

WARNING
DANGEROUS SOLUTIONS

such as PC 111 and dry cleaning solvent are used with this materiel, and if vapors are inhaled, for extended periods, could be very harmful. These materials should be used sparingly, and in a well ventilated location.

WARNING
DANGEROUS PROCEDURES

such as the selector lever not positioned in "safe" position, when loading, or if not ready to fire, and the rifle is loaded, could result in death or injury to personnel if the rifle would accidentally fire. Also if bolt cam pin is missing this will result in a blown-up rifle.

WARNING
DANGEROUS CONDITIONS

water in the barrel could result in a blown-up rifle.

If a noticeable difference in sound or recoil is experienced, further firing should be suspended. This could indicate that the bullet has not been propelled with sufficient force to clear the bore. If firing is continued, it could result in a blown-up rifle.

WARNING
AMMUNITION DESTRUCTION

by any type of mechanical means could result in injury or death.

TECHNICAL MANUAL }
 No. 9-1005-249-12 }

HEADQUARTERS
 DEPARTMENT OF THE ARMY
 WASHINGTON, D.C., 2 August 1968

OPERATOR AND ORGANIZATIONAL
 MAINTENANCE MANUAL
 INCLUDING BASIC ISSUE ITEMS
 LIST AND REPAIR PARTS
 AND SPECIAL TOOLS LIST
 RIFLE, 5.56MM, M16
 RIFLE, 5.56MM, **M16A 1**
 BIPOD, RIFLE, M3

This manual is current as of 15 May 1968.

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*This manual supersedes that portion that pertains to operator and organizational maintenance TM 9-1005-249-14, 1 Aug 1966 and changes.

CHAPTER 1

INTRODUCTION

Section I. GENERAL

I-1. Scope

This manual contains instructions for the operation and organizational maintenance of Rifle, 5.56-MM, M16, Rifle, 5.56-MM, M16A1, and Bipod Rifle M3, allocated to the operator/crew by the MAC. (Refer to appendix C).

I-2. Forms and Records

a. General. DA forms and procedures used for equipment maintenance will be only those

prescribed in TM 38-750, Army Equipment Record Procedures.

b. **Recommendations for Maintenance Manual Improvements.** Report of errors, omissions and recommendations for improving this manual by the individual user is encouraged. Reports should be submitted on a DA Form 2028 (Recommended Changes to DA Publications) and forwarded direct to Commanding General, Headquarters, U.S. Army Weapons Command, ATTN: AMSWE-SMM-P, Rock Island, Illinois 61201.

Section II. DESCRIPTION AND DATA

I-3. Description

a. **Rifles M1 6 and M1 6A1.** The rifles (fig. 1-1 and fig. 1-2) are lightweight, air-cooled, gas operated, magazine fed, shoulder or hip fired weapons, designed for either automatic or semiautomatic fire through the use of selector lever. The rifles accommodate the **Bayonet-Knife, M7.** A brief description of the components is as follows:

(1) The barrel is air-cooled. The barrel assembly includes an adjustable front sight, flash suppressor, and two handguards, made of heat resisting material, with a heat reflecting inner shield.

(2) The butt stock is made of durable synthetic material of high impact strength.

(3) The rifles are easily opened. This shows the working parts, and makes it easy for cleaning and inspection.

(4) The bolt locking action is one of the mechanical features of the rifles. The bolt and barrel extension contain locking lugs, which

engage and lock the bolt firmly in the barrel extension. The initial force of the explosion of the cartridge is absorbed by the barrel, barrel extension, and bolt.

(5) A lightweight aluminum alloy receiver provides durability while reducing the overall weight of the rifle.

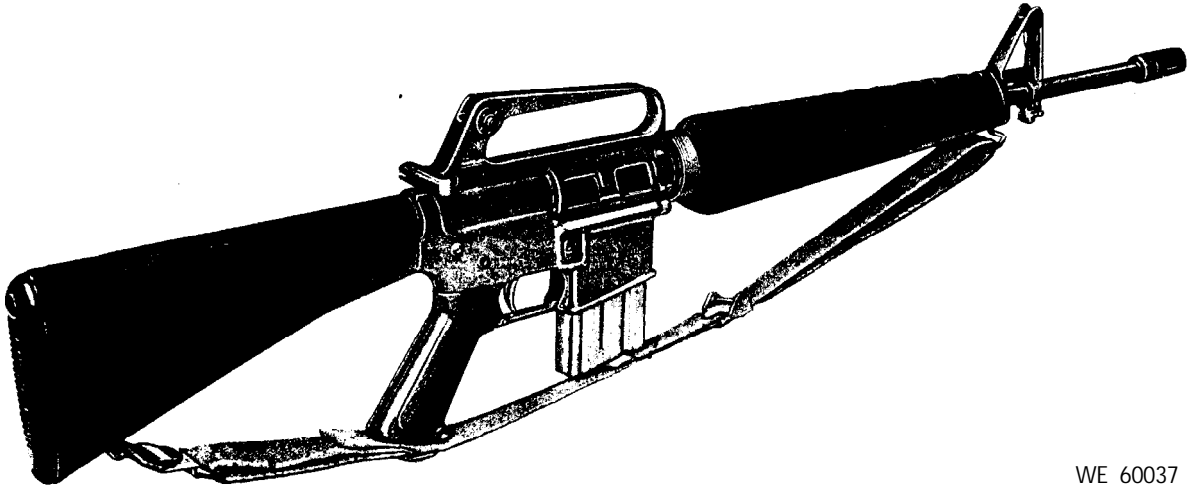
b. **Bipod, Rifle, MS.** The bipod, rifle (fig. 1-3) is a lightweight, non-adjusting mount which clamps on the barrel of the rifle (fig. 3-9).

I-4. Tabulated Data

a. **Rifles M1 6 and M1 6A1.**

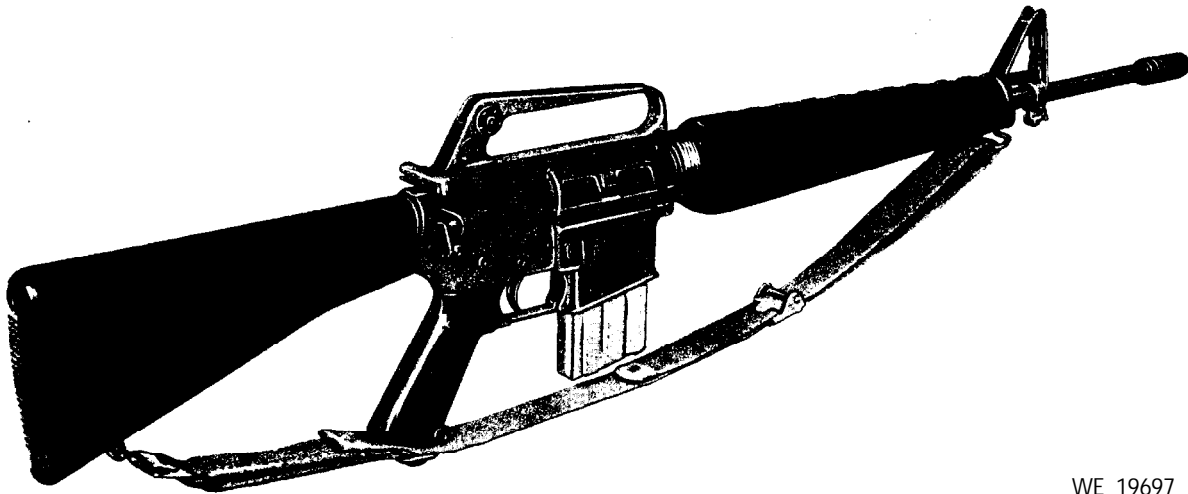
Weight:

Rifle, M16, without magazine and sling	6.3 lb
Rifle, M16A1, without magazine and sling	6.5 lb
Sling, M1	0.4 lb
Empty magazine	0.2 lb
Loaded magazine	0.7 lb



WE 60037

Figure 1-1. Rifle, 5.56-MM, M16—right rear view.



WE 19697

Figure 1-2. Rifle, 5.56-MM, M16A1—right rear view.

Rifle, M16, w/sling and loaded magazine -----	7.4 lb
Rifle, M16A1 , w/sling and loaded magazine _____	7.6 lb
Bayonet-Knife, M7 _____	0.6 lb
Scabbard, M8A1 _____	0.3 lb

Length :

Rifle w/flash suppressor _____	39 in
Rifle w/bayonet-knife _____	44.25 in
Barrel -----	20 in
Barrel with flash suppressor _____	21 in

Mechanical features :

Rifling, R.H. 6 grooves-1 turn in 12 inches:
Method of operation _____ gas
Type of breech mechanism ____ rotating bolt
Method of feeding _____ magazine
Cooling ----- air

Ammunition :

Caliber _____	5.56MM
Type _____	Ball, blank, dummy and tracer
Firing characteristics :	
Muzzle velocity (approximate) __	3,260 fps

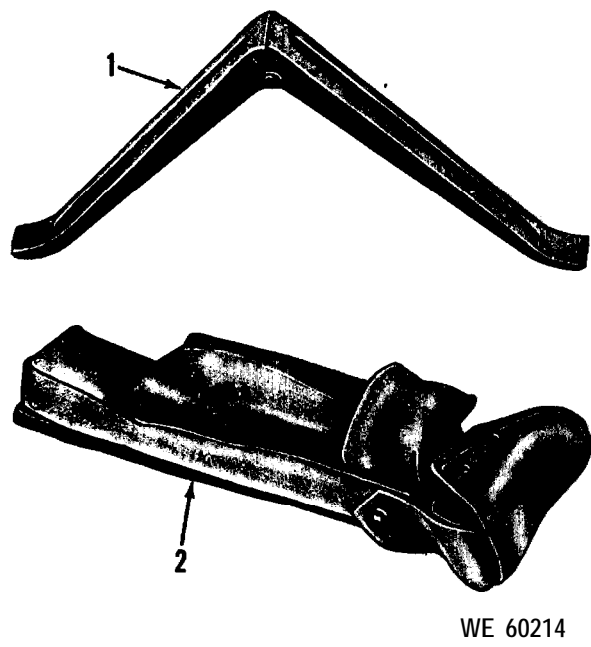


Figure 13. *Bipod, Rifle, M3 and Case.*

Muzzle energy _____ 1,300 ft-lb
 Chamber-pressure _____ 62,000 psi
 Cyclic rate of fire _____ 700/800 rds/m
 Maximum rate of fire:
 Semiautomatic _____ 45/65 rds/m
 Automatic _____ 150/200 rds/mc
 Sustained rate of fire _____ 12/15 rds/m
 Maximum range _____ 2,663 meters
 Maximum effective range _____ 460 meters

b. *Bipod, Rifle, M3.*

Weight :
 Bipod ----- 0.6 lb
 Bipod case _____ 0.2 lb

I-5. **Difference in Models**

Rifle M16A1 (fig. 1-2) differs from Rifle M16 (fig. 1-1) as it contains a forward assist assembly. The forward assist assembly (fig. 2-1) when pressed forward forces the bolt into the locked position.

CHAPTER 2

OPERATING INSTRUCTIONS

Section I. SERVICE UPON RECEIPT OF MATERIEL

2-1. General

a. When new or reconditioned rifles or bipods are 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. A record will be made of all missing parts, tools and equipment, and any malfunctions will be reported through appropriate channels. Corrective action will be initiated as quickly as possible.

2-2. Services

Refer to table 2-1.

Table 2-1. Service Upon Receipt of Materiel

Step	Action	Reference
1	Check to determine that all Basic Issue Items have been furnished.	App B, Sect II

Step	Action	Reference
2	Clear rifle	Fig. 2-2
3	Remove bolt carrier group from rifle and visually inspect for proper assembly, damaged or missing parts.	Fig. 3-11
4	Clean and lubricate (rifle and bipod). <i>Note.</i> Wipe excess oil from bore and chamber. Particular attention should be given to cleaning the bolt carrier key.	Table 3-1
5	Reassemble the weapon	Fig. 3-11
6	Hand function to assure proper operation. <i>Note.</i> When retracting the bolt, give special attention to assure free movement between bolt carrier and gas tube.	Par. 3-2
7	Check magazine for positive retention and functioning of bolt catch.	Par. 2-6b

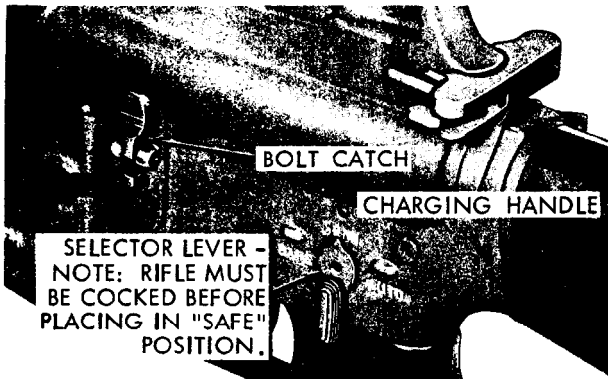
Section II. CONTROLS

2-3. General

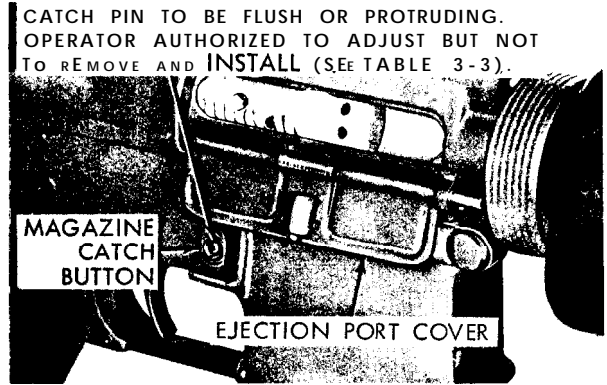
a. This section describes, locates, illustrates, and furnishes the operator essential information pertaining to the various controls pro-

vided for the proper operation of the materiel.

