SOLDIER'S MANUAL AND TRAINER'S GUIDE

MOS 11M
FIGHTING VEHICLE INFANTRYMAN
SKILL LEVELS 1/2/3/4

HEADQUARTERS

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PREFACE

This publication is for skill levels 1 through 4 soldiers holding military occupational specialty 11M and for trainers and first-line supervisors. It contains standardized training objectives, in the form of task summaries, to train and evaluate soldiers on critical tasks that support unit missions during wartime. Soldiers having the MOS 11M must have access to the basic task manual, STP 7-11BCHM14-SM-TG, which contains tasks shared by all infantry MOSs. Trainers and first-line supervisors should ensure soldiers holding MOS 11M14 have access to STP 7-11M14-SM-TG and to STP 7-11BCHM14-SM-TG. These publications should be made available in the soldier's work area, unit learning center, and unit libraries.

This manual applies to both Active and Reserve Component soldiers.

The proponent of this publication is the United States Army Infantry School. Send comments and recommendations on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to the Commandant, United States Army Infantry School, ATTN: ATSH-OTT-T, Fort Benning, GA 31905-5593.

Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.

CHAPTER 1

INTRODUCTION

1-1. GENERAL

This soldier's manual (SM) identifies the individual military occupational specialty training requirements for soldiers in MOS 11M. Commanders, trainers, and soldiers should use it to plan, conduct, and evaluate individual training in units. This manual is the primary MOS reference to support the self-development and training of every soldier. It is used with the Soldier's Manuals of Common Tasks (STP 21-1-SMCT and STP 21-24-SMCT), Army training and evaluation programs (ARTEPs), and FM 25-101 to establish effective training plans and programs that integrate soldier, leader, and collective tasks.

1-2. TASK SUMMARIES

Task summaries outline the wartime performance requirements of each critical task in the SM.

They provide the soldier and the trainer with the information necessary to prepare, conduct, and evaluate critical task training. As a minimum, task summaries include information the soldier must know and the skills that he must perform to standard for each task. The format for the task summaries included in this SM are as follows:

a. **Task Number**. A 10-digit number identifies each task or skill. This task number, along with the task title, must be included in any correspondence relating to the task.

b. **Task Title**. The task title identifies the action to be performed.

c. **Conditions**. The task conditions identifies all the equipment, tools, references, job aids, and supporting personnel that the soldier needs to perform the task in wartime. This section identifies any environmental conditions that can alter task performance, such as visibility, temperature, or wind. This section also identifies any specific cues or events (a chemical attack or identification of a threat vehicle) that trigger task performance.

d. **Standards**. The task standards describe how well and to what level the soldier must perform the task under wartime conditions. Standards are typically described in terms of accuracy, completeness, and speed.

e. **Training and Evaluation**. The training and evaluation section identifies specific actions, known as performance measures, the soldier must do to successfully complete the task. These actions are in the evaluation guide section of the task summary and listed in a pass or fail format for easy evaluation. For some tasks, the training and evaluation section may also

include detailed training information in a training information outline and an evaluation preparation section. The evaluation preparation section indicates necessary modifications to task performance in order to train and evaluate a task that cannot be trained to the wartime conditions. It may also include special training and evaluation preparation instructions to accommodate these modifications and any instructions that should be given to the soldier before evaluation.

f. **References**. This section identifies references that provide more detailed and thorough explanations of task performance requirements than those given in the task summary description.

g. **Warnings**. Warnings alert users to the possibility of immediate personal injury or damage to equipment.

h. **Notes**. Notes provide a supportive explanation or hint that relates to the performance standards.

1-3. SOLDIER'S RESPONSIBILITIES

Each soldier is responsible for performing individual tasks that the first-line supervisor identifies based on the unit's mission-essential task list (METL). The soldier must perform the task to the standards listed in the SM. If a soldier has a question about how to do a task or which tasks he must perform, he is responsible for asking the first-line supervisor for clarification. The first-line supervisor knows how to perform each task, or he can direct the soldier to the appropriate training materials.

1-4. NCO SELF-DEVELOPMENT AND THE SOLDIER'S MANUAL

Self-development is one of the key components of the leader development program. It is a planned, progressive, and sequential program followed by leaders to enhance and sustain their military competencies. It consists of individual study, research, professional reading, practice, and self-assessment. Under the self-development concept, the NCO, as an Army professional, has the responsibility to remain current in all phases of MOS proficiency and knowledge of the entire MOS, as well as leadership and training management. The SM is an important study reference for the NCO to use in preparing for training. Another important resource for NCO self-development is the Army Correspondence Course Program (ACCP). DA Pamphlet 351-20 contains information on enrolling in this program and a list of courses, or the NCO can write to: Army Institute for Professional Development, U.S. Army Training Support Center, ATTN: ATIC-IPS, Newport News, VA 23628.

l-5. TRAINING SUPPORT

This manual includes the following appendixes and information:

a. **Appendix A, Proponent School or Agency Codes**. This appendix lists the proponent schools or agency codes, which can be identified by the first three digits of the task number.

b. **Appendix B, DA Form 5165-R (Field Expedient Squad Book)**. This appendix provides a copy of overprinted DA Forms 5165-R for the tasks in this SM. The NCO trainer can use this form to set up the leader book described in FM 25-101, Appendix B. The use of this form may help preclude writing the soldier tasks associated with the unit's METL, and can become part of the leader book.

c. **Appendix C, DA Form 5164-R (Hands-On Evaluation)**. This appendix shows an example of a completed DA Form 5164-R.

d. **Appendix D, Critical Tasks**. This appendix lists all 11M critical tasks by skill level.

e. **Appendix E, Bradley Gunnery Skills Test Guide and Performance Checklists.** This appendix has been added to the SM for the soldier's convenience.

f. **Glossary**. The glossary, which follows the last appendix, is a single comprehensive list of acronyms, abbreviations, definitions, and letter symbols.

g. **References**. This section contains two lists of references that support training of all tasks in this SM. "Needed" references are listed in the conditions statement and are required for the soldier to do the task. "Recommended" references are materials that help a trainer prepare for the task but are not required to perform the task.

CHAPTER 2

TRAINER'S GUIDE

2-1. GENERAL

The trainer's guide (TG) identifies the essential components of a unit training plan for individual training. Units have different training needs and requirements based on differences in environment, location, equipment, dispersion, and similar factors. Therefore, the TG is a guide to conduct unit training and not a rigid standard. It provides information necessary for planning training requirements for the MOS as follows:

a. Identifies subject areas in which soldiers must be trained.

b. Identifies the critical tasks for each subject area.

c. Specifies where soldiers are initially trained on each task.

d. Recommends how often to train each task to sustain proficiency.

e. Recommends a strategy to cross-train soldiers.

f. Recommends a strategy to train soldiers to perform higher-level tasks.

2-2. BATTLE-FOCUSED TRAINING

As described in FM 25-100 and FM 25-101, the commander must first define the mission-essential task list (METL) as the basis for unit training. Unit leaders use the METL to identify the collective, leader, and soldier tasks that support accomplishment of the METL. Unit leaders then assess the status of training and lay out the training objectives and the plan for accomplishing needed training. Once leaders prepare the long-range and short-range plans, they execute and evaluate training. Finally, they reassess the unit's training preparedness, and the training management cycle begins again. This process ensures that the unit has identified what is important for the wartime mission, that the training focus is applied to the necessary training, and that training meets established objectives and standards.

2-3. RELATIONSHIP OF SOLDIER TRAINING PUBLICATIONS TO BATTLE-FOCUSED TRAINING

The two key components of STPs are the TG and SM, which give leaders important information to help in the battle-focused training process. The TG relates soldier and leader tasks in the MOS and skill level to duty positions and equipment. It provides information on

where the task is trained, how often training should occur to sustain proficiency, and who in the unit should be trained. As leaders go through the assessment and planning stages, they should use the TG as an important tool to identify what needs to be trained.

a. The execution and evaluation of leader and soldier training should rely on the Armywide training objectives and standards in the SM task summaries. The task summaries ensure that soldiers in any unit or location have the same definition of task performance, and that trainers evaluate the soldiers to the same standard.

b. Figure 2-1 shows the relationship between battle-focused training and the use of the TG and SM. The left side of the figure shows the process of soldier training; the right side of the figure shows how STP supports each step of this process.

BATTLE-FOCUSED TRAINING	STP SUPPORT OF PROCESS
SELECTS SUPPORTING SOLDIER TASKS	USES TG TO RELATE TASKS TO METL
CONDUCTS TRAINING ASSESSMENT	USES TG TO DEFINE WHAT SOLDIER TASKS TO ASSESS
DETERMINES TRAINING OBJECTIVES	USES TG TO SET OBJECTIVES
DETERMINES STRATEGY AND PLANS FOR TRAINING	USES TG TO RELATE SOLDIER TASKS TO STRATEGY
CONDUCTS PREEXECUTION CHECKS	USES SM TO DETERMINE TRAINING PREPARATION
EXECUTES TRAINING AND CONDUCTS AFTER-ACTION REVIEW	USES SM TASK SUMMARY AS SOURCE FOR TASK PERFORMANCE
EVALUATES TRAINING AGAINST ESTABLISHED STANDARDS	USES SM TASK SUMMARY AS STANDARD FOR EVALUATION

Figure 2-1. Relationship of battle-focused training and STP.

2-4. TRAINER'S RESPONSIBILITIES

Training soldier and leader tasks to standard and relating this training to collective mission-essential tasks is the responsibility of NCO trainers. Trainers use the following steps to plan and evaluate training:

a. **Identify soldier and leader training requirements**. The trainer determines which tasks soldiers need to train, using the commander's training strategy. The unit's METL, ARTEP, and

the MOS training plan (MTP) in the training guide are sources to help the trainer define the individual training needed.

b. **Plan the training**. Training for specific tasks can usually be integrated or conducted concurrently with other training or during "slack periods." The unit's ARTEP can help to identify soldier and leader tasks that can be trained and evaluated concurrently with collective task training and evaluation.

c. **Gather the training references and materials**. The SM task summary lists all references that can assist the trainer in preparing for the training of that task.

d. **Determine risk assessment and identify safety concerns**. The trainer analyzes the risk involved in training a specific task under current conditions at the time of scheduled training. He ensures that training preparation takes into account those cautions, warnings, and dangers associated with each task.

e. **Train each soldier**. The trainer shows the soldier how to do the task to standard, and explains step-by-step how to do the task. Each soldier must have at least one chance to do the task step-by-step.

f. **Emphasize training in MOPP4 clothing**. Soldiers have difficulty performing even simple tasks in a nuclear/chemical environment. The combat effectiveness of the soldier and the unit can degrade quickly when trying to perform in MOPP4. Practice is the best way to improve performance. The trainer is responsible for training and evaluating soldiers in MOPP4 so that they can perform critical wartime tasks to standards in a nuclear/chemical environment.

g. **Check each soldier**. The trainer evaluates how well each soldier performs the tasks in this manual. He conducts these evaluations during individual training sessions or while evaluating soldier proficiency during the conduct of unit collective tasks. This manual provides an evaluation guide for each task to enhance the trainer's ability to conduct year-round, hands-on evaluation of tasks critical to the unit's mission. The information in the MTP is a guide to determine how often to train the soldier on each task to ensure that soldiers sustain proficiency.

h. **Record the results**. The leader book referred to in FM 25-101, Appendix B, records task performance, and gives the leader total flexibility on the method of recording training. The trainer may use DA Forms 5164-R (Hands-On Evaluation) and 5165-R (Field-Expedient Squad Book) as part of the leader book. These forms are optional and locally reproducible. (STP 21-24-SMCT contains a copy of the forms and instructions for their use.) (Appendix B contains an overprinted DA Form 5165-R with tasks from this SM.)

i. **Retrain and evaluate**. Trainers work with each soldier until he can perform the task to specific SM standards.

2-5. EVALUATION GUIDE

An evaluation guide exists for each task summary in the SM. Trainers use the evaluation guides year-round to determine if soldiers can perform their critical tasks to SM standards. Each evaluation guide contains one or more performance measures that identify what the trainer needs to observe to score a soldier's performance. Each step is clearly identified by a "P" (pass) and "F" (fail), located under the results column on each evaluation guide. Some tasks involve a process that the trainer must observe as the soldier performs the task. For other tasks, the trainer must evaluate an "end product," resulting from doing the task. Some general points about using the evaluation guide to evaluate soldiers follow:

a. Review the evaluation guide to become familiar with the information on which the soldier will be scored.

b. Ensure that the necessary safety equipment and clothing needed to properly perform the job are on hand at the training site.

c. Prepare the test site according to the conditions section of the task summary. Some tasks contain special evaluation preparation instructions. These instructions tell the trainer what modifications must be made to the task conditions to evaluate the task. Reestablish the test site to the original requirements after evaluating each soldier to ensure that conditions are the same for each soldier.

d. Advise each soldier of the information in the brief soldier section of the task summary before evaluating.

e. Score each soldier according to the performance measures and feedback section in the evaluation guide.

f. Record the date and task performance (GO or NO GO) in the leader book.

2-6. TRAINING TIPS FOR THE TRAINER

a. **Prepare yourself**.

(1)Get training guidance from your chain of command on when training must take place, what soldiers should be trained, availability of resources, and a training site.

(2)Get the training objective (task conditions and standards) from the task summary in this manual.

(3)Ensure you can do the task. Review the task summary and the references in the references section. Practice doing the task or, if necessary, have someone train you on the task.

(4)Choose a training method. Some tasks provide recommended training methods in the setup section of the task summary.

(5)Prepare a training outline consisting of informal notes on what you want to cover during your training session.

(6)Practice your training presentation.

b. **Prepare the resources**.

(1)Obtain required resources as identified in the conditions or setup statement for each task.

(2)Gather equipment and ensure it is operational.

(3)Coordinate for use of training aids and devices.

(4)Prepare the training site according to the conditions or setup statement and evaluation preparation section of the task summary, as appropriate.

c. **Prepare the soldiers**.

(1)Tell the soldier what task to do and how well it must be done. This is found in the standards statement and evaluation preparation section for each task, as appropriate.

(2)Caution soldiers about safety, environment, and security.

(3)Provide any necessary training on basic skills that soldiers must have before they can be trained on the task.

(4)Pretest each soldier to determine who needs training in what areas by having the soldier perform the task. Use DA Form 5164-R and the evaluation guide in each task summary to make this determination.

d. **Train the soldiers who failed the pretest**.

(1)Demonstrate how to do the task or the specific performance steps to those soldiers who could not perform to SM standards. Have soldiers study the appropriate training materials.

(2)Have soldiers practice the task until they can perform it to SM standards.
(3)Evaluate each soldier using the evaluation guide.

(4)Provide feedback to those soldiers who fail to perform to SM standards and have them continue to practice until they can perform to SM standards.

e. **Record results in the leader book**.

2-7. MILITARY OCCUPATIONAL SPECIALTY TRAINING PLAN

One of the key components of the TG is the MOS training plan (MTP). The MTP has two parts to assist the commander in preparing a unit training plan that satisfies integration, cross-training, train-up, and sustainment training requirements for soldiers in this MOS.

a. **Part I**. Part I of the MTP shows the relationship of an MOS skill level between duty position and critical tasks. The critical tasks are grouped by task commonality into subject areas. Part I has two sections: Section 1 lists subject area codes and titles used throughout the MTP (Figure 2-2); Section 2 defines the training requirements for each duty position within an MOS, and provides a recommendation for cross-training and train-up/merger training (Figure 2-3).

(1)Duty position column—contains the MOS duty positions, by skill level, which have different training requirements.

(2)Subject area column—lists by subject area number the subject areas in which the soldier must be proficient for that duty position.

(3)Cross-train column—lists the recommended duty position for which soldiers should be cross-trained.

(4)Train-up/merger column—lists the corresponding duty position for the next higher skill level or MOS the soldier will merge into on promotion.

b. **Part II**. Part II lists by subject areas the critical tasks to be trained in an MOS, task number, task title, location, sustainment training frequency, and training skill level (Figure 2-4).

(1)Subject area column—lists the subject area number and title in the same order as in the MTP.

(2)Task number column—lists the task numbers for all tasks included in the subject area.

(3)Task title column—lists the task title.

(4)Training location column—identifies the training location where the task is first trained to STP standards. If the task is first trained to standard in the unit, the word unit will be in this column. If the task is first trained to standard in the training base, it will identify the resident course where the task was taught. Figure 2-5 contains a list of training locations and their brevity codes.

(5)Sustainment training frequency column—indicates the suggested frequency at which the tasks should be trained. The cornerstone of the individual training program is the concept of sustaining proficiency. The soldier must be prepared to go to war on short notice. To sustain proficiency, the individual soldier must train—evaluate—train. Sustainment requires practice and repetition. Training emphasis must always be on sustaining skills and correcting weaknesses at the same time. The frequency codes are to be used by the commander only as a guide; he may decide, based on evaluations, that his soldiers may need more or less training on certain tasks. Figure 2-6 identifies the frequency codes used in this column.

(6)Sustainment training skill level column—lists the skill levels of the MOS for which soldiers must receive sustainment training to ensure they maintain proficiency to soldier's manual standards.

(7)Drill/ARTEP column—lists drills and ARTEPs by the number that the individual critical task supports. This establishes the link between individual and collective training.

Training Notes: 1. Leaders must instill an awareness of individual safety and force protection in all subordinate leaders and soldiers. Soldiers must be constantly alert and avoid situations that may result in injury or death—for example, lock cargo hatches; do not grab the hot barrel of a machine gun. Soldiers must be aware of what their equipment can do. This prevents soldiers from being injured by other soldiers or machinery/equipment.
2. Leaders at all levels must also teach and enforce force protection; for example, properly use ground guides for vehicle movement; always be aware of your buddy's location during live-fire exercises; enter and exit a helicopter properly; recheck all mortar firing data.

MOS TRAINING PLAN, MOS 11M

PART I: SUBJECT AREAS AND DUTY POSITIONS
SECTION 1. SUBJECT AREA CODES

SKILL LEVEL 1	SKILL LEVEL 3
1. Communications 2. M16A1/A2 Rifle 3. M47 Medium Antitank Weapon 4. M136 Launcher (AT4) 5. M203 Grenade Launcher 6. M249 Machine Gun 7. NBC 8. Mines 9. Security and Intelligence 10. Night Vision Devices 11. MOUT 12. Basic Individual Techniques 13. Personal Hygiene 14. BFV Maintenance Operations 15. 25-mm Ammunition Can 16. M231 Firing Port Submachine Gun 17. TOW	30. Basic Individual Techniques 31. Tactics
SKILL LEVEL 2	**SKILL LEVEL 4**
18. Land Navigation 19. Communications 20. NBC 21. Mines 22. Security and Intelligence 23. Forward Observer Procedures 24. Basic Individual Techniques 25. Tactics 26. 25-mm Automatic Gun 27. M240C Coaxial Machine Gun 28. M257 Grenade Launcher 29. TOW	32. NBC 33. Mines 34. Basic Individual Techniques 35. Tactics

Note: Skill levels 2 through 4 are responsible for all tasks listed under skill level 1 in addition to the tasks for their skill level on the critical task list.

Figure 2-2. Part I, Section 1, subject area codes.

SECTION 2. DUTY POSITION TRAINING REQUIREMENTS

SUBJECT AREA AND NUMBER	TASK NUMBER	TITLE	REFERENCES	TRAINING LOCATION	SUST TNG FREQ	SUST TNG SL	MTP/DRILL NUMBER
SKILL LEVEL 1, MOS 11M							
1. Communi-cations.	113-588-1088 (Basic Task)	Install/Recover Communi-cations Wire Lines	FM 24-20	Unit	SA	1-4	7-8-MTP
	113-588-1087 (Basic Task)	Install Hot Loop	FM 7-8, FM 24-20	Unit	Q	1-4	7-8-MTP
	113-588-3008 (Basic Task)	Repair Field Wire	FM 24-20	Unit	SA	1-4	7-8-MTP
	113-600-2007 (Basic Task)	Operate Telephone Set TA-312/PT	TM 11-5805-201-12	OSUT BT	Q	1-4	7-8-MTP
2. M16A1/A2 Rifle	071-311-2006 (Basic Task)	Construct Field-Expedient Firing Aids for an M16A1/A2 Rifle	FM 7-8, FM 7-70, FM 21-75	OSUT	SA	1-4	7-8-MTP
3. M47 Medium Antitank Weapon	071-052-0003 (Basic Task)	Construct a Fighting Position for an M47 Medium Antitank Weapon	FM 7-8, FM 7-7, FM 7-7J, FM 7-70	OSUT		1-4	7-8-MTP
	071-052-0004 (Basic Task)	Restore an M47 Medium Antitank Weapon to Carrying Configuration	TM 9-1425-484-10	OSUT		1-4	7-8-MTP
	071-052-0005 (Basic Task)	Operate a Night Vision Sight AN/TAS-5	TM 9-1425-484-10	OSUT		1-4	7-8-MTP
	071-052-0006 (Basic Task)	Engage Targets With an M47 Medium Antitank Weapon	TM 9-1425-484-10	OSUT		1-4	7-7J-Drill
	071-317-0000 (Basic Task)	Prepare an Antiarmor Range Card	FM 23-11	OSUT		1-4	7-8-MTP
	071-317-3302 (Basic Task)	Prepare an M47 Medium Antitank Weapon for Firing	TM 9-1425-484-10	OSUT		1-4	7-8-MTP
	071-317-3306 (Basic Task)	Perform Misfire Procedures on an M47 Medium Antitank Weapon	TM 9-1425-484-10	OSUT		1-4	7-8-MTP 7-7J-Drill
4. M136 Launcher	071-054-0001 (Basic Task)	Prepare an M136 Launcher for Firing	TM 9-1340-886-14	OSUT		1-4	7-8-MTP
	071-054-0002 (Basic Task)	Restore an M136 Launcher to Carrying Configuration	TM 9-1340-886-14	OSUT		1-4	7-8-MTP
	071-054-0003 (Basic Task)	Perform Misfire Procedures on an M136 Launcher	TM 9-1340-886-14	OSUT		1-4	7-8-MTP
	071-054-0004 (Basic Task)	Engage Targets With an M136 Launcher	TM 9-1340-886-14	OSUT		1-4	7-7J-Drill

Figure 2-4. Part II, critical tasks.

SUBJECT AREA AND NUMBER	TASK NUMBER	TITLE	REFERENCES	TRAINING LOCATION	SUST TNG FREQ	SUST TNG SL	MTP/DRILL NUMBER
SKILL LEVEL 1, MOS 11M							
5. M203 Grenade Launcher	071-311-2103 (Basic Task)	Zero an M203 Grenade Launcher	FM 23-31	OSUT	SA	1-4	7-8-MTP
	071-311-2125 (Basic Task)	Maintain an M203 Grenade Launcher	FM 23-31	OSUT	SA	1-4	7-8-MTP
	071-032-0006 (Basic Task)	Construct Field-Expedient Firing Aids for an M203 Grenade Launcher	FM 23-31, FM 7-7, FM 7-8, FM 7-7J, FM 7-70, FM 21-25	UNIT	SA	1-4	7-8-MTP
6. M249 Machine Gun	071-010-0006 (Basic Task)	Engage Targets With an M249 Machine Gun	TM 9-1005-201-10	OSUT	SA	1-4	7-8-MTP
	071-312-4004 (Basic Task)	Lay an M249 Machine Gun Using Field Expedients	FM 21-75; TM 9-1005-201-10	UNIT	SA	1-4	7-8-MTP
	071-312-4025 (Basic Task)	Maintain an M249 Machine Gun	FM 23-14 TM 9-1005-201-10	OSUT	Q	1-4	7-8-MTP
	071-312-4027 (Basic Task)	Load an M249 Machine Gun	FM 23-14 TM 9-1005-210-10	OSUT		1-4	7-8-MTP 7-7J-Drill
	071-312-4030 (Basic Task)	Zero an M249 Machine Gun	FM 23-14 TM 9-1005-210-10	OSUT	SA	1-4	7-8-MTP
	071-010-0001	Zero a Night Vision Sight, AN/PVS-4 to an M249 Machine Gun	TM 9-1005-210-10	UNIT	SA	1-4	7-8-MTP
	071-010-0002	Mount a Night Vision Sight, AN/PVS-4 on an M249 Machine Gun	TM 9-1005-210-10	UNIT		1-4	7-8-MTP
	071-010-0003	Dismount a Night Vision Sight, AN/PVS-4 from an M249 Machine Gun	TM 9-1005-210-10	UNIT	SA	1-4	7-8-MTP
	071-010-0007	Engage Targets With an M249 Machine Gun Using a Night Vision Sight, AN/PVS-4	TM 9-1005-210-10	UNIT	SA	1-4	7-8-MTP
	071-312-4026	Perform Function Check on an M249 Machine Gun	FM 23-14 TM 9-1005-210-10	UNIT		1-4	7-8-MTP
7. NBC	031-503-1021 (Basic Task)	Mark NBC Contaminated Area	FM 3-3; TM 3-9905-001-10	UNIT	SA	1-4	7-8-MTP
	031-503-1022 (Basic Task)	Decontaminate Equipment Using M13 Decontaminat-ing Apparatus	FM 3-5 TM 3-4230-214-12&P	UNIT	SA	1-4	7-8-MTP 7-7J-Drill

Figure 2-4. Part II, critical tasks (continued).

SUBJECT AREA AND NUMBER	TASK NUMBER	TITLE	REFERENCES	TRAINING LOCATION	SUST TNG FREQ	SUST TNG SL	MTP/DRILL NUMBER
SKILL LEVEL 1, MOS 11M							
7. NBC (Continued)	031-503-2002 (Basic Task)	Decontaminate Equipment Using ABC M11 Decon-taminating Apparatus	TM 3-4230-204-12&P	UNIT	SA	1-4	7-8-MTP 7-7J-MTP
8. Mines	051-192-1008 (Basic Task)	Install/Remove the M21 Antitank Mine	FM 5-34; TM 9-1345-203-12&P	OSUT	SA	1-4	7-8-MTP
	051-192-1021 (Basic Task)	Locate Mines by Visual Means	FM 20-32	UNIT	SA	1-4	7-8-MTP
	051-410-0001 (Basic Task)	Perform Self-Extraction From a Minefield	FM 20-32	OSUT	SA	1-4	7-8-MTP
	071-098-0002 (Basic Task)	Install a Mechanical Ambush	FM 5-25, FM 21-75, FM 23-23	UNIT	Q	1-4	7-8-MTP
	071-098-0001 (Basic Task)	Recover a Mechanical Ambush	FM 5-25, FM 21-75, FM 23-23	UNIT	Q	1-4	7-8-MTP
9. Security and Intelli-gence	071-331-0808 (Basic Task)	Identify Threat Weapons	FM 100-2-3	OSUT	Q	1-4	7-8-MTP
	071-730-0008 (Basic Task)	Emplace Field-Expedient Early Warning Devices	FM 5-25, FM 5-34	UNIT	Q	1-4	7-8-MTP
10. Night Vision Devices	071-315-0003 (Basic Task)	Operate a Night Vision Sight AN/PVS-4	TM 11-5855-213-10	OSUT	Q	1-4	7-8-MTP
	071-315-0030 (Basic Task)	Operate Night Vision Goggles AN/PVS-5	TM 11-5855-213-10	OSUT	Q	1-4	7-8-MTP
	071-315-0091 (Basic Task)	Operate a Thermal Viewer AN/PAS-7	TM 11-5855-213-10	OSUT	Q	1-4	7-8-MTP
	071-315-2307 (Basic Task)	Zero a Night Vision Sight AN/PVS-4 to an M16A1 or M16A2 Rifle	TM 11-5855-213-10	OSUT	SA	1-4	7-8-MTP
	071-315-2308 (Basic Task)	Engage Targets With an M16A1 or M16A2 Rifle Using a Night Sight An/PVS-4	TM 11-5855-213-10	OSUT	SA	1-4	7-8-MTP
	071-315-2351 (Basic Task)	Zero a Night Vision Sight AN/PVS-4 to an M203 Grenade Launcher	TM 11-5855-213-10	OSUT	SA	1-4	7-8-MTP
	071-315-2352 (Basic Task)	Engage Targets With an M203 Grenade Launcher Using a Night Vision Sight AN/PVS-4	TM 11-5855-213-10	OSUT	SA	1-4	7-8-MTP

Figure 2-4. Part II, critical tasks (continued).

SUBJECT AREA AND NUMBER	TASK NUMBER	TITLE	REFERENCES	TRAINING LOCATION	SUST TNG FREQ	SUST TNG SL	MTP/DRILL NUMBER
SKILL LEVEL 1, MOS 11M							
11. MOUT	071-326-0541 (Basic Task)	Perform Movement Techniques During MOUT	FM 7-7J, FM 90-10-1	OSUT	SA	1-4	7-8-MTP
	071-326-0550 (Basic Task)	Prepare Positions for Individual and Crew-Served Weapons During MOUT	FM 7-7J, FM 90-10, FM 90-10-1	OSUT	SA	1-4	7-8-MTP
	071-326-0557 (Basic Task)	Select Hasty Firing Positions During MOUT	FM 7-7J, FM 90-10-1	OSUT	SA	1-4	7-8-MTP
12. Basic Individual Techniques	071-326-5921	Move as a Member of an M2 BFV Rifle Team	FM 7-7J	UNIT	Q	1-4	7-8-MTP
	071-326-0503	Move Over, Through, or Around Obstacles (Except Minefields)	FM 21-75			1-4	7-8-MTP
13. Personal Hygiene	071-328-5303 (Basic Task)	Practice Preventive Medicine	FM 21-10, FM 21-11	OSUT	Q	1-4	7-8-MTP
14. BFV Maintenance Operations	071-216-0004	Maintain the Track and Suspension System on a BFV	TM 9-2350-252-10-1, DA Pam 738-750, LO 9-2350-252-12	BBT	SA	1-4	7-8-MTP
	071-216-0007	Maintain the Hull on a BFV	TM 9-2350-252-10-1, DA Pam 738-750, LO 9-2350-252-12	BBT	SA	1-4	7-8-MTP
	071-410-0008	Prepare a BFV for Fording	TM 9-2350-252-10-1	BBT	SA	1-4	7-8-MTP
	071-324-6026	Operate the NBC System on an M2A1 or M3A1 BFV	TM 9-2350-252-10-1, TM 9-2350-252-10-2	BBT	Q	1-4	7-8-MTP
	071-710-0002	Operate the Driver's Night Viewer, AN/VVS-2 on a BFV	TM 9-2350-252-10-1			1-4	7-8-MTP
	113-587-1064	Prepare SINCGARS (Manpack) for Operation	TM 11-5820-890-10-1 TM 11-5820-890-10-3			1-4	7-8-MTP
	113-587-2070	Operate Secure SINCGARS Single Channel (SC)	ACP 125 US Supl 1 DA Pam 738-750 FM 24-18 TC 24-19 TM 11-5820-890-10-1 TM 11-5820-890-10-3 Unit SOI			1-4	7-8-MTP

Figure 2-4. Part II, critical tasks (continued).

