

## ROUTINE

MWO effective date is **15 August 2005** and completion date is **28 February 2011**.

**MWO 9-1005-201-30-6**

### MODIFICATION WORK ORDER

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**MODIFICATION OF MACHINE GUN, 5.56MM, M249  
(NSN 1005-01-127-7510) (EIC: 4BG) Automatic Rifle Role  
(NSN 1005-01-451-6769) (EIC: 4BK) Light MG Role**

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**Headquarters, Department of the Army Washington, D.C.**

**15 August 2005**

#### **REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS**

You can help improve this MWO. If you find any errors, or if you would like to recommend any improvements to the procedures, please let us know. The preferred method is to submit your DA Form 2028 (Recommended Changes to Publications and Blank Forms), through the Internet, on the Army Electronic Product Support (AEPS) website. The Internet address is <https://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 more quickly to your comments and better manage the DA Form 2028 program. You may also mail, email, or fax your comments or DA Form 2028 directly to the U.S. Army TACOM Life Cycle Management Command. The postal mail address is U.S. Army TACOM Life Cycle Management Command, ATTN: AMSTA-LCL-MPP / Tech PUBS, 1 Rock Island Arsenal, Rock Island, IL 61299-7630. The email address is [tacomlcmc.daform2028@us.army.mil](mailto:tacomlcmc.daform2028@us.army.mil). The fax number is DSN 792-0726 or Commercial (309) 782-0726.

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Change No. 2

MWO 9-1005-201-30-6  
16 September 2010

**MODIFICATION WORK ORDER**  
**Modification of Machine Gun, 5.56MM, M249**  
**(NSN 1005-01-127-7510) (EIC: 4BG) Automatic Rifle Role**  
**(NSN 1005-01-451-6769) (EIC: 4BK) Light MG Role**

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3. New or changed illustrations are indicated by a miniature pointing hand highlighting the change.

**Remove Pages**

1 and 2

**Insert Pages**

1 and 2

4. File this change sheet in the front of the MWO for reference purposes.

**MWO 9-1005-201-30-6**  
**Change 2**

**By Order of the Secretary of the Army**

**George W. Casey, JR.**  
*General, United States Army*  
*Chief of Staff*

Official:



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

1024323

**DISTRIBUTION:** To be distributed in accordance with the initial distribution number (IDN) 401216 requirements for MWO 9-1005-201-30-6.

**MODIFICATION WORK ORDER**  
**Modification of Machine Gun, 5.56MM, M249**  
**(NSN 1005-01-127-7510) (EIC: 4BG) Automatic Rifle Role**  
**(NSN 1005-01-451-6769) (EIC: 4BK) Light MG Role**

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**Remove Pages**

3 and 4

**Insert Pages**

3 and 4

4. File this change sheet in the front of the MWO for reference purposes.

**MWO 9-1005-201-30-6**  
**Change 1**

**By Order of the Secretary of the Army:**

Official:



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

**0535701**

PETER J. SCHOOMAKER  
*General, United States Army  
Chief of Staff*

**DISTRIBUTION:** To be distributed in accordance with the initial distribution number (IDN) 401216 requirements for MWO 9-1005-201-30-6.

1. **PURPOSE.** This MWO prescribes procedures to replace the M249 Machine Gun's handguard with a forward rail assembly. The new forward rail assembly provides the user a secure, easy to attach and use, alternate MIL-STD-1913 rail surfaces for mounting optical or electronic devices.

2. **PRIORITY.** This modification is classified **ROUTINE**.

3. **END ITEM(S) OR SYSTEM(S) TO BE MODIFIED.** See Table 1 below.

**Table 1. End Item(s) or System(s) To Be Modified**

<b>NOMENCLATURE</b>	<b>NSN</b>	<b>CAGEC</b>	<b>PART NUMBER</b>	<b>LINs</b>
M249 MG (AR Role)	1005-01-127-7510	19200	9348199	M09009
M249 MG (LMG Role)	1005-01-451-6769	19200	12556999	M39263

4. **MODULE(S) (COMPONENTS, ASSEMBLIES, SUBASSEMBLIES, BOARDS AND CARDS) TO BE MODIFIED.** Not applicable.

5. **PART(S) TO BE MODIFIED.** Not applicable.

