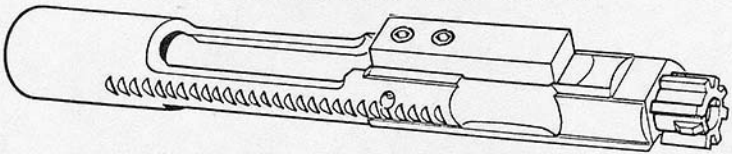
ARMY TM 9-6920-746-12&P
MARINE CORPS TM 6920-12&P

OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL
(INCLUDING REPAIR PARTS AND SPECIAL TOOL LIST)

M2 PRACTICE BOLT

FOR PLASTIC AMMUNITION
NSN 1005-01-184-4041
for RIFLE 5.56MM, M16 SERIES



HEADQUARTERS, DEPARTMENT OF THE ARMY
HEADQUARTERS, MARINE CORPS

SEPTEMBER 1986

WARNING

Fire only plastic training ammunition M862 when using M2 Practice Bolt.

Do not attempt to force feed a service cartridge into the chamber. Doing so would produce dangerous pressures for a blow-back system, damage to weapon and serious injury or death.

To prevent shooter from being hit in the face from ejected brass or excessive flash from burning propellant, the cartridge deflector MUST be used when firing M862 Plastic Training Ammo.

Spent case deflectors should be periodically inspected and removed when excessive wear warrants it.

Be careful where you point a rifle loaded with plastic training ammo! It's dangerous up to 250 meters down range!

Double hearing protection is required when firing the M862 Practice Cartridge.

Read this manual carefully before handling, loading, or operating the M16, M16A1, or M16A2 rifles when using the M2 practice bolt.

WARNING (cont)

If a bolt overrides the bullet, it should be checked for deformity and fracture, causing spilled propellant. Clean weapon if spilled propellant is evident.

All operational and safety procedures contained in TM 9-1005-249-10 and FM 23-9 are applicable when using the M2 Practice Bolt.

For further information on first aid, refer to FM 21-11.

TECHNICAL MANUAL
No. 9-6920-746-12&P
No. 6920-12&P

HEADQUARTERS
DEPARTMENT OF THE ARMY
HEADQUARTERS
MARINE CORPS
Washington, DC, *9 September 1986*

OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)

M2 PRACTICE BOLT FOR PLASTIC AMMUNITION NSN 1005-01-184-4041 FOR RIFLE 5.56MM, M16 SERIES

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes, or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Equipment Publications and Blank Forms) directly to: Commander, U.S. Army Armament, Munitions and Chemical Command, ATTN: AMSMC-MAS, Rock Island, IL 61299-6000. A reply will be furnished to you.

Marine Corps users submit NAVMC Form 10722 to: Commanding General, Marine Corps Logistics Base, Code 850, Albany, GA 31704-5000.

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CHAPTER 1 INTRODUCTION

Section I. GENERAL INFORMATION

1-1. SCOPE.

a. Type of Manual. Operator's and Organizational Maintenance Manual including Repair Parts and Special Tools List.

b. Model Number and Equipment Name. M2 Practice Bolt.

c. Purpose of Equipment. To fire 5.56mm plastic practice cartridges in M16 series rifles.

1-2. MAINTENANCE FORMS AND RECORDS. Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA PAM 738-750, The Army Maintenance Management System (TAMMS).

USMC users refer to TM 4700-15/1 for applicable forms and records.

1-3. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIRs). If your M2 Practice Bolt 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 (Quality Deficiency Report). Mail it to us at Commander, U.S. Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAD, Rock Island, IL 61299-6000. We'll send you a reply.

USMC user should submit SF 368 to: Commanding General, Marine Corps Logistics Base, ATTN: Code 840, Albany, GA 31704-5000.

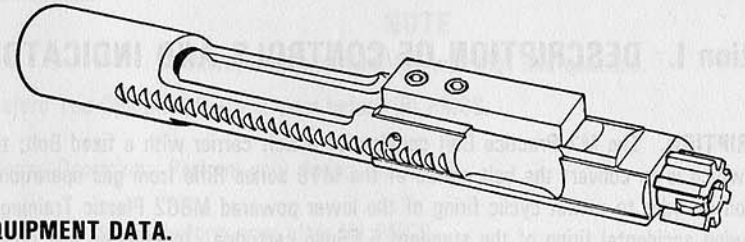
Section II. EQUIPMENT DESCRIPTION

1-4. PRINCIPLES OF OPERATION. The M2 Practice Bolt replaces the standard M16 series Rifle Bolt to enable plastic practice ammunition to be fired.

When firing the (M862) Plastic Practice Cartridge, the M16 series rifle is converted from gas operation to blow back operation. The Plastic training ammunition enables realistic firing training to be carried out at shorter distance with reduced danger areas.

1-5. MAJOR COMPONENT.

Bolt Assembly



1-6. EQUIPMENT DATA.

Weight	½ lb/.2268 kg
Length	6 inches/15.3 cm
Height	1 inch/2.5 cm
Width	1 inch/2.5 cm
Caliber	5.56mm Plastic Ammunition

CHAPTER 2
OPERATING INSTRUCTIONS

Section I. DESCRIPTION OF CONTROLS AND INDICATORS

2-1. DESCRIPTION. The M2 Practice Bolt consists of a Bolt carrier with a fixed Bolt; the intention of which is to convert the bolt action of the M16 series Rifle from gas operation to blow back operation in order to permit cyclic firing of the lower powered M862 Plastic Training Round, while disallowing accidental firing of the standard 5.56mm cartridge. Installation and removal procedures for the practice bolt carrier/bolt are the same as those for the standard bolt carrier/bolt. Reference: TM 9-1005-249-10 and TM 9-1005-249-24&P.

Section II. PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

2-2. GENERAL.

NOTE

Always keep in mind the warnings and cautions.

a. Before You Operate. Perform your before (B) PMCS.

b. During Operation. Perform your during (D) PMCS.

c. After Operation. Perform your after (A) PMCS.

d. If Your Equipment Fails to Operate. Refer to troubleshooting table in chapter 3. Report any deficiencies using the proper forms. See DA PAM 738-750.

