

Change 1  
Field Manual  
No. FM 3-22.65

Headquarters  
Department of the Army  
Washington, DC, 11 April 2007

**BROWNING MACHINE GUN,  
CALIBER .50 HB, M2**

1. Change FM 3-22.65, 3 March 2005, as follows:

<b>Remove old pages:</b>	<b>Insert new pages:</b>
i through iv.....	i through iv
2-11 through 2-12.....	2-11 through 2-12
3-11 through 3-20.....	3-11 through 3-18
4-3 through 4-6.....	4-3 through 4-6
6-23 through 6-24.....	6-23 through 6-24
B-7 through B-8.....	B-7 through B-8
Glossary-1 through Glossary-2.....	Glossary-1 through Glossary-2
Index-1 through Index-6.....	Index 1 through Index-6

2. A star (\*) marks new or changed material.
3. File this transmittal sheet in front of the publication.

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Field Manual  
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HEADQUARTERS  
DEPARTMENT OF THE ARMY  
Washington, DC, 11 April 2007

# BROWNING MACHINE GUN CALIBER .50 HB, M2

## CONTENTS

	<b>Page</b>
<b>PREFACE</b> .....	iv
<b>CHAPTER 1. INTRODUCTION</b>	
1-1. Training Strategy .....	1-1
1-2. Description .....	1-4
1-3. Components .....	1-7
1-4. Ground Mounts .....	1-8
1-5. Accessories for Ground Mounts .....	1-10
1-6. Vehicular Mounts.....	1-12
1-7. Ammunition .....	1-15
<b>CHAPTER 2. MAINTENANCE</b>	
2-1. Safety .....	2-1
2-2. General Disassembly .....	2-1
2-3. Cleaning, Inspection, and Lubrication .....	2-8
2-4. Maintenance Procedures .....	2-10
*2-5. Maintenance Under Chemical, Biological, Radiological, and Nuclear (CBRN) Conditions.....	2-11
2-6. General Assembly.....	2-11
2-7. Function Check .....	2-15

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+This publication supersedes FM 23-65, June 1991; FM 23-65, Change 1, January 2002; FM 23-65, Change 2, December 2002; and rescinds DA Form 7007-R, January 2002.

		<b>Page</b>
<b>CHAPTER 3. OPERATION AND FUNCTIONING</b>		
	3-1. Operation.....	3-1
	3-2. Loading Procedures .....	3-1
	3-3. Unloading Procedures.....	3-3
	3-4. Cycle of Functioning.....	3-4
	3-5. Left-hand Feed.....	3-10
	*3-6. Headspace and Timing.....	3-11
<b>CHAPTER 4. PERFORMANCE PROBLEMS AND DESTRUCTION</b>		
	4-1. Malfunctions .....	4-1
	4-2. Stoppages .....	4-1
	*4-3. Immediate Action.....	4-2
	*4-4. Remedial Action .....	4-4
	*4-5. Destruction Procedures .....	4-5
<b>CHAPTER 5. MARKSMANSHIP TRAINING</b>		
Section	I. Planning .....	5-1
	5-1. Objectives .....	5-1
	5-2. Commander's Responsibilities.....	5-1
	5-3. Phases of Training.....	5-1
	5-4. Sustainment Training.....	5-2
	5-5. Remedial Training .....	5-2
Section	II. Fundamentals.....	5-2
	5-6. Firing Positions .....	5-2
	5-7. Dry-Fire Training.....	5-6
	5-8. Range Determination .....	5-11
	5-9. Observation and Adjustment of Fire.....	5-15
	5-10. Fire Commands.....	5-17
	5-11. Crew Exercises.....	5-21
	5-12. Machine Gun Fundamental Skills Test.....	5-32
Section	III. Basic Marksmanship Training and Qualification .....	5-33
	5-13. Zeroing.....	5-34
	5-14. 10-Meter Practice Firing.....	5-36
	5-15. Firing Table I: Day Practice (Mounted or Dismounted, Prone or Fighting Position).....	5-42
	5-16. Firing Table II: Day Qualification (Mounted or Dismounted, Prone or Fighting Position) .....	5-47
	5-17. Mounting and Boresighting Vision Devices.....	5-49
	5-18. Firing Table III: Night Practice (Mounted or Dismounted, Prone or Fighting Position) .....	5-49
	5-19. Firing Table IV: Night Qualification (Mounted or Dismounted, Prone or Fighting Position) .....	5-54
	5-20. Qualification Standards.....	5-56
Section	IV. Advanced Gunnery .....	5-57
	5-21. Tracking and Leading Exercises.....	5-57

	5-22.	Mounted Firing Exercise.....	5-59
	5-23.	Predetermined Firing Exercise.....	5-64
<b>CHAPTER 6.</b>		<b>COMBAT TECHNIQUES OF FIRE</b>	
Section	I.	Fundamentals .....	6-1
	6-1.	Characteristics of Fire .....	6-1
	6-2.	Classes of Fire.....	6-3
Section	II.	Fire Control.....	6-6
	6-3.	Methods of Fire Control.....	6-6
	6-4.	Targets and Their Engagement .....	6-7
	6-5.	Overhead Fire.....	6-12
	6-6.	Defilade Positions .....	6-15
	6-7.	Methods of Laying the Gun for Defilade Firing.....	6-16
	6-8.	Final Protective Fires .....	6-18
	6-9.	Application of Fire .....	6-18
	6-10.	Fire Adjustment .....	6-19
	6-11.	Antiaircraft Gunnery.....	6-20
Section	III.	Limited Visibility Conditions .....	6-21
	6-12.	Difficulties .....	6-21
	6-13.	Terminology.....	6-22
	6-14.	Target Engagement .....	6-22
	6-15.	Fire Control.....	6-23
	6-16.	Preplanned Fires.....	6-23
	*6-17.	Chemical, Biological, Radiological, and Nuclear (CBRN) Considerations .....	6-24
<b>CHAPTER 7.</b>		<b>TRAIN-THE-TRAINER PROGRAM</b>	
	7-1.	Concept .....	7-1
	7-2.	Trainer Certification Program.....	7-2
	7-3.	Responsibilities and Duties of the Trainer.....	7-3
<b>APPENDIX A.</b>		<b>SAFETY</b> .....	A-1
<b>APPENDIX B.</b>		<b>TRAINING AIDS AND DEVICES</b> .....	B-1
<b>APPENDIX C.</b>		<b>MACHINE GUN RANGES</b> .....	C-1
<b>APPENDIX D.</b>		<b>FIGHTING POSITIONS</b> .....	D-1
<b>APPENDIX E.</b>		<b>RANGE CARDS</b> .....	E-1
<b>APPENDIX F.</b>		<b>AERIAL DEFENSE</b> .....	F-1
<b>APPENDIX G.</b>		<b>NIGHT OPTICS</b> .....	G-1
<b>*GLOSSARY</b> .....			Glossary-1
<b>REFERENCES</b> .....			References-1
<b>*INDEX</b> .....			Index-1

## PREFACE

This manual provides technical information, training techniques, and guidance on the Browning machine gun caliber .50 HB, M2. Unit leaders and the designated gunners will find this information invaluable in their efforts to successfully integrate this automatic weapon into their combat operation. All instruction can be given either on the range or in the vicinity (concurrent training stations).

The material contained herein is applicable without modification to nuclear and conventional warfare.

Trainers must ensure safety procedures are observed at all times. Commanders, trainers, and individual students must all remember that safety is everyone's responsibility. All training should be conducted as though the weapon is fully loaded. At no time while using this manual will speed or accuracy override safety procedures. Safe training is good training.

This publication applies to the Active Army, the Army National Guard (ARNG)/Army National Guard of the United States (ARNGUS), and the United States Army Reserve (USAR) unless otherwise stated.

\*The proponent of this publication is the US Army Training and Doctrine Command. The preparing agency is the US Army Infantry School. You may send comments and recommendations by any means, US mail, e-mail, fax, or telephone, as long as you use or follow the format of DA Form 2028, *Recommended Changes to Publications and Blank Forms*. You may also phone for more information.

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Unless otherwise stated, whenever the masculine gender is used, both men and women are included.

PART	BEFORE FIRING	DURING FIRING OR TEMPORARY CESSATION	AFTER FIRING
Bore	Make sure it is clear and clean.		Clean and oil lightly.
Moving parts	Oil lightly and test for worn or broken parts. Moving parts should function without excessive friction.	Lubricate working parts. Observe the functioning of the gun to anticipate failures.	Inspect, clean, and oil lightly.
Headspace and timing	Check adjustment by gauge and correct if necessary.	Watch for bulged cases to prevent a ruptured (separated) case. If a separated case occurs, remove it and readjust headspace.	Check adjustment.
Rear sight and windage knob	Ensure that the sight is clean and functions properly. Set it at 1,000, windage zero.	Keep properly set.	Clean and oil; set at 1,000, windage zero.
Spare parts and tools	Clean and oil spare parts and tools. Check kits for completeness. Examine newly drawn parts.	Keep available.	Clean and oil. Check and replace damaged or missing parts.
Ammunition	Have an adequate supply. Ensure it is clean, correctly loaded, and in good condition. DO NOT OIL.	Keep correctly aligned with the feedway; check resupply. Protect from sun, moisture, and dirt. Watch for link stoppage.	Clean, store carefully, and replenish supply.

**Table 2-2. Operational checklist.**

**\*2-5. MAINTENANCE UNDER CHEMICAL, BIOLOGICAL, RADIOLOGICAL, AND NUCLEAR CONDITIONS**

If CBRN contamination is anticipated, apply oil to all outer metal surfaces of the weapon. DO NOT OIL AMMUNITION. Keep the weapon covered as much as possible. If the weapon is contaminated, decontaminate it as prescribed by FM 3-11.5, and then clean and lubricate it.

