Latest Revision 12.10.13

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**PRO COMP SUSPENSION** 

## **Suspension Systems that Work!**

IMPORTANT: On gas equipped vehicles be sure to check the clearance between the driveshaft and the exhaust. If there is contact take the vehicle to a qualified exhaust shop for modification.

> Part # 52883B K4186B/BMX/BMXR 2011-2012 Ford Super Duty 4WD F250 Gas Stage 2 8" Lift Kit with Add-A-Leaf

## Part # 52883B K4186B/BMX/BMXR 2011-2012 Ford Super Duty 4WD F250 Diesel Stage 2 8" Lift Kit with Add-A-Leaf

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.

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Part # **Description** Illus. Qty. Page 91-4117 ALUMINUM COIL SPACER 2 7 90-6373 HARDWARE PACK: Clamps and Spacers 1 4 171006ERL AN6 ADEL CLAMPS 7 **BRAKE LINE BRACKET SPACER** 2 7 90-2501 2 91-3168 **COIL SPACER SIDE PLATE 6MM** 7 2 7 91-3158 **COIL SPACER SIDE PLATE 8MM** 90-6368 HARDWARE PACK: Coil Spacer 1 \_ 71-141002001000 14MM X 2.0 X 100MM 10.9 BOLT 2 7 73-01410930 14MM FLAT WASHER 2 7 70-0311001802 5/16" X 1" ALLEN HEAD BOLT 2 7 5/16" X 1" GR.8 HEX HEAD BOLT 7 70-0311001800 6 5/16" SAE GR. 8 FLAT WASHER 8 7 73-0310530 6MM X 1.0 X 16MM BOLT 8.8 4 7 71-060151008800 7 6MM FLAT WASHER 4 73-00608830 8MM X 1.25 X 20MM BOLT 8.8 4 7 71-080201258800 8MM FLAT WASHER 4 7 73-00808830 90-6337 1 HARDWARE PACK: Leaf Spring 10MM X 165MM CENTER PIN 2 11 97-165 2 72-01015008812 10MM-1.5 NUT (CENTER BOLT) 11 9 91-7069 SWAY BAR DROP: Drvr 1 91-7072 **SWAY BAR DROP:** Pass 1 9 90-6340 HARDWARE PACK: Sway Bar Drop 2 7/16" X 1 1/4" GR. 8 HEX BOLT 4 9 70-0431251800 7/16" HARDENED FLAT WASHER 8 9 73-04300034 72-04300100816 7/16" GR. 8 STOVER NUT 4 9 90-7079 **BRAKE LINE MOUNT: Rear** 1 11 90-6773 HARDWARE PACK: Brake Line Mount 1 3/8" X 1" HEX BOLT GR. 8 0431251800 1 11 04300100512 3/8" NYLOCK NUT GR. 5 1 11 3/8" HARDENED FLAT WASHER 2 11 72-01015008812 10MM X 1.5 PITCH NYLOCK: Rear E-Brake Bracket 1 11 90-6390 1 HARDWARE PACK: Bump Stop 2 8 70-0436501800 7/16" X 6 1/2" USS GR. 8 HEX BOLT 73-04300034 7/16" SAE FLAT WASHER 4 8 2 72-04300100816 7/16" USS GR.8 STOVER NUT 8 20-65471 HARDWARE PACK: 5/8" Hi nuts & Washers 1 11 95-556SD 5 1/2" REAR LIFT BLOCK: Drvr 1 11 5 1/2" REAR LIFT BLOCK: Pass 95-557SD 1 11 13-90560 **U-BOLT: F-250** 4 11 91-2506 **RADIUS ARM-Passenger Side** 1 \_

Box 1 of 4-PN 52883B-1

90-6042 HARDWARE PACK: Rear Sway Bar Links 1 5/8" RUBBER HOURGLASS BUSHING 4 45359 5/8" O.D. X 12mm I.D. X 1.480" SLEEVE 60859H 4

