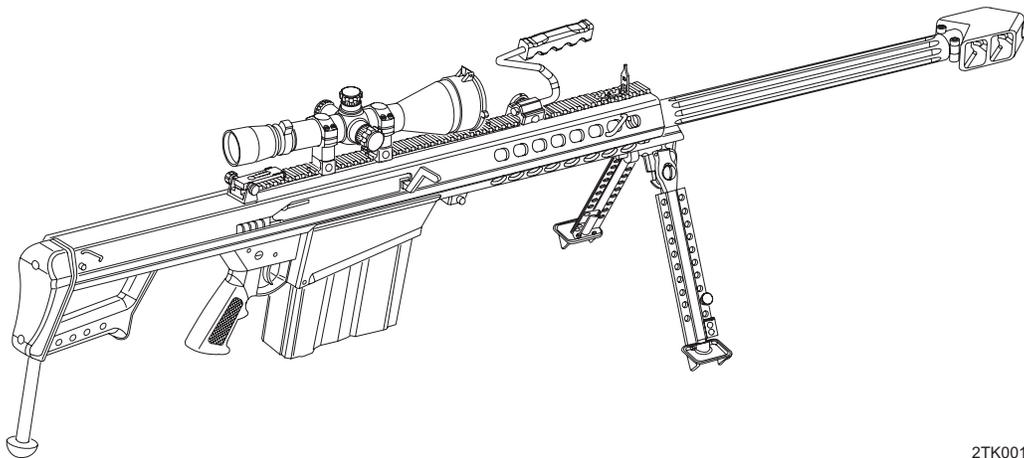


**ARMY TM 9-1005-239-23&P  
AIR FORCE TO 11W2-5-7-2  
MARINE CORPS TM 11110A-OI**

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**TECHNICAL MANUAL  
UNIT AND DIRECT SUPPORT MAINTENANCE MANUAL  
(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)  
FOR  
LONG RANGE SNIPER RIFLE, M107  
USMC SPECIAL APPLICATION SCOPED RIFLE (SASR)  
(NSN 1005-01-469-2133) (EIC: 4HA)  
(P/N 12983075) (CAGEC 19200)**



2TK001

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**HEADQUARTERS, DEPARTMENTS OF THE ARMY,  
AIR FORCE, AND MARINE CORPS**

**FEBRUARY 2006**



## WARNING SUMMARY

This warning summary contains general safety warning and hazardous materials warnings that must be understood and applied during operation and maintenance of this equipment. Failure to observe these precautions could result in serious injury or death to personnel. Also included are explanations of safety and hazardous materials icons used within the technical manual.

### EXPLANATION OF SAFETY WARNING ICONS



**FLYING PARTICLES** - arrows bouncing off face with face shield shows that particles flying through the air will harm face.

### EXPLANATION OF HAZARDOUS MATERIALS ICONS



**EXPLOSION** - rapidly expanding symbol shows that the material may explode is subjected to high temperatures, sources of ignition, or high pressure.

### GENERAL SAFETY WARNINGS DESCRIPTION

#### WARNING

Ensure the rear lock pin is inserted to secure the buffer spring. Serious injury may occur.

Wear eye protection during removal of the mainspring or mainspring buffer. Serious injury could result if components are released improperly.

Point bolt away from face while disassembling extractor/ejector. Injury may result if parts fly free.

Wear eye protection and point firing pin extension assembly away from face when removing compression helical spring. Failure to do so may cause injury to personnel.

Wear eye protection to prevent injury from spring-loaded parts, particularly when removing or replacing the magazine cover.

The tension on the barrel springs is about 70 pounds. Serious injury could result if springs are released suddenly.

## WARNING SUMMARY - Continued

### WARNING

Always assume that every weapon is loaded until personal inspection has determined that it is not. Procedures for clearing/unloading the weapon are outlined in TM 9-1005-239-10, Operator's Manual.



Do not fire the rifle without the midlock and rear lock pins firmly in place. Serious injury or death could result.

Do not fire the rifle without the muzzle brake firmly in place on the barrel. Serious injury or death could result.

Do not store the weapon with live ammunition in either the chamber or magazine.

Under no circumstances should the weapon be shipped while it contains live ammunition, either in the shipping box, magazine, or chamber.

### WARNING



If the spring-loaded cam is lifted too far, the spring may lose tension. If this occurs, the weapon could malfunction, or it could allow the weapon to fire when unlocked, with the potential for serious injury.

### CAUTION SUMMARY

Ensure the basic weapons check is performed. Do not allow the bolt to slam home.

Be sure that hook and bar are properly mated so the final assembly motion does not damage the rifle.

Use only authorized lubricants. Do not mix lubricants.

When removing the bolt carrier from the lower receiver, ensure that the bolt carrier is completely forward of the sheet metal closure before lifting to avoid serious damage to the lower receiver.

Do not pull on barrel springs to remove the barrel key. Doing so may damage the springs.

Use caution to avoid loss of the front sight spring during removal from front sight detent.

Do not allow sunlight to shine directly through the scope. Light focused on the crosshairs and mil dots may warp them.

Use extreme care to protect lenses from solvents and scratches.

### FIRST AID

For first aid information, refer to FM 4-25.11, First Aid, dated 23 December 2002.

INSERT LATEST CHANGED PAGES/WORK PACKAGES. DESTROY SUPERSEDED DATA.

## LIST OF EFFECTIVE PAGES / WORK PACKAGES

Dates of issue for original and changed pages / work packages are:

Original ..... 0 ..... 14 February 2006

**TOTAL NUMBER OF PAGES FOR FRONT AND REAR MATTER IS 28 AND TOTAL NUMBER OF WORK PACKAGES IS 62, CONSISTING OF THE FOLLOWING:**

Page / WP No.	*Change No.
Title .....	0
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A .....	0
B blank.....	0
i - iv .....	0
WP 0001 00 - WP 0062 00.....	0
Index-1 - Index-6 .....	0
DA Form 2028 .....	0
Authentication page.....	0
Back cover.....	0

\*Zero in this column indicates an original page or work package.



HEADQUARTERS  
DEPARTMENTS OF THE ARMY,  
AIR FORCE, AND MARINE CORPS  
WASHINGTON D.C., 14 FEBRUARY 2006

**TECHNICAL MANUAL**

**UNIT AND DIRECT SUPPORT MAINTENANCE MANUAL**

**(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)**

**FOR**

**LONG RANGE SNIPER RIFLE (LRSR), M107**

**USMC SPECIAL APPLICATION SCOPED RIFLE (SASR)**

**(NSN 1005-01-469-2133) (EIC: 4HA)**

**(P/N 12983075) (CAGEC 19200)**

**REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS**

You can help improve this publication. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Submit your DA Form 2028 (Recommended Changes to Publications and Blank Forms), through the Internet, on the Army Electronic Product Support (AEPS) website. The Internet address is <https://aeps.ria.army.mil>. The DA Form 2028 is located under the Public Applications section of the AEPS Public Home Page. Fill out the form and click on SUBMIT. Using this form on the AEPS will enable us to respond quicker to your comments and better manage the DA Form 2028 program. You may also mail, fax, or e-mail your letter or DA Form 2028 direct to: AMSTA-LC-LPIT/TECH PUBS, TACOM-RI, 1 Rock Island Arsenal, Rock Island, IL 61299-7630. The e-mail address is TACOM-TECH-PUBS@ria.army.mil. The fax number is DSN 793-0726 or Commercial (309) 782-0726.

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**CURRENT AS OF 31 OCTOBER 2005**

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## HOW TO USE THIS MANUAL

### General

Knowing how to use this manual is very important.

- a. References are to pages in this manual.
- b. Throughout this manual, text is keyed to illustrations by numbered callouts. When an item is called out in a procedure, a number in parentheses in the text corresponds with a number on the illustration.

### Indexes

This manual is organized to help you quickly find the information needed. There are two useful indexes:

- a. **Table of Contents.** The Table of Contents lists, in the order of presentation, all chapters, sections, appendixes, and alphabetical index and gives the page numbers where they begin.
- b. **Alphabetical Index.** This index, located in the back, is an extensive subject index for the entire manual. The page numbers following each entry tell where to find a particular subject in the manual.

**CHAPTER 1**

**GENERAL INFORMATION, EQUIPMENT DESCRIPTION,  
AND THEORY OF OPERATION  
FOR  
LONG RANGE SNIPER RIFLE, M107**



---

**UNIT AND DIRECT SUPPORT****LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)****GENERAL INFORMATION**

---

**SCOPE****Type of Manual**

Unit and Direct Support Maintenance Manual with Repair Parts and Special Tools List.

**Model Number and Equipment Name**

Rifle, Caliber .50, Sniper with Day Optical Sight and Carrying Case, M107.

**Purpose of Equipment**

The M107 Long Range Sniper Rifle (LRSR)/USMC Special Application Scoped Rifle (SASR) is a man-portable, direct line-of-sight weapon system capable of providing precision fire on targets at a distance of up to 1000 meters.

**ISSUE AND RECOVERY OF INDIVIDUAL WEAPONS (USMC ONLY)**

Individual weapons will be issued and recovered in the same manner as other individual weapons. NAVMC 10576, Memorandum Receipt for Individual Weapons and Accessories, will be used as the issue document. NAVMC 10520, Weapons Custody Receipt Card, will be used when the SASR is drawn from the armory for use. Detailed instructions for using these forms are contained in TM 4700-15/1, Equipment Record Procedures.

**MAINTENANCE FORMS, RECORDS, AND REPORTS**

Department of Army forms and procedures used for equipment maintenance will be those prescribed by DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual.

Marine Corps personnel refer to the on-line MCPDS or Marine Corps Stock List SL-1-2, Index of Technical Publications.

The Marine Corps forms and procedures used for equipment maintenance will be those prescribed by the current edition of TM 4700-15/1, Equipment Record Procedures. Appendix A, References, lists specific forms to be used with the SASR, but is not to be considered all-inclusive. Responsibility for the proper execution of forms and records rests with the using unit. In order to maintain accurate records, it is imperative that the units follow these instructions:

- a. NAVMC 1018, Inspection Tag. This form must be attached to each SASR that requires repair. The instructions for completing this form are found in TM 4700-15/1.

**MAINTENANCE FORMS, RECORDS, AND REPORTS - Continued**

b. NAVMC 10558A, Weapon Record Book, Part II. This form is the most important of the three forms used with the SASR and must be filled out according to the paragraphs below. Each SASR, when received from the supply system, will have a NAVMC 10558A attached. Receiving units must verify the serial number of the weapon with the serial number recorded on the front of the Weapon Record Book to ensure they are identical. The NAVMC 10558A must be filled out in the following manner, without reference to any other publications:

- (1) Front Cover. The manufacturer will have filled out this page. No further entries will be made on it.
- (2) Page 3. This page will have been filled out when the weapon is received at the using unit. The only further entries required are the telescope serial number, if replaced. The accumulated rounds fired count should be recorded from the previous Weapon Record Book, when replaced.
- (3) Page 5, Unit Commander's Record. Record the daily total of rounds fired. Make entries as shown in Figure 1.

<b>UNIT COMMANDER'S RECORD</b>			
<b>1. DATE</b>	<b>2. TYPE OF ROUND</b>	<b>3. ZONE</b>	<b>4. NO. OF ROUNDS EFC VALUE</b>
24 MAY 2000	.50 BALL	N/A	30
28 MAY 2000	.50 BALL	N/A	35
12 JUN 2000	.50 API	N/A	35
23 JUN 2000	.50 API	N/A	30
PAGE TOTAL			5. 130
TOTAL FROM PREVIOUS PAGE			6. 280
ACCUMULATIVE TOTAL			7. 410

**Figure 1. Weapon Record Book, Page 5 (Round Count).**

- (4) Pages 40 through 49, Pullover Gauge Inspection Record. These pages are left blank; do not use.
- (5) Page 51, Bore Inspection Record. This record contains all of the maintenance data performed by organizational and higher level maintenance. The telescope serial number will be annotated in the Weapon Record Book when initially received. Entries will be made as shown in Figure 2.

<b>BORE INSPECTION RECORD</b>	
1. DATE	2. REMARKS ON CONDITION OF BORE AND CHAMBER RESULTS OF BALLISTIC CALIBRATION FIRINGS, DAMAGE TO TUBE, SERVICEABILITY, ETC. <i>(Reasons for condemnation)</i>
21 MAY 04	SERVICEABLE CONDITION CODE A <i>SSgt Packman</i> (handwritten signature) SSgt Packman, 2112 PWS, QUANTICO, VA
27 JULY 00	SERVICEABLE CONDITION CODE A Telescope replaced at 2nd FSSG this date New serial number 1898 <i>SSgt Baker</i> (handwritten signature) SSgt Baker, 2112 PWS, QUANTICO, VA

**Figure 2. Weapon Record Book, Page 51 (Maintenance Record).**

- (6) Lost, Destroyed, or Misplaced Weapon Record Book. In the event a Weapon Record Book must be reconstructed, a limited technical inspection at the intermediate maintenance activity must be performed. Request assistance in recovering data from the address below.

Commanding Officer  
Weapons Training Battalion  
Marine Corps Combat Development Center  
27211 Garand Road  
Quantico, VA 22134-5036  
Attn: Precision Weapons Section

- (7) Accidents and Malfunctions. Report accidents involving injury to personnel or damage to equipment in accordance with the current edition of MCO 5101.8, Ground Mishap Report. Report explosive and ammunition malfunctions in accordance with MCO 8025.1, Class V (W) Malfunctions and Deficiencies.

**REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR)**

If your rifle needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance. Put it on an SF 368 (Product Quality Deficiency Report). Mail it to the address specified in DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual, or as specified by the acquiring activity. We will send you a reply.

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**REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR) - Continued**

Marine Corps personnel are encouraged to submit SF 368 in accordance with the MCO 4855.10, Quality Deficiency Report. The Product Quality Deficiency Report (PQDR) can be mailed to the following address:

Marine Corps LogCom Command Element  
Attn: Quality Assurance Office (L15)  
814 Radford Blvd, Ste 20330  
Albany, GA 31704-0330

To electronically submit a PQDR, go to the EZ PQDR website: <http://www.logcom.usmc.mil/pqdr/ezpqdr.asp>. This site can be used to answer questions for correct completion of the form, to submit the PQDR, and to track the status after submission.

**CORROSION PREVENTION AND CONTROL (CPC)**

Corrosion Prevention and Control (CPC) of Army materiel is a continuing concern. It is important that any corrosion problems with this item be reported so that the problem can be corrected and improvements can be made to prevent the problem in future items.

While corrosion is typically associated with rusting of metals, it can also include deterioration of other materials such as rubber and plastic. Unusual cracking, softening, swelling, or breaking of these materials may be a corrosion problem.

If a corrosion problem is identified, it can be reported using SF 368, Product Quality Deficiency Report. Use of key words such as "corrosion", "rust", "deterioration", or "cracking" will ensure that the information is identified as a corrosion problem.

The form should be submitted to:

ATTN: AMSTA-AR-QAW-C  
TACOM-ARDEC  
1 Rock Island Arsenal  
Rock Island, IL 61299-7300

Fax: DSN 793-6653, Commercial (309) 782-6653  
E-Mail: [qawqdrs@ria.army.mil](mailto:qawqdrs@ria.army.mil)

**DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE**

Army users: Refer to TM 750-244-7. Marine Corps users: Destroy by smashing, disassembly and scattering of parts, or by any manner that will render the weapon useless to the enemy.

## PREPARATION FOR STORAGE OR SHIPMENT

### Storage

#### WARNING



Do not store the weapon with live ammunition in either the chamber or magazine.

Refer to TM 9-1005-239-10, Operator's Manual. Disassemble the weapon into its three major assemblies, apply a coat of cleaner, lubricant, and preservative (CLP) (item 13, WP 0060 00), and store the weapon in its carrying case.

### Shipping

Ship weapons requiring depot level maintenance in accordance with the disposition instructions and pertinent auto-retrograde message.

#### WARNING



Under no circumstances should the weapon be shipped while it contains live ammunition, either in the shipping box, magazine, or chamber.

- a. Ensure that the magazine and chamber are clear of ammunition (refer to TM 9-1005-239-10, Operator's Manual).
- b. Complete forms in accordance with specifications and detail the required maintenance as thoroughly as possible.
- c. Clean the weapon as outlined in TM 9-1005-239-10, Operator's Manual.
- d. Place the weapon, broken down into its three major groups, in a carrying case and place it in a shipping box.
- e. Mark the box in accordance with MIL-STD-129.

## NOMENCLATURE CROSS-REFERENCE LIST

### Common Name

Accelerator  
Adjustment turret cap  
Anti-reflective device  
Barrel  
Base plate  
Battery bumper

### Official Nomenclature

Rifle accelerator  
Dust protective cap  
Optical eyeshield  
Rifle barrel  
Magazine floor plate  
Nonmetallic bumper

**NOMENCLATURE CROSS-REFERENCE LIST - Continued**

<u>Common Name</u>	<u>Official Nomenclature</u>
Bipod detent	Headed straight pin
Bipod locking pin	Quick release pin
Bipod pin	Spring pin
Bipod spring	Helical compression spring
Bolt	Breech bolt
Bolt keeper	Lock washer
Bolt latch	Lock-release lever
Bolt latch spring	Compression helical spring
Cam pin assembly	Machine breechlock cam
Cocking lever pin	Bolt carrier pin
Extension stop pin	Bolt carrier pin
Extractor	Cartridge extractor
Extractor plunger	Cartridge extractor
Eyepiece lens cover	Lens cap
Impact barrel bumper	Nonmetallic bumper
Knurled lock ring	Knurled plain nut
Laser filter unit	Telescope light filter
Magazine catch pin	Spring pin
Magazine follower	Cartridge follower
Midlock pin	Quick release pin
Muzzle brake screw	Socket head cap screw
Muzzle brake shim	Shim set
Muzzle brake washer	Flat washer
Pistol grip	Rifle grip
Rear lock pin	Quick release pin
Rear sight scale	Rear slide assembly
Scope ring assembly	Telescope mount
Scope ring bolt	Machine bolt
Scope ring screw	Machine screw
Sear pin	Bolt carrier pin
Telescope	Optic mount system
Windage knob pin	Spring pin
Yoke mount washer	Lock washer

**LIST OF ABBREVIATIONS/ACRONYMS**

<u>Abbreviation</u>	<u>Nomenclature</u>
Ammo	Ammunition
API	Armor-Piercing Incendiary
APIT	Armor-Piercing Incendiary Tracer
Cal.	Caliber
CLP	Cleaner, Lubricant, and Preservative
FPS	Feet per Second
IMA	Intermediate Maintenance Activity
LRSR	Long Range Sniper Rifle
LAW	Lubricant, Arctic Weather
LSA	Lubricant, Small Arms
LSAT	Lubricant, Small Arms (with Teflon)
MPS	Meters per Second
MOA	Minute of Angle
PQDR	Product Quality Deficiency Report
RBC	Rifle Bore Cleaner
SASR	Special Application Scoped Rifle
SMR	Source, Maintenance, and Recoverability
SSRI	Supply System Responsibility Item
TM	Technical Manual

**QUALITY OF MATERIAL**

Material used for replacement, repair, or modification must meet the requirements of this manual. If quality of material requirements are not stated in this manual, the material must meet the requirements of the drawings, standards, specifications, or approved engineering change proposals applicable to the subject equipment.

**SAFETY, CARE, AND HANDLING**

Refer to TM 9-1300-206 for general ammunition safety, care, and handling.

**END OF WORK PACKAGE**



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**UNIT AND DIRECT SUPPORT**
**LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)**
**EQUIPMENT DESCRIPTION AND DATA**


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**EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES**
**Capabilities**

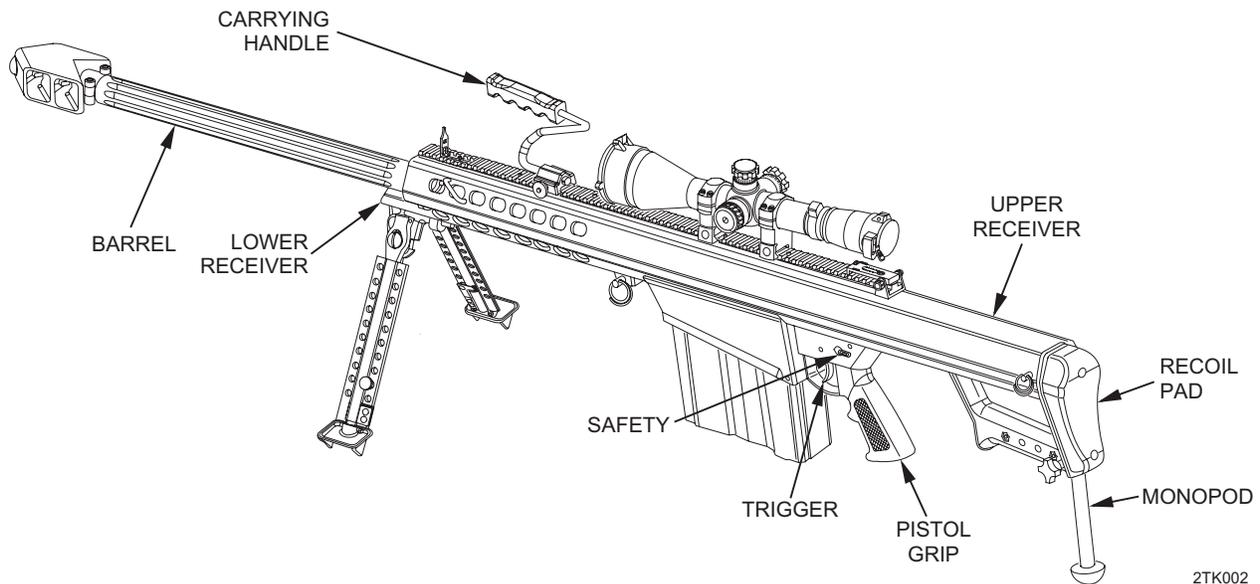
The M107 is a long-range sniper weapon system which utilizes standard .50 caliber ammunition. The M107 is a man-portable, direct line-of-sight system capable of providing precision fire on targets at distances up to 1000 meters.

**Functional Description**

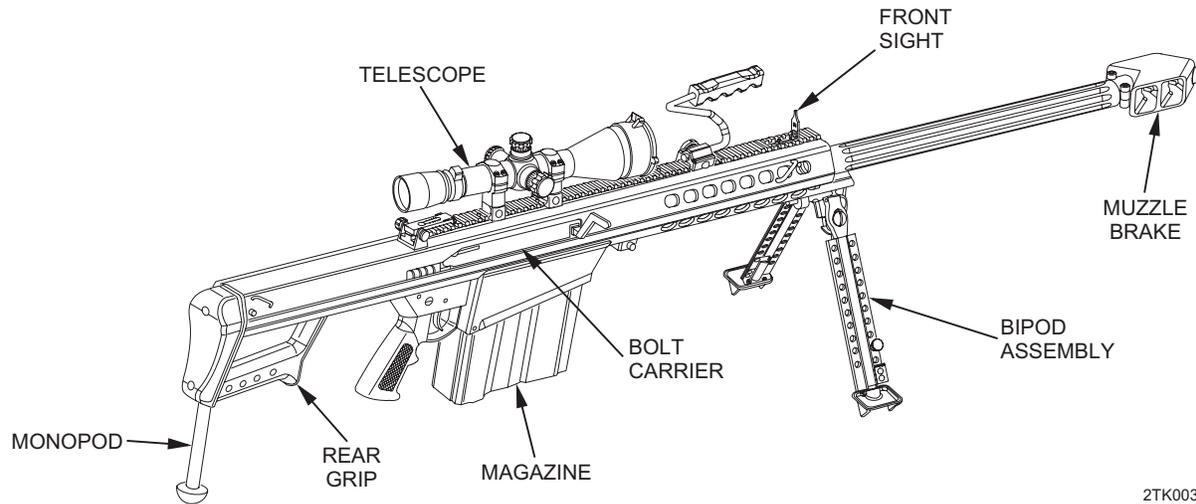
The M107 is a semi-automatic, air-cooled, box magazine-fed rifle chambered for .50 caliber ammunition. This rifle operates by means of the short recoil principle, rather than gas.

**Characteristics**

The basic M107 rifle is equipped with bipod, muzzle brake, carrying handle, and 10-round removable magazine. The M107 system is composed of the rifle and a sniper scope, plus spare magazines. The rifle is also supplied with fitted carrying case, the requisite cleaning kit drag bag, cleaning equipment, and the telescope adjustment tools.



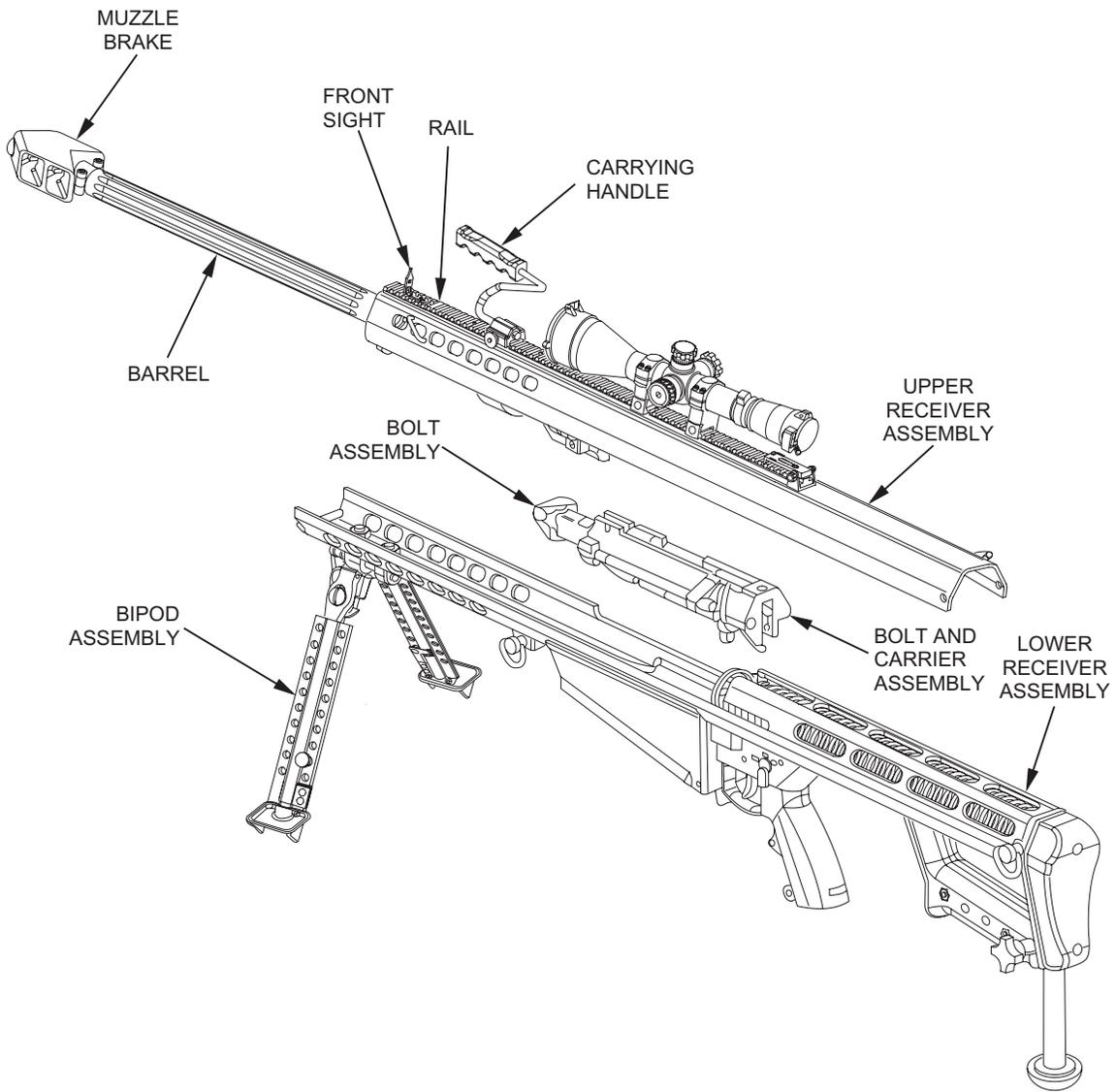
Left side. The left side of the M107 reveals barrel, lower receiver, carrying handle, trigger, safety, pistol grip, recoil pad, upper receiver, and monopod.

**EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES - Continued**

Right side. The right side of the M107 reveals telescope, front sight, muzzle brake, bipod assembly, bolt carrier, magazine, rear grip, and monopod.

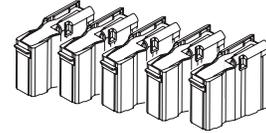
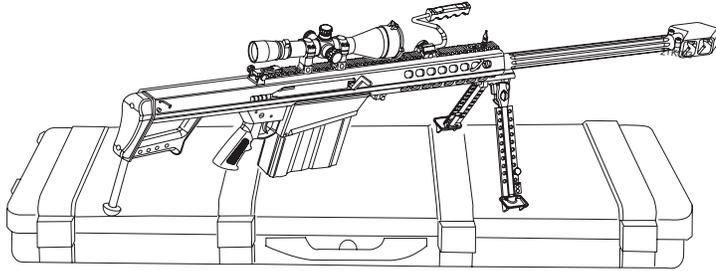
**LOCATION AND DESCRIPTION OF MAJOR COMPONENTS**

- a. Upper Receiver Assembly. Includes the front sight, accessory base, carrying handle, muzzle brake, and barrel.
- b. Rail. Used to attach the scope, the carrying handle, and accessory optic sights.
- c. Carrying Handle. Steel stock with a hard plastic handle.
- d. Front Sight. A 0.075 in. (0.19 cm) post with a protective, anti-glare ring.
- e. Muzzle Brake. Critical to the functioning of the weapon; absorbs approximately 70 percent of the recoil.
- f. Barrel. Length is 29 in. (73.7 cm), with eight lands and grooves in a uniform right-hand twist, one turn in 15 in. (38.1 cm). Muzzle end is threaded to accept a muzzle brake; breech end has a barrel extension integral to the locking function.
- g. Bolt Assembly. Houses the firing pin, extractor, and ejector.
- h. Bolt and Carrier Assembly. Consists of the bolt, firing pin, all extraction and ejection mechanisms, cocking lever, and sear.
- i. Bipod Assembly. Detachable forward support system composed of retractable legs and extending foot pads.
- j. Lower Receiver Assembly. Includes detachable bipod assembly, buffer assembly, midlock pin, and trigger mechanism.

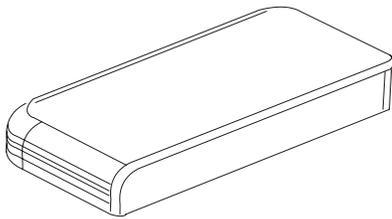


2TK004

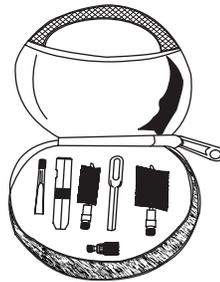
**EQUIPMENT DATA**



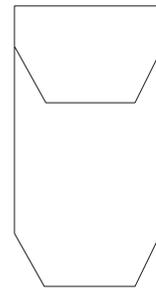
MAGAZINES



DEPLOYMENT KIT



CLEANING KIT



OPTICAL  
CLEANING KIT

2TK005

The M107 Rifle System comprises the rifle with a fixed variable 4.5X14 power sniper scope, and 6 magazines. The rifle is also supplied with a fitted dirt-tight and watertight carrying case, cleaning kit, and telescope adjustment tools.

**Specifications**

Caliber	50 Browning Machine gun (12.7 x 99 mm)
Weight (gun and scope)	28.5 lb (12.9 kg) unloaded
Overall Length (assembled)	57 in. (144.8 cm)
Length (takedown mode)	38 in. (96.5 cm)
Barrel Length	29 in. (73.7 cm)
Magazine Capacity	10 rounds
Magazine Weight	10 rounds - 4.12 lb (1.87 kg) 8 rounds - 3.62 lb (1.64 kg)
Stock	Integral w/lower receiver (steel)
Safety	Manual thumb-lever
Sights	Telescope

**Specifications - Continued**

Sight Type	Leupold 4.5X14 Vary X
Length	12.63 in. (32.08 cm)
Reticle	Mil dot
Lens	50 mm
Elevation	1 click equals 1/4 MOA at 100 meters
Windage	1 click equals 1/4 MOA at 100 meters
Eye Relief	3 to 6 in. (7.6 to 15.2 cm)

**Capabilities**

Muzzle Velocity	Approx. 2,800 fps (853 mps) (with standard 660 grain bullet)
Muzzle Energy	11,500 ft-lb (15,582 J)
Maximum Range	Approx. 7,450 yd (6,812 m) (with standard 660 grain bullet)
Max. Effective Range	Approx. 2,000 yd (1,829 m) (with standard 660 grain bullet)

**Compatible Ammunition**

MK211 Mod 0, Caliber .50 API Cartridge  
M33, Caliber .50 Ball Cartridge  
M17, Caliber .50 Tracer Cartridge  
M8, Caliber .50 API Cartridge  
M20, Caliber .50 APIT Cartridge  
M1A1, Caliber .50 Blank Cartridge

**END OF WORK PACKAGE**



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**UNIT AND DIRECT SUPPORT**  
**LONG RANGE SNIPER RIFLE, M107**  
**(NSN 1005-01-469-2133)**

**THEORY OF OPERATION**

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**CYCLE OF OPERATION**

The cycle of operation for the M107 Rifle is broken down into eight basic steps (more than one step may occur at the same time).

1. Feeding: The force of the mainspring pushes the bolt forward toward the barrel extension, stripping a cartridge from the magazine and loading it into the chamber (by hand when first loading, by semiautomatic action afterwards).
2. Chambering: The bolt forces the round fully into the firing chamber, and the extractor snaps over the case rim. Blockages (dirt or debris) can prevent full chambering, as can dirty, bent, dented, or otherwise faulty ammunition.
3. Locking: During chambering the bolt enters the barrel extension, and the bolt latch engages the bolt latch trip (inside top of the upper receiver, just behind barrel extension). The bolt latch is then depressed, allowing the bolt to retract into the bolt carrier. The bolt, in turn, rotates due to the cam slot and is locked when its three locking lugs rotate into place in the barrel extension, closing the firing chamber.
4. Firing: Pulling the trigger pivots it on the trigger housing pin and presses on the transfer bar, causing the bar to rise. The transfer bar engages the sear (housed in the bolt carrier), forcing it upward and out of engagement with the firing pin extension. The firing pin extension, under spring power, forces the firing pin forward to strike the primer of the cartridge.
5. Unlocking: When the cartridge is fired, gas pressure exerts a thrust on the bolt face via the case head. The bolt carrier carries the bolt and barrel extension to the rear until the accelerator, protruding beneath the bolt carrier, contacts a shoulder in the trigger housing area. The accelerator is then pivoted up, causing the accelerator rod to be pushed out of the bolt carrier. As it protrudes from the front of the bolt carrier, it separates the bolt carrier from the barrel extension. Because of the cam slot in the side of the bolt, the bolt rotates as it is pulled and unlocks from the barrel extension.
6. Cocking: As the bolt recoils to the rear, the cocking lever "rides" the transfer bar back and down, causing it to disconnect from the trigger. The transfer bar is then held down in this position by the disconnect and is not released until pressure is released from the trigger. After disconnection, the cocking lever swings on its pin and overrides the transfer bar. The other end of the cocking lever protrudes into the bolt carrier and into the firing pin extension. As the cocking lever pivots, it withdraws the firing pin and compresses the firing pin extension spring. The firing pin extension then catches the sear.
7. Extraction: As the bolt locking lugs rotate away from the barrel extension, the bolt withdraws from the barrel and the bolt latch locks the bolt in its extended position. The extractor, located on the bolt face and hooked over the rim of the fired case, pulls the case from the firing chamber.

**CYCLE OF OPERATION - Continued**

8. Ejection: As soon as the fired case has been extracted and has cleared the rear of the barrel extension, it is expelled from the rifle by the spring-powered ejector.

**END OF WORK PACKAGE**

**CHAPTER 2**

**UNIT**

**TROUBLESHOOTING PROCEDURES**

**FOR**

**LONG RANGE SNIPER RIFLE, M107**



**UNIT**

**LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)**

**TROUBLESHOOTING INDEX**

**GENERAL**

The malfunction/symptom index can be used as a quick guide to troubleshooting. Common malfunctions are listed in cycle of function order with a work package reference to the troubleshooting table where a test or inspection and corrective action are provided.

This manual cannot list all malfunctions that may occur, nor all tests or inspections and corrective actions. If a malfunction is not listed or is not corrected by listed corrective actions, notify direct support maintenance.

**MALFUNCTION/SYMPATOM INDEX**

<u>Malfunction/Symptom</u>	<u>Troubleshooting Procedure</u>
Failure To Chamber .....	WP 0005 00
Failure To Cock .....	WP 0005 00
Failure To Eject .....	WP 0005 00
Failure To Extract .....	WP 0005 00
Failure To Feed .....	WP 0005 00
Failure To Fire .....	WP 0005 00
Failure To Lock or Unlock .....	WP 0005 00
Very Hard Recoil .....	WP 0005 00

**END OF WORK PACKAGE**



## UNIT

LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)

## TROUBLESHOOTING PROCEDURES

## INITIAL SETUP:

## References

WP 0015 00  
 WP 0016 00  
 WP 0021 00

## LONG RANGE SNIPER RIFLE, M107

Table 1. Troubleshooting Procedures.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. Failure To Feed	<ol style="list-style-type: none"> <li>1. Verify sluggish action.</li> <li>2. Verify short-cycling.</li> <li>3. Check for damage to magazine.</li> <li>4. Check for improper seating of magazine.</li> <li>5. Check for weak or broken mainspring.</li> <li>6. Check for binding of bolt carrier assembly in receiver.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean and lubricate or (if cold) check for over-lubrication.</li> <li>2. Support receiver more firmly in shoulder.</li> <li>3. Replace magazine (see WP 0015 00).</li> <li>4. Reinsert magazine properly.</li> <li>5. Replace mainspring (see WP 0016 00).</li> <li>6. Evacuate to direct support maintenance.</li> </ol>
2. Failure To Chamber	<ol style="list-style-type: none"> <li>1. Check for damaged cartridge.</li> <li>2. Check for dirty chamber.</li> <li>3. Check for faulty mainspring.</li> <li>4. Check for bent receiver housing.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove and recharge/reload.</li> <li>2. Clear and clean chamber.</li> <li>3. Replace mainspring (see WP 0016 00).</li> <li>4. Evacuate to direct support maintenance.</li> </ol>

## LONG RANGE SNIPER RIFLE, M107 - Continued

Table 1. Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
3. Failure To Cock	1. Check for worn, broken, or missing components of trigger assembly and sear assembly.	1. Evacuate to direct support maintenance.
4. Failure To Lock or Unlock	1. Check for obstruction between firing pin and bolt. 2. Check for blown primer wedged between firing pin and bolt. 3. Check for excessive dirt, sand, etc. in locking area. 4. Verify bolt spring is bent or not seated properly. 5. Check for broken or burred bolt latch or bolt latch spring.	1. Disassemble and clean. 2. Evacuate to direct support maintenance. 3. Clean chamber. 4. Replace bolt spring or reinstall (see WP 0021 00). 5. Evacuate to direct support maintenance.
5. Failure To Fire	1. Verify faulty ammunition. 2. Verify bolt carrier is not in battery. 3. Check for improper installation of firing mechanism. 4. Check for incorrect installation of trigger components. 5. Check for faulty/broken trigger components.	1. Replace ammunition. 2. Manually cycle round. 3. Assemble properly. 4. Reinstall trigger components properly. 5. Evacuate to direct support maintenance.
6. Failure To Extract	1. Check for broken extractor. 2. Verify extractor is not moving freely in slot. 3. Check for dirty chamber.	1. Replace extractor (see WP 0021 00). 2. Remove and clean. 3. Clean chamber.
7. Failure To Eject	1. Check for frozen or damaged ejector or ejector spring.	1. Remove and replace ejector and/or ejector spring (see WP 0021 00).

**Table 1. Troubleshooting Procedures - Continued.**

<b>MALFUNCTION</b>	<b>TEST OR INSPECTION</b>	<b>CORRECTIVE ACTION</b>
8. Very Hard Recoil	<ol style="list-style-type: none"><li>1. Check for faulty/hot ammunition.</li><li>2. Check for damage to mainspring or mainspring buffer.</li><li>3. Check for loose, missing, or damaged/clogged muzzle brake.</li></ol>	<ol style="list-style-type: none"><li>1. Replace or cool ammunition.</li><li>2. Remove mainspring and mainspring buffer. Replace as necessary (see WP 0016 00).</li><li>3. Evacuate to direct support maintenance.</li></ol>

**END OF WORK PACKAGE**



**ORGANIZATIONAL**

**LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)**

**TROUBLESHOOTING INDEX (USMC ONLY)**

**GENERAL**

The malfunction/symptom index can be used as a quick guide to troubleshooting. Common malfunctions are listed in cycle of function order with a work package reference to the troubleshooting table where a test or inspection and corrective action are provided.

This manual cannot list all malfunctions that may occur, nor all tests or inspections and corrective actions. If a malfunction is not listed or is not corrected by listed corrective actions, evacuate the weapon to the next higher maintenance activity. WP 0007 00 lists possible malfunctions, tests or inspections, and corrective action taken for troubleshooting the Special Application Scoped Rifle (SASR) at the organizational level.

**MALFUNCTION/SYMPTOM INDEX**

<u>Malfunction/Symptom</u>	<u>Troubleshooting Procedure</u>
Failure To Chamber .....	WP 0007 00
Failure To Eject .....	WP 0007 00
Failure To Extract .....	WP 0007 00
Failure To Feed .....	WP 0007 00
Failure To Fire .....	WP 0007 00
Failure To Lock or Unlock .....	WP 0007 00
Very Hard Recoil .....	WP 0007 00

**END OF WORK PACKAGE**



**ORGANIZATIONAL****LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)****TROUBLESHOOTING PROCEDURES (USMC ONLY)****INITIAL SETUP:****References**

TM 9-1005-239-10  
 WP 0015 00  
 WP 0016 00  
 WP 0021 00  
 WP 0028 00  
 WP 0032 00  
 WP 0034 00

**SPECIAL APPLICATION SCOPED RIFLE (SASR)****Table 1. Troubleshooting Procedures.**

<b>MALFUNCTION</b>	<b>TEST OR INSPECTION</b>	<b>CORRECTIVE ACTION</b>
1. Failure To Feed (bolt moves forward without feeding cartridge)	1. Verify sluggish action.  2. Verify short-cycling.  3. Check for damage to magazine.  4. Check for improper seating of magazine.  5. Check for binding of bolt carrier assembly in receiver.	1. Clean and lubricate or (if cold) check for over-lubrication.  2. Support receiver more firmly in shoulder.  3. Replace magazine (see WP 0015 00).  4. Reinsert magazine properly.  5. Straighten receiver as required. Bend lips slightly until no binding is present.

## SPECIAL APPLICATION SCOPED RIFLE (SASR) - Continued

Table 1. Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. Failure To Chamber (bolt does not completely close, bolt binds)	1. Check for damaged cartridge.	1. Remove and recharge/reload.
	2. Check for dirty chamber.	2. Clear and clean chamber.
	3. Check for faulty mainspring.	3. Replace mainspring (see WP 0016 00).
	4. Check for bent receiver housing.	4. Replace receiver housing (see WP 0028 00).
3. Failure To Lock or Unlock	1. Check for obstruction between firing pin and bolt.	1. Disassemble and clean firing pin and bolt.
	2. Check for blown primer wedged between firing pin and bolt.	2. Replace ammunition and report lot number. Evacuate to Intermediate Maintenance Activity (IMA).
	3. Check for excessive dirt or sand in locking area.	3. Clean chamber.
	4. Check for broken or burred bolt latch or bolt latch spring.	4. Repair or replace if bolt is rounded over (see WP 0034 00).
	5. Verify bolt spring is bent or not seated properly.	5. Replace bolt spring or reinstall (see WP 0021 00).
4. Failure To Fire (cartridge does not ignite)	1. Check for broken/frozen firing pin.	1. If broken/frozen firing pin is found, evacuate weapon to IMA.
	2. Verify faulty ammunition.	2. Replace ammunition and report lot number.
	3. Verify bolt carrier is not in battery.	3. Manually cycle round.
	4. Check for excessive lift in bolt carrier when trigger is squeezed.	4. Bend recoil spring housing lips.
	5. Check for improper installation of firing mechanism.	5. Assemble firing mechanism properly.

Table 1. Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
5. Failure To Extract (cartridge case will not extract)	6. Check for incorrect installation of trigger components. 7. Check for faulty/broken trigger components. 1. Check for bent, broken, or frozen extractor. 2. Verify extractor is not moving freely in slot. 3. Check for dirty chamber or receiver.	6. Reinstall trigger components properly. 7. Repair or replace trigger components (see WP 0028 00). 1. Replace extractor (see WP 0021 00). 2. Remove, clean, and replace extractor. 3. Clean and lubricate (refer to TM 9-1005-239-10).
6. Failure To Eject (cartridge case will not eject)	1. Check for frozen or damaged ejector or ejector spring.	1. Remove and replace ejector and/or ejector spring (see WP 0021 00).
7. Very Hard Recoil	1. Check for faulty or hot ammunition. 2. Check for loose, missing, damaged, or clogged muzzle brake. 3. Check for damage to mainspring or mainspring buffer.	1. Replace or cool ammunition. 2. Inspect and replace muzzle brake, as needed (see WP 0032 00). 3. Remove mainspring and mainspring buffer. Replace as necessary (see WP 0016 00).

END OF WORK PACKAGE



**CHAPTER 3**

**DIRECT SUPPORT  
TROUBLESHOOTING PROCEDURES  
FOR  
LONG RANGE SNIPER RIFLE, M107**



**DIRECT SUPPORT**

**LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-239-2133)**

**TROUBLESHOOTING INDEX**

**GENERAL**

The malfunction/symptom index can be used as a quick guide to troubleshooting. Common malfunctions are listed in cycle of function order with a work package reference to the troubleshooting table where a test or inspection and corrective action are provided.

This manual cannot list all malfunctions that may occur, nor all tests or inspections and corrective actions. If a malfunction is not listed or is not corrected by listed corrective actions, notify depot maintenance.

**MALFUNCTION/SYMPTOM INDEX**

<u>Malfunction/Symptom</u>	<u>Troubleshooting Procedure</u>
Failure To Chamber .....	WP 0009 00
Failure To Cock .....	WP 0009 00
Failure To Feed .....	WP 0009 00
Failure To Fire .....	WP 0009 00
Failure To Lock or Unlock .....	WP 0009 00
Very Hard Recoil .....	WP 0009 00

**END OF WORK PACKAGE**



**DIRECT SUPPORT****LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-239-2133)****TROUBLESHOOTING PROCEDURES****INITIAL SETUP:****References**

WP 0028 00

WP 0032 00

WP 0033 00

**LONG RANGE SNIPER RIFLE, M107****Table 1. Troubleshooting Procedures.**

<b>MALFUNCTION</b>	<b>TEST OR INSPECTION</b>	<b>CORRECTIVE ACTION</b>
1. Failure To Feed	1. Verify binding of bolt carrier assembly in receiver.	1. Replace bolt carrier assembly (see WP 0033 00).
2. Failure To Chamber	1. Verify damage to receiver housing.	1. Replace receiver housing (see WP 0028 00).
3. Failure To Cock	1. Check for worn or broken trigger and/or trigger spring.	1. Replace trigger and/or trigger spring (see WP 0028 00).
	2. Check for worn or broken sear assembly.	2. Replace sear assembly (see WP 0033 00).
	3. Check for worn or broken disconnecter.	3. Replace disconnecter (see WP 0028 00).
	4. Check for worn or broken disconnecter spring.	Replace disconnecter spring (see WP 0028 00).
4. Failure To Lock or Unlock	1. Verify that blown primer is wedged between firing pin and bolt.	1. Return to depot if problem persists.
	2. Verify damage to bolt latch or bolt latch spring.	2. Replace bolt latch or bolt latch spring (see WP 0033 00).
5. Failure To Fire	1. Verify damage to trigger components.	1. Replace trigger components as necessary (see WP 0028 00).

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**LONG RANGE SNIPER RIFLE, M107 - Continued****Table 1. Troubleshooting Procedures - Continued.**

<b>MALFUNCTION</b>	<b>TEST OR INSPECTION</b>	<b>CORRECTIVE ACTION</b>
6. Very Hard Recoil	1. Verify damage to muzzle brake.	1. Replace muzzle brake (see WP 0032 00).

**END OF WORK PACKAGE**

**CHAPTER 4**  
**UNIT**  
**MAINTENANCE INSTRUCTIONS**  
**FOR**  
**LONG RANGE SNIPER RIFLE, M107**



**UNIT**

**LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)**

**SERVICE UPON RECEIPT  
SERVICE UPON RECEIPT OF MATERIEL, INSTALLATION INSTRUCTIONS**

**SERVICE UPON RECEIPT OF MATERIEL****Unpacking**

When a new or reconditioned Long Range Sniper Rifle (LRSR)/Special Application Scoped Rifle (SASR) is received, be aware of any shipping damage to packaging materiel. Report any damage on SF 364, Report of Discrepancy (ROD), as prescribed in AR 735-11-2. Retain packaging materiel for future use.

**Checking Unpacked Equipment**

Inspect the equipment for damage incurred during shipment. If the equipment has been damaged, report the damage on SF 361, Transportation Discrepancy Report.

Check the equipment against the packing slip to see if the shipment is complete. Report all discrepancies in accordance with the instructions in DA PAM 750-8.

Check to see whether the equipment has been modified. Refer to authorized equipment configuration changes listed in DA PAM 25-30.

**WARNING**

DO NOT keep live ammunition near work/maintenance area.

Be sure to clear weapon before disassembling, cleaning, inspecting, transporting, or storing. Clearing consists of unloading the weapon and visually inspecting weapon and chamber to ensure all rounds have been removed. Do not release the bolt or press the trigger.

**Table 1. Service Upon Receipt.**

<b>Location</b>	<b>Item</b>	<b>Action</b>	<b>Remarks</b>
Container	Sniper Weapons System Parts List	Check for missing parts.	Refer to TM 9-1005-239-10.

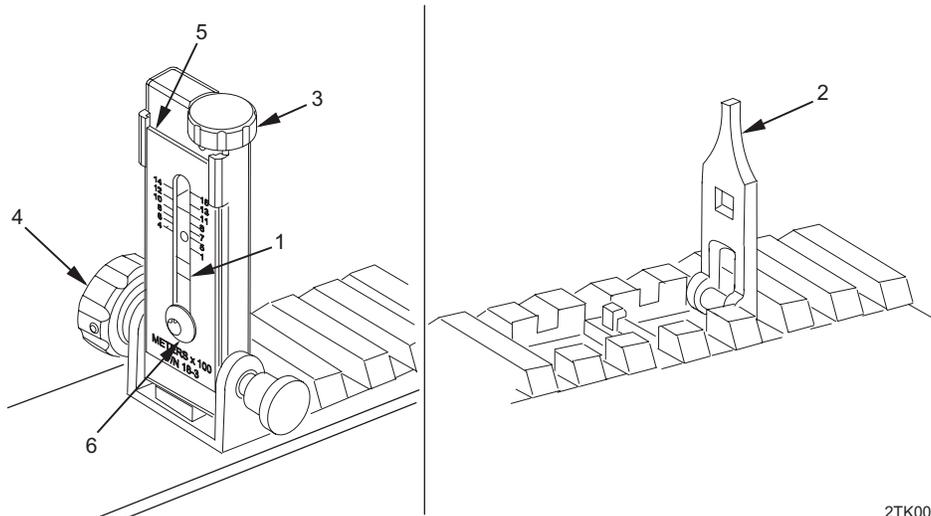
**SERVICE UPON RECEIPT OF MATERIEL - Continued**

**Table 1. Service Upon Receipt - Continued.**

Location	Item	Action	Remarks
M107	All Parts	Field strip weapon and inspect for missing parts, damaged parts, and rusted or corroded parts.  Clean and lubricate.  Reassemble.  Function by hand using dummy cartridges.  Check to see whether the equipment has been modified.	Refer to TM 9-1005-239-10.  Refer to TM 9-1005-239-10.  Refer to TM 9-1005-239-10.  Army users see DA PAM 25-30.

**INSTALLATION INSTRUCTIONS**

**Sighting Systems**



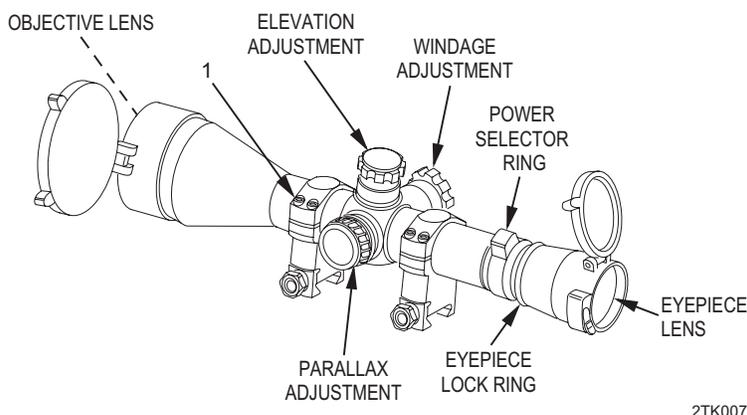
2TK006

1. Iron Sights:

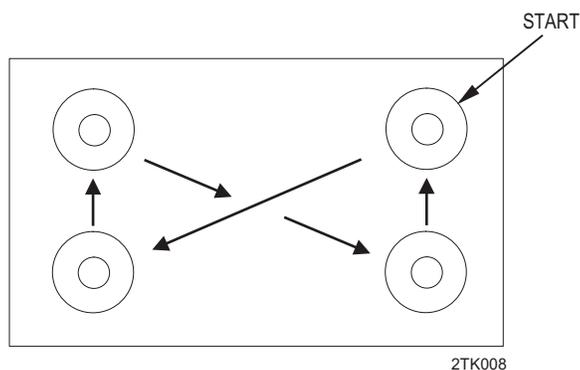
- a. The rear and front iron sights are primarily to be used for emergency back-up when the optical sights are not available. They flip up for use if the telescope is not mounted. Aiming is accomplished by aligning the target with the aperture (1) of the rear sight and the post (2) of the front sight.
- b. The rear sight aperture is raised and lowered to the desired elevation position using the elevation knob (3). The windage knob (4) is used to adjust for proper windage. A rear sight scale (5) has been established that corresponds to the ballistics of the cartridge and is adjustable to accommodate variations in environmental conditions that affect elevation.

- c. Setting the position of the rear sight scale (5) is best done at a range of 500 meters to give the optimum position for both ball and high explosive ammunition. When the rifle zero point for elevation is found, loosen the rear sight scale screw (6), move the scale to correspond to the range at which the weapon is being tested, and re-tighten the screw to fix the scale in this position.
- d. The iron sights are correctly aligned when the shooter sights through the aperture (1) in the rear sight and can see the intended target exactly at the top of the front sight post (2).

2. Daylight Scope:



- a. There are seven basic parts to the daylight scope: the objective lens (front lens), the elevation adjustment turret, the windage adjustment turret, the power selector ring, the eyepiece lock ring, the eyepiece lens, and the parallax adjustment turret (left side).



