



## **THE EDGE ADVANCED SUSPENSION**

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Instruction Sheet: Part No. 3-1030

10.5"/12.5" Lift Box Kit

Late 1999-2004 Ford Super Duty F250/F350 4WD

Late 1999-2004 Ford Excursion 4WD

Gas/Diesel

### **Enclosed Parts List**

- 1 ea. 10.5"/12.5" Pan-rod bracket
- 1 ea. Pan-rod bar mount/spring pad
- 1 ea. Sway bar link kit
- 2 ea. High-Density Foam bump-stop
- 1 ea. HKSD-03 hardware kit
- 3 ea. ½" x 1 ½" Bolt Gr. 8 (Loose)
- 6 ea. ½" Washer Gr. 8 (Loose)
- 3 ea. ½" Nylock Nut (Loose)

### **\*\*\*WARNING\*\*\***

**THIS *dr*® THE EDGE ADVANCED SUSPENSION PRODUCT MUST BE USED IN CONJUNCTION WITH A CROSS-OVER STEERING KIT! *dr*® THE EDGE ADVANCED SUSPENSION WILL NOT BE RESPONSIBLE FOR ANY DAMAGES DUE TO THE NEGLIGENT DISREGARD OF THIS WARNING!**

**\*\*\*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!**

**\*\*\*WARNING\*\*\* *THE EDGE ADVANCED SUSPENSION* 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!**

- This Kit must be installed with *THE EDGE* 10.5" LIFT KIT or *THE EDGE* 12.5" LIFT KIT.

### **INSTRUCTIONS:**

1. Jack up the front end of the truck and support the frame at the front frame rails with jack stands. NEVER WORK UNDER AN UNSUPPORTED VEHICLE. Remove front tires.



2. Remove the brake calipers and tie them up out of the way. DO NOT ALLOW CALIPERS TO HANG FROM THE BRAKE LINES! Supporting the front axle with two floor jacks, remove the front shocks and sway bar end links. Remove the cotter pin and castle nut from the drag link at the pitman arm. Using a tie rod puller, separate the tie rod from the pitman arm. Remove the bolt from the top end of the pan-rod bar, where it connects to the frame bracket. Remove the three bolts securing the pan-rod bar bracket to the frame and set the bracket aside. Note the location of the original bolts.
3. Remove the bolts securing the front drive shaft to the axle yoke. Tape the bearing caps on the front u-joint and remove the driveshaft from the transfer case. Remove all four u-bolts from the front axle. Slowly lower the two floor jacks supporting the front axle to clear the front leaf springs. Loosen the four front leaf spring shackle bolts, DO NOT REMOVE THEM. While supporting the leaf spring, remove the front bolt followed by the rear bolt, separating the leaf spring from the shackle. Set the leaf spring aside and repeat this step on the opposite leaf spring.
4. Remove the nut securing the original pitman arm to the steering box shaft. A pitman arm puller must be used to remove the pitman arm from the steering shaft. Once removed replace the stock pitman arm with the drop pitman arm supplied in the cross-over steering kit. Refer to cross-over steering instructions for proper cross-over steering installation. **If the splines on the pitman arm do not match, your truck is an early 1999 model and you will need to order the**

**correct pitman arm.** Align the master splines on the steering shaft, replace the original washer and nut, and torque the new unit in place at 200-225 ft-lbs.



5. Remove the stock bump stops. The 3-1030 pan-rod bracket will be installed to the rear of the original bracket location using one stock bolt hole, one bump stop mounting hole and a hole hidden by the original bump stop. Locate the mounting plate on the pan-rod bracket that has a total of five holes, three  $\frac{1}{2}$ " holes and two  $\frac{7}{8}$ " holes. The three  $\frac{1}{2}$ " holes on the mounting plate are for the  $\frac{1}{2}$ " x  $1\frac{1}{2}$ " bolts that will be installed in the three frame holes described above. The two  $\frac{7}{8}$ " holes are simply to allow clearance for two rivets in the frame. Place the new pan-rod bracket into position to the rear of the original bracket location (to the rear of the cross-member). Ensure all five holes on the mounting plate are aligned with the three holes and the two rivets on the frame. Install the three  $\frac{1}{2}$ " x  $1\frac{1}{2}$ " grade 8 bolts into the three  $\frac{1}{2}$ " holes described above (Do not fully tighten the bolts at this time). Use two supplied washers and one Nylock nut per bolt and red Loc-Tite. Install the original bolt into the cross-member on the opposite side the original pan-rod bracket was installed. Be sure to use a washer on each side and red Loc-Tite. After all four holes are aligned and the bolts installed, torque bolts to 30 ft-lb.
6. Remove the stock spring plate from the top of the axle on the passenger side and replace it with the new pan-rod bar mount/spring plate. Ensure the shock mount tabs are facing the wheel (the round protrusions with  $\frac{1}{2}$ " holes).
7. Install the supplied high-density foam bump-stops. The passenger side bump-stop will mount in the original location while the driver's side bump-stop will mount on the flat surface directly below the pan-rod bracket mounting plate described in step 5.

