

TM 9-6920-3700-23&P

TECHNICAL MANUAL

**FIELD MAINTENANCE MANUAL
FOR**

CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)

**TRAINING DEVICE, FIRE DYE MARKING AMMO: M16/M4
NSN 6920-01-564-9657**

**TRAINING DEVICE, FIRE DYE MARKING AMMO: M249
NSN 6920-01-564-9655**

**TRAINING DEVICE, FIRE DYE MARKING AMMO: M9
NSN 6920-01-564-9656**

**TRAINING DEVICE, FIRE DYE MARKING AMMO: M11
NSN 6920-01-564-9658**

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HEADQUARTERS, DEPARTMENT OF THE ARMY

13 MARCH 2009

WARNING SUMMARY

Care must be taken when installing and removing spring-loaded parts. Safety goggles must be worn to prevent injury to eyes.

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NSN 6920-01-564-9658

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 Publications and Blank Forms), located in the back of this manual, direct to: Logistics Research and Engineering Directorate (AMSRD-AAR-EIL-LS), U.S. Army RDECOM, Armament Research, Development and Engineering Center, Picatinny Arsenal, NJ 07806-5000. You may also send in your recommended changes via electronic mail or by fax. Our e-mail address is PICAPubChanges@conus.army.mil. Our fax number is DSN 880-4633, Commercial (973) 724-4633. A reply will be furnished to you.

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HOW TO USE THIS MANUAL

GENERAL

This manual contains all descriptive, troubleshooting, maintenance, and supporting information required to maintain the CCMCK.

CONTENT OF MANUAL

This manual is divided into four chapters:

- Chapter 1, General Information, Equipment Description, and Theory of Operation
- Chapter 2, Troubleshooting Procedures
- Chapter 3, Maintenance Instructions
- Chapter 4, Supporting Information

HOW TO ACCESS INFORMATION QUICKLY

The chapters are divided into work packages (WP). Each WP is assigned a six digit sequence number. The sequence numbers run consecutively throughout the manual. The first four digits of the WP sequence number are based on the location of the WP (e.g., 0005 00 is the fifth WP). The last two digits are reserved for WPs added after initial publication (e.g., 0005 01 is a WP added between WP 0005 00 and 0006 00). WP page numbers are numbered consecutively and consist of the WP sequence number followed by -1, -2, -3, etc. (e.g., 0005 00-1, 0005 00-2, etc.).

SUPPORTING ILLUSTRATIONS

All supporting illustrations are located on the same or facing page as the text they support.

CHAPTER 1

**GENERAL INFORMATION, EQUIPMENT DESCRIPTION,
AND THEORY OF OPERATION
FOR
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)**

FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
GENERAL INFORMATION

SCOPE

This Technical Manual covers Field Maintenance procedures for the Close Combat Mission Capability Kit (CCMCK) Weapon Conversion System.

Type of Manual: Field Maintenance.

Model Number(s) and Equipment Name(s):

Training Device, Fire Dye Marking Ammo: M16/M4

Training Device, Fire Dye Marking Ammo: M249

Training Device, Fire Dye Marking Ammo: M9

Training Device, Fire Dye Marking Ammo: M11

Purpose of Equipment: The CCMCK Weapon Conversion System allows Force-On-Force close combat training by temporarily converting service weapons (M16A2/M16A3/M16A4 Rifle, M4/M4A1 Carbine, M249 Squad Automatic Weapon (SAW) and M9 and M11 Pistols) to fire low-velocity marking ammunition. CCMCK ammunition includes 5.56mm Bulk marking ammunition for the M16A2/M16A3/M16A4 Rifle and M4/M4A1 Carbine, 5.56mm Linked marking ammunition for the M249 SAW, and 9mm marking ammunition for the M9 and M11 Pistols. Marking ammunition, manufactured in red, blue, and yellow, is loaded into the magazines of the converted weapon in the same manner as service ammunition. Once loaded, the weapon cycles and functions the same as service ammunition and marks the target with minimal hazard to personnel wearing appropriate safety equipment. The system allows normal weapon employment cues such as aiming, firing, Force-On-Force training, and interactive live-fire scenario task and mission execution.

MAINTENANCE FORMS, RECORDS, AND REPORTS

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by (as applicable) DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual, or AR 700-138, Army Logistics Readiness and Sustainability. Accidents involving injury to personnel or damage to material will be reported on DA Form 285 (U.S. Army Accident Report) in accordance with AR 385-10, The Army Safety Program. Explosives and ammunition malfunctions will be reported in accordance with AR 75-1, Malfunctions Involving Ammunition and Explosives.

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR)

If your CCMCK 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. If you have Internet access, the easiest and fastest way to report problems or suggestions is to go to <https://aeps.ria.army.mil/aepspublic.cfm> (scroll down and choose the "Submit Quality Deficiency Report" bar). The Internet form lets you choose to submit an Equipment Improvement Recommendation (EIR), a Product Quality Deficiency Report (PQDR) or a Warranty Claim Action (WCA). You may also submit your information using an SF 368 (Product Quality Deficiency Report). You can send your SF 368 via e-mail, regular mail, or facsimile using the addresses/facsimile numbers specified in DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual. We will send you a reply.

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.

Corrosion specifically occurs with metals. It is an electrochemical process that causes the degradation of metals. It is commonly caused by exposure to moisture, acids, bases, or salts. An example is the rusting of iron. Corrosion damage in metals can be seen, depending on the metal, as tarnishing, pitting, fogging, surface residue, and/or cracking.

Plastics, composites, and rubbers can also degrade. Degradation is caused by thermal (heat), oxidation (oxygen), solvation (solvents), or photolytic (light, typically UV) processes. The most common exposures are excessive heat or light. Damage from these processes will appear as cracking, softening, swelling, and/or breaking.

SF 368 (Product Quality Deficiency Report) should be submitted to the address specified in DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual.

PREPARATION FOR STORAGE OR SHIPMENT

All CCMCK Weapon Conversion Kits must be clean and serviceable prior to storage or shipment.

Any unused CCMCK 5.56mm marking ammunition must be repacked with the tip UP to prevent marking compound from coming out.

LIST OF ABBREVIATIONS/ACRONYMS

<u>Abbreviation/Acronym</u>	<u>Definition</u>
CCMCK	Close Combat Mission Capability Kit
CLP	Cleaner, Lubricant and Preservative
CPC	Corrosion Prevention Control
DA	Department of the Army
EIR	Equipment Improvement Recommendation
IAW	In accordance with
PQDR	Product Quality Deficiency Report
SAW	Squad Automatic Weapon
TAMMS	The Army Maintenance Management System
TM	Technical Manual
WCA	Warranty Claim Action

SAFETY, CARE, AND HANDLING

Use CCMCK only in accordance with instructions. Observe all warnings and cautions in this manual.

Personnel using CCMCK marking ammunition are required to follow good personal hygiene practices, (i.e., hand washing, cleaning of contaminated clothing and equipment) following exposure/contamination with marking compounds. Seek medical care in the event of acute eye contamination, skin irritation, or ingestion of marking compound.

All CCMCK Weapon Conversion Kits have built-in safety features that will not allow service ammunition to be fired.

Load only authorized CCMCK marking ammunition in weapons that have been configured with the appropriate CCMCK Weapon Conversion Kit. Equipment damage is possible if marking ammunition is interchanged.

CCMCK conversion kits and safety equipment must be cleaned before turn-in IAW procedures outlined in TM 9-6920-3700-10.

Converting the weapon to use CCMCK marking ammunition does not cause any undue effects or degradation of the normal service components, its overall longevity or the general function of the weapon.

FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
EQUIPMENT DESCRIPTION AND DATA

EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES

The Close Combat Mission Capability Kit (CCMCK) temporarily converts service weapons (M16A2/A3/A4 Rifles, M4/M4A1 Carbines, M249 Squad Automatic Weapon (SAW), and M9 and M11 Pistols) to fire low velocity marking ammunition.

CCMCK marking ammunition is manufactured in three colors (red, blue, yellow) and three different ammunition types. They include: 5.56mm Bulk for M16A2/A3/A4 Rifles or M4/M4A1 Carbines; 5.56mm Linked for M249 SAW; and 9mm for M9 and M11 Pistols. The marking compound material is either wax or detergent based, non-toxic, and inert.

The CCMCK Weapon Conversion System consists of four training kits, each containing one Weapon Conversion Kit and one CCMCK Face Mask. The system allows normal weapon employment cues such as aiming, firing, Force-On-Force training, and interactive live-fire scenario task and mission execution.

The CCMCK Weapon Conversion System and ammunition allow Force-On-Force close combat training using ammunition that marks the target and presents minimal hazard to personnel wearing appropriate safety equipment. Safety equipment includes the CCMCK Face Mask. Other required safety equipment is included in the Soldier and Organizational Clothing and Individual Equipment (OCIE) CTA 50-900 items and will include gloves, Sun, Wind, and Dust goggles, groin protection, and single hearing protection.

The CCMCK Weapon Conversion Kits will not allow service ammunition to be fired when a service weapon is converted. The safety feature is achieved with all 5.56mm weapons by moving the CCMCK firing pin by 3mm off center, in effect turning the method of firing into a rim-fire style of operation. This ensures that the CCMCK firing pin is sufficiently moved to prevent initiation of the standard 5.56mm ammunition primer. The safety feature used in the CCMCK 9mm conversion of the M9 and M11 Pistols is that the barrel is less than 9mm to ensure that a standard service round will not chamber.

All CCMCK bolts and barrels are identified by blue markings. CCMCK marking ammunition is loaded into the standard magazine for the host weapon, fed into the converted weapon and operated in accordance with the normal operating procedures for that weapon. Converting the weapon to use CCMCK ammunition does not cause any undue effects or degradation of the live weapon components or the weapon itself.

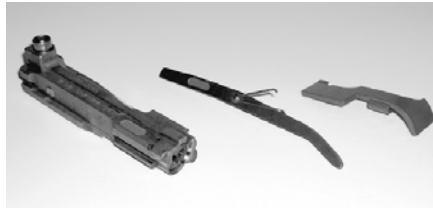
LOCATION AND DESCRIPTION OF MAJOR COMPONENTS**M16A2/A3/A4 Rifles and M4/M4A1 Carbines**

The CCMCK Weapon Conversion Kit for M16A2/A3/A4 Rifles and M4/M4A1 Carbines contains a training bolt and carrier assembly that is identified by a blue marking.

**AR 19373**

M249 Squad Automatic Weapon (SAW)

The CCMCK Weapon Conversion Kit for the M249 SAW contains a training bolt and slide assembly and an ejector blade assembly, each identified by a blue marking, and a blue feed tray adapter.



AR 19370

M9 Pistol

The CCMCK Weapon Conversion Kit for the M9 Pistol contains a blue “drop in” training barrel.



AR 19371

M11 Pistol

The CCMCK Weapon Conversion Kit for the M11 Pistol contains a blue “drop in” training barrel and a training feed ramp.



AR 19374

CCMCK Face Mask

The CCMCK Face Mask is a black nylon mask that protects the lower face and neck area.



AR 19344

EQUIPMENT DATA

CCMCK Training Kit for M16A2/M16A3/M16A4 Rifles and M4/M4A1 Carbines:

Consisting of.....	One (1) CCMCK Weapon Conversion Kit and one (1) CCMCK Face Mask
NSN	6920-01-564-9657
Training device number (DVC).....	07-164
CCMCK Weapon Conversion Kit for M16A2/ M16A3/M16A4 Rifles and M4/M4A1 Carbines:	
Consisting of.....	Training bolt and carrier assembly with a blue marking
NSN	1005-99-132-2616
Ammunition used.....	5.56mm Bulk marking ammunition in three colors
Cartridge, 5.56mm, Practice: M1042, Bulk, Blue	NSN 1305-01-536-5822; P/N 13008767-1
Cartridge, 5.56mm, Practice: M1042, Bulk, Red	NSN 1305-01-536-5827; P/N 13008767-2
Cartridge, 5.56mm, Practice: M1042, Bulk, Yellow	NSN 1305-01-536-5829; P/N 13008767-3
Cartridge case	Metallic telescopic case with rimfire primer
Projectile:	
Material	Plastic, aluminum, and marking compound
Color.....	Silver base with translucent cup
Weight	6.95 gr
Marking compound.....	Non-toxic, inert, wax-based compound in colors of red, blue, and yellow
Shelf life	24 months from date of manufacture with proper storage
Recommended storage.....	Cool and dry environment (approx 70°F)
Temperature Limits:	
Firing:	
Lower limit.....	+32°F (0°C)
Upper limit	+120°F (+49°C)
Storage:	
Lower limit.....	-40°F (-40°C)
Upper limit	+145°F (+63°C)
Packing Data:	
Packing	1800 cartridges per wirebound box; 30 cartridges per carton; 30 cartons per M2A1 container; two M2A1 containers per wirebound box
Wirebound Box for M2A1:	
Dimensions.....	14.44 x 12.53 x 8.13 in.
Weight	7.5 lb
Shipping and Storage Data:	
UN number	0012
DOD hazard class/division/SCG	1.4S
DOT class	C
DOT designation.....	SMALL ARMS AMMUNITION
DODAC:	
Cartridge, 5.56mm, Practice: M1042, Bulk, Blue.....	1305-AB09
Cartridge, 5.56mm, Practice: M1042, Bulk, Red.....	1305-AB10
Cartridge, 5.56mm, Practice: M1042, Bulk, Yellow	1305-AB11

CCMCK Training Kit for M249 Squad Automatic Weapon

(SAW):

Consisting of	One (1) CCMCK Weapon Conversion Kit and one (1) CCMCK Face Mask
NSN	6920-01-564-9655
Training device number (DVC)	07-165
CCMCK Weapon Conversion Kit for M249 Squad Automatic Weapon (SAW):	
Consisting of	Training bolt and slide assembly and an ejector blade assembly, each with blue marking, and blue feed tray adapter
NSN	1005-99-848-0609
Ammunition used	5.56mm Linked marking ammunition in three colors
Cartridge, 5.56mm, Practice: M1071, Linked, Blue	NSN 1305-01-537-1521; P/N 13008770-1
Cartridge, 5.56mm, Practice: M1071, Linked, Red	NSN 1305-01-537-1522; P/N 13008770-2
Cartridge, 5.56mm, Practice: M1071, Linked, Yellow	NSN 1305-01-536-9289; P/N 13008770-3
Cartridge case	Metallic telescopic case with rimfire primer
Projectile:	
Material	Plastic, aluminum, and marking compound
Color	Silver base with translucent cup
Weight	6.95 gr
Marking compound	Non-toxic, inert, wax-based compound in colors of red, blue, and yellow
Velocity	467.63 ft/sec
Shelf life	24 months from date of manufacture with proper storage
Recommended storage	Cool and dry environment (approx 70°F)
Temperature Limits:	
Firing:	
Lower limit	+32°F (0°C)
Upper limit	+120°F (+49°C)
Storage:	
Lower limit	-40°F (-40°C)
Upper limit	+145°F (+63°C)
Packing Data:	
Packing	2400 cartridges per wirebound box; 100 cartridges per belt, M27; 1 belt per M249 container; 12 containers per PA108 box; 2 PA108 boxes per wirebound box
Wirebound Box for PA108:	
Dimensions	17.0 x 13.37 x 9.37 in.
Weight	6.0 lb
Shipping and Storage Data:	
UN identification number	0012
DOD hazard class/division/SCG	1.4S
DOT class	C
DOT designation	SMALL ARMS AMMUNITION
DODAC:	
Cartridge, 5.56mm, Practice: M1071, Linked, Blue	1305-AB16
Cartridge, 5.56mm, Practice: M1071, Linked, Red	1305-AB17
Cartridge, 5.56mm, Practice: M1071, Linked, Yellow	1305-AB15

CCMCK Training Kit for M9/M11 Pistol:

Consisting of One (1) CCMCK Weapon Conversion Kit and one (1) CCMCK Face Mask

NSN:

M9 6920-01-564-9656
 M11 6920-01-564-9658

Training Device Number (DVC):

M9 07-162
 M11 07-163

CCMCK Weapon Conversion Kit for M9/M11 Pistols:

Consisting of Blue training barrel (M9)
 Blue training barrel and training feed ramp (M11)

NSN:

M9 1005-20-003-2362
 M11 1005-20-003-2361

Ammunition used.....

