Congratulations! You’ve purchased the absolute best lift kit for your 3rd generation 4Runner that money can buy. Every configuration has been thoroughly tested for years on trails like The Rubicon, Moab Utah, Colorado, Tellico and extensively in the rocky deserts of Arizona. There is not a more complete offering available anywhere. The right OEM Toyota parts were carefully selected and matched up with Sonoran Steel Fabrication L.L.C. components to ensure your lift kit delivers the best performance, aesthetics, and reliability bar none. Thanks for your support!

- Steve Schaefer

***This lift kit should only be installed by a professional mechanic or someone possessing the skills and tools to do so safely and correctly. The front coil/shock assemblies can be dangerous if not done by an experienced installer. Parts can also be destroyed if not assembled correctly.
Front Suspension Installation Instructions* for Sonoran Steel Lift System # 1.1, 1.5 and 7.1 for all 1996-2002 TOYOTA 4Runner 4WD

...as well as Lift System # 3.0 for all 1996-2002 TOYOTA 4Runner 2WD**

and Lift System # 6.0 for all 1998-2004 TOYOTA Tacoma 4WD or PreRunner (6-lug) trucks***

*This lift kit should only be installed by a professional mechanic or someone possessing the skills and tools to do so safely and correctly. The front coil/shock assemblies can be dangerous if not done by an experienced installer. Parts can also be destroyed if not assembled correctly.

**Certain steps for lift systems # 1.1, 1.5, 6.0 and 7.1 will not apply to lift system # 3.0 (installing 1999 4Runner 4WD coils) and will be noted as such throughout the instructions.

***The removal / installation procedures of the front suspension components on the 4Runner and Tacoma 4WD and PreRunner are identical.
Before you get started on the front suspension install, here are a few tips:

• Be sure to read and understand the supplemental page provided, which lists the factory torque specs for the front suspension. It is advised that you torque all bolts/nuts to the proper factory setting.

• Make sure the bolt on the lower front shocks is inserted so the nut is on the front side. If you install the bolt backwards with the threads and nut on the inside/the CV boot side, the nut and threads will start to cut the boot. Install the bolt/nut as the factory did with the nut facing forward.

• The lower bolt on the front shocks should not be torqued tight until the vehicle is sitting on the ground at ride height. This is because the bottom of the shock has a static bushing, only the rubber flexes, there are no moving metal/contact parts. This is done to prevent squeaking, etc. So it is important to set the static bushing at ride height and not at full droop when installing the shock.

• After installing a lift it would be a good idea to loosen the big long bolt that holds the upper arms with the truck sitting on the ground at ride height. Just loosen it and then retighten it. These are more of those static bushings that need to be re-set at the new ride height. Also if you loosen this bolt during the shock install. You won’t need to use a bottle jack in the fender well to push everything down, the upper a-arms are what is holding all that up. Use this same approach for the rear links – upper and lower – reset those at ride height as well.
1. Park your 4Runner on a level concrete surface
2. Center and lock your steering wheel and set your parking brake
3. Block your rear wheels to prevent your 4Runner from moving either forwards or backwards
4. Jack the front of your 4Runner up and support it with jack stands under the frame as specified in your factory owner’s manual
5. Remove the front wheels by undoing the 6 lug nuts on each side using a 21mm deep socket and a breaker bar (or your factory-supplied tools as specified in your owner’s manual)

6. Remove the 14mm nut and the rubber bushing and metal cap from the anti-sway bar (see picture above)

7. Remove the 19mm nut from the bolt securing the bottom of the front shock (see picture above) and back the bolt out towards the rear of the 4Runner – be careful not to strip the threads when pounding the bolt out with a hammer and center punch.
8. Remove the three 14mm nuts from the top of the strut assembly (see picture at left). The inner-most nut will require a 14mm box wrench in order to access it and loosen it.

9. With three 14mm top nuts removed and the lower shock eye bolt pulled, remove the front coil / shock assembly from the vehicle…

Picture at left shows remaining shock mount components with coil / shock assembly removed.
ATTENTION: At this time, it is highly advised that you take your front spring / shock assemblies to a qualified automotive shop who can professionally disassemble the pieces in a safe and controlled manner. If you choose to proceed on your own, the next best option is to utilize a spring compressor tool such as the kind you can rent from Autozone or similar. Please be advised that you place yourself and anyone assisting you in potentially great danger should the compressor tools fail or otherwise disengage themselves from the spring / shock assembly. The steps that follow provide direction on how to use the rental tool, but are not a substitute for common sense. Sonoran Steel assumes no liability for injuries, death, or damage incurred as a result of attempting the remaining installation steps on your own.

