

## TORSION KEY FRONT LIFT/LEVELING KIT

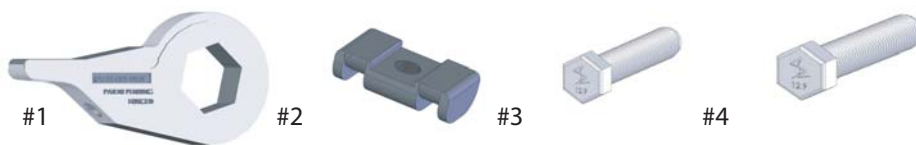
1997-03 FORD F150/F250 L.D. 4WD  
2004 Heritage 4WD ('97-'03 body Style)  
1997-02 FORD EXPEDITION 4WD  
1997-02 LINCOLN NAVIGATOR 4WD  
U.S. Patent No's. D556,524 & D556,525

### IMPORTANT!

Read ALL WARNINGS and information contained in these instructions PRIOR to installing this product. Vehicle Owner MUST be provided the IMPORTANT VEHICLE OWNER'S INFORMATION section of these instructions after installation of this product.

- (1) Installation Instructions & Warnings  
(2) Forged Replacement Torsion Keys (Ill. #1)  
(2) Forged Replacement Adjuster Brackets (Ill. #2)  
(2) Forged 2" 12.9 Adjuster Bolts (Ill. #3)  
(2) Forged 3" 12.9 Adjuster Bolts (Ill. #4)

#### Bill of Materials



**ALWAYS WEAR PROPER EYE PROTECTION & USE TOOLS SPECIFIC TO THE JOB!**

**NOTE: Due to the wide on-vehicle adjustment range of this product, a "floating" feature has been designed into the adjustment system. This feature allows the Forged Adjuster & Bolt assembly to reposition in the crossmember as ride height adjustments are made.**

**Important! Ford/Lincoln vehicles with factory Air Suspension systems require an alternate installation procedure. Only install this product and adjust ride height AFTER following the prescribed Ford Motor Company procedure.**

**Step 1: Measure current front ride height.** Take a measurement from the bottom of the wheel/rim to the lip of the fender on each side of the vehicle. Write down measurements to help in determining ride height after new torsion keys are installed. **(Figure A)**

(Figure A)



**Step 2: Position vehicle on a flat surface or automotive lift.** Suspend front wheels, lifting by the frame with a floor jack or lift jack. Secure using jack stands.

(Figure B)



**Step 3: Locate the Torsion Keys.** They are found where the Torsion Bars are received into the Crossmember between the frame. **(Figure B)**

**Step 4: Remove ONE Torsion Key Adjusting Bolt completely. Important! Only work on one side of the vehicle at a time!**

(Figure C)



**Step 5: Using a Torsion Bar Unloading Tool specific to Ford vehicles (OTC 7822A or similar with special bracket), COMPRESS the key until it clears the Threaded Adjuster Bracket where the Adjusting Bolt was housed. (Figure C)**

**Step 6: Remove the Threaded Adjuster Bracket, and SLOWLY release tension on the unloading tool until it can be fully removed.**

(Figure D)



**Step 7: Slide Torsion Bar FORWARD, allowing original Torsion Key to be removed.** It may be necessary to use an air hammer to release corrosive bond between the Key & Torsion Bar. **(Figure D)**

**Step 8: Install new Patented Forged Torsion Key** and reposition back into proper position in the vehicle Crossmember and the anchor points at the front of the vehicle. **Be sure Torsion Bar passes through Torsion Key by a minimum of 1/8" to 1/4"!** **(Figure E)**

(Figure E)



**(Continued on other side of page.)**

**Step 9: Same as Step #5**, Reinstall Torsion Bar Unloading Tool, and COMPRESS the key until it clears the cutouts in the Crossmember where the Threaded Adjuster Bracket will be housed.

