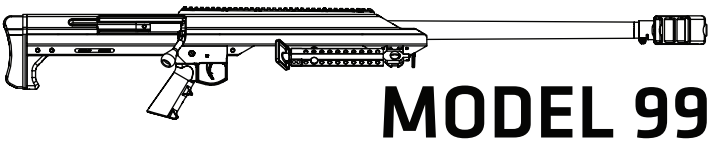
MODEL 99



MODEL 99

OPERATOR'S MANUAL

BARRETT®

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MANUFACTURER'S DISCLAIMER

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.

WARRANTY AND SERVICE

For one year from date of purchase, Barrett Firearms Manufacturing Inc. (BFMI), warrants to the original owner, that this product was manufactured free of defects in materials and workmanship. BFMI will correct any defect covered under the warranty 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 product 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. Please visit **barrett.net** for any additional information.

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

Barrett Firearms Manufacturing Inc.
P.O. Box 1077
Murfreesboro, TN 37133-1077
615-896-2938

USE OF THIS MANUAL

Read this manual before you use or manipulate your Barrett product. It is important that you understand the principles of safe gun handling in general and the features of this product. 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 product and it should be transferred with the product to subsequent owners. Additional manuals can be ordered from Barrett Firearms Manufacturing or can be downloaded from the company website, **barrett.net**. Technical specifications are subject to change without notice. Please ensure you have the most updated revision of this manual by checking **barrett.net**. The revision letter can be found on the back of this manual.

SAFETY GUIDELINES

⚠ WARNING
FAILURE TO FOLLOW SAFETY GUIDELINES MAY CAUSE INJURY OR DEATH

AMMUNITION

Do not use hand loaded, re-manufactured, or surplus ammunition. Always use new, clean, dry, properly stored, and correct caliber ammunition from reputable manufacturers.

SAFETY DISTANCE

Bullets fired from this rifle may travel as far as 4 miles. Make certain that you have an adequate backstop.

HEARING PROTECTION

Always wear adequate hearing protection when the rifle is firing; wear both earplugs and shooting muffs together for maximum protection. This includes observers. Observers should always be behind the shooter.

EYE PROTECTION

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

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. Upon firing the muzzle brake releases high-pressure gas from its side ports that can damage objects or cause injuries. Keep everything away from the vicinity of the muzzle brake.

ASSUME EVERY GUN IS LOADED
Always 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.

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. Please note that the safety lever will not rotate into the "SAFE" position until the bolt is open or the action is cocked.

FAILURE TO FIRE
If your rifle fails to fire when you pull the trigger, do not open the action. Keep the rifle pointed toward a safe area and wait 2 minutes. If a hang-fire (slow ignition) has occurred, the round will probably 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 will void warranty claims.

STORE YOUR RIFLE SAFELY

It is your responsibility to take reasonable precautions to secure your rifle, keep it properly secured and prevent unauthorized use.

ALCOHOL, MEDICATIONS AND DRUGS

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

DESCRIPTION OF FIREARM - (FIGURE 1)

The Model 99 is a single shot, bolt action rifle. The shooter manually loads one single cartridge. The firing pin assembly is cocked when the bolt handle is raised. The bolt is retained in the receiver and is equipped with an extractor to remove a cartridge or shell casing. A manually controlled safety prevents or permits trigger movement.

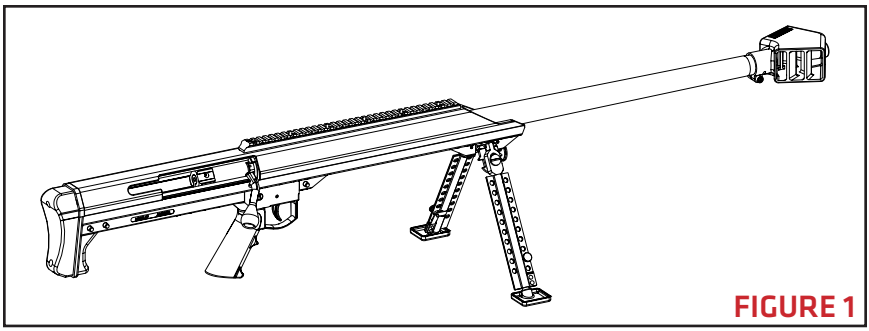


FIGURE 1

SPECIFICATIONS

Calibers	Barrel Length	Overall Length	Weight	Twist rate
.50 BMG	32", Heavy	50"	25 lbs	1 in 15", RH
	29", Fluted	47"	23 lbs	1in 15", RH
.416 Barrett	32", Heavy	50"	25 lbs	1 in 12", RH

BREAK-IN PROCEDURE

Barrett does not offer a specific procedure for barrel break-in other than checking for obstructions and using your new rifle. Experience has shown that the bore becomes less prone to fouling over time and that accuracy may improve with use.

SAFETY MECHANISM - FIGURE 2

The Model 99 has a two-position safety: safe or fire. Rotate the safety lever to the safe position to prohibit the rifle from firing.

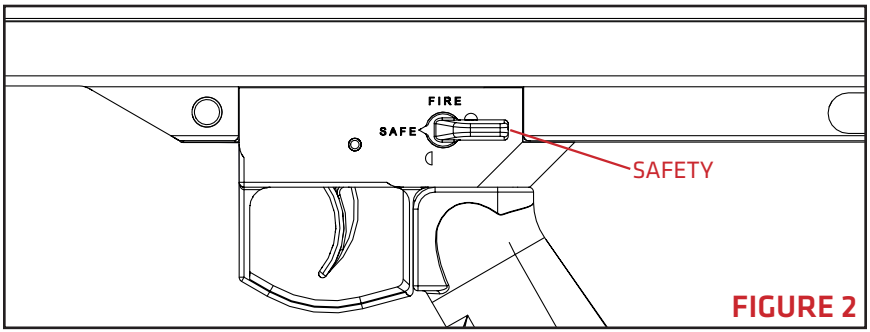


FIGURE 2

LOADING AND FIRING

1. Rotate the safety lever to the safe position.

2. With the rifle pointed in a safe direction, lift the bolt handle and draw it to the rear (**FIGURE 3**, **A**). Insert a cartridge into the ejection port (**FIGURE 3**, **B**).

