

# Truck and Jacp Accessories

# KG09107BK 1999-07 2500/3500 HD 8 LUG 4WD TORSION BAR LEVELING KIT



### Introduction



is your number one source for Made In The USA Truck and Joop Accessories quality, Comfort Ride<sup>TM</sup> leveling kits. Now backed with our exclusive Go Everywhere © Lifetime Lim-

ited Warranty. To assure your safety and proper installation of this product, take a moment to read all instructions and Product Safety Information before trying to install your Daystar® product. Current OEM suspension design is complex: meaning safe and proper installation requires understanding OEM service techniques for disassembly and assembly of the components indicated together with the instructions and warnings set out below and in the OEM service manual and your owner's manual. Daystar® strongly recommends seeking advice from or having this product installed by a professional mechanic who can inspect your suspension, confirm compatibility with your tire and wheel choice and, if needed, reset alignment to optimize your steering and the features of your Daystar® Comfort Ride kit.

## **Product Safety Information**

Throughout these instructions important safety information is generally preceded by one of three signal words indicating the relative risk of injury. The signal words mean:

- ! WARNING A hazardous situation which, if not avoided, could result in death or serious injury. You can be Killed or Seriously Hurt if you don't follow instructions
- ! CAUTION A hazardous situation which, if not avoided, could result in minor or moderate injury. You can be moderately HURT and also may suffer property damage if you don't follow instructions.

NOTICE Careful attention is required to this instruction or operation but does generally not relate to personal injury. Damage to your product or other property may result if you don't follow instructions.

#### !WARNING

Familiarize yourself with all vehicle manufactures' and Daystar warnings, instructions and limited warranties before driving your modified suspension vehicle. Also be aware many states / countries have laws governing on-road vehicle heights and modifications. You are responsible for assuring the safety and legality of your vehicle.

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## **Tools Needed**

Quantity	Description
2	Frame Jack stands
1	Floor Jack
2	Wheel chocks
1	Torsion key Puller (see instruction Notes)
1	1/2" Ratchets set
1	1/2" Sockets
1	1/2" Short socket extension
1	Rubber Mallet

# Part List Bill of Materials

Quantity	Part Number	Description
2	PT11428	Torsion Keys
2	P11412	Lower shock extenders
1	p11400	Instructions / Decal

!Warning: Always work with appropriate personal safety gear including safety glasses, gloves and hearing protection if using air powered tools.

Begin by inspecting the components & hardware for damage. Then compare components & hardware to the bill of materials for completeness.

!Caution: Vehicle front end must be raised to install leveling kit. Using a hydraulic chassis lift will greatly ease installation. If another jack is used, assure vehicle is level on a firm surface, in park (1st gear), rear wheels blocked and jack stands

IMPORTANT: The net amount of ride height increase depends upon the age and use of the vehicle, wheel offset, and numerous other factors. Stated torsion bar ride height increases are based upon factory specifications. If the torsion bars were "cranked up" at some point in the past, expect a corresponding reduction in overall height increase with the new torsion keys. Note that torsion bars, like any other spring, are subject to fatigue and sagging over time. Also, torsion bars have different ratings depending on how the vehicle was equipped from the factory. In some cases, installing heavier rated bars (which can be purchased from a dealer) may be the only solution to regaining ride height lost from adding heavy

# \*\* <u>NOTICE</u> \*\*

Before install of this kit. #KG09107 Check color marked on factory Torsion bar key. (color will be marked with paint on side of torsion key) This kit is for keys marked with the fallowing colors. PURPLE, BLUE, and YELLOW. You can check also check with your local dealers service and parts department for correct information.

#### **Installation Instructions**

- 1. Place the vehicle on a level surface. Prior to beginning, record ride height on each side of the vehicle by measuring from the center of the spindle to a consistent point on the wheel well. Record these measurements for future reference.
- 2. Put the transmission in Park or 1<sup>st</sup> gear (manual transmissions) and chock the rear tires and set parking brake.
- 3. Raise the front of the vehicle using a jack. Raise it enough to completely unload the front suspension. Place a jack stand under each frame rail just behind the lower control arms for the front suspension. Ease the frame down on to the stands, but leave a slight load on the jack as a safety precaution.
- 4. Verify the front tires are off the ground and that the suspension is unloaded, or at full extension travel.
- 5. Locate the torsion bar crossmember. There is a bolt on each side of the crossmember that adjusts torsion bar preload. Measure or mark the exposed length of the adjuster bolt for reference during re-assembly. See Figure 1.
- 6. Position the appropriate torsion bar puller tool on the crossmember. Be sure the top of the puller tool engages the recess present in most crossmembers. Also be sure the lower end of the puller tool engages a recess on the torsion key near the adjust bolt. See Figure 2.