2-3. PMCS PROCEDURES. The PMCS table 2-1 lists those required checks and services to be performed by personnel who operate the M2 practice bolt. The table is divided as follows:

a. Item No. Column. The numbers in the Item No. column of the PMCS will be used as the item numbers for the TM number column on DA Form 2404, Equipment Inspection and Maintenance Worksheet. If anything looks wrong and you cannot correct it yourself, write it on your DA Form 2404 and notify your Training Activity Services Center (TASC).

b. Before Operation Service. This is a brief service to ensure the M2 practice bolt is ready for operation.

c. During Operation Service. Periodically check to ensure the M2 practice bolt is functioning properly.

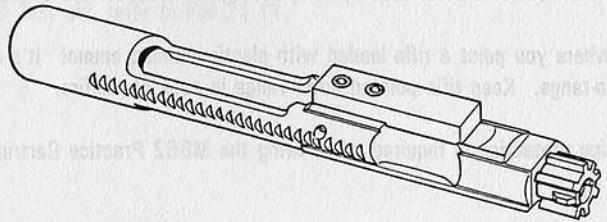
d. After Operation Service. This service should correct, where possible, all operational deficiencies so the M2 practice bolt will be ready to operate when needed.

e. Not Ready/Available If Column. The PMCS table also lists those deficiencies which make the M2 practice bolt not ready/available. They are listed in the right-hand column.

Table 2-1. PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

B = Before Operation **D = During Operation** **A = After Operation**

Item no.	Interval B	D	A	ITEM TO BE INSPECTED Procedure	Equipment is NOT READY/AVAILABLE IF:
	•		•	**BOLT.** Check bolt and all parts for cracks, breaks, or other damage which could affect operation.	Any parts require replacement.



Section III. OPERATING INSTRUCTIONS

Refer to TM 9-1005-249-10 (M16/M16A1 operator's manual) for operation of the Rifle.

WARNING

Fire only plastic training Ammunition M862 when using M2 Practice Bolt.

Do not fire dented cartridges or those having loose bullets.

Do not attempt to force feed a service cartridge into the chamber. Doing so would produce dangerous pressures for a blow-back system, damage to weapon and serious injury or death.

Be careful where you point a rifle loaded with plastic training ammo! It's dangerous up to 250 meters down-range. Keep rifle pointed down-range in case of misfire.

Double hearing protection is required when firing the M862 Practice Cartridge.

WARNING (cont)

Read this manual carefully before handling, loading, or operating the M16, M16A1, or M16A2 rifles when using the M2 practice bolt.

All operational and safety procedures contained in TM 9-1005-249-10 and FM 23-9 are applicable when using the M2 Practice Bolt.

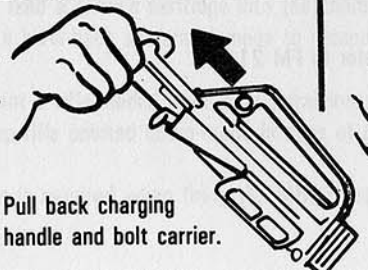
For further information on first aid, refer to FM 21-11.

Section IV. ASSEMBLING THE M2 PRACTICE BOLT IN THE M16, M16A1 or M16A2 RIFLE

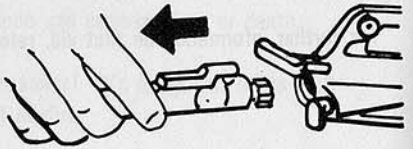
FIRST CLEAR YOUR RIFLE

1. Push take down pin as far as it will go.

2. Pivot upper receiver from lower receiver.

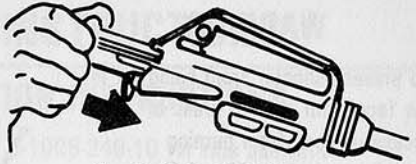


3. Pull back charging handle and bolt carrier.



4. Remove standard bolt carrier group.

5. Slide in practice bolt carrier group.



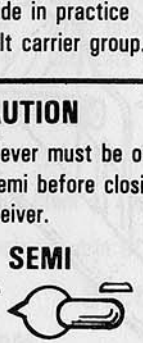
6. Push in charging handle and bolt carrier group together.

CAUTION

Selector lever must be on safe or semi before closing upper receiver.

SEMI

SAFE



7. Close upper and lower receiver groups. Push in takedown pin.

YOUR RIFLE IS NOW READY TO FIRE PLASTIC PRACTICE AMMO

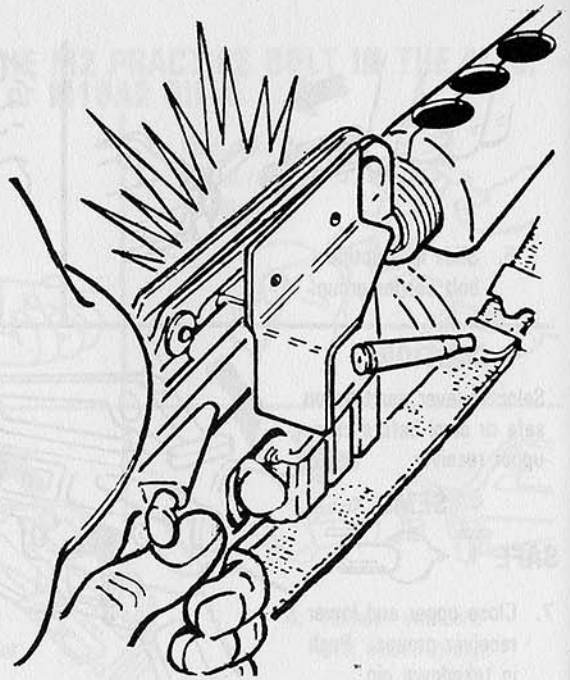
WARNING

To prevent shooter from being hit in the face from ejected brass or excessive flash from burning propellant, the cartridge deflector MUST be used when firing M862 Plastic Training Ammo.

Reference TM 9-1005-249-10 for use of deflector.

Spent case deflectors should be periodically inspected and removed when excessive wear warrants it.

This cartridge deflector is available from your Training Activity Services Center (TASC).



CHAPTER 3
MAINTENANCE INSTRUCTIONS

Section I. LUBRICATION INSTRUCTIONS

3-1. LUBRICATION INSTRUCTIONS. Refer to TM 9-1005-249-10 for rifle lubrication

- Before firing wipe off excess lubrication
- After firing, clean the Practice Bolt
- Lubricate the exterior of the Practice Bolt before storage

3-2. MATERIALS.

a. Cleaner, Lubricant and Preservative (CLP) (item 2, app D).

b. Rags (item 5, app D).

c. Tools listed in SC 5180-95-CL-A07.