			52883B/52883BMX /52883BMXR Revised 12.10.13	
Part #	Description	Qty.	Illus.	Page
90-6572	HARDWARE PACK: Rear Sway Bar Links	1	-	-
.120C750HCS1Z	12mm-1.75 X 70mm HEX BOLT GR. 10.9	4	-	-
.120CNNEZ	12mm-1.75 NYLOCK NUT	4	-	-
.120NWHDY	12mm HARDENED FLAT WASHER	8	-	-
91-2446	REAR SWAY BAR END LINKS	2	-	-
	Box 2 of 4-PN 52883B-2			
FD-800-1	PITMAN ARM	1	2	7
96-5002	PITMAN ARM TOOL	1	2	7
90-6595	HARDWARE PACK: Pitman Arm Tool	1	-	-
	Thread locker	1	-	-
0431251800	7/16" X 1 1/4" GR. 8 HEX BOLT	1	2	7
04300030	7/16" FLAT WASHER	1	2	7
04300100512	7/16" NYLOC NUT	2	2	7
91-7687	TRACK BAR DROP BRACKET	1	3,10	7,13
90-6772	HARDWARE PACK: Track Bar Drop	1	-	-
56C300HCS8Y	9/16" X 3" HEX BOLT GR. 8	2	3	7
56C150HCS8Y	9/16" X 1 1/2" HEX BOLT GR. 8	1	3	7
56CNUCZ	9/16" STOVER NUT GR. C	3	3	7
56NWHDY/SAE	9/16" HARDENED FLAT WASHER	6	3	7
91-2511	BUMP STOP SPACER	2	8	11
90-6399	HARDWARE PACK: Radius Arms	1	4	8
.180CNUCZ	18MM-2.5 STOVER NUT	1	4	8
.180NWHDZ	18MM HARDENED FLAT WASHER	1	4	8
91-2502	RADIUS ARM-Driver Side	1	4,5	8
90-6569	HARDWARE PACK: Driveline Shim	1	4	8
90-1080	3/8" Driveline Shim	2	-	-
90-1081	1/4" Driveline Shim	2	-	-
90-1082	1/8" Driveline Shim	2	-	-
90-6013	HARDWARE PACK: Driveline Shim	1	-	-
70-04322501800	7/16" x 2 1/4" USS Grade 8 Bolt	2	-	-
73-04300042	7/16 USS Hardened Washer	2	-	-
90-7722	FRONT BRAKE LINE DROP BRACKET: Drvr	1	7	10
90-7723	FRONT BRAKE LINE DROP BRACKET: Pass Box 3 of 4-PN 52421B-3	1	7	10
927553	FRONT SHOCKS	2	-	-
934008	REAR SHOCKS	2	-	-
MX/104	( <i>OR</i> ) Box 3 of 4-PN 52881BMX-3	2		
MX6104 MX6018	MX-6 FRONT SHOCKS	2	-	-
MX6018 01 5112	MX-6 REAR SHOCKS	2 2	13	17 17
91-5112 96-5115	REAR SHOCK BRACKET DRILL TEMPLATE	2 1	13 13	17 17
90-5115 90-6283	HARDWARE PACK: Shock Bracket	1 2	13	1/
73-05000030	1/2" SAE FLATWASHER	2 4	- 13	- 17
72-05000100512	1/2" NYLON INSER BLOCK NUT	4 2	13	17
70-0502751800	1/2" X 2 3/4 HEX CAP SCREW GR. 8	2	13	17
10 0502751000	1/2 A 2 5/ FILM CAL DOLL WOR, 0	2	15	1/

	(OR) Box 3 of 4-PN 52881BMXR-3			52883B/52883BMX /52883BMXR Revised 12.10.13		
Part #				Page		
MX6065R	MX6R FRONT SHOCKS	Qty. 2 2	Illus. -	•		
MX6069R	MX6R REAR SHOCKS		-	-		
690002	1" SHOCK MOUNT ADAPTER: Front Shocks	1	-	-		
63012	EXTERNAL RESERVIOR MOUNTING KIT	4	-	-		
90-6242	HARDWARE PACK: MX6 Front Shocks	1	-	-		
600026 113600020	3/4" HOURGLASS URETHANE BUSHING SLEEVE	2 2	-	-		
91-5112 96-5115	REAR SHOCK BRACKET DRILL TEMPLATE	2 1	12 12	16 16		
90-6283	HARDWARE PACK: Shock Bracket	2	12	16		
73-05000030	1/2" SAE FLATWASHER	4	12	16		
72-05000100512 70-0502751800	1/2" NYLOCK NUT 1/2" X 2 3/4" HEX BOLT GR. 8	2 2	12 12	16 16		
	Box 4 of 4- <b>PN 52800B-4</b>					
13150-1	ADD-A-LEAF	2	11	15		
13150-2	ADD-A-LEAF	2	11	15		
90-6337	HARDWARE PACK: Add-A-Leaf	1	-	-		
97-165	10MM X 165MM CENTER PIN	2	11	15		
72-01015008812	10MM-1.5 NUT (CENTER BOLT NUT)	2	11	15		
90-7130	HARDWARE PACK: Add-A-Leaf	1	-	-		
98-00300-1	3" SPRING CLAMP 3" SPRING PLATE	4 4	11 11	15 15		
98-003002 97-716	7/16"X 4 1/2" CENTER BOLT	4 2	11	15		
8771-1	7/16"GR. 8 CENTER BOLT NUT	$\frac{2}{2}$	11	15		
	Special Tools:					
Pitman Puller Tie Rod Separator	Snap-On PN Ford PN	CJ1119B T64P-3590-]	F			
The following part	s are used in conjunction with this kit and must	be purchas	ed separa	ately.		
24514 OR	COILS GASOLINE ENGINE: W/ K4176/K4180	1	-	-		
24515	COILS DIESEL ENGINE: W/ K4178/K4182	1	-	-		
Optional E	quipment Available from your Pro Co	omp Distr	ibutor!	$\sum$		
	LIGHTS	T		$\checkmark$		
	52480: CARRIER BEARING SHIM KI	.1				
	599: ALIGNMENT CAM KIT	D				
	222582: DUAL STEERING STABILIZE					
	222582F: FOX DUAL STEERING STABIL					
	91-7057B: TRANSFER CASE SKID PLA Also, check out our outstanding selection of Pro Comp					
	to compliment your new installation!	1105				

## **Introduction:**

- This installation requires a professional mechanic!
- We recommend that you have access to a factory service manual 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 arms. 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.
- A pitman arm removal tool and tie rod separating tool are required to perform the installation. See the special tools at the top of page 4.
- Always use NEW cotter pins on re-assembly! (These items are NOT supplied)
- 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:**

- $\Rightarrow$  Front suspension and head light realignment is <u>necessary</u>!
- $\Rightarrow$  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 10" in width with a maximum backspacing of 5 3/4" must be used. Additionally, a quality tire of radial design, not exceeding 38.50" tall X 14.50" wide is also recommended. 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.

