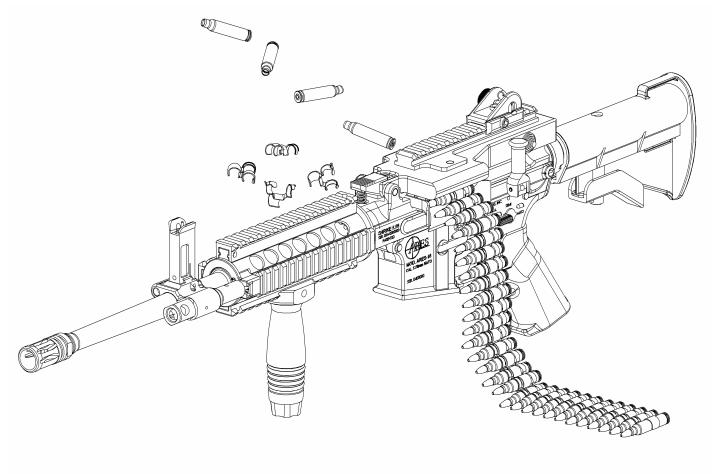
OPERATOR'S MANUAL FOR SHRIKE 5.56 - ADVANCED WEAPONS SYSTEMTM



READ THE INSTRUCTIONS AND WARNINGS IN THIS MANUAL CAREFULLY BEFORE USING THIS FIREARM

This operator's manual should always accompany this firearm and be transferred with it upon change of ownership, or when the firearm is loaned or presented to another person. Please note that certain physical features depicted in this manual may appear different than those present on your individual unit or model.



For Product Service Please Contact:
Ares Defense Systems, Inc.
P.O. Box 10667
Blacksburg, Virginia 24062 USA
Telephone: 540-639-8633

State-By-State Warnings

Certain states require by law that their own specified warning notices in larger-than-normal type be conspicuously included by the manufacturer, distributor, or retail dealer with firearms sold in that state. Ares Defense Systems, Inc. sells its products in compliance with applicable laws and regulations. Because our products may be sold in these states, we include the following:

California:

!WARNING!

"Children are attracted to and can operate firearms that can cause severe injuries or death. Prevent child access by always keeping guns locked away and unloaded when not in use. If you keep a loaded firearm where a child obtains and improperly uses it, you can be fined or sent to prison."

!ADVERTENCIA!

"A los ninos los atraen las armas de fuego y las pueden hacer funcionar. Ellos pueden causarses lesions graves y la muerte. Evite que los ninos tengan accesso a las armas de fuego guardandolas siempre con llave y descargadas cuando no las este utilizando. Si usted tiene un arma de fuego cargada en un lugar en que un nino tiene acceso a ella y la usa indebidamente, le pueden dar una multa o enviarlo a la carcel."

Connecticut:

"UNLAWFUL STORAGE OF A LOADED FIREARM MAY RESULT IN IMPRISONMENT OR FINE."

Florida

"IT IS UNLAWFUL, AND PUNISHABLE BY IMPRISONMENT AND FINE, FOR ANY ADULT TO STORE OR LEAVE A FIREARM IN ANY PLACE WITHIN THE REACH OR EASY ACCESS OF A MINOR UNDER 18 YEARS OF AGE OR TO KNOWINGLY SELL OR OTHERWISE TRANSFER OWNERSHIP OR POSSESSION OF A FIREARM TO A MINOR OR A PERSON OF UNSOUND MIND."

Maine

"ENDANGERING THE WELFARE OF A CHILD IS A CRIME. IF YOU LEAVE A FIREARM AND AMMUNITION WITHIN EASY ACCESS OF A CHILD, YOU MAY BE SUBJECT TO FINE, IMPRISONMENT OR BOTH. KEEP FIREARMS AND AMMUNITION SEPARATE. KEEP FIREARMS AND AMMUNITION LOCKED UP. USE TRIGGER LOCKS."

Maryland:

"WARNING: Children can operate firearms which may cause death or serious injury. It is a <u>crime</u> to store or leave a loaded firearm in any location where an individual knew or should have known that an unsupervised minor would gain access to the firearm. Store your firearms responsibly!"

Massachusetts:

"WARNING FROM THE MASSACHUSETTS ATTORNEY GENERAL: This handgun is not equipped with a device that fully blocks the use by unauthorized users. More than 200,000 firearms like this one are stolen from their owners every year in the United States. In addition, there are more than a thousand suicides each year by younger children and teenagers who get access to firearms. Hundreds more die from accidental discharge. It is likely that many more children sustain serious wounds, or inflict such wounds accidentally on others. In order to limit the chance of such misuse, it is imperative that you keep this weapon locked in a secure place and take other steps necessary to limit the possibility of theft or accident. Failure to take reasonable preventive steps may result in innocent lives being lost, and in some circumstances may result in your liability for these deaths."

"IT IS UNLAWFUL TO STORE OR KEEP A FIREARM, RIFLE, SHOTGUN, OR MACHINE GUN IN ANY PLACE UNLESS THAT WEAPON IS EQUIPPED WITH A TAMPER-RESISTANT SAFETY DEVICE OR IS STORED OR KEPT IN A SECURELY LOCKED CONTAINER."

New Jersey:

"IT IS A CRIMINAL OFFENSE TO LEAVE A LOADED FIREARM WITHIN EASY ACCESS OF A MINOR"

New York City:

"THE USE OF A LOCKING DEVICE OR SAFETY LOCK IS ONLY ONE ASPECT OF RESPONSIBLE WEAPONS STORAGE. ALL WEAPONS SHOULD BE STORED UNLOADED AND LOCKED IN A LOCATION THAT IS BOTH SEPARATE FOM THEIR AMMUNITION AND INACCESSIBLE TO CHILDREN AND ANY OTHER UNAUTHORIZED PERSONS."

North Carolina:

"IT IS UNLAWFUL TO STORE OR LEAVE A FIREARM THAT CAN BE DISCHARGED IN A MANNER THAT A REASONABLE PERSON SHOULD KNOW IS ACCESSIBLE TO A MINOR"

Texas:

"IT IS UNLAWFUL TO STORE, TRANSPORT, OR ABANDON AN UNSECURED FIREARM IN A PLACE WHERE CHILDREN ARE LIKELY TO BE AND CAN OBTAIN ACCESS TO THE FIREARM."

Please check with your licensed retailer or state police for additional warnings which may be required by local law or regulation. Such regulations change constantly, and local authorities are in the best position to advise you on such legal matters.

FIREARMS SAFETY IS YOUR RESPONSIBILITY SAFETY MUST BE THE FIRST AND CONSTANT CONSIDERATION OF EVERY PERSON WHO HANDLES FIREARMS AND AMMUNITION.

This Operator's Manual is designed to assist you in learning how to use and care for your Shrike 5.56-Advanced Weapons System properly. Please contact us if you have any questions about it.

Only when you are certain you fully understand the Operator's Manual and can properly carry out its instructions should you practice loading, unloading, etc. with live ammunition. If you have any doubts about your ability to handle or use a particular type of firearm safely, you should seek supervised instruction. Such personalized instruction is often available from gun dealers, gun clubs or police departments. If none of these sources can help you, write to the National Rifle Association, 11250 Waples Mill Road, Fairfax, VA 22030-7400. They will assist you.

The person possessing a firearm has a full-time job. You cannot guess; you cannot forget. You must know how to use your firearm safely. Do not use any firearm without having a complete understanding of its particular characteristics and safe use. Remember: There is no such thing as a foolproof gun.

NOTE

Ares Defense Systems, Inc. has no control over the use of your rifle, and shall not be responsible for injury, death, or damage to property resulting from either intentional or accidental discharge of this firearm, or for its function when used for purposes or subjected to treatment for which it was not intended. Ares Defense Systems, Inc. will not honor claims which 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. Ares Defense Systems, Inc. will not honor claims for any reason or cause when such claims are made by second or subsequent owners.

This firearm was carefully inspected and test-fired before shipment from our factory. We cannot, however, control the handling of these firearms after they leave our factory. For your own protection; please examine the gun carefully at the time of purchase. This device has been correctly designed, fitted and tested. Any mechanical device, however, can fail and no mechanism can prevent accidents caused by careless or thoughtless handling. Never permit the muzzle to point at anything which you do not wish to shoot. Always check to be sure that the gun is unloaded before handling. Be sure of your back-stop or direction of fire before shooting. The firearm in this box may be manufactured under one or more of the following patents: 6,634,274 / 6,681,677 / 6,722,255 and may have other patents pending.

Please contact Ares Defense Systems, Inc. directly at 540-639-8633 with any questions, or to return product for service.

CAUTION: READ THIS INSTRUCTION MANUAL COMPLETELY PRIOR TO LOADING AND FIRING YOUR FIREARM. THIS INSTRUCTION MANUAL SHOULD ALWAYS ACCOMPANY THIS FIREARM AND BE TRANSFERRED WITH IT UPON CHANGE OF OWNERSHIP, OR WHEN THE FIREARM IS LOANED OR PRESENTED TO ANOTHER PERSON

WARNINGS

WARNING: IF THIS FIREARM IS CARELESSLY OR IMPROPERLY HANDLED, UNINTENTIONAL DISCHARGE COULD RESULT AND COULD CAUSE INJURY, DEATH, OR DAMAGE TO PROPERTY

WARNING: IF THE BARREL IS VERY HOT FROM FIRING THERE IS A RISK OF COOK-OFF. (That is, a round in the chamber discharging by absorbing heat from the barrel). A cook-off can occur any time after chambering a round in a very hot barrel. When this condition is suspected the chamber must be cleared immediately after firing. (See page 15 for more information).

WARNING: DO NOT ATTEMPT TO FIRE IF WATER IS IN THE BARREL FROM FORDING, HEAVY RAIN, OR THICK FOG. Open the bolt and allow water to drain before firing. Clean a wet firearm as soon as possible.

