



ZONF5398 Installation Instructions

6" Single Strut Replacement

Ford 150 - 2WD & 4WD

2009-2013

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.

» PRE-INSTALLATION NOTES

1. A high-quality strut compressor is required for strut disassembly and reassembly.

» INSTALLATION INSTRUCTIONS

1. Park the vehicle on a clean, flat surface and block the rear wheels for safety.
2. Raise the front of the vehicle and support with jack stands at each frame rail behind the lower control arms.
3. Remove the front wheels.
4. Disconnect tie rod end from the steering knuckle **Figure 1**. Strike the steering knuckle near the tie rod end to dislodge taper. Take care not to strike the tie rod end. Retain tie rod end nut.

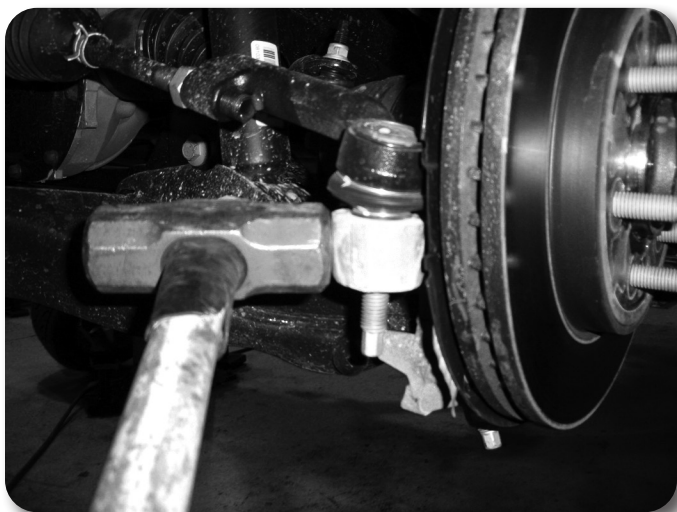


Figure 1

Kit Contents

ZONF5398

Qty	Part
1	Ford Strut
1	Strut Parts Pack
1	12mm Flanged Nut

5. Disconnect sway bar end link from the sway bar **Figure 2**. Retain all hardware and bushings.



Figure 2

6. Loosen but do not remove the three strut assembly mounting nuts at the frame **Figure 3**. DO NOT loosen the center strut nut.

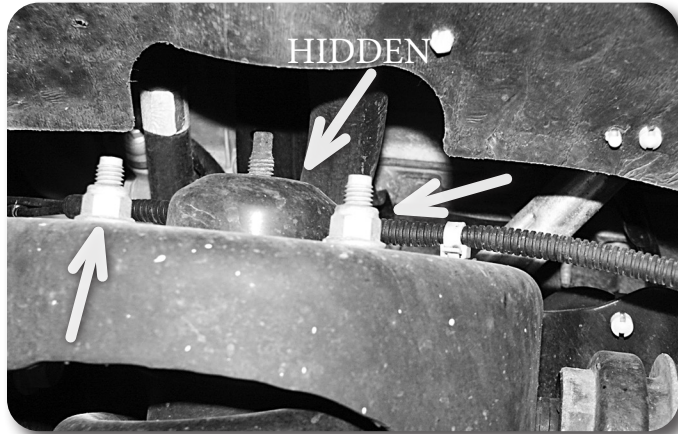


Figure 3

7. Support the lower control arm with a jack. Remove the nut from the strut-to-lower control arm mounting bolt **Figure 4**. Leave the bolt in place at this time. Retain the mounting nut.

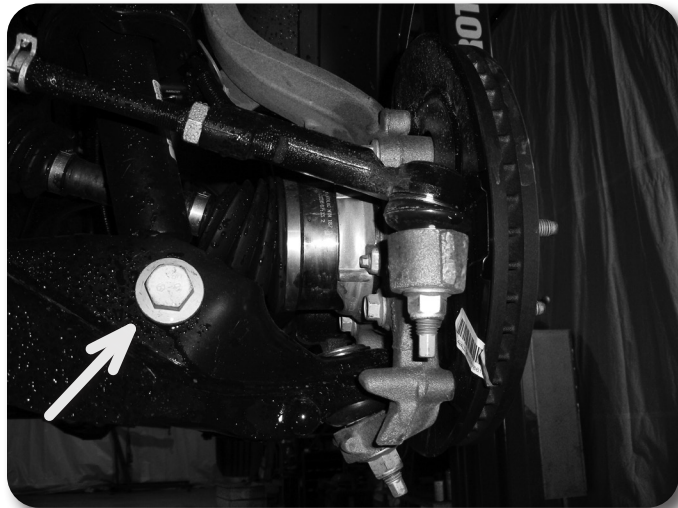


Figure 4

8. Remove the upper ball joint nut **Figure 5** and reinstall a few turns by hand. Strike knuckle near the upper ball joint to dislodge the taper from the knuckle.