## **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.

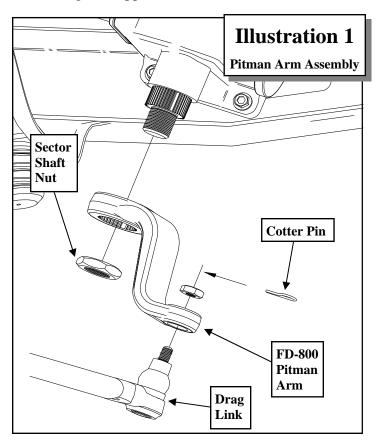
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LR:	RR:		

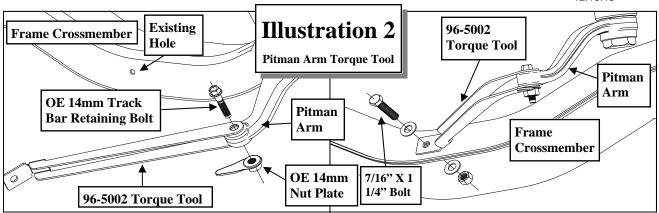
- 3. Place the vehicle in neutral. Place your floor jack under the front axle and raise the vehicle. Place jack stands under the frame rails and lower the frame onto the stands. Remove the jack and place the vehicle back in gear, set the emergency brake, and place blocks both in front and behind the rear wheels.
- 4. Remove the track bar bolt from the driver side frame mount. Save this hardware for re-use.
- 5. Remove the cast track bar mount on driver side of frame. Save the bolts and pal nuts. Hardware will be reused.
- 6. Unbolt the sway bar from the sway bar end links on both sides of the vehicle. Save the hardware for reuse.
- 7. Mark the orientation of the sway bar and unbolt it from the frame of the vehicle. Save the hardware for reuse.
- 8. If the vehicle is equipped with a factory steering stabilizer unbolt it and remove it from the vehicle.
- 9. Remove the cotter pin and nut from drag link, at the pitman arm. Save the nut for reinstallation. Use a tie rod separator to separate drag link from Pitman arm.
- 10. Remove the sector Pitman arm retaining nut and save for reinstallation. Use a Pitman arm puller to remove the **OE** pitman arm. The threads of the sector shaft and

the Pitman arm retaining nut must be cleaned of all factory dry adhesive.

IMPORTANT!: THE ENTIRE INSTALLA-TION PROCESS MUST BE DONE WITH HAND TOOLS TO ENSURE PROPER IN-STALLATION. DO NOT USE IMPACT TOOLS.

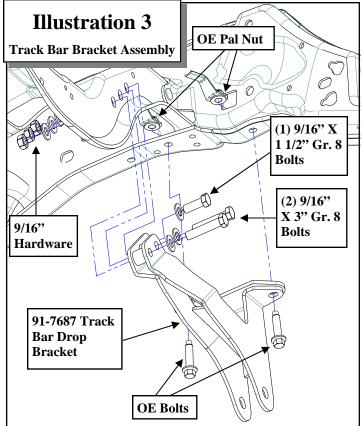
- Install new pitman arm on sector shaft. Oil the sector shaft threads to ensure a proper torque reading. Install Pitman arm retaining nut and tighten until snug. See ILLUSTRATION 1.
- 12. Insert the key and unlock the steering wheel.
- Install the Pitman arm torque tool (96-5002) to the Pitman arm using one of the previously removed OE 14mm track bar bracket outer retaining bolt and nut plate. See ILLUSTRATION 2.
- 14. Secure the torque tool (**96-5002**) to the existing hole in the frame crossmember using the supplied **7/16**" **X 1 1/4**" bolt





and hardware. See ILLUSTRATION 2. NOTE: The steering wheel may need to be turned in order for the hole in the torque tool and the frame crossmember to line up. Once the bolts are tightened the torque tool will align it's self properly.

