



The Right Shocks for a 'Monster!' **Mark Colvin's V8 Miata uses FCM-revalved Bilsteins**

My Miata is a '91 "B" package with a Panache conversion to a 5.0 Ford motor with a T-5z transmission and an early '90's T-Bird IRS. My initial setup was cutting one coil off of the factory front springs and moving them to the rear. The conversion kit came with stiffer front springs for the added weight. I would guess that my springs were around 450/200 in rate. I was using KBY AGX 8-ways and FM's sway bar setup. Wheels are 7.5" wide Kosei K-1s with 215/45 16 tires. Handling and ride were OK on a really smooth road but kinda fell apart when things got bumpy. I really think the AGX's were overwhelmed. A sharp bump would produce a "crack" sound and the ride was a bit harsh much of the time (for my taste anyway).

A few months ago I saw where a Miata.net forum sponsor called Fat Cat Motorsports was complimented on a suspension setup that a member had purchased. I contacted FCM and spoke to Shaikh about my goals. He helped me design an upgrade that was effective, and yet kept within my budget. He asked me a million questions about handling, ride, weight, intended use, height, responsiveness. When all of the analysis was done, I ended up with what I feel, exceeded my goals and expectations in every area.

My parts list was a full set of FCM shock mounts (for additional travel) and FCM bumpstops. I purchased a used set of OEM Bilsteins from a '94R Miata for \$100 and Shaikh revalved them to work with my new springs. I didn't want to lower my car by much because the conversion already costs some ground clearance. Shaikh suggested 400/325 8" springs for the front and rear on a GC set of adjustable perches *[Ed note: FCM now sells adjustable perches for Bilstein, Koni, or KYB]*. The longer spring insures that coil binding will never be an issue at my ride height. As you can see in the pictures of the shock assembly, there's even some room to lower the car a bit more. I settled on 12.75" in the front and 13.25" in the rear (.25" higher at each end on the driver's side to offset my 200 lbs). I ended up with about 4" of ground clearance. The stiffer rear springs allowed me to run without a rear sway bar and still have neutral cornering.



I have to say that the transforming effect of these changes were hard to believe. It feels very supple over bumps that used to really jar you. The cornering is flat and mid-turn bumps don't upset the chassis like before. The same bumps that produced the "crack" sound before now just give a "thud". Passengers who rode with me before immediately ask what I did to the car to make it ride so well.

The entire experience, working with Shaikh and FCM, was a real pleasure. Things sometimes took longer than we originally projected, but we were in uncharted territory with a 2700 lb Miata that was trying to manage 315 ft lbs of torque. I would have been satisfied with the outcome had anyone done it for me, but Shaikh made the process a class on how you treat the customer. FCM's customer service is impressive. I would HIGHLY recommend what I have now on my car to all Miata owners. If Shaikh can make my 300lb heavier car dance like this, just think what a lighter standard weight car would do.

Thanks Shaikh!!

Mark Colvin
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[Ed note: Mark's photos are attached]



Front – shock assembly and installed height



Rear – shock assembly and installed height



Mark's V8 Monster with FCM-revalved Bilsteins