

OBS FORD LT REAR LEAF SPRING SUSPENSION

Thoroughly read all of the instructions BEFORE beginning installation

Notes:

USE QR CODE TO SEE LT REAR SUSPENSION INSTALL VIDEO HERE



- When doing this install it is a good time to replace your diff fluid, check your driveshaft
 u-joints, check the brakes, etc. This is also a good time to make sure your e-brake cables
 move freely in their housing.
- This kit is designed to work WITHOUT the factory blocks.
- If you do a lot of towing or put a lot of weight in the bed you may want to consider some helper air bags.
- Bump stops are not provided. If you plan on doing serious off-road things then we recommend installing bump stops.
- These springs are soft and if your carrier bearing is worn out you may feel a little more vibration on take off than normal. You may also get a little more vibration on hard take off due to axle wrap; in this case we recommend running our traction bars.
- On some trucks the bed is not aligned properly from side to side and may need to be adjusted based on the rear hangers.

What's Included:

- (2) Leaf spring packs
- (2) Front spring hangers
- (2) Rear Spring hangers
- (2) Shackles
- Energy Suspension 3.2124G shackle bushings
- (4) U-bolts with nuts and washers
- (1) Extended brake line
- (1) Parking brake cable bracket
- Hardware Bag

Section 1: Removing the factory rear suspension:

- 1. Disconnect the battery and chalk the tires.
- 2. Lift the truck so that you can place the frame on jack stands and have the axle fully dropped without touching the ground.
- 3. Remove the rear tires.
- 4. Disconnect the driveshaft from the rear axle and tie it up, out of the way.
- 5. Disconnect the soft rear brake line that goes from the frame crossmember to the axle.
- 6. Disconnect the parking brake cable where the single cable coming from the pedal connects to the two cables going to the axle.
- 7. Remove the rear shocks.

- 8. If your truck is equipped with a sway bar, disconnect it.
 - a. If your truck has a rear sway bar you can choose whether or not you want to run it depending on your application.
- 9. Support the axle with jack stands and then remove the U-bolts that are holding the axle to the leaf springs.
- 10. Unbolt and remove the leaf springs and shackles on both sides.

This next step involves removing the factory rivets from the frame. This is not always an easy job, but here are some different methods that work for us.

- First method: Using a cutoff wheel, cut three vertical lines in the rivet and three horizontal lines in the rivet. Then take an air hammer with a chisel bit and hammer off the top of the rivet. Use a flap disc (sanding disc) on a grinder to grind the rivet smooth. Then use a punch bit on the air hammer to push the rivet out.
 - If you have a powerful enough air hammer you may not need to cut lines in the rivets to hammer them off.
- Second method: Use a plasma torch or oxy/acetylene torch to burn the rivets out, being careful not to remove the frame material.
- Third method: Use a sharp punch to make a dimple in the center of the rivet and then drill the rivet out with a drill bit.
- 11. Remove the rear leaf spring hangers from both sides of the frame.

<u>Section 2:</u> Installing the frame side brackets. Congratulations! The hard part of the frame side of the job is done and now it's time to install the frame brackets.

- 12. The two rear hangers are identical and not side specific; the front hangers are side specific and you need to mount them so that the larger leaf spring opening is facing the rear.
- 13. Mount the rear leaf spring/shackle hanger using the 4 factory holes in the frame.
 - a. This hanger gets mounted opposite of how the factory hanger was mounted.
 - b. You will need to bend the small pinch seam on the bottom side of the bed to make sure it doesn't rub on the hanger.



14. Mount the new front leaf spring hanger. The rear holes of the new hanger will bolt into the forward 3 factory holes and the bottom hole will line up with a factory hole in the frame. Then drill the 3 forward holes using the new hanger as a template.



Section 3: Installing the leaf springs and shackles

- 1. Install the supplied **Energy Suspension 3.2124G** bushings into the shackles.
 - a. Be sure to thoroughly lube the bushings, sleeve and inside of the shackle.
 - b. Apply anti seize to the shank of the bolt but NOT the threads.
- 2. Install the shackles using the 9/16"-12 x 4.5" bolts with flat washers and lock washers.
 - a. Tighten the bolts until your shackle is stiff to move but able to be moved by hand.

 Overtightening can result in a stiffer ride because it can restrict the shackle
- 3. Drill out the center hole of your leaf spring pad on the axle to ¾" so that the leaf spring pin can seat fully.
 - a. Be careful not to drill through the axle tube.
- 4. Install the leaf springs starting with the front hanger. You will use the rear most hole on both sides. Then attach the leaf spring to the shackle.
 - a. The leaf springs are labeled on the end identifying the front of the spring.
 - b. Apply anti seize to the shank of the (4) M16-2.0 x 130mm but NOT the threads.
 - c. Leave the leaf spring bolts loose for now.
- 5. Take your original U-bolt plates and drill out the center hole so that it fits over the nut on the leaf springs.
- 6. Install the new U-bolts and tighten them down evenly.

Section 4: Finishing the installation. Now that all the brackets are installed and the axle is bolted to the leaf springs it's time to finish things up.

- 7. Install the new, extended rear brake line.
- 8. Reference the picture above for mounting the parking brake cable bracket to the front spring hanger. You can either weld this bracket on or you will need to drill two holes in the hanger and either use rivnuts or use the supplied M8 bolts and nuts.
- 9. Install your shock and reconnect the drive shaft.
- 10. Install your wheels and tires and lower the truck back down on its own weight.
- 11. Now is when you will tighten the 4 leaf spring bolts (2 per side). Tighten them until you can see the bracket/hanger start to pinch the leaf spring bushings and then stop. Overtightening these will cause the leaf springs to bind and ride rough.
- 12. Bleed the brakes starting with the passenger rear.
- 13. Reconnect the parking brake cables.
- 14. Double check that all hardware is torqued down.
- 15. Take it out for a test drive!

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