

The Following Springs Are Included In Your Racing Beat Spring Set:

Application:
2001-05 Miata

Part Number: 54018 Front

Part Number: 54022 Rear

To ensure correct fitting when installing your Racing Beat springs it is critical to refer to the part numbers listed above and compare them to the part numbers printed on the springs. Install your Racing Beat springs per the part number/positions listed above.

Suspension Spring Ride Height Measurements (Save for your records)

For your reference, we suggest that you record the ride height before AND after the installation of aftermarket suspension springs.

Before making your BEFORE measurements:

1. Select a flat, smooth area to record your measurements. (Mark the tire positions on the pavement with masking tape for use with the "After" measurements.)
2. Record your measurements with a full tank of fuel.
3. Check tire pressure and inflate to specifications.

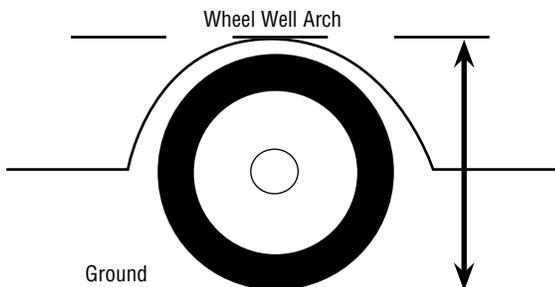
Before making your AFTER measurements:

1. Drive the car for 1-2 days to allow the car to "settle".
2. Repeat steps 1-3. (Return to the original measurement location and align the tires with the tape marks.)

Recording Method

Measure the ride height from the apex (highest point) of the wheel well arch to the ground.

Note: Attempting to measure from the apex of the wheel arch to the center of the wheel hub or to the top of the tire will not provide an accurate measurement.



Ride Measurement Records

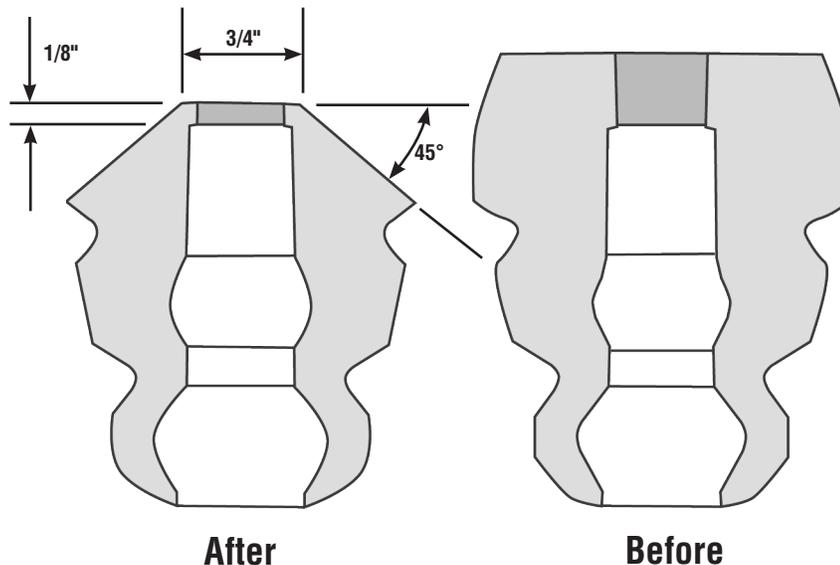
	Left	Right
Front	Before:	Before:
	After:	After:
Rear	Before:	Before:
	After:	After:

Shortening The Bump Stops For the 1999-2005 Miata

The subject of shock absorber bump stops is not simple. The following recommendations are the result of long-term experience with suspension tuning.

In general, any time a car is lowered, the bump stops should be shortened. On a car equipped with struts, it is desirable to shorten the bump stops by an amount equal to the amount of lowering. On an A-frame car (Miata, 1993-95 RX-7, etc...) the bump stops should be shortened about 70% of the amount of lowering. Unfortunately, this can cause other problems. The most notable is that, assuming that you start cutting the bump stop from the top (as we recommend), you more quickly lose the bump stop's ability to grip the shock rod because you have removed the "reduced inside diameter" portion - which is at the top (shown in dark gray). This allows the bump stop to fall down onto the top of the shock body where it may trap and hold dirt near the shock rod and seal.

Our recommendation is this: Cut off as much as possible from the top while still leaving 1/8" of the "reduced inside diameter" portion, then chamfer the outer shoulder at 45° extending down from a 3/4" diameter circle on the top of the bump stop. In this way, the length of the bump rubber is reduced a bit, and the bump stop's "spring rate" is reduced a considerable amount, and the bumper stop retains the ability to grip the shock rod.



If you wish to see if the bump stop is contacting the shock body under a particular set of conditions, try placing a small piece of modeling clay on top of the shock body. This can assist you in understanding the dynamics of your suspension. If the clay is quickly smashed flat, this suggests that bump stop is coming into play too often and/or too much. The answer may be a stiffer sway bar, more "bump" (compression) setting on the shocks, stronger and/or longer springs - or remove more of the bump stop.

One final caution: Most of the techniques you might use to shorten/reshape the bump stop - sanders, grinders, saws and knives - are dangerous. Plan your actions carefully to avoid injury.