

# Instructional Guide

Street Fighter Suspension Kit  
70-81 F-Body



**Speedtech**  
PERFORMANCE

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

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*Figure 1 1970 ZL70 Camaro (First Build Version), features our Street Fighter front suspension – Nick Relampagos*

Congratulations on the purchase of your new Speedtech Performance Street Fighter Suspension. Installing this system will require the removal of your old suspension from the car. 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 suspension can be done in a home garage with hand tools and basic equipment. As your final step, review each assembly step again to be sure all fasteners are correctly secured and torqued to specification.

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!

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# Installation Guide

## TABLE OF CONTENTS

### 1. GENERAL INFORMATION

- 1.1 THIS GUIDE
- 1.2 OVERVIEW
- 1.3 TOOLS

### 2. CHECK IN PARTS AND HARDWARE

- 2.1 CHECKING IN THE ORDER
- 2.2 CHECK IN TABLES

### 3. GETTING STARTED

- 3.1 INSPECT CURRENT SUSPENSION
- 3.2 LEVELING AND SUPPORT

### 4. SUBFRAME PREP

- 4.1 MOUNTING HOLES
- 4.2 CHICANE
- 4.3 FINISH

### 5. INSTALLATION

- 5.1 SUSPENSION INSTALLATION
- 5.2 IDLER ARM BRACKET INSTALLATION
- 5.3 ASSEMBLY
- 5.4 SWAY BAR END LINKS

### 6. ALIGNMENT

### 7. CONGRATULATIONS

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## 1.0 GENERAL INFORMATION

[Back to Table to Contents](#)

### 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 control arms for the early 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 the Street Fighter Suspension. The system is designed to be installed independently on a stock sub frame. Some photos in the install process may have other components from Speedtech Performance.

**NOTE!** These instructions may be limited to the installation processes that are not contained in the instructions for each individual part. See the instructions found with the individual parts for those not listed here.

**WARNING!** Once assembled you will need a professional wheel alignment performed. Driving a vehicle without a proper alignment can be dangerous, towing is recommended to transport the car prior to the alignment being performed.

While Speedtech's Street Fighter Suspension work great as a replacement for your factory suspension, it is also designed to meet the needs of those intending participate in off highway road racing and autocross competition. To achieve maximum benefit from our system you should anticipate adjusting and tuning of the suspension to achieve optimum performance specific to the vehicle, driver and type of racing. Some of this, such as tuning sway bars and shock settings, can be done track side through making adjustments and seeing/feeling how the car reacts to these changes. We recommend a tire probe pyrometer and good quality air pressure gauge be in your track side tuning kit.

### 1.3 Tools

Installation of the Speedtech Performance Street Fighter Suspension can be done on the floor with simple hand tools and no special tools are required.

Additional things to have before you start:

- Silicon Based Grease
- Wrench Set
- Torque Wrench
- Floor Stands
- Floor Jack
- Cut Off Wheel
- Welder

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## 2.0 CHECK IN PARTS AND HARDWARE

[Back to Table to Contents](#)

### 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 from your order, call your authorized dealer as soon as possible.

### 2.2 Check in Tables

#### Street Fighter

X	#	Description	Size
	1	Drivers Side Control Arm with Ball Joint installed	
	1	Passenger Side Control Arm with Ball Joint installed	
	4	Upper Control Arm Bolt	1/2 x 2 1/4 NF
	4	Upper Control Arm Washer	1/2
	4	Upper Control Arm Nylock Nut	1/2
	4	Sway Bar Pivot Mount Bolt	3/8 x 1 1/4 NC
	4	Sway Bar Pivot Mount Washer	
	4	Idler Arm Mounting Bracket Bolt	3/8 x 1 1/4 NC
	4	Idler Arm Mounting Bracket Nylock Nut	3/8
	4	Idler Arm Mounting Bracket Washer	3/8

## 3.0 GETTING STARTED

[Back to Table to Contents](#)

### 3.1 INSPECT CURRENT SUSPENSION

In a few short hours you can update your classic car with new Speedtech Performance Street Fighter Suspension. We recommend you inspect all of your car's components prior to installation of our parts, such as steering and other suspension parts which may be worn and could cause adverse effects. Replace parts as necessary.

### 3.2 LEVELING AND PREP

**The vehicle should be on a level surface before you start.** Jack up and properly support the vehicle's frame.

Before any removal of the old sub frame begins, disconnect and remove the battery.

**NOTE!** There will be some modification to your subframe. This may be a convenient time to remove the entire frame. Doing so will allow easier access to make the modifications, and then you can clean/ sandblast and have it painted or powder coated. If you do not already have them, Speedtech Solid Body Mounts, part #220508, are a great compliment to this package.

