



**Installation manual
3" suspension system
2005 — 2012 Toyota Tacoma
4x4 and 2WD PreRunner
Part # 52907**

sj11112011rev.05

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2005 - 2012 Toyota Tacoma
4x4 and 2WD PreRunner
3" suspension system**

<u>Part #</u>	<u>Description</u>	<u>Qty.</u>
52907-01	Front strut spacer	2
52907-02	Front pre-load spacer	2
TCI-R15	Rear add-a-leafs	2
CB38	Hardware bag	1
5U-242S	9/16" x 2 9/16" x 8 5/8" square u-bolts	4
52907NB1	Hardware bag	1
52907INST	Instruction sheet (customer copy)	1
52907INST	Instruction sheet (installer copy)	1
MIRRORHANGER	Rear view mirror hanger	1
WARNINGDECAL	Warning decal	1

Congratulations on your selection to purchase a Tuff Country EZ-Ride Suspension System. We at Tuff Country EZ-Ride Suspension are proud to offer a high quality product at the industries most competitive pricing. Thank you for your confidence in us and our product.

The Tuff Country EZ-Ride Suspension product safety label that is included in your kit box must be installed inside the cab in plain view of all occupants.

For a list of parts, please refer to the back of the installation manual for photos of parts that are included in this suspension system.

Make sure to use thread locker or loctite on all new and stock hardware associated with the installation of this suspension system.

After the completion of the installation a front end alignment is required.

Important customer information:

Tuff Country EZ-Ride Suspension highly recommends that a qualified or a certified mechanic performs this installation.

It is the responsibility of the customer/installer to wear safety glasses at all times when performing this installation.

It is the customers/installers responsibility to read and understand all steps before installation begins. If you have any questions or concerns, please contact our technical department @ (801) 280-2777. Also, the OEM manual should be used as a reference guide.

This vehicles reaction and handling characteristics may differ from standard cars and/or trucks. Modifications to improve and/or enhance off road performance may raise the intended center of gravity. Extreme caution must be utilized when encountering driving conditions which may cause vehicle imbalance or loss of control. DRIVE SAFELY! Avoid abrupt maneuvers: such as sudden sharp turns which could cause a roll over, resulting in serious injury or death.

It is the customers responsibility to make sure that a re-torque is performed on all hardware associated with this suspension system after the first 100 miles of installation. It is also the customers responsibility to do a complete re-torque after every 3000 miles or after every off road use.

After the original installation, Tuff Country EZ-Ride Suspension also recommends having the alignment checked every 6 months to ensure proper tracking, proper wear on tires and front end components. Tuff Country EZ-Ride Suspension takes no responsibility for abuse, improper installation or improper suspension maintenance.

If you desire to return your vehicle to stock, it is the customers responsibility to save all stock hardware.

Limited lifetime warranty

Notice to all Tuff Country EZ-Ride Suspension customers: It is your responsibility to keep your original sales receipt! If failure should occur on any Tuff Country EZ-Ride Suspension component, your original sales receipt must accompany the warranted unit to receive warranty. Warranty will be void if the customer can not provide the original sales receipt. Do not install a body lift in conjunction with a suspension system. If a body lift is used in conjunction with any Tuff Country EZ-Ride Suspension product, your Tuff Country EZ-Ride Suspension WARRANTY WILL BE VOID. Tuff Country Inc. ("Tuff Country") suspension products are warranted to be free from defects in material and workmanship for life if purchased, installed and maintained on a non-commercial vehicle; otherwise, for a period of twelve (12) months, from the date of purchase and installation on a commercial vehicle, or twelve thousand (12,000) miles (which ever occurs first). Tuff Country does not warrant or make any representations concerning Tuff Country Products when not installed and used strictly in accordance with the manufacturer's instructions for such installation and operation and accordance with good installation and maintenance practices of the automotive industry. This warranty does not apply to the cosmetic finish of Tuff Country products nor to Tuff Country products which have been altered, improperly installed, maintained, used or repaired, or damaged by accident, negligence, misuse or racing. ("Racing is used in its broadest sense, and, for example, without regards to formalities in relation to prizes, competition, etc.) This warranty is void if the product is removed from the original vehicle and re-installed on that or any other vehicle. This warranty is exclusive and is in lieu of any implied warranty of merchantability, fitness for a particular purpose or other warranty of quality, whether express or implied, except the warranty of title. All implied warranties are limited to the duration of this warranty. The remedies set forth in this warranty are exclusive. This warranty excludes all labor charges or other incidental of consequential damages. Any part or product returned for warranty claim must be returned through the dealer of the distributor from whom it was purchased. Tuff Country reserves the right to examine all parts returned to it for warranty claim to determine whether or not any such part has failed because of defect in material or workmanship. The obligation of Tuff Country under this warranty shall be limited to repairing, replacing or crediting, at its option, any part or product found to be so defective. Regardless of whether any part is repaired, replaced or credited under this warranty, shipping and/or transportation charges on the return of such product must be prepaid by the customer under this warranty.

