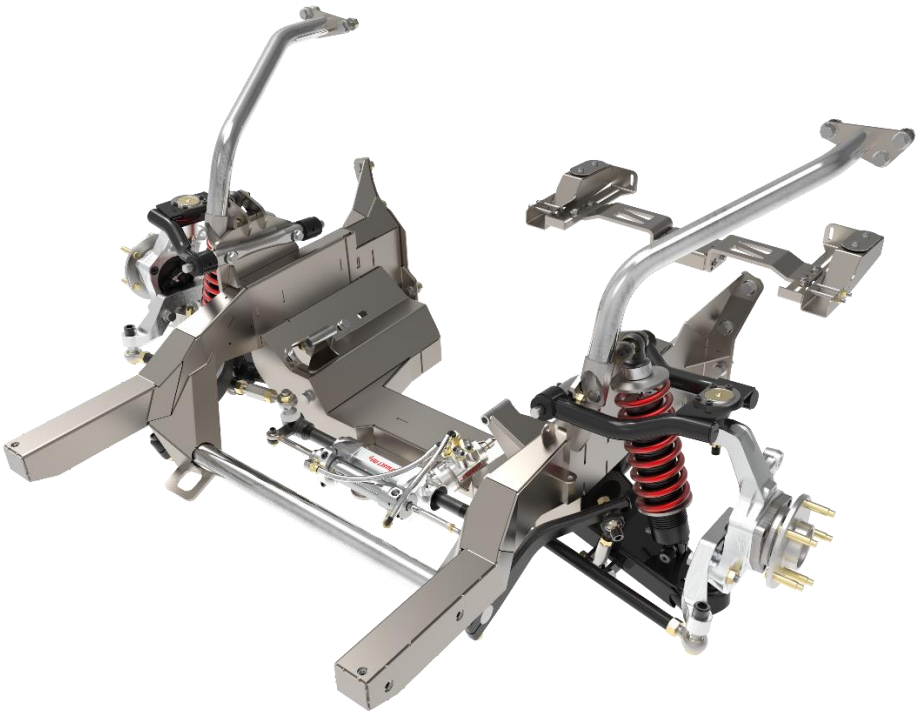
Instruction Guide

ExtReme Subframe
62-67 Chevy II



Speedtech PERFORMANCE

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

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Figure 1: 1967 Camaro built by Speedtech Performance

Congratulations on your purchase of the new Speedtech Performance Extreme subframe. Use only approved, appropriately rated jack and jack stands, and take all required safety precautions to complete the job safely and correctly. If you have any uncertainties, seek the assistance of a highly qualified workshop.

Read and understand all instructions thoroughly before you begin. Your main assembly and setup of your new Extreme subframe can be done in a home garage with hand tools and basic welding equipment.

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

Speedtech Performance wishes you the best with your project!

TABLE OF CONTENTS

1.0 GENERAL INFORMATION

Back to Table of Contents

1.1 THIS GUIDE

Thank you for purchasing your new Speedtech Performance Extreme subframe. Read all instructions thoroughly before beginning, and take all required safety precautions to do the job carefully and correctly. If you have uncertainty, seek the assistance of a highly qualified workshop.

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.

Installing this product will require removing your old front suspension, inner fender wells, and subframe, and making some modifications to the original sheet metal. It is intended to be installed in conjunction with the Chevy II down-tube kit and the Chevy II transmission mount. Use only approved and appropriately rated jacks and jack stands.

While Speedtech's Extreme suspension systems are safer and more comfortable than factory suspension on the street, they are also designed to meet the needs of those intending to participate in off-highway road races and autocross competitions. To achieve maximum benefit from our system, you should anticipate adjusting and tuning the suspension to optimize performance for the vehicle, driver, and type of racing. Some of this, such as tuning sway bars and shock settings, can be done trackside by making adjustments and seeing or feeling how the car reacts to these changes. Speedtech recommends that a tire probe pyrometer and an air pressure gauge be included in your track-side kit.

Other adjustments, such as tuning a bump steer and caster, may require specialized equipment and professional help. Speedtech's technical department can share insights on making these adjustments to help you get started.

NOTE: This kit requires welding to install. The frame boxes and frame rail caps are permanently welded to the unibody, and the K-Member is welded to those rail caps. We highly recommend that, after trimming and fitment of the various components and before welding, you protect all surfaces with primer. After welding, finish the underside as desired.

IMPORTANT: Take extra care when making final cuts and welds on the vehicle. Ensure that Everything is lined up, and the wheels are in the desired location. There is some adjustment. in the removable subframe for the final assembly, but it is limited.

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 before the alignment is performed. For basic rough alignment settings, refer to the Extreme IFS instruction guide.

1.2 OVERVIEW

These instructions apply to the installation of the subframe only. The down tubes, transmission mount, Speedtech inner fender wells, and the Extreme IFS instructions and hardware checklist are included in their respective kits.

