| <b>NURR</b><br><b>EZ-RIDETSUSPENSION</b><br>Part # 50965 Uniball upper control arm kit   | Installation Manual<br>Uniball Upper Control Arm Kit<br>1996 - 2004 Toyota Tacoma 4x4<br>1996 - 2002 Toyota 4Runner 4x4<br>1999 - 2006 Toyota Tundra 4x4<br>Part # 50965<br><sub>SS08162018</sub>  |
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| Part #DescriptionQty.50965-01Driver side upper control arm150965-02Passenger side upper control arm150965-03Driver side knuckle support bracket150965-04Pass. side knuckle support bracket150965NBHardware Bag150965NB1Hardware Bag1   | differ from standard cars and/or trucks. Modifications<br>to improve and/or enhance off road performance may<br>raise the intended center of gravity. Extreme caution<br>must be utilized when encountering driving conditions<br>which may cause vehicle imbalance or loss of control.<br>DRIVE SAFELY! Avoid abrupt maneuvers: such as<br>sudden sharp turns which could cause a roll over,<br>resulting in serious injury or death. |
| Congratulations on your selection to purchase a Tuff<br>Country EZ-Ride Suspension System. We at Tuff<br>Country EZ-Ride Suspension are proud to offer a high<br>quality product at the industries most competitive<br>pricing. Thank you for your confidence in us and our<br>product.                | It is the customers responsibility to make sure that<br>a re-torque is performed on all hardware associated<br>with this suspension system after the first 100 miles<br>of installation. It is also the customers responsibility<br>to do a complete re-torque after every 3000 miles or<br>after every off road use.  |
| If you desire to return your vehicle to stock, it is the<br>customers responsibility to save all stock hardware<br>and components.<br>The Tuff Country EZ-Ride Suspension product safety<br>label that is included in your kit box must be installed<br>inside the cab in plain view of all occupants. | After the original installation, Tuff Country EZ-Ride<br>Suspension also recommends having the alignment<br>checked every 6 months to ensure proper tracking,<br>proper wear on tires and front end components. Tuff<br>Country EZ-Ride Suspension takes no responsibility<br>for abuse, improper installation or improper suspen-<br>sion maintenance.  |
| Special note: Before installation begins, it is the customers/installers responsibility to make sure that all parts are on hand.   | Hardware bag 50965NB includes:   |
| Important customer information:  | Part#DescriptionQuantityS10335Uniball adapter sleeve2S10246Uniball mis-alignment sleeve45u-5161142r5/16" x 1 1/4" x 2 round u-bolt49165B9/16" x 5" bolt2   |
| Tuff Country EZ-Ride Suspension highly recommends<br>that a qualified or a certified mechanic performs this<br>installation.<br>It is the responsibility of the customer/installer to wear   | 916UN9/16" unitorque nut212WA1/2" flat washer214UN1/4" unitorque nut214WA1/4" flat washer2516FLN5/16" flange nut8  |
| safety glasses at all times when performing this instal-<br>lation.<br>It is the customers/installers responsibility to read and<br>understand all steps before installation begins.   | 381B3/8" x 1" bolt2Hardware bag 50965NB1 includes:Part#DescriptionQuantity   |
| This vehicles reaction and handling characteristics may  | TC-002Polyurethane bushing8S101409/16" oversize fender washer4S10254.750" x .563" x 1.950" Sleeve4SERT0690° threaded grease fitting4   |

## 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 vehicle with a pair of jack stands. Place a jack stand on both the driver and the passenger side. Next, remove the front wheels and tires from both sides.

Remove the small bolt that holds the ABS brake wire harness to the upper control arms



3. Remove the cotter pin from the upper ball joint castle nut.



4. Remove the ball joint castle nut



5. Using a hammer, carefully strike the outer radius of the

upper control arm to break the taper fit of the upper ball joint loose. You can also use a air hammer with a pickle fork attachment.



