



## EZ - Ride Suspension

## Installation manual 4.5" Suspension Lift Kit 1999 - 2004 Toyota Tundra / 4WD & 2WD Part # 55900

sj10142013rev.03

**Part # 55900**  
**1999 - 2004 Toyota Tundra 4WD & 2WD**  
**4.5" Suspension Lift Kit**

<u>Part #</u>	<u>Description</u>	<u>Qty.</u>
T5I-02	Upper ball joint spacers	2
T5I-03	Upper strut spacer	2
TOYSUB-01	Sub frame	1
T5I-15	DS Knuckle support bracket	1
T5I-16	PS Knuckle support bracket	1
TOYBRAKE-01	Rear proportioning valve bracket	1
TOYDSDIFF-01	DS differential bracket	1
TOYPSDIFF-01	PS differential bracket	1
TOYDSSWAY-01	DS sway bar bracket	1
TOYPSSWAY-01	PS sway bar bracket	1
TOYSTEER-01	Steering shaft extension	1
TOYRACK-01	PS rack and pinion bracket	1
TOYRACK-02	Center rack and pinion bracket	1
55900NB1	Hardware bag	1
55900NB2	Hardware bag	1
BL301	Rear block	2
5U-247S	9/16" x 2 9/16" x 9 5/8" square u-bolt	4
916NW	Hardware bag	1
55900INST	Instruction manual	1
MIRRORHANGER	Rear view mirror hanger	1
WARNINGDECAL	Warning decal	1
INSTFILLER	Instruction filler	1
NAMETAG	Name tag	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.**

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

**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.**

### 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.**

### 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:

Tuff Country recommends a wheel with a back spacing of 4.75" or less once this Suspension Kit has been installed. If more back spacing is used, contact will occur and may cause damage to the vehicle. If more back spacing than 4.75" is installed, Tuff Country assumes no liability and the warranty will be VOID!

Tuff Country recommends installing a 33" x 12.50" tire once this Suspension Kit has been installed. If taller than a 33" tire is installed, Tuff Country assumes no liability and the warranty will be VOID!

Once this Suspension kit is installed, new longer rear shocks will be needed. Rear shocks are sold separately. If you have not already ordered your new rear shocks, please contact Tuff Country or your local Tuff Country dealer and order the rear shocks. Tuff Country recommends installing a 26" fully extended shock.

This Suspension Kit comes with (1) installation manual and some post installation procedure literature and it is the installers responsibility to make sure that the customer receives the post installation procedure literature. If a customer would like a copy of the installation manual, please have them visit our website at [www.tuff-country.com](http://www.tuff-country.com). Have them go to the customer care section to download these instructions. If you have any questions, please feel free to call us at (801) 280-2777.

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.

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

Before installation begins, it is the customers/installers responsibility to make sure that all parts are on hand. If any parts are missing, please feel free to call one of our customer service representatives @ (801) 280-2777.

Recommended tools selection:

- Torque wrench
- Standard socket set
- Standard wrench set
- Metric socket set
- Metric wrench set
- Tape measure
- Hydraulic floor jacks

**Hardware bag 55900NB1 includes:**

<u>Description</u>	<u>Quantity</u>
M12FN (M12 fine nut)	1
M12LWA ( 12 mm lock washer)	1
51634B (5/16" x 3/4" bolt)	2
5161B (5/16" x 1" bolt)	5
516114B (5/16" x 1 1/4" bolt)	1
14WA (1/4" USS flat washer)	16
516UN (5/16" unitorque nut)	8
381B (3/8" x 1" bolt)	4
38112 (3/8" x 1 1/2" bolt)	2
516WA (5/16" USS flat washer )	14
38UN (3/8" unitorque nut)	10
716112B (7/16" x 1 1/2" bolt)	4
716LWA (7/16" lock washer)	4
12114B (1/2" x 1 1/4" bolt)	2
12112B (1/2" x 1 1/2" bolt)	2
716WA (7/16" USS flat washer )	8
12UN (1/2" unitorque nut)	4
916214B (9/16" x 2 1/4" bolt)	1
916212B (9/16" x 2 1/2" bolt)	1
12WA (1/2" USS flat washer)	7
916LWA (9/16" lock washer)	1
34412B (3/4" x 4 1/2" bolt)	2
34512B (3/4" x 5 1/2" bolt)	2
34WA (3/4" USS flat washer)	8
34UN (3/4" unitorque nut)	4

**Hardware bag 55900NB2 includes:**

<u>Description</u>	<u>Quantity</u>
PB2408 (poly bushing)	4
S10082 (.875" x .563" x 2.080" sleeve)	2
MO2382 (poly bushing)	2
S10076 (.750" x .629" x 2.875 sleeve)	1
MO3354 (poly bushing)	2
S10075 (.750" x .625" x 1.275 sleeve)	1
S10140 (fender washer)	2
BLR09 (brakeline bracket)	2
BLR01 (brakeline bracket)	2
T5I-12L (knuckle washer)	2
5U-5161316R (5/16" x 1 3/16" x 2" round u-bolt)	4
516FN (5/16" flange nut)	8
ZIPTIE (zip tie)	2
SB34 (shock bushing)	2

