



Product:

Camaro Racing Sway Bars

Part Numbers:

1410101

Applications:

Chevrolet Camaro, 2010 - Current

Description:

These racing sway bars are engineered to be a lightweight, adjustable racing sway bar system for the 2010 Camaro

What's in the box:

- (1) – Front Sway bar
- (1) – Rear Sway Bar
- (2) – Rear Sway Bar Arms
- (1) – Bag of bushings and grease
- (1) – Bag of hardware
- (1) – Bag of rod ends
- (2) – Centering rings

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

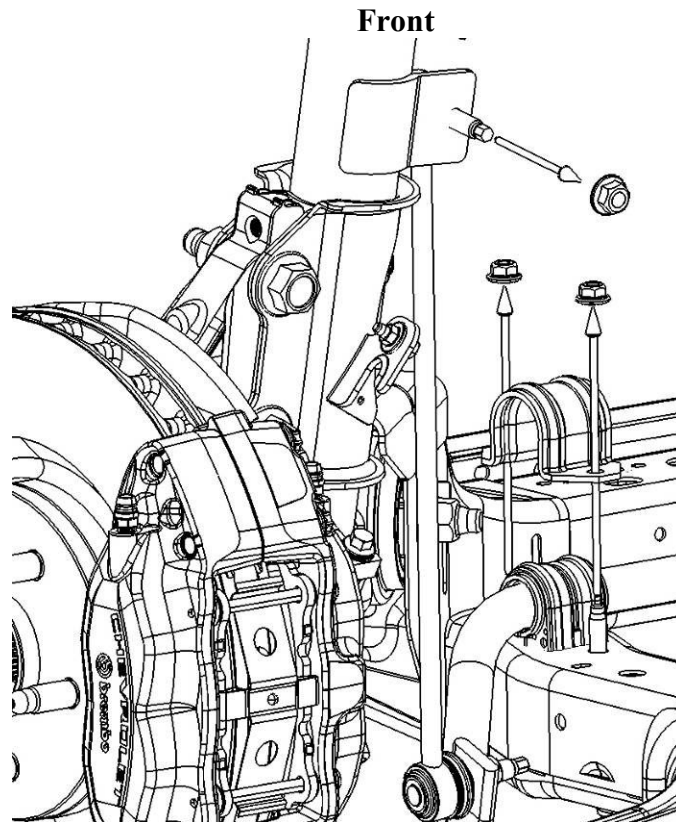
Reason: This product is a very straight forward to install and requires only basic tools.

Expected Installation Time: 2 Hour and 10 Minutes

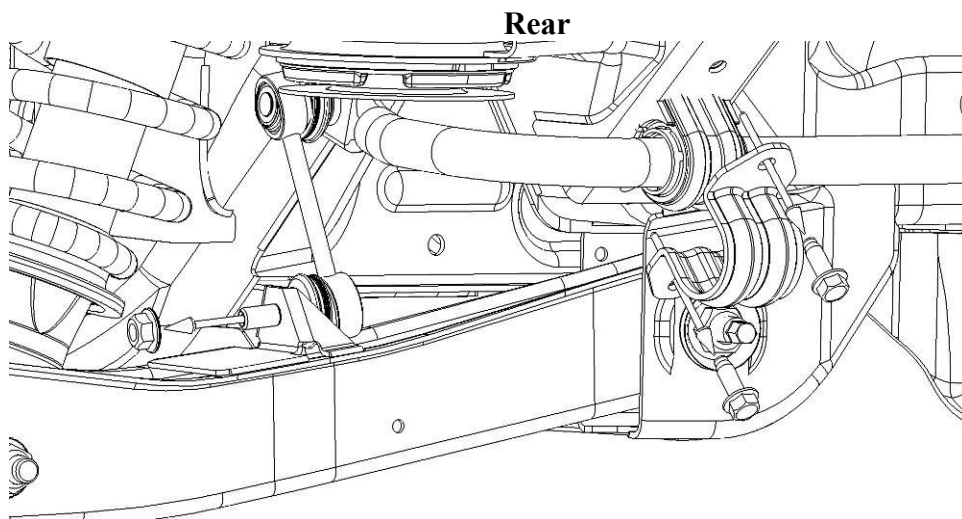
Recommended Tools:

- 15mm box end
- 5mm Allen
- 13mm socket and ratchet
- 7mm box end
- 2 x 9/16 open end wrenches
- 5/16 Allen Wrench
- ¼ Allen Wrench
- 3/32 Allen Wrench
- Torque Wrench

OEM Sway Bar Removal



Remove the two nuts attaching the end link to the front strut using a 15mm and 7mm box end wrenches. Remove the four 13mm nuts attaching the sway bar bushing brackets to the subframe. Remove sway bar and end link assembly.