Section II. TROUBLESHOOTING PROCEDURES

3-3. SCOPE.

a. The troubleshooting table lists the common malfunctions which you may find during operation of the M2 Practice Bolt. You should perform the tests/inspections in the order listed.

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

Table 3-1. Troubleshooting.

MALFUNCTION TEST OR INSPECTION CORRECTIVE ACTION
1. WEAPON WILL NOT FIRE
Step 1. Broken firing pin. Replace firing pin.
Step 2. Check for too much oil in firing pin recess. Wipe off.
Step 3. Check for defective ammunition. Remove and discard.
Step 4. Check for too much carbon on firing pin. Clean.

Table 3-1. Troubleshooting (cont).

MALFUNCTION TEST OR INSPECTION CORRECTIVE ACTION
2. WEAPON WILL NOT EXTRACT.
Step 1. Check for stuck cartridge or cartridge case in chamber. Remove stuck cartridge or cartridge case.
Step 2. Check for dirty ammunition. Clean dirty ammunition with dry cloth.
Step 3. Check for carbon in chamber. Clean.
Step 4. Check for carbon in cartridge extractor opening on bolt assembly or cartridge extractor lip (4). Clean.
Step 5. Check for broken cartridge extractor or extractor spring assembly. Replace extractor or extractor spring.

Table 3-1. Troubleshooting (cont).

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

3. WEAPON WILL NOT EJECT CARTRIDGE CASE.

Step 1. Check for broken ejector.
Replace.

Step 2. Ejector stuck in bolt body.
Disassemble and clean.

Step 3. Check for weak or broken ejector spring.
Replace.

Table 3-1. Troubleshooting (cont).

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

4. WEAPON WILL NOT FEED.

Step 1. Check for dirty ammunition
Clean dirty ammunition with dry cloth.

Step 2. Check for dirty cartridge magazine.
Clean (refer to TM 9-1005-249-10).

Section III. MAINTENANCE PROCEDURES

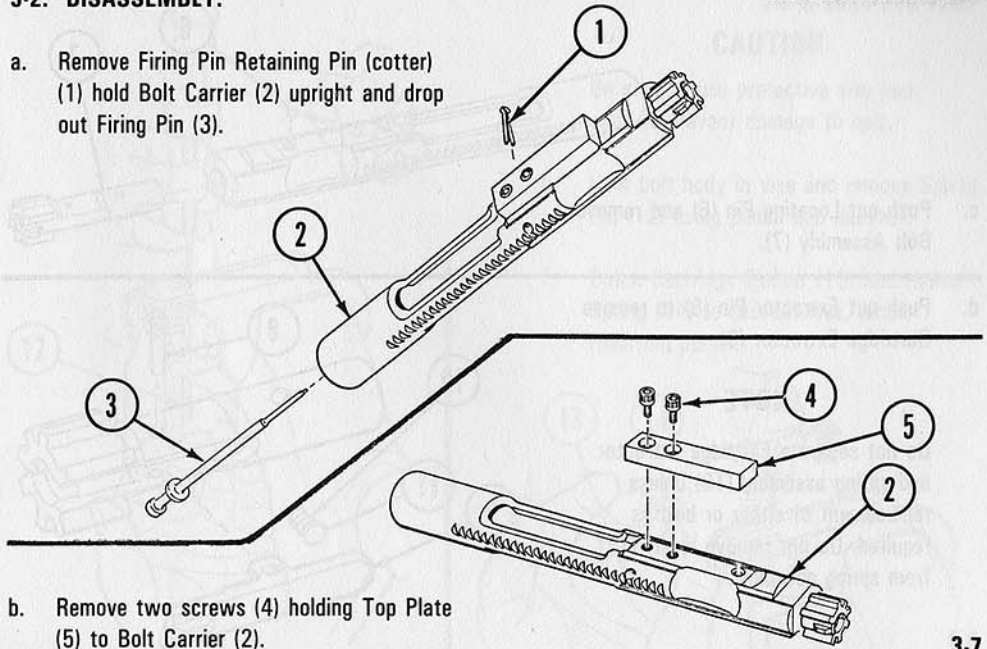
WARNING

To avoid injury to your eyes, use care when removing and installing spring-loaded parts.

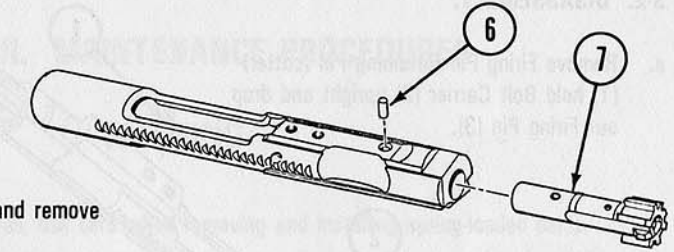
3-1. Repair of the M2 Practice Bolt consists only of replacing damaged components. Repair will be done by issuing facilities only.

3-2. DISASSEMBLY.

a. Remove Firing Pin Retaining Pin (cotter) (1) hold Bolt Carrier (2) upright and drop out Firing Pin (3).

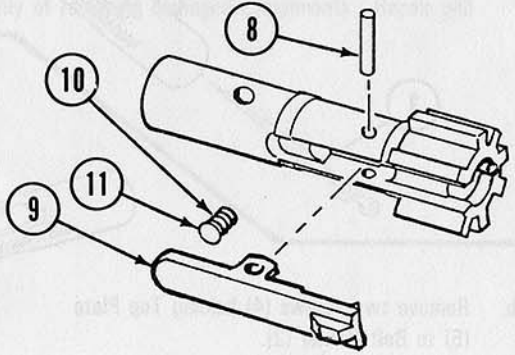


b. Remove two screws (4) holding Top Plate (5) to Bolt Carrier (2).



