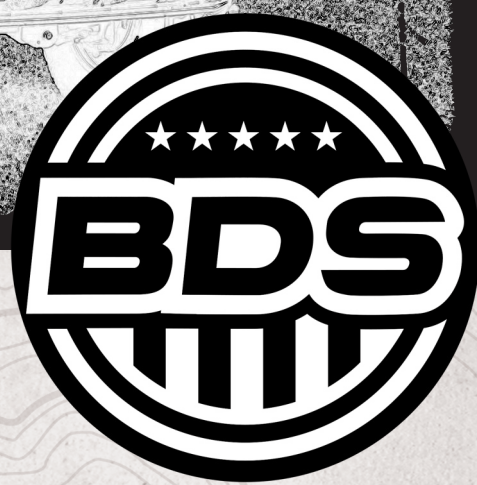


INSTALLATION GUIDE



Part#: 121304



HARDCORE LIMITED LIFETIME WARRANTY

Replacement Upper Control Arm

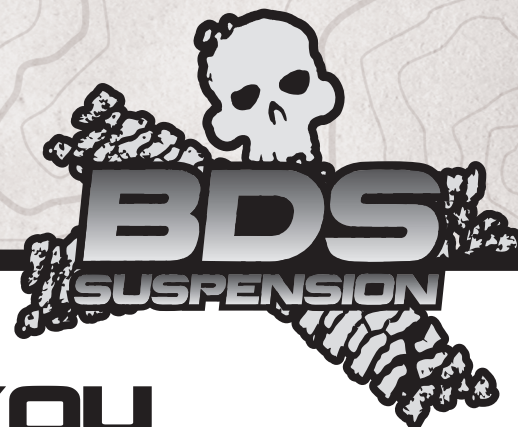
Chevy/GM 2500/3500 HD Pickup 2WD/4WD | 2020-2022

Rev. 050725

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.

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

2-3.5" Kit:

35x12.50 on 17, 18, 20x9 5.5-5.75"BS
295/60 on 20x9 5-5.75" BS
285/65 on 20x9 5-6.18" BS
285/70 on 18x9 5-6.18" BS
285/75 on 17x9 5-6.18" BS

Stock wheels and stock tires can be installed, but are tight to the ball joint cup.

Kits using a replacement steering knuckle follow MFG recommendation for wheel / tire fitment.

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

121304 Upper Control Arm Box Kit		
Part #	Qty	Description
A365	1	2020+ GM 2500 / 3500 HD Control Arm - DRV
03937	1	2020+ GM 2500 / 3500 HD UCA -DRV
02839	2	Bushing
500-1105	1	Ball Joint
BDS222760	1	BDS UCA-Decal
A366	1	2020+ GM 2500 / 3500 HD Control Arm - PASS
03938	1	2020+ GM 2500 / 3500 HD UCA - PASS
02839	2	Bushing
500-1105	1	Ball Joint
BDS222760	1	BDS UCA-Decal
02911	2	Ball Joint Cap
9452K145	2	O Ring

TECH TIPS

1. Disassembly/assembly of the factory torsion bar system requires the use of a special unloading tool. The GM specified tool # is CH48809.
2. Compatible with gas or diesel models as well as standard or AT4 models.
3. Some minor trim will be required with certain wheel/tire combination. This is normal with most aftermarket tire/wheel fitment on Chevy/GM trucks. Trimming will normally included the bottom edge of the inner fender shrouds and/or lower corner of front bumper valance. As a rule of thumb, deeper backspacing and shorter/narrower tires will reduce/eliminate trimming required. Further trimming tips are included at the end of this instruction sheet.
4. For replacement ball joints use service kit BDS081203. Ball joint is directional and must be installed with the 'dot' facing either inward or outward on the vehicle, otherwise damage may occur.

