



#F1410 Installation Instructions 2017 Ford Super Duty F250/350 4WD 4" 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.

» TECHNICAL SUPPORT

www.zoneoffroad.com may have additional information about this product including the latest instructions, videos, photos, etc.

Send an e-mail to tech-zone@sporttruckusainc.com detailing your issue for a quick response.

888.998.ZONE Call to speak directly with Zone tech support.

» 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.

Difficulty Level

easy 1 2 **3** 4 5 difficult

Estimated installation: 4-6 hours

Special Tools Required

30mm (1-3/16") Socket

46mm (1-13/16") Socket

Heavy Duty Floor Jack and Stands

Pitman Arm Puller

Tire/Wheel Fitment

Tire:

37 x 12.50

Wheel:

9" Wide with 4.5" backspacing

Kit Contents

F1413 or F1423 Coil Spring

Qty	Part
2	Front Coil Spring

F1417 Rear Box Kit

Qty	Part
1	5" Rear Block (DRV)
1	5" Rear Block (PASS)
4	5/8" x 3-5/8" x 16" U-bolts/nuts/washers

F1417 Single Steering Stabilizer Box Kit

Qty	Part
1	Steering Stabilizer
2	Bushings
1	Sleeve
1	P Pack
1	Stabilizer Bracket
2	5/16" x 1-1/4" x 2" U-Bolt
1	Bolt Pack - U-Bolts
1	Bolt Pack - Stabilizer Mounting

F1410 Box Kit

Qty	Part
1	Pitman Arm
1	Cotter Pin
1	Front Track Bar Bracket
3	Front Track Bar Cams
1	Single Steering Stabilizer Bracket
2	Radius Arm Drop Bracket
1	Bolt Pack - Radius Arm Brackets
1	Sway Bar Drop (DRV)
1	Sway Bar Drop (PASS)
2	Bolt Pack - Sway Bar Drop
1	Brake Line BRKT (DRV)
1	Brake Line BRKT (PASS)
2	Front Bump Stop Extension
2	8mm-1.25 x 130mm Bolt
2	5/16" SAE Flat Washer
4	Zip Ties
2	Mountable Zip Ties
2	Bolt Pack - ABS Line

Important—measure before starting!

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

LF _____ RF _____

LR _____ RR _____

INSTALLATION INSTRUCTION

»» PRE-INSTALLATION NOTES

1. Ford recommends replacement of the pitman arm nut after each time it has been removed.
2. 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.
3. The factory front track bar bolt requires 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.
4. As a result of the location of the long radius arm suspension, support locations are limited. Use your best judgment while supporting the vehicle with sufficient strength stands at appropriate locations. The radius arms will need to move freely during this installation.
5. Larger tires on stock wheels are not recommended due to brakeline clearance required. Use recommended specifications listed in tire and wheel fitment section.
6. Ensure the correct U-bolt length for the rear suspension configuration on your vehicle. Use the information provided below along with the diagram shown in Figure A to determine your rear leaf spring setup.

Bottom overload, 2 leaf main pack, no top overload 16" U-Bolt

Bottom overload, 2 leaf main pack, with top overload 16" U-bolt

Bottom overload, 3 or more* leaf main pack, no top overload 16" U-bolt

Bottom overload, 3 or more* leaf main pack, with top overload 19" U-bolt

* Variations with additional add-a-leafs or larger top mounted overload spacer may

require longer u-bolts than provided, order separately.

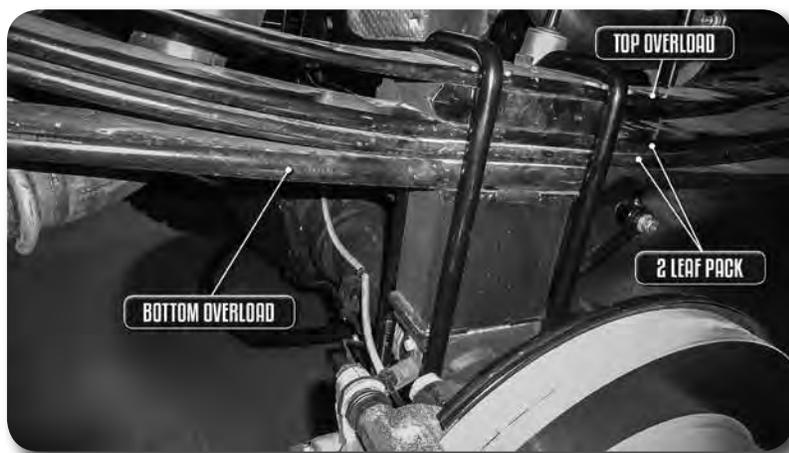


Figure A

» FRONT INSTALLATION

1. Park the vehicle on a clean, flat surface and block the rear wheels for safety.
2. Disconnect the track bar from the driver's side frame mount. Save hardware.

