



Installation manual
2" Front and 1" Rear Lift w/rear
shock extension brackets
2016 Nissan Titan XD
Part # 52050
SS06072016

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2016 Nissan Titan XD
2" front and 1" rear lift w/rear shock extensions

| Part # | Description | Qty. |
|---------------|-----------------------------|-------------|
| 52008-01 | Front strut spacer | 2 |
| 52925-04 | Rear lift block | 2 |
| 52050-01 | Rear shock bracket | 2 |
| S10074 | Crush sleeve | 2 |
| 9163B | 9/16" X 3" Bolt | 2 |
| 12WA | 1/2" Flat washer | 4 |
| 916UN | 9/16" unitorque nut | 2 |
| 12112CB | 1/2" X 1 1/2" Carriage bolt | 2 |
| 716WA | 7/16" Flat washer | 2 |
| 12UN | 1/2" unitorque nut | 2 |
| 5u-2510s | 9/16" X 3" X 10 3/8" u-bolt | 4 |
| 916NW | U-bolt nuts and washers | 1 |
| D2PNB | Hardware bag | 1 |
| 52051INST | Instruction manual | 1 |
| MIRRORHANGER | Rear view mirror hanger | 1 |
| WARNINGDECAL | Warning decal | 1 |

Congratulations on your selection to purchase a Tuff Country EZ-Ride Suspension System. We at Tuff Country EZ-Ride Suspension are proud to offer a high quality product at the industries most competitive pricing. Thank you for your confidence in us and our product.

If you desire to return your vehicle to stock, it is the customers responsibility to save all stock hardware and components.

The Tuff Country EZ-Ride Suspension product safety label that is included in your kit box must be installed inside the cab in plain view of all occupants.

Special note: Before installation begins, it is the customers/installers responsibility to make sure that all parts are on hand.

Important customer information:

Tuff Country EZ-Ride Suspension highly recommends that a qualified or a certified mechanic performs this installation.

It is the responsibility of the customer/installer to wear

safety glasses at all times when performing this installation.

It is the customers/installers responsibility to read and understand all steps before installation begins. If you have any questions or concerns, please contact our technical department. Also, the OEM manual should be used as a reference guide.

This vehicles reaction and handling characteristics may differ from standard cars and/or trucks. Modifications to improve and/or enhance off road performance may raise the intended center of gravity. Extreme caution must be utilized when encountering driving conditions which may cause vehicle imbalance or loss of control. **DRIVE SAFELY!** Avoid abrupt maneuvers: such as sudden sharp turns which could cause a roll over, resulting in serious injury or death.

It is the customers responsibility to make sure that a re-torque is performed on all hardware associated with this suspension system after the first 100 miles of installation. It is also the customers responsibility to do a complete re-torque after every 3000 miles or after every off road use.

After the original installation, Tuff Country EZ-Ride Suspension also recommends having the alignment checked every 6 months to ensure proper tracking, proper wear on tires and front end components. Tuff Country EZ-Ride Suspension takes no responsibility for abuse, improper installation or improper suspension maintenance.

Limited lifetime warranty

Notice to all Tuff Country EZ-Ride Suspension customers: It is your responsibility to keep your original sales receipt! If failure should occur on any Tuff Country EZ-Ride Suspension component, your original sales receipt must accompany the warranted unit to receive warranty. Warranty will be void if the customer can not provide the original sales receipt. Do not install a body lift in conjunction with a suspension system. If a body lift is used in conjunction with any Tuff Country EZ-Ride Suspension product, your Tuff Country EZ-Ride Suspension WARRANTY WILL BE VOID. Tuff Country Inc. ("Tuff Country") suspension products are warranted to be free from defects in material and workmanship for life if purchased, installed

