



2021- PRESENT F-150 LOWERING KIT INSTRUCTIONS

APPLIES TO ALL CABS

If your IHC Suspension product has a damaged or is missing a part, please contact customer service directly and a new replacement part will be sent to you immediately. For warranty issues, please return to the place of installation and contact IHC Suspension.

(956) 424-6901
Monday-Friday 8AM-6PM CST

sales@ihcsuspension.com
ihcsuspension.com

LIMITED LIFETIME WARRANTY

This unique product warranty proves our commitment to the quality and reliability of every product that IHC Suspension manufactures. The IHC Suspension product warranty only extends to the original purchaser of any IHC Suspension product, if it breaks, we will give you a new part. Warranty does not apply to discontinued parts.

Our Limited Lifetime Warranty excludes the following IHC Suspension items, bushings, bump stops, ball joints, and shock absorbers. These parts are subject to wear and are not considered defective when worn. They are warranted for 12 months from the date of purchase for defects in workmanship.

This product warranty is voided if the vehicle is not aligned after kit installation and proper maintenance is routinely done.

Product purchased directly from IHC Suspension has a 30-day return policy on uninstalled products from the date of purchase (may be subject to restocking fee). Uninstalled product returns must be in the original IHC Suspension packaging. Please call 956-424-6901 to get an RMA# for any return. Customer is responsible for shipping costs back to IHC Suspension. **Returns without RMA# will be refused.** Contact IHC Suspension directly about any potentially defective parts prior to removal from vehicle.

IHC Suspension products are NOT intended for off-road abuse. Any damage or failure as a result from off-road abuse voids the warranty of the IHC Suspension product. IHC Suspension is NOT responsible for any subsequent damages to any related vehicle parts due to misuse, abuse, improper installation, or lack of maintenance. Furthermore, IHC Suspension reserves the right to change, modify or cancel this warranty without prior notice.



WARNING



READ INSTRUCTIONS THOROUGHLY AND COMPLETELY BEFORE BEGINNING INSTALLATION. INSTALLATION BY A **CERTIFIED PROFESSIONAL TECHNICIAN** IS HIGHLY RECOMMENDED.

IHC SUSPENSION IS **NOT** RESPONSIBLE FOR ANY DAMAGE OR FAILURE RESULTING FROM IMPROPER INSTALLATION.

SAFETY WARNING:

MISUSE OF THIS PRODUCT COULD LEAD TO INJURY OR DEATH.

Suspension systems or components that enhance the on and off-road performance of your vehicle may cause it to handle differently than it did from the factory. Extreme care must be used to prevent loss of control during abrupt maneuvers.

Always operate your vehicle at reduced speeds to ensure your ability to control your vehicle under all driving conditions. Failure to drive safely may result in serious injury or death to driver and passengers.

Driver and passengers must **ALWAYS** wear seat belts, avoid quick sharp turns and other sudden maneuvers. IHC Suspension does not recommend the combined use of suspension drop spindles, drop struts, drop springs or other lowering devices.

You should never operate your vehicle under the influence of alcohol or drugs.

Constant maintenance is required to keep your vehicle safe. Thoroughly inspect your vehicle before and after every drag race/race use.

It is the responsibility of the retailer and/or the installer to review all state and local laws, with the end user of this product, related to bumper height laws and the lowering of their vehicle before the purchase and installation of any IHC Suspension products.

It is the responsibility of the driver/s to check their surrounding area for obstructions, people, and animals before moving the vehicle.

All lowered vehicles may have increased blind spots; damage, injury and/or death can occur if these instructions are not followed.

INSTALLATION WARNING:

All steps and procedures described in these instructions were performed while the vehicle was properly supported on a two-post vehicle lift with safety jacks.

Use caution during all disassembly and assembly steps to ensure suspension components are not over extended causing damage to any vehicle components and parts included in this kit.

