
	4	10mm-1.50 x 50mm Bolt, Class 10.9, Clear Zinc
	4	10mm Washer, Clear Zinc

TROUBLESHOOTING INFORMATION FOR YOUR VEHICLE

- BDS Suspension recommends upgrading the transmission output shaft on vehicles with larger tires that will see heavy loads from other upgrades such as gearing, or performance tunes especially in high payload, heavy towing, or competition pulling applications.
- Index ring alone may not eliminate all front driveline vibrations, caster cams at the axle may need to be adjusted to eliminated 4wd vibrations in rare circumstances.
- Does not work with manual shift transfer cases.
- DO NOT USE FILL PORT FOR FLUID LEVEL ON AN INDEXED TRANSFER CASE. THE FILL PORT WILL BE LOWER THAN OE FILL LEVEL HEIGHT:** If any maintenance requiring fluid change or refill has or is being done, before reinstalling transfer case check fluid levels on bench and fill transfer case with manufacturer recommended volume of fluid.

**TECH
TIPS**

INSTALLATION INSTRUCTIONS

PRE INSTALLATION NOTES:

-A 8" lift Kit requires an aftermarket high angle front drive shaft. The after market drive shaft and provided indexing ring kit BDS122421 (8-bolt) or BDS122624 (6-bolt) must both be installed. It is recommended to install the full kit then measure for the aftermarket front driveshaft to ensure you order the right length. The kit was tested with a Drive Line Plus flange and driveshaft.

SPECIAL TOOLS

Transmission jack is highly recommended
CV Style Clamp Pliers

IMPORTANT NOTES:

1. Dually with 8-bolt Transmission (Aisin), require BDS122409 Def Relocation Kit
2. Mega Cab's with 8-bolt Transmission (Aisin), require BDS122409 Def Relocation Kit
3. Vehicles equipped with a Manual T-case requires BDS122423 Manual transfer case shifter extension

INSTALLATION INSTRUCTIONS



Tip (8-Bolt Only) The transmission output seal is replaced with a seal available from BDS (UIS64x78x8), and is included in the kit. Do not try to reuse a seal. OE seal (6822 4227)



Tip (Gas Models Only) Gas models will require extensive exhaust modification. This can be done after installation of the kit. But the front drive shaft will be required to be left out for the drive to the exhaust shop.

1. Park vehicle on clean, flat, and level surface. Block the rear wheels for safety.
2. Remove the transfer case skid plate if equipped, it will not be reinstalled.
3. Remove the rear driveshaft, retain hardware. Disconnect the front driveshaft from the transfer case. It will be necessary to remove the forward most clamp on the front drive shaft boot to access the retaining clip to slide the front drive shaft off. Replacement clamps are provided (Fig 1a, 1b, 1c)

FIGURE 1A

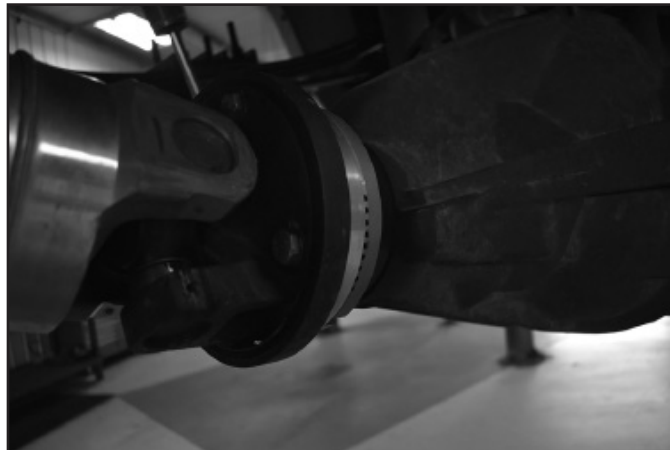


FIGURE 1B



FIGURE 1C



4. Disconnect the wire harness that controls the transfer case in preparation for removing the transfer case. (Fig 2b)
5. (Diesel Models Only) To make removing the transfer case easier. Support the DEF Tank cross member with a jack. Remove the 2 exhaust mount bolts that are on the top of the DEF crossmember. Remove all 6 bolts supporting the cross member to the frame. Lower the cross-member where the top bolt holes lines up with the lower hole on the frame. Reinsert a bolt into each mount to support the DEF Tank. (Fig 2a)

FIGURE 2A

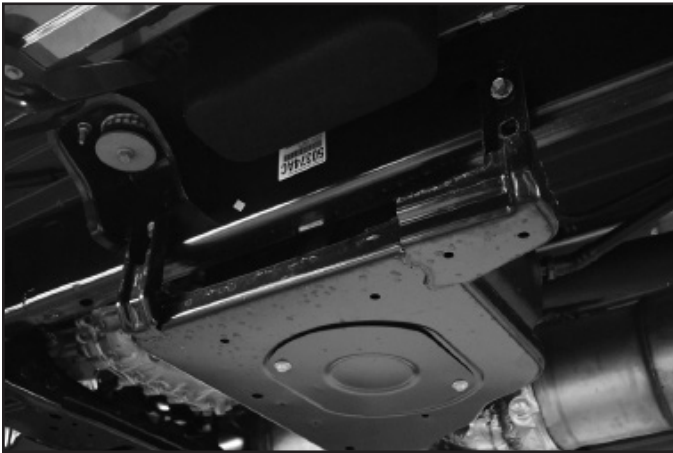
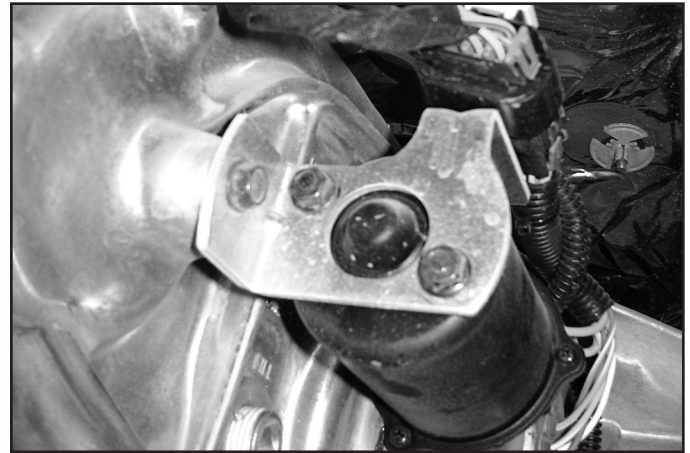
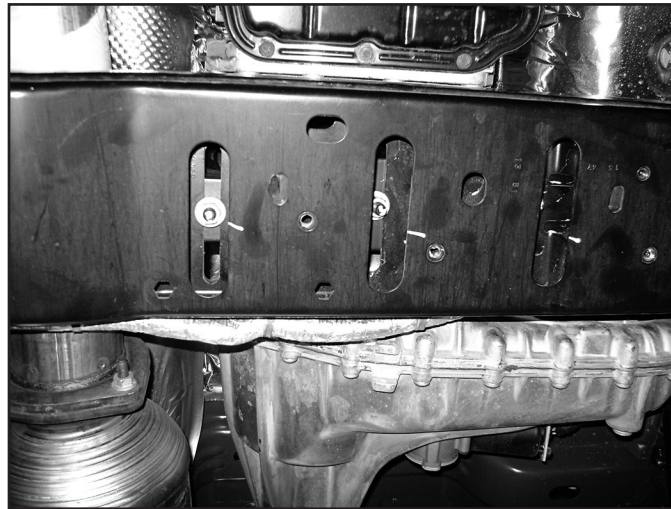


