

# INSTALLATION INSTRUCTIONS FOR 2010-14 TOYOTA 4RUNNER SR5 AND SPORT (Non-Air Leveling & Non-X-REAS) AND FOR 2010-14 TOYOTA FJ CRUISER 2WD & 4WD 3" SUSPENSION LIFT KIT PART NUMBER 432

# WARNING!!! READ AND UNDERSTAND ALL INSTRUCTIONS BEFORE PROCEEDING. MAKE SURE THAT YOU HAVE ALL TOOLS AND PARTS BEFORE BEGINNING THE INSTALLATION.

#### **SPECIAL TOOLS REQUIRED:**

"HOOK" TYPE SPRING COMPRESSOR (FOR REAR) \*Tie Rod End Puller.

**REVTEK SUSPENSION RECOMMENDS USING RED LOCTITE ON ALL FASTENERS AND HAVING THE FRONT END ALIGNMENT CHECKED AFTER INSTALLATION.** 

#### **KIT CONTENTS INCLUDE**

- INSTRUCTIONS INCLUDING PARTS LIST
- PRODUCT SAFETY LABEL (ORANGE)
- WINDOW DECAL
- WARRANTY

#### PARTS LIST INCLUDED IN KIT

FRONT	<u>QTY</u>
PRELOAD SPACER	2
TOP OUT EXTENDER	2
10MM X 1.25MM FLANGE NUT	6
DIFF DROP SPACERS	2
1⁄2-13 X 6" GRADE 5 BOLT	2
1/2-13 FLANGE NUT	2
M8 X 50MM HEX HEAD BOLT	2
SKID PAN DROP SPACERS	4

REAR	
LIFT SPACER	2
REAR SHOCKS	2
REAR SHOCK STUD WASHERS	4
TUBE SPACER	2
M8 X 50MM HEX HEAD BOLT	1
8 X 1.25 MM LOCK NUT	1
REAR BRAKE LINE BRACKET	1
M8 FLAT WASHER	1

#### **TORQUE SPECIFICATIONS**

10MM FASTENERS	30 LBS.
12MM FASTENERS	55 LBS.
17MM FASTENERS	60 LBS.
19MM FASTENERS	75 LBS.
LUG NUTS	100 LBS.

#### PRODUCT SAFETY LABEL MUST BE INSTALLED INSIDE CAB IN PLAIN VIEW OF ALL OCCUPANTS.

## **FRONT OF 4RUNNER/FJ CRUISER**

- 1. Park vehicle on level concrete surface.
- 2. Center and lock the steering wheel.
- 3. Block the rear wheels of the vehicle to prevent vehicle from moving in either direction.
- 4. Before lifting vehicle, remove lower rear shock bolt using a 17mm socket and then pry the lower part of shock away from axle mount stud. Then remove lower rear track bar bolt using a 19mm socket and save for re-installation later.
- 5. Jack the front of the vehicle up from lift point in Figure A.
- 6. Support the vehicle with jack stands from the points in Figure A.
- 7. Remove the front wheels using a 13/16" socket.
- 8. Remove sway bar end links from spindle using 17mm socket (both sides). (See Figure B).
- 9. Remove all sections of the front skid plate. Start by removing the plastic push snaps (be careful removing these, they will be re-used later). Then remove upper plastic shield in front of skid pan using 10mm socket and finally remove the skid pan using 12mm socket.
- 10. Remove sway bar from frame using 14mm socket. (See Figure C). For vehicles equipped with the KDSS system it is recommended to "strap" the solenoids tight before continuing.
- 11. Using 19mm socket, remove lower bolt and nut from the bottom of the strut (both sides).
- 12. Remove cotter key and 19mm nut from outer tie rod end, separate the rack & pinion tie rod ends utilizing a tie rod end puller.
- 13. Remove the three nuts (14mm) from the top of the strut. (See Figure D).
- 14. Mark the struts vertically with paint pen on all pieces and then remove the struts from the vehicle, making sure that they are marked driver and passenger side respectively for reinstallation.

# NOTE: AT THIS TIME, IF YOU DO NOT HAVE A SUITABLE SPRING COMPRESSOR, IT IS HIGHLY ADVISED TO EITHER TAKE THE STRUT TO A **QUALIFIED SERVICE CENTER OR PURCHASE ONE.**

- 15. Compress strut assembly and remove the nut (17mm) on the top of the strut shaft.
- 16. Release the compressor.
- 17. Remove the spring top plate from the strut.
- 18. Remove and discard the rubber spacer.

