

TECHNICAL TIPS - "Wench With A Wrench"

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LET'S BEAT AROUND THE (door) BUSH(ings)

Replacement Door Bushings

How about a simple Miata modification with form, function and maybe even a little color that doesn't cost much and is an easy DIY?

In Miata soft-top convertibles, the doors are a crucial part of the chassis' structural integrity. Doors are a structural connecting brace between the front of the chassis and the rear because of the lack of a fixed roof structure (i.e., lack of B & D pillars; an A pillar being your windshield frame edge). This tends to make convertibles more flexible than a fixed roof vehicle and can translate into squeaks and rattles through the chassis, especially the doors.

Doors are held closed by a latch, locked in place with a cupped metal bracket that slides over a rubber bushing bolted to the door jamb when closed. Go take a look. This combo is designed to align the door and hold it tight vertically and to some extent, horizontally.

The soft rubber Mazda OEM factory door bushings makes it easy to align everything at the factory during mass production but it means the connection isn't as strong as it could be.

Bushings can very easily be replaced with a stiffer non-rubber (Delrin, polyurethane or nylon) replacement that locks the door more solidly in place allowing it to reinforce the chassis and eliminate chassis flex. Case in point: drive over some railroad tracks, joints on the Thruway or rough road (slowly!) with the original bushings and you'll probably hear and feel squeaks and rattles and you'll see what I mean.

With replacement composite door bushings, the door is more solidly locked into place and creates a solid link on the latch side, reinforcing the chassis and creating a more rigid car overall. Replacement is said to be measured by *Flyin Miata*, an on-line parts dealer, at a 3% stiffer car (measured in a 1990 Miata) with fewer squeaks and a more "solid" feel in torsional rigidity.

Replacement door bushings are an easy install and fit right out of the box. It does require some careful installation but I did it in 15 minutes with a 10mm socket wrench with extension. If I can do it, you can do it!

Installation is quick and easy, believe me. Simply remove the two bolts that hold the factory rubber door bushing in place (lefty-loosey) and replace with the new bushings

(they come in pairs). Some bushings are sold with new bolts or you can buy bolts separately if you want new shiny ones but my originals looked just fine so I reused them on my new bushings.

The trick to perfect installation is not to tighten the bolts on the new bushings completely, just snug and ensure the bushing can move just a little with your hand. Center the bushing on the door and close the door. This process will auto-align the bushing to the metal cup on the door. Then open the door and final tighten (righty-tighty) the bolts to a sensible torque.

Then take your Miata for a ride and see if there is any squeaking or rattling. It should be perfect. The doors themselves do need to be aligned properly, so if your Miata has an “exciting history”, a bit of tweaking may be required: loosening, realigning, and retightening. Otherwise, you should be good to go!

Go drive over some train tracks and you should immediately feel reduced noise, vibration and harshness - a more solid chassis feel.

There are many on-line suppliers of Miata door bushings and the going average appears to be about \$40.00 includes shipping for a pair. One site even offers them in clear or colors! I personally obtained mine from *Flyin Miata*, my trusted Miata parts dealer. They make their own on a 3-D printer, come in pairs, bolts are extra.

So, simple idea. Easy install. Good benefit.

Take care of your Miata and it will take care of you!

Zoom Zoom Safely!

Gail (Happily fully vaccinated)

DISCLAIMER

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