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## 4.0 SUBFRAME PREP

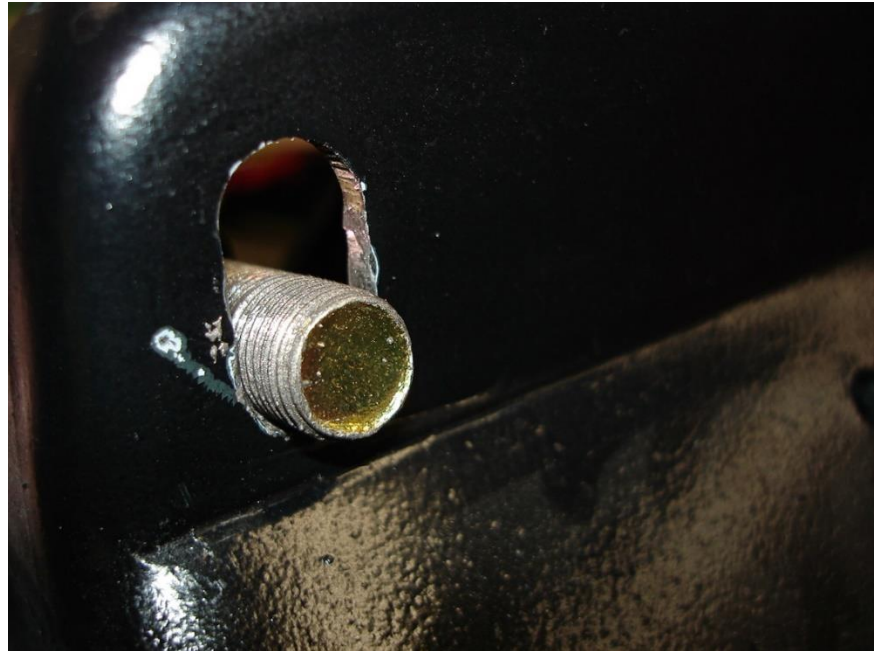
[Back to Table to Contents](#)

### 4.1 MOUNTING HOLES

You will need to modify the mounting holes for the upper control arms to achieve better camber gain and lower the roll center. First remove the control arm mounting studs. Next, use a die grinder and lengthen the holes downward approximately  $\frac{3}{4}$ " as seen in the photo below.

**Note:** The stainless cross shaft on the upper control arms should not make contact with the angled part of the cross member where it meets the vertical control arm mount.

Because of differences in factory tolerances, to be sure to have proper fitment grind a little less than  $\frac{3}{4}$ " and test fit the control arms. Continue grinding as necessary to lower the arm mount up to  $\frac{3}{4}$ " without contacting the cross member. Both slots should be the same length.



### 4.2 CHICANE COILOVER

Continue the frame modifications according to the instructions for installing the [Chicane Coilover](#) brackets.

### 4.3 FINISHING

Clean and/or sandblast and then coat the frame with your favorite products or powder coat to prevent rust from forming.

## 5.0 INSTALLATION

[Back to Table to Contents](#)

### 5.1 SUSPENSION INSTALLATION

Install the coilovers, [lower control arms](#), the steering arms on the [spindles](#), [tie rod sleeves](#), [upper control arms](#) and brakes according to their individual instructions.

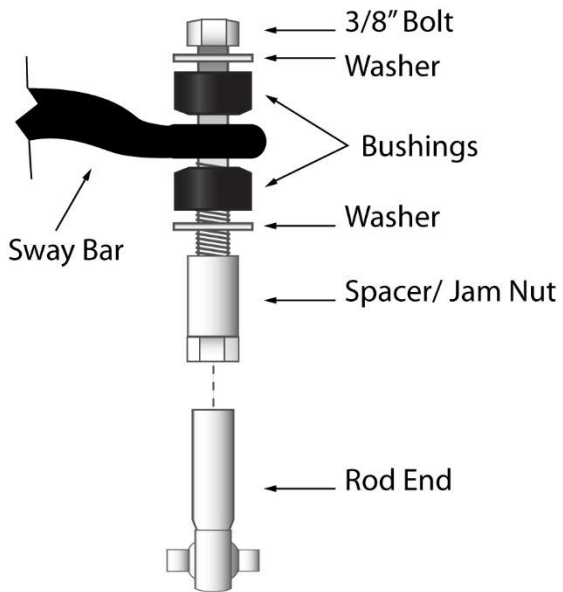
## 5.2 IDLER ARM BRACKET INSTALLATION

Install the idler arm relocation bracket in the stock location on the frame and the idler arm on the bracket.



## 5.3 ASSEMBLY

Assemble tie rod ends, center link, and idler arm. Install the assembly in the chassis.



## 5.4 SWAY BAR END LINKS

Install new sway bar end links according to diagram.

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## 6.0 ALIGNMENT

[Back to Table to Contents](#)

When finished, take the vehicle to a competent professional alignment shop to have an alignment performed.

**Note: Use alignment specifications below, not alignment shop pre-programmed factory specs!**

These specs are only suggestions and may need additional changes to achieve the optimum settings for your driving style or situation.

### 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



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## 7.0 Congratulations

[Back to Table to Contents](#)

Congratulations on completing your project, we know you will get many years of enjoyment from your Control Arms. 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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