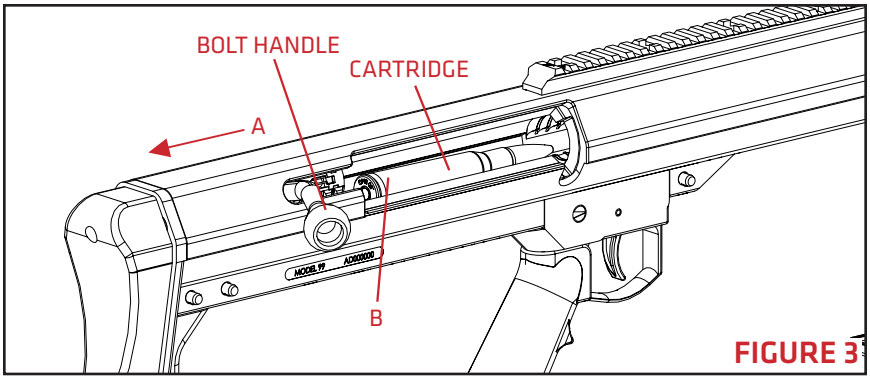


FIGURE 3

⚠ WARNING

THE SHOOTER MUST BE POSITIONED DIRECTLY BEHIND THE RIFLE WITH THE RECOIL PAD HELD FIRMLY AGAINST THE SHOULDER. FIRING THE RIFLE IN ANY OTHER POSITION COULD RESULT IN INJURY BY CONTACT WITH THE RIFLE OR RIFLE SCOPE.

⚠ WARNING

DO NOT FIRE THE RIFLE UNLESS ALL THREE ASSEMBLY PINS ARE SECURED IN PLACE. SEVERE INJURY WILL RESULT BY FIRING THE RIFLE WITHOUT THESE PINS IN PLACE.

3. Push the bolt handle fully forward (**FIGURE 4**, **A**) and then downward (**FIGURE 4**, **B**).

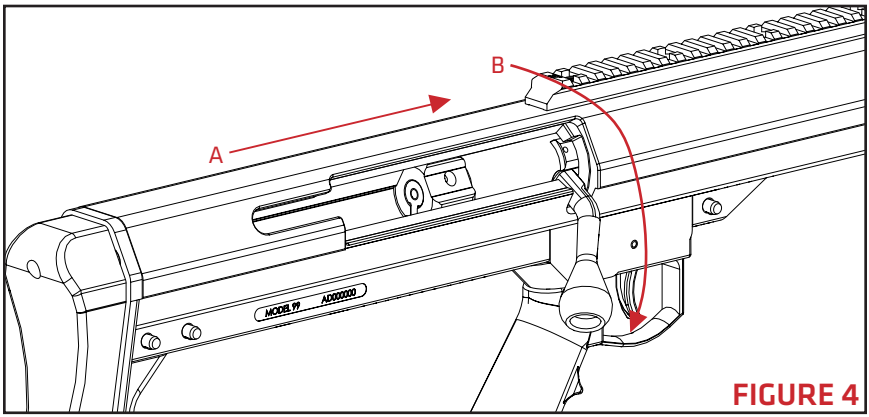


FIGURE 4

⚠ WARNING

DO NOT ATTEMPT TO FORCE A CARTRIDGE INTO THE CHAMBER BY FORCING THE BOLT CLOSED. IF THE BOLT WILL NOT CLOSE EASILY, REMOVE THE CARTRIDGE AND EXAMINE IT FOR DAMAGE OR DEFECTS. CHECK THE CHAMBER FOR OBSTRUCTIONS.

4. The rifle may now be fired by rotating the safety lever to the fire position and then pulling the trigger.

CYCLING THE ACTION

After the rifle is fired, repeat the steps in the **LOADING AND FIRING** section to load another round and prepare the rifle to fire again.

UNLOADING AND CLEARING

1. Place the safety lever in the safe position.

2. Lift the bolt handle upward and pull it to the rear to eject a chambered cartridge or spent shell casing.

3. With the bolt pulled fully to the rear, look into the chamber to make sure that the cartridge or shell casing has been removed. Insert a finger into chamber to verify the empty chamber.

DISASSEMBLY AND ASSEMBLY

⚠ WARNING

UNLOAD AND CLEAR THE RIFLE BEFORE DISASSEMBLY. FOLLOWING THE DISASSEMBLY STEPS WILL RELEASE THE FIRING PIN. IF A CARTRIDGE IS IN THE CHAMBER IT WILL FIRE. ENSURE NO LIVE AMMUNITION IS PRESENT DURING DISASSEMBLY OR ASSEMBLY.

The rifle may be disassembled into 5 major components by removing 3 assembly pins and 1 bipod assembly pin (**FIGURE 6**).

MAJOR COMPONENTS:

1. Receiver assembly
2. Buttplate assembly
3. Trigger housing assembly
4. Bolt assembly
5. Bipod assembly

ASSEMBLY PINS:

6. Assembly pins
7. Bipod assembly pin

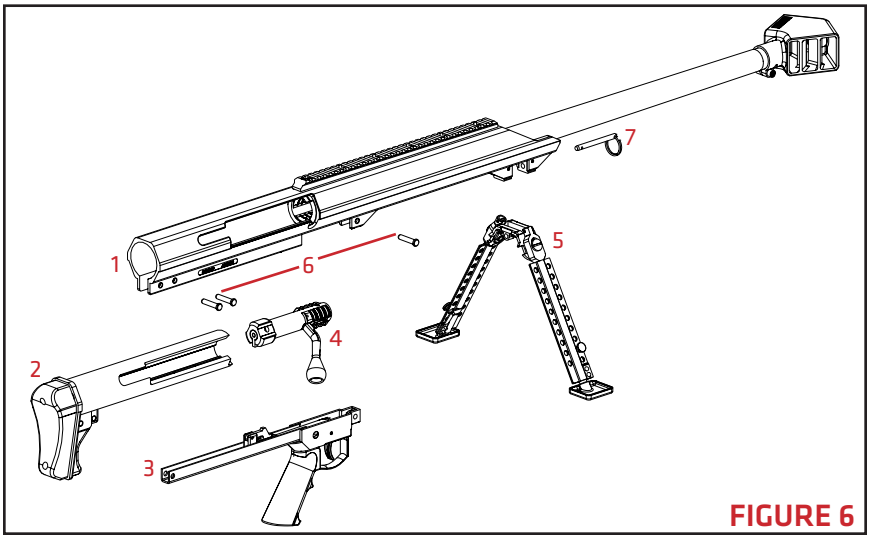


FIGURE 6

DISASSEMBLY INTO MAJOR COMPONENTS

1. Deploy bipod legs to let the rifle rest on the bipod feet and buttplate assembly.

2. Raise the bolt handle but do not retract it from the barrel. (**FIGURE 7**, **A**) Remove the two rear assembly pins and the forward assembly pin (**FIGURE 7**, **B**).

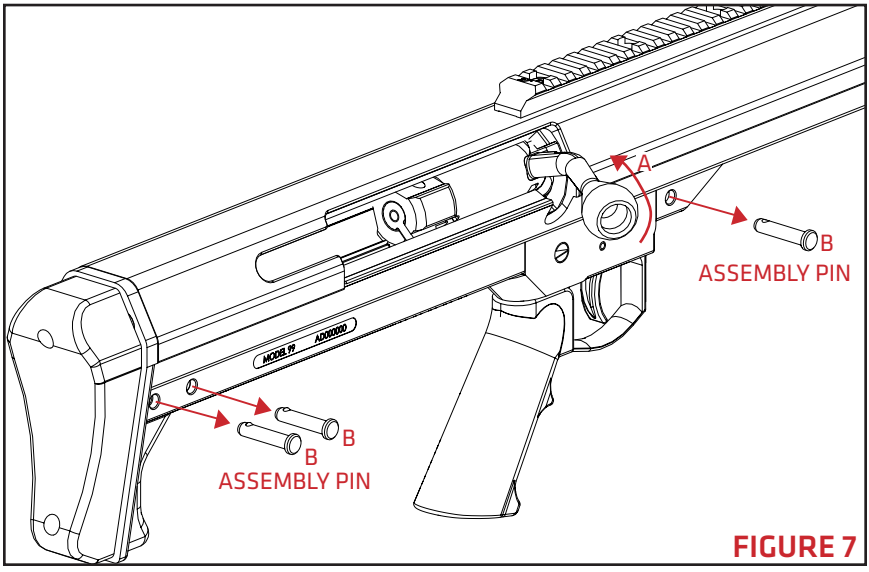


FIGURE 7

3. Remove the trigger housing assembly by pulling the pistol grip downward out of the receiver (**FIGURE 8**).

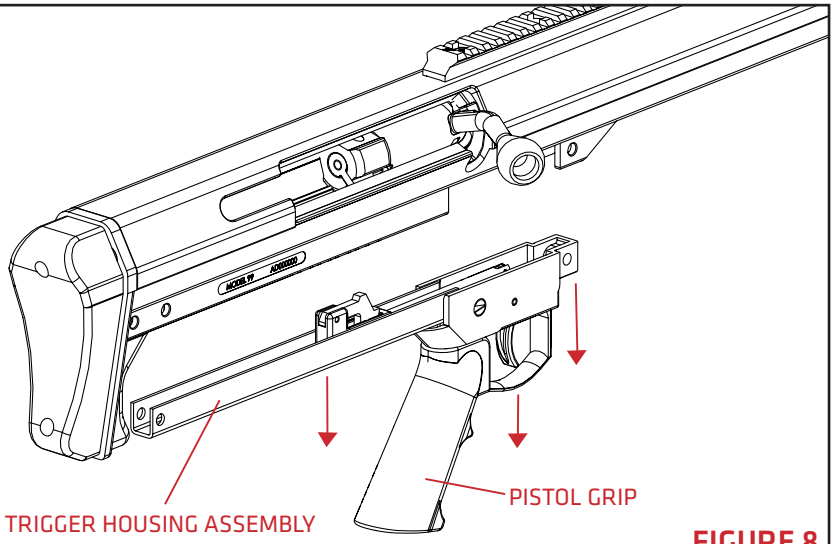


FIGURE 8

NOTE: NO FURTHER DISASSEMBLY OF THE TRIGGER HOUSING ASSEMBLY IS RECOMMENDED OR NECESSARY FOR MAINTENANCE.

NOTE: THE FIRING PIN ASSEMBLY IS COCKED BY RAISING THE BOLT HANDLE. DISASSEMBLY IS FACILITATED BY REMOVING THE BOLT ASSEMBLY WITH ITS FIRING PIN ASSEMBLY COCKED. THE FIRING PIN ASSEMBLY CAN BE ACCIDENTALLY UNCOCKED BY TWISTING THE BUTTPLATE ASSEMBLY AS IT IS BEING REMOVED. IF THIS OCCURS, THE FIRING PIN ASSEMBLY MAY BE RECOCKED WHILE THE BOLT ASSEMBLY REMAINS IN THE RECEIVER ASSEMBLY. CAPTURE THE COCKING PIECE SHROUD WITH THE END OF THE BUTTPLATE ASSEMBLY AND TWIST THE BUTTPLATE ASSEMBLY CLOCKWISE 1/4 OF A TURN TO RECOCK THE FIRING PIN ASSEMBLY.
(SEE FIGURE 6, PARTS 2 AND 4.)

4. Without twisting, pull the buttplate assembly rearward to remove it from the receiver assembly.

5. Grasp the bolt handle and withdraw it from the barrel. Orient the bolt so that the locking lugs will pass through the cartridge feed and ejection port. Remove the bolt from the receiver.

6. Lift the front of the receiver to remove the gun's weight from the bipod legs. Pull the bipod assembly pin forward and remove bipod.

REASSEMBLY OF MAJOR COMPONENTS

Major components are assembled in reverse order of disassembly.