**\*NOTE- IF YOU HAVE AN EARLY '99 MODEL THE STOCK U-BOLTS CANNOT BE USED WITH THE NEW SPRING PLATE. You must order the later model (late '99-2004) front u-bolts.**

8. **If you are installing the EDGE 4.5" Hanger kit with this box kit, follow the instructions in the 4.5" hanger kit at this time. Once completed go to step 9.**
9. Slide one of the new leaf springs into the front spring hanger, the double wrapped bushing end will go towards the front. Reinstall the factory bolts and nuts but do not fully torque. Repeat this step with the opposite side spring. Raise the floor jacks supporting the front axle, aligning the center pins on the springs with the holes in the front axle spring pads until the spring pads are fully seated on the leaf spring and the front springs compress  $\frac{1}{4}$ ". Slide the new u-bolts over the leaf spring and through the original spring plate on the driver's side and the new pan-rod bar mount/spring plate on the passenger side. Place new washers and nuts on each u-bolt. Torque the u-bolts in an "X" pattern to 60ft/lbs.
10. Attach the drag link to the drop pitman arm, torque the original nut to 60ft/lbs followed by the proper amount to line up the cotter pin hole. **DO NOT LOOSEN THE NUT TO LINE UP THE COTTER PIN HOLE!** Install the new cotter pin. Install both front shocks (or follow the instructions for THE EDGE DUAL SHOCK MOUNT/HOOP KIT) and reinstall brake calipers.
11. Put the front tires back on and torque all lug nuts. Factory lug nut torque specifications can be found in your owners manual. Raise the jacks supporting the front axle enough to remove the jack stands supporting the truck and set the truck on the ground. Steer the truck fully from lock to lock making sure the brake lines do not come in contact with the front tires. Make sure the new bump stops are centered with the springs.
12. Torque the front u-bolts to 85 ft/lbs. Raise the pan-rod bar to align it with the new pan-rod bracket. Install the original nut and torque to 100ft/lbs. Torque all spring bolts, including the frame to shackle bolts to 75ft/lbs
13. Apply a light coat of grease to the supplied bushings and press the bushings into the sway bar end links. Grease the inside of the bushing and press in the supplied sleeve to each end. If you hold up the sway bar link you will see that the ends are built off set. Using the  $\frac{1}{2}$ " bolts install the sway bar link to the upper mount with the sway bar link bottom heading inboard of the truck. Install  $\frac{1}{2}$ " washers on each side of the bushings. Install sway bar link to sway bar with  $\frac{1}{2}$ " bolts and nuts. Toque to 53ft/lbs. Reinstall front driveline using original bolts. Torque to factory specifications.
14. **Install the new 3-9350 pan-rod bar according instructions supplied with it at this time.**
15. Check the torque on all hardware and adjust the drag link to center the steering wheel. Drive the truck 1-2 miles and re-torque all nuts, bolts and lugs. Re-center the steering wheel if necessary.
16. Install rear block kit and shocks at this time.

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

**For Technical Assistance Call: 714.632.3033**

**Donahoe Racing Enterprises LIMITED LIFETIME WARRANTY**

*Donahoe Racing Enterprises* warrants to the original retail purchaser who owns the vehicle on which the product was originally installed. *Donahoe Racing Enterprises* does not warrant the product for finish, alterations, modifications and/or installation contrary to *Donahoe Racing Enterprises* instructions. *Donahoe Racing Enterprises* 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.

*Donahoe Racing Enterprise's* obligation under this warranty is limited to the repair or replacement, at *Donahoe Racing Enterprises'* 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 Bilstein shocks or any other product not directly manufactured by Donahoe Racing Enterprises (excluding Deaver Springs carried as proprietary kits in our product lines).

*Donahoe Racing Enterprises* 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. Installation and use of *Donahoe Racing* products in combination with any other aftermarket components will void 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. *Donahoe Racing Enterprises* does not warrant products not manufactured by *Donahoe Racing Enterprises*.