NOTE: The use of the torque tool is to keep the Pitman arm from moving right or left, but allow for movement up the sector shaft. If you do not have this tool, a length of chain or a flat bar with



#### two holes is a suitable replacement.

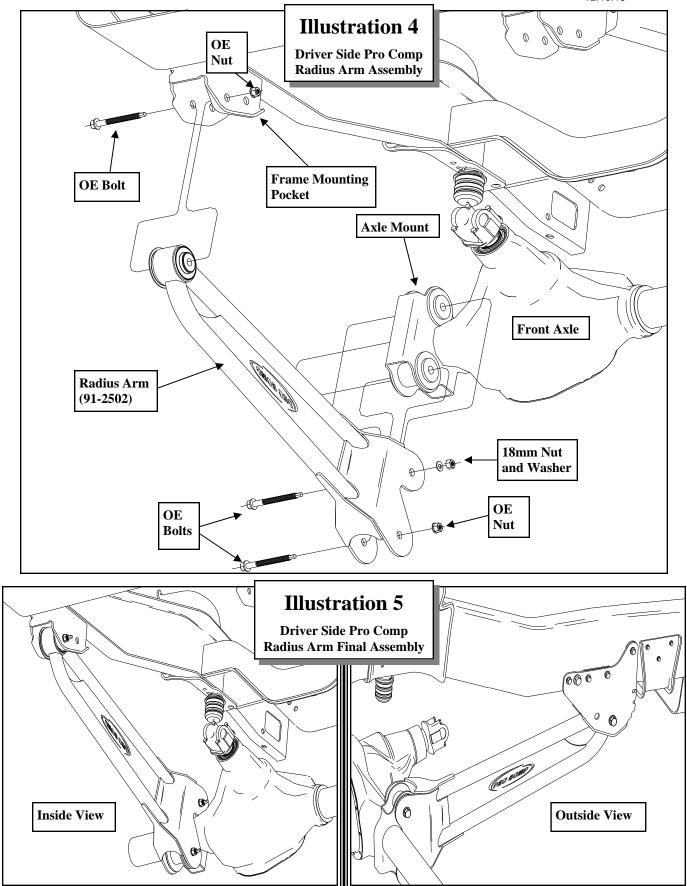
- 15. Torque the Pitman arm retaining nut to 375 ft./lbs.
- 16. With the torque tool (96-5002) still in place remove the pitman arm retaining nut. The threads of the sector shaft and the Pitman arm retaining nut <u>MUST</u> be cleaned using brake cleaner or another suitable method to remove the previously applied oil.
- 17. Use the entire supplied thread locking compound to thoroughly cover the entire surface of the threads on the Pitman arm retaining nut.
- 18. Reinstall the Pitman arm retaining nut to the sector shaft and torque to 350 ft./lbs.

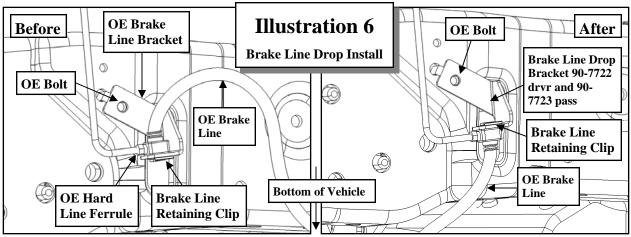
NOTE: Whether re-using the existing pitman arm retaining nut or replacing with a new nut, the supplied locking compound must be used.

19. Unbolt and remove the Pitman arm torque tool (**96-5002**) from the vehicle.

#### NOTE: Save this Pitman arm torque tool to add to your toolbox for any future Pitman arm installations.

- 20. Install track bar drop bracket (91-7687) using (2) 9/16" X 3", (1) 9/16" X 1 1/2" and (2) OE bolts. Use thread locker on the bolts. Torque OE the bolts to 129 ft. lbs. and the 9/16" bolts to 110 ft. lbs. See ILLUSTRATION 3.
- 21. Unbolt the front brake line bracket from the lower spring perch. Save hardware





for reuse.

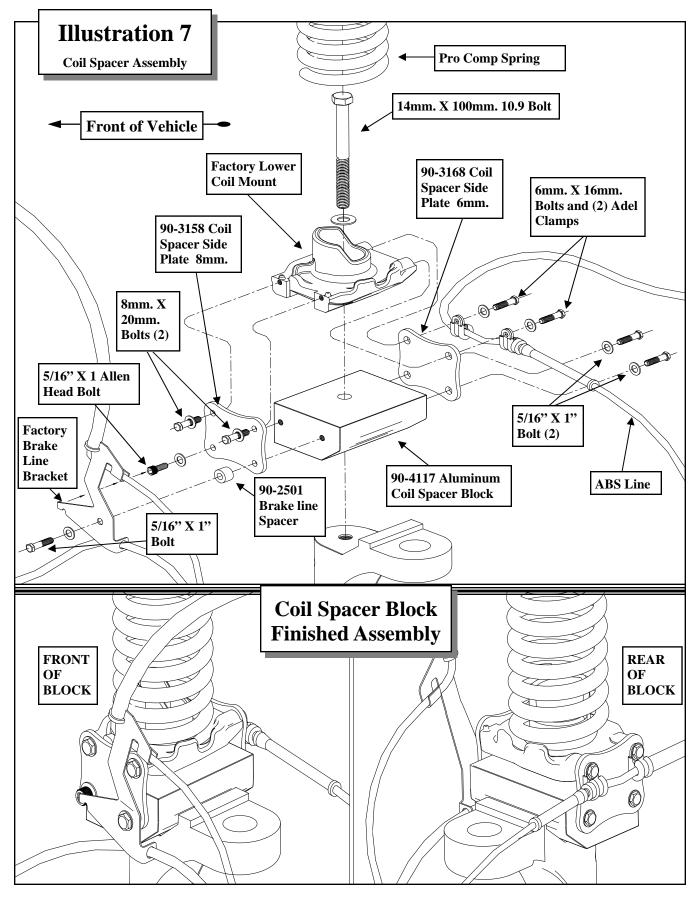
- 22. Unbolt and unclip the ABS wiring connected to the radius arm. Save hardware for reuse.
- 23. On the driver side, unclip the axle vent line from inside the frame.
- 24. On the passenger side unclip the axle hub vacuum line from inside of the axle bump stop plate.
- 25. Raise the front axle enough to relieve tension on the shock hardware and remove the shocks from the vehicle.
- 26. Lower the front axle enough to remove the coil springs from the front spring bucket. Save the factory isolators for reuse.
- 27. Support the front axle with jack stands and place a floor jack under the rear of the differential housing.
- 28. Unbolt and remove the passenger side radius arm from the vehicle by taking out the (3) OE mounting bolts from the front axle and the rear frame mounting pocket.
- 29. On the driver side remove the rear radius arm to frame mounting bolt.
- 30. Using the floor jack carefully pivot the rear of the differential housing down.This will allow for easier installation of the new passenger side radius arm.
- 31. On the passenger side, install the new Pro Comp radius arm (**91-2506**) using the (**3**)