9mm marking ammunition in three colors
 Cartridge, 9mm, Practice: M1041, Blue..... NSN 1305-01-536-7721; P/N 13008817-1
 Cartridge, 9mm, Practice: M1041, Red..... NSN 1305-01-536-7722; P/N 13008817-2
 Cartridge, 9mm, Practice: M1041, Yellow..... NSN 1305-01-536-7720; P/N 13008817-3
 Cartridge case Brass with polymer sabot and polymer projectile filled with marking compound

Projectile:

Material Polypropylene and marking compound
 Color..... Marking compound (blue, red, or yellow)
 Weight 7.25 gr

Marking compound..... Non-toxic, inert, water-soluble, detergent-based compound in colors of red, blue, and yellow

Marking cartridges per magazine Maximum of 10 or less

Velocity:

M9 574.80 ft/sec
 M11..... 491.06 ft/sec

Shelf life 24 months from date of manufacture with proper storage

Recommended storage..... Cool and dry environment (approx 70°F)

Temperature Limits:

Firing:

Lower limit..... -25°F (-32°C)
 Upper limit +120°F (+49°C)

Storage:

Lower limit..... -40°F (-40°C)
 Upper limit +145°F (+63°C)

Packing Data:

Packing 2000 cartridges per wirebound box; 50 cartridges per carton; 20 cartons per M2A1 container; two (2) M2A1 containers per wirebound box

Wirebound for M2A1:

Dimensions..... 14.44 x 12.53 x 8.13 in.
 Weight 7.5 lb

Shipping and Storage Data:

UN identification number..... 0012
 DOD hazard class/division/SCG 1.4S
 DOT class C
 DOT designation..... SMALL ARMS AMMUNITION

DODAC:

Cartridge, 9mm, Practice: M1041, Blue 1305-AB13
Cartridge, 9mm, Practice: M1041, Red..... 1305-AB14
Cartridge, 9mm, Practice: M1041, Yellow..... 1305-AB12

CCMCK Face Mask:

NSN 8415-99-359-9160

FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
THEORY OF OPERATION

CCMCK

For the M16A2/M16A3/M16A4 Rifle and M4/M4A1 Carbine, the service bolt assembly is replaced with a CCMCK training bolt assembly to allow the firing of CCMCK marking ammunition. For the M249 Squad Automatic Weapon (SAW), the service bolt assembly and ejector blade assembly are replaced with CCMCK training bolt assembly and ejector blade assembly to allow the firing of CCMCK marking ammunition. The CCMCK M249 kit also contains a training feed tray adapter. In the M9 and M11, the service barrel is replaced with a training barrel assembly. The M11 kit also contains a feed ramp.

The 5.56mm CCMCK marking cartridge consists of a two-piece cartridge case (front section, back section), and an aluminum projectile. The cartridge case contains a rimfire primer with a plastic ball in the back section of the cartridge and an additional primer in the front section. Upon functioning, the rear primer propels the plastic ball forward where it initiates the primer in the front section of the cartridge case. The rear primer also propels the back section rearward which cycles the operating group of the weapon. The functioning of the primer in the front section propels the projectile. The projectile consists of an aluminum projectile body, a metal applicator ball, and a plastic cover that contains the marking compound. Upon impact, the metal applicator ball pushes the marking compound out through the plastic cover marking the target.

The 9mm CCMCK marking cartridge consists of a two-piece cartridge case (front section, back section), a primer, a small quantity of propellant, and a plastic projectile. Upon functioning, the primer ignites the propellant which propels the plastic projectile from the weapon. The projectile is designed to “mushroom” upon impact and force the marking compound out of the projectile, and mark the target. Cycling of the weapon occurs because the back section of the cartridge case telescopes to slide rearward, allowing the weapon to function in a straight blow-back action.

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CHAPTER 2

TROUBLESHOOTING PROCEDURES
FOR
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)

FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
TROUBLESHOOTING INTRODUCTION

TROUBLESHOOTING INTRODUCTION

The troubleshooting work packages contain tables listing the malfunctions, tests or inspections, and corrective actions required to return the CCMCK to normal operation. Perform the steps in the order they appear in the tables.

Each work package is headed by an initial setup. This setup outlines what is needed as well as certain conditions which must be met before starting the task. **DON'T START A TASK UNTIL:**

- You understand the task.
- You understand what you are to do.
- You understand what is needed to do the work.
- You have the things you need.

This manual cannot list all malfunctions that may occur, or all tests or inspections and corrective actions. If a malfunction is not listed or is not corrected by listed corrective actions, notify your supervisor.

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FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
(NSN 6920-01-564-9657, PN 13021072)
TROUBLESHOOTING PROCEDURES FOR CCMCK CONVERSION KIT
FOR M16A2/A3/A4 RIFLE AND M4/M4A1 CARBINE

INITIAL SETUP:

Tools and Special Tools

Tool Kit, Small Arms Repairman (Item 1, Table 2, WP 0018 00)
 CCMCK Firing Pin Protrusion Gage (M16/M4) (Item 1, Fig. 1, WP 0021 00)

Personnel Required

45B Small Arms Repairman or
 92Y Unit Supply Specialist

References

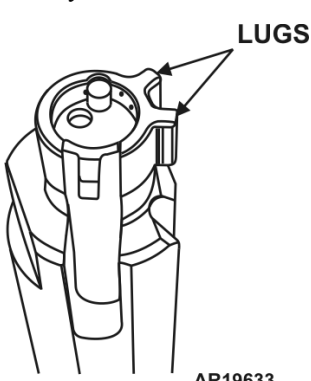
WP 0012 00

Materials/Parts

Bolt and carrier assembly (Fig. 2, WP 0020 00)

M16A2/A3/A4 RIFLE AND M4/M4A1 CARBINE

Table 1. Troubleshooting Procedures for CCMCK Conversion Kit for M16A2/A3/A4 Rifle and M4/M4A1 Carbine .

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. FAILURE TO CLOSE	1. Inspect bolt carrier key for damage. 2. Inspect for loose bolt carrier key. 3. Inspect for burrs on bolt and carrier assembly. 4. Check that lugs on bolt and carrier assembly are serviceable. <div style="text-align: center;">  </div>	If bolt carrier key is damaged, replace bolt and carrier assembly. If bolt carrier key is loose, replace bolt and carrier assembly. Use a stone to remove burrs from bolt and carrier assembly. If lugs are found to be unserviceable, replace bolt and carrier assembly.
	5. Inspect extractor and extractor spring assembly for proper function.	If extractor does not function properly, replace extractor and extractor spring assembly IAW WP 0012 00.
	6. Inspect ejector for free movement.	If ejector does not move freely, clean ejector or replace ejector and/or ejector spring IAW WP 0012 00.

**Table 1. Troubleshooting Procedures for CCMCK Conversion Kit
for M16A2/A3/A4 Rifle and M4/M4A1 Carbine - Continued.**

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. FAILURE TO FIRE	<ol style="list-style-type: none"> 1. Check for broken or damaged firing pin. 2. Check firing pin protrusion using firing pin protrusion gage. 3. Check firing pin recess inside bolt carrier for carbon buildup. 4. Check that firing pin retaining pin is installed correctly. 5. Check firing pin spring for serviceability. 	<p>If firing pin is damaged or broken, replace firing pin and firing pin spring IAW WP 0012 00.</p> <p>If firing pin has incorrect protrusion, replace firing pin and firing pin spring IAW WP 0012 00.</p> <p>If carbon buildup is found, clean bolt and carrier assembly IAW WP 0012 00.</p> <p>Correctly install firing pin retaining pin IAW WP 0012 00.</p> <p>If firing pin spring is damaged, replace firing pin and firing pin spring IAW WP 0012 00.</p>
3. FAILURE TO EXTRACT	Check extractor pin, cartridge extractor and extractor spring for serviceability.	If found unserviceable, replace the extractor pin, cartridge extractor and extractor spring IAW WP 0012 00.
4. FAILURE TO EJECT	<ol style="list-style-type: none"> 1. Inspect cartridge ejector for serviceability. 2. Inspect cartridge ejector to see if it is stuck in bolt and carrier assembly. 	<p>If found unserviceable, replace the cartridge ejector and/or ejector spring IAW WP 0012 00.</p> <p>If cartridge ejector is stuck, remove and clean IAW WP 0012 00.</p>

END OF WORK PACKAGE

FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
(NSN 6920-01-564-9655, PN 13021071)
TROUBLESHOOTING PROCEDURES FOR CCMCK CONVERSION KIT
FOR M249 SQUAD AUTOMATIC WEAPON (SAW)

INITIAL SETUP:

Tools and Special Tools

Tool Kit, Small Arms Repairman (Item 1, Table 2, WP 0018 00)
 CCMCK Firing Pin Protrusion Gage (M249) (Item 2, Fig. 1, WP 0021 00)

Personnel Required

45B Small Arms Repairman or
 92Y Unit Supply Specialist

References

WP 0013 00

Materials/Parts

Bolt and slide assembly (Fig. 4, WP 0020 00)
 Ejector assembly (Fig. 4, WP 0020 00)
 Feed tray adapter (Fig. 4, WP 0020 00)

M249 SAW BOLT AND SLIDE ASSEMBLY

Table 1. Troubleshooting Procedures for CCMCK Conversion Kit for M249 SAW .

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. FAILURE TO FEED	1. Check for broken CCMCK feed tray adapter.	Replace feed tray adapter.
	2. Inspect bolt and slide assembly for damage.	Use a stone to remove burrs from bolt and slide assembly.
	3. Check roller for free rotation.	If roller does not rotate freely, clean roller assembly.
	4. Inspect extractor assembly.	If extractor assembly does not depress, replace extractor assembly IAW WP 0013 00.
2. FAILURE TO FIRE	1. Check for broken or damaged firing pin.	If firing pin is broken or damaged, replace IAW WP 0013 00.
	2. Check firing pin protrusion using firing pin protrusion gage.	If firing pin has incorrect protrusion, replace firing pin IAW WP 0013 00.
	<u>CAUTION</u> Firing pin retaining pin must be flush or below the slide body surface.	Install firing pin retaining pin IAW WP 0013 00.
	3. Check that firing pin retaining pin is properly installed.	

Table 1. Troubleshooting Procedures for CCMCK Conversion Kit for M249 SAW - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
3. FAILURE TO EXTRACT	1. Check extractor spring for proper tension by depressing extractor. 2. Check for damaged or broken extractor assembly.	Replace extractor assembly IAW WP 0013 00. Replace extractor assembly IAW WP 0013 00.
4. FAILURE TO EJECT	1. Check for chipped, distorted, or rounded tip on ejector blade. 2. Check for bent, broken, or missing ejector clip. 3. Check for damaged or missing ejector pin.	Replace ejector assembly. Replace ejector assembly. Replace ejector assembly.

END OF WORK PACKAGE

FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
(NSN 6920-01-564-9656, PN 13021070)
TROUBLESHOOTING PROCEDURES FOR CCMCK CONVERSION KIT FOR M9 PISTOL

INITIAL SETUP:**Materials/Parts**

Barrel assembly (Fig. 6, WP 0020 00)

References

WP 0014 00

Personnel Required45B Small Arms Repairman or
92Y Unit Supply Specialist**M9 PISTOL****Table 1. Troubleshooting Procedures for CCMCK Conversion Kit for M9 Pistol .**

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. AMMUNITION DOES NOT FEED	Check for damaged barrel or damaged or missing slider, dowel pin, or spring.	1. If barrel is damaged, replace barrel assembly. 2. If slider or dowel pin is missing or damaged, replace barrel assembly. 3. If spring is missing or damaged, replace IAW WP 0014 00.
2. FAILURE TO EXTRACT	Check for damaged barrel or damaged or missing slider, dowel pin, or spring.	1. If barrel is damaged, replace barrel assembly. 2. If slider or dowel pin is missing or damaged, replace barrel assembly. 3. If spring is missing or damaged, replace IAW WP 0014 00.
3. FAILURE TO EJECT	Check for damaged barrel or damaged or missing slider, dowel pin, or spring.	1. If barrel is damaged, replace barrel assembly. 2. If slider or dowel pin is missing or damaged, replace barrel assembly. 3. If spring is missing or damaged, replace IAW WP 0014 00.

Table 1. Troubleshooting Procedures for CCMCK Conversion Kit for M9 Pistol - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
4. SLIDE DOES NOT LOCK FULLY FORWARD	Check for damaged barrel or damaged or missing slider, dowel pin, or spring.	<ol style="list-style-type: none">1. If barrel is damaged, replace barrel assembly.2. If slider or dowel pin is missing or damaged, replace barrel assembly.3. If spring is missing or damaged, replace IAW WP 0014 00.

END OF WORK PACKAGE

FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
(NSN 6920-01-564-9658, PN 13021069)
TROUBLESHOOTING PROCEDURES FOR CCMCK CONVERSION KIT FOR M11 PISTOL

INITIAL SETUP:**Materials/Parts**

Barrel (Fig. 7, WP 0020 00)
 Feed Ramp (Fig. 7, WP 0020 00)

Personnel Required

45B Small Arms Repairman or
 92Y Unit Supply Specialist

References

WP 0015 00

M11 PISTOL

Table 1. Troubleshooting Procedures for CCMCK Conversion Kit for M11 Pistol.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. AMMUNITION DOES NOT FEED	Check for damaged barrel or missing or damaged feed ramp IAW WP 0015 00.	Replace barrel and/or feed ramp.
2. FAILURE TO EXTRACT	Check for damaged barrel or missing or damaged feed ramp IAW WP 0015 00.	Replace barrel and/or feed ramp.
3. FAILURE TO EJECT	Check for damaged barrel or missing or damaged feed ramp IAW WP 0015 00.	Replace barrel and/or feed ramp.
4. SLIDE DOES NOT LOCK FULLY FORWARD	Check for damaged barrel or missing or damaged feed ramp IAW WP 0015 00.	Replace barrel and/or feed ramp.

END OF WORK PACKAGE

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CHAPTER 3

MAINTENANCE INSTRUCTIONS
FOR
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)

FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
SERVICE UPON RECEIPT

INITIAL SETUP:**Personnel Required**

45B Small Arms Repairman or
92Y Unit Supply Specialist

References

DA Pam 750-8
SF Form 364
SF Form 368
WP 0002 00

GENERAL

When CCMCK Weapon Conversion Kits and Face Masks are received, it is the responsibility of the user organization to determine whether the conversion kits and face masks have been properly prepared for service by the supplying organization and whether they are in condition to perform the mission.

CCMCK Weapon Conversion Kits and Face Masks must be inspected before and after each use for serviceability. A detailed inspection of the weapon conversion kits will be accomplished every three (3) months.

Regardless of ownership, detailed inspection of all new conversion kits are required three (3) months after receipt.

Condition code "A" conversion kits or face masks received from the manufacturer do not require a detailed inspection prior to use.

SERVICE UPON RECEIPT OF MATERIEL**CCMCK Weapon Conversion Kits**

1. Inspect equipment for damage incurred during shipment. If equipment has been damaged, report the damage on SF Form 364, Report of Discrepancy (ROD).
2. Check equipment against the packing slip to ensure shipment is complete. For contents of each weapon conversion kit, refer to WP 0002 00. Report all discrepancies on SF Form 368 (Product Quality Deficiency Report) in accordance with instructions of DA Pam 750-8.
3. Check to see if equipment has been modified. **DO NOT USE** if modified. Report all modifications on SF Form 368 (Product Quality Deficiency Report) in accordance with instructions of DA Pam 750-8.
4. Remove corrosion inhibitor from all weapon conversion kits, if present, and discard.
5. Wipe any excess oil from kit components with a clean wiping rag.

CCMCK Face Masks

1. Inspect equipment for damage incurred during shipment. If equipment has been damaged, report the damage on SF Form 364, Report of Item Discrepancy (ROD).
2. Check equipment against the packing slip to ensure shipment is complete. Report all discrepancies on SF Form 368, Product Quality Deficiency Report, in accordance with instructions of DA Pam 750-8.

END OF WORK PACKAGE

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FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) INTRODUCTION

INITIAL SETUP:**References**

DA Form 2404
DA PAM 750-8

GENERAL

Maintenance duties consist of performing a series of preventive maintenance checks and services. Preventive maintenance is the systematic care, servicing, and inspection of equipment to prevent occurrence of trouble and reduce down time. These checks and services are meant to maintain Army equipment in a serviceable and mission ready condition.

EXPLANATION OF COLUMNS IN THE PMCS TABLE

1. Item Number Column - Numbers in this column are for reference. Item numbers appear in the order in which checks and services must be performed for the intervals listed.
2. Interval Column - This column tells you when each check is to be performed in the procedure column. Before procedures must be done before you operate or use the equipment for its intended mission. After procedures must be done immediately after you have operated or used the equipment. Quarterly procedures must be done every three months.
3. Man-hour Column - This column gives the man-hours required to complete all prescribed lubrication services.
4. Item To Be Checked or Serviced Column - This column lists the item to be checked or serviced.
5. Procedure Column - This column gives the procedure you must do to check or service the item listed in the Item To Be Checked or Serviced column to know if the equipment is ready or available for its intended mission or for operation. You must do the procedure at the time stated in the interval column.
6. Equipment Not Ready/Available If: Column - Information in this column tells you what faults will keep your equipment from being capable of performing its primary mission. If applicable, following Equipment Not Ready/Available If: condition is a suggested remedy that will correct the discovered discrepancy. Follow standard operating procedures for maintaining the equipment or reporting equipment failure. Report any malfunctions or failures on DA Form 2404 (Equipment Inspection and Maintenance Worksheet) or refer to DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual.

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FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

INITIAL SETUP:

Tools and Special Tools

- CCMCK Firing Pin Protrusion Gage (M16/M4) (Item 1, Fig. 1, WP 0021 00)
- CCMCK Firing Pin Protrusion Gage (M249) (Item 2, Fig. 1, WP 0021 00)
- Tool Kit, Small Arms Repairman (Item 1, Table 2, WP 0018 00)

Personnel Required

- 45B Small Arms Repairman or
- 92Y Unit Supply Specialist

References

- WP 0012 00
- WP 0013 00
- WP 0014 00
- WP 0015 00

Materials/Parts

- Cleaner, Lubricant and Preservative (CLP) (Item 1, WP 0024 00)
- Rag, wiping (Item 2, WP 0024 00)

PREVENTIVE MAINTENANCE CHECKS AND SERVICES FOR CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)

Table 1. PMCS for CCMCK .

