



Product:

Corvette Racing Sway Bars

Part Numbers:

- 1110212 – Heavy Rate
- 1110213 – C6 Z06 Heavy Rate
- 1110292 – Light Rate

Applications:

Chevrolet Corvette, 1997 - Current

Description:

These racing sway bars are engineered to be a lightweight, adjustable racing sway bar system for C5 and C6 Corvettes.

What's in the box:

- (1) – Front Sway bar
- (1) – Driver Side Front Arm
- (1) – Passenger Side Front Arm
- (1) – Rear Sway Bar
- (2) – Rear Sway Bar Arm
- (1) – Bag of bushings and grease
- (1) – Bag of hardware
- (1) – Bag of rod ends
- (2) – Installation Tools
- (1) – Bag of centering rings

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

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

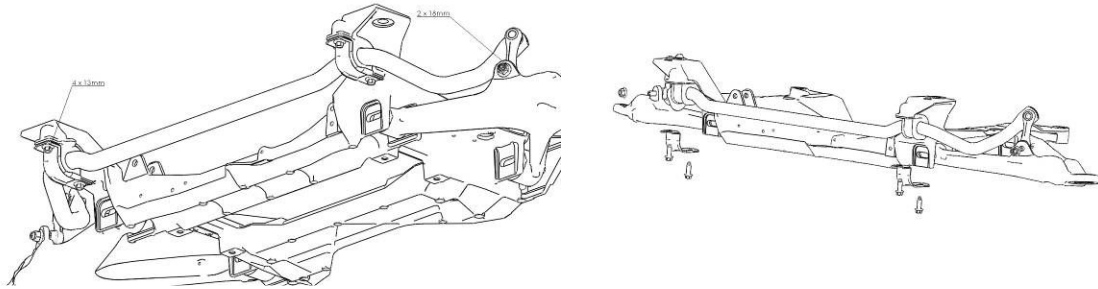
Expected Installation Time: 2 Hour and 10 Minutes

Recommended Tools:

- 18mm box end
- 6mm Allen
- 13mm socket and ratchet
- 18mm socket and ratchet
- 15mm box end
- ¾ box end wrench
- 2 x 9/16 open end wrenches
- 5/16 Allen Wrench
- ¼ Allen Wrench
- 3/32 Allen Wrench
- Torque Wrench

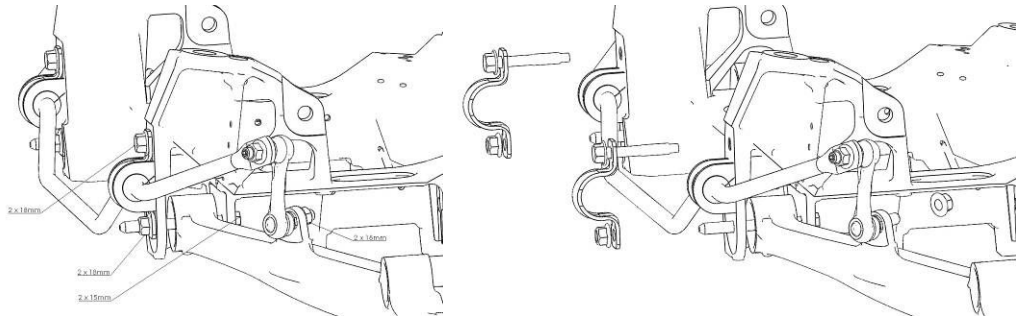
OEM Sway Bar Removal

Front



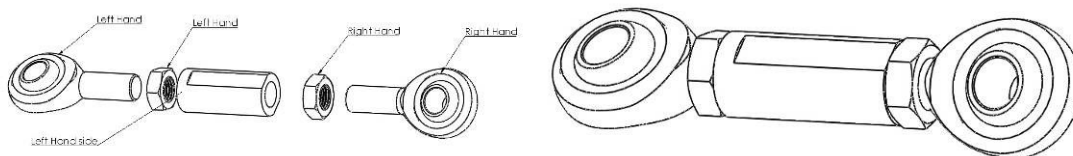
Remove the nuts attaching the end link to the lower control arm using an 18mm box end wrench and a 6mm Allen. Remove the four 18mm bolts attaching the sway bar bushing brackets to the subframe. Remove sway bar and end link assembly.

