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**1998-07 Toyota Land Cruiser / LX470 OME Suspension Installation Instructions**  
(Preliminary)

Qty	Parts Included	Tools/ Materials Suggested
2	Front Torsion Bars	Basic Mechanic Tools
2	Front Shocks	Metric Sockets and Wrenches
2	Rear Springs	30MM Socket
2	Rear Shocks	Jack
1	Slee Off Road 100 Series Diff Drop Kit	Paint Marker

Thank you for your purchase from Slee Off-Road! If you should you have any questions or concerns, please do not hesitate to contact us immediately at 1 888 4X4 SLEE or at [info@sleeoffroad.com](mailto:info@sleeoffroad.com).

Slee Off Road strives to provide comprehensive installation instructions. However, in some circumstances minor inconsistencies may be encountered with instructions and or provided parts. If you encounter such an inconsistency, please notify us, as your input is important.

**Disclaimer; the following suspension installation was completed with the use of an Automotive lift. Always take necessary precautions when completing any automotive repair and or installation or serious injury and or death may occur.** Slee Off-Road and Slee & Co under no circumstances will be held liable for any damages to the user(s) and or their equipment as a result of information obtained within these instructions. The following information is intended as general guide to assist the purchaser and isn't a replacement for a factory repair manual. If the user is unfamiliar and or uncomfortable with steps outlined in this manual, the user should seek out a professional for installation. *Insure all parts are present and are ready for installation prior to beginning the installation process.* Always torque all bolts and or nuts removed to OEM Toyota Torque Specifications. Also, always replace any damaged hardware as necessary with OEM parts.

**Please Note;** An Alignment and (a Zero Point calibration with vehicles equipped with VSC) are required immediately after the suspension has been installed.

1. Start by lifting the vehicle safely on a flat surface. Remove all wheels including the Spare Tire. Support vehicle by the frame rails.

**Hint;** Take pre and post measurements of the vehicle height. Measure from the center of the wheel or hub to the bottom of fender opening. Record your findings for all four corners.



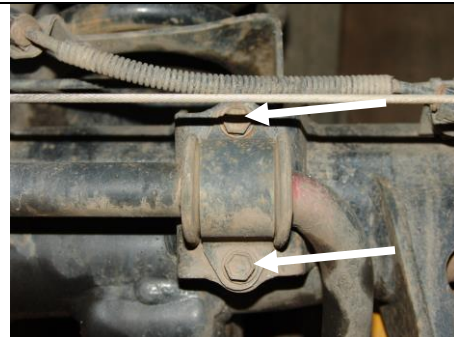
Recording measurements **(Step 1)**

2. Beginning with the rear suspension, properly support the axle housing.



Support the rear axle **(Step 2)**

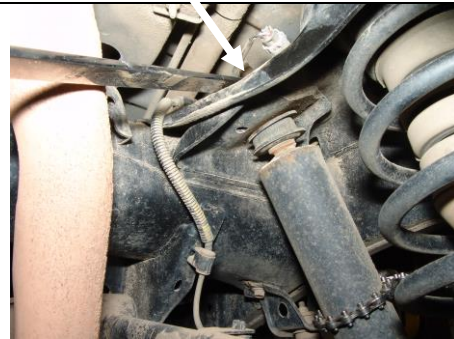
3. Disconnect the sway bar by removing the two brackets (four bolts) on the axle housing.



Remove sway bar bolts **(Step 3)**

4. Remove the shock top nut. It may be necessary to hold the shock body stationary to keep it from rotating. Remove lower bolt and remove shock.

*Remove the shock and coil one side at a time.*



Arrow indicates shock top nut **(step 4)**

5. Allow the rear axle to safely/ slowly droop allowing removal of the coil spring. If necessary, pry or pull down on the housing to unseat the spring. The springs should be removed with minimal effort.

**Note;** Use caution as not to overly extend and or damage any ABS or Brake lines. Install the new coil spring. Ensure proper placement of the upper and lower spring perches. Rotate if necessary to properly seat.