SUBJECT AREA AND NUMBER	TASK NUMBER	TITLE	REFERENCES	TRAINING LOCATION	SUST TNG FREQ	SUST TNG SL	MTP/DRILL NUMBER
SKILL LEVEL 1, MOS 11M							
14. BFV Maintenance Operations (continued)	113-587-2071	Operate Secure SINCGARS Frequency Hopping (FH) (Net Members)	ACP 125 US Supl 1 DA Pam 738-750 FM 24-18 TC 24-19 TM 11-5820-890-10-1 TM 11-5820-890-10-3 Unit SOI			1-4	7-8-MTP
15. 25-mm Ammunition Can	071-024-0001	Load the 25-mm Ammunition Can (HEI-T) on a BFV	TM 9-2350-252-10-2	BBT	SA	1-4	7-8-MTP
	071-024-0002	Load the 25-mm Ammunition Can (APDS-T) on a BFV	TM 9-2350-252-10-2	BBT	SA	1-4	7-8-MTP
	071-024-0003	Unload the 25-mm Ammunition Can (HEI-T) on a BFV	TM 9-2350-252-10-2	BBT	SA	1-4	7-8-MTP
	071-024-0004	Unload the 25-mm Ammunition Can (APDS-T) on a BFV	TM 9-2350-252-10-2	BBT	SA	1-4	7-8-MTP
16. M231 Firing Port Submachine Gun	071-028-0001	Maintain an M231 Firing Port Submachine Gun	TM 9-1005-309-10	BBT	Q	1-4	7-8-MTP
	071-028-0002	Perform a Function Check on an M231 Firing Port Submachine Gun	TM 9-1005-309-10	BBT	Q	1-4	7-8-MTP
	071-028-0003	Install an M231 Firing Port Submachine Gun on an M2 BFV	TM 9-2350-252-10-1	BBT	Q	1-4	7-8-MTP
	071-028-0004	Remove an M231 Firing Port Submachine Gun From an M2 BFV	TM 9-2350-252-10-1	BBT	Q	1-4	7-8-MTP 7-7J-Drill
	071-028-0005	Load an M231 Firing Port Submachine Gun	TM 9-1005-309-10	BBT	Q	1-4	7-8-MTP
	071-028-0006	Unload an M231 Firing Port Submachine Gun	TM 9-1005-309-10	BBT	Q	1-4	7-8-MTP
	071-311-6004	Correct Malfunctions of an M231 Firing Port Sub-machine Gun on an M2 BFV	FM 23-1 TM 9-1005-309-10, TM 9-2350-252-10-1	BBT	Q	1-4	7-8-MTP 7-7J-Drill
	071-311-6005	Engage Targets with an M231 Firing Port Sub-machine Gun on an M2 BFV	TM 9-1005-309-10, TM 9-2350-252-10-1	UNIT	SA	1-4	7-8-MTP 7-7J-Drill

Figure 2-4. Part II, critical tasks (continued).

SUBJECT AREA AND NUMBER	TASK NUMBER	TITLE	REFERENCES	TRAINING LOCATION	SUST TNG FREQ	SUST TNG SL	MTP/DRILL NUMBER
SKILL LEVEL 1, MOS 11M							
17. TOW	071-056-0001	Load the TOW Launcher on a BFV	TM 9-2350-252-10-2	BBT	Q	1-4	7-8-MTP
	071-056-0002	Unload the TOW Launcher on a BFV	TM 9-2350-252-10-2	BBT	Q	1-4	7-8-MTP
	071-316-3015	Remove a Misfired TOW Missile From the TOW Launcher on a BFV	TM 9-2350-252-10-2	BBT	Q	1-4	7-8-MTP
SKILL LEVEL 2, MOS 11M							
18. Land Navigation	071-329-1030 (Basic Task)	Navigate from One Point on the Ground to Another Point While Mounted	FM 21-26, FM 90-3	UNIT	Q	2-4	7-8-MTP
19. Communica-tions	071-573-4003 (Basic Task)	Encode and Decode Messages Using KTC 600(*) Tactical Operating System	CEOI; KTC 600(*)	BNCOC	SA	2-4	7-8-MTP
	071-573-4006 (Basic Task)	Use the KTC 1400(*) Numerical Cipher/ Authentication System	CEOI; Supplemental Instructions; KTC 1400(*)	BNCOC	SA	2-4	7-8-MTP
20. NBC	031-503-2008 (Basic Task)	Use and Maintain an M8 or M8A1 Alarm System	FM 3-3	UNIT	SA	2-4	7-8-MTP
21. Mines	051-192-1014 (Basic Task)	Install/Remove US Antihandling Devices on AT Mines	FM 5-25	UNIT	SA	2-4	7-8-MTP
	051-193-1003 (Basic Task)	Prime Explosives Nonelectrically	FM 5-25	UNIT	SA	2-4	7-8-MTP
	051-193-1025 (Basic Task)	Neutralize Mines	FM 20-32	UNIT	SA	2-4	7-8-MTP
	051-193-2030 (Basic Task)	Clear a Misfire	FM 5-25	UNIT	SA	2-4	7-8-MTP
22. Security and Intelligence	071-331-1000 (Basic Task)	Prepare a Platoon Early Warning System AN/TRS-2	TM 11-5895-1047-10	BNCOC	Q	2-4	7-8-MTP
	071-331-1002 (Basic Task)	Monitor a Platoon Early Warning System AN/TRS-2	TM 11-5895-1047-10	UNIT	Q	2-4	7-8-MTP
23. Forward Observer Procedures	061-283-1004 (Basic Task)	Locate a Target by Shift from a Known Point	FM 6-30	UNIT	M	2-4	7-8-MTP

Figure 2-4. Part II, critical tasks (continued).

SUBJECT AREA AND NUMBER	TASK NUMBER	TITLE	REFERENCES	TRAINING LOCATION	SUST TNG FREQ	SUST TNG SL	MTP/DRILL NUMBER
SKILL LEVEL 2, MOS 11M							
24. Basic Individual Techniques	071-326-0608 (Basic Task)	Use Visual Signaling Techniques While Mounted	FM 21-60	UNIT	SA	2-4	7-8-MTP
	071-326-3001 (Basic Task)	Direct a Driver Over a Terrain Route	FM 7-7, FM 7-7J	BGC	SA	2-4	7-8-MTP
	071-326-5606 (Basic Task)	Select Overwatch Positions	FM 7-7, FM 7-7J, FM 7-8	BGC	Q	2-4	7-8-MTP
	071-334-4001 (Basic Task)	Guide a Helicopter to a Landing Point	FM 7-7, FM 7-8, FM 21-60	UNIT	SA	2-4	7-8-MTP
	071-410-0019 (Basic Task)	Control Organic Fires	FM 7-7, FM 7-7J, FM 7-8, FM 23-14	UNIT	Q	2-4	7-8-MTP
	071-710-0004 (Basic Task)	Supervise Use of Night Vision Devices	FM 7-7, FM 7-7J, FM 7-8	UNIT	SA	2-4	7-8-TMP
	071-216-0009	Maintain the Turret on a BFV	TM 9-2350-252-10-2, DA Pam 738-750	BGC	Q	2-4	7-8-MTP
	071-324-6004	Operate the Turret of a BFV	TM 9-2350-252-10-2	BGC	SA	2-4	7-8-MTP
	071-730-0001	Emplace Pyrotechnic Early Warning Devices	FM 5-25, FM 5-34, FM 20-32, TM 9-1345-203-12&P			2-4	7-8-MTP
	071-730-0002	Recover Pyrotechnic Early Warning Devices	FM 5-25, FM 5-34, FM 20-32, TM 9-1345-203-12&P			2-4	7-8-MTP
25. Tactics	071-326-5502 (Basic Task)	Issue a Fragmentary Order	FM 7-7, FM 7-7J, FM 7-8	BNCOC	Q	2-4	7-8-MTP
	071-326-5503 (Basic Task)	Issue a Warning Order	FM 7-7, FM 7-7J, FM 7-8	BNCOC	Q	2-4	7-8-MTP
26. 25-mm Automatic Gun	071-024-0005	Maintain the 25-mm Automatic Gun on a BFV	TM 9-2350-252-10-2	BGC	SA	2-4	7-8-MTP
	071-024-0007	Load the 25-mm Automatic Gun on a BFV	TM 9-2350-252-10-2	BGC	A	2-4	7-8-MTP
	071-024-0006	Perform a Function Check on the 25-mm Automatic Gun on a BFV	TM 9-2350-252-10-2	BGC	Q	2-4	7-8-MTP
	071-024-0008	Unload the 25-mm Automatic Gun on a BFV	TM 9-2350-252-10-2	BGC	A	2-4	7-8-MTP
	071-024-0009	Zero the 25-mm Automatic Gun on a BFV	TM 9-2350-252-10-2	BGC	SA	2-4	7-8-MTP

Figure 2-4. Part II, critical tasks (continued).

SUBJECT AREA AND NUMBER	TASK NUMBER	TITLE	REFERENCES	TRAINING LOCATION	SUST TNG FREQ	SUST TNG SL	MTP/DRILL NUMBER
SKILL LEVEL 2, MOS 11M							
26. 25-mm Automatic Gun (continued)	071-314-0008	Boresight the 25-mm Automatic Gun on a BFV	TM 9-2350-252-10-2	BGC	Q	2-4	7-8-MTP
	071-314-0011	Perform Misfire Procedures on the 25-mm Gun on the BFV	TM 9-2350-252-10-2	BGC	Q	2-4	7-7J-Drill
	071-314-0012	Engage Targets with the 25-mm Automatic Gun on a BFV	FM 23-1, TM 9-2350-252-10-2	BGC	SA	2-4	7-8-MTP
27. M240C Coaxial Machine Gun	071-026-0001	Load the M240C Coaxial Machine Gun on a BFV	TM 9-2350-252-10-2	BGC	SA	2-4	7-8-MTP
	071-026-0002	Unload the M240C Coaxial Machine Gun on a BFV	TM 9-2350-252-10-2	BGC	SA	2-4	7-8-MTP
	071-026-0003	Zero the M240C Coaxial Machine Gun on a BFV	TM 9-2350-252-10-2	BGC	SA	2-4	7-8-MTP
	071-313-4004	Boresight the M240C Coaxial Machine Gun on a BFV	TM 9-2350-252-10-2	BGC	SA	2-4	7-8-MTP
	071-313-4006	Correct Malfunctions of the M240C Coaxial Machine Gun on a BFV	TM 9-1005-313-10, TM 9-2350-252-10-2	BGC	SA	2-4	7-8-MTP 7-7J-Drill
	071-313-4007	Engage Targets with the M240C Coaxial Machine Gun on a BFV	FM 23-1, TM 9-2350-252-10-2	BGC	SA	2-4	7-8-MTP 7-7J-Drill
	171-122-1012	Perform Operator Maintenance on an M240/M240C Coaxial Machine Gun	TM 9-1005-313-10	BGC	Q	2-4	7-8-MTP
	171-132-1004	Install/Remove the M240C Machine Gun on a M2/M3 BFV	TM 9-1005-313-10 TM 9-2350-252-10-2	BGC	Q	2-4	7-8-MTP
28. M257 Smoke Grenade Launcher	071-034-0005	Load the M257 Smoke Grenade Launcher on a BFV	TM 9-2350-252-10-2	BBT	SA	2-4	7-8-MTP
	071-324-4003	Fire the M257 Smoke Grenade Launcher on a BFV	FM 23-1, TM 9-2350-252-10-2	BGC	SA	2-4	7-8-MTP
	071-034-0006	Unload the M257 Smoke Grenade Launcher on a BFV	TM 9-2350-252-10-2	BBT	SA	2-4	7-8-MTP

Figure 2-4. Part II, critical tasks (continued).

SUBJECT AREA AND NUMBER	TASK NUMBER	TITLE	REFERENCES	TRAINING LOCATION	SUST TNG FREQ	SUST TNG SL	MTP/DRILL NUMBER
SKILL LEVEL 2, MOS 11M							
29. TOW	071-056-0003	Operate the TOW Launcher on a BFV	TM 9-2350-252-10-2	BGC	SA	2-4	7-8-MTP
	071-216-0001	Maintain the TOW System on a BFV	TM 9-2350-252-10-2	BGC	SA	2-4	7-8-MTP
	071-316-3002	Perform Misfire Procedures on the TOW System on a BFV	TM 9-2350-252-10-2	BGC	SA	2-4	7-8-MTP 7-7J-Drill
	071-316-3005	Boresight the TOW Launcher on a BFV	TM 9-2350-252-10-2	BGC	SA	2-4	7-8-MTP
	071-316-3006	Engage Targets with the TOW System on a BFV	FM 23-1, TM 9-2350-252-10-2	BGC	SA	2-4	7-8-MTP 7-7J-Drill
SKILL LEVEL 3, MOS 11M							
30. Basic Individual Techniques	071-331-1003 (Basic Task)	Installation Planning and Installation of the Platoon Early Warning System	TM 11-5859-1047-10	BNCOC	SA	3-4	7-8-MTP
	071-317-3324 (Basic Task)	Select a Fighting Position for an M47 Medium Antitank Weapon	FM 7-7, TM 9-1425-484-10	UNIT	SA	3-4	7-8-MTP
	071-410-0007	Prepare an M2 BFV Section/Squad Sector Sketch	FM 7-7J	UNIT	Q	3-4	7-8-MTP
	071-730-0005 (Basic Task)	Plan Employment of Field-Expedient and Pyrotechnic Early Warning Devices	FM 5-25, FM 5-34, FM 21-75	BNCOC	Q	3-4	7-8-MTP
	071-420-0007	Conduct the Maneuver of an M2 BFV Section/ Squad	FM 7-7J	UNIT	SA	3-4	7-8-MTP
	071-200-0004	Select a Water Crossing Site	FM 5-36, FM 7-7J, TM 9-2350-252-10-1	UNIT	SA	3-4	7-8-MTP
	071-200-0005	Conduct Post Water Operations	TM 9-2350-252-10-1	UNIT	SA	3-4	7-8-MTP
	071-326-5804	Conduct a Point Antiarmor Ambush by an M2 BFV Section/Squad		UNIT	SA	3-4	7-8-MTP
	071-326-5910	Conduct Movement Techniques by an M2 BFV Dismount Platoon	FM 7-7J	UNIT		3-4	7-8-MTP

Figure 2-4. Part II, critical tasks (continued).

SUBJECT AREA AND NUMBER	TASK NUMBER	TITLE	REFERENCES	TRAINING LOCATION	SUST TNG FREQ	SUST TNG SL	MTP/DRILL NUMBER
SKILL LEVEL 3, MOS 11M							
30. Basic Individual Techniques (continued)	071-440-0014	Conduct an Attack on a Building by an M2 BFV Section/Squad During MOUT		UNIT	Q	3-4	7-8-MTP
31. Tactics	071-326-5505 (Basic Task)	Issue an Oral Operation Order	FM 7-7, FM 7-7J, FM 7-8	BNCOC	Q	3-4	7-8-MTP
	071-410-0010 (Basic Task)	Conduct a Leader's Reconnaissance	FM 7-7, FM 7-7J, FM 7-8	BNCOC	Q	3-4	7-8-MTP
SKILL LEVEL 4, MOS 11M							
32. NBC	031-503-4002 (Basic Task)	Plan for and Supervise the Positioning of an Automatic Chemical Agent Alarm System	FM 3-3, TM 3-6665-225-12	ANCOC	SA	4	7-8-MTP
	071-620-0002 (Basic Task)	Employ NBC Defense Teams	FM 3-3, FM 3-4, FM 3-19, FM 3-100	ANCOC	SA	4	7-8-MTP
33. Mines	051-192-3032 (Basic Task)	Direct Installation/ Removal of a Hasty Protective Minefield	FM 7-7, FM 7-8, GTA 5-10-27	ANCOC	SA	4	7-8-MTP
34. Basic Individual Techniques	071-326-5770 (Basic Task)	Prepare a Platoon Sector Sketch	FM 7-7, FM 7-7J	ANCOC	Q	4	7-8-MTP
	071-334-4002 (Basic Task)	Establish a Helicopter Landing Point	FM 7-7, FM 7-7J	ANCOC	SA	4	7-8-MTP
35. Tactics	071-326-5761 (Basic Task)	Designate primary, Alternate, and Supplementary Firing Positions	FM 7-7, FM 7-7J	BNCOC	SA	4	7-8-MTP
	071-410-0020 (Basic Task)	Plan for Use of Supporting Fires	FM 6-20	ANCOC	SA	4	7-8-MTP
	071-410-0012 (Basic Task)	Conduct Occupation of an Assembly Area	FM 7-7, FM 7-7J, FM 7-8	ANCOC	SA	4	7-8-MTP
	071-720-0012 (Basic Task)	Conduct a Zone Reconnaissance by a Platoon	FM 7-7, FM 7-7J, FM 7-8	ANCOC	SA	4	7-8-MTP
	071-720-0015 (Basic Task)	Conduct an Area Reconnaissance by a Platoon	FM 7-7, FM 7-7J, FM 7-8	ANCOC	SA	4	7-8-MTP

Figure 2-4. Part II, critical tasks (continued).

SUBJECT AREA AND NUMBER	TASK NUMBER	TITLE	REFERENCES	TRAINING LOCATION	SUST TNG FREQ	SUST TNG SL	MTP/DRILL NUMBER
SKILL LEVEL 4, MOS 11M							
35. Tactics (continued)	071-450-0005 (Basic Task)	Conduct a Screen by a Platoon	FM 7-7, FM 7-7J, FM 7-8	UNIT	SA	4	7-8-MTP
	071-326-5912	Conduct the Maneuver of an M2 BFV Platoon	FM 7-7J	UNIT	SA	4	7-8-MTP
	071-326-5911	Conduct Movement Techniques by an M2 BFV Platoon While Mounted	FM 7-7J	UNIT	SA	4	7-8-MTP
	071-326-3013	Conduct a Tactical Road March	FM 17-95	UNIT	SA	4	7-8-MTP
	071-430-0007	Consolidate a Platoon Following Enemy Contact While in the Defense	FM 7-7, FM 7-8	UNIT	SA	4	7-8-MTP
	071-430-0008	Reorganize a Platoon Following Enemy Contact While in the Defense	FM 7-7, FM 7-8	UNIT	SA	4	7-8-MTP
	071-450-0027	Conduct a Relief	FM 71-1, FM 7-20	UNIT	SA	4	
	071-440-0009	Conduct a Defense by a Platoon During MOUT	FM 7-8, FM 90-10-1	UNIT	Q	4	
	071-440-0012	Conduct an Attack by a Platoon During MOUT	FM 7-8	UNIT	Q	4	
	071-440-0019	Conduct a Defense by an M2 BFV Platoon During MOUT		UNIT	Q	4	
	071-440-0022	Conduct an Attack by an M2 BFV Platoon During MOUT		UNIT	Q	4	
	101-521-4051	Request Supplies and Logistical Services	FM 100-10	UNIT	SA	4	

Figure 2-4. Part II, critical tasks (continued).

OSUT	One-Station Unit Training
BT	Basic Training
AIT	Advanced Individual Training
UNIT	Training in the Unit
PLDC	Primary Leadership Development Course
BNCOC	Basic NCO Course
ANCOC	Advanced NCO Course
SGMA	Sergeants Major Academy
USAFC	US Army First Sergeant's Course
BBT	Bradley Basic Transition
BGC	Bradley Gunner's Course
IMLC	Infantry Mortar Leader's Course

Figure 2-5. Training locations and brevity codes.

M	Monthly
BM	Bimonthly (once every two months)
Q	Quarterly
SA	Semianually
A	Annually

Figure 2-6. Sustainment training frequency codes.

CHAPTER 3

MOS SKILL LEVEL TASKS

Section I. BASIC TASKS

Personnel within the 11M MOS will be responsible for the tasks in this MOS-specific manual and for the following tasks, which are located in STP 7-11BCHM1-SM and STP 7-11BCHM24-SM-TG.

SKILL LEVEL 1

Subject Area 1: Communications

113-588-1088	Install/Recover Communications Wire Lines
113-588-1087	Install Hot Loop
113-588-3008	Repair Field Wire
113-600-2007	Operate Telephone Set TA-312/PT

Subject Area 2: M16A1/A2 Rifle

071-311-2006	Construct Field-Expedient Firing Aids for an M16A1/A2 Rifle

Subject Area 3: M47 Medium Antitank Weapon

071-052-0003	Construct a Fighting Position for an M47 Medium Antitank Weapon
071-052-0004	Restore an M47 Medium Antitank Weapon to Carrying Configuration
071-052-0005	Operate a Night Vision Sight AN/TAS-5
071-052-0006	Engage Targets with an M47 Medium Antitank Weapon
071-317-0000	Prepare an Antiarmor Range Card
071-317-3302	Prepare an M47 Medium Antitank Weapon for Firing
071-317-3306	Perform Misfire Procedures on an M47 Medium Antitank Weapon

Subject Area 4: M136 Launcher

071-054-0001	Prepare an M136 Launcher for Firing
071-054-0002	Restore an M136 Launcher to Carrying Configuration
071-054-0003	Perform Misfire Procedures on an M136 Launcher
071-054-0004	Engage Targets with an M136 Launcher

Subject Area 5: M203 Grenade Launcher

071-311-2103	Zero an M203 Grenade Launcher
071-311-2125	Maintain an M203 Grenade Launcher
071-032-0006	Construct Field-Expedient Firing Aids for an M203 Grenade Launcher

Subject Area 7: NBC

031-503-1021	Mark NBC Contaminated Area
031-503-1022	Decontaminate Equipment Using M13 Decontaminating Apparatus, Portable
031-503-2002	Decontaminate Equipment Using ABC M11 Decontaminating Apparatus

Subject Area 8: Mines

051-192-1002	Install/Remove the M16A1Antipersonnel Mine
051-192-1008	Install/Remove the M21 Antitank Mine
051-192-1021	Locate Mines by Visual Means
071-410-0001	Perform Self-Extraction from a Minefield
071-098-0002	Install a Mechanical Ambush
071-098-0001	Recover a Mechanical Ambush

Subject Area 9: Security and Intelligence

071-331-0808	Identify Threat Weapons
071-730-0008	Emplace Field-Expedient Early Warning Devices

Subject Area 10: Night Vision Devices

071-315-0003	Operate a Night Vision Sight AN/PVS-4
071-315-0030	Operate Night Vision Goggles AN/PVS-5
071-315-0091	Operate a Thermal Viewer AN/PAS-7
071-315-2307	Zero a Night Vision Sight AN/PVS-4 to an M16A1 or M16A2 Rifle
071-315-2308	Engage Targets with an M16A1 or M16A2 Rifle Using a Night Vision Sight AN/PVS-4
071-315-2351	Zero a Night Vision Sight AN/PVS-4 to an M203 Grenade Launcher
071-315-2352	Engage Targets with an M203 Grenade Launcher Using a Night Vision Sight AN/PVS-4

Subject Area 11: MOUT

071-326-0541	Perform Movement Techniques During MOUT
071-326-0550	Prepare Positions for Individual and Crew-Served Weapons During MOUT
071-326-0557	Select Hasty Fighting Positions During MOUT

Subject Area 13: Personal Hygiene

071-328-5303	Practice Preventive Medicine

SKILL LEVEL 2

Subject Area 18: Land Navigation

071-329-1030	Navigate From One Point on the Ground to Another Point While Mounted

Subject Area 19: Communications

113-573-4003	Encode and Decode Messages Using KTC 600 (*) Tactical Operating System
113-573-4006	Use the KTC 1400 (*) Numerical Cipher/Authentication System

Subject Area 20: NBC

031-503-2008	Use and Maintain an M8 or M8A1 Alarm System

Subject Area 21: Mines

051-192-1014	Install/Remove US Antihandling Devices on AT Mines
051-193-1003	Prime Explosives Nonelectrically
051-193-1025	Neutralize Mines
051-193-2030	Clear a Misfire

Subject Area 22: Security and Intelligence

071-331-1000	Prepare a Platoon Early Warning System AN/TRS-2 for Operation
071-331-1002	Monitor a Platoon Early Warning System AN/TRS-2

Subject Area 23: Forward Observer Procedures

061-283-1004	Locate a Target by Shift From a Known Point

Subject Area 24: Basic Individual Techniques

071-326-0608	Use Visual Signaling Techniques While Mounted
071-326-3001	Direct a Driver Over a Terrain Route
071-326-5606	Select Overwatch Positions
071-334-4001	Guide a Helicopter to a Landing Point
071-410-0019	Control Organic Fires
071-710-0004	Supervise Use of Night Vision Devices

Subject Area 25: Tactics

071-326-5502	Issue a Fragmentary Order
071-326-5503	Issue a Warning Order

SKILL LEVEL 3

Subject Area 31: Basic Individual Techniques

071-331-1003	Installation Planning and Installation of the Platoon Early Warning System AN/TRS-2
071-317-3324	Select a Fighting Position for an M47 Medium Antitank Weapon
071-730-0005	Plan Employment of Field-Expedient and Pyrotechnic Early Warning Devises

Subject Area 32: Tactics

071-326-5505	Issue an Oral Operation Order
071-410-0010	Conduct a Leader’s Reconnaissance

SKILL LEVEL 4

Subject Area 33: NBC

031-503-4002	Plan for and Supervise the Positioning of an Automatic Chemical Agent Alarm System
071-620-0002	Employ NBC Defense Teams

Subject Area 34: Mines

051-192-3032	Direct Installation/Removal of a Hasty Protective Minefield

Subject Area 35: Basic Individual Techniques

071-326-5770	Prepare a Platoon Sector Sketch
071-334-4002	Establish a Helicopter Landing Point

Subject Area 36: Tactics

071-326-5761	Designate Primary, Alternate, and Supplementary Fighting Positions
071-410-0020	Plan for Use of Supporting Fires
071-410-0012	Supervise Occupation of an Assembly Area
071-720-0012	Conduct a Zone Reconnaissance by a Platoon
071-720-0015	Conduct a Area Reconnaissance by a Platoon
071-450-0005	Conduct a Screen by a Platoon

Section II. 11M10 Skill Level Tasks

BASIC INDIVIDUAL TECHNIQUES

MOVE AS A MEMBER OF A FIRE TEAM
071-326-5921

CONDITIONS

Given a designated position (other than team leader) in a moving fire team wedge formation.

STANDARDS

Maintain the same position within the wedge and react immediately to the fire team leader's moves by doing as he does.

TRAINING AND EVALUATION
Training Information Outline

Note: The fire team members must know the team leader's style and methods of leadership. Terrain and enemy situation dictate weapon position within the wedge.

1. Keep the same relative position within the wedge.

2. Maintain visual contact with the fire team leader or other members of the fire team.

3. Perform the same actions as the team leader while keeping the same relative position.

4. Determine the interval between one soldier and the next by visual contact or by following directions from the team leader.
   a. The normal interval in daylight is about 10 meters (Figure 1, page 3-64).

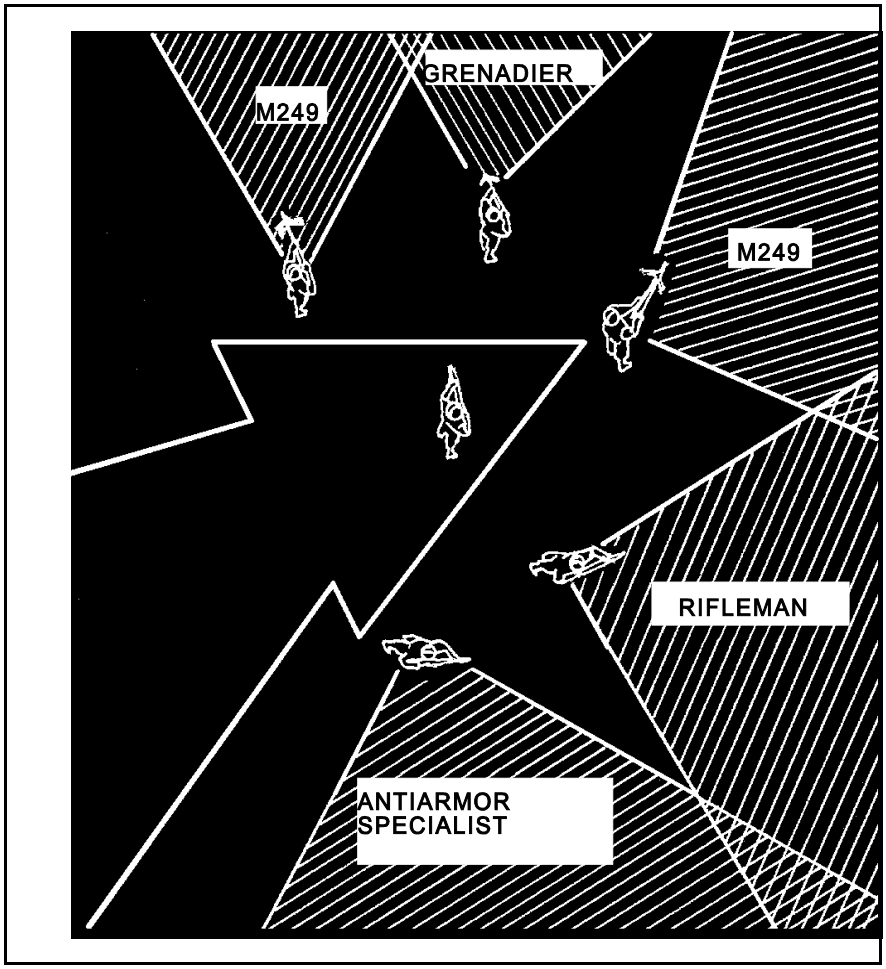


Figure 1. Normal interval.

b. In open terrain, the interval is increased.

c. The interval is decreased when visibility is limited by dense underbrush, darkness, smoke, dense fog, and so forth.

d. As soon as conditions permit, normal interval is resumed.

5. The sides of the wedge may move farther apart in open, unrestricted terrain, or they may close to almost a single file when moving up a narrow mountain path, through a minefield, around large obstacles, or when visibility is limited. These adjustments are made automatically and without command whenever necessary (Figure 2, page 3-8).

