INSTALLATION GUIDE

Part#: 121253,121255

HARDCORE LIMITED LIFETIME WARRANTY

2", 3.5" & 6" Upper Control Arm Kit

CHEVY 1500 TRUCK 4WD / 2WD | 2019-2026
GMC 1500 TRUCK 4WD / 2WD | 2019-2026

Rev. 010826

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.

FACTORY PROTECTION PLUS

Visit 560plus.com for more information.

TIRES AND WHEELS

5-1/2" MAX Backspace Wheel when used on a 2-3.5" Kit.

Factory Backspace Wheel when used with a 6" BDS Kit.

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

121253 2" & 6" UCA Box Kit		
Part #	Qty	Description
A347	1	UCA Assembly - DRV
03806	*1*	*GM 1500 UCA - Tubular - DRV*
500-1104	*1*	*Ball Joint*
BDS222760	*1*	*BDS UCA Sticker*
SB02A241190	*2*	*UCA Bushings*
A348	1	UCA Assembly - PASS
03807	*1*	*GM 1500 UCA - Tubular - PASS*
500-1104	*1*	*Ball Joint*
BDS222760	*1*	*BDS UCA Sticker*
SB02A241190	*2*	*UCA Bushings*
02911	2	Ball Joint Cap
9452K145	2	O-Ring
02826	2	Steering Stops
02895	1	Wheel Spacer
874	1	Bolt Pack - Cable Clamp
	3	Wire Clamp
	2	1/4"-20 x 3/4" Bolt, Grade 5, Clear Zinc
	2	1/4"-20 Prevailing Torque Nut, Clear Zinc
	4	1/4" SAE Washer, Clear Zinc
	2	12mm-1.75 Nylock Nut, Clear Zinc
640	1	Bolt Pack
	4	14mm-2.00 x 80mm Bolt, Class 10.9, Clear Zinc
	4	14mm-2.00 Prevailing Torque Nut, Clear Zinc
	8	14mm Washer, Clear Zinc

121255 Denali 6" UCA Box Kit		
Part #	Qty	Description
A384	1	UCA Assembly - DRV (Denali Only)
05064	*1*	*GM 1500 UCA - Denali - Tubular - DRV*
500-1104	*1*	*Ball Joint*
BDS222760	*1*	*BDS UCA Sticker*
SB02A241190	*2*	*UCA Bushings*
A385	1	UCA Assembly - PASS (Denali Only)
05065	*1*	*GM 1500 UCA - Denali - Tubular - PASS*
500-1104	*1*	*Ball Joint*
BDS222760	*1*	*BDS UCA Sticker*
SB02A241190	*2*	*UCA Bushings*
02911	2	Ball Joint Cap
9452K145	2	O-Ring
02826	2	Steering Stops
02895	1	Wheel Spacer
874	1	Bolt Pack - Cable Clamp
	3	Wire Clamp
	2	1/4"-20 x 3/4" Bolt, Grade 5, Clear Zinc
	2	1/4"-20 Prevailing Torque Nut, Clear Zinc
	4	1/4" SAE Washer, Clear Zinc
	2	12mm-1.75 Nylock Nut, Clear Zinc
640	1	Bolt Pack
	4	14mm-2.00 x 80mm Bolt, Class 10.9, Clear Zinc
	4	14mm-2.00 Prevailing Torque Nut, Clear Zinc
	8	14mm Washer, Clear Zinc

TROUBLESHOOTING INFORMATION FOR YOUR VEHICLE

TECH TIPS

1. Control arms typically add 1-2 degrees caster above stock alignment specifications.
2. Replacement ball joint is BDS081203, use this for replacement purposes if a new ball joint is ever needed. Ball joint is directional and must be installed with the 'dot' facing either inward or outward on the vehicle, otherwise damage may occur.
3. The BDS121253 UCA will work for stock height or 4" regular model vehicles (non AT4 / Trail Boss), but will provide a high caster amount. These BDS UCA are recommended to work with most leveling kits and coilovers, such as Fox 985-62-012, 985-02-134, 883-06-157, and 883-06-162. These BDS UCA also work with all 6" BDS kits, along with 4" Trail Boss or AT4 kits.
4. Use BDS121255 for Denali models.
5. Requires a maximum of 5.5" BS Wheel for tire clearance to the upper ball joint when used on 2-3.5" kits. Can be used on 4" / 6" or 4" Trail Boss / AT4 BDS kits with 6.25" BS (Factory) Wheel.
6. Will not fit models equipped with ARC

