PART# 703440

2009-2014 FORD F-150 2WD
4" FRONT LIFT SPINDLES

2015-2020 FORD F-150 2WD
4.5" FRONT LIFT SPINDLES

3 HOUR INSTALL TIME

Components	Hardware
(1) SMX703440D DRIVE SIDE SPINDLE	(2) 1/4" ADEL CLAMP
(1)SMX703440P PASS SIDE SPINDLE	(2) 3/8" ADEL CLAMP
(2) 513400 BRAKE LINE	(4) M6-1.0 X 16 HEX CAP SCREW
(2) BL COURSE THREAD ADAPTOR	(4) M6 FLAT WASHER

WARNING

Max Trac Suspension recommends using a 17" x 9" wheel w/ 6.25" back spacing. Any wheel that is wider or has less back spacing "i.e. Deep Dish Wheels" can cause component failure and will void the warranty. Max Trac Suspension also recommends using a 33" x 11.5" tire with the spindle only or a 35" x 12.5" tire when combining a strut spacer with our spindle.

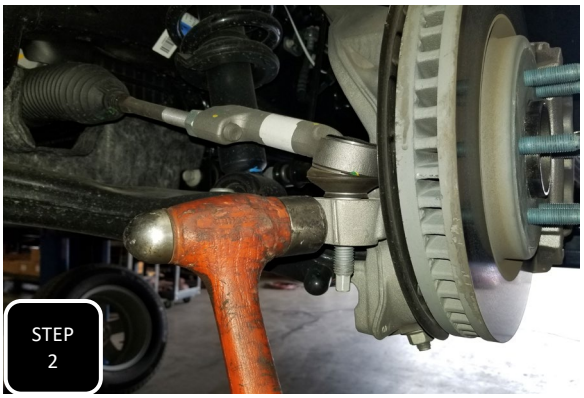
Please double check the parts list before beginning installation to ensure all parts are present. If there is something missing, please contact Maxtrac Suspension (714) 630-0363. Please have the boxes present if parts are missing or damaged

PRIOR TO INSTALLATION:
1. Factory service manual is recommended to have on hand.
2. Secure and properly block vehicle prior to beginning installation.
3. Always wear safetly glasses when using power tools or working under the vehicle
4 Modification to any part will void the warranty associated with that product

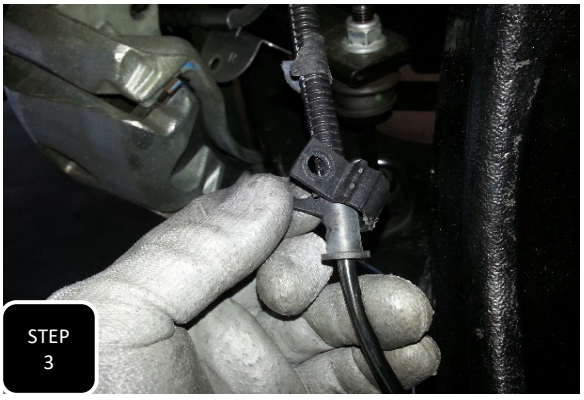
AFTER REMOVING PARTS FROM VEHICLE, SAVE HARDWARE FOR REINSTALLATION

REVISED 1/9/2024

Step 1 Jack up the front of your vehicle and support under the frame with jack stands.



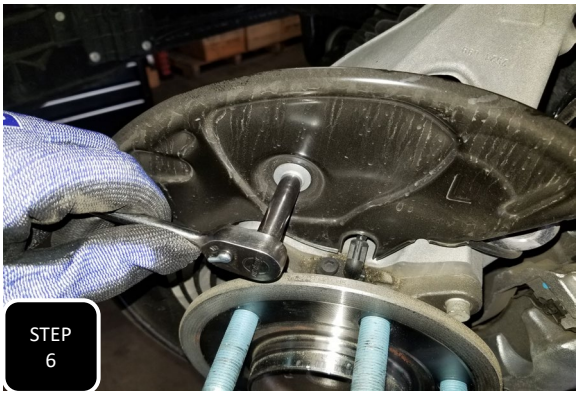
Step 2 Unbolt the tie rod at the spindle and break it loose by hitting the side of the spindle, right at the joint, with a hammer and separate. **NOTE: NEVER HIT THE TIE ROD ON THE THREADS.**



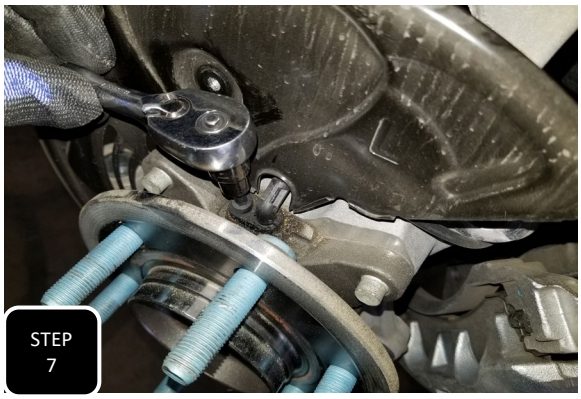
Step 3 Unbolt the ABS line guide bracket from the neck of the spindle and then remove the plastic loom clamp from the line.

Step 4 Unbolt the brake line guide bracket from the neck of the spindle then separate.

