



F1204 Installation Instructions 2019 Ford Ranger 2/4wd 2" Strut Spacer Leveling Kit

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@ridefox.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.
8. Aggressive sidewall and tire width variation may not allow a 285 tire width to fit on stock wheels without a small wheel spacer. The tire tested on a stock wheel was a 285/70R17 BFG All Terrain.

Difficulty Level

easy 1 **2** 3 4 5 difficult

Estimated installation: 1-2 hours

Special Tools Required

Strut Compressor

35mm Socket

Tire/Wheel Fitment

See Pre-Installation Note 8

Wheel / Tire:

285/70R17 *Stock Wheel

285/65R18 *Stock Wheel

285/55R20 20x9 w/6.5"BS*

*trimming required

Kit Contents

Qty	Part
2	Top Strut Mount Spacer
2	Preload Spacer
1	455 Bolt Pack
6	10mm-1.5 Locking Flange Nut

Pre-Installation

1. Park the vehicle on a flat, clean surface and block the rear wheels for safety.



Tip *This kit is designed as a two-piece lift system. The combination of a bolt-on strut mount and spring preload ring yields 2" of lift. Installation of the preload ring requires disassembly of the struts. This should be done with caution and with the proper tools. If you do not have a proper quality strut compressor tool the struts can be removed from the vehicle and taken to a shop to have the preload ring installed.*



Caution *Disconnect the power steering control module connector to avoid arcing of the contacts in the internal power relay from a hammer blow or impact wrench.*

Front Installation

2. Raise the front of the vehicle and support with jack stands under the frame rails.
3. Remove the wheels.
4. Disconnect the driver's and passenger's side front sway bar links from the steering knuckle. Save sway bar link nuts. (Fig 1)



Figure 1

Complete this portion of the installation on one side at a time

5. Disconnect the front brake line from the steering knuckle and the frame (Fig. 2A & B) and ABS line (Fig. 2C) from the steering knuckle. Save bolts.

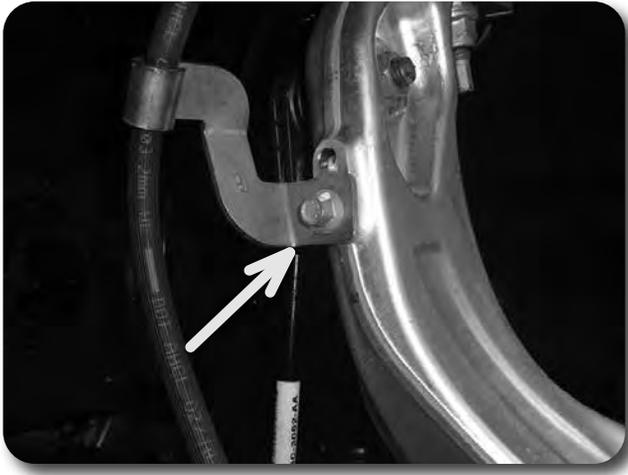


Figure 2A



Figure 2B

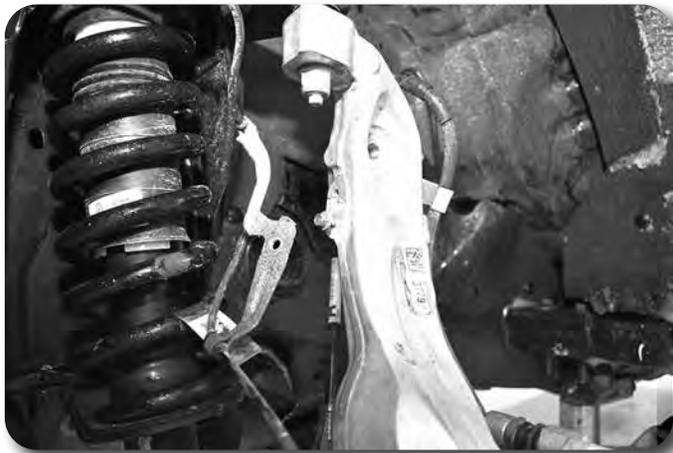


Figure 2C

6. Remove the CV retaining nut. Save nut.



Figure 3

7. Remove the steering tie rod end nut from the tie rod end at the steering knuckle. Thread the nut back on a couple of turns by hand. Strike the knuckle near the tie rod end to dislodge it from the knuckle. (Fig 4) Remove the nut and remove the tie rod end from the knuckle. Save nut.