WARNING: ALWAYS BE AWARE OF POSSIBLE RISK FROM DROPPING YOUR WEAPON. SOME PARTS OF THE MECHANISM COULD BE DAMAGED. You may not see the damage, but if it is severe, the firearm may discharge and cause injury, death or damage to property. If your weapon has been dropped, use manual to inspect for malfunction.

CAUTION: KEEP CLEAR AND KEEP OTHERS CLEAR OF THE EJECTION PORT. Spent cartridges are ejected with enough force to cause eye injury, and the ejection port must be unobstructed by your hand to insure safe ejection of live rounds. Never place fingers in ejection port; they could be burned by hot metal or injured by the bolt moving forward.

CAUTION: NEVER DRY FIRE YOUR WEAPON WHEN THE RECEIVERS ARE OPEN AND DO NOT ALTER PARTS AS THE LEVEL OF SAFETY COULD BE REDUCED.

CAUTION: READ WARNINGS INSIDE FRONT COVER AND FOLLOW PROCEDURES IN THIS MANUAL TO MINIMIZE RISK OF ACCIDENTS.

CAUTION: USE ONLY FACTORY-MADE AMMUNITION IN GOOD CONDITION AND OF THE CORRECT CALIBER FOR YOUR RIFLE.

SAFETY DEPENDS ON YOU

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SHRIKE 5.56 – ADVANCED WEAPONS SYSTEM

The Shrike 5.56 – Advanced Weapons SystemTM is a "drop-on" upper receiver assembly that fits all MIL-Spec AR-15/M16/M4 type lower receivers. Complete weapons assembled on Ares Defense ARES-15TM, ARES-16TM, Ares-15SPWTM, and ARES-16SPWTM lower receivers are also available. This is an Operator's Manual for the Shrike 5.56^{TM} only.

TECHNICAL SPECIFICATIONS

CALIBER	5.56X45MM NATO, .223 REMINGTON		
WEIGHT	7.5 LBS COMPLETE (3.4 KG)		
BARREL	16.25" QUICK CHANGE 12.75" – 20" SUPPRESSED BARREL ASSEMBLY	STANDARD OPTIONAL OPTIONAL	
RIFLING	1:9" TWIST RATE 1:7", 1:12" TWIST RATE	STANDARD OPTIONAL	
LENGTH	28 – 39.75"		
FEED DEVICES	4179 STANAG (M16) MAGAZINE OR M27 (M249 SAW) DISINTEGRATING LINKS OR 100 RD. BETA C MAGAZINE		
METHOD OF OPERATION	GAS PISTON, SHORT STROKE TAPPET		
FIRING CHARACTERISTICS			
CYCLIC RATE OF FIRE	650-900 ROUNDS PER MINUTE. (THEORETICAL NUMBER OF ROUNDS WHICH COULD BE FIRED FULL AUTO IN ONE MINUTE.)		
CLOSED BOLT RATE OF FIRE (STANDARD)	SEMIAUTOMATIC—45-65 ROUNDS PER MINUTE. (NUMBER OF ROUNDS WHICH COULD BE FIRED IN ONE MINUTE WITH SELECTOR ON "SEMI," DEPENDENT ON OPERATOR'S DEXTERITY.) AUTOMATIC—150-200 ROUNDS PER MINUTE. (NUMBER OF ROUNDS WHICH COULD BE FIRED IN ONE MINUTE WITH SELECTOR ON AUTO.)		
	MAXIMUM SUSTAINED—12-15 ROUNDS PER MINUTE. (RECOMMENDED NUMBER OF ROUNDS WHICH CAN BE FIRED EVERY MINUTE FOR EXTENDED PERIODS.)		
OPEN BOLT RATE OF FIRE (OPTIONAL)			

INSTALLING A SHRIKE 5.56 UPPER RECEIVER ASSEMBLY ON MIL-SPEC AR-15/M16/M4 TYPE LOWER RECEIVERS

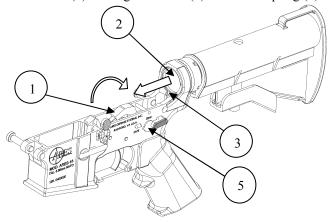
STOP! FOLLOW THE INSTRUCTIONS PROVIDED IN YOUR WEAPON'S ORIGINAL MANUAL BEFORE PROCEEDING WITH THE SHRIKE 5.56TM UPPER RECEIVER INSTALLATION. WHILE FOLLOWING THEIR GUIDELINES,

1) CLEAR YOUR WEAPON OF ALL AMMUNITION.

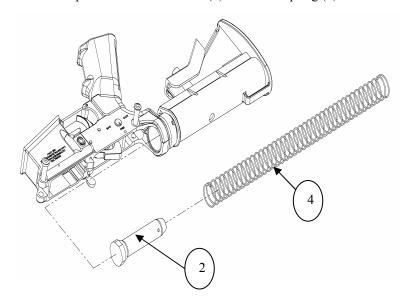
2) SEPARATE THE UPPER RECEIVER FROM THE LOWER RECEIVER AND SET THE UPPER RECEIVER ASIDE.

BUFFER AND BUFFER SPRING REPLACEMENT

- 1) Ensure that the hammer (1) is cocked and the selector(5) is on SAFE.
- 2) Depress the detent (3) holding the buffer (2) and buffer spring (4).



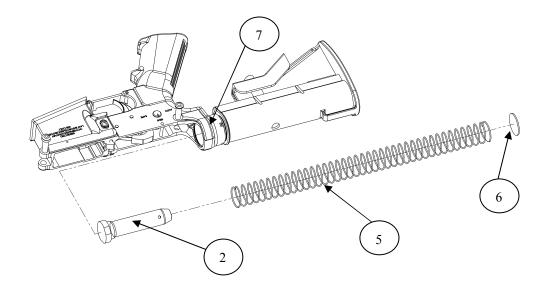
3) With the detent depressed allow the buffer (2) and buffer spring (4) to exit the butt-stock tube.



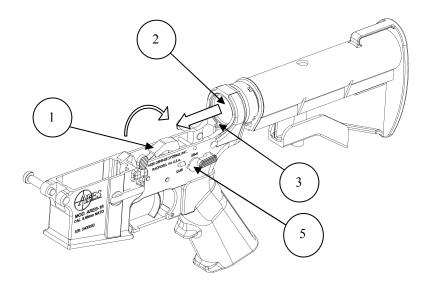
BUFFER AND BUFFER SPRING REPLACEMENT

Using the buffer spring and spacer supplied with the Shrike 5.56 upper receiver assembly and a standard heavy buffer reassemble the lower receiver.

- 1) Press the buffer spring (5) on the heavy buffer (2) until seated.
- 2) Place buffer spacer (6) into buttstock tube (7).



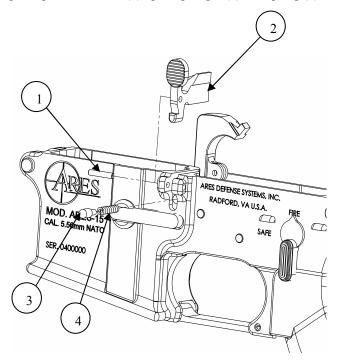
- 3) With the hammer (1) cocked , the selector (5) on SAFE and the detent (3) depressed place the buffer and buffer spring back into the buttstock tube.
- 4) When the buffer (2) passes the detent (3) then the detent will pop up not allowing the buffer and spring (5) to exit the butt-stock tube.



BOLT CATCH REPLACEMENT

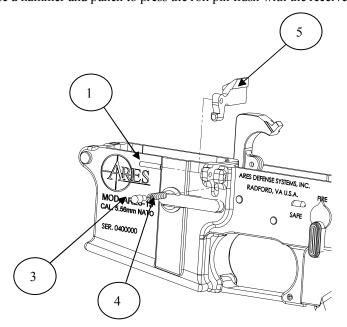
The standard AR-15/M16/M4 type of bolt catch will need to be replaced with the bolt catch supplied with the Shrike 5.56 upper receiver assembly to operate correctly.

- 1) Remove the roll pin (1) with a hammer and punch.
- 2) While pulling the bolt catch (2) up the plunger (3) and spring (4) will release.



Using the bolt catch (5) supplied with the Shrike 5.56 upper receiver assembly reassemble the lower receiver.

- 1) Place spring (4) and plunger (3) in their cylinder.
- 2) Align the bolt catch pivot with the roll pin (1)
- 3) Use a hammer and punch to press the roll pin flush with the receiver



CLEARING YOUR RIFLE

CAUTION

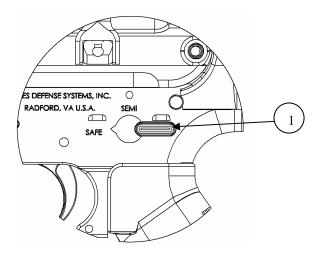
DO NOT REVERSE THE STEPS IN CLEARING YOUR RIFLE. IF YOU CLEAR THE CHAMBER BEFORE REMOVING THE MAGAZINE, YOU MAY REMOVE ONE CARTRIDGE THEN IMMEDIATELY CHAMBER ANOTHER!

Keep your rifle cleared when not in use.

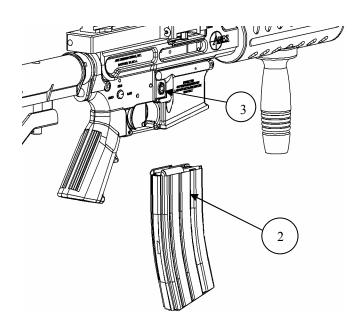
1. Place safety lever (1) on SAFE.

NOTE

If rifle is not cocked, the lever cannot be pointed toward SAFE.

