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PRO COMP SUSPENSION

Suspension Systems that Work!

**Part # 52482/52482MX
4/99- 2004 Ford 4WD
Super duty F250/350 2" Hanger
Leveling 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	Qty.	Illus.	Page
90-3007	SUPERDUTY 2" FRONT HANGER DROP (DRVR)	1	1	5
90-3002	SUPERDUTY 2" FRONT HANGER DROP (PASS) 1	-	-	
90-3000	SUPERDUTY 2" FRONT SHACKLE	2	2,4	6
90-6017	HARDWARE PACK	1	-	-
90-2033	CAM TUBE	2	5	7
90-2034	.230 OFFSET HEX	2	-	-
90-2035	.390 OFFSET HEX	1	-	-
90-2036	.460 OFFSET HEX	1	-	-
90-6343	HARDWARE PACK: TRACK BAR BOLTS	1	-	-
70-0564001000	9/16" X 4" SAE GD 10 HEX BOLT	2	-	-
72-05600201016	9/16" SAE GD 10 STOVER NUT	2	-	-
73-05600034	9/16" SAE HARDENED FLAT WASHER	4	-	-
90-6339	HARDWARE PACK: BUMPER SUPPORT	1	-	-
73-0400830	7/16" SAE FLAT WASHER	2	3	6
70-0431001800	7/16" X 1" GR. 8 HEX BOLT	2	3	6
73-4300832	7/16" USS FLAT WASHER	2	3	6
72-043100816	7/16" GR. 8 STOVER NUT	2	3	6

Box 2 of 2-PN 52482 -2

924508	Front Shocks	2	-	-
932008	Rear Shocks	2	-	-

(OR) Box 2 of 2-PN 52482MX-2

MX6004	MX6 Front Shocks	2	-	-
MX6018	MX6 Rear Shocks	2	-	-

Special Tools:

Tie Rod Separator	Ford PN	T64P-3590-F
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Optional Equipment Available from your PRO COMP Distributor!

FRONT DUAL SHOCK KITS:	PN 52410 DOUBLE BRACKET KIT
	PN 52420 DOUBLE HOOP KIT
TRACTION BARS:	PN 72400 TRACTION BARS
	PN 72099 MOUNTING KIT
LIGHT BARS:	PN 24400 (BLACK), 24400G (GREY)
STEERING STABILIZERS:	PN 222570
FRONT CRASH BAR KIT:	PN 52483

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 Ford 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.*

Please Note:

- ⇒ Front suspension and head light realignment is necessary!
- ⇒ 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 ADDITIONAL SET OF HANDS IS GOOD INSURANCE AGAINST INJURY!**

Important!

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 wheel not to exceed 8" in width with a minimum backspacing of 4" must be used, additionally, a quality tire of radial design, not exceeding 35" tall X 12.5" wide is also recommended. Please note that the use of a 35" X 12.5" tire may require fender modification. 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.

Before You Begin:

- ⇒ Read the instructions and study the illustrations before attempting the installation.
- ⇒ Separation the 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 parts and hardware against the parts list to assure that your kit is complete.
- ⇒ ALWAYS wear safety glasses when using power tools or working beneath your vehicle.
- ⇒ A pitman arm removal tool and tie rod separating tool are required to perform the installation. See the special tools at the bottom of page 2.
- ⇒ Always use NEW cotter pins on re-assembly! (These items are NOT supplied)

FRONT DISASSEMBLY AND ASSEMBLY PROCEDURES:

NOTE: Track bar alignment cam supplied in this kit are for 4/01/99 and later production date vehicles. The easiest way to identify these vehicles in by the 21mm dia track bar bolts used on 4/01/99 and later production. Early production vehicles use a 14mm dia. bolt.