Step 5 Unbolt both brake caliper bolts and support the brake caliper up out of the way. **NOTE: NEVER ALLOW THE BRAKE CALIPER TO HANG FROM THE BRAKE LINE.**



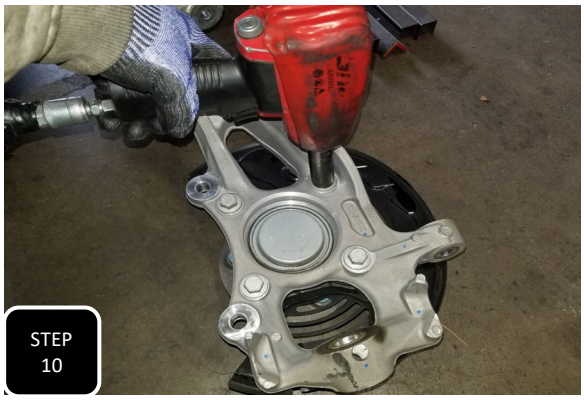
Step 6 Remove the free floating brake rotor and then remove the upper mounting bolt on the dust shield behind it. **NOTE: IF THE BRAKE ROTOR DOES NOT JUST COME OFF, IT WILL HELP TO SPRAY WD-40 AROUND THE MIDDLE HOLE AND THEN HIT THE WHEEL MOUNTING SURFACE WITH A HAMMER TO JAR IT LOOSE.**

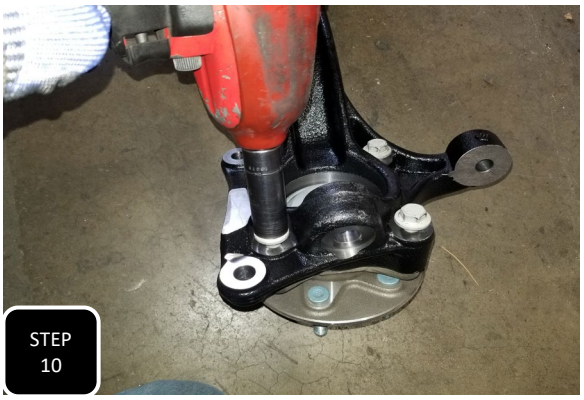


Step 7 Unbolt the ABS sensor from the top of the hub, remove it, and then hang it up out of the way so that it does not get damaged during the install.

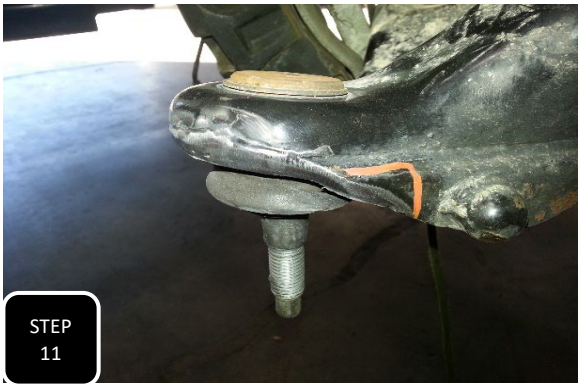
Step 8 Loosen the nut at the upper ball joint, but do not fully remove it. Next, break the ball joint loose by hitting the side of the spindle, right at the ball joint, with a hammer. The nut will catch the spindle. **NOTE: NEVER HIT THE BALL JOINT ON THE THREADS.**

Step 9 Loosen the nut at the lower ball joint, but do not fully remove it. Next, break the ball joint loose by hitting the side of the spindle, right at the ball joint, with a hammer. The nut will catch the spindle then you can fully remove the spindle. **NOTE: NEVER HIT THE BALL JOINT ON THE THREADS.**

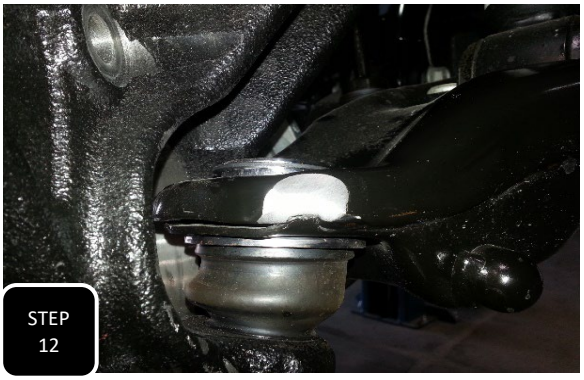




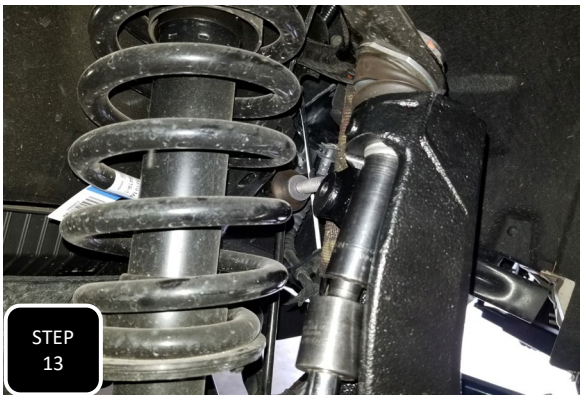
Step 10 Remove the 4 wheel bearing bolts and then separate the wheel bearing from the factory spindle. Next, attach the wheel bearing to the new spindle using the factory bolts and tighten. **NOTE: THE FACTORY DUST SHIELD WILL NOT GET RE-USED.**



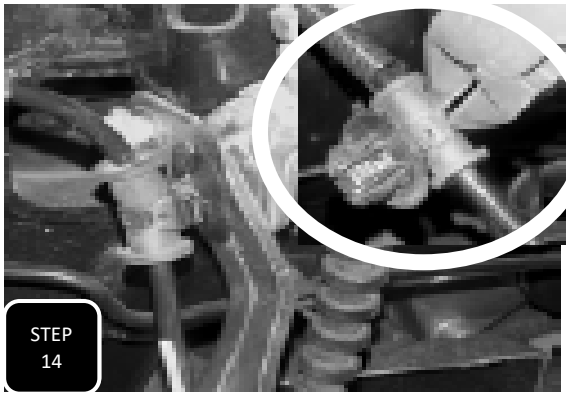
Step 11 2009-2014 models will require a good amount of trimming on the lower control arm. Using a suitable grinder, clearance about 1/4" off the bottom/front of the LCA and round off around the edges into the points where the control arm drops down. **NOTE: INSTEAD OF GRINDING, THE DUST CAP ON THE BACK OF THE WHEEL BEARING CAN BE REMOVED TO GAIN THE CLEARANCE NEEDED.**