NOTE: This kit requires permanent modifications of original hardware.

Several body parts will be cut, trimmed, shaped, and discarded during the installation of the new subframe. Take extra care not remove too much material, so you maintain the integrity of the vehicle and prevent potential rebuilding. Feel free to contact us if you have any questions along the way.

1.3 TOOLS

Installation of the Speedtech Performance torque arm rear suspension can be done on the floor with a basic welder, a cut-off tool, and basic hand tools.

Additional things to have before you start:

- Drill
- Grinder
- Floor Stands
- Floor Jack
- Socket Set
- Red Loctite

2.0 CHECK IN PARTS AND HARDWARE

Back to Table of Contents

2.1 CHECKING IN YOUR ORDER

Check in your order as soon as possible. To check the order, Speedtech has provided a table that can be used as a checklist, as shown in Figure 3. All bolts and nuts are NF unless otherwise noted. Hardware comes in several boxes. If you discover anything missing from your order, call your authorized dealer as soon as possible.

Figure 2: Numerous individual parts and hardware

2.2 CHECK IN TABLE

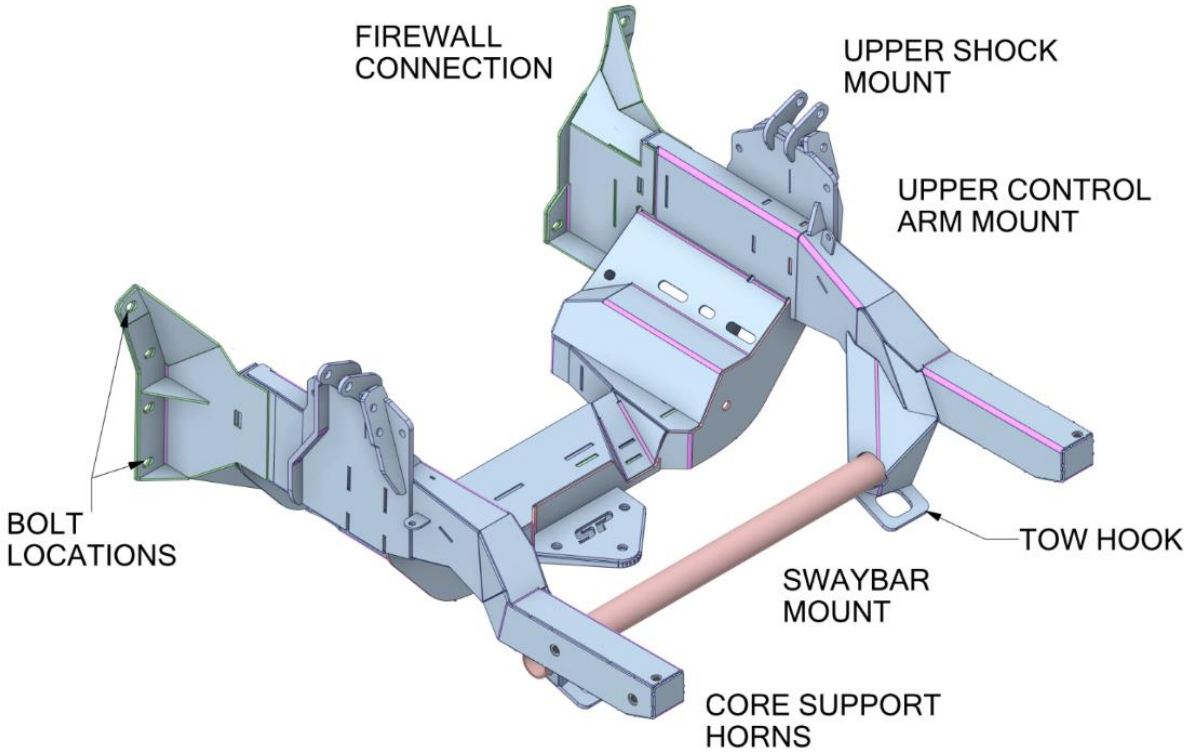
Subframe Mounting

X	#	Description	Size
	4	Core Support Mounting Bolts	3/8” x 1”
	4	Core Support Mounting Washers	3/8”
	10	Subframe Mounting Bolts	1/2” x 1-1/2”
	20	Subframe Mounting Washers	1/2”
	10	Subframe Mounting Nylocks	1/2”

Figure 3: Check in table with amounts, descriptions, and sizes

2.3 ASSEMBLY OVERVIEW

Figure 4: Assembly overview image



3.0 GETTING STARTED

Back to Table of Contents

3.1 LEVELING AND SUPPORT

WARNING: The vehicle should be on a level surface before you start.

