off-road driven!™

PRO COMP SUSPENSION

63161K
2011-2015 Silverado 2500HD 2WD & 4WD 8 Lug
2-1/2" Front Torsion Key Kit w/ 1-1/2" Rear Block

This document contains very important information that includes warranty information and instructions for resolving problems you may encounter. Please keep it in the vehicle as a permanent record.

Part #	Description	Qty.
94-4327	TORSION BAR KEY	2
90-8131	UPPER SHOCK MOUNT SPACERS	4
13-90349Em	U-BOLTS	4
95-158	1 1/2” LIFT BLOCK	2
20-65750m	HI-NUTS	8

NOTE: All part images may vary from catalog and instructions.

RECOMMENDED PRO COMP SHOCKS

2011-2015 HD 2500:

	Front:	Rear:
2500 HD		
ES9000	**918750**	
MX-6	**N/A**	

Equipment Available from your Pro Comp Distributor!

2011-2015 Silverado 2500HD 2WD/ 4WD 8 Lug Front Torsion Key Kit: 63161
2011-2015 GM 2500HD 2WD/ 4WD 6” Knuckle Suspension Lift Kit: 51802B/ 51802BMX

Also, Check out our outstanding selection of Pro Comp tires to compliment your new installation!

Introduction:

- This installation requires a professional mechanic!
- We recommend that you have access to a factory service manual for your vehicle to assist in the disassembly and reassembly of your vehicle. It contains a wealth of detailed information.
- Prior to installation, carefully inspect the vehicle's steering and driveline systems paying close attention to the tie rod ends, ball joints, wheel bearing preload, pitman and idler arm. Additionally, check steering-to-frame and suspension-to-frame attaching points for stress cracks. The overall vehicle must be in excellent working condition. Repair or replace all worn or damaged parts!
- Read the instructions carefully and study the illustrations before attempting installation! You may save yourself a lot of extra work.
- Check the parts and hardware against the parts list to assure that your kit is complete. Separating parts according to the areas where they will be used and placing the hardware with the brackets before you begin will save installation time.
- Check the special equipment list and ensure the availability of these tools.
- Secure and properly block vehicle prior to beginning installation.
- ALWAYS wear safety glasses when using power tools or working under the vehicle!
- Use caution when cutting is required under the vehicle. The factory undercoating is flammable. Take appropriate precautions. Have a fire extinguisher close at hand.
- Foot pound torque readings are listed on the Torque Specifications chart at the end of the instructions. These are to be used unless specifically directed otherwise. Apply thread lock retaining compound where specified.
- **Please note that while every effort is made to ensure that the installation of your Pro Comp lift kit is a positive experience, variations in construction and assembly in the vehicle manufacturing process will virtually ensure that some parts may seem difficult to install. Additionally, the current trend in manufacturing of vehicles results in a frame that is highly flexible and may shift slightly on disassembly prior to installation. The use of pry bars and tapered punches for alignment is considered normal and usually does not indicate a faulty product. However, if you are uncertain about some aspect of the installation process, please feel free to call our tech support department at the number listed on the cover page. We do not recommend that you modify the Pro Comp parts in any way as this will void any warranty expressed or implied by the Pro Comp Suspension company.**

FRONT INSTALLATION:

1. Measure the vehicle from the center of the hub to the fender lip and record this measurement below.
2. Be sure you are working on a level surface. Block the rear tires and raise the front of the vehicle. Support the frame with jack stands.

LF:_____ **RF**:_____

LR:_____ **RR**:_____

3. Remove the front wheels.
4. Measure the torsion bar adjusting screw depths and record this dimensions for later use on reassembly. Mark the orientation of the torsion bar in relation to the front A-arm.

LEFT:_____**RIGHT**: _____

5. Starting on the driver's side, remove the torsion bar adjusting screw. Apply a small amount of lubrication grease to the torsion bar puller threads (**67965** is recommended) and the puller shaft-to-adjuster arm contact point. Load the puller and torsion adjuster arm until the torsion bar keeper can be removed from the cross member. Release the puller to unload the torsion bar.

6. Completely remove the torsion bar key bolt from the key assembly.
7. With the bar unloaded, slide it forward out of the **OE** torsion bar key and remove the key from the vehicle.

   NOTE: If the bar seems stuck, use a hammer and punch through the hole in the rear of the cross member to dislodge it.
8. Install the Pro Comp Forged torsion key **(94-4327)** and slide the torsion bar back into position. Be sure to line up the previously applied orientation marks.

IMPORTANT! Make sure Torsion Bar is extended at least ¼" inch through the Torsion Key.

