

Instructional Guide

Tie Rod Sleeves

Product may be different based on application



Speedtech
PERFORMANCE

CHASSIS - SUSPENSION - PRO TOURING - AUTOCROSS - DRAG RACING - CUSTOM BUILDS

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Figure 1 1967 Camaro, features our Road Assault Kit, Torque Arm and components – Camaro Family

Congratulations on the purchase of your new Speedtech Performance Tie Rod Sleeves. Use only approved and appropriately rated jack and jack stands, be sure to take all safety precautions required to do the job safely and correctly. If you are unsure seek the assistance of a highly qualified workshop to assist you.

Read and understand all instructions thoroughly before you begin. For the most part, assembly and set up of your new Tie Rod Sleeves can be done in a home garage with hand tools.

We enjoy seeing the progress our customers are making as they work through their builds so join the Team Speedtech group on Facebook and share your pictures and your story.

From everyone at Speedtech Performance we send you all best wishes for your project!

Installation Guide

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1.0 GENERAL INFORMATION

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1.1 This Guide

The following instructions are intended for professional installers and are guidelines only. Speedtech Performance assumes no responsibility for the installation of any of its products installed by others. All products are intended to be installed by qualified professionals.

NOTE! Some Items pictured may look different then the parts you have in the kit you received. For example, in this guide we have only used pictures of the Tie Rod Sleeves for first gen Camaro. Your application may have a slightly different shape the part is functionally the same and is installed in the same manner described.

1.2 Overview

These instructions outline Tie Rod Sleeves. Some photos in the install process may vary slightly from your exact application.

Take all necessary safety precautions whenever working on your vehicle.

NOTE Some replacement tie rods will require trimming to allow for correct toe adjustment.

1.3 Tools

Installation of the Speedtech Performance Tie Rod Sleeves can be done on the floor with simple hand tools.

Additional things to have before you start:

- Socket / Wrench
- Floor Stands
- Floor Jack

2.0 CHECK IN PARTS AND HARDWARE

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2.1 Checking in the Order

Best practice will be to check in your order as soon as possible after receiving the order. To check in the order we have provided tables, these can be used as check lists for your order. If you discover anything missing form your order, call your authorized dealer as soon as possible.

2.2 Check in Tables

X	#	Description	Size
	2	Billet Tie Rod Sleeves	
	2	Right Hand Thread Jam Nut	
	2	Left Hand Thread Jam Nut	

3.0 GETTING STARTED

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3.1 LEVELING AND SUPPORT

Always ensure the car is safely supported. This can be done on the ground with the suspension installed, or on a lift/jack stands. Be sure to keep the car level and square when in the build process.

4.0 INSTALLATION

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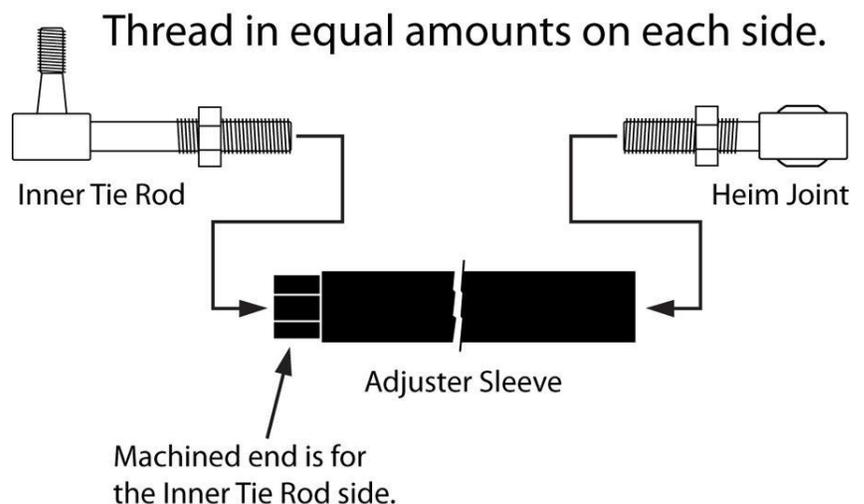
4.1 JAM NUTS

Thread a jam nut several threads onto both the inner and outer tie rod ends.