**Hardware bag 916NW includes:**

<u>Description</u>	<u>Quantity</u>
SUW-916 (9/16" u-bolt washer)	8
916HN (9/16" harden washer)	8

**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: \_\_\_\_\_

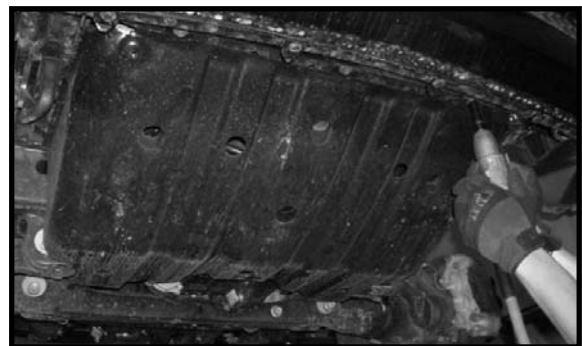
Driver side rear: \_\_\_\_\_

Passenger side rear: \_\_\_\_\_

**Front end installation:**

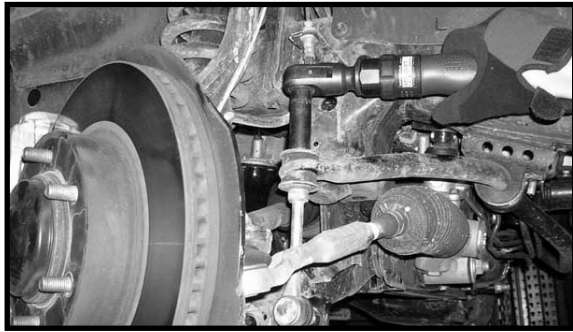
1. To begin installation, block the rear tires of the vehicle so that the vehicle is stable and can't roll backwards. Safely lift the front of the vehicle and support the frame with a pair of jack stands. Place a jack stand on both the driver and passenger side. Next, remove the front wheels and tires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

2. Remove the front skid plate. Save the skid plate and hardware.



3. Working on the driver side, remove the brake line bracket that connects to the side of the frame rail. Save the hardware. Repeat procedure on the passenger side.

4. Working on the driver side, remove the hardware from the sway bar end link and save the hardware for later re-installation. Repeat procedure on passenger side.

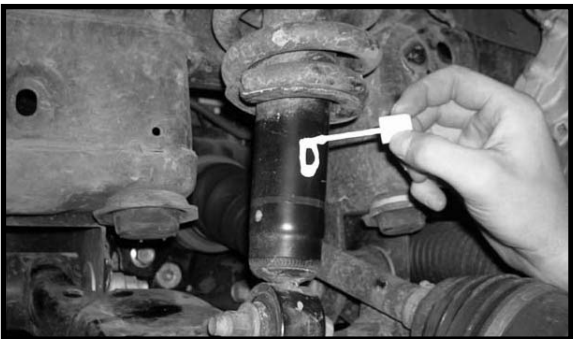


5. Working on the driver side, remove the sway bar from the OE location and save the hardware for later re-installation. Repeat procedure on passenger side. Set the sway bar aside for later re-installation.

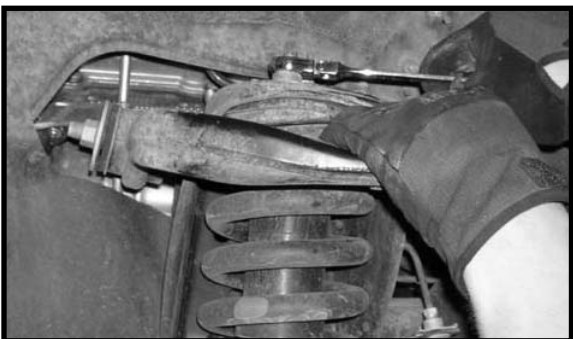


6. Using a pair of hydraulic floor jacks, support the front axle on the driver and passenger side.

7. Working on the driver side, scribe a mark on the strut indicating driver side. This will allow you to re-install the driver side strut back into the OE location at a later step. Repeat procedure on passenger side.



8. Working on the driver side, remove the (3) upper nuts that hold the strut assembly into the upper pocket. Save the hardware for later re-installation. **Special note: DO NOT remove the upper center nut that holds the shock to the bearing plate. If the nut is removed, a coil spring compressor is going to be needed to put the strut assembly back together.** Repeat procedure on passenger side.



9. Working on the driver side, remove the lower bolt that holds the strut into the OE location and save the hardware for later re-installation. Repeat procedure on passenger side. Set the driver and passenger side strut's aside for later re-installation.



10. Working on the driver side, remove the cotter pin and castle nut that secures the ball joint to the upper control arm. The cotter pin and castle nut may be discarded. Carefully separate the taper on the ball joint and the upper control arm. Repeat procedure on the passenger side.

11. Working on the driver side, remove the upper control arm from the OE location and set aside for later re-installation. Save the hardware. Repeat procedure on passenger side.

