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 Phone: 951.689.ICON Fax: 951.689.1016

PART #	DESCRIPTION
22003	07-UP 0-4" JK FRONT COILOVER CONVERSION KIT

COMPONENTS INCLUDED	
(1) 124010 JK CO FRT LOWER AXLE MT (DRVR) (1) 124011 JK CO FRT LOWER AXLE MT (PASS) (1) 124012 JK FRT CO MT (DRVR) (1) 124013 JK FRT CO MT (PASS)	(1) 124033 JK FRT CO ANCHOR (DRVR) (1) 124034 JK FRT CO ANCHOR (PASS) (1) 22003H JK FRT CO MNT HARDWARE KIT
HARDWARE INCLUDED	
(2) 120038 JK BRAKE LINE DROP BRKT (2) 124037 JK CO ANCHOR DOUBLER (2) 127200 JK FRONT BUMP STOP SPACER 1" (2) 139004 SLEEVE .750 X .510 X 1.450 (4) 154012 1/2-13 NUT TAB (8) 605016 5/16 SAE FLAT WASHER (2) 605033 #14-14 X .750 #3 SELF DRILL SCREW (2) 605052 1/4-20 NYLOCK NUT GR8 (4) 605053 1/4 SAE FLAT WASHER GR8 (2) 605054 1/4-20 X .750 HHCS GR8 (4) 605076 5/16-18 C-LOCK (4) 605080 5/16-18 X 1.000 BOLT (8) 605101 3/8-16 X 1.000 BOLT	(6) 605108 3/8-16 X 1.250 BOLT (2) 605111 3/8-16 X 1.750 CS ALLEN SCREW (16) 605122 3/8-16 C-LOCK (30) 605133 3/8 SAE FLAT WASHER (4) 605301 1/2-13 X 1.250 BOLT (2) 605306 1/2-13 X 2.500 BOLT (2) 605311 1/2-13 X 4.000 BOLT (4) 605322 1/2-13 C-LOCK NUT (16) 605330 1/2 SAE FLAT WASHER (2) 605505 5/8-18 X 2.000 BOLT (2) 605508 5/8-18 X 1.500 BOLT (4) 605525 5/8-18 C-LOCK NUT (8) 605530 5/8 SAE FLAT WASHER (2) 605934 #12 (3/4) ADEL CLAMP
TOOLS REQUIRED	
JACK JACK STANDS 8MM SOCKET / WRENCH 10MM SOCKET / WRENCH 15MM SOCKET / WRENCH 18MM SOCKET / WRENCH 19MM SOCKET / WRENCH 21MM SOCKET / WRENCH 1/2" SOCKET / WRENCH 9/16" SOCKET / WRENCH 3/4" SOCKET / WRENCH	15/16" SOCKET / WRENCH CENTER PUNCH HAMMER 5/16" DRILL BIT 3/8" DRILL BIT 11/32" DRILL BIT 1/2" DRILL BIT BLACK SPRAY PAINT 7/32" ALLEN WRENCH DRILL TORQUE WRENCH
TECH NOTES	
<p>1. FACTORY REAR SWAY BAR LINKS REPLACE THE FACTORY FRONT SWAY BAR LINKS. IF NOT INSTALLING THE ICON REAR COILOVER KIT, LINKS WILL NEED TO BE SUPPLIED.</p> <p>2. IF USING AFTERMARKET STEERING OR AN AFTERMARKET TRACK BAR BRACKET, A LARGER (THAN SUPPLIED) BUMPSTOP SPACER IS REQUIRED.</p> <p>3. ALL ADVERTISED LIFT HEIGHTS ARE BASED OFF OF A STOCK-EQUIPPED 4 DOOR JK.</p> <p>4. AFTERMARKET DRIVESHAFTS ARE AVAILABLE THROUGH ICON (#22016, #22014), PLEASE CALL (951) 689-4266 FOR MORE INFORMATION.</p> <p>5. IF USING A STOCK EXHAUST ON 2012+ MODELS, USE ICON EXHAUST SPACER KIT (#22011).</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 INSTALLTION 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

1. Raise the vehicle and support the frame rails with jack stands. Ensure jack stands are secure and set properly before lowering the hydraulic jack. BE SURE TO NEVER WORK UNDER AN UNSUPPORTED VEHICLE. Carefully dismantle wheels from the vehicle.
2. Remove the front track bar from the frame. The axle may move slightly when taking the bolt out. (21mm) (FIGURE 1)

FIG.1



FIG.2

3. Remove the front sway bar links. (18mm, 19mm) (FIGURE 2)

4. Disconnect the driveshaft from the front differential to allow the axle to be lowered later on. (15mm)
5. Remove the front brake line bracket from the frame and axle. Free lower bracket from the coil seat. (10mm)
6. Unclip the front differential breather tube from the frame.
7. (*RUBICON*) Disconnect plug to electric locker at this time.
8. Support the axle housing with a floor jack and remove the front shocks. The shocks are limiting droop so **MAKE SURE THE AXLE IS SUPPORTED OR THE AXLE WILL FALL** when the shocks are removed. (18mm, 16mm)
9. Lower the axle to unload the springs and remove the springs and rubber spring isolators.
10. Install the supplied bump stop spacer; drill a 3/8" hole in the middle of the lower spring seat where the bump stop hits. Using the 3/8" x 1.75 flat head bolt, bolt the bump stop spacer to the striker pad. (9/16") (FIGURE 3 & FIGURE 4)

