



# INSTALLATION INSTRUCTIONS



**COMPONENT: UPPER CONTROL ARMS**

**PART #: 96524**

**FITS:**

**2024+ TOYOTA TACOMA**

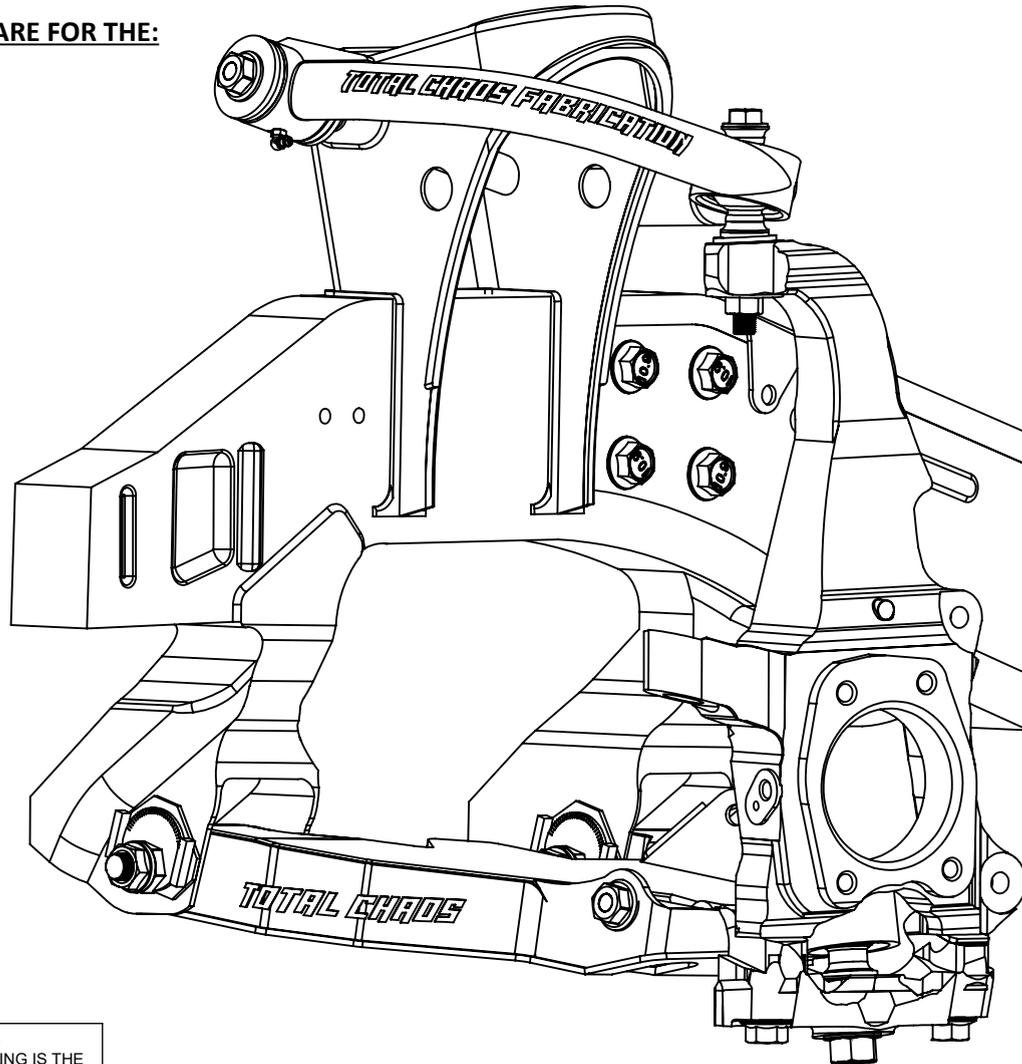
**2025+ TOYOTA 4RUNNER**

**2024+ TOYOTA LAND CRUISER 250**

**2024+ LEXUS GX550**

**INSTALLATION DRAWINGS ARE FOR THE:**

- 2024+ TACOMA
- 2024+ LAND CRUISER 250
- 2025+ 4RUNNER
- 2024+ GX 550

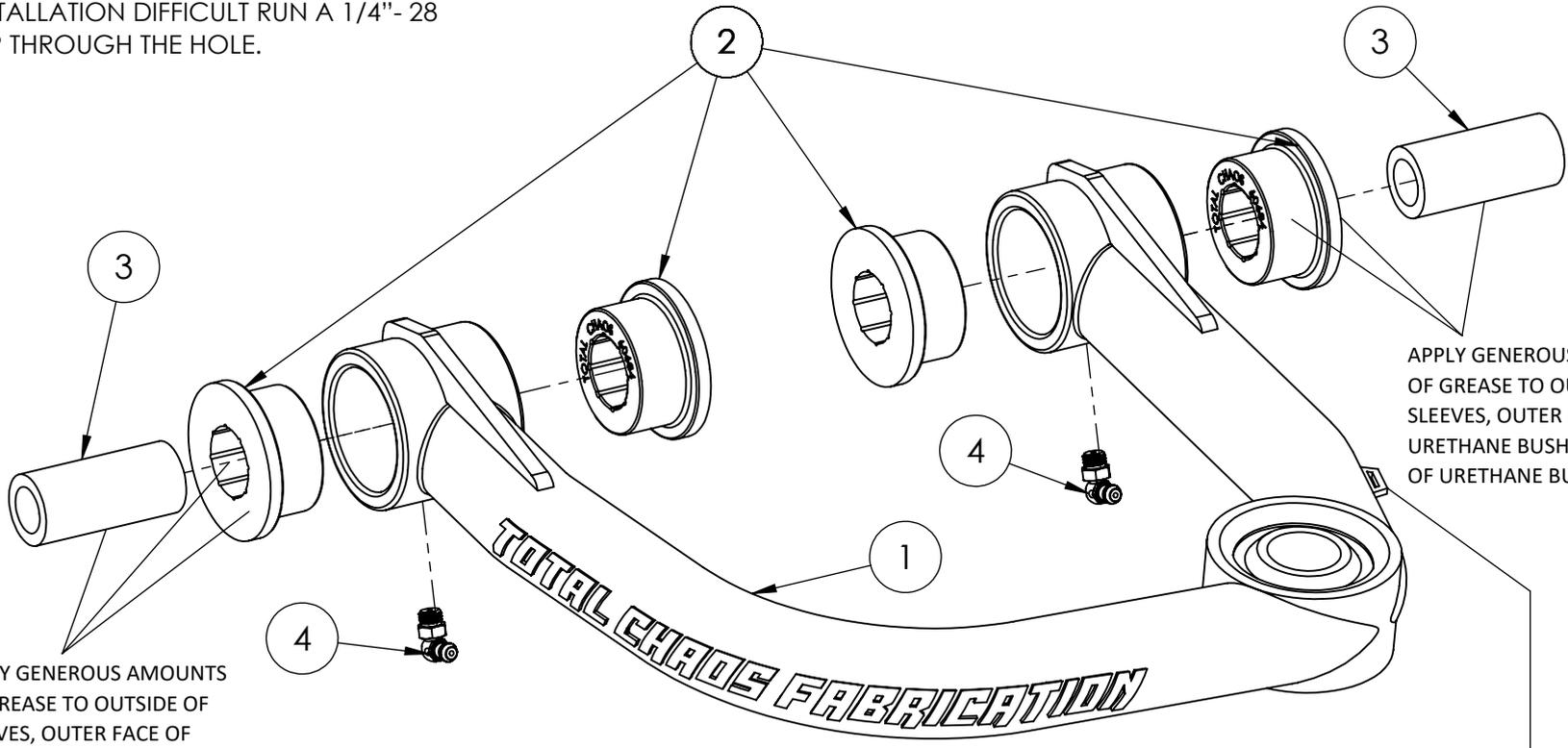


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\*LEFT SIDE OF TRUCK SHOWN. SOME ITEMS NOT SHOWN FOR CLARITY

ZERK FITTING HOLES ARE TAPPED 1/4"- 28.  
IF THE POWDERCOAT BUILDUP IS MAKING  
INSTALLATION DIFFICULT RUN A 1/4"- 28  
TAP THROUGH THE HOLE.



APPLY GENEROUS AMOUNTS  
OF GREASE TO OUTSIDE OF  
SLEEVES, OUTER FACE OF  
URETHANE BUSHINGS & I.D.  
OF URETHANE BUSHINGS.