INSTALLATION INSTRUCTIONS

1. Park the vehicle on a clean, flat surface and block the rear wheels for safety.
2. Raise the front of the vehicle and support the frame rails with jack stands.
3. Remove the front wheels.
4. Disconnect the front driver's and passenger's side sway bar links from the lower control arm (Fig. 1). Save hardware.

SPECIAL TOOLS

Basic Hand Tools / Socket & Wrench Set up to 21mm

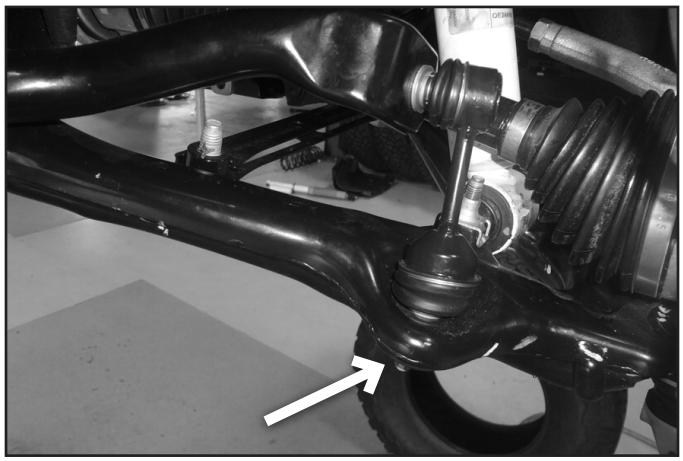
Jack Stands

Tape Measure

Cut Off Wheel / Reciprocating Saw

Welder (Optional)

FIGURE 1



PERFORM THE FOLLOWING INSTALLATION STEPS ON ONE SIDE AT A TIME.

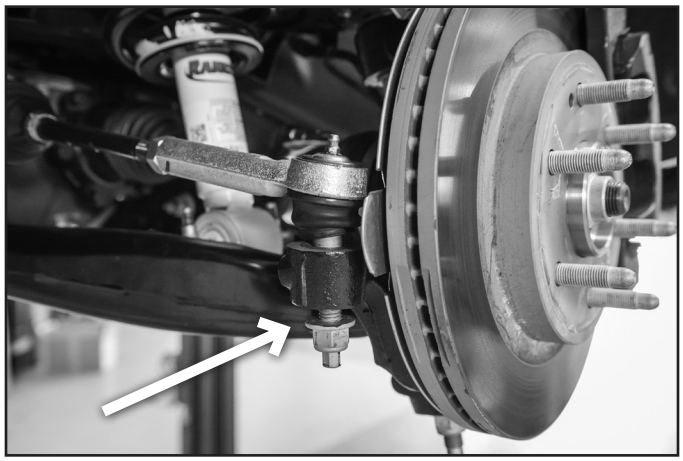
5. Remove the wire retaining clips from the strut studs and loosen but do not remove the three upper strut mount nuts at the frame (Fig. 2). Do not loosen- the center strut rod nut.