REMOVAL OF FIRING PIN ASSEMBLY FROM BOLT ASSEMBLY

NOTE: NO FURTHER DISASSEMBLY OF THE TRIGGER HOUSING ASSEMBLY IS RECOMMENDED OR NECESSARY FOR MAINTENANCE.

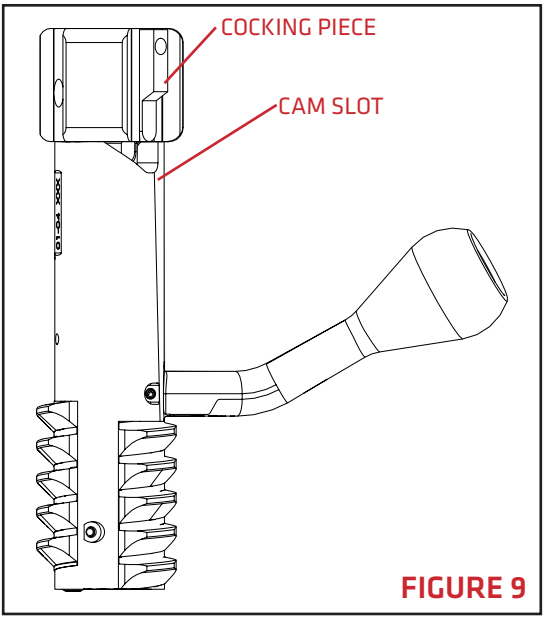


FIGURE 9

1. Insert an assembly pin into the hole in the cocking piece shroud. The assembly pin may require lubrication and rotating as the pin is inserted (**FIGURE 10**, **A**). This locks together the cocking piece shroud and the firing pin assembly.

⚠ WARNING

DO NOT REMOVE THE ASSEMBLY PIN FROM THE COCKING PIECE SHROUD WHILE THE FIRING PIN ASSEMBLY IS REMOVED FROM THE BOLT. THE FIRING PIN SPRING IS UNDER HEAVY LOAD. SERIOUS INJURY CAN OCCUR IF THE ASSEMBLY PIN IS REMOVED.

2. Grasp the bolt handle. Turn the cocking piece shroud counter-clockwise to unscrew it from the bolt assembly (**FIGURE 10**, **B**).

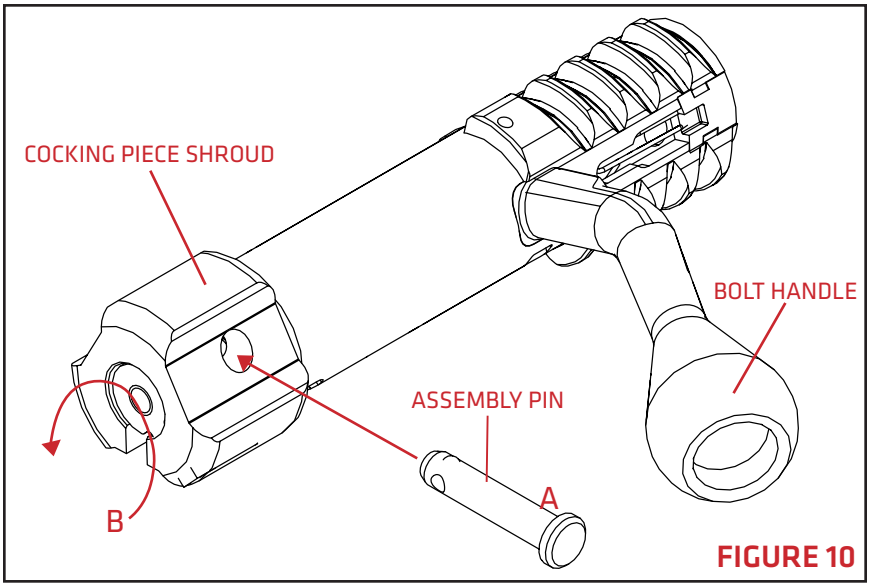


FIGURE 10

3. Separate the firing pin assembly from the bolt assembly (**FIGURE 11**).

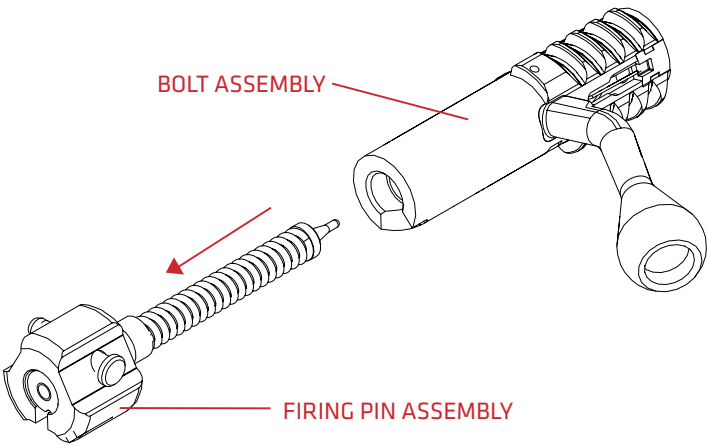


FIGURE 11

NOTE: NO FURTHER DISASSEMBLY OF THE FIRING PIN ASSEMBLY IS RECOMMENDED OR NECESSARY FOR MAINTENANCE.

INSTALLATION OF FIRING PIN ASSEMBLY INTO BOLT ASSEMBLY

Installation of the firing pin assembly into the bolt assembly is in the reverse order of its removal.

REMOVAL AND REPLACEMENT OF EJECTOR AND EXTRACTOR

⚠ WARNING

THE EJECTOR IS UNDER SPRING PRESSURE AND IS HELD IN PLACE BY THE EJECTOR PIN. WEAR SAFETY GLASSES WHEN REMOVING THE EJECTOR PIN.

NOTE: REMOVAL AND REPLACEMENT OF THE EJECTOR PIN REQUIRES THE USE OF A HAMMER AND A 3/32 PIN PUNCH. IT IS ALSO USEFUL TO HAVE A SHELL CASING.

