

Instruction Sheet

GM TORSION KEY FRONT LEVELING KIT (20'-25' HD 8-LUG)



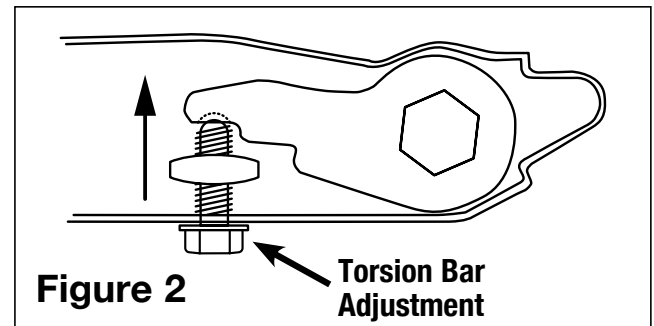
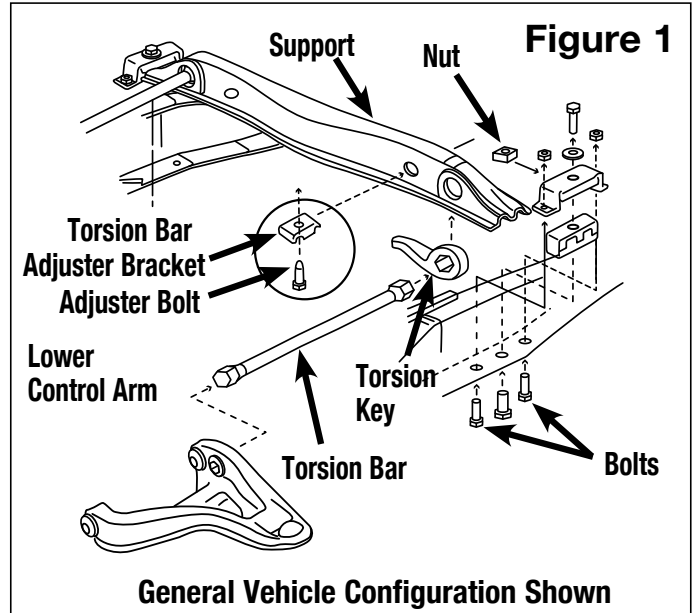
This part should only be installed by personnel who have the necessary skill, training and tools to do the job correctly and safely. Incorrect installation can result in personal injury, vehicle damage and / or loss of vehicle control.

Plan Ahead - Read All Instructions **BEFORE** installing part.

Check for loose or worn parts, proper tire pressure, and odd tire wear patterns before beginning alignment.

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 forged adjuster and bolt assembly to reposition in the crossmember as ride height adjustments are made.

1. **Measure initial front ride height.** With vehicle parked on a level surface, measure distance from fender to center of wheel on each side of vehicle. Record measurements for reference when determining ride height after new keys are installed.
2. **Securely lift front of vehicle.** Using a lift or a floor jack, raise front of vehicle until wheels are in the air and then secure with jackstands or equivalent. Remove front wheel/tire assemblies.
3. **Locate upper shock mounts and remove the two front, upper shock mounting nuts.** Shocks may need to be compressed downward to access the two threaded shock mount studs and install one spacer on each of the studs. Reinstall the shocks and secure using the new low profile nuts provided.
4. **Locate torsion keys.** They are found where torsion bars are received into crossmember between frame rails.
5. **Remove ONE torsion key adjusting bolt completely. IMPORTANT! Only work on one side of vehicle at a time!**
6. **Unload torsion bar.** Using a torsion bar unloading tool specific to GM vehicles (such as **SPC 40230**), **COMPRESS** OE torsion key until it clears threaded adjuster bracket where adjusting bolt was housed.
7. **Remove OE threaded adjuster bracket.** With torsion bar compressed, remove threaded adjuster bracket, then **SLOWLY** release tension on torsion bar until unloading tool can be fully removed.
8. **Remove OE torsion key.** Slide torsion bar **FORWARD**, allowing OE torsion key to be removed. It may be necessary to use an air hammer to release corrosive bond between key and torsion bar.
9. **Install SPC torsion key.** Clean up / remove any corrosion present on torsion bar and lightly coat torsion bar hex end with anti-seize. Install SPC torsion key into the crossmember support and slip torsion bar hex end into torsion key through opening in crossmember support. Be sure torsion bar passes through and beyond key by a minimum of 1/8" to 1/4".
10. **Reverse of step 5.** Reinstall torsion bar unloading tool and compress key until it clears cutouts in the crossmember where the threaded adjuster bracket will be housed.
11. **Install SPC adjuster bracket.** Make sure it is properly **CENTERED** between crossmember and **SLOTS** of bracket properly seat into crossmember cutouts, facing downward.
12. **Remove unloading tool.** **SLOWLY** release tension on unloading tool until it can be fully removed.
13. **Install SPC adjuster bolt.** Thread new supplied adjuster bolt in and **SLOWLY** drive upward to apply tension to the torsion key. Each full turn of adjuster bolt will alter ride height approximately 1/8".



WARNING!: Front shock absorber travel is what limits amount of available lift, NOT threads available on adjuster bolt! Be sure adequate shock travel is present after adjustment.

IMPORTANT!: Check all fasteners for proper torque. Check to ensure there is adequate clearance between all rotating, mobile, fixed and heated members. Check steering for interference and proper working order. Test brake system.

14. **Install key on other side of vehicle.** Repeat steps 4 through 13 on other side of vehicle. Carefully follow each step of these instructions.
15. **Reinstall wheel/tire assemblies.** Be sure to check all parts are in proper position and torqued to OE specifications.
16. **Measure new ride height.** Lower vehicle and allow front wheels and suspension to settle. Vehicle may have to be rolled back and forth to allow front tires to relax. Jounce suspension and measure left and right front ride heights. Measure as shown above. Then, using adjuster bolts, make changes required to achieve desired ride-height settings. Always ensure that vehicle ride height is level side to side.

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17. **Perform alignment.** Utilizing a certified alignment technician and proper equipment, have a complete 4-wheel alignment performed on the vehicle.
18. **Adjust headlights.** Depending on changes made, headlight re-aiming may be required. This should also be performed by a certified technician with proper equipment.

Always check for proper clearance between suspension components and other components of the vehicle.

IMPORTANT VEHICLE OWNER'S INFORMATION

20' to 25' GM HD 8 LUG

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 frame with a floor jack or lift. Secure frame with jack stands. Chock tires and turn engine off prior to adjustment.
2. Locate the two torsion key adjuster bolts in crossmember.
3. Using a ratchet wrench and 22mm socket, engage adjuster bolt and *SLOWLY* turn *CLOCKWISE* to **INCREASE** ride height, or *COUNTER-CLOCKWISE* to **DECREASE** ride height. Each full turn of adjuster bolt will alter ride height approximately 1/8".
4. Be sure to always check both sides of vehicle have been adjusted to 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 vehicle's wheel alignment and handling! Always realign vehicle after each adjustment and be sure to adjust headlights as necessary.

Minimum ride height change: .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 or 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 rollovers or other serious accidents. This product will affect the center of gravity of the vehicle, resulting in less than 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 OE 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. Installation of this kit in conjunction with other aftermarket products will be done at vehicle owner's own risk and voids all warranties.

-Installation of this part **MAY** limit or void some vehicle manufacturer's warranties.



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