- b. Tighten scope ring screws (1) evenly and securely. Start in one corner and tighten a small amount; then tighten the screw in the opposite corner. Tighten the screw above/below and then across corner. Continue the pattern until all screws are tightened; this ensures an even tightening and prevents skewing of the scope.

**END OF WORK PACKAGE**



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**UNIT****LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)****PREVENTIVE MAINTENANCE CHECKS AND SERVICES INTRODUCTION  
GENERAL, EXPLANATION OF COLUMN ENTRIES**

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**GENERAL**

- a. Preventive Maintenance Checks and Services (PMCS) (WP 0012 00) must be performed by unit personnel to be sure the sniper rifle is in good operating condition and ready for its primary mission.
- b. To ensure maximum operational readiness, it is necessary that the sniper rifle be inspected at regular intervals so that any defects can be discovered and corrected before serious damage or failure occurs. Any discovered maintenance problems that are beyond your authorization will be referred to direct support maintenance for correction.
- c. Always observe the WARNINGS and CAUTIONS before and during operation. A WARNING means someone could be hurt. A CAUTION means equipment could be damaged. If the equipment fails to operate, troubleshoot. Report any deficiencies using the proper forms. See DA PAM 750-8.

**EXPLANATION OF COLUMN ENTRIES**

The INTERVAL column tells you when to do the check or service in the PROCEDURE column. BEFORE checks and services are performed prior to the sniper rifle leaving its containment area or performing its mission. DURING checks begin when the sniper rifle is being used and AFTER checks and services begin when the sniper rifle is taken out of its mission mode or is returned to its containment area.

The ITEM TO BE CHECKED OR SERVICED column tells you the component of the sniper rifle to be checked. The amount of time required is indicated in the MAN-HOUR column.

When recording results of PMCS, entries in the PMCS ITEM NO. column will be used for the TM Item No. column on DA Form 2404, Equipment Inspection and Maintenance Worksheet.

The EQUIPMENT NOT READY/AVAILABLE IF column indicates deficiencies which must be corrected before the sniper rifle can be operated.

**END OF WORK PACKAGE**



## UNIT

LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS), INCLUDING LUBRICATION  
INSTRUCTIONS

## INITIAL SETUP:

## Materials/Parts

Cleaner, Lubricant, and Preservative (CLP) (item 13, WP 0060 00)

Lubricant, Arctic Weather (LAW) (item 21, WP 0060 00)

Lubricant, Small Arms (LSA) (item 22, WP 0060 00)

Lubricant, Small Arms (with Teflon) (LSAT) (item 23, WP 0060 00)

## References

TM 9-1005-239-10

## PREVENTIVE MAINTENANCE INSPECTION

Table 1. Unit Preventive Maintenance Checks and Services.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Quarterly		M107	<p style="text-align: center;"><b>WARNING</b></p> <p style="text-align: center;"></p> <p style="text-align: center;">DO NOT keep live ammunition near work/maintenance area.</p> <p>Be sure to clear weapon before disassembling, cleaning, inspecting, transporting, or storing. Clearing consists of unloading the machine gun and visually inspecting weapon and chamber to ensure all rounds have been removed. Do not release the bolt or press the trigger.</p>	

## PREVENTIVE MAINTENANCE INSPECTION - Continued

Table 1. Unit Preventive Maintenance Checks and Services - Continued.

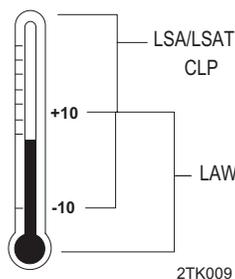
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
2	Quarterly		M107	Hand function the weapon to ensure it is functional. Visually check the exterior of the weapon and components for rust or damage. Check components for cracks, breaks, and damage.	Parts are missing, damaged, or broken.
3	Quarterly		M107	Clean exterior of weapon to remove dirt and debris. Refer to TM 9-1005-239-10.	Weapon is dirty.
4	Quarterly		Muzzle Brake	Check to see that both muzzle brake screws are secure and that muzzle brake is level to the ground.	Threads are missing; muzzle brake is loose or misoriented.
5	Quarterly		Barrel Assembly	Check to ensure bore is free of obstructions and not bulged. Check for excess lubrication in bore area. Swab dry.	Bore is obstructed or bulged.
6	Quarterly		Barrel Assembly	Clean chamber.	Chamber is obstructed.
7	Quarterly		Scope Mounting Hardware	Check to see that all hardware is tight and that scope is secure to weapon.	Scope is loose or hardware is missing.
8	Quarterly		Lower Receiver Assembly	Check to see that rear and midlock pins are installed so that retaining bearing is visible on opposite side of receiver.	Pin cannot be inserted far enough for bearing to be exposed.
9	Quarterly		Cartridge Magazine	Ensure that magazine has free travel of magazine follower and that magazine tube is not damaged (bent or cracked).	Free travel of follower is not present or magazine tube is damaged.

Table 1. Unit Preventive Maintenance Checks and Services - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
10	Quarterly		M107	<p style="text-align: center;"><b>WARNING</b></p> <p style="text-align: center;"></p> <p style="text-align: center;">To avoid injury to eyes, use care when removing and installing spring-loaded parts.</p> <p>Field strip weapon. Refer to TM 9-1005-239-10. Inspect all assemblies for missing, broken, or loose parts. Inspect all parts for cracks, dents, burrs, excessive wear, rust, or corrosion.</p>	Parts are missing, broken, or damaged. Evacuate weapon to direct support maintenance if repair is not authorized at unit maintenance.

**LUBRICATION INSTRUCTIONS**

1. Two-Week Intervals. If the weapon is not being fired for periods up to two weeks, renew the oil film in the bore and chamber as required by local climatic conditions.
2. 90-Day Intervals. If the weapon is not to be fired for periods up to 90 days, coat with CLP.
3. LSAT, LSA, and CLP are the authorized lubricants to use on the rifle at normal temperatures to -10 °F (-27 °C). At temperatures below -10 °F (-27 °C), use LAW. Never mix lubricants on the weapon; always completely remove one lubricant before using another.
4. When operating rifle in extremely cold climates, clean and lubricate rifle inside at room temperature, if possible. Use LAW.
5. Remember to remove excessive oil from the bore before firing.

**LUBRICATION INSTRUCTIONS - Continued****NOTE**

Light Lubrication - A film of oil barely visible to the eye.

Generous Lubrication - Heavy enough so that it can be spread with finger.

LSAT, a multi-purpose lubricant containing Teflon, has displayed exceptional lubrication performance as well as resistance to collection of sand.

**HOT, DUSTY, AND SANDY AREAS:**

Clean often. Lightly lube.

Wipe oil from exposed surfaces with clean wiping rag.

Keep sand out of parts.

**EXTREMELY COLD CLIMATE:**

Use LAW.

Keep dry.

Use LAW lightly.

**HOT, WET CLIMATE:**

Use LSAT, LSA, or CLP and inspect often.

Use LSAT, LSA, or CLP lightly.

Keep rifle dry.

**GENERAL INSTRUCTIONS:**

External surfaces: Put LSAT, LSA, or CLP on a clean swab and generously lubricate:

- a. Bolt – locking lugs and cam slot;
- b. Bolt Carrier – receiver bearing surfaces;
- c. Barrel – bolt locking surfaces;
- d. Receiver – rails on which bolt carrier rides.

All other areas: Lightly lubricate – including bore.

**END OF WORK PACKAGE**

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**ORGANIZATIONAL****LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)****SCHEDULED MAINTENANCE  
(USMC ONLY)**

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**GENERAL**

The using unit is responsible for organizational scheduled preventive maintenance. Preventive maintenance consists of inspecting, servicing, lubricating, and adjusting parts.

**CLEARING/UNLOADING THE WEAPON****WARNING**

Ensure fingers are outside the trigger guard. Keep the weapon pointed in a safe direction at all times.

After unloading the weapon, and with the bolt handle to the rear, visually and physically check the chamber for ammunition. Failure to do so could cause injury or death from negligent discharge.

Always assume every weapon is loaded until it is physically and visually determined that it is not.

Refer to TM 9-1005-239-10 for procedures for clearing/unloading the weapon.

**FIELD STRIPPING THE WEAPON**

The weapon is field stripped into three major groups to clean, inspect, and repair. Procedures for field stripping the weapon are outlined in TM 9-1005-239-10.

**INSPECTING THE WEAPON**

Inspections reveal the need for maintenance, cleaning, or lubrication. When the using unit armory initially receives the weapon, the MOS 2111 (Small Arms Repairman) will perform a limited technical inspection to verify the weapon's serviceability. In order to ensure that every operator is provided a safe, serviceable, and accurate weapon, all Special Application Scoped Rifles (SASRs) will receive periodic inspections.

1. Limited Technical Inspection.
  - a. A MOS 2111 will conduct a pre-fire inspection that is good for 30 days from the date of inspection. The inspection will be conducted in accordance with TI 8005-24/20\_, Pre-Fire Inspection, Small Arms Weapons, Ordnance Materiel and Trigger Pull Measurement Small Arms Weapons.
  - b. A MOS 2111 will conduct semi-annual Preventive Maintenance Checks and Services (PMCS) every 180 days in accordance with WP 0014 00. Any weapon not repairable at the organizational level will be evacuated to a higher level of maintenance.

**INSPECTING THE WEAPON - Continued**

- c. A MOS 2111 will conduct annual gauging inspections in accordance with WP 0014 00.
  - d. Reserve units will inspect at the same frequency.
2. Weapons in Use. A weapon in use and subject to the elements requires no inspection for cleanliness since its use and exposure is sufficient evidence that it requires daily cleaning and lubrication. Combine daily cleaning with the unit armorer's inspection program for damage detection and maintenance repairs. Inspect for obvious damage and repair and evacuate to a higher level of maintenance if necessary.

**END OF WORK PACKAGE**

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**ORGANIZATIONAL****LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)****PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS),  
INCLUDING LUBRICATION INSTRUCTIONS  
(USMC ONLY)**

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**INITIAL SETUP:****Tools and Special Tools**

USMC Small Arms Repairer Tool Kit, SL-3-10919A  
USMC Tool Kit, Intermediate Maintenance, M107 (SASR), SL-3-10894A  
USMC Tool Kit, Organizational Maintenance, M107 (SASR), SL-3-10893A

**References**

TM 9-1005-239-10  
WP 0002 00  
WP 0010 00  
WP 0016 00  
WP 0021 00  
WP 0022 00  
WP 0023 00  
WP 0024 00  
WP 0028 00  
WP 0030 00  
WP 0034 00  
WP 0059 00  
WP 0062 00

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**PREVENTIVE MAINTENANCE PROCEDURES****Organizational Preventive Maintenance Checks and Services (PMCS)****NOTE**

Tools and equipment listed in WP 0059 00 are authorized at the organizational maintenance level for the proper care and cleaning of the SASR.

Perform PMCS every 180 days to keep the weapon in proper operating condition, in accordance with Table 1. If the weapon has not been used in 90 days, consider placing it in storage according to instructions in WP 0062 00. If rust is observed on a weapon, perform PMCS immediately.

**Inspection**

Field strip the weapon in accordance with TM 9-1005-239-10. Inspect all assemblies for missing, broken, or loose parts. Inspect all parts for cracks, dents, burrs, excessive wear, rust, or corrosion. Ensure that all items are cleaned and lubricated in accordance with TM 9-1005-239-10. Evacuate the weapon to higher level of maintenance if repairs are not authorized at organizational maintenance. Refer to source, maintenance, and recoverability (SMR) codes in Chapter 6.

**PREVENTIVE MAINTENANCE PROCEDURES - Continued**

**Table 1. Organizational Preventive Maintenance Checks and Services.**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Semiannually		Assembled Weapon	<ol style="list-style-type: none"> <li>1. Ensure serial numbers match on upper and lower receiver.</li> <li>2. Inspect muzzle brake for cracks and chips.</li> <li>3. Ensure muzzle brake is tight and parallel to flat area on top of upper receiver.</li> <li>4. Inspect recoil pad for serviceability and for secure installation.</li> <li>5. Inspect bipod assembly for the following:                             <ol style="list-style-type: none"> <li>a. Legs must unfold and hold position.</li> <li>b. Legs must fold in forward and rearward position.</li> <li>c. Legs must retract and hold position.</li> <li>d. Feet must be securely fastened and not broken loose from legs.</li> <li>e. Bipod legs must be securely staked to bipod mount yoke.</li> <li>f. Bipod mount must be securely fastened to lower receiver.</li> </ol> </li> </ol>	<p>Serial numbers do not match.</p> <p>Muzzle brake has cracks or chips.</p> <p>Muzzle brake is not secured properly.</p> <p>Recoil pad is unserviceable.</p> <p>Bipod assembly is unserviceable.</p>

Table 1. Organizational Preventive Maintenance Checks and Services - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
				6. Inspect carrying handle assembly for serviceability and function. See WP 0002 00.	Carrying handle assembly is unserviceable.
				7. Inspect carrying handle mount for serviceability and cracked weldment.	Carrying handle mount is unserviceable.
				8. Inspect front sight for serviceability and spring tension.	Front sight is unserviceable.
				9. Inspect telescope, testing the function of windage and elevation. See WP 0010 00.	Telescope is not functional.
				10. Inspect telescope mount, ensure that it is securely fastened to the weapon.	Telescope mount is not secure.
				11. Test the trigger safety for proper operation.	Trigger safety is not functional.
				12. Inspect pistol grip for serviceability and that it is securely fastened to the lower receiver. See WP 0016 00.	Pistol grip is unserviceable.
				13. Slowly cycle bolt carrier to rear, checking for unusual drag on buffer housing framework of the lower receiver. See WP 0021 00.	Bolt carrier does not move smoothly.
				14. Inspect rear and midlock pins for serviceability. See WP 0016 00.	Rear and midlock pins are unserviceable.

**PREVENTIVE MAINTENANCE PROCEDURES - Continued**

**Table 1. Organizational Preventive Maintenance Checks and Services - Continued.**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1 (Cont)	Semiannually (Cont)		Assembled Weapon (Cont)	15. Perform firing pin extension assembly/sear engagement safety checks as follows: <ul style="list-style-type: none"> <li>a. Cock weapon and place trigger on SAFE.</li> <li>b. Squeeze and hold trigger to rear.</li> <li>c. Raise butt of weapon about 6 inches and strike smartly on bench three consecutive times. Trigger should not release between strikes.</li> </ul> 16. Perform transfer bar/ trigger release check as follows: <ul style="list-style-type: none"> <li>a. Place weapon off SAFE; squeeze and hold the trigger to rear while smartly cycling and releasing the bolt carrier assembly one time.</li> <li>b. Slowly release trigger and allow the transfer bar to release from the disconnecter.</li> </ul> 17. Inspect magazine latch for proper functioning and spring tension. See WP 0022 00.                     18. Function check each magazine into weapon to ensure it latches and releases.	Magazine latch is not functional.  Magazine does not latch and release properly.

Table 1. Organizational Preventive Maintenance Checks and Services - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
2	Semiannually		Telescope	<p>19. Perform a function check of each magazine with five .50 caliber dummy rounds.</p> <p>20. Check trigger pull weight; it should be between 7 and 10 pounds.</p> <p>21. Remove bolt carrier assembly, buffer, and recoil spring (see WP 0016 00). Cycle barrel in and out while checking for proper operation.</p> <p>1. Ensure the telescope is .50 caliber 10X.</p> <p>2. Check upper elevation O-ring for serviceability.</p> <p>3. Check O-rings on lower elevation and windage knobs for serviceability.</p> <p>4. Ensure elevation knob moves freely from 1 through 18 on elevation scale. See WP 0023 00.</p> <p>5. Check that the elevation fine tune lever will move to both sides of the scale. See WP 0023 00.</p> <p>6. Check the windage knob to ensure it moves freely from 1 through 8 on the windage scale in both directions. See WP 0023 00.</p> <p>7. Ensure setscrews on the sides of the windage and elevation knobs are present and tight. See WP 0023 00.</p>	<p>Pull weight is incorrect.</p> <p>O-ring is unserviceable.</p> <p>O-rings are unserviceable.</p> <p>Elevation knob does not move freely.</p> <p>Elevation fine tune lever does not move freely.</p> <p>Windage knob does not move freely.</p> <p>Setscrews are missing or loose.</p>

**PREVENTIVE MAINTENANCE PROCEDURES - Continued**

**Table 1. Organizational Preventive Maintenance Checks and Services - Continued.**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
2 (Cont)	Semiannually (Cont)		Telescope (Cont)	8. Inspect objective and eyepiece lenses for scratches, pits, or chips that interfere with the field of view. See WP 0023 00.  9. Ensure that the reticle has all mil dots in place and that the reticle has not broken loose from the post. See WP 0023 00.  10. Check the telescope to ensure it is not bent, damaged, or punctured.  11. Check that the objective lock ring is tight and serviceable.  12. Check eyepiece focus ring for cracks and serviceability.  13. Ensure eyepiece focus lock ring is tight and serviceable.  14. Shake telescope to detect loose glass.  15. Check for moisture (fogging).  16. Check that the eyepiece assembly is not loose from the telescope body.  17. Check that the objective assembly is not loose from the telescope body.	View through lenses is obstructed.          Telescope is bent, damaged, or punctured.  Objective lock ring is unserviceable.  Eyepiece focus ring is unserviceable.  Eyepiece focus lock ring is unserviceable.  Glass is loose.  Lenses are fogged.  Eyepiece assembly is loose.  Objective assembly is loose.

Table 1. Organizational Preventive Maintenance Checks and Services - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
3	Semiannually		Upper Receiver	18. Ensure the telescope mount is securely fastened to the weapon. 19. Ensure the telescope serial number is noted in the Weapon Record Book. 1. Inspect bolt latch trip for serviceability and cracked welds. See WP 0030 00. 2. Disengage barrel key from barrel. With barrel return spring assembly relaxed, inspect coils of spring for equal length and gaps/kinks. See WP 0030 00. 3. Inspect barrel return spring setscrews for tightness. 4. Inspect barrel impact bumpers for serviceability. 5. Inspect front barrel bushing for serviceability and no cracked welds. 6. Inspect midlock ring for serviceability and no cracked welds.	Telescope mount is loose.  Bolt latch trip is unserviceable.  Barrel key springs are unserviceable.  Setscrews are loose.  Barrel impact bumpers are unserviceable.  Front barrel bushing is unserviceable.  Midlock ring is unserviceable.
4	Semiannually		Lower Receiver	1. Inspect the trigger components for serviceability and cleanliness. Disassemble the trigger components as follows: a. Transfer bar pin; see WP 0028 00. b. Transfer bar assembly; see WP 0028 00.	

**PREVENTIVE MAINTENANCE PROCEDURES - Continued**

**Table 1. Organizational Preventive Maintenance Checks and Services - Continued.**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
4 (Cont)	Semiannually (Cont)		Lower Receiver (Cont)	<ul style="list-style-type: none"> <li>c. Trigger housing pin; see WP 0028 00.</li> <li>d. Trigger; see WP 0028 00.</li> <li>e. Disconnecter; see WP 0028 00.</li> <li>f. Disconnecter spring; see WP 0028 00.</li> <li>g. Trigger spring; see WP 0028 00.</li> </ul> <p>2. Reassemble the trigger components (see WP 0028 00). Inspect the operation of trigger by lifting the transfer bar assembly up and away from the trigger mechanism and squeezing and releasing the trigger.</p> <p>3. Operate disconnecter back and forth. Check function and spring tension.</p> <p>4. Inspect operation of transfer bar assembly.</p> <p>5. Inspect magazine well for any deformation and cracked welds.</p> <p>6. Inspect rear lock pin hole for excessive elongation and/or cracks.</p> <p>7. Inspect midlock pin hole for excessive elongation and/or cracks.</p>	<p>Disconnecter is not functional.</p> <p>Transfer bar assembly is not functional.</p> <p>Magazine well is deformed.</p> <p>Pin hole is elongated or cracked.</p> <p>Pin hole is elongated or cracked.</p>

Table 1. Organizational Preventive Maintenance Checks and Services - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
5	Semiannually		Bolt Group	8. Inspect all remaining weldments of lower receiver. 1. Inspect ejector for proper operation and serviceability. 2. Remove extractor (see WP 0034 00) and check for cracks and/or burrs. Inspect extractor detent and spring for serviceability and cleanliness. 3. Inspect bolt for serviceability and that no cracks or burrs are present. 4. Inspect bolt face for pitting and that firing pin hole is not elongated or deformed. 5. Inspect overall condition of bolt for serviceability. 6. Check headspace of weapon. See WP 0024 00.	Weldments are damaged. Ejector is unserviceable. Extractor is unserviceable. Bolt is unserviceable. Bolt face is pitted or firing pin hole is elongated or deformed. Bolt is unserviceable.
6	Semiannually		Bolt Carrier Group	1. Inspect accelerator rod for serviceability and free movement. 2. Inspect accelerator for serviceability and free movement. 3. Inspect accelerator spring for serviceability. 4. Inspect bolt latch for serviceability.	Accelerator rod is unserviceable or does not move freely. Accelerator is unserviceable or does not move freely. Accelerator spring is unserviceable. Bolt latch is unserviceable.

## PREVENTIVE MAINTENANCE PROCEDURES - Continued

Table 1. Organizational Preventive Maintenance Checks and Services - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
6 (Cont)	Semiannually (Cont)		Bolt Carrier Group (Cont)	<p>5. Remove cocking lever, sear assembly, and firing pin extension assembly from bolt carrier. See WP 0034 00. Inspect retaining pins for serviceability.</p> <p>6. Inspect sear for cracks and/or burrs.</p> <p>7. Inspect sear spring for serviceability.</p> <p>8. Inspect cocking lever/cocking lever spring for serviceability.</p> <p>9. Inspect firing pin extension assembly for the following:</p> <p>a. Check firing pin nose for pitting/erosion.</p> <p>b. Check sear engagement notch for cracks and/or burrs.</p> <p>c. Check firing pin extension assembly for free movement inside bolt carrier.</p> <p>d. Check firing pin protrusion: 0.057 minimum, 0.063 maximum.</p> <p>10. Inspect bolt carrier for cracks, burrs, and chips.</p> <p>11. Inspect bolt carrier handle weldment for serviceability.</p>	<p>Retaining pins are unserviceable.</p> <p>Sear has cracks or burrs.</p> <p>Sear spring is unserviceable.</p> <p>Cocking lever or spring is unserviceable.</p> <p>Firing pin nose has pits or erosion.</p> <p>Sear engagement notch has cracks or burrs.</p> <p>Firing pin extension assembly does not move freely.</p> <p>Firing pin protrusion is incorrect.</p> <p>Bolt carrier has cracks, burrs, or chips.</p> <p>Weldment is unserviceable.</p>

Table 1. Organizational Preventive Maintenance Checks and Services - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
7	Semiannually		Barrel Group	<p>12. Inspect bolt cam pin spring tension. Ensure bolt cam pin is held securely.</p> <p>13. Inspect bolt cam pin spring pin for looseness.</p> <p>14. Reassemble all parts of bolt carrier group (see WP 0034 00) and perform a function check of the following:</p> <ul style="list-style-type: none"> <li>a. Cock firing pin extension. Depress bolt latch and work the bolt in and out of carrier. Bolt should operate smoothly and under spring tension.</li> <li>b. Ensure cocking cam of cocking lever is inside the slot of firing pin extension.</li> <li>c. Depress sear until firing pin extension assembly releases.</li> </ul> <p>1. Inspect barrel for serviceability and complete the following items:</p> <ul style="list-style-type: none"> <li>a. Check for cleanliness.</li> <li>b. Check for pitting and bulges.</li> <li>c. Check and note breech bore in Weapon Record Book.</li> </ul>	<p>Bolt cam pin is not secure.</p> <p>Spring pin is loose.</p>

## PREVENTIVE MAINTENANCE PROCEDURES - Continued

Table 1. Organizational Preventive Maintenance Checks and Services - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
8	Semiannually		Function Check	<ol style="list-style-type: none"> <li>1. With an empty magazine and ten .50 caliber dummy rounds, perform the following:               <ol style="list-style-type: none"> <li>a. Load ten dummy rounds in magazine.</li> <li>b. Insert the magazine into the weapon.</li> <li>c. Retract bolt fully to rear and release to chamber the first round.</li> <li>d. With the weapon on SAFE, attempt to fire the weapon. The weapon should not fire.</li> <li>e. With the weapon on FIRE, attempt to fire the weapon. The weapon should fire.</li> <li>f. While holding the trigger to the rear, pull the bolt all the way to the rear and release the bolt.</li> <li>g. Release the trigger. A click should be heard and the weapon should fire.</li> <li>h. Repeat steps f and g at least three times to ensure proper functioning.</li> </ol> </li> </ol>	

Table 1. Organizational Preventive Maintenance Checks and Services - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
				i. Cycle the bolt through the remaining rounds to ensure proper feeding, chambering, extracting, and ejecting.	

**CLEANING****CAUTION**

Do not allow cleaner, lubricant, preservative (CLP) or any other solvent to come in contact with the telescope lenses.

Cleaning is a vital part of organizational preventive maintenance. The SASR should be cleaned as soon as practical after firing and after each time it is exposed to field conditions or moisture, using the procedures outlined in TM 9-1005-239-10.

**LUBRICATION****CAUTION**

Use only authorized lubricants. Do not mix lubricants.

Lubricate the weapon in accordance with TM 9-1005-239-10 and TM 9150-15/1, Military Use of Cleaner, Lubricant, Preservative (CLP) for Weapons and Support Equipment.

**INTERMEDIATE PREVENTIVE MAINTENANCE CHECKS AND SERVICES**

A MOS 2111 conducts an annual gauging inspection at the intermediate maintenance activity. Conduct the inspection in accordance with Table 1.

**END OF WORK PACKAGE**



**UNIT**

**LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)**

**LONG RANGE SNIPER RIFLE MAINTENANCE  
DISASSEMBLY, REPAIR OR REPLACEMENT, ASSEMBLY**

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**INITIAL SETUP:**

**Tools and Special Tools**

Small Arms Repairer Tool Kit, SC 5180-95-B71

USMC Small Arms Repairer Tool Kit, SL-3-10919A

USMC Tool Kit, Intermediate Maintenance, M107 (SASR), SL-3-10894A

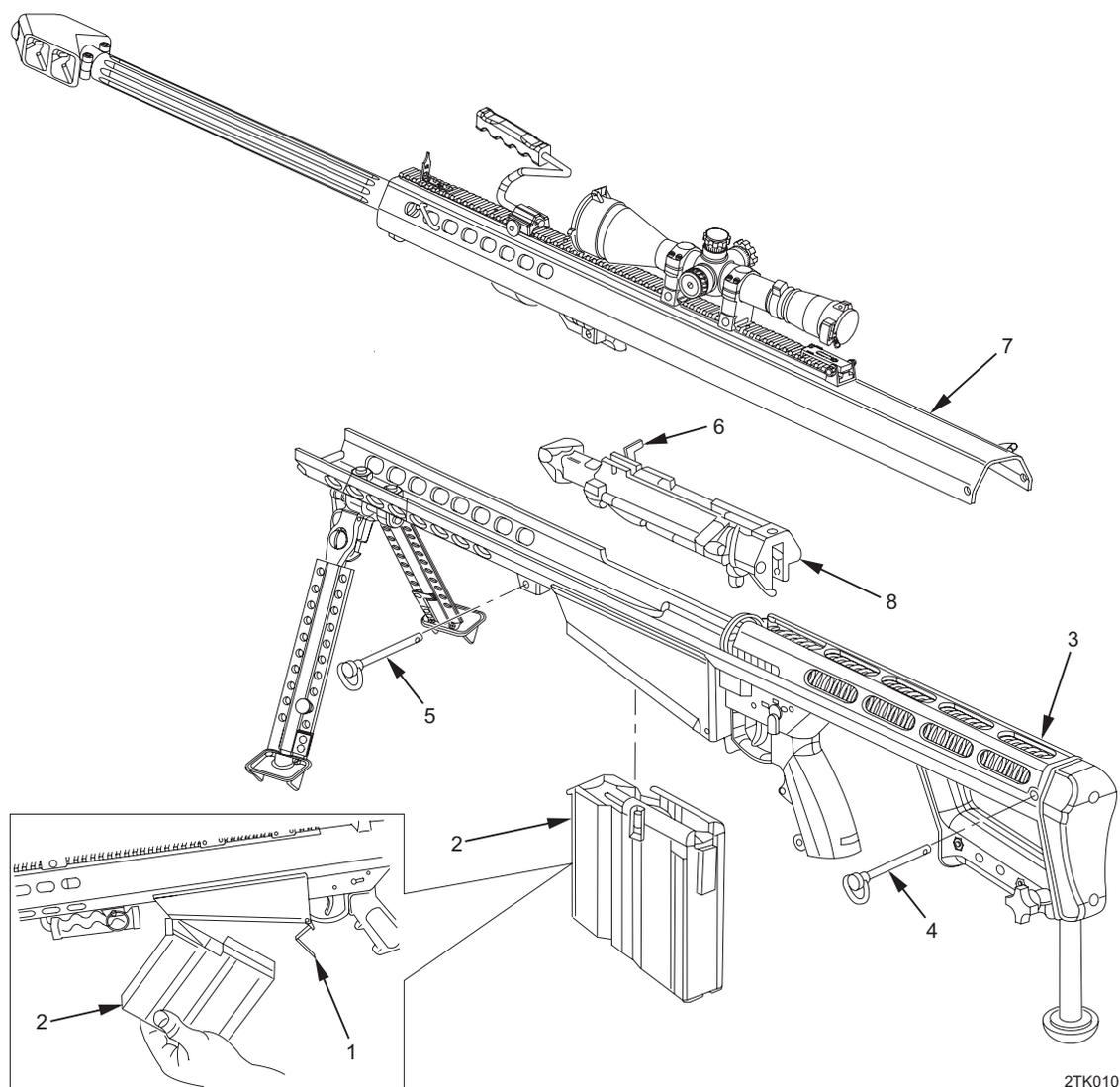
USMC Tool Kit, Organizational Maintenance, M107 (SASR), SL-3-10893A

**References**

WP 0040 00

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## DISASSEMBLY

**WARNING**

Ensure that the weapon is unloaded and on **SAFE** before performing these procedures.

1. Press magazine catch (1) forward towards cartridge magazine (2) and remove cartridge magazine from lower receiver assembly (3).
2. Remove rear lock pin (4) and midlock pin (5).
3. Grasp charging handle (6) (on bolt carrier) and pull to rear until bolt clears barrel extension.

4. While holding charging handle (6) to rear, lift back end of upper receiver assembly (7) until it clears bolt. Allow bolt carrier to return slowly to its forward position.
5. Disengage front hook of upper receiver assembly (7) from front hook pin on lower receiver assembly (3) and lift upper receiver assembly clear of lower receiver assembly.

### WARNING



Mainspring buffer and mainspring are under heavy spring tension. Exercise care to avoid injury.

### CAUTION

When removing bolt carrier from lower receiver assembly, ensure carrier is completely forward of housing before lifting to avoid damage to lower receiver assembly.

6. Pull bolt and carrier assembly (8) rearward and insert rear lock pin (4) through mainspring buffer and mainspring.
7. Gently pull bolt and carrier assembly (8) forward and lift from lower receiver assembly (3).

### REPAIR OR REPLACEMENT

Repair defective parts as authorized by WP 0040 00.

### ASSEMBLY

1. Place bolt and carrier assembly (8) into forward part of lower receiver assembly (3).

### WARNING



Mainspring buffer and mainspring are under heavy spring tension. Exercise care to avoid injury.

2. Pull bolt and carrier assembly (8) rearward and carefully remove rear lock pin (4) from mainspring and mainspring buffer.
3. Align front hook of upper receiver assembly (7) with front hook pin on lower receiver assembly (3).
4. With upper receiver assembly (7) in position on lower receiver assembly (3), secure with rear lock pin (4) and midlock pin (5).
5. Insert cartridge magazine (2) into lower receiver assembly (3).

### END OF WORK PACKAGE



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**UNIT****LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)****LOWER RECEIVER ASSEMBLY MAINTENANCE  
REMOVAL, REPAIR OR REPLACEMENT, INSTALLATION**

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**INITIAL SETUP:****Tools and Special Tools**

Small Arms Repairer Tool Kit, SC 5180-95-B71

Torx Screwdriver Set, NSN 5120-01-167-1667

USMC Small Arms Repairer Tool Kit, SL-3-10919A

USMC Tool Kit, Intermediate Maintenance, M107 (SASR), SL-3-10894A

USMC Tool Kit, Organizational Maintenance, M107 (SASR), SL-3-10893A

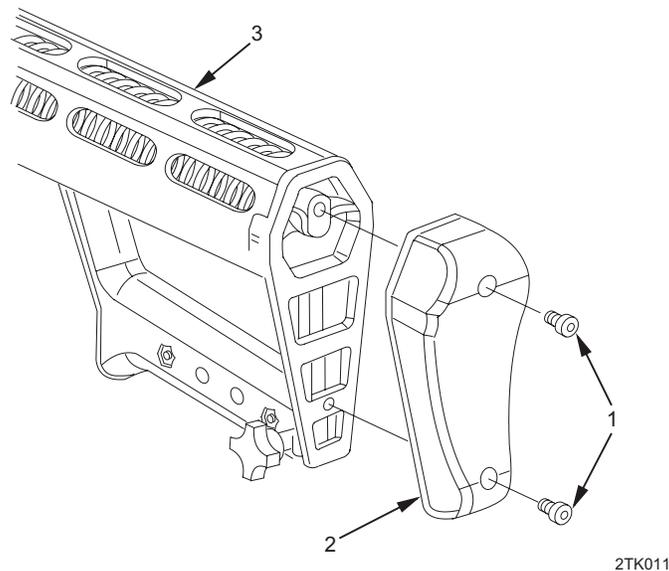
**References**

WP 0041 00

**Equipment Conditions**

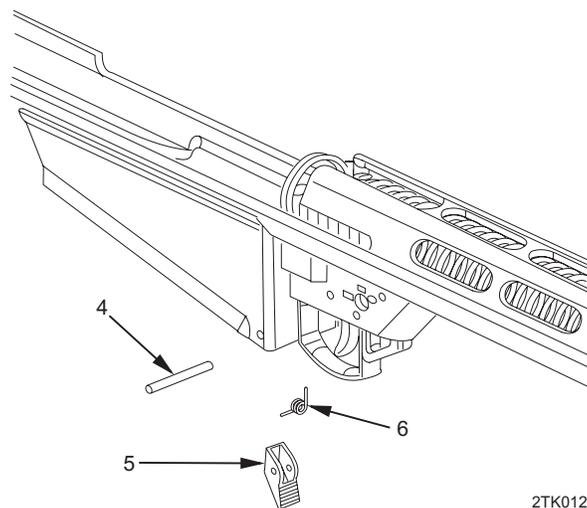
Lower receiver assembly removed from upper receiver assembly (WP 0015 00)

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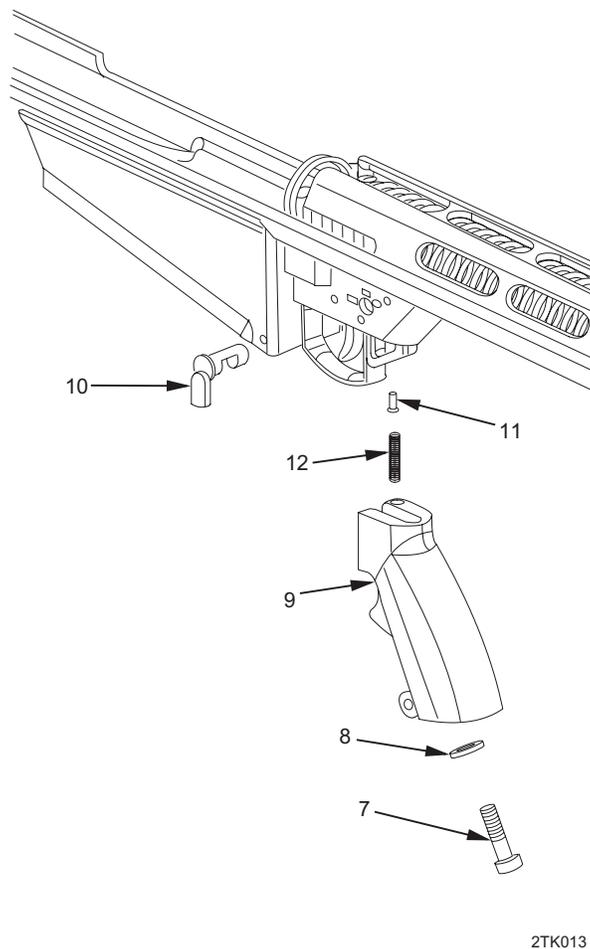
**REMOVAL**

1. Using 5/32 in. (T-27) Torx screw key, loosen and remove two recoil pad screws (1). Remove recoil pad (2) from lower receiver (3).

## REMOVAL - Continued



2. Place 1/8 in. pin punch on magazine catch pin (4) and tap pin out with hammer. Remove magazine catch (5) and magazine catch spring (6).

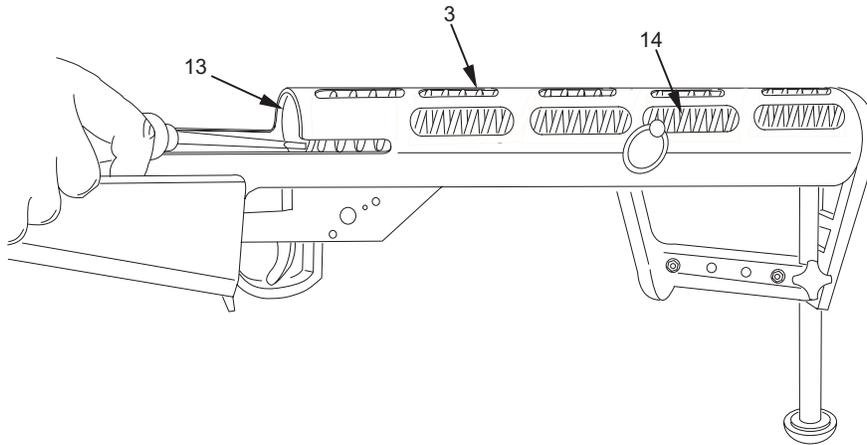


**NOTE**

When removing pistol grip, note that safety spring and safety detent are withdrawn at the same time.

The spring and spring detent are held in place via a small hole in top lip of pistol grip.

3. Remove pistol grip screw (7) and pistol grip washer (8) from pistol grip (9).
4. Using 1/16 in. roll punch, push out safety (10). Remove safety, safety detent (11), safety spring (12), and pistol grip (9).



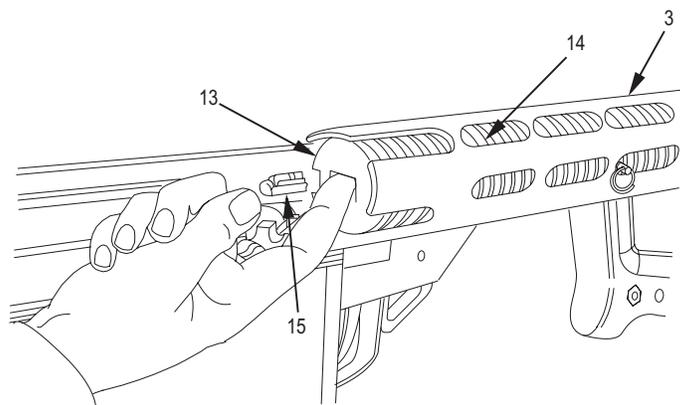
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**WARNING**

Wear eye protection during removal of mainspring or mainspring buffer. Serious injury could result if they are released improperly.

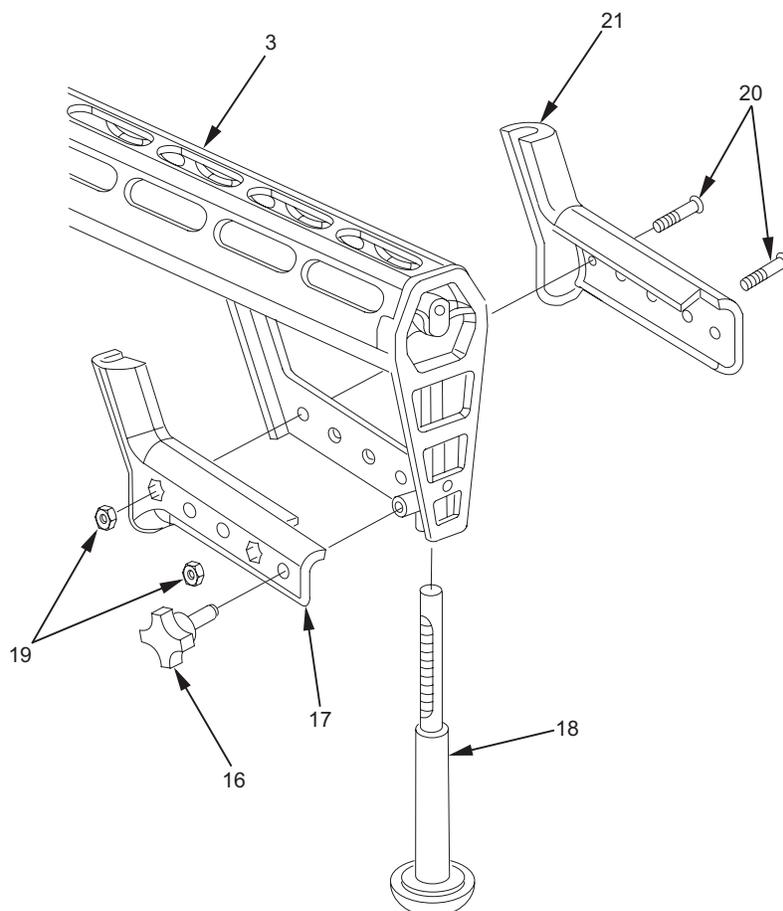
5. Ensure that bolt carrier has been removed. Manually (e.g., using a screwdriver) push mainspring buffer (13) to rear and place rear lock pin or 1/8 in. punch through coils of mainspring (14) and ports in lower receiver (3). This will relieve some of the pressure on the buffer as it is removed.

## REMOVAL - Continued



2TK015

6. Place fingertip into slot on mainspring buffer (13), and turn buffer so that groove in its flange lines up with buffer stop (15) on lower receiver (3). Slowly and carefully remove mainspring buffer and mainspring (14).



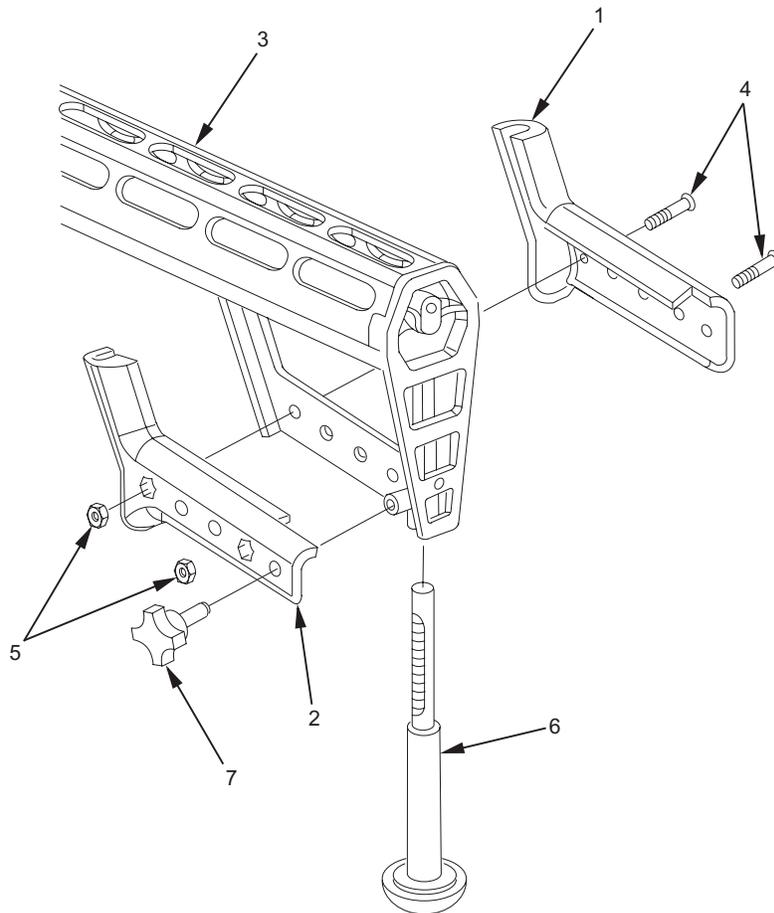
2TK016

7. Remove lock knob (16) from left rear hand grip (17). Carefully remove monopod assembly (18) from lower receiver (3).
8. Remove two rear hand grip nuts (19), two rear hand grip screws (20), right rear hand grip (21), and left rear hand grip (17) from lower receiver (3).

## REPAIR OR REPLACEMENT

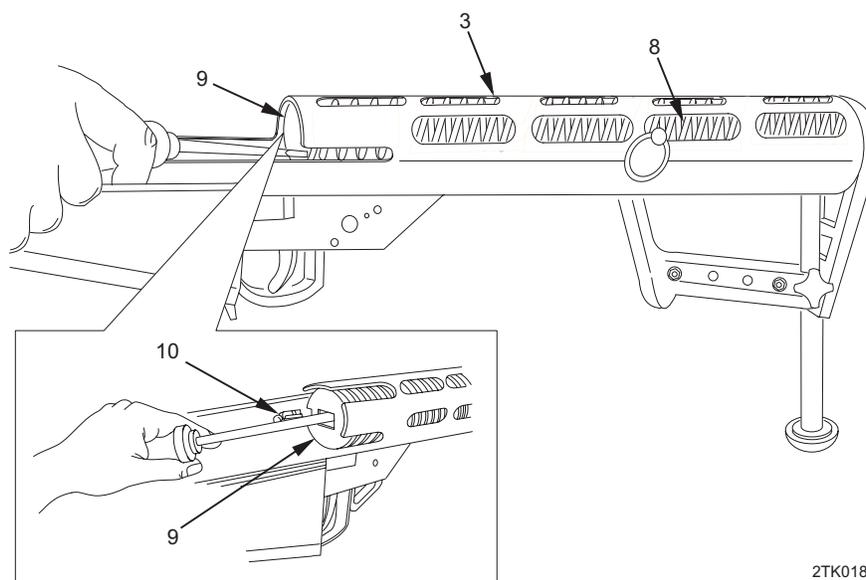
Repair defective parts as authorized by WP 0041 00.

## INSTALLATION



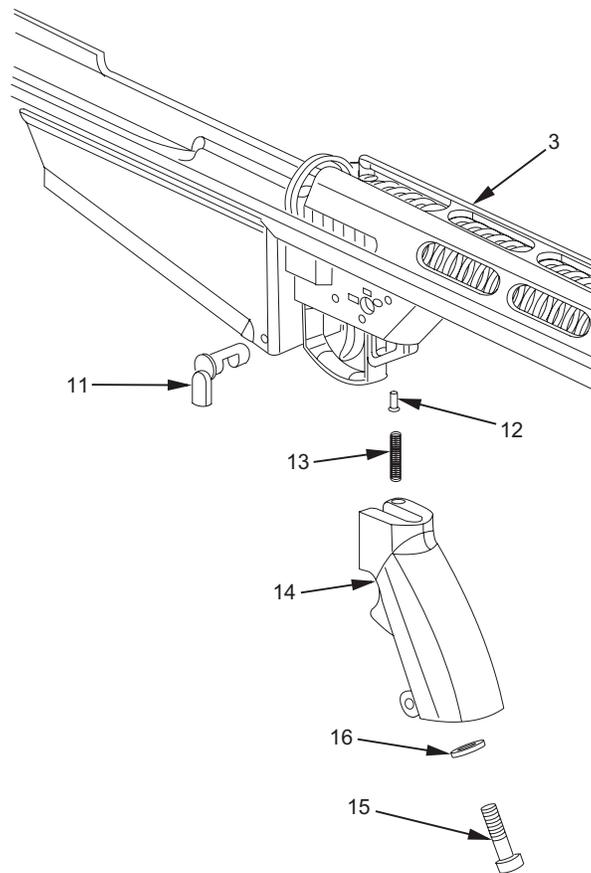
2TK017

1. Align right rear hand grip (1) and left rear hand grip (2) on lower receiver (3).
2. Using T-27 T-handle Torx screwdriver, install two rear hand grip screws (4) and two rear hand grip nuts (5).
3. Slide monopod assembly (6) into lower receiver (3) and secure with lock knob (7).

**INSTALLATION - Continued**

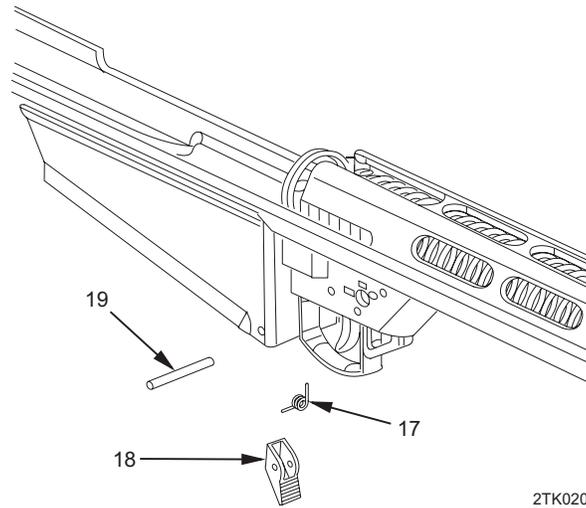
2TK018

4. Slide mainspring (8) into lower receiver (3).
5. Place mainspring buffer (9) on end of mainspring (8). Guide mainspring into housing until buffer is even with housing.
6. Place the end of a screw driver into slot on mainspring buffer (9), and turn buffer so that groove in its flange lines up with buffer stop (10) on lower receiver (3).
7. Push mainspring buffer (9) to rear after mainspring (8) has passed buffer stop (10).
8. Turn screwdriver so that groove in mainspring buffer (9) and buffer stop (10) are no longer in line. Insert rear lock pin through mainspring (8) for safety.
9. Ease off pressure applied to screwdriver until mainspring buffer (9) stops on buffer stop (10).



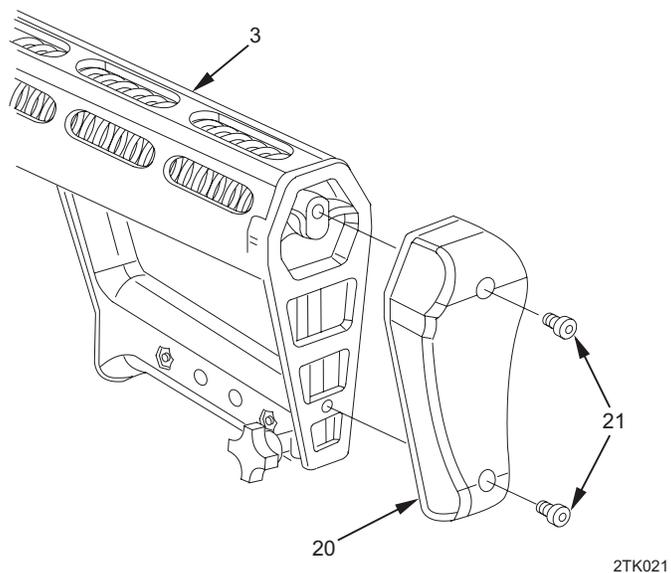
2TK019

10. Install safety (11) (from left to right, indicator between **FIRE** and **SAFE**) to lower receiver (3).
11. Invert lower receiver (3) and insert safety detent (12) and safety spring (13).
12. Align pistol grip (14) with lower receiver (3). Ensure that safety spring (13) is in place in the small hole, top lip of the pistol grip.
13. Secure pistol grip (14) to lower receiver (3) with pistol grip screw (15) and pistol grip washer (16) using T-30 Torx screw key.
14. Check safety (11) to ensure proper engagement with safety detent (12) by switching from **SAFE** to **FIRE**. The trigger will **NOT** depress when safety select switch is in the **SAFE** position.

**INSTALLATION - Continued****NOTE**

Install magazine catch pin so that it is through the first two holes of the magazine well.

15. Place magazine catch spring (17) in magazine catch (18), aligning center of spring with two holes in magazine catch.
16. Insert magazine catch (18) into bottom rear of magazine well and align magazine catch with two holes at rear of magazine well.
17. Insert 1/8 in. pin punch into one of the holes on side of magazine well and use punch to align holes in side of magazine well.
18. Push punch until it shows on far side. This will hold magazine catch (18) in place against tension of magazine catch spring (17).
19. Place magazine catch pin (19) into hole until it is flush with magazine well.



20. Position recoil pad (20) on butt end of lower receiver (3) and align holes in recoil pad with screw holes in lower receiver.
21. Using 5/32 in. (T-27) Torx screw key, install two recoil pad screws (21) through two holes in recoil pad (19) and into two holes in stock.

**END OF WORK PACKAGE**



**UNIT****LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)****MONOPOD ASSEMBLY MAINTENANCE  
DISASSEMBLY, CLEANING, REPAIR OR REPLACEMENT, ASSEMBLY**

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**INITIAL SETUP:****Tools and Special Tools**

Small Arms Repairer Tool Kit, SC 5180-95-B71  
Torx Screwdriver Set, NSN 5120-01-167-1667  
USMC Small Arms Repairer Tool Kit, SL-3-10919A  
USMC Tool Kit, Intermediate Maintenance, M107 (SASR), SL-3-10894A  
USMC Tool Kit, Organizational Maintenance, M107 (SASR), SL-3-10893A

**Materials/Parts**

Thread-locking Compound (item 29, WP 0060 00)

**References**

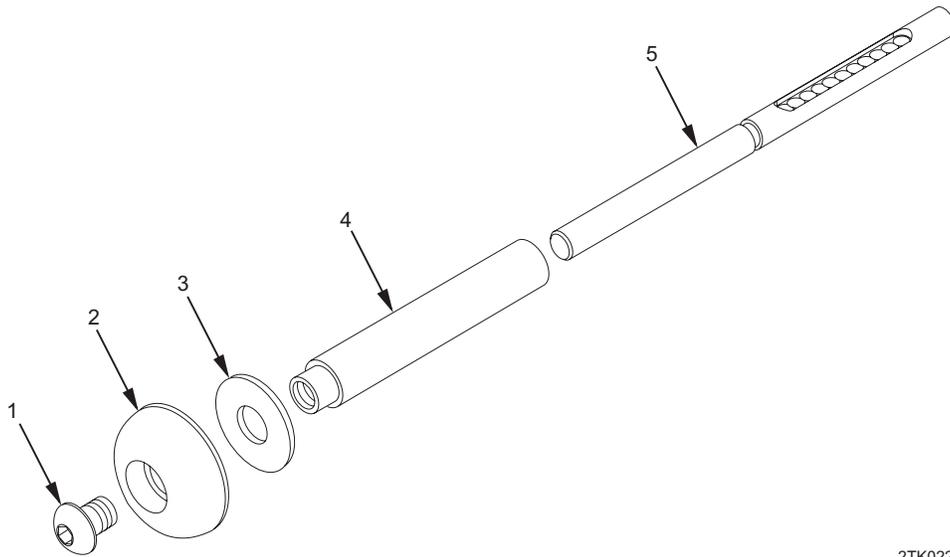
WP 0043 00

**Equipment Conditions**

Monopod assembly removed from lower receiver (WP 0016 00)

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**DISASSEMBLY**

2TK022

1. Remove monopod foot screw (1), monopod foot (2), and monopod foot washer (3) from elevation collar (4).
2. Separate monopod screw (5) from elevation collar (4).