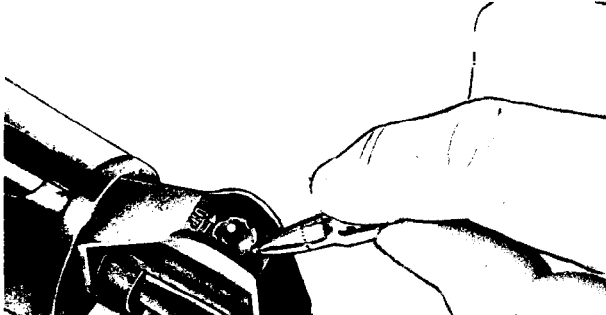
b. Refer to figure 2-1 for controls and their functions.



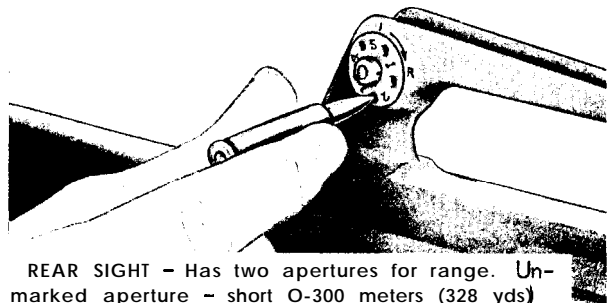
SELECTOR LEVER - Selects "SAFE" position or type of firing.
BOLT CATCH - Holds bolt and bolt carrier in open position. To engage bolt press lower tang of bolt catch. To release bolt press upper tang of bolt catch.
CHARGING HANDLE - Retracts bolt and bolt carrier.



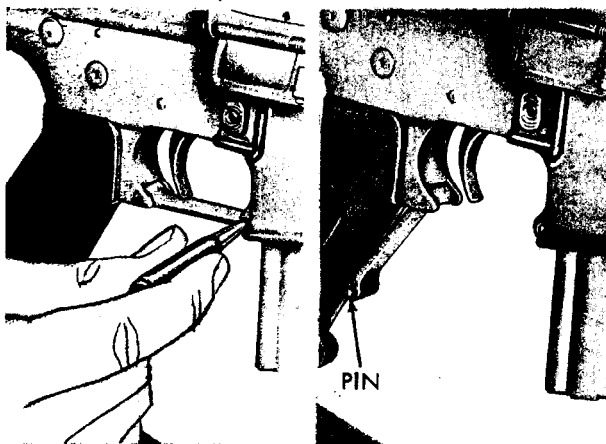
MAGAZINE CATCH BUTTON - Releases magazine when pressed.
EJECTION PORT COVER - Remains closed to keep dust out and opens automatically when bolt carrier moves rearward or forward.



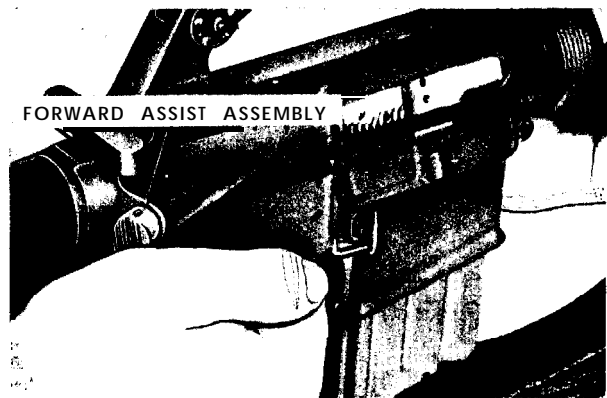
FRONT SIGHT - To adjust elevation; depress detent and rotate post. Each graduation (notch) moves the point of impact of the bullet 0.7 cm (17/64 in.) at 25 meters (27 yards), 2.8 cm (1-3/32 in.) at 100 meters (109 yds), 5.6 cm (2-13/64 in.) at 200 meters (218 yds), etc. UP marked on sight is direction to turn post to raise line of fire.



REAR SIGHT - Has two apertures for range. Unmarked aperture - short 0-300 meters (328 yds) range. L under aperture - long 300-500 meters (546 yds) range. To adjust windage - depress detent and rotate drum to desired direction. To move point of impact to right, turn drum clockwise in direction of arrow and letter R. To move left, move drum counterclockwise. Amount of correction same as front sight.



WINTER FIRING - Depress pin and open trigger guard.



FORWARD ASSIST ASSEMBLY - When bolt (M16A1) fails to close and lock, press forward assist assembly until bolt is moved into closed position.

WE 16087A

Figure 2-1. Controls.

Section III. OPERATION UNDER USUAL CONDITIONS

2-4. General

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

2-5. Preparation for Firing

a. Refer to table 2-2 for cleaning and lubrication materials and stock numbers for requisitioning purposes.

Table 2-2. Materials Required for Maintenance

Federal stock number	Item	Maintenance level
	<i>Note.</i> The letter in the maintenance level column indicates the lowest level of maintenance at which these materials can be used. Letter C indicates operator and letter O organizational.	
8020-244-0153	BRUSH, ARTISTS: metal ferrule, flat, chisel edges, 7/6 w, 1-1/8 lg, exposed bristle.	C
7920-205-2401	BRUSH, CLEANING, TOOLS AND PARTS:	C
6850-965-2332	CARBON REMOVING COMPOUND: (P-C-111) (5 gal pail)	O
9920-292-9946	CLEANER, TOBACCO PIPE: cotton tuft, wire core (Dills) (36 per pkg)	C
	CLEANING COMPOUND, RIFLE BORE: small arms bore cleaner, solution (CR).	C
6850-224-6656	2 oz plastic bottle	
6850-224-6657	6 oz can	
6850-224-6663	1 gal can	
5350-221-0872	CLOTH, ABRASIVE : crocus, ferric oxide and quartz, jean-cloth-backing, closed coating, 9 w, 11 lg, 50-sh-sleeve (CA).	O
	COATING COMPOUND, BITUMINOUS, SOLVENT TYPE : polyvinyl butyrol resin and phosphoric acid (touch up).	O
	MIL-C-15328.	
8030-535-9780	1 oz kit	
8030-850-7076	1 qt kit	
6850-281-1985	DRY CLEANING SOLVENT: (SD) (1 gal can)	O
8010-527-2884	LACQUER: black (jet) lusterless, acrylic nitrocellulose type, (touch up) MIL-L-19538 (1 gal can).	O
	LUBRICATING OIL, SEMI-FLUID :MIL-L-46000A (LSA) ..	C
9150-935-6597	2 oz plastic bottle	
9150-889-3522	4 oz plastic bottle	
9150-687-4241	1 qt can	
9150-753-4686	1 gal can	
9150-292-9689	LUBRICATING OIL, WEAPONS: (LAW) (1 qt can)	C
	PENETRATING OIL: Spec, Fed, VV-P-216	O
9150-261-7899	1 pt can	
9150-262-8990	1 qt can	
	PRIMER COATING: yellow, cellulose-nitrate, corrosion-inhibiting (touch up) MIL-P-7962.	O
8010-526-2523	5 gal can	
8010-584-2426	12 oz aerosol can	
7920-205-1711	RAG, WIPING: cotton (50 lb bag)	C
1005-912-4248	SWAB, SMALL ARMS CLEANING:	C

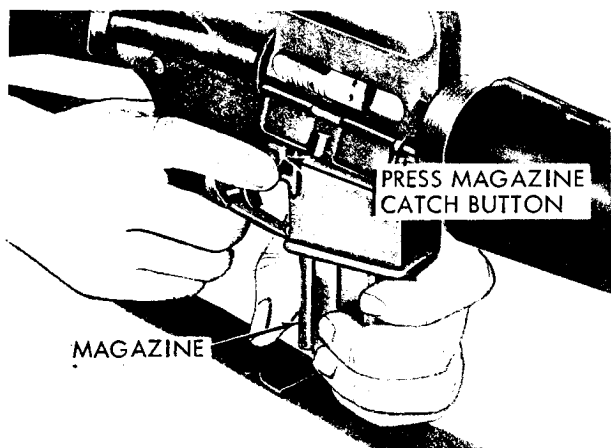
b. Clear rifle as shown in figure 2-2.

Note. Before performing step 1 of figure 2-2, attempt to point the selector lever toward SAFE (fig. 2-2). If the rifle is not cocked the selector lever cannot be pointed toward SAFE. If this is the case, do not cock the rifle at this time.

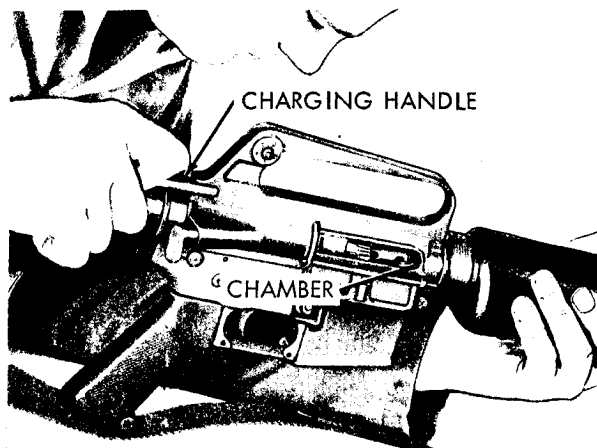
c. Clean and lubricate as indicated in table 3-1.

2-6. loading

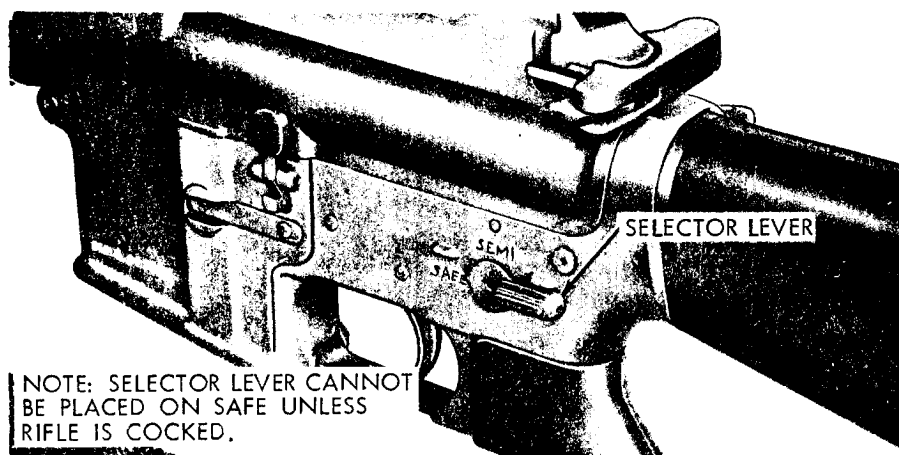
a. Loading **the Magazine.** The magazine has



Step 1 - Remove magazine.



Step 2 - Inspect chamber.



Step 3 - Place selector lever in SAFE position.

WE 13613B

Figure 2-2. Clearing rifle.

a capacity of twenty rounds and may be loaded with any amount up to that capacity. The magazine follower has a raised portion resembling the outline of a cartridge. Cartridges are loaded into the magazine so that the tips of the bullet point in the same direction as the smaller end of the raised portion of the follower.

Warning: Prior to loading the rifle make certain selector lever is in "safe" position.

b. *Loading the Rifle.* The magazine may be inserted with the bolt and bolt carrier opened or closed. Grasp the pistol grip, point the muzzle in a safe direction and insert loaded

magazine into magazine housing. Push upward until the magazine catch engages and holds the magazine. If the bolt carrier is locked to the rear, push in the upper portion of bolt catch (fig. 2-1) allowing the action to close, chambering a round. If the bolt carrier is in the forward position when the magazine is inserted, pull the charging handle fully to the rear and release it.