First, jack up and properly support the vehicle's frame. The suspension should be at drive height when installing the bar. If the car is on a lift and the suspension is in droop when you install the kit, it will not line up properly when back on the ground. The sway bar brackets will all need to be test-fitted into place before final installation to ensure proper bar alignment and prevent binding during suspension travel.

NOTE: Evaluate the sections of the factory frame to be removed and place jackstands accordingly.

IMPORTANT: This is designed to be installed AFTER the rear suspension is complete. If you have not installed the rear-end torque arm, please see the proper installation guide.

3.2 BODY PREPARATION AND CUTTING

Disassemble the entire front half of the car. Removing the motor, exhaust, driveline, axle, suspension, fenders, core support, and subframe.

Clean all surfaces and the firewall, prepping them for fitting and cutting.

Level the car above a level work surface.

Measurements will be made off the work surface and projected onto the car. Take time to avoid alignment problems later in assembly.

NOTE: There are several little stock brackets scattered throughout the underside of the car. These brackets, at times, will get in the way of the new Speedtech system. They will have to be cut out and removed as needed.

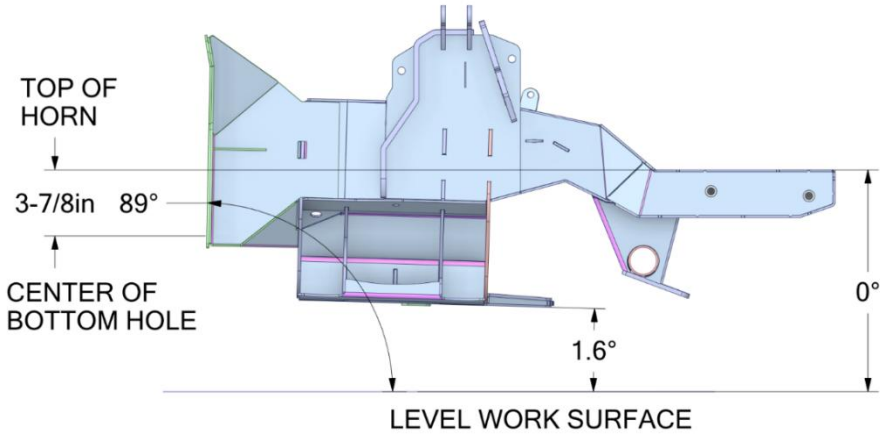
Figure 5: Body preparation

3.3 SUBFRAME TO FIREWALL

NOTE: The subframe bolts into the same location as the stock subframe with some modifications. Again, take care not to overcut and to trim in the appropriate locations.

- Line up the subframe to the prepared and cleaned firewall.
- Use a jack and lift the subframe so that the bottom 4 holes line up with the bottom 4 holes of the stock subframe connection.
- Bolt/pin the subframe into the bottom holes.
- Bolt the two outside upper holes to the subframe.
- Check, measure, and shift the crossmember to be level side to side.
- Secure the crossmember on the stock six points that line up. Keeping the weight of the crossmember on the jack.
- Locate the four additional mounting points on the outside of the frame.
- Punch hole starts into the firewall in the center of these points.
- Drill out 1/2” + holes at those locations, using the subframe as a drill guide.
- Bolt the remaining mounting points through the new holes that were made.
- Measure the placement of the subframe, the horn heights, and the horn angles. Use Figure 6 as a reference.
- Adjust, slide, and shim mounting points until satisfactory alignment.
- Torque all 1/2” bolts to 90 ft.lb.
- Trim the unused stock mounting bolt area. This area needs to be clear to accommodate Speedtech’s Extreme long-tube headers inside the frame.
    - Mark the mount plate, following the subframe on the inside from the bottom notch, up vertically.
    - Continue the vertical line ≈1”.
    - 45° back towards the center to the edge of the mounting plate.
    - Trim with a cutting wheel.

Figure 6: A diagram of the placement and two images of the subframe to firewall



4.0 CORE SUPPORT

Back to Table of Contents

NOTE: Most of the core support can be unbolted from the subframe. The only points that need extra work are some rivet holes on the bottom strut brace.

First, locate the four rivets connecting the strut brace to the front core support. Drill out and cut off these rivets. Next, unbolt the core support from the subframe.

NOTE: Now that these components are being separated and modified, Speedtech recommends performing as much metal prep and protection as possible on them during the build process. It will be much easier to manage these parts as individual pieces.

Now you can slide the prepared core support onto the new frame horns. Use (4) 3/8” bolts and washers into the pre-threaded subframe located at the same lower hole places that were used on the stock subframe. Some modifications may be needed to line up and center the core support.

Figure 7: Core support

4.1 UPPER FENDER RAIL

NOTE: The only part of the upper fender rail you will need is the top shelf and the hinge/fender mounting vertical. The bulk of it will be cut apart and removed. It is welded to the stock subframe and must be removed before modification.