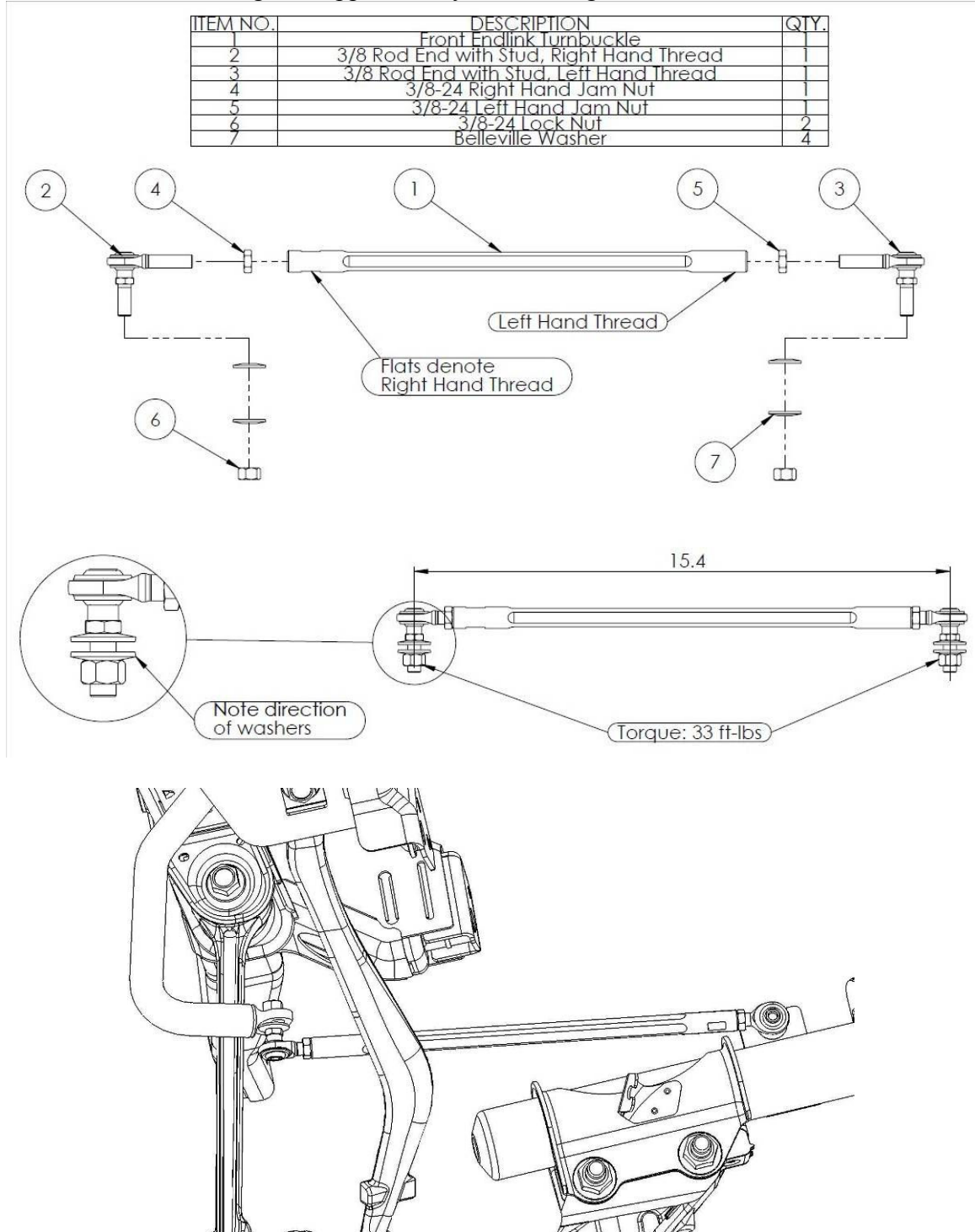


Remove the nuts attaching the end link to the lower control arm using a 15mm box end wrench and a 5mm Allen. Using a 15mm box end wrench and an 18mm socket and ratchet remove the two lower nuts and two upper bolts from the sway bar bushing bracket. Remove the sway bar and end link assembly.

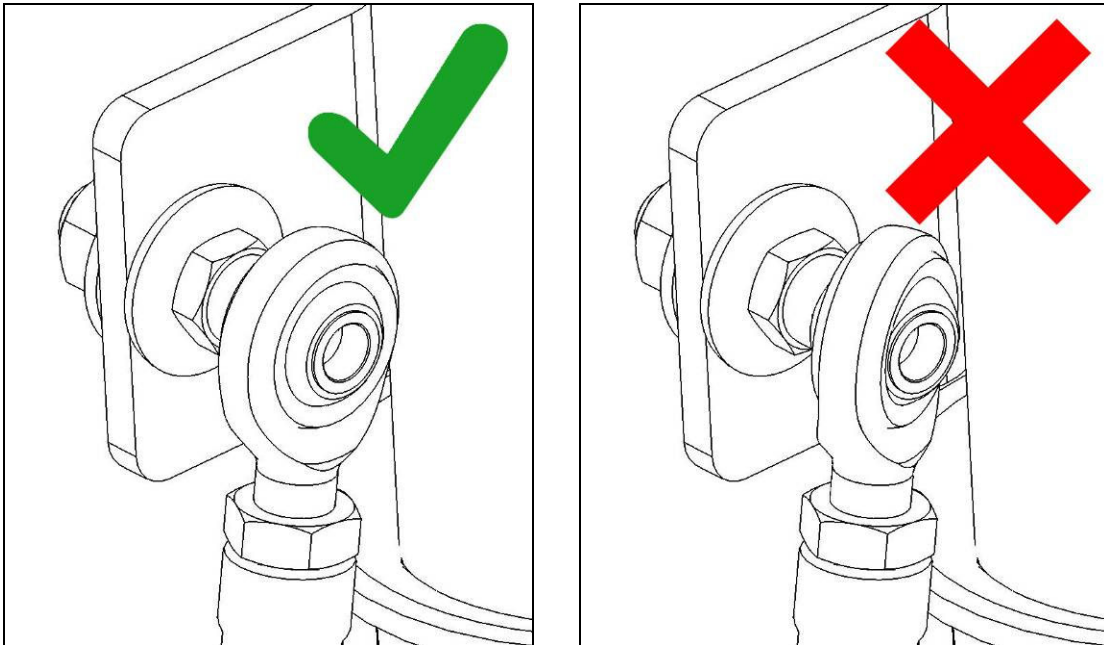