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before and After	0.1	CCMCK Face Mask	<ol style="list-style-type: none"> 1. Inspect for rips, tears, and perforations. If defects are present, replace mask. 2. Inspect for presence of marking compound, dirt, and debris. 	<p>Rips, tears, or perforations are present.</p> <p>Marking compound, dirt, or debris are present.</p>
		1.0		<p>Laundry face mask according to manufacturer's instructions attached to the item.</p>	<p>Face mask is unlaundered.</p>
2	Before and After	0.1	CCMCK M16A2/A3/A4 and M4/M4A1 Rifle/Carbine Bolt and Carrier Assembly	<ol style="list-style-type: none"> 1. Inspect for presence of marking compound, build up, dirt, and debris on CCMCK bolt and carrier assembly. Clean and lubricate training bolt and carrier assembly IAW WP 0012 00. 2. Inspect for dents, gouges, cracks, and chips. If unserviceable, replace CCMCK bolt and carrier assembly. 3. Inspect for presence of blue training marker on the exterior bolt carrier surface. If it is not visible, replace CCMCK bolt and carrier assembly. 	<p>CCMCK bolt and carrier assembly is not clean and lubricated.</p> <p>Bolt and carrier assembly is dented, gouged, cracked, or chipped.</p> <p>Blue training marker is scraped off or degraded to the point that it is not visible.</p>

Table 1. PMCS for CCMCK - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
3	Before and After	0.1	CCMCK M249 Bolt and Slide Assembly	<ol style="list-style-type: none"> 1. Inspect for presence of marking compound, build-up, dirt, and debris on CCMCK bolt and slide assembly. Clean and lubricate bolt and slide assembly WP 0013 00. 2. Inspect CCMCK bolt and slide assembly for dents, gouges, cracks, and chips. If unserviceable, replace CCMCK bolt and slide assembly. 3. Inspect for presence of blue training marker on the exterior slide surface. If the blue training marker is not visible, replace CCMCK bolt and slide assembly. 	<p>CCMCK bolt and slide assembly are not clean.</p> <p>Bolt and slide assembly are dented, gouged, cracked, or chipped.</p> <p>Blue training marker is scraped off or degraded to the point that it is not visible.</p>
4	Before and After	0.1	CCMCK M249 Ejector Blade Assembly	<ol style="list-style-type: none"> 1. Inspect for presence of marking compound, build-up, dirt, and debris on ejector blade. If CCMCK ejector blade assembly is dirty, clean with appropriate cloth as necessary. 2. Inspect for dents, gouges, cracks, chips, and signs of wear. Check ejector nose for wear. If defective or worn, replace ejector blade assembly. 3. Check to ensure ejector clip and pin are not damaged or missing. 4. Inspect for presence of blue training marker on ejector blade assembly. If the blue training marker is not visible, replace ejector blade assembly. 	<p>Marking compound, build-up, dirt, or debris are present.</p> <p>Training ejector blade assembly is damaged, worn, dented, gouged, cracked, or ejector nose is worn.</p> <p>Ejector clip or pin is damaged or missing.</p> <p>Blue training marker is scraped off or degraded to the point that it is not visible.</p>
5	Before and After	0.1	CCMCK M249 Feed Tray Adapter	<ol style="list-style-type: none"> 1. Inspect for presence of marking compound, build-up, dirt, and debris on CCMCK feed tray adapter. Clean feed tray adapter. 2. Inspect feed tray adapter for dents, gouges, cracks, chips, and signs of wear. Replace feed tray adapter if gouged, cracked, dented, or worn. 	<p>Feed tray adapter is not clean.</p> <p>Feed tray adapter is gouged, cracked, dented or worn.</p>

Table 1. PMCS for CCMCK - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
6	Before and After	0.1	CCMCK M9 Barrel Assembly	<ol style="list-style-type: none"> 3. Check spring clip on CCMCK feed tray adapter for wear. Replace CCMCK feed tray adapter if damaged or worn. 4. Inspect for presence of blue paint on CCMCK feed tray adapter. If the blue paint is not visible, replace CCMCK feed tray adapter. 1. Inspect for presence of marking compound, carbon build up, dirt, and debris on interior and exterior of CCMCK barrel. Clean with CLP and wiping rag as necessary. 2. Inspect for dents, gouges, cracks, or chips on the interior and exterior of CCMCK barrel. If unserviceable, replace CCMCK barrel assembly. 3. Inspect for presence of blue training marker on the exterior barrel surface. If the blue training marker is not visible, replace training barrel assembly. 4. Check that spring on CCMCK barrel is present. Inspect spring for damage, collapse, and presence of flats. If missing, damaged, or flats are present, replace spring IAW WP 0014 00. 5. Check that bumper is present and undamaged. If missing or damaged, replace CCMCK barrel assembly. 	<p>CCMCK feed tray adapter spring clip is worn or damaged.</p> <p>Blue paint is scraped off or degraded to the point that it is not visible.</p> <p>Marking compound, carbon build up, dirt, or debris are present.</p> <p>Interior or exterior of CCMCK barrel assembly is dented, gouged, cracked, or chipped.</p> <p>Blue training marker on exterior of training barrel is scraped off or degraded to the point that it is not visible.</p> <p>Spring has collapsed, has flats, or is missing or damaged.</p> <p>Bumper is damaged or missing.</p>

Table 1. PMCS for CCMCK - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
7	Before and After	0.1	CCMCK M11 Barrel	<ol style="list-style-type: none"> 1. Inspect for presence of marking compound, carbon build-up, dirt, and debris on interior and exterior of CCMCK M11 barrel. Clean IAW WP 0015 00. 2. Inspect for dents, gouges, cracks, or chips on the interior and exterior of training barrel. If unserviceable, replace CCMCK M11 barrel. 3. Inspect for presence of blue marker on the exterior barrel surface. If the blue marker is not visible, replace CCMCK M11 barrel. 	<p>Marking compound, carbon build-up, dirt, or debris are present.</p> <p>Interior or exterior of CCMCK M11 barrel is dented, gouged, cracked, or chipped.</p> <p>Blue training marker on exterior of CCMCK M11 barrel is scraped off or degraded to the point that it is not visible.</p>
8	Before and After	0.1	CCMCK M11 Feed Ramp	<ol style="list-style-type: none"> 1. Inspect CCMCK M11 feed ramp for dents, gouges, and bends. If any defect is found, replace CCMCK M11 feed ramp. 2. Inspect for presence of marking compound, carbon build-up, dirt, and debris on CCMCK M11 feed ramp. Clean IAW WP 0015 00. 	<p>CCMCK M11 feed ramp is dented, gouged, or bent.</p> <p>CCMCK M11 feed ramp is dirty.</p>
9	Quarterly	0.5	CCMCK M16A2/A3/A4 and M4/M4A1 Rifle/Carbine Bolt and Carrier Assembly	<ol style="list-style-type: none"> 1. Thoroughly clean and lubricate CCMCK bolt and carrier assembly using CLP. Wipe dry with a wiping rag. <p style="text-align: center;">NOTE</p> <p style="text-align: center;">Bolt and carrier assembly must be clean prior to inspection.</p> <ol style="list-style-type: none"> 2. Inspect carrier key for looseness, damage, or wear. If carrier key is unserviceable, the CCMCK bolt and carrier assembly must be replaced. 3. Inspect CCMCK bolt and carrier assembly for burrs. If burrs are present, remove using a stone. 	<p>CCMCK bolt and carrier assembly is not clean.</p> <p>Carrier key is loose or unserviceable.</p> <p>Burrs are present on training bolt and carrier assembly.</p>

Table 1. PMCS for CCMCK - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
				<p style="text-align: center;">NOTE</p> <p>Minor pitting on bolt face is acceptable.</p> <ol style="list-style-type: none"> 4. Inspect CCMCK bolt and carrier assembly for cracks or gouges, especially on the lugs. Inspect bolt face for pit clusters and chips. If any defect is present, replace the CCMCK bolt and carrier assembly. 5. Check for missing or damaged firing pin retaining pin. If unserviceable, replace firing pin retaining pin IAW WP 0012 00. 6. Check firing pin protrusion using CCMCK firing pin protrusion gage for M16. If firing pin protrusion is incorrect, replace firing pin and spring IAW WP 0012 00. 7. Remove firing pin and firing pin spring. <ol style="list-style-type: none"> a. Check for chips and breaks. If any defect is found, replace the firing pin and firing pin spring IAW WP 0012 00. b. Check firing pin spring for flats or if it has collapsed. If any defect is found, replace the firing pin and firing pin spring IAW WP 0012 00. c. Check firing pin for build up of dirt or debris. Clean if dirty. 	<p>CCMCK bolt and carrier assembly are damaged.</p> <p>Firing pin retaining pin is missing or damaged.</p> <p>Firing pin protrusion is incorrect.</p> <p>Firing pin or firing pin spring is unserviceable.</p> <p>Firing pin has build up of dirt or debris.</p>

Table 1. PMCS for CCMCK - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
9 (Cont)			CCMCK M16A2/A3/A4 and M4/M4A1 Rifle/Carbine Bolt and Carrier Assembly - Cont	<p style="text-align: center;">CAUTION</p> <p>A chipped or broken extractor lip can cause a weapon jam.</p> <p>8. Inspect cartridge extractor for damage and extractor spring for spring tension by pushing on it.</p> <p style="padding-left: 20px;">a. If there is damage or there is no spring tension, remove the cartridge extractor and extractor spring.</p> <p style="padding-left: 20px;">b. Inspect the cartridge extractor and extractor spring for dirt, wear or damage (pay close attention to the cartridge extractor lip). Check extractor spring for flats or if it has collapsed.</p> <p style="padding-left: 20px;">c. Replace extractor and extractor spring if found to be unserviceable IAW WP 0012 00.</p> <p>9. Check cartridge ejector and ejector spring for dirt, damage, and serviceability. Replace both the ejector and ejector spring if either is found to be unserviceable IAW WP 0012 00.</p>	Cartridge extractor and/or extractor spring is unserviceable.
10	Quarterly	0.2	CCMCK M249 Bolt and Slide Assembly	<p>1. Thoroughly clean and lubricate CCMCK bolt and slide assembly using CLP and wipe dry with a wiping rag.</p> <p style="text-align: center;">NOTE</p> <p>Bolt and slide assembly must be clean prior to inspection.</p> <p>2. Check for bulges on the bottom and side of bolt and slide assembly by placing a straight edge on the bottom and side and sighting across. If light is detected, a bulge exists. If a bulge exists, replace entire bolt and slide assembly.</p>	<p>Cartridge ejector and/or ejector spring are unserviceable.</p> <p>CCMCK bolt and slide assembly is dirty.</p> <p>Bolt and slide assembly is bulged.</p>

Table 1. PMCS for CCMCK - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
				<p>3. Inspect CCMCK bolt and slide assembly for burrs. If burrs are present, remove using a stone.</p> <p style="text-align: center;">NOTE</p> <p style="text-align: center;">Minor pitting on bolt face is acceptable.</p> <p>4. Inspect CCMCK bolt and slide assembly for cracks or gouges. Inspect bolt face for pit clusters and chips. If any defect is present, replace bolt and slide assembly.</p> <p>5. Inspect firing pin for any defects. Check firing pin protrusion using CCMCK firing pin protrusion gage for M249. Replace firing pin if firing pin is damaged or protrusion is incorrect IAW WP 0013 00.</p> <p style="text-align: center;">CAUTION</p> <p style="text-align: center;">A chipped or broken extractor lip can cause a weapon jam.</p> <p>6. Inspect extractor assembly for visible damage or wear to extractor, or a weak extractor spring. If extractor or spring is damaged or signs of wear are found, replace the entire extractor assembly IAW WP 0013 00.</p> <p>7. Visually inspect roller assembly for damage or signs of wear. Inspect roller assembly for free rotation. Inspect for spring tension by pressing down on roller assembly. If roller assembly does not rotate freely, or there is no spring tension, or signs of wear are found, replace entire bolt and slide assembly.</p> <p>8. Inspect pivot slide for signs of wear and free movement. Replace pivot slide if signs of wear are found or it does not move freely IAW WP 0013 00.</p>	<p>Burrs are present on CCMCK bolt and slide assembly</p> <p>Bolt and slide assembly is damaged.</p> <p>Firing pin is damaged or firing pin protrusion is incorrect.</p> <p>Extractor, pin guide or spring are damaged or worn.</p> <p>Roller assembly is damaged or does not move freely.</p> <p>Pivot slide does not move freely or is damaged or worn.</p>

Table 1. PMCS for CCMCK - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
11	Quarterly	0.1	CCMCK M9 Barrel Assembly	<ol style="list-style-type: none"> 1. Thoroughly clean and lubricate CCMCK M9 barrel assembly using CLP. Wipe dry with a wiping rag. 2. Inspect slider and dowel pin for damage or signs of wear. Check that slider moves freely. If any defect is found, replace barrel assembly. 	<p>CCMCK M9 barrel is not clean.</p> <p>Slider and dowel pin are unserviceable.</p>

END OF WORK PACKAGE

FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
(NSN 6920-01-564-9657, PN 13021072)
MAINTENANCE INSTRUCTIONS FOR CCMCK CONVERSION KIT
FOR M16A2/A3/A4 RIFLES AND M4/M4A1 CARBINES

INITIAL SETUP:**Tools and Special Tools**

CCMCK Firing Pin Protrusion Gage (M16/M4) (Item 1, Fig. 1, WP 0021 00)
 Tool Kit, Small Arms Repairman (Item 1, Table 2, WP 0018 00)

Materials/Parts

Bolt and carrier assembly (Fig. 2, WP 0020 00)
 Cartridge ejector (Fig. 2, WP 0020 00)
 Cartridge extractor (Fig. 2, WP 0020 00)
 Cleaner, Lubricant and Preservative (CLP) (Item 1, WP 0024 00)
 Ejector retaining pin (Fig. 2, WP 0020 00)

Materials/Parts - continued

Ejector spring (Fig. 2, WP 0020 00)
 Extractor retaining pin (Fig. 2, WP 0020 00)
 Extractor spring assembly (Fig. 2, WP 0020 00)
 Firing pin assembly (Fig. 2, WP 0020 00)
 Firing pin retaining pin (Fig. 2, WP 0020 00)
 Goggles, safety
 Rag, wiping (Item 2, WP 0024 00)

Personnel Required

45B Small Arms Repairman or
 92Y Unit Supply Specialist

CCMCK M16A2/A3/A4 RIFLE AND M4/M4A1 CARBINE TRAINING BOLT AND BOLT CARRIER ASSEMBLY

This work package covers cleaning and inspection of the bolt and bolt carrier key and cleaning, inspection, and disassembly/reassembly of the cartridge extractor, cartridge ejector, and firing pin.

WARNING

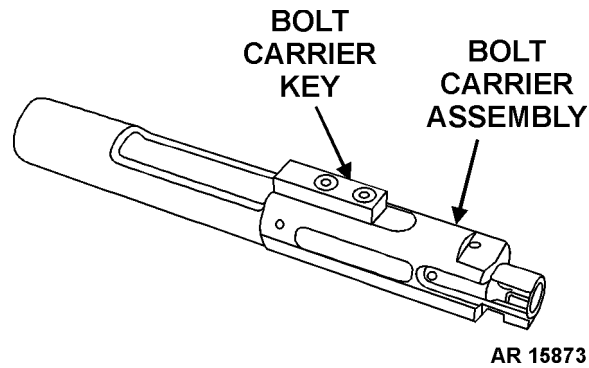
Care must be taken when installing and removing spring-loaded parts. Safety goggles must be worn to prevent injury to eyes.

BOLT AND BOLT CARRIER KEY**Cleaning**

Remove dirt and corrosion from bolt and carrier assembly using a wiping rag dampened with CLP.

Inspection

1. Inspect bolt and bolt carrier key for dents, distortion, looseness, damage or wear.



2. If bolt or bolt carrier key is damaged or worn to the point of being unserviceable, replace the entire bolt carrier assembly.
3. Check bolt carrier key to ensure it is not loose.
4. If bolt carrier key is loose, replace entire bolt and carrier assembly.

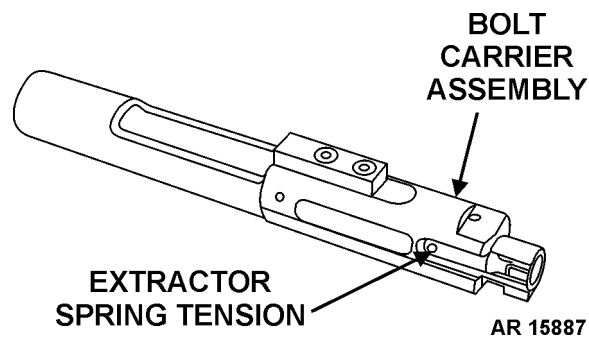
CARTRIDGE EXTRACTOR

Cleaning

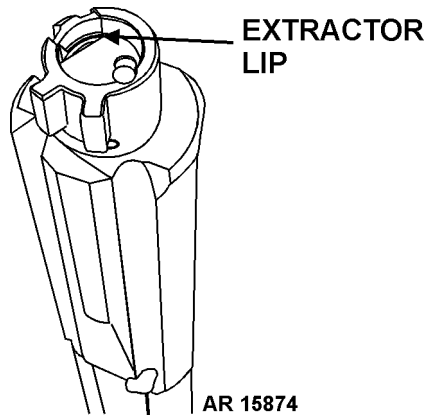
Remove dirt and corrosion from bolt and carrier assembly using a rag dampened with CLP.

