

aFe Control *Chevrolet Camaro 6th Gen* *Sway Bar Set*



Part Numbers:

440-402002-N/440-402002FN/440-402002RN

Contents in the box for 440-402002-N F&R Set:

Qty	Part #	Description
1	00P-P2448-N	Front Sway Bar
1	00P-0P2450-N	Rear Sway Bar
2	00P-0P2419-A	Bracket, Sway Bar: 87-88mm Large Bushing
2	00P-0C1664-B	Bushing, Poly: 1.375" ID
2	00P-0P2418-A	Bracket, Sway Bar: 77-78mm Small Bushing
2	00P-0C1671-B	Bushing, Poly: 1.25" ID, Small Profile
1	00P-0C1007-A	Grease Pack

Difficulty of Installation: **Beginner** | -----x----- | **Advanced**

Reason: This is a straightforward installation that does require some automotive skill, and adequate tool availability.

Expected Installation Time: 4 Hours

Recommended Tools:

- 15mm & 18mm box end
- 13 mm deep socket
- 10, 13, 15, 18, 21 mm sockets
- 3/8" drive ratchet
- 3/8" drive extension
- Allen Wrench Set
- 3/8" drive Torque Wrench
- 2 Post Lift and Screw Jack (preferred)

Front OEM Sway Bar Removal

1. Using proper jacking points, lift and support the front of the car on jack stands.
2. Using a 22mm socket remove the front wheels.
3. Using a 18mm wrench and 7/32 allen wrench, disconnect the sway bar links at the sway bar, it is not necessary to disconnect at the strut.



4. Using a 13mm socket, remove the bushing clamp bolts, and remove the clamps from the vehicle.



5. Remove the sway bar from the vehicle, by sliding the passenger side out from over the control arm, and remove towards the passenger side of the vehicle.



Front aFe Control Sway Bar Installation

1. In the reverse order of removing the sway bar from the vehicle, first position the driver side sway bar arm over the driver's side control arm. Slide the bar towards the driver's side slightly.



2. Position the Passenger side arm, above the passenger side control arm.



3. At this point you can apply grease to the 1 3/8" bushings and attach to the sway bar, and install the front bushing brackets.
4. Rotate the bar upward and start the OEM nuts to attach the brackets to the subframe. On V6 cars, it might be necessary to disconnect the wire harness going to the electric power steering before rotating the bar up, to attach the bushing brackets.
5. Using the OEM nuts, use a 13mm socket, and attach the bushing clamps to the vehicle.
6. Using a 18mm wrench and 7/32 allen wrench, re-attach the sway bar links at the sway bar.
7. Reinstall the wheels using a 22mm socket and torque to 90 -110 lb-ft.

Rear OEM Sway Bar Removal

1. Using proper jacking points, lift and support the rear of the car on jack stands.
2. Using a 22mm socket remove the wheels.
3. It might be necessary to lower the exhaust system on some models to better access the rear sway bar. This can typically be accomplished by slipping the exhaust hangers out of the rubber mounts and by removing the forward hanger mounts. Use some WD40 or lubricant to make this process easier.
4. Unbolt the sway bar end links from the sway bar using a 15mm wrench and 3/16" allen wrench.
5. Using a 10mm socket disconnect the OEM bushing brackets from the chassis. The bushings will stay attached to the OEM bar.

Rear aFe Sway Bar Installation

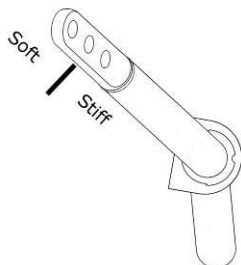
1. Install the rear sway bar in the same orientation the OEM bar was removed.



2. Apply grease to the 1/4" bushings and attach to the rear sway bar. Next install the rear bushing brackets
3. Using a 10mm socket and the OEM hardware attach the sway bar brackets to the chassis.
4. Re-attach the sway bar end links to the sway bar using a 15mm wrench and 3/16" allen wrench.
5. Reinstall the exhaust system.
6. Reinstall the wheels using a 22mm socket and torque to 90 -110 lb-ft.

Initial setup

For the initial setting of the sway bars we recommend the stiff setting on the front bar, and middle position on the rear sway bar. For most applications this will be a satisfactory setting and is a good starting point for all cars.



Sway Bar Rates	
Front:	605 lbs/in
	700 lbs/in
Rear:	250 lbs/in
	280 lbs/in
	300 lbs/in

Sway Bar Tuning Guidelines

The sway bars are your largest tuning tool and are capable of affecting the balance of the car during each phase of a corner; corner-entry, mid-corner and corner-exit. However, the mid corner section is especially useful for sway bar tuning. Corner-entry and corner-exit are considered transition periods. During these transition periods the shocks are capable of modify the balance of the car. During mid-corner shock setting has no effect on the balance and adjustments are done with the sway bar. In other words, sway bars could correct a corner-entry or corner-exit balance problem but, shocks cannot correct a mid-corner balance problem. This is the reason that sway bar tuning should ideally be done during mid-corner.

When tuning sway bars, it is best to find a long constant radius turn at which you can incrementally increase speed until the limit of traction is found. There are three possible scenarios at the limit of traction.

1. The front tires exceed their limit of traction first. This condition is commonly called under-steer, push or tight.
2. The rear tires exceed their limit of traction first. This condition is commonly called over-steer, tail-happy or loose.
3. The front and rear tires exceed their limit of traction at the same moment. This condition is commonly called a four-wheel-drift or neutral balance.

After you have determined the behavior of the car it is possible to change this balance by changing the sway bar settings.

Let's take a look at case one for a moment. The front tires are being asked to carry a cornering load higher than they are capable of. However, the rear tires are not being asked to carry as high of a cornering load as they are capable of. By either moving the front sway bar to a softer setting or the rear sway bar to a stiffer setting you will remove some of the cornering responsibility from the front tires and add it to the rear tires. The general rule of sway bar tuning is to soften the end that needs additional traction. It is also equally as effective to stiffen the end that needs less traction.



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