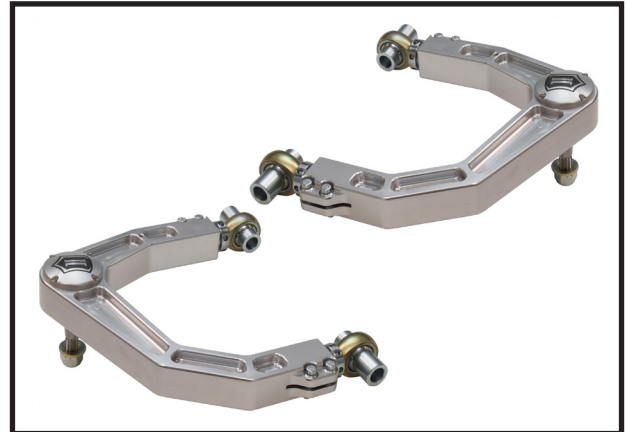


PART #	DESCRIPTION
58570	08-UP 200 SERIES LAND CRUISER BILLET UCA KIT

COMPONENTS INCLUDED	
(1) 157617 08+ LC 200 BILLET UCA (DRIVER)	(1) 157618 08+ LC 200 BILLET UCA (PASSENGER)
HARDWARE INCLUDED	
HEIM SPACER KIT	
(4) 157509 HEIM SPACER JM12 X 16MM X 1.875 CZINC	(4) 157510 HEIM SPACER JM12 X 16MM X 2.875 CZINC
TAPER ADAPTER KIT	
(2) 157518 TAPER ADAPTER (2) 157506 BEARING CAP, .500 ID (2) 605323 1/2-20 X 1.0" 12PT FLANGED CAP SCREW	(1) 605968 VIBRATITE BLUE 2ML BULLET (2) 605454 9/16-18 NYLOCK NUT (2) 605455 9/16 F-436 FLAT WASHER
DUST COVER COMPONENTS KIT	
(2) 157507 BILLET UCA DUST COVER	(2) 155110 -O32 O-RING (8) 605002 6-32 X .50" SHCS 18-8
TOOLS REQUIRED	
JACK JACK STANDS LARGE HAMMER TORQUE WRENCH NEEDLE NOSE PLIERS 7/64" ALLEN WRENCH	10MM SOCKET / WRENCH 19MM SOCKET / WRENCH 22MM SOCKET / WRENCH 3/8" 12PT SOCKET / WRENCH 1/2" 12PT SOCKET / WRENCH 7/8" SOCKET / WRENCH
TECH NOTES	
1. THE ARMS COME PRESET FROM ICON BUT CAN BE ADJUSTED TO SUIT YOUR REQUIREMENTS.	


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.**

INSTALLATION

1. ENSURE TRUCK IS IN GEAR OR IN PARK, SET PARKING BRAKE, TURN OFF ENGINE AND CHOCK REAR TIRES!
2. Jack up the front of the truck and support with jack stands under the frame rail, remove the wheels.
3. Using a jack, slightly lift the LCA to prevent the arms from being at full droop.
4. 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.
5. The spindle will need to be supported with bungee cords or wire so that it doesn't flop to the outside of the vehicle and over extend the CV's.
6. 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.
7. Using a 22mm socket/wrench, remove the large UCA 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 A-arm.
8. Install the new billet UCA 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 cover 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 100 ft-lbs] (FIGURE 1)

FIG.1


9. 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.

10. 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.

11. Rotate the arm down 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 12 pt bolt. Once the taper has seated, friction will keep it from spinning and use a 7/8" socket/wrench to tighten. [Torque to 75 ft-lbs] **(FIGURE 2)**

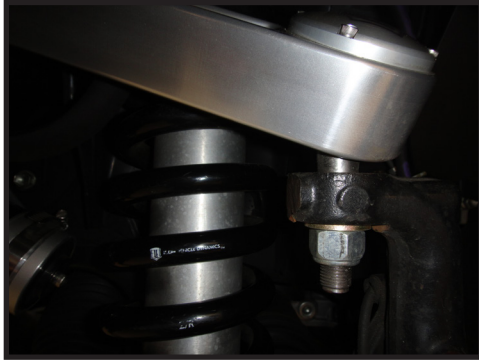


FIG.2

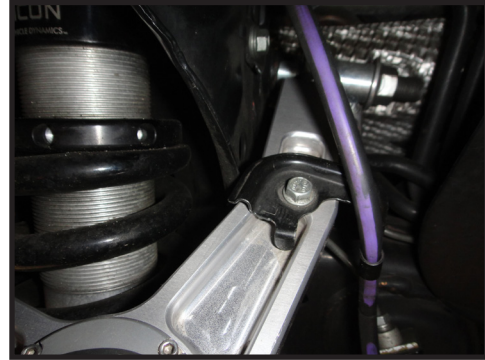


FIG.3

12. Using a 10mm socket/wrench reattach the ABS line to the threaded hole in the arm with the factory bolt. **(FIGURE 3)**

13. Mount the wheels and place the vehicle back on the ground. Roll back and forth to scrub the suspension out.

14. Remove the 12pt 1/2" bolt that holds the taper dome on the top of the uniball from step 9. Apply blue thread locker and reinstall. [Torque to 50 ft-lbs]

15. Install dust cover: Fit the o-ring in the groove of the dust cover and place on the top of the arm. Using a 7/64" allen wrench secure the cover with the #6 screw provided [Torque to 7 in-lbs]. Do not over tighten.

