

**PSA PISTOL AR15**

## Table of Contents:

Warnings and Tips for safe handling .....	2
Location of Components.....	4
Identification .....	5
Unloading .....	6
Disassembly Instructions for Cleaning .....	8
Bolt Carrier Group.....	10
Bolt Carrier Group Dissassembly.....	11
Buffer and Action Spring.....	12
Cleaning .....	13
Loading .....	14
Principles of Operation .....	16
Troubleshooting .....	17

**It is important that you read and understand this manual prior to loading and using this firearm. Failure to read this manual and to follow the instructions may result in serious injury or death to you or to others.**

**Follow all safety precautions and instructions, including all universal safety rules for firearms. Be sure you understand all instructions and hazards associated with firearms before using this firearm.**

**Universal rules for safe Gun Handling:**

- 1. Treat every firearm as if it were loaded.**
- 2. Always keep the firearm pointed in a safe direction.**
- 2. Do not load the weapon until ready to use.**
- 3. Keep your finger off the trigger until ready to shoot.**

**If this firearm is carelessly or improperly handled, unintentional discharge may result and could cause injury, death, or damage to property.**

**Use only high quality, commercial ammunition that has been kept clean and dry, and is in good condition. We do not recommend the use of remanufactured or hand-loaded ammunition due to risk of improper loading which can damage the rifle and injure you or others. Use of improper ammunition will void your warranty.**

**You, the owner, are the most important safety device when it comes to the use of your firearm.**

**Under no circumstances will Palmetto State Armory be responsible for any injury, death or property damage that results from:**

**A disregard of the safety guidelines and warnings;  
The criminal or negligent use of the firearm;  
Improper or careless handling of the firearm;  
Improper or negligent modifications or repairs to the firearm;  
The use of non-standard, defective, improper, or reloaded ammunition.**

**If you do not understand any part of this manual or you are unsure about the operation of your firearm, please contact PALMETTO STATE ARMORY before proceeding.**

**Palmetto State Armory  
2121 Old Dunbar Road  
West Columbia, SC 29172**

**This manual must accompany this firearm and be transferred with it upon change of ownership or when presented to another person.**

**Always practice safe firearms handling**

## **WARNING**

To avoid accidental firing, **BE SURE WEAPON IS CLEAR**. Failure to do so could result in serious injury or death.

Be sure the cam pin is installed in the bolt group. If it isn't, your rifle can still fire and will explode causing injury or death.

Verify the barrel is clear of obstructions before loading and firing. Completely unload the firearm and check the barrel for any obstructions or debris. Never let water, snow, mud or other materials enter the barrel. Excess lubricants or grease can dangerously increase pressure and may cause barrel to burst when firing. If barrel is obstructed, remove ammunition and clean barrel immediately.

Every firearm is designed to use a certain gauge or caliber of ammunition. Never use the wrong ammunition, or non-standard, or "handloaded" ammunition which has not been subjected to internal ballistic pressure testing. Always read and follow the instructions on the ammunition box.

Be sure of your target and the surrounding area. Never fire unless you know exactly where your shot is going, and what it will strike. Make sure the shot has a safe back stop, such as a hillside or sand. Bullets can ricochet on surfaces such as water. Do not fire into the sky.

Safely store and secure your firearm and ammunition separately. Store your firearm and ammunition so that they are not accessible to children or unauthorized persons. Evaluate your personal situation to be sure children and unauthorized persons cannot access your firearm.

You are responsible for your firearm at all times. You must protect yourself and others against injury or death from misuse of a firearm.

Always wear appropriate eye and ear protection while shooting and cleaning a firearm. Be sure others in the vicinity have protection as well.

Never use drugs or alcohol before or during use of firearm. Never use your firearm if you are taking any medication which impairs, even slightly, your mental or physical ability.

Obey all laws regarding the storage, security, transportation, and carrying of firearms. You must be familiar with all local, state, and federal laws regarding the safe use, storage and/or transportation of your firearm. Your local police department can answer any questions you may have regarding the legal use, storing and/or transporting of your firearm.

Discharging firearms in poorly ventilated areas, cleaning the firearm, and the handling of ammunition may result in exposure to lead and other substances known to cause birth defects, reproductive harm, cancer, and other physical injury. Wash hands thoroughly after exposure. Read the warnings and labels on all ammunition and cleaning products carefully.

