

Installation Instructions: **Rear Spring Relocators for TJ Wranglers**

Kit Part Number	Nth23030
Applications	Jeep TJ Wrangler and Unlimited models including Rubicon package
Assumptions	An original, unmodified TJ frame with the stock rear spring seats still in place
Equipment that must be present on your vehicle for this product to fit and work properly	The 1-5/8" of ride height gain generated by this kit has been planned for by either using shorter rear springs (to keep same ride height) or adding front coil spacers to gain a relatively equal amount of front and rear ride height.
	A double-Cardan (aka 'CV') rear driveshaft is being used, accompanied by rotation of the rear axle to at least 8 degrees 'pinion up' versus stock.
Required Tools and Equipment (in addition to common hand tools)	Floor Jack and floor stands (or vehicle lift and tall stands)
	Additional bump stop spacers according to your spring height and longer bolts as required for the amount of spacers your application requires (see step 5).
	1.75" tall front coil spring spacers to level the vehicle with your current springs (you will gain overall ride height this way; available as Nth21701)

Please take the time to read these instructions completely before beginning – they are long because we want you to get the installation right the first time for best performance with no unnecessary delays.

Notice: A deliberate effect of this product is an increase in the 'ride height' of the Jeep. As with any product that raises a vehicle's center of gravity (c.g.), handling limits will decrease and handling behavior may change due to changes in suspension geometry, etc. It is the responsibility of the owner/driver to make the time and effort to become familiar with the altered behavior of the vehicle (in a safe location!) after installation, make changes to driving habits and/or further modify the vehicle if needed, and control and advise others that may drive the vehicle thereafter.

Step 0: Nth° Suspension System Installations. If you are installing this product as part of a *complete* Nth° Suspension system, refer to the master system installation instruction for direction on the most efficient order of product installations – coordinating the install of several products will significantly reduce overall time and effort required. The master instructions will help guide you through configuring this product properly for your specific system and your system should include the required complimentary equipment to assure that this product performs properly and reliably.

Step 1: Unpack boxes; Check contents against the packing list; Verify parts are in good condition. Be especially sure that you have the right parts for your application!

Step 2: Read, Understand, and Plan for all of the following instruction steps before beginning. Do not disassemble the vehicle unless all parts are present and all tools and facilities required are available. Do not start or attempt this product installation if you are unsure of your abilities or do not have the resources listed above. If applicable, be sure to have all welding done by a certified person, and check/set all specified torques with a torque wrench...too tight is not just right!!

Step 3: Remove rear springs. Begin by disconnecting the rear shocks at the axle and also the rear stabilizer bar end links – this will allow the axle to drop far enough to remove the springs. If you can remove the springs *without* doing this, your shocks are probably too long and you may loose your springs during certain conditions – this should be corrected! Next, relieve the Jeep's weight from the rear springs by lifting the rear of the vehicle by the frame; then remove both springs.

Step 4: Remove stock bumpstops. The yellow or black bumper in the middle of the stock spring seats can be removed by grabbing it and twisting/prying it out of the steel cup. Once removed, remove the bolt in the middle of the cup to remove it – also remove any bumpstop spacers that may have previously been added above the cups. Once the bumpstops have been removed, you will also be able to remove the stock rubber spring seat pads (they will fall out when you remove the bumpers). Your frame seats should now look like **figure 1**.

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Step 5: Pre-assemble Rear Spring Relocators. You can re-install the bumpstop cups removed in the last step to the new relocator brackets if you know in advance how much bumpstop spacing is required for your vehicle's configuration. At a minimum, you must use the pair of 1.0" tall spacers included with this kit, then *add* additional spacers according the chart below. The bolts provided in this kit are long enough for the provided spacers only, if you need to stack additional spacers, you will need appropriately longer 3/8" coarse-thread bolts as well (bolts need to be one inch longer than the *total* height of spacer stack used).

Total 'Lift height' generated by Rear Springs + Relocator	Actual loaded height of spring plus any coil spacers used	Total Bumpstop Spacing Required for use with this spring relocator.
+1.5" (Nth23030 only)	7.5" (stock spring)	just the 1.0" included
+2.0" to 3.0"	8.0" – 9.0" (i.e. OME spring)	2.0"
+3.5" to 4.5"	9.5" – 10.5" (Nth-SRTJ-30x)	3.0"
+5.0" to 6.0"	11.0" to 12.0" (Nth-SRTJ-45x)	4.0"
+6.5 to 7.0"	13.0" to 13.5" (non-Nth° spring)	5.0"



Figure 2

Stack the appropriate spacers together with the bumpstop cup, pass the correct-length bolt through the cup and the spacers. Next, take the stock rubber isolator and force it onto the bumpstop spacer stack (it will be a tight fit) with the 'inner lip' facing downward as it was originally. Next, pass the end of the bolt through the hole in the center of the relocator brackets and secure with a washer and locknut. Finally, push the rubber pad flush against the bracket and repeat for the other side of the Jeep. **Figure 2** shows a typical pre-assembled setup.