and maintained on a non-commercial vehicle; otherwise, for a period of twelve (12) months, from the date of purchase and installation on a commercial vehicle, or twelve thousand (12,000) miles (which ever occurs first). Tuff Country does not warrant or make any representations concerning Tuff Country Products when not installed and used strictly in accordance with the manufacturer's instructions for such installation and operation and accordance with good installation and maintenance practices of the automotive industry. This warranty does not apply to the cosmetic finish of Tuff Country products nor to Tuff Country products which have been altered, improperly installed, maintained, used or repaired, or damaged by accident, negligence, misuse or racing. ("Racing is used in its broadest sense, and, for example, without regards to formalities in relation to prizes, competition, etc.) This warranty is void if the product is removed from the original vehicle and re-installed on that or any other vehicle. This warranty is exclusive and is in lieu of any implied warranty of merchantability, fitness for a particular purpose or other warranty of quality, whether express or implied, except the warranty of title. All implied warranties are limited to the duration of this warranty. The remedies set forth in this warranty are exclusive. This warranty excludes all labor charges or other incidental consequential damages. Any part or product returned for warranty claim must be returned through the dealer of the distributor from whom it was purchased. Tuff Country reserves the right to examine all parts returned to it for warranty claim to determine whether or not any such part has failed because of defect in material or workmanship. The obligation of Tuff Country under this warranty shall be limited to repairing, replacing or crediting, at its option, any part or product found to be so defective. Regardless of whether any part is repaired, replaced or credited under this warranty, shipping and/or transportation charges on the return of such product must be prepaid by the customer under this warranty. Important information that needs to be read before installation begins:

This Suspension kit comes with (1) installation manual and some post installation procedure literature and it is the installers responsibility to make sure that the customer receives the post installation procedure literature. If a customer would like a copy of the installation manual, please have them visit our website. Have them go to the customer care section to down-load these instructions.

Tuff Country highly recommends replacing the rear shocks. If you have not already ordered your rear shocks, please contact Tuff Country or your local Tuff Country dealer and order your new rear shocks. Tuff Country recommends install a 30" fully extended nitrogen gas shock.

Before installation begins, Tuff Country EZ-Ride

Suspension highly recommends that the installer performs a test drive on the vehicle. During the test drive, check to see if there are any uncommon sounds or vibrations. If uncommon sounds or vibrations occur on the test drive, uncommon sounds or vibrations will be enhanced once the suspension system has been installed. Tuff Country EZ-Ride Suspension highly recommends notifying the customer prior to installation to inform the customer of these issues if they exist.

Make sure to use loctite on all new and stock hardware associated with the installation of this suspension system.

Tuff Country EZ-Ride Suspension recommends a wall mounted strut compressor be used when performing the steps that talk about installing the pre-load spacer into the strut. If you do not have a wall mounted strut compressor, please have these steps performed by your local Ford Dealership

Recommended tools selection:

- Torque wrench
- Standard socket set
- Standard wrench set
- Metric socket set
- Metric wrench set
- Tape measure
- Hydraulic floor jacks

Hardware bag D2PNB includes:

| Description | Quantity |
|-------------------------------|----------|
| 38NLN (3/8" nylon nut) | 6 |
| 516WA (5/16" USS flat washer) | 6 |

Please follow instructions carefully:

Before installation begins, measure from the center of the hub, to the bottom of the fender well, and record measurements below.

Pre-installation measurements:

Driver side front: _____
Passenger side front: _____
Driver side rear: _____
Passenger side rear: _____

At the end of the installation take the same measurements and compare to the pre-installation measurements.

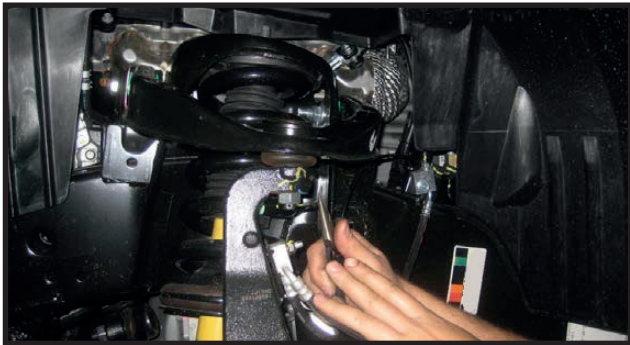
Post-installation measurements:

Driver side front: _____
Passenger side front: _____
Driver side rear: _____
Passenger side rear: _____

Front end installation:

1. To begin installation, block the rear tires of the vehicle so that the vehicle is stable and can't roll backwards. Safely lift the front of the vehicle and support the vehicle with a pair of jack stands. Place a jack stand on both the driver and the passenger side. Next, remove the front wheels and tires from both sides, and support the lower control arm with a hydraulic jack.

2. Working on the driver side, remove the cotter pin from the upper ball joint, and save the cotter pin.



3. Using a hammer, carefully strike the steering knuckle to separate the upper ball joint from it. **Take special care not to damage the rubber boot on the ball joint.**



4. Remove the cotter pin from the outer tie rod end and save the cotter pin.



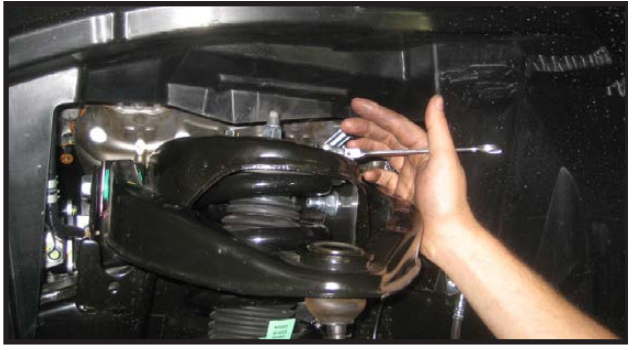
5. Using the same method as the upper ball joint, separate the outer tierod end from the steering knuckle.



6. Disconnect the sway bar endlink from the swaybar.



7. Remove the (3) nuts on the upper strut mount and save them.



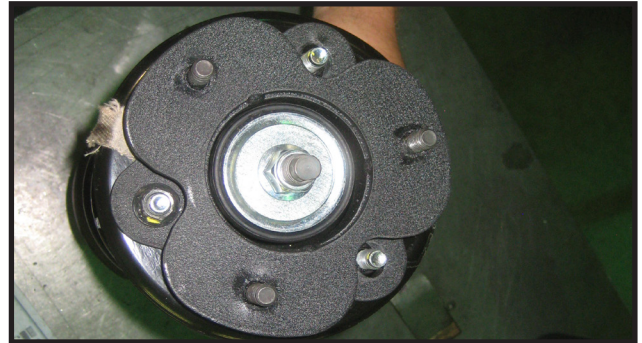
8. Move the the lower strut mounting bolt and remove the hardware. Save hardware for re-installation. **Once this bolt is removed, take extra care to not let the suspension drop so far that it binds up the axle and pulls hard on the brake lines.**



9. Remove the strut assembly from the vehicle and place on work bench.



10. Locate one of the 52008-01 strut spacers and also locate (3) OE nuts for the top of the strut. Install the new spacer on top of the strut using the OE nuts and torque to 45 ft lbs.



11. Locate (3) 38NLN nuts and (3) 516WA washers from hardware bag D2PNB. Install the strut back into the vehicle and loosley start the new 3/8" nuts on the top.



12. Re-install the OE lower strut hardware to the lower control arm and torque to 120 ft lbs.



13. Move back to the (3) 3/8" upper nuts and torque to 32 ft lbs



14. Re-attach the upper ball joint to the steering knuckle using the OE nut and Cotter pin. Torque to 75 ft lbs.



15. Re-install the tie rod end to the steering knuckle using the OE nut and cotter pin. Torque to 75 ft lbs.



16. At this time repeat steps #2 - #15 on the passenger side of the vehicle. Once complete re-install the swaybar endlinks to the sway bar and torque to 45 ft lbs.



17. Re-install the tires and wheels and carefully lower the vehicle back onto the ground.

Front end Installation Complete!

