Instruction Guide

Chicane Coilover Mount Adapter Kit
77-87 G-Body

Speedtech PERFORMANCE

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

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Figure 1: 1987 Grand National, features our Chicane Mount; photo by: Blake Foster

Congratulations on the purchase of your new Speedtech Performance ExtReme chicane conversion mount. 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 ExtReme chicane conversion mount 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 Chicane Coilover Conversion Kit.

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.

While Speedtech's ExtReme suspension systems are safer and more comfortable compared to factory suspension on the street, it is 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 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 or feeling how the car reacts to these changes. Speedtech recommends that a tire probe pyrometer and an air pressure gauge be 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 insight on making these adjustments to help get you started.\

1.2 OVERVIEW

These instructions outline the Chicane Coilover Conversion Kit that will be installed with the stock G-Body frame. Photos in the instruction process may vary slightly from your exact operation.

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.

1.3 TOOLS

Installation of the Speedtech Performance Chicane Coilover Conversion Kit can be done on the floor with simple hand tools and welder.

Additional things to have before you start:

- Welder
- Socket Set
- Cut Off Wheel
- Cutting Torch (if possible)

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 tables which can be used as check lists, 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	Driver Side Bracket	
	1	Passenger Side Bracket	
	2	Upper Shock Mount Bolt	½ x 2 ¼ NC
	2	Upper Shock Mount Nylock Nut	3/8 NC

Figure 2: Check in tables including the amounts, descriptions, and sizes

NOTE: Lower shock mount bolts are included in your shock kits.

3.0 GETTING STARTED / INSTALLATION

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3.1 LEVELING AND SUPPORT

First, jack up and properly support the vehicle's frame. This can be assembled on a work bench. 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 testfit into place before final installation to achieve proper alignment of the bar and that no binding is experienced during the suspension's travel.

Be sure to take all other safety precautions required to do the job correctly.

NOTE: Since you will be cutting and welding, disconnect the battery.

3.2 DISASSEMBLY

Using proper tools and safety precautions, remove the sway bar, upper control arms, coil springs, and shocks. To give you more working room you may want to remove the spindle as well. This job can be done with the lower control arm in place. If not removed, be sure to protect the lower ball joint boot and brake parts from hot sparks.

3.3 UPPER SHOCK MOUNT REMOVAL

Passenger side pictured, front of vehicle is to the right. Remove the existing upper shock mount. Cut along the top, parallel to the control arm mount face. **IMPORTANT:** Do not cut off/remove the upper control arm mount! Then cut near the lower factory welds (arrows). Be careful to not cut into the frame!

Figure 3: Passenger side of the vehicle

3.4

UPPER SHOCK HOLE

After the shock mount is removed, grind down any remaining remnants of the factory welds. You will need to remove the inner spring cup and clearance the hole to about 4 ½" in diameter, as presented in figure 5. This is best done with a plasma cutter or oxyacetylene torch. As you later test fit the shock, additional clearance may be required.

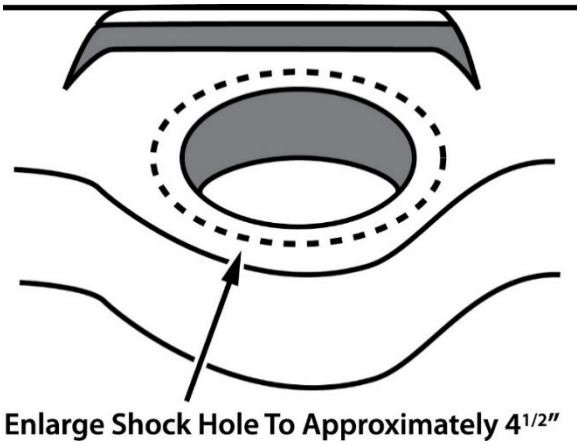

Figure 4: Two visuals depicting the upper shock hole

3.5 BRACKET TEST FIT

Notice the front side of each bracket has a notch in the rear of the base. This side goes towards the FRONT of the vehicle. Test fit the Chicane upper shock bracket into place, centered over the shock hole.