12. Working on the driver side, carefully remove the ball joint from the knuckle and discard. **Special Note: A ball joint puller may be needed to help make removal easier. When removing the ball joint take special care not to damage the knuckle.** Repeat procedure on passenger side.

13. Working on the passenger side, remove the two bolts that hold the rack and pinion hi pressure and return lines to the inside of the frame rail. Save the hardware for later re-installation.



14. Working on the driver side, carefully tie the rack and pinion to the sway bar mount. Repeat procedure on the passenger side.

15. Working on the driver side, remove the hardware that connects the rack and pinion to the steering shaft. Save the hardware.

16. Working on the driver side, remove the hardware that connects the rack and pinion to the rear cross member. Save the hardware.



17. On the front differential, remove the nut that connects the rear part of the front differential to the rear cross member and discard the nut.

18. Locate the center of the rack and pinion and remove the hardware that connects the rack to the rear cross member. The hardware may be discarded.

19. Working on the passenger side, remove the mounting hardware that connects the rack and pinion to the rear lower control arm mount. The upper mounting hardware may be discarded. Save the lower mounting hardware. Remove the bracket that connects the rack to the stock passenger side location and save for later re-installation.



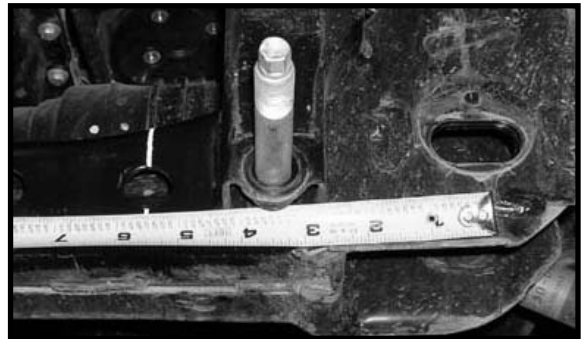
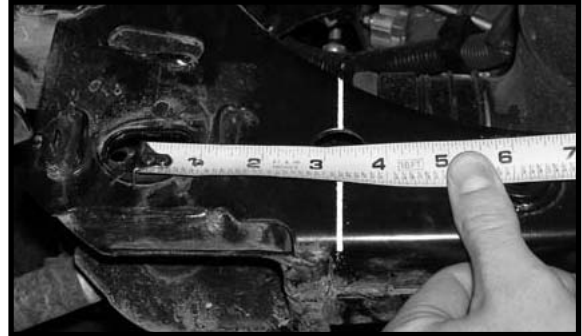
20. Make sure that the rack and pinion is secured to the sway bar mounting points and is out of the way so that the rear cross member can be cut.

21. Working on the driver side, remove and save the cam bolts that secure the lower control arm to the front and rear lower control arm mounting points. Repeat procedure on the passenger side.



22. Working on the driver side, carefully remove the lower control arm from the front and rear mounting points. Repeat procedure on passenger side. Carefully support the lower control arm on the driver and passenger side.

23. Working on the driver side, measure from the lower control arm mounting point towards the inside of the vehicle 3 1/4". Scribe a mark on the rear cross member. Using a suitable cutting tool, carefully cut the rear cross member. **Special note: Tuff Country does not recommend using a torch when making this cut. Tuff Country recommends using a sawzall to make this cut.** Working on the passenger side, measure from the lower control arm mounting point towards the inside of the vehicle 5 1/2". Scribe a mark on the rear cross member. Using a suitable cutting tool, carefully cut the rear cross member. **Special Note: Tuff Country does not recommend using a torch when making this cut. Tuff Country recommends using a sawzall to make this cut.** The rear cross member may be discarded.



24. Support the front differential with a pair of hydraulic floor jacks. Place a hydraulic floor jack on the driver and passenger side.

25. Working on the driver side, remove the hardware that connects differential drop bracket to the front cross member and save the hardware. Next, remove the (3) bolts that connect the differential drop bracket to the differential. Save the hardware for later re-installation. The differential drop bracket may be discarded.



26. Working on the passenger side, remove the hardware that connects differential drop bracket to the front cross member and save the hardware. Next, remove the (2) bolts that connect the differential drop bracket to the differential. Save the hardware for later re-installation. The differential drop bracket may be discarded.

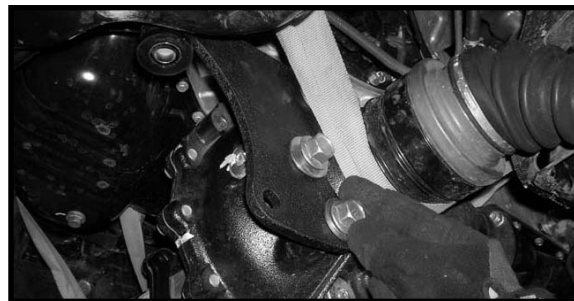


27. Using a tie down strap, carefully tie the front differential up and out of the way so that the hydraulic floor jacks can be removed and the one piece sub frame can be installed.



