



## Installation Instructions for the CorkSport Third Link Shifter Bushings

### Tools Required

- 10mm wrench or socket
- 12mm wrench
- 12mm socket
- 17mm socket
- Torque wrench
- Ratchet and extension.
- Floor Jack
- Two jack stands
- Grinder or Drill Press
- 7/16" Drill bit
- 1/4" End Diameter Drift
- Hammer

### Contents

- Two Bronze Bushings
- Mazda Factory Select Lever Bolt
- Mazda Factory Select Lever Nut
- 8 Page Installation Instructions

**NOTE:** The installation instructions were written while doing the installation on a 2001 Protégé MP3. There may be differences in other vehicles.

**DANGER:** Follow instructions that came with your jack/stands. Death and or significant property damage could result if you do not. Always use redundant support mechanisms when working under a car: Jack stands and a jack, etc.

**NOTE:** The first part of the installation instructions for the shifter bushings located at the transmission, will be the same for 86-89 323, 91-95 MX-3, 90-94 323/Protégé, 95- 98 Protégé, 99-03.5 Protégé, 91-96 Escort GT.

Please call 360-260-2675 if you have any questions with the installation of this product.

**Step 1:** Jack up your car and place it securely on the jack stands. See jack/stands manufacturers instructions and owners manual for proper use and jackstand / jacking points. Allow the car to cool, placing a small fan under the car helps to expedite this process. You will be working in close proximity of the exhaust system, which will remain in the car.

**Step 2:** Remove the 12mm headed nut, located at the shift rod to transmission, shown below.



**Step 3:** Remove the shift linkage bolt by pulling it up and out.



**Step 4:** Slide the shift linkage back from the transmission.



**NOTE:** The vehicle used, a 2001 Protégé, had a heat shield below the shifter. Other vehicles may not have this heat shield (90-94 323/Protégé, 91-96 Escort GT, ECT.). If you do not have this heat shield you may skip down to step 7 of the instructions.

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**Step 5:** Remove the four 10mm headed bolts from the heat shield. Depending on your car, these may be 12mm bolts.



**Step 6:** Slide the heat shield toward the rear of the car several inches to gain access to the shifter.



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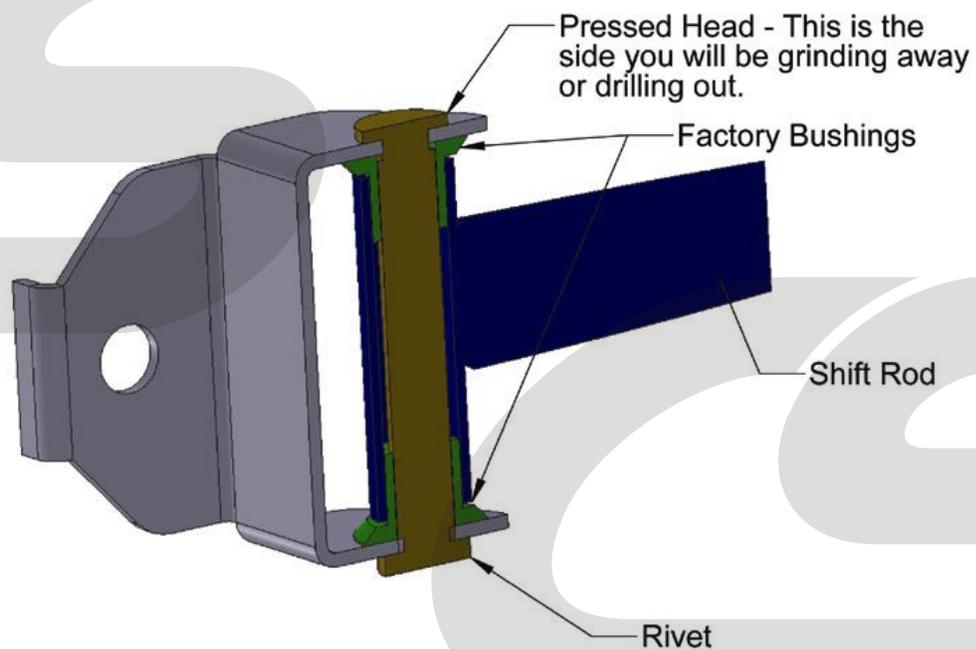
**Step 7:** Remove the 12mm nut shown below from the shifter.



