



**Installation Manual**  
**TWM Performance Short Shifter**  
**1999-2003 Mazda Protege, MP3, Protege 5,**  
**MazdaSpeed Protege, 1992-2000 Ford Escort ZX2**  
**1992-1997 MX-3 Precidia, Mazda 323**



1. Carefully unscrew the shift knob by rotating it counter clockwise.



2. Remove the 2 screws on either side of the console.





3. Remove shift boot and plastic cover by gently squeezing the insides of the cup holders and lifting.



4. Remove the plastic cover around the handbrake by carefully lifting up on it.



5. Remove the 2 screws in the base of the console.



6. Remove the 2 screws at the back of the center console and lift it out of the car. Put it in a safe place for re-installation later.



7. Use snap ring pliers and a small screwdriver to remove the snap ring which holds the shifter in place. Be extremely cautious not to damage the rubber boot which surrounds the shifter.



8. Remove the plastic retaining ring and rubber o-ring and set them in a safe clean area. Be sure to note their orientation for re-installation later.



9. Place the car on a lift or jack it up. If you use a jack be sure to always use jack stands for safety. Locate and unscrew the nut and lock washer on the bottom of the shifter, which connects the shift lever to the shift rod. Remove the bolt that goes through the base of the shifter. You can now remove the entire shifter from the car.



10. Remove the 2 bolts at the front of the heat shield using a 10mm socket and ratchet.



11. Carefully remove the plastic bushings in the base of the stock shifter. This may require a small screwdriver.



12. Carefully remove the rubber boot and plastic bushing surrounding the base of the stock shifter. Use caution not to damage them.



13. Lightly grease the large pivot ball on the TWM shifter. Re-install the rubber boot and plastic bushing you just removed from the stock shifter on to the TWM shifter in the same way as it was on the stock shifter.

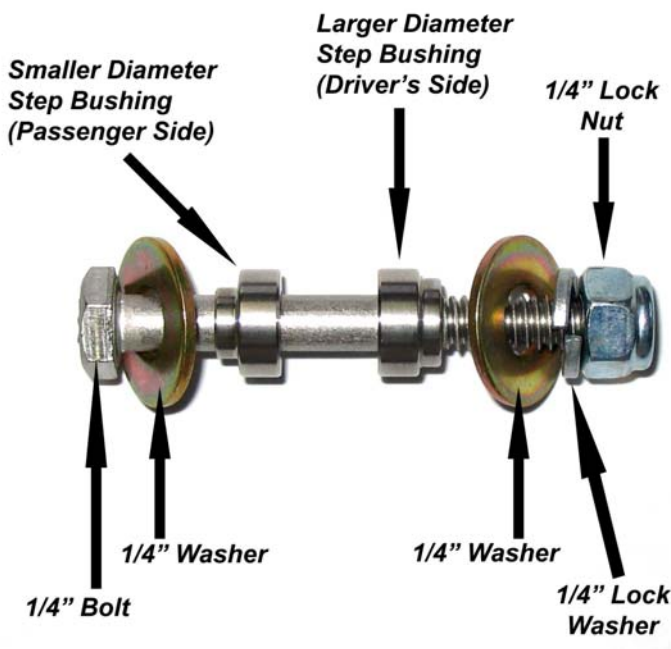


14. Lower the car and Install the TWM shifter in place of the stock shifter. Be sure the bend is toward the back of the car.



Pictured above: The bushings seated in the shift rod before the shifter base is inserted between them. Note that the smaller shoulders are inserted in to the bolt holes on either side of the shift rod before the bolt is inserted.

