

Instruction Guide

Smooth Firewall
55-57 Tri-5



Speedtech
PERFORMANCE

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

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Figure 1: 1957 Bel Air features our ExtReme Chassis [photo from Tom Argue Design]

Congratulations on the purchase of your new Speedtech Performances smooth firewall. Use only approved and appropriately rated jack and jack stands, and be sure to take all safety precautions required to complete the job safely and correctly. If you have uncertainties, seek the assistance of a highly qualified workshop to assist you.

Read and understand all instructions thoroughly before you begin. Your main assembly and set up of your new smooth firewall 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 your story.

Speedtech Performance sends you best wishes for your project!

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1.0 GENERAL INFORMATION

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1.1 THIS GUIDE

Thank you for purchasing your new Speedtech Performance smooth firewall. Read through all instructions thoroughly before beginning and take all safety precautions required 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.

NOTE: Some items pictured may look different than the parts you received in the kit. For example, in this guide we have only used pictures of the smooth firewall 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 smooth firewall.

Take necessary precautions when welding the inside of your vehicle and remove any close-by flammable materials including the seats, carpet, inner heater box, and insulation padding before performing this instruction. Be sure to wear proper protective gear when using power tools and keep sparks away from glass and other interior components when grinding and welding.

This install is not intended for the entry level garage builder. This firewall kit requires a higher level of fabrication experience and skills. It also requires the ability to think through the process while filling in any gaps that the instructions may not cover. If you are unsure of how to use the tools and materials, and carry out the fabrication work required to install this kit, stop and seek a professional installer's help.

NOTE (for before you begin cutting): The firewall is a major structural part of the car's body. Modifying the structural integrity of a vehicle may cause the body to become flimsy and shift while you are working on it. Speedtech recommends installing temporary bracing to hold the car's shape. For example, you can install a brace and weld in from the front kick panel area to the base of the transmission tunnel. The installer should be able to make good judgment of how and where to do this. If you are also installing the Camaro part # 11510 or Nova part # 121510 transmission tunnel cover kit, Speedtech recommends completing one kit at a time so that one area will help maintain structural integrity while the other area is being modified. Do not cut out the firewall and transmission tunnel at the same time.

If you need help or insight on this install, do not hesitate to reach out to Speedtech.

1.3 TOOLS

Installation of the Speedtech Performance smooth firewall can be done on the floor with a cut off wheel, basic welder, and simple hand tools.

Additional things to have before you start:

- Welder
- Drill
- Grinder
- Floor Stands
- Floor Jack
- Hammer and Dolly

2.0 CHECK IN PARTS AND HARDWARE

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2.1 CHECKING IN THE ORDER

Check in your order as soon as possible. To check in the order, Speedtech has provided a table which can be used as check list, as displayed in figure 2. 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.

2.2 CHECK IN TABLES

X	#	Description	Size
	1	Smooth Firewall	
	1	Bellhousing Transition Piece	
	1	Box Pieces – Driver	2 pieces per box
	1	Box Pieces - Passenger	2 pieces per box
	2	Fender Mount Plates	

Figure 2: Check in table with the amounts, descriptions, and sizes

3.0 GETTING STARTED

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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. Next, remove the front wheels. For cars with drop off style rotors, reinstall one lug nut if needed to prevent the rotor from falling off.

3.2 DISCONNECT BATTERY

Since you will be cutting and welding the firewall, floor, and tunnel of the car, disconnect the battery.

4.0 CUTTING AND MOCK UP

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4.1 FIREWALL MARKING AND CUT

Place the smooth firewall up against the factory firewall to become familiar with its fitment.

NOTE: Some areas may need to be trimmed for best fitment.

Mark the outside perimeter of the new firewall onto the factory firewall by moving inward at least 1". Then draw a parallel perimeter line on the factory firewall for your cut guide line; refer to **(A.)**

If you plan to retain factory hood hinges you must trim around the hood hinge bracket, as presented in **(B.)**. Even if you are not using factory hood hinges you may want to consider leaving this bracket in place as another support to weld the firewall to.