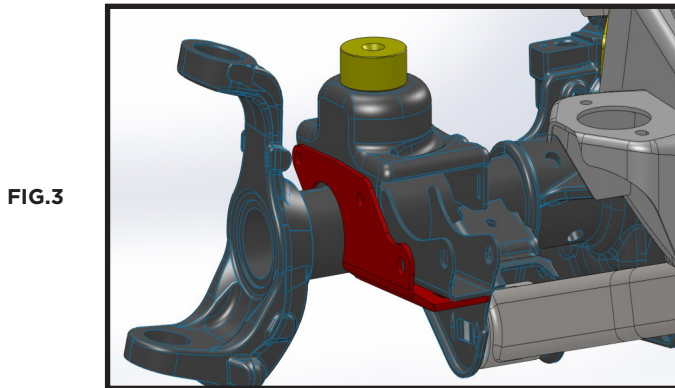


FIG.3



FIG.4

11. Mount the lower shock mount on the axle by slipping it under the OEM shock mount and use the 2 bottom holes in the OEM shock mount and 3/8" x 1.0 bolts with nuts and washers up through the 3 bottom to loosely attach the lower mount. Install the lower 1/2" x 4.5 coilover bolt through the 3 holes to line up the bracket. Use the supplied 5/16" x 1.0 bolt with nut and washers to connect the 1 pre-aligned bolt hole that screws into the side of the bump stop mount. On 2011 and newer models the supplied brake line extender attaches here also. Drill the forward 5/16" hole using the bracket as a drill guide. Take up the slack but do not tighten the 3/8" and 5/16" hardware. Remove the 1/2" bolt for later use when installing the coilover. This bracket has been cleared for the factory weld but vehicles may vary and some sanding may be required. (1/2", 9/16") (FIGURE 4)

12. Trim the factory lower coil mount as shown for coilover clearance and paint to prevent corrosion. (FIGURE 5)

**NOTE: IF INSTALLING A HYDRAULIC BUMPSTOP ALSO, REFER TO THOSE INSTRUCTIONS FOR REMOVING THE STOCK BUMP TUBE.**

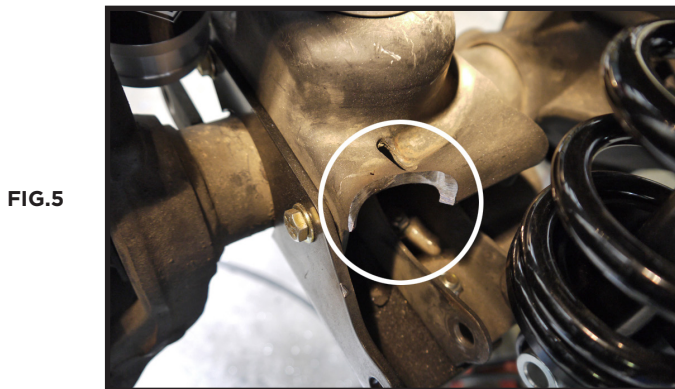


FIG.5

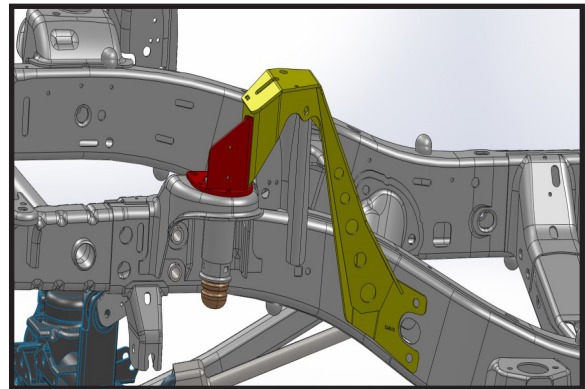


FIG.6

13. Begin installing the driver side upper coilover shock mount. On most models plastic must be trimmed from the tray that holds the ABS and electronics, be careful as there are hoses behind the plastic. Slip the mount over the upper OEM stem top shock mount. Insert the supplied 5/8" x 2.0" bolt with washers and nuts, allowing it to hang in place loosely. Some factory components in the wheel-well may need to be loosened to ease the installation process. Place the anchor bracket on top of the coil bucket with holes facing rearward to match holes on coilover mount. Use supplied 3/8" x 1.0 hardware to attach the anchor bracket to shock mount loosely. Some of the fender well may need to be trimmed on certain models to speed up the installation process. (FIGURE 6)

14. Place the anchor doubler plate on the inside of the bucket with arrow pointing forward. Install the supplied 5/8" x 1.5 bolts with nuts and washers down from the top through the existing factory hole in the coil bucket. (15/16") If the anchor is not sitting flush use a clamp to bring the anchor flush with the coil bucket. Line up the upper and lower bolt patterns. By placing 3/8" bolts in the upper anchor hole and lower doubler hole you can visually confirm the alignment (FIGURE 7). Using the doubler plate as a center punch guide, center punch and drill the holes to 3/8" and install the 3/8" x 1.25 hardware (9/16"). Once the anchor is fastened to the coil bucket, snug the 3/8 bolts holding it to the coilover mount.