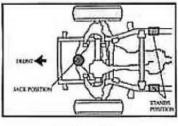


Fig. A



Fig. B



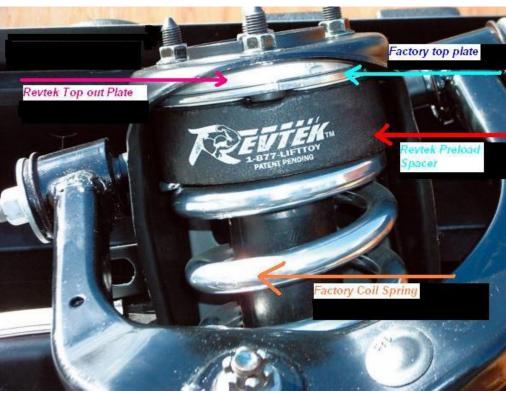
Fig. C



Fig. D

#### FRONT OF 4RUNNER/FJ CRUISER (continued)

- 19. Install the PRELOAD SPACER between the spring and the spring top plate with the small diameter facing toward the spring and the Revtek logo facing outward. (See Figure E).
- 20. Compress the strut assembly, making sure you center the strut shaft through the spring top plate hole and that the STUDS line up with the PRELOAD SPACER reliefs. Replace nut on the top of the strut shaft and torque to spec. (Torque specs can be found on page 1.)
- 21. Place the TOP OUT EXTENDER RING over the STUDS ON THE STRUT. (Figure E).
- 22. Reinstall the strut by reversing the removal procedure; discard factory nuts for the studs and use the supplied Revtek 10 X 1.25MM Flange nuts. Torque to spec. (Torque specs on page 1.)
- 23. When properly installed, Revtek logo will be centered between preload spacer reliefs.
- 24. Reinstall tie rod ends to knuckle using factory hardware. Torque to specs on page 1.
- 25. Reinstall sway bar end links into spindles. Torque to specs on page 1.
- 26. Reinstall sway bar to frame.
- 27. Reinstall front skid plate.
- 28. Replace the wheels. Torque to specs on page 1.



# FIGURE E.

# DIFFERENTIAL DROP SPACER KIT

- 1. Remove skid plate under the front of the vehicle. Save the OEM bolts.
- 2. Remove factory 19mm x 7" long bolts and nuts, supporting the front differential. (See Figure 1). Save the OEM washers for step 3.
- 3. Install Revtek spacers RTDDS-1 between the two front differential supports and front cross-member. Fasten to cross-member using new ½ x 6" long bolts and nuts (making sure to reuse the factory washers), (See Figure 2.)
- 4. Install 4ea Revtek TOS-8 skid plate spacers between skid plate and vehicle using factory bolts to secure.
- 5. Torque skid plate bolts to specs. (You may need to adjust the skid plate holes.)

Figure 1

Figure 2





# SPECIAL NOTE: YOU WILL NEED TO ADJUST THE HEADLIGHTS AFTER THE ENTIRE KIT IS INSTALLED!!!

# **REAR OF 4RUNNER/FJ CRUISER**

- 1. Place vehicle on level concrete surface.
- 2. Block front wheels to prevent vehicle from moving in either direction.
- 3. Make sure parking brake is on.
- 4. Lift the vehicle from the center of the rear differential housing, leaving the jack in place to support the differential.
- 5. Support the vehicle with jack stands from the points indicated in Figure I. Do not lower rear axle yet!
- 6. Remove rear wheels.
- 7. Using 12mm socket, remove sway bar end link nut and end link from frame mount. (See Figure J).
- 8. Remove upper 12mm bolt holding brake line bracket to frame tube on the driver side and remove ABS wire mounting bracket from the frame tube on passenger side and then push the ABS clip out of the frame mount on passenger side; leave disassembled until later step (see Figures K,L,M).

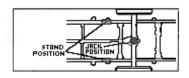






Fig. J



FIG. K

FIG. L

FIG. M

- 9. Carefully lower the floor jack, until suspension is fully dropped down.
- 10. Remove rear coil springs.
- 11. Place lift spacer between the rubber bottoming cone and the rear coil spring with the spacer center locating flange facing downward; you may need to push the poly spacer into coil.
- 12. Re-install the coil spring making sure that the spacer, the bottoming cone, and the spring are properly positioned.
- 13. Install new M8x50mm hex head bolt, washer and two (2) aluminum tube spacers between upper ABS line bracket and frame tube. Leave the frame mount push clip undone allowing extra travel. (See Figure N).