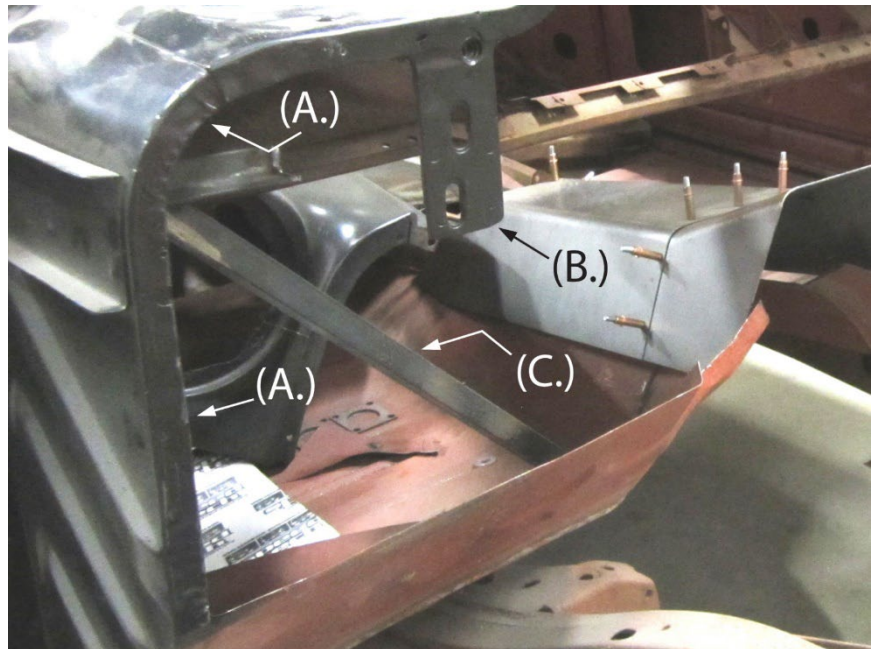


Figure 3: Preparation for placing the smooth firewall

NOTE: Speedtech added temporary bracing from the kick panel area to the floor pan, refer to **C.**

4.2 FLOOR TUNNEL MOCK UP

To help support the front of the floor pan, Speedtech suggests leaving the front few inches of the bellhousing to firewall transition in place, located in front of the new engine cove as seen in figure 4. After the firewall is tack welded in place, trim off the remaining bellhousing portion of the floor that connects right to left sides. Notice Speedtech used self-tapping sheet metal screws and cleco's to hold everything in place before welding. When lined up properly the firewall and cove will have about a 3/8" offset to the passenger side.



Figure 4: Bellhousing to firewall transition in place

NOTE: The smooth firewall removes the factory wiper motor mounting area. Retaining the factory wiper blade motor will require a fair amount of fabrication. Speedtech suggests using an aftermarket wiper motor kit instead.

4.3 TRANSITION

For a cleaner install, the bottom of the new firewall can be bent back to meet the floor pan as seen in the photo below or you can trim the firewall accordingly so that it touches up against the floorboard and can be butt welded.



Figure 5: Bending the new firewall

4.4 STEERING COLUMN / BRAKE PUSHROD

Locate and drill a hole for the brake pushrod and the steering column.

NOTE: Speedtech recommends that before cutting out the original firewall, you make a cardboard template or after you cut out the original firewall, you use it to transfer the hole locations to the new firewall. This is recommended because the proper location must be accurate.



Figure 6: Drilled hole for brake pushrod

Figure 7 shows fitment with an LS engine mock up installed in Speedtech's ExtReme chassis.

