AR-15 Ejector Tuning

Have you ever noticed that some shooters’ rifles leave their brass in a nice, tidy pile just forward and to the right of their shooting position? Here’s the secret:

Get a few spare ejectors, ejector springs, and ejector retainer pins. You’ll be partially disassembling your bolt and these parts are small and easy to lose. You’ll also be cutting part of the spring off, and if you cut too much you’ll need a replacement. They aren’t expensive.

Removing the ejector is easiest with a bolt tool and 1/16” roll pin punch. There are several styles of bolt ejector tool available, and the one shown in the photos seems to be the best. A 1/16” roll pin starter punch makes reassembly easier too if you drive the pin all the way out. The spare parts, bolt tool, and punches are all available from Brownell’s. You will also need a small pair of diagonal wire cutters and a hammer, available at any hardware store or Home Depot/Lowes.

1. Remove the ejector and ejector spring by driving the retainer pin out far enough to free the ejector. Don’t drive it all the way out and you won’t have to get it started later. Clean the ejector hole in the bolt.

2. Put the ejector followed by the ejector spring into the ejector hole and make sure they are in the hole as far as they can go. The spring will extend beyond the bolt rim.

3. Using a small pair of diagonal wire cutters, cut the spring off even with the bolt rim (not the bolt face).

4. Reassemble the bolt with the shortened spring and ejector in the correct order and with the cut end of the spring at the bottom of the hole. The last photo shows the starter punch – it surrounds the pin and supports it while lining up and starting it in the hole.

5. Test-fire the rifle. If the rifle still throws the brass too far, shorten the spring a bit more. If it fails to reliably eject the brass, start over with a new spring.