Included instructions are guidelines only for recommended procedures and are not meant to be definitive. Installer is responsible to insure a safe and controllable vehicle after performing modifications.

IHC Suspension recommends the use of an OE Service Manual for model/year of vehicle when disassembly and assembly of factory and related components. Unless otherwise specified, tighten all bolts and fasteners to standard torque specifications listed within the OE Service Manual.

Suspension components that use rubber or urethane bushings should be tightened with the vehicle at normal ride height. This will prevent premature wear or failure of the bushing and maintain ride comfort.

Larger tire and wheel combinations may increase leverage on suspension, steering, and related components. Due to payload options and initial ride height variances, the amount of drop is a base figure. Final ride height dimensions may vary in accordance with original vehicle ride height. Always measure the vehicle ride height prior to beginning installation.

PRE-INSTALLATION MEASUREMENTS

It is imperative that you record the following measurements and factory components in the tables below. IHC Suspension tests and records as much data from each application as available at the time of product development. Vehicle manufacturers may change components or add models with different options. Recording and not exceeding the fender-to-hub-center IHC Suspension calls out will ensure the drop on the vehicle is correct.

These measurements will affect the performance of this lowering kit. Failure to ensure proper stock conditions may result in over lowering, causing premature failure on ball joints, if 4wd, axles, CV boots and drivetrain. Over lowering a vehicle will also result in an incorrect wheel alignment. This will wear tires incorrectly. Incorrect alignment will cause poor vehicle handling issues including but not limited to under steer. Over lowering the vehicle will also cause incorrect suspension geometry resulting in poor ride quality accompanied by pops and clunks which are symptoms of prematurely wearing components.

Failure to adjust head lamps may cause dangerous driving conditions for you and other drivers on the road. Record the head lamp position before the installation of this lowering kit and adjust to original factory position after the completion to ensure a safe and enjoyable experience. Refer to Owner's Manual.

VEHICLE HEIGHT MEASUREMENTS				
	DRIVER BEFORE	DRIVER AFTER	PASSENGER BEFORE	PASSENGER AFTER
FRONT				
BACK				

****MEASUREMENT IS TO BE PERFORMED FROM CENTER OF HUB TO FENDER EDGE STRAIGHT UP FROM HUB ****

- Make sure vehicle is on leveled pavement.
- All 4 tires are same size (if running stagger fitment measurement will vary)
- All 4 tires have corrected air pressure.



WARNING



Installation Warning:

IHC Suspension recommends all steps and procedures described in these instructions be performed while the vehicle is properly supported on a two-post vehicle lift with safety jacks.

Otherwise, park vehicle on a clean flat surface and block the rear wheels for safety. Engage the parking brake.

Disconnect the vehicle power source at the ground terminal on the battery. Lock the steering wheel in the straightforward position with the column lock or steering wheel locking device.

Raise the front of the vehicle and support with safety jack stands at each frame rail behind the lower control arms.

Before Starting Installation

IHC Suspension highly recommends that the installation of this product be performed by a professional technician with experience working on and installing suspension products. Professional knowledge and skill will typically yield the best installation results. If you need an installer in your area, please contact IHC Suspension Customer Service to find one of our IHC Suspension Authorized dealers.

INSTALLATION BY A PROFESSIONAL IS HIGHLY RECOMMENDED

·A Factory Service Manual for your specific Year / Make / Model is highly recommended for reference during installation.

·All lowered vehicles may require additional driveline modifications and / or balancing.

·A vehicle alignment is **REQUIRED** after installation of this product.

