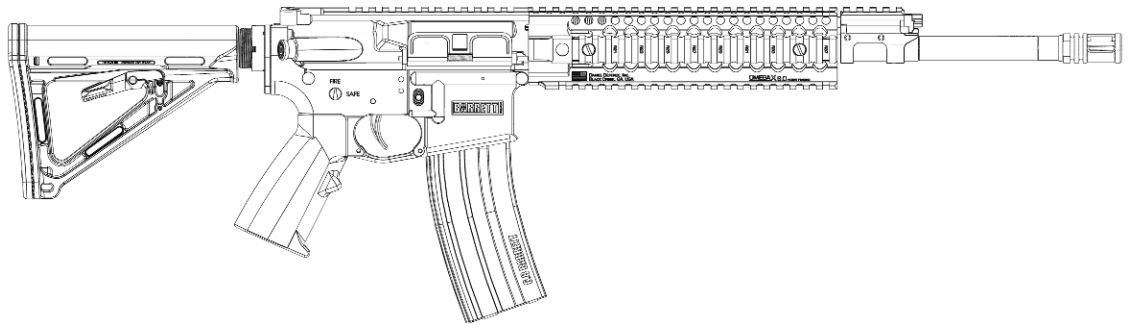




# REC7

## OPERATOR MANUAL



Calibers 5.56x45 NATO and 6.8x43 SPC  
Semi-automatic Versions

Rev 3.0

March 26, 2010

## USE OF THIS MANUAL

Before you handle the REC7 rifle, read this manual in its entirety. It is important that you understand the principles of safe gun handling in general and the unique features of this rifle. This manual is not a substitute for training from a qualified instructor. Important safety topics are discussed in this chapter and throughout this manual. This manual should remain with the rifle and it should be transferred with the rifle to subsequent owners. Additional manuals can be ordered from Barrett Firearms Manufacturing or can be downloaded from the company website.

This manual covers all variants of the REC7. Technical specifications are subject to change without notice.

## SAFETY GUIDELINES

### WARNING

**Failure to follow safety guidelines may cause injury or result in death.**

### Ammunition

The use of faulty hand loaded, remanufactured, or surplus ammunition may void your warranty.

Do not mistake the 6.8 SPC cartridge with the .223/5.56mm cartridge. Be sure to use the correct ammunition and accessories for your rifle.

### WARNING

**Mixing components can result in rifle damage and personal injury.**

### Headspace

Your rifle was properly headspaced at the factory. Be sure to keep the bolt that came installed in your rifle and do not interchange bolts between rifles.

### Safety Distance

Bullets fired from this rifle may travel several miles. Make certain that you have an adequate backstop.

### Hearing protection

Hearing loss is permanent. Hearing loss from gunfire is cumulative, but the noise from even one shot may cause permanent loss. Wear both ear plugs and ear muffs. It is also your responsibility to protect the hearing of those around you.

## **Eye Protection**

Eye protection should be worn when both shooting and maintaining your rifle. It is normal for firing to generate air-borne dust and debris. Protect your eyes from solvents and uncaptured parts under spring pressure while performing maintenance on your rifle.

## **Assume every gun is loaded**

Treat every gun as if it were loaded. Look and feel for an empty chamber. Do not trust the extractor to provide an empty chamber.

## **Beware of barrel obstructions**

Ensure the barrel's bore is free of obstructions before you fire your rifle. Even the smallest obstruction such as a stuck patch or even grease will cause increased pressures that can rupture the barrel.

## **Muzzle control**

Always keep the muzzle pointed in a safe direction. Never allow your muzzle to point at anything that you do not intend to shoot.

## **Keep your finger off the trigger**

Keep your finger off the trigger and out of the trigger guard until your sights are aligned on your target and you intend to fire.

## **Keep your safety on**

Keep your safety on until your sights are aligned on your target and you intend to fire.

## **Identify your target and backstop**

Before you pull the trigger, make certain of your target and what is beyond it, around it, and between it and your muzzle. The rifle should never be fired at surfaces where bullets are likely to ricochet in unpredictable directions.

## **Failure to fire**

If your rifle fails to fire when you pull the trigger, do not retract the charging handle to open the action. Keep the rifle pointed toward a safe area and wait two minutes. If a hang fire (slow ignition) has occurred, the round may fire within two minutes. If the round does not fire, remove and inspect the cartridge. If the primer is indented properly, discard it in a safe manner.

## **Maintain your rifle properly**

Performing proper maintenance, as outlined in this manual, ensures that your rifle will be safe to shoot and will perform to design specification for many years. Alterations, modifications or adjustments may damage your rifle, make it unsafe to fire and may void warranty claims.

## **Store your rifle safely**

Even though your rifle represents a significant financial investment, the greatest value in keeping it secured is preventing it from falling into the hands of a child, a careless adult, or a thief. It is your responsibility to take every reasonable precaution to secure your rifle.

## **Alcohol, medications and drugs**

Do not handle or operate your rifle under the influence of alcohol, medication or drugs.

## **WARRANTY AND SERVICE**

Barrett Firearms Manufacturing Inc. (BFMI), warrants that this firearm was manufactured free of defects in materials and workmanship. For one year from the date of purchase by the original owner, BFMI agrees to correct any defect in this firearm for the original purchaser by repair or replacement with the same or comparable model.

BFMI will not be responsible for injury, death, or damage to property resulting from either intentional or accidental discharge of this firearm or from its function when used for purposes or subjected to treatment for which it was not designed. BFMI will not honor claims involving this firearm which result from careless or improper handling, unauthorized adjustment or parts replacement, corrosion, neglect, the use of the wrong caliber ammunition, or the use of other than commercially manufactured ammunition in good condition, or any combination thereof.

If you need factory service, whether made under warranty or not, please contact BFMI for instructions on how to have your firearm repaired.

