

Routine

MWO effective date is 30 Sep 2006 and completion date is 01 Feb 2012.

MWO 9-1005-319-20-2

MODIFICATION WORK ORDER

**MODIFICATION OF
RIFLE, 5.56MM, M16A4
(NSN 1005-01-383-2872)**

HEADQUARTERS, DEPARTMENT OF THE ARMY, WASHINGTON, D.C.

30 Nov 2006

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

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1. PURPOSE. This MWO prescribes the procedures to incorporate the Adapter Rail System and the Back Up Iron Sight (BUIS) onto the Rifle, 5.56mm, M16A4 (NSN 1005-01-383-2872).

2. PRIORITY. This modification is classified as routine.

3. END ITEM TO BE MODIFIED.

Table 1. End Item(s) or System(s) to be Modified.

NOMENCLATURE	NSN	Part No.	CAGEC	LIN
Rifle, 5.56mm, M16A4	1005-01-383-2872	12973001	19200	R97175

4. ASSEMBLIES TO BE MODIFIED.

Table 2. Modules to be Modified.

NOMENCLATURE	NSN	Part No.	CAGEC	NOMENCLATURE
Handguard Assembly (2 EA)	1005-01-134-3629	9349059	19200	Handguard Assembly
Carrying Handle Assy	1005-01-465-0401	12951011	19200	Carrying Handle

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5. APPLICATION. Total man-hours required for a single application of this MWO is: 0.25 hours.

a. Time Compliance Schedule: MWO effective date is 30 SEP 2006 and completion date is 01 FEB 2012.

b. Lowest level of Maintenance Authorized to Apply this MWO: Unit Level.

c. Work Force and Man-Hour Requirements for Application of the MWO to a Single Unit, End Item:

<u>Work Skills Force</u>	<u>Man-Hours</u>
MOS 92Y	0.25 hours

6. TECHNICAL PUBLICATIONS AFFECTED/CHANGED.

Table 3. Technical Publications Affected/Changed.

Title	Publication Number	Date
Operator Manual for Rifle (s) (M16A2, M16A3, and M16A4) and Carbine (s) (M4 and M4A1).	TM 9-1005-319-10	Oct 1998
Unit and Direct Support for Rifle (s) (M16A2, M16A3, and M16A4) and Carbine (s) (M4 and M4A1).	TM 9-1005-319-23&P, with Changes 1-8.	May 1991

7. MWO PART(S) AND THEIR DISPOSITION:

a. Parts needed to apply this MWO.

Table 4. Part(s) needed to apply this MWO.

Nomenclature	NSN	Part No.	Qty	CAGEC	Security Classification
Back Up Iron Sight	1005-01-484-8000	12996812	1	19200	U
M5 Adapter Rail System	1005-01-452-6771	12973020	1	19200	U
M5 Adapter Rail System Includes the Following:					
Upper Handguard Assy	1005-01-453-4225	12973021	1	19200	U
Lower Handguard	1005-01-453-1635	12973029	1	19200	U
Barrel Stop Assy	1005-01-453-4224	12973139	1	19200	U
11 Rib Rail Cover Assy	1005-01-453-5386	12973132	4	19200	U
9 Rib Rail Cover Assy	1005-01-453-5383	12973134	2	19200	U
6 Rib Rail Cover Assy	1005-01-453-4222	12973135	1	19200	U
5 Rib Rail Cover Assy	1005-01-453-4221	12973136	2	19200	U
4 Rib Rail Cover Assy	1005-01-453-4223	12973137	1	19200	U
Vertical Pistol Grip	1005-01-453-6655	12973101	1	19200	U

b. Shipping Data.

Table 5. Shipping Data.

Nomenclature	Weight	Dimensions	Cubic Displacement
Back Up Iron Sight	0.3 lbs	3.00" x 3.00" x 1.00"	9.00 cubic in.
M5 Adapter Rail System	1.5 lbs	14.125" x 3.875" x 3.875"	212.10 cubic in.

c. Parts Disposition. Parts should be turned in through the normal channels for proper disposition instructions, except when the carrying handle is retained with M203A2 Grenade Launcher.

Table 6. Parts Disposition.

Nomenclature	NSN	Part Number	QTY	CAGE Code	Security Classification
Handguard Assy.	1005-01-134-3629	9349059	2	19200	U
Carrying Handle Assy.	1005-01-465-0401	12951011	1	19200	U

8. TOOL KIT.

Table 7. Tool Kit.

Nomenclature	NSN	Part Number
Small Arms Repairman Tool Kit	5180-01-462-4254	SC 5180-95-CL-B71

9. MODIFICATION PROCEDURES.

a. Preparation.

TOOLS:

(ARMY) Small Arms Repairman Tool Kit

EQUIPMENT CONDITIONS:

Carrying handle removed from weapon.

