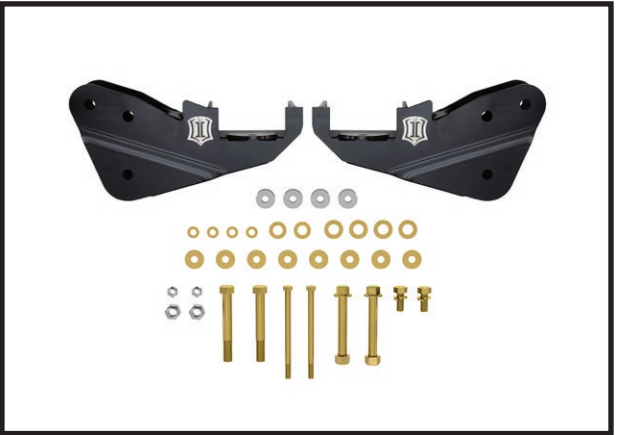


7929 Lincoln Ave. Riverside, CA 92504  
 Phone: 951.689.ICON | Fax: 951.689.1016

PART #	DESCRIPTION
64046	23 FSD RADIUS ARM DROP KIT

COMPONENTS INCLUDED	
(1) 164051 23 FSD RADIUS ARM DROP (DRVR) (1) 164052 23 FSD RADIUS ARM DROP (PASS)	(1) 64046H 23 FSD RADIUS ARM DROP HARDWARE KIT
HARDWARE INCLUDED	
64046H HARDWARE KIT?	
(4) 167029 SLEEVE 1.500 X .525 X .625 RAW (2) 605202 7/16-14 X 1.250 HHCS GR8 YZINC (2) 605220 7/16-14 NYLOCK NUT GR8 YZINC (4) 605230 7/16 SAE FLAT WASHER GR8 YZINC (8) 605357 WASHER 1.500 X .531 X .046 CZINC (2) 605518 5/8-11 X 1.500 HHCS GR8 YZINC (2) 605527 5/8 SPLIT LOCK WASHER GR8 YZINC (2) 605601 3/4-10 X 5.500 HHCS GR8 YZINC (2) 605620 3/4-10 NYLOCK NUT GR8 YZINC	(4) 605630 3/4 SAE FLAT WASHER GR8 YZINC (2) 605823 M12-1.75 NYLOCK NUT GR8.8 CZINC (2) 605849 M12-1.75 X 180MM HHCS GR10.9 YZINC (2) 605821 M18 - 2.5 NYLOCK NUT GR8.8 CZINC (2) 605831 M18-2.5 X 139.3 OAL OEM FORD BOLT (2) 605832 M18 FLAT WASHER GR 10.9 YZINC
TOOLS REQUIRED	
JACK JACK STANDS TORQUE WRENCH 8MM SOCKET / WRENCH 10MM SOCKET / WRENCH 13MM SOCKET / WRENCH 15MM SOCKET / WRENCH 18MM SOCKET / WRENCH 19MM SOCKET / WRENCH	24MM SOCKET / WRENCH 27MM SOCKET / WRENCH 30MM SOCKET / WRENCH 3/8" 12PT SOCKET / WRENCH 1/2" SOCKET / WRENCH 15/16" SOCKET / WRENCH 1 1/16" SOCKET / WRENCH 1 1/8" SOCKET / WRENCH
TECH NOTES	
N/A	



**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

**1.** Using a properly rated jack, raise the front end of the vehicle and support the frame rails with jack stands. The best positions to support the front of the truck are either the frame rails just behind the front bumper or on the body mounts just behind the front fenders. If lifting from the body mounts, be careful not to pinch the parking brake line on the driver's side. NEVER WORK UNDER AN UNSUPPORTED VEHICLE. Remove the front wheels.

**2.** Remove the sway bar links from the sway bar using an 18mm & 8mm. Leave them connected at the axle end. [FIGURE 1]

FIG.1

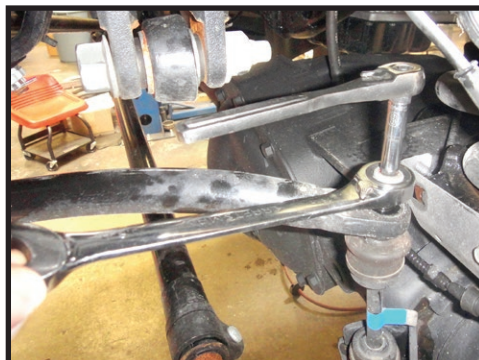


FIG.2



**3.** Disconnect the upper brake line brackets from the frame using a 13mm and lower brake line brackets from the axle using a 10mm. [FIGURE 2]

4. Remove the factory track bar using a 27mm and 30mm. (Refer to track bar #64038 instructions) [FIGURE 3]

FIG.3



5. Support the axle using a jack and remove the front shocks. The shocks are limiting droop so make sure that the axle is well supported or it will fall when the shocks are removed. Only remove the lower bolt using an 18mm.

6. Slowly lower the axle until the coils unload from the mounts. Be careful not to stretch or damage any lines connected to the differential or radius arms. Remove the coils. [FIGURE 4]

FIG.4



7. Some trucks have a transfer case skid plate that must be removed first using a 15mm. Remove the nut clips from the frame.

