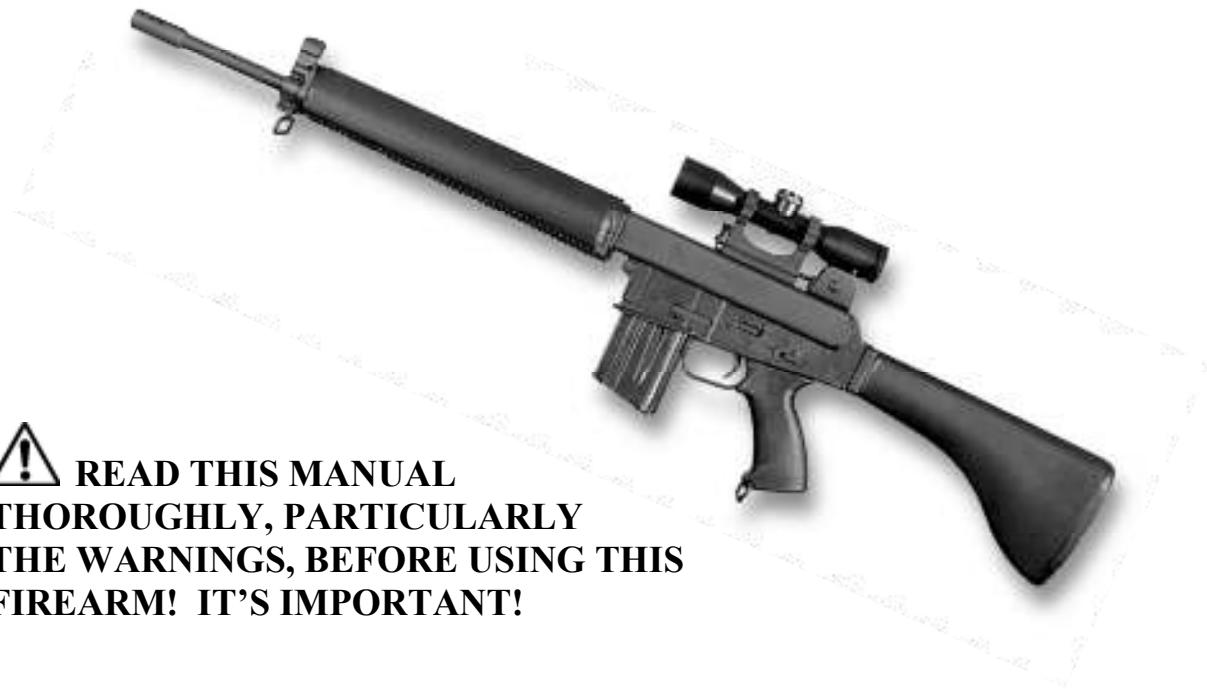




**ARMALITE®, INC  
OWNER'S MANUAL  
FOR  
AR-180B RIFLE**



**⚠ READ THIS MANUAL  
THOROUGHLY, PARTICULARLY  
THE WARNINGS, BEFORE USING THIS  
FIREARM! IT'S IMPORTANT!**

**Copyright ArmaLite®, Inc.  
June 2009 Rev 19 (I-2)  
P/N: MANUAL AR180**

**ArmaLite, Inc.  
P.O. Box 299  
Geneseo, Illinois, USA 61254  
1-800-336-0184  
[www.ArmaLite.com](http://www.ArmaLite.com)**

## **1. READ THIS FIRST!**

Throughout this manual you will find **WARNINGS** and/or **CAUTIONS** printed in bold print. All **WARNINGS** and **CAUTIONS** should be read carefully and followed completely. **WARNINGS** discuss issues that could result in damage to your firearm, or injury or death to you or a bystander. **CAUTIONS** discuss issues that could result in damage or malfunction of your firearm.



**WARNING: IT IS YOUR RESPONSIBILITY TO ASSURE THAT YOUR FIREARM IS HANDLED, FIRED, AND STORED SAFELY AND RESPONSIBLY AT ALL TIMES.**

This manual provides instructions on the operation and maintenance of your ArmaLite® firearm. Read and understand it carefully before you try to use your firearm. Your safety, and that of those around you, depends on your knowledge of your firearm and on your knowledge of safety rules common to all firearms. Please study the common-sense safety rules noted in this manual. Your first responsibility as a gun owner is always safety!

Your second responsibility as a gun owner is security. Make sure that your firearm remains in responsible hands...**YOURS!** Don't become an unwitting partner in a crime or tragedy: make sure your firearm is properly secured. Lock it in a secure storage container or, if none is available, remove the bolt group and store it separately.

If you have more than one similar firearm, make sure that you specifically identify the removed component with its original firearm because the components are not interchangeable.

It is also your responsibility to assure that you comply with all federal, state, and local laws with regard to the purchase, ownership, use, and storage of your firearm.

This manual may serve several models of ArmaLite® firearms. If so, instructions which refer to specific models will be clearly marked.

### **NOTICE**

ArmaLite® has no control over the use of your firearm, and shall not be responsible for injury, death, or damage to property resulting from either intentional or accidental discharge of this firearm. In addition, ArmaLite® shall not be responsible for proper function of the firearm when it is used for purposes or subjected to treatment for which it was not intended. ArmaLite® will not honor claims which may result from careless or improper handling, unauthorized adjustments or parts replacement, corrosion, neglect, use of the wrong type or caliber of ammunition, or the use of ammunition other than original, high quality commercially manufactured ammunition in good condition or any combination thereof.

## **2. SAFETY FIRST! IT'S YOUR RESPONSIBILITY!**

- \* Treat every gun as if it is loaded ...AT ALL TIMES!
- \* Always keep the muzzle pointed in a safe direction.
- \* Never point your firearm at anything that you do not intend to shoot.
- \* Keep your finger off the trigger and out of the trigger guard until you are aiming at your target and ready to shoot.
- \* Always keep the safety in the "SAFE" position, especially when the firearm is loaded and cocked, until you are ready to fire.
- \* Always keep and carry your firearm with an empty chamber until you intend to shoot, so that your firearm cannot be fired unintentionally. Firearms should be unloaded when not actually in use.
- \* Be sure of your target and backstop before you shoot. Ask yourself what your bullet will hit if it misses or goes through the target.
- \* Never shoot at hard, flat surfaces or water...bullets can ricochet.
- \* Always wear hearing and eye protection when shooting.
- \* Discharging firearms in poorly ventilated areas, cleaning firearms, or handling ammunition may result in exposure to lead, a substance known to be associated with birth defects, reproductive harm, and other serious injury. Have adequate ventilation at all times and wash hands after handling.
- \* Be sure that your barrel is clear of obstructions, including excessive oil, grease, cleaning patches, etc before shooting.
- \* Use only clean, high quality factory loaded ammunition in good condition. ArmaLite® cannot condone the use of handloaded ammunition. Any such use voids the ArmaLite® warranty.
- \* Do not alter or modify your firearm.
- \* Do not try to change your firearm's trigger pull because alterations of trigger pull can affect sear engagement and might cause accidental firing.
- \* Store firearms and ammunition separately and beyond children's reach.

