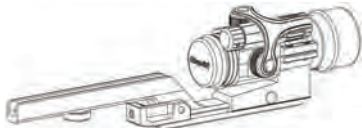


ARMY TM 9-1240-413-13&P*
AIR FORCE TO 11W3-5-5-121

**TECHNICAL MANUAL
OPERATOR AND FIELD MAINTENANCE MANUAL
INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST FOR
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT
(COMP M2: NSN 1240-01-411-1265)
(COMP M4: NSN 1240-01-540-3690)**



COMP M2



COMP M4

*Supersedes TM 9-1240-413-12&P, dated 25 July 2004.

DISTRIBUTION STATEMENT C: Distribution authorized to U.S. Government agencies and their contractors. This publication is required for administration and operational purposes, as determined 14 April 1993. Other requests for this document will be referred to: U.S. Army TACOM Life Cycle Management Command, ATTN: AMSTA-LC-LMPP, 1 Rock Island Arsenal, Rock Island, IL 61299-7630. Air Force requests for this document shall be referred to 584 CBSS/GBHDE Robins AFB, GA 31098-1813.

DESTRUCTION NOTICE: For unclassified, limited documents, destroy by any method that will prevent disclosure of contents or reconstruction of this document.

**HEADQUARTERS, DEPARTMENTS OF THE ARMY AND AIR FORCE
19 MARCH 2008**

TM 9-1240-413-13&P
WARNING SUMMARY

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

FIRST AID

For first aid information, refer to FM 4-25.11.

EXPLANATION OF SAFETY WARNINGS ICONS



ENEMY FIRE – hazard symbol indicates extreme danger for personnel from enemy fire.

GENERAL SAFETY WARNINGS DESCRIPTION

WARNING



At higher intensity settings, red dot is visible through front of sight. For night vision operations, close front lens cover before turning switch knob to positions 1 thru 4 (Comp M2) or positions 1 thru 7 (Comp M4). Check light for proper intensity before opening front lens cover. Close front lens cover before turning switch knob counterclockwise to the OFF position. Failure to follow this warning could reveal your position to your enemy.

a/b blank

TM 9-1240-413-13&P

LIST OF EFFECTIVE PAGES/WORK PACKAGES

NOTE: This manual supersedes TM 9-1240-413-12&P dated 25 June 2004, including all changes. Zero in the "Change No." column indicates and original page or work package

Date of issue for the original manual is:

Original..... 0..... 19 March 2008

**TOTAL NUMBER OF PAGES FOR FRONT AND REAR MATTER IS 24 AND TOTAL
NUMBER OF WORK PACKAGES IS 32, CONSISTING OF THE FOLLOWING:**

Page No.	Change No.	Page No.	Change No.
Title	0	WP 0006 00 (14 pages).....	0
Warning Summary (2 pages)	0	WP 0007 00 (4 pages).....	0
A thru B	0	Chp 3 title page	0
i-vii/viii blank	0	WP 0008 00 (2 pages).....	0
Chp 1 title page	0	Chp 4 title page	0
WP 0001 00 (8 pages)	0	WP 0009 00 (2 pages).....	0
WP 0002 00 (8 pages)	0	WP 0010 00 (4 pages).....	0
WP 0003 00 (2 pages)	0	WP 0011 00 (4 pages).....	0
Chp 2 title page	0	WP 0012 00 (4 pages).....	0
WP 0004 00 (2 pages)	0	WP 0013 00 (4 pages).....	0
WP 0005 00 (16 pages)	0	WP 0014 00 (4 pages).....	0

TM 9-1240-413-13&P

LIST OF EFFECTIVE PAGES/WORK PACKAGES – Continued

Page No.	Change No.	Page No.	Change No.
WP 0015 00 (8 pages)	0	WP 0024 00 (6 pages).....	0
WP 0016 00 (4 pages)	0	WP 0025 00 (6 pages).....	0
WP 0017 00 (4 pages)	0	WP 0026 00 (4 pages).....	0
WP 0018 00 (2 pages)	0	WP 0027 00 (6 pages).....	0
WP 0019 00 (4 pages)	0	WP 0028 00 (4 pages).....	0
Chp 5 title page	0	WP 0029 00 (2 pages).....	0
WP 0020 00 (4 pages)	0	WP 0030 00 (2 pages).....	0
WP 0021 00 (10 pages)	0	WP 0031 00 (4 pages).....	0
WP 0022 00 (4 pages)	0	WP 0032 00 (4 pages).....	0
WP 0023 00 (16 pages)	0	I-1 thru I-7/I-8 blank	0

***ARMY TM 9-1240-413-13&P
AIR FORCE TO 11W3-5-5-121**

**HEADQUARTERS
DEPARTMENTS OF THE ARMY AND AIR FORCE
WASHINGTON, D.C., 19 MARCH 2008**

TECHNICAL MANUAL

**OPERATOR AND FIELD MAINTENANCE MANUAL
INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST
FOR**

**M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT
(COMP M2: NSN 1240-01-411-1265)
(COMP M4: NSN 1240-01-540-3690)**

DISTRIBUTION STATEMENT C: Distribution authorized to U.S. Government agencies and their contractors. This publication is required for administration and operational purposes, as determined on 14 April 1993. Other requests for this document shall be referred to: U.S. Army TACOM Life Cycle Management Command, ATTN: AMSTA-LC-LMPP, 1 Rock Island Arsenal, Rock Island, IL 61299-7630. Air Force requests for this document shall be referred to 584 CBSS/GBHDE Robins AFB, GA 31098-1813.

DESTRUCTION NOTICE: Destroy by any method that will prevent disclosure of contents or reconstruction of the document.

*Supersedes TM 9-1240-413-12&P, dated 25 July 2004.

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

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

AIR FORCE (F) – Submit AFTO Form 22 through the respective MAJCOM in the Joint Computer-aided Acquisition and Logistics Support (JCALS) system. Follow the guidance in accordance with section 5 of Air Force Technical Order 00-5-1.

TABLE OF CONTENTS

	<u>WP Sequence No.</u>
	<u>Page No.</u>
WARNING SUMMARY	a/b blank
LIST OF EFFECTIVE PAGES	A
HOW TO USE THIS MANUAL.....	vi

**CHAPTER 1 – GENERAL INFORMATION, EQUIPMENT DESCRIPTION, AND
THEORY OF OPERATION**

General Information Work Package	0001 00
Equipment Description and Data Work Package	0002 00
Theory of Operation Work Package	0003 00

CHAPTER 2 – OPERATOR INSTRUCTIONS

Description and Use of Operator Controls and Indicators Work Package	0004 00
Comp M2 Operation Under Usual Conditions Work Package	0005 00
Comp M4 Operation Under Usual Conditions Work Package	0006 00
Operation Under Unusual Conditions Work Package	0007 00

CHAPTER 3 – TROUBLESHOOTING PROCEDURES

Troubleshooting Procedures Work Package.....	0008 00
--	---------

CHAPTER 4 – OPERATOR AND FIELD MAINTENANCE INSTRUCTIONS

Service Upon Receipt Work Package	0009 00
Preventive Maintenance Checks and Services (PMCS) Introduction Work Package	0010 00
Preventive Maintenance Checks and Services (PMCS), Including Lubrication Instructions Work Package	0011 00

TABLE OF CONTENTS (CON'T)

	<u>Page No.</u>	<u>WP Sequence No.</u>
CHAPTER 4 – OPERATOR AND FIELD MAINTENANCE INSTRUCTIONS - continued		
Lubrication Instructions and Anti-Reflection Device (ARD)		
Installation Instructions Maintenance Work Package	0012	00
Lens and Anti-Reflection Device (ARD) Cleaning Procedures		
Maintenance Work Package	0013	00
Comp M2 Switch Knob Replacement Maintenance Work Package ...	0014	00
Quick Release/Sights/Spacer Replacement		
Maintenance Work Package	0015	00
Battery Cap O-Ring Replacement Maintenance Work Package.....	0016	00
Adjustment Screw Housing O-Ring/Strap Replacement		
Maintenance Work Package	0017	00
Comp M2 Battery Cap Rubber Seal Replacement		
Maintenance Work Package	0018	00
Lens Cover Replacement Maintenance Work Package.....	0019	00
CHAPTER 5 – SUPPORTING INFORMATION		
References Work Package.....	0020	00
Introduction for Maintenance Allocation Chart (MAC) Work Package.	0021	00
Maintenance Allocation Chart (MAC) Work Package.....	0022	00
Repair Parts and Special Tools List (RPSTL) Work Package.....	0023	00

CHAPTER 5 – SUPPORTING INFORMATION - Continued

M68 Sight, Reflex, W/Quick Release Mount and Sight Mount	
Repair Parts List Work Package	0024 00
Sight, Repair Parts List Work Package	0025 00
Comp M2 Cap and Strap Assembly, Protective, Repair	
Parts List Work Package	0026 00
Quick Release Mount, Repair Parts List Work Package	0027 00
Sight Mount, Repair Parts List Work Package	0028 00
National Stock Number (NSN) Index Work Package	0029 00
Part Number (PN) Index Work Package	0030 00
Components of End Item (COEI) and Basic Issue	
Items (BII) Lists Work Package	0031 00
Expendable and Durable Items List Work Package	0032 00

ALPHABETICAL INDEX..... I-1

HOW TO USE THIS MANUAL

The safest, easiest, and best way to operate and maintain the sight is to use this manual. Learning to use this TM is as easy as reading through the next few pages of this section. Knowing what is in this manual and how to use it will save you time and work and will help you avoid exposing yourself to unnecessary hazards while performing your job.

So where do you start?

Right here, if this is the first time you are using this TM. Be sure to completely read this section on how to use this manual first. There's a lot of information here that you need to know.

ORGANIZATION

This manual covers the operation and maintenance of the sight. Unless otherwise indicated, operation and maintenance instructions in this manual apply to both the Comp M2 and Comp M4 configurations of the M68 Sight.

The manual itself is divided into five chapters. The five chapters, and what they contain, are found in the Table of Contents in the front of this manual. For example, to learn about operating the sight, you would look in the Table of Contents and discover that Chapter 2 provides all pertinent information about the operation of the sight. Since Chapter 2 covers a great deal of information, you will have to scan the chapter to find the specific information you will need.

TM 9-1240-413-13&P

In Chapter 5, you will find the supporting information. Each work package provides specific information that will assist you in performing the various operational and maintenance tasks. The work packages provide such information as additional references (i.e., other TMs or FMs), as in WP 0020 00, and Expendable and Durable Items List Work Package, as in WP 0032 00. Become familiar with all supporting information work packages and what they contain before beginning any operational or maintenance task.

Am I ready to use the TM?

If you've taken the time necessary to read this section, and are sure of the location and arrangement of the different sections of this TM, you are ready to begin. Remember, this TM has been arranged with you, the user, in mind. Your safety and ability to perform the operational and maintenance tasks in the most efficient manner possible hinge on your ability to perform and understand the information contained in this manual. If you fully understand the arrangement and purpose of this TM, and have taken the time to read through this section, you will have no trouble operating and maintaining the sight in the manner for which it was designed.

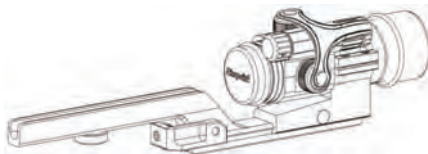
TM 9-1240-413-13&P

CHAPTER 1

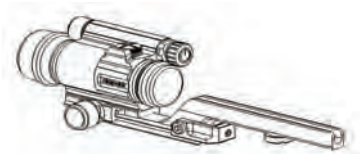
**GENERAL INFORMATION, EQUIPMENT DESCRIPTION,
AND THEORY OF OPERATION
FOR
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT**

OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT

GENERAL INFORMATION WORK PACKAGE



M68 Comp M2



M68 Comp M4

SCOPE**TYPE OF MANUAL**

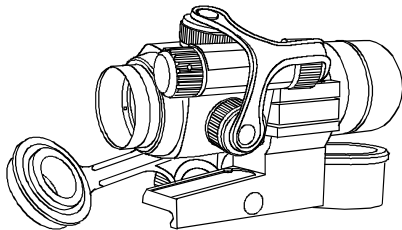
Operator and Unit Maintenance Manual including Repair Parts and Special Tools List.

MODEL NUMBER AND EQUIPMENT NAME

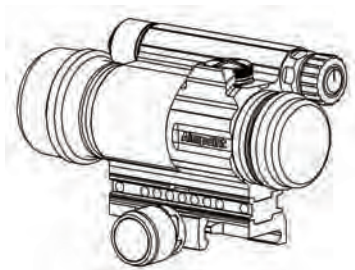
M68 Sight, Reflex, W/Quick Release Mount and Sight Mount. There are two configurations of the M68: the Comp M2 and the Comp M4.

PURPOSE OF EQUIPMENT

The M68 Reflex Sight w/Quick Release Mount is used on the M16A4 rifle and M4/M4A1 carbine.

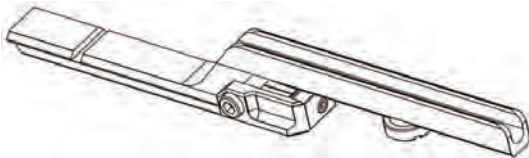


Comp M2



Comp M4

A Sight Mount is required only when using the M68 Sight with the M16A2 rifle.



MAINTENANCE FORMS, RECORDS, AND REPORTS

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

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIRS)

If your sight, w/quick release mount, or sight mount 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)

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

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

If a corrosion problem is identified, it should be reported using Standard Form 368, Product Quality Deficiency Report (QDR). Use of key words such as "corrosion", "rust", "deterioration", or "cracking" will ensure that the information is identified as a CPC problem. The form should be sent to:

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

DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE

Only your commanding officer can give the order to destroy materiel to prevent enemy use. Refer to TM 750-244-7.

PREPARATION FOR STORAGE OR SHIPMENT

Not Applicable.

WARRANTY INFORMATION

Aimpoint, Inc. warrants that the M68 Reflex Sight W/Quick Release Mount and Sight Mount shall be free from manufacturing defects in material and workman-ship for 24 months from the date of delivery. Each M68 has warranty expiration date and serial number on the sight. Record the date and number in the property book for future reference. This warranty does not apply to defects caused by improper handling, accidents, alterations, repairs made by unauthorized personnel, or failure to follow operation and maintenance instructions. Please send an SF 368 to the address listed in WP 0001 00, page 0001 00-3, Reporting Equipment Improvement Recommendations (EIRs), to begin the warranty replacement action and note serial number and warranty expiration date.

NOMENCLATURE CROSS-REFERENCE LIST**Command Name****Official Nomenclature**

Battery Spring.....	Spring, Helical, Compression
Front and Rear Lens Cover.....	Cover, Gunsight
Mount	Sight Mount
M68 Reflex Sight.....	M68 Sight, Reflex, W/Quick Release Mount
Quick Release.....	Mount, Quick Release
Sight Assembly.....	Sight Assembly, Reflex W/Quick Release
Spacer	Spacer, Special Shaped
Top	Spacer, Plate
Battery Cylinder.....	Bushing Sleeve
Switch Knob	Rotary Switch
C-Clamp	Double Angle Bracket

LIST OF ABBREVIATIONS/ACRONYMS**Abbreviation/Acronym****Definition**

LED	Light Emitting Diode
MOA	Minute of Angle
NVD.....	Night Vision Device

QUALITY OF MATERIAL

Non-Applicable.

SAFETY, CARE, AND HANDLING

Non-Applicable.