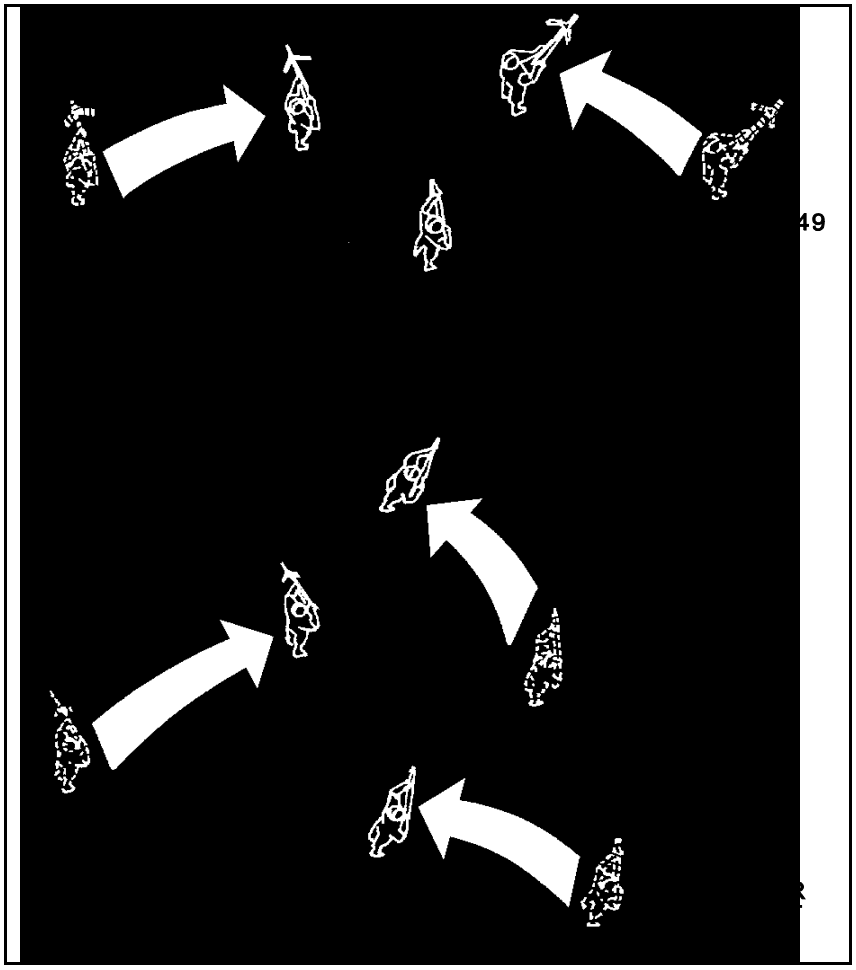


Figure 2. Decreased interval.

EVALUATION PREPARATION

Setup: This task is tested during a tactical exercise. The fully combat-equipped soldier moves as part of a fire team. The fire team is operating as part of a platoon that is conducting a dismounted movement to contact. The soldier may act as any duty position except team leader.

Brief Soldier: Tell the soldier that he is a member of a fire team and that he must use proper movement techniques within the wedge as dictated by terrain and visibility.

EVALUATION GUIDE

Performance Measures	Results	
1. Keeps relative distance within the wedge.	P	F
2. Maintains visual contact with the team leader.	P	F
3. Performs the same actions as the team leader while maintaining relative position.	P	F
4. Determines interval within the wedge according to visibility or terrain.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	FM 7-7J

BFV MAINTENANCE AND OPERATIONS

MAINTAIN THE TRACK AND SUSPENSION SYSTEM ON A BFV
071-216-0004

CONDITIONS

Given a parked BFV with basic issue items, DA Form 2404, TM 9-2350-252-10-1, LO 9-2350-252-12, lubricants as prescribed therein, spare track shoes or pads, and helpers as required.

STANDARDS

Perform the required maintenance and replace track shoes or pads, without causing damage to equipment or injury to personnel, in accordance with the procedures described in TM 9-2350-252-10-1 and LO 9-2350-252-12. Record and report all uncorrectable faults.

TRAINING AND EVALUATION
Training Information Outline

Note: In a combat environment several squad members are involved in the maintenance process. However, one squad member with a helper can perform this task.

1. Inspect the track and suspension system following the procedures described in TM 9-2350-252-10-1.

2. Correct all operator deficiencies.

3. Lubricate the track and suspension system as outlined in LO 9-2350-252-12.

WARNING

Be aware of safety precautions when moving in or around the vehicle.

4. Record all uncorrected deficiencies on DA Form 2404 in accordance with the procedures described in DA Pam 738-750.

5. Report all uncorrected deficiencies and the vehicle status to the chain of command.

EVALUATION PREPARATION

Setup: Provide the soldier with all the material and equipment as outlined in the task conditions statement.

Brief Soldier: Tell the soldier that he is to perform scheduled or other required maintenance on the track and suspension system on the BFV in accordance with TM 9-2350-252-10-1 and LO 9-2350-252-12.

EVALUATION GUIDE

Performance Measures	**Results**	
1. Inspects the track and suspension system IAW TM 9-2350-252-10-1.	P	F
2. Corrects all operator deficiencies.	P	F
3. Lubricates the track and suspension system IAW LO 9-2350-252-12.	P	F
4. Records and reports all uncorrected deficiencies.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	**Related**
TM 9-2350-252-10-1	DA Pam 738-750
LO 9-2350-252-12	

MAINTAIN THE HULL ON A BFV
071-216-0007

CONDITIONS

Given a parked BFV with the master power off, basic issue items, DA Form 2404, TM 9-2350-252-10-1, LO 9-2350-252-12, lubricants, and helpers as required.

STANDARDS

Perform the required maintenance on the hull of the BFV using the procedures described in TM 9-2350-252-10-1. Lubricate the hull in accordance with procedures described in LO 9-2350-252-12. Record all uncorrected deficiencies on DA Form 2404 in accordance with DA Pam 738-750, and report them to the chain of command.

TRAINING AND EVALUATION
Training Information Outline

1. Inspect the hull of the BFV IAW procedures described in TM 9-2350-252-10-1.
   a. Check for loose, broken, bent, or missing bolts and nuts, screws, and parts.
   b. Be alert for loose or chipped paint, rust, cracks, or gaps where parts are welded together.
   c. Check electrical wires and connectors for cracked or broken insulation and bare wires.
   d. Check hoses and fluid lines for wear, damage, and leaks. Ensure that the clamps and fittings are tight. The various classes of fluid leaks are listed below.
   (1)*Class 1.* Seepage of fluid is not great enough to form drops, but is shown by wetness or color changes.
   (2)*Class 2.* Leakage of fluids is great enough to form drops, but drops do not drip from the item being checked.
   (3)*Class 3.* Leakage of fluid is great enough to form drops that fall from the item being checked.

Note: The BFV can be operated with minor leaks (class 1 or 2). How much fluid each item or system being checked can hold must be considered and checked continuously.

2. Apply maintenance procedures on the hull as described in TM 9-2350-252-10-1 and LO 9 2350-252-12.

3. Correct operator-level shortcomings and deficiencies within the scope of the operator's capabilities.

4. Record all uncorrected shortcomings and deficiencies on DA Form 2404 in accordance with the procedures described in DA Pam 738-750.

5. Report all uncorrected shortcomings and deficiencies to the chain of command.

EVALUATION PREPARATION

Setup: Provide the soldier with all the material and equipment needed as outlined in the task conditions statement.

Brief Soldier: Tell the soldier to perform before-, during-, and after-operation checks on the hull in accordance with the procedures described in TM 9-2350-252-10-1, and annotate all uncorrectable faults on DA Form 2404 in accordance with DA Pam 738-750.

EVALUATION GUIDE

Performance Measures	**Results**	
1. Performs before-operation checks.	P	F
2. Performs during-operation checks.	P	F
3. Performs after-operation checks.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	**Related**
TM 9-2350-252-10-1	DA Pam 738-750
LO 9-2350-252-12	

PREPARE A BFV FOR FORDING
071-410-0008

CONDITIONS

Given a BFV with all basic issue items and a designated preparation point.

STANDARDS

All drain plugs, ramp, and ramp door are properly closed.

TRAINING AND EVALUATION
Training Information Outline

Note: Use this task when fording water more than 1 1/2 feet deep and less than 3 1/2 feet deep.

1. Close the front hull drain plug and make sure the bridge plates are fully seated (Figure 1).

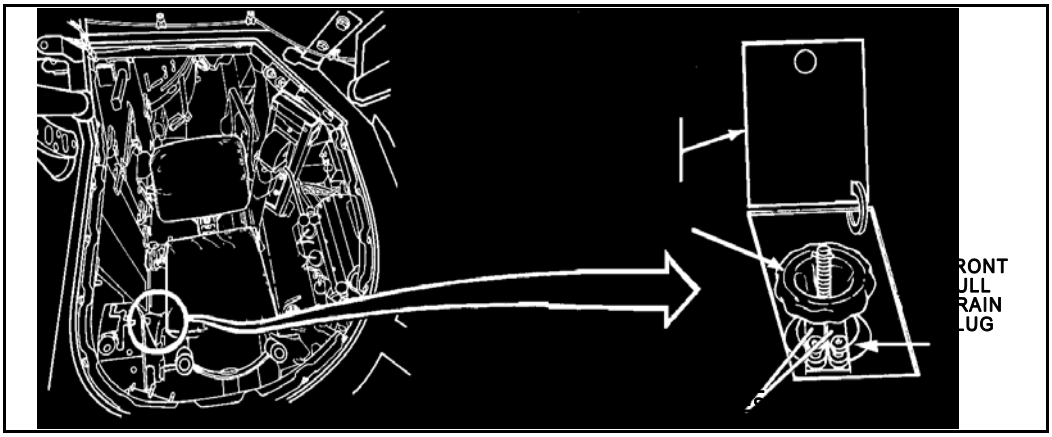


Figure 1. Front hull drain plug.

2. Close the rear hull drain plug and make sure the bridge plates are fully seated. Reinstall the floor plate (Figure 2).

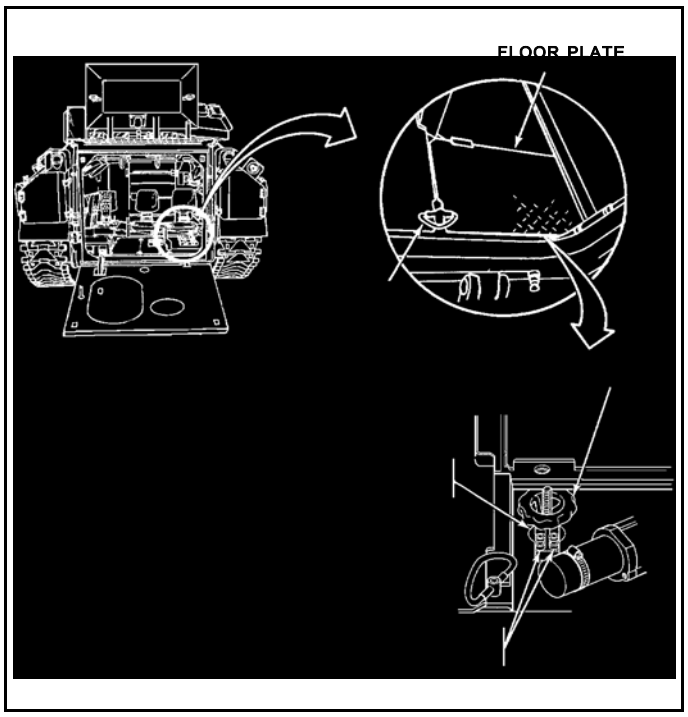


Figure 2. Rear hull drain plug.

3. Make sure the two final drive hull drain plugs are in place and secured (Figure 3).

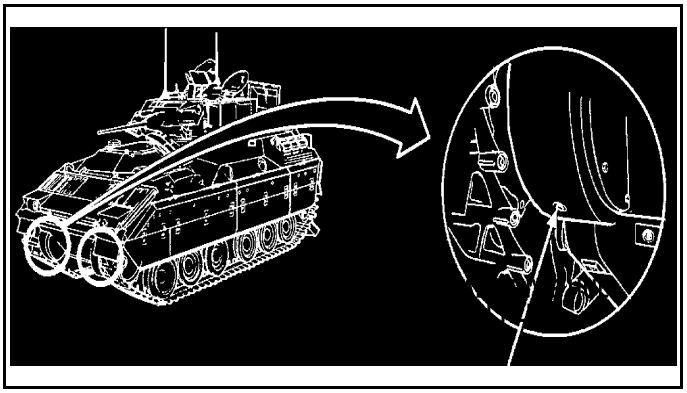
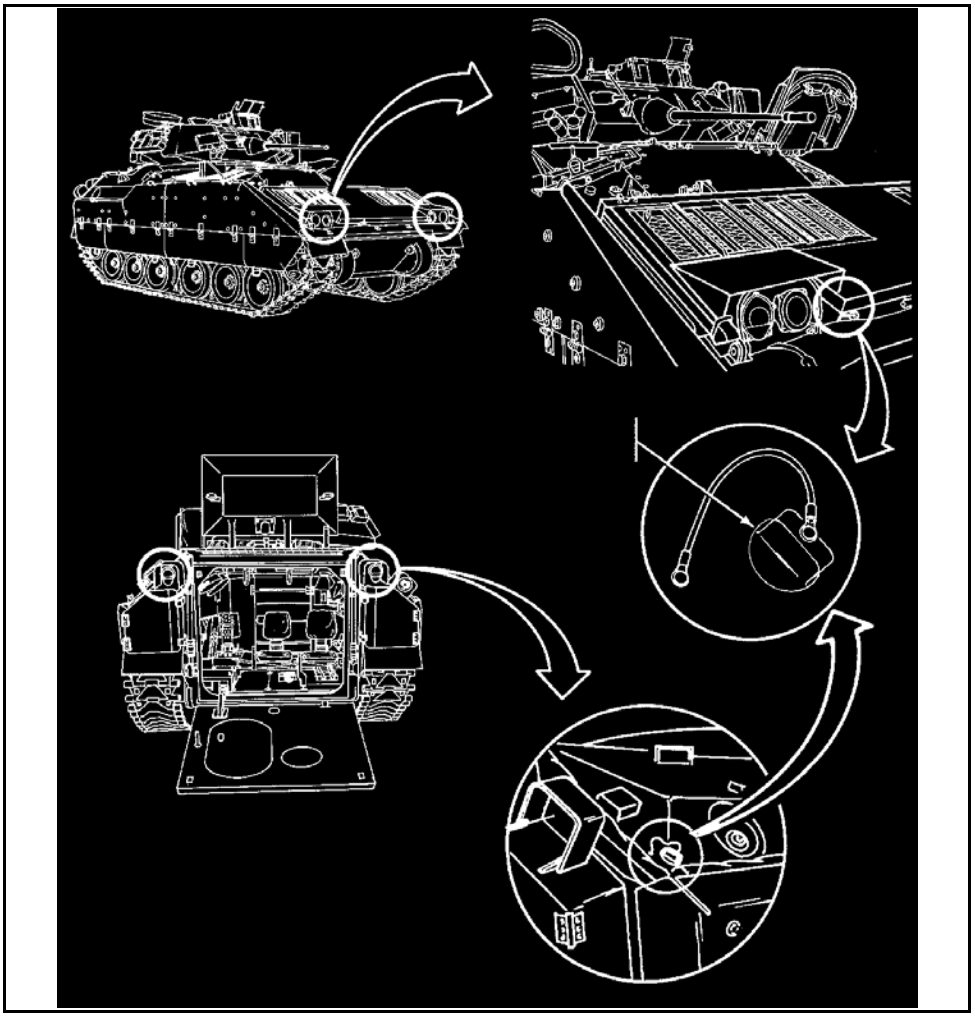


Figure 3. Final drive hull drain plugs.



4. Make sure the four upper hull drain plugs are in place and secure (Figure 4).

Figure 4. Upper hull drain plugs.

5. Check the operation of the bilge pumps by turning them on and listening for the bilge pump motor.

6. Raise the ramp and secure the ramp door.

CAUTION

While conducting a fording operation, if the BFV encounters a sinkhole deeper than the height of the BFV, water will enter the exhaust and cause a vapor lock. Major damage could occur to the vehicle.

EVALUATION PREPARATION

Setup: Provide the soldier with all the equipment needed to prepare the BFV for fording.

Brief Soldier: Tell the soldier to prepare the BFV to ford a water obstacle 1 1/2 to 3 1/2 feet deep without causing damage to the BFV and equipment or injury to personnel.

EVALUATION GUIDE

Performance Measures	Results	
1. Closes the front hull drain plugs.	P	F
2. Closes the rear hull drain plugs.	P	F
3. Checks the two final drive hull drain plugs.	P	F
4. Checks the four upper hull drain plugs.	P	F
5. Checks operation of the bilge pumps.	P	F
6. Closes the ramp and ramp door.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 9-2350-252-10-1	

OPERATE THE NBC SYSTEM ON AN M2A1/A2 OR AN M3A1/A2 BFV 071-324-6026

CONDITIONS

Given an M2A1/A2 or M3A1/A2 and A3 BFV with an NBC system installed, an M25A1 protective mask, a CVC helmet, and an order to mask and activate the NBC system.

STANDARDS

1. Don the mask and make the NBC system operational without causing damage to the system components or injury to personnel.

2. Upon the "All clear" signal, restore the NBC system to nonoperational status and the protective mask to its original storage configuration.

TRAINING AND EVALUATION
Training Information Outline

Note: When operating the NBC system, the only difference in task requirement between the driver and other crew members is that only the driver can turn the system on and off.

1. Upon receiving the signal "Gas," put on the M25A1 protective mask.
   a. Remove the CVC helmet.
   b. Put on the mask and secure the hood.
   c. Disconnect the microphone plug from the CVC and connect the mask microphone to the microphone jack on the CVC (Figure 1).

Note: For procedures for putting on the M25A1 protective mask, see task 031-503-1012: Put On and Wear, Remove, and Store Your M24, M25, or M25A1 Protective Mask with Hood (STP 21-1-SMCT).

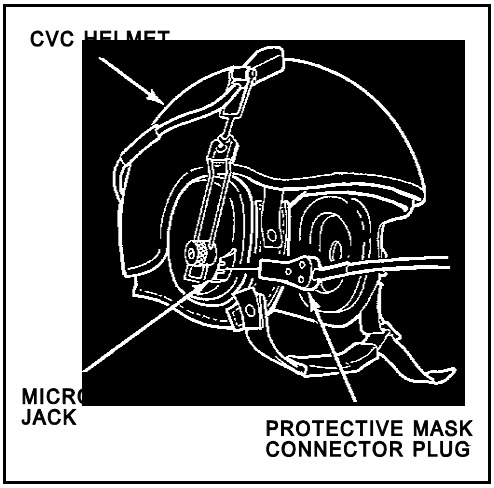


Figure 1. Attach mask microphone plug.

2. The driver activates the NBC system (Figure 2).

Note: The NBC system will not work until the spring clip is removed from the air intake holes.

a. Uncover the air intake holes on the precleaner by sliding the spring clip to either side.

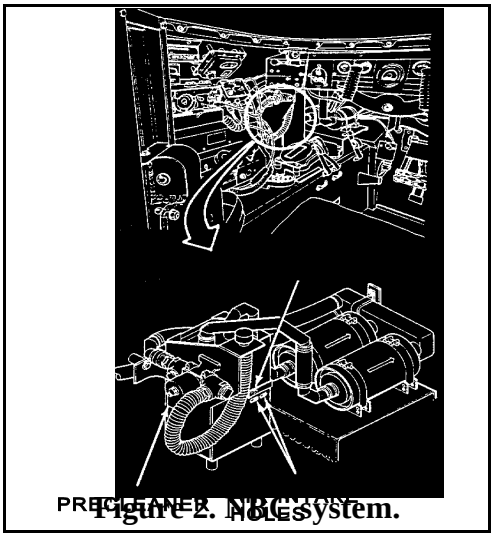
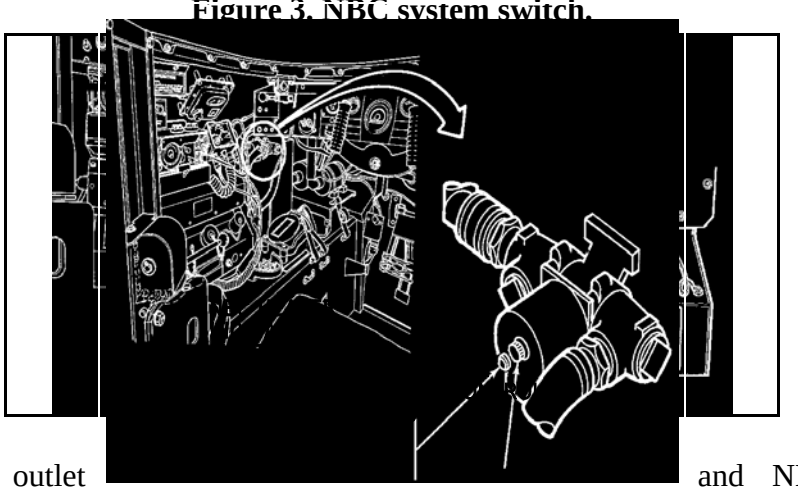


Figure 2. NBC system.

b. Make sure the MASTER POWER and ENGINE ACCESSORY switches are in the ON position.

c. Move the NBC system switch to the ON position (Figure 3).

Figure 3. NBC system switch.



3. Check the air outlet and NBC heater (Figure 4).

Note: The M2A1 has only one NBC heater in the hull (driver's). The M3A1 has three NBC heaters in the hull (driver's and two scouts'). Both types of vehicles have two NBC heaters in the turret (gunner's and Bradley commander's).

a. Remove the air outlet hose from the quick disconnect. Check the temperature of the air

WARNING

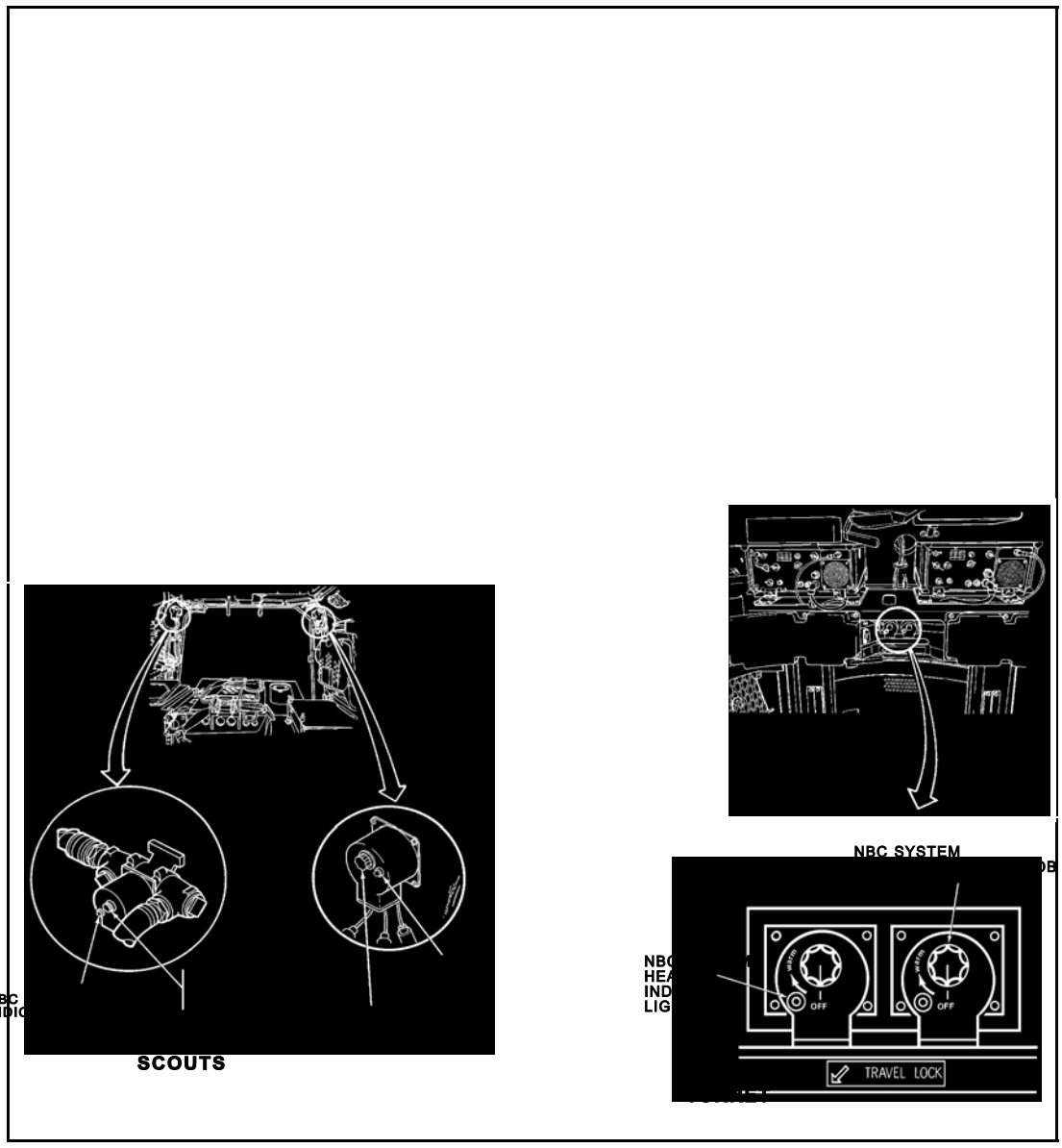
During cold weather, do not connect the air outlet hose to the mask until the air is warm; otherwise, the face can be frostbitten.

by holding a hand over the air outlet hose.

b. If the air is too cold to breathe safely, turn the NBC heater on by turning the heater knob to the right (clockwise) until the green NBC heater indicator light comes on.

c. To increase the air temperature, turn the NBC heater knob to the right (clockwise). Connect the air outlet hose to the mask carrier.

d. When the NBC heater is no longer needed, turn the control knob to the left



(counterclockwise) to the OFF position.

Figure 4. NBC heater.

4. The driver deactivates the NBC system on the command signal, “All clear.”
   a. Move the NBC system switch to the OFF position.
   b. Move the MASTER POWER and ENGINE ACCESSORY switches to the OFF position (if required).
   c. Slide the spring clip over the air intake holes on the NBC system precleaner.
5. Unmask and turn the NBC heater off.

a. Remove the air outlet hose from the mask carrier and return it to the quick disconnect. Turn the NBC heater off.
b. Remove and store the M25A1 protective mask.
c. Restore communications and inform the chain of command of the equipment status.

EVALUATION PREPARATION

Setup: Provide the soldier with all the equipment as outlined in the task conditions statement. If the soldiers are tested individually in a position other than the driver's, a driver must be provided to activate the NBC system.

Brief Soldier: Tell the soldier that he will be given the signals "Gas" and "All clear." At these signals, each soldier will do the appropriate actions.

EVALUATION GUIDE

Performance Measures	**Results**	
1. Masks and connects the mask microphone to the CVC.	P	F
2. The driver activates the NBC system.	P	F
3. Turns on and adjusts the NBC heater and attaches the air outlet hose to the mask.	P	F
4. The driver deactivates the NBC system.	P	F
5. Unmasks and turns off the NBC heater.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	**Related**
None	TM 9-2350-252-10-1
	TM 9-2350-252-10-2

OPERATE THE DRIVER'S NIGHT VIEWER AN/VVS-2 ON A BFV 071-710-0002

CONDITIONS

Given a parked BFV with basic issue items, an AN/VVS-2 night vision viewer, and a requirement to operate the driver's night viewer during limited visibility.

STANDARDS

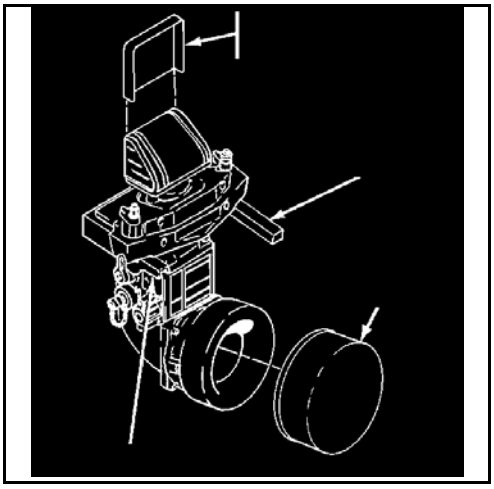
Install, turn on, and adjust the night vision viewer in order for the driver to drive the BFV safely without causing damage to the equipment or injury to personnel.

TRAINING AND EVALUATION
Training Information Outline

1. Install the AN/VVS-2 on the BFV.
   a. Remove the front periscope from the driver's hatch cover.
   b. Unstow the driver's night viewer from stowage.

Note: The AN/VVS-2 may be operated with either vehicle power or battery power. If battery power is used, dispose of the battery after each night's operation. Normal battery life is 6 to 8 hours.

   c. For battery operation only, install a BA 1567/U 2.7-volt DC battery.



   d. Set two latch handles on the viewer in the open position (Figure 1).

Figure 1. Night viewer.

   e. Install and lock the night viewer.

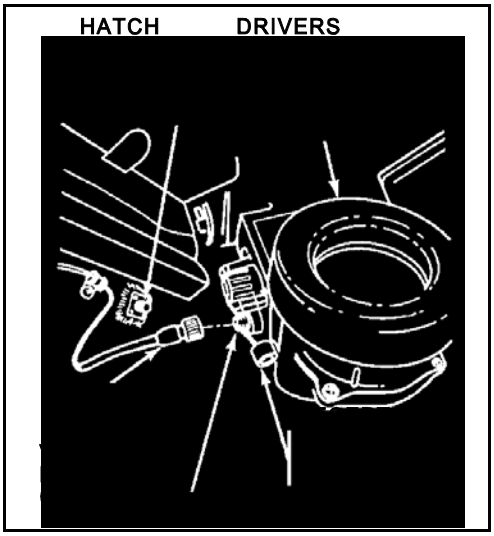
CAUTION

The driver's night viewer is easily damaged. Do not use tools to lock the latch handles.

f. Remove the entrance window cover and protective cap.

CAUTION

Do not install the vehicle power cable before the battery is removed from the driver's night viewer. The battery could explode and damage the driver's night viewer.



g. For vehicle power operation only, install the vehicle power cable to the viewer (Figure 2).

Figure 2. Vehicle power cable.