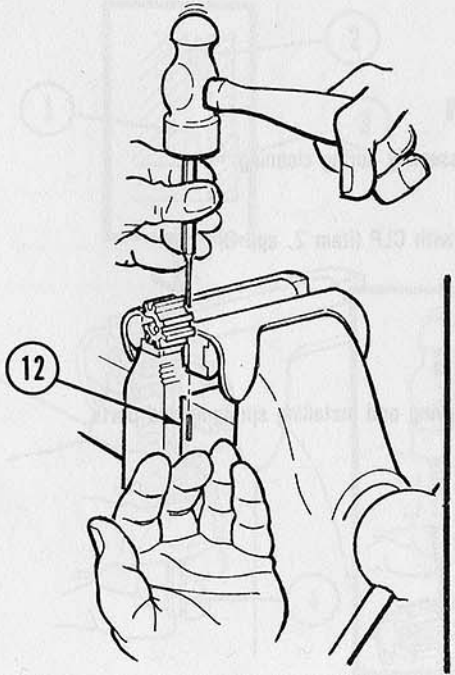
c. Push out Locating Pin (6) and remove Bolt Assembly (7).

d. Push out Extractor Pin (8) to remove Cartridge Extractor (9).



NOTE

Do not separate cartridge extractor and spring assembly (10) unless replacement of either or both is required. Do not remove insert (11) from spring assembly.

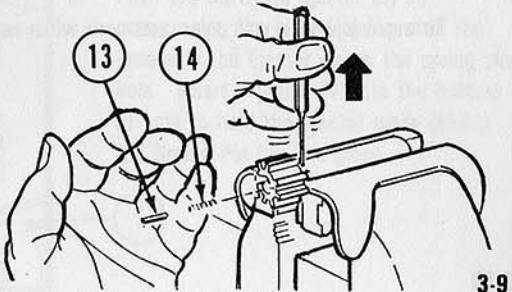


CAUTION

Be sure to use protective vise jaw caps to prevent damage to bolt.

e. Hold bolt body in vise and remove Spring Pin (12) using punch and hammer.

f. Catch Cartridge Ejector (13) and Helical Spring (14) to prevent loss, when removing punch.



CAUTION

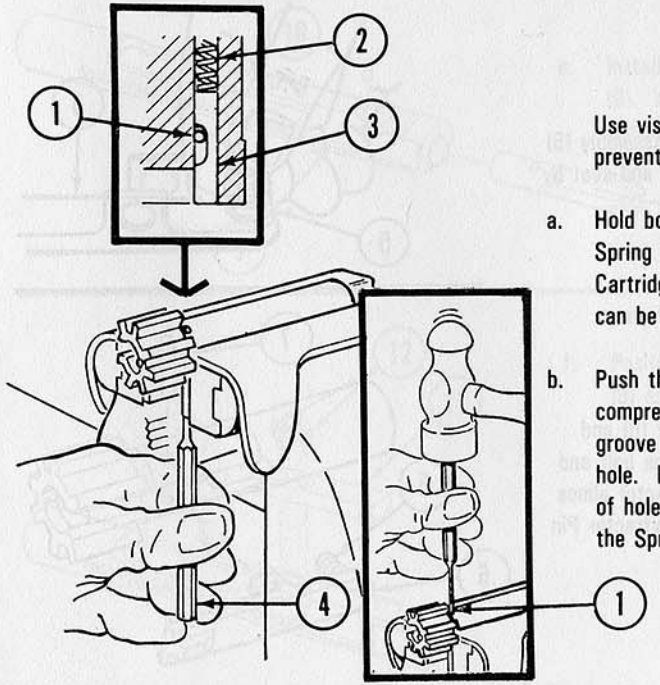
Do not distort extractor spring assembly during cleaning.

3-3. CLEANING. Remove dirt and carbon from parts with CLP (item 2, app D).

3-4. REASSEMBLY.

WARNING

To avoid injury to your eyes, use care when removing and installing spring-loaded parts.



CAUTION

Use vise jaw protective caps to prevent damage to bolt.

a. Hold bolt body in vise. Insert Helical Spring (2). Aline the groove on the Cartridge Ejector (3), so the spring pin can be installed.

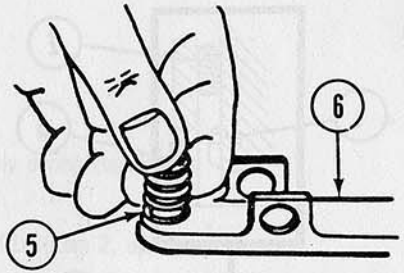
b. Push the Cartridge Ejector (3) in, compressing the helical spring until the groove in the Ejector clears the spring pin hole. Insert a punch (4) into the bottom of hole to hold the ejector while driving the Spring Pin (1) into place.

3-4. REASSEMBLY (cont).

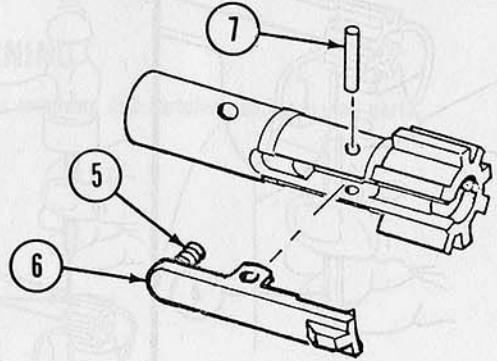
c. Insert large end of Spring Assembly (5) into Cartridge Extractor (6) and seat by turning clockwise.

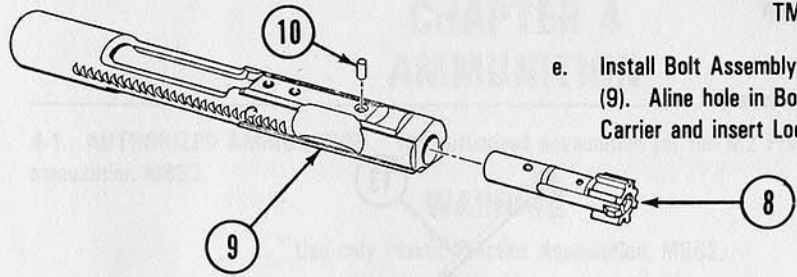
NOTE

Do not disassemble insert from spring assembly.

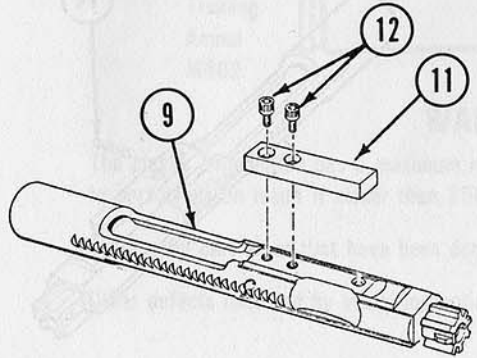


d. Position Cartridge Extractor (6) and Spring assembly (5) onto the bolt and compress until hole in extractor alines with hole in bolt. Install Extractor Pin (7).