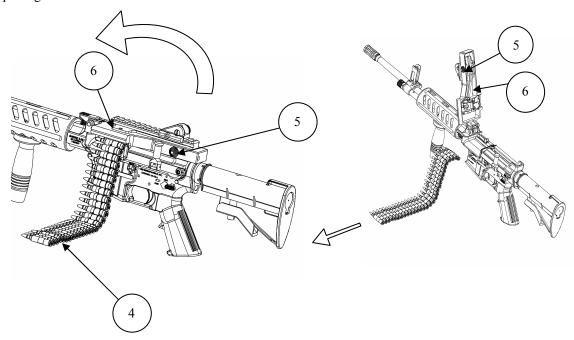


2. Remove the magazine (2) by depressing the magazine catch button (3) and pulling the magazine down.

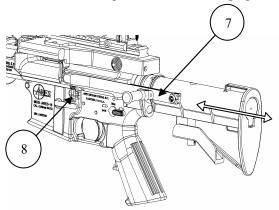


CLEARING YOUR RIFLE

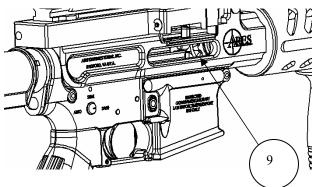
3. Remove the ammo-belt (4) by pushing the feed cover button forward (5), raising the feed cover (6) and pulling the belt to the left side of the rifle.



4. To lock the bolt open, pull the charging handle (7) rearward, press the bottom of the bolt catch (8), and allow the bolt to move forward until the bolt catch stops it. Return the charging handle forward.



5. Check the receiver and chamber (9) to ensure that these areas contain no ammunition.

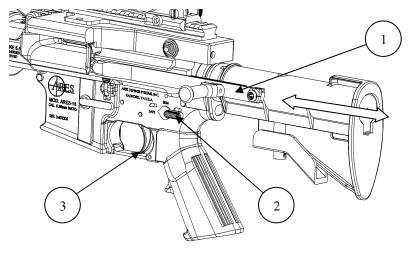


SAFETY CHECK

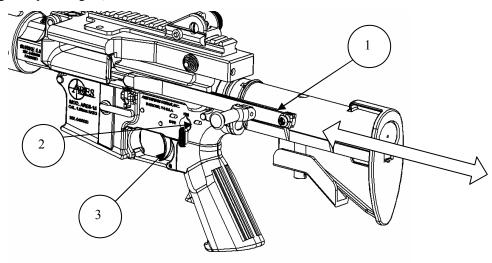
WARNING

TO AVOID ACCIDENTAL FIRING, BE SURE THAT THE MAGAZINE IS REMOVED AND THE CHAMBER IS CLEAR.

1. Pull the charging handle (1) to the rear and release it. Place the safety (2) on SAFE. Squeeze the trigger (3). The trigger should not fall.



2. Place the safety (2) on FIRE or SEMI. Squeeze the trigger (3); the hammer should fall. Hold the trigger to the rear. Pull the charging handle (1) to the rear and release it. Release the trigger. You should hear a click as you release the trigger. Squeeze again; the hammer should fall.

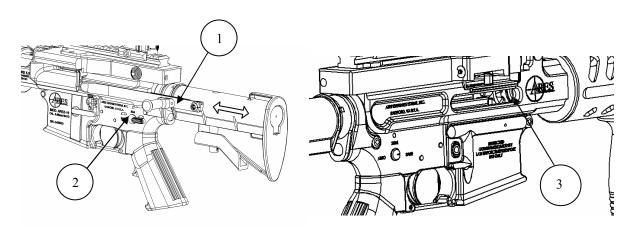


Contact Ares Defense Systems, Inc. 540-639-8633 if your rifle fails either test.

LOADING

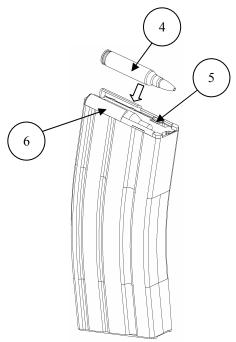
WARNING ALWAYS POINT MUZZLE IN A SAFE DIRECTION

1. Pull the charging handle (1) rearward, lock the bolt, and release the charging handle. Place the safety (2) on SAFE. Check to see that the chamber (3) is clear and the bore is not blocked.



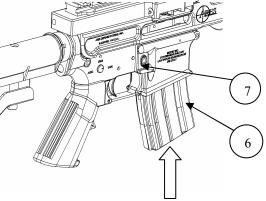
LOADING THE MAGAZINE

Set the cartridge (4) on the follower (5), between the magazine feed lips (6), and press it straight down. The patented spring loaded plunger in the follower engages the bolt catch and holds the bolt open when the last round is ejected. Insert the first round. To load the second round, press the plunger into its hole as you insert the round. Insert the remaining rounds as usual.



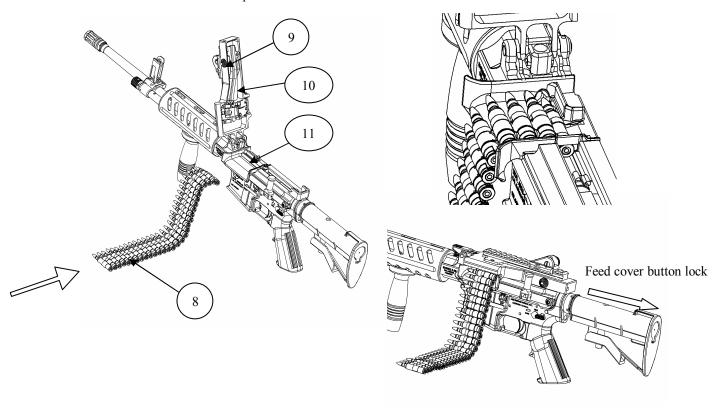
LOADING

2. Push upward on the magazine (6) until the magazine button (7) engages and holds the magazine. You can pull downward slightly on the magazine to make sure that it is seated correctly.



LOADING THE BELT

Open the feed cover by depressing the feed cover button (9) forward and raising the feed cover (10) to its open position. Take the inspected ammo-belt (8) and lay the first round with link into the feed tray (11). With the round rested in the feed tray close the feed cover. Be sure that the cover has closed completely and that the feed cover button has returned to its locked position.



CAUTION

USE ONLY FACTORY-MADE AMMUNITION IN GOOD CONDITION AND OF THE CORRECT CALIBER FOR YOUR RIFLE.

ADJUSTMENT OF GAS REGULATOR

WARNING!

PRIOR TO MAKING ADJUSTMENTS TO THE FIREARM, ENSURE THAT WEAPON IS UNLOADED AND CHAMBER IS CLEAR OF ALL AMMUNITION TO AVOID ACCIDENTAL DISCHARGE.

WARNING!

THE GAS REGULATOR WILL BECOME EXTREMELY HOT ONCE THE RIFLE HAS BEEN FIRED. DO NOT TOUCH THE BARREL, THE GAS CYLINDER, OR THE FRONT SIGHT WITH ANY PART OF YOUR BODY OR YOUR CLOTHING. FAILURE TO FOLLOW THIS INSTRUCTION COULD RESULT IN SERIOUS BURNS AND OTHER INJURIES.

WARNING!

MAKE SURE THE RIFLE IS POINTED IN A SAFE DIRECTION WHILE ADJUSTING THE GAS REGULATOR. DO NOT GET IN FRONT OF THE MUZZLE.

The Shrike 5.56TM Advanced Weapons System is equipped with a gas regulator so the operator can use the minimum amount of gas necessary to reliably cycle the action. Using more gas than is necessary to cycle the action will result in more harsh recoil and more wear on the receiver than is necessary. Typically, more gas may be necessary where the temperatures are cold, the ammunition is weak, or the firearm is dirty or brand new. Less gas may be necessary when the temperatures are hot, the ammunition is strong, the rifle clean, or the rifle has been previously fired.

The gas regulator (1) is located in front of the front sight on the gas block. Adjust the gas regulator by depressing the detent (2) and rotating the regulator while holding the rifle by the handguard with the other hand.

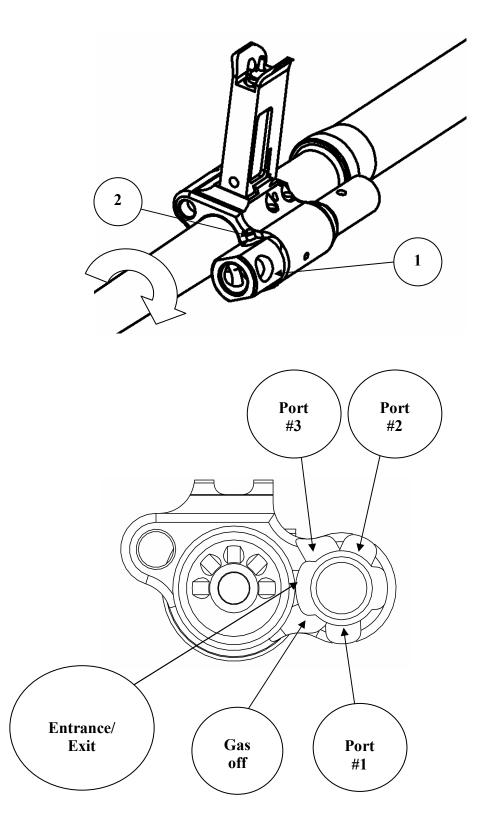
When the regulator is aligned with the gas off position, the gun will not cycle. The round will be fired and the brass will not be ejected. The regulator can be turned to one of the 3 positions for cycling, the first setting being the weakest pressure and the third setting being the strongest pressure. You should always operate the system with the lowest reliable setting.