28. Locate (1) new driver side differential drop bracket, (2) PB2408 poly bushings and (1) S10082 sleeve from hardware bag 55900NB2. Install the new poly bushings into the new driver side differential drop bracket. Next, install the new sleeve into the newly installed poly bushings. **Special Note: Make sure to use a lithium or moly base grease prior to inserting the new bushings into the new differential drop bracket. This will increase the life of the bushing as well as prevent squeaking.**

29. Locate (3) 1/2" USS flat washers from hardware bag 55900NB1. Working on the driver side, install the new driver side differential drop bracket into the OE location on the front cross member using the stock hardware. **Do not tighten at this point.** Next, secure the driver side of the differential to the newly installed driver side differential drop bracket. Secure using the OE bolts and the new 1/2" USS flat washers. **Do not tighten at this point.**



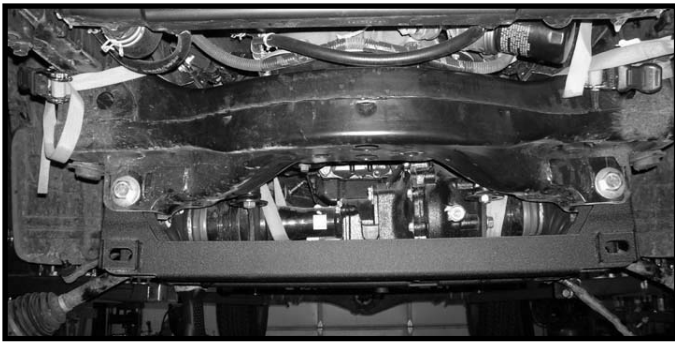
30. Locate (1) new passenger side differential drop bracket, (2) PB2408 poly bushings and (1) S10082 sleeve from hardware bag 55900NB2. Install the new poly bushings into the new passenger side differential drop bracket. Next, install the new sleeve into the newly installed poly bushings. **Special Note: Make sure to use a lithium or moly base grease prior to inserting the new bushings into the new differential drop bracket. This will increase the life of the bushing as well as prevent squeaking.**

31. Locate (2) 1/2" USS flat washers from hardware bag 55900NB1. Working on the passenger side, install the new passenger side differential drop bracket into the OE location on the front cross member using the stock hardware. **Do not tighten at this point.** Next, secure the passenger side of the differential to the newly installed passenger side differential drop bracket. Secure using the OE bolts and the new 1/2" USS flat washers. **Do not tighten at this point.**



32. Locate the new one piece lower sub frame, (2) 3/4" x 4 1/2" bolts, (2) 3/4" x 5 1/2" bolts, (4) 3/4" unitorque nuts and (8) 3/4" flat washers from hardware bag 55900NB1. Install the new one piece sub frame to the front and rear lower control arm mounting points and secure using the new 3/4" bolts and hardware. **Special Note: The new 3/4" x 5 1/2" bolt is for the front stock mounting point and the new 3/4" x 4 1/2" bolt is for the rear stock mounting point. Do not tighten at this point. Also, when installing the new one piece sub frame, make sure that the stock threaded spud that comes out of the rear part on the front differential seats properly into the rear portion of the new one piece sub frame.**



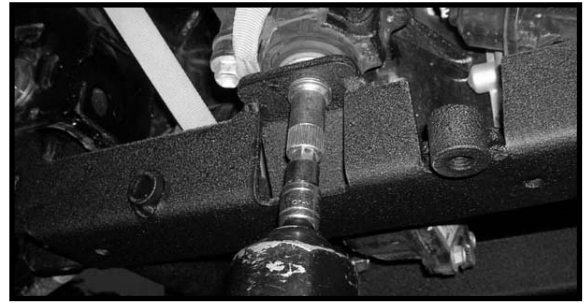


33. Locate (2) 1/2" x 1 1/4" bolts, (4) 7/16" USS flat washers, and (2) 1/2" unitorque nuts from hardware bag 55900NB1. Working on the driver side, secure the new driver side differential drop bracket to the inside of the tab that is welded to the newly installed one piece sub frame and secure using the new 1/2" x 1 1/4" bolt and hardware. **Do not tighten at this point.** Repeat procedure on the passenger side. **Special note: The new driver and passenger side differential drop brackets will be installed to the inside tabs that are welded onto the one piece lower sub frame.**



34. Locate the TOYRACK-02. Also, locate (2) 1/2" x 1 1/2" bolts, (4) 7/16" USS flat washers and (2) 1/2" unitorque nuts from hardware bag 55900NB1. Install the TOYRACK-02 to the rear portion of the newly installed one piece sub frame and secure using the new 1/2" hardware. **Special note: make sure to install the bracket with the weld on the threaded spud is towards the ground. Do not tighten at this point.**

35. Locate (1) 12 mm lock washer and (1) 12 mm fine unitorque nut from hardware bag 55900NB1. Working on the rear portion of the newly installed one piece sub frame, secure the stock stud that comes out of the rear part of the front differential to the newly installed one piece sub frame with the new 12 mm hardware. Make sure to use loctite and torque to **45 ft lbs.**

