ICON Vehicle Dynamics 98520DJ Installation Instructions

Billet UCA Kit with Delta Joints for Ford Ranger, Aluminum Knuckle

Part number: 98520DJ

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Scan for fitment, price and install help

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98520DJ INSTALLATION INSTRUCTIONS

5-13-2019 REV.B

PART #	DESCRIPTION
98520DJ	2019-UP FORD RANGER BILLET UCA DJ KIT

COMPONENTS INCLUDED

(1) 197515 19-UP RANGER BILLET UCA (DRVR)	(1) 197516 19-UP RANGER BILLET UCA (PASS)

HARDWARE INCLUDED

(2) 177200BJ DELTA JOINT (1) 605968 VIBRATITE BLUE THREAD LOCK	(4) 197502 HEIM SPACER RSMX12 X 14MM X 2.125 (2) 297011 HEIM SPACER 14MM X 2.625 X 1.47 (2) 297012 HEIM SPACER 14MM X 3.25 X 1.35
DUST COVER COMPONENTS KIT	
(2) 155110 -032 O-RING, NITRILE 70A (2) 157507 BILLET UCA DUST COVER	(8) 605002 6-32 X 0.500 SOCKET SCREW

TOOLS REQUIRED

JACK JACK STANDS TORQUE WRENCH FLATHEAD SCREWDRIVER	3MM ALLEN WRENCH 3/8" 12PT SOCKET / WRENCH 18MM SOCKET / WRENCH 21MM SOCKET / WRENCH

TECH NOTES

1. 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.

2. 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.

3. DO NOT EXCEED 1.875" ADJUSTMENT FROM THE CENTER OF THE ROD END TO THE EDGE OF THE BILLET UPPER CONTROL ARM. FAILURE CAUSED BY EXCESSIVE ADJUSTMENT WILL NOT BE COVERED UNDER ICON'S WARRANTY POLICY. REFER TO TECH NOTE PHOTO #2.



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 front 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 front wheels.

2. Carefully pull the ABS wire retainers from the UCA. **[FIGURE 1]**

FIG.1



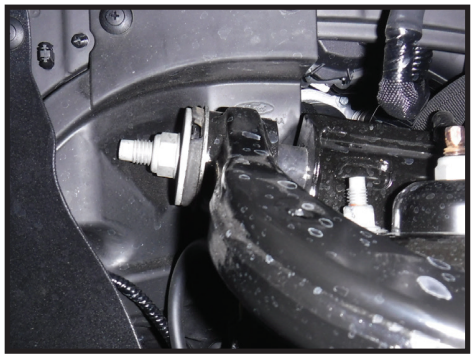

FIG.2

3. Remove the nut from the frame bolt using an 18mm on the bolt head and 21mm on the nut. **[FIGURE 2]**

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4. Disconnect the UCA from the spindle using an 18mm. Loosen the nut to the end of the shank but do not remove entirely so that the nut protects the threads. Dislodge the taper by either using a ball joint separator or by striking the spindle on the outside of the taper with a large hammer or hand sledge. **[FIGURE 3]**

FIG.3



5. Separate the UCA from the spindle and support the spindle so that it does not overextend the CV joints when detached.

6. Slide the frame bolt out from the back of the UCA and remove the assembly from the vehicle.

7. Install the ICON UCA. Hold the UCA in position and slide the frame bolt in from the back of the UCA. Install the nut and tighten using an 18mm and 21mm. [Torque to factory spec] **[FIGURE 4]**

FIG.4



8. Pivot the Delta Joint stem so that it is inline with the taper bore in the spindle. The new Delta Joint will be very stiff the first time you move it. Rotate the upper control arm downward and install the stem through the spindle taper. Install two washers per side with the supplied flanged nut on the taper pin. Connect the UCA to the spindle using an 18mm. [Torque to 60 ft-lbs]

9. Connect the ABS lines to the threaded hole in the bottom of the UCA.

10. Install the dust cover: Make sure that the o-ring is seated in the grove in the cap and apply anti-seize to the (4) allen head screws. DO NOT over tighten.

11. Repeat steps on opposite side.

12. Reinstall wheels and carefully lower vehicle to the ground. [Torque lugs to factory spec]

13. Have the vehicle professionally aligned.

14. Once aligned, apply BLUE thread locker to the outer pinch bolts located on the sides of the arm. Tighten the pinch bolts in an oppossing pattern at least 3 times. [Torque to 35 ft-lbs]

ALIGNMENT NOTE

ICON SHIPS THE BILLET UPPER CONTROL ARM AT THE MOST COMMON ALIGNMENT SETTING. ONE OF THE MAJOR PERFORMANCE ADVANTAGES OF AN ICON BILLET ADJUSTABLE UPPER CONTROL ARM IS THE ABILITY TO IMPROVE WHEEL POSITION. IMPROVING WHEEL POSITION IMPROVES FIREWALL CLEARANCE ALLOWING FOR LARGER TIRES AS THE SUSPENSION CYCLES. IN ORDER TO TAKE ADVANTAGE OF THIS FEATURE, DISCUSS WITH YOUR PROFESSIONAL ALIGNMENT SHOP THAT YOU WOULD LIKE TO CAM THE LOWER CONTROL ARM TO MAXIMIZE WHEEL POSITION FORWARD AND THEN ADJUST CAMBER AND CASTER WITH THE UPPER THREADED ADJUSTERS.

A MAJOR PERFORMANCE ADVANTAGE OF ALL ICON UPPER CONTROL ARMS IS INCREASED CASTER OVER STOCK. DISCUSS WITH A PROFESSIONAL ALIGNMENT SHOP THAT YOU WANT THE VEHICLE ALIGNED WITH THE CASTER AT THE MAX OF THE FACTORY RECOMMENDED SETTINGS IF YOU WANT TO TAKE ADVANTAGE OF THE DYNAMIC EFFECTS OF INCREASED CASTER.

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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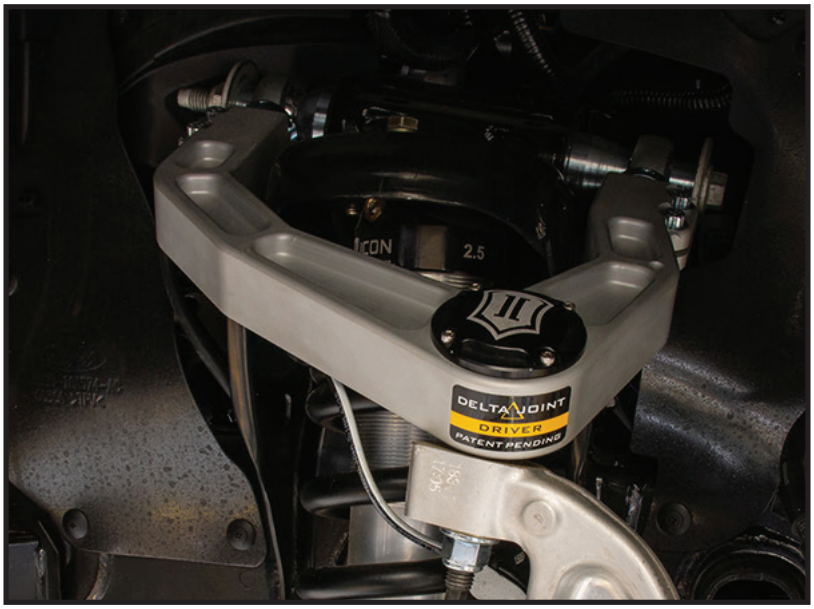

ICON VEHICLE DYNAMICS LIMITED LIFETIME WARRANTY

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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