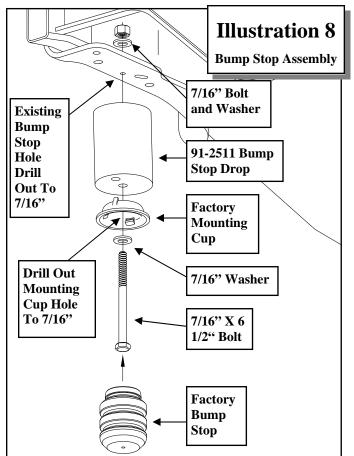
previously removed **OE** bolts. Leave bolts loose. See ILLUSTRATION 4.

- 32. Remove the driver side radius arm from the vehicle.
- 33. Install the driver side Pro Comp radius arm (91-2502) using the (3) previously removed OE bolts, (2) OE nuts and the supplied (1) 18mm nut and (1) hardened washer.

# NOTE: Use thread locker on the OE bolts, nuts and new 18mm nut.

- 34. Torque the front axle mount bolts to 222 ft. lbs. Do not torque the rear mounting bolt until vehicle is on the ground. See ILLUSTRATION 4.
- 35. Unbolt the front brake line bracket from the frame.
- 36. Remove the front brake line retaining clip. Separate the brake line from the bracket. Save the OE clip for reinstallation. See ILLUSTRATION 6.
- 37. 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. See IL-LUSTRATION 6.
- 38. 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 previ-





ously removed **OE** bolt. See ILLUSTRA-TION 6.

- 40. Secure the brake line to the new bracket using the previously removed **OE** clip. See ILLUSTRATION 6.
- 41. Unbolt the center bolt from the lower coil spring mount block and remove it from the vehicle.

#### NOTE: If installing a PRO COMP double shock hoop kit, install the lower mounting bracket at this time.

42. Insert the new aluminum coil spacer (91-4117) with the factory lower coil mount on top and secure with the supplied 14mm X 100mm bolt. Do not tighten at this time. See ILLUSTRATION 7.

# NOTE: Make sure the ABS line is behind the coil blocks

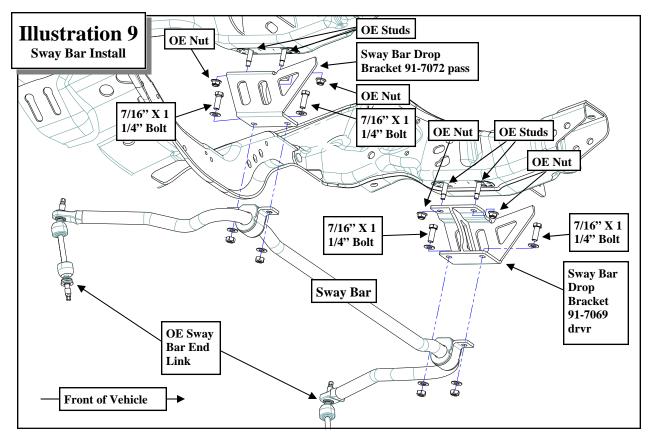
43. Install the 8mm coil spacer side plate (91-3158) to the front of the factory lower coil

mount. Using the supplied **8mm X 20mm** bolts in the (**2**) top holes. See IL-LUSTRATION 7.