Note. Do not "ride" the charging handle forward with the right hand. If the charging handle is eased forward from the open position, the bolt may fail to lock. If bolt fails to lock, use the forward assist assembly, M16A1 Rifle only (fig. 2-1). For M16 Rifle, recharge.

The rifle is now loaded and can be fired when the selector lever is placed in the automatic or semi-automatic position.

Warning: If not ready to fire, be sure the selector lever is placed in the "safe" position.

2-7. Precautions in Firing Ammunition

a. The general precautions concerning the firing and handling of ammunition in the field, as described in TM 9-1300-206, will be observed. In addition, the precautions given in the following paragraphs should be closely observed in order to prevent injury to personnel or damage to materiel.

b. Ammunition which is seriously corroded should not be fired.

c. Cartridge cases are easily dented and should be protected from hard knocks and blows. Dented cartridge cases may jam in the chamber, and cause difficulty in extraction.

d. Cartridges which have been seriously damaged, or those having loose bullets, should not be used.

e. The cartridges should be kept clean and free of foreign matter.

f. Cartridges which have been elevated to temperatures of 135° F., (uncomfortable to hold) or more, due to exposure to direct radiation from the sun, or other sources of heat, should not be fired while at these temperatures or dangerously high chamber pressures may result. When returned to lower temperatures, these cartridges are safe to fire.

g. If a cartridge remains in the chamber of a very hot weapon at any time firing is interrupted, the cartridge should be removed immediately or there should be a 15-minute wait to prevent the possibility of injury to personnel in the event of a cartridge cook-off.

Warning: If a noticeable difference in sound or recoil is experienced, further firing should be suspended. Either of these conditions could indicate an incomplete propellant combustion and present the possibility that the bullet has not been propelled with sufficient force, to clear the bore. In such instances, the bolt should be retracted slowly to remove and identify the fired cartridge case. The weapon should be

cleared and examined for the presence of unburned propellant grains in the receiver, or possible presence of a bullet remaining in the bore. Any unburned propellant or obstruction in the bore should be removed, before further firing.

Note. If bullet is lodged in bore, turn in rifle to direct support maintenance.

2-8. Firing

a. *Selector Lever.* The rifle may be fired semi-automatically or automatically by moving the selector lever (fig. 2-1) to the desired position as indicated in paragraphs b, and c, below.

b. *Semi-Automatic Position.* With the selector lever in this position, the rifle will fire one round each time the trigger is pulled.

c. *Automatic Position.* With the selector lever in this position, the rifle will continue to fire until the magazine is empty or the trigger is released. When the rifle is fired in either SEMI or AUTO, the bolt will lock in open position when the last round from a magazine has been fired.

2-9. Stoppage and Immediate Action

a. *Stoppage.* A stoppage is any unintentional interruption in the cycle of functioning. Immediate or remedial action must be taken to clear stoppage.

b. *Immediate Action.* Immediate action is the action taken to correct the stoppage without analyzing the cause. Immediate action to clear a stoppage in the rifle is as follows:

(1) Strike the forward assist assembly to insure that the extractor has engaged the round (M16A1 Rifle only). Tap upward on the bottom of the magazine to insure that it is fully seated. Pull charging handle fully to the rear. Watch for ejection of a complete cartridge or cartridge case.

(2) If a cartridge or case is ejected, release charging handle to feed a new round (do not ride charging handle forward). Strike the forward assist assembly to assure bolt closure (M16A1 Rifle only). Attempt to fire the weapon. If weapon fails to fire, inspect to de-

termine cause of malfunction and take appropriate action. (See troubleshooting, table 3-3.)

(3) If a cartridge or case is not ejected, check for a round in the chamber. If chamber is clear release charging handle to feed a round, strike the forward assist assembly, and attempt to fire. If weapon still fails to fire, inspect to determine cause of malfunction and take appropriate action. (See troubleshooting, table 3-3.)

(4) If a cartridge or case is noted in chamber it must be removed before attempting to reload or recycle the rifle. A stuck cartridge or case can be removed by inserting the cleaning rod into the bore from the muzzle end and tapping the cartridge.

2-10. Misfires and Cook-Offs

a. General. Although these malfunctions, described in the following paragraphs, are rarely encountered when authorized and properly maintained ammunition is fired in properly maintained and operated weapons, it is important that all personnel concerned understand the nature of each kind of malfunction, as well as the proper preventive and corrective procedures, in order to avoid injury to personnel **or** damage to materiel. General precautions for removing chambered cartridges associated with these malfunctions are described in paragraph b, below.

(1) **Misfire.** A misfire is a complete failure to fire which may be due to a faulty firing mechanism or a faulty element in the propelling charge explosive train.

(2) **Cook-Off.** A cook-off is a functioning of any or all of the explosive components of a cartridge chambered in a very hot weapon due to heat from the weapon. To prevent injury from a cook-off, observe the time limit prescribed in b, below.

b. **Precautions.** After a failure to fire, the following general precautions, as applicable, will be observed:

Warning: A cook-off will occur after ten seconds of contact with the chamber in a hot barrel.

(1) Attempt to remove the cartridge before ten seconds has elapsed.

(2) In case of a cartridge chambered in a very hot rifle which can neither be fired nor removed, all personnel except the operator will remain clear of the rifle for a minimum of 15 minutes.

(3) The operator will keep the rifle trained in a safe direction.

2-11. Operation after Fording

Warning: Do NOT attempt to FIRE weapon if water is present in barrel. Fording, heavy rain, or fog can cause water to be present in the barrel.

Observe the following procedures to empty water from the barrel:

Note. Make certain the muzzle cap is removed before performing the following procedures.

a. Point the muzzle down.

b. Pull charging handle slightly rearward to allow water to drain from muzzle.

c. Press forward assist to make sure the round is seated in the chamber and the bolt is locked. The weapon can now be fired.

Note. Clean and lubricate in accordance with table 3-1, as soon as possible.

2-12. Unloading

Repeat operation in figure 2-2.

Section IV. OPERATION UNDER UNUSUAL CONDITIONS

2-13. General Conditions

a. See paragraph 2-14 through 2-17 for instructions on lubrication under unusual conditions and table 3-2 for preventive **maintenance** checks and services to be made when the

materiel is subjected to usual conditions.

b. Report any chronic failure of materiel resulting from subjection to extreme **condition** on a DA Form 2407 in accordance with TM 38-750.

2-14. Operation in Extreme Cold

a. In climates where the temperature is consistently below 0° F., it is necessary to prepare the materiel for cold-weather operation. The rifles should be cleaned and lubricated as indicated in table. 3-1.

b. Exercise the various controls through their entire range at intervals as required. This aids in keeping them from freezing in place and reduces the effort required to operate them.

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

d. See FM 31-70 for further information on operations in the Arctic.

2-15. Operation in Extreme Heat

a. *Hot Climates.*

(1) When operating in hot climates, the coating of oil necessary for operation and preservation will dissipate quickly. Inspect the rifles and bipod frequently, paying particular attention to all hidden surfaces of bolt carrier group, forward assist assembly (**M16A1** Rifle) and lower receiver components.

(2) Perspiration, contributes to corrosion because it contains acids and salts. After handling rifle, clean, wipe dry and oil using semi-fluid lubricating oil (**LSA**).

b. *Hot, Dry Climates.* Clean and oil the bore of the rifles more frequently, when operating in hot, dry climates.

2-16. Operation in Dusty and Sandy Areas

a. Clean and lubricate the rifle more frequently. Exercise particular care to keep sand out of mechanisms when inspecting and lubricating weapon. Shield parts, from flying sand or dust, with **paulins** during disassembly and assembly operations. Clean and lubricate the rifle after action is over.

b. The rifle cover, magazine bag and the protective cap for the muzzle of the rifle are designed to protect the rifle against excessive dust, sand and water. These items are reusable provided they are not damaged. They should not be used on rifles or magazines

which are to be stored in excess of 24 hours, as condensation may develop.

Note. Use of the rifle cover, magazine bag and protective cap does not change the maintenance requirements for the rifle.

(1) *Rifle cover features.*

(a) A rubber band is used to seal the cover. Removing the rubber band is the normal method of opening the cover.

(b) A tear line along the length of the cover provides for quick entry. (Use of the tear line destroys the cover.)

(c) In *emergency conditions* the selector lever and trigger can be operated through the cover. However, the ejected cartridge cases will be trapped and destroy the cover and may cause the rifle to malfunction.

(2) *Magazine bag features.*

(a) A tear line across the bag provides quick access to the magazine.

(b) Packaged magazines should not be left in direct sunlight as high temperatures can cause the bags to become tacky and stick together.

(c) Do not attempt to insert a packaged magazine into the magazine well of the rifle. This will cause the rifle to become inoperative and removal of the magazine can be difficult.

(3) *Protective cap features.*

(a) The cap should be removed before firing the rifle. However, the cap is designed so that a bullet will pass through the end without affecting accuracy and without causing a safety hazard to the user.

(b) Do not place a cap on a hot rifle. The plastic will become soft and form into the grooves of the flash suppressor making it difficult to remove.

2-17. Operations Under Rainy, Humid Conditions and Salt Water Areas

a. Inspect the materiel more frequently when operating in hot, moist areas.

b. When materiel is in use, clean and lubricate the bore and chamber and exposed metal surfaces more frequently than prescribed for normal service.

c. Moist and salty atmospheres have a **tendency** to mix with oil and grease and destroy their rust preventive qualities. Inspect all parts frequently for rust or **corrosion**.

d. Then materiel is not in use, cover **all metal** surfaces with a film of semi-fluid **lubricating** oil (LSA).

CHAPTER 3

OPERATOR AND ORGANIZATIONAL MAINTENANCE INSTRUCTIONS

Section I. TOOLS AND EQUIPMENT AND REPAIR PARTS

3-1. Tools and Equipment

Tools and equipment issued with or **authorized** for the operator and organizational **maintenance** are listed in appendix B.

3-2. Repair Parts

Repair parts for the operator and **organizational maintenance** are listed in appendix B.

Section II. CLEANING AND LUBRICATION INSTRUCTIONS

3-3. General

This section contains pertinent cleaning and lubricating instructions for operator and organizational maintenance.

3-4. Cleaning and lubrication

Refer to table 3-1.

Note. The letters in the maintenance level column indicate the lowest level of maintenance at which corrective action can be performed.

3-5. Definition for the Application of LSA

Definition for the amount of LSA specified in table 3-1 are listed in a through c below.

a. *One Drop.* Dip the end of the swab holder section into lubricant and allow one drop to fall from the tip.

b. *Light Coat.* Apply lubricant to a cloth until it becomes just damp enough so the oil can not be squeezed from the cloth. When applied, the part will have a film of lubricant, which is barely visible.

c. *Generous Coat.* Apply lubricant to a cloth until it becomes saturated enough so the oil can be squeezed from the cloth. When applied, the part will have a film of lubricant heavy enough so that it can be spread with the finger.

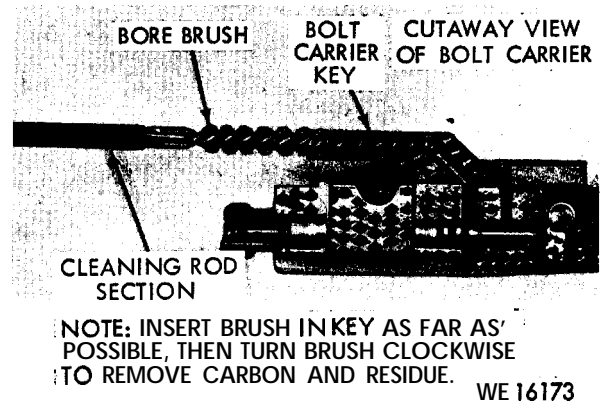


Figure 3-1. Cleaning carrier key.

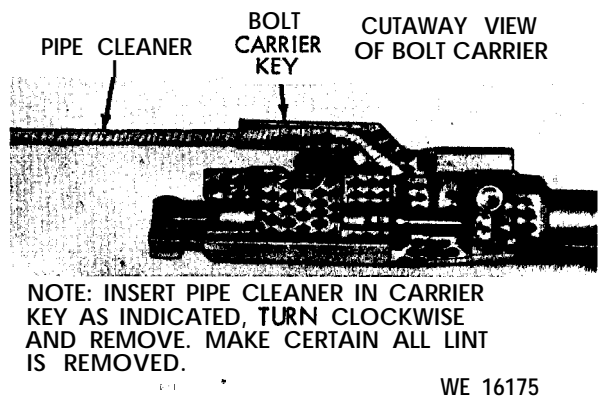


Figure 3-2. Drying carrier key.

