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NISSAN TITAN COIL SPRING LEVELING 2.0" KIT INSTALLATION INSTRUCTIONS 2004-2010 KIT# NL220

⚠ WARNING

Installation of a Performance Automotive Group suspension lift kit will change the vehicle's center of gravity and handling characteristics both on- and off-road. You must drive the vehicle safely! Extreme care must be taken to prevent vehicle rollover or loss of control, which could result in serious injury or death. Avoid sudden sharp turns or abrupt maneuvers and always make sure all vehicle occupants have their seat belts fastened.

⚠ WARNING

Before you install this kit, read and understand all instructions, warnings, cautions, and notes in this instruction sheet and in the vehicle owner's manual.

⚠ CAUTION

Proper installation of this kit requires knowledge of the factory recommended procedures for removal and installation of original equipment components. We recommend that the factory shop manual and any special tools needed to service your vehicle be on hand during the installation. Installation of this kit without proper knowledge of the factory recommended procedures may affect the performance of these components and the safety of the vehicle. We strongly recommend that a certified mechanic familiar with the installation of similar components install this kit.

⚠ WARNING

Many states and municipalities have laws restricting bumper heights and vehicle lifts. Consult state and local laws to determine if the changes you intend to make to the vehicle comply with the law.

⚠ WARNING

The installation of larger tires may reduce the effectiveness of the braking system.

⚠ WARNING

Always wear eye protection when operating power tools.

⚠ WARNING

Before you install this kit, block the vehicle tires to prevent the vehicle from rolling.

NOTE

Performance Automotive Group recommends using the Loctite® supplied in the kit on the threads of all kit nuts and bolts unless specified otherwise in these instructions.

NOTE

Installation of a suspension lift will change the driveline angles which may cause a noticeable vibration in the vehicle. See the troubleshooting section at the end of these instructions.

⚠ WARNING

DO NOT combine suspension, body, or other lift devices. Use of vehicle with combined lifts may result in unsafe and/or unexpected handling characteristics.

⚠ WARNING

This kit should only be installed on a vehicle that is in good working condition. Before you install the kit, thoroughly inspect the vehicle for corrosion or deformation of the sheet metal. If the vehicle is suspected to have been in a collision or misused, do not install this kit. Off-road use of your vehicle with this kit installed may increase the stress applied to the factory components. Failure to observe this warning may result in serious personal injury and/or severe damage to your vehicle.

Before Starting Installation

NOTE

Kit parts are prefaced by the word *kit* and appear in **bold** print.

1. Carefully read all warnings and instructions completely before beginning.
2. Verify all parts have been received in this kit by checking the parts list at the end of this document.
3. **Only install this kit on the vehicle for which it is specified.** If anytime during the installation you encounter something different from what is outlined in the instructions, call technical support at (928) 636-3175.
4. Special tools needed:
 - a. Coil spring compressors
 - b. Tie rod puller
5. Park vehicle on a clean, dry, flat, level surface and block tires so vehicle cannot roll in either direction.

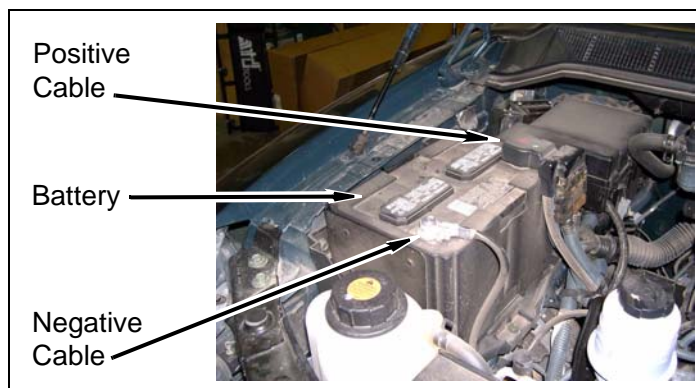
Torque Specifications

See factory service manual for torque values when re-using OE fasteners.