Tip *For the passenger side inner nut it may be easier to access the nut through the engine bay.*

FIGURE 2

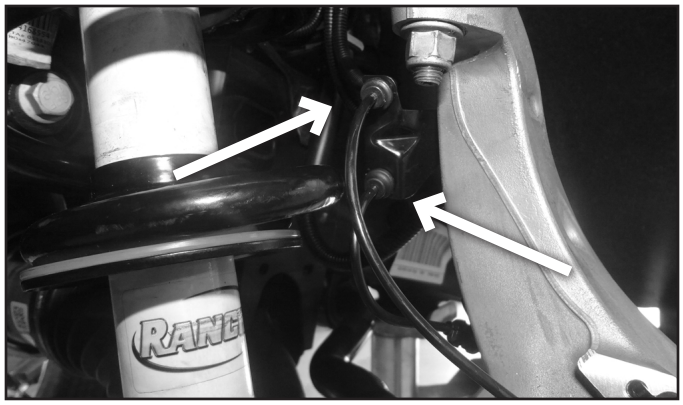
6. Remove the nut from the steering tie rod end (Fig. 3). Dislodge the tie rod end taper from the knuckle. Remove the nut and the tie rod end from the knuckle.

FIGURE 3



7. Unclip the ABS wire from the knuckle for additional slack (Fig. 4).

FIGURE 4



8. Support the lower control arm with a hydraulic jack and remove the nut from the upper ball joint (Fig. 5A). Dislodge the rod end taper from the knuckle. Allow the knuckle to swing rearward out of the way (Fig. 5B). **Denali Models Only:** Remove the sensor ball stud from the control arm.

Tip *A strap can be used to hold the knuckle back in order to prevent the CV axle from pulling out of the inner joint.*

FIGURE 5A

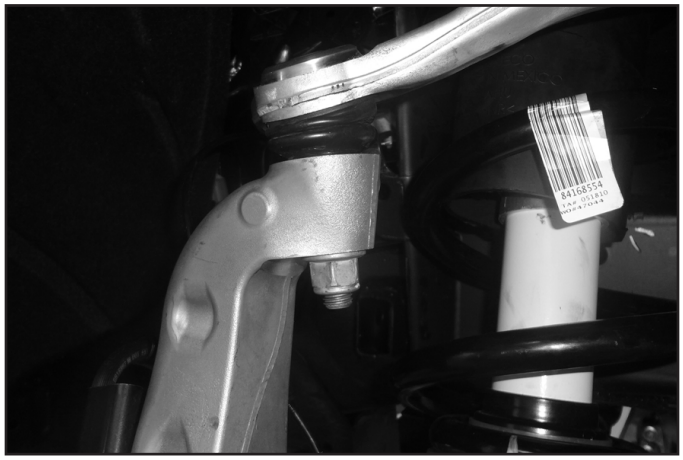
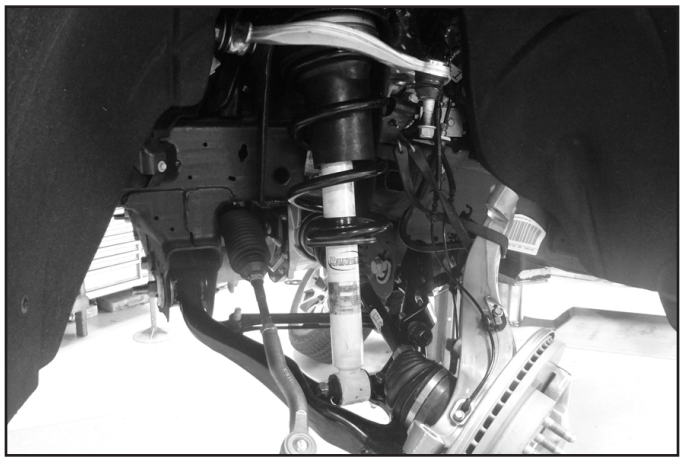


FIGURE 5B



9. Remove the two lower strut bar pin bolts (Fig. 6). Lower the control arm with the jack so there is enough room to remove the factory strut.