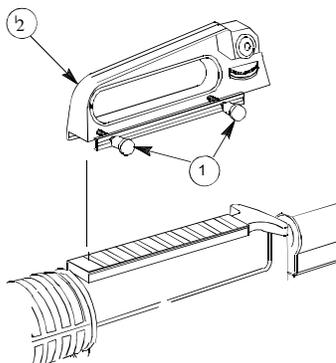
Top rail covers removed from upper handguard assembly of adapter rail.

WARNING

To be considered SAFE, before disassembling, cleaning, inspecting, transporting, or storing, the weapon must be cleared.

- (1) Confirm the weapon is unloaded.
- (2) Remove the magazine.
- (3) Draw the bolt/carrier assembly to the rear and visually inspect the chamber and the receiver to make sure the rifle is unloaded and no ammunition is present.
- (4) Close the bolt/carrier assembly, confirm that the selector is set to "SAFE" and close the dust cover.

b. Removal of Carrying Handle.



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NOTE

Do not remove the carrying handle assembly nut (1) or clamp.

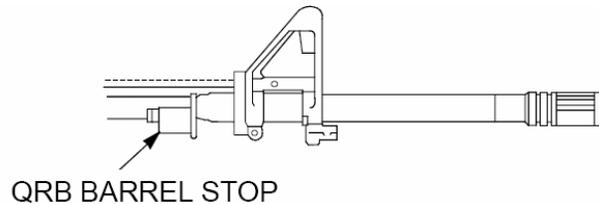
- (1) Loosen carrying handle nuts (1) but do not remove the nuts.
 - (2) After loosening nuts, clamp should be loose. Remove carrying handle (2).
- c. Removal of Handguards.

Remove the standard handguards as in routine field stripping by compressing the handguard slip ring and pivoting the handguards off the front handguard retaining clip.

- d. Install Quick Release Bracket (QRB) barrel stop.

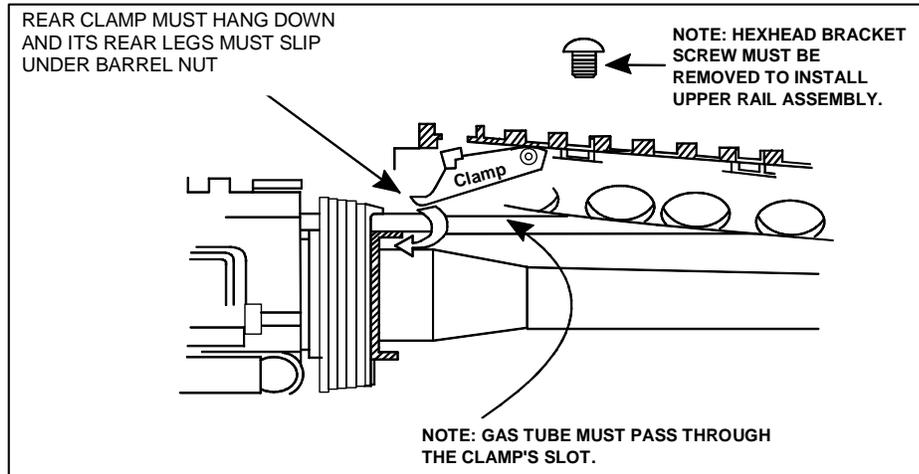
NOTE

The M203A2 QRB barrel stop for the M16A4 rifle barrel is provided as an integral component of the rifle adapter rail. Please note that your rifle adapter rail includes this item. The purpose of the user installing the barrel stop to the rifle barrel is to provide a shoulder or "Stop" that serves as the mounting point for the M203A2 QRB. Once the stop and adapter rail are installed M203A2 grenade launchers can be mounted to the M16A4 rifle. All the M16A4 rifles shall have this barrel stop installed as an integral component of the adapter rail system. Failure to install or maintain the barrel stop will prevent the M203A2 launcher from being mounted to the M16A4.



- (1) Install the stop by placing it over a thin section of the barrel from the six o'clock position, while avoiding contact with the gas tube.
- (2) Rotate it so its opening is pointed towards the gas tube.
- (3) Slide the stop forward until the flat vertical portion fits into the triangular sides of the forward handguard cap with the springs to the rear.

