



## #F1251 Installation Instructions

### 2000-2004 Ford Super Duty F-250/350 4wd

### 2-2.5" Suspension Lift

## Read and understand all instructions and warnings prior to installation of product and operation of vehicle.

Zone Offroad Products recommends this system be installed by a professional technician. In addition to these instructions, professional knowledge of disassembly/ reassembly procedures and post installation checks must be known. Minimum tool requirements include the following: Assorted metric and standard wrenches, hammer, hydraulic floor jack and a set of jack stands. See the "Special Tools Required" section for additional tools needed to complete this installation properly and safely.

### » PRODUCT SAFETY WARNING

Certain Zone Suspension Products are intended to improve off-road performance. Modifying your vehicle for off-road use may result in the vehicle handling differently than a factory equipped vehicle. Extreme care must be used to prevent loss of control or vehicle rollover. Failure to drive your modified vehicle safely may result in serious injury or death. Zone Offroad Products does not recommend the combined use of suspension lifts, body lifts, or other lifting devices.

You should never operate your modified vehicle under the influence of alcohol or drugs. Always drive your modified vehicle at reduced speeds to ensure your ability to control your vehicle under all driving conditions. Always wear your seat belt.

### Difficulty Level

easy 1 **2** 3 4 5 difficult

Estimated installation: 3-4 hours

### Special Tools Required

30mm (1-3/16") sockets

(2) Large C-Clamps

### Tire/Wheel Fitment

Wheel:

16x8/16x10, 4" BS

Tire:

33x12.50

### » PRE-INSTALLATION NOTES

1. Special literature required: OE Service Manual for model/year of vehicle. Refer to manual for proper disassembly/reassembly procedures of OE and related components.
2. Adhere to recommendations when replacement fasteners, retainers and keepers are called out in the OE manual.
3. Larger rim and tire combinations may increase leverage on suspension, steering, and related components. When selecting combinations larger than OE, consider the additional stress you could be inducing on the OE and related components.
4. Post suspension system vehicles may experience drive line vibrations. Angles may require tuning, slider on shaft may require replacement, shafts may need to be lengthened or trued, and U-joints may need to be replaced.
5. Secure and properly block vehicle prior to installation of Zone Offroad Products. Always wear safety glasses when using power tools.
6. If installation is to be performed without a hoist, Zone Offroad Products recommends rear alterations first.
7. Due to payload options and initial ride height variances, the amount of lift is a base figure. Final ride height dimensions may vary in accordance to original vehicle attitude. Always measure the attitude prior to beginning installation.

## Kit Contents

| Qty | Part                                                |
|-----|-----------------------------------------------------|
| 2   | Front Leaf Mini-Pack                                |
| 2   | 7/16" x 4" Center Pin/Nut                           |
| 1   | 1/8" x 1-1/4" Cotter Pin                            |
| 1   | Front Adjustable Track Bar                          |
| 4   | 9/16" x 3-1/8" x 9-1/2" Curved U-bolts/nuts/washers |

## INSTALLATION INSTRUCTIONS

### Important—measure before starting!

Measure from the center of the wheel up to the bottom edge of the wheel opening

LF \_\_\_\_\_ RF \_\_\_\_\_

LR \_\_\_\_\_ RR \_\_\_\_\_

### Step 2 Note

The track bar bolts require a 30mm or 1-3/16" socket/wrench to remove and install.

### »» PRE-INSTALLATION NOTES

1. These vehicles, especially diesel models, are very heavy. Be sure that proper jacks/stands are used that are rated to handle the weight of the vehicle. Ensure that the vehicle is well supported before beginning the installation.
2. The factory front track bar bolts require 405 ft-lbs of torque to be installed properly. Be sure you have the means of removing and installing this hardware properly. It is possible to install the hardware and torque to a more modest range (200 ft-lbs or so) and take the vehicle to a shop with the means to torque the hardware properly immediately after the installation is complete.

