ICON Vehicle Dynamics K53009T Installation Instructions

Stage 9 Tubular UCA Suspension System for Toyota Tacoma (2005-2023)

Part number: K53009T

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158505 INSTALLATION INSTRUCTIONS

2-15-2021 REV.B

PART #	DESCRIPTION
158505	05-UP TACOMA MULTI-RATE RXT LEAF SPRING

COMPONENTS INCLUDED

(1) 158505 05+ TACOMA RXT LEAF PACK W/ADD IN LEAF	

HARDWARE INCLUDED

N/A	

TOOLS REQUIRED

JACK	9/16" SOCKET / WRENCH
JACK STANDS	7/8" SOCKET / WRENCH
LOCKING PLIERS	17MM SOCKET / WRENCH
TORQUE WRENCH	19MM SOCKET / WRENCH

TECH NOTES

THE ICON RXT LEAF SPRING IS MODULAR, MEANING THAT YOU CAN CONFIGURE THE SPRING PACK TO YOUR DESIRED SETTING FROM THESE AVAILABLE OPTIONS:

OPTION #1 - THE SPRING IS SHIPPED AT THIS SETTING (LIGHTEST SPRING RATE).

OPTION #2 - REPLACE THE 3RD SPRING (COUNTING FROM THE TOP DOWN) WITH THE ADDITIONAL LEAF.

OPTION #3 - PLACE THE ADDITIONAL LEAF BETWEEN THE 2ND AND 3RD SPRING (COUNTING FROM THE TOP DOWN). DO NOT REMOVE LEAF FROM SPRING PACK.

ICON'S MEASURED SPECS FROM OUR TEST TRUCK (2016 4WD DCLB TACOMA):

OPTION #1 - LIFT HEIGHT OVER STOCK: + 1.875" (UNLOADED)

OPTION #2 - LIFT HEIGHT OVER STOCK + 2.25" (UNLOADED)
LIFT HEIGHT OVER STOCK WITH 200LBS IN BED: + 1.75"

OPTION #3 - LIFT HEIGHT OVER STOCK: + 2.625" (UNLOADED)
LIFT HEIGHT OVER STOCK WITH 600LBS IN BED: + 1.125"
LIFT HEIGHT OVER STOCK WITH 1200LBS IN BED: - .125"



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.*

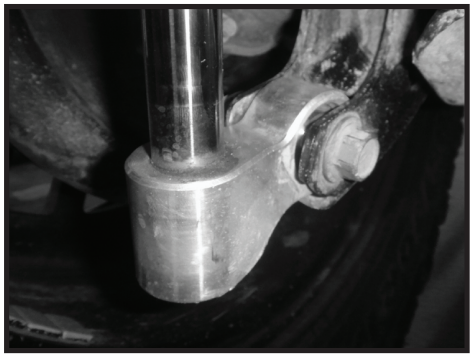
*** ICON VEHICLE DYNAMICS RECOMMENDS ALL INSTALLATION TO BE PERFORMED BY A PROFESSIONAL SHOP/SERVICE TECHNICIAN. PRODUCT FAILURE CAUSED BY IMPROPER INSTALLATION WILL NOT BE COVERED UNDER ICON'S WARRANTY POLICY.*

INSTALLATION

1. Using a properly rated jack, raise the rear of the vehicle and support the frame rails with jack stands. Ensure the jack stands are secure and set properly before lowering the jack. NEVER WORK UNDER AN UNSUPPORTED VEHICLE. Remove the rear wheels.

2. Remove the lower shock bolt using (2) 17mm. **[FIGURE 1]**

FIG.1



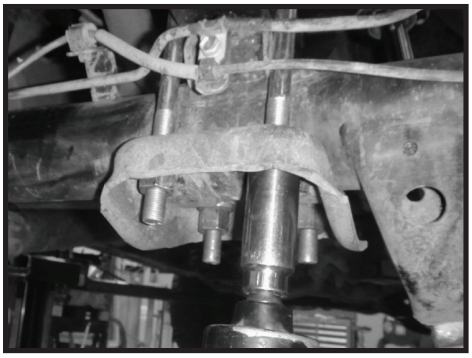


FIG.2

3. Support the axle using a floor jack. Remove the U-bolts from 1 side of the truck using a 19mm. **[FIGURE 2]**

4. Slowly lower the axle, being careful to not overextend brake or ABS lines.

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5. Remove the bolt from the front frame pocket using a 19mm. **[FIGURE 3]**

FIG.3





FIG.4

6. Remove the upper and lower nut from the spring shackle using a 19mm. **[FIGURE 4]**

7. Remove bolt connecting the shackle to the frame.

8. Lift the shackle and leaf pack out of the pocket of the frame.

9. Lift the factory spring and shackle out, being careful to not damage brake lines, hoses, and ABS lines. 2 people are recommended as the leaf springs are heavy.

