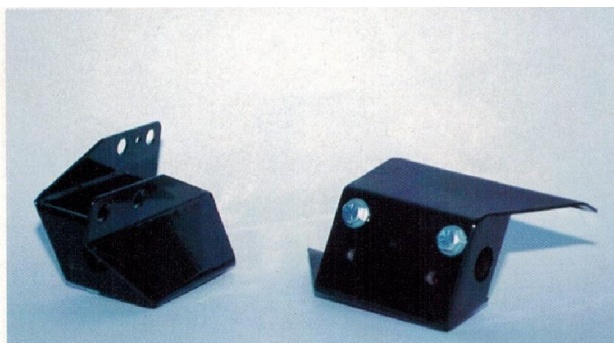


Replacement & Installation

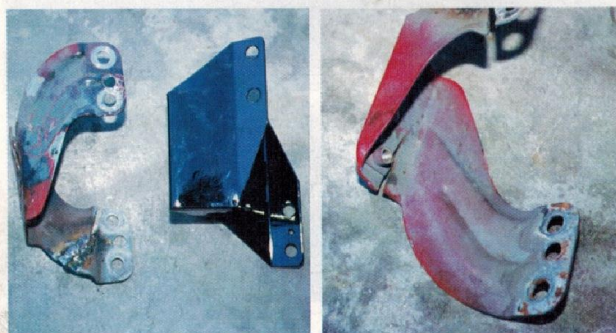


In the event that your sway bar mounts have already torn from the frame, replacement is necessary. In the case of our 1994 Miata, both mounts tore from the frame in spectacular fashion. Although this poses no serious danger, it does affect handling and is indicated by a clunking sound when traveling over bumps and sluggish steering response. As a temporary fix, we welded the cracked section to keep it from banging around until a permanent repair could be made.

Factory replacement units are available from the dealer at a cost of approximately \$45 each. However, replacing a failed part with another part that may fail for the same reasons does not make much sense. Rather than reinstalling stock brackets, we contacted Mazda Competition Parts of Irvine, California to see what the racers use. Mazda Competition sells a replacement bracket that is significantly stronger than the OEM part.

These beefier brackets are made from steel about twice the thickness of the original brackets. They feature a fully boxed in design, TIG welding for greater strength, and are beautifully powder coated black. Previously sold in small quantities to serious racers, pricing on these brackets has yet to be determined because of their low production volume. A newly designed bracket is in the works that will accommodate vehicles equipped with power steering without the need to reroute the power steering cooling lines. A new web page for parts sales and increased production will soon make these brackets available to Miata enthusiasts at an affordable price.

We visited Anthony Woodford Racing of Vista,

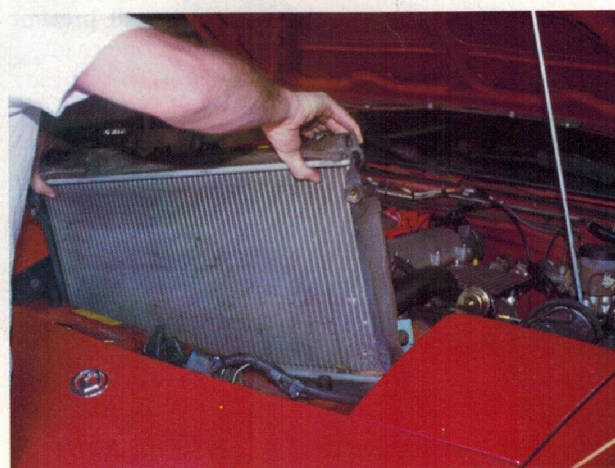


Left: The original bracket and its replacement. **Right:** The crack in the bracket shows the failure point.

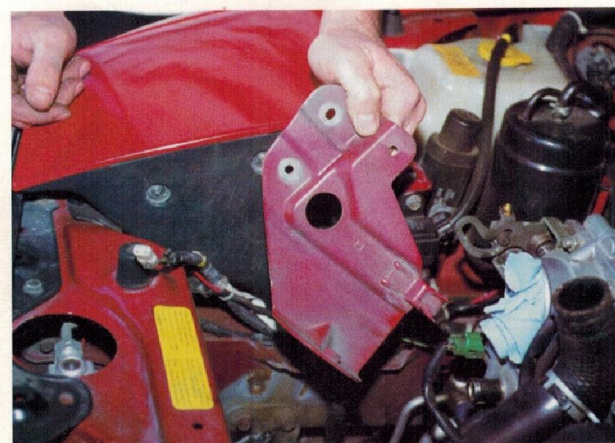
California for installation. Woodford manufactures these brackets in addition to building racecars at his shop. He specializes in building Mazda powered Formula Atlantic cars, Miata Spec class cars, and a variety of other special project vehicles. Before you pick up the phone and call AWR, the brackets are only sold through Mazda Competition Parts and AWR does not normally do installation of the brackets.

Installation is much more involved than installing the brace kit, so prevention with the Racing Beat brace should be your first line of defense. However, if you're going to go through the work of replacing the brackets, these stronger brackets are highly recommended.

