SUPERMIATA

**Installation Instructions for Adjustable Sway Bar End Links**

89-05 Mazda Miata MX-5

*NOTE:* **The Supermiata end links are racing parts. Racing and timed competition are inherently dangerous. By installing these parts, you accept any and all potential hazards that may result from modifying your car with these non OEM parts and operating it on a public or private road.**

**1**. Remove old links.

**2**. Note the orientation of the conical washers and seals before disassembling to install. Loosen both thin jam nuts on each new link. The jam nuts are left and right hand thread. Turning the center adjuster nut will either lengthen or shorten the entire assembly at once. Adjust end link so that it is roughly 103mm center to center, or about the same length as the OEM link. We'll fine tune it later.

**3**. Install only one side at this time.

*NOTE:* This is an excellent opportunity to check the condition of the sway bar pivot bushings. Your suspension will perform at its best when all the friction and binding is reduced to a minimum

**4**. Assemble Supermiata end link by inserting the bolt head through a cone washer then the bearing, then a cone washer on the other side. The lock washer goes under the nut on the sway bar or control arm end. Torque through bolt/nuts to 34-39 ft-lbs (46.1~52.9 nm). The shorter 45mm bolt should be used on the control arm end. Longer 55mm bolt on sway bar end.

**5**. Adjusting the first link that has both ends through bolts torqued:
A lowered car will usually need the links adjusted shorter than the default 103mm. Some aftermarket sway bars are much thicker than OEM and interfere with the Front Upper Control Arm at full extension (bad) if the link is too long. The sway bar will provide the most useful spring rate curve when the link and sway bar are as close to 90° to each other as is possible when at resting ride height, when viewed from the side of the car. Without a custom 3 piece sway bar you may not be able to get perfect sway bar geometry. Get it as close as you can using the spacers provided and don't worry too much about it.

Position the car at resting ride height but on ramps or a 4 post hoist where you can access the end links for adjustment. Adjust link length so sway bar is as close to our 90° ideal as you can get it without interfering with the FUCA.

NOTE (front only): On cars that are purpose built for track/autocross use only, you may reduce binding and get a better spring rate curve during cornering by adjusting the links closer to 100° so that the relationship is closer to 90° at full compression, where the link/bar will actually spend more time on track. This is how we set up our track cars.

**6**. Before tightening the jam nuts, make sure each bearing can pivot the same amount back and forth. This will take a few tries to get both bearings lined up with each other. When everything is torqued both bearings should run out of angular range at about the some time.

**7**. Tighten both jam nuts on first link.

**8**. Install second link on other end of sway bar. Torque the control arm end of the link through bolt/nut to 34-39 ft-lbs (46.1~52.9 nm). Leave the sway bar end of second end link disconnected. Leave both jam nuts loose.

**9**. Adjust second link length as needed to allow through bolts to align with both control arm and sway bar ends without having to force into place. This ensures no twisting preload is put into the sway bar. Torque through bolt/nuts to 34-39 ft-lbs (46.1~52.9 nm)

**10**. Verify that bearing on second link are lined up to allow full range of articulation as described in step #7. Tighten both jam nuts.

**11**. Road test at low speed. Drive though a driveway or two to make sure you have everything installed correctly. The links themselves should be silent.

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