IF ADJUSTING THE RXT SPRING CONFIGURATION:

A. Remove the front clip bolts and rear clip using a 17mm. **[FIGURE A]**

FIG.A





FIG.B

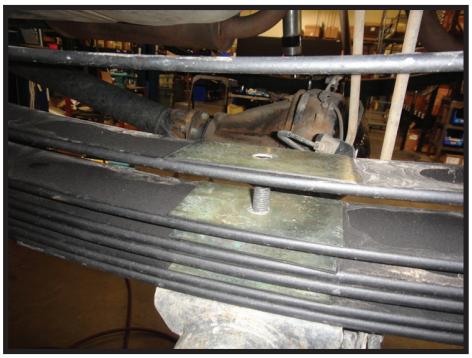
B. Clamp the pack on both sides of the center pin. **[FIGURE B]**

C. Use locking pliers to hold the head of the center pin and remove the nut using a 9/16".

D. Carefully release the clamps from the spring pack. Use caution as the spring may still be under tension.

E. Remove the top 2 springs of the pack. **[FIGURE C]**

FIG.C



F. Configure the spring pack as desired from the available options (refer to tech notes).

OPTION #1 - THE SPRING IS SHIPPED AT THIS SETTING (LIGHTEST SPRING RATE).

OPTION #2 - REPLACE THE 3RD SPRING (COUNTING FROM THE TOP DOWN) WITH THE ADDITIONAL LEAF. ENSURE THAT THE LONGER SIDE OF THE LEAF IS ORIENTED TOWARDS THE FRONT OF THE VEHICLE.

OPTION #3 - PLACE THE ADD-A-LEAF BETWEEN THE 2ND AND 3RD SPRING (COUNTING FROM THE TOP DOWN). DO NOT REMOVE LEAF FROM SPRING PACK. ENSURE THAT THE LONGER SIDE OF THE LEAF IS ORIENTED TOWARDS THE FRONT OF THE VEHICLE.

G. Ensure that there is a liner installed between each leaf.

H. With the top 2 leafs in place, slide the center pin through the pack and clamp together using clamps on both sides of the center pin. After the center pin is placed through the whole pack, install the nut using a 9/16". [Torque to 15 ft-lbs]

I. Install the appropriate clips for the configuration. Longer clips are provided for additional pack thickness. Tighten on half turn past snug using a 17mm.

10. Before lifting the RXT spring pack into place, loosely install the shackle on the spring with the factory bolt and nut. Ensure that the bolt is facing away from the fuel tank. The head of the bolt should be closest to the frame and the nut furthest away, failure to mount in this orientation will cause fuel tank gouging.

11. Loosely install the spring and shackle into the frame pockets using the factory hardware. Lift the axle to guide the center pin into the locating hole in the spring pad on the axle housing.

12. Place the factory bump stop (or ICON striker plate) on top of the spring.

13. Install the U-bolts and tighten (do not torque to spec yet).

14. Install shocks and wheels then lower the vehicle on the ground. [Torque to factory spec]

15. Torque leaf spring pivot bolts to factory spec using a 19mm.

16. Torque lower shock bolts to factory spec using a 17mm.

17. Torque U-bolts to 90 ft-lbs using a 7/8".

18. Check parking brake cable for clearance on the spring clip. If it is making contact with the spring clip, bend the bracket on the front spring pocket. **[FIGURE 5 & 6]**

FIG.5

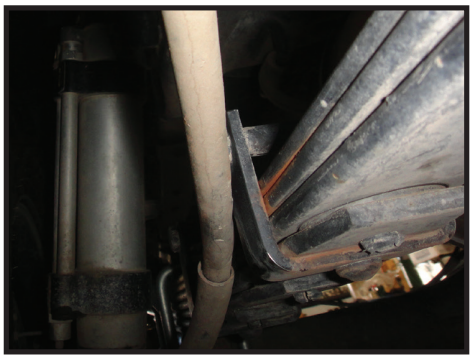




FIG.6

NOTE: If the metal sleeve on the parking brake cable comes into contact with the shock as the suspension compresses, carefully remove (cut) sleeve from the parking brake cable. **[FIGURE 7]**

FIG.7



VERIFY ALL FASTENERS ARE PROPERLY TORQUED BEFORE DRIVING VEHICLE.

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

ICON VEHICLE DYNAMICS

2005-UP TOYOTA TACOMA
RXT MULTI-RATE LEAF SPRING

OPTION 1

INSTALL SPRING IN ORIGINAL CONFIGURATION, LEAVING ADDITIONAL LEAF OUT

LIFT HEIGHT OVER STOCK:

1.875”

(UNLOADED)

AS SHIPPED



OPTION 2

REPLACE THE 3RD SPRING IN THE PACK WITH THE ADDITIONAL LEAF PROVIDED IN KIT

LIFT HEIGHT OVER STOCK:

2.25”

(UNLOADED)

1.75”

(200LB LOAD)

LEAF REPLACEMENT



OPTION 3

ADD THE ADDITIONAL LEAF PROVIDED TO THE PACK, IN BETWEEN THE 2ND AND 3RD SPRING

LIFT HEIGHT OVER STOCK:

2.625”

(UNLOADED)

1.125”

(600LB LOAD)

LEAF ADDITION



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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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