Rear

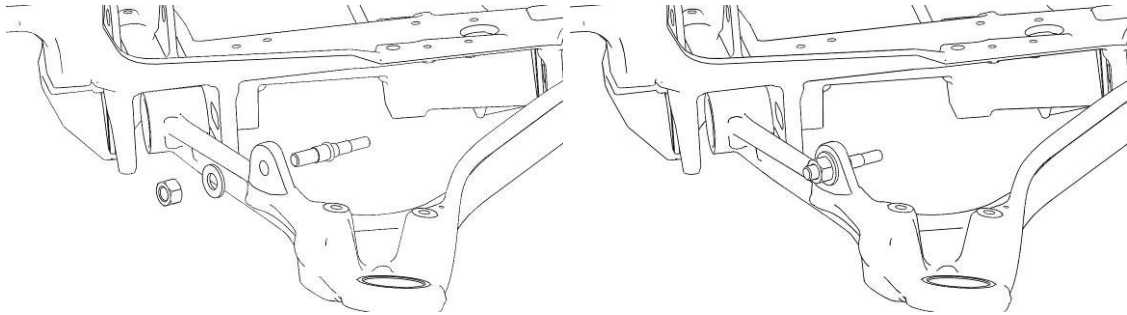


Remove the nuts attaching the end link to the lower control arm using an 18mm box end wrench and a 6mm Allen. Using a 15mm box end wrench and an 18mm socket and ratchet remove the two lower nuts and two upper bolts from the sway bar bushing bracket. Remove the sway bar and end link assembly.