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|--|--|
| 1) Position vehicle on a smooth, flat, hard surface (ie. concrete or asphalt). | 4) Remove track bar from vehicle. |
| 2) Measure and record the distance from the center of each wheel to the top of its fender opening. Record below. | 5) Using a tie rod separating tool separate draglink from pitman arm. Secure drag link out of the way. |
| LF: _____ RF: _____ | 6) Raise front of vehicle and support with jack stands behind front spring. |
| LR: _____ RR: _____ | 7) Remove front tires on both sides. |
| 3) Block rear tires and set parking brake. | 8) Remove the front bumper, support brackets and all plastic push pins from frame. If vehicle |

is equipped with driving lights and or a block heater you must first disconnect wiring harnesses to allow bumper removal.. Save hardware for reinstallation.

- 9) Remove factory lower crash bar if vehicle came equipped with one. The factory bar will not be re installed with this kit.

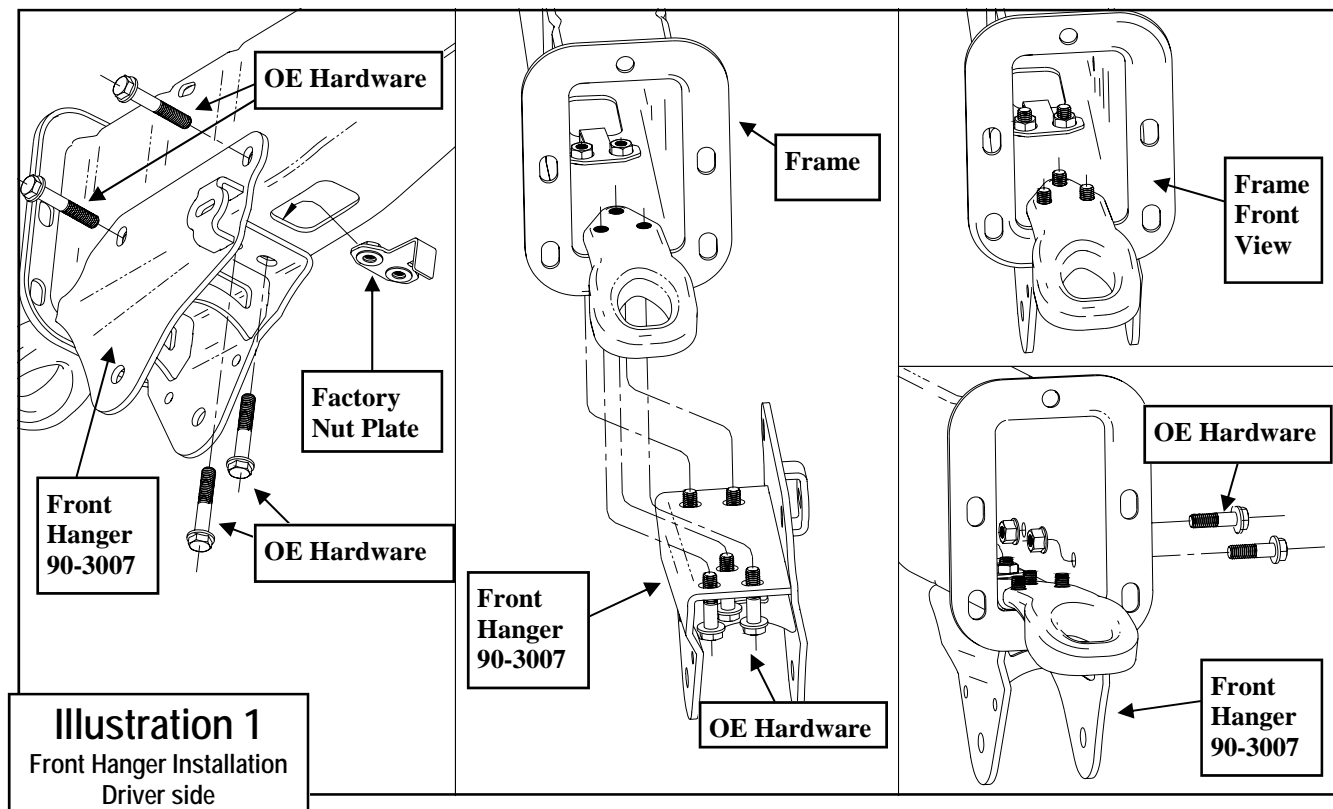
NOTE: It is highly recommended that you replace the discarded factory crash bar with the new Pro Comp crash bar kit # 52483.