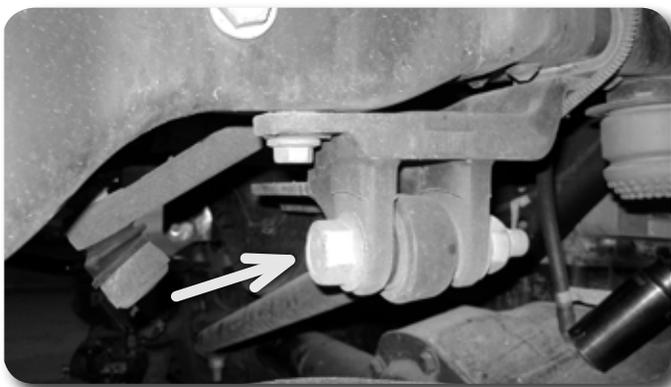


Figure 1

3. Raise the front of the vehicle and proper support with jack stands under the frame rails - See Pre-Installation Note 3.
4. Remove the front wheels.
5. Support the front axle with a hydraulic jack.
6. Disconnect the front brake line brackets from the axle **Figure 2**. Save hardware.

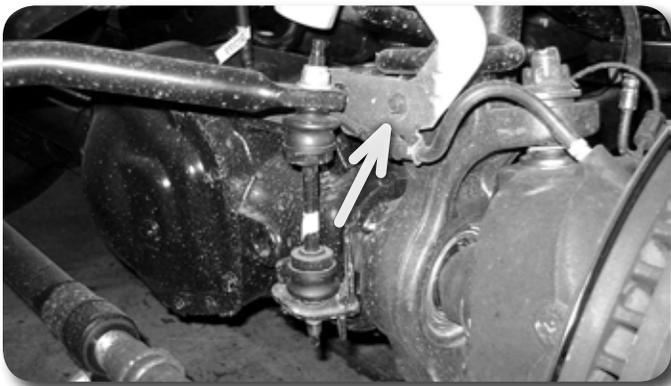


Figure 2

7. Remove the front axle hub vacuum lines retaining clips from the axle/radius arm. Figure 3A,B



Figure 3A



Figure 3B

8. Remove the clips holding the front brake lines to the brackets on the frame. Carefully cut the factory bracket so that the brake line can be removed without breaking loose the fittings. Remove the factory brackets from the vehicle. Do not damage the brakeline! Figure 4A,B



Figure 4A

Step 10 Note

Use a small pitman arm puller to remove the steering stabilizer taper.



Figure 4B

9. Disconnect the front sway bar from the frame. Swing the sway bar down and allow it to rest on the steering during the installation. Save frame mount hardware.
10. Disconnect the OE steering stabilizer from the frame mount. The factory frame mount can be removed or remain on the frame. Disconnect the stabilizer from the factory drag link.
11. Disconnect the (5) bolts mounting the OE track bar bracket to the frame. Remove bracket and retain hardware. [Figure 5](#)

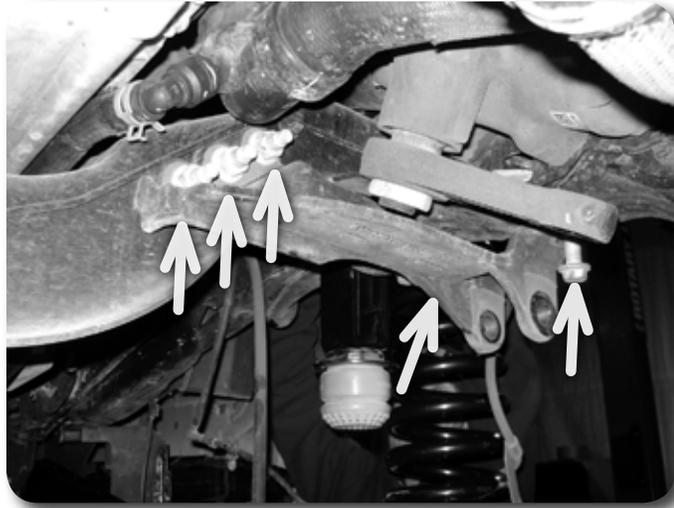


Figure 5

Step 12 Note

Use a small pitman arm puller to remove the drag link joint taper.