**CLEANING**

Remove all old thread-locking compound from monopod foot screw (1) and elevation collar (4).

**REPAIR OR REPLACEMENT**

Replace defective parts as authorized by WP 0043 00.

**ASSEMBLY**

1. Apply thread-locking compound to threads of monopod foot screw (1).
2. Install monopod foot washer (3) and monopod foot (2) on elevation collar (4) and secure with monopod foot screw (1). Remove excess thread-locking compound.
3. Install monopod screw (5) into elevation collar (4).

**END OF WORK PACKAGE**

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**UNIT**

**LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)**

**CARRYING HANDLE ASSEMBLY MAINTENANCE  
REMOVAL, DISASSEMBLY, REPAIR OR REPLACEMENT, ASSEMBLY, INSTALLATION**

---

**INITIAL SETUP:**

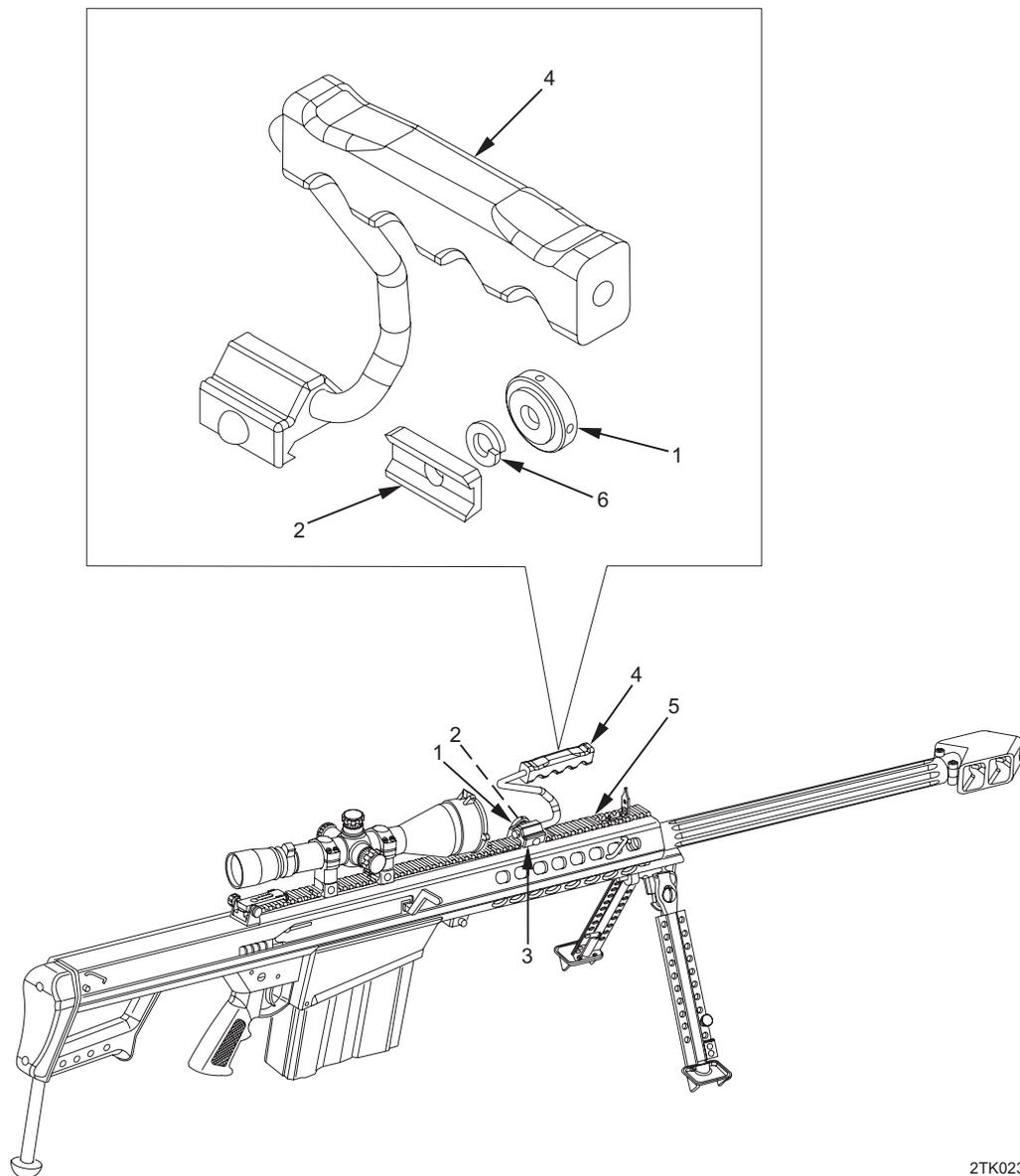
**Tools and Special Tools**

Small Arms Repairer Tool Kit, SC 5180-95-B71

**References**

WP 0045 00

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**REMOVAL**

2TK023

1. Loosen carrying handle nut (1) by turning counterclockwise.
2. Slide carrying handle clamp (2) away from body (3) of carrying handle assembly (4) and lift handle from rail (5).

**DISASSEMBLY**

Remove carrying handle nut (1), carrying handle lock washer (6), and carrying handle clamp (2) from carrying handle assembly (4).

**REPAIR OR REPLACEMENT**

Replace defective parts as authorized by WP 0045 00.

**ASSEMBLY**

Install carrying handle clamp (2) on carrying handle assembly (4) and secure with carrying handle lock washer (6) and carrying handle nut (1).

**INSTALLATION**

1. With carrying handle nut (1) loosened, position carrying handle assembly (4) on rail (5). Align carrying handle clamp (2) with body (3) of carrying handle assembly.
2. Tighten carrying handle nut (1).

**END OF WORK PACKAGE**



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**ORGANIZATIONAL****LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)****CARRYING HANDLE ASSEMBLY MAINTENANCE (USMC ONLY)  
REMOVAL, DISASSEMBLY, REPAIR OR REPLACEMENT, ASSEMBLY, INSTALLATION**

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**INITIAL SETUP:****Tools and Special Tools**

USMC Small Arms Repairer Tool Kit, SL-3-10919A  
USMC Tool Kit, Intermediate Maintenance, M107 (SASR), SL-3-10894A  
USMC Tool Kit, Organizational Maintenance, M107 (SASR), SL-3-10893A

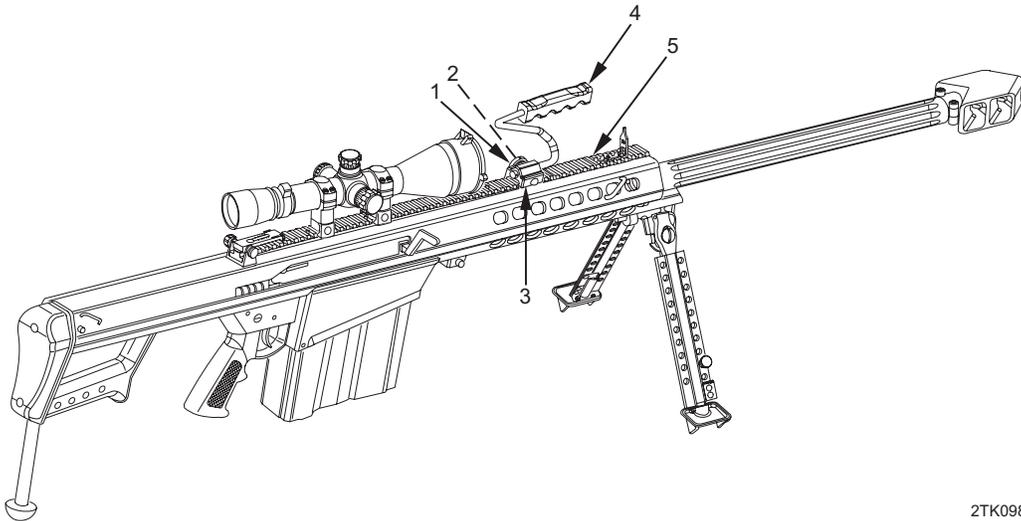
**Materials/Parts**

Spring pin, 92383A154

**References**

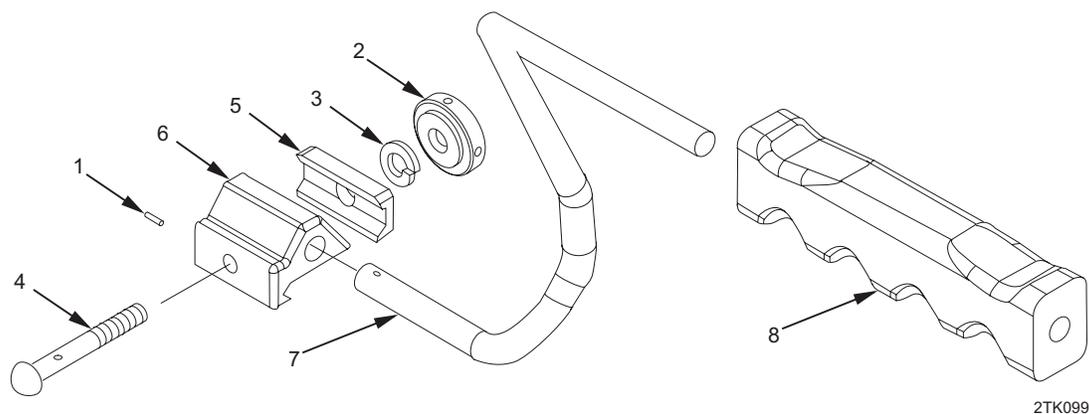
WP 0045 00

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**REMOVAL**

2TK098

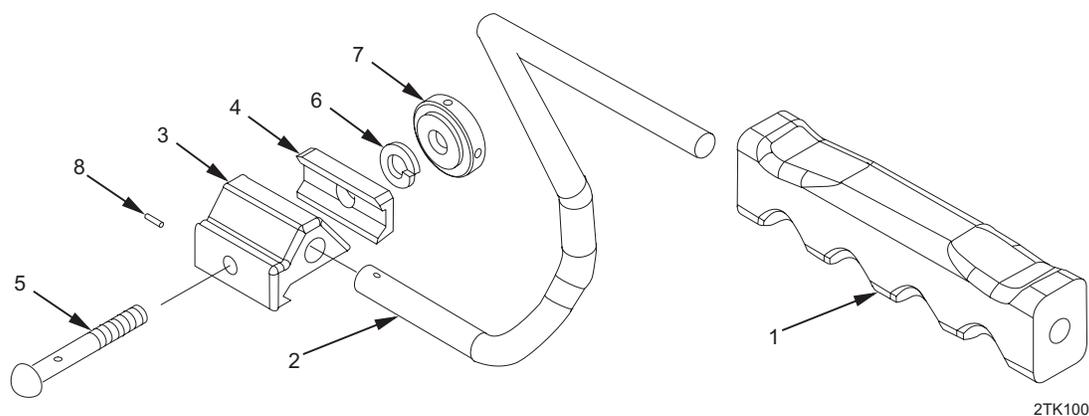
1. Loosen carrying handle nut (1) by turning counterclockwise.
2. Slide carrying handle clamp (2) away from handle mount (3) of carrying handle assembly (4) and lift handle from rail (5).

**DISASSEMBLY**

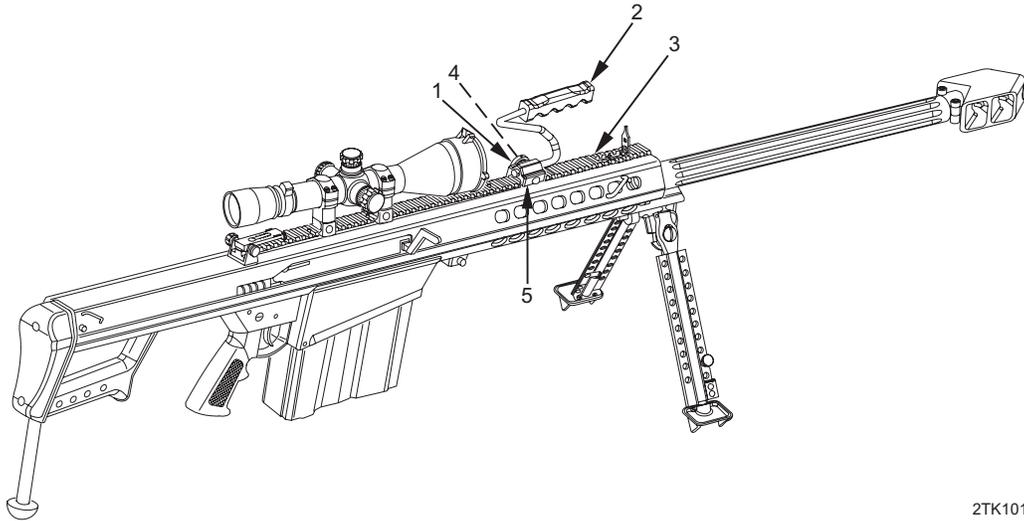
1. Remove and discard spring pin (1).
2. Remove carrying handle nut (2), carrying handle lock washer (3), clamp bolt (4), carrying handle clamp (5), and handle mount (6) from carrying handle (7).
3. Twist carrying handle stock (8) left and right to remove from carrying handle (7).

**REPAIR OR REPLACEMENT**

Replace defective parts as authorized by WP 0045 00.

**ASSEMBLY**

1. Twist and push carrying handle stock (1) left and right to install on carrying handle (2).
2. Install handle mount (3) and carrying handle clamp (4) on carrying handle (2) and secure with clamp bolt (5), carrying handle lock washer (6), and carrying handle nut (7).
3. Install new spring pin (8).

**INSTALLATION**

2TK101

1. With carrying handle nut (1) loosened, position carrying handle assembly (2) on rail (3). Align carrying handle clamp (4) with handle mount (5) of carrying handle assembly.
2. Tighten carrying handle nut (1).

**END OF WORK PACKAGE**



**UNIT**

**LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)**

**FRONT SIGHT ASSEMBLY MAINTENANCE  
REMOVAL, REPAIR OR REPLACEMENT, INSTALLATION**

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**INITIAL SETUP:**

**Tools and Special Tools**

Small Arms Repairer Tool Kit, SC 5180-95-B71

USMC Small Arms Repairer Tool Kit, SL-3-10919A

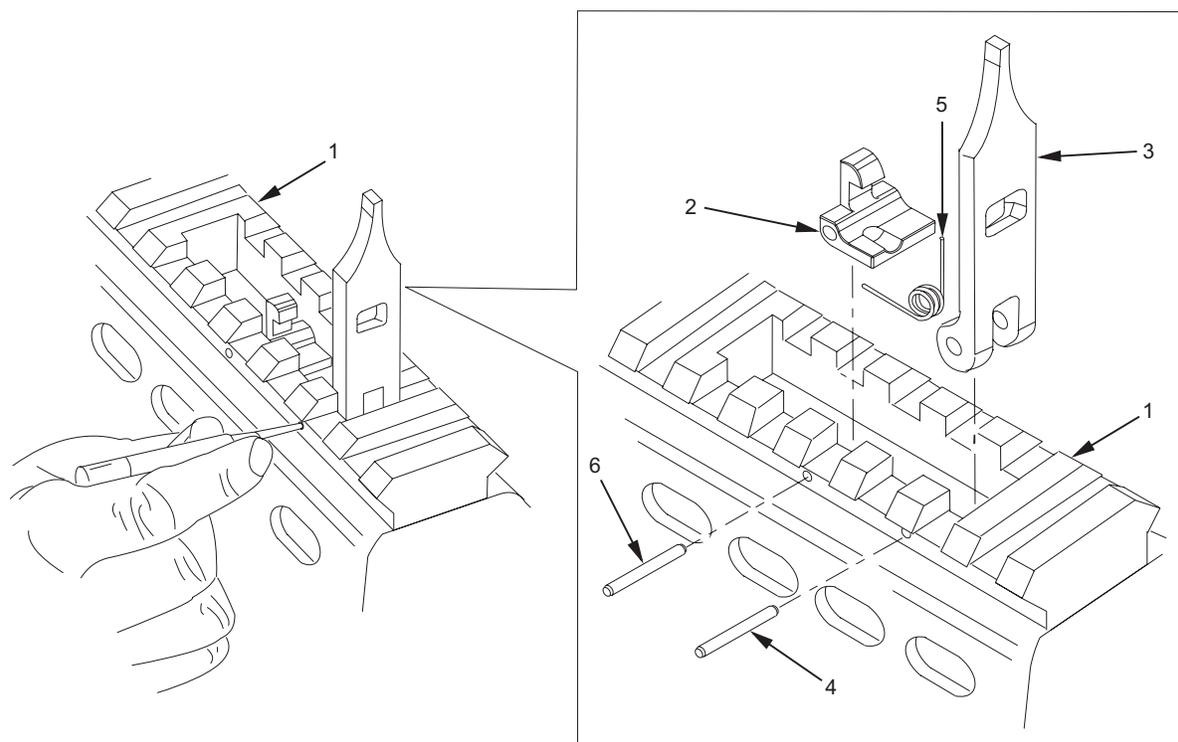
USMC Tool Kit, Intermediate Maintenance, M107 (SASR), SL-3-10894A

USMC Tool Kit, Organizational Maintenance, M107 (SASR), SL-3-10893A

**References**

WP 0046 00

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**REMOVAL**

2TK024

1. Place upper receiver assembly (1) on a firm surface.
2. Push on top of front sight catch (2) to release front sight (3) into upright position.
3. Place  $\frac{3}{32}$  in. pin punch in end of front sight pin (4). Carefully tap punch with hammer to remove front sight pin.

**CAUTION**

Use caution to avoid losing the front sight spring from front sight.

4. Hold front sight (3) in position while removing pin punch.
5. Carefully remove front sight (3) and front sight spring (5).
6. If front sight catch (2) is damaged, partially drive out front sight catch pin (6). Remove front sight catch and complete removal of front sight catch pin. Discard front sight catch pin.

**REPAIR OR REPLACEMENT**

Replace defective parts as authorized by WP 0046 00.

**INSTALLATION**

1. Place upper receiver assembly (1) on firm surface.
2. Align hole in front sight (3) with coil of front sight spring (5).
3. Lower front sight (3) and front sight spring (5) into sight well, ensuring lower arm of spring is located in slot of front sight.
4. Secure front sight (3) and front sight spring (5) in position using 1/8 inch pin punch as slave pin.
5. Using 3/32 inch pin punch, drive front sight pin (4) through holes of front sight (3) and coil of front sight spring (5).
6. If removed, install new front sight catch (2) in position in sight well. Drive in new front sight catch pin (6) to secure front sight catch.

**END OF WORK PACKAGE**



**UNIT**

**LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)**

**BOLT ASSEMBLY MAINTENANCE  
REMOVAL, DISASSEMBLY, REPAIR OR REPLACEMENT, ASSEMBLY, INSTALLATION**

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**INITIAL SETUP:****Tools and Special Tools**

Small Arms Repairer Tool Kit, SC 5180-95-B71

USMC Small Arms Repairer Tool Kit, SL-3-10919A

USMC Tool Kit, Intermediate Maintenance, M107 (SASR), SL-3-10894A

USMC Tool Kit, Organizational Maintenance, M107 (SASR), SL-3-10893A

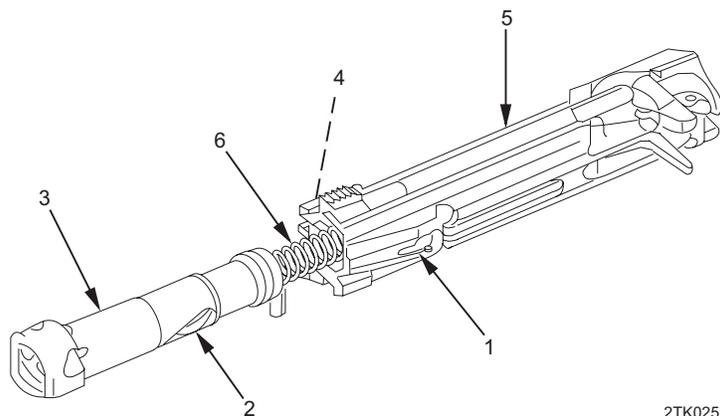
**References**

WP 0050 00

**Equipment Conditions**

Bolt and carrier assembly removed (WP 0015 00)

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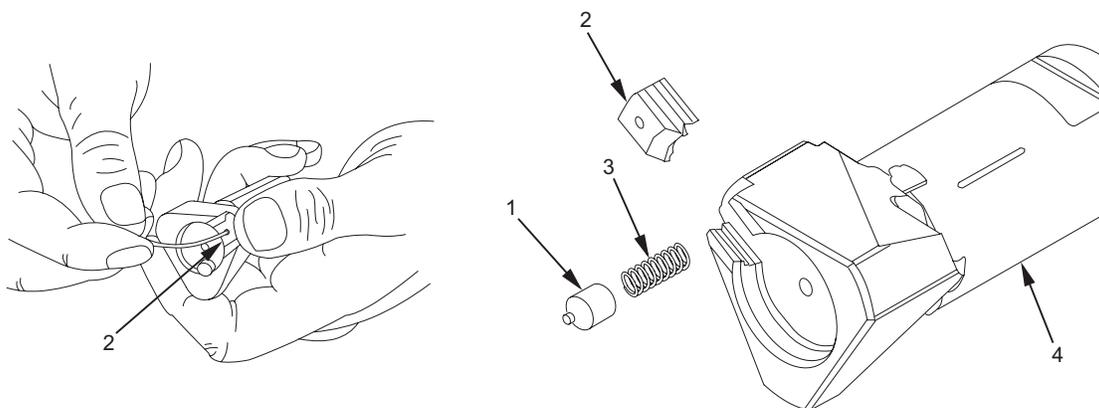
**REMOVAL**

2TK025

**WARNING**

If cam pin assembly is lifted too far, the spring may lose tension. If this occurs, the weapon could malfunction or the weapon could fire when unlocked, with the potential for serious injury.

1. Using rear lock pin or 1/8 in. punch, disengage cam pin assembly (1). Lift or pry cam pin spring up just far enough to clear cam groove (2) in bolt assembly (3).
2. Depress bolt latch (4) on its rearward portion. At this point bolt assembly (3) should spring forward.
3. Grasp bolt assembly (3) and remove it from carrier (5), being careful not to lose or deform bolt spring (6).

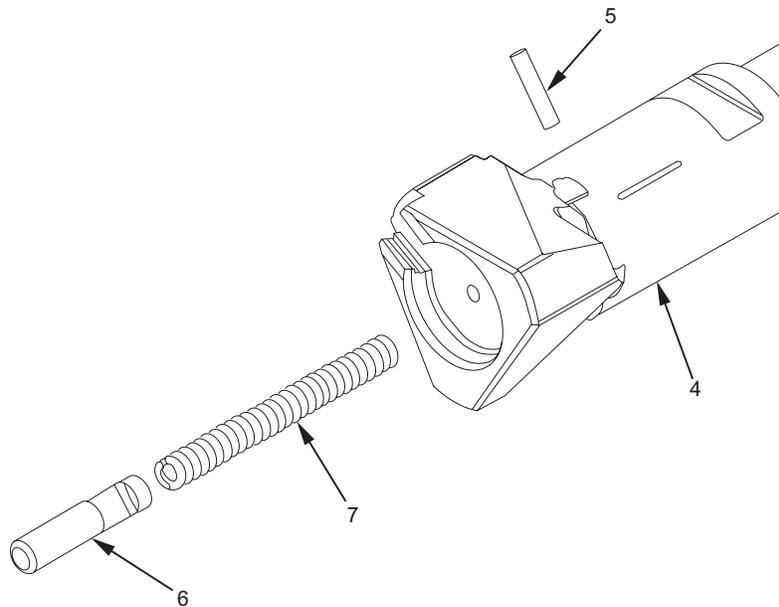
**DISASSEMBLY**

2TK026

**WARNING**

Point bolt away from face while disassembling extractor/ejector. Injury may result if parts fly free.

1. Depress extractor plunger (1) by inserting 1/16 in. pin punch through hole of extractor (2) while simultaneously sliding extractor towards firing pin hole.
2. Remove extractor (2), extractor spring (3), and extractor plunger (1) from bolt (4). Use care to contain the spring and plunger.



2TK027

**NOTE**

Cup hand over front of bolt, prior to removing punch, to enable catching of ejector spring and ejector.

3. Place bolt (4) on firm surface. Placing end of 1/16 in. pin punch on end of ejector pin (5), lightly tap punch with hammer to remove pin.
4. Remove ejector (6) and ejector spring (7) from bolt (4).

**REPAIR OR REPLACEMENT**

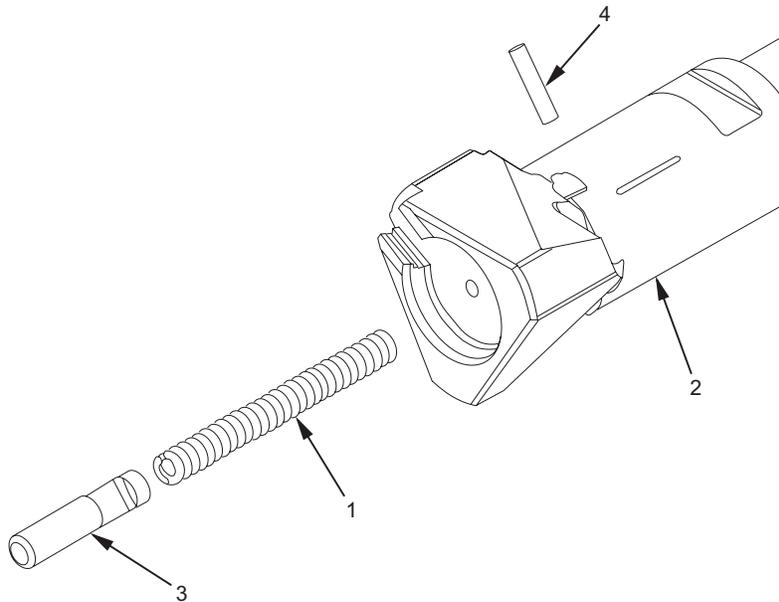
Replace defective parts as authorized by WP 0050 00.

**ASSEMBLY****WARNING**

Point bolt away from face while assembling extractor/ejector. Injury may result if parts fly free.

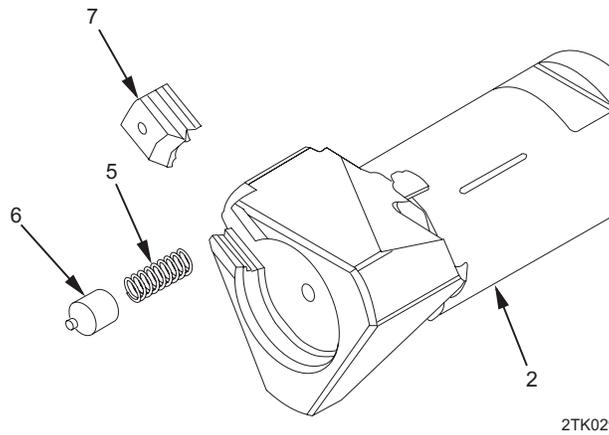
**NOTE**

Assistance may be required to assemble the ejector.



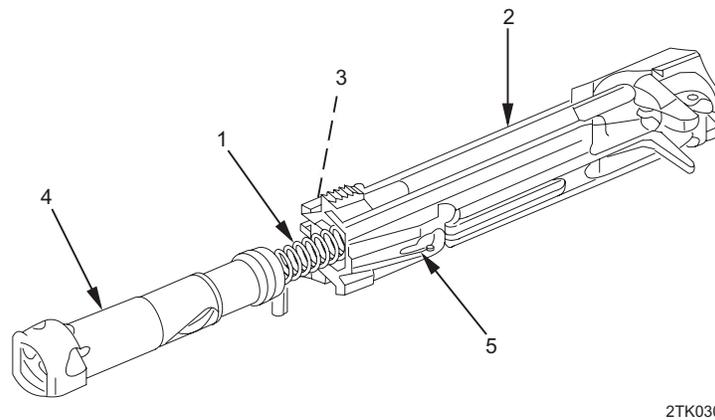
2TK028

1. Insert ejector spring (1) into bolt (2).
2. Insert ejector (3) into bolt (2).
3. Place a fired brass cartridge into a vise with the base of the cartridge facing outward. Push bolt (2), breech face first, onto the base of the cartridge and carefully tap in ejector pin (4).



4. Insert extractor spring (5) into bolt (2).
5. Press extractor plunger (6) into bolt (2) and slide extractor (7) over extractor plunger until hole in extractor is over extractor plunger.

**INSTALLATION**



1. Ensure bolt spring (1) is in bolt carrier (2). Depress bolt latch (3) and install bolt assembly (4) into bolt carrier, with cam groove at the bottom.
2. Compress bolt assembly (4) against bolt spring (1) until cam pin assembly (5) slips into cam groove.

**END OF WORK PACKAGE**



**UNIT**

**LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)**

**CARTRIDGE MAGAZINE MAINTENANCE  
DISASSEMBLY, REPAIR OR REPLACEMENT, ASSEMBLY**

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**INITIAL SETUP:****Tools and Special Tools**

Small Arms Repairer Tool Kit, SC 5180-95-B71

USMC Small Arms Repairer Tool Kit, SL-3-10919A

USMC Tool Kit, Intermediate Maintenance, M107 (SASR), SL-3-10894A

USMC Tool Kit, Organizational Maintenance, M107 (SASR), SL-3-10893A

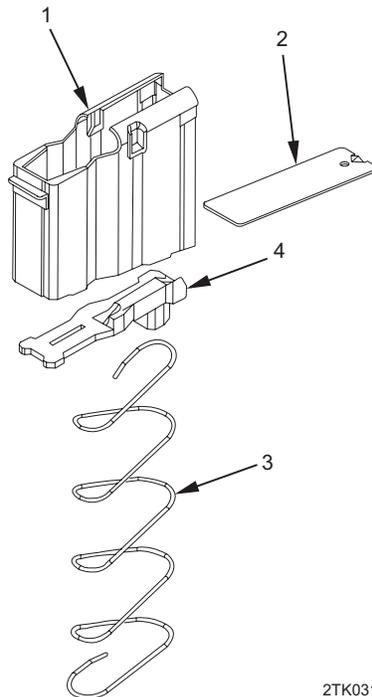
**References**

WP 0053 00

**Equipment Conditions**

Cartridge magazine removed from weapon (WP 0015 00)

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**DISASSEMBLY**

2TK031

**WARNING**

Wear eye protection to prevent injury from spring-loaded parts, particularly when removing the magazine base plate.

**NOTE**

Disassembling the magazine is not recommended as a matter of routine maintenance, but it may become necessary for repairs.

1. Hold magazine tube (1) upside down on a firm surface and place end of 1/8 in. punch in hole located on base plate (2). Gently pry upwards to clear locking flange on base plate, and slide base plate off magazine tube. (It may be necessary to tap base plate a few times with punch to get it started).
2. Control magazine spring (3) as base plate (2) is removed. Withdraw magazine spring and magazine follower (4) from magazine tube (1).

**REPAIR OR REPLACEMENT**

Replace defective parts as authorized by WP 0053 00.

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**ASSEMBLY****WARNING**

Wear eye protection to prevent injury from spring-loaded parts, particularly when replacing the magazine base plate.

1. Ensure that loop of magazine spring (3) is around protrusion located on bottom of magazine follower (4).
2. Install magazine follower (4) and magazine spring (3) into magazine tube (1). Secure with base plate (2).
3. After cartridge magazine has been reassembled, check for proper functioning by loading it with five dummy rounds and pushing downward on the dummy rounds. They should move freely without binding.

**END OF WORK PACKAGE**



**UNIT****LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)****OPTIC MOUNT SYSTEM AND SCOPE RING ASSEMBLY MAINTENANCE  
REMOVAL, DISASSEMBLY, CLEANING, REPAIR OR REPLACEMENT, ASSEMBLY, INSTALLATION**

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**INITIAL SETUP:****Tools and Special Tools**

Deployment Kit Tool Kit, TK-1 (item 1, WP 0038 00)  
Small Arms Repairer Tool Kit, SC 5180-95-B71  
Torx Screwdriver Set, NSN 5120-01-167-1667  
USMC Small Arms Repairer Tool Kit, SL-3-10919A  
USMC Tool Kit, Intermediate Maintenance, M107 (SASR), SL-3-10894A  
USMC Tool Kit, Organizational Maintenance, M107 (SASR), SL-3-10893A

**Materials/Parts**

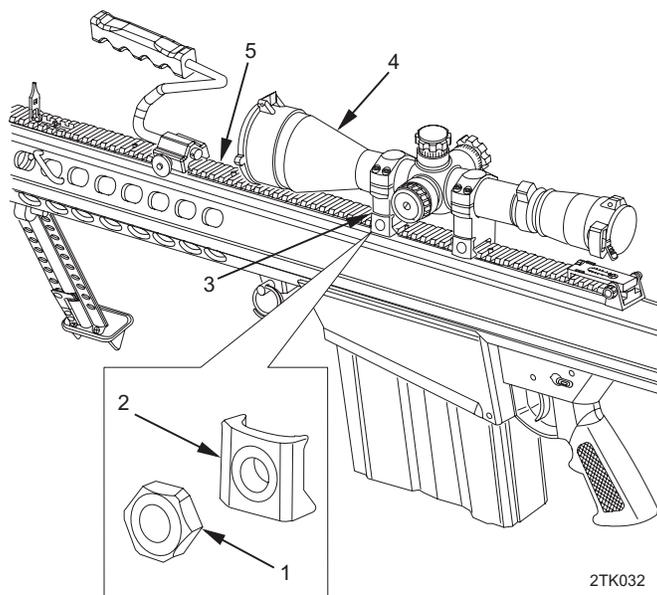
Artist Brush (item 7, WP 0060 00)  
Cleaner, Lubricant, and Preservative (CLP) (item 13, WP 0060 00)  
General Purpose Cleaning Brush (item 10, WP 0060 00)  
Isopropyl Alcohol (item 2, WP 0060 00)  
Lens Paper (item 24, WP 0060 00)  
Optical Lens Cleaning Compound (item 15, WP 0060 00)  
Wiping Rag (item 26, WP 0060 00)

**References**

WP 0010 00  
WP 0055 00

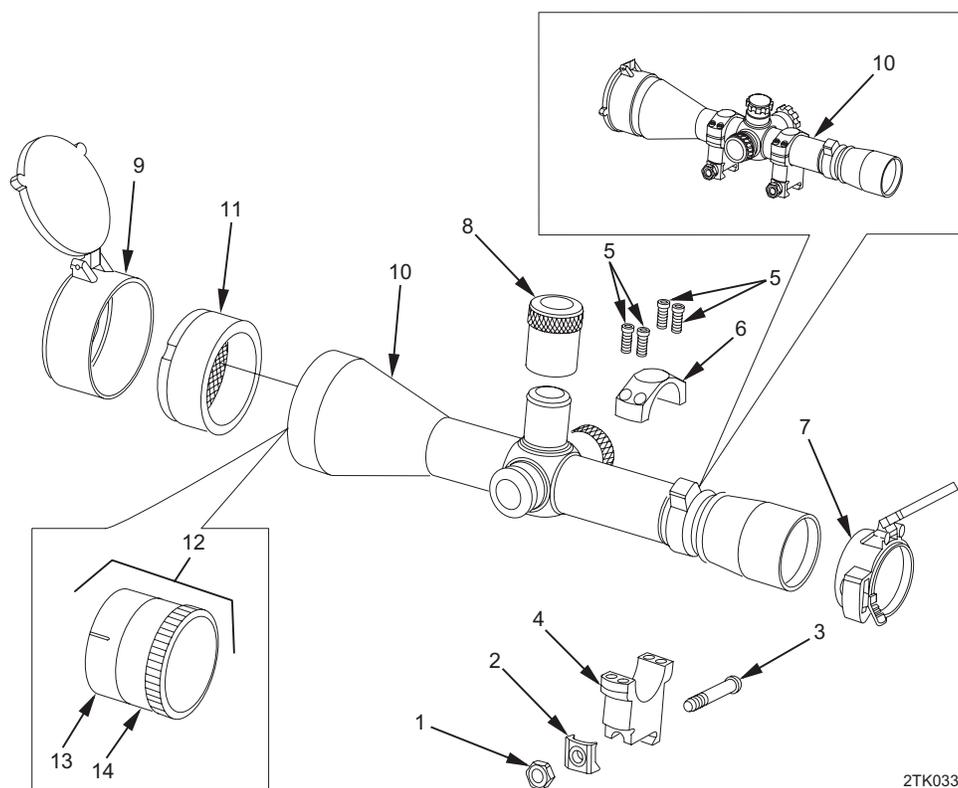
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**REMOVAL**



1. Loosen two bolt nuts (1) using 1/2 in. box end wrench by turning counterclockwise.
2. Slide two bolt keepers (2) away from two scope rings (3) and lift scope (4) off rail (5).

**DISASSEMBLY**



1. Remove bolt nut (1), bolt keeper (2), and scope ring bolt (3) from bottom scope ring (4).
2. Remove four scope ring screws (5) from top scope ring (6) and separate top scope ring from bottom scope ring (4).
3. Repeat steps 1 and 2 with other scope ring assembly.

### **NOTE**

Scope, P/N 54560, does not use adjustment turret caps.

4. Remove eyepiece lens cover (7), three adjustment turret caps (8), and objective lens cover (9) from scope (10).
5. Remove anti-reflective device (11) or, if present, laser filter unit (12) from scope (10).
6. If damaged, separate laser filter cell (13) from knurled lock ring (14).

### **CLEANING**

#### **CAUTION**

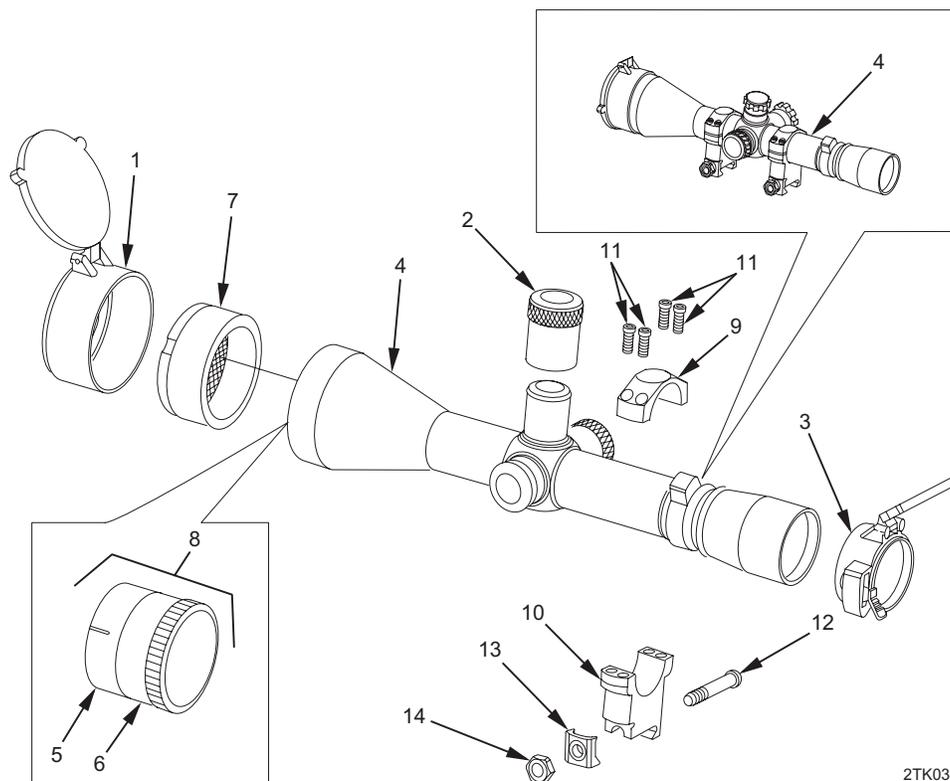
Use extreme care to protect lenses from solvents and scratches.

1. Remove dust, lint, and dirt from the lenses and exterior of the scope using a clean artist brush.
2. To remove smudges from the lenses, sparingly apply optical lens cleaning compound and wipe off moisture with lens paper. If lens paper is not available, use a soft, clean, dry cloth.
3. Keep all hexagon screw fittings clear of mud and dirt. If they become clogged, use a general purpose cleaning brush or similar item to remove the debris.
4. Keep lenses free of oil and grease. Use isopropyl alcohol with lens paper to remove fingerprints, oil spots, etc. Pat the lens; do not scrub.
5. After cleaning, apply a very light coat of CLP to the scope body.

### **REPAIR OR REPLACEMENT**

Replace defective parts as authorized by WP 0055 00.

## ASSEMBLY



2TK034

**NOTE**

Scope, P/N 54560, does not use adjustment turret caps.

1. Install objective lens cover (1), three adjustment turret caps (2), and eyepiece lens cover (3) on scope (4).
2. If separated, install laser filter cell (5) on knurled lock ring (6).
3. Install anti-reflective device (7) or, if desired, laser filter unit (8) on scope (4).
4. Position top scope ring (9) and bottom scope ring (10) around scope (4) and secure with four scope ring screws (11), using T15 T-handle Torx screwdriver.
5. Install scope ring bolt (12), bolt keeper (13), and bolt nut (14) on bottom scope ring (10).
6. Repeat steps 2 and 3 with other scope ring assembly.





**ORGANIZATIONAL****LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)****HEADSPACE PROCEDURE  
(USMC ONLY)**

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**INITIAL SETUP:****Tools and Special Tools**

- USMC Small Arms Repairer Tool Kit, SL-3-10919A
- USMC Tool Kit, Intermediate Maintenance, M107 (SASR), SL-3-10894A
- USMC Tool Kit, Organizational Maintenance, M107 (SASR), SL-3-10893A

**References**

- WP 0030 00
  - WP 0034 00
- 

**HEADSPACING**

This work package contains the procedures and instructions necessary to perform organizational and intermediate maintenance checks and services on the Special Application Scoped Rifle (SASR).

**Organizational Maintenance Headspace Procedure**

1. Clean the chamber and locking surfaces in the barrel.
2. Remove the ejector pin, ejector, and ejector spring from the bolt. See WP 0034 00.
3. Clean the bolt face, bolt lugs, and locking surfaces.

**NOTE**

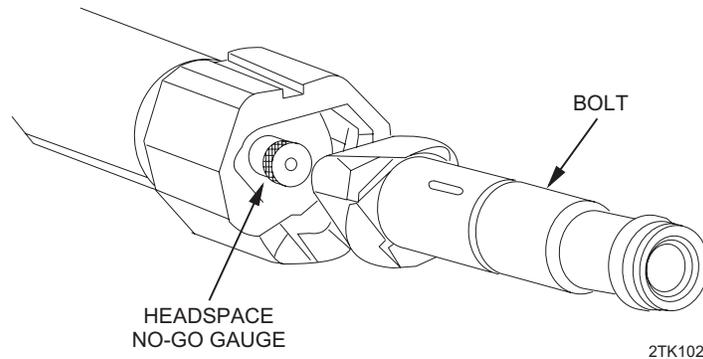
Ensure the barrel is not forward in the upper receiver before performing headspace procedures.

4. Turn upper receiver upside down and remove the barrel key from the barrel. See WP 0030 00. Slide the barrel back into the upper receiver and rotate 1/2 turn (180 degrees).

**HEADSPACING - Continued****Organizational Maintenance Headspace Procedure - Continued****NOTE**

Organizational maintenance is authorized to use only the no-go headspace gauge for inspecting chamber headspace.

5. Insert the headspace NO-GO gauge into the chamber of the barrel.

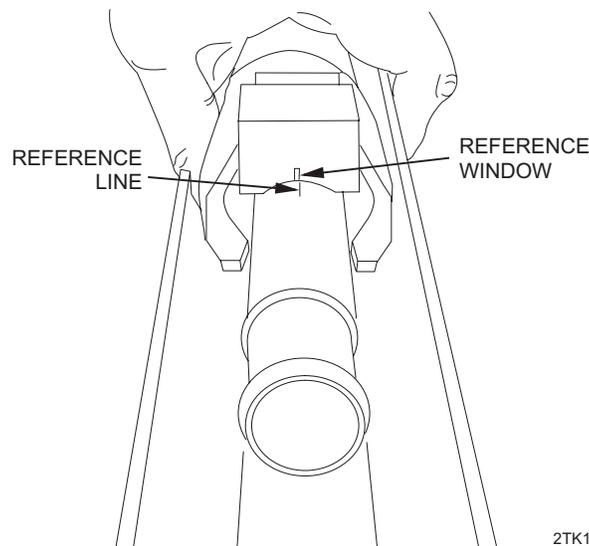


6. Insert the bolt into the barrel extension, applying gentle pressure for the extractor to grasp the rear of the gauge. The extractor can be removed from the bolt if desired.
7. Install the bolt alignment insert onto the barrel extension.

**NOTE**

Ensure bolt is facing with the bolt reference line on top.

8. Rotate the bolt clockwise until it stops.
9. With the headspace NO-GO gauge inserted, the bolt reference line should not fall past the reference window on the bolt alignment insert.



10. If the headspace is found to be unserviceable, evacuate the weapon to the next higher level of maintenance.

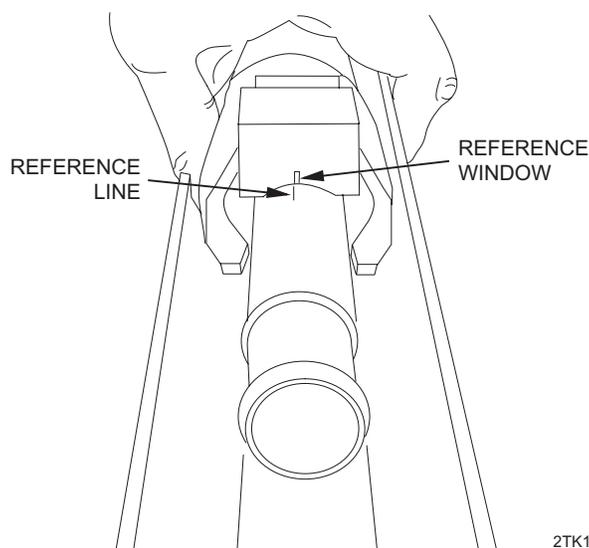
### Intermediate Maintenance Headspace Procedure

#### CAUTION

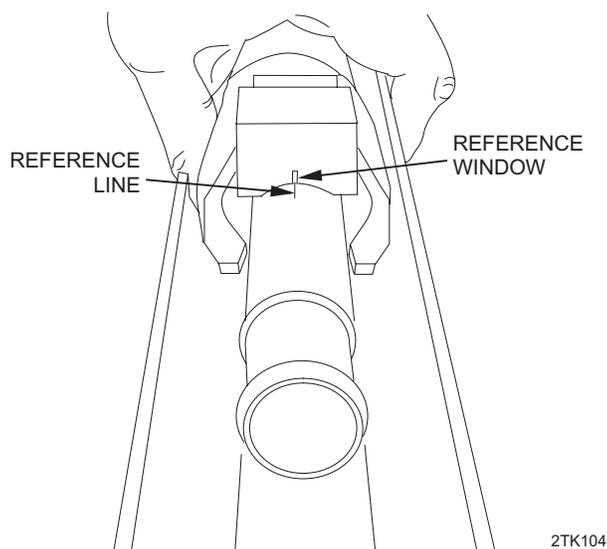
Always check the chamber headspace with the GO gauge first. The bolt should close completely. This ensures there are no obstructions in the chamber area.

Repeat steps 1 through 8 in the organizational maintenance headspace procedure. To measure headspace, use the NO-GO gauge and the test bolt provided in the Intermediate Maintenance SASR kit.

- a. If the reference line on the test bolt falls before the reference window, then a #9 bolt is required.

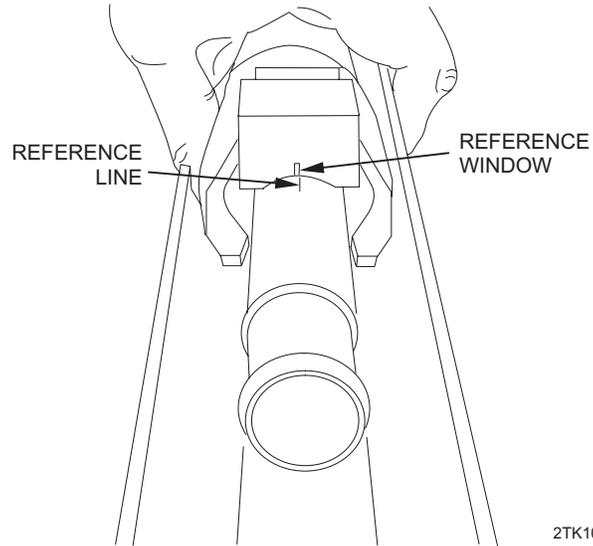


- b. If the reference line on the test bolt falls within the reference window, then a #10 bolt is required.



**HEADSPACING - Continued****Intermediate Maintenance Headspace Procedure - Continued**

- c. If the reference line on the test bolt falls after the reference window, then the barrel is unserviceable and must be replaced.



2TK105

**END OF WORK PACKAGE**

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**ORGANIZATIONAL****LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)****FUNCTIONAL CHECK  
(USMC ONLY)**

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**FUNCTIONAL CHECK**

Whenever the weapon is disassembled beyond normal field stripping, perform a functional check when the weapon is reassembled. This quick check indicates whether or not the weapon has been properly assembled with all of its components. A functional check can also reveal the more obvious malfunctions that occur between interactive components of the weapon. To complete a functional check, perform the following procedures:

- a. Load ten .50 caliber dummy rounds in magazine.
- b. Insert the magazine into the weapon.
- c. Retract bolt fully to rear and release to chamber the first round.
- d. With the weapon on SAFE, attempt to fire the weapon. The weapon should not fire.
- e. With the weapon on FIRE, attempt to fire the weapon. The weapon should fire.
- f. While holding the trigger to the rear, pull the bolt all the way to the rear and release the bolt.
- g. Release the trigger. A click should be heard and the weapon should fire.
- h. Repeat steps f and g at least three times to ensure proper functioning.
- i. Cycle the bolt through the remaining rounds to ensure proper feeding, chambering, extracting, and ejecting.

**END OF WORK PACKAGE**



**CHAPTER 5**

**DIRECT SUPPORT  
MAINTENANCE INSTRUCTIONS  
FOR  
LONG RANGE SNIPER RIFLE, M107**

**(PORTIONS OF THIS CHAPTER ARE  
ALSO INTENDED FOR ORGANIZATIONAL  
LEVEL, MARINE CORPS USE ONLY)**



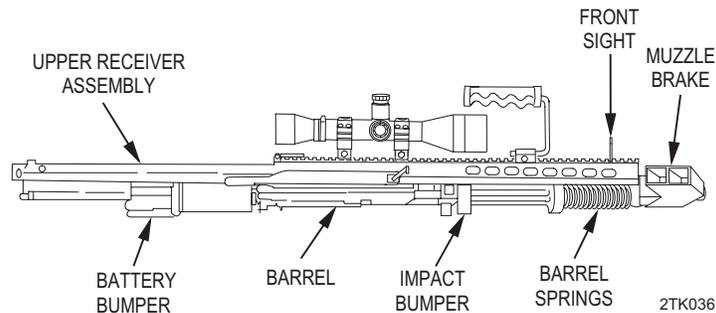
**DIRECT SUPPORT****LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)****SERVICE UPON RECEIPT  
SERVICE UPON RECEIPT OF MATERIEL****SERVICE UPON RECEIPT OF MATERIEL****WARNING**

To avoid injury, always assume that every weapon is loaded until personal inspection has determined that it is not. Procedures for clearing/unloading the weapon are outlined in TM 9-1005-239-10.

**Checking Unpacked Equipment**

Ensure that all components are present and inspect for obvious damage. Conduct detailed inspection as follows:

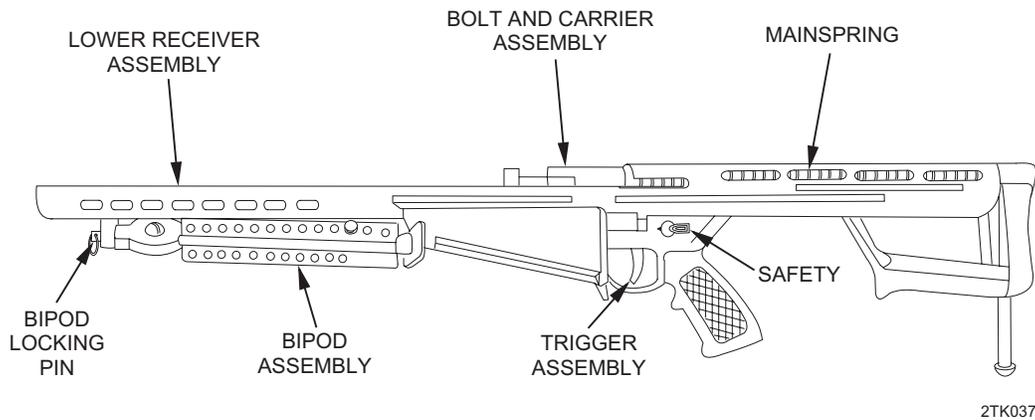
## 1. Upper Receiver Assembly.



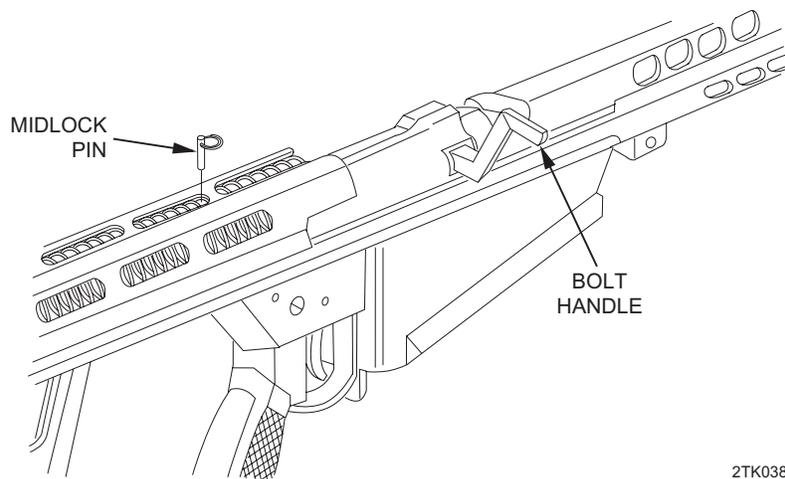
- a. Barrel springs must not be over-stretched and each coil should be tight, without twisting or spaces between coils.
- b. Impact bumper and battery bumper should be in good condition (not frayed or cracked).
- c. Muzzle brake should be tight and fully installed.
- d. Upper receiver assembly should not be cracked, bent, or burred. Pay special attention to hinge lip at front of receiver to ensure that it is not cracked, bent, or deformed in any way.
- e. Barrel should be clean and free of obstruction.
- f. All scope mountings (if scope is present) should be tight, in good condition, and free of oil. Front sight may be lightly oiled at pivot points to prevent corrosion.

