

# INSTALLATION INSTRUCTION

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Part #FORD-PNSDAL-001



## Notice to Dealer / Consumer

**Important! Read all instructions before attempting any work on the vehicle.**

**Disclaimer Notice:** Installing this suspension system on any vehicle implies that you are in agreement with the following term and conditions with respect to that vehicle, the vehicle owner, and any or all occupants of said vehicle at any time:

- Sky Manufacturing is not responsible and cannot be held responsible for any conditions of said vehicle, including but not limited to the following: 1) Any and all adverse behavior, premature failure, or breakage caused by oversized tires and wheels, improper installation, failure to follow instructions, or any general negligence caused by installer or owner of said vehicle. 2) Any breakage or premature failure caused by racing or driver negligence. 3) Any incident determined to be caused by an increase height in said vehicle's center of gravity. 4) Any incident determined to be caused by improper installation. 5) Any incident determined to be caused by a failure of materials.
- Sky Manufacturing is to be held harmless by the installer of this suspension component, owner of said vehicle, and any parties related directly or indirectly to said vehicle or owner of said vehicle. Sky Manufacturing is to be held harmless by all parties mentioned during the course of any and all circumstances or incidence resulting from the installation of this suspension component.
- It is not the intention of Sky Manufacturing that said vehicle be modified for use on public highways sanctioned by the Department of Transportation, or any state or local governing body. Vehicle owner accepts sole responsibility for ensuring that said vehicle is not in violation of local, state, or federal laws or vehicle code. Please check local vehicle laws and regulations before modifying your vehicle.

**By installing this kit or having this kit installed on your vehicle, you are implying that you agree to the above terms and conditions. Please do not install this system if you do not agree.**

### **WARNING:**

**Vehicles modified for Off-road use may handle differently and vehicle may roll-over.**

Vehicles modified for off-road use are generally do not improve in cornering or maneuverability on the highway, therefore it is imperative to familiarize yourself and all operators with the specific driving characteristics of the vehicle. Failure to operate in a safe and conservative manner may cause you, your passengers, and/or third parties to suffer serious injury or even death if control is lost.

Always wear your seatbelt and shoulder harness. Seatbelts not only help to protect occupants from injury but also keep the driver behind the wheel and in control when operating in rough terrain. Always remain on trails and observe conservation techniques while operating your vehicle.

## Bill of Materials

Qty	Description
1	Front Cross-Member Spring hanger
1	Driver Offset Lo-Pro Shackle Hanger
1	Passenger Offset Lo-Pro Shackle Hanger
2	Lo-Pro Shackles
1	Driver Frame Box Bracket
1	Passenger Frame Box Bracket
1	Hardware Pack

### Tools Recommended:

- 1-1/6, 15/16, 7/8, 13/16, 3/4 Socket and same size end wrenches
- 1/2 impact gun or Breaker Bar
- Air Hammer and Large Hammer
- Straight or 90 Die Grinder
- 1/2" Step or Drill Bit, Center Punch
- Torch

### INSTALLATION NOTES:

- Inspect the contents of the kit and read the entire instructions before proceeding.
- We recommend this installation be performed by a qualified technician.
- Torque all hardware to factory specifications.
- We recommend using red Loctite on all bolts.
- When removing wheels, support vehicle with jack stands.
- Exhaust modifications may be necessary.

Hardware Pack			
		2	18x130mm Bolts
16	1/2 x 1.5" Hex Bolts	2	18mm Nylocks
4	1/2-20-5	2	5/8x5" Bolts
20	1/2" locknuts	2	5/8x5.5" Bolts
40	1/2" washers	4	5/8" Nylocks
2	9/16" x 5" hex bolts	8	5/8" Flat Washers
2	9/16" Nylocks	4	Shackle Bushings
4	9/16" washers	2	Frame Spacers
2	Bushing Sleeves		

\*\*\*\*\*This kit is designed for 1985-91 solid axle trucks. We recommend swapping solid axle on TTB trucks\*\*\*\*\*

\*\*\*\* NOTE THESE INSTRUCTIONS ARE FOR THE FSROB kit, but the install is the same for this kit \*\*\*\*

1. Secure Vehicle Properly with front tires off the ground, support front axle, and pinion as well.
2. Remove front bumper with 15/16 Shallow Socket and remove Upper PanHard bolt by engine cradle and front shackles.