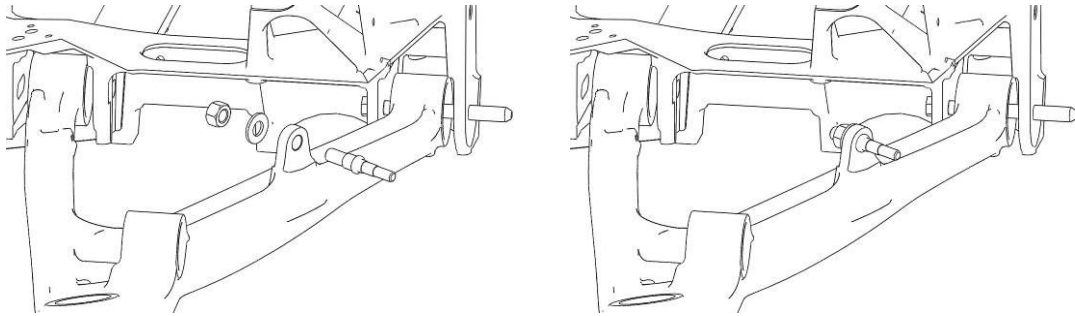
Installation Procedure



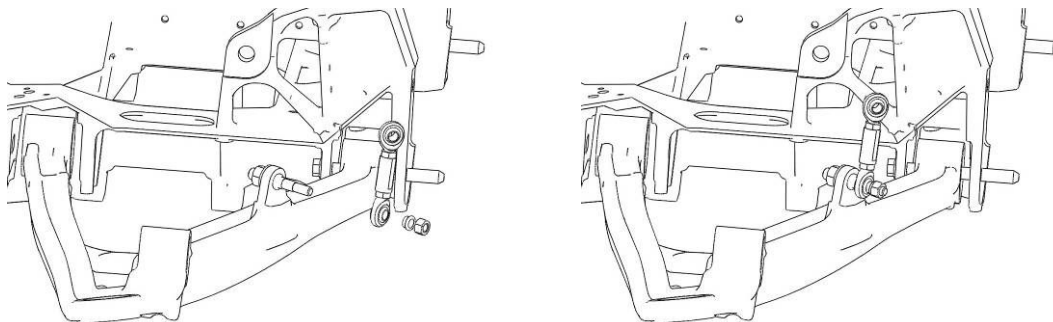
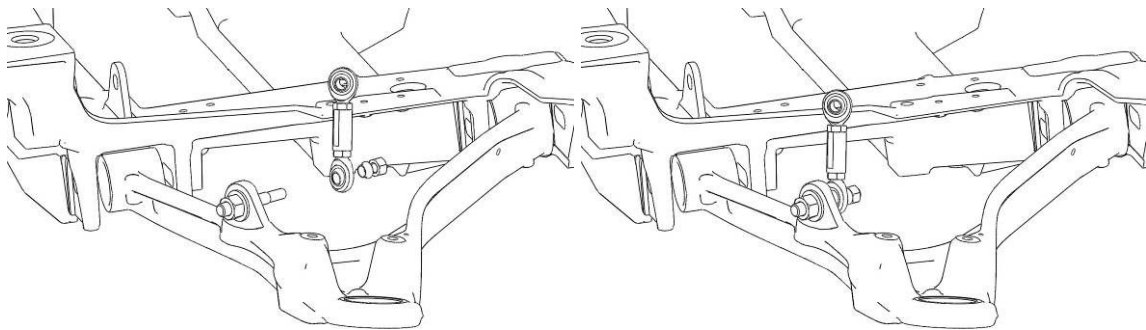
Assemble each of the four end links as shown. The left hand side of the turnbuckle is denoted by the incomplete wrench flats. It is not necessary to tighten the jam nuts at this time.



Assemble the adapter stud onto each of the front lower control arms.
Note: On early C5 cars this hole is smaller and will need to be enlarged with a 1/2" drill.



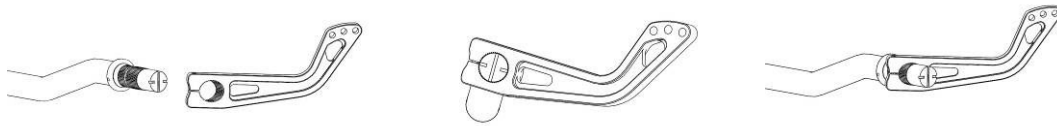
Assemble the adapter stud onto each of the rear lower control arms.



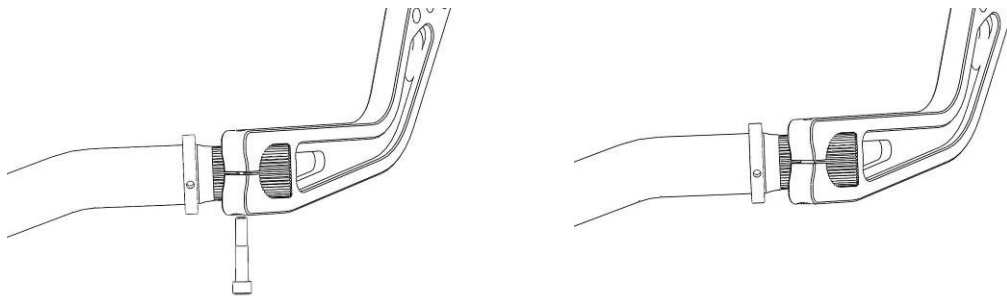
Assemble the end link assemblies onto the adapter studs.