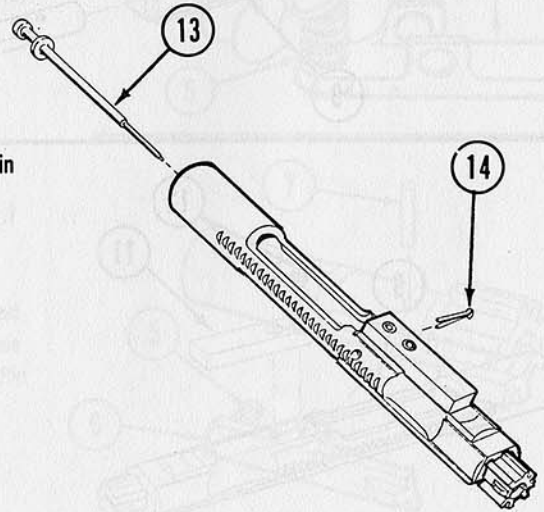
e. Install Bolt Assembly (8) into Bolt Carrier (9). Aline hole in Bolt with hole in Bolt Carrier and insert Locating Pin (10).



f. Position Top Plate (11) on Bolt Carrier (9) and fasten with two Screws (12).

3-4. REASSEMBLY (cont).

g. Insert Firing Pin (13) and the Firing Pin Retaining Pin (14).



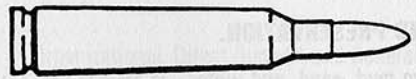
CHAPTER 4
AMMUNITION

4-1. AUTHORIZED AMMUNITION. The authorized ammunition for the M2 Practice Bolt is Plastic ammunition M862.

WARNING

Use only Plastic Practice Ammunition, M862.

Plastic Training Ammo M862



Blue Plastic Bullet

WARNING

The plastic ammunition has a maximum range of 250 meters. Serious injury or death to personnel can result if closer than 250 meters from the weapon.

Do not fire cartridges that have been dented or those having loose bullets.

Other defects detected by visual inspection are also cause for disposal of ammunition.

WARNING (cont)

If bolt overrides the bullet, it should be checked for deformity and fractures, causing spilled propellant. Clean weapon if spilled propellant is evident.

4-2. AMMUNITION WHICH FAILS TO FIRE. Dispose of any ammunition which fails to fire according to procedures authorized by your commanding officer.

NOTE

Ammunition operating temperatures range from 0°F to 100°F (-18°C to 38°C).

4-3. CARE, HANDLING, AND PRESERVATION.

a. Protect ammunition from mud, sand, and water. If ammunition gets wet or dirty, wipe off at once with a clean dry cloth.

b. Do not expose ammunition to the direct rays of the sun. If powder is hot, excessive pressure may develop when fired.

c. Do not oil ammunition. Oiling of ammunition can cause a misfire.

NOTE

For further information on safety, care and handling of ammunition refer to TM 9-1300-206

APPENDIX A REFERENCES

A-1. SCOPE. This appendix lists all forms, regulations and technical manuals referenced in or applicable to this manual.

A-2. TECHNICAL MANUALS.

TM 9-1005-249-10 . . . . . Operator's Manual for M16
TM 9-1005-249-24&P . . . . . Organizational, Direct Support and General Support Maintenance Manual (Including Repair Parts and Special Tools List) for M16
TM 9-1300-206 . . . . . Care and Storage of Ammunition
TM 4700-15/1 . . . . . USMC Forms and Records

A-3. ARMY REGULATIONS AND PAMPHLETS.

DA PAM 310-1 . . . . . Consolidated Index of Army Publications and Blank Forms
DA PAM 738-750 . . . . . The Army Maintenance Management System (TAMMS)

A-4. FORMS.

DA Form 2028 . . . . . Recommended Changes to Publications and Blank Forms
NAVMC Form 10772 . . . . . Recommended Changes to Publications
SF 368 . . . . . Quality Deficiency Report
DA Form 2404 . . . . . Equipment Inspection and Maintenance Worksheet

A-5. FIELD MANUALS.

FM 21-11 . . . . . First Aid for Soldiers
FM 23-9 . . . . . M16 Rifle and Rifle Marksmanship

A-6. MISCELLANEOUS PUBLICATIONS.

CTA 8-100 . . . . . Army Medical Department Expendable/Durable Items
CTA 50-970 . . . . . Expendable/Durable Items (Except Medical Class V, Repair Parts and Heraldic Items)
SC 5180-95-CL-A07 . . . . . Tool Kit, Small Arms Repairman

APPENDIX B
MAINTENANCE ALLOCATION CHART

Section I. INTRODUCTION

B-1. GENERAL. This section provides a general explanation of all maintenance and repair functions authorized at various maintenance categories.

B-2. MAINTENANCE FUNCTIONS. Maintenance functions will be limited to and defined as follows:

a. 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).

b. Service. Operations required periodically to keep an item in proper operating condition; i.e., to clean (includes decontaminate, when required), to preserve, drain, paint, or replenish fuel, lubricants, chemical fluids or gases.

c. 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 the equipment or system.

d. Replace. To remove an unserviceable item and install a serviceable counterpart in its place. "Replace" is authorized by the MAC and is shown in the 3d position of the SMR code.

e. Repair. The application of maintenance services or other maintenance actions to 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.

B-3. EXPLANATION OF COLUMNS IN THE MAC.

a. Column 1, Group Number. Column 1 lists functional group code numbers, the purpose of which is to identify components, assemblies, subassemblies, and modules with the next higher assembly.

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

c. Column 3, Maintenance Function. Column 3 lists the functions to be performed on the item listed in column 2.

d. Column 4, Maintenance Category. Column 4 specifies by the listing of a work time figure in the appropriate subcolumn(s), the category of maintenance authorized to perform the function listed in column 3. This figure represents the active time required to perform the maintenance function at the indicated category of maintenance. If the number or complexity of the tasks within the listed maintenance function vary at different maintenance categories, appropriate work time figures will be shown for each category. 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, troubleshooting time, and quality assurance/quality control time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the maintenance allocation chart. The symbol designations for the various maintenance categories are as follows:

C . . . . . Operator or Crew
O . . . . . Organizational Maintenance

e. Column 5, Tools and Equipment. Column 5 specifies, by code, those common tool sets (not individual tools) and special tools, TMDE, and support equipment required to perform the designated function.