FIGURE 2B



6. Remove the 3 nuts that hold the transmission mount to the transmission crossmember. (Fig 3)

FIGURE 3



7. Diesel Models Only: Loosen the inner bolt on the passenger side for the transmission crossmember. Cut the Head off of the bolt so the bolt can be removed without removing the exhaust. Replacement hardware is provided. (Fig 4)

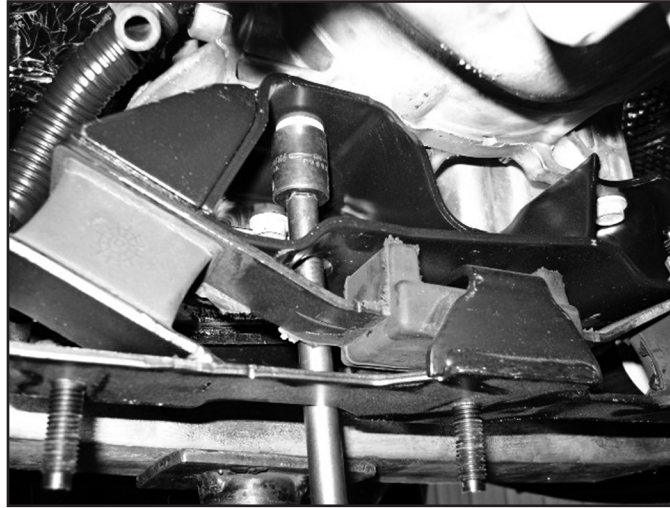
FIGURE 4



8. With the transmission well supported with a jack, remove the transmission crossmember and retain hardware.
9. If necessary to access the transfer case bolts, remove the transmission mount from the transmission. If equipped with a manual t-case & gas

engine the transmission mount must be removed. (Fig 5)

FIGURE 5



10. Remove the 6 or 8 nuts that hold the transfer case to the transmission and remove the transfer case from the vehicle. Use extra caution as the transfer case is very heavy.

Note: Do NOT remove the transmission output seal on a 6-Bolt!

ON 8-BOLT AISIN ONLY:

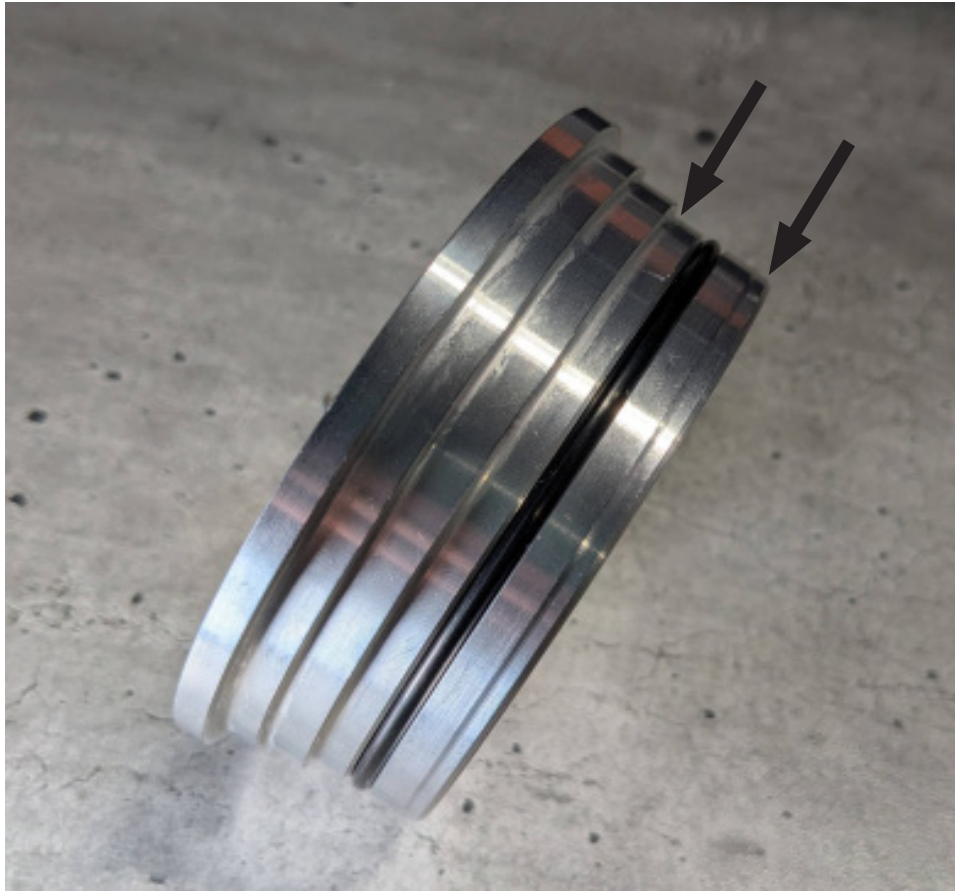
11. Install supplied seal into the seal adapter. Apply provided grease (P/N: 45NA53) to between wipers on the T-Case shaft seal (P/N: UIS63X75X9) as shown on Figure 6A

FIGURE 6A



12. Install O-Ring (P/N: 9452K157) into groove on the seal adapter as shown in **Figure 6B**. Lubricate o-ring and the surface above and below the o-ring as indicated by the arrows in **Figure 6C**, before installing in transmission tail housing.