Table. 3-1. Cleaning and Lubricating Instructions

Item	After firing	As required	Maintenance level	Action required
Rifle	---		C	<p><i>Note.</i> Lubricants listed below and specified within this table will be utilized. Do not use any commercial products for cleaning and lubricating purposes.</p> <p>Semi-fluid lubricating oil (LSA) for temperature ranges of -36 degrees Fahrenheit and above.</p> <p>Weapons oil lubricating (LAW) for temperature ranges below zero degrees.</p> <p><i>Note.</i> Either lubricant can be used at temperatures ranging from zero to -35 degrees Fahrenheit.</p> <p>BEFORE OPERATION</p> <p>1. Prior to firing, visually inspect the bore and chamber for condition and obstruction. Clean by pushing swabs through the bore (from chamber to muzzle) until the swabs protrude through the flash suppressor.</p> <p>Caution: When inserting rod, into bore, hold at joints to prevent flexing or damage to rod.</p> <p>2. After cleaning, apply a light coat of oil to the bore and chamber, with a swab, to prevent corrosion and pitting. Lightly lubricate the lugs in the barrel extension.</p> <p>3. The bolt carrier group may be removed as shown in figure 3-13. Remove dirt and oil from firing pin, outer and inner surfaces of the bolt and bolt carrier with clean dry swabs or rags. Also clean firing pin hole using a pipe cleaner. Lubricate the bolt and bolt (piston) rings. Make certain rings are well lubricated. Apply a coating of lubricating oil to the inner surfaces of the bolt carrier. Give special attention to the slide and cam pin area.</p> <p>Warning: Most cleaning solutions are toxic and if the vapors from them are inhaled, for extended periods, could be very harmful. These materials should be used sparingly and in a well ventilated location.</p> <p><i>Note.</i> The use of the rifle cover does not take the place of normal cleaning and lubrication.</p>
Magazine assembly	X	X	C	<p>Disassemble and wipe dirt from the magazine tube, spring, and follower. Apply a light coat of lubricant to the magazine spring.</p> <p><i>Note.</i> Because moisture will collect in the plastic magazine bag, from condensation, the magazine must be removed, unloaded, and dried every 24 hours to prevent corrosion. After the cartridges and magazine have been dried, apply a light coat of lubricating oil to the magazine spring.</p>
Bolt carrier group	X X X X X	X X X X X	C C C C C 0 C	<p>1. Disassemble the bolt carrier group and wash all components and outer surfaces with a swab saturated in rifle bore cleaner.</p> <p>2. Clean bolt carrier key with a worn bore brush dipped in rifle bore cleaner (fig. 3-1).</p> <p>3. Dry bolt carrier key using pipe cleaners (fig. 3-2).</p> <p>4. Using a small brush dipped in rifle bore cleaner, scrub carbon deposits and dirt from the locking lugs of the bolt.</p> <p>Caution: Brush the outer surface of the bolt, paying particular attention to area behind the bolt rings and under lip of the extractor. Do NOT attempt to remove discoloration caused by heat.</p> <p>5. Remove extractor from bolt, Using a small brush dipped in rifle bore cleaner scrub extractor to <i>remove</i> carbon. Also <i>clean firing</i> pin recess and <i>firing</i> pin. Do not <i>remove</i> the spring from extractor unless it is damaged.</p> <p>6. Clean ejector and spring by scrubbing with brush using rifle bore cleaner.</p> <p>7. When dry and before final assembly, apply a generous coat of lubricant to the outside bolt body, <i>rings</i>, and a drop <i>in</i> bolt carrier key (fig. 3-3).</p>

Table S-1. Cleaning and Lubricating Instructions-Continued.

Item	Always firing	As required	Maintenance level	Action required
Bolt carrier group-cont'd	X	X	C	<p>Caution: The firing pin and firing pin recess in the bolt should only have a light coat of lubricant.</p> <p>8. During cleaning and lubricating, inspect the bolt for cracks especially in the bolt cam pin hole area.</p>
Upper receiver	X	X	C	<p>1. Clean the upper receiver of powder fouling with rifle bore cleaner.</p> <p>Caution: Do NOT use wire brush on aluminum surface.</p> <p>2. Clean the outside surface of the protruding gas tube in the receiver with a worn bore brush attached to a section of the cleaning rod (fig. 3-4). Clean top of the gas tube by inserting rod and brush thru the back of the receiver. Clean sides and bottom of gas tube from the bottom of the receiver.</p> <p>3. After cleaning, coat the inner surfaces of the upper receiver with lubricant and apply a light coat to the outer surfaces.</p> <p>Caution: Do NOT use any type of abrasive material to clean the gas tube.</p>
Barrel	X	X	C	<p>1. Attach the wire bore brush to rod, dip in rifle bore cleaner, and brush the bore from chamber to muzzle (fig. 3-5). Push the brush through the bore until it extends beyond the muzzle. Do NOT reverse direction of brush while in the bore. Continue until the bore is well covered with compound.</p> <p>2. Attach the chamber brush to the cleaning rod, dip in rifle bore cleaner, and insert in chamber (fig. 3-6). Use a minimum of five plunge strokes and three rotational (360°) motions.</p> <p>3. Remove brush from chamber and cleaning rod. Dry the bore and chamber with clean swabs. Do not reverse direction of swabs while in the bore. Continue until swabs come out clean and dry.</p> <p>4. After cleaning, lightly lubricate the bore and chamber with a swab to prevent corrosion and pitting. Lightly lubricate the lugs in the barrel extension.</p> <p>5. Lightly lubricate all the outer surfaces of the barrel and sight (including surfaces under the handguard).</p> <p>6. Apply lubricant generously to the front sight post screw, detent, and spring. Depress detent several times to work the lubricant into the spring.</p> <p><i>Note.</i> Moisture from condensation, will collect in the bore of the rifle when the protective cap is used on the muzzle. The cap must be removed and the bore cleaned and lubricated every 24 hours.</p>
Lower receiver group	X	X	C	<p>1. Wipe dirt from trigger mechanism with a clean swab or brush.</p> <p>Caution: Do NOT use wire brush on aluminum surface.</p> <p>2. Components which are coated with carbon will be cleaned with rifle bore cleaner and an artist brush or similar brush. Use a scrubbing action to remove all carbon and foreign material. Drain rifle bore cleaner from lower receiver cavity and wipe dry. Use the opposite end of the brush with a piece of rag or cloth wrapped around it to get into the hard to get at places.</p> <p>3. Clean drain holes in butt cap screw using a pipe cleaner.</p> <p>4. After the lower receiver has been cleaned and dried, apply a light coat of lubricant to the buffer, action spring, inner surface of lower receiver extension. Also apply a generous coating inside the lower receiver and all components including the take-down and pivot pins.</p> <p>5. Apply a generous amount of lubricant in the detent well, to the detents and springs for the take-down pins, pivot pin, selector lever, and outer surfaces of lower receiver extension.</p>

Table 3-1. Cleaning and Lubricating Instructions-Continued.

Item	Firing	As	Maintenance level	Action required
Lower receiver group-cont'd	X	X	O	<p>6. If the detents and springs are frozen the following procedures should be accomplished.</p> <p>a. Attempt to depress the detent by inserting a small punch into the slot of the pivot pin, thus forcing the detent into the recess. (Later production rifles have a hole in the pivot pin for this purpose). Only limited movement is required to permit removal of the pivot pin.</p> <p>b. If the detent cannot be depressed enough to permit removal of the pivot pin, disassemble the rifle. Place the forward portion of the lower receiver in a container of penetrating oil, bore cleaner, or PC-111, carbon removing compound, and allow to soak for a period of 24 hours. Then attempt to remove the components as described in a, above.</p> <p>Warning: Avoid skin contact. The compound should be washed off thoroughly with running water if it comes in contact with the skin. A good lanolin base cream, after exposure to compound, is helpful. The use of gloves and protective equipment is recommended.</p> <p>c. After disassembly, the spring, detent, and detent well should be thoroughly cleaned, then generously lubricated with (LSA) before assembly to the rifle.</p> <p>d. If the rifle cannot be disassembled by trying the methods described above, turn the weapon in to direct support maintenance for repair.</p>
Inactive weapons		X	C	<p>Inactive weapons will be preserved with a generous coat of (LSA) lubricating oil. Inspect these weapons on a weekly basis to determine condition of preservation. Weapons having corrosion or rust will be cleaned immediately and preserved in accordance with above instructions. All inactive weapons will be thoroughly cleaned and preserved every 90 days.</p> <p><i>Note.</i> Do not use the rifle cover or protective cap on rifles which are to be stored over 24 hours.</p>
Bipod rifle		X	C	<p>1. Remove dirt or grease, using rifle bore cleaner.</p>
		X	C	<p>2. Apply a generous amount of lubricant to all surfaces, making certain the tension spring is well lubricated.</p>
Bayonet-knife M		X	C	<p>1. Clean dirt and grease from bayonet-knife. Apply a light coat of lubricant to the blade and generously lubricate the release. The release should work freely and return to lock position.</p>
			O	<p>2. Minor nicks and dents will be removed with file <i>or</i> stone.</p>
			O	<p>3. Remove grips to clean shank of blade assembly and apply a light coat of lubricant.</p>
Scabbard M8A1 and Sling		X	C	<p>1. To prevent mildew, shake out and air the scabbard and sling at frequent intervals. Mildewed canvas is cleaned by scrubbing with <i>a</i> dry brush.</p> <p>2. Examine mildewed fabric carefully for evidence of rotting or weakening by stretching and pulling the fabric. If fabric shows indication of loss of tensile strength, turn in for replacement.</p> <p>3. Make certain all mildew is removed, before water is used to remove dirt. Oil and grease may be removed by scrubbing with issue soap and water. Rinse well with water and dry thoroughly.</p> <p>Caution: Do not use gasoline or any solvent to remove oil or grease from canvas.</p>

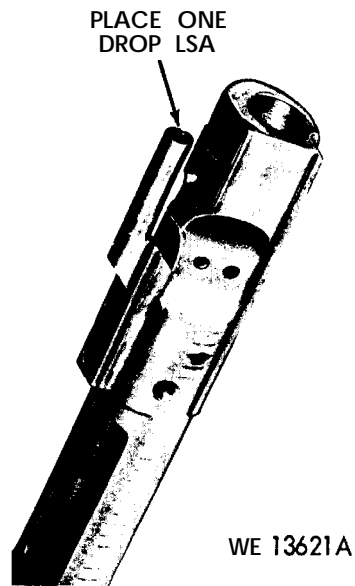
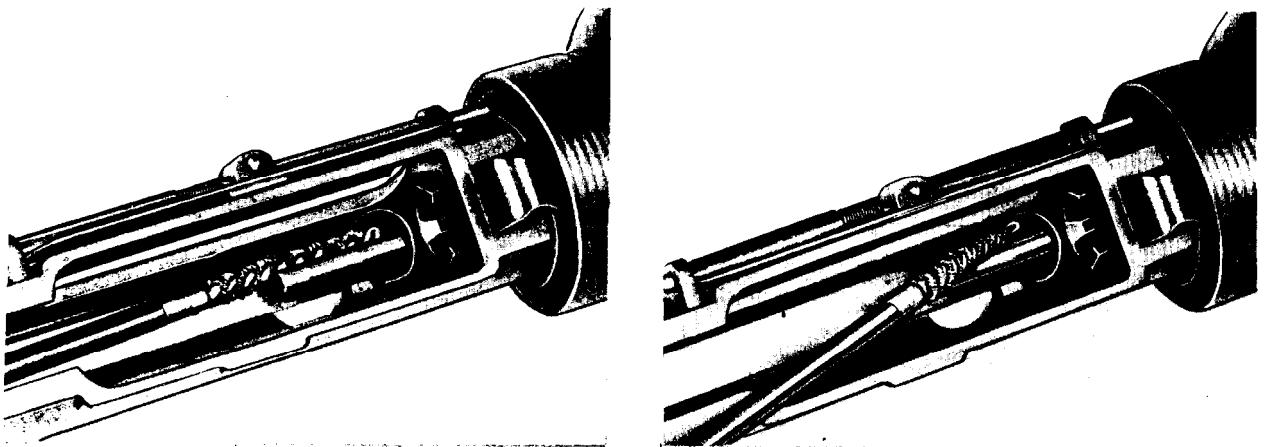


Figure J-3. Oiling carrier key.



WE 13623

Figure 3-4. Cleaning gas tube in receiver.

