

### **PRO COMP SUSPENSION**

### **Suspension Systems that Work!**



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		
94-2859	COIL SPACER	2	
90-4198	POLY RING	2	
94-5273	SHOCK RELOCATION MOUNTS: Drvr	1	
94-5276	SHOCK RELOCATION MOUNTS: Pass	1	
<b>90-6430</b> 71-140801751000 72-14200816 73-01400030	HARDWARE KIT:Shock Relocation 14mm-2.0 X 80mm HEX BOLT Gr. 10.9 14mm-2.0 STOVER NUT Gr. C 14mm HARDENED FLAT WASHER	1 2 2 4	
94-7008c	FRONT TRACK BAR DROP	1	
90-4317	16mm DRIVE LINE SPACER	1	
94-5996	INNER FENDER RELOCATION BRACKET	2	
94-8109	FRONT BUMP STOP EXTENSIONS	2	
90-6757	HARDWARE PACK: Inner Fender Brace 8-18 X .75" SELF DRILLING SCREW Wide Panel No-Slip Clip-on Nut025"150"	<b>1</b> 4 2	
<b>90-6758</b> 73-00800030	HARDWARE PACK: Bump Stop Mounting Cup 8mm- 1.25 HEX NUT Gr. 10.9 8mm SAE FLAT WASHER	1 2 2	
90-6759	HARDWARE PACK: Drive Line Shim BOLT Gr. 8 SAE FLAT WASHER	1 2 2	
94-7080M	FRONT SWAY BAR DROP: Drvr	1	
94-7083M	FRONT SWAY BAR DROP : Pass	1	
90-6340M	HARDWARE PACK: Sway Bar Drops	1	
90-7722	FRONT BRAKE LINE RELOCATION BRACKET:	Drvr1	
90-7723	FRONT BRAKE LINE RELOCATION BRACKET:	Pass 1	

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

<u>2011-2012</u>	RECOMME	ENDED PRO COMP SHOCKS:
<u>Front</u> : <u>F250/F350</u> <u>W/Bracket:</u> <u>W/O Bracket:</u>	<u>ES</u> 922553 924553	<u>MX6</u> MX6119 MX6087
<u>Front</u> : <u>F350</u> <u>W/Bracket</u> : <u>W/O Bracket:</u>	<u>ES</u> 921553 923553	<u>MX6</u> MX6119 MX6087

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## **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.

### **Tire Information:**

Due to differences in manufacturing, dimensions and inflated measurements, tire and wheel combinations should be test fit prior to installation. Tire and wheel choice is crucial in assuring proper fit, performance, and the safety of your Pro Comp equipped vehicle. For this application, we recommend a quality tire of radial design, not exceeding 35" tall X 12.5" or 37" tall X 12.5"\*. Violation of these recommendations will not be endorsed as acceptable by Pro Comp Suspension and will void any and all warranties either written or implied.

\*NOTE: The use of 37" tires will slightly rub the radius arms at full turn.

*NOTE:* Both tire fitments will require the inner fender to be pulled back to prevent rubbing (See pg. 10 for instructions).

## **Please Note:**

- $\Rightarrow$  Front suspension and head light realignment is <u>necessary</u>!
- ⇒ Speedometer and ABS recalibration will be necessary if larger tires (10% more than stock diameter) are installed.
- ⇒ IT IS ADVISABLE THAT YOU HAVE HELP AVAILABLE WHEN INSTALLING THIS KIT. SOME COMPONENTS ARE HEAVY AND AWKWARD. AN ADDI-TIONAL SET OF HANDS IS GOOD INSURANCE AGAINST INJURY!



### **Front Installation:**

- Position your vehicle on a smooth, flat, hard surface (i.e. concrete or asphalt). Block the rear tires and set the emergency brake.
- 2. Measure and record the distance from the center of each wheel to the top of its fender opening. Record below.

LF:	RF:		
LR:	RR:		

- 3. Place the vehicle in neutral. Place your floor jack under the front axle and raise the vehicle. Place jack stands under the frame rails and lower the frame onto the stands. Remove the jack and place the vehicle back in gear, set the emergency brake, and place blocks both in front and behind the rear wheels.
- 4. Remove the front wheels.
- 5. Raise the axle using the floor jacks to remove the tension from the shocks.