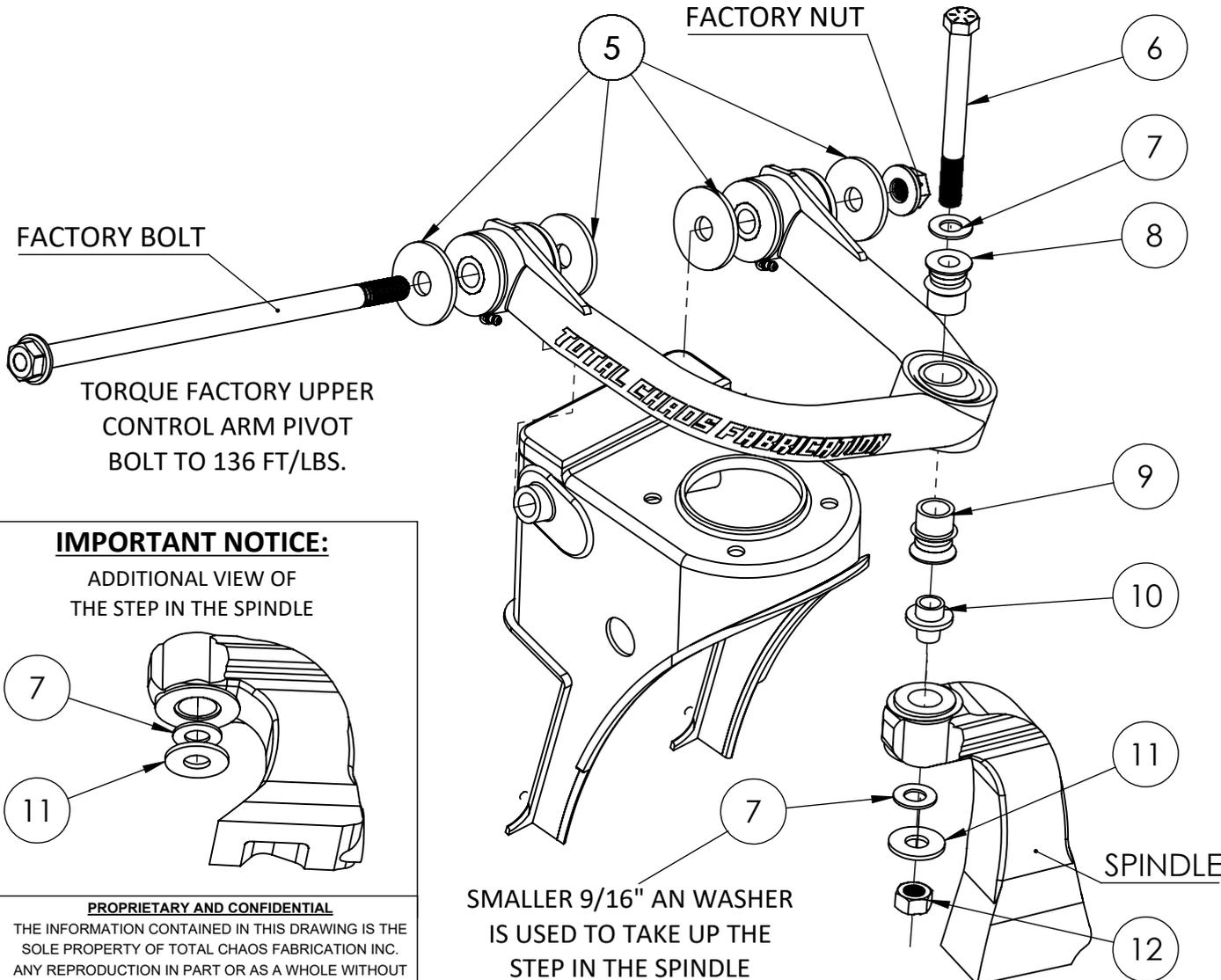
APPLY GENEROUS AMOUNTS  
OF GREASE TO OUTSIDE OF  
SLEEVES, OUTER FACE OF  
URETHANE BUSHINGS & I.D.  
OF URETHANE BUSHINGS.

REMOVE THE STOCK METAL BRACKET  
FROM THE ABS WIRE BEFORE SECURING  
IT TO THE TAB ON THE REAR TUBE OF  
THE UCA USING A ZIP-TIE.

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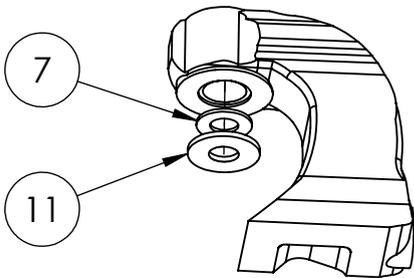
FACTORY BOLT

TORQUE FACTORY UPPER CONTROL ARM PIVOT BOLT TO 136 FT/LBS.