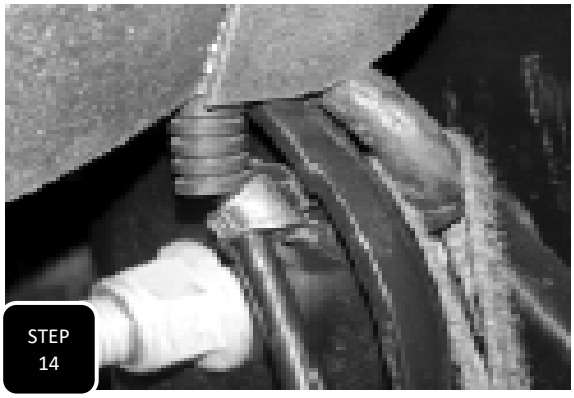


Step 12 2015-2020 models will require just a little bit of trimming on the front corner of the lower control arm. Using a suitable grinder, round off the corner of the LCA towards the front of the truck.

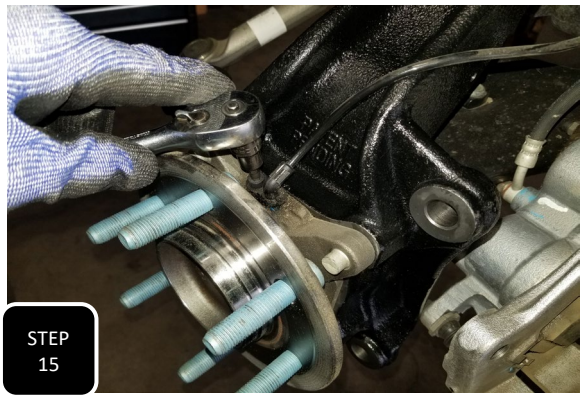


Step 13 Install the new spindle using the factory ball joint nuts and tighten to factory specs. **NOTE: CYCLE THE SPINDLE BACK AND FORTH THROUGH ITS STEERING CYCLE TO ENSURE PROPER CLEARANCE OF THE LCA. IF THE LCA MAKES CONTACT, REMOVE THE SPINDLE AND CONTINUE CLEARANCING AS NEEDED.**

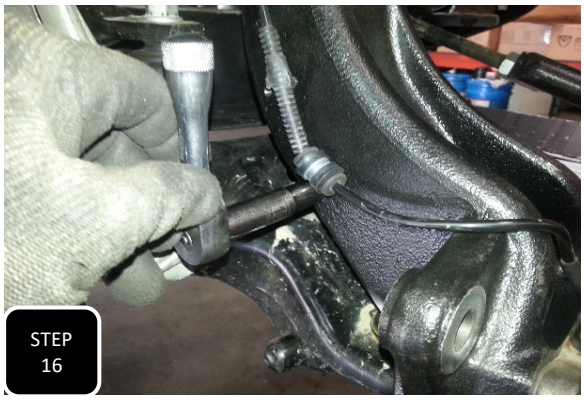


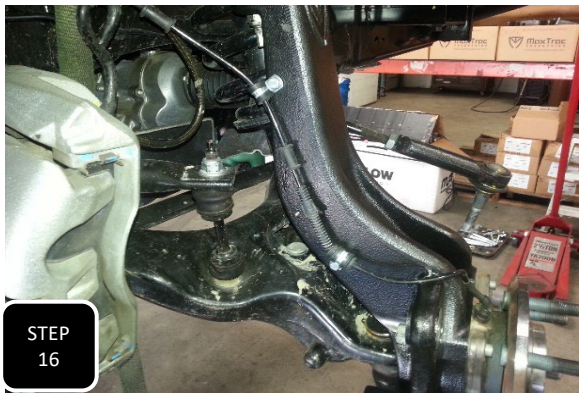


Step 14 Remove the ABS guide clips at both the brake line bracket and at the side of the upper control arm mount, then cut off the plastic clip. This will allow for more slack in the line.



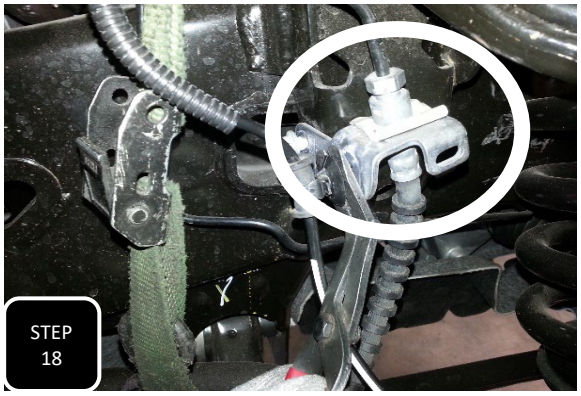
Step 15 Attach the ABS sensor to the hub assembly using the factory socket head allen screw.