Installation Procedure

Front

Using the supplied grease, lubricate the inside of the front sway bar bushings provided and the outside of the sway bar just outside of the locating rings. Install the sway bar onto the subframe using the supplied sway bar bushing brackets.

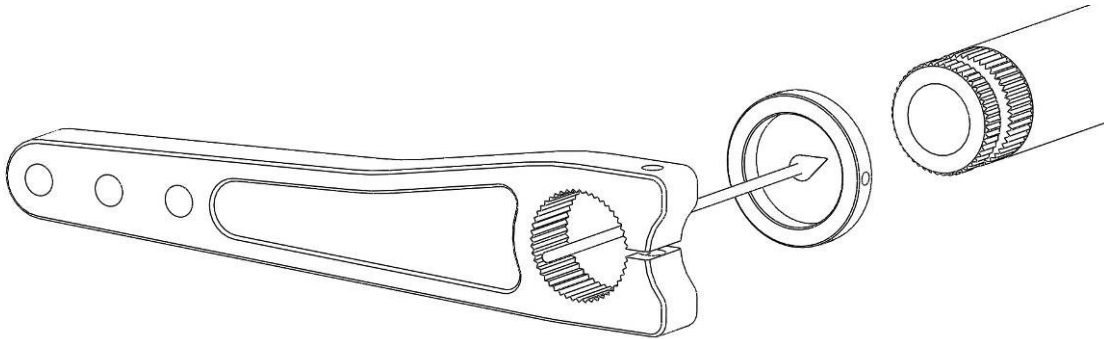


Using the endlink assembly diagram above, install the endlinks as shown above.