**Step 8:** Remove the 12mm headed bolt from the shifter and the linkage and slide the linkage from the shifter. This will free up the entire shift rod to be removed from the car. Slide it backward and out of the car (once it clears the front subframe, it will be free to come out around the side of the exhaust piping.)

You will now bring the entire shift rod assembly over to the workbench and remove the permanently installed solid rivet. Looking at both ends of the permanently installed rivet, you will notice that one of the heads of the rivet is thicker than the other. All work will be done on the thin portion of the rivet.

This cutaway diagram shows the stock assembly. Note the thin side and thick side of the rivet:

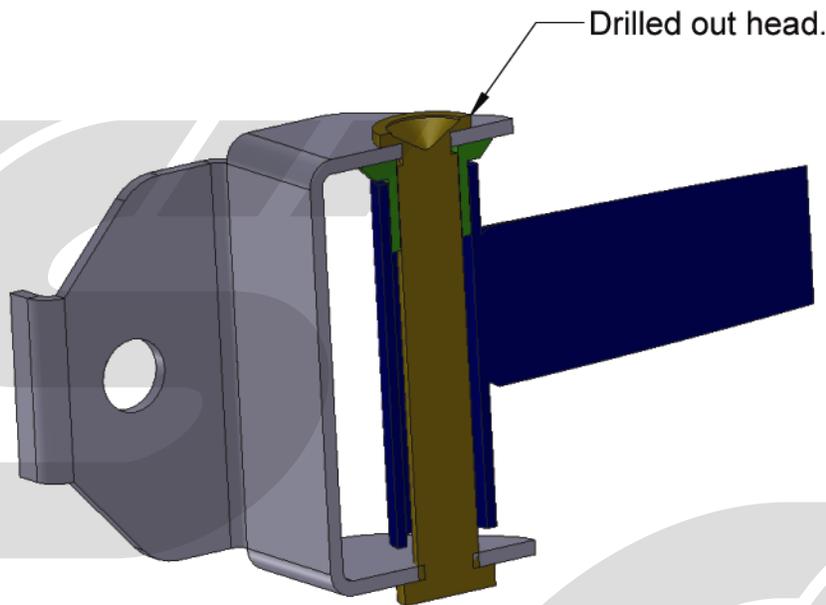


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You will have a choice to grind the head off of the rivet using a bench grinder or die grinder (takes some finesse to avoid scoring up the bracket) or you can drill out the center of the rivet with a 7/16" drill tip. Both procedures are detailed below. Both have their relative merits and difficulties. With the drill, the malleable material requires a good starting point – either a drift punch mark or preferably a smaller center drill start in the material to get the larger drill started properly. With the grinder, as mentioned above, patience and finesse are key to avoid chewing up the bracket.

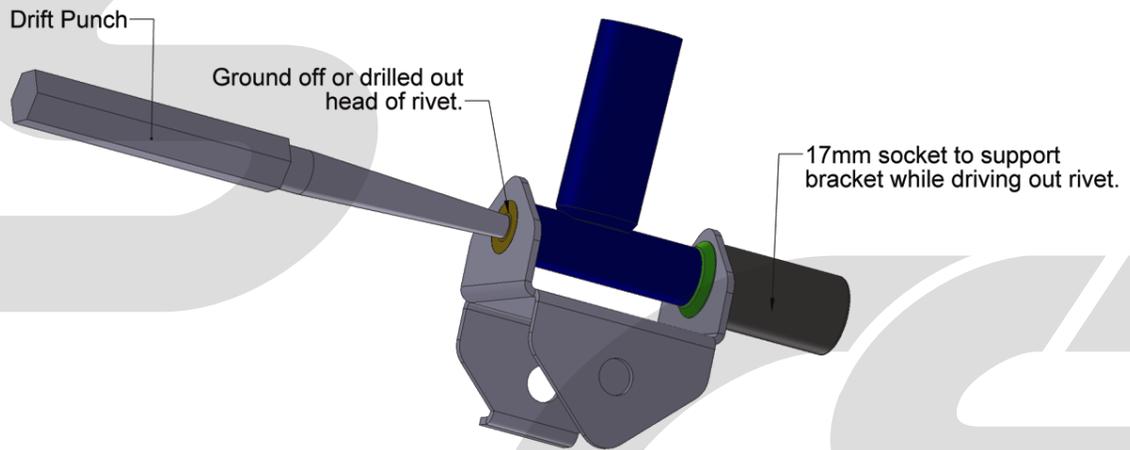
**Step 9:** Drilling out the rivet:

- a) Place the bracket end of the rod assembly into a vise (or alternate stable workholding device) on a drill press and align the assembly so that the drill will put even pressure onto the rivet. If you can pull the spindle of the drill press down into the part (while not running) and the rivet and bracket assembly tilts, your work is not well held and the drill will walk off of the center of the rivet.
- b) Using a center drill or a drift punch, make a center mark in the middle of the rivet head.
- c) Switch to the 7/16ths drill and drill down until the head of the rivet spins free (or you get close – the rivet material is malleable, so it is possible to drive the rivet out without breaking through to the bracket – but the remaining head thickness has to be at a minimum).



**Step 9 (Alternative):** Grinding off the rivet. Use your favorite grinding tool and grind the thinner of the two heads off of the rivet. Testing the installation of these parts we used a 6" bench grinder and it worked quite well.

**Step 10:** Drive out the rivet using a drift punch (one with a .250 end diameter works well). The easiest way to accomplish this is to have an assistant hold the long end of the shift rod while you support the large end of the rivet in the open end of a 17mm socket.



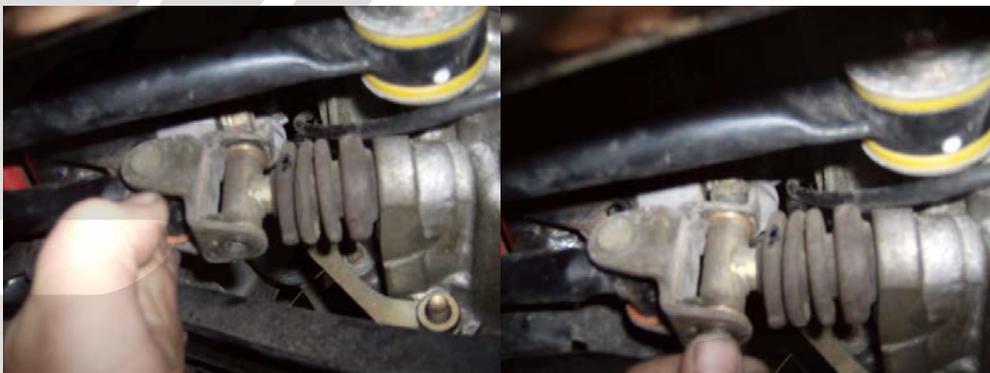
**Step 11:** Install the two bronze bushings into the shift rod as shown. Add a little grease to the bushings prior to installation (minimal amount necessary).



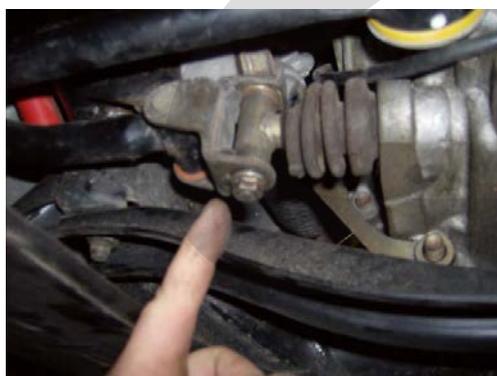
**Step 12:** Install the shift rod into the bracket and install the supplied bolt and nut. Add a small amount of grease between the surface of the bushings and the surface of the bracket. Torque the bolt to 12 ft lbs. Test fit by pivoting the bracket with the drift used to remove the rivet. If the assembly is extremely tight, back the torque off a bit.

**Step 13:** Place the shift rod into its stock location in the vehicle.

**Step 14:** Slide the shift linkage over the transmission linkage and replace the bolt from the top.



**Step 15:** Reinstall the 12mm headed nut and tighten to 12-16 ft/lbs or torque.



**Step 16:** Slide the shift linkage back in place at the shifter and reinstall the 12mm headed bolt.



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**Step 17:** Reinstall the 12mm headed bolt on to the shifter and tighten to 12-16 ft/lbs of torque.



**Step 18:** If your vehicle was equipped with a heat shield reinstall the four 10mm headed bolts to secure the heat shield to your vehicle.

**Step 19:** Lower your car to the ground from the jack stands and test the shifter. If the shifter is too difficult to move, re-check the torque specs on the 12mm headed nuts on the shift linkage. The shifter should feel tight and direct when shifting gears.