**IN CASE OF MALFUNCTION, STOP! REVIEW THIS MANUAL TO IDENTIFY AND RESOLVE THE PROBLEM. IF YOU CANNOT RESOLVE IT, CONTACT ARMALITE®.**

**KEEP THIS MANUAL WITH YOUR RIFLE. IF YOU SELL THE RIFLE, GIVE THIS MANUAL TO THE NEW OWNER.**

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#### 4. SAFE STORAGE

 **WARNING: ALWAYS ASSURE THAT YOUR FIREARM IS COMPLETELY UNLOADED BEFORE STORING IT. ALWAYS TREAT YOUR FIREARM AS IF IT WERE LOADED. ALWAYS STORE YOUR FIREARM IN A SAFE LOCATION, SEPARATE FROM THE AMMUNITION.**

Make certain that both the chamber and magazine of your rifle are unloaded before you store it. Store your rifle in a securely locked gun safe. If you do not have a safe, remove the bolt and bolt carrier assembly from your rifle, and store it separately from the rifle in a secure location. Store your ammunition separately from the rifle and from the bolt and bolt carrier assembly.

 **WARNING: IF YOU HAVE MORE THAN ONE SIMILAR FIREARM, MAKE SURE THAT YOU SPECIFICALLY IDENTIFY THE REMOVED ASSEMBLY WITH ITS ORIGINAL FIREARM BECAUSE THE ASSEMBLIES MAY NOT BE INTERCHANGEABLE.**

## 5. GENERAL INFORMATION

Your AR-180B is a lightweight, gas operated, air cooled, magazine fed semiautomatic rifle. The barrel includes an integral muzzle brake. The barrel is surrounded by a heat resisting fiberglass material which serves as a handguard and forearm. The front sight is adjustable for elevation and the rear sight for windage. The rifle is readily opened by pressing the guide rod assembly forward, providing ready access for removal of the bolt carrier group and upper handguard. It also provides access to all other working parts for convenient cleaning and inspection. The bolt incorporates six locking lugs and one safety lug. Upon closing, the bolt rotates to engage similar locking lugs in the barrel extension. The full force of the combustion of the powder charge is absorbed by the barrel extension and bolt, and no pressure is exerted upon the receiver. The design contributes to the high degree of safety, durability, and performance of the rifle. Due to the light weight, portability and convenience for carrying is greatly enhanced.

### 5.1 SPECIFICATIONS

#### Weight

AR-180B™ Rifle without Magazine	6 lb.
Empty Aluminum Magazine	6 oz.
Loaded Magazine	10.1 oz.
AR-180B™ Rifle with Loaded Magazine	6 lb 10 oz.

#### Length

Rifle with Integral Muzzle Brake	38 in.
Barrel	18 ¼ in.
Barrel with Integral Muzzle Brake	19.8 in.

#### Mechanical Features

Rifling, R.H. 6 grooves -	1 turn in 9 in.
Sight Radius	19.5 in.
Trigger Pull	7.0 – 8.0 lb.
Method of Operation	Gas
Type of Mechanism	Rotating bolt

#### Ammunition

Caliber	5.56mm (.223)
---------	---------------

#### Firing Characteristics

Muzzle Velocity (Average)	3250 fps
MuzzleEnergy	1300 ft. lb.
Chamber Pressure	50,000 psi.
Maximum Rate of Fire Semi-Automatic	45 – 65 rds per min.

Sustained Rate of Fire	12 – 15 rds per min.
Maximum Range	2653 meters
Maximum Effective Range	460 meters

## 5.2 BARREL LIFE

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 will allow a barrel to last for 10,000 to 15,000 rounds with accuracy acceptable for police use. Target shooters fire at very moderate rates, but their higher accuracy requirements may mean barrel replacement as early as 3,500 match rounds.

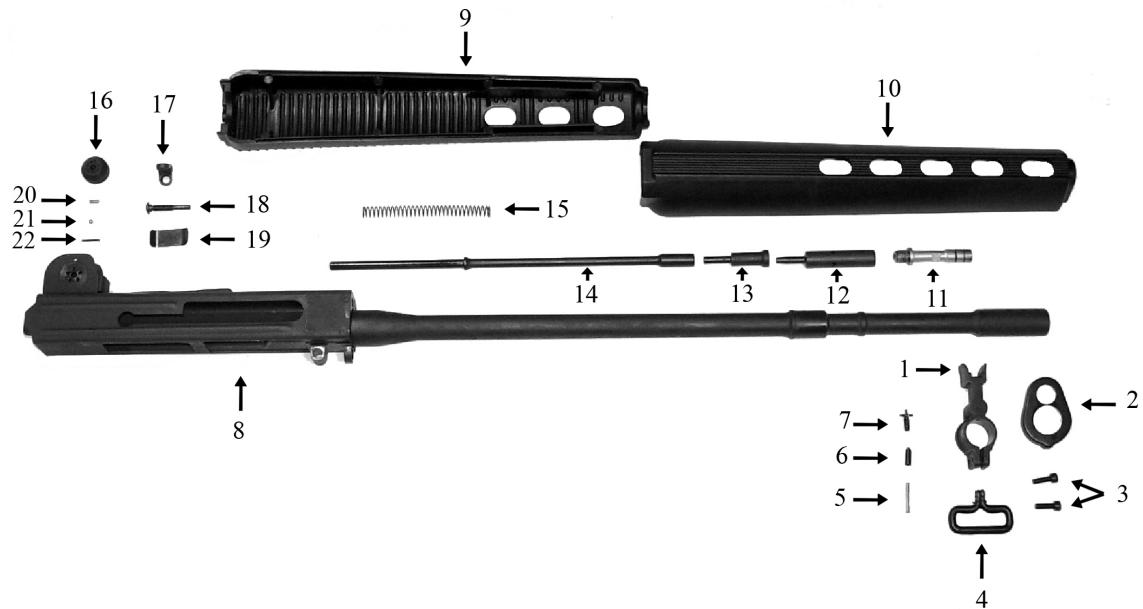


**WARNING: YOUR ARMALITE® FIREARM WAS DESIGNED TO FUNCTION PROPERLY WITH ITS ORIGINAL COMPONENTS. ALTERATIONS TO ITS ORIGINAL COMPONENTS OR REPLACEMENT OF THEM WITH AFTERMARKET (NON-ARMALITE®) COMPONENTS CAN CAUSE MALFUNCTIONS OR EVEN MAKE THE FIREARM UNSAFE. DO NOT ALTER ANY PART OR ADD / SUBSTITUTE PARTS NOT MANUFACTURED BY ARMALITE® INC.**

## 6. EXPLODED PHOTOS AND PARTS LISTS

The photos and associated parts lists in this section will give you visual references to parts discussed in the text. In the text, you will note part numbers in parentheses behind some part names. Those part numbers are the same as part numbers shown in the exploded photos and part lists. For example, a part numbered “U-7” in the text would refer to the part numbered “7” in the Upper Receiver Group exploded photo and in its associated parts list.

