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| PART # | DESCRIPTION              |
|--------|--------------------------|
| 168507 | 08-UP FSD EXPANSION PACK |

| COMPONENTS INCLUDED                                                                                                                                                           |                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| (2) 168507 08-UP FSD EXPANSION PACK                                                                                                                                           |                                                                                                               |
| HARDWARE INCLUDED                                                                                                                                                             |                                                                                                               |
| (2) 7/16 X 5/8 X 3/8 X 6" CENTER PIN<br>(2) 7/16 CENTER PIN NUT<br>(4) 3/8 X 4 CLIP BOLT                                                                                      | (4) 3/8 CLIP NUT<br>(4) 3/8 CLIP SPACER                                                                       |
| TOOLS REQUIRED                                                                                                                                                                |                                                                                                               |
| FLOOR JACK<br>JACK STANDS<br>TORQUE WRENCH<br>C-CLAMP<br>VISE-GRIP<br>15MM SOCKET/WRENCH                                                                                      | 18MM SOCKET/WRENCH<br>21MM SOCKET/WRENCH<br>5/8" SOCKET/WRENCH<br>9/16" SOCKET/WRENCH<br>15/16" SOCKET/WRENCH |
| TECH NOTES                                                                                                                                                                    |                                                                                                               |
| <p>1. DEPENDING ON YEAR AND BLOCK CONFIGURATION INSTALLER MUST USE THE APPROPRIATE U-BOLTS.</p> <p>2. SINGLE REAR WHEEL ONLY.</p> <p>3. ESTIMATED INSTALL TIME: 2-3 HOURS</p> |                                                                                                               |



| WARNING!                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>** 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!</p> <p>** ICON VEHICLE DYNAMICS RECOMMENDS THAT YOU EXERCISE EXTREME CAUTION WHEN WORKING UNDER A VEHICLE THAT IS SUPPORTED WITH JACK STANDS.</p> <p>** 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.</p> |

## INSTALLATION

1. Lift the back of the truck. Support the frame at the frame rail with jack stands. NEVER WORK UNDER AN UNSUPPORTED VEHICLE. Remove rear tires. Support the rear axle with a jack, as you will need to raise and lower it.
2. Remove both rear shocks from the mounts using an 18mm and 21mm. [FIGURE 1 & 2]

FIG.1



FIG.2



**3.** Depending on model, Using a pry bar, open the U-clips towards the ends of the spring pack that help to hold the leaves in-line with each other. On other models, you will need to loosen and remove the bolt on the underside that holds the clip in place. Remove the clip and discard. [FIGURE 3]

FIG.3



**4.** Loosen and remove the U-bolts using a 15/16". Doing one leaf pack at a time is easiest and prevents the axle from 'tipping' forward.

**5.** Loosen the center pin nut using a 15mm.

**6.** Slowly lower the axle until the leaf springs and center pin are from the axle and factory lift block. DO NOT ALLOW THE AXLE TO HANG FROM ANY HOSES OR WIRES.

**7.** Now all but the main leaf can be removed from the vehicle (F-350 and F-250 with Tremor or 'High Cap Tow' can keep the top helper spring and spacer). They can be reinstalled at the end if desired.

**8.** Remove the 3/8" bolts/nuts and crush sleeve from the add-a-leaf U-clips, set aside for later.

**9.** Carefully remove the center pin nut from the add-a-leaf and place the pack under the main leaf that is still in the truck. Be sure to take the top slider from the factory leaf pack and place it between the add-a-leaf and main leaf (You may need to loosen the opposite side U-bolts to allow the axle to droop out enough).

**10.** Align all the leaves together using the center pin, thread the nut onto the pin. Install the lift block (if applicable) between the springs and axle and begin to jack up the axle to compress the leaf pack together so the center pin and nut can be tightened. Torque to 50 ft-lbs.

**11.** Make sure the center pin is in the axle perch or if a lift block is being used, be sure the lift block pin is in the perch correctly and the leaf spring center pin is in the lift block correctly. Install the U-bolt plate and U-bolts in the same way as factory, Tighten by hand ensuring they are evenly tightened. If truck had a helper spring and spacer, reinstall that now if desired. [Torque to 110 ft-lbs] [FIGURE 5 & 6]

FIG.4



FIG.5



**12.** Reinstall the 3/8" hardware and spacers into the u-clips towards the ends of the springs. [FIGURE 6 & 7]

FIG.6



FIG.7



**13.** Repeat installation on opposite side.

**14.** Reinstall shocks.

**15.** Retorque U-bolts in 1000 Miles.

**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**

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