

BORNE

OFF-ROAD®

2-INCH FRONT LEVELING KIT

2004-2022 FORD F-150

INSTALLATION GUIDE

PARTS INCLUDED

- (2x) Aluminum Strut Spacers
- (6x) M10 Socket Head Bolts
- (6x) M10 Nylon Lock Nuts
- (6x) M10 Flat Washers

INSTALL TIME

4 Hours

DIFFICULTY



REQUIRED TOOLS

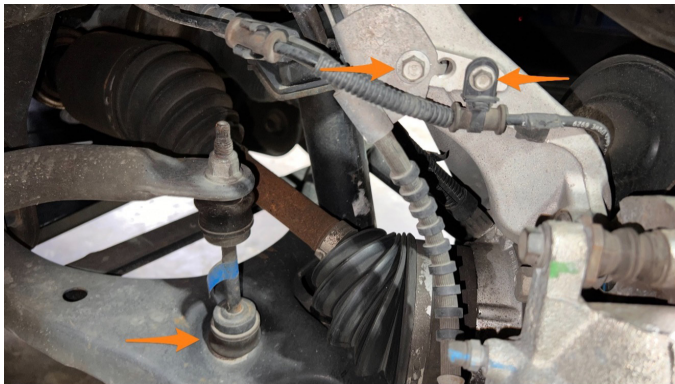
- | | |
|--------------------|-------------------|
| Floor Jack | 8mm Deep Socket |
| Jack Stands | 10mm Deep Socket |
| Wheel Chocks | 13mm Deep Socket |
| Hammer | 18mm Deep Socket |
| Pry Bar | 21mm Deep Socket |
| 18mm Wrench | 5mm Allen/Hex Key |
| 21mm Wrench | Wrench Or Socket |
| 1/4" Drive Ratchet | 8mm Allen/Hex Key |
| 3/8" Drive Ratchet | Wrench Or Socket |

INSTALLATION INSTRUCTIONS

01. Place wheel chocks on both sides of at least one rear tire and use a 21mm socket to loosen the front wheel lug nuts.

02. Jack up the front of the vehicle and support at the appropriate points with jack stands. Remove the front wheels and turn the knuckle, so the brake caliper faces outward.

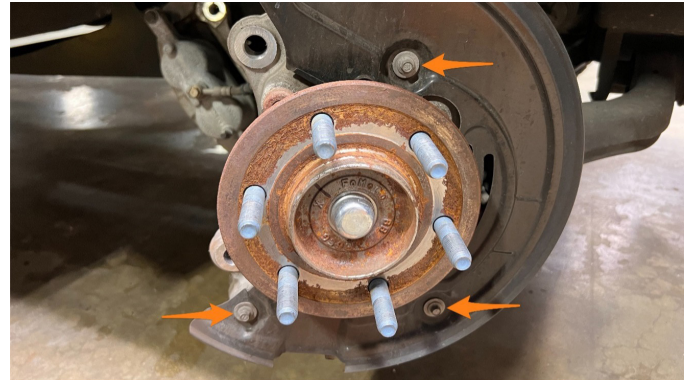
03. Using an 18mm wrench, remove the lower sway bar end link nut under the lower control arm. Counter-hold the threads with an 8mm socket. Using 10mm and 8mm sockets, remove the brake hose and wheel speed sensor wire bracket.



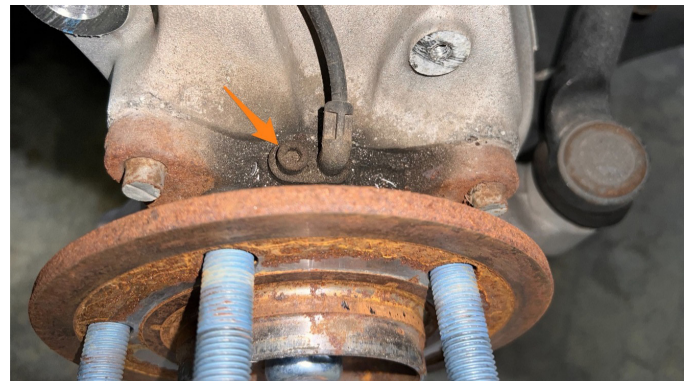
04. Using a 21mm socket, remove the two brake caliper carrier bolts. Remove the caliper assembly and secure it out of the way. Do not let it hang from the brake hose!



05. Use a hammer to remove the brake rotor from the hub, then use an 8mm socket to remove the three dust shield bolts and dust shield. [\(Image on right\)](#)



06. Using a 5mm allen/hex key, remove the wheel speed sensor socket head bolt and pull the sensor out.

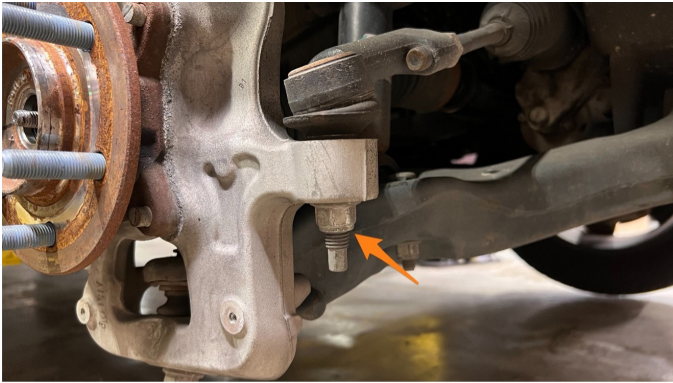


07. Using channel lock pliers, remove the cap from the center of the hub then use a 13mm socket to remove the axle shaft nut.