Rear end Installation:

18. To begin installation, carefully block the front tires and wheels so that the vehicle can not roll forward. Safely lift the rear of the vehicle and support the vehicle with a pair of jack stands. Place a jack stand on both the driver and the passenger side. Next, remove the rear wheels and tires from both sides.

19. Place a hydraulic floor jack under the driver and passenger side of the rear axle.

20. Disconnect the swaybar endlink from the sway bar

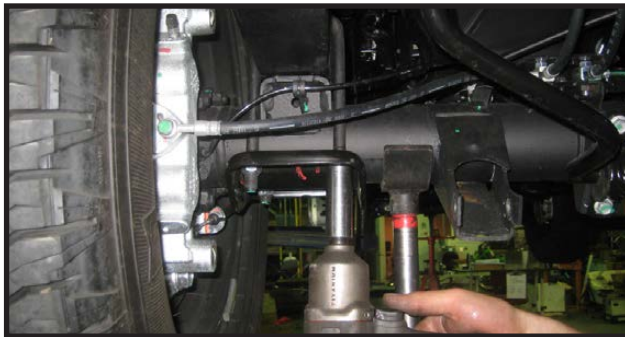




21. Remove the lower shock mounting bolts and save them.



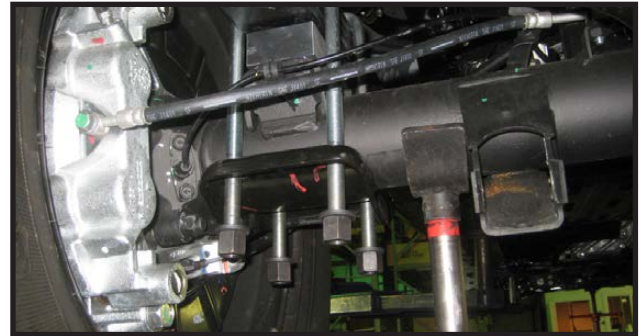
22. With the axle being supported from underneath, remove the OE ubolts and lower the axle enough to install the new lift block.



23. Install the new lift block between the axle perch and bottom of the leaf spring pack. **SPECIAL NOTE:** the lift block has a slight taper and needs to be installed so the thicker side is towards the rear of the vehicle.



24. Locate and install the new rear Ubolts with the new nuts and washers. Torque to 105 ft lbs.



25. Re-attach the sway bar end link to the sway bar

Repeat steps #18 - 25 on the Passenger side.

26. Locate the new rear shock extension brackets and install them into the OE lower shock brackets. Use the OE bolt and nut to attach the shock to the new bracket and the new 9/16" bolts, crush sleeve, and hardware to install the bracket to the OE location. **Special note:** the OE shock brackets have a couple small dimples in them that can obstruct installing the new extension bracket, if this is the case you can knock off the dimples with a chisel.



27. Re-install the tires and wheels and carefully lower the vehicle back to the ground.

Congratulations, Installation is complete! check and double check that all steps have been properly performed.

Special note: Tuff Country highly recommends replacing the rear shocks. If you have not already ordered your rear shocks, please contact Tuff Country or your local Tuff Country dealer and order your new rear shocks. Tuff Country recommends install a 30" fully extended nitrogen gas shock.

Special note: After the completion of the installation, Tuff Country EZ-Ride Suspension recommends taking the vehicle to an alignment shop and having a proper front end alignment performed.

Tuff Country EZ-Ride Suspension recommends that a complete re-torque is done on all bolts associated with this suspension system. It is the customers responsibility to make sure that a re-torque is performed on all hardware associated with this suspension system after the first 100 miles of installation. It is also the customers responsibility to do a complete re-torque after every 3000 miles or after every off road use. Neglect of following these steps could cause brackets to come loose and cause serious damage to the suspension system and to the vehicle.

If you have any questions or concerns, please feel free to contact Tuff Country or your local Tuff Country dealer.