FIGURE 6B



13. Install the seal adapter into the transmission tail housing. **Figure 6C**

FIGURE 6C



14. Remove the studs on the transfer case by double nutting the studs. Place new indexing ring up to the transfer case. Attach with the provided 10mm flat head allen bolts.

Note there is a specific orientation on the 6-Bolt and the indexing ring will need to be rotated to get the proper hole alignment. (Figure 7a, 7b) Index Ring hardware is located in bolt pack 950 (6-bolt) or 486 (8-bolt). If installing an 8 bolt indexing ring skip to step 17.

FIGURE 7A



FIGURE 7B

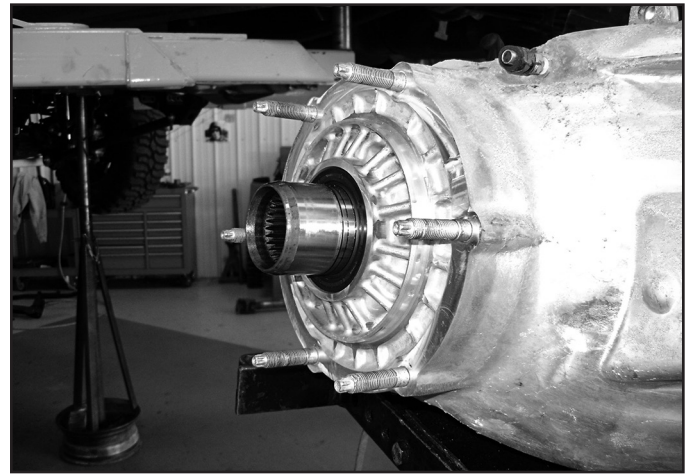
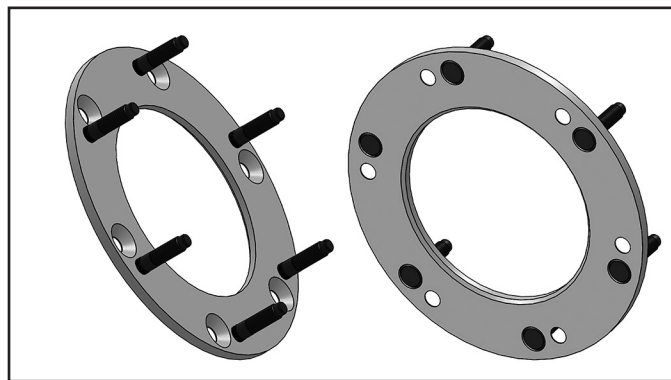


FIGURE 7C



15. Reinstall the transfer case and tighten with 3/8" fine thread nuts with washers. Thread locker and tighten to 45 ft-lbs.

Note: This torque applies with the thread locker still slightly damp and acting as a lubricant. The max recommended torque is 55 ft-lbs when rechecking hardware.

FOLLOW STEPS 16 THROUGH 18 FOR 8 BOLT INDEXING RING INSTALLATION

16. Use the holes as indicated in Figure 7C to install the bolts as shown in Figure 7D.

FIGURE 7C

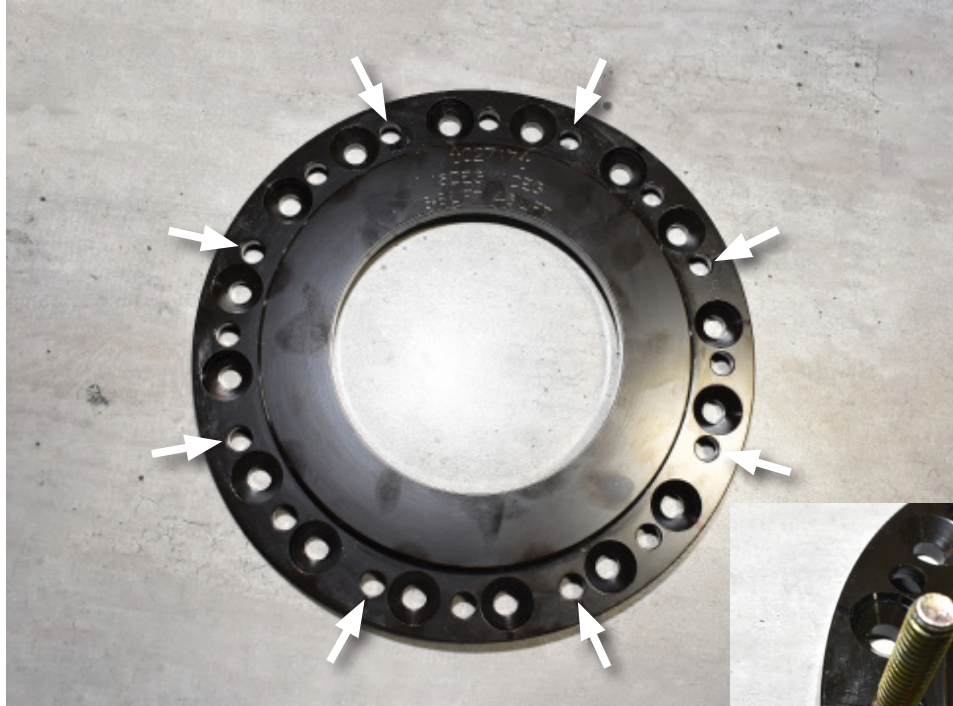
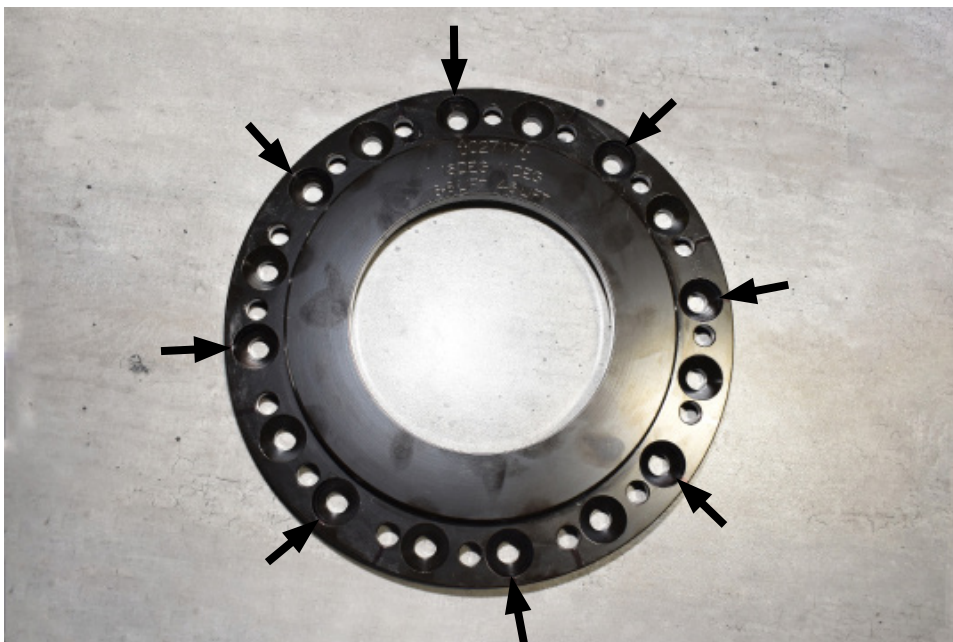