6. **APPLICATION.**

a. **Time Compliance Schedule:** The effective date of this MWO is 15 August 2005 and its completion date is 28 February 2011.

b. **Level of Maintenance:** Direct Support.

c. **Work Force and Man-Hour Requirements for Application of the MWO to a Single Unit, End Item, or System:** Total man-hours required for a single application of this MWO is: 0.3 hours.

**Work Skills Force**

**Man-Hours**

MOS 45B

0.3 hours

7. **TECHNICAL PUBLICATIONS AFFECTED/CHANGED.**

**Operators Manual:** ARMY TM 9-1005-201-10; MARINE CORPS TM 08671A-10/1A; AIR FORCE TO 11W3-5-5-51, dated 26 July 1991

Change number 2, dated 28 June 2002

**MWO 9-1005-201-30-6**

**Maintenance Manual:** ARMY TM 9-1005-201-23&P; MARINE CORPS TM 08671A-23&P/2A; AIR FORCE TO 11W3-5-5-52, dated 14 December 1990

Change number 7, dated 28 June 2002

**DMWR:** 9-1005-201, dated October 1989

**8. MWO KIT(S)/PART(S) AND THEIR DISPOSITION.**

**a. Kits Needed to Apply this MWO:** The Kit listed in Table 2 is required to accomplish this MWO.

**Table 2. Kit List**

<b>NOMENCLATURE</b>	<b>NSN</b>	<b>CAGEC</b>	<b>PART NO.</b>	<b>QUANTITY</b>	<b>SMR CODE</b>
Front Rail Kit	1005-01-490-9698	19200	12993770	1	KFOZZ

**b. Contents of MWO kits: See Table 3.**

**Table 3. Contents of MWO Kit**

<b>NOMENCLATURE</b>	<b>NSN</b>	<b>CAGEC</b>	<b>PART NO.</b>	<b>QUANTITY</b>	<b>SMR CODE</b>
*9 Rib Rail Cover Assy	1005-01-453-5383	19200	12973134	2	PAOZZ
Vertical Pistol Grip	1005-01-453-6655	19200	12973101	1	PAOZZ
Grip, Rifle	1005-01-521-1618	19200	13008484	1	PAOZZ
Adapter Rail, LEFT			12993773	1	XAOZZ
Adapter Rail, RIGHT			12993772	1	XAOZZ
Cap, Socket Head Screw	5304-00-978-9371	96906	MS16997-33	2	PAOZZ

\*In future kits, the rail covers will no longer be a part of the kit nor required for turn-in.

**c. Bulk and Expendable Material:** Not Applicable.

**d. Parts Disposition:** The handguard should be turned-in through the normal channels for proper disposal.

**Table 4. Parts Disposition**

<b>NOMENCLATURE</b>	<b>NSN</b>	<b>PART NUMBER</b>	<b>QUANTITY</b>	<b>CAGEC</b>
Handguard	1005-01-324-9191	12556973	1	19200

**9. SPECIAL TOOLS; TOOL KITS; JIGS; TEST, MEASUREMENT, AND DIAGNOSTIC EQUIPMENT (TMDE); AND FIXTURES REQUIRED.**

Tool Kits: The following or equivalent basic tools will be used to perform the procedures: Shop Set, Small Arms – Field Maintenance, Basic, Less Power, NSN 4933-00-754-0664, LIN W51499, SC 4933-95-CL-A11.

## 10. MODIFICATION PROCEDURES.

### a. Installation:

#### WARNING

Before starting an installation, **DO NOT** actuate the trigger until the weapon has been cleared. Inspect the chamber to be sure that it is empty and check to see that there are no obstructions in the barrel.

- (1) Open the top cover. Charge the weapon. Make sure the safety is on. Check for obstructions in the barrel. Close the top cover. Remove the barrel from the receiver assembly.

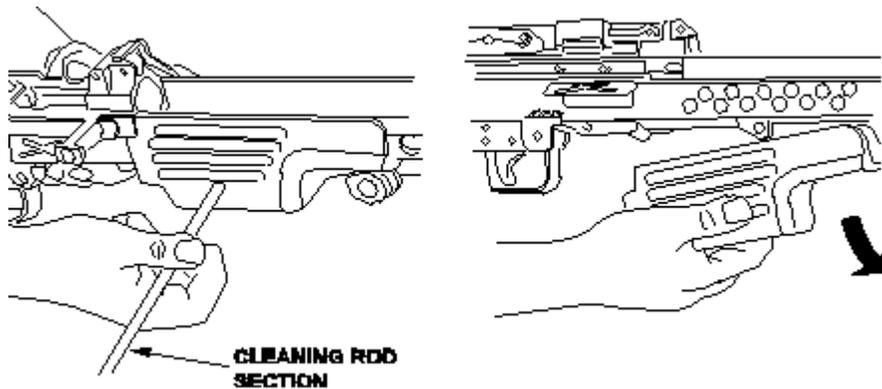


Figure 1

- (2) (Figure 1) Remove the handguard by pushing handguard retaining pin to the left using a cleaning rod section, then remove handguard downward.

