

TORSION KEY FRONT LIFT/LEVELING KIT

2011 H.D. CHEVROLET & GMC (8-Lug)
w/New Style Torsion Suspension

Patented

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.

Bill of Materials

- (1) Installation Instructions & Warnings
- (2) Forged Replacement Torsion Keys (Ill. #1)
- (2) Forged Replacement Adjuster Brackets (Ill. #2)
- (2) Forged 3" 12.9 Adjuster Bolts (Ill. #3)
- (4) Shock Extender Spacers (Ill. #4)
- (4) Low Profile Shock Mount Nuts (Ill. #5)



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

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, supporting lower control arms. Chock tires and turn engine OFF!**

Step 3: Remove both front tires/wheels, and locate the front Upper Shock Mounts.



(Figure B)

Step 4: Loosen, then remove the two front Upper Shock Mounting Nuts on both sides of vehicle.

Step 5: Install new front Shock Extender Spacers. Compress top of each shock downward to access the two threaded shock mount studs, and install one **Shock Extender Spacer** on each of the four studs. Reinstall shock back into its original position, and secure using four new **Low Profile Shock Mount Nuts** supplied with this kit. **(Figure B)**



(Figure C)

Step 6: Locate the OEM Torsion Keys. They are found where the torsion bars are received into the Crossmember between the frame. **(Figure C)**

Step 7: Remove both OEM Torsion Key Adjusting Bolts.

Step 8: Working on one side of the vehicle at a time, use a Torsion Bar Unloading Tool specific to 2011 GM HD vehicles (such as Kent Moore CH48809), and COMPRESS the key until it clears the Threaded Adjuster Bracket where the Adjusting Bolt was housed. (Figure D)



(Figure D)

Step 9: Remove the Threaded Adjuster Bracket, and SLOWLY release tension on the unloading tool until it can be fully removed.

Step 10: Slide Torsion Bar carefully 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 E)

Step 11: 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)

Step 12: 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.



(Figure F)

Step 13: Install the new Forged Adjuster Bracket included with this kit. IMPORTANT! Make sure that the depressions of the Bracket are facing DOWNWARD, and properly centered between the Crossmember. This will assure it stays in position after installation. (Figure F)

Step 14: SLOWLY release tension on the unloading tool until it can be fully removed, then repeat Steps 8 through 13 on the other side of the vehicle.

Step 15: Install new Forged 3" 12.9 Adjuster Bolts, 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)



(Figure G)

Step 16: Reinstall tire/wheel assemblies, and be sure to check that ALL parts are in proper position and torqued to OEM specifications.

Step 17: Lower the vehicle, 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.

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

The gap between the Upper Control Arm and Bump Stop should be 1/4" to 1/2" with weight on the wheels. (Figure H)

As with any aftermarket Torsion Key kit, it may be possible to over-torque torsion bars. Be sure adequate shock travel & bump stop clearance is evident after adjustment as determined by an ASE Certified professional mechanic.

(Figure H)



Step 18: PERFORM A COMPLETE WHEEL ALIGNMENT, utilizing a Certified Alignment Technician with experience working on lifted vehicles.

Step 19: ADJUST HEADLIGHTS to accommodate new front ride height position



After Installation

IMPORTANT VEHICLE OWNER'S INFORMATION

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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 Crossmember 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: 0.75" (beyond manufacturer's lowest setting)
Maximum Ride Height Change: 2.25" (beyond manufacturer's highest setting)
Total Range: 2.5"

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. This warranty may be void if this product is installed by any person other than an ASE certified professional.