A general rule in adjusting the gas system can be made by analyzing the brass ejection pattern. The brass will exit the right side of the rifle. The Brass should leave the ejection port perpendicular to the shooter. Turning the gas to a higher setting will allow the brass to be ejected forward more and detuning the gas system will result in the brass being ejected more rearward. You will always want to keep the brass ejecting either perfectly perpendicular or slightly forward. When shooting your rifle after it has been broken in you will want to fire a few rounds with different gas settings to see what can be reliably used in that environment.

NOTE

If the empty cartridge case is not ejected from the firearm, the empty cartridge may be forced back into the chamber. Because empty cases swell slightly, it may be difficult to retract the charging handle. Open the top cover and clear feed system of ammunition. Retract the charging handle to the rear with your hand. This should break the empty case free of the chamber so it can be ejected. Do not strike on the charging handle with hard objects to open the bolt.

ADJUSTMENT OF GAS REGULATOR

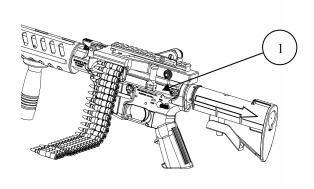


CHAMBERING AND FIRING A ROUND

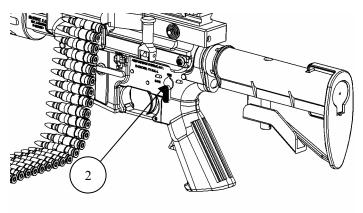
BOLT ASSEMBLY OPEN

The steps are the same for firing from a magazine or a belt.

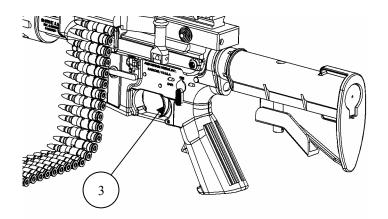
1. Pull the charging handle (1) rearward as far as it will go and completely release the handle. Do not allow your hand to ride the charging handle forward.



2. With the rifle pointed in a safe direction, move the safety (2) to FIRE or SEMI.



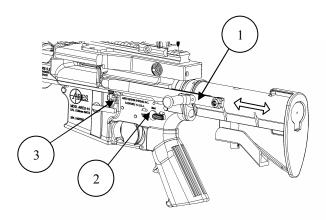
3. Squeeze the trigger (3) and fire.



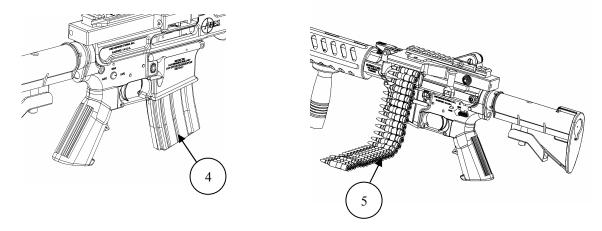
CHAMBERING AND FIRING A ROUND

BOLT ASSEMBLY CLOSED

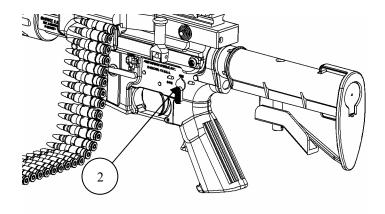
1. Pull the charging handle (1) rearward, press the bottom of the bolt catch (3), and allow the bolt to move forward until the bolt catch stops it. Return the charging handle forward. Place the safety (2) on SAFE.



2. Load magazine (4) or belt (5) in the correct manner.

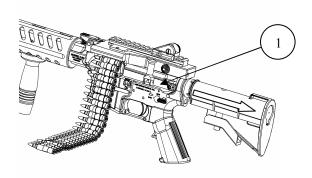


3. With the rifle pointed in a safe direction, move the safety (2) to FIRE or SEMI.

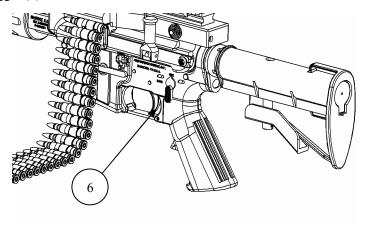


CHAMBERING AND FIRING A ROUND

4. Pull the charging handle (1) rearward as far as it will go and completely release the handle. Do not allow your hand to ride the charging handle forward.



5. Squeeze the trigger (6) and fire.



Gripping the rifle with a limp wrist can result in the shooter firing two shots (the second as the rifle recovers from recoil.) This is not a "doubling" malfunction. Keep the safety on SAFE until you are ready to shoot. Unload and clear your rifle before leaving the firing position.

CAUTION

DO NOT REVERSE THE STEPS IN CLEARING YOUR RIFLE. IF YOU CLEAR THE CHAMBER BEFORE REMOVING THE MAGAZINE, YOU MAY REMOVE ONE CARTRIDGE THEN IMMEDIATELY CHAMBER ANOTHER!

Break In

Your new rifle was manufactured to exacting tolerances. Because of this, the action is somewhat tight and stiff to begin with. Though your rifle was satisfactorily test fired at the factory, it was not broken in. Proper break in of the rifle requires firing approximately 100 to 200 rounds. Without first breaking in the rifle, it may not feed properly from fully loaded 30 round magazines or linked ammunition. It is suggested that you:

- 1) Set the gas regulator to use port number 3 (strongest pressure).
- 2) Load 10 rounds in each magazine while firing the first 100 rounds.

NOTE

DO NOT USE LINKED AMMUNITION DURING BREAK IN.

3) After the break in, use the (10) M27 disintegrating links included with your Shrike 5.56 and the ammunition recommended in your SHRIKE 5.56 operator's manual. To properly use linked ammunition arrange ammunition and links according to figure below.

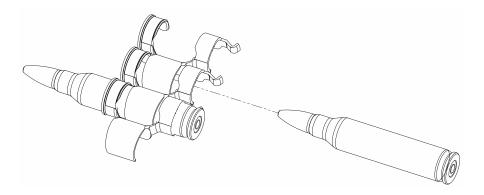


Figure 1.0) 5.56 ammunition and M27 disintegrating links

STOPPAGES AND IMMEDIATE ACTIONS

Stoppage – Any unintentional interruption of firing.

Immediate Action – An action taken as rapidly as possible to correct a stoppage without analyzing the cause. Immediate action is as follows.

- 1. Pull charging handle fully and sharply to the rear. Watch for ejection of a fired or unfired round.
- 2. If a cartridge or case is ejected, release the charging handle sharply to chamber a new round (do not "hang on" or "ride" the charging handle as it goes forward).

 Attempt to fire. If weapon fails to fire, clear the weapon. If a cartridge is not ejected, check to see if there

Attempt to fire. If weapon fails to fire, clear the weapon. If a cartridge is not ejected, check to see if there is a round in the chamber. If the chamber is clear, release the charging handle to feed a new round, and attempt to fire.

WARNING

A COOK-OFF CAN OCCUR ANY TIME AFTER CHAMBERING A ROUND IN A VERY HOT BARREL.

Although misfires and cook-offs are rarely encountered with properly maintained rifles, and clean ammunition, they are potentially dangerous, particularly if an unadvised firing schedule is being followed. It is important that proper corrective action be taken rapidly.

Misfire – *A misfire is a failure to fire when the hammer falls due to mechanism malfunction or faulty cartridge link combinations.* The cartridge should be ejected immediately.

Cook-off – A cook-off is accidental firing of a chambered round caused by the cartridge absorbing excess heat from a very hot barrel.

WARNING

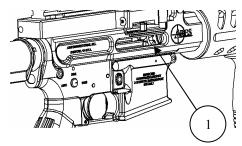
COOK-OFF COULD OCCUR DURING THIS COOLING PERIOD.

Immediate Action – To prevent damage or injury from cook-off when barrel is very hot complete the following actions immediately:

- 1. Clear your weapon
- 2. If round remains in chamber (1), release the charging handle.
- 3. Fire round if safe to do so.
- 4. If round does not fire, aim weapon in safe direction, with ejection port down and allow it to cool for 30 minutes.
- 5. Personnel should leave the immediate area while the weapon cools for 30 minutes

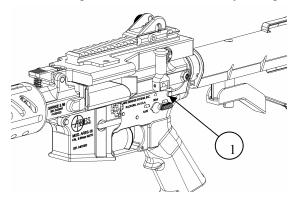
WARNING

IF A ROUND REMAINS IN THE CHAMBER AFTER ATTEMPTING TO FIRE IT NEVER INSERT A CLEANING ROD THROUGH THE SUPPRESSOR TO PUSH THE CARTRIDGE OUT. THIS CAN RESULT IN FATAL INJURY

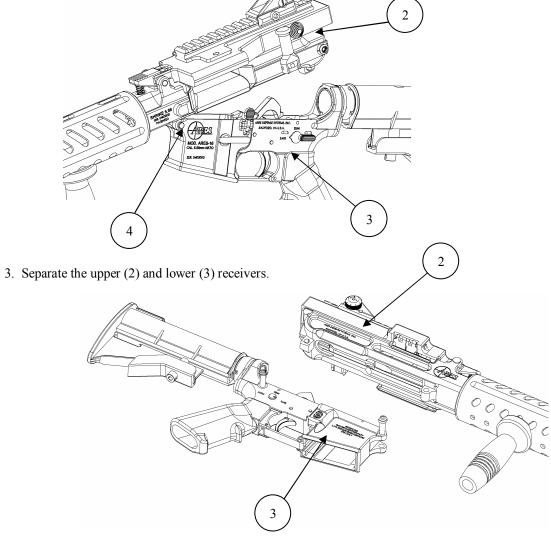


UPPER AND LOWER RECEIVERS

1. Push takedown pin (1) as far as it will go. Excess force can severely damage the receiver.



2. Pivot the upper receiver (2) from the lower receiver (3) and press the receiver pivot pin (4) as far as it will go.

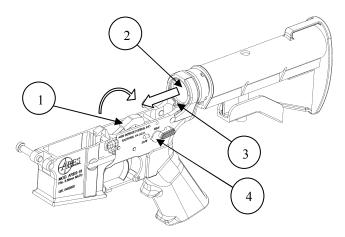


Ver 1.1

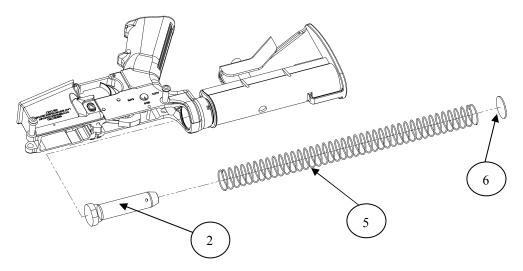
23

LOWER RECEIVER DISASSEMBLY

- 1) Ensure that the hammer (1) is cocked and the selector (4) is on SAFE.
- 2) Depress the detent (3) holding the buffer (2) and buffer spring (5).