### »» FRONT INSTALLATION

1. Park the vehicle on a clean, flat surface and block the rear wheels for safety.
2. Locate and remove the front track bar bolt at the driver's side frame mount. Save hardware. **Figure 1**



Figure 1

3. Raise the front of the vehicle and support the frame with jack stands just behind the front leaf spring. Be sure the stands are adequate for the weight of the vehicle.
4. Remove the front wheels.
5. Disconnect the track bar from the axle mount. **Figure 2** Save hardware along with the frame hardware removed earlier. The track bar will not be reused.
6. Remove the cotter pin and castellated nut from the steering drag link at the pitman arm. Thread the nut back on a couple turns. Strike the pitman arm near

the drag link end to dislodge the taper. Remove the nut and drag link from the pitman arm. Save nut.



Figure 2

7. Disconnect the front sway bar links from the frame. Save hardware. Figure 3A

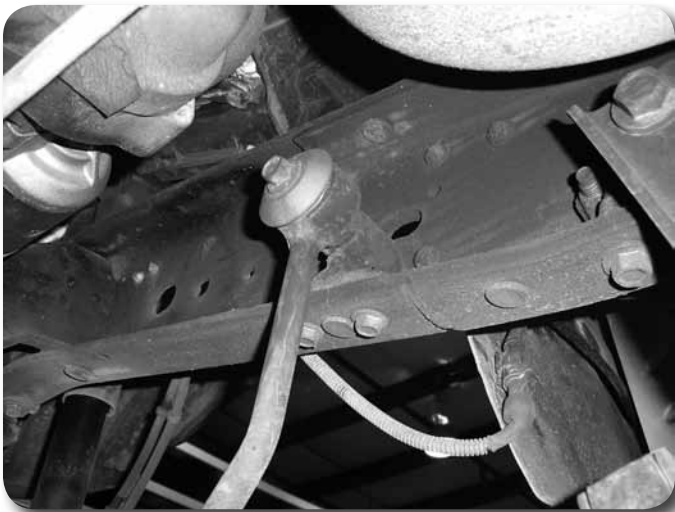


Figure 3A



Figure 3B

## Step 5

If installing  
sway bar  
bar links  
Save hardware

8. Disconnect the front shocks from the axle. Save hardware.
9. Locate the front brake line bracket on the frame. Bend the bracket downward approximately 60 degrees. **Figure 4** This will provide adequate slack in the lines after the vehicle is lifted. After reforming the bracket, disconnect it from the frame. Save hardware.



Figure 4

10. Support the passenger's side of the front axle with a jack. Remove the passenger's side spring u-bolts. Lower the axle away from the spring.
11. Remove the center pin bolt from the leaf spring.
12. Locate one of the new leaf spring mini-packs. Remove the nut from the temporary center pin bolt in the mini-pack. Do not remove the bolt. It will help keep the pack aligned during installation.
13. Place the mini-pack under the factory leaf spring. **Figure 5** The long end of the mini-pack will go toward the rear of the vehicle. Align the temporary center pin bolt with the pin holes in the factory leafs. Using 2 large C-clamps, clamp the factory and new leafs together. **Figure 6** While the leafs are pulled together be sure to keep the pin holes in line.



Figure 5



Figure 6

14. When the leaf are completely clamped together, remove the temporary center pin and install the new provided 7/16" x 4" center pin and nut. Torque nut to approximately 45 ft-lbs. Do not use the new center pin to pull the leafs together, use the clamps. Install the pin from the bottom up.
15. Raise the axle to the new spring with the jack. Align the spring pin into the pin hole in the axle mount and fasten with the new 9/16" u-bolts/nuts/washers and the factory spring plates. Snug the u-bolts just enough to keep the spring pin in place.
16. Repeat the installation steps on the driver's side of the vehicle. Snug u-bolts. The u-bolts will be torqued with the weight of the vehicle on the suspension at the end of the installation.
17. Locate the new adjustable track bar. Make sure that each half of the bar has equal amount of thread engagement into the adjusting sleeve. **Figure 7**



Figure 7

18. Install the short end of the track bar into the axle bracket and loosely fasten with the factory hardware. **Figure 8**



Figure 8

19. **OPTIONAL FRONT SWAY BAR LINKS:** Locate the new provided front sway bar links, bushings and sleeves. Lightly grease and install the bushings and sleeves into the new link ends. Attach the new links to the frame and sway bar with the original upper hardware and new lower hardware. Use a provided 7/16" USS washer with the factory upper hardware as shown in the figure. The links are offset will mount in the same position as the originals. **Figure 9** Torque link hardware to 60 ft-lbs.