Bolt Size	Grade 5 (ft.-lbs.)	Grade 8 (ft.-lbs.)
1/4"-20	10	10
1/4"-28	10	12.5
5/16"-18	17	22.5
5/16"-24	20	25
3/8"-16	30	40
3/8"-24	35	45
7/16"-14	50	65
7/16"-20	55	70
1/2"-13	75	100
1/2"-20	55	70
9/16"-12	105	135
9/16"-18	115	150
5/8"-11	150	195
5/8"-18	160	210
3/4"-16	175	225

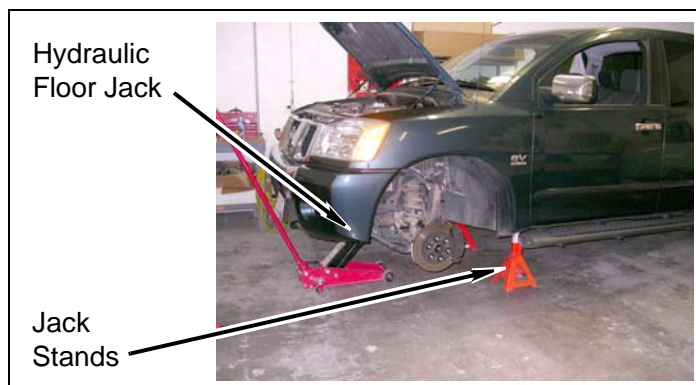
Engine Compartment

1. Disconnect both battery cables. Disconnect negative cable first, then positive cable.



Prepare to Install Leveling Kit

1. Loosen, but do not remove, lug nuts on each front wheel.
2. Using a hydraulic floor jack, slowly lift front axle until front tires are 3-5" off ground. Position jack stands under frame. Lower vehicle onto jack stands while maintaining hydraulic jack pressure underneath front axle.

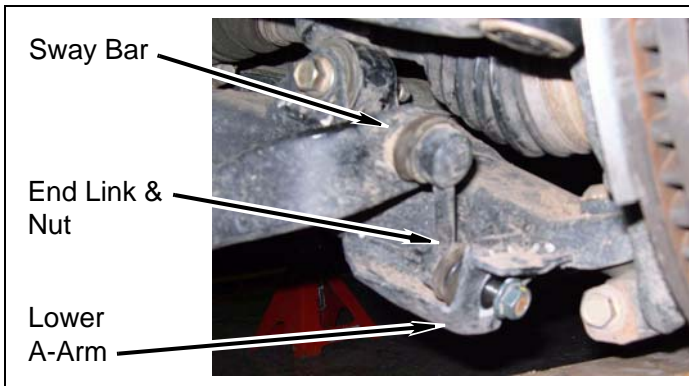


⚠ WARNING

Use extreme caution when lifting vehicle from ground. To prevent serious personal injury, ensure the lifting device is securely placed.

3. Remove lug nuts and front wheels from vehicle.
4. Driver side strut assembly

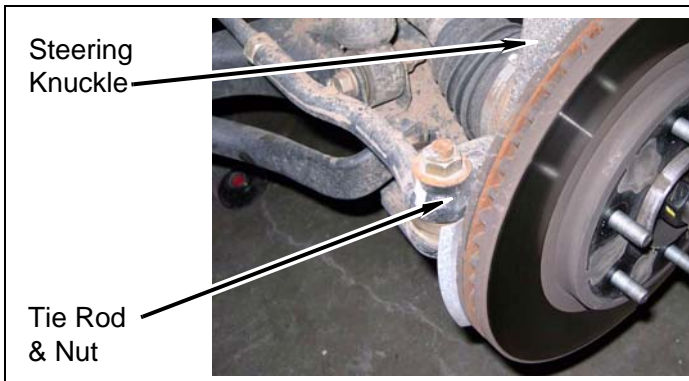
- a. Remove driver side nut and sway bar link from lower A-arm.



NOTE

It may be necessary to use a tie rod puller to separate tie rod from steering knuckle.

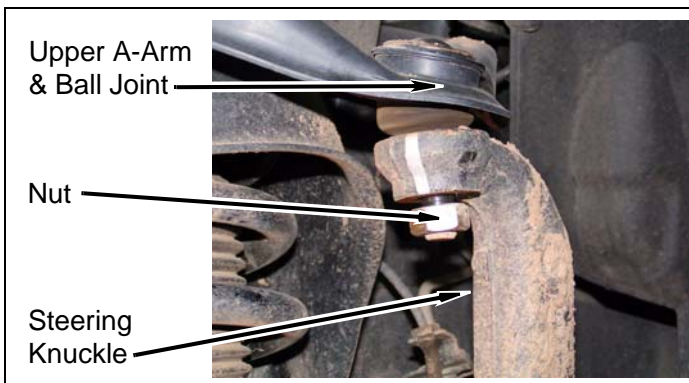
- b. Remove nut, and using tie rod puller, remove tie rod from steering knuckle.