**Step 10: Install the new Forged Adjuster Bracket included with this kit.** Make sure it is properly CENTERED between the Crossmember, and that the SLOTS of the Bracket properly seat into the Crossmember cutouts, facing downward. **(Figure F)**

**Step 11: SLOWLY release tension on the unloading tool until it can be fully removed.**

(Figure F)



**Step 12: Install new Forged 2" 12.9 Adjuster Bolt, and SLOWLY drive upward to apply tension to the new Forged Torsion Key.** Each full turn of the Adjusting Bolt will alter ride height approximately 1/8". Each half turn will result in a ride height change of approximately 1/16". **(Figure G)**

**IMPORTANT!: The SHOCK is the limiter of the amount of available lift, NOT the number of threads available on the Adjuster Bolt! Be sure adequate shock travel is evident after adjustment.**

(Figure G)



3" Forged 12.9 Adjuster Bolts are included with this kit ONLY FOR TORSION BARS WITH EXTREME FATIGUE and showing visible signs of SEVERE RIDE-HEIGHT LOSS! It may be possible to over-torque torsion bars when using the 3" Adjuster Bolts. Be sure adequate shock travel is evident after adjustment as determined by an ASE Certified professional mechanic.

**Step 13: REPEAT STEPS 4 THROUGH 12 ON THE OTHER SIDE OF THE VEHICLE.** Carefully follow each step of these instructions as you did on the first side of the vehicle!

**Step 14: Reinstall tire/wheel assembly.** Be sure to check that all parts are in proper position and torqued to OEM specifications.

**Step 15: Lower the vehicle, jounce suspension and measure FRONT ride height of EACH SIDE.** Measure from the bottom of the wheel/rim to the lip of the fender, and make any adjustments required to the two Adjuster Bolts to achieve desired settings. **Be sure vehicle ride height is LEVEL from Side-to-Side.**

**Step 16: PERFORM A COMPLETE WHEEL ALIGNMENT**, utilizing a Certified Alignment Technician with experience working on lifted vehicles.

**Step 17: ADJUST HEADLIGHTS** to accommodate new front ride height position.

Vehicle BEFORE Installation



Vehicle AFTER Installation!



## IMPORTANT VEHICLE OWNER'S INFORMATION

Ford/Lincoln  
4W/D Only

### Adjusting Lift/Leveling kit after installation

(1) **Always wear proper eye protection! Position vehicle on a stable, flat surface and suspend front wheels, lifting by the frame with a floor jack or lift jack. Secure frame with jack stands. Chock tires and turn engine off prior to adjustment!** (2) Locate the two Torsion Key Adjusting Bolts in the cross member of your vehicle chassis. (3) Using a ratchet wrench and 22mm socket, engage the Adjusting Bolt and SLOWLY turn CLOCKWISE to INCREASE ride height, or COUNTER-CLOCKWISE to DECREASE ride height. Each full turn of the Adjusting Bolt will alter ride height approximately 1/8". Each half turn will result in a ride height change of approximately 1/16". (4) Be sure to always check that both sides of the vehicle have been adjusted to the same ride height. Under no circumstances should this product be altered to adjust ride height beyond its design limits.

Remember! Any change to ride height will affect the vehicle's Wheel Alignment and Handling! Always realign the vehicle after each adjustment, and be sure to adjust headlights as necessary.

**Minimum Ride Height Change: 1.0"** (beyond manufacturer's lowest setting)  
**Maximum Ride Height Change: 2.0"** (beyond manufacturer's highest setting)  
**Total Range: 3.5"**

### WARNING

**This product should only be installed and adjusted by an ASE certified professional mechanic with proper tools and safety equipment.**

Installation of this product modifies vehicle ride height. The driver of this vehicle should avoid unnecessary or abrupt maneuvers, sharp turns and other driving conditions that could lead to rollover or other serious accident. This product will affect vehicle center of gravity resulting in less than the original OE stability characteristics.

The manufacturer of this product releases itself from any liability or consequence, inclusive but not limited to personal injury, failure of components or damage to vehicle or person as a result of installing this product.

Warranties may be declined for any parts installed by any person other than an ASE certified professional. No warranty will be made for any other OEM or aftermarket components that may be affected by the installation of this product either in use or during installation. This kit is intended for use on stock suspensions WITHOUT any previous modifications whatsoever. Installation of this kit in conjunction with other aftermarket products will be done at vehicle owner's own risk, and voids any and all warranties.

Installation of this part MAY limit or void some vehicle manufacturer's warranties!

**ALWAYS DRIVE SAFELY, REDUCE SPEED, AND WEAR YOUR SEAT BELT.**

### LIMITED LIFETIME WARRANTY

This product is warranted to be free of defects in materials and workmanship to the original purchaser on the vehicle in which it is originally installed. This warranty does not cover loss of time, labor, or any other components as a result of damage. Warranty claims are subject to physical inspection at the request of the manufacturer. This warranty may be void if this product is installed by any person other than an ASE certified professional.