X-Sway

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Front Torsion Bar Installation Guide

SKU 1782 — 1990-2005 GMC Safari / Chevrolet Astro (AWD), Front, 34.75" x 1.087"

IMPORTANT: READ BEFORE YOU START

- Torsion bars store a large amount of energy once loaded, similar to a compressed coil spring. Handled incorrectly, a loaded bar or adjuster arm can move suddenly and cause serious injury.
- If you have not removed and reinstalled torsion bars before, we strongly recommend having this job done by a qualified suspension or alignment shop.
- Always fully support the vehicle on rated jack stands before working underneath it. Never rely on a jack alone.
- Wear safety glasses and gloves throughout this job.
- This guide is general installation reference material. Always follow the safety practices of your own shop manual and use your judgment, if a step doesn't look or feel right for your specific vehicle, stop and consult a professional.

1. What's In The Box

One pair of adjustable torsion bars (left and right), each fitted with a splined adjuster key. The splined key design replaces the factory hex adjuster and allows much finer ride height adjustment than the factory setup.

2. Tools & Materials Needed

- Jack and a set of rated jack stands (do not substitute with blocks or a jack alone)
- Torsion bar unloading tool or long breaker bar for the adjuster bolt
- Socket set and wrench set (metric and SAE, GM trucks/vans of this era mix both)
- Torque wrench
- Penetrating oil (torsion bar hardware is often rusted after 20+ years)
- Hammer and punch or bar clamp puller, for freeing the old bar if it's seized
- Grease (chassis grease for the bar splines)
- Marker or paint pen, to mark the adjuster arm position before removal
- Shop manual or torque specification chart for your specific model year

3. Removing the Old Torsion Bars

NOTE: *Do one side at a time if this is your first time, so you always have the other side as a visual reference.*

1. Park on a level, flat surface. Block the rear wheels. Loosen (but do not remove) the front lug nuts before lifting the vehicle.
2. Raise the front of the vehicle and support it on rated jack stands placed under the frame, not the control arms. Remove the front wheels.
3. Locate the torsion bar adjuster arm at the rear of the lower control arm. Mark its current position with a paint pen so you have a rough starting reference for reinstallation.

4. Support the lower control arm with a jack. This takes tension off the adjuster bolt and makes it safer to back off.
5. Slowly and evenly back off the torsion bar adjuster bolt, releasing spring preload gradually. Do not remove it all at once. Lower the control arm jack slowly as you go to control the arm's descent.
6. Once preload is fully released, remove the adjuster arm and any retaining clip from the rear crossmember.
7. Slide the torsion bar rearward and out of the control arm and crossmember. Apply penetrating oil and use a bar clamp puller if it's seized from corrosion, do not hammer directly on the splined ends.
8. Inspect the control arm bushings, ball joints, and mounting hardware while everything is apart. This is the easiest time to replace anything else that's worn.

4. Installing the New Torsion Bars

> **NOTE:** *Torsion bars are side-specific. Before installing, confirm which bar is marked for the left side and which for the right (check for L/R stamps or markings on the bar). Installing a bar on the wrong side can prevent correct preload and is not simply a mirror-image swap.*

1. Grease the splines on both ends of the new bar with chassis grease before installation.
2. Slide the new bar into the control arm end first, then into the crossmember, matching the same orientation as the bar you removed.
3. Install the new splined adjuster key onto the rear of the bar and seat the adjuster arm.
4. Reinstall the adjuster arm retaining clip at the crossmember.
5. Using the control arm jack, slowly raise the control arm and begin threading the adjuster bolt in to take up slack, this is the reverse of the removal process. Go slowly and evenly.
6. Reinstall the wheels, torque the lug nuts to your vehicle's specification, and lower the vehicle to the ground before doing final ride height adjustment. Torsion bar preload should always be set with the vehicle's full weight on its own suspension, not on jack stands.

5. Setting Ride Height (Splined Adjuster)

This is the part that's different from the factory setup, and one of the main reasons to run this kit. The factory hex adjuster only gives you a handful of discrete positions. The splined key on this kit lets you fine tune ride height in much smaller increments.

1. With the vehicle's full weight on the ground and the front wheels straight, measure your current ride height at a consistent reference point (commonly the lower edge of the wheel opening to the ground, measured the same way on both sides).
2. Turn the splined adjuster bolt a small amount, then check whether that corner went up or down before continuing. "Clockwise" and "counterclockwise" can be confusing to describe here since it depends on which direction you're viewing the bolt from, so confirm the actual effect on ride height with a small test turn rather than assuming a direction. Make small adjustments and re-measure often rather than cranking a lot at once.
3. Adjust both sides to match, side to side ride height difference affects handling and can cause a pull to one side.
4. Bounce each front corner a few times after adjusting and re-check height, suspension components can settle slightly after the first few cycles.

6. Final Checks

- Double check all fasteners are torqued to specification. Refer to a shop manual or torque chart for your specific model year, exact torque values vary and should not be guessed at.
- Have the front end alignment checked and adjusted. Changing torsion bar preload changes ride height, which changes alignment geometry (particularly caster and camber).

- Take it for a slow test drive in a controlled area first, listening and feeling for any unusual noise, pulling, or clunking before driving normally.
- Re-check ride height and fastener torque again after the first 100-200 miles, it's normal for new suspension components to settle slightly.

7. When to Call a Professional

If at any point a bolt won't move, a bar won't slide free, or something doesn't match what's described here, stop and consult a suspension shop rather than forcing it. Torsion bars are not a component where it pays to improvise.

> **NOTE:** *Questions about this install? Reach out to us directly, we're happy to help talk through anything that doesn't look right for your specific van.*