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# ICON Vehicle Dynamics K53297T Installation Instructions

Stage 7 Tubular UCA Suspension System for Toyota Tacoma (2024-2025)

Part number: K53297T

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Phone: 951.689.ICON | Fax: 951.689.1016

# 58452DJ INSTALLATION INSTRUCTIONS

10-24-2024 REV.B

| PART # | DESCRIPTION |
|---|---|
| 58452DJ | 24 TACOMA 24 LC250 24 GX550 UCA KIT |

## COMPONENTS INCLUDED

| | |
|---|---|
| (1) 154098 24 TACOMA LC 250 GX550 TUBULAR UCA DRVR | (1) 154098 24 TACOMA LC 250 GX550 TUBULAR UCA PASS |

## HARDWARE INCLUDED

| | |
|---|---|
| (8) 150026 WASHER 2.125 X .630 X .188 CZINC<br>(4) 157560 SLEEVE 1.00 X 16MM X 2.310 CZINC<br>(8) 297034 HAT BUSHING 1.625 X 1.000 X .850<br>(4) 297042 POLY RING 1.590 X 1.005 X .250<br>(2) 297166 DELTA JOINT PRO TUBULAR UCA DUST COVER | (2) 605800 M6-1.00 FLANGE NUT DR10.9 YZIC<br>(2) 605862 M6-1.00 X 25MM SHSS 18-8 RAW<br>(8) 605002 6-32 X 0.500 SHCS 18-8 RAW<br>(2) 605890 M14 FENDER WASHER 36MM OD<br>(1) 605969 VIBRATITE RED 2ML BULLE |

## TOOLS REQUIRED

| | |
|---|---|
| JACK<br>JACK STANDS<br>#2 PHILLIPS SCREWDRIVER<br>BODY CLIP REMOVAL TOOL<br>SMALL FLAT BLADE SCREWDRIVER<br>NEEDLE NOSE PLIERS<br>TORQUE WRENCH | 10MM SOCKET / WRENCH<br>12MM SOCKET / WRENCH<br>19MM SOCKET / WRENCH<br>22MM SOCKET / WRENCH<br>3/8 12-PT |

## TECH NOTES

*1. ICON DELTA JOINTS ARE PRE-GREASED FROM THE FACTORY. ICON RECOMMENDS GREASING THE DELTA JOINT EVERY 3,000 MILES (OR EVERY OIL CHANGE). ADD NEW GREASE UNTIL ALL OF THE OLD GREASE IS EXPELLED FROM THE BOTTOM OF THE DELTA JOINT ASSEMBLY, WIPE AWAY EXCESS WITH A RAG OR SHOP TOWEL.*

*2. ALL ICON UPPER CONTROL ARMS HAVE BEEN ENGINEERED TO ALLOW FOR THE MOST POSSIBLE CASTER, WHILE STILL ALLOWING THE VEHICLE TO BE PROPERLY ALIGNED. NOTIFY YOUR PROFESSIONAL ALIGNMENT SHOP OF THIS INFORMATION SO THAT MAXIMUM RIDE QUALITY CAN BE ACHIEVED.*

*3. ESTIMATED INSTALL TIME: 2.5 HOURS.*



## WARNING!

*** READ ALL INSTRUCTIONS THOROUGHLY FROM START TO FINISH BEFORE BEGINNING INSTALLATION! IF THESE INSTRUCTIONS ARE NOT PROPERLY FOLLOWED SEVERE FRAME, SUSPENSION AND TIRE DAMAGE MAY RESULT TO THE VEHICLE!*

*** ICON VEHICLE DYNAMICS RECOMMENDS THAT YOU EXERCISE EXTREME CAUTION WHEN WORKING UNDER A VEHICLE THAT IS SUPPORTED WITH JACK STANDS.*

*** ICON VEHICLE DYNAMICS RECOMMENDS ALL INSTALLATION TO BE PERFORMED BY A PROFESSIONAL SHOP/SERVICE TECHNICIAN. PRODUCT FAILURE CAUSED BY IMPROPER INSTALLATION WILL NOT BE COVERED UNDER ICON'S WARRANTY POLICY.*

## INSTALLATION

***1.*** Lift vehicle and securely place heavy duty jack stands under the manufacturer recommended lifting locations for the front of the vehicle. Take care when lifting the vehicle, and allow 3-4" of ground clearance from the tire. Remove front tires. NEVER WORK UNDER AN UNSUPPORTED VEHICLE. Remove the wheels.