FACTORY NUT

**IMPORTANT NOTICE:**

ADDITIONAL VIEW OF THE STEP IN THE SPINDLE



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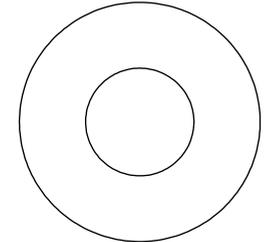
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SMALLER 9/16" AN WASHER IS USED TO TAKE UP THE STEP IN THE SPINDLE

**IMPORTANT NOTICE:**

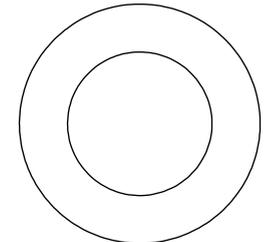
DURING ASSEMBLY, UPPER & LOWER SPACERS ARE SPECIFIC. FAILURE TO FOLLOW THESE INSTRUCTIONS WILL RESULTS IN DAMAGE OF ALL COMPONENTS.

UPPER SPACER HAS 9/16" HOLE



#8

LOWER SPACER HAS 3/4" HOLE



#9

WHEN ROTATING THE UCA DOWN TO MATE UP TO THE SPINDLE, ENSURE THE HI-MISALIGNMENT SPACERS STAY FULLY SEATED IN THE UNIBALL. DAMAGE MAY OCCUR IF THEY ARE ONLY PARTIALLY SEATED WHILE THE UNIBALL BOLT IS BEING TIGHTENED.

SPINDLE

\*LEFT SIDE OF TRUCK SHOWN. SOME ITEMS NOT SHOWN FOR CLARITY

**INSTALLATION NOTES:**

- THE FACTORY MANUAL IS REQUIRED FOR TORQUE SPECIFICATIONS ON ALL FACTORY HARDWARE. THIS PROCEDURE WILL INVOLVE THE REMOVAL AND RE-INSTALLATION OF MANY PARTS. ALWAYS USE FACTORY REPLACEMENTS FOR WORN OR DAMAGED PARTS
- SOME ITEMS ARE NOT SHOWN FOR CLARITY
- **PAGE 2:** APPLY GENEROUS AMOUNTS OF GREASE TO OUTSIDE OF SLEEVES, OUTER FACE OF URETHANE BUSHINGS & I.D. OF URETHANE BUSHINGS
- **PAGE 3:** TORQUE ITEM #6 TO 90 FT/LBS
- INSPECT ALL COMPONENTS AND RE-TORQUE ALL HARDWARE WITHIN 500 MILES

TOTAL CHAOS FABRICATION  
 159 N. MAPLE ST. UNIT J  
 CORONA, CA 92878  
 951.737.9682

<b>PARTS LIST: TC-96524 UPPER CONTROL ARM</b>			
ITEM #	PART #	QTY	ITEM DESCRIPTION
1	87504-L	1	LEFT UPPER CONTROL ARM
	87504-R	1	RIGHT UPPER CONTROL ARM
2	60684	8	BUSHING - URETHANE HALF
3	69707	4	INNER SLEEVE
4	10005	4	FITTING - GREASE (ZERK)
5	69720	8	WASHER - PLATED PIVOT END
6	10255	2	BOLT - 9/16" x 5.50"
7	12203	4	WASHER - 9/16" AN
8	100916	2	SPACER - 9/16" MISALIGNMENT
9	10034-TCF	2	SPACER - 3/4" MISALIGNMENT
10	30009	2	ADAPTER - 9/16" TAPERED SPINDLE ADAPTER
11	12205	2	WASHER - 9/16" USS
12	11202	2	NUT - 9/16" C-LOCK

<b>UCA MAINTENANCE REBUILD KITS</b>		
PART #	QTY	DESCRIPTION
FK-REP-KIT	1	1" STAINLESS UNIBALL AND SNAP RING REPAACEMENT KIT (PAIR)
69000	1	POLYURETHANE BUSHING KIT UCA (8 BUSHING HALFS)
96006-ALU	1	ALUMINUM UNIBALL PRESS TOOL
TC-G1	1	HUSH BUTTER SYNTHETIC BUSHING GREASE W/PTFE 14OZ