### AR-180B UPPER RECEIVER GROUP



## AR-180B UPPER RECEIVER GROUP PARTS

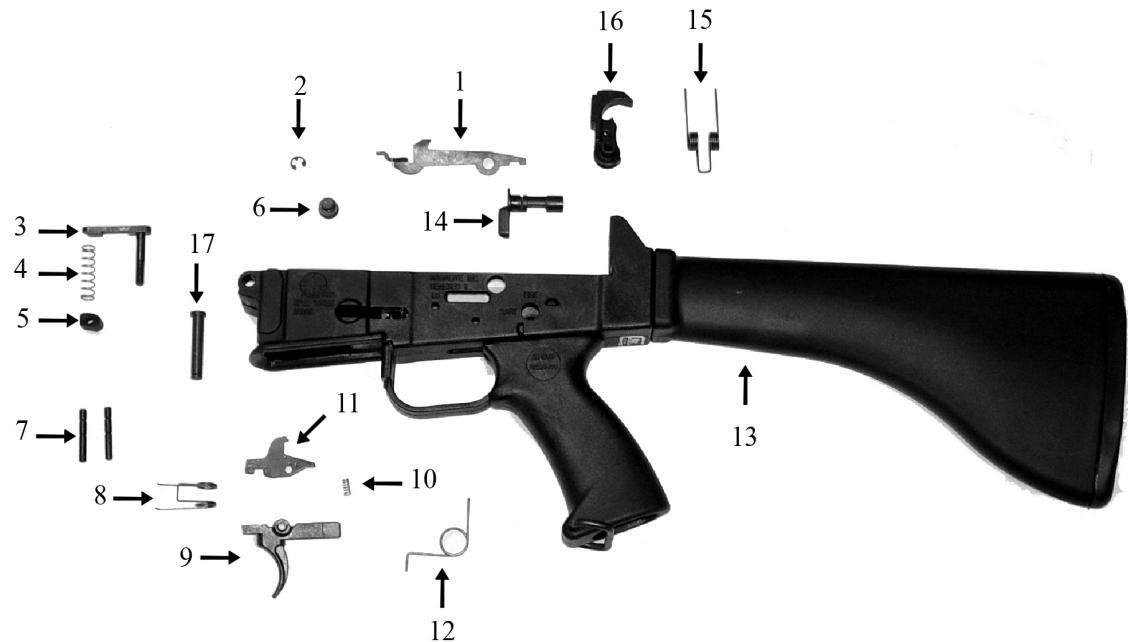
Fig. No.	Description	Mfg. Stock No.	No. In Rifle
1.	Front Sight Base	18820000	1
2.	Handguard Cap	18180000	1
3.	Front Sight Screw	18820010	2
4.	Front Sling Swivel	EU0190	1
5.	Front Sight Detent Spring	EU0230	1
6.	Front Sight Detent	EU0231	1
7.	Front Sight Post	EA1184	1
8.	Upper Receiver Assy w/Bbl	18007035	1
9.	Lower Hand Guard	18722000P	1
10.	Upper Hand Guard	18721000P	1
11.	Piston*	2640KIT	1
12.	Operating Rod Cylinder*	2640KIT	1
13.	Operating Rod Link	2639	1
14.	Operating Rod	2641	1
15.	Operating Rod Spring	2678	1
16.	Windage Knob	ENM015	1
17.	Rear Sight Aperture	E20075	1
18.	Windage Screw	E20060	1
19.	Rear Sight Spring	18818000	1
20.	Helical Spring	E20040	1
21.	Ball Bearing	E20050	1
22.	Windage Knob Pin	E20020	1
23.	Sling Swivel Rivet**	EU0185	1
24.	Flash Suppressor**	2775	1
25.	Bayonet Lug**	18806255	1
26.	Nut, Compensator**	2846	1

NOTES:

\* Sold as a set only.

\*\* Not shown in photo.

## AR-180B LOWER RECEIVER GROUP



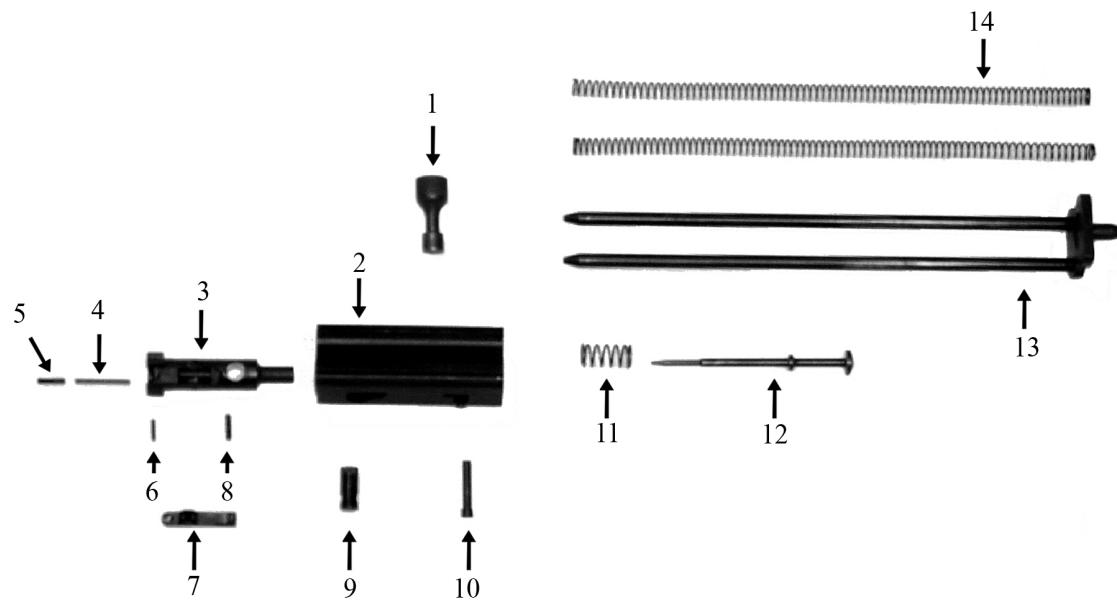
## AR-180B LOWER RECEIVER GROUP PARTS

Fig. No.	Description	Mfg. Stock No.	No. In Rifle
1.	Bolt Catch	18011000	1
2.	Bolt Catch & Pivot Pin Clip	18020002	2
3.	Mag Catch	EL0260	1
4.	Mag Catch Spring	EL0280	1
5.	Mag Catch Button	EL0270	1
6.	Bolt Catch Pin	18011001	1
7.	Hammer/Trigger Pin	18302001	2
8.	Trigger Spring	EL0360	1
9.	Trigger	EL0350	1
10.	Disconnect Spring	EL0340	1
11.	Disconnect	EL0330	1
12.	Bolt Catch/Safety Spring	183084001	1
13.	Lower Receiver/Buttstock Assy	18020100	1
14.	Safety	18308000	1
15.	Hammer Spring	EL0320	1
16.	Hammer	EL0310	1
17.	Pivot Pin	18020001	1
18.	Sling Swivel+	18732001	1
19.	Buttplate+	EL0099	1
20.	Trapdoor Assy+	EL0114	1
21.	Trapdoor Hinge+	EL0116	1
22.	Trapdoor Hinge Pin+	EL0105	1
23.	Buttstock Screw+	18737000	1

### NOTES:

+Part not shown in photo.

## AR-180B BOLT CARRIER AND OPERATING SPRING GROUPS



## AR-180B BOLT CARRIER AND OPERATING SPRING GROUP PARTS

Fig. No.	Description	Mfg. Stock No.	No. In Rifle
1.	Charging Handle	18412000	1
2.	Bolt Carrier	18014000	1
3.	Bolt Body***	2665	1
4.	Ejector Spring	EB0110	1
5.	Ejector	EB0100	1
6.	Ejector Pin	EB0090	1
7.	Extractor Assembly	EB0060/EB0070	1
8.	Extractor Pin	EB0050	1
9.	Bolt Cam Pin	2590	1
10.	Firing Pin Retaining Pin	2673	1
11.	Firing Pin Spring	2715	1
12.	Firing Pin	2671	1
13.	Guide Rod Assembly	18200000	1
14.	Guide Rod Springs	2679	2

### NOTES:

\*\*\*If the bolt body is replaced, headspace needs to be checked by a qualified gunsmith.