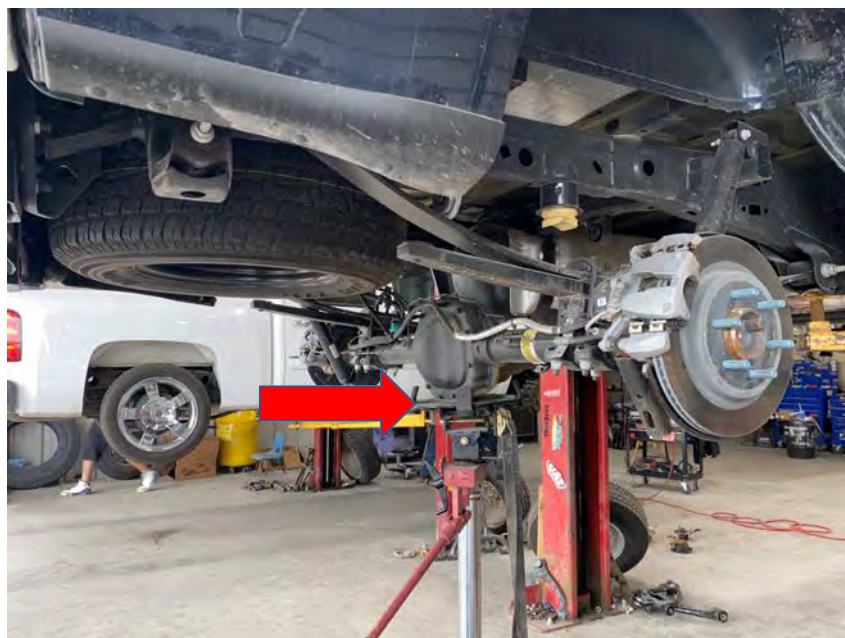
·Speedometer / Computer recalibration is required if changing +/- 10% from factory tire diameter.

·A vehicle lift or hoist greatly reduces installation time.

Vehicle must be in excellent operating condition. Repair or replace any and all worn or damaged components prior to installation of lowering kit. Installation time estimates are based on an available vehicle hoist.

REAR DISSASSEMBLY

1. Support rear axle with jack. Strap axle to prevent from falling.
2. NOTE: INSTALL JACK STAND UPFRONT TO SUPPORT FRONT END.



3. Remove rear OEM shocks.



4. Remove rear u bolts.

5. NOTE: 2WD will re-use OEM U-bolts. 4WD use u bolts supplied.



6. Lower axle down 3" to 5" inches and remove factory blocks.

7. NOTE: DO NOT LOWER ALL THE WAY. DAMAGE TO BRAKE LINES/ABS LINES



8. REMOVE 10MM BOLT HOLDING ABS BRACKET TO FRAME



9. **Disconnect brake line tab** from frame and **disconnect wiring from frame tab**. This will allow for more slack.



10. **Remove the brake line tab** closer to the fuel tank. This will allow for more slack.



11. **Disconnect** wiring from top side of frame rail. (driver side)



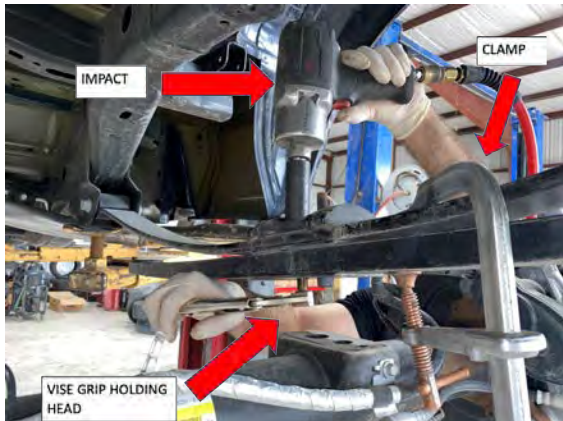
12. Lower differential down 12" while **thoroughly inspecting ABS wiring** and rear brake line to make sure they are **not overstretching**.



13. Remove rear **bump stops**.



14. Continue to **flip leaf pack center pins bolts**. With c clamp, clamp leaf pack. With vise-grips hold head of center pin bolt and remove nut. **DISCARD U BOLT ALIGNMENT LOCK**.