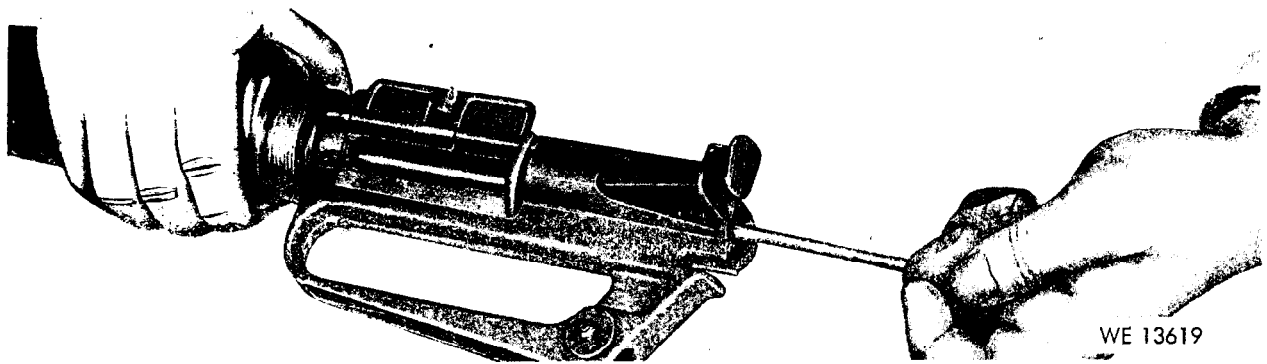


Figure 3-5. Cleaning the bore.

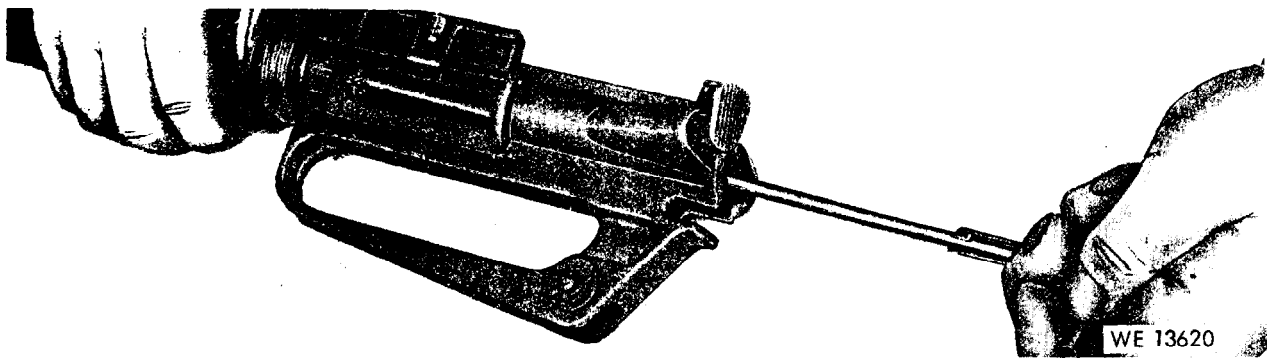


Figure 3-6. Cleaning the chamber.

Section III. PREVENTIVE MAINTENANCE SERVICES

3-6. General

a. Preventive maintenance is a systematic care, inspection, and servicing of equipment to keep it in serviceable condition, prevent breakdowns and assure maximum operational readiness. The operator's role in the performance of preventive maintenance service is:

(1) To perform daily service each day the rifle is operated.

(2) To help the organizational unit armorer perform any scheduled periodic services which are authorized to them.

3-7. Specific Procedures

a. Table 3-2 gives the specific procedures to be performed by operator and organizational unit armorer.

b. In addition to procedures outlined in table 3-2, perform the following: Remove rust, dirt, grit, gummed oil, and water as these will cause rapid deterioration of the inner mechanism and outer surfaces. Take particular care to keep all surfaces clean and lubricated. Do not clean or polish outer surfaces of the weapon with a treated cloth or other commercial compounds.

c. Tighten loose parts and replace broken or worn parts, as authorized.

d. 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 the modification work order.

Table 3-2. Preventive Maintenance Checks and Services

Item no	Interval						B-Before operation D-During operation	A-After operation W-Weekly	M-Monthly Q-Quarterly	Reference
	Operator		Organizational							
	B	D	A	W	M	Q	Item to be inspected	Procedure		
1	X		--	--	--	--	Rifle	Wipe excessive oil from bore and chamber	Table 3-1.	
*2	X		--	--	--	--	Rifle	Retract bolt to assure free movement between bolt carrier and gas tube.	Table 3-3.	
*3	X		--	--	--	--	Rifle	Hand function to assure proper operation	Par. 3-12.	
*4	X		--	--	--	--	Rifle	Check magazine for positive retention and functioning of bolt catch.	Fig. 2-1.	
*5	--		X	--	--	--	Rifle	Clean and lubricate. Be sure to clean bolt carrier key.	Table 3-1	
6	--		--	--	X	--	Rifle	Clean and lubricate detents and springs, for takedown pin, pivot pin and selector lever and outer surface of lower receiver extension.	Table 3-1.	
*7	X		--	--	--	--	Bipod	Clean and lubricate. Check bipod legs. Make certain they move freely from closed to open position under spring tension, and that tension is of sufficient strength to hold the bipod to the rifle.	Table 3-1.	

*Will be performed weekly, unless daily schedule is performed as a result of firing.

Section IV. TROUBLESHOOTING

3-8. General

a. *Troubleshooting.* Troubleshooting shown in table 3-3 contains information for operator and organizational maintenance and serves as an aid to personnel whose responsibility it is to restore worn, damages, or inoperative materiel to a satisfactory condition. This information includes both determination of cause and corrective action.

b. Zeroing. Zeroing will be accomplished in accordance with instructions contained in FM

23-9. Schedules for zeroing will be established by Theater Commanders.

c. *Serviceability, Function Firing Test.* Ten rounds, (3 semi-automatic and 7 automatic), will be fired in conjunction with zeroing. Malfunctions occurring during these tests should be corrected by referring to troubleshooting, table 3-3.

Note. The letters in the maintenance level column indicate the lowest level of maintenance at which corrective action can be performed. Letter C indicates operator and letter O organizational maintenance.

Table 3-3. Troubleshooting

Malfunction	Probable cause	Corrective action	Maintenance level
Failure to fire	Selector lever on safe _____	Move selector lever to semi or automatic fire position.	C
	Broken firing pin	Replac e	C
	Improper assembly of firing pin	Remove firing pin and assemble correctly. Check retaining pin for damage.	C
	Too much oil in firing pin recess of bolt.	Disassemble and wipe off excess oil.	C
	Firing mechanism, lower receiver improperly assembled, or worn, broken or missing parts.	Turn in to direct support maintenance personnel.	O

Table 3-3. Troubleshooting-Continued

Malfunction	Probable cause	Corrective action	Maintenance level
Failure to unlock (Bolt seizes, will not rotate from locked position).	Carbon, dirty or burred bolt group or barrel extension.	Hold rifle in vertical position and strike butt sharply on ground, while pulling back on charging handle. Warning: Make certain to be clear of muzzle end. Caution: Strike butt squarely on ground to prevent breakage of stock, remove bolt group and clean. <i>Note.</i> Brass cases causing a malfunction, if considered serious enough to warrant EIR action, should be forwarded with EIR.	C
Failure to extract	Dirty or corroded ammunition	Remove ammunition from magazine and clean.	C
	Carbon buildup in chamber . . .	Clean	C
	Carbon buildup in extractor recess or extractor lip.	Disassemble and clean	C
	Defective extractor, extractor spring, and extractor pin.	Replace	0
Failure to eject ____	Badly pitted chamber	Turn in to direct support maintenance personnel.	0
	Broken ejector _____	Replace	0
	Frozen ejector	Disassemble and clean	0
	Weak or broken ejector spring. .	Replace	0
Failure to cock	Short recoil	See short recoil.	
	Worn, broken or missing parts of firing mechanism.	Turn in to direct support maintenance personnel.	0
Failure to feed	Magazine not seated properly..	Adjust magazine catch. Push in the magazine catch button with the nose of a cartridge and rotate the magazine catch clockwise to tighten and counterclockwise to loosen.	C
	Dirty or corroded ammunition . .	Remove ammunition from magazine and clean.	
	Dirty magazine	Disassemble and clean	C
	Defective magazine _____	Change	C
	Too many rounds in magazine_ .	Caution: Do not load over 20 rounds.	C
	Restricted buffer assembly action.	Remove buffer assembly and action spring. Clean.	C
Double feed	Short recoil	See short recoil.	
	Defective magazine	Change magazine	C
Failure to chamber	Dirty or corroded ammunition . .	Remove ammunition from magazine and clean.	C
	Damaged ammunition	Replace	C
Failure to lock	Carbon buildup in chamber . .	Clean	C
	Dirt, corrosion or carbon buildup on barrel locking lugs.	Clean	C
	Frozen extractor	Clean and assemble correctly	C

*May be indicated by a rim shear of the cartridge case.

Table 3-3. Troubleshooting-Continued

Malfunction	Probable cause	Corrective action	Maintenance level
Failure to lock-cont'd	Restricted buffer assembly movement.	Remove buffer assembly and action spring and clean.	C
	Weak or broken action spring.	Replace	C
	Restricted movement of bolt carrier group.	Disassemble, thoroughly clean and lubricate. With the upper receiver held in the upright position and the charging handle removed, install the bolt carrier group. Slowly slide the colt carrier back and forth on the slides of the receiver to determine proper fit and alignment of the bolt carrier key with gas tube. Inspect for free movement and complete insertion of gas tube within bolt carrier key. If binding occurs turn the rifle in to direct support maintenance personnel.	C
		Bolt cam pin missing	Replace bolt cam pin
Short recoil	Loose or damaged bolt carrier key.	Turn in to direct support maintenance personnel.	O
	Improperly assembled extractor spring.	Assemble correctly	O
	Bent gas tube	Turn in to direct support maintenance personnel.	O
	Gaps in bolt rings not staggered	Stagger bolt ring gaps	C
Bolt fails to lock to the rear after the last round.	Carbon buildup or dirt in carrier key and on outside of gas tube.	Clean the bolt carrier group and the outside of the gas tube.	C
	Restricted movement of bolt carrier group or buffer assembly.	See failure to lock	C
	Missing or broken bolt rings	Turn in to direct support maintenance personnel.	O
	Gas leakage caused by broken or loose gas tube.	Turn in to direct support maintenance personnel.	O
Failure to cycle with selector lever on AUTO.	Dirty or corroded bolt catch ..	Clean. If disassembly is necessary turn in to direct support maintenance personnel.	C
	Faulty magazine	Change	C
	Broken bolt catch and/or spring	Turn in to direct support maintenance personnel.	O
Fires with selector lever on SAFE.	Old type buffer installed	Turn in to direct support maintenance personnel.	O
	Worn, broken or missing parts of firing mechanism.	Turn in to direct support maintenance personnel.	O
With selector lever on SEMI, fires when trigger is released.	Worn, broken or missing parts of firing mechanism.	Turn in to direct support maintenance personnel.	O
	Worn, broken or missing parts of firing mechanism.	Turn in to direct support maintenance personnel.	O
Selector lever hinds	Lack of lubrication	Lubricate	C

Section V. OPERATOR MAINTENANCE

3-9. General

This section describes operators maintenance of rifles under normal conditions. For maintenance under adverse conditions refer to chapter 2, section III.

3-10. Disassembly and Assembly

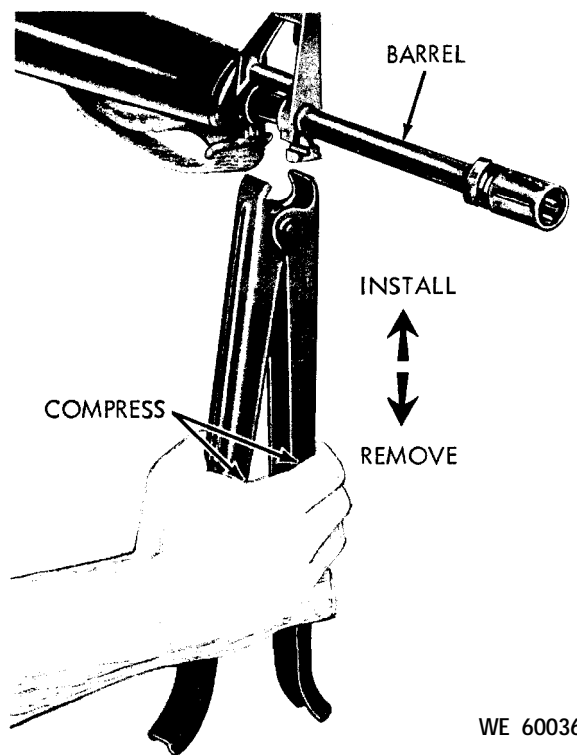
Note. White arrows indicate disassembly and black arrows assembly.

a. Remove/install bayonet-knife as indicated in figure 3-7.

b. Remove/install bipod as indicated in figure 3-8.

c. The major groups are illustrated in figure B-2.

d. For disassembly/assembly refer to figures 3-9 thru 3-13.