**SERVICE UPON RECEIPT OF MATERIEL - Continued**

## 2. Lower Receiver Assembly.



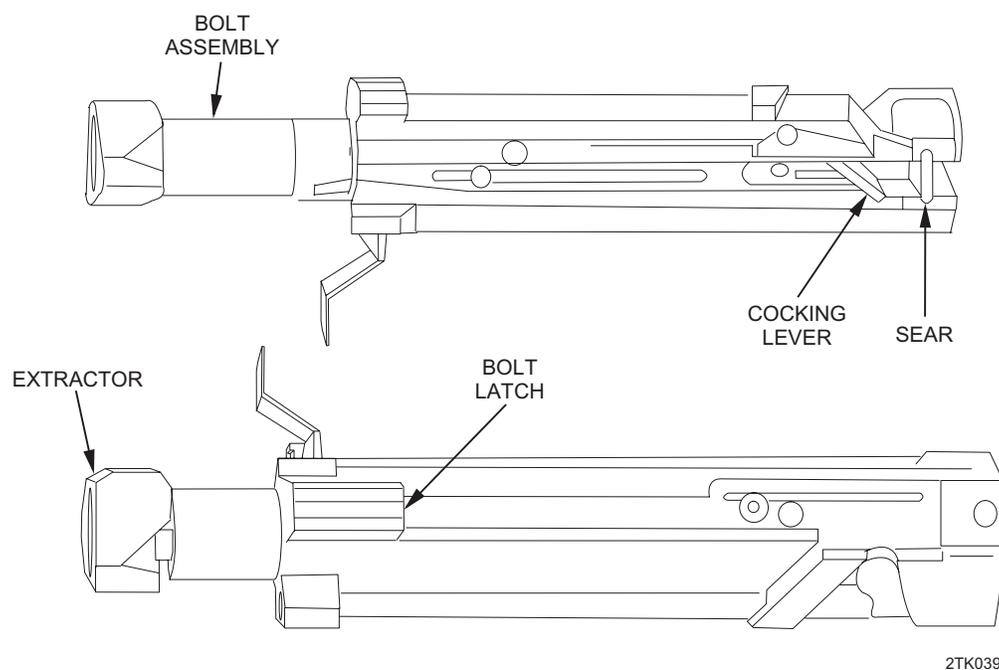
- a. The bolt and carrier assembly is held in place under tension in the lower receiver by the midlock pin, which extends through a locking hole in the receiver's sheet metal.



Standing above and to the rear of the lower receiver, grasp the bolt handle with the right hand and carefully pull back, against tension, while withdrawing the midlock pin from its retaining hole. Allow the bolt carrier to come forward **SLOWLY** until there is no more spring tension and it rests in the lower receiver.

With bolt carrier in place, pull it rearward and check to see that the mainspring moves freely (full travel) and is not deformed.

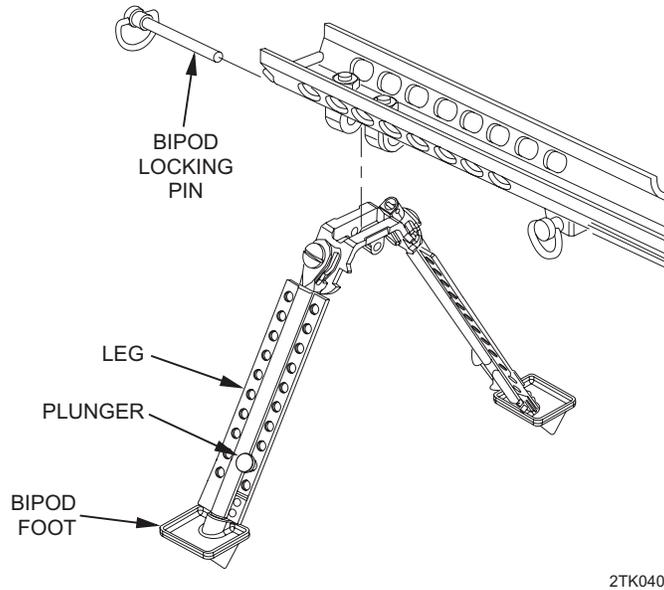
- b. Hold bolt carrier back and down approximately 1/4 in. under mainspring housing (sheet metal closure). With thumb safety on **FIRE**, pull trigger. Firing mechanism should function (a slight rise in bolt carrier is normal). If housing is bent, bolt carrier will rise excessively as trigger is pulled, preventing proper functioning.
- c. Lower receiver assembly should not be cracked, bent, or burred.
- d. Check bipod assembly and mounting hardware to see that legs extend and hardware functions properly.



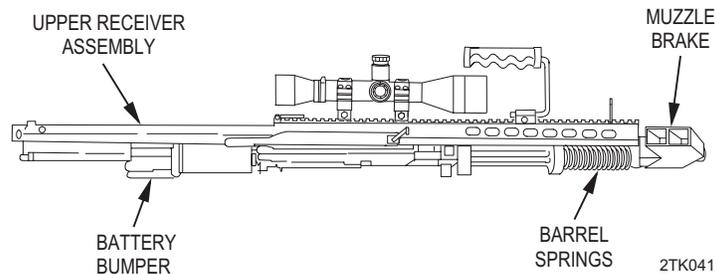
- e. Using a 1/4 in. punch to push down, check ejector and extractor to ensure that they are under spring tension and neither chipped nor worn.
- f. Cock cocking lever. Push down sear releasing firing pin. Depress bolt latch. Push bolt into carrier and inspect for firing pin protrusion. Check firing pin hole (on bolt face) to ensure that it is not eroded or elongated. Bolt face should not be pitted.
- g. Inspect bolt latch; it should show no deformation.
- h. Swing cocking lever forward. Sear should capture firing pin extension before cocking lever is fully depressed.

**SERVICE UPON RECEIPT OF MATERIEL - Continued**

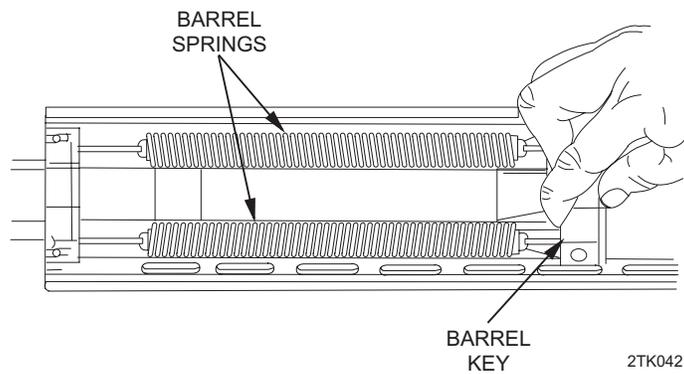
**Assembly of Equipment**



1. Grasp lower receiver. Extend bipod legs by pulling legs down to front, where they will lock into place. Pulling on feet of bipod causes legs to extend. To retract a leg, depress plunger located on bipod leg and push on foot. Place receiver on level surface. Pull down on leg and wing back into position along receiver.



2. Carefully pick up upper receiver assembly. Barrel will be nested inside it for compact storage. Move bumper rings into position on either side of receiver's central barrel bushing, so that they rest snugly against bushing. Align barrel so that its feed ramp (slanted entry to firing chamber) is to bottom. Keeping fingers away from barrel, hold upper receiver horizontally and then tilt in direction of muzzle. Barrel should fall into place, at its full forward extension in receiver.

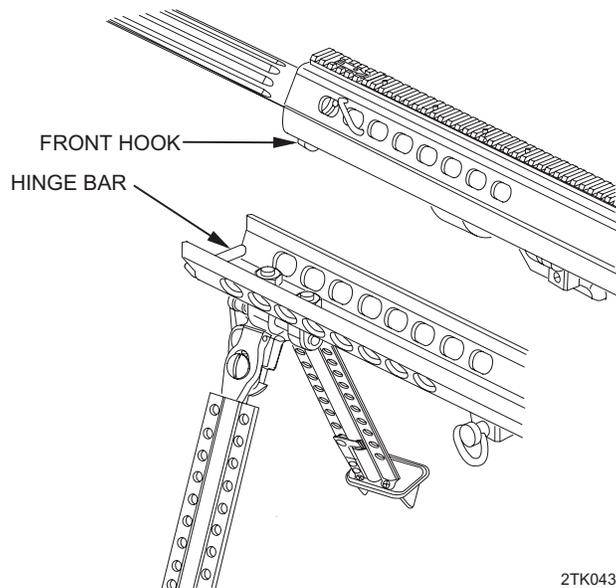


### WARNING

The tension on the barrel springs is about 70 lb (31.8 kg). Serious injury can result if springs are released suddenly.

Incomplete or improper assembly may result in injury.

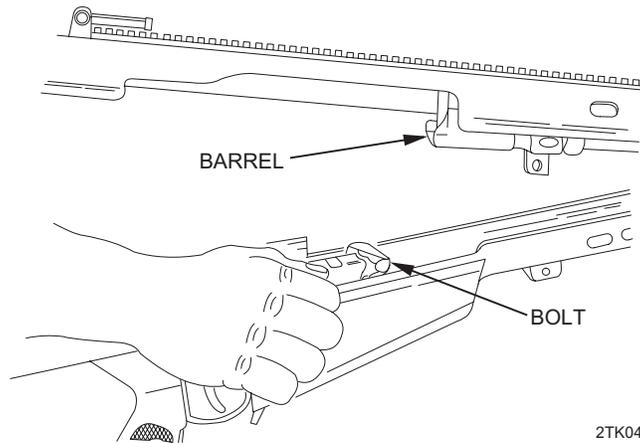
- Barrel springs in upper receiver are held in place by a spring yoke, the barrel key. Maintaining the downward tilt of upper receiver (to keep barrel in place), firmly grasp barrel key, not springs, and pull it into place on forward slot of barrel. Work key from side to side until it is firmly seated in barrel slot. Upper receiver is now fully assembled.



### CAUTION

Be sure that hook and bar are properly mated so final assembly motion does not damage rifle.

- Engage front hook of upper receiver over hinge bar of lower receiver assembly. Take position directly behind rifle and grasp bolt charging handle. Withdraw bolt against mainspring tension so bolt will clear barrel when upper receiver is lowered.

**SERVICE UPON RECEIPT OF MATERIEL - Continued**

5. Lower and close upper receiver onto lower receiver. Release charging handle slowly until bolt engages barrel.

**WARNING**

Do not fire rifle without midlock and rear lock pins firmly in place. Serious injury or death could result.

6. Place midlock pin through hole near center bottom of rifle until it snaps fully into place to lock upper and lower receivers together. Insert rear lock pin from right to left through rear (buttstock) hole to complete mating of receivers.

**END OF WORK PACKAGE**

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**DIRECT SUPPORT****LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)****CORRECTIVE MAINTENANCE (USMC ONLY)**

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**GENERAL**

This work package describes disassembly, inspection, and reassembly procedures required for corrective maintenance on the Special Application Scoped Rifle (SASR).

1. Organizational Maintenance. Organizational maintenance is performed at the using unit beyond the capabilities of the operator as identified in TM 9-1005-239-10. Organizational maintenance may replace parts in accordance with the source, maintenance, and recoverability (SMR) codes in the parts list.
2. Intermediate Maintenance. Intermediate maintenance may replace parts in accordance with the SMR codes in the parts list.
3. Special Tools. WP 0059 00 lists the special tools required in the small arms technician's toolbox. A qualified MOS 2111 (Small Arms Repairman) will replace weapon components. Either a qualified MOS 2112 (Precision Weapons Repairman) or a MOS 2171 (Optical Instrument Repairman) may repair and replace the telescope.
4. Depot Maintenance. Weapons Training Battalion, Quantico, VA, functions as the weapons rebuild facility and performs both intermediate and depot maintenance.

**END OF WORK PACKAGE**



**DIRECT SUPPORT  
(ORGANIZATIONAL LEVEL FOR MARINE CORPS USE ONLY)**

**LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)**

**LOWER RECEIVER ASSEMBLY AND TRIGGER ASSEMBLY MAINTENANCE  
REMOVAL, REPAIR OR REPLACEMENT, INSTALLATION**

**INITIAL SETUP:**

**Tools and Special Tools**

Shop Set, Small Arms: Field Maintenance, Basic, SC 4933-95-A11  
USMC Small Arms Repairer Tool Kit, SL-3-10919A  
USMC Tool Kit, Intermediate Maintenance, M107 (SASR), SL-3-10894A  
USMC Tool Kit, Organizational Maintenance, M107 (SASR), SL-3-10893A

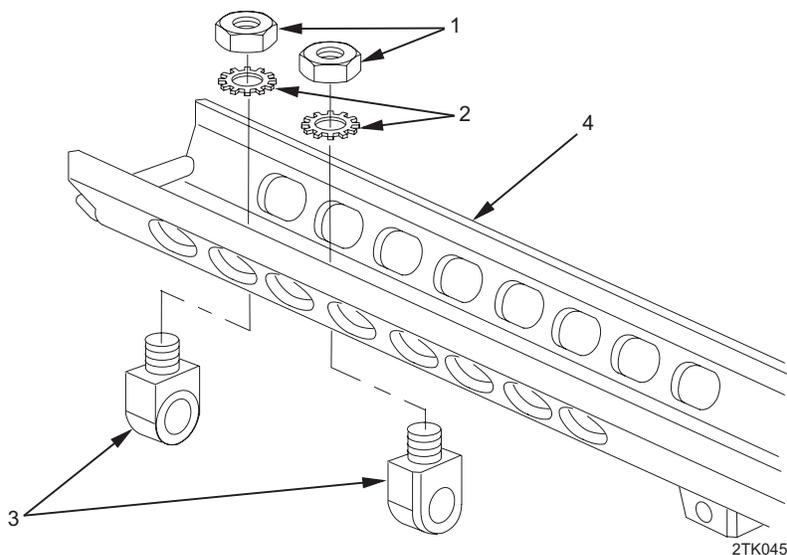
**References**

WP 0041 00

**Equipment Conditions**

Lower receiver assembly partially disassembled (WP 0016 00)  
Bipod assembly removed from lower receiver assembly (WP 0035 00)

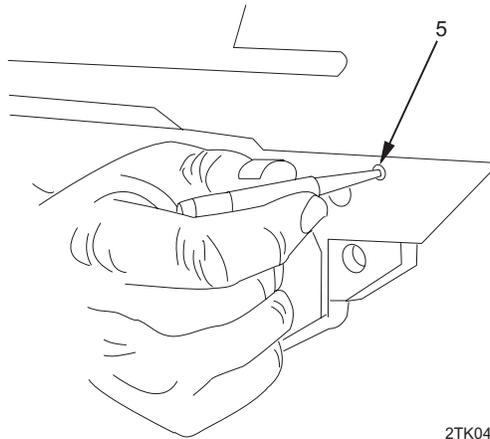
**REMOVAL**



**NOTE**

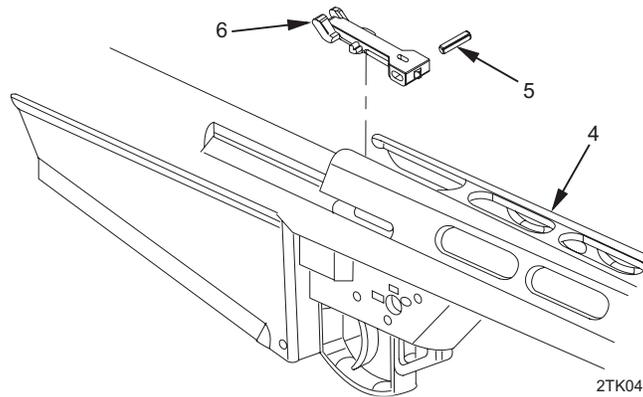
Yoke mount contains bushing. Retain for reassembly.

1. Using socket wrench handle and 11/16 in. socket with extension, remove two yoke mount nuts (1), two yoke mount washers (2), and two yoke mounts (3) from lower receiver (4).

**REMOVAL - Continued**

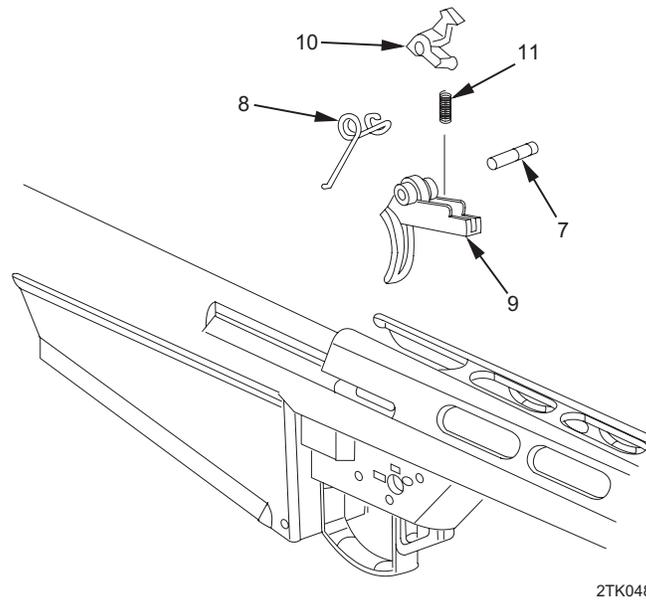
2TK046

2. Remove transfer bar pin (5) (behind safety in trigger housing) by placing 5/32 in. punch on pin and tapping it out with hammer.



2TK047

3. Remove transfer bar assembly (6) from lower receiver (4).



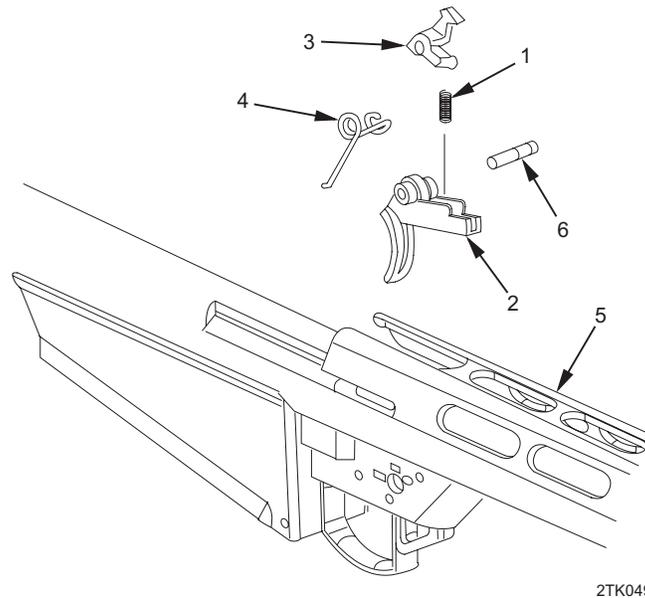
2TK048

4. Remove trigger housing pin (7) (in front of safety in trigger housing) by placing  $5/32$  in. punch on pin and tapping it out with hammer.
5. Gently lift trigger spring (8) over protrusions in side of trigger (9). Separate disconnecter (10) and disconnecter spring (11) from trigger.

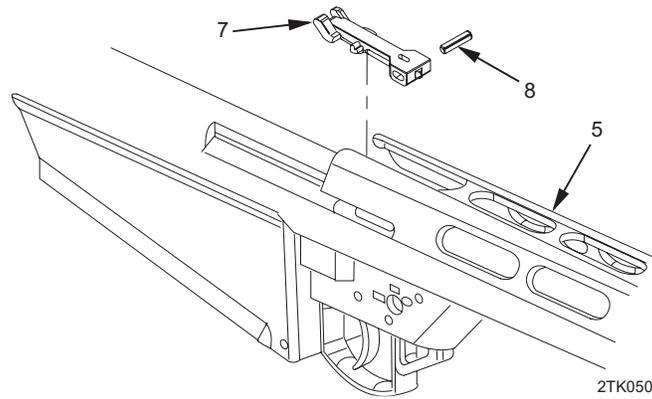
#### REPAIR OR REPLACEMENT

Replace defective parts as authorized by WP 0041 00.

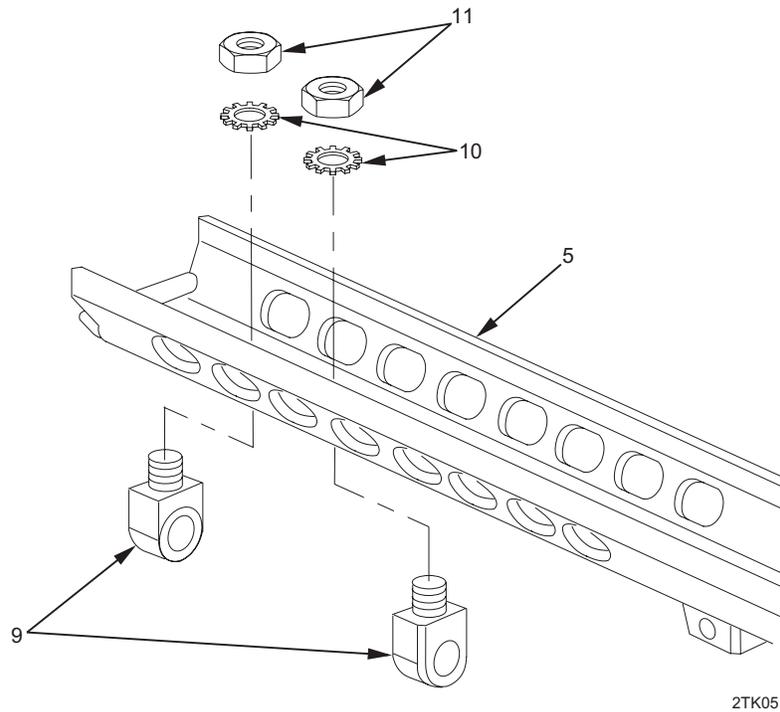
## INSTALLATION



1. Place disconnector spring (1) in top of trigger (2).
2. Insert disconnector (3) into slot on top of trigger (2), ensuring that disconnector spring (1) fits into slot on bottom of disconnector.
3. Gently slip trigger spring (4) over protrusions on side of trigger (2) to secure disconnector (3) and disconnector spring (1).
4. Place assembly of trigger (2), trigger spring (4), disconnector (3), and disconnector spring (1) into lower receiver (5) with long leg of trigger spring pointing forward.
5. Extend trigger (2) into trigger guard area to proper depth.
6. Visually align trigger assembly through trigger housing pin hole on left side of lower receiver (5), and insert trigger housing pin (6). This pin has two spring retention grooves around it, one in the middle and one at the end. The pin used to retain trigger must be inserted with groove-end first. Make minor positioning adjustment of disconnector (3) with finger while inserting pin. Do not use force or hammer pin into position through a misaligned hole.



7. Place transfer bar assembly (7) into lower receiver (5). Install transfer bar pin (8) to secure transfer bar assembly.

**INSTALLATION - Continued****NOTE**

Ensure that bushings are in place before installation of yoke mounts.

8. Install two yoke mounts (9), two yoke mount washers (10), and two yoke mount nuts (11) to lower receiver (5).
9. Torque two yoke mount nuts (11) to 30 to 40 ft-lb (40 to 54 N-m).

**END OF WORK PACKAGE**

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**ORGANIZATIONAL****LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)****TRANSFER BAR ASSEMBLY MAINTENANCE (USMC ONLY)  
DISASSEMBLY, REPAIR OR REPLACEMENT, ASSEMBLY**

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**INITIAL SETUP:****Tools and Special Tools**

USMC Small Arms Repairer Tool Kit, SL-3-10919A  
USMC Tool Kit, Intermediate Maintenance, M107 (SASR), SL-3-10894A  
USMC Tool Kit, Organizational Maintenance, M107 (SASR), SL-3-10893A

**Materials/Parts**

Spring pin, 82077

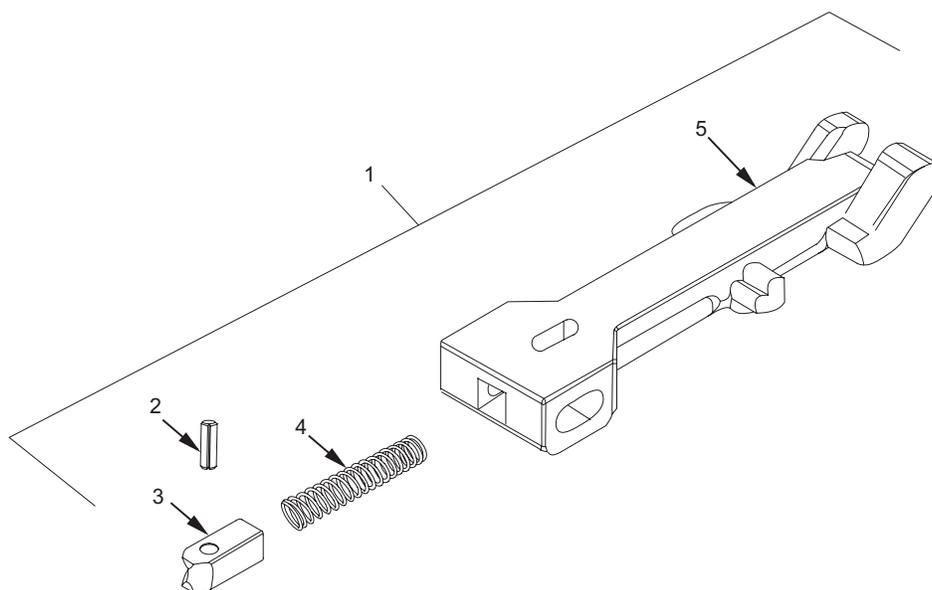
**References**

WP 0042 00

**Equipment Conditions**

Pistol grip removed (WP 0016 00)  
Transfer bar assembly removed (WP 0028 00)

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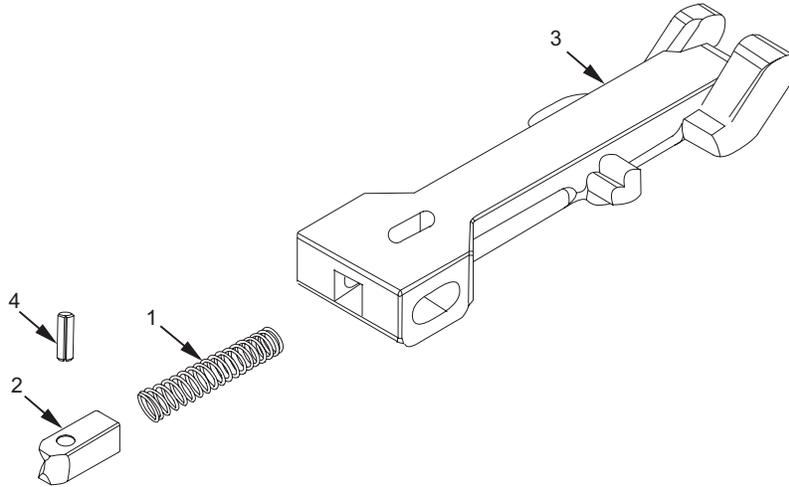
**DISASSEMBLY**

2TK106

1. Place transfer bar assembly (1) on firm surface.
2. Remove spring pin (2) by placing 1/16 in. punch on pin and tapping it out with hammer. Discard spring pin.
3. Remove headless shoulder pin (3) and helical compression spring (4) from rifle transfer bar (5).

**REPAIR OR REPLACEMENT**

Replace defective parts as authorized by WP 0042 00.

**ASSEMBLY**

2TK107

1. Install helical compression spring (1) and headless shoulder pin (2) into hole at rear of rifle transfer bar (3).
2. Install new spring pin (4) to secure helical compression spring (1) and headless shoulder pin (2).

**END OF WORK PACKAGE**

**DIRECT SUPPORT****LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)****UPPER RECEIVER ASSEMBLY MAINTENANCE  
DISASSEMBLY, REPAIR OR REPLACEMENT, ASSEMBLY**

---

**INITIAL SETUP:****Tools and Special Tools**

Shop Set, Small Arms: Field Maintenance, Basic, SC 4933-95-A11  
Torx Screwdriver Set, NSN 5120-01-167-1667  
USMC Small Arms Repairer Tool Kit, SL-3-10919A  
USMC Tool Kit, Intermediate Maintenance, M107 (SASR), SL-3-10894A  
USMC Tool Kit, Organizational Maintenance, M107 (SASR), SL-3-10893A

**Materials/Parts**

Dry Film Lubricant (item 20, WP 0060 00)  
Thread-locking Compound (item 29, WP 0060 00)

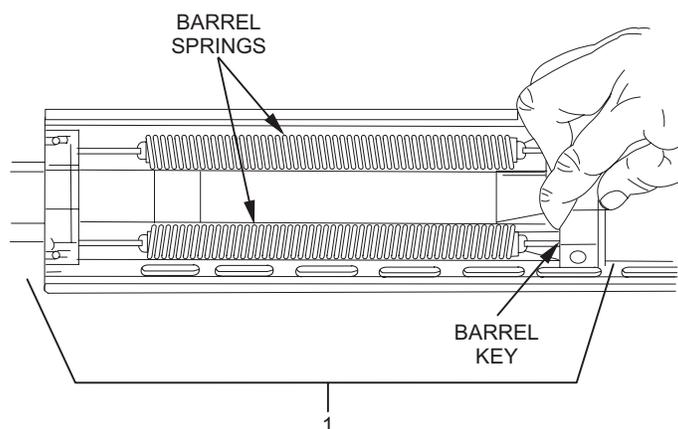
**References**

WP 0032 00  
WP 0044 00

**Equipment Conditions**

Upper receiver assembly removed from lower receiver assembly (WP 0015 00)  
Carrying handle assembly removed from upper receiver assembly (WP 0018 00)  
Front sight assembly removed from upper receiver assembly (WP 0020 00)  
Iron sight assembly removed from upper receiver assembly (WP 0031 00)  
Muzzle brake removed from barrel (WP 0032 00)

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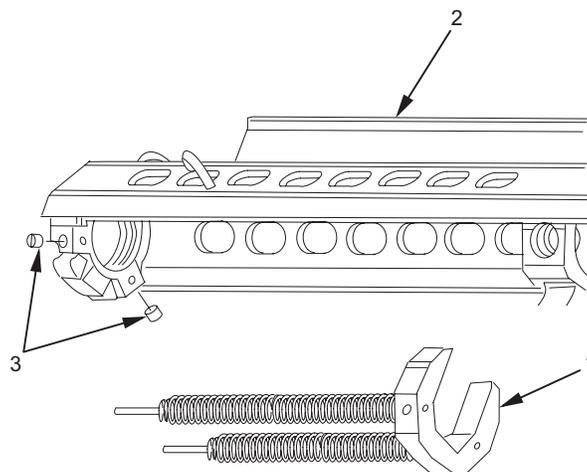
**DISASSEMBLY**

2TK052

**CAUTION**

Do not pull on barrel springs to remove barrel key assembly. Doing so may damage the springs.

1. Assume that barrel spring is under tension. Withdraw barrel key assembly (1) from slot in barrel by slowly working it out. Slide barrel out rear of upper receiver (2). See WP 0032 00.

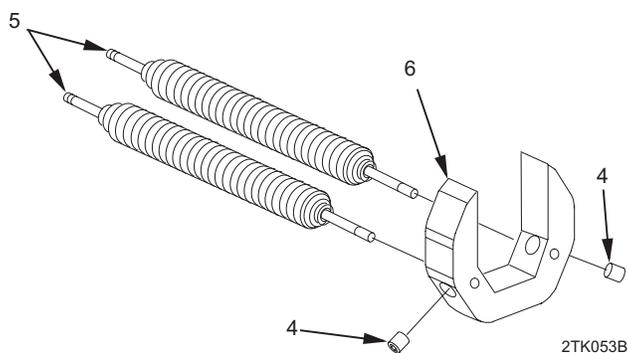


2TK053

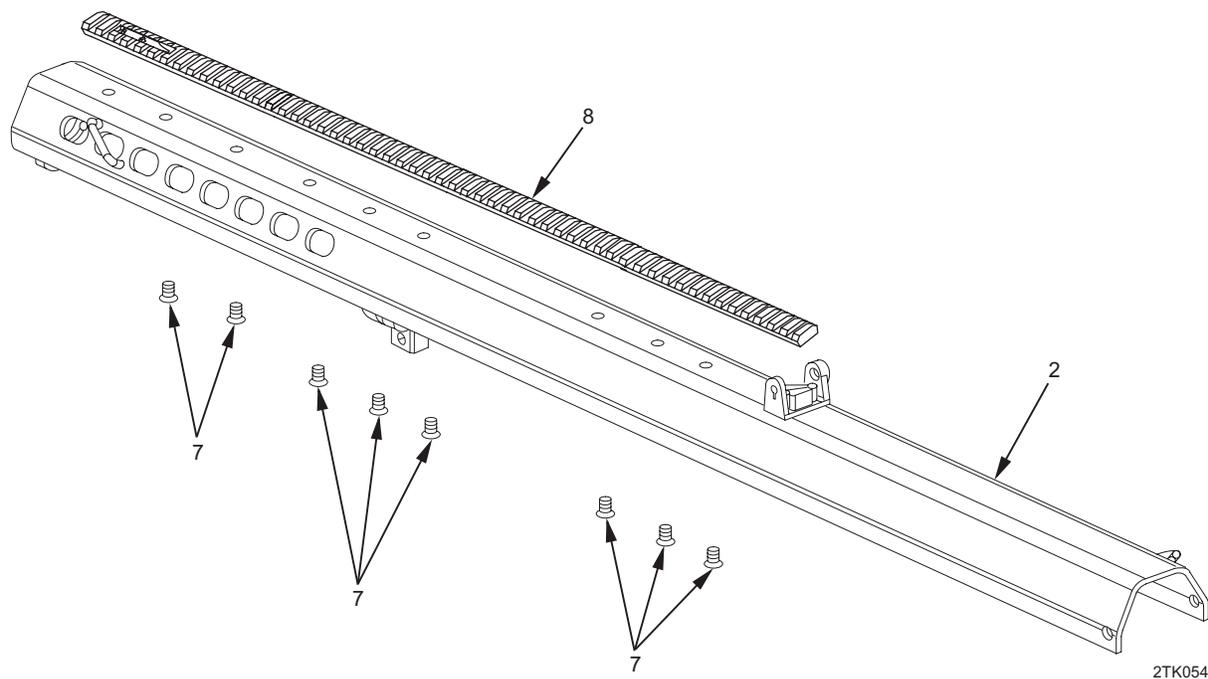
2. Use 1/8 in. hexagon wrench to remove two barrel spring screws (3) from front barrel bushing of upper receiver (2). Drive springs of barrel key assembly (1) from front of upper receiver with 3/32 in. punch. Remove old thread-locking compound from barrel spring screws.

**NOTE**

Step 3 is for Marine Corps use only.



- Use 1/8 in. hexagon wrench to remove barrel spring screws (4). Remove two barrel springs (5) from barrel key (6).

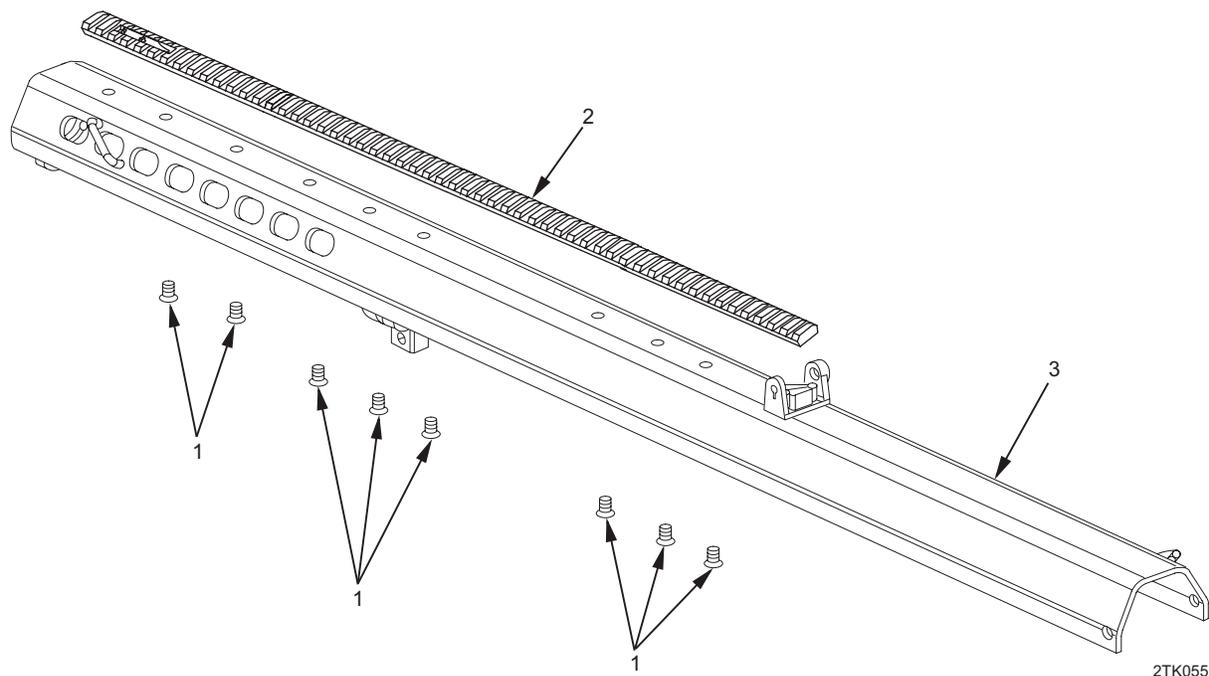


- Remove eight scope base screws (7) and scope base (8) from upper receiver (2). Remove old thread-locking compound from threads of screws.

**REPAIR OR REPLACEMENT**

Replace defective parts as authorized by WP 0044 00.

## ASSEMBLY

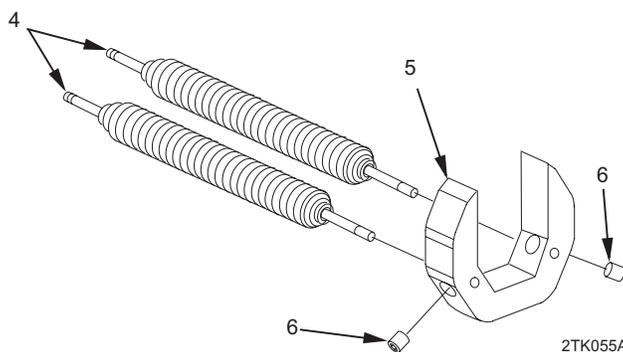


2TK055

1. Apply thread-locking compound to threads of eight scope base screws (1).
2. Align scope base (2) on upper receiver (3) and secure with eight scope base screws (1).
3. Torque eight scope base screws (1) to 65 in-lb (7.4 N-m).

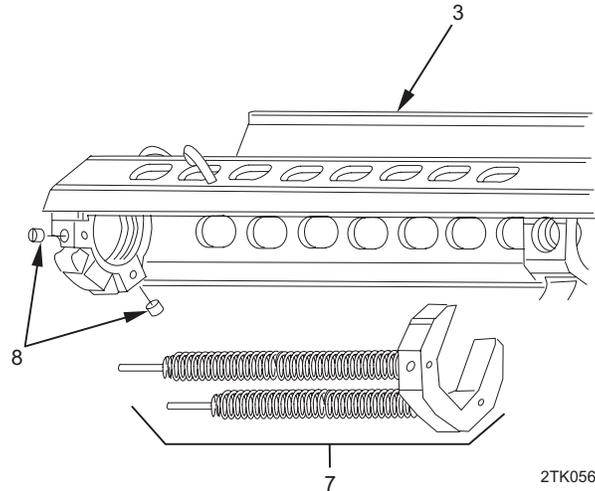
**NOTE**

Steps 4 and 5 are for Marine Corps use only.

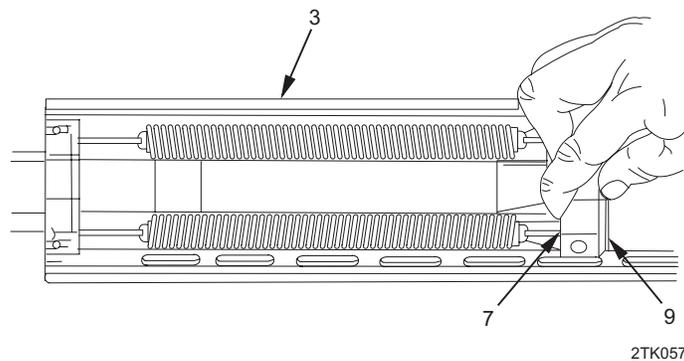


2TK055A

4. Insert end of two barrel springs (4) into barrel key (5).
5. Apply thread-locking compound to threads of two barrel spring screws (6) and install screws, using 1/8 in. hexagon wrench.



6. Insert springs of barrel key assembly (7) into front of upper receiver (3).
7. Push spring ends through front of upper receiver (3) until coil of spring abuts.
8. Apply thread-locking compound to threads of two barrel spring screws (8).
9. Install two barrel spring screws (8), using 1/8 in. hexagon wrench. Torque screws to 50 to 60 in-lb (5.69 to 6.83 N-m).
10. File excess spring material until flush with front of upper receiver (3) and touch up bare metal with dry film lubricant.



### NOTE

Ensure that both battery bumper and impact bumper are in place on barrel before installation. See WP 0032 00.

11. Slide barrel (9) into upper receiver (3) from rear.
12. Hold upper receiver (3) firmly with one hand. With the other hand pull barrel key assembly (7) toward rear until it can be fitted into slot on barrel (9).
13. Install muzzle brake (see WP 0032 00).

**END OF WORK PACKAGE**



**DIRECT SUPPORT  
(ORGANIZATIONAL LEVEL FOR MARINE CORPS USE ONLY)**

**LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)**

**IRON SIGHT ASSEMBLY MAINTENANCE  
REMOVAL, DISASSEMBLY, REPAIR OR REPLACEMENT, ASSEMBLY, INSTALLATION**

**INITIAL SETUP:**

**Tools and Special Tools**

Deployment Kit Tool Kit, TK-1 (item 1, WP 0028 00)

Shop Set, Small Arms: Field Maintenance, Basic, SC 4933-95-A11

USMC Small Arms Repairer Tool Kit, SL-3-10919A

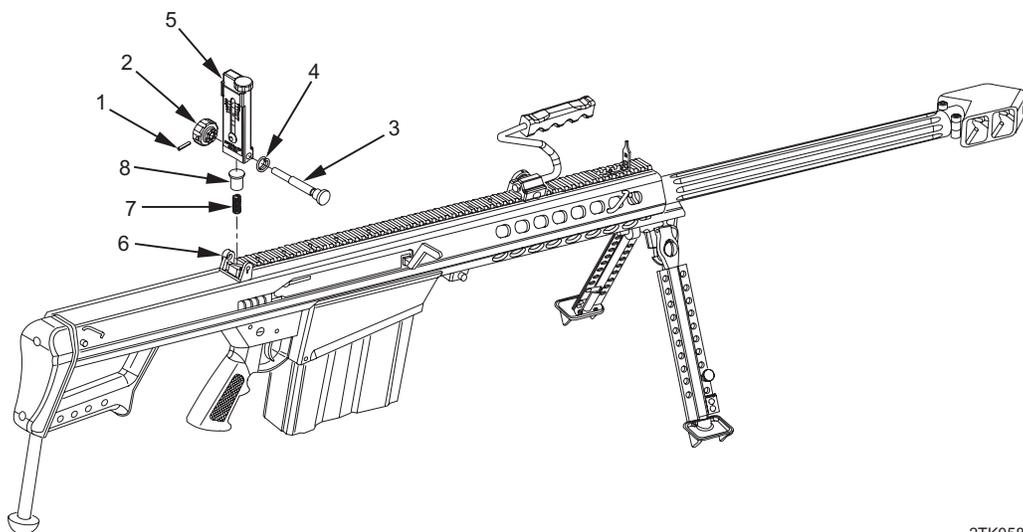
USMC Tool Kit, Intermediate Maintenance, M107 (SASR), SL-3-10894A

USMC Tool Kit, Organizational Maintenance, M107 (SASR), SL-3-10893A

**References**

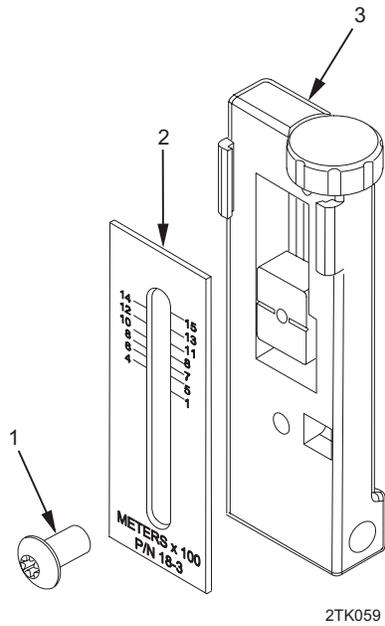
WP 0047 00

**REMOVAL**



2TK058

1. Using pin punch, drive windage knob pin (1) from windage knob (2).
2. Unscrew windage screw (3) slowly (under spring pressure), being careful not to lose windage screw spring (4).
3. Remove iron sight assembly (5) slowly (under spring pressure) from rear sight base (6), being careful not to lose rear sight base spring (7) and rear sight base detent (8).
4. Separate rear sight base spring (6) and rear sight base detent (7) from iron sight assembly (5).

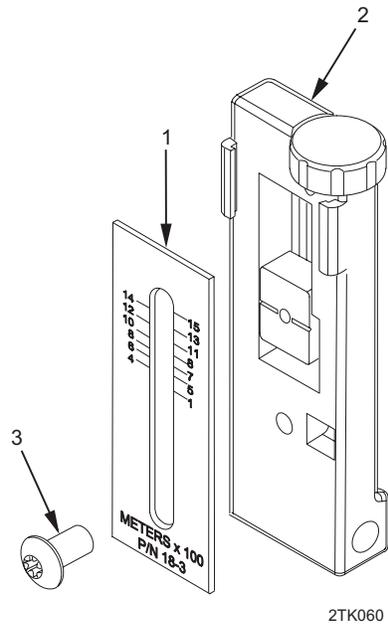
**DISASSEMBLY**

2TK059

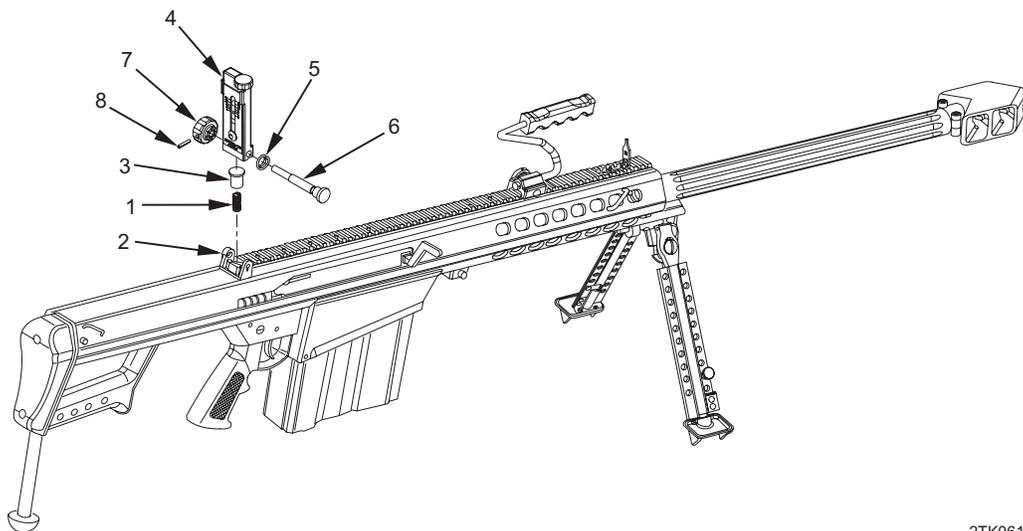
1. Remove rear sight scale screw (1) by turning counterclockwise.
2. Lift rear sight scale (2) from rear sight body (3).

**REPAIR OR REPLACEMENT**

Replace defective parts as authorized by WP 0047 00.

**ASSEMBLY**

1. Replace rear sight scale (1) by placing it into position on rear sight body (2).
2. Secure rear sight scale (1) with rear sight scale screw (3), using T-10 L-shaped Torx wrench.

**INSTALLATION**

2TK061

1. Place rear sight base spring (1) into hole in rear sight base (2); place rear sight base detent (3) on top of spring.
2. Lower iron sight assembly (4) into rear sight base (2), compressing rear sight base spring (1) and rear sight base detent (3). Align holes in rear sight base and iron sight assembly.

**NOTE**

Ensure windage screw spring is recessed into sight base cutaway.

3. With windage screw spring (5) in place on windage screw (6), insert screw through rear sight base (2) and iron sight assembly (4). Screw windage screw into assembly.
4. Mount windage knob (7) onto windage screw (6) and align pin holes.
5. Drive in windage knob pin (8) until flush on both sides of windage knob (7).

**END OF WORK PACKAGE**

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**DIRECT SUPPORT****LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)****BARREL ASSEMBLY MAINTENANCE  
DISASSEMBLY, REPAIR OR REPLACEMENT, ASSEMBLY**

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**INITIAL SETUP:****Tools and Special Tools**

Screwdriver Bit Socket Set, NSN 5120-01-178-6342  
Shop Set, Small Arms: Field Maintenance, Basic, SC 4933-95-A11  
USMC Small Arms Repairer Tool Kit, SL-3-10919A  
USMC Tool Kit, Intermediate Maintenance, M107 (SASR), SL-3-10894A  
USMC Tool Kit, Organizational Maintenance, M107 (SASR), SL-3-10893A

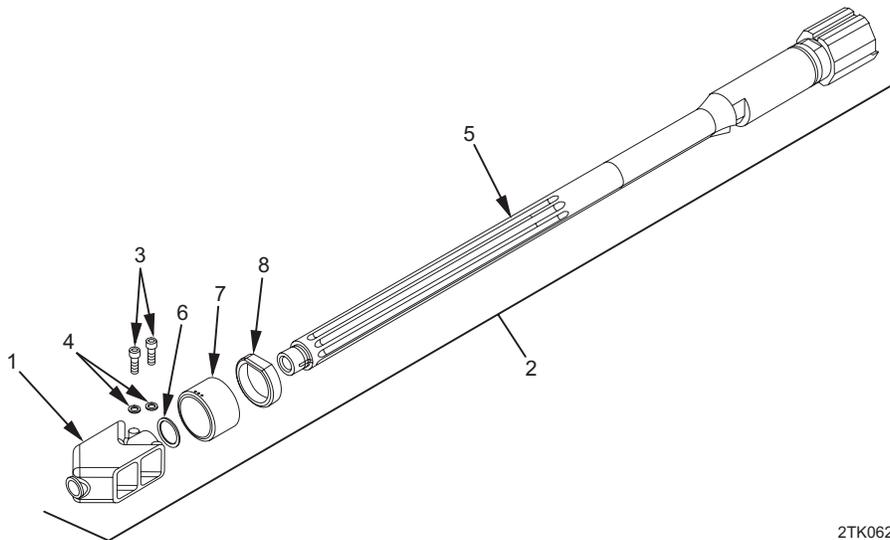
**References**

WP 0048 00

**Equipment Conditions**

Weapon partially disassembled (WP 0015 00)

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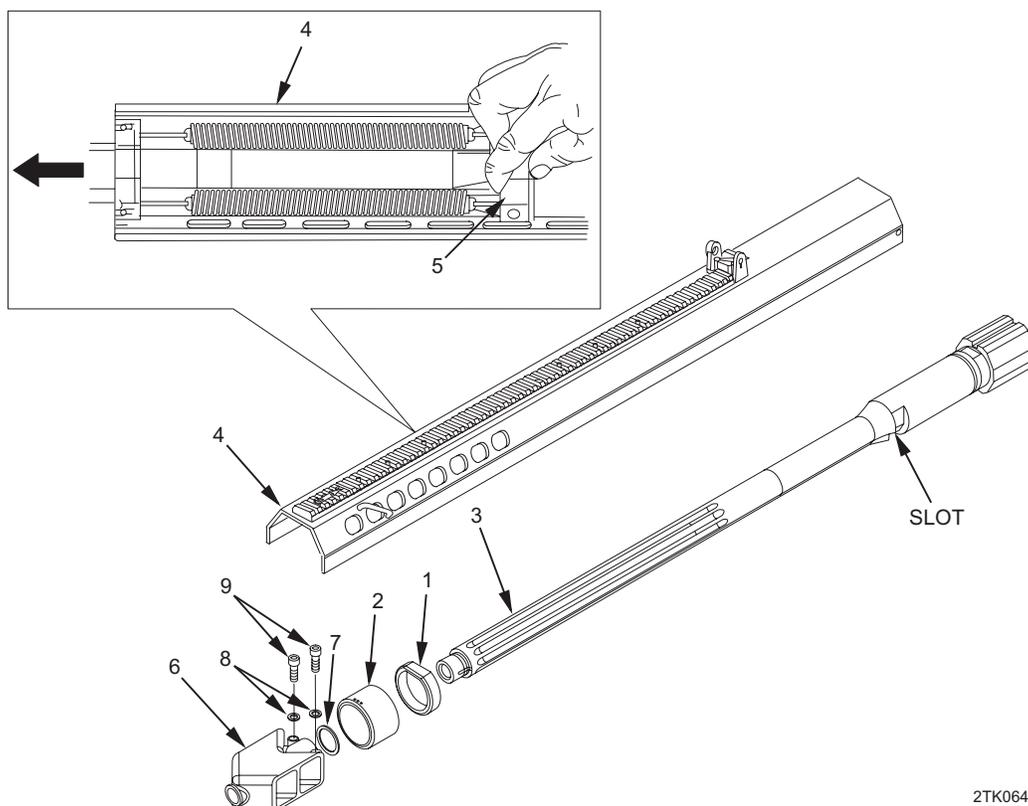
**DISASSEMBLY**

2TK062

1. Separate upper receiver and barrel assemblies from lower receiver assembly. Remove muzzle brake (1) from barrel assembly (2) by removing two muzzle brake screws (3) and two muzzle brake washers (4); remove muzzle brake from barrel (5).
2. Place barrel assembly (2) on sturdy surface.
3. If present, remove muzzle brake shim(s) (6).
4. Remove impact barrel bumper (7) and battery bumper (8) from barrel (5).

**REPAIR OR REPLACEMENT**

Replace defective parts as authorized by WP 0048 00.

**ASSEMBLY**

2TK064

**CAUTION**

Both bumpers are beveled. When assembling, ensure both bevels face the barrel stop. Battery bumper side flat mates to grooved flat of barrel extension. Use a dead blow hammer around barrel to aid in sliding battery bumper onto barrel.

1. Slide battery bumper (1) and impact barrel bumper (2) onto barrel (3). Slide barrel into upper receiver assembly (4) from rear.
2. Hold upper receiver assembly (4) firmly with one hand. With the other hand pull barrel key (5) toward rear until it can be fitted into slot on barrel (3).

**WARNING**

Do not fire rifle without muzzle brake firmly in place on barrel. Serious injury or death could result.

3. Screw muzzle brake (6) onto barrel (3) without using any shim(s) (7).
4. Hand tighten muzzle brake (6) so that, when standing behind it, it is oriented at an 0830 hours to 1430 hours position. If not properly aligned (passes 1430 hours), it will be necessary to use new shims to ensure the proper angle when hand-tightened.
5. Back off muzzle brake (6) until washer slots align and assess need for shims in gap between barrel (3) and brake.