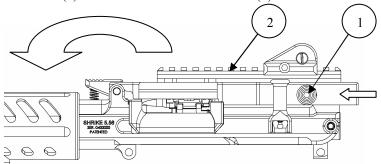
2. Remove the buffer (2), the buffer spring (5) and the spacer (6).



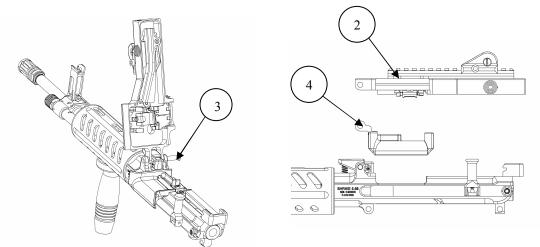
NO FURTHER DISASSEMBLY IS REQUIRED.

UPPER RECEIVER DISASSEMBLY

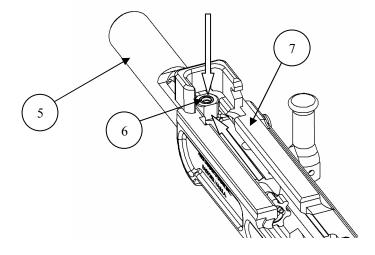
1. Push the feed cover button (1) forward and raise the feed cover (2).



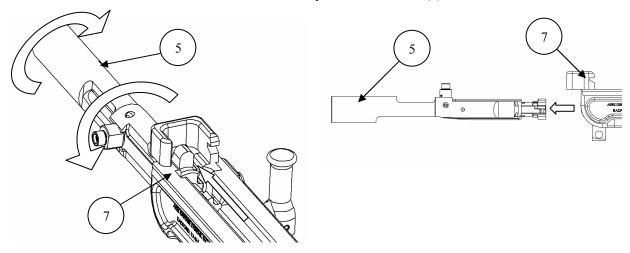
2. Depress the feed cover pivot pin (3) as far as it will go. Remove the feed cover (2) and the feed tray (4).



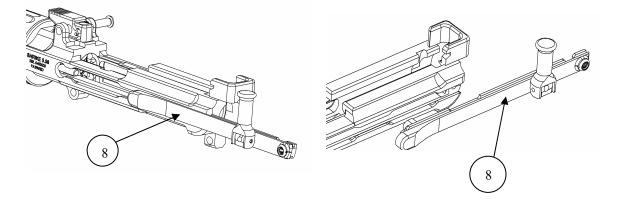
3. Push the bolt carrier assembly (5) to the rear of the receiver. Depress the feed lever stud (6) while pushing the bolt carrier to clear the upper receiver (7).



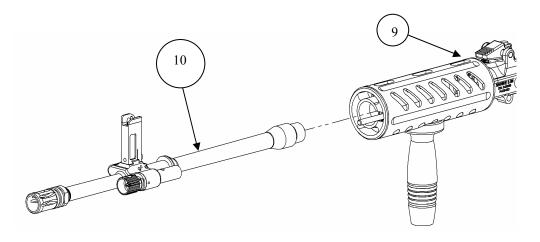
4. Pull the bolt carrier (5) until it stops. Rotate the carrier 90° clockwise and pull until it until it stops, then rotate the carrier 90° counter clockwise to slide the rest of the way out of the receiver (7).



5. Pull the charging handle assembly (8) rearward until it is physically able to lift out of its channel.

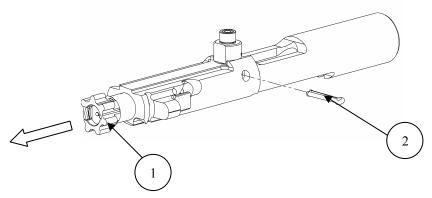


6. To remove the barrel, depress the quick release button (9) while pulling the barrel assembly (10) forward.

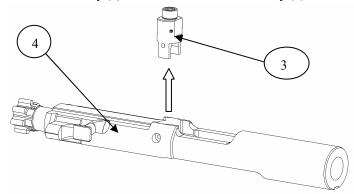


BOLT CARRIER DISASSEMBLY

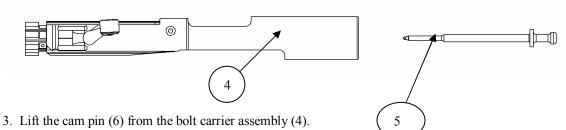
1. Move the bolt assembly (1) forward to the unlocked position and remove the firing pin retaining pin (2).

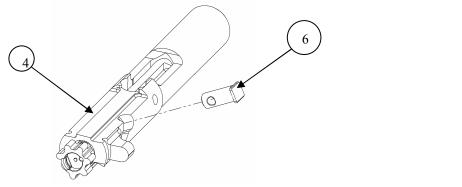


1. Remove the feed lever stud assembly (3) from the bolt carrier assembly (4).

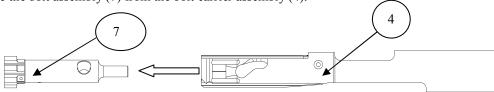


2. Remove the firing pin (5) from the rear of the bolt carrier assembly (4).





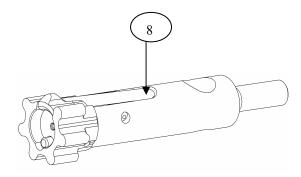
4. Remove the bolt assembly (7) from the bolt carrier assembly (4).



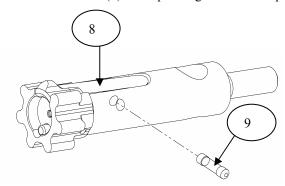
NOTE

Disassemble the extractor and spring assembly only when necessary due to dirt or damage.

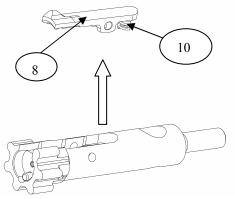
5. Press the rear of the extractor (8) to check that the spring works.



6. Press down on the middle of the extractor (8) while pressing the extractor pin (9) with a dummy round.



7. Remove the extractor (8) and spring assembly (10). Do not remove the spring assembly or its insert (if any) from the extractor.



BARREL DISASSEMBLY

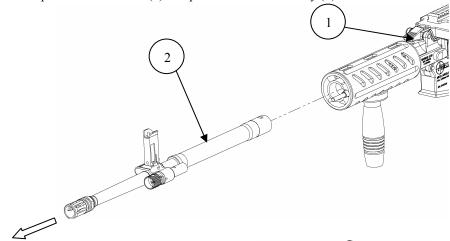
If your rifle is assembled and you would like to remove just the barrel assembly, follow these steps.

1. Clear the rifle

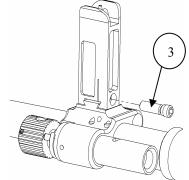
CAUTION

RIFLE IS CLEAR ONLY WHEN CHAMBER IS EMPTY, MAGAZINE REMOVED, BOLT CARRIER IS TO REAR AND FIRE CONTROL SELECTOR IS ON SAFE.

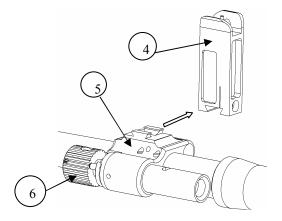
2. Depress the quick release button (1) and pull the barrel assembly (2) forward.



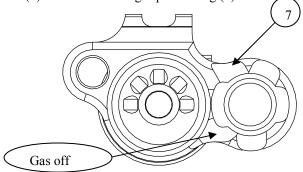
3. Use allen wrench to remove front sight screw (3).



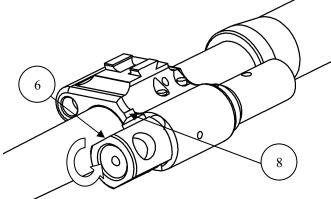
4. Slide front sight assembly (4) off of gas block (5).



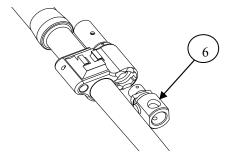
5. Align the regulator (6) to be on the first gas port setting (7).



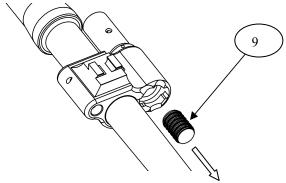
6. Depress the detent (8) and rotate the regulator (6) (clockwise relative to shooter) until the detent is released against the barrel.