FIGURE 7D



17. Using the 15 Degree holes, Follow the correct bolt hole usage as shown in Figure 7E to connect the indexing ring to the transfer case using the provided flat head Allen bolts. "DO NOT USE 11 DEGREE HOLES"

FIGURE 7E



18. Use the 8 nylock nuts and 8 washers as shown in Figure 7F. to connect the t-case to the transmission.

FIGURE 7F



19. Disconnect the wire harness on the frame rail, reroute the wires to the transmission / transfer case above the front driveshaft. Use the provided Zip Ties and 6mm nut, 1/4" washer, with hose clip and fasten the harness to one of the heat shield studs under the body. Ensure that the harness is secure and won't touch exhaust or drive shafts. (Fig 8) Wire harness hardware is located in bolt pack 496

FIGURE 8



20. If Installing the Manual T-case Indexing Mount do so at this time by following the provided instructions. Then finish these instructions afterwards.

21. If the transmission mount was removed, reinstall with factory hardware.
22. Use 1/2" hardware in bolt pack 944 to secure the provided crossmember with crossmember transmission mount and 2 spacers in the front and 2 spacers in the rear. The taller end of the crossmember transmission mount will face towards the front of the vehicle. (Fig 9a) Install 1/2" hardware so bolts are facing down and leave loose. Reinstall crossmember into frame with factory hardware. Use the provided hardware to replace the cut bolt (diesel models only). (Fig 9b) Replacement crossmember hardware is located in bolt pack 487. Torque crossmember to frame bolts to 177ft-lbs. You can now tighten the 1/2" hardware.

FIGURE 9A

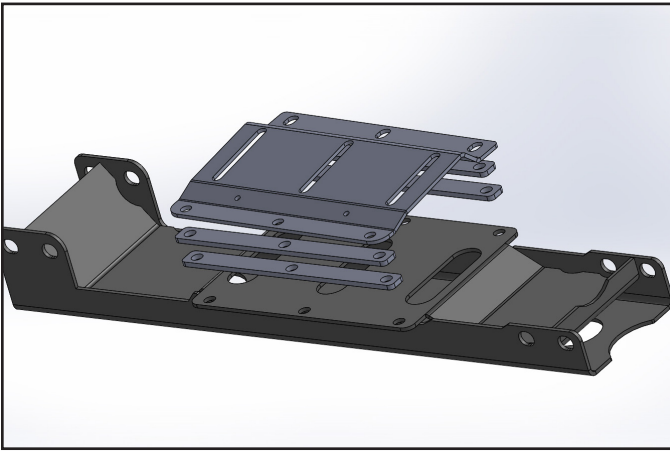
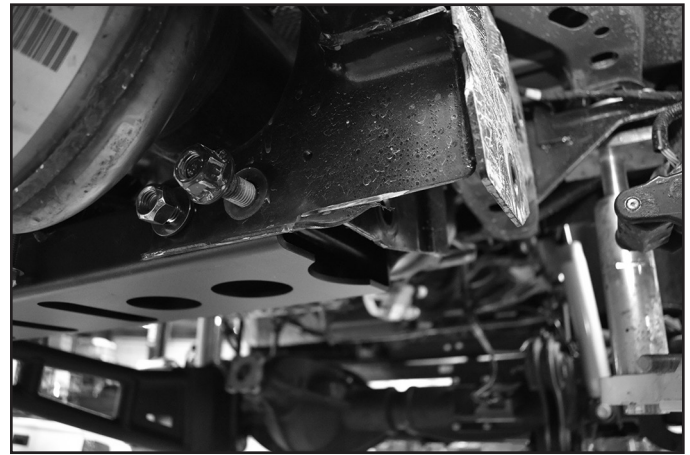


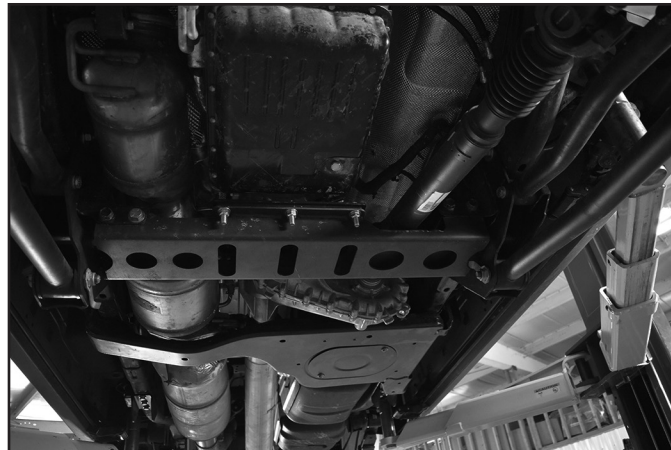
FIGURE 9B



23. Lower the transmission and bolt the transmission to the new crossmember with factory hardware, Torque to 45 ft-lbs. Torque the 1/2" hardware for the crossmember transmission mount and crossmember to 90 ft-lbs.
24. Reattach the front driveshaft to the Transfer case, new clamps are provided for the boot. Reattach the front drive shaft to the axle with OE hardware and thread locker, torque to 85ft-lbs. Rotate the front drive shaft to ensure it spins freely and clears exhaust and crossmember **Use the provided boot clamps to re secure the drive shaft boot. (Fig 10)**

NOTE: Gas Models Only: If you have not modified your exhaust yet you can leave the front drive shaft out of the vehicle to drive to an exhaust shop.