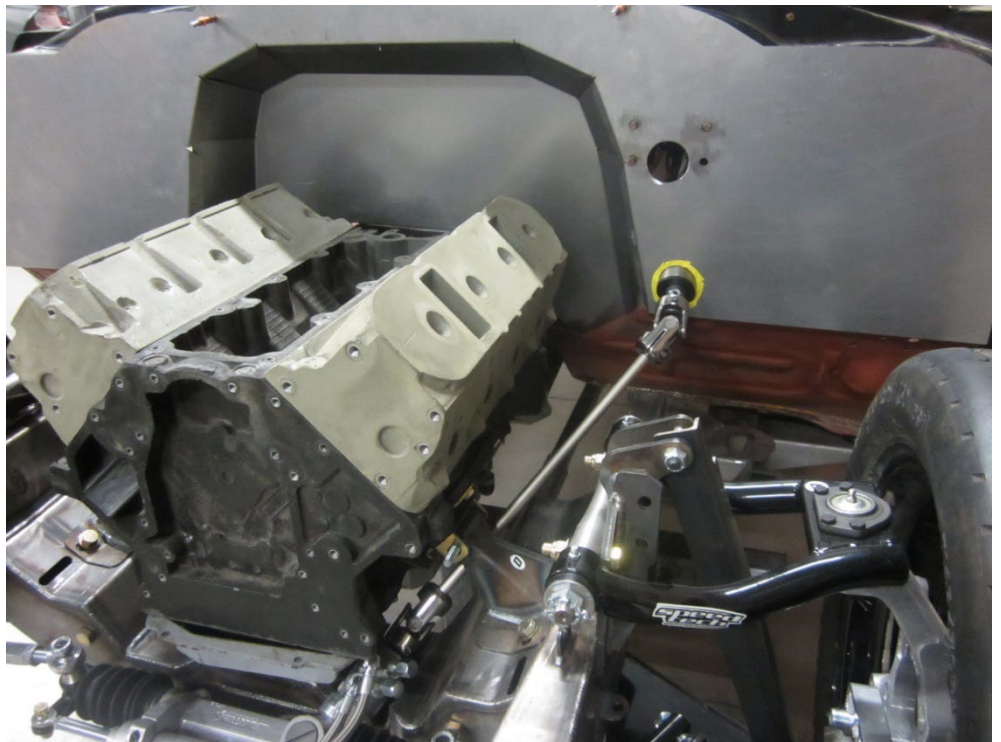


Figure 7: LS engine

Figure 8 shows the steering column in relation to the factory bracket located under the column.



Figure 8: Steering column in relation to the factory bracket

4.5 BELLHOUSING MOCK UP

Figure 9 presents the relation of the cove to the floor and the tunnel cover's bellhousing area transition piece, along with the tunnel cover mocked up in place.