Inspection

1. Push on extractor to check for spring tension. If unserviceable, replace both the cartridge extractor and extractor spring assembly.



- Carefully inspect cartridge extractor for damage, paying close attention to the extractor lip. If damaged, replace both the cartridge extractor and extractor spring assembly.



Disassembly

CAUTION

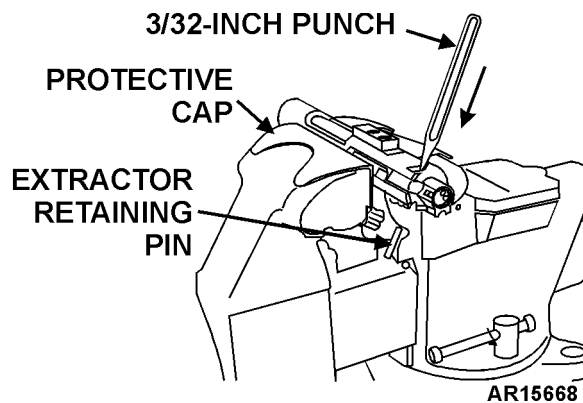
DO NOT re-use extractor retaining pin.

To prevent damage to equipment, be sure to use vise jaw protective caps.

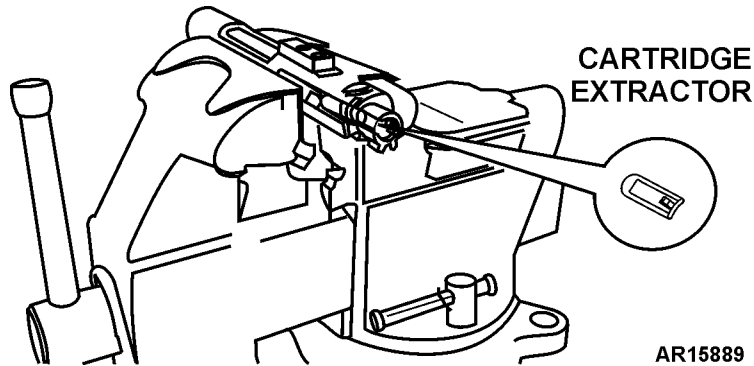
NOTE

DO NOT separate cartridge extractor and extractor spring assembly unless replacement of either or both is required.

- With carrier key in the UP position, place bolt and carrier assembly in vise with protective caps or on a bench block.
- Using a 3/32-inch punch and a hammer, remove and discard extractor retaining pin.



- Remove cartridge extractor and extractor spring assembly as a single unit.



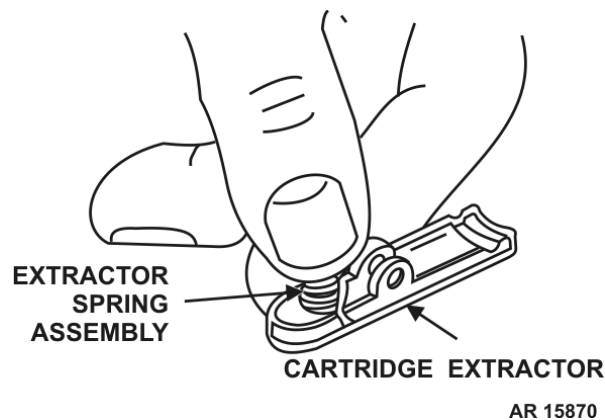
- Inspect cartridge extractor and extractor spring assembly for cracks, breaks, chips, and other damage. Pay close attention to cartridge extractor lip. Replace both if either is damaged.

Reassembly

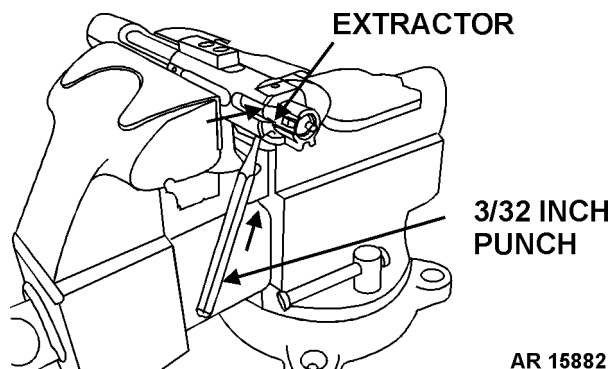
CAUTION

DO NOT separate cartridge extractor and extractor spring assembly. **DO NOT** disassemble rubber insert from extractor spring assembly.

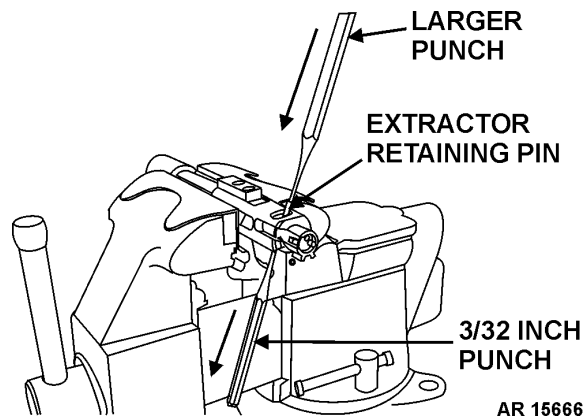
- If separated, insert large end of extractor spring assembly into cartridge extractor and seat by pushing and turning clockwise.



- Position cartridge extractor with extractor spring assembly on bolt and carrier assembly. Compress extractor spring assembly and cartridge extractor to align holes. Insert a 3/32-inch punch from the bottom up into hole to align and hold cartridge extractor in place.



3. Install new extractor retaining pin from the top and, using a punch larger than 3/32-inch and a hammer, drive the bottom 3/32-inch aligning punch out. Use 3/32-inch punch to seat extractor retaining pin until flush with surface.



4. Check for proper function of cartridge extractor.

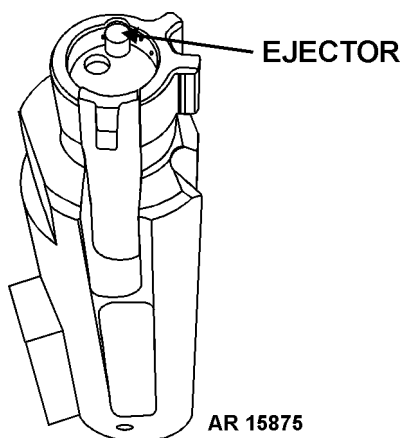
CARTRIDGE EJECTOR

Cleaning

Remove dirt and corrosion from bolt and carrier assembly using a rag dampened with CLP.

Inspection

1. Inspect cartridge ejector for dirt, damage or serviceability.
2. Inspect cartridge ejector spring for spring tension by pushing on ejector.



3. If the cartridge ejector and ejector spring are unserviceable, disassemble and inspect.

Disassembly**WARNING**

Care must be taken when installing and removing spring-loaded parts. Safety goggles must be worn to prevent injury to eyes.

CAUTION

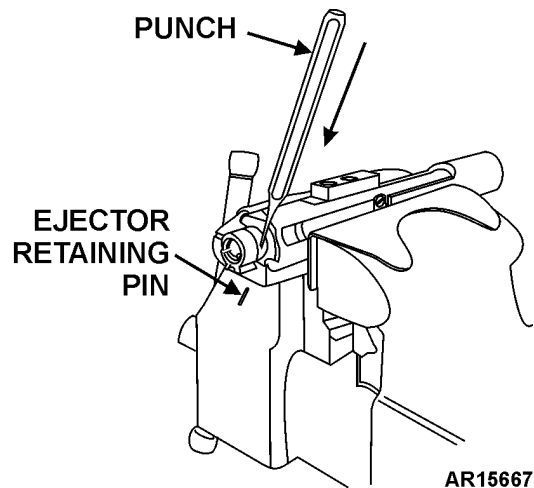
To prevent damage to equipment, use vise jaw protective caps.

1. With carrier key in the UP position, place bolt and carrier assembly in vise with protective caps or on a bench block.

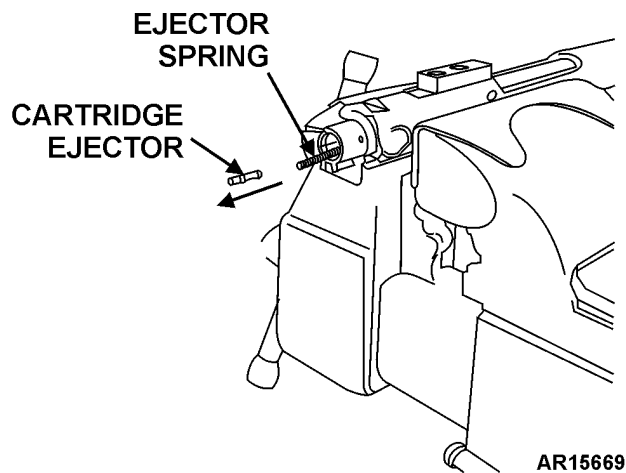
CAUTION

DO NOT re-use ejector retaining pin.

2. Using a 1/16-inch punch and a hammer, remove and discard ejector retaining pin.



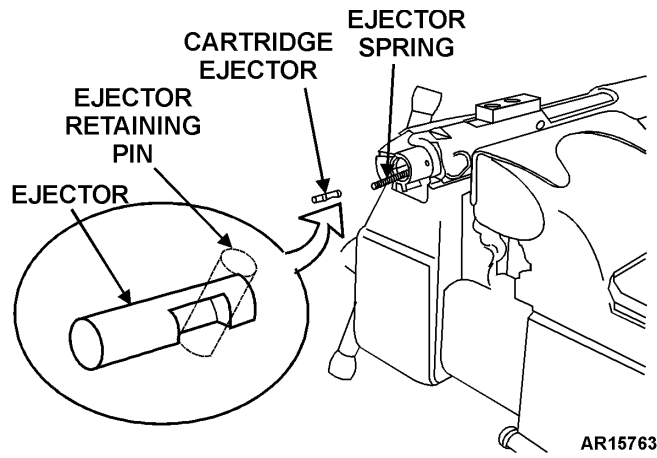
3. Carefully remove punch and be ready to catch cartridge ejector and ejector spring to prevent loss.



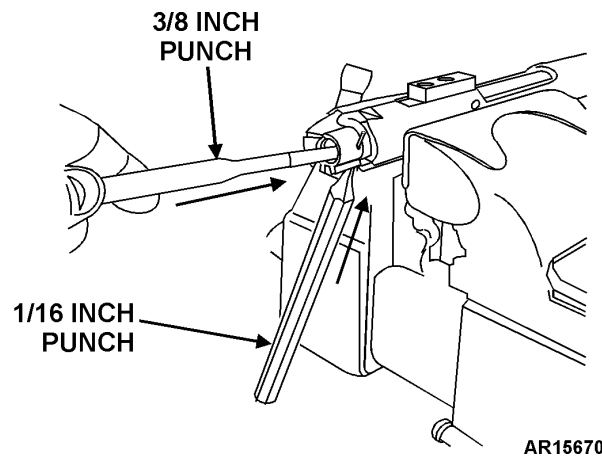
4. Inspect cartridge ejector and ejector spring for cracks, breaks, chips or other damage. Replace if any damage is found.

Reassembly

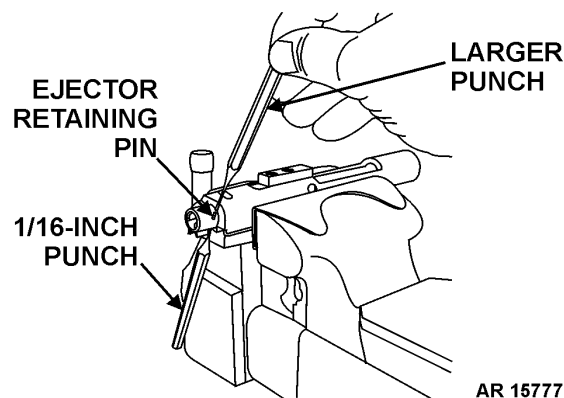
1. Reinstall ejector spring.
2. Install cartridge ejector by aligning groove on cartridge ejector so that the new ejector retaining pin can be installed.



3. Using a 3/8-inch punch, compress and hold cartridge ejector and ejector spring. Insert a 1/16-inch punch from the bottom up into hole to align and hold cartridge ejector in place.



4. Install new ejector retaining pin from the top and, using a punch larger than 1/16-inch punch and a hammer, drive the bottom 1/16-inch aligning punch out. Use 1/16-inch punch to seat ejector retaining pin until flush with surface.



5. Check for proper function of cartridge ejector.

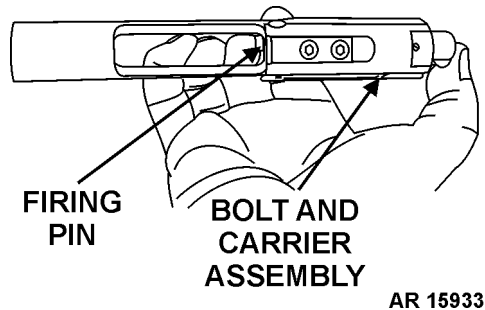
FIRING PIN

Cleaning

Remove dirt and corrosion for bolt and carrier assembly using a rag dampened with CLP.

Inspection

1. Inspect firing pin for damage or serviceability.
2. Inspect firing pin spring for spring tension by pushing on back of firing pin with finger.



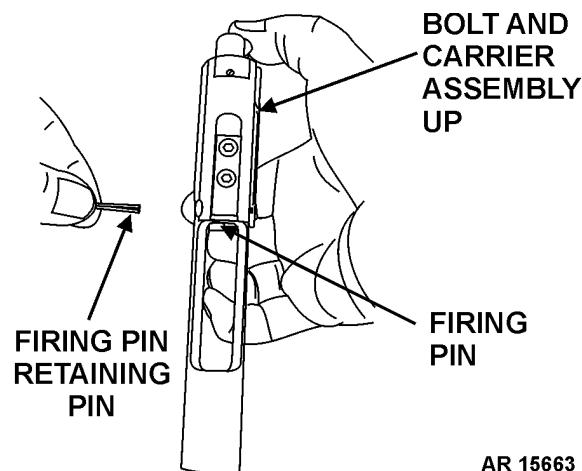
3. With firing pin fully compressed, use firing pin protrusion gage to test protrusion.
4. If firing pin or firing pin spring is unserviceable, replace both.

Disassembly

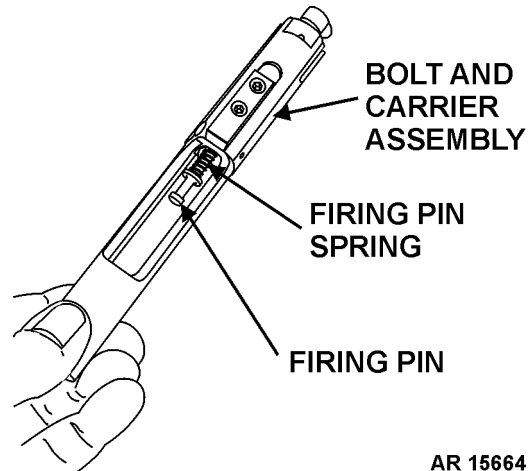
CAUTION

DO NOT spread or close legs of firing pin retaining pin.

1. With bolt and carrier assembly in UP position, use finger to fully compress and hold firing pin.
2. Remove firing pin retaining pin and set aside.



3. Tilt bolt and carrier assembly and catch firing pin and firing pin spring as they fall out of assembly.



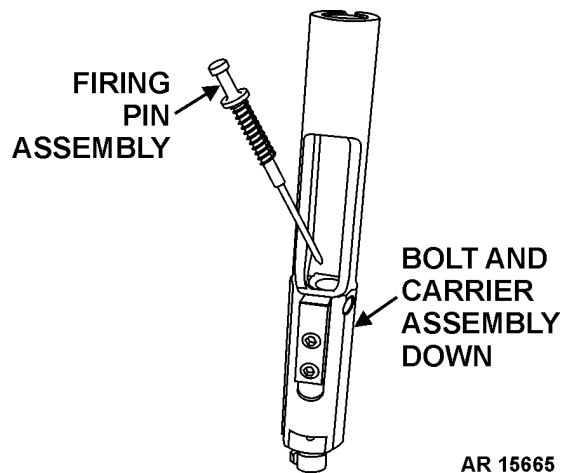
CAUTION

If either firing pin or firing pin spring is damaged, both must be replaced as an assembly.

4. Inspect firing pin for cracks, chips, and signs of wear. Inspect firing pin spring for damage or collapse. If either is damaged, discard both and replace with new assembly.
5. Inspect firing pin retaining pin for damage. Discard if damaged.

Reassembly

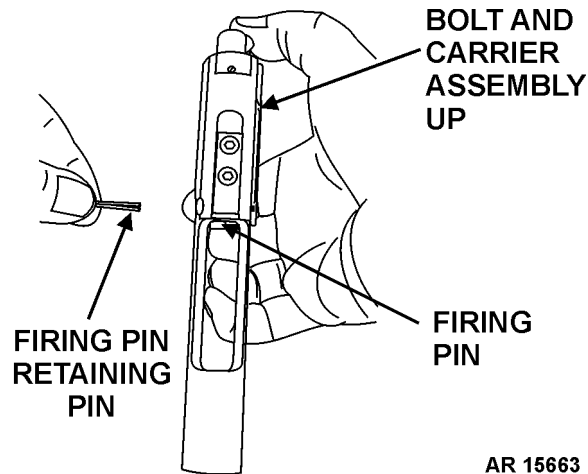
1. With bolt and carrier assembly in the DOWN position, drop in firing pin assembly.