15. Now that leaf pack center bolts are flipped. TORQUE TO 110 FT-LBS.



16. NOTE: IF INSTALLING HELPER BAG KIT DO NOT FORGET LOWER BAG BRACKET. IF NOT INSTALLING CONTINUE TO STEP 17. REFER TO PIC



YOU ARE READY TO DO A FLIP KIT
NOTE: FUEL TANK DOES NOT NEED TO BE REMOVED.
USE CAUTION WHEN DOING FLIP
2 TECHNICIANS ARE NEEDED
FAILURE TO FOLLOW THESE INSTRUCTIONS
MAY CAUSE INJURY OR DAMAGE TO VEHICLE.



17. Remove rear shackles from frame.

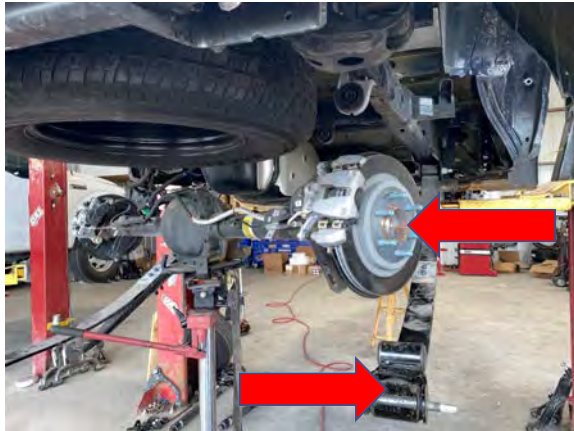
18. With caution slide differential over to passenger side while 2nd tech flips the leaf pack under.

19. NOTE: CAUTION WITH ABS WIRING AND BRAKE LINES NOT TO OVER EXTENDED.

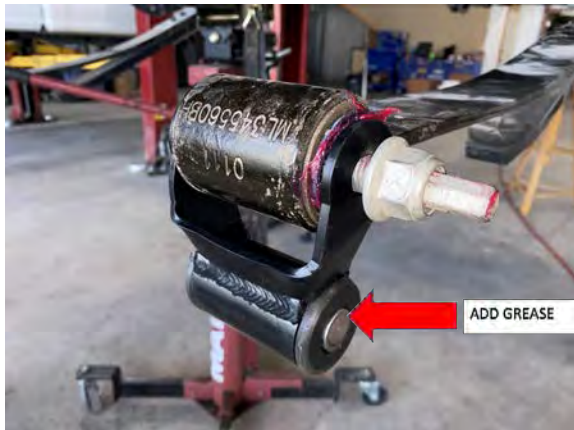
20. CAUTION DO NOT YANK ON LEAF PACK. THIS MAY CAUSE VEHICLE TO SLIDE FROM HOIST.



21. REPEAT THIS STEP ON OPPOSITE SIDE



23. 4WD come with 1" lift shackles (2WD wanting to set to 5" ADD IHC shackles) if 2WD 6" rear drop use OEM shackles.



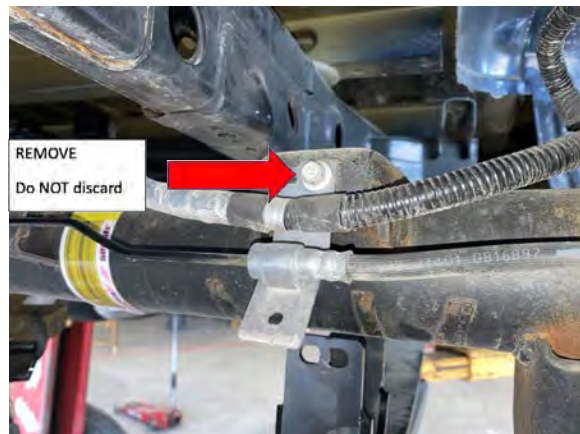
25. Remove BRAKE line bracket 10MM bolt.

