

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

| PART # | DESCRIPTION                                  |
|--------|--|
| 21010  | 07-UP JEEP WRANGLER JK<br>4.5" FRONT BOX KIT |

| COMPONENTS INCLUDED   |  |
|---|--|
| (1) 124000 JK FRONT TRACK BAR LIFT BRACKET<br>(2) 127013 JK FRONT BUMPSTOP SPACER   | (1) 124022 JK DRAG LINK<br>(1) 21010H JK FRONT 4.5" HARDWARE KIT   |
| HARDWARE INCLUDED   |  |
| (2) 120038 JK BRAKE LINE DROP<br>(1) 127001 JK STEERING FLIP ADAPTER STEM<br>(1) 127002 JK STEERING FLIP TOP DOME<br>(1) 127003 JK STEERING FLIP TAPER SLEEVE<br>(1) 295511 JM12T ROD END<br>(2) 605052 1/4-20 NYLOCK NUT<br>(4) 605053 1/4 FLAT WASHER<br>(2) 605054 1/4-20 X .750 BOLT<br>(3) 605101 3/8-16 X 1.000 BOLT  | (2) 605117 3/8-16 X 3.500 ALLEN BOLT<br>(7) 605122 3/8-16 C-LOCK NUT<br>(10) 605133 3/8 SAE FLAT WASHER<br>(1) 605150 3/8-16 U-BOLT<br>(1) 605350 1/2-20 C-LOCK NUT<br>(2) 605445 9/16-12 X 3.000 BOLT<br>(2) 605450 9/16-12 C-LOCK NUT<br>(4) 605455 9/16 FLAT WASHER<br>(1) 605640 3/4-16 JAM NUT THIN |
| TOOLS REQUIRED  |  |
| FLOOR JACK<br>JACK STANDS<br>TAPE MEASURE<br>HAMMER<br>CRESCENT WRENCH<br>TORQUE WRENCH<br>DRILL<br>3/8" DRILL BIT<br>7/32" ALLEN WRENCH<br>8MM SOCKET / WRENCH<br>10MM SOCKET / WRENCH   | 15MM SOCKET / WRENCH<br>16MM SOCKET / WRENCH<br>18MM SOCKET / WRENCH<br>19MM SOCKET / WRENCH<br>21MM SOCKET / WRENCH<br>3/8" SOCKET / WRENCH<br>7/16" SOCKET WRENCH<br>9/16" SOCKET / WRENCH<br>13/16" SOCKET / WRENCH<br>3/4" SOCKET / WRENCH<br>7/8" SOCKET WRENCH                                     |
| TECH NOTES  |  |
| <p>1. THE FOLLOWING PARTS ARE REQUIRED FOR COMPLETE INSTALLATION OF THIS KIT:</p> <p>#24010 FRONT COIL KIT<br/>           #21036 OR PART #21035 FRONT UPPER LINK<br/>           #21031 OR PART #21030 FRONT LOWER LINK<br/>           #22016 (07-11 MODELS) OR PART#22014 (12+ MODELS) FRONT DRIVESHAFT<br/>           #22011 (12+ MODELS) EXHAUST SPACER KIT</p> <p>2. CASTER SPECIFICATIONS FOR ICON FIXED LOWER LINKS AND ICON ADJUSTABLE UPPER LINKS:</p> <p>18.75" UPPER LINK LENGTH = 4.8 DEGREES OF CASTER<br/>           19.00" UPPER LINK LENGTH = 3.4 DEGREES OF CASTER</p> |  |



**WARNING!**

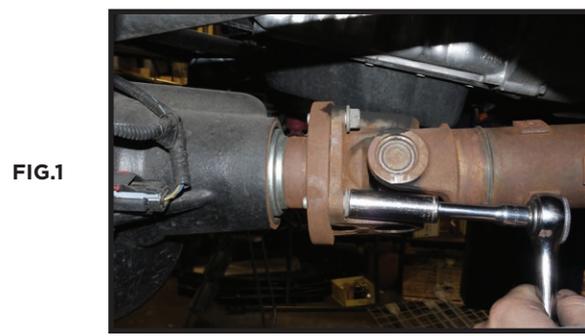
**\*\* READ ALL INSTRUCTIONS THOROUGHLY FROM START TO FINISH BEFORE BEGINNING INSTALLATION! IF THESE INSTRUCTIONS ARE NOT PROPERLY FOLLOWED SEVERE FRAME, SUSPENSION AND TIRE DAMAGE MAY RESULT TO THE VEHICLE!**

**\*\* 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 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.**

## INSTALLATION

- Using a properly rated hydraulic jack, raise the vehicle and support the frame rails with jack stands. Ensure jack stands are secure and set properly before lowering the hydraulic jack. NEVER WORK UNDER AN UNSUPPORTED VEHICLE. Remove wheels.
- Using (2) 18mm wrenches, remove the sway bar link bolts from the axle. Using (1) 18mm wrench and (1) 19mm wrench, remove the front sway bar links from the sway bar. Set sway bar links aside. These will be used on the front later on.
- Using a 15mm socket/wrench, disconnect the driveshaft from the front differential. Using an 8mm socket/wrench, disconnect the driveshaft from the transfer case. The stock driveshaft will not be reused. Refer to drive shaft instructions. [FIGURE 1]



**4.** Using a 21mm socket/wrench, disconnect the steering drag link from the knuckle. To free the taper from the knuckle, use a tie rod splitter or a hammer [FIGURE 2]. Using a 15mm socket/wrench, loosen the turn buckle, and unthread the drag link from the collar. (LEFT HAND THREAD)

FIG.2



FIG.3

**5.** (2012 MODELS) With a 10mm socket/wrench, remove the front brake line bracket from the axle [FIGURE 3]. Free the lower bracket from the coil seat. (2007-2011 models do not have this bracket)

**6.** Using a 21mm socket/wrench, remove the front track bar from the axle. The axle may move slightly when taking the bolt out.