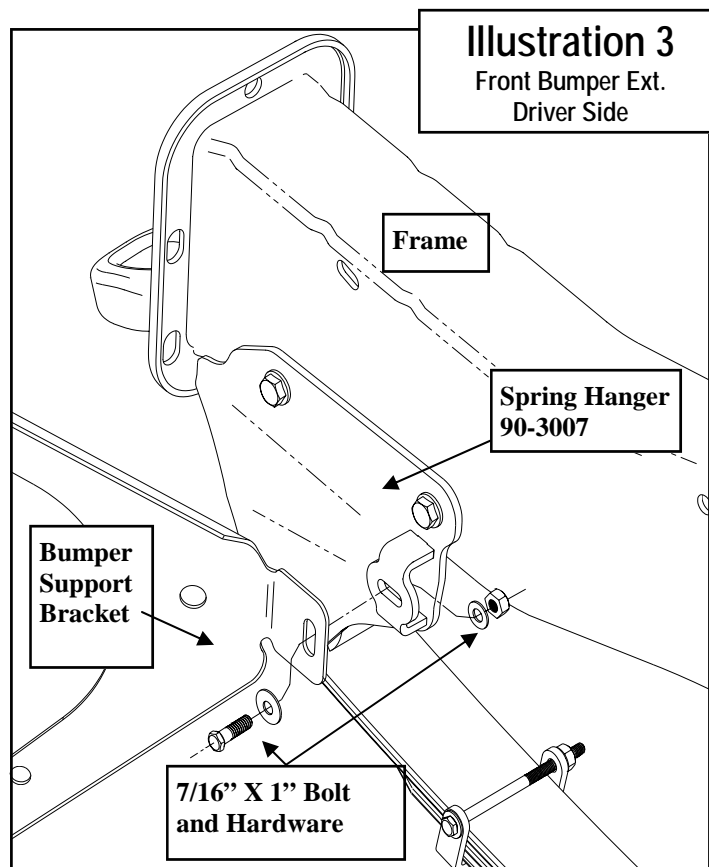
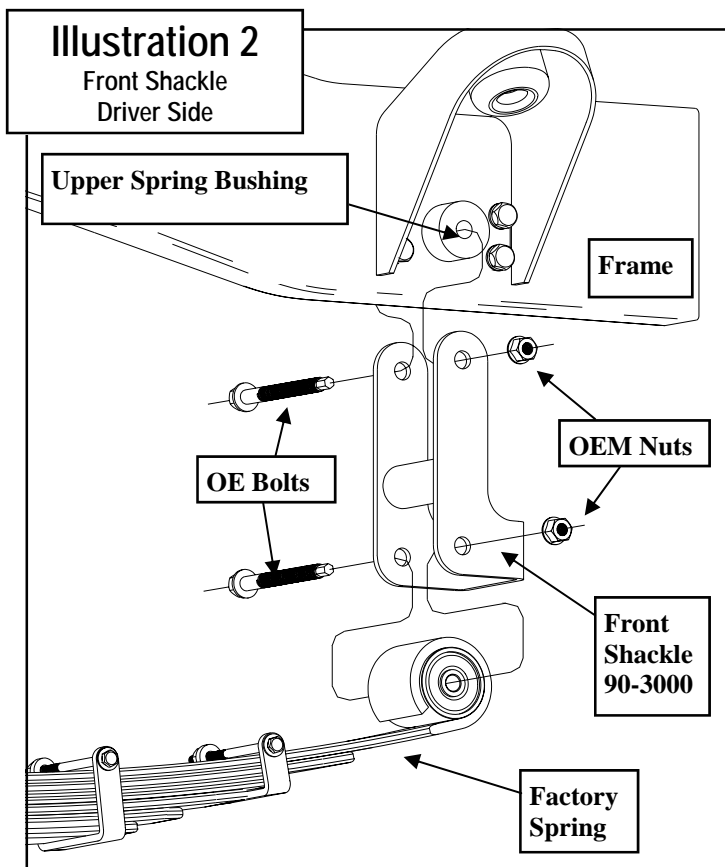
- 10) Remove sway bar links on both sides at sway bar. Leave upper end of link at frame secured.
- 11) Remove front shocks.
- 12) Carefully support front axle with floor jack and remove front shackle spring bolt.