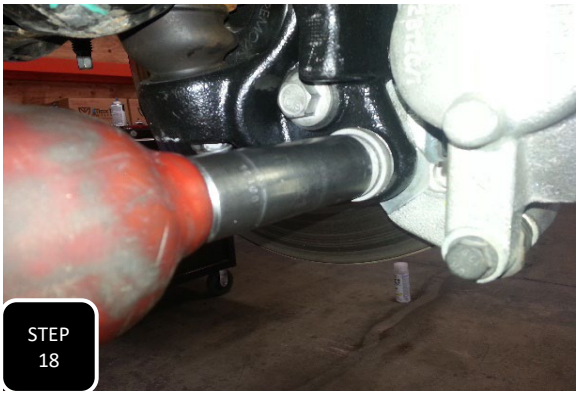




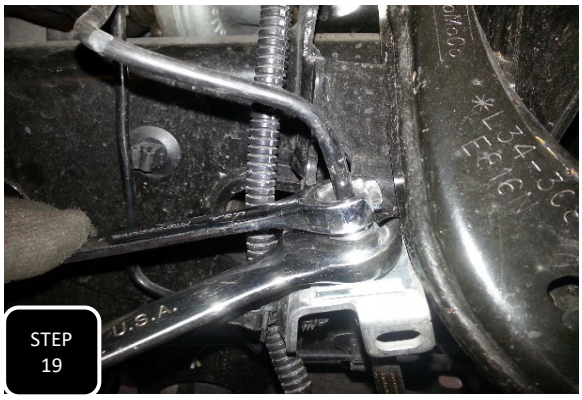
Step 16 Use the supplied 1/4" and 3/8" adel clamps along with the supplied M6 bolts to guide the ABS wire safely up the neck of the spindle. The larger 3/8" clamp will be installed over a rubber sleeve on the wire. Cycle the spindle back and forth in its turn radius to ensure there is enough slack in the ABS wire.

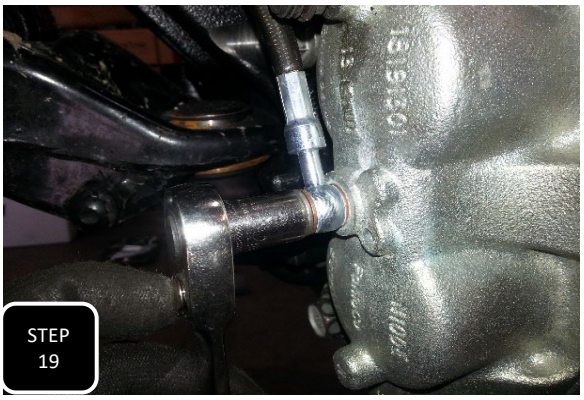
Step 17 Install the brake rotor onto the wheel studs.





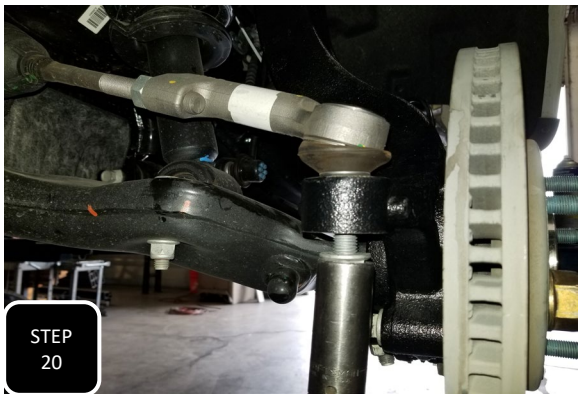
Step 18 Remove the "U" shaped clip that secures the brake line to the bracket on the frame and pull the line downward to gain slack. Next, attach the brake caliper to the spindle using the factory bolts and tighten to factory specs.

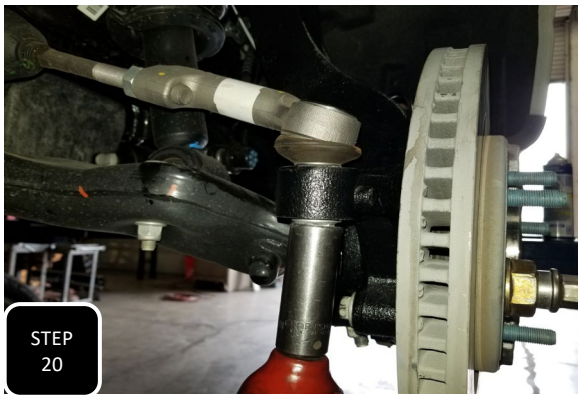




Step 19 Unbolt the brake line at the frame using a line wrench and open ended wrench to brake the seal. Next, unbolt the brake line from the brake caliper and remove the factory line. Install the new, extended brake line. Attach the line to the frame first, allow fluid to drip out of the other end and then attach it to the brake caliper using the factory banjo bolt and two copper washers. **NOTE: YOU WILL NEED TO USE THE SUPPLIED COARSE THREAD ADAPTOR FOR 2015-2020 MODEL TRUCKS. 2009-2014 MODELS CAN WILL NOT USE THE ADAPTOR.**

-IT IS THE FLARE ON THE LINE AND CONE IN THE FITTING THAT SEAL THE THREADED END OF THE LINE. THERE IS NO NEED FOR TEFLON TAPE.
-THE FACTORY LINE SHOULD JUST BREAK LOOSE AND UN-THREAD BY HAND. IF IT REQUIRES YOU TO USE A WRENCH THE WHOLE WAY DOWN THE THREADS THEN THE LINE WAS OVER TIGHTENED FROM THE FACTORY AND THE THREADS ARE STRETCHED OUT. IN THIS CASE YOU WILL EITHER NEED TO USE A THREAD FILE TO CLEAN UP THE THREADS SO THAT OUR ADAPTOR FITTING WILL PROPERLY THREAD ONTO THE FACTORY HARD LINE OR THE THREADED FITTING ON THE FACTORY HARD LINE WILL NEED TO BE REPLACED.





Step 20 Re-attach the tie rod to the steering arm of the spindle using the facory nut and tighten. Next, repeat steps 1-20 on the other side.

-Make sure to check the vehicle's tow before driving.

-The headlights should be adjusted after modifying the stance of the vehicle.

-The vehicle's alignment will need to be adjusted.

-All suspension components should be re-torqued after 500 miles.