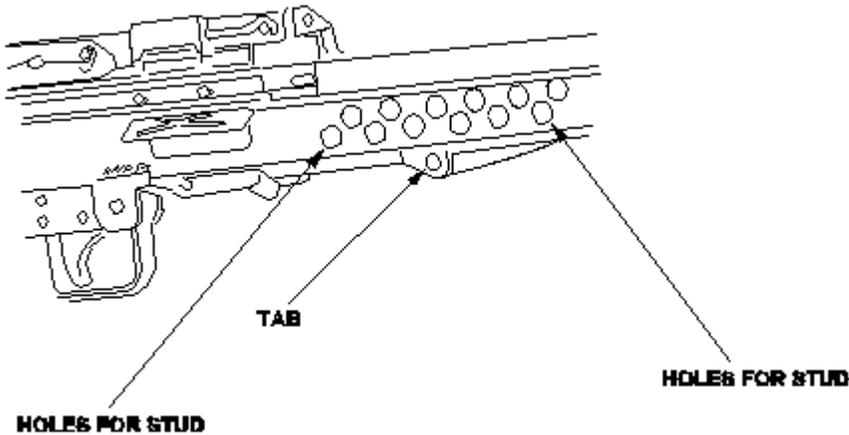


Figure 2

#### NOTE

Tapping with a rubber mallet may be necessary to seat the studs onto the receiver.

- (3) (Figure 2) Install the right adapter rail (the one with two rails) on the right side of the receiver. This rail has a relief cut for the tab located on the bottom of the receiver to allow the rail to fit flush against the bottom of the receiver, and also allows the two studs to fit into the holes on the side of the receiver.

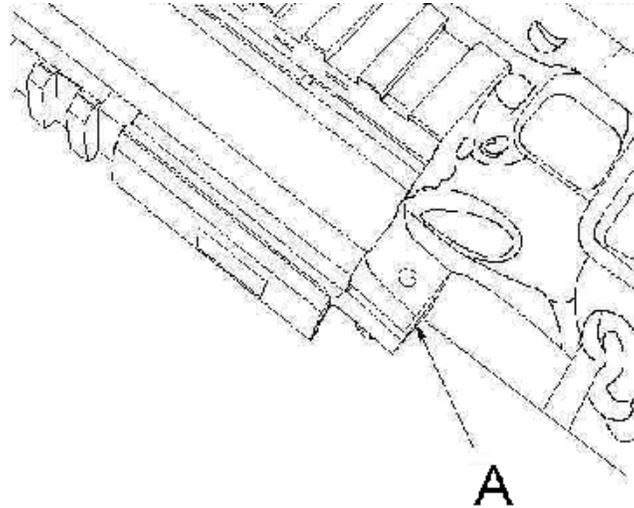


Figure 3

(4) (Figure 3) Install the left side adapter rail so the adapter fits on the bottom of the receiver and ends of the two adapter rails are aligning with each other. The two studs will also fit into the holes on the side of the receiver. Illustration above shows that the rails should be flush against the bottom of the receiver (A).

