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M26 MODULAR ACCESSORY SHOTGUN SYSTEM



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M26 Modular Accessory Shotgun System

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Preface

Training Circular (TC) 3-22.12 provides technical information, training strategy, and employment techniques for the M26 Modular Accessory Shotgun System (MASS). It details training requirements and considerations for lethal and nonlethal employment. This TC discusses marksmanship training and qualification, as well as the train-the-trainer program required to sustain proficiency in the unit. Intended users include leaders and designated Soldiers who will use this information to integrate the M26 MASS into their unit training and combat operations

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

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Unless this publication states otherwise, masculine nouns and pronouns refer to both men and women.

Chapter 1

Introduction

When conducting urban or crowd-control operations, Soldiers have carried two separate weapon systems—a shotgun and an individual weapon—increasing the individual Soldier's load and making the transition between weapons more difficult. To transition between weapon systems, Soldiers had to sling and unsling the weapon to ready the weapon system of choice for the mission at hand, leaving Soldiers vulnerable at critical points during their missions.

The M26 MASS, is a mountable 12-gauge shotgun for the M4 carbine family, and eliminates the need for two separate weapons. It provides Soldiers with additional shotgun capabilities: lethal for breaching doors and close quarters combat, and nonlethal for crowd control operations.

OBJECTIVE

1-1. When configured with host weapons (such as an M4, shown in Figure 1-1), the MASS enables Soldiers to engage targets with the host weapon, employ lethal shotgun munitions, employ nonlethal shotgun munitions during low-intensity operations, or perform ballistic breaching tasks. This manual describes the characteristics, operation, and maintenance of the MASS; discusses its employment considerations; and defines the necessary skills and training required for employment.



Figure 1-1. M26 Modular Accessory Shotgun System

TRAINING STRATEGY

1-2. A training strategy that produces well-trained Soldiers and trainers includes a year-round training program beginning with initial entry training (IET) and continuing both in other institutions (Noncommissioned Officer Education System [NCOES], Officer Education System [OES]) and in the unit. Such a program trains and sustains the individual and collective skills needed to perform the wartime mission.

1-3. Institutional and unit training programs implement specific training strategies. Supporting training strategies are implemented through other resources (such as publications, ranges, ammunition, and training aids, devices, simulators, and simulations [TADSS]). The year-round program includes periodic preliminary marksmanship training, followed by zeroing and range qualification firing. Other key elements of the program are training for the trainers and refresher training for nonfiring skills.

INSTITUTIONAL TRAINING

1-4. Training strategy begins with combat arms IET, which trains Soldiers in the standards of M26 MASS tasks. Soldiers graduate with basic MASS skills that include maintaining the system and using it to engage various targets. Other institutional training programs, such as noncommissioned officer (NCO) courses and the OES, reinforce these skills.

1-5. Soldiers are taught the technical aspects of the M26 MASS. These include an overall introduction of the MASS, which explains the capabilities and limitations of the weapon system. Training comprises proper operation of the weapon system, which includes assembly/disassembly, operator-level maintenance, remedial action, and firing techniques.

UNIT TRAINING

1-6. Training continues in units where, besides sustaining proficiency in skills gained in institutional training, leaders and Soldiers develop and sustain new skills, such as MASS ballistic breaching, close range combat, and nonlethal engagements. These skills are integrated into collective training exercises to develop combat readiness. Preliminary marksmanship training is conducted before firings and as opportunities arise for training. Figure 1-2 shows a unit training strategy for the MASS.

NOTE: See Chapter 4, Chapter 5, and Appendix A for more detailed recommendations for M26 MASS unit training programs.

1-7. The most critical part of the Army's overall weapon training strategy is training the trainers and leaders first. Leader courses include only limited MASS training, so officers and NCOs should use available publications to develop their proficiency and application of the system. Publications help leaders plan, conduct, and evaluate their marksmanship training programs. Proponent schools provide training support materials (field manuals, TADSS, and audiovisual programs), which provide the doctrinal foundation for training the force. Unit commanders determine who within the squad carries the M26 MASS, defining the amount of Soldier or leader training.

1-8. Individual skills are sustained through operational training, crew drills, situational training exercises (STXs), field training exercises (FTXs), and other training opportunities. Unit commanders must ensure that individual proficiency is maintained using applicable publications, such as FMs, Soldier training publications (STPs), technical manuals (TMs), and on-the-job training. Individual task training progresses from initial to sustainment training. Soldiers assigned the M26 MASS should conduct qualification fire and ballistic breach fire semiannually.

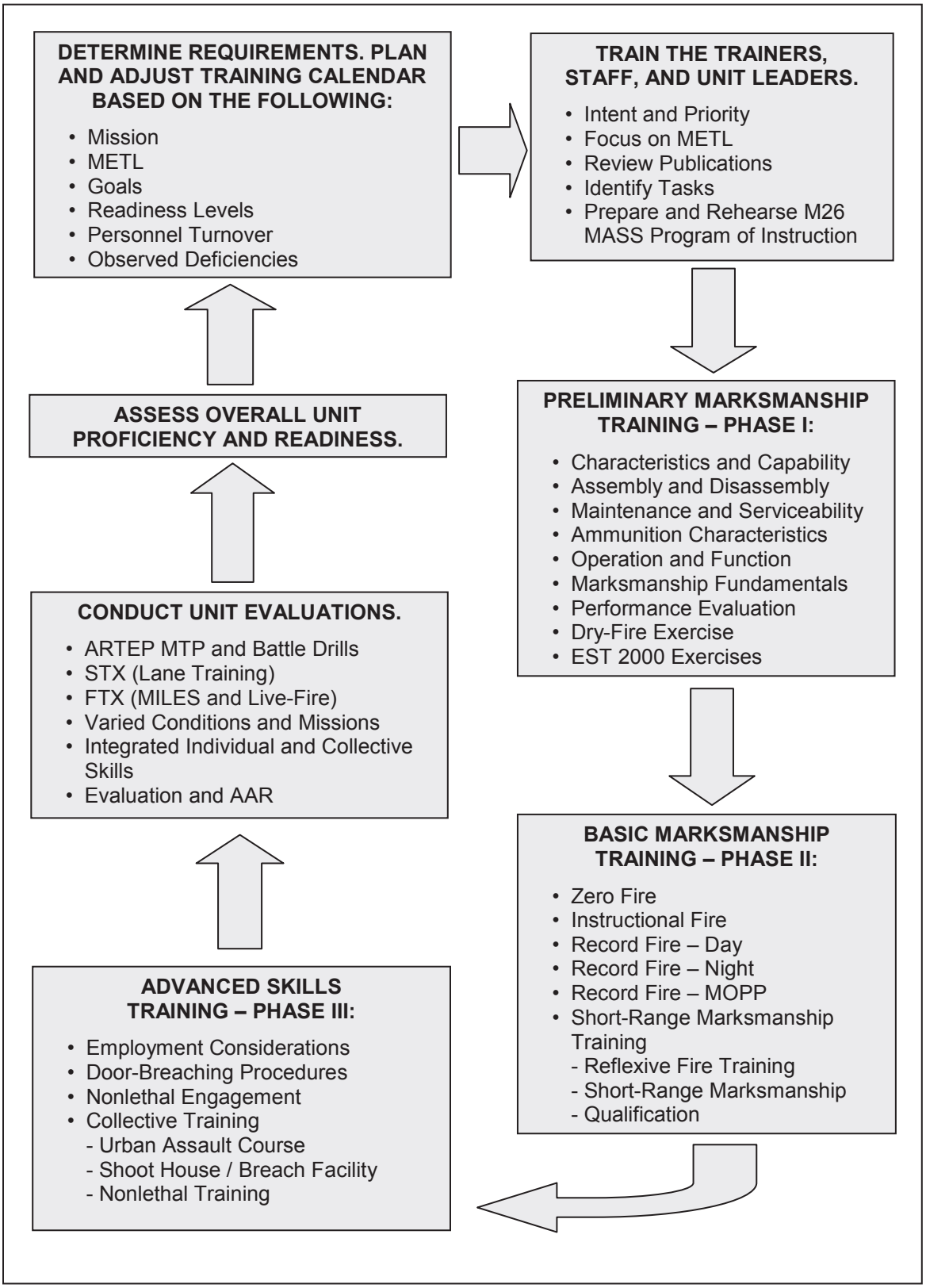


Figure 1-2. Unit training strategy for the M26 Modular Accessory Shotgun System

Training Frequency

1-9. DA Pam 350-38 provides the Active Army shotgun training strategy (see Table 1-1). Soldiers assigned to a squad that is designated to conduct ballistic shotgun breaching of doors should qualify on the shotgun every six months. Two Soldiers per squad are resourced to conduct qualification. Soldiers must be qualified before conducting shotgun ballistic breaching.

Table 1-1. Active Army Modular Accessory Shotgun System training strategy

BASIC MARKSMANSHIP TRAINING			
Event	***DODIC***	***Rounds***	***Frequency***
Preventive Maintenance Inspection (PMI)	N/A	EST	2
Instructional Fire	A011	3	2
Qualification Fire	A011	10	2
Total per Soldier	A011	26	
BALLISTIC DOOR-BREACHING TRAINING			
Event	***DODIC***	***Rounds***	***Frequency***
Ballistic Breaching	AA54	8	2
Total per Soldier	AA54	16	
Source: DA Pam 350-38, Table 5-4, Active Army shotgun individual training ammunition.			

1-10. Standards in Training Commission (STRAC) resources ammunition for collective training. Table 1-2 shows collective training ammunition to support shotgun training.

Table 1-2. Active Army Modular Accessory Shotgun System collective training ammunition

EVENT	***DODIC***	***ROUNDS***	***FREQUENCY***
Collective Training	A011	8	2
Source: DA Pam 350-38, Table 5-4, Active Army shotgun training ammunition.			

1-11. Collective training is based upon the commander's mission-essential task list (METL) and conducted and evaluated according to the appropriate MTP. The employment of the M26 MASS can be integrated into collective training for urban operations, internment operations, nonlethal operations, and ballistic breaching operations, as well as other collective training.

Chapter 2

Description and Maintenance

Proper weapon maintenance is key to a successful training program and contributes to weapon effectiveness, as well as combat readiness. This chapter describes the characteristics and capabilities of the M26 MASS, its components, and ammunition. It discusses proper procedures for clearing, disassembling, cleaning, lubricating, assembling, performing function checks, and maintaining the weapon system.

CHARACTERISTICS AND CAPABILITY

2-1. The M26 MASS is a box magazine-fed, multishot, and manually-operated 12-gauge shotgun with a straight push-pull action, that mounts under the barrel of the M4/M4A1 carbine, like the M203 40-mm grenade launcher (see Figure 2-1). When mounted to the host weapon, the MASS is sighted using the rifle/carbine sighting system or the host weapon's combat optics.

NOTE: The M26 MASS is designed to complement a host weapon; however, the user can quickly disconnect and reconfigure it to be a compact stand-alone weapon (see Figure 2-2) dependent on mission, enemy, terrain and weather, troops and support available-time available, and civil considerations (METT-TC). This configuration features a primary sight attached to the military-standard (MIL-STD)-1913 rail.



Figure 2-1. M26 Modular Accessory Shotgun System mounted on the M4 carbine



Figure 2-2. M26 Modular Accessory Shotgun System configured as a stand-alone weapon

CAPABILITIES AND FEATURES

2-2. The MASS is intended to provide Soldiers with a breaching weapon that allows them to maintain control of their primary or host weapons. This capability provides the Soldier greater mobility and survivability in an urban or multidimensional fight. It is intended to employ lethal and nonlethal rounds in a backup or crowd control environment.

2-3. The M26 MASS can fire lethal, nonlethal, and door-breaching rounds. The MASS is designed to employ all current lethal and nonlethal 12-gauge ammunition in the 2¾-inch to 3-inch magnum range. It can be used as a stand-alone weapon with the addition of a stand-alone module. The M26 MASS is a nontypical shotgun system; it uses a detachable magazine and bolt action, instead of the traditional tubular magazine and pump-action.

Major Components

2-4. The major groups of the M26 MASS are shown in Figure 2-3, followed by a description of their functions.

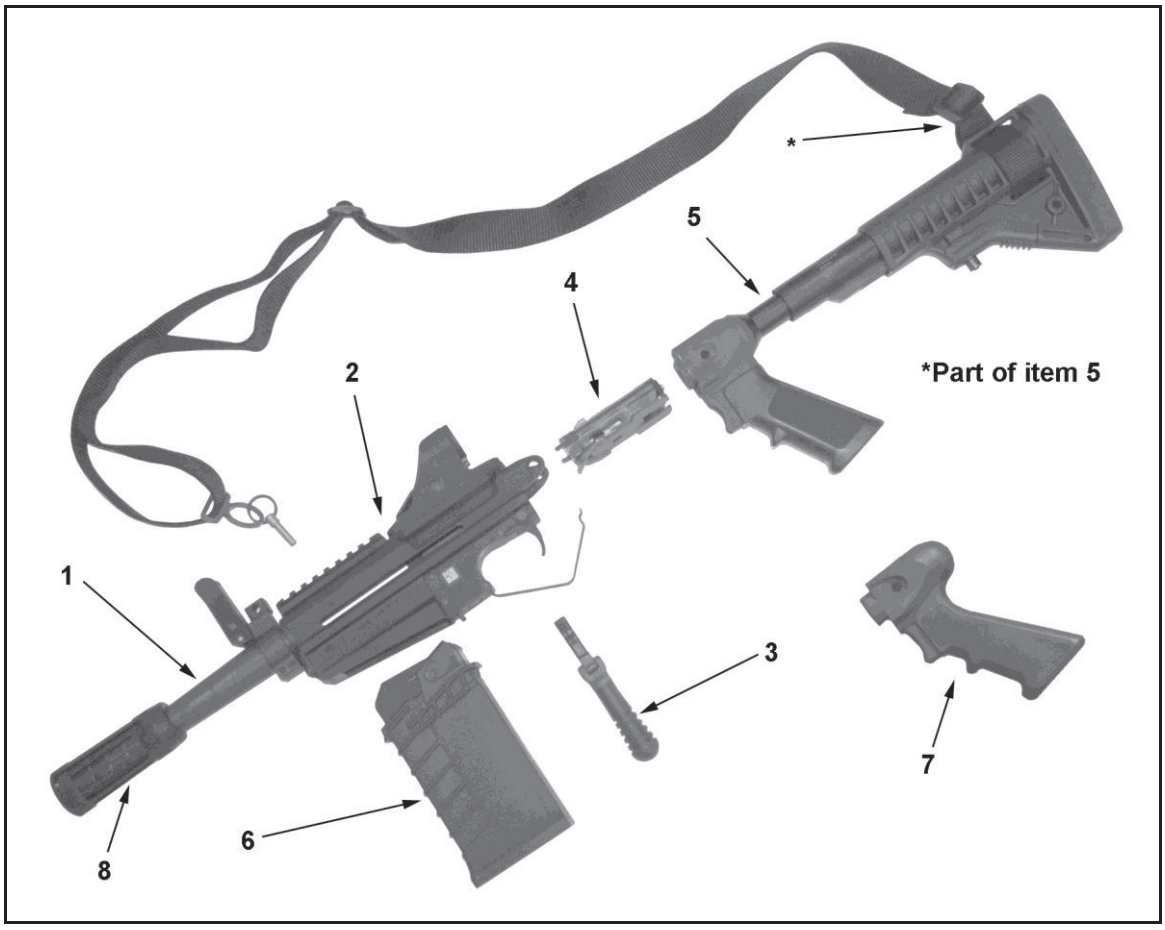


Figure 2-3. Major groups of the M26 Modular Accessory Shotgun System

Barrel Assembly

2-5. The barrel assembly (1, Figure 2-3) chambers the shell for firing and guides the projectile. It includes the standoff device (8, Figure 2-3), which provides internal choke tube and is used for breaching techniques. The choke tube controls the pattern of the shot.

Receiver Assembly

2-6. The receiver assembly (2, Figure 2-3) supports the bolt/bolt carrier assembly and houses the weapon's moving parts.

Charging Handle

2-7. The charging handle (3, Figure 2-3) provides charging of the MASS. It locks in the forward position when a round is chambered, and when manually pulled rearward, ejects the round. The charging handle can be folded down when not in use.

NOTE: The charging handle can be reversed to accommodate left-handed firers.

Bolt/Bolt Carrier Assembly

2-8. The bolt/bolt carrier assembly (4, Figure 2-3) provides feeding, chambering, firing, extraction, and ejection of cartridges using manual action for power.

Stand-Alone Module

2-9. There are two types of stand-alone modules (5, Figure 2-3 and 7, Figure 2-3) which enables the M26 MASS to be transitioned from the mounted configuration to the stand-alone configuration. The stand-alone kit components comprise a pistol grip, front sight, an adjustable buttstock with a pistol grip, and a sling.

Magazine Assembly

2-10. The magazine assembly (6, Figure 2-3) holds up to five cartridges for feeding and provides a quick reload capability for sustained firing.

PHYSICAL CHARACTERISTICS

2-11. The data in Table 2-1, taken from TM 9-1005-341-10, provide the user with the physical characteristics of the mounted and stand-alone configurations.

Table 2-1. Physical characteristics of the mounted and stand-alone configurations

CHARACTERISTIC	*MOUNTED CONFIGURATION*	*STAND-ALONE CONFIGURATION*
Weight.	3.5 lbs.	5.3 lbs.
Length.	16.5" (41.9 cm).	26.5" (67.3 cm).
Muzzle Velocity.	Ammunition-Specific.	Ammunition-Specific.
Fire Selector.	Safe-Fire.	Safe-Fire.
Maximum Effective Rate of Fire.	Firer-Dependent.	Firer-Dependent.
Maximum Effective Range.		
Nonlethal.	20 m (66 ft).	
Buckshot.	40 m (131 ft).	
Breaching Rounds.	0" to 3" (0 to 7.6 cm).	
Maximum Range.	Ammunition-Specific.	

2-12. A complete kit of accessories (see Figure 2-4) can be provided for sustained deployment in remote areas. A variety of capabilities may be obtained by combining basic issue and ancillary items, which can be tailored for a variety of tactical applications depending on the system that is mounted to host weapon or as a standalone system. Optional accessories for the rifle include—

1. An adjustable sling.
2. Operator cleaning and maintenance kit.
3. Pistol grip.
4. Buttstock and pistol grip assembly. Five 5-round magazines.
5. Five 3-round magazines.
6. One magazine pouch.
7. One receiver plug.
8. One upper mounting bracket.

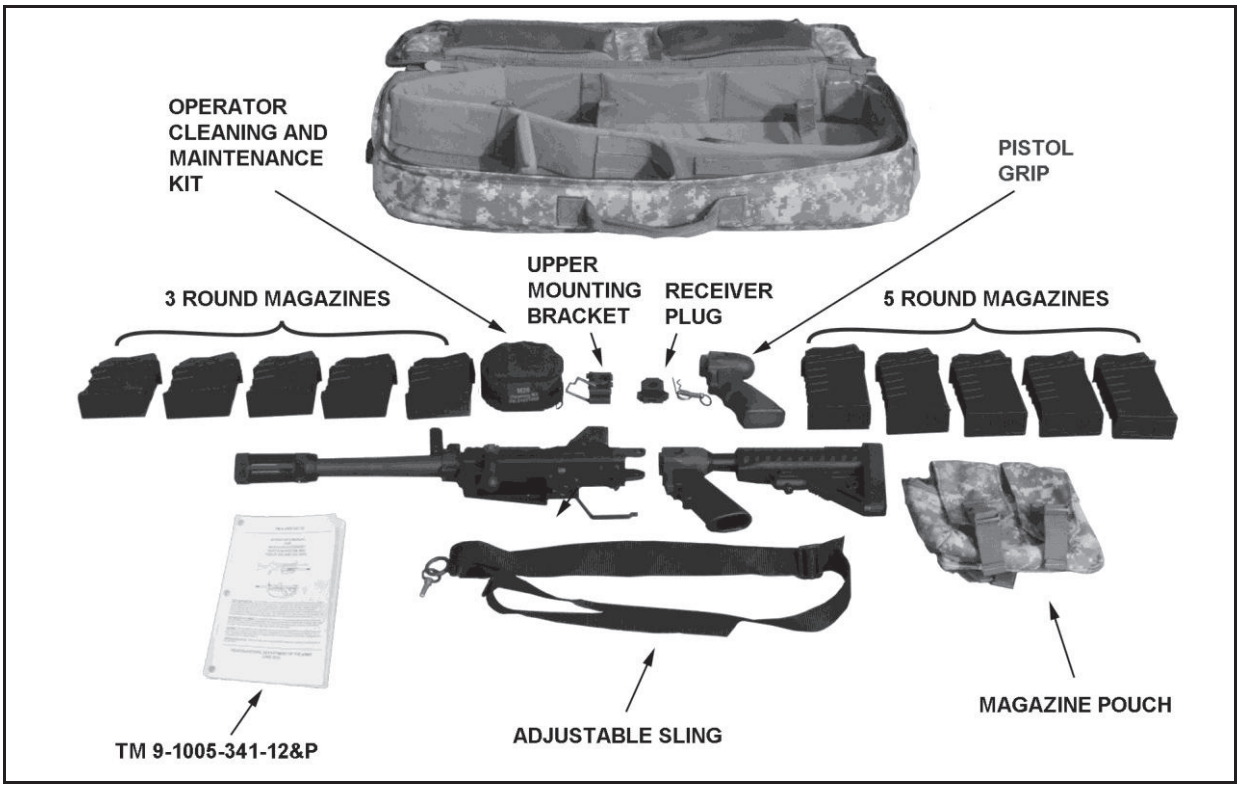


Figure 2-4. M26 Modular Accessory Shotgun System components

AMMUNITION

2-13. The M26 MASS can fire various lethal 2 ¾-inch and 3-inch shotgun rounds, breaching rounds, and varied nonlethal rounds. The MASS can hold six rounds: five rounds in the magazine and one round in the chamber. For safety reasons, keeping a round in the chamber is not recommended.

WARNING

To avoid personnel injury or death, follow authorized procedures when disposing of ammunition that fails to fire.

During training, eye protection is required to protect the firer from projectile bounce-back.

LETHAL AMMUNITION

2-14. MASS lethal ammunition currently comprises No. 00 buckshot, No. 7 ½ and No. 9 birdshot, and a breaching round. If these rounds are not listed in DA Pam 350-38 and in the STRAC (under Active Army Shotgun Training Strategy), they can be requested. The specifications for this ammunition are listed in Table 2-2.

Table 2-2. Specifications for lethal ammunition

AMMUNITION / SPECIFICATIONS	M162 No. 00 BUCKSHOT	M1030 BREACHING CARTRIDGE	No. 7½ AND No. 9 BIRDSHOT
Identification			
DODAC.	1305-A011.	1305-AA54.	1305-A014 (No. 7½), 1305-A017 (No. 9).
DODIC.	A011.	AA54.	A014 (No. 7½), A017 (No. 9).
Cartridge Specifications			
Color.	Clear.	Clear.	TBD
Diameter.	12 gauge.	12 gauge.	12 gauge.
Length.	2.53" (64.3 mm).	2.45" (62.2 mm).	xx" (xx mm).
Total Weight.	0.763 grams.	TBD	TBD
Muzzle Velocity.	1325 ft/sec.	1148 ft/sec.	xx ft/sec.
Maximum Range.	175 m.	175 m.	xx m.
Maximum Effective Range.	5 m.	5 m.	xx m.
Projectile Specifications			
Color.	Gray metallic.	Brown tip.	TBD
Shape.	Buckshot.	Cylindrical slug.	TBD
Material.	Buffered lead.	Powdered steel in wax binder.	TBD
Other Information			
General Information.	The cartridge case is plastic and loaded with smokeless powder and commercial shot.	The cartridge contains a frangible slug consisting of powdered steel in a wax binder.	
Technical.	1290 fps at 40-meter range.	1265 fps at 5-meter range.	UNKNOWN
Use.	Medium- to close-range work (up to 30 m). Antipersonnel use for guard and in combat. ***NOTE:*** The slug round is most effective against individually selected targets (point round).	Breaching light doors. ***NOTE:*** The slug round is most effective against individually selected targets (point round).	Close-range work (up to 15 m). Breaching light doors.
Advantages.	Larger and more lethal than birdshot, A 2 ¾" shell of buckshot contains nine .30-caliber balls. Hitting someone with just one .30-caliber ball can be fatal, but only close-range hits with one-third of the No. 9 birdshot charge can be fatal. Retains its energy longer, lethal at a longer range.	Frangible slug transmits the force over the specific area, such as a locking mechanism or hinge, without producing significant fragmentation that could injure the gunner.	No over penetration, poses little hazard to fellow team members in adjoining rooms. Same killing potential as buckshot when used at close range. Low recoil, allows for faster recovery and quicker multi-target engagements.

Table 2-2. Specifications for lethal ammunition (continued)

AMMUNITION / SPECIFICATIONS	M162 No. 00 BUCKSHOT	M1030 BREACHING CARTRIDGE	No. 7½ AND No. 9 BIRDSHOT
Other Information (Continued)			
Disadvantages.	Over penetration. Heavy recoil. ***NOTE:*** Heavy recoil is most noticeable when numerous shots have been taken.		Rapid energy bleed-off, reduces penetration at medium and long ranges. Small size of the individual pellets requires that a hit be made with most of the shot charge to be effective.
Employment Considerations.	Fatal injuries are possible at employment distances of less than 33 feet (10 m). At distances of 10 to 20 meters, the target area should be the center of mass.	Fatal injuries are possible at employment distances of less than 33 feet (10 m). At distances of 10 to 20 meters, the target area should be the center of mass. The M1030 breaching round requires use of the standoff assembly. Failure to provide this standoff can result in injury to personnel. The M1030 breaching round is lethal if fired at personnel. The M1030 breaching round can damage all types of floor surfaces, including concrete. This can cause the projectile and fragments to ricochet off hard floors, causing minimal risk of injury to personnel. Personnel using the M1030 breaching round and individuals in close proximity must wear double hearing protection. Personnel in close proximity to breaching activities should wear eye protection. Full face masks are recommended.	Fatal injuries are possible at employment distances of less than 33 feet (10 m). At distances of 10 to 20 meters, the target area should be the center of mass.

NONLETHAL AMMUNITION

2-15. MASS nonlethal ammunition comprises the M1012 point control cartridge and the M1013 crowd dispersal cartridge. These rounds are not listed in DA Pam 350-38 or the STRAC, instead they must be requested. The specifications for this ammunition are listed in Table 2-3.

NOTE: Training needs to reinforce that head shots are NOT ACCEPTABLE.

Table 2-3. Specifications for nonlethal ammunition

AMMUNITION / *SPECIFICATIONS*	*M1012 POINT CONTROL CARTRIDGE*	*M1013 CROWD DISPERSAL CARTRIDGE*
Identification		
DODAC.	DODAC 1305-AA51.	DODAC 1305-AA52.
DODIC.	AA51.	AA52.
Cartridge Specifications		
Color.	Clear.	Clear.
Diameter.	0.75".	0.75".
Length.	2.45" (62.2 mm).	2.37" (60.2 mm).
Total Weight.	500 grains.	500 grains (32.4 g).
Muzzle Velocity.	500 ft/sec.	900 ft/sec.
Maximum Range.	30.5 m.	18.3 m.
Maximum Effective Range.	Acceptance accuracy (80% at 10 to 20 m).	Acceptance accuracy (80% at 10 to 20 m).
Projectile Specifications		
Color.	Black.	Black.
Shape.	Fin-stabilized bomblet shape.	32-gauge (0.32") balls.
Material.	Molded rubber.	PVC/rubber compound.
Other Information		
General Information	The M1012 is a standard 12-gauge shotgun shell that can be fired from both the 2.75" and 3.0" chamber of both standard military shotguns and the MASS.	The M1013 is a standard 12-gauge shotgun shell that can be fired from both the 2.75" and 3.0" chamber of both standard military shotguns and the MASS.
Technical	500 fps at 20-m range.	900 fps at 20-m range.
Use	Protecting key facilities or controlling crowds using nonlethal force. ***NOTE:*** This round is the most effective against individually selected targets (point round).	Protecting key facilities or controlling crowds using nonlethal force.
Advantages	Soldiers can stun or deter a single hostile individual by delivering a strong blow to the body, without penetration.	Soldiers can stun or deter a single hostile individual by delivering a strong blow to the body, without penetration.
Disadvantages		
Employment Considerations	Fatal injuries are possible at employment distances of less than 10 meters (33 feet). At distances of 10 to 20 meters, the target area should be the center of mass.	Fatal injuries are possible at employment distances of less than 10 meters (32.8 feet). At distances of 10 to 20 meters, the target area should be the center of mass.

WARNING

To avoid personnel injury or death, follow authorized procedures when disposing of ammunition that fails to fire.

TRAINING AMMUNITION

2-16. MASS training ammunition includes the MK242 MOD-0 dummy round (DODIC AA55).

CLEARING PROCEDURES

WARNING

To avoid firing during clearing procedures, ensure that the M26 MASS is on SAFE, and never allow fingers or objects to come in contact with the trigger.

2-17. The following procedures must be performed in the order listed when taking the weapon out of operation, before disassembling the weapon, and when the weapon malfunctions. Safety warnings are posted throughout the manual to remind Soldiers to clear both the MASS and the host weapon before performing these procedures:

(1) Place the MASS's safety mechanism on SAFE (1, Figure 2-5) with no red visible.

(2) Remove the MASS's magazine (2, Figure 2-5) by pushing the magazine release forward (3, Figure 2-5), and rotating the magazine down and forward.

(3) Depress the action lock release (4, Figure 2-5), and pull the charging handle rearward to open the chamber (5, Figure 2-5). With the charging handle in the rear position, inspect the chamber to ensure that no rounds or debris are present.

NOTE: When the charging handle is pulled rearward, rounds left in the chamber eject (fired or unfired). See Chapter 3 for more information about loading and unloading the M26 MASS.

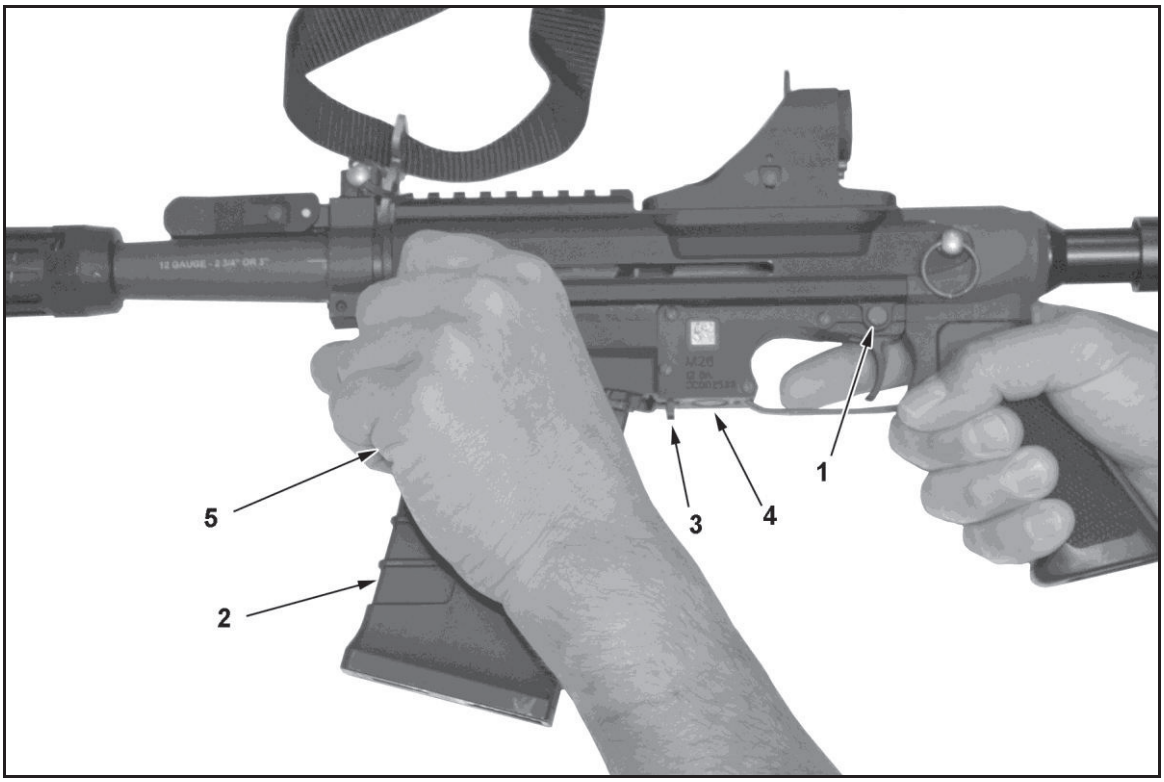


Figure 2-5. Safety mechanism

GENERAL DISASSEMBLY

2-18. Disassembly is usually associated with maintaining the system; however, troubleshooting the system due to a malfunction may require partial or complete system disassembly. (Refer to TM 9-1005-341-10 for complete preventive maintenance checks and services (PMCS) procedures.)

REMOVAL FROM A HOST WEAPON

2-19. When in the mounted mode, the M26 MASS requires removal when performing system maintenance or when the troubleshooting system failures. The MASS can hinder the Soldier's ability to zero or qualify with the host weapon, and it should be mounted only after the Soldier successfully completes marksmanship training. The MASS may require removal before securing in a weapons rack.

NOTES: 1. See Chapter 4 for more information about zeroing the M26 MASS to host weapons.

2. Ensure the barrel has gone through the cool down period before touching.

2-20. To remove the M26 MASS from a host weapon, perform the following procedures:

(1) Push the small end of the takedown pin (2, Figure 2-6) of the upper mounting bracket assembly (1, Figure 2-6) out to separate the elevation block (3, Figure 2-6) from the upper mounting bracket assembly. Use the T-handle found in the M26 MASS's cleaning kit to dislodge the takedown pin.

NOTE: A bullet nose can be used to dislodge the takedown pin, but only as a last resort.

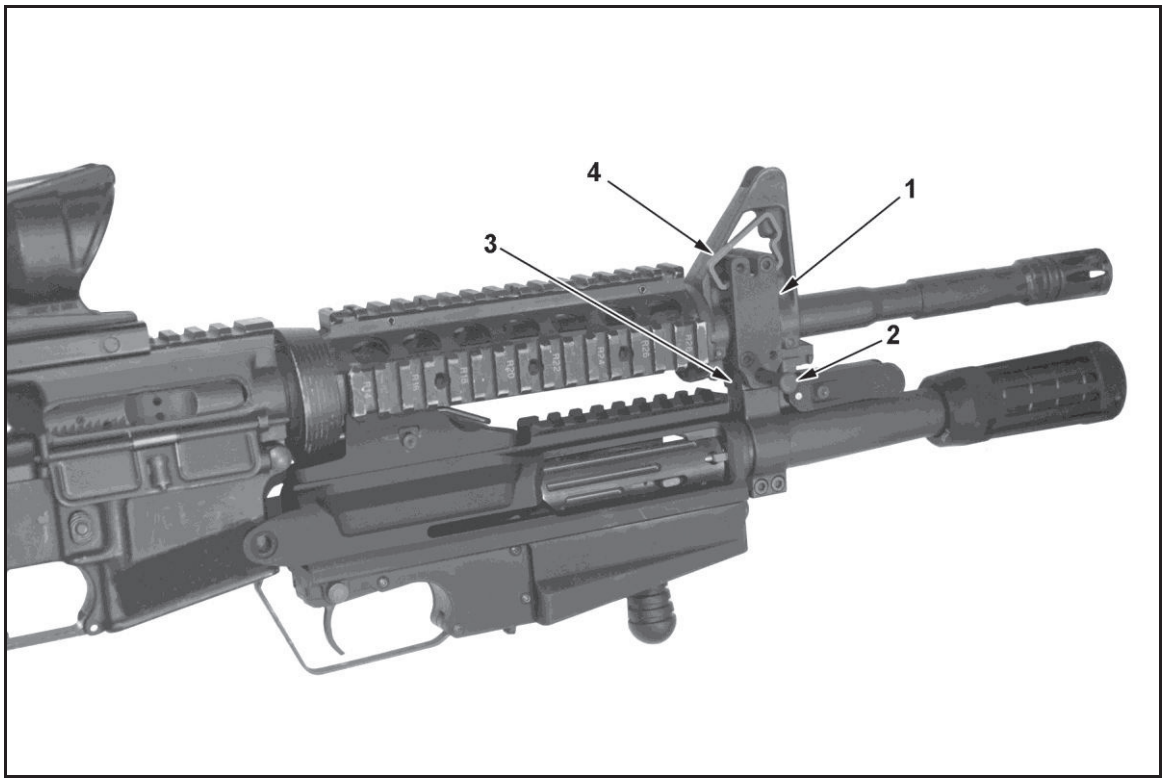


Figure 2-6. Separating the M26 Modular Accessory Shotgun System from the upper mounting bracket assembly

(2) Lift the MASS from the host weapon's barrel nut (1, Figure 2-7), ensuring that the trigger guard (2, Figure 2-7) is released from the host weapon's magazine well.

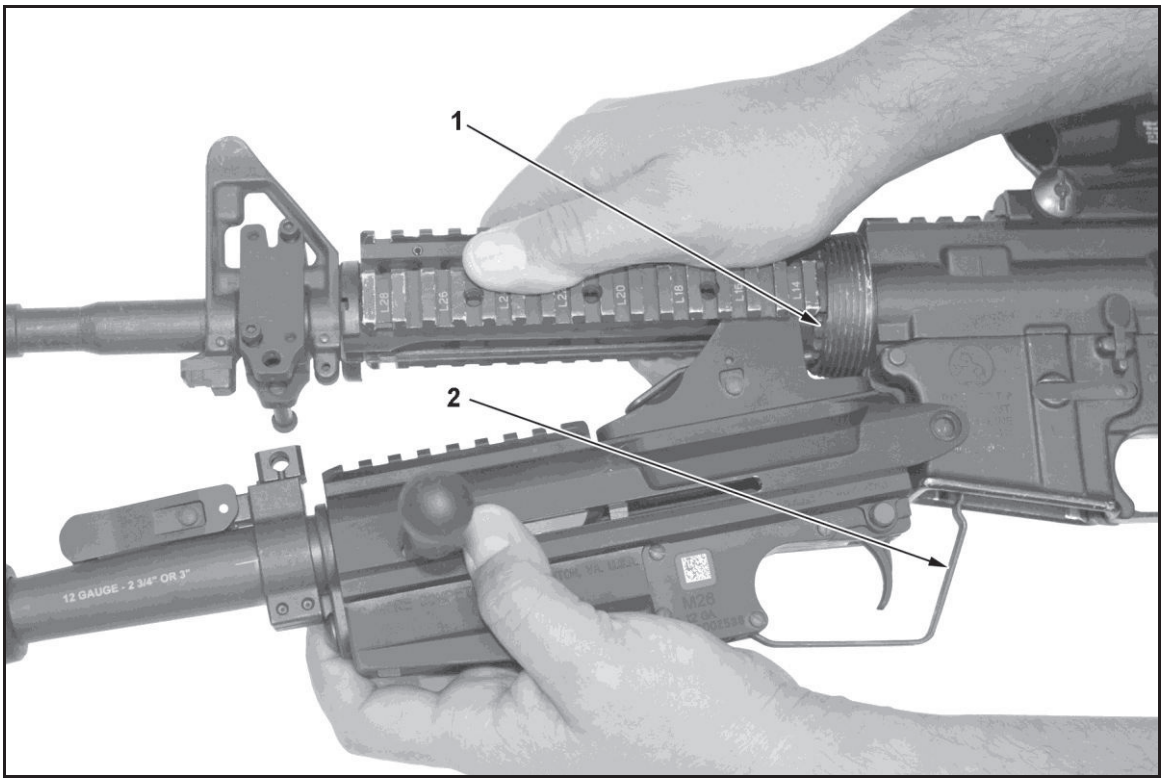


Figure 2-7. Dismounting the M26 Modular Accessory Shotgun System from the host weapon

(3) Replace the takedown pin (2, Figure 2-6) in the upper mounting bracket assembly (1, Figure 2-6).

(4) Install the lower adapter rail or handguard to the host weapon.

(5) Remove the sling from the sling swivel of the upper mounting bracket assembly (1, Figure 2-6), and attach the sling to the host weapon's forward sling swivel (4, Figure 2-6).

DISASSEMBLY

2-21. The same care used to secure and protect parts of the host weapon during disassembly must apply to the M26 MASS.

NOTE: To ensure accountability of parts during weapon maintenance, clean only one weapon at a time.

2-22. To disassemble the MASS, perform the following procedures:

(1) Turn the MASS upside down, and push the charging handle forward until the charging handle retaining plunger access slot is visible in the magazine well (see Figure 2-8).

(2) Retract the charging handle retaining plunger (1, Figure 2-8) using the T-handle found in the M26 MASS's cleaning kit or some other hard-pointed tool or object, and pull the charging handle (3, Figure 2-8) halfway from the MASS.

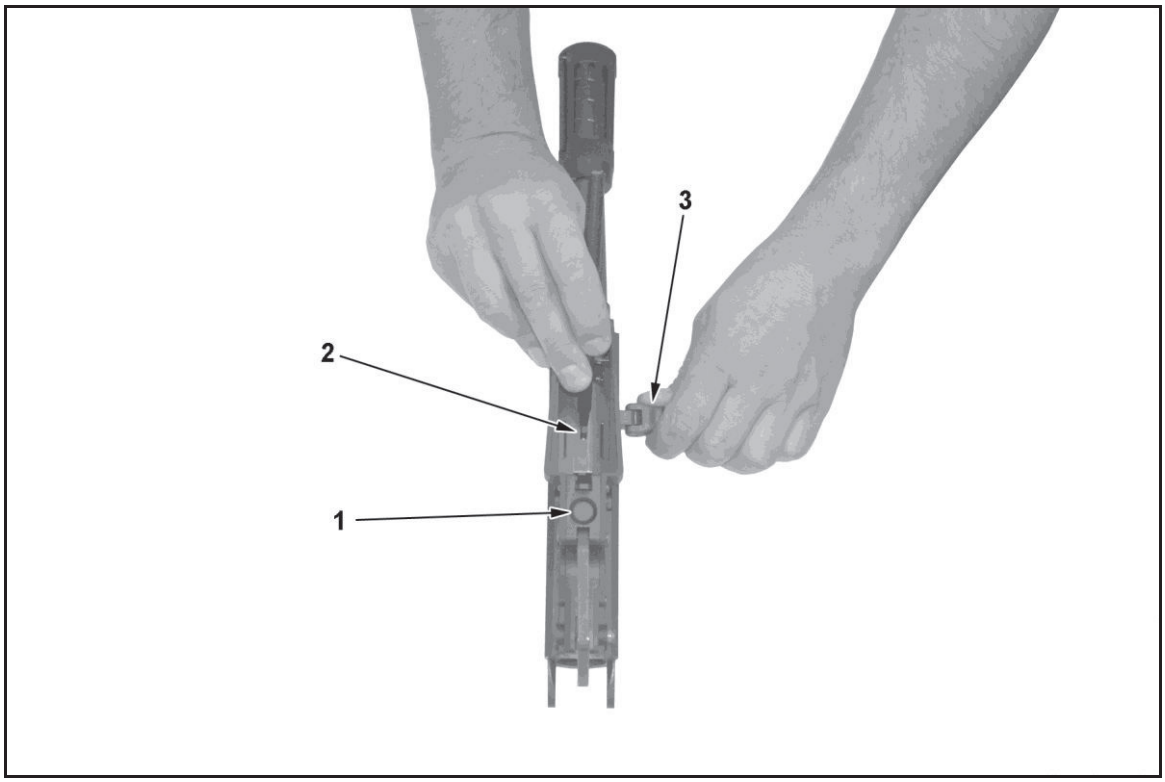


Figure 2-8. Removing the charging handle

(3) Rotate the trigger guard (1, Figure 2-9) downward, and pull the charging handle rearward to dislodge the receiver plug (2, Figure 2-9) from the MASS's receiver (3, Figure 2-9). Remove the plug (Figure 2-9).

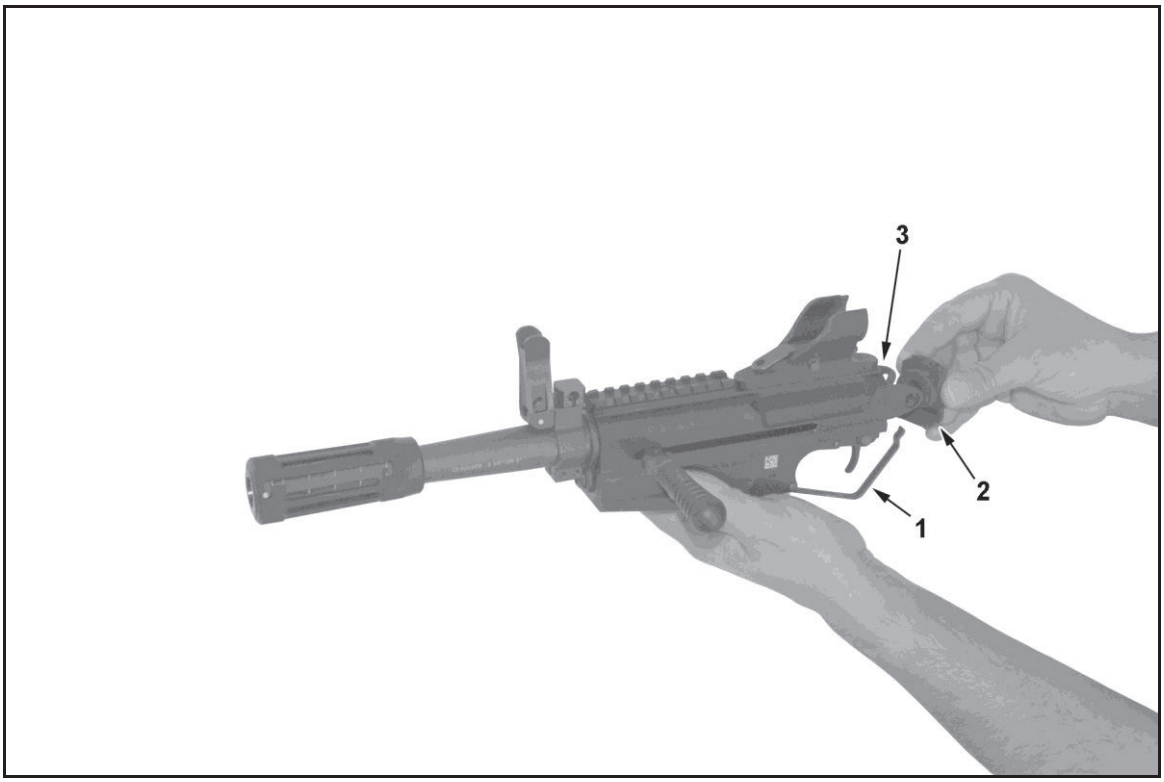


Figure 2-9. Removing the receiver plug

(4) Insert a finger into the magazine well, and push rearward to remove the bolt/bolt carrier assembly (2, Figure 2-10) from the rear of the MASS's receiver (1, Figure 2-10).