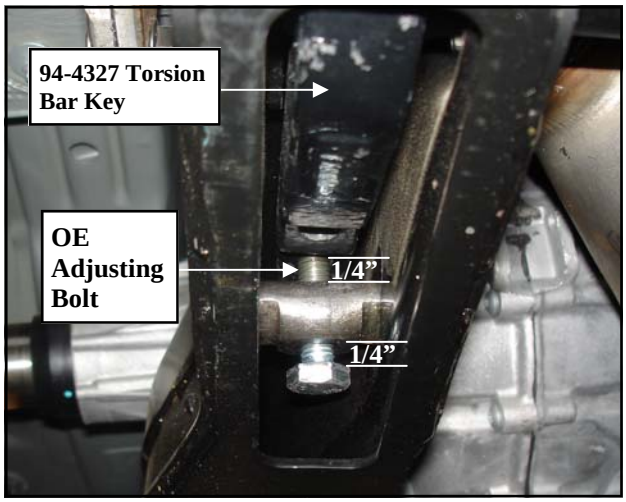
9. Using the torsion bar unloading tool, apply pressure with the torsion key to allow the torsion key keeper to be reinstalled.
10. Reinstall the **OE** adjusting bolt to the keeper, and reset the torsion bar preload bolts using the measurements previously taken.

    IMPORTANT! – DO NOT run the adjustment bolt in farther than 1/4" or damage to the ball joints may occur.

    IMPORTANT!: Be sure that at least ¼" of bolt threads extend beyond torsion key keeper.

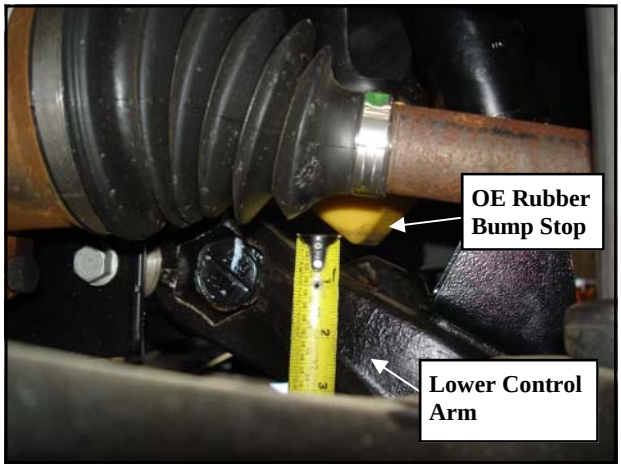
    NOTE: Each ¼" of adjustment on the bolt equals approximately 1" at the wheel.

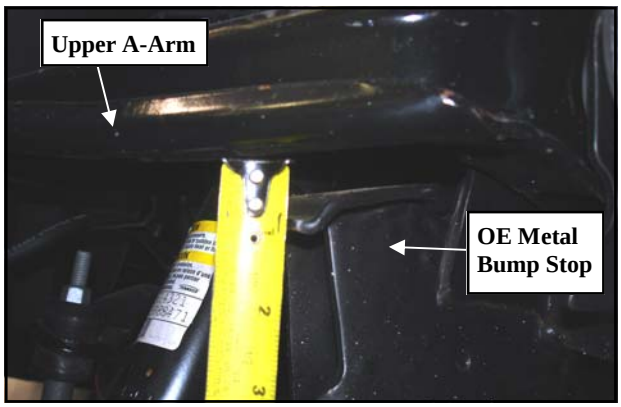
To avoid over-cranking the suspension and negatively affecting ride quality, perform steps 11 and 12.



11. Measure the distance between the lower A-arm and the rubber bump stop. The distance should be no more than **3/4".**

12. Measure the distance between the upper A-arm and the metal bump stop. The distance should be no less than **3/4".**





13. Now would also be a good time to inspect the shocks for damage or fluid leakage. Replace if necessary.

NOTE: For improved performance Pro Comp shocks are recommended.

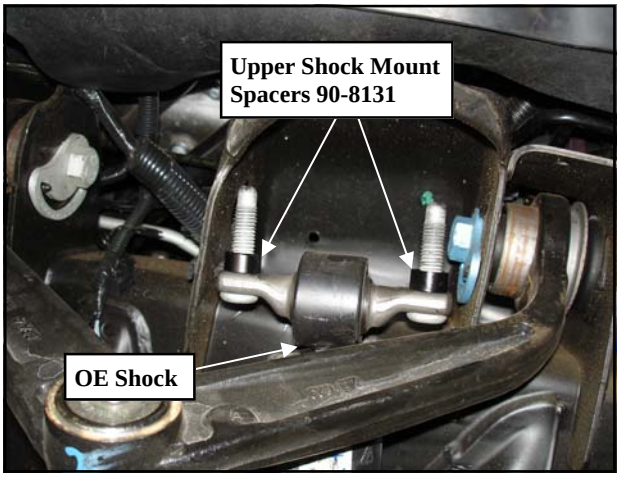
<u>If reusing OE shocks or installing new OE length shocks ONLY!.</u>

A. Unbolt the front shock top mount from the vehicle.

B. Carefully pull the shock down and install the provided upper shock spacers **(90-8131)** onto the upper shock mounting studs.