Section II. MAINTENANCE ALLOCATION CHART

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY C	O	F	H	D	(5) TOOLS AND EQUIP
00	Bolt, Automatic Weapon (Practice) M2	Inspect	0.1	0.1				1
		Test		0.1				
		Service	0.1	0.1				
		Repair	0.2					
01	Bolt Assy	Inspect	0.1	0.1				1
		Test		0.1				
		Service	0.1	0.1				
		Replace		0.1				
		Repair		0.1				

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS

TOOL OR TEST EQUIPMENT REF CODE	MAINTENANCE LEVEL	NOMENCLATURE	NATIONAL/ NATO STOCK NUMBER	TOOL NUMBER
1	O	Tool Kit, Small Arms Repairman	5180-00-357-7770	SC 5180-95-CL-A07

APPENDIX C
REPAIR PARTS AND SPECIAL TOOLS LIST

Section I. INTRODUCTION

C-1. 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 operator and organizational maintenance of the M2 Practice Bolt. It authorizes the requisitioning, issue, and disposition of spares, repair parts and special tools as indicated by the Source, Maintenance and Recoverability (SMR) codes.

C-2. General. In addition to section I, this Repair Parts and Special Tools List is divided into the following sections:

a. Section II, Repair Parts List. A list of spares and repair parts authorized by this RPSTL for use in the performance of maintenance. The list also includes parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending

alphanumeric sequence. Bulk materials are listed in item name sequence. Repair parts kits are listed separately in their own functional group within section II. Repair parts for repairable special tools are also listed in this section.

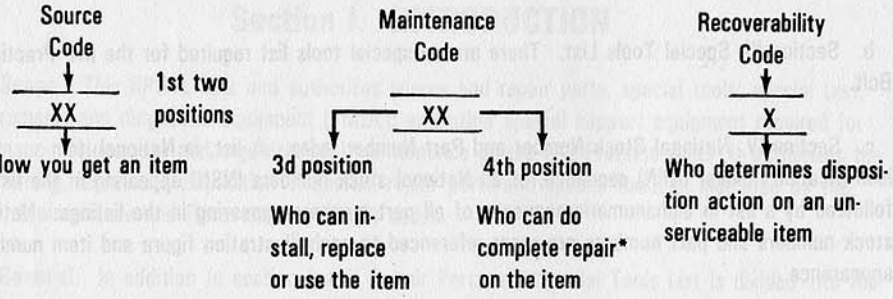
b. Section III, Special Tools List. There are no special tools list required for the M2 Practice Bolt.

c. Section IV, National Stock Number and Part Number Index. A list, in National item identification number (NIIN) sequence, of all National stock numbers (NSN) appearing in the listing, followed by a list in alphanumeric sequence of all part numbers appearing in the listings. National stock numbers and part numbers are cross-referenced to each illustration figure and item number appearance.

C-3. Explanation of Columns (Sections II and III).

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

b. SMR CODE (Column (2)). The Source, Maintenance, and Recoverability (SMR) Code is a 5-position code containing supply/requisitioning information, maintenance category authorization criteria, and disposition instruction, as shown in the following breakout:



*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.

(1) 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 follows:

Code	Explanation
PA PB PC** PD PE PF PG	Stocked items; use the applicable NSN to request/requisition items with these source codes. They are authorized to the category indicated by the code entered in the 3d position of the SMR codes.
	**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 category indicated in the 3d position of the SMR code. The complete kit must be requisitioned and applied.
MO - (Made at org/AVUM Level)	Items with these codes are not to be requested/requisitioned individually. They must be made from bulk material which is identified by the part number in the DESCRIPTION AND USABLE ON CODE (UOC) column and

Code	Explanation
MF - (Made at DS/AVIM Level) MH - (Made at GS Level) ML - (Made at Specialized Repair ACT (SRA)) MD - (Made at Depot)	listed in the Bulk Material Group of the repair parts list in this RPSTL. If the item is authorized to you by the 3d position code of the SMR Code, but the source code indicates it is made at a higher level, order the item from the higher level of maintenance
AO - (Assembled by org/ AVUM Level) AF - (Assembled by DS/ AVIM Level)	Items with these codes are not to be requested/requistioned 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 3d position code 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.

AH - (Assembled by GS Category) AL - (Assembled by SRA) AD - (Assembled by Depot)	
XA -	Do not requisition an "XA" - coded item. Order its next higher assembly. (Also, refer to the NOTE below.)
XB -	If an "XB" item is not available from salvage, order it using the FSCM and part number given.
XG -	Installation drawing, diagram, instruction sheet, field service drawing, that is identified by manufacturer's part number.
XD -	Item is not stocked. Order an "XD" - coded item through normal supply channels using the FSCM and part number 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 700-42.

(2) 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:

(a) 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 one of the following levels of maintenance.

Code	Application/Explanation
C	Crew or operator maintenance done within organizational or aviation unit maintenance.
O	Organizational or aviation unit category can remove, replace, and use the item.
F	Direct support or aviation intermediate level can remove, replace, and use the item.
H	General support level can remove, replace, and use the item.
D	Depot level can remove, replace, and use the item.

(b) The maintenance code entered in the fourth position tells whether or not the item is to be repaired and identifies the lowest maintenance level with the capability to do complete repair (i.e., 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.) This position will contain one of the following maintenance codes.

Code	Application/Explanation
O	Organizational or aviation unit is the lowest level that can do complete repair of the item.
F	Direct support or aviation intermediate 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.

Code	Application/Explanation
Z	Nonreparable. No repair is authorized.
B	No repair is authorized. (No parts or special tools are authorized for the maintenance of a "B" coded item.) However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

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

Recoverability Code	Application/Explanation
Z	Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in 3d position of SMR Code.
O	Reparable item. When uneconomically reparable, condemn and dispose of the item at organizational or aviation unit level.

Recoverability Code	Application/Explanation
F	Reparable item. When uneconomically reparable, condemn and dispose of the item at direct support or aviation intermediate level.
H	Reparable item. When uneconomically reparable, 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 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 (e.g., precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.

c. FSCM (Column (3)). The Federal Supply Code for Manufacturer (FSCM) is a 5-digit numeric code which is used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

d. PART NUMBER (Column (4)). 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 part number from the part ordered.

e. QTY (Column (6)). 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 in lieu of a quantity indicates that the quantity is variable and the quantity may vary from application to application.