SUPPORTING INFORMATION FOR REPAIR PARTS, SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT**COMMON TOOLS AND EQUIPMENT**

For authorized common tools and test equipment, refer to the Maintenance Allocation Chart (MAC), WP 0022 00, page 0022 00-3/4 blank.

SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT

There are no special tools required for the M68 Reflex Sight W/Quick Release Mount and Sight Mount.

REPAIR PARTS

Repair Parts and Special Tools List (RPSTL) Work Packages are listed and illustrated in Chapter 5, Supporting Information, WP 0023 00, page 0023 00-1 through WP 0030 00, page 0030 00-1, of this manual.

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT

EQUIPMENT DESCRIPTION AND DATA WORK PACKAGE

EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES

The M68 Reflex Sight is a robust precision electronic optical red dot sight. The construction parameters are based on the actual performance of the gun and sight during the moment of firing. The sight mount allows the M68 Reflex Sight to be used with an M16A2 rifle. Without the sight mount, the M68 Reflex Sight W/Quick Release Mount can be used on the M16A4 rifle and the M4/M4A1 Carbine.

There are two configurations: the Comp M2 and the Comp M4

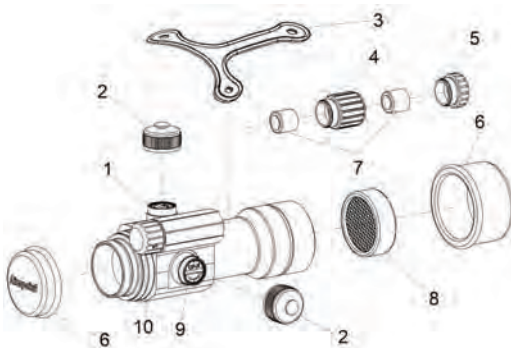
Removal of the Anti-Reflection Device (ARD) could lead to your detection by the enemy.

The front objective lens is an anti-reflective coated lens system with an Anti-Reflection Device (ARD).

These parts are removed by rotation in the counterclockwise direction.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS**COMP M2 SIGHT**

- (1) Elevation adjustment screw
- (2) Adjustment cap
- (3) Rubber strap
- (4) Double battery holder
- (5) Battery cap
- (6) Front and rear lens cover
- (7) Battery and spare battery
- (8) Anti-Reflection Device (ARD) (BII)
- (9) Windage adjustment screw
- (10) Rotary switch



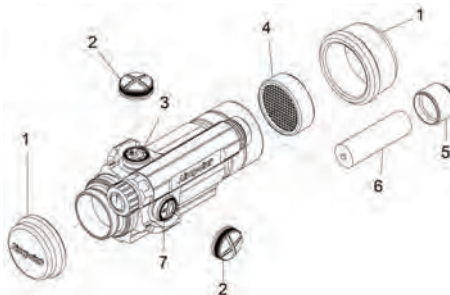
NSN: 1240-01-411-1265

NOTE

If your Comp M2 is configured with a single piece battery cap, refer to WP 0026 for configuration breakout and instructions.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS – Continued**COMP M4 SIGHT**

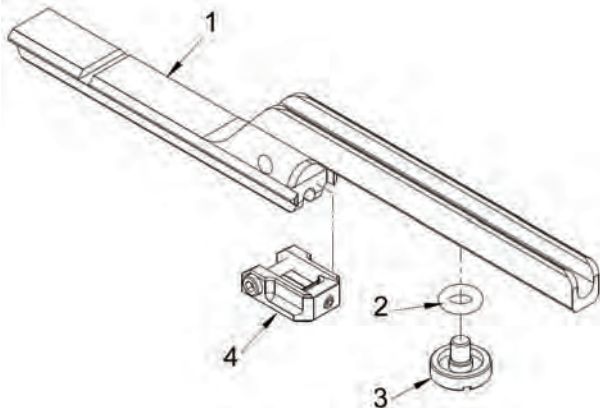
- (1) Front and rear lens cover
- (2) Adjustment cap
- (3) Elevation adjustment screw
- (4) Anti-Reflection Device (ARD) (BII)
- (5) Battery cap
- (6) Battery
- (7) Windage adjustment screw



NSN: 1240-01-540-3690

MOUNT

- (1) Rail
- (2) O-ring
- (3) Machine Screw
- (4) C-Clamp



NSN: 1240-01-547-9280

DIFFERENCES BETWEEN MODELS

COMP M2	COMP M4
Single one-piece rubber made lens cover for the Front and Rear Lens Cover.	Integral mount that eliminates the separate ring, and can be customized with vertical and forward spacers to fit a variety of weapon systems.
Battery Cylinder	AA battery powered; up to 80,000 hours of use on a single good quality battery.
Sealed Adjustment Screws with O-rings to eliminate moisture in sight.	Improved adjustment caps are easier to remove, and are protected against impact.
Light Emitting Diode (LED) with improved power efficiency. Improving battery life to 30 times at the same dot brightness.	Brighter LED.
Night Vision Device (NVD) positions increased; Increased brightness at brightest setting (Off position is used as the lowest NVD position).	NVD positions increased to 7; Increased brightness at brightest setting (Off position is used as the lowest NVD position).

EQUIPMENT DATA

	<u>COMP M2</u>	<u>COMP M4</u>
Optics:	Parallax free, anti-reflective coated lens system	Parallax free, anti-reflective coating all surfaces. Multi-layer coating for reflection of red light. Band Pass coating for NVD compatibility
Length (sight):	5.1 in. (130mm)	5.3 in. (135mm)
Length (mount):	10.24 in. (260mm)	4.7 in. (120mm)
Weight (sight):	7.0 oz (200 g)	9.3 oz (265 g)
Weight (quick release):	3.5 oz (100 g)	2.5 oz (70 g)
Weight (mount):	4.55 oz (129 g)	5.5 oz (155 g)

EQUIPMENT DATA – Continued

	<u>COMP M2</u>	<u>COMP M4</u>
Dot Diameter:	1.0 in. at 25 yd (4 MOA), 30mm at 25m (4 MOA)	(2 MOA)
Battery Life:	500 to 10,000 hr. average (fresh battery). Sight is packed with two fresh batteries from the factory	Up to 80,000 hours average (fresh battery). 500,000 hr. avg. at NVD setting

END OF WORK PACKAGE

**OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT**

THEORY OF OPERATION WORK PACKAGE

THEORY OF OPERATION

The M68 sight is a reflex (non-telescopic) sight. It uses a red aiming reference (collimated dot) and is designed for the "two eyes open" method of sighting. The dot follows the horizontal and vertical movement of the gunner's eye while remaining fixed on the target. No centering is required.

Front and rear lens covers protect the lenses when the sight is being transported or stored. The front and rear lens covers should always be kept closed when the sight is not in use.

The Comp M2 adjustment caps and battery cap have O-rings that keep out moisture. The Comp M4 adjustment caps have straps and battery cap has an O-ring that keep out moisture. Before immersing the sight in water or using it in the rain, verify that the caps are snug by hand tightening them.

NOTE

Keep Both Eyes Open. With both eyes open you will be more aware of your surroundings.

The M68 Reflex Sight must remain matched with the same weapon, attached at the same slot in the rail system, or be re-zeroed. Since the M68 must be removed when the weapon is stored, note the serial number and the rail slot to enable return of same sight to the same rail slot on the same weapon to retain zero. The serial number is located on the bottom of the sight. Zero weapon if same sight is not returned to the same slot.

END OF WORK PACKAGE

TM 9-1240-413-13&P

CHAPTER 2

**OPERATOR INSTRUCTIONS
FOR
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT**

OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT

DESCRIPTION AND USE OF OPERATOR CONTROLS AND INDICATORS WORK PACKAGE

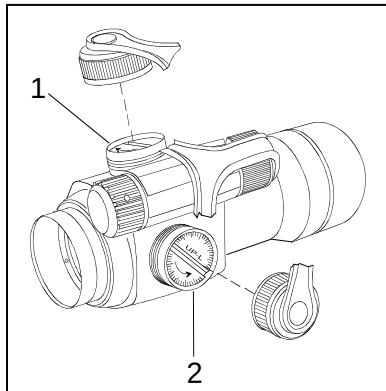
NOTE: *Comp M2 illustrated; procedures identical for Comp M4

ELEVATION ADJUSTMENT SCREW

Used when zeroing weapon. Turning elevation adjustment screw (1) clockwise one click moves the point of impact down 4mm at 25 meters (1/2 minute of angle (MOA)). Turning elevation adjustment screw (1) counterclockwise one click moves the point of impact up 4mm at 25 meters (1/2 MOA).

WINDAGE ADJUSTMENT SCREW

Used when zeroing weapon. Turning windage adjustment screw (2) clockwise one click moves the point of impact left 4mm at 25 meters (1/2 MOA). Turning windage adjustment screw (2) counterclockwise one click moves the point of impact right 4mm at 25 meters (1/2 MOA).



END OF WORK PACKAGE

**OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT
COMP M2 OPERATION UNDER USUAL CONDITIONS WORK PACKAGE**

SECURITY MEASURES FOR ELECTRONIC DATA

Non-Applicable.

ASSEMBLY AND PREPARATION FOR USE

UNPACKING

NOTE

The special shaped spacer is to be installed only on the M16A4 rifle and the M4/M4A1 carbine. For the M16A2 rifle, the special spaced spacer is not required.

1. Remove M68 Reflex Sight W/Quick Release Mount from shipping carton.
2. Remove special shaped spacer, screws, sight mount and two batteries from shipping carton.
3. Save carton for M68 Reflex Sight storage. Record serial number and warranty expiration date. Serial number is located on the bottom of the sight.

COMP M2—ASSEMBLY AND PREPARATION FOR USE – Continued**BATTERY REPLACEMENT AND CHECK (OPERATOR)****NOTE**

The M68 Comp M2 sight uses lithium-manganese dioxide batteries which, when depleted, are to be disposed of in accordance with technical bulletin, TB 43-0134, Battery Disposition and Disposal, para 4-5, and local regulations and procedures (contact your local defense reutilization and marketing office (DRMO) for assistance). Certain states identify lithium-manganese dioxide batteries as hazardous waste; these states are Alaska, California, Minnesota, Rhode Island, and Washington at present.

NOTE

Duracell DL 1/3N lithium-manganese batteries are the “preferred” battery. Eveready 2L76, Kodak K58L, Varta CR 1/3N, and Maxell Gold 2L76 are suitable replacements. Least preferred non-lithium alternatives: 2 each energizer A76 batteries in series or 2 each energizer 357 batteries in series.

The least preferred battery should only be used in an emergency or when all efforts to attain the recommended battery or preferred alternatives have failed and your mission cannot be completed without the use of the least preferred alternative. The battery life of the least preferred batteries will be less than half that of the preferred batteries.

NOTE

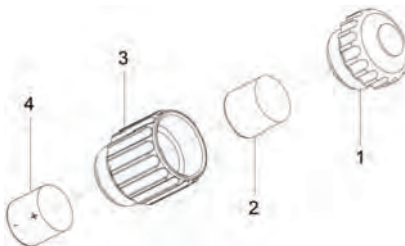
When the battery is properly installed, the sight will function properly. However, if the battery is not installed correctly, there is a potential for a short circuit. There are three main causes for this condition. The first is unauthorized intentional modification to the sight's battery housing assembly by bending the prongs on the 6-pronged clip. The second cause is the absence of the rubber O-ring, which degrades the positive connection with the battery. The third cause is the occlusion of the negative connection post by the foam pad. The pad should allow the spring connector in the center to protrude a slight amount from the top of the pad. If the pad covers the spring post completely, the sight will not function.

CAUTION

Before installing battery cap, inspect threads on battery housing and battery cap to ensure that they are free of moisture and dirt and that the O-ring in the battery cap is present. Inspect the battery housing assembly during every battery change. Ensure that the prongs on the clip do not extend over the top of the foam pad. Ensure that the rubber O-ring is present on the 6-pronged positive connection post. Ensure that the spring connector is not corroded and protrudes slightly from the foam pad. Ensure that the rubber O-ring on the battery cap is present and the battery cap is tightly sealed after every battery change, to prevent corrosion of the interior components of the battery housing. If the spring connector becomes corroded, clean it with a wire brush.

COMP M2—ASSEMBLY AND PREPARATION FOR USE – Continued**INSTALLING AND CHECKING BATTERY**

1. Remove battery cap (1) and double battery holder (3) from battery cylinder by turning them each counterclockwise.
2. Insert spare battery (2) into the double battery holder (3). Makes no difference which way the spare battery is inserted.
3. Insert battery (4) with positive (+) end into double battery holder (3) (WP 0032 00, page 0032 00-3/4 blank, Item 1).
4. Install batteries and holder into battery cap (1). Install battery cap and holder assembly by turning clockwise until snug.

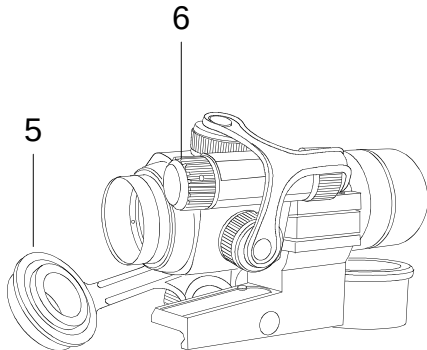
**CAUTION**

Hand tighten battery cap. Using tools to tighten battery cap could damage equipment.

WARNING

At higher intensity settings, red dot is visible through front of sight. Ensure that front and rear lens covers are closed before turning switch knob clockwise to ON position. Failure to follow this warning could reveal your position to your enemy.

5. Remove rear lens cover (5). Turn switch knob (6) clockwise and look through rear lens. Verify that red dot is present. If red dot is not present, turn switch knob (6) counterclockwise to OFF position, replace battery. Then close rear lens cover (5). Repeat verification.



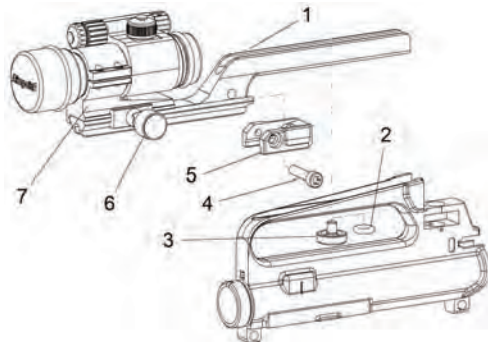
COMP M2—ASSEMBLY AND PREPARATION FOR USE – Continued**INSTALLING MOUNT, SIGHT ON M16A2 RIFLE****CAUTION**

Hand tighten mounting hardware only. Using tools to tighten mounting hardware could damage equipment.

NOTE

The special shaped spacer is not required for mounting the M16A2 rifle. When mounting on the M16A2 rifle, the special shaped spacer is removed. Four short screws are used when only the special shaped spacer is not installed (Reference page WP 0014 00-1).

1. Install sight mount (1) on M16A2 rifle handle using O-ring (2), mounting bolt (3), and C-Clamp (5) with bolt (4). Hand tighten mounting bolt (2).
2. Install sight w/quick release mount (7) on sight mount (1). To ensure that sight is secure, tighten torque knob (6) until it snaps two times. Hand tighten only.
3. Zero weapon (WP 0005 00, page 0005 00-9).



COMP M2—ASSEMBLY AND PREPARATION FOR USE – Continued
INSTALLING SIGHT ON M16A4 RIFLE AND M4/M4A1 CARBINE**CAUTION**

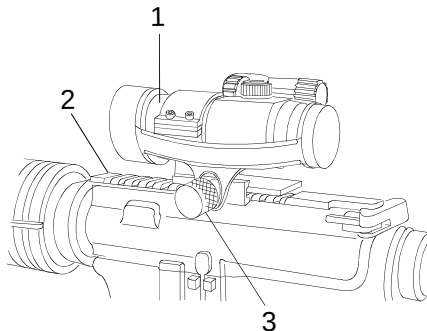
Hand tighten mounting hardware only. Using tools to tighten mounting hardware could damage equipment.