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PART #	DESCRIPTION	QUANTITY
87504-L	UPPER CONTROL ARM: LEFT	1
87504-R	UPPER CONTROL ARM: RIGHT	1
*FK-WSSX16T-1	1" UNIBALL (STAINLESS) W/ PTFE LINER	2
*30604	SNAP RING / 1" UNIBALL	2
*100916	SPACER - 1" - 9/16"	2
*10034-TCF	SPACER - 1" - 3/4" HI-MISALIGNMENT	2
60684	BUSHING - URETHANE HALF	8
69707	INNER SLEEVE	4
10255	BOLT - 9/16" - 18 x 5.50" GRADE 8 (ZINC)	2
12203	WASHER - 9/16" AN (GOLD ZINC)	4
30009	TAPERED SPINDLE ADAPTER: 9/16" ID	2
12205	WASHER: 9/16" USS (GOLD ZINC)	2
11202	NUT - 9/16" - 18 C-LOCK (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**

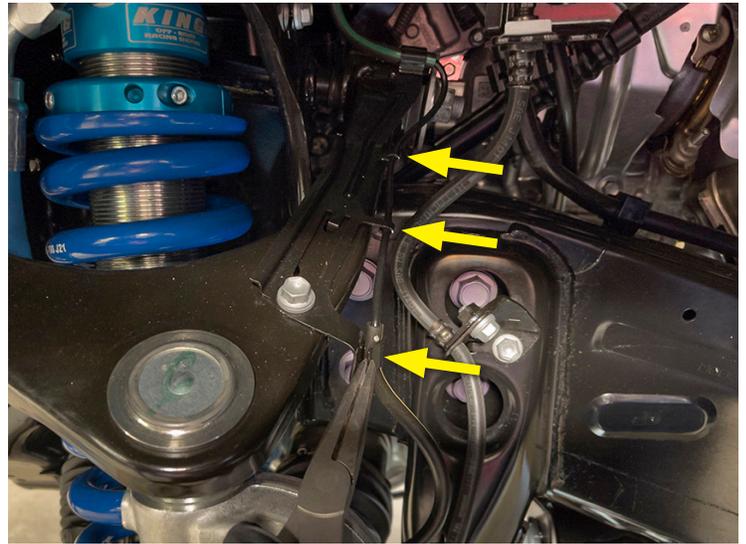
- 10mm Socket
- 14mm Deep Socket
- 22mm Wrench or Socket
- Needle Nose Pliers
- Dead Blow Hammer
- Hammer
- Pick
- Pry Bar
- Flush Cuts

### **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**

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.

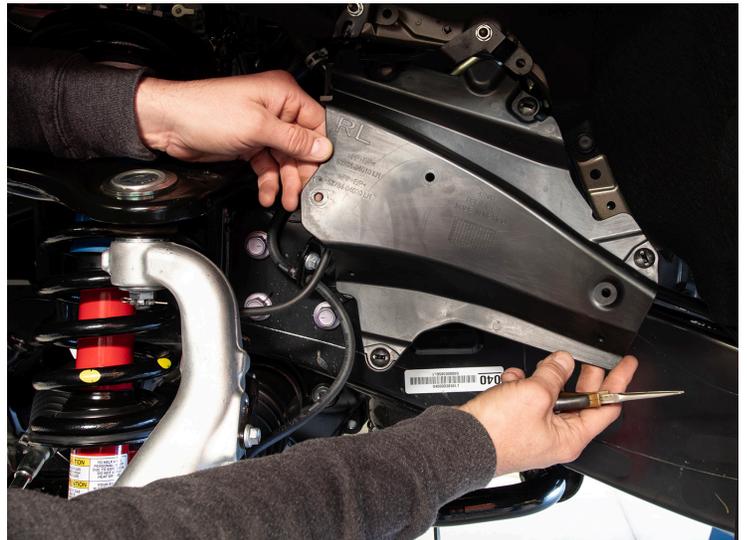
**STEP 2**

Use needle nose pliers to remove the plastic fender liner clips.



### **STEP 3**

Once the clips are pulled, remove the front and rear plastic guards to allow easier access to the suspension components.



### **STEP 4**

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 5**

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 6**

Using a small pick, unclip the snap ring that connects the intake charge tube to the intercooler. The two ends of the snap ring are on top of the fitting and need to be "picked" up and over which will release the charge tube.