Steps 13 thru 17
Passenger and driver side can be done at the same time

- 13) Remove front shackle from frame. Save all hardware for reuse.

NOTE: It is necessary to loosen the passenger side upper shackle bushing to clear exhaust pipe when removing bolt. Leave loose until after reinstallation of new shackle.





TECH TIP: *Factory spring bolts are secured with loctite which makes removal difficult. By warming the nut with a propane torch to approx. 300 degrees Fahrenheit the loctite will release and the hardware can be removed with hand tools.*

NOTE: *Have fire extinguisher extra handy whenever using a open flame on or near any vehicle.*

- 14) Install front shackle (PN 90-3000) to frame and spring to shackle using previously removed hardware as shown in ILLUSTRATION 2. **DO NOT** tighten at this time.
- 15) Remove front spring bolt and lower front

of spring to remove the factory front spring hanger. Save all hardware for reuse

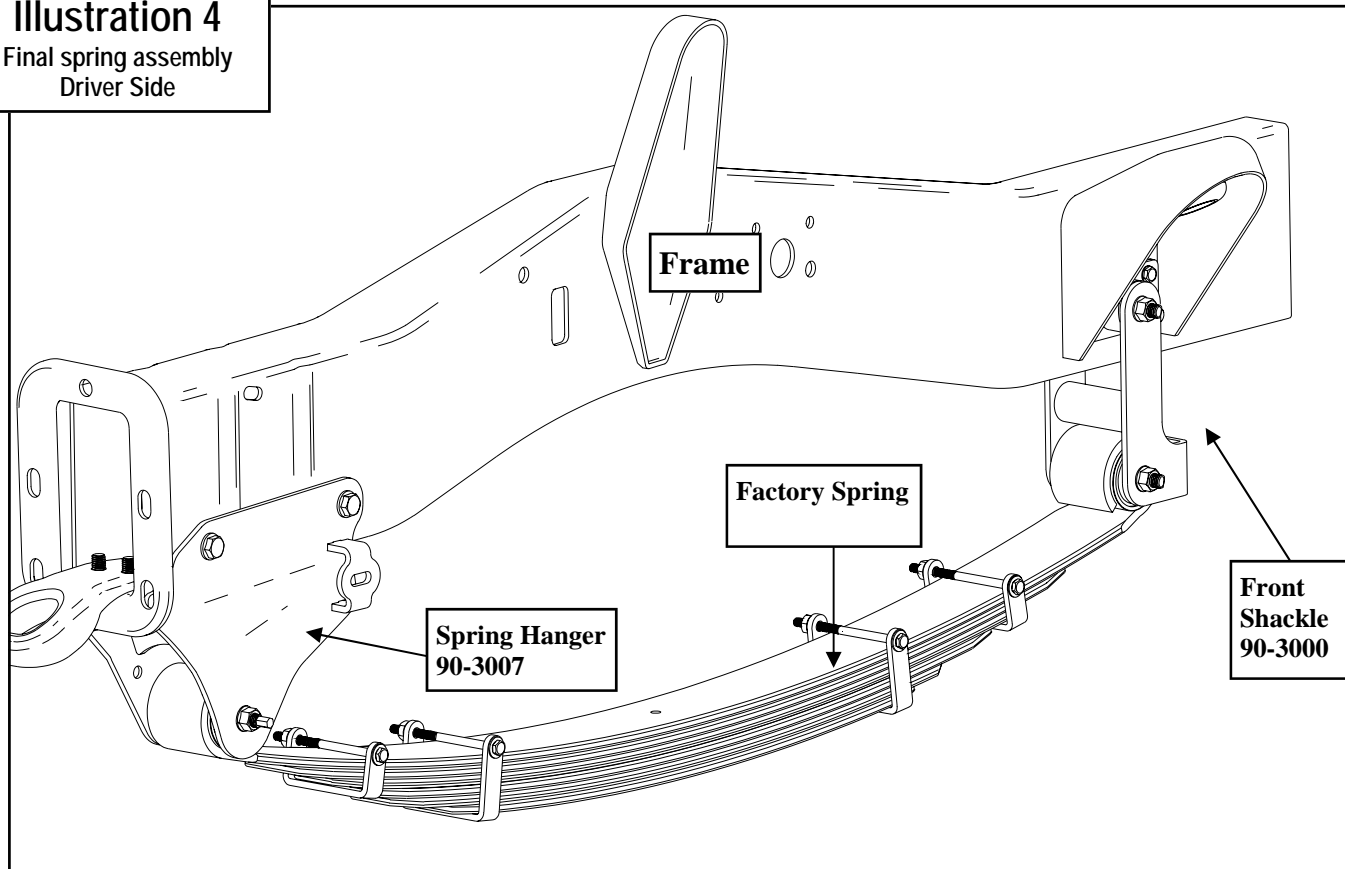
- 16) Install new front hanger drops (PN 90-3007) Driver side and (PN 90-3002) Passenger side using the previously removed hardware. Installs exactly like the stock hangers. SEE ILLUSTRATION 1.