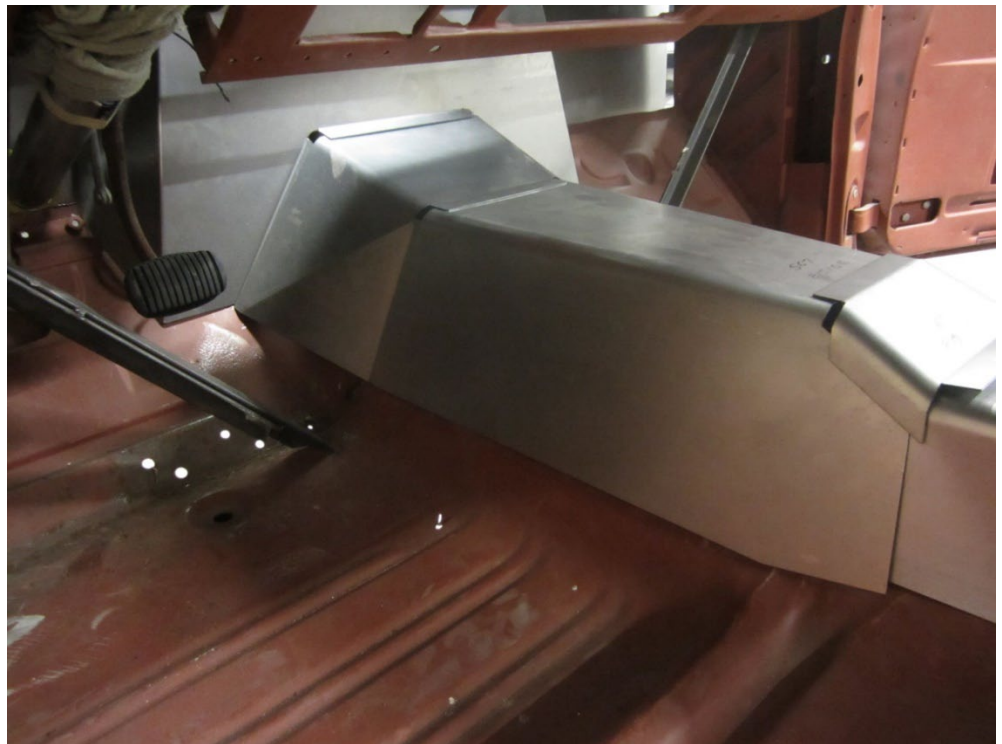


Figure 9: Cove compared to the floor and tunnel cover

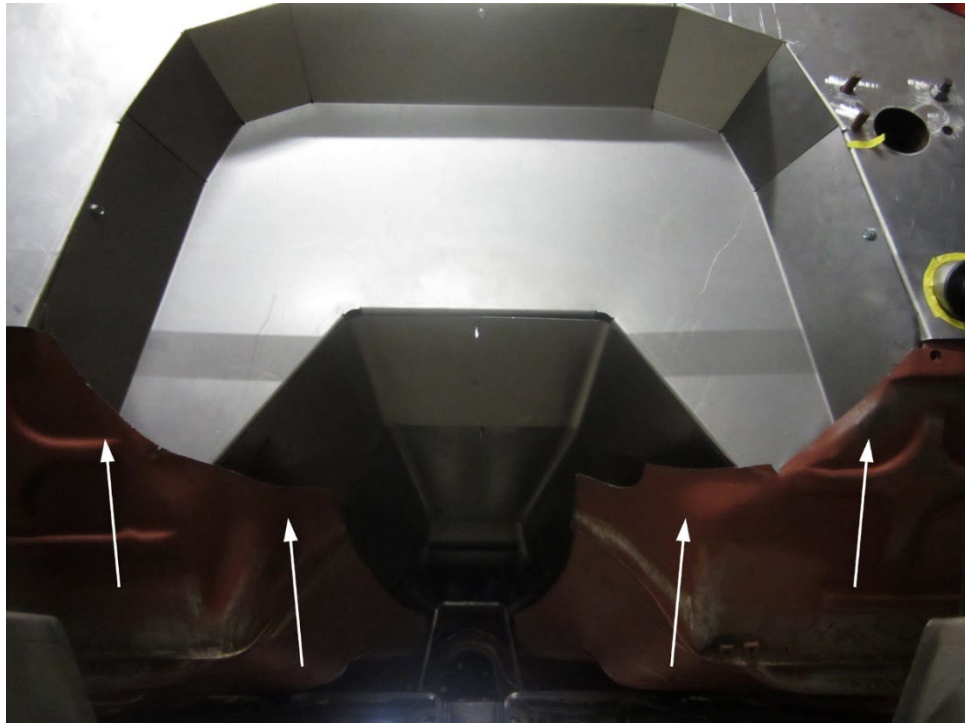
5.0 INSTALLATION

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5.1 METAL SHAPING

Some hammer, dolly, and metal shaping will be required to match the factory sheet metal to the firewall kit, refer to the arrows in figure 10. If you are using Speedtech's tunnel cover kit, the front bellhousing transition piece will match the shape of the firewall's engine cove opening.