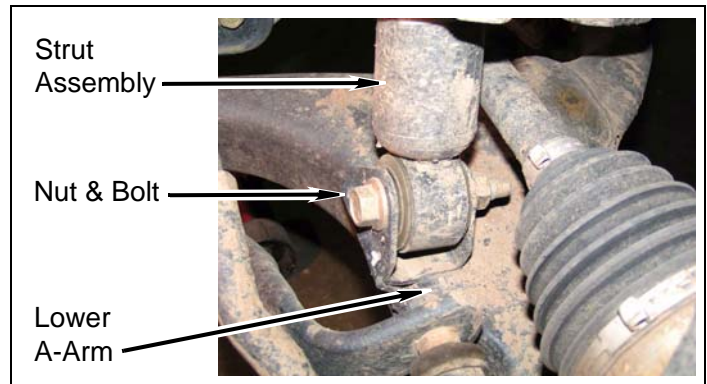
NOTE

It may be necessary to use a tie rod puller to separate upper ball joint from steering knuckle.

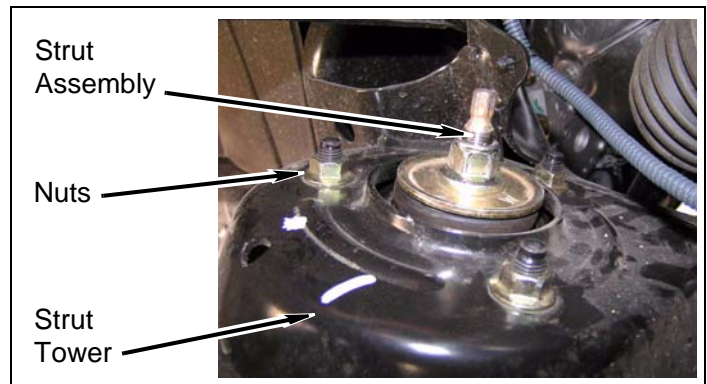
- c. Remove nut, and using tie rod puller, remove steering knuckle from upper ball joint and upper A-arm.



- d. Remove nut, bolt, and strut assembly from lower A-arm.



- e. Remove three nuts and strut assembly from strut tower.

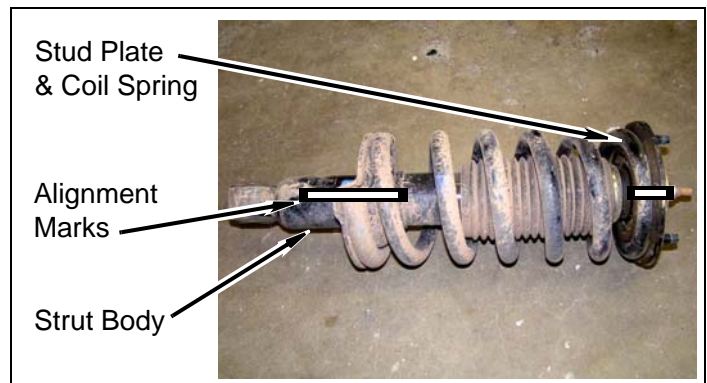


- f. Repeat above steps for passenger side strut assembly.