**NOTE**

If multiple shims are required, put thinnest shim closest to barrel.

6. Remove muzzle brake (6), put shims (7) onto barrel (3), and replace muzzle brake.
7. Position two muzzle brake washers (8) and two muzzle brake screws (9). Do not tighten.
8. Screw muzzle brake (6) to proper 3 o'clock to 9 o'clock position. Hold barrel (3) and strike muzzle brake with large dead blow hammer to achieve final adjustment. Ensure that muzzle brake screws (9) are aligned with slots in barrel.
9. Using T-30 Torx screwdriver socket, torque muzzle brake screws (9) to  $95 \pm 5$  in-lb ( $10.8 \pm 0.6$  N-m).

**END OF WORK PACKAGE**



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**DIRECT SUPPORT  
(ORGANIZATIONAL LEVEL FOR MARINE CORPS USE ONLY)**

**LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)**

**BOLT AND CARRIER ASSEMBLY MAINTENANCE  
DISASSEMBLY, REPAIR OR REPLACEMENT, ASSEMBLY**

---

**INITIAL SETUP:**

**Tools and Special Tools**

Shop Set, Small Arms: Field Maintenance, Basic, SC 4933-95-A11

Torx Screwdriver Set, NSN 5120-01-167-1667

USMC Small Arms Repairer Tool Kit, SL-3-10919A

USMC Tool Kit, Intermediate Maintenance, M107 (SASR), SL-3-10894A

USMC Tool Kit, Organizational Maintenance, M107 (SASR), SL-3-10893A

**References**

WP 0049 00

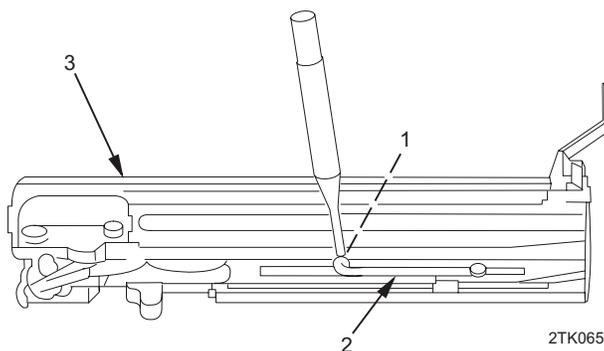
**Equipment Conditions**

Bolt and carrier assembly removed from lower receiver assembly (WP 0015 00)

Bolt assembly removed from bolt and carrier assembly (WP 0021 00)

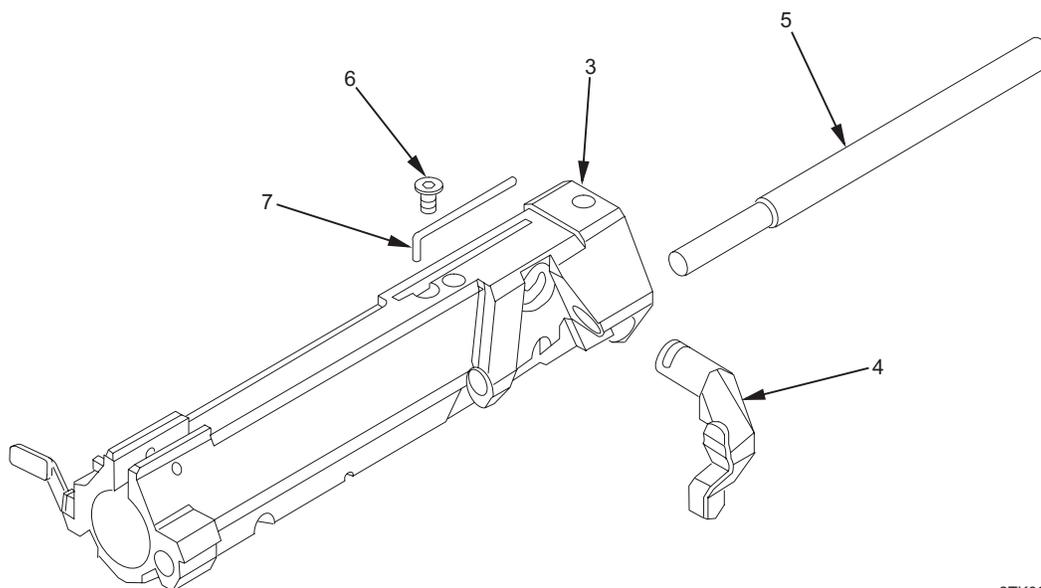
---

**DISASSEMBLY**



1. Place 1/16 in. pin punch on cam pin (1) and tap punch lightly with hammer. Remove cam pin and cam pin assembly (2) from bolt carrier (3).

## DISASSEMBLY - Continued



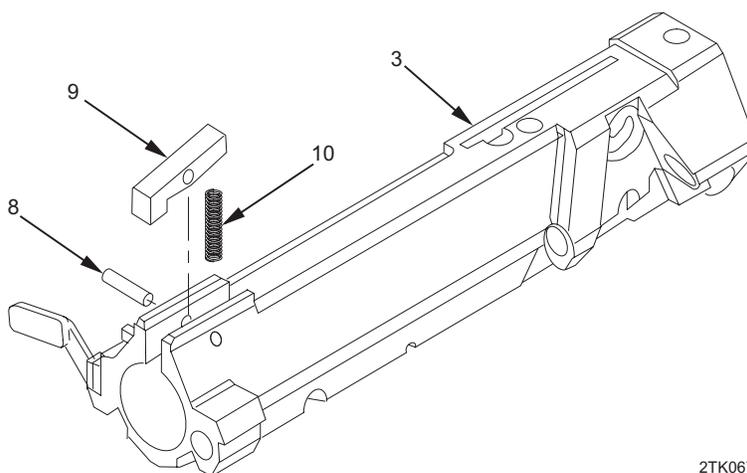
2TK066

- Remove accelerator (4) by pulling it from left side of bolt carrier (3). If necessary, a pin punch may be used to assist with its removal. Slide accelerator rod (5) from rear of bolt carrier.

**NOTE**

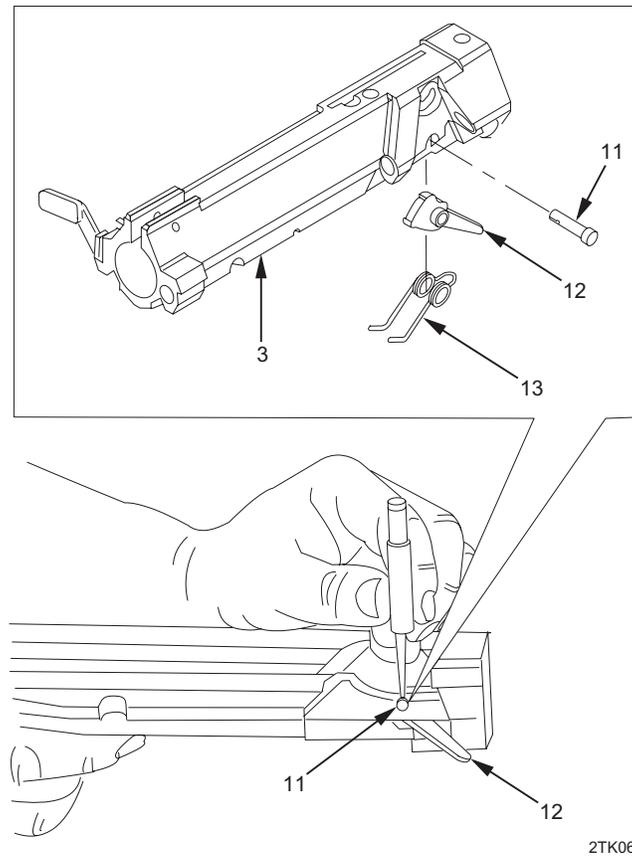
The accelerator spring, which holds the accelerator in place, should not be staked to prevent its removal.

- Remove accelerator spring screw (6). Remove accelerator spring (7) by placing a scribe or small jeweler's screwdriver under the elbow of spring, by the vertical portion of the spring, and lifting gently.



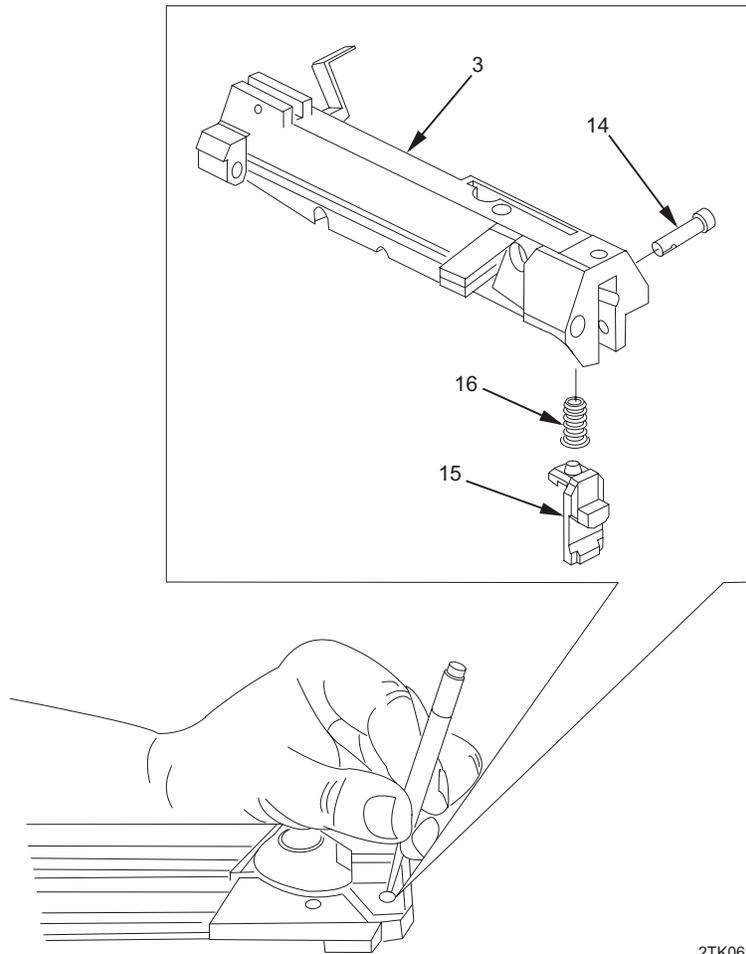
2TK067

- Use 1/8 in. pin punch and hammer to tap out bolt latch pin (8). Remove bolt latch (9) and bolt latch spring (10) from bolt carrier (3).



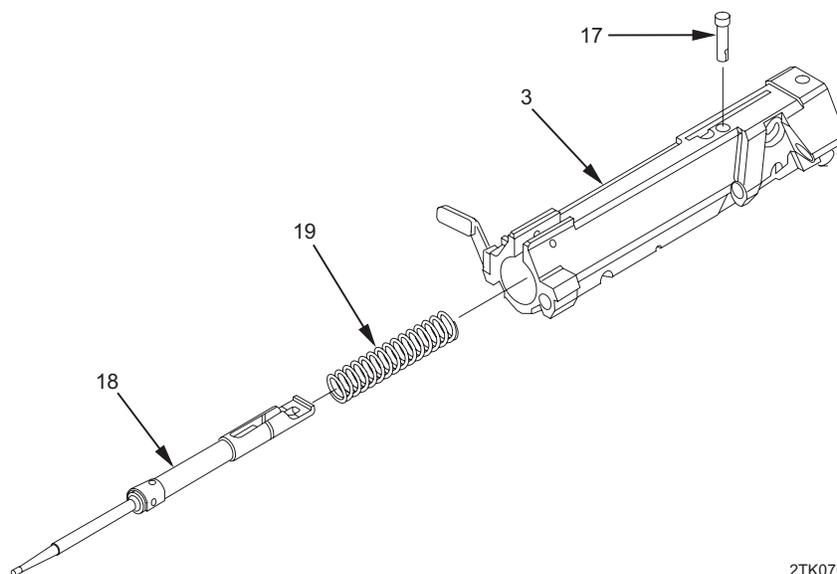
5. Place 1/8 in. punch on split end of cocking lever pin (11) and tap punch with hammer to dislodge pin.
6. Remove cocking lever (12) and cocking lever spring (13) from bolt carrier (3).

## DISASSEMBLY - Continued



2TK069

7. Place 1/8 in. punch on split end of sear pin (14) and lightly tap punch with hammer to dislodge pin.
8. Remove sear (15) and sear spring (16) from bolt carrier (3).



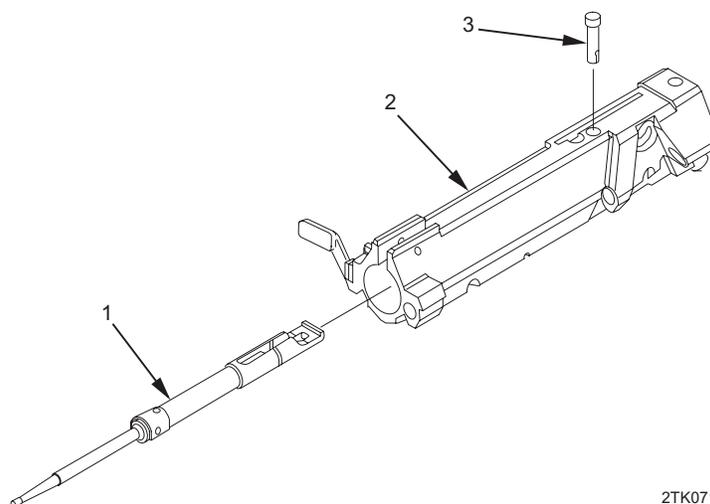
2TK070

9. Place end of 1/8 in. punch on split end of extension stop pin (17) located on underside of bolt carrier (3).
10. Lightly tap punch with hammer to dislodge extension stop pin (17) and remove firing pin extension assembly (18) from bolt carrier (3).
11. If damaged, remove bolt spring (19) from bolt carrier (3).

### REPAIR OR REPLACEMENT

Replace defective parts as authorized by WP 0049 00.

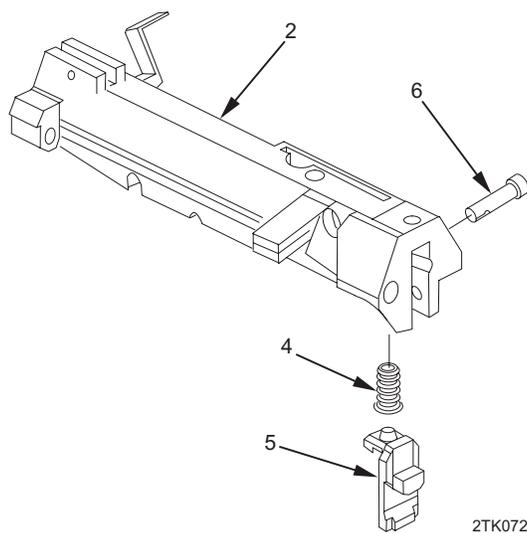
### ASSEMBLY



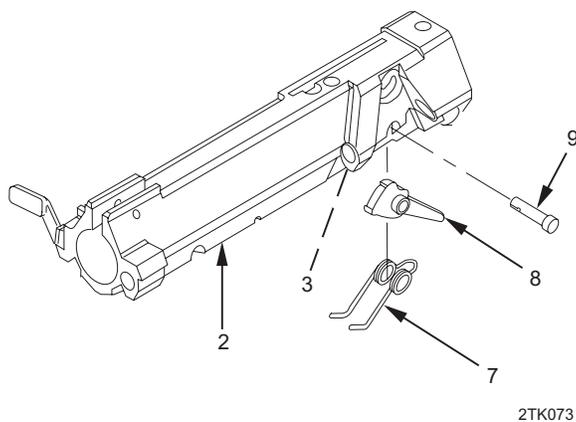
2TK071

1. Insert firing pin extension assembly (1) carefully into bolt carrier (2) and tap into position. Ensure lock mechanism of firing pin extension assembly is turned to top of bolt.
2. Place extension stop pin (3) into position and ensure there is spring tension.

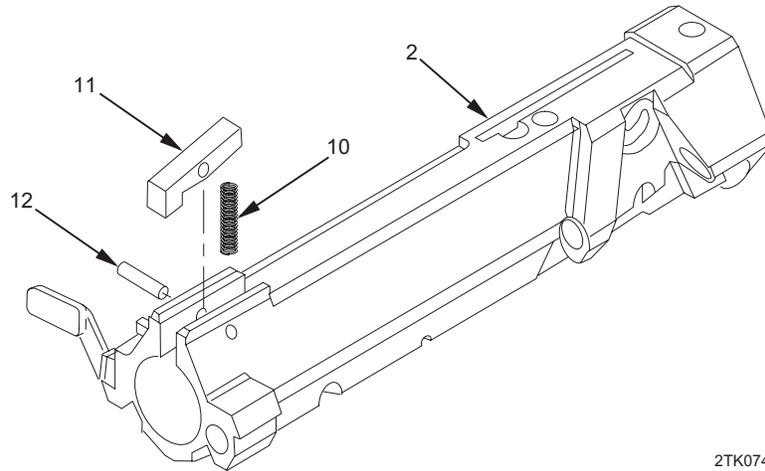
## ASSEMBLY - Continued



3. Insert sear spring (4) (tapered end first) and sear (5) into bolt carrier (2). Insert split end of sear pin (6) into bolt handle side of bolt carrier and tap in with brass hammer.

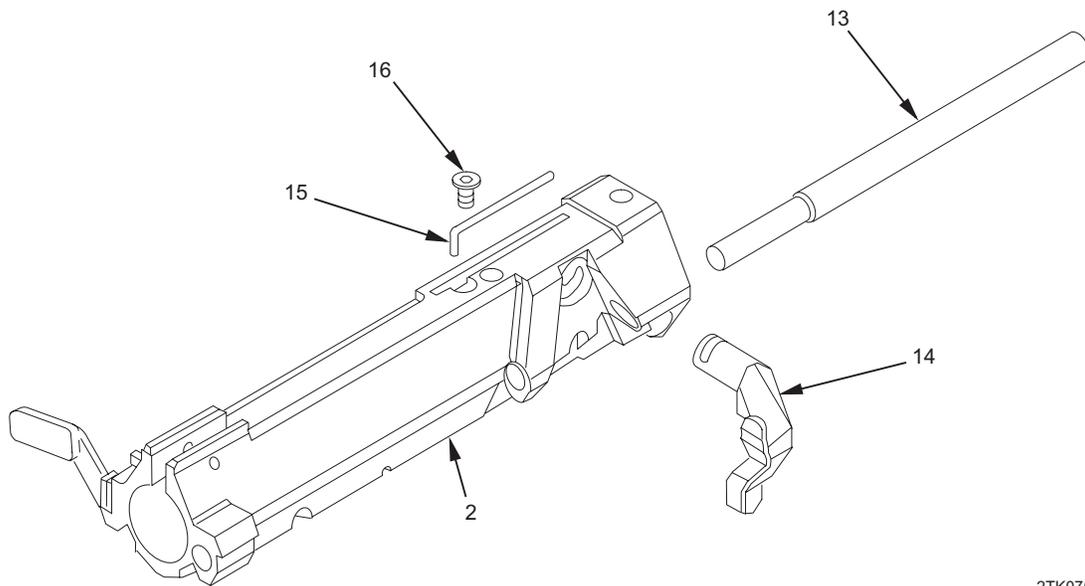


4. Place cocking lever spring (7) on cocking lever (8). Insert both into underside of bolt carrier (2) with ends of spring pointing forward, on either side of bottom of extension stop pin (3).
5. Insert split end of cocking lever pin (9) into side of bolt carrier (2) and lightly tap in with brass hammer.



2TK074

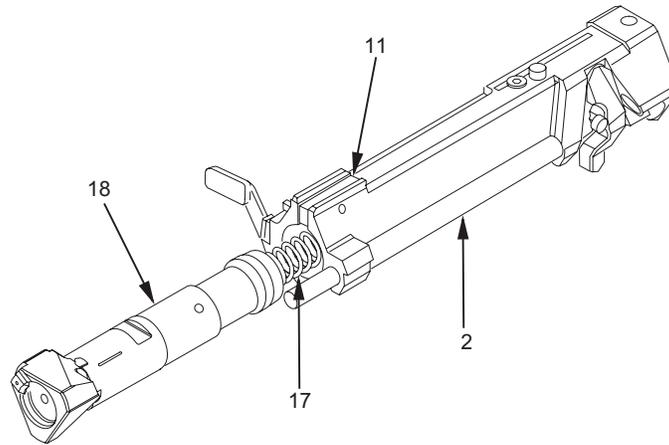
6. Insert bolt latch spring (10) into bolt carrier (2). Place bolt latch (11) on top of spring and align hole in bolt latch.
7. Insert bolt latch pin (12) into bolt carrier (2) and tap in with brass hammer.



2TK075

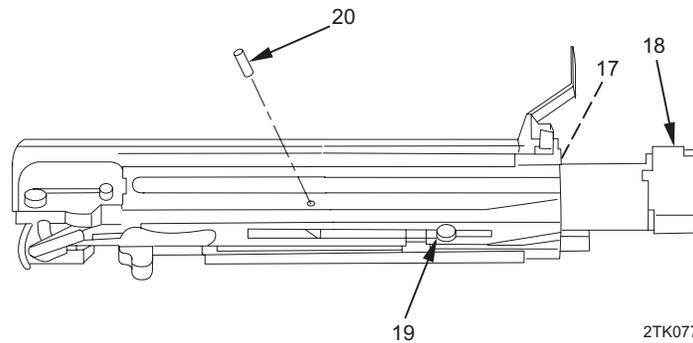
8. Slide accelerator rod (13) into bolt carrier (2) from rear, small end first.
9. Install accelerator (14), inserting it from left side (opposite charging handle) of bolt carrier (2).
10. Install accelerator spring (15) and accelerator spring screw (16), using T-20 Torx screwdriver.

## ASSEMBLY - Continued



2TK076

11. Replace bolt spring (17) and bolt assembly (18) into bolt carrier (2), with cam groove to bottom, while depressing bolt latch (11).



2TK077

12. Insert cam pin assembly (19) into position. Bolt assembly (18) must be compressed against bolt spring (17) until cam slips into cam groove.
13. While holding down cam pin assembly (19), insert cam pin (20).

**END OF WORK PACKAGE**

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**ORGANIZATIONAL****LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)****BOLT AND CARRIER ASSEMBLY MAINTENANCE (USMC ONLY)  
DISASSEMBLY, REPAIR OR REPLACEMENT, ASSEMBLY**

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**INITIAL SETUP:****Tools and Special Tools**

USMC Small Arms Repairer Tool Kit, SL-3-10919A

USMC Tool Kit, Intermediate Maintenance, M107 (SASR), SL-3-10894A

USMC Tool Kit, Organizational Maintenance, M107 (SASR), SL-3-10893A

**References**

WP 0014 00

WP 0049 00

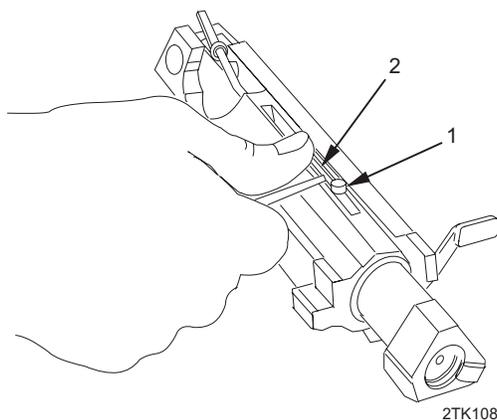
WP 0050 00

WP 0051 00

WP 0052 00

**Equipment Conditions**Bolt and carrier assembly removed from lower receiver assembly (WP 0015 00)

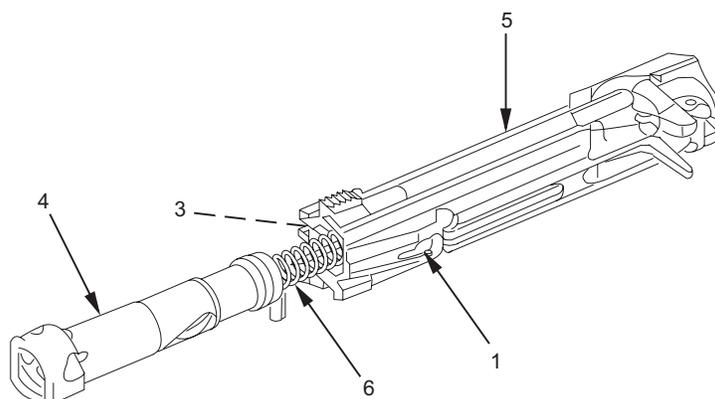
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**DISASSEMBLY****WARNING**

If the spring-loaded cam is lifted too far, the cam pin spring could bend and lose tension. The weapon could malfunction or allow the weapon to fire when unlocked.

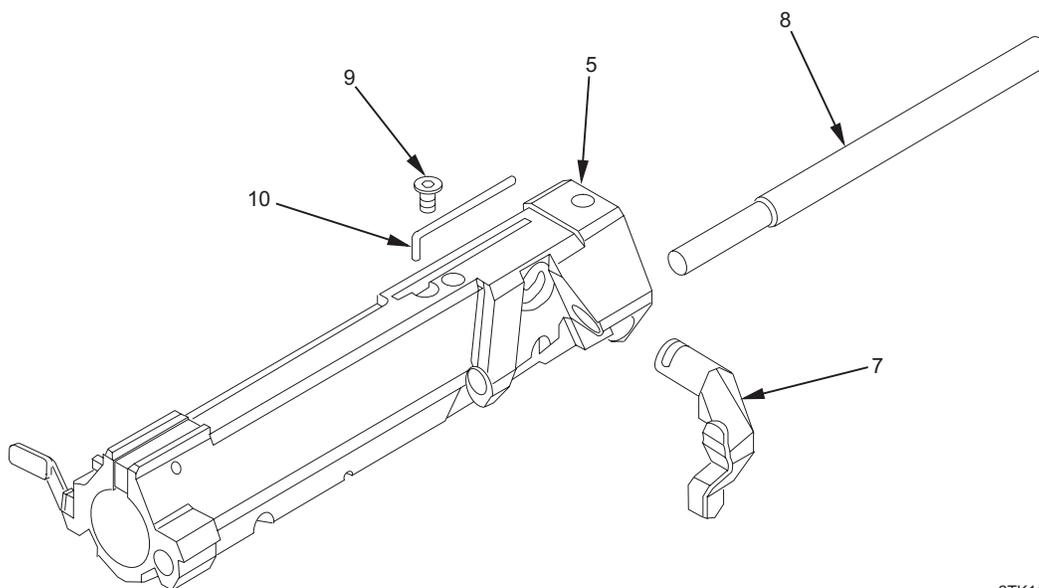
1. Use 1/8 in. punch to disengage cam pin assembly (1). Lift or pry cam pin spring (2) just far enough to clear cam groove.

## DISASSEMBLY - Continued



2TK109

2. While holding up cam pin assembly (1), depress bolt latch (3) on its rearward portion. Bolt assembly (4) should spring forward. Grasp bolt assembly and remove from bolt carrier (5). Use care not to lose or deform bolt spring (6).



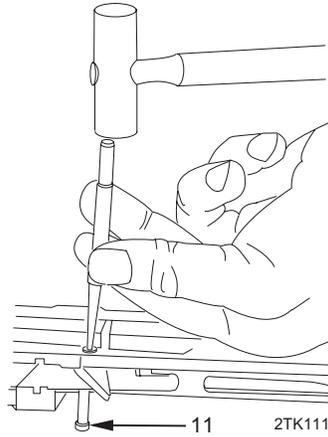
2TK110

3. Remove accelerator (7) by pulling it from left side of bolt carrier (5). If necessary, a punch may be used to assist with removal. Slide accelerator rod (8) from rear of bolt carrier.

**NOTE**

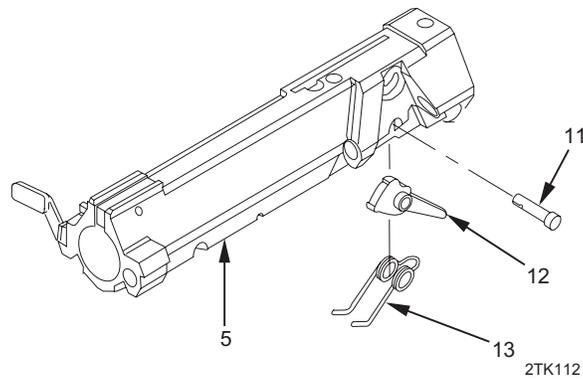
The accelerator spring screw and accelerator spring should be removed only if replacement is necessary.

4. Remove accelerator spring screw (9) and accelerator spring (10).

**NOTE**

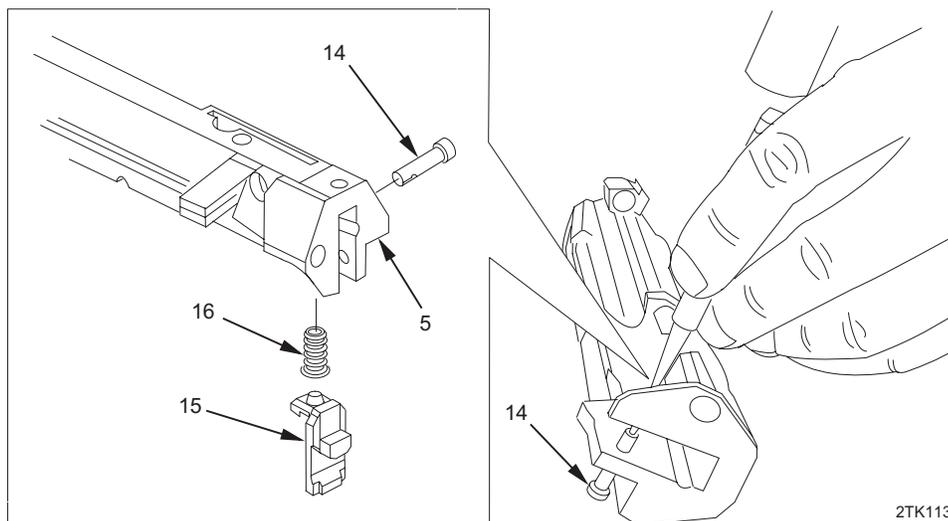
Push down firmly on the cocking lever to release the firing pin before continuing disassembly.

5. Place 1/8 in. punch on split end of cocking lever pin (11). Tap punch with hammer to dislodge pin.

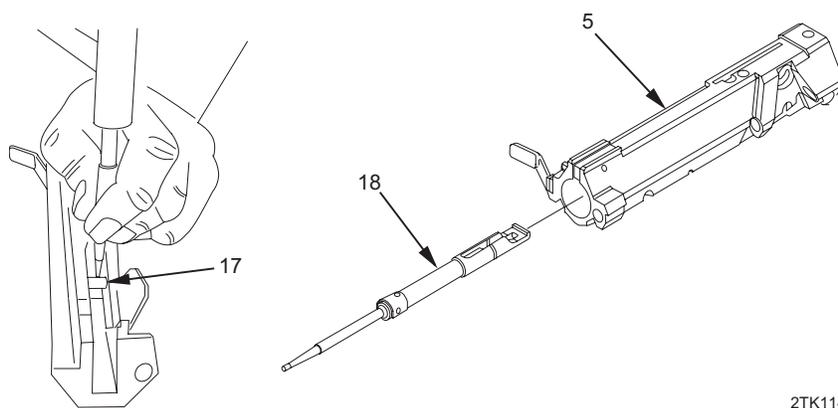


6. Remove cocking lever pin (11), cocking lever (12), and cocking lever spring (13) from bolt carrier (5).

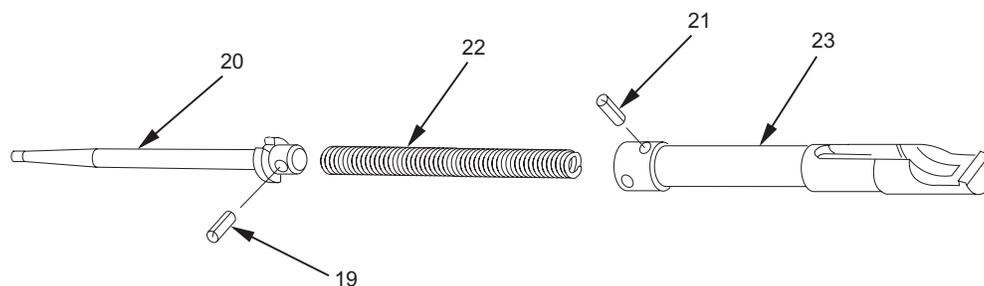
## DISASSEMBLY - Continued



7. Place 1/8 in. punch on split end of sear pin (14) and lightly tap punch with hammer to dislodge pin. Remove sear assembly (15) and sear spring (16) from bolt carrier (5).



8. Place 1/8 in. punch on split end of extension stop pin (17) located on underside of bolt carrier (5). Lightly tap punch with hammer to dislodge pin and remove firing pin extension assembly (18) from bolt carrier (5).



2TK115

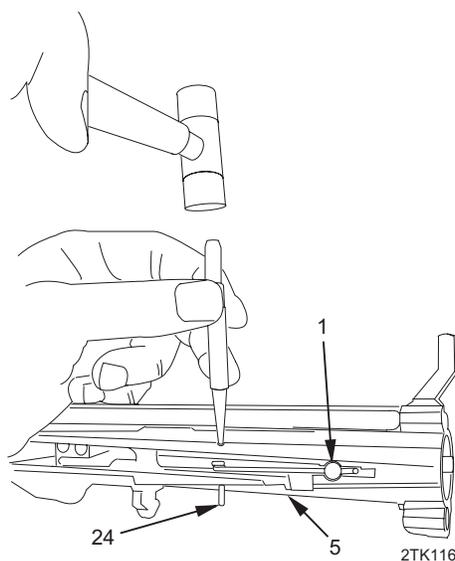
**WARNING**

Wear eye protection and point firing pin extension assembly away from face when removing compression helical spring. Failure to do so may cause injury to personnel.

**NOTE**

The firing pin extension assembly should be disassembled only when repair is necessary.

9. Tap out headless straight pin (19) and remove firing pin (20).
10. Tap out headless straight pin (21) and remove compression helical spring (22) from firing pin extension (23).



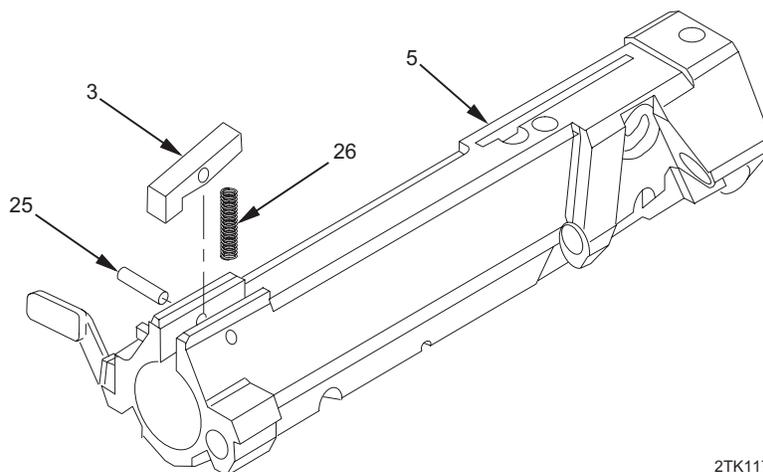
2TK116

**NOTE**

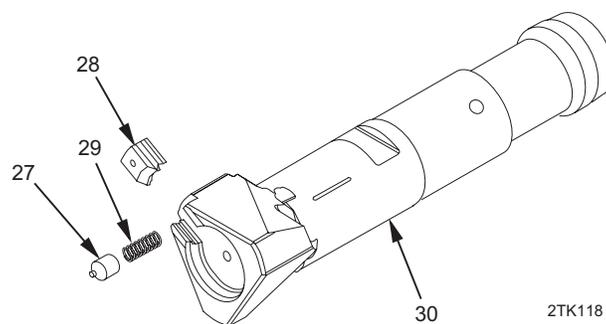
The cam pin assembly should be removed only if replacement is necessary.

11. Place 1/16 in. punch on spring pin (24) and tap punch lightly with hammer. Remove cam pin assembly (1) from bolt carrier (5).

## DISASSEMBLY - Continued

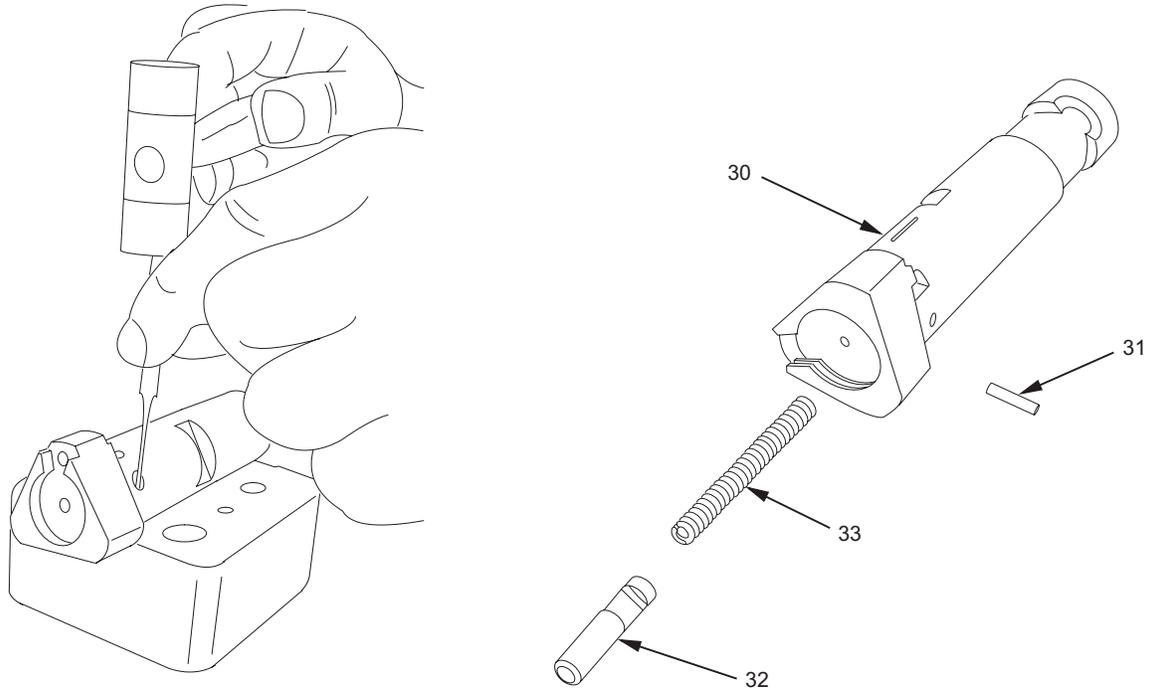


12. Use a  $\frac{3}{32}$  in. punch and hammer to tap out headless straight pin (25). Remove bolt latch (3) and compression helical spring (26) from bolt carrier (5).

**WARNING**

Wear eye protection and point bolt away from face when disassembling extractor/ejector. Injury may result if parts fly free.

13. Depress extractor plunger (27) by inserting  $\frac{1}{16}$  in. punch through hole of extractor (28) while simultaneously sliding extractor towards firing pin hole.
14. Remove extractor (28), extractor spring (29), and extractor plunger (27) from bolt (30). Use care to contain spring and plunger.

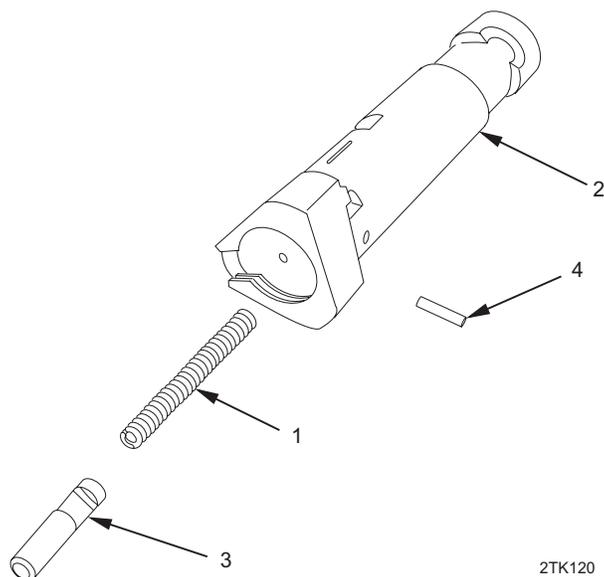


2TK119

15. Place bolt (30) on firm surface. Placing end of 1/16 in. punch on end of ejector pin (31), lightly tap punch with hammer to remove pin.
16. Remove ejector (32) and ejector spring (33) from bolt (30).

### REPAIR OR REPLACEMENT

Perform limited technical inspection in accordance with WP 0014 00. Replace defective parts as authorized by WP 0049 00, WP 0050 00, WP 0051 00, and WP 0052 00.

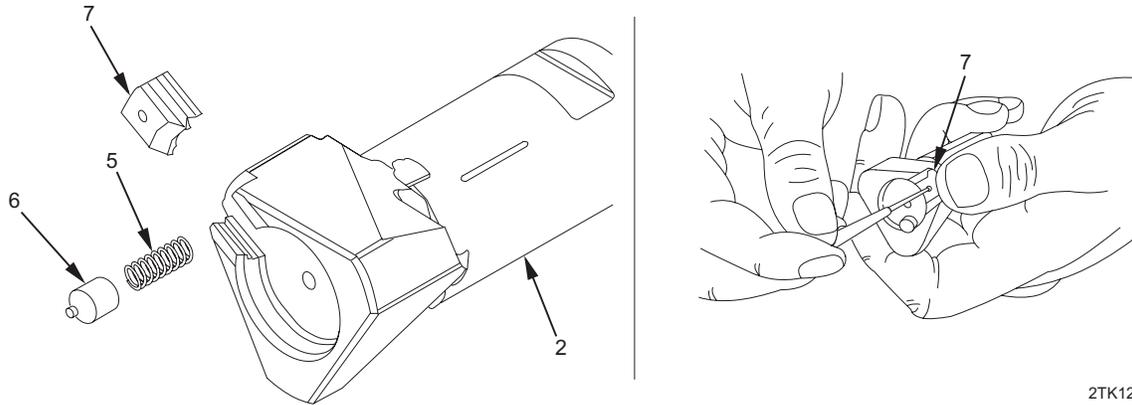
**ASSEMBLY****WARNING**

Point bolt away from face while assembling extractor/ejector. Injury may result if parts fly free.

**NOTE**

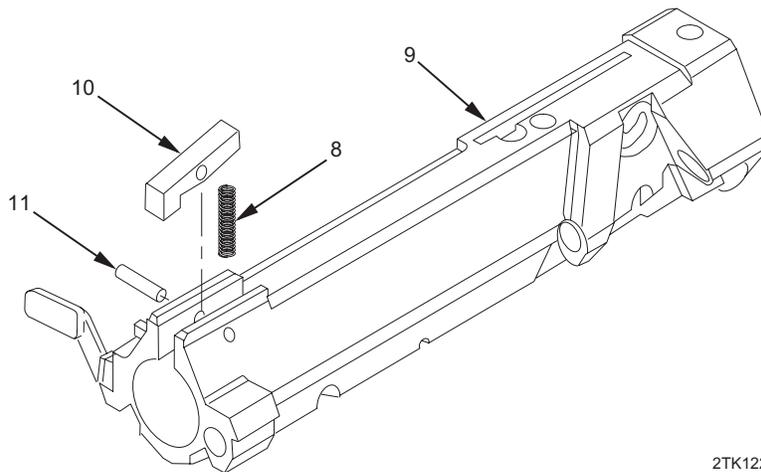
Assembly of the ejector may require assistance.

1. Insert ejector spring (1) into bolt (2).
2. Insert ejector (3) into bolt (2) ensuring cutout is aligned with pin hole groove. Place tip of ejector pin (4) in hole and tap until held partially in place by bolt body.
3. Place fired brass cartridge or large punch into vise with base of cartridge facing outward. Push bolt (2), breech face first, onto base of cartridge and carefully tap in ejector pin (4).



2TK121

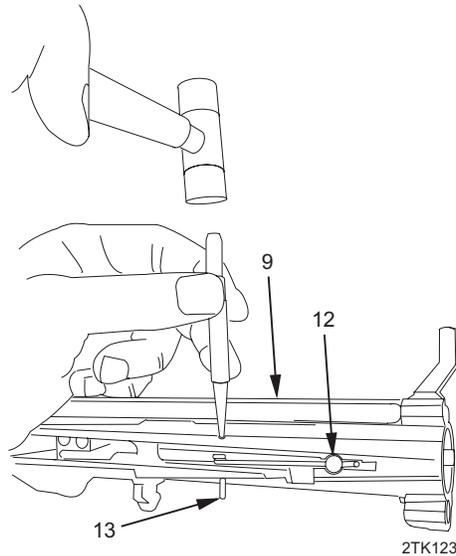
4. Insert extractor spring (5) into bolt (2).
5. Using a flat-tip screwdriver, press extractor plunger (6) into bolt (2) and slide extractor (7) over extractor plunger until hole in extractor is over extractor plunger.



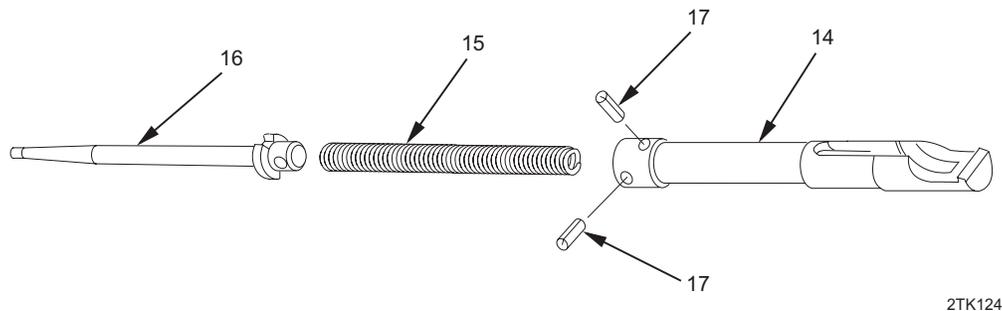
2TK122

6. Insert compression helical spring (8) into bolt carrier (9). Place bolt latch (10) on top of compression helical spring and align hole in bolt latch with hole in bolt carrier.
7. Insert headless straight pin (11) into bolt carrier (9) and tap in with hammer.

## ASSEMBLY - Continued

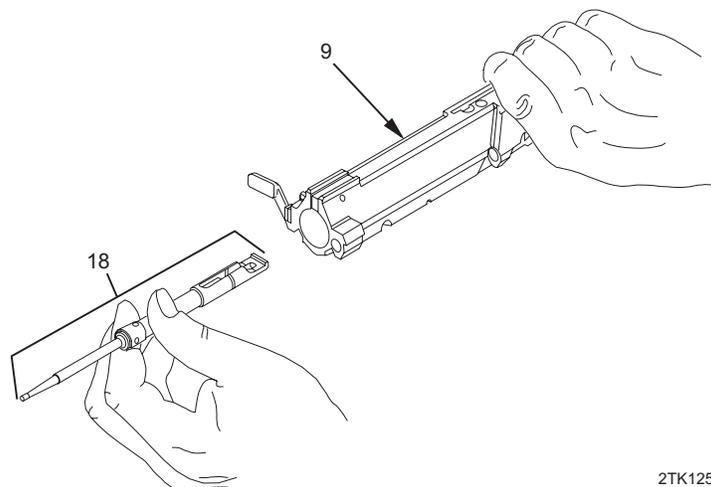


8. Compress cam pin spring against bolt carrier (9) until cam pin assembly (12) slips into its groove. While holding down cam pin assembly, insert spring pin (13).

**WARNING**

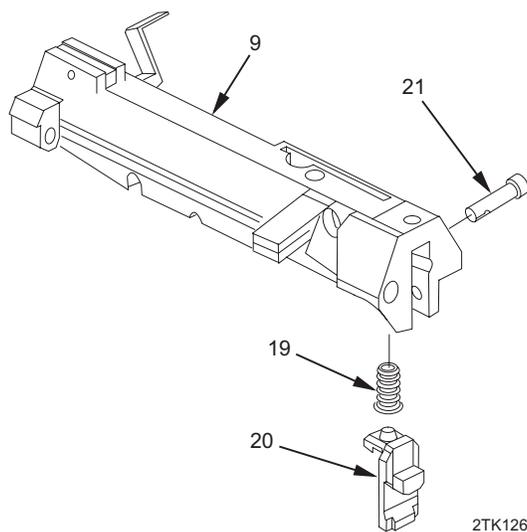
Wear eye protection and point firing pin extension assembly away from face during assembly. Injury may result if parts fly free.

9. Place firing pin extension (14) in vise without applying too much pressure. Insert compression helical spring (15) and firing pin (16). Using punch to depress compression helical spring, hammer two headless straight pins (17) into place.
10. Stake two headless straight pins (17).

**NOTE**

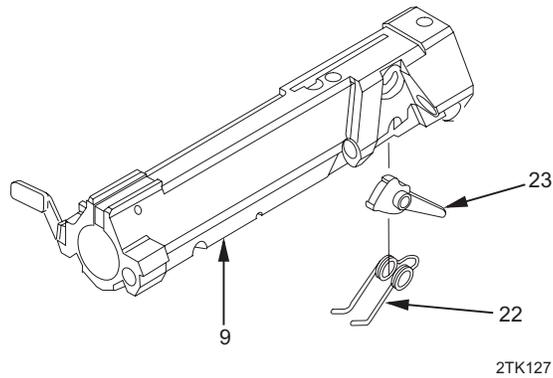
When inserting firing pin assembly into bolt carrier, ensure firing pin extension hook is pointing upwards.

11. Install firing pin extension assembly (18) carefully into bolt carrier (9) (ensure firing pin extension hook is pointing upwards) and tap into position.

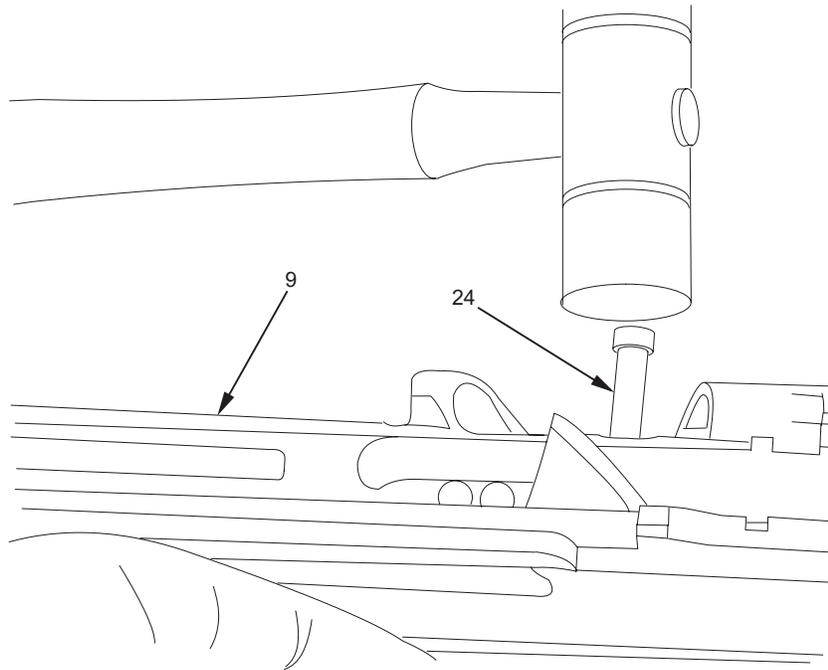


12. Insert sear spring (19) and sear assembly (20) into bolt carrier (9). Insert split end of sear pin (21) into charging handle side of bolt carrier and tap in with hammer.

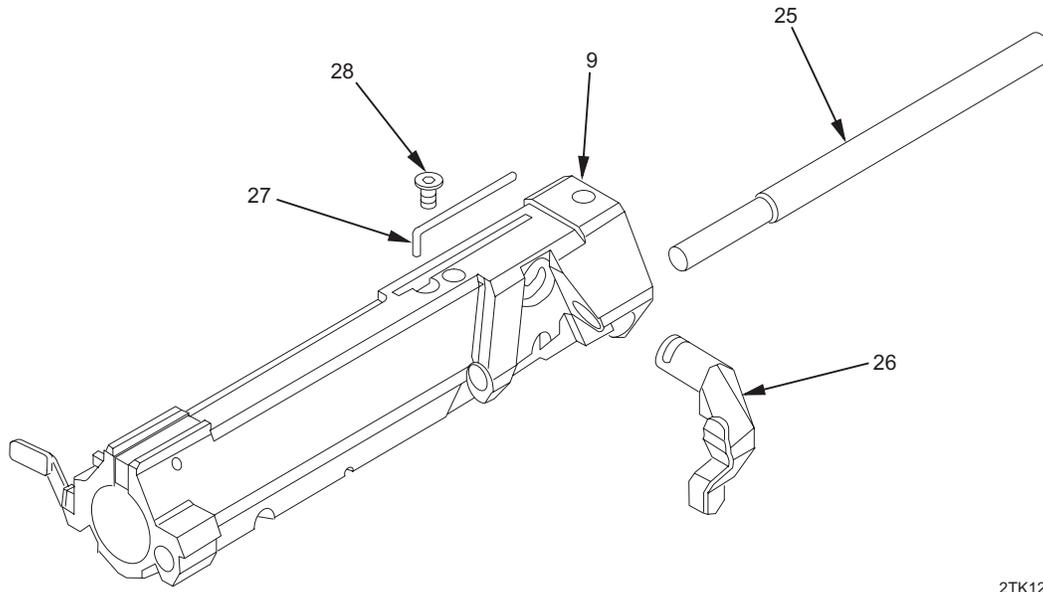
## ASSEMBLY - Continued



13. Place cocking lever spring (22) on cocking lever (23). Insert both into underside of bolt carrier (9) with ends of spring pointing forward on either side of firing pin.

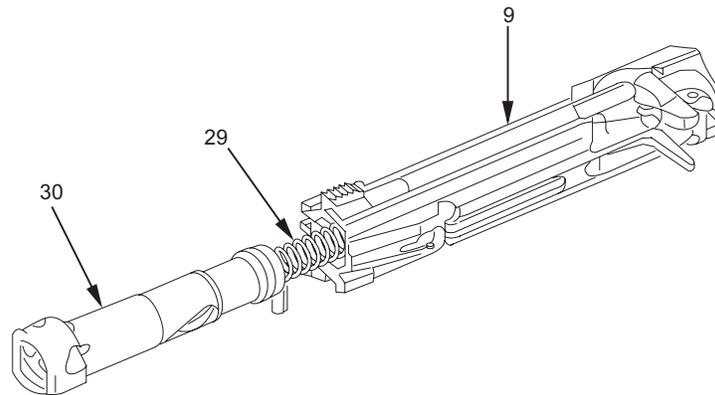


14. Insert split end of cocking lever pin (24) into side of bolt carrier (9) and lightly tap in with hammer.



2TK129

15. Slide accelerator rod (25) into bolt carrier (9) from rear. Install accelerator (26), inserting it from left side (opposite charging handle) of bolt carrier.
16. Install accelerator spring (27) and accelerator spring screw (28).



