## Nissan 2004-18 Titan 3" Suspension Kit w/ Struts

Thank you for choosing Rough Country for all your suspension needs.
Rough Country recommends a certified technician install this system. In addition to these instructions, professional knowledge of disassemble/reassembly procedures as well as post installation checks must be known. Attempts to install this system without this knowledge and expertise may jeopardize the integrity and/or operating safety of the vehicle.

Please read instructions before beginning installation. Check the kit hardware against the parts list. Be sure you have all needed parts and know where they go. Also please review the tool list and make sure you have the necessary tools to install the kit.

AWARNING

## PRODUCT USE INFORMATION

AWARNG As a general rule, the taller a vehicle is, the easier it will roll. We strongly recommend, because of rollover possibility, that seat belts and shoulder harnesses should be worn at all times. Avoid situations where a side rollover may occur. Generally, braking performance and capability are decreased when larger/heavier tires and wheels are used. Take this into consideration while driving. Do not add, alter, or fabricate any factory or after-market parts to increase vehicle height over the intended height of the Rough Country product purchased. Mixing component brands is not recommended.

Rough Country makes no claims regarding lifting devices and excludes any and all implied claims. We will not be responsible for any product that is altered. We will be happy to answer any questions concerning the design, function, and correct use of our products.

This suspension system was developed using a 33X12.50/17, tire with factory wheels.

## A NOTICE NOTICE TO DEALER AND VEHICLE OWNER

Any vehicle equipped with any Rough Country product should have a "Warning to Driver" decal installed on the inside of the windshield or on the vehicle's dash. The decal should act as a constant reminder for whoever is operating the vehicle of its unique handling characteristics. It is your responsibility to install the warning decal and forward these installation instructions on to the vehicle owner for review. These instructions should be kept in the vehicle for its service life.

A NOTICE Note to installer : Before installation begins we recommend that a test drive be performed. While driving check for uncommon sounds and/or vibrations. What you feel and hear during the test drive will only magnify once lift kit is installed. Advise you to discuss possible issues identified from drive with customer before proceeding to install this kit.

## Tools Needed:

19 mm Socket
13/16" Socket
22 mm Socket
Hammer
17 mm Wrench
14 mm Socket
18 mm Wrench
19 mm Wrench
Grinder
Torque Wrench

## Torque Specs:

| Size | Grade 5 | Grade 8 |
| :---: | :---: | :---: |
| 5/16" | $15 \mathrm{ft} / \mathrm{lbs}$ | $20 \mathrm{ft} / \mathrm{lbs}$ |
| 3/8" | $30 \mathrm{ft} / \mathrm{lbs}$ | $35 \mathrm{ft} / \mathrm{lbs}$ |
| 9/16" | $95 \mathrm{ft/lbs}$ | $130 \mathrm{ft} / \mathrm{lbs}$ |
| 5/8" | $135 \mathrm{ft} / \mathrm{lbs}$ | $175 \mathrm{ft} / \mathrm{lbs}$ |
| 3/4" | $185 \mathrm{ft} / \mathrm{lbs}$ | $280 \mathrm{ft} / \mathrm{lbs}$ |
|  | Class 8.8 | Class 10.9 |
| 10MM | 32ft/lbs | 45ft/lbs |
| 12MM | $55 \mathrm{ft} / \mathrm{lbs}$ | 75ft/lbs |
| 14MM | 85ft/lbs | 120ft/lbs |
| 16MM | 130ft/lbs | 165ft/lbs |
| 18MM | 170ft/lbs | $240 \mathrm{ft} / \mathrm{lbs}$ |



## INSTALLATION INSTRUCTIONS

1. Jack up the front of the vehicle and support the vehicle with jack stands, so that the front wheels are off the ground
2. Using $13 / 16$ " socket remove the front tires/wheels.
3. Using 22 mm socket remove the nut from the steering linkage. Using a hammer hit on the side of the knuckle as shown, and remove the linkage from the knuckle. Push linkage forward to make room for installation. Retain factory hardware See Photo 1.
4. Using a 17 mm wrench, remove the sway bar nuts from the sway bar as shown in Photo 2 and the axle allowing the sway bar to drop.

5. Using a 14 mm socket, remove the (3) strut nuts on the upper strut tower that holds the assembly in place. See Photo 3 . One nut can be left on the upper bolts to hold the strut in place .
6. Remove cotter pin from the upper control arm ball joint nut. Place jack stand under the knuckle for support. Using 22 mm socket remove nut. Using a hammer hit the knuckle as shown to allow the ball joint to separate from the upper control arm See Photo 4. Do not allow the knuckle to pull out far enough that it pulls the shaft out of the differential.