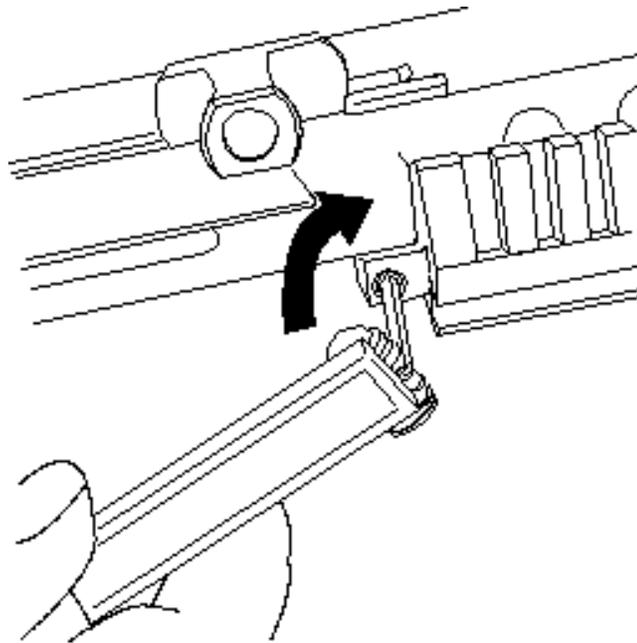


Figure 4

**NOTE**

**Take care not to cross thread the screw.**

(5) (Figure 4) Using a 9/64 hex key wrench, install the two screws (one at each end of the adapter rail) from the right side of the adapter rail and tighten snug. Do not over tighten.

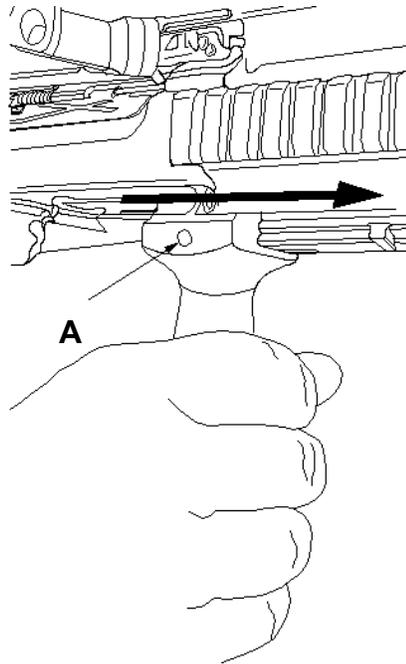


Figure 5

(6) Loosen the O-ring clutch on the bottom of the vertical pistol grip.

(7) (Figure 5) Install the vertical pistol grip on the bottom rail by sliding it from the rear to the front until the locking lug of the vertical pistol grip lines up with a slot on the adapter rail. Adjust accordingly to the length of the operator's arm. View rail slot through hole in vertical pistol grip (A).

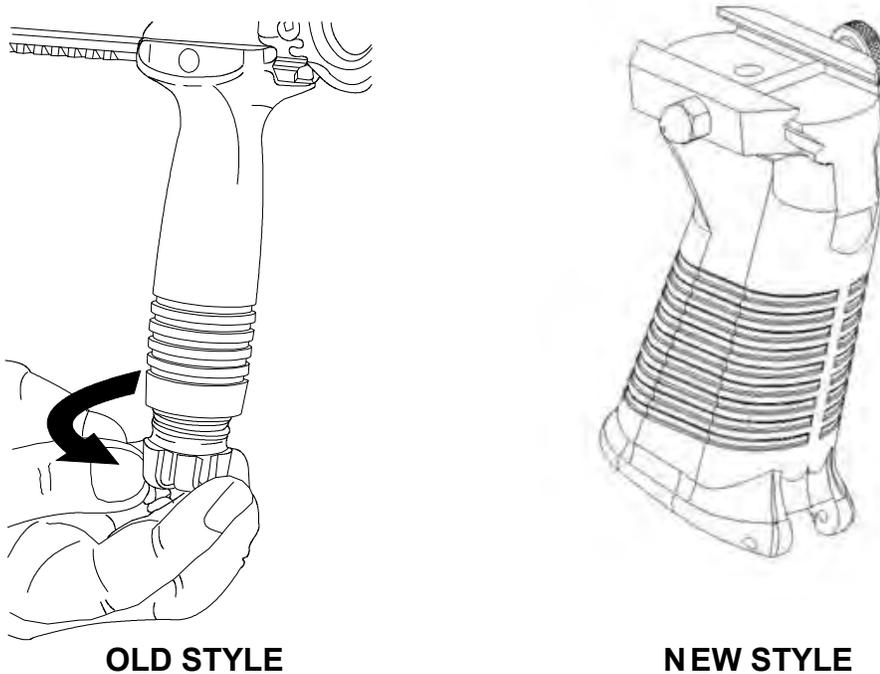


Figure 6

(8) (Figure 6) Tighten the O-ring clutch on the bottom of the vertical pistol grip by turning the clutch to the right.

