

# Flyin' Miata

## NC shock and spring installation tips 13-16XX0

Congratulations on purchasing our NC suspension package! This will transform your car, and is almost a necessity - at least as far as we're concerned. Following are some hints to help ease the installation process. Please note that these are not step-by-step instructions, as there are only a few places where the installation of our parts deviates from the installation of the stock parts.

- You'll reuse your stock shock mounts / top hats as well as the stock bump stops.
- Unbolt the end links (all four) from the control arms or sway bars to allow the control arms to move.
- Unbolt the upper front control arm from the subframe in order to allow easier removal of the shock and spring assembly.

• Unbolt the lower rear link (as indicated in picture) to ease removal of the rear shock and spring assembly. This will still be loaded by the rubber bushing at the other end, so it will take some force to push out of the way.



- Access the rear shock mounts by removing the plastic trim in the trunk. There's one bolt on the rear shock mount / top hat that goes in from the bottom.
- Pay attention to the order of the bushings and such that you'll be reusing; be sure to match the order and orientation when you assemble these parts on the new shocks. The stock upper and lower washers need to be drilled to 12mm / 15/32".
- **Do NOT overtighten the nut on top of the shock! "Snug" is good, but don't go over 10 lb-ft.**
- **Do NOT tighten any of the rubber bushings (lower shock bolt, upper inner control arm bushings, etc) until the car is on the ground, with its weight on its wheels and has been rolled a few feet.** The bushings must be in their static positions when you tighten them, otherwise the ride height will be incorrect and your bushings will fail. Along those lines, loosen and re-tighten **ALL** of the rubber bushings once the car is back on its wheels. This is true with all cars, but especially NCs.
- These shocks are adjustable (**but not pre-set**), so you can adjust the damping to suit your driving style and preferences. We suggest starting by increasing the damping all the way (turn the adjust clockwise) until it stops. Don't try to force it beyond its stop! For the Tokicos, back the fronts off by 3.5 turns and the rears by 4.5 turns. For Konis, set them up 3/4 turn from full soft (all the way opposite the "firm" arrow, then 3/4 turn back. These are just starting points for both shocks, feel free to tweak as needed.
- Our springs lower the ride height of the car, so you'll need a new alignment. We recommend:

**More information on the back of this page →**

## Front

Caster: 5.0 degrees

Camber: 1.0 degrees negative

Toe-in: 1/16" total

## Rear

Camber: 1.5 degrees negative

Toe-in: 1/16" total

## Conversions

1/16" = .15° = 9 arcminutes

## Torque numbers

Shock shaft: 10 lb-ft

Shock mounts (front): 34-46 lb-ft

Shock mounts (rear, from the top): 34-46 lb-ft

Shock mounts (rear, from the bottom): 17-23 lb-ft

Upper front inner control arm bolts: 62-72 lb-ft

End links: 32-45 lb-ft

Lower shock bolts front: 58-76 lb-ft

Lower shock bolts rear: 65-88 lb-ft

Lower rear link (as indicated in the picture): 80-100 lb-ft