## 7. AMMUNITION

Nomenclature of cartridges can be confusing. It is vital that you understand cartridge nomenclature and only fire cartridges for which this firearm was designed. To assist you, the name of the appropriate cartridge will be etched on the receiver and/or barrel of each ArmaLite. (More information regarding cartridge nomenclature can be found in the Tech Notes on our website.)

Firing any of the ammunition described in the below warnings/cautions will void your warranty.



**WARNING: USE OF INCORRECT AMMUNITION CAN CAUSE FIREARM DAMAGE, PERSONAL INJURY, OR DEATH. MAKE ABSOLUTELY CERTAIN THAT YOU ARE USING CARTRIDGES DESIGNED FOR YOUR FIREARM. DO NOT FIRE OLD, CORRODED, DEFORMED, OR HANDLOADED AMMUNITION. IF YOU HAVE ANY QUESTIONS, CONTACT ARMALITE® BEFORE FIRING.**

Your AR-180B Rifle is chambered for 5.56 cartridges. It will fire all standardized U.S. military 5.56mm cartridges and all factory loaded cartridges in .223 Remington caliber. Do not attempt to fire any other cartridges in this firearm. The AR-180B will provide an optimum combination of accuracy and reliability with projectile weights between 50 and 69 grains.



**CAUTION: FIRING TRACER AND ARMOR PIERCING AMMUNITION REDUCES BARREL LIFE.**

**NOTE: Some types/brands of ammunition have unique characteristics (e.g. extremely light or heavy projectiles, particularly soft cartridge cases, propellant that burns unusually slowly or rapidly) that reduce its reliability in any semiautomatic firearm. ArmaLite® recommends that you purchase and test a small quantity of any type of ammo in your firearm before you buy large quantities.**

## **8. INITIAL ASSEMBLY, INSPECTION, AND CLEANING**

### **8.1 INITIAL ASSEMBLY**

Your AR-180B is shipped to you completely assembled.

### **8.2 INITIAL INSPECTION**



**WARNING: READ THIS MANUAL COMPLETELY AS YOU INSPECT YOUR NEW ARMALITE® FIREARM. MAKE CERTAIN THAT YOU UNDERSTAND HOW TO ASSEMBLE, OPERATE, DISASSEMBLE, MAINTAIN, AND STORE YOUR FIREARM SAFELY BEFORE YOU USE IT.**

**NOTE:** 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 adverse effect on function.

Any time you disassemble and reassemble a firearm, you should conduct a functional check of it as described in the REASSEMBLY section of this manual.

### **8.3 INITIAL CLEANING**

Merely clean the bore of your firearm and lubricate the firearm as described in the Maintenance section below. ArmaLite® firearms are made more tightly than other rifles of similar design. A break-in period of 200 rounds allows machined or phosphate-coated surfaces to smooth out the rifle's action. Lubricate the rifle well before firing.



**WARNING: TO ASSURE ITS PROTECTION FROM CORROSION, YOUR ARMALITE® FIREARM HAS BEEN SHIPPED WITH PRESERVATIVE OIL IN THE BORE. FIRING THE FIREARM WITH PRESERVATIVE IN THE BORE CAN INCREASE PRESSURES, WITH POSSIBLE FIREARM DAMAGE OR PERSONAL INJURY OR DEATH. CLEAN AND DRY THE BORE BEFORE FIRING YOUR ARMALITE® FIREARM.**

## **8.4 BREAKING IN BARRELS**

ArmaLite® has spoken with several barrel manufacturers. NONE of them recommend breaking in barrels using abrasives. For optimum accuracy and barrel life, ArmaLite® recommends the following break-in procedure:

1. Fire 9 single shots. After each shot, push a cotton patch wet with solvent through the bore. Then wet a bronze brush with solvent and stroke the barrel five to ten round trips. Follow with another wet patch and then a dry patch or two. (We do NOT recommend nylon or stainless steel brushes.) After you finish, wash the solvent off your brush so that the brush won't deteriorate.
2. From 10 to 30 shots, clean as above after each five shots. Initial break-in should now be complete.

For normal cleaning, it is suggested that you clean after each range session. It is often suggested that the barrel be brushed one stroke for each shot fired.

## 9. LOADING AND FIRING

**⚠️ WARNING: ALWAYS KEEP THE SAFETY IN THE “SAFE” POSITION UNTIL YOU ARE READY TO FIRE THE FIREARM. REMEMBER THAT THE SAFETY IS SIMPLY A MECHANICAL DEVICE, AND AS SUCH, COULD POSSIBLY FAIL. NEVER DEPEND ON ANY SAFETY TO JUSTIFY UNSAFE GUN HANDLING. ALWAYS KEEP THE CHAMBER EMPTY AND THE FIREARM POINTED IN A SAFE DIRECTION EVEN WHEN THE SAFETY IS ON.**

**⚠️ WARNING: INJURY, DEATH, OR FIREARM DAMAGE CAN RESULT FROM FIRING A FIREARM WITH AN OBSTRUCTION IN THE BORE. BEFORE YOU FIRE, MAKE SURE THAT THE BORE IS NOT OBSTRUCTED. NEVER ATTEMPT TO SHOOT OUT A BORE OBSTRUCTION.**

**⚠️ WARNING: ALWAYS WEAR EYE AND EAR PROTECTION. MAKE SURE THAT NEARBY BYSTANDERS ALSO WEAR EYE AND EAR PROTECTION.**

**⚠️ WARNING: HANDLING OF CARTRIDGES AND FIRING FIREARMS MAY EXPOSE YOU TO LEAD. ALWAYS ASSURE THAT THERE IS ADEQUATE VENTILATION. ALWAYS WASH YOUR HANDS AFTER HANDLING AMMUNITION OR FIRING YOUR FIREARM.**

**⚠️ WARNING: THIS FIREARM WILL FIRE WITHOUT A MAGAZINE IN IT. ALWAYS ASSURE THAT THE CHAMBER IS EMPTY. THE FIREARM SHOULD NOT BE CONSIDERED TO BE SAFE UNLESS THE MAGAZINE IS REMOVED, THE SAFETY IS ON, AND THE BOLT / SLIDE IS OPEN, AND THE CHAMBER IS EMPTY.**

**⚠️ WARNING: GRIPPING THE FIREARM LOOSELY WHEN FIRING CAN CAUSE THE SHOOTER TO FIRE TWO SHOTS (THE SECOND AS THE TRIGGER STRIKES THE SHOOTER’S TRIGGER FINGER DURING COUNTER-RECOIL.) THIS IS A SHOOTER ERROR, NOT A FIREARM MALFUNCTION.**

**⚠️ WARNING: THE FIRED CARTRIDGE CASE IS HOT WHEN IT IS EJECTED FROM THE FIREARM. DO NOT ALLOW IT TO BURN YOU OR TO DISTRACT YOU FROM SAFE HANDLING OF THE FIREARM.**



**WARNING: IF THE FIREARM FAILS TO FIRE WHEN THE TRIGGER IS PULLED:**

- 1. KEEP THE FIREARM POINTED AT THE TARGET!!!**
- 2. WAIT 15 SECONDS TO ALLOW A POSSIBLE “HANGFIRE” TO GO OFF. THEN,**
- 3. CHECK TO SEE IF THE SAFETY IS ENGAGED BY MISTAKE. IF SO, PUSH THE SAFETY TO THE “FIRE” POSITION AND FIRE.**
- 4. IF THE FIREARM STILL DOESN’T FIRE, BE CAUTIOUS AND ASSUME THAT THE CARTRIDGE WILL DISCHARGE WHEN THE BOLT/SLIDE IS OPENED.**
- 5. OPEN THE BOLT/SLIDE QUICKLY AND UNLOAD THE FIREARM.**
- 6. EXAMINE THE FIREARM AND CARTRIDGE CAREFULLY TO IDENTIFY THE CAUSE OF THE MALFUNCTION.**

## **9.1 LOADING THE MAGAZINE**

The magazine follower has a raised portion generally resembling the outline of a cartridge. Cartridges are loaded into the magazine so that the tips of the bullets point in the same direction as the raised portion of the follower.