Figure 9

20. **USING FACTORY SWAY BAR LINKS:** Locate the factory sway bar mounts inside the frame rails. **Figure 3A** Remove the two bolts and the mounts from the inside of the frame rails and reinstall on the bottom of the frame with the original bolts. **Figure 10** Install the mounts so the small ID of the link mounting hole is toward the inside of the vehicle. Torque the link mount bolts to 35 ft-lbs. Reattach the factory front sway bar links to the relocated frame mount and the sway bar with the original hardware. Torque the link bolts to 75 ft-lbs.



Figure 10

21. Reattach the front brake line brackets to the frame with the original bolts. Torque bolts to 15-20 ft-lbs.
22. **OPTIONAL FRONT SHOCKS:** Locate the new provided front shocks. Locate the bushings and sleeve provided with the shocks. There are two different bushing widths, set them side by side and determine which one is taller. Install the taller bushing into the BODY end of the shock along with the provided steel sleeve. Install the short bushing into the ROD end of the shock (this end does not require a sleeve). Install the new shock to the factory axle/frame mounts with the original hardware. The BODY end of the shock mounts to the axle. Torque the upper and lower shock mount hardware to 70 ft-lbs
23. If reusing original front shocks, attach to the axle mount with the original hardware. Torque hardware to 70 ft-lbs.
24. Install the wheels and lower the vehicle to the ground. Torque the lug nuts to 165 ft-lbs.
25. Bounce the front of the vehicle to help settle the suspension.
26. With the vehicle setting at ride height and the axle centered under the vehicle, install the track bar into the frame bracket. Turn the adjusting sleeve to align the end to the bracket mounting hole. Loosely fasten with the factory hardware.
27. With the track bar installed, slide the pinch clamps over each end of the adjuster sleeve. Be sure the clamps are at the end and complete on the adjuster sleeve. Position the clamps for the best clearance and torque clamp bolts to 40 ft-lbs.
28. Torque the frame and axle track bar bolts to 405 ft-lbs.
29. Torque the front leaf spring u-bolts to 100 ft-lbs. Torque the front leaf spring hanger bolts to 200 ft-lbs and the shackle bolts to 180 ft-lbs.
30. Check all hardware for proper torque.

### Step 26 Note

Only turn the adjusting sleeve so the two ends thread out equally.

## » POST-INSTALLATION

1. Check all hardware for proper torque. Recheck fasteners after 500 miles.
2. The steering wheel will need to be re-centered after the installation is complete. This is accomplished by loosening the adjusting collar clamps up near the pitman arm on the steering drag link. **Figure 11** Rotate the adjusting collar in the proper direction (have a helper watch the steering wheel) so that the wheel is centered when the front wheels are straight ahead. Torque adjusting collar clamps to 40 ft-lbs.



Figure 11

## **Post-Installation Warnings**

1. Check all fasteners for proper torque. Check to ensure for adequate clearance between all rotating, mobile, fixed, and heated members. Verify clearance between exhaust and brake lines, fuel lines, fuel tank, floor boards and wiring harness. Check steering gear for clearance. Test and inspect brake system.
2. Perform steering sweep to ensure front brake hoses have adequate slack and do not contact any rotating, mobile or heated members. Inspect rear brake hoses at full extension for adequate slack. Failure to perform hose check/ replacement may result in component failure.
3. Perform head light check and adjustment.
4. Re-torque all fasteners after 500 miles. Always inspect fasteners and components during routine servicing.