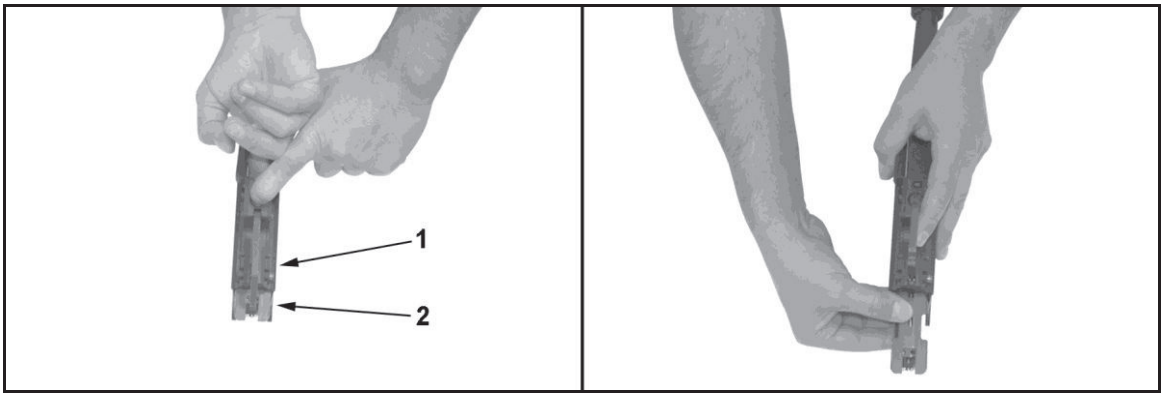


Figure 2-10. Removing the bolt

(5) Lift the bolt (1, Figure 2-11) off of the bolt carrier (2, Figure 2-11) to separate the two pieces.

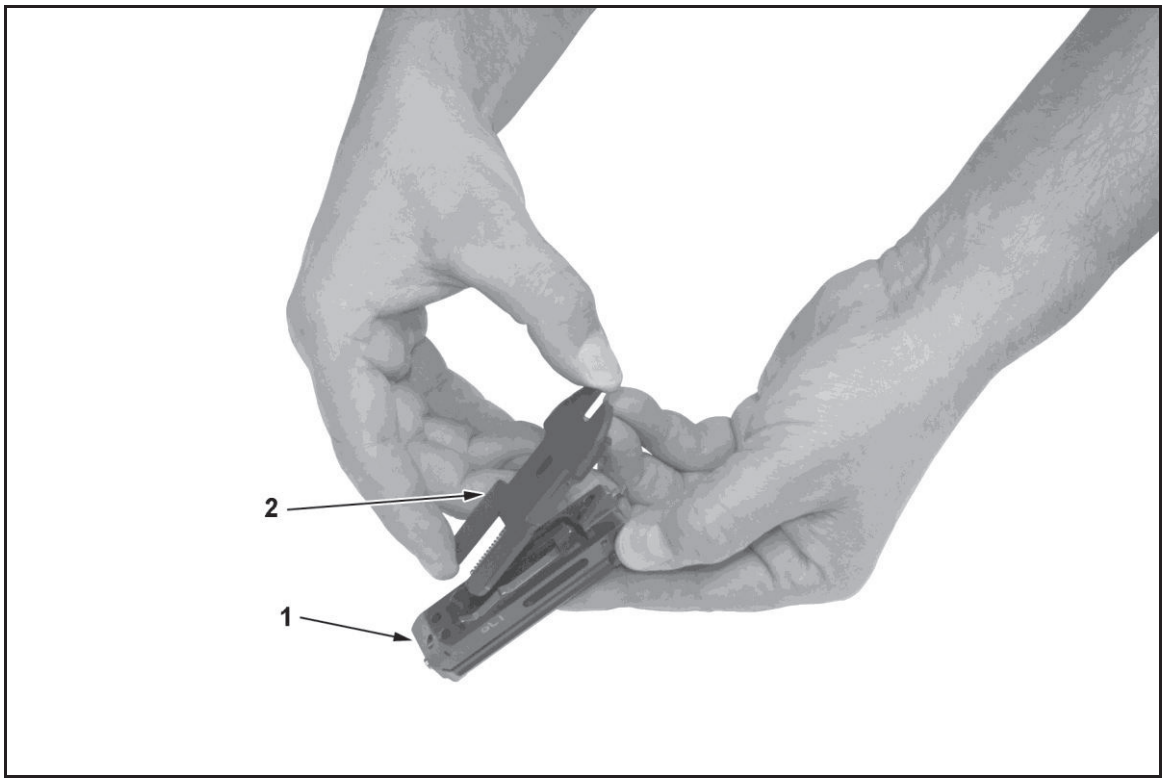


Figure 2-11. Separating the bolt from the bolt carrier

CAUTION

Do not bend, twist, or crimp the recoil/plunger spring located at the rear of the carrier (see Figure 2-11) when disassembling the bolt from the carrier. If this spring is crimped, twisted, or bent, report this to unit maintenance personnel, and do not use the M26 MASS. Do not pull the trigger or allow the hammer to fall if the bolt and carrier are not in the M26 MASS. Doing so may render the M26 MASS unserviceable.

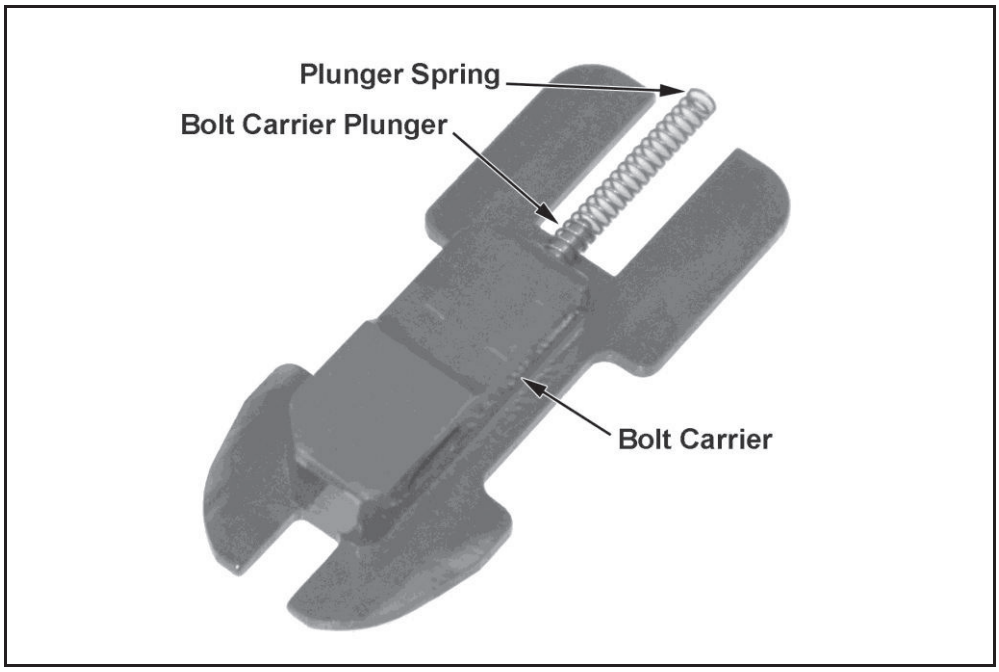


Figure 2-12. Bolt carrier on the M26 Modular Accessory Shotgun System

NOTE: Disassembly at the operator level of maintenance is complete when the charging handle (1, Figure 2-13), receiver plug (2, Figure 2-13), bolt (3, Figure 2-13), and bolt carrier (4, Figure 2-13) are removed from the MASS.

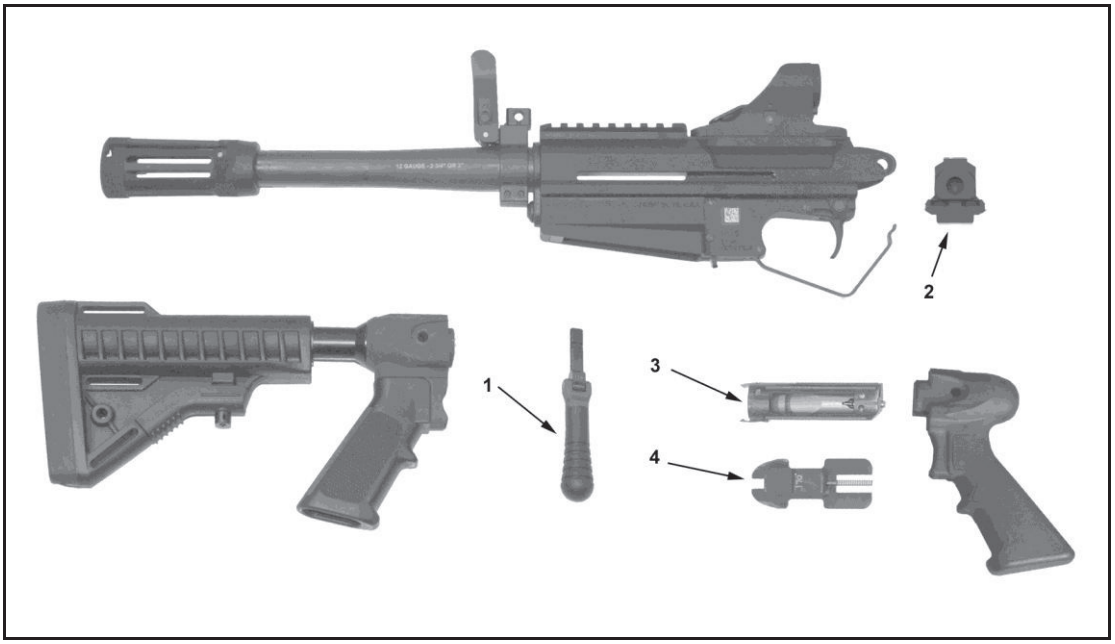


Figure 2-13. M26 Modular Accessory Shotgun System dissembled at the operator level of maintenance

CLEANING AND LUBRICATION PROCEDURES

2-23. The operator must perform PMCS and properly lubricate the weapon to ensure that the M26 MASS is in good operating condition and ready for its primary mission. To ensure maximum operational readiness, the MASS must be inspected at regular intervals so that defects can be discovered and corrected before serious damage or failure occurs. If the equipment fails to operate, troubleshoot. Maintenance problems beyond operator authorization are referred to unit maintenance for correction. Report deficiencies using DA Form 2404 (*Equipment Inspection and Maintenance Worksheet)*.

2-24. Keep the weapon clean and lubricated, even when it is not in use. Clean and lubricate the M26 MASS every three months when in inactive storage or if corrosion is detected. The M26 MASS cleaning kit (see Figure 2-14) contains all tools required for cleaning the MASS. This kit does not include semi-fluid automatic weapons (LSA) oil or cleaning rags. These items can be obtained from unit maintenance.

2-25. Use the following tools provided in the cleaning kit to clean the system and to apply the proper cleaning solvents and lubricants:

- Bore reflector.
- Cleaning patches.
- 12-inch cleaning rod.
- Three hex head wrenches (3/16-inch, 5/32-inch, and 9/64-inch).
- Cleaner, lubricant, and preservative (CLP).
- T-handle.
- Two patch savers.
- Obstruction remover.
- NATO adapter.
- Tip, slotted.
- Brush.

WARNING

To avoid personnel injury or death, ensure that both the M26 MASS and the host weapon are cleared of ammunition before cleaning the weapon.

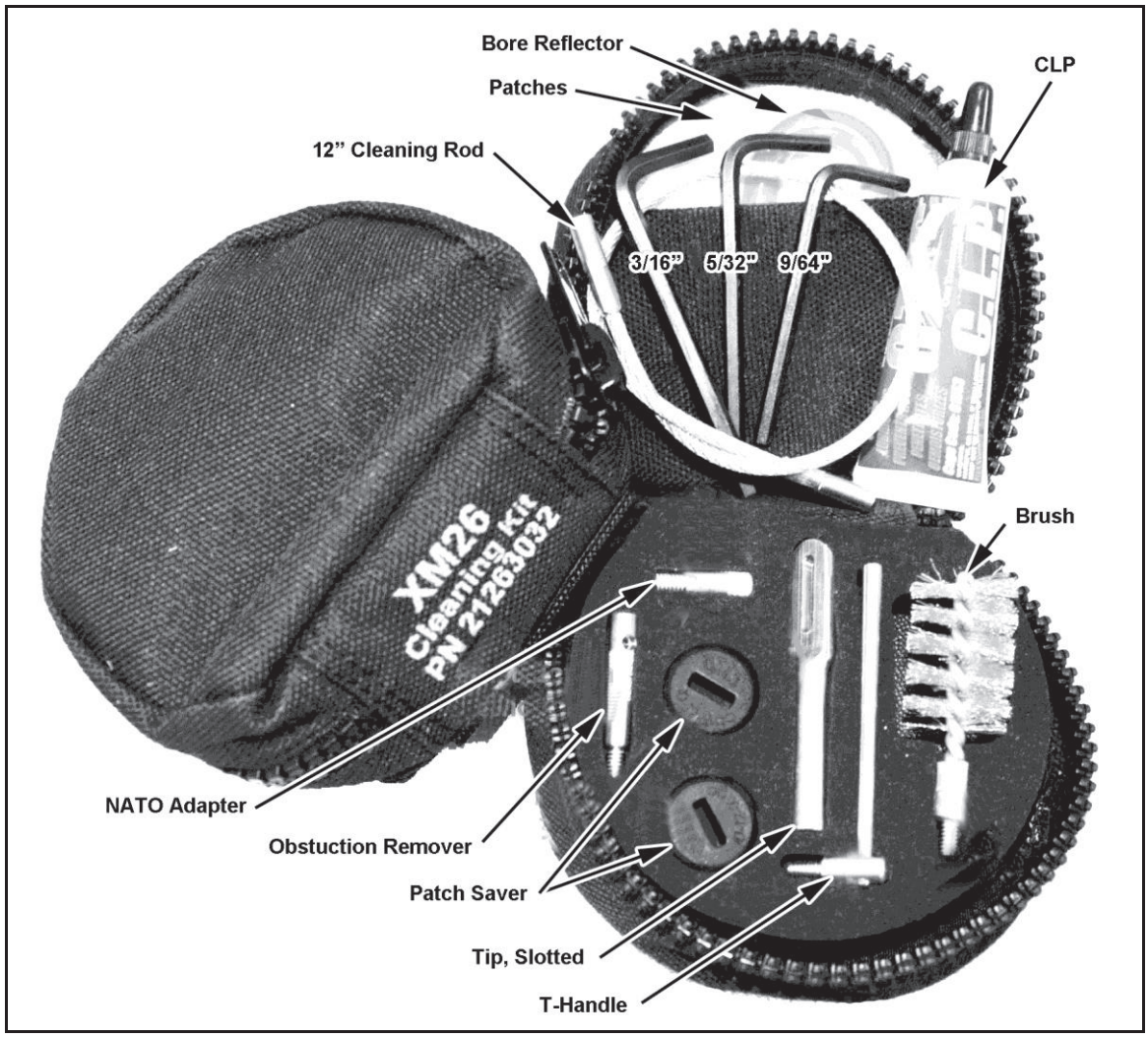


Figure 2-14. M26 Modular Accessory Shotgun System cleaning kit

INSPECTING THE BARREL FOR DEBRIS

2-26. The bore reflector contained in the cleaning kit can be used to check the barrel for residue or obstructions (see Figure 2-15). When inserted into the barrel from the breech, the bore reflector captures reflected light, illuminating the barrel and allowing the operator to check for debris, obstructions, or cracks and pits (after cleaning with patches).

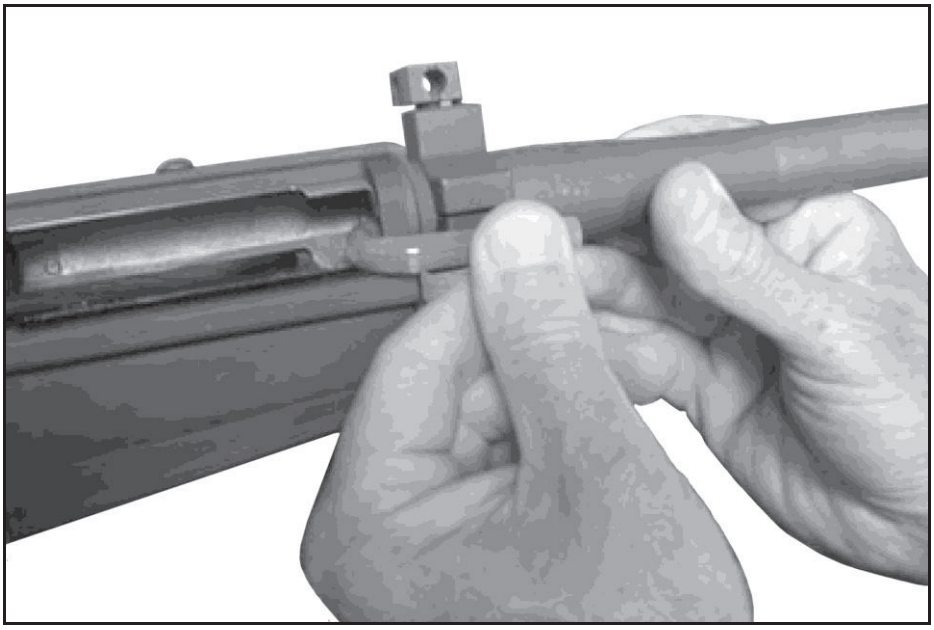


Figure 2-15. Inspecting the bore using a bore reflector

REMOVING BARREL OBSTRUCTIONS

2-27. The obstruction remover contained in the cleaning kit assists in eliminating firing stoppages, such as rounds that fail to eject, debris accumulated from multiple firings, and foreign material (if accidentally dropped on the ground). The obstruction remover attaches to the cleaning rod (see Figure 2-16) and, when used correctly, removes most obstructions from the weapon's barrel. The obstruction remover can be inserted into the barrel from the breech or muzzle end to remove obstructions. Use the following procedures to eliminate a stoppage and remove debris from the barrel.

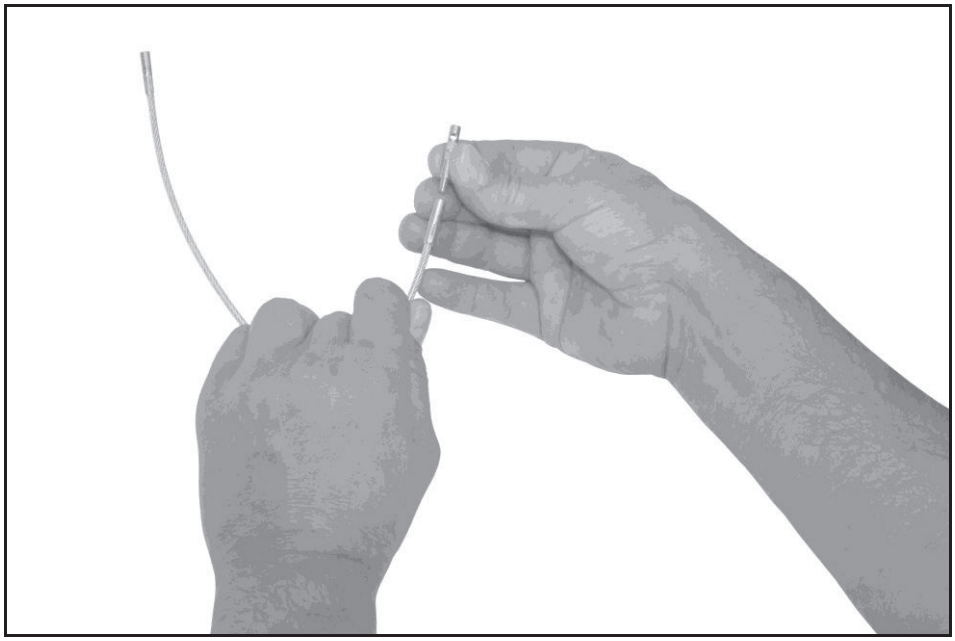


Figure 2-16. Attaching the obstruction remover to the cleaning rod

Removal of a Round of Ammunition

2-28. Use the following procedures to remove a round of ammunition from the barrel:

- Pull the charging handle to the rear, and hold.
- With the other hand, insert the flexible cleaning rod with the obstruction remover attached in the muzzle end of the barrel.
- Push the obstruction remover down the barrel until the obstruction remover makes contact with the round.
- Apply only the force needed to push the round into the breech.
- Clean and lubricate the muzzle and barrel before firing.

Removal of Debris

2-29. Use the following procedures to remove debris from the barrel:

- Push the flexible cleaning rod, obstruction remover first, down the barrel from the breech to the muzzle.
- Apply only the force needed to push the obstruction out of the barrel.
- Clean and lubricate the muzzle and barrel before firing.

2-30. Push the debris out of the barrel from the breech end to keep debris away from the bolt/bolt carrier assembly.

NOTE: If the M26 MASS cleaning rod cable fails to remove a stuck round of ammunition, an M16 cleaning rod may be used. Take care not to scar the surface of the barrel and breech during removal.

ATTACHING CLEANING PATCHES

2-31. Once the barrel of the MASS has been checked and cleared of debris, prepare the M26 MASS cleaning rod and cleaning patch using the following steps:

(1) Attach the slotted brass cleaning rod tip to the end of the cleaning rod cable using the internal threads (see Figure 2-17).

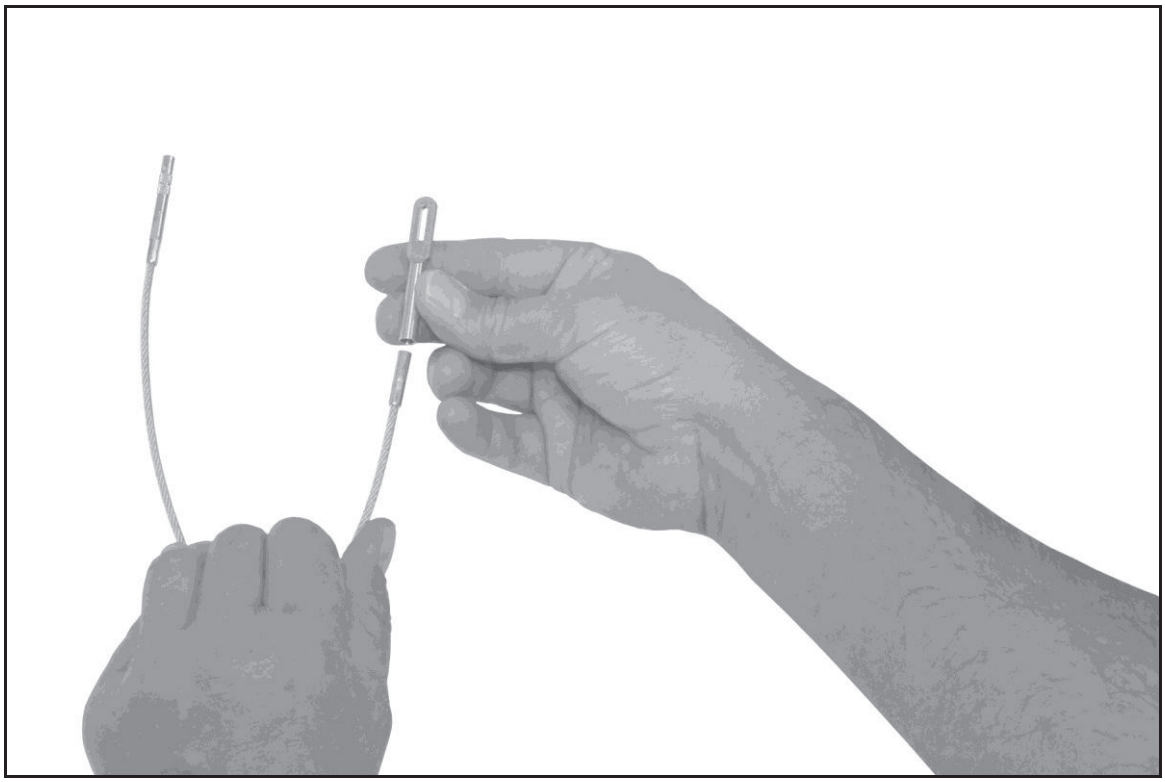


Figure 2-17. Attaching the slotted brass cleaning rod tip to the end of the cleaning rod

(2) Insert the brass cleaning rod tip (1, Figure 2-18) through the slot in the patch. Then, slide the rubber patch saver (2, Figure 2-18) onto the tip until it rests against the cleaning patch.

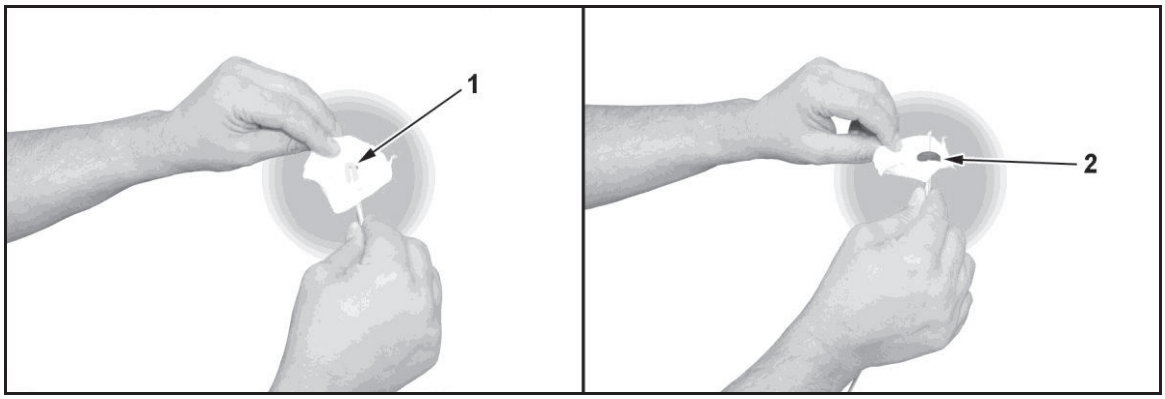


Figure 2-18. Attaching the cleaning patch to the cleaning rod

(3) Take a pinch of the patch (3, Figure 2-19), and slip it through the slot in the tip. Pull tightly on the tip of the patch.

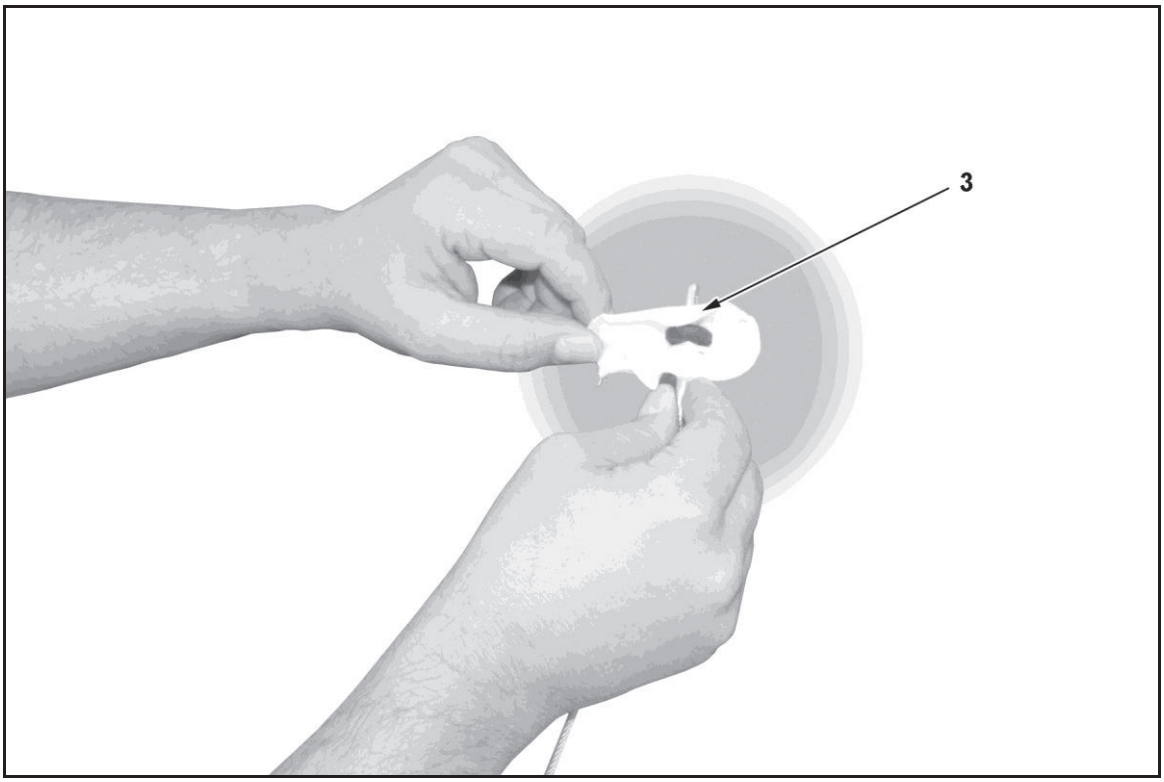


Figure 2-19. Attaching the cleaning patch to the brass tip

(4) Pull up on the patch.

2-32. You have just created a swab that gives 360-degree coverage inside the MASS barrel. Disassemble the patch, insert the brass tip into an unused inner slot in the patch, and then create another swab. You now have another new clean patch surface to run down the barrel.

APPLYING LUBRICATION

2-33. The following materials and parts are maintained by unit maintenance and can be requested as needed for cleaning and maintaining the M26 MASS:

- CLP.
- Cleaning solvent.
- Rifle bore cleaning (RBC) compound.
- LSA oil.
- Lubricant arctic weather (LAW) oil.
- Wiping rags.

WARNINGS

Cleaning solvent is flammable. Do not clean parts near an open flame or in a smoking area.

Cleaning solvent evaporates quickly and has a drying effect on the skin. When used without protective gloves, cleaning solvent may irritate or crack the skin.

NOTES:
1. CLP, LSA oil, and LAW oil may be used as applicable.
2. CLP is the authorized lubricant. The temperature range for CLP is -65°F (-54°C) to 150°F (66°C).
3. Under all but the coldest arctic conditions, CLP or LSA oil may be used on the weapon. Either may be used at -10°F (-23°C) and above. However, do not use both on the same weapon at the same time.
4. LAW oil may be used during cold arctic conditions with temperatures of +10°F (-12°C) and below.
5. Lubricants may be used from -10 °F (-23°C) to +10 °F (-12°C).

2-34. Use the following procedures to properly lubricate the M26 MASS:

(1) Apply CLP or LSA oil to the first patch, and run it through the barrel. This lubricates the bore of the barrel and prevents residue or dirt from scratching it. Run this patch through the barrel only once.

CAUTION

NEVER run a patch from muzzle to breech. This brings fouling into the chamber and receiver. If the shoulder accumulates lead or other fouling, the round does not fully seat itself in the chamber, resulting in a failure to fire.

NOTE: Abrasive material collected by the patch could damage the bore if the patch were reused. The swab allows cleaning of the entire surface of the chamber, forcing cone, barrel, and choke with one stiff pull. If the swab pulls hard, the T-handle found in the M26 MASS's cleaning kit can be attached to the cleaning rod cable to increase pulling power (see Figure 2-20).

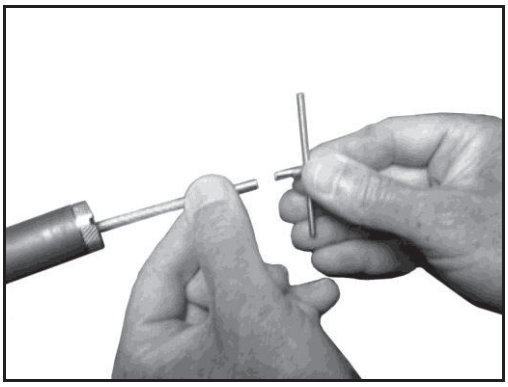


Figure 2-20. Attaching the T-handle to the cleaning rod

(2) Check the barrel for residue.

(3) Pull a second lubricated patch through, if needed. Repeat this practice until there is no discoloration of the patch.

CLEANING USING A WIRE BRUSH

2-35. If the patch fails to remove all residues from the barrel, use the wire brush contained in the cleaning kit. The wire brush loosens lead and residue when attached to the cleaning rod cable (see Figure 2-21) and pulls through in the same way as the swab.

NOTE: The wire brush only loosens the lead and residue; a clean patch swab must be used to mop it up.

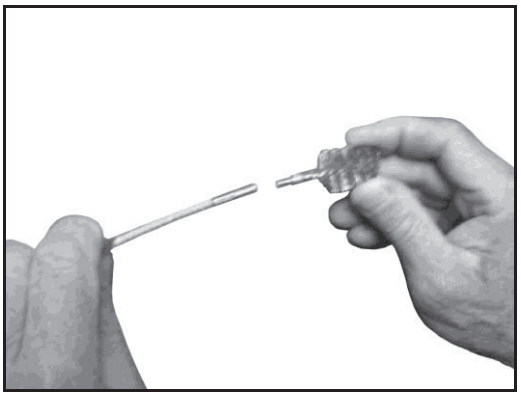


Figure 2-21. Attaching the wire brush to the cleaning rod

CAUTION

NEVER run a brush first; that could damage the MASS. Brushes collect dirt and moisture, and can deposit them into the chamber.

NOTE: The brush is oversized to scrub the chamber and forcing cone.

2-36. Use the following procedures to clean the MASS with the wire brush:

(1) Pull the brush from the breech to the muzzle (see Figure 2-22), while twisting it clockwise to clean the chamber and loosen the brass filings and residue that accumulate at the shoulder.

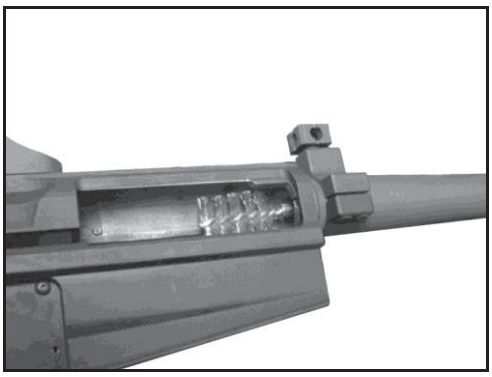


Figure 2-22. Pulling the wire brush from the breech section

CAUTION

NEVER run a brush from muzzle to breech. This brings fouling into the chamber and receiver. If the shoulder accumulates lead or other fouling, the round does not fully seat itself in the chamber and result in a failure to fire.

(2) After running the brush through the bore, run patches through until the bore is clean and shiny, and until there is no discoloration of the patch.

(3) Wipe the inside of the receiver, the bolt, the bolt carrier, the charging handle, and the recoil plug with a clean, dry rag until clean.

NOTE: All metal parts should be lubricated with CLP or LSA oil. Do not over lubricate.

LUBRICATING BEFORE AND AFTER OPERATION

2-37. Clean and lubricate the M26 MASS daily before and after operation. Periodic lubrication can be performed without disassembling the weapon. Keep the weapon clean and lubricated even when it is not used for awhile. Lubricate the MASS using the following procedures:

(1) Use RBC to remove carbon buildup in the bore and other parts of the weapon.

(2) Move the charging handle (1, Figure 2-23) forward, and lubricate the outside of the bolt (2, Figure 2-23) with CLP.

(3) Remove the receiver plug (3, Figure 2-23), and lubricate the hammer (4, Figure 2-23) with several drops of CLP.

NOTES: 1. Keep the weapon clean and lubricated with CLP. General procedures can be found in TM 9-1005-341-10.

2. Note that the hammer is in the receiver and behind the bolt (2, Figure 2-23) when in the closed-action position.

(4) Reinstall the receiver plug into the rear of the receiver.

NOTE: See assembly of the M26 MASS for reinstalling the receiver plug.

(5) Apply a few drops of CLP through the firing pin hole. Keep the weapon pointed up for 10 to 15 seconds, and then lower the weapon. Cycle the weapon, and squeeze the trigger (5, Figure 2-23) to spread the oil.

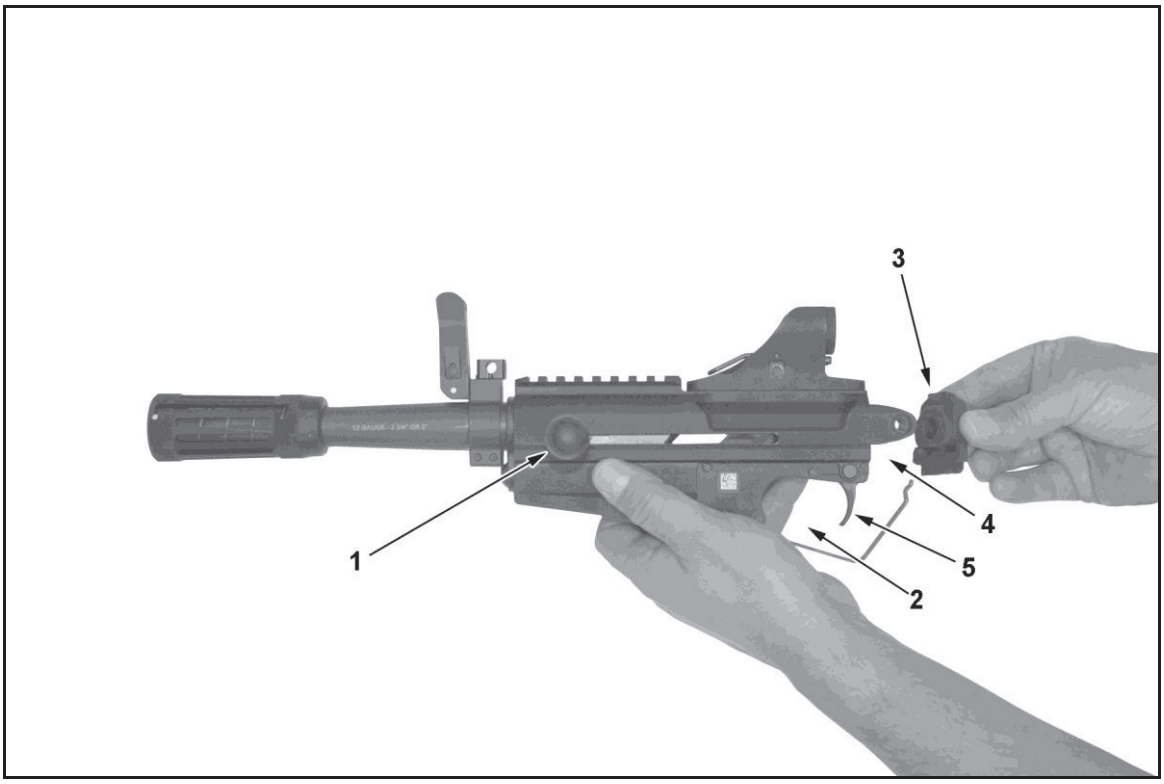


Figure 2-23. Lubricating the M26 Modular Accessory Shotgun System

MAINTENANCE UNDER UNUSUAL CONDITIONS

2-38. The M26 MASS must be protected against environmental effects. Use the following recommended procedures to protect the system from the elements. Extreme situations during combat operations may dictate how much of the weapon can be protected.

HOT, DUSTY, AND SANDY AREAS

2-39. Clean often. Oil frequently because heat dissolves oil rapidly. Wipe oil from exposed surfaces, and keep the weapon covered as much as possible to prevent sand from collecting on moving parts.

RAINY, HUMID, AND SALTY AIR

2-40. Rainy, humid, or salty air may contaminate lubricants and cause corrosion. Inspect the M26 MASS daily. Dry, clean, and lubricate as needed.

FREEZING TEMPERATURES

2-41. Keep ice and snow from operating parts. If possible, wrap the weapon (mounted/stand-alone) in a parka, blanket, or other gear that protects it from the elements. Special care must be taken when bringing weapons from a cold area into a warm area. Weapons must be allowed to reach room temperature gradually. If condensation forms, dry and lubricate the weapon at room temperature before taking it into cold weather again. This prevents ice from forming in the mechanism.

IMMERSION IN WATER

2-42. Do not fire the M26 MASS if it has been submerged in water or if the barrel is full of water. After immersion in water, disassemble, clean, oil, and reassemble as soon as possible. Make sure that the MASS is dry before operation.

INSPECTION

2-43. The M26 MASS should be checked periodically. Inspect it before, during, and after operation for wear caused by continuous use, or if accidentally damaged during movement. Inspect the MASS once the weapon has been cleaned and before reassembly.

2-44. Refer to TM 9-1005-341-10 for actions to take if an identified problem is not covered in this section. Operators should notify unit maintenance immediately when identified problems are not correctable, or if assistance is needed to identify weapon problems.

2-45. Use the following procedures to inspect the MASS:

(1) Check the exterior of the weapon for cracks or dents and for loose or missing parts.

(2) Check for pits or damage to the interior of the barrel, and ensure that the bore is dry and free of obstructions.

NOTE: See paragraph 2-23 for more information about inspecting the bore using the bore reflector.

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(3) Check the action lock button for function.

(4) Check the gun for ejection with a dummy round or fired case by chambering the case or dummy round, depressing the action lock button, and opening the chamber by pulling the charging handle rearward. The round should eject.

(5) Check the upper mounting bracket assembly for burrs or dents if mounted to a host weapon, and ensure that all four hex key screws are present.

2-46. If the M26 MASS is damaged, does not fire, or is determined unsafe, TURN IT IN.

GENERAL ASSSEMBLY

2-47. To assemble the M26 MASS, perform the disassembly procedures in reverse. Use the following procedures to assemble the MASS:

(1) Carefully assemble the bolt (3, Figure 2-24) onto the bolt carrier (4, Figure 2-24), ensuring that the carrier recoil spring is inserted into the hole at the back of the bolt.

CAUTION

Use great care when repositioning the bolt recoil spring into the bolt carrier. Don't bend, twist, or crimp the bolt recoil spring during installation. This may render the M26 MASS unserviceable.

(2) Slide the bolt forward (3, Figure 2-24) on the bolt carrier (4, Figure 2-24), allowing the locking bar (5, Figure 2-24) to drop into the recess of the bolt.

(3) Insert the bolt/bolt carrier assembly (2, Figure 2-24) into the rear of the MASS's receiver (1, Figure 2-24) while compressing the cartridge guide (6, Figure 2-24).

(4) Slide the bolt/bolt carrier assembly forward (2, Figure 2-24) until the charging handle retaining plunger access opening in the bottom of the bolt carrier (4, Figure 2-24) is visible within the magazine well.

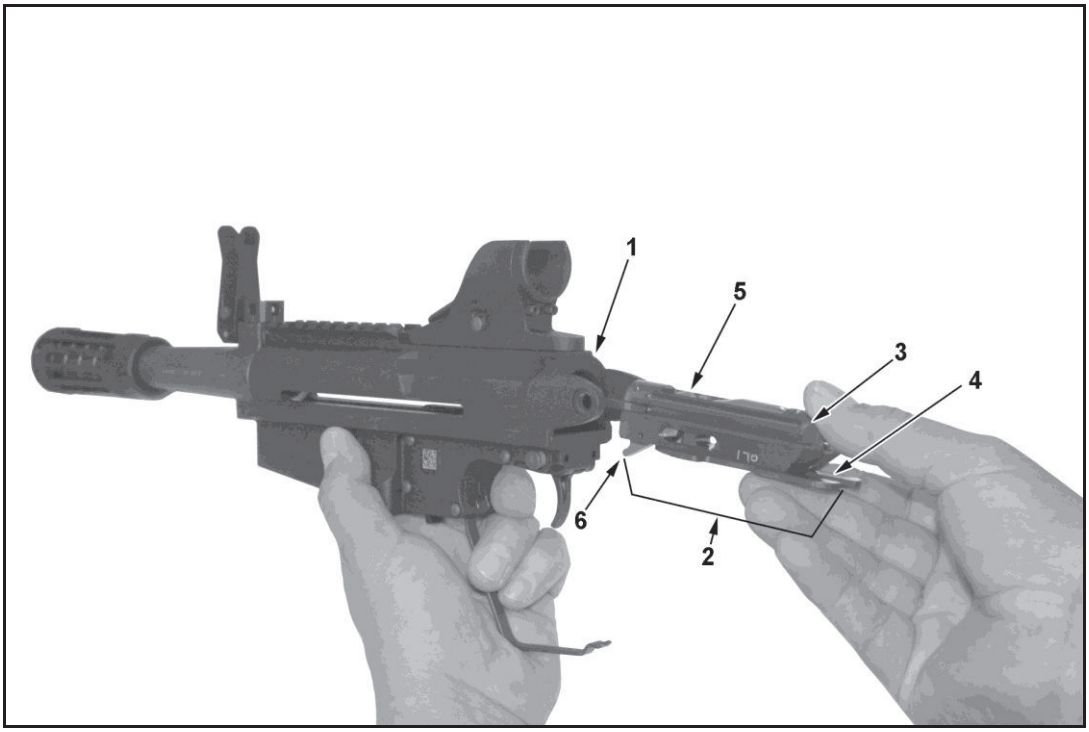


Figure 2-24. Installing the bolt into the bolt carrier

(5) Retract the charging handle retaining plunger (1, Figure 2-25) with the T-handle found in the MASS's cleaning kit or some other pointed object and, at the same time, install the charging handle (2, Figure 2-25) into the bolt/bolt carrier assembly (3, Figure 2-25).

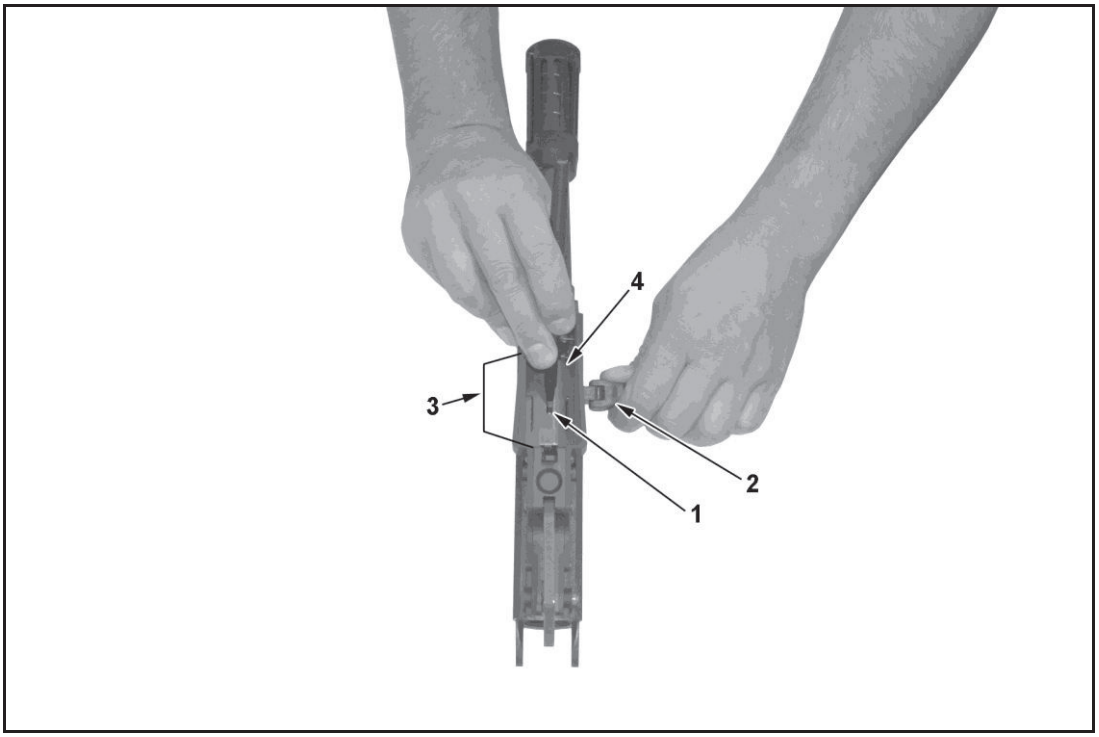


Figure 2-25. Installing the charging handle

(6) Install the receiver plug (5, Figure 2-26) into the rear of the MASS's receiver (6, Figure 2-26).