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.**

INSTALLATION INSTRUCTIONS

FRONT INSTALLATION

SPECIAL TOOLS

Torsion Bar Unloading tool (see Pre-Installation Note #1)

1. Park the vehicle on a flat, clean surface and block the rear wheels for safety.
2. Raise the front of the vehicle and support with jack stands under the frame rails.
3. Remove the wheels.
4. Measure and record the length of the exposed thread on the torsion bar adjuster bolts (Fig. 1). Record the lengths here for use later during the installation

DRV Side: _____ PASS Side: _____

FIGURE 1



5. Unload the torsion bars but do not remove. Remove and save adjuster bolt/retainer block.



Tip

Torsion bars are under extreme pressure. A proper torsion bar tool is necessary to unload the bars. A tool designed specifically for GM torsion bars is required see troubleshooting note #2.

6. Mark the unloaded torsion bars to indicate DRV side and PASS side. Also mark the bars to indicate front versus rear. (Fig. 2)

FIGURE 2



UPPER CONTROL ARM INSTALLATION

- Optional: Remove the upper shock nuts and lower shock bolt. Remove shocks from vehicle.
- Remove the upper ball joint nut, reinstall a couple of turns. Hit the side of the knuckle to dislodge the upper ball joint from the steering knuckle. Remove the factory upper control arm from the vehicle. (Figure 3A, 3B)

FIGURE 3A



FIGURE 3B



- For additional UCA droop clearance it is required to remove the top part of the droop limiter. Measure down approximately 1/2" and mark around the top of the droop limiter above the brake line bracket as shown in Figure 4A. Disconnect brake line bracket. Cut off with a sawzall or cut off wheel. (Fig. 4B) Clean up edges and coat with paint.

FIGURE 4A



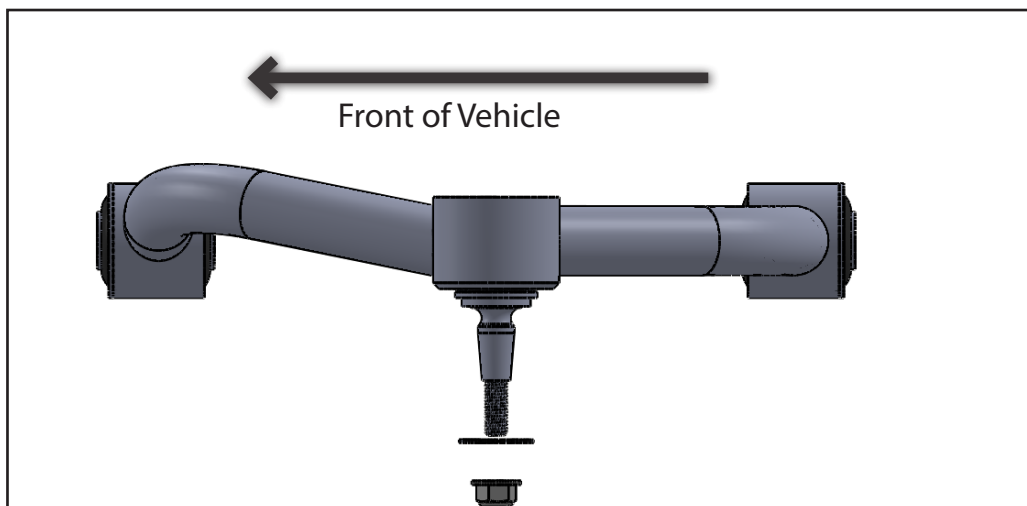
FIGURE 4B



- Install new upper control arm assembly with factory cam bolts. Arms are side specific. Snug, but do not tighten at this time. Attach the upper ball joint to the steering knuckle with provided nut, washer, and cotter pin. Tighten the upper ball joint nut to 37 ft-lbs on the first pass and a final pass of 90-110 degrees. Install the cotter pin (do not loosen the nut to line up the cotter pin hole).

