## Installing a 914 Rear Sway Bar

Wayne R. Dempsey with helpful hints from Tod Schuck

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http://www.pelicanparts.com/techarticles/914\_rear\_sway/914\_rear\_sway.htm



Figure 1: Rear sway bar mounting bracket



Figure 2: Predrilled counter-sink hole for bracket



Figure 3: Rear sway bar mount and bracket



Figure 4: Rear sway bar drop link

Most 914s did not come with the factory sway bars installed. I've often heard of the 914 handling best described as 'interesting' without a set of sway bars. I've put the factory sway bars on my own car (shown in the pictures) and the difference is like night vs. day. The car is much stiffer and can take quick curves without blinking an eye. It's especially useful when trying to catch the end of a yellow light while making a left turn.

It is important to note that the rear sway bar shouldn't be added without the front sway bar already in place. I hear that handing will be all over the place if the car only has just the rear bar. The front sway bar may be installed just fine without the rear was installed as well.

The first step in performing the installation is to obtain all the necessary parts. You will need:

- 914 stock sway bar or aftermarket equivalent
- 4 rear droplink bushings
- 2 sway bar 'running' bushings
- 2 sway bar brackets
- 2 reinforcement plates
- Lithium or equivalent grease

The only difficult part about the installation is welding the brackets onto the car. The brackets fit on the underside of the trunk of the car. They are L-shaped in order to fit around and attach to the transmission support bar. A factory sway bar bracket is shown in Figure 1. The bracket has two nuts that are welded to the L-shaped steel stock. One of these nuts fits perfectly into a hole already drilled into the bottom side of the transmission support bar. This hole can be seen in Figure 2. There were actually two different types of brackets made, but the L-bracket (shown here) will work well on all cars.





mounts

Figure 6: Reinforcement piece welded into rear trunk

The best method of aligning the bracket is to place the nut in its predrilled counter sunk hole and then align the edge so that it is perpendicular with the edge of the trunk. The 'raised' portion of the sway bar actually mounts to the rear trunk sheet metal. The proper location of the sway bar mount is shown in <u>Figure 3</u>. Once this location is identified, it is recommended that you score the location on the sheet metal with a sharp object.

The bracket will need to be welded onto the transmission support bar, and the trunk floor. Before doing this, however, it is wise to check the location of the mounts by assembling the sway bar and making sure that everything fits ok. The last thing you want to do is remove the bracket once it's welded in place.

[Tod - At this point you might find that the bracket that attaches to the left (driver's) side of the car interferes slightly with the rear "U" sheet metal brace that is welded several inches behind the transmission mount support bar and connects to the rear sheet metal to support the bumper mounting. You can score the metal on the L bracket here and remove the excess material with a hacksaw. I only had to remove ¼" of material for a perfect fit. Do not oval out the factory hole in the transmission support bracket, this will cause a misalignment in the sway bar and end up pre-loading one side of the suspension even if you can get the sway bar mounts to line-up.]

The drop links fit into special bolts that must replace the ones that hold the shocks to the bottom of the trailing arms. The best way to replace these is to place a floor jack under the trailing arms. At this point of course, the car will have to be up in the air, supported by jack stands underneath the jack points or the motor mounts. Place the floor jack under the trailing arm and jack it up just to the point were pressure is relieved off of the shock assembly. Loosen the nut and the bolt should slide out easily - in theory. It may take a bit of wiggling to remove. Once removed, replace it with the new bolt with the drop link mount. The drop link and its mount are shown in Figure 4.

Getting the sway bar situated perfectly in the car may take a little bit of practice and patience. The bar is bent around the middle to avoid hitting the transmission mounts. The correct orientation of the bar is shown in <u>Figure 5</u>. After the bar is in place, bolt the little U-clip to the sway bar bracket

with the 'running' bushing inside. Then check to make sure that the bracket is correctly aligned with the marks you made earlier. When this is confirmed, then weld the bracket at both ends, to the bottom of the trunk floor and the transmission mount. If you don't have a welder, then carefully and clearly mark where you want the bracket to go, and then take it to your welder friend or a local shop.

[Tod - Before you begin welding with whatever type of welder you have (probably a MIG or TIG), keep in mind that the transmission support mount is made from a thicker metal than the trunk floor pan, both of which need to be welded to the L - bracket. Adjust your welder voltage (heat) controls accordingly so that you do not burn through the trunk pan which is easy to do if the wrong heat range is selected.]

After the brackets are welded in, you then need to weld in the two support plates that reinforce the rear trunk panel. These plates can be seen in Figure 6. This is a top view of the trunk. The plates are welded onto the opposite side of the sway bar mounts (i.e. inside the trunk area underneath the carpet). They fit into the corner of trunk panel and stiffen the panel where it's mounted to the bracket underneath. I had my welder friend use rosette welds to attach the plate uniformly to the trunk panel. (Rosette welds are similar to sport welds except a bit stronger. Holes are drilled into the top panel, and then the weld is placed within this hole, creating a sort of weld-type rivet. The end result is a weld that looks very much like the factory original, yet is much stronger.)

Well, that about completes the job. If you are a welder, then it is a real easy job. If not, then you need to line up a friend or welding shop to do the work for you.