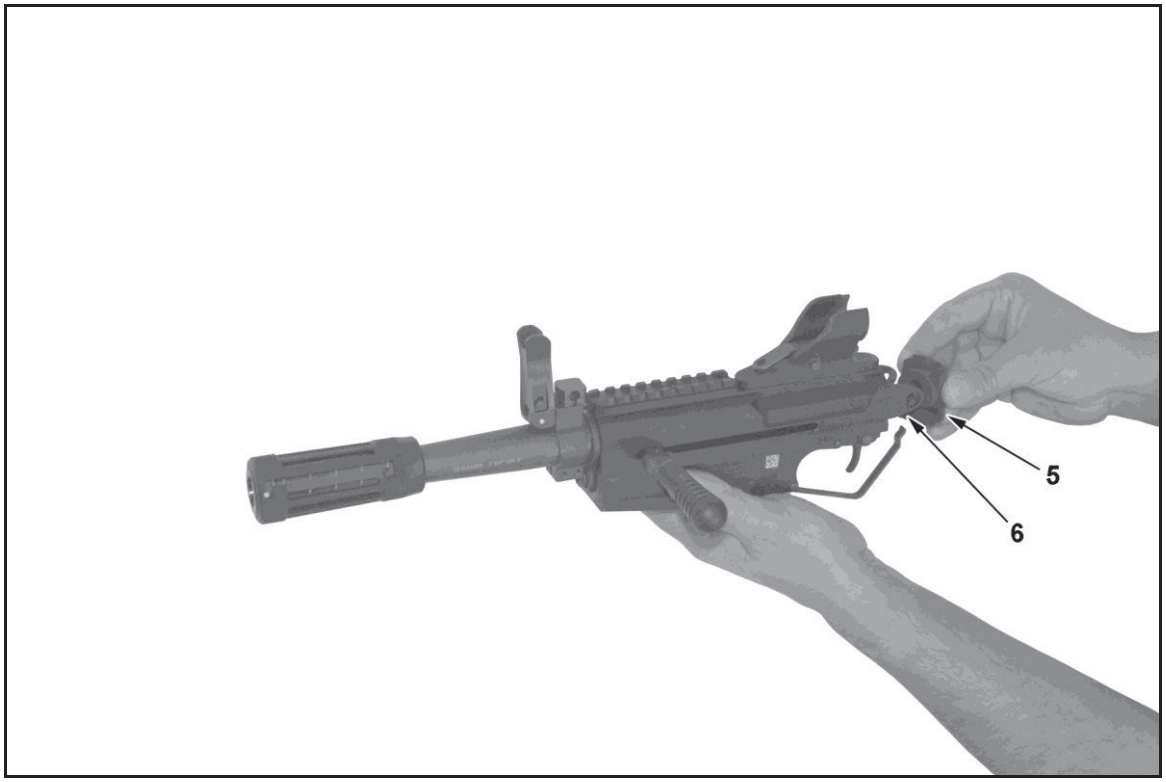


Figure 2-26. Installing the receiver plug

(7) Align threaded end of the standoff device (1, Figure 2-27) with threads in barrel (2, Figure 2-27).

(8) Pull out on standoff device (3, Figure 2-27) and rotate counterclockwise 1/8 turn (2, Figure 2-27).

(9) Slide standoff device forward until end of travel is reached (fully extended). Rotate standoff device clockwise 1/8 turn to lock (1, Figure 2-27).

(10) If required, install the MASS onto a host weapon or into the stand-alone configuration.

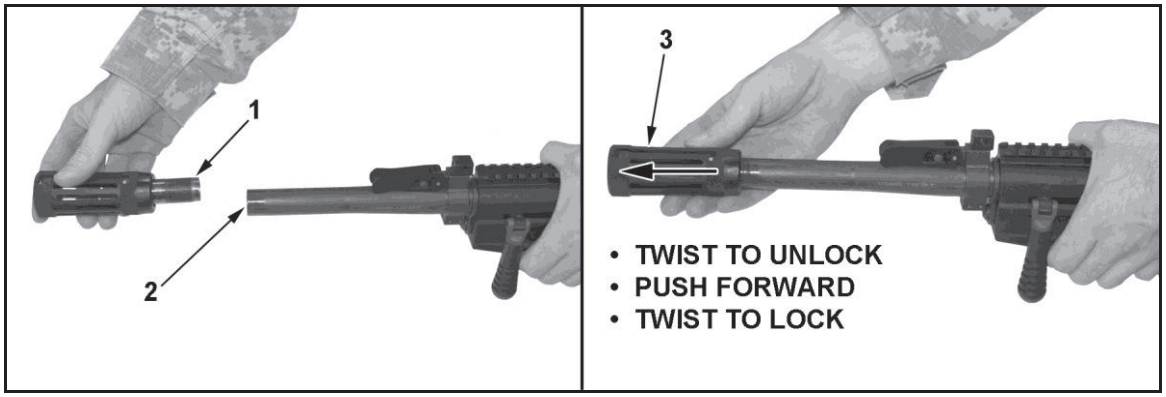


Figure 2-27. Standoff device and choke tube

PERFORMING FUNCTION CHECKS

WARNING

To avoid personal injury or death, ensure that both the M26 MASS and the host weapon are cleared of ammunition before checking for proper function.

2-48. Performing a system function check ensures that the M26 MASS is assembled correctly. Stop immediately if the system fails to perform in accordance with the following steps. Disassemble the system to determine the cause of the malfunction. If symptoms persist, refer to the troubleshooting section of TM 9-1005-341-10 and notify unit maintenance. Use the following procedures to perform function checks:

(1) Ensure that the weapon is unloaded and pointed in a safe direction. If the host weapon is mounted, ensure that it is on SAFE.

(2) Depress the action lock release (1, Figure 2-28), and pull the charging handle (2, Figure 2-28) rearward.

(3) Place the safety mechanism (3, Figure 2-28) in the SAFE position, with no red visible.

(4) Depress and hold the action lock release (1, Figure 2-28). Open and close the action several times to check for free movement of the bolt/bolt carrier assembly (4, Figure 2-28).

(5) Close the action, and leave the safety mechanism (3, Figure 2-28) in the SAFE position, with no red visible. Pull the trigger (5, Figure 2-28) and hold. The hammer should not fall.

(6) Remove the finger from the trigger (5, Figure 2-28). Move the safety mechanism (3, Figure 2-28) to the FIRE position, with red visible.

(7) Pull the trigger (5, Figure 2-28). The hammer should fall.

(8) Open the action, and move the safety mechanism (3, Figure 2-28) to the SAFE position with no red visible.

(9) Close the action, and leave the safety mechanism in the SAFE position, with no red visible.

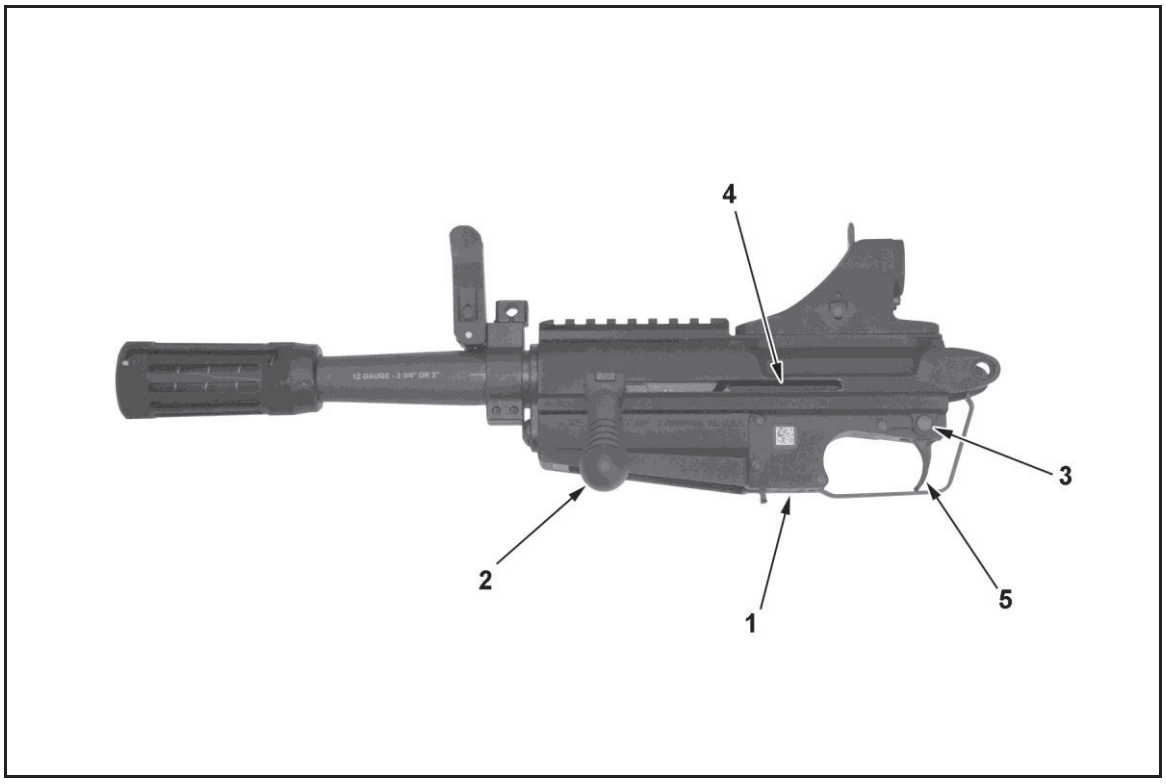


Figure 2-28. Performing a function check on the M26 Modular Accessory Shotgun System

CARE AND HANDLING

2-49. Certain steps must be taken before, during, and after firing to properly maintain the M26 MASS. Table 2-4 depicts the care and handling steps performed before, during, and after operation.

NOTE: See maintaining, troubleshooting, and lubrication procedures in this chapter.

Table 2-4. Care and handling steps performed before, during, and after operation

BEFORE FIRING	*DURING FIRING*	*AFTER FIRING*
Wipe the bore dry.	Periodically inspect the weapon to ensure that it is lubricated.	Perform complete maintenance checks and services.
Inspect the weapon as outlined in TM 9-1005-341-10.	If malfunctions occur, follow the procedures outlined in Chapter 3.	
Ensure that the weapon is properly lubricated.		

DECONTAMINATION

2-50. If chemical, biological, radiological, and nuclear (CBRN) contamination is anticipated, apply CLP to all outer metal surfaces of the M26 MASS and the host weapon, if mounted.

NOTE: Ammunition should never be lubricated.

2-51. Keep the weapons covered as much as possible. If the weapons become contaminated, decontaminate according to FM 3-11.5, and then clean and lubricate them. Dispose of contaminated material according to standard operating procedures (SOP). Leaders should review FM 3-11.3 and FM 3-11.4.

NOTE: Use personal protection equipment (PPE) when there is reoccurring exposure of CLP according to the manufacturer's material safety data sheet (MSDS).

Chapter 3

Operation and Function

The design of the M26 MASS provides two main configuration options: mounting the MASS to the M4 or operating the MASS in the stand-alone mode. This chapter describes in detail how to prepare the M26 MASS for both configurations. It discusses preparing the system for operation, employing firing procedures, eliminating malfunctions, and applying destruction procedures. The operational procedures are written for right-handed firers, but the MASS can be configured to accommodate left-handed firers.

SECTION I – SYSTEM CONFIGURATIONS

STAND-ALONE CONFIGURATIONS

3-1. The M26 MASS is primarily designed to complement a host weapon, although the MASS can be operated in the stand-alone mode. When in the stand-alone configuration, the M26 MASS can be outfitted and operated in ways like comparable shotgun weapons, with one exception: the MASS comes with an adapter rail for mounting accessories.

STAND-ALONE KIT

3-2. The M26 MASS stand-alone kit comprises a pistol grip assembly (1, Figure 3-1), adjustable buttstock (2, Figure 3-1), with a pistol grip assembly (3, Figure 3-1), and a sling (4, Figure 3-1).

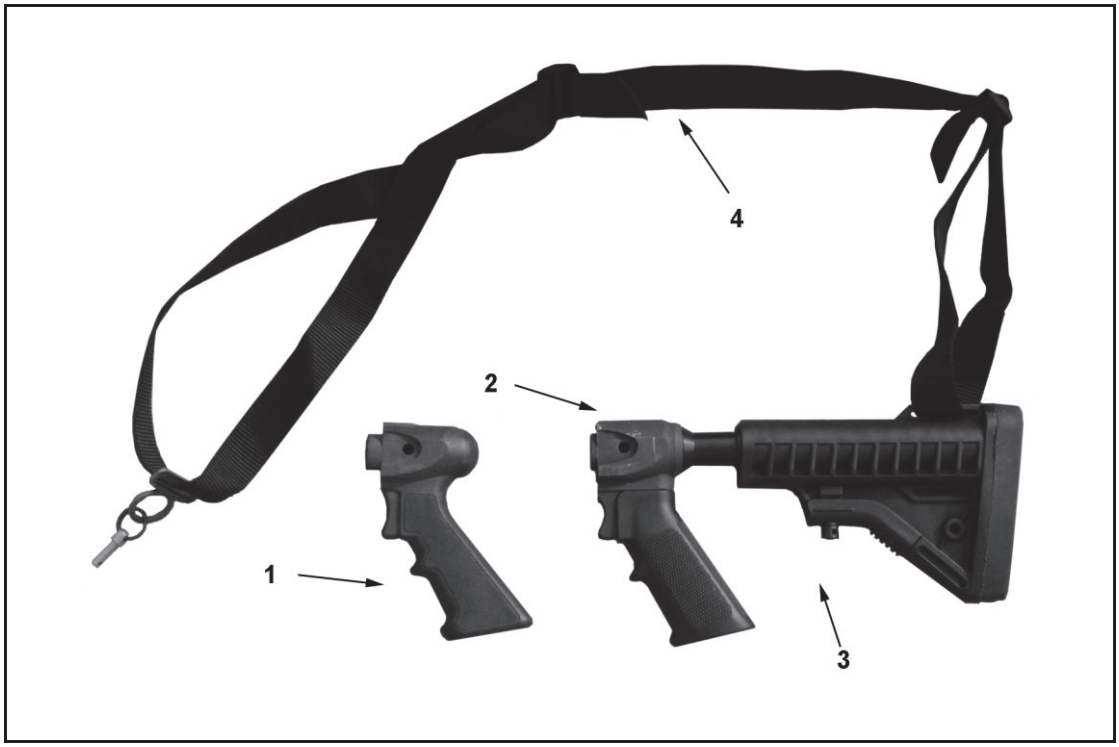


Figure 3-1. M26 Modular Accessory Shotgun System stand-alone kit

Assembly With Pistol Grip

NOTE: System operators must be trained in M26 MASS disassembly and assembly before placing the MASS in the stand-alone configuration.

3-3. Use the following procedures to assemble the MASS in the stand-alone configuration:

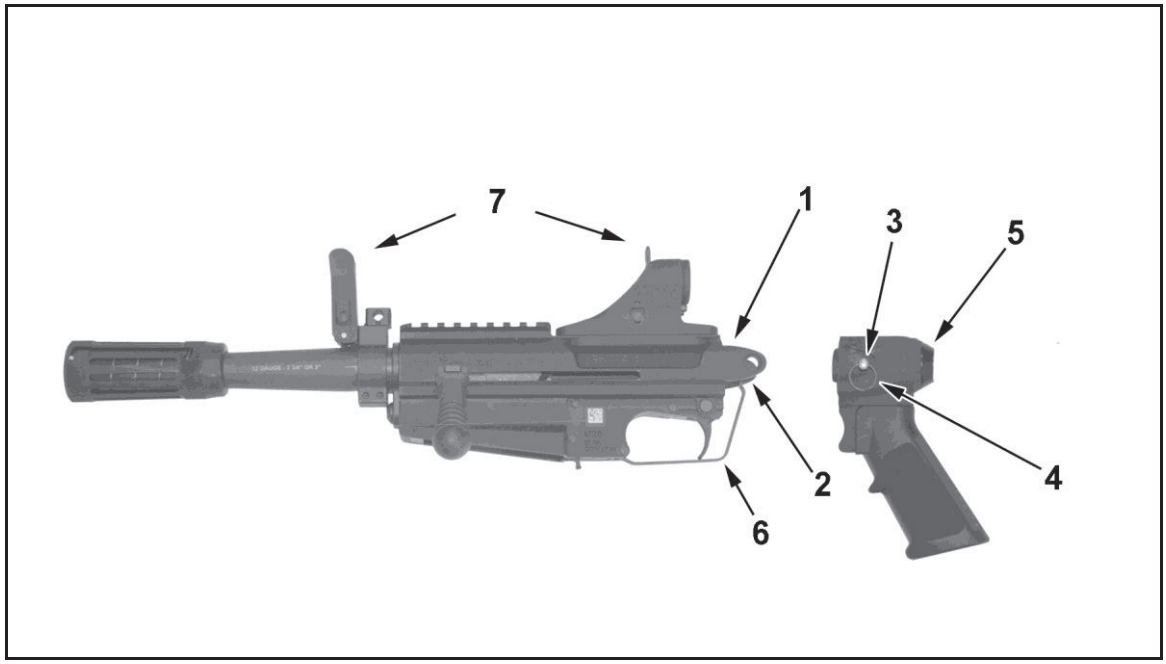


Figure 3-2. Assembling the M26 Modular Accessory Shotgun System in the stand-alone configuration with pistol grip

(1) Remove the rubber receiver plug (1, Figure 3-2) from the rear of the upper receiver (2, Figure 3-2).

(2) Remove the coiled wire ring (4, Figure 3-2) from the mounting pin (3, Figure 3-2).

(3) Remove the mounting pin (3, Figure 3-2) from the pistol grip adapter (5, Figure 3-2).

(4) Install the pistol grip adapter (5, Figure 3-2) into the rear of the upper receiver (2, Figure 3-2), while ensuring that the pistol grip adapter captures the trigger guard (6, Figure 3-2).

(5) Firmly seat the pistol grip adapter (5, Figure 3-2) into the rear of the upper receiver (2, Figure 3-2), and install the mounting pin (3, Figure 3-2) and the coiled wire ring (4, Figure 3-2).

(6) Raise front sight post (7, Figure 3-2) and rear sight aperture.

NOTE: To disassemble the M26 MASS, perform the assembly procedures in reverse. The unit SOP specifies where the stand-alone kit should be stowed.

Assembly

NOTE: System operators must be trained in M26 MASS disassembly and assembly before placing the MASS in the stand-alone configuration.

3-4. Use the following procedures to assemble the MASS in the stand-alone configuration:

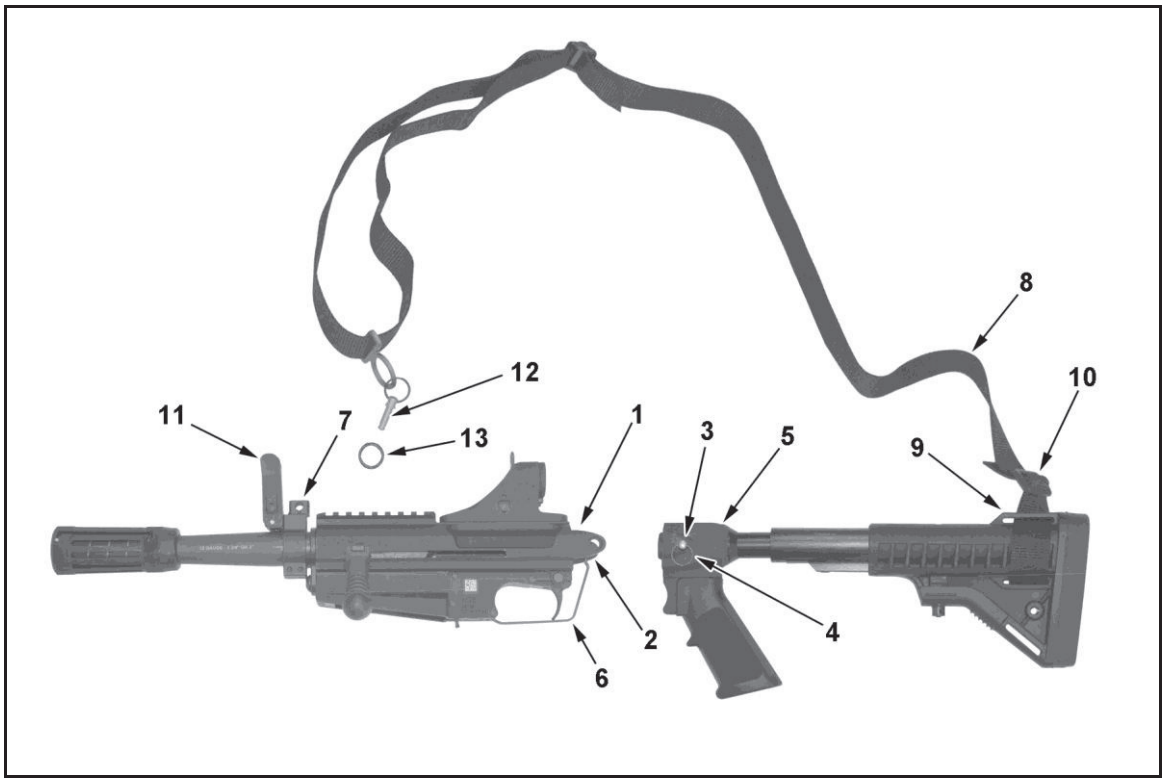


Figure 3-3. Assembling the M26 Modular Accessory Shotgun System in the stand-alone configuration with pistol grip

(1) Remove the rubber receiver plug (1, Figure 3-3) from the rear of the upper receiver (2, Figure 3-3).

(2) Remove the coiled wire ring (4, Figure 3-3) from the mounting pin (3, Figure 3-3).

(3) Remove the mounting pin (3, Figure 3-3) from the pistol grip adapter (5, Figure 3-3).

(4) Install the pistol grip adapter (5, Figure 3-2) into the rear of the upper receiver (2, Figure 3-3), while ensuring that the pistol grip adapter captures the trigger guard (6, Figure 3-3).

(5) Firmly seat the pistol grip adapter (5, Figure 3-3) into the rear of the upper receiver (2, Figure 3-2), and install the mounting pin (3, Figure 3-3) and the coiled wire ring (4, Figure 3-3).

(6) Raise front sight post (11, Figure 3-3).

(7) Install the end of the sling strap (8, Figure 3-3) through the slot of the buttstock (9, Figure 3-3), and secure by threading the strap through the sling slide (10, Figure 3-3).

(8) Position the front sight post (11, Figure 3-3) on the elevation block (7, Figure 3-3).

(9) Align the mounting pin (12, Figure 3-3) and the hole to the elevation block (7, Figure 3-3) and insert the mounting pin and the coiled wire ring (14, Figure 3-3).

NOTE: To disassemble the M26 MASS, perform the assembly procedures in reverse. The unit SOP specifies where the stand-alone kit should be stowed.

MOUNTED CONFIGURATION

3-5. The M26 MASS is designed to be mounted on M4 carbines. When in this configuration, the host weapon becomes a multipurpose weapon. While maintaining control of the host weapon, Soldiers can perform door-breaching operations or switch from lethal to nonlethal ammunition to perform crowd control operations.

PREPARATION

3-6. To prepare the host weapon for mounting the M26 MASS, unit maintenance personnel must temporarily remove the host weapon's lower rail adapter or handguard and front side-mounted sling swivel (2, Figure 3-3), and install the upper mounting bracket assembly (3, Figure 3-3) onto the host weapon.

NOTE: Mounting the upper mounting bracket assembly requires tools not currently available to the weapons operator.

3-7. Unit maintenance should remove the host weapon's sling (forward sling swivel) and reattach it to the sling swivel on the MASS's upper mounting bracket assembly. The operator can adjust the sling as required.

3-8. To prepare the host weapon for mounting the M26 MASS, perform the following procedures:

(1) Remove the lower adapter rail or hand guard (1, Figure 3-4) from the host weapon.

(2) Push the takedown pin (4, Figure 3-4) from the upper mounting bracket assembly (3, Figure 3-4).

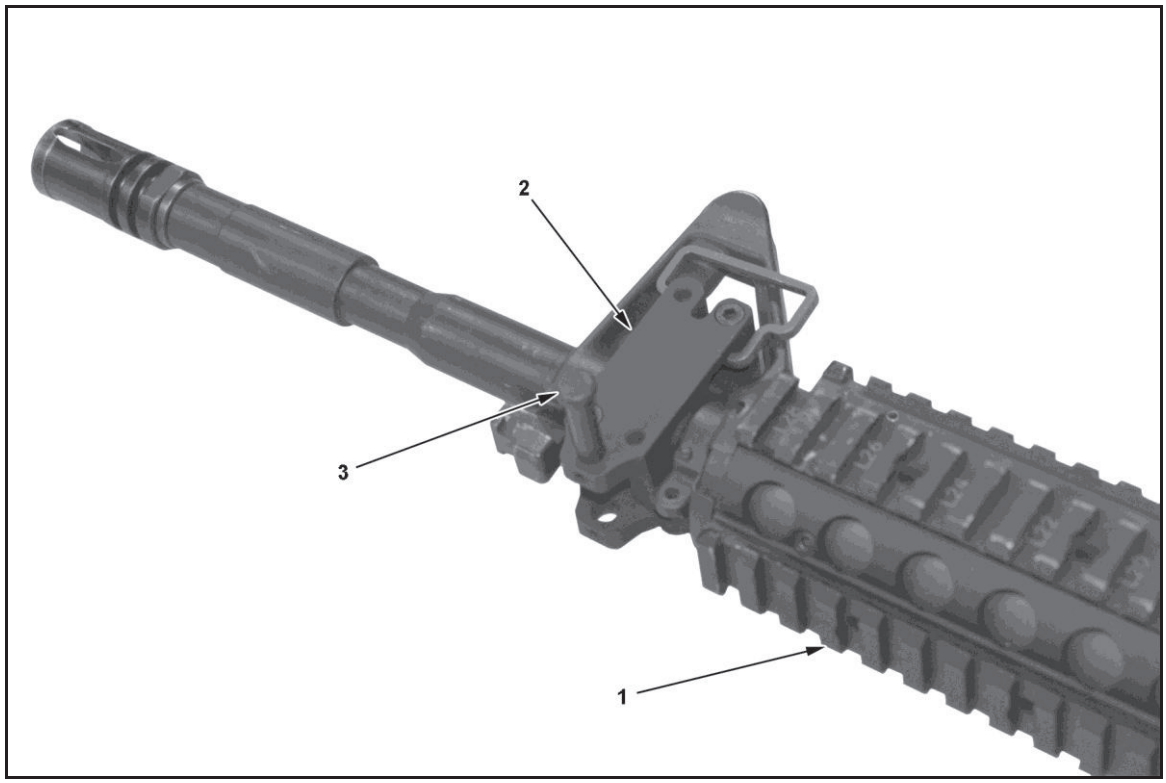


Figure 3-4. Preparing the host weapon for mounting the M26 Modular Accessory Shotgun System

INSTALLATION

NOTE: Perform this step only if the M26 MASS has not been previously zeroed.

3-9. Perform the following procedures to mount the M26 MASS on the host weapon:

(1) Position the elevation block (see Figure 3-5) at six counterclockwise clicks from the lowest setting (mechanical zero).

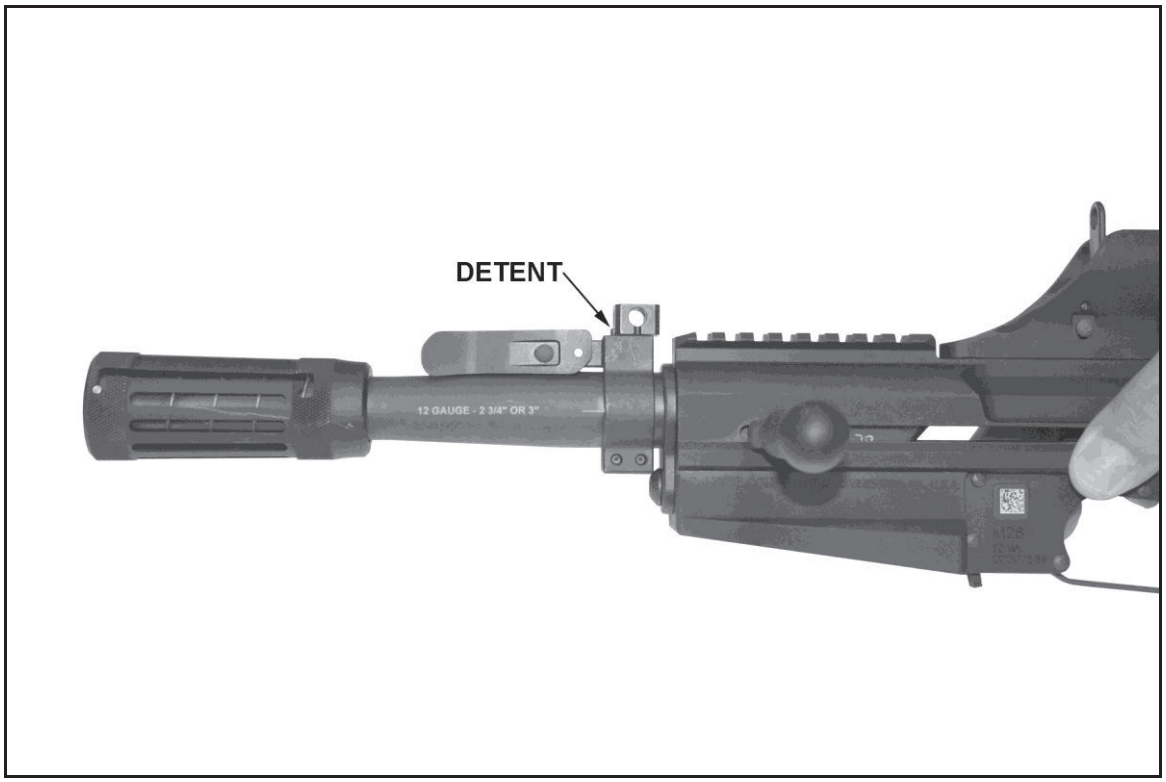


Figure 3-5. Adjusting the M26 Modular Accessory Shotgun System's elevation block

(2) Position the trigger guard (1, Figure 3-6) so it is open and free from retention by the host weapon's magazine well.

(3) Insert the rear mounting bracket (2, Figure 3-6) within the host weapon's slip ring. Ensure that the two locating pins on the rear surface of the rear mounting bracket (shown circled in Figure 3-6) are aligned with the teeth spaces of the host weapon's barrel nut. Apply downward pressure to seat.

NOTE: If the locating pins do not align with the teeth spaces of the barrel nut, notify unit maintenance.

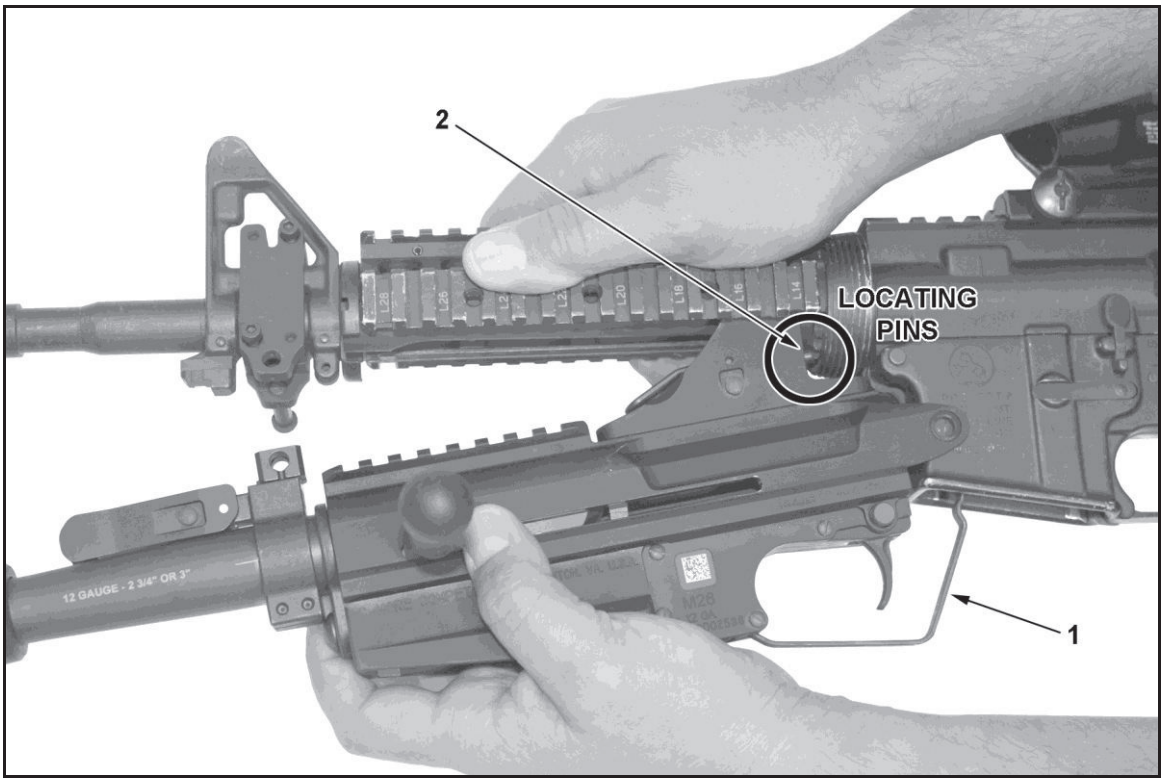


Figure 3-6. Attaching the M26 Modular Accessory Shotgun System's rear mounting bracket to the host weapon's slip ring

(4) Place the elevation block (3, Figure 3-7) between the lugs of the host weapon's upper mounting bracket assembly (1, Figure 3-7).

(5) Align the upper mounting bracket assembly takedown pin lugs with the elevation block assembly lugs by applying rearward pressure so the MASS's rear mounting bracket is tight against the host weapon's barrel nut.

(6) Push the upper mounting bracket assembly takedown pin (2, Figure 3-7) through the elevation block assembly lugs and the far lug of the upper mounting bracket assembly.

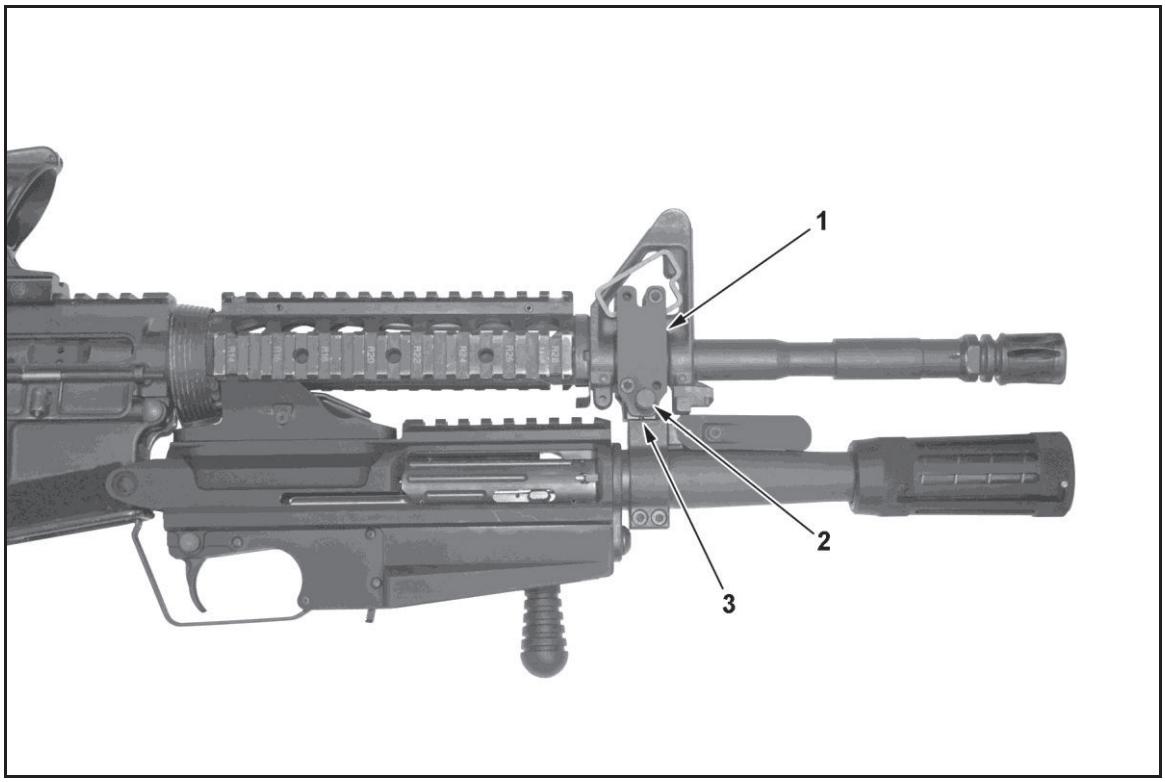


Figure 3-7. Attaching the M26 Modular Accessory Shotgun System to the host weapon's upper mounting bracket assembly

(7) Position the trigger guard (see Figure 3-8) between the MASS and the host weapon's magazine well.

NOTE: The trigger guard is properly aligned when it is retained by the magazine well.

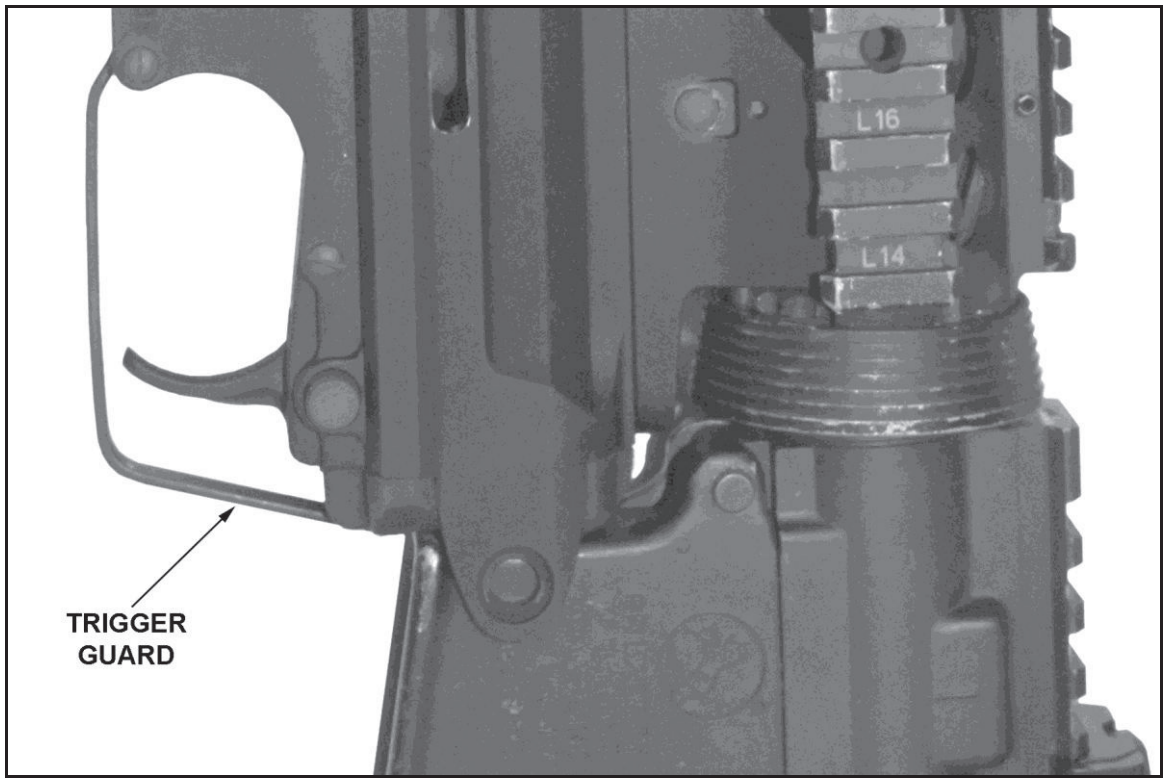


Figure 3-8. Attaching the M26 Modular Accessory Shotgun System's trigger guard to the host weapon

(8) Grasp the upper and lower mounting bracket assemblies (1 and 2, Figure 3-9), and check for movement. If movement is detected, notify unit maintenance.

CAUTION

A loose upper or lower mounting bracket assembly can cause malfunctions while firing.

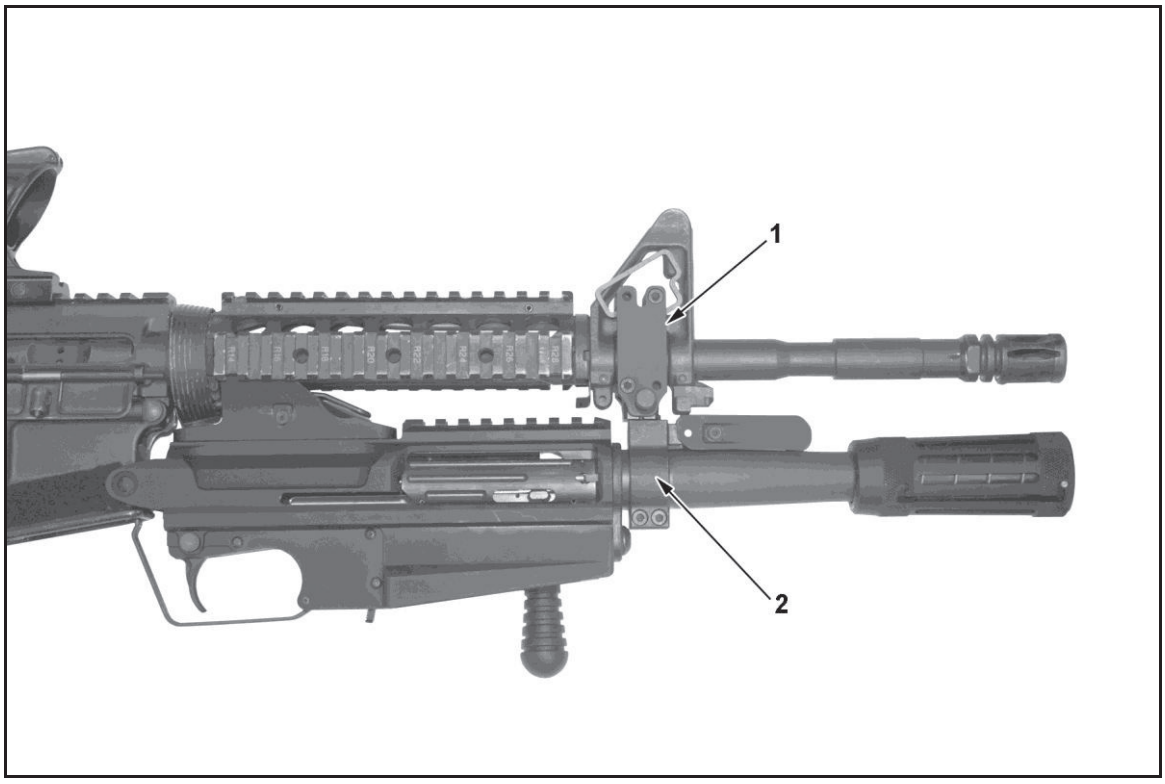


Figure 3-9. Checking the upper and lower mounting bracket assemblies of the M26 Modular Accessory Shotgun System and the host weapon

NOTE: Figure 3-10 shows a completed M26 MASS mounted configuration. To remove the MASS from the host weapon, perform the mounting procedures in reverse.



Figure 3-10. M26 Modular Accessory Shotgun System completely mounted to the host weapon

SECTION II – OPERATING PROCEDURES

3-10. System loading and unloading, firing, correcting weapon malfunctions, and destruction procedures (when appropriate) are the same for mounted and stand-alone modes of operation.

LOADING AND UNLOADING PROCEDURES

3-11. To prepare the M26 MASS for operation, the operator must know how to load weapon magazines, insert the magazine into the weapon, chamber a round, and unload the weapon. Many steps are the same for mounted and stand-alone configurations, but firing techniques, such as the placement of the firing and nonfiring hand, differ in each configuration. The actions of loading, chambering rounds, and unloading the MASS must be trained and practiced until Soldiers become proficient at performing the tasks.

NOTE: Fired/dummy shotgun rounds are used when training Soldiers to load, chamber a round of ammunition, and unload the M26 MASS. Soldiers must demonstrate proficiency before conducting the tasks with live ammunition.

WARNING

Ensure that the M26 MASS does not have a round in the chamber while moving. Do not chamber a round until in a stationary position and ready to shoot. Ensure no rounds are in the chamber when transitioning from M26 to another weapon.

MAGAZINE

3-12. The number of magazines per Soldier load plan and the type of ammunition carried is mission-dependent. The number of rounds it takes to breach doors is one indication, but other types of target engagement (lethal and nonlethal) are based on the commander's "best guess."

NOTE: See Chapter 4 for more information about rounds used for door-breaching operations.

3-13. Soldiers should become familiar with all authorized M26 MASS ammunition before handling, loading, or firing. This training should include ammunition types, usage, and color codes, and ways to check for serviceability before loading ammunition into magazines.

NOTE: See Chapter 2 for more information about authorized M26 MASS ammunition. Refer to TM 9-1005-341-10 for more information about ammunition types, usage, color codes, and serviceability.

Load

3-14. To load rounds into the MASS's magazine, perform the following procedures:

(1) Insert the cartridge (2, Figure 3-11), with the rim first into the magazine.

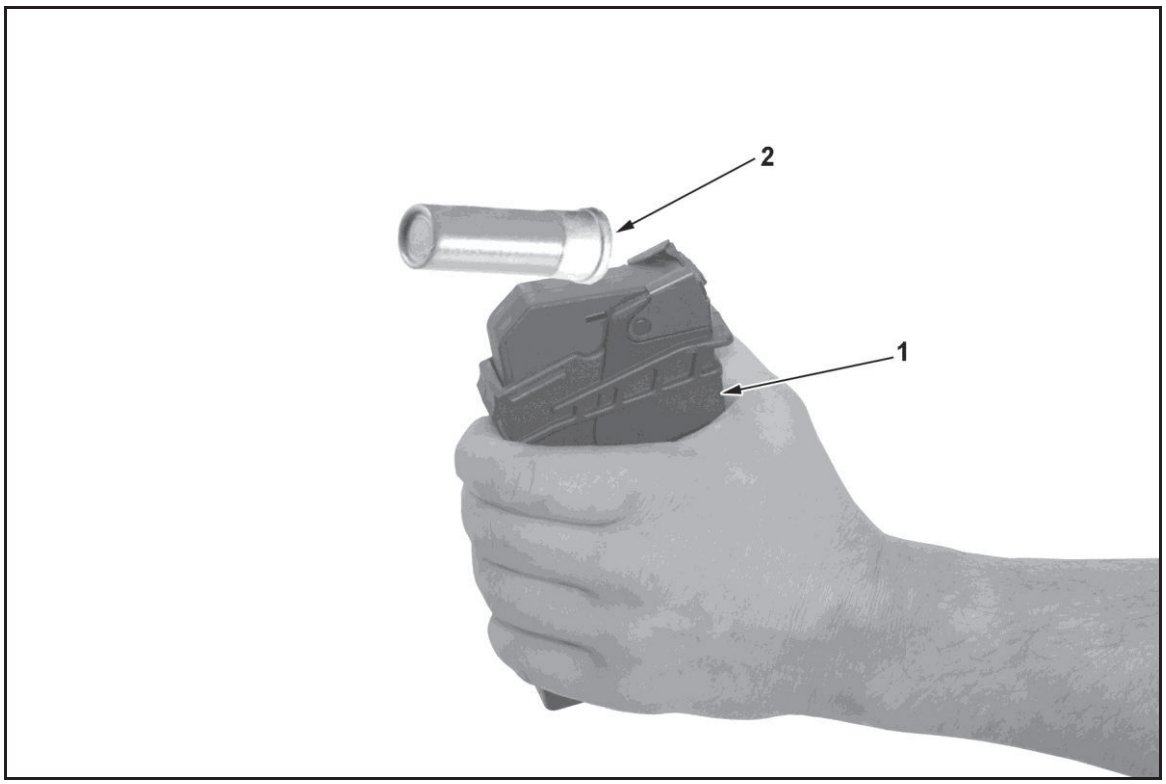


Figure 3-11. Loading the magazine

(2) Push down on the cartridge with thumb pressure toward the rear of the magazine.