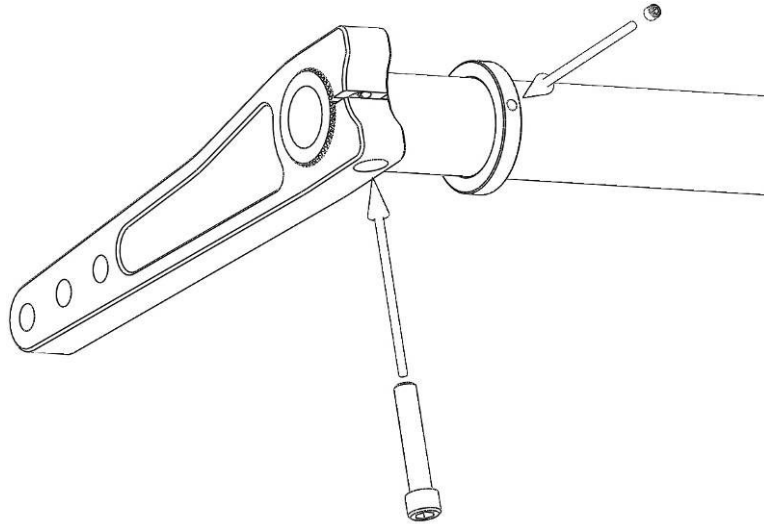


It is critical that the rod ends are oriented correctly. When the wheels are straight both the top and bottom rod end must be centered as shown above. Then use the jam nuts to lock the orientation of the rod end. Failure to follow this step will result in noise and damage to endlink assembly.