2TK130

17. Install bolt spring (29) and bolt assembly (30) into bolt carrier (9), with cam groove to bottom.

**END OF WORK PACKAGE**



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**DIRECT SUPPORT  
(ORGANIZATIONAL LEVEL FOR MARINE CORPS USE ONLY)**

**LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)**

**BIPOD ASSEMBLY MAINTENANCE  
REMOVAL, DISASSEMBLY, REPAIR OR REPLACEMENT, ASSEMBLY, INSTALLATION**

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**INITIAL SETUP:**

**Tools and Special Tools**

Shop Set, Small Arms: Field Maintenance, Basic, SC 4933-95-A11  
USMC Small Arms Repairer Tool Kit, SL-3-10919A  
USMC Tool Kit, Intermediate Maintenance, M107 (SASR), SL-3-10894A  
USMC Tool Kit, Organizational Maintenance, M107 (SASR), SL-3-10893A

**References**

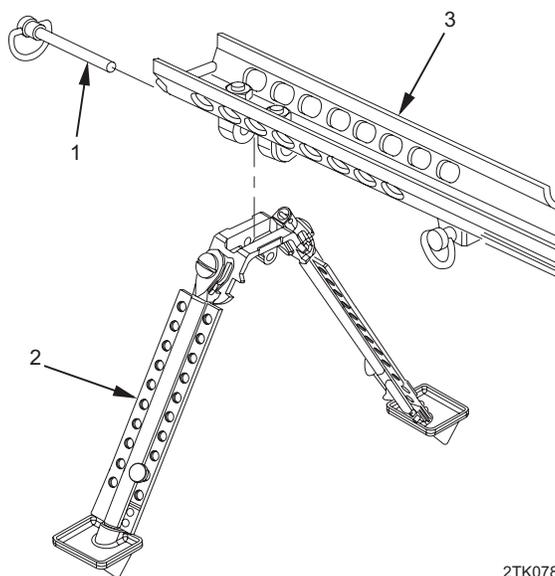
WP 0054 00

**Equipment Conditions**

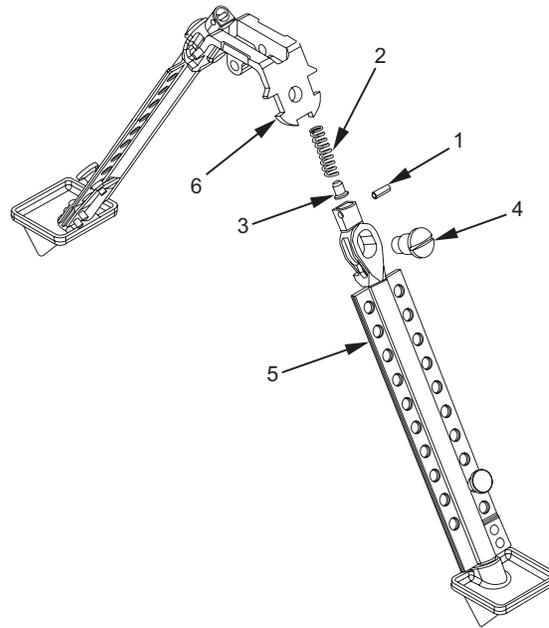
Upper receiver assembly/barrel removed from lower receiver assembly (WP 0015 00)

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**REMOVAL**



Remove bipod locking pin (1) by pulling on ring to separate bipod assembly (2) from lower receiver assembly (3).

**DISASSEMBLY**

2TK079

1. Place 1/8 in. pin punch on end of bipod pin (1) and lightly tap punch with hammer to dislodge pin.
2. Remove bipod spring (2) and bipod detent (3), being careful not to lose them.

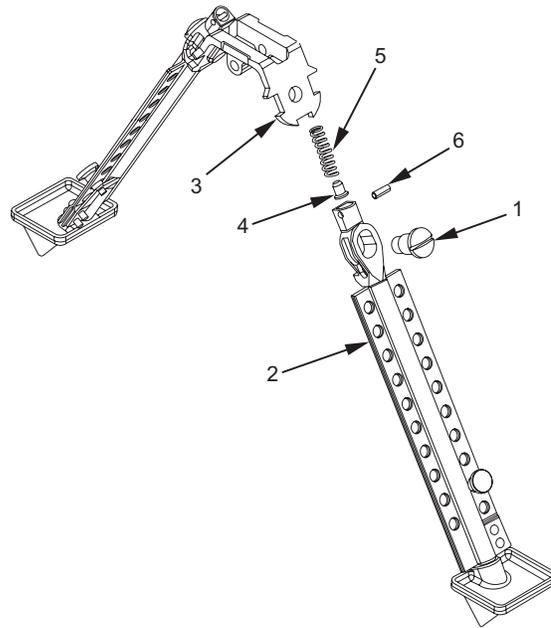
**NOTE**

The bipod screw, attaching bipod leg to bipod yoke, is peened (staked) to ensure that bipod leg does not loosen; if the screw is removed it will be destroyed. If the bipod leg is damaged and needs to be removed, the screw must be replaced.

3. File peened end of bipod screw (4) with flat file. Remove bipod screw with flat tip screwdriver.
4. Remove bipod leg assembly (5) from bipod yoke (6).
5. Repeat steps 1 through 4 for other bipod leg assembly.

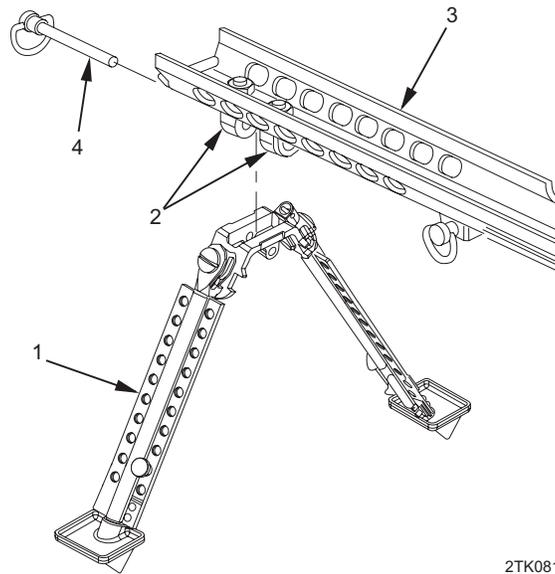
**REPAIR OR REPLACEMENT**

Replace defective parts as authorized by WP 0041 00.

**ASSEMBLY**

2TK080

1. Place new bipod screw (1) through slot in top of bipod leg assembly (2).
2. Align bipod leg assembly (2) with bipod yoke (3). Using flat-tip screwdriver, secure bipod screw (1) to bipod yoke.
3. Place bipod yoke (3) on firm surface and, using hammer and punch,peen end of bipod screw (1).
4. Install bipod detent (4) and bipod spring (5) to bipod leg assembly (2). Compress spring and secure with bipod pin (6).

**INSTALLATION**

Align bipod assembly (1) with yoke mounts (2) on lower receiver assembly (3) and secure with bipod locking pin (4).

**END OF WORK PACKAGE**

**CHAPTER 6**  
**SUPPORTING INFORMATION**  
**FOR**  
**LONG RANGE SNIPER RIFLE, M107**



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**UNIT AND DIRECT SUPPORT**  
**LONG RANGE SNIPER RIFLE, M107**  
**(NSN 1005-01-469-2133)**

**REFERENCES**

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**SCOPE**

This work package lists all field manuals, forms, Marine Corps publications, miscellaneous publications, and technical manuals referenced in this manual.

**FIELD MANUALS**

FM 4-25.11	First Aid
FM 31-70	Basic Cold Weather Manual
FM 31-71	Northern Operations
FM 90-3	Desert Operations

**FORMS**

DA Form 2028	Recommended Changes to Publications and Blank Forms
DA Form 2404	Equipment Inspection and Maintenance Worksheet
DA Form 2407	Maintenance Request
DD Form 1750	Packing List
SF 361	Transportation Discrepancy Report
SF 364	Report of Discrepancy
SF 368	Product Quality Deficiency Report

**MARINE CORPS PUBLICATIONS**

MCO 4430.3	Report of Item and Packaging Discrepancies
MCO 4855.10	Quality Deficiency Report
MCO 5101.8	Ground Mishap Report
MCO 8025.1	Class V (W) Malfunctions and Deficiencies
MCO P4450.7	Preparation for Storage
MCO P4610.19	Transportation and Travel Record of Transportation Discrepancies
NAVMC 1018	Inspection Tag

**MARINE CORPS PUBLICATIONS - Continued**

NAVMC 10520	Weapons Custody Receipt Card
NAVMC 10558A	Weapon Record Book
NAVMC 10576	Memorandum Receipt for Individual Weapons and Accessories
NAVMC 10772	Recommended Changes to Technical Publications
SL-1-2	Index of Technical Publications
TI 8005-24/20_	Pre-Fire Inspection, Small Arms Weapons, Ordnance Materiel and Trigger Pull Measurement, Small Arms Weapons
TM 4700-15/1	Equipment Record Procedures

**MISCELLANEOUS PUBLICATIONS**

AR 710-3	Asset and Transaction Reporting System
AR 725-50	Requisition Receipt and Issue System
AR 735-11-2	Reporting of Item Packaging Discrepancies
AR 750-1	Army Materiel Maintenance Policy and Retail Maintenance Operations
CTA 8-100	Army Medical Department Expendable/Durable Items
CTA 50-970	Expendable/Durable Items (Except Medical, Class V, Repair Parts, and Heraldic Items)
DA PAM 25-30	Index of Army Publications and Blank Forms
DA PAM 750-8	The Army Maintenance Management System (TAMMS) Users Manual
MIL-STD-129	Standard Practice for Military Marking

**TECHNICAL MANUALS**

TM 9-1005-239-10	Operator's Manual for Long Range Sniper Rifle, M107
TM 9-1300-206	Ammunition and Explosives Standards
TM 750-244-7	Procedures for Destruction of Equipment in Federal Supply Classifications 1000, 1005, 1010, 1015, 1020, 1025, 1030, 1055, 1090 and 1095 to Prevent Enemy Use
TM 9150-15/1	Military Use of Cleaner, Lubricant, and Preservative (CLP) for Weapons and Support Equipment

**END OF WORK PACKAGE**

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**UNIT AND DIRECT SUPPORT****LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)****MAINTENANCE ALLOCATION CHART (MAC) INTRODUCTION**

---

**INTRODUCTION****The Army Maintenance System MAC**

This introduction provides a general explanation of all maintenance and repair functions authorized at the two maintenance levels under the Two-Level Maintenance System concept.

The MAC (immediately following the introduction) designates overall authority and responsibility for the performance of maintenance functions on the identified end item or component. The application of the maintenance functions to the end item or component shall be consistent with the capacities and capabilities of the designated maintenance levels, which are shown on the MAC in column (4) as:

Field - includes two subcolumns, Unit maintenance and Direct Support maintenance. The Unit maintenance column is divided again into two more subcolumns, C for Operator or Crew and O for Unit maintenance.

Sustainment - includes two subcolumns, General Support (H) and Depot (D).

The tools and test equipment requirements (immediately following the MAC) list the tools and test equipment (both special tools and common tool sets) required for each maintenance function as referenced from the MAC.

The remarks (immediately following the tools and test equipment requirements) contain supplemental instructions and explanatory notes for a particular maintenance function.

**Maintenance Functions**

Maintenance functions are limited to and defined as follows:

1. Inspect. To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination (e.g., by sight, sound, or feel). This includes scheduled inspection and gagings and evaluation of cannon tubes.
2. Test. To verify serviceability by measuring the mechanical, pneumatic, hydraulic, or electrical characteristics of an item and comparing those characteristics with prescribed standards on a scheduled basis, i.e., load testing of lift devices and hydrostatic testing of pressure hoses.
3. Service. Operations required periodically to keep an item in proper operating condition; e.g., to clean (includes decontaminate, when required), to preserve, to drain, to paint, or to replenish fuel, lubricants, chemical fluids, or gases. This includes scheduled exercising and purging of recoil mechanisms. The following are examples of service functions:
  - a. Unpack. To remove from packing box for service or when required for the performance of maintenance operations.
  - b. Repack. To return item to packing box after service and other maintenance operations.

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**Maintenance Functions - Continued**

- c. Clean. To rid the item of contamination.
  - d. Touch up. To spot paint scratched or blistered surfaces.
  - e. Mark. To restore obliterated identification.
4. Adjust. To maintain or regulate, within prescribed limits, by bringing into proper position, or by setting the operating characteristics to specified parameters.
  5. Align. To adjust specified variable elements of an item to bring about optimum or desired performance.
  6. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments of test, measuring, and diagnostic equipment used in precision measurement. Consists of comparisons of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.
  7. Remove/Install. To remove and install the same item when required to perform service or other maintenance functions. Install may be the act of emplacing, seating, or fixing into position a spare, repair part, or module (component or assembly) in a manner to allow the proper functioning of an equipment or system.
  8. Paint. To prepare and spray color coats of paint so that the ammunition can be identified and protected. The color indicating primary use is applied, preferably, to the entire exterior surface as the background color of the item. Other markings are to be repainted as original so as to retain proper ammunition identification.
  9. Replace. To remove an unserviceable item and install a serviceable counterpart in its place. "Replace" is authorized by the MAC and assigned maintenance level is shown as the third position code of the Source, Maintenance and Recoverability (SMR) code.
  10. Repair. The application of maintenance services, including fault location/troubleshooting, removal/installation, disassembly/assembly procedures, and maintenance actions to identify troubles and restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.

**NOTE**

The following definitions are applicable to the "repair" maintenance function:

Services - Inspect, test, service, adjust, align, calibrate, and/or replace.

Fault location/troubleshooting - The process of investigating and detecting the cause of equipment malfunctioning; the act of isolating a fault within a system or Unit Under Test (UUT).

Disassembly/assembly - The step-by-step breakdown (taking apart) of a spare/functional group coded item to the level of its least component, that is assigned an SMR code for the level of maintenance under consideration (i.e., identified as maintenance significant).

Actions - Welding, grinding, riveting, straightening, facing, machining, and/or resurfacing.

11. Overhaul. That maintenance effort (service/action) prescribed to restore an item to a completely serviceable/operational condition as required by maintenance standards in appropriate technical publications. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.
12. Rebuild. Consists of those services/actions necessary for the restoration of unserviceable equipment to a like new condition in accordance with original manufacturing standards. Rebuild is the highest degree of material maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (e.g., hours/miles) considered in classifying Army equipment/components.

### Explanation of Columns in the MAC

Column (1) - Group Number. Column (1) lists Functional Group Code (FGC) numbers, the purpose of which is to identify maintenance significant components, assemblies, subassemblies, and modules with the Next Higher Assembly (NHA).

Column (2) - Component/Assembly. Column (2) contains the item names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

Column (3) - Maintenance Function. Column (3) lists the functions to be performed on the item listed in column (2). (For a detailed explanation of these functions refer to "Maintenance Functions" outlined above.)

Column (4) - Maintenance Level. Column (4) specifies each level of maintenance authorized to perform each function listed in column (3), by indicating work time required (expressed as manhours in whole hours or decimals) in the appropriate subcolumn. This work time figure represents the active time required to perform that maintenance function at the indicated level of maintenance. If the number or complexity of the tasks within the listed maintenance function varies at different maintenance levels, appropriate work time figures are to be shown for each level. The work time figure represents the average time required to restore an item (assembly, subassembly, component, module, end item, or system) to a serviceable condition under typical field operating conditions. This time includes preparation time (including any necessary disassembly/assembly time), troubleshooting/fault location time, and quality assurance time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the MAC. The symbol designations for the various maintenance levels are as follows:

Field:

C - Operator or Crew maintenance

O - Unit maintenance

F - Direct Support maintenance

Sustainment:

L - Specialized Repair Activity (SRA)

H - General Support maintenance

D - Depot maintenance

### NOTE

The "L" maintenance level is not included in column (4) of the MAC. Functions to this level of maintenance are identified by a work time figure in the "H" column of column (4), and an associated reference code is used in the REMARKS column (6). This code is keyed to the remarks and the SRA complete repair application is explained there.

**Explanation of Columns in the MAC - Continued**

Column (5) - Tools and Equipment Reference Code. Column (5) specifies, by code, those common tool sets (not individual tools), common Test, Measurement and Diagnostic Equipment (TMDE), and special tools, special TMDE and special support equipment required to perform the designated function. Codes are keyed to the entries in the tools and test equipment table.

Column (6) - Remarks Code. When applicable, this column contains a letter code, in alphabetical order, which is keyed to the remarks table entries.

**Explanation of Columns in the Tools and Test Equipment Requirements**

Column (1) - Tool or Test Equipment Reference Code. The tool or test equipment reference code correlates with a code used in column (5) of the MAC.

Column (2) - Maintenance Level. The lowest level of maintenance authorized to use the tool or test equipment.

Column (3) - Nomenclature. Name or identification of the tool or test equipment.

Column (4) - National Stock Number (NSN). The NSN of the tool or test equipment.

Column (5) - Tool Number. The manufacturer's part number.

**Explanation of Columns in the Remarks**

Column (1) - Remarks Code. The code recorded in column (6) of the MAC.

Column (2) - Remarks. This column lists information pertinent to the maintenance function being performed as indicated in the MAC.

**END OF WORK PACKAGE**

UNIT AND DIRECT SUPPORT

LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)

MAINTENANCE ALLOCATION CHART (MAC)

MAINTENANCE ALLOCATION CHART (MAC)

Table 1. MAC for M107 Long Range Sniper Rifle (LRSR).

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL					(5) TOOLS AND EQUIPMENT REF CODE	(6) REMARKS CODE
			FIELD			SUSTAIN- MENT			
			UNIT	DS	GS	DPT			
			C	O	F	H	D		
00	Rifle, Sniper, Long Range, M107	Inspect Service Replace Repair		0.2				4, 5, 6, 7	
01	Lower Receiver Assembly	Inspect Test Service Repair	0.1	0.1 0.1	0.2 0.1		0.2	4, 5, 6, 7, 8	
0101	Trigger Assembly	Inspect Test Service Repair			0.2 0.4			3, 5, 6, 7	
0102	Transfer Bar Assembly	Inspect Test Service Repair			0.1 0.3			5, 6, 7	
0103	Monopod Assembly	Inspect Test Service Repair	0.1	0.1 0.1				4, 5, 6, 7, 8	
02	Upper Receiver Assembly	Inspect Test Service Repair Overhaul			0.3 0.5		0.2 1.0 1.0	3, 5, 6, 7, 8 3, 5, 6, 7, 8	
0201	Carrying Handle Assembly	Inspect Test Service Repair	0.1	0.1 0.1				4, 5, 6, 7	

**MAINTENANCE ALLOCATION CHART (MAC) - Continued**

**Table 1. MAC for M107 Long Range Sniper Rifle (LRSR) - Continued.**

(1) <b>GROUP NUMBER</b>	(2) <b>COMPONENT/ASSEMBLY</b>	(3) <b>MAINTENANCE FUNCTION</b>	(4) <b>MAINTENANCE LEVEL</b>					(5) <b>TOOLS AND EQUIPMENT REF CODE</b>	(6) <b>REMARKS CODE</b>
			FIELD			SUSTAIN- MENT			
			UNIT	DS	GS	DPT			
			C	O	F	H	D		
0202	Front Sight Assembly	Inspect Test Service Repair	0.1	0.1 0.1 0.3				4, 5, 6, 7	
0203	Iron Sight Assembly	Inspect Test Service Repair		0.1 0.3	0.1 0.5			1, 3, 5, 6, 7	
03	Barrel Assembly	Inspect Test Service Repair Overhaul		0.1 0.3	0.1 0.3		0.2 1.0 1.0	2, 3, 5, 6, 7 2, 3, 5, 6, 7	
04	Bolt and Carrier Assembly	Inspect Test Service Repair	0.1	0.1 0.1	0.1 0.1			3, 5, 6, 7, 8	
0401	Bolt Assembly	Inspect Test Service Repair	0.1 0.1	0.1	0.1			4, 5, 6, 7	
0402	Sear Assembly	Inspect Test Service Repair			0.1 0.3			5, 6, 7	
0403	Firing Pin Extension Assembly	Inspect Test Service Repair			0.1 0.4			5, 6, 7	
05	Cartridge Magazine	Inspect Test Service Repair		0.1 0.5				4, 5, 6, 7	
06	Bipod Assembly	Inspect Test Service Repair	0.1	0.1	0.1 0.5			3, 5, 6, 7	

**Table 1. MAC for M107 Long Range Sniper Rifle (LRSR) - Continued.**

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL					(5) TOOLS AND EQUIPMENT REF CODE	(6) REMARKS CODE
			FIELD			SUSTAIN- MENT			
			UNIT		DS	GS	DPT		
			C	O	F	H	D		
07	Optic Mount System	Inspect Test Service Repair Overhaul	0.1 0.3 0.3 0.3	0.1 0.1 0.3 0.3	0.1 0.1 0.3 0.3		0.5 0.2 0.5 1.0 1.0	4, 5, 6, 7, 8	
0701	Scope Ring Assembly	Inspect Test Service Repair		0.1 0.1				1, 5, 6, 7	

**Table 2. Tools and Test Equipment for M107 Long Range Sniper Rifle (LRSR).**

TOOL OR TEST EQUIPMENT REF CODE	MAINTENANCE LEVEL	NOMENCLATURE	NATIONAL STOCK NUMBER	TOOL NUMBER
1	C	Deployment Kit Tool Kit, TK-1 Consists of:		
		Punch, Roll Pin, 1/16 in.	5120-01-335-1435	T-33 (0BT64)
		Socket, 1/2 in., 3/8 in. drive (for use with torque wrench)	5120-00-237-0977	B107.1 CL1STA (05047)
		Wrench, Combination, Short Handle, 1/2 in.	5120-00-228-9506	1162 (96508)
		Wrench, Key, L-shaped, 0.050 in.	5120-00-198-5401	AW1-1-2 (55719)
		Wrench, Key, L-shaped, 3/32 in.	5120-00-242-7410	BA27077-4 (92674)
		Wrench, Torque, 65 in-lb, 3/8 in. drive, with Socket	5220-01-260-2645	96059 (3A703)
		Wrench, Torx, L-shaped	5120-01-518-0360	T-10 (0BT64)
		Wrench, Torx, L-shaped		T-15 (0BT64)
		Punch, Drive Pin	5120-01-518-0363	T-30 (0BT64)

## MAINTENANCE ALLOCATION CHART (MAC) - Continued

Table 2. Tools and Test Equipment for M107 Long Range Sniper Rifle (LRSR) - Continued.

TOOL OR TEST EQUIPMENT REF CODE	MAINTENANCE LEVEL	NOMENCLATURE	NATIONAL STOCK NUMBER	TOOL NUMBER
2	F	Screwdriver Bit Socket Set (Torx Tip) Containing:  Socket, T-25 Torx, 3/8 in. drive  Socket, T-30 Torx, 3/8 in. drive	5120-01-178-6342	J-29843 (33287)
3	F	Shop Set, Small Arms: Field Maintenance, Basic	4933-00-754-0664	SC 4933-95-A11
4	O	Small Arms Repairer Tool Kit	5180-00-357-7770	SC 5180-95-B71
5	O	Small Arms Repairer Tool Kit*	5180-01-504-5663	SL-3-10919A (19204)
6	F	Tool Kit, Intermediate Maintenance, M107 (SASR)*		SL-3-10894A
7	O	Tool Kit, Organizational Maintenance, M107 (SASR)*		SL-3-10893A
8	O	Torx Screwdriver Set Consists of:  Screwdriver, Torx, T-handle, T-15  Screwdriver, Torx, T-handle, T-20  Screwdriver, Torx, T-handle, T-25  Screwdriver, Torx, T-handle, T-27  Screwdriver, Torx, T-handle, T-30  Screwdriver, Torx, T-handle, T-45	5120-01-167-1667  5120-01-521-4531  5120-00-242-7410  5120-01-518-0363	5120-01-167-1667 (80244)

\*USMC ONLY

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**Table 3. Remarks for M107 Long Range Sniper Rifle (LRSR).**

<b>REMARKS CODE</b>	<b>REMARKS</b>
	Not Applicable.

**END OF WORK PACKAGE**



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**UNIT AND DIRECT SUPPORT****LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)****INTRODUCTION TO REPAIR PARTS AND SPECIAL TOOLS LIST (RPSTL)**

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**INTRODUCTION****Scope**

This RPSTL lists and authorizes spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMDE); and other special support equipment required for performance of unit and direct support maintenance of the M107 Long Range Sniper Rifle (LRSR)/Special Application Scoped Rifle (SASR). It authorizes the requisitioning, issue, and disposition of spares, repair parts, and special tools as indicated by the source, maintenance, and recoverability (SMR) codes.

**General**

In addition to the Introduction work package, this RPSTL is divided into the following work packages.

1. **Repair Parts List Work Packages.** Work packages containing lists of spares and repair parts authorized by this RPSTL for use in the performance of maintenance. These work packages also include parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending alphanumeric sequence, with the parts in each group listed in ascending figure and item number sequence. Sending units, brackets, filters, and bolts are listed with the component they mount on. Bulk materials are listed by item name in FIG. BULK at the end of the work packages. Repair parts kits are listed separately in their own functional group and work package. Repair parts for reparable special tools are also listed in a separate work package. Items listed are shown on the associated illustrations.
2. **Special Tools List Work Packages.** Work packages containing lists of special tools, special TMDE, and special support equipment authorized by this RPSTL (as indicated by Basis of Issue (BOI) information in the DESCRIPTION AND USABLE ON CODE (UOC) column). Tools that are components of common tool sets and/or Class VII are not listed.
3. **Cross-Reference Indexes Work Packages.** There are two cross-reference indexes work packages in this RPSTL: the National Stock Number (NSN) Index work package and the Part Number (P/N) Index work package. The National Stock Number Index work package refers you to the figure and item number. The Part Number Index work package refers you to the figure and item number.

**Explanation of Columns in the Repair Parts List and Special Tools List Work Packages**

ITEM NO. (Column (1)). Indicates the number used to identify items called out in the illustration.

SMR CODE (Column (2)). The SMR code containing supply/requisitioning information, maintenance level authorization criteria, and disposition instruction, as shown in the following breakout:

**Explanation of Columns in the Repair Parts List and Special Tools List Work Packages - Continued**

<u>Source Code</u>	<u>Maintenance Code</u>		<u>Recoverability Code</u>
— xx —	— xx —		— x —
1st two positions: How to get an item.	3rd position: Who can install, replace, or use the item.	4th position: Who can do complete repair* on the item.	5th position: Who determines disposition action on unserviceable items.

\*Complete Repair: Maintenance capacity, capability, and authority to perform all corrective maintenance tasks of the "Repair" function in a use/user environment in order to restore serviceability to a failed item.

Source Code. The source code tells you how to get an item needed for maintenance, repair, or overhaul of an end item/equipment. Explanations of source codes follow:

**Source Code**

**Application/Explanation**

PA  
PB  
PC  
PD  
PE  
PF  
PG

Stock items; use the applicable NSN to requisition/request items with these source codes. They are authorized to the level indicated by the code entered in the 3rd position of the SMR code.

**NOTE**

Items coded PC are subject to deterioration.

KD  
KF  
KB

Items with these codes are not to be requested/requisitioned individually. They are part of a kit which is authorized to the maintenance level indicated in the 3rd position of the SMR code. The complete kit must be requisitioned and applied.

MO- Made at unit/  
AVUM level  
MF- Made at DS/  
AVIM level  
MH- Made at GS  
level  
ML- Made at SRA  
MD- Made at depot

Items with these codes are not to be requisitioned/requested individually. They must be made from bulk material which is identified by the P/N in the DESCRIPTION AND USABLE ON CODE (UOC) column and listed in the bulk material group work package of the RPSTL. If the item is authorized to you by the 3rd position code of the SMR code, but the source code indicates it is made at higher level, order the item from the higher level of maintenance.

AO-	Assembled by unit/AVUM level	Items with these codes are not to be requested/requisitioned individually. The parts that make up the assembled item must be requisitioned or fabricated and assembled at the level of maintenance indicated by the source code. If the 3rd position of the SMR code authorizes you to replace the item, but the source code indicates the item is assembled at a higher level, order the item from the higher level of maintenance.
AF-	Assembled by DS/AVIM level	
AH-	Assembled by GS level	
AL-	Assembled by SRA	
AD-	Assembled by depot	
XA		Do not requisition an XA-coded item. Order the next higher assembly. (Refer to NOTE below.)
XB		If an item is not available from salvage, order it using the CAGEC and P/N.
XC		Installation drawings, diagrams, instruction sheets, field service drawings; identified by manufacturer's P/N.
XD		Item is not stocked. Order an XD-coded item through normal supply channels using the CAGEC and P/N given, if no NSN is available.

### NOTE

Cannibalization or controlled exchange, when authorized, may be used as a source of supply for items with the above source codes, except for those source coded "XA" or those aircraft support items restricted by requirements of AR 750-1.

Maintenance Code. Maintenance codes tell you the level(s) of maintenance authorized to use and repair support items. The maintenance codes are entered in the third and fourth positions of the SMR code as follows:

Third Position. The maintenance code entered in the third position tells you the lowest maintenance level authorized to remove, replace, and use an item. The maintenance code entered in the third position will indicate authorization to the following levels of maintenance:

<u>Maintenance Code</u>	<u>Application/Explanation</u>
C	- Crew or operator maintenance done within unit/AVUM maintenance.
O	- Unit level/AVUM maintenance can remove, replace, and use the item.
F	- Direct support/AVIM maintenance can remove, replace, and use the item.
H	- General support maintenance can remove, replace, and use the item.
L	- Specialized repair activity can remove, replace, and use the item.
D	- Depot can remove, replace, and use the item.

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**Explanation of Columns in the Repair Parts List and Special Tools List Work Packages - Continued**

Fourth Position. The maintenance code entered in the fourth position tells you whether or not the item is to be repaired and identifies the lowest maintenance level with the capability to do complete repair (perform all authorized repair functions).

**NOTE**

Some limited repair may be done on the item at a lower level of maintenance, if authorized by the Maintenance Allocation Chart (MAC) and SMR codes.

<u>Maintenance Code</u>	<u>Application/Explanation</u>
O           -	Unit/AVUM is the lowest level that can do complete repair of the item.
F           -	Direct support/AVIM is the lowest level that can do complete repair of the item.
H           -	General support is the lowest level that can do complete repair of the item.
L           -	Specialized repair activity is the lowest level that can do complete repair of the item.
D           -	Depot is the lowest level that can do complete repair of the item.
Z           -	Nonreparable. No repair is authorized.
B           -	No repair is authorized. No parts or special tools are authorized for the maintenance of "B" coded item. However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

Recoverability Code. Recoverability codes are assigned to items to indicate the disposition action on unserviceable items. The recoverability code is shown in the fifth position of the SMR code as follows:

<u>Recoverability Code</u>	<u>Application/Explanation</u>
Z -	Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in the third position of the SMR code.
O -	Reparable item. When uneconomically repairable, condemn and dispose of the item at the unit level.
F -	Reparable item. When uneconomically repairable, condemn and dispose of the item at the direct support level.
H -	Reparable item. When uneconomically repairable, condemn and dispose of the item at the general support level.
D -	Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item are not authorized below depot level.
L -	Reparable item. Condemnation and disposal not authorized below Specialized Repair Activity (SRA).
A -	Item requires special handling or condemnation procedures because of specific reasons (such as precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.

NSN (Column (3)). The NSN for the item is listed in this column.

CAGEC (Column (4)). The Commercial and Government Entity Code (CAGEC) is a five-digit code which is used to identify the manufacturer, distributor, or Government agency/activity that supplies the item.

PART NUMBER (Column (5)). Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications, standards, and inspection requirements to identify an item or range of items.

### NOTE

When you use an NSN to requisition an item, the item you receive may have a different P/N from the number listed.

DESCRIPTION AND USABLE ON CODE (UOC) (Column (6)). This column includes the following information:

1. The federal item name and, when required, a minimum description to identify the item.
2. P/Ns of bulk materials are referenced in this column in the line entry to be manufactured or fabricated.
3. Hardness Critical Item (HCI). A support item that provides the equipment with special protection from electromagnetic pulse (EMP) damage during a nuclear attack.
4. The statement END OF FIGURE appears just below the last item description in column (6) for a given figure in both the repair parts list and special tools list work packages.

## Explanation of Columns in the Repair Parts List and Special Tools List Work Packages - Continued

QTY (Column (7)). The QTY (quantity per figure) column indicates the quantity of the item used in the breakout shown on the illustration/figure, which is prepared for a functional group, subfunctional group, or an assembly. A "V" appearing in this column instead of a quantity indicates that the quantity is variable and quantity may change from application to application.

## Explanation of Cross-Reference Indexes Work Packages Format and Columns

1. National Stock Number (NSN) Index Work Package.

STOCK NUMBER Column. This column lists the NSN in National item identification number (NIIN) sequence. The NIIN consists of the last nine digits of the NSN.

$$\frac{\text{NSN}}{\text{NIIN}}$$

(e.g.,  $\frac{5385-01-574-1476}{}$ ).

When using this column to locate an item, ignore the first four digits of the NSN. However, the complete NSN should be used when ordering items by stock number.

FIG. Column. This column lists the number of the figure where the item is identified/located. The figures are in numerical order in the repair parts list and special tools list work packages.

ITEM Column. The item number identifies the item associated with the figure listed in the adjacent FIG. column. This item is also identified by the NSN listed on the same line.

2. Part Number (P/N) Index Work Package. P/Ns in this index are listed in ascending alphanumeric sequence (vertical arrangement of letter and number combinations which places the first letter or digit of each group in order A through Z, followed by the numbers 0 through 9 and each following letter or digit in like order).

PART NUMBER Column. Indicates the P/N assigned to the item.

FIG. Column. This column lists the number of the figure where the item is identified/located in the repair parts list and special tools list work packages.

ITEM Column. The item number is the number assigned to the item as it appears in the figure referenced in the adjacent figure number column.

## Special Information

UOC. The UOC appears in the lower left corner of the Description Column heading. Usable on codes are shown as "UOC:..." in the Description Column (justified left) on the first line under the applicable item/nomenclature. Uncoded items are applicable to all models.

Fabrication Instructions. Bulk materials required to manufacture items are listed in the bulk material functional group of this RPSTL. Part numbers for bulk materials are also referenced in the Description Column of the line item entry for the item to be manufactured/fabricated. Detailed fabrication instructions for items source coded to be manufactured or fabricated are found in the appropriate maintenance work packages of this manual.

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Index Numbers. Items which have the work BULK in the figure column will have an index number shown in the item number column. This index number is a cross-reference between the NSN / P/N index work packages and the bulk material list in the repair parts list work package.

### **How To Locate Repair Parts**

1. When NSN or P/Ns Are Not Known.

First. Using the table of contents, determine the assembly group to which the item belongs. This is necessary since figures are prepared for assembly groups and subassembly groups, and lists are divided into the same groups.

Second. Find the figure covering the functional group or the subfunctional group to which the item belongs.

Third. Identify the item on the figure and note the number(s).

Fourth. Look in the repair parts list work packages for the figure and item numbers. The NSNs and part numbers are on the same line as the associated item numbers.

2. When NSN Is Known.

First. If you have the NSN, look in the STOCK NUMBER column of the NSN index work package. The NSN is arranged in NIIN sequence. Note the figure and item number next to the NSN.

Second. Turn to the figure and locate the item number. Verify that the item is the one you are looking for.

3. When P/N Is Known.

First. If you have the P/N and not the NSN, look in the PART NUMBER column of the P/N index work package. Identify the figure and item number.

Second. Look up the item on the figure in the applicable repair parts list work package.

**END OF WORK PACKAGE**



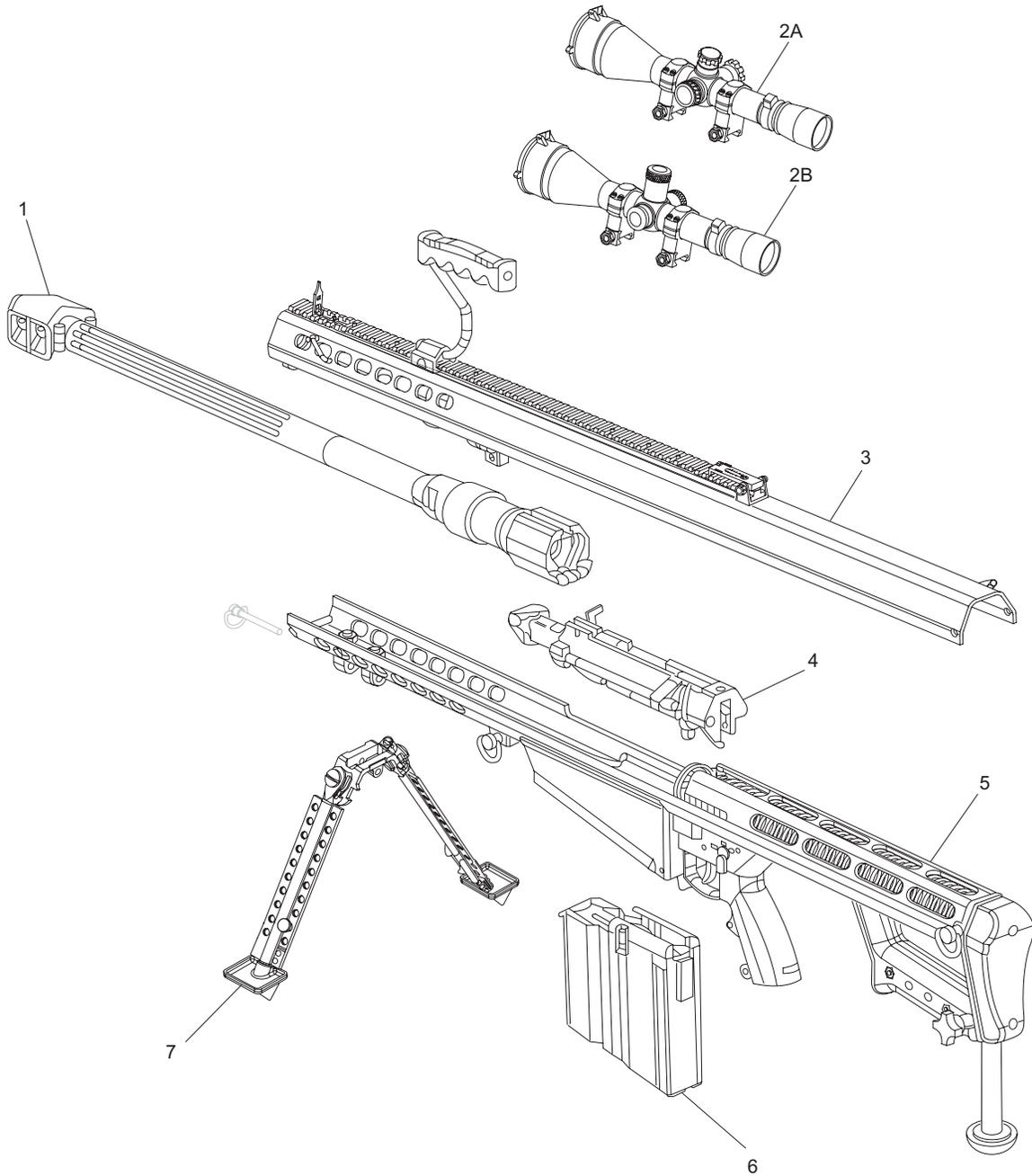
**UNIT AND DIRECT SUPPORT**

**LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)**

**LONG RANGE SNIPER RIFLE, M107**

**REPAIR PARTS LIST**

---



2TK082

Figure 1. Long Range Sniper Rifle (LRSR), M107.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 00 FIG. 1 RIFLE, SNIPER, LONG RANGE (LRSR), M107	
1	XAFDD		0BT64	DBC-005	BARREL ASSEMBLY (SEE FIG. 9 FOR ASSEMBLY BREAKDOWN) UOC:ABA.....	1
2A	PADDD		0BT64	OMSYS6	OPTIC MOUNT SYSTEM (SEE FIG. 16 FOR ASSEMBLY BREAKDOWN) UOC:ABA.....	1
2B	PADDD		0BT64	OMSYS6	OPTIC MOUNT SYSTEM (SEE FIG. 17 FOR ASSEMBLY BREAKDOWN) UOC:ABA.....	1
3	XAODD		0BT64	DBC-004	UPPER RECEIVER ASSEMBLY (SEE FIG. 5 FOR ASSEMBLY BREAKDOWN) UOC:ABA.....	1
4	XAOFF		0BT64	DBC-006	BOLT AND CARRIER ASSEMBLY (SEE FIG. 10 FOR ASSEMBLY BREAKDOWN) UOC:ABA.....	1
5	XAODD		0BT64	DBC-002	LOWER RECEIVER ASSEMBLY (SEE FIG. 2 FOR ASSEMBLY BREAKDOWN) UOC:ABA.....	1
6	PAOOO	1005-01-358-1342	0BT64	82116A	MAGAZINE,CARTRIDGE (SEE FIG. 14 FOR ASSEMBLY BREAKDOWN) UOC:ABA.....	1
7	AFFFF *AOOOO		0BT64	BA-2	BIPOD ASSEMBLY (SEE FIG. 15 FOR ASSEMBLY BREAKDOWN) UOC:ABA.....	1

\*FOR USMC ONLY

END OF FIGURE

END OF WORK PACKAGE



**UNIT AND DIRECT SUPPORT**

**LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)**

**LOWER RECEIVER ASSEMBLY, DBC-002, AND TRIGGER ASSEMBLY, 82069-2A**

**REPAIR PARTS LIST**

---



(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 01, 0101 FIG. 2 LOWER RECEIVER ASSEMBLY, DBC-002 TRIGGER ASSEMBLY, 82069-2A	
1	PAFZZ *PAOZZ	5310-01-412-4266	0BT64	82046	YOKE MOUNT NUT UOC:ABA.....	2
2	PAFZZ *PAOZZ	5310-01-261-6678	39428	98438A031	WASHER, LOCK UOC:ABA.....	2
3	XADDD *PAFDD		0BT64	82000C-107	LOWER RECEIVER UOC:ABA.....	1
4	PAFFF *PAOOO	1005-01-514-8427	0BT64	82069-2A	TRIGGER ASSEMBLY UOC:ABA.....	1
5	PAFZZ *PAOZZ	5360-01-358-0154	0BT64	82071	. TRIGGER SPRING UOC:ABA.....	1
6	XAFZZ *PAOZZ	1005-01-357-4807	0BT64	82069	. TRIGGER UOC:ABA.....	1
7	PAFZZ *PAOZZ	5315-01-359-3152	0BT64	82070	. TRIGGER HOUSING PIN UOC:ABA.....	1
8	PAFZZ *PAOZZ	1005-01-358-7392	0BT64	82073	DISCONNECTOR SPRING UOC:ABA.....	1
9	PAFZZ *PAOZZ	1005-01-360-1931	0BT64	82072	DISCONNECTOR UOC:ABA.....	1
10	PAFZZ *PAOOO	1005-01-360-1932	0BT64	82074-1A	TRANSFER BAR ASSEMBLY (SEE FIG. 3 FOR ASSEMBLY BREAKDOWN, USMC ONLY) UOC:ABA.....	1
11	PAFZZ *PAOZZ	5315-01-359-3152	0BT64	82070	TRANSFER BAR PIN UOC:ABA.....	1
12	PAOZZ	1005-01-358-7873	0BT64	82110	MAINSRING BUFFER UOC:ABA.....	1
13	PAOZZ	5360-01-359-2751	0BT64	82109	MAINSRING UOC:ABA.....	1
14	PAOZZ	1005-01-465-5795	0BT64	82162	RIGHT REAR HAND GRIP UOC:ABA.....	1
15	PAOZZ	5305-01-465-5694	0BT64	82164	REAR HANDGRIP SCREW UOC:ABA.....	2
16	PAOZZ	5305-01-286-9783	0BT64	82038	RECOIL PAD SCREW UOC:ABA.....	2
17	PAOZZ	1005-01-358-7874	0BT64	82037-1	RECOIL PAD UOC:ABA.....	1
18	PAOOO	1005-01-465-5793	0BT64	82226-A	MONOPOD ASSEMBLY (SEE FIG. 4 FOR ASSEMBLY BREAKDOWN) UOC:ABA.....	1
19	PAOZZ	5315-01-300-2640	0BT64	82114-1A	PIN,QUICK RELEASE UOC:ABA.....	2
20	PAOZZ	1005-01-465-5692	0BT64	82163	LEFT REAR HAND GRIP UOC:ABA.....	1
21	PAOZZ	1005-01-465-5708	0BT64	82225	LOCK KNOB UOC:ABA.....	1
22	PAOZZ	5310-01-465-5696	0BT64	82165	REAR HAND GRIP NUT UOC:ABA.....	2
23	PAOZZ	5305-01-432-0438	39428	91205A542	PISTOL GRIP SCREW UOC:ABA.....	1
24	PAOZZ	5310-01-382-4094	0BT64	82053-1	PISTOL GRIP WASHER UOC:ABA.....	1

\*FOR USMC ONLY

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
25	PAOZZ	1005-01-358-8844	0BT64	82051A	GRIP, RIFLE UOC:ABA.....	1
26	PAOZZ	5360-01-358-3035	0BT64	82055	SAFETY SPRING UOC:ABA.....	1
27	PAOZZ	5315-01-359-3147	0BT64	82056	SAFETY DETENT UOC:ABA.....	1
28	PAOZZ	5360-01-358-3042	0BT64	82067	MAGAZINE CATCH SPRING UOC:ABA.....	1
29	PAOZZ	1005-01-360-1930	0BT64	82066	MAGAZINE CATCH UOC:ABA.....	1
30	PAOZZ	1005-01-357-6820	0BT64	82054-1	SAFETY UOC:ABA.....	1
31	PAOZZ	5315-01-358-7372	39428	92383A266	PIN, SPRING UOC:ABA.....	1
32	PAOZZ	5315-01-210-0923	0BT64	82115-1A	PIN,QUICK RELEASE UOC:ABA.....	1
33	PAFZZ *PAOZZ	1005-01-502-5660	0BT64	82045-C1	YOKE MOUNT UOC:ABA.....	2

\*FOR USMC ONLY

END OF FIGURE

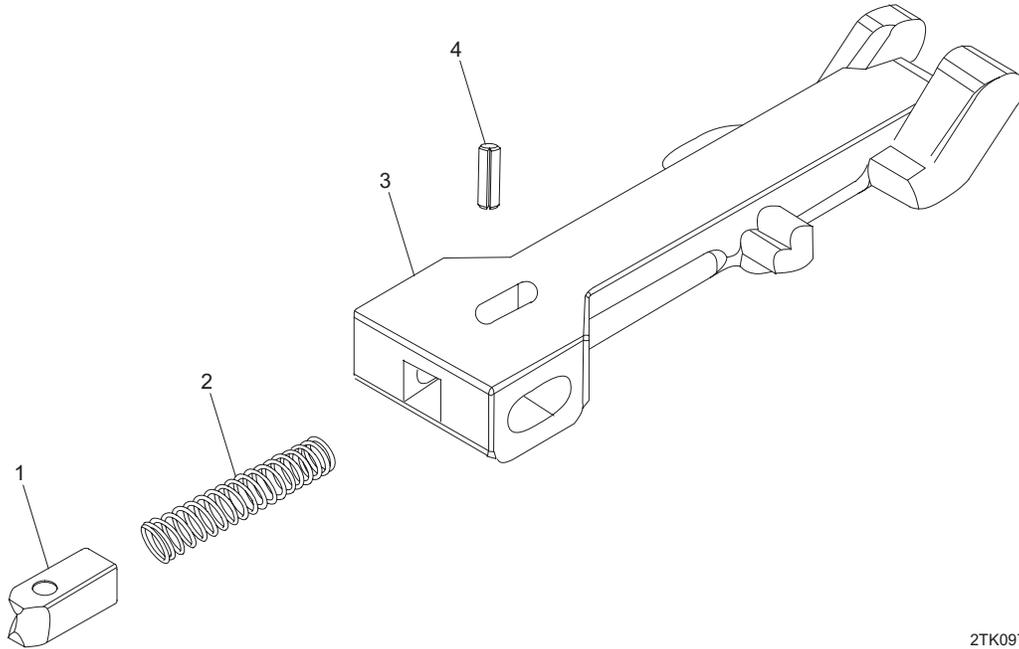
END OF WORK PACKAGE

UNIT AND DIRECT SUPPORT

LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)

TRANSFER BAR ASSEMBLY, 82074-1A

REPAIR PARTS LIST



2TK097

Figure 3. Transfer Bar Assembly, 82074-1A.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 0102						
FIG. 3 TRANSFER BAR ASSEMBLY, 82074-1A						
1	PGOZZ	5315-01-359-6520	0BT64	82076-1	PIN, SHOULDER, HEADLESS UOC:ABA.....	1
2	PGOZZ	5360-01-359-3200	0BT64	82075	SPRING, HELICAL COMPRESSION UOC:ABA.....	1
3	PGOZZ	1005-01-360-1933	0BT64	82074-1	TRANSFER BAR, RIFLE UOC:ABA.....	1
4	PGOZZ	5315-01-358-8821	0BT64	82077	PIN, SPRING UOC:ABA.....	1

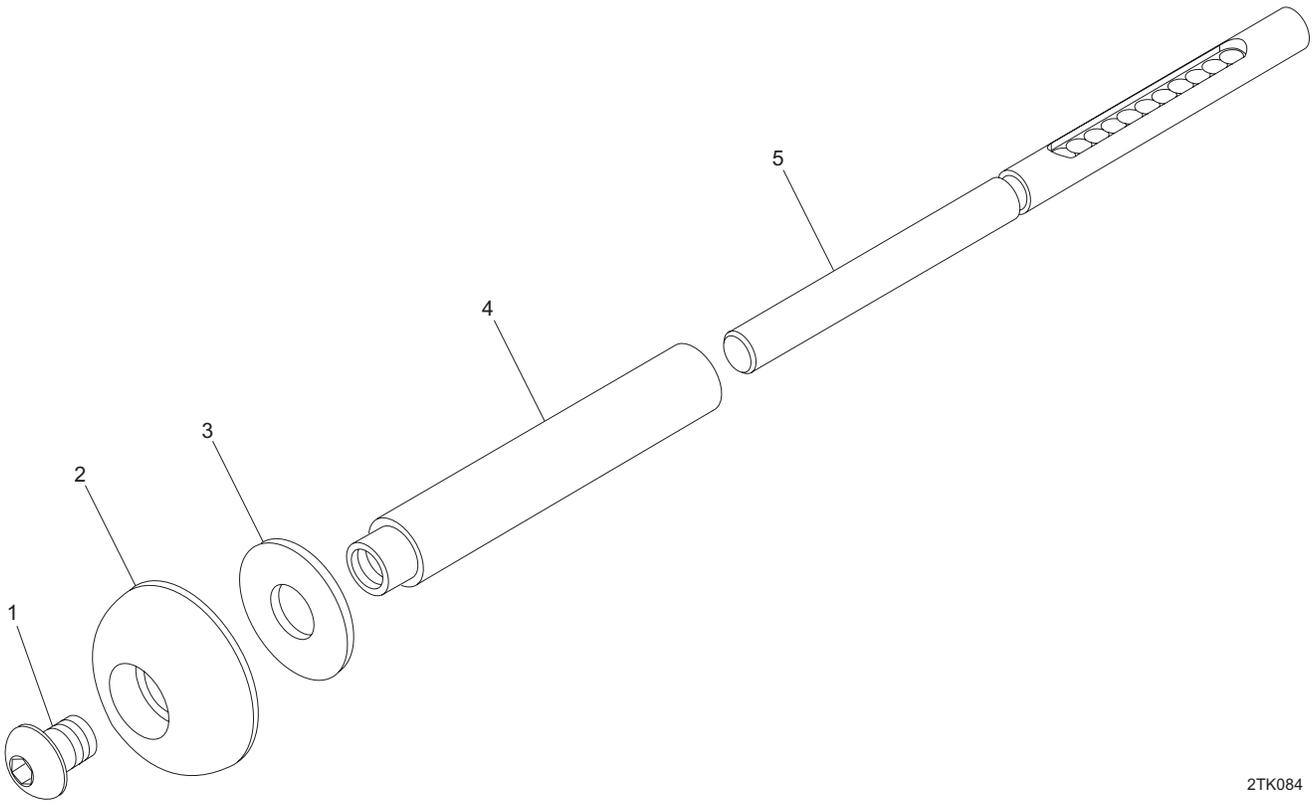
END OF FIGURE

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**UNIT AND DIRECT SUPPORT**  
**LONG RANGE SNIPER RIFLE, M107**  
**(NSN 1005-01-469-2133)**  
**MONOPOD ASSEMBLY, 82226-A**  
**REPAIR PARTS LIST**

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2TK084

Figure 4. Monopod Assembly, 82226-A.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 0103 FIG. 4 MONOPOD ASSEMBLY, 82226-A	
1	PAOZZ	5305-01-501-3224	0BT64	82230	MONOPOD FOOT SCREW UOC:ABA.....	1
2	PAOZZ	1005-01-465-5702	0BT64	82229	MONOPOD FOOT UOC:ABA.....	1
3	PAOZZ	5310-01-501-3225	0BT64	82228	MONOPOD FOOT WASHER UOC:ABA.....	1
4	PAOZZ	1005-01-501-3226	0BT64	82227	ELEVATION COLLAR UOC:ABA.....	1
5	XAOZZ		0BT64	82226	MONOPOD SCREW UOC:ABA.....	1
					END OF FIGURE	

END OF WORK PACKAGE



**UNIT AND DIRECT SUPPORT**

**LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)**

**UPPER RECEIVER ASSEMBLY, DBC-004**

**REPAIR PARTS LIST**

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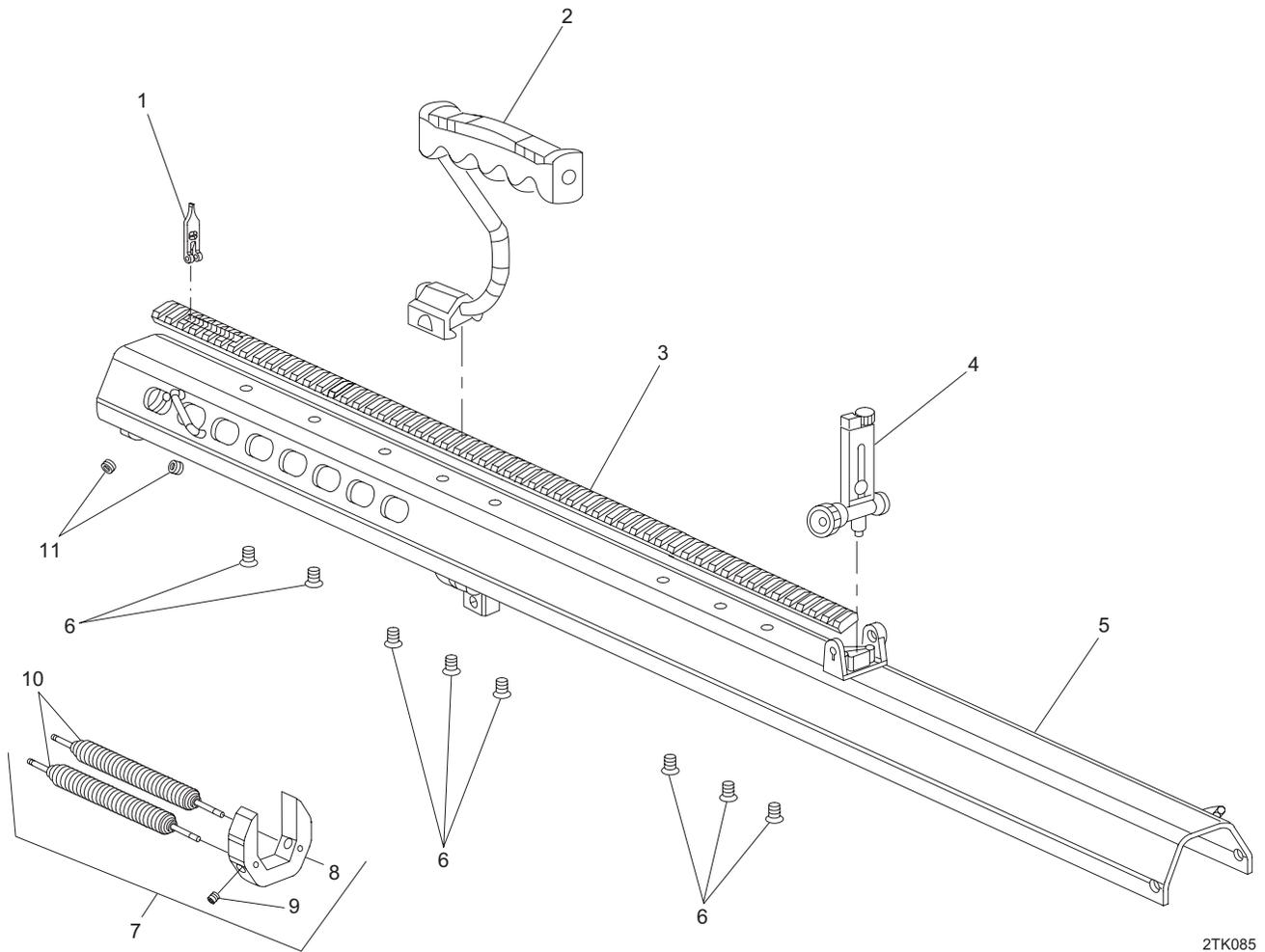


Figure 5. Upper Receiver Assembly, DBC-004.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 02						
FIG. 5 UPPER RECEIVER ASSEMBLY, DBC-004						
1	AOOOO *PAOZZ	1005-01-357-4806	0BT64	82021	FRONT SIGHT ASSEMBLY (SEE FIG. 7 FOR ASSEMBLY BREAKDOWN) UOC:ABA.....	1
2	AOOOO *PAOZZ	1005-01-359-2716	0BT64	82048-C3	CARRYING HANDLE ASSEMBLY (SEE FIG. 6 FOR ASSEMBLY BREAKDOWN) UOC:ABA.....	1
3	PAFZZ	1240-01-526-4419	0BT64	82330	SCOPE BASE UOC:ABA.....	1
4	PAFFF *PAOZZ	1005-01-502-5870	0BT64	8SA2	IRON SIGHT ASSEMBLY (SEE FIG. 8 FOR ASSEMBLY BREAKDOWN) UOC:ABA.....	1
5	XADDD *PAFDD		0BT64	82313-A	UPPER RECEIVER UOC:ABA.....	1
6	PAFZZ	5305-01-502-4964	0BT64	82131-2	SCOPE BASE SCREW UOC:ABA.....	8
7	PAFZZ	1005-01-470-9079	0BT64	82061-A	BARREL KEY ASSEMBLY UOC:ABA.....	1
8	*PAFZZ	1005-01-360-1929	0BT64	82061	BARREL KEY, RIFLE UOC:ABA.....	1
9	*PAFZZ	5305-01-277-5900	08164	82063	SCREW, BARREL SPRING UOC:ABA.....	2
10	*PAFZZ	5360-01-359-3201	0BT64	82062C	SPRING, BARREL UOC:ABA.....	2
11	PAFZZ	5305-01-277-5900	08164	82063	SCREW, BARREL SPRING UOC:ABA.....	2

\*FOR USMC ONLY

END OF FIGURE

END OF WORK PACKAGE



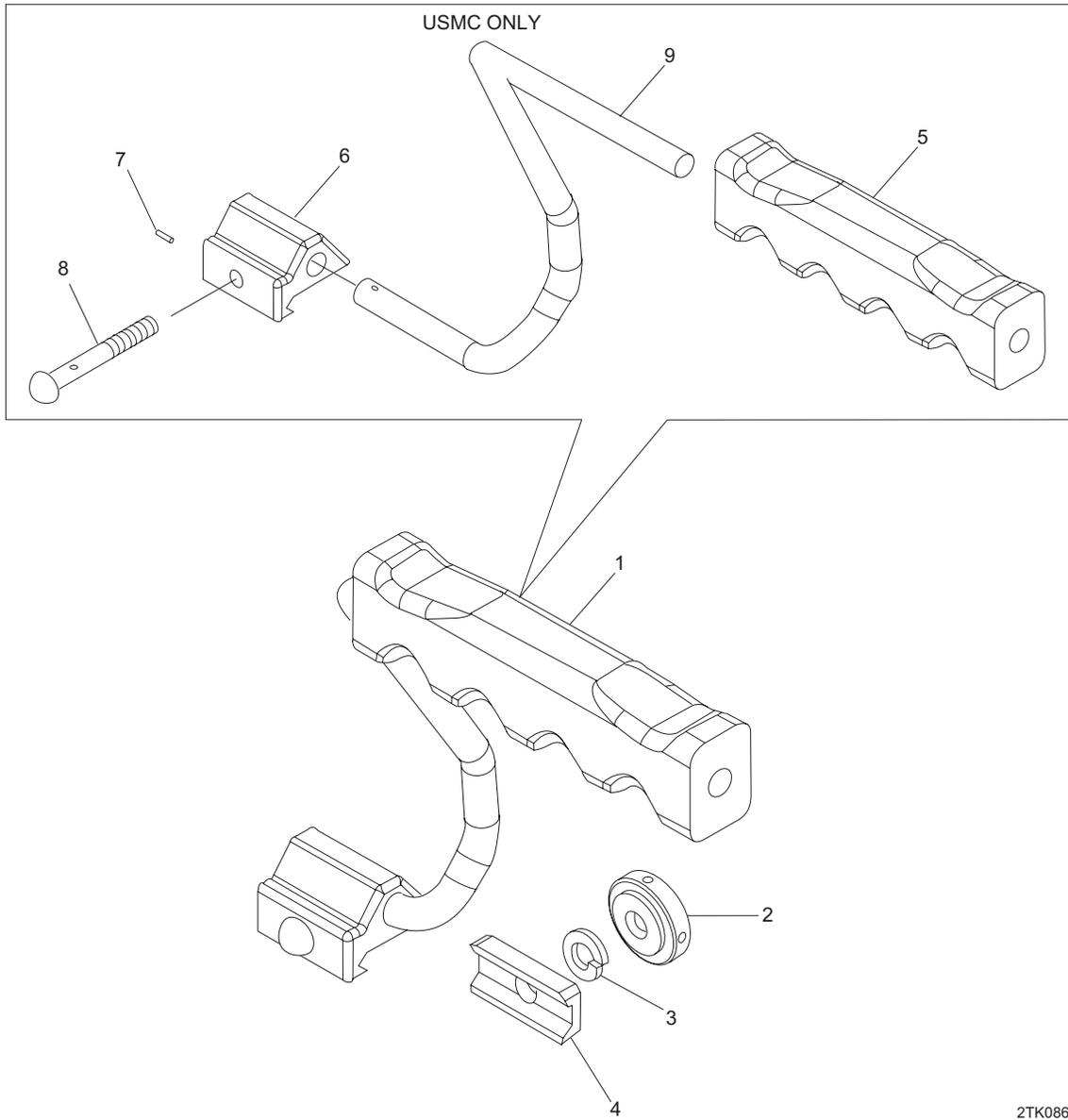
**UNIT AND DIRECT SUPPORT**

**LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)**

**CARRYING HANDLE ASSEMBLY, 82048-C3**

**REPAIR PARTS LIST**

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2TK086

Figure 6. Carrying Handle Assembly, 82048-C3.