Set the cartridge on the follower, between the feed lips, pointing the same direction as the “bullet” on the follower, and press it straight down until it’s held by the lips of the magazine.



**CAUTION: CURRENTLY ARMALITE® SELLS MAGAZINES FOR THE AR-180 THAT ARE DESIGNED FOR CAPACITIES OF 10 OR 30 ROUNDS. DUE TO VARIATIONS IN DIAMETERS OF VARIOUS BRANDS OF CARTRIDGES, IT MAY BE POSSIBLE TO FORCE AN ADDITIONAL CARTRIDGE INTO A MAGAZINE. DOING SO WILL DAMAGE YOUR MAGAZINE AND LEAD TO ELEVATED MALFUNCTION RATES.**

## 9.2 CHAMBERING AND FIRING A ROUND



**CAUTION: TAKE IT EASY WITH YOUR MAGAZINES. KEEP THEM CLEAN, DRY, AND DON'T POUND THEM INTO THE FIREARM. IT LOOKS GREAT IN THE MOVIES, BUT CAN DAMAGE THEM. INSERT THE MAGAZINE FULLY INTO THE FIREARM. THEN TUG DOWNWARD ON IT TO ASSURE THAT IT'S SECURELY LOCKED INTO THE FIREARM.**

1. Set the safety (L-14) to "SAFE"
2. Hold the handguards (U-9 & U-10) of the rifle with one hand, pointing the muzzle in a safe direction. With the other hand, insert a loaded magazine into the magazine well.  
**NOTE:** The magazine may be inserted with the bolt carrier assembly open or closed.
3. Push upward until the magazine catch (L-3) engages and holds the magazine. Pull downward on the magazine slightly to make sure that the magazine catch holds.
4. If the bolt is open, grasp the charging handle (B-1) with the right hand. Pull it to the rear thus disengaging the bolt catch. Then release the charging handle. A round will be stripped from the magazine and loaded into the chamber.



If the bolt is closed when the magazine is inserted, pull the charging handle (B-1) fully to the rear and release it.



**CAUTION: DO NOT "RIDE" THE CHARGING HANDLE FORWARD. IF THE CHARGING HANDLE IS EASED FORWARD FROM THE OPEN POSITION, THE BOLT MAY FAIL TO ROTATE AND FULLY LOCK, AND THEN THE RIFLE CANNOT FIRE. IF THE BOLT FAILS TO GO ALL THE WAY FORWARD, PUSH FORWARD ON THE CHARGING HANDLE.**

The rifle is now loaded and ready to fire.

5. Set the safety (L-14) to "FIRE." Aim through the sights at the target and draw the trigger smoothly to the rear.

**NOTE:** The AR-180B is designed to use M-16 magazines. Variations in both magazines and rifles may cause the bolt carrier to rub on the magazines feed lips. If the contact causes sluggish operation, remove a small amount of metal from the rubbed (shiny) area of the feed lips.



**CAUTION: DO NOT REST THE RIFLE ON ITS MAGAZINE WHEN YOU ARE LOADING OR FIRING IT. DOING SO CAN FORCE THE MAGAZINE UP INTO THE RIFLE, REDUCING THE RELIABILITY OF FEEDING CARTRIDGES.**



**WARNING: RAPID FIRING OF THE FIREARM MAY CAUSE COMPONENTS TO BECOME HOT ENOUGH TO CAUSE INJURY. EXTENDED SESSIONS OF VERY RAPID FIRING MAY CAUSE A CARTRIDGE LEFT IN THE CHAMBER TO "COOKOFF", FIRING ITSELF WITHOUT YOU PULLING THE TRIGGER. ALWAYS UNLOAD THE FIREARM IMMEDIATELY AFTER YOU FINISH FIRING.**

**To prevent cookoffs and maximize barrel life, the rate of fire of the firearm should not exceed the following:**

**2 minutes---40 rounds per minute**

**10 minutes---30 rounds per minute**

**20 minutes---20 rounds per minute**

**30 minutes or more---13 rounds per minute**

## 10. CLEARING / UNLOADING THE FIREARM

**⚠️ WARNING: ALWAYS ASSUME ALL FIREARMS ARE LOADED. ANYTIME YOU HANDLE A FIREARM, YOU SHOULD IMMEDIATELY INSPECT IT TO ASSURE THAT IT IS COMPLETELY UNLOADED.**

**⚠️ WARNING: IF YOU KNOW NOTHING ELSE ABOUT YOUR ARMALITE® FIREARM, YOU MUST KNOW HOW TO UNLOAD IT AND CLEAR IT TO MAKE IT SAFE.**

1. Place the safety (L-14) on “SAFE”.

**NOTE:** If the firearm is not cocked, the safety cannot be set on “SAFE”.



2. Remove the magazine by pressing the magazine catch button (L-5) and pulling the magazine down out of the receiver.



**⚠️ CAUTION: THE MAGAZINE MAY FALL FREE WHEN THE MAGAZINE CATCH IS PRESSED. DON'T ALLOW THE MAGAZINE TO FALL ONTO A HARD SURFACE. DOING SO MAY DAMAGE THE MAGAZINE.**

3. Extract the cartridge (if any) from the chamber. To extract a cartridge pull the bolt fully to the rear. If there is a cartridge in the chamber, it should be extracted and ejected from the firearm.

4. To lock the bolt open, pull the charging handle rearward, reach into the rear of the magazine well, and press the tab of the bolt catch (L-1) upward with a finger. Then ease the bolt forward until the bolt catch stops it.



5. Look into the chamber to assure that it does not contain a cartridge.



**WARNING: NEVER ASSUME THAT THE CHAMBER IS EMPTY UNTIL YOU HAVE VISUALLY EXAMINED IT AND SEE THAT IT IS EMPTY.**

6. Empty all remaining cartridges out of your magazines.



**WARNING: THE STEPS IN UNLOADING YOUR FIREARM MUST BE FOLLOWED IN THE EXACT ORDER GIVEN. THE MAGAZINE MUST BE REMOVED BEFORE THE CHAMBER IS INSPECTED. IF YOU CLEAR THE CHAMBER BEFORE REMOVING THE MAGAZINE, YOU MIGHT ACCIDENTLY REMOVE ONE CARTRIDGE FROM THE CHAMBER AND THEN, UPON CLOSING THE BOLT, CHAMBER ANOTHER CARTRIDGE FROM THE MAGAZINE. THE FIREARM WILL STILL BE LOADED. REMEMBER THAT A CARTRIDGE IN THE CHAMBER CAN STILL BE FIRED EVEN AFTER THE MAGAZINE IS REMOVED.**