NOTE: One is Left hand thread – One is Right hand thread

4.2 SLEEVE

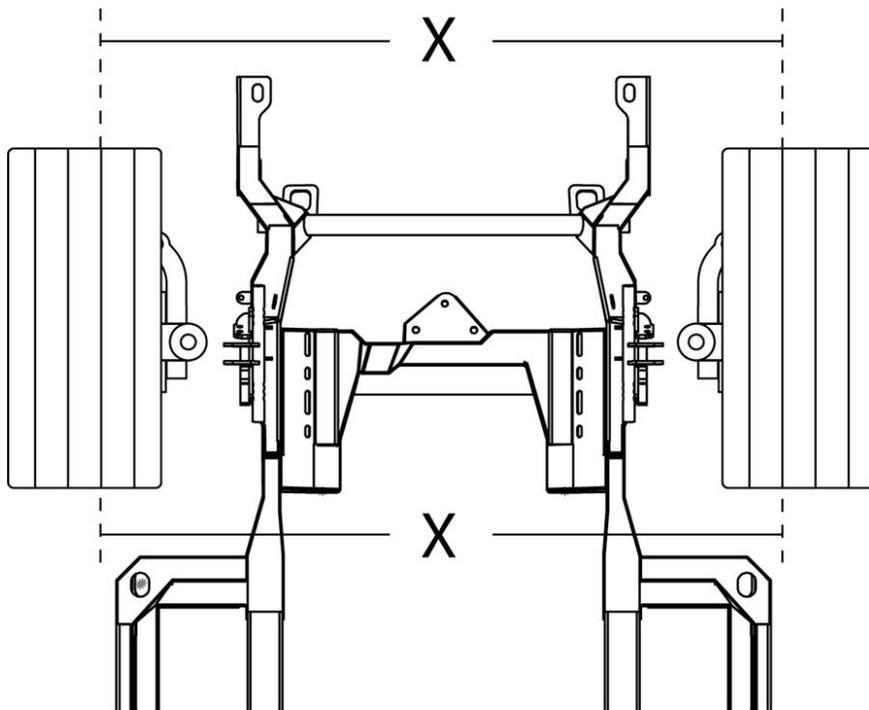
Apply anti-seize to the threads on both ends of the adjuster sleeve. Thread the adjuster sleeve a couple of threads onto *inner* tie rod. Thread the outer joint *the same number of threads* into the other end of the adjuster. Holding the outer joint steady use the other hand to rotate the adjuster sleeve so that it simultaneously tightens down both sides an equal amount until it lines up with the spindle steering arm with the wheel pointed straight forward.



4.3 ALIGNMENT

Using a center point on the frame as a reference align the middle of the center link to the center of the vehicle so both inner tie rod ends are the same distance from the center of the car, and the steering wheel is straight.

Now with the suspension *at ride height* and the wheels and tires bolted in place adjust each side's toe setting by turning the adjuster sleeves equally either forward or backward until the tires are facing forward. You can get the toe setting fairly close by adjusting the suspension until measuring the distance between the same points on the front side of each tire is equal to the distance between the same points on the rear side of each tire, see (X) in the diagram below. Adjust as needed until both front and rear measurements are near the same. When finished snug all four jam nuts finger tight. This will be close enough to drive the car onto a trailer to take to a competent alignment shop. *Do not street drive the car in this condition* other than to load it on a trailer.



4.4 ALIGNMENT SPECS

Bring the car to a reputable alignment shop that is familiar with performance alignment settings and how they all correlate with each other, including but not limited to caster, camber gain, toe settings for specific types of driving/ racing, bump steer adjustment, etc.

When the alignment is finalized the alignment technician will then tighten the tie rod adjuster jam nuts.

Daily Driving, Street Performance Specifications

Driver Side	Passenger Side
4 Degrees positive Caster	4 ½ Degrees positive Caster
0 to ½ Degree negative Camber	0 to ½ Degree negative Camber
3/ 32 Total Toe-in	3/ 32 Total Toe-in

Aggressive Track Alignment Specifications

Driver Side	Passenger Side
5 ½ Degrees positive Caster	6 Degrees positive Caster
½ to 1 Degree negative Camber	½ to 1 Degree negative Camber
3/ 32 Total Toe-in	3/ 32 Total Toe-in

Original Alignment Specifications

****For reference purposes only. Do Not use these specs.**

Driver Side	Passenger Side
½ Degree positive Caster	½ Degree positive Caster
¼ to ½ Degree negative Camber	¼ to ½ Degree negative Camber
1/8 Total Toe-in	1/8 Total Toe-in

5.0 Congratulations

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Congratulations on completing your project, we know you will get many years of enjoyment from your project. Please join the group [Team Speedtech](#) on Facebook. Team Speedtech is a community of like-minded individuals using Speedtech Performance products. The Group's members include customers, our dealers and factory employees - each with a passion for Pro Touring muscle cars. You can ask questions and get advice from the group members as well as share your experience. Within the group we enjoy seeing the videos and pictures during the progress of your projects so post up. We also encourage you to share pictures and videos of your finished projects out on the road, at the show & shine, on track or however you get enjoyment from your ride, we want to see it!

Thank you for choosing Speedtech Performance! We know you have a choice, and we appreciate that you entrust us with your chassis and suspension needs for you custom muscle cars.

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Recheck the torque on all fasteners after 100 miles.