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Operator and Organizational Maintenance Manual

RIFLE, CALIBER .30: M 1, M 1C (Sniper's), M 1D (Sniper's)

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***This manual supersedes TM 9-1005-222-12P/2, 11 August 1965 in its entirety.**



Figure 1. U.S. Rifle, Caliber .30, M 1

Chapter 1
INTRODUCTION

Section I. General

1-1. Scope
These instructions are for use by the operator and organizational maintenance personnel. They apply to Caliber .30 Rifles, M1, M1C (Sniper's) and M1D (Sniper's).

1-2. Forms and Records
a. General. Refer to TM 38-750 (Army Equipment Records Procedure) for forms and records required.

b. Recommendations for Maintenance Manual Improvements. Report of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to DA Publications) and forwarded direct to:

Commanding General
U.S. Army Weapons Command
ATTN: AMSWE-SMM-P
Rock Island, Illinois 61201

1-3. Administrative Storage
Refer to TM 740-90-1 for administrative storage.

Section II. DESCRIPTION AND DATA

1-4. Description
a. General. The Rifles, M1, M1C (Sniper's) and M1D (Sniper's) (figs. 1, 10 and 11) are clip-fed, gas-operated, air-cooled, semiautomatic shoulder weapons.

b. Differences in Models.
(1) The M1C has a telescope mounted to the receiver.
(2) The M1D has a telescope mounted to the barrel.
(3) The M1C and M1D also require a flash hider and a cheek pad.

1-5. Tabulated Data
a. Rifle, M1.

Weight of rifle w/o equipment	9.5 lb. approx.
Weight of rifle w/bayonet	10.5 lb. approx.
Length of rifle	43 in.
Length of barrel	24 in.
*Muzzle velocity	2,750-2,800 fps
*Maximum effective range	500 yd.
*Maximum effective rate of fire (aimed rounds per minute)	16-24
*Number of cartridges in clip	8
*Types of ammunition	Ball, armor-piercing-incendiary, tracer, blank, rifle grenade cartridge and dummy

b. Rifles, M1C (Sniper's) and M1D (Sniper's).

Weight w/equipment (telescope, flash hider, gun sling, and cheek pad)	11.75 lb. approx.
Length of rifle w/flash hider, type T-37	46-1/8 in.

*This information also applies to the M1C and M1D Rifles.



Figure 10. U.S. Rifle, Caliber .30, M 1C (Sniper's), with flash hider, M 2. From the collection of Bill Douglas.

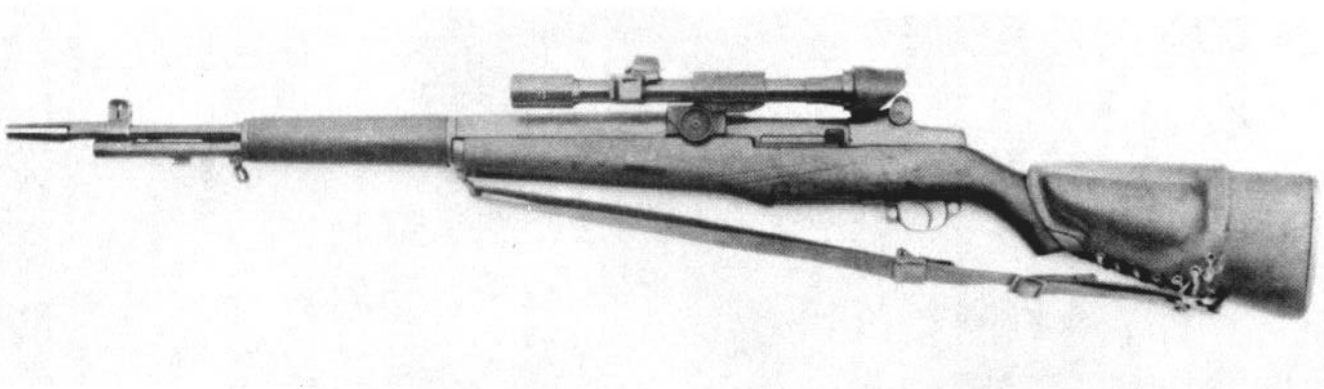


Figure 11. U.S. Rifle, Caliber .30, M 1D (Sniper's) with flash hider, T 37.

Chapter 2
OPERATING INSTRUCTIONS

Section I. Controls

2-1. General

This section describes, locates, illustrates, and furnishes the operator with essential information pertaining to the various controls provided to properly operate the materiel.

2-2. Controls

Refer to table 2-1.

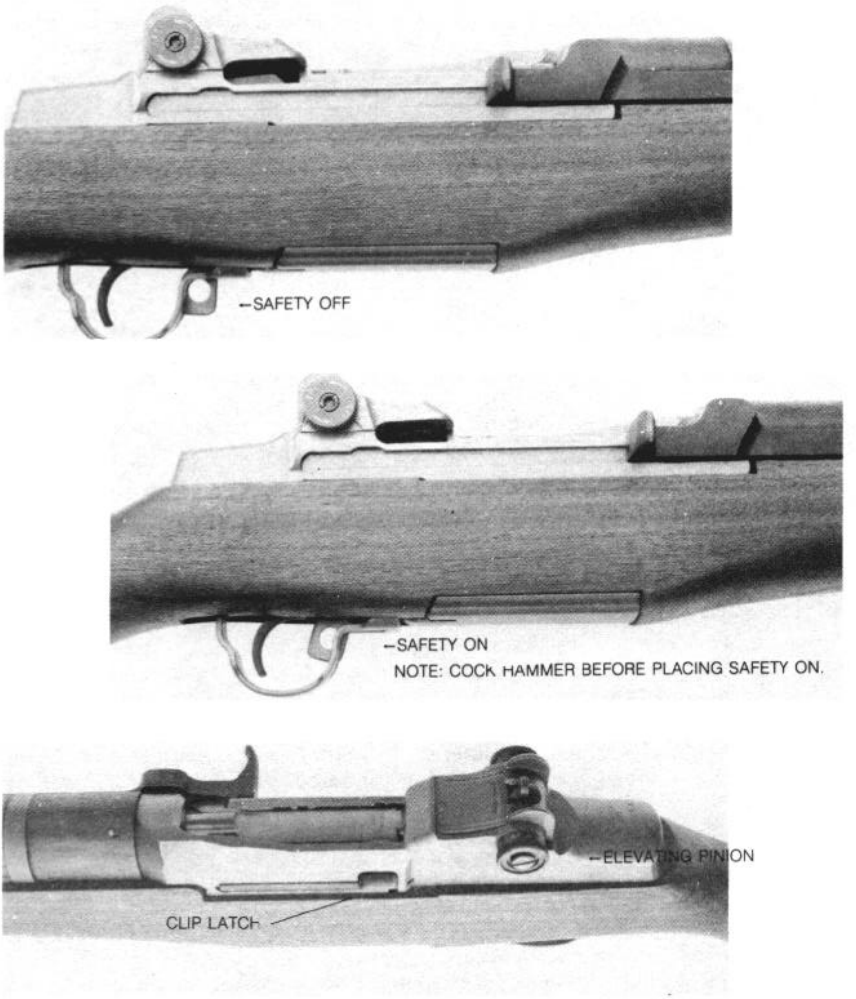


Figure 12. Controls.

Table 2-1. Controls

Item (See fig. 12)	Purpose
Safety	To prevent accidental firing.
Trigger	To release hammer to effect firing.
Windage knob	To adjust lateral movement of rear sight.
Elevating pinion	To adjust elevation of aperture.
Clip latch	To hold clip in receiver until last round is fired.

Section II. OPERATION UNDER USUAL CONDITIONS

2-3. General

This section contains instructions for the operation of the rifles under conditions of moderate temperatures and humidity. Instructions for operation under unusual conditions are covered in section IV.

2-4. Preparation for Firing

a. Examine bore. Make certain it is free of powder fouling or corrosion.
b. Check gas cylinder lock screw for secure installation.
c. Check ammunition. Make certain it is clean and that it is of the proper type and grade.
d. Cock the rifle and place the safety in safe position (fig. 12).

2-5. Service Before Firing

Perform the before firing operations as indicated in table 3-3.

2-6. Loading

Refer to FM 23-5.

2-7. Zeroing

Refer to FM 23-5.

2-8. Misfire, Hangfire, and Cook-off

Refer to FM 23-5 and paragraph 2-9b, below.

2-9. Procedures for Removing a Round in Case of Failure to Fire

a. General After failure to fire, due to misfire, the following general precautions, as applicable, will be observed until the round has been removed from the weapon and the cause of failure determined.

(1) Keep the weapon trained on the target and see that all personnel are clear of the muzzle.

(2) Before retracting the bolt and removing the round, see that personnel, not required for operation, are cleared from vicinity.