Important information that needs to be read before installation begins:

Due to the different variation of the stock strut spring rate, height after installation of the spacer may vary. Any questions please feel free to contact Tuff Country or your local Tuff Country dealer.

Tuff Country recommends a 32x10.50 tire package once part # 52907 has been installed. If larger than a 32x10.50 tire is installed on your vehicle in conjunction with part # 52907; Tuff Country assumes no liability and the warranty will be VOID.

New longer rear shocks are not required but highly recommended once part # 52907 has been installed on your vehicle and the rear shocks need to be ordered as a separate part #. If you have not already ordered your rear shocks, please feel free to contact Tuff Country or your local Tuff Country dealer and order your rear shocks. Tuff Country recommends installing a 26" fully extended shock in the rear.

Before installation begins, Tuff Country EZ-Ride Suspension highly recommends that the installer performs a test drive on the vehicle. During the test drive, check to see if there are any uncommon sounds or vibrations. If uncommon sounds or vibrations occur on the test drive, uncommon sounds or vibrations will be enhanced once the suspension system has been installed. Tuff Country EZ-Ride Suspension highly recommends notifying the customer prior to installation to inform the customer of these issues if they exist.

Tuff Country EZ-Ride Suspension packages (2) sets of instruction sheets with this box kit. (1) is for the installer and (1) is for the customer. The (1) for the customer has some post installation procedure literature and it is the installers responsibility to make sure that the customer receives a copy of the installation manual along with the literature.

Tuff Country EZ-Ride Suspension recommends a wall mounted strut compressor be used when performing the steps that talk about installing the strut spacer into the strut. If you do not have a wall mounted strut compressor, please have these steps performed by your local Toyota Dealership

Hardware bag 52907NB1 includes:

<u>Description</u>	<u>Quantity</u>
S10090 (1.000" x .500" x .400" sleeve)	2
M8WA (8 mm flat washer)	2
M835B (8 mm x 35 mm bolt)	2
126B (1/2" x 6" bolt)	2
12UN (1/2" unitorque nuts)	2
BU30000 (front strut stud / hardware bag)	1
M850HEXB (8 mm x 50 mm hex bolt)	1
S10051 (1.750" x .510" x .950")	2
S10105 (1.000" x .385" x 1.300")	1
916HN (9/16" u-bolt washers)	1

Hardware bag CB38 includes:

<u>Description</u>	<u>Quantity</u>
CB381 (3/8" centering bolt)	2
38FN (3/8" fine nut)	2

Recommended tools selection:

Wall mounted strut compressor

Torque wrench

Standard socket set

Standard wrench set

Metric socket set

Metric wrench set

Tape measure

Hydraulic floor jacks

Please follow instructions carefully:

Before installation begins, measure from the center of the hub, to the bottom of the fender well, and record measurements below.

Pre-installation measurements:

Driver side front: _____

Passenger side front: _____

Driver side rear: _____

Passenger side rear: _____

At the end of the installation take the same measurements and compare to the pre-installation measurements.

Post installation measurements:

Driver side front: _____

Passenger side front: _____

Driver side rear: _____

Passenger side rear: _____

Front end installation:

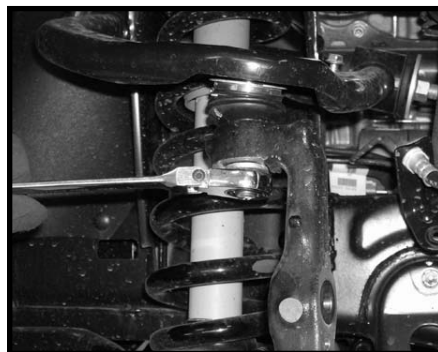
1. To begin installation, block the rear tires of the vehicle so that the vehicle is stable and can't roll backwards. Safely lift the front of the vehicle and support the frame with a pair of jack stands. Place a jack stand on both the driver and passenger side. Next, remove the wheels and tires from both sides.