CAUTION

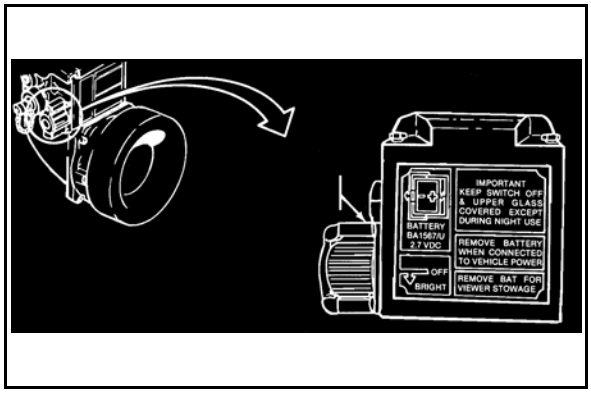
The battery may explode and damage the AN/VVS-2 if the battery overheats. Do not operate the viewer on battery power when the vehicle power cable is attached.

2. Operate the AN/VVS-2 using battery power.

   a. Turn the OFF-BRIGHT rotary switch to maximum bright position.
   b. Adjust the brightness of the viewer.
   c. Position the viewer so that the eye to viewing lens distance is 6 to 10 inches.
   d. Install the eyepiece protector cap and entrance window cover.
   e. Install the driver's periscope.
   f. Remove the BA 1567/U from the viewer.

CAUTION

The battery may leak and damage the AN/VVS-2. Do not store the battery in the viewer.



3. Operate the driver's night viewer with vehicle power.
   a. Move the master power switch to the ON position.
   b. Turn the OFF-BRIGHT rotary switch to maximum bright position (Figure 3).

Figure 3. OFF-BRIGHT rotary switch.

c. Adjust the brightness of the viewer.
d. Position the viewer so that the eye-to-viewing-lens distance is 6 to 10 inches.

4. Stow the driver's night viewer.

EVALUATION PREPARATION

Setup: Provide the soldier with all the equipment as stated in the task conditions statement.

Brief Soldier: Tell the soldier that he is to put the AN/VVS-2 into operation so that the BFV can be operated during limited visibility.

EVALUATION GUIDE

Performance Measures	Results	
1. Installs the AN/VVS-2 on the driver's hatch cover.	P	F
2. Operates the AN/VVS-2 on vehicle power.	P	F
3. Operates the AN/VVS-2 on battery power.	P	F
4. Removes and stows the AN/VVS-2.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 9-2350-252-10-1

PREPARE SINCGARS (MANPACK) FOR OPERATION
113-587-1064

CONDITIONS

Given an AN/PRC-119 or a vehicular-mounted SINCGARS, its required accessories, and a requirement to prepare the radio for operation.

STANDARDS

The battery, antenna, and handset are properly installed and the radio is secured in the carrying rack.

TRAINING AND EVALUATION
Training Information Outline

1. Assembly. (Assembly is a part of before-operation PMCS.)
   a. Stand RT on front panel guards.
   b. Place battery box on bottom of RT, aligning battery box systems connector with RT systems connector.
   c. Secure, using four latches.
   d. Inspect battery for damage, corrosion, or leakage. If the battery is new, remove the round piece of tape from the connector and place the tape on the side of the battery. If the battery has been used, note battery life condition written on the tape on the side of the battery.

WARNING

The lithium battery used with this equipment contains hazardous materials. To prevent personal injury or equipment damage, do not heat, incinerate, crush, puncture, disassemble, or otherwise mutilate the battery. Do not short circuit, recharge, or bypass internal fuses. Do not store the battery in equipment. Do not place used batteries in ordinary trash; turn in through supply channels. Turn off equipment and leave the area immediately if you feel the battery case becoming very hot, hear the battery hissing or burping, or smell a gas like rotten eggs. Remove the battery only after it cools.

e. Open battery box cover, place battery in box, mate connectors, and secure cover with latch.

f. Connect COMSEC cable to J5 connector on side of RT.

g. Connect manpack antenna and handset to RT.

h. Stand KY-57 on front panel guards.

i. When using a new battery, remove the tape from the connector and place it on the side of the battery. Write "KY-57" on the tape. This will eliminate confusion with the RT battery.

j. Place the battery on the back of the KY-57, mate connectors, install cover, and secure cover with latches.

k. Connect the COMSEC cable to the RADIO and AUD connectors on the KY-57.

2. Battery life condition.

a. Set the battery life condition. (This is part of before-operation PMCS.)

(1)Set the FCTN switch to LD.

(2)Press the keyboard BATT CALL button. (Display shows 00.)

(3)Press the keyboard CLR button.

(5)Press the keyboard number buttons.

(a)Use 00 for a new battery.

(b)Use the numbers written on the side of a used battery.

(6)Press the keyboard STO ENT button to start the clock.

b. Check the battery life condition. (This is part of after-operation PMCS. It is also done during operation to check remaining battery life.)

(1)Set the FCTN switch to SQ ON.

(2)Press the keyboard BATT CALL button.

(3)Note the numbers on display. The numbers will be written on the side of the battery when it is removed from the battery box.

(4)Set the FCTN switch to STW.

3. Disassembly. (This is part of after-operation PMCS.)

a. Disconnect the COMSEC cable from the KY-57 connectors.

b. Remove the KY-57 battery and replace the cover.

c. Disconnect antenna and handset from the RT.

d. Disconnect the COMSEC cable from the RT.

e. Remove the battery from the RT. Write the battery life condition on the side of the battery. Close the battery box cover.

f. Remove the battery box from the RT.

EVALUATION PREPARATION

Setup: Provide the soldier with all the equipment as stated in the task conditions statement.

Brief Soldier: Tell the soldier that he is to prepare and operate the radio set AN/PRC-119 assembled for (manpack) operations.

EVALUATION GUIDE

Performance Measures	Results	
1. Installs battery.	P	F
2. Connects TSEC/KY-57 to radio (non-ICOM only).	P	F
3. Installs antenna.	P	F
4. Connects handset H-250.	P	F
5. Sets battery life condition.	P	F
6. Records battery life condition on side of battery.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 11-5820-890-10-1
	TM 11-5820-890-10-3

OPERATE SECURE SINCGARS SINGLE CHANNEL (SC)
113-587-2070

CONDITIONS

Given a SINCGARS, assigned frequency(ies) and call signs as required, and a requirement to operate the radio in the single channel (SC) mode.

STANDARDS

Place a SINCGARS into operation and operate in the single channel mode without causing damage to the equipment. Inspect the radio, load and store required frequency(ies) in the radio's memory, and set switches and controls to the correct position to perform the desired function.

TRAINING AND EVALUATION
Training Information Outline

1. Before-operation PMCS.
   a. Preset controls.
   (1)KY-57—OFF.
   (2)RT.
      (a)DATA—OFF.
      (b)VOL and DIM—Mid-range.
      (c)MODE—SC.
      (d)CHAN—MAN.
      (e)RF—LO.
      (f) FCTN—STW.
   b. Turn CB1 ON or assemble manpack.
   c. Test RT circuits.
   (1)Set FCTN to Z-A. Wait for display to show "GOOD."
   (2)Set FCTN to TST.
      (a)Displays cycle as shown in PMCS chart, item 3.
      (b)If FAIL 1 message is not corrected by removing the antenna, or other fail codes appear, notify maintenance.
      (c)Display shows "GOOD" at end of test.
   d. Test transmitter.
   (1)Set FCTN to SQ ON.
   (2)Press and hold the handset push-to-talk (PTT) switch. Signal indicator lights at 1 or 2. Release PTT switch.
   e. Test mounting adapter and base (vehicular only).
   (1)Set FCTN to SQ OFF. Note noise level.

(2)Set FCTN to SQ ON. Noise level must be lower.
f. Set battery life condition (manpack only).
g. Annotate DA Form 2404. (Date column c or indicate faults.)

2. Load and operate.
a. MAN channel.
(1)Set FCTN to LD.
(2)Press keyboard FREQ and CLR buttons.
(3)Press number buttons of frequency.
(4)Press STO ENT.
(5)Set FCTN to SQ ON.
b. KY-57 COMSEC device.
(1)Turn KY-57 ON.
(2)Press and release handset push-to-talk (PTT) switch to clear alarm.
(3)Connect fill cable to KY-57 FILL connector.
(4)Connect KYK-13 to fill cable.
(5)Set KY-57 FILL switch to 1 and MODE switch to LD.
(6)Set KYK-13 FILL switch to 1 (traffic encryption key [TEK] position) and MODE switch to ON.
(7)Press and release handset PTT switch. A beep will be heard in the handset, and the KYK-13 parity indicator will flash.
(8)Set KY-57 MODE switch to C.
(9)Set KYK-13 MODE switch to OFF.
(10) Disconnect fill cable from RT and KYK-13.
(11) Set FCTN to SQ ON.

3. Closing the net.
a. NCS (net control station) closes net.
(1)W6T THIS IS T16—CLOSE DOWN—OVER.
(2)T01—ROGER—OUT.
(3)T02—ROGER—OUT.
(4)T03—ROGER—OUT.
b. The NCS will close down last. After all net members have responded, the NCS transmits, “W6T THIS IS T16—ROGER—OUT.”
c. Perform after-operation PMCS.
(1)Set KY-57 FILL switch to Z 1-5, then reset to position 1. Set POWER switch to OFF.
(2)Set RT FCTN switch to TST.
(a)Displays cycle as shown in PMCS chart item 3.
(b)Display shows "GOOD" at end of test.
(3)Set RT FCTN switch to Z-A. Wait for display to show "GOOD."
(4)Set RT FCTN switch to STW.
(5)Turn CB1 OFF or disassemble manpack (battery life condition).

(6)Annotate DA Form 2404. (Initial column e.)

EVALUATION PREPARATION

Setup: Provide the soldier with all the equipment as stated in the task conditions statement.

Brief Soldier: Tell the soldier that he will be required to operate secure SINCGARS single channel (SC) mode.

EVALUATION GUIDE

Performance Measures	Results	
1. Loads correct frequency(ies).	P	F
2. Loads traffic encryption key (TEK).	P	F
3. Makes a secure radio check.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required
None

Related
ACP 125 US Suppl 1
DA Pam 738-750
FM 24-18
TC 24-19
TM 11-5820-890-10-1
TM 11-5820-890-10-3
Unit SOI

OPERATE SECURE SINCGARS FREQUENCY HOPPING (FH) (NET MEMBERS) 113-587-2071

CONDITIONS

Given an operational SINCGARS, a designated hopset, an SOI or extract of an SOI, a net control station (NCS), and a requirement to operate as a member station in a radio net.

STANDARDS

As a member station within the unit's radio net and following the instructions of the NCS operator, set the radio's controls to the frequency hopping (FH) mode of operation and obtain communication with other member stations within the net.

TRAINING AND EVALUATION
Training Information Outline

1. Load and operate.
   a. Perform before-operation PMCS.
   b. Load MAN frequency.
   c. Load TEK.
   d. Load TSK.
   (1)Connect MX-10579 to RT AUDIO FILL connector with fill cable.
   (2)Set MX-10579 FUNCTION switch to ON and SELECT switch to T1 (TSK).
   (3)Set RT FCTN to LD/V and MODE to FH.
   (4)Press keyboard H.LD/0 button.
   (5)Display cycles and shows "COLD."
   (6)Set RT FCTN to LD.
   (7)Turn MX-10579 OFF and disconnect fill cable from RT and MX-10579.
   e. Cold start net opening procedures.
   (1)Check RT control settings: FCTN to LD, MODE to FH, CHAN to MAN, and display shows "COLD."
   (2)Use radiotelephone procedural words:
      (a)OVER—I have finished my transmission to you. **I expect a reply**.
      (b)OUT—I have finished my transmission to you. **Do not reply**.

WARNING

   (3)Wait for NCS to call the net.

Electronic warfare threat: do not make any unnecessary transmissions. The RT is operating on a single frequency and is vulnerable to radio direction finding (RDF). Everyone must operate as a team. Each station will answer in sequence without delay.

Note: The NCS will prepare a list of call signs. Check off each station when initial communications are established. Check off each station a second time when FH communications are established.

(4) NCS establishes communications on MAN channel. For example: W6T THIS IS T16—OVER.

(5) Net members answer in sequence: T01—OVER; T02—OVER; T03—OVER; and so forth.

(6) When all net members have answered, NCS directs: W6T THIS IS T16—STAND BY FOR ERF—STORE IN 1—OUT.

(7) Note that the NCS has said *OUT*. Any station that attempts to reply at this point will be aiding the enemy by jamming the NCS ERF transmission.

(8) NCS ERFs.

(9) Net members' display shows Hfnnn:

H = Holding memory.
F = Hopset.
n = Net ID (three numbers).

(10) Net members store ERF.

(a) Press keyboard STO ENT and 1 buttons. Wait for display to blink.

(b) Set CHAN switch to 1.

(c) Display shows Fnnn. Note that the H has disappeared, indicating that the hopset has been stored in permanent memory.

(11) Set FCT N to SQ ON.

WARNING

Lost communications: if you do not hear any transmissions on channel 1, reset your channel switch to MAN and FCTN switch to LD. Wait for the NCS to call you. Do not call the NCS. Remember the EW threat.

(12) Wait for NCS to call net.

(13) NCS establishes communications on channel 1: W6T THIS IS T16—OVER.

(14) Net members answer in sequence: T01—OVER; T02—OVER;T03—OVER; and so forth.

(15) NCS opens net.

(a) For net members that answer on channel 1: W6T THIS IS T16— ROGER—OUT.

(b) For net member(s) that does not answer on channel 1:

· NCS returns to MAN channel and establishes communication with net member(s).

· NCS repeats cold start and gives the net member(s) a ROGER OUT when they answer on.

f. Electronic warfare (EW).

(1) At times communications may be noisy or intermittent. Some possible causes are—

· Power lines or equipment located nearby.
· Atmospheric conditions, such as sun spots, aurora borealis, or lightning.
· Faulty equipment.
· Mutual interference by radios operating in the same frequency band.
· Deliberate jamming.

(2) To correct noisy or intermittent communications—

(a) Disconnect your antenna to determine if the problem is inside your RT.

(b) Move away from nearby power lines or equipment.

(c) Move a short distance in different directions and see if the problem is reduced.

(d) Use terrain features, such as hills, or man-made features, such as buildings or steel bridges, to mask your antenna from the direction of the enemy.

(e) Above all, keep operating and report interference to your immediate supervisor.

g. CUE late net entry.

(1) Used to enter an operating FH net.

(2) Normally answered by ALT NCS in large or very busy nets.

(3) Load CUE frequency in CUE channel.

(a) Set CHAN to CUE.

(b) Repeat procedures used for loading manual channel.

(4) Set RT controls.

(a) FCTN—LD.

(b) RF—HI or PA.

(c) CHAN—CUE.

(5) Initiate CUE call. Turn KY-57 OFF, key handset PTT switch for 4 to 6 seconds, turn KY-57 ON, and key handset to clear alarm. If NCS/ALT does not respond within 30 seconds, turn KY-57 OFF, key handset PTT switch for 4 to 6 seconds, turn KY-57 ON, and key handset to clear alarm. The NCS/ALT will not receive your CUE signal when anyone is talking on the net. Repeat these procedures every 30 seconds until the NCS/ALT calls you.

(a) NCS/ALT: UNKNOWN STATION THIS IS T16—OVER.

(b) NET MBR: T16 THIS IS T01—REPORTING INTO NET—OVER.

(c) NCS/ALT: T01 THIS IS T16—MEET ME ON MANUAL—OUT.

Note: The net member cued the net because he needed a cold start. The NCS/ALT does not need to issue any other instructions. The net member will automatically set his controls for cold start.

(6)Net member sets CHAN to MAN and FCTN to LD.
(7)NCS and net member conduct normal cold start net opening.

EVALUATION PREPARATION

Setup: Provide the soldier with all the equipment as stated in the task conditions statement.

Brief Soldier: Tell the soldier that he will be required to operate as a member station in a radio net.

EVALUATION GUIDE

Performance Measures	**Results**	
1. Performs net member premission checks.	P	F
2. Performs net member cold start net opening.	P	F
3. Performs net member CUE late net entry.	P	F
4. Performs NCS cold start net opening.	P	F
5. Performs NCS CUE late net entry.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required
None

Related
ACP 125 US Suppl 1
DA Pam 738-750
FM 24-18
TC 24-19
TM 11-5820-890-10-1
TM 11-5820-890-10-3
Unit SOI

25-MM AMMUNITION CAN

LOAD THE 25-MM AMMUNITION CAN (HEI-T) ON A BFV 071-024-0001

CONDITIONS

Given a BFV with stowed 25-mm HE ammunition (master power is ON) and a gunner in the turret to assist in loading the HE ammunition can.

STANDARDS

Identify, inspect, clean, and load the high-explosive incendiary tracer (HEI-T) ammunition into the HE ammunition can so that the ammunition is fed into the feed chutes without binding. Set ammunition switches to match the type of ammunition being loaded. Load the HE ammunition can without causing damage to the equipment or injury to personnel.

TRAINING AND EVALUATION
Training Information Outline

WARNING

Handle ammunition with care. Do not bump primers against any hard surface. If a cartridge explodes, soldiers could be hurt or killed.

1. *Gunner*: Moves the turret to HEI-T (2150 mils); announces when he has set the turret travel lock.

WARNING

For training safety, the gunner must shut down the turret drive system before the turret shield door is opened.

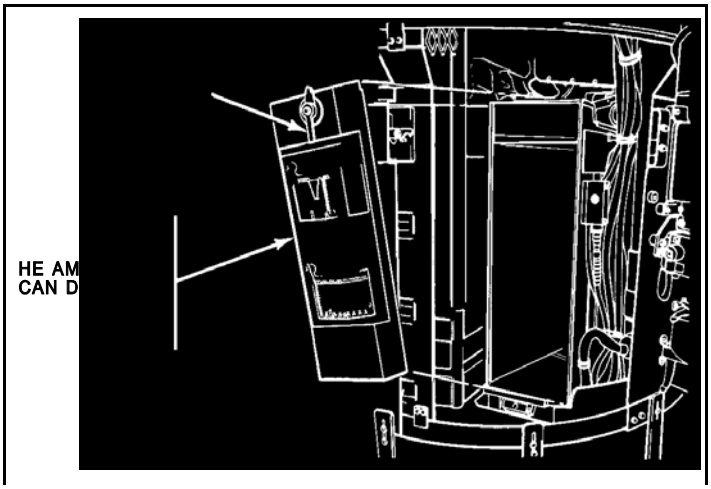


Figure 1. HE ammunition can door.

2. Open the turret shield door.
3. Open and remove the 25-mm ammunition can door and access door from the HE ammunition can.
4. Open and remove the HE ammunition can door (Figure 1).
5. Prepare the HE ammunition for loading.

CAUTION

Rounds not aligned properly can cause jamming in the 25-mm ammunition can and chutes. Rounds must be aligned at tips. Severe damage to the feeding system could result if the ammunition is not aligned.

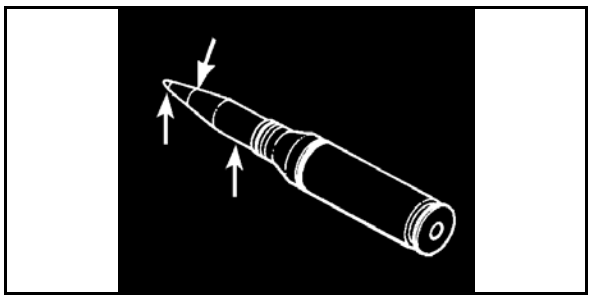
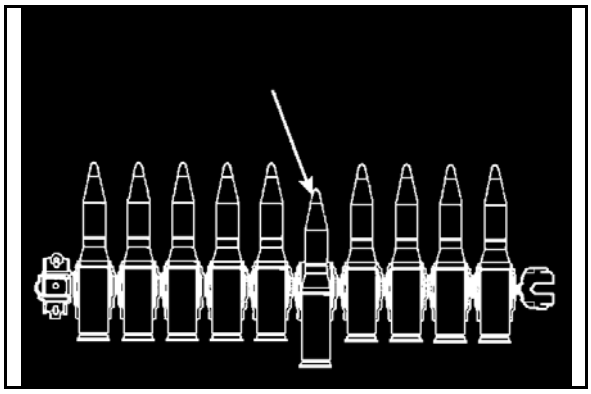


Figure 2. HE round.

a. Unstow the HE ammunition (Figure 2).
b. Inspect the ammunition to ensure it is serviceable. Clean as necessary.

Note: Placing the rounds into a fan shape will damage the ammunition links and should not be done.



c. Align all rounds (Figure 3).

Figure 3. Misaligned round.

d. Join ammunition belts until 230 rounds are in the belt.

CAUTION

Links may be damaged if rounds are not removed correctly. If a round does not release from a link, stop pulling on the round. To free a round from a link, twist and pull up on the round at the same time.

CAUTION

The end of the ammunition belt with the double links always goes in the ammunition can first. The end of the ammunition belt with the empty single link goes in last. If the ammunition is not loaded correctly, it will bind in the chutes and damage the equipment.

Note: An ammunition belt must be loaded with the links to the top and the rounds pointed to the right of the vehicle. Count the rounds as they are loaded.

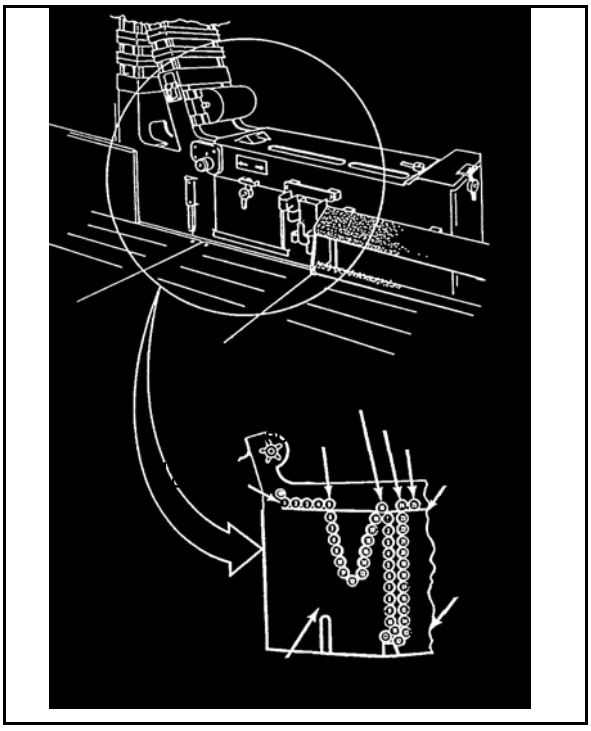


Figure 4. Round placement.

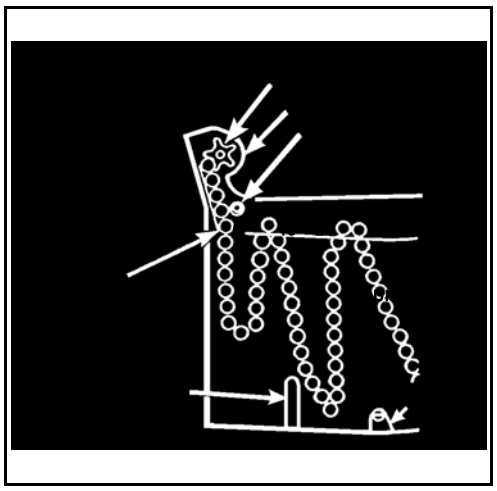


Figure 5. Rounds in forwarder.

6. Load the first 44 rounds in the ammunition can.
   a. Turn the ammunition belt over so that the links are to the top. Rounds should point to the right of the vehicle.
   b. Count out the 5th and 19th rounds. Feed the ammunition into the ammunition can belt with the double links first. Hang the first five rounds on the loading rail.
   c. Hang the 19th round on the loading rail.
   d. Count the next 25 rounds. Hang both the 24th and the 25th rounds on the loading rail (Figure 4).
7. *Gunner:* Releases the upper roller to the rear of the ammunition can.
8. *Gunner:* Forwards the ammunition belt (Figure 5).

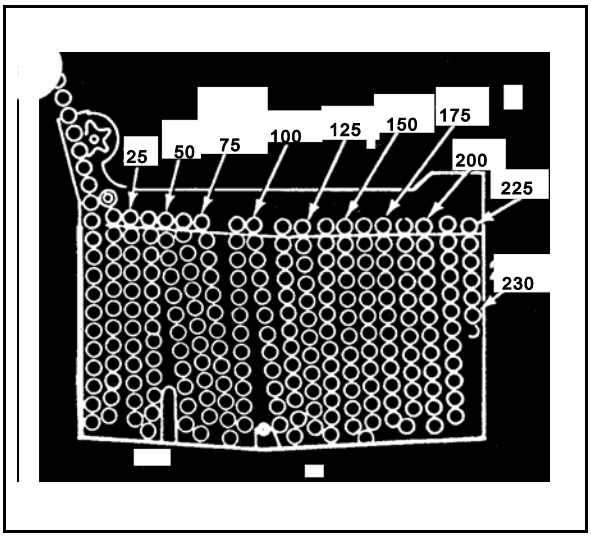


Figure 6. HE ammunition can full.

Notes: 1. The total number of rounds required during reload depends on the number of rounds left in the ammunition can.
2. A single empty link must be left at the end of the ammunition belt.

12. *Gunner:* Installs and closes the 25-mm ammunition can door and the access door on the ammunition can.
13. Install and close the HE ammunition can door.

Note: If the mission requires APDS ammunition to be loaded in the HE ammunition can, the AP-HE ammunition selector switch must be placed in the AP position.

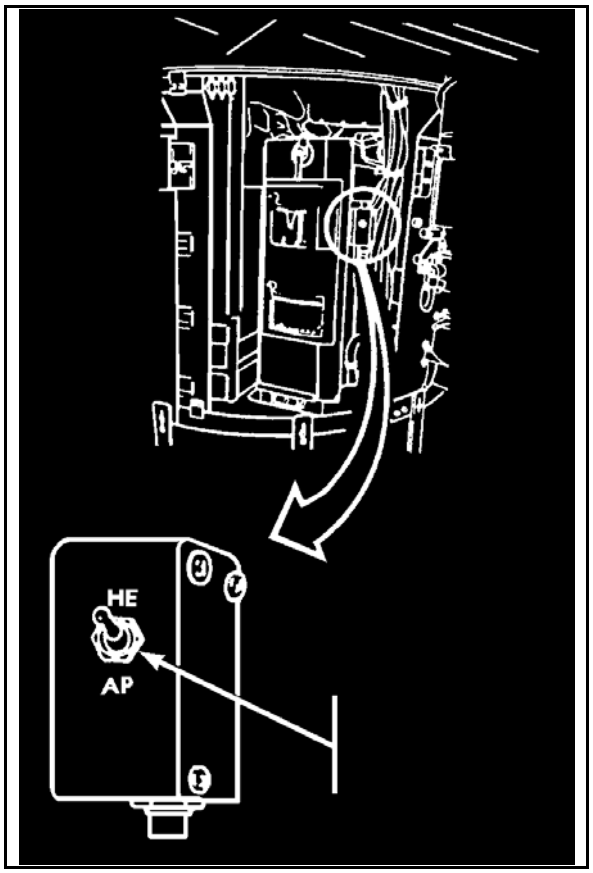


Figure 7. HE-AP selector switch.

14. Move the HE-AP selector switch to the correct position for the ammunition loaded (Figure 7).

15. Close the turret shield door and tell the gunner that HE ammunition is loaded.

EVALUATION PREPARATION

Setup: Provide the soldier with a BFV, a gunner as an assistant to help with loading, and 230 rounds of dummy, belted ammunition.

Brief Soldier: Tell the soldier and assistant that they will be tested on their ability to load the 25-mm HE ammunition can with high-explosive incendiary tracer ammunition without causing damage to equipment or injury to personnel.

EVALUATION GUIDE

Performance Measures	**Results**
1. Opens the turret shield door. Removes the HE ammunition can door from the HE ammunition.	P F
2. Inspects the HE ammunition for alignment and serviceability.	P F
3. Connects the belts together until 230 rounds are linked together.	P F
4. Hangs the first 5 rounds and the 19th, 24th, and 25th rounds on the loading rail.	P F
5. *Gunner:* Forwards the ammunition belt.	NOT TESTED
6. *Gunner:* Locks the upper roller.	NOT TESTED
7. Loads the remainder of the ammunition (hangs each successive 24th and 25th round on the loading rail).	P F
8. Lifts the first and second ammunition belt loops over the baffle.	P F
9. Installs the HE ammunition can door.	P F
10. Moves the HE-AP selector switch to the HE position. Closes the turret shield door and tells the gunner that the HE ammunition can is loaded.	P F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required
None

Related
TM 9-2350-252-10-2

LOAD THE 25-MM AMMUNITION CAN (APDS-T) ON A BFV 071-024-0002

CONDITIONS

Given a BFV, master power ON, with stowed 25-mm AP ammunition and a gunner in the turret to assist in loading the AP ammunition can.

STANDARDS

Identify, inspect, clean, and load the APDS-T ammunition into the AP ammunition can so that the ammunition is fed into the feed chutes without binding. Set ammunition switches to match the type of ammunition loaded. Load the AP ammunition can without causing damage to equipment or injury to personnel.

WARNING

When loading, handling, or stowing M919 ammunition, follow steps in TM 9-2350-252-10-2. Follow all caution and warning statements referring to depleted uranium rounds. Mishandling of rounds could cause serious injury or death.

TRAINING AND EVALUATION
Training Information Outline

WARNING

If a cartridge explodes, soldiers could be hurt or killed. Handle ammunition with care. Do not bump primers against any hard surface.

1. *Gunner:* Moves the turret to APDS-T (4350 mils) and announces when he has set the turret travel lock.

WARNING

Gunner must shut down the turret drive system for safety before the turret shield door is opened.

2. Open the turret shield door.

3. Open and remove the AP ammunition can door from the AP ammunition can (Figure 1).

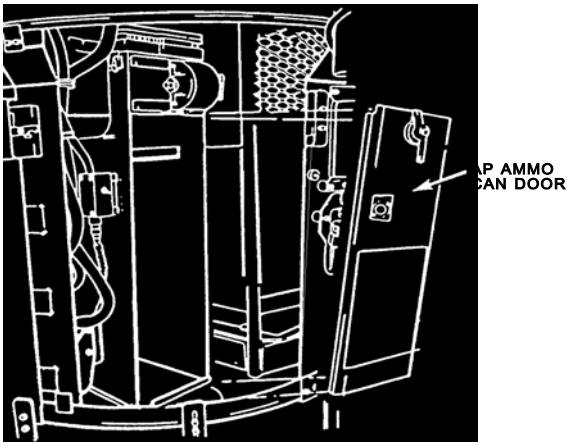


Figure 1. AP ammunition can door.

