



February 4, 2003

TECHNICAL NOTE 46: ERRATA SHEET FOR ARMALITE AR-180B RIFLES

PURPOSE: This errata sheet provides information that isn't contained in the AR-180B Instruction Manual, or highlights information that is extremely important. It is part of the AR-180B manual and must be kept with it.

SAFETY: Read and understand the safety warnings in the operators manual before you do anything else. Use good hearing protection, because the recoil check (muzzle brake) concentrates muzzle blast near the shooter.

IMPORTANT NOTE ABOUT YOUR LIMITED WARRANTY: The limited one year warranty is applicable to original, individual ArmaLite purchasers only. **THE WARRANTY BECOMES EFFECTIVE ONLY UPON RECEIPT OF THE WARRANTY REGISTRATION CARD PROVIDED WITH YOUR RIFLE. IF NO CARD IS ON FILE, ALL WORK WILL BE BILLED AT SHOP RATES.** Custom work will be billed at ArmaLite's shop rates, as will work on rifles submitted with no warranty problem existing. Shipping to and from ArmaLite is the owner's responsibility.

PATENTS and TRADEMARKS: The AR-180B rifle is protected by U.S. Patents 5,911,173, and 6,044,748. ArmaLite, AR-180B, and other model variants are trademarks of ArmaLite, Inc.

NEVER LET THE HANDGUARD TOUCH THE BOTTOM FRONT OF THE RECEIVER: The AR-180 lower receiver is extremely, but careless, hard contact between the handguards and the bottom front of the receiver can stress the pivot pin hole and damage the receiver. Preventing handguard-receiver contact absolutely prevents this stress.

LUBRICATION: ArmaLite recommends Bore Cote™, LSA (Lubricant, Semi-fluid, Automatic weapons) or other high-quality lubricants, especially on the highly stressed Bolt Carrier Group. Lubricate the rifle generously.

MATCH TRIGGER ADJUSTMENTS: ArmaLite's National Match trigger assembly isn't user adjustable. For safety reasons, it is intentionally built with a small amount of creep in the second stage. As it breaks in with use (200 to 500 rounds) the creep tends to decrease to an acceptable level. If excess creep remains, the trigger can be tuned by a gunsmith using techniques similar to those used with the M1/M14 trigger system. ArmaLite technicians will fine-tune the triggers for a nominal shop fee, plus shipping. We regret this inconvenience, but the

current unpleasant state of tort law requires it.

PULLING THE TRIGGER: Failure to pull a target or match-grade trigger firmly can result in the shooter firing two shots. This effect is common to all self-loading firearms, and especially common to match triggers on common target rifles such as the M1 or M-14 National Match rifles.

With each shot the rifle moves rearward in recoil, then recovers forward in counter recoil. The trigger finger is a springy structure, and as the rifle recoils the trigger finger and the rifle move relative to each other just a little. If the hand and finger are held too loosely or if the trigger is pulled too delicately, it is possible that the moving trigger can push into the stationary trigger finger as the rifle moves forward. The finger isn't moving, but the trigger is. The relative motion between the trigger and trigger finger can result in the shooter firing two shots before releasing the trigger. This is not a "double," but sounds like it. This error occurs most often when firing from a bench. To prevent this "false doubling," pull the butt firmly into the shoulder, grip the rifle strongly and pull the trigger aggressively. If false doubling continues or is frequent, ArmaLite will adjust or replace the trigger mechanism. Safe gun handling prevents a false double from causing an accident.

AMMUNITION: Accuracy and reliability of semiautomatic rifles depends on high-quality ammunition. Some ammunition, especially imported or hunting ammunition will not work in semiautomatic rifles. **ALMOST EVERY ACCURACY OR FUNCTION PROBLEM IS CAUSED BY FAILURE TO CAREFULLY BREAK THE RIFLE IN, FAILURE TO USE HIGH GRADE MATCH AMMUNITION, OR POOR MARKSMANSHIP.**

BREAK-IN PERIOD: ArmaLite rifles are made more tightly than other rifles of similar design. A break-in period of 200 rounds allows machined or phosphate-coated surfaces to mate.

