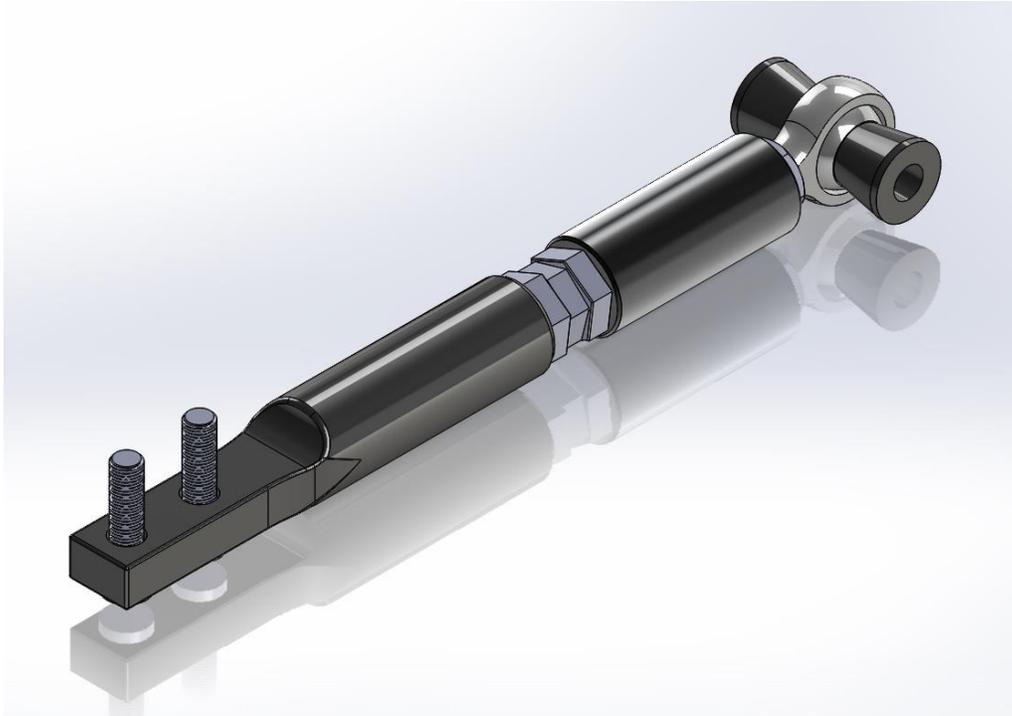




**Z1 Motorsports 2877 Carrollton - Villa Rica Hwy Carrollton GA 30116 770.838.7777**

## **Adjustable Solid Tension Rod Set Installation Manual**



### **PROLOGUE:**

Study these instructions completely and thoroughly before proceeding to assemble. Installation can be completed using common tools and automotive procedures. The installer must have a thorough knowledge of automotive systems operation. If unfamiliar with any of the concepts outlined in this instruction, we recommend the installation be completed by a qualified professional.

**WARNING!** Extreme caution should be taken when performing ANY maintenance or performance upgrades to your vehicle. Please observe and abide by any Warning or Caution labels placed on the various components and tools used when servicing your vehicle. If you have any questions regarding the installation or the various components included with the Z1 Motorsports Adjustable Solid Tension Rod Kit, consult with a Professional Mechanic or contact Z1 Motorsports for more information.

## Parts Included:

- (2) Z1 Fully-Assembled Adjustable Solid Tension Rod
- (4) M12-1.25 Locking Hex Nut
- (4) M12 Flat Washer
- (1) .5ml Thread Locker Capsule
- (1) Installation Manual

## Tools Needed:

- Hydraulic Jack
- (2) 2-Ton (or greater) Jack Stands
- Wheel Chock
- Ratchet
- Ratchet Extension (minimum 3’)
- 14mm Wrench & Socket (deep)
- 17mm Wrench & Socket (deep)
- Crescent Wrench (up to 30mm)
- Torque Wrench

## Safety Requirements:

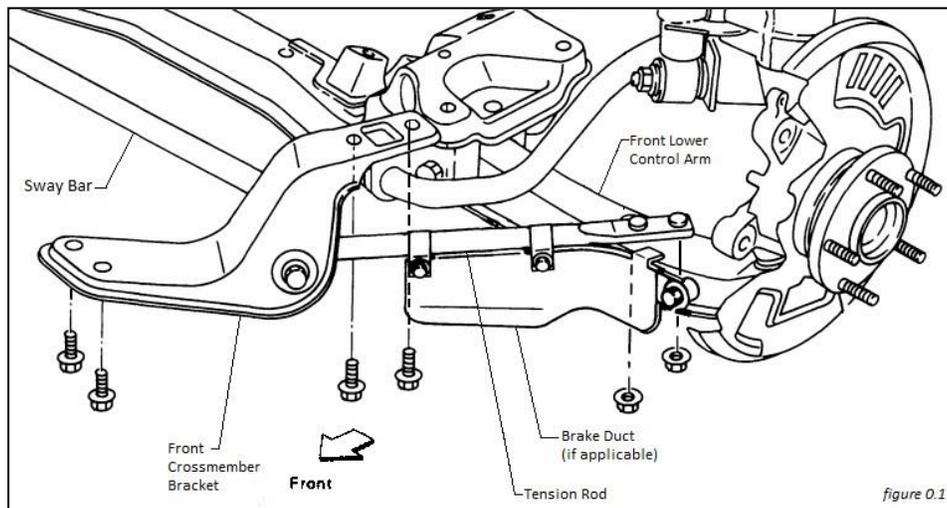
- Always wear safety glasses and any necessary protective garments. If using any fluids, chemicals, or solvents, a respirator is recommended.
- Always use properly rated jack stands when working under your vehicle.
- Always turn the ignition to the OFF position and disconnect the NEGATIVE battery terminal.
- Always keep limbs and parts away from moving drivetrain parts.
- Only operate drivetrain in safe space and well ventilated areas.