26. NOTE: FAILURE TO REMOVE BOLT WILL CAUSE DAMAGE TO SADDLE AND PINION ANGLE WILL BE OFF.

22. Lubricate hanger pocket and shackles. NOTE: FAILURE TO ADD GREASE WILL CAUSE NOISES AND PREMATURE WEAR ON BUSHINGS.



24. Raise differential up. Install shackles on rear hanger. Do not tighten yet.



27. Install **saddle** on leaf pack and slowly lower differential on saddle.

28. NOTE: SADDLE HAS 2 HOLES THAT WILL LINE UP WITH LEAF PACK CENTER PIN HOLES.

29. NOTE: IS DIRECTIONAL. 2 HOLES GO FACING REAR OF VEHICLE.



30. Once saddle is lowered and lines up on both sides continue to re-install BRAKE line bolt 10MM. The bolt will go through saddle holes and line up correctly.

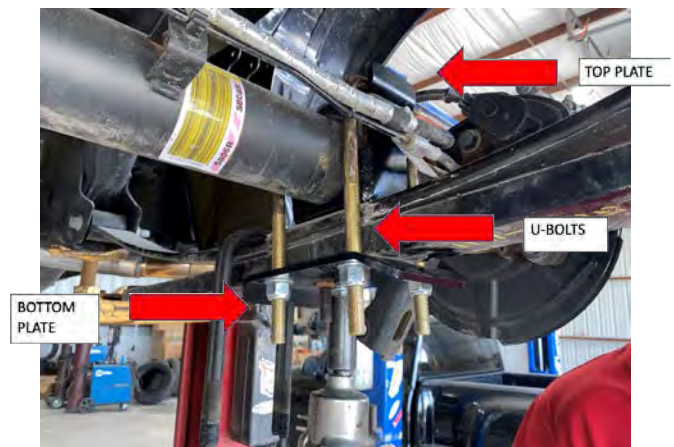


31. Continue to **install U bolts**. (4WD PICTURED) TORQUE TO 110 FT-LBS

32. Install **top plate** and **bottom plate**.

33. NOTE: BOTTOM PLATE IS DIRECTIONAL. DRIVER SIDE BOTTOM PLATE HAS CUT OUT FOR SHOCK

34. NOTE: 4WD comes with new hardware



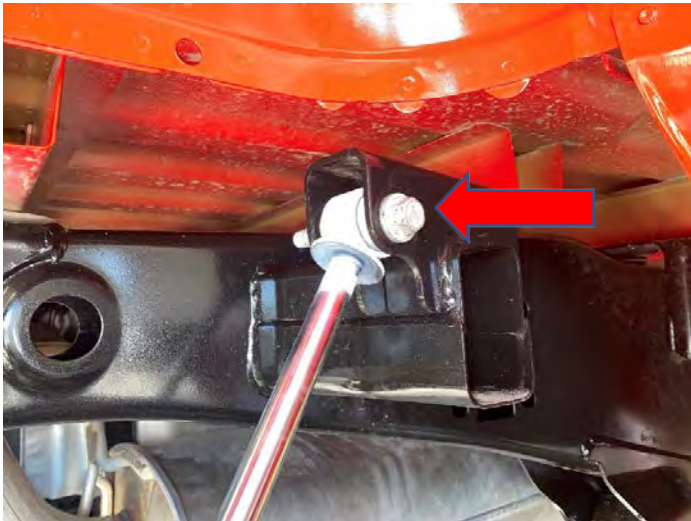
35. 2WD you will re-use OEM U-Bolts. 2wd does not have top plate. U bolts will hug axle housing not top plate. 2WD u bolts TORQUE TO 110 FT-LBS