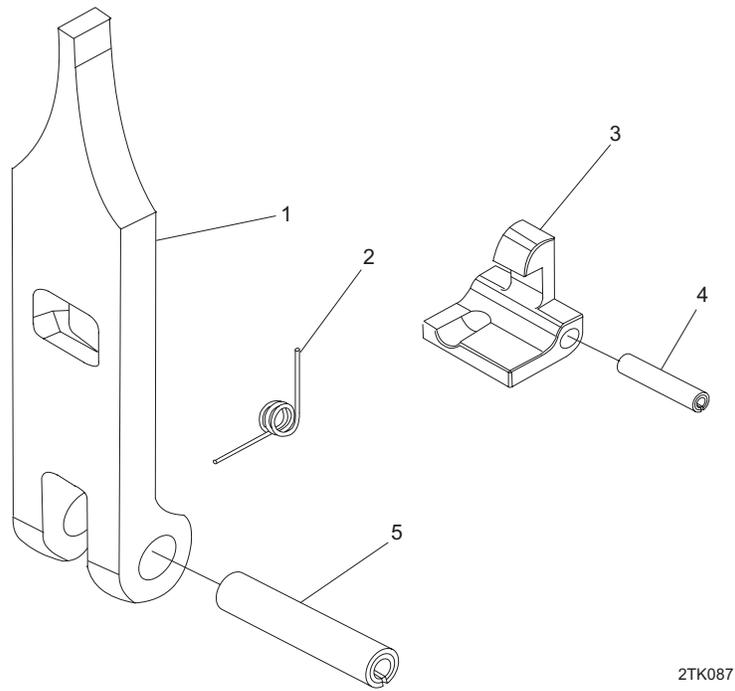
(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 0201 FIG. 6 CARRYING HANDLE ASSEMBLY, 82048-C3	
1	PAOZZ	1005-01-502-5668	0BT64	10748-A	CARRYING HANDLE ASSEMBLY UOC:ABA.....	1
2	PAOZZ	5310-01-502-1446	0BT64	82128-1	CARRYING HANDLE NUT UOC:ABA.....	1
3	PAOZZ	5310-01-494-9451	0BT64	82129	CARRYING HANDLE LOCK WASHER UOC:ABA.....	1
4	PAOZZ	1005-01-465-5680	0BT64	LW020	CARRYING HANDLE CLAMP UOC:ABA.....	1
5	PAOZZ	1005-01-359-0048	0BT64	82048	GRIP, RIFLE (USMC ONLY) UOC:ABA.....	1
6	PAOZZ	1005-01-465-5677	0BT64	LW019	MOUNT, HANDLE, RIFLE (USMC ONLY) UOC:ABA.....	1
7	PAOZZ	5315-01-358-7371	39428	92383A154	PIN, SPRING (USMC ONLY) UOC:ABA.....	1
8	PAOZZ	1005-01-472-5908	0BT64	82127	SCOPE RING CLAMP BOLT (USMC ONLY) UOC:ABA.....	1
9	PAOZZ	1005-01-357-9883	0BT64	82050	GRIP, RIFLE (USMC ONLY) UOC:ABA.....	1
					END OF FIGURE	

END OF WORK PACKAGE



**UNIT AND DIRECT SUPPORT**  
**LONG RANGE SNIPER RIFLE, M107**  
**(NSN 1005-01-469-2133)**  
**FRONT SIGHT ASSEMBLY, 82021**  
**REPAIR PARTS LIST**

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2TK087

Figure 7. Front Sight Assembly, 82021.

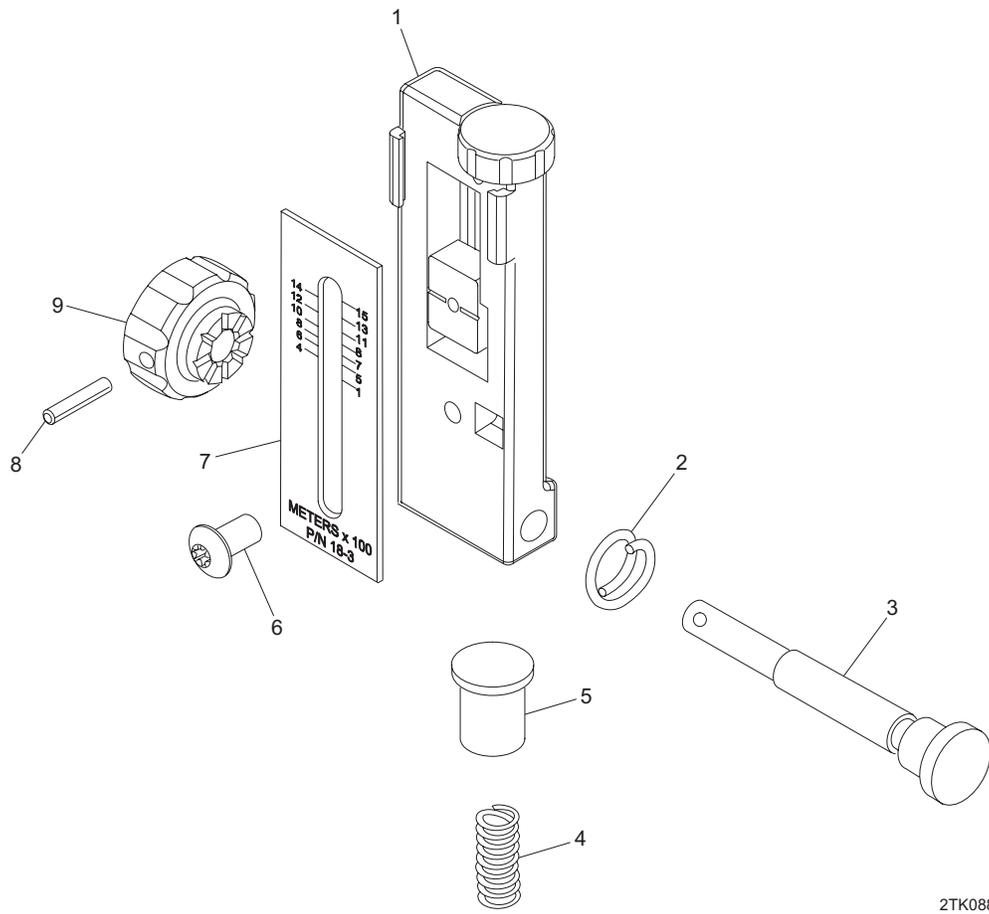
(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 0202 FIG. 7 FRONT SIGHT ASSEMBLY, 82021	
1	PAOZZ	1005-01-526-4372	0BT64	82321	FRONT SIGHT UOC:ABA.....	1
2	PAOZZ	5315-01-526-4352	0BT64	82324	FRONT SIGHT PIN UOC:ABA.....	1
3	PAOZZ	5360-01-526-4420	0BT64	82322	FRONT SIGHT SPRING UOC:ABA.....	1
4	PAOZZ	1010-01-526-4415	0BT64	82323	FRONT SIGHT CATCH UOC:ABA.....	1
5	PAOZZ	5315-01-526-4393	0BT64	82320	FRONT SIGHT CATCH PIN UOC:ABA.....	1
					END OF FIGURE	

END OF WORK PACKAGE



**UNIT AND DIRECT SUPPORT**  
**LONG RANGE SNIPER RIFLE, M107**  
**(NSN 1005-01-469-2133)**  
**IRON SIGHT ASSEMBLY, 8SA2**  
**REPAIR PARTS LIST**

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2TK088

Figure 8. Iron Sight Assembly, 8SA2.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 0203 FIG. 8 IRON SIGHT ASSEMBLY, 8SA2	
1	XAFZZ		0BT64	IS1	REAR SIGHT BODY UOC:ABA.....	1
2	PAFZZ *PAOZZ	5360-01-358-3034	0BT64	82029	WINDAGE SCREW SPRING UOC:ABA.....	1
3	PAFZZ *PAOZZ	5305-01-358-7302	0BT64	82028	WINDAGE SCREW UOC:ABA.....	1
4	PAFZZ *PAOZZ	5360-01-502-6169	0BT64	82027-SPG	REAR SIGHT BASE SPRING UOC:ABA.....	1
5	PAFZZ *PAOZZ	5340-01-501-7229	0BT64	82027	REAR SIGHT BASE DETENT PLUNGER UOC:ABA.....	1
6	PAFZZ *PAOZZ	5305-01-502-4970	0BT64	IS4	REAR SIGHT SCALE SCREW UOC:ABA.....	1
7	PAFZZ *PAOZZ	1005-01-502-5866	0BT64	IS-3	SLIDE ASSEMBLY, REAR UOC:ABA.....	1
8	PAFZZ *PAOZZ	5315-01-358-7370	0BT64	82031	PIN, SPRING UOC:ABA.....	1
9	PAFZZ *PAOZZ	5355-01-359-2593	0BT64	82030-1	WINDAGE KNOB UOC:ABA.....	1

\*FOR USMC ONLY

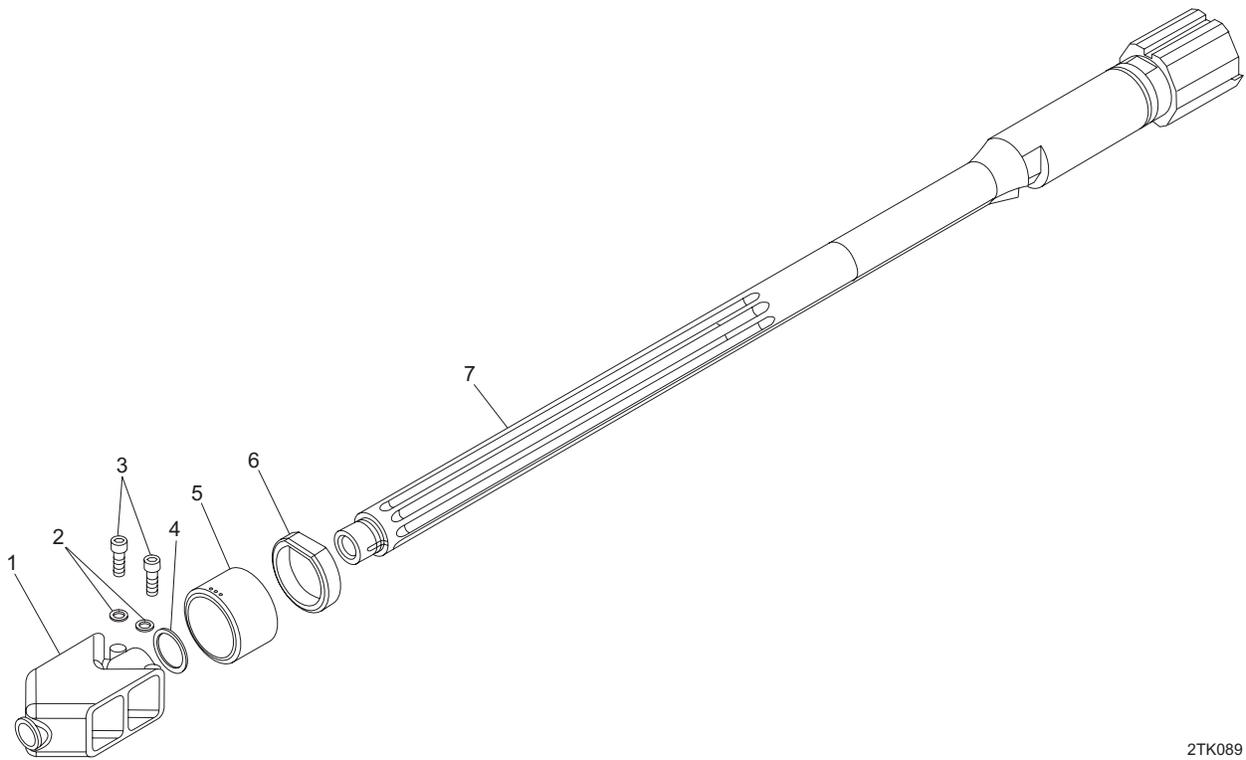
END OF FIGURE

END OF WORK PACKAGE



**UNIT AND DIRECT SUPPORT**  
**LONG RANGE SNIPER RIFLE, M107**  
**(NSN 1005-01-469-2133)**  
**BARREL ASSEMBLY, DBC-005**  
**REPAIR PARTS LIST**

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2TK089

Figure 9. Barrel Assembly, DBC-005.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 03 FIG. 9 BARREL ASSEMBLY, DBC-005	
1	PAFZZ	1005-01-463-9051	0BT64	82159-2	MUZZLE BRAKE UOC:ABA.....	1
2	PAFZZ	5310-01-502-1864	0BT64	82159-WA	WASHER, FLAT UOC:ABA.....	2
3	PAFZZ	1005-01-463-9052	0BT64	82159-S	SCREW, CAP, SOCKET HEAD UOC:ABA.....	2
4	PAFZZ	5365-01-502-4958	0BT64	82145-KIT	SHIM SET UOC:ABA.....	V
5	PAFZZ	5340-01-358-8855	0BT64	82065	BUMPER, NONMETALLIC UOC:ABA.....	1
6	PAFZZ	5340-01-358-8856	0BT64	82060	BUMPER, NONMETALLIC UOC:ABA.....	1
7	XADDD *PAFZZ	1005-01-357-6821	0BT64	82057C	BARREL, RIFLE UOC:ABA.....	1

\*FOR USMC ONLY

END OF FIGURE

END OF WORK PACKAGE



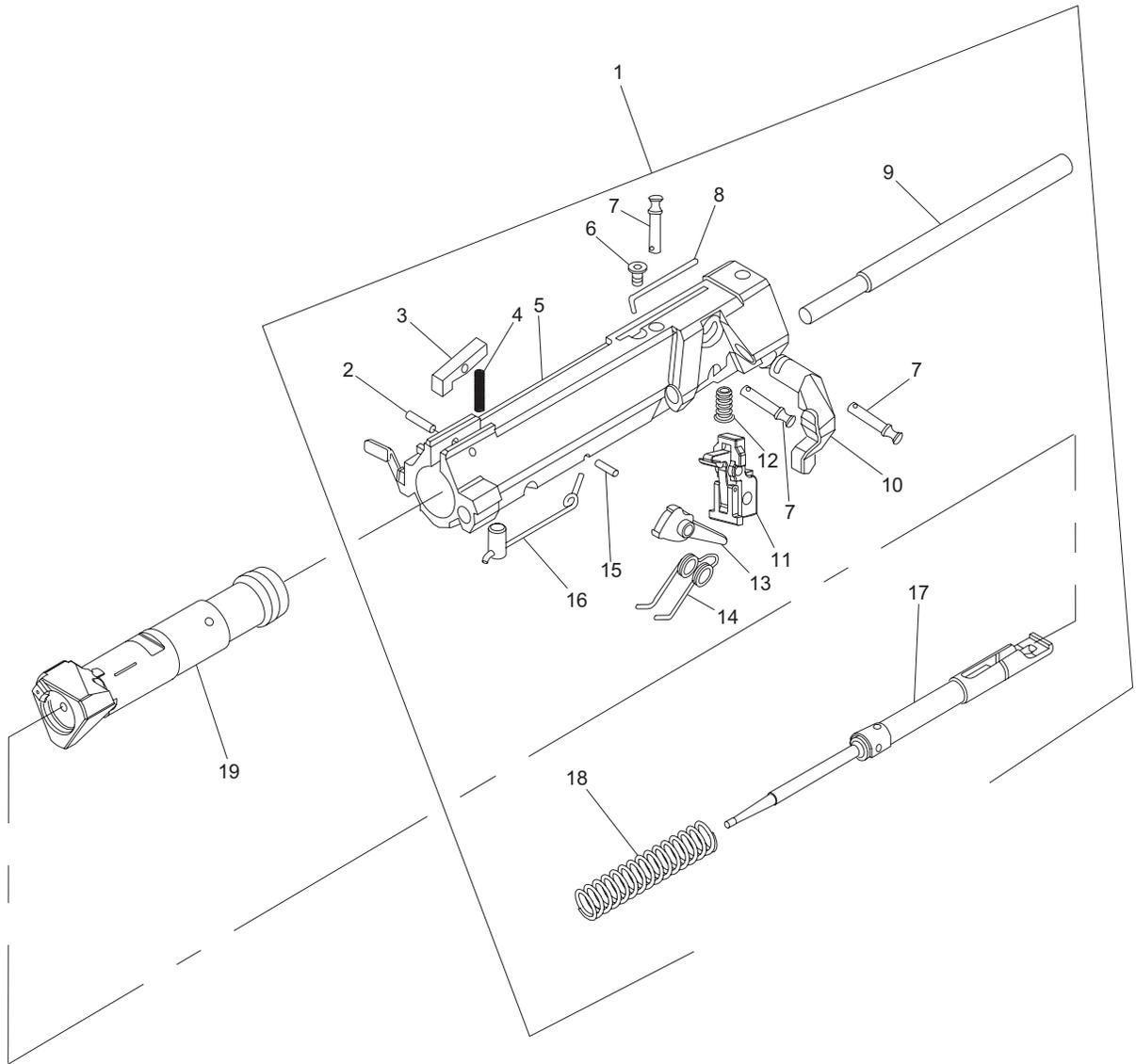
**UNIT AND DIRECT SUPPORT**

**LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)**

**BOLT AND CARRIER ASSEMBLY, DBC-006**

**REPAIR PARTS LIST**

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2TK090

Figure 10. Bolt and Carrier Assembly, DBC-006.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 04 FIG. 10 BOLT AND CARRIER ASSEMBLY, DBC-006						
1	XAFZZ		0BT64	LW078-A3	CARRIER ASSEMBLY UOC:ABA.....	1
2	PAFZZ PAOZZ	5315-01-359-1068	39428	90145A472	. BOLT LATCH PIN UOC:ABA.....	1
3	PAFZZ *PAOZZ	5340-01-359-0073	0BT64	82083	. LEVER, LOCK-RELEASE UOC:ABA.....	1
4	PAFZZ *PAOZZ	5360-01-358-3037	0BT64	82084	. BOLT LATCH SPRING UOC:ABA.....	1
5	PAFZZ *PAOZZ	1005-01-470-9089	0BT64	LW078-C1	. BOLT CARRIER UOC:ABA.....	1
6	PAFZZ *PAOZZ	5305-01-415-5082	0BT64	82043	. ACCELERATOR SPRING SCREW UOC:ABA.....	1
7	PAFZZ *PAOZZ	5315-01-359-3149	0BT64	82094	. BOLT CARRIER PIN UOC:ABA.....	3
8	PAFZZ *PAOZZ	1005-01-360-7105	0BT64	82087	. ACCELERATOR SPRING UOC:ABA.....	1
9	PAFZZ *PAOZZ	1005-01-360-7106	0BT64	82188	. ACCELERATOR ROD UOC:ABA.....	1
10	PAFZZ *PAOZZ	1005-01-357-6435	0BT64	82086	. ACCELERATOR, RIFLE UOC:ABA.....	1
11	PAFZZ *PAOOO	1005-01-358-0136	0BT64	82089	. SEAR ASSEMBLY (SEE FIG. 12 FOR ASSEMBLY BREAKDOWN, USMC ONLY) UOC:ABA.....	1
12	PAFZZ *PAOZZ	5360-01-358-3040	0BT64	82090	. SEAR SPRING UOC:ABA.....	1
13	PAFZZ *PAOZZ	1005-01-358-7883	0BT64	82092	. COCKING LEVER UOC:ABA.....	1
14	PAFZZ *PAOZZ	5360-01-358-3041	0BT64	82093	. COCKING LEVER SPRING UOC:ABA.....	1
15	PAFZZ *PAOZZ	5315-01-358-7373	39428	92383A204	. CAM PIN UOC:ABA.....	1
16	PAFZZ *PAOZZ	1005-01-359-0005	0BT64	82080-C	. CAM, BREECHLOCK, MACHINE UOC:ABA.....	1
17	PAFZZ *PAOOO	1005-01-502-5874	0BT64	82097-1A	. FIRING PIN EXTENSION ASSEMBLY (SEE FIG. 13 FOR ASSEMBLY BREAKDOWN, USMC ONLY) UOC:ABA.....	1
18	PAOZZ	5360-01-358-3039	0BT64	82102	. BOLT SPRING UOC:ABA.....	1
19	XAODD		0BT64	82101-A	BOLT ASSEMBLY (SEE FIG. 11 FOR ASSEMBLY BREAKDOWN) UOC:ABA.....	1

\*FOR USMC ONLY

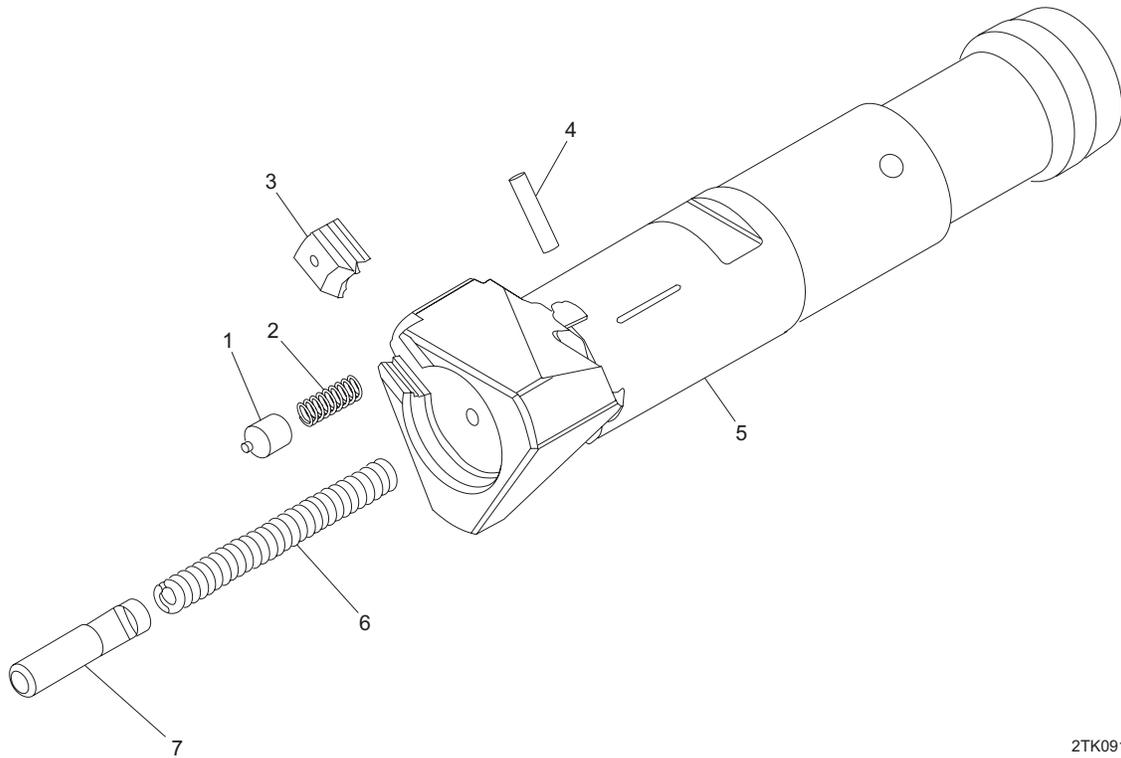
END OF FIGURE

END OF WORK PACKAGE



**UNIT AND DIRECT SUPPORT**  
**LONG RANGE SNIPER RIFLE, M107**  
**(NSN 1005-01-469-2133)**  
**BOLT ASSEMBLY, 82101-A**  
**REPAIR PARTS LIST**

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2TK091

Figure 11. Bolt Assembly, 82101-A.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 0401 FIG. 11 BOLT ASSEMBLY, 82101-A	
1	PAOZZ	1005-01-357-4805	0BT64	82108	EXTRACTOR, CARTRIDGE UOC:ABA.....	1
2	PAOZZ	5360-01-358-3036	0BT64	82107	EXTRACTOR SPRING UOC:ABA.....	1
3	PAOZZ	1005-01-415-3868	0BT64	82106	EXTRACTOR, CARTRIDGE UOC:ABA.....	1
4	PAOZZ	5315-01-358-7373	39428	92383A204	EJECTOR PIN UOC:ABA.....	1
5	PADZZ	1005-01-359-2715	0BT64	82101-8	BOLT, BREECH UOC:ABA.....	1
6	PAOZZ	5360-01-358-3038	0BT64	82104	EJECTOR SPRING UOC:ABA.....	1
7	PAOZZ	1005-01-357-4804	0BT64	82103	EJECTOR UOC:ABA.....	1

END OF FIGURE

END OF WORK PACKAGE



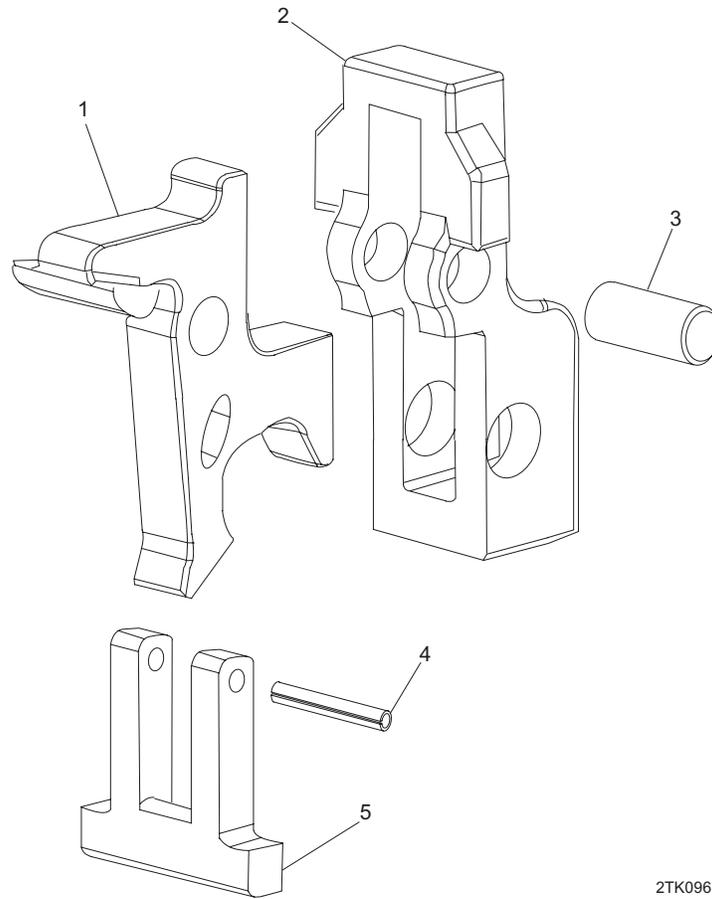
**UNIT AND DIRECT SUPPORT**

**LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)**

**SEAR ASSEMBLY, 82089**

**REPAIR PARTS LIST**

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2TK096

Figure 12. Sear Assembly, 82089.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 0402 FIG. 12 SEAR ASSEMBLY, 82089	
1	*PAOZZ		0BT64	82389	SEAR UOC:ABA.....	1
2	*PAOZZ		0BT64	82395	SEAR HOUSING UOC:ABA.....	1
3	*PAOZZ		0BT64	82391	SEAR PIN UOC:ABA.....	1
4	*PAOZZ		0BT64	82394	SEAR LEVER PIN UOC:ABA.....	1
5	*PAOZZ		0BT64	82393	SEAR LEVER UOC:ABA.....	1

\*FOR USMC ONLY

END OF FIGURE

END OF WORK PACKAGE



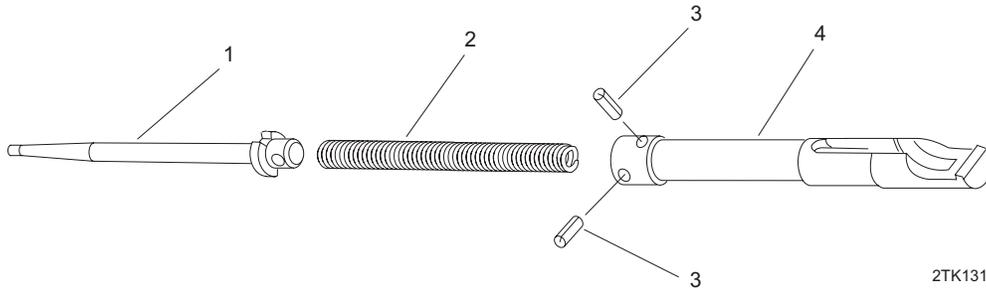
**UNIT AND DIRECT SUPPORT**

**LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)**

**FIRING PIN EXTENSION ASSEMBLY, 82097-1A**

**REPAIR PARTS LIST**

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2TK131

Figure 13. Firing Pin Extension Assembly, 82097-1A.

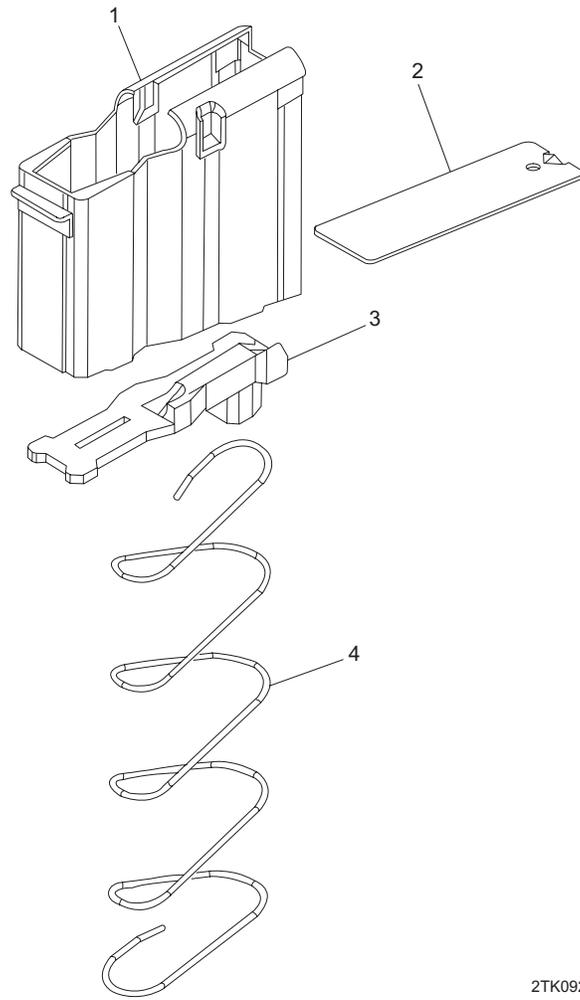
(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 0403 FIG. 13 FIRING PIN EXTENSION ASSEMBLY, 82097-1A	
1	PAOZZ	1005-01-357-6108	0BT64	82095	PIN, FIRING UOC:ABA.....	1
2	PAOZZ	5360-01-358-7909	0BT64	82098	SPRING, HELICAL, COMPRESSION UOC:ABA.....	1
3	PAOZZ	1005-01-357-5898	0BT64	82096	PIN, STRAIGHT, HEADLESS UOC:ABA.....	2
4	PAOZZ	1005-01-359-1177	0BT64	82097	FIRING PIN EXTENSION UOC:ABA.....	1
					END OF FIGURE	

END OF WORK PACKAGE



**UNIT AND DIRECT SUPPORT**  
**LONG RANGE SNIPER RIFLE, M107**  
**(NSN 1005-01-469-2133)**  
**CARTRIDGE MAGAZINE, 82116A**  
**REPAIR PARTS LIST**

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2TK092

Figure 14. Cartridge Magazine, 82116A.

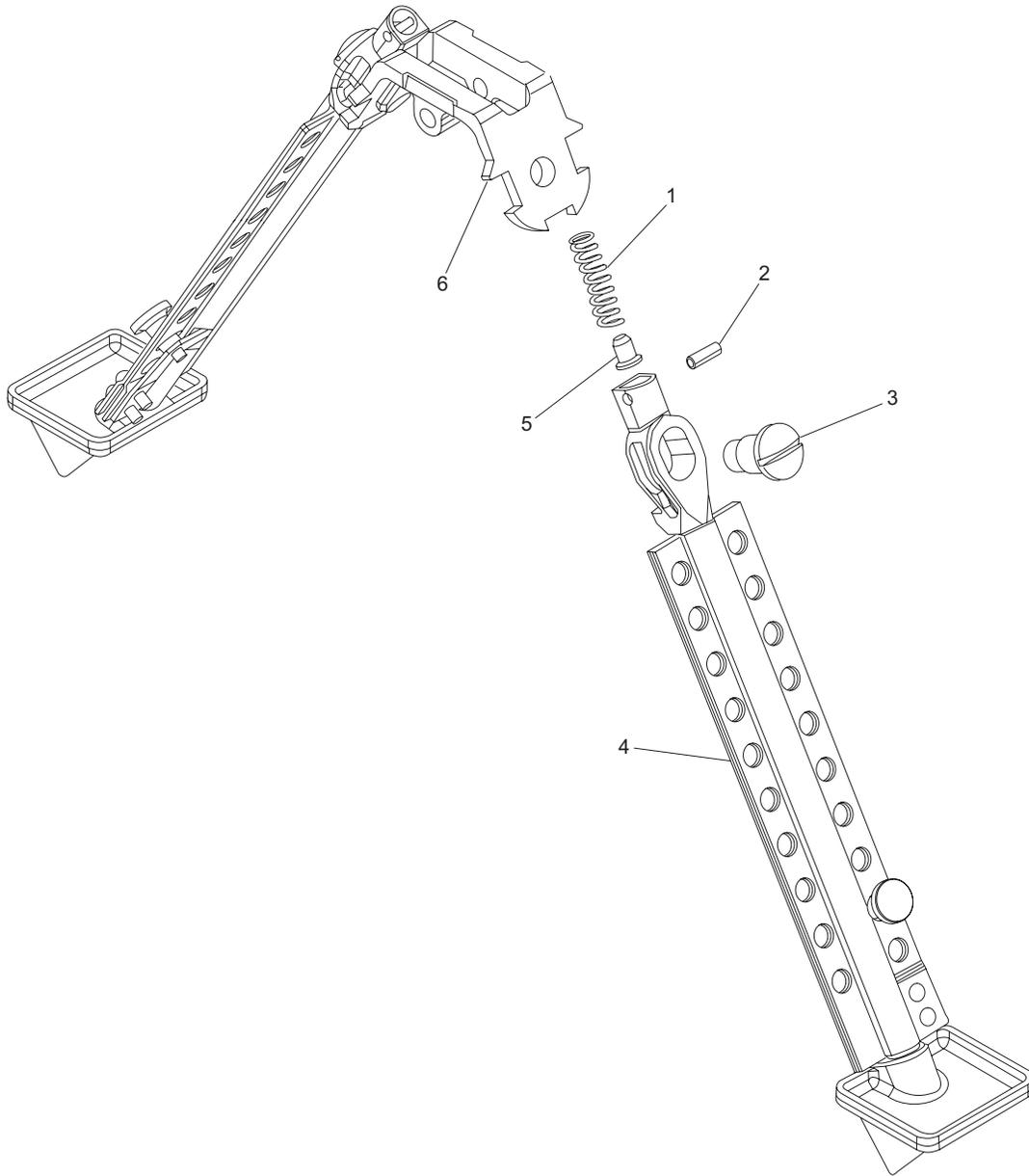
(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 05 FIG. 14 CARTRIDGE MAGAZINE, 82116A	
1	XAOZZ		0BT64	82116-C	MAGAZINE TUBE UOC:ABA.....	1
2	PAOZZ	1005-01-358-9712	0BT64	82122	FLOOR PLATE, MAGAZINE UOC:ABA.....	1
3	PAOZZ	1005-01-358-9718	0BT64	82120	FOLLOWER, CARTRIDGE UOC:ABA.....	1
4	PAOZZ	5360-01-358-7910	0BT64	82121	MAGAZINE SPRING UOC:ABA.....	1
					END OF FIGURE	

END OF WORK PACKAGE



**UNIT AND DIRECT SUPPORT**  
**LONG RANGE SNIPER RIFLE, M107**  
**(NSN 1005-01-469-2133)**  
**BIPOD ASSEMBLY, BA-2**  
**REPAIR PARTS LIST**

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2TK093

Figure 15. Bipod Assembly, BA-2.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 06 FIG. 15 BIPOD ASSEMBLY, BA-2	
1	PAFZZ *PAOZZ	5360-01-358-3033	0BT64	82026	SPRING, HELICAL COMPRESSION UOC:ABA.....	2
2	PAFZZ *PAOZZ	5315-01-502-6184	0BT64	82024-1	PIN, SPRING UOC:ABA.....	2
3	PAFZZ *PAOZZ	5305-01-358-9710	0BT64	82041	BIPOD SCREW UOC:ABA.....	2
4	PAFZZ *PAOZZ	1005-01-465-5791	0BT64	82239-CSHS	BIPOD LEG ASSEMBLY UOC:ABA.....	2
5	PAFZZ *PAOZZ	5315-01-358-7368	0BT64	82064	PIN, STRAIGHT, HEADED UOC:ABA.....	2
6	PAFZZ *PAOZZ	1005-01-472-6045	0BT64	99028	BIPOD YOKE UOC:ABA.....	1

\*FOR USMC ONLY

END OF FIGURE

END OF WORK PACKAGE



**UNIT AND DIRECT SUPPORT**

**LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)**

**OPTIC MOUNT SYSTEM, OMSYS6, AND SCOPE RING ASSEMBLY, 52083**

**REPAIR PARTS LIST**

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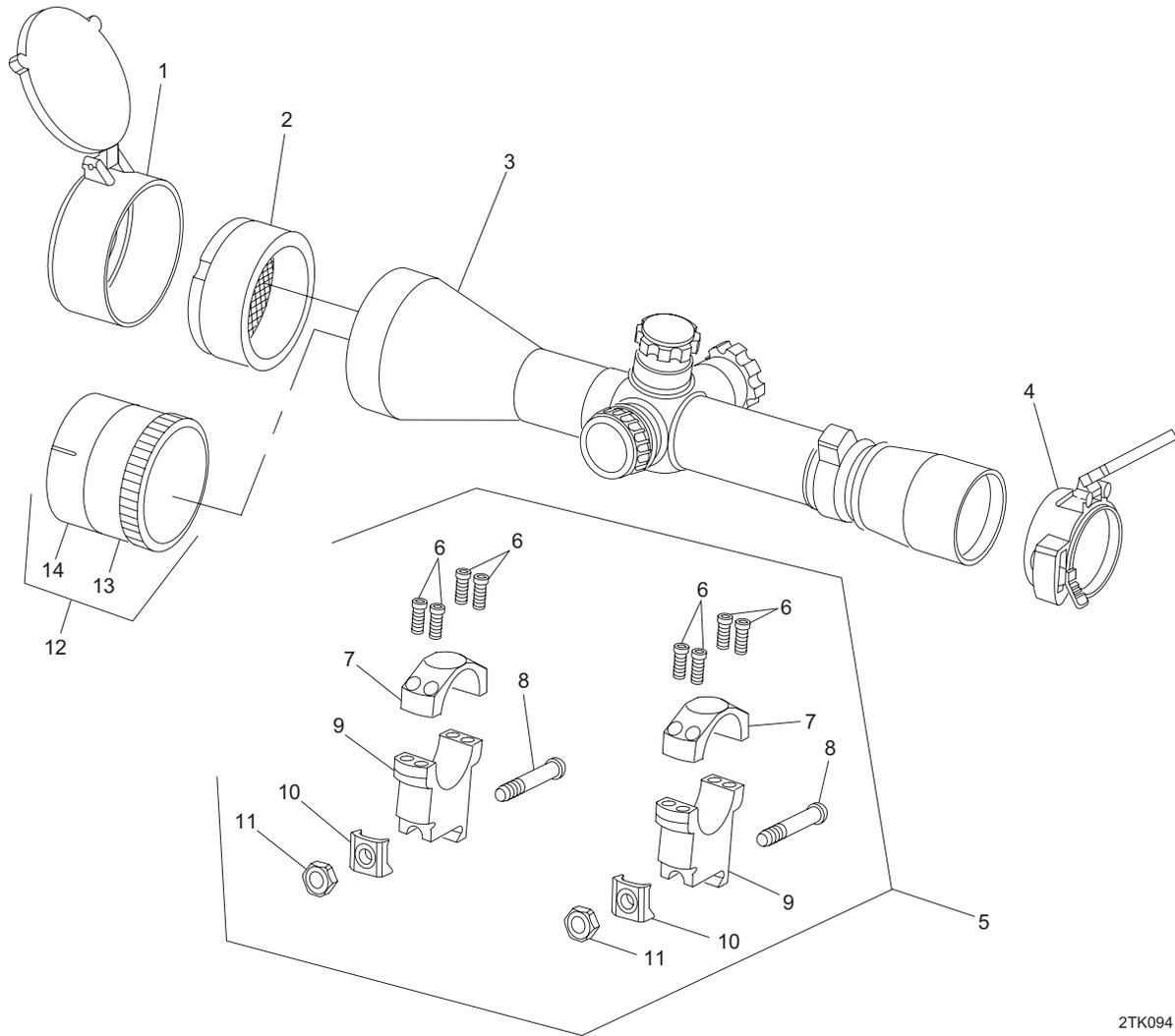
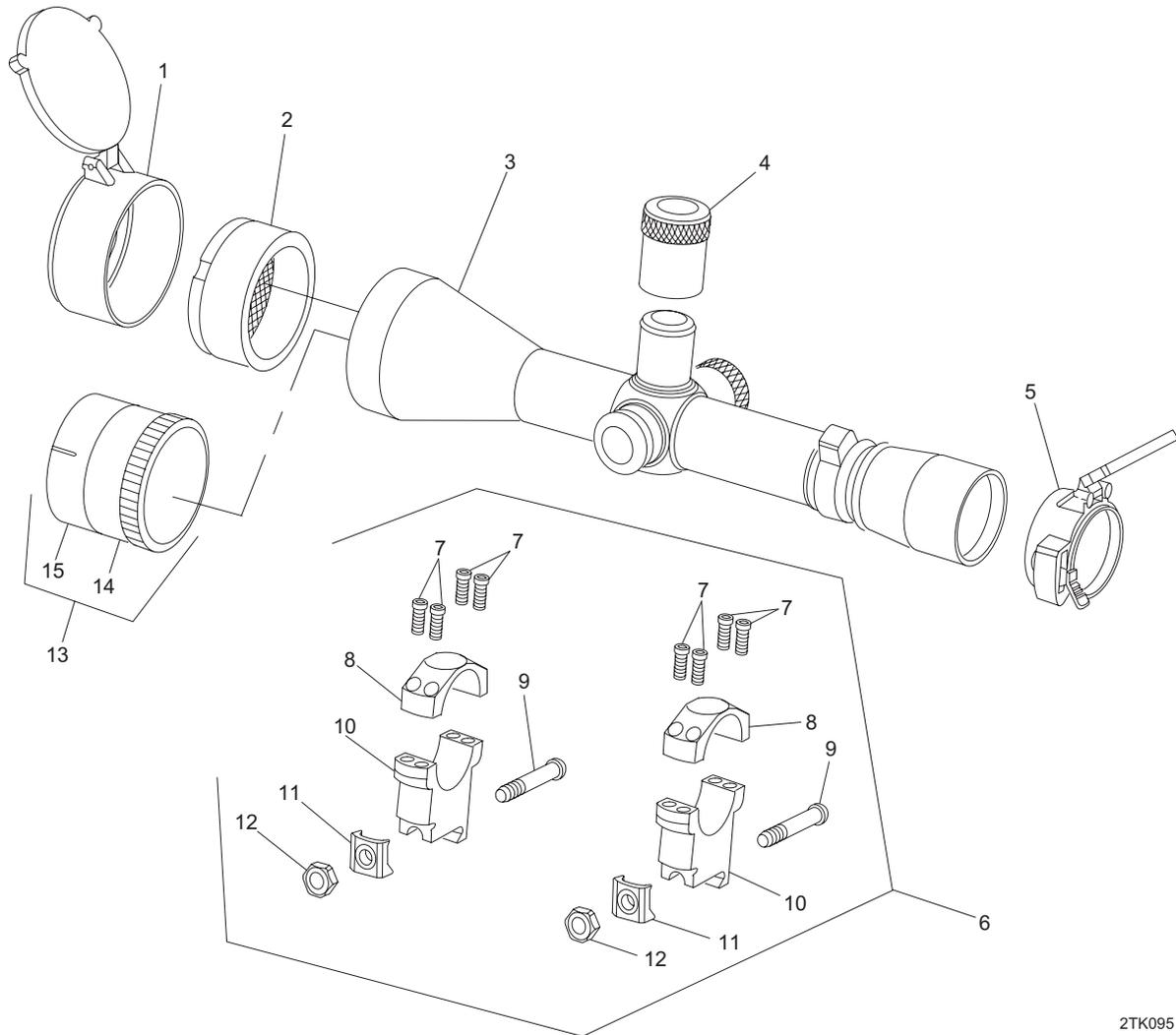


Figure 16. Optic Mount System, OMSYS6, and Scope Ring Assembly, 52083.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 07, 0701 FIG. 16 OPTIC MOUNT SYSTEM, OMSYS6 SCOPE RING ASSEMBLY, 52083	
1	PAOZZ	6650-01-502-1871	66575	43OBJ	OBJECTIVE LENS COVER UOC:ABA.....	1
2	PAOZZ	6650-01-502-1873	1D2P7	50LC-ARD	EYESHIELD, OPTICAL UOC:ABA.....	1
3	XAOZZ		35848	54560	SCOPE UOC:ABA.....	1
4	PAOZZ	6650-01-502-1874	66575	13EYE	CAP, LENS UOC:ABA.....	1
5	PAOOO	1240-01-502-8707	35848	52083	MOUNT, TELESCOPE UOC:ABA.....	1
6	PAOZZ	5305-01-502-4412	35848	53073	. SCREW, MACHINE UOC:ABA.....	8
7	XAOZZ		35848	52560	. TOP SCOPE RING UOC:ABA.....	2
8	PAOZZ	5306-01-502-4414	35848	42048	. BOLT, MACHINE UOC:ABA.....	2
9	XAOZZ		35848	52630	. BOTTOM SCOPE RING UOC:ABA.....	2
10	PAOZZ	5310-01-502-1525	35848	53076	. WASHER, LOCK UOC:ABA.....	2
11	PAOZZ	5310-01-502-1527	35848	42037	. BOLT NUT UOC:ABA.....	2
12	PAOOO	1240-01-502-1295	19200	13001589	FILTER, LIGHT, TELESCOPE UOC:ABA.....	1
13	PAOZZ	5310-01-502-1943	19200	13001590	NUT, PLAIN, KNURLED UOC:ABA.....	1
14	XAOZZ		19200	13001591	LASER FILTER CELL UOC:ABA.....	1
					END OF FIGURE	