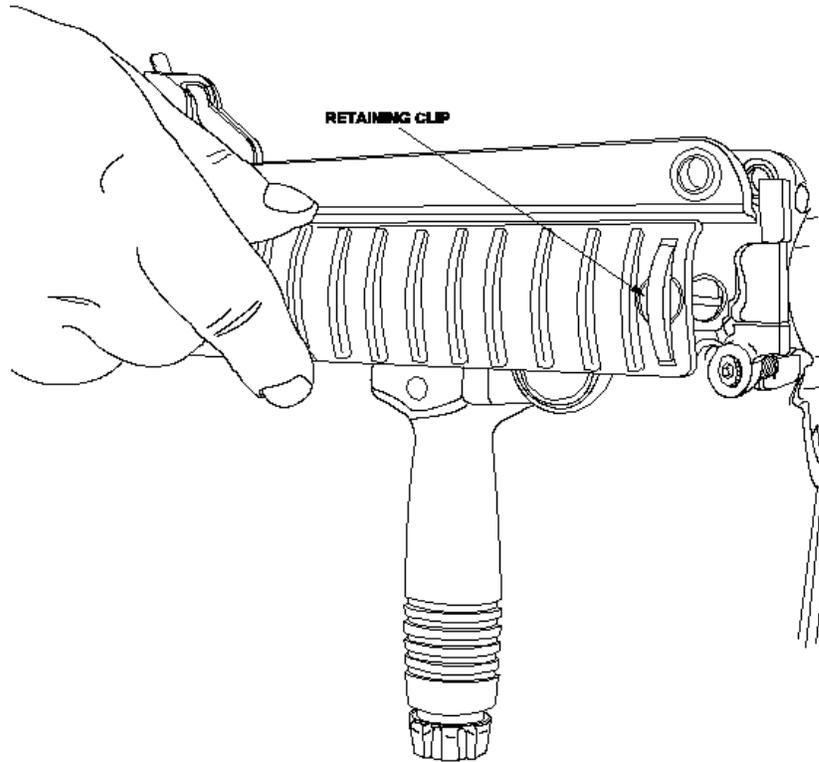


Figure 7

**NOTE**

(Figure 7) Rail covers are quickly attached and detached from the adapter rail. A retaining clip at one end of each rail cover automatically engages cutouts positioned at either end of the three rail sections. To slide a rail cover beyond a cutout, or to remove it, slide it in the desired direction while applying thumb pressure to the retaining clip. Illustration above shows rail cover in full rearward position.

(9) (Figure 7) To cover both side rail surfaces, install the rail covers from the muzzle end of the adapter rail with the retaining clip forward. To cover the bottom rail surface, install from the rear with the retaining clip forward.

(10) Replace the barrel assembly back into the receiver. Take the safety off. Pull the trigger by holding the charging handle back to allow the bolt to go forward.

**11. CALIBRATION REQUIREMENTS.** Not applicable.

**12. WEIGHT AND BALANCE DATA.** Not significantly affected.

**13. QUALITY ASSURANCE REQUIREMENTS.** Report all defects in material or workmanship on a Product Quality Deficiency Report (QDR) utilizing the Army Electronic Product Support (AEPS) web site: <http://aeps.ria.army.mil/>. If assistance is needed in submitting the QDR in AEPS, contact (309) 782-7698 or DSN 793-7698. Alternately, QDRs may also be recorded on a SF368 (be sure and include your e-mail address) and mailed to RDECOM-ARDEC, ATTN: AMSRD-AAR-QEP-C, 1 Rock Island Arsenal, Rock Island, IL 61299-7300. You may also e-mail a SF 368 and submit to: QAWQDRS@ria.army.mil, or fax to (309) 782-6653 or DSN 793-6653.

**14. RECORDING AND REPORTING OF THE MODIFICATION.**

**a. Records and reports.** The organization responsible for MWO application will report application information as follows:

(1) Reporting will be accomplished by electronic means. MWO application information can be input directly into the Modification Management Information System (MMIS) over the Internet. Entry into the MMIS system is password protected. New users can register on-line at <https://www.mmis.army.mil>. Passwords are normally approved and issued within 48 hours.

(2) Submission will be comprised of the twelve (12) data elements listed in Table 5. Elements 1, 2, 6, 7 & 11 are given for this MWO (as shown). The person reporting the MWO data, will acquire the remaining elements (3, 4, 5, 8, 9, 10 & 12), and input all twelve into MMIS.

