



# INSTALLATION INSTRUCTIONS



**COMPONENT: UPPER CONTROL ARMS  
2022+ LAND CRUISER 300 SERIES  
2023 LEXUS LX600**

**PART #: 89500**

PART #	DESCRIPTION	QUANTITY
87504-L	LEFT UPPER CONTROL ARM	1
87504R	RIGHT UPPER CONTROL ARM	1
*FK-WSSX16T-1	1" UNIBALL (STAINLESS) W/ PTFE LINER	2
*30604	SNAP RING / 1" UNIBALL	2
*100916	SPACER - 1" - 9/16" HI-MISALIGNMENT	2
*10034-TCF	SPACER - 3/4" HI-MISALIGNMENT	2
60684	BUSHING - URETHANE HALF	8
69707	INNER SLEEVE	4
10619	BOLT - 14MM - 2.0 X 120MM GRADE 12.9	2
12203	WASHER - 9/16" AN (ZINC)	2
30009	TAPERED SPINDLE ADAPTER: 9/16" ID	2
12205	WASHER: 9/16" USS GRADE 8 (ZINC)	2
11141	NUT - 14MM - 2.0 FLANGE NYLOCK (ZINC)	2
10005	ZERK FITTING: 1/4"-28 90 DEGREE	5
69720	WASHER - PLATED PIVOT END	8
<b>*THESE PARTS ARE PRE-INSTALLED IN THE UCA</b>		

## REQUIRED TOOLS

- 22mm Wrench or Socket
- Dead Blow Hammer
- Hammer
- 10mm Socket
- Needle Nose Pliers
- Flush Cuts

## IMPORTANT

- Before starting install, make sure the vehicle is supported securely on jack stands.
- Apply generous amounts of grease to the outside of sleeves, outer face of urethane bushings and I.D. of the urethane bushings prior to install.
- When installing the zerk fittings take care not to over tighten them as they are hollow and can snap off. When fully installed they will not sit all of the way flush with the pivot, just insert them two or three rotations until they are snug. Don't forget to have them pointing in the right direction so you can get a grease gun onto them once the arms are installed onto the vehicle.
- If excess powder coat is in the zerk holes, re-tap using a 1/4"-28 tap to clean up the threads.

**STEP 1**

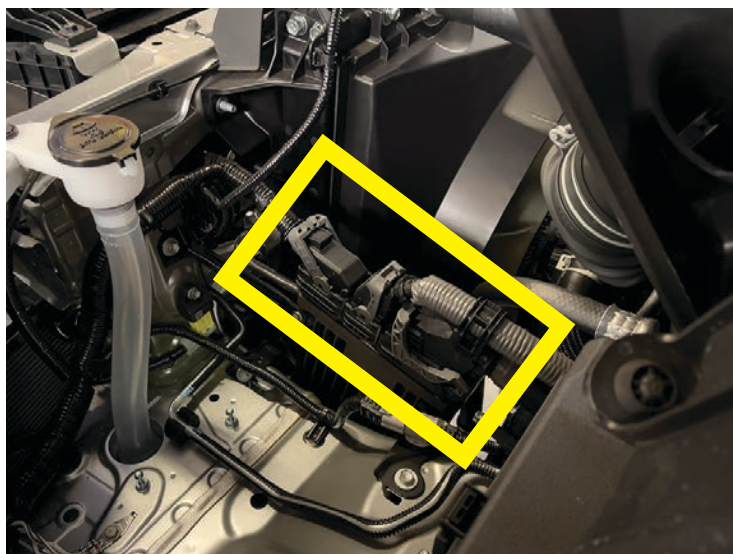
Remove airbox cover and flex it toward the brake master cylinder and either wedge it or strap it near the brake master cylinder.

**STEP 2**

Pull up on the bottom portion of the airbox. Its held in with rubber grommets and will “pop” off of the posts that are attached to the wheel well. Remove the air box from the engine compartment.