12. Disconnect the steering drag link from the pitman arm. Remove the cotter pin and castellated nut cap. Remove the nut and thread back on by hand a couple turns. Strike the end of the pitman arm near the drag link end to dislodge the taper from the pitman arm. **Figure 6** Remove the nut and the drag link from the pitman arm. Save all hardware.



Figure 6

13. Remove the pitman arm nut. Note the indexing of the pitman arm in relation to the steering sector shaft and remove the pitman arm from the steering box using the appropriate puller.
14. Remove all of the dri-lock compound on the threads of the OE nut and steering sector shafts. This is important to ensure that the new thread lock compound will adhere properly.
15. Apply a bead of the supplied thread lock all the way around the threads of the OE nut.
16. Install the new pitman arm (indexed the same as the OE) and fasten with the OE nut. Torque the nut to 350ft-lbs.
17. Install the new track bar bracket (02033) using the stock mounting hardware as it was removed **Figure 7A, 7B**. Place the new stabilizer mount (01590) between the new bracket and the frame crossmember. Place the spacer between the frame and front mount with factory hardware. Torque all (5) mounting bolts to 129 ft-lbs. Do not install track bar at this time, it will be installed once the vehicle is on the ground.

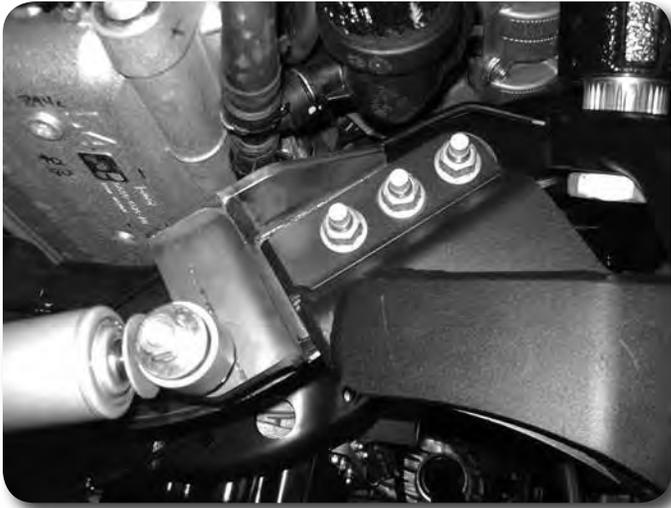


Figure 7A



Figure 7B

18. With the axle still well supported with a jack, disconnect the front shocks from the axle mounts. Leave the shocks attached to the frame, they will be used for added axle support during the next portion of the installation. Save axle hardware.
19. Carefully lower the axle and remove the factory front springs. Take care not to over-extend any lines/hoses. Save the upper spring isolator to be reinstalled with the new springs.
20. Reconnect the shocks to the axle with the original hardware. The shocks will help support the axle during the radius arm bracket installation.
21. Remove the factory bump stops from the retainer cups on the frame. **Figure 8A**
Remove the bolt holding the retainer cup to the frame and remove from vehicle. **Figure 8B**



Figure 8A



Figure 8B

Step 22 Note

The bump stop extension hardware is located in the B1184 Bag Kit provided.

22. Reinstall the retainer cups on the frame along with the provided 4" tall bump stop spacers. Fasten with a provided 8mm x 100mm bolt and washer. **Figure 9** Apply Loctite to the bolt and torque to 15 ft-lbs. Reinstall the factory bump stop into the retainer cup.



Figure 9

23. Locate and loosen the four radius arm mounting bolts at the axle. **Figure 10** Once again make sure that the axle is well supported by a jack.



Figure 10

24. Starting with the passenger's side, remove the upper radius arm mounting bolt at the axle. It may be necessary to temporarily remove the shock from the axle mount to remove the bolt. Remove the radius arm bolt at the frame **Figure 11** and lower the radius arm from the frame bracket. Save hardware.

Step 23 Note

The driver's side upper nut is welded to the radius arm.