WE 60036

Figure 3-8. Remove/install bipod.

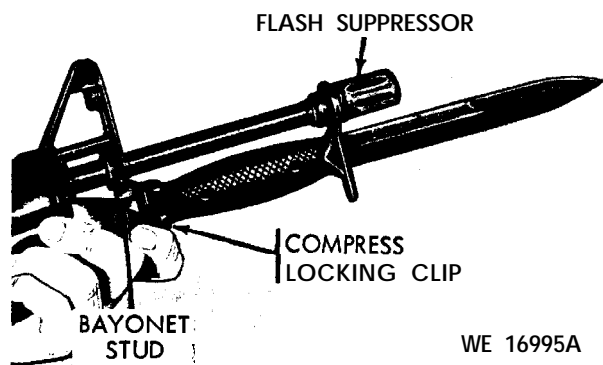
is used for a rapid complete check. Any portion of the check may be used alone to determine the operational condition of any specific fire selection.

Note. Disengage takedown pin and open receivers. Hammer shall be in the cock position.

(1) *Safe Position.* Pull trigger, hammer should not fall.

(2) *Semi-Position.* Pull trigger, hammer should fall. Hold trigger to rear, recock hammer and release trigger. Hammer should transfer from hammer hooks and disconnecter to the hammer notch and trigger nose.

(3) *Auto Position.* Pull trigger, hammer should fall. Hold trigger to the rear and recock the hammer. Upper hammer hook is now engaged with the automatic sear. Hold trigger to the rear, push forward on automatic sear. Hammer should transfer to trigger nose. Hold trigger to the rear, recock hammer, release



WE 16995A

Figure 3-7. Remove/install bayonet-knife.

3-1 1. Inspection and Repair

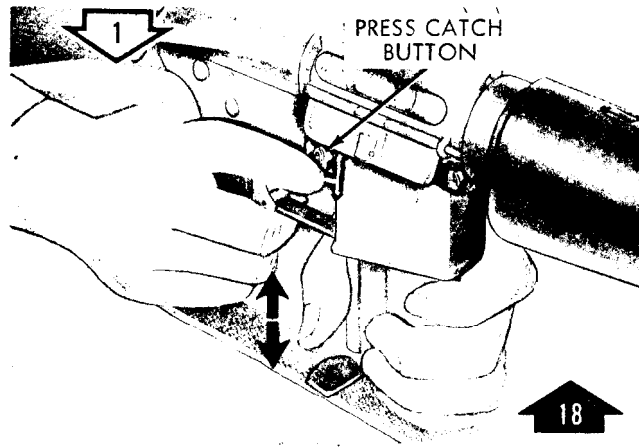
Refer to table 3-2.

3-1 2. Functional Check

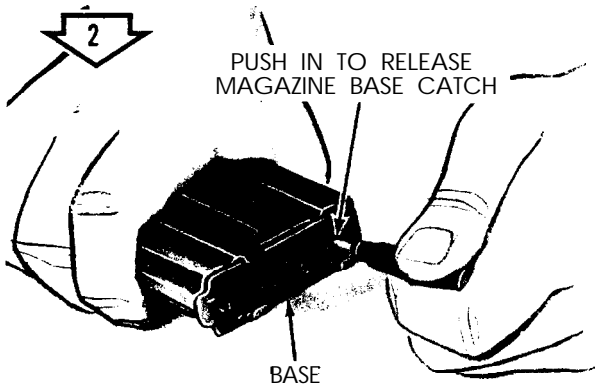
Note. Remove magazine (refer to step 1, fig. 3-9). Pull the charging handle to the rear, make certain chamber is clear.

a. *General.* A complete functional check of the rifle consists of checking the function of the rifle while the selector lever is in the Safe, Semi, and Auto positions.

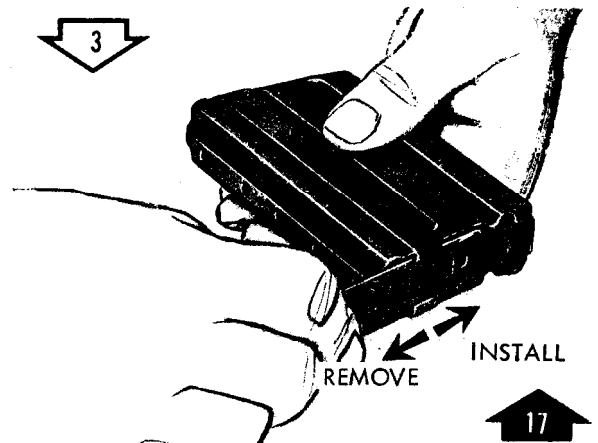
b. *Sequence Check.* The following sequence



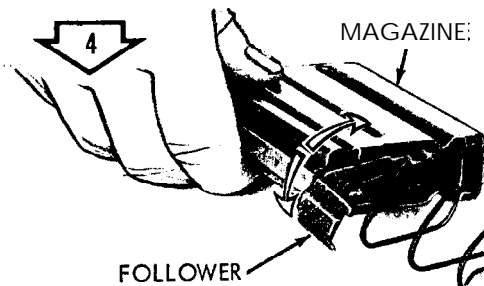
Remove/install magazine.



Release magazine base.



Remove/install base.



NOTE: TURN FOLLOWER TO A SLIGHT ANGLE WHEN REMOVING OR INSTALLING .

Remove/Install spring and follower.

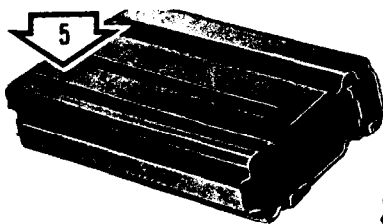
NOTE: APPLY SEMI-FLUID LUBRICATING OIL (LSA) TO MAGAZINE SPRING, WITH A DAMPENED CLOTH, BEFORE INSTALLATION.

CAUTION: NO OTHER COMPONENT TO BE LUBRICATED.



WE 17374A

Figure 3-9. Disassembly/assembly of rifle. (1 of 5)



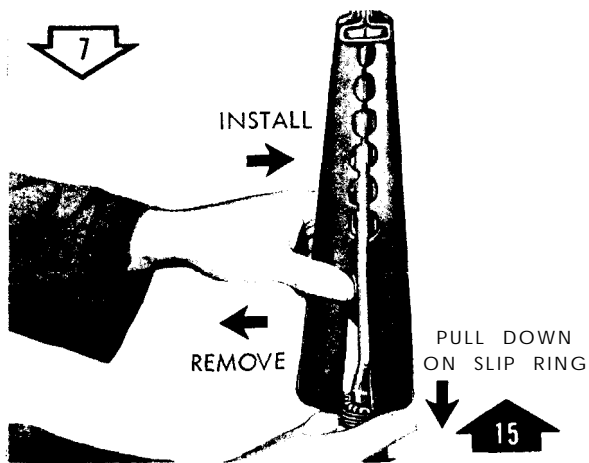
NOTE: DO NOT REMOVE FOLLOWER FROM SPRING.



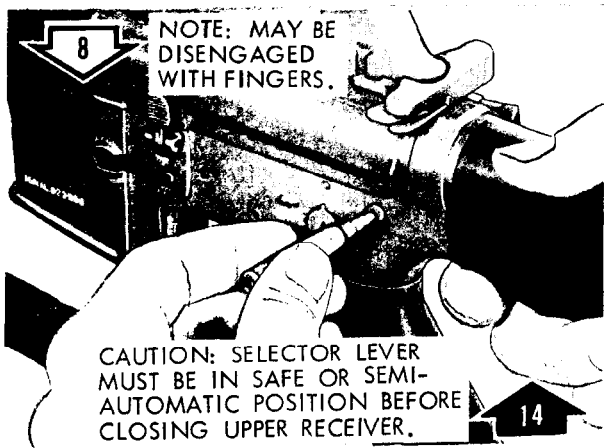
Base, spring and follower removed from magazine.



Open bolt and inspect chamber.



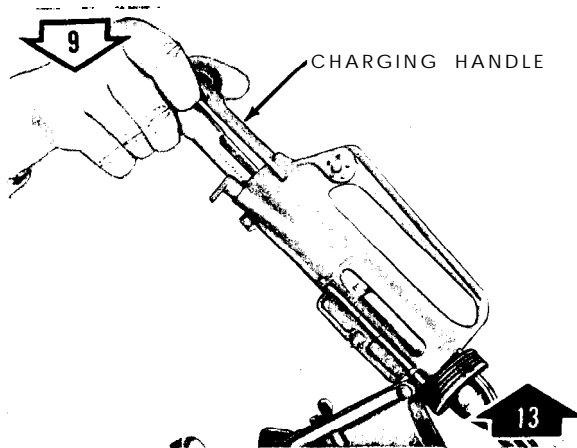
Remove/Install handguards.



NOTE: MAY BE DISENGAGED WITH FINGERS.

CAUTION: SELECTOR LEVER MUST BE IN SAFE OR SEMI-AUTOMATIC POSITION BEFORE CLOSING UPPER RECEIVER.

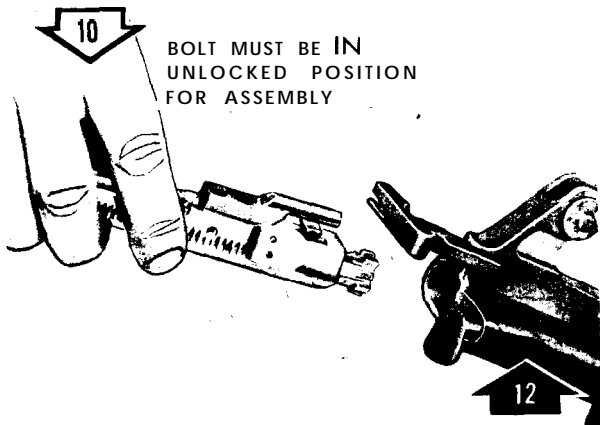
Disengage/Engage take-down pin.



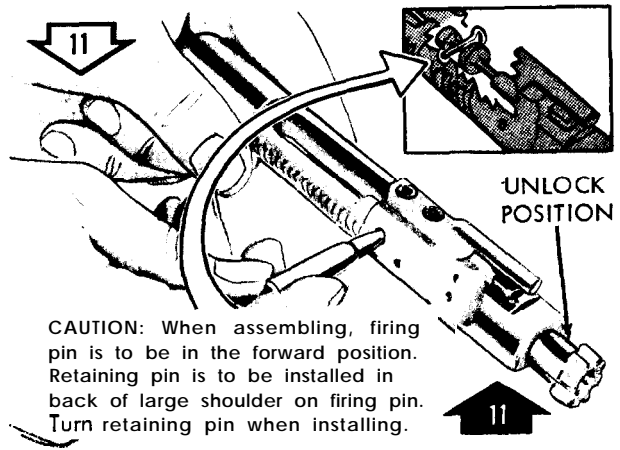
Withdraw/Insert charging handle and bolt carrier and key assembly.

WE 17375

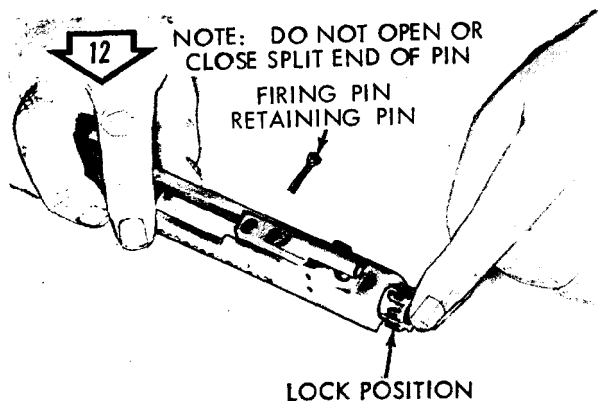
Figure J-10. Disassembly/assembly of rifle. (2 of 5)



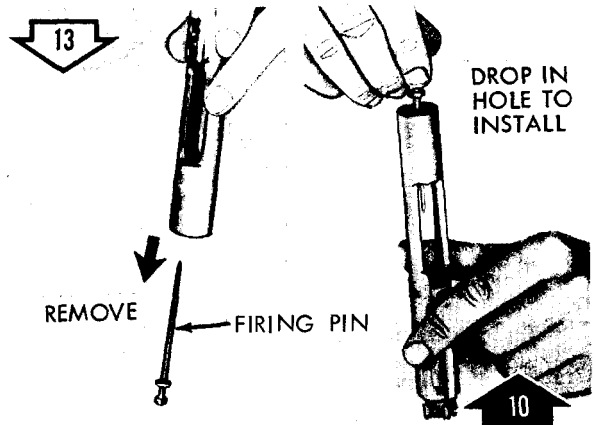
Remove/Install bolt carrier group.



