



## 2003-2017 Dodge Viper Delrin Control Arm Bushings

### Overview:

The OEM control arm bushings are rubber which deteriorate as they age. The softer bushing can cause variance in handling response on track even when new. In addition, rubber bushings are not free rotating and therefore have a preload when installed. Replacing the rubber with Delrin allows for consistent, smooth, low friction movement without deflection or deterioration over time. The result is improved cornering and braking consistency on track equating to more reliable handling response.

### Compatibility:

The bushing assemblies are available for any 2003-2017 Viper upper or lower control arms. The bushing assembly replaces the factory rubber version without modification.

### Construction:

The brackets are manufactured from cadmium plated steel and Delrin inserts. The inserts have insulating sleeves to avoid any potential galvanic corrosion between the bolt and bushing.

### Ordering Information:

<http://www.dougshelbyengineering.com>

DSE-VP-DB-003 // Set of 16 Delrin Control Arm Bushings

### Installation Guide:

Remove the control arms from the frame. Refer to the service manual for control arm removal.

Once removed you can use a press or large vice to remove the control arm bushings. Mopar also offers a tool to accomplish this.

#### OEM Rubber Bushing Removal Tips:

Note: the metal outer sleeve pressed into the control arm should not be removed, only the inner steel and rubber pieces of the bushing.

Remove the steel ends of the OEM bushings by prying them off or clamping them in a vice and pulling them out of the assembly. These are pressed into the bushing shaft.

Once the ends have been removed you can press out the steel bushing shaft center. A tapered socket of the correct diameter works well. Support the other side of the control arm with a large diameter and depth press tool if using a vice. Press from the inside of the control arm out since this is the direction the rubber will need to be pushed out as well.

Use a larger diameter socket to press out the rubber bushing in the same fashion. Take care not to damage the metal sleeve pressed into the control arm.



***Control Arm Delrin Bushing Assembly***



***Components of the OEM Rubber Bushing***



***Control Arm Prepared for Bushing Installation***

### Delrin Bushing Installation:

Clean the inside sleeve on the control arm and check for any damage.

Press in the Delrin component of the bushing from the outside. The larger OD flange should be on the outside of the control arm. The bushing should fit tight in the control arm and not rotate. *If the bushing does not fit tight see below steps:*

The Delrin diameter has been sized to err on the lower end of the tolerance to account for variations in control arms. If the bushing fit is not tight and does not prevent rotation retaining compound will need to be used per the following steps.

Prime the inside sleeve of the control arm with Loctite primer 7649.

Prime the outside of the Delrin bushing in the same way.

After the primer has dried, apply Loctite retaining compound 641 to both the Delrin bushing and inner sleeve.

Allow the compound to cure for 24 hours. Once cured double check the bushing is tight within the assembly and will not rotate.

### Final Installation:

When ready to install control arm, apply superlube to the steel bushing inserts including the side of the flange that will contact the Delrin.

Insert the steel halves (large diameter against large flange of the Delrin). Press halves together and confirm a tight fit with free rotation.

Insert Delrin insulating sleeves into the steel halves.

Reinstall the control arm per factory procedures as outlined in the service manual. After final assembly and alignment tighten the upper bushing bolt to 33 lb-ft and the lower to 75 lb-ft.

*Tip: If using the comp coupe alignment shims instead of the factory cam bolts, the lower control arm bolts can be tightened to 50lb-ft instead of 75 lb-ft.*

### **Inspection and Maintenance:**

- Periodically inspect the bushing and hardware to ensure nothing is loose or damaged.

#### **Thank you for your purchase!**

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*Modification of your vehicle with the parts identified above may alter its stock performance; the buyer hereby expressly assumes all risks associated with any such modification.*

#### **Disclaimer of Warranty:**

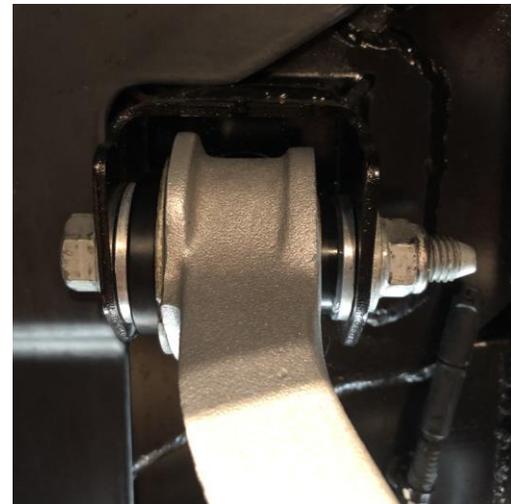
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**Delrin Bushing Installed**



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**Bushing Assembly Installed**