Figure 11

25. Install the new provided radius arm bracket into the factory frame bracket. Align the hole in the bracket with the factory mount holes and install 3/4" x 5" bolts, nuts and washers in the holes. **Figure 12** With both bolts installed, torque hardware to 250 ft-lbs.

Step 25 Note

Radius arm bracket hardware is located in hardware pack #430.

The new bolts will fit tight in the factory bracket. Installing them simultaneously will help to align the bracket holes. In some cases, because of varying tolerance the front factory bracket hole may need to be clearanced slightly.



Figure 12

26. Swing the passenger's side radius arm up into the new bracket and fasten with the factory hardware. Leave hardware loose.
27. Repeat the bracket installation on the driver's side.
28. With both brackets installed, reattach the upper radius arm mount to the axle with the factory hardware. Leave hardware loose. All radius arm hardware will be tightened with the weight of the vehicle on the suspension.
29. With the axle still well supported, disconnect the shocks from the axle and frame. Save the axle mount hardware.
30. Lower the axle just enough to install the new coil springs along with the factory upper rubber isolator. Once installed, rotate the coil so it seats properly in the axle mount. Raise the axle until the coil is seated in the upper mount.
31. Locate the new front shocks, bushings and sleeves. Install the bushings and sleeves into the shock eyes. Install the shocks using the factory lower hardware and provided stem hardware.

32. Torque shock hardware at axle to 100 ft-lbs. Tighten stem hardware until bushings deform.
33. Locate the new sway bar drop brackets. Install the brackets on the frame with the original sway bar mount hardware. When installed the brackets should offset toward the front of the vehicle and the open face point to the inside. **Figure 13** Leave hardware loose.



Figure 13

34. Attach the sway bar to the new drop brackets with the provided 3/8" hardware. Torque the factory hardware and new 3/8" hardware to 30 ft-lbs.
35. Reattach all vacuum lines. Use the provided zip ties where needed.
36. Install the new brake line brackets, brackets are side specific. Brake lines will need to be reformed to reach the new mounting position. It may be necessary to slightly twist the brakeline fittings in relation to the hardline to get adequate clearance to the frame / wheel and tire. **Figure 14A.B**

Step 34 Note
Sway bar drop hardware is located in hardware pack #422



Figure 14A (Passenger's Side)

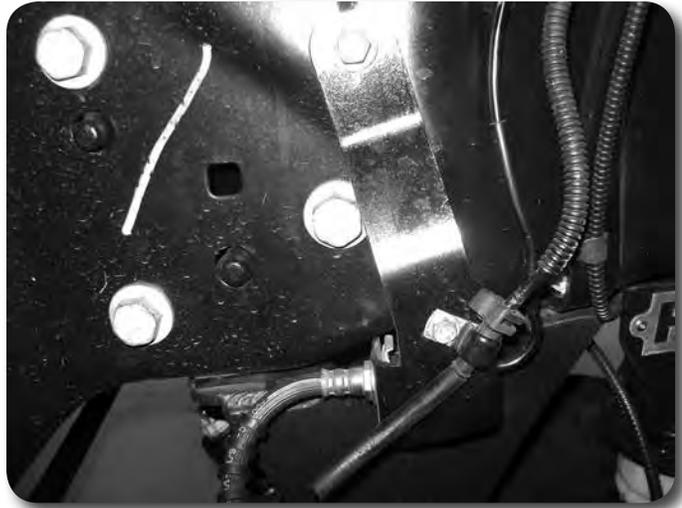


Figure 14B (Driver's Side)

37. Attach the ABS wire to the driver's side with 1/4" hardware with rubber coated cable clamp Figure 14B
38. Center the steering wheel. Extend the steering stabilizer 4-1/2" to 4-3/4" and attach to the frame end with stud pack in the stabilizer box kit. Attach stabilizer bracket to the drag link with the included u-bolts, washers, and nuts. Attach stabilizer to bracket with 3/8" hardware. Tighten 5/16" hardware to 30 ft-lbs, 3/8" to 35 ft-lbs, 7/16" Stud nut to 45 ft-lbs, and 1/2" stud nut to 65ft-lbs. Figure 15A,B



Figure 15A



Figure 15B

39. Properly bleed the brake system of air and top off the brake fluid reservoir with the proper type of fluid (see owners manual).
40. Reattach the steering drag link to the pitman arm. Torque nut to 148 ft-lbs. Install the original castellated nut cap and new 1/8" cotter pin.
41. Install the front wheels and lower the vehicle to the ground. Torque lug nuts to 165 ft-lbs.
42. Attach the track bar to the new bracket with the OE hardware. Turn the steering wheels to aid in aligning the track bar in the bracket. Install the provided cam washers between the alignment tabs on the bracket. Position the cam washers so that the hole is closer to the driver's side for 4" kits. **Figure 16** Torque hardware to 405 ft-lbs.