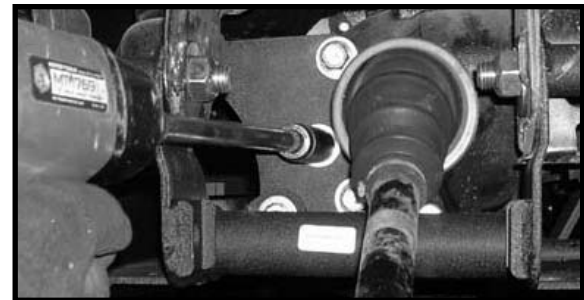


36. Now that the differential is attached to the one piece lower sub frame, the tie down strap can be removed.

37. Move back to the new 3/4" hardware that connects the newly installed one piece sub frame to the front lower control arm mounting points and add some loctite and torque to **135 ft. lbs.**



38. Move back to the stock hardware that connects the new driver and passenger side differential drop brackets to the front cross member and differential and add some loctite and torque all stock bolts to **85 ft. lbs.**



39. Move back to the new 1/2" hardware that connects the new driver and passenger side differential drop brackets to the newly installed one piece sub frame and add some loctite and torque to **85 ft. lbs.**



40. Working on the driver side, install the stock lower control arm into the newly installed one piece sub frame and secure using the stock cam bolts. Center the stock cam bolt and torque **120 ft lbs.** Repeat procedure on the passenger side.



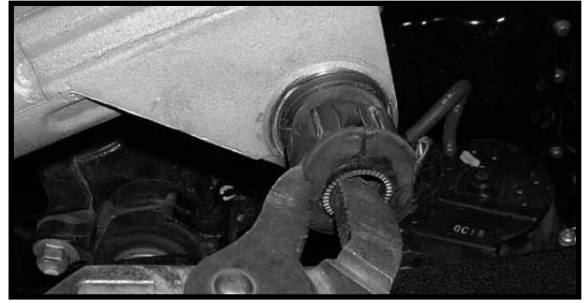
41. Carefully remove the bushing from the driver side of the rack and pinion and discard.



42. Locate (2) MO2382 poly bushings and (1) S10076 sleeve from hardware bag 55900NB2. Working on the driver side of the rack and pinion, install the new bushings and sleeve into the rack and pinion. **Special note: Make sure to use a lithium or moly base grease prior to inserting the new bushings and sleeve into the rack and pinion. This will increase the life of the bushings as well as prevent squeaking.**



43. Carefully remove the bushing from the center of the rack and pinion and discard.



44. Locate (2) new MO3354 poly bushings and (1) S10075 sleeve from hardware bag 55900NB2. Working on the center of the rack and pinion, install the new bushings and sleeve into the rack and pinion. **Special note: Make sure to use a lithium or moly base grease prior to inserting the new bushings and sleeve into the rack and pinion. This will increase the life of the bushings as well as prevent squeaking.**



45. Working on the driver side sway bar mounting bracket that attaches to the inside part of the frame rail and using a tape measure, measure from the top leading edge of the front portion of the bracket downward 1 1/2". Using some white out or a white marker, scribe a line. Now measure from the inside leading edge towards the frame rail 1". Using some white out or a white marker, scribe a line. Carefully cut the front corner out of the sway bar mounting bracket. **Special Note: Tuff Country does not recommend using a torch when making this cut. Tuff Country recommends using a die grinder to make this cut. The stock gas line runs on the inside of the stock frame rail, take special care not to cut the stock gas lines. Also when making this cut, take special care not to cut into the stock frame rail. Clean up any exposed slag from the trimming performed in this installation step.**



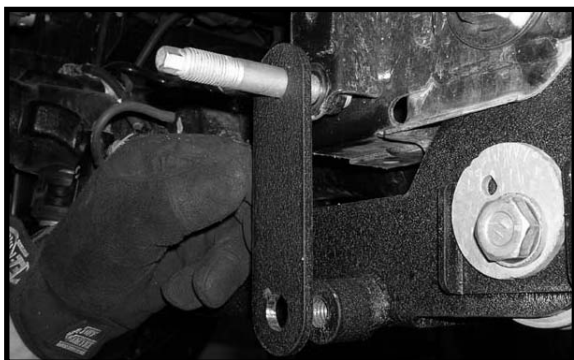




46. Locate the steering shaft extension bracket, (2) 5/16" x 1" bolts, (4) 1/4" USS flat washers and (2) 5/16" unitorque nuts from hardware bag 55900NB1. Working on the driver side, install the steering shaft extension bracket to the steering shaft and secure using the new 5/16" bolt and hardware. Make sure to use loctite and torque to **18 ft lbs.**

47. Secure the new steering shaft extension bracket to the stock rack and pinion using the stock hardware. Make sure to use loctite and torque to **18 ft lbs.**

48. Locate the passenger side stock rack and pinion mounting bracket and the TOYRACK-01 bracket. Also, locate (1) 9/16" x 2 1/4" bolt and (1) 9/16" lock washer from hardware bag 55900NB1. Install the passenger side rack and pinion bracket on the passenger side rack and pinion bolt. Re-install the stock rack and pinion mounting bracket in the upside down position around the rack and pinion. Secure the upper part of the bracket with the OE hardware. Secure the lower portion of the rack and pinion with the new 9/16" hardware. **Do not tighten at this point.**



49. Working on the driver side, secure the rack and pinion to the newly installed one piece sub frame using the stock hardware. Do not tighten at this point.