FIG. N



FIG. P

- 14. Install the Revtek rear driver side brake line bracket that has two 90 degree bends in it, to the frame using the factory bolt in the stock location and re-attach the Toyota rear brake line bracket to the Revtek bracket using the factory bolt from the ABS wire mount and the new supplied nut. (See Figure O). Torque to specs on page 1.
- 15. Remove upper shock mount and discard factory shocks. Install the Revtek shock absorbers (P/N R2515S) to the upper mount only.
- 16. Replace the wheels, torque to specs on page 1.
- 17. Lower vehicle to ground.
- 18. Reinstall sway bar end links. Torque to specs on page 1.
- 19. Install the lower part of the Revtek rear shock by inserting two <sup>3</sup>/<sub>4</sub> ID washers onto the shock stud and then slide lower part of shock on and tighten the factory bolt using 17mm socket. (See Figure P). Torque to specs on page 1.
- 20. Re-Install the lower track bar bolt and tighten using 19mm socket. Torque to specs on page 1.
- 21. Replace the wheels; torque to spec.

# **Important Installation Notes:**

- Manufacturing tolerances do create certain variations that we cannot fully account for. At times you may need to use a punch, or pry bar to get holes to line up. Also you may need to slightly enlarge a hole to create a proper alignment. These are all normal situations.
- Altering your suspension may change the way your vehicle handles. Care must be taken to operate your vehicle safely.
- Adding large wheels and tires, will change how your suspension operates. It may put extra strain on certain components causing them to wear sooner than normal.
- While every effort is made to design our kits to work within factory geometry, there are situations where additional alignment tools like adjustable or replacement components may be needed. This is normal.
- It is possible when changing the driveline angles that a vibration may occur, and require an adjustment to repair this situation.
- Other modifications may be needed due to optional equipment on the vehicle or other prior modifications that have been made.
- All fasteners should be checked and retightened after 500 miles. After the initial recheck, they should be checked and tightened as needed with every following service.
- Once the installation is complete a thorough road test should be performed to verify proper clearance of all items.
- Revtek Suspension kits are designed for race applications.
- Altering the suspension on your vehicle may change the characteristics of some systems such as: fuel economy, transmission shift points, etc.
- While Revtek systems are designed to work within all factory specifications and tolerances, there are
  some situations where exceeding the capability of the vehicle such as load capacity or speed will result in
  some undesirable results. If you overload your vehicle it will not handle correctly. If you drive or turn
  with excessive speed your vehicle will handle differently and some onboard vehicle systems may detect
  this and take appropriate action.
- Our tire and wheel fitments are only a guideline. Different production times or tolerances will vary and this sizes should only be used as a starting point. Each vehicle is different and will need to be treated as such.
- Our lift heights can vary slightly based on manufacturing tolerances. Some vehicles will exhibit slightly
  different amounts of lift heights and different final heights. Every vehicle is not identical and every
  vehicle will not be perfectly the same at all four corners.
- Once your vehicle is lifted components may wear faster, this is normal. A lifted vehicle is exerting more stress on most components and therefor causing them to wear faster.
- After altering the height of your vehicle, you should aim the headlights for proper coverage.
- The use of Loctite on fasteners is highly recommended.



# **Limited Lifetime Warranty**

Revtek Suspension products are warranted to be free from material and workmanship defects for as long as the original retail purchaser owns the vehicle upon which such products were originally installed (proof of purchase required). The consumer will be responsible for removing from the vehicle and returning any defective item, freight prepaid, and for reinstallation. This warranty is non-transferable. Revtek Suspension's limit of liability under this warranty is to repair or replace the product at Revtek Suspension's option. Consequential costs such as, but not limited to labor fees, loss of use, loss of time or freight charges are not covered. Any product that has been abused, altered incorrectly installed, or used in competition is not covered. Product finish is excluded from this warranty. Items that are subject to wear are not considered defective when worn and are not covered. The warranty is void if the "Warning to Driver" decal is not properly displayed on the vehicle. No other warranties are expressed or implied. We reserve the right to make changes in design, materials, and specifications without prior notice.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state. Some states do not allow limitations on how long an implied warranty lasts or allow the exclusion or limitation of incidental or consequential damages, the above limitation or exclusion may not apply to you.

Other than stated above, there are no warranties.

### SELLER DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY

## SELLER DISCLAIMS ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE

This warranty to be free from material and workmanship defects shall not apply to any product which has been improperly installed modified or customized and does not apply to any components used for racing purposes or racing type activities.

To make a claim under this warranty to be free from material and workmanship defects, contact Revtek Suspension about the problem prior to removing any parts from the vehicle. If it appears that the part is warrantable, you will be given a Return Authorization (RA) number and asked to return the part freight prepaid. If the part is found to be warrantable, it will be repaired or replaced and returned to you. All freight charges are the customer's responsibility. If a replacement part is needed before the part in question can be returned, you must first purchase the replacement part. Then if the part in question is deemed warrantable, you will be credited / refunded.

Shocks and bushings are considered to be wear items. As such, they will be covered for a period of 12 months from the original installation. Any failure outside of 12 months will be considered typical wear.

REVTEK SUSPENSION, LLC 503-659-1650 2800 Taylor Way BLDG 2A, Forest Grove, OR 97116