08. Using a 21mm wrench, remove the tie rod end nut. Counter-hold the threads using a 10mm socket. Loosely reinstall the nut so that the top of the nut is flush with the end of the threads. Using a hammer, hit the end of the threads to remove the tie rod end from the knuckle. [\(Image on next page\)](#)

CONTINUED ON FOLLOWING PAGE



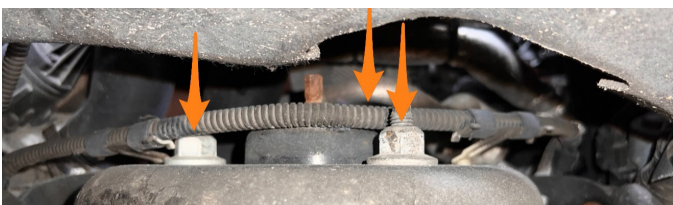
09. Using an 18mm wrench, remove the upper control arm ball joint nut. Counter-hold the threads using an 8mm socket. Loosely reinstall the nut so that the top of the nut is flush with the end of the threads. Using a hammer, hit the end of the threads to remove the tie rod end from the knuckle.



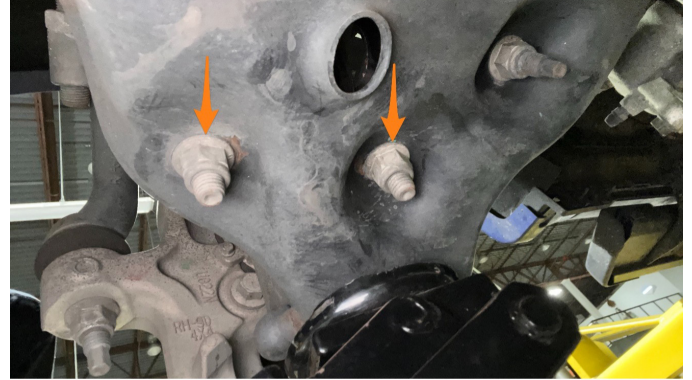
10. Support the lower control arm with a jack.



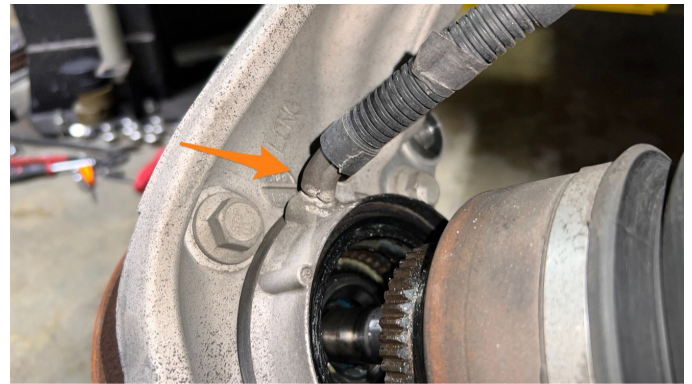
11. Using an 18mm socket, remove the three upper strut nuts.



12. Using an 18mm socket, remove the two lower strut nuts.



13. Remove the vacuum lines from the hub locker.



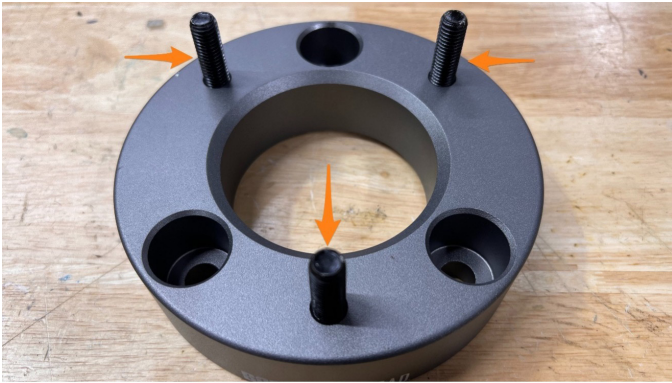
14. Let the jack down from the lower control arm. Push down on the lower control arm until the axle can be pulled from the hub. Hook the axle shaft on the sway bar end link threads to hold it out of the way. Be careful not to damage the wheel bearing seal in the hub when removing axle.



15. Pry down on the lower control arm until the lower strut studs clear the holes in the control arm. Remove the strut. Install three of the supplied M10 socket head bolts into each spacer as shown until bottomed out and tighten using an 8mm allen/hex key.

(Image on next page)

CONTINUED ON FOLLOWING PAGE



16. Install the spacer onto the top of the strut. It will only go on in one orientation. Using the supplied M10 washers and lock nuts, install the spacer onto the strut. Use a pry bar against the threads to keep the strut from rotating while tightening the nuts.



17. Reinstall the strut in the truck top-first, aligning the upper strut studs with the holes in the strut tower. Thread one of the upper strut nuts partially on to hold it in position.

18. Pry down on the lower control arm until you can get the lower strut studs into the holes in the control arm.

19. Reassemble by following the steps in reverse.

Note: When reinstalling the upper ball joint, jack up on the lower control arm and pry down on the upper control arm to get the ball joint taper into the knuckle.

20. Repeat the procedure for the other side.

21. Torque all fasteners to the manufacturer's recommended specifications.

22. Reinstall the wheels, lower the vehicle to the ground, and torque the wheel bolts.

Note: A front-end alignment is recommended after installing a leveling kit.

Congratulations! You have completed your installation!

RESOURCES & CONTACT



CALL 1-877-GOMISHI

CUSTOMER SERVICE HOURS: MON-FRI 8:30AM-5:00PM EST



MISHIMOTO



GOMISHIMOTO



MISHIMOTO



WEBSITE

WWW.MISHIMOTO.COM



ENGINEERING BLOG

WWW.MISHIMOTO.COM/ENGINEERING