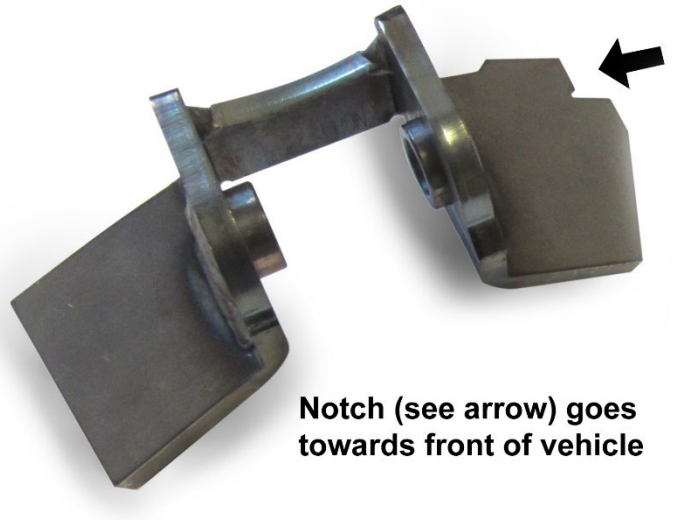

Figure 5: Locating the notch

3.6 NOTCH SHOCK MOUNT

Mark the width of the upper area of the bracket onto the upper control arm mount. Using these marks as a guide, cut out a notch so that the shock mount bracket butts up flush with the engine side of the control arm mount. Figure 6-7 is what you should end up with.

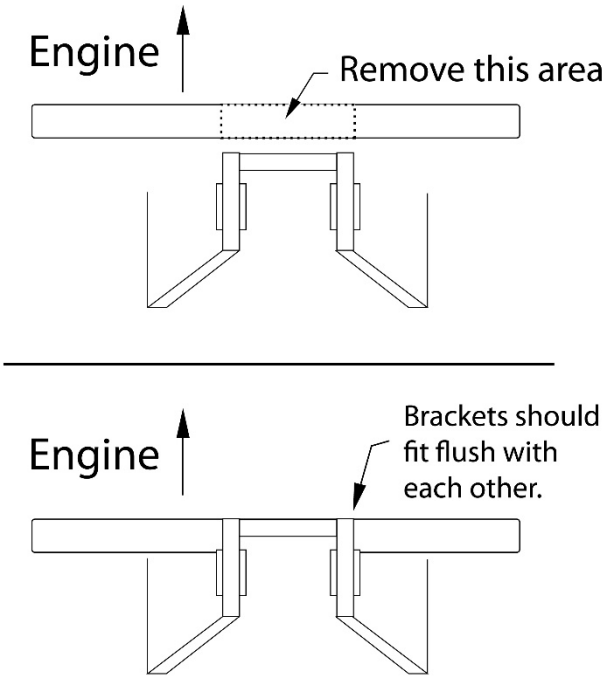

Figure 6: Removing the area

NOTE: Some slight trimming of the bracket may be required to custom fit because of differences in years and factory tolerances
IMPORTANT: Do not proceed to welding at this time.

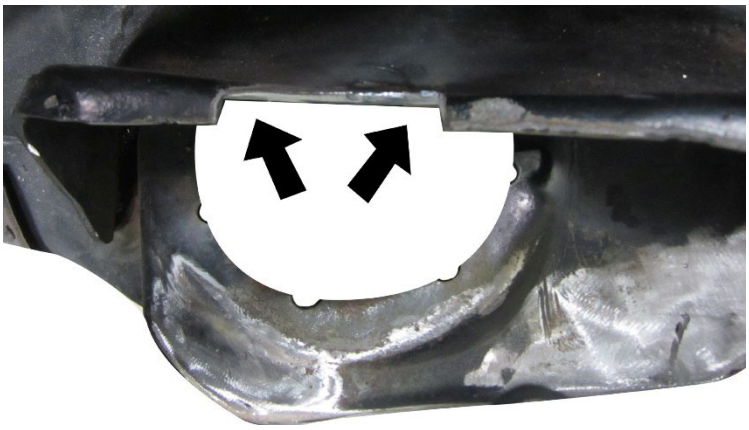

Figure 7: Two images depicting the trimming

4.0 MOCK UP / COILOVERS

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Assemble the coilover shocks as per the supplied instructions. Be sure to place the T-bar in the lower mount and secure it with external snap rings. Make sure the snap rings are seated in the grooves correctly.