(3) Make certain the round, removed from the weapon, is kept separate from other rounds until it has been determined whether the round or weapon is at fault. If the weapon is determined to be at fault, the round may be reloaded.

b. Time Intervals. The definite time intervals for waiting, after failure of weapon to fire, are prescribed as follows: Always keep the round in the chamber for five seconds from the time a misfire occurs to insure against an explosion outside of the gun in event a hang-fire develops. If the barrel is hot and a misfire stops operation of the gun, wait five seconds with the round locked in the chamber to insure against hangfire dangers (a hangfire will occur within five seconds after the primer is struck), then extract the round immediately to prevent cook-off. If the round cannot be extracted within an additional five seconds, it must remain locked in the chamber for five minutes because of the possibility of a cook-off. Also in the event the barrel is hot and misfire occurs when attempting to resume firing after an intentional cessation of firing, the round should remain locked in the chamber for five minutes because of the possibility of a cook-off.

2-10. Service During Firing

Perform the during firing operations as described in the operators preventive-maintenance services (table 3-3).

2-11. Unloading

Refer to FM 23-5.

2-12. Service After Firing

Perform the after firing operations as described in the operator's preventive-maintenance services (table 3-3).

Section III. OPERATION OF MATERIEL USED IN CONJUNCTION WITH MAJOR ITEM

2-13. General

The following materiel is not normally used continually. Therefore, it is necessary to protect from weather and dampness in storage. Clean and lubricate materiel as required, whether in use or in storage.

2-14. Equipment

a. Grenade Launcher, M7A3 and Grenade Launcher Sight, M15. Refer to FM 23-30.

b. Bayonet-Knife, M5 and M5A1 and Bayonet-Knife Scabbard, M8A1. Keep bayonet in scabbard except when removed for training, inspections, cleaning, repair, or for use in combat or danger zones.

c. Winter Trigger Kit. Use the winter trigger kit only in extreme cold operation and on authority of unit commander.

Section IV. OPERATION UNDER UNUSUAL CONDITIONS

2-15. General

Report any chronic failure of materiel resulting from subjection to extreme conditions (par 1-2).

2-16. Operation in Extreme Cold

a. In climates consistently below 0°F, it is necessary to prepare the rifle for cold-weather operation. The rifle should be thoroughly cleaned wiith SD, dry cleaning solvent, and lubricated with LAW, weapons lubricating oil.

b. Rifles should be free of moisture and excess oil. Moisture or too much oil on the working parts will cause them to be sluggish in operation, or perhaps to fail completely.

c. Exercise moving parts through their entire range at required intervals. This movement helps prevent parts from freezing in place and reduces effort required to operate them.

d. Materiel not in use and stored outside must be protected with proper cover.

Note. Transferring weapon from cold to warm air may cause moisture to collect. If the weapon is brought into a warm room, allow it to reach room temperature before cleaning and lubricating as required.

2-17. Operation in Extreme Heat

a. Hot, Dry Climates.

(1) The film of oil necessary for operation and preservation dissipates quickly in hot climates. Inspect the rifle, paying particular attention to all hidden surfaces such as bolt and lug, operating rod and recess, cam surfaces and bolt locking recess in receiver, where corrosion might occur and not be quickly noticed.

(2) Perspiration from the hands contributes to rusting because it contains acids and salts. After handling materiel, clean, wipe dry, and restore the oil film using PL special, general purpose lubricating oil.

(3) Clean and oil the bore more frequently than usual.

(4) Apply linseed oil to wooden parts to prevent drying.

b. Hot, Damp, and Salty Atmosphere.

(1) See a(1) and (2) above under hot, dry climates.

(2) Inspect materiel frequently because of increased possibility of rust.

(3) When material is active, clean and lubricate the bore and exposed metal surfaces more frequently than prescribed for normal service.

(4) Moist and salty atmosphere tend to emulsify oils and greases and destroy their rust-preventive qualities. Inspect all parts frequently for corrosion.

(5) When materiel is inactive, cover metal surfaces with a film of PL special, general purpose lubricating oil.

(6) Apply linseed oil to wooden parts to keep out moisture.

2-18. Operation in Dusty or Sandy Areas

a. Clean and lubricate the materiel more frequently in sandy or dusty areas. Exercise particular care to keep sand out of mechanisms when carrying out inspecting and lubricating operations. Shield parts from flying sand with tarpaulins during disassembly and assembly operations.

b. Before operating in sandy areas, remove lubricant from bolt, barrel and receiver, operating rod, and trigger housing assembly, as they will pick up sand and from an abrasive which will cause rapid wear. Dry surfaces wear less than surfaces coated with lubricants contaminated with sand. Clean and lubricate all exposed parts after action is over.

2-19. Hand-Carried Fording

a. No special lubricaion is required before fording.

b. Protect from water splashes.

c. If immersion does occur, proceed as directed in paragraph 2-20.

2-20. Maintenance After Immersion

a. General. During hand-carried fording, water seepage into bolt, trigger housing, receiver, and operating rod assembly will usually occur. It is advisable, therefore, that the service outlined below be accomplished on all weapons submerged in water as soon as practical to prevent damage to the weapon.

b. Procedures.

(1) After submersion in salt water, wash in clear water to remove corrosive salts.

(2) Drain all trapped moisture and wipe dry.

(3) Assemblies which require disassembly for proper lubrication must be disassembled, dried, and lubricated as soon as possible.

Note. Items not authorized for operator disassembly/assembly must be cleaned by organizational maintenance personnel.

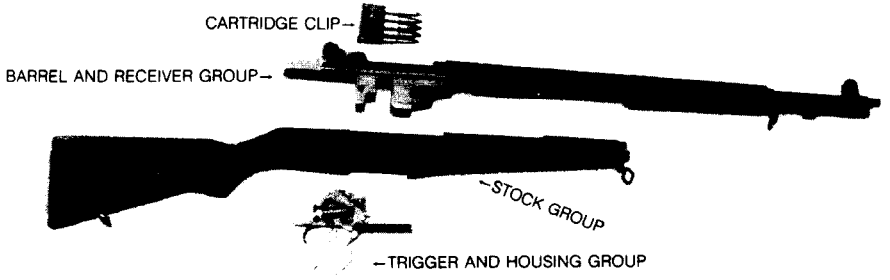


Figure 13. U.S. Rifle, Caliber .30, M 1. Major assembly group.

Chapter 3
SERVICE AND MAINTENANCE INSTRUCTIONS

Section I. Service Upon Receipt of Materiel

3-1. General

a. When a new or reconditioned Rifle, M1, M1C (Sniper's) or M1D (Sniper's) is received, it is the responsibility of the officer in charge to determine whether the materiel has been properly prepared for service by the supplying organization and to be sure it is in condition to perform its function.

b. All basic issue items will be checked with the listing in appendix B.

c. A record will be made of all missing parts, tools, and equipment, and of any malfunctions. Corrective action should be initiated as soon as possible.

3-2. Services

Refer to table 3-1 for services performed on receipt of materiel.

Table 3-1. Service upon Receipt of materiel

Step	Action	Reference
	RIFLES *Note.* When new rifles are received, they are sealed in vapor proof, volatile corrosion inhibitor (VCI) bags. They are packed two in a carton and five cartons in a box.	
1	Remove carton from box and rifle from carton and bags.	
2	Check for missing items. *Note.* Items must agree with Basic issue items list.	App B, Sec II
3	Clean and lubricate bore and chamber.	Par 3-11a and 3-6
4	Field strip and inspect for missing parts and proper assembly.	FM 23-5
5	Clean and lubricate the following: Locking lugs of bolt Bolt guides Camming surfaces of operating rod	Par 3-11a and 3-6
6	Perform "before operation" preventive maintenance checks and services.	Table 3-3

Section II. REPAIR PARTS, SPECIAL TOOLS AND EQUIPMENT

3-3. Tools and Equipment

Tools and equipment issued with the Caliber .30 Rifles, M1, M1C (Sniper's) and M1D (Sniper's) are listed in the basic issue items list, appendix B.

3-4. Special Tools and Equipment

Special tools and equipment are listed and illustrated in appendix B.

3-5. Maintenance Repair Parts

Organizational maintenance repair parts are listed and illustrated in appendix B.

Section III. LUBRICATION INSTRUCTIONS

3-6. General

a. Make certain all metal parts have been cleaned with SD, dry cleaning solvent. Dry thoroughly. Apply a light coat of preservative, PL special, general purpose lubricating oil, for above 0°F, and LAW, weapons lubricating oil, for below 0°F. Apply a light coat of rifle grease to the following surfaces:

(1) Locking lugs of bolt, operating lug, and recesses.

(2) Bolt guide.

(3) Cams on trigger and hammer.

b. Refer to table 3-2 for a listing of lubrication and cleaning materiels and stock numbers for requisitioning purposes.

c. Refer to paragraph 2-16 thru 2-20 for specific lubrication instructions under unusual conditions.