CAUTION

To ensure proper installation, install firing pin retaining pin from left side only.

2. With bolt and carrier assembly in UP position, use finger to fully compress and hold firing pin. Install firing pin retaining pin from left side only.



3. Check for proper installation by holding bolt and carrier assembly with the bolt in the UP position and attempt to shake out firing pin.
4. Check spring tension by pushing on back of firing pin with finger.
5. With firing pin fully compressed, use firing pin protrusion gage to test protrusion.

END OF WORK PACKAGE

FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
(NSN 6920-01-564-9655, PN 13021071)
MAINTENANCE INSTRUCTIONS FOR CCMCK CONVERSION KIT
FOR M249 SQUAD AUTOMATIC WEAPON (SAW)

INITIAL SETUP:**Tools and Special Tools**

- CCMCK Firing Pin Protrusion Gage (M249) (Item 2, Fig. 1, WP 0021 00)
- Tool Kit, Small Arms Repairman (Item 1, Table 2, WP 0018 00)

Materials/Parts

- Cartridge Extractor Assembly (Fig. 4, WP 0020 00)
- CCMCK Firing Pin (Fig. 4, WP 0020 00)
- CCMCK Firing Pin Spring (Fig. 4, WP 0020 00)

Materials/Parts - Continued

- Cleaner, Lubricant and Preservative (CLP) (Item 1, WP 0024 00)
- Extractor Retaining Pin (Fig. 4, WP 0020 00)
- Pivot Slide (Fig. 4, WP 0020 00)
- Pivot Slide Retaining Pin (Fig. 4, WP 0020 00)
- Rag, wiping (Item 2, WP 0024 00)

Personnel Required

- 45B Small Arms Repairman or
- 92Y Unit Supply Specialist

CCMCK M249 SAW BOLT AND SLIDE ASSEMBLY

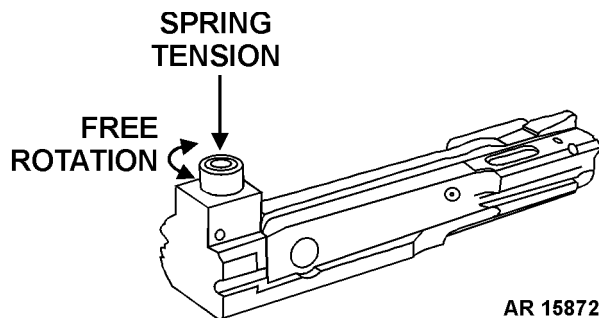
This work package covers cleaning and inspection of roller assembly and cleaning, inspection, and disassembly/reassembly of cartridge extractor, firing pin, and pivot slide.

ROLLER ASSEMBLY**Cleaning**

Remove dirt and corrosion from bolt and slide assembly using a rag dampened with CLP.

Inspection

1. Check roller assembly for free rotation.
 - a. If roller assembly rotates freely, the item is serviceable.
 - b. If roller assembly does not rotate freely, replace bolt and slide assembly.



2. Check spring tension by pressing down on roller assembly.
 - a. If spring tension is present, the item is serviceable.
 - b. If spring tension is not present, replace bolt and slide assembly.

CARTRIDGE EXTRACTOR

Cleaning

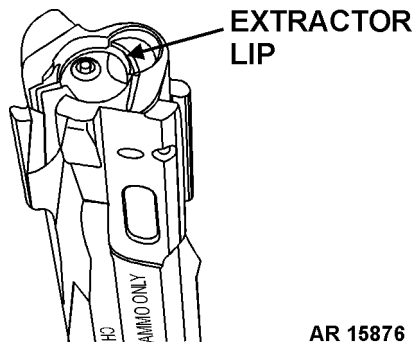
Remove dirt and corrosion from bolt and slide assembly using a rag dampened with CLP.

Inspection

CAUTION

A chipped extractor lip can allow the cartridge case to escape inside the receiver before ejection occurs which may cause a failure to chamber for the following round.

1. Inspect extractor assembly for damage and signs of wear paying close attention to lip.
2. Replace entire extractor assembly if any damage is found.



Disassembly

1. Place bolt and slide assembly in vise with protective caps or on a bench block with the roller assembly in the UP position.

WARNING

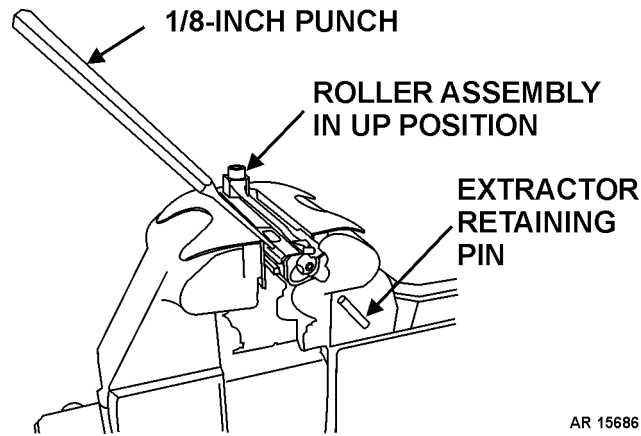
Care must be taken when installing and removing spring-loaded parts. Safety goggles must be worn to prevent injury to eyes.

CAUTION

To prevent weapon jams, **DO NOT** re-use extractor retaining pin.

Cartridge extractor is under spring tension. Use care to prevent lost parts when retaining pin is removed.

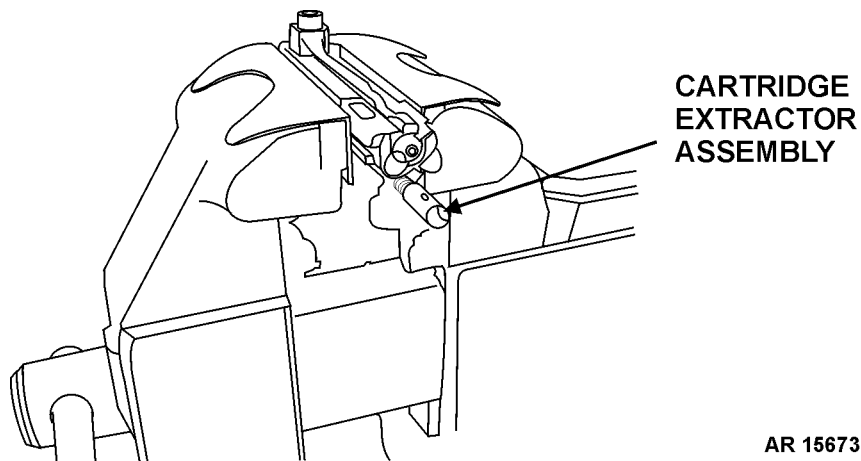
- Using 1/8-inch punch and a hammer, remove and discard extractor retaining pin.



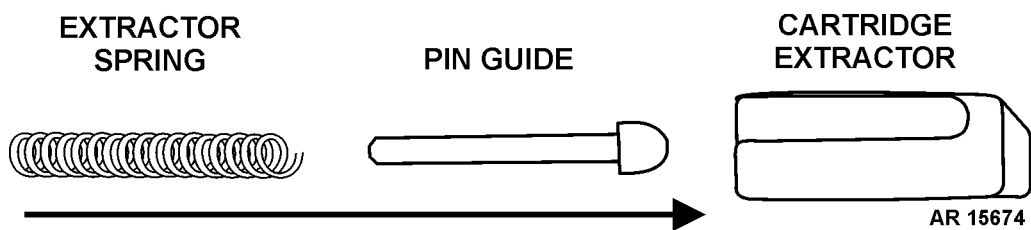
CAUTION

If any component of the cartridge extractor assembly is found defective, replace the entire cartridge extractor assembly.

- Remove cartridge extractor assembly (pin guide, extractor spring and cartridge extractor).



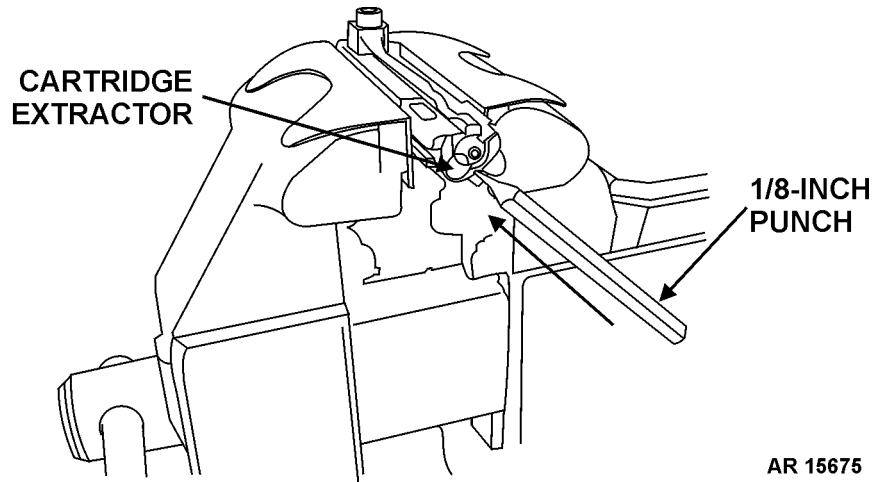
- Inspect cartridge extractor, pin guide, and cartridge extractor spring for cracks, breaks, chips or other damage. Pay close attention to cartridge extractor lip. Replace entire extractor assembly if any part is unserviceable.



Reassembly**CAUTION**

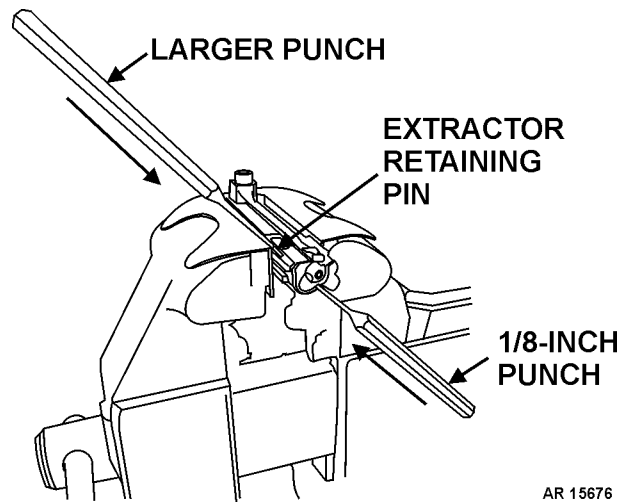
Ensure pin guide is fully inserted in extractor spring and rounded end of pin guide is properly seated in extractor.

1. Place extractor spring on pin guide. Place rounded end of pin guide with spring inside cartridge extractor.
2. Place cartridge extractor assembly into hole in bolt and slide assembly and align slot with hole for extractor pin.
3. Using thumb, compress cartridge extractor and insert 1/8-inch punch from bottom to align and hold cartridge extractor in place.

**CAUTION**

To prevent weapon jams, **DO NOT** re-use extractor retaining pin.

4. Using a punch larger than 1/8-inch and a hammer, install new extractor retaining pin from the top, driving the bottom 1/8-inch punch out. Use 1/8-inch punch to seat extractor retaining pin until flush with surface of bolt and slide assembly.



5. Check for free movement of cartridge extractor.

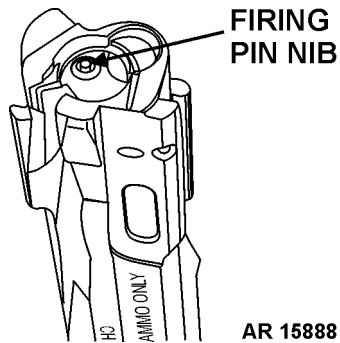
FIRING PIN

Cleaning

Remove dirt and corrosion from bolt and slide assembly using a rag dampened with CLP.

Inspection

1. Inspect firing pin nib for damage or defects. Replace firing pin if damage or defect is found.



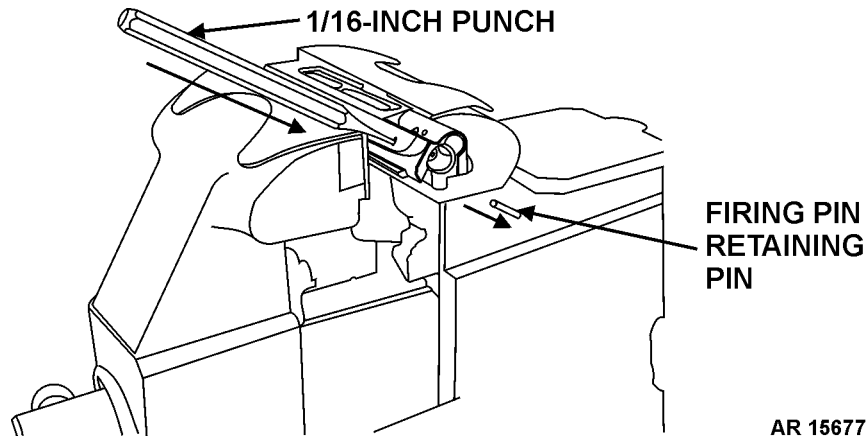
NOTE

Firing pin is fixed and should not have excessive movement.

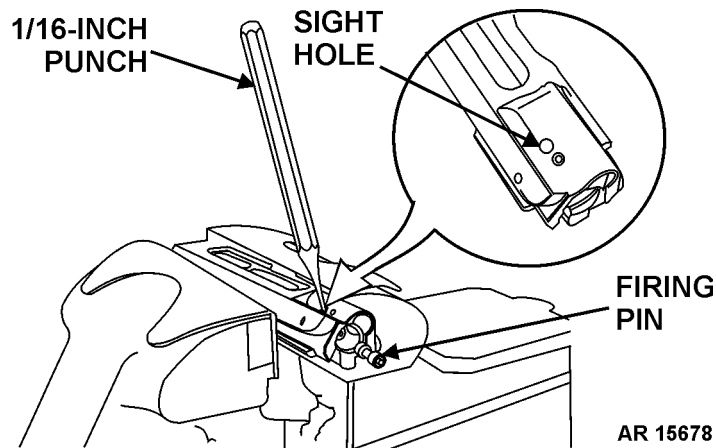
2. Inspect for looseness of firing pin. Replace firing pin if loose.
3. Inspect firing pin protrusion using firing pin protrusion gage. Replace firing pin if protrusion is incorrect.

Disassembly

1. Place bolt and slide assembly in vise with protective caps or on a bench block with roller assembly in the DOWN position.
2. Using 1/16-inch punch and a hammer, remove and discard firing pin retaining pin.



- Remove firing pin and discard. For easy removal, insert a 1/16-inch punch in sight hole at rear of firing pin to push firing pin out.



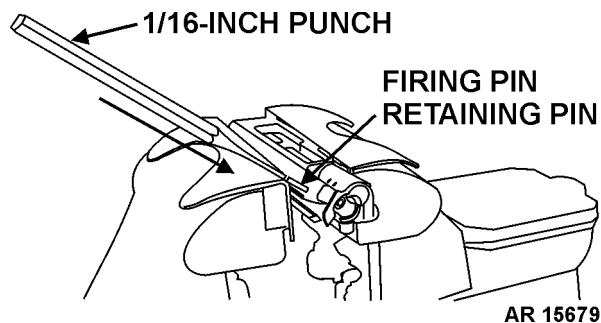
Reassembly

- Fully insert new firing pin in bolt and slide assembly.

CAUTION

To prevent weapon jams, **DO NOT** re-use firing pin retaining pin.

- Using a 1/16-inch punch and a hammer, install new firing pin retaining pin until flush with surface.



PIVOT SLIDE

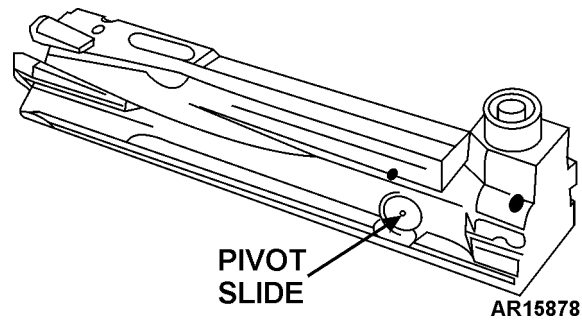
Cleaning

Remove dirt and corrosion from bolt and slide assembly using a rag dampened with CLP.

Inspection

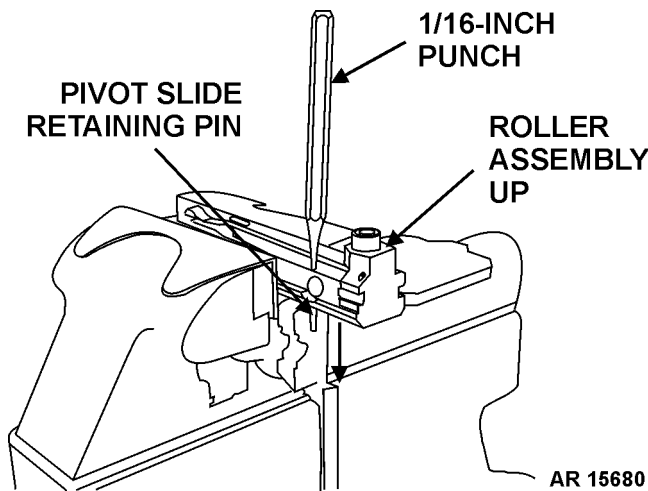
- Inspect pivot slide for cracks, wear, and free movement.