FIGURE 10



25. Reinstall rear driveshaft with factory hardware with Thread locker on threads. Tighten to 81 ft-lbs.
26. Re-support the DEF crossmember with a jack and remove the 3 bolts supporting it. Lift it back into the original position and bolt it into place with factory hardware, Torque to 35 ft-lbs. Bolt the exhaust mount back to the crossmember with factory hardware.
27. Recheck all hardware for proper torque. Check again after 500 miles and at regularly scheduled maintenance intervals.

REAR POWER HOP DAMPER

28. If your vehicle is equipped with a rear power hop damper and installing BDS012459 4.5" rear box kit. Reattach the rear power hop damper to the top of the rear axle housing with the 4 provided spacer sleeves (124) and 10mm bolts and washers from bolt pack 695 (Fig 11). Torque Bolts to 48 ft-lbs.

FIGURE 11



29. Recheck all hardware for proper torque. Check again after 500 miles and at regularly scheduled maintenance intervals.



WE WANT TO SEE YOUR RIDE!

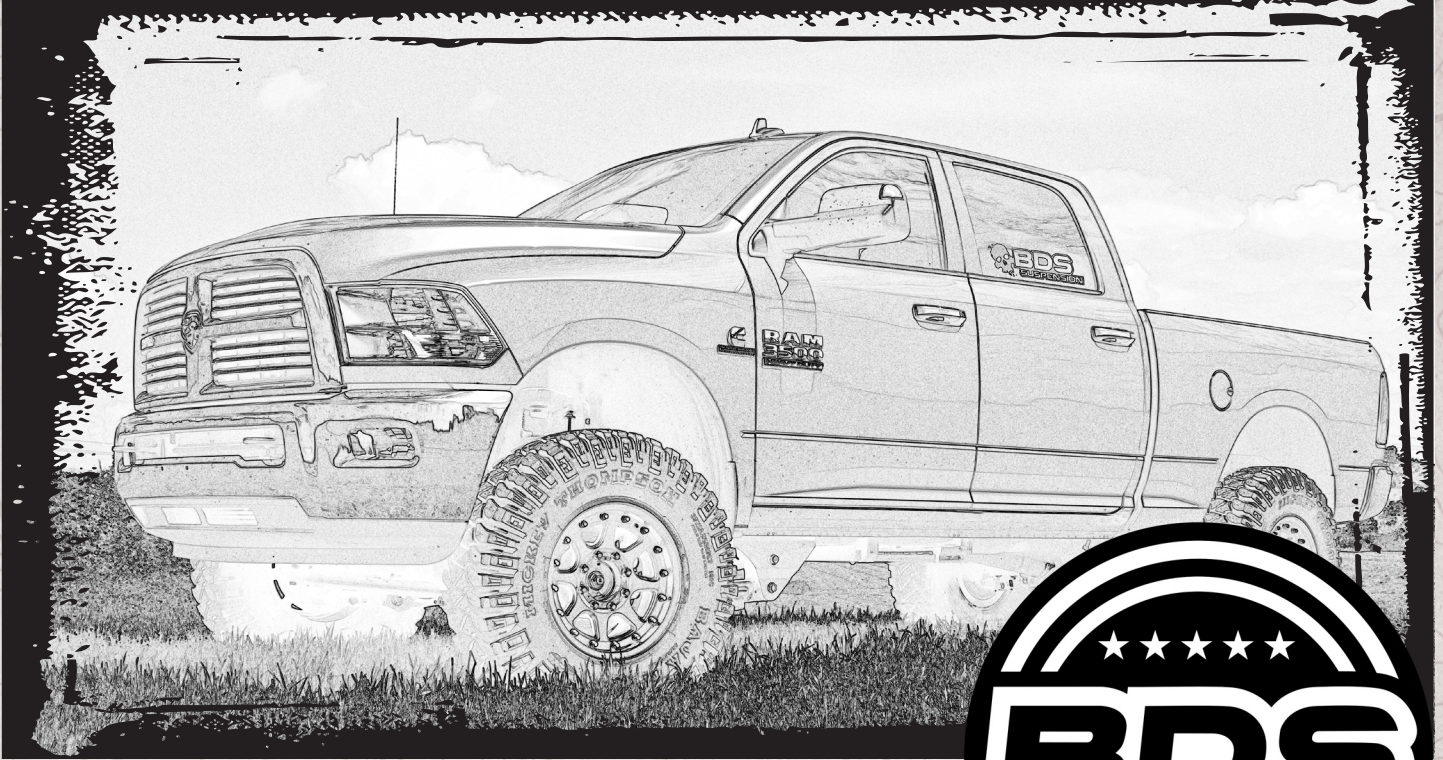
Grab photos of your BDS-equipped truck in action and send them in for a chance to be featured. Send it in to our Bad Ass Rides customer gallery at bds-suspension.com/bar and post them on the BDS Fan Page on Facebook at facebook.com/BDSSuspensions. Don't forget about your BDS swag! BDS offers t-shirts,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

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.

INSTALLATION GUIDE



Part#: 122813



HARDCORE LIMITED LIFETIME WARRANTY

8 Bolt Transfer Case Indexing Ring Kit

Dodge 2500 | 2014-18

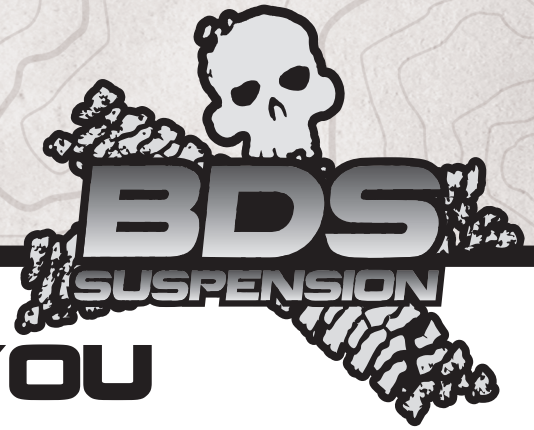
Dodge 3500 | 2013-18

Rev. 090325

491 W. Garfield Ave., Coldwater, MI 49036 • Phone: 517-279-2135

Web/live chat: www.bds-suspension.com • E-mail: tech-bds@ridefox.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 for more information.