Table 3-2. materiels Required for Maintenance Functions

Federal stock number	Item
8020-244-0153	BRUSH, ARTISTS: metal, ferrule, flat, chisel edges, 7/16 lg. exposed bristle
7920-295-2491	BRUSH, CLEANING, TOOL AND PARTS: rd, 100 percent tampico fiber.
6850-965-2332	CARBON REMOVING COMPOUND: (P-C-111) (5 gal. pail) CLEANING COMPOUND, RIFLE BORE: (CR)
6850-224-6656	2 oz. can
6850-224-6657	6 oz. can
6850-224-6658	1 qt. can
5350-221-0872	CLOTH, ABRASIVE: crocus, ferric oxide and quartz, jean-cloth-backing, closed-coating. (CA)
6850-281-1985	DRY CLEANING SOLVENT: (SD) (1 gal can) LUBRICATING OIL, GENERAL PURPOSE: (PL special)
9150-273-2389	4 oz. can
9150-231-6689	1 qt. can
9150-754-0063	GREASE, RIFLE: (1 lb. can)
8010-221-0611	LINSEED OIL, RAW: (1 gal. can) (TT-L-00215)
9150-292-9689	LUBRICATING OIL, WEAPONS: (LAW) for below zero operations (1 qt. can)
7920-205-1711	RAG, WIPING: cotton (50 lb. bale)

Section IV. PREVENTIVE MAINTENANCE CHECKS AND SERVICES

3-7. Preventive Maintenance

a. Purpose. To assure maximum operational readiness the operator must perform certain scheduled maintenance services at designated intervals. See basic preventive maintenance procedures (1) thru (3) under b below, and table 3-3.

b. Preventive Maintenance Performed by Operator.

(1) Rust, dirt, grit, gummed oil, and water cause rapid deterioration of outer surfaces and internal mechanisms. Exercise care to keep all surfaces clean and properly lubricated. Exterior surfaces of the weapon (or components) are not to be cleaned or polished with treated cloths or other commercial compounds.

(2) Tighten loose parts.

(3) Every six months check to see if all modifications have been applied. Refer to DA Pam 310-7. No alteration or modification will be made except as authorized by modification work order.

Table 3-3. Preventive maintenance Checks and Services

Item Number	Interval				B—Before operation D—During operation	A—After operation W—Weekly	
	Operator Daily			Org.			
	B	D	A	W	Item to be inspected	Procedure	Reference
1	1	—	—	—	M1, M1C, M1D	Hand cycle the action to insure binding is not present.	
2	2	—	—	—	Trigger housing assembly	Actuate safety. Safety will not engage when hammer is forward.	Fig. 12
3	3	—	—	—	Barrel and receiver	Actuate windage knob and elevating pinion of rear sight group for proper operation. Aperture must retain position against thumb pressure.	Fig. 12
4	4	—	—	—	Barrel and receiver	Check front sight for secure installation.	
5	—	5	—	—	M1, M1C, M1D	Check gas cylinder lock screw for secure installation. **Note.** Do not tighten lock screw when weapon is hot.	
6	—	—	6	—	M1, M1C, M1D	Clean chamber, bore, and all components.	Par 3-11a
7	—	—	7	—	M1, M1C, M1D	Lubricate.	Par 3-6

Section V. TROUBLESHOOTING

3-8. General

Refer to table 3-4 for troubleshooting.

Table 3-4. Troubleshooting

MALFUNCTION	PROBABLE CAUSE	CORRECTIVE ACTION	
		OPERATOR	ORGANIZATIONAL
Failure to load	Damaged clip	Replace clip.	
	Improperly assembled receiver components	Disassemble, and reassemble correctly (refer to FM 23-5).	
Failure to feed	Weak or broken operating rod spring	----------	Replace spring (2, fig. 36).
	Binding or damaged operating rod	----------	Evacuate to direct support maintenance personnel.
Bolt fails to close	Dirty or deformed ammunition	Clean or replace ammunition.	
	Cartridge case holding bolt out of battery	Pull bolt to the rear and remove dirty or deformed cartridge.	
	Dirty chamber	Clean chamber (par 3-11a).	
	Extractor does not snap over rim of cartridge	Clean bolt assembly and extractor recess (par 3-11a).	Replace extractor (5, fig. 36).
	Frozen ejector spring and plunger	----------	Replace ejector (6, fig. 36).
	Restricted movement of or damaged operating rod		Evacuate to direct support maintenance personnel.
	Weak or broken operating rod spring	----------	Replace spring (2, fig. 36).
	Damaged receiver	----------	Evacuate to direct support maintenance personnel.
Failure to fire	Bolt not in battery	See "bolt fails to close".	
	Defective ammunition	Follow procedures for misfires (refer to FM 23-5).	
	Firing pin worn, damaged, or movement restricted	----------	Replace firing pin (8, fig. 36).
	Inadequate firing pin protrusion	----------	Evacuate to direct support maintenance personnel.
	Weak or broken hammer spring	----------	Replace hammer spring (4, fig. 35).

	Hammer damaged or broken	----------	Evacuate to direct support maintenance personnel
Short recoil	Gas cylinder lock screw loose	Tighten lock screw (15, fig. 36).	Replace if necessary (15, fig. 36).
	Gas cylinder lock not fully seated	Tighten gas cylinder lock (16, fig. 36).	
	Carbon or foreign matter in gas cylinder or barrel port	Clean (par 3-11a).	
	Defective operating rod spring	----------	Replace spring (2 fig. 36).
	Gas cylinder not fully seated	----------	Remove and properly install gas cylinder (figs. 22, 23)
	Improper lubrication in cold weather	Clean and lubricate properly (par 2-16).	
	Unserviceable gas cylinder	----------	Evacuate to direct support maintenance personnel.
	Unserviceable gas piston	----------	Evacuate to direct support maintenance personnel.
Failure to extract	Cartridge seized in chamber	Remove cartridge and clean chamber (par 3-11a).	
	Damaged or deformed extractor	----------	Replace extractor (5, fig. 36).
	Ruptured cartridge case	----------	Remove cartridge case fig. 14).
Failure to eject	Short recoil	See "short recoil".	
	Weak, frozen or distorted ejector spring and plunger	----------	Replace ejector (6, fig. 36).
Failure of bolt to be held rearward after last round is fired	Insufficient rearward movement of bolt	See "short recoil".	
	Defective or broken operating rod catch	----------	Evacuate to direct support maintenance personnel.
	Defective operating rod.	----------	Evacuate to direct support maintenance personnel.
Failure of clip to eject	Broken or deformed latch spring	----------	Replace latch spring (27, fig. 36).

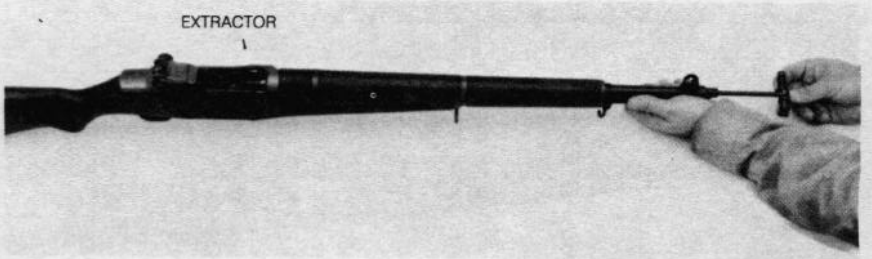


Figure 14. Removal of ruptured cartridge case.

Section VI. OPERATORS MAINTENANCE PROCEDURES

3-9. Removal/Installation of Major Groups and Assemblies
Refer to FM 23-5. Also see fig. 13 and fig. 15.

3-10. Disassembly/Assembly Barrel and Receiver Group
Refer to FM 23-5. Also see figs. 20 through 30.

3-11. Cleaning, Inspection, and Repair

a. Cleaning.

(1) General.

(a) Immediately after firing, thoroughly clean bore with a bore brush saturated with CR, rifle bore cleaning compound.

(b) After cleaning with CR, run dry swabs thru the bore until the swabs are clean. Make certain that no trace of burned powder or other foreign substances are left in bore. Then apply a light coat of PL special, general purpose lubricating oil.

(c) Clean the chamber with a cleaning brush dipped in CR.

(d) Clean all surfaces exposed to powder fouling (bolt face, chamber, piston area of operating rod assembly and gas cylinder lock screw) with CR.

Note. This compound is not a lubricant. Wipe dry and oil all parts which require lubrication.

CAUTION. The use of abrasives, steel wool, wire brushes, or scrapers on the piston area of the operating rod assembly will change critical dimensions that may cause the weapon to malfunction and is therefore prohibited. The application of lubricants to this area is also prohibited.

(e) For general usage, SD, dry cleaning solvent, may be used to clean or wash grease and oil from all parts of the rifle.

(2) General precautions in cleaning.

(a) SD, dry cleaning solvent, is flammable and should not be used near an open flame. Have fire extinguishers available when using this material. This solvent evaporates quickly and has a drying effect on the skin. If used without gloves it may cause cracks in the skin; in some individuals, mild irritation or inflammation may bedevelop. Use only in well-ventiilated areas.

(b) The use of gasoline, kerosene, bezene (benzol) or high-pressure water, steam, or air, for cleaning the weapon is prohibited.

(c) Do not dilute CR, rifle bore cleaning compound. Do not add antifreeze. Store cleaner in a warm place. Shake CR well before using.

(3) Cleaning of sling and scabbard. Clean mildewed canvas by scrubbing with a dry brush. If water is necessary to remove dirt, it must not be used until mildew has been removed. Oil and grease may be removed by scrubbing with issue soap and water. Rinse well with water and dry.