Slide the centering rings onto the front sway bar



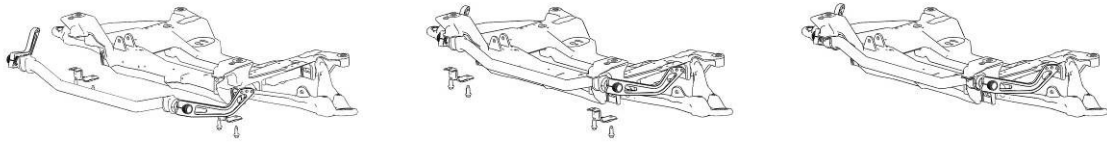
Use the installation tool to help align the splines of the arm to the sway bar. The angle between the dip in the sway bar and the slot of the pinch bolt should be roughly 90 degrees.



Align the pinch bolt hole with the groove in the bar and install the pinch bolts.

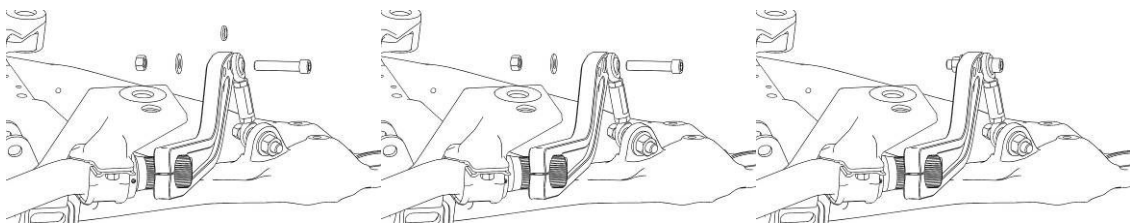
Repeat this procedure for the other side. It is helpful to place the bar and arms on a flat surface to help index the arms from side to side. Some amount of misalignment is typical and is not a concern. This misalignment will be accounted for with the adjustable end links.

Using the supplied grease, grease the inside of the front bushings and the outside of the sway bar where the bushings will rest. Install the bushings over the sway bar, make sure the centering rings are on the outside of the bushings during installation.



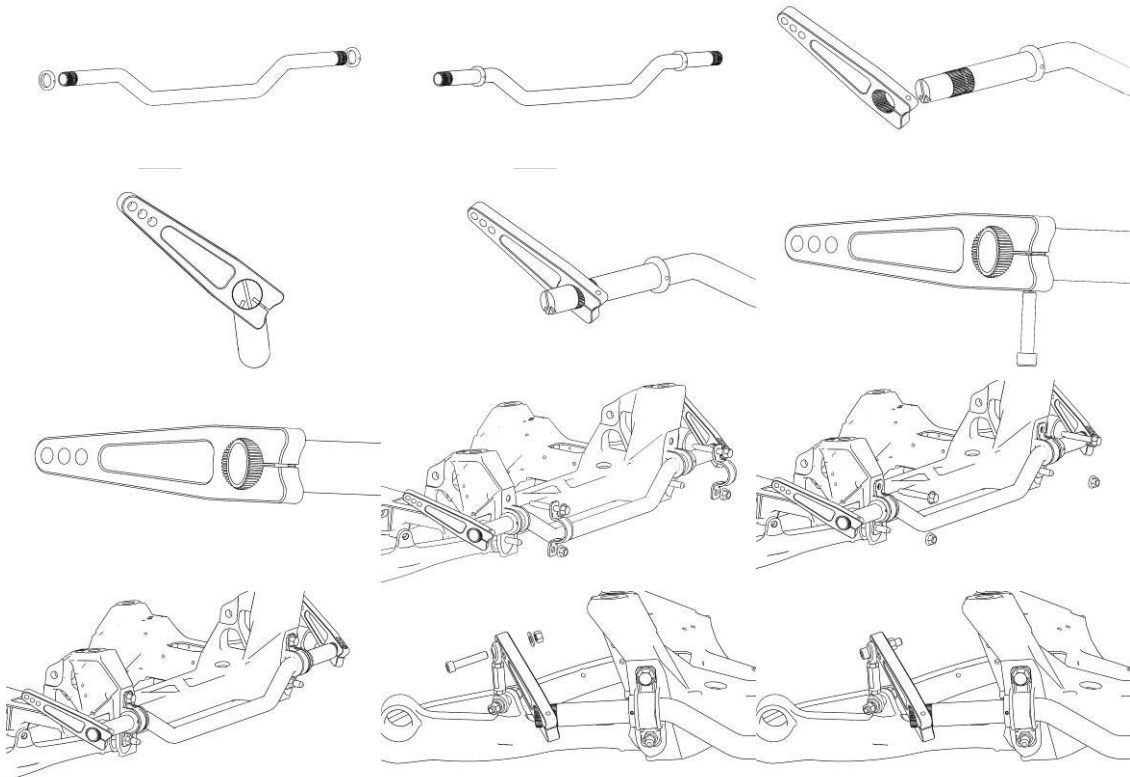
Using the factory bushing brackets, install the sway bar onto the subframe. Tighten the bolts through the bushing bracket. Test the movement of the sway bar. It should be able to rotate with moderate pressure. If it is too tight place a washer between the bracket and the frame and repeat the process.