MaxTrac suspension

RIDE HEIGHT SHEET

*THIS SHEET MUST BE FILLED OUT PRIOR TO CALLING WITH ANY DISCREPENCIES

YEAR _____ MAKE _____ MODEL _____

4WD / 2WD / AWD

MEASUREMENTS

*MOST ACCURATE MEASUREMENT IS FROM THE BOTTOM OF THE RIM, STRAIGHT UP TO THE BOTTOM OF THE FENDER

*TRUE HEIGHT WONT BE ACCURATE UNTIL VEHICAL IS ALIGNED

*THE VEHICLE'S CASTER WILL BE INCREASED OR DECREASED IF ONLY THE FRONT OF THE VEHICLE IS MODIFIED

	BEFORE	AFTER	DIFFERENCE
DRIVER FRONT	_____	_____	_____
DRIVER REAR	_____	_____	_____
PASSENGER FRONT	_____	_____	_____
PASSENGER REAR	_____	_____	_____

LIMITED LIFETIME WARRANTY

Ma Trac Suspension makes no warranty, e pressed or implied, as to the merchantability, fitness for purpose, description, quality, productiveness, accuracy or any other matter with respect to every product, all such warranties being hereby specifically and e pressly disclaimed by Ma Trac. Ma Trac may offer technical advice or assistance with regard to the products based on laboratory and or field e perience and customer understands and agrees that such advice represents only good faith opinions and does not constitute a warranty or guarantee. The sole and e press warranty provided by Ma Trac is to warrant that the products sold as listed comply with Ma Trac s specification at the date and time of manufacture. Ma Trac makes no warranty that such products shall meet such specification at any time after installation of products. Use of such product is specifically not warranted, and Ma Trac specifically e cludes from this e press warranty parts subject to normal wear and tear after one year, finish after one year, damage resulting from failure to follow recommendations in installation manuals, competition or off-road use, and damages caused by aftermarket products. Ma Trac s liability and customer s e clusive remedy for any breach of this limited e press warranty is limited to repair, replacement, or refund at Ma Trac s option and in Ma Trac s sole discretion. There are no warranties which e tend beyond the description on the face hereof.

Our limited lifetime warranty excludes the following items bushings, bump stops, ball joints, tie rod ends, rod end/heim joints, and shock absorbers. These parts are subject to immediate wear and tear and are not considered defective when worn. They are warranted for twelve (12) months from the date of purchase only for defects in workmanship.

This Max Trac warranty is void if (1) the vehicle is not aligned after kit installation, (2) proper maintenance is not routinely performed, (3) the Max Trac products are misused or abused in any way in either installation or service, or (4) the products are used in a way that violates federal, state, or local law or regulation in any respect. Max Trac is not responsible for vehicle compatibility with other aftermarket products. Warranty coverage does not include consumer opinions regarding ride comfort, fitment and design after product installation.

Max Trac reserves the right to change, modify or cancel this warranty without prior notice.

WARRANTY RETURN

Contact Maxtrac by sending an email with a copy of the original purchase receipt, along with photographs clearly illustrating the failure mode.

1. Upon validating the information provided, Maxtrac will issue a Return Manufacturer Authori ation number (RMA).
2. Return your product to Max Trac Suspension at your expense in order to execute a claim under this warranty.
3. Include the RMA on the outside of the box. Any returns without the RMA will be refused.

NON-WARRANTY RETURN CREDIT POLICY

our item must be in its original unused and resalable condition to be returned, unless there is a manufacturing defect. ou must return the item within 30 days of your purchase. Otherwise, there will be an additional restocking fee.

1. Please contact Max Trac Suspension at (844) 535-1668 to obtain a Return Manufacturer Authori ation Number (RMA).
2. Return your product to Max Trac Suspension at your expense.
3. Include the RMA on the outside of the box. Any returns without the RMA will be refused.

Return E ceptions

Merchandise that has been installed, used, or altered may be subject to no credit.

Restocking Fee

All items are subject to a restocking fee based on the condition of the packaging and product.
Max Trac Suspension does not credit shipping and handling. Credit minus applicable restocking fee will be determined and issued within 10 business days of product receipt.
All returns will be credited to your Maxtrac account.

⚠ INSTALLATION WARNINGS

READ INSTRUCTIONS AND WARNINGS COMPLETELY PRIOR TO INSTALLATION.
MA TRAC IS NOT RESPONSIBLE FOR ANY DAMAGE OR INJURY DUE TO IMPROPER INSTALLATION OR MAINTENANCE.

Installer is responsible to insure a safe and controllable vehicle after performing modifications. 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. Included instructions are recommended guidelines only.

Max Trac Suspension recommends reference to the OE Service Manual corresponding to the model and year of vehicle when either disassembling or assembling factory and related components.

Use caution during all disassembly and assembly steps to insure suspension components are not over extended, causing damage to any vehicle components and parts included in this kit. 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 lift is a base figure. Final ride height dimensions may vary in accordance to original vehicle ride height. Always measure the vehicle ride height prior to beginning of installation.

MA TRAC SUSPENSION DOES NOT ADVISE USING WHEELS WIDER THAN 9" OR WHEELS WITH LESS THAN 4.5" BACKSPACING. DOING SO WILL RESULT IN VOIDING ANY AND ALL MANUFACTURER WARRANTIES

Max Trac Suspension does not recommend the combined use of suspension lifts, body lifts, or other lifting devices.

Final Checks Adjustments

Once the vehicle is lowered to the ground, check all parts which have rubber 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 settle. 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, and adjust as necessary.

⚠ ADDITIONAL WARNINGS

WARNING

Max Trac Suspension products should ONL be installed by a certified professional mechanic with experience working on and installing suspension products. Professional knowledge and skill will typically yield the best installation results.

If you need a list of installers in your area, please contact Max Trac Suspension customer service to find one of our authori ed dealers. Max Trac Suspension does not warrant work performed by any dealer, installer, or mechanic.

- All lifted vehicles may require additional driveline modifications and/or balancing.
- A Factory Service Manual for your specific ear/ Make / Model should be referenced during installation.
- Use of a vehicle hoist will greatly reduce installation time.
- Speedometer / computer calibration is required if changing /- from factory tire diameter.
- Vehicle must be in excellent operating condition. Repair or replace any and all worn or damaged components prior to installation.

FAILURE TO PERFORM POST INSTALLATION INSPECTION AND OR CHECKS MAY RESULT IN VEHICLE COMPONENT DAMAGE AND OR PERSONAL INJURY OR DEATH.

