



## Ford F150 Front leveling kit instructions



Please note that the spacer thickness is not a 1 to 1 ratio  
For example, the 2" kit will have a thickness of approximately 1 3/8"  
**\*\*The supplied nuts and bolts are to be used as the new studs per above photo\*\***

1. Jack up the front of the vehicle and support the vehicle with jack stands, so that the front wheels are off the ground. Next, remove the front tires/wheels, using a 21mm deep well socket.
2. Using a 15mm socket remove the front skid, if the truck is equipped with a full front skid.
3. Remove the EPAS (Electronic Power Assist Steering) Plugs located on the steering assembly by the front differential. This must be done BEFORE installation is started.
4. Using a 21mm wrench remove the nut from the tie rod on the knuckle. Using the appropriate tool, remove the tie rod from the knuckle. Push linkage forward to make room for installation. Retain factory hardware.
5. Using a 8mm socket remove the ABS bracket from the knuckle and also remove the brake line bracket with a 10mm socket.
6. Next remove the caliper bolts with a 18mm socket and the dust shield bolts with a 8 mm socket. Remove the ABS wire from the knuckle with a 5 mm Allen wrench.
7. Use a pair of pliers to pull off the axle dust cap and remove the axle nut with a 15mm socket.
8. Remove the sway bar nut using a 18mm wrench. Retain factory hardware.
9. Using a 21mm wrench and a 1 1/16" socket loosen the lower control arm bolts. Do not remove the bolts just loosen them so you can later swing the lower control arm down.
10. Place jack stand under the knuckle for support. Remove upper control arm nut, using a 18mm wrench. Using the appropriate tool remove the ball joint to separate from the upper control arm. Do not allow the knuckle to pull out far enough that it pulls the shaft out of the differential.  
**\*Note\*\*** Use caution when removing the CV axle from the knuckle. Damage to CV actuator seal will affect 4wd operation.
11. Use a 18mm socket to remove the lower strut nuts from the bottom of the control arm. Retain factory hardware.
12. Using a 18mm wrench, remove the nuts on the upper strut tower that holds the assembly in place.
13. Lower the jack to let the lower control arm and knuckle swing down so the strut can be removed. Place the bar pin of the lower strut mount into a vise and hand start the nuts. Next use a hammer and knock the studs out of the bar pin. Retain factory hardware for reuse.

**We recommend using OE instructions for disassembly and assembly of IWE actuator, the following instructions are for reference only.**

1. Disconnect vacuum tubes from the actuator.
2. Using a 8mm wrench, remove the (3) bolts securing the actuator to the knuckle. 3. Push CV axle inward allowing the knuckle to pivot outward to allow for more clearance to remove the strut.
4. Looking at the strut spacer, insert the stud through the back side of the spacer
5. Install the new strut spacer on the strut, 2014 will use stock hardware and 9/16" socket and 2015-up will use supplied 10mm nuts and 17mm socket. Torque to 30 ft/lbs.
6. Install the spacer on the strut with the supplied 10mm lock nuts. Tighten with a 17mm wrench. 7. Spin and align the lower mount of the strut with the lower control arm mount. Install the factory studs back into the barpin on the lower mount of the strut. It may be necessary to hit the top of the strut with a hammer to seat the splines before tightening the factory nuts with a 18mm.
8. Make sure the actuator splines line up to the splines on the CV shaft.
9. Install CV shaft into the knuckle assembly.
10. Using a floor jack, raise the lower control arm and connect the upper ball joint on the upper control arm to the spindle. Using a 21mm wrench, torque to manufacturer specs. If ball joint turns while tightening, use a 3/8" wrench to hold the ball joint.
11. Reinstall the steering linkage nut using a 21mm wrench.
12. Using a hand vacuum pump, apply and hold 24inHG of vacuum to the actuator through the large port. 13. Install the (3) bolts securing the actuator to the knuckle and tighten using an 8mm wrench. 14. With vacuum still applied to the actuator. Measure the depth of the CV shaft threads protruding through the hub bearing. If minimum 15.5mm or .61" is not achieved, rotate the hub to eliminate binding of the splines.
15. Install axle nut and tighten to 30 lb.ft. Do Not Use an impact, caution must be taken or damage to the shaft may occur.
16. Verify free rotation of the hub with NO CV shaft rotation. No clicking or grinding noise should be present 17. Release the vacuum from the actuator and rotate the hub to engage the actuator. You may hear/feel the actuator engage.
18. Verify that the hub and CV rotate together. Reconnect the vacuum lines to the actuator. 19. Next slide on the brake rotor and install the brake caliper with the factory hardware and a 18mm socket. 20. Install the ABS line to the knuckle.
21. Repeat steps 4-33 on the opposite side of the vehicle.
22. Using a 18mm wrench, reinstall the sway bar using factory hardware. Torque to factory specs. 23. Install the wheels / tires, using a 21mm deep well socket.
24. Reconnect the EPAS plugs.
25. Jack up the vehicle and remove the jack stands. Lower the vehicle to the floor and torque all bolts to factory specifications.
26. Vehicle must have a front-end alignment.

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