Install Leveling Kit

1. Driver side strut assembly

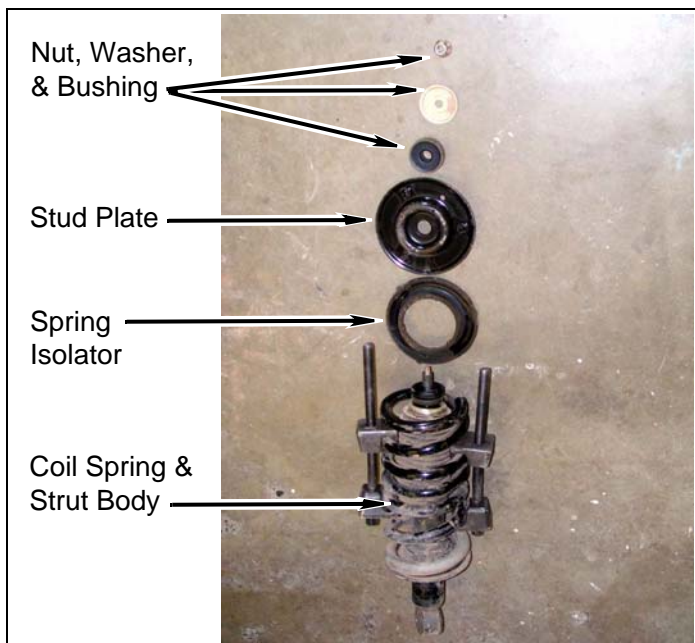
- a. Mark stud plate, coil spring, and strut body with alignment mark for proper re-installation.



⚠ WARNING

Compressed coil springs can expand violently causing serious personal injury. Before removing the coil springs, lower the axle housing as far as possible to allow the coil springs to expand. Use caution when using coil spring compressors.

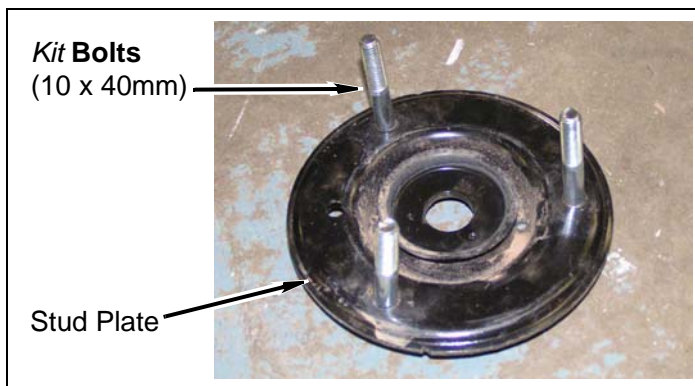
- b. Remove nut, washer, bushing, stud plate, spring isolator, and strut body from coil spring. DO NOT uncompress coil spring at this time.



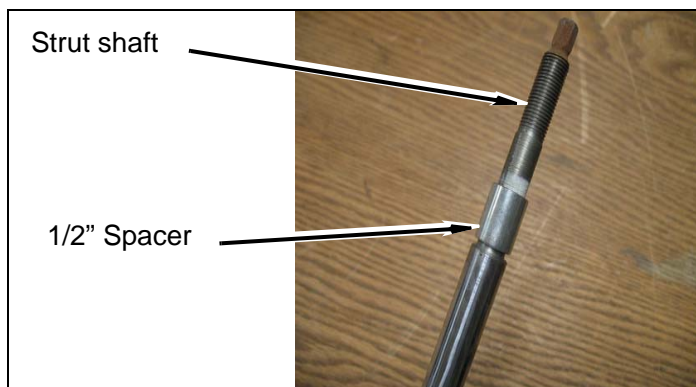
NOTE

Stock spring isolator is NOT re-used.

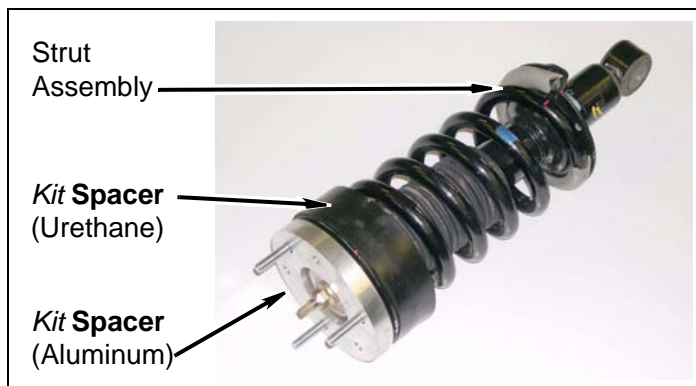
- c. Remove three studs from stud plate.
- d. Position three **kit bolts** (10mm x 40mm) into stud plate.