2TK095

Figure 17. Optic Mount System, OMSYS6, and Scope Ring Assembly, 52083.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 07, 0701 FIG. 17 OPTIC MOUNT SYSTEM, OMSYS6 SCOPE RING ASSEMBLY, 52083	
1	PAOZZ	6650-01-502-1871	66575	43OBJ	OBJECTIVE LENS COVER UOC:ABA.....	1
2	PAOZZ	6650-01-502-1873	1D2P7	50LC-ARD	EYESHIELD, OPTICAL UOC:ABA.....	1
3	XAOZZ		35848	51668	SCOPE UOC:ABA.....	1
4	PAOZZ	5340-01-502-6888	35848	51503	CAP, PROTECTIVE, DUST UOC:ABA.....	3
5	PAOZZ	6650-01-502-1874	66575	13EYE	CAP, LENS UOC:ABA.....	1
6	PAOOO	1240-01-502-8707	35848	52083	MOUNT, TELESCOPE UOC:ABA.....	1
7	PAOZZ	5305-01-502-4412	35848	53073	. SCREW, MACHINE UOC:ABA.....	8
8	XAOZZ		35848	52560	. TOP SCOPE RING UOC:ABA.....	2
9	PAOZZ	5306-01-502-4414	35848	42048	. BOLT, MACHINE UOC:ABA.....	2
10	XAOZZ		35848	52630	. BOTTOM SCOPE RING UOC:ABA.....	2
11	PAOZZ	5310-01-502-1525	35848	53076	. WASHER, LOCK UOC:ABA.....	2
12	PAOZZ	5310-01-502-1527	35848	42037	. BOLT NUT UOC:ABA.....	2
13	PAOOO	1240-01-502-1295	19200	13001589	FILTER, LIGHT, TELESCOPE UOC:ABA.....	1
14	PAOZZ	5310-01-502-1943	19200	13001590	NUT, PLAIN, KNURLED UOC:ABA.....	1
15	XAOZZ		19200	13001591	LASER FILTER CELL UOC:ABA.....	1

END OF FIGURE

END OF WORK PACKAGE



## UNIT AND DIRECT SUPPORT

LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)

## NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5315-01-210-0923	2	32	5315-01-358-8821	3	4
5310-01-261-6678	2	2	1005-01-358-8844	2	25
5305-01-277-5900	5	9	5340-01-358-8855	9	5
	5	11	5340-01-358-8856	9	6
5305-01-286-9783	2	16	5305-01-358-9710	15	3
5315-01-300-2640	2	19	1005-01-358-9712	14	2
1005-01-357-4804	11	7	1005-01-358-9718	14	3
1005-01-357-4805	11	1	1005-01-359-0005	10	16
1005-01-357-4806	5	1	1005-01-359-0048	6	5
1005-01-357-4807	2	6	5340-01-359-0073	10	3
1005-01-357-5898	13	3	5315-01-359-1068	10	2
1005-01-357-6108	13	1	1005-01-359-1177	13	4
1005-01-357-6435	10	10	5355-01-359-2593	8	9
1005-01-357-6820	2	30	1005-01-359-2715	11	5
1005-01-357-6821	9	7	1005-01-359-2716	5	2
1005-01-357-9883	6	9	5360-01-359-2751	2	13
1005-01-358-0136	10	11	5315-01-359-3147	2	27
5360-01-358-0154	2	5	5315-01-359-3149	10	7
1005-01-358-1342	1	6	5315-01-359-3152	2	7
5360-01-358-3033	15	1		2	11
5360-01-358-3034	8	2	5360-01-359-3200	3	2
5360-01-358-3035	2	26	5360-01-359-3201	5	10
5360-01-358-3036	11	2	5315-01-359-6520	3	1
5360-01-358-3037	10	4	1005-01-360-1929	5	8
5360-01-358-3038	11	6	1005-01-360-1930	2	29
5360-01-358-3039	10	18	1005-01-360-1931	2	9
5360-01-358-3040	10	12	1005-01-360-1932	2	10
5360-01-358-3041	10	14	1005-01-360-1933	3	3
5360-01-358-3042	2	28	1005-01-360-7105	10	8
5305-01-358-7302	8	3	1005-01-360-7106	10	9
5315-01-358-7368	15	5	5310-01-382-4094	2	24
5315-01-358-7370	8	8	5310-01-412-4266	2	1
5315-01-358-7371	6	7	1005-01-415-3868	11	3
5315-01-358-7372	2	31	5305-01-415-5082	10	6
5315-01-358-7373	10	15	5305-01-432-0438	2	23
	11	4	1005-01-463-9051	9	1
1005-01-358-7392	2	8	1005-01-463-9052	9	3
1005-01-358-7873	2	12	1005-01-465-5677	6	6
1005-01-358-7874	2	17	1005-01-465-5680	6	4
1005-01-358-7883	10	13	1005-01-465-5692	2	20
5360-01-358-7909	13	2	5303-01-465-5694	2	15
5360-01-358-7910	14	4	5310-01-465-5696	2	22

## NATIONAL STOCK NUMBER INDEX - Continued

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
1005-01-465-5702	4	2	5310-01-502-1943	16	13
1005-01-465-5708	2	21		17	14
1005-01-465-5791	15	4	5305-01-502-4412	16	6
1005-01-465-5793	2	18		17	7
1005-01-465-5795	2	14	5306-01-502-4414	16	8
1005-01-470-9079	5	7		17	9
1005-01-470-9089	10	5	5365-01-502-4958	9	4
1005-01-472-5908	6	8	5305-01-502-4964	5	6
1005-01-472-6045	15	6	5305-01-502-4970	8	6
5310-01-494-9451	6	3	1005-01-502-5660	2	33
5305-01-501-3224	4	1	1005-01-502-5668	6	1
5310-01-501-3225	4	3	1005-01-502-5866	8	7
1005-01-501-3226	4	4	1005-01-502-5870	5	4
5340-01-501-7229	8	5	1005-01-502-5874	10	17
1240-01-502-1295	16	12	5360-01-502-6169	8	4
	17	13	5315-01-502-6184	15	2
5310-01-502-1446	6	2	5340-01-502-6888	17	4
5310-01-502-1525	16	10	1240-01-502-8707	16	5
	17	11		17	6
5310-01-502-1527	16	11	1005-01-514-8427	2	4
	17	12	1010-01-526-4415	7	4
5310-01-502-1864	9	2	1240-01-526-4419	5	3
6650-01-502-1871	16	1	5360-01-526-4420	7	3
	17	1	5315-01-526-4352	7	2
6650-01-502-1873	16	2	1005-01-526-4372	7	1
	17	2	5315-01-526-4393	7	5
6650-01-502-1874	16	4			
	17	5			

END OF WORK PACKAGE

## UNIT AND DIRECT SUPPORT

LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)

## PART NUMBER INDEX

PART NUMBER	FIG.	ITEM	PART NUMBER	FIG.	ITEM
BA-2	1	7	53076	16	10
DBC-002	1	5		17	11
DBC-004	1	3	54560	16	3
DBC-005	1	1	8SA2	5	4
DBC-006	1	4	82000C-107	2	3
IS1	8	1	82021	5	1
IS-3	8	7	82024-1	15	2
IS4	8	6	82026	15	1
LW019	6	6	82027	8	5
LW020	6	4	82027-SPG	8	4
LW078-A3	10	1	82028	8	3
LW078-C1	10	5	82029	8	2
OMSYS6	1	2A	82030	8	9
	1	2B	82031	8	8
10748-A	6	1	82037-1	2	17
13EYE	16	4	82038	2	16
	17	5	82041	15	3
13001589	16	12	82043	10	6
	17	13	82045-C1	2	33
13001590	16	13	82046	2	1
	17	14	82048	6	5
13001591	16	14	82048-C3	5	2
	17	15	82050	6	9
42037	16	11	82051A	2	25
	17	12	82053-1	2	24
42048	16	8	82054-1	2	30
	17	9	82055	2	26
43OBJ	16	1	82056	2	27
	17	1	82057C	9	7
50LC-ARD	16	2	82060	9	6
	17	2	82061	5	8
51503	17	4	82061-A	5	7
51668	17	3	82062C	5	10
52083	16	5	82064	15	5
	17	6	82065	9	5
52560	16	7	82066	2	29
	17	8	82067	2	28
52630	16	9	82069	2	6
	17	10	82069-2A	2	4
53073	16	6	82070	2	7
	17	7		2	11

## PART NUMBER INDEX - Continued

PART NUMBER	FIG.	ITEM	PART NUMBER	FIG.	ITEM
82071	2	5	82129	6	3
82072	2	9	82131-2	5	6
82073	2	8	82145-KIT	9	4
82074-1	3	3	82159-S	9	3
82074-1A	2	10	82159-WA	9	2
82075	3	2	82159-2	9	1
82076-1	3	1	82162	2	14
82077	3	4	82163	2	20
82080-C	10	16	82164	2	15
82083	10	3	82165	2	22
82084	10	4	82188	10	9
82086	10	10	82225	2	21
82087	10	8	82226	4	5
82089	10	11	82226-A	2	18
82090	10	12	82227	4	4
82092	10	13	82228	4	3
82093	10	14	82229	4	2
82094	10	7	82230	4	1
82095	13	1	82239-CSHS	15	4
82096	13	3	82313-A	5	5
82097	13	4	82320	7	5
82097-1A	10	17	82321	7	1
82098	13	2	82322	7	3
82101-A	10	19	82323	7	4
82101-8	11	5	82324	7	2
82102	10	18	82330	5	3
82103	11	7	82389	12	1
82104	11	6	82391	12	3
82106	11	3	82393	12	5
82107	11	2	82394	12	4
82108	11	1	82395	12	2
82109	2	13	90145A472	10	2
82110	2	12	91205A542	2	23
82114-1A	2	19	91376A532	5	9
82115-1A	2	32		5	11
82116A	1	6	92383A154	6	7
82116-C	14	1	92383A204	10	15
82120	14	3		11	4
82121	14	4	92383A266	2	31
82122	14	2	98438A031	2	2
82127	6	8	99028	15	6
82128-1	6	2			

END OF WORK PACKAGE

## UNIT AND DIRECT SUPPORT

LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)

## COMMERCIAL AND GOVERNMENT ENTITY (CAGE) CODES INDEX (USMC ONLY)

## INTRODUCTION

The following table provides Commercial and Government Entity (CAGE) codes for use by Marine Corps personnel.

## CAGE CODES INDEX

Table 1. Index of Commercial and Government Entity (CAGE) Codes.

Code	Manufacturer
0BT64	Barrett Firearms Manufacturing Inc. 5926 Miller Lane Christiana, TN 37037-5612 (615) 896-2938
0WXH8	Badger Ordnance 1209 Swift Street North Kansas City, MO 54116 (816) 421-4956
19204	Rock Island Arsenal 1 Rock Island Arsenal Rock Island, IL 61201 (309) 782-7380
39428	McMaster Carr Supply Company 600 County Line Road Elmhurst, IL 60126-2081 (732) 329-3200
3A054	McMaster Carr Supply Company 9630 Norwalk Boulevard Santa Fe Springs, CA 90670-2932 (562) 695-2449
3GUL2	United States Marine Corps Precision Weapons Facility 27211 Garand Road Quantico, VA 22134 (703) 784-2121
55719	IDSC Holding LLC A Div of Snap-On Industrial 3011 E. Route 176 Crystal Lake, IL 60014-2256 (888) 418-5600

**CAGE CODES INDEX - Continued****Table 1. Index of Commercial and Government Entity (CAGE) Codes - Continued.**

<b>Code</b>	<b>Manufacturer</b>
58536	Federal Commercial Item promulgated by General Services Administration Washington DC
78908	Unertl John Optical Company 1224 North Freedom Road Mars, PA 16046-8801 (724) 625-3810
81343	Society of Automotive Engineers 400 Commonwealth Drive Warrendale, PA 15096 (727) 776-4841
81348	Federal Specification Item promulgated by General Services Administration Washington DC
81349	Military Specification Item promulgated by the military/agencies under authority of Defense Standardization Manual 4120-3M
88044	Aeronautical Standards Group Department of Navy and Air Force Federal Specification Item promulgated by General Services Administration Washington DC

**END OF WORK PACKAGE**

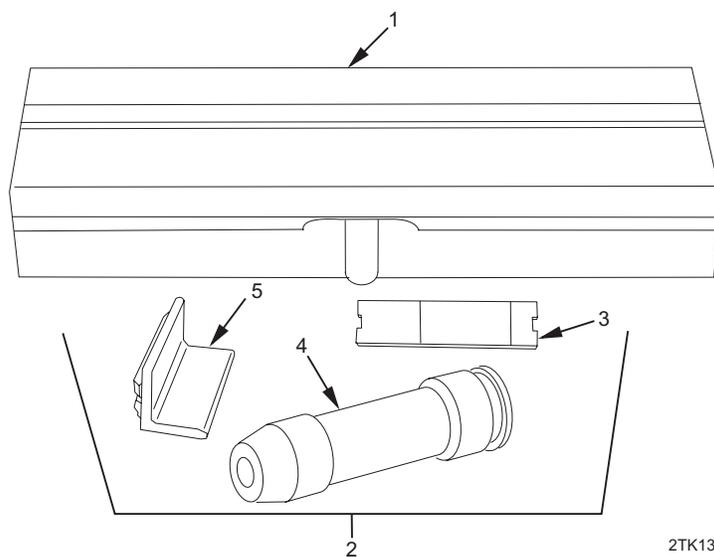
**UNIT AND DIRECT SUPPORT**

**LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)**

**SPECIAL TOOLS AND EQUIPMENT (USMC ONLY)**

**SPECIAL TOOLS**

A MOS 2112 will perform intermediate maintenance using the special tools and equipment contained in Table 1.

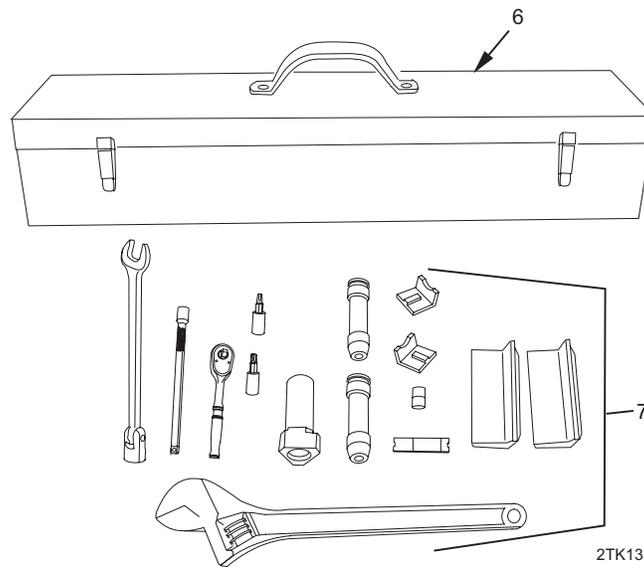


2TK132

**Table 1. Organizational/Intermediate Special Tools and Equipment.**

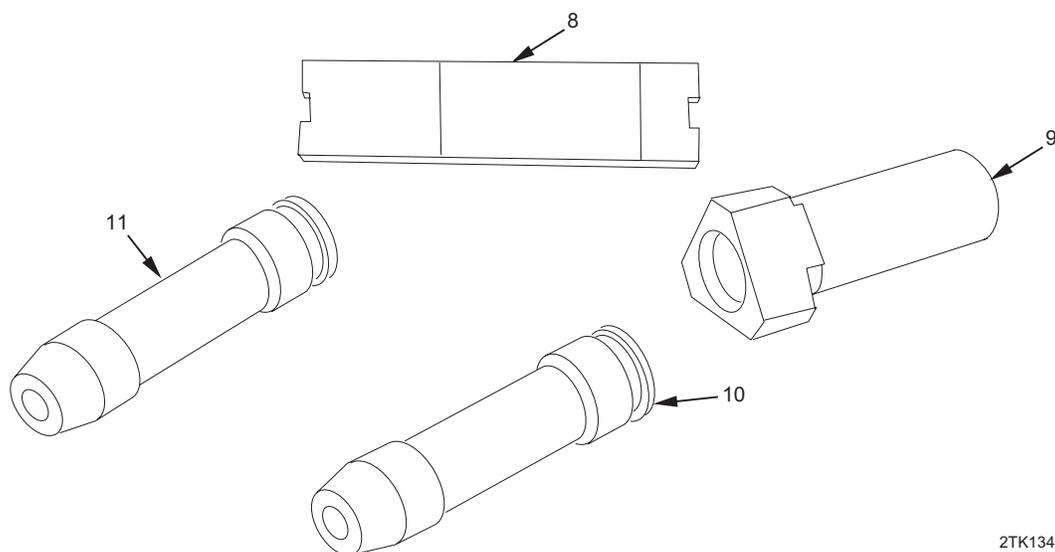
Item No.	National Stock Number	Part Number	Description	Use (Level of Maintenance)
1	5140-01-119-3218	KRA229	Toolbox, SASR, .50 Caliber	Houses gauges (Organizational)
2	TBD	TBD	Gauge Kit, SASR Consists of:	Inspection (Organizational and Intermediate)
3	TBD	TBD	Gauge, Firing Pin Protrusion	Determines serviceable length of firing pin protrusion (Organizational and Intermediate)
4	TBD	82154NG	Gauge, Headspace, NO_GO	Performs headspace reading (Organizational and Intermediate)
5	TBD	TBD	Insert, Bolt Alignment	Determine serviceability of bolt or barrel (Organizational and Intermediate)

**SPECIAL TOOLS - Continued**



**Table 1. Organizational/Intermediate Special Tools and Equipment - Continued.**

Item No.	National Stock Number	Part Number	Description	Use (Level of Maintenance)
6	TBD	KRA109	Toolbox, SASR, .50 Caliber	Houses tools and gauges (Intermediate)
7	TBD	TBD	Tool and Gauge Kit, SASR Consists of:	Inspection and repair (Intermediate)

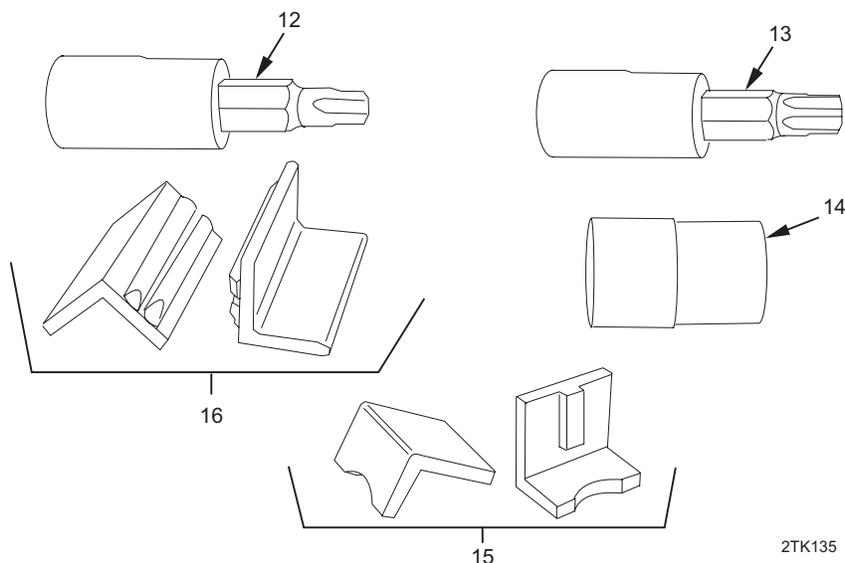


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**Table 1. Organizational/Intermediate Special Tools and Equipment - Continued.**

Item No.	National Stock Number	Part Number	Description	Use (Level of Maintenance)
8	TBD	TBD	Gauge, Firing Pin Protrusion	Determines serviceable length of firing pin protrusion (Organizational and Intermediate)
9	TBD	G82101-10	Gauge, Bolt, Test 3.125 in. (7.938 cm) long	Performs headspace reading (Intermediate)
10	TBD	81254GO	Gauge, Headspace, GO	Performs headspace reading (Intermediate)
11	TBD	82154NG	Gauge, Headspace, NO_GO	Performs headspace reading (Organizational and Intermediate)

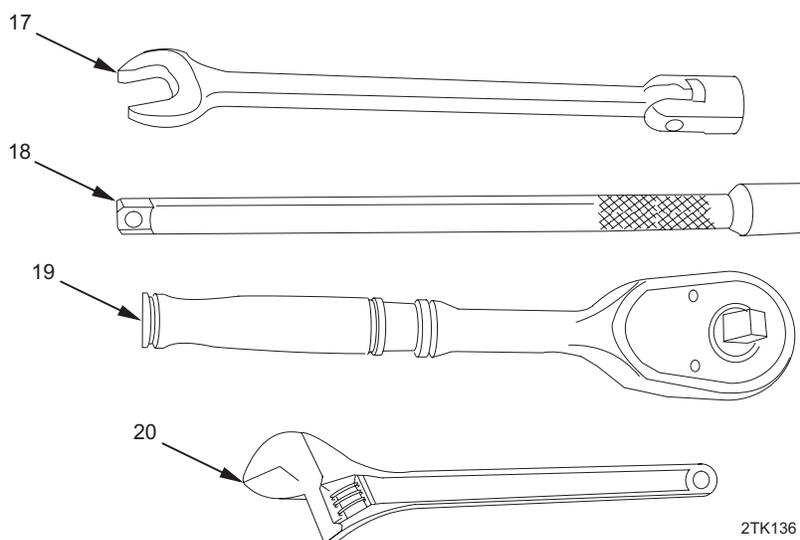
**SPECIAL TOOLS - Continued**



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**Table 1. Organizational/Intermediate Special Tools and Equipment - Continued.**

Item No.	National Stock Number	Part Number	Description	Use (Level of Maintenance)
12	5120-01-428-8712	TTX25E	Socket, T-25, 1/4 in. Drive	Removes/installs butt pad screws (Intermediate)
13	5120-01-428-8701	TTX30E	Socket, T-30, 1/4 in. Drive	Removes/installs muzzle brake screws (Intermediate)
14	5120-01-428-8152	TTX25E	Socket, 3/8 in., 1/4 in. Drive	Tightens/loosens base ring nut (Organizational and Intermediate)
15	TBD	TBD	Insert, Bolt Alignment	Determine serviceability of bolt or barrel (Organizational and Intermediate)
16	N/A	N/A	Pads, Vise, SASR	Holds barrel securely in vise (Intermediate)



**Table 1. Organizational/Intermediate Special Tools and Equipment - Continued.**

Item No.	National Stock Number	Part Number	Description	Use (Level of Maintenance)
17	TBD	TBD	Wrench, 11/16 in. Socket Open End	Assembles/disassembles bipod assembly (Organizational and Intermediate)
18	5120-01-335-1072	TMXK60	Extension 1/4 in. Drive, 6 in. Extension	Removes/installs pistol grip screw (Organizational and Intermediate)
19	5120-01-477-8448	T936	Handle, Socket Wrench, 1/4 in.	Inspection and repair (Intermediate)
20	5120-01-437-1769	GAJ15	Wrench, Adjustable, 15 in.	Unscrews/tightens muzzle brake (Intermediate)

**END OF WORK PACKAGE**



**UNIT AND DIRECT SUPPORT****LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)****EXPENDABLE AND DURABLE ITEMS LIST****INTRODUCTION****Scope**

This work package lists expendable and durable items that you will need to operate and maintain the Long Range Sniper Rifle (LRSR). This list is for information only and is not authority to requisition the listed items. These items are authorized to you by CTA 50-970, Expendable/Durable Items (Except Medical, Class V, Repair Parts, and Heraldic Items), or CTA 8-100, Army Medical Department Expendable/Durable Items.

**Explanation of Columns in the Expendable/Durable Items List**

Column (1) – Item Number. This number is assigned to the entry in the list and is referenced in the narrative instructions to identify the item (e.g., "Use wiping rag (item 26, WP 0060 00)").

Column (2) – Level. This column identifies the lowest level of maintenance that requires the listed item (C = Operator/Crew, O = Unit, F = Direct Support).

Column (3) – National Stock Number (NSN). This is the NSN assigned to the item which you can use to requisition it.

Column (4) – Item Name, Description, Commercial and Government Entity Code (CAGEC), and Part Number (P/N). This column provides the other information you need to identify the item.

Column (5) – Unit of Issue (U/I). Indicates the physical measurement or count of the item as issued per the National Stock Number shown in column (3).

**EXPENDABLE AND DURABLE ITEMS LIST****Table 1. Expendable and Durable Items List.**

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) ITEM NAME, DESCRIPTION, CAGEC, AND PART NUMBER	(5) U/I
1	O	6810-00-223-2739	Acetone (81348) O-A-51	QT
2	C	6810-00-983-8551	Alcohol, Isopropyl (Cleaning Fluid) 1 qt can (81348) TTI 735	QT

## EXPENDABLE AND DURABLE ITEMS LIST - Continued

Table 1. Expendable and Durable Items List - Continued.

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) ITEM NAME, DESCRIPTION, CAGEC, AND PART NUMBER	(5) U/I
3	O	6515-01-234-6838 6515-01-303-8250	Applicator, Cotton Tip 100 per package (5L934) 362 (81348) TBD	PK
4	F	8135-00-292-9719	Barrier Material 36 in. wide, 100 yd roll (81348) MIL-B-121	RO
5	C	5120-00-254-4612	Blower, Watchmakers (19200) 8284021	EA
6	C	8125-00-824-9058	Bottle (for containing isopropyl alcohol) (58536) A-A-685	OZ
7	C	8020-00-619-8929	Brush, Artist (Cleaning) (58536) A-A-3191	EA
8	C	7920-00-205-0565	Brush, Camel Hair (58536) TBD	EA
9	C	1005-00-494-6602	Brush, Cleaning, All Purpose (19204) TBD	EA
10	O	1005-01-502-5815	Brush, Cleaning, General Purpose (OBT64) RW-316	EA
11	C	1005-00-766-0915	Brush, Cleaning, Small Arms (Chamber) (19204) 7790737	EA
12	C	1005-00-550-4037	Brush, Cleaning, Small Arms (M4 Bore) (19204) 5504037	EA
13	O	9150-01-102-1473	Cleaner, Lubricant, and Preservative (CLP) (81349) MIL-PRF-63460	OZ
14	C	9920-00-292-9946	Cleaner, Tobacco Pipe (89855) DILLSPIPECLEANERS	BX

Table 1. Expendable and Durable Items List - Continued.

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) ITEM NAME, DESCRIPTION, CAGEC, AND PART NUMBER	(5) U/I
15	O	5820-00-392-9751	Cleaning Compound, Optical Lens (58536) A-A-59199 2 oz bottle	OZ
16	C	6850-00-224-6656 6850-00-224-6657	Cleaning Compound, Rifle Bore Compound (RBC) (81349) MIL-PRF-372 2 oz bottle 8 oz can	BT CN
17	O	6850-00-754-2671	Compound, Anti-fogging (62639) ALFA KLEEN AK-031	OZ
18	F	8135-01-507-7923	Cushioning Material, Cellulosic Packaging (58536) A-A-1898	RO
19	F	8135-00-931-1465	Cushioning Material, Open Cell Plastic Film (81348) PPP-C-843	RO
20	O	9150-00-903-6431	Lubricant, Dry Film (18362) FLUORO-GLIDE FB	CN
21	C	9150-00-292-9689	Lubricating Oil (LAW) (81349) MIL-PRF-14107 1 qt can	QT
22	C	9150-00-935-6597 9150-00-889-3522 9150-00-687-4241 9150-00-753-4686	Lubricating Oil (LSA) (81349) MILL46000 2 oz plastic bottle 4 oz plastic bottle 1 quart can 1 gallon can	BT BT CN CN
23	C	9150-00-949-0323	Lubricating Oil (LSAT) (81349) MIL-L-46150	TU
24	C	6640-00-663-0832	Paper, Lens (Cleaning Tissues) 50 sheets (25518) 65-4900	BK

## EXPENDABLE AND DURABLE ITEMS LIST - Continued

Table 1. Expendable and Durable Items List - Continued.

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) ITEM NAME, DESCRIPTION, CAGEC, AND PART NUMBER	(5) U/I
25	F	8135-00-950-4008	Paperboard, Wrapping and Cushioning (58536) A-A-1051	SH
26	C	7920-00-205-1711	Rag, Wiping (80244) 7920-00-205-1711	LB
27	C	1005-00-288-3565	Swab, Small Arms Cleaning (Patches) (19204) 5019316	PG
28	F	7510-00-074-4952	Tape, Pressure Sensitive, Cloth-Back, Water-Resistant 2 in. wide, 60 yd roll (81346) ASTM D 5486/D 5486M TY 4 WHT 2IN	RO
29	O	8030-00-181-7603	Thread-locking Compound Grade A Red Type 3 (05972) 63531	OZ

END OF WORK PACKAGE

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**UNIT AND DIRECT SUPPORT****LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)****TURN-IN PROCEDURES FOR CONTRACTOR REPAIR**

---

**TURN-IN PROCEDURES****WARNING**

Failure to follow these procedures will mandate the TACOM Accountable Property Officer to contact the local Provost Marshal office to report the noncompliance to regulation and accountability of weapons. This report may result in an investigation against the unit and possible criminal penalties to an individual for deviating from regulations.

The following offline procedures must be used for returning the M107 Sniper Rifle for contractor (Barrett Firearms Manufacturing, Inc.) repair. If the procedures are not followed, the repair of the weapon(s) will be delayed until required data is provided. Compliance with these procedures is being emphasized to the contractor. Units, which do not comply upon request, will be reported to the Provost Marshal.

**NOTE**

No more than three (3) weapons with day optic sight and one empty magazine may be sent via U. S. Postal Service registered mail at any one time. Ensure that a point of contact (POC) and a commercial telephone number are included (see paragraph g).

Weapons for contractor (depot) repair **WILL NOT** be shipped with ammunition.

- a. Ensure that **NO AMMUNITION** is present in the weapon by clearing the weapon using the field strip procedures (TM 9-1005-239-10).
- b. Completely fill in DA Form 2407 in accordance with the instructions provided in DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual. Describe the required maintenance action as thoroughly as possible in block 15 of DA Form 2407.
- c. Data Fax one copy of "Receipt Copy 1" of DA Form 2407 to:

FAX: DSN 793-6016  
COMMERCIAL FAX: (309) 782-6016  
Department of the Army  
U.S. Army Tank-Automotive and Armaments Command  
ATTN: AMSTA-LC-CSIL/Doug Carlstrom; Telephone (309) 782-2361  
Rock Island, IL 61299-7630

- d. Place copies 2 through 5 of DA Form 2407 inside the hard case.

**NOTE**

Ensure that the four remaining copies of DA Form 2407 are inside the hard case before closing and sealing the case. Repairs cannot be made unless the deficiency is identified on DA Form 2407.

- e. Clean weapon and place in hard case.

**TURN-IN PROCEDURES - Continued**

- f. Clean the day optic sight. Ensure covers are installed on the sight and are in the closed position. Place sight in hard case.

**NOTE**

Only weapons with the day optic sight and magazine (one each) will be shipped for repair. Weapon with day optic sight and one empty magazine may be sent via U. S. Postal Service registered mail with return receipt requested. Ensure no ammunition is shipped with the weapon.

- g. Contact Barrett Firearms at telephone (615) 896-2938 to obtain point of contact information. Ship weapon and DA Form 2407 to contractor address:

Barrett Firearms Manufacturing, Inc.  
5926 Miller Lane  
ATTN: Repair/Upgrade Dept.  
Christiana, TN 37037-5612

Commercial Telephone: (615) 896-2938

**DOCUMENTATION FOR TURN-IN**

1. For CONUS units and those OCONUS units with access to US Registered Mail service for both shipping and receiving weapons:
  - a. When it is determined that the M107 Sniper Rifle requires repair above Direct Support maintenance level, notify the Unit Accountable Property Book Officer.
  - b. The Unit Accountable Property Book Officer will process an FTE (Report of Excess) and an AOE (Requisition with Exception Data) IAW the Materiel Returns Program as detailed in Requisition Receipt and Issue System, Chapter 7, AR 725-50, 19 Oct 90. Exception data will include serial number of the M107 Sniper Rifle, document number of the FTE, point of contact to include commercial and/or DSN telephone number, and verification that weapon can be shipped through US Registered Mail from the local Post Office. Sender must use Return Receipt Requested for repair and return of weapons. Each weapon package will be marked with the name of the authorized specific person and alternate persons for signature of shipped weapons upon receipt (see above manufacturer address block). The weapons should be shipped overnight when feasible.
  - c. TACOM – Rock Island will respond with an FTR (reply to report of excess), directing shipment to Barrett Firearms Manufacturing, Inc.
  - d. The M107 Sniper Rifle will be returned to the unit, using the document number from the AOE.
2. For OCONUS units without access to US Registered Mail for both shipping and receiving weapons:
  - a. The procedures for the units are the same as for CONUS units.
  - b. TACOM – Rock Island will respond with an FTR directing shipment of the M107 Sniper Rifle to Defense Distribution Depot Anniston (DDAA) using Defense Transportation System (DTS).

- c. TACOM – Rock Island will direct DDAA to ship the M107 Sniper Rifle to Barrett Firearms Manufacturing, Inc., for repair.
  - d. When the M107 is returned to DDAA, the TACOM – Rock Island item manager will direct shipment of the M107 Sniper Rifle to the unit, using the document number from the AOE.
3. For all repair requirements, the following procedures must be used:

**NOTE**

Do not submit these transactions through AUTODIN.

- a. The FTE and AOE may be phoned into TACOM-Rock Island, AMSTA-LC-LEAC, DSN 793-4271 or commercial (309) 782-4271.
  - b. FAX the above transactions to DSN 793-2640 or commercial (309) 782-2640.
  - c. If using electronic mail, send to [TACOM-RI-SNIPER-REPAIR@ria.army.mil](mailto:TACOM-RI-SNIPER-REPAIR@ria.army.mil).
4. The above procedures will transfer the accountability of the M107 Sniper Rifle from the unit to the wholesale system. The M107 Sniper Rifle will not be repaired and returned to the unit unless the above procedures are followed. Regardless of how the weapon is delivered to the contractor, these procedures must be followed.
5. Weapons returned through US Registered Mail shall have the container marked with the NSN, part number, and quantity. Weapons returned through DTS shall have the container marked in accordance with MIL-STD-129.
6. In the event US Registered Mail is not available or quantity of four (4) or more, shipment of the M107 Sniper Rifle(s) must be accomplished through the use of the Defense Transportation System (DTS) and requires Category IV Transportation Protective Service (TPS) in transit.
7. Shipment is reportable under DODSASP in accordance with chapter 4 of AR 710-3, "Asset and Transaction Reporting System". The DODAAC to be used for the shipment to Barrett Firearms Manufacturing, Inc., is CMA05C and RIC is C8S. DODSASP reporting is mandatory. These procedures transfer the accountability of the weapon from the unit to TACOM – Rock Island. The exception to reporting in AR 710-3, chapter 4-11, does not apply, since this is a national maintenance point contract and not a repair and return evacuation.

**NOTE**

All permanent turn-in weapon shipments must be accomplished through the use of the Defense Transportation System (DTS) and require Category IV Transportation Protection Service (TPS) in transit.

8. For permanent turn-in of the M107 Sniper Rifle, units must turn in a complete system (rifle, scope, cases, deployment kit, etc.) using the FTE (Report of Excess) IAW AR 725-50, chapter 7, 19 Oct 90. The units must bring system back up to standard configuration, prior to shipment. Report of discrepancy will be filed, addressing any shortages.

**DOCUMENTATION FOR TURN-IN - Continued**

9. Applicable publications are listed below:
  - a. MIL-B-121: Barrier Material;
  - b. ASTM D 5118: Standard Practice for Fabrication of Fiberboard Shipping Boxes;
  - c. A-A-1898: Cushioning Material, Cellulosic Packaging;
  - d. A-A-3129: Cushioning Material, Open Cell Plastic Film;
  - e. A-A-1051: Paperboard, Wrapping and Cushioning;
  - f. ASTM D 5486: Standard Specification for Pressure Sensitive Tape for Box Closure and Sealing;
  - g. MIL-STD-129: Standard Practice for Military Marking.

**END OF WORK PACKAGE**

## UNIT AND DIRECT SUPPORT

LONG RANGE SNIPER RIFLE, M107  
(NSN 1005-01-469-2133)

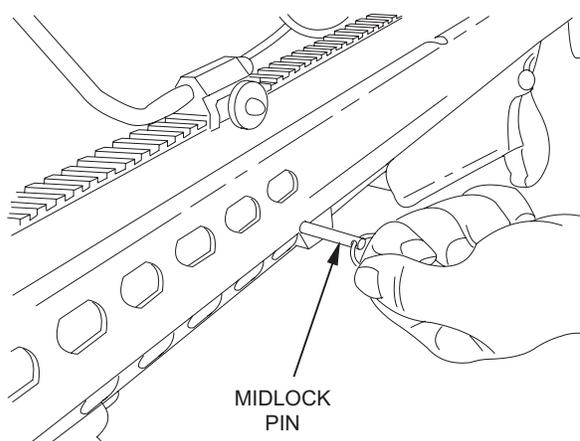
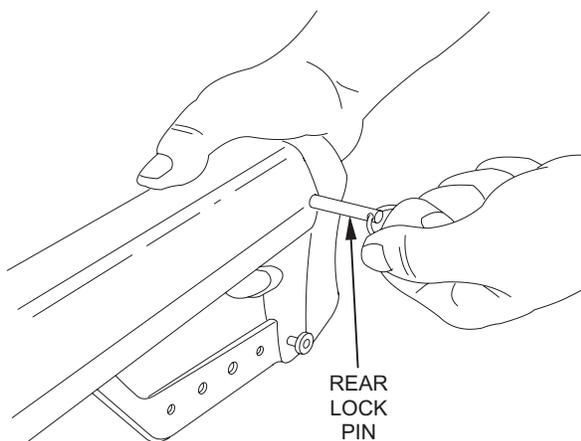
## PREPARATION FOR STORAGE AND SHIPMENT (USMC ONLY)

## STORAGE PROCEDURES

**WARNING**

Do not store weapon with live ammunition in either chamber or magazine.

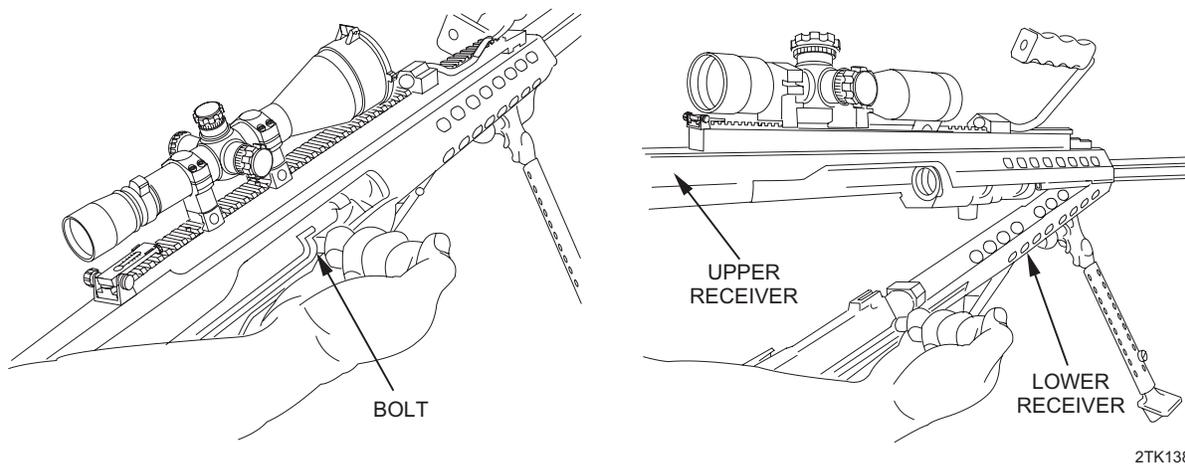
1. Storage for Extended Periods. When the weapon is to be stored for an extended period (greater than 90 days), follow procedures outlined in MCO P4450.7, Preparation for Storage. Ensure the weapon is thoroughly cleaned as outlined in TM 9-1005-239-10.
2. Storage Procedures.
  - a. Ensure chamber and magazine do not contain live ammunition.
  - b. Remove rear lock and midlock pins.



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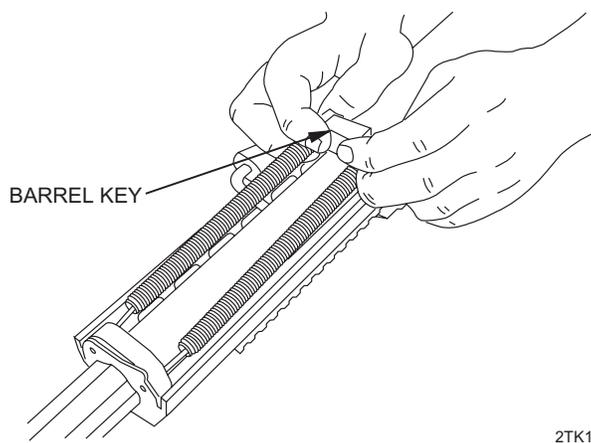
**STORAGE PROCEDURES - Continued**

- c. Retract bolt until it clears barrel extension and lift rear of upper receiver. Slowly release tension on bolt. Separate lower and upper receiver.

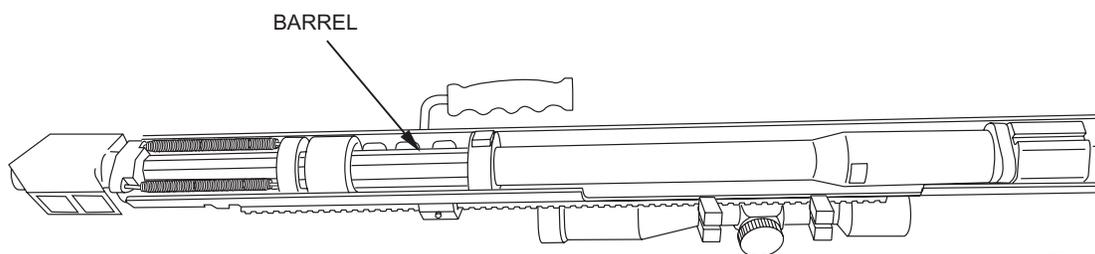
**CAUTION**

Do not pull on barrel springs to remove the barrel key. Doing so may damage the springs.

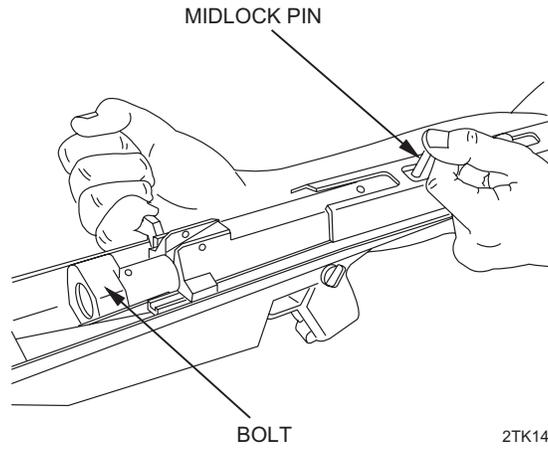
- d. Turn upper receiver upside down and remove barrel key from barrel.



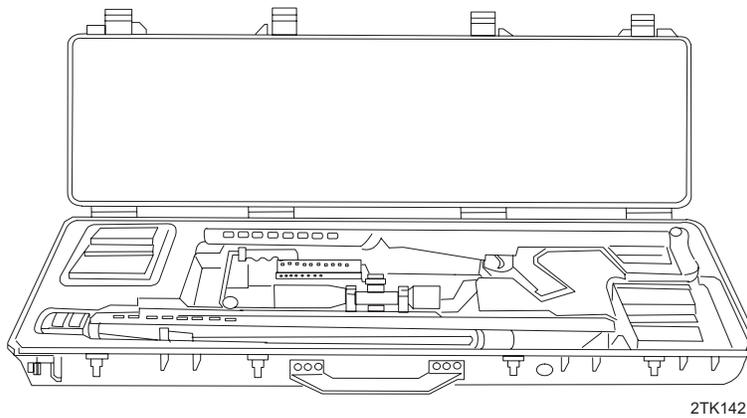
- e. Slide barrel back into receiver and rotate 1/2 turn.



- f. Retract bolt until hole in bolt is visible through first hole in lower receiver. Insert midlock pin into hole.



- g. Fold bipod legs.
- h. Place all weapon pieces into storage case in proper locations.



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**SHIPPING PROCEDURES**

1. Depot Level Maintenance. The intermediate maintenance facility will ship weapons requiring depot level maintenance to Weapons Training Battalion, Quantico, VA 22134 in accordance with MCO P4610.19, MCO 8020.1, and the following shipping procedures.

**WARNING**

Under no circumstances will live ammunition be shipped with the weapon, either in the shipping box or weapon.

2. Shipping Procedures.
  - a. Ensure that no ammunition is present by following the clearing procedures found in TM 9-1005-239-10.
  - b. Complete NAVMC 1018 in accordance with TM 4700-15/1 and detail the required maintenance as thoroughly as possible.
  - c. Clean the weapon by following the procedures outlined in TM 9-1005-239-10.
  - d. Place weapon in its carrying case with its supply system responsibility items (SSRI) and place it in a shipping box. Fill shipping box with a cushioned material. Close box and seal all seams and joints with tape or caulk.
  - e. Mark the box in accordance with MIL-STD-129, Military Standard, Marking for Shipment and Storage.
  - f. Ship through U.S. Registered Mail, Return Receipt Requested. Address the shipment to:  
  
Commanding Officer  
Weapons Training Battalion  
Marine Corps Combat Development Center  
27211 Garand Road  
Quantico, VA 22134-5036  
Attn: Precision Weapons Section
  - g. When repairs are complete, the weapon system will be returned to Marine Corps Logistics Bases (MCLB) Albany, GA, or Barstow, CA, to be placed in stock.

**END OF WORK PACKAGE**

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<p><b>RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS</b></p> <p>For use of this form, see AR 25-30; the proponent agency is ODISC4.</p>	<p>Use Part II (reverse) for Repair Parts and Special Tool Lists (RPSTL) and Supply Catalogs/Supply Manuals (SC/SM).</p>	<p><b>DATE</b></p> <p>Date you filled out this form</p>
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<p><b>TO:</b> (Forward to proponent of publication or form) (Include ZIP Code)          AMSTA-LC-LPIT / TECH PUBS, TACOM-RI          1 Rock Island Arsenal          Rock Island, IL 61299-7630</p>	<p><b>FROM:</b> (Activity and location) (Include ZIP Code)          Your mailing address</p>
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**PART I – ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS**

<p><b>PUBLICATION/FORM NUMBER</b>          TM 9-1005-239-23&amp;P</p>	<p><b>DATE</b>          14 February 2006</p>	<p><b>TITLE</b>          Unit and DS Maint. for Long Range Sniper Rifle, M107</p>
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ITEM NO.	PAGE NO.	PARA-GRAPH	LINE NO. *	FIGURE NO.	TABLE NO.	RECOMMENDED CHANGES AND REASON <i>(Provide exact wording of recommended changes, if possible).</i>
5	0041 00-3					<p>Incorrect NSN for trigger spring, P/N 82071.</p> <div style="text-align: center; font-size: 4em; font-weight: bold; transform: rotate(-15deg); opacity: 0.5;">             SAMPLE           </div>

*\*Reference to line numbers within the paragraph or subparagraph.*

<p>TYPED NAME, GRADE OR TITLE</p> <p>Your Name</p>	<p>TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION</p>	<p>SIGNATURE</p> <p>Your Signature</p>
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<b>TO:</b> <i>(Forward direct to addressee listed in publication)</i> AMSTA-LC-LPIT / TECH PUBS, TACOM-RI 1 Rock Island Arsenal Rock Island, IL 61299-7630	<b>FROM:</b> <i>(Activity and location) (Include ZIP Code)</i> Your address	<b>DATE</b> Date you filled out this form
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**PART II – REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS**

PUBLICATION NUMBER TM 9-1005-239-23&P	DATE 14 February 2006	TITLE Unit and DS Maint. for Long Range Sniper Rifle, M107
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PAGE NO.	COLM NO.	LINE NO.	NATIONAL STOCK NUMBER	REFERENCE NO.	FIGURE NO.	ITEM NO.	TOTAL NO. OF MAJOR ITEMS SUPPORTED	RECOMMENDED ACTION

**PART III – REMARKS** *(Any general remarks or recommendations, or suggestions for improvement of publications and blank forms. Additional blank sheets may be used if more space is needed.)*

TYPED NAME, GRADE OR TITLE Your Name	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE Your Signature
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<b>TO:</b> <i>(Forward direct to addressee listed in publication)</i> AMSTA-LC-LPIT / TECH PUBS, TACOM-RI 1 Rock Island Arsenal Rock Island, IL 61299-7630	<b>FROM:</b> <i>(Activity and location) (Include ZIP Code)</i>	<b>DATE</b>
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TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
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PETER J. SCHOOMAKER  
*General, United States Army*  
*Chief of Staff*

Official:



SANDRA R. RILEY  
*Administrative Assistant to the*  
*Secretary of the Army*  
0601701

By Order of the Secretary of the Air Force:

JOHN P. JUMPER  
General, United States Air Force  
Chief of Staff

GREGORY S. MARTIN  
General, United States Air Force  
Commander, Air Force Materiel Command

By Order of the Commandant of the Marine Corps

M. J. MULLIGAN  
Lt. Col. U.S. Marine Corps  
Director, Infantry Weapons  
Marine Corps Systems Command

DISTRIBUTION: To be distributed in accordance with the Initial Distribution Number (IDN) 401158 requirements for TM 9-1005-239-23&P.



## THE METRIC SYSTEM AND EQUIVALENTS

### LINEAR MEASURE

1 Centimeter = 10 Millimeters = 0.01 Meter = 0.3937 Inch  
 1 Decimeter = 10 Centimeters = 3.94 Inches  
 1 Meter = 10 Decimeters = 100 Centimeters  
 = 1000 Millimeters = 39.37 Inches  
 1 Dekameter = 10 Meters = 32.8 Feet  
 1 Hectometer = 10 Dekameters = 328.08 Feet  
 1 Kilometer = 10 Hectometers = 1000 Meters  
 = 0.621 Mile = 3,280.8 Feet  
 Millimeters = Inches times 25.4  
 Inches = Millimeters divided by 25.4

### WEIGHTS

1 Centigram = 10 Milligrams = 0.154 Grain  
 1 Decigram = 10 Centigrams = 1.543 Grains  
 1 Gram = 0.001 Kilogram = 10 Decigrams  
 = 1000 Milligrams = 0.035 Ounce  
 1 Dekagram = 10 Grams = 0.353 Ounce  
 1 Hectogram = 10 Dekagrams = 3.527 Ounces  
 1 Kilogram = 10 Hectograms = 1000 Grams  
 = 2.205 Pounds  
 1 Quintal = 100 Kilograms = 220.46 Pounds  
 1 Metric Ton = 10 Quintals = 1000 Kilograms  
 = 1.1 Short Tons

### LIQUID MEASURE

1 Milliliter = 0.001 Liter = 0.034 Fluid Ounce  
 1 Centiliter = 10 Milliliters = 0.34 Fluid Ounce  
 1 Deciliter = 10 Centiliters = 3.38 Fluid Ounces  
 1 Liter = 10 Deciliters = 1000 Milliliters  
 = 33.82 Fluid Ounces  
 1 Dekaliter = 10 Liters = 2.64 Gallons  
 1 Hectoliter = 10 Dekaliters = 26.42 Gallons  
 1 Kiloliter = 10 Hectoliters = 264.18 Gallons

### SQUARE MEASURE

1 Sq Centimeter = 100 Sq Millimeters = 0.155 Sq Inch  
 1 Sq Decimeter = 100 Sq Centimeters = 15.5 Sq Inches  
 1 Sq Meter (Centare) = 10 Sq Decimeters  
 = 10,000 Sq Centimeters = 10.764 Sq Feet  
 1 Sq Dekameter (Are) = 100 Sq Meters = 1,076.4 Sq Feet  
 1 Sq Hectometer (Hectare) = 100 Sq Dekameters  
 = 2.471 Acres  
 1 Sq Kilometer = 100 Sq Hectometers  
 = 1,000,000 Sq Meters = 0.386 Sq Mile

### CUBIC MEASURE

1 Cu Centimeter = 1000 Cu Millimeters = 0.061 Cu Inch  
 1 Cu Decimeter = 1000 Cu Centimeters = 61.02 Cu Inches  
 1 Cu Meter = 1000 Cu Decimeters  
 = 1,000,000 Cu Centimeters = 35.31 Cu Feet

### TEMPERATURE

$5/9 (°F - 32°) = °C$   
 $(9/5 x °C) + 32° = °F$   
 -35° Fahrenheit is equivalent to -37° Celsius  
 0° Fahrenheit is equivalent to -18° Celsius  
 32° Fahrenheit is equivalent to 0° Celsius  
 90° Fahrenheit is equivalent to 32.2° Celsius  
 100° Fahrenheit is equivalent to 38° Celsius  
 212° Fahrenheit is equivalent to 100° Celsius

## APPROXIMATE CONVERSION FACTORS

<u>TO CHANGE</u>	<u>TO</u>	<u>MULTIPLY BY</u>	<u>TO CHANGE</u>	<u>TO</u>	<u>MULTIPLY BY</u>
Inches .....	Centimeters.....	2.540	Centimeters.....	Inches.....	0.394
Feet.....	Meters.....	0.305	Meters.....	Feet.....	3.280
Yards .....	Meters.....	0.914	Meters.....	Yards.....	1.094
Miles .....	Kilometers.....	1.609	Kilometers.....	Miles.....	0.621
Square Inches .....	Square Centimeters.....	6.451	Square Centimeters ...	Square Inches.....	0.155
Square Feet.....	Square Meters.....	0.093	Square Meters.....	Square Feet.....	10.764
Square Yards.....	Square Meters.....	0.836	Square Meters.....	Square Yards.....	1.196
Square Miles .....	Square Kilometers.....	2.590	Square Kilometers .....	Square Miles.....	0.386
Acres .....	Square Hectometers .....	0.405	Square Hectometers...	Acres .....	2.471
Cubic Feet .....	Cubic Meters .....	0.028	Cubic Meters .....	Cubic Feet.....	35.315
Cubic Yards.....	Cubic Meters .....	0.765	Cubic Meters .....	Cubic Yards .....	1.308
Fluid Ounces .....	Milliliters.....	29.573	Milliliters.....	Fluid Ounces .....	0.034
Pints .....	Liters .....	0.473	Liters .....	Pints.....	2.113
Quarts.....	Liters .....	0.946	Liters .....	Quarts.....	1.057
Gallons .....	Liters .....	3.785	Liters .....	Gallons.....	0.264
Ounces .....	Grams .....	28.349	Grams .....	Ounces .....	0.035
Pounds.....	Kilograms .....	0.454	Kilograms .....	Pounds.....	2.205
Short Tons.....	Metric Tons .....	0.907	Metric Tons .....	Short Tons.....	1.102
Pound-Feet.....	Newton-Meters.....	1.356	Newton-Meters.....	Pound-Feet.....	0.738
Pounds-Inches.....	Newton-Meters.....	0.11375	Kilopascals .....	Pounds per Square Inch.....	0.145
Pounds per Square Inch..	Kilopascals .....	6.895	Kilometers per Liter ...	Miles per Gallon.....	2.354
Ounce-Inches.....	Newton-Meters.....	0.007062	Kilometers per Hour ...	Miles per Hour .....	0.621
Miles per Gallon.....	Kilometers per Liter .....	0.425	°Fahrenheit .....	°Celsius.....	$°C = (°F-32) \times 5/9$
Miles per Hour.....	Kilometers per Hour.....	1.609	°Celsius.....	°Fahrenheit .....	$°F = (9/5 \times °C) + 32$