CAUTION. At no time is gasoline or any solvent to be used to remove oil or grease from canvas.

To prevent mildew, air canvas items frequently.

(4) Cleaning. Clean with a dry cloth. Periodically rub raw linseed oil on wooden components to prevent drying or the absorption of moisture.

CAUTION. Do not apply linseed oil to those surfaces next to the barrel. Application of oil to these surfaces creates heavy smoking when the barrel is hot. This smoke will obscure the operator's vision. Portions which swell due to high moisture content should be dried before applying the linseed oil. Do not allow linseed oil to contact or remain on metal parts.

b. Inspection. Refer to paragraph 3-7.

c. Repair. Turn rifle into organizational maintenance personnel for any necessary repair.

Section VII. ORGANIZATIONAL MAINTENANCE PROCEDURES

3-12. Removal/Installation of Major Groups and Assemblies

Refer to FM 23-5.

3-13. Disassembly/Assembly of Major Group and Assemblies

Refer to figures 15 through 30, 35, 36 and 41.

NOTE. White dots indicate disassembly, and black dots indicate assembly.

3-14. Cleaning, Inspection, and Repair

a. Cleaning.

(1) General. Refer to paragraph 3-11a for general cleaning procedures.

(2) Removing carbon. On component parts which have a hard carbon residue it may be necessary to clean these parts with P-C-111, carbon removing compound. Observe the following procedures when using P-C-111.

WARNING. Avoid contact of P-C-111 with skin. If contact does occur, wash compound off thoroughly with running water. A good lanolin base cream is helpful if applied after washing off compound. Recommend use of gloves and protective equipment.

(a) Using a suitable container, fill with fresh compound.

(b) Before soaking a component in compound, remove all grease, dirt and oil as indicated in paragraph 3-11a. Place parts to be cleaned in a container and make certain they are completely immersed.

(c) Soak for 2 to 16 hours as necessary. Remove parts and drain. Rinse with water or solvent. To effectively remove carbon, brush with a stiff bristle brush (not wire) under running water.

(d) Wipe parts dry and lubricate (par 3-6).

b. Inspection and Repair.

Refer to table 3-5.

NOTE. For items not authorized at organizational maintenance level, evacuate to direct support maintenance personnel.

Table 3-5. Organizational Maintenance Functions

Warning: Before starting an inspection, be sure to clean the weapon. Do not actuate the trigger until the weapon has been cleared. Inspect the chamber to insure that it is empty, and check to see that no ammunition is in position to be introduced.

ITEM	INSPECTION AND REPAIR
Trigger housing assembly	Inspect for and remove burs. Replace items 1, 2, 4, 6, 8, and 10, Fig. 35, if worn or damaged.
Stock assembly	Inspect for cracks, breakage, or damage that would weaken the stock. Evacuate to direct support maintenance personnel.
	Check for dry, unoiled areas of wood. Oil with raw linseed oil only. Do not oil inside of stock.
	Make certain that the butt plate assembly is secure to the stock.
Barrel and receiver group	Inspect barrel for rust or obstructions in bore and remove.
	Inspect for and remove burs.
	Inspect chamber for ruptured cartridge. Remove with the ruptured cartridge case extractor.
Operating rod assembly group	Inspect for damage that may restrict movement of operating rod assembly.
	Replace item 2, fig 36, if weak, broken, or kinked.
Bolt assembly	Inspect for and remove burs.
	Inspect firing pin. If chips or cracks are present in tip area, or if badly worn, replace.
	Inspect ejector and spring assembly hole for distortion, burs or rust that would hinder free movement of the ejector assembly.
	Replace items 5, 6, 7, and 8, fig 36 , if worn or damaged.
Follower group	Replace item 10, fig 36 , if worn or damaged.
Gas cylinder group	Inspect front sight. make sure it is secure.
	Inspect gas cylinder lock screw. Make sure it is tight, but not "frozen" or cross-threaded in gas cylinder.
	Replace items 15, 18, and 19 fig 36 , if worn or damaged.
Handguard group	Inspect for cracks that would impair serviceability. Replace items 20, 21, and 22, fig 36, if damaged.
	Note. Evacuate damaged handguards to direct support maintenance personnel for repair.
	Inspect for damaged parts.
	Replace item 27, fig 36, if worn or damaged.
Rear sight group	Inspect for damaged parts.
	Inspect windage knob and pinion for binding. Replace items 28, 29, and 30, fig 36, if worn or damaged.
	Raise the aperture to full height and reduce by four clicks. Grasp the rifle at the small of the stock with the thumb on the aperture. Press down on aperture. Aperture should not move under thumb pressure.
Assembled rifle	Hand operate to assure proper functioning.

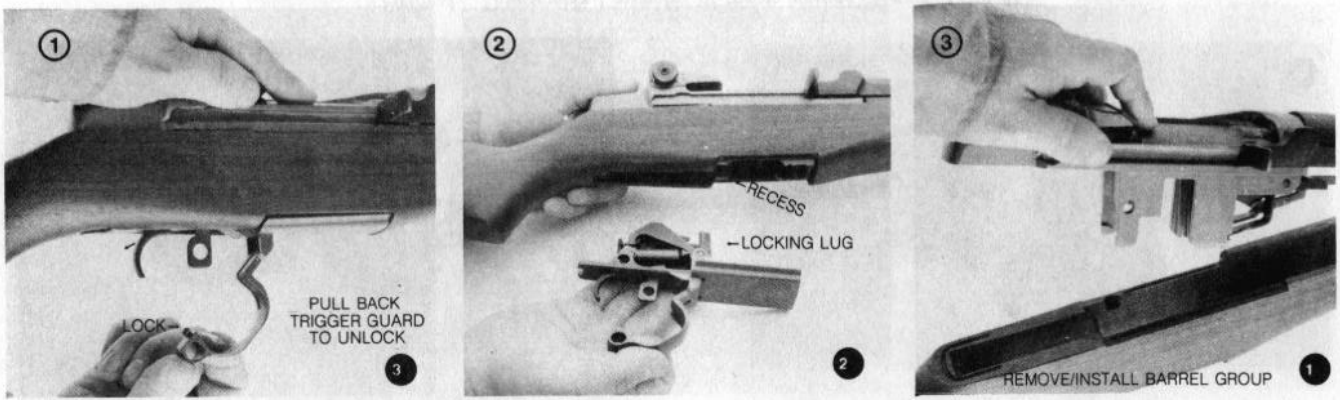


Figure 15. Removal / installation of major groups and assemblies.

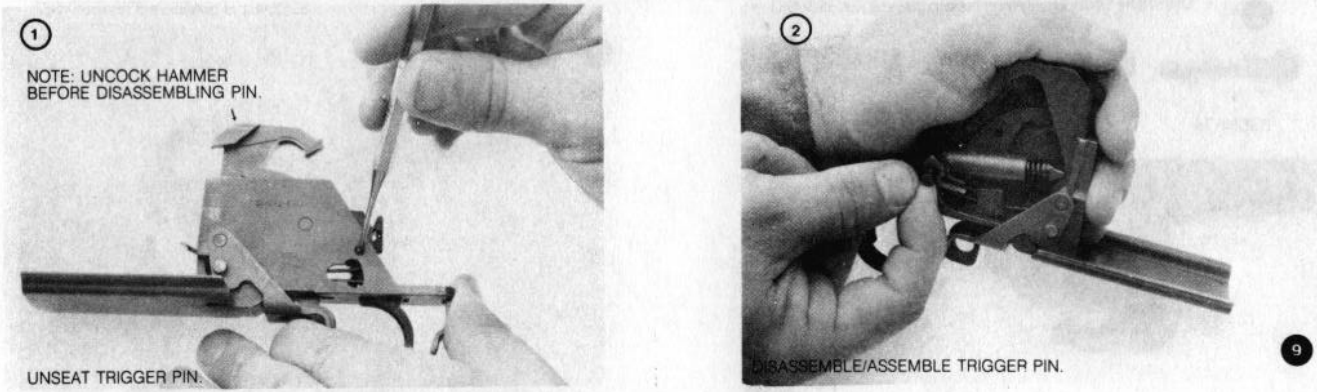
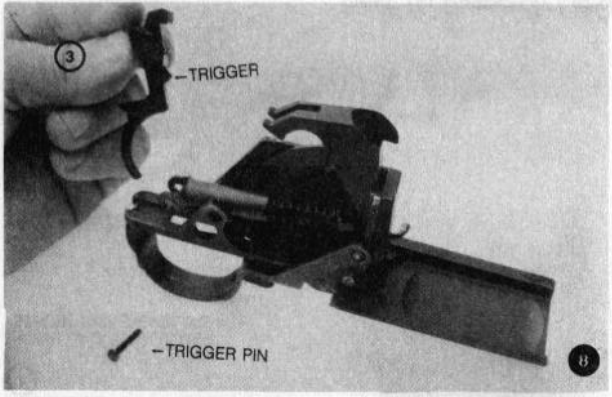
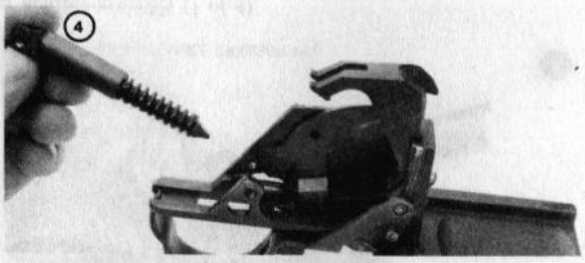
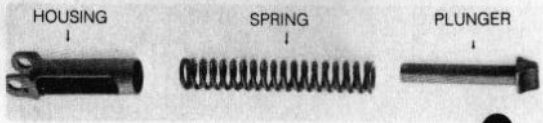


Figure 16. Disassembly / assembly of trigger housing assembly (1 of 4).