C-4. Explanation of Columns (Sect. IV).

a. NATIONAL STOCK NUMBER (NSN) INDEX.

(1) STOCK NUMBER column. This column lists the NSN by National Item Identification Number (NIIN) sequence. The NIIN consists of the last nine digits of the NSN (i.e., 1005-01-184-4041). When using this column to locate an item, ignore the first 4 digits of the NSN. However, the complete NSN should be used when ordering items by stock number.

(2) FIG. column. This column lists the number of the figure where the item is identified/located. The figures are in numerical order in section II and section III.

(3) 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.

b. PART NUMBER INDEX. Part numbers in this index are listed by part number in ascending alphanumeric sequence (i.e., vertical arrangement of letter and number combination 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).

(1) FSCM column. The Federal Supply Code for Manufacturer (FSCM) is a 5-digit numeric code used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

(2) PART NUMBER column. Indicates the primary number used by the manufacturer (individual, 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.

(3) STOCK NUMBER column. This column lists the NSN for the associated part number and manufacturer identified in the PART NUMBER and FSCM columns to the left.

(4) FIG. column. This column lists the number of the figure where the item is identified/located in Section II and III.

(5) ITEM column. The item number is that number assigned to the item as it appears in the figure referenced in the adjacent figure number column.

C-5. How to Locate Repair Parts.

a. When National Stock Number or Part Number is Not Known.

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

(2) Second. Find the figure covering the assembly group or subassembly group to which the item belongs.

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

(4) Fourth. Refer to the Repair Parts List for the figure to find the part number for the item number noted on the figure.

(5) Fifth. Refer to the Part Number Index to find the NSN, if assigned.

b. When National Stock Number or Part Number is Known.

(1) First. Using the Index of National Stock Numbers and Part Numbers, find the pertinent National Stock Number or Part Number. The NSN index is in National Item Identification Number (NIIN) sequence (see 4.a.). The part numbers in the Part Number index are listed in ascending alphanumeric sequence (see 4.b). Both indexes cross-reference you to the illustration figure and item number of the item you are looking for.

(2) Second. After finding the figure and item number, verify that the item is the one you're looking for, then locate the item number in the repair parts list for the figure.

C-6. Abbreviations. Not applicable.

Section II. REPAIR PARTS

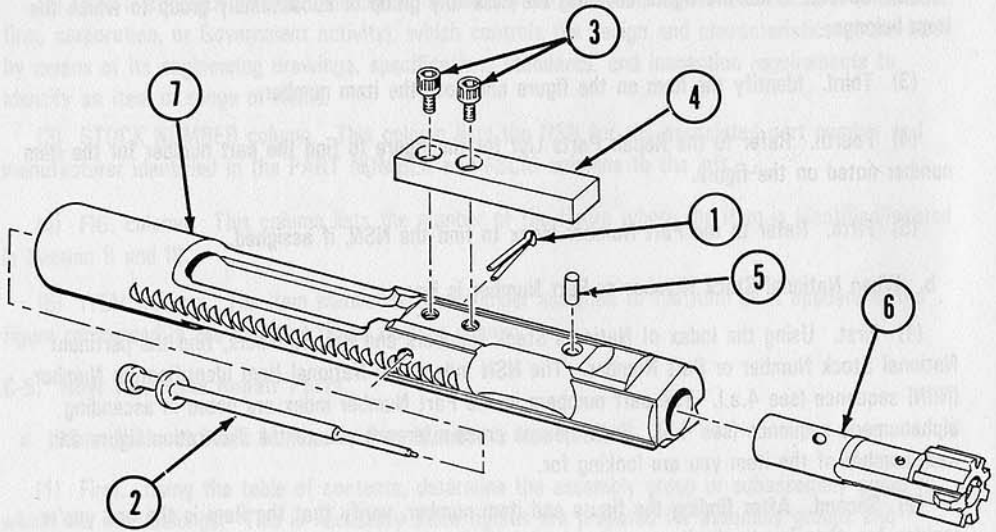


Figure C-1. Bolt, Automatic Weapon (Practice) M2 11833492.

SECTION II

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP: 00 FIGURE: C-1 BOLT, AUTOMATIC WEAPON (PRACTICE) M2 11833492	
1	PAOZZ	19204	8448504	PIN,FIRING PIN RETA.....	1
2	PAOZZ	19204	8448503	PIN,FIRING.....	1
3	PAOZZ	19200	8448508	SCREW CARRIER.....	2
4	PAOZZ	19200	11833496	TOP PLATE.....	1
5	PAOZZ	19200	11833499	CAM PIN.....	1
6	A0000	19200	11833493	BOLT ASSEMBLY.....	1
7	PAOZZ	19200	11833494	BOLT CARRIER.....	1
				END OF FIGURE	

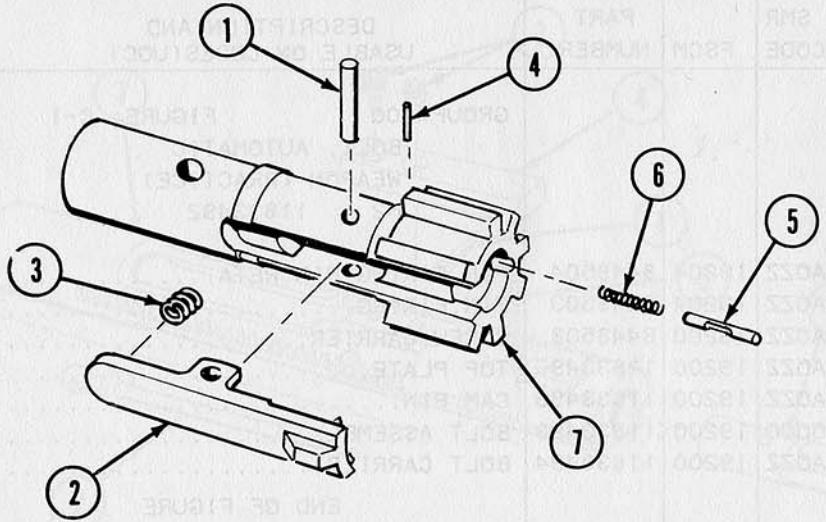


Figure C-2. Bolt Assembly 11833493.

