

7929 Lincoln Ave. Riverside, CA 92504  
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PART #	DESCRIPTION
58560	07-UP TUNDRA BILLET UCA KIT

COMPONENTS INCLUDED	
(1) 157615 07+ TUNDRA BILLET UCA (DRIVER)	(1) 157616 07+ TUNDRA BILLET UCA (PASS)
HARDWARE INCLUDED	
HEIM SPACER KIT	
(4) 157510 HEIM SPACER JM12 X 16MM X 2.875	(4) 157509 HEIM SPACER JM12 X 16MM X 1.875
TAPER ADAPTER HARDWARE KIT	
(2) 157517 TAPER ADAPTER (2) 157506 BEARING CAP, .500 ID (2) 605337 1/2-20 X .875" 12PT FLANGED CAP SCREW	(2) 605454 9/16-18 NYLOCK NUT (2) 605455 9/16 F-436 FLAT WASHER (1) 605968 VIBRATITE BLUE 2ML BULLET (1) 605969 VIBRATITE RED 2ML BULLET
DUST COVER COMPONENTS HARDWARE KIT	
(2) 157507 BILLET UCA DUST COVER (8) 605002 6-32 X .50" SHCS 18-8	(2) 155110 -O32 O-RING
TOOLS REQUIRED	
JACK JACK STANDS LARGE HAMMER TORQUE WRENCH NEEDLE NOSE PLIERS ANTI-SEIZE (RECOMMENDED) 7/64" ALLEN WRENCH	10MM SOCKET / WRENCH 19MM SOCKET / WRENCH 21MM SOCKET / WRENCH 3/8" SOCKET / WRENCH 1/2" SOCKET / WRENCH 7/8" SOCKET / WRENCH
TECH NOTES	
<p>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.</p> <p>2. 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.</p>	



WARNING!
<p><b>** 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!</b></p> <p><b>** ICON VEHICLE DYNAMICS RECOMMENDS THAT YOU EXERCISE EXTREME CAUTION WHEN WORKING UNDER A VEHICLE THAT IS SUPPORTED WITH JACK STANDS.</b></p> <p><b>**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.</b></p>

## INSTALLATION

- 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 front wheels.
- Using a jack, slightly lift the lower control arm to prevent the suspension from being at full droop.
- Disconnect the upper ball joint: remove the cotter pin securing the upper ball joint nut. Using a 19mm socket/wrench, 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.
- Support the spindle so that it does not over extend the CV joints when detached.
- Remove the ball joint nut and disconnect the upper arm from the spindle. Using a 10mm socket/wrench, disconnect the ABS line that is routed down the top of the arm.
- Using a 21mm socket/wrench, remove the large upper control arm pivot bolt. This hardware will be reused, note direction and order of components. Remove the nut and washer from the rear side of the long pivot bolt. Carefully feed the bolt forward until it clears the front of the A-arm. Remove the stock upper control arm.
- Install the new billet upper control arm into the chassis: Note the side and orientation of the arms, the uniball should be oriented to the back of the vehicle and the 4 small holes for the dust cove should be pointing up. Carefully feed the pivot bolt through the pivots of the arm and through the pivot tube in the chassis and secure with the factory hardware. [Torque to factory spec]
- Install the taper pin adapter up into the uniball, install the upper dome on top and install the 12pt 1/2" bolt in the top. Make sure the radius of the taper adapter and upper dome meet the diameter of the inner ball of the uniball. Hand tighten the upper bolt for now. It will be torqued with thread locker later.
- Pivot the uniball stem assembly so that the stem is approximately in line with the taper bore in the spindle. The new uniball 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 the supplied washer and nut on the taper pin. As you begin to tighten the stem nut the stem may want to spin. If so you can keep it from spinning by holding the upper 12pt bolt. Once the taper has seated friction will keep it from spinning. Use a 7/8" socket/wrench to tighten.  
[Torque the 9/16" nut to 75 ft-lbs]

- 11.** Using a 10mm socket/wrench reattach the ABS line to the threaded hole in the arm with the factory bolt.
- 12.** ICON billet upper control arms utilize heim joints at each pivot to allow alignment using the adjusters on the upper control arms as well as cam adjusters on the lower control arms. The heims can be extended or contracted by turning the clevis. Tighten the pinch bolts in an opposing pattern at least 3 times. [Torque to 35 ft-lbs]
- 13.** Install wheels and lower vehicle back to the ground. [Torque to factory spec]
- 14.** Remove the 12pt 1/2" bolt that holds the taper dome on the top of the uniball from step 9. Apply RED thread locker and reinstall. [Torque to 90 ft-lbs]
- 15.** Install the uniball dust cap: Make sure that the o-ring is seated in the groove in the cap and apply anti-seize to the (4) allen head screws. DO NOT over tighten!
- 16.** Have the vehicle professionally aligned.
- 17.** Once aligned, apply BLUE thread locker to the outer pinch bolts located on the sides of the arm. Tighten the pinch bolts in an opposing 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.**



[TECH NOTE #2]



## **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.

# **ICON VEHICLE DYNAMICS**

PERFORMANCE SUSPENSION SYSTEMS AND SHOCK ABSORBERS

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