7. The regulator (6) can now be pulled forward and removed.

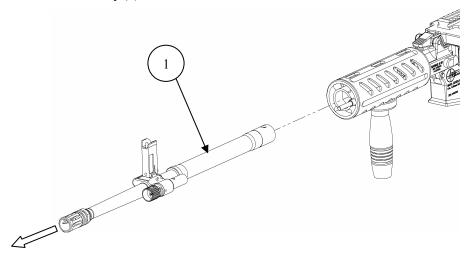


8. Tilt the barrel assembly downward and shake to remove the piston (9). If carbonated use op-rod to force piston out.

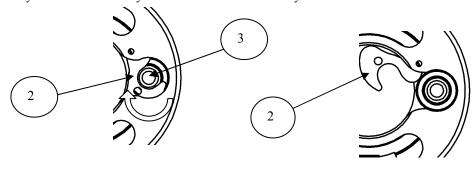


OP-ROD DISASSEMBLY

1. Remove barrel assembly (1)



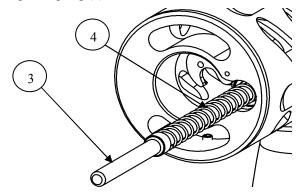
2. Depress the op-rod (3) with one hand while using a bullet tip to rotate the forward op-rod holder (2) so that the op-rod may now be controllably removed under the force of your hand.



CAUTION

OP-ROD IS UNDER HEAVY SPRING FORCE. FORWARD OP-ROD HOLDER (2), OP-ROD (3), AND OP-ROD SPRING (4) MAY BECOME PROJECTILES. DO NOT REMOVE OP-ROD HOLDER WITHOUT PROPER PROTECTIVE EYEWEAR. KEEP FACE AND BODY CLEAR FROM FORWARD END OF OP-ROD AT ALL TIMES.

3. Remove op-rod (3) and op-rod spring (4)



The Military Services generally use a multipurpose chemical called CLP (cleaner, lubricant, and preservative) sold commercially as "Break-Free." Under **NO** circumstances should any lubricant containing graphite be used with your rifle. Graphite can encourage rapid corrosion to the aircraft-grade aluminum used in your rifle.

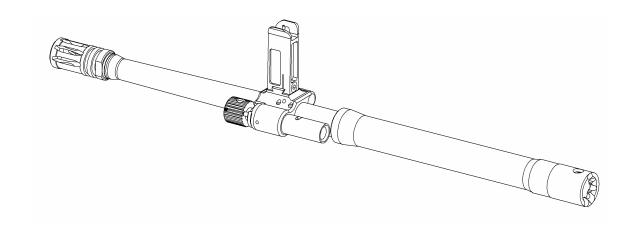
In addition to cleaning solvents and lubricants, the basic cleaning equipment you will need includes a cleaning rod, brass bore brush, chamber brush, toothbrush, patches, pipe cleaners, and lint-free cloth.

BARREL ASSEMBLY

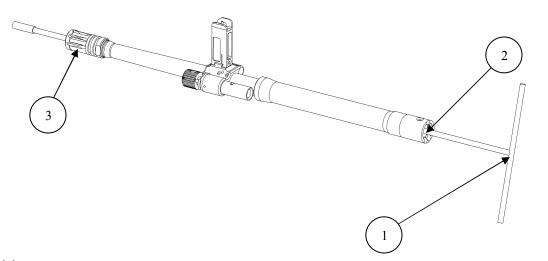
NOTE

Don't reverse the direction of the bore brush while it's in the bore.

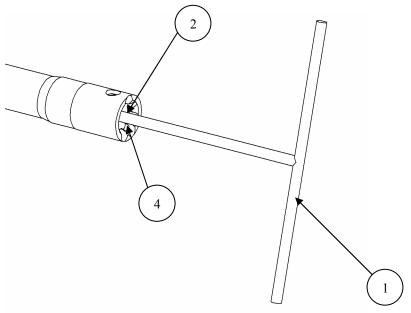
Use cleaning solvent on the bore and chamber, the piston cylinder, the barrel assembly, locking lugs and all areas of powder fouling, corrosion, dirt or dust.



1. Use a cleaning rod, bore brush and cleaning solvent. Run the rod (1) through the chamber (2) and flash suppressor several times. The flash suppressor (3) is not removable. It has been secured to meet federal regulations.

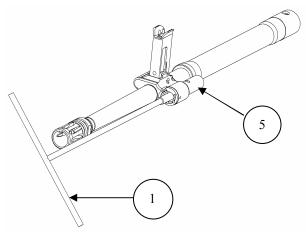


2. Install the chamber brush on the cleaning rod (1), dip it in cleaning solvent, and insert it into the chamber (2) and locking lugs (4). Clean by pushing and twisting the cleaning rod.

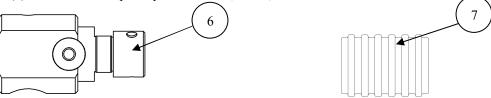


3. Use a worn out bore brush to clean the piston cylinder. With the gas piston and regulator removed, clean the cylinder (5) by pushing and twisting the cleaning rod (1). This procedure ruins the brush.

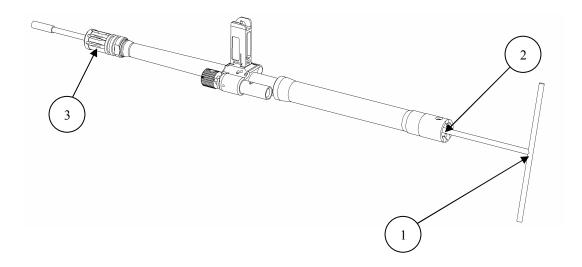
 $\begin{tabular}{ll} NOTE\\ Gas\ regulators\ will\ discolor\ from\ heat.\ \ Do\ not\ try\ to\ remove\ this\ discoloration \end{tabular}$



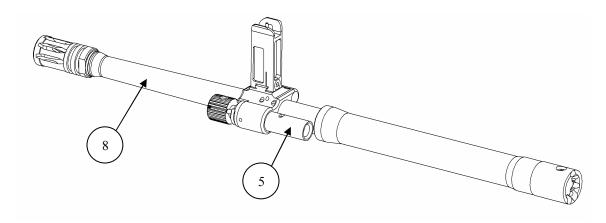
4. Take the worn out bore brush, dip it in cleaning solvent and lightly scrub the fouled surfaces on the regulator (6) and the piston (7) to remove buildup. Inspect for cracks, bends, or breaks.



5. Take the bore brush off the rod (1) and install a swab holder and a swab. Apply cleaning solvent to the swab, then run it through the chamber (2) and out the flash suppressor (3). To remove carbon build up, let the solvent sit, then wipe clean. A bore brush may be used with care to remove heavy carbon buildup. Wipe the bore dry by running clean swabs all the way through from the chamber to the flash suppressor. **REMEMBER**, do not change directions in the bore.

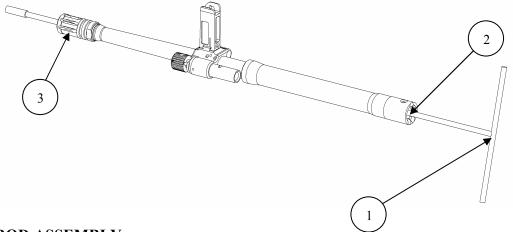


Inspect the barrel (8) and gas cylinder (5) for cracks, bends, or breaks. Be sure the barrel has no obstructions.



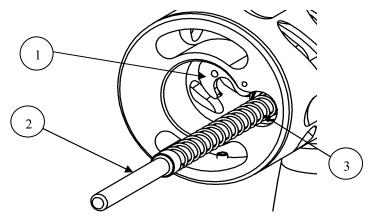
Lightly lubricate the bore and chamber, outer surface of the barrel, regulator, gas cylinder (5) front sight, and the surfaces under the handguards.

With a lubricated swab, run the rod (1) from the locking lugs (2) to the flash suppressor (3). Do not over lubricate. Additional lubrication may be applied directly to the chamber locking lugs (2).

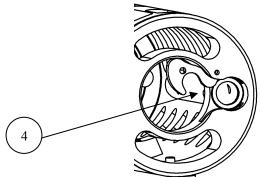


OP-ROD ASSEMBLY

1. Apply cleaning solvent to a swab and scrub the carbon from the forward op-rod holder (1), the op-rod (2), and the op-rod spring (3).

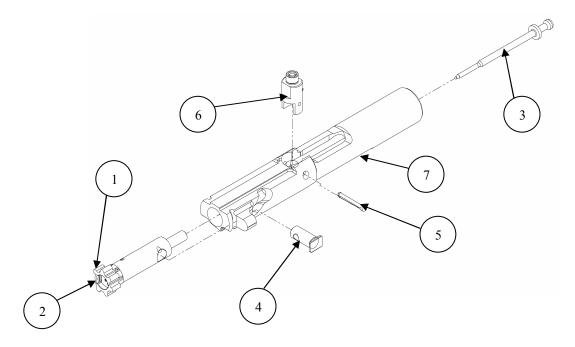


- 2. Take a bore brush, dip it in cleaning solvent and lightly scrub the fouled surfaces on the interior of the rearward op-rod holder (4).
- 3. Lightly lubricate the op-rod.

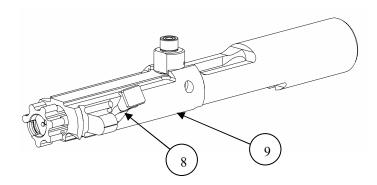


BOLT CARRIER ASSEMBLY

1. Clean all parts and outer surfaces of the bolt carrier assembly with a swab saturated with cleaning solvent. Inspect all parts for cracks, fractures, bends, breaks, chips, or dents. Pay particular attention to the cam pin and the cam pin hole in the bolt assembly. Check firing pin (3) for blunted tip.