(3) Repeat until the magazine is full. The capacity is five rounds.

Unload

3-15. To unload the MASS's magazine, perform the following procedures:

(1) Hold the magazine with the cartridge primer facing toward the body.

(2) Place the bottom of the magazine on a hard surface.

(3) Press down and push out on the cartridge with the thumb of the opposite hand.

(4) Repeat until the magazine is empty.

NOTE: If the magazine spring sticks during shotgun round extraction, bump the magazine against the palm of one hand until the spring releases. This may indicate that the magazine has been damaged, the spring has weakened from constant use, or the magazine requires maintenance. (Refer to TM 9-1005-341-10 for more information about troubleshooting magazine malfunctions.)

INSTALL A MAGAZINE

3-16. To install a magazine in the M26 MASS, perform the following procedures:

(1) Grip the host weapon's magazine with the firing hand (in the stand-alone configuration, hold the pistol grip), and while keeping the weapon's muzzle pointed in a safe direction, place the buttstock into the firing shoulder.

NOTE: Ensure the weapon has been cleared before inserting a magazine.

WARNING

To avoid injury or death, ensure that the muzzle is pointed in a safe direction. Do not fire rounds without the cylinder choke or standoff device firmly screwed into place.

(2) Place the safety mechanism in the SAFE position with no red visible (see Figure 3-12).

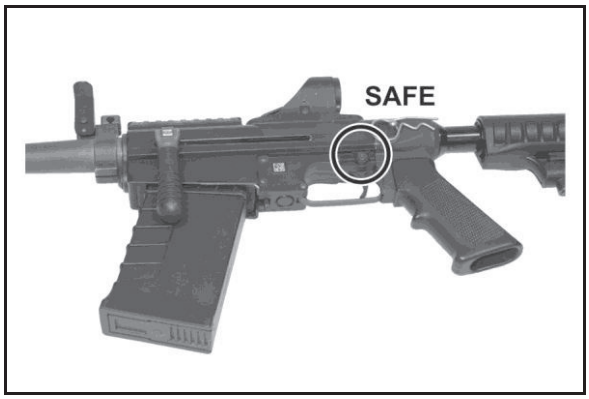


Figure 3-12. Placing the M26 Modular Accessory Shotgun System on SAFE

NOTE: See Figure 3-13 for safety mechanism fire and no-fire settings.

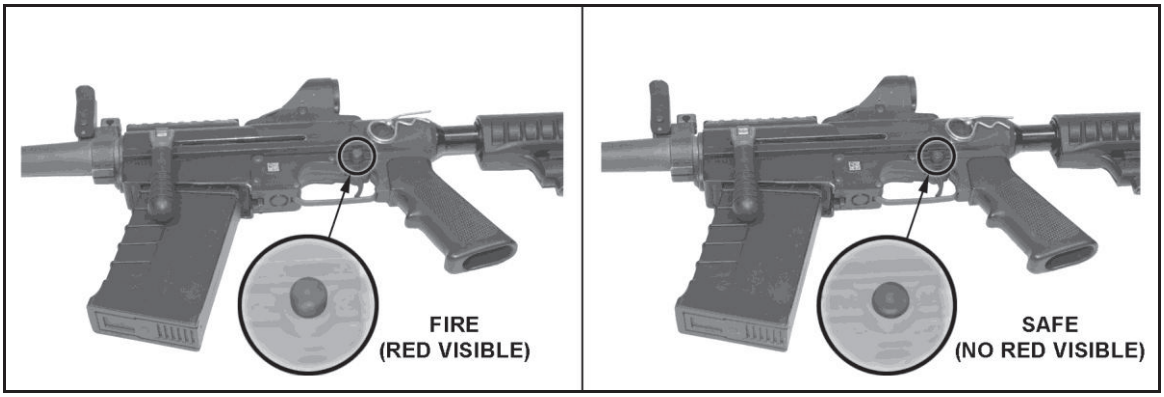


Figure 3-13. Fire and no-fire settings for the M26 Modular Accessory Shotgun System fire/safety details

3-17. With the nonfiring hand, insert a loaded magazine (1, Figure 3-14) into the magazine well (2, Figure 3-14) by seating the front lip first and then rotating back and up until it snaps into place.

NOTE: The magazine may be inserted with the bolt assembly open or closed.

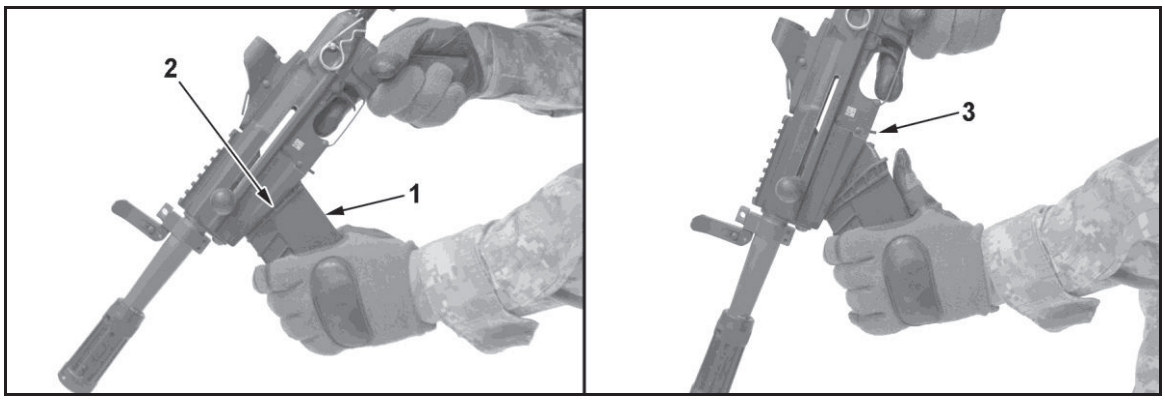


Figure 3-14. Inserting the magazine

3-18. To ensure that the magazine is secured by the magazine release locking mechanism (3, Figure 3-14), apply downward pressure on the magazine.

CHAMBERING

NOTE: Ensure weapon has been cleared before inserting a magazine.

3-19. A round is chambered using both hands at the same time. Although this procedure takes only seconds to accomplish, it requires the Soldier's attention. He cannot provide supporting fires while performing this task.

WARNING

Ensure that the M26 MASS does not have a round in the chamber while moving. Do not chamber a round until in a stationary position and ready to shoot. Ensure no rounds are in the chamber when transitioning from M26 to another weapon.

3-20. Use the following steps to chamber a round of ammunition:

(1) Grip the host weapon's magazine with the firing hand (in the stand-alone configuration, hold the pistol grip), and while keeping the weapon's muzzle pointed in a safe direction, place the buttstock into the firing shoulder.

(2) Depress the action lock release (1, Figure 3-15) with a finger of the firing hand.

(3) Release the MASS's magazine (2, Figure 3-15) with the nonfiring hand, and pull the charging handle (3, Figure 3-14) rearward.

(4) Push the charging handle (3, Figure 3-15) forward with the nonfiring hand, inserting a round into the chamber and locking the bolt.

(5) Place the MASS's safety mechanism (4, Figure 3-15) on SAFE until ready to fire.

NOTE: See Figure 3-13 for safety mechanism fire and no-fire settings.

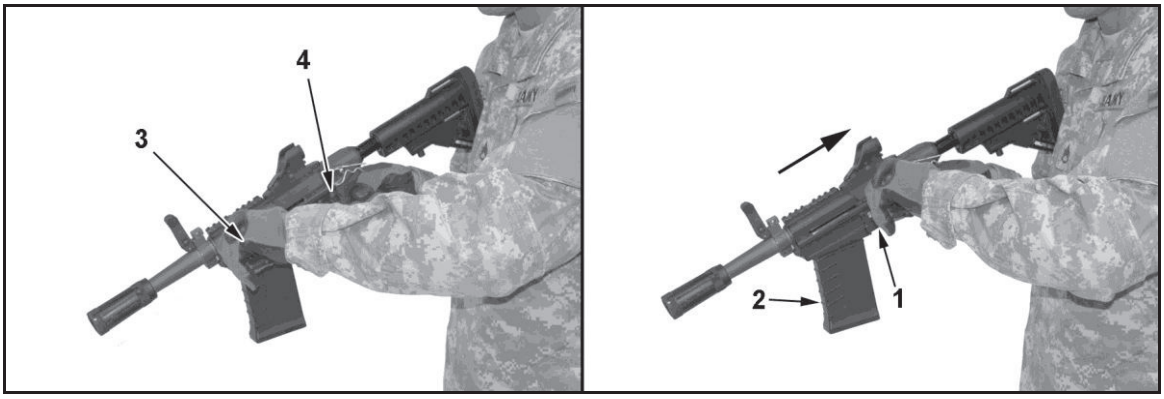


Figure 3-15. Chambering a round

MAGAZINE REMOVAL

3-21. To remove or change out magazines, both hands must be used to perform simultaneous actions. Support the weapon, clear the chamber, and remove the magazine, while keeping the weapon pointed in a safe direction.

3-22. Unloading procedures are like chambering actions; they require the Soldier's attention, but he cannot provide supporting fires while performing the task. The firing stance is situational and should be determined by the unit SOP.

NOTE: See Chapter 4 for more information about firing positions.

3-23. Use the following steps to safely unload and clear the MASS:

(1) Grip the host weapon's magazine with the firing hand (in the stand-alone configuration, hold the pistol grip). While keeping the weapon's muzzle pointed in a safe direction, place the buttstock into the firing shoulder.

(2) Place the safety mechanism in the SAFE position (no red visible) with the nonfiring hand.

NOTE: See Figure 3-13 for safety mechanism fire and no-fire settings.

(3) Grasp the MASS's magazine (1, Figure 3-16) with the nonfiring hand.

(4) Depress the MASS's magazine release (3, Figure 3-16) with a finger of the firing hand, and remove the magazine (1, Figure 3-16) with the nonfiring hand by pulling down and rotating forward (2, Figure 3-16).

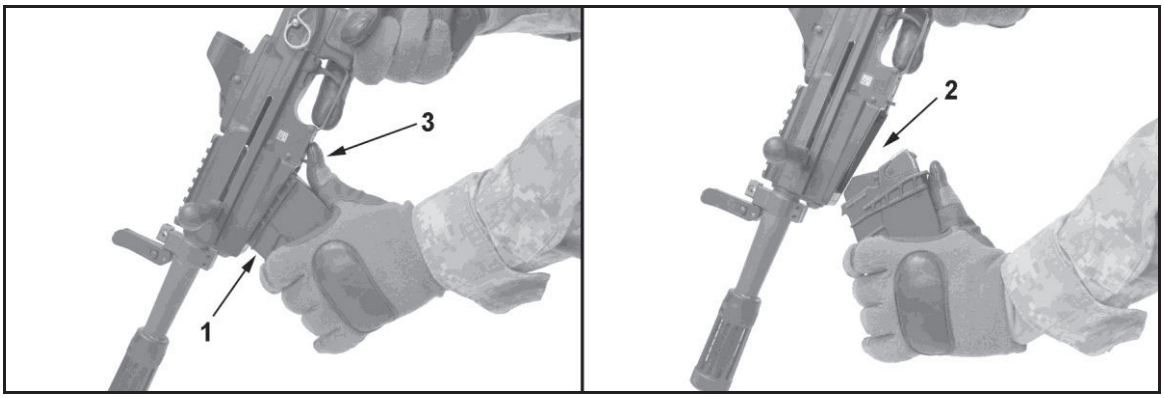


Figure 3-16. Removing a magazine

(5) Depress the action lock release (1, Figure 3-17) with a finger of the firing hand.
(6) Check and clear the breech of any rounds by pulling the charging handle (2, Figure 3-16) rearward with the nonfiring hand, while observing the ejection port to ensure that the round ejects.

NOTE: Catch unfired rounds as they are ejected, or eject them close to the ground.

(7) Push the charging handle (2, Figure 3-17) forward with the nonfiring hand to lock the bolt.
(8) Ensure that the MASS's safety mechanism and the host weapon's safety selector remained on SAFE.

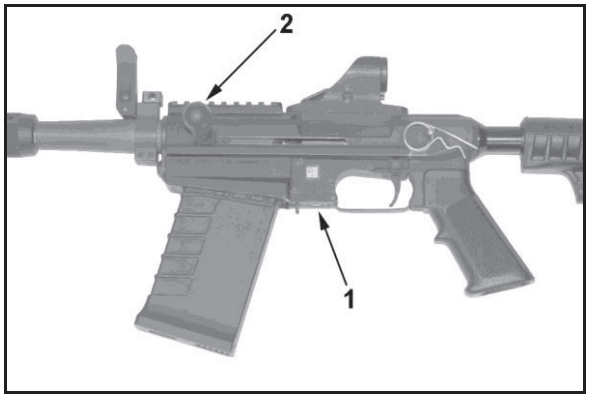


Figure 3-17. Clearing the M26 Modular Accessory Shotgun System

FIRING PROCEDURES

3-24. When in the mounted configuration, the MASS uses the firing procedures of the M203 grenade launcher. Both are modular accessory systems that can be mounted to the M4 and fired independently of the host weapon. Both require changing the placement of the firing/nonfiring hand to operate and fire the systems. Although both are modular systems and similarly fired, the similarity ends at the techniques of fire and target engagement.

WARNING

Ensure that the M26 MASS does not have a round in the chamber while moving. Do not chamber a round until in a stationary position and ready to shoot. Ensure no rounds are in the chamber when transitioning from M26 to another weapon.

3-25. In the MASS stand-alone configuration, the firing hand is similarly placed as when firing the M4; however, placement and weapon operation with the nonfiring hand is similarly performed as when in the mounted configuration.

3-26. This section covers M26 MASS firing procedures for the mounted and stand-alone configurations. Chapter 4 covers techniques of fire and target engagements.

WARNING

To avoid injury or death, ensure that there are no obstacles blocking the M26 MASS's muzzle or in the line of fire.

CAUTION

To eliminate an accidental discharge, ensure that the host weapon's firing mechanism is in the SAFE position before operating or firing the M26 MASS.

NOTE: These firing procedures cover only those basic steps required to safely fire and engage a standard target. Lethal, nonlethal, and breaching missions require different methods of engagement. See Chapter 4 for detailed information about M26 MASS use and techniques of engagement.

MOUNTED CONFIGURATION

3-27. Use the following procedures to safely fire the MASS in the mounted configuration:

(1) Grip the host weapon's magazine (1, Figure 3-18) with the firing hand, keeping the trigger finger extended and resting alongside of the MASS's trigger guard.

(2) Grip the MASS's magazine (2, Figure 3-18) with the nonfiring hand, and place the host weapon's buttstock against the shoulder.

(3) Move the safety mechanism (3, Figure 3-18) from the SAFE position (No red is visible.) to the FIRE position (Red is visible.).

(4) Align the host weapon's front and rear sights (4, Figure 3-18) on the target, and squeeze the MASS's trigger (5).

(5) Pull the charging handle (6, Figure 3-18) to the rear with the nonfiring hand, and push it forward again to chamber another round.

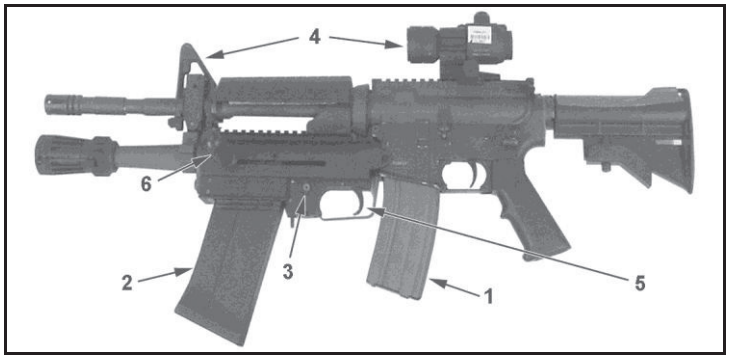


Figure 3-18. Firing control points of the M26 Modular Accessory Shotgun System, mounted

STAND-ALONE CONFIGURATION

3-28. Use the following procedures to safely fire the MASS in the stand-alone configuration:

(1) Grip the pistol grip (1, Figure 3-19) with the firing hand, keeping the trigger finger extended and rested alongside of the trigger guard.

(2) Grip the MASS's magazine (2, Figure 3-19) with the nonfiring hand, and place the weapon's buttstock (3) against the shoulder.

(3) Move the safety mechanism (4, Figure 3-19) from the SAFE position (no red visible) to the FIRE position (red visible).

(4) Align the witness marks (5, Figure 3-19) on the left and right wings of the rear mounting bracket with the bead (6, Figure 3-19) on the front sight post, and squeeze the trigger (7, Figure 3-19).

(5) Pull the charging handle (9, Figure 3-19) to the rear with the nonfiring hand, and push it forward again to chamber another round.

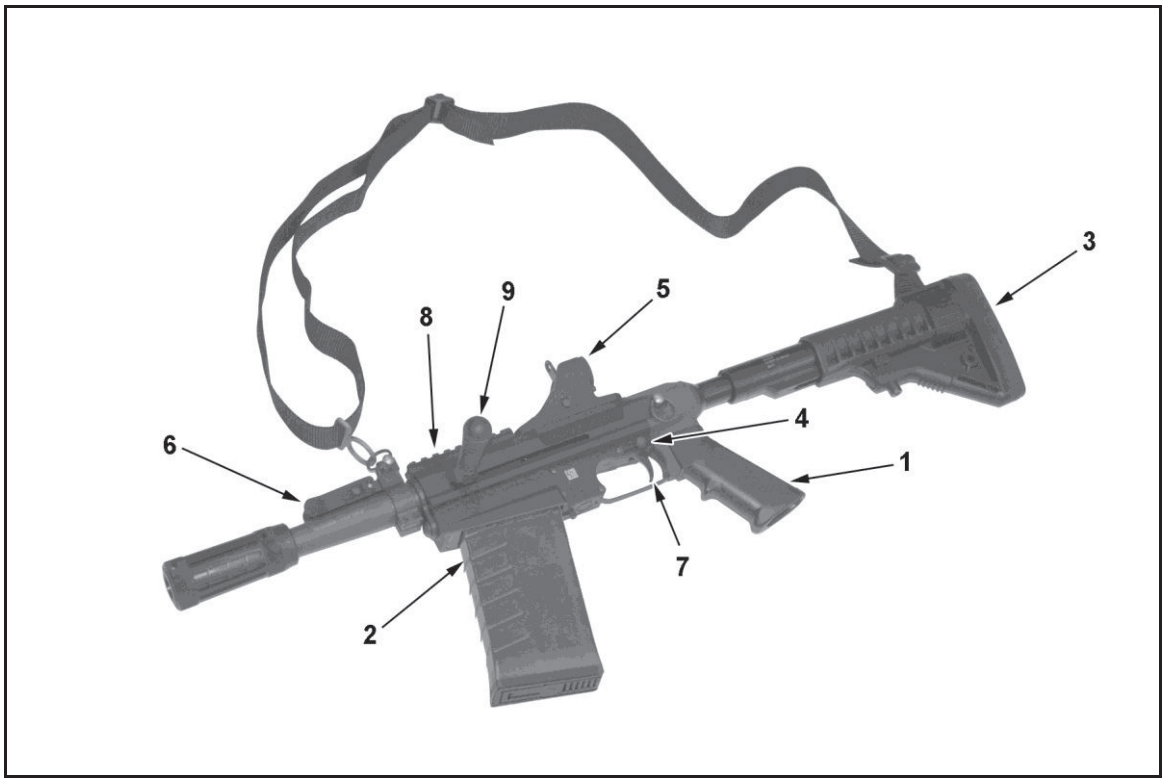


Figure 3-19. Firing control points of the M26 Modular Accessory Shotgun System, stand-alone

NOTE: Use the adapter rail (8, Figure 3-19) to mount optical devices for enhanced day/night viewing and weapon accuracy.

STOPPAGES

3-29. A stoppage is the failure of a firearm to complete the cycle of operation. When this occurs, Soldiers can apply immediate or remedial action to clear the stoppage.

IMMEDIATE ACTION

3-30. Immediate action involves quickly applying a possible correction to reduce a stoppage without performing troubleshooting procedures to determine the actual cause.

3-31. To apply immediate action, perform the following procedures:

WARNING

To avoid injury or death, ensure that there are no obstacles blocking the MASS's muzzle or in the line of fire.

(1) Shake up and down gently on the MASS's magazine to ensure that it is fully seated and that the magazine follower is not jammed.

NOTE: When shaking up and down on the MASS's magazine, be careful not to knock a round out of the magazine and into the line of the bolt carrier, causing more problems. Slap only hard enough to ensure that the magazine is fully seated. Ensure that the magazine is locked into place by pulling up and down on the magazine.

(2) Pull the MASS's charging handle fully to the rear.

NOTE: If the trigger has been squeezed, it is not necessary to depress the action lock release.

(3) Observe for ejection of a live round or expended cartridge.

NOTE: If the weapon fails to eject a cartridge, perform remedial action.

(4) Push the charging handle forward until it locks, and release the charging handle.
(5) Squeeze the trigger, and try to fire the MASS.

3-32. Only apply immediate action once for a stoppage. If the MASS fails to fire a second time for the same malfunction, inspect the weapon to determine the cause of the stoppage or malfunction, and take the appropriate remedial action.

REMEDIAL ACTION

3-33. Remedial action is the continuing effort to determine the cause of a stoppage or malfunction and to try to clear it.

3-34. To apply the corrective steps for remedial action, perform the following actions:

(1) Pull the charging handle to the rear while observing the chamber for ejection of a round. If the round fails to eject, perform the following steps.

NOTE: If the trigger has been squeezed, it is not necessary to depress the action lock release.

(2) Place the MASS's safety mechanism on SAFE.
(3) Remove the magazine.
(4) Push the charging handle all the way forward, and then pull rearward to eject the round. If the round fails to eject, follow the procedures outlined in paragraph 3-48.
(5) Check the bolt/bolt carrier assembly and barrel recess for residue, and clean as needed.
(6) Ensure that the magazine and remaining rounds are clean and serviceable.
(7) Reload the magazine.
(8) Press the action lock release, and chamber another round. If another stoppage occurs, disassemble, clean, and lubricate according to TM 9-1005-341-10. Reassemble, and attempt to fire. If the problem reoccurs, notify unit maintenance.

MALFUNCTIONS

3-35. A malfunction can occur when loading the weapon or during the cycle of operation. Malfunctions are caused by procedural or mechanical failures of the weapon, magazine, or ammunition. Prefiring checks and serviceability inspections identify potential problems before they become malfunctions. This section describes the primary categories of malfunctions.

WARNING

Ensure that the M26 MASS does not have a round in the chamber while moving. Do not chamber a round until in a stationary position and ready to shoot. Ensure no rounds are in the chamber when transitioning from M26 to another weapon.

3-36. ***In training, Soldiers must alert other Soldiers and range personnel when experiencing weapon malfunctions.*** The range OIC/RSO briefs Soldiers on the actions to take if weapon malfunctions occur. If a malfunction is not corrected by listed corrective actions, notify unit maintenance. Tests, inspections, and corrective actions are according to TM 9-1005-341-10 and should be performed as listed.

NOTE: Operational checkout and troubleshooting procedures are not limited to those listed in this troubleshooting section. The malfunctions listed are the common malfunctions which you may find during the operation or maintenance of the M26 MASS or its components. This publication cannot list all malfunctions that may occur, and all tests, inspections, or corrective actions associated with them.

FAILURE TO FEED, CHAMBER, OR LOCK

3-37. It requires minimal force to chamber a round. If the system requires additional pressure, the firer should stop, place the weapon on SAFE, and investigate the problem.

Probable Causes

3-38. The malfunction could be the result of one or more of the following:

- Excess accumulation of dirt or fouling in and around the bolt/bolt carrier assembly.
- A double-feed. (The last round fired did not eject.)
- A dirty/bad round of ammunition.
- A stuck round in the magazine.
- A buildup of ammunition debris in the chamber/barrel.
- A damaged bolt/bolt carrier assembly or barrel alignment caused by dropping the weapon.
- A lack of maintenance and proper lubrication.

Corrective Action

3-39. Applying immediate action usually corrects the malfunction. To avoid the risk of further jamming, the firer should watch for ejection of a cartridge and ensure that the receiver is free of loose rounds or debris. If immediate action fails to clear the malfunction, remedial action must be taken.

- If the magazine fails to feed, replace it.
- If the ammunition is wet, dry it off.
- If the ammunition appears to be faulty, replace it.
- If the bolt fails to lock, pull it rearward and hold. Ensure that the round ejects. Remove the magazine, clear the obstruction, and close the bolt.
- If the M26 MASS is dirty, disassemble the weapon, clean and lubricate the parts, reassemble the weapon, and perform a function check before reloading.
- If the M26 MASS is damaged, clear the weapon and turn it in to unit maintenance.

FAILURE TO FIRE THE CARTRIDGE

3-40. Despite the fact that a round has been chambered, the trigger has been pulled, and the sear has released the hammer, a cartridge may fail to fire. This occurs when the firing pin fails to strike the primer with enough force or when the ammunition is defective. The firer must follow unit safety guidelines until the determining factors of the misfire have been identified and corrected.

Probable Causes

3-41. Failure to fire can be caused by a combination of things: Soldier error, weapon malfunctions, bad ammunition, or lack of daily maintenance. Excessive carbon buildup on the firing pin is often the cause, because the full forward travel of the firing pin is restricted. A defective or worn firing pin can give the same results. Inspection of the ammunition could reveal a shallow indentation or no mark on the primer, indicating a firing pin malfunction. Cartridges that show a normal indentation on the primer (but did not fire) indicate faulty ammunition.

WARNING

When a misfire occurs, keep the muzzle on the target, and move all personnel at least 80 meters (262 feet) away from the area. Wait 30 seconds before removing the round.

Corrective Action

3-42. Perform the following immediate actions to correct the malfunction:

(1) Place the MASS's safety mechanism on SAFE (No red is visible.), and assume a kneeling position, keeping the weapon pointed in the direction of fire. If it is in the mounted configuration, ensure that the host weapon's selector is on SAFE.

(2) Remove the magazine.

(3) Pull the charging handle rearward with the nonfiring hand to eject the round, catching it with the firing hand, or unload close to the ground to lessen the impact of the falling round.

(4) Check the primer of the round. If it was dented by the firing pin, store the round a safe distance away from serviceable ammunition. If it was not dented, reinsert it into the magazine, or dispose of it according to the unit SOP.

WARNING

A dented primer can cause a hang fire and a delay in ignition of the propellant charge. Handle according to the unit SOP.

If the primer is not dented, the firing mechanism is faulty. Notify unit maintenance. If the mechanism is repaired, the round may be reloaded and fired.

(5) Load the MASS.

(6) Place the MASS's safety mechanism in the FIRE position. (Red is visible.)

(7) Aim, and squeeze the trigger again.

(8) If the weapon fails to fire the second time, perform immediate action.

(9) If the immediate actions failed to correct a failure to fire malfunction, perform the following remedial actions:

(10) Place the MASS's safety mechanism on SAFE, remove the magazine, pull the charging handle rearward (check for the ejected round), and visually confirm that the chamber and bore are clear.

(11) Disassemble the MASS, and inspect the bolt firing pin hole for dirt or residue.

(12) Clean the bolt/bolt carrier assembly and receiver, as necessary.

(13) Check for dirt in the barrel locking recess. Clean thoroughly, as required.

(14) Check for faulty ammunition. Replace ammunition as necessary.

NOTE: If the round is suspected to be faulty, dispose of it according to the unit SOP, and ensure that it is reported and returned to the agency responsible for issuing ammunition.

FAILURE TO EXTRACT

3-43. A failure to extract results when the cartridge case remains in the chamber. The M26 MASS does not automatically reload; firers must manually chamber a new round after each firing. When the firer pulls the charging handle rearward until it stops, the extractor engages the rim of the fired round, allowing the cartridge to clear the barrel and trip the bolt ejector.

WARNING

A failure to extract is considered an extremely serious malfunction, requiring tools to clear. A live round could be left in the chamber and accidentally discharged. If a second live round is fed into the primer of the chambered live round, the MASS could explode and cause personal injury. This malfunction must be properly identified and reported. Ejection failures should not be reported as extraction failures.

Probable Cause

3-44. If the firer fails to pull the charging handle completely to the rear, the cartridge shell will not eject. Short recoil cycles and fouled or corroded chambers are the most common causes of extraction failures. A damaged extractor can cause this malfunction.

Corrective Action

3-45. This malfunction is one of the hardest to clear; the severity of the failure determines the corrective action procedures. If the bolt has been pulled rearward far enough to strip a live round from the magazine in its forward motion, the bolt/bolt carrier assembly must remain in the rear position. With the bolt in the rear position, perform the following immediate actions:

- Place the MASS's safety mechanism on SAFE.
- Remove the magazine.
- Check the breech for a stuck cartridge shell. If a cartridge shell is stuck, attempt to push the charging handle forward until it locks into place. Once the charging handle is in the forward locked position, pull the charging handle rearward. The cartridge shell should eject.

3-46. If the cartridge shell fails to eject, remove it with an M4 cleaning rod. To remove a stuck round, perform the following remedial actions:

- Pull and hold the charging handle to the rear and with the other hand, push the cleaning rod through from the muzzle end using steady pressure until the cartridge shell has cleared the barrel. Take care not to scar the inside of the barrel or receiver with the cleaning rod.
- Rotate the weapon until the ejection port is facing the ground.
- Using the nonfiring hand, tap lightly on the opposite side of the breech until the cartridge shell falls out. Disregard catching the round; it’s an expended cartridge.

NOTE: This procedure requires assistance. The firer must hold the bolt in the rear position and clear the breech once the cartridge shell has been dislodged by the cleaning rod.

- Inspect the barrel using the bore reflector included in the M26 MASS's cleaning kit.
- Clean thoroughly as required.
- Ensure that the remaining rounds in the magazine are clean.
- Check the magazine's spring tension by pressing down on the remaining cartridges. If no rounds are loaded, press down on the magazine follower and release. The spring should return immediately.
- Reload the MASS, ensuring that the magazine and remaining rounds, if any, are clean before doing so.

- Chamber a round.
- Place the MASS's safety mechanism on FIRE.
- Aim, and fire the round.
- Pull the charging handle rearward while observing to ensure that the round ejects. If the round fails to eject again, clear the round using the previous procedures. Notify unit maintenance.

FAILURE TO EJECT

3-47. Ejection of a cartridge is an element in the MASS's cycle of functioning, regardless of the mode of fire. A malfunction occurs when the cartridge is not ejected through the ejection port and either remains partly in the chamber or becomes jammed in the upper receiver as the bolt closes. MASS round extraction is manually controlled. Failure to extract is more noticeable with the MASS than it is with the M4, which has an automatic feed and extraction system.

Probable Cause

3-48. The cartridge must extract before it can eject. Failures to eject can be caused by a buildup of carbon or fouling on the extractor, or by short recoil.

- Short recoil is usually due to operator error (not pulling the bolt/bolt carrier assembly completely rearward) or a buildup of fouling in the carrier mechanism.
- Resistance caused by a carbon-coated or corroded chamber can impede the extraction and ejection of a cartridge.

Corrective Action

3-49. While retraction of the charging handle usually frees the cartridge and permits removal, the charging handle must not be released until the position of the next live round is determined. If another live round has been sufficiently stripped from the magazine or remains in the chamber, the magazine and all live rounds could require removal before the charging handle can be released. If several malfunctions occur and are not corrected by cleaning and lubricating, notify unit maintenance.

OTHER MALFUNCTIONS

3-50. Table 3-1 describes other malfunctions that can occur.

Table 3-1. Other malfunctions

TYPE OF MALFUNCTION	*DESCRIPTION*	*PROBABLE CAUSE*	*CORRECTIVE ACTION*
Trigger	Although the selector is set in the firing position, the trigger fails to pull or return after release.	The trigger pin has backed out of the receiver, or the hammer spring is broken.	Turn in the weapon to unit maintenance for replacement or repair.
Magazine	The magazine fails to lock into the magazine well.	The magazine or magazine release may have been damaged.	Turn in the magazine to unit maintenance to adjust the magazine catch; replace as required.
Bolt/Bolt Carrier Assembly	Any part of the bolt/bolt carrier assembly fails to function.	The components may be assembled incorrectly, or parts may have been damaged.	Correctly clean and assemble the bolt/bolt carrier assembly, or replace damaged parts.
Ammunition	The ammunition fails to feed from the magazine.	A damaged magazine could cause repeated feeding failures.	Turn in the magazine to unit maintenance, or exchange.

DESTRUCTION

3-51. Destruction of military weapon is authorized only as a last resort to prevent the enemy from capturing or using it. This paragraph discusses planning for destruction, priorities and methods of destruction, and degree of damage. In combat situations, the commander has the authority to destroy weapons, but he must report doing so through the proper channels.

PLANNING

3-52. All unit SOPs should contain a plan for destroying equipment. Having such a plan ensures that the damage is effective enough to deny the enemy use of the equipment. The plan must be flexible enough in its designation of time, equipment, and personnel to meet any situation.

PRIORITIES OF DESTRUCTION

3-53. When lack of time prevents completely destroying equipment, Soldiers must destroy the same essential parts on all like equipment. The order in which the parts should be destroyed (priority of destruction) is as follows:

- Bolt assembly (M4) and breech mechanism (M26 MASS).
- Barrels (both M4 and M26 MASS).
- Sights or sighting equipment (to include night vision sights and pointers).
- Optical mounts.

METHODS OF DESTRUCTION

3-54. Equipment may be destroyed using several methods. The commander must use his imagination and resourcefulness to select the best method of destruction based on the facilities available. Time is usually critical. Table 3-2 outlines the methods of destruction.

Table 3-2. Methods of destruction and their applications

METHOD OF DESTRUCTION	*APPLICATION*
Mechanical	Use an axe, pick, sledgehammer, crowbar, or other heavy implement.
Burning	Use gasoline, oil, incendiary grenades, other flammables, or a welding or cutting torch.
Demolition	Use suitable explosives or ammunition or, as a last resort, hand grenades.
Disposal	Bury essential parts, dump them in streams, or scatter them so widely that recovering them would be impossible.

DEGREE OF DAMAGE

3-55. The method of destruction used must damage equipment and essential spare parts to the extent that they cannot be restored to usable condition (by repair or by cannibalization) in the combat zone.

Chapter 4
Marksmanship Training

The first three sections of this chapter correspond to the three phases of M26 MASS marksmanship training: preliminary marksmanship training, which develops nonfiring individual skill proficiency; basic marksmanship training, during which Soldiers apply the fundamentals in live fire training and qualifications; and short-range marksmanship training, during which Soldiers learn specific techniques for employing the M26 in various combat operating environments (COE). The fourth section addresses a program that aims to achieve a high state of combat readiness—the train-the-trainer program.

OBJECTIVES

4-1. To conduct an effective marksmanship program, the unit commander must determine the current marksmanship proficiency of all assigned personnel. Constant evaluation provides commanders understanding of where training emphasis is needed. Based on this evaluation, marksmanship training programs are developed and executed. Commanders continually assess the program and modify it as required. To develop a training plan and assess the marksmanship program, commanders should use the following tools:

- Direct observation of training.
- Spot checks.
- Review of past training.

4-2. Based on the commander's evaluation, goals, and missions, quarterly, semiannual, or annual training events are identified. Marksmanship programs must be continuous, and to sustain an effective marksmanship program, resources are required. While the unit may only qualify its Soldiers annually or semiannually, test results show that sustainment training is required at least quarterly to maintain marksmanship skills.

DIRECT OBSERVATION OF TRAINING

4-3. Observing and accurately recording performance reveals the status of weapon maintenance, Soldier zero and qualification results, and each Soldier's ability to hit targets. This allows the commander to identify Soldiers who need special assistance to reach required standards and those who exceed these standards.

SPOT CHECKS

4-4. Spot checks of individual marksmanship performance, such as interviews and evaluations of Soldiers, provide commanders with valuable information about Soldier proficiency and knowledge of the marksmanship tasks.

REVIEW OF PAST TRAINING

4-5. Commanders review past training to gain valuable information to develop a training plan. The assessment should include—

- The frequency and results of training.
- The basic and advanced record fire results.
- How often the unit conducted collective CBRN or night fire training.

4-6. All results are reviewed to determine areas that need strengthening, along with individuals that require special attention.

CONDUCT OF TRAINING

> Ideally, training is executed using the crawl-walk-run approach. This allows and promotes an objective, standards-based approach to training. Training starts at the basic level. Crawl events are relatively simple to conduct and require minimum support from the unit. After the crawl stage, training becomes incrementally more difficult, requiring more resources from the unit and home station, and increasing the level of realism. At the run stage, the level of difficulty for the training event intensifies. Run stage training requires optimum resources and ideally approaches the level of realism expected in combat. Progression from the walk to the run stage for a particular task may occur during a one-day training exercise or may require a succession of training periods over time. Achievement of the Army standard determines progression between stages.
>
> In crawl-walk-run training, the tasks and the standards remain the same, however, the conditions under which they are trained change. Commanders may change the conditions for example, by increasing the difficulty of the conditions under which the task is being performed, increasing the tempo of the task training, increasing the number of tasks being trained, or by increasing the number of personnel involved in the training. Whichever approach is used, it is important that all leaders and Soldiers involved understand which stage they are currently training and understand the Army standard.
>
> - ADP 7.0, Training the Force

4-7. MASS preliminary marksmanship training involves the crawl phase of training, while basic marksmanship training encompasses both the walk (familiarization fire) and run (record fire) phases. Short-range marksmanship training incorporates all three phases of training to teach MASS movement techniques and reflexive firing.

NOTE: The sections in this chapter follow this process. See Section I of this chapter to learn more about preliminary marksmanship training, Section II to learn more about basic marksmanship training, and Section III to learn more about short-range marksmanship training.

SECTION I – PRELIMINARY MARKSMANSHIP TRAINING

4-8. Phase I, preliminary marksmanship training, has two Soldier learning levels. Level 1 introduces Soldiers to the MASS and teaches them how to prepare M26 MASS configurations, maintain and operate both configurations, correct malfunctions as they occur, and identify M26 MASS ammunition. Soldiers must demonstrate proficiency in these skills by receiving a GO on all performance evaluation tasks before transitioning to Level 2, which covers the fundamentals of MASS marksmanship.

NOTE: See Chapters 2 and 3 for more information about M26 MASS configurations, malfunctions, and ammunition. See Appendix A for more information about performance evaluation tasks.

4-9. Preliminary marksmanship training comprises—

- The four fundamentals of marksmanship.
- Dry-fire exercises.
- Dry-fire exercises using the Engagement Skills Trainer (EST) 2000.

4-10. Unit leaders can schedule or modify this training based on mission requirements and resources available.

FOUR FUNDAMENTALS OF MARKSMANSHIP

4-11. The four fundamentals of M26 MASS marksmanship are—

- Steady position.
- Aiming.
- Breathe control.
- Trigger squeeze.

4-12. The first two fundamentals, steady position and aiming, may vary based on the situation and ammunition. Firing positions vary with the tactical situation, and different ammunition types require different aimpoints. These variations are discussed throughout this chapter and Chapter 5. This section focuses on applying the correct firing techniques and procedures for engaging targets. Mastery of these fundamentals is critical and forms the basis to develop the advanced combat skills and techniques covered in Chapter 5.

WARNING

Ensure that the M26 MASS does not have a round in the chamber while moving. Do not chamber a round until in a stationary position and ready to shoot. Ensure no rounds are in the chamber when transitioning from M26 to another weapon.

FIRING POSITIONS

4-13. There are five firing positions used during MASS qualification:

- Standing.
- Kneeling.
- Crouching.
- Strong-side.
- Standing supported.

4-14. These target engagement techniques apply when the MASS is in the mounted and stand-alone configurations.

4-15. Commanders are encouraged to conduct qualifications for both the stand-alone and mounted MASS configurations with all assigned devices. Soldiers must master the handling and aiming techniques involved in firing the two systems when all assigned equipment is mounted.

Standing

4-16. Short-range engagements generally take place from the standing firing position.

4-17. To engage targets from the standing firing position (see Figure 4-1)—

- Secure the weapon by gripping the host weapon's magazine (mounted configuration) or the MASS's pistol grip (stand-alone configuration) with the firing hand, and the MASS's magazine with the nonfiring hand.
- Stand facing the target, with feet a comfortable distance apart.
- Turn the nonfiring shoulder slightly toward the target.
- Step back with the firing foot, with the toes of the firing foot pointing at the target at approximately a 45-degree angle.
- Keeping the nonfiring foot in place, place the buttstock into the firing shoulder.
- While keeping the firing arm parallel to the ground and the elbow of the nonfiring arm below the MASS's charging handle, aim the weapon at the center of the target.

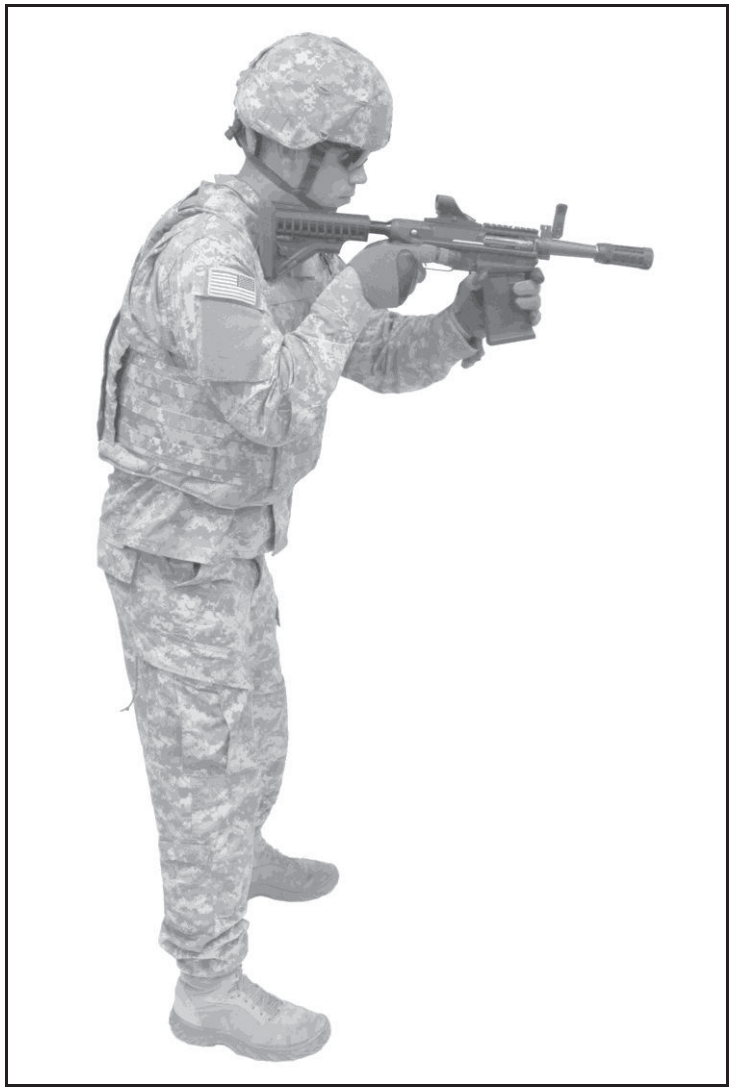


Figure 4-1. Standing firing position

Kneeling

4-18. The kneeling firing position is generally used during short halts and when correcting a weapon malfunction.

4-19. To engage targets from the kneeling firing position (see Figure 4-2)—

- Secure the weapon by gripping the host weapon's magazine (mounted configuration) or the MASS's pistol grip (stand-alone configuration) with the firing hand, and the MASS's magazine with the nonfiring hand.
- Face the target.
- Move the nonfiring foot forward, and kneel on the firing knee.
- Turn the nonfiring shoulder slightly toward the target, and place the weapon's buttstock into the firing shoulder.
- While keeping the firing arm parallel with the ground, lean forward slightly, and place the elbow of the nonfiring arm slightly beyond the knee of the nonfiring leg.

CAUTION

Take great care not to have bone-to-bone contact with the arm against the leg. Weapon recoil can bruise the arm/leg. Rest the nonfiring arm only on the meaty portion of the nonfiring leg.

- Aim the weapon at the center of the target.



Figure 4-2. Kneeling firing position

Crouching

4-20. The crouching firing position is not designed for accuracy. This position is used when volumes of fire are needed to suppress an area or groups of targets.

4-21. To engage targets from the crouching firing position (see Figure 4-3)—

(1) Secure the weapon by gripping the host weapon's magazine (mounted configuration) or the MASS's pistol grip (stand-alone configuration) with the firing hand, and the MASS's magazine with the nonfiring hand.

(2) Stand facing the target, with feet a comfortable distance apart.

(3) Turn the nonfiring shoulder slightly toward the target.

(4) Step back with the firing foot, with the toes of the firing foot pointing at the target at approximately a 45-degree angle.

(5) Keeping the nonfiring foot in place, place the weapon's buttstock under the armpit.

(6) Pull the firing elbow in close to the body to secure the buttstock, while keeping the nonfiring hand on the MASS's magazine and the nonfiring forearm parallel to the weapon.

(7) While keeping the firing leg and back straight and the weapon's barrel parallel to the ground at chest height, lean forward and bend the nonfiring leg.

(8) Aim the weapon at the center of the target. Adjust foot positioning for comfort and stability before firing.

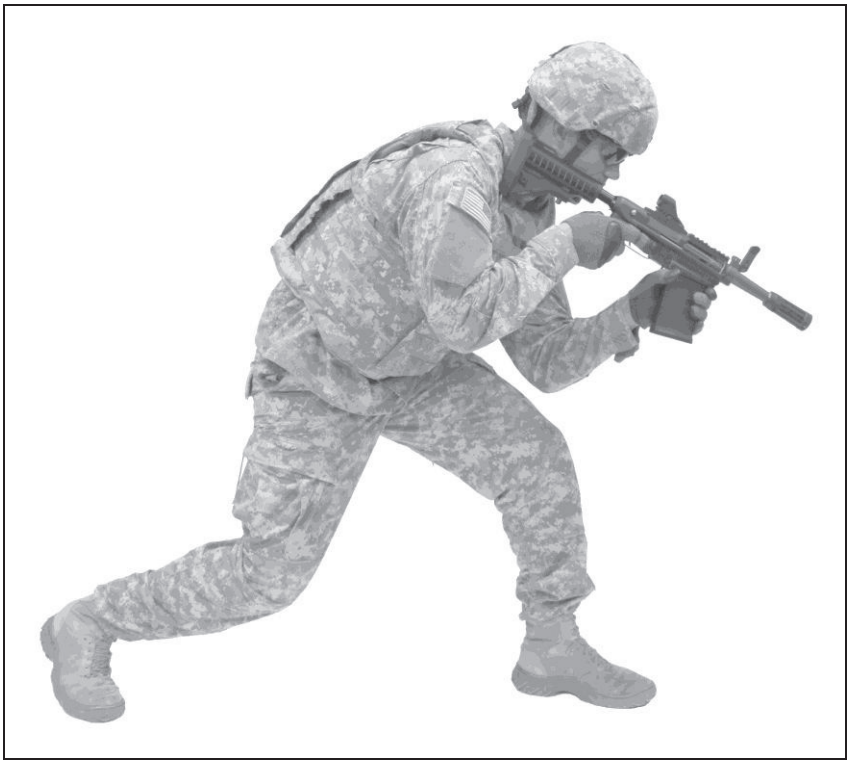


Figure 4-3. Crouching firing position

Strong-Side

4-22. The strong-side firing position is the preferred position for firing around the side of a structure. If performed correctly, only a small part of the body is exposed.