BEFORE YOU DRIVE

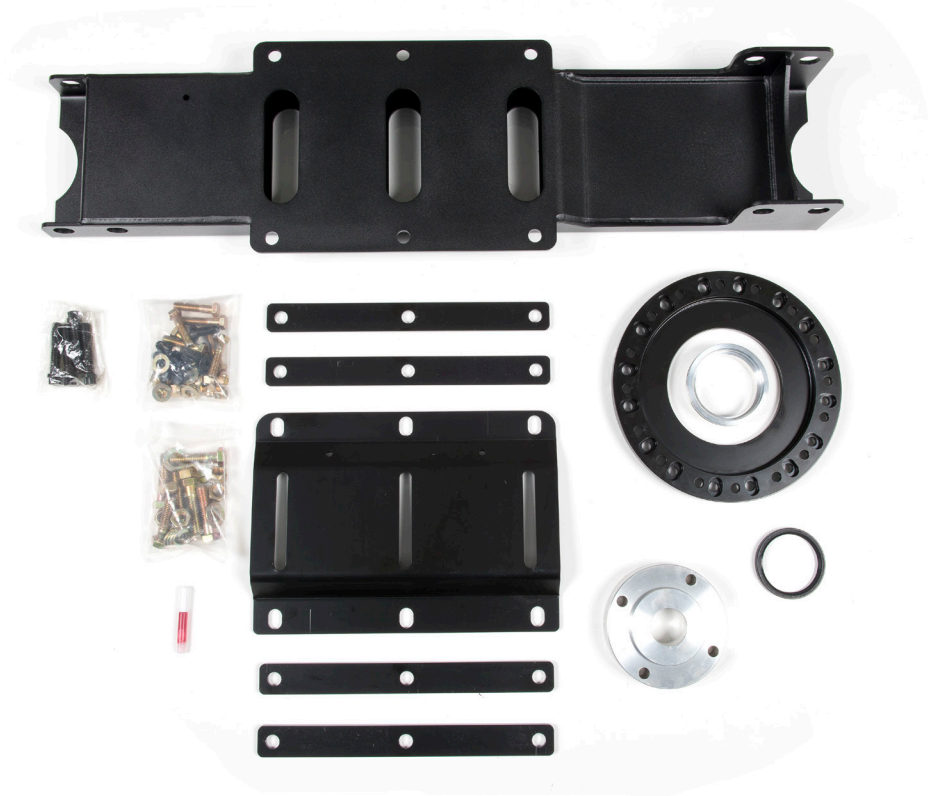
Check all fasteners for proper torque. Check to ensure for adequate clearance between all rotating, mobile, fixed, and heated members. Verify clearance between exhaust and brake lines, fuel lines, fuel tank, floor boards and wiring harness. Check steering gear for clearance. Test and inspect brake system.

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
02717	1	Dual Drilled Indexing Ring - Aisin Transmission
UIS63x75x9	1	Transmission Output Seal
02718	1	Transmission Output Seal Extension
02488	1	transmission x-member
02489	1	transmission mount
02490	4	trans mount spacers
02296	1	front driveshaft spacer
099000	4	zip tie
099002	2	x-mas tree zip tie
Thread locker	1	Thread Locker
947	1	Bolt Pack - Aisin Transmission
	8	10mm-1.50 x 30mm flat head allen bolts
	8	3/8"-16 x 1-3/4" bolt
	8	3/8"-16 Nylock Nut
	8	3/8" SAE Washer
944	1	Bolt pack - transmission x-member
	6	1/2"-13 x 2" bolt
	12	1/2" SAE Washer
	6	1/2"-13 Prevailing torque nut
932	1	Bolt pack - front driveshaft spacer
	4	7/16"-14 x 2-1/4" 12 point - flanged head bolt


TROUBLESHOOTING INFORMATION FOR YOUR VEHICLE

TECH TIPS

1. BDS Suspension recommends upgrading the transmission output shaft on vehicles with larger tires that will see heavy loads from other upgrades such as gearing, or performance tunes especially in high payload, heavy towing, or competition pulling applications.
2. The front driveshaft dual cardan may need clearanced on vehicles with a large amount of lift. Use a rotary grinding with carbide bit to eliminate any possible interference.
3. Cannot be used on 6-bolt t-case models.
4. **DO NOT USE FILL PORT FOR FLUID LEVEL ON AN INDEXED TRANSFER CASE. THE FILL PORT WILL BE LOWER THAN OE FILL LEVEL HEIGHT:** If any maintenance requiring fluid change or refill has or is being done, before reinstalling transfer case check fluid levels on bench and fill transfer case with manufacturer recommended volume of fluid.

INSTALLATION INSTRUCTIONS

INSTALLATION INSTRUCTIONS

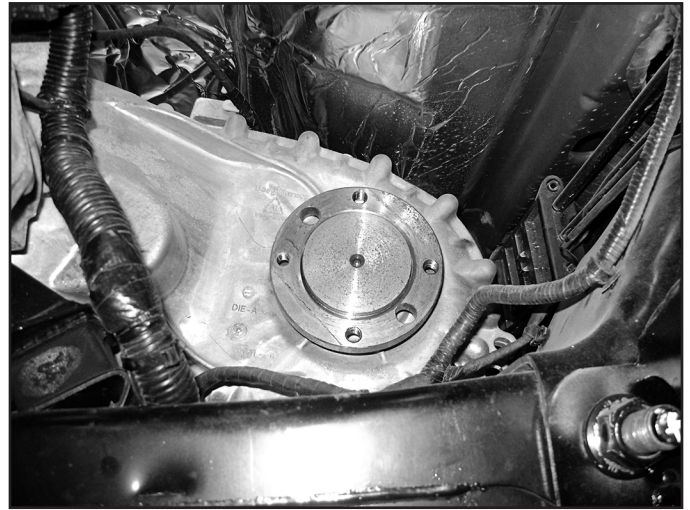
 **Tip** *The transmission output seal is replaced with a specific seal only available from BDS, and is included in the kit. The factory seal will not work in the seal adaptor.*