NOTE: THE EXTRACTOR, EJECTOR AND THEIR SPRINGS ARE NOT LIKELY TO FAIL. IF THE RIFLE FAILS TO EXTRACT OR EJECT, RULE OUT OTHER CAUSES BEFORE ATTEMPTING THIS PROCEDURE. IT IS NOT NECESSARY TO REMOVE EITHER THE EXTRACTOR OR THE EJECTOR FOR ROUTINE MAINTENANCE. THEIR REMOVAL IS TO FACILITATE PARTS REPLACEMENT ONLY. IF YOU ARE NOT CONFIDENT IN YOUR SKILLS, BARRETT MANUFACTURING WILL PERFORM THIS SERVICE FOR A MODEST FEE.

EJECTOR REMOVAL

1. Hold the bolt face firmly against a flat work surface. Drive the ejector pin out of the bolt with a 3/32 punch (**FIGURE 12**, **A**). The ejector and ejector spring will escape from the bolt after the punch is retracted from the ejector pin hole.

2. Lift the bolt from the work surface and remove the ejector and ejector spring (**FIGURE 12**, **B**).

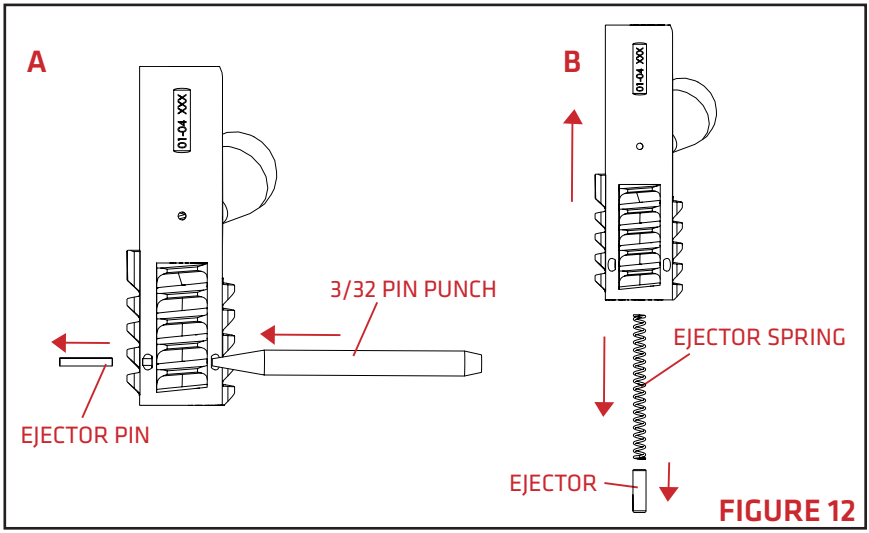


FIGURE 12

EXTRACTOR REMOVAL

1. Using a 3/32 or smaller punch, gently lift the end of the extractor spring away from the extractor. Lift the spring just enough for it to clear the extractor (**FIGURE 13**).

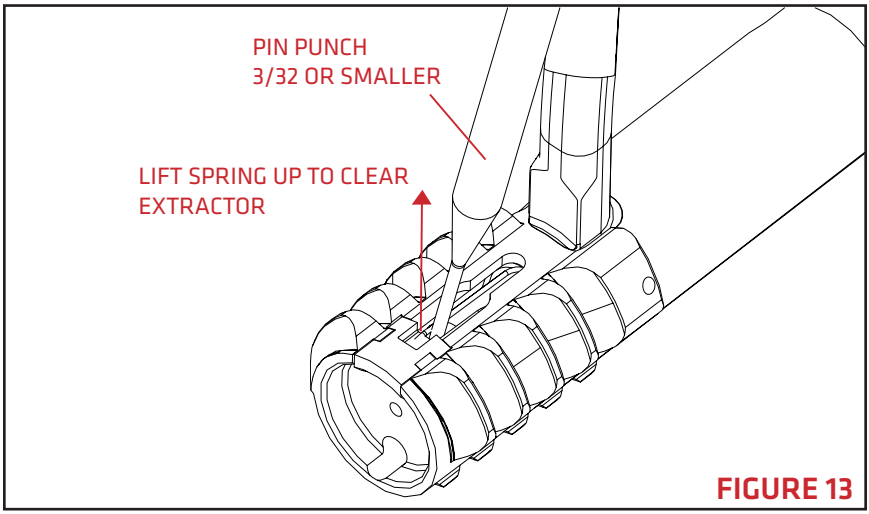


FIGURE 13

2. Slide the extractor spring forward over the extractor until it is clear of the bolt recess. Remove the spring (**FIGURE 14**). Note that the end of the extractor spring is bent slightly toward the extractor.