- 44. On the bottom front inside hole, insert the supplied **5/16**" **X 1**" Allen head bolt and hardware.
- 45. The remaining bolt, spacer and brake line bracket will be bolted on later.
- 46. On the rear of the factory lower coil mount install the 6mm coil spacer side plate (91-3168) using the (2) supplied 6mm X 16mm, bolts, hardware and supplied brake line clamps (171006ERL) in the top (2) holes. See ILLUSTRATION 7.
- 47. On the bottom rear holes secure using the supplied (2) 5/16" X 1" hex head bolts and hardware. See ILLUSTRATION 7.
- 48. Torque all spring block hardware.
- 49. 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.
- 50. On the driver side, unbolt the bump stop mounting cup and drill out the factory hole in the frame and bump stop mounting cup to **7/16**".
- 51. On the passenger side, unbolt the bump stop mounting cup. Measure in toward the engine 5/8" from the center of the factory bump stop hole in the frame. Center punch and drill and the new hole 7/16" in the frame. Drill out the bump stop mounting cup to 7/16".
- 52. Use the supplied 7/16" X 6 1/2" bolt and hardware to bolt the bump stop drop (91-2511) and mounting cup to bump stop hole in frame. See ILLUSTRATION 8.

# NOTE: Be sure to fit the tab from the mounting cup into the hole in the drop.

53. Reinstall the previously removed factory bump stop into the mounting cup on the new bump stop drop. See ILLUSTRA-



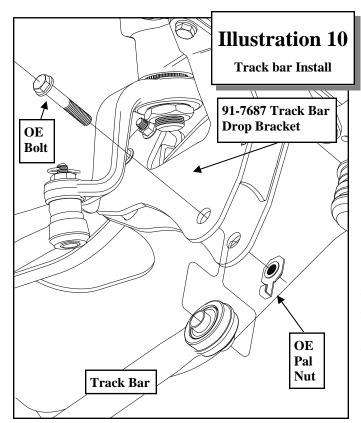
TION 8.

- 54. Using the factory isolators install the supplied front coil springs (24514 Gas or 24515 Diesel) into the spring buckets and raise the axle into place. Make sure the coil spring seats properly on the lower spring perch.
- 55. Install the new shocks (927553, MX6104 or MX6065R). Torque the upper mounting hardware to 46 ft. lbs. and the lower mounting hardware to 111 ft. lbs. Use thread locker on these bolts.

#### <u>Steps 56 through 60 for Reservoir Shock</u> <u>Installation ONLY!:</u>

- 56. Press out the existing sleeve and bushing on the shaft end and replace them with bushing (600026) and sleeve (113600020) from hardware pack (90-6242).
- 57. Assemble adapter using the 1/2" x 2 3/4" bolt and hardware.
- 58. Torque 1/2" bolt to 60 ft./lbs.

- 59. Install into existing stem mount. Rotate adapter until the shock mounting bolts are as close to parallel as possible.
- 60. Torque 5/8" nut to 105 ft. lbs.
- 61. Install draglink end into pitman arm and torque draglink nut to 148 ft. lbs. Reinstall cotter pin.
- 62. Install the sway bar drops (**91-7069 drvr** and **91-7072 pass**) to the **OE** sway bar mounting studs on the frame using the previously removed **OE** hardware. See ILLUSTRATION 9.
- 63. Carefully raise the sway bar back into place and secure to the sway bar drops using the supplied **7/16'' X 1 1/4''** bolts and hardware. See ILLUSTRATION 9. *NOTE: Be sure to reinstall the sway bar according to the previously applied orientation mark.*
- 64. Reattach the sway bar to the **OE** sway bar end links using the previously removed **OE** hardware.



- 65. On the driver side, re clip the axle vent line on the frame providing adequate slack for the line at full droop.
- 66. On the passenger side, reposition the clip on the axle hub vacuum line to provide adequate slack to re-clip the line to the existing hole on the outside of the bump stop plate.

#### NOTE: Be sure that the newly rerouted vent line does not interfere with the travel of the bump stop.

67. Fasten the ABS wiring clips to the tabs on the backside of the radius arms using the **OE** bolts.

# NOTE: Use silicone to seal the ABS line push clip to the hole on the top of the Radius arm.

- 68. Remove the ABS line from the inner fender. Drill a new hole, using a 15/64" bit, 3" lower in the fender to provide adequate slack for line and reattach the ABS line.
- 69. Refasten the lower brake line mount to

the lower coil spring perch using the **OE** hardware.

- 70. Reinstall the front wheels and lower the vehicle to the ground. Torque to manufacturers specs.
- 71. Torque the **OE** rear Radius arm bolts to 222 ft. lbs.
- 72. Reinstall the track bar into the Pro Comp track bar bracket (91-7687) using the OE bolt. Torque to 406 ft. lbs. See ILLUS-TRATION 10.

NOTE: You may find that having someone inside the vehicle and moving the steering wheel from side to side will aid in the alignment of the track bar. <u>DO NOT</u> start the engine for this! You only have to move it enough to line the holes up on the track bar mount.

- 73. At ride height, adjust the sway bar drop brackets so that there is approximately 1/2" of space between the sway bar brackets (91-7069 drvr and 91-7072 pass) and the aluminum coil spacer block hardware and/or brake lines. Torque all sway bar hardware according to manufacturers specifications.
- 74. 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. At full droop, cycle the steering from lock to lock while observing the reaction of these components. Reposition them if needed.