Figure 4

Step 8 Note

A bungee strap can be used to hold the knuckle from falling forward and pulling the CV shaft out.

8. Remove the upper ball joint nut and thread back on a couple of turns by hand. Strike the knuckle near the ball joint to dislodge it from the knuckle. (Fig 5) Remove the nut and remove the ball joint from the knuckle. Save nut. Allow the knuckle to rest back away from the front strut.



Figure 5A



Figure 5B

9. Support the lower control arm with an appropriate jack. Remove the three upper strut mounting nuts at the frame. (Fig 6) DO NOT remove the center strut rod nut. Discard the hardware.



Figure 6

10. Use an air hammer to dislodge the CV shaft from the hub. Be careful not to hit the threads on the CV shaft.



Figure 7

Step 11 Note

Leave the lower control arm bolts tight to aid in keeping the knuckle assembly from falling.

Step 11 Note

If a bungee strap was used to support the knuckle it can be removed now. Slowly lower the lower control arm until the strut is removed being careful not to dislodge the CV shaft from the inner joint. The CV shaft can easily be pulled out from the inner joint.

11. Remove the lower strut mount nuts at the lower control arm (Fig. 8A). Lower the control arm and remove the strut from the vehicle (Fig 8B). Save lower strut hardware. Make sure not to overextend any brake or ABS lines. The ABS sensor may need to be removed from the steering knuckle to gain enough slack.

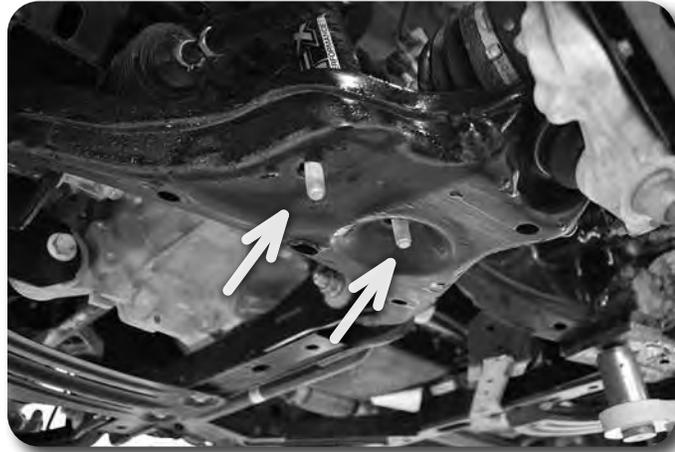


Figure 8A



Figure 8B

12. Place alignment marks on the upper strut mount, isolator, spring, strut body and lower coil seat for reference when the strut is reassembled (Fig 9A, B, and C).

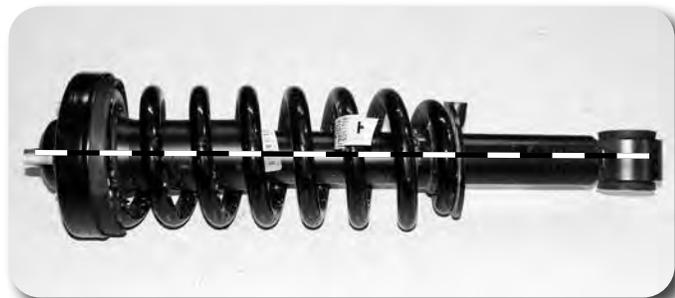


Figure 9A



Figure 9b



Figure 9c

Step 12 Note

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 and carefully read and follow the manufacturer's instructions.

13. Using an appropriate strut compressor, compress the coil spring and remove the upper strut nut. (Fig 10)



Figure 10

14. Remove the lower strut assembly from the strut compressor, the top hat and spring can remain in the strut compressor.
15. Remove the dust boot, bump stop, plastic ring, and the lower spring seat from the strut body (Fig. 11A and B). After fully disassembled the strut should be the same as Figure 11C.