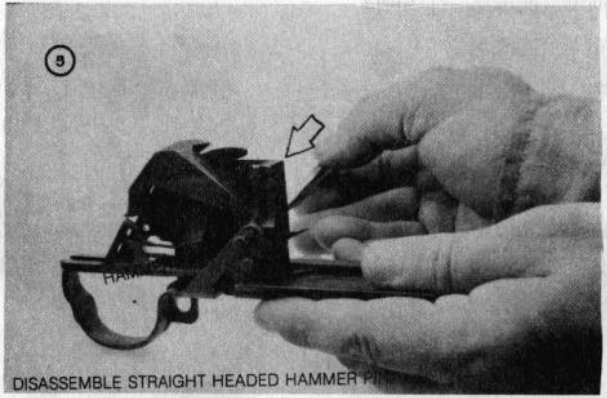


DISASSEMBLE/ASSEMBLE TRIGGER

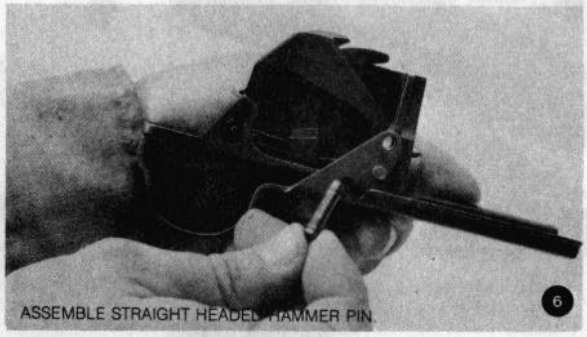




DISASSEMBLE/ASSEMBLE HAMMER SPRING HOUSING, HAMMER HELICAL COMPRESSION SPRING AND HAMMER SPRING PLUNGER.

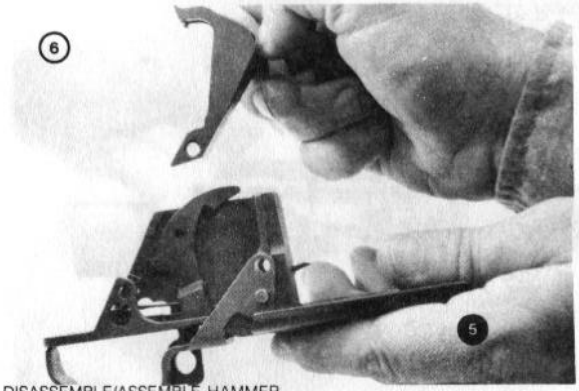


DISASSEMBLE STRAIGHT HEADED HAMMER PI

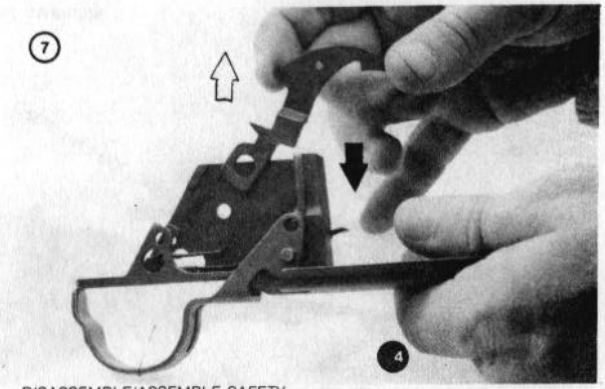


ASSEMBLE STRAIGHT HEADED HAMMER PIN.

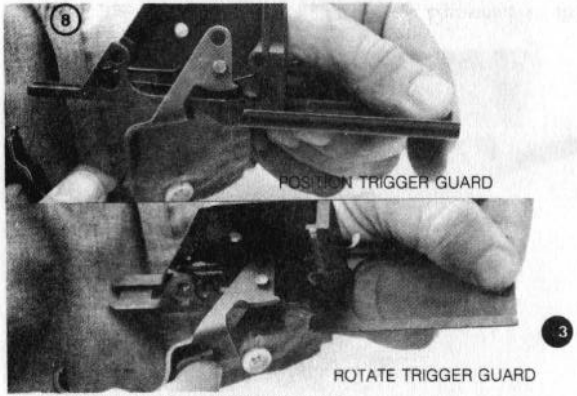
Figure 17. Disassembly / assembly of trigger housing assembly (2 of 4).



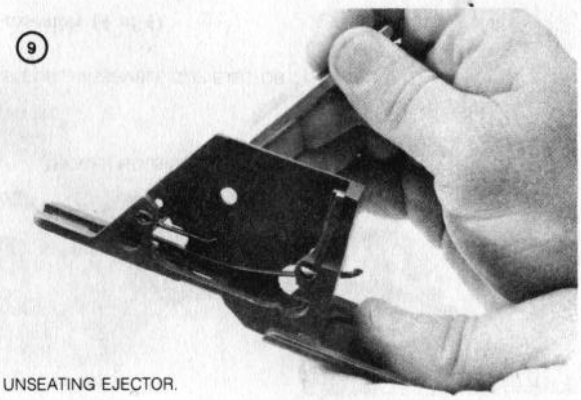
DISASSEMBLE/ASSEMBLE HAMMER.



DISASSEMBLE/ASSEMBLE SAFETY.



DISASSEMBLE/ASSEMBLE TRIGGER GUARD.



UNSEATING EJECTOR.

Figure 18. Disassembly / assembly of trigger housing assembly (3 of 4).

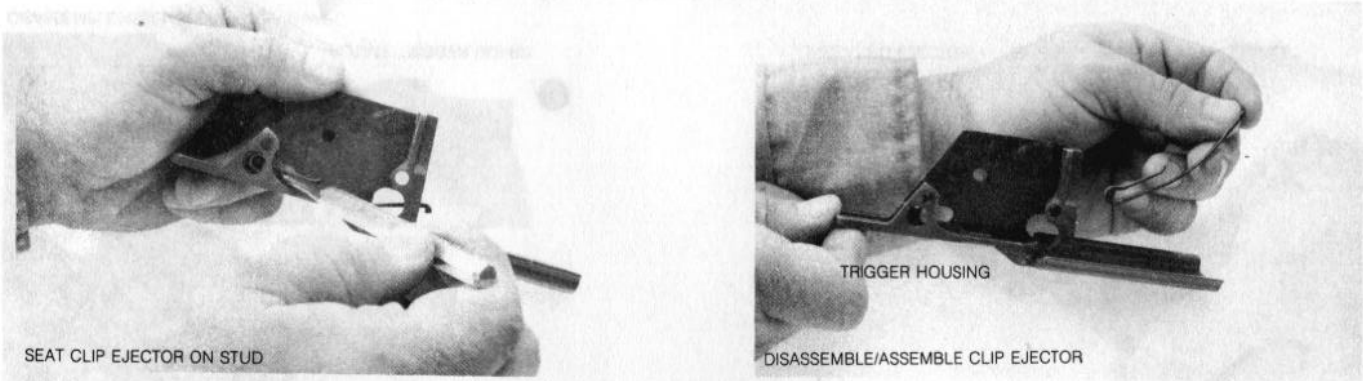


Figure 19. Disassembly / assembly of trigger housing assembly (4 of 4).

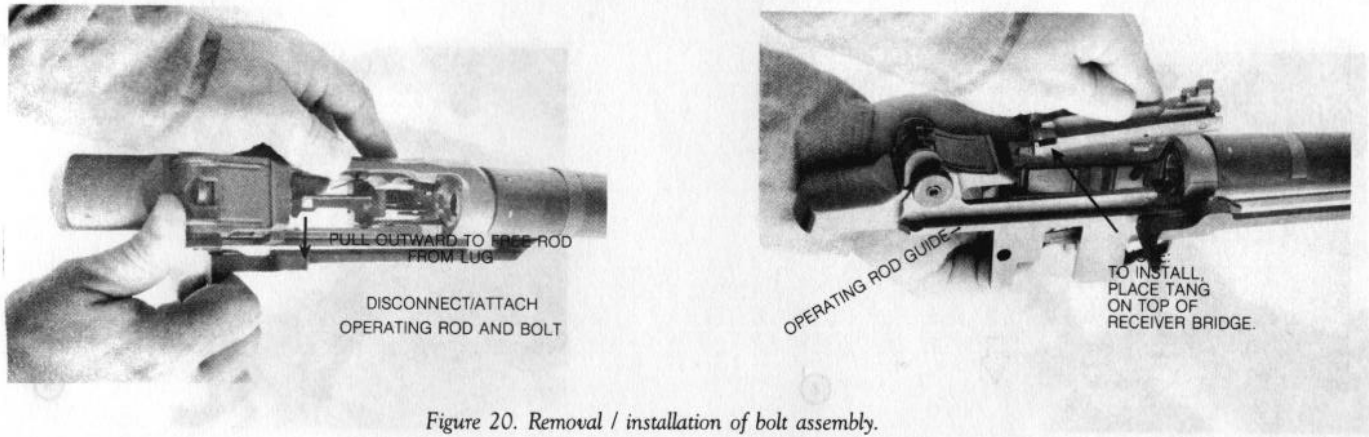


Figure 20. Removal / installation of bolt assembly.