If your firearm fails to fire when the trigger is pulled, handle with care. Keep the firearm pointed in a safe direction. Keeping your face away from the breach, put the safety on. Unload your firearm and dispose of the ammunition safely.

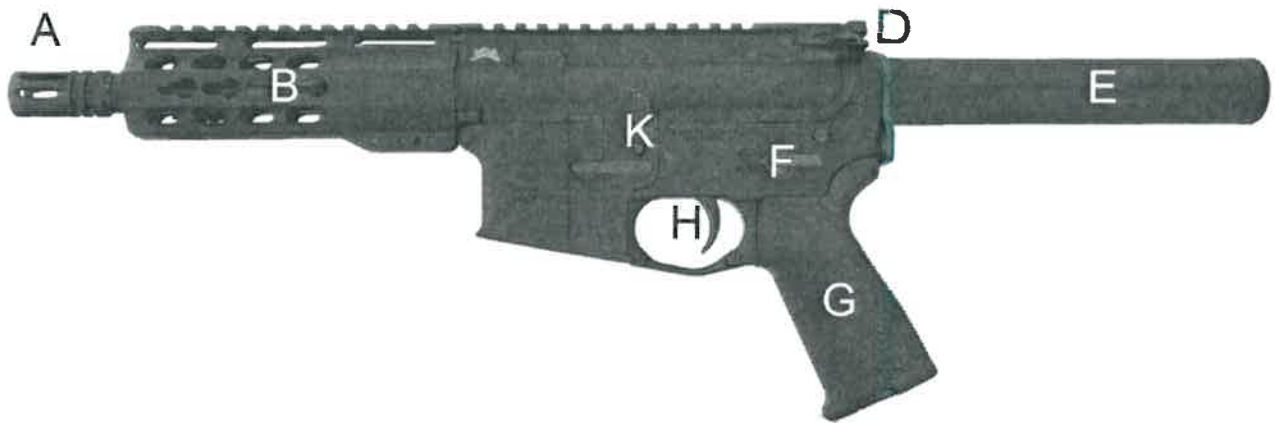
Never alter or modify your firearm. Never disassemble your firearm beyond what is outlined in this manual. Improper manipulation of any internal components and/or improper disassembly or reassembly may be dangerous, and may lead to serious injury or death. Do not try to change your firearm's trigger pull, alterations might cause accidental firing. Only a qualified gunsmith should service, repair, or modify your firearm in any way.

Be sure all accessories are compatible with your firearm. Accessories must not interfere with the safe operation of your firearm.

Never allow your firearm to be used by an individual who does not understand its safe operation or has not read these firearm safety guidelines.

The safe use of your firearm is your personal responsibility. You, the owner, are the most important safety device when it comes to the use of your Firearm.

## LOCATION OF COMPONENTS



- A. FlashSuppressor/Compensator
- B. Forearm Hand Guard
- C. Upper Receiver w/Pictinny Rail
- D. Charging handle
- E. Pistol Buffer Tube
- F. Safety Selector
- G. Grip
- H. Trigger
- I. Trigger Guard
- J. Lower Receiver
- K. Bolt release lever
- L. Magazine release
- M. Forward Assist
- N. Ejection Port Cover
- O. Ambidextrous Latch Plate
- P. Magazine

## LOCATION OF SERIAL NUMBER

The serial number is located on the left hand side of the firearm, forward of the trigger on the magazine well (A). Please record this number and keep it in a secure place.



Serial Number: \_\_\_\_\_

Clean and inspect firearm before attempting to fire.

## UNLOADING THE FIREARM

Perform this operation prior to performing any cleaning or maintenance on the firearm.



Place the safety selector lever on SAFE. .



Hold the grip of the firearm while keeping your finger off the trigger. Press the magazine release button and pull the magazine down to remove.



Unlock and pull the charging handle all the way out and press in on the lower portion of the bolt catch. Release charging handle. This locks the bolt in the open position.



Look into the receiver through the ejection port and verify that there are no cartridges in the chamber.