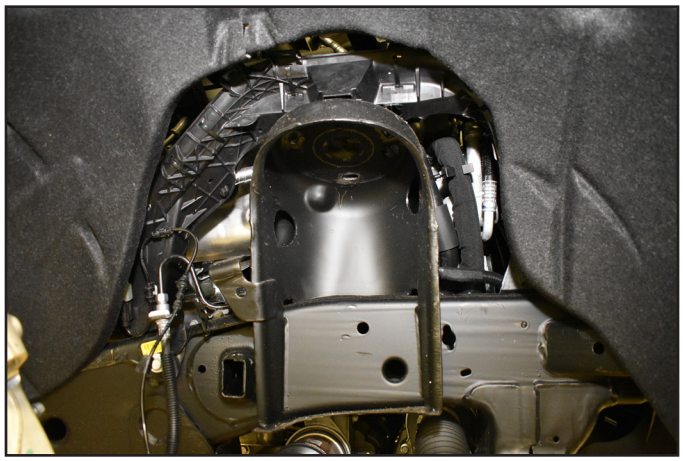
FIGURE 6

10. Remove the three nuts attaching the strut to the frame (Fig. 7). Remove the strut from the vehicle. DO NOT remove the center strut rod nut. Discard the nuts, they will not be reused.

FIGURE 7

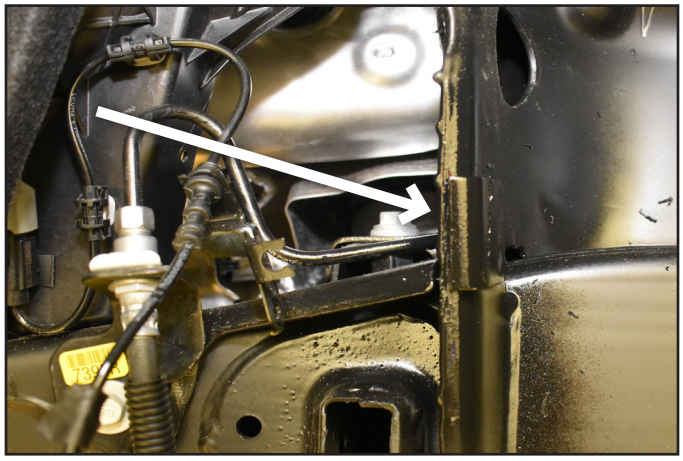
11. Remove the ABS wire / brake sensor wire from the upper control arm. Remove the upper control arm from the vehicle by removing the two bolts attaching the upper control arm to the strut bucket / frame (Fig. 8). If replacing the upper arm on a Denali truck, remove the sensor arm from the ball stud on the upper control arm.

FIGURE 8



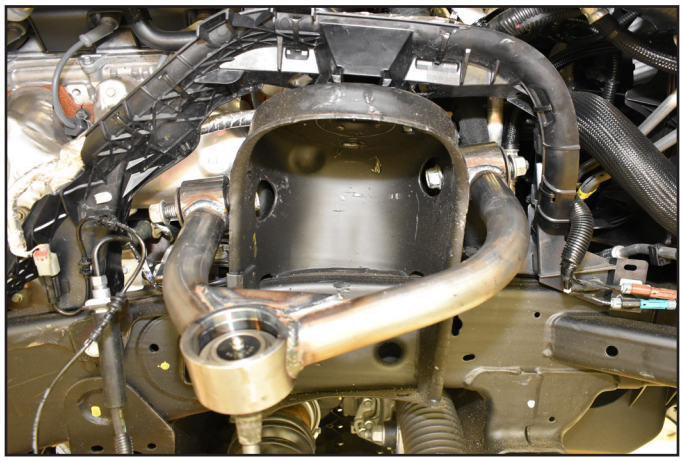
12. The new replacement control arm assemblies have a larger profile than the OEM assemblies. They are also designed with a wider range of available travel. Due to these unique differences, the tab on the side of the strut bucket must be removed to avoid interfering with the proper function of the new control arm assembly. Cut the tab from the side of the strut bucket as shown in Figure 9.

FIGURE 9



13. Install the new upper control arm to the vehicle using the **new provided 14mm bolts, washers, and nuts and using thread locker.** Run the bolt with a washer from the inside out of the strut bucket outwards with a washer and nut on the outer bushing washer surface. Do this for the front and rear control arm mounts. (Fig. 10) Snug up hardware.