- Locate and mark the spot weld locations.
- Drill them out to remove the top rail from the rest of the subframe.
- Clean up the rail, preparing it for trimming and reinstalling.
- Trim the excess off the rail.
    - Scribe on the rail, starting on the front inside area that connects with the core support.
    - Follow the existing line outward to the center bolt hole.
    - Turn 90° and scribe straight back towards the firewall. The line should be ≈ 2” off the outside of the vertically mounting wall.
    - Scribe up to where the firewall mounting metal overlaps the upper rail.
    - Turn 90° and follow the overlap line towards the center of the car all the way to the edge. Refer to the finish pictures.
    - Trim following the scribed line. Keep the vertical mounting wall, discard the rest.

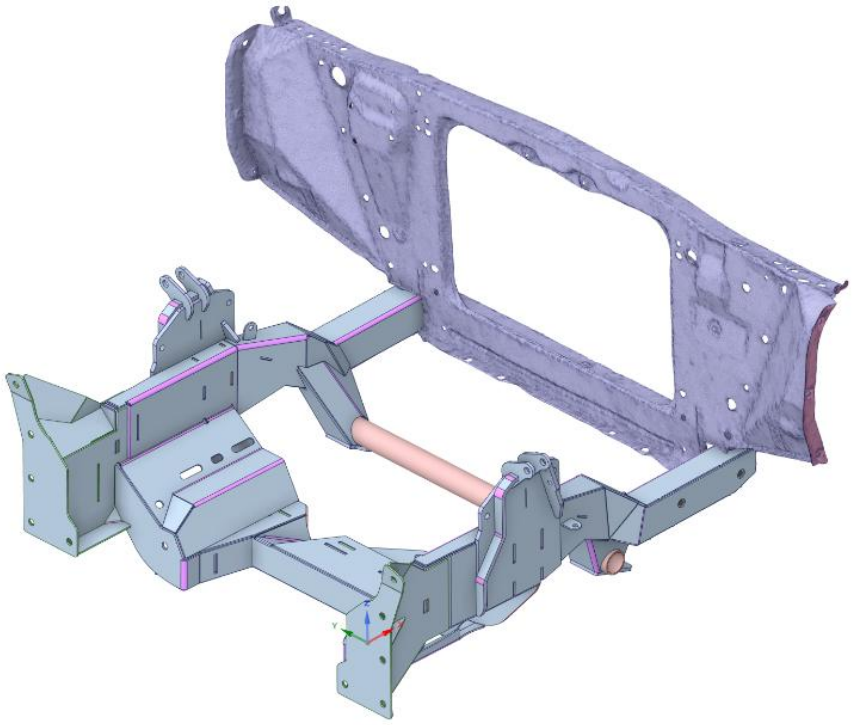
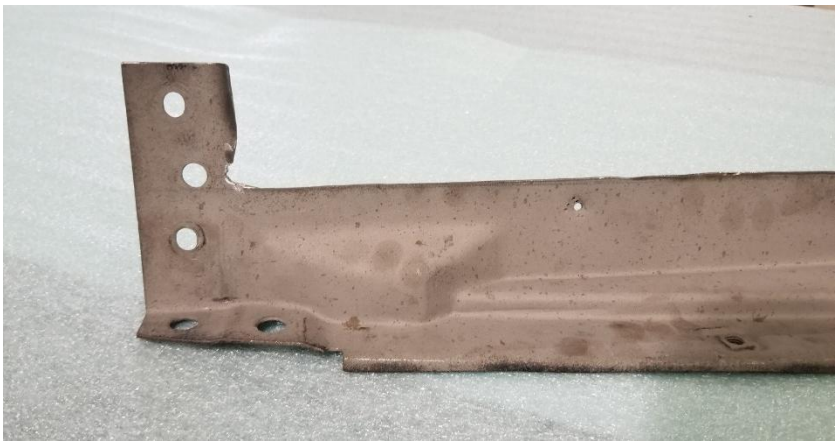


Figure 8: One model and five images of the upper fender rail

- Trim the little kickdown near the firewall mounting area.
- Clean it up so that it is prepared for installation.
- Bolt the rail in the same stock location, 3 bolts on the firewall and 3 bolts on the core support.



5.0 CONGRATULATIONS

Back to Table of Contents

Congratulations on completing your project! We know you will get many years of enjoyment from your project. Please join the Team Speedtech group on Facebook. Team Speedtech is a community of customers, dealers, and factory employees who have a passion for pro-touring muscle cars and use Speedtech Performance products. You can ask questions, get advice from the group members, and share your experience. Everyone enjoys seeing the videos and pictures as your project progresses, and Speedtech encourages you to share them!

Thank you for choosing Speedtech Performance and entrusting us with your subframe needs for your custom muscle car.

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