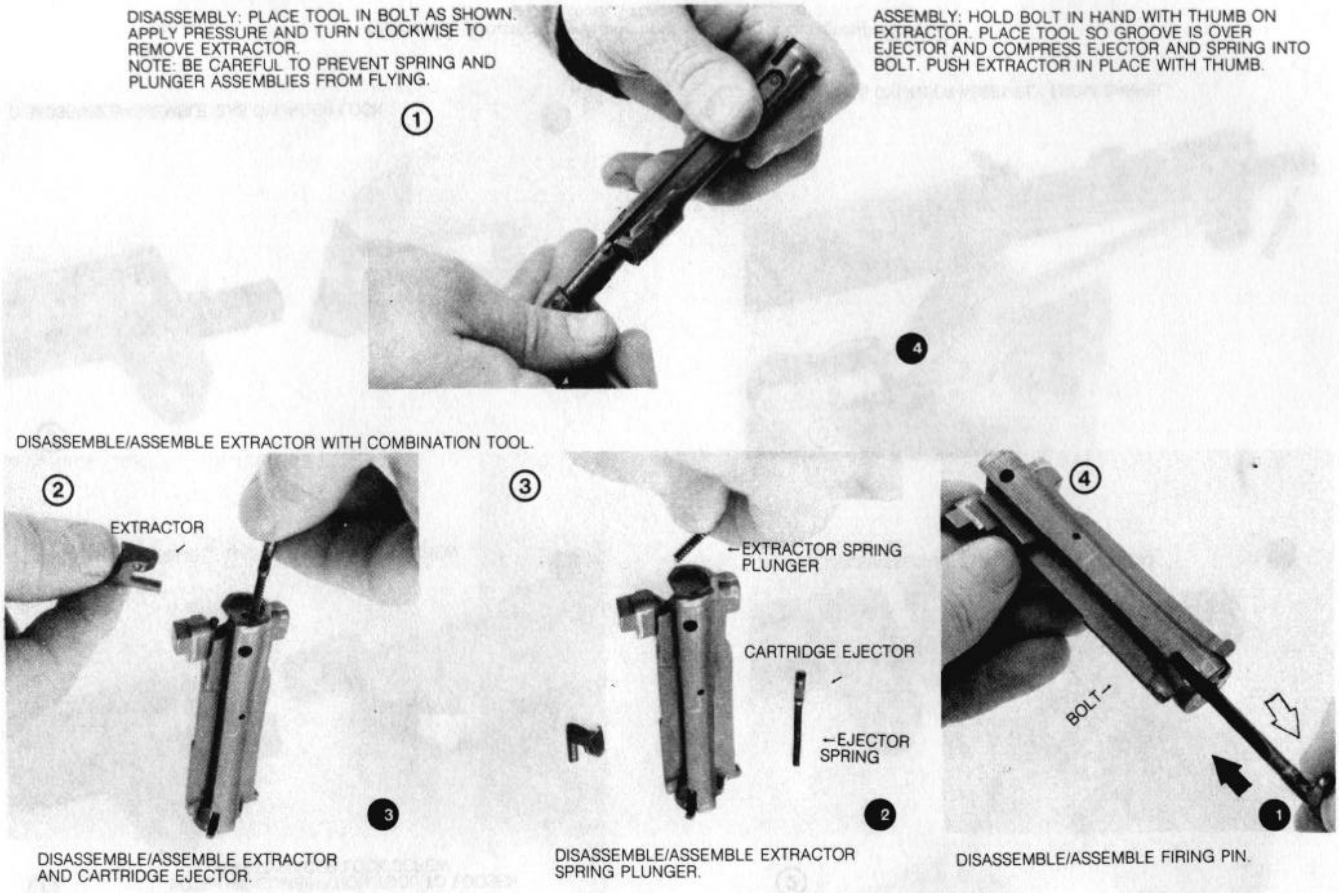


Figure 21. Disassembly / assembly of bolt assembly.

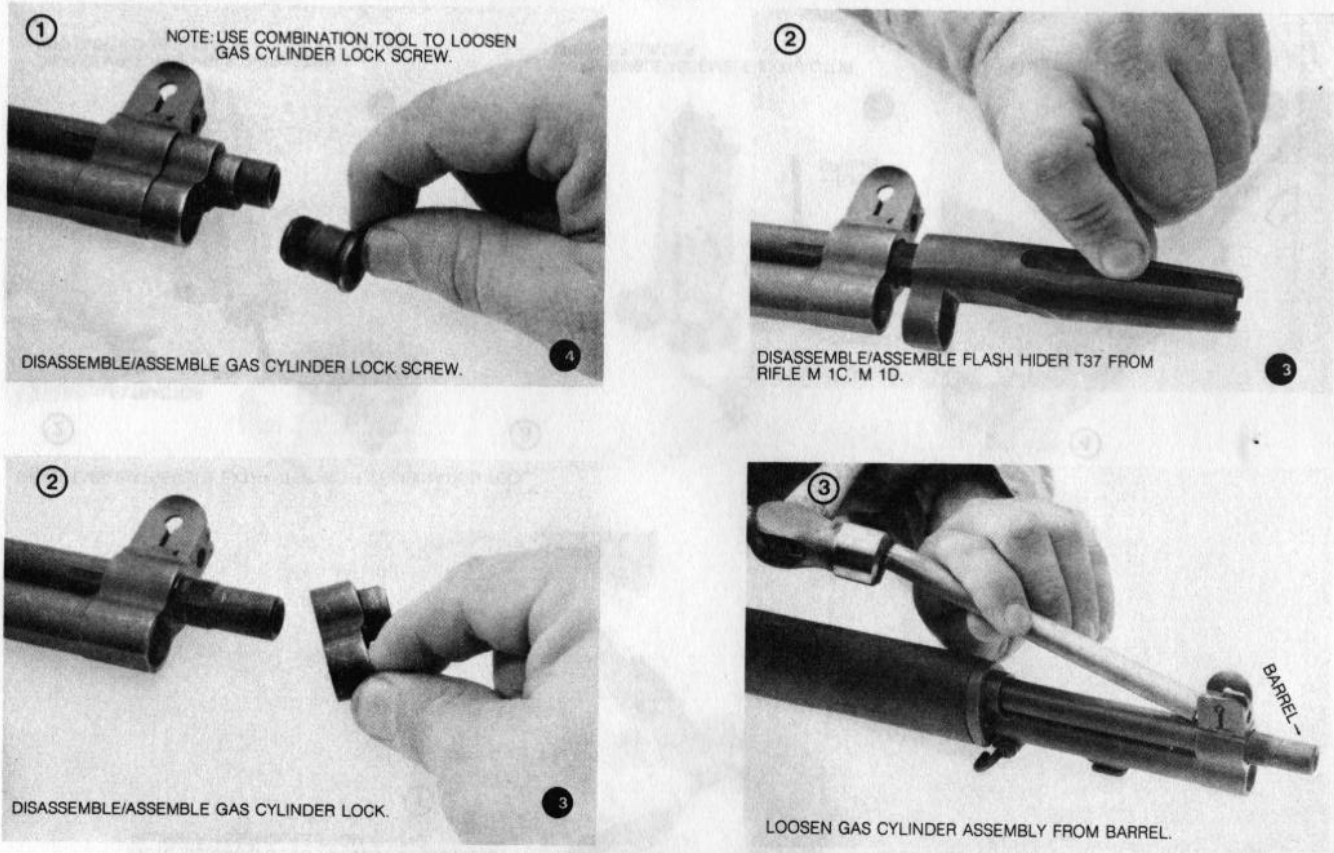
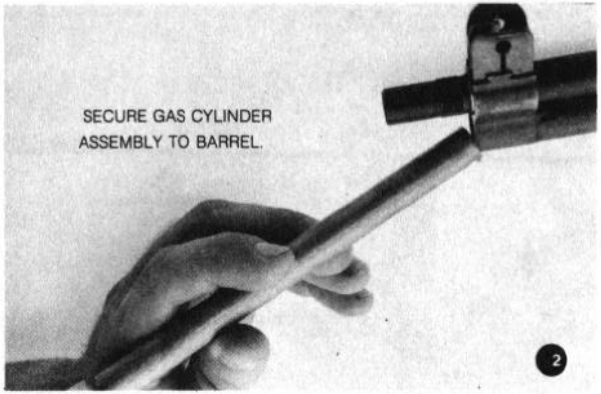


Figure 22. Disassembly / assembly of gas cylinder group (1 of 2).