***2.*** If installing on a GX550 continue to ***[Step 3].*** If installing on a Tacoma, Land Cruiser 250 skip to ***[Step 13].***

***3.*** Open the hood and disconnect the negative terminal on the battery using a 12mm and unplug the electrical connector.

***4.*** Unplug the electrical connector on the air intake tube. **[FIGURE 1]**

**FIG.1**

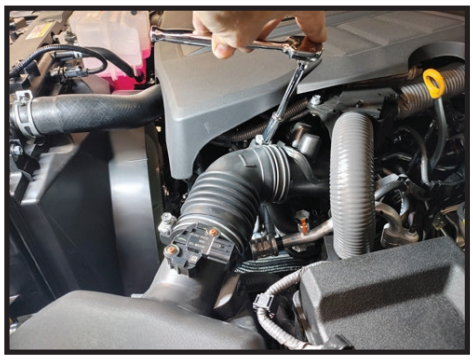




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***5.*** Remove the airbox. Loosen the hose clamp with a #2 phillips screwdriver or 10mm on the air intake hose located closest to the engine. **[FIGURE 2]**

**FIG.2**



***6.*** Lift up on box and remove. The box is only held in place by the intake tube and rubber grommets underneath.

***7.*** With the box removed, remove the wiring clips from the ECU bracket. **[FIGURE 3 & 4]**

**FIG.3**



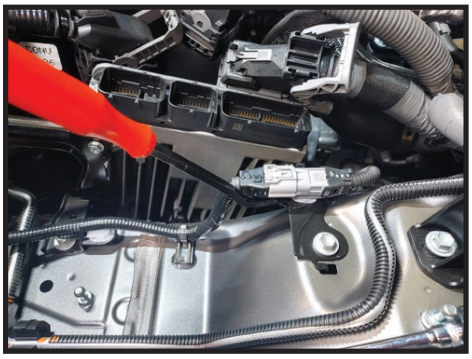


**FIG.4**

***8.*** Unplug the small grey connector next to the ECU.

***9.*** Unplug the ECU harnesses from the ECU. Push down on the safety latch and push the lever the opposite way. The connector will lift up and you will be able to remove it completely. **[FIGURE 5 & 6]**

**FIG.5**



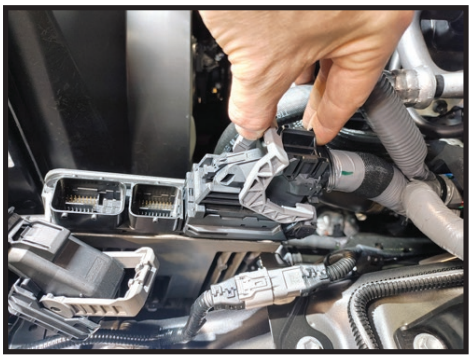
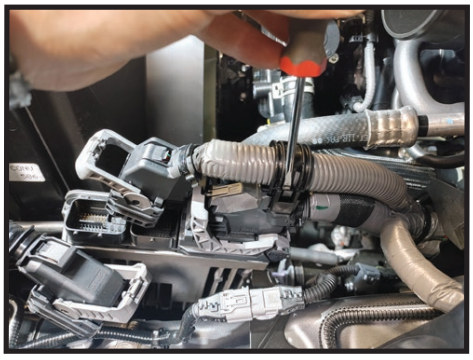


**FIG.6**

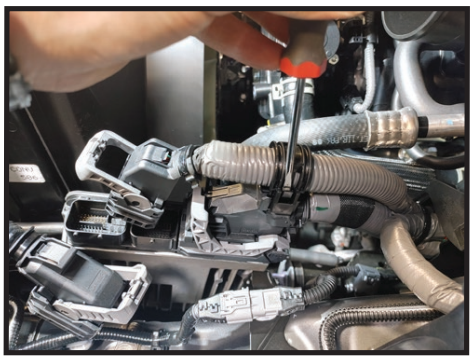
***10.*** Remove the harness clamp from the large wire loom using a small flat blade screwdriver. **[FIGURE 7]**

**FIG.7**



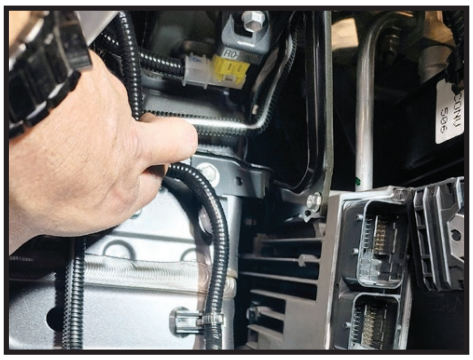
***11.*** Remove the large harness from the ECU. Press lock clip and pull up on the grey lever and pulling plug out. **[FIGURE 8]**