RECHECK ALL HARDWARE FOR PROPER TORQUE VALUES AFTER 500 MILES, AND THEN PERIODICALLY AT EACH SERVICE INTERVAL THERAFTER.

Vehicle Handling Warning

Increasing the height of your vehicle raises the center of gravity and **WILL** affect stability and control. Use caution on turns and when steering. Vehicles with larger tires and wheels will handle differently than stock vehicles. Take time to familiari e yourself with the handling of your vehicle after product installation.

Wheel Alignment Headlamp Adjustment

It is necessary after installation to have a wheel alignment performed by a certified alignment technician. Align the vehicle to factory specifications. It is recommended that your vehicle alignment be checked after any off-road driving. In addition to vehicle alignment, it is necessary to check and adjust vehicle head lamps 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.

Braking Warning

enerally, braking performance and capabilities are decreased when significantly larger or heavier tires and wheels are used. Take this into consideration while driving. Also, changing axle gear ratios or using tires that are taller or shorter than factory height will cause an erroneous speedometer reading. On vehicles equipped with an electronic speedometer, the speed signal impacts other important functions as well. Speedometer recalibration for both mechanical and electronic types is highly recommended.

⚠ SAFETY WARNINGS

SAFETY WARNING

MISUSE OF THIS PRODUCT COULD LEAD TO INJUR 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 or vehicle rollover during operation.

- ALWA S operate your vehicle at reduced speeds and maintain distance between vehicles and obstacles to ensure your ability to control your vehicle under all driving conditions. Failure to drive safely may result in serious injury or death to the driver and passengers.

- Driver and passengers must ALWA S wear seat belts, avoid rapid steering angles and rates and other sudden maneuvers.

- ou should NEVER operate your vehicle under the influence of alcohol or drugs.

- Please check all factory components for excessive wear and tear. Please replace worn factory parts before installing any suspension kits. Failure to do so will void any Max Trac warranty.

- Please inspect all wheel bearings and hub bearings for excessive wear and replace worn components before installing suspension kits. These hub and wheel bearings may wear out sooner with installation of larger tires and wheels. MaxTrac does not warranty these factory parts at any time, also using any wheel that MaxTrac does not recommend will void any warranty of MaxTrac components.

- Constant maintenance is required to keep your vehicle safe. Thoroughly inspect your vehicle before and after every off-road 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 lifting of a vehicle before the purchase and installation of any Max Trac products.

- It is the responsibility of the driver to check the area around the vehicle for obstructions, people, and animals before moving the vehicle.

- All lifted vehicles have increased blind spots. Take note of these prior to operating the vehicle.

DAMAGE, INJURY AND OR DEATH CAN OCCUR IF ANY OF THE ABOVE WARNINGS ARE NOT FOLLOWED.

PART# 833120
2004-2013 F-150 2WD/4WD
2014+ F-150 2WD/4WD

2" LEVELING STRUT SPACER

2 HOUR INSTALL TIME

Components	Hardware
(2) 833120 STRUT SPACERS	(6) M10-1.25 FLANGE NUTS
	(6) M10-1.5 NYLOCK NUTS

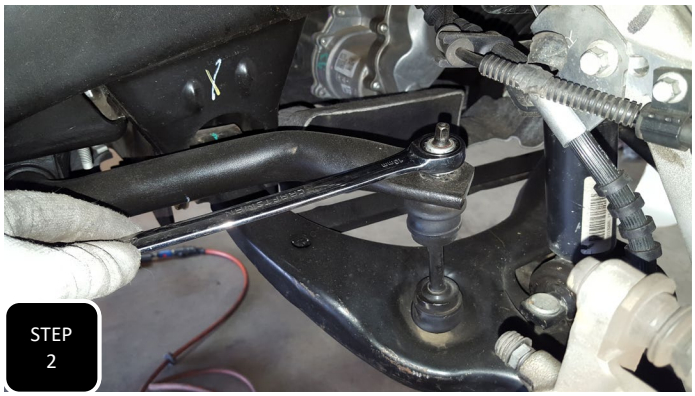
NOTE: THE STUDS ON OUR SPACERS HAVE A DIFFERENT THREAD PITCH THAN THE FACTORY STUDS. THE PROVIDED NYLOCK NUTS ONLY FIT THE FACTORY STUDS. THE PROVIDED FLANGE NUTS ONLY FIT THE STUDS ON THE SPACER.

Please double check the parts list before beginning installation to ensure all parts are present. If there is something missing, please contact Maxtrac Suspension (714) 630-0363. Please have the boxes present if parts are missing or damaged

PRIOR TO INSTALLATION:
1. Factory service manual is recommended to have on hand.
2. Secure and properly block vehicle prior to beginning installation.
3. Always wear safetly glasses when using power tools or working under the vehicle
4 Modification to any part will void the warranty associated with that product

AFTER REMOVING PARTS FROM VEHICLE, SAVE HARDWARE FOR REINSTALLATION

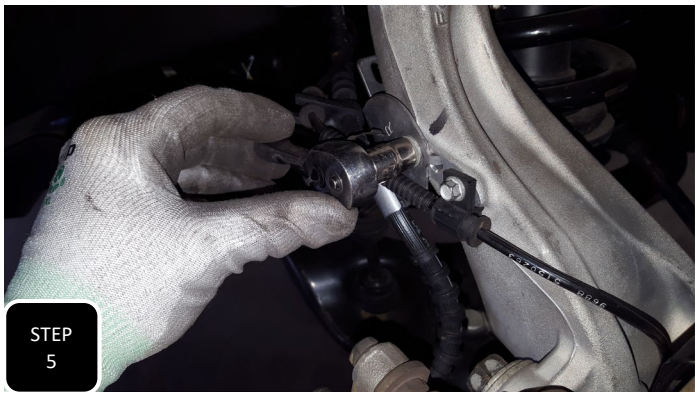
Step 1 Jack up the front of the truck and support under the frame with jack stands.



