



# INSTALLATION GUIDE

**PART NUMBER: 6450**  
**FLIP KIT**  
**NISSAN TITAN 2WD | 2004-2015**

4" REAR LOWERED RIDE HEIGHT

300 W. PONTIAC WAY. CLOVIS, CA 93612  
PHONE: 800-445-3767 | EMAIL: [INFO@BELLTECH.COM](mailto:INFO@BELLTECH.COM)

# THANK YOU

Thank you for choosing our high quality Belltech product. We have spent a great deal of time developing our line of products so that you will receive maximum performance with minimal difficulty during installation. Soon your vehicle will be on the road looking and feeling much improved.

**Please take a moment to read all instructions and warnings prior to the installation of your new Belltech product and before operating your vehicle. For any questions or concerns regarding the steps in the installation process, please do not hesitate to call or email our customer support team who are trained to help you through any portion of this process.**

## Before You Begin:

**It is of the utmost importance that you confirm all of the components listed on the parts list is in the kit. You can find this list located on the last page(s) of your instructions. Do not begin installation if any part is missing. Instead, please call our Belltech customer service specialists.**

### **Belltech Customer Support:**

**Phone: 1-800-445-3767**

**Email: [info@belltech.com](mailto:info@belltech.com)**

## Safety Information:

**Warning:** Do not work under a vehicle supported only by a jack. Place support stands securely under the vehicle in the manufacturer's specified locations unless otherwise instructed.

Proper use of safety equipment and eye/face/hand protection is absolutely necessary when performing any of the following instructions.

We strive for an exceptional experience for all our valued customers. If for any reason you need assistance with your Belltech products, please do not return the product to the store you purchased from, but rather call our dedicated customer service experts, from 7am to 5pm PST.

We recommend that a qualified mechanic, at a properly equipped facility, perform this installation.

It is very helpful to have an assistant available during installation.

## Before Driving Your Vehicle:

It is important to double check all brake hoses, cables, and other components to be sure there is no interference. You must also check for wheel/tire to chassis/body interference. If any issues are found, review your installation instructions to be sure no steps were missed and any problems are corrected.

Make sure your vehicle is aligned immediately following installation.

Check all hardware and torque at intervals for the first 10, 100, and 1000 miles.

Some of Belltech's products are designed to improve your vehicle's off-road performance. Leveling/lifting your vehicle may result in an altered center of gravity. It is crucial to use extreme care when operating your vehicle to prevent rollover and/or loss of control.

Any changes in your vehicle's suspension may result in transformed handleability. Please test-drive your vehicle in a remote location so you can become accustomed to the revised driving characteristics.

Perform headlight check and adjustment.

Failure to drive any modified vehicle in a safe manner may result in harm or death.

Never operate your modified vehicle under the influence of drugs, alcohol, or lack of adequate sleep.

Always wear your seatbelt.



**DIFFICULTY:**



**INSTALLATION TIME:**

4-5 Hours

## RECOMMENDED TOOLS:

- Properly rated floor jack
- Support stands
- Wheel chocks
- Metric socket wrench set
- Metric wrench set
- Marking pen
- Spray paint
- Tape measure
- Safety glasses
- Grinder with abrasive cut-off wheel
- Power drill and drill bits
- Large C-clamps
- Medium weight ball peen hammer and center punch
- Steel construction square
- 1/2" drive torque wrench up to 200 ft lbs.

## INSTALLATION PREPARATION:

Before beginning the installation process, measure the hub to fender heights for your vehicle and record them in the "Before" section. After your vehicle has been modified, record the new measurements in the, "After" section. This way, you can compare the resulting height to the original. When taking the measurements, measure vertically from the center of the wheel to the inner edge of the fender.