**FIG.8**



***12.*** Remove (3) 10mm bolts from the ECU bracket. One on the front core support, two on the fender well. **[FIGURE 9 & 10]**

**FIG.9**



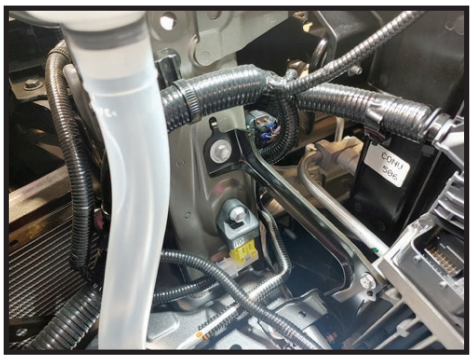


**FIG.10**

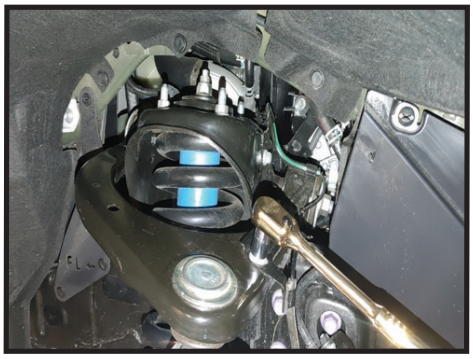
***13.*** Remove the splash guards from the fender well using a needle nose pliers to pinch the clip and pull out. **[FIGURE 11]**

**FIG.11**



***14.*** Remove the 12mm bolt from the top of the UCA that holds the ABS wire. **[FIGURE 12]**

**FIG.12**



***15.*** Remove the cotter pin from the UCA balljoint using a small screwdriver or pick to pry over the safety clip and pull out the pin using a needle nose pliers. Loosen the 19mm nut on the balljoint. **[FIGURE 13 & 14]**

**FIG.13**





**FIG.14**

***16.*** Use a hammer or balljoint separator to loosen the balljoint taper from the spindle. **[FIGURE 15]**

**FIG.15**



***17.*** Loosen and remove the UCA pivot bolt from the frame using a 22mm. **[FIGURE 16]**

**FIG.16**



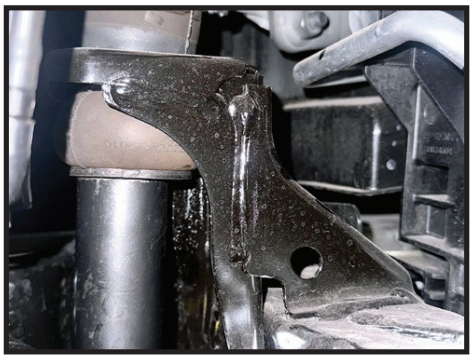
***18.*** If installing on a GX550 skip to ***[Step 20].*** Locate the front driver side core support mount bushing. **[FIGURE 17]**

**FIG.17**



***19.*** Using a jack carefully apply pressure to the driver front core support bolt this will lift the intercooler up enough to remove the UCA pivot bolt. **[FIGURE 18 & 19]**

FIG.18



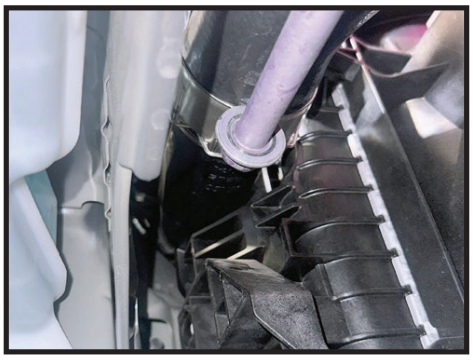
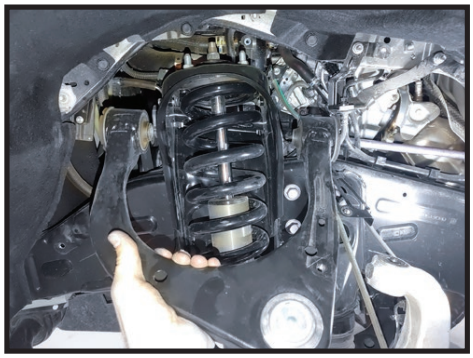