NOTE: *If you purchased Pro Comp crash bar kit (PN 52483) install it at this time*

- 17) Install spring into front spring hanger drops using existing hardware. Do not tighten at this time.
- 18) Install new shock, P/N 924508 or MX6004 and torque mounting hardware to 60 ft./lbs.

Illustration 4

Final spring assembly
Driver Side



- 19) Attach sway bar links to sway bar both sides. Torque to 55 ft./lbs.

NOTE: It may be necessary to file smooth the inside of the track bar sleeves before continuing installation.

- 20) Install the drag link to the pitman arm and torque this fastener to 60 ft. lbs.
- 21) Re-install the front bumper using the previously removed **OE hardware** and the supplied **7/16" X 1" hardware** from hardware pack (90-6339). See ILLUSTRATION 3.

NOTE: Loosening of the support bracket bolts will aid in attaching bracket to spring hanger.

NOTE: Minor trimming of the lower plastic valance may be necessary on vehicles equipped with one. Valance must be trimmed in order for the bumper to properly fit on the truck without contacting the front of the spring eye. Test fit, mark area, then remove and trim. See picture on page 9.

- 22) Install offset drilled sleeves into track bar. Position sleeves so as to make the holes as far away from each other as possible. See ILLUSTRATION 5. (Press sleeves into holes, do not hammer).
- 23) Install the **.230 offset hex cams** into the track bar bracket on the axle. Rotate until the hole in the cam is as close to the driver side as

possible. Install track bar and **9/16" x 4" bolt washers and nut**. Do not tighten at this time.

24) Install tires and set vehicle on ground.

25) Install the **.460 hex cams and .390 hex cams** into the cast track bar bracket on driver side. The bracket has a thick side and a narrow side, the cams must be installed in the respective sides. The shoulder of the cam when installed must not protrude past the inside of the track bracket.

26) Install track bar into bracket and rotate cams until they align with the hole in the track bar. Install **9/16" x 4" bolt, washers and nut**. It may be necessary to rotate cams on axle to help align track bar bolt holes. Torque **9/16" bolts** to 105 ft./lbs.