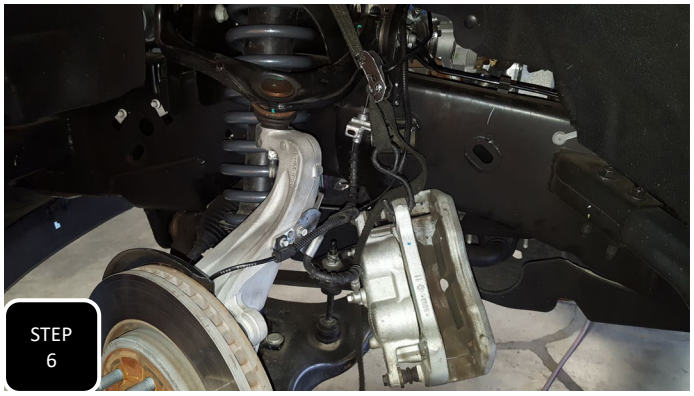
Step 2 Unbolt the sway bar end link from the sway bar.

Step 3 Unbolt the tie rod from the spindle and break it loose by hitting the side of the spindle, right at the tie rod, with a hammer. **NOTE: NEVER HIT THE TIE ROD ON THE THREADS.**

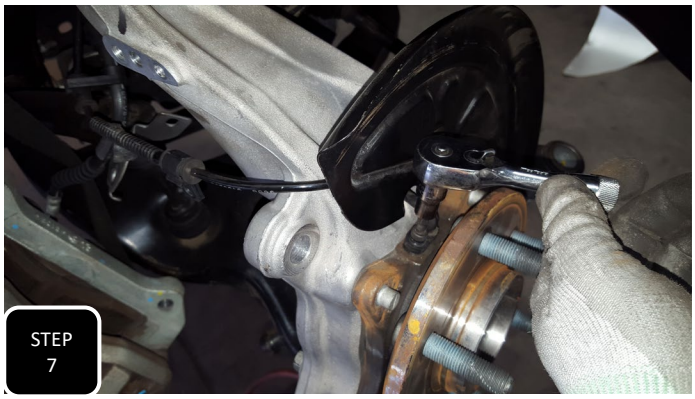
Step 4 For 2004-2013 trucks, unbolt the 3 nuts at the top of the strut and the one bolt at the bottom of the strut then remove the strut. **Skip to step 12 for strut spacer install.**



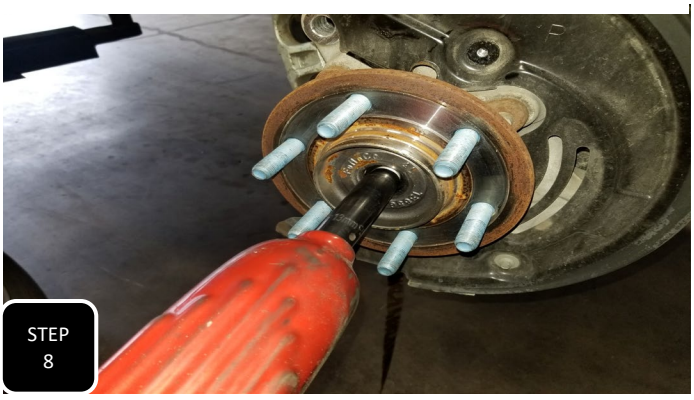
Step 5 For newer models the whole spindle will need to come off to safely install the spacers so start by unbolting both the Brake line and ABS line from the neck of the spindle and separate.



Step 6 Unbolt the brake caliper from the spindle and support it out of the way. **NOTE: NEVER ALLOW THE CALIPER TO HANG BY THE BRAKE LINE.**



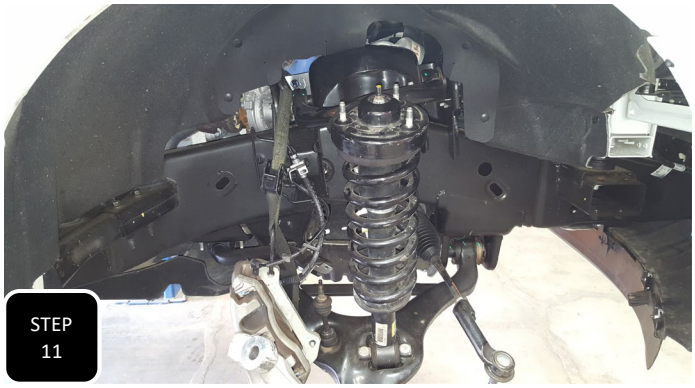
Step 7 Unbolt the ABS sensor and position it out of the way. The top bolt of the dust shield will need to be removed for the ABS wire to clear and the sensor to be separated from the spindle.



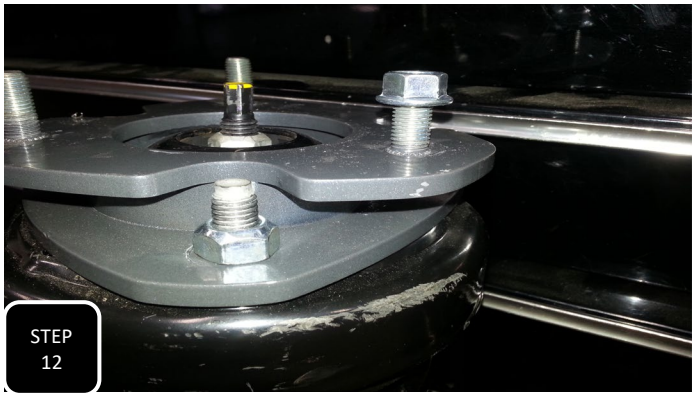
Step 8 For 4wd models, you will need to remove the dust cap at the middle of the wheel bearing and then remove the axle retainer nut.