**STEP 3**

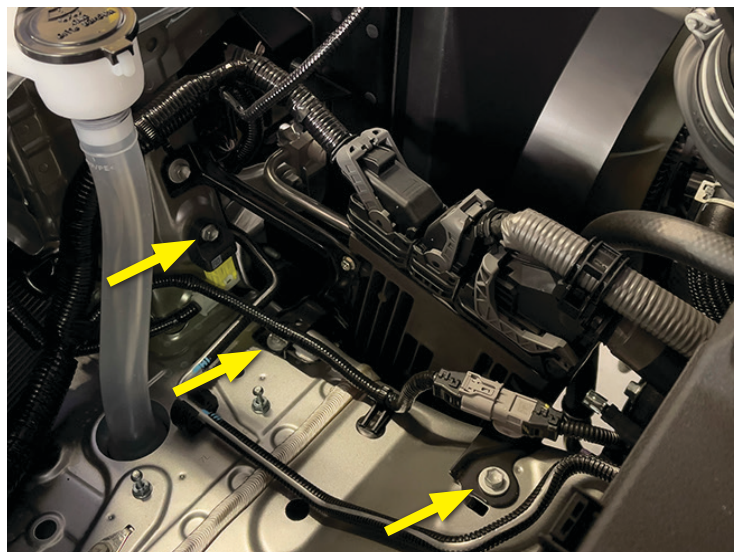
Next to the air box there is a computer with three large connectors. Flip down the three grey levers that secure the plugs to the computer and disconnect them from the computer.





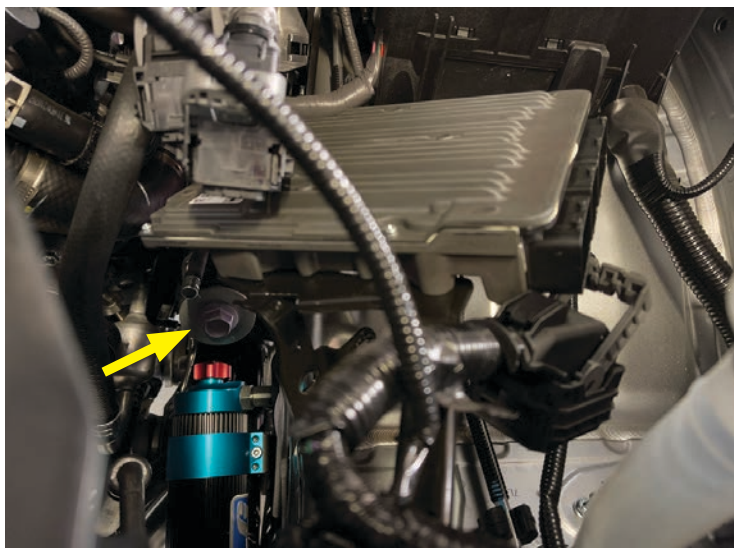
#### **STEP 4**

Remove the three 10mm bolts that secure the computer to the core support.



#### **STEP 5**

Maneuver the computer up and out of the way of where the UCA through bolt will travel when it is sliding forward out of the coil bucket.



## STEP 6

In the fender well remove the top clip and bottom rear clip from the small front flap (marked FL) which will let the front flap hang down and out of the way.



## STEP 7

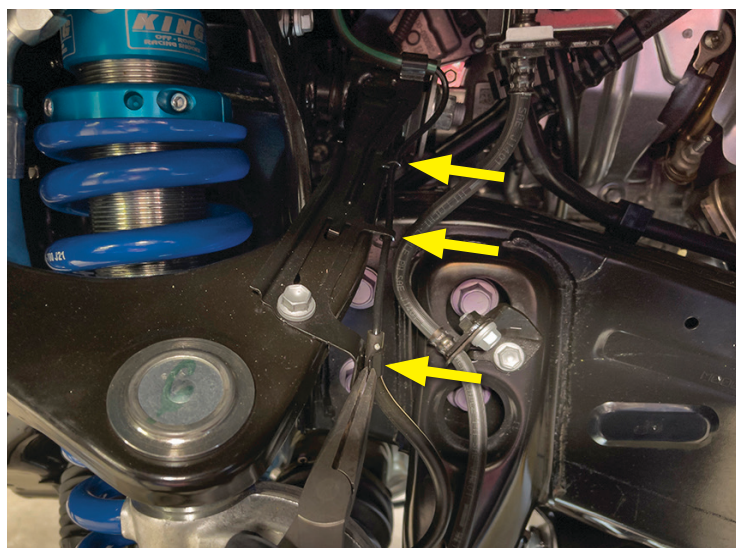
The rear harder plastic flap will need to have all five clips removed so that the entire flap can be removed making access to the suspension components much easier.