NOTE

The sight w/quick release mounts directly to the accessory mounting rail on top of the M16A4 rifle and the M4/M4A1 carbine. The sight mount is not required. Make sure the special shaped spacer has been installed before mounting the M68 on the M16A4 rifle and the M4/M4A1 carbine. See WP 0011 00, page 0011 00-08, for installation procedures for special shaped spacer.

If the same sight is installed in the same position on the rail on the same weapon, re-zeroing is not required.

1. Install sight assembly (1) on mounting rail (2). Sight (1) may be installed in any slot on the mounting rail (2) with base of M68 not extending past end of rail (no overhang is allowed). Make sure grabber edges are around mounting rail (2) and torque bar is in slot. To ensure that sight assembly (1) is secure, tighten torque knob (3) until it snaps two times. Hand tighten only.
2. Zero weapon (WP 0005 00, page 0005 00-10).



COMP M2—ASSEMBLY AND PREPARATION FOR USE – Continued
OPERATING PROCEDURES**ZEROING****NOTE**

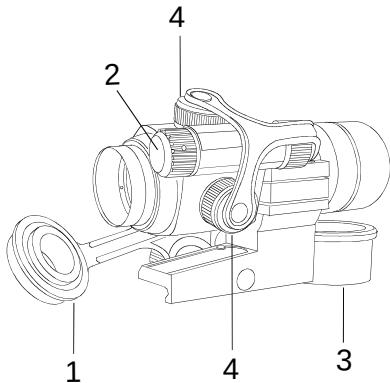
Elevation adjustment screw is located on top of sight. Windage adjustment screw is located on the right side of sight.

The offset for the M68 at 25 meter zero is 1.5 centimeters below point of aim.

Adjustment is centered at the factory. To provide maximum adjustment, do not adjust screws until sight is mounted.

Sight has a circular sized adjustment area with a diameter of 6 ft at 100 yds (2.0m at 100m).

1. In order to use iron sights for initial zeroing of the M68 sight, zero weapon using established procedures in TM 9-1005-319-10. If not using iron sights for initial zeroing, go directly to step 8.
2. Open rear lens cover (1).
3. Turn switch knob (2) clockwise until red dot appears. Open front cover (3), adjust intensity with target background.
4. Look through the M68 and note the location of the red dot and the front sight post. Make necessary windage and elevation adjustment (4) to the M68 until the red dot is positioned on top of the front sight post. This procedure is for rough alignment to ensure rounds on paper for final zeroing. Following this rough alignment, red dot has no use with iron sights.

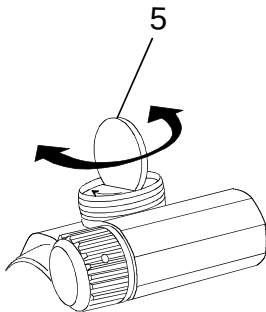


5. If adjustment is required, remove adjustment screw caps (4) from adjustment screws by turning counterclockwise.

COMP M2—OPERATING PROCEDURES – Continued**NOTE**

Each click of the adjustment screw makes a 4mm movement of the point of impact at 25m (1/2 MOA).

6. Insert adjustment tool (5) (coin, screwdriver) in adjustment screw slot. Turn adjustment screw as follows:
 - a. To move the point of impact to the right, turn windage adjustment screw counterclockwise.
 - b. To move the point of impact to the left, turn windage adjustment screw clockwise.
 - c. To move point of impact up, turn elevation adjustment screw counterclockwise.
 - d. To move the point of impact down, turn elevation adjustment screw clockwise.



7. Repeat steps 4 and 6 until sight is roughly zeroed.

NOTE

An offset is used on the M16A2 zero target with a 1.5 square lower offset point with a 4cm box outlined around that point and shaded for a designated strike zone.

8. Confirm zeroing by firing at least three shots at a zeroing target. Check impact points on zeroing target to confirm accuracy.

NOTE

After initial firing, check to ensure that mount and sight (M16A2 rifle) or sight (M16A4 rifle and M4/M4A1 carbine) are secure. On M16A2 rifle, hand tighten mounting bolt on sight mount then hand tighten torque knob on sight until it snaps twice. On M16A4 rifle and the M4/M4A1 carbine, hand tighten torque knob on sight until it snaps twice.

9. If zeroing is accurate, fire three more shots to confirm. If zeroing is not accurate, repeat steps 6 and 8 until zeroing is complete. Upon completion of zeroing you now have a battle sight zero of 300 meters.

NOTE

No correlation to iron sights; for example, red dot does not have to be centered or need not be aligned with front sight post when zeroed.

COMP M2—OPERATING PROCEDURES – Continued**NOTE**

On M16A4 rifle and the M4/M4A1 carbine, reconfirm zero if M68 sight is moved to a different slot on the rail.

10. Turn switch knob (2) to OFF position (counterclockwise).
11. Close front lens cover (1) and rear lens cover (3).

NOTE

Before installing adjustment caps, inspect threads and adjustment caps to ensure that they are free of damage, moisture and dirt, and that the O-rings are installed.

CAUTION

Hand tighten adjustment caps only. Using tools to tighten adjustments caps will damage threads.

12. Install adjustment caps (4) by rotating clockwise and hand tighten.

LIGHT ADJUSTMENT

WARNING



At higher intensity settings, red dot is visible through front of sight. For night vision operations, close front lens cover before turning switch knob clockwise to position 1, 2, 3, or 4. Check light for proper intensity before opening front lens cover. Close front lens cover before turning switch knob counterclockwise to OFF position. Failure to follow this warning could reveal your position to your enemy.

NOTE

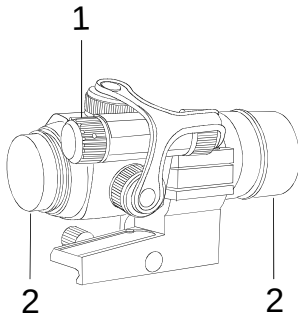
Sight is equipped with 10 positions for different dot intensity settings. The "OFF" position is the same as the lowest night vision setting.

NOTE

See Field Manual 3-22.9 for Rifle Marksmanship M16A1, M16A2/3, M16A4, and M4 Carbine.

COMP M2—OPERATING PROCEDURES – Continued

1. To make light adjustments, turn switch knob (1) clockwise. The first four positions are low intensity for night vision operations. The fifth position is the lowest daytime settings. The last position is the extra high intensity setting.
2. Close front and rear lens covers (2) and turn switch knob (1) counterclockwise to OFF position when the sight is not being used.

**SIGHTING**

Place red dot on target. Red dot does not have to be centered in sight.

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT
COMP M4 OPERATION UNDER USUAL CONDITIONS WORK PACKAGE

SECURITY MEASURES FOR ELECTRONIC DATA

Non-Applicable.

ASSEMBLY AND PREPARATION FOR USE

UNPACKING

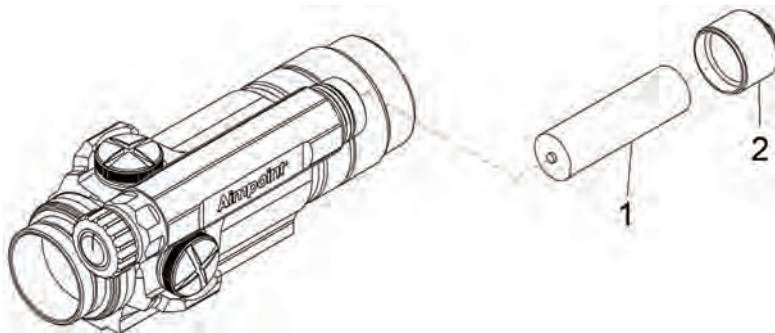
NOTE

The spacer is to be installed only on the M16A4 rifle and the M4/M4A1 carbine. For the M16A2 rifle, the spacer is not required.

1. Remove M68 Reflex Sight W/Quick Release Mount from shipping carton.
2. Remove spacer, screws, sight mount and battery from shipping carton.
3. Save carton for M68 Reflex Sight storage. Record serial number and warranty expiration date. Serial number is located on the bottom of the sight.

COMP M4—ASSEMBLY AND PREPARATION FOR USE – Continued**BATTERY REPLACEMENT AND CHECK (OPERATOR)****CAUTION**

Before installing battery cap, inspect threads on battery housing and battery cap to ensure that they are free of moisture and dirt and that the O-ring in the battery cap is present. Inspect the battery housing assembly during every battery change. Ensure that the spring connector is not corroded and protrudes slightly from the foam pad. Ensure that the rubber O-ring on the battery cap is present and the battery cap is tightly sealed after every battery change, to prevent corrosion of the interior components of the battery housing. If the spring connector becomes corroded, clean it with a wire brush.



INSTALLING AND CHECKING BATTERY

1. Remove Cap Battery (1) by turning it counterclockwise.
2. Insert a AA-size battery (2) with negative (-) end toward cap.

CAUTION

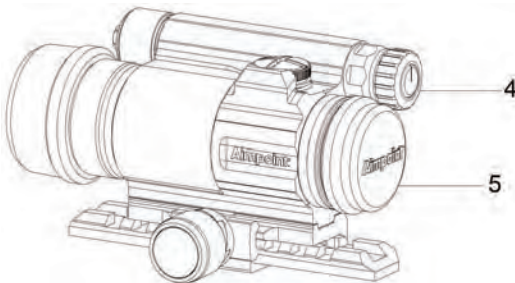
Hand tighten battery cap. Using tools to tighten battery cap could damage equipment.

3. Install Cap Battery by turning clockwise until snug.

COMP M4—ASSEMBLY AND PREPARATION FOR USE – Continued**WARNING**

At higher intensity settings, red dot is visible through front of sight. Ensure that front and rear lens covers are closed before turning switch knob clockwise to ON position. Failure to follow this warning could reveal your position to your enemy.

4. Remove rear lens cover (3).
5. Turn switch knob (4) clockwise and look through rear lens.
6. Verify that red dot is present. If red dot is not present, turn switch knob (4) counterclockwise to OFF position, replace battery. Then close rear lens cover (3). Repeat verification.



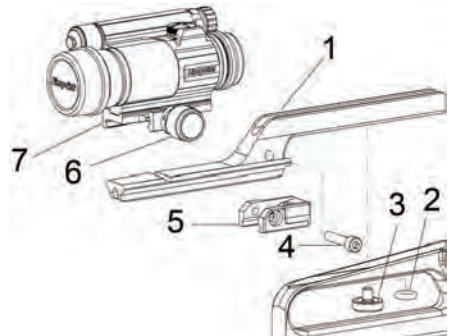
INSTALLING MOUNT, SIGHT ON M16A2 RIFLE**CAUTION**

Hand tighten mounting hardware only. Using tools to tighten mounting hardware could damage equipment.

NOTE

The spacer is not required for mounting the M16A2 rifle. When mounting on the M16A2 rifle, the spacer is removed. Two short screws are used when the spacer is not installed (Reference page WP 0014 00-6).

1. Install sight mount (1) on M16A2 rifle handle using O-ring (2) and mounting bolt (3). Loosely hand tighten bolt.
2. Install C-Clamp (5) from inside the M16A2 rifle handle and push it forward over the sight mount.
3. Mount the Screw (4) to the C-Clamp.
4. Alternately tighten the Screw and the Stop Screw, starting with the Screw.
5. Hand tighten bolt (3).



COMP M4—ASSEMBLY AND PREPARATION FOR USE – Continued

2. Install sight w/quick release mount (7) on sight mount (1). To ensure that sight is secure, tighten torque knob (6) until it snaps two times. Hand tighten only.
3. Zero weapon (WP 0006 00, page 0005 00-8).

INSTALLING SIGHT ON M16A4 RIFLE AND M4/M4A1 CARBINE**CAUTION**

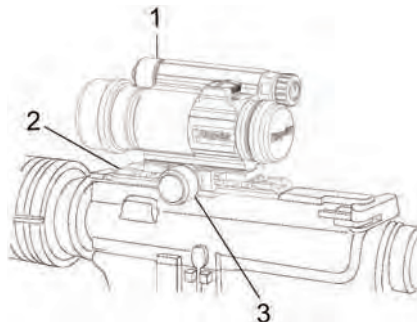
Hand tighten mounting hardware only. Using tools to tighten mounting hardware could damage equipment.

NOTE

The sight w/quick release mounts directly to the accessory mounting rail on top of the M16A4 rifle and the M4/M4A1 carbine. The sight mount is not required. Make sure the spacer has been installed before mounting the M68 on the M16A4 rifle and the M4/M4A1 carbine. See WP 0014 00, page 0011 00-07, for installation procedures for spacer.

If the same sight is installed in the same position on the rail on the same weapon, re-zeroing is not required.

1. Install sight assembly (1) on mounting rail (2). Sight (1) may be installed in any slot on the mounting rail (2) with base of M68 not extending past end of rail (no overhang is allowed). Make sure grabber edges are around mounting rail (2) and torque bar is in slot. To ensure that sight assembly (1) is secure, tighten torque knob (3) until it snaps two times. Hand tighten only.
2. Zero weapon (WP 0006 00, page 0005 00-8).



COMP M4—ASSEMBLY AND PREPARATION FOR USE – Continued
OPERATING PROCEDURES**ZEROING****NOTE**

Elevation adjustment screw is located on top of sight. Windage adjustment screw is located on the right side of sight.

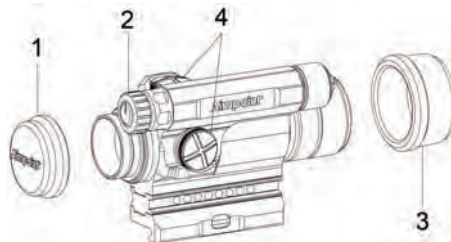
The offset for the M68 at 25 meter zero is 1.5 centimeters below point of aim.

Adjustment is centered at the factory. To provide maximum adjustment, do not adjust screws until sight is mounted.

Sight has a circular sized adjustment area with a diameter of 6 ft at 100 yds (2.0m at 100m).

1. In order to use iron sights for initial zeroing of the M68 sight, zero weapon using established procedures in TM 9-1005-319-10. If not using iron sights for initial zeroing, go directly to step 8.

2. Open rear lens cover (1).
3. Turn switch knob (2) clockwise until red dot appears. Open front cover (3), adjust intensity with target background.
4. Look through the M68 and note the location of the red dot and the front sight post. Make necessary windage and elevation adjustment (4) to the M68 until the red dot is positioned on top of the front sight post. This procedure is for rough alignment to ensure rounds on paper for final zeroing. Following this rough alignment, red dot has no use with iron sights.

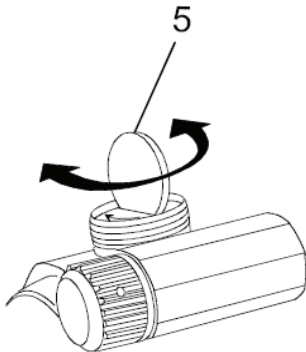


5. If adjustment is required, remove adjustment screw caps (4) from adjustment screws by turning counterclockwise.

COMP M4—OPERATING PROCEDURES – Continued**NOTE**

Each click of the adjustment screw makes a 4mm movement of the point of impact at 25m (1/2 MOA).