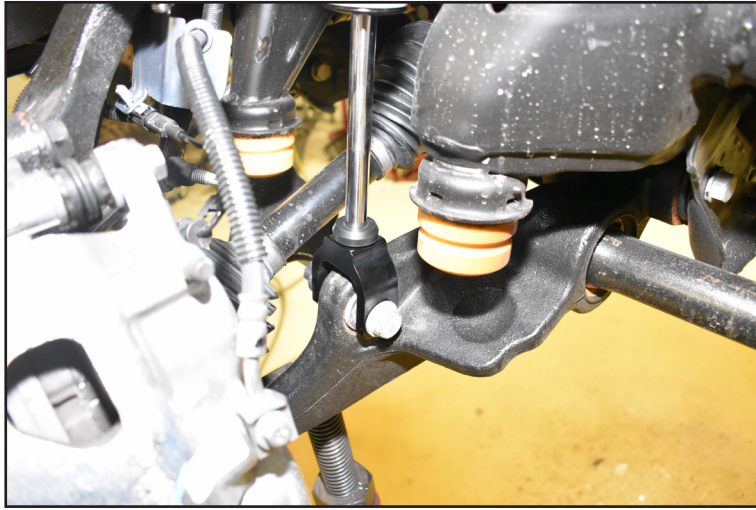
Note: The new upper control arms will have additional clearance to the droop limiter on the front control arm pocket (Figure 5). Verify the correct UCA is installed on the correct side by the raised area around the droop limiter.

FIGURE 5



11. If removed, reattach the lower shock mount to the lower control arm with factory bolt and nut. Leave lower shock bolt loose. This will be tightened with the weight of the vehicle. (Fig. 6)

FIGURE 6



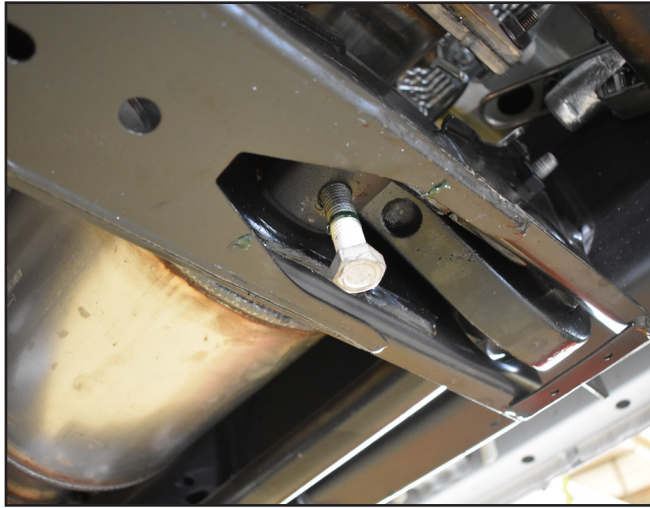
12. If removed, reattach the upper shock mount. (Fig. 7)

FIGURE 7



13. If removed , torque the upper shock hardware to 60 ft-lbs.
14. Install the torsion bar adjuster assembly with torsion bar tool. Make sure the bolt goes into the torsion bar bolt retainer installed previously.
15. Set the overall length of the exposed thread and bolt head to the original measurement. The minimum recommended length is 3/4". This may need to be adjusted if heavy accessories are added to the front of the vehicle. (Fig. 8)

FIGURE 8



16. Reinstall the wheels and lower the vehicle to the ground. Torque lug nuts to 140 ft-lbs in a crossing pattern
17. Roll the vehicle forward and back to settle the suspension.
18. If removed, torque the lower shock mount bolt to 95 ft-lbs.
19. Center the upper control arm cams. Tighten the cam bolts to 140 ft-lbs.

POST-INSTALLATION

20. Check all hardware for proper torque.
21. Reconnect the positive and negative battery cables.
22. The vehicle will need a complete front end alignment.
23. Check all hardware after 500 miles.
24. Adjust headlights.



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.