## STEP 8

Use a pair of needle nose pliers to pry open the stock ABS wire routing mounts and remove the wire from the mounts. This will need to be done in three places.



## STEP 9

Remove the cotter pin from the stock ball joint stud and use a 22mm wrench or socket to loosen the castle nut. Do not remove the nut, just loosen it.



## STEP 10

Strike the side of the steering knuckle until the taper breaks free, then remove the castle nut. It may be necessary to secure the steering knuckle with a tie strap so it doesn't fall outwards and risk popping the inner CV joint out of the socket.



## STEP 11

Use a 22mm wrench or socket to loosen and remove the upper control arm mounting bolt along with the control arm and factory washers.





### **STEP 11 CONTINUED**

Slide the through bolt towards the front of the vehicle for removal.



### **STEP 12.1**

Insert dry bushings into the TOTAL CHAOS upper control arm pivots.

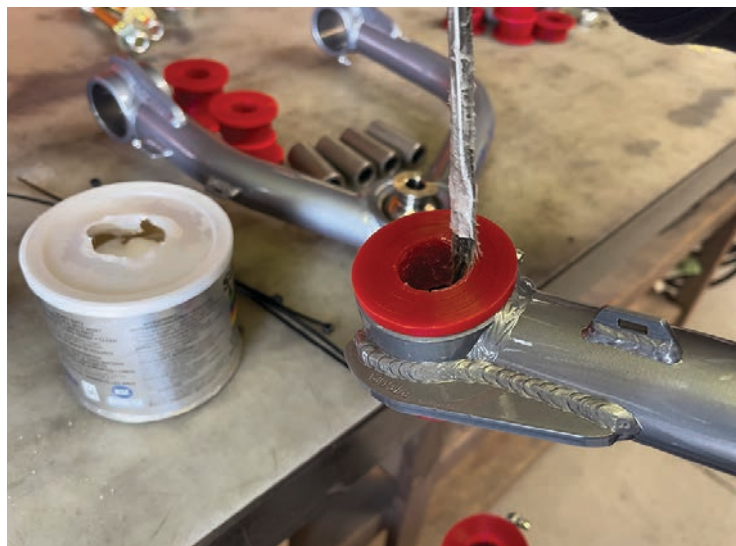




### **STEP 12.2**

Apply synthetic grease to the inside of the pivot bushings.

**Note:** We recommend using 'Super Lube Synthetic Multi-Purpose Grease PN: 41150' for all bushing prep and ongoing maintenance.



### **STEP 12.3**

Use a deadblow hammer to install the inner sleeves into the bushing pivots. Wipe away any excess grease that is pushed out of the other side.



### **STEP 12.4**

Make sure that the outside of the bushing "hats" that contact the large washers have ample amount of grease.



### **STEP 13**

Insert the tapered adapter into the steering knuckle where the upper ball joint was removed.



### **STEP 14**

Install the first washer onto the mounting bolt and slide the bolt through the front UCA pivot and just through the second washer.