Locate and remove the bracket holding the ABS wire to the very top of the steering knuckle

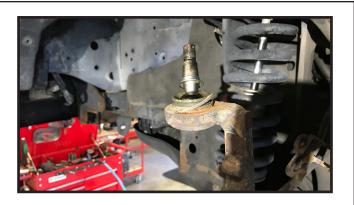




7. Remove the rubber grease boot from the upper ball joints,

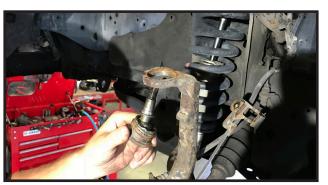


8. Remove the snap ring from the upper ball joints



9. Using an air hammer or ball joint service tool, carefully remove the upper balljoint from the steering knuckles.





10. Carefully remove and save the plastic plugs that are holding the inner fender splash guards in place



the inner fender that could obstruct the bolt from being bolt to 95 ft lbs. completely removed, if you run into this, you will need to unbolt the wire harness bracket temporarily to gain room to remove the bolt.





12. Once the bolt has been removed, go ahead and remove the upper control arms from the vehicle.



13. Locate the new upper control arms, driver side is part # 50965-01 and passenger side is 50965-02. Also locate (8) poly bushings, (4) S10254 crush sleeves, and (4) SERT06 grease fittings from hardware bag 50965NB1. Carefully install the grease fittings into each eyelet of the new control arms. Take extra care to not over tighten these as they are small brass fittings. Make sure they are facing towards the outside of the vehicle for proper greasing access.

14. Install the new poly bushings and crush sleeves into the eylets of the new upper control arms

15. Locate (4) S10140 oversized fender washers from hardware bag 50965NB1, These will be installed in-between the upper control arm mount and the new upper control arm inner bushings. Go ahead and install the new upper control

11. Remove the upper control arm bolt. Special note: some arms at this time using the OE bolt, washers, and nuts, but vehicles may have a wire harness that is attached to making sure to install the new oversized washers. Torque





16. With the new upper control arms installed, Locate the S10335 uniball adapter sleeves from hardware bag 50965NB. Install these into the top of the steering knuckles where the OE ball joints were removed from. Note: It may be necessary to us a file or similar tool to clean up the inside of the OE ball joint hole at the top of the knuckle.







17. Using the photos below as a guide, locate the S10246 uniball mis-alignment sleeves, 9/16" x 5" bolts, 1/2" flat washers, 9/16" unitorque nuts, knuckle support brackets, and install the upper control arms to the steering knuckles. Leave the 9/16" bolt and hardware loose for now.







18. Now locate the  $5/16^{\circ} \times 1 1/4^{\circ} \times 2^{\circ}$  round u-bolts, and  $5/16^{\circ}$  flange nuts. Install the u-bolts around the neck of the steering knuckle and through the support bracket mounting holes. Do not tighten the  $5/16^{\circ}$  flange nuts yet.





19. Move back to the 9/16" x 5" bolts and tighten to **125 ft Ibs.** 



20. Now you can tighten the 5/16" flange nuts so that it closes the gap between the knuckle support bracket and the neck of the steering knuckle.



21. Locate and install the 3/8" x 1" bolts into the center threaded hole of the knuckle support brackets. This bolt is intended to thread in and put pressure against the steering knuckle to prevent the flange nuts from ever loosening. Torque the 3/8" bolt to **25 ft lbs.** 





22. Re-install the ABS wire harnes bracket over the welded on bolt on the new upper control arms. Secure using the new 1/4" nut, and 1/4" flat washers from hardware bag 50965NB.



23. Locate the OE ABS wire bracket that was removed from the steering knuckle in Step #6. Using a flat screwdriver, carefully pry open the bracket and remove it from the ABS wire. **Take extra care to not damage the wire.** 



24. At this time, using a grease gun, apply grease to the 4 grease fittings located at each upper control arm eyelet. We recommend greasing until you start to see greas squeeze out of the bushings.

25. Re-install the inner fender splash guards using the OE plastic plugs.

26. Re-install the tires and wheels and carefully lower the vehicle back down to the ground.

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.