**Note;** Some coil spring applications include a short and long spring. The longer spring installs on the driver's side of the vehicle.



Install the OME Coil **(Step 5)**

6. Install the shock with included bushings (see photo for bushing/washer orientation). The index washers must be properly seated in the mounting hole (with the "steps" facing each other). Repeat steps 4-6 for opposite shock and spring installation.

**Note;** It will be necessary to use a jack to raise the rear axle to align the lower shock eyelets.



Washer, bushing and nut orientation **(Step 6)**

7. Install sway bar and bracket(s). It will be necessary to use a jack to lift sway bar into the proper location.

**The rear suspension is now complete.**



Install the sway bar brackets **(Step 7)**

8. **Proceed to the front suspension installation.**

Remove the front splash pan.



Remove front splash pan (**Step 8**)

9. Remove the rear splash pan.



Remove rear splash pan (**Step 9**)

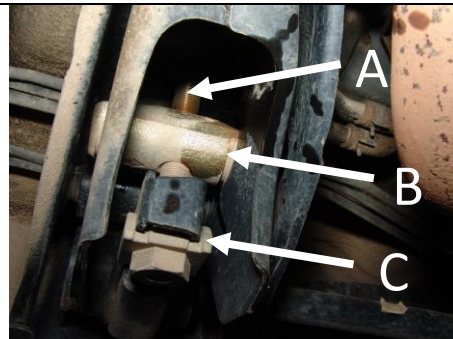
10. Install the Slee Differential Drop. Please reference the included installation instructions for the Slee Differential Drop.



Install Slee Diff Drop (**Step 10**)

11. Remove the Torsion Bar adjustment bolt using a 30MM Socket.

**Note;** Notice the order and orientation of Adjustment Bolt (A), the Anchor Arm Seat (B), and the Anchor Arm Swivel(C). This will be useful for reassembly.



Remove the adjustment bolt (**Step 11**)

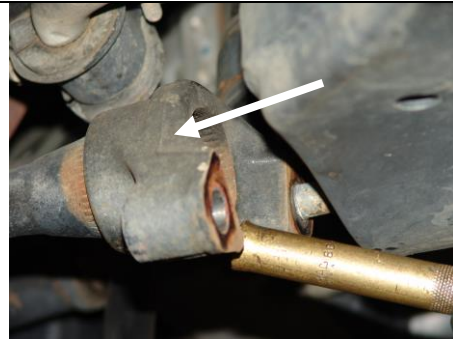


12. Remove the two nuts attaching the Torque Arm to the lower control arm.



Arrow indicates Torque Arm **(Step 12)**

13. Remove the outer mounting bolt allowing the Torque Arm to swing free. Using a Brass Drift or similar, slide the Torque Arm further on the torsion bar (towards rear of vehicle) until it clears the second mounting bolt.



Slide Torque Arm **(Step 13)**

14. Remove the Torsion Bar from the rear mounting bracket (Anchor Arm). It may be necessary to use a Brass Drift or similar to remove the Anchor Arm.



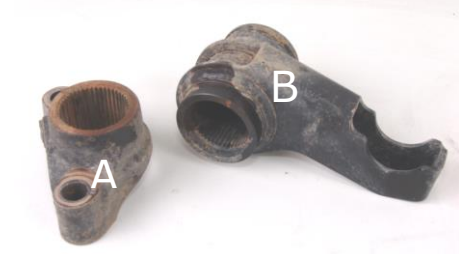



Removing the Anchor Arm **(Step 14)**

15. With the torsion bar free from the vehicle, remove the torque arm.



Remove the remaining Torsion Bar Bracket **(Step 15A)**

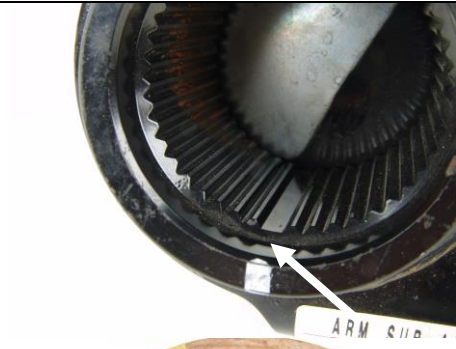
*(Step 15 Continued)* Retain Parts as shown.