10. Hook the spring compressor tools on opposing sides of the spring and lay the entire unit down on the concrete. It is suggested that 2X4s or equivalent size blocks of wood be laid parallel underneath the spring compressor pieces to sort of wedge it in place and help provide support so that the entire assembly does not rotate on you as you ratchet the compressor bolts tight. It is further suggested that you drape a thick blanket or seat cushion over the entire assembly and have someone wearing work boots or similar footwear stand on the covered assembly to further prevent the units from rotating when the other person is ratcheting. This will help lessen the blow should the compressor tools fail and the spring unload. Point the units away from any other people, pets, vehicles, etc.

Doing it this way is long, tedious, and exhausting – not to mention dangerous. Wear gloves and get a friend to help you. By taking a few extra steps as outlined in step 10, you can ensure a safe and efficient process of undoing your 4Runner front spring / shock assembly…
11. With the spring compressed enough to relieve tension on the top plate assembly, use a 17mm ratcheting box wrench on the top nut and secure the shaft of the front 4Runner shock using an adjustable open-end wrench. Using the tools against one another, undo the top nut carefully - staying out of the path of the spring’s travel. It should come apart easily and appear similar to the picture at left. You’ll then have the shock and spring freed up, along with the lower washer / cushion, rubber coil spring isolator, mounting plate (with 3 studs), upper cushion / washer, and the shaft nut.

***NOTE: If installing Lift Kit # 3.0 (1999 4Runner 4WD Coils), skip steps 12, 13, & 14 as you will not be installing extended mounting plate studs

12. Separate the rubber coil spring isolator from the underside of the spring / shock mounting plate (as shown at right) and set it aside for now (see below)
13. Lay the mounting plate across blocks of wood so that you can pound out the three OEM studs using a hammer and not damage the mounting plate in the process. Be sure to wear gloves and safety glasses here.

14. Replace the three OEM studs with the supplied Sonoran Steel 38mm Japanese made extended studs. It is suggested that you press them in using a bench vise and a deep well socket. Your Bamachem top plate spacer will eventually sit atop as shown at right.

15. Undo the spring compressor devices on your OEM 4Runner coils. Set your coils aside and move the spring compressors to your replacement coil (Tundra 4WDcoil for kits # 1.1, 1.51, and 7.1 or ’99 4Runner 4WD coil for kit # 3.0) and begin to compress the spring for install.
16. Shown at right are your front suspension components and 1” diff drop hardware from the Sonoran Steel Lift System # 1.1, 1.51 and 7.1. When assembling your front set-up, you should use the new OEM Toyota Heavy Duty Black Shock with the corresponding Tundra 4WD coil, your lower washer / cushion, your rubber spring isolator, your mounting plate with extended studs, upper washer / cushion and shaft nut (in that order). The Bamachem spacer will sit loose on top of the new studs (see picture in step 14). Put everything back together the reverse of disassembly.

17. Once the new spring / shock assembly is put together, you will insert it into the original location. Put the top into place first and then work on the lower shock eye bolt. Since the new assembly will be slightly longer, you may need to have a friend stand on the caliper assembly to get it to line up to the point where you can reinsert the shock lower eye bolt. Again, be careful not to strip the threads on this bolt. Leave it loose for now.

The picture at right shows the new Sonoran Steel assembly in place. Tighten down the three 14mm mounting plate nuts on your new extended mounting plate studs.
Don’t forget to reassemble your anti-sway bar mounting hardware and tighten down the top nut (as shown at right).

The picture at left shows the new Tundra coil and TOYOTA heavy duty shock in place with the lower shock eye bolt pointed out. The bolt should be inserted from the rear, so that the washer and nut attach on the front side of the shock mounting point. Keep that lower bolt loose for now. Because of the static bushing in the shock, we’ll wait to torque the bolt down once the vehicle is sitting on level ground again.