Barrett Firearms Manufacturing, Inc.  
P.O. Box 1077 Murfreesboro, TN  
37133-1077

**Customer Service: 615-896-2938**

**[www.barrett.net](http://www.barrett.net)**

### **Your Responsibility**

Your Barrett firearm is well-engineered and manufactured to the highest standards. It was carefully inspected before it was packaged and shipped from our factory. Its safe use depends on you alone. You are the ultimate safety device. Much like other mechanical devices, such as a power tools, gas-powered lawn equipment, and automobiles, your firearm is safe unless handled in an irresponsible or uneducated manner.

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# SPECIFICATIONS

## BARRETT REC7

CALIBER	6.8mm x 43 mm or 5.56x45 NATO
BARREL LENGTH	8,12,16 Inches
OVERALL LENGTH (STOCK COLLAPSED)	33.25 inches
OVERALL LENGTH (STOCK EXTENDED)	36.625 inches
WEIGHT (WITHOUT MAGAZINE)	7.62 pounds
MAGAZINE WEIGHT	0.56 pounds
MAGAZINE WEIGHT (30 CARTRIDGES)	1.62 pounds
TWIST RATE 6.8mm	1/10, RH
5.56mm	1/7, RH
NOMINAL MUZZLE VELOCITY	2550 ft/sec
SAFETY	Manual, thumb lever
ACCESSORY RAIL	Parallel with bore, Mil-Std 1913
GAS PLUG	2-Position with Nitride gas plug

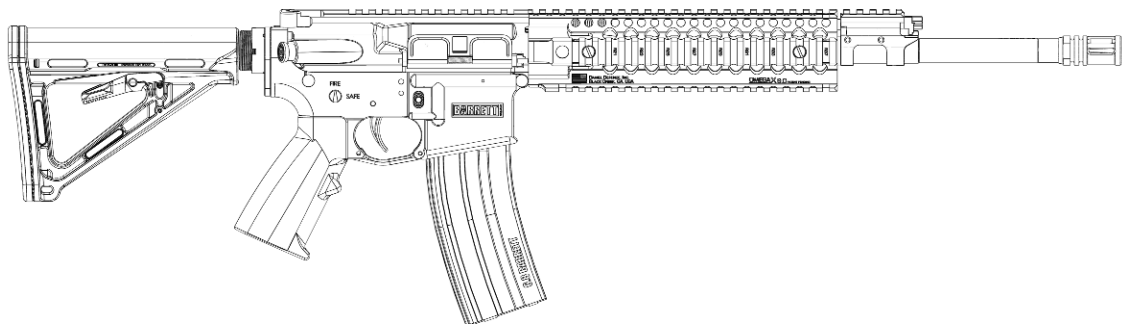


Figure 2, REC7

# CONTENTS

Your REC7 rifle system includes the following:

1. REC7 Rifle
2. Two magazines – Barrett 30rd 6.8 steel Magazines *or*  
Magpul 30rd 5.56 polymer Magazine
3. Operator Manual
4. Barrett soft case
5. Three Panel covers

The rifle is shipped from the factory fully assembled.

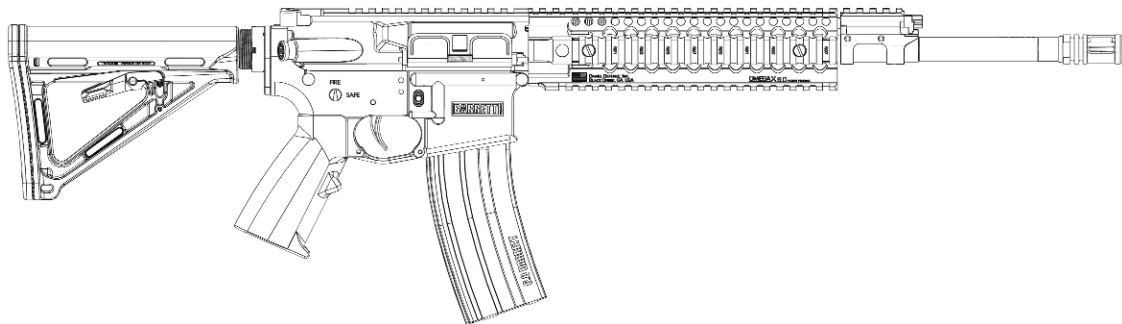


Figure 6 fully assembled rifle with magazine installed.



## **FUNCTIONS AND FEATURES**

- The REC7 is a self-loading, gas-piston-operated, magazine-fed, shoulder fired rifle that includes a flash hider.
- User-selected accessories may be mounted on Mil-Std 1913 rail segments on all four quadrants of the handguard.
- The chamber and bore are chrome plated.
- The gas block contains the gas plug and offers additional mounting space for accessories on the Mil-Std 1913 rail.
- Standard suppressor mounts attach via the muzzle threads (standard 1/2x28) under the A2 flash hider

## **BREAK-IN PROCEDURE**

Due to the qualities of chrome-lined barrels, Barrett does not offer a specific procedure for barrel break-in other than checking for obstructions and using your new rifle.

Barrett does recognize that a clean barrel shoots better. Barrett also recommends that you do not overheat your barrel, especially your new barrel.

Experience has shown that the bore becomes less prone to fouling over time and that accuracy may increase with use.

Simply ensure that the rifle is adequately lubricated and follow the loading/unloading and safety procedures when operating your rifle.

# LOADING

**WARNING**  
**Point muzzle in a safe direction.**

1. Insert a loaded magazine fully into the magazine well. Insert the magazine until the magazine catch engages and holds the magazine. Tap the magazine upward to ensure the magazine is fully seated. (Figure 7).