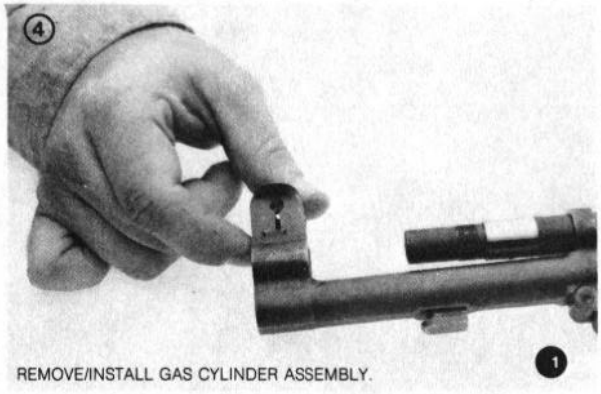


Figure 23. Disassembly / assembly of gas cylinder group (2 of 2).



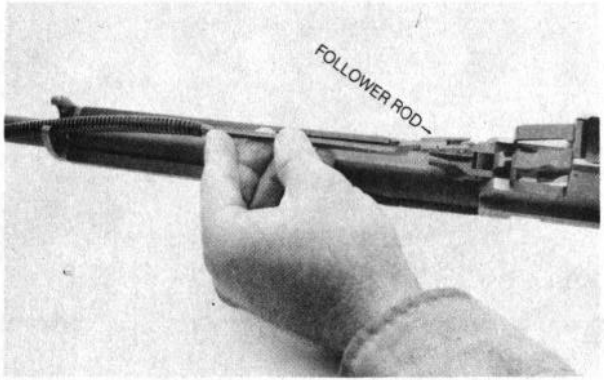


Figure 24. Removal / installation of operating rod assembly.

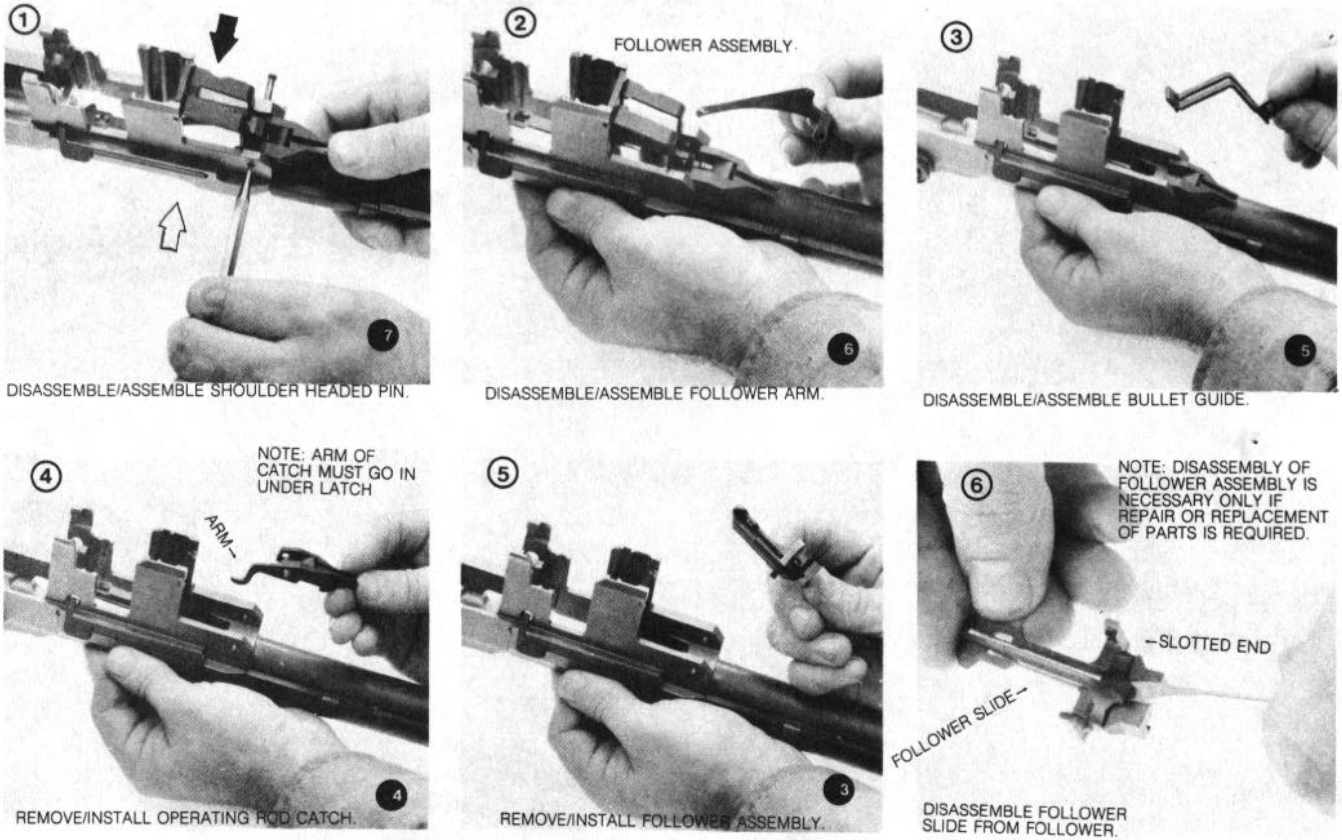
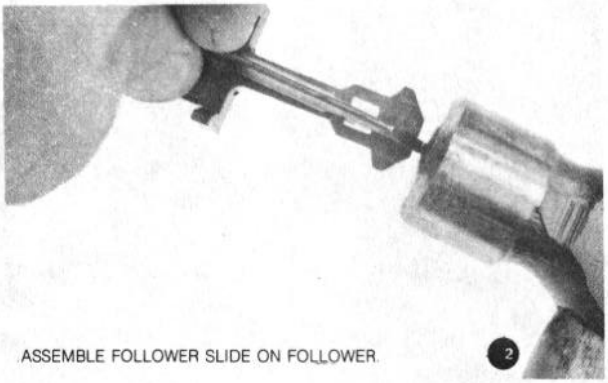
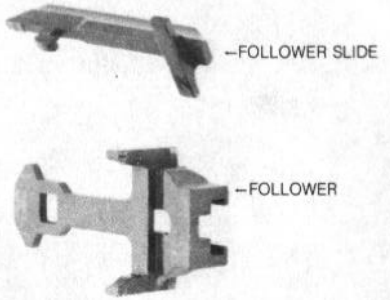


Figure 25. Disassembly / assembly of magazine follower group (1 of 2).

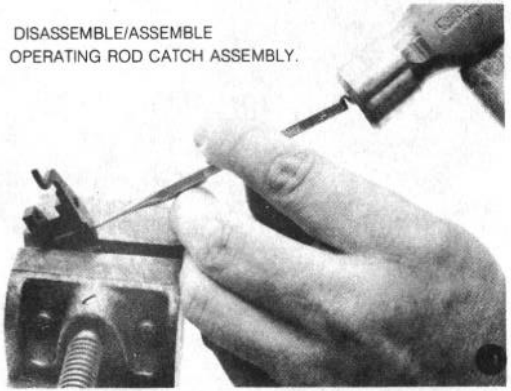


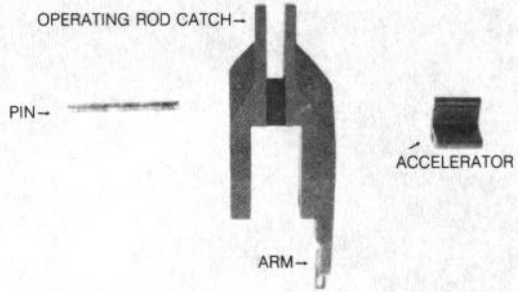
ASSEMBLE FOLLOWER SLIDE ON FOLLOWER. 2



FOLLOWER SLIDE AND FOLLOWER DISASSEMBLED.

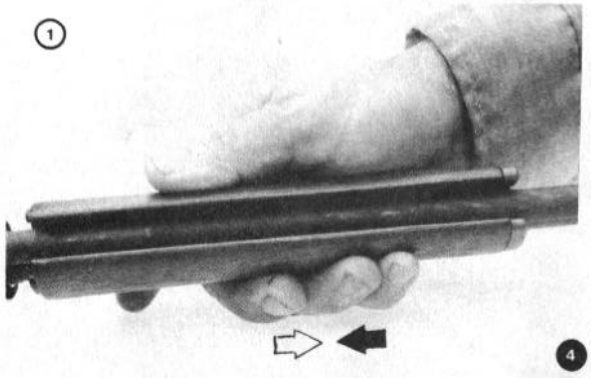
7 DISASSEMBLE/ASSEMBLE OPERATING ROD CATCH ASSEMBLY.