**2-6. GENERAL ASSEMBLY**

To assemble the gun, replace the groups and assemblies in reverse order of their removal in disassembly.

a. **Barrel Buffer Assembly and Barrel Buffer Body Group.** Replace the barrel buffer assembly in the barrel buffer body group, with the key on the spring guide to the

right. This key must fit in its slot in the right side of the barrel buffer body. Turn the barrel buffer tube until the screwdriver slot (in the rear of the tube) is vertical and the arrow is pointing to the right. The stud on the tube lock will now engage the serrations in the barrel buffer tube to keep the tube from turning. Push the barrel buffer assembly fully forward (Figures 2-15 and 2-16).

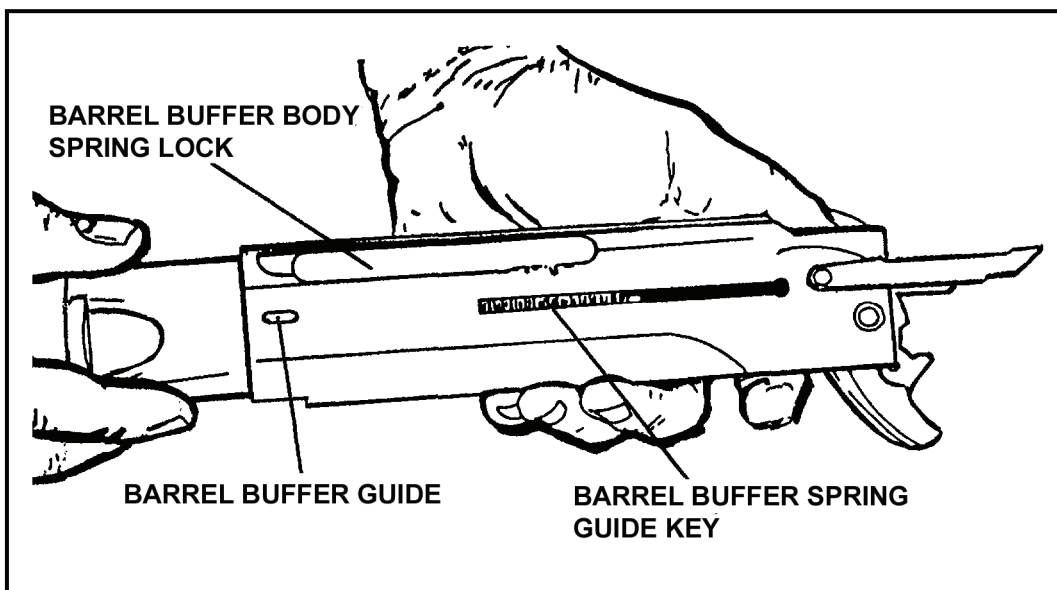


Figure 2-15. Replacing barrel buffer assembly.

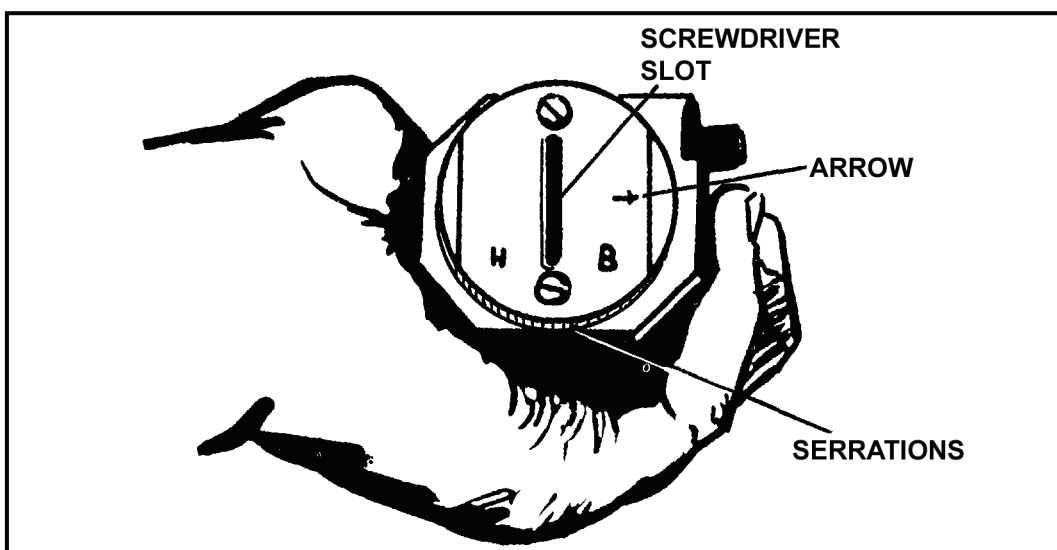


Figure 2-16. Replacing the barrel buffer tube.

b. **Barrel Buffer Group and Barrel Extension Group.** To join the two groups together, hold the barrel buffer group in the right hand, with the index finger supporting the accelerator. Join the notch on the shank of the barrel extension group with the

PART	POSITION
Belt-feed lever, shoulder headless pin, and spring.	Upper (rear) hole; lug of feed lever is on left side of cover.
Belt-feed slide.	Feed pawl is on left side of cover.
Belt-feed pawl arm.	Arm toward latch end of cover, pointing right.
Cover latch shaft lever.	Left side of cover.
Cartridge stops and link stripper.	Right-hand rear cartridge stop assembly and front cartridge stop on right side of feedway.
Retracting slide with handle.	Right sideplate.
Belt-holding pawl.	Left side of feedway.
Bolt switch.	Cam grove in line with "L" on bolt.

**Table 3-1. Position of parts for left-hand feed.**

**DANGER**  
**CLEAR THE GUN OF AMMUNITION BEFORE**  
**SETTING HEADSPACE.**

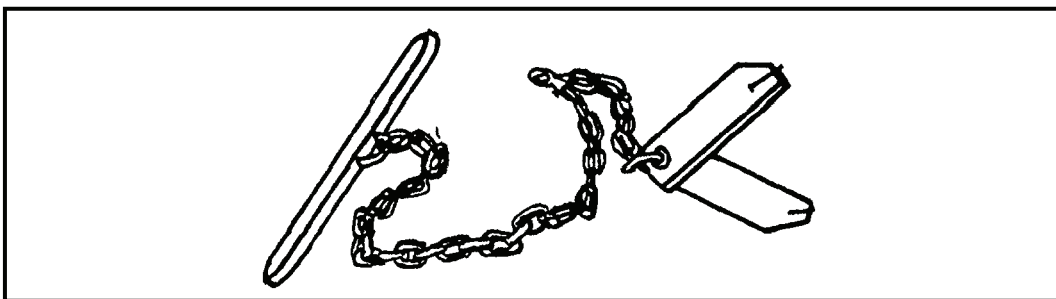
#### **\*3-6. HEADSPACE AND TIMING**

Headspace is the distance between the face of the bolt and the base of the cartridge case, fully seated in the chamber. Timing is the adjustment of the gun so that firing takes place when the recoiling parts are in the correct position for firing. Because the cartridge is held by the T-slot of the bolt, headspace with the machine gun is measured as the distance between the rear of the barrel and the face of the bolt. This occurs when the recoiling parts are forward and there is positive contact between the breech lock recess in the bolt and the lock in the barrel extensions. Direct support personnel should make calibration checks of the gage at least annually.

**WARNING**  
**Firing a weapon that has improperly set**  
**headspace and timing could result in damage to**  
**the machine gun or injury to the gunner. Damage**  
**may also occur in the trunnion block, base of the**  
**barrel, or face of the bolt. This warning applies**  
**whether the gun is firing service ammunition or**  
**M1E1 blanks. (The weapon has improper [early]**  
**timing when two rounds are fired and then firing**  
**stops.)**

\*a. **Gage.** The headspace and timing gage consists of a headspace gage and two timing gages (Figure 3-15). These gages provide an accurate means of checking the adjustment of headspace and timing. Ensure the Go/No-Go gage does not have any broken, bent, rusted or pitted areas, or other forms of mutilation that could affect dimensional tolerances.

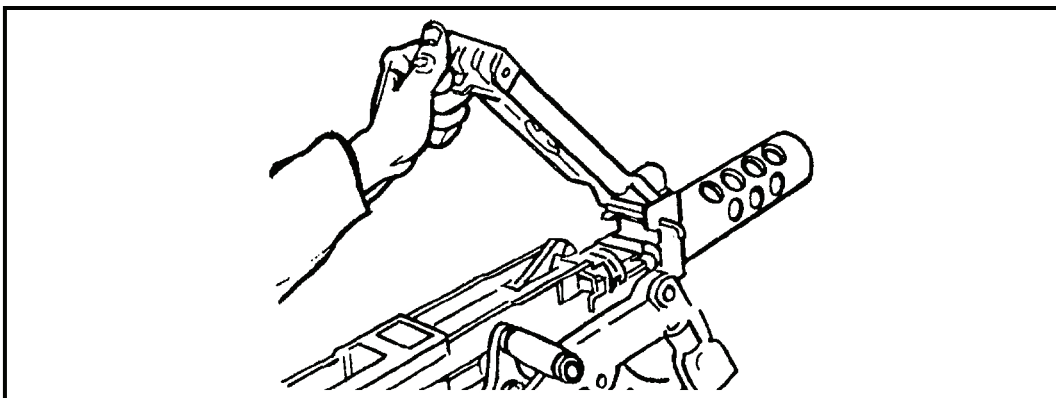
\***NOTE:** The headspace and timing gage should be kept with the gun at all times.



