

INSTALLATION GUIDE



Part#: 122321

HARDCORE LIMITED LIFETIME WARRANTY

2"-4" Replacement Radius Arm System

Dodge Ram 3500 | 2013
Dodge Ram 2500 | 2023

Rev. 070224

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

Web: 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.

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.



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.

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 |