Double-check your work and ensure everything (except the shock lower eye bolt) has been tightened down. Reinstall your wheels and lower the vehicle down off the jack stands. Now go ahead and torque down that lower eye bolt according to factory specs. You’re now done with the front suspension components. Next up is the Sonoran Steel Tapered 1” Diff Drop kit install.
1. With the factory skid plates removed, locate the factory differential supporting bolts (indicated with arrows in the picture above) and remove them using a 19mm socket and a breaker bar. It is suggested you wedge a 19mm box wrench, or similar, up top to torque against - so that the entire bolt doesn't spin on you. The factory M14 bolts and corresponding hardware are shown in the picture at left. You will reuse the black factory washers in the next step.
2. Install the Sonoran Steel Tapered 1” Differential Drop Hardware and reuse the black factory washers at the bottom of the assembly. Make sure the tapered spacer is facing forward (circular indentation on spacer is closest to the ground and facing forward and is centered side-to-side). The picture at left shows a close-up of the driver's side front differential drop hardware installed. The Sonoran Steel Tapered 1” Diff Drop Spacer is circled. The placement of the black factory washer that you reuse has been noted with the arrow (but goes in the same place that you found them on the factory hardware setup). Torque to 100 lb-ft per factory specs.

Sonoran Steel highly recommends Bud Built (www.budbuilt.com) IFS skid plates and belly pans over the stock Toyota skid plates. If however, you do not wish to make the move to Bud Built at this time, your next option is to modify your stock front skid plate. The steps that follow are tips and suggestions for performing the necessary modifications in order to be able to reuse your factory skid plates.
With the main factory skid plate removed, you will need to make a series of cuts in order to get it to fit again. The cuts are made to the outer ridges - where the factory metal is doubled-up.
Here is a close-up shot of the finished product. After the initial cuts were made on each side and the remaining edges grinded down, the existing indentations on the skid plate were pounded flat with a hammer. Reshaping the metal like this causes it to be brittle and prone to puncturing. While purely optional, it is suggested that you put down a bead of weld to reinforce the area that you worked on. Finally, the entire area was hit with a high-speed wire brush to clean it up.
This is a shot of the other side of the skid plate (the side that sees rocks...). The factory indentation has been pounded flat and then lined with a bead of weld to strengthen it (optional). The area was hit with a high speed wire brush to clean it up and smooth it out.
Hit the skid plate with some paint to prevent the exposed metal from rusting. When the skid plate has dried, reinstall it like normal. It’ll go back on with the stock M8x1.25 bolts, but to make it easier, get two 3.5cm long M8x1.25 bolts for the mounting points noted above.
The completed install of the Sonoran Steel Tapered 1” Diff Drop and the modified factory skid plate.
Rear Suspension Installation Instructions* for Sonoran Steel Lift System # 1.1, 1.5 and 7.1 for all 1996-2002 TOYOTA 4Runner 4WD

...and Lift System # 3.0 for all 1996-2002 TOYOTA 4Runner 2WD**

*This lift kit should only be installed by a professional mechanic or someone possessing the skills and tools to do so safely and correctly. The front coil/shock assemblies can be dangerous if not done by an experienced installer. Parts can also be destroyed if not assembled correctly.

**Certain steps for lift systems # 1.1, 1.5, 6.0 and 7.1 will not apply to lift system # 3.0 (installing 1999 4Runner 4WD coils) and will be noted as such throughout the instructions
Before you get started on the rear suspension install, here are a few tips:

- The new adjustable trac / panhard bar has non-static bushings to allow for more rear suspension articulation. A stock trac / panhard bar will reach a point where the bushings will not twist anymore. The new bar does not hold anything back – we’ve designed it this way!
- After installing the lift, and while the rear end is still off the ground, it would be a good idea to loosen the bolts securing the rear links – upper and lower – and then re-torque those once the rear tires are sitting on level ground again.
1. Park your 4Runner on a level concrete surface
2. Center and lock your steering wheel and set your parking brake
3. Block your front wheels to prevent your 4Runner from moving either forwards or backwards
4. Jack the back of your 4Runner up and support it with jack stands under the frame as specified in your factory owner’s manual
5. Remove the rear wheels by undoing the 6 lug nuts on each side using a 21mm deep socket and a breaker bar (or your factory-supplied tools as specified in your owner’s manual)

As depicted in the picture at left, you want the rear axle to be able to hang down without any obstruction.
6. If installing Lift System # 1.1, 1.5 or 7.1, now would be a good time to loosen the M8 bolt that secures the parking brake cable and install the Sonoran Steel Fabrication L.L.C. Extended Parking / Emergency Brake Cable Bracket. The supplied bolt is a metric M8X1.25 with a 13mm head. Install the bracket at an angle as shown below.