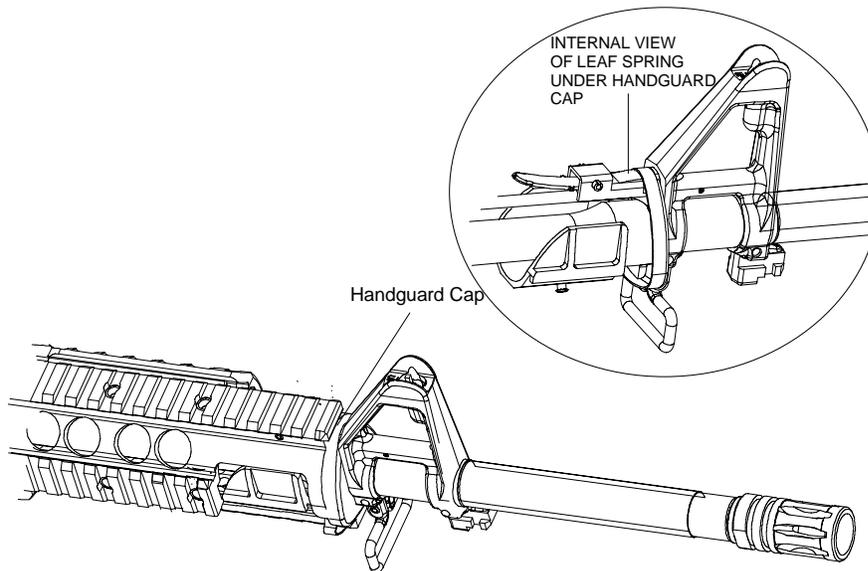
e. Install Upper Rail.



NOTE

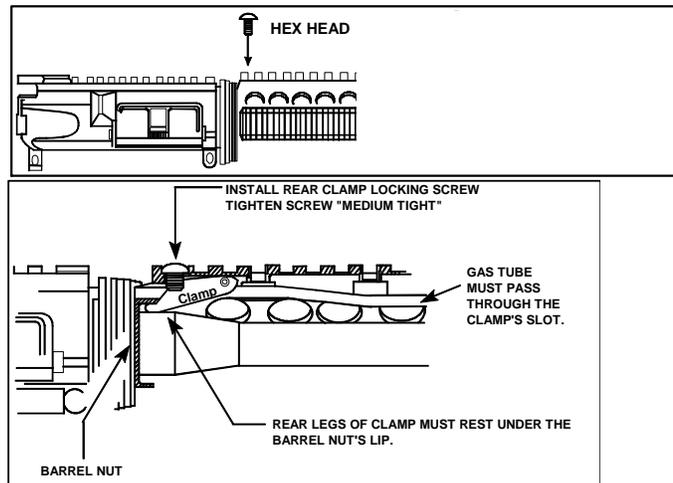
If the rear locking clamp screw is present in the clamp, it must first be fully removed with a 1/8 inch allen wrench.

- (1) Orient the upper adapter rail so the rear locking clamp is hanging down after confirming that the arrow on its inner surface points towards the muzzle of the host weapon.



- (2) Insert the front end of the upper adapter rail into the forward handguard cap at an angle. Be sure the leaf spring at the front of the adapter rail fits inside the lip of the handguard cap.
- (3) Ensure the notches at the front edges of the rifle upper adapter rail engage the tabs at the rear edges of the barrel stop as the rifle is engaged and lowered into its final position.
- (4) Continue installing the upper adapter rail in the same manner as a standard upper handguard by compressing the handguard slip ring and pivoting the upper adapter rail down into its fully locked position around the barrel nut.

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NOTE

Two alignment pins automatically interface with cut-outs in the barrel nut at the 10 and 2 o'clock positions to remove rotational play of the adapter rail. To help retain the zero of accessories mounted on the rails, install and tighten the rear clamp's locking screw to medium tight.

(5) Ensure that the rear clamp's gas tube slot is straddling the gas tube and that the rear legs of the clamp slip under the barrel nut flange as the adapter rail makes contact with the barrel nut and slip ring.

(6) Release the handguard slip ring and confirm that it slides forward evenly around the rear flange of the upper adapter rail.

f. Install Lower Rail.

NOTE

Do not remove the thermal liner from the lower adapter rail.

(1) Orient the lower adapter rail by confirming that the arrow on its inner surface points towards the muzzle of the weapon.

(2) Install the lower adapter rail in the same manner as the standard lower handguard by inserting its front edges into the forward handguard cap at the angle shown above, and compressing the handguard slip ring while pivoting the lower adapter rail up and into its final position.

(3) Release the handguard slip ring and confirm that it engages around the rear flange of the lower adapter rail.

g. Rail Covers and Pistol Grip.

NOTE

Each adapter rail kit is furnished with the rails either completely or partially covered with rail covers, as well as with a pistol grip. Each weapon can be configured with rail covers and the pistol grip based on the needs of the soldier and the unit mission profile. The unit is responsible for maintaining any rail covers or pistol grips not used during weapon configuration.

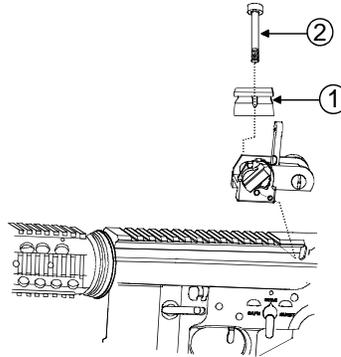
(1) Position rail cover so that the retaining clip is toward the muzzle.