## DISSASSEMBLY FOR CLEANING

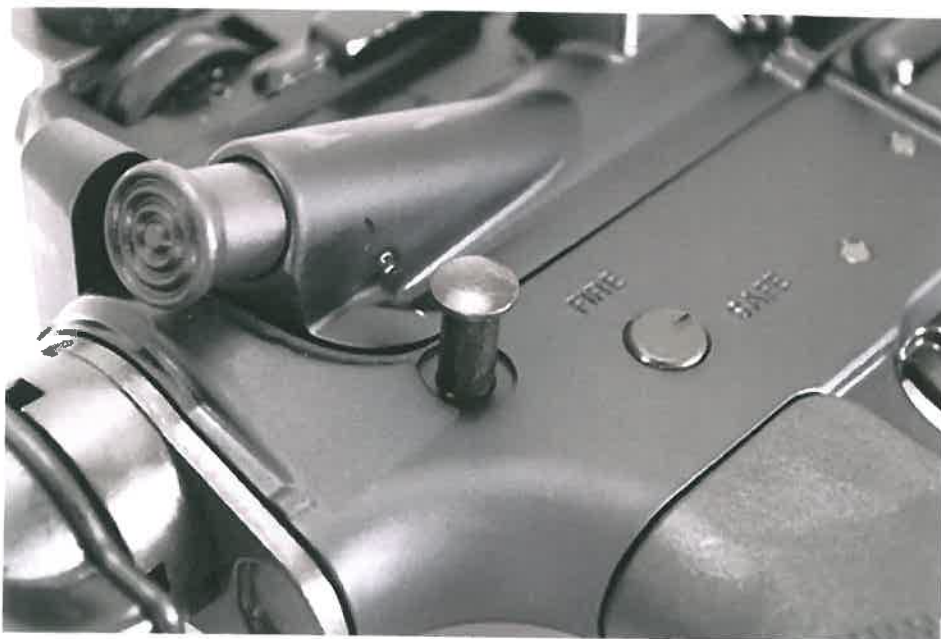
**Verify that the firearm is not loaded. See “Unloading Firearm” on pg. 8. Once the firearm has been unloaded, push the bolt catch lever and allow the bolt carrier to move forward.**

**Push in the takedown pin (A), located above and to the rear**



**of the safety lever on the left hand side of the lower receiver.**

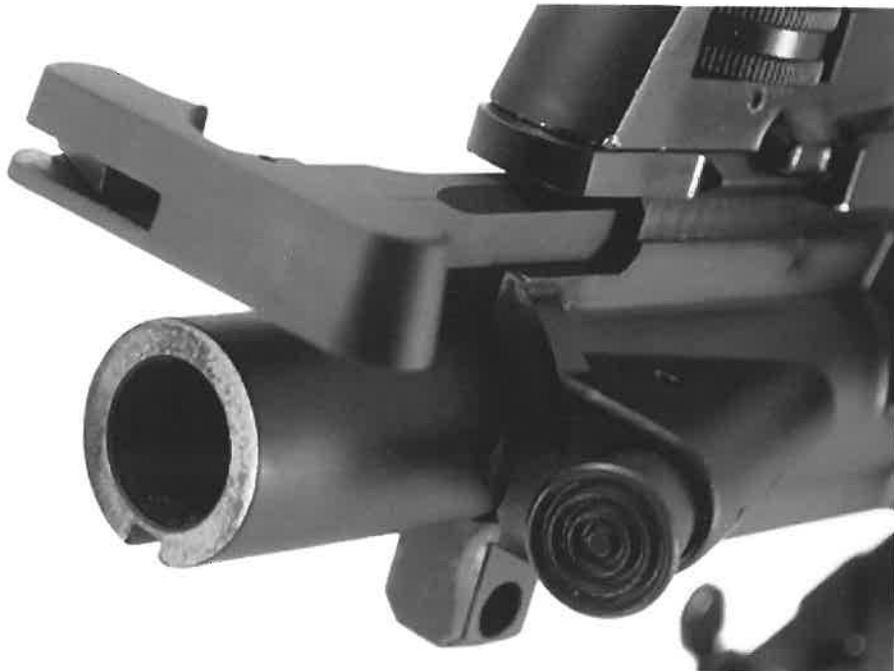
**You may then pull the pin from the right side of the receiver until it stops (it will not pull out).**