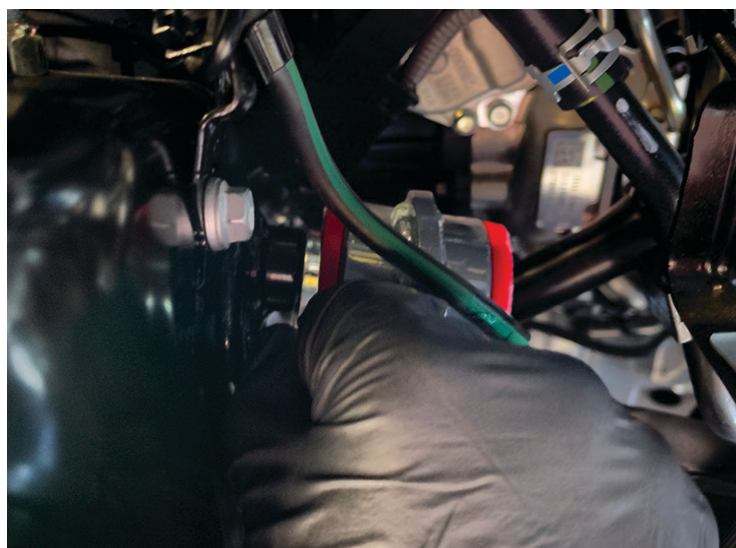


**STEP 15**

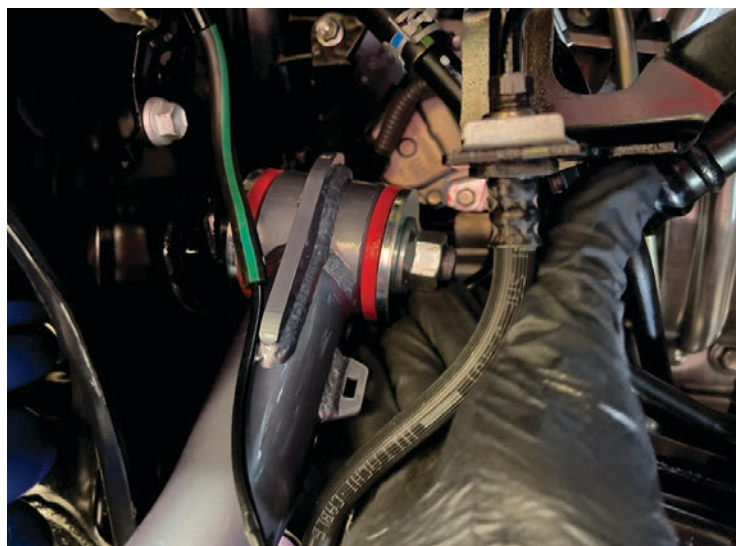
Position the UCA into place so that the bolt can slide through the mount on the frame.

**STEP 16**

Place the third plated washer between the frame and UCA bushing and slide the bolt through the rest of the UCA.

**STEP 17**

Install the last washer and factory nut.





### **STEP 18**

Move the steering knuckle into place, then place the UCA down onto the top of the tapered adapter so that the lower misalignment spacer registers onto the top of the tapered adapter.



### **STEP 19**

Put one AN washer onto the 9/16" bolt then slide the bolt through the uniball assembly and steering knuckle.

**Note:** A dead blow hammer may be necessary to get the bolt through.



### **STEP 20**

With the bolt through the knuckle, you'll notice a step on the bottom of the knuckle where the 9/16" bolt comes through the steel sleeve.

Use the smaller 9/16" AN washer to take up the step, then use the larger USS washer below the AN washer before threading on the C-lock nut.



## STEP 21

Make sure that the upper & lower misalignment spacers and tapered spindle adapter are fully seated before tightening the bolt. Failure to do so may result in a cracked or broken spacer or adapter.

Torque the C-lock nut to 90 ft/lbs.



## STEP 22

Tighten the UCA frame through bolt and torque the nut (not the long bolt) to 136 ft/lbs. per factory spec.

**Note:** Before tightening the through bolt, use a grease gun to lubricate the bushings via the zerk fittings on each pivot.



## STEP 23

Use zip-ties to secure the ABS wire to the tabs on the UCA.



**STEP 24**

Reverse steps 1-7 to properly re-install the fender liners, computer and air box.

**Note:** Steps 1-5 will not be necessary for passenger side UCA installation.

## **CONGRATS! YOUR UCA'S ARE READY TO GO!**

- An alignment will be required after installation is complete.
- Re-torque all hardware after the first 500 miles.
- Re-greasing is required every 3,000-5,000 miles to maximize bushing life and keep noise down.
- The uniballs will be tight at first and require a break-in period to loosen up. This break-in period may last up to 5,000 miles so do not be alarmed if steering feels stiff or is slow to return to center. Periodically apply a dry PTFE-based lubricant such as Tri-Flow Superior Dry Lube.



### **FOR INSTALL QUESTIONS OR CUSTOMER SERVICE INQUIRIES:**

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