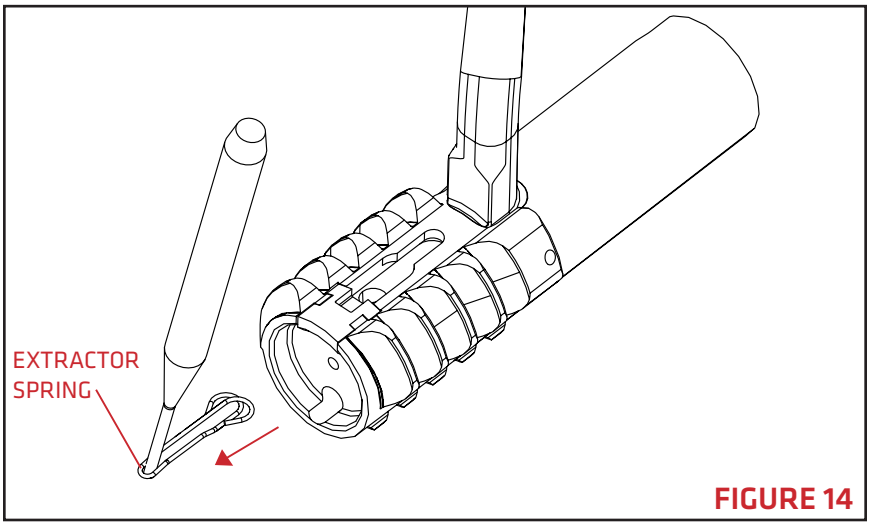


FIGURE 14

3. Lift the extractor out of its recess in the bolt (**FIGURE 15**).

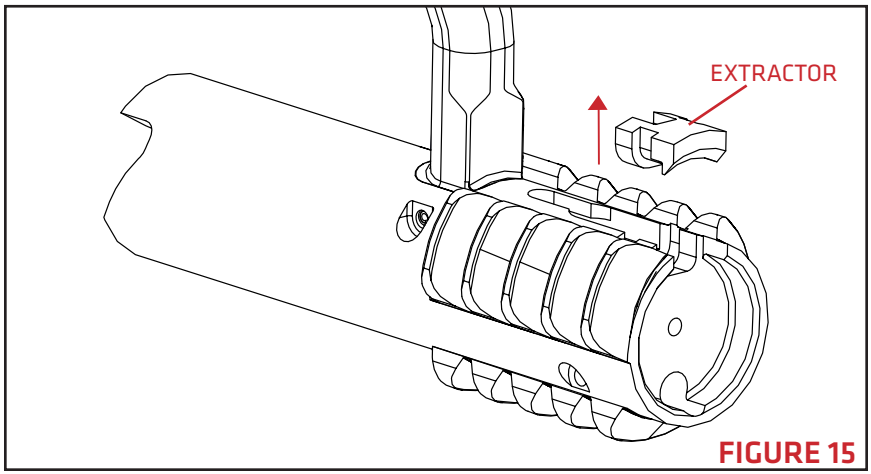


FIGURE 15

EXTRACTOR INSTALLATION

The installation of the extractor is in reverse order of its removal.

EJECTOR INSTALLATION

1. Place the ejector spring in the ejector spring hole (**FIGURE 16**, **A**). The spring is bi-directional.

2. Place the ejector in the ejector hole (**FIGURE 16**, **B**). Orient the ejector so that the ejector's pin slot is facing toward the bolt.

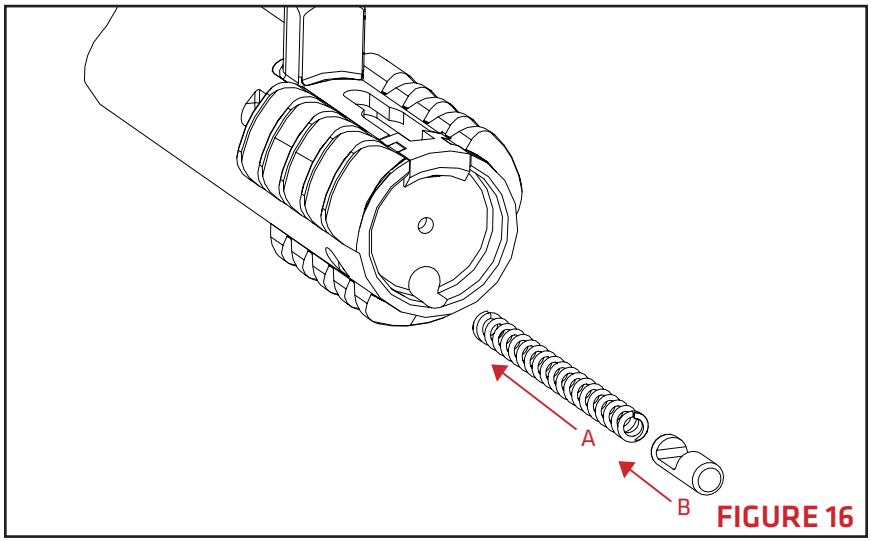


FIGURE 16

3. Hook the rim of a shell casing under the extractor. Use the opposite side of the shell casing to force the ejector flush with the bolt face (**FIGURE 17**).

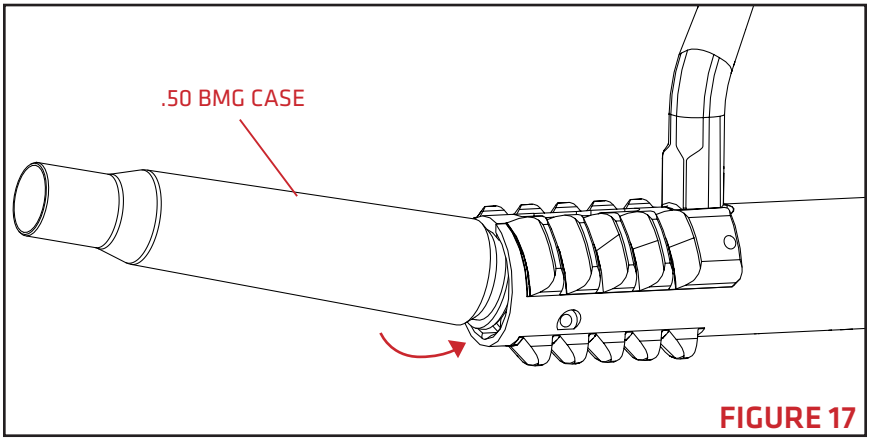


FIGURE 17

4. Looking through the bolt's ejector pin hole, confirm that the ejector's pin slot is oriented so that the ejector pin hole is clear. While depressing the ejector with a cartridge case, insert a punch through one side of the ejector pin hole leaving room for the ejector pin to be started from the opposite side. (**FIGURE 18**, **A**). The punch holds the ejector in place until the ejector pin has been started from the opposite side. (**FIGURE 18**, **B**). With a 3/32 punch, finish driving the ejector pin until it is flush with the bolt's ejector pin recess.