7. Using a 19 mm socket and wrench, remove the strut bolt from the lower control arm and remove the strut assembly from the vehicle. Retain the factory lower bolt for reassembly. Note the direction of the bolt for reassembly. See Photo 5.
8. Remove the upper control arm as shown in Photo 6 using a 19 mm wrench. Retain the factory hardware for reuse.

9. Grind the tabs on the inner side of the control arm pockets to allow the new control arms to be installed. Failure to complete this task will not allow the new control arms to be installed.
10. Install the control arms in the factory location with the factory hardware. See Photo 7. Do not tighten at this time.
11. Refer to strut instructions 922300000 included in the 23028 box.
12. Install the strut assembly into the strut tower and secure with the factory hardware. Tighten using a 17 mm wrench. See Photo 8.
13. Install the lower strut bolt in the original position that it was removed. Torque to factory specs using a 19 mm wrench.
14. On some vehicles it may be necessary to trim the upper strut tower to allow clearance for the ball joint. To check, pull down the control arm to check if the ball joint can pass the upper strut tower. If not grind the upper strut tower to allow for the arm / ball joint to pass the tower. See Photo 8.

15. Using a floor jack, raise the lower control arm to connect the ball joint on the upper control arm with the supplied lock nut. See Photo 9.
16. Using a 22 mm socket reinstall the steering linkage nut and cotter pin.
17. Install the supplied sleeves in the sway bar link bushings and install on the sway bar and the axle with the supplied $12 \mathrm{~mm} \times 65 \mathrm{~mm}$ bolts and lock nuts. NOTE: The washer will install on the upper sway bar link as shown on the head of the bolt. See Photo 10. Tighten using a $18 \mathrm{~mm} \& 19 \mathrm{~mm}$ wrench.
18. Repeat steps 3-16 on opposite side of vehicle.
19. Install the wheels / tires. Jack up the vehicle and remove the jack stands. Lower the vehicle to the floor and torque all bolts to factory specifications including upper control arms
20. After the vehicle has been lowered to the ground and using 17 mm wrench, reinstall sway bar links using factory hardware. Torque to factory specs.


## REAR INSTALLATION INSTRUCTIONS

1. Chock the front tires and lift the rear of the vehicle, position jack stands under the rear frame rails of the vehicle and lower the vehicle on to the jack stands.
2. Place a floor jack in position under the rear differential for support.
3. Remove the wheels using a 21 mm socket.
4. Using a 21 mm and a 19 mm wrench, remove the rear shocks and retain hardware for reuse. See Photo 1.
5. Using a 19 mm socket, remove the factory ubolts and lower the axle. See Photo 2.


Remove the factory ubolts.
6. Install the supplied lift blocks with the shorter side of the blocks to the front of the vehicle. See Photo 3.
7. Install the supplied ubolts and hardware from 9/16Bag. Photo 4.

8. Using a 22 mm socket, tighten the ubolts using an X pattern. Torque to $90 \mathrm{ft}-\mathrm{lbs}$. See Photo 5.
9. Install the supplied Rough Country shocks, with the body to the axle, using the factory hardware. Torque to factory specs using a 21 mm socket and 19 mm wrench.
10. Install the wheels using a 21 mm socket and lower the vehicle to the ground.


## Post Installation

1. Check all fasteners for proper torque. Check to ensure there is adequate clearance between all rotating, mobile, fixed and heated members. Check steering for interference and proper working order. Test brake system.
2. Perform steering sweep. The distance between the tire sidewall and the brake hose must be checked closely. Cycle the steering from full turn to full turn to check for clearance. Failure to perform inspections may result in component failure.
3. Re torque all fasteners after 500 miles. Visually inspect components and re torque fasteners during routine vehicle service.
4. Readjust headlights to proper settings.
5. Vehicle will have to have a front-end alignment.

Alignment specs. Caster 1.6 to 3.1 degree
Camber - $\quad 3$ - to 1.2 degree
Toe ...... 00 to .05
Total Toe .05 to .10 degree

## KIT CONTENTS



By purchasing any item sold by Rough Country, LLC, the buyer expressly warrants that he/she is in compliance with all applicable Federal, State, and Local laws and regulations regarding the purchase, ownership, and use of the item. It shall be the buyers responsibility to comply with all Federal, State and Local laws governing the sales of any items listed, illustrated or sold. The buyer expressly agrees to indemnify and hold harmless Rough Country, LLC for all claims resulting directly or indirectly from the purchase, ownership, or use of the items.