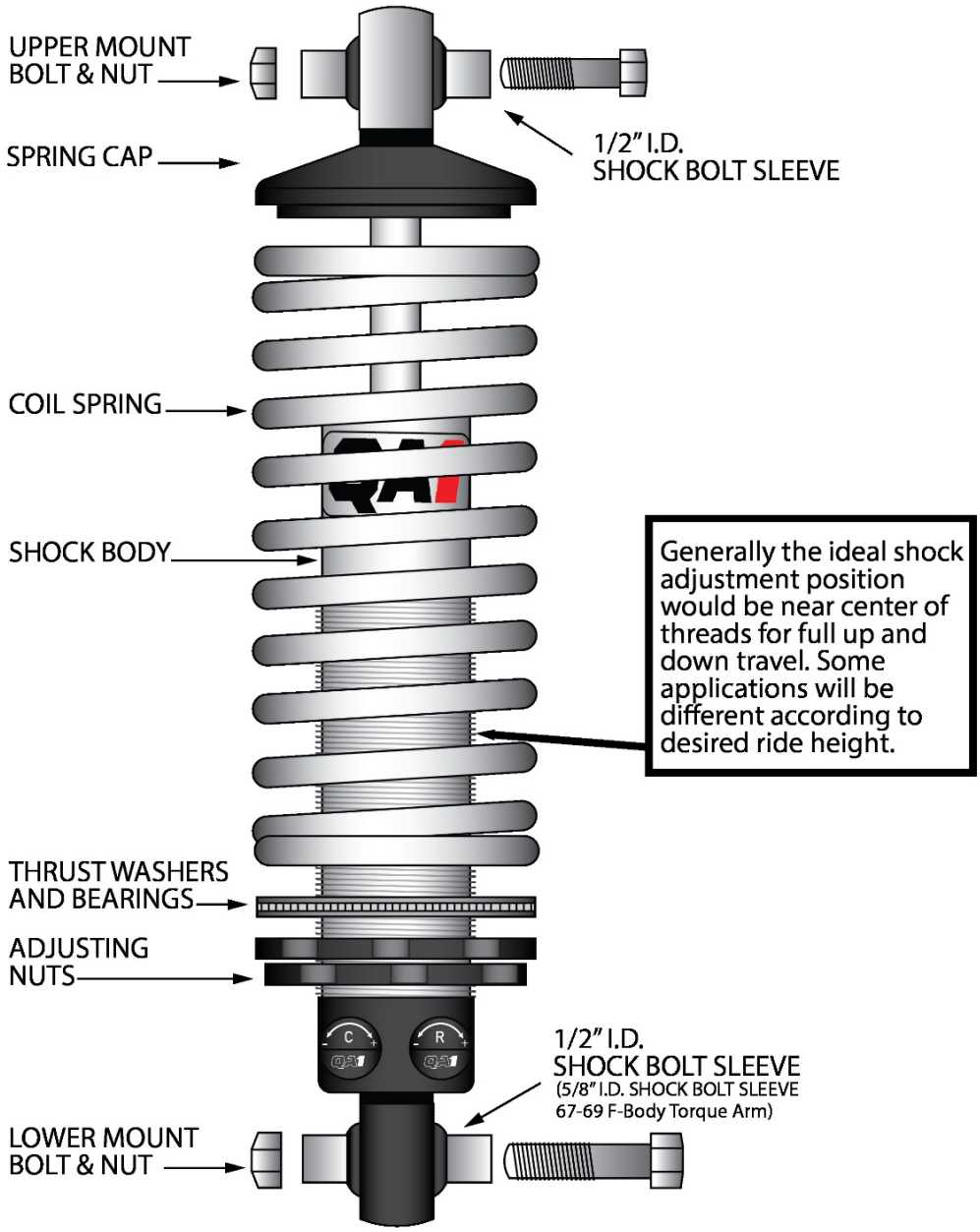

Figure 8: Assembling coilover shocks

4.1 MOCK UP

WARNING! Do not skip this step.