Rear

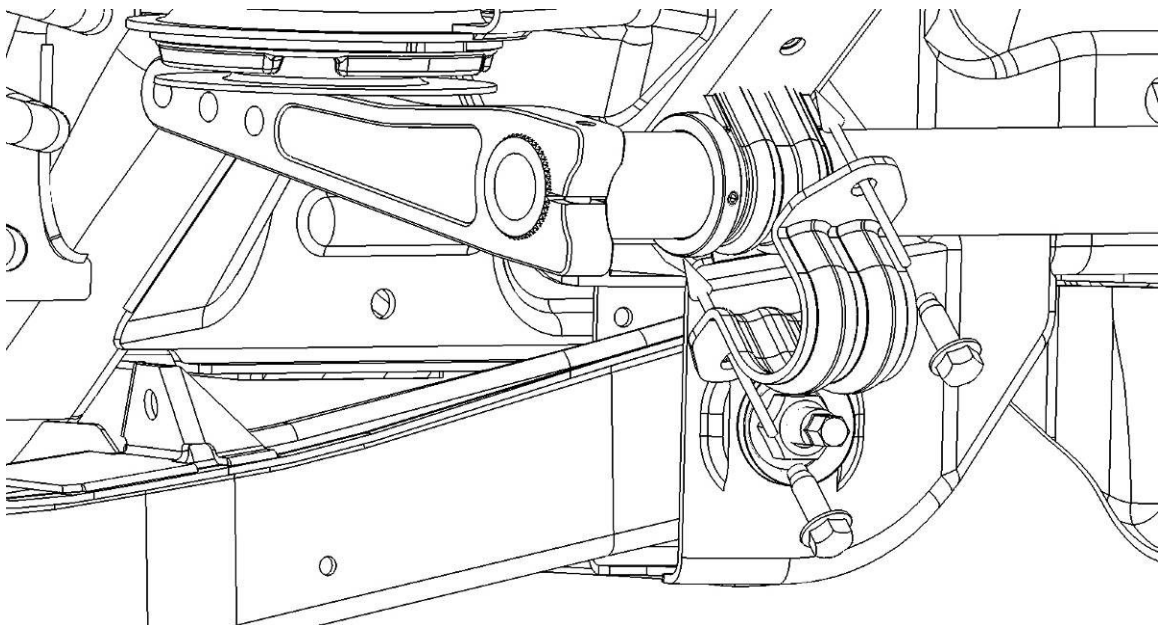


Slide the alignment ring over the bar. Align the splines of the bar and arm and slide arm into place. Repeat on other side. Check that the left and right arms are aligned by placing the assembly on a flat surface. If both arms are not sitting flat try re-indexing one arm.



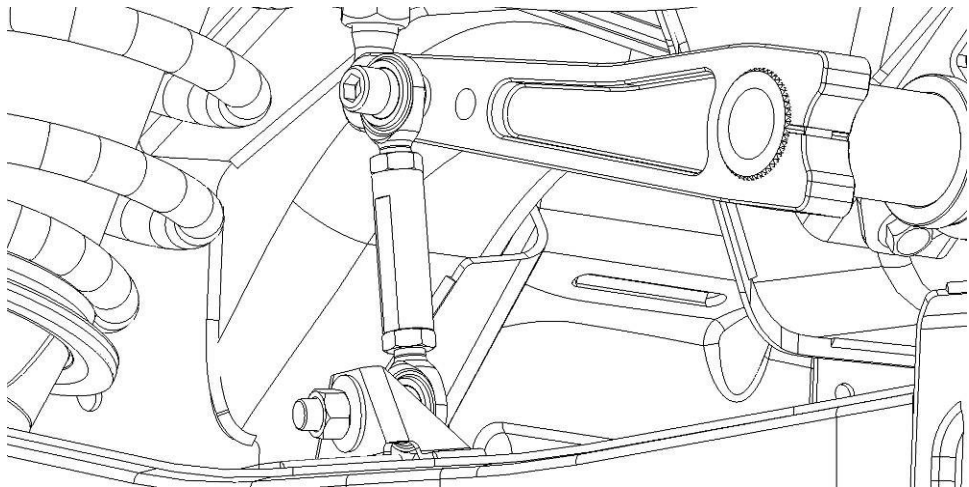
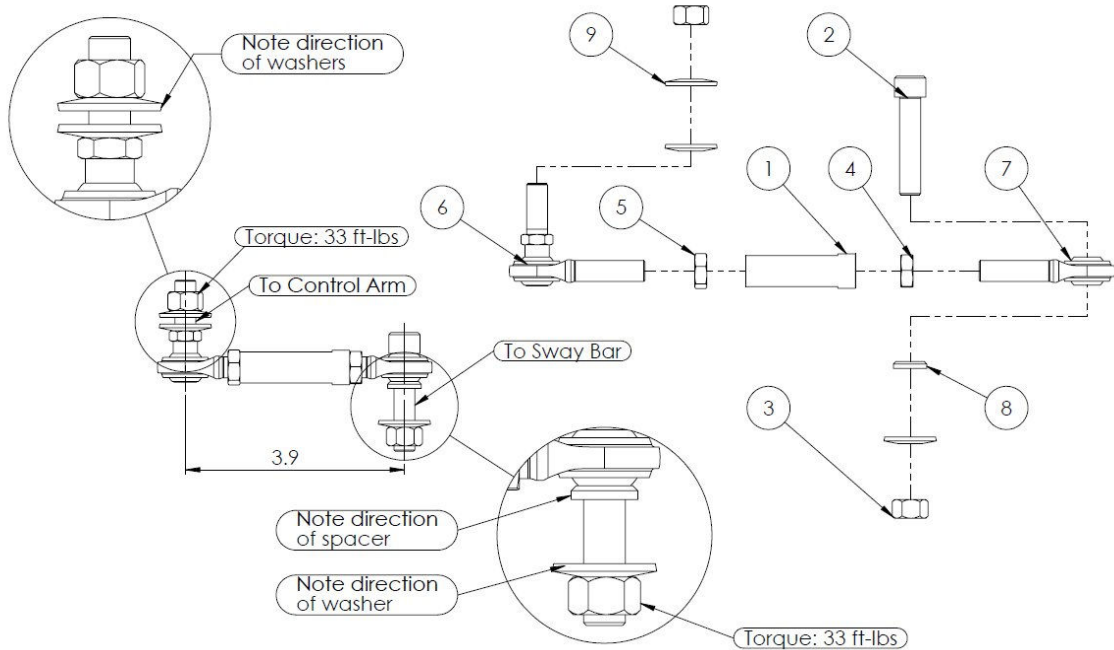
Align the pinch bolt with the groove in the bar and secure with the supplied bolts. Apply a small amount of blue Loctite and torque the pinch bolts. Loosely install the set screws in the lock rings. These will be tightened later when positioning the sway bar. Push both lock rings to the outside of the sway bar.