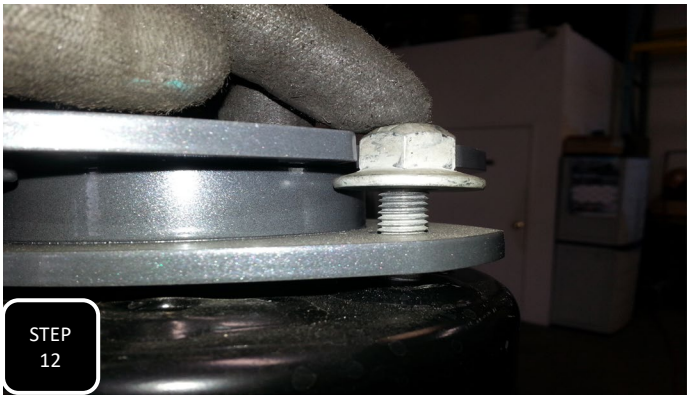
Step 9 For 4wd models, you will also need to remove the 3 hub actuator bolts on the back side of the spindle.

Step 10 All models, unbolt both the upper and lower ball joints, but do not remove the nuts. Hit the side of the spindle, right at each ball joint, with a hammer to break them loose. The nuts will catch the spindle. Then remove the nuts and the spindle.

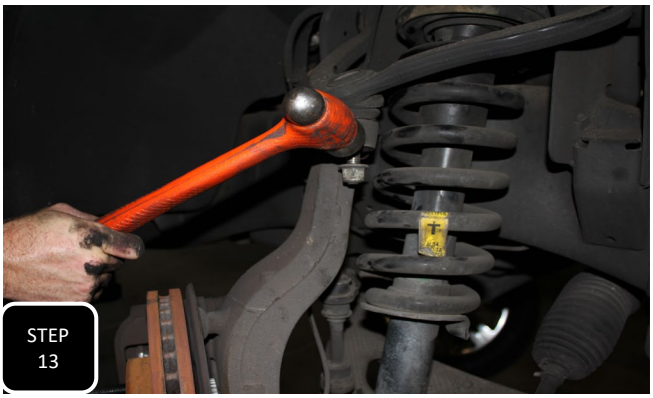


Step 11 Push down on the lower control arm with your knee or a pry bar while also lifting up on the upper control arm so that the studs on the top of the strut clear the tower and you can remove the strut.

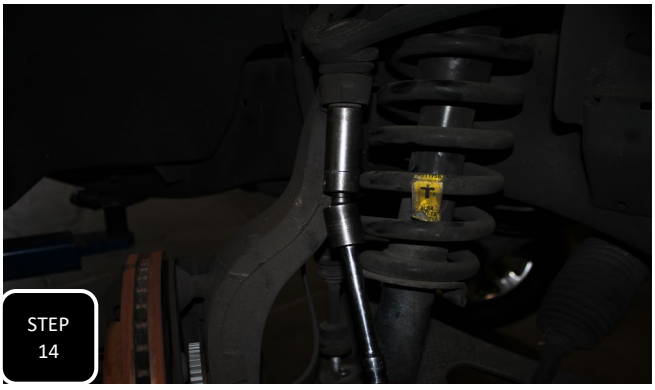




Step 12 For 2004-2013 models, attach the strut spacer to the top of the strut with either the factory nuts or the provided nylock nuts. For 2014 and newer models, the factory nut will hit the tube on the spacer so you have to use the provided nylock nut to attach the spacer to the strut.
Skip to step 16 for 2014 and newer models.



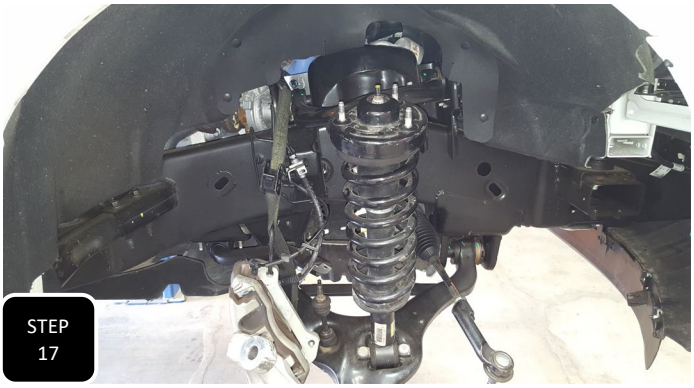
Step 13 For 2004-2013 models you can loosely attach the top of the stut to the frame, then you will need to loosen the upper ball joint nut and then brake the ball joint loose by hitting the side of the spindle with a hammer. **NOTE: NEVER HIT THE BALL JOINT ON THE THREADS.**



Step 14 Support the spindle so that the brake line does not get stretched out while installing the lower strut bolt. Next, place a floor jack under the lower control arm and jack it up to compress the coil so that you can re-attach the upper control arm to the spindle and tighten.

Step 15 Re-attach the tie rod and tighten. Then tighten the 3 nuts at the top of the strut. **NOTE: DO NOT TIGHTEN THE LOWER STRUT BOLT UNTIL THE TRUCK IS ONN THE GROUND AT RIDE HEIGHT.**

Step 16 Because the strut spacer has a rotated bolt pattern, you will now need to compress the coil and rotate the bottom of the shock 180 degrees so that the angled bar pin is once again angled inward.



Step 17 Push down on the lower control arm with your knee or a pry bar while also lifting up on the upper control arm so that the studs on the top of the strut clear the tower. **NOTE: THIS WILL BE TOUGHER THAN THE REMOVAL BECAUSE THE STRUT IS NOW LONGER.**

Step 18 Repeat these steps in reverse for installation. Make sure the rear tires are touching the ground when compressing the coil to attach the upper ball joint to the spindle.

-Make sure to check the vehicle's toe before driving.

-The headlights should be adjusted after modifying the stance of the vehicle.

-The vehicle's alignment will need to be adjusted.

-All suspension components should be re-torqued after 500 miles.