Solo Motorsports Fully-Fabricated 2wd Lift Spindles

Installation Notes

Applications:

96-04 Tacoma

00-03 Tundra

04-06 Tundra (Requires 1" Lower Uniball Conversion)

96-02 4Runner

- 1. Safely secure vehicle with jack stands before attempting any work on your vehicle. Do not rely on a floor jack to secure vehicle.
- 2. Remove front tires.
- 3. Remove front calipers and rotors.
- 4. Remove front brake lines:
 - a. Only if installing Solo Motorsports brake lines.
 - b. If <u>NOT</u> changing front brake lines, DO NOT loosen brake line fittings. Hang caliper off the side of the frame.
- 5. Loosen lower factory ball joint large nut and separate/break loose ball joint from taper in lower control arm regardless if it is factory or aftermarket. However, leave large ball joint nut finger tight.
- 6. Remove factory upper control arm to either:
 - a. Replace with Solo Motorsports Mid-Travel UCA or 14" Long Travel UCA with 1" uniball.
 - b. <u>Or</u> separate your existing UCA that has a 1" uniball.
- 7. Remove the outer tie rod from the spindle and let just hang there.
- 8. Remove ABS electrical line from spindle and frame, if any.
 - a. ABS line will not be used.
 - b. Unplug at spindle and just above coil bucket closer to the engine side.
- 9. Remove factory spindle from the vehicle.

10. Remove factory lower ball joint from your spindle. If you have purchased the Solo Motorsports 1" Lower Uniball Conversion with 7/8" outer heim joints, the spindle and conversion will be preassembled by Solo Motorsports.

11. If reinstalling factory lower ball joint to Solo Motorsports Fully-Fabricated3" Lift Spindle, you will need to do the following:

a. Secure factory lower ball joint in a vise.

b. The factory ball joint has 4 holes to bolt to the spindle. There are 2 round metal protrusions that are used to line up to the factory spindle. <u>Only these</u> 2 holes need to be chased with a ½" drill bit or fluted ream.

12. Using the 3/8" and ½" by 2" long 12-point bolts, attach factory lower ball joint to Solo Motorsports Fully-Fabricated 3" Lift Spindle. The bolts will be facing up. In other words, the nuts/washer will be attached in the lift spindle. Doing this preassembly ahead of time with spindle and ball joint attached will make it much easier to reinstall onto the lower control arm.

a. The grade 8 washers only go on the nut side.

b. Use a small amount of Thread Locker to each nut/bolt.

c. Tighten hardware very tight.

13. Attach the spindle/factory lower ball joint to the lower control arm and finger tighten the nut. Now, insert the 5/8" grade 8 Stover nut into the machined pocket of the top of the spindle.

a. Add silicone grease or anti-seize to the machined stainless steel misalignments in the 1" uniball.

b. Add silicone grease or anti-seize to the "shanked part" of the 5/8" grade 8 bolt that will go into the 1" uniball misalignments and attach to the top of the spindle. Make sure there is NO silicone grease or anti-seize on the last 3/4" of the 5/8" bolt or the Thread Locker will not set properly.

c. Add a small amount of Thread Locker to the last $^{3}\!\!/_{4}$ " of the 5/8" grade 8 bolt.

d. Insert 5/8" bolt into 1" uniball of UCA making sure the 5/8" AN or thin washer is on the top or head side of the bolt/misalignment.

e. Tighten the 5/8" bolt and nut by "HAND" until threads properly engage. Do not use an impact until you are sure that the nut and bolt are engaged since it is fine thread or you will damage the bolt threads.

14. Reinstall outer tie rods, rotors, and calipers.

15. Secure all hardware.

16. Align front toe in or out on the tires as best as possible to drive to the alignment shop.

17. The front alignment needs to be done "old-school" by aligning the steering wheel straight, setting the camber/caster/toe, and driving the vehicle until the technician or you are satisfied with the alignment. Some shops with 4-wheel laser alignment capabilities may not be able to do an off road alignment.

TIP: If you have aftermarket coilover shocks regardless of long travel or mid travel suspension, it will be a good idea to loosen or relax some of your coilover preload to soften the ride since the spindles are already giving you 3" of lift. This will greatly improve the "feel" on and off road.

WARNING: Use caution. Since these are modified suspension parts or components, the driving characteristics of your vehicle will change. Retighten all hardware after 300 miles or after your first off road trip. Suspension parts or components require maintenance by checking the parts periodically or after each off road trip – especially the hardware. By installing these parts you agree as the "End User" to hold harmless Solo Motorsports Inc. in assuming no legal liability for product misuse, product abuse, reckless driving, racing situations, loss of primary transportation, or incorrect installation. Since these are off road performance parts or components, there is no warranty expressed or implied. However, if you have any questions about our products, please call us. We are more than happy to assist you. If you are not comfortable installing this product(s), have a professional install your parts. We do offer installation at our facility.

Technical Support

Call 626.966.7656 M-Th 8am-5pm or F 8am-5pm