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(2) Depress retaining clip with thumb and slide on until the retaining clip locks into the end notch on the adapter rail.

(3) For the top rail cover, position retaining clip towards the rear, depress retaining clip, and slide on from the rear of the weapon until retaining clip locks into end notch.

h. Install Back-Up Iron Sight.



(1) Mount in the **rearmost** slot on the upper receiver for the range adjustments and the zeroing to be correct.

NOTE

The recoil screw has locking patch on the threads so it is recommended to initially install and not remove unless necessary. The recoil screw must be replaced each time it's removed.

(2) Using the locking bar (1) and the recoil screw (2) align the recoil screw in the rearmost slot with the range scale facing rearward.

(3) Make sure the BUIS is flat on the receiver rail with the angled edge under the upper receiver rail and tighten in place with a 1/8 inch allen wrench.

i. Zeroing. Refer to TM 9-1005-319-23&P or over pack with BUIS.

10. CALIBRATION REQUIREMENTS. N/A.

11. WEIGHT AND BALANCE DATA. The weight and balance are not significantly affected.

12. QUALITY ASSURANCE REQUIREMENTS. N/A.

13. RECORDING AND REPORTING OF THE MODIFICATION. The organization responsible for MWO application will report application information as follows:

a. The M5 Adapter Rail Systems (ARS) will retain their LIN and reportable status when incorporated into the end item configuration of the M16A4 Rifle, respectively. All transfers, turn ins, issues, and other movement of the M16A4 Rifle will include the M5 ARS components for a complete system. Maintaining the M16A4 Rifle in the latest configuration, which includes the M5 ARS components, satisfies / fills the authorization for the M16A4 Rifle and the M5 ARS, respectively. The separate LIN and reportable requirement for the M5 ARS will be terminated after complete implementation of the MWO to all M16A4 Rifles in the Army inventory.

b. 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 online at <https://www.mmis.army.mil>. Passwords are normally approved and issued within 48 hours.

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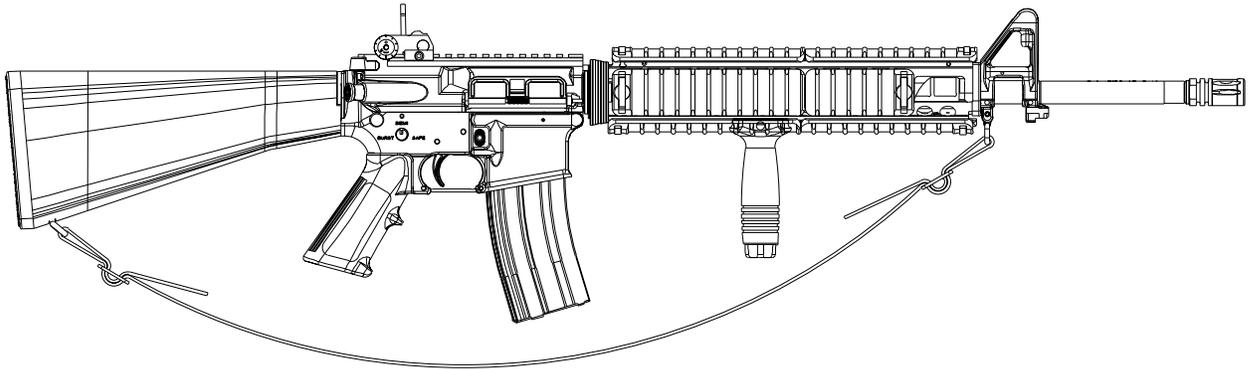
(1) Submission will be comprised of the nine (9) data elements listed in Table 8. Elements 1, 2, and 6 are given for this MWO.

(2) The person reporting the MWO data will acquire the remaining elements (3, 4, 5, 7, 8 and 9) and input all nine elements into the MMIS.

Table 7. Data Elements.

DATA ELEMENT	INPUT DATA
1) Materiel Change Number (MCN)	1-06-05-0003
2) MWO Number	9-1005-319-20-2
3) Unit Identification Code (UIC)	
4) Unit Name	
5) Unit Location	
6) NSN of End Item	1005-01-383-2872
7) Date of Application	
8) Man-Hours Required for Application	
9) Serial Numbers	

14. MATERIEL CHANGE (MC) NUMBER. This MWO is authorized by MCN 1-06-05-0003.



15. MODIFICATION IDENTIFICATION. Visual verification of application can be made as shown in illustration.

By Order of the Secretary of the Army:

Official:



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Secretary of the Army*

0629003

PETER J. SCHOOMAKER
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Distribution:

To be distributed in accordance with the initial distribution number (IDN) 401228,
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