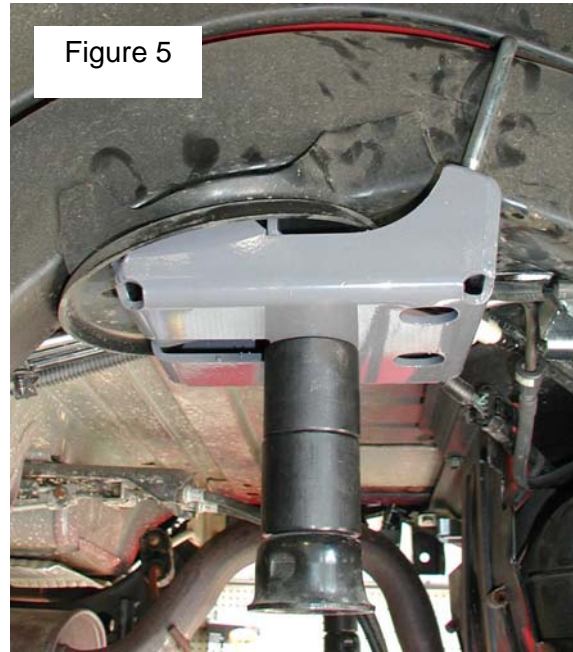
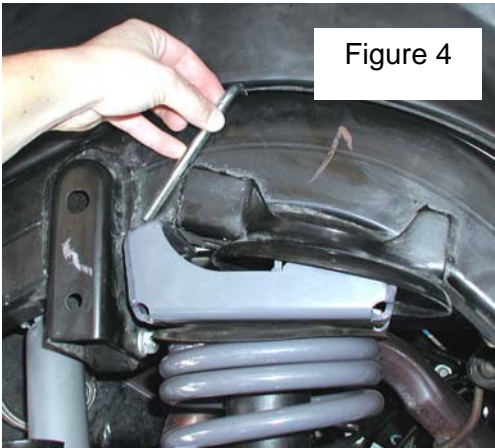
Notes:

- 1) The stock bumpstop 'cup' *must* be used (it is 1.5" tall and made of steel)
- 2) The stock bumper is assumed to be used; it protrudes approximately 1.5" out of the cup when installed.
- 3) If you are using spring spacers in the rear, these count as "taller springs", so for example a stock spring combined with a 1.75" spacer should be considered the same as a +1.75" taller spring. (Also note that if you were using 1.75" spacers and did not wish to add height to the vehicle when installing this kit, simply remove the spacers since the brackets will replace nearly all of the spacer's "lift height".)
- 4) The use of taller aftermarket bumpers (even if made of harder urethane) does NOT substitute for bumpstop spacing. That is, if you use a bumper that protrudes 2.5" from the cup, you should not deduct an inch of spacing from the recommended spacing for your spring as shown above.
- 5) Failure to use the proper amount of bumpstop spacing will lead to eventual failure of your rear shocks or the brackets they are mounted to and is not the responsibility of Nth°.

Step 6: Install Relocators. First identify the correct bracket for each side of the Jeep - refer to the packing list pictures. Hold each bracket up so that the hole in the angled surface of the bracket lines up with the threaded hole in the center of the original spring seat and use the original bump stop cup bolt to hold the bracket in place as shown in **figure 3**. Now take one of the provided square u-bolts and slip it over the frame rail just under the black plastic inner fender liner as is being done in **figure 4**, then roll it down and insert both ends of the u-bolt through the two slotted holes in the bracket. Put a washer and locking nut on each end of the u-bolt and tighten them with a socket+extension through the access holes in the bottom of the bracket, taking care to keep the u-bolt as square to the bracket as possible – it should now look like **figure 5**. Repeat for other side.



Figure 3



Step 7: Install bumpers and springs. ‘Snap’ the bumpers back into their cups first – using water or a lubricant on them will make this much easier. Then place a spring around each bumpstop and tip it onto the axle seat and let it rest on the axle seat while the bumpstop cup and spacers keep the top located. Final installation should look like **figure 6** (shown on Nth° display chassis).

Remember that these brackets add approximately 1-5/8” lift to the rear ride height if you are re-using the same spring as when you started this installation; in this case you will need to lower the axle further than was necessary to get the spring out in order to put it back in. You will also need to add spacing to the front springs to bring the Jeep back to level – front spacers are not provided with this kit.