7. In order to maximize downward travel and simplify the removal and replacement of the rear coils, undo the lower eye bolt of the rear shocks, as well as, the top nut on each side of the rear anti-sway bar anchor points. Remove the top nut, washer and cushion and set aside for now.

***NOTE: If installing Lift System # 3.0 (1999 4Runner 4WD coils), you will skip step # 8 and go directly to step # 9.
8. If installing Lift System # 1.1 or 1.5, you will need to install the supplied Sonoran Steel Rear Sway Bar Lift Brackets. With the rear anti-sway bar hardware already disassembled from step 7, remove your factory anti-sway bar from the axle mounts. Then remove the factory rubber bushings from the U-shaped brackets. Using a utility knife, carefully cut out a square notch where the circle is imprinted on the rubber bushing – see picture A above as a reference.

Bolt the lower end of the lift bracket to the axle using the supplied bolts and washers. The bracket goes upward and the hole that has tapped threads goes over the very center hole on the axle bracket. Mount the U-shaped bracket onto the Rear Sway Bar Lift Bracket and then mount the entire assembly upside down with the two claws grabbing the top of the Rear Sway Bar Lift Bracket.

Fasten the U-shaped bracket to the Rear Sway Bar Lift Bracket with the two provided M8 bolts and washers. The lower bolt will thread into a tapped hole on the mounting bracket and the upper bolt will use a nut. See photo B above for a completed install.

These Rear Sway Bar Lift Brackets not only re-adjust your rear sway bar for the lift, they also keep the bar from hitting the factory electronic locking rear differential cover – if your vehicle is equipped with one.
9. With play in the rear end, you can now easily push down on one side of the rear axle and dislodge the rear coils. From here, you can undo the top nut on the rear shocks and remove those as well. You may find it easier to hold the plastic dust boot on the shock as you work against the box wrench you use to undo the top nut.

A shot of the rear coil mount under the frame

A shot of the rear coil spring with rubber cone / spring isolator.
This was pulled from a '97 4Runner Limited 4WD
10. Install your replacement coils on the correct side (driver’s side vs. passenger side) and mount the top of your replacement shocks into the shock mounting points on the frame. At this time, you may need to compress the rear end by jacking from the rear differential housing (pumpkin) so you can then attach your rear shock lower eye bolts and re-attach your rear anti-sway bar anchor point hardware.

While you’re under there, now would be a good time to swap out the short, rubber rear brake line. You’ll be running the longer, steel braided brake line from Sonoran Steel – so that you can really flex your new lift system…without breaking parts in the process.
11. Using a 10mm flare nut wrench (shown above), carefully undo the fitting which connects the rubber brake line to the t-junction – just above the rear differential cover (shown below at left). Then using the same wrench, tackle the upper fitting, which connects to a hard line (shown below at right). A crescent wrench is a possible alternative if your fittings are not corroded with rust, but take your time and be careful not to round off the corners!
12. Cap off the upper brake hard line with a rubber cap and then wrap it in a towel or other absorbent cloth to prevent brake fluid from saturating your work area. Using pliers of your choice, grab the thin U-shaped clip off the black supporting bracket (see picture at right) and set aside. Also get the C-clip off the factory rear brake line fitting and set aside for re-use.

Thread the smaller, shorter end of the Sonoran Steel steel braided brake line into the lower fitting of the T-junction on the rear axle. Be careful not get debris into the brake lines! Then take your C-clip and attach it to the upper portion of the steel braided brake line. The C-clip (denoted with an arrow in picture below at left) sits on the first section of the neck of the fitting (so it's closest to the front of the vehicle). Then feed the large end of the brake line into the mounting bracket and use the U-shaped retaining clip to hold the line in place (see picture below at right). From there you can uncap your hard line and thread it into the opening of the Sonoran Steel line.
The picture at left shows the completed install of the Sonoran Steel steel braided brake line. The upper and lower connections are denoted by arrows. At this time you should complete the necessary steps to bleed your brakes and replenish any lost brake fluid. Be sure to clean off any brake fluid that seeped onto your wheels, brake drums, etc.