## 11. ZEROING THE SIGHTS



**WARNING: ALWAYS ASSUME ALL FIREARMS ARE LOADED. ANYTIME YOU HANDLE A FIREARM, YOU SHOULD IMMEDIATELY INSPECT IT TO ASSURE THAT IT IS COMPLETELY UNLOADED.**

### 11.1 WINDAGE

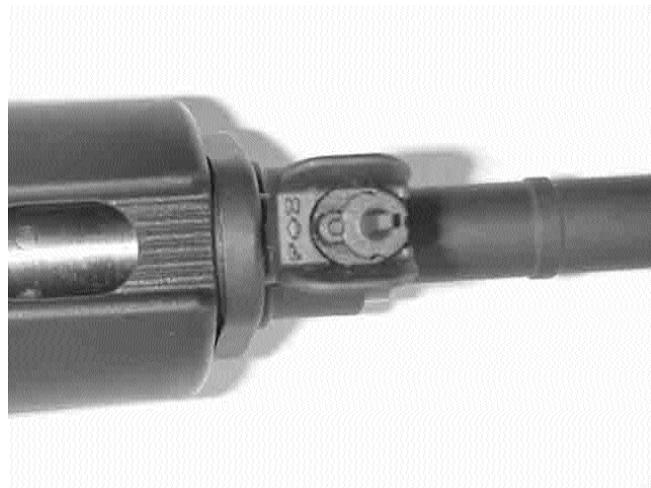
In sight adjustment, windage adjustment is made by rotating the rear sight windage knob (U-16). Rotation of one click in the direction of the arrow will change the point of impact of the bullet  $1/2"$  to the right at 100 yards. Reversing the rotation will cause the bullet to strike to the left the same amount.

Set the rear sight to the 0-250 setting to shoot at distances up to 250 yards. For distances beyond 250 yards, move the rear sight to the long range position.



### 11.2 ELEVATION

Adjust the front sight by depressing the detent (U-6) with a solid bullet point or punch and rotate the sight post. Rotating the post clockwise will raise the point of impact; reversing the direction will lower the point of impact. Each notch will change the point of impact approximately  $1 \frac{1}{4}"$  at 100 yards,  $2 \frac{1}{2}"$  at 200 yards,  $3 \frac{3}{4}"$  at 300 yards, etc



### 11.3 ADJUSTING THE FRONT SIGHT BASE:

Normal manufacturing tolerances can result in the rear sight being off-center when the rifle is zeroed. ArmaLite's exclusive screw-clamping front sight bases allow the owner to zero the front sight for windage with the rear sight perfectly centered.



To zero the front sight, put the rear sight aperture (U-17) 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.



**WARNING: TAPPING THE SIGHT BASE TOO HARD WHEN IT IS TIGHT CAN UNSCREW THE BARREL FROM THE BARREL EXTENSION.**

Tighten the base and fire another shot group, and try again if needed.

If the sight is too tight to shift easily, you can spread the bottom of the sight base to make adjusting it easier. Remove one or both of the screws (U-3), 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. Remove the tool and replace and tighten the screws before firing again.

## 12. DISASSEMBLY

**⚠️ WARNING: ALWAYS UNLOAD YOUR FIREARM BEFORE CLEANING, LUBRICATION, DISASSEMBLY, OR REASSEMBLY.**

**⚠️ WARNING: ALWAYS WEAR SAFETY GLASSES WHEN DISASSEMBLING, MAINTAINING, OR ASSEMBLING YOUR FIREARM. IN PARTICULAR, THE OPERATING SPRING IS UNDER HIGH COMPRESSION. IF IT SLIPS FROM YOUR GRASP, IT COULD CAUSE INJURY.**

**⚠️ WARNING: USE CARE OPENING THE ACTION: SWING THE UPPER RECEIVER AND BARREL GROUP DOWN TO DISASSEMBLE AND CLEAN THE RIFLE. KEEP YOUR FINGERS AWAY FROM THE FRONT OF THE RECEIVER WHEN LOWERING THE BARREL TO PREVENT PINCHING IT BETWEEN THE RECEIVER AND HANDGUARD.**

**⚠️ CAUTION: DO NOT ALLOW THE RIFLE TO DROP OPEN. THE PIVOT PIN AREA MIGHT BE DAMAGED. IF THE HANDGUARD STRIKES THE RECEIVER WITH TOO MUCH FORCE, THE PIVOT PIN MAY BE PULLED THROUGH THE FRONT OF THE RECEIVER. THIS IS NOT A FAILURE OF THE MATERIALS; IT IS A FACT OF LIFE OF THE GEOMETRY OF THE PARTS. BREAKOUT OF THE FRONT OF THE RECEIVER IS NOT COVERED BY WARRANTY.**

### 12.1 OPEN THE ACTION

1. Push a cleaning rod or cartridge tip into the dismount notch at the top of the lower receiver and push the guide rod assembly (B-13) forward approximately  $\frac{1}{2}$  inch. This will allow the guide rod assembly to clear the rear of the receiver and the rifle will swing open.



2. Release pressure gradually on the guide rod assembly to prevent the recoil springs (B-14) from propelling the guide rod assembly out of the receiver.



3. Pull the charging handle (B-1) to the rear, into alignment with the enlarged rear section of the charging handle track in the receiver. Remove the charging handle. The guide rod assembly, guide rod springs and bolt carrier assembly may then be allowed to slide out of the upper receiver. It shouldn't be necessary to separate the upper and lower receivers during normal cleaning.



4. Remove the bolt carrier assembly, guide rods, and guide rod springs.



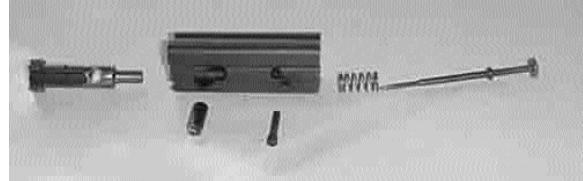
## 12.2 BOLT CARRIER GROUP

1. Press the firing pin (B-12) forward to allow the firing pin retaining pin (B-10) to be pushed out of the bolt carrier (B-2).

Remove the firing pin.

Remove the bolt cam pin (B-9).

Pull the bolt (B-3) forward to remove it from the bolt carrier.



6. Remove the extractor (B-7) by pushing out the extractor pin (B-8). Do not remove the spring assembly, its insert, or the O-ring from the extractor.



### **12.3 UPPER RECEIVER:**



1. Remove the upper hand guard (U-9) by lifting it up at the rear and pulling to the rear.
2. Pull the operating rod (U-14) to the rear, clearing the operating rod link(U-13).
3. Pull the operating rod link off the operating rod cylinder (U-12), allowing the operating rod and operating rod spring (U-15) to be eased forward out of the receiver.
4. Remove the cylinder to clean the piston (U-11).

**NOTE:** The lower handguard (U-10) need not be removed for cleaning under normal conditions. If it should ever be necessary, the front sight base screws can be loosened to ease the front sight base forward, releasing the lower handguard. Special care will be needed to return the front sight base exactly to its original position. This is essential both for maintaining zero and for maintaining proper alignment with the gas port in the barrel.