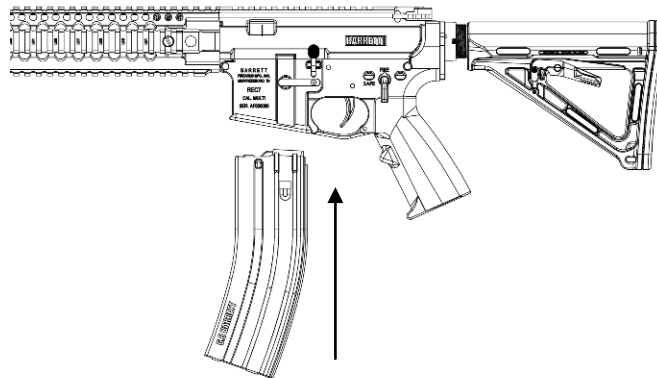


Figure 7

2. Before pulling the charging handle, disengage the charging handle lever with index finger on left side of handle. Pull charging handle back with index and middle fingers. Once the charging handle is in the rear most position, release handle with both fingers and let the handle pull forward without any assist. This will ensure the full force of the buffer spring is utilized to chamber the first round. (Figure 8).

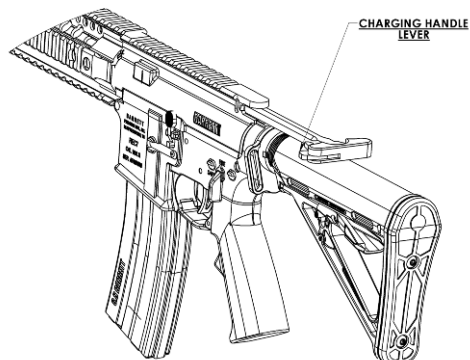


Figure 8.

## LOADING

3. Place safety selector switch to SAFE position until ready to operate. (Figure 9).

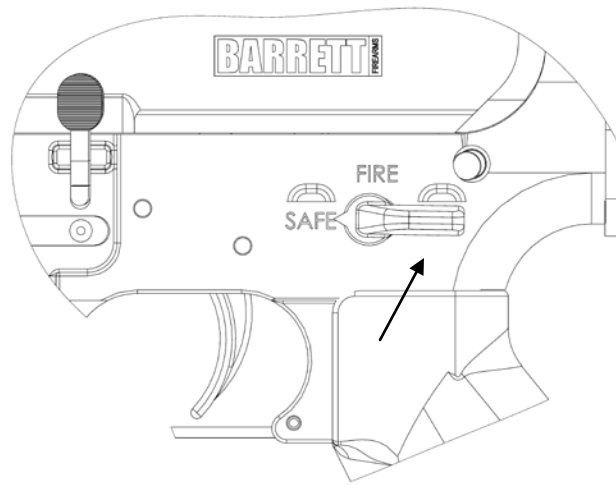


Figure 9

### Note

The hammer must be cocked in order for the selector to be placed on "SAFE".

## FIRING

Move the selector switch to FIRE to enable trigger movement to fire. (Figure 10).

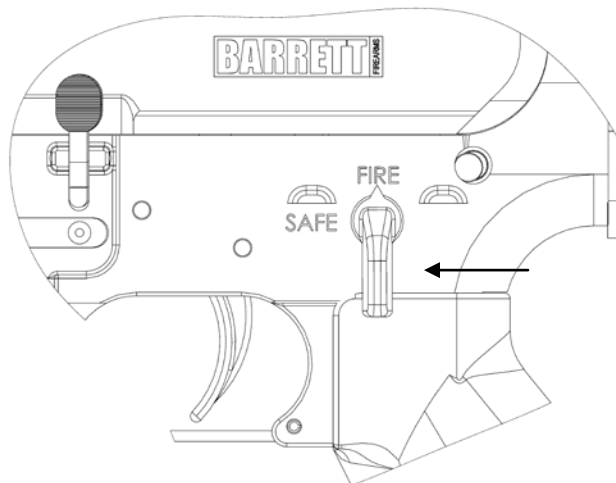


Figure 10

# UNLOADING AND CLEARING

1. Place the selector switch on SAFE. (Figure 11).

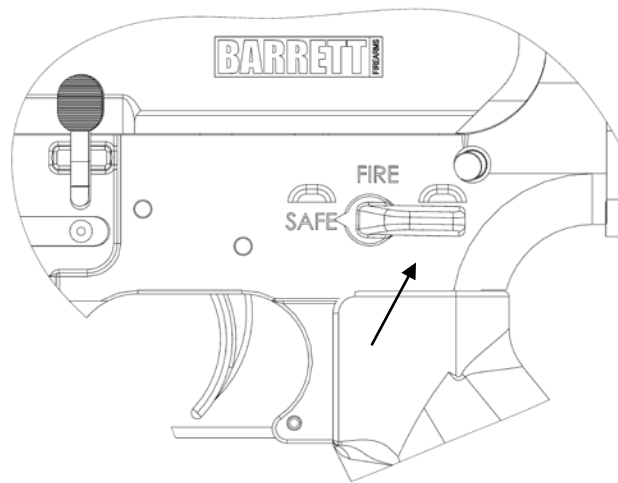


Figure 11

2. Remove the magazine by depressing the magazine catch button and assisting the cartridge magazine down. (Figure 12).

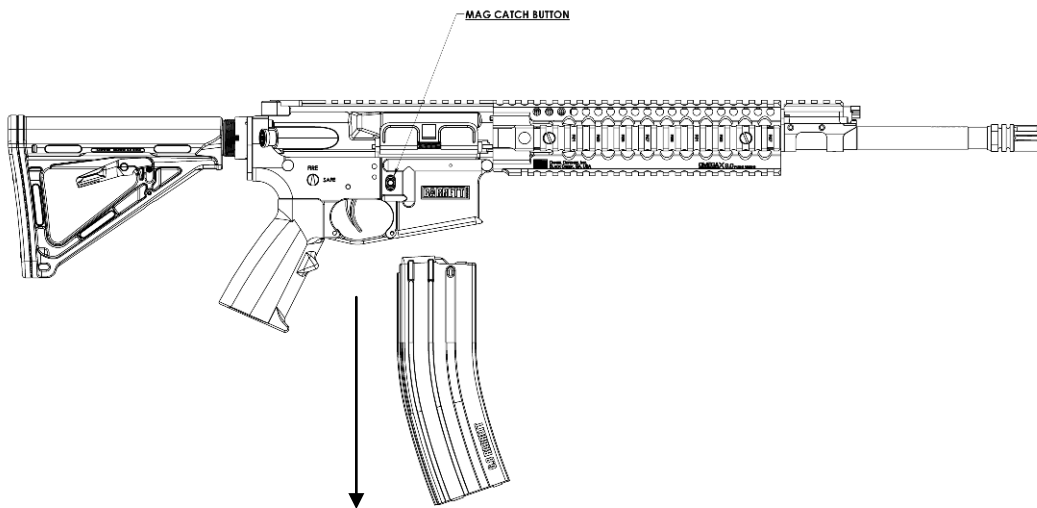


Figure 12

## Note

The cartridge magazine should drop from the magazine well by its own weight.