50. Locate (1) 9/16" x 2 1/2" bolt and (2) 1/2" USS flat washers from hardware bag 55900NB1. Also, locate (2) S10140 (9/16" fender washers) from hardware bag 55906NB2. Install the rack and pinion to the newly installed center rack and pinion bracket using the new 9/16" x 2 1/2" bolts, hardware and 9/16" fender washers. **Special note: The fender washers need to be installed on top of the stock rack and pinion and between the stock rack and pinion and the new center rack and pinion bracket. Do not tighten at this time. Special note: The bolt will be installed from the top of the rack and pinion downward.**



51. Move back to the passenger side rack and pinion hardware and add some loctite to the upper and lower hardware and torque to **85 ft lbs.**

52. Move back to the new 9/16" bolt that connects the center of the rack and pinion to the newly installed rack and pinion bracket on the sub frame and torque to **85 ft. lbs.**

53. Move back to the new 1/2" hardware that connects the center rack and pinion bracket to the new one piece sub frame and add some loctite and torque both bolts to **65 ft lbs.**

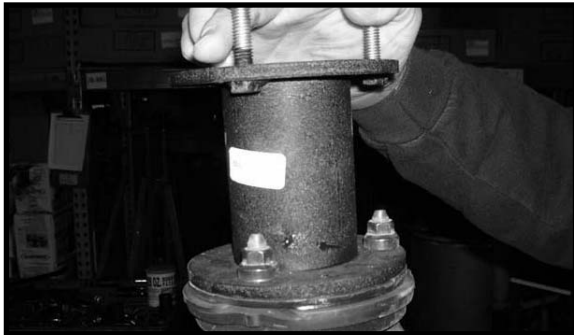
54. Move back to the OE hardware that connects the rack and pinion to the driver side of the newly installed sub frame and add some loctite and torque to **110 ft lbs.**

55. Locate (1) BLR09 (relocation bracket) from hardware bag 55906NB2. Locate (1) 5/16" x 1" bolt, (2) 1/4" USS flat washers and (1) 5/16" unitorque nut from hardware bag 55900NB1. Also, locate the rack and pinion hi pressure line mounting hardware. Install the new relocation bracket to the rack and pinion hi pressure lines and secure using the new 5/16" x 1" bolt and hardware. **Do not tighten at this point.** Next secure the previously installed relocation bracket to the rack and pinion and secure using the stock hardware. Make sure to use loctite and torque to **12 ft lbs.** Move back to the new 5/16" x 1" bolt installed earlier in this step and add some loctite and torque the new 5/16" x 1" bolt to **14 ft lbs.**



56. Working on the driver side, install the control arm back into the OE location. Secure using the OE hardware. **Do not tighten at this point.** Repeat procedure on the passenger side.

57. Locate the new upper strut spacers. Also, locate the driver and passenger side strut's and the upper stock strut hardware. Working on the driver side strut, secure the new upper strut spacer to the top of the strut using the stock hardware. Make sure to use loctite and torque to **45 ft lbs.** Repeat procedure on the passenger side strut.



58. Locate (6) 3/8" unitorque nuts and (6) 5/16" USS flat washers from hardware bag 55900NB1. Working on the driver side, install the driver side strut back into the upper location and secure using the new 3/8" hardware. Make sure to add loctite and torque to **38 ft lbs.** Repeat procedure on passenger side.



59. Locate the lower strut bolts and hardware. Working on the driver side, secure the strut to the lower control arm using the OE hardware. Make sure to use loctite and torque to **85 ft lbs.** Repeat procedure on passenger side.



60. Locate the (2) bags that have the new ball joint spacers in them. Follow the instruction from Toyota on how to install the new dust boot cover on the new ball joints.

61. Locate the new upper ball joint castle nuts and cotter pins that were packaged with the new upper ball joint spacers. Working on the driver side, install the new ball joint spacer to the upper control arm and secure using the new castle nut and cotter pin that was packaged with the ball joint spacers. Torque to **80 ft lbs.** Making sure that the hole in the new castle nut and the new upper ball joint are lined up and install the new cotter pin. **Special note: If the new cotter pin can not be installed because the hole in the new castle nut does not line up with the new ball joint, DO NOT loosen the new castle nut so that the cotter pin can fit, tighten the new castle nut some more so that the new cotter pin can be installed.**



62. Working on the driver side, move back to the hardware attaching the upper control arm into the OE location and add some loctite and torque to **85 ft lbs.** Repeat procedure on the passenger side.

63. Locate (2) knuckle washers T5I-12L from hardware bag 55900NB2. Working on the driver side, press the spacer plate into the knuckle. **Special Note: The holes in the spacer plate need to face towards the inside of the vehicle. This will allow you to install the ball joint spacer with the big hole facing towards the inside of the vehicle.** Repeat procedure on the passenger side.