Center the sway bar on the subframe. Slide the centering rings next to the bushings and lock in place using the set screws.

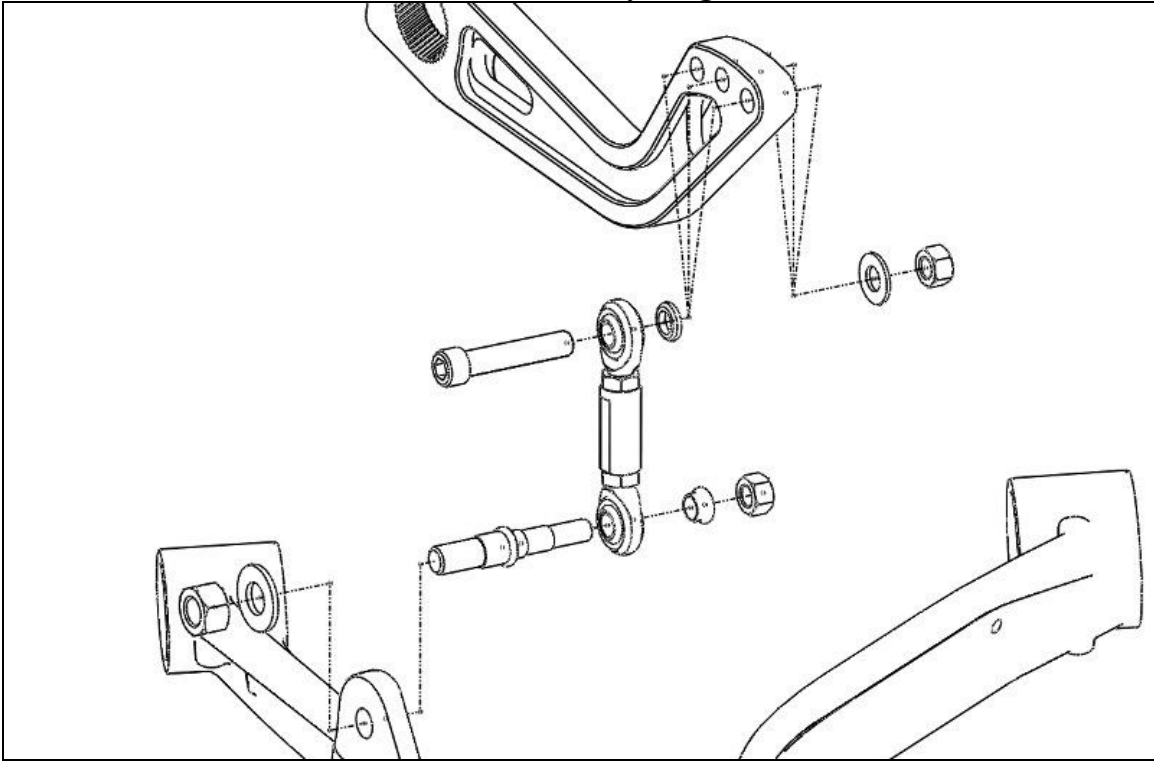


Attach the sway bar arm to the end link. Place the spacer between the arm and the end link and secure with the bolt, washer and nut.