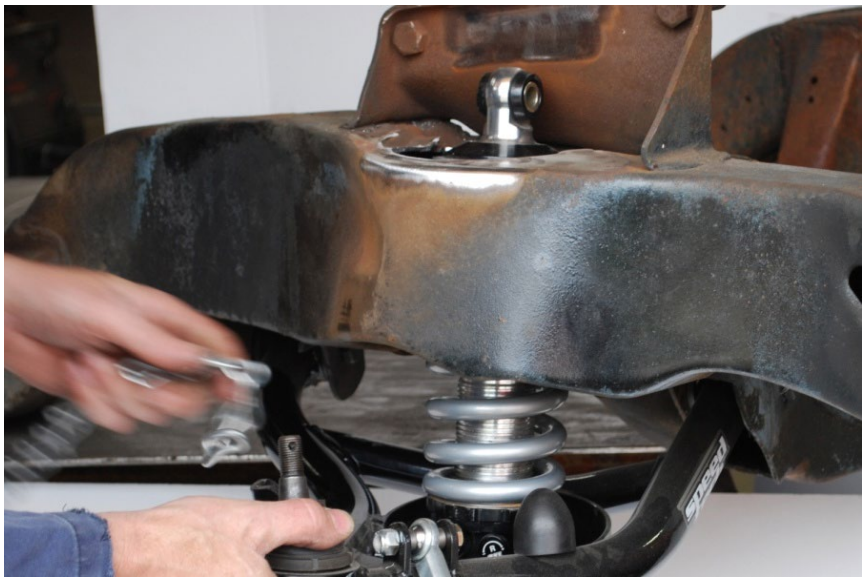

Figure 9: Mock up of the lower control arm and coilover shock

- Mock up the lower control arm and coilover shock assembly to make sure the upper Chicane mount is located in the correct location. This also ensures that all shock components clear the frame. To allow you to work with both hands and keep everything in place, support the lower control arm and shock assembly. We recommend a small piece of chain or nylon rope. Align them so that the lower control arm is level to the ground and set the shock approximately in the middle of its travel. This will be close to the finished ride height. You must be sure the shock is not mounted in a way that binds the bushings and/or bearings.
- Assemble the Chicane Bracket to the shock top eyelet. Align bracket into position so that the shock is centered in the hole and will travel without hitting the frame. Some slight trimming of the bracket, frame, or notch you previously made may be necessary. When you are sure everything is aligned properly, **tack** weld the upper Chicane mount in this location.
- Remove the shock assembly and then remove the spring from the shock. Reinstall the shock into the lower control arm and the Chicane bracket to test again for any binding throughout the control arm's full range of motion.

4.2 WELDING

Now that you have double checked everything and there is no bind and no clearance issues, you can weld the Chicane upper bracket in place. Once all welding is completed you can paint and/or reassemble all suspension components.

Figure 10: Chicane upper bracket

5.0 ALIGNMENT

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Bring the car to a reputable alignment shop that is familiar with performance alignment settings and how they all correlate with each other. The following alignment setting include, but not limit, the following: 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 specifications.**

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

Torque Specifications:

- Lower control arm nuts 40 ft/lbs
- Upper control arm nuts 40 ft/lbs
- Upper shock mount 30 ft/lbs
- Lower T bar mounting nuts 30 ft/lbs.

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 chicane coilover mount adapter and suspension needs for your custom muscle cars.

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