

Flyin' Miata

NB spring installation tips

13-46500

Thank you for purchasing our Flyin' Miata springs for your 1999 through 2005 Miata! These directions are not intended to replace a shop manual and don't attempt to cover the whole installation. They will, hopefully, give you a few pointers specific to our springs.

The front and rear springs are labelled FMS9905FRONT and FMS9905 REAR. Install them appropriately.

The springs do have a top and a bottom. The top of the spring has "dead" (closer together) coils, and the bottom of the spring has a coil that sticks out a little - like the stock pieces. If in doubt, test fit them on the new shocks. They'll fit nicely in one orientation and not "quite right" in the other orientation. If you have the rubber bushing at the base of the factory shock, install it on the new shocks as shown. If you don't, don't worry about it - it's not a critical piece.



We don't recommend the use of these springs with stock shock absorbers. The stock shocks do not have the damping required to control a stiffer spring and will give lousy performance and ride quality. If you're using our Tokico Illumina shocks, we suggest starting with the damping set to 3 in the front and 2 in the rear. Please note that these are not pre-set.

Once the springs have been installed, crack all of the bushings loose (aside from those that are already loose). Specifically, the bottom of shock, all control arm bushings, end links - anything that twists the rubber bushing. this will ensure proper ride height and undamaged bushings. Instead, loosely install the bolts, put the wheels on, roll the car back and forth a few feet, then tighten the bolts. Make sure that the the car is on its wheels when you tighten the bolts. Or, if you have our hub stands, use those - they'll make your life much easier.

Note: due to the near infinite wheel and tire size and offset combinations, we cannot guarantee non-interference with other than stock wheel and tire combos. Having said that, almost any "reasonable" wheel and tire setup will work fine, as long as you don't cut the front bump stops.

The stock bump stops are surprisingly good, but can degrade over time. If you've opted for our bump stops (a good choice), be sure that the tapered end is down / end with the numbers is up.

You will need a four-wheel alignment after installing these springs, as they will add negative camber. Our recommendations are below. Negative toe (toe-out) in front will give a slightly faster turn-in, may make the car a little darty for daily use and will wear tires faster. For a street car I would stick to a little positive toe (toe-in).

More information on the back of this page →

Front

Caster: 5.0 degrees

Camber: 1.0 degrees negative

Toe-in: 1/16" total (1/32" per side)

Rear

Camber: 1.5 degrees negative

Toe-in: 1/16" total (1/32" per side)

Conversions:

1/16" toe = 0.15° = 9 arcminutes

Torque Specs:

Upper shock nuts: 10 lb-ft

End links: 27-40 lb-ft

Lower shock bolt: 54-69 lb-ft

Upper shock mount nuts: 22-27 lb-ft

Front upper inner control arm bolts: 87-101 lb-ft