1. Park vehicle on clean, flat, and level surface. Block the rear wheels for safety.
2. Remove the transfer case skid plate if equipped, it will not be reinstalled.
3. Remove the rear driveshaft, retain hardware. Disconnect the front driveshaft from the transfer case. (Fig 1a, 1b)

FIGURE 1A



FIGURE 1B



4. Disconnect the wire harness that controls the transfer case. (Fig 2a, 2b)

FIGURE 2A

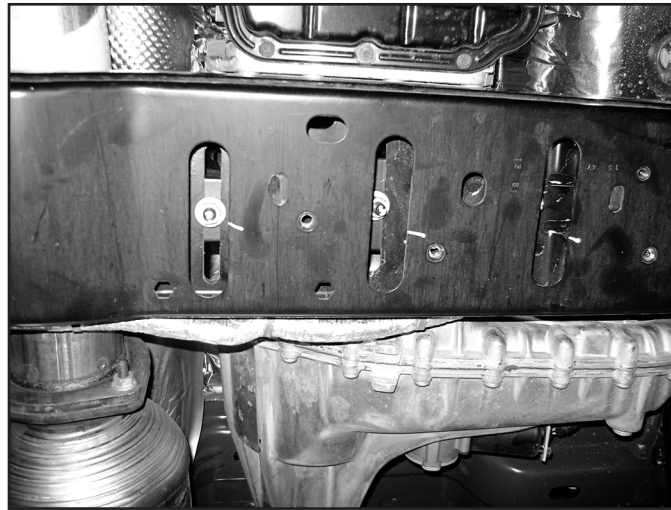


FIGURE 2B



5. Disconnect the breather vent tube from the top of the transfer case.
6. Remove the 3 nuts that hold the transmission mount to the transmission crossmember. (Fig 3)

FIGURE 3



7. Support the transmission with a jack.
8. Remove the transmission crossmember and retain hardware.
9. Remove the mounting brackets that hold the transmission to the crossmember to access all of the transfer case mounting nuts.
10. Manual shift transfer cases: Disconnect the shift linkage from the transfer case, retain all hardware.
11. Remove the 8 nuts that hold the transfer case to the transmission and remove the transfer case from the vehicle. Use extra caution as the transfer case is very heavy.
12. Remove the factory transmission output seal. Install seal into seal adaptor. ***IMPORTANT* Lightly grease the new seal *IMPORTANT***. Install seal adaptor with new seal into the transmission output housing. (Fig 4a, 4b)

FIGURE 4A



FIGURE 4B



13. Remove the 8 studs by double nutting the studs. Place new indexing ring up to the transfer case. There are 2 sets of holes. Use the small spacing (11 degrees) for 6" and smaller kits, larger lift heights will use the large gap (15 degrees). Install the 3/8" bolts into the transfer case into the correct set of holes. Attach with 10mm flat head allen bolts. Figure 5b shows the indexing ring with only one set of holes, use correct indexing based on lift height. It is recommended to use the least amount possible for the application, the indexing ring is labeled on which holes to use. (Fig 5a, 5b, 5c, 5d)

FIGURE 5A

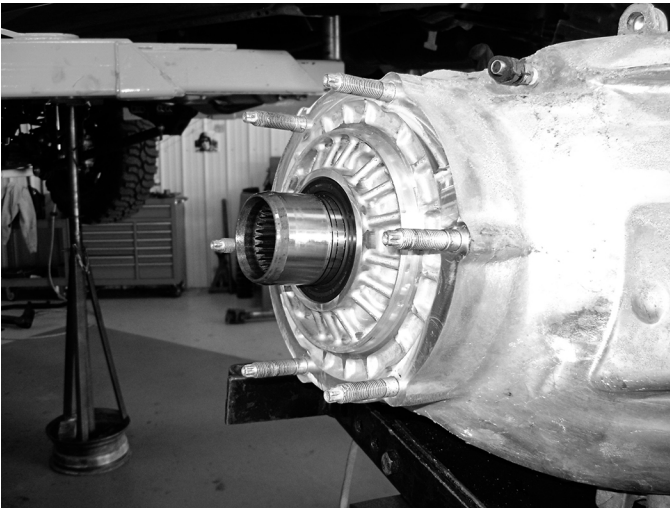


FIGURE 5B

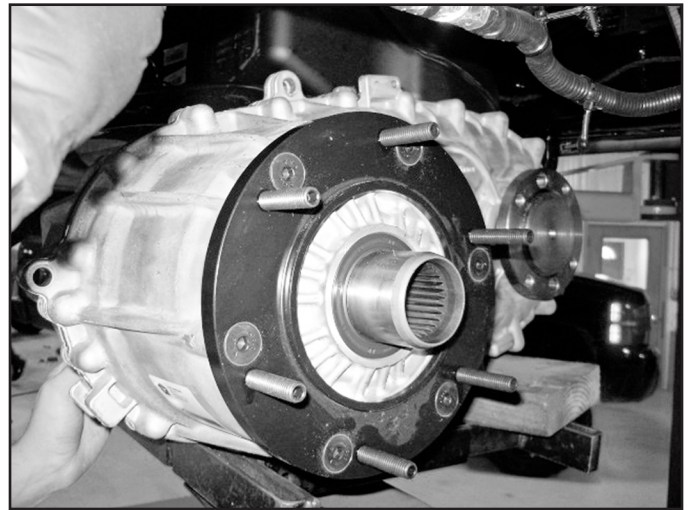


FIGURE 5C



FIGURE 5D




14. Reinstall the transfer case and tighten with 3/8" nylock nuts with washers. Tighten to 35 ft-lbs.
15. Disconnect the wire harness on the frame rail, reroute the wires to the transmission / transfer case above the front driveshaft. (Fig 6a, 6b)