ArmaLite's stainless steel barrels are produced from custom, triple-lapped target grade blanks. For several years we have recommended a break-in procedure recommended by some experienced competitive shooters. All the while, the President of the company, himself an experienced competitor, has simply cleaned his new barrels and started using them. At least one proven barrel maker has reinforced the President's opinion that break in, and especially break in using abrasive paste, is not needed. Break in should be limited to frequent cleaning with solvent dampened patches, followed by dry patches. We recommend brass brushes for all cleaning, and recommend specifically against either stainless steel or nylon brushes.

ArmaLite recommends Black Hills moly coated .Match ammunition for both break-in and competition. Black Hills molybdenum disulfide ("moly") coated ammunition reduces the break-in period to about thirty rounds (by pulling a dry patch through the barrel after each) and lengthens the period between cleaning. Contact ArmaLite to order this ammunition.

FRONT SIGHT ADJUSTMENT TOOL: ArmaLite recommends that shooters use a front sight adjustment tool to zero their front sight blades for elevation.

ZEROING THE FRONT SIGHT FOR WINDAGE: Normal manufacturing tolerances can result in the rear sight being off-center when the rifle is zeroed. ArmaLite's exclusive screw-

clamping gas blocks (T and A4 models) and front sight bases (AR-10 and M15-A2 models and AR-180B) allow the owner to zero the front sight for windage with the rear sight perfectly centered. This is especially important for competitive shooters, who generally wish to have equal windage adjustments available to both the left and right.

To zero the front sight, put the rear sight aperture in the center of the rear sight base. Fire a three-shot group to see where the rifle is shooting, then adjust the front sight based on the horizontal location of the shot group. To adjust the next shot group to the *left*, loosen the clamping screws and shift the front sight to the *right* slightly. Very little movement is needed. To shift the group to the *right*, move the sight slightly to the *left*. The sight should be easy to move by hand or with very light taps of a leather or nylon mallet. Tighten the base and try again.

If the sight is too tight to shift easily, you may loosen the bottom of the sight base. Remove one or both of the screws, screw it (or them) into the opposite side and tighten very slightly against a coin or blade slipped into the split at the bottom of the sight base. The sides will spread apart easily.

PROTECTING BARE BARREL SURFACES. Shifting the gas block or sight base will normally expose a thin, line of unprotected steel inside the split base. This unprotected surface results from government regulations that render it impractical to phosphate the barrel before assembly. Paint, oil, or another suitable protectant must protect it after the base is shifted.

BARREL LIFE depends on how fast the rifle is fired, and how accurate the shooter insists it must be. Shooting the rifle as fast as the trigger can be pulled can ruin the barrel in just a few hundred rounds. Firing at controlled rates (see above) will allow a standard-grade AR-180B barrel to last for 10,000 to 15,000 rounds with accuracy acceptable for Police use.

INSERTING THE MAGAZINE: Smoothly press the magazine straight upward into the magazine well until the magazine catch snaps into place. Pull down on the magazine slightly to make sure that it is caught by the magazine catch. Contrary to Hollywood tradition, NEVER tap or pound the magazine into the receiver. Excessive pressure can force the magazine past the magazine catch.

RECEIVER FIT: The AR-180B is not a custom firearm. ArmaLite gets a close fit between the receivers, but normal manufacturing variations may result in play or slight side to side receiver mismatch. This is not a manufacturing defect and has no effect on accuracy.

VISIBLE MAGAZINE CATCH SPRING: Like the aluminum-framed AR-10 and M-15 rifles, the thin web of material between the magazine well and the magazine catch spring pocket may produce an opening in the middle of the rear wall of the magazine well. This is a normal condition with no effect on function.

INTEGRAL MUZZLE BRAKE: All AR-180Bs are “Post-Ban” production rifles. The recoil checks (muzzle brakes) used on them are an integral part of the barrel and are not removable..

APPEARANCE: Almost all complaints concerning appearance come from customers who

forget that the AR-180B is a Military Specification rifle, not a polished commercial or collectors-grade rifle. They are industrial products, not custom rifles, and bear simple finishes.

ArmaLite rifles are all thoroughly test fired before shipping. New rifles will normally show evidence of this firing. If the receiver looks light or uneven, it's probably dry. A light coat of oil on the phosphated surface will cure the problem.

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