NOTE: This procedure is used by right-handed firers to fire around the left side of structures. It can be used to fire around the right side, but more of the firer's body is exposed due to methods of weapon control.

4-23. To engage targets from the strong-side firing position (see Figure 4-4)—

- Secure the weapon by gripping the host weapon's magazine (mounted configuration) or the MASS's pistol grip (stand-alone configuration) with the firing hand, and the MASS's magazine with the nonfiring hand.
- Stand behind the structure, and face the target.
- Spread feet a comfortable distance apart.
- Place the nonfiring foot against the base of the structure, with the toes pointing toward the target.
- While using the structure for support, place the firing foot a comfortable distance to the rear and slightly to the left or right until the heel of the firing foot is in line with the nonfiring foot. The feet should form a 45-degree angle, but may be adjusted for comfort and stability.
- Place the weapon's buttstock against the firing shoulder, while keeping the firing arm close to the body for concealment.
- Place the nonfiring forearm against the structure, and lean forward, slightly bending the nonfiring leg.

NOTE: Use the structure for additional support, but do not allow the weapon to touch the structure.

- While keeping the firing leg and back straight, aim the weapon at the center of the target.

CAUTION

Weapon recoil can bruise the arm/leg. If contact with the barricade is needed for weapon support, use elbow/knee pads to protect the arm and leg from recoil effects.



Figure 4-4. Strong-side firing position

Standing Supported

4-24. The standing supported firing position is used when firing over barricades (man-made or rubble).

4-25. To engage targets from the standing supported firing position (see Figure 4-5)—

- Secure the weapon by gripping the host weapon's magazine (mounted configuration) or the MASS's pistol grip (stand-alone configuration) with the firing hand, and the MASS's magazine with the nonfiring hand.
- Stand behind the barricade, and face the target.
- Place the toes of the nonfiring foot against the barricade.
- Move the firing foot a comfortable distance to the rear, with the toes pointing toward the barricade.
- Bend the nonfiring leg to adjust for height of the barricade, while keeping the firing leg and back straight.
- Adjust feet for height, stability, and comfort before firing.
- Place the weapon's buttstock against the firing shoulder, while keeping the firing elbow no higher than the top of the barricade.
- While holding the MASS's magazine with the nonfiring hand, rest the heel of the hand on the barricade, and aim the weapon at the center of the target.

NOTE: Use the barricade for additional support, but do not allow the weapon to touch the barricade.

CAUTION

Wear gloves when using a barricade for firing support. Weapon recoil can bruise or injure the nonfiring hand.



Figure 4-5. Standing supported firing position

AIMING

4-26. When operating the M26 MASS in the mounted configuration, aim the MASS using the host weapon's sighting system: the iron sights or the optics. When operating the weapon in the stand-alone

configuration, aim by aligning the witness marks (1, Figure 4-6) on the left and right wings of the rear mounting bracket (2, Figure 4-6) with the bead on the front sight (3, Figure 4-6).

NOTE: The MASS comes equipped with an adapter rail (4, Figure 4-6) for mounting other aiming devices when used in the stand-alone configuration. If using a M68 Close Combat Optic (CCO), align the red dot to the tip of the sight post (3, Figure 4-6) of the front sight.

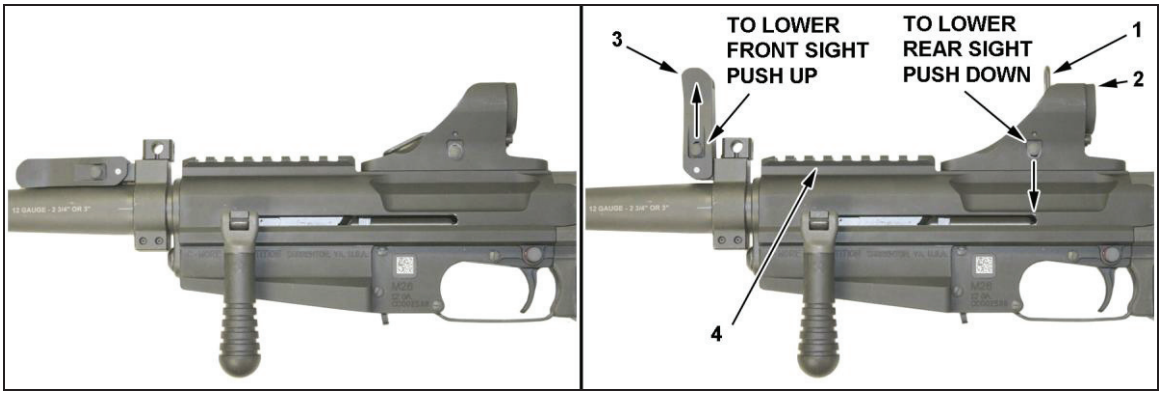


Figure 4-6. MASS sighting in the stand-alone configuration

4-27. The aimpoint for all lethal antipersonnel ammunition is the target's center of mass. Aimpoints for nonlethal and breaching rounds are discussed in Chapter 5. Shot patterns for all ammunition are described in Chapter 2.

4-28. Once the Soldier can correctly align his sights, he can obtain a correct sight picture. A correct sight picture has the target, front sightpost, and rear mounting bracket aligned (see Figure 4-7). The sight picture includes two basic elements: sight alignment and placement of the point of aim. Placement of the point of aim varies, depending on the engagement range.

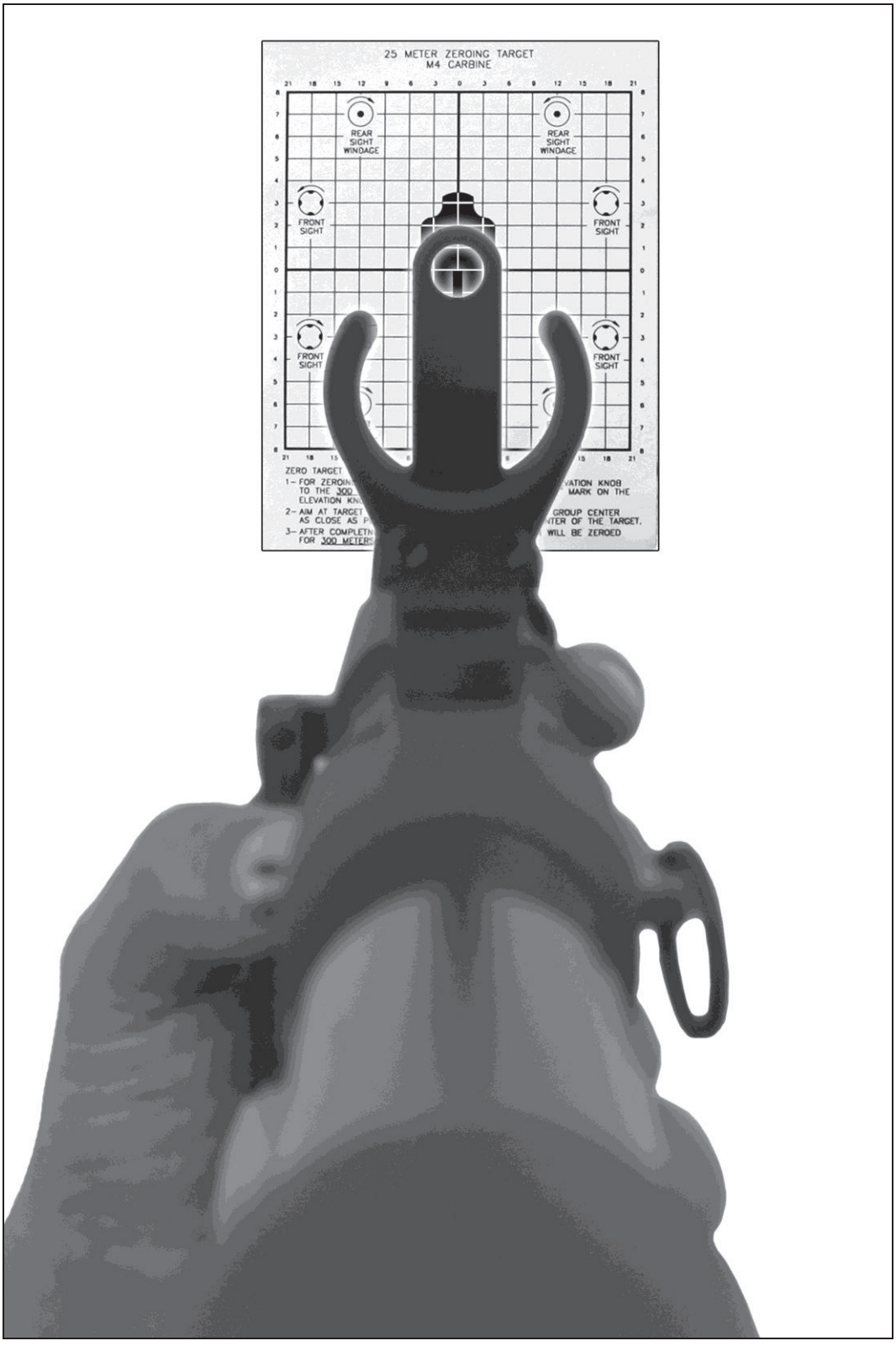


Figure 4-7. Modular Accessory Shotgun System zeroing target

DRY-FIRE EXERCISES

4-29. Dry-fire exercises use the crawl-walk-run method to train individual and collective tasks to standard or to the commander's intent before Soldiers perform those tasks with live ammunition. Commanders use dry-fire exercises to provide self-paced training in a safe training environment, with minimum resources required.

NOTE: M26 MASS dry-fire exercises are conducted with dummy rounds.

4-30. M26 MASS dry-fire exercises train Soldiers in the techniques of system loading and reloading, clearing malfunctions (immediate action drills), and aiming. To initiate Soldier actions, the trainer provides a situation and alerts.

NOTE: See Appendix A for more information about M26 MASS dry-fire exercises.

4-31. Although the MASS can be operated as a stand-alone weapon, the mounted configuration is the preferred method. Training should not focus entirely on the M26 MASS's tactical applications; the host weapon remains the primary assault weapon, so training should emphasize both capabilities. Commanders are encouraged to train Soldiers in combat gear, complemented by both weapons.

NOTE: After action reviews (AARs) should follow each training level.

4-32. Dry-fire exercises include the following:

- Loading and unloading exercise.
- Immediate action exercise.
- Aiming exercise.

NOTE: These exercises should test the Soldier's ability to perform the task both during the day and during periods of limited visibility (such as, while wearing mission-oriented protective posture [MOPP] gear, and so forth) while in complete combat gear. This exercise should cover the various configurations and stowing procedures, including—

- MASS matched to a host weapon (both loaded with full magazines), with the MASS stand-alone kit stowed according to the unit SOP.
- MASS ammunition basic load stowed according to the unit SOP.
- M4 with mounted devices attached and ammunition basic load stowed according to the unit SOP.
- MASS operated in the stand-alone configuration.

LOADING AND UNLOADING EXERCISE

NOTE: Loading and unloading procedures should be practiced with dummy ammunition.

4-33. The loading and unloading exercise trains Soldiers to operate and clear the MASS proficiently. Training exercises should include—

- Loading and clearing the M26 MASS. This is a timed task, performed in sequence.
- Changing out magazines. This should be performed with lethal, nonlethal, and from one type of round to the other (such as, lethal to nonlethal). Changing out magazines can be combat-critical and should be timed.

NOTE: See Chapter 3 for more information about loading and unloading procedures.

IMMEDIATE-ACTION EXERCISE

4-34. Correcting a weapon malfunction is combat-critical. Soldiers are trained to immediately react if the M26 MASS malfunctions. This exercise tests Soldiers' ability to take immediate action for failures to feed, chamber, lock, fire, extract, and eject.

NOTE: Immediate action exercises should be practiced with dummy ammunition.

4-35. This exercise proceeds as follows:

- The Soldier is told to load a five-round magazine and place the MASS's safety mechanism on FIRE. (Red is visible.)
- At some point during the training exercise, the leader alerts the Soldier that a malfunction has occurred.
- The Soldier takes immediate action for a misfire and continues to fire until told to stop.

4-36. Training scenarios include, but are not limited to—

- Aiming the weapon at a standard qualification target using one or all of the MASS firing positions.

NOTE: See Section I of this chapter for more information about standard qualification targets. See Section II of this chapter for more information about MASS firing positions.

- Moving as part of a building-clearing squad.
- Breaching a door.

AIMING EXERCISE

4-37. This exercise requires the Soldier to—

- Simulate firing two rounds from each of the five M26 MASS firing positions, while maintaining a sight picture throughout the firing cycle.
- Simulate breaching a door (locks and hinges).
- Simulate firing dummy rounds while moving. This exercise should include shoot/don't shoot targets.

4-38. After each shot, the Soldier applies immediate action procedures to extract and eject the dummy cartridge. The Soldier should change magazines when no cartridge ejects.

DRY-FIRE PROFICIENCY (PERFORMANCE) EXAM

4-39. Soldiers should practice dry-fire tasks until they become proficient in operating the M26 MASS in both mounted and stand-alone configurations, and then they take the dry-fire proficiency exam. This exam emphasizes learning by doing. Before Soldiers can progress to live-firing, each Soldier must demonstrate skill in every task in the exam.

NOTE: See Appendix A for more information about the dry-fire proficiency exam.

DRY-FIRE EXERCISES USING THE ENGAGEMENT SKILLS TRAINER 2000

4-40. The EST 2000 is a small arms fire simulator which provides realistic and comprehensive marksmanship instruction. It identifies Soldiers' needs by requiring them to meet gate requirements to progress, and if needed, facilitates remedial training before qualification. The system supports advanced marksmanship and squad collective training. The EST 2000 will be upgraded to simulate the M26 MASS.

NOTE: FM 3-22.9, Appendix A describes the system's capabilities and provides a list of available training scenarios.

PERFORMANCE EVALUATION

4-41. The performance evaluation validates Soldiers' proficiency in the nonfiring tasks learned in Phase I. It is a hands-on test that all should pass before proceeding to the live-fire training in Phase II. Test frequency is at the commander's discretion. Records of Soldier training attendance must be maintained at the unit to which Soldiers are assigned. This data will be requested in the case of live-fire incidents.

NOTE: Appendix D describes the actions, conditions, and standards for tested tasks. Appendix A provides scripts and setup instructions for the evaluation.

SECTION II – BASIC MARKSMANSHIP TRAINING

4-42. Phase II builds upon the skills learned in Phase I. Basic marksmanship training focuses on live fire training, beginning with zeroing the MASS and concluding with record fire and qualification. This section discusses the firing procedures, training methods, and support requirements.

ZEROING PROCEDURES

4-43. Soldiers must be proficient in zeroing and firing both M26 MASS configurations even though the MASS is primarily used as an attachment to host weapons. The MASS is zeroed at 5 meters, by firing No. 00 buckshot at the standard 25-meter zeroing target for the M162A24 (see Figure 4-8).

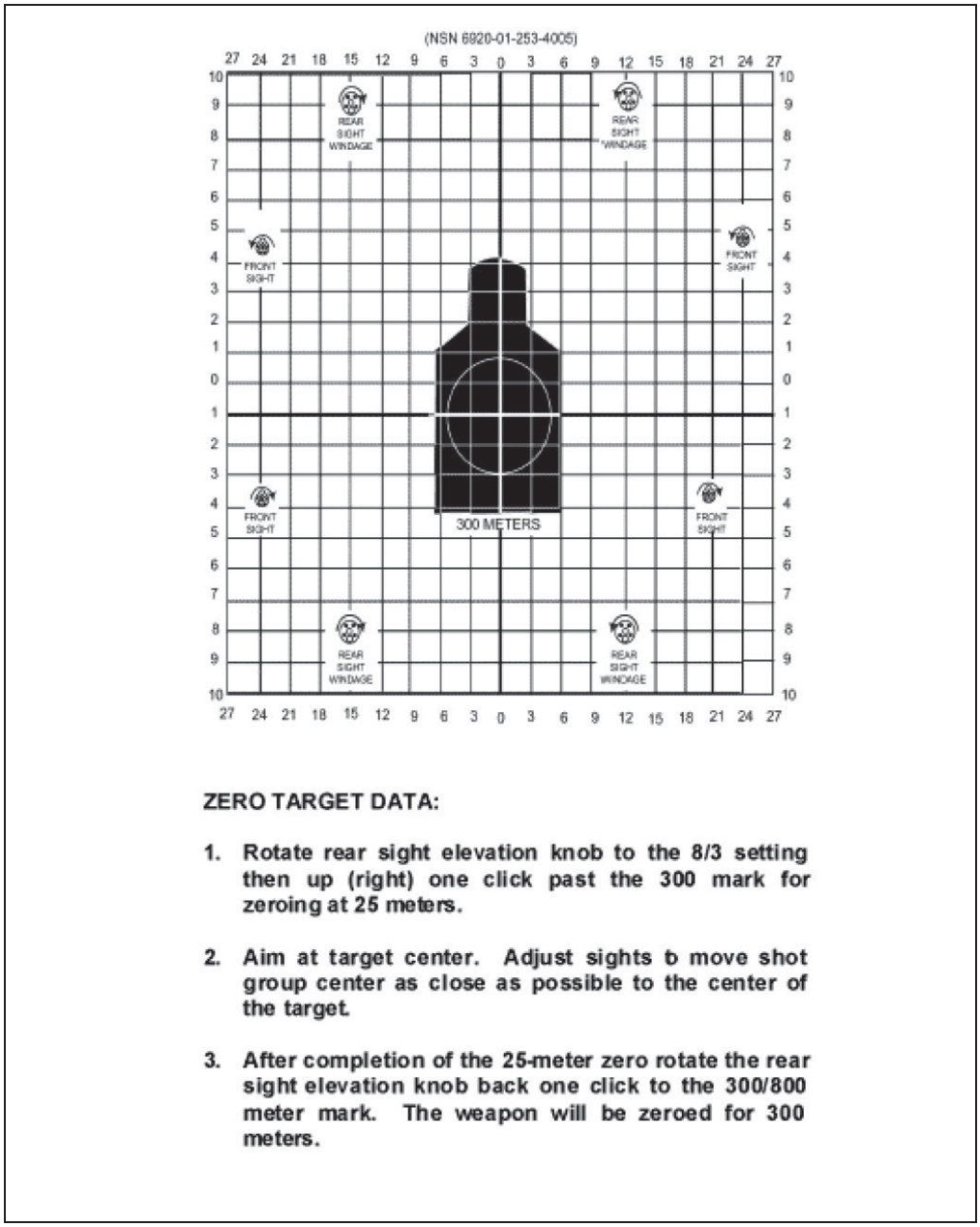


Figure 4-8. 25 Meter M16A2 zero target

ZEROING, MOUNTED CONFIGURATION

4-44. Before the attached M26 can be zeroed to the host weapon, the host weapon must be zeroed to its sights (iron sight or optics).

NOTE: Refer to FM 3-22.9 for M4-series zeroing steps and procedures.

4-45. Use the following steps to zero the MASS to a host M4:

NOTE: Mounting the M26 MASS to the host weapon causes a change in zeroing. Ensure that the MASS's elevation block is six counterclockwise turns from the lowest setting, unless it has already been zeroed.

(1) Depress the MASS's action lock release (1, Figure 4-9), and pull the charging handle (2, Figure 4-9) rearward.

(2) Place the MASS's safety mechanism (3, Figure 4-9) in the SAFE position. (No red is visible.)

WARNING

Keep the M26 MASS's safety mechanism in the SAFE position (no red visible) until ready to fire.

(3) Insert a magazine loaded with three slug rounds (4, Figure 4-9) into the MASS's magazine well.

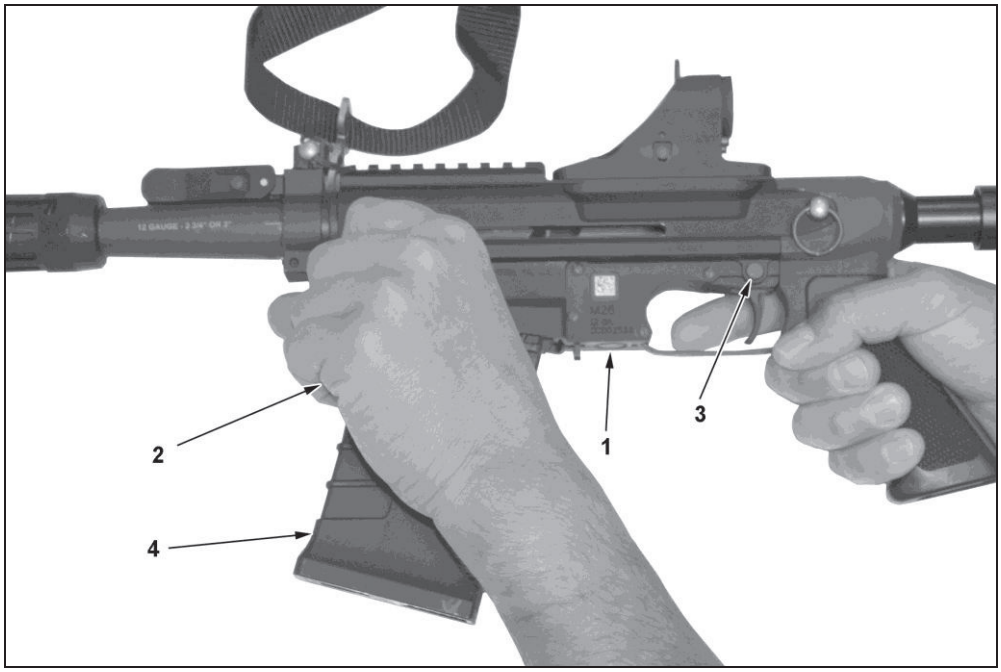


Figure 4-9. Loading the M26 MASS

(4) Aim at the target's center of mass through the host weapon's standard sights or attached optics (see Figure 4-10), and at 5 meters firing one shell to establish the relationship between the center of mass and the strike of the buckshot. Continue firing and adjusting until the center of the shot group is 2.5 inches (6.4 centimeters) below the center of the M4 zero target.

NOTE: The elevation block must be freed from the upper mounting bracket assembly before elevation adjustments can be made. See Chapter 3 for the procedures for mounting and dismounting the M26 MASS on the host weapon.

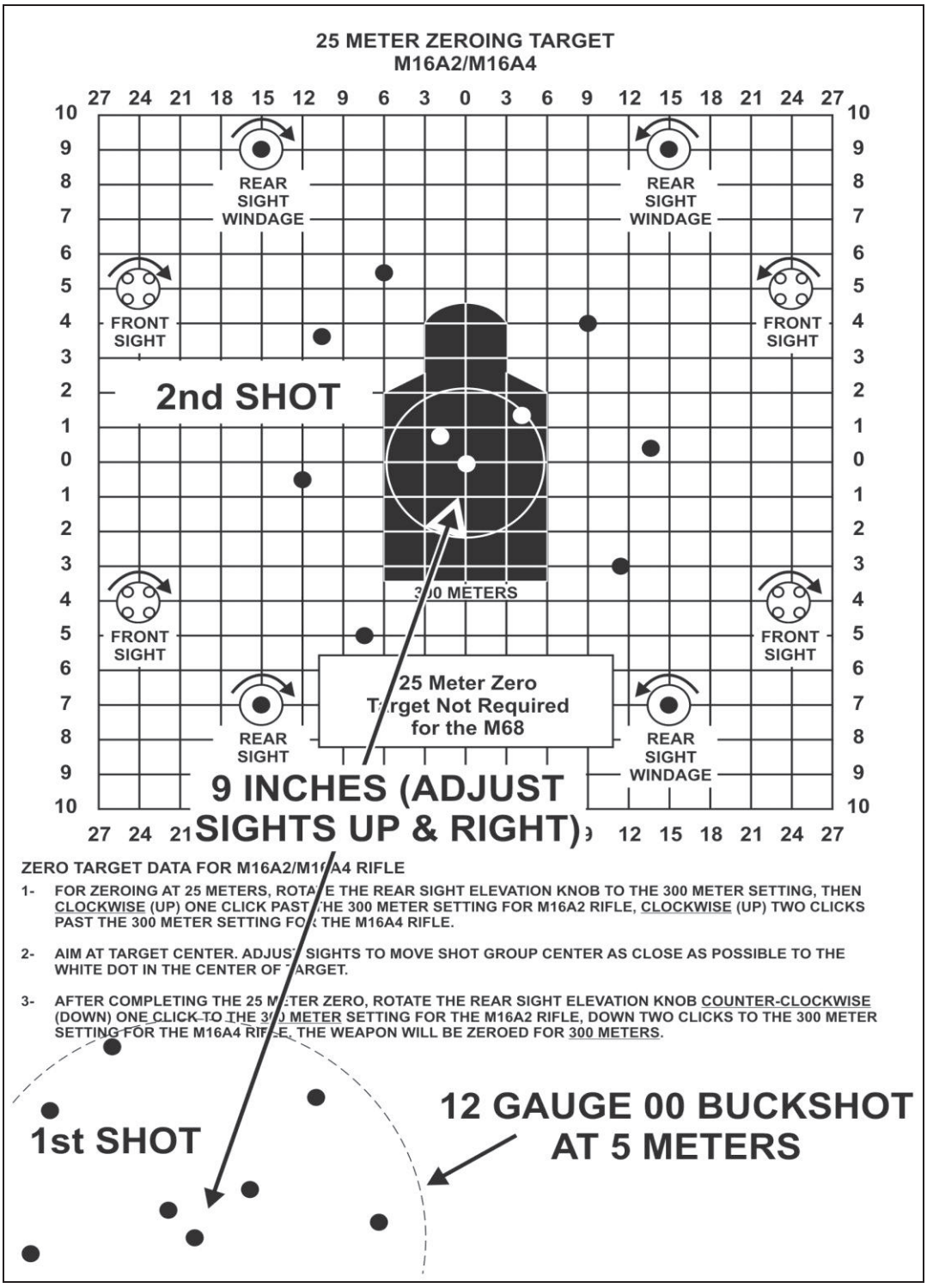


Figure 4-10. MASS zeroing target

4-46. To adjust the elevation of the mounted MASS—

(1) Depress the detent (1, Figure 4-11) on the elevation block (2, Figure 4-11).

(2) While holding the detent down, turn the elevation block clockwise to raise the strike of the buckshot or counterclockwise to lower the strike of the buckshot.

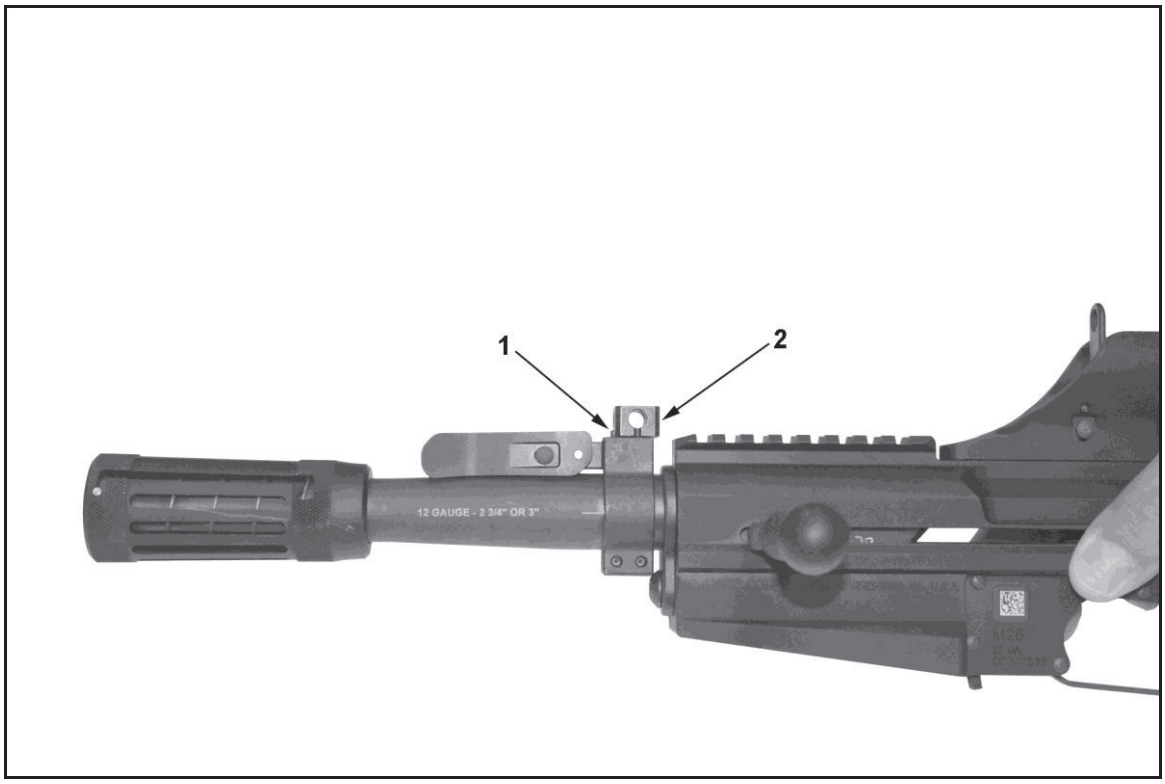


Figure 4-11. Adjusting the M26 MASS's elevation

(3) Remount the MASS to the host weapon.

(4) Fire a second shell. Repeat until the buckshot strikes within 2.5 inches (6.4 centimeters) of the target's center of mass.

NOTE: Leaders should verify MASS zero before releasing firers from the firing line.

ZEROING, STAND-ALONE CONFIGURATION

4-47. When in the stand-alone configuration, the M26 MASS is similar in operation to the basic military shotgun; however, unlike MASS zero, military shotgun zero is performed by the system manufacturer and should be confirmed by the receiving units before issue. The standard military shotgun zero can be confirmed by firing #00 buckshot at E-type silhouettes on a standard 25-meter zero range or machine gun range. A minimum of two shotgun pellets should hit near the target’s center of mass.

NOTE: Zeroing the MASS in the stand-alone configuration is like zeroing when mounted to a host weapon, except when using MASS-equipped sights (rear aperture and front sight post) only. The weapon is zeroed at 25 meters by firing shotgun slugs at a target's center of mass.

4-48. Perform the following procedures to make elevation adjustments to the front sight post:

(1) Ensure that the front sight post and the lower rear aperture are in the up position by lifting or depressing the release pins.

(2) Practice good fundamentals; fire one round at the target.

4-49. If adjustments are required to raise or lower the strike of the round, perform the following procedures:

(1) Adjust the elevation by depressing the detent on the front sight post (4, Figure 4-12).

(2) Fire a second round. Repeat until the round strikes within 2.5 inches (6.4 centimeters) below the center of the M4 zero target.

(3) Once the MASS is zeroed in the stand-alone configuration, install the sling bracket (3, Figure 4-12), and insert the mounting pin (2, Figure 4-12) then secure by inserting the coiled wire ring (1, Figure 4-12).

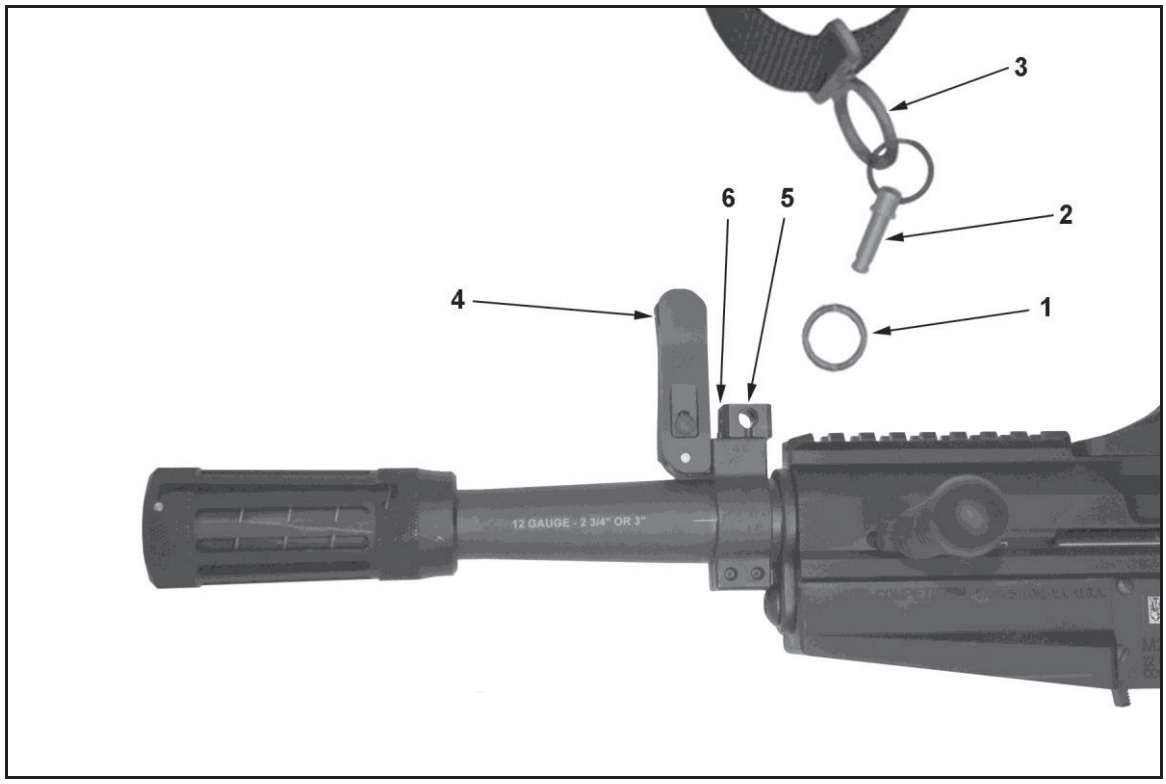


Figure 4-12. Stand-alone adjusting the M26 MASS's elevation

RECORD FIRE

4-50. Practicing record fire reinforces preliminary marksmanship training fundamentals and provides an opportunity to fire from multiple positions, to include barricades, and to fire multiple times at a single target. Practice record fire should be conducted as similar to record fire as possible.

WARNING

Ensure that the M26 MASS does not have a round in the chamber while moving. Do not chamber a round until in a stationary position and ready to shoot. Ensure no rounds are in the chamber when transitioning from M26 to another weapon.

4-51. The last step in basic marksmanship training, record fire, facilitates the commander's evaluation of individual tasks and integrated skills. During record fire, Soldiers fire the record fire table twice: once for practice, once for qualification. Soldiers fire #00 buckshot from all five positions at E-type silhouette targets at 25 meters.

4-52. Table 4-1 shows the firing table for practice record and record fire.

NOTE: See Appendix D for more information about practice record and record fire actions, conditions, and standards.

Table 4-1. M26 MASS record fire

POSITION	*ROUNDS FIRED*	*DISTANCE*	*METHOD*	*TIME STANDARD*	*NOTES*
Standing	2	25 m	Off Hand	4 sec	Load a magazine with four rounds of buckshot.
Kneeling	2	25 m	Off Hand	4 sec	
Crouched	2	25 m	Underarm Assault	4 sec	Load a magazine with four rounds of buckshot.
Standing	2	25 m	Strong Side Barricade Supported	4 sec	
Standing	2	25 m	Barricade Supported	4 sec	Load a magazine with two rounds of buckshot.

PERFORMANCE MEASURES

4-53. The following performance measures are based on two pellets from each round fired hitting the target. Results are scored as a PASS or FAIL.

- Load a four-round magazine.
  - Fire two rounds and register two hits per round while in the standing position.
  - Fire two rounds and register two hits per round while in the kneeling position.
- Perform rapid magazine changes, loading a second four-round magazine.
  - Fire two rounds and register two hits while in a crouching position.
  - Fire two rounds and register two hits per round from the strong-side position around a barricade.
- Load a two-round magazine.
  - Fire two rounds and register two hits per round while firing over a barricade from a standing supported position.
- Clear the weapon.

DURING LIMITED VISIBILITY

4-54. The performance measures and standards for night qualification are the same as those for day qualification. Night qualification must be performed using night vision devices (NVDs). Laser pointers are optional. Safety measures must be strictly adhered to and enforced during night qualifications.

MISSION-ORIENTED PROTECTIVE POSTURE GEAR

4-55. Unit commanders are encouraged to have Soldiers dress in various levels of MOPP gear when qualifying with the M26 MASS. Wearing a protective mask while firing should be the minimum standard. Commanders may select one or all of the firing positions for Soldiers to engage targets while wearing MOPP gear, day or night.

RANGE SETUP

4-56. Record fire is conducted on a standard 25-meter M16 range, or machine gun zero range. Practice record fire and record fire require barricades for the last two firing positions. If barricades can't be provided for all lanes, the unit can set up separate lanes for each firing position, placing barricades on only the last two lanes. Then, Soldiers rotate through the different lanes after clearing their weapons and at the instructions from the range tower. Figure 4-13 shows a typical 25-meter range setup for MASS record fire.

NOTES: 1. Refer to TC 25-8 for more information about standard 25-meter M16 and machine gun zero ranges.

2. See Appendix B for more information about constructing barricades.

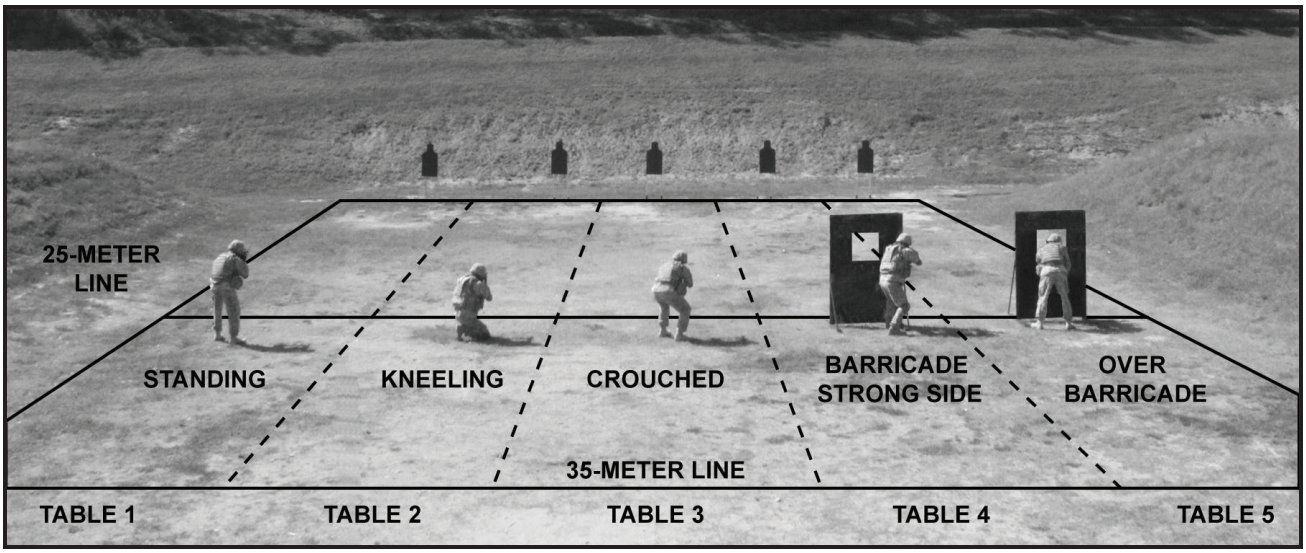


Figure 4-13. M26 MASS 25-meter record fire range

SECTION III – SHORT-RANGE MARKSMANSHIP TRAINING

4-57. Short-range marksmanship (SRM) training provides the individual Soldier with the ability to quickly and effectively engage targets at ranges less than 40 meters. A Soldier's ability to successfully identify, discriminate, and engage targets during short-range combat (SRC) is essential for Soldier survival and mission accomplishment. Although normally associated with urban operations, SRM techniques are used during operations in restrictive terrain, such as when clearing a trench line, conducting the final assault across an objective during an attack or raid, or fighting in dense vegetation or during periods of limited visibility. FM 3-22.9 describes SRM instruction for the M4 in detail. This section discuses those techniques as they relate to the MASS. MASS SRM training comprises reflexive firing training and marksmanship qualification. Table 4-2 shows a current training program for MASS SRM training.

WARNING

Ensure that the M26 MASS does not have a round in the chamber while moving. Do not chamber a round until in a stationary position and ready to shoot. Ensure no rounds are in the chamber when transitioning from M26 to another weapon.

NOTE: This section addresses the components of SRM not found in doctrinal manuals. Refer to ATTP 3-06.11, Chapter 3, for SRC TTPs, which are addressed as a component of this section for shoot-house training.

4-58. M26 MASS SRM training complements M4 SRM training. Soldiers must be qualified in SRM with their host weapon (M4) before beginning MASS SRM training. Reflexive dry-fire drills are an essential part of the training process and should be conducted by the team leader or squad leader during troop leading procedures (TLPs) and before SRC or SRM training.

4-59. SRM training comprises—

- Fundamentals of SRM.
- Preliminary SRM instruction.
- Reflexive fire training.
- SRM qualification.

4-60. Unit leaders can schedule or modify this training based on mission requirements and resources available.

FUNDAMENTALS OF SHORT-RANGE MARKSMANSHIP

4-61. During SRC, there is little or no margin for error. Too slow a shot at the enemy, too fast a shot at a noncombatant, or inaccurate shots can all be disastrous for a Soldier. There are three fundamentals of MASS SRM—

- Weapon ready positions and firing stance.
- Aiming technique.
- Aimpoint.

4-62. Mastery of these fundamentals is vital to the Soldier's ability to survive and accomplish his mission in close quarters.

4-63. All SRC- and SRM-related training should begin with a review of the principles of safe weapon handling—assume that the weapon is always loaded, and never point the weapon at anything you do not intend to destroy. The crawl-walk-run method of training applies.

NOTE: See Chapter 5 for firing stances and ready positions during breaching procedures.

FIRING STANCE AND READY POSITIONS

4-64. MASS firing stance and ready positions mirror many of the actions taken when armed with the M4; however, the hand placement and the firing techniques differ.

Firing Stance

4-65. Regardless of the weapon ready position used, Soldiers must always assume the correct firing stance to ensure stability and accuracy when engaging targets.

4-66. To assume the proper firing stance—

- Keep feet approximately shoulder-width apart.
- Point the toes straight to the front (direction of movement).
- Slightly stagger the firing foot to the rear of the nonfiring foot.
- Slightly bend the knees, and lean the upper body forward.
- Square and pull back the shoulders; do not roll them over or slouch.
- Keep the head up and both eyes open.

4-67. When engaging targets, hold the weapon's buttstock firmly against the shoulder and the firing elbow close against the body.

Weapon Ready Positions

4-68. There are two weapon ready positions: high ready and low ready.

High Ready Position (Mounted)

4-69. The high ready position (mounted) is best suited for the lineup outside of a building, room, trench, or bunker entrance (see Figure 4-14).

4-70. To hold the M26 MASS in the high ready position (mounted)—

- Grasp the MASS's magazine with the nonfiring hand and the host weapon's magazine with the firing hand, while keeping the trigger finger outside and resting alongside of the MASS's trigger well.
- Hold the weapon's buttstock under the armpit, with the barrel pointed slightly up so that the top of the front sight post is just below the line of sight, but still within peripheral vision.

4-71. To engage a target from the high ready position (mounted)—

- Push the weapon forward, as if to bayonet the target.
- Bring the buttstock firmly against the shoulder as it slides up the body.

NOTE: The M26 MASS adds weight forward of the host weapon. This causes difficulty in holding the weapon in a long-term high ready position. The low ready position, supported by a tactical sling to compensate for the additional weight, is the recommended carry position.

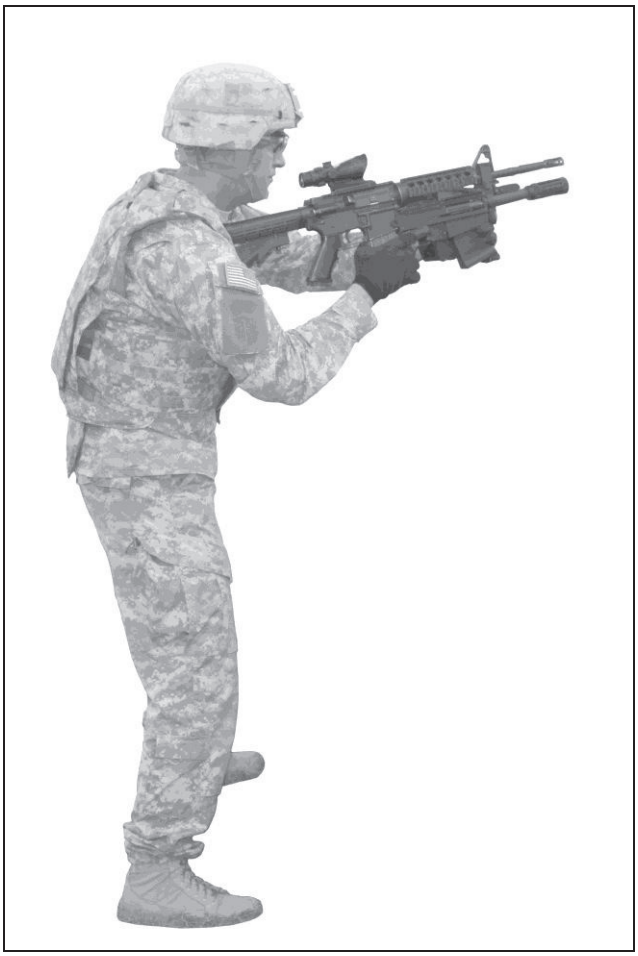


Figure 4-14. Weapon held in the high ready position with the M26 MASS in the mounted configuration

High Ready Position (Stand-Alone)

4-72. The high ready position (stand-alone) is best suited for the lineup outside of a building, room, trench, or bunker entrance (see Figure 4-15).

4-73. To hold the M26 MASS in the high ready position (stand-alone)—

- Grasp the MASS's magazine with the nonfiring hand and the pistol grip with the firing hand, while keeping the trigger finger outside and resting alongside of the MASS's trigger well.
- Hold the weapon's buttstock under the armpit, with the barrel pointed slightly up so that the top of the front sight post is just below the line of sight, but still within peripheral vision.

4-74. To engage a target from the high ready position (stand-alone)—

- Push the weapon forward, as if to bayonet the target.
- Bring the buttstock firmly against the shoulder as it slides up the body.



Figure 4-15. Weapon held in the high ready position with the M26 MASS in the stand-alone configuration

Low Ready Position (Mounted)

4-75. The low ready position (mounted) is best suited for movement inside of buildings, trenches, and tunnels (see Figure 4-16).

4-76. To hold the M26 MASS in the low ready position (mounted)—

(1) Place the weapon's buttstock firmly in the pocket of the shoulder, with the barrel pointed down at a 45-degree angle.

