ICON Vehicle Dynamics 95003 Installation Instructions

Front 3.0 VS RR CDEV Coilover Kit for Ford F-150 Raptor

Part number: 95003

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95003 INSTALLATION INSTRUCTIONS

11-13-2025 REV.A

PART #	DESCRIPTION
95003	21-UP FORD F150 RAPTOR FRONT COILOVER KIT

COMPONENTS INCLUDED

- (1) 194971ED 21+ F150 RAPTOR FRONT COILOVER CDEV DRIVER
- (1) 194971EP 21+ F150 RAPTOR FRONT COILOVER CDEV PASSENGER
- (1) 194508 10+ F150 RAPTOR RESERVOIR MOUNT PASSENGER
- (1) 194507 10+ F150 RAPTOR RESERVOIR MOUNT DRIVER
- (1) 95003H 21+ F150 RAPTOR FRONT COILOVER HARDWARE KIT
- (1) 255604-04 EXTENSION HARNESS IIC CONTROLLER 4-FT
- (1) 255604-08 EXTENSION HARNESS IIC CONTROLLER 8-FT

HARDWARE INCLUDED

95003H HARDWARE KIT

- (2) 197011 04-08 F-150 & RAPTOR ADAPTOR LCA
- (2) 197013 10+ RAPTOR ADAPTOR LCA NARROW
- (4) 257260 EXTRUDED RESERVOIR MOUNT CLAMP
- (2) 257262M EXTRUDED RESERVOIR MOUNT
- (4) 605040 10-32 X 1.125 SOCKET HEAD BOLT
- (4) 605052 1/4-20 NYLOCK NUT
- (4) 605053 1/4 FLAT WASHER
- (4) 605055 1/4-20 X .750 BUTTONHEAD BOLT
- (6) 605203 7/16-14 X 1.0 HHCS GR8
- (6) 605230 7/16 SAE FLAT WASHER GR8
- (2) 605500 5/8-11 X 5.000 BOLT
- (2) 605520 5/8-11 NYLOCK NUT
- (4) 605530 5/8 FLAT WASHER

TOOLS REQUIRED

- JACK
- JACK STAND
- TORQUE WRENCH
- 5/32" ALLEN
- 7/16" SOCKET / WRENCH
- 9/16" SOCKET / WRENCH
- 5/16" SOCKET / WRENCH
- 15MM SOCKET / WRENCH
- 18MM SOCKET / WRENCH
- 21MM SOCKET / WRENCH
- 27MM SOCKET / WRENCH
- 30MM SOCKET / WRENCH

TECH NOTES

1. DO NOT ADJUST BEYOND 1.5" OF PRELOAD.

2. REFER TO 93500 AND 95020 TO COMPLETE ELECTRONICS INSTALLATION.

3. INSTALLATION TIME: APPROX. 4-5 HOURS.



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 truck on the frame rails or trailer hitch cross member with jack stands. Ensure the jack stands are secure and set properly before lowering the jack. NEVER WORK UNDER AN UNSUPPORTED VEHICLE.

2. Remove the live valve coils from the stock shock assembly. Unscrew the black plastic nut that holds the coil on. Slide the coil off of the stud of the valve assembly. This will be mounted to the frame later. **[FIGURE 1 & 2]**

FIG.1

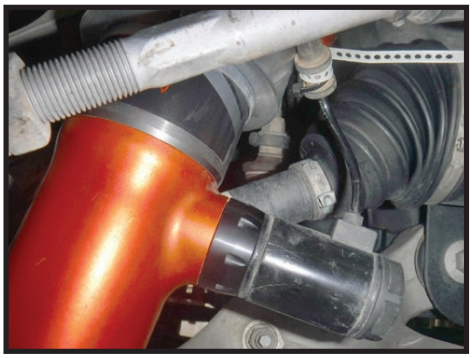



FIG.2

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3. Remove the stock shock assemblies from the vehicle.