13. Next, locate the factory rear bump stops – there is 1 per side: rear driver’s side and rear passenger side

Each bump stop is secured to the frame with an M8 X 1.25 bolt with a 12mm head – accessible through this hole in the bottom of the bump stop
Using a 12mm deep socket and an extension, loosen the bolt that secures the bump stop to the frame...

...and remove the bump stop and bolt. You will not be reusing these parts.

With the factory bump stops removed, align the Sonoran Steel extended bump stops in place with the exposed hardware facing outwards. Thread the supplied bolt into the hole on the frame and tighten using a box wrench.
14. Using a 17mm deep socket and a breaker bar, loosen the bolt that secures the lower eyelet of the rear shock to the axle…

Continue by loosening and removing the top nut on the upper portion of the rear shock with a 14mm deep socket while at the same time providing resistance against the metal dust cover of the shock. Then remove the factory 4Runner shock and set aside. You will be reusing the lower eyelet rubber bushings.

As noted in the provided supplemental instructions, you will assemble the FZJ-80 rear shock hardware as shown. In order: top nut, FZJ-80 to 4Runner rear shock disc, and then rubber bushing will sandwich the frame on top. On the underside of the frame / shock mount will sit a second rubber bushing and a second FZJ-80 to 4Runner rear shock disc below that.
When mounting the FZJ-80 rear shock, the shock body skid plate will face forward to intercept rocks. Reuse the factory 4Runner shock lower eyelet rubber bushings and hardware. Retighten with your 17mm socket and breaker bar.

Up top, you will tighten the FZJ-80 top nut down with a 17mm socket or similar. Just like you did when removing the 4Runner shocks, you will need to provide resistance to the upper metal dust cover on the FZJ-80 shock to prevent it from spinning on you. A secure hand grip should provide enough leverage to tighten against.

The picture at left shows a completed install of the Old Man Emu 890 rear coil, FZJ-80 rear shock, and Sonoran Steel extended bump stop – as part of Lift System 7.1.
15. You will now be removing the factory Trac / Panhard bar. Using a 17mm deep socket and a breaker bar, remove the 2 anchor bolts that secure the bar to the axle and frame as shown at left. It is recommended that you jacking the rear axle up slightly to ensure the bolts slip right out. You should not pound them out – just fiddle with your floor jack to finesse the bolts out – you’ll do the same when you go to put the Sonoran Steel adjustable Trac / Panhard bar on. Take your time!

The picture at right shows the factory Trac / Panhard bar with corresponding hardware. A shot of PB Blaster makes it easier to reassemble the hardware later on.
As the supplemental instructions explain, take the time to get accurate measurements when adjusting the Sonoran Steel adjustable Trac / Panhard bar. This ensures the alignment of the rear axle within the wheel wells so that the vehicle will track straight.

In this case, we were compensating for Old Man Emu 890 coils in the rear. Starting with the 1" mark on our tape measure for accuracy, we adjusted the ends of the Sonoran Steel Trac / Panhard bar until we were exactly where we needed to be: 37¼" (after subtracting the additional inch as our baseline.)
The picture at left shows the rear axle assembly with the factory 4Runner Trac / Panhard bar removed.

The picture at right shows the Sonoran Steel adjustable Trac / Panhard bar now sitting in place. Installation is the reverse of removal.
Finish off the adjustable Trac / Panhard bar install by tightening the jab nuts on each side – so that the bar itself cannot rotate and possibly change your settings.

16. Using a 7mm socket, undo the factory Zirc fitting on the rear drive shaft and replace it with the supplied Sonoran Steel allen-head bolt.
You're now done installing your Sonoran Steel Lift System and you can reinstall your wheels and tighten your lug nuts to factory specs. Clear all tools and jack stands out of the way and then carefully lower the rear of your vehicle using the floor jack that you situated under the rear differential.

Enjoy your newfound ride height and off-road capability. Always Tread Lightly and thank you for choosing Sonoran Steel as your provider of Specialized Suspension and Off-Road Parts for TOYOTA 4Runners, Trucks, Tundras, and Tacomas

-Steve Schaefer