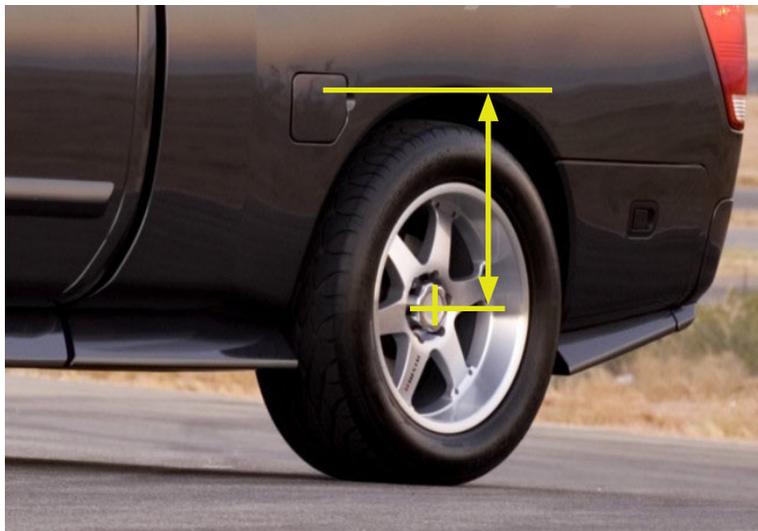
**Before:**

LF: \_\_\_\_\_

RF: \_\_\_\_\_

LR: \_\_\_\_\_

RR: \_\_\_\_\_



**After:**

LF: \_\_\_\_\_

RF: \_\_\_\_\_

LR: \_\_\_\_\_

RR: \_\_\_\_\_

# JACKING, SUPPORTING, AND PREPARING THE VEHICLE

1. Park your vehicle on a smooth, level, concrete or seasoned asphalt surface.
2. Block the front wheels of the vehicle using wheel chocks. Make sure the vehicle's transmission is in "PARK" (automatic) or 1st gear (manual).
3. Activate the parking brake.
4. Break loose, but do not spin the wheel lug nuts to ease in removal when the wheels are in the air.
5. Lift the rear of the vehicle off the ground using a properly rated floor jack. Lift the vehicle so the rear tires are approximately 6-8 inches off the ground.
6. Place support stands rated for the vehicles weight. The stands should be positioned in the factory specified locations (Refer to the owner's manual). Prior to lowering the vehicle onto stands, make sure the support stands will contact the chassis. It is very important that the vehicle is properly supported to prevent any harm to oneself or to the vehicle.
7. Support the axle using a jack or lifting device so that it can be raised and lowered. Additionally, support the rear axle near the rear U-joint to keep the axle from rotating.
8. Lower the vehicle slowly onto the stands.
9. Remove the rear wheels.



## Technician reminder:

Never work under a vehicle supported only by a jack. It is necessary to place support stands securely under the vehicle in the manufacturer's specified locations unless otherwise instructed.

## REAR SUSPENSION REMOVAL

10. If equipped, the driver side rear storage compartment assembly must be removed during the installation process to access the rear shackle bolt. We recommend this procedure to keep this compartment weatherproof.



11. Detach the driver side rear plastic wheel well cover to access the front compartment fasteners. Remove one screw and two push clips.



12. Remove the two bolts at the front and four bolts at the rear of the compartment.



## REAR SUSPENSION REMOVAL CONTINUED

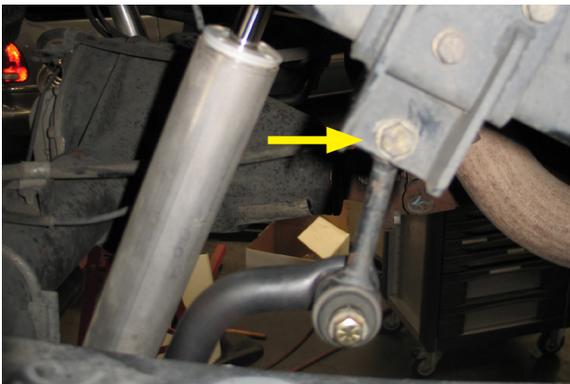
13. Remove the plastic snaps to pull the storage compartment assembly out of the vehicle.



14. Detach the brake lines and sensor lines from axle.



15. If equipped, detach the sway bar assembly from the vehicle. The end links can be detached at the upper end link mounts.

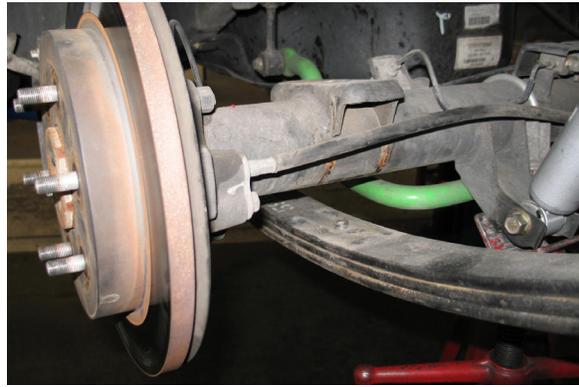


## REAR SUSPENSION REMOVAL CONTINUED

16. Remove the upper and lower shock bolts to detach the rear shocks from the vehicle.



17. Remove U-bolts nuts, lower U-bolt plates, and bolts. Ensure the weight of the axle is secured by the jack stands.

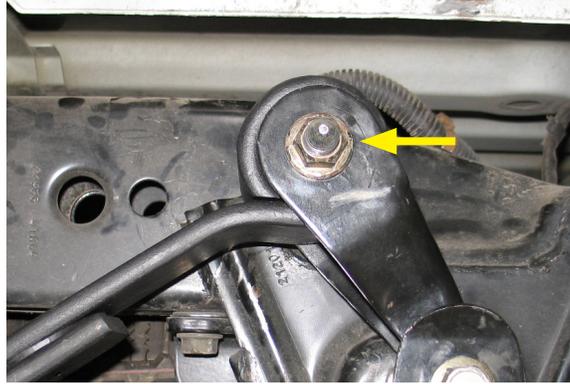


18. Remove the front leaf spring bolts and remove the rear lower shackle bolts. The shackles can temporarily remain attached to the leaf springs. Detach the leaf spring assemblies from the vehicle then remove the shackles from the leaf springs.