	 <p>Parts to retain (A) Torque Arm and (B) Anchor Arm <b>(Step 15B)</b></p>
<p>16. Remove the front shock by first removing top nut, then lower bolt and nut (as shown in step 16). Compress the shock and remove.</p> <p><b>Hint;</b> The lower shock mounting bolt is removed by loosening the bolt and not the nut. The nut has "serrations" on the face locking it in place.</p>	 <p>Remove shock, top nut first <b>(Step 16)</b></p>
<p>17. Install the shock with included bushings (see photo for bushing/washer orientation). The index washers must be properly seated in the mounting hole (with the "steps" facing each other).</p>	 <p>Washer, bushing and nut orientation <b>(Step 17)</b></p>
<p>18. Install front shocks in the reverse order as removed. A wrench can be used to hold the shaft stationary to properly tighten the nut (photo 18A). Install lower bolt and nut to complete shock installation.</p> <p><b>Hint;</b> The shocks must be installed prior to the installation of the Torsion Bars.</p>	 <p>Tightening top strut bolt <b>(Step 18A)</b></p>

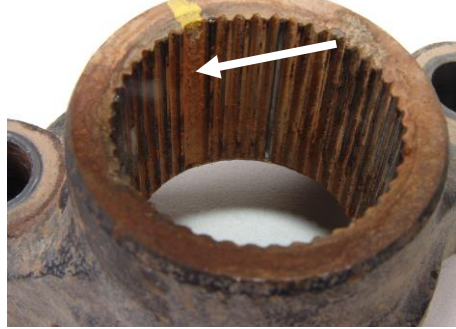


Installing shock **(Step 18B)**

19. Examine Torque Arm and Anchor Arm. Mark absent or "master" spline on each.



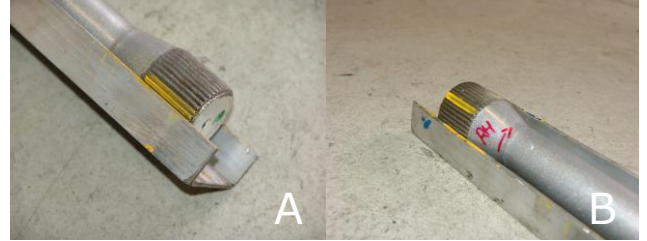
Mark Torque Arm **(Step 19A)**



Mark Anchor Arm **(Step 19B)**



20. Mark the Torsion Bars using 1x1" angle iron or straight edge as a guide. (photo 20A)  
Starting with one end of the **RH** Torsion Bar, mark any of the spline valleys as a reference point. On the opposite end, mark five spline valleys in a **clockwise** direction. (Direction of red arrow in photo 20B).

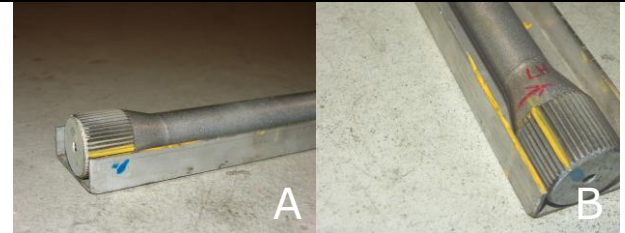


Mark the RH Torsion Bar. Advance five Spline valleys on opposite end and mark (**Step 20**)

21. Place the **LH** Torsion Bar against the guide and mark one end with a reference point. Mark opposite end five valleys in a **counter clockwise** direction (Direction of red arrow in photo 21B).