8. Lift the axle enough to reconnect the shocks and then lower the axle back down. [FIGURE 5]

FIG.5



FIG.6



9. With both coils removed, the radius arms don't have much force on them and can be safely removed from the frame mount using a 24mm & 27mm. [FIGURE 6]

10. Once the bolts are removed from the radius arms, lift up on the tie rod to rotate the axle rearward which will then rotate the radius arms out of their pockets. [FIGURE 7]

FIG.7



FIG.8



11. Remove the outside crossmember bolt on both sides. [FIGURE 8]

**12.** Position the driver side radius arm bracket into the radius arm pocket. Loosely install the supplied M18 X 139mm bolt with washers in the forward hole. Loosely install the supplied rear 3/4" X 5.5" bolt with washers into the radius arm holes. [FIGURE 9]



FIG.9

**13.** Spacers, washers, and a longer 12mm bolt are supplied to mount the radius arm bracket to the crossmember using a 19mm. The washers are used to account for the variances in crossmember placement in relation to the radius arm pockets. Position the supplied spacers and washers between the crossmember and radius arm bracket. One spacer must go on the driver and passenger (also front and rear) sides of the crossmember. Position the shims as needed. Four shims must be used on each side of the truck. The shim positioning may vary from one side to the other. [Torque to 65 ft-lbs] [FIGURE 10 & 11]



FIG.10



FIG.11

**14.** Next drill out the forward hole in the frame using a 7/16" drill bit. A step drill bit can be easier if available. Then install the supplied 7/16-14 hardware and torque to 50 ft-lbs [FIGURE 12].



FIG.12

**15.** With both of the frame brackets installed loosely on the vehicle, torque the M18 bolts/nuts to 250 ft-lbs.

**16.** Insert the supplied 5/8" bolt with washer and split washer inside the cross member and torque to 150 ft-lbs. [FIGURE 13]

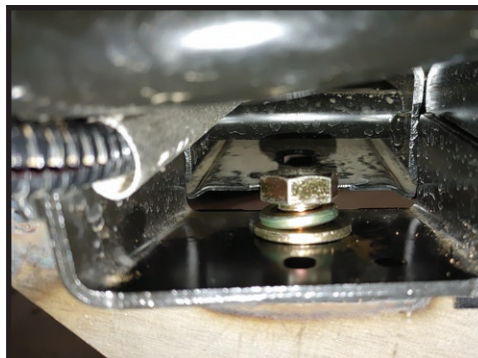
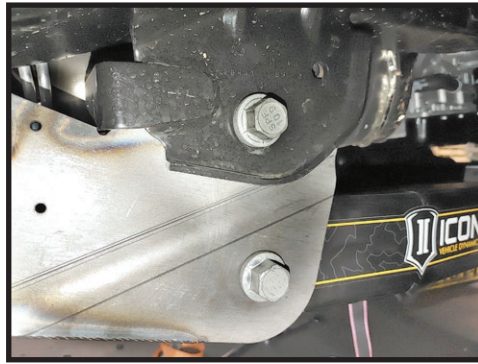


FIG.13

**17.** Move the radius arms up into the pockets of the drop bracket and fasten with the factory bolt using a 24mm & 27mm. [Torque to factory spec] [FIGURE 14]

FIG.14



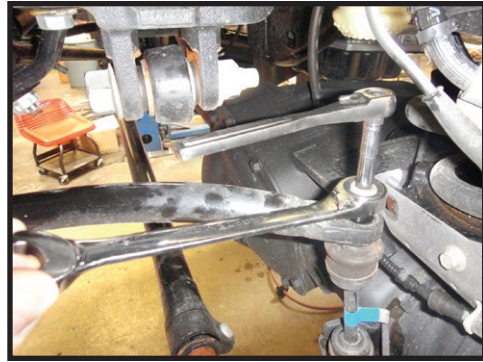
**18.** Remove the shocks and lower the axle enough to install the coil springs.

**19.** Once the coils are in seated, install the shocks using an 18mm and 19mm. Be careful not to lift the truck off of its supports. [Torque to factory spec] [FIGURE 15]

FIG.15



FIG.16



**20.** Reconnect the sway bar links to the sway bar using an 8mm and 18mm. [Torque to factory spec] [FIGURE 16]

**21.** Install the ICON adjustable track bar (64038) using a 30mm. (Refer to track bar instructions) [FIGURE 17]

FIG.17



**22.** Install the extended brake line kit (61110) available from ICON.

**23.** Mount the lower brake line brackets using the factory bolt and a 10mm. [Torque to factory spec] [FIGURE 18]

FIG.18



- 24.** Install the wheels/tires and lower the vehicle to the ground. [Torque lugs to factory spec]
- 25.** Center the front axle under the truck using the adjustable track bar. Center the steering wheel. Refer to track bar instructions.
- 26.** 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.

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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.

## **ICON VEHICLE DYNAMICS**

PERFORMANCE SUSPENSION SYSTEMS AND SHOCK ABSORBERS

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