

# Re- Speed.com

1979-1985 MAZDA RX7 - Tubular Sway Bar kit:

## **Package contents:**

**1) Sway Bar**

**2) End Link (Male/Female Rod Ends)**

**2) End Link Mount Brackets**

**4) 1/2" Socket Head Screw**

**2) 1/2" Lock Nuts**

- 1) Remove the wheels and jack the vehicle up and support with jack stands at the rockers
- 2) Remove and discard the stock sway bar end links.
- 3) Remove the two bolts holding the strut rods to the lower control arms. DO NOT remove the nuts that locate the strut rods and bushings within the sway bar/strut rod brackets. Doing so will loose the vehicles current alignment and will require you to have the vehicle re-aligned
- 4) Remove the bolts and bushings straps that secure the sway bar to the brackets. Keep these pieces as they will be re-used.
- 5) Using a fine point marker trace around two of the nuts/bolt heads that secure the strut rod/sway bar brackets to the chassis. Do this for both side of the vehicle. This is so when you re-install the brackets you will be able to line the brackets back up perfectly to where they were before.
- 6) Remove the nuts and bolts holding the strut rod/sway bar brackets to the frame. This will drop the stock sway bar with them. Slide the sway bar out of the brackets.
- 7) The next step is to slightly modify the strut rod/sway bar brackets to accept the new tubular sway bar. The easiest way we have found is to simply remove the small web of material that closes the hole up. This will allow for future sway bar removal with out the need to remove the strut rod/sway bar brackets. We have found absolutely no adverse effects of removing this small piece of material. You could also remove some material on the opposite end of the hole in order to gain the clearance needed to slide the bar through the brackets. Simply trying to slide the bar into and through the brackets will show you where you need to grind the clearance if you choose this route.
- 8) Positions the strut rod/sway bar brackets back onto the vehicle and finger tighten the mounting hardware. You can now slide the bracket around to get the circle tracings you created before to align with the nut/bolts heads. This assures you have not changes the vehicle alignment. Fully tighten the mounting hardware.
- 9) Using the stock mounting hardware for the strut rod to the lower control arm you will now mount the new sway bar end link brackets. The stock bolts will go through the new end link brackets then the strut rods and then the lower control arms.
- 10) Secure the sway bar in place using the stock bushing straps and bolts onto the supplied black delrin bushings. Finger tighten these bolts. Now you will need to center the sway bar withing the frame from side to side. Check that the sway bar is not hitting the metal lips or the inner fenders and frame rails. If the sway bar is touching or looks like it will when you tighten the bolts you will need to clearance the sheet metal slightly with a small circular cutout. Tighten the sway bar bolts.
- 11) Rotate the sway bar up and down as if the control arms are moving under normal suspension operation and check for metal to metal contact.
- 12) Now it is time to install ONLY one side of the sway bar end links. Take the Sway bar end link and turn it clockwise by hand until it stops. Now unscrew the end link approximately 5 full turns. In stall the female rod end side of the end link with the supplied socket head cap screw and nylock nut. Install the other end of the endlink to the end of the sway bar using the supplied socket head cap screw. If needed the end link mounting bracket can be slightly tweaked in order to ensure the rod ends are not at full mis-alignment. ( Another way to put it, IF the body of the rod ends is

- contacting metal to metal on the sway bar mounting bracket you can slightly bend the bracket to make just the ball of the sway bar touch. )
- 13) Double check all the previous work. Now would be a good time to “nut and bolt” the entire front before moving onto the last step.

## Final Steps. How to eliminate sway bar pre-load.

- 14) With all the steps above double checked you are now ready to sit the vehicle back down on the ground. You need to make sure the vehicle is on flat ground and you want to rock the vehicle for and aft a bit and push down onto the fenders to compress the suspension a bit. Once you are sure the suspension had settled back down you can install the other sway bar end link.
- 15) Your new sway bar has adjustable end links. The use for adjustable end links is to make sure the sway bar is not in a bind while the vehicle is sitting static. This bind is called Pre-Load. Pre-Load can cause the vehicle to not be neutral or handle differently in one corner than another.
- 16) Install the female rod end onto the sway bar mounting bracket just as before with the newly supplied hardware. Now you will attempt to insert the bolts through the other side into the end of the sway bar. You will notice you needed to unscrew the rod end to do so. Since we did five turns out on the other side you should find this side to be close to the same. You should make your turns a half a turn at a time until the socket head cap screw will tighten into the end of the sway bar by hand. If the bolt is not held up against the inside of the rod end while threaded into the sway bar you know there is no pre-load on the bar. Tighten the bolt and you are complete.
- 17) Make sure to double check all the hardware after a few minutes of your fist drive. Then check them frequently after.