SECTION II

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP: 01 FIGURE: C-2	
				BOLT ASSY	
				11833493	
1	PAOZZ	19200	8448513	PIN,EXTRACTOR.....	1
2	PAOZZ	19200	8448512	EXTRACTOR CARTRIDGE.....	1
3	PAOZZ	19200	11833498	SPRING,HELICAL,COMP.....	1
4	PAOZZ	96906	MS16562-98	PIN,SPRING.....	1
5	PAOZZ	19200	11833497	EJECTOR PIN.....	1
6	PAOZZ	19200	8448516	SPRING HELICAL EJECTOR.....	1
7	PAOZZ	19200	11833495	BOLT,BREECH.....	1
				END OF FIGURE	

Section III. SPECIAL TOOLS LIST

Not applicable

NATIONAL STOCK NUMBER AND PART NUMBER INDEX

NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5315-00-017-9547	C-1	2			
5315-00-597-5086	C-2	4			
1005-00-992-7284	C-1	3			
1005-00-992-7288	C-2	2			
1005-00-992-7290	C-2	1			
5360-00-992-7292	C-2	6			
1005-00-999-1509	C-1	1			
1005-01-218-0643	C-1	4			
5360-01-218-0670	C-2	3			
1005-01-218-0684	C-2	7			
1005-01-219-6354	C-1	7			
1005-01-219-6355	C-2	5			
1005-01-219-6464	C-1	5			

NATIONAL STOCK NUMBER AND PART NUMBER INDEX

PART NUMBER INDEX

FSCM	PART NUMBER	STOCK NUMBER	FIG.	ITEM
96906	MS16562-98	5315-00-597-5086	C-2	4
19200	11833493		C-1	6
19200	11833494	1005-01-219-6354	C-1	7
19200	11833495	1005-01-218-0684	C-2	7
19200	11833496	1005-01-218-0643	C-1	4
19200	11833497	1005-01-219-6355	C-2	5
19200	11833498	5360-01-218-0670	C-2	3
19200	11833499	1005-01-219-6464	C-1	5
19204	8448503	5315-00-017-9547	C-1	2
19204	8448504	1005-00-999-1509	C-1	1
19204	8448508	1005-00-992-7284	C-1	3
19204	8448512	1005-00-992-7288	C-2	2
19204	8448513	1005-00-992-7290	C-2	1
19204	8448516	5360-00-992-7292	C-2	6

APPENDIX D
EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

Section I. INTRODUCTION

D-1. SCOPE.

This listing is for informational purposes 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.

D-2. EXPLANATION OF COLUMNS.

a. Column (1) — Item Number. This number is assigned to the entry in the listing and is referenced in the narrative instructions to identify the material (e.g., "Use cleaner, lubricant and preservative, CLP item 2, app D").

D-2. EXPLANATION OF COLUMNS (cont).

b. Column (2) — Level. This column identifies the lowest level of maintenance that requires the listed item.

C — Operator/Crew
O — Organizational

c. Column (3) — National Stock Number. This is the National stock number assigned to the item; use it to request or requisition the item.

d. Column (4) — Description. Indicates the Federal item name and, if required, a description to identify the item. The last line for each item indicates the Federal Supply Code for Manufacturer (FSCM) in parentheses followed by the part number.

e. Column (5) — Unit of Measure (U/M). Indicates the measure used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in., pr). If the unit of measure differs from the unit of issue, requisition the lowest unit of issue that will satisfy your requirements.

Section II. EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) U/M
1	C	6850-00-224-6657	COMPOUND, CLEANING (RBC) 8 oz can (81349) MIL-C-372	OZ
2	C	9150-01-102-1473	LUBRICANT, CLEANER AND PRESERVATIVE (81349) MIL-L-63460	OZ
3	C	9150-00-292-9689	OIL, LUBRICATING (LAW) 1 qt can (81349) MILL14107	QT

Section II. EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST (cont)

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) U/M
4	C	9150-00-889-3522	OIL, LUBRICATING, SEMV Semi-fluid 4 oz bottle (LSA) (19204) 8436793	OZ
5	C	7920-00-205-2711	RAGS, WIPING 5 lb bale (58536) A-A-531	LB

APPENDIX E
COMPONENTS OF END ITEM AND BASIC ISSUE ITEMS LISTS

Section I. INTRODUCTION

E-1. SCOPE.

This appendix lists components of end item and basic issue items for the M2 Practice Bolt to help you inventory items required for safe and efficient operation.

E-2. GENERAL.

The components of End Item and Basic Issue Items Lists are divided into the following sections:

a. **Section II. Components of End Item (COEI).** Not applicable.

b. Section III. Basic Issue Items (BII). These are the minimum essential items required to place the M2 Practice Bolt in operation, to operate it, and to perform emergency repairs. Although shipped separately packaged, BII must be with the M2 Practice Bolt during operation and whenever it is transferred between property accounts. This manual is your authority to request/requisition replacement BII, based on Table of Organization and Equipment (TOE)/Modified Table of Organization and Equipment (MTOE) authorization of the end item.

E-3. EXPLANATION OF COLUMNS.

The following provides an explanation of columns found in the tabular listings:

a. Column (1) — Illustration Number (Illus Number). This column indicates the number of the illustration in which the item is shown.

b. Column (2) — National Stock Number. Indicates the National stock number assigned to the item and will be used for requisitioning purposes.

c. Column (3) — Description. Indicates the Federal item name and, if required, a minimum description to identify and locate the item. The last line for each item indicates the FSCM (in parentheses) followed by the part number.

d. Column (4) — Unit of Measure (U/M). Indicates the measure used in performing the actual operational/maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in., pr).

e. Column (5) — Quantity Required (Qty rqr). Indicates the quantity of the item authorized to be used with/on the equipment.

Section II. COMPONENTS OF END ITEM

Not applicable.

Section III. BASIC ISSUE ITEMS

(1) Illus Number	(2) National Stock Number	(3) Description FSCM and Part Number	Usable On Code	(4) U/M	(5) Qty rqr
1		ARMY TM 9-6920-746-12&P MARINE CORPS TM 9620-12&P		EA	001

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ARMY TM 9-6920-746-12&P
MARINE CORPS TM 6920-12&P

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☆ U.S. GOVERNMENT PRINTING OFFICE: 1986 165-232

3121

PIN: 060527-000