Step 40 Note

New cotter pin is located in the provided B1184 Bag Kit

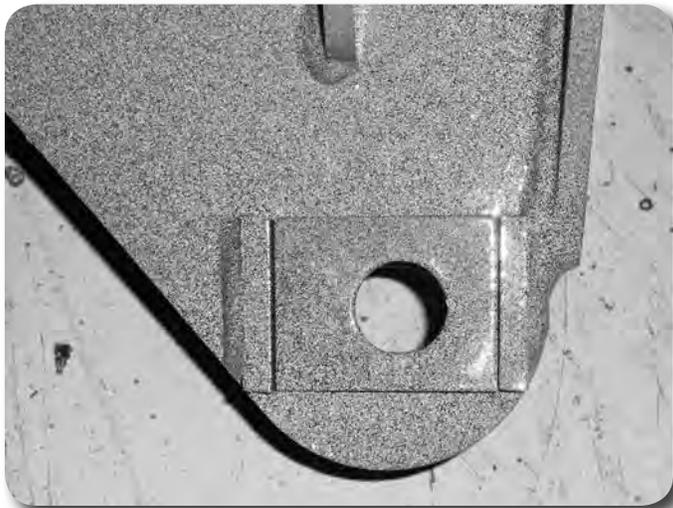


Figure 16

43. Bounce the front of the vehicle to settle the suspension. Torque all factory radius arm hardware to 220 ft-lbs.
44. Check all hardware for proper torque.

» REAR INSTALLATION

1. Block the front wheels for safety.
2. Raise the rear of the vehicle and support with jack stands under the frame rails just ahead of the spring hangers.
3. Remove the wheels.
4. Support the axle with a hydraulic jack.
5. Remove the factory shocks. Retain all mounting hardware.
6. Remove the factory lift block. It will not be reused.
7. Lower the axle enough to place the provided 5" lift block between the axle and the leaf spring. Position the block so the bump stop wing faces inward, and the small side of the block faces forward. (03410 - Drivers side, 03411 - Pass side)

Figure 17



Figure 17

8. Raise the axle to engage the block spring alignment pins. Fasten the entire assembly with the provided u-bolts, washers, and nuts. Snug but do not torque the u-bolts at this time. Figure 18



Figure 18

Step 5 Note

The factory rear block will vary depending on the vehicle model. F-250s will have a 1-7/8" block and F-350s will have a 3-3/4" block. In both cases, replacing the factory block with the new provided block will net the same level stance regardless of vehicle model.

9. Repeat block installation of the driver's side. Take care not to over extend the brake lines.
10. If more parking brake cable slack is needed, remove the cable from the rear-most retaining bracket on the frame
11. Install the new shocks with the original mounting hardware.
12. If more parking brake cable slack is needed, remove the cable from the rear-most retaining bracket on the frame.
13. Install wheels and lower the vehicle to the ground.
14. With the weight of the vehicle on the axle, torque the u-bolts to 130-150 ft-lbs.

»» POST INSTALLATION

1. Install wheels, cycle steering to check for brakeline, ABS wire, ETC to tire clearance. With clearance verified lower the vehicle to the ground.
2. Cycle steering to check for brakeline, ABS wire, ETC to tire clearance, rotate the driver's side brakeline on the hardline if necessary.
3. An alignment is recommended, but not necessary.
4. Adjust steering wheel with adjustment on the draglink, do NOT drive the vehicle with the steering wheel off-center or adverse traction control affects may arise. Rotate the clamps once the steering wheel is straight as shown. (Figure 19A - incorrect, clamps will interfere with sway bar, Figure 19B - correct clearance). Torque clamps to 41 ft-lbs. Thread the collar to lengthen the drag link.
5. Adjust headlights.
6. Be sure the brake system has been properly bled and the brake fluid is topped off.
7. Check all hardware for proper torque. Check hardware after 500 miles.



Figure 19A *Incorrect*

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.



Figure 19B *Correct*