4. Prepare the AP ammunition for loading.
   a. Unstow the AP ammunition.

CAUTION

Rounds not aligned properly can cause jamming in the ammunition can and chutes. Rounds must be aligned at the tips. Severe damage to the feeding system could result if the ready box is not aligned.

b. Inspect the ammunition to ensure it is serviceable. Clean as necessary and align rounds (Figure 2).

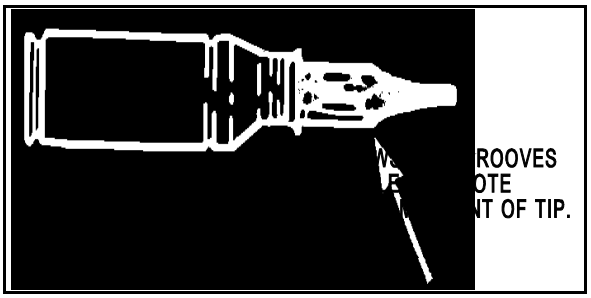


Figure 2. AP round.

Note: Placing the rounds into a fan shape will cause damage to the ammunition links and should not be practiced.

c. Align all rounds (Figure 3).

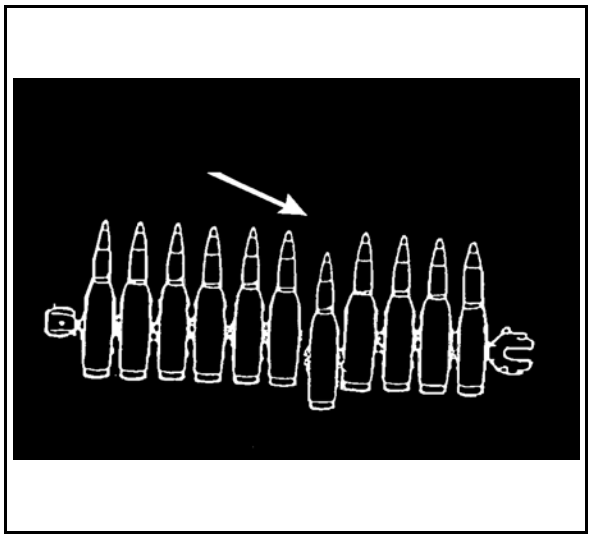


Figure 3. Misaligned round.

CAUTION

Links may be damaged if the rounds are not removed correctly. If a round does not release from a link, stop pulling on the round. To free a round from a link, twist and pull up on the round at the same time.

d. Join ammunition belts until 70 rounds are in the belt. If reloading, fewer than 70 rounds will be needed.

CAUTION

The end of the ammunition belt with the double links always goes in the ammunition can first. The end of the ammunition belt with the empty single link goes in last. If ammunition is not loaded correctly, ammunition will bind in chutes and damage equipment.

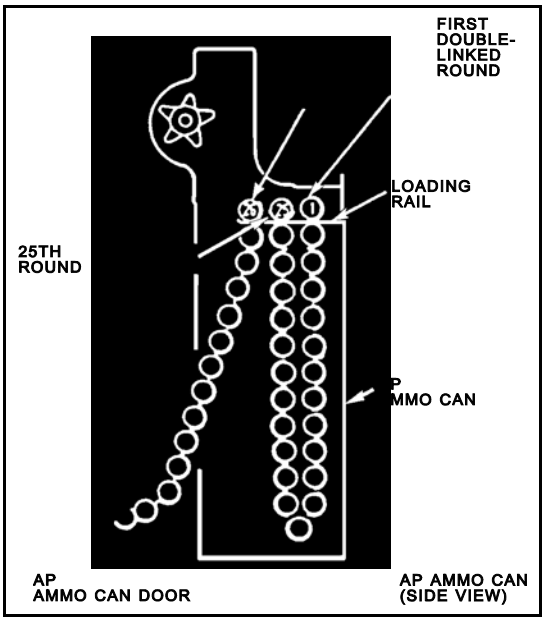


Figure 4. Loading rail.

Note: An ammunition belt must be loaded with the links down and the rounds pointed to the left side of the ammunition can.

6. Load the ammunition belt onto the loading rail.

a. Align the ammunition belt with the ammunition can and hang the first double-linked round (nearest the ammunition can) onto the loading rail.

b. Count the next 25 rounds. Hang both the 25th and the 26th rounds onto the loading rail (Figure 4).

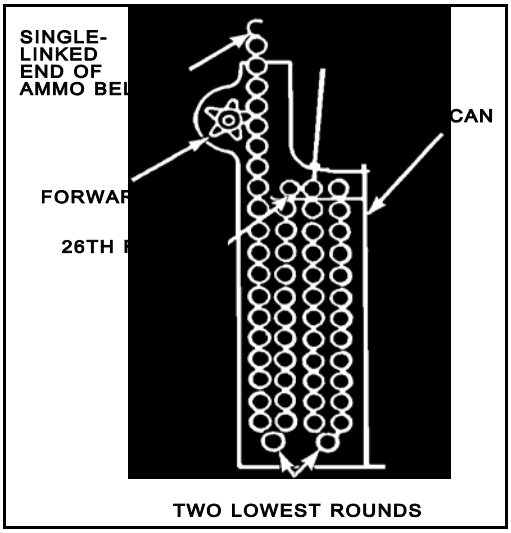


Figure 5. Rounds in forwarder.

7. Load or reload ammunition as required (Figure 5).

a. If loading, forward the ammunition belt.

(1)Lift the single-linked end of the ammunition belt up into the forwarder. Push the last round up until it is engaged in the sprocket.

(2)*Gunner:* Using the 14-mm ratchet wrench, turns the forwarder to the right until the two lowest rounds hang down the same distance from the loading rail.

b. If reloading, join the second ammunition belt to the ammunition belt hanging from the AP feed chute.

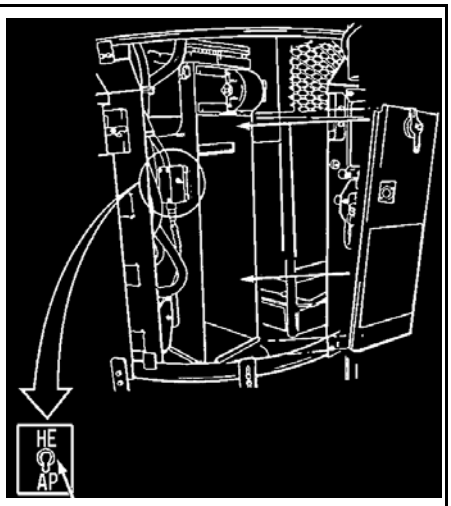
(1)Count the rounds on the loaded ammunition belts below the loading rail. Forty-nine less the amount below the loading rail is the number of rounds that can be loaded.

(2)Join more ammunition belts, as required.

8. Install the AP ammunition can door. Put the door into place and turn the handle to lock the door in the closed position.

Note: If the mission requires training practice-tracer (TP-T) or HE ammunition to be loaded in the ammunition can, the AP-HE ammunition selector switch must be placed in HE position.

9. Move the HE-AP ammunition selector switch to the correct position for the ammunition loaded (Figure 6).



HE-AP AMMUNITION
SELECTOR SWITCH

Figure 6. HE-AP ammunition selector switch.

10. Close the turret shield door and inform the gunner that the AP ammunition can is up-loaded.

EVALUATION PREPARATION

Setup: Provide the soldier with a BFV, a gunner to help with loading, and 70 rounds of dummy, belted ammunition.

Brief Soldier: Tell the soldier that he will be tested on his ability to load the AP ammunition can with APDS-T ammunition without causing damage to equipment or injury to personnel.

EVALUATION GUIDE

Performance Measures	**Results**	
1. Opens the turret shield door, and opens and removes the door from the AP ammunition can.	P	F
2. Inspects the AP ammunition for alignment and serviceability.	P	F
3. Connects the belts together until 70 rounds are linked together.	P	F

Performance Measures	Results
4. Hangs the first double-linked round and 25th and 26th rounds on the loading rail.	P F
5. Lifts the single-linked end of the ammunition belt into the forwarder and pushes the last round up until it is engaged in the sprocket.	P F
6. *Gunner:* Using the 14-mm ratchet wrench, turns the forwarder to the left until the two lowest rounds hang down the same distance from the loading rail.	NOT TESTED
7. Loads the remainder of the ammunition into ammunition can.	P F
8. Installs the AP ammunition can door.	P F
9. Moves the HE-AP selector switch to the AP position. Closes the turret shield door. Informs the gunner that the AP ammunition can is loaded.	P F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 9-2350-252-10-2

UNLOAD THE 25-MM AMMUNITION CAN (HEI-T) ON A BFV 071-024-0003

CONDITIONS

Given a BFV with the 25-mm HE ammunition can loaded, the master power switch ON, empty HE ammunition boxes, and a gunner in the turret as an assistant.

STANDARDS

Remove the HEI-T ammunition from the HE ammunition can, store it in the original ammunition boxes, and stow the boxes in accordance with unit SOP without causing damage to equipment or injury to personnel.

TRAINING AND EVALUATION
Training Information Outline

WARNING

Check the top of the vehicle and be sure that soldiers or equipment are not in the path of the moving gun or turret. Keep the turret shield door closed and latched while the turret is in motion.

1. *Gunner:* Move the turret to the HE load position (2150 mils); announce when the turret travel lock is set.

WARNING

For training safety, the gunner must shut down the turret drive system before the turret shield door is opened.

2. Open the turret shield door.

3. Open and remove the HE ammunition can door from HE ammunition can.

WARNING

Handle ammunition with care. Do not bump primers against any hard surface. If a cartridge explodes, soldiers could be hurt or killed.

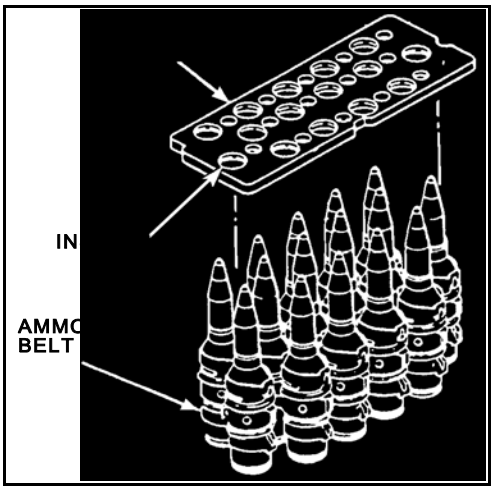


Figure 1. Free end of belt.

4. Remove the ammunition belt from the ammunition can.
   a. *Gunner:* Move HE ammunition onto the loading rail.
   b. Pull out and pass free end of ammunition belt to helper (Figure 1).
   c. Move ammunition belt down and away from ammunition can.
   d. Stretch and turn the ammunition belt so the links are to the bottom. Place the ammunition belt on the vehicle floor.

Note: If the round does not release from the link, stop pulling the round. To free the round, twist and pull up on the round at same time.

5. Separate the ammunition belt into 15-round belts.

Note: The last ammunition belt may have less than 15 HE rounds.

6. Stow the ammunition in the HE ammunition boxes.

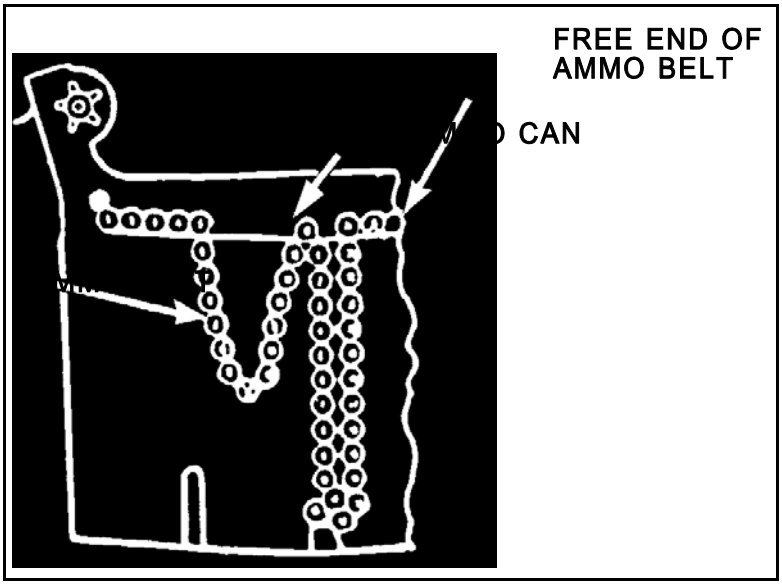


Figure 2. Separator.

a. Form each belt into an “S” shape and use a separator (Figure 2).

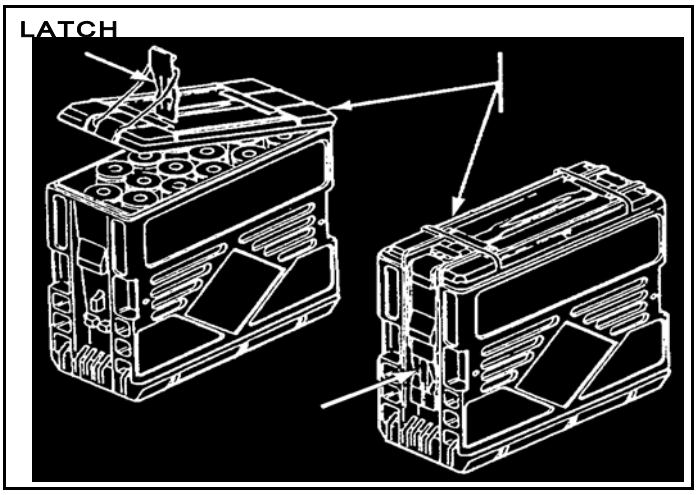


Figure 3. Ammunition box.

b. Place the first ammunition belt in the ammunition box with the rounds pointed down. Close and latch the lid. Turn the box over (Figure 3).

c. Place the second ammunition belt in the ammunition box with the rounds pointed down. Close and latch the lid.

7. Install and close the HE ammunition can door on HE ammunition can.
   a. Close turret shield door.
   b. Tell the gunner that the HE ammunition can is unloaded.

8. Stow HE ammunition in accordance with unit SOP.

EVALUATION PREPARATION

Setup: Provide the soldier with a BFV, an assistant to help with unloading, and 230 rounds of dummy, belted ammunition loaded in the HE ammunition can.

Brief Soldier: Tell the soldier that he will be tested on his ability to unload the 25-mm HE ammunition can and stow the ammunition without causing damage to equipment or injury to personnel.

EVALUATION GUIDE

Performance Measures	**Results**	
1. Opens the turret shield door; opens and removes the HE ammunition can door.	P	F
2. Removes the ammunition belt from the ammunition can.	P	F
3. Separates the ammunition into 15-round belts.	P	F
4. Using a separator, stows each 15-round belt in an “S” shape into an ammunition box.	P	F
5. Installs and secures the HE ammunition can door. Closes the turret shield door. Informs the gunner that the HE ammunition can is unloaded.	P	F
6. Stows the ammunition boxes.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	**Related**
None	TM 9-2350-252-10-2

UNLOAD THE 25-MM AMMUNITION CAN (APDS-T) ON A BFV 071-024-0004

CONDITIONS

Given a BFV with the master power switch ON and the AP 25-mm ammunition can loaded, empty AP ammunition boxes, and one additional squad member as an assistant.

STANDARDS

Unload the 25-mm AP ammunition box, restore the ammunition into the original ammunition boxes, and stow on the BFV in accordance with the unit load plan, without causing damage to equipment or injury to personnel.

TRAINING AND EVALUATION
Training Information Outline

WARNING

Check the top of the vehicle and be sure that soldiers or equipment are not in the path of the moving gun or turret. Keep the turret shield door closed and latched while the turret is in motion.

1. *Gunner:* Move the turret to the AP load position (4350 mils); announce when the turret travel lock is set.

WARNING

For training safety, the gunner must shut down the turret drive system before the turret shield door is opened.

2. Open the turret shield door.

WARNING

Handle ammunition with care. Do not bump the primers against any hard surface. If a cartridge explodes, soldiers could be hurt or killed.

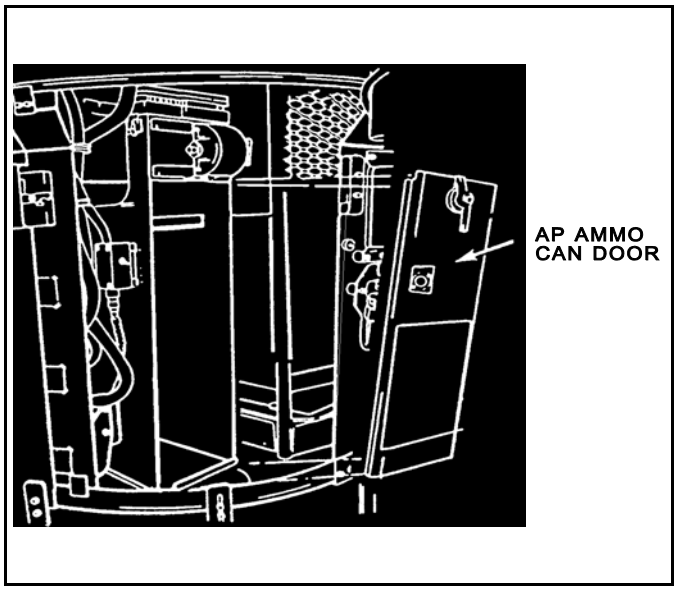


Figure 1. AP ammunition can door.

3. Remove the AP ammunition can door (Figure 1).

4. Remove the ammunition belt from the ammunition can.
   a. Pass the free end of the ammunition belt to a helper.
   b. Pull out and remove the next two folds of ammunition belt from the loading rail.
   c. Stretch and place the ammunition belt on the vehicle floor.

5. Separate the ammunition belt into 15-round belts.

6. Stow the ammunition in AP ammunition boxes.
   a. Form each belt into an “S” shape and use a separator (Figure 2, page 3-58).

b. Place the first ammunition belt in the ammunition box with the rounds pointing down. Close and latch the lid. Turn the ammunition box over.

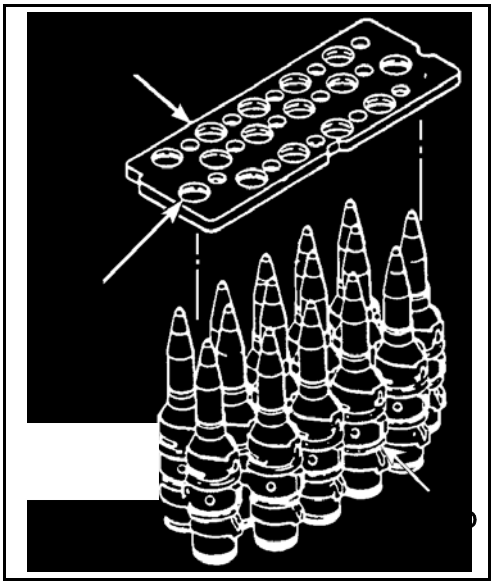


Figure 2. Separator.

c. Place the second ammunition belt in the ammunition box with the rounds pointing down. Close and latch the lid (Figure 3).

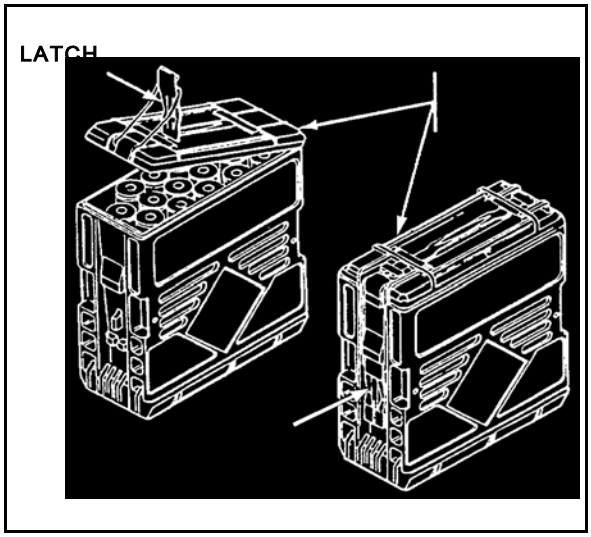


Figure 3. Ammunition box.

7. Install and close the AP ammunition can door.
   a. Close the turret shield door.
   b. Tell the gunner that the AP ammunition can is unloaded.

8. Stow the ammunition in accordance with unit SOP.

EVALUATION PREPARATION

Setup: Provide the soldier with a BFV, an assistant to help with loading, and 70 rounds of dummy, belted ammunition.

Brief Soldier: Tell the soldier that he will be tested on his ability to unload the 25-mm AP ammunition can and stow the ammunition without causing damage to the equipment or injury to personnel.

EVALUATION GUIDE

Performance Measures	Results	
1. Opens the turret shield door, and opens and removes the AP ammunition can door.	P	F
2. Removes the ammunition belt from the ammunition can.	P	F
3. Separates the ammunition into 15-round belts.	P	F
4. Using a separator, stows each 15-round belt in an “S” shape into an ammunition box.	P	F
5. Installs and secures the AP ammunition can door. Closes the turret shield door. Informs the gunner that the AP ammunition can is unloaded.	P	F
6. Stows the ammunition in boxes.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 9-2350-252-10-2

M231 FIRING PORT SUBMACHINE GUN

MAINTAIN AN M231 FIRING PORT SUBMACHINE GUN
071-028-0001

CONDITIONS

Given a cleared M231 firing port submachine gun, a 30-round magazine, and required cleaning equipment.

STANDARDS

Disassemble, inspect, clean, lubricate, and assemble the M231 without causing injury to operator or damage to equipment. Identify defective parts that cannot be corrected by the operator.

TRAINING AND EVALUATION
Training Information Outline

1. Disassemble the M231 firing port submachine gun.
   a. Drive spring and guide assembly (Figure 1).

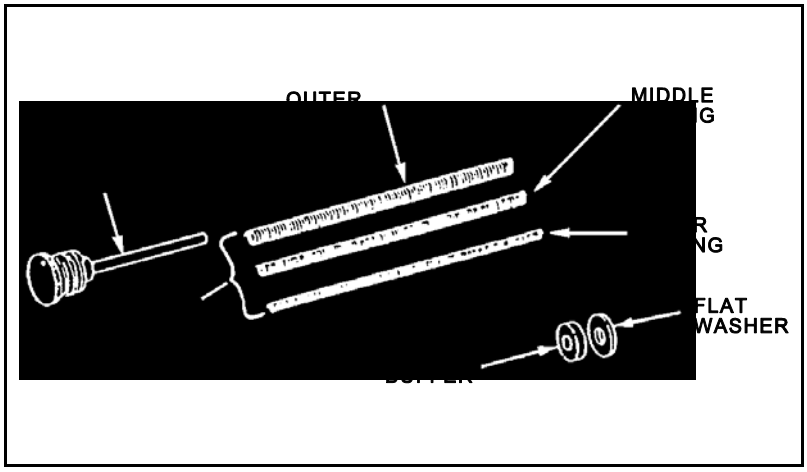


Figure 1. Drive spring and guide assembly disassembled.

WARNING

Make sure the bolt carrier and striker assembly are forward. Be careful when removing spring-loaded parts. Carelessness could result in injury.

b. Handguards. Remove and clean the handguards only if dirt and corrosion can be seen through the handguard vent holes.

c. Upper and lower receivers.

d. Bolt carrier and striker assembly.

CAUTION

Do not open or close the split end of the retaining pin.

e. Breech bolt assembly. Disassemble the extractor from the bolt only when it is dirty or damaged (Figure 2).

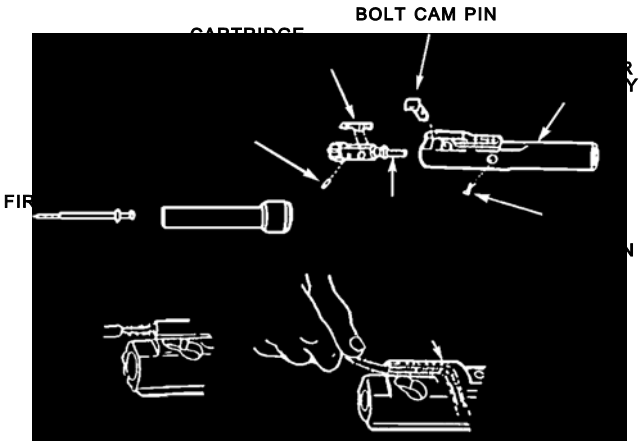


Figure 2. Bolt carrier and striker assembly disassembled.

CAUTION

Do not damage tip of firing pin.

2. Clean the M231 firing port submachine gun.

Notes: 1. **Do not** use CLP to clean or lubricate the M231 firing port submachine gun. Use only RBC, LSA, or LAW for cleaning and lubricating.
2. If any parts are missing or defective, follow unit SOP and see the unit armorer for replacements or repairs.

a. Upper receiver and barrel assembly.
b. Drive spring and guide assembly.
c. Bolt carrier and striker assembly.
d. Lower receiver and receiver extension assembly.

CAUTION

Do not use a wire brush or any abrasive material to clean aluminum surfaces.

3. Inspect the M231 firing port submachine gun. If any parts are missing or defective, see the unit armorer for replacements or repairs.
a. Upper receiver and barrel assembly.
b. Drive spring and assembly.
c. Bolt carrier and striker assembly.
d. Lower receiver and receiver extension assembly.

WARNING

Do not interchange the bolt, bolt carrier, or striker assemblies between weapons.

4. Lubricate the M231 firing port submachine gun. Use the following lubrication guide.
   a. Lubricants.
   (1)LSA (lubricating oil, semifluid, automatic weapons).
   (2)LAW (lubricating oil, arctic weapons).

Note: Do not use CLP on the M231 firing port submachine gun.

   b. Application.
   (1)One drop. Dip end of swab into lubricant and allow a drop to fall from the tip.
   (2)Light coat. Apply enough lubricant to the swab to apply a barely visible film on the part.
   (3)Generous coat. Apply enough lubricant to saturate the swab; apply a film on the part that can be spread with the finger.

5. Assemble the M231 firing port submachine gun.

WARNING

Do not switch the bolt, bolt carrier, or striker assemblies between weapons.

   a. Bolt carrier and striker assembly.
   b. Upper receiver and barrel assembly.
   c. Upper and lower receivers.

WARNING

The bolt cam pin must be installed or the weapon will explode when the first round is fired.

Note: Before installing the firing hammer, check the firing pin assembly. The firing pin should not fall out when the bolt carrier group is turned upside down.

6. Maintain a 30-round magazine for an M231 firing port submachine gun. Disassembly is necessary only if the magazine has been exposed to dirt or other unusual conditions.

Notes: 1. Do not remove the follower from the spring.
2. If the spring comes loose from the follower, turn the pieces in to maintenance.

EVALUATION PREPARATION

Setup: Provide the soldier with an M231 firing port submachine gun, a 30-round magazine, small-arms cleaning kit, swabs, rags, pipe cleaners, lubricating oil, and rifle bore cleaner.

Brief Soldier: Tell the soldier to disassemble, inspect, clean, lubricate, and assemble the M231 firing port submachine gun and magazine, and report any defective parts that cannot be corrected by the operator.

EVALUATION GUIDE

Performance Measures	Results	
1. Disassembles an M231 firing port submachine gun.	P	F
2. Cleans an M231 firing port submachine gun.	P	F
3. Inspects an M231 firing port submachine gun.	P	F
4. Lubricates an M231 firing port submachine gun.	P	F
5. Assembles an M231 firing port submachine gun.	P	F
6. Identifies and reports defective parts.	P	F
7. Maintains a 30-round magazine.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 9-1005-309-10

PERFORM A FUNCTION CHECK ON AN M231 FIRING PORT SUBMACHINE GUN 071-028-0002

CONDITIONS

Given an assembled and cleared M231 firing port submachine gun and a requirement to perform a function check.

STANDARDS

After determining that the weapon is or is not operational, perform a function check without causing injury to the operator or damage to the equipment. Report defective parts that cannot be corrected by the operator to the chain of command.

TRAINING AND EVALUATION
Training Information Outline

1. Pull the charging handle to the rear and return. Place the selector lever on SAFE. Pull the trigger; the bolt carrier and striker assembly should not go forward.

2. Place the selector lever on AUTO. Hold the charging handle to the rear. Pull the trigger and hold to the rear and ride the bolt forward. The bolt carrier and striker assembly should go forward.

3. Hold the trigger to the rear. Pull the charging handle to the rear. The bolt carrier and striker assembly should not sear up or lock to the rear.

4. If the weapon fails any part of the function check, take action to correct the malfunction. If uncorrectable by the operator, report the malfunction to the chain of command.

5. Inform the supervisor of the weapon's status.

EVALUATION PREPARATION

Setup: Provide the soldier with an M231 firing port submachine gun.

Brief Soldier: Tell the soldier to conduct a function check and report any defective parts that cannot be corrected by the operator.

EVALUATION GUIDE

Performance Measures	Results
1. Performs a function check.	P F
2. Informs the supervisor of the weapon's status.	P F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 9-1005-309-10

INSTALL AN M231 FIRING PORT SUBMACHINE GUN ON AN M2 BFV 071-028-0003

CONDITIONS

Given a BFV and an M231 firing port submachine gun.

STANDARDS

Install the M231 firing port submachine gun in the vehicle without causing damage to equipment or injury to personnel.

TRAINING AND EVALUATION
Training Information Outline

Notes: 1. There are two ramp firing port submachine guns. Each gun is installed the same way. Instructions begin with step 1.
2. There are four side firing port submachine guns (two on each side). Each gun is installed the same way. Instructions begin with step 2.

1. Open the ramp firing port cover (Figure 1).
   a. Put finger in the latch hole and press down.
   b. Pull out and lower the cover.
   c. Press the cover down until the latch slides under the lower latch lock.

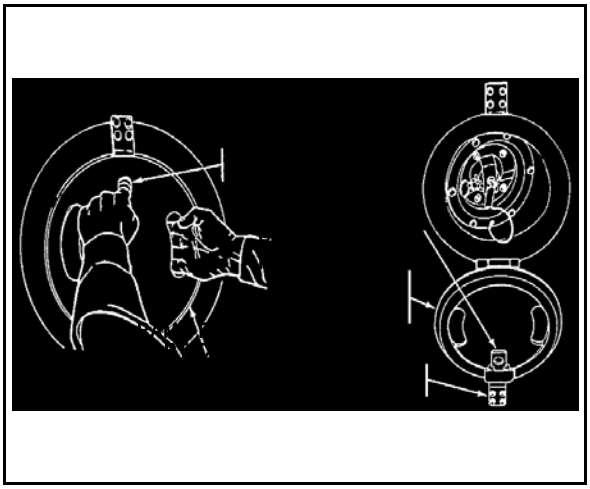


Figure 1. Ramp firing port cover.