Figure 10: Metal shaping



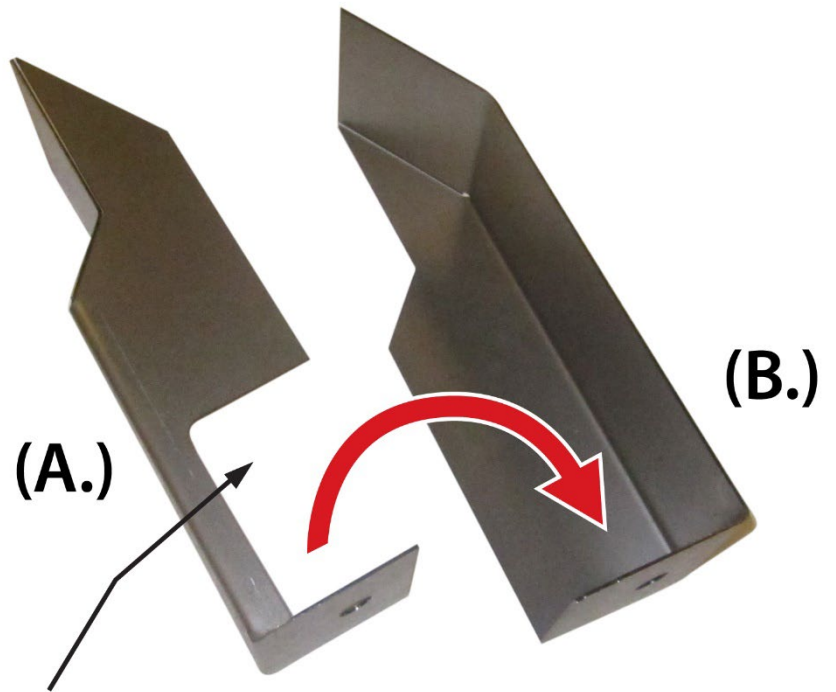
5.2 WELDING

Once you have a fit you are comfortable with, weld all seams and body work finish as necessary.

5.3 BODY MOUNT BOX

Assemble and weld the body mount boxes, be aware there are two halves for each side of the car. Weld the two halves together with the part containing the side cutout **(A.)** on top of the other side **(B.)** of the box. This will give you a double stacked base for the body bushing. All other edges of both box halves will line up with the contours of each other. Weld all seams.

Figure 11: Welding the two halves together



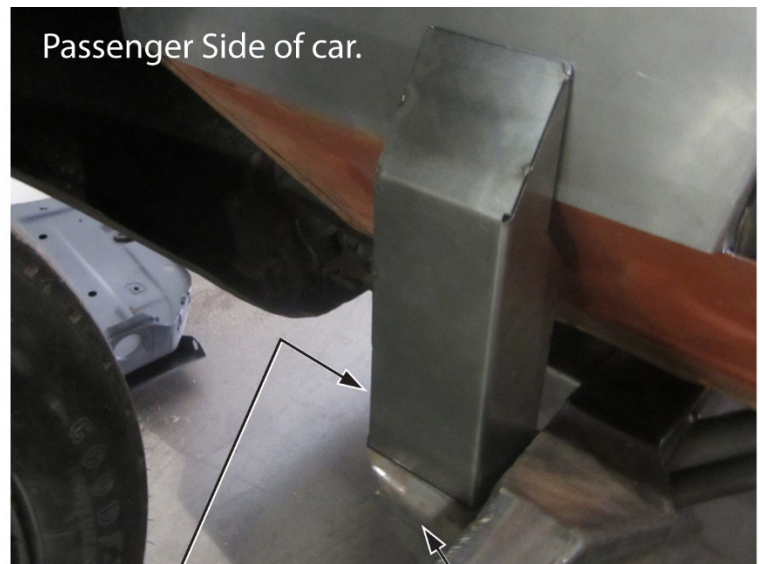
Cutout for Body Bushing Installation Access Faces Towards Outside of the Car.
Pictured here is the *passenger's* side bracket.

With the body on the chassis, line up the bolt hole in the box with the bolt hole on the chassis mount.

Install a body mount bushing assembly in the proper order and place the bolt down through the holes. Make sure you have good alignment and fitment, then tack weld the box to the firewall.

Remove the bushing and finish welding the box to the firewall and floor pan.

Figure 12: Proper placement on the passenger side of the car



Body Bushings will be inserted from the outer side.

Chassis Body Mount Stand

5.4 FENDER BRACKET

Weld a fender bracket to the body mount box.

NOTE: There is a left and right-side bracket which should point towards the outside of the car as seen in figure 13. Use the fender bolt holes as a guide to line up the bracket with the fender. Then tack weld the bracket onto the body mount box. Pause and double-check that everything lines up correctly and finish welding the bracket to the mount box.

Figure 13: Fender bracket



6.0 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 customers, dealers, and factory employers that have a passion for pro touring muscle cars and are using Speedtech Performance products. You can ask questions and get advice from the group members and share your experience. Everyone enjoys seeing the videos and pictures during the progress of your project and Speedtech encourages you to share them!

Thank you for choosing Speedtech Performance and entrusting us with your smooth firewall for your custom muscle car.

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