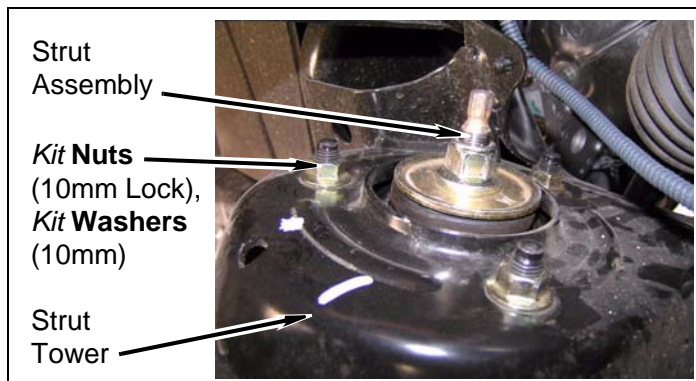
- e. Position each **kit spacer** (1/2" strut shaft) onto strut shaft. (**Note:** Be sure to place dust boot on strut shaft, after the **kit spacer** is in place on the strut shaft..



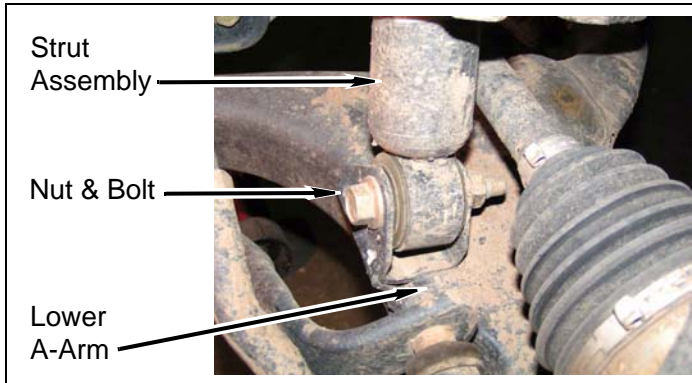
- f. Install **kit spacer** (urethane) and stud plate onto top of coil spring.
- g. Align previously made marks and install strut body onto coil spring with stud plate, bushing, washer, and **kit nut** (12mm-1.25). Use **kit thread locker** when installing **kit nut**. (**Note:** Be sure that the **kit sleeve** is installed before you assemble the rest of the strut assembly with dust boot.)
- h. Slowly uncompress coil spring and install **kit spacer** (aluminum) onto top of stud plate.



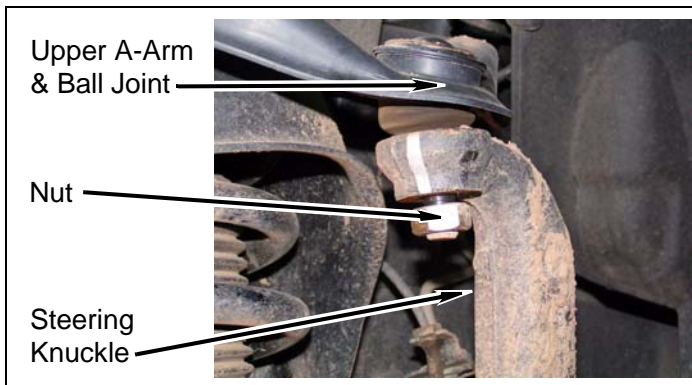
- i. Install strut assembly onto shock tower with three **kit washers** (10mm lock) and three **kit nuts** (10mm).



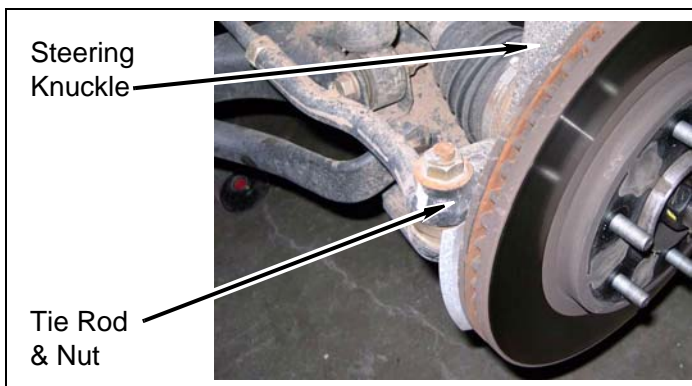
- j. Using hydraulic floor jack, raise lower A-arm and install strut assembly onto lower A-arm with nut and bolt.