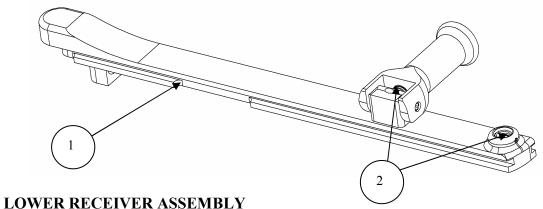
- 2. Remove carbon deposits and dirt from the locking lugs (1) with a bore brush dipped in solvent.
- 3. Clean under the lip of the extractor (2).
- 4. Lightly lubricate the firing pin (3) and firing pin recess in the bolt assembly.
- 5. Generously lubricate the outside of the bolt cam pin (4) and the firing pin retaining pin (5). Make certain to lubricate the bolt cam pin hole and the outside of the bolt.
- 6. Lightly lubricate the inner and outer surfaces of the bolt carrier (7). Generously lubricate the cam pin area (8) of the bolt carrier as well as the areas where the bolt carrier will ride in the receiver.



CLEANING

CHARGING HANDLE ASSEMBLY

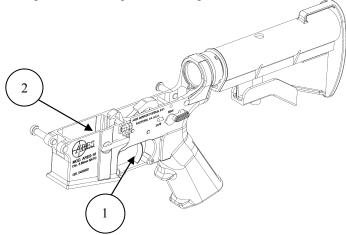
1. Lightly lubricate the charging handle along its rails (1) and its detents (2)



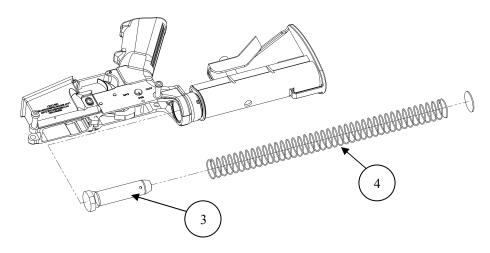
NOTE

Do not use a wire brush or any type of abrasive material to clean aluminum surfaces.

- 1. Wipe dirt from the trigger (1) with a swab.
- 2. Use a swab and cleaning brush to clean powder fouling, corrosion, and dirt from the lower receiver (2).

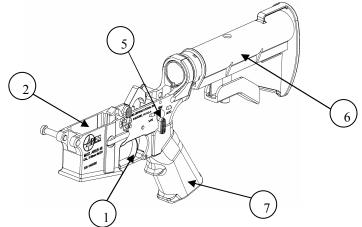


3. Clean the buffer (3), recoil spring (4), and inside the lower receiver with a swab dipped in solvent.

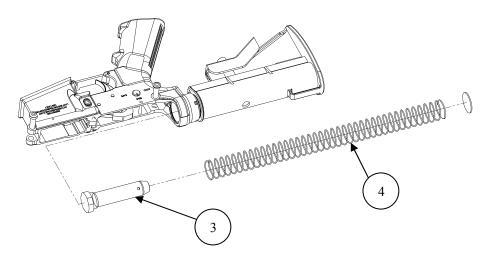


CLEANING

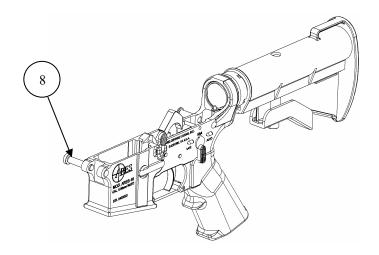
Examine the lower receiver assembly for a broken or bent trigger (1), buttstock (6), corroded or deformed lower receiver (2), cracked or damaged grip (7), and bent or damaged safety (5). Look at the inside parts for cracks, dents, or breaks.



4. Lightly lubricate the recoil spring (4) and buffer (3).

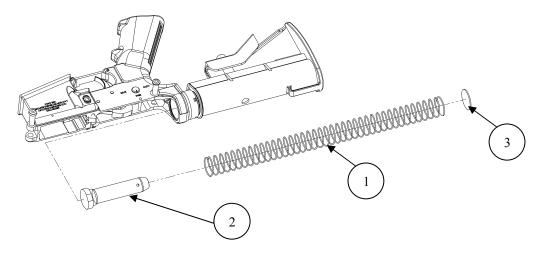


5. Generously lubricate the takedown pins (8) and the inside parts of the lower receiver.



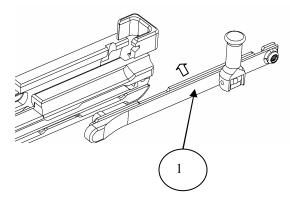
LOWER RECEIVER ASSEMBLY

1. Insert buffer spring (1), buffer (2) and spacer (3).



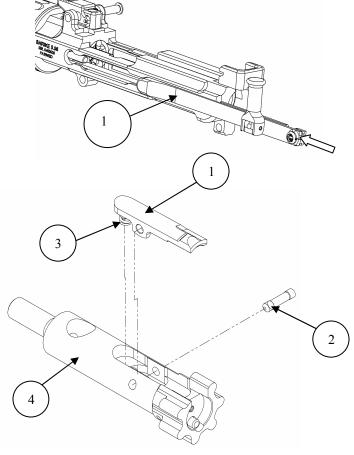
CHARGING HANDLE ASSEMBLY

1. Align charging handle slots so the charging handle may fit into receiver slots. Press the charging handle (1) as far as it will travel forward.

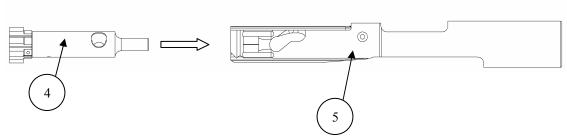


BOLT CARRIER ASSEMBLY

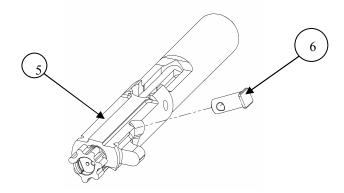
- 1. If the spring assembly (3) comes loose, seat the large end of the spring in the extractor.
- 2. Insert the extractor (1) with spring assembly into bolt (4).
- 3. Push extractor until the holes on the extractor (2) and bolt are aligned and insert the extractor pin (3).



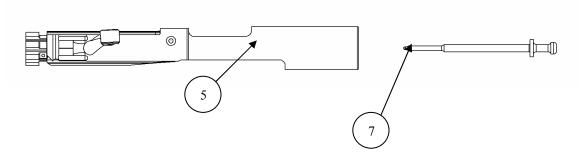
Slide the bolt assembly (4) into the bolt carrier (5).



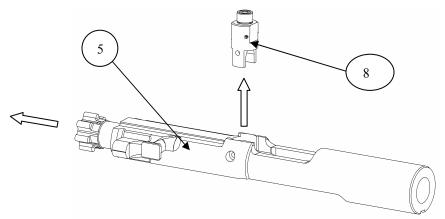
5. Insert the cam pin (6) in bolt carrier (5) and align so firing pin can protrude through and lock in place



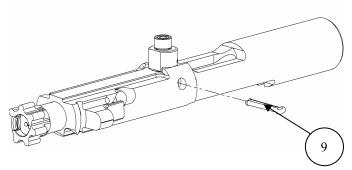
6. Drop the firing pin (7) into its opening in the bolt carrier.



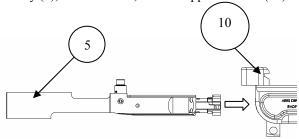
7. Pull the bolt assembly (5) forward and replace the feed lever stud assembly (8)



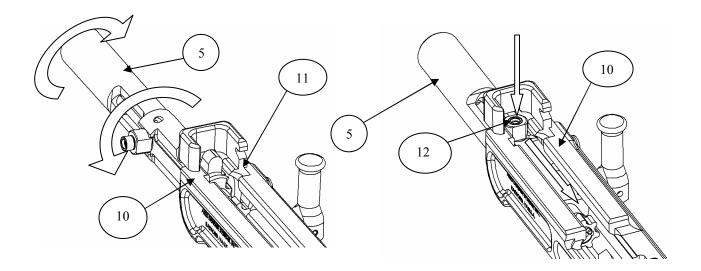
8. Replace the firing pin retaining pin (9).



- 9. Turn bolt carrier assembly upright and try to shake out the firing pin. The firing pin should not fall out.
- 10. Slide the bolt carrier assembly (5), bolt extended, into the upper receiver (10).

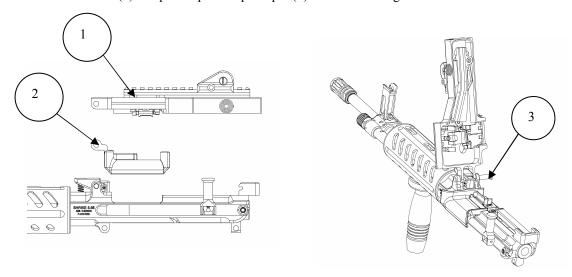


11. Slide the bolt carrier assembly (5) until the lug comes into contact with the rear of the receiver (10). At this point the bolt carrier assembly is rotated 90° clockwise (relative to shooter), it is then slid until the lug can rotate in the channel provided in the receiver (10). Once in this channel the bolt carrier assembly is rotated 90° counter clockwise and slid until it stops. The feed lever stud (12) will then be depressed while the bolt carrier assembly is pushed forward. Once the stud has cleared the receiver the bolt carrier may be pushed forward as far as it will go.



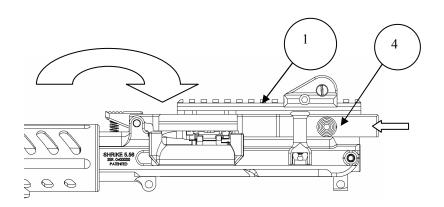
FEED COVER ASSEMBLY

- 1. Place the feed tray (2) in the receiver
- 2. Position feed cover (1) and push top cover pivot pin (3) as far as it will go.



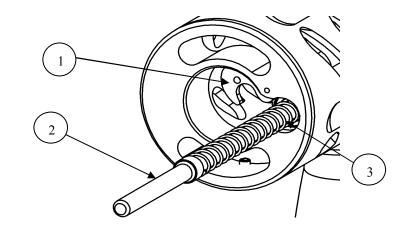
3. Close the feed cover (1) by a firm close or by pushing the feed cover button (4) forward and then releasing once the cover has closed.