(2) Grasp the MASS's magazine with the nonfiring hand and the host weapon's magazine with the firing hand, while keeping the trigger finger outside and resting alongside of the MASS's trigger well.

4-77. To engage a target from the low ready position (mounted), bring the weapon up until the proper sight picture is achieved.

NOTE: The M26 MASS adds weight forward of the host weapon. This causes difficulty in holding the weapon in a long-term high ready position. The low ready position, supported by a tactical sling to compensate for the additional weight, is the recommended carry position.

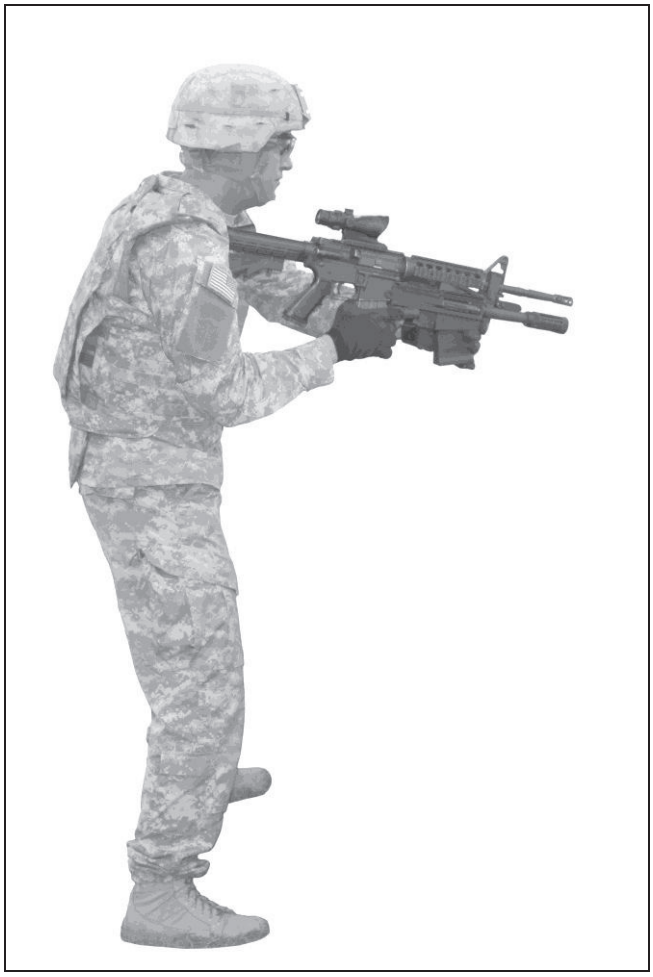


Figure 4-16. Weapon held in the low ready position with the M26 MASS in the mounted configuration

Low Ready Position (Stand-Alone)

4-78. The low ready position (stand-alone) is best suited for movement inside of buildings, trenches, and tunnels (see Figure 4-17).

4-79. To hold the M26 MASS in the low ready position (stand-alone)—

(1) Place the weapon's buttstock firmly in the pocket of the shoulder, with the barrel pointed down at a 45-degree angle.

(2) Grasp the MASS's magazine with the nonfiring hand and the pistol grip with the firing hand, while keeping the trigger finger outside and resting alongside of the MASS's trigger well.

4-80. To engage a target from the low ready position (stand-alone), bring the weapon up until the proper sight picture is achieved.



Figure 4-17. Weapon held in the low ready position with the M26 MASS in the stand-alone configuration

Door Breaching Body Position

4-81. The door breaching body position is used with extreme caution when using the M26 MASS (see Figure 4-18).

WARNING

Ensure body position and weapon direction is being considered while breaching doors to maintain safety.

4-82. To hold the M26 MASS in the breaching position—

(1) Body position should be on either side of the door, attempting to not be in a vulnerable spot in front of the door. After determining placement of the standoff position and before firing the M26 MASS, turn head away to help protect the face from possible shrapnel and debris.

(2) Grasp the MASS's magazine with the nonfiring hand while having the thumb crossing over the barrel. This ensures a tight grasp on the system to be prepared for the recoil. The firing hand gasps the pistol grip while keeping the trigger finger outside, resting alongside of the MASS's trigger well.

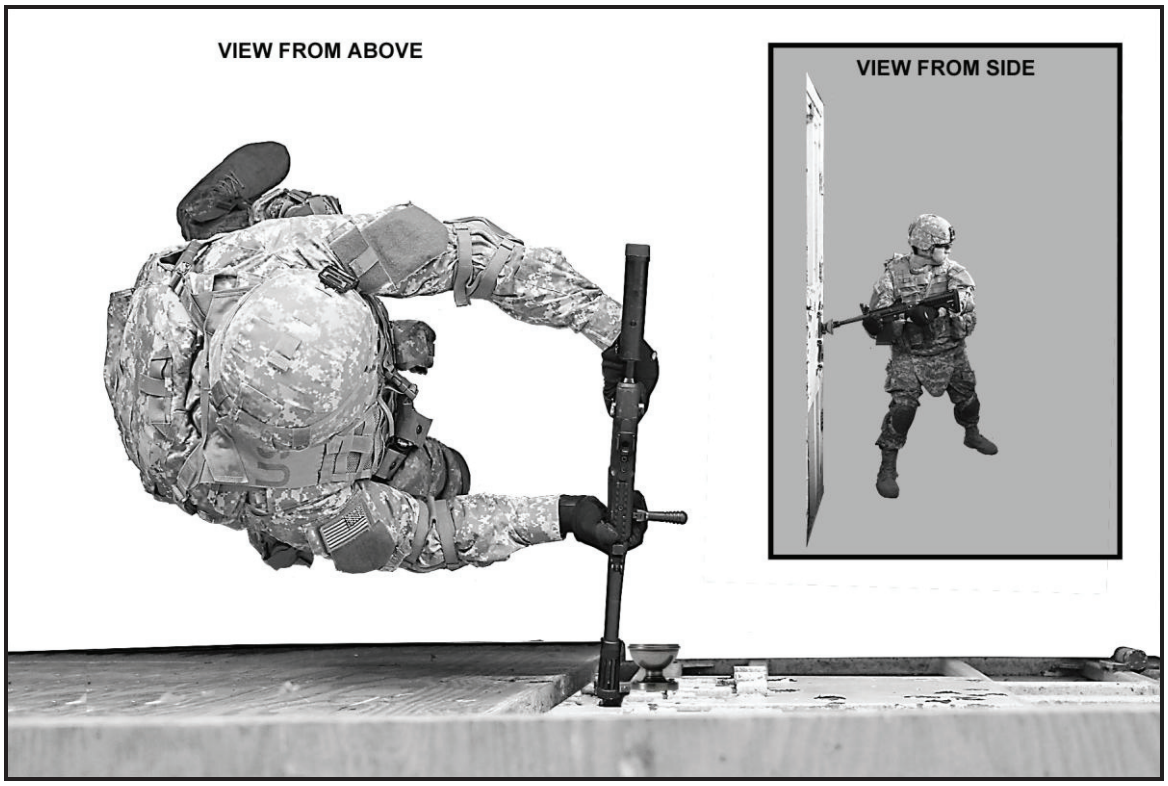


Figure 4-18. Weapon held during door breaching position with the M26 MASS in the stand-alone configuration

MOVEMENT TECHNIQUES

4-83. Soldiers must practice moving with their weapons up until they no longer look at the ground, but concentrate on their sectors of responsibility and move without stumbling over their own feet.

WARNING

Ensure that the M26 MASS does not have a round in the chamber while moving. Do not chamber a round until in a stationary position and ready to shoot. Ensure no rounds are in the chamber when transitioning from M26 to another weapon.

NOTE: The low ready position is the best position to use when moving or turning.

4-84. To execute a left turn, the Soldier places his firing foot forward, shifts all of his weight to the firing foot, and pivots, bringing the nonfiring foot forward to complete the turn. To turn to the right, the Soldier positions the firing foot to the rear, distributes his weight evenly between the feet, and pivots his body on both feet. To turn to the rear, the Soldier positions the firing foot forward, places his weight on the firing foot, and pivots his body, like the drill movement "rear march."

AIMING TECHNIQUES

4-85. Four aiming techniques are used during SRC:

- Slow aimed fire.
- Rapid aimed fire.
- Aimed quick kill.
- Instinctive fire.

4-86. Each has advantages and disadvantages, and the Soldier must understand when, how, and where to use each technique.

Slow Aimed Fire

4-87. Slow aimed fire is the slowest, but most accurate, technique. When using this technique, Soldiers take a steady position, properly align the sight picture, and squeeze off rounds. This technique should only be used to engage targets more than 25 meters away, when good cover and concealment is available, or when the need for accuracy overrides the need for speed.

Rapid Aimed Fire

4-88. The rapid aimed fire technique utilizes an imperfect sight picture. When using this technique, the Soldier focuses on the target and raises his weapon until the target is obscured by the front sight post assembly of the host weapon or stand-alone system. Elevation is less critical than windage when using this technique. This aiming technique is extremely effective on targets 0 to 15 meters away.

Aimed Quick Kill

4-89. The aimed quick kill technique is the quickest and most accurate method of engaging targets up to 12 meters away. As Soldiers become more experienced at using this technique, they may use it at greater ranges. Soldiers may use this technique in two ways: iron sights only or sight-mounted.

Iron Sights Only

4-90. When using this technique iron sights only, the Soldier aims over the rear sight, down the length of the rail, and places the top ½ to ¾ of an inch of the front sight post assembly on the target.

Sight-Mounted

4-91. When using this technique sight-mounted, the Soldier aims through the sight (host weapon or stand-alone with optics) and places a red dot aimpoint on the target. If laser pointers are used (mounted configuration only), the Soldier places the laser light on the target.

Instinctive Fire

4-92. This is the least accurate technique and should only be used in emergencies. It relies on instinct, experience, and muscle memory. The firer concentrates on the target and points the weapon in the general direction of the target. While gripping the MASS's magazine with the nonfiring hand and the host weapon's magazine (mounted configuration) or the MASS's pistol grip (stand-alone configuration) with the firing hand, he extends the index finger to the front, automatically aiming the weapon on a line toward the target.

AIMPOINT

4-93. Short-range engagements fall into two categories based on the mission and hostile threat. Most short-range engagements are decided by who hits his threat target with the first round. During this type of engagement, it is more important to put the target down as quickly as possible than it is to immediately kill him. Soldiers must aim at the lethal zone (center of mass) of the body as in regular rifle marksmanship.

Although shots to the center of the body may prove to be eventually fatal, they may not immediately incapacitate the target. During SRC, a shot that does not immediately incapacitate the target may be no better than a clean miss. Because of this, and the possible presence of military equipment or protective vests, Soldiers must be able to engage targets with incapacitating shots.

Lethal Shot Placement

4-94. The target's lethal zone is its center of mass, between the waist and the chest (see Figure 4-19). Shots in this area maximize the hydrostatic shock of the shot pellets. Due to the nature of SRC, Soldiers must continue to engage targets until they go down.

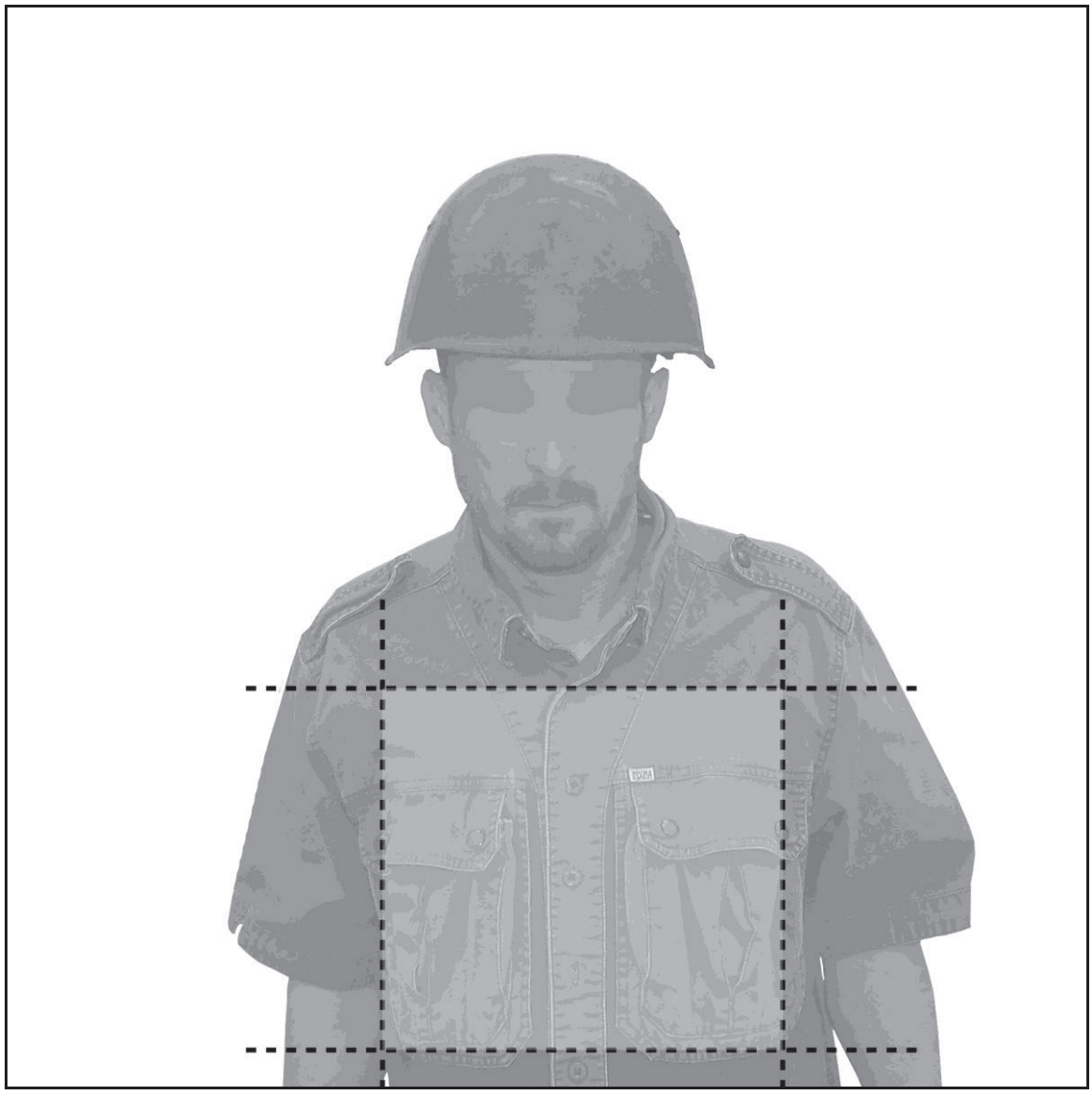


Figure 4-19. Lethal zone aimpoint

Incapacitating Shot Placement

4-95. Only one shot placement guarantees immediate and total incapacitation: roughly centered in the face, below the middle of the forehead and the upper lip, and from the eyes in. Shots to the side of the head should be centered between the crown of the skull and the middle of the ear opening, from the center of the cheekbones to the middle of the back of the head (see Figure 4-20).

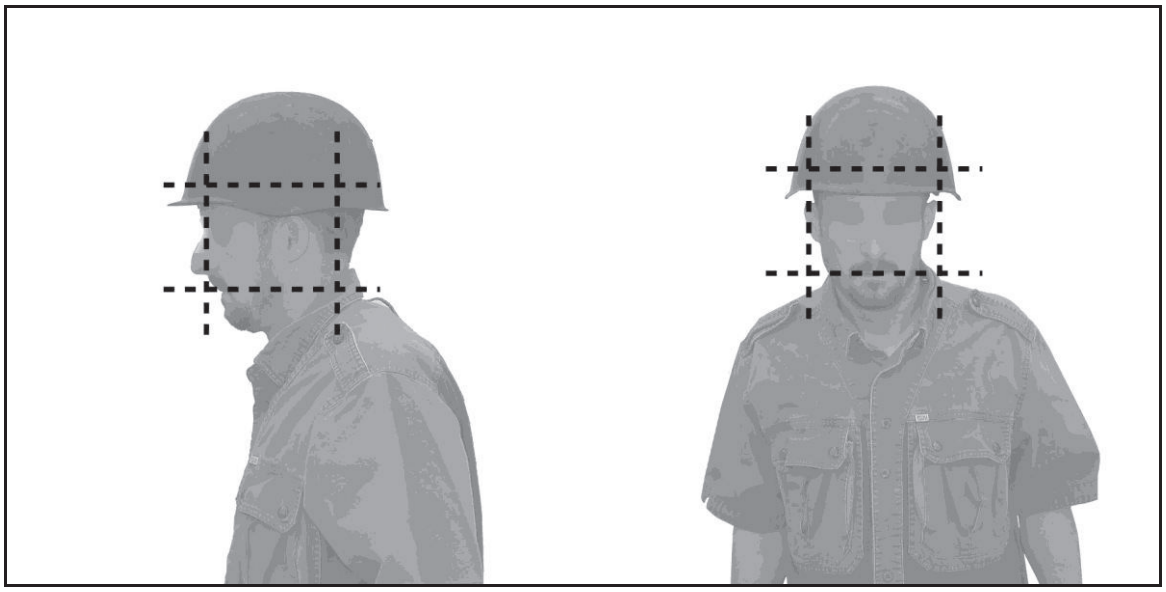


Figure 4-20. Incapacitation zone aimpoints

Failure Drill

4-96. To make sure that a target is completely neutralized, Soldiers should be trained to execute the failure drill. The first shot is fired at the lethal zone of the target; the second is fired at the incapacitation zone. This type of target engagement is particularly useful when engaging targets wearing body armor.

PRELIMINARY SHORT-RANGE MARKSMANSHIP INSTRUCTION

4-97. As with all other forms of marksmanship training, preliminary SRM instruction must be conducted to establish a firm foundation. Soldiers must be taught, and must understand, the fundamentals of SRM. Dry-fire drills are conducted to ensure a complete and thorough understanding of the fundamentals, as well as to provide the trainers with valuable feedback about each Soldier's level of proficiency.

WARNING

To maximize safety during training and in combat situations, it is important to emphasize muzzle awareness during preliminary SRM instruction. The risk of fratricide or noncombatant casualties is greatest during SRC.

4-98. Table 4-2 outlines the tasks that preliminary SRM instruction should include (at a minimum).

Table 4-2. Preliminary SRM tasks and explanation

TASK	*EXPLANATION*
Weapon ready positions and firing stance	Ensure that each Soldier understands and can properly carry his weapon.
Moving with a weapon	Ensure that Soldiers can walk, run, and turn left, right, and to the rear, as well as move from the standing to kneeling firing position and the kneeling back to the standing firing position.
Weapon malfunction drills	Ensure that Soldiers instinctively drop to the kneeling firing position, clear a malfunction, and continue to engage targets.
Target engagement drills	Teach Soldiers to move from the weapon ready position to the firing stance, emphasizing speed and precision. Soldiers must be observed to ensure that the finger is outside of the trigger well and that the firing selector is on SAFE until the weapon is raised to the firing position. **NOTE:** This is a force protection issue and must be drilled until all Soldiers can perform to standard.

REFLEXIVE FIRE TRAINING

4-99. Reflexive fire training involves the practical application of all four of the fundamentals of SRM. All Soldiers must receive a GO on the task, Demonstrate M26 Modular Accessory Shotgun System (MASS) Short-Range Marksmanship Techniques, before proceeding with training. This is a perishable skill that must be constantly reinforced, and reflexive fire training should be conducted frequently as refresher training to ensure that the Soldiers' skills are always at the highest level possible.

NOTE: The following reflexive fire training instructional techniques are more commonly performed with the M4. While mounted to these weapons, the M26 MASS is trained at the unit's discretion for close quarters combat situations.

TARGETS

4-100. Targets can be purchased locally (FBI style) or manufactured by the unit (bowling pin targets). E-type silhouette targets may be painted as shown in Figure 4-21.

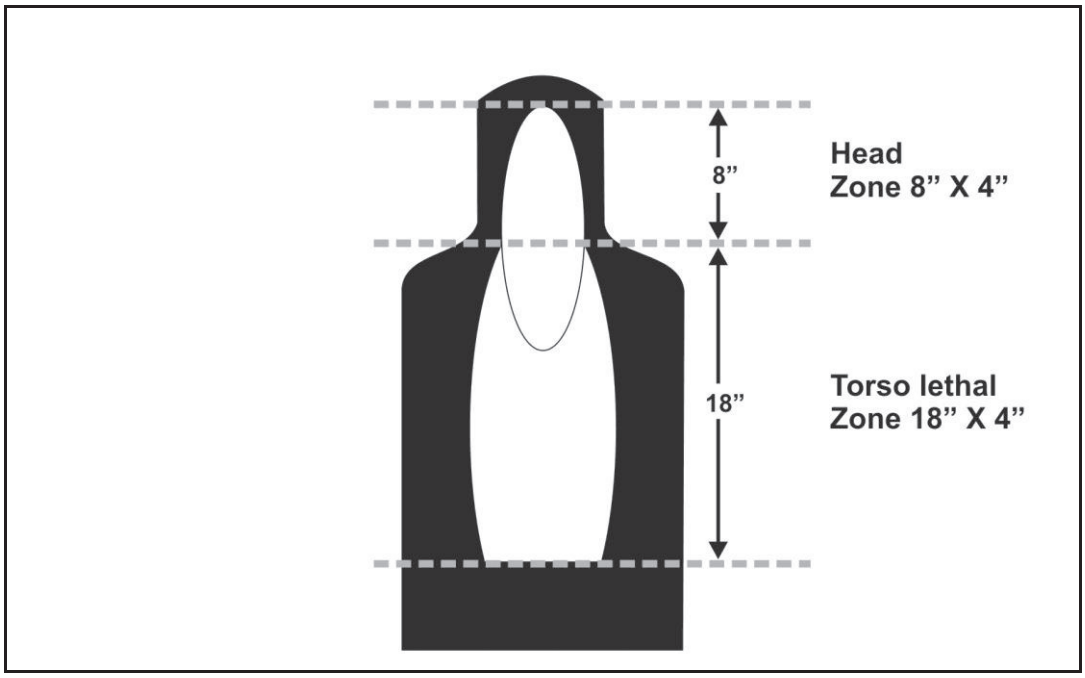


Figure 4-21. Dimensions and placement of bowling pin targets

RANGE SETUP

4-101. The range must be at least 25 meters in length with identification marks at the 5-, 10-, and 25-meter distances. Each lane should be marked in a way that prevents cross-firing between lanes. A lane safety coach is assigned to each lane to observe and evaluate the Soldiers' performance, as well as ensure the safe conduct of firing. All firing cues are given by the tower or line safety.

CONDUCT OF TRAINING

4-102. Each Soldier conducts a dry-fire exercise before conducting the live fire exercise. The dry-fire exercise gives the Soldier the repetition needed to successfully engage targets quickly and accurately.

4-103. The dry fire exercise proceeds as follows:

- The Soldier starts at the 25-meter line at the low ready position, facing the targets.
- The Soldier is then told the engagement position (for example, facing left, turns right) and, once in position, is given the cue to fire.
- On cue, the Soldier assumes the proper firing position and stance, takes the weapon off SAFE, uses the correct aiming technique for the target's distance, and engages the target.
- After engaging the target, the Soldier continues to cover the target to reinforce firing until the threat is eliminated.

4-104. During the dry fire exercise, Soldiers identify and engage the proper targets at ranges from 5 to 25 meters from the stationary position, while turning and walking. All tables are fired at night, with and without protective masks for familiarization, and while using NVDs.

NOTE: If Soldiers will be engaging targets using aiming devices or optics, they should complete all steps using the same equipment. Do not have Soldiers familiarize with iron sights and then fire the live fire exercise with optics.

4-105. Soldiers are evaluated on a GO/NO-GO basis, based on the task standards and scoring table. Soldiers must score a GO on the record and practice record firing table (see Table 4-3) before attempting to qualify.

4-106. Unit commanders should conduct training continually to first establish and then sustain levels of proficiency in reflexive firing.

NOTE: See Appendix D for more information.

SHORT-RANGE MARKSMANSHIP QUALIFICATION

4-107. Soldiers should conduct SRM qualification semiannually with the M26 MASS. Each Soldier—

- Conducts a dry-fire exercise under the same conditions as the actual qualification.
- Has a coach to ensure that he acquires the target, keeps the weapon on SAFE until time to engage the target and places it back on SAFE, and maintains muzzle awareness throughout the exercise.

WARNING

Ensure that the M26 MASS does not have a round in the chamber while moving. Do not chamber a round until in a stationary position and ready to shoot. Ensure no rounds are in the chamber when transitioning from M26 to another weapon.

4-108. If a Soldier is having difficulty during the dry-fire exercise, he does not continue with the qualification and will be retrained.

NOTES: See Table 4-3 for record and practice fire events; see Appendix D for actions, conditions, and standards.

Table 4-3. Short-range marksmanship record and practice record fire

POSITION	*ROUNDS FIRED*	*DISTANCE*	*METHOD*	*TIME STANDARD*	*NOTES*
Straight ahead	2	25 m	Controlled pair	4 sec	Load a magazine with four rounds of buckshot.
Left turn	2	25 m	Controlled pair	4 sec	
Right turn	2	25 m	Controlled pair	4 sec	Load a magazine with four rounds of buckshot.
Straight ahead walking	2	5 m Begin at 15 m	Controlled pair	4 sec	
Straight ahead walking	4	10 m Begin at 20 m	Controlled pair	8 sec	Load a magazine with four rounds of buckshot.
Straight ahead	2	25 m	Controlled pair	4 sec	Load a magazine with four rounds of buckshot.
Walk laterally to left	2	10 m	Controlled pair	4 sec	

SECTION IV – TRAIN-THE-TRAINER PROGRAM

4-109. The chain of command must demonstrate active and aggressive leadership to establish and maintain a perpetual base of trainer expertise. The goal of a progressive train-the-trainer program is to achieve a high state of combat readiness. When properly planned, training leaders, trainers, and evaluators to standard supports, enhances, and enables collective training. Commanders must plan, resource, and ensure timely accomplishment of trainer training.

4-110. An effective unit-level train-the-trainer program reflects the training priorities and interests of the unit commander. The training strategy for the train-the-trainer program is to provide commanders approved training from which they can develop METLs. To do this, the chain of command assesses the overall training program, their own responsibilities, and those of the trainers and coaches.

4-111. Besides leader training, specific trainer training must be identified and planned. All leaders are trainers, but not all trainers are leaders. A specialist or subject matter expert may conduct the instruction for a particular collective or individual task. These trainers must be allocated sufficient time to prepare the specified training.

4-112. The more time a command invests in training a trainer, the better the result. The chain of command should periodically evaluate trainers and replace any who have lost their desire to accomplish the objectives of the M26 MASS training program. To maintain interest, commanders may promote competitive trainer awards, such as "Trainer of the Month."

OBJECTIVES

4-113. The train-the-trainer program has a specific objective: develop in every trainer the confidence, willingness, knowledge, and skills required to consistently train Soldiers to use an M26 MASS effectively. The program's aim is for the chain of command to train their trainers and to—

- Train Soldiers to apply the fundamentals.
- Diagnose and correct marksmanship areas.
- Achieve standards.
- Maintain a constant degree of proficiency.
- Establish a trainer base.

SELECTION

4-114. The chain of command identifies the Soldiers who have the required knowledge, skills, and motivation in M26 MASS marksmanship and trains these Soldiers to pass their knowledge on to other Soldiers. To be trainers, the Soldiers must display motivation and know the M26 MASS and its mission purpose. They must demonstrate both their proficiency in applying the fundamentals of the weapon and their ability to train professionally. Because knowledgeable trainers are vital to training performance, the commander maintains high standards for trainer expertise.

ASSISTANT TRAINERS AND CADRE COACHES

4-115. The most valuable Soldiers in the training program are those who are most proficient in weapon operation and can best transmit their knowledge to others. Soldiers who demonstrate consistency as MASS marksmen should be identified quickly and developed into competent assistant trainers or coaches.

Assistant Trainers

4-116. Assistant trainers maintain discipline on the firing line and constantly enforce compliance with training guidance, range regulations, and safety regulations.

NOTE: See Appendix C for more information about range safety.

Coaches

4-117. Coaches must know the fundamentals of accurate firing and coaching. Each coach must have the following attributes:

- Knowledge.
- Patience.
- Understanding.
- Consideration.
- Respect.
- Alertness.
- Helpful attitude.
- Encouragement.

Knowledge

4-118. A coach must be a subject matter expert; he must be able to accurately answer questions about M26 MASS operations, system usage, and supporting training materials. He must develop his ability to observe Soldiers' actions in detail and offer quick correction and sound guidance.

Patience

4-119. The coach encounters many types of Soldiers who try his patience: dull, know-it-all, uncooperative, and aggressive. The coach must handle each Soldier patiently. Through demonstration and repetition, coaches can train Soldiers to be proficient with the M26 MASS.

Understanding

4-120. Because training new M26 MASS marksmen is stressful to both students and the coach, a coach needs a good firing line manner. Soldiers may be sensitive to abruptness, impatience, or lack of sympathy, and may react unfavorably to evidence of these traits.

Consideration

4-121. Most Soldiers, even those who do not fire well, enjoy firing and begin their training with an interest in their performance on the range. A coach who is considerate of Soldiers' feelings and who encourages them throughout their training will find coaching a pleasant and rewarding duty.

Respect

4-122. Because a coach is an expert M26 MASS marksman, he should receive the same respect as the primary trainer. A coach retains that respect by showing that he knows the subject quietly and with dignity.

Alertness

4-123. The most capable Soldier may forget a vital point from his training in the excitement of range firing. The coach must be alert for this possibility and patiently correct Soldiers when it occurs. The coach constantly encourages and motivates Soldiers by providing positive feedback on all progress.

Helpful Attitude

4-124. A combative attitude is no more effective on the range than in other types of training.

Encouragement

4-125. The coach can encourage Soldiers by convincing them that good firing is no mystery. The weapon and ammunition are mechanically developed for accuracy; poor scores are usually due to lack of maintenance, knowledge, or practice. The coach imparts his knowledge and helps Soldiers gain the necessary practical experience.

TRAINER CERTIFICATION

4-126. The trainer certification portion of the train-the-trainer program is designed to sustain training expertise and to develop methods of training. Trainer certification standardizes procedures for certifying

M26 MASS marksmanship trainers. It supports the intent of the directives for cadre professional development. Trainers' technical expertise must be continuously refreshed, updated, and closely managed.

4-127. Like any organization, the training base has personnel turnover. Soldiers assigned as M26 MASS trainers have different backgrounds and knowledge of training procedures and methods. Trainer certification is an ongoing process that addresses these variables. Unit trainers must complete the four phases of trainer certification in order and must update their training quarterly. One of the goals of trainer certification is to help trainers understand the training mission, which helps them support Soldiers assigned M26 MASS weapons.

CERTIFICATION OUTLINE

4-128. Before they can be certified, trainers must attend all phases of the program. Then, under the supervision of the chain of command, they conduct the phases to demonstrate their ability to train Soldiers, as well as diagnose and correct problem areas. Phases occur in the following sequence:

- Phase I—Orientation.
- Phase II—Preliminary marksmanship training.
- Phase III—Basic marksmanship training.
- Phase IV—Advanced marksmanship training.

Phase I—Orientation

4-129. During this phase, the new trainer must accomplish the following and obtain certification from the chain of command:

- Attend a briefing on the concept of trainer certification.
- Attend a briefing on the unit's marksmanship training strategy.
- Review the unit's marksmanship training outlines.
- Review issued reference material.
- Visit training sites and firing ranges.
- Attend range safety classes.

Phase II—Preliminary Marksmanship Training

4-130. During this phase, the trainer must demonstrate his mastery of the fundamentals of marksmanship, his ability to diagnose problem areas, and his ability to train others to standard. This phase should be completed no later than two weeks after Phase I. The following tasks apply to this phase:

- Characteristics.
- Capabilities.
- Types and capabilities of 12-gauge shotgun ammunition.
- General assembly and disassembly.
- Cleaning the M26 MASS.
- Maintenance under unusual conditions.
- Stand-alone configuration.
- Mounted configuration.
- Loading and unloading.
- Firing procedures.
- Correcting malfunctions.
- Destruction.
- Decontamination.

Phase III—Basic Marksmanship Training

4-131. During this phase, the trainer must set up and conduct firing on the various ranges. To confirm that he has the necessary knowledge to conduct training, he must deliver a briefing to the chain of command, explaining the—

- Targets.
- Zeroing procedures.
- Record fire scoring procedures.
- Purpose of field zero procedures.
- Range layout.
- Conduct of training.

Phase IV—Advanced Marksmanship Training

4-132. The final phase of the train-the-trainer program tests the trainer. The trainer must set up a range and conduct training for at least one person. If ammunition is available, the trainer conducts a firing exercise on ballistic breaching or close range marksmanship. If ammunition is not available, the testing is evaluated based on the quality of training given.

Chapter 5

Combat Techniques

This chapter provides the fundamental techniques for urban operations ballistic door-breaching and nonlethal engagements, and the training methods and considerations to develop the skills required to use them. Soldiers must master the basic MASS marksmanship skills discussed in Chapter 4 and qualify with the MASS before receiving training on these advanced combat techniques.

SECTION I – BALLISTIC SHOTGUN BREACHING

5-1. Breaching techniques vary based on the type of construction encountered and the types of resources available to the breaching element. Techniques range from simple mechanical breaching to complex, specialized demolitions.

5-2. When combined with special ammunition, the shotgun is an outstanding breaching tool. Shotgun ballistic breaching is used primarily against unanticipated barriers or as an alternate breaching method. This section provides considerations on using shotgun ballistic breaching when demolition (often a faster way to gain entry) may cause collateral damage.

NOTE: Refer to ATTP 3-06.11 and ATP 3-06.20 for more information about breaching techniques.

WARNING

Ensure that the M26 MASS does not have a round in the chamber while moving. Do not chamber a round until in a stationary position and ready to shoot. Ensure no rounds are in the chamber when transitioning from M26 to another weapon.

EMPLOYMENT CONSIDERATIONS

5-3. Ballistic shotgun breaching has several advantages over other breaching techniques:

- Ease of training. Shotgun breaching techniques can be taught easily and quickly.
- Less collateral damage. Explosive charges can weaken a building's foundation, and create obstacles and thick, debris-filled cloud cover, obstructing sight and optic viewing. Ballistic shotgun breaching is less likely to disrupt the flow of building- and room-clearing teams.

NOTE: Some exterior doors can be breached with the shotgun; however, this method takes more time (Soldiers are exposed to enemy fires for a longer period of time), and stealth is lost when the first round is fired.

- Smaller and lighter Soldier load. Soldiers can more easily carry enough ammunition to defeat numerous doors.
- Dual-purpose weapon. A shotgun can be used for self-defense if an unexpected threat appears.

BREACHING SAFETY

5-4. Extreme safety should always be observed when handling weapons. The following general safety precautions should be taken when handling the M26 MASS:

- Always wear appropriate clothing, interceptor body armor (IBA) complete with collar and crotch pad, eye protection (goggles/shield), ear protection, helmet, gloves, and so forth.
- Treat every weapon as if it were loaded.
- Never point a weapon at anything you do not intend to destroy.
- Keep your finger straight and off of the trigger until you are ready to fire.
- Keep your weapon on SAFE until you intend to fire.
- Never use the weapon (mounted/stand-alone) to beat a door open.

GAINING ENTRY

NOTE: Prior leader structural analysis determines the method(s) used to gain forced entry (internal/external). Rules of engagement (ROE) determine the method of room entry.

5-5. An integral part of room-clearing is the ability to quickly gain access to the rooms to be cleared. A ballistic breach is an alternate means of gaining entry into a structure through an opening (door, window, gate, and so forth).

5-6. During planning, ballistic breaching should not be considered the primary method of gaining initial entry into a structure because—

- It is not a positive means of gaining entry.
- It does not provide the surprise and speed required to minimize friendly losses upon initial entry.

5-7. Ballistic breaching is necessary for initial entry in certain circumstances because of—

- Structural design.
- Contents of the structure.
- Misfire of explosive charge.
- Compromise of assault element during approach.

5-8. Once initial entry is made, ballistic breaching becomes the primary means of gaining access to subsequent rooms within the structure because—

- Surprise is already lost.
- Other breaching methods are too slow and employing them would slow, hinder, or stop the momentum of the assault team.

WARNINGS

Ensure that the M26 MASS does not have a round in the chamber while moving. Do not chamber a round until in a stationary position and ready to shoot. Ensure no rounds are in the chamber when transitioning from M26 to another weapon.

To maximize safety during use, carry the M26 MASS with the breech closed, hammer forward, chamber empty (or on an expended cartridge), and safety on.

BREACHING AMMUNITION

5-9. The M1030 breaching round is designed for use with standard 12-gauge shotguns with 2 ¾- or 3-inch chambers and has a maximum ballistic breaching range of 5 meters. The M1030 payload is a steel powder/wax binder frangible slug designed to disintegrate upon contact with hard surfaces. Chapter 2 provides detailed characteristics of the M1030 breaching round.

DANGER

THE M1030 BREACHING ROUND REQUIRES USE OF THE STANDOFF ASSEMBLY. FAILURE TO PROVIDE THIS STANDOFF CAN RESULT IN INJURY TO PERSONNEL.

WARNING

The M1030 breaching round is lethal if fired at personnel.

The M1030 breaching round can damage all types of floor surfaces, including concrete. This can cause the projectile and fragments to ricochet off hard floors, causing minimal risk of injury to personnel.

Personnel using the M1030 breaching round and individuals in close proximity must wear double hearing protection.

Personnel in close proximity to breaching activities should wear eye protection. Full face masks are recommended.

NOTE: The unit SOP may dictate other rounds to breach doors made of inferior materials (hollow doors), such as buckshot or birdshot.

DOOR-BREACHING PROCEDURES

5-10. The M26 MASS should be readily available to the clearing team. Emphasize ease of training because there is not much time for a Soldier to learn the proper employment of a M26 MASS and its breaching techniques. Decreased time on target, it requires less time to breach an interior door with a shotgun than with explosive charges. Use of the M26 MASS is less likely to disrupt the flow of the "stack position" than with explosive charges. A Soldier armed with a M26 MASS can easily carry an adequate number of rounds to defeat numerous doors as opposed to an equivalent amount of demolitions. The M26 MASS can be used for self-defense if the enemy opens the door or if an unexpected threat appears. The breacher is exposed to possible fire from the opposite side of the door while using the shotgun to breach.

5-11. When employing the M26 MASS for breaching, the recommended standoff distance is 0 to 2 inches, with 0 inches being the preferred distance. When in the extended position, the MASS standoff assembly (see Figure 5-1) provides approximately 2 inches of standoff when the muzzle end is placed against the target area. Having the muzzle of the shotgun against the target area has two benefits: it makes it less likely that the shotgun will move off target, and the baffling of the standoff assembly captures debris from the fired round.

DANGER

THE M1030 BREACHING ROUND REQUIRES USE OF THE STANDOFF ASSEMBLY. FAILURE TO PROVIDE THIS STANDOFF CAN RESULT IN INJURY TO PERSONNEL.

WARNING

The M1030 breaching round is lethal if fired at personnel.

The M1030 breaching round can damage all types of floor surfaces, including concrete. This can cause the projectile and fragments to ricochet off hard floors, causing minimal risk of injury to personnel.

Personnel using the M1030 breaching round and individuals in close proximity must wear double hearing protection.

Personnel in close proximity to breaching activities should wear eye protection. Full face masks are recommended.



Figure 5-1. MASS standoff assembly during door-breaching operations

ATTACKING DOORS

5-12. When attacking a door, never target the doorknob. When hit by the round, it bends the locking mechanism into the door frame, and in most cases, binds the door. Some doors have alternate or multiple locking systems above or below the doorknob (sliding dead bolts, chain locks, bars that extend across the doorway, or floor locks with bars wedged against the doorknob). Even after destroying the doorknob, these locking systems may hinder or deny entry.

5-13. Instead of targeting the doorknob, target the locking mechanism at the point between the doorknob and the door frame. This technique requires less time and rounds than breaching door hinges; however,

door reinforcement bars may defeat the breaching effort and may require explosive breach or targeting another structural breach point.

5-14. When attacking a door, remember the following techniques:

- Select an attack point on the door. Choose the side with the least attachment points. Most attachment points are defeated on the first shot; however, you must be prepared for follow-on shots if the door does not open.
  - When attacking locking mechanisms, the aiming point is where the lock-throw and strike plate meet (see Figure 5-2).

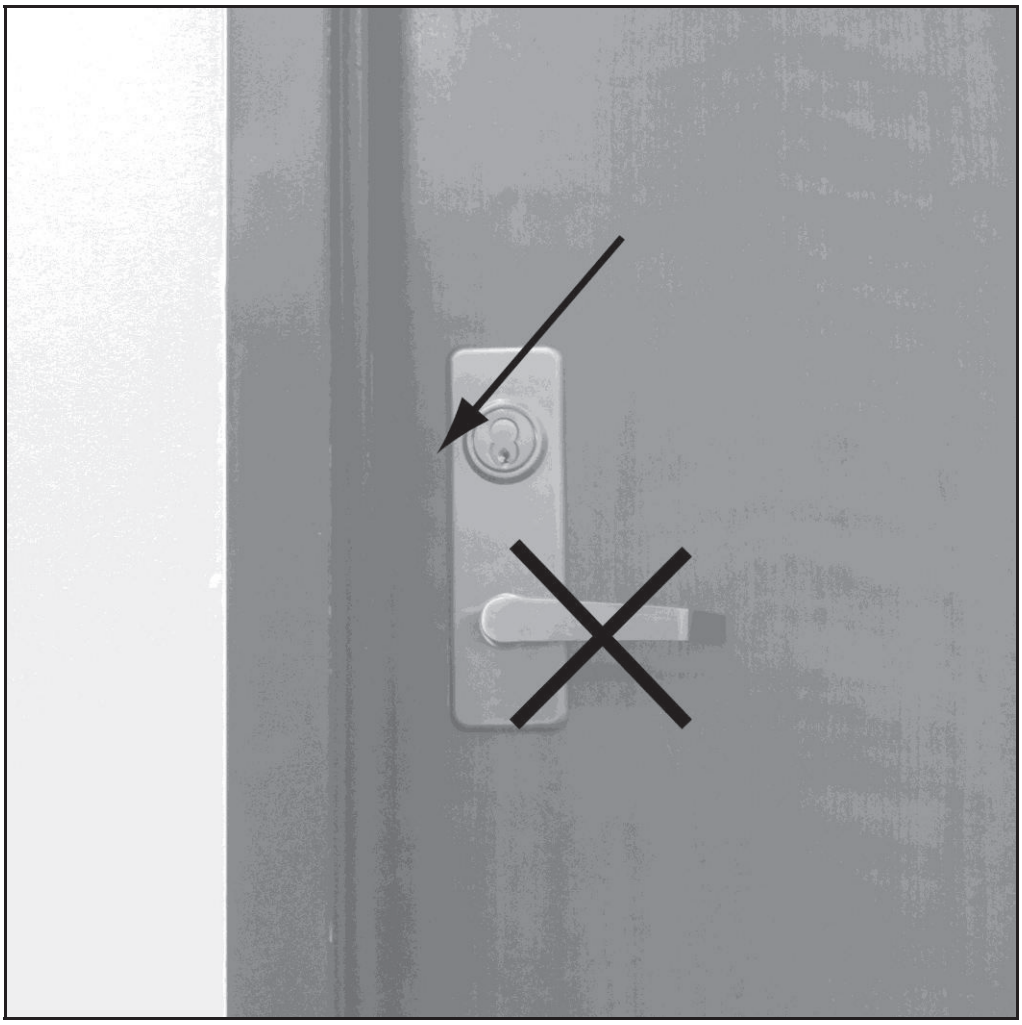


Figure 5-2. Attacking locking mechanisms

- When attacking the hinged side of a door, attempt to push the hinge off of the door, attacking from the top hinge to the bottom hinge.

- Get even with the target, as an angled weapon tends to fire above or below the target area.

NOTE: Do not use the host weapon's sight, as it may cause the breaching round to strike below the intended target.

- Place the standoff assembly of the MASS directly over the locking mechanism (point of attack). The angle of attack should be straight in or at a 45-degree downward angle. An angled weapon tends to fire above or below the target area. Shots at this angle allow for rounds that do not disintegrate to impact the floor inside of the structure. Do not use the weapon sight as it might cause under firing of the target.

NOTE: Do not stand directly in front of the door.

- Fire a quick and well-aimed shot. Prepare for necessary follow-on shots.

WARNING

The shot must hit the locking mechanism to fragment or disintegrate. Breaching rounds that miss the locking mechanism or other metal objects travel through solid wood doors intact.

- Once the lock has been defeated, push the door open with the nonfiring hand, while maintaining proper body and weapon position, and move out of the way of the assault team.

NOTE: Refer to ATTP 3-06.11 for clearing team tactics, techniques, and procedures.

- Prepare to breach hidden locks. Once the locking mechanism is defeated, entry may still be hindered by unseen added locking mechanisms.
- Kick the door open only as a last resort. Kicking the door may cause foot injury or entanglement. If a kick is necessary, aim it at or near the breach point (locking mechanism), the weakest part of the door.

ATTACKING HINGES

5-15. While hinges are the least preferred point of attack, it may be necessary to breach a door using this method.

5-16. All doors have hinges; most doors have locking mechanisms; and some doors have dead bolts, chain locks, hasps, and padlocks. A useful method of breaching is the shotgun ballistic breach for forced entry of standard doors.

5-17. Because hinges are usually hidden from view by the door frame, a hinge breach is more difficult than a locking mechanism breach. On most manufactured doors, horizontal center lines of the hinges are between 8 to 10 inches from the top of the door, the center, and 8 to 10 inches from the bottom of the door. Figure 5-3 shows where standard door hinge points are located.