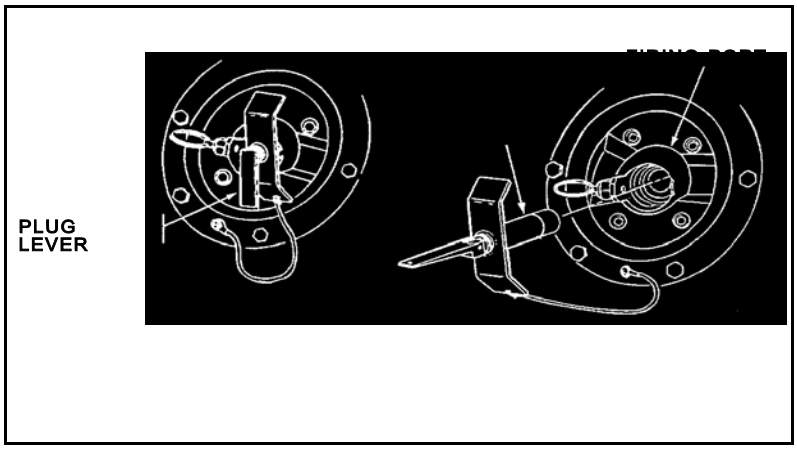


Figure 2. Firing port plug lever.

2. Remove the firing port plug. Pull up on the firing port plug lever to unlock and pull out the plug (Figure 2).

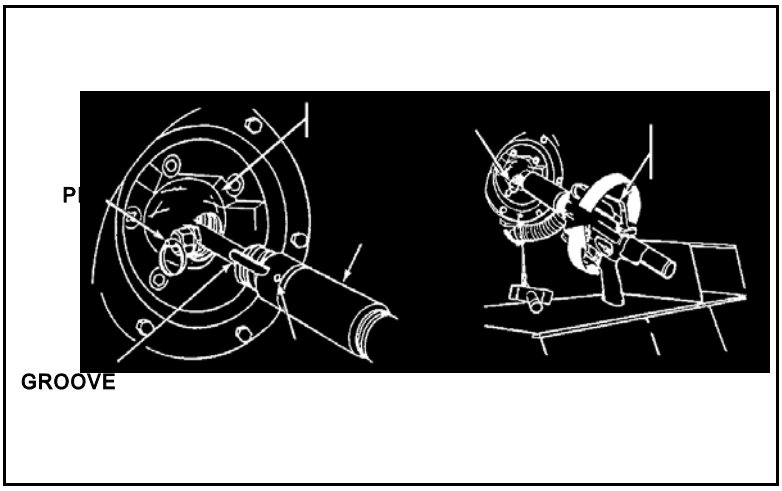


Figure 3. Inserting firing port submachine gun into firing port.

Note: Before installing the gun, ensure that the threads in the firing port are free of burrs.

3. Install the gun (Figure 3).

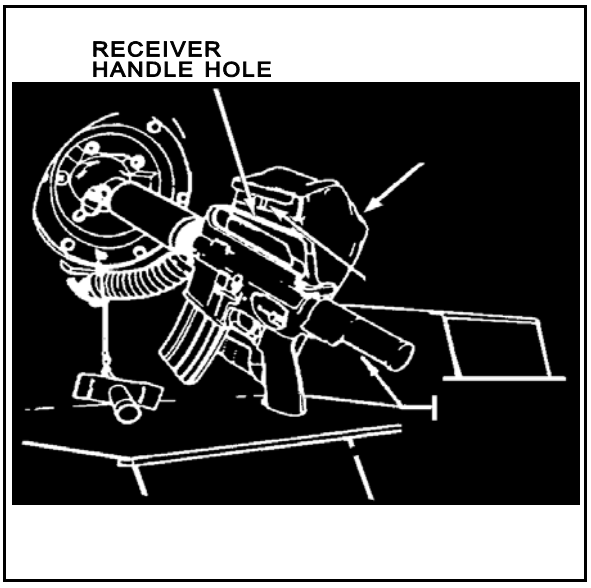


Figure 4. Brass-catcher bag.

a. Insert the firing port submachine gun into the firing port and align the pin with the groove on the barrel of the weapon.

b. Turn the firing port submachine gun to the right (clockwise) until the pin locks in the hole.

Note: Brass-catcher bags for ramp firing ports are to the right and left of the ramp.

4. Attach the brass-catcher bag. Remove the brass-catcher bag from the stowage clip and place the bag on the receiver handle. Ensure that the holder pin mates with the hole in the firing port submachine gun carrier handle. Check that the bottom flap of the bag is closed, that no holes are in the bag or vent hose, and that the vent hose is securely clamped to the bag and hull (Figure 4).

EVALUATION PREPARATION

Setup: Provide the soldier with a BFV and the M231 firing port submachine gun.

Brief Soldier: Tell the soldier to install an M231 firing port submachine gun on an M2 BFV.

EVALUATION GUIDE

Performance Measures	Results	
1. Opens the ramp firing port cover (ramp firing position).	P	F
2. Removes the firing port plug.	P	F
3. Installs the gun.	P	F
4. Attaches the brass-catcher bag.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 9-2350-252-10-1

REMOVE AN M231 FIRING PORT SUBMACHINE GUN FROM AN M2 BFV 071-028-0004

CONDITIONS

Given an M2 BFV and an M231 firing port submachine gun that has been cleared.

STANDARDS

Remove the M231 firing port submachine gun from the firing port without causing damage to equipment or injury to personnel.

TRAINING AND EVALUATION
Training Information Outline

Notes: 1. There are four side firing port guns (two on each side). Each gun is removed the same way. Instructions end with step 3.
2. There are two ramp firing port guns. Each gun is removed the same way. Instructions begin with step 4.
3. Ensure that the gun is cleared before removing it from the firing port (task 071-028-0006: Unload an M231 Firing Port Submachine Gun.)

1. Remove the brass-catcher bag.
   a. Take the brass-catcher bag off the gun by pulling upward on the bag, ensuring that the brass-catcher bag pin comes out of the hole in the carrying handle (Figure 1).

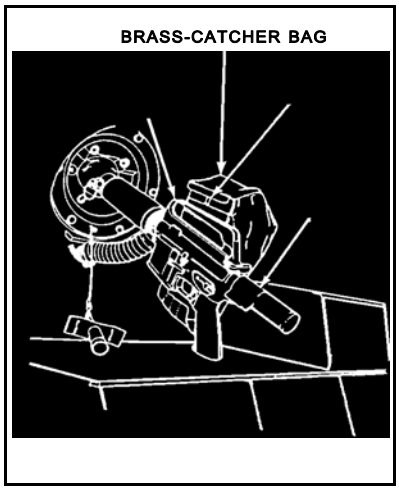


Figure 1. Installed M231 firing port submachine gun with brass-catcher bag.

b. Secure the brass-catcher bag to the wall of the vehicle by using the stowage clip.

2. Remove the gun.
   a. Pull the pin out and turn the gun 360 degrees to the left (counterclockwise).
   b. Pull the gun out and release the pin, allowing it to return to its original position.

3. Install the firing port plug. Insert the plug; press down on the plug lever to lock the plug in place (Figure 2).

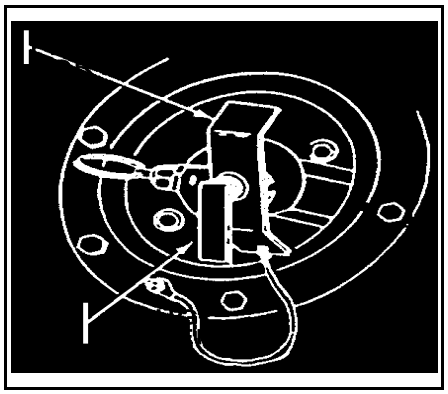


Figure 2. Firing port plug.

4. Close the ramp firing port cover (Figure 3).

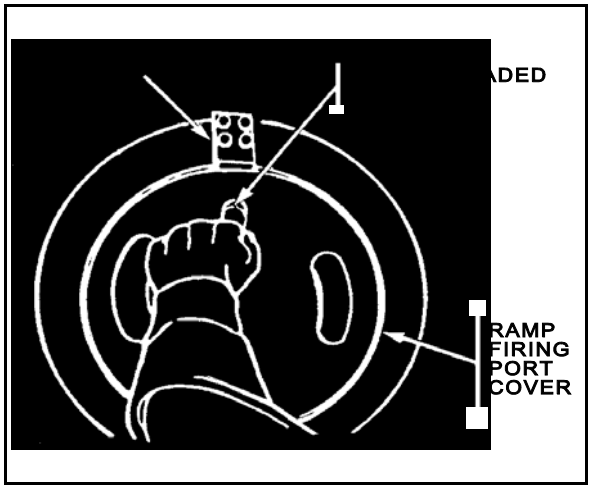


Figure 3. Ramp firing port cover.

a. Place finger in the cover latch hole and pull up to release the ramp firing port cover.
b. Raise the ramp firing port cover to the closed position.
c. Press against the cover until the spring-loaded latch slides into the lock.

EVALUATION PREPARATION

Setup: Provide the soldier with an M2 BFV and M231 firing port submachine gun that has been cleared.

Brief Soldier: Tell the soldier to remove the M231 firing port submachine gun from an M2 BFV.

EVALUATION GUIDE

Performance Measurers	Results	
1. Removes the brass-catcher bag.	P	F
2. Removes the gun.	P	F
3. Installs the firing port plug.	P	F
4. Closes the ramp firing port cover (ramp firing position only).	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 9-2350-252-10-1

LOAD AN M231 FIRING PORT SUBMACHINE GUN
071-028-0005

CONDITIONS

Given an installed M231 firing port weapon and a magazine with 30 rounds of 5.56-mm tracer ammunition.

STANDARDS

Load the M231 firing port weapon so that it is ready to fire without damage to equipment or injury to personnel.

TRAINING AND EVALUATION
Training Information Outline

1. Pull the charging handle all the way back, locking the bolt to the rear. Manually return the charging handle forward (Figure 1).

WARNING

Point the muzzle in a safe direction and place the selector lever in the SAFE position until ready to fire.

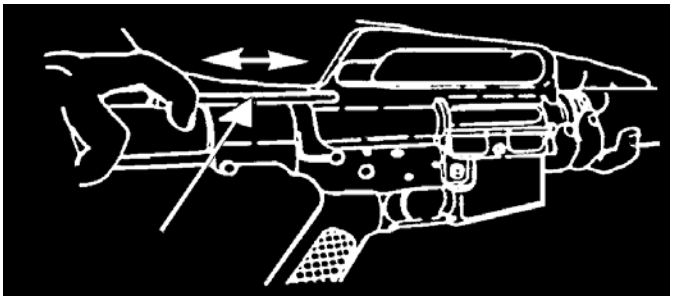


Figure 1. Charging handle.

2. Place the selector lever on SAFE (Figure 2).

Figure 2. Selector lever on SAFE.

3. Make sure that the chamber is clear (no round is in the chamber).

Note: The brass-catcher bag must be removed to inspect chamber.

4. To insert the magazine, push upward until the magazine catch engages and holds the magazine.

Note: The magazine may be loaded with the bolt open or closed. An OPEN bolt is for immediate firing. The weapon will fire when the bolt closes on a chambered round.

5. Tap the magazine upward to make sure that it is seated securely (Figure 3).

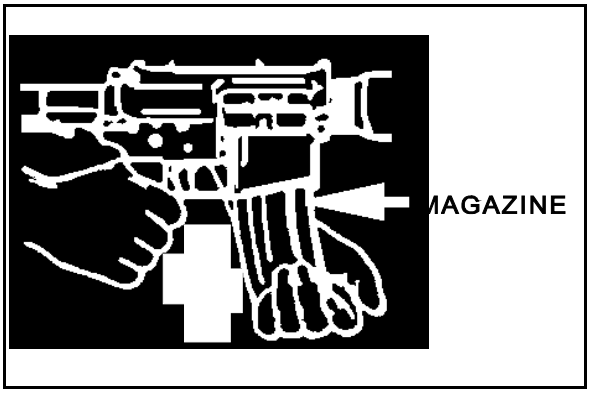


Figure 3. Magazine.

6. Replace the brass-catcher bag on the weapon.

7. Place the selector lever on SAFE.

EVALUATION PREPARATION

Setup: Provide the soldier with the equipment and materials called for in the conditions statement.

Brief Soldier: Tell the soldier he must load the M231 firing port weapon while observing the safety procedures.

EVALUATION GUIDE

Performance Measures	Results	
1. Locks the bolt to the rear.	P	F
2. Places the weapon on SAFE.	P	F
3. Makes sure that the chamber is clear.	P	F
4. Inserts the magazine.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 9-1005-309-10

UNLOAD AN M231 FIRING PORT SUBMACHINE GUN
071-028-0006

CONDITIONS

Given an M231 firing port weapon and a loaded magazine with 30 rounds of 5.56-mm tracer ammunition.

STANDARDS

Unload and clear the M231 firing port weapon without damage to equipment or injury to personnel.

TRAINING AND EVALUATION
Training Information Outline

1. Press the magazine catch button and remove the magazine.

2. Pull the charging handle to the rear and lock the bolt carrier and striker assembly to the rear.

3. Place the selector lever on SAFE.

Note: If the weapon is not cocked (bolt locked to the rear), the selector lever cannot be placed on SAFE.

4. Remove the brass-catcher bag.

5. Make sure that the receiver and chamber are clear (no round in chamber).

6. Place the selector lever on AUTO.

7. Pull the charging handle to the rear and hold.

8. Pull the trigger and ease the charging handle forward to close the bolt carrier and striker assembly.

EVALUATION PREPARATION

Setup: Provide the soldier with the equipment and materials called for in the task conditions statement.

Brief Soldier: Tell the soldier that he must unload and clear the M231 firing port weapon.

EVALUATION GUIDE

Performance Measures	Results	
1. Releases the magazine.	P	F
2. Places the weapon on SAFE.	P	F
3. Makes sure that the weapon is clear.	P	F
4. Closes the bolt carrier and striker assembly forward.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 9-1005-309-10

CORRECT MALFUNCTIONS OF AN M231 FIRING PORT SUBMACHINE GUN ON AN M2 BFV 071-311-6004

CONDITIONS

Given a BFV, a magazine loaded with 5.56-mm tracer ammunition, and an M231 firing port weapon that fails to fire.

STANDARDS

Eliminate a malfunction of the M231 firing port weapon without damage to equipment or injury to personnel.

TRAINING AND EVALUATION
Training Information Outline

1. Perform immediate action.
   a. Slap upward on the magazine to make sure that it is secure.
   b. Remove the brass-catcher bag to observe the ejection port.
   c. Pull the charging handle all the way back, locking the bolt to the rear. Observe the ejection of the case or cartridge. Check the chamber for obstruction.
   d. If the cartridge is ejected and the chamber is clear, return the charging handle forward, point the muzzle in a safe direction, and pull the trigger. If the gun will not fire, remove the magazine and apply remedial action.
   e. If the cartridge does not eject and there is a cartridge or cartridge case in the chamber, return the charging handle forward, remove the magazine, point the muzzle in a safe direction, and pull the trigger. If the gun will not fire, apply remedial action.

2. Apply remedial action. Remedial action is applied when the submachine gun still fails to fire after immediate action has been completed.

WARNING

If the weapon stops firing with a live round in the chamber of a hot barrel, remove the round quickly. However, during training, if you cannot remove it within 10 seconds, wait 15 minutes with the weapon pointing in a safe direction. This will prevent personal injury by a possible ammunition cookoff, which could happen 10 seconds after a round comes in contact with a hot chamber.

a. Clear the M231 firing port weapon. Visually inspect the chamber.

b. Check again for a jammed cartridge case.

c. If the cartridge case is in the chamber, place the weapon on SAFE and remove the firing port weapon from the firing port. (See task 071-028-0004: Remove an M231 Firing Port Weapon from an M2 BFV.)

d. Remove the cartridge from the chamber by tapping it out with a cleaning rod inserted from the muzzle end.

e. If the M231 firing port weapon still fails to fire, see the supervisor.

WARNING

If a "pop" is heard or less recoil is felt during firing, immediately cease fire, remove the magazine, lock the bolt to the rear, and place the selector lever in the SAFE position. Inspect the bore, or insert a cleaning rod into the bore to ensure that no round is lodged in it. If a round is lodged in the barrel, do not attempt to remove it. Give the weapon to the unit armorer.

EVALUATION PREPARATION

Setup: Provide the soldier with the equipment and materials called for in the conditions statement.

Brief Soldier: Tell the soldier that he must perform immediate action, and that he will be questioned on performing remedial action on the M231 firing port weapon.

EVALUATION GUIDE

Performance Measures	Results	
1. Performs immediate action.		
a. Taps the magazine.	P	F
b. Removes the brass-catcher bag.	P	F
c. Pulls the charging handle to rear; checks the chamber.	P	F
2. Performs remedial action.		
a. Clears the M231 firing port weapon.	P	F
b. Checks for a jammed cartridge casing.	P	F
c. Removes the M231 firing port weapon.	P	F
d. Uses a cleaning rod to extract the jammed cartridge casing.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 9-1005-309-10

ENGAGE TARGETS WITH AN M231 FIRING PORT SUBMACHINE GUN ON AN M2 BFV 071-311-6005

CONDITIONS

Given an M231 firing port weapon installed on an M2 BFV, a 30-round magazine loaded with 5.56-mm tracer ammunition, and targets located out to 300 meters.

STANDARDS

Engage targets with the M231 firing port weapon so that each target is suppressed or killed.

TRAINING AND EVALUATION
Training Information Outline

Notes: Firing port weapon status:

1. Weapon free. The firing port gunner is free to engage all targets of opportunity without a fire command from the Bradley commander. The firing port gunner still announces the fire command to alert the rest of the crew.
2. Weapon hold. The firing port gunner engages targets only after the command of execution. Either the firing port gunner or the Bradley commander can issue the fire command, but only the Bradley commander gives the command to fire.

WARNING

Gases from weapons are poisonous. Make sure vent fans are on when weapons are fired.

1. Before engaging targets with the M231 firing port weapon, the fire team leader ensures that the firing port vent levers are pushed up and the vent fan switches are pushed to ON.

2. Give or repeat the fire command. (For example, “Left [right, rear] flank, troops [RPG], two hundred meters.”)

3. Point the gun at the target by viewing the target through the periscope and pointing the muzzle in the general direction of the target.

4. Point the gun at the base of the target or slightly short of the target to ensure that rounds do not go over the target (high).

5. When the command to fire is given, move the select lever to AUTO and then squeeze the trigger. Release pressure on the trigger to stop firing the gun. Fire three- to five-round bursts, aiming at the base of the target.

Note: A target is considered suppressed when the rounds are striking on the target area.

6. Observe the strike of the rounds. Observe the rounds by either observing rounds in flight (based on tracer element) or by observing the round impact.

7. Adjust using tracer-on-target technique.
   a. If rounds go over the target, raise the stock end of the gun to lower the muzzle.
   b. If rounds strike below the target, lower the stock end of the gun to raise the muzzle.
   c. If rounds strike to the left of the target, move the stock end of the gun to the left.
   d. If rounds strike to the right of the target, move the stock end of the gun to the right.
   e. Once correction is applied, fire another three- to five-round burst.

8. Continue firing until the target is suppressed or destroyed or the command to cease fire is given.

EVALUATION PREPARATION

Setup: Provide the soldier with the equipment and materials called for in the conditions statement. This task should be accomplished on a live-fire range.

Brief Soldier: Tell the soldier he must use the M231 firing port weapon mounted on a BFV to suppress or kill targets.

EVALUATION GUIDE

Performance Measures	Results	
1. Ensures the vent fans are on.	P	F
2. Issues or repeats the initial fire command.	P	F
3. Orients the gun on the target.	P	F
4. Fires three- to five-round bursts.	P	F
5. Observes the strike of rounds.	P	F
6. Adjusts using tracer-on-target techniques.	P	F

7. Suppresses or destroys the target. P F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	**Related**
None	FM 23-1
	TM 9-1005-309-10
	TM 9-2350-252-10-1

TOW

LOAD THE TOW LAUNCHER ON A BFV
071-056-0001

CONDITIONS

Given a BFV with the turret traversed to the TOW load position (5800 mils), TOW launcher raised and positioned at 500 mils elevation (load and unload mode), turret drive system switch OFF, turret travel lock set in lock position, two practice TOW missiles, and a gunner as an assistant.

STANDARDS

Inspect the TOW missiles and the launcher. Load the TOW missiles into the launcher so that it is ready to fire. Load the TOW launcher without causing any damage to the equipment or any injuries to personnel.

TRAINING AND EVALUATION

CAUTION

Handle the TOW missile with extreme care to avoid damage to the plastic diaphragm at each end. If a TOW missile with a damaged diaphragm is loaded, it could misfire.

Training Information Outline

1. Open the cargo hatch to the second lock position.

2. Remove the TOW launcher dust cover (Figure 1).

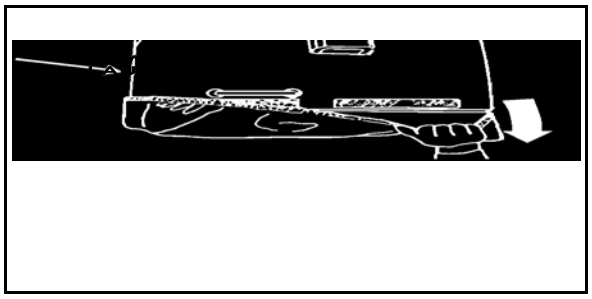


Figure 1. Dust cover.

3. Prepare the TOW launcher for loading (Figure 2).

Note: The M2/M2A1 has only one locking handle.

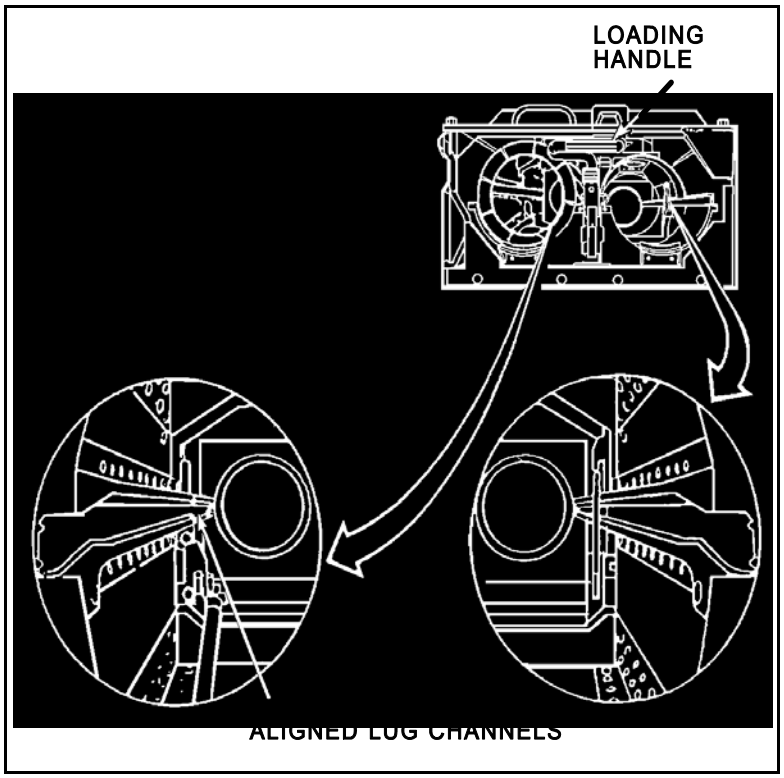


Figure 2. Loading handle.

a. Push and hold the lock handles to the left.

b. Pull down the loading handles to align the lug channels in the missile tubes. Release the handle lock.

Note: The lug channels in the missile tubes can get out of alignment and block the TOW's loading. If the missiles meet resistance about halfway into the missile tube, pull down hard on the loading handle to realign the lug channels.

4. If reloading, pull the expended TOW missile casings from the TOW launch tubes and discard.

5. Inspect the TOW launch tubes.
   a. Make sure the launch tubes are clear of obstructions, such as leaves and dirt.
   b. Ensure that umbilical connectors are not extending down into the tubes (Figure 3).

CAUTION

The TOW and the command guidance electronics system could be damaged if the umbilical connector is extended down into the missile tube when the missile is loaded. If an extended umbilical connector cannot be withdrawn, DO NOT load the TOW.

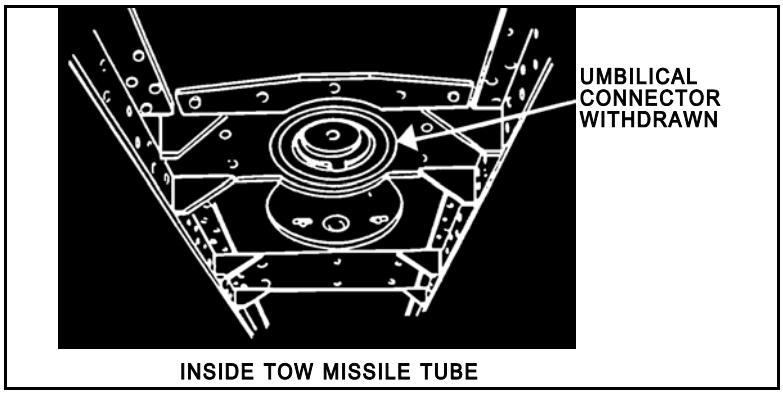


Figure 3. Umbilical connector.

(1) *Gunner:* Withdraw the umbilical connectors by moving the ARM-SAFE-RESET switch to RESET, then to SAFE.

(2) Recheck the umbilical connectors. If they are still extended, notify the chain of command.

6. Unstow the TOW missiles.

Note: Two forward handling rings and two electrical connector covers must be saved for later use if unfired missiles are unloaded from a launcher.

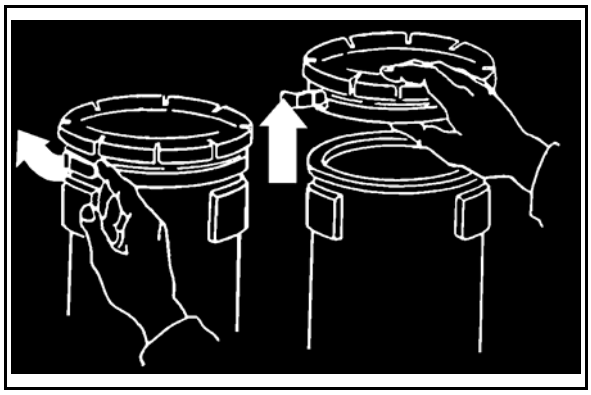


Figure 4. Handling ring.

7. Remove the forward handling ring from the nose end of the TOW. Release the clamp and remove the handling ring (Figure 4, page 3-88).

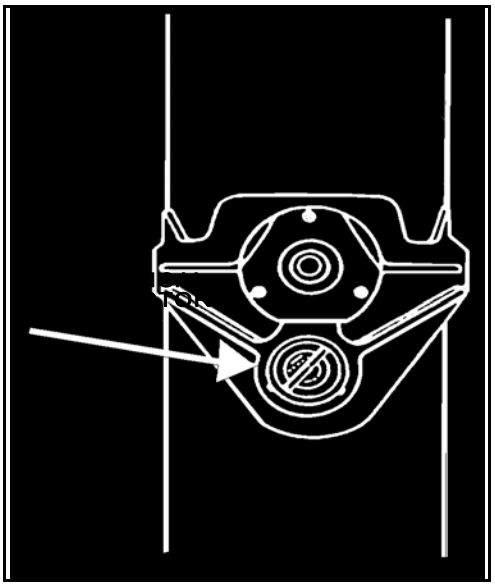


Figure 5. Electrical connector cover.

8. Remove the electrical connector cover from the TOW electrical connector and save it until the missiles are fired (Figure 5).

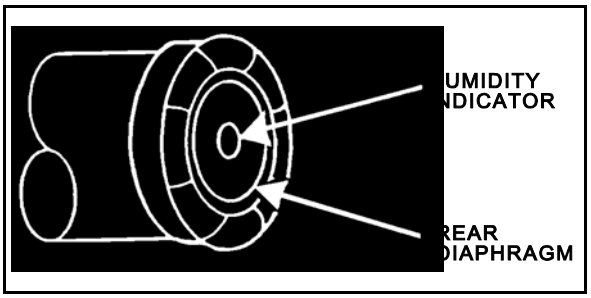


Figure 6. Humidity indicator.

9. Inspect the TOW missiles in accordance with the steps below.
   a. Check the humidity indicator. It should be blue (Figure 6).

CAUTION

A torn diaphragm lets moisture in. Moisture damages the missile's electronic components.

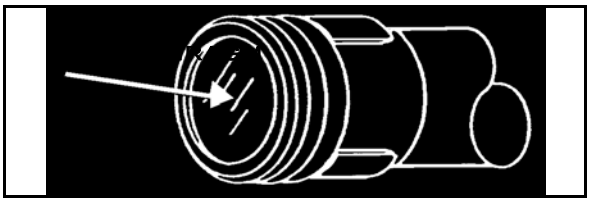


Figure 7. Nose diaphragms.

CAUTION

In a training situation, if the humidity indicator is pink, do not load or fire the missile. In a combat situation, load and attempt to fire.

WARNING

A damaged TOW missile can cause a hangfire. Soldiers could be killed or injured. Except in combat situations, do not load the TOW missile if either end is damaged or if the humidity indicator on the rear diaphragm is pink.

b. Check the nose and rear diaphragms for damage (Figure 7, page 3-90).
c. Report any discrepancies to the supervisor.

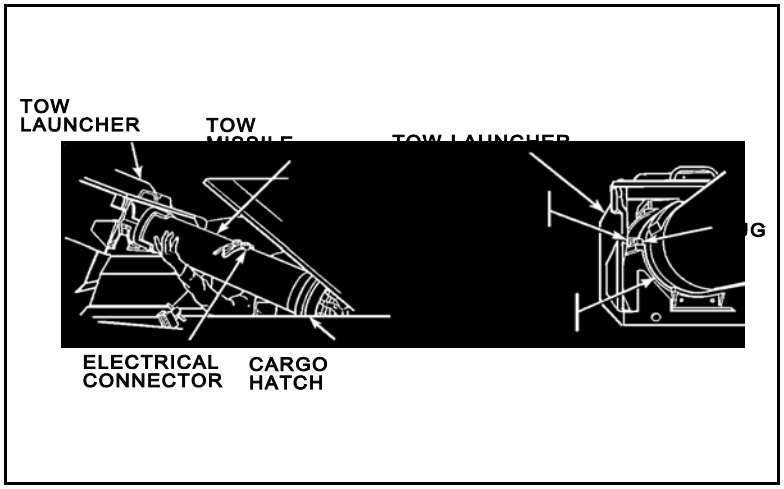


Figure 8. Load the missile.