6. Insert adjustment tool (5) (coin, screwdriver) in adjustment screw slot. Turn adjustment screw as follows:
 - a. To move the point of impact to the right, turn windage adjustment screw counterclockwise.
 - b. To move the point of impact to the left, turn windage adjustment screw clockwise.
 - c. To move point of impact up, turn elevation adjustment screw counterclockwise.
 - d. To move the point of impact down, turn elevation adjustment screw clockwise.



7. Repeat steps 4 and 6 until sight is roughly zeroed.

NOTE

An offset is used on the M16A2 zero target with a 1.5 square lower offset point with a 4cm box outlined around that point and shaded for a designated strike zone.

8. Confirm zeroing by firing at least three shots at a zeroing target. Check impact points on zeroing target to confirm accuracy.

NOTE

After initial firing, check to ensure that mount and sight (M16A2 rifle) or sight (M16A4 rifle and M4/M4A1 carbine) are secure. On M16A2 rifle, hand tighten mounting bolt on sight mount then hand tighten torque knob on sight until it snaps twice. On M16A4 rifle and the M4/M4A1 carbine, hand tighten torque knob on sight until it snaps twice.

9. If zeroing is accurate, fire three more shots to confirm. If zeroing is not accurate, repeat steps 6 and 8 until zeroing is complete. Upon completion of zeroing you now have a battle sight zero of 300 meters.

NOTE

No correlation to iron sights; for example, red dot does not have to be centered or need not be aligned with front sight post when zeroed.

COMP M4—OPERATING PROCEDURES – Continued**NOTE**

On M16A4 rifle and the M4/M4A1 carbine, reconfirm zero if M68 sight is moved to a different slot on the rail.

10. Turn switch knob (2) to OFF position (counterclockwise).
11. Close front lens cover (1) and rear lens cover (3).

NOTE

Before installing adjustment caps, inspect threads and adjustment caps to ensure that they are free of damage, moisture and dirt, and that the O-rings are installed.

CAUTION

Hand tighten adjustment caps only. Using tools to tighten adjustments caps will damage threads.

12. Install adjustment caps (4) by rotating clockwise and hand tighten.

LIGHT ADJUSTMENT

WARNING



At higher intensity settings, red dot is visible through front of sight. For night vision operations, close front lens cover before turning switch knob clockwise to positions 1 thru 7. Check light for proper intensity before opening front lens cover. Close front lens cover before turning switch knob counterclockwise to OFF position. Failure to follow this warning could reveal your position to your enemy.

NOTE

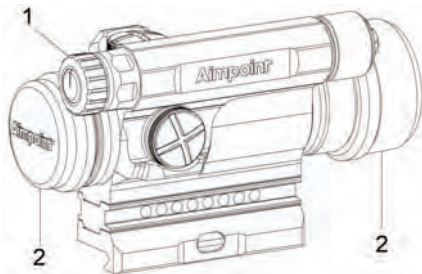
Sight is equipped with 16 positions for different dot intensity settings. The "OFF" position is the same as the lowest night vision setting.

NOTE

See Field Manual 3-22.9 for Rifle Marksmanship M16A1, M16A2/3, M16A4, and M4 Carbine.

COMP M4—OPERATING PROCEDURES – Continued

1. To make light adjustments, turn switch knob (1) clockwise. The first seven positions are low intensity for night vision operations. The eighth position is the lowest daytime settings. The last position is the extra high intensity setting.
2. Close front and rear lens covers (2) and turn switch knob (1) counterclockwise to OFF position when the sight is not being used.

**SIGHTING**

Place red dot on target. Red dot does not have to be centered in sight.

END OF WORK PACKAGE

**OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT**

OPERATION UNDER UNUSUAL CONDITIONS WORK PACKAGE

SECURITY MEASURES FOR ELECTRONIC DATA

Non-Applicable.

UNUSUAL ENVIRONMENT / WEATHER

1. Extreme Heat (Moist and Dry). No special procedures required.
2. Extreme Cold. Extreme cold will shorten battery life. Keep spare batteries in your inner pockets to keep them warm. If the M68 reflex sight is brought from cold to warm, wipe off condensation after it has warmed up.
3. Salt Air. No special procedures required.
4. Sea Spray. Ensure that battery cap and two adjustment screw caps are tight before exposing the sight to water or sea spray. Hand tighten only. Keep front and rear lens covers closed when sight is not being used. Clean lens (WP 0012 00, page 0012 00-1) with lens paper (WP 0032 00, page 0032 00-3, Item 3) and dry sight with a cloth as soon as possible after being exposed to water or sea spray.
5. Dust Storms and Sandstorms. Keep front and rear lens covers closed when sight is not being used.

UNUSUAL ENVIRONMENT AND WEATHER – Continued

6. High Altitudes. No special procedures required.
7. Mud and Snow. Ensure that battery cap and two adjustment screw caps are tight before exposing the sight to mud or snow. Hand tighten only. Keep front and rear lens covers closed when sight is not being used. Clean lens (WP 0012 00, page 0012 00-1) with lens paper (WP 0032 00, page 0032 00-3, Item 3) and dry sight with a cloth as soon as possible after being exposed to mud or snow.
8. Water. Ensure that battery cap and two adjustment screw caps are tight before immersing the sight in water. Hand tighten only. Keep front and rear lens covers closed when sight is not being used. Clean lens (WP 0012 00, page 0012 00-1) with lens paper (WP 0032 00, page 0032 00-3, Item 3) and dry sight with a cloth as soon as possible after being immersed in water.

**INTERIM NUCLEAR, BIOLOGICAL, AND CHEMICAL (NBC)
DECONTAMINATION PROCEDURES**

Decontaminate sight w/quick release mount and sight mount, using M258A1 individual soldier's personal decontamination kit.

EMERGENCY PROCEDURES

Non-Applicable.

END OF WORK PACKAGE

TM 9-1240-413-13&P

CHAPTER 3

**TROUBLESHOOTING PROCEDURES
FOR
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT**

OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT

TROUBLESHOOTING PROCEDURES WORK PACKAGE

GENERAL

Table 1 lists common malfunctions that you may find with your sight. Perform the tests, inspections, and corrective actions in the order they appear in the table.

Table 1 cannot list all of the malfunctions that may occur, all of the tests and inspections needed to find the fault, or all of the corrective actions needed to correct the fault. If the equipment malfunction is not listed or the actions listed do not correct the fault, notify your armorer.

TABLE 1. TROUBLESHOOTING PROCEDURES

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. Red dot does not appear.	Battery installed incorrectly.	Remove and reinstall battery (Comp M2: WP 0005 00, page 0005 00-2; Comp M4: WP 0006, page 0006 00-2).
	Wrong type of battery.	Replace battery (Comp M2: WP 0005 00, page 0005 00-2; Comp M4: WP 0006, page 0006 00-2).
	Dead battery.	Replace battery (Comp M2: WP 0005 00, page 0005 00-2; Comp M4: WP 0006, page 0006 00-2).
	Battery not making good contact.	Remove battery cap and battery. Carefully clean the contacts in the bottom of the battery compartment, then reinstall battery (Comp M2: WP 0005 00, page 0005 00-2; Comp M4: WP 0006, page 0006 00-2).
	Defective switch knob.	Notify armorer.

END OF WORK PACKAGE

TM 9-1240-413-13&P

CHAPTER 4

**MAINTENANCE INSTRUCTIONS
FOR
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT**

**OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT**

SERVICE UPON RECEIPT WORK PACKAGE

SERVICE UPON RECEIPT OF MATERIEL

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

Check the equipment against the packing slip to see if the shipment is complete. Report all discrepancies in accordance with applicable service instructions (e.g., Army instructions, see DA PAM 750-8).

END OF WORK PACKAGE

**OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT**

**PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) INTRODUCTION
WORK PACKAGE**

GENERAL

Preventive Maintenance Checks and Services (PMCS) are performed to keep the equipment in operating condition. The checks are used to find, correct, or report problems. PMCS's are done every day the equipment is used, using WP 0011 00, pages 0011 00-1 through 0011 00-4. Pay attention to WARNING and CAUTION statements. A WARNING means someone could be hurt. A CAUTION means equipment could be damaged.

GENERAL – Continued

- 1. Before You Operate.** Perform your Before PMCS.
- 2. During Operation.** Perform your During PMCS.
- 3. After Operation.** Perform your After PMCS.
- 4. If Your Equipment Fails to Operate.** Troubleshoot. Report any deficiencies using the proper form, see DA PAM 750-8. If you cannot correct it yourself, notify your armorer.

EXPLANATION OF COLUMNS

The PMCS Table 1 (WP 0011 00, pages 0011 00-1 through 0011 00-4) lists those required checks and services to be performed by personnel who use the M68 Reflex Sight W/Quick Release Mount and Sight Mount. The table is divided as follows:

1. **ITEM NUMBER Column:** Checks and services are numbered in disassembly sequence. This column shall be used as a source of item numbers for the "TM Number" column on DA Form 2404, Equipment Inspection and Maintenance Worksheet, in recording results of PMCS.
2. **INTERVAL Column:** This column gives the designated interval when each check is to be performed.
3. **ITEM TO BE CHECKED OR SERVICED Column:** This column lists the items to be checked or serviced.
4. **PROCEDURE Column:** This column contains a brief description of the procedure by which the check is to be performed. It contains all the information required to accomplish the checks and services.
5. **NOT FULLY MISSION CAPABLE IF Column:** This column contains a brief statement of the condition (e.g., malfunction, shortage) that would cause the covered equipment to be less than fully ready to perform its assigned mission.

END OF WORK PACKAGE

**OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT**

**PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS), INCLUDING
LUBRICATION INSTRUCTIONS WORK PACKAGE**

PMCS PROCEDURES

TABLE 1. PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	NOT FULLY MISSION CAPABLE IF:
1.	Before After	Sight	Look through the sight. Inspect for visual obstruction of target image, dust, dirt, pits, or moisture on optical surfaces, lose or broken optical elements.	These conditions are present and cannot be corrected by cleaning.

PMCS PROCEDURES – Continued

TABLE 1. PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) -
Continued

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	NOT FULLY MISSION CAPABLE IF:
2.	Before After	Sight	Ensure that battery cap is present and that battery cap's threads are clean and undamaged. Inspect O-ring in battery cap.	Battery cap or O-ring missing. Unable to install battery cap.
3.	Before	Sight	Ensure that red dot is visible when switch knob is set to one of the operating positions (First four (Comp M2) or seven (Comp M4) positions limited visibility). If necessary replace battery (WP 0005 00, page 0005 00-2) and check again.	Red dot is not visible.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	NOT FULLY MISSION CAPABLE IF:
4.	Before After	Quick Release Mount	Check base assembly for damage (burrs, bent shaft, loose torque limiting knob) that will prevent sight from being installed.	Base assembly damaged in such a way that sight cannot be installed.
5.	Before After	Sight	Ensure that both adjustment caps are present and that their threads are clean and undamaged.	
6.	Before After	Sight	Ensure that front and rear lens covers are present and can be snapped in place.	
7.	Before After	Sight, Mount	Check mount for damage that will prevent it from being installed on the M16A2 rifle.	Sight, Mount cannot be installed on M16A2 rifle.

PMCS PROCEDURES – Continued

TABLE 1. PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) -
Continued

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	NOT FULLY MISSION CAPABLE IF:
8.	Before After	Quick Release Mount	Check mount for damage that would prevent installation of the sight.	Sight cannot be installed on mount.
9.	Before After	Quick Release Mount	Check base assembly for damage. Ensure torque limiting assembly and rail grabbing clamping edge works.	Base assembly damaged or torque limiting assembly or rail grabbing clamping edge inoperable.
10.	Before After	ARD (BII)	Check for damaged threads, or check for damaged honeycomb. If missing or damaged, replace ARD.	

END OF WORK PACKAGE

**OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT**

**LUBRICATION INSTRUCTIONS AND
ANTI-REFLECTION DEVICE (ARD) REPLACEMENT
MAINTENANCE WORK PACKAGE**

INITIAL SETUP

Materials/Parts: None

Tools: None

Equipment Condition: None.

LUBRICATION INSTRUCTIONS (OPERATOR MAINTENANCE)

Lubrication is not required.

INSTALLATION

ANTI-REFLECTION DEVICE (ARD) REPLACEMENT (OPERATOR MAINTENANCE)

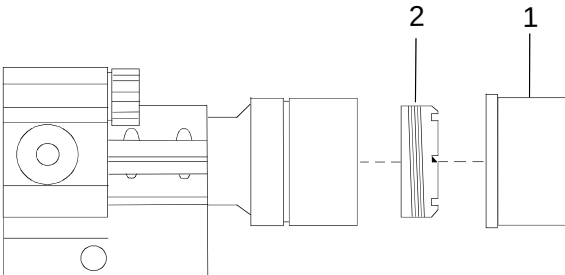
NOTE

Illustrations for this procedure depicts Comp M2 configuration; however, the procedure is identical for Comp M4 configuration.

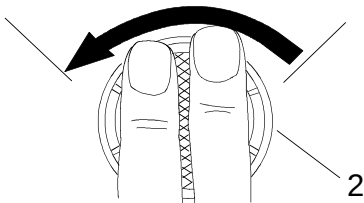
ANTI-REFLECTION DEVICE (ARD) REPLACEMENT (OPERATOR MAINTENANCE) – Continued

REMOVAL

1. Open front lens cover (1).

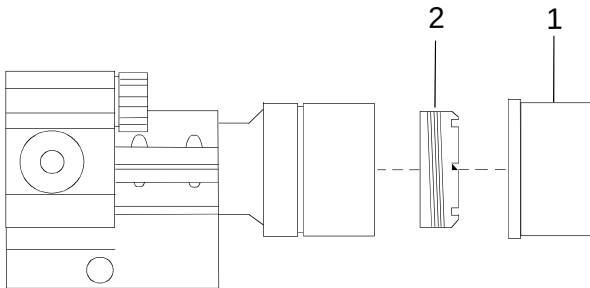


2. Using the flats of two fingers, press against the front of ARD (2) and rotate counterclockwise until the ARD is removed.

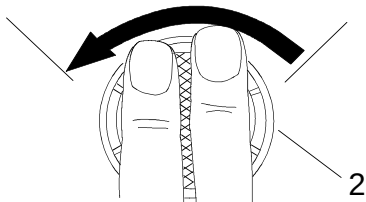


INSTALLATION

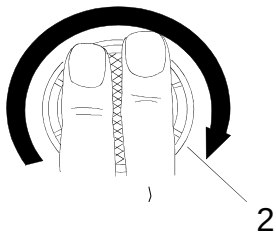
1. Open front lens cover (1) and press ARD (2) into the front of the sight with ARD's notches facing outwards.



2. Using the flats of two fingers, press against the front of ARD (2) and rotate counterclockwise approximately $\frac{1}{4}$ turn until you hear a slight "click" and the ARD is level in the front of the sight.



3. Using the flats of two fingers, turn the ARD (2) clockwise, screwing it into the front of the sight. Do not over-tighten.



END OF WORK PACKAGE

**OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT**

**LENS AND ANTI-REFLECTION DEVICE (ARD) CLEANING PROCEDURES
MAINTENANCE WORK PACKAGE**

INITIAL SETUP

Materials/Parts:

Lens Cleaning Paper, (WP 0024 00,
page 0024 00-3, Item 2)

Tools:

None

Equipment Condition: Remove Sight from weapon. Remove ARD from the Sight

**LENS AND ANTI-REFLECTION DEVICE (ARD) CLEANING PROCEDURES
(OPEARATOR MAINTENANCE)**

LENS CLEANING PROCEDURES

1. Remove large particles from exposed lens surfaces by first blowing on the surfaces. Blow as much dust and dirt as possible from the exposed lens surfaces. Gather the center of a sheet of lens paper (WP 0024 00, page 0024 00-3, Item 2), and use the edges to brush dust off lens.
2. When all visible particles of dust and dirt have been removed, moisten a piece of lens paper, then gently wipe over the lens surfaces. Dry with clean lens paper.

