

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

## 98500 INSTALLATION INSTRUCTIONS

8-23-2017 REV.D

PART #

98500

2004-UP FORD F-150 TUBULAR UPPER CONTROL ARM KIT

DESCRIPTION

COMPONENTS INCLUDED		
(1) 194602 04+ F150 TUBULAR UCA (DRVR)	(1) 194603 04+ F150 TUBULAR UCA (PASS)	288°
HARDWARE INCLUDED		<b>AA</b>
(2) 197200 F150 TAPERED PIN (2) 157506 BEARING CAP, .500 ID (2) 605337 1/2-20 X .875 12PT (2) 605836 M14 X 2.0 FLANGED LOCK NUT	(2) 295550 COMH16T STAINLESS BEARING (8) 297034 HAT BUSHING 1.625 X 1.000 X .850 (4) 297043 POLY RING 1.590 X 1.005 X .450 (4) 199206 SLEEVE 1.000 X .563 X 2.440 (1) 605969 VIBRATITE RED 2ML BULLET	
TOOLS REQUIRED		
JACK JACK STANDS TORQUE WRENCH	15MM SOCKET / WRENCH 21MM SOCKET / WRENCH 24MM SOCKET / WRENCH 1/2" 12PT SOCKET	WARNING!
TECH NOTES		** READ ALL INSTRUCTIONS THOROUGHLY FROM START TO FINISH BEFORE BEGINNING INSTALLATION! IF THESE INSTRUCTIONS ARE
1. ICON RECOMMENDS OPTIONAL BILLET UNIBALL DUST COVER SET (191011) TO PREVENT DEBRIS FROM ENTERING THE UNIBALL CUP. 2. 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.		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. Remove the coilover to gain access to the upper control arm bolts. Remove the lower shock bolt and then remove the (3) nuts on top of the coilover (use a 15mm, 27mm & 30mm socket/wrench for stock assembly, 9/16" & 15/16" socket/wrench for ICON assembly). Removing the lower shock end out of the pocket in the arm can be difficult because you are fighting the bushing stiffness from the lower control arm and sway bar tension. Disconnect the swaybar links and/or the top of the other shock to relieve some of the tension.

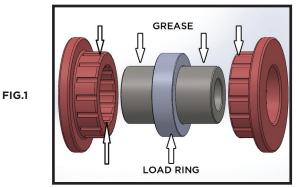
**3**. Loosen the taper on the upper ball joint and the tie rod end using a 21mm socket/wrench. Use a hammer to separate the upper ball joint taper and tie rod end. Take care not to damage the threads. Support the spindle so that it does not over extend the CV joints when detached.

4. Using a jack, support the lower control arm to prevent the suspension from being at full droop.

5. With the upper control arm detached from the spindle, begin to loosen the upper control arm from its mounts in the frame using a 21mm socket/wrench. Remove the OEM assembly.

**6**. Install the taper pin adapter into the uniball cup, install the upper dome (157506) on top and install the 12pt (605337) bolt in the top. Make sure that 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.

**7**. Before installing the new ICON upper control arms, care must be taken to liberally grease the bushings prior to assembly. Failure to grease properly will cause premature bushing wear and increased noise. [FIGURE 1]



8. With greased bushings installed, place the driver side upper control arm into the mounts on the chassis and hand tighten OEM hardware.

9. Reinstall the factory shock assembly or refer to the ICON coilover installation instructions now.

**10**. Take care when inserting tapered pin into the spindle to not damage the threads. Use a 21mm socket/wrench to fasten the supplied nylock nut onto the tapered pin to get it to seat properly. [Torque to 100 ft-lbs]

11. Tighten the upper control arm bolts on the chassis using a 21mm socket/wrench. [Torque to factory spec]

12. Repeat steps on opposite side.

13. Reinstall wheels and tighten lug nuts. [Torque to factory spec]

14. Lower vehicle to the ground to compress suspension allowing access to the 12pt taper adapter bolt. Remove bolt, apply RED thread locker and reinstall. [Torque to 90 ft-lb]

15. 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.



PERFORMANCE SUSPENSION SYSTEMS AND SHOCK ABSORBERS

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