Figure 5

9. Ensure lower control arm supported by jack. Remove the upper ball joint nut and the strut-to-lower control arm bolt. Swing the knuckle towards the front of the vehicle and secure. Retain ball joint nut and lower strut bolt.
10. Mark each of the front strut bodies to indicate DRV versus PASS side. In addition, place vertical indexing marks for the relationship between the coil and lower strut mounting hole and finally the top plate and rubber coil seat. These will be referenced during reassembly.
11. Remove the three strut assembly mounting nuts at the frame and remove the strut assembly from the vehicle. Retain mounting nuts.
12. Place the strut assembly into a high quality spring compressor **Figure 6**.



Figure 6

Step 12 Note

CAUTION: Coil spring is under extreme pressure. Improper removal/installation of coil spring could result in serious injury or death. Use only a high-quality spring compressor. Carefully read and follow the manufacturer's instructions.

Step 15 Note

CAUTION: Make sure the coil spring is compressed far enough for the nut to tighten against the cap and is not compressing the coil spring. Improper installation can result in strut stem failure.

13. Compress the coil following spring compressor instructions and remove the upper center strut nut.
14. Remove the top cap and upper spring isolator.
15. Turn the new strut rod counterclockwise to release the rod and allow it to extend. Install the new lower coil seat and bump stop onto the replacement strut.
16. Align marks on coil to the upper mount and also with the lower mounting hole. Install the new strut in the coil spring and factory top cap. Fasten the strut rod with the new provided 12mm flange nut. Torque strut rod nut to 40 ft-lbs.
17. Carefully remove strut assembly from spring compressor. Reinstall the strut assembly with OE hardware at the frame mount with three mounting nuts, leave hardware loose at this time.
18. Swing knuckle assembly upwards and reattach the lower control arm to the strut with the OE lower strut bolt and nut. Fasten nut but do not torque at this time.
19. Reattach knuckle to upper control arm with OE ball joint nut. Torque upper ball joint to 85 ft-lbs **Figure 7**.

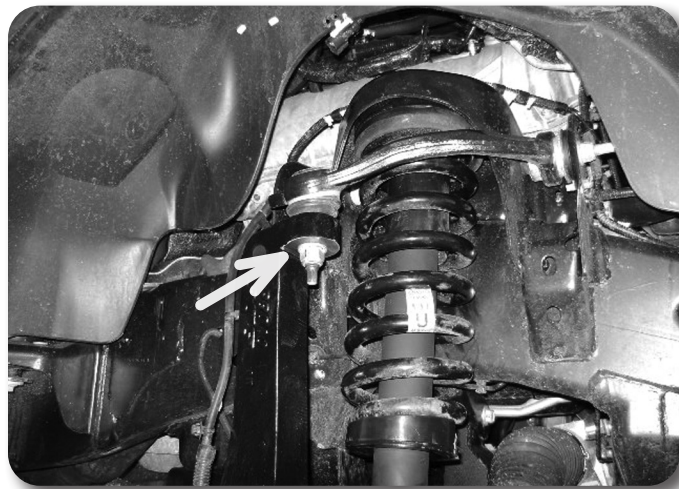


Figure 7

20. Torque the upper strut nuts to 30 ft-lbs. The lower bolt will be tightened later with the weight of the vehicle on the suspension.
21. Reinstall tie rod from top-down **Figure 8**. Torque to 85 ft-lbs.

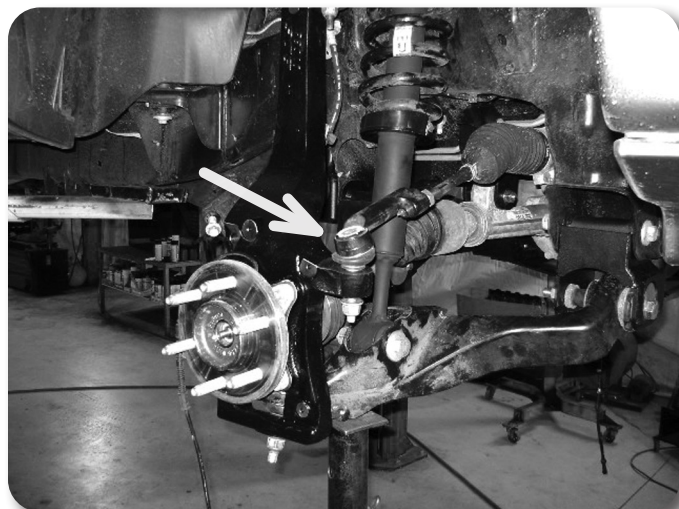


Figure 8

22. Reattach the sway bar to the sway bar end links with the original hardware. Torque the 7/16" hardware to 45 ft-lbs. Torque sway bar link nut to 45 ft-lbs.
23. Install wheels / tires. Lower vehicle to the ground, torque lug nuts to manufacturer's specifications.
24. Bounce the front of the vehicle to settle the suspension. Torque the lower strut mount bolt to 406 ft-lb. Center the lower control arm cams and torque to 150 ft-lbs. Verify three upper strut mounting nuts on replacement strut kit torqued to 30 ft-lbs. Adjust the toe before driving to an alignment shop.

» **POST INSTALLATION**

25. Double check all fasteners for proper torque.
26. A vehicle alignment is recommended following installation.
27. Check steering/tire clearance lock to lock. Ensure adequate slack in ABS wire and brake lines through full steering angles.
28. Check all fasteners after 500 miles.