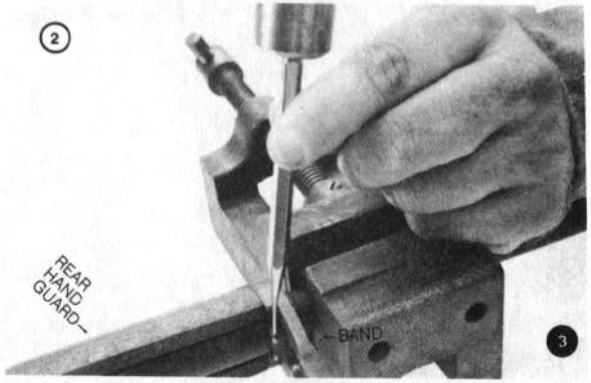


OPERATING ROD CATCH ASSEMBLY DISASSEMBLED

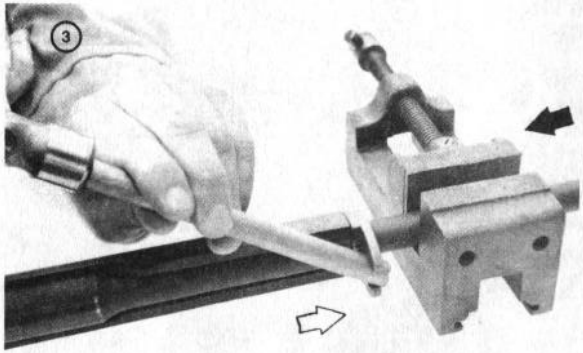
Figure 26. Disassembly / assembly of magazine follower group (2 of 2).



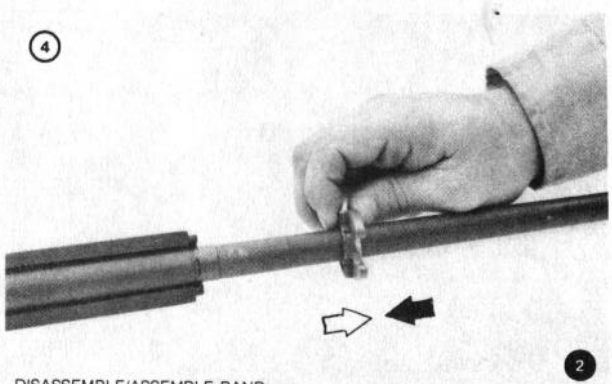
DISASSEMBLE/ASSEMBLE FRONT HAND GUARD



DISASSEMBLE/ASSEMBLE SPRING PIN



LOOSEN/TIGHTEN BAND



DISASSEMBLE/ASSEMBLE BAND

Figure 27. Disassembly / assembly of handguard group (1 of 2).

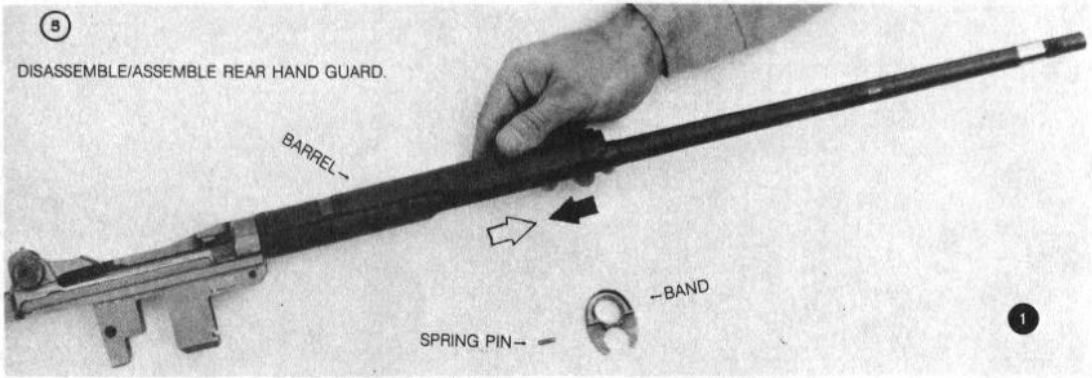
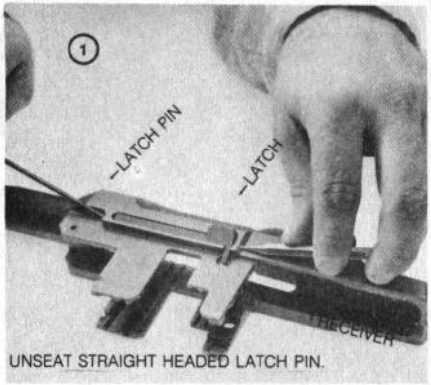
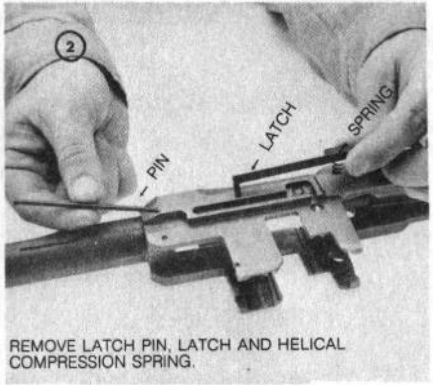


Figure 28. Disassembly / assembly of handguard group (2 of 2).





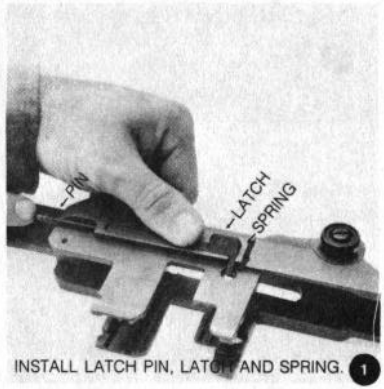


Figure 29. Disassembly / assembly of latch group.

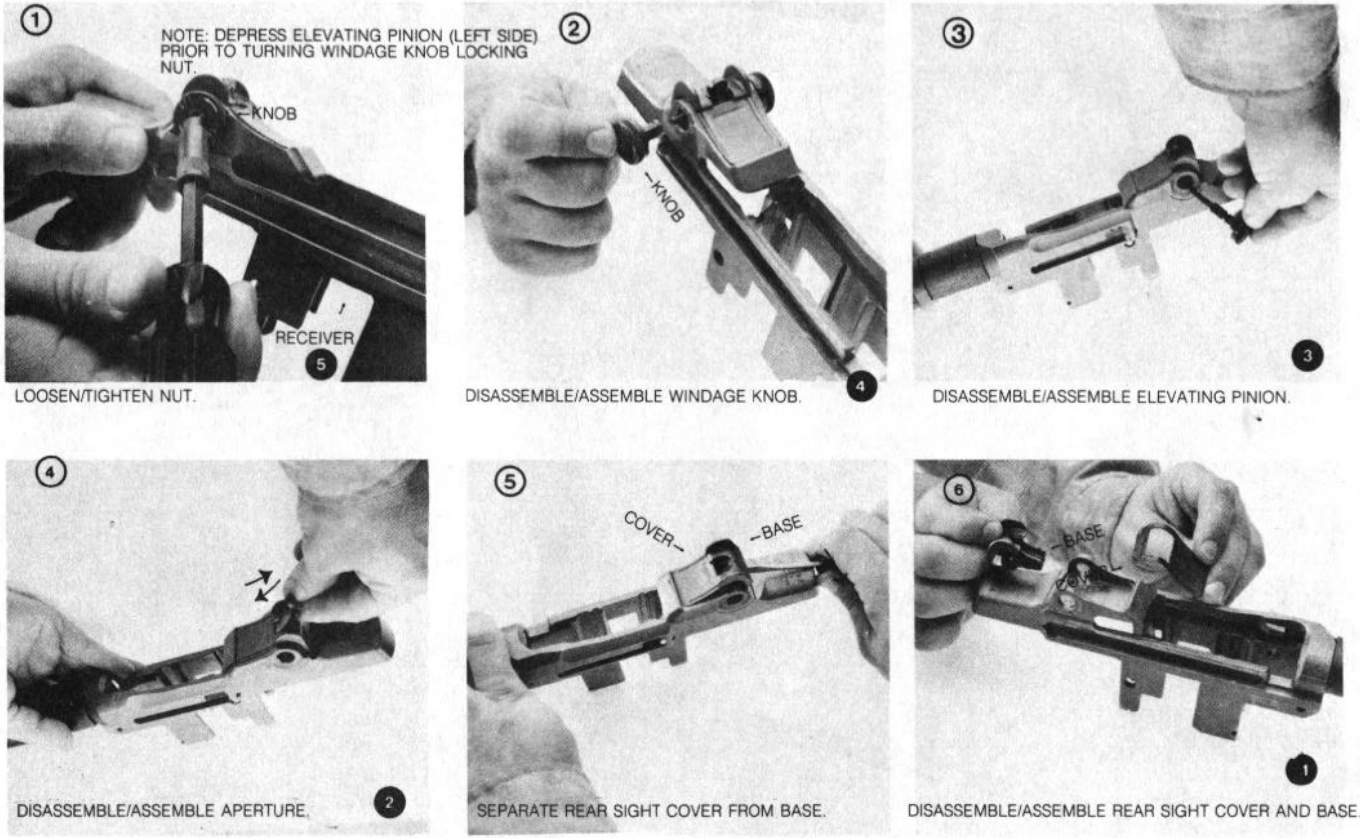


Figure 30. Disassembly / assembly of rear sight group.