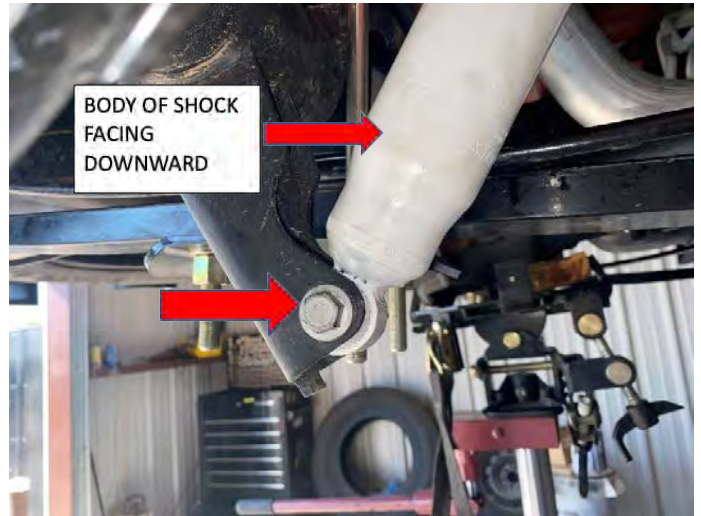
36. Install **inner sleeve** into shocks.



37. Install **shocks** using OEM hardware.
TORQUE TO 60FT-LBS



38. **NOTE: BODY OF SHOCK GOES FACING DOWNWARD!**



39. Install the wheels and lower the vehicle to the ground. Torque the lug nuts to the wheel manufacturers specs. Jounce the vehicle to settle the suspension to the new ride height. Reconnect the battery ground terminal



WARNING



FAILURE TO PERFORM THE POST INSPECTION CHECKS MAY RESULT IN VEHICLE COMPONENT DAMAGE AND/OR PERSONAL INJURY OR DEATH TO THE DRIVER AND/OR OTHERS

Final Checks & Adjustments

Once the vehicle is lowered to the ground, check all parts which have rubber, Delrin or urethane components to ensure proper torque. Torque lug nuts to the wheel manufacturer specs. Move vehicle backwards and forwards a short distance to allow suspension components to adjust. Turn the front wheels completely left then right and verify adequate tire, wheel, brake line, and ABS wire clearance. Test and inspect steering, brake and suspension components for tightness and proper operation. Inspect brakes hoses and ABS lines for adequate slack at full extension, adjust, as necessary.

MAINTENANCE

RECHECK ALL HARDWARE FOR PROPER TORQUE VALUES AFTER 500 MILES, AND THEN PERIODICALLY AT EACH SERVICE INTERVAL THEREAFTER. RECOMMENDED TO PERFORM MAINTENANCE ON ALL BALL JOINTS AND CONTROL ARMS. ADD GREASE EVERY 6 MONTHS OR EVERY 10K MILES. FAILURE TO PERFORM MAINTENANCE WILL CAUSE PREMATURE WEAR ON BALL JOINTS AND BUSHING.

Vehicle Handling Warning

Lowering the height of your vehicle lowers the center of gravity and can affect stability and control. Use caution on turns and when making steering corrections. Vehicles with larger tires and wheels will handle differently than stock vehicles. Take time to familiarize yourself with the handling of your vehicle.

Wheel Alignment/Headlamp Adjustment

It is necessary to have a proper and professional wheel alignment performed by a certified alignment technician. Align the vehicle to IHC Recommended specifications. It is recommended that your vehicle alignment be checked after any race/drag race driving. In addition to your vehicle alignment, for your safety and others, it is necessary to check and adjust your vehicle headlamps for proper aim and alignment. If the vehicle is equipped with active or passive safety/collision monitoring and/or avoidance systems including, but not limited to, camera- or radar-based systems, check and adjust your vehicle's systems for proper aim and function.

IMPORTANT NOTE: Due to the nature of Ford's lane keeping/lane departure features, it may be necessary to have the vehicles camera and sensors recalibrated to ensure these systems functions as they did prior to install. Please contact your local Ford dealership to set up an appointment.

