

## Proper Installation Procedure Regarding Urethane 2.5" Spring Isolators within Spec Miata Coilover Kits

### Overview

The purpose of this document is to ensure the proper installation methods regarding the Urethane 2.5" Upper Spring Isolator used within the Spec Miata Coilover assembly. It is very important to ensure the 2.5" urethane spring isolators are securely fastened to the OEM Mazda 99-05 upper shock mounts. Leaving the isolators loose within the coilover assembly can cause misalignment issues when the suspension is at full-droop, and upon recompression, the isolator could become awkwardly reseated within the shock mount putting uneven stresses on the isolator.

### Proper Installation Method

1. Preassemble the Penske upper shock mount kit by installing onto OEM shock mounts
2. Preassemble the shock and coilover assembly to the point to where you are ready to install the shock mount assembly to the shock (ie: bump stops, shims, spring and sleeve/collar (if applicable) installed on the shock and supported in a vice)
3. Use a solvent to remove the mold release residue from the manufacturing process on the flat side of the isolators. Goof-Off spray, brake cleaner, or isopropyl alcohol are all acceptable.
4. Prep the surfaces of the isolators and shock hats to enable strong adhesion between the surfaces when glued.
  - a. The recommended procedure is to use a sanding disc or wire wheel to scuff the surface of the both the isolator and shock mount. Scuff only enough to remove the sheen from the flat side of the isolator, and slight removal of the paint on the shock mount. Do not sand away too much material to where the flat surface of the isolator is made uneven
5. Use the amber colored Gorilla Glue, a sealant such as Sikaflex, or a strong adhesive such as windshield sealant to bond the isolator to the OEM shock mount
  - a. Follow the instructions of the adhesive used. If Gorilla Glue, be sure to wet the surfaces before applying the glue
  - b. Apply a thin bead of adhesive around the entire circumference of the isolator and place into the shock mount. Rotate the isolator while pressing down to spread the adhesive evenly
6. Install the shock mount assembly to the shock with the isolator being held in place by the still uncured adhesive. Tighten the top nut to secure the upper shock mount, then quickly thread the spring perch upwards to apply consistent and even pressure on the spring isolator in order to allow the adhesive to cure under pressure. Be sure the isolator is centered in the shock mount when compressing it
7. Allow the adhesive to cure for an extended period of time following the instructions of the adhesive
  - a. If Gorilla Glue is used, a foam-like residue will be noticeably present around the edges of the isolator. This is normal and ensures the glue expanded as it was designed to