FIGURE 10



14. Attach the ball joint on the new upper control arm to the knuckle. Snug up ball joint using the OE Nylock Nut, but do not torque down. The upper ball joint will be removed from the knuckle later so that the strut can be installed.

    Note: The OE nylock nut will only be temporarily used to set the control arm at the correct ride height so that the rubber bushing preload is correct. DO NOT USE THE OE NYLOCK NUT FOR THE FINAL INSTALL.

15. Set the ride height from the fender lip to the center of the hub at 24-1/2" (2" Kits), 25-3/4" (3.5" Kits), or 28-1/4" (6" or 4" Trail BOSS/ AT4 Kits). Using a torque wrench on the **inside of the strut bucket and a wrench on the outside bushing** to prevent the nut / bushing from moving, tighten the control arm hardware to **126 ft-lbs**. This will ensure the rubber bushings are tightened to the right position and not put preload in the rubber bushings. DO NOT spin the "bushing side" hardware when tightening, only tighten from the inside "frame side".

FIGURE 11A

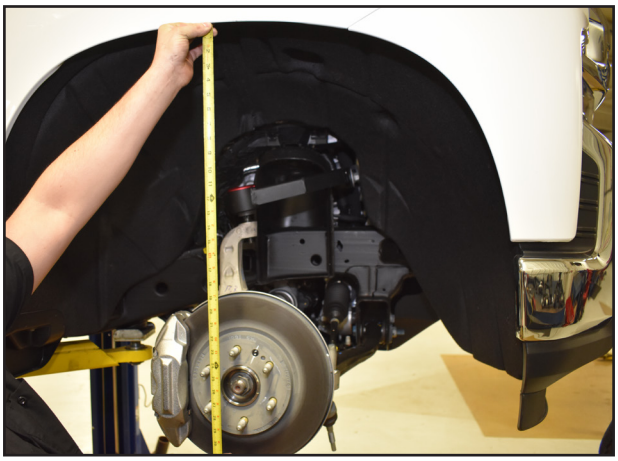
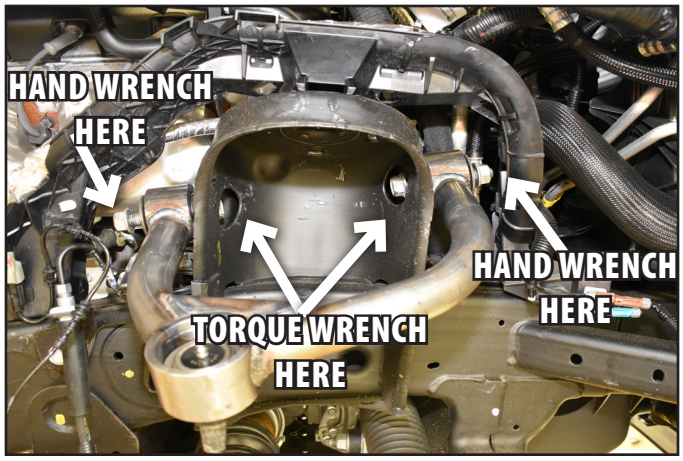


FIGURE 11B



FRONT ASSEMBLY

16. Remove the upper ball joint from the knuckle. Discard OE nylock nut. Make sure the knuckle is supported so it does not pull out the CV.
17. Reinstall the strut into the vehicle. Leave the hardware loose. If installing with Fox Coilovers, install the coilovers at this time. Follow instructions included with the coilovers or reference the coilover install instructions on Fox's website.