## UNLOADING AND CLEARING

3. To lock the bolt open, pull the charging handle and hold it rearward. (Figure 13). While holding the charging handle rearward, depress the bottom of the bolt catch. (Figure 14). Push the charging handle forward until it latches. (Figure 15).

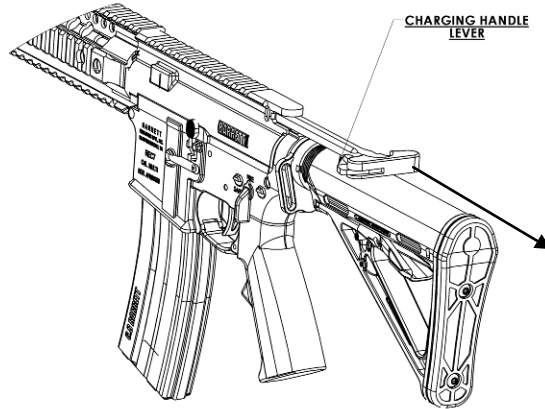


Figure 13

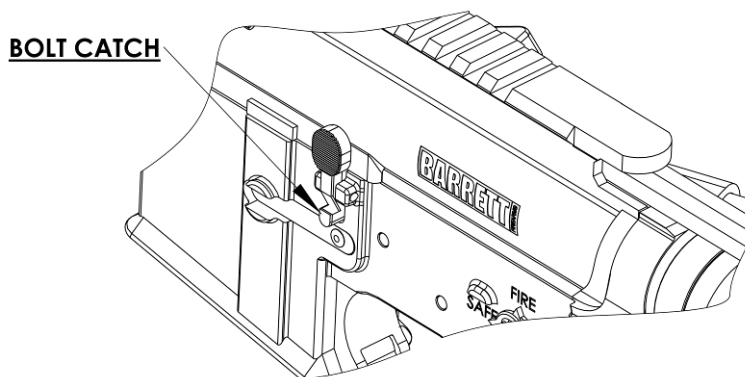


Figure 14

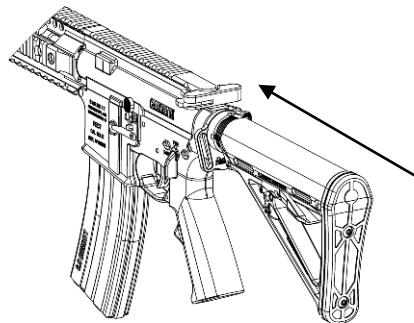


Figure 15

## UNLOADING AND CLEARING

4. Visually and physically inspect the chamber to ensure that it is empty. (Figure 16).

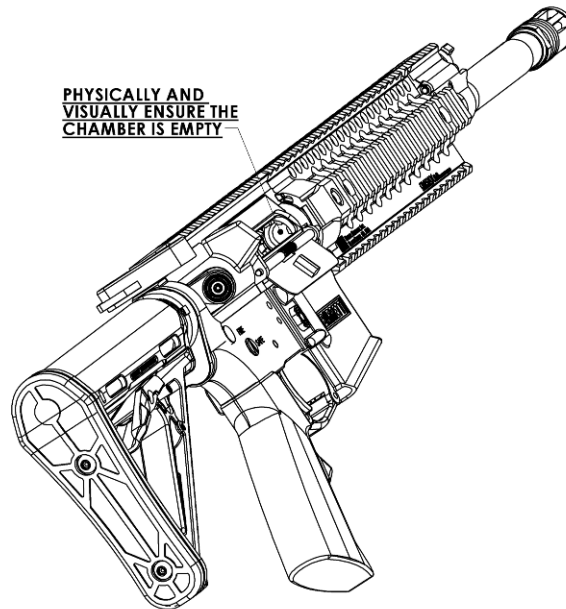


Figure 16

5. Place the selector switch on SAFE. Press the upper portion of the bolt catch to allow the bolt assembly to close. (Figure 17). Repeat steps 3-5 to ensure rifle is unloaded and cleared.

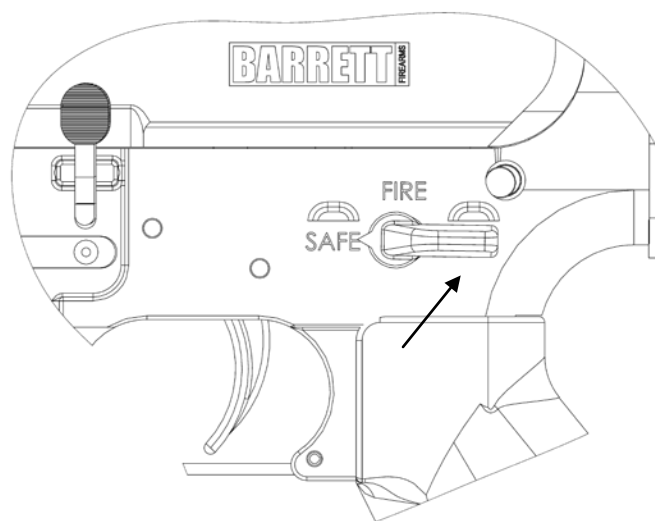


Figure 17

# DISASSEMBLY AND ASSEMBLY

This rifle detaches into two primary assemblies:

1. The upper assembly (Figure 18-1).

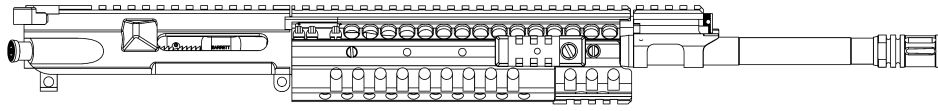


Figure 18-1

2. The lower assembly (Figure 18-2).

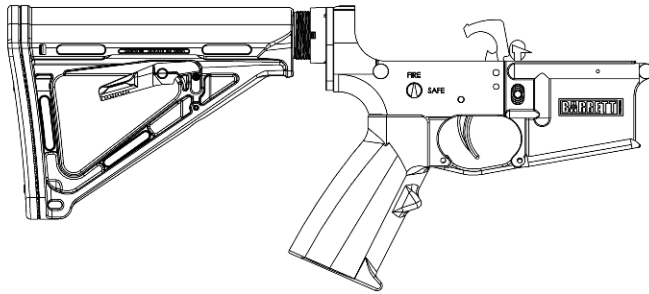


Figure 18-2

## Separating the Upper and Lower Receivers

1. Ensure rifle is unloaded and clear by following the steps in the previous section. With the safety on and bolt closed (Figure 19-1), push the takedown pin (rearward most pin) until it clears its detent then pull it until it stops. Push the pivot pin (forward most pin) until it clears its detent then pull it until it stops. (Figure 19-2). Separate the upper and lower receivers.

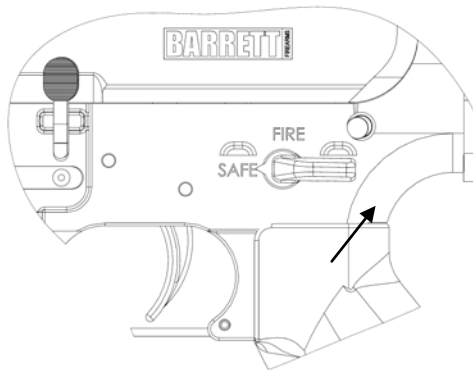


Figure 19-1

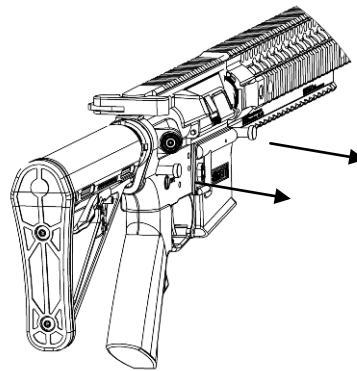


Figure 19-2

## DISASSEMBLY OF UPPER RECEIVER COMPONENTS

1. On a work surface, turn the upper receiver upside down. Pull back the charging handle and withdraw the bolt carrier assembly. (Figure 20-1).

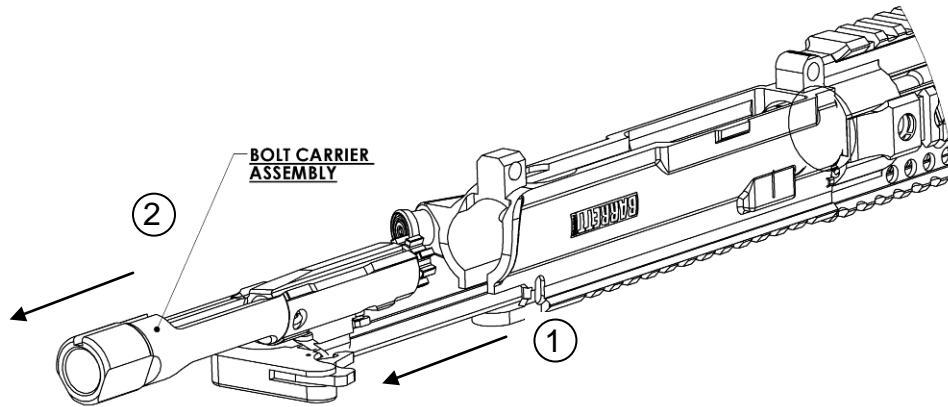


Figure 20-1

2. Next, lift the charging handle out of its track and remove it. (Figure 20-2).

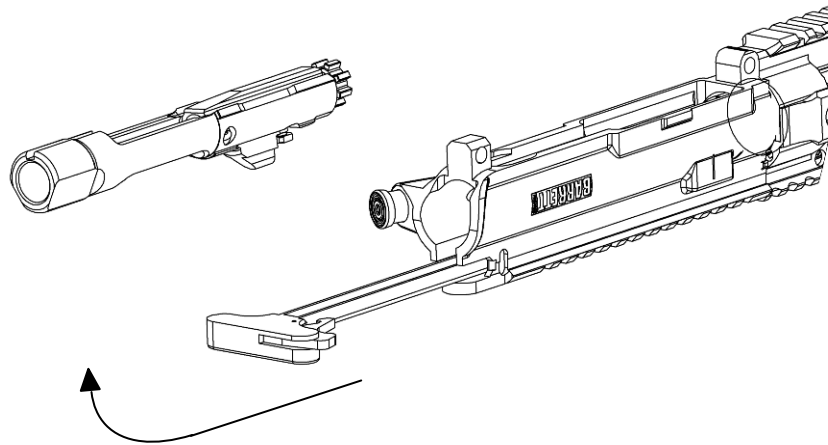


Figure 20-2



# DISASSEMBLY OF THE BOLT CARRIER

1. Remove the firing pin retaining pin by pushing it through until it can be gripped and pulled out. Remove the firing pin by sliding it out of the rear of the bolt assembly. Remove the cam pin by lifting up. Pull the bolt assembly from the bolt carrier. (Figure 21-1).