### NOTES:

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

## **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. Remove the wheels and tires.
- 3. Unscrew the rear axle vent tube to separate the rear brake line bracket from the rear axle.
- 4. Remove the shocks on both sides of the vehicle. It may be necessary that you slightly raise the axle to unload the shocks for removal.
- 5. On the driver side, unbolt the emergency brake line bracket from the upper spring plate. Save hardware for reuse.
- If your vehicle is equipped with factory sway bar, unbolt it from the end links. Unbolt and remove the end links from the vehicle.
- 7. Support the rear axle with a floor jack and remove the **U-bolts** on the driver side. Slightly loosen the **U-bolts** on the passenger side.
- 8. Lower the rear axle and remove the factory block.

#### NOTE: Be sure not to over extend the rear brake line and rear axle vent line.

- 9. While supporting the rear leaf spring, remove the factory spring mounting bolts and remove the leaf spring from the driver side only at this time.
- 10. Disassemble leaf spring and insert the add-a-leaves (13150-1 and 13150-2).

NOTE: The add-a-leaves will be added onto the bottom of the factory spring pack, progressively according to length. Do not install the add-a-leaves below the factory overload spring if the vehicle is equipped with one. See ILLUSTRATION 11.

11. Using the C-clamps, bolt the leaf pack back together using the supplied center

bolt with the head of the bolts facing down and the nut on the top. Reinstall the spring pack to the hangers using the **OE** hardware. Do not torque at this time.

NOTE: <u>DO NOT</u> trim the excess center bolt on the driver side. The extra threads will be needed to attach the OE emergency brake line bracket.

## **APPLICATIONS:**

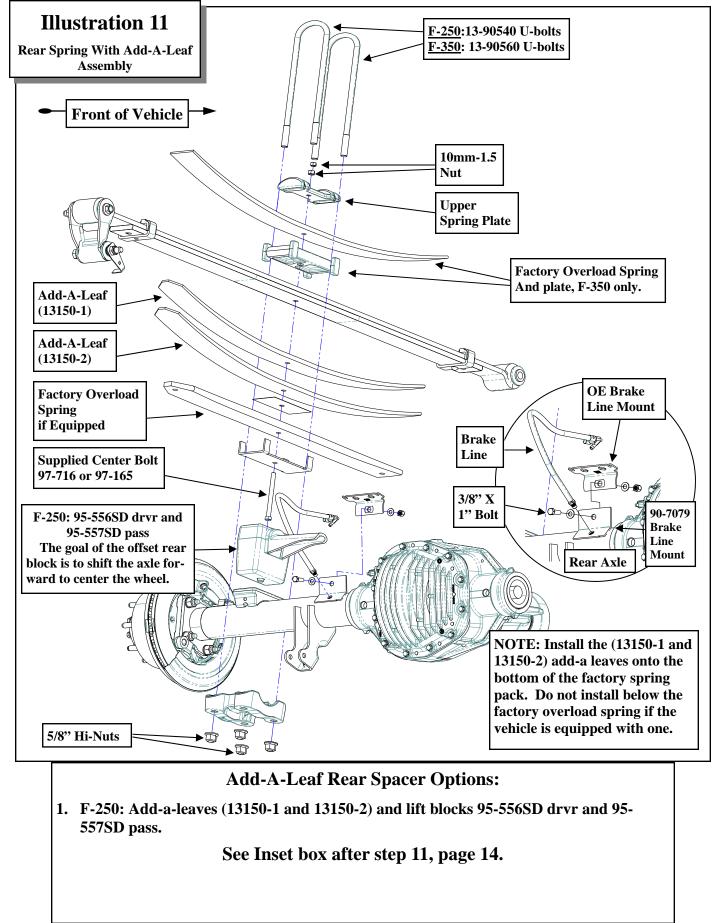
- 1. FOR F-250 MODELS, INSTALL THE ADD-A-LEAVES (13150-1 AND 13150-2) AND LIFT BLOCKS 95-556SD DRVR AND 95-557SD PASS.
- 12. Install the supplied lift block (F-250: 95-556SD drvr and 95-557SD pass) depending on application. See the side note for proper applications. Make sure the pin fits into the hole on the spring perch. Use your floor jack to raise the axle to the spring making sure the pin on the factory leaf spring assembly fits into the hole on the lift block. Secure the assembly with the 5/8" U-bolts (F-250: 13-90560 ) 5/8" hi-nuts (PN 20-65471) and washers supplied. Do not torque the hi-nuts at this time. See ILLUSTRATION 11.

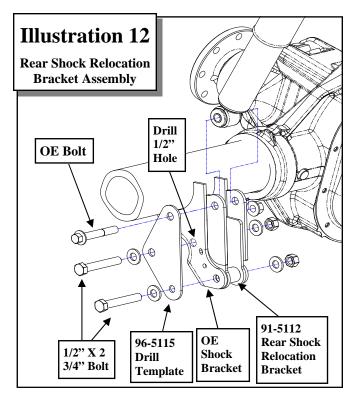
# NOTE: Make sure the block sits flush on the axle perch.

