### 88510 INSTALLATION INSTRUCTIONS

5-26-2016 REV.A



7929 Lincoln Ave. Riverside, CA 92504 Phone: 951.689.ICON Fax: 951.689.1016

PART #	DESCRIPTION
88510	2016-UP TITAN XD UCA KIT

### **COMPONENTS INCLUDED** (1) 184000 16+ TITAN XD TUBULAR UCA (DRVR) (1) 184001 16+ TITAN XD TUBULAR UCA (PASS) HARDWARE INCLUDED (2) 157506 BEARING CAP .500 ID (2) 605337 1/2-20 X .875" 12PT FLANGED SCREW (2) 157517 TAPER ADAPTER (2) 605454 9/16-18 NYLOCK NUT (4) 187001 SLEEVE 1.000 X 16MM X 2.130 (2) 605455 9/16 F-436 FLAT WASHER (2) 295550 COMH16T STAINLESS BEARING (4) 605902 1/4-28 STRAIGHT ZERK FITTING (8) 297034 HAT BUSHING 1.625 X 1.000 X .850 (2) 605950 WHT-200 SPIRAL RET RING (4) 297042 POLY RING 1.590 X 1.005 X .250 (1) 605969 VIBRATITE RED 2ML BULLET **TOOLS REQUIRED** JACK TORQUE WRENCH 14MM SOCKET / WRENCH 22MM SOCKET / WRENCH JACK STANDS LARGE HAMMER NEEDLE NOSE PLIERS 1/2" SOCKET / WRENCH **TECH NOTES**

1. ICON RECOMMENDS OPTIONAL BILLET UNIBALL DUST COVER SET (191011) TO PREVENT DEBRIS

CASTER, WHILE STILL ALLOWING THE VEHICLE TO BE PROPERLY ALIGNED. NOTIFY YOUR PROFESSIONAL ALIGNMENT SHOP OF THIS INFORMATION SO THAT MAXIMUM RIDE QUALITY CAN

ALL ICON UPPER CONTROL ARMS HAVE BEEN ENGINEERED TO ALLOW FOR THE MOST POSSIBLE



### **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

BE ACHIEVED.

FROM ENTERING THE UNIBALL CUP.

- 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 front wheels.
- Using a jack, slightly lift the lower control arm to prevent the arms from being at full droop.
- 3. Disconnect the upper ball joint: remove the cotter pin securing the upper ball joint nut. Using a 22mm 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. [FIGURE 1]





- 4. (4WD ONLY) Support the spindle so that it does not over extend the CV joints when detached.
- 5. Remove the ball joint nut and disconnect the upper control arm from the spindle.
- **6**. Remove the factory coilover assembly using a 14mm and 22mm socket/wrench.

**7.** Using a 22mm socket/wrench, remove the upper control arm pivot bolts from the frame. This hardware will be reused, note direction and order of components. Remove the nut and washer from the rear side of the pivot bolts. Remove the stock upper control arm. [FIGURE 2]



FIG.2

8. Before installing your new upper control arms, care must be taken to grease the bushings (liberally) prior to installing assembly. Failure to grease properly will cause premature bushing wear and increased noise. [FIGURE 3]

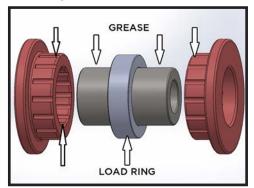


FIG.3

- 9. Install the new ICON tubular upper control arm into the chassis: Note the side and orientation of the arms, the uniball should be oriented towards the back of the vehicle. Carefully feed the pivot bolts through the pivots of the arm and through the chassis. Grease the zerk fittings until you can see that the grease has worked itself all the way into the bushings and then tighten pivot bolts. [Torque to factory spec]
- 10. Install the ICON coilover assembly (if applicable). Refer to ICON coilover instructions for installation details.
- 11. Install the taper pin adapter (157517) up into the uniball, install the upper dome (157506) on top and install the 12pt (605337) 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.
- 12. Pivot the uniball stem assembly so that the stem is inline with the taper bore in the spindle. The new uniball will be very stiff the first time you move it.
- 13. 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 12 pt bolt. Once the taper has seated friction will keep it from spinning. Use a 22mm socket/wrench to tighten. [Torque to 70 ft-lbs]
- 14. Install wheels and lower vehicle back to the ground. [Torque to factory spec]
- **15.** Remove the 12pt 1/2" bolt that holds the taper dome on the top of the uniball from step 10. Apply RED thread locker and reinstall. [Torque to 90 ft-lbs]
- 16. Repeat steps on opposite side.
- 17. Have the vehicle professionally aligned.

VERIFY ALL FASTENERS ARE PROPERLY TORQUED BEFORE DRIVING VEHICLE.

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



## 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

7929 Lincoln Ave. Riverside, CA 92504 Phone: 951.689.ICON Fax: 951.689.1016 www.iconvehicledynamics.com