Grind rivet heads flat.

Drill Shackle Hole out to 7/8 so the frame sleeve will fit inside.



3. Remove Rear Leaf Spring Hanger Bolt (3/4 Socket)

4. Remove U-bolts (13/16 or 7/8) and take leaf springs out of truck.



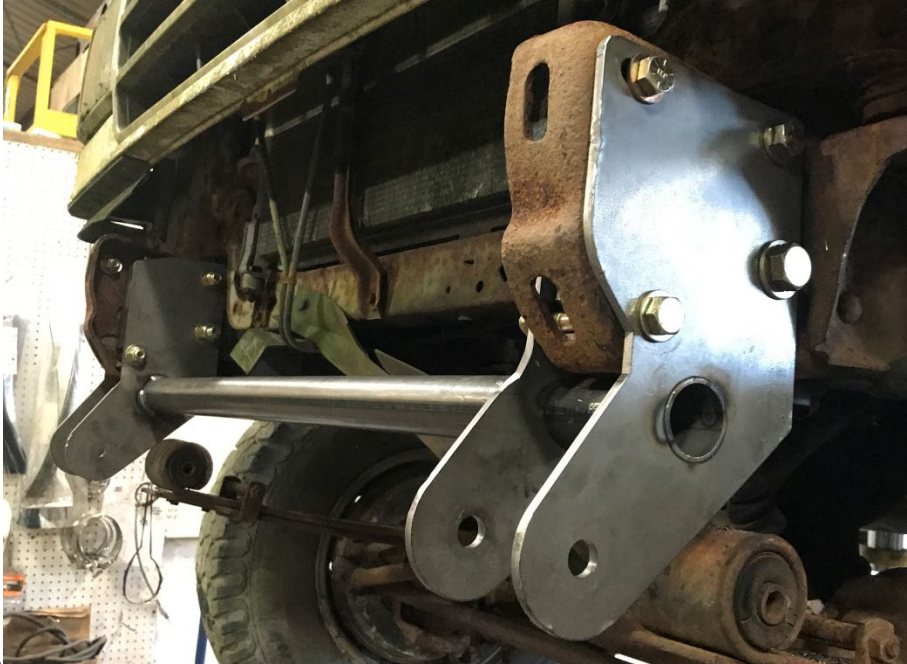
5. Install new front hanger and frame bracket, lining up the 5/8 bolt holes in front hanger and frame. Install frame spacer before sliding hanger over and insert 5/8x5" bolt through holes in frame and tighten bolts snug, you will torque all hardware at the end of installation.



6. Measure from front spring hanger eye to factory rear leaf hanger 55.5". From there you can drill the remaining bolts to set the front hanger (You technically can install your bumper bracket on at this point as well and leave the front two

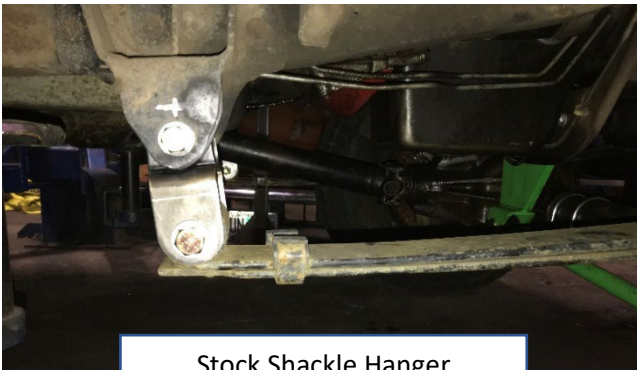


bolts loose for bumper trimming and adjustment. At this point we usually run a stitch weld along the top of the inner



frame bracket.