**\*Figure 3-15. Headspace and timing gage.**

b. **Headspace.** Check and set headspace before firing, after assembling the gun, and after replacing the barrel or receiver group. Use the following procedures to set headspace.

\*(1) Raise the cover all the way up (Figure 3-16). Using the retracting slide handle, retract the bolt until the barrel-locking-spring lug is centered in the 3/8-inch hole on the right side of the receiver (Figure 3-17).



**Figure 3-16. Raising the cover.**

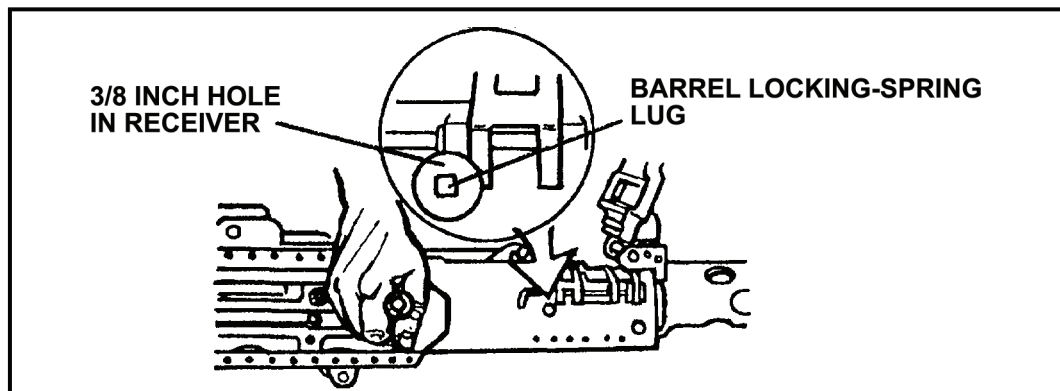


Figure 3-17. Retracting the bolt.

\*(2) With the bolt retracted, screw the barrel to the right fully into the barrel extension; then unscrew the barrel to the left two clicks. Allow the bolt to go forward. Try turning the barrel in either direction; the barrel should not rotate in either direction. If the barrel rotates, check the barrel notches and the barrel-locking spring for damage (Figure 3-18).

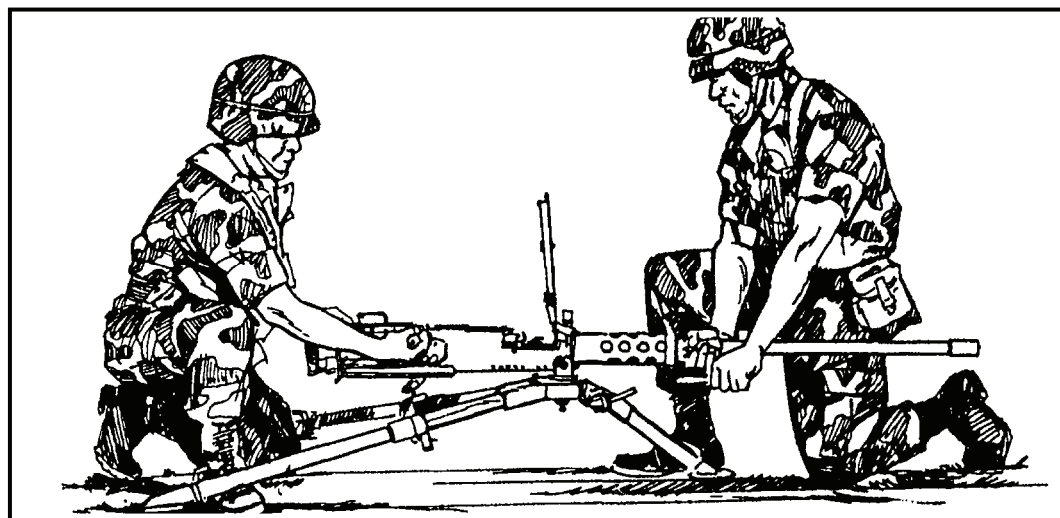


Figure 3-18. Screwing in the barrel.

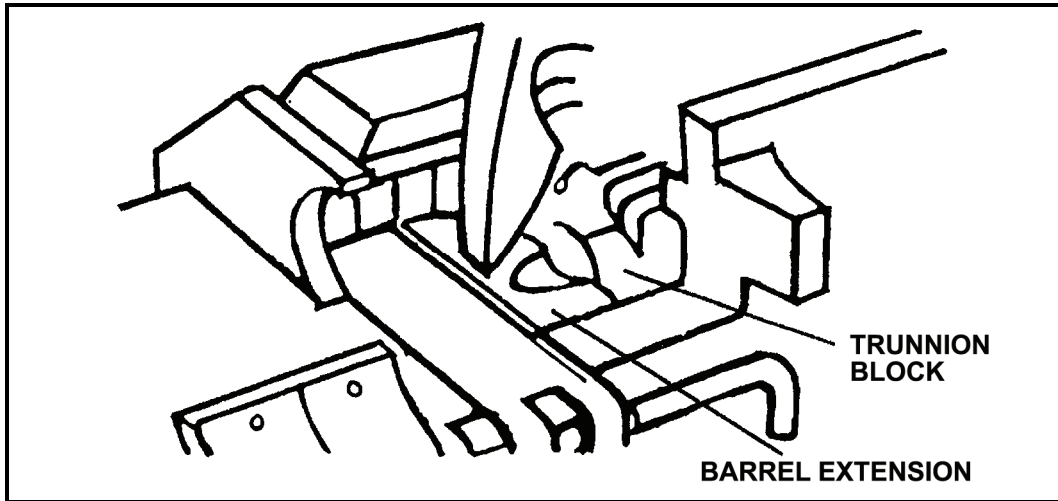
### WARNING

When resetting the headspace and timing of a gun that has been fired, use an asbestos mitt to avoid burns.

\*(3) Charge the weapon and allow the bolt to go forward. (Do not slam).

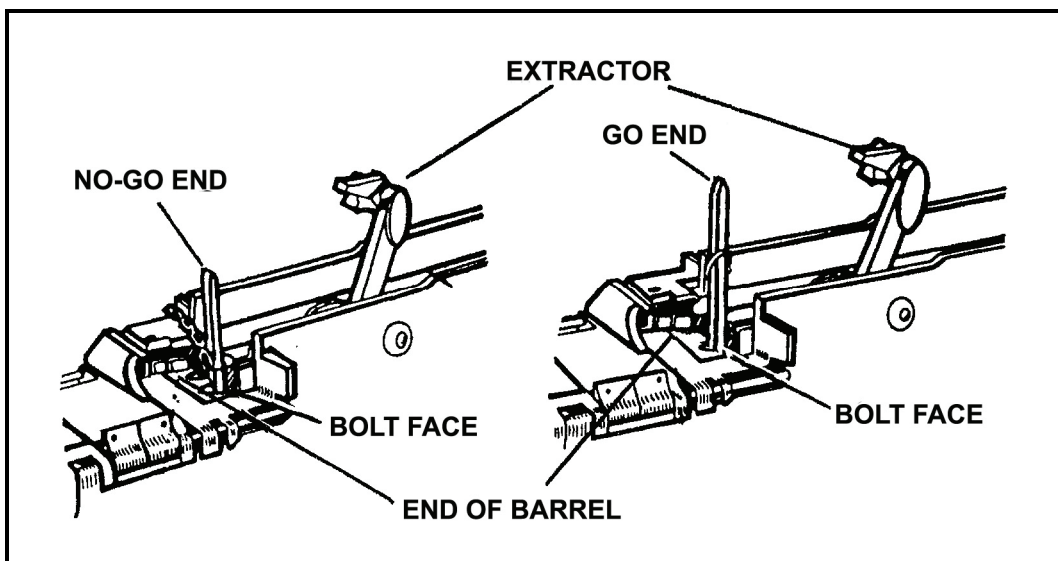
\*(4) Retract the bolt until the barrel extension begins to separate (but not more than 1/16 inch) from the trunnion block. (DO NOT INSERT ANY OBJECT BETWEEN THE

BARREL EXTENSION AND TRUNNION BLOCK.) Hold in this position until gage check is complete (Figure 3-19).



**\*Figure 3-19. Bolt and barrel extension separation.**

\*(5) Raise the cartridge extractor. Push in on the alignment guide to insert the gage, applying slight pressure on the gage. Insert the go end of the gage in the T-slot between the face of the bolt and the rear of the barrel all the way up to the ring. If the go end of the headspace gage enters down to the ring, insert the No-Go end of the headspace gage. If the No-Go end does not enter the T-slot, it means the headspace is set. If the No-Go end enters the T-slot or the go end does not enter, retract the bolt to align the barrel locking spring lug with 3/8" hole in the right side of the receiver (Figure 3-20).



**\*Figure 3-20. Inserting the go and No-Go gage.**

\*(6) Screw the barrel in (to the right) one click at a time if the No-Go end enters the slot or one click out (to the left) at a time if the go end does not enter. Recheck after each click starting with step 4 above (Figure 3-20.)

**\*CAUTION**

Do not unscrew the barrel more than seven clicks. If the condition occurs, turn in the machine gun for the next echelon inspection.