**Grasp the rear of the upper receiver and pull up, allowing it to pivot on the front pin. This will expose the fire control group.**

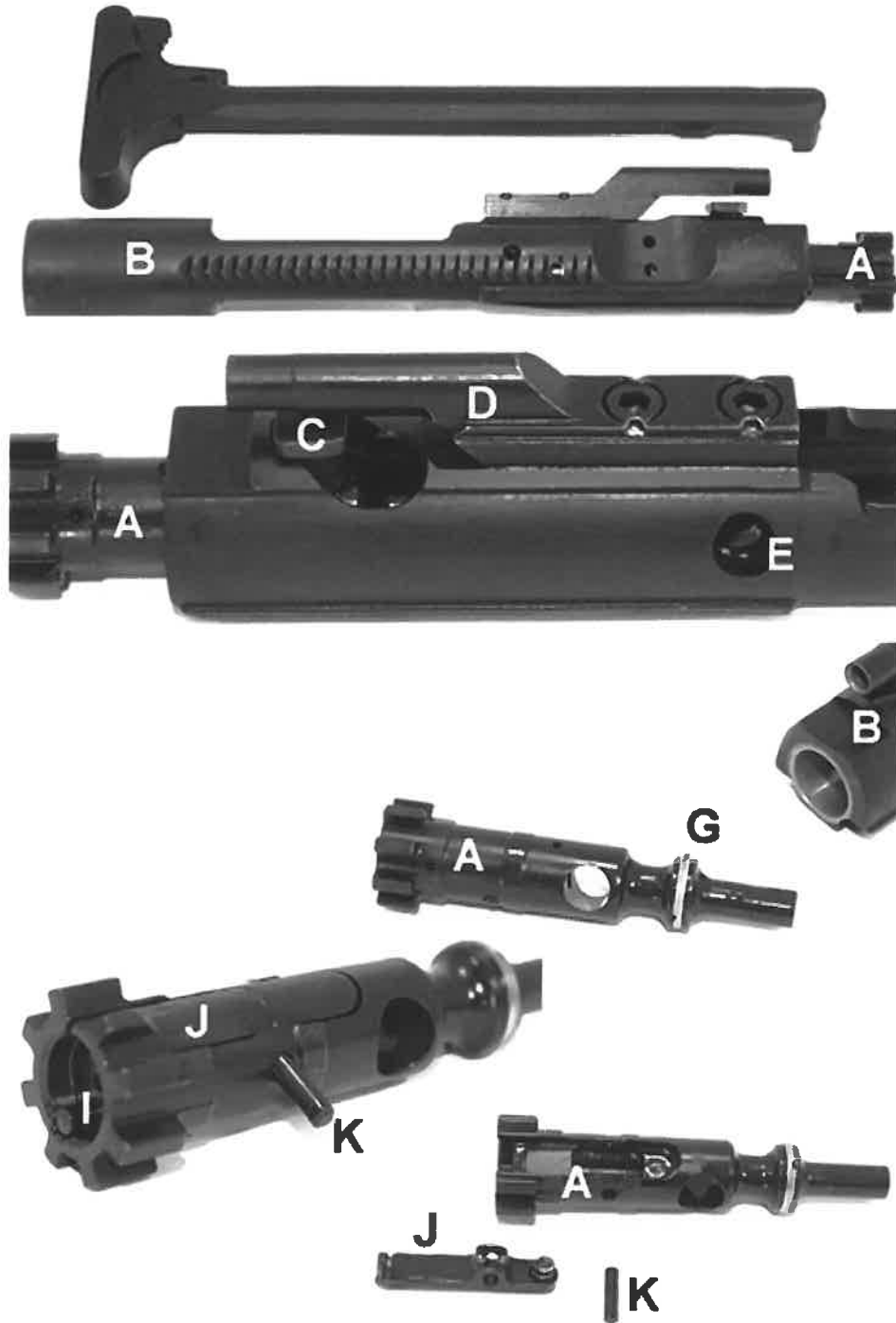


**Unlatch the charging handle and pull it back, this will extract the bolt carrier group.**



**Pull the bolt carrier straight back until it is free of the charging handle and upper. Pull the charging handle back until it stops, then allow it to drop down to clear the upper receiver and remove it from the rear.**