FIGURE 6A



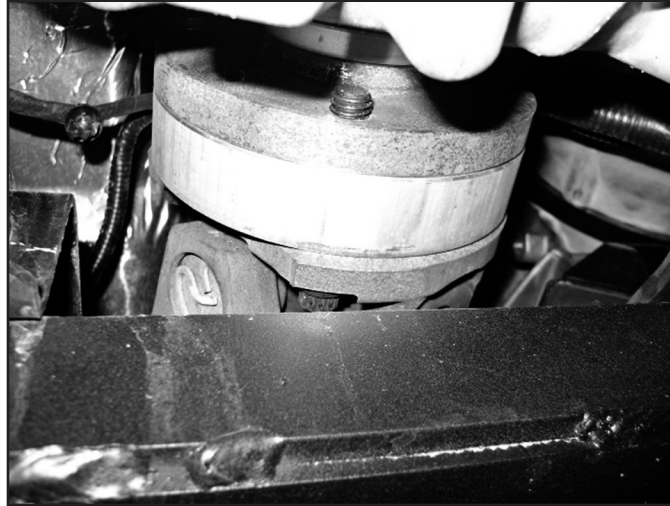
FIGURE 6B



 **Tip** Before hooking up the front driveshaft, now is a great time to grease the nearly impossible to access grease fitting on the front dual cardan joint. A needle adaptor on a grease gun is required. This fitting is required to be serviced at every oil change interval. Ensure that this maintenance is not skipped!

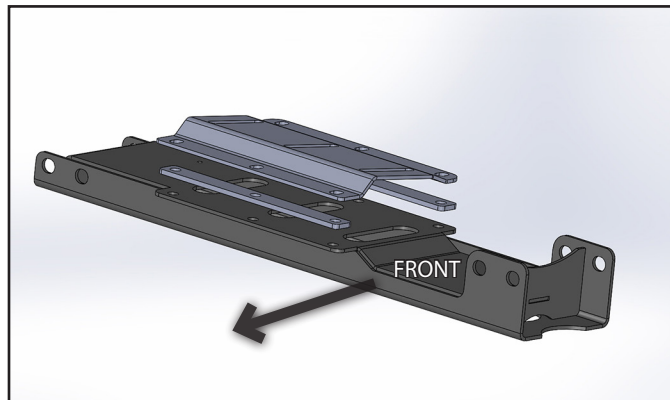
16. Reattach the front driveshaft with driveshaft spacer to the transfer case with new 7/16" hardware with thread locker on the threads. Tighten to 75 ft-lbs. (Fig 7)

FIGURE 7



17. Reinstall the transmission mount with factory hardware.
18. Loosely install new base with the factory nuts (3 plc), the taller end of the bracket will face towards the front of the vehicle. (Fig 8)

FIGURE 8



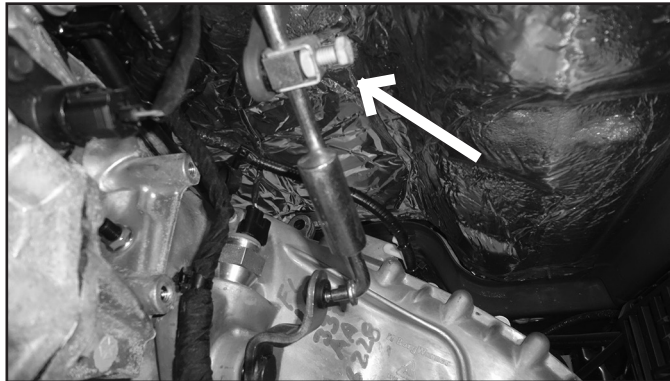
19. Install new crossmember with factory bolts. If this installation is combined with a BDS 4-link kit the nuts will not be put on at this time, and will need to be installed with the 4-link brackets. Otherwise tighten to 150 ft-lbs.
20. There are spacers included with this kit to shim the height of the mount. It is recommended to start with two stacked for 6" kits, adjustments may need to be made if driveline issues become present. Attach the bracket to crossmember with 1/2" hardware (6 places). Lower transmission to the mount and tighten the (3) nuts to 35 ft-lbs, 1/2" hardware 65 ft-lbs. (Fig 9)

FIGURE 9



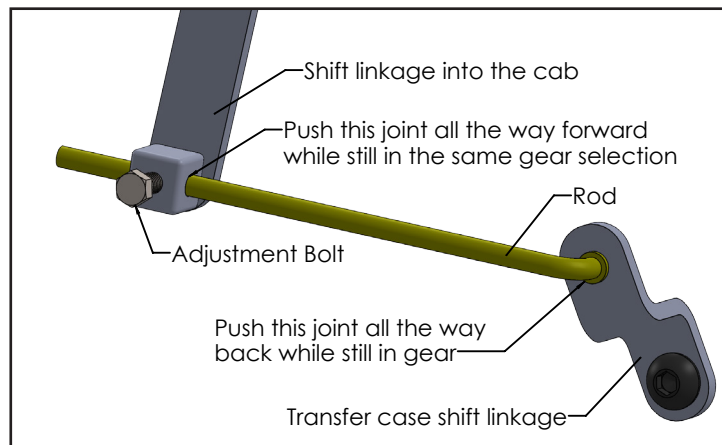
21. Attach the wiring to the transmission crossmember with christmas tree zip ties and secure wires with the other zip ties to retain all wires to keep them clear of any rotating parts or exhaust..
22. Manual Shift Transfer Case: Reconnect the shift linkage to the transfer case. The adjuster may need to be loosened to allow the shift lever to rotate and line up with the linkage on the transfer case (Fig 9A). Additional adjustment may be necessary to get proper engagement in all gear ranges.

FIGURE 10



23. When adjusting the shift linkage, it is best to keep the shift linkage in 2wd. Loosen the bolt attaching the rod to the shifter lever going into the cab of the truck (Fig. 9B).
24. Push the transfer case shifter linkage towards the back of the truck, making sure it is still in the correct position (2wd). Next push the shifter linkage going into the cab all the way forward while still making sure it is reading the correct position in the cab (2wd). Tighten the shifter linkage bolt to tighten down the shifter linkage to the rod connecting to the transfer case shifter linkage (Fig 9B). Additional adjustment may be necessary to get proper engagement in all gear ranges.

FIGURE 11



25. Reinstall rear driveshaft with factory hardware with thread locker on threads. Tighten to 75 ft-lbs.
26. Recheck all hardware for proper torque. Check again after 500 miles and at regularly scheduled maintenance intervals.



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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 and post them on the BDS Fan Page on Facebook at 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.

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.