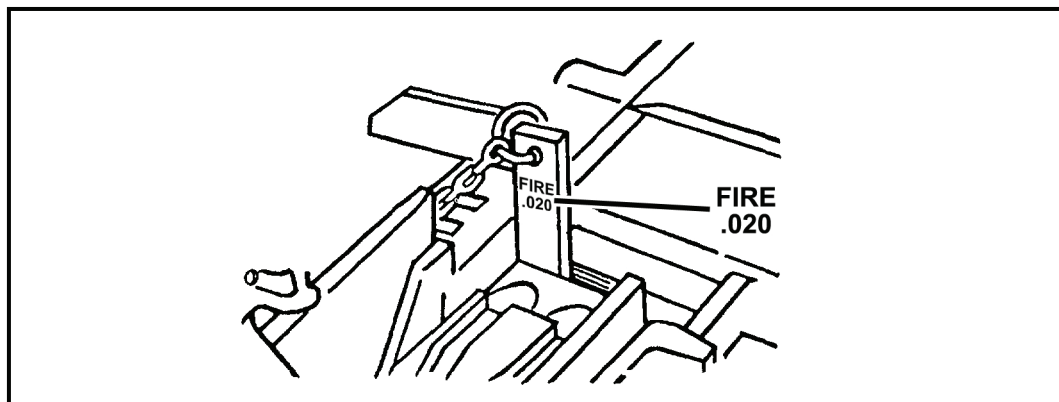
\*(7) Repeat until the go end can enter the T-slot and No-Go end will not enter the T-slot.

\*c. **Timing.** Timing is the adjustment of the weapon so that firing takes place when the recoiling parts are between .020- and .110-inch out of the battery to prevent contact between the front end of the barrel extension and the trunnion block. Use the following procedures to set timing.

**WARNING**

**Make sure the gun is clear of ammunition before beginning.**

- \*(1) Check the headspace first as previously described. The barrel must be installed.
- \*(2) Raise the cover all the way up. (Do not hold the barrel while charging the weapon.) Pull the bolt to the rear with the retracting slide handle and then ease the bolt fully forward to cock the machine gun.
- \*(3) Grasp the retracting slide handle and retract the bolt just enough (1/16 inch) to insert the fire gage with the beveled edge against the barrel notches (Figure 3-21).



**\*Figure 3-21. Inserting the fire gage.**

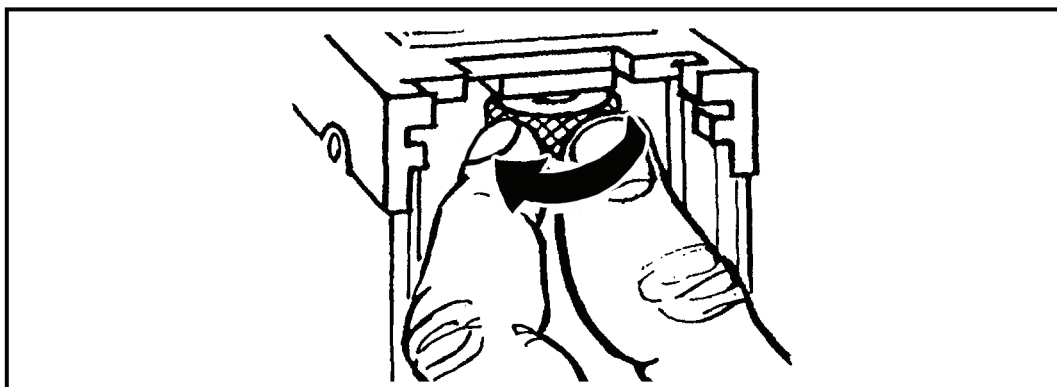
**WARNING**

**Never charge the gun with the backplate off. Do not stand directly behind the gun while removing the backplate.**

**\*NOTE:** The gun must be in single-shot mode before removing the backplate.

\*(4) Remove the backplate by pulling the plate latch lock straight back while lifting up on the backplate latch. Raise the backplate assembly straight up and remove it from the receiver.

\*(5) Turn the timing adjustment nut all the way down to the left, but not completely off the timing stud (Figure 3-22).



**\*Figure 3-22. Adjusting the timing nut.**

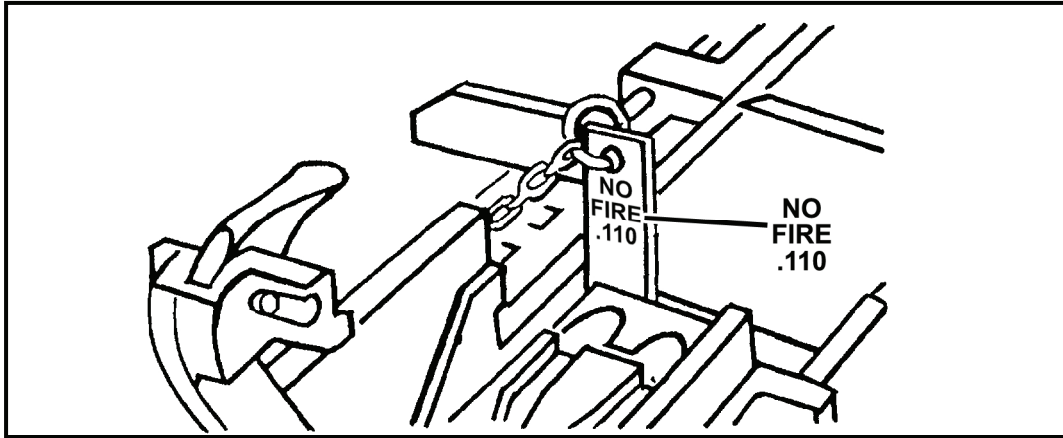
\*(6) Reinstall the backplate and attempt to fire by pressing down on the butterfly trigger; the gun should not fire (firing pin is not released).

\*(7) Repeat these procedures until the gun fires and the firing pin releases.

\*(8) After the gun fires, remove the backplate and turn the adjusting nut to the right two clicks. Reinstall the backplate. Retract the bolt just enough (1/16 inch) to remove the fire gage, charge the weapon, and allow the bolt to go forward. Do not slam.

\*(9) Retract the bolt just enough (1/16 inch) to insert the No-Fire gage with the beveled edge against the barrel notches (Figure 3-23). Attempt to fire the machine gun by pressing down on the butterfly trigger; the machine gun should not fire.

\*(10) Retract the bolt just enough to remove the No-Fire gage and insert the fire gage with the beveled edge against the barrel notches. Attempt to fire by pressing down on the butterfly trigger; the machine gun should fire. Retract the bolt just enough to remove the fire gage. Timing adjustment is complete.



\*Figure 3-23. Inserting the No-Fire gage.

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**\*WARNING**

**Do not open cover while performing immediate action. Keep the weapon pointed down range.**

**Never remove the backplate assembly until the chamber has been cleared.**

**Depending on climate condition, do not leave live rounds laying on top of hot expended brass.**

\*a. On a cool weapon (one that has fired fewer than 200 rounds in 2 minutes), take the following actions.

(1) Hold the weapon on target.

(2) Wait 10 seconds in case the weapon has a hang fire.

(3) Pull the retracting slide handle to the rear. Return the retracting slide handle to its forward position. If the bolt locks to the rear, depress the bolt latch to return the bolt to the forward position.

(4) Try to fire. If the weapon fires, you have corrected the stoppage.

(5) If the weapon fails to fire, wait 10 seconds, pull the retracting slide handle to the rear, and lock it in the rearward position (engage with bolt latch). Return the retracting slide handle to its forward position.

(6) Proceed to remedial action in paragraph 4-4, page 4-4.

**\*WARNING**

**The climatic temperature of various global regions will make a difference as to what constitutes a hot gun. A cook-off can occur within 50 rounds when the weapon and ammunition have been exposed for a prolonged period in the sun.**

\*b. On a hot weapon (one that has fired 200 or more rounds in 2 minutes), if the machine gun stops firing, take the following actions within 10 seconds.

(1) Hold the weapon on target.

(2) Pull the retracting slide handle to the rear.

(3) Observe if the round or fired case is ejected, release retracting slide handle, and attempt to fire again.

(4) If the weapon fails to fire place the bolt in the forward position and place the weapon in single action mode.

\*(5) Evacuate immediate area for 15 minutes. Wait another 15 minutes before proceeding to action (6).

(6) If immediate action fails to correct stoppage, apply remedial action after the weapon has cooled sufficiently.

**\*DANGER**  
**NEVER OPEN THE COVER ASSEMBLY ON A HOT WEAPON.**  
**AN OPEN COVER COOK-OFF COULD DAMAGE THE WEAPON AND MORE IMPORTANTLY, COULD RESULT IN SERIOUS INJURY OR DEATH.**

#### 4-4. REMEDIAL ACTION

\*When immediate action does not correct the malfunction, the quickest way to resume firing is to replace the defective part. The following procedures will assist the gunner and crew to apply remedial action.

\*a. Open the cover assembly and remove ammunition belt and check for faulty ammunition or an obstruction in the barrel assembly and chamber.

\*b. Pull the retracting slide handle to the rear.

\*c. If a round is not ejected, lock the bolt to the rear, and if applicable, return retracting slide handle forward.

\*d. If a round is present in the chamber, with a second man standing to the side of the weapon, insert a cleaning rod into the muzzle end of the machine gun and gently tap the round/case from the chamber.

\*e. The weapon is now clear.

\*f. Return the bolt to the forward position.

(1) **Removal of a Cartridge from the T-Slot.** If the cartridge does not fall out, hold the bolt to the rear and, with the extractor raised, use a screwdriver to push the cartridge out the bottom of the receiver.

(2) **Removal of a Ruptured Cartridge.** A ruptured (separated) cartridge case may be removed with a cleaning rod or ruptured cartridge extractor. When using the ruptured cartridge extractor, raise the cover and pull the bolt to the rear. Place the extractor in the T-slot of the bolt, the same as for a cartridge, so that it is held in line with the bore by the ejector of the extractor assembly of the gun. With the extractor aligned with the bore and held firmly in the T-slot, let the bolt go forward into the ruptured case; the shoulders will spring out in front of the case. Pull the bolt to the rear and remove the ruptured case and extractor (Figures 4-1 and 4-2, page 4-5).