NOTE: To gain access to the 3 nuts on the passenger's side using a long handle ratchet toward the back of the vehicle for the nuts is best. **[FIGURE 3]**

FIG.3



4. Disconnect the tie rod and upper arm from the knuckle: loosen the nuts (18mm & 21mm) and strike the side of the knuckle at the taper to dislodge. Tie or bungee cord the top of the knuckle to prevent it from flopping outward and over extending the CV joints. Disconnect the sway bar link at the sway bar (18mm). **[FIGURE 4 & 5]**

FIG.4





FIG.5

5. Remove the lower shock bolt (30mm nut, 27mm head). Remove the 3 upper shock mount bolt. (DO NOT LOOSEN THE CENTER NUT ON THE TOP OF THE SHOCK OR THE ASSEMBLY CAN COME APART VIOLENTLY RESULTING IN DAMAGE AND INJURY). Remove the assembly from the vehicle. You will have to push down on the lower arm to get the bottom of the shock to come out of its pocket in the arm. If the knuckle is held slightly outward from vertical the arm will flex down easier.

NOTE: If you are also installing upper control arms, do so now. Refer to control arm instructions.

6. Assemble and install the reservoir mounts. Loosely install the clamp blocks onto the dovetail clamp base with the supplied #10 x 1-1/8" socket head screws (5/35" allen). Secure the clamp base to the reservoir bracket with the supplied 1/4" button head bolts and nylock nuts (5/35" allen, 7/16" wrench). **[FIGURE 6]**

FIG.6



7. Install the reservoir bracket assembly in the vehicle on the forward upper a-arm bolt. Remove the nut (21mm) on the upper front a-arm pivot bolt, on the passenger's side you must also remove the ground wire located just below the nut, slide the reservoir bracket assembly over the bolt and reinstall the nut.

ICON UCAs - Torque bolt to factory spec. ***Factory UCAs*** - DO NOT TIGHTEN at this time. This must be tightened on the ground so as not to damage the upper A-arm pivot bushings. Reinstall the ground wire through the bracket. **[FIGURE 7 & 8]**

FIG.7



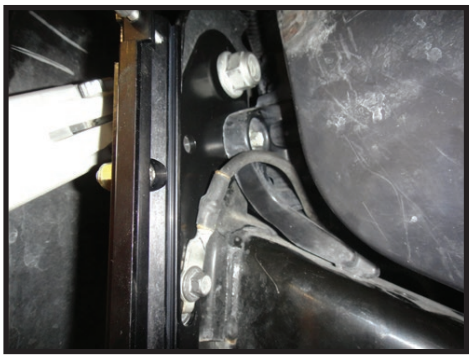

FIG.8

8. Install the coilover: Install the bolt spacers in the lower arm with the shorter one forward. Make sure the spacers in the lower eyelet of the shock are oriented correctly see diagram with the shorter one forward. It helps to get the 7/16 x 1" upper bolts ready with the lock washers on them and placed in an easy to reach spot once you get the coilover up in position as this is a large assembly to handle.

FIG.9



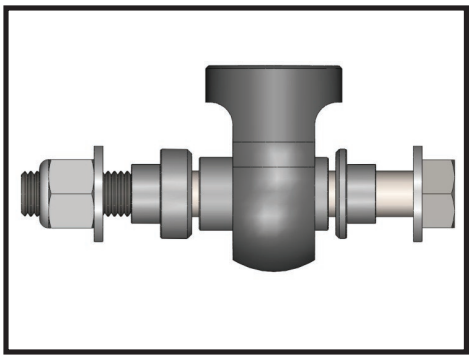

FIG.10

FIG.11



9. Lift the coilover assembly up into position and start the 3 upper mount bolts. Push down on the lower arm and to get the lower eyelet into position in the lower arm pocket. See pictures above. **[FIGURE 9, 10 & 11]**

10. Install the lower 5/8 x 5" bolt and washer through the lower pivot. Install second washer and nut. Torque to 120 ft-lbs.

11. Re-attach the upper ball joint, tie rod and sway bar link. Torque to factory spec. Tighten the 3 upper mount bolts to 45 ft-lbs.

Mount the Reservoir

12. Insert the back of the reservoir dovetail into the back of the mount and rotate it into the mount. Position the clamp blocks over the front part of the dove tail and secure by tightening the #10 allen head bolts. Do not over tighten. Tighten to 24 in-lbs.

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13. Refer to 93500 IIC install kit instructions for controller installation and wiring. Refer to 95020 live valve mount kit instructions to secure and mount the factory solenoid coils. **[FIGURE 12 & 13]**

FIG.12





FIG.13

14. Reinstall wheels. Lower vehicle to the ground. Scrub out suspension by rolling forward and back a couple feet 2-3 times.

15. With the vehicle sitting on the ground, you can now torque the upper front A-arm bolt to factory spec.

16. Have the vehicle re-aligned.

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 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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