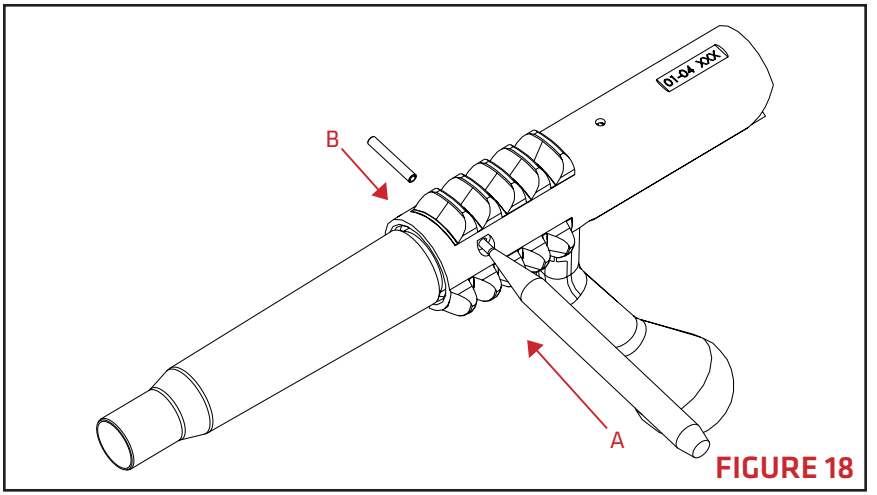


FIGURE 18

CLEANING AND LUBRICATION

⚠ WARNING

UNLOAD AND CLEAR THE RIFLE BEFORE CLEANING.

⚠ CAUTION

DO NOT INSERT CLEANING RODS THROUGH THE MUZZLE. THE BARREL CROWN COULD BE DAMAGED WHICH WOULD SEVERELY DEGRADE THE ACCURACY OF THE RIFLE.

⚠ CAUTION

TO PROTECT THE RIFLE FROM CORROSION, THE RIFLE AND THE INTERIOR OF THE CARRYING CASE SHOULD BE MOISTURE FREE BEFORE THE RIFLE IS PLACED IN THE CARRYING CASE FOR STORAGE.

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.

4. Clean the muzzle brake with a stiff plastic brush and bore solvent. It is best to clean the muzzle brake at the same time the barrel is being cleaned as the bore solvent will help loosen the 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 rags. Make sure all metal surfaces are coated with preservative oil.

CORROSIVE AMMUNITION CLEANING PROCEDURE

⚠ CAUTION

BARRETT DOES NOT RECOMMEND SHOOTING CORROSIVE AMMUNITION. SHOOTING CORROSIVE AMMUNITION MAY DAMAGE YOUR FIREARM. DAMAGE DUE TO FIRING CORROSIVE AMMUNITION IS EASY TO DETECT AND IS NOT COVERED UNDER THE WARRANTY AGREEMENT.

⚠ CAUTION

RUST WILL BEGIN TO FORM ON BARE METAL RESULTING FROM THE HOT WATER RINSE UNLESS RUST PREVENTATIVE OR LIGHT OIL IS APPLIED IMMEDIATELY.

If you have been forced by necessity or have accidentally fired corrosive ammunition, the following specialized cleaning procedure applies.

1. **Cleaning.** Immediately after firing the corrosive ammunition, thoroughly scrub the bore and bolt face with very hot soapy water or cleaner specifically designed for corrosive ammunition.

2. **Rinsing and drying.** When the metal is clean, rinse the surfaces with very hot water. Wipe off excess moisture. The residual heat in the metal will evaporate most water droplets.

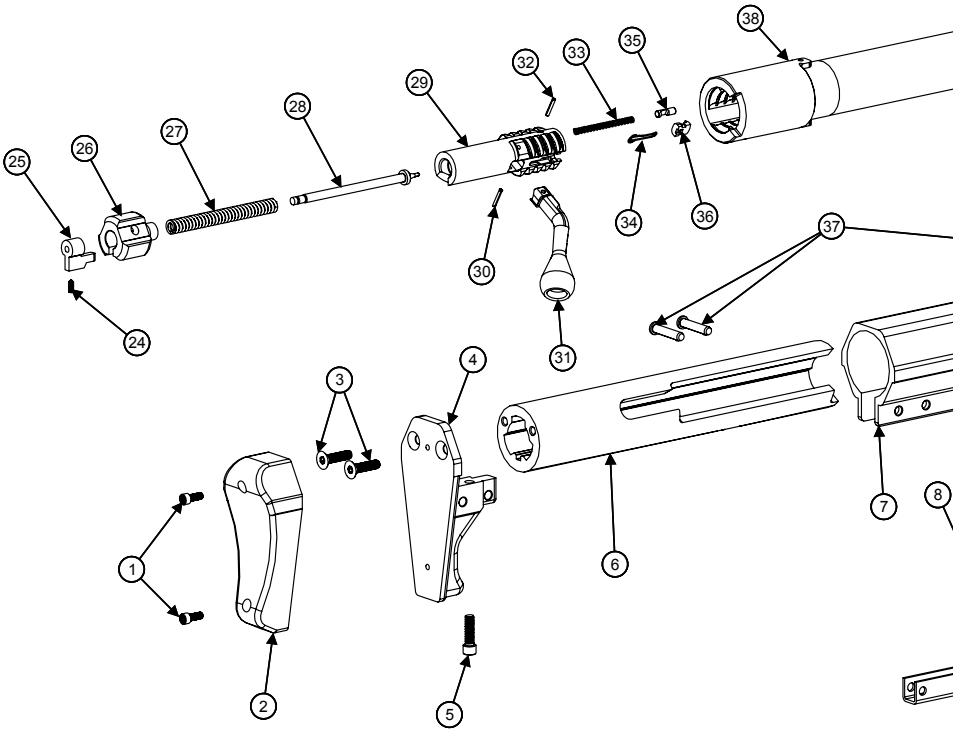
3. **Protecting.** Either continue cleaning the rifle using procedures specified for non-corrosive ammunition, or if temporary transportation or storage is necessary, immediately coat all surfaces with rust preventative.