7. We absolutely recommend installing the shackle hanger for the rear of the front springs that came in the kit, you will turn this kit into a 2.5" kit without them. For demonstration purposed we installed the springs with the factory shackle hanger and lowered the truck back down on its weight to illustrate what it will look like. WE DO NOT RECOMMEND THIS SHACKLE ANGLE. Unlike some of our other kits, you will not be able to drill a hole one inch above the factory hole in the shackle hanger. The new lo-profile shackle hanger we have designed has the hole moved forward as well to help the shackle angle.



Stock Shackle Hanger



Lo-Pro Shackle Hanger

8. To install the Lo-Pro shackle hanger you will need to remove the factory rivets; there are many ways to remove the rivets. We recommend scarfing them off with a torch and using an air hammer to punch them out of the frame.



9. The holes that are in the frame are not perfect round 1/2" holes and the bolts will not fit through them. To install the Lo-Pro shackle hangers we first take a 1/2" drill bit or die grinder to the bottom two holes in the frame until they fit the 1/2" bolt. After the bolts fit through the frame, install the shackle hanger with the machined 1/2" bolt in forward hole and 1/2x1.5" bolt in rear hole. Suck up the bottom bolts (3/4 socket) tight and you will see most of the side holes are close but don't line up perfect; generally, we take a die grinder to the holes to clearance them, install the rest of the bolts in the shackle hanger, and torque to spec.

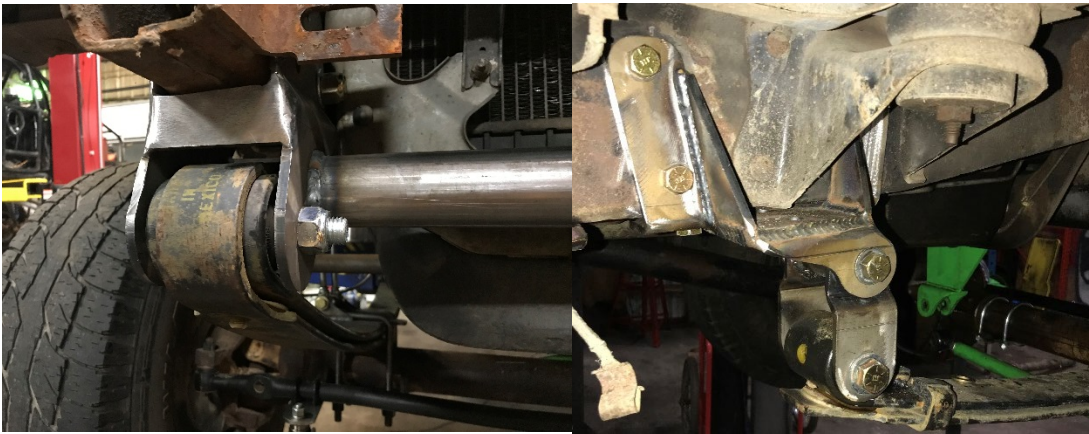


10. Install shackle bushings and sleeves, grease liberally. After pins are installed, use 5/8x5.5" bolts to hang the



shackles to the lo-pro hangers. KEEP LOOSE!

11. Install 18x130mm Bolts (1-1/16 Socket) followed by the 5/8x5.5" Bolts (15/16 Socket) through the shackle to hang your leaf springs. KEEP LOOSE AND GREASE LIBERALLY!



12. Install new U-bolts (7/8 Socket) and snug up to the axle, but do not make over tight.

13. Set vehicle back down onto its tires, cycle the suspension to help set everything, and torque all hardware installed to spec.

14. Check to make sure brake lines are not stretched. You may have to bend the hard line at the calipers toward the frame and/or bend down the tab that holds lines at the frame.

15. Front Bumper will need most likely to be trimmed around where the military wrap hits the bumper.

16. Hook up the new adjustable PanHard bar or install stock bar. It helps to use the steering when aligning all the holes. Simply start truck and turn left or right slightly to Align while truck is on ground.

17. Measure your axle side to side in the truck and adjust the PanHard bar as necessary. Re-torque all hardware installed after the first 50 miles. Re-Torque again at 500 miles, Check every 5000 miles after.