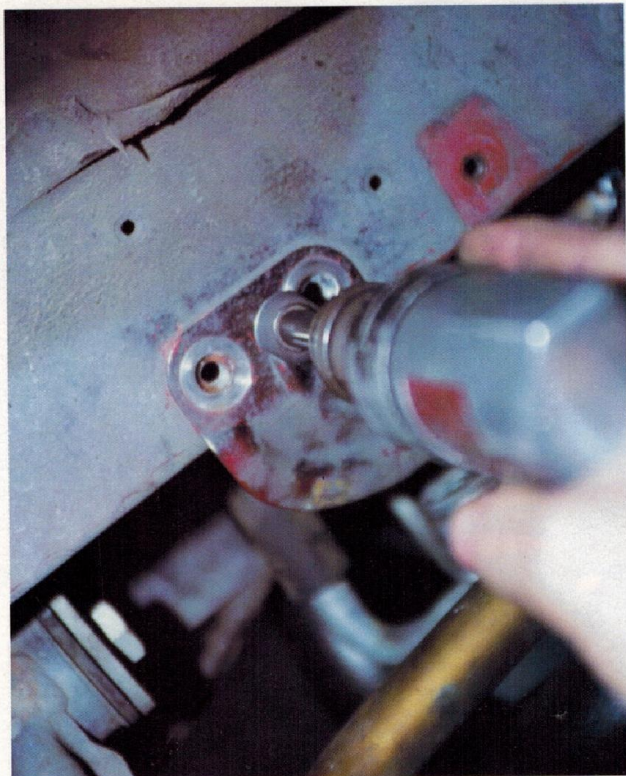
1) Jack the front of the car up into the air and safely support it with jackstands. Remove the splashguard. Disconnect the sway bar from the brackets and let it hang down. It is not necessary to disconnect the end links.



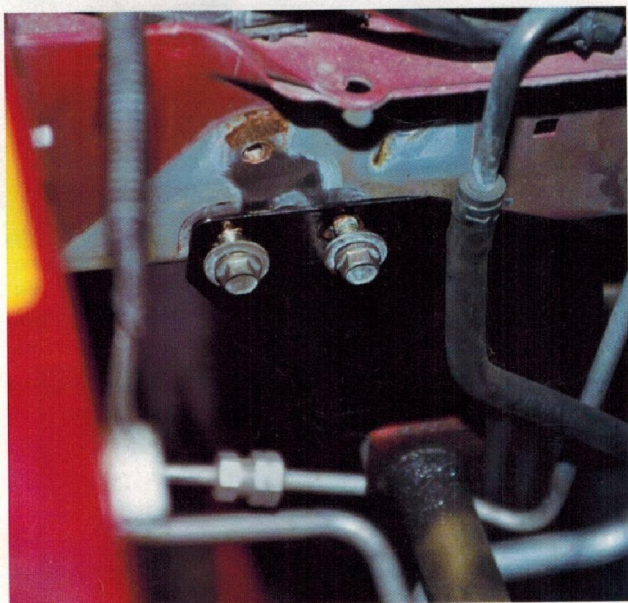
2) On our installation, we found that it was easier to access the inboard sides of the mounts with the radiator removed. Some people have found that the installation can be performed without removing the radiator, but it requires some serious contorting and makes accessing the bracket much more difficult. Save yourself the agony and drain and remove the radiator.



3) The brackets that support the air conditioning condenser cover the inboard mounts of the sway bar brackets. Remove the bolts that attach these brackets to the chassis and to the air conditioning condenser. This will expose the inboard mounts.



4) Each bracket is held in place by four bolts and two tack welds. The tack welds must be drilled out in order to release the bracket. They are found between the two mounting bolts on each side. Be careful when drilling these welds as drilling too far and into the frame rails can weaken the frame rails. For the removal of our brackets, we used a tool called a Roto Broach. This tool is like a drill bit with a hollow center that cuts the softer metal around the weld rather than the weld itself. Once the bracket is removed, the weld can be ground off.



5) With both brackets removed and the weld spots ground off, it was time to install the new brackets. Installing the bracket on the right side was fairly simple and it bolts into the same location as the original mount. Because of the precision fit, hit the bracket with a rubber hammer to align the frame rail holes with the holes in the new bracket. Once aligned, the original bolts were replaced and tightened down. The new bracket does not need to be welded.



6) Installation of the bracket on the right side was similar to the left except for the fact that the lines for the power steering cooler interfered with the new bracket. We had to carefully bend these lines out of the way to make room for the new bracket. Once a suitable position for the lines was found, the new bracket was installed.

7) Connect the sway bar to the new brackets with the new bolts provided.

8) Reinstall the AC condenser brackets, the splashguard, the radiator, and refill the radiator with a coolant and water mixture.

With the new brackets in place, a test drive was in order. The first difference noticed was the lack of flex in the front end when driving over a couple of speed bumps while exiting a parking lot. The creaking noise that used to accompany sway bar stress was also absent. Once out on the road, the improved steering feel and response was amazing. With the sway bar securely mounted to the car, it was allowed to better do its job of controlling body roll.

A bit of prevention in the form of the Racing Beat brace kit can certainly prevent this repair. However, if the brackets must be replaced, the stronger brackets sold by Mazda Competition provide a better mounting point than the factory brackets and eliminate the need to perform this repair again in the future. 