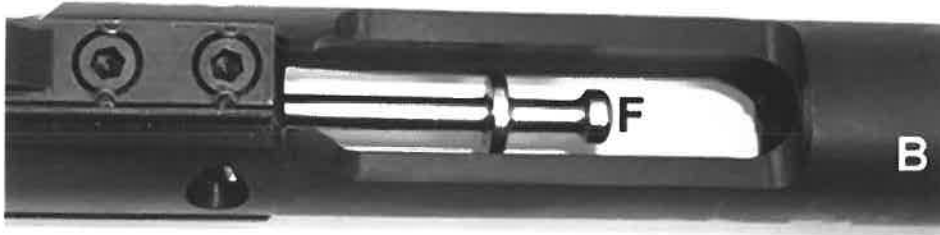
# BOLT CARRIER GROUP



- A. Bolt Assembly
- B. Bolt Carrier Assembly
- C. Cam Pin
- D. Gas Key
- E. Firing Pin Retaining Pin
- F. Firing Pin
- G. Gas Rings
- I. Ejector
- J. Extractor
- K. Extractor Pin

## BOLT CARRIER GROUP DISSASSEMBLY

Push Bolt assembly (A) into carrier (B) until it stops. Remove firing pin retaining pin (E), and slide firing pin (F) to the rear of the carrier until it is free.



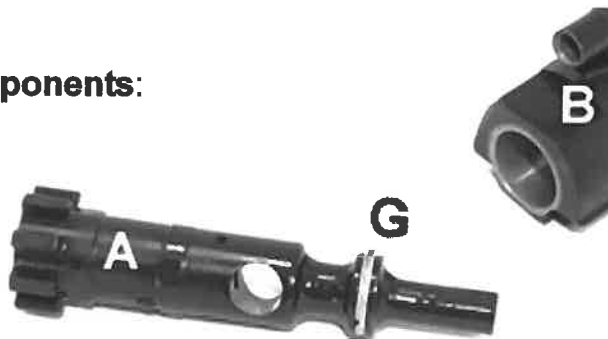
Turn Cam pin (C) 1/4 turn, to allow the head of the pin to clear the gas key, and pull straight out.



The bolt assembly may now be removed from the carrier assembly.

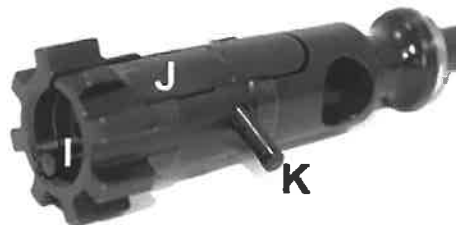
### Bolt Assembly Components:

- G. Gas Rings
- I. Ejector
- J. Extractor
- K. Extractor Pin



### Dissassembly:

Push extractor pin out to remove extractor. Note position and condition of spring and spacer on the extractor. If items are missing or worn, replace.



No further dissassembly is required for routine maintenance.

## BUFFER & ACTION SPRING DISSASSEMBLY



**Warning - action spring is under compression. Push down on the buffer retainer pin (A) while holding the buffer back. Allow buffer to travel forward slowly after clearing the retaining pin. Once the spring is no longer compressed, remove from buffer tube.**



**Clean inside of buffer tube with a cotton patch and CLP.**

# CLEANING

**Before any cleaning or disassembly, always make sure rifle is unloaded.**

**See “Unloading Rifle” on page 8 of this manual.**

**WARNING.** Risk of serious injury or death. **Always point the firearm in a safe direction.**

**NOTICE** Some cleaning solutions and solvents may damage your firearm. Use a cleaning solution that is designed for use on firearms.

**NOTICE** Do not allow cleaning rods to scratch the inside of the barrel or chamber. Commercial firearm cleaning kits are available from Palmetto State Armory or your local firearms retailer. Follow the instructions included with the cleaning kit. **Clean the firearm before the first use to remove excess oil.**

**CLEANING THE BARREL** Remove the magazine and verify that the firearm is not loaded and safety is on SAFE.

Clean the barrel with a cotton patch attached to a cleaning rod. Moisten the patch with cleaning solution. Repeat with clean patches until patch stays clean. Apply cleaning solvent to a bronze bore brush to help loosen particles inside the barrel. After cleaning, run a dry patch through the barrel and then follow with a lightly oiled patch.