**LENS AND ANTI-REFLECTION DEVICE (ARD) CLEANING PROCEDURES
(OPERATOR MAINTENANCE)–Continued**

ANTI-REFLECTION DEVICE (ARD) CLEANING PROCEDURES

1. Treat the honeycomb mesh with the care you would any optical surface.
2. To clear snow or water from honeycomb when ARD is mounted, blow sharply into face of ARD near one edge.
3. If clogged with dirt or mud, remove the shield from the sight and blow clean. If necessary, you can also run water through the honeycomb to clear it. Blow through the mesh to remove the water.

ANTI-REFLECTION DEVICE (ARD) REPAIR OR REPLACEMENT**NOTE**

Goods may not be returned for repair without a repair authorization number from Tenebraex Corporation. Goods with a repair authorization shall be packed securely and shall be shipped prepaid, together with a statement claiming the defect and repair authorization number to the following address:

Tenebraex Corporation – Customer Service
326 A Street
Boston, MA 02210
Telephone: 617-574-9900
E-Mail: service@camouflage.com

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT

COMP M2 SWITCH KNOB REPLACEMENT WORK PACKAGE

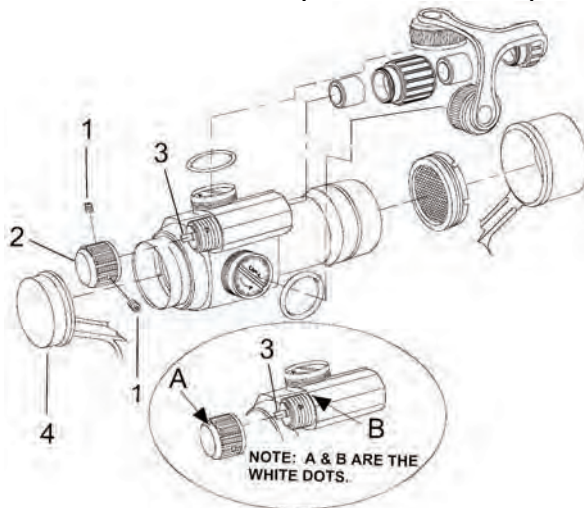
INITIAL SETUP

Materials/Parts: None

Tools: 1/16 in. hex wrench

Equipment Condition: Remove Sight from weapon

COMP M2 SWITCH KNOB REPLACEMENT (FIELD MAINTENANCE)

COMP M2 SWITCH KNOB REPLACEMENT (FIELD MAINTENANCE) – Continued**Comp M2****0014 00-2**

REMOVAL

1. Loosen the two screw, cap socketheads (1) with a 1/16 in. hex wrench by turning counterclockwise.
2. Remove switch knob (2) from shaft (3).

INSTALLATION

1. Install switch knob (2) by turning the shaft (3) counterclockwise until it stops. (No red dot should be seen through the lens.)
2. Install switch knob (2) so that the white dot (A) on the switch knob (2) aligns with the white dot on the battery compartment (B). This will allow one of the two screw, cap socketheads to align with the flat on the shaft (3).
3. Install the two screw, cap socketheads (1) by turning them clockwise with a 1/16 in. hex wrench until snug.
4. Open rear lens cover (4) and turn switch knob (2) clockwise to make sure you see the red dot.

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT

QUICK RELEASE/SIGHT/SPACER REPLACEMENT MAINTENANCE WORK PACKAGE

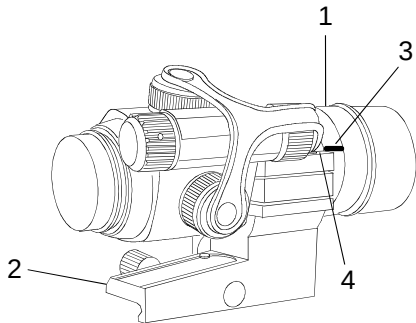
INITIAL SETUP**Materials/Parts:** NONE**Tools:** 3/32 in. hex wrench
3mm hex wrench**Equipment Condition:** Sight removed from weapon.

COMP M2 QUICK RELEASE/SIGHT/SPACER REPLACEMENT (FIELD MAINTENANCE)

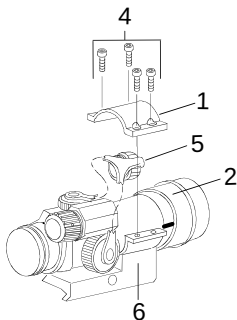
REMOVAL**NOTE**

Sight (1) **MUST** be aligned with mount (2) by a scribe mark (3) you make prior to removal. Scribe mark is not made during production.

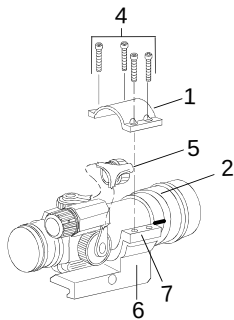
1. The scribe mark is made by drawing a line on ring (3) of sight assembly, straight across from where the curved and flat surfaces on top join (near bolts) (4).



COMP M2 QUICK RELEASE/SIGHT/SPACER REPLACEMENT (UNIT MAINTENANCE)
– Continued



M16A2



M16A4 and M4/M4A1

2. Remove battery cap assembly (5) by turning it counterclockwise to gain access to bolts (4).
3. Remove four hex head bolts (4) from plate spacer (1) using a 3/32 in. hex wrench.
4. Remove plate spacer (1).
5. (M16A2) Remove sight (2) from base assembly (6).

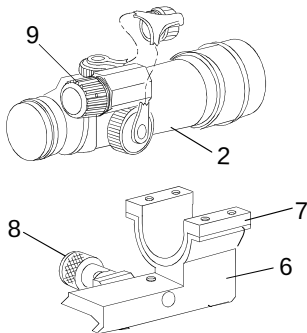
6. (M16A4 and M4/M4A1) Remove sight (2) and special shaped spacer (7) from base assembly (6).

INSTALLATION

NOTE

Special shaped spacer (7) MUST be installed for use on the M16A4 rifle and the M4/M4A1 carbine. The special shaped spacer (7) does not have a front or back. It works either way.

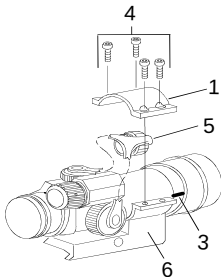
1. (M16A4 rifle and the M4/M4A1 carbine) Place the special shaped spacer (7) into base assembly (6) and align holes.
2. (M16A4 rifle and the M4/M4A1 carbine) Replace sight (2) onto special shaped spacer (7) with torque knob (8) to the left and switch knob (9) to the right.
3. (M16A2 rifle) Install sight (2) in base assembly (6).



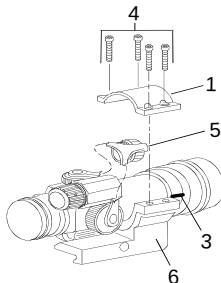
COMP M2 QUICK RELEASE/SIGHT/SPACER REPLACEMENT (UNIT MAINTENANCE) – Continued

NOTE

Sight should be positioned so that the elevation adjustment cap when looking at the scope as it is mounted, is located at the 12:00 position and the windage cap is located at the 3:00 position.



M16A2



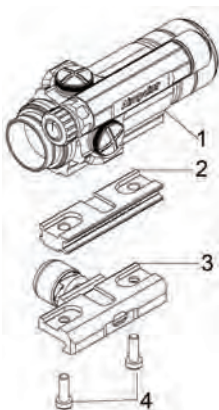
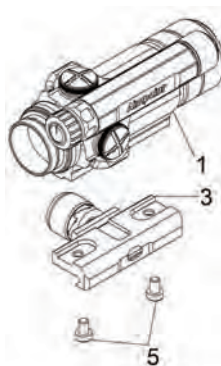
M16A4 and M4/M4A1

NOTE

Plate spacer (1) does not have a front or back. It works either way.

4. Install plate spacer (1) and align the bolt holes with the base assembly (6).

5. Insert four shorter bolts (4) (for M16A2 rifle) and four longer bolts (4) (for M16A4 rifle and the M4/M4A1 carbine).
6. Align scribe mark (3), with line on the plate spacer (1) where the curved and flat surfaces join, and tighten bolts (4) in an X pattern. Keep gap between plate spacer (1) and base assembly (6) equal on both sides.
7. Install battery cap assembly (5) by turning it clockwise until snug.

COMP M4 QUICK RELEASE/SIGHT/SPACER REPLACEMENT (UNIT MAINTENANCE)**M16A4 and M4/M4A1****M16A2****REMOVAL**

1. Remove two screws (4, 5) from base of quick release assembly using 3mm hex wrench.
2. Remove quick release plate (3).

3. (M16A4 and M4/M4A1) Remove spacer (2).

INSTALLATION

NOTE

Spacer (2) MUST be installed for use on the M16A4 rifle and the M4/M4A1 carbine. The spacer (2) has a front and back. It should mount flush on both sides of the sight. If the sight overhangs on one side, turn it around.

1. (M16A4 and M4/M4A1) Install spacer (2).

INSTALLATION

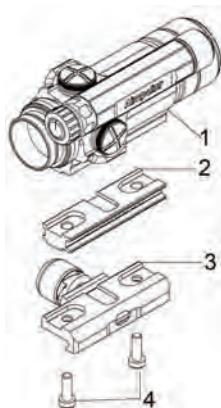
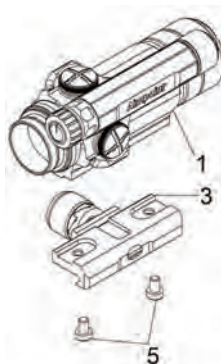
NOTE

Sight (1) should be positioned so that the elevation adjustment cap when looking at the scope as it is mounted, is located at the 12:00 position and the windage cap is located at the 3:00 position.

2. Install quick release plate (3). Knob should be on the left of the sight. Quick release plate/spacer and sight should be flush on both sides.
3. (M16A4 and M4/M4A1) Install two long screws (4) in holes at base of assembly using 3mm hex wrench.

COMP M4 QUICK RELEASE/SIGHT/SPACER REPLACEMENT (UNIT MAINTENANCE)
- Continued

4. (M16A2 rifle) Install two short screw (5) in holes at base of assembly using 3mm hex wrench.

**M16A4 and M4/M4A1****M16A2****END OF WORK PACKAGE**

OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT

BATTERY CAP O-RING REPLACEMENT MAINTENANCE WORK PACKAGE

INITIAL SETUP

Materials/Parts: None

Tools: None

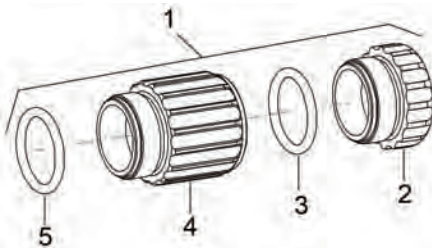
Equipment Condition: Remove Sight from weapon. Remove ARD from the Sight

COMP M2 BATTERY CAP O-RING REPLACEMENT (FIELD MAINTENANCE)

COMP M2 BATTERY CAP O-RING REPLACEMENT (FIELD MAINTENANCE) – Continued

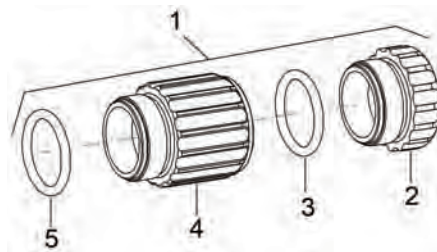
REMOVAL

1. Remove battery cap assembly (1) by turning it counterclockwise.
2. Separate battery cap (1) and double battery holder (4) by turning battery cap counterclockwise.
3. Battery Cap: Insert a jewelers screwdriver between battery cap housing (1) and O-ring (2) and gently pry off O-ring.
4. Double Battery Holder: Insert a jewelers screwdriver between holder housing (4) and O-ring (5) and gently pry off O-ring.



INSTALLATION

1. Battery Cap: Insert O-ring (3) around battery cap housing (2). Ensure that the O-ring is properly seated.
2. Double Battery Holder: Insert O-ring (5) around holder housing (4). Ensure that the O-ring is properly seated.
3. Replace battery cap (2) by turning it clockwise until snug.
4. Replace battery cap assembly (1) by turning it clockwise until snug.

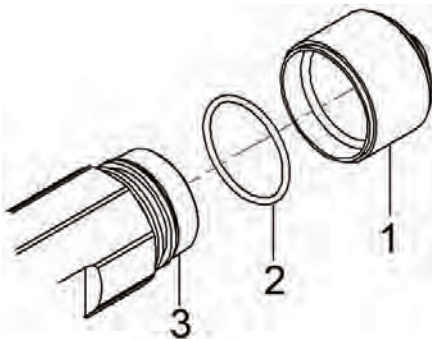


COMP M4 BATTERY CAP O-RING REPLACEMENT (FIELD MAINTENANCE)**REMOVAL**

1. Remove battery cap (1) by turning it counterclockwise.
2. Insert a jewelers screwdriver between battery cylinder housing (3) and O-ring (2) and gently pry off O-ring.

INSTALLATION

1. Insert O-ring (2) around battery cylinder housing (3). Ensure that the O-ring is properly seated.
2. Replace battery cap (1) by turning it clockwise until snug.

**END OF WORK PACKAGE**

OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT
ADJUSTMENT SCREW HOUSING O-RING/STRAP REPLACEMENT
MAINTENANCE WORK PACKAGE

INITIAL SETUP

Materials/Parts: None

Tools: None

Equipment Condition: Remove Sight from weapon. Remove ARD from the Sight

COMP M2 – ADJUSTMENT SCREW HOUSING O-RING REPLACEMENT (FIELD MAINTENANCE)

COMP M2 – ADJUSTMENT SCREW HOUSING O-RING REPLACEMENT (FIELD MAINTENANCE) – Continued**NOTE**

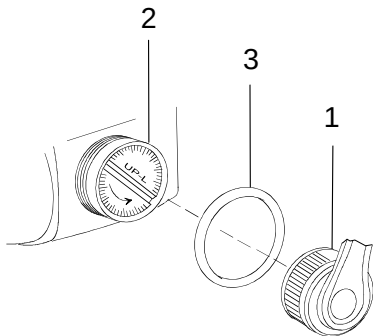
This procedure can be used for either adjustment screw housing.

REMOVAL

1. Remove adjustment screw cap (1) by turning it counterclockwise.
2. Insert a jewelers screwdriver between the adjustment screw housing (2) and O-ring (3) and gently pry off the O-ring.

INSTALLATION

1. Insert O-ring (3) around the adjustment screw housing (2). Ensure that the O-ring is properly seated.
2. Replace adjustment screw cap (1) by turning it clockwise until snug.



COMP M4 – ADJUSTMENT SCREW HOUSING STRAP REPLACEMENT (FIELD MAINTENANCE)**NOTE**

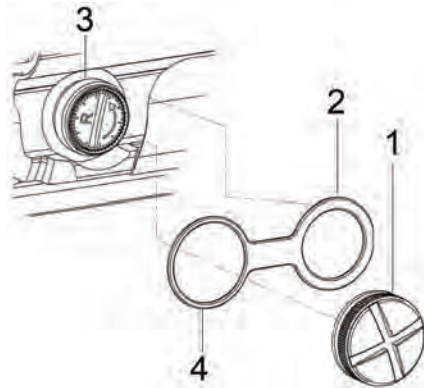
This procedure can be used for either adjustment screw housing.