**7.** Remove the front breather tube from the front differential.

**8. (RUBICON ONLY)** Disconnect the locker control wires from the front differential. Red tab slides to the side to unlock connector. [FIGURE 4]

FIG.4



**9.** While supporting the front axle with a floor jack, remove front shocks using a 16mm socket/wrench for the stem and (2) 18mm wrenches for the lower bolt. The shock may spin when you try to remove the stem hardware you will need to hold onto the shock body if this happens. The shocks are limiting suspension droop so make sure that the axle is supported, or it will fall when the shocks are removed.

**10.** Once the shocks are removed, slowly lower the axle while watching for any lines that might snag. Lower the axle enough to remove the front coils. Carefully remove coils.

**11.** Refer to upper and lower link instructions and install upper and lower links now.

**12.** Install the front track bar bracket: slide the new bracket into the stock track bar mount on the axle and position around the axle tube. Install the factory bolt through the lower hole in the stock position using blue thread locker. Install the U-bolt around the axle as shown and fasten with supplied 3/8" lock nuts and washers. Install all 4 of the 3/8" x 1.0" bolts [Torque to 35 ft-lbs] [FIGURE 5].

FIG.5



**13.** If ICON adjustable track bar (Part #21020) has been purchased, install the track bar to the bracket using the supplied 9/16" bolt, washers, and nut [Torque to 115 ft-lbs].

**14.** Install the front bumpstop spacers by drilling a 3/8" hole in the middle of the lower spring seat where the bumpstop hits using the supplied template. [FIGURE 6]

FIG.6



FIG.7

**15.** As you install the front coil springs, hold the bumpstop spacer in the spring. Carefully lower the axle far enough to allow access for the new coils, watch for wiring and hoses that may be stretched. Make sure the factory upper spring isolator is in the upper bucket. Make sure the pig tail (lower end) of the spring is seated properly. [FIGURE 7]

**16.** Once the spring is in place, bolt the bump stop spacer to the spring seat through the coil using the allen bolts supplied with a 7/32" allen, and a 9/16" [Torque to 20 ft-lbs].

**17.** Slowly lift the axle making sure the coils align in the upper and lower seats. Lift the axle just high enough to install the new front shocks. Be careful not to lift vehicle off of stands.

**18.** Refer to shock instructions for details on shock and reservoir installation.

**19.** Thread the drag link into the factory turn buckle. Make sure the drag link and factory tie rod end have equal thread engagement.

**20.** Install the steering flip adapter: The 5/8" shank end goes down through the steering arm and the taper sleeve adapter is inserted up around the stem from the bottom, start the nut. Slide the drag link rod end onto the adapter followed by the upper dome spacer and 1/2" nut. Tighten the 5/8 bottom nut using a 15/16" [Torque to 100 ft-lbs]. Tighten the top nut using a 3/4" [Torque to 75ft-lbs]. [Torque rod end jam nut to 150ft-lbs]

**21.** If the steering adaptor is not properly installed as seen in [FIGURE 8 & 9], failure will occur.

FIG.8

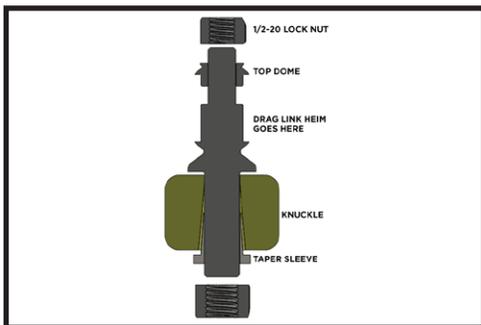


FIG.9

**22.** Reconnect the front breather tube to the differential.

**23.** Install front sway bar links (original rear sway bar links removed earlier): Use (2) 18mm for the lower bolt and (1) 18mm and (1) 19mm for the upper stud.

**24.** 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]

**25.** Bend the 90 degree angle in the brake line down approximately 20 degrees without kinking it. [FIGURE 10]

FIG.10



**26.** (2012+ models) Reconnect the brake line bracket to the axle using a 10mm socket/wrench.

**27.** (RUBICON) Reconnect the front locker solenoid. Slide red tab back into place locking connection.

**28.** Install the ICON driveshaft (07-11 models Part #22016) (12+ models Part #22014) and the exhaust spacer kit (12+ models Part #22011) using the provided instructions.

**29.** Certain Jeep packages came equipped with a skid plate that will still interfere with the aftermarket drive shaft at full extension. Trimming of the skid plate is required for those models.

**30.** Tighten all factory hardware to factory specs.

**31.** With vehicle on the ground and wheels straight, loosen the turn buckle on the drag link using a 15mm socket/wrench. Adjust the length of the drag link by rotating to turn buckle until the steering wheel is centered. Tighten the turn buckle. [Torque to factory spec]

**32.** Failure to center the steering wheel before driving will result in computer stability control issues.

**33.** 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.



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