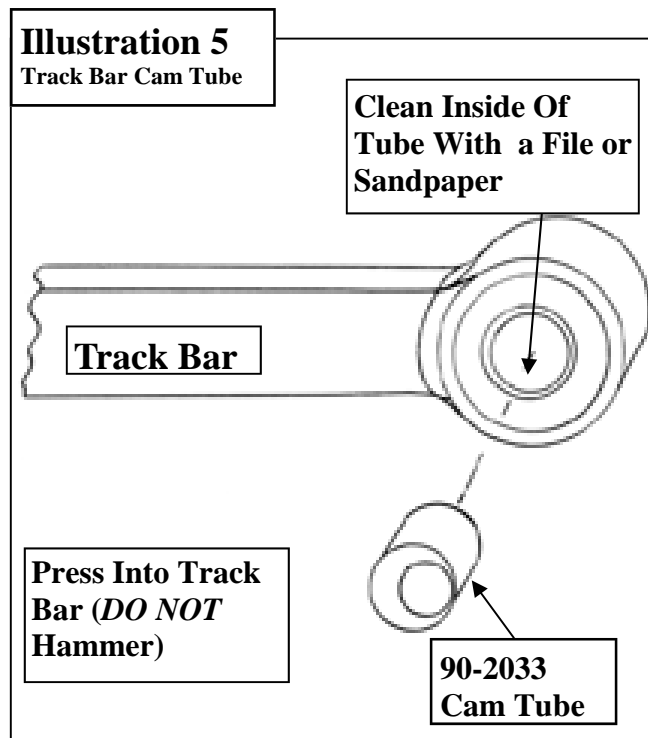
27) Tighten the **18mm spring mount bolts** to 130 ft. lbs. Tighten the **16mm spring mount bolts** to 115 ft. lbs.

28) Remove rear shock and install shocks **932008 or MX60018**. Torque hardware to 60 ft./lbs.