10. Load the TOW missile into the left missile tube (No. 1 tube) (Figure 8).
a. Lift the TOW missile out of the cargo hatch nose end first, with the electrical connector at the top.
b. Slide the lugs on the sides of the nose end of the TOW missile into the missile tube lug channels.
c. Carefully slide the missile all the way into the missile tube.
d. Hold the missile in the tube and push the loading handle up until it is engaged by the loading handle lock.

11. Load the TOW missile into the right missile tube (No. 2 tube). Repeat steps 10a through 10d to load the right missile tube.

12. Close the cargo hatch and tell the gunner that the missiles are loaded. Announce, "TOW uploaded."

EVALUATION PREPARATION

Setup: Given a BFV, two practice TOW missiles, and a gunner. The turret is traversed to the TOW load position with the launcher elevated to 500 mils.

Brief Soldier: Tell the soldier he must inspect the TOW missiles and launcher, and load the TOW missiles into the launcher so that it is ready to fire.

EVALUATION GUIDE

Performance Measures	Results	
1. Opens the cargo hatch cover to the TOW load position.	P	F
2. Removes the dust cover from the launcher.	P	F
3. Inspects the TOW launch tubes.	P	F
4. Prepares the TOW launcher for loading.	P	F
5. Pulls down on the loading handle to align the lug channels.	P	F
6. Inspects the TOW missiles for damage.	P	F
7. Inspects the diaphragm and humidity indicator.	P	F
8. Lifts the TOW missile out of the cargo hatch nose end first, with the electrical connector at top.	P	F
9. Slides the lugs of the TOW missile into the launcher lug channels.	P	F
10. Slides the TOW missile all the way into the launcher.	P	F
11. Locks the missile in the TOW launcher.	P	F

12. Closes the cargo hatch and informs the gunner. P F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	**Related**
None	TM 9-2350-252-10-2

UNLOAD THE TOW LAUNCHER ON A BFV
071-056-0002

CONDITIONS

Given a BFV with the TOW launcher in the load position, a loaded TOW launcher, and a requirement to unload the TOW launcher and stow the missiles in the missile racks.

STANDARDS

Unload the TOW launcher. Return the missiles to their original configuration and stow them in the vehicle without causing damage to equipment or injury to personnel.

TRAINING AND EVALUATION
Training Information Outline

1. Open the cargo hatch to the TOW load position.

CAUTION

Handle TOW missiles with care to avoid damaging the plastic diaphragms at each end. If a damaged TOW missile is loaded, it could misfire. Stow all damaged TOW missiles for turn-in to chain of command.

2. Inspect the rear end of the missiles by checking the rear diaphragm for tears or other damage before unloading (Figure 1).

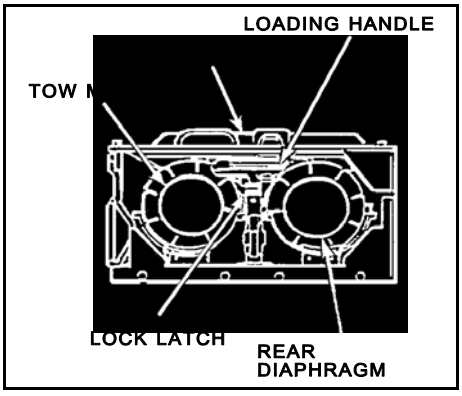


Figure 1. Rear of loaded TOW launcher.

3. Unload the right missile tube (No. 2 tube) first.
   a. Push and hold the lock handle to the left.
   b. Pull down the loading handle. Release the lock handle.
   c. Carefully pull the missile out of the tube.
   d. Lower the missile through the cargo hatch to the floor of the squad department.

4. Repeat step 3 to unload the left missile tube.

5. Push the latch handles up until they are engaged by the handle lock.

6. Install the dust cover on the rear of the TOW launcher.

7. Close the cargo hatch and tell the gunner that the TOW is unloaded.

8. Prepare the TOW missiles for stowage (Figure 2).
   a. Check the nose end of the diaphragm for damage.
   b. Replace the forward handle rings and electrical connector covers.

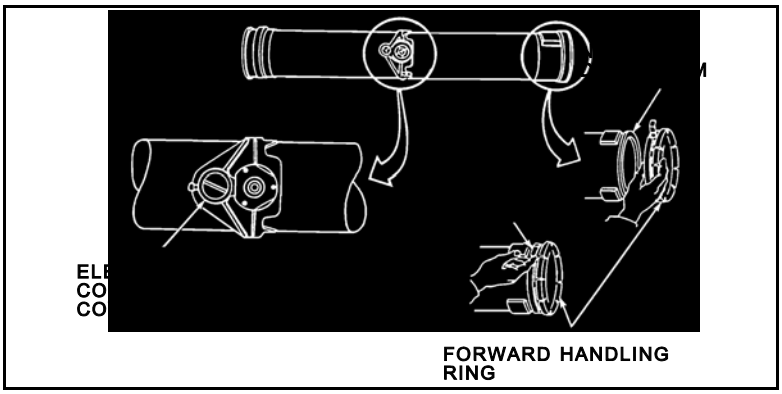


Figure 2. TOW missile.

9. Stow the TOW missiles.

EVALUATION PREPARATION

Setup: Provide the soldier with a BFV with the TOW launcher (loaded with two practice TOW missiles) in the load position and a gunner.

Brief Soldier: Tell the soldier that he must unload the TOW launcher and restow the missiles.

EVALUATION GUIDE

Performance Measures	Results	
1. Opens the cargo hatch to the TOW LOAD position.	P	F
2. Inspects the rear of the missile for damage.	P	F
3. Unloads the right missile tube first.	P	F
4. Unloads the left missile tube.	P	F
5. Pushes the handles to the LOCK position.	P	F
6. Installs the dust cover on the rear of the launcher.	P	F
7. Closes the cargo hatch and informs the gunner that the launcher is unloaded.	P	F
8. Prepares the TOW missiles for stowage.	P	F
9. Stows the TOW missiles.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 9-2350-252-10-2

REMOVE A MISFIRED TOW MISSILE FROM THE TOW LAUNCHER ON A BFV 071-316-3015

CONDITIONS

Given a BFV with the turret at either 1600 mils or 4800 mils, the TOW launcher raised to maximum elevation, all hatches closed, a misfired TOW missile that failed to launch after the gunner applied immediate action, an oral directive to unload a misfired TOW missile from the No. 1 or No. 2 launch tube, and an assistant.

STANDARDS

Remove the misfired TOW missile from a BFV making sure that the missile is kept pointed away from friendly troops so that no equipment is damaged and no personnel are injured.

TRAINING AND EVALUATION
Training Information Outline

WARNING

The misfired missile is unloaded from outside the vehicle, not from the cargo hatch.

Note: The gunner notifies squad members which TOW missile misfired.

1. Exit through the ramp access door and climb on top of the hull, keeping away from the rear and front of the TOW launcher.

2. Unlock the TOW launcher. Push and hold the lock handle to the left. Pull down the loading handle as far as it will go. Keep hand clear of the backblast area as much as possible. Then, release the lock handle.

3. Remove the misfired TOW missile from its launch tube.
   a. Start pulling the missile by the edges of the rear flange (Figure 1).
   b. Carefully pull the missile straight out until it is removed from its launch tube.

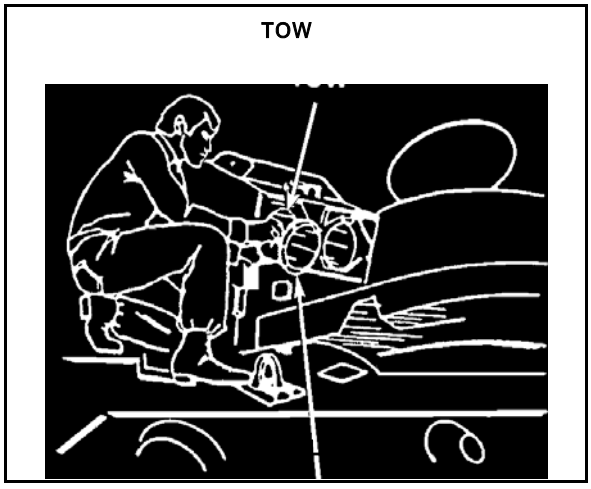


Figure 1. Rear flange.

Note: If the missile fails to release from the launch tube, inform the gunner of the situation. After the appropriate procedures are completed by the vehicle crew, the gunner will tell you to try again. If the missile fails to release a second time, again inform the gunner so that the chain of command and unit maintenance can be notified.

4. Hand the TOW missile to the assistant. The assistant carries the misfired missile at least 200 meters away from the vehicle; places it on the ground (does not drop it); and positions the missile so that the backblast area is least destructive. He keeps his body away from the front and rear of the encased missile while carrying and handling it.

5. Put a clearly visible stake and flag at the location of the misfired TOW missile.

6. Inform the Bradley commander when the task is completed so that he can notify the chain of command of the existence and location of the misfired TOW missile (Figure 2).

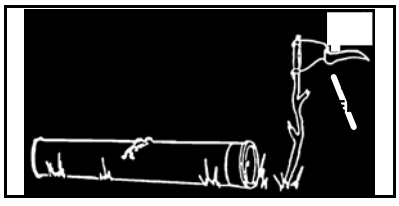


Figure 2. Mark misfired TOW location.

Note: When the tactical situation permits, dispose of the missile in accordance with the unit SOP.

EVALUATION PREPARATION

Setup: Provide the soldier the equipment and materials called for in the task conditions statement.

Brief Soldier: Tell the soldier he must remove a misfired TOW missile from a BFV and, along with his helper, carry the missile 200 meters from the vehicle, lay the missile on the ground, and mark its location.

EVALUATION GUIDE

Performance Measures	Results	
1. Exits through the ramp access door and keeps away from the rear and front of the TOW launch tube.	P	F
2. Unlocks the TOW launch tube.	P	F
3. Removes the TOW from the launch tube without being exposed to the backblast area.	P	F
4. Hands the TOW to his assistant, who carries the missile at least 200 meters away from the vehicle, and places it on the ground.	P	F
5. Marks the location of the misfired TOW missile.	P	F
6. Informs the Bradley commander when the task is completed.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 9-2350-252-10-2

BASIC INDIVIDUAL TECHNIQUES

OPERATE THE TURRET OF A BFV
071-324-6004

CONDITIONS

Given a BFV with the master power switch ON and an operational turret.

STANDARDS

Traverse the turret, elevate and depress the gun rotor as required, and operate in the STAB mode. Operate the turret in the POWER and MANUAL modes without causing damage to the equipment or injury to personnel.

TRAINING AND EVALUATION
Training Information Outline

WARNING

Before allowing the soldier to enter or exit the turret, make sure the turret travel lock is engaged. Soldiers must not enter the turret without permission. Do not operate the turret with the turret shield door open. The soldier could be killed or injured. Make sure the gunner's and commander's hatch covers are secured.

CAUTION

Before traversing the turret, make sure the feed chutes are installed on the feeder. Before turning the turret power on, make sure the mirror control knob is in the unlocked or disengaged (out) position.

1. Ensure that the driver's and cargo hatches are closed or in the pop-up position.

2. Close and latch the turret shield door.

WARNING

Do not stand on the seats. Make sure that the safety belts are used while the vehicle or turret is in motion.

3. Release the turret travel lock.

4. Put on the lap safety belt.

5. Move the turret traverse drive select lever to the POWER position.
   a. Press and hold the push button.
   b. Move the turret select lever to the right to the POWER position. Release the push button.

6. Move the TOW elevation drive select lever to the POWER position.
   a. Press and hold the push button.
   b. Move the TOW elevation drive select lever to the right to the POWER position. Release the push button.

7. Move the gun elevation drive select lever to the POWER position (Figure 1).
   a. Press and hold the push button.
   b. Move the gun elevation drive select lever to the right to the POWER position. Release the push button.

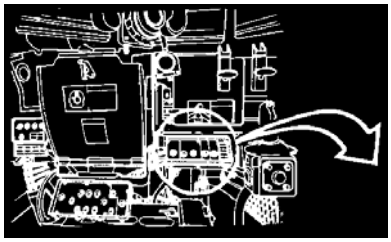


Figure 1. Select levers.

8. Move the turret power switch to ON (Figure 2).

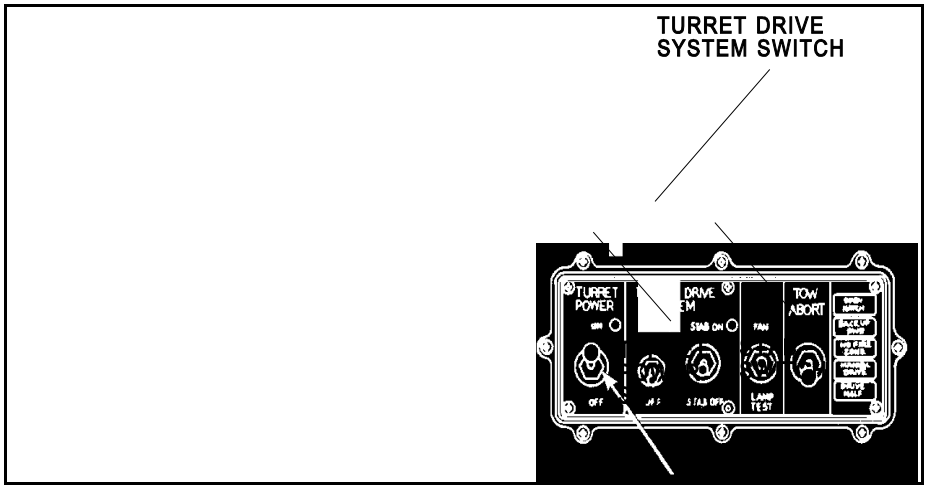


Figure 2. Turret control box.

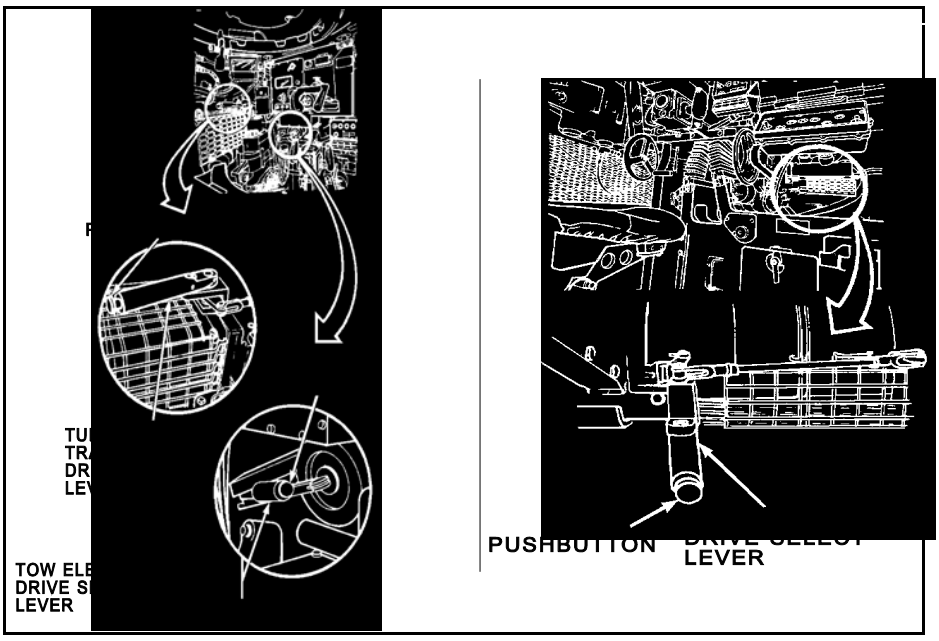


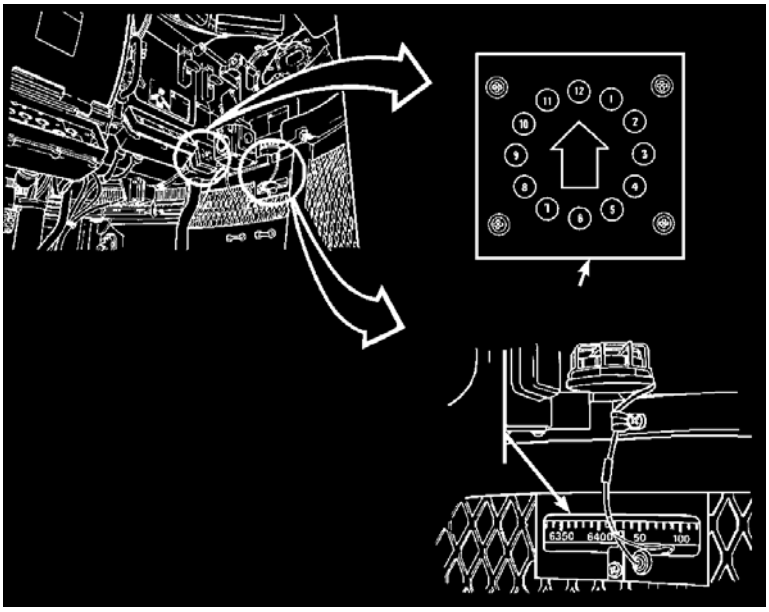
Figure 3. Turret position and azimuth indicators.

9. Turn the turret drive system ON (Figures 2 and 3).

WARNING

Before moving the turret or guns, clear all soldiers and equipment from the top of the vehicle.

Note: The azimuth indicator shows the turret position in mils. It also shows the position for HE LOAD, AP LOAD, and TOW LOAD. The turret position indicator shows the position of the turret in relation to the vehicle (with 12:00 o'clock being the front of the vehicle). Numbered lights 1 through 12 light up as the turret reaches each position.



10. Traverse the turret by using the gunner's control handles (Figure 4).
    a. Squeeze and hold the palm switches.
    b. Turn the control handles in the direction that the turret is to be traversed.

11. Traverse the turret at high speed by depressing and holding the fast turret switches while performing step 10.

Note: The gun rotor can elevate to 1050 mils and depress to -180 mils. Each line on the elevation indicator equals 10 mils and each number equals 100 mils.

12. Elevate and depress the gun rotor.

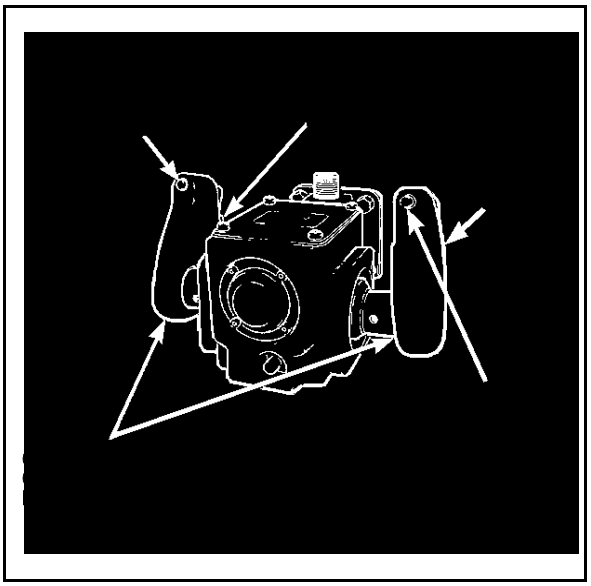


Figure 4. Gunner control handles.

13. Elevate and depress the gun rotor at high speed.

WARNING

Keep the 25-mm gun guard in place during the stabilized mode operation of the 25-mm gun.

CAUTION

If the gun barrel has been removed, do not operate the turret in the STAB mode, because the drive system can be damaged.

14. Move the STAB switch to the ON position.

15. Make sure that the DRIVE MALF annunciator lights on the turret control and annunciator boxes are not on (Figure 5).

Note: If the DRIVE MALF annunciator light is on, recycle the turret drive system. If the annunciator light comes on again, turn off the turret power and wait for at least three minutes. If the annunciator light comes on again, notify the chain of command and unit maintenance.

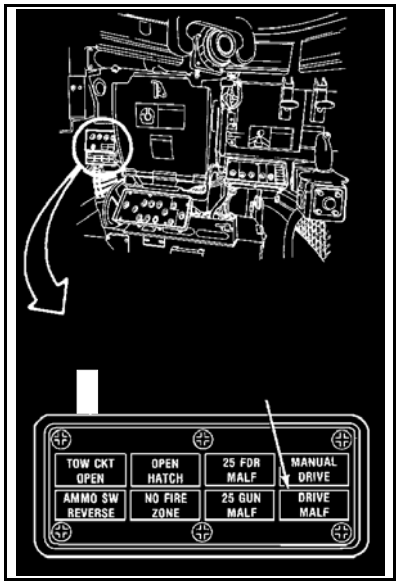


Figure 5. Annunciator box.

16. Press the HE SS or AP SS (single-shot) button.

Note: The stabilization controls assist in maintaining the reticle on target while the vehicle is moving. STAB is used when the vehicle is moving; however, the vehicle does not have to be moving for the STAB to operate.

17. Select the target through the gunner's eyepiece (Figure 6).

18. Align the reticle on the target (Figure 6).

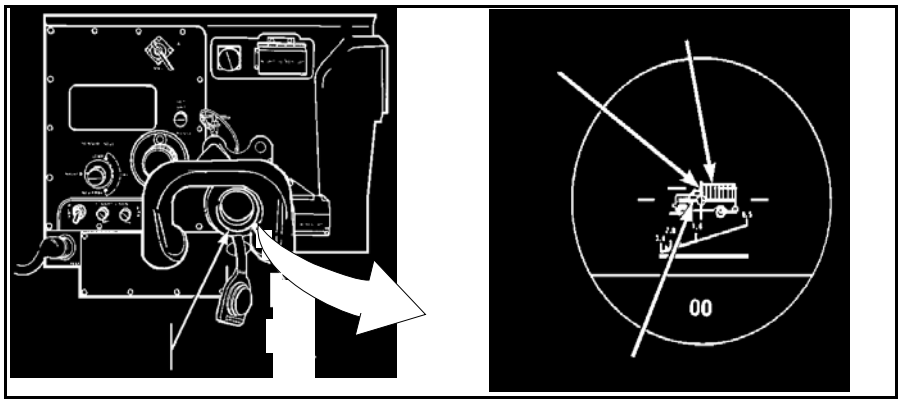


Figure 6. Eyepiece.

a. Squeeze and hold the palm switches.
b. Turn the control handles right or left until the target azimuth is aligned.
c. Rotate the control handles forward or backward until the target elevation is aligned.

Note: The center ring in the gun reticle is 1 mil wide. Use the width of the center ring to estimate the amount of stabilization drift.

19. Check for stabilization drift. The reticle should not move off target more than 1 mil in 10 seconds.

Note: Before correcting the stabilization drift, the vehicle must be stationary. Press the drift button and hold for 1 second and recheck the drift. If the reticle still moves off target more than 1 mil in 10 seconds, notify the chain of command and unit maintenance.

20. Traverse the turret to 6400 mils and the gun rotor elevation to 0 mils.

21. Turn all switches to the OFF position.

22. Operate the turret in the MANUAL mode.

CAUTION

Linkage between the TOW and gun elevation systems can be damaged if the gun elevation handwheel is turned while both levers are in the manual mode.

a. Move the turret traverse drive select lever to the MANUAL position and move the gun elevation drive select lever to the MANUAL position.
b. Remove the spring from the traversing handwheel handle.
c. Traverse the turret left and right, then back to 6400 mils.
d. Elevate and depress the gun rotor to the desired position, then back to 0 mils.
e. Move the turret and gun select levers to the power position and reinstall the spring handle.

23. Upon completion of the movement of the turret, lock the turret travel lock.

EVALUATION PREPARATION

Setup: Provide the soldier with a vehicle and equipment as stated in the task conditions statement.

Brief Soldier: Tell the soldier that he will be required to traverse the turret; and elevate and depress the gun rotor while exercising safety procedures.

EVALUATION GUIDE

Performance Measures	**Results**	
1. Ensures that the driver and cargo hatches are closed or in the pop-up positions.	P	F
2. Closes the turret shield door.	P	F
3. Releases the turret travel lock.	P	F
4. Ensures all three select levers are in the POWER mode.	P	F

5. Turns the turret power switch and the turret drive system switch to ON.	P	F
6. Traverses the turret, elevates and depresses the gun rotor.	P	F
7. Uses the STAB.	P	F
8. Sets the turret at 6400 mils and gun rotor at 0 mils.	P	F
9. Engages the turret travel lock.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	**Related**
TM 9-2350-252-10-2	None

MAINTAIN THE TURRET ON A BFV
071-216-0009

CONDITIONS

Given a BFV with basic issue items, TM 9-2350-252-10-2, DA Form 2404, DA Pam 738-750, a pencil, and a helper.

STANDARDS

Perform scheduled or other required maintenance on the BFV's turret in accordance with procedures described in TM 9-2350-252-10-2. Record any uncorrectable deficiencies on DA Form 2404 in accordance with procedures described in DA Pam 738-750 and report them to the chain of command.

TRAINING AND EVALUATION
Training Information Outline

Note: The maintenance of the weapon systems on the BFV is covered in separate tasks; however, maintenance of these systems should be performed as part of maintaining the turret in order to not detract from the following maintenance steps as described in TM 9-2350-252-10-2.

Task 071-324-6004: *Operate the Turret of a BFV.*
Task 071-024-0005: *Maintain the 25-mm Gun on a BFV.*
Task 171-122-1012: *Perform Operator Maintenance on an M240/M240C Machine Gun.*
Task 071-216-0001: *Maintain the TOW System on a BFV.*

1. Inspect the turret following the procedures described in TM 9-2350-252-10-2.

2. Pay careful attention to removing spent casings (25-mm and 7.62-mm) from between the hull and the turret. Casings not removed may become caught underneath the turret slowing the turret's rate of traverse.

3. Correct all shortcomings and deficiencies within the scope of the operator's capabilities.

4. Clean and lubricate the turret where and when required following the schedule and procedures described in TM 9-2350-252-10-2.

5. Record any uncorrected shortcomings and deficiencies on DA Form 2404 in accordance with the procedures outlined in DA Pam 738-750.

6. Report any uncorrected shortcomings and deficiencies to the chain of command.

EVALUATION PREPARATION

Setup: Provide the soldier with all the material and equipment in the task conditions statement.

Brief Soldier: Tell the soldier to perform a maintenance check on the turret in accordance with the procedures outlined in TM 2350-242-10-2 and annotate all uncorrectable faults on DA Form 2404 in accordance with DA Pam 738-750.

EVALUATION GUIDE

Performance Measures	**Results**	
1. Performs before-operations checks.	P	F
2. Performs during-operations checks.	P	F
3. Performs after-operations checks.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	**Related**
DA Form 2404 DA Pam 738-750 TM 9-2350-252-10-2	None

25-MM AUTOMATIC GUN (SL2)

MAINTAIN THE 25-MM AUTOMATIC GUN ON A BFV
071-024-0005

CONDITIONS

Given a BFV with basic issue items and the turret set at 6400 mils, an installed and cleared 25-mm gun, lubricants and cleaning supplies as required, TM 9-2350-252-10-2, and helpers as required.

STANDARDS

Using the procedures described in TM 9-2350-252-10-2, remove the 25-mm gun from the BFV, disassemble, clean, inspect, replace, lubricate, assemble, and reinstall the gun on the BFV without causing damage to the equipment. Record and report uncorrected deficiencies.

TRAINING AND EVALUATION
Training Information Outline

Note: Comply with all warnings and cautions as listed in TM 9-2350-252-10-2 that are applicable to the performance of maintenance of the 25-mm gun.

1. Remove the 25-mm gun from the BFV.
   a. Disconnect the power cable from the gun.
   b. Disconnect the feed and link eject chutes.
   c. Remove the feeder.
   d. Remove the barrel.
   e. Use helpers to remove the weapon from the BFV to the maintenance area.

2. Disassemble the 25-mm gun.
   a. Put all parts in a container or in a certain area so that they do not get misplaced.
   b. Do not use any type of force that will damage the weapon when disassembling.

3. Clean the 25-mm gun.
   a. Use the proper materials and equipment for cleaning the weapon.
   b. Ensure that no solvent is used on electrical connectors, rubber and plastic parts of the feeder assembly, feed select, solenoid, and the bolt position indicator cover. These parts can be damaged by solvent.

4. Inspect the 25-mm gun.
   a. Ensure that the parts are properly cleaned.
   b. Inspect all parts for accountability and serviceability.
   c. Replace the defective parts and the firing pin after 8,000 rounds.

5. Lubricate the weapon.
   a. Use only the proper lubricant.
   b. Make sure that the lubricant is not used in the electrical connectors or any other parts that can become damaged.

6. Assemble and reinstall the 25-mm gun on the BFV.
   a. Use helpers to move the weapon when reinstalling.
   b. Make sure that the feeder is timed.
   c. Make sure that the weapon is assembled and reinstalled so that it functions as designed.

7. Record and report any uncorrected deficiencies in accordance with unit SOP.

EVALUATION PREPARATION

Setup: Provide the soldier with all the equipment and materials as outlined in the task conditions statement.

Brief Soldier: Tell the soldier to maintain the 25-mm gun using the procedures described in TM 9-2350-252-10-2.

EVALUATION GUIDE

Performance Measures	**Results**	
1. Removes and disassembles the 25-mm gun from the BFV.	P	F
2. Cleans, inspects, and lubricates the 25-mm gun.	P	F
3. Assembles and reinstalls the 25-mm gun on the BFV.	P	F
4. Records and reports uncorrected deficiencies IAW unit SOP.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	**Related**
TM 9-2350-252-10-2	None

LOAD THE 25-MM AUTOMATIC GUN ON A BFV
071-024-0007

CONDITIONS

Given a BFV with basic issue items, installed 25-mm automatic gun and feeder timed, and belted 25-mm ammunition loaded into ammunition cans.

STANDARDS

Load the 25-mm automatic gun so it is ready to fire without causing damage to equipment or injury to personnel.

TRAINING AND EVALUATION
Training Information Outline

1. Prepare the 25-mm gun for loading.
   a. Place the gun elevation drive select lever in the MANUAL position.

Note: The TOW elevation drive select lever must be in the POWER mode.

   b. Remove the gun guard and open the gun cover (Figure 1).