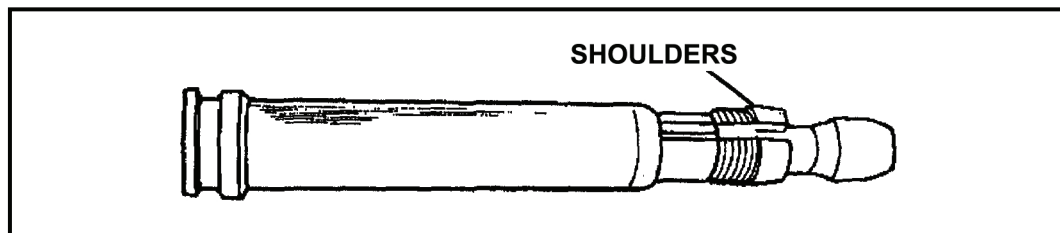


Figure 4-1. Ruptured cartridge case extractor.

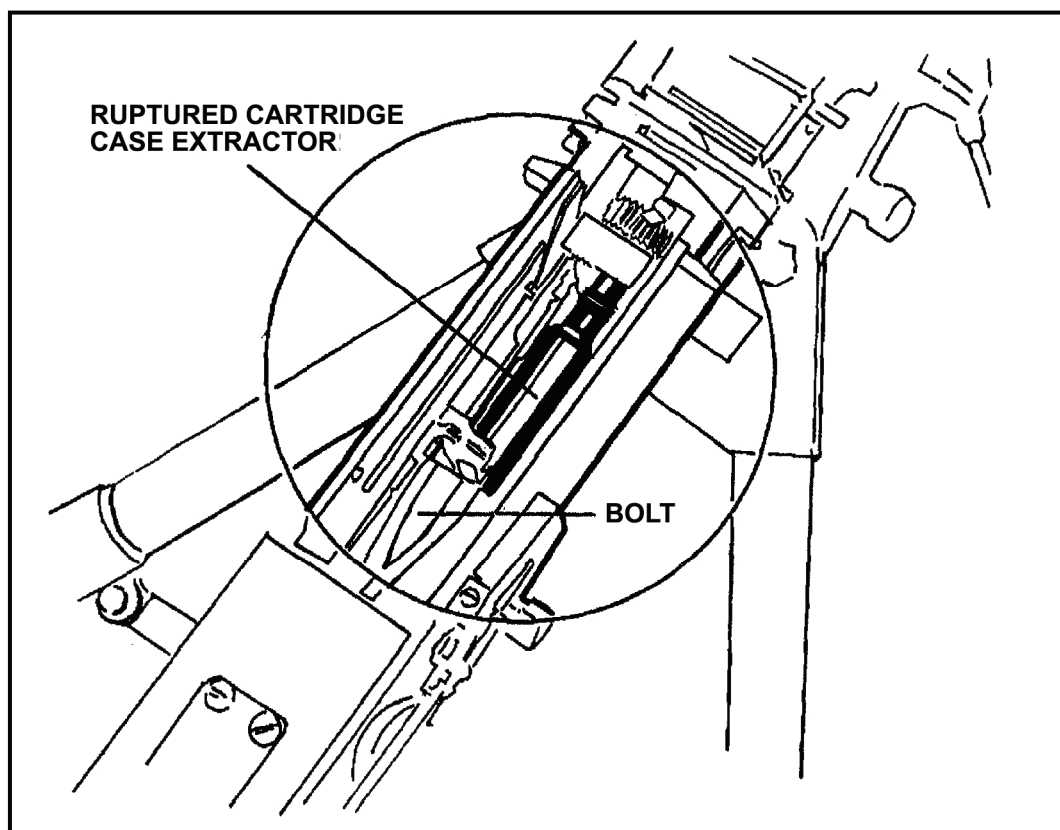


Figure 4-2. Ruptured cartridge case extractor aligned with the chamber.

#### 4-5. DESTRUCTION PROCEDURES

The decision to destroy the machine gun to prevent its capture and use by the enemy is a command decision. It will be ordered and carried out only on authority delegated by the major unit commander.

- Destroy the machine gun and mount only when they are subject to capture or abandonment. Destruction must be as complete as circumstances permit.
- Lacking time for complete destruction, destroy the parts essential to operation of the gun, beginning with those parts most difficult for the enemy to duplicate.
- Destroy the same parts of each gun to prevent the reconstruction of a complete gun from several damaged guns. The following methods may be used to

destroy specific components of the machine gun.

a. **Gun.** Field strip the gun. Use the barrel as a sledgehammer. Raise the cover and smash the cover forward and down toward the barrel support. Smash the backplate group. Remove the firing pin from the bolt; place the striker in the hole in the face of the bolt and bend it until broken. Remove the barrel buffer tube lock assembly from the barrel buffer body group and bend and deform it. Smash and bend the breech lock depressors. Place the barrel extension in the rear of the receiver with the barrel extension shank protruding; knock off the shank by striking it with the barrel from the side. Deform and crack the receiver by striking it with the barrel at the sideplate corners nearest the feedway. Smash the extractor.

b. **Tripod Mount, M3.** Leave the pintle on the tripod by removing the pintle bolt from the gun. Use the barrel as a sledgehammer. Strike the sides of the pintle and deform it. Fold the trail legs and turn the mount over. Stand on the folded trail legs and knock off the pintle latch (pintle lock release cam). Smash the elevating mechanism with the barrel. If possible, smash the rear legs to prevent unfolding.

c. **Antiaircraft Mount, M63.** Remove the sideplate trigger control mechanism from its container or the gun, and use the barrel to deform it. Lock the cradle and yoke assembly in the horizontal position and beat the trigger frame assembly and cradle until they are bent down along the elevator assembly. Use the barrel to strike the elevator from the side until it is bent so that the elevator will not rotate in the base.

d. **Spare Parts.** Destroy the bolt, barrel extension, firing pins, and barrel buffer groups. Break or deform all other parts.

e. **Ammunition.** When time permits and material is available, destroy ammunition by burning. Unpack all ammunition from boxes or cartons, stack the ammunition in a heap, and, using any flammable material available, ignite and take cover immediately.

f. **Burning.** To destroy the gun by burning, place a thermite grenade in the receiver on the bolt (with the cover resting on the grenade) and fire the grenade. (This method may require the use of more than one grenade.) Remove the backplate group, place a thermite grenade in the rear of the receiver and fire the grenade.

g. **Disposal.** Bury the parts in suitable holes; dump into streams, mud, snow, sumps, or latrines; or scatter over a wide area.

a. Point targets, such as automatic weapons, may be identified during limited visibility by their muzzle flashes. To effectively engage these targets, fire should be delivered in a heavy volume and adjusted by observing the tracer stream.

b. During the final stage of an enemy assault, machine guns normally fire at personnel on an FPL; they may be assigned a PDF. Both are considered as final protective fires and should be planned for and coordinated as such. If individual enemy soldiers are observed near the gun position, they must be neutralized by someone other than the machine gunner (by the other crewmembers or by security forces of the supported unit). The FPFs are fired according to the order or SOP, and the machine gunner is not allowed to stop firing them except in accordance with those orders or SOP.

### **6-15. FIRE CONTROL**

During limited visibility, the leader cannot direct the fires of his guns as effectively as with good visibility. Consequently, initiative is required of the gunners. When targets within their sectors become visible to gunners, they must engage such targets without command and continue to fire until the targets have been neutralized. Gun crews engage targets only when they can identify them, unless otherwise ordered. For example, if one gunner detects a target and engages it, the other gunners will observe the area in which fire is being placed. They will add their fire only if they can identify the target or are ordered to place fire in the area.

### **6-16. PREPLANNED FIRES**

In addition to engaging appropriate visible targets, the gunner must be able to deliver preplanned fires during limited visibility. These fires are used to cover target areas of tactical significance (such as routes, avenues of approach, anticipated enemy supporting weapons positions, and probable enemy assault positions) and to establish sectors of graze and final protective lines. For maximum effect in all preplanned target areas, grazing fire should be obtained when possible.

a. **Obtaining Maximum Extent of Grazing Fire Over Level or Uniformly Sloping Terrain.** The machine gunner sets the rear sights at 700 meters; selects a point on the ground, which he determines to be at a range of about 700 meters; and lays, fires, and adjusts on this point. If the gunner cannot obtain 700 meters of grazing fire because of a major break in the ground at a range of less than 700 meters, he places the range to the break on his sight and lays, fires, and adjusts at that point.

b. **Determining the Extent of Grazing Fire on the Final Protective Line.** The extent of grazing fire on the FPL is determined using the techniques described above. Any intermediate breaks in the terrain along this line that cannot be covered by grazing fire from a gun firing along the line is considered dead space.

c. **Determining the Extent of Grazing Fire in the Sector of Graze.** The ranges to the extent of grazing fire in a sector of graze are determined by observing the terrain and by observing the tracer stream from behind or from a flank of the gun position. Normally, the extent of grazing fire within this area will be much less than on an FPL and will form an irregular pattern.

d. **Determining the Amount of Grazing Fire in an Area of Graze.** The same procedures used in paragraph 6-8 are used in determining the extent of grazing fire in an area of graze. The ranges to areas of grazing fire are determined by observing the flight

of tracer ammunition from behind or from the flank of the gun position. The gunner determines the lateral extent of areas of graze by selecting and engaging successive aiming points in the area believed to afford grazing fire, using the same range setting as when determining the range to the extent of grazing fire.

