



June 3, 2009 Rev 1

TECHNICAL NOTE 71: AR-10 MAGAZINES AND BOLT STOPS

BACKGROUND: During the period of the 1994 Assault Weapons Ban, ArmaLite® was required to produce AR-10 magazines by conversion of pre-ban M14 magazines. Since the expiration of the ban, ArmaLite® has instituted production of a new family of magazines featuring significant design changes and improved reliability.

DESCRIPTION: M14 magazines converted to early 20 round AR-10 magazines feature a patented spring-loaded bolt stop trip that presses the bolt stop up to halt the bolt carrier's forward movement. While the Gen I design is successful in most cases, the spring pressure of the magazine trip's internal spring creates friction in the magazine and potentially reduces its tolerance for dust, dirt, or ammunition variations.

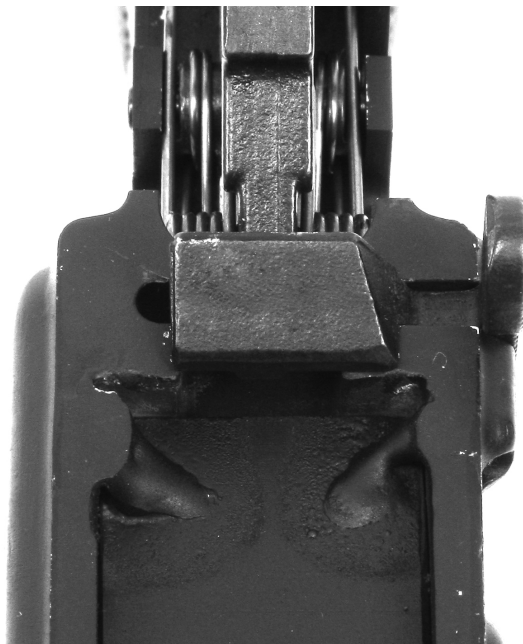
ArmaLite's® new Generation II 5, 10, 15, 20, and 25 round magazines differ significantly from the previous conversions. In the Generation II magazines, the bolt stop trip is formed outward from the steel follower of the magazine; therefore no internal spring is needed, and no spring resistance is created. The integral formed trip requires a wholly new magazine body that incorporates a channel at the rear to allow space for the trip.



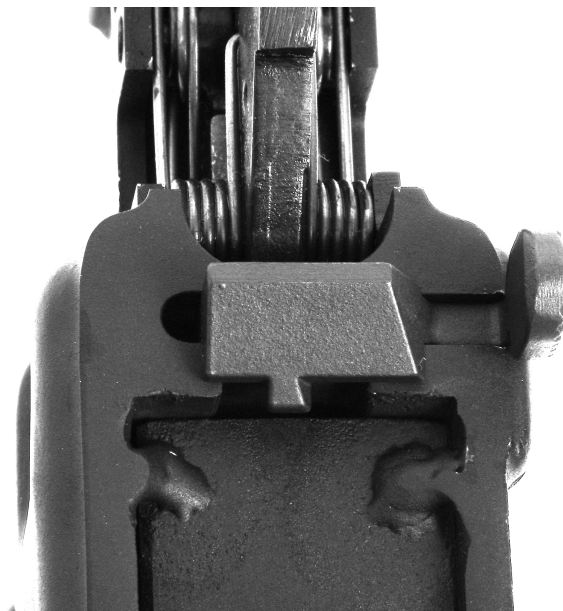
Gen I magazine with spring-loaded bolt catch trip



Gen II magazine with integral formed bolt catch trip



Early bolt stop for Gen I mags



Current bolt stop for all mags

All AR-10 rifles shipped after the beginning of May, 2006 are equipped with a new bolt stop that reaches forward so that it engages the trips of all Gen I and Gen II magazines.

The formed bolt stop trip of Generation II magazines may not engage the bolt stops of many earlier rifles. These rifles will require a new bolt stop. The new bolt stop is available from ArmaLite® for a modest price.

The new magazines are carefully made to prevent looseness that can reduce reliability. Normal manufacturing tolerances result in a close fit in the magazine well that requires some magazines to be pulled from the rifle instead of relying on gravity to drop them free. This is a normal condition.

Rifles shipped into Assault Weapon Ban (AWB) states are now provided with Generation II 10-round magazines.

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