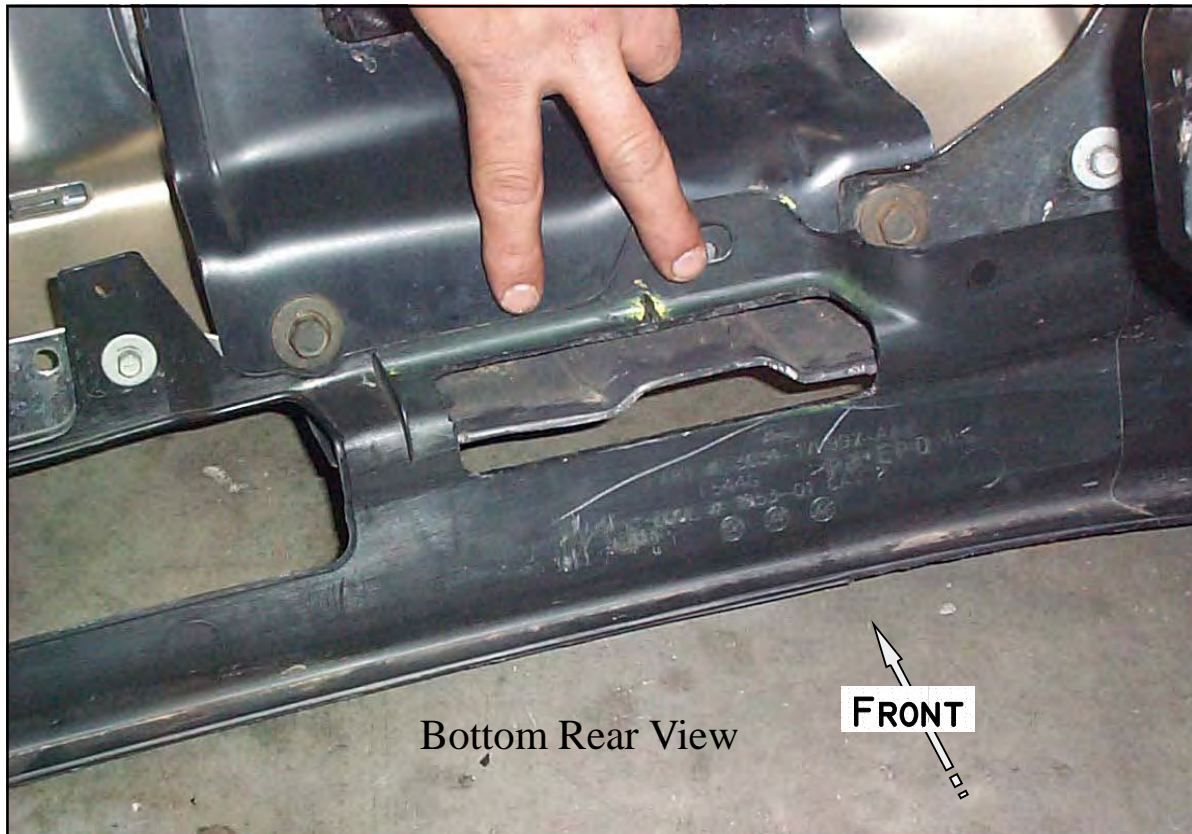
* **CHECKS AND ADJUSTMENTS:**

* Check all hardware for tightness after first 100 miles and after off road use.

* Headlights should be adjusted.



Guide for cutting front valence



Bottom Rear View

FRONT

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	Grade 8	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)	M12-1.25x50 HHCS D T L X

G = Grade (Bolt Strength) D = Nominal Diameter (Inches) T = Thread Count (Threads per Inch) L = Length (Inches) X = Description (Hex Head Cap Screw)	P = Property Class (Bolt Strength) D = Nominal Diameter (Millimeters) T = Thread Pitch (Thread Width, mm) L = Length (Millimeters) X = Description (Hex Head Cap Screw)
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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.

Warranty and Return policy:

Pro Comp warrants its full line of products to be free from defects in workmanship and materials. Pro Comp’s obligation under this warranty is limited to repair or replacement, at Pro Comp’s option, of the defective product. Any and all costs of removal, installation, freight or incidental or consequential damages are expressly excluded from this warranty. Pro Comp is not responsible for damages and / or warranty of other vehicle parts related or non-related to the installation of Pro Comp product. A consumer who makes the decision to modify his vehicle with aftermarket components of any kind will assume all risk and responsibility for potential damages incurred as a result of their chosen modifications. Warranty coverage does not include consumer opinions regarding ride comfort, fitment and design. Warranty claims can be made directly with Pro Comp or at any factory authorized Pro Comp dealer.

IMPORTANT! To validate the warranty on this purchase please be sure to mail in the warranty card.

Claims not covered under warranty-

- Parts subject to normal wear, this includes bushings, bump stops, ball joints, tie rod ends and heim joints
 - Discontinued products at Pro Comp’s discretion
- Bent or dented product
- Finish after 90 days
- Leaf or coil springs used without proper bump stops
- Light bulbs
- Products with evident damage caused by abrasion or contact with other items
- Damage caused as a result of not following recommendations or requirements called out in the installation manuals
- Products used in applications other than listed in Pro Comp’s catalog
- Components or accessories used in conjunction with other manufacturer’s systems
- Tire & Wheel Warranty as per Pro Competition Tire Company policy
- Warranty claims without “Proof of Purchase”
- Pro Comp Pro Runner coil over shocks are considered a serviceable shock with a one-year warranty against leakage only. Rebuild service and replacement parts will be available and sold separately by Pro Comp. Contact Pro Comp for specific service charges.
- Pro Comp accepts no responsibility for any altered product, improper installation, lack of or improper maintenance, or improper use of our products.

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<u>PLACE</u>
<u>WARRANTY REGISTRATION</u>
<u>NUMBER</u>
<u>HERE:</u> _____