REMOVAL

1. Remove adjustment screw cap (1) by turning it counterclockwise.
2. Remove strap (2) around adjustment screw housing (3) and from cap (1).

INSTALLATION

1. Insert strap (2) around adjustment screw housing (3), working it down to the base of housing.
2. Bend and insert strap (4) around adjustment screw cap (1).
3. Replace adjustment screw cap (1) by turning clockwise until snug.

**END OF WORK PACKAGE**

OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT

COMP M2 BATTERY CAP ASSEMBLY RUBBER SEAL REPLACEMENT
MAINTENANCE WORK PACKAGE

INITIAL SET UP

Materials/Parts: None

Tools: None

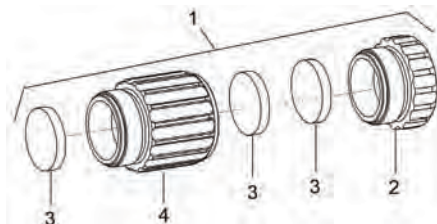
Equipment Condition: Remove Sight from weapon. Remove ARD from the Sight

COMP M2 BATTERY CAP RUBBER SEAL REPLACEMENT (FIELD MAINTENANCE)

COMP M2 BATTERY CAP ASSEMBLY RUBBER SEAL REPLACEMENT (FIELD MAINTENANCE) – Continued

REMOVAL

1. Remove battery cap assembly (1) by turning it counterclockwise.
2. Separate battery cap (1) and double battery holder (4) by turning battery cap counterclockwise.
3. Insert a jewelers screwdriver into battery cap (1) or double battery holder and gently pry out rubber seal (3).



INSTALLATION

1. Install rubber seal (3) into battery cap (2) or battery holder (4). Ensure that rubber seal is properly seated.
2. Replace battery cap (2) by turning it clockwise until snug.
3. Replace battery cap assembly (1) by turning it clockwise until snug.

END OF WORK PACKAGE

**OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT**

LENS COVER REPLACEMENT MAINTENANCE WORK PACKAGE

INITIAL SETUP

Materials/Parts: None

Tools: None

Equipment Condition: None

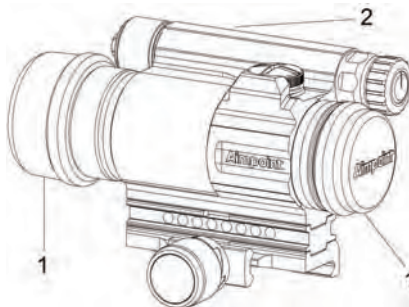
COMP M4 LENS COVER REPLACEMENT (FIELD MAINTENANCE)

REMOVAL

Remove front and rear lens covers
(1) from sight (2).

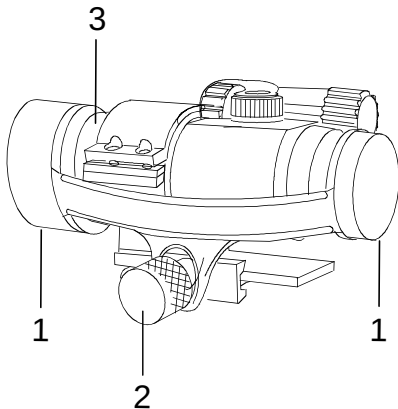
INSTALLATION

Install front and rear lens covers (1)
to sight (2).



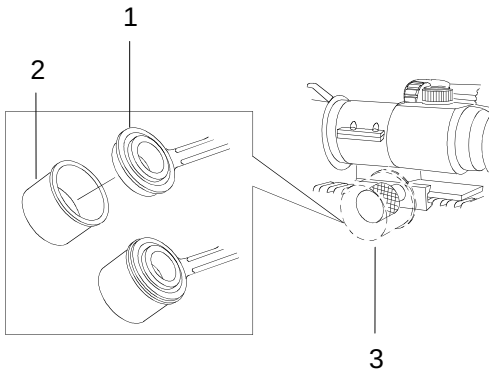
COMP M2 LENS COVER REPLACEMENT (FIELD MAINTENANCE)**REMOVAL**

1. Remove front and rear lens covers (1) from sight (3).
2. Remove front and rear lens covers (1) from torque knob (2).



HELPFUL HINT

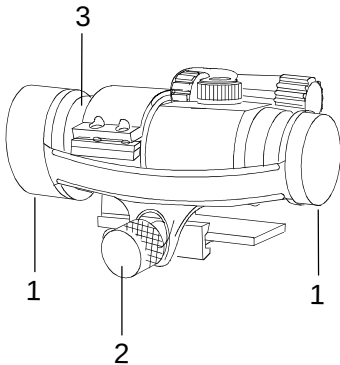
Install small lens cover (1) into larger lens cover (2) as depicted in illustration. Install both lens covers on the torque knob (3) when not on the lens.

**INSTALLATION****NOTE**

There are two different sizes of lens covers. Ensure that the larger lens cover goes to the front of the sight and the smaller lens cover to the rear of the sight.

COMP M2 LENS COVER REPLACEMENT (FIELD MAINTENANCE) – Continued

1. Install front and rear lens covers (1) over torque knob (2).
2. Install front and rear lens covers (1) to sight (3).

**END OF WORK PACKAGE**

CHAPTER 5

**SUPPORTING INFORMATION
FOR
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT**

**OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT**

REFERENCES WORK PACKAGE

SCOPE

This work package lists all field manuals, forms, miscellaneous publications, technical bulletins, and technical manuals referenced in or required for use with this manual.

PUBLICATION INDEX

Consult DA PAM 25-30 for latest changes or revisions and for new publications relating to materiel covered in this manual.

REFERENCES – Continued**FIELD MANUALS**

FM 3-5	NBC Contamination
FM 3-87	Nuclear, Biological and Chemical (NBC) Reconnaissance and Decontamination Operations (How to Fight)
FM 21-11	First Aid for Soldiers
FM 3-22.9	Rifle Marksmanship M16A1, M16A2/3, M16A4, and M4 Carbine

FORMS

DA Form 2028	Recommended Changes to Publications and Blank Forms
DA Form 2404	Equipment Maintenance and Inspection Worksheet
DA Form 2407	Maintenance Request

SF 364.....

Report of Discrepancy

SF 368.....

Product Quality Deficiency Report (QDR)

TECHNICAL MANUALS

TM 750-244-7.....

Procedures for Destruction of Equipment to
Prevent Enemy Use**TECHNICAL BULLETINS**

TB SIG 222

Soldering Techniques

DEPARTMENT OF THE ARMY PAMPHLETS

DA PAM 25-30

Consolidated Index of Army Publications and
Blank Forms

DA PAM 750-8

The Army Maintenance Management System
(TAMMS) User Manual

REFERENCES – Continued**COMMON TABLES OF ALLOWANCES**

CTA 50-970	Expendable Items (Except Medical, Class V, Repair Parts, and Heraldic Items)
CTA 8-100	Army Medical Department Expendable/Durable Items

END OF WORK PACKAGE

**OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT**

INTRODUCTION FOR MAINTENANCE ALLOCATION CHART (MAC) WORK PACKAGE

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.

This 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 three subcolumns, Crew (C), Service (O), and Field (F).

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

The maintenance to be performed below depot and in the field is described as follows:

1. Service 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

INTRODUCTION – Continued

the letter "O" in the third position of the SMR code. An "O" appearing in the fourth position of the SMR code indicates complete repair is possible at the service maintenance level.

2. Field 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 sytem after maintenance is performed at this level.

The tools and test equipment requirements table (immediately following the MAC) lists 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 gagings and evaluation of cannon tubes.
2. Test. To verify serviceability by measuring the mechanical, pneumatic, hydraulic, or electrical characteristics of an item and comparing those characteristics with prescribed standards on a scheduled basis, i.e., load testing of lift devices and hydrostatic testing of pressure hoses.
3. Service. Operations required periodically to keep an item in proper operating condition; e.g., to clean (includes decontaminate, when required), to preserve, to drain, to paint, or to replenish fuel, lubricants, chemical fluids, or gases. This includes scheduled exercising and purging of recoil mechanisms. The following are examples of service functions:
 - a. Unpack. To remove from packing box for service or when required for the performance of maintenance operations.
 - b. Repack. To return item to packing box after service and other maintenance operations.
 - c. Clean. To rid the item of contamination.

INTRODUCTION – Continued

- 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 an SMR code for the level of maintenance under consideration (i.e., identified as maintenance significant).

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

INTRODUCTION – Continued

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
- O Service maintenance
- F Field maintenance

Sustainment:

- L Specialized Repair Activity (SRA)
- H Below depot maintenance
- D Depot maintenance

INTRODUCTION – Continued**NOTE**

The “L” maintenance level is not included in column (4) of the MAC. Functions to this level of maintenance are identified by 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.

END OF WORK PACKAGE

**OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT**

MAINTENANCE ALLOCATION CHART (MAC) WORK PACKAGE

TABLE 1. MAINTENANCE ALLOCATION CHART (MAC) FOR M68

(1) Group No.	(2) Component/ Assembly	(3) Maintenance Function	(4)					(5) Tools And Equip
			Maintenance Level					
			FIELD			SUSTAINMENT		
			CREW	SERVIC E	FIELD	BELOW DEPOT	DEPOT	
			C	O	F	H	D	
00	M68 Sight, Reflex, W/Quick Release Mount	Inspect Service Repair	0.1 0.2		0.5			1
01	Sight	Inspect Service	0.1 0.1					1
0101	Cap and Strap Assembly, Protective (Comp M2)	Inspect Service Repair Replace	0.1 0.1		0.1 0.1			1

TABLE 1. MAINTENANCE ALLOCATION CHART (MAC) FOR M68 – Continued

(1) Group No.	(2) Component/ Assembly	(3) Maintenance Function	(4)					(5) Tools And Equip
			Maintenance Level					
			FIELD			SUSTAINMENT		
			CREW	SERVIC E	FIELD	BELOW DEPOT	DEPOT	
C	O	F	H	D				
010101	Quick Release Mount	Inspect Service Repair Replace	0.1 0.1		0.2 0.1			1
01010101	Sight Mount	Inspect Service Repair Replace	0.1 0.1		0.1 0.1			1

TABLE 2. TOOLS AND TEST EQUIPMENT FOR M68

Tools/Test Equipment Ref. Code	Maintenance Level	Nomenclature	National/NATO Stock Number	Tool Number
1	O	Tool Kit, Small Arms Repairman	5180-01-462-4254	SC 5180-95-B71

END OF WORK PACKAGE

**OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT
REPAIR PARTS AND SPECIAL TOOLS LIST (RPSTL) WORK PACKAGE**

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 M68 Reflex Sight w/ Quick Release Mount and Sight Mount. 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

INTRODUCTION – Continued

materials are listed by item name in FIG. BULK at the end of the work packages. Repair parts kits are listed separately in their own functional group and work package. Repair parts for reparable special tools are also listed in a separate work package. Items listed are shown on the associated illustrations.

2. Special Tools List Work Packages. There are no special tools list required for the M68 Reflex Sight w/ Quick Release Mount and Sight Mount.

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 (WP 0029 00), and the Part Number (P/N) Index work package (WP 0030 00). The National Stock Number Index work package refers you to the figure and item number. The Part Number Index work package refers you to the figure and item number.

**EXPLANATION OF COLUMNS IN THE REPAIR PARTS LIST AND SPECIAL
TOOLS LIST WORK PACKAGES**

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

SMR CODE (Column (2)). The SMR code containing supply/requisitioning information, maintenance level authorization criteria, and disposition instruction, as shown in the following breakout. This entry may be subdivided into 4 subentries, one for each service.

TABLE 1. SMR Code Explanation.

<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.	4th position: Who can do complete repair* on the item
		5th position: Who determines disposition action on unserviceable items.

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

INTRODUCTION – Continued

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.

Source Code

MO-Made at service/AMC level
MF-Made at field/ASB level
MH-Made at below depot
sustainment level
ML-Made at SRA/TASMG
MD-Made at depot
MG-Navy only

Application/Explanation

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 higher level, order the item from the higher level of maintenance.

AO-Assembled by service/AMC level
AF-Assembled by field/ASB level
AH-Assembled by below depot/sustainment level
AL-Assembled by SRA/TASMG
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.

INTRODUCTION – Continued**Source Code****Application/Explanation**

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:

Maintenance Code	Application/Explanation
O* -	Field (Service) level/AMC maintenance can remove, replace, and use the item.
F -	Field/ASB maintenance can remove, replace, and use the item.
H -	Below Depot Sustainment maintenance can remove, replace, and use the item.
L -	Specialized repair activity/TASMG 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

INTRODUCTION – Continued

Z - Item is not authorized to be removed, replace, 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

<u>Maintenance Code</u>	<u>Application/Explanation</u>
O -	Field (Service)/AMC is the lowest level that can do complete repair of the item.
F -	Field/ASB 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

**Maintenance
Code****Application/Explanation**
of the item.

- L - Specialized repair activity/TASMG (enter specialized repair activity or TASMG designator) 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.
- 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:

INTRODUCTION – Continued

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.
O -	Reparable item. When uneconomically reparable, condemn and dispose of the item at the service/AMC level.
F -	Reparable item. When uneconomically reparable, condemn and dispose of the item at the field level/ASB.
H -	Reparable item. When uneconomically reparable, condemn and dispose of the item at the below depot sustainment level.
D -	Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item are not authorized below depot level.
L -	Reparable item. Condemnation and disposal not authorized below Specialized Repair Activity (SRA) to theater aviation sustainment maintenance group (TASMG).

Recoverability Code	Application/Explanation
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 -	Filed level reparable item. Condemn and dispose at either afloat or ashore intermediate levels. (Navy only)
K -	Reparable 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.

INTRODUCTION – Continued**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.

INTRODUCTION – Continued

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."

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.