2. Replace pivot slide if it is worn, cracked or does not move freely.

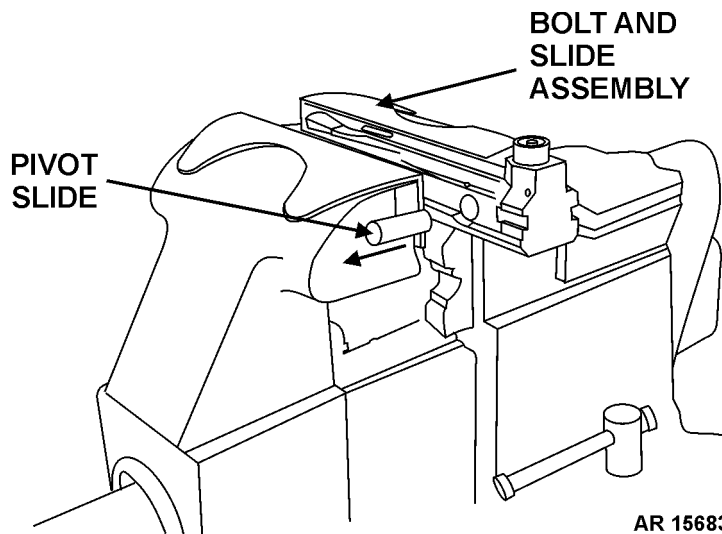


Disassembly

1. Place bolt and carrier assembly in a vise with protective caps or on a bench block with roller assembly in the UP position so that pivot slide is accessible from the side.
2. Using a 1/16-inch punch and a hammer, remove and discard pivot slide retaining pin.

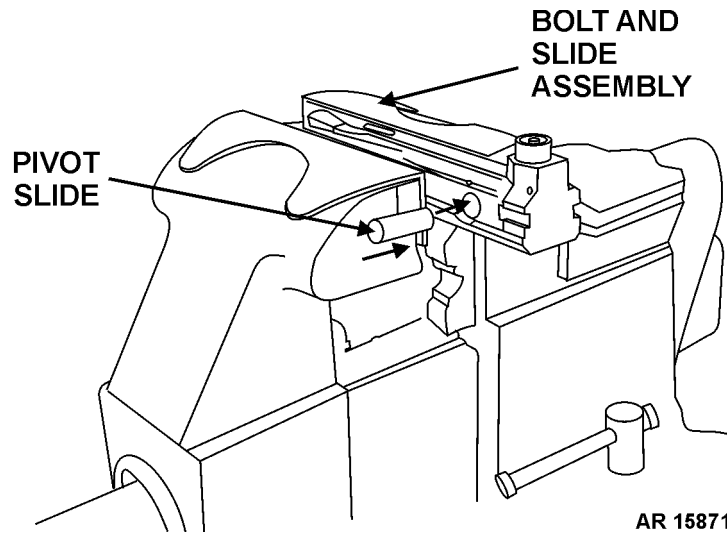


3. Remove pivot slide and discard.



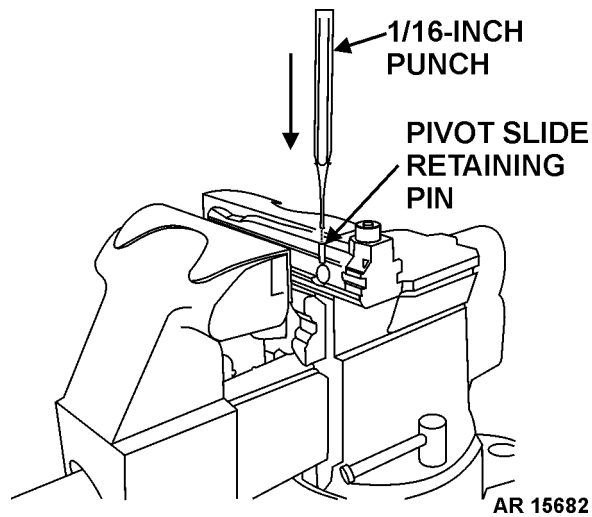
Reassembly

1. With flat portion of pivot slide facing retaining pin-hole, install new pivot slide into bolt and slide assembly.

**NOTE**

Assure retaining pin is installed with flat (open) side facing away from pivot slide.

2. Using a 1/16-inch punch and a hammer, install new pivot slide retaining pin. Seat until flush with surface



3. Press pivot slide to check for free movement.

END OF WORK PACKAGE

FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
(NSN 6920-01-564-9656, PN 13021070)
MAINTENANCE INSTRUCTIONS FOR CCMCK CONVERSION KIT FOR M9 PISTOL

INITIAL SETUP:**Materials/Parts**

Cleaner, Lubricant and Preservative (CLP) (Item 1,
WP 0024 00)
Goggles, safety
Rag, wiping (Item 2, WP 0024 00)
Spring (Fig. 6, WP 0020 00)

Personnel Required

45B Small Arms Repairman or
92Y Unit Supply Specialist

M9 PISTOL

This work package covers cleaning, inspection, disassembly/reassembly of spring and cleaning and inspection of slider and dowel pin.

SPRING**Cleaning**

Remove dirt and corrosion from barrel assembly using a rag dampened with CLP.

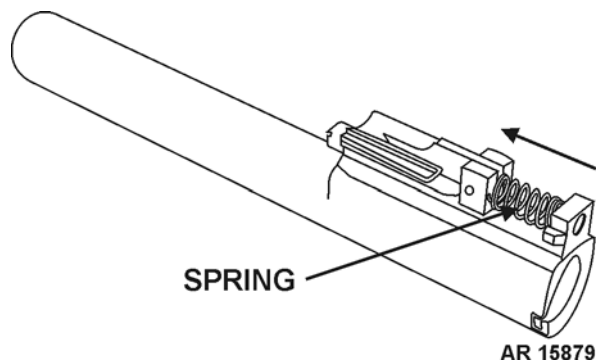
Inspection

Visually inspect spring for defects and spring tension by compressing slider. Replace spring if damaged or collapsed.

Disassembly**WARNING**

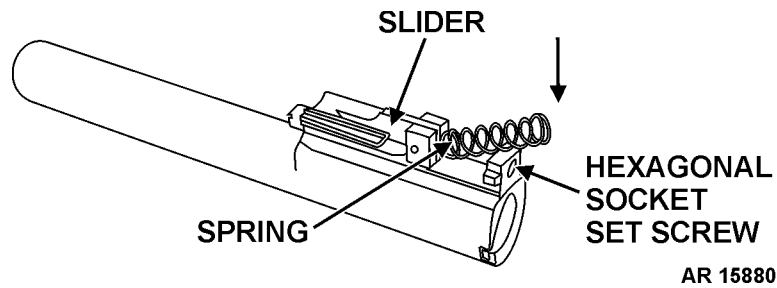
Care must be taken when installing and removing spring-loaded parts. Safety goggles must be worn to prevent injury to eyes.

Holding barrel assembly with one hand, carefully compress spring towards slider and lift it out with other hand.



Reassembly

Carefully place new spring on end of slider, compress and install other end on hexagonal socket set screw.

**SLIDER AND DOWEL PIN****Cleaning**

Remove dirt and corrosion from barrel assembly using a rag dampened with CLP.

Inspection

1. Inspect slider for cracks, chips, and breaks.
2. If slider is damaged, replace barrel assembly.

END OF WORK PACKAGE

FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
(NSN 6920-01-564-9658, PN 13021069)
MAINTENANCE INSTRUCTIONS FOR CCMCK CONVERSION KIT FOR M11 PISTOL

INITIAL SETUP:**Materials/Parts**

Barrel, Pistol (Fig. 7, WP 0020 00)
Cleaner, Lubricant and Preservative (CLP) (Item 1,
WP 0024 00)
Feed Ramp (Fig. 7, WP 0020 00)
Rag, wiping (Item 2, WP 0024 00)

Personnel Required

45B Small Arms Repairman or
92Y Unit Supply Specialist

M11 PISTOL

This work package covers cleaning and inspection of CCMCK training barrel and feed ramp.

TRAINING BARREL AND FEED RAMP**Cleaning**

Remove dirt and corrosion from barrel assembly using a rag dampened with CLP.

Inspection

1. Inspect training barrel for cracks, chips, and breaks. Replace if damaged.
2. Inspect feed ramp for damage. Replace if damaged.

END OF WORK PACKAGE

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CHAPTER 4

SUPPORTING INFORMATION
FOR
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)

FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
REFERENCES

SCOPE

This work package lists all Army regulations, forms, pamphlets, and technical manuals referenced in this manual.

ARMY REGULATIONS

AR 75-1	Malfunctions Involving Ammunition and Explosives
AR 385-10	The Army Safety Program

FORMS

DA Form 285	U.S. Army Accident Report
DA Form 2028	Recommended Changes to Publications and Blank Forms
DA Form 2404	Equipment Inspection and Maintenance Worksheet
SF Form 364	Report of Discrepancy (ROD)
SF Form 368	Product Quality Deficiency Report

PAMPHLETS

DA Pam 25-30	Consolidated Index of Army Publications and Forms
DA Pam 750-8	The Army Maintenance Management System (TAMMS) Users Manual

TECHNICAL MANUALS

TM 9-6920-3700-10	Operator's Manual for Close Combat Mission Capability Kit (CCMCK), Training Device, Fire Dye Marking Ammo: M16/M4; Training Device, Fire Dye Marking Ammo: M249; Training Device, Fire Dye Marking Ammo: M9; Training Device, Fire Dye Marking Ammo: M11
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FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
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, Crew (C) and Maintainer (F).

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

The maintenance to be performed at field and sustainment levels is described as follows:

1. **Crew Maintenance.** The responsibility of a using organization to perform maintenance on its assigned equipment. It normally consists of inspecting, servicing, lubricating, adjusting, and replacing parts, minor assemblies, and subassemblies. The replace function for this level of maintenance is indicated by the letter "C" in the third position of the SMR code. A "C" appearing in the fourth position of the SMR code indicates complete repair is possible at the crew maintenance level.
2. **Maintainer Maintenance.** Maintenance accomplished on a component, accessory, assembly, subassembly, plug-in unit, or other portion either on the system or after it is removed. The replace function for this level of maintenance is indicated by the letter "F" appearing in the third position of the SMR code. An "F" appearing in the fourth position of the SMR code indicates complete repair is possible at the field maintenance level. Items are returned to the user after maintenance is performed at this level.
3. **Below Depot Sustainment.** Maintenance accomplished on a component, accessory, assembly, subassembly, plug-in unit, or other portion either on the system or after it is removed. The replace function for this level of maintenance is indicated by the letter "H" appearing in the third position of the SMR code. An "H" appearing in the fourth position of the SMR code indicates complete repair is possible at the below depot sustainment maintenance level. Items are returned to the supply system after maintenance is performed at this level.
4. **Depot Sustainment.** Maintenance accomplished on a component, accessory, assembly, subassembly, plug-in unit, or other portion either on the system or after it is removed. The replace function for this level of maintenance is indicated by the letter "D" or "K" appearing in the third position of the SMR code. Depot sustainment maintenance can be performed by either depot personnel or contractor personnel. A "D" or "K" appearing in the fourth position of the SMR code indicates complete repair is possible at the depot sustainment maintenance level. Items are returned to the supply systems after maintenance is performed at this level.

The tools and test equipment requirements table (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 table (immediately following the tools and test equipment requirements) contains 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 gaging 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 performance of maintenance operations.
 - b. **Repack.** To return item to packing box after service and other maintenance operations.
 - 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 (ammunition only).** 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 as 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 - Crew maintenance

F - Maintainer maintenance

Sustainment:

L - Specialized Repair Activity (SRA)

H - Below Depot 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.

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.

**FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
MAINTENANCE ALLOCATION CHART (MAC)**

MAINTENANCE ALLOCATION CHART FOR CCMCK

Table 1. MAC for CCMCK .

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL				(5) TOOLS AND EQUIPMENT REFERENCE CODE	(6) REMARKS CODE
			FIELD		SUSTAINMENT			
			CREW	MAINTAINER	BELOW DEPOT	DEPOT		
			C	F	H	D		
00	Training Device, Fire Dye Marking Ammo: known as CCMCK Training kit for M16/M4	Inspect		0.1				
0001	Kit, Conversion, M16/M4: known as CCMCK Weapon Conversion kit for M16/M4	Clean		0.1				
		Inspect		0.1				
000101	M16A2/A3/A4 Rifle and M4/M4A1 Carbine Training Bolt and Carrier Assembly	Clean		0.1				
		Inspect		0.1				
00010101	Cartridge Ejector and Ejector Spring	Clean		0.1				
		Inspect		0.1				
		Disassembly		0.2		1		
		Reassembly		0.2		1		
00010102	Extractor and Extractor Spring	Clean		0.1				
		Inspect		0.1				
		Disassembly		0.2		1		
		Reassembly		0.2		1		
00010103	Bolt Carrier Key	Clean		0.1				
		Inspect		0.1				
00010104	Firing Pin and Firing Pin Spring	Clean		0.1				
		Inspect		0.1		2		
		Disassembly		0.2		1		
		Reassembly		0.2		1		
0002	CCMCK Face Mask	Clean	1.0	1.0				
		Inspect	0.1	0.1				
01	Training Device, Fire Dye Marking Ammo: known as CCMCK Training kit for M249	Inspect		0.1				

Table 1. MAC for CCMCK - Continued.

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL				(5) TOOLS AND EQUIPMENT REFERENCE CODE	(6) REMARKS CODE
			FIELD		SUSTAINMENT			
			CREW	MAINTAINER	BELOW DEPOT	DEPOT		
			C	F	H	D		
0101	Bolt, Automatic Weapon: known as CCMCK Weapon Conversion Kit for M249	Clean		0.1				
		Inspect		0.1				
010101	M249 Training Bolt and Slide Assembly	Clean		0.1				
		Inspect		0.1				
01010101	Extractor Assembly	Clean		0.1				
		Inspect		0.1				
		Disassembly		0.2			1	
		Reassembly		0.2			1	
01010102	Firing Pin	Clean		0.1				
		Inspect		0.1			3	
		Disassembly		0.2			1	
		Reassembly		0.2			1	
01010103	Pivot Slide	Clean		0.1				
		Inspect		0.1				
		Disassembly		0.2			1	
		Reassembly		0.2			1	
01010104	Roller Assembly	Clean		0.1				
		Inspect		0.1				
0102	CCMCK Face Mask	Clean	1.0	1.0				
		Inspect	0.1	0.1				
02	Training Device, Fire Dye Marking Ammo: known as CCMCK Training Kit for M9	Inspect		0.1				
0201	Conversion Kit, Man: known as CCMCK Conversion Kit for M9	Clean		0.1				
		Inspect		0.1				
020101	M9 Training Barrel	Inspect		0.1				
		Clean		0.1				
02010101	Spring	Clean		0.1				
		Inspect		0.1				
		Disassembly		0.2			1	
		Reassembly		0.2			1	
02010102	Slider and Dowel Pin	Clean		0.1				
		Inspect		0.1				
0202	CCMCK Face Mask	Clean	1.0	1.0				
		Inspect	0.1	0.1				

Table 1. MAC for CCMCK - Continued.

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL				(5) TOOLS AND EQUIPMENT REFERENCE CODE	(6) REMARKS CODE
			FIELD		SUSTAINMENT			
			CREW	MAINTAINER	BELOW DEPOT	DEPOT		
			C	F	H	D		
03	Training Device, Fire Dye Marking Ammo: known as CCMCK Training Kit for M11	Inspect		0.1				
0301	Conversion Kit, Man: known as CCMCK Conversion Kit for M11	Clean		0.1				
		Inspect		0.1				
030101	M11 Training Barrel	Clean		0.1				
		Inspect		0.1				
030102	Feed ramp	Clean		0.1				
		Inspect		0.1				
0302	CCMCK Face Mask	Clean	1.0	1.0				
		Inspect	0.1	0.1				

TOOLS AND TEST EQUIPMENT REQUIREMENTS FOR CCMCK

Table 2. Tools and Test Equipment for CCMCK.

TOOLS OR TEST EQUIPMENT REF CODE	MAINTENANCE LEVEL	NOMENCLATURE	NATIONAL STOCK NUMBER	TOOL NUMBER
1	F	Tool Kit, Small Arms Repairman (Army)	5180-01-506-8287	GOV92608
2	F	CCMCK Firing Pin Protrusion Gage (M16/M4)	5220-99-776-0695	
3	F	CCMCK Firing Pin Protrusion Gage (M249)	5220-99-232-8749	

REMARKS FOR CCMCK

Table 3. Remarks for CCMCK.

REMARKS CODE	REMARKS
	N/A

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FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
REPAIR PARTS AND SPECIAL TOOLS LIST (RPSTL) 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 field maintenance of the Close Combat Mission Capability Kit (CCMCK). 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 kits are listed at the end of the individual work packages. 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 contains supply/requisitioning information, maintenance level authorization criteria, and disposition instructions, as shown in the following breakout. This entry may be subdivided into 4 subentries, one for each service.