#### **\*6-17. CHEMICAL, BIOLOGICAL, RADIOLOGICAL, AND NUCLEAR (CBRN) CONSIDERATIONS**

\*During this phase of training, the gunner is introduced to firing the machine gun while in MOPP, keeping in mind that engagement of some targets in MOPP is a qualification requirement. Firing weapons is only part of the overall CBRN training. Soldiers must first be familiar with the CBRN equipment, its use, and proper wear before they progress to learning the techniques of MOPP firing. Although there is no different technique required to fire the machine gun, there are certain fundamentals that may be slightly impaired.

a. **\*Immediate Action.** Under normal conditions, a gunner should be able to clear a stoppage in two to four seconds; however, under full MOPP, this may take a few seconds longer. Dry-fire practice under these conditions is necessary to reduce time and streamline actions. When practicing with the hood/mask and gloves, care must be taken not to snag or damage the gloves or dislodge the hood/mask during movement. Trainers should apply immediate action to a variety of stoppages during dry fire until the gunners are able to instinctively do it without compromising their CBRN environment.

b. **\*Target Detection.** Techniques and principles of target detection and target acquisition still remain valid during CBRN conditions, but considerations must be made for limiting factors imposed by MOPP equipment. For example, vision is limited to what can be seen through the mask's lens/faceplate. Peripheral vision is severely restricted. The lens/faceplate may be scratched or partly fogged, further restricting vision. Gunners requiring corrective lenses must be issued insert lenses before training. Scanning movements may be restricted by the hood/mask. Any of these factors could adversely affect the gunner's ability to quickly and accurately detect targets. Extra skill practice should be conducted.

c. **Efficient Performance.** The trainer must keep in mind that although movements are slowed, tasks take longer, and function checks, loading, unloading, and cleaning are affected by MOPP. It is a must that the gunner avoid damaging MOPP gear and risk possible exposure to lethal agents. Because of the great difference between no MOPP and MOPP4, gunners must be trained in all aspects of operation and maintenance of the weapon while practicing at the highest MOPP level. Only through repeated training and practice can the Soldier be expected to perform all tasks efficiently.

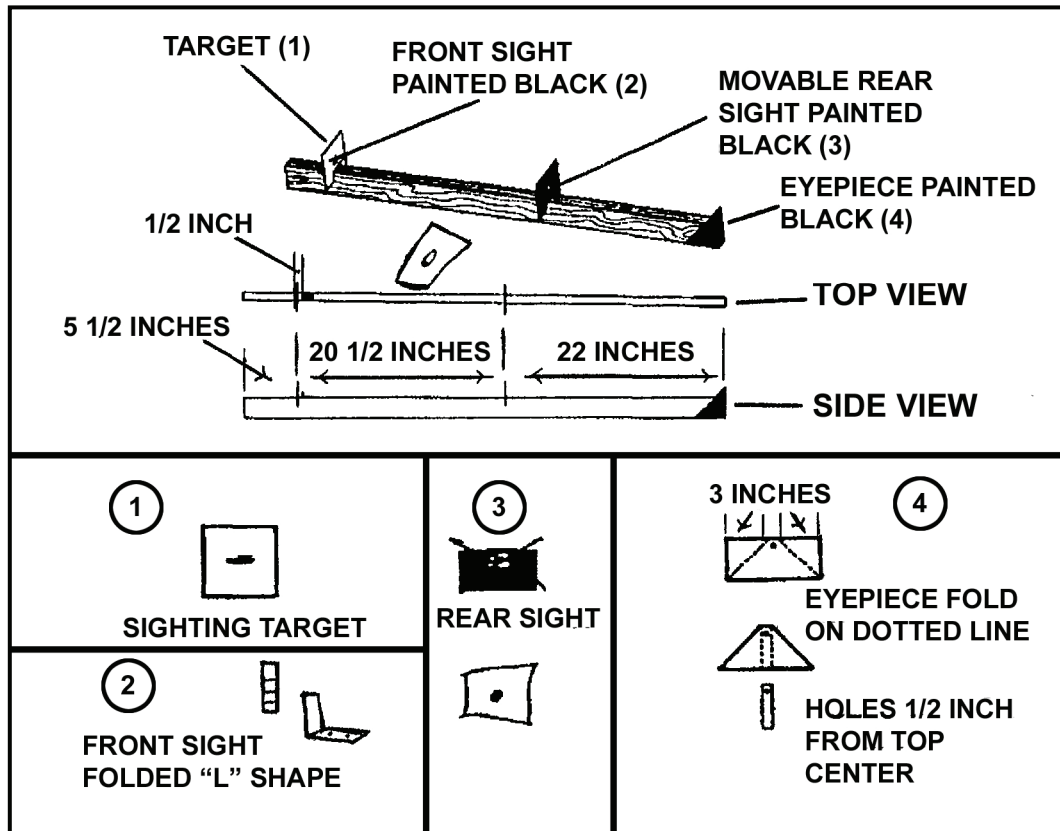


Figure B-8. Sighting bar.

**B-4. SHORT-RANGE TRAINING AMMUNITION**

To augment the use of the caliber .50 ammunition, a new generation of SRTA (the M858 ball and the M860 tracer) has been developed.

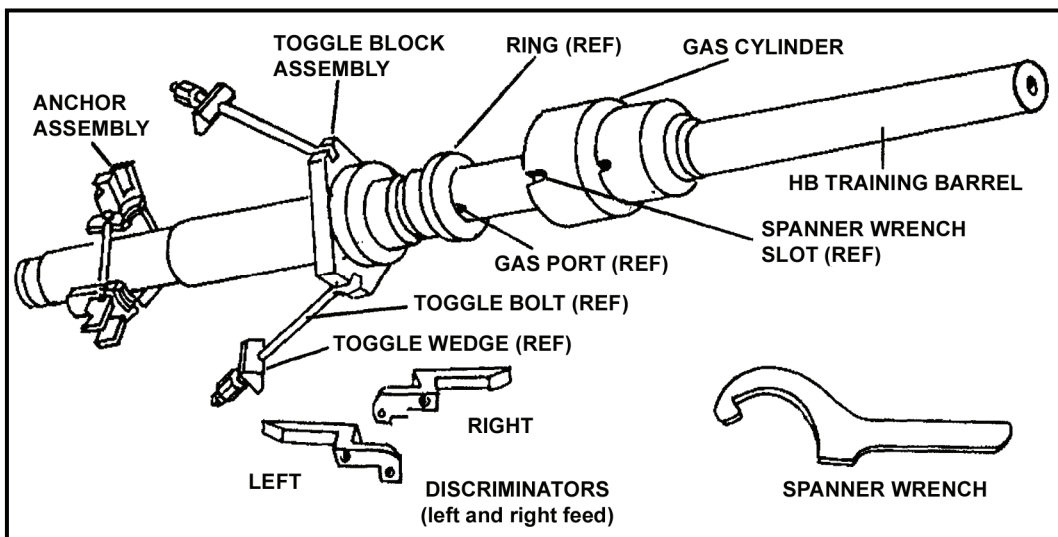
a. The caliber .50 ball and tracer cartridges have configurations and dimensions similar to those of the corresponding service rounds; however, the base of the cartridge, which encloses the primer, is made of aluminum. The rest of the case is made of a blue-colored plastic material. The tip of the tracer projectile is colored red. The complete round weighs about 1.05 ounces and is 5.19 inches long, which is slightly shorter than the service round. The cartridges are linked with M9-type metallic links for use with the machine gun. Muzzle velocity of the projectile is about 4,000 feet per second. The light weight of the projectile, about 50 grains, and its low sectional density cause its velocity to drop rapidly.

\* b. The SRTA allows training in small local training areas without fixed training facilities, in urban operations (UO) facilities, and in combat training theaters. With its 150-meter usable range, the SRTA can be used on grouping, zeroing, and 10-meter scaled silhouette firing.

**WARNING**  
 The SRTA projectile causes considerable damage out to 150 meters and is considered dangerous out to its maximum range of 700 meters.

**B-5. M3 RECOIL AMPLIFIER BARREL ASSEMBLY**

An M3 RABA (Figure B-9) is used with the machine gun for firing training ammunition. It is assembled to the gun in the same manner as the standard barrel. The RABA provides the means to boost the power that is required to recoil the barrel and effectively cycle the weapon when underpowered M858 SRTA or M860 SRTA-T are fired in the machine gun.