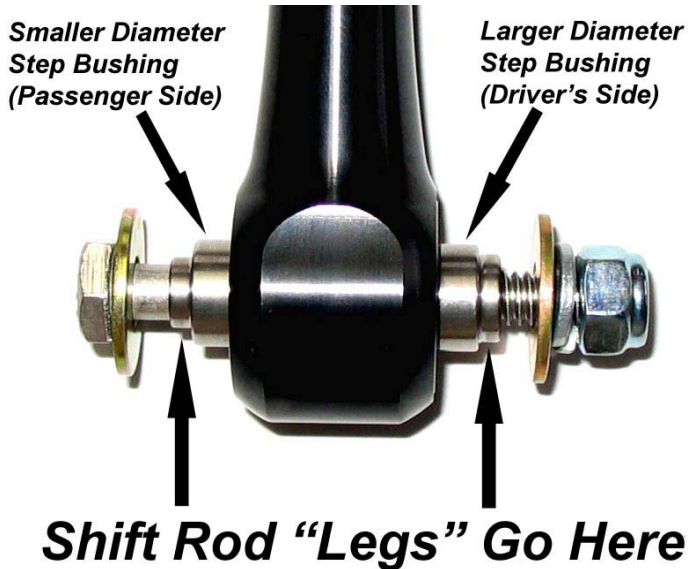
15. Raise the car and re-assemble the shift linkage using the hardware included in the kit. **Refer to the pictures below for correct orientation of the hardware in relation to the shifter and shift rod.** Place one 1/4" inch washer on the bolt before threading through the shift rod and shifter. The stainless steel spacers included in the kit must be installed on either side of the shifter's bearings. Their orientation is very important and illustrated in the pictures below and on the next page. The shouldered spacers must have their smaller shoulder diameter inside the bolt holes in the shift rod and their larger diameter flat face against the shifter bearings. Please note that the bushings smaller diameter shoulders are of different sizes. The larger diameter shouldered bushing goes on the driver's side of the shift rod and the smaller diameter shouldered bushing goes on the passenger side. Once the bushings are in place and the bolt and washer are threaded through the shift rod, bushings, and shifter, place a 1/4" inch washer on the bolt followed by the new lock washer and nylon lined nut. Tighten the nut and bolt using a 7/16" socket while holding the bolt with a 7/16" wrench to remove any gap between the bearings and bushings. Do not over tighten.



15 (Continued). The image to the left shows the correct orientation of the bolt, washers, and bushings included with the short shifter. The base of the short shifter with the bearings goes between the 2 bushings. Note that the small shoulders on the bushings face outward from the bearings in the base of the short shifter. The shoulders on the bushings fit in to the holes in the shift rod. The bushing with the larger diameter step fits in to the shift rod on the driver's side. The bushing with the smaller diameter step fits in to the shift rod on the passenger's side.

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15 (Continued). The image to the left illustrates the correct orientation of the stainless steel bushings and mounting hardware in relation to the shifter. Notice how the smaller shoulders of the bushings face away from the shifter. They fit into the holes on the shift rod connected to the transmission. Do not insert the bolt and bushings until the shifter is in the car, this must be done from beneath the car.



16. Install the aluminum spacers included in the kit between the heat shield and the floor pan of the car. This lowers the heat shield to allow for the added length below the pivot point on the TWM shifter. Use the long 10mm bolts and 6x20mm washers supplied in the kit to secure the heat shield and spacer. The aluminum spacer goes between the heat shield and car's chassis.



17. Replace the plastic retaining ring, rubber o-ring, and snap ring on top of the shifter in that order. Re-assemble the console, replace the shift knob, and you're ready to drive!

### Legal Disclaimer

TWM Performance is not responsible for the misuse, incorrect installation, or failure of any product we sell.

Under no circumstances, including but not limited to negligence, will TWM Performance be liable for special or consequential damages that result from the use or inability to use our products. TWM Performance does not assume responsibility for any damage to the user, passenger or vehicle resulting from the operation of a TWM Performance product.

TO PROTECT USERS FROM INJURY OR DEATH. THE USER ASSUMES ALL RISKS. Autocrossing, track events, and high speed driving are all dangerous activities - always drive responsibly and safely.

### Warranty

Installation of some TWM Performance products may or may not void factory warranties. Always keep OEM equipment that has been replaced in case work is required at the dealer or the vehicle is sold.

This warranty covers the **original purchasing consumer**. This warranty is limited to repair or replacement by TWM Performance of any TWM Performance product that fails because of a defect in materials or workmanship.

Warranty does not cover the following:

- Damage incurred to related vehicle components
- Shipping costs for replacements
- Products that have been modified, incorrectly installed or misused.
- Mounting hardware and bearings**
- Regular day to day wear on vehicle
- Installation costs and vehicle down time