**CLEANING THE CHAMBER** Remove the magazine and verify that the firearm is not loaded and safety is on SAFE.

Clean the chamber with a chamber cleaning brush, and a bore solvent or CLP. Move the brush through the chamber several times to scrub the inside of the chamber. Use a clean patch to wipe the chamber after cleaning. Repeat with clean patches until patch stays clean. After cleaning, run a dry patch through the chamber. **Do not oil the chamber.**

**CLEANING THE BOLT CARRIER GROUP** - Remove the magazine and verify that the firearm is not loaded and safety is on SAFE.

Disassemble the bolt carrier assembly. Clean with CLP or a suitable solvent. Be sure to remove excess oil from the bolt assembly before reassembly, do not lubricate the inside of the carrier. Lubricate the exterior of carrier only if operating in non-dry conditions.

**CLEANING THE EXTERIOR** Remove the magazine and verify that the firearm is not loaded and safety is on SAFE.

Wipe all metal surfaces with a clean cloth and then follow up with a lightly oiled cloth.

## LOADING



**Make sure the gun is pointed in a safe direction and that the safety selector is in the "safe" position**



**Pull the charging handle to the rear and check to see if the chamber is clear and the firearm is unloaded.**



**Insert loaded magazine into receiver. Give a sharp slap to the bottom of the magazine to ensure it is seated. The magazine can be inserted with the bolt open or closed. If the bolt is open, press the top of the bolt release button to close the bolt and chamber a cartridge. If the bolt is closed, pull the charging handle completely to the rear and let it go. Do not allow your hand to “ride” the charging handle, as this may cause misfeeds.**



**Keep your finger off the trigger at all times unless ready to fire.**

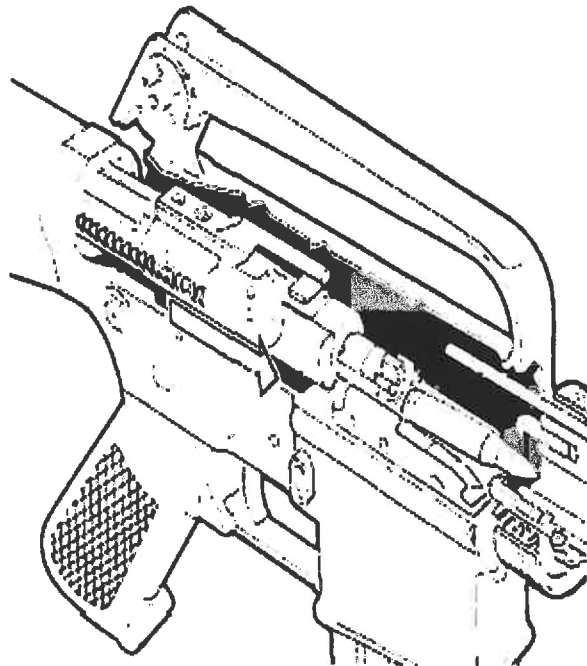


# PRINCIPLES OF OPERATION

## NOTE:

Magazine may be loaded with bolt assembly open or closed.

1. Place selector on SAFE and make sure rifle is pointed in a safe direction
2. Insert loaded cartridge magazine in magazine well and chamber a cartridge.
3. Face the target, move the selector lever from SAFE to FIRE and place the rifle to your shoulder.
4. Align the front and rear sight with the target and squeeze the trigger.
5. Squeezing the trigger releases the firing pin and allows it to impact the primer on the cartridge.
6. The primer ignites the propellant in the cartridge.
7. Gas from the burning propellant pushes the projectile along the barrel of the rifle.
8. The rifling in the barrel causes the projectile to rotate, which provides stability during flight to the target.
9. When the projectile reaches the approximate end of the barrel, expanding gases from burning propellant pass out through gas port and into gas tube. Gas goes into bolt carrier assembly, pushing it back, which unlocks the bolt. The Bolt extractor pulls the spent cartridge from the chamber as the bolt travels back, and the ejector in the bolt face throws the spent case out through the ejection port in the upper receiver.
10. The rearward moving bolt carrier re-cocks the hammer, and compresses the action spring. The compressed spring then pushes the bolt back towards the barrel. As the Bolt carrier assembly moves forward, the bottom of the assembly strips a fresh cartridge from the magazine and pushes it into the chamber.