- 13. Repeat the installation on the other side of the vehicle.
- 14. On driver side, carefully bend down the emergency brake line bracket that secures the line to the frame and bolt the emergency brake line bracket back to the spring pack center bolt using the supplied **10mm-1.5** nut.
- 15. Install your new Pro Comp shocks (934008 or MX6018 or MX6069R). Torque the upper mounting hardware to 46 ft. lbs. and the lower mounting hardware to 66 ft. lbs. Use thread locker on these bolts.

Steps 16 through 22 are for MX-6/

52883B/52883BMX /52883BMXR Revised 12.10.13





#### MX-6R installation ONLY!

- 16. Install the rear shock relocation brackets (91-5112) and drill template (96-5115) into the OE rear axle shock mount. Secure using the supplied 1/2" X 2 3/4" bolts and hardware in the original shock mounting hole. See ILLUSTRATION 12.
- 17. Make sure the bracket is rotated fully into place until the welded portion of the bracket (91-5112) inside OE axle bracket and using the hole in the drill template as a guide mark the axle bracket for drilling. See ILLUSTRATION 12.
- Center punch and drill the OE rear axle bracket. See ILLUSTRATION 12. NOTE: Be sure to drill through both sides of the OE rear axle bracket. Use the shock bracket (91-5112) as a guide to make sure the drill bit stays in line.
- Remove the drill template (96-5115) from the rear axle. Reinstall the previously removed 1/2" nut and washer from the lower shock bracket bolt.
- 20. Install the supplied **1/2**" **X 2 3/4**" bolt and hardware into the newly drilled hole and secure. See ILLUSTRATION 12. Torque

these bolts according to the torque chart on page 18.

- 21. Install the rear shock (MX6018 or MX6069R) into the shock relocation bracket using the previously removed OE bolt. See ILLUSTRATION 12.
- 22. Torque the upper mounting hardware to 46 ft. lbs. and the lower **OE** mounting hardware to 66 ft. lbs. Use thread locker on these bolts.
- 23. Repeat steps 16 Through 22 on the remaining side of the vehicle.
- 24. Remove the (2) bolts that secure the center drive shaft bearing. Lower bearing and install 1/4" of shim thickness for each inch of rear lift. Use new 7/16" X 2 1/4" bolts and torque to 55 ft./lbs.

NOTE: 1/4" of shim for each inch of lift is only a starting point. Only by driving the vehicle and adding or removing shims can the high speed vibration be totally eliminated. The off the line vibration is caused by axle wrap up and cannot be eliminated with these products.

- 25. If vehicle came equipped with a rear sway bar, assemble the rear sway bar end links (91-2446) using the bushings (45359) and sleeves (60859H).
- 26. Secure the new rear sway bar end links (91-2446) to the frame and the sway bar using the provided 12mm-1.75 X 70mm. Torque the bolts according to the torque chart on page 18.
- 27. Secure the new rear brake line bracket (90-7031) to the rear axle by reinstalling the vent tube.
- 28. Secure the OE brake line bracket to the new brake line bracket (90-7079) using the supplied 3/8" X 1" bolt and hardware.
- 29. Reinstall the wheels and tires and lower the vehicle to the ground. Torque lug nuts to manufacturer specification.

- 30. Torque the spring mounts at this time. The front bolts are torqued to 250 ft. lbs. and the rear bolts are torqued to 185 ft. lbs. Torque the 5/8" U-bolts to 120 ft. lbs.
- 31. Re-check the wheel lug torque on all four wheels at this time.
- 32. Re-check <u>all</u> hardware (both the front and the rear) for proper installation and torque!!
- 33. If you wish, you may trim the excess ubolt thread length. If you do this you should leave approximately one inch of thread exposed after the **U-bolts** are torqued.
- 34. 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. Reposition them if needed.

#### NOTES:

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

Bolt Torque and ID						
Decimal System		M	etric S	y stem		
	-	All Torqu	esin Ft. Lbs. N	/laximum:	s	
Bolt Size	Grade 5	Grade8	BoltSize	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
$\begin{array}{c c} & & & & & & \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline$						
D = Nominal Diameter (Inches) T = Thread Count (Threads per Inch) L = Length (Inches)			P = Property Clas D = Nominal Diar T = Thread Pitch L = Length (Millin X = Description (	meter (Millin (Thread Wid meters)	neters) lth, mmì	

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

## **Revision Page:**

- <u>5.9.11:</u> Replaced pitman arm FD-700 with pitman arm FD-800 in BOM, text and illustrations.
- <u>10.19.11</u>: Updated kit fitment to include 2012. Changed trac bar PN from (91-7074) to (91-7687). Added front brake line drops (90-7722 drvr and 90-7723 pass) to kit. Added corresponding installation steps (35-39) & illustration 6. Added rear MX-6 shock bracket installation instructions and corresponding illustration #13. Changed applicable part numbers from 90 to 91. Updated BOX-3 BMR to the correct BOM.
- <u>11.7.11:</u> Removed (690002) from hardware pack (90-6242) in BOM box-3MXR. Changed qty. of bushing and sleeve in hardware pack (90-6242) from (1) to (2). Inserted (690002) stem loop adapter instructions to the text.

#### 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 warranties 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
- Discontinued products at FIO Comp's discret.
- 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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WARRANTY REGISTRATION			
NUMBER			
HERE:	_		