# BELLTECH FLIP KIT INSTALLATION

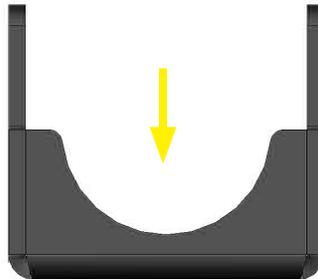
19. Attach the original shackles to the supplied Belltech leaf springs. The bolt head must face toward the frame, and the nut will face outward.



20. Raise the axle to gain the clearance needed for the new leaf springs to be installed. The Belltech leaf springs will now be placed under the axle, with the short side of the leaf spring forward. The larger diameter bolt hole is for the front.
21. On the passenger side, place the new leaf spring above the exhaust pipe then position it to attach the lower shackle to the hanger with the original bolt. After the rear is fastened, attach the front of the spring with the original bolt. Do not torque yet
22. On the driver side, attach the front of the spring with the original bolt first. Support the middle of the leaf spring with a jack stand then lift the rear section to attach the lower shackle to the hanger with the original bolt. Do not torque yet



23. Place the supplied Belltech axle saddles onto the leaf springs. The saddles are centered and will fit in either direction.



# BELLTECH FLIP KIT INSTALLATION CONTINUED

24. Detach the original bump stops from the chassis and attach them to the supplied Belltech U-bolt spring pads.

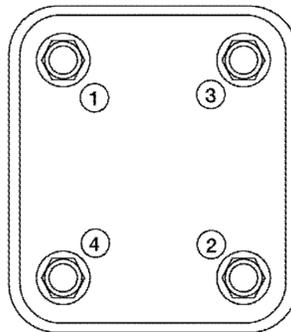


25. Place the U-bolt spring pad mounts on top of the axle, centering them on the mounting surface.

26. Place the supplied U-bolts over the spring pads and into the supplied Belltech lower U-bolt plates. Fasten with the supplied 9/16"-18" Nyloc nuts and washers. Tighten but do not torque yet.



27. To fasten the second U-bolt assembly, it may be necessary to raise the axle and the saddle to where the differential is parallel to the vehicle. Once parallel, the U-bolt nuts can be torqued on both sides. Torque to 103 ft lbs. diagonally and evenly in the order shown below.



28. Torque **ONLY** the front leaf spring bolts to 164 ft lbs. at this time. Do not torque the shackle bolts yet.



## Technician warning:

To ensure the correct angle for the shackles, the vehicle must first be lowered to the ground.

If the shackle assembly is torqued while the suspension is at full droop, the shackle angle and lowered vehicle height will not be correct.

## BELLTECH FLIP KIT INSTALLATION CONTINUED

29. Attach the rear shocks to the original positions with the original hardware. Torque the hardware to 111 ft lbs.
30. Attach the brake lines, sensor lines, brackets, and other accessories previously removed to the axle.
31. Attach the sway bar assembly to the axle and the upper end link mounts.



32. Mount the wheels and tighten the lug nuts.
33. Lift the vehicle and remove the support stands.
34. Carefully lower the vehicle onto the flat ground.
35. After the vehicle is lowered to the ground, securely torque the shackle bolts to 100 ft lbs.



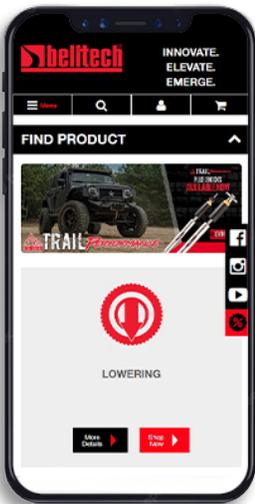
36. Attach the driver side rear storage compartment assembly and wheel well cover in reverse order of the removal.

# FINALIZING THE INSTALLATION

37. Torque the lug nuts to 98 ft lbs.
38. Check that all components and fasteners have been properly installed and torqued.
39. Read and perform all tasks in the “Before Driving Your Vehicle” section of page 1 of your instructions.

## THANK YOU FOR CHOOSING BELLTECH.

You are now a part of the Belltech family and we are eager to catch a glimpse of your newly modified vehicle. Give us a shout out and let us know how much you love our product. Don't forget, we offer other Belltech related merchandise for you and your vehicle on our website [www.belltech.com](http://www.belltech.com)



belltechsuspension



Belltech Suspension



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If you have any questions, concerns, or warranty related issues regarding your Belltech product, please call or email our experienced customer service specialists.

### Belltech Customer Support:

Phone: 1-800-445-3767

Email: [info@belltech.com](mailto:info@belltech.com)

# KIT CONTENTS



6450		
Part number	Description	Qty
6450-012-99	U-BOLT PLATE	2
6540-003-99	UPPER U-BOLT SPRING PAD	2
6450-020-99	AXLE SADDLE	2
11U1007-955	SQUARED U-BOLT	4
5981	LEAF SPRING	2
6450-777	HARDWARE KIT	1

6450-777		
Part number	Description	Qty
110455	9/16"-18" NYLOC NUT	8
110670	9/16" WASHER	8



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