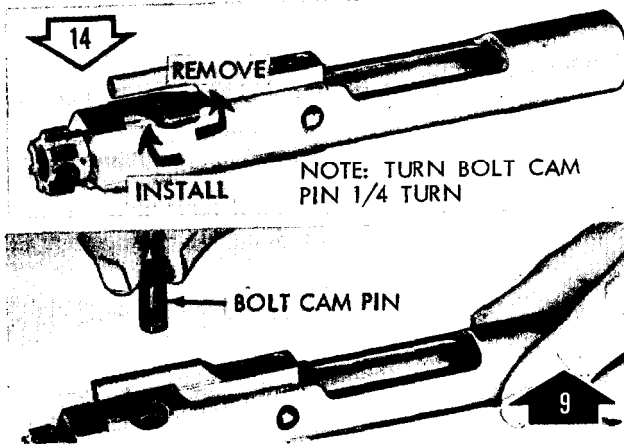
Remove/Install firing pin retaining pin.



Place bolt in lock position.



Remove/Install firing pin.

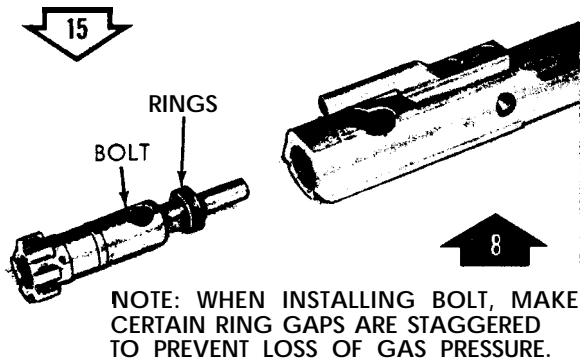


WARNING: MAKE CERTAIN CAM PIN IS INSTALLED.

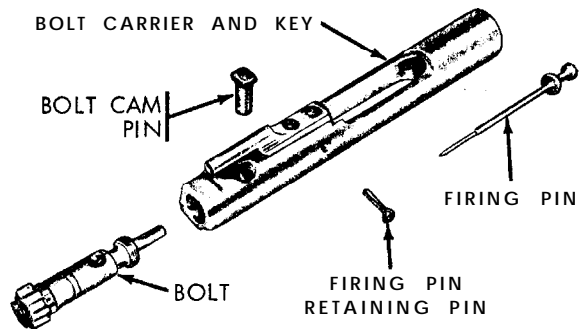
Remove/Install bolt cam pin.

WE 60045

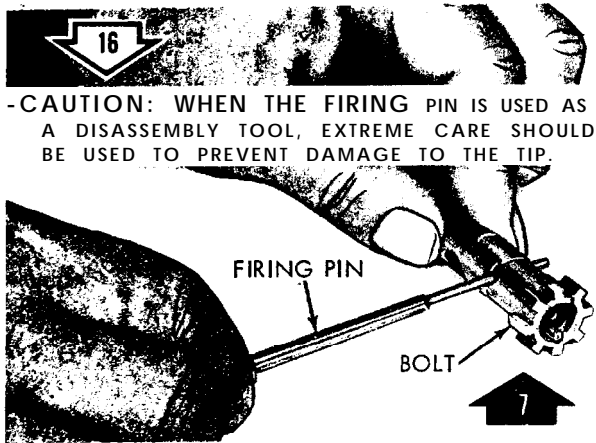
Figure S-11. Disassembly/assembly of rifle (3 of 5)



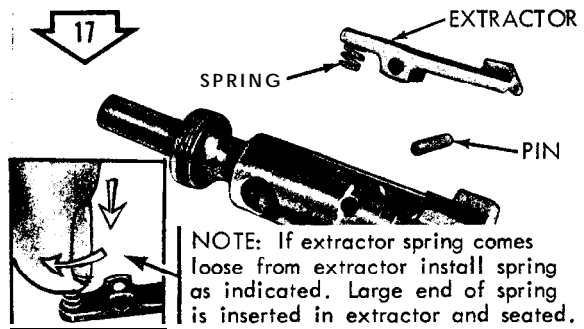
Remove/Install bolt from bolt carrier and key.



Bolt carrier group parts.



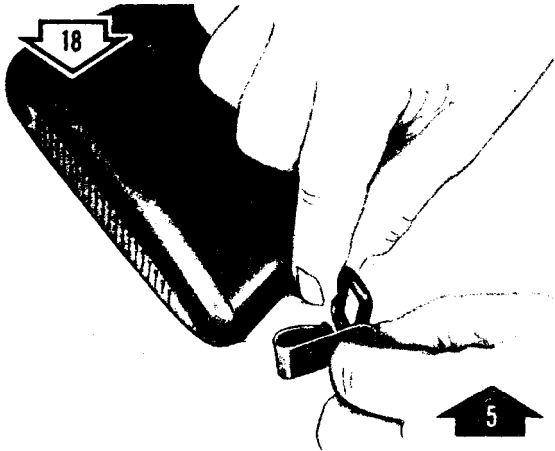
Remove/Install extractor pin.



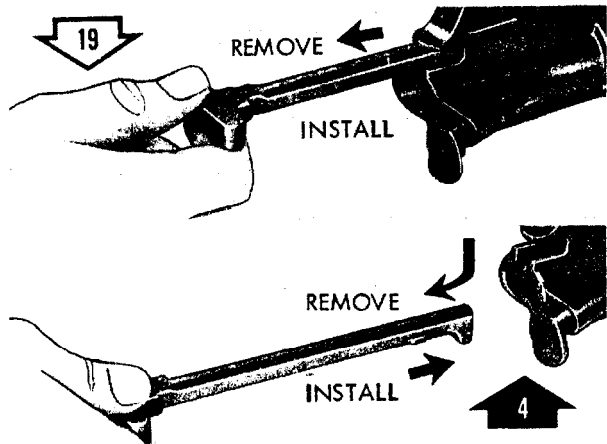
CAUTION: Extreme care should be used to insure that the extractor spring and retaining pin are **not** deformed or lost during cleaning operations.

NOTE: The extractor spring should not be removed and removal of the extractor is authorized for cleaning purposes only.

Remove/Install extractor and extractor spring.



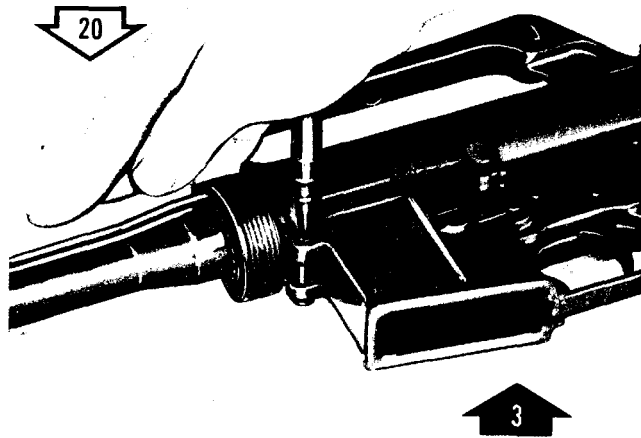
Remove/Install sling.



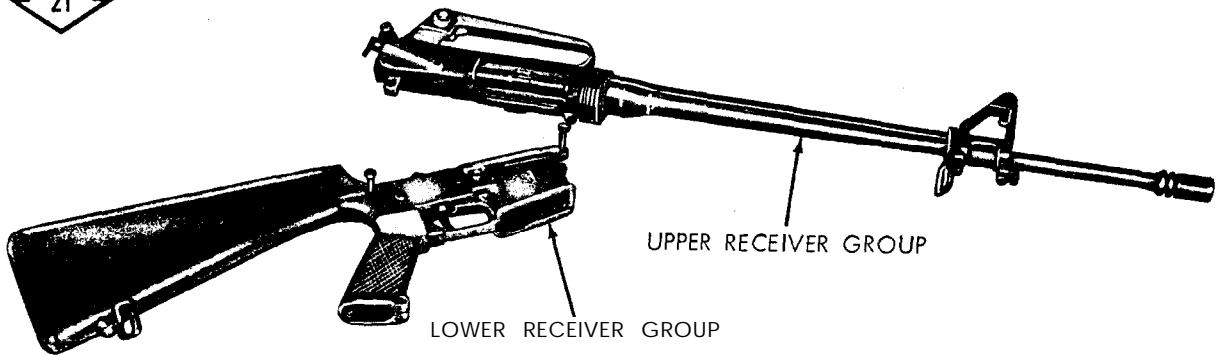
Remove/Install charging handle.

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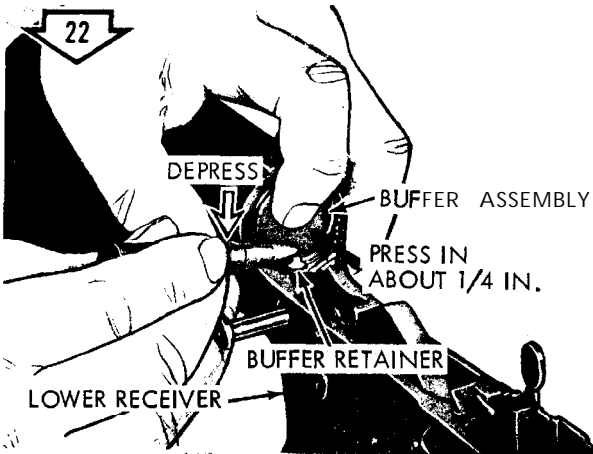
Figure 3-12. Disassembly/assembly of rifle. (4 of 5)



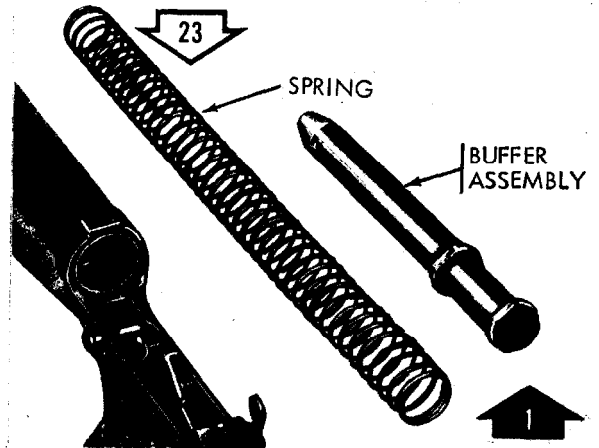
Disengage/Engage receiver pivot pin.



Separate/Join upper receiver and lower receiver groups.



Press in buffer assembly, depress buffer retainer, and then release buffer assembly.



Remove/Install buffer assembly and spring.



WE 19647

Figure 3-13. Disassembly/assembly of rifle. (5 of 5)

trigger and push forward on automatic sear. Hammer should transfer to the sear engagement. Move selector lever to "safe" or "semi" position. Close receiver and engage takedown pin.

Caution: Failure to move selector lever to

"safe" or "semi" position before closing receiver, will damage automatic sear.

(4) *Semi-Position.* Pull charging handle to the rear. Make certain chamber is clear, then release charging handle. Pull the trigger, hammer should fall.

Section VI. ORGANIZATIONAL MAINTENANCE PROCEDURES

3-13. General

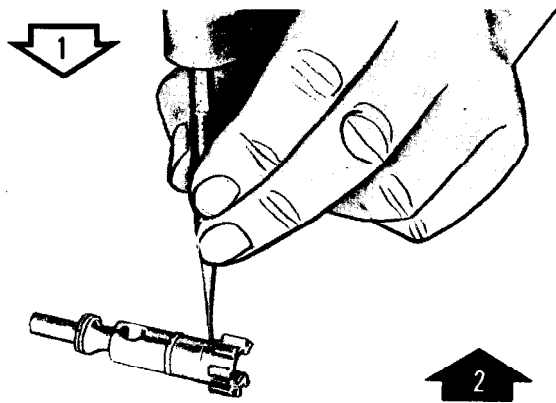
This section describes organizational main-

tenance procedures for the rifle and bipod. Refer to table 3-4.

