



July 15, 2003

TECHNICAL NOTE 58, Using AR-15® Magazines in the AR-180(R)

BACKGROUND: The early AR-180® was designed to use a special magazine similar, but not identical to the AR-15® magazine. This magazine has always been somewhat scarce, so AR-180® owners frequently modified AR-15® magazines for use in their AR-180®. Today, new magazines of capacity higher than 10 rounds are not legal for commercial sale, and this conversion tradition has continued. To assure our customers a good supply of magazines for the new AR-180B™, ArmaLite has designed that rifle to accept the more plentiful AR-15® magazine instead of the already-scare early AR-180® magazine. AR-15® magazines don't require the full range of modifications required to work perfectly in the early AR-180®, but they sometimes still must be modified slightly to work in the new AR-180B™

FACTS: Proper small arms design includes manufacture of a magazine specifically designed for the firearm.

Use of the AR-15® magazine in the AR-180B™ rifle doesn't come without tradeoffs. The AR-15® magazine was designed to work in the AR-15® rifle. The construction technique of the AR-180® (sheet steel and polymer) requires different tolerance buildups that aren't matched perfectly by the AR-15® magazine. Further, ArmaLite has absolutely no control over the dimensioning and tolerancing of those magazines as produced by their many official and unofficial producers. This means that magazines must sometimes be modified to work in the AR-180B™ perfectly. Modifications sometimes required include:

Opening the bolt catch slot in the back of the magazine so that the AR-180b™ bolt catch can move without interference. This is especially important on polymer magazines.

Removing metal from the tops and insides of the magazine lips to prevent contact with the AR-180® bolt carrier. This contact can rob the rifle of energy during feeding or even stop the carrier in its tracks. Look for shiny contact marks on the magazine to see where to remove metal with a small file. Remove as little as possible: the feed lips are key surfaces.

SUMMARY: The AR-15® magazine has proven to be an economical and effective feeding device in the AR-180B™, and allows our customers to use existing hi-cap magazines in their new rifles. Modification of some magazines is required, but is easy to perform.