**NOTE: IF INSTALLING HYDRAULIC BUMPSTOP YOU CAN REMOVE THE DOUBLER PLATE AND REPLACE IT WITH THE BUMPSTOP MOUNT AFTER THE HOLES HAVE BEEN DRILLED.**

FIG.7



FIG.8



**15.** Use a clamp to hold the shock mount flush to the frame to mark for drilling. The cut out should center over the hole in the frame. Center-punch each hole and drill through the frame using a 1/2" drill bit. Only drill through the outer wall of the frame, don't drill through the inner wall. Install the 1/2" x 1.25 bolts using the supplied nut tabs through the access hole in the outer wall. (3/4") (FIGURE 8)

**16.** Tighten remaining hardware throughout the shock mount and anchor bracket. (9/16" 3/4" 15/16")

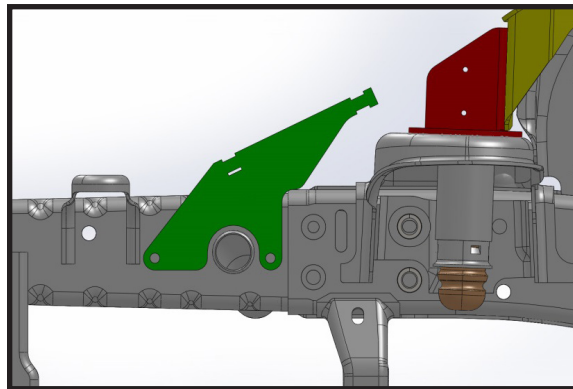
**17.** Mount the passenger side in the same manner, certain models will require the battery tray and other components to be loosened up in order to speed up the install process and allow easier access to tighten hardware.

**18.** The ICON coilover can be installed at this time. Using 1/2" x 2.50 bolts with nuts and washers, attach at the coilover to the upper shock mount first. Installing the nut and washer on the back side is very tight. It may be necessary to pull the lower part of the shock out towards the brake caliper allowing more access behind the shock. Once the coil-over is connected to the hoop raise the axle up to the shock to align the lower mount. Place the supplied spacer in the stock shock position, secure with the 1/2" x 4.5 bolts with lock nuts and washers. (3/4")

**19.** Tighten all hardware on the axle shock mount that was left loose in Step 11. (FIGURE 4)

**20.** For remote reservoir shocks, a reservoir mount is provided in the shock box. Hold the mount up to the frame in front of the coil bucket. Mark the center of the holes using a centering punch. Drill the holes to 11/32". Mount the reservoir plates using the supplied 3/8" self-tapping screws. (9/16") (FIGURE 9)

FIG.9



**21.** Mount the reservoirs to the reservoir mounts using hose clamps. Trim fender liner as shown. Rotate reservoir until sticker is facing out (and CDC knob is accessible if equipped with that option). Make sure hose is safe from anything that may wear into it or damage it. (8mm)

**22.** Remount any of the bracketry in the inner fender wells that was removed.

**23.** Reconnect track bar to frame. (21mm)

**24. (RUBICON)** Reconnect the front locker solenoid.

**25.** Reconnect the front differential breather tube to the frame.

**26.** Disconnect the upper brake line bracket from the frame using a 10mm socket/wrench. Connect the brake line drop bracket (120038) using the stock bolt with the offset going under the frame. Carefully straighten the hard line without kinking it. Connect to the brake line drop bracket using a 7/16" and the supplied 1/4" hardware. [Torque 1/4" hardware to 10 ft-lbs]

**27.** Bend the 90 degree angle in the brake line down approximately 20 degrees without kinking it. (FIGURE 10)

**FIG.10**



**28.** (2012+ models) Reconnect the brake line bracket to the axle using a 10mm socket/wrench.

**29.** The lift and additional travel will require that the longer rear sway bar links be used in the front (Rear kit will address the rear sway bar requirements). Connect the rear sway bar links to the front sway bar and axle. The ball joint connects to the sway bar. (18mm, 19mm)

**30.** Install the ICON driveshaft (07-11 models Part #22016) (12+ models Part #22014) or the exhaust spacer kit (12+ models Part # 22011).

**31.** Tighten all factory hardware to factory specs. Tighten ICON supplied hardware to:

- 5/16" to 30 ft-lbs
- 3/8" to 47 ft-lbs
- 7/16" to 78 ft-lbs
- 1/2" to 120 ft-lbs
- 5/8" to 150 ft-lbs

**32.** Have your vehicle professionally aligned whenever new suspension components are installed. A certified alignment technician with lifted vehicle experience is highly recommended.

***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

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