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT
REPAIR PARTS LIST (RPSTL) WORK PACKAGE

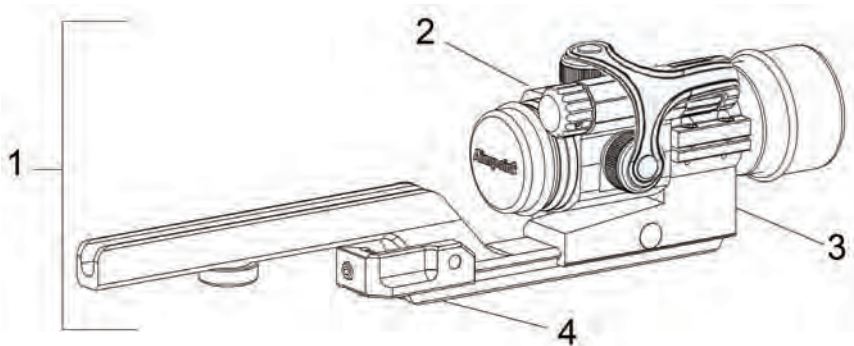


Figure 1. M68 Sight, Reflex, W/Quick Release Mount and Sight Mount – **Comp M2**,
PN 12974278

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION	(7) QTY
					GROUP 00 FIG 1. M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT – COMP M2 (12974278)	
1	PAOOO	1240-01-411-1265	19200	12974278	M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT	1
2	XAOOO		19200	12974279	SIGHT ASSEMBLY, REFLEX	1
3	PAOOO	1240-01-439-7265	3J629	0568059	MOUNT, QUICK RELEASE.....	1
4	PAOOO	1240-01-547-9280	3J629	11777	MOUNT, SIGHT	1
END OF FIGURE						

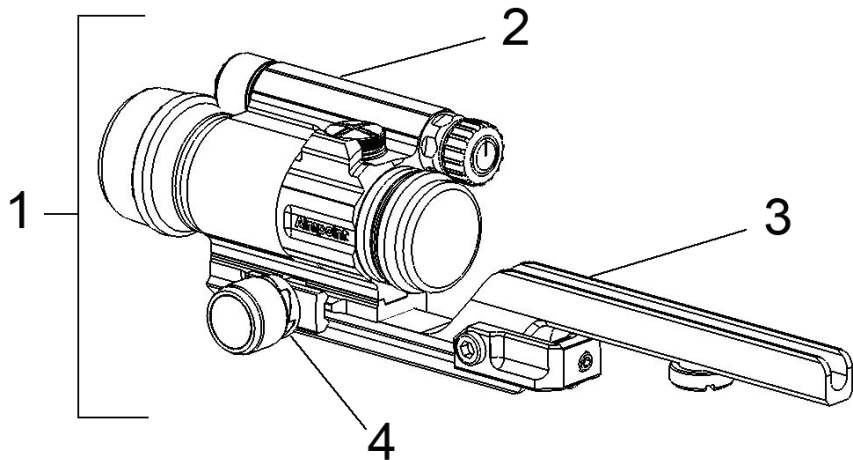


Figure 2. M68 Sight, Reflex, W/Quick Release Mount and Sight Mount – **Comp M4**,
PN 11622

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION	(7) QTY
					GROUP 00 FIG 2. M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT – COMP M4 (11622)	
1	PAOOO	1240-01-540-3690	3J629	11622	M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT	1
2	XAOOO		3J629	11997	SIGHT ASSEMBLY, REFLEX	1
3	PAOOO	1240-01-547-9280	3J629	11777	MOUNT, SIGHT	1
4	PAOOO	1240-01-556-3367	3J629	11788	MOUNT, QUICK RELEASE.....	1
					END OF FIGURE	

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT

SIGHT
REPAIR PARTS LIST (RPSTL) WORK PACKAGE

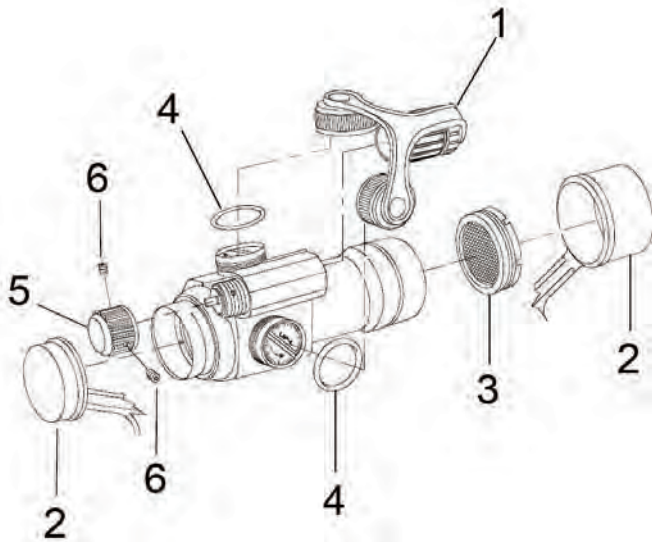


Figure 3. Sight – **Comp M2**, PN 10337

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION	(7) QTY
GROUP 01 FIG 3. SIGHT (COMP M2) (10337)						
1	AOOOO		3J629	CSA	CAP AND STRAP ASSEMBLY, PROTECTIVE	1
2	PAOZZ	6650-01-514-7809	3J629	10797	LENS, COVER (ONE-PIECE)	1
3	PAOZZ	6650-01-479-5386	3J629	10345	ANTI-REFLECTION DEVICE (BII)	1
4	PAOZZ	5331-01-442-4505	3J629	05680371	O-RING	2
5	PAOZZ	5355-01-515-4613	3J629	0568113	SWITCH KNOB.....	1
6	PAOZZ	5305-01-515-8266	3J629	0568090	SOCKETHEAD, SCREW, CAP	2
END OF FIGURE						

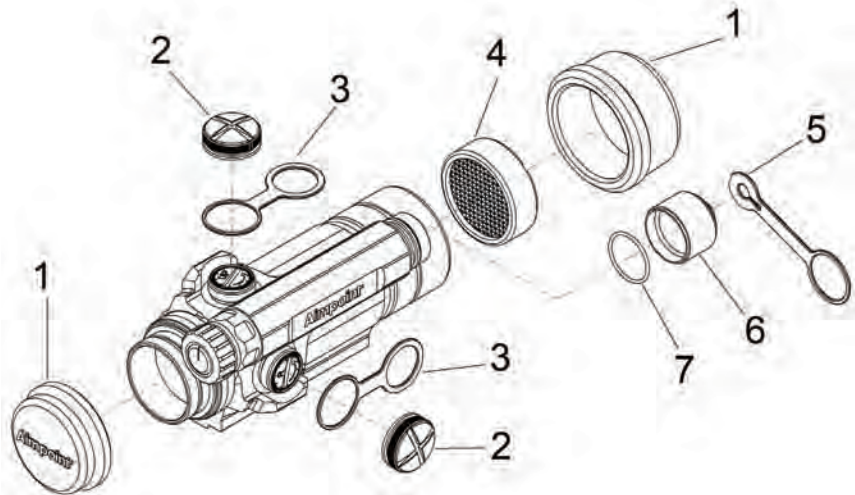


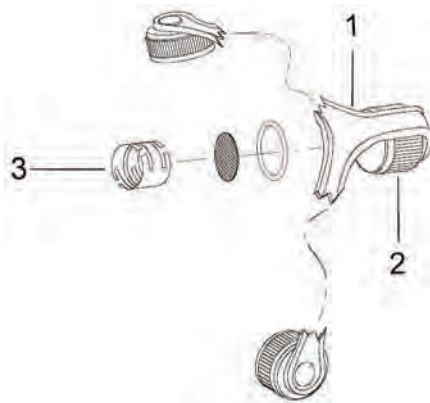
Figure 4. Sight – **Comp M4**, PN 11997

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION	(7) QTY
					GROUP 01 FIG 4. SIGHT (COMP M4) (P/N 11997)	
1	PAOZZ	5895-01-549-5835	3J629	11790	CAP, LENS	1
2	PAOZZ	5340-01-547-4334	3J629	11784	CAP, PROTECTIVE DUST	2
3	PAOZZ	5340-01-552-7683	3J629	11785	STRAP, ELASTIC	2
4	PAOZZ	6650-01-479-5386	3J629	10345	ANTI-REFLECTION DEVICE (BII)	1
5	PAOZZ	6160-01-547-7142	3J629	11787	RETAINER, BATTERY	1
6	PAOZZ	6160-01-547-4333	3J629	11786	CAP, BATTERY	1
7	PAOZZ	5340-01-549-5836	3J629	11791	O RING	1
END OF FIGURE						

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT

CAP AND STRAP ASSEMBLY, PROTECTIVE
REPAIR PARTS LIST (RPSTL) WORK PACKAGE



NOTE

The following items are obsolete and have been replaced by the new cap and strap assembly illustrated in Figure 6, which follows:

Item	NSN (Part Number)	Description
1	5340-01-511-2153 (10632)	Strap, Rubber
2	6140-01-511-2154 (10364)	Filter Cap, Battery
3	3120-01-510-2337 (10365)	Cylinder, Battery

Figure 5. Cap and Strap Assembly, Protective, **Comp M2** - Obsolete

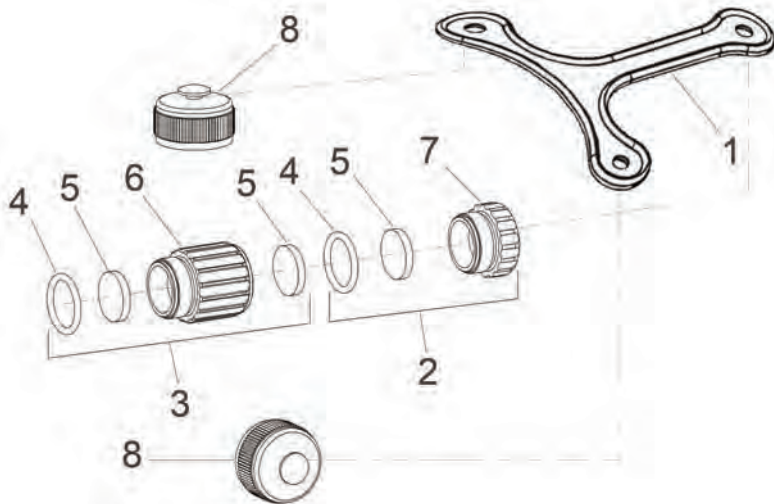


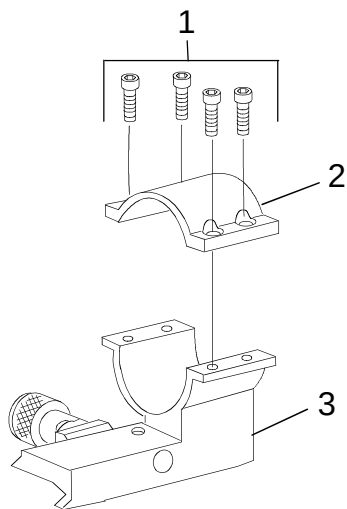
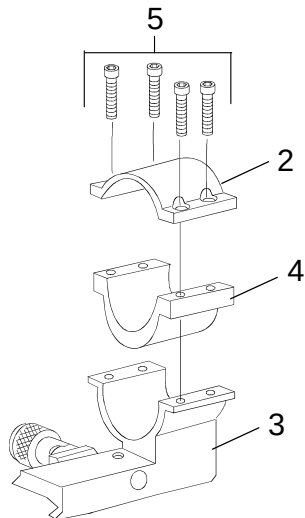
Figure 6. Cap and Strap Assembly, Protective, **Comp M2**

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION	(7) QTY
					GROUP 0101 FIG 6. CAP AND STRAP ASSEMBLY, PROTECTIVE (COMP M2.)	
1	PAOZZ	5340-01-555-6132	3J629	12132	STRAP, RUBBER XL	1
2	PAOZZ	6160-01-555-6133	3J629	12134	CAP, BATTERY ASSY	1
3	PAOOO	6160-01-527-1695	3J629	12133	HOLDER, DOUBLE BATTERY ASSY.....	1
4	PAOZZ	5331-01-442-4503	3J629	05680431	O-RING	2
5	PAOZZ	5340-01-511-2155	3J629	10366	INSULATOR, RUBBER.....	3
6	XAOZZ		3J629	11277	HOLDER, BATTERY	1
7	XAOZZ		3J629	10786	CAP, M SHORT	1
8	PAOZZ	5340-01-515-8269	3J629	10353	CAP ADJUSTMENT	2
					END OF FIGURE	

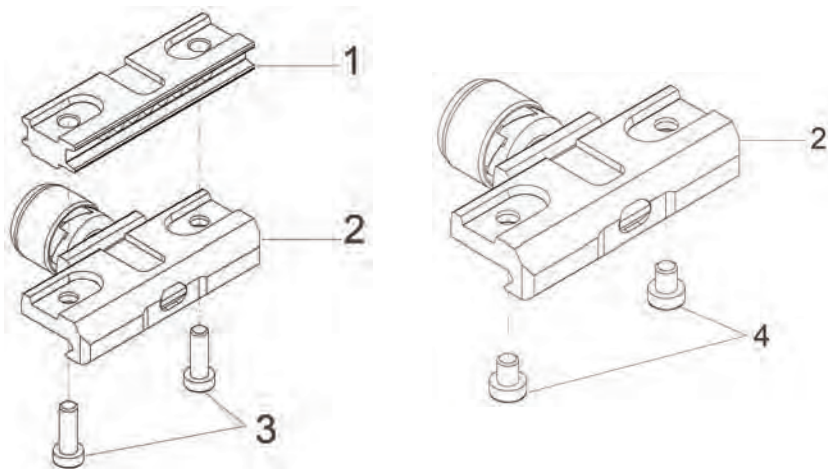
END OF WORK PACKAGE

**OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT**

**QUICK RELEASE MOUNT
REPAIR PARTS LIST (RPSTL) WORK PACKAGE**

**M16A2****M16A4 and M4/M4A1**Figure 7. Quick Release Mount – **Comp M2**, PN 0568059

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION	(7) QTY
GROUP 010101 FIG 7. QUICK RELEASE MOUNT – COMP M2 (0568059)						
1	PAOZZ	5306-01-442-2407	3J629	05680661	BOLT, MACHINE	4
2	PAOZZ	5365-01-442-1698	3J629	056811080	SPACER, PLATE	1
3	XAOZZ		3J629	10249	BASE ASSEMBLY	1
4	PAOZZ	5365-01-448-8912	3J629	0568108	SPACER, SPECIAL SHAPED (M16A4 and M4/M4A1)	1
5	PAOZZ	5305-01-448-9826	3J629	0568109	SCREW, MACHINE (M16A4 and M4/M4A1).....	4
END OF FIGURE						

**M16A4 and M4/M4A1****M16A2****Figure 8. Quick Release Mount – Comp M4, PN 11788**

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION	(7) QTY
					GROUP 010101 FIG 8. QUICK RELEASE MOUNT – COMP M4 (11991)	
1	PAOZZ	5365-01-547-4338	3J629	11789	SPACER, PLATE	1
2	PAOZZ	1240-01-556-3367	3J629	11788	MOUNT, QUICK RELEASE	1
3	PAOZZ	5305-01-547-5203	3J629	11775	SCREW, MACHINE	2
4	PAOZZ	5305-01-547-4340	3J629	11776	SCREW, MACHINE	2

END OF FIGURE

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT

SIGHT MOUNT
REPAIR PARTS LIST (RPSTL) WORK PACKAGE

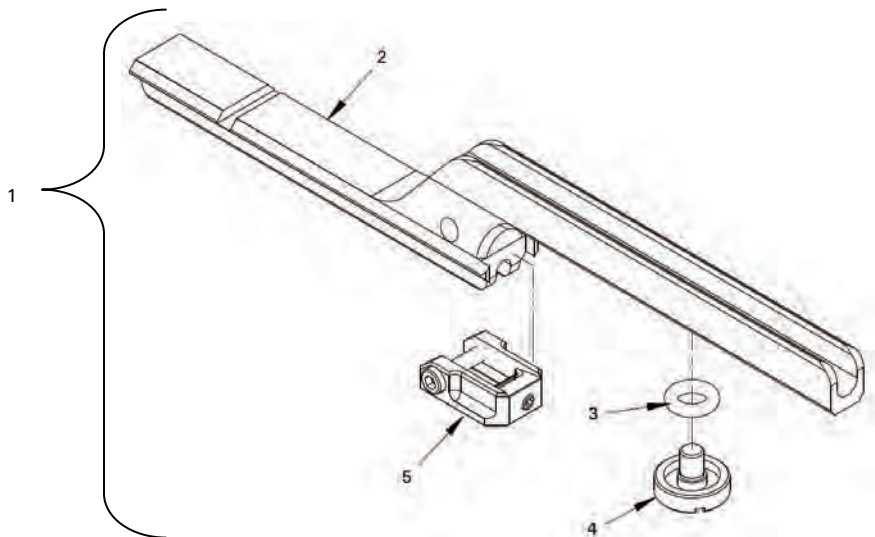


Figure 9. Sight Mount, PN 11777

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION	(7) QTY
					GROUP 01010101 FIG 9. SIGHT MOUNT (11777)	
1	PAOZZ	1240-01-547-9280	3J629	11777	MOUNT, SIGHT	1
2	XAOZZ		3J629	11756	RAIL.....	1
3	PAOZZ	5331-01-442-4502	3J629	05680711	O-RING.....	1
4	PAOZZ	5305-01-442-2408	3J629	05680612	SCREW, MACHINE	1
5	PAOOO	5340-01-547-4328	3J629	11976	BRACKET, DOUBLE ANGLE ..	1