**Figure B-9. M3 RABA.**

## GLOSSARY

AAR	after-action review
AIMSS	Advanced Infantry Marksmanship Strategies and Standards
APC	armored personnel carrier
BFA	blank firing adapter
BFV	Bradley fighting vehicle
*CBRN	chemical, biological, radiological, and nuclear
CDR	commander
CLP	cleaner, lubricant, preservative
CRT	cathode ray tube
CVKI	combat vehicle kill indicator
DA	Department of the Army
FLOT	forward line of own troops
FPF	final protective fire
FPL	final protective line
FM	field manual
FOV	field of view
FSN	federal stock number
FTX	field training exercise
HB	heavy barrel
HMMWV	high-mobility, multiwheeled vehicle
HWTS	heavy weapon thermal sight
IAW	in accordance with
IR	infrared
LED	light emitting diode
LRSR	long-range sniper rifle
LSA	lubricant, semifluid, automatic weapon
m	meter
METT-TC	mission, enemy, terrain, troops, time, civilians
MILES	Multiple Integrated Laser Engagement System
MOPP	mission-oriented protective posture
MPMG	multipurpose machine gun
MTP	mission training plan

NA	nonapplicable
NCO	noncommissioned officer
NCOES	Noncommissioned Officer Education System
NCOIC	noncommissioned officer in charge
NFOV	narrow field of view
NSN	national stock number
NVD	night vision device
OIC	officer in charge
PA	public address
PDF	principal direction of fire
PL-M	lubricating oil, general purpose
PL-S	lubricating oil, special purpose
POI	program of instruction
RABA	recoil amplifier barrel assembly
RBC	rifle bore cleaner
SMCT	Soldier's manual of common tasks
SOP	standing operating procedure
SRTA	short-range training ammunition
SRTA-T	short-range training ammunition-tracer
ST	special text
STP	Soldier training publication
STX	situational training exercise
T&E	traversing and elevation
TC	training circular
TOE	table of organization and equipment
TPIAL	target pointer illuminator aiming light
TRADOC	Training and Doctrine Command
TRP	target reference point
TSOP	tactical standing operating procedure
TWS	thermal weapon system
*UO	urban operations
WFOV	wide field of view

## INDEX

- aerial engagement, F-1, F-2
  - fly-through technique, F-2 (illus)
  - lead, F-1
  - line, F-2
- aiming light, G-13
  - AN/PEQ-2A (*see main entry*)
- air defense, F-1
  - active, F-1
  - passive, F-1
- ammunition, 1-15 through 1-17
  - ballistic data, 1-16 (table)
  - care, handling, and preservation, 1-16
  - cartridges, 1-15 (illus)
  - classification, 1-15, 1-16
    - armor-piercing, 1-16
    - armor-piercing incendiary, 1-16
    - armor-piercing incendiary tracer, 1-16
    - ball, 1-15
    - blank, 1-16
    - high-pressure test, 1-16
    - incendiary, 1-16
    - tracer, 1-15
  - \*destruction, 4-6
  - dummy, 1-16
  - links, 1-15 (illus)
  - maximum penetration, 1-17
    - armor-piercing, 1-17 (table)
    - ball, 1-17 (table)
  - precautions, 1-17
  - storage, 1-16
- AN/PAS-13(V)3, heavy weapon thermal sight, G-1 through G-8
  - compatibility, G-2
  - controls and indicators, G-3 (illus)
  - equipment description, G-1
    - components, G-1, G-2 (illus)
- M2 reticles, G-5, G-6 (illus)
  - bracket controls and indicators, G-7 (illus)
- modes of operation, G-2
  - STANDBY, G-2
  - ON, G-3
  - EMERGENCY, G-3
- mounting, G-7, G-8 (illus)
  - status indicators and raster, G-4, G-5 (illus)
- AN/PEQ-2A target pointer illuminator
  - aiming light, G-13 (illus)
  - controls and indicators, G-14
    - battery installation, G-14 (illus)
    - button switch, G-15, G-16 (illus)
  - boresight adjusters, G-18, G-19 (illus)
  - cable switch, G-16, G-17 (illus)
  - focus knob, G-17 (illus)
  - lens caps, G-18 (illus)
  - mode selector, G-15 (table)
  - safety block installation, G-14, G-15 (illus)
- dismounting procedures, G-20
- mounting procedures, G-19, G-20 (illus)
- antiaircraft gunnery, 6-20 through 6-21
  - engagement and employment, 6-20, 6-21 (illus)
  - target selection and engagement control, 6-20
- AN/TVS-5 night vision sight, G-9 through G-13
  - components and data, G-9 (illus)
  - controls and indicators, G-10 (illus)
  - dismounting procedures, G-13
  - mounting procedures, G-12 (illus)
  - sight reticle, G-10, G-11 (illus)
- applying fire, 6-18, 6-19 (illus)
- assembly, 2-11 through 2-15
  - backplate group, 2-14, 2-15 (illus)
  - barrel, 2-16
  - barrel buffer, 2-11, 2-12 (illus)
  - barrel buffer and barrel extension group, 2-12, 2-13 (illus)
  - barrel buffer body group, 2-11, 2-12 (illus)
  - bolt, 2-13 (illus)
  - bolt stud, 2-14 (illus)
  - driving spring group, 2-14

- basic machine gun target, 5-36, 5-37 (illus)
  - area targets, 5-37
  - common errors, 5-38 (illus)
  - point targets, 5-37
- beaten zone, 6-3
- boresighting, G-21
  - personnel, G-21
  - steps, G-21
  - target offsets, G-22 through G-25
- care and cleaning, 2-9
  - of M3 mount and accessories, 2-9
  - routing, 2-9
  - under unusual conditions, 2-9
- \*CBRN considerations, 6-24
  - efficient performance, 6-24
  - immediate action, 6-24
  - target detection, 6-24
- classes of fire, 6-3 through 6-6
  - enfilade, 6-4 (illus)
  - fixed, 6-5, 6-6 (illus)
  - flanking, 6-4 (illus)
  - free gun, 6-5, 6-6 (illus)
  - frontal, 6-4 (illus)
  - grazing, 6-3 (illus)
  - oblique, 6-4 (illus)
  - plunging, 6-3 (illus)
  - searching, 6-5, 6-6 (illus)
  - swinging traverse, 6-5, 6-6 (illus)
  - traversing, 6-5, 6-6 (illus)
  - traversing and searching, 6-5, 6-6 (illus)
- components, 1-7 (illus), 1-8 (table)
- cone of fire, 6-2 (illus)
- crew exercises, 5-21
  - duties of the crew, 5-29
  - equipment, 5-21
    - inspection, 5-22
  - form for, 5-21, 5-22 (illus)
  - move gun to other mounts, 5-32
  - place gun into action, 5-27, 5-28 (illus)
  - relocate tripod-mounted gun, 5-29
    - dragging, 5-29, 5-30 (illus)
    - two-man carry, 5-30 (illus)
    - three-man carry, 5-31 (illus), 5-32 (illus)
  - remove gun from action, 5-27, 5-28 (illus)
- cycle of functioning, 3-4 through 3-10
  - chambering, 3-6 (illus)
  - cocking, 3-10
  - ejecting, 3-10
  - extracting, 3-10
  - feeding, 3-4 (illus) through 3-6 (illus)
  - firing, 3-7, 3-8 (illus)
  - locking, 3-6, 3-7 (illus)
  - unlocking, 3-8, 3-9 (illus)
- DA Form 2404, Equipment Inspection and Maintenance Worksheet, B-2
- DA Form 5517-R, Standard Range Card, E-1 through E-2
  - example of completed, E-2 (illus)
  - preparation, E-1, E-2 (illus)
  - sections, E-1
- DA Form 7448-R, M2 Caliber .50 Heavy Barrel Machine Gun Firing Table I, Day Practice Scorecard (Mounted or Dismounted, Prone or Fighting Position), 5-43
- DA Form 7449-R, M2 Caliber .50 Heavy Barrel Machine Gun Firing Table II, Day Qualification Scorecard (Mounted or Dismounted, Prone or Fighting Position), 5-47
- DA Form 7450-R, M2 Caliber .50 Heavy Barrel Machine Gun Firing Table III, Night Practice Scorecard (Mounted or Dismounted, Prone or Fighting Position), 5-53
- DA Form 7451-R, M2 Caliber .50 Heavy Barrel Machine Gun Firing Table IV, Night Qualification Scorecard (Mounted or Dismounted, Prone or Fighting Position), 5-54
- DA Form 7536-R, M2 Caliber .50 Heavy Barrel Machine Gun Firing Table V, Mounted Firing Scorecard, 5-63

- DA Form 7537-R, M2 Caliber .50 Heavy Barrel Machine Gun Firing Table VI, Predetermined Firing Exercise Scorecard (Mounted or Dismounted, Prone or Fighting Position), 5-66
- defilade firing, 6-16
- laying gun for, 6-16 through 6-18
    - direction, 6-16
    - elevation, 6-17 (illus)
    - fire adjustment, 6-18
    - mask clearance, 6-17
      - firing tables method, 6-18
      - visual method, 6-17
- defilade positions, 6-15 through 6-16
- advantages, 6-16
  - full defilade, 6-15, 6-16 (illus)
  - partial defilade, 6-16 (illus)
  - position selection, 6-16
- \*destruction procedures, 4-5, 4-6
- \*ammunition, 4-6
  - \*burning, 4-6
  - \*disposal, 4-6
  - \*gun, 4-6
  - \*M3 tripod mount, 4-6
  - \*M63 antiaircraft mount, 4-6
  - \*spare parts, 4-6
- disassembly, 2-1 through 2-8
- major groups, 2-1, 2-2 (illus)
    - backplate group, 2-3, 2-4 (illus)
    - barrel buffer assembly, 2-8 (illus)
    - barrel buffer body group, 2-7 (illus)
    - barrel extension group, 2-7 (illus)
    - barrel group, 2-2 (illus), 2-3 (illus)
    - bolt group, 2-6, 2-7 (illus)
    - bolt stud, 2-5, 2-6 (illus)
    - driving spring rod assembly, 2-5 (illus)
- fighting positions, D-1 through D-5
- antiaircraft emplacement, D-5 (illus)
  - construction considerations, D-1 (illus)
  - tripod-mounted, D-2 through D-5
    - ammunition bearer, D-5 (illus)
    - digging, D-3 (illus), D-4 (illus)
    - planning, D-2 (illus)
- fire adjustment, 6-19 through 6-20
- aiming point method of, 6-20
  - observation, 6-20
  - on field targets, 6-20
  - on 10-meter range, 6-20
- fire commands, 5-17
- elements of initial, 5-17 through 5-20
    - alert, 5-17
    - description, 5-19
    - direction, 5-17
    - method of fire, 5-19
    - open fire, 5-20
    - range, 5-19
  - subsequent, 5-20
- fire control methods, 6-6 through 6-7
- arm-and-hand signals, 6-7
  - oral, 6-7
  - personal contact, 6-7
  - prearranged signals, 6-7
  - standing operating procedures, 6-7
- firing positions, 5-2
- antiaircraft, 5-4, 5-5 (illus)
  - tripod, 5-2, 5-3 (illus), 5-4 (illus)
  - vehicular, 5-4 (illus)
  - with night optics, 5-5
- Firing Table, 5-42 through 5-66
- I, Day Practice (Mounted or Dismounted, Prone or Fighting Position), 5-42 through 5-46
    - ammunition, 5-42
    - engagements 5-43 (table)
  - DA Form 7448-R, M2 Caliber .50 Heavy Barrel Machine Gun Firing Table I, Day Practice Scorecard (Mounted or Dismounted, Prone or Fighting Position), 5-43
    - example completed, 5-46 (illus)
  - firing sequence, 5-43 through 5-45
  - objectives, 5-42
  - organization, 5-42
  - position, 5-42
  - stoppage, 5-42