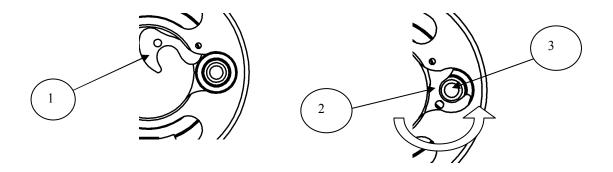
CAUTION FEED COVER IS NOT CLOSED UNLESS FEED COVER BUTTON IS ENGAGED WITH RECEIVER IN ITS REARWARD RESTING POSITION



OP-ROD ASSEMBLY

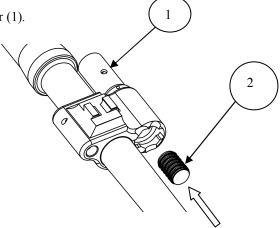
- 1. Slide the op-rod spring (3) on the long end of the op-rod (2).
- 2. With one hand depress the op-rod into the op-rod retainer until the shoulder of the op-rod has passed the op-rod holder (1).
- 3. With the other hand rotate the op-rod holder counter clockwise until closed.
- 4. Allow the op-rod to return controllably to the op-rod holder..



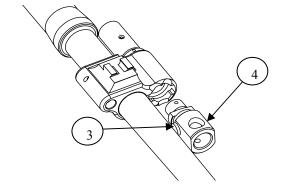


BARREL ASSEMBLY

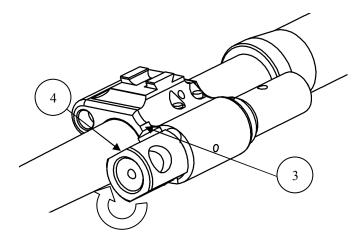
1. Place the piston (2) in the gas cylinder (1).



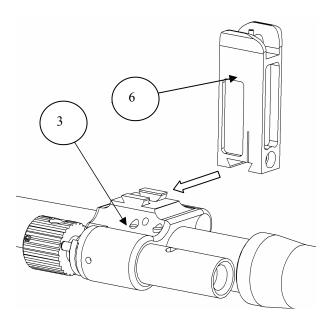
2. Align the regulator (4) with the detent (3) against the barrel and press until it bottoms against the gas cylinder face.



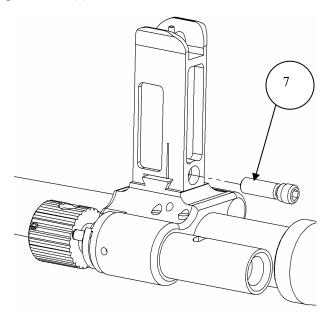
3. Rotate the regulator until the detent (3) locks into a detent position.



4. Slide front sight assembly (6) onto gas block (3).

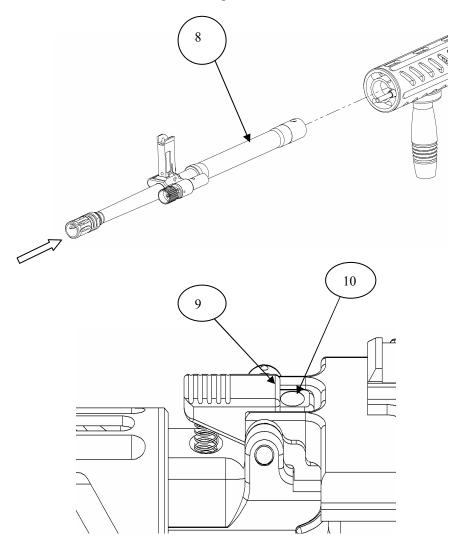


5. Use Allen wrench to tighten screw (7)



Check to see that the piston is free to move. Hold the barrel assembly by the barrel and shake vigorously. You should hear the piston moving. If you don't hear the piston moving you need to follow the proper cleaning and reassembly procedures.

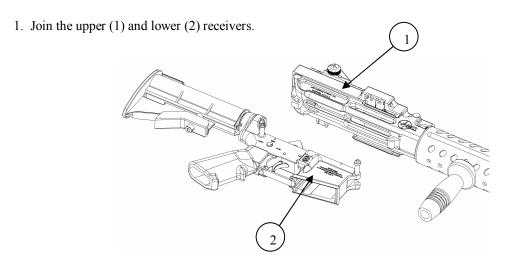
5. Pull the barrel assembly (8) through the hand-guards and into the receiver. When the barrel extension has contacted the quick release pin (10) you won't be able to pull any further. Depress the quick release button (9) momentarily to allow the barrel extension to pass. Release the button while you align the pin and the barrel extension locator. The spring will force the button upward when the pin finds the barrel extension locator. The barrel assembly is aligned when the top of the pin is just below the surface of the receiver. The ring on the barrel should also be coincident with the front of the hand-guard



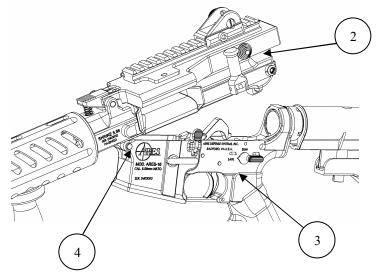
UPPER AND LOWER RECEIVER ASSEMBLY

NOTE

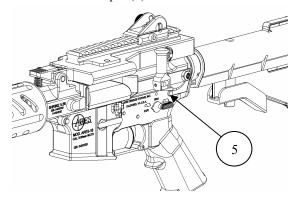
The hammer must be in cocked position to join receivers.



2. Align the pivot pin holes and push in pin (4)



3. Close the upper and lower receivers. Push in pin (5).



TROUBLE SHOOTING

WARNING! PRIOR TO MAKING ADJUSTMENTS TO THE FIREARM, ENSURE THAT WEAPON IS UNLOADED AND CHAMBER IS CLEAR OF ALL AMMUNITION TO AVOID ACCIDENTAL DISCHARGE.

PROBLEM	СНЕСК	ACTION
WON'T FIRE	Selector lever 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 in firing pin recess	Wipe out with pipe cleaner
	Defective ammunition	Remove and discard
	Ammunition for light primer strike	Replace buffer with functional Heavy buffer
	Firing pin to see if broken	Replace
BOLT WON'T UNLOCK	Dirty bolt	Clean
	Burred or broken bolt	Contact Ares Defense Systems, Inc.
WON'T EXTRACT	Broken extractor spring	Replace
	Silicone insert missing from extractor spring	Replace
	Dirty, corroded, or reloaded ammunition	Remove and discard
	Carbon in chamber	Clean chamber
	Frozen extractor	Remove and clean
	Restricted buffer assembly	Remove and clean
	Restricted movement of bolt carrier assembly	Remove, clean, and lubricate
	Chamber and Brass for unusual markings	If unusual contact Ares Defense Systems, Inc.
	Short recoil	See below
WON'T FEED	Dirty, corroded, or reloaded ammunition	Remove and discard
	Dirty or defective magazine	Clean or replace
	Dirty corroded or defective links	Remove and discard
	Too many rounds in magazine	Remove excess rounds
	Buffer assembly is restricted	Take out and clean buffer and spring. Manually cycle the gun to be sure there are no binds.
	Magazine not fully seated	Adjust magazine catch
V., 1 1	Short recoil	See below

TROUBLE SHOOTING CONTINUED

DOUBLE FEED	Defective magazine or belt and magazine loaded at same time	Replace magazine or use only one feed source at a time
WON'T CHAMBER	Dirty corroded or defective ammunition	Remove and discard
	Dirty corroded or defective links	Remove and discard
WON'T LOCK	Dirt or corrosion buildup in barrel locking lugs, chamber, and/or barrel extension	Clean lugs, chamber and barrel extension
SHORT RECOIL	Weak or reloaded ammunition	Replace with factory fresh ammunition
	Gas pressure low	Adjust gas regulator to a higher setting
	Top cover for difficulty in opening and jammed feed area	Clear feed tray and adjust gas regulator to a higher setting
	Fouled Weapon	Clean and lubricate
BOLT FAILS TO LOCK OPEN AFTER LAST MAGAZINE ROUND.	Defective magazine	Replace
	Dirty or corroded bolt catch	Clean or replace
	Weak or reloaded ammunition	Replace with factory fresh ammunition
SELECTOR LEVER BINDS.	Needs Oil	Lubricate
	Dirt or sand under trigger	Clean
BOLT CARRIER "HUNG UP"	Double feed	Replace magazine or use only one feed source at a time
	Dirty corroded or defective links	Remove and discard

Dirty corroded or defective links Remove and discard

PLEASE CONTACT ARES DEFENSE SYSTEMS, INC. IF THE TROUBLE SHOOTING TIPS PROVIDED HEREIN DO NOT REMEDY A MALFUNCTION OR IF YOU HAVE ANY OTHER QUESTIONS ABOUT THE OPERATION OF YOUR FIREARM.

WHY NO WARRANTY CARD HAS BEEN PACKED WITH THIS NEW ARES DEFENSE SYSTEMS, INC. PRODUCT

The Magnuson-Moss Act (Public Law 93-637) does not require any seller or manufacturer of a consumer product to give a written warranty. It does provide that if a written warranty is given, it must be designated as "limited" or as "full" and sets minimum standards for a "full" warranty. Ares Defense Systems, Inc. has elected not to provide any written warranty, either "limited" or "full", rather than to attempt to comply with the provisions of the Magnuson-Moss Act and the regulations issued there under. There are certain implied warranties under state law with respect to sales of consumer goods. As the extent and interpretation of these implied warranties varies from state to state, you should refer to your state statutes. Ares Defense Systems, Inc. wishes to assure its customers of its continued interest in providing service to owners of Ares Defense Systems, Inc. products.



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