END OF FIGURE

END OF WORK PACKAGE

**OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT**

NATIONAL STOCK NUMBER (NSN) INDEX WORK PACKAGE

STOCK NUMBER	FIG	ITEM	STOCK NUMBER	FIG	ITEM
1240- 01-411-1265	1	1	6140- 01-511-2154	5	2
1240- 01-439-7265	1	3	5340- 01-511-2155	6	5
5365- 01-442-1698	7	2	6650- 01-514-7809	3	2
5306- 01-442-2407	7	1	5355- 01-515-4613	3	5
5305- 01-442-2408	9	4	5305- 01-515-8266	3	6
5331- 01-442-4502	9	3	5340- 01-515-8269	6	8
5331- 01-442-4503	6	4	6160- 01-527-1695	6	3
5331- 01-442-4505	3	4	1240- 01-540-3690	2	1
5365- 01-448-8912	7	4	5340- 01-547-4328	9	5
5305- 01-448-9826	7	5	6160- 01-547-4333	4	6
6650- 01-479-5386	3	3	5340- 01-547-4334	4	2
6650- 01-479-5386	4	4	5365 01-547-4338	8	1
3120- 01-510-2337	5	3	5305- 01-547-4340	8	4
5340- 01-511-2153	5	1	5305- 01-547-5203	8	3

NATIONAL STOCK NUMBER (NSN) INDEX WORK PACKAGE – Continued

STOCK NUMBER	FIG	ITEM
6160- 01-547-7142	4	5
1240- 01-547-9280	1	4
1240- 01-547-9280	2	3
1240- 01-547-9280	9	1
5895- 01-549-5835	4	1
5340- 01-549-5836	4	7
5340- 01-552-7683	4	3
5340- 01-555-6132	6	1
6160- 01-555-6133	6	2
1240- 01-556-3367	2	4
1240- 01-556-3367	8	2

END OF WORK PACKAGE

**OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT**

PART NUMBER (PN) INDEX WORK PACKAGE

PART NUMBER	FIG	ITEM	PART NUMBER	FIG	ITEM
CSA	3	1	11622	2	1
10174	9	1	11775	8	3
10249	7	3	11776	8	4
10345	3	3	11777	1	4
10345	4	4	11777	2	3
10353	6	8	11784	4	2
10364	5	2	11785	4	3
10365	5	3	11786	4	6
10366	6	5	11787	4	5
10632	5	1	11788	2	4
10786	6	7	11788	8	2
10797	3	2	11789	8	1
11277	6	6	11790	4	1

PART NUMBER (PN) INDEX WORK PACKAGE – Continued

PART NUMBER	FIG	ITEM	PART NUMBER	FIG	ITEM
11791	4	7	0568113	3	5
11997	2	2	05680371	3	4
12132	6	1	05680431	6	4
12133	6	3	05680612	9	3
12134	6	2	05680661	7	1
0568059	1	3	05680711	9	4
0568065	9	2	12974278	1	1
0568090	3	6	12974279	1	2
0568108	7	4	056811080	7	2
0568109	7	5			

END OF WORK PACKAGE

**OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT**

**COMPONENTS OF END ITEM (COEI) AND
BASIC ISSUE ITEMS (BII) LISTS WORK PACKAGE**

INTRODUCTION

SCOPE

This work package lists COEI and BII for the M68 Sight, Reflex, W/Quick Release Mount and Sight Mount to help you inventory items for safe and efficient operation of the equipment.

GENERAL

The COEI and BII information is divided into the following lists:

Components of End Item (COEI). There are no COEI for the M68 Sight, Reflex, W/Quick Release Mount and Sight Mount.

Basic Issue Items (BII). These essential items are required to place the M68 Sight, Reflex, W/Quick Release Mount and Sight Mount in operation, operate it, and to do emergency repairs. Although shipped separately packaged, BII must be with the M68 Sight, Reflex, W/Quick Release Mount and Sight Mount during operation and when it is transferred between property accounts. Listing these items is your authority to request/requisition them for replacement based on authorization of the end item by the TOE/MTOE. Illustrations are furnished to help you find and identify the items.

INTRODUCTION – Continued**EXPLANATION OF COLUMNS IN THE BII LIST**

Column (1) Illus Number. Gives you the number of the item illustrated.

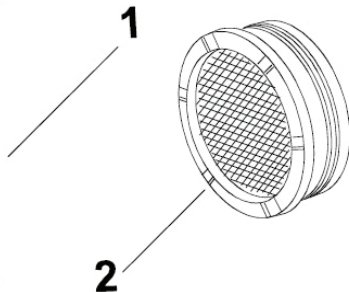
Column (2) National Stock Number (NSN). Identifies the stock number of the item to be used for requisitioning purposes.

Column (3) Description, Part Number/(CAGEC). Identifies the Federal item name (in all capital letters) followed by a minimum description when needed. The stowage location of COEI and BII is also included in this column. The last line below the description is the part number and the Commercial and Government Entity Code (CAGEC) (in parentheses).

Column (5) U/I. Unit of Issue (U/I) indicates the physical measurement or count of the item as issued per the National Stock Number shown in column (2).

Column (6) Qty Rqr. Indicates the quantity required.”

BASIC ISSUE ITEMS (BII) LIST



BASIC ISSUE ITEMS (BII) LIST - Continued**TABLE 1. BASIC ISSUE ITEMS (BII) LIST**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION, PART NUMBER/ (CAGEC)	(4) U/I	(5) QTY RQR
1	1240-01-411-1265 1240-01-540-3690	Operator and Field Maintenance Manual Including Repair Parts and Special Tools List for M68 Sight, Reflex, W/Quick Release Mount and Sight Mount (TM 9-1240-413-13&P)	EA	1
2	6650-01-479-5386	Anti-Reflection Device (ARD) (3J629) PN 10345	EA	1

END OF WORK PACKAGE

**OPERATOR AND FIELD MAINTENANCE
M68 SIGHT, REFLEX, W/QUICK RELEASE MOUNT AND SIGHT MOUNT**

EXPENDABLE AND DURABLE ITEMS LIST WORK PACKAGE

SCOPE

This work package lists expendable and durable supplies and materials that you will need to operate and maintain the sight. This listing is for informational 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

Column (1) – Item No. This number is assigned to the entry in the listing for referencing when required.

Column (2) – Level. This column identifies the lowest level of maintenance that requires the item: C.....Operator/Crew.

EXPLANATION OF COLUMNS – Continued

Column (3) – National Stock Number (NSN). This is the national stock number assigned to the item. Use this number to request or requisition the item.

Column (4) – Item Name, Description, Part Number/(CAGEC). This column provides the other information you need to identify the item. The last line below the description is the part number and the Commercial and Government Entity Code (CAGEC) (in parentheses).

Column (5) – U/I. Unit of Issue (U/I) code shows the physical measurement or count of an item, such as gallon, dozen, gross, etc.

NOTE

The M68 Comp M2 sight uses lithium-manganese dioxide batteries which, when depleted, are to be disposed of in accordance with technical bulletin, TB 43-0134, battery disposition and disposal, para 4-5, and local regulations and procedures (contact your local defense reutilization and marketing office (DRMO) for assistance). Certain states identify lithium-manganese dioxide batteries as hazardous waste. These states are Alaska, California, Minnesota, Rhode Island, and Washington.

NOTE

M68 Comp M2: Lithium batteries are the "preferred" battery. Duracell DL 1/3N, Eveready 2L76, Kodak K58L, and Varta CR 1/3N are commercial equivalents to the NSN listed. Two alkaline (non-lithium) batteries can be used. When stacked they are approximately the same size and voltage. They will not perform in extreme cold. Energizer A-76 is the commercial equivalent to the NSN listed.

TABLE 1. EXPENDABLE AND DURABLE SUPPLIES AND MATERIALS LIST

(1) Item No.	(2) Level	(3) National Stock Number	(4) Item Name, Description, Part Number/(CAGEC)	(5) (U/I)
1	C	6135-01-398-5922	Battery, DL 1/3N (OE890) – Comp M2	EA
2	C	6135-00-985-7845	Battery, AA 20-0571-1988 NEDA 15A (80204) – Comp M4	EA
3	C	6640-00-663-0832	Paper, Lens (Cleaning Tissues) 65-4900 (25518) 50-sheet pack	PK

END OF WORK PACKAGE

0032 00-3/4 blank

ALPHABETICAL INDEX

Subject

WP Sequence No. – Page No.

A

Adjustment Screw Housing O-Ring/Strap Replacement (Field Maint.).....	0017 00-1
Am I Ready to Use the TM?	vii
Anti-Reflection Device (ARD) Cleaning Procedures	0013 00-1
Anti-Reflection Device (ARD) Installation Instructions	0012 00-1
Assembly and Preparation for Use – Comp M2	0005 00-1
Assembly and Preparation for Use – Comp M4	0006 00-1

B

Basic Issue Items (BII) List.....	0031 00-3
Battery Cap O-Ring Replacement (Field Maint.).....	0016 00-1
Battery Cap Rubber Seal Replacement – Comp M2 (Field Maint.).....	0018 00-1
Battery Replacement and Check – Comp M2 (Operator)	0005 00-2
Battery Replacement and Check – Comp M4 (Operator)	0006 00-2

TM 9-1240-413-13&P

ALPHABETICAL INDEX – Continued

<u>Subject</u>	<u>WP Sequence No. – Page No.</u>
C	
Common Tools and Equipment.....	0001 00-7
Components of End Item (COEI) and Basic Issue Items (BII)	
Lists Work Package.....	0031 00-1
Corrosion Prevention and Control (CPC)	0001 00-4
D	
Description and Use of Operator Controls and Indicators	
Work Package	0004 00-1
Destruction of Army Materiel to Prevent Enemy Use	0001 00-5
Differences Between Models.....	0002 00-5
E	
Equipment Data.....	0002 00-6
Equipment Description and Data Work Package	0002 00-1
Expendable and Durable Items List Work Package	0032 00-1
G	
General Information Work Package	0001 00-1

ALPHABETICAL INDEX – Continued

Subject

WP Sequence No. – Page No.

H

How to Use This Manual vi

I

Installation of Anti-Reflective Device (ARD)..... 0012 00-1
 Installing & Checking Battery – Comp M2..... 0005 00-4
 Installing & Checking Battery – Comp M4..... 0006 00-3
 Installing Mount, Sight on M16A2 Rifle – Comp M2..... 0005 00-6
 Installing Mount, Sight on M16A2 Rifle – Comp M4..... 0006 00-5
 Installing Sight on M16A4 Rifle & M4/M4A1 Carbine – Comp M2 0005 00-8
 Installing Sight on M16A4 Rifle & M4/M4A1 Carbine – Comp M4 0006 00-6
 Interim Nuclear, Biological & Chemical (NBC) Decontamination
 Procedures..... 0007 00-3
 Introduction for Maintenance Allocation Chart (MAC) Work Package 0021 00-1

L

Lens and Anti-Reflection Device (ARD) Cleaning
 Procedures..... 0013 00-1
 Lens Cover Replacement (Unit Maint.) 0019 00-1
 Light Adjustment – Comp M2..... 0005 00-15
 Light Adjustment – Comp M4..... 0006 00-13
 List of Effective Pages..... A

TM 9-1240-413-13&P

ALPHABETICAL INDEX – Continued

<u>Subject</u>	<u>WP Sequence No. – Page No.</u>
Lubrication Instructions	0012 00-1
Location and Description of Major Components	0002 00-2
M	
Maintenance Allocation Chart (MAC) Work Package.....	0022 00-1
Maintenance Forms, Records, and Reports.....	0001 00-3
N	
National Stock Number (NSN) Index Work Package	0029 00-1
Nomenclature Cross-Reference List	0001 00-6
Nuclear, Biological, and Chemical (NBC) Decontamination Procedures	0007 00-3
O	
Operating Procedures – Comp M2.....	0005 00-10
Operation Procedures – Comp M4.....	0006 00-8
Operation Under Usual Conditions Work Package – Comp M2.....	0005 00-1
Operation Under Usual Conditions Work Package – Comp M4.....	0006 00-1
Operation Under Unusual Conditions Work Package	0007 00-1
Organization	vi

ALPHABETICAL INDEX – Continued

<u>Subject</u>	<u>WP Sequence No. – Page No.</u>
P	
Part Number (PN) Index Work Package	0030 00-1
Preventive Maintenance Checks and Services (PMCS), Including Lubrication Instructions Work Package	0011 00-1
Preventive Maintenance Checks and Services (PMCS), Introduction Work Package	0010 00-1
Publication Index	0020 00-1
Purpose of Equipment.....	0001 00-2
Q	
Quick Release/Sight/Spacer Replacement (Field Maint.)	0015 00-6
R	
References Work Package	0020 00-1
Repair or Replacement: Anti-Reflective Device (ARD)	0013 00-3
Repair Parts and Special Tools List (RPSTL) Work Package.....	0023 00-1
M68 Sight, Reflex, W/Quick Release Mount & Sight Mount	0024 00-1
Sight	0025 00-1
Cap and Strap Assembly, Protective	0026 00-1
Quick Release Mount.....	0027 00-1
Sight Mount	0028 00-1

ALPHABETICAL INDEX – Continued

<u>Subject</u>	<u>WP Sequence No. – Page No.</u>
R (con't)	
Reporting Equipment Improvement Recommendations (EIRs)	0001 00-3
Reporting Errors and Recommending Improvements	ii
S	
Service Upon Receipt Work Package	0009 00-1
Sighting – Comp M2.....	0005 00-16
Sighting – Comp M4.....	0006 00-14
Special Tools, TMDE, and Support Equipment.....	0001 00-7
Switch Knob Replacement	0014 00-1
T	
Table of Contents	ii
Theory of Operation Work Package	0003 00-1
Tools and Test Equipment for M68	0022 00-3
Troubleshooting Procedures Work Package.....	0008 00-1
U	
Unpacking – Comp M2.....	0005 00-1
Unpacking – Comp M4.....	0006 00-1
Unusual Environment / Weather	0007 00-1

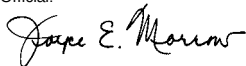
ALPHABETICAL INDEX – Continued

<u>Subject</u>	<u>WP Sequence No. – Page No.</u>
W	
Warning Summary.....	a
Warranty Information.....	0001 00-5
Z	
Zeroing – Comp M2	0005 00-10
Zeroing – Comp M4	0006 00-8

By Order of the Secretary of the Army:

GEORGE W. CASEY, JR.
General, United States Army
Chief of Staff

Official:

A handwritten signature in black ink, reading "Joyce E. Morrow". The signature is fluid and cursive, with the first letters of each name being capitalized and prominent.

JOYCE E. MORROW
Administrative Assistant to the
Secretary of the Army

0801801

Distribution:

To be distributed in accordance with the initial distribution number (IDN) 401125 requirements for TM 9-1240-413-13&P.

Air Force:

T. MICHAEL MOSLEY
General, United States Air Force
Chief of Staff

BRUCE CARLSON
General, United States Air Force
Commander, AFMC

TM 9-1240-413-13&P

PIN: 084592-000