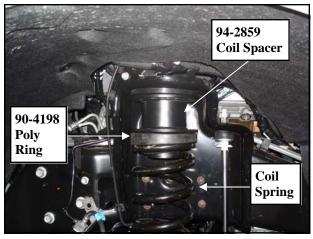


- 6. Unbolt the brake line from the frame.
- 7. Remove the track bar bolt from the driver side frame mount. Save this hardware for re-use.
- 8. Unbolt the sway bar from the frame mounts, frame brake line bracket and **OE** shocks. (both sides).

9. Lower the front axle as far as possible and Remove the spring (mark or note spring orientation before removal). Remove **OE** spring isolator.



- 10. Remove the ABS line from the rear of the radius arm.
- Compress spring down, install new coil spacer (94-2859), poly ring (90-4198), OE isolator and reinstall the spring. Be sure to line up the previously applied coil spring reference mark.

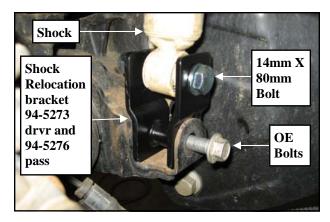


12. Now would also be a good time to inspect the front shocks for damage or fluid leakage. Replace if necessary.

NOTE: For improved performance Pro Comp rear shocks are recommended. See the chart on page 3 for applications.

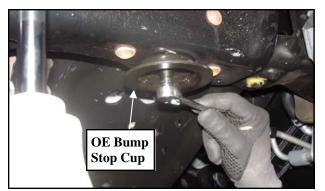
<u>For OE shock (or OE length shock with re-</u> location bracket) installation only:

62667 Revised 1.10.12  Install the shock relocation brackets (94-5273 drvr and 94-5276 pass) into the lower shock mounts using the previously removed OE bolts and hardware. Secure the OE shock lower mount into the shock relocation brackets using the supplied 14mm-2.0 X 80mm bolts and hardware.



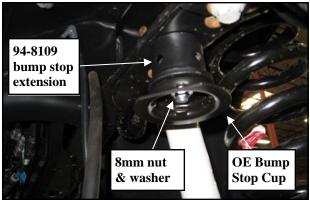
#### For Pro Comp shock (without relocation bracket) installation only:

- 14. Unbolt and remove the **OE** shock from the vehicle. Install the new Pro Comp shock using the previously removed **OE** hardware.
- 15. Remove the factory front bump stop from the bump stop mounting cup. Pliers and a back and forth rocking motion will assist in removal of the bump stop.
- 16. Unbolt the bump stop mounting cup from the frame of the vehicle.

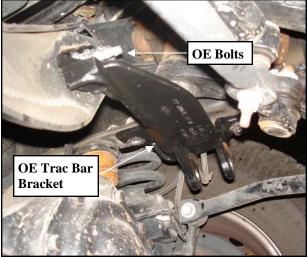


17. Thread the bump stop extension (94-8109) into the OE bump stop mounting cup hole.

NOTE: Inserting a screwdriver through the side holes on the extension and using the handle as a leverage point will help in properly tightening it.

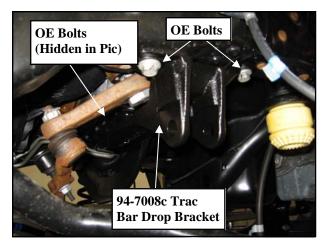


- Install the OE bump stop cup to the bump stop extension (94-8109) using the supplied 8mm nut and washer.
- 19. Reinstall the previously removed factory bump stop into the bump stop mounting cup.
- 20. Remove the cast track bar mount on driver side of frame. Save the bolts and pal nuts. Save the hardware for reuse.

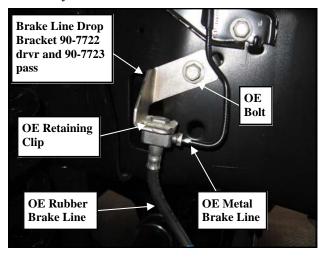


21. Install track bar drop bracket (**94-7008c**) using the previously removed **OE** bolts and pal nuts. Use thread locker on the

bolts. Torque bolts to manufacturers specifications. Do not install track bar at this time.