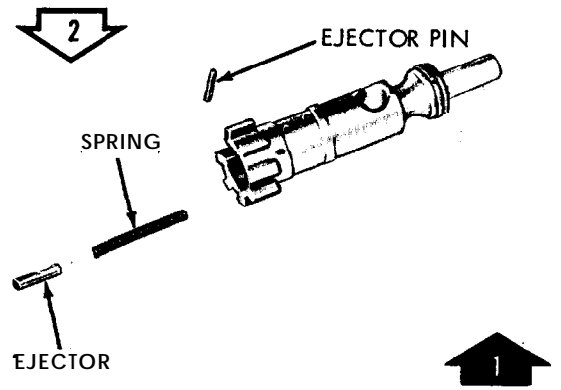
Table 3-4. Organizational Guide to Maintenance of Individual Groups or Assemblies

Group or assembly	Removal/installation	Disassembly/assembly	Inspection and repair	Cleaning
Magazine assembly.	Fig. 3-9	Fig. 3-9 and 3-10.	<ol style="list-style-type: none"> 1. Inspect tube for bulges, dents or damaged feeder lips. 2. Inspect spring for kinks, cracks or breaks. Replace magazine assembly. 3. Inspect follower and bore for excessive wear, cracks or being bent. Replace magazine assembly. 	Table 3-1.
Bolt assembly	Fig. 3-11	Fig. 3-14	<ol style="list-style-type: none"> 1. Check for cracks in bolt especially in area of cam pin hole, condition of locking lugs, pitted or chipped bolt face and elongated firing pin hole. If broken evacuate to direct support maintenance personnel. 2. Inspect for broken bolt rings, make certain ring gaps are staggered. If broken or deformed, evacuate to direct support maintenance personnel. 3. Inspect for worn ejector, spring, and pin. Replace. 	Table 3-1.
Upper receiver group.	Fig. 3-13		<ol style="list-style-type: none"> 1. Inspect for cracks and parts for wear. Evacuate to direct support maintenance personnel if parts are worn or damaged. 2. Inspect receiver for condition of finish. If scratched or worn (shiny bright) remove all lubricant from surface and touch up with primer and lacquer listed in table 2-2. If corrosion is present turn in to direct support maintenance personnel. 3. Inspect charging handle for damage and latch spring for tension. 	Table 3-1.
Lower receiver group.	Fig. 3-13	Fig. 3-16 and 3-16.	<ol style="list-style-type: none"> 1. Inspect pistol grip for cracks and for damaged screw and washer. Replace. 2. Inspect stock assembly. If cracked or damaged, replace. <i>Note.</i> Cracked stocks will be evacuated to direct support maintenance for repair. 3. Inspect takedown pin, pivot pin, selector lever, detents, and springs. If worn or damaged, replace. 4. See 2 above under upper receiver group. 5. Inspect lower receiver extension for serviceability. 	Table 3-1.
Bipod	Fig. 3-8		Check spring tension of jaws.	Table 3-1.

*White arrows on illustration indicate disassembly and black arrows indicate assembly.



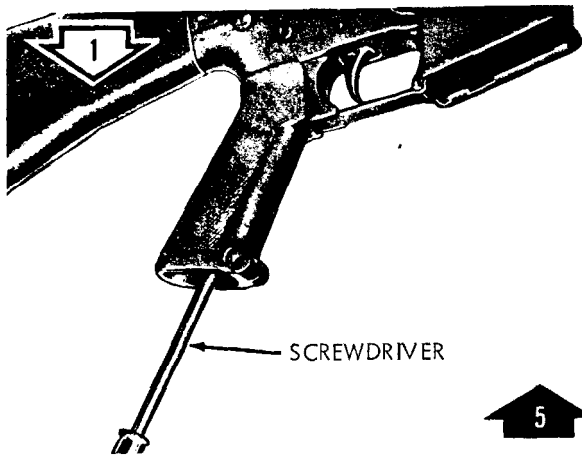
Remove/Install ejector pin.



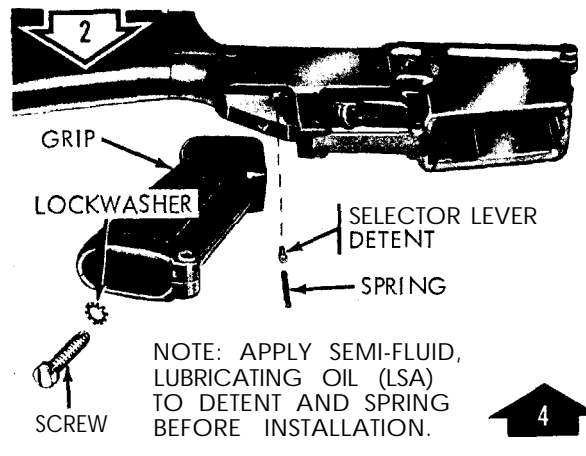
Remove/install ejector and ejector spring.

WE 19736

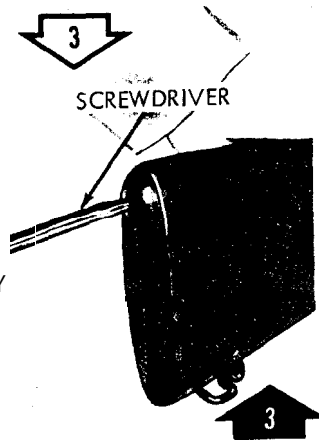
Figure 3-14. Disassembly/assembly of bolt assembly.



Remove/Install pistol grip screw.

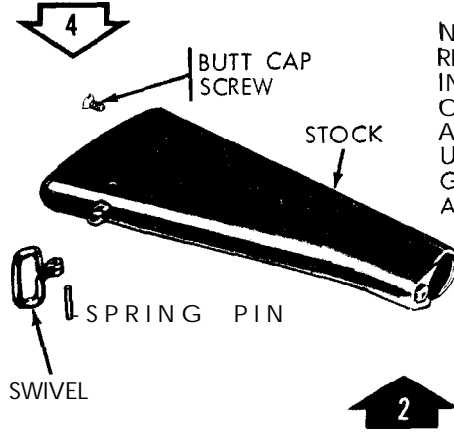


Remove/Install lockwasher, pistol grip, selector lever detent and spring (ejector spring).



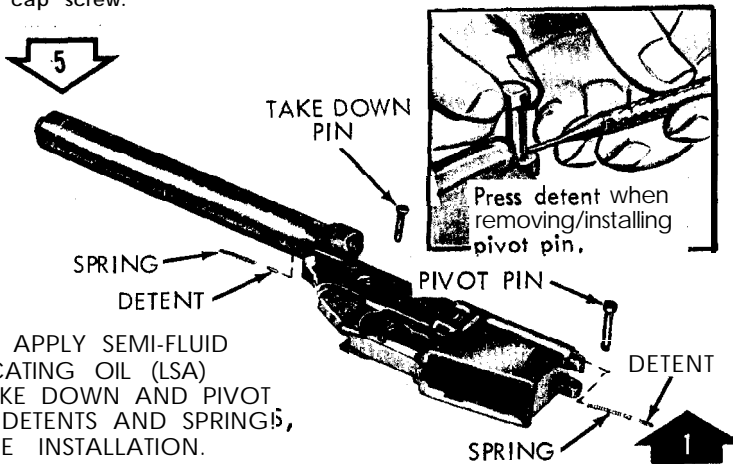
NOTE: WHEN ASSEMBLING THE STOCK MAKE CERTAIN DETENT SPRING IS POSITIONED PROPERLY TO AVOID DAMAGE.

Remove/Install butt cap screw.



NOTE: REMOVAL AND INSTALLATION OF SPRING PIN AND SWIVEL ON UPPER RECEIVER GROUP IS ALSO AUTHORIZED.

Remove/Install stock assembly, spring pin and gun sling swivel.



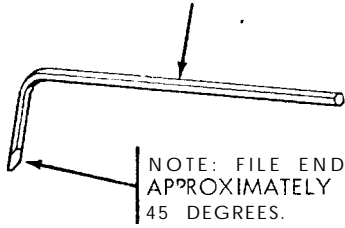
NOTE: APPLY SEMI-FLUID LUBRICATING OIL (LSA) TO TAKE DOWN AND PIVOT PINS, DETENTS AND SPRINGS, BEFORE INSTALLATION.

Remove/Install springs, detents, take down pin and pivot pin.

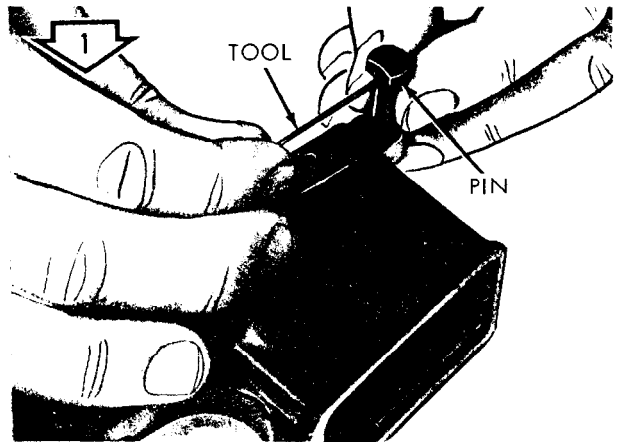
WE 19648

Figure 3-15. Disassembly/assembly of lower receiver group.

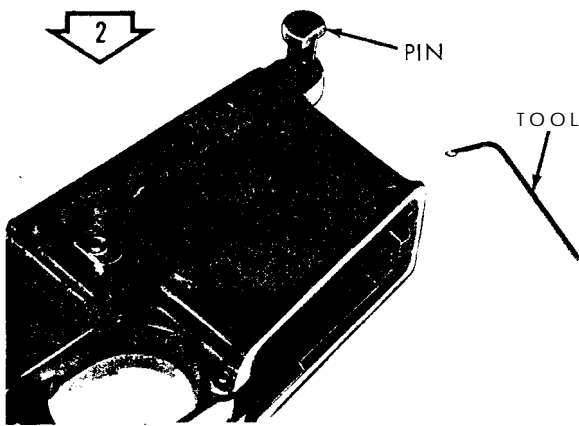
1/16 IN. SOCKET HEAD
CAP SCREW KEY OR DRIFT



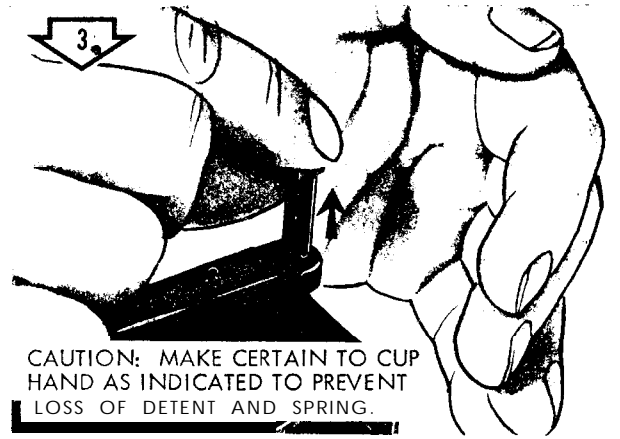
Tool for removal of detent pin.



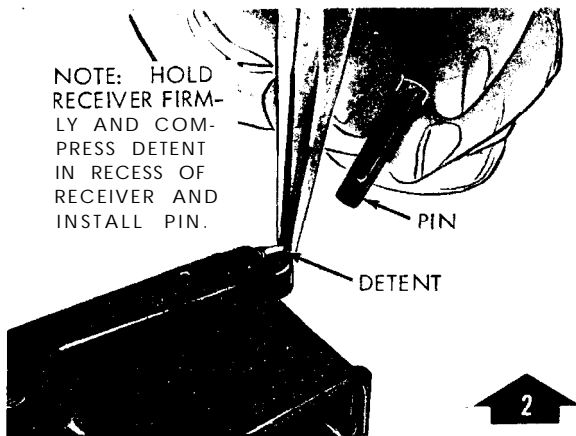
Inserting tool in slot of pin to compress detent.



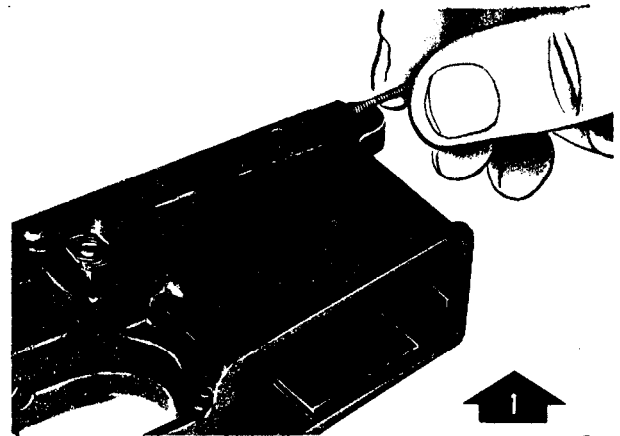
Rotate detent pin 1/4 turn and remove tool.



Remove pivot pin.



Install detent and pivot pin.



Install detent spring.

WE 60217

Figure 3-16. Disassembly/assembly of lower receiver group. (Old design pivot pin)