Flyin' Miata

NA spring installation tips

13-46500

Thank you for purchasing our Flyin' Miata springs for your 1990-97 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 springs are labelled clearly front and rear. Install them as labeled.

While there isn't necessarily a top and bottom to the springs, they should be mounted with the "dead" coils - the ones that are close together - at the top. This isn't critical, but (if you want to get picky) it's better to have that dead weight as sprung weight, as opposed to unsprung weight. If the springs have already been installed with the "dead" coils on the bottom, don't waste your time changing them.

Please do not install these springs on 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.

A note about bump stops. Although our springs are designed to keep you off the bumpstops as much as possible, you can improve the situation. The ideal situation is our rear shock mounts. Second best is a set of aftermarket stops such as our multi-cellular urethane units, which are included in our suspension kits. If you are using the stock bump stops, they should be cut to improve travel. Cut off the top "hat" as shown in the picture and use the top section. The bottom can be discarded.

The ride height of the springs has been chosen to allow a good combination of looks, low center of gravity and suspension travel. They should end up with the front wheels about 12.5" when measured from the center of the wheel to the fender lip. The rears should be about 1/2" higher.

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.

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).

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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)

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