**Table 5. MMIS Input Data**

	<u>DATA ELEMENT</u>	<u>INPUT DATA</u>
<b>1</b>	Materiel Change Number (MCN)	1-04-05-0020
<b>2</b>	MWO Number	9-1005-201-30-6
<b>3</b>	Unit Identification Code (UIC)	
<b>4</b>	Unit Name	
<b>5</b>	Unit Location	
<b>6</b>	NSN of the End Item	1005-01-127-7510 or 1005-01-451-6769
<b>7</b>	Registration Number	N/A
<b>8</b>	Date of Application	
<b>9</b>	Man-hours Required for Application	
<b>10</b>	Applied By	
<b>11</b>	Software Version	N/A
<b>12</b>	Serial Number	

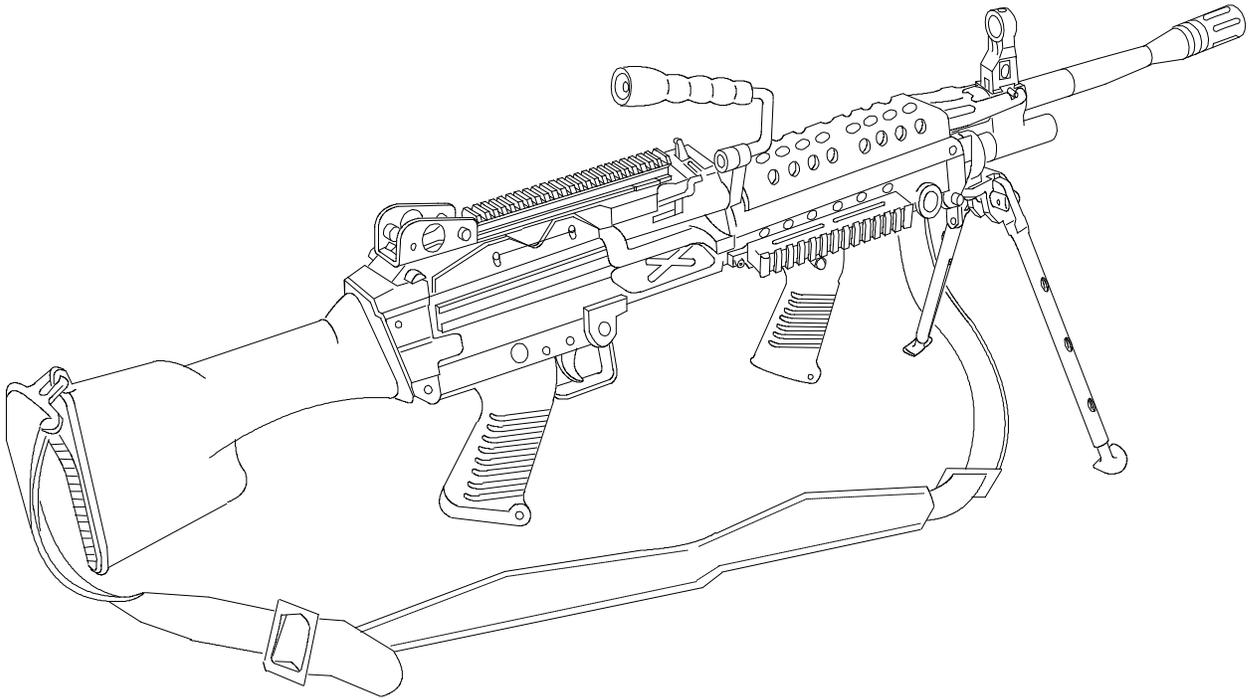
**MWO 9-1005-201-30-6**

**b. Marking equipment.** Not applicable.

**c. Identification data.** Not applicable.

**15. MATERIEL CHANGE (MC) NUMBER.** 1-04-05-0020.

**16. MODIFICATION IDENTIFICATION.** No change in NSN, nomenclature, LIN or model designator is made by this MWO. The application can be verified by visual examination of the receiver assembly for a MIL-STD-1913 Rail. See Figure 8 below for illustration of the M249 MG after completion of this MWO.



**Figure 8**

**By Order of the Secretary of the Army:**

Official:



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

**0427401**

PETER J. SCHOOMAKER  
*General, United States Army  
Chief of Staff*

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