



# ICON VEHICLE DYNAMICS

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## ***Instruction Sheet:***

**Part No. 3-4099**  
**4.5" Front Spring Hanger Kit**  
**Late 1999-2004 Ford Super Duty**  
**F250/F350 4WD**  
**Late 1999-2005 Ford Excursion 4WD**

## ***Enclosed Parts List:***

|                                  |                             |
|----------------------------------|-----------------------------|
| (1) Passenger Side Spring Hanger | (1) Hardware Kit Including: |
| (1) Driver Side Spring Hanger    | (2) ½" x 2 ½" Bolt, Gr.5    |
| (2) Shackle                      | (2) ½" Nylon Lock Nut       |
|                                  | (4) ½" Flat Washer, Gr.5    |
|                                  | (2) Bumper Spacer           |

***IF THIS ICON VEHICLE DYNAMICS SPRING HANGER KIT IS USED IN CONJUNCTION WITH ANY OTHER SUSPENSION PRODUCT TO LIFT THE VEHICLE OVER 8 INCHES, CROSS-OVER STEERING MUST BE USED! ICON VEHICLE DYNAMICS WILL NOT BE RESPONSIBLE FOR ANY DAMAGES DUE TO THE NEGLIGENT DISREGARD OF THIS WARNING!***

This kit ***requires*** the use of a Pan-rod Bar Drop Bracket. If you have already installed a lift kit and have this required bracket and are installing this kit to increase the lift of the vehicle, proceed with the installation as described below. If this bracket has not been installed on the vehicle, you will need to do so by installing IVD part number **3-1020** (Box Kit). It is highly recommended that IVD part number **3-9290** (Adjustable Pan-rod Bar).

***\*\*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. IT IS HIGHLY RECOMMENDED TO USE RED LOC TIGHT 271 ON ALL FACTORY FORD BOLTS WHEN RE-INSTALLING THE BOLTS!***

## ***Installation Instructions:***

1. Remove front bumper.
2. Raise vehicle with floor jack, and support frame with jack stands. Do not work on the vehicle with it being supported by the floor jack alone.
3. Remove front tires and set aside.
4. Remove the sway bar end links from the sway bar and frame mounts. Set aside.
5. Loosen axle u-bolts until the center pin clears the hole on the axle perch. Do not remove the u-bolts from the vehicle. This will help in re-hanging the springs later.
6. Support driver side front axle with floor jack. Axle just needs to rest on the jack, **D O NOT APPLY PRESSURE TO THE SPRING!**
7. Loosen and remove the driver side front spring bolt that holds the spring to the front hanger.
8. Loosen and remove both of the driver side shackle bolts and shackle.
9. Remove the seven (7) mounting bolts from the front spring hanger. Then remove the spring hanger from the truck.
10. Install the new driver side spring hanger and re-install the mounting bolts. Loc Tight and torque bolts to original Ford Specifications.
11. Install the spring into the hanger and re-install the OEM bolt and nut. Do not tighten the bolt at this time.
12. Install the new shackle and the OEM bolts and nuts. Do not tighten the bolts at this time.
13. Lower the jack and allow the axle to rest on the u-bolts.
14. Support passenger side front axle with floor jack. Axle just needs to rest on the jack, **DO NOT APPLY PRESSURE TO THE SPRING!**
15. Loosen and remove the passenger side front spring bolt that holds the spring to the front hanger.
16. Loosen and remove both of the passenger side shackle bolts and shackle.
17. Remove the seven (7) mounting bolts from the front spring hanger. Then remove the spring hanger from the truck.
18. Install the new passenger side spring hanger and re-install the mounting bolts. Loc Tight and torque bolts to original Ford Specifications.
19. Install the spring into the hanger and re-install the OEM bolt and nut. Do not tighten the bolt at this time.

20. Install the new shackle and the OEM bolts and nuts. Do not tighten the bolts at this time.
21. Raise the passenger side axle with the jack until the spring pin is located in the hole on the axle perch and the spring is seated on the axle. Torque u-bolts to original Ford Specifications.
22. Raise the driver side axle with the jack until the spring pin is located in the hole on the axle perch and the spring is seated on the axle. Torque u-bolts to original Ford Specifications.
23. Install the new sway bar end links, Loc Tight and torque bolts to original Ford Specifications.
24. Install the tires and snug down the lug nuts. Lower the truck to the ground, Torque the lug nuts to original Ford Specifications.
25. Loc Tight and torque front spring hanger bolts and shackle bolts to original Ford Specifications.
26. Install aluminum spacers from behind side bumper mount to new front spring hanger. Adjust bumper for alignment.
27. Headlight readjustment may be necessary!
28. Drive the vehicle for several miles and recheck all clearances and bolt torque.

**RETORQUE ALL NUTS, BOLTS AND LUGS AFTER 100 MILES AND PERIODICALLY THEREAFTER.**

**For technical assistance or suggestions on how to make our product better call (951) 272-ICON Monday-Friday between the hours of 8am-12pm and 1pm-5pm Pacific-standard time, certain holidays excluded.**

***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.

Coil over take-apart shocks are considered a serviceable shock with a one year warranty on leakage only. Service seal kits are available separately for future maintenance. We do not warranty any other product not directly manufactured by *Icon Vehicle Dynamics*.

*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.