2. Remove the stock front skid plate and save the stock skid plate and hardware for later re-installation.

3. Working on the driver side, remove the stock sway bar end link from the stock knuckle. Save the hardware for later re-installation. Repeat procedure on the passenger side.



4. Working on the driver side, remove the cotter pin that connects the knuckle to the upper control arm. Save the cotter pin for later re-installation. Loosen but do not remove the castle nut that secures the knuckle to the upper control arm. Carefully break the stock taper in the upper control arm and the knuckle. Once the taper has been broke, remove the castle nut and set aside for later re-installation. Repeat procedure on the passenger side.





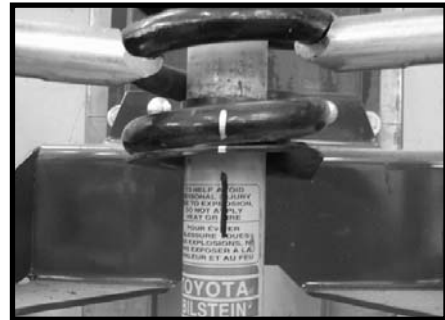
5. Working on the driver side, place a reference mark on the driver side strut. This is done so that the driver side strut will be put back into the driver side of the vehicle. Working on the driver side, remove the (3) upper nuts that connect the strut into the stock location. The stock nuts may be discarded. Repeat procedure on the passenger side.



6. Working on the driver side, remove the lower bolt that connects the strut to the lower mounting location and save the hardware for later re-installation. **Special note: During removal of the stock bolt, take special care not to damage the CV boot. Also, make a mental note on which way the bolt is removed, it needs to be re-installed the same way that it was removed.** Remove the strut assembly from the stock location and set aside for further instructions. Repeat procedure on the passenger side.

Tuff Country EZ-Ride Suspension recommends a wall mounted strut compressor be used when performing the steps that talk about installing the pre load spacer into the strut. If you do not have a wall mounted strut compressor, please have these steps performed by your local Toyota Dealership

7. Place the driver side strut into a wall mounted strut compressor. Scribe a line on the bearing plate, rubber isolator and the top coil of the strut. Also, scribe a line on the bottom coil and the bottom bracket on the strut. **Special note: If these steps are not performed properly re-installing the strut back into the vehicle will be difficult.**



8. Carefully compress the driver side strut until the upper bearing plate can be removed. Remove the nut and hardware from the upper bearing plate and save the hardware for later re-installation. Set the driver side strut aside for later re-installation.

9. Working on the driver side strut, remove the upper bearing plate from the coil spring. Remove the rubber isolator from the upper bearing plate and aside for later re-installation.

10. Locate (3) new 10 mm x 2 1/4" strut stud bolts from hardware bag BU30000 that are packaged in hardware bag 52907NB1. Working on the driver side upper bearing plate and using a hammer, remove the (3) studs located in the upper bearing plate and discard. Carefully install the new 10 mm x 2 1/4" strut stud bolts into the upper bearing plate.



11. Locate (1) new pre-load spacer, the newly modified upper bearing plate, the rubber isolator, the stock strut and hardware. Place the preload spacer on the modified bearing plate. Special note: Make sure that the cut outs in the new pre-load spacer fit over the head of the newly installed studs. Then install the rubber isolator onto the new pre-load spacer. Carefully compress the coil spring enough so that the preload spacer can be installed. Install the new strut spacer and isolator into the strut and secure the upper bearing plate to strut assembly using the upper strut hardware. Make sure to use thread locker or loctite and torque to **65 ft lbs.** Also, make sure that the lines that were scribed on the bearing plate, rubber isolator, the coil spring and the bottom bracket on the strut earlier in the installation all line up.



12. Locate (1) new strut spacer and (3) new 10 mm nylon lock nuts from hardware bag BU30000 that are packaged in hardware bag 52907NB1. Working on the driver side, install the new strut spacer on top of the new strut assembly and install into the stock strut upper location. Secure the top of the new strut assembly using the new 10 mm nylon nuts. Make sure to add thread locker or loctite and torque to **36 ft lbs.** Special note: If needed, carefully cut off the excess thread off of the 10 mm x 2 1/4" studs.