- k. Install steering knuckle onto upper ball joint and A-arm with nut. TORQUE nut to OE specification.

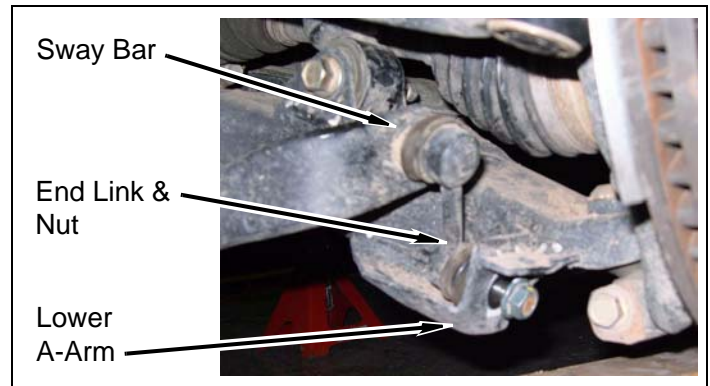


- l. Install tie rod onto steering knuckle with nut. TORQUE nut to OE specification.



- m. Repeat above steps for passenger side assembly.

2. Install sway bar link onto driver side lower A-arm with nut.

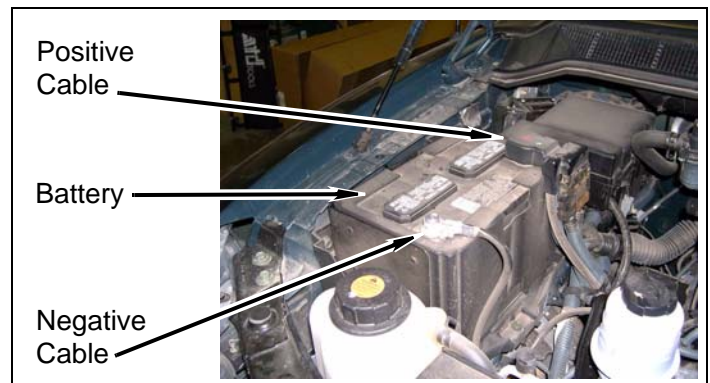


3. Install two front wheels onto vehicle with lug nuts. Snug, but do not tighten lug nuts.
4. Raise vehicle using hydraulic floor jack and remove jack stands.
5. TORQUE lug nuts to specification.

After Completing Installation

Engine Compartment

1. Connect both battery cables. Connect positive cable first, then negative cable.



Miscellaneous

1. Align vehicle to OE specifications. Retain alignment results.
2. Check steering and suspension in all positions to ensure that there is no bind and adequate clearance between all moving, fixed, and heated members. Check operation of clutch, brake system, and parking brake. Check operation of transmission and transfer case. Ensure there is full engagement in all gears and 4WD ranges. Check battery connections

and electrical component operations. Test-drive vehicle.

3. Adjust headlights.
4. Check all fasteners to ensure they are tight.
5. Ensure all wires, hoses, cables, etc. are properly connected and there is ample slack.

⚠WARNING

Retorque all fasteners after 500 miles and after off road use. All suspension lift components should be visually inspected and fasteners retorqued during routine vehicle servicing.

NOTE

All warranty information, instruction sheets, and other documents regarding the installation of this product must be retained by the vehicle owner. Information contained in the instructions and on the warranty card will be required for any warranty claims. The vehicle owner needs to understand the modifications made to the vehicle and how they affect vehicle handling and performance. Failure to provide the customer with this information can result in damage to the vehicle and severe personal injury.

Kit Parts List

Qty. Description

6	Bolt (10mm x 40mm)
6	Nut (10mm)
2	Nut (12mm-1.25)
2	Spacer (urethane)
2	Spacer (aluminum)
2	Spacer (1/2" strut shaft)
4	Tie (zip)
6	Washer (10mm lock)
1	Bottle (thread lock)

NOTE

Depending on the vehicle configuration (automatic or manual transmission, 2WD or 4WD, cab length, bed length, etc.), some parts may not be used.