Figure 11A

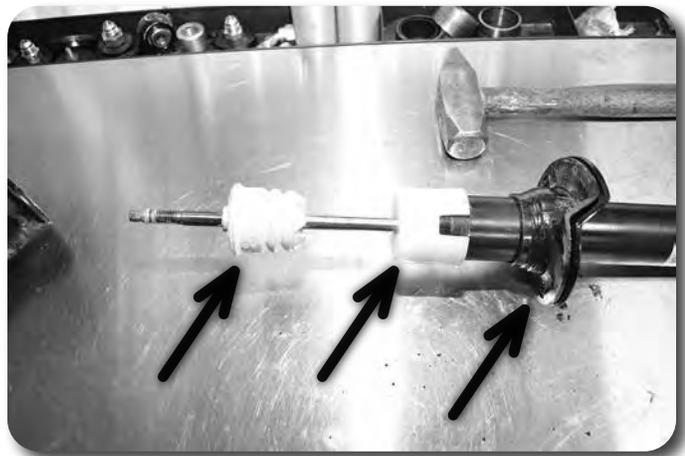


Figure 11B

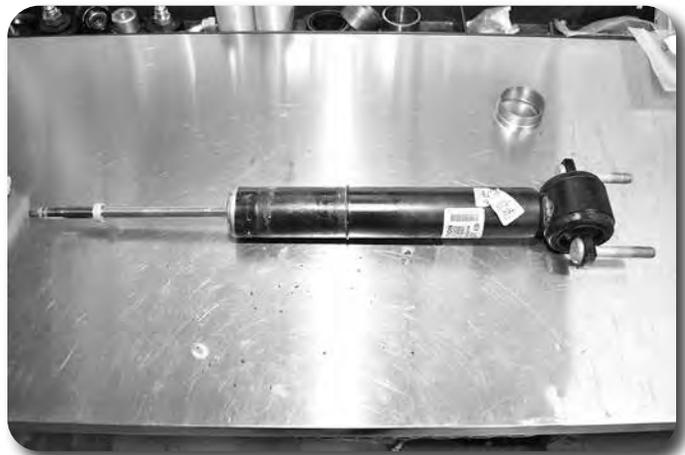


Figure 11C

16. Install the preload spacer ring on the strut body such that the groove in the preload spacer goes over the snap ring on the strut body (Fig. 12A.)
17. Reinstall the lower coil seat, plastic ring, bump stop, and dust boot in reverse order (Fig. 12B).



Figure 12A



Figure 12B

18. Reassemble the strut. Make sure to line up all of the alignment marks. Fasten the strut rod with the original nut. Torque nut to 41 ft-lbs.
19. Install the upper strut spacer on the strut (Fig. 13). The strut spacer will only install one with the alignment pin on the strut.



Figure 13

Step 16 Note

The preload spacer ring may need to be tapped down the strut body. The lower spring seat can be used to help seat the preload spacer all the way down to the snap ring.

Step 18 Note

More preload will need to be put into the spring to reinstall the strut nut.

Step 21 Note

Be careful again to not dislodge the inner CV joint.

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.

20. Install the bottom of the strut back into the original mount with the factory hardware, leave hardware loose.
21. Push down on the lower control arm assembly and install the modified strut assembly into the upper frame mount by aligning the studs in the new spacer with the original mounting holes. Loosely fasten the strut with the provided 10mm nuts from BP 455.
22. Torque the new upper hardware to 41 ft-lbs. Torque the factory lower hardware to 66 ft-lbs.
23. With the strut installed, reconnect the knuckle to the upper ball joint with the original nut. While connecting the upper ball joint, be sure that the CV shaft properly aligns into the hub. (Fig 14) Torque the upper ball joint nut to 46 ft-lbs.



Figure 14

24. Be sure the CV is properly seated in the hub and reinstall the original retaining nut. Torque the CV axle nut to 221 ft-lbs..
25. Reconnect the brake line bracket and ABS line to the steering knuckle and frame with the original bolts and nut. Torque hardware to 10 ft-lbs.
26. Attach the steering tie rod end to the steering knuckle with the original nut. Torque to factory specs.
27. With both sides complete, reconnect the sway bar links to the sway bar with the original hardware. Torque to 85 ft-lbs.
28. Install the wheels and lower the vehicle to the ground. Torque lug nuts to 100 ft-lbs in a crossing pattern.
29. The vehicle will need a complete front end alignment.
30. Check all hardware for proper torque. Check hardware after 500 miles.