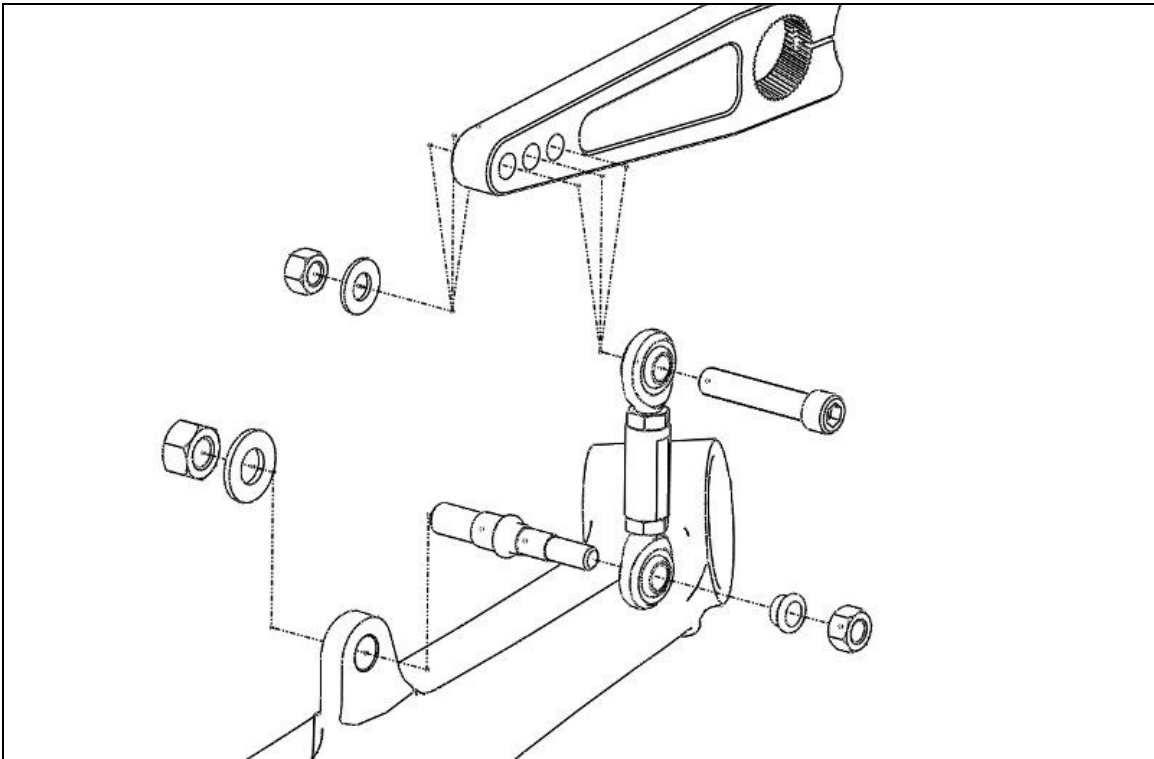
Repeat this procedure for the rear sway bar noting the change in angle of the arm shown.



End Link Assembly Diagrams



Front



Rear

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

Adapter Stud Nuts	34 N-m (25 ft-lbs)
Sway Arm Pinch Bolts	18 N-m (13 ft-lbs)
Bushing Bracket Bolts, C6 Z06	46 N-m (34 ft-lbs)
Bushing Bracket Bolts, Non C6 Z06	65 N-m (48 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 Corvette we generally tune with the rear sway bar because track adjustments on the rear sway bar are easier.

Each arm is marked with numbers corresponding to each adjustment hole. 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