

# YOU CAN DO IT EASY UPGRADES

by Jim Keliher

## 1ST GEN TECH: SUBFRAME BUSHING REPLACEMENT

Although all the front suspension parts on your '67-'69 Camaro seem to be in good working order, do you have the feeling you are herding your car more than steering it? Are you experiencing creaks and groans when cornering? Perhaps it's time to take a close look at the subframe bushings on your car. They can be rather intimidating due to their location and the "experts" will tell you that the front clip, engine, and subframe need to be removed to change the bushings.

We felt this was a myth and like any good myth buster, we proved that they can be changed in an afternoon, with a minimal amount of work and without disassembling the car. Let's examine how it's done on a 1969 Camaro.

### Time Frame:

3 Hours



**Photo #1:** Cracked and dry-rotted bushings indicate it's time to replace them.

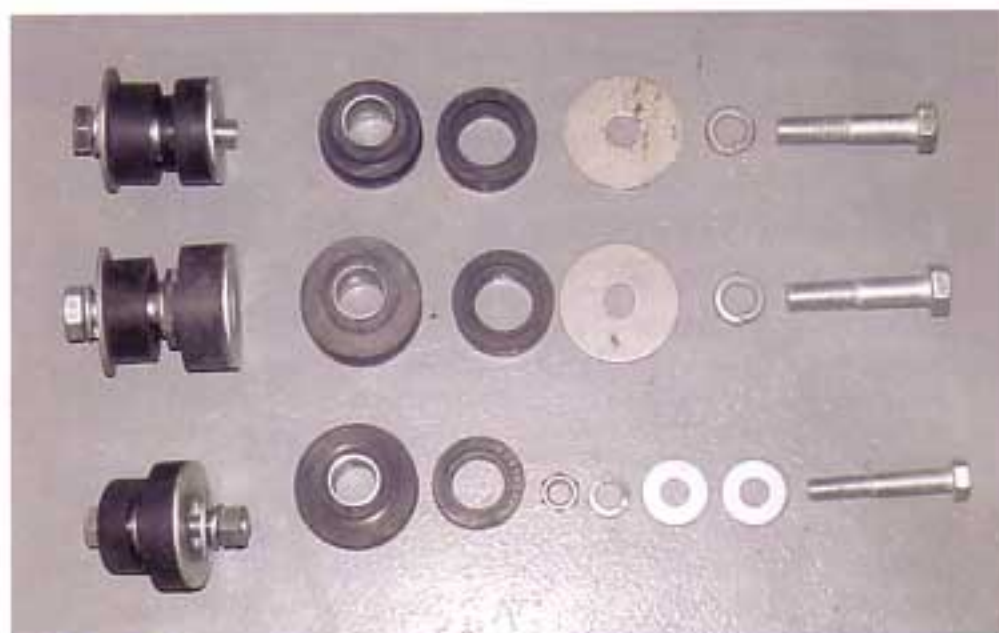


### Parts Needed:

- 733007** Subframe to body hardware kit
- 733006** Subframe mount bushing kit
- 717079** 1967 Assembly manual
- 717080** 1968 Assembly manual
- 717081** 1969 Assembly manual

### Tools Needed:

- |                               |                            |
|-------------------------------|----------------------------|
| Floor jack                    | 3/4" wrench                |
| 12" long 2 X 4                | 15/16" socket              |
| 1/2" ratchet or impact wrench | Torque wrench              |
| 3/4" socket                   | 1/2" socket (battery tray) |



**Photo #2:** Shows the bushings and hardware items necessary to restore your subframe. Proper orientation of these bushings can be found in the Camaro assembly manual.

### Note:

Prior to beginning it is important to familiarize yourself with the basic structure of the car and subframe to better understand how these parts are attached. The subframe attaches to the structure of the body tub in four places; two on each side of the car with 5/8" bolts and bushings. The radiator support attaches to the subframe in two places; one on each side with 1/2" bolts and bushings. The fenders attach to the radiator support and to the cowl (firewall). If the job is not done properly, front fender or body damage may result.





**Photo #3:** When removing the fasteners it is imperative that only one side be done at a time and the jack is positioned under the pinch weld as shown. The car is then raised 1"-2" to take the pressure off the bushings and a jack stand is placed under the pinch weld for safety. The front core support fastener is removed first with a 3/4" wrench and socket to prevent body damage. The fastener at the cowl (firewall) is next using a 15/16" socket and short extension, followed by the rear fastener.



**Photo #4:** Remove the bolt at the cowl (firewall) and the rear bolt. With the three fasteners removed on one side, we can begin to slowly jack up the body to achieve enough separation to remove the old bushings. This will need to be done with the remaining two bushings.



**Photo #5:** Separate the body from the subframe. A pry bar may be used between the body and frame to open the gap if needed. Remember to keep the jack stand under the pinch weld. The new bushings are dropped into place beginning at the rear and working our way up to the front.



**Photo #6a & 6b:** Drop the new bushings into place. The other half of the front bushing is then dropped over the core support and the fastener installed finger tight.



**Photo #7:** Install the front radiator core support bushing and bolt finger tight. We repeated this procedure on the remaining two bushings. The jack stand was then transferred to the subframe and the jack slowly

lowered to apply slight tension on the new bushings. The fasteners were then torqued to spec per the assembly manual and the car was lowered to the ground.



**Photo #8a & 8b:** Torque bolts to proper specifications. A quick re-check of the proper torque was done and the driver's side of the car is complete.



**Photo #9a & 9b:** The passenger side of the car is done much the same manner, with the exception of removing the battery and the battery tray to gain access to the core support bolt.