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

*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 you 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
PH
PR
PZ

NOTE

Items coded PC are subject to deterioration.

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 third position of the SMR code.

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 third position of the SMR code. The complete kit must be requisitioned and applied.

MF-Made at field level
MH-Made at below depot sustainment level
ML-Made at SRA
MD-Made at depot
MG-Navy only

Items with these codes are not to be requisitioned/requested 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 listed in the bulk material group work package of the RPSTL. If the item is authorized to you by the third 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.

<u>Source Code</u>	<u>Application/Explanation</u>
AF-Assembled by field level AH-Assembled by below depot sustainment level AL-Assembled by SRA AD-Assembled by depot AG-Navy only	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 third 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.
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 part number.
XC	Installation drawings, diagrams, instruction sheets, field service drawings; identified by manufacturer's part number.
XD	Item is not stocked. Order an XD-coded item through local purchase or normal supply channels using the CAGEC 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 items 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>
F -	Field maintenance can remove, replace, and use the item.
H -	Below depot sustainment maintenance can remove, replace, and use the item.
L -	Specialized Repair Activity (SRA) can remove, replace, and use the item.
G -	Afloat and ashore intermediate maintenance can remove, replace, and use the item. (Navy only)
K -	Contractor facility can remove, replace, and use the item.
Z -	Item is not authorized to be removed, replaced, or used at any maintenance level.
D -	Depot can remove, replace, and use the item.

*NOTE - Army may use C in the third position. However, for joint service publications, Army will use O.

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.

Maintenance Code

Application/Explanation

- F - Field is the lowest level that can do complete repair of the item.
- H - Below depot sustainment is the lowest level that can do complete repair of the item.
- L - SRA 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.
- G - Both afloat and ashore intermediate levels are capable of complete repair of item. (Navy only)
- K - Complete repair is done at contractor facility.
- Z - Nonreparable. No repair is authorized.
- B - No repair is authorized. No parts or special tools are authorized for 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:

Recoverability Code

Application/Explanation

- 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.
- F - Repairable item. When uneconomically repairable, condemn and dispose of the item at the field level.
- H - Repairable item. When uneconomically repairable, condemn and dispose of the item at the below depot sustainment level.
- D - Repairable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item are not authorized below depot level.
- L - Repairable item. Condemnation and disposal not authorized below 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.
- G - Field level repairable item. Condemn and dispose at either afloat or ashore intermediate levels. (Navy only)
- K - Repairable item. Condemnation and disposal to be performed at contractor facility.

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 part number 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. Part numbers 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.

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. NSN's in this index are listed in National Item Identification Number (NIIN) sequence.

STOCK NUMBER Column. This column lists the NSN in NIIN sequence. The NIIN consists of the last nine digits of the NSN. 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.

For example, if the NSN is 5385-01-574-1476, the NIIN is 01-574-1476.

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. Part numbers 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 part number 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.

REFERENCE DESIGNATOR Column. Indicates the reference designator 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 or special tools list work package.

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.

HOW TO LOCATE REPAIR PARTS

1. When NSNs or Part Numbers 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 Part Number Is Known.

First. If you have the part number and not the NSN, look in the PART NUMBER column of the part number 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.

FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
REPAIR PARTS LIST

NOTE

Before proceeding with Repair Parts List, see Introduction to RPSTL (WP 0019 00).

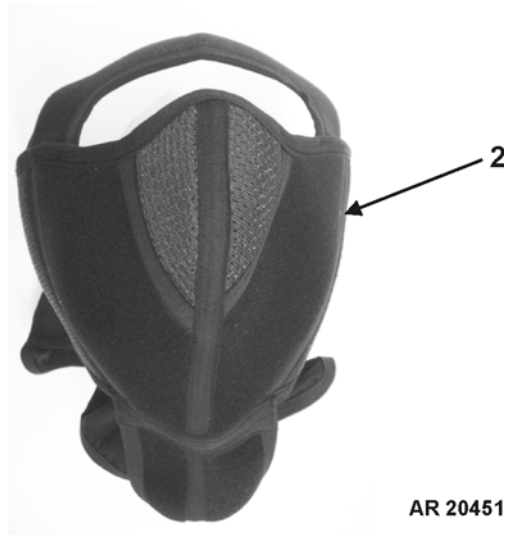
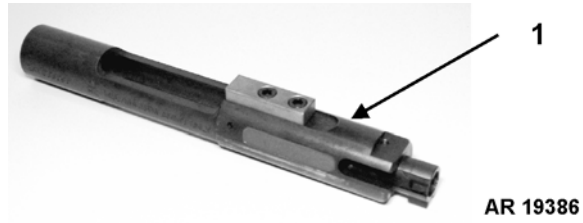


FIGURE 1. TRAINING DEVICE, FIRE DYE MARKING AMMO: KNOWN AS CCMCK TRAINING KIT FOR M16/M4.

(1)	(2)	(3)	(4)	(5)	(6)	(7)
ITEM NO.	SMR CODE	NSN	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 00	
					FIGURE 1. TRAINING DEVICE, FIRE DYE MARKING AMMO: KNOWN AS CCMCK TRAINING KIT FOR M16/M4	
					(19200) 13021072	
1	PAFFF	1005-99-132-2616	KE396	01-2117	KIT,CONVERSION,M16-M4: KNOWN AS CCMCK WEAPON CONVERSION KIT FOR M16/M4	1
2	PAFZZ	8415-99-359-9160	KE396	69-0304	MASK,COLD WEATHER: KNOWN AS CCMCK FACE MASK	1
END OF FIGURE						

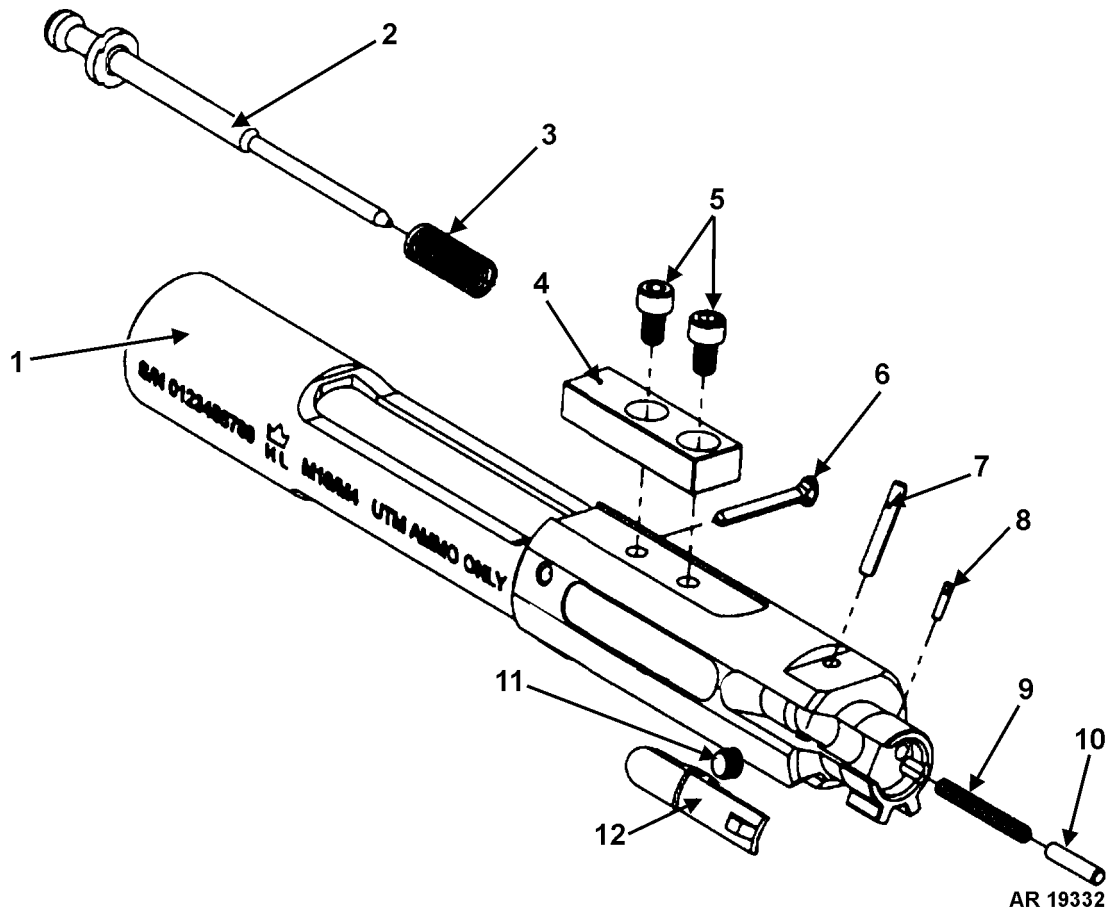


FIGURE 2. KIT, CONVERSION, M16-M4: KNOWN AS CCMCK WEAPON CONVERSION KIT FOR M16/M4.

(1)	(2)	(3)	(4)	(5)	(6)	(7)
ITEM NO.	SMR CODE	NSN	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 0001	
					FIGURE 2. KIT, CONVERSION, M16/M4: KNOWN AS CCMCK WEAPON CONVERSION KIT FOR M16/M4	
					(KE396) 01-2117	
1	XAFZZ	N/A	KE396	02-2132	BOLT/CARRIER,BARE:.....	1
2	PAFZZ	1005-99-409-6316	KE396	14-0395	FIRING PIN,SPECIAL:.....	1
3	PAFZZ	5360-99-215-3378	KE396	14-0394	SPRING,HELICAL,COMPRESSION: KNOWN AS FIRING PIN SPRING	1
4	XAFZZ	N/A	KE396	14-0359	KEY,CARRIER:.....	1
5	XAFZZ	N/A	KE396	14-0431	SCREW,CARRIER:.....	2
6	PAFZZ	5315-99-131-9360	KE396	14-0393	PIN,COTTER: KNOWN AS FIRING PIN RETAINING PIN	1
7	PAFZZ	5315-99-248-4514	KE396	14-0429	PIN,SPRING: KNOWN AS EXTRACTOR RETAINING PIN	1
8	PAFZZ	5315-99-436-5155	KE396	14-0333	PIN,SPRING: KNOWN AS EJECTOR RETAINING PIN	1
9	PAFZZ	5360-00-992-7292	19200	8448516	SPRING,HELICAL,COMPRESSION: KNOWN AS EJECTOR SPRING	1
10	PAFZZ	1005-00-992-7291	19204	8448515	EJECTOR,CARTRIDGE:	1
11	PAFZZ	1005-01-505-2886	19200	13004786	SPRING,ASSEMBLY,EXTRACTOR, SMALL ARMS:.....	1
12	PAFZZ	1005-00-992-7288	19204	8448512	EXTRACTOR,CARTRIDGE:.....	1
END OF FIGURE						

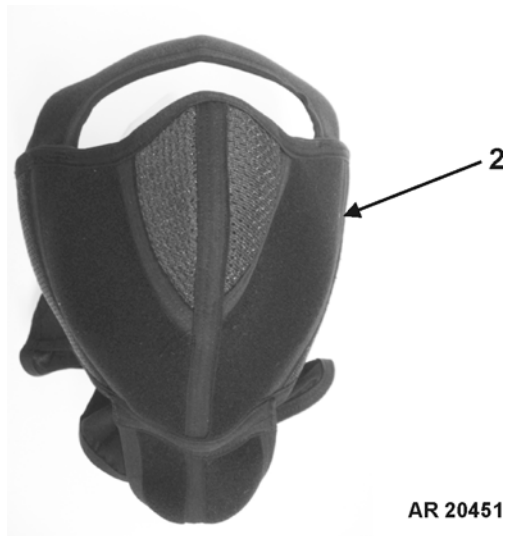
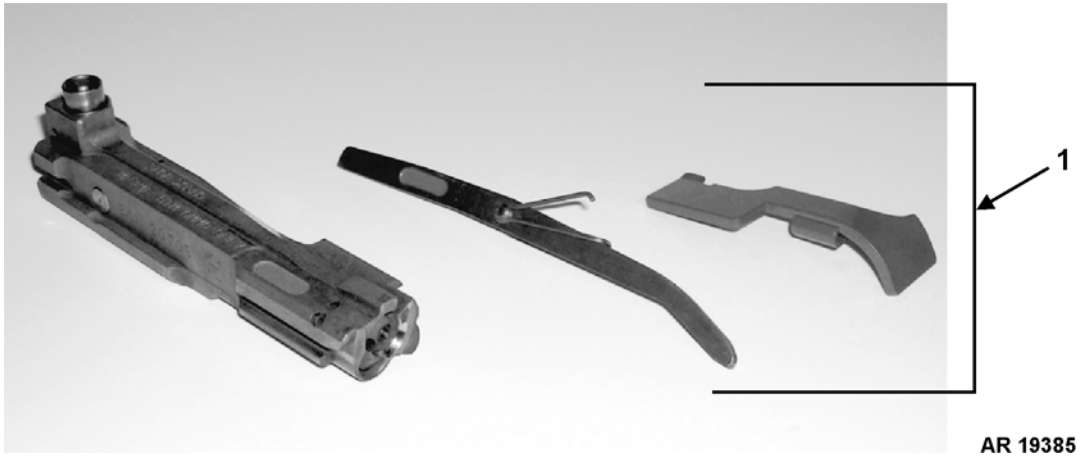


FIGURE 3. TRAINING DEVICE, FIRE DYE MARKING AMMO: KNOWN AS CCMCK TRAINING KIT FOR M249.

(1)	(2)	(3)	(4)	(5)	(6)	(7)
ITEM NO.	SMR CODE	NSN	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 01 FIGURE 3. TRAINING DEVICE, FIRE DYE MARKING AMMO: KNOWN AS CCMCK TRAINING KIT FOR M249 (19200) 13021071	
1	PAFFF	1005-99-848-0609	KE396	01-2010	BOLT,AUTOMATIC WEAPON: KNOWN AS CCMCK WEAPON CONVERSION KIT FOR M249.....	1
2	PAFZZ	8415-99-359-9160	KE396	69-0304	MASK,COLD WEATHER: KNOWN AS CCMCK FACE MASK.....	1
END OF FIGURE						

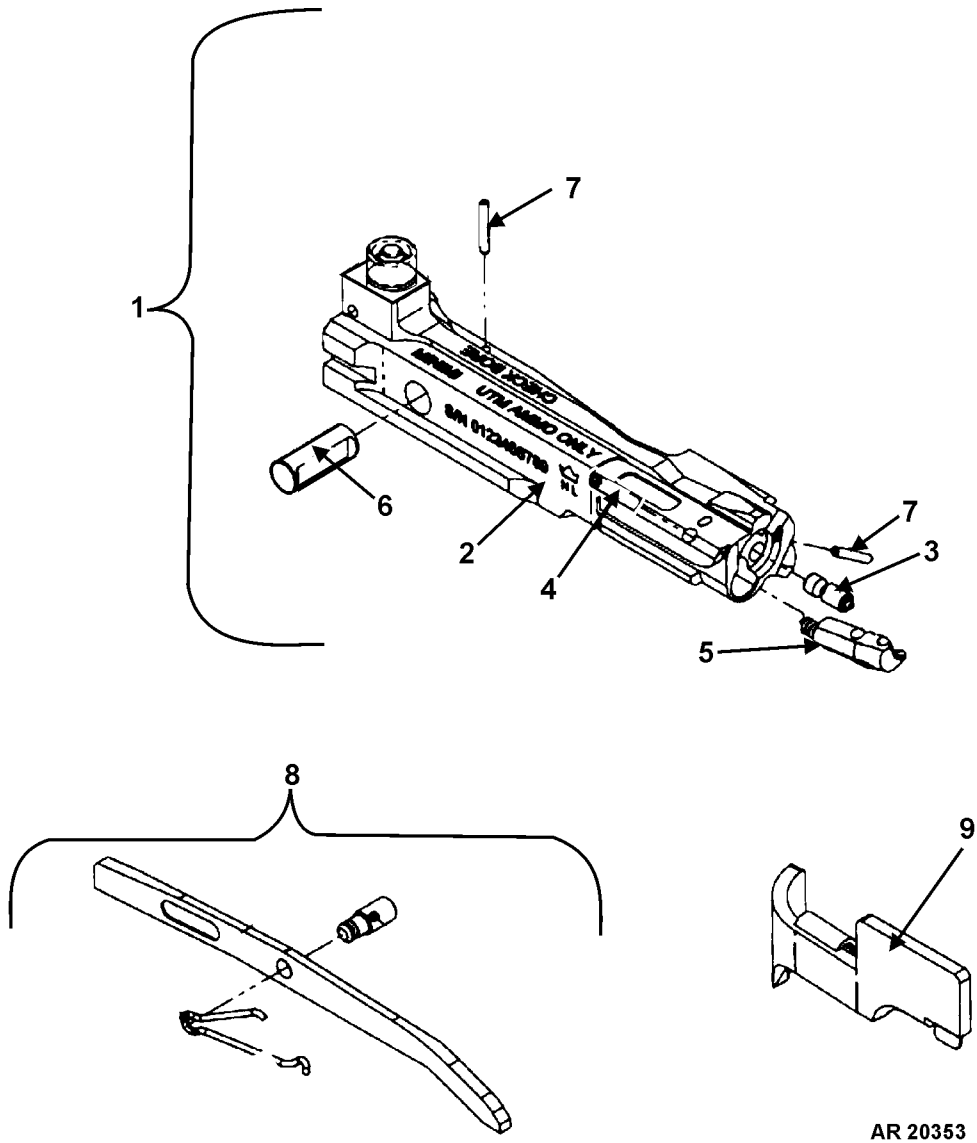


FIGURE 4. BOLT, AUTOMATIC WEAPON: KNOWN AS CCMCK WEAPON CONVERSION KIT FOR M249.