16. Have the vehicle professionally aligned.

17. The arms have been pre-set at the factory for the most common wheel alignment requirement but they are adjustable. When aligning, if only minor adjustments are required it can be done via the lower arm cams. If upper arm adjustment is required loosen the 12pt 3/8" pinch bolts near the pivot hiems and rotate the adjusting collar with a 1/2" pin wrench. Retighten the pinch bolts with blue lock tight [Torque to 35 ft-lbs] going BACK AND FORTH 3 TIMES at this torque to compress the pinch slit evenly.

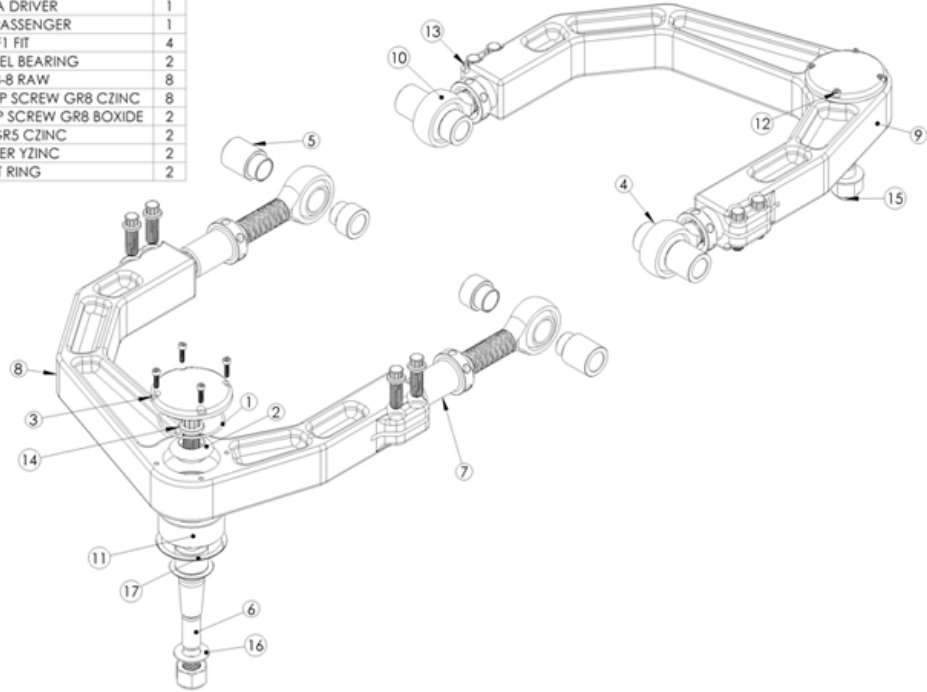
ALIGNMENT NOTE
<i>ICON SHIPS THE BILLET UPPER CONTROL ARM AT THE MOST COMMON ALIGNMENT SETTING. ONE OF THE MAJOR PERFORMANCE ADVANTAGES OF AN ICON BILLET ADJUSTABLE UPPER CONTROL ARM IS THE ABILITY TO IMPROVE WHEEL POSITION. IMPROVING WHEEL POSITION IMPROVES FIREWALL CLEARANCE ALLOWING FOR LARGER TIRES 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.</i>
<i>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.</i>

VERIFY ALL FASTENERS ARE PROPERLY TORQUED BEFORE DRIVING VEHICLE.

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



ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	155110	-032 O-RING, NITRILE 70A	2
2	157506	BEARING CAP, .500 I.D.	2
3	157507	BILLET UCA DUST COVER	2
4	157509	HEIM SPACER JM12 X 16MM X 1.875 CZINC	4
5	157510	HEIM SPACER JM12 X 16MM X 2.875 CZINC	4
6	157518	03+ 4RUN, 07+ FJ, 08+ LC200 TAPER ADAPTER	2
7	157520	L-R ADJ SLEEVE 1.00-1.4L / .75-1.6	4
8	157617	08+ LC 200 BILLET UCA DRIVER	1
9	157618	08+ LC 200 BILLET UCA PASSENGER	1
10	295511	JM12T ROD END F1 FIT	4
11	295550	HCOM 1.6T STAINLESS STEEL BEARING	2
12	605002	6-32 X 0.500 SHCS 18-8 RAW	8
13	605145	3/8-16 X 1.000 12 PT FLANGED CAP SCREW GR8 CZINC	8
14	605323	1/2-20 X 1.000 12 PT FLANGED CAP SCREW GR8 BOXIDE	2
15	605454	9/16-18 NYLOCK NUT GR5 CZINC	2
16	605455	9/16 F-436 FLAT WASHER YZINC	2
17	605950	WHT-200 SPIRAL RET RING	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