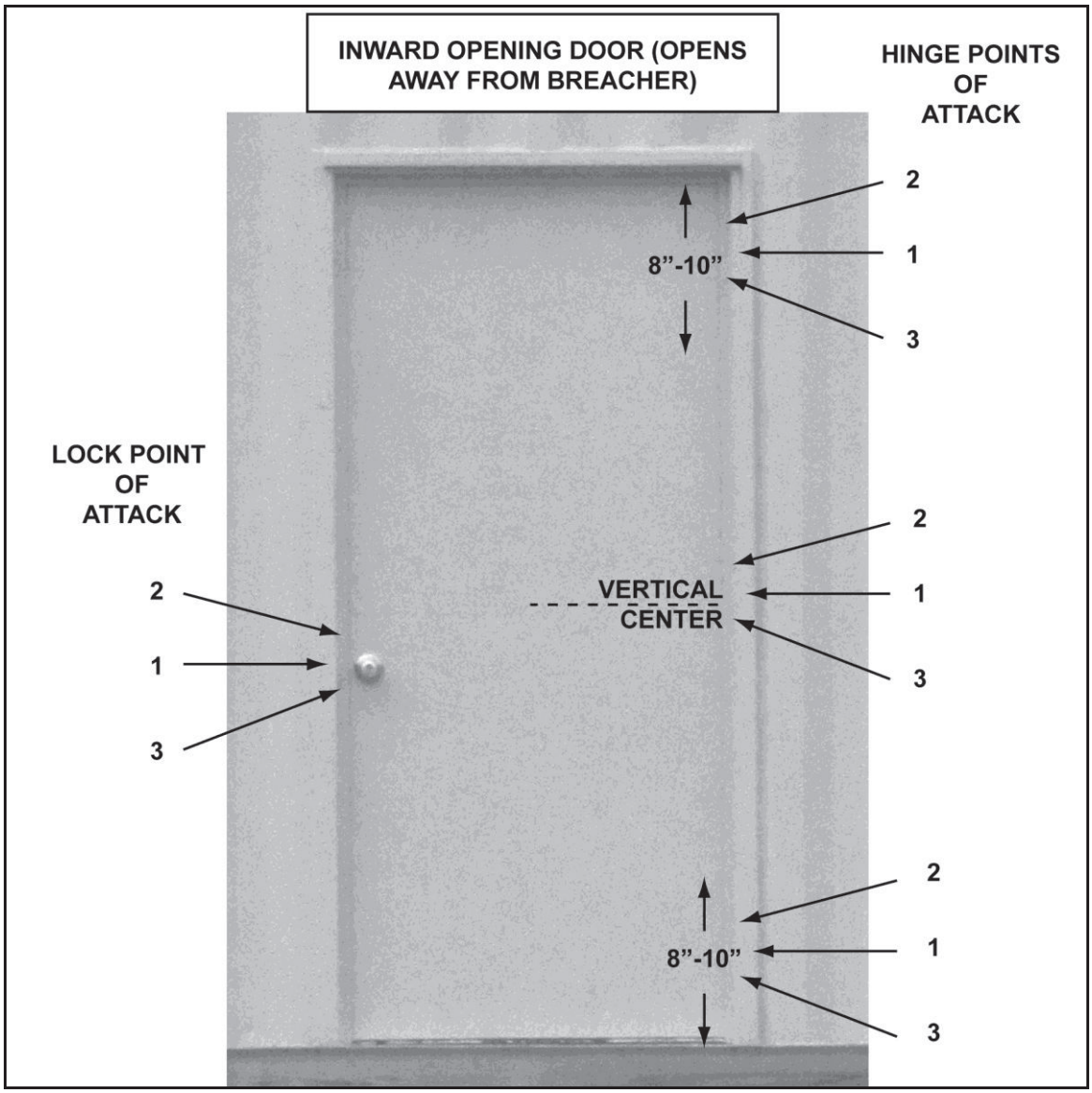


Figure 5-3. Door-breaching points

5-18. To attack the hinges of a door—

- Engage the top hinge first. Aim the shotgun to eliminate the maximum number of screws holding the hinge onto the door with one shot.
- Prepare to reengage the hinge and into the door jam. One round may not defeat a hinge; be prepared to fire follow-on shots.
- Once the top hinge is destroyed, move and engage the middle hinge. Utilize the same technique on the screws.
- Engage the bottom hinge last. In most cases of top-down breaching, the door collapses from its own weight, pulling the lower hinge out of the door jam.

5-19. Once the hinges have been defeated, open the door by applying the same procedures and precautions used when performing the breach on the door's locking mechanism.

NOTE: A fully-loaded M26 MASS holds five rounds in the magazine and one round in the chamber. The unit SOP determines the weapon disposition during combat operations.

5-20. Not all doors are designed alike. In different areas of the world doors structures are built using whatever materials are available. Different approaches to breeching might be needed depending on these circumstances.

- Wood frames that have wood doors can be targeted like most popular designed entries (see Figure 5-4). At most times the door and the hinges or the locks should be the point of attacks. If double wooden doors are present attempt to engage center locking mechanism first.



Figure 5-4. Wood door with wood frame breaching points, hidden hinges

- Steel frames with steel doors should be approached and attack points on the door and its hinges. (See Figure 5-5).

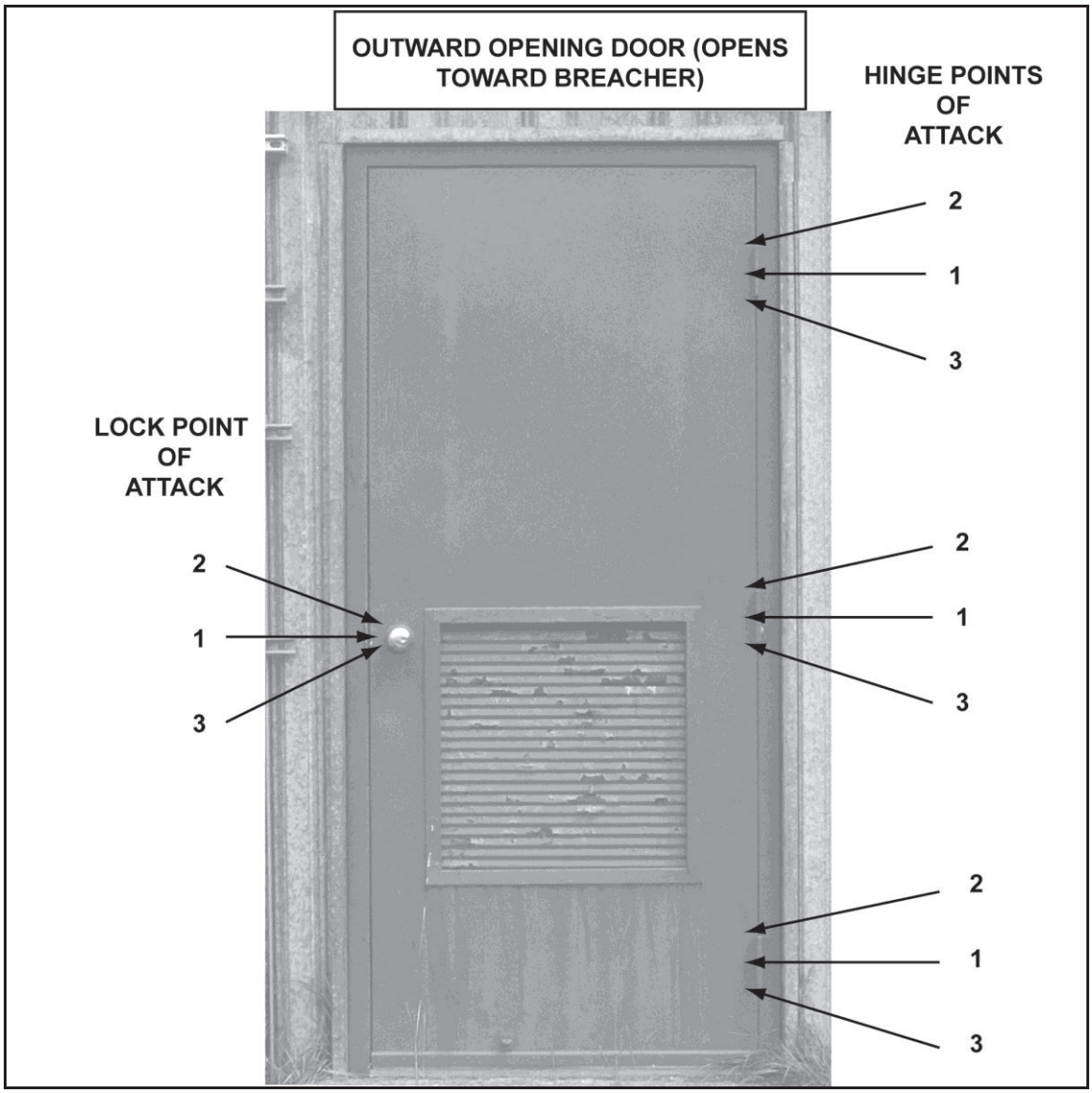


Figure 5-5. Steel door with steel frame breaching points

- Wood frames having steel doors should be attacked at the frame and hinges. (See Figure 5-6).



Figure 5-6. Steel door with wood frame

- Dirt, clay, or rock frames having steel doors should be attacked at the frame and hinges (see Figure 5-6) only after attempting to breach at the lock point of attach. Shooting the wall of the attached frame can be a method to weaken the whole entry.



Figure 5-7. Steel door with clay frame breaching points

TRAINING FACILITIES

5-21. Not all Army installations have urban operations facilities or ballistic breaching shoot-houses for training Soldiers in building-clearing and room-clearing tactics, techniques, and procedures (TTP). Units without Army-engineered shoot-houses can use prefabricated door frames with plywood for doors. The plywood should be mounted in the frame with metal hinges and locking mechanisms, providing target points of entry to conduct shotgun ballistic door-breaching.

NOTE: See Appendix B for more information.

5-22. E-type silhouette targets can be used singularly or grouped for lethal and nonlethal employment techniques and procedures.

SECTION II – NONLETHAL ENGAGEMENTS

5-23. Emerging missions, such as crowd control and stability and support operations in urban areas, have increased the need for nonlethal capabilities and solutions. Urban operations often result in quickly changing conditions (full spectrum operations)—from stability and support operations to combat operations (both high-intensity and precision), back to stability and support—each with its own ROE.

5-24. Training for nonlethal munitions requires leaders and Soldiers to understand the limited use of these systems in environments with restrictive ROE. Training must be continuous at all levels to ensure that nonlethal munitions are properly employed.

EMPLOYMENT CONSIDERATIONS

5-25. Leaders must constantly ensure that Soldiers understand when and how to effectively employ nonlethal munitions, and the unit's ROE should explain their employment in detail. Incorrect application of these munitions can have significant operational and political ramifications.

NOTE: Refer to ATP 3-39.33 for more information.

5-26. Employment considerations may be grouped into three categories:

- Individuals.
- Squads.
- Patrols.

5-27. These employment considerations are listed in Table 5-1.

Table 5-1. Employment considerations by group

GROUP	*EMPLOYMENT CONSIDERATIONS*
Individuals	Designate individuals as nonlethal shooters. Designated shooters carry lethal munitions only for personal protection.
	Rearrange Soldier equipment to avoid confusing nonlethal rounds with lethal rounds.
Squads	Squad leaders carry stun grenades and keep their weapon loaded with lethal ammunition.
	Ideally, the squad does not change their task organization to accommodate the addition of nonlethal equipment. They should designate nonlethal shooters instead.
Patrols	Commanders do not plan a nonlethal patrol, but they plan a combat and security patrol with a nonlethal capability when the mission dictates.

NONLETHAL MUNITIONS

5-28. Nonlethal munitions are designed and employed to incapacitate personnel or material, while minimizing fatalities, permanent injury to personnel, and undesired damage to property and the environment. While conventional lethal munitions destroy their targets through blast, penetration, and fragmentation, nonlethal munitions employ means other than gross physical destruction to prevent the target from functioning.

5-29. Many nonlethal options have both maximum effective ranges and minimum safety ranges. Individuals struck short of the minimum safety range often suffer severe injuries or death, while the effects of most nonlethal devices are greatly mitigated at longer ranges. To be effective, an adversary must be engaged within the effective zone (beyond the minimum safety range and short of the maximum effective range).

5-30. The following 12-gauge nonlethal munitions provide Soldiers with a nonlethal way to break contact, enforce a buffer zone, or stun an individual:

- M1012 point target round.

- M1013 area target cartridge round.
- Aerial diversionary device round.

M1012 Point Target Round

5-31. The M1012 point target round (see Figure 5-8) stuns individuals by delivering a strong blow to the body without penetrating it. This round allows Soldiers to enforce a buffer zone (standoff distance) with a violent crowd, break contact, or stun an individual target for possible detention by snatch teams.

5-32. To maintain its nonlethal capability, this round must be fired at an adult subject's center of mass at ranges of 10 to 30 meters. Beyond 30 meters, the projectile loses accuracy and may no longer have the velocity required to stun an individual; shots fired at subjects closer than 10 meters may cause serious injury or death.

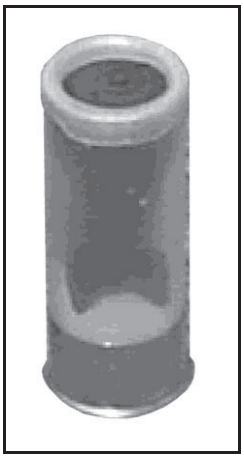


Figure 5-8. M1012 point target round

DANGER

Shots fired at subjects closer than 10 meters or shots to the head or groin may cause serious injury or even death.

M1013 Area Target Round

5-33. The M1013 area target round (see Figure 5-9) provides the capability to stun or deter two or three threats by delivering a strong blow to the body without penetrating it.

5-34. To maintain its nonlethal capability, this round must be fired at an adult subject's center of mass at ranges of 10 to 30 meters. Beyond 30 meters, the projectile loses accuracy and may no longer be effective; shots fired at subjects closer than 10 meters may cause serious injury.



Figure 5-9. M1013 area target round

AERIAL DIVERSIONARY DEVICE ROUND

5-35. The aerial diversionary device round (see Figure 5-10) provides multishot nonlethal capability to distract individuals or crowds. During crowd control operations, it is used (in combination with other distraction devices and troop maneuvers) to distract a violent or potentially violent crowd by delivering a flash bang projectile overhead.

5-36. The round is designed to be fired at ranges of 75 to 100 meters and placed approximately 5 meters above the crowd.



Figure 5-10. Aerial diversionary device round

DANGER

Shots fired directly at subjects or in enclosed areas may cause serious injury.

NONLETHAL TRAINING

5-37. To ensure that leaders and Soldiers understand how and when to employ nonlethal 12-gauge shotgun ammunition, they must be continuously trained at all levels. Leaders should consider sending key trainers responsible for unit nonlethal training to the Interservice Nonlethal Individual Weapons Instructor Course (INWIC).

NOTE: Refer to FM 3-22.40 for an in-depth discussion on the tactics associated with the employment of nonlethal systems. Refer to FM 3-22.40, Appendix C for details about INWIC. See Appendix D for more information about nonlethal actions, conditions, and standards.

Table 5-2. M26 MASS nonlethal record and practice fire

POSITION	*ROUNDS FIRED*	*DISTANCE*	*TARGET TYPE*	*ROUND TYPE*	*NOTES*
Kneeling	4	25 m	Area, 2-Point	M1013/M1012	Load two magazines: one with two rounds of M1013 and one with two rounds of M1012.
Kneeling	3	20 m	Area	M1013	Load a magazine with three rounds.
Standing	2	20 m	Point	M1012	Load a magazine with four rounds.
Standing	2	15 m	Point	M1012	
Standing	2	10 m	Point	M1012	Load a magazine with two rounds.

NOTE: Although the firing techniques for nonlethal ammunition differ when used with the M26 MASS, loading and firing procedures remain the same. The nonlethal marksmanship qualification was modified from ATP 3-39.33, Chapters 5, 7, and 8.

SECTION III – UNIT COLLECTIVE TRAINING

5-38. Advanced individual skills and tactics for the M26 MASS must be incorporated into both the unit SOP and unit collective training. For close range combat and door-breaching, this is best done at the team and squad levels.

TRAINING FACILITIES

5-39. The Army has developed several training facilities that are designed specifically to support urban operations training, to include SRC, building-clearing, and door-breaching at the team and higher level. Appendix B provides insight into the available types of individual and collective combat simulations and live fire facilities.

NOTE: TC 25-8 provides more detailed specifications for these facilities. TC 90-1 provides training scenarios for team through platoon centered on these facilities.

PROGRESSION TRAINING

5-40. Collective training for urban operations, close quarters combat (CQC), and nonlethal operations follows the same methodology as all Army collective training. Training progresses from the simple to the complex. The crawl-walk-run method calls for training simple tasks first, and then gradually adding complexity and increasing the speed of execution and realism as the unit develops proficiency.

5-41. For example, a team would train for a room-clearing exercise by first conducting a sand table rehearsal, with each member talking through his part. Next, the team would walk through the procedure, one step at a time. Following that, they would execute the procedure at full speed in a dry-fire mode. Then, they would move to a shoot-house, where they would perform the procedure at full speed with weapon simulators and instrumented targets. The final step would be a live fire shoot-house exercise.

5-42. Two keys to successful progression through the crawl-walk-run method are:

- Proceed to the next level only after demonstrating proficiency at the current level.
- Follow every training exercise with an AAR.

GATED TRAINING

5-43. Units progress in the training plan by completing specific training events, or passing training gates. Training gates are evaluated training exercises, well-defined and standardized across the command. Units must perform all tasks of the training gate exercise to standard before proceeding to the next level of training.

NOTE: See Chapter 1 for more information.

Appendix A

Proficiency (Performance) Examination

This appendix provides the examination used to test Soldiers' proficiency in dry-fire tasks with the M26 MASS.

OBJECTIVES

A-1. The examination is a practical nonfiring exercise given during the last period of M26 MASS preliminary training before range firing. Trainers need not conduct this examination on a range; they may conduct it indoors if facilities are available. Soldiers must demonstrate proper techniques for the following tasks:

- Disassemble the M26 MASS.
- Maintain an M26 MASS.
- Assemble the M26 MASS.
- Place the M26 MASS in the mounted configuration.
- Remove the M26 MASS from the mounted configuration.
- Place the M26 MASS in the stand-alone configuration.
- Disassemble the M26 MASS from the stand-alone configuration.
- Load an M26 MASS.
- Take immediate action for an M26 MASS malfunction.
- Unload an M26 MASS.
- Identify M26 MASS lethal and nonlethal ammunition.
- Demonstrate the five M26 MASS firing positions.
- Demonstrate M26 MASS short-range marksmanship techniques.
- Demonstrate M26 MASS door-breaching techniques.

EXAMINATION REQUIREMENTS

A-2. This paragraph explains how to conduct the examination. The suggested times may help the commander plan the examination.

NOTE: Combining company-assigned weapons at the test site to save time is recommended.

EVALUATION OF TRAINING

A-3. Training evaluations are a critical component of training assessment. Evaluation measures the demonstrated ability of Soldiers, commanders, leaders, battle staffs, and units against the Army standard. Evaluation of training is integral to standards-based training and is the cornerstone of leader training and development.

A-4. All training must be evaluated to measure performance levels against the established Army standard. Whether basic (such as, an informal, internal evaluation performed by the leader conducting the training) or complex, evaluation is conducted specifically to enable the unit or individual undergoing the training to know whether the training standard has been achieved. Commanders must establish a climate that encourages candid and accurate feedback for the purpose of developing leaders and trained units.

A-5. A training evaluation is not a test. It is not used to find reasons to punish leaders and Soldiers. Evaluation tells units and Soldiers whether they have achieved the Army standard. It assists them in determining the overall effectiveness of their training plans. Evaluation produces disciplined Soldiers, leaders, and units. Training without evaluation is a waste of time and resources.

PERFORMANCE-ORIENTED

A-6. Units become proficient in the performance of critical tasks and missions by practicing them. Soldiers learn best by doing, using an experiential, hands-on approach. Commanders and subordinate leaders plan training that provides these opportunities. All training assets and resources, to include TADSS, must be included in the unit's training strategy.

EQUIPMENT

A-7. The following equipment is required to conduct the proficiency examination:

- Tables.
- Setups.
- Weapons.
- Dummy ammunition.
- Training aids.
- Soldier gear.

Tables

A-8. Trainers provide one table at Stations 1 through 4.

Setups

A-9. At each station, trainers prepare one setup for each Soldier to be tested. A setup comprises everything one Soldier needs to complete the task for that station.

Weapons

A-10. Trainers provide an M4 or the M26 MASS at Stations 1, 2, and 4.

Dummy Ammunition

A-11. Trainers provide five MASS dummy rounds for Station 2.

Training Aids

A-12. Trainers provide visual training aids at Station 5 for identifying M26 MASS lethal and nonlethal ammunition. They provide a framed door or use the door to evaluate shotgun breaching techniques.

Soldier Gear

A-13. Soldiers should be in field gear with a helmet and complete load-bearing ensemble. Weapons (M4 and MASS) are set up (sights and devices) at the commander’s discretion.

TIME ALLOCATION

A-14. If allocated as follows, the time required for the examination should not exceed 2 hours.

- Approximately 15 minutes total for the orientation, instructions, breakdown, and movement.
- Approximately 1 hour to complete the tasks and critique Soldiers at the six stations.
- Two 10-minute breaks and five 5-minute movement periods.

TEST SITE

A-15. Four stations are recommended for this proficiency examination. This paragraph describes each station and its requirements. Figures containing the score sheets follow.

STATION 1

Tasks

A-16. Station 1 includes the following tasks:

- Disassemble the M26 MASS.
- Maintain an M26 MASS.
- Assemble the M26 MASS.
- Place the M26 MASS in the mounted configuration.
- Remove the M26 MASS from the mounted configuration.
- Place the M26 MASS in the stand-alone configuration.
- Disassemble the M26 MASS from the stand-alone configuration.

Evaluation Preparation

A-17. Prepare one setup for each Soldier to be tested. Each setup should include an M4 and an M26 MASS, M4 and M26 MASS cleaning kits, clean rags, and appropriate weapon lubricants. Weapons should be in the following condition before testing (see Table A-1).

Table A-1. Weapon condition by task, Station 1

TASK	*WEAPON CONDITION*
Disassemble the M26 MASS.	The MASS's breech is closed, no magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position.
Maintain an M26 MASS.	The MASS is disassembled down to the operator's level of maintenance.
Assemble the M26 MASS.	The MASS is disassembled down to the operator's level of maintenance.
Place the M26 MASS in the mounted configuration.	The MASS's breech is closed, and the safety mechanism is in the SAFE position. The host weapon's breech is closed, and the safety selector is in the SAFE position.
Remove the M26 MASS from the mounted configuration.	The MASS's breech is closed, and the safety mechanism is in the SAFE position. The host weapon's breech is closed, and the safety selector is in the SAFE position.
Place the M26 MASS in the stand-alone configuration.	The MASS's breech is closed, no magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position.
Disassemble the M26 MASS from a stand-alone configuration.	The MASS's breech is closed, no magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position.

Brief Soldier

A-18. Trainers should read the following statement: *During this period, you will be required to disassemble the MASS within 30 seconds, explain preventive maintenance checks and services of the MASS within 1 minute, reassemble the MASS within 30 seconds, install the MASS on the host weapon within 1 minute, remove the MASS from the host weapon within 1 minute, place the MASS in the stand-alone configuration within 3 minutes, and disassemble the MASS from the stand-alone configuration within 3 minutes. You must perform the proper sequence of tasks and procedures, according to TM 9-1005-341-10. If you have trouble, raise your hand, and the grader will assist you.*

Evaluation Guidance

A-19. Trainers use the checklist shown in Table A-5 to grade individual performance. The Soldier scores a GO if he meets all performance measures; the Soldier scores a NO-GO if he fails any performance measure. If the Soldier scores a NO-GO, the trainer shows the Soldier what was done wrong and how to do it correctly. After testing each Soldier, the trainer provides a thorough critique.

References

A-20. Tasks performance steps and procedures are found in Chapter 2, Chapter 3, and TM 9-1005-341-10.

NOTE: If more than one Soldier is at the station during testing, have them remain to the rear of the station with their back toward the working area until called.

STATION 2

Tasks

A-21. Station 2 includes the following tasks:

- Load an M26 MASS.
- Take immediate action for an M26 MASS malfunction.
- Unload an M26 MASS.

Evaluation Preparation

A-22. Prepare one setup for each Soldier to be tested. Each setup should include an M26 MASS in the mounted (M4) or stand-alone configuration, one MASS magazine with five shotgun dummy rounds, one host weapon magazine (mounted system), M4 and M26 MASS cleaning kits, clean rags, and appropriate weapon lubricants. Weapons should be in the following condition before testing (see Table A-2).

NOTE: If in the mounted configuration, the host weapon's breech is closed, a magazine is loaded, no round is chambered, and the safety selector is in the SAFE position.

Table A-2. Weapon condition by task, Station 2

TASK	*WEAPON CONDITION*
Load an M26 MASS.	The MASS's breech is closed, no magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position.
Take immediate action for an M26 MASS malfunction.	The MASS's breech is closed, a magazine is loaded, a round is chambered, and the safety mechanism is in the FIRE position.
Unload an M26 MASS.	The MASS's breech is closed, a round is loaded, and the safety mechanism is in the FIRE position before each given weapon malfunction. M16/M4 magazine is loaded in the weapon, the breech is closed, and the safety selector is in the SAFE position.

Brief Soldier

A-23. Trainers read the following statement: *During this period, you will be required to load five shotgun rounds in the MASS magazine. On the command of "load," you will have 15 seconds to insert and lock the magazine into the MASS, chamber a round of ammunition, and perform a system function check. When alerted to a weapon malfunction, you will have 15 seconds to perform immediate action steps and procedures to correct each of the following malfunctions: failure to feed, failure to fire, failure to extract, and failure to eject. On the command of "unload," you will have 5 seconds to remove the MASS magazine while performing a system function check. You must perform the proper sequence of tasks and procedures, according to TM 9-1005-341-10. If you have trouble, raise your hand, and the grader will assist you.*

Evaluation Guidance

A-24. Trainers use the checklist shown in Table A-6 to grade individual performance. The Soldier scores a GO if he meets all performance measures; the Soldier scores a NO-GO if he fails any performance measure. If the Soldier scores a NO-GO, the trainer shows the Soldier what was done wrong and how to do it correctly. After testing each Soldier, the trainer provides a thorough critique.

References

A-25. Tasks performance steps and procedures are found in Chapter 3 and TM 9-1005-341-10.

NOTE: If more than one Soldier is at the station during testing, have them remain to the rear of the station with their back toward the working area until called.

STATION 3

Tasks

A-26. Station 3 includes the following tasks: Identify M26 MASS lethal and nonlethal ammunition.

Evaluation Preparation

A-27. Prepare one setup for each Soldier to be tested. Each Soldier setup should consist of ample paper and pencils. The training aid should show a picture of lethal and nonlethal ammunition with correct markings for identification.

Brief Soldier

A-28. Trainers read the following statement: *During this period, you must identify the standard types of M26 MASS 12-gauge lethal and nonlethal shotgun rounds and their purposes. You will have five minutes to complete the task. If you have trouble, raise your hand, and the grader will assist you.*

Evaluation Guidance

A-29. Trainers use the checklist shown in Table A-7 to grade individual performance. The Soldier scores a GO if he meets all performance measures; the Soldier scores a NO-GO if he fails any performance measure. If the Soldier scores a NO-GO, the trainer shows the Soldier what was done wrong and how to do it correctly. After testing each Soldier, the trainer provides a thorough critique.

References

A-30. Tasks performance steps and procedures are found in Chapter 2, Appendix B, and TM 9-1005-341-10.

NOTE: If more than one Soldier is at the station during testing, have them remain to the rear of the station with their back toward the working area until called.

STATION 4

Tasks

A-31. Station 4 includes the following tasks:

- Demonstrate the five M26 MASS firing positions when in the mounted and stand-alone configurations.
- Demonstrate M26 MASS short-range marksmanship techniques.
- Demonstrate M26 MASS door-breaching techniques.

Evaluation Preparation

A-32. Prepare one setup for each Soldier to be tested. Each setup should include an M26 MASS in the mounted (M4) and stand-alone configurations, with devices mounted according to the unit SOP, magazines for both weapons, M4 and M26 MASS cleaning kits, clean rags, and appropriate weapon lubricants. Materials and weapons should be in the following condition before testing (see Table A-3).

Table A-3. Weapon condition by task, Station 4

TASK	*WEAPON CONDITION*
Demonstrate the five M26 MASS firing positions when in the mounted and stand-alone configurations.	A freestanding barrier with a window-size aperture and E-type silhouette target. The MASS's breech is closed, a magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position. The host weapon's breech is closed, a magazine is loaded, no round is chambered, and the safety selector is in the SAFE position.
Demonstrate M26 MASS short-range marksmanship techniques.	An E-type silhouette target. The MASS's breech is closed, a magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position. The host weapon's breech is closed, a magazine is loaded, no round is chambered, and the safety selector is in the SAFE position.
Demonstrate M26 MASS door-breaching techniques.	A closed framed door with hinges exposed/not exposed. The MASS's breech is closed, a magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position. The host weapon's breech is closed, a magazine is loaded, no round is chambered, and the safety selector is in the SAFE position.

Brief Soldier

A-33. Trainers should read the following statement: *During this period, you will be required to correctly demonstrate the five M26 MASS firing positions with the MASS in the attached (M4) and stand-alone configurations. Perform the correct firing posture within 5 seconds of receiving a command to assume a standing, kneeling, crouched, standing (strong-side barricade supported), and standing (barricade supported) through a barricade window opening. Perform the correct reflexive firing stance and ready position (high ready/low ready) techniques for engaging a stationary target at 5-, 10-, and 25-meters, weapon control, and loading procedures within 2 minutes. Demonstrate the correct methods for conducting a ballistic door breach (lock and hinges) with the MASS in the mounted (M4) and stand-alone configurations within 15 seconds (5 seconds for a door lock, 10 seconds for hinges and changing out magazines). Proper sequence of tasks performance steps and procedures must be in accordance with Chapter 4 and Chapter 5 of the MASS manual. If you have trouble, raise your hand, and the grader will assist you.*

Evaluation Guidance

A-34. Trainers use the checklist shown in Table A-9 to grade individual performance. The Soldier scores a GO if he meets all performance measures; the Soldier scores a NO-GO if he fails any performance measure. If the Soldier scores a NO-GO, the trainer shows the Soldier what was done wrong and how to do it correctly. After testing each Soldier, the trainer provides a thorough critique.

References

A-35. Tasks performance steps and procedures are found in Chapter 4 and Chapter 5.

NOTE: If more than one Soldier is at the station during testing, have them remain to the rear of the station with their back toward the working area until called.

PERFORMANCE EXAMINATION CHECKLISTS

A-36. M26 MASS performance examination checklists are according to U.S. Army Training and Doctrine Command. (See Table A-4 through A-7.)

Performance measures are measured as GO or NO-GO. This is an absolute measure. The task performer either—

- Performed or did not perform the action described in the performance measure.
- Met or did not meet the performance measure criteria.

NOTE: The performance examination tests both knowledge and skills of M26 MASS operations. Most Soldier action steps are observable; however, some are not. Personnel conducting the performance examination should ask for verbal explanations of required actions that cannot directly be observed.

Table A-4. Performance examination checklist, Station 1

Name: ***Date:*** ***Rank:*** ***Unit:***		
STATION 1		
PERFORMANCE STEPS AND MEASURES	***GO***	***NO-GO***
DISASSEMBLE THE M26 MASS		
1. Removed the charging handle.		
2. Removed the receiver plug.		
3. Removed the bolt/bolt carrier assembly.		
4. Separated the bolt from the carrier.		
MAINTAIN AN M26 MASS		
1. Inspected the M26 MASS.		
a. Checked the exterior of the weapon for cracks or dents, and for loose or missing parts.		
b. Checked for pits or damage to the interior of the barrel and made sure that the bore was dry and free of obstructions.		
c. Checked the action lock button for function.		
d. Checked the host weapon mounting bracket for burrs or dents and ensured that four hex key screws are present.		
2. Cleaned the M26 MASS.		
a. Identified M26 MASS cleaning kit components and the purpose of each.		
b. Cleaned the M26 MASS using the correct steps and materials.		
c. Applied lubricants to the M26 MASS.		
ASSEMBLE THE M26 MASS		
1. Placed the bolt into the bolt carrier without damaging the carrier recoil spring.		
2. Installed the bolt/bolt carrier assembly into the upper receiver assembly.		
3. Installed the charging handle into the bolt/bolt carrier assembly.		
4. Installed the receiver plug.		
5. Performed a function check of the M26 MASS.		
a. Depressed the action lock release, and opened and closed the breech several times with the charging handle to check for free movement of the bolt/bolt carrier assembly.		
b. Released the action lock release mechanism and closed the breech, pulling back on the charging handle to ensure that the breech locks.		
c. Pulled the trigger and held. The hammer of the firing mechanism should not fall.		
d. Removed finger from the trigger, and placed the safety mechanism in the FIRE position. (Red is visible.)		
e. Pulled the trigger. The hammer of the firing mechanism should fall.		
f. Opened and closed the breech.		
g. Placed the weapon in the SAFE position. (No red visible.)		

Table A-4. Performance examination checklist, Station 1 (continued)

Name: ***Date:*** ***Rank:*** ***Unit:***		
STATION 1 (CONTINUED)		
PERFORMANCE STEPS AND MEASURES	***GO***	***NO-GO***
PLACE THE M26 MASS IN THE MOUNTED CONFIGURATION		
1. Cleared the host weapon by visually confirming that the chamber and bore are clear of ammunition while pointing in a safe direction.		
2. Ensured that the host weapon's safety lever is on SAFE.		
3. Cleared the MASS by visually confirming that the chamber and bore are clear of ammunition.		
4. Ensured that the MASS's safety mechanism is in the SAFE position. (No red is visible.)		
5. Removed the host weapon's lower handguard/rail adapter.		
6. Connected the M26 MASS's rear mounting bracket assembly to the host weapon's slip ring without damaging the locating pins of the rear mounting bracket assembly.		
7. Ensured that the elevation block is six counterclockwise clicks from the lowest setting (mechanical zero) before connecting to the upper mounting bracket assembly.		
8. Placed the MASS's elevation block between the lugs of the host weapon's upper mounting bracket assembly.		
9. Applied rearward pressure so that the MASS's rear mounting bracket is tight against the host weapon's barrel nut to align the upper mounting bracket assembly's takedown pin lugs with the elevation block assembly's lugs.		
10. Pushed the upper mounting bracket assembly takedown pin through the elevation block assembly lugs and the far side lug of the upper mounting bracket assembly.		
11. Positioned the MASS's trigger guard between the MASS and the host weapon's magazine well.		
12. Grasped the upper mounting bracket assembly and the lower bracket assembly and checked for movement. If movement is detected, notified unit maintenance.		
13. Performed a function check of the M26 MASS to ensure that the M26 MASS is assembled correctly.		
REMOVE THE M26 MASS FROM THE MOUNTED CONFIGURATION		
1. Cleared the host weapon by visually confirming that the chamber and bore are clear of ammunition while pointing in a safe direction.		
2. Ensured that the host weapon's safety lever is on SAFE.		
3. Cleared the MASS by visually confirming that the chamber and bore are clear of ammunition.		
4. Ensured that the MASS's safety mechanism is in the SAFE position. (No red is visible.)		
5. Pushed the MASS's takedown pin out of upper mounting bracket assembly and removed the elevation block from the upper mounting bracket assembly.		

Table A-4. Performance examination checklist, Station 1 (continued)

Name: ***Date:*** ***Rank:*** ***Unit:***		
STATION 1 (CONTINUED)		
PERFORMANCE STEPS AND MEASURES	***GO***	***NO-GO***
6. Lifted MASS from the host weapon's barrel nut, ensuring that the MASS's trigger guard is released from the host weapon's magazine well.		
7. Replaced the takedown pin in the upper mounting bracket assembly.		
8. Installed the lower adapter rail or handguard to the host weapon.		
9. Removed the sling from the sling swivel of the MASS's upper mounting bracket assembly, and attached the sling to the host weapon's forward sling swivel.		
PLACE THE M26 MASS IN THE STAND-ALONE CONFIGURATION		
1. Removed the receiver plug from the rear of the upper receiver.		
2. Removed the mounting pin coiled wire ring, and then removed the mounting pin from the pistol grip adapter.		
3. Installed the pistol grip adapter into the rear of the upper receiver, while ensuring that the trigger guard is captured by the pistol grip adapter.		
4. Firmly seated the pistol grip adapter into the rear of the upper receiver, and installed the mounting pin and the coiled wire ring.		
5. Turned the elevation block counterclockwise to set at five clicks from the bottom setting.		
6. Installed the end of the sling strap through the slot of the buttstock, and secured by threading the strap through the sling slide.		
7. Positioned the front sight. Aligned the small hole of the sling bracket with the hole in the elevation block, and secured it with the mounting pin and coiled wire ring.		
8. Placed the MASS in the SAFE position. (No red is visible.)		
DISASSEMBLE THE M26 MASS FROM THE STAND-ALONE CONFIGURATION		
1. Reversed the order of assembly procedures to disassemble the M26 MASS.		
2. Stowed stand-alone kit according to the unit SOP.		

Table A-5. Performance examination checklist, Station 2

Name: ***Date:*** ***Rank:*** ***Unit:***		
STATION 2		
PERFORMANCE STEPS AND MEASURES	***GO***	***NO-GO***
LOAD AN M26 MASS.		
1. Loaded an M26 MASS magazine.		
a. Ensured that the magazine was clean, dry, and without debris.		
b. Checked spring tension by pressing in on the spring and releasing quickly, while observing to see if the spring came back to its original position.		
c. Loaded shotgun rounds correctly.		
2. Locked an M26 MASS magazine into the M26 MASS.		
a. Ensured that the M26 MASS's safety mechanism is on SAFE.		
b. Inserted the magazine.		
c. Checked the magazine release locking mechanism by applying downward pressure on the magazine.		
3. Loaded an M26 MASS.		
a. Mounted configuration (M4): Gripped the host weapon's magazine with the firing hand, while keeping the trigger finger outside of the MASS's trigger well. Gripped the M26 MASS's magazine with the nonfiring hand, and placed the weapon's buttstock into the firing shoulder.		
b. Stand-alone configuration: Gripped the MASS's pistol grip with the firing hand, while keeping the trigger finger outside of the MASS's trigger well. Gripped the M26 MASS's magazine with the nonfiring hand, and placed the weapon's buttstock into the firing shoulder.		
c. Pressed the M26 MASS's action lock release mechanism.		
d. Chambered a round of ammunition.		
e. Placed the M26 MASS's safety mechanism in the FIRE position. (Red is visible.)		
TAKE IMMEDIATE ACTION FOR AN M26 MASS MALFUNCTION.		
1. Corrected an M26 MASS failure to fire.		
a. Verified that the M26 MASS's safety selector is in the FIRE position (red visible).		
b. Performed immediate action drills of tapping the magazine in, recharging the weapon (checking for the ejected round), and firing the weapon. If the weapon failed to fire again—		
(1) Placed the weapon on SAFE, removed the magazine, and cleared the weapon by visually confirming that the chamber and bore are clear of ammunition.		
(2) Disassembled the MASS, and inspected the bolt firing pin for damage and the firing pin hole for dirt or residue.		
(3) Cleaned the bolt/bolt carrier assembly and receiver as needed.		

Table A-5. Performance examination checklist, Station 2 (continued)

Name: ***Date:*** ***Rank:*** ***Unit:***		
STATION 2 (CONTINUED)		
PERFORMANCE STEPS AND MEASURES	***GO***	***NO-GO***
(4) Checked for dirt in the barrel locking recess. Cleaned thoroughly as required.		
(5) Checked for faulty ammunition. Replaced ammunition as necessary.		
REASSEMBLED THE M26 MASS		
(7) Loaded and attempted to fire the MASS. If the weapon failed to fire, notified unit maintenance.		
2. Corrected an M26 MASS failure to extract.		
a. Placed the M26 MASS's safety mechanism on SAFE.		
b. Removed the M26 MASS's magazine from the magazine well.		
c. Checked the breech for a stuck cartridge shell. If a stuck cartridge shell is present—		
(1) Attempted to push the charging handle forward until it is locked in place.		
(2) Pulled the charging handle rearward, while observing to see if the cartridge shell ejected.		
d. If the cartridge shell failed to eject, removed it with an M4 cleaning rod by—		
(1) Pushing the cleaning rod through from the muzzle end using steady pressure until the cartridge shell cleared the barrel. Then, rotated the weapon until the ejection port is facing the ground.		
(2) Using the nonfiring hand, tapped lightly on the opposite side of the breech until the cartridge shell fell out.		
(3) Disregarding catching the round, it's an expended cartridge.		
3. Corrected an M26 MASS failure to chamber.		
a. Placed the M26 MASS's safety mechanism on SAFE.		
b. Disassembled the M26 MASS; ensured that the parts are cleaned and lubricated.		
c. Assembled the M26 MASS.		
d. Ensured that the magazine is clean and serviceable.		
e. Ensured that ammunition is clean and serviceable.		
f. Performed a function check before reloading.		
g. Notified unit maintenance for reoccurring problems.		
4. Corrected an M26 MASS failure to lock.		
a. Placed the M26 MASS's safety mechanism on SAFE.		
b. Removed the M26 MASS's magazine from the magazine well.		
c. Checked the M26 MASS's breech for debris. If debris is found—		
(1) Disassembled the M26 MASS.		
(2) Cleaned the M26 MASS.		

Table A-5. Performance examination checklist, Station 2 (continued)

Name: ***Rank:*** ***Unit:***	***Date:***	
STATION 2 (CONTINUED)		
PERFORMANCE STEPS AND MEASURES	***GO***	***NO-GO***
(3) Inspected the bolt/bolt carrier assembly for damage.		
(4) Inspected the barrel recess/bolt seat for damage.		
(5) Lubricated the M26 MASS.		
d. Assembled the M26 MASS.		
e. Performed a function check.		
f. Notified unit maintenance for reoccurring problems.		
UNLOAD AN M26 MASS		
1. Placed the M26 MASS's safety mechanism on SAFE.		
2. Pressed the magazine release locking mechanism, and pulled the M26 MASS's magazine out of the magazine well.		
3. Cleared the MASS by visually confirming that the chamber and bore are clear of ammunition.		

Table A-6. Performance examination checklist, Station 3

Name: ***Rank:*** ***Unit:***	***Date:***	
STATION 3		
PERFORMANCE STEPS AND MEASURES	***GO***	***NO-GO***
IDENTIFY M26 MASS LETHAL AND NONLETHAL AMMUNITION.		
1. Identified M26 MASS ammunition for lethal engagements.		
a. Selected the correct ammunition for lethal engagements.		
b. Explained the correct placement of lethal ammunition on an enemy target.		
2. Identified M26 MASS ammunition for nonlethal engagements.		
a. Selected the correct ammunition for nonlethal engagements.		
b. Explained the correct placement of nonlethal ammunition on an enemy target/target area.		
3. Identified M26 MASS ammunition for conducting a ballistic door breach.		
a. Selected the correct ammunition for conducting the breach.		
b. Explained the correct placement of breaching ammunition on a door-locking mechanism.		
c. Explained the correct placement of breaching ammunition on door hinges and the order of the hinge breach.		

Table A-7. Performance examination checklist, Station 4

Name: ***Date:*** ***Rank:*** ***Unit:***		
STATION 4		
PERFORMANCE STEPS AND MEASURES	***GO***	***NO-GO***
DEMONSTRATE THE FIVE M26 MASS FIRING POSITIONS WHEN IN THE MOUNTED AND STAND-ALONE CONFIGURATIONS		
1. Assumed an M26 MASS standing firing position.		
a. Secured the weapon by gripping the host weapon's magazine with the firing hand (mounted configuration) or the MASS's pistol grip (stand-alone configuration), and the MASS's magazine with the nonfiring hand.		
b. Placed feet a comfortable distance apart (approximately shoulder-width).		
c. Turned the nonfiring shoulder slightly toward the target.		
d. Stepped back with the firing foot, with the toes of the firing foot pointing at approximately a 45 degree angle.		
e. Keeping the nonfiring foot in place, placed the buttstock into the firing shoulder.		
f. Keeping the firing arm parallel to the ground and the elbow of the nonfiring arm below the MASS's charging handle, aimed the weapon at the center of the target.		
2. Assumed an M26 MASS kneeling firing position.		
a. Secure the weapon by gripping the host weapon's magazine with the firing hand (mounted configuration) or the MASS's pistol grip (stand-alone configuration), and the MASS's magazine with the nonfiring hand.		
b. Faced the target.		
c. Placed the nonfiring foot forward, and kneeled on the firing knee.		
d. Sat back and rested the buttock on the heel of the firing foot.		
e. Turned the nonfiring shoulder slightly toward the target, and placed the weapon's buttstock into the firing shoulder.		
f. Keeping the firing arm parallel with the ground, leaned slightly forward, placed the elbow of the nonfiring arm slightly beyond the knee of the nonfiring leg, and aimed the weapon at the center of the target.		
3. Assumed an M26 MASS crouching firing position.		
a. Secure the weapon by gripping the host weapon's magazine with the firing hand (mounted configuration) or the MASS's pistol grip (stand-alone configuration), and the MASS's magazine with the nonfiring hand.		
b. Faced the target with feet a comfortable distance apart (approximately shoulder-width).		
c. Turned the nonfiring shoulder slightly toward the target.		
d. Stepped back with the firing foot, with toes of the firing foot pointing at approximately a 45 degree angle.		
e. Keeping the nonfiring foot in place, placed the weapon's buttstock under the armpit.		

Table A-7. Performance examination checklist, Station 4 (continued)

Name: ***Date:*** ***Rank:*** ***Unit:***		
STATION 4 (CONTINUED)		
PERFORMANCE STEPS AND MEASURES	***GO***	***NO-GO***
DEMONSTRATE THE FIVE M26 MASS FIRING POSITIONS WHEN IN THE MOUNTED AND STAND-ALONE CONFIGURATIONS (CONTINUED)		
f. Pulled the firing elbow in close to the body to secure the buttstock, while keeping the nonfiring hand on the MASS's magazine with the nonfiring forearm parallel to the weapon.		
g. Keeping the firing leg and back straight and the weapon's barrel parallel to the ground at chest height, leaned forward and bent the nonfiring leg.		
h. Aimed the weapon at the center of the target. Adjusted feet for comfort and stability before firing.		
4. Assumed an M26 MASS strong-side firing position.		
a. Secure the weapon by gripping the host weapon's magazine with the firing hand (mounted configuration) or the MASS's pistol grip (stand-alone configuration), and the MASS's magazine with the nonfiring hand.		
b. Stood behind the structure and faced the target with feet a comfortable distance apart (approximately shoulder-width).		
c. Placed the nonfiring foot against the base of the structure with the toes pointing toward the target.		
d. While using the structure for support, placed the firing foot a comfortable distance to the rear and slightly to the left or right until the heel of the firing foot is in line with the nonfiring foot. (Feet should form a 45° angle, but may be adjusted for comfort and stability.)		
e. Placed the weapon's buttstock against the firing shoulder, while keeping the firing arm close to the body for concealment.		
f. Placed the nonfiring forearm against the structure, and leaned forward, slightly bending the nonfiring leg. Used the structure for additional support, but did not allow the weapon to touch the structure.		
g. Keeping the firing leg and back straight, aimed the weapon at the center of the target.		
5. Assumed an M26 MASS standing supported firing position.		
a. Secure the weapon by gripping the host weapon's magazine with the firing hand (mounted configuration) or the MASS's pistol grip (stand-alone configuration), and the MASS's magazine with the nonfiring hand.		
b. Stood behind the barricade and faced the target.		
c. Placed the toes of nonfiring foot against the barricade.		
d. Placed the firing foot a comfortable distance to the rear with toes pointing toward the barricade.		

Table A-7. Performance examination checklist, Station 4 (continued)

Name: ***Date:*** ***Rank:*** ***Unit:***		
STATION 4 (CONTINUED)		
PERFORMANCE STEPS AND MEASURES	***GO***	***NO-GO***
DEMONSTRATE M26 MASS SHORT-RANGE MARKSMANSHIP TECHNIQUES		
e. Bent the nonfiring leg to adjust for height of the barricade, while keeping the firing leg and back straight.		
f. Adjusted feet for height, stability, and comfort before firing.		
g. Placed the weapon's buttstock against the firing shoulder, while keeping the firing elbow no higher than the top of the barricade.		
h. While holding the MASS's magazine with the nonfiring hand, rested the heel of the hand on the barricade, and aimed the weapon at the center of the target. Used the barricade for additional support, but did not allow the weapon to touch the barricade.		
1. Assumed the correct firing stance.		
a. Placed feet approximately shoulder-width apart.		
b. Pointed toes straight to the front (direction of movement).		
c. Ensured that the firing foot is slightly staggered to the rear of the nonfiring foot.		
d. Ensured that the shoulders are square and pulled back, not rolled over or slouched.		
e. Ensured that the head is up, looking straight ahead with both eyes open.		
f. When engaging targets, held the weapon with the buttstock firmly against the shoulder and the firing elbow close against the body.		
2. Assumed the high ready position (mounted configuration).		
a. Grasped the MASS's magazine with the nonfiring hand, and the host weapon's magazine with the firing hand, while keeping the trigger finger outside and resting alongside of the MASS's trigger well.		
b. Held the weapon's buttstock under the armpit, with the barrel pointed slightly up so that the top of the front sight post is just below the line of sight.		
c. Engaged a target from the high ready position by pushing the weapon forward as if to bayonet the target and bringing the buttstock firmly against the shoulder as it slid up the body.		
3. Assumed the high ready position (stand-alone configuration).		
a. Grasped the MASS's magazine with the nonfiring hand, and the pistol grip with the firing hand, while keeping the trigger finger outside and resting alongside of the MASS's trigger well.		
b. Held the weapon's buttstock under the armpit, with the barrel pointed slightly up so that the top of the front sight post is just below the line of sight.		