(1)	(2)	(3)	(4)	(5)	(6)	(7)
ITEM NO.	SMR CODE	NSN	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 0101	
					FIGURE 4. BOLT, AUTOMATIC WEAPON: KNOWN AS CCMCK WEAPON CONVERSION KIT FOR M249	
					(KE396) 01-2010	
1	XAFZZ	N/A	KE396	02-2083	BOLT ASSEMBLY: KNOWN AS BOLT AND SLIDE ASSEMBLY	1
2	XAFZZ	N/A	KE396	02-2078	BOLT/SLIDE,BARE:.....	1
3	PAFZZ	1005-99-444-0481	KE396	02-2080	PIN,FIRING:.....	1
4	PAFZZ	1005-99-666-4835	KE396	14-0487	PIN,COIL SPRING: KNOWN AS EXTRACTOR RETAINING PIN	1
5	PAFZZ	1005-99-705-2949	KE396	02-2130	EXTRACTOR ASSEMBLY:.....	1
6	PAFZZ	1005-01-128-5470	19200	9348393	PIVOT,SLIDE:	1
7	PAFZZ	5315-01-128-5626	19200	9348394	PIN,STRAIGHT,HEADLESS: KNOWN AS FIRING PIN RETAINING PIN AND PIVOT SLIDE RETAINING PIN	2
8	PAFZZ	1005-99-387-2244	KE396	02-2125	EJECTOR BLADE ASSEMBLY:.....	1
9	PAFZZ	1005-99-464-6593	KE396	02-2079	ADAPTER,FEED TRAY:	1
END OF FIGURE						

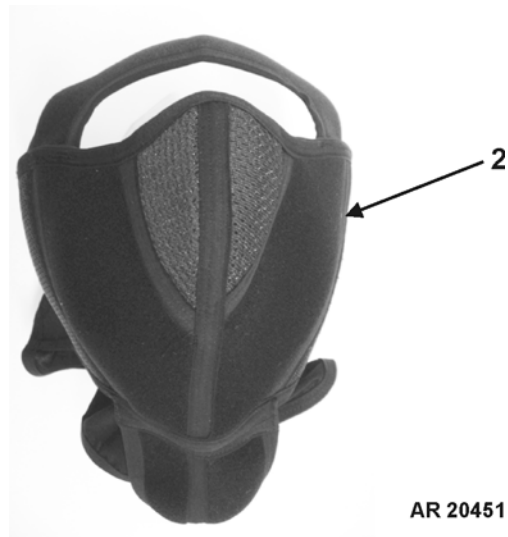


FIGURE 5. TRAINING DEVICE, FIRE DYE MARKING AMMO: KNOWN AS CCMCK TRAINING KIT FOR M9.

(1)	(2)	(3)	(4)	(5)	(6)	(7)
ITEM NO.	SMR CODE	NSN	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 02	
					FIGURE 5. TRAINING DEVICE, FIRE DYE MARKING AMMO: KNOWN AS CCMCK TRAINING KIT FOR M9	
					(19200) 13021070	
1	PAFFF	1005-20-003-2362	35921	5309420	CONVERSION KIT,MAN: KNOWN AS CCMCK WEAPON CONVERSION KIT FOR M9.....	1
2	PAFZZ	8415-99-359-9160	KE396	69-0304	MASK,COLD WEATHER: KNOWN AS CCMCK FACE MASK.....	1
END OF FIGURE						

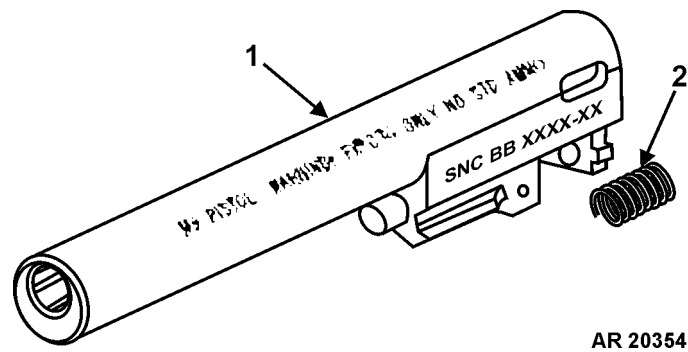


FIGURE 6. CONVERSION KIT, MAN: KNOWN AS CCMCK WEAPON CONVERSION KIT FOR M9.

(1)	(2)	(3)	(4)	(5)	(6)	(7)
ITEM NO.	SMR CODE	NSN	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 0201	
					FIGURE 6. CONVERSION KIT, MAN: KNOWN AS CCMCK WEAPON CONVERSION KIT FOR M9	
					(35921) 5309420	
1	XAFZZ	N/A	35921	5308275	BARREL,PISTOL:.....	1
2	PAFZZ	5360-01-171-5295	92830	C0240-020-1000M	SPRING,HELICAL,COMPRESSION:.....	1
END OF FIGURE						

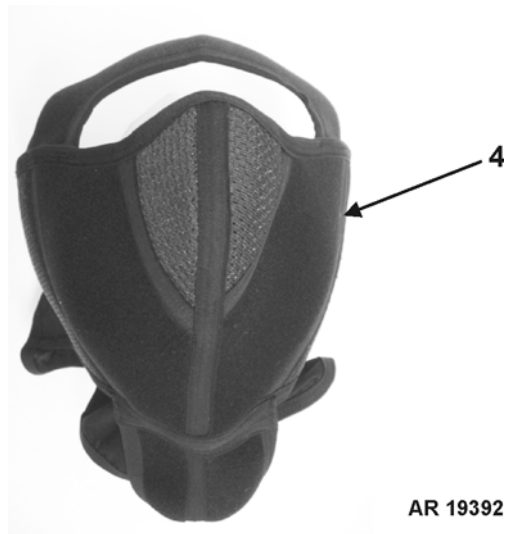
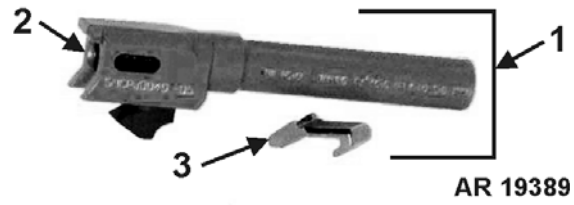


FIGURE 7. TRAINING DEVICE, FIRE DYE MARKING AMMO: KNOWN AS CCMCK TRAINING KIT FOR M11.

(1)	(2)	(3)	(4)	(5)	(6)	(7)
ITEM NO.	SMR CODE	NSN	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 03 FIGURE 7. TRAINING DEVICE, FIRE DYE MARKING AMMO: KNOWN AS CCMCK TRAINING KIT FOR M11 (19200) 13021069	
1	PAFFF	1005-20-003-2361	35921	5309430	CONVERSION KIT, MAN: KNOWN AS CCMCK WEAPON CONVERSION KIT FOR M11	1
2	XAFZZ	N/A	35921	5309432	BARREL, PISTOL:	1
3	XAFZZ	N/A	35921	5306910SP	FEED RAMP:	1
4	PAFZZ	8415-99-359-9160	KE396	69-0304	MASK, COLD WEATHER: KNOWN AS CCMCK FACE MASK	1
END OF FIGURE						

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FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
SPECIAL TOOLS LIST

NOTE

Before proceeding with Special Tools List, see Introduction to RPSTL (WP 0019 00).

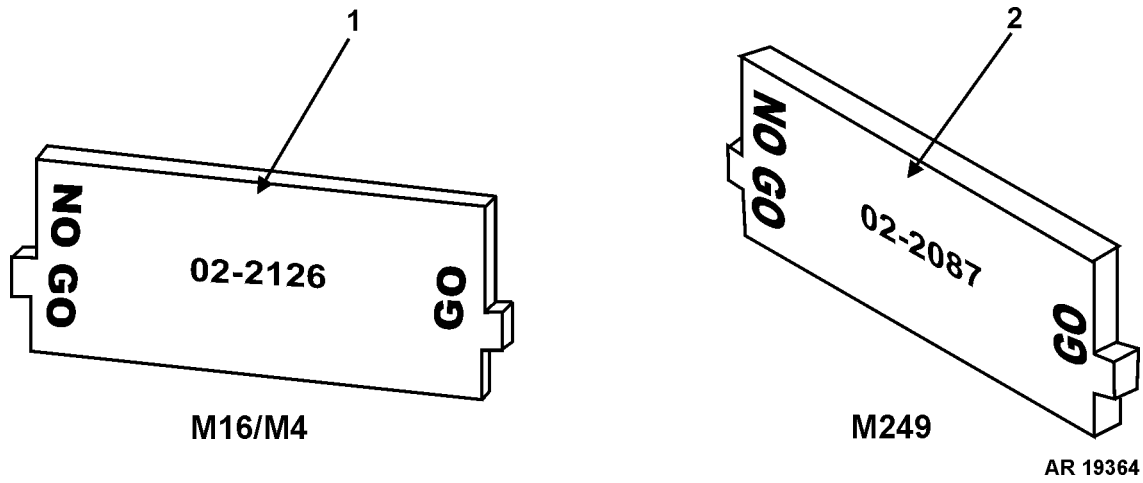


FIGURE 1. GAGE, FIRING PIN PROTRUSION: CCMCK, M16/M4 AND M249.

(1)	(2)	(3)	(4)	(5)	(6)	(7)
ITEM NO.	SMR CODE	NSN	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					FIGURE 1. GAGE, FIRING PIN PROTRUSION: CCMCK, M16/M4 AND M249	
1	PAFZZ	5220-99-776-0695	KE396	02-2126	GAGE, FIRING PIN PROTRUSION: CCMCK, M16/M4.....	1
2	PAFZZ	5220-99-232-8749	KE396	02-2087	GAGE, FIRING PIN PROTRUSION: CCMCK, M249.....	1
END OF FIGURE						

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FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
NATIONAL STOCK NUMBER INDEX

NOTE

Before proceeding with National Stock Number Index, see Introduction to RPSTL (WP 0019 00).

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
1005-00-992-7288	2	12	8415-99-359-9160	1	2
1005-00-992-7291	2	10		3	2
5360-00-992-7292	2	9		5	2
1005-01-128-5470	4	6		7	4
5315-01-128-5626	4	7	1005-99-387-2244	4	8
5360-01-171-5295	6	2	1005-99-409-6316	2	2
1005-01-505-2886	2	11	5315-99-436-5155	2	8
1005-20-003-2361	7	1	1005-99-444-0481	4	3
1005-20-003-2362	5	1	1005-99-464-6593	4	9
5315-99-131-9360	2	6	1005-99-666-4835	4	4
1005-99-132-2616	1	1	1005-99-705-2949	4	5
5360-99-215-3378	2	3	1005-99-848-0609	3	1
5315-99-248-4514	2	7			

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FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
PART NUMBER INDEX

NOTE

Before proceeding with Part Number Index, see Introduction to RPSTL (WP 0019 00).

PART NUMBER	FIG.	ITEM	PART NUMBER	FIG.	ITEM
C0240-020-1000M	6	2	14-0431	2	5
01-2010	3	1	14-0487	4	4
01-2117	1	1	5306910SP	7	3
02-2078	4	2	5308275	6	1
02-2079	4	9	5309420	5	1
02-2080	4	3	5309430	7	1
02-2083	4	1	5309432	7	2
02-2125	4	8	69-0304	1	2
02-2130	4	5		3	2
02-2132	2	1		5	2
13004786	2	11		7	4
14-0333	2	8	8448512	2	12
14-0359	2	4	8448515	2	10
14-0393	2	6	8448516	2	9
14-0394	2	3	9348393	4	6
14-0395	2	2	9348394	4	7
14-0429	2	7			

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FIELD MAINTENANCE
CLOSE COMBAT MISSION CAPABILITY KIT (CCMCK)
EXPENDABLE AND DURABLE ITEMS LIST

INTRODUCTION**Scope**

This work package lists expendable and durable items that you will need to operate and maintain Close Combat Mission Capability Kit (CCMCK). 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 clean rag (Item 2, WP 0024 00)).

Column (2) - Level. This column identifies the lowest level of maintenance that requires the listed item (C = Crew, F = Maintainer, H = Below Depot, D = Depot).

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 Measure (U/M). This code shows the physical measurement or count of an item, such as gallon, dozen, gross, etc.

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, PART NUMBER	(5) U/M
1	C	9150-01-102-1473	Cleaner, Lubricant and Preservative (CLP): 1/2 oz bottle (81349) MIL-PRF-63460	OZ
2	C	7920-00-205-1711	Rag, Wiping: 50 lb bale, unbleached, mixed colors (80244) 7920-00-205-1711	LB

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RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS For use of this form, see AR 25-30; the proponent agency is ODISC4.						Use Part II (<i>reverse</i>) for Repair Parts and Special Tool Lists (RPSTL) and Supply Catalogs/Supply Manuals (SC/SM).	DATE
TO: (<i>Forward to proponent of publication or form</i>) (<i>Include ZIP Code</i>)						FROM: (<i>Activity and location</i>) (<i>Include ZIP Code</i>)	
PART I - ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS							
PUBLICATION/FORM NUMBER TM 9-1375-225-12						DATE 18 Jun 99	TITLE SOF Demo Kit, M303
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>	
1						Page 0001 00-2. Change "Rock Island, IL 61201" to read "Aberdeen Proving Ground, MD 21010". Reason: Wrong Address.	
2				5		Page 0012 00-5. Add callout "2" to the shaft slinger in the illustration. Reason: Callout missing from illustration.	
<i>* Reference to line numbers within the paragraph or subparagraph.</i>							
TYPED NAME, GRADE OR TITLE						TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE

SAMPLE

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<small>TO: (Forward to proponent of publication or form) (Include ZIP Code)</small> LRED (AMSRD-AAR-EIL-LS) U.S. Army RDECOM, ARDEC Picatinny Arsenal, NJ 07806-5000						<small>FROM: (Activity and location) (Include ZIP Code)</small>	
PART I - ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS							
<small>PUBLICATION/FORM NUMBER</small> TM 9-6920-3700-23&P						<small>DATE</small> 13 Mar 09	<small>TITLE</small> Field Maintenance Manual for CCMCK
<small>ITEM NO.</small>	<small>PAGE NO.</small>	<small>PARA-GRAPH</small>	<small>LINE NO.*</small>	<small>FIGURE NO.</small>	<small>TABLE NO.</small>	<small>RECOMMENDED CHANGES AND REASON (Provide exact wording of recommended changes, if possible).</small>	
<small>* Reference to line numbers within the paragraph or subparagraph.</small>							
<small>TYPED NAME, GRADE OR TITLE</small>				<small>TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION</small>		<small>SIGNATURE</small>	

TO: <i>(Forward direct to addressee listed in publication)</i> LRED (AMSRD-AAR-EIL-LS) U.S. Army RDECOM, ARDEC Picatinny Arsenal, NJ 07806-5000	FROM: <i>(Activity and location) (Include ZIP Code)</i>	DATE
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PART II - REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS

PUBLICATION NUMBER			DATE		TITLE			
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	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
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RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS For use of this form, see AR 25-30; the proponent agency is ODISC4.						Use Part II (<i>reverse</i>) for Repair Parts and Special Tool Lists (RPSTL) and Supply Catalogs/Supply Manuals (SC/SM).		DATE	
TO: (<i>Forward to proponent of publication or form</i>) (<i>Include ZIP Code</i>) LRED (AMSRD-AAR-EIL-LS) U.S. Army RDECOM, ARDEC Picatinny Arsenal, NJ 07806-5000						FROM: (<i>Activity and location</i>) (<i>Include ZIP Code</i>)			
PART I - ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS									
PUBLICATION/FORM NUMBER TM 9-6920-3700-23&P						DATE 13 Mar 09		TITLE Field Maintenance Manual for CCMCK	
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>			
<i>* Reference to line numbers within the paragraph or subparagraph.</i>									
TYPED NAME, GRADE OR TITLE					TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION			SIGNATURE	

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PART II - REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS

PUBLICATION NUMBER			DATE	TITLE				
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	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
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TO: (<i>Forward to proponent of publication or form</i>) (<i>Include ZIP Code</i>) LRED (AMSRD-AAR-EIL-LS) U.S. Army RDECOM, ARDEC Picatinny Arsenal, NJ 07806-5000						FROM: (<i>Activity and location</i>) (<i>Include ZIP Code</i>)		
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PUBLICATION/FORM NUMBER TM 9-6920-3700-23&P						DATE 13 Mar 09		TITLE Field Maintenance Manual for CCMCK
ITEM NO.	PAGE NO.	PARA-GRAPH	LINE NO.*	FIGURE NO.	TABLE NO.	RECOMMENDED CHANGES AND REASON <small>(Provide exact wording of recommended changes, if possible).</small>		
<small>* Reference to line numbers within the paragraph or subparagraph.</small>								
TYPED NAME, GRADE OR TITLE						TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION		SIGNATURE

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Official:



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*Administrative Assistant to the
Secretary of the Army*

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GEORGE W. CASEY, JR.
*General, United States Army
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