### **\*BEFORE YOU BEGIN!**

*Remove contents from the Z1 Motorsports Adjustable Solid Tension Rod Kit and verify that ALL necessary hardware is present.*

## Instructions:

1. With Vehicle on a level surface, apply the Parking Brake and place Wheel Chock to backside of Rear Tire.
2. Raise and support vehicle using Jack & Jack Stands. Locate proper jacking points on vehicle’s chassis (Refer to vehicle’s Owner’s Manual).
3. Locate the OEM Tension Rods. They are located at the Front Left & Right ends of the vehicle, between the Front Crossmember Bracket and Wheels. Refer to figure 0.1 for details.



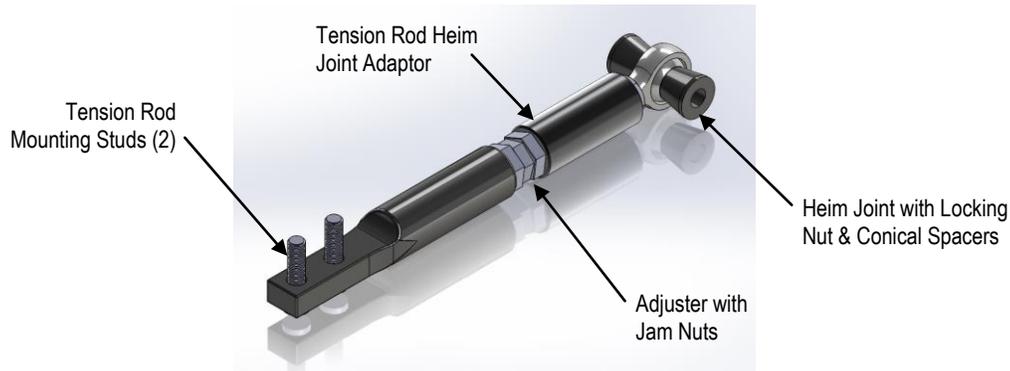
4. Remove Bolt which attaches Brake Duct to Front Lower Control Arm (if applicable).
5. Remove (2) Hex Nuts which attaches OEM Tension Rod to Front Lower Control Arm.
6. Loosen Nut & Bolt securing OEM Tension Rod Bushing to Front Crossmember Bracket.
7. Lift Tension Rod Studs out from Front Lower Control Arm.
8. Remove (2) Bolts which attaches Sway Bar Bracket to Front Crossmember Bracket.
9. Remove (2) Bolts which attaches Front Crossmember Bracket to Chassis. Remove Front Crossmember Bracket and OEM Tension Rod Assembly from Chassis.
10. Remove Nut & Bolt securing the OEM Tension Rod Bushing to the Front Crossmember Bracket.

Note: Retain Nut & Bolt for reinstallation.

11. Remove the OEM Tension Rod from the Front Crossmember Bracket.
12. Locate *Z1 Motorsports Adjustable Solid Tension Rods*

Note: Z1 Tension Rods are Symmetric and can be installed to either left or right side without issue. Assure that Tension Rod Adjuster is at its shortest length and that its Jam Nuts are loose

13. Place Heim Joint & Conical Spacers of Adjustable Solid Tension Rod onto Front Crossmember Bracket.
14. Align Conical Spacer with Mounting Hole of Front Crossmember Bracket, and Reinstall Nut & Bolt, but do not torque them yet.
15. Position Front Crossmember Bracket and Z1 Tension Rod Assembly back onto Chassis. Hand thread (4) Mounting Bolts.



16. Torque (2) Hex Bolts which attach Front Crossmember Bracket to Chassis to 80~94 ft.-lbs.
17. Torque (2) Hex Bolts which attach Sway Bar Bracket onto Front Crossmember Bracket to 29~36 ft.-lbs.
18. Orient Z1 Tension Rod in direction of Lower Control Arm and rotate Adjuster to lengthen Tension Rod. Adjust Tension Rod length so that Studs insert completely through Lower Control Arm.

Note: To achieve maximum positive Caster alignment, assure that Heim Joint threads are completely inserted into Adaptor. Secure Heim Joint with Locking Nut & Red Thread Locker.

Note: Assure that exposed Heim Joint threads to not exceed 15mm.

19. Lock Tension Rod Adjuster Nuts with a 30mm Wrench while securing the adjuster with a 27mm Wrench. The use of RED thread locking compound is recommended under the jam nuts once the alignment is complete. If thread locker is not used there is a possibility the jam nuts could loosen over time.
20. Install (1) M12 Flat Washer and (1) M12-1.25 Locking Hex Nut onto each Tension Rod Stud. Torque to 70 ft.-lbs.

Note: Do not tighten Tension Rod Studs with a Pneumatic Air Gun!

21. Torque Front Crossmember Bracket Nut & Bolt to 65~80 ft. lbs.
22. Reinstall Bolt which attaches Brake Duct to Front Lower Control Arm (if applicable).
23. Repeat steps 4-22 to Tension Rod at the opposite-side of the vehicle.
24. Lower vehicle from Jack Stands.
25. Perform Alignment Check & Adjust Z1 Tension Rods accordingly.

Note: Assure that exposed threads at each side of adjuster does not exceed 18mm.

26. Perform a final test drive of the vehicle.

**End**

**Additional Technical Support:**  
 Contact Z1 Motorsports at [info@z1motorsports.com](mailto:info@z1motorsports.com)  
 Or call 770 838 7777 between 9am and 6pm ET