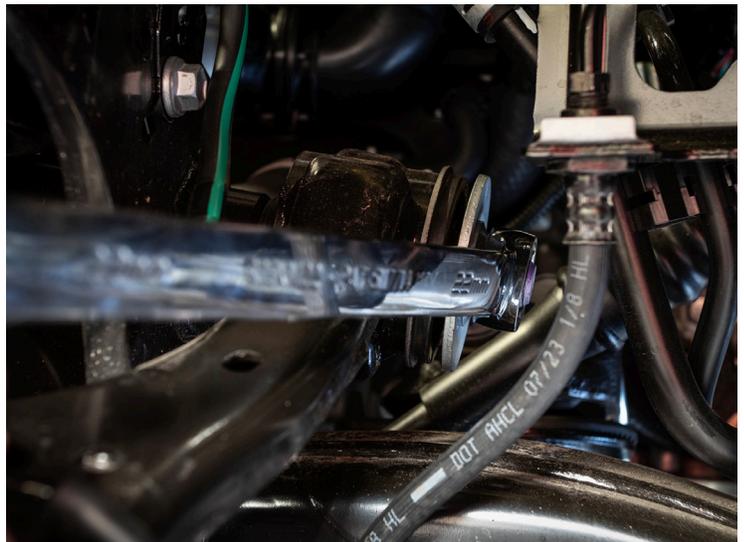
### **STEP 6 (CONTINUED)**

Once the charge tube is disconnected, maneuver the tube out of the way of the upper control arm through bolts path as the through bolt is removed.



### **STEP 7**

Use a 22mm wrench or socket to loosen the factory UCA thru-bolt nut. Next, remove the nut and slide the through-bolt forward until the arm is able to be removed from the frame mount.



## STEP 7 (CONTINUED)



**IF THE THROUGH-BOLT CONTACTS THE CORE SUPPORT / INTERCOOLER, STEP 8 WILL BE NECESSARY.**

## STEP 8

Use a 14mm deep socket to loosen the rubber **front left** body/core support mount.

With this mount loose, the upper control arm through-bolt should have enough room to be completely removed.

**NOTE:** This step may or may not be necessary on the right side.

If there is still contact that keeps the bolt from being removed, use a pry bar to leverage the front of the core support upward to allow the upper control arm through bolt to be removed.



**STEP 9.1**

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

**STEP 9.2**

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 9.3**

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 9.4**

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

**STEP 10**

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

**STEP 11**

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



## STEP 11 (CONTINUED)



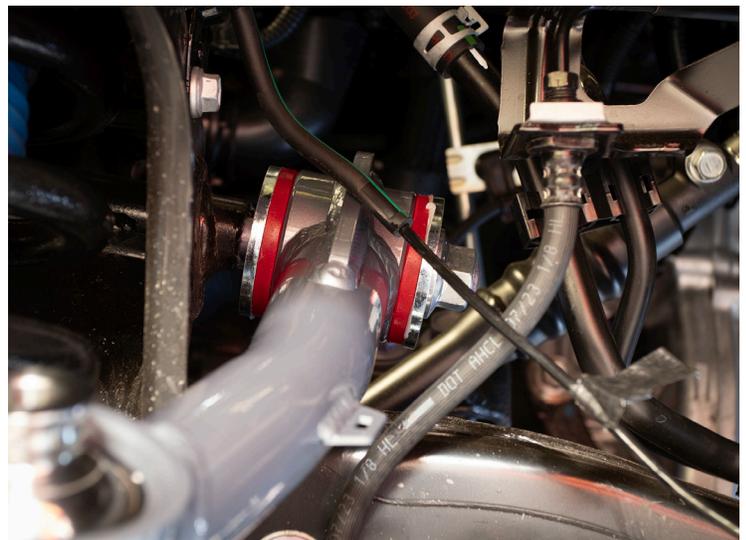
## STEP 12

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



## STEP 13

Install the last washer and factory nut.



**NOTE:** Some play in the UCA is normal. This is built in for ease of installation. For more information, click the link below.

<https://www.youtube.com/watch?v=P8oy367iC0w>

### **STEP 14**

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 15**

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 16**

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.