Table A-7. Performance examination checklist, Station 4 (continued)

Name: ***Date:*** ***Rank:*** ***Unit:***		
STATION 4 (CONTINUED)		
PERFORMANCE STEPS AND MEASURES	***GO***	***NO-GO***
DEMONSTRATE M26 MASS SHORT-RANGE MARKSMANSHIP TECHNIQUES (CONTINUED)		
c. Engaged a target from the high ready position by pushing the weapon forward as if to bayonet the target and bringing the buttstock firmly against the shoulder as it slid up the body.		
4. Assumed the low ready position (mounted configuration).		
a. Placed the weapon's buttstock firmly in the pocket of the shoulder, with the barrel pointed down at a 45-degree angle.		
b. Grasped the MASS's magazine with the nonfiring hand and the host weapon's magazine with the firing hand, while keeping the trigger finger outside and resting alongside of the MASS's trigger well.		
c. Explained proper sight alignment.		
5. Assumed the low ready position (stand-alone configuration).		
a. Placed the weapon's buttstock firmly in the pocket of the shoulder, with the barrel pointed down at a 45-degree angle.		
b. Grasped the MASS's magazine and the pistol grip with the firing hand, while keeping the trigger finger outside and resting alongside of the MASS's trigger well.		
c. Explained proper sight alignment.		
6. Assumed the low ready position (stand-alone configuration).		
a. Placed the weapon's buttstock firmly in the pocket of the shoulder, with the barrel pointed down at a 45-degree angle.		
b. Grasped the MASS's magazine with the nonfiring hand and the host weapon's magazine with the firing hand, while keeping the trigger finger outside and resting alongside of the MASS's trigger well.		
c. Explained proper sight alignment.		
7. Correctly executed movement techniques.		
a. Assumed the low ready position.		
b. Executed a left turn by placing the firing foot forward, shifting all weight to the firing foot, and pivoting, bringing the nonfiring foot forward to complete the turn.		
c. Executed a right turn by placing the firing foot to the rear and pivoting the body on both feet.		
d. Executed a turn to the rear by placing the firing foot forward and pivoting the body, like the drill movement "rear march."		
8. Correctly explained proper slow aimed fire techniques.		
a. Explained firing position and weapon control.		
b. Explained target aimpoint.		
9. Correctly explained proper rapid-aimed fire techniques.		
a. Explained sight alignment.		
b. Explained target aimpoint.		

Table A-7. Performance examination checklist, Station 4 (continued)

Name: ***Date:*** ***Rank:*** ***Unit:***		
STATION 4 (CONTINUED)		
PERFORMANCE STEPS AND MEASURES	***GO***	***NO-GO***
DEMONSTRATE M26 MASS SHORT-RANGE MARKSMANSHIP TECHNIQUES (CONTINUED)		
10. Correctly explained proper aimed quick kill techniques.		
a. Explained iron sight alignment for aimed quick kills.		
b. Explained optic sight alignment for aimed quick kills.		
c. Explained target aimpoint.		
11. Correctly explained proper instinctive fire techniques.		
a. Explained engagement technique.		
b. Explained target aimpoint.		
DEMONSTRATE M26 MASS DOOR-BREACHING TECHNIQUES		
1. Ensured that the host weapon's safety selector is in the SAFE position (no red visible).		
2. Ensured that the MASS's safety mechanism is in the SAFE position (no red visible).		
3. Selected the correct ammunition for conducting the breach.		
4. Conducted a ballistic door lock breach.		
a. Placed the standoff assembly of the MASS directly over the locking mechanism (point of attack).		
b. Ensured that the angle of attack is straight in or at a 45-degree downward angle.		
c. Did not stand directly in front of the door.		
(1) Fired a quick and well-aimed shot.		
(2) Recharged and fired a follow-on shot.		
d. If the door did not open fully, explained that a kick should be aimed at or near the breach point (locking mechanism), the weakest part of the door.		
5. Conducted a ballistic door hinge breach.		
a. Placed the standoff assembly of the MASS directly over the locking mechanism (point of attack).		
b. Ensured that the angle of attack is at a 45-degree angle.		
c. Did not stand directly in front of the door.		
d. Engaged the top hinge first.		
(1) Fired between 8 and 10 inches from the top of the door.		
(2) Fired a quick and well-aimed shot to eliminate the maximum number of screws holding the hinge onto the door with one shot.		
(3) Recharged and fired a follow-on shot.		
e. Once the top hinge is destroyed, moved and engaged the middle hinge.		
(1) Fired at the center of the door.		

Table A-7. Performance examination checklist, Station 4 (continued)

Name: ***Date:*** ***Rank:*** ***Unit:***		
STATION 4 (CONTINUED)		
PERFORMANCE STEPS AND MEASURES	***GO***	***NO-GO***
DEMONSTRATE M26 MASS DOOR-BREACHING TECHNIQUES (CONTINUED)		
(2) Fired a quick and well-aimed shot to eliminate the maximum number of screws holding the hinge onto the door with one shot.		
(3)- Recharged and fired a follow-on shot.		
f. Once the center hinge is destroyed, moved and engaged the bottom hinge.		
(1) Engaged the bottom hinge between 8 and 10 inches from the bottom of the door.		
(2) Fired a quick and well-aimed shot to eliminate the maximum number of screws holding the hinge onto the door with one shot.		
(3) Released the empty magazine and inserted a fully-loaded magazine.		
(4) Charged and fired a follow-on shot.		
g. If the door did not open fully, explained that a kick should be aimed at or near the breach point (lowest hinge point), the weakest part of the door.		

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Appendix B

Training Aids and Devices

This appendix outlines the training facilities (taken from TC 25-8) that support unit M26 MASS training and the training aids required for zeroing, qualifying, and performing ballistic door breaches with the MASS when no live-fire exercise breach facility is available.

SECTION I – TRAINING FACILITIES

B-1. DA Pam 350-38 provides weapon system qualification standards and the suggested training strategies and resources to attain and sustain the standards. For each weapon system, the pamphlet outlines the number of rounds allocated per training event and the frequency requirements for each event.

B-2. To assess range needs, leaders match the METL, individual and collective task training objectives, and associated training range requirements to the weapon system. They consider the following factors:

- Unit METL.
- Weapon system quantities.
- Required gunnery qualification frequencies.
- STRAC standards.
- Availability and throughput capacity of ranges.

NOTE: Refer to TC 25-8, Chapter 4, for recommendations on scheduling range time and facility requirements.

B-3. The following training facilities are used to train Soldiers in MASS techniques and procedures:

- Urban assault course (UAC).
- Live-fire exercise (LFX) shoot-houses.
- LFX breach facilities.
- Combined arms collective training facility (CACTF).
- Battlefield area complex (BAX).

URBAN ASSAULT COURSE

B-4. The UAC is designed for walk-through training only, and is used to train individual Soldiers, squads, and platoons on tasks necessary to operate within an urban area. The facility contains five stations, as outlined in Table B-1.

Table B-1. Urban assault course stations

STATION #	*TYPE OF TRAINER*	*TARGETS*
Station 1.	Individual and team trainer.	Six human-type targets (HTTs).
Station 2.	Squad and platoon trainer.	10 HTTs.
Station 3.	Grenade gunnery trainer.	10 interior precision stationary Infantry targets (SITs).
Station 4.	Offense/Defense trainer.	10 HTTs.
Station 5.	Underground trainer.	No instrumentation required.

B-5. All targets are fully automated, and the computer-driven, event-specific target scenario is scored from the range operations center. Precision targets are located in Stations 1, 2, and 4, and HUTs have a reconfigurable plug-and-play capability.

LIVE-FIRE EXERCISE SHOOT-HOUSE

B-6. The LFX shoot-house provides leaders with a facility to train and evaluate their units during live fire exercises. Units are trained and evaluated on their ability to move tactically (enter and clear a room or building), engage targets, conduct breaches, and practice target discrimination. Designed with 13 interior precision HTTs, the shoot-house is divided into eight rooms and two corridors, for a minimal net training capability of 1400 square feet.

B-7. All targets are fully automated, and the computer-driven, event-specific target scenario is scored from the range operations center. The range operating system is fully capable of providing immediate performance feedback to the participants. The life-like precision targets found in LFX shoot-houses have reconfigurable plug-and-play capability.

LIVE-FIRE EXERCISE BREACH FACILITY

B-8. This facility (see Figure B-1) is used to train Soldiers semiannually on the technical aspects of breaching. It is used to train TTPs and explosive techniques not trained on any other type of facility. Its three stations provide training venues for door-, window-, and wall-breaching:

- Station 1 – Door-breaching structure.
- Station 2 – Window-breaching structure.
- Station 3 – Wall-breaching structure.

B-9. No automation is required for this facility.

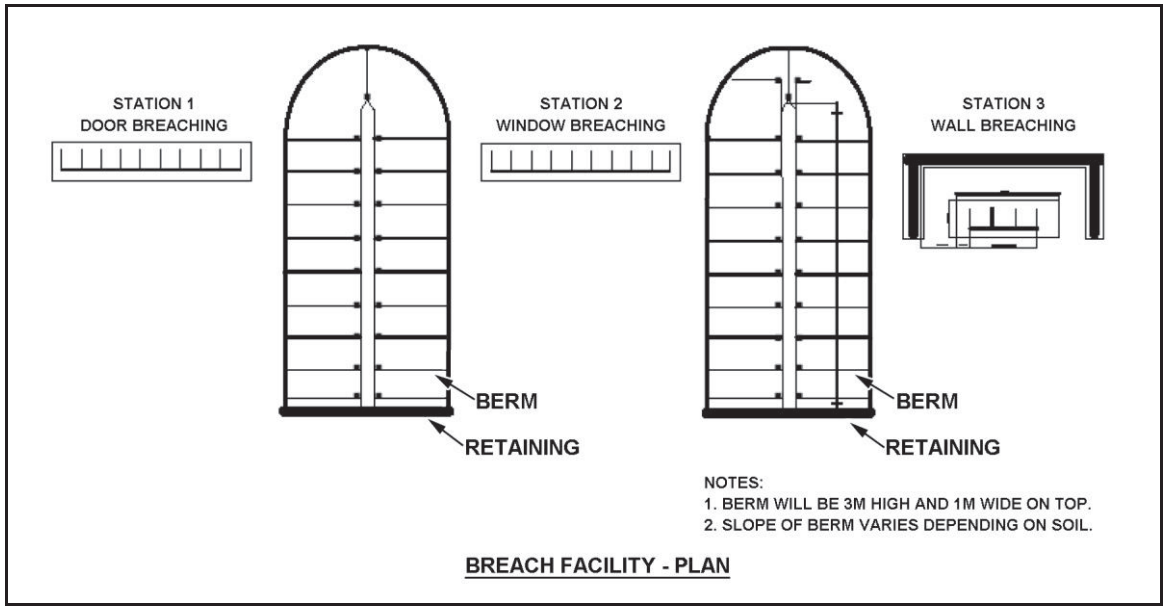


Figure B-1. Live-fire exercise breach facility

COMBINED ARMS COLLECTIVE TRAINING FACILITY

B-10. This facility is designed to conduct multi-echelon, full spectrum operations training up to battalion task force (TF) level. The CACTF accommodates force on force (FOF) and force on target (FOT) training.

B-11. The CACTF comprises buildings (such as, schools, municipal buildings, residences, hotels, and businesses) and infrastructure (such as, sewer system) making up a small village.

B-12. The facility's fully automated, life-like precision targets send and receive data from the computer-driven, event-specific target scenario to the range operations center. The captured data is then compiled and available to the unit during the AAR.

BATTLEFIELD AREA COMPLEX

B-13. This complex provides a collective live-fire home station training facility where Stryker brigade combat team (SBCT) crews and dismounted Soldiers learn to detect, identify, engage, and defeat stationary and moving combined arms targets in both open and urban terrain environments. This complex supports tactical live-fire operations independently of, or simultaneously with, supporting vehicles in free maneuver. This complex accommodates training with subcaliber or training devices.

B-14. This complex includes features that support urban operations and breaching: two breach wall/building facades, two live-fire villages, two shoot-houses, and two trench lines.

B-15. All targets are fully automated, sending and receiving data from the computer-driven, event-specific target scenario to the range operations center. The captured data is then compiled and available to the unit during the AAR.

SECTION II – TRAINING AIDS

B-16. Training aids are designed to complement training by providing knowledge through means other than standard instruction (such as, graphic pictures of MASS ammunition when actual ammunition is not available or dimensions of a ballistic door-breaching mockup when an LFX breach facility or shoot-house is not available).

B-17. Graphics and drawings from this manual can be taken to local training support centers (TSCs) for enlargement and product development. Use the following tips to maximize use of this manual:

- To test retention, use the graphics of lethal and nonlethal ammunition pictured in Chapter 5, supported by ammunition characteristics in Chapter 2. Mix other types of shotgun ammunition with recommended MASS ammunition.
- Use graphics of MASS sights to reinforce zeroing procedures. (See Chapter 4 for graphic representations.)

NOTE: Use live demonstrators for showing correct firing positions and reflexive fire techniques.

- Use the following graphic of a freestanding door used for training live-fire ballistic lock/hinge breaching procedures to demonstrate the proper dimensions.

NOTE: Barricades should be approximately the same height as the target. The barricade should measure about 72 inches high and 48 inches wide. One-inch thick environmentally treated plywood sheets (4 by 8 feet), with two feet taken off of the longest end, provides the required dimensions and durability. The barricade frame and supports consist of 2- by 4-foot boards that are anchored to the ground and have an 18-inch wide and 36-inch high window-style opening approximately 36 to 42 inches from the bottom of the barricade.

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Appendix C

Range Safety and Risk Management

When conducting transition fire, qualification, and dry fire/live fire exercises using the M26 MASS, units should follow the safety procedures outlined in TM 9-1005-341-10, ATP 5-19, and this manual. Units should develop local directives and SOPs that include location and sequence of operations, individual responsibilities, and safety requirements, proximity limits for personnel and ammunition, and equipment required for handling munitions.

RANGE SAFETY

C-1. All personnel receiving training on an M26 MASS dry-fire or live-fire range should be briefed on the safety and local requirements for the range. The range safety briefing must meet the minimum requirements outlined in AR 350-19, AR 385-10, and AR 385-63. These regulations should be reviewed by all range personnel before operating any range.

RANGE SAFETY PERSONNEL

C-2. Safety is paramount during live-fire and laser operations. The units using the range select all range personnel and schedule them to attend installation or community safety instruction before obtaining battalion commander safety certification. These safety certification programs train and qualify selected personnel on range duties for firing exercises or maneuver operations.

C-3. Range personnel include—

- Officer-in-charge (OIC).
- Range safety officer (RSO).
- Laser range safety officer (LRSO) (if required).

Officer-in-Charge

C-4. The OIC handles the overall safety of the training and the proper use of the training facility. Range operations and personnel requirements are according to AR 210-20, AR 385-63, DA Pam 385-63, and the local safety SOP.

Range Safety Officer/Laser Range Safety Officer

C-5. The RSO/LRSO is a commissioned officer, a warrant officer (WO), an NCO, or a civilian in the rank/grade established in DA Pam 385-63. He makes the final determination to fire. He must be M26 MASS-qualified. The RSO/LSRO must be present on the training complex and have no other duties for the period of training. Assistant range safety officers (ARSO) may be appointed, as required.

LASER RANGE SAFETY

C-6. The fundamental concept of laser range safety is to prevent injury or damage resulting from laser use. Personnel using or supervising lasers must be thoroughly familiar with all aspects of laser operations and the associated dangers. The following guidelines are used when employing lasers:

- Tactical lasers are treated as direct-fire weapons. Precautions associated with direct-fire weapons are applied to all lasers operated on military ranges.
- Established boundaries for laser range operations and laser use in training conform to the provisions in DA Pam 385-63 and applicable TMs. Deviations may be approved after applying risk management techniques, minimizing hazards, and accepting the residual risk at the

appropriate command level. Reduced surface danger zones (SDZs) for lasers terminated within the range boundary do not require deviation.

- Before units commence laser operations, a laser safety orientation must be given to all personnel who use or work with laser devices. During this orientation, the LRSO must explain the hazards and safety requirements.
- Laser devices are used only on ranges approved for such use. A survey of the proposed lasing and target area is accomplished to determine laser elevation and azimuth limits within the SDZ. Laser targets are not located on the skyline (above a backstop). Restrictions are applied to prevent lasing above the target line. Range limit markers may be used if they provide an adequate margin of safety. Installation commanders may authorize deviation after applying risk assessment procedures, reducing hazards, and accepting residual risks at the appropriate command level.

FIRING ANGLE LIMITATIONS

C-7. SDZs (see Figure C-1) represent the minimum range safety requirements. They are adequate only when employed with properly functioning safety equipment and devices and when trained and competent personnel follow published firing procedures.

C-8. The SDZ for firing range comprises a firing area, a target area, an impact area, and danger areas surrounding these locations. An additional area for occupation by personnel during firings may be required. The shape and size of the SDZ varies with the type of ammunition being fired.

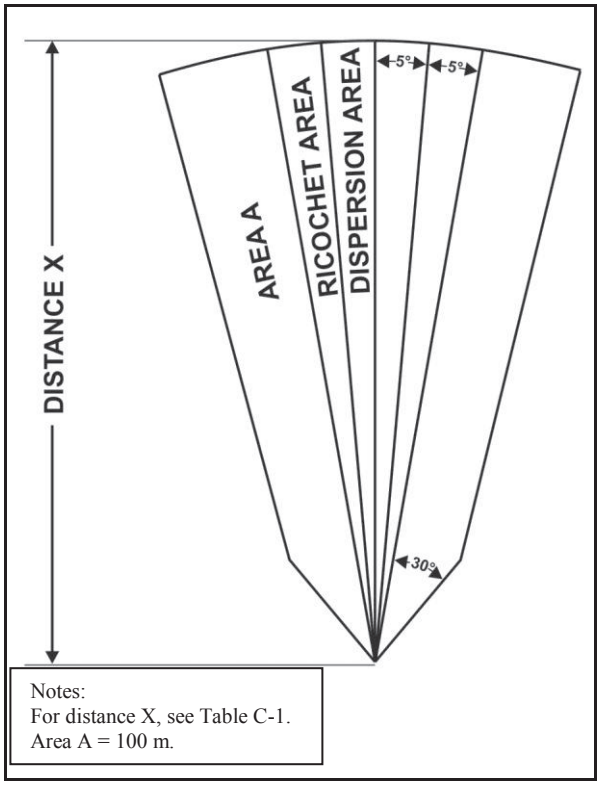


Figure C-1. SDZ for shotguns firing at a fixed ground target

C-9. Figure C-1 depicts the SDZ for shotguns firing from a single firing position along the line of fire to a single target, also known as a gun-target line (GTL).

- When the nature or extent of training requires multiple firing positions, the SDZ in Figure C-1 is bisected longitudinally and the GTL expanded to accommodate multiple targets. This establishes left and right limits of fire.

- When the nature or extent of training requires moving targets, the SDZ in Figure C-1 is bisected longitudinally and the GTL expanded to accommodate moving targets. This establishes the left and right limits of fire.

C-10. Live-fire maneuver areas requiring multiple or composite SDZs must be constructed on the basis of each weapon, ammunition, and target engagement scenario.

NOTE: Refer to DA Pam 385-63, Appendix C for more information.

C-11. Figure C-2 depicts the SDZ for direct-fire weapons with explosive projectiles, firing from a single firing position along the GTL to a single target.

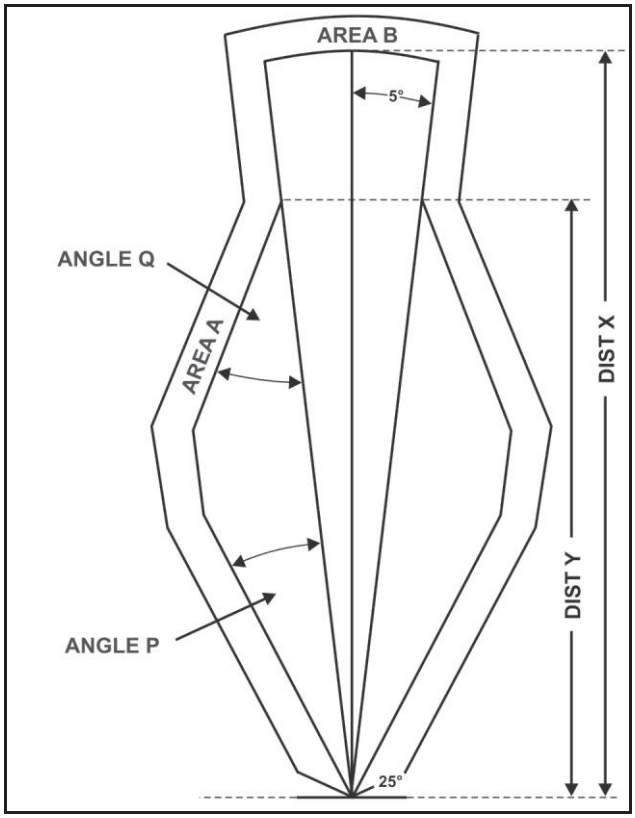


Figure C-2. SDZ dimensions for direct-fire weapons with explosive projectiles

C-12. Table C-1 provides SDZ dimensions with corresponding deflection values (area W, angles P and Q) for engaging various target media, earth, water, steel, or concrete for small arms, machine guns, shotguns, and other direct-fire weapons without explosive projectiles.

Table C-1. SDZs for direct-fire weapons without explosive projectiles

CALIBER	IMPACT MEDIA	DISTANCE X	DISTANCE Y	AREA W	VERTICAL HAZARD	ANGLE P	ANGLE Q
12-gauge buckshot	Earth/water	1,073 m	710 m	125 m	136 m	21.96 degrees	33.34 degrees
	Steel/concrete	1,073 m	830 m	287 m	197 m	56.91 degrees	40.17 degrees

NOTE: SDZ requirements used during training for shotgun firing will be according to Figure C–1 and Figure C-2, and Table C-1. These figures and Table C-1 are according to DA Pam 385-63, Figure 6-1.

RANGE PREPARATIONS

C-13. The M26 MASS safety program and range requirements for training and live-fire are like operating a rifle range. Key areas of range setup and range conduct should include—

- Assigning key personnel (OIC, RSO, and LSRO [if required]).
- Certifying key range personnel.
- Assigning range duty personnel (ARSOs, ammunition detail, assistant instructors, point guards [if required], medical personnel, control tower operators [if required], and unit maintenance personnel.)
- Scheduling range visits for key and duty personnel.
- Developing a range operations checklist.
- Performing risk management and assessment of training according to AR 385-10, ADP 7-0, and ATP 5-19.

NOTE: Refer to FM 3-22.9 for more information about operating a rifle range.

TRANSITION/QUALIFICATION RANGE

C-14. M26 transition (familiarization) and qualification live-fire training, and SRM training are conducted on a standard 25-meter range.

NOTE: See Firing Angle Limitations (in this appendix) if more than one shooter is on the firing line.

C-15. Transition and qualification are baseline engagements. Soldiers must engage E-type silhouette targets set 25 meters from the firing line. Safety measures and fire commands used to control baseline fires are like those used during rifle fires.

NOTE: See Chapter 4 for more information about MASS firing positions. (Refer to FM 3-22.9 for more information about rifle fire safety measures and fire commands.)

C-16. SRM training requirements have both baseline and movement live-fire phases. As a minimum, Soldiers should be qualified on their individual weapon within the previous six months. Reflexive dry-fire drills are an essential part of the training process and should be conducted by team or squad leaders during TLPs and before SRC or SRM live-fire training. Safety measures and fire commands used to control SRM fires are like those used during rifle fires.

NOTE: See Chapter 4 for more information about SRM training. (Refer to FM 3-22.9 for more information on SRC and SRM training.)

BALLISTIC DOOR-BREACHING

C-17. Ballistic door-breaching live-fire exercises conducted at a breach facility or performed on an approved training aid require that Soldiers wear complete body armor and eye protection. Door-breaching dry-fire drills are an essential part of the training process and should be conducted by team or squad leaders during TLPs and before door-breaching live-fire training.

NOTE: See Appendix C and Chapter 5 for more information about ballistic door-breaching live fire exercises. See Appendix D tasks: Conduct a Ballistic Door Breach with M26 Modular Accessory Shotgun System (MASS) in the mounted configuration (Record and Practice Fire), and Conduct a Ballistic Door Breach with M26 Modular Accessory Shotgun System (MASS) in the Stand-Alone Configuration (Record and Practice Fire).

RANGE PROCEDURES

C-18. Selected key personnel (OIC, RSO, and LSRO [if required]) prepare the range for occupation. Table C-2 provides an example of required range procedures performed before, during, and after training.

Table C-2. Example of required range procedures performed before, during, and after training

BEFORE	*DURING*	*AFTER*
Request occupation. Occupy the range. • Establish communications. • Assign range duty positions. • Open range facilities (latrines, storage buildings, ammunition storage points, and so forth). • Store ammunition according to DA Pam 385-63 and installation SOPs. • Set up targets. If automated, raise and lower targets. • Set up training aids. • Check range operations checklist. **NOTE:** Use the range operations checklist in FM 3-22.9. Add or delete steps not appropriate to the shotgun.	Give the range briefing. Establish firing orders. Provide firing instructions. Provide remedial training, if needed. Record all firing data. Brief Soldiers on individual results.	Clean up the range. Conduct equipment and ammunition accountability. Secure or transport ammunition to an ammunition holding area. Close the range.

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Appendix D

Actions, Conditions, and Standards

Chapter 4 and Chapter 5 provide M26 MASS training steps and procedures. Appendix A provides the performance measures. This appendix provides the training condition and standard for each MASS action.

PRELIMINARY TRAINING ACTIONS

Action	Disassemble an M26 MASS.
Condition	Given a MASS and the MASS cleaning kit. The MASS's breech is closed, no magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position.
Standard	Disassembled the MASS within 30 seconds. Performed all steps according to TM 9-1005-341-10. Caused no damage to the MASS.

Action	Maintain an M26 MASS.
Condition	Given a MASS disassembled down to the operator level of maintenance, the MASS cleaning kit, clean rags, and the appropriate weapon lubricant.
Standard	Performed PMCS of the MASS within five minutes. Performed all steps according to TM 9-1005-341-10. Caused no damage to the MASS.

Action	Assemble the M26 MASS.
Condition	Given a MASS disassembled down to the operator level of maintenance and the MASS cleaning kit. The MASS is serviceable and lubricated.
Standard	Assembled the MASS within 30 seconds. Performed all steps according to TM 9-1005-341-10. Caused no damage to the MASS.

Action	Place the M26 MASS in the mounted configuration.
Condition	Given a MASS, a host weapon (M4), and the MASS cleaning kit. The MASS's breech is closed, no magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position. The host weapon's breech is closed, no magazine is loaded, no round is chambered, and the safety selector is in the SAFE position.
Standard	Installed the MASS on the host weapon (M4) within one minute. Performed all steps according to TM 9-1005-341-10 and FM 3-22.9. Caused no damage to the MASS or the host weapon.

Action	Remove the M26 MASS from the mounted configuration.
Condition	Given a MASS mounted to a host weapon (M4), the MASS cleaning kit, and the host weapon's lower rail or hand guard (was removed when the MASS was mounted). The MASS's breech is closed, no magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position. The host weapon's breech is closed, no magazine is loaded, no round is chambered, and the safety selector is in the SAFE position.
Standard	Removed the MASS from the host weapon (M4) within one minute, and restored the host weapon to its original configuration. Performed all steps according to TM 9-1005-341-10 and FM 3-22.9. Caused no damage to the MASS or the host weapon.

Action	Place the M26 MASS in the stand-alone configuration.
Condition	Given the MASS with stand-alone kit components and the MASS cleaning kit. The MASS's breech is closed, no magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position.
Standard	Assembled the MASS in the stand-alone configuration within three minutes. Performed all steps according to TM 9-1005-341-10. Caused no damage to the MASS.

Action	Disassemble the M26 MASS from the stand-alone configuration.
Condition	Given the MASS in the stand-alone configuration and the MASS cleaning kit. The MASS's breech is closed, no magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position.
Standard	Disassembled the MASS from the stand-alone configuration within three minutes. Performed all steps according to TM 9-1005-341-10. Caused no damage to the MASS.

Action	Load an M26 MASS.
Condition	Given a MASS in the mounted (M4) or stand-alone configuration, a MASS magazine loaded with 5 shotgun dummy rounds, and a host weapon magazine (mounted system). The MASS's breech is closed, no magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position. The host weapon's breech is closed, no magazine is loaded, no round is chambered, and the safety selector is in the SAFE position.
Standard	Performed the following tasks within 15 seconds of receiving the command “load:” • Inserted and locked the magazine into the MASS. • Chambered a round of ammunition. • Performed a system function check. Performed all steps according to TM 9-1005-341-10. Caused no damage to the MASS or the host weapon.

Action	Take immediate action for an M26 MASS malfunction.
Condition	Given a MASS in the mounted (M4) or stand-alone configuration, a MASS magazine loaded with 5 shotgun dummy rounds, and a host weapon magazine (mounted system). The MASS's breech is closed, no magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position. If in the mounted configuration, the host weapon's breech is closed, no magazine is loaded, no round is chambered, and the safety selector is in the SAFE position.
Standard	Performed immediate action steps and procedures to correct a weapon malfunction (failure to feed, fire, extract, and eject), when alerted. Corrected each malfunction within 15 seconds. Performed all steps according to TM 9-1005-341-10. Caused no damage to the MASS or the host weapon.

Action	Unload an M26 MASS.
Condition	Given a MASS in the mounted (M4) or stand-alone configuration, a MASS magazine loaded with a shotgun dummy round, and a host weapon magazine (mounted system). The MASS's breech is closed, no magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position. If in the mounted configuration, the host weapon's breech is closed, no magazine is loaded, no round is chambered, and the safety selector is in the SAFE position.
Standard	Performed the following tasks within 5 seconds of receiving the command “unload:” • Removed the MASS magazine. • Performed a system function check. Performed all steps according to TM 9-1005-341-10. Caused no damage to the MASS or the host weapon.

Action	Identify M26 MASS lethal and nonlethal ammunition.
Condition	Given MASS lethal and nonlethal shotgun ammunition training aids, paper, and a pencil.
Standard	Identified MASS lethal and nonlethal rounds of ammunition and explained their purposes.

PRELIMINARY MARKSMANSHIP ACTIONS

Action	Demonstrate the five M26 MASS firing positions.
Condition	Given an engagement situation, a MASS in the mounted (M4) or stand-alone configuration with devices mounted according to the unit SOP, a MASS magazine, a host weapon magazine (mounted system), a freestanding barrier with a window-size aperture, and an E-type silhouette target. The MASS's breech is closed, no magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position. If in the mounted configuration, the host weapon's breech is closed, no magazine is loaded, no round is chambered, and the safety selector is in the SAFE position.
Standard	Correctly assumed the following firing positions within 5 seconds of receiving the command: standing, kneeling, crouching, standing (strong-side barricade supported), and standing (barricade supported) through a barricade window opening. Performed all steps according to TM 9-1005-341-10. Caused no damage to the MASS or the host weapon.

Action	Demonstrate M26 MASS short-range marksmanship techniques.
Condition	Day. Given an engagement situation; a MASS in the mounted (M4) or stand-alone configuration with devices mounted according to the unit SOP; a unit-prescribed uniform with helmet, interceptor body armor, protective glasses/goggles, and hearing protection; four MASS magazines loaded with dummy rounds (4 rounds per magazine); a host weapon magazine; and an E-type silhouette target. The MASS's breech is closed, no magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position. If in the mounted configuration, the host weapon's breech is closed, no magazine is loaded, no round is chambered, and the safety selector is in the SAFE position.
Standard	Demonstrated the proper techniques for engaging a stationary target at 5-, 10-, and 25-meters. Performed the correct reflexive firing stance, weapon ready position (high ready/low ready), weapon control procedures, and daytime loading procedures, with night vision devices and while wearing a protective mask. Performed all steps according to TM 9-1005-341-10 and FM 3-22.9. Caused no injury to personnel or damage to the MASS or the host weapon.

Action	Demonstrate M26 MASS door-breaching techniques.
Condition	Given an engagement situation, the MASS in the mounted (M4) or stand-alone configuration with devices mounted according to the unit SOP, two MASS magazines loaded with 8 shotgun dummy rounds (4 rounds per magazine), a host weapon magazine (mounted system), and a solid wooden door or a freestanding framed door (or one-inch thick plywood) closed within a wooden door frame with a locked door knob and with hinges exposed/not exposed. The MASS's breech is closed, a 4-round magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position. If in the mounted configuration, the host weapon's breech is closed, no magazine is loaded, no round is chambered, and the safety selector is in the SAFE position.
Standard	Demonstrated the correct methods for conducting a ballistic door breach (lock and hinges) within 15 seconds (5 seconds for a door lock, 10 seconds for hinges and changing out magazines). Caused no damage to the M26 MASS or the host weapon.

BASIC MARKSMANSHIP ACTIONS

Action	Zero the M26 MASS in the mounted configuration.
Condition	On a 25-meter or modified field-fire range. Given a MASS in the mounted configuration (M4) with devices mounted according to the unit SOP; a unit-prescribed uniform with helmet, interceptor body armor, protective glasses/goggles, and hearing protection; one MASS magazine loaded with 3 rounds; a host weapon magazine; the MASS cleaning kit; a 300-meter M16A2/M4 zero target placed on a standard E-type silhouette target; and sandbags for support. The MASS's breech is closed, a 4-round magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position. If in the mounted configuration, the host weapon's breech is closed, no magazine is loaded, no round is chambered, and the safety selector is in the SAFE position.
Standard	Zeroed the MASS while mounted to the host weapon (M4). Maintained the host weapon's aimpoint on a 25-meter M16A2/M4 zero target circle's center of mass, while firing the MASS. Adjusted the MASS's elevation block sight so that 1 out of 3 shotgun rounds fired in two consecutive shot groups strike within 6 inches of the circle. Performed all steps according to TM 9-1005-341-10 and FM 3-22.9. Caused no injury to personnel or damage to the MASS or the host weapon.

Action	Zero the M26 MASS in the stand-alone configuration.
Condition	On a 25-meter or modified field-fire range. Given a MASS in the stand-alone configuration with devices mounted according to the unit SOP; a unit-prescribed uniform with helmet, interceptor body armor, protective glasses/goggles, and hearing protection; one MASS magazine loaded with 3 rounds; the MASS cleaning kit; a 300-meter M16A2/M4 zero target placed on a standard E-type silhouette target; and sandbags for support. The MASS's breech is closed, a magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position.
Standard	Zeroed the M26 MASS by adjusting the MASS's elevation block sight so that one 1 of 3 shotgun rounds fired in two consecutive shot groups strikes within 6 inches of the circle on the 25-meter M16A2/M4 zero target. Performed all steps according TM 9-1005-341-10. Caused no injury to personnel or damage to the MASS.

Action	Engage a stationary target with the M26 MASS in the mounted configuration.
Condition	Day. On a 25-meter or modified field-fire range. Given a MASS in the mounted configuration (M4) with devices mounted according to the unit SOP; a unit-prescribed uniform with helmet, interceptor body armor, protective glasses/goggles, and hearing protection; one M26 MASS magazine loaded with 3 rounds of buckshot; a host weapon magazine; one standard E-type silhouette target; and target pasters. The MASS's breech is closed, a magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position. The host weapon's breech is closed, a magazine is loaded, no round is chambered, and the safety selector is in the SAFE position.
Standard	Engaged a stationary target at 25 meters. Scored at least two buckshot pellets per round in the target, while standing, kneeling, and crouching. Performed all steps according to TM 9-1005-341-10 and FM 3-22.9. Caused no injury to personnel or damage to the MASS or the host weapon.

Action	Engage a stationary target with the M26 MASS in the stand-alone configuration.
Condition	Day. On a 25-meter or modified field-fire range. Given a MASS in the stand-alone configuration with devices mounted according to the unit SOP; a unit-prescribed uniform with helmet, interceptor body armor, protective glasses/goggles, and hearing protection; one M26 MASS magazine loaded with 3 rounds of buckshot; one standard E-type silhouette target; and target pasters. The MASS's breech is closed, a magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position.
Standard	Engaged a stationary target at 25 meters. Scored at least two buckshot pellets per round in the target, while standing, kneeling, and crouching. Performed all steps according to TM 9-1005-341-10. Caused no injury to personnel or damage to the MASS.

Action	Engage a stationary target with the M26 MASS in the mounted configuration (record fire).
Condition	Day. On a 25-meter or modified field-fire range. Given a MASS in the mounted configuration (M16/M4) with devices mounted according to the unit SOP; a unit-prescribed uniform with helmet, interceptor body armor, protective glasses/goggles, and hearing protection; three M26 MASS magazines loaded with 10 rounds of buckshot (two magazines with 4 rounds and one magazine with 2 rounds); a host weapon magazine; five standard E-type silhouette targets; target pasters; and a firing barricade supported by 2 by 4 foot boards anchored to the ground. The MASS's breech is closed, a magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position. The host weapon's breech is closed, a magazine is loaded, no round is chambered, and the safety selector is in the SAFE position. **NOTE:** The barricade should measure about 72 inches by 48 inches, with an opening (window) cut 36 to 42 inches from the bottom of the barricade.
Standard	Engaged five stationary targets at 25 meters with the M26 MASS mounted to the host weapon (M4). Scored at least two buckshot pellets per round in the target, while standing, kneeling, crouching, standing (strong-side barricade supported), and standing (barricade supported) through barricade window opening. Performed all steps according to TM 9-1005-341-10 and FM 3-22.9. Caused no injury to personnel or damage to the MASS or the host weapon.

Action	Engage a stationary target with the M26 MASS in the stand-alone configuration (record fire).
Condition	Day. On a 25-meter or modified field-fire range. Given a MASS in the stand-alone configuration with devices mounted according to the unit SOP; a unit-prescribed uniform with helmet, interceptor body armor, protective glasses/goggles, and hearing protection; three MASS magazines loaded with 10 rounds of buckshot (two magazines with 4 rounds and one magazine with 2 rounds); five standard E-type silhouette targets; target pasters; and a firing barricade supported by 2 by 4 foot boards anchored to the ground. The MASS's breech is closed, a magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position. **NOTE:** The barricade should measure about 72 inches by 48 inches, with an opening (window) cut 36 to 42 inches from the bottom of the barricade.
Standard	Engaged five stationary targets at 25 meters. Scored at least two buckshot pellets per round in the target while standing, kneeling, crouching, standing (strong-side barricade supported), and standing (barricade supported) through barricade window opening. Performed all steps according to TM 9-1005-341-10. Caused no injury to personnel or damage to the MASS.

ADVANCED MARKSMANSHIP ACTIONS

Action	Conduct short-range marksmanship with the M26 MASS in the mounted configuration (record and practice fire).
Condition	Day. On a 25-meter or modified field-fire range. Given a MASS in the mounted configuration (M4) with devices mounted according to the unit (SOP); a unit-prescribed uniform with helmet, interceptor body armor, protective glasses/goggles, and hearing protection; four MASS magazines loaded with 16 rounds of buckshot (4 rounds per magazine); a host weapon magazine; five standard E-type silhouette targets; and target pasters. The MASS's breech is closed, a magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position. The host weapon's breech is closed, a magazine is loaded, no round is chambered, and the safety selector is in the SAFE position.
Standard	Engaged five stationary targets at 5-, 10-, and 25-meters using reflexive fire techniques (high ready/low ready), weapon control, and loading procedures. Scored 16 hits day and night (14 day and 12 at night when wearing a protective mask), with at least two buckshot pellets per round within the lethal zone. Performed all steps according to TM 9-1005-341-10 and FM 3-22.9. Caused no injury to personnel or damage to the MASS or the host weapon.

Action	Conduct short-range marksmanship with the M26 MASS in the stand-alone configuration (record and practice fire).
Condition	Day. On a 25-meter or modified field-fire range. Given a MASS in the stand-alone configuration with devices mounted according to the unit SOP; a unit-prescribed uniform with helmet, interceptor body armor, protective glasses/goggles, and hearing protection; four M26 MASS magazines loaded with 16 rounds of buckshot (4 rounds per magazine); five standard E-type silhouette targets; and target pasters. The MASS's breech is closed, a magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position.
Standard	Engaged five stationary targets at 5-, 10-, and 25-meters. Scored 14 out 16 hits day and night (12 day and 10 at night when wearing a protective mask) with at least two buckshot pellets per round within the lethal zone. Performed all steps according to TM 9-1005-341-10. Caused no injury to personnel or damage to the MASS.

Action	Conduct a ballistic door breach with the M26 MASS in the mounted configuration (record and practice fire).
Condition	Day. On a 25-meter or modified field fire range. Given a MASS in the attached configuration (M4) with devices mounted according to the unit SOP; a unit-prescribed uniform with helmet, complete interceptor body armor (vest, collar, groin shield, plates), gloves, protective goggles/shield, and hearing protection; two MASS magazines loaded with 8 rounds of buckshot (4 rounds per magazine); a host weapon magazine; a solid wooden door or a freestanding framed door (or 1-inch thick plywood) closed within a wooden door frame with a locked door knob and with hinges exposed/not exposed. The MASS's breech is closed, a magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position. The host weapon's breech is closed, a magazine is loaded, no round is chambered, and the safety selector is in the SAFE position.
Standard	Conducted a multiple ballistic door breach within 15 seconds. Breached a door-locking mechanism using 2 rounds of buckshot within 5 seconds of receiving the command “UP." Breached upper, middle, and lower door hinges using 6 rounds of buckshot within 10 seconds of receiving the command “UP." Completed the breaching, and transitioned to the host weapon safely. Caused no injury to personnel or damage to the MASS or the host weapon.

Action	Conduct a ballistic door breach with the M26 MASS in the stand-alone configuration (record and practice fire).
Condition	Day. On a 25-meter or modified field fire range. Given a MASS in the stand-alone configuration with devices mounted according to the unit SOP; a unit-prescribed uniform with helmet, complete interceptor body armor (vest, collar, groin shield, plates), gloves, protective goggles/shield, and hearing protection; two M26 MASS magazines loaded with 8 rounds of buckshot; a solid wooden door or a freestanding framed door (or 1-inch thick plywood) closed within a wooden door frame with a locked door knob and with hinges exposed/not exposed. The MASS's breech is closed, a magazine is loaded, no round is chambered, and the safety mechanism is in the SAFE position.
Standard	Conducted a multiple ballistic door breach within 15 seconds. Breached a door-locking mechanism using 2 rounds of buckshot or slugs within 5 seconds of receiving the command of “UP.” Breached upper, middle, and lower door hinges using 6 rounds of buckshot within 10 seconds of receiving the command of “UP.” Caused no injury to personnel or damage to the MASS.

Action	Conduct nonlethal marksmanship with the M26 MASS in the mounted configuration.
Condition	Day. On a 25-meter or modified field fire range. Given a MASS in the mounted configuration (M4) with devices mounted according to the unit SOP; a unit-prescribed uniform with helmet, interceptor body armor, gloves, protective goggles/shield, and hearing protection; one MASS magazine loaded with five MASS dummy rounds (loaded in weapon); one MASS magazine loaded with five M1012 nonlethal rounds; one MASS magazine loaded with five M1013 nonlethal rounds; a host weapon magazine; and five grouped E-type silhouette targets. The MASS's breech is closed, magazine is loaded with dummy rounds, a round is chambered, and the safety mechanism is in the SAFE position. The host weapon's breech is closed, a magazine is loaded, no round is chambered, and the safety selector is in the SAFE position.
Standard	Engaged five stationary targets within 30 seconds. Performed the following tasks within 10 seconds of receiving the command “switch magazines:” • Unloaded MASS lethal rounds (dummy rounds). • Cleared the weapon. Performed the following tasks within 20 seconds of receiving the command “UP:” • Loaded a magazine with M1012 nonlethal rounds. • Engaged five nonlethal targets. Performed the following tasks within 10 seconds of receiving the command “UP:” • Loaded a magazine with M1013 nonlethal rounds. • Engaged five nonlethal targets. Scored 10 hits. Caused no injury to personnel or damage to the MASS or the host weapon.

Action	Conduct nonlethal marksmanship with the M26 MASS in the stand-alone configuration.
Condition	Day. On a 25-meter or modified field fire range. Given a MASS in the stand-alone configuration with devices mounted according to the unit SOP; a unit-prescribed uniform with helmet, interceptor body armor, gloves, protective goggles/shield, and hearing protection; one MASS magazine loaded with five MASS dummy rounds (loaded in weapon); one MASS magazine loaded with five M1012 nonlethal rounds; one MASS magazine loaded with five M1013 nonlethal rounds; and five grouped E-type silhouette targets. The MASS's breech is closed, the magazine is loaded with dummy rounds, a round is chambered, and the safety mechanism is in the SAFE position.
Standard	Engaged five stationary targets with nonlethal rounds within 30 seconds. Performed the following actions within 10 seconds of receiving the command “switch magazines:” • Unloaded MASS lethal rounds (dummy rounds). • Cleared the weapon. Performed the following actions within 20 seconds of receiving the command “UP:” • Loaded the magazine with M1012 nonlethal rounds. • Engaged five nonlethal targets. Performed the following actions within 10 seconds of receiving the command “UP:” • Loaded the magazine with M1013 nonlethal rounds. • Engaged five nonlethal targets. Scored 10 hits. Caused no injury to personnel or damage to the MASS.

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Glossary

Acronym/Term	Definition
AAR	after action review
CACTF	combined arms collective training
CBRN	chemical, biological, radiological, nuclear
CLP	cleaner, lubricant, and preservative
DODAC	Department of Defense ammunition code
EST	engagement skills trainer
HTT	human type target
LAW	lubricant arctic weather
LFX	live fire exercise
LRSO	laser range safety officer
LSA	liquid semi-fluid automatic weapon
MASS	Modular Accessory Shotgun System
METL	mission essential task list
MOPP	mission-oriented protective posture
NVD	night vision device
OIC	officer-in-charge
PMCS	preventive maintenance checks and services
RBC	rifle bore cleaning
ROE	rules of engagement
RSO	range safety officer
SDZ	surface danger zone
SOP	standard operating procedure
SRC	short-range combat
SRM	short-range marksmanship
STRAC	Standards in Training Commission
TBD	to be determined
TLP	troop leading procedure
TTP	tactics, techniques, and procedures
TM	technical manual

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References

REQUIRED PUBLICATIONS

ADRP 1-02, *Terms and Military Symbols*, 24 September 2013.

JP 1-02, *Department of Defense Dictionary of Military and Associated Terms*, 8 November 2010.

RELATED PUBLICATIONS

Most Army doctrinal publications and regulations are available at: http://www.apd.army.mil.
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