**NO FURTHER DISASSEMBLY OF THE FIREARM IS REQUIRED.**

## 13. MAINTENANCE

 **WARNING: ALWAYS UNLOAD YOUR FIREARM BEFORE CLEANING LUBRICATION, DISASSEMBLY, OR REASSEMBLY.**

 **WARNING: DO NOT APPLY LUBRICANT OR PRESERVATIVE TO YOUR AMMUNITION. DOING SO MAY CAUSE THE CARTRIDGE TO PARTIALLY MALFUNCTION, LEAVING THE BULLET LODGED IN THE BORE, CREATING A BORE OBSTRUCTION.**

 **WARNING: LEAD MAY BE PRESENT IN THE FOULING OF A DIRTY FIREARM. AVOID CONTACT WITH IT, AND CLEAN HANDS AFTERWARD TO AVOID INGESTING LEAD.**

 **CAUTION: NEVER MIX TWO OR MORE BORE CLEANING SOLVENTS. SOME COMBINATIONS OF SOLVENTS PRODUCE ACIDS THAT MAY DAMAGE THE FIREARM.**

### 13.1 CLEANING LUBRICANTS AND LUBRICATION

The military services generally use a multipurpose chemical called CLP (cleaner, lubricant, and preservative sold commercially as “Break Free”. Although it is useful if nothing else is available, armament engineers prefer individual, specialized products. A combination of military RBC (rifle bore cleaner) and LSA (lubricant, semifluid, automatic firearms) is superior. High quality cleaning solvents like Hoppes No. 9 remove metal fouling from the bore excellently; and Teflon bearing lubricants, such as Bore Cote, are outstanding lubricants. For maximum reliability and service life, lubricate your rifle (especially the highly stressed bolt and bolt carrier assembly) generously with high quality firearms lubricants.

 **CAUTION: UNDER NO CONDITIONS SHOULD ANY LUBRICANT CONTAINING GRAPHITE BE USED WITH YOUR RIFLE.**

In addition to cleaning solvents and lubricants, the basic cleaning equipment you will need includes a cleaning rod, brass bore brush, chamber brush, toothbrush, patches, and the most important item: a lint-free cloth.

The rifle should be cleaned and lubricated at the end of each day's use, or when exposed to an excessive amount of dirt, grit or other foreign matter and/or water. For most reliable continued operation, all surfaces should be protected by a very light film of oil. Use small amounts of light oil for extremely low temperature.

## 13.2 UPPER RECEIVER GROUP

1. Attach a brass wire brush to a cleaning rod, dip in cleaning solvent and brush the bore thoroughly. Do not submerge barrel in cleaning solution. Brush the bore from chamber to muzzle, using straight through strokes. Push the brush through the bore until it extends clear of the muzzle. Continue until the bore is well covered with solvent. Remove the brush from the rod and dry the bore by pushing through clean, dry patches. Continue until patches come out clean and dry.



**CAUTION: DO NOT REVERSE THE DIRECTION OF THE BORE BRUSH WHILE IT'S IN THE BORE.**

2. Clean the locking lugs in the barrel extension, just to the rear of the chamber. Brush the lugs with a small brush.
3. After cleaning, lubricate the chamber with a lightly oiled patch to prevent corrosion and pitting. Even slight oxidation can prevent reliable extraction. Lightly oil the lugs in the barrel extension.
4. Remove the individual component parts of the operating rod assembly. Wipe clean with oil-soaked patches. Use the cleaning rod with the brush to clean the operating rod cylinder. Remove any excess oil.

## 13.3 LOWER RECEIVER GROUP

1. Use a swab and cleaning brush to wipe dirt and fouling from the inside and outside of the lower receiver.
2. Generously lubricate the takedown pin and the inside parts of the lower receiver group.

## 13.4 BOLT CARRIER GROUP

Clean powder residue and fouling from all components. Lubricate generously.

## 13.5 LONG TERM STORAGE

Clean your firearm well and apply a good quality preservative.

It is at least theoretically possible for some springs to take a set during prolonged storage. To preclude this possibility, ArmaLite offers the following recommendations regarding long term storage of your firearm.



**WARNING: FOLLOW ALL OF THE RULES OF SAFE GUN HANDLING ANYTIME YOU DRY FIRE YOUR FIREARM.**



**CAUTION: NEVER DRY FIRE YOUR FIREARM WITHOUT THE BOLT CARRIER ASSEMBLY INSTALLED. THE FIRING PIN STOPS THE FALL OF THE HAMMER. WITHOUT THE BOLT CARRIER ASSEMBLY INSTALLED, THE HAMMER CAN IMPACT ON THE LOWER RECEIVER, DAMAGING IT.**

Reasonable amounts of dry firing should not damage your firearm.

Clear all cartridges from your firearm. Remove the magazine. Then pull back the charging handle and visually confirm that the chamber is empty and that there is no cartridge held to the bolt face by the extractor. Then check it again. Then dry fire the firearm to allow the hammer to rotate to the fired position.

It is always best to store your magazines empty. However if you need to store them loaded, we recommend that you store them with 5 rounds less than their stated capacity.

When you're taking your firearm out of long term storage, remove the preservative and lubricate as stated elsewhere in this manual.

## 14. REASSEMBLY

### 14.1 REASSEMBLY

 **WARNING: ALWAYS UNLOAD YOUR FIREARM BEFORE CLEANING, LUBRICATION, DISASSEMBLY, OR REASSEMBLY.**

To reassemble your AR-180B, merely reverse the disassembly procedure.

 **CAUTION: UPON REASSEMBLY, BE SURE THAT THE BOLT IS EXTENDED FULLY FORWARD IN THE CARRIER. PAY PARTICULAR ATTENTION NOT TO BUMP THE BOLT AND MOVE IT TO THE REAR WHEN INSERTING THE BOLT ASSEMBLY INTO THE UPPER RECEIVER.**

 **CAUTION: THE HAMMER MUST BE IN THE COCKED POSITION TO CLOSE THE RIFLE.**

 **CAUTION: BE CAREFUL THAT SMALL PARTS ARE NOT LOST DURING DISASSEMBLY/ASSEMBLY; PARTICULARLY ASSURE THAT THE FIRING PIN SPRING IS INSTALLED. ASSEMBLY WITHOUT THIS SPRING COULD CAUSE INADVERTENT FIRING OF THE CARTRIDGE IF A PRIMER WAS OVERLY SENSITIVE DUE TO INERTIA IMPACT OF THE FIRING PIN UPON BOLT CLOSURE.**

## 14.2 FUNCTIONAL CHECK

1. Pull the charging handle (B-1) to the rear and release it.



2. Place the safety (L-14) on “SAFE”. Squeeze the trigger (L-9).  
The hammer (L-16) should NOT fall.



3. Place the safety (L-14) on “FIRE”. Squeeze the trigger (L-9) and hold it there.  
The hammer (L-16) should fall.  
Pull the charging handle (B-1) to the rear and release it.  
Then release the trigger. You should hear a click  
as you release the trigger. Squeeze again; the  
hammer should fall.

**CALL ARMALITE AT (309) 944-6939 IF YOUR RIFLE FAILS EITHER TEST.**

## 15. TROUBLESHOOTING

<b>PROBLEM</b>	<b>CHECK FOR</b>	<b>WHAT TO DO</b>
WON'T FIRE	Safety on "SAFE"	Put it on "FIRE".
	Improper assembly of firing pin	Assemble correctly. NOTE: the retaining pin goes in back of large shoulder of firing pin.
	Too much oil around firing pin	Clean with pipe cleaner.
	Defective ammunition	Remove and discard.
	Too much carbon on firing pin or firing pin recess	Clean.
	Bolt not fully locked.	Extract cartridge, clean area.
BOLT WON'T LOCK	Dirty bolt	Clean.
	Burred or broken bolt	Contact ArmaLite®.
	Ejector stuck	Contact ArmaLite®.
	Dirt, corrosion, or carbon buildup in barrel locking lugs	Clean lugs.
WON'T EXTRACT	Broken extractor spring	Replace.
	Inner spring or reinforcement ring missing from extractor spring	Replace.
	Dirty, corroded, or reloaded ammunition	Remove and discard.
	Carbon in chamber	Clean chamber.
	Frozen or worn extractor	Remove and clean.
	Restricted movement of bolt carrier assembly.	Remove, clean and lubricate.