- 7. Locate the torsion bar crossmember. There is a bolt on each side of the crossmember that adjusts torsion bar preload. Measure or mark the exposed length of the adjuster bolt for reference during re-assembly. See Figure 1.
- 8. Position the appropriate torsion bar puller tool on the crossmember. Be sure the top of the puller tool engages the recess present in most crossmembers. Also be sure the lower end of the puller tool engages a recess on the torsion key near the adjuster bolt. See Figure 2.

## Use only approved tools for this installation

**NOTE**: Various types of puller tools are available, however, due to the extreme loads present in four-wheel drive suspension systems, we have found the two-jaw style tool that clamps to the crossmember tends to slip and damage the crossmember. A C-clamp style puller tool is preferred and

CROSSMEMBER

nut block

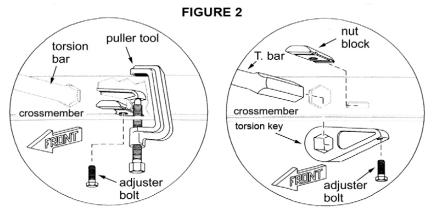
adjuster bolt

torsion bar

torsion key

FIGURE 1 - TORSION BAR ASSEMBLY.

- 9. Using extreme caution, tighten the puller tool enough to take the load off the adjuster bolt. Remove the adjuster bolt and nut block, then unload the puller tool.
- 10. Note the orientation of the torsion bar key in relation to the end of the torsion bar. Slide the torsion bar forward, out of the torsion bar crossmember, and set the factory torsion bar key aside. It is not necessary to remove the torsion bars from the vehicle. NOTE: the torsion key should slide easily off the end of the torsion bar. However, depending on the age and use of the vehicle, rust and road debris may prevent easy removal. The installer can use a variety of methods to separate the torsion key if it is "stuck", but using heat is *not* recommended.
- 11. Clean off any dirt or rust on torsion bar prior to install New torsion key.
- 12.Place the Daystar torsion key in the torsion bar crossmember, matching the same orientation as the original key. Slide the torsion bar back through the crossmember



- 13. Using the same precautions and procedures that were used during removal, load the torsion bar enough to install the nut block using the appropriate puller tool. Place the nut block back in the crossmember and start the adjuster bolt. Tighten the adjuster bolt to the same exposed length noted during disassembly. Unload the remove the pulled tool.
- 14.Disconnect the shock at lower mount and remove the stock shock mount and replace it with the extended shock mount with the tall half mounted inward.
- 15. Double check the installation
- 16. Reinstall the driver and passenger tires and wheels.
- 17. Remove jack stands and lower the truck back on the ground remove all jacks and jack stands from under The vehicle.
- 18. Manually bounce the front of the vehicle several times enough to settle the suspension.
- 19. Measure the ride height on each side. To raise the height, tighten the torsion bar adjuster bolt; to lower ride height, lessen the adjuster bolt. The torsion key is capable of increasing the ride height 1-1/2" (mid-size) to 2" (full-size) over *factory* specifications. Do not increase ride height above the specification.
- 20. Torque all bolts in the installation this leveling kit to factory specs.
- 21. Torque the lug nuts to 85 ft lbs. using an x pattern.
  - ! Caution have an alignment professional check and Adjust the alignment to factory specifications.
- 22. With the vehicle on the ground cycle the steering Wheel side to side and inspect suspension components, Brake lines and tires to ensure there are not any clearance issues. Bounce suspension to assure front suspension operates freely, brake lines retain proper slack at

- 23. Install "Warning to Driver" decal on the vehicle's sun visor or dash. The decal must be placed in a conspicuous location. Anyone that operates the vehicle must be made aware of the changes made.
- 24. After 25 miles of driving re-torque the lug nuts to 85ft.lbs..
- 25. After 500 miles of driving re-torque all of the hardware associated with the leveling spacer installation to factory specifications. Repeat torqueing procedure as required.