- II, Day Qualification (Mounted or Dismounted, Prone or Fighting Position), 5-47 through 5-48  
 DA Form 7449-R, M2 Caliber .50 Heavy Barrel Machine Gun Firing Table II, Day Qualification Scorecard (Mounted or Dismounted, Prone or Fighting Position), 5-47  
 example completed, 5-48 (illus)  
 engagements, 5-47 (table)  
 objectives, 5-47  
 scoring, 5-47
- III, Night Practice (Mounted or Dismounted, Prone or Fighting Position), 5-49 through 5-53  
 conditions, 5-50  
 DA Form 7450-R, M2 Caliber .50 Heavy Barrel Machine Gun Firing Table III, Night Practice Scorecard (Mounted or Dismounted, Prone or Fighting Position), 5-53  
 example completed, 5-53 (illus)  
 engagements, 5-49, 5-50 (table)  
 fire control, 5-51  
 firing sequence, 5-51 through 5-52  
 position, 5-50  
 stoppage, 5-50  
 time and ammunition, 5-50  
 use of 5-49
- IV, Night Qualification (Mounted or Dismounted, Prone or Fighting Position), 5-54 through 5-55  
 DA Form 7451-R, M2 Caliber .50 Heavy Barrel Machine Gun Firing Table IV, Night Qualification Scorecard (Mounted or Dismounted, Prone or Fighting Position), 5-54  
 example completed, 5-55 (illus)  
 example completed, back, 5-56 (illus)  
 engagements, 5-54, 5-55 (table)  
 objectives, 5-54  
 scoring, 5-54
- V, Mounted Firing Exercise, 5-59 through 5-63  
 ammunition issue, 5-60  
 DA Form 7536-R, M2 Caliber .50 Heavy Barrel Machine Gun Firing Table V, Mounted Firing Scorecard, 5-63  
 example completed, 5-63 (illus)  
 engagements, 5-59, 5-60 (table)  
 firing sequence, 5-60 through 5-63  
 objectives, 5-59  
 organization, 5-60  
 scoring procedures, 5-63
- VI, Predetermined Firing Exercise (Mounted or Dismounted, Prone or Fighting Position), 5-64 (table) through 5-66  
 ammunition, 5-64  
 conduct of firing, 5-65  
 DA Form 7537-R, M2 Caliber .50 Heavy Barrel Machine Gun Firing Table VI, Predetermined Firing Exercise Scorecard (Mounted or Dismounted, Prone or Fighting Position), 5-66  
 example completed, 5-66 (illus)  
 firing sequence, 5-65  
 objectives, 5-64  
 organization, 5-64  
 scoring procedures, 5-66  
 front sight, 1-4, 1-6 (illus)  
 function check, 2-15
- general data, 1-6 (table)  
 ground mounts, 1-8 through 1-12  
 accessories, 1-10 through 1-12  
 traversing and elevation mechanism, 1-10, 1-11 (illus)  
 pintle, 1-12 (illus)  
 M3 tripod mount, 1-8, 1-9 (illus)  
 \*destruction, 4-6  
 M63 antiaircraft mount, 1-9, 1-10 (illus) (table)  
 \*destruction, 4-6

- \*headspace, 3-11 through 3-15
  - gage, 3-12 (illus) (*see also* timing)
- inspection, 2-9
  - checklist, 2-9, 2-10 (table)
- leading, 5-58 (table)
- limited visibility, 6-21 through 6-24
  - difficulties, 6-21
  - target engagement, 6-22
  - terminology, 6-22
    - area of graze, 6-22
    - final protective fire, 6-22
    - principal direction of fire, 6-22
    - sector of fire, 6-22
    - sector of graze, 6-22
- loading procedures, 3-1 through 3-3
  - single-shot mode, 3-2, 3-3 (illus)
  - with machine gun cover closed, 3-2
  - with machine gun cover open, 3-1, 3-2 (illus)
- lubrications, 2-10
- M3 recoil amplifier barrel assembly, B-8 (illus)
- M3 tripod mount, 1-8, 1-9 (illus)
- M19 blank firing attachment, B-1 (illus)
- M113 APC MILES kit, B-2 (illus)
- M31C pedestal truck mount, 1-13 (illus)
- M36 truck mount, 1-12, 1-13 (illus)
- M63 antiaircraft mount, 1-9, 1-10 (illus) (table)
- maintenance, 2-9
  - gun, 2-9
  - mount, 2-9
  - procedures, 2-10, 2-11 (table)
  - \*under CBRN conditions, 2-11
- malfunctions, 4-1
  - failure to function freely, 4-1
  - \*remedial action, 4-4, 4-5 (illus)
  - uncontrolled automatic fire, 4-1
- MK gun cradle mount, 1-14 (illus)
- Multiple Integrated Laser Engagement System, B-2
  - transmitter, B-2 (illus)
  - aligning to machine gun, B-5
  - attaching to machine gun, B-4 (illus)
  - inspecting and servicing, B-2, B-3 (illus)
    - DA Form 2404, Equipment Inspection and Maintenance Worksheet, B-2
    - M113 APC MILES kit, B-2 (illus)
    - operating, B-4, B-5 (illus)
    - placing the battery into, B-3 (illus)
    - precautions, B-6
    - resetting, B-6
  - multipurpose machine gun transition range, C-2, C-3 (illus)
  - layout, C-4
  - recommended personnel, C-4
- night optic offsets, G-21 (table)
- overall qualification, 5-56
- overhead fire, 6-12
  - conditions, 6-13
  - minimum clearance, 6-12, 6-13 (illus)
  - precautions, 6-15
  - uneven terrain, 6-13 through 6-15
    - gunner's rule, 6-13, 6-14 (illus)
    - leader's rule, 6-14, 6-15 (illus)
- range estimation, 5-11 through 5-14
  - \*factors affecting, 5-12 (table)
  - techniques of, 5-12
    - appearance-of-objects method, 5-14
    - 100-meter unit-of-measure method, 5-12, 5-13 (illus)
- rear sight, 1-4, 1-5 (illus)
- safety, A-1 through A-2
  - range procedures, A-1
    - after firing, A-2
    - before firing, A-1
    - during darkness, A-2
    - during firing, A-2
- short-range training ammunition, B-7
- sighting bar, B-6, B-7 (illus)
- sights, G-1 through G-13
  - AN/PAS-13(V)3 (*see main entry*)
  - AN/TVS-5 (*see main entry*)

- stoppages, 4-1
  - immediate action, 4-2
  - training ranges, A-1
- 10-meter exercise, 5-36
  - ammunition, 5-38 (table)
  - firing sequence, 5-39
  - objective, 5-38
  - organization, 5-38
  - position, 5-38
  - tasks, 5-38, 5-29 (table)
- 10-meter range layout, C-1 (illus)
  - characteristics, C-1
  - equipment, C-2
  - recommended personnel, C-2
  - setup, C-2
- targets, 6-7 through 6-12
  - area, 6-11
    - one gun, 6-12 (illus)
    - two guns, 6-11, 6-12 (illus)
  - deep, 6-10 (illus)
    - one gun, 6-10, 6-11 (illus)
    - two guns, 6-10, 6-11 (illus)
  - linear, 6-7
    - one gun, 6-8 (illus)
    - two guns, normal division, 6-8
    - two guns, special division, 6-8
  - linear with depth, 6-8, 6-9 (illus)
    - one gun, 6-9 (illus)
    - two guns, 6-9 (illus)
  - point, 6-7
- \*timing, 3-15 (illus) through 3-17
- tracking, 5-57, 5-58
- tracking and leading, 5-58, 5-59 (illus)
- Trainer Certification Program, 7-2
  - Phase I, 7-2
  - Phase II, 7-2
  - Phase III, 7-3
  - recertification, 7-3
- training, 5-1
  - dry-fire, 5-6 through 5-11
  - phases of, 5-1
  - remedial, 5-2
  - strategy, 1-1 through 1-4
    - sustainment, 1-1, 1-2 (illus)
- Train-the-Trainer Program, 7-1 through 7-3
  - concept, 7-1
    - participants, 7-1
    - safety, 7-1, 7-2 (illus)
    - support, 7-1
    - time, 7-1
  - trajectory, 6-1, 6-2 (illus)
- unloading procedures, 3-3, 3-4 (illus)
- vehicular mounts, 1-12 through 1-14
  - armored vehicle cupola mount, 1-14 (illus)
  - M31C pedestal truck mount, 1-13 (illus)
  - M36 truck mount, 1-12, 1-13 (illus)
  - MK gun cradle mount, 1-14 (illus)
- weapons maintenance, A-2
- zero, G-26 through G-30
- zeroing, 5-34 through 5-36
  - confirmation of, 5-36
  - field, 5-36
  - grid square overlay, 5-35 (illus)
  - rear sight, 5-34 (illus)
  - recording of, 5-36
  - three-round group, 5-35
  - with night optics, 5-36

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