## **FIRING**

Grasp the rifle by your left hand on the forearm and your right hand on the pistol grip while keeping your fingers off the trigger. Place the end of the buttstock against your right shoulder, and bring the rifle up so that your cheek rests against the side of the buttstock and your nose is just touching the charging handle. In this position, you should be able to look through the front and rear sights to your target.

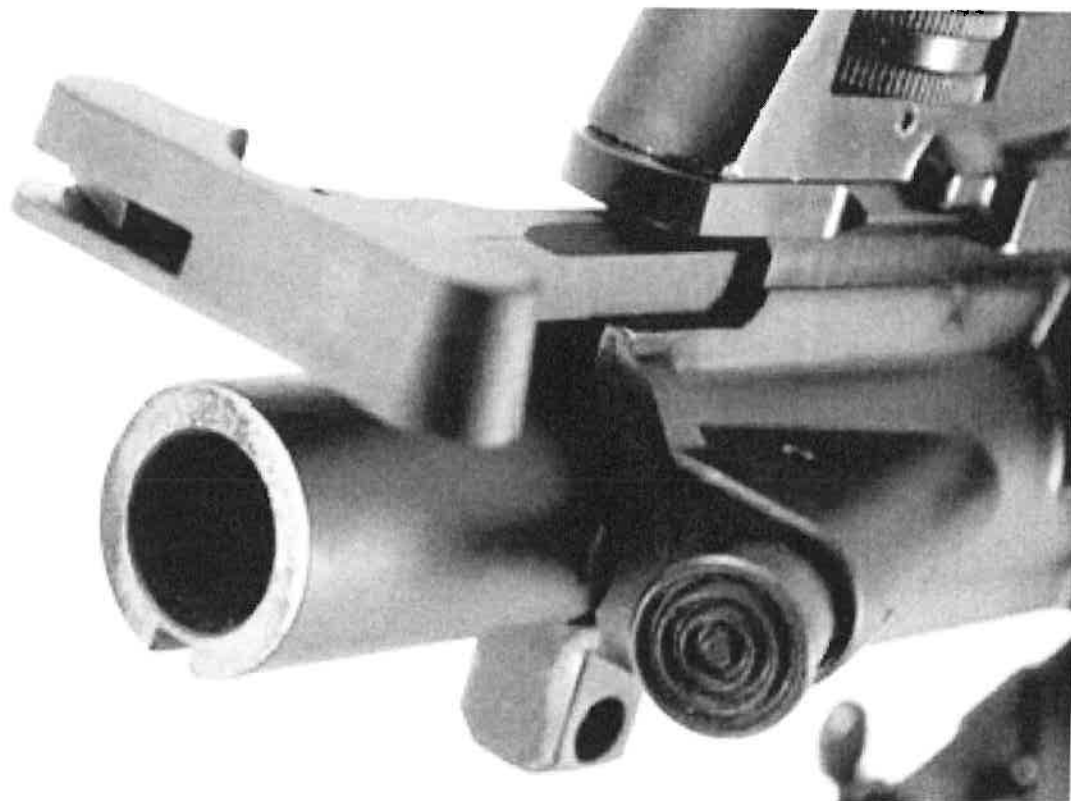
When ready to fire, use the thumb of your right hand to flip the safety selector to the "fire" position.

## **TROUBLESHOOTING**

If a cartridge jams or hangs up while moving into the chamber, do not attempt to force the cartridge into the chamber.

**If your firearm misfires or jams:**

1. Remove your finger from the trigger area, point the firearm in a safe direction and wait 10-15 seconds.
2. Place the safety selector lever on SAFE.
3. Press the magazine release button and pull the magazine down to remove.
4. Unlock and pull the charging handle all the way out and press in on the lower portion of the bolt catch. Release the charging handle. This locks the bolt in the open position.
5. Look into the receiver and verify that there are no cartridges in the chamber.
6. If a cartridge cannot be removed, safely store the firearm and take it to a qualified gunsmith for inspection.



Pull the bolt carrier straight back until it is free of the charging handle and upper. Pull the charging handle back until it stops, then allow it to drop down to clear the upper receiver and remove it from the rear.