Reference photo 20C to verify your markings on both Torsion Bars are correct.

*Torsion Bars are side specific and are marked by OME accordingly (front to rear and rear to front isn't specific).*



Mark the LH Torsion Bar. Advance five Splines valleys on opposite end and mark (**Step 21**)



RH and LH Torsion Bars marked (**Step 20C**)



22. Position the Anchor Arm and torsion bar by aligning the marks made previously (photo 22A).

Slide the Torque Arm (photo 22B) onto the opposite end of the Torsion bar aligning previously made marks. Attach Torque Arm to control arm using original hardware and hand tighten.

Install Adjustment Bolt ensuring proper orientation and position of Adjustment Bolt, the Anchor Arm Seat, and Anchor Arm Swivel as noted in Step 13. Only hand tighten at this time.

Tighten Torque Arm to control arm hardware to 166 Ft.-lbs.

Tighten the Adjustment Bolt with *some* preload to the Torsion Bar. Final adjustment will be made later "Adjusting Torsion Bars Properly (Droop), page 10."



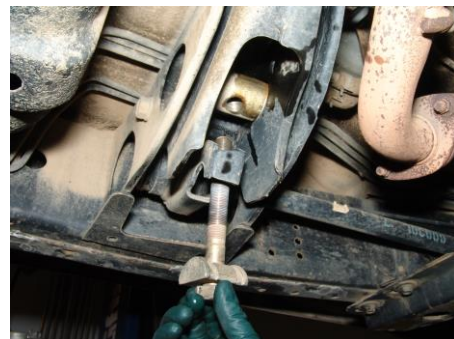
Torsion Bar Anchor Arm positioned (**Step 22A**)



Install Torque Arm (**Step 22B**)



Torque Arm shown in place



Install Adjustment Bolt (**Step 22C**)

**23. The front Torsion Bars and shock installations are now complete.**

24. Install wheels and Torque to factory specifications.

25. Verify the entire installation and insure all bolts and nuts have been properly Torqued to factory specifications. Record post vehicle height measurements as performed in step one.

**Hint;** Side to side height adjustments are made by adjusting anchor arm bolts with suspension extended (wheels off the ground).

**Do not adjust the torsion bars with the vehicles wheels on the ground.**



Torsion Bar Adjustment Bolt (Step 25)

### Adjusting Torsion Bars Properly (Droop)

Once the entire installation is complete the droop must be checked for proper vehicle height. The first measurement should be taken at ride height (all the vehicle weight is on the wheels - photo A). The second measurement should be taken with the wheels off of the ground (suspension fully extended - photo B).

Subtract the first measurement from the second measurement; the difference is the amount of droop or down travel. We prefer a minimum of 50MM to 60MM of downward travel (droop). This is the **maximum** vehicle height; however a lower height may be desired. Perform any adjustment(s) with the Torsion bar Adjustment Bolt as necessary. Tighten the Torsion Bar Adjustment Bolt to raise the vehicle (less droop). Loosen the Adjustment Bolt to lower the vehicle (more droop). Excessive vehicle height will not allow for a proper alignment causing instability such as wandering, torque steer and pulling.

**Important;** all torsion bar adjustments must be done with the vehicle completely raised off the ground and the front suspension hanging. *Do not* adjust the torsion bars with the vehicles wheels on the ground.

While completing the height adjustments on the suspension, it may be necessary to re-clock one or both of the torsion bars. This is required if the Adjustment Bolt runs out of thread or hangs below the frame. Final desired lift height is achieved with a minimum 50MM to 60MM of droop.



**Hint;** you may also refer to OME's guidelines for Torsion Bar adjustments (posted on [http://www.sleeoffroad.com/installation/torsionbar\\_adjustment.pdf](http://www.sleeoffroad.com/installation/torsionbar_adjustment.pdf)).

An Alignment and Zero Point calibration (vehicles equipped with VSC) are required immediately after the suspension has been installed.

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