64. Locate the driver and passenger side knuckle support bracket. Locate (4) new 5/16" x 1 3/16" x 2" round u-bolts and (8) new 5/16" flange lock nuts from hardware bag 55900NB2. Also, locate (4) 7/16" x 1 1/2" bolts, (4) 7/16" lock washers and (2) 3/8 x 1 1/2" bolts from hardware bag

55900NB1. Working on the driver side, secure the previously installed ball joint spacer and the knuckle support bracket to the neck of the knuckle using the new 7/16" hardware. Get the 7/16" hardware started but **DO NOT** tighten at this point. Secure the driver side knuckle support bracket to the body of the knuckle using the new 5/16" x 1 3/16" x 2" round u-bolts and hardware but **DO NOT** tighten at this point. Secure the 3/8" x 1 1/2" bolt to the new knuckle support bracket but **do not** tighten at this point. Move back to the new 7/16" x 1 1/2" bolt and hardware and add some loctite and torque to **45 ft lbs.** Then tighten the 3/8" x 1 1/2" bolt until it makes contact with the body of the knuckle. Once the new 3/8" x 1 1/2" bolt makes contact with the knuckle, torque the U-bolts to **24 ft lbs.** Repeat procedure on passenger side.

65. Locate the driver side and passenger side sway bar drop brackets. Also, locate (4) 3/8" x 1" bolt, (8) 5/16" USS flat washers and (4) 3/8" unitorque nuts from hardware bag 55900NB1. Working on the driver side, secure the new driver side sway bar drop bracket to the stock location and secure using the new 3/8" x 1" bolt and hardware. Make sure to use loctite and torque to **32 ft. lbs.** **Special note: once the new sway bar drop bracket is installed, it will move the sway bar down and towards the rear of the vehicle.** Repeat procedure the passenger side.

66. Locate the sway bar and the OE sway bar hardware. Working on the driver side, install the sway bar to the newly installed sway bar drop brackets and secure using the stock hardware. Make sure to use loctite and torque to **18 ft lbs.** Repeat procedure on the passenger side.

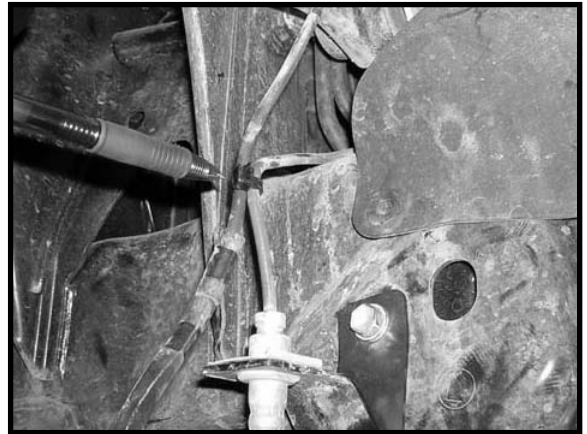


67. Locate the sway bar end link hardware. Working on the driver side, install the sway bar to the sway bar end link position and secure using the stock hardware. Make sure to use loctite and torque to **18 ft lbs.** Repeat procedure on the passenger side.

68. Locate (2) BLR01 front brake line relocation brackets from hardware bag 55900NB2. Locate (2) 5/16" x 3/4" bolts, (4) 1/4" USS flat washers and (2) 5/16" unitorque nuts from hardware bag 55900NB1. Also, locate the stock brake line bracket hardware. Working on the driver side, attach the new brake line relocation bracket to the frame location and secure using the stock hardware. **Do not tighten at this point.** Now attach the stock brake line bracket to the newly installed brake line relocation bracket using the new 5/16" x 3/4" bolt and hardware. Make sure to use loctite and torque to **14 ft lbs.** Add some loctite to the stock bolt holding the new brake line relocation bracket to the frame location and torque to **12 ft lbs.** Repeat procedure on the passenger side.



69. Locate the (2) zip ties from hardware bag 55900NB2. Working on the driver side, zip tie the stock brake line and the stock ABS lines together. Cut off the excess part of the zip tie. Repeat procedure on the passenger side.



70. Locate the stock skid plate. Place the skid plate flat on a work bench. Working on the driver side of the skid plate, measure from the leading edge of the skid plate towards the back of the skid plate 1 1/4" and scribe a mark with white out or a white marker. Now measure 1 1/2" from the leading edge towards the inside of the vehicle and scribe a mark. Repeat procedure on the passenger side of the skid plate. With a suitable cutting tool, carefully notch out the skid plate on the lines that were scribed earlier in this step.



71. Locate the stock skid plate hardware. Install the modified skid plate into the OE location and secure using the hardware. Make sure to use loctite and torque to **18 ft lbs.**



72. Working on the driver side, install the tires and wheels. Repeat procedure on passenger side.

73. Check and double check again to make sure that all steps were performed properly. And check them again.

74. Safely lower the vehicle to the ground.

### Front End Installation Complete:

### Rear End Installation:

75. 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 a jack stand on both the driver and passenger side. Next, remove the rear wheels and tires from both sides.