- 22. Remove the front brake line retaining clip. Separate the brake line from the bracket. Save the **OE** clip for reinstallation.
- 23. Loosen the **OE** hard line ferrule, just enough, to be able to rotate it 180 degrees so the rubber line is facing toward the bottom of the vehicle and retighten.
- 24. Unbolt and remove the **OE** brake line bracket from the frame. Save the **OE** bolt for reinstallation.
- Install the new brake line drop bracket (90-7722 Drvr and 90-7723 Pass) to the original hole in the frame rail using the previously removed OE bolt.



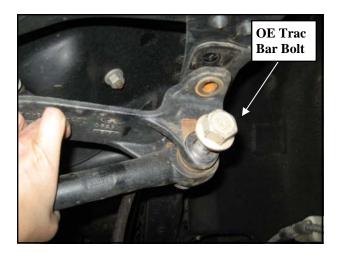
- 26. Secure the brake line to the new bracket using the previously removed **OE** clip.
- 27. Install the sway bar drops (**94-7080m drvr** and **94-7083m pass**) to the **OE** sway bar mounting studs on the frame using the previously removed **OE** hardware.



 Carefully raise the sway bar back into place and secure the supplied hardware from pack (90-6340m).



- 29. Torque all sway bar hardware according to manufacturers specifications.
- 30. Put wheels back on Torque to manufacturer's specifications and lower the vehicle to the ground.
- Reinstall the track bar into the track bar bracket (94-7008c) using the OE bolt. Torque to 406 ft. lbs.
- 32. Recheck all hardware for tightness after off road use. ●



# **Rear Installation:**

- 1. Block the front tires and raise the rear of the vehicle. Support the frame with jack stands forward of the rear springs.
- 2. Now would be a good time to inspect the rear shocks for damage or fluid leakage. Replace if necessary.

*NOTE: For improved performance Pro Comp struts/shocks are recommended. See the box on page 3 for applications.* 

Remove the (2) bolts that secure the center drive shaft bearing. Lower bearing and the install the carrier bearing spacer (90-4317). Use new bolts from pack (90-6759) and torque to 55 ft./lbs.



- 4. Lower the vehicle to the ground. Torque lug nuts to manufacturer specification.
- 5. Re-check the wheel lug torque on all four wheels at this time.
- 6. Re-check <u>all</u> hardware (both the front and the rear) for proper installation and torque!!

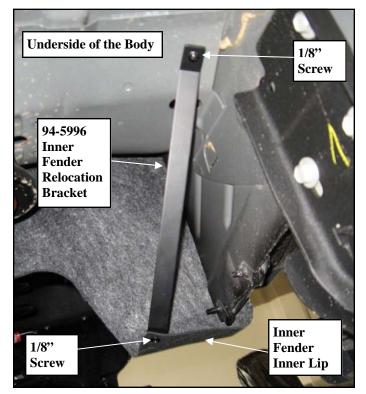
#### NOTES:

- ⇒ On completion of the installation, have the suspension and headlights realigned.
- ⇒ After 100 miles recheck for proper torque on all newly installed hardware.
- $\Rightarrow$  Recheck all hardware for tightness after off road use.

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### **INNER FENDER RELOCATION BRACKET:**

- 1. Test fit the bracket by temporarily installing the bracket to get an idea of it's fitment.
- 2. Use the holes in the bracket to mark the inner fender inner lip and the underside of the body for drilling.
- 3. Carefully drill an **1/8**" hole in the under side of the body.
- 4. Carefully drill an **1/8**" hole in the inner lip of the inner fender.
- 5. Secure the inner fender relocation bracket (94-5996) to the inner fender lip using the supplied 1/8" screw and the clip on nut.
- 6. Raise the assembly up to the previously drilled hole in the under side of the body and secure using the supplied **1/8**" screw.



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

Bolt Torque and ID									
Decimal System			M	etric Sy	y stem				
	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			
G = Grade (Bolt Strength) $D = Nominal Diameter (Inc)$ $T = Thread Count (Threads)$ $X = Description (Hex Head)$	P = Prop erty Class (Bolt Strength) D = Nominal Diameter (Millimeters) T = Thread Pitch (Thread Width, mm) L = Length (Millimeters) 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.