## TROUBLESHOOTING (CONTINUED)

PROBLEM	CHECK FOR	WHAT TO DO
WON'T FEED	Dirty, corroded, or reloaded ammunition	Remove and discard.
	Dirty or defective magazine	Clean and lubricate or replace.
	Too many rounds in magazine	Remove excess rounds.
	Magazine not fully seated	Push magazine fully home.
	Short recoil	See below.
DOUBLE FEED	Defective magazine	Replace.
WON'T CHAMBER	Dirty corroded or defective ammunition.	Remove and discard.
	Ejector stuck	Clean and oil.
	Carbon in chamber	Clean.
SHORT RECOIL	Bolt rings worn or too loose.	Replace.
	Carbon or dirt in gas system.	Clean.
	Weak or reloaded ammunition	Replace with factory fresh ammunition.
	Dirty rifle	Clean.
	Improper lubrication	Lubricate generously.
BOLT FAILS TO LOCK OPEN AFTER LAST ROUND	Defective magazine	Replace.
	Dirty or corroded bolt catch	Clean or replace.
SAFETY BINDS	Needs oil	Lubricate.
	Dirt or sand under trigger.	Clean.

## **TROUBLESHOOTING (CONTINUED)**

<b>PROBLEM</b>	<b>CHECK FOR</b>	<b>WHAT TO DO</b>
<b>BOLT CARRIER “HUNG UP”</b>	Round jammed between bolt and charging handle and/or double feed	<ol style="list-style-type: none"><li>1. Remove magazine.</li><li>2. Push in on bottom of bolt catch.</li><li>3. Bang rifle butt on ground, bolt should shift to rear.</li><li>4. While bolt is held to rear, round should fall out through magazine well.</li></ol> <p>NOTE: If this procedure fails, use a cleaning rod to push bolt fully to the rear through the ejection port.</p>

## 16. WARRANTY, SERVICE, AND SUGGESTIONS

Specific warranty provisions for your ArmaLite® firearm are shown on the warranty card shipped with your new firearm. Be sure to complete your warranty card and return it to ArmaLite® immediately.

**THE WARRANTY WILL ONLY BE HONORED UPON COMPLETION OF THE WARRANTY FORM AND ITS RETURN TO ARMALITE® WITHIN 30 DAYS OF THE ORIGINAL CUSTOMER'S PURCHASE DATE ALONG WITH A COPY OF THE DATED SALES RECEIPT.**

If no warranty card and sales receipt are on file, all work will be billed at shop rates. Custom work will be billed at ArmaLite®'s shop rates, as will work on firearms submitted with no warranty problem existing. Shipping to and from ArmaLite® is the owner's responsibility, except that ARMALITE® will return the firearm to the customer shipping prepaid if the return was covered under warranty.

Returns for any reason will NOT be accepted without a Return Merchandise Authorization (RMA) number issued by ArmaLite. Please call 1-800-336-0184, Ext. 125 to receive your RMA number. After you receive your RMA number, print it on the outside of the box and include a short note in the box. The note should include the RMA number, your name, address, email, phone number, the model and serial number of the firearm you're returning, and a detailed explanation of the problems that you're having with the firearm. If you wish to put your note on our RMA form, you can print out our RMA form by clicking on the link in the Policies or Contact Us sections of our website.

Remove any accessories (scope, scope mount, sling, bipod, cleaning equipment, etc) that don't pertain to your problems before you send the firearm in. If you have any functional problem with the firearm, do send the magazines with it.

Firearms that you wish to return for warranty or out-of-warranty repair may be returned directly to ArmaLite.

Before seeking warranty service: use the troubleshooting guide in this Operator's Manual to attempt to solve the problem, perform all instructed maintenance, and assure that ammunition and magazines are correct and in good condition. **Shop rates plus the cost of return shipping will be applied if no covered defect is found.**

Include a note explaining, in as much detail as possible, the nature of the problem or service needed. The note should include the RMA number, your name, address, email, phone number, and the reason for return. If you wish to put your note on our RMA form, you can print out our RMA form found in the "Contact Us" and "Policies" sections of our website ([www.ArmaLite.com](http://www.ArmaLite.com)). Keep your shipping receipt and the serial number of the firearm for your records in case of loss in shipment.

**⚠️ WARNING: MAKE ABSOLUTELY SURE THAT THE FIREARM IS UNLOADED!!! BELIEVE IT OR NOT, WE SOMETIMES GET FIREARMS BACK THAT ARE LOADED!!!**

**⚠️ WARNING: NEVER SHIP LIVE AMMUNITION WITH ANY FIREARM THAT YOU ARE RETURNING TO ARMALITE® FOR SERVICE.**

**⚠️ WARNING: IT IS THE OWNER'S RESPONSIBILITY TO ASSURE THAT ANY PARTS THAT ARE PURCHASED FROM ARMALITE® ARE CORRECTLY FITTED AND INSTALLED. IMPROPER FITTING OR INSTALLATION MAY RESULT IN INJURY, DEATH, OR DAMAGE/MALFUNCTION OF THE FIREARM.**

A copy of the owner's manual for any ArmaLite® firearm is available free in the Library on ArmaLite®'s website or may be obtained free in hard copy by contacting ArmaLite®.

Additional technical information can be found in Technical Notes in the Library section of ArmaLite®'s website.

## **PATENTS & TRADEMARKS**

“ArmaLite®, “AR-10®”, and “SPR®”, are registered trademarks of ArmaLite, Inc.

“M-15™”, “AR-30™”, “AR-50™”, and other model variants are trademarks of ArmaLite, Inc.

The AR-10® Series Rifles and Carbines (including the SuperSASS™) are protected by U.S. Patents 5,638,626 and 5,911,173 and 6,044,748.

The M-15™ Series Rifles and Carbines are protected by U.S. Patents 5,911,173 and 6,044,748.

The AR-30™ and AR-50™ Series Rifles are protected by U.S. Patents 6,487,805 and 6,637,142.

The AR-23 Subcaliber Device for the Mk-19 Grenade Machine Gun is protected by U.S. Patents 5,983,772 and 6,202,533.

The Blank Firing Adapter for the Mk-19 Grenade Machine Gun is protected by U.S. Patent 5,438,907.

Other patents granted or assigned to ArmaLite include:

Weapons Operating System, U.S. Patent 6,591,535

Cartridge for a Firearm, U.S. Patents 6,367,389 and 6,959,647 and 6,976,431 and 7,458,332

Light Weight Weapon Operating System and Cartridge Feed, U.S. Patent 6,591,535

To answer any questions you may have about the firearm, or to offer suggestions for improvements, please contact us at:

**ArmaLite, Inc  
P.O. Box 299  
Geneseo, Illinois, 61254**

**Phone: 1-800-336-0184 or 309-944-6939**

**Fax: 309-944-6949**

**Email: [info@ArmaLite.com](mailto:info@ArmaLite.com)**

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