FIG.19

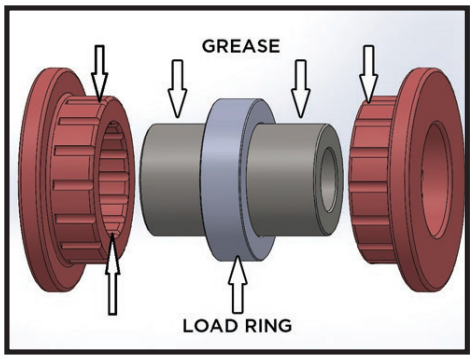
***20.*** If installing on a GX550 remove the bolt from the UCA then remove the factory UCA If installing on a LC250 or Tacoma remove factory UCA. **[FIGURE 20]**

FIG.20



***21.*** Install the new bushings into the ICON tubular UCA as indicated by the drawing below. Grease the ID and OD bushing and the face before install. **[FIGURE 21]**

FIG.21




***22.*** Install the ICON UCA into position and slide the factory mounting bolt through the heims, spacers and frame. **[FIGURE 22 & 23]**

FIG.22

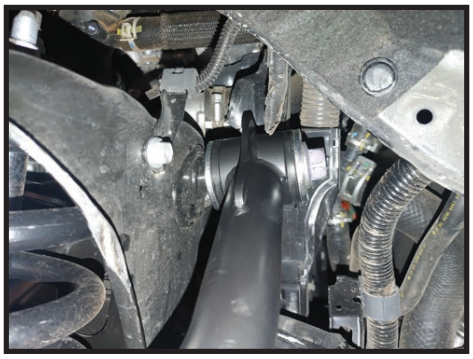




FIG.23

***23.*** Install the Delta Joint Pro into the spindle, apply included blue thread locker to threads on flange nut and thread on to Delta Joint Pro with washer (PN 605890) between the flange nut and spindle [Torque the nut to 70 ft-lbs]. **[FIGURE 24]**

**FIG.24**



***24.*** Install the ABS bracket onto the Billet UCA using the factory bolt. **[FIGURE 25]**

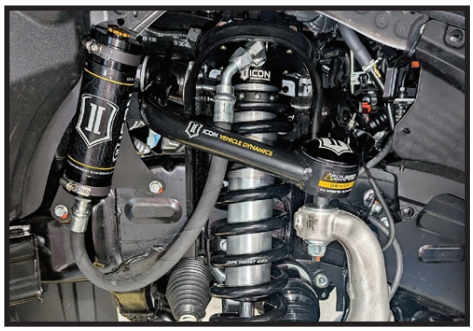
**FIG.25**



***25.*** Torque the factory long pivot bolt to OEM spec.

***26.*** Install the supplied delta joint dust cap. **[FIGURE 26]**

**FIG.26**



***27.*** If installing on a GX550 reinstall the ECU and airbox in reverse order of removal.

***28.*** Repeat ***[Steps 2-15]*** on passenger side. There is no need for the jack on the core support on the passenger side.

***29.*** Reinstall wheels and tires and carefully lower vehicle to the ground. Torque lug nuts to factory spec.

***VERIFY ALL FASTENERS ARE PROPERLY TORQUED BEFORE DRIVING VEHICLE.***

***RETORQUE ALL NUTS, BOLTS AND LUGS AFTER 100 MILES AND PERIODICALLY THEREAFTER.***



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## *ICON VEHICLE DYNAMICS LIMITED LIFETIME WARRANTY*

ICON Vehicle Dynamics warrants to the original retail purchaser who owns the vehicle on which the product was originally installed. ICON Vehicle Dynamics does not warrant the product for finish, alterations, modifications and/or installation contrary to ICON Vehicle Dynamics instructions. ICON Vehicle Dynamics products are not designed, nor are they intended to be installed on vehicles used in race applications, for racing purposes or for similar activities. (A "race" is defined as any contest between two or more vehicles, or a contest of one or more vehicles against the clock, whether or not such contest is for a prize). This warranty does not include coverage for police or taxi vehicles, race vehicles, or vehicles used for government or commercial purposes. Also excluded from this warranty are sales outside of the United States of America and Canada.

ICON Vehicle Dynamics' obligation under this warranty is limited to the repair or replacement, at ICON Vehicle Dynamics' discretion, of the defective product. Any and all costs of removal, installation or re-installation, freight charges and incidental or consequential damages are expressly excluded from this warranty. Items that are subject to wear are not considered defective when worn and are not covered.

ICON Vehicle Dynamics components must be installed as a complete kit as shown in our current application guide. Any substitutions or exemptions of required components will immediately void the warranty. Some finish damage may happen to parts during shipping and is not covered under warranty.

This warranty is expressly in lieu of all other warranties expressed or implied. This warranty shall not apply to any product that has been improperly installed, modified or customized subject to accident, negligence, abuse or misuse.

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