13. Locate the lower strut bolt and hardware. Secure the strut assembly into the lower location using the stock hardware. Make sure to use thread locker or loctite. Torque to **75 ft lbs.** Special note: When installing the lower bolt, make sure that the bolt is installed the way it was removed. Facing towards the front of the vehicle. Also, take special care not to damage the stock CV boot when re-installing the stock hardware.

14. Repeat steps 7 - 13 on the passenger side strut assembly.

15. Locate the upper control arm castle nut and cotter pin. Working on the driver side, secure the knuckle to the upper control arm using the stock hardware. Torque and install the cotter pin. Special note: when torquing the castle nut, **DO NOT** loosen the castle nut to get the holes lined up to install the cotter pin, tighten the castle nut until the holes line up and the cotter pin can be installed. Repeat procedure on the passenger side.

16. Locate the sway bar hardware. Working on the driver side, secure the stock sway bar to the knuckle using the stock hardware and torque to **65 ft lbs.**

17. Working on the driver side, carefully remove the stock bolt that connects the front differential brackets to the front cross member. Save the stock oversize washer. The stock bolt and nut may be discarded. Repeat procedure on the

passenger side..

18. Locate (2) new S10051, (2) 1/2" x 6" bolts and (2) 1/2" unitorque nuts from hardware bag 52907NB1. Also, locate the stock oversize washers that were removed earlier in the installation. Carefully lower down on both hydraulic floor jacks allowing enough room for the new front differential spacers to be installed. Working on the driver side, install the new front differential spacer between the front differential brackets and the stock front cross member and secure using the new 1/2" x 6" bolt, 1/2" unitorque nut and the stock oversize washer. **Do not tighten at this point.** Repeat procedure on the passenger side. **Move back to the 1/2" x 6" bolt on the driver and passenger side and add some thread locker or loctite and torque to 80 ft lbs.** Carefully remove both hydraulic floor jacks front under the front differential.



19. Locate (2) S10090 sleeves, (2) 8 mm x 35 mm bolts and (2) 8 mm" USS flat washers from hardware bag 52907NB1. Also, locate the stock skid plate and the stock skid plate hardware. Re-install the stock skid plate into the stock upper location using the stock hardware. **Do not tighten at this point.** Secure the lower portion of the skid plate to the stock location using the new 8 mm x 35 mm bolts, 8 mm USS flat washers and make sure to install the new spacer between the stock skid plate and the stock location. Torque the new 8 mm x 35 mm bolt and stock hardware to **12 ft lbs.**



20. Re-install the tires and wheels and torque the lug nuts to the proper torque specifications. Carefully lower the vehicle to the ground.

Front installation complete!

Rear end installation:

21. To begin installation, block the front tires of the vehicle so that the vehicle is stable and can't roll forward. Safely lift the rear of the vehicle and support the frame with a pair of jack

stands. Place the jack stands on both the driver and the passenger side. Make sure that the parking brake is not set. Next, remove the tires and wheels from both sides.

22. Working on the driver side, remove the shock from the upper and lower location. Set the shock and the stock hardware aside for later re-installation. **New longer rear shocks are not required but highly recommended once part # 52907 has been installed on your vehicle and the rear shocks need to be ordered as a separate part #. If you have not already ordered your rear shocks, please feel free to contact Tuff Country or your local Tuff Country dealer and order your rear shocks. Tuff Country recommends installing a 26" fully extended shock in the rear.** Repeat procedure on the passenger side.

23. Working on the driver side, remove the stock brake line bracket from the driver side of the rear axle. The stock bolt may be discarded.

24. Position a pair of hydraulic floor jacks under the rear differential. Place one jack stand on the driver side and one on the passenger side. Raise up on both hydraulic floor jacks at the same time until they make contact with the rear differential. Working on the driver side, remove the rear u-bolts. The rear u-bolts and the u-bolt nuts may be discarded, save the u-bolt washers. Place the u-bolt plate and the bump stop aside for later re-installation. Repeat procedure on the passenger side.

25. Carefully lower down on both hydraulic floor jacks at the same time until the stock rear spring assembly separates from the rear axle to allow enough room for the new rear add-a-leaf to be installed.

26. Working on the driver side, place a pair of "C" clamp vise grips on each side of the centering bolt. Carefully remove the centering bolt and nut and discard. Carefully remove the "C" clamp vise grips that are holding the springs together. **Special note: Be careful when removing the "C" clamps, the springs are under tension and can be dangerous.** Repeat procedure on passenger side.