    Tip *Do not tighten the upper strut nuts at this time, it will make it easier to install the lower strut spacer.*

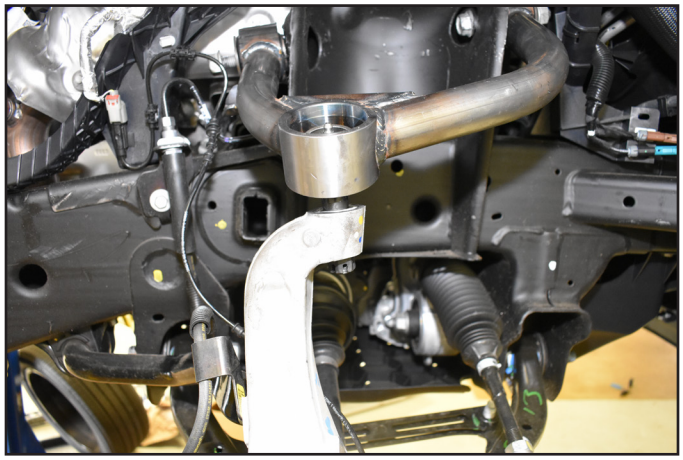
18. Reinstall the lower strut mount (Fig. 12). Torque the lower mount hardware to 37 ft-lbs.

FIGURE 12

19. With the lower hardware tight, torque the upper strut mount nuts to 40 ft-lbs.
20. Reattach the upper ball joint to the knuckle (Fig. 13). **Use the provided nylock nut within bolt pack 874.** Use the jack to support the lower control arm and torque the upper ball joint nut to 26 ft-lbs with the first pass and 60-75 degrees on the final pass.

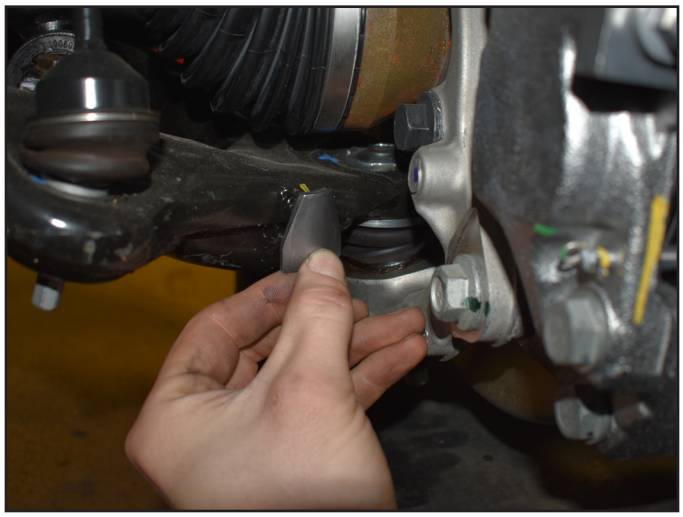
    Note: DO NOT use the OE Nylock Nut.

FIGURE 13



21. **Denali Models Only:** Install the ball stud removed from the factory arm into the replacement BDS arm.
22. Reattach the tie rod to the knuckle and torque to 44 ft-lbs.
23. Repeat installation on the opposite side of the vehicle. When both sides are complete, reattach the sway bar links and tighten hardware to 60 ft-lbs.
24. Reattach the brake wire / ABS wires to the factory position on the knuckle. Use the provided wire clamps and 1/4" bolt to attach the brake wire / ABS wire to the upper control arm. Check for enough slack in the wires and adjust as necessary.
25. Reinstall the front wheels and lower the vehicle to the ground. Torque lug nuts to 140 ft-lbs in a crossing pattern.
26. Make sure the upper ball joint is greased at regular maintenance intervals (3-5,000 miles). The grease fitting can be accessed using a flathead screwdriver and removing the cap from the ball joint cup.
27. A1/4" wheel spacer can be used if the stock spare tire needs to be installed.
28. **Optional:** Due to stock control arm clearance and certain size wheel and tire combinations, a steering stop may be required. These are only needed when the tire hits the upper control arm at full lock. Prep the lower control arm for welding, remove paint. Disconnect the battery in the truck to protect electronics.
29. **Optional:** Weld steering stop on to lower control arm as shown (Fig. 14).

FIGURE 14



POST INSTALLATION INSTRUCTIONS

30. Check all hardware for proper torque.
31. Check hardware after 500 miles.
32. Adjust headlights.
33. The vehicle will need a complete front end alignment.

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.