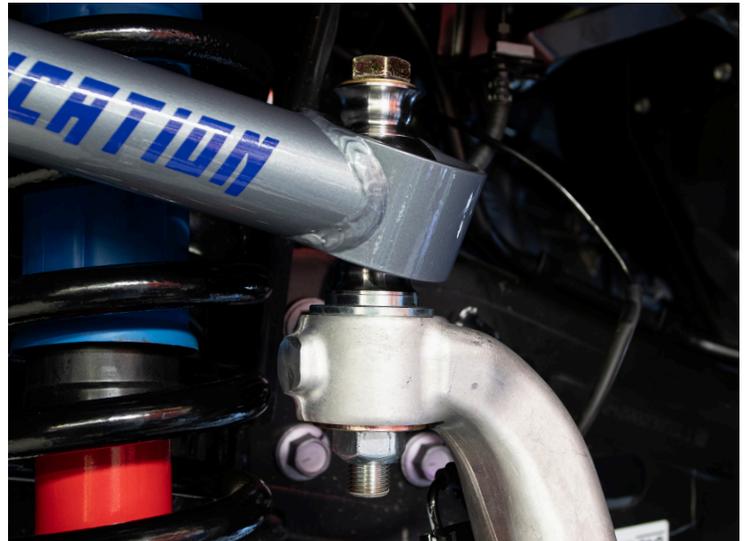
Use the smaller 9/16" AN washer to take up the step, then use the larger USS washer below the AN washer before threading on the C-lock nut.



### **STEP 17**

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.

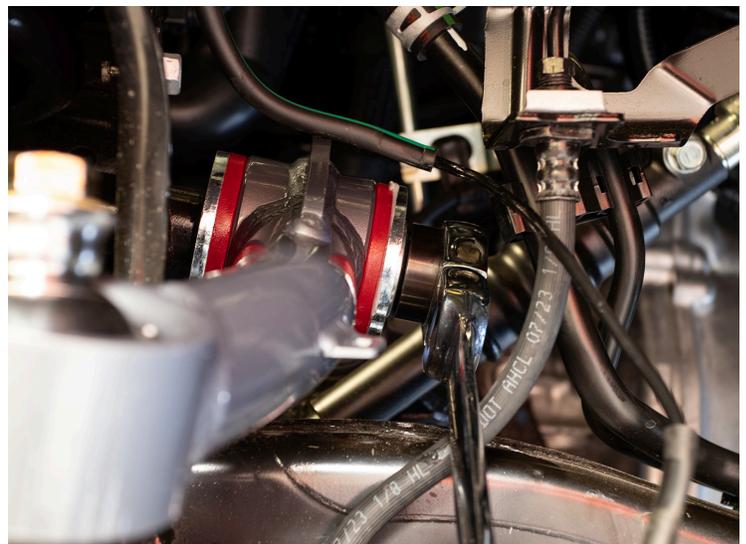
Torque the C-lock nut to 90 ft/lbs.



### **STEP 18**

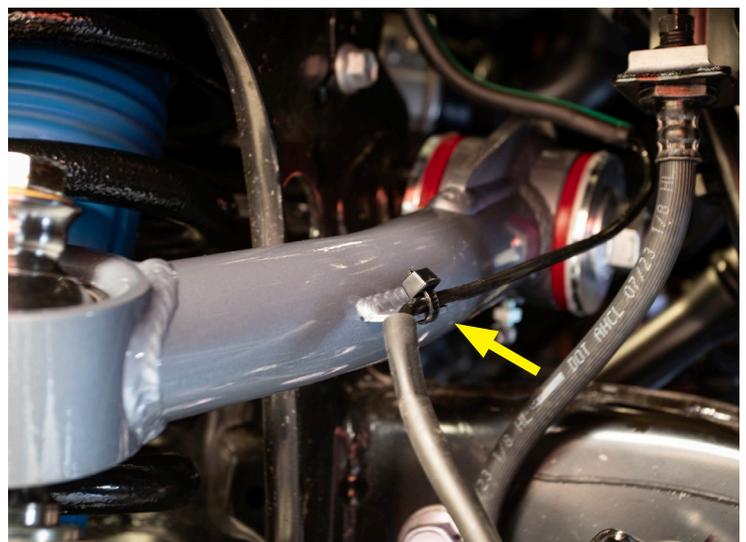
Tighten the UCA frame through bolt and torque the nut (not the long bolt) to 136 ft/lbs. per factory spec.

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



### **STEP 19**

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



**STEP 20**

Reinstall the following:

- Plastic fender guards (Steps 1-3)
- Intercooler pipe (Step 6)
- Re-tighten the core support mount and torque to 35 ft/lb (Step 7)

## **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.



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

Call 951.737.9682 or email [info@chaosfab.com](mailto:info@chaosfab.com)