76. Using a pair of hydraulic floor jacks, place one hydraulic floor jack on the driver side of the rear axle and one on the passenger side.

77. Working on the driver side, remove the shock from the OE location and discard. Save the hardware. Repeat procedure on passenger side. **Special note: Once this Suspension kit is installed, new longer rear shocks will be needed. Rear shocks are sold separately. If you have not already ordered your new rear shocks, please contact Tuff Country or your local Tuff Country dealer and order the rear shocks. Tuff Country recommends installing a 26" fully extended shock.**

78. Working on the driver side, remove the u-bolts and discard the u-bolts and hardware. Set the lower u-bolt plate aside for later re-installation. Repeat procedure on the passenger side.

79. Working on the passenger side of the rear axle, remove the brake proportioning valve bracket from the OE location and save the hardware.



80. Working on the driver side, remove the emergency brake cable bracket from the bottom of the frame rail. Save the hardware.



81. Carefully lower down on both hydraulic floor jacks at the same time approximately 3.5". Take special care not to kink or over extend any brake lines and/or hoses.

82. Locate the 3" lifted blocks. Working on the driver side, install the new 3" lifted block between the spring assembly and the axle. **Special Note: The new 3" lifted block has a slight taper to it, make sure that when you install the new block that you install it with the taper going towards the front of the vehicle.** Repeat procedure on the passenger side.

83. Locate (4) 9/16" x 2 1/2" x 9 5/8" square u-bolts. Also, locate (8) 9/16" u-bolt high nuts and washers from hardware bag 916NW. Working on the driver side, install the new u-bolts into the OE location and secure using the new high nuts and washers. Torque to 115 ft lbs. **Special Note: Make sure to re-install the stock upper bump stop and lower U-bolt plate into the stock location.** Repeat procedure on the passenger side.



84. Carefully remove the hydraulic floor jacks from under the vehicle.

85. Locate the new BLR09 and the emergency brake cable bracket. Install the new BLR09 to the bottom side of the stock frame rail and secure using the stock hardware. Do not tighten at this point.

86. Locate (1) 5/16" x 1 1/4" bolt, (2) 1/4" USS flat washers and (1) 5/16" unitorque nut from hardware bag 55900NB1. Install the emergency brake line bracket to the newly installed BLR09 and secure using the new 5/16" x 1 1/4" bolt

and hardware. Make sure to use loctite and torque to **18 ft. lbs.** Move back to the hardware attaching the BLR09 to the frame rail and add some loctite and torque to **12 ft lbs.**



87. Locate the new rear brake proportioning valve bracket and the OE hardware. Install the new rear brake proportioning valve bracket into the OE location and secure using the OE hardware. Make sure to use loctite and torque to **12 ft lbs.**



88. Locate (2) 5/16" x 1" bolt, (4) 1/4" USS flat washers and (2) 5/16" unitorque nuts from hardware bag 55900NB1. Secure the OE brake proportioning valve bracket to the newly installed rear brake proportioning valve bracket using the new 5/16" x 1" bolt and hardware. Make sure to use loctite and torque to **16 ft lbs.**



89. Locate the new rear shocks. **Special note: Once this Suspension kit is installed, new longer rear shocks will be needed. Rear shocks are sold separately. If you have not already ordered your new rear shocks, please contact Tuff Country or your local Tuff Country dealer and order the rear shocks. Tuff Country recommends installing a 26" fully extended shock.** Install the new shock boots onto the new shocks. **Special note: The new shock boots are not included with this suspension system and the new shock boots need to be ordered as a separate part #. If you have not already ordered your new shock boots, please feel free to contact Tuff Country or your local Tuff**

**Country dealer and order your new shock boots.** Working on the driver side, install the new shock into the upper location using the new nut and hardware. **Do not tighten at this point.** Repeat procedure on the passenger side.

90. Locate the rear lower shock hardware. Working on the driver side, install the new shock into the lower location using the hardware. Torque the lower hardware to **65 ft lbs.** and torque the upper nut to **18 ft lbs.** Repeat the procedure on the passenger side. **Special note: On some model Tundra's, the lower shock eyelet may need a 3/4" shock bushing. If this is the case on the vehicle you are working on, locate the new 3/4" shock bushings from hardware bag 55900NB2 and install them into the new shocks.**

91. Re-install the wheels and tires.

92. Safely lower the vehicle to the ground.

93. Check and double check again to make sure that all steps were performed properly. And then check again.

**Congratulations, installation complete!**

**Special note: 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.**

**This Suspension System comes with (1) installation manual and some post installation procedure literature and it is the installers responsibility to make sure that the customer receives the post installation procedure literature. If a customer would like a copy of the installation manual, please have them visit our website at [www.tuffcountry.com](http://www.tuffcountry.com). Have them go to the customer care section to download these instructions. If you have any questions, please feel free to call us at (801) 280-2777.**

**If you have any questions or concerns, please feel free to contact Tuff Country or your local Tuff Country dealer.**