

PRO COMP SUSPENSION

Suspension Systems that Work!

PN# 63220 2006-2009 Hummer H3 2005-2009 Colorado/Canyon 4wd Torsion Bar Key Kit

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		
94-4184	TORSION BAR KEY	2	
90-6642	HARDWARE PACK: SPACERS	1	
90-2862	SPACER: .750" X .165" WALL .410" ID	2	

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

RECOMMENDED PRO COMP SHOCKS							
Hummer H3							
	Front:	<u>Rear:</u>					
ES9000	915580	924503					
<u>MX-6</u>	MX6037	MX6140					



Optional Equipment Available from your Pro Comp Distributor!

Torsion Bar Removal/Installation Tool: 67971

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.
- <u>ALWAYS</u> 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.

1. Measure the vehicle from the center of the hub to the fender lip and record this measurement below.

LF: RF: RR:

- 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.
- 3. 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: ____

Steps 4 through 8 are for H3 Hummer models ONLY:

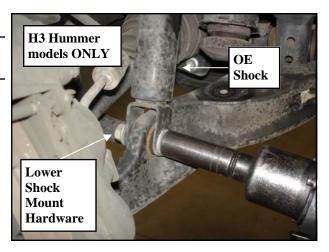
4. Remove the front wheels.



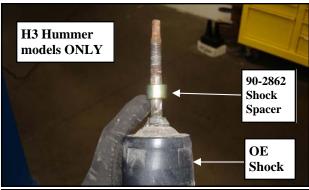
5. Now would also be a good time to inspect the shocks for damage or fluid leakage. Replace if necessary.

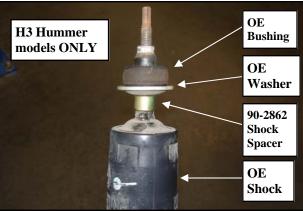
NOTE: For improved performance Pro Comp shocks are recommended.

6. Unbolt the upper and lower **OE** shock hardware and remove the shocks from the vehicle.



7. Install the shock spacers (90-2862) onto the shock stems.





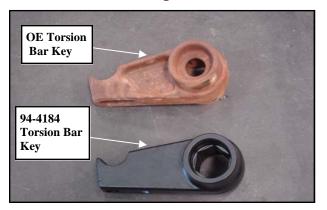
- 8. Reinstall the shocks into it's original mounting locations using the previously removed **OE** hardware.
- 9. Reinstall the front tires/wheels and torque the lug nuts to manufacturers specifications.

10. 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 (67971 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.



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

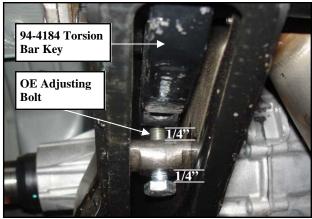
NOTE: If the bar seems stuck, use a hammer and punch through the hole in the rear of the cross member to dislodge it.



13. Install the Pro Comp Forged torsion key (94-4184) 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 1/4" inch through the Torsion Key.

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



IMPORTANT!: Be sure that at least 1/4" of bolt threads extend beyond torsion key keeper.

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

- 16. Repeat steps 10 through 15 and the shock box on the Passenger Side of the vehicle.
- 17. Carefully lower the vehicle onto the ground.

- 18. 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.
- 19. 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.



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

Bolt Torque and ID									
Decimal	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			
1/2-13x 1.75 HHCS	Grade 5	G Grade 8	M 12-1.25x50 HHCS						
G = Grade (Bolt Strength) D = Nominal Diameter (Inches) T = Thread Count (Threads per Inch) L = Length (Inches)			P = Property Class (Bolt Strength) D = Nominal Diameter (Millimeters) T = Thread Pitch (Thread Width, mm) L = Length (Millimeters)						
X = Description (Hex Head Cap Screw)			X = Description (Hex Head Cap Screw)						

Notice to Owner operator, Dealer and Installer:

Vehicles that have been enhanced for off-road performance often have unique handling characteristics due to the higher center of gravity and larger tires. This vehicle may handle, react and stop differently than many passenger cars or unmodified vehicles, both on and off-road. You must drive your vehicle safely! Extreme care should always be taken to prevent vehicle rollover or loss of control, which can result in serious injury or even death. Always avoid sudden sharp turns or abrupt maneuvers and allow more time and distance for braking! Pro Comp reminds you to fasten your seat belts at all times and reduce speed! We will gladly answer any questions concerning the design, function, maintenance and correct use of our products.

Please make sure your Dealer/Installer explains and delivers all warning notices, warranty forms and instruction sheets included with Pro Comp product.

Application listings in this catalog have been carefully fit checked for each model and year denoted. However, Pro Comp reserves the right to update as necessary, without notice, and will not be held responsible for misprints, changes or variations made by vehicle manufacturers. Please call when in question regarding new model year, vehicles not listed by specific body or chassis styles or vehicles not originally distributed in the USA.

Please note that certain mechanical aspects of any suspension lift product may accelerate ordinary wear of original equipment components. Further, installation of certain Pro Comp products may void the vehicle's factory warranty as it pertains to certain covered parts; it is the consumer's responsibility to check with their local dealer for warranty coverage before installation of the lift.