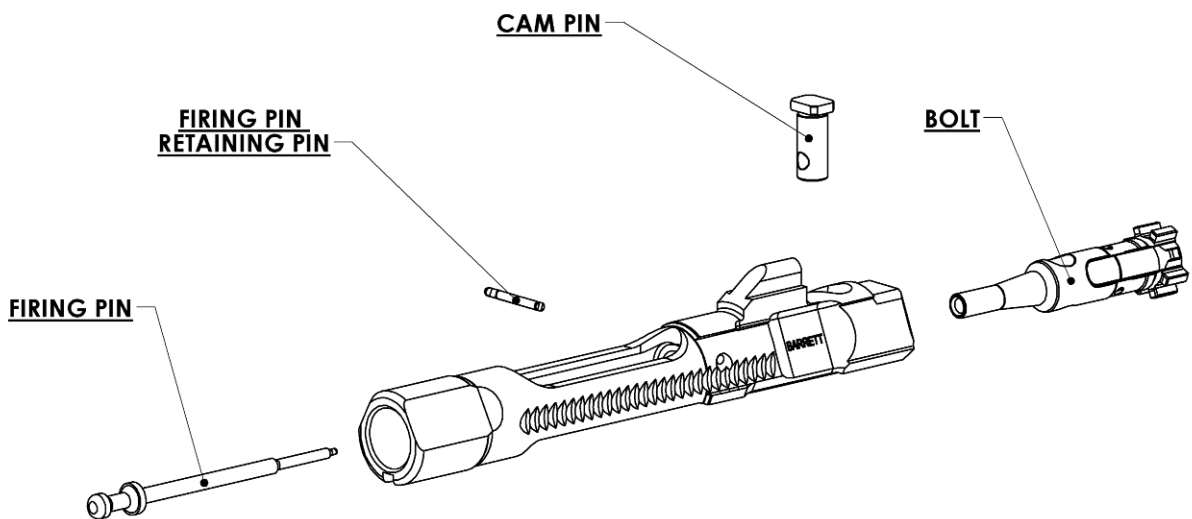


Figure 21-1 Bolt Carrier Assembly

## BOLT DISASSEMBLY

### Note

Disassemble the extractor and spring assembly only when dirty or damaged.

1. Use a pin punch (or firing pin) to remove the extractor pin. Applying pressure to extractor will aid in removal of extractor pin. Be aware that the extractor spring and extractor are under tension.
2. Remove the extractor and spring. (Figure 21-3).
3. Further disassembly of the bolt is not necessary for field maintenance

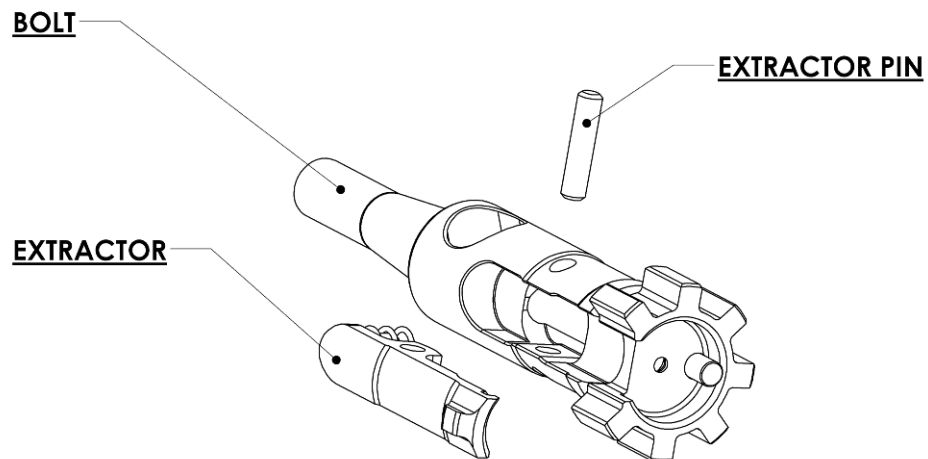


Figure 21-3

### Note

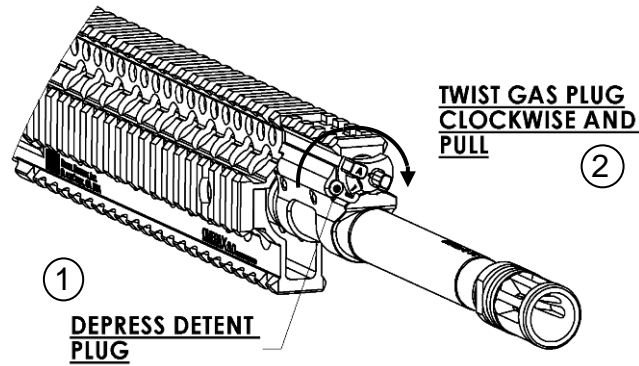
Bolt and extractor illustrated may not reflect your configuration, however maintenance and assembly instructions remain the same

# DISASSEMBLY OF PISTON SYSTEM

## Note

Disassemble the gas piston and spring assembly only when dirty or damaged.

1. Depress gas plug detent. Rotate gas plug until plug notch aligns with gas block shoulder. (Figure 22-1)



If gas plug is heavily fouled and unable to be rotated by hand, insert 3/32 punch or similar tool into hole in gas plug to assist with rotation.

Figure 22-1

2. Remove gas plug from gas block and tilt gun muzzle down. (Figure 22-2). Gas piston will fall free through front of the gas block. (Figure 22-3).

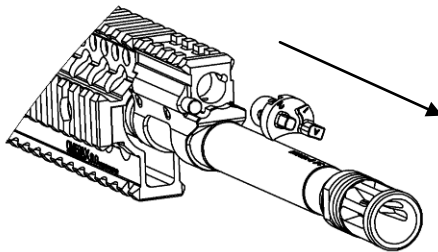


Figure 22-2

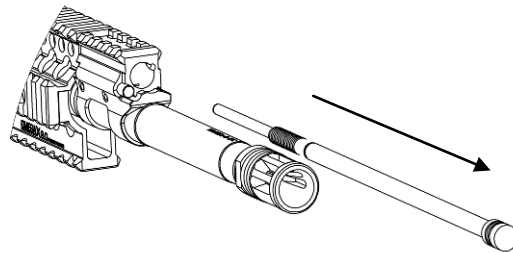


Figure 22-3

## Note

Gas block illustrated here may not reflect your configuration.