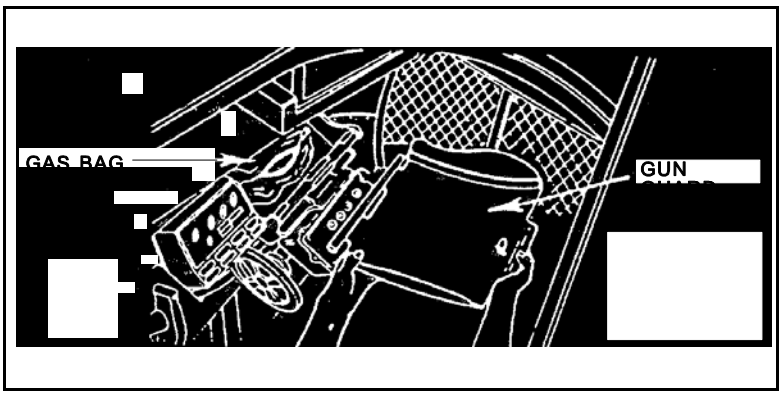


Figure 1. Gun guard and gun cover.

   c. Make sure the bolt position indicator is in the SEAR position.

WARNING

Accidental firing of the 25-mm gun could kill or injure soldiers. Make sure the manual safe handle is in the SAFE position.

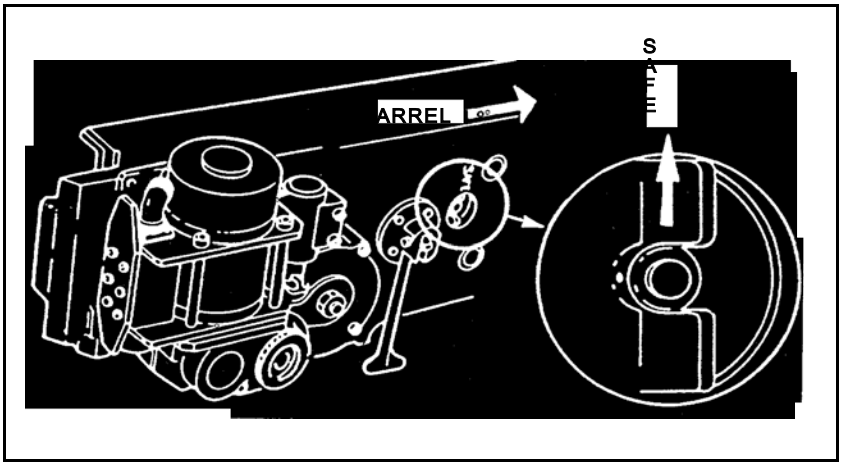


Figure 2. Manual safe handle in the SAFE position.

d. Place the manual safe handle in the SAFE position (Figure 2).
e. Manually elevate the gun to 200 mils.

2. Load the HE ammunition.

CAUTION

Cycling the 25-mm gun feeder with the feed select solenoid knob part way in AP or HE positions can damage the feeder.

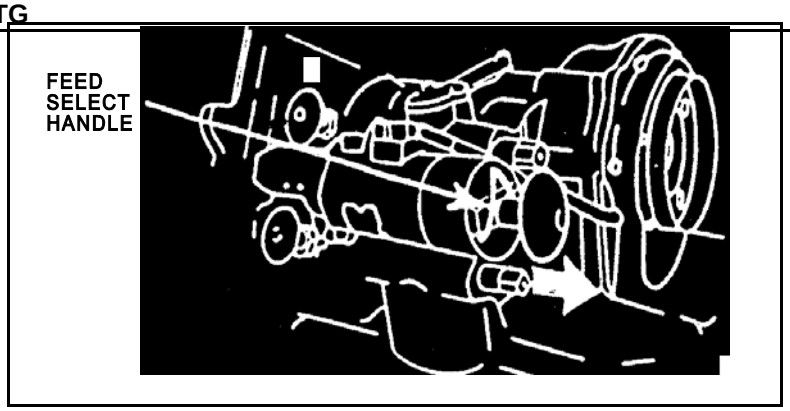


Figure 3. Feed select solenoid knob.

a. Pull out the feed select solenoid knob to the HE position (Figure 3).

b. Use the 14-mm ratchet wrench and forward the HE ammunition up the feed chutes until the lower clutch override knob starts to come out (Figure 4).

Note: If the lower clutch override knob does not come out, notify the chain of command.

c. If the HE ammunition jams, download the ammunition and reload it.

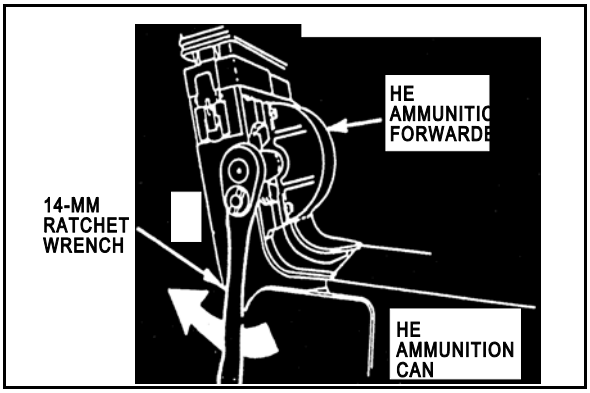


Figure 4. HE ammunition forwarder and 14-mm ratchet wrench.

Note: The lower clutch override knob will come out about 1/4 inch, then go back in as each round is loaded.

d. Use the 14-mm ratchet wrench on the lower feed shaft extension and turn the shaft right until the lower clutch override knob goes in the second time (Figure 5, page 3-114).

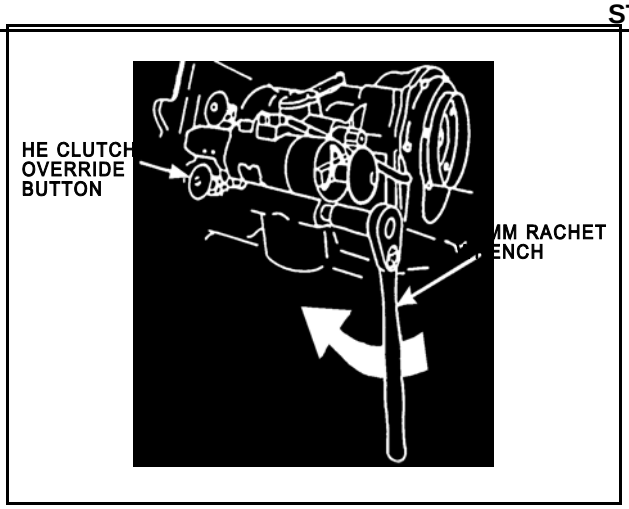


Figure 5. Lower clutch override knob.

e. Take tension off the HE ammunition.

3. Load the AP ammunition.

a. Select AP feed by pushing forward on the feed select solenoid knob.

b. Use the 14-mm ratchet wrench and forward the AP ammunition up the feed chute until the upper clutch override knob starts to come out (Figure 6).

Note: If the upper clutch override knob does not come out, notify the chain of command.

c. If the AP ammunition jams, download the ammunition and reload it.

Note: The upper clutch override knob will come out about 1/4 inch, then go back in as each round is loaded.

d. Use the 14-mm ratchet wrench on the upper feed shaft extension and turn the shaft extension left until the upper clutch override knob goes back in the first time (Figure 7).

e. Take tension off the AP ammunition.

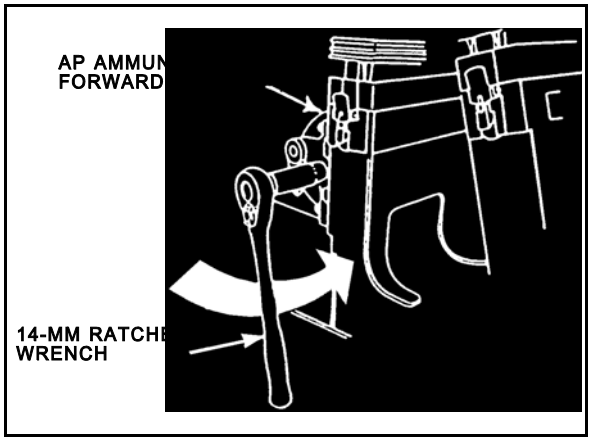


Figure 6. AP ammunition forwarder.

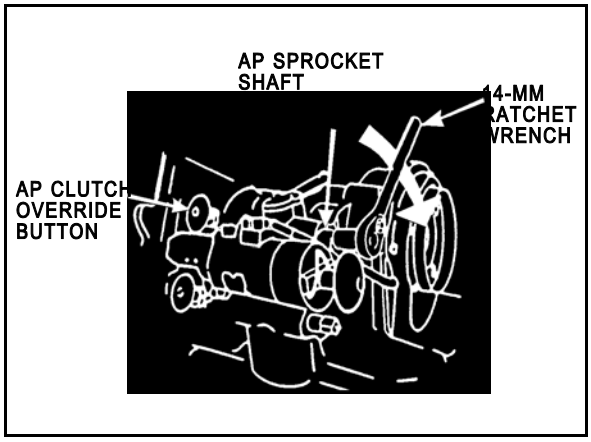


Figure 7. Upper feed shaft extension.

4. Close the gun cover and install the 25-mm gun guard. Inform the chain of command that the weapon has been uploaded.

EVALUATION PREPARATION

Setup: Provide the soldier with a BFV with basic issue items, an installed 25-mm automatic gun, and belted 25-mm HE and AP ammunition.

Brief Soldier: Tell the soldier that he must load and clear the 25-mm automatic gun feed chutes and feeder on a BFV.

EVALUATION GUIDE

Performance Measures	Results	
1. Prepares the 25-mm gun for loading.	P	F
2. Loads the HE ammunition side.	P	F
3. Loads the AP ammunition side.	P	F
4. Closes the cover and installs the gun guard.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 9-2350-252-10-2	None

PERFORM A FUNCTION CHECK ON THE 25-MM AUTOMATIC GUN ON A BFV 071-024-0006

CONDITIONS

Given a BFV, an installed and cleared 25-mm automatic gun, and a requirement to check the functioning of the 25-mm automatic gun.

STANDARDS

Check to ensure the 25-mm automatic gun functions as designed without damaging the equipment.

TRAINING AND EVALUATION
Training Information Outline

1. Prepare the 25-mm automatic gun for a function check.
   a. Move the turret power and turret drive system switches to OFF.
   b. Remove and open the gun cover.
   c. Move the manual safe handle to SAFE.
   d. Move the turret power and turret drive system switches to ON.

2. Perform a function check on the 25-mm automatic gun using the gunner's control handles (Figure 1).

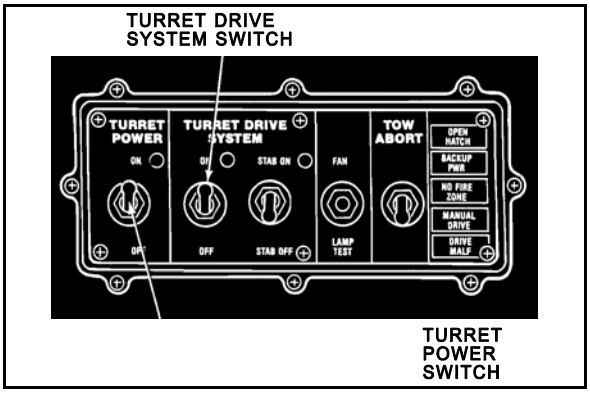


Figure 1. 25-mm gun and turret control box.

   a. Check to ensure that the bolt position indicator is in the SEAR position.

Note: If the bolt position indicator is not in the SEAR position, the feeder needs to be timed.

b. Check to ensure that the drive shaft handle turns by turning it counterclockwise.

Note: If the drive shaft handle turns over 1/2 inch, the gun bolt is not locked in the SEAR position.

c. Dry fire the 25-mm automatic gun in the AP SS mode (Figure 2).

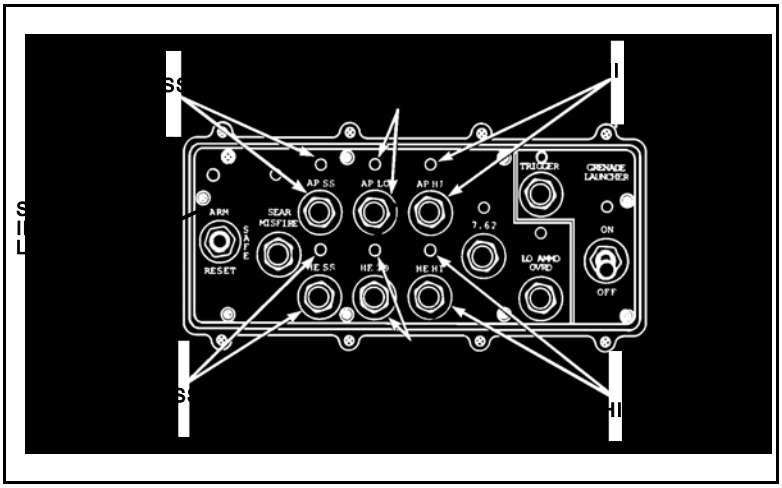


Figure 2. Weapon control box.

(1) Press the AP SS button.
(2) Move the ARM-SAFE-RESET switch to the ARM position.
  (a) The SEAR indicator light should come on.
  (b) The LO AMMO indicator light should be flashing.
(3) Press the LO AMMO OVRD button. The LO AMMO, AP SS, and SEAR lights should be on and not flashing.
(4) Squeeze the trigger switches on the gunner's control. The bolt position indicator should be in the MISFIRE position (Figure 3).

Note: When the trigger switches are squeezed, the 25-mm automatic gun will dry fire and cycle to MISFIRE position because no ammunition is in the 25-mm automatic gun.

(5) Press the AP SS button.
(6) Press the MISFIRE button.
(7) Resqueeze the trigger. The bolt should be in the SEAR position and the SEAR indicator light should come on.
d. Dry fire the 25-mm automatic gun in the HE SS mode by pressing the HE SS button.

e. Dry fire in the AP LO mode.
f. Dry fire in the AP HI mode.
g. Dry fire in the HE LO mode.
h. Dry fire in the HE HI mode.

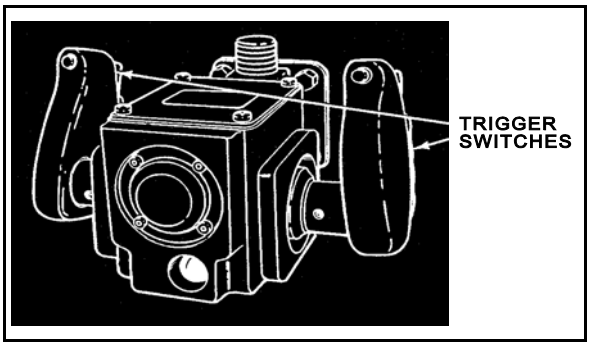


Figure 3. Gunner's control handles.

3. Perform a function check on the 25-mm automatic gun using the commander's control handle (Figure 4).

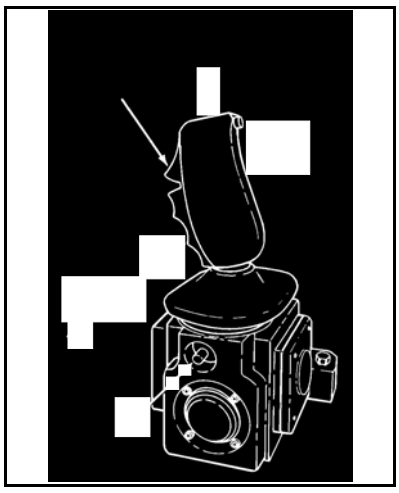


Figure 4. Commander's control handle.

4. Perform a function check on the 25-mm automatic gun using the trigger switch in the handle on the turret traverse handwheel (Figure 5, page 3-120).

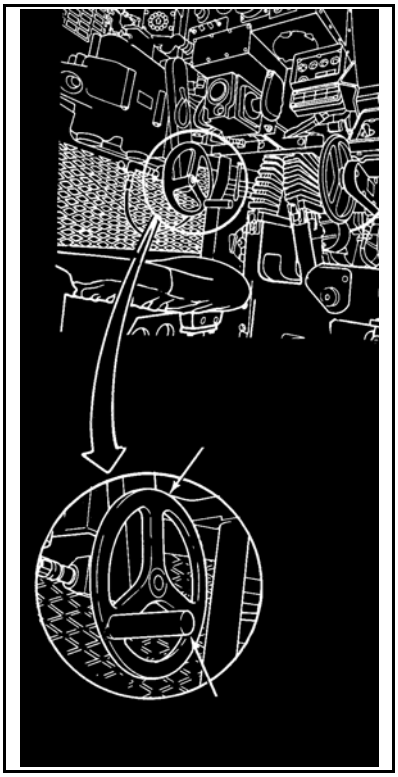


Figure 5. Turret traverse handwheel.

EVALUATION PREPARATION

Setup: Provide the soldier with the equipment and materials outlined in the task conditions statement.

Brief Soldier: Tell the soldier to dry fire the 25-mm automatic gun to ensure it functions as designed.

EVALUATION GUIDE

Performance Measures	**Results**	
1. Prepares the 25-mm automatic gun for a function check.	P	F
2. Performs a function check on the 25-mm automatic gun using the gunner's control handles.	P	F

Performance Measures	Results
3. Performs a function check on the 25-mm automatic gun using the commander's control handle.	P F
4. Performs a function check on the 25-mm automatic gun using the traverse handwheel.	P F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 9-2350-252-10-2

UNLOAD THE 25-MM AUTOMATIC GUN ON A BFV
071-024-0008

CONDITIONS

Given a BFV, basic issue items, a loaded 25-mm automatic gun, ammunition in the HE and AP feed chutes, and a requirement to unload the 25-mm gun.

STANDARDS

Place the 25-mm automatic gun on manual SAFE and remove the ammunition from the feeder without causing damage to the equipment or injury to personnel.

TRAINING AND EVALUATION
Training Information Outline

1. Prepare the turret.
   a. Set the ARM-SAFE-RESET switch to SAFE.
   b. Set the turret drive system switch to OFF.
   c. Remove the gun guard and open the cover.
   d. Be sure that the gun bolt position indicator is in SEAR (Figure 1).

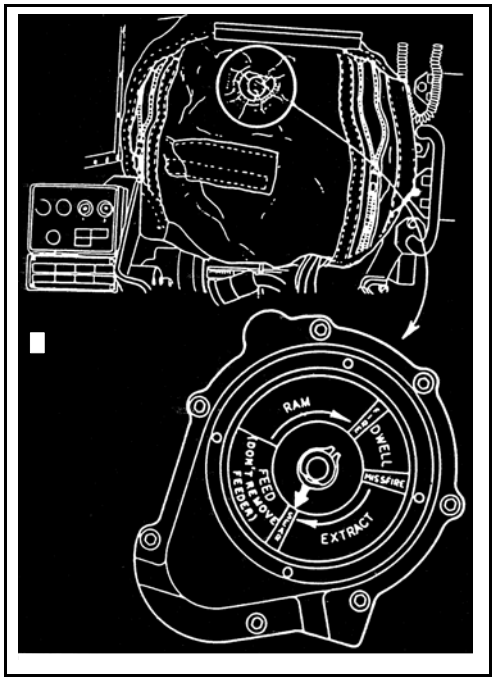


Figure 1. Bolt position indicator.

e. Move the manual safe handle to SAFE.
f. Open the M240C machine gun access doors.
g. Disconnect the AP and HE links from the links in the AP and HE link eject chutes (Figure 2).

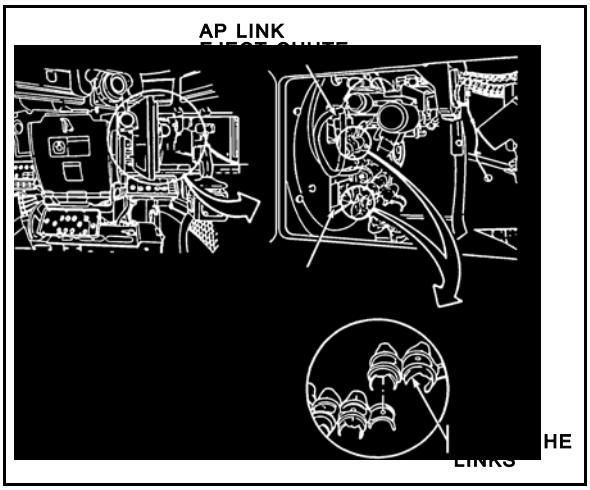


Figure 2. AP link eject chute and HE link eject chute.

h. Close the M240C machine gun access doors.

2. Unload the AP side of the feeder.

Note: To unload or clear the AP ammunition, select HE. To unload the HE ammunition, select AP.

a. Elevate the gun.
(1) Move the gun elevation drive select lever left to manual position.
(2) Manually elevate to 200 mils.
b. Detach the AP link eject chute.

Note: Remove all loose links from the AP link eject chute.

(1) Squeeze the latches (Figure 3, page 3-124).

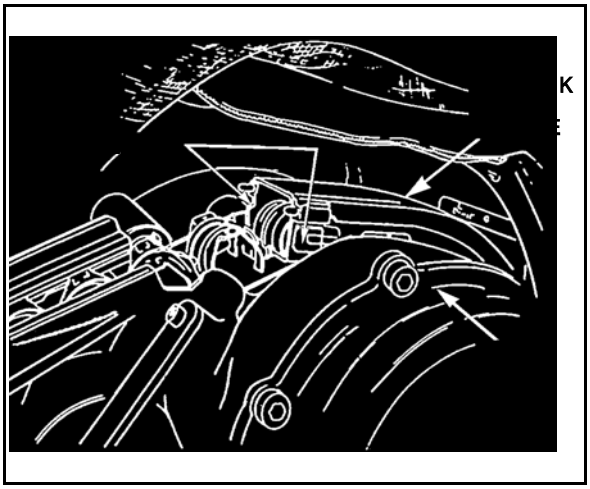


Figure 3. Latches.

(2)Pull the link eject chute away from the 25-mm gun area (Figure 4).

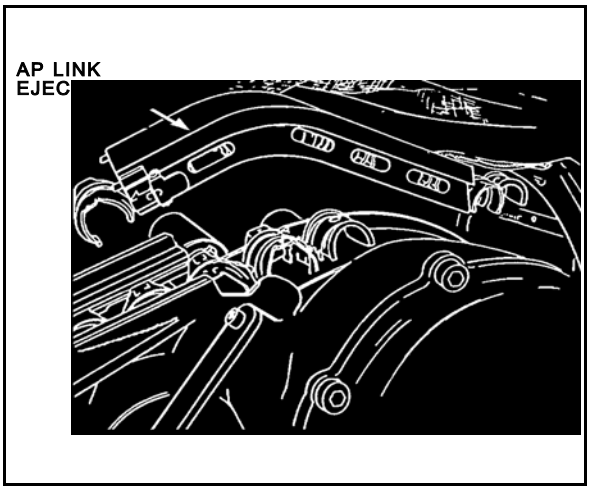


Figure 4. AP link eject chute.

c. Pull out the feed select solenoid knob to the HE position.

d. Clear the feeder of AP ammunition.

(1)Put the 14-mm ratchet wrench on the upper feed shaft extension.

(2)Pull out the upper clutch override knob. Hold the knob out while turning the upper feed shaft extension with the 14-mm ratchet wrench until the ammunition clears feeder.

(3)Press the AP forwarder release lever, as needed, to release the tension on the links in the AP ammunition chute.

(4)Release the upper clutch override knob. Keep turning the upper feed shaft extension until the knob is seated.

e. Clear the AP chute.

(1)Put the 14-mm ratchet wrench on the AP ammunition forwarder, with the wrench handle to the right.

(2)Put upward pressure on the 14-mm ratchet wrench and pull the AP release handle to the left.

(3)Hold the AP release handle to the left while moving the ratchet wrench to the straight down position until only two rounds are visible in the AP feed chute (Figure 5).

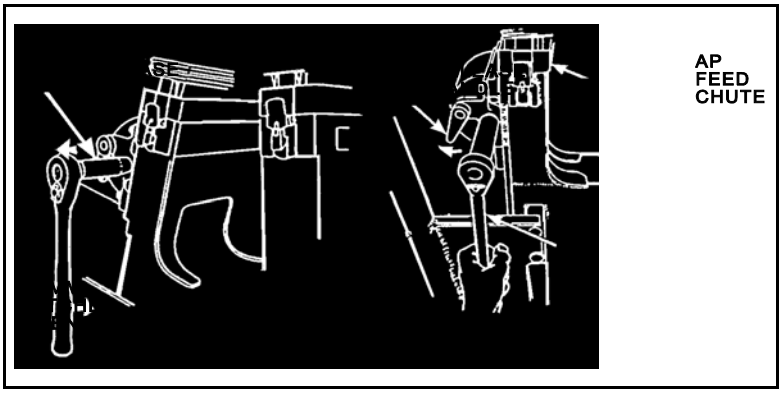


Figure 5. AP Release handle.

f. Remove the AP feed chute.

(1)Squeeze the AP chute latches (Figure 6).

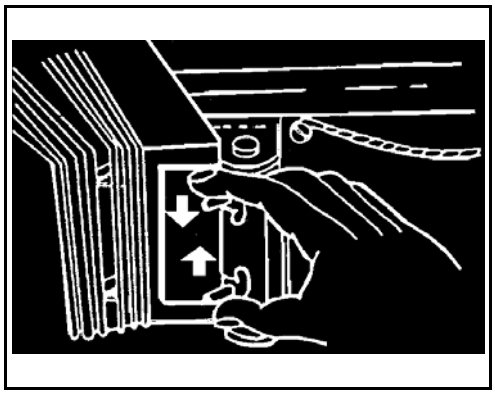


Figure 6. Latches.

(2)Twist the AP chute to the open position.

Note: Push the AP feed chute to the left as far as possible to keep it out of the way.

(3)Pull the AP feed chute to remove the chute front pin from the front guide pin hole.

3. Unload the HE side of the feeder.
   a. Manually depress the gun to maximum depression.
   b. Detach the HE link eject chute (Figure 7).

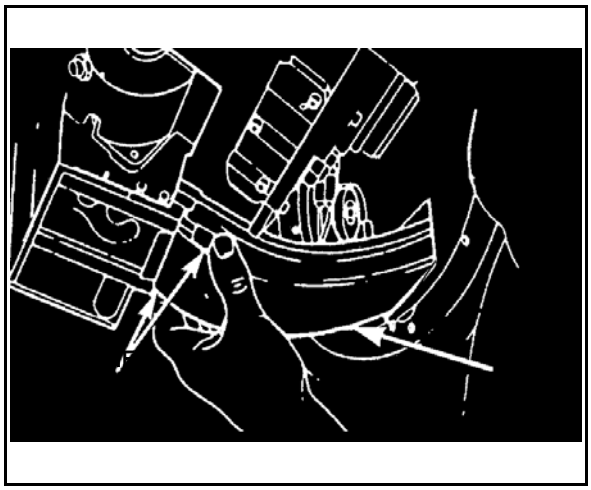


Figure 7. Latches and HE link eject chute.

Note: Remove all loose links from the HE link eject chute.

(1)Squeeze the latches.
(2)Pull the chute away from the feeder assembly.
c. Push in the feed select solenoid knob to the AP position.
d. Clear the feeder of HE ammunition.
(1)Put the 14-mm ratchet wrench on the lower feed shaft extension.
(2)Pull out and hold the lower clutch override knob.
(3)Turn the HE extension counterclockwise with the 14-mm ratchet wrench until the ammunition clears feeder.
(4)Press the HE forwarder release lever, as needed, to release the tension on the links in the HE ammunition chute.
(5)Release the lower clutch override knob. Keep turning the lower feed shaft extension until the knob is seated.

e. Clear the HE chute.

(1)Put the 14-mm ratchet wrench on the HE ammunition forwarder, with the wrench handle to the left.

(2)Turn the 14-mm ratchet wrench to move the ammunition up the chute slightly. Put upward pressure on the wrench and pull the HE release handle to the right.

(3)Hold the HE release handle to the right while moving the wrench to the straight down position (Figure 8).

(4)Let go of the HE release handle and turn the ratchet wrench right until the HE release handle pops back into place and until only two rounds are visible in the HE feed chute.

f. Remove the HE feed chute.

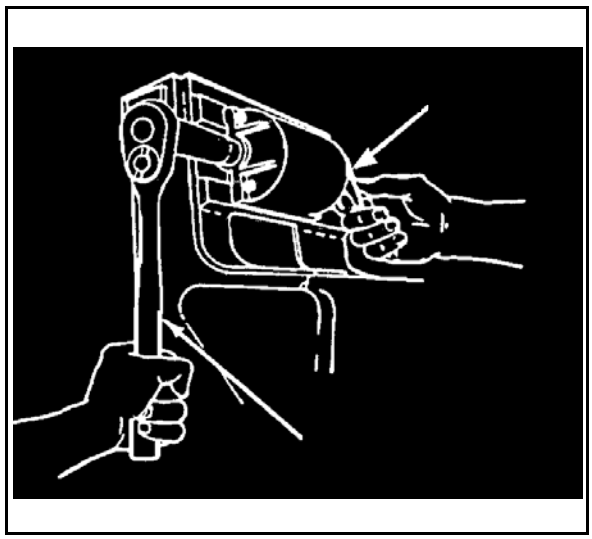


Figure 8. HE release handle.

4. Clear the 25-mm feeder and receiver.
   a. Remove the 25-mm gun feeder.
   b. Remove the 25-mm ammunition from the 25-mm gun feeder.
   (1)Press the timer release rod (Figure 9).
   (2)Rotate the worm shaft nut to the left until two clicks can be heard (Figure 9, page 3-128).

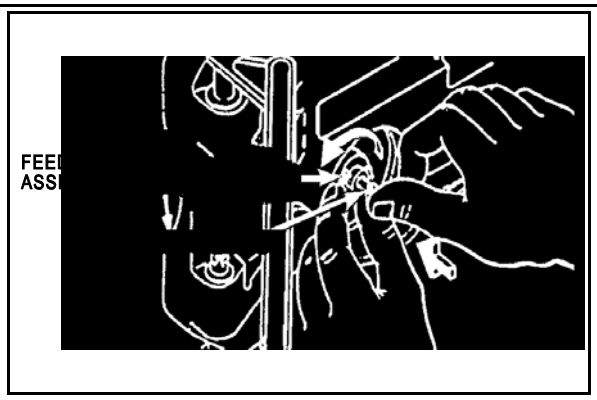


Figure 9. Timer release rod and worm shaft nut.

(3)This turns the feeder sprocket on whatever selection is being used, AP or HE, and turns the rotor.

(4)The rounds drop out of the rotor area as the worm shaft nut is turned. This allows the rounds to be taken out.

Note: If the worm shaft nut cannot be turned manually, notify the chain of command and unit maintenance.

(5)Continue turning until the ammunition drops into the helper's hand.

c. Time the 25-mm gun feeder.

d. Clear the 25-mm gun receiver.

(1)Check the face of the bolt, chamber, and forward eject port (Figure 10).

(2)Remove any ammunition from the receiver.