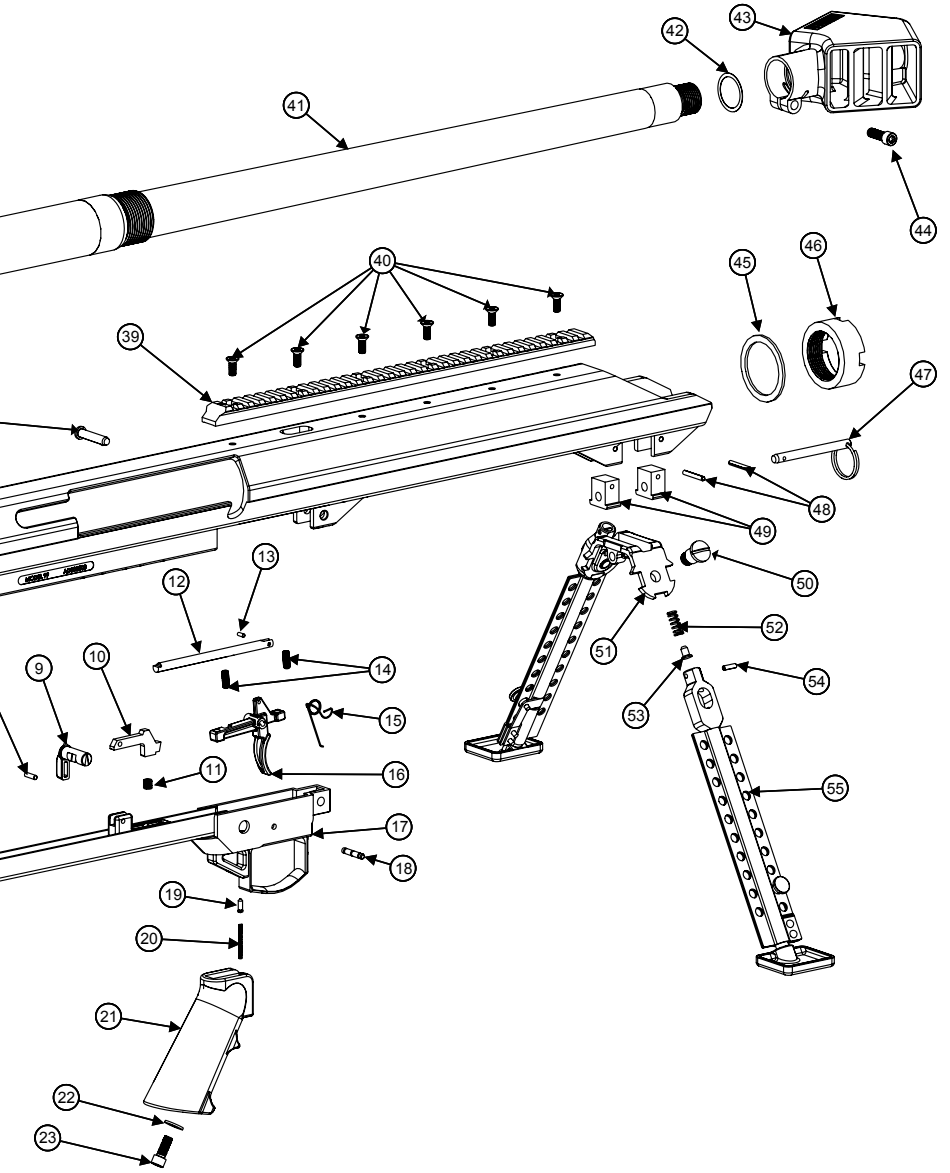
TROUBLESHOOTING

MALFUNCTION	CAUSE	CORRECTIVE ACTION
FAILURE TO CHAMBER AND LOCK	Damaged cartridge	Remove and replace cartridge
	Dirty or obstructed chamber	Clean chamber
FAILURE TO FIRE	Faulty ammunition (primers dented in center of sufficient depth to fire)	Replace ammunition
	Cocking piece shroud not properly installed in bolt	Assemble properly
	Cocking piece is dragging	Clean and lubricate cocking piece
	Firing pin or firing pin spring broken or damaged	Return complete bolt assembly for repair
	Bolt handle not down fully	Ensure bolt handle is down fully
FAILURE TO EXTRACT	Broken or worn extractor	Replace extractor
	Broken or worn extractor spring	Replace extractor spring
	Extractor moving freely	Clean extractor, extractor spring and recess
	Dirty ammunition or chamber	Clean chamber and ensure ammunition is clean
	Broken case rim	Clear with cleaning rod

MALFUNCTION	CAUSE	CORRECTIVE ACTION
FAILURE TO EJECT	Damaged cartridge	Remove and replace cartridge
	Dirty or obstructed chamber	Clean chamber
VERY HARD RECOIL	Faulty or hot ammunition	Replace ammunition
	Muzzle brake missing	Assemble properly
	Improper shooter position	Clean and lubricate cocking piece

EXPLODED VIEW

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PARTS LIST

ITEM NO.	DESCRIPTION	QTY.
1	Recoil Pad Screw	2
2	Recoil Pad	1
3	Buttplate Back Screw	2
4	Buttplate	1
5	Buttplate Front Screw	1
6	Bolt Guide	1
7	Receiver	1
8	Sear Pivot Pin	1
9	Safety	1
10	Sear Pivot	1
11	Sear Pivot Spring	1
12	Sear Link	1
13	Sear Link Pin	1
14	Trigger Overtravel Screw	2
15	Trigger Spring	1
16	Trigger	1
17	Trigger Housing	1
18	Trigger Housing Pin	1
19	Safety Detent	1
20	Safety Spring	1
21	Pistol Grip	1
22	Pistol Grip Stock Washer	1
23	Pistol Grip Screw	1
24	Firing Pin Lock Screw	1
25	Cocking Piece	1
26	Cocking Piece Shroud	1
27	Firing Pin Spring	1
28	Firing Pin	1

ITEM NO.	DESCRIPTION	QTY.
29	Bolt	1
30	CP .093 x .625	1
31	Bolt Handle	1
32	Ejector Pin	1
33	Ejector Spring	1
34	Extractor Spring	1
35	Ejector	1
36	Extractor	1
37	Detent Pin	3
38	Barrel Extension	1
39	Scope Base	1
40	Scope Base Screw	6
41	Barrel	1
42	Muzzle Brake Shim Kit	1
43	Muzzle Brake	1
44	Muzzle Brake Screw	1
45	Barrel Washer	1
46	Barrel Nut	1
47	Bipod Pin	1
48	Yoke Mount Pin	2
49	Bipod Yoke Mount	2
50	Bipod Screw	2
51	Bipod Yoke	1
52	Bipod Spring	2
53	Bipod Detent	2
54	Bipod Pin	2
55	Bipod Leg Housing	2

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