## DISASSEMBLY OF LOWER RECEIVER

### Caution

The disassembly of trigger components should be accomplished by a qualified armorer.

### Caution

The buffer retainer is under strong spring pressure. If not properly retained, it can be launched from its tube and cause injury.

### Note

Do not pull trigger while lower is disassembled from the upper. The hammer will strike the bolt catch which will damage or break the bolt catch and/or receiver.

1. The retainer and the buffer must be held simultaneously in order to remove safely. (Figure 32-1). Push on the buffer face while holding the retainer down with another finger or a suitable tool. Carefully remove the buffer with the buffer spring. (Figure 32-2).

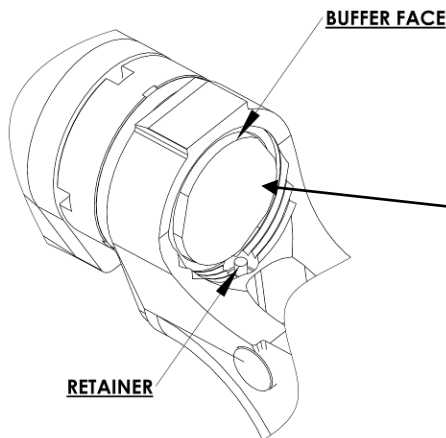


Figure 32-1

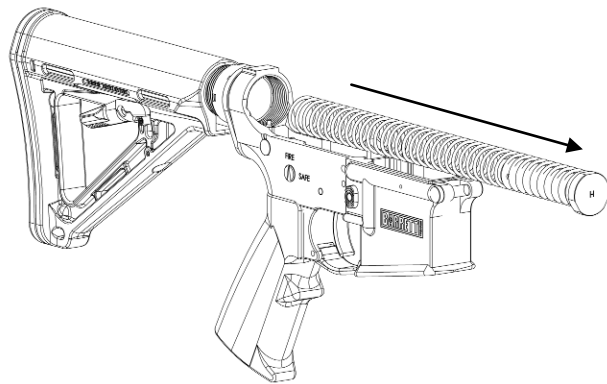


Figure 32-2

# CLEANING AND LUBRICATION

## **WARNING**

**Unload and clear the rifle before cleaning.**

## **Caution**

**Do not insert cleaning rods through muzzle. The barrel crown could be damaged which would severely degrade the accuracy of the rifle.**

### **Cleaning procedure**

1. The rifle should be cleaned and lubricated after each shooting session. Regular cleaning prevents the corrosive effects of moisture.
2. Apply cleaning solvent to a chamber brush and clean the chamber. Barrett Heavy Bore Cleaner is recommended.
3. Apply cleaning solvent to a bore brush and clean the bore. Barrett Heavy Bore Cleaner is recommended. Clean bore from the chamber end of barrel to prevent damage to the muzzle.
4. Clean the flash hider with a stiff plastic brush and bore solvent. It is best to clean the flash hider at the same time the barrel is being cleaned as the bore solvent will help loosen carbon build-up on its interior walls.
5. Clean the bolt face with bore solvent. Use a stiff plastic brush to remove carbon from both the extractor and the ejector. Depress the ejector and extractor by hand to test their smooth function.
6. Use dry patches as necessary to remove cleaner from the bore and chamber.
7. Clean the remainder of the rifle with cotton-tipped swabs, general purpose brushes and cleaning cloths.
8. Do not add lubricant to the inside of the gas cylinder or piston head, or to the interior of the magazine.
9. A light coating of anti-seize to the gas plug will allow easier removal under adverse conditions or extreme usage, but is not necessary under normal operating conditions.

## **ADVERSE OPERATING CONDITIONS**

Unusual conditions are defined as any condition requiring special maintenance. Perform maintenance outlined for the climate similar to your operational area.

**Extreme Cold:** When operating rifle in extremely cold temperatures, clean and lubricate the rifle at room temperature if possible. Apply a light coat of temperature appropriate lubricant to all functional parts. To prevent freezing, keep rifle covered when moving from a warm to cold area. This will allow gradual cooling. Keep rifle dry. Keep ammunition dry as frozen ammo can cause malfunctions. Do not lubricate ammunition. Always keep bore free of snow and other obstructions. If snow gets into the bore, clean the bore before firing using a clean patch and cleaning rod.

**Dust or Sand:** Dust and sand can cause malfunctions and excessive wear. Keep rifle covered when possible.

**Heavy Rain and Fording Operations:** Perform maintenance in accordance with normal cleaning procedures and apply thin coat of lubricant. Do not lubricate ammunition. Always drain any water from barrel prior to firing. Dry the bore with clean patch and cleaning rod.

**Hot, Wet Climate:** Perform maintenance more frequently. Inspect hidden surfaces for corrosion. Clean and lubricate if corrosion is found. To prevent external corrosion, remove handprints with oily cloth. Dry completely then lubricate rifle. Never store rifle in a wet carrying case.