C. Reinstall the upper shock mount and secure using the previously removed **OE** hardware. Torque to manufacturers specification.

14. Repeat steps 5 through 12 and the shock box on the Passenger Side of the vehicle.



15. Install the front tires/wheels and lower the vehicle onto the ground.

16. Check ride height of the vehicle by Measuring the distance between the tires and fenders making sure both

sides of the truck are even. Adjust as needed.

17. Torque all bolts to factory specifications. Re-torque all bolts after 500 miles.

NOTES:

⇒ **On completion of the installation, have the suspension and headlights re-aligned.**

⇒ **After 100 miles recheck for proper torque on all newly installed hardware.**

⇒ **Recheck all hardware for tightness after off road use.**

REAR INSTALLATION:

1. Raise the rear of the truck enough for the tires to clear the ground and use jack stands on the frame to support the truck. Remove the rear wheels from the vehicle.

2. Carefully unbolt the lower **OE** shock absorbers mounts. It may be necessary to raise the differential housing slightly to facilitate their removal.

3. Now would also be a good time to inspect the shocks for damage or fluid leakage. Replace if necessary.

NOTE: For improved performance Pro Comp shocks are recommended.

4. One side at a time, support the differential housing on the side being modified. Remove the "U" bolts from that axle end and discard. Carefully lower the differential away from the **OE** springs. Take careful note of the position of the factory spring packs.

5. Install the lift block **(95-158)** to the mount pad on the axle housing and raise the axle

housing until the lift block hole fits around the new leaf spring center bolt. See ILLUSTRATION.

6. Install the new U-bolts **(13-90349Em)** over the leaf spring assembly and using the new washers and hi-nuts (**20-65750m)** supplied along with the existing spring plates, torque the U-bolt nuts to 120-130 ft./lbs. See ILLUSTRATION.
7. Repeat these steps on the other side of the vehicle.
8. Reinstall the shock absorbers to the lower mounts using the previously removed **OE** hardware. Torque the **OE** hardware and torque bolts to 65 ft./lbs.
9. Install your wheels and tires and lower the vehicle to the ground. Torque the lug nuts according to the wheel manufacturers recommendations.
10. After installation is complete, double check that all nuts and bolts are tight. Refer to the chart at the end of this document for torque specifications. (Do not retighten nuts and bolts where Loctite® may have been used).
11. On both sides of the vehicle, check the routing of the brake lines and the ABS wire harnesses. There must be no pinching, rubbing, or stretching of either component. Use zip ties to secure these items to the steering components. At full droop, cycle the steering from lock to lock while

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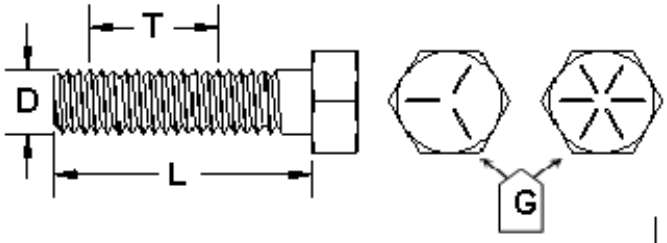
⇒ **Recheck all hardware for tightness after off road use.**

Use this only as a guide for hardware without a called out torque specification in the instruction manual.

Bolt Torque and ID

Decimal System			Metric System			
All Torques in Ft. Lbs. Maximums						
Bolt Size	Grade 5	Grade8	Bolt Size	Class 9.8	Class 10.9	Class 12.9
5/16	15	20	M6	5	9	12
3/8	30	45	M8	18	23	27
7/16	45	60	M10	32	45	50
1/2	65	90	M12	55	75	90
9/16	95	130	M14	85	120	145
5/8	135	175	M16	130	165	210
3/4	185	280	M18	170	240	290



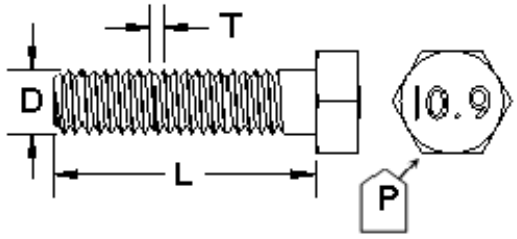
1/2 13x1.75 HHCS

D T L X

Grade 5 **Grade 8**

(No. of Marks + 2)

G = Grade (Bolt Strength)
D = Nominal Diameter (Inches)
T = Thread Count (Threads per Inch)
L = Length (Inches)
X = Description (Hex Head Cap Screw)



M12 1.25x50 HHCS

D T L X

P = Property Class (Bolt Strength)
D = Nominal Diameter (Millimeters)
T = Thread Pitch (Thread Width, mm)
L = Length (Millimeters)
X = Description (Hex Head Cap Screw)