27. Locate (2) new rear add-a-leaves. Locate (2) 3/8" centering bolts and (2) 3/8" fine nut from hardware bag CB38. Install the new rear add-a-leaf into the spring assembly. Secure the new rear add-a-leaf to the spring assembly using the new 3/8" center bolt and nut. **Torque to 28 ft. lbs.** **Special note: If the new add-a-leaf that you are installing into the stock spring assembly has an offset center hole location, place the longest side of the add-a-leaf towards the rear of the vehicle. Also the new add-a-leaf should be installed into the stock spring assembly in progression in order, from longest to shortest. The new add-a-leaf should be installed between the stock overload and the stock spring pack. The stock overload is usually the un-arched spring at the bottom of the stock leaf pack. Also, Tuff Country EZ-Ride Suspension recommends not using any air tools when installing the new add-a-leaves into the stock spring assembly. If air tools are used the centering bolt may strip, causing the**

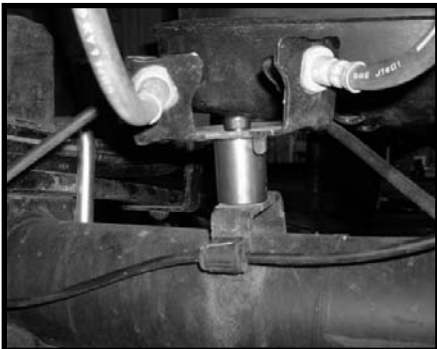
stock spring assembly to come apart. With a suitable cutting tool, cut off the extra thread from the new centering bolt. Repeat procedure on passenger side.



28. Carefully raise up on both hydraulic floor jacks at the same time until the stock rear axle makes contact with the stock spring assembly.

29. Locate (4) new 9/16" x 2 9/16" x 8 5/8" square u-bolts. Locate (8) new 9/16" u-bolt high nuts from hardware bag 52907NB1. Also, locate the u-bolt plates, bump stops and the u-bolt washers. Working on the driver side, re-install the u-bolt plates and bump stops into the stock location. Secure the spring assembly to the axle using the new u-bolts, u-bolt high nuts and the stock u-bolt washers. **Torque to 85 ft lbs.** Repeat procedure on the passenger side.

30. Locate (1) 8 mm x 50 mm hex head bolt and (1) S10105 from hardware bag 52907NB1. Working on the driver side, secure the new spacer sleeve between the stock brake line bracket and the stock rear axle using the new 8 mm x 50 mm bolt. **Special note: make sure to use thread locker or lockite and torque to 15 ft lbs.**



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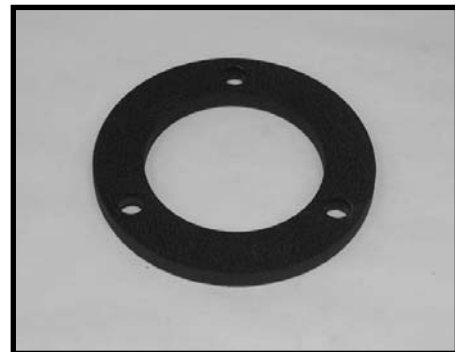
31. Locate the rear shocks, the upper and lower shock hardware. Working on the driver side, install the rear shocks in the lower location and secure using the stock hardware. **Torque to 65 ft lbs.** Secure the shock into the upper location using the hardware and torque to **18 ft lbs.** Carefully remove both hydraulic floor jacks from under the vehicle.

32. Re-install the tires and wheels and torque to lug nuts to proper torque settings. Carefully lower the vehicle to the ground.

Check and double check to make sure that all steps were performed properly. After the completion of the installation, Tuff Country EZ-Ride Suspension recommends taking the vehicle to an alignment shop and having a proper front end alignment performed.

Tuff Country EZ-Ride Suspension recommends that a complete re-torque is done on all bolts associated with this suspension system. It is the customers responsibility to make sure that a re-torque is performed on all hardware associated with this suspension system after the first 100 miles of installation. It is also the customers responsibility to do a complete re-torque after every 3000 miles or after every off road use. Neglect of following these steps could cause brackets to come loose and cause serious damage to the suspension system and to the vehicle.

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52907-01 / Qty. 2
Strut spacer



52907-02 / Qty. 2
Pre-load spacer