# TROUBLESHOOTING

<b>MALFUNCTION</b>	<b>CAUSE</b>	<b>CORRECTIVE ACTION</b>
1. Failure to feed	<ol style="list-style-type: none"> <li>1. Did not draw bolt carrier fully to rear</li> <li>2. Magazine not seated</li> <li>3. Damaged magazine</li> <li>4. Improper shooter position</li> </ol>	<ol style="list-style-type: none"> <li>1. Retract bolt carrier fully to the rear.</li> <li>2. Seat magazine</li> <li>3. Replace or repair magazine</li> <li>4. Clean and lubricate</li> <li>5. Firmly shoulder the butt stock.</li> </ol>
2. Failure to chamber	<ol style="list-style-type: none"> <li>1. Damaged cartridge</li> <li>2. Dirty or obstructed chamber</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove and replace cartridge</li> <li>2. Clean chamber</li> </ol>
3. Failure to lock or unlock	<ol style="list-style-type: none"> <li>1. Obstruction between firing pin and bolt.</li> </ol>	<ol style="list-style-type: none"> <li>1. Disassemble and clear obstruction.</li> </ol>
4. Failure to fire	<ol style="list-style-type: none"> <li>1. Faulty ammunition. Primers dented in center of sufficient depth to fire</li> <li>2. Obstructed firing pin</li> <li>3. Hammer</li> <li>4. Bolt not fully in battery</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace ammunition</li> <li>2. Disassemble and clear obstruction</li> <li>3. Replace hammer or hammer spring</li> <li>4. Push charge handle fully forward and/or forward assist.</li> </ol>
5. Failure to extract	<ol style="list-style-type: none"> <li>1. Broken or worn extractor</li> <li>2. Broken or worn extractor spring</li> <li>3. Extractor not moving freely</li> <li>4. Dirty ammunition or chamber</li> <li>5. Broken case rim</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace extractor</li> <li>2. Replace extractor spring</li> <li>3. Clean extractor, extractor spring, and recess</li> <li>4. Clean chamber and insure ammunition is clean</li> <li>5. Clear with cleaning rod.</li> </ol>
5. Failure to eject	<ol style="list-style-type: none"> <li>1. Broken or worn ejector</li> <li>2. Broken or worn ejector spring</li> <li>3. Ejector not moving freely</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace ejector</li> <li>2. Replace ejector spring</li> <li>3. Clean ejector, ejector spring, and recess</li> </ol>
6. Very hard recoil	<ol style="list-style-type: none"> <li>1. Faulty or hot ammunition</li> <li>2. Improper shooter position</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace ammunition, cool if hot</li> <li>2. Firmly shoulder the buttstock</li> </ol>

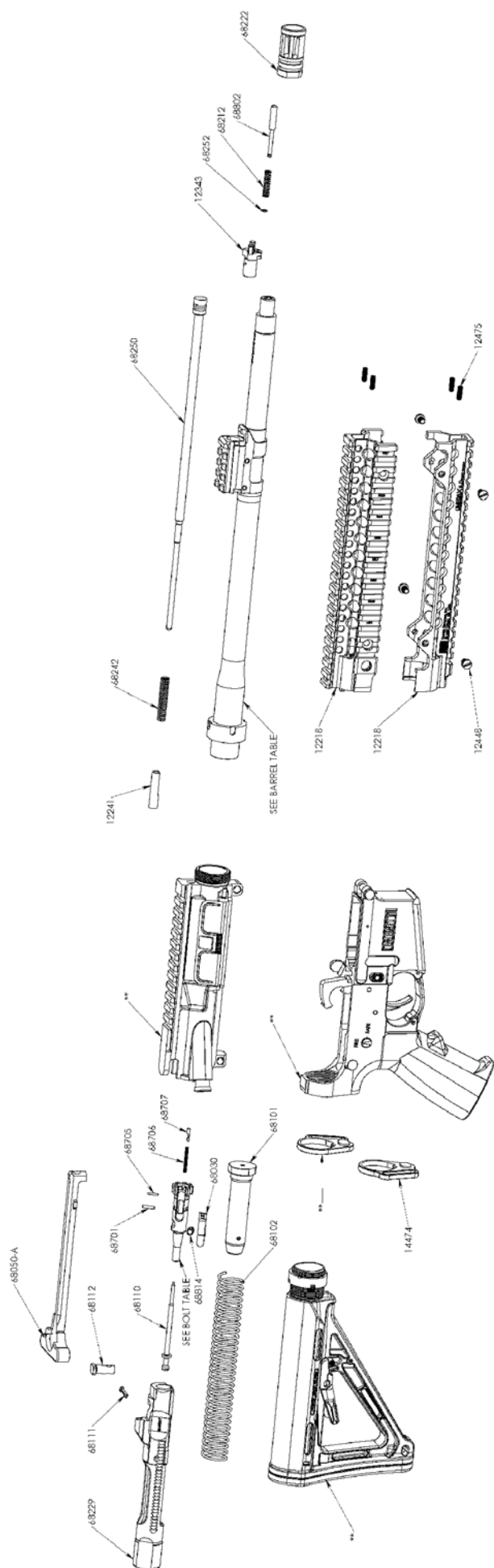
<b>PART #</b>	<b>DESCRIPTION</b>	<b>QTY</b>
68706	SPRING, EJECTOR	1
68705	PIN, EJECTOR	1
68701	PIN, EXTRACTOR	1
68707	EJECTOR	1
12241	OMEGA BUSHING	1
68242	SPRING, GAS PISTON	1
68250	16" PISTON	1
68253	WASHER, CRUSH	1
68222	FLASH HIDER	1
68252	CLIP, E-CLIP	1
68050-A	CHARGING HANDLE	1
68212	SPRING, DETENT	1
68802	PLUG, DETENT	1
68110	FIRING PIN	1
68111	RETAINING PIN	1
68112	CAM PIN	1
68229	SELECT FIRE CARRIER	1
12218	OMEGA X-RAIL	1
68814	SPRING, EXTRACTOR/BUMPER	1
12448	FHMS 10-32	4
14474	LH BURNSD LOOP	1
12475	SET SCREW	4
68101	H2 BUFFER	1
68102	CARBINE SPRING	1
**	CALL BFMI	1

<b>GAS PLUG DESIGNATION</b>		
<b>PART #</b>	<b>BARREL</b>	<b>LETTER</b>
12343	6.8mm 16"	A
**	6.8mm 12"	B
**	6.8mm 8"	C
12244	5.56mm 16"	D
**	5.56mm 12"	E
**	5.56mm 8"	F

<b>BARREL ASSEMBLIES</b>	
<b>PART #</b>	<b>ASSY</b>
12258	6.8mm 16"
**	6.8mm 12"
**	6.8mm 8"
12245	5.56mm 16"
**	5.56mm 12"
**	5.56mm 8"

<b>BOLT</b>	
<b>PART #</b>	<b>TYPE</b>
68031	6.8mm
12429	5.56mm





REC7