Using the supplied grease, lubricate the inside of the rear sway bar bushing and the outside of the sway bar where the bushings will sit. You can test fit the sway bar and note the position of the bushings for lubrication. Install the bushings on the inside of the locking rings.



Install the sway bar assembly on to the subframe using the supplied bracket.

ITEM NO.	DESCRIPTION	QTY.
1	Zeta Rear Turn Buckle	1
2	SHCS 3/8-24x1.75	1
3	3/8-24 Lock Nut	2
4	3/8-24 Left Hand Jam Nut	1
5	3/8-24 Right Hand Jam Nut	1
6	3/8 VCA Series Rod End with Stud, Right Hand Thread	1
7	3/8 VCA Series Rod End, Left Hand Thread	1
8	Spacer	1
9	Belleville Washer	3



Using the endlink diagram above, assemble the endlinks as shown.
Align the rod ends correctly before tightening the jam nuts.

Center the sway bar on the car. Once the sway bar is centered push the lock rings against the sway bar bushings and lock in place with the set screws.

Initial setup

For best performance remove any pre-load in the sway bar while the suspension is loaded by adjusting the end link length. This is best done on a four post lift. It is also possible to set the car down on blocks or ramps so that the end links can be accessed while the suspension is loaded.

After the end link length is adjusted to remove any preload lock down the length by tightening the jam nuts.

For the initial setting of the sway bars we recommend position **2** for both the front and rear sway bars. For most applications this will be a satisfactory setting and is a good starting point for all cars.

Fastener Torque

Endlink Nuts	45 N-m (33 ft-lbs)
Sway Arm Pinch Bolts	18 N-m (13 ft-lbs)
Bushing Bracket Bolts	46 N-m (34 ft-lbs)

Please contact Pfadt Customer Support with any questions!

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 affect 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 can not correct a mid-corner balance problem. This is the reason that sway bar tuning should ideally be done during mid-corner.

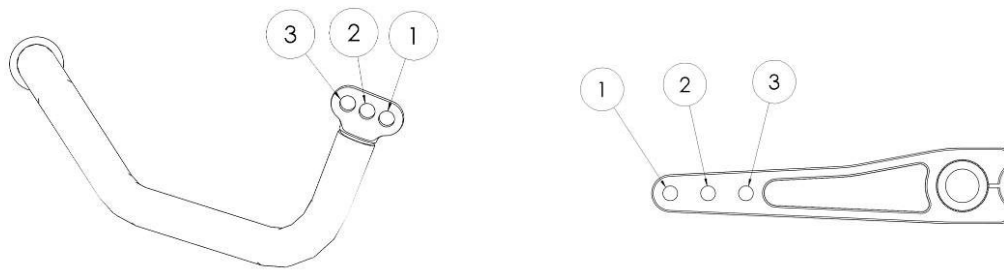
When tuning sway bars it is best to find a long constant radius turn at which you can incrementally increase speed until the limit of traction is found. There are three possible scenarios at the limit of traction.

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 then 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. Typically in the Camaro we tune with the rear sway bar because track adjustments on the rear sway bar are easier. Use the rear sway bar as the coarse adjustment and fine tune with the front which is a finer adjustment.



Lower numbers are a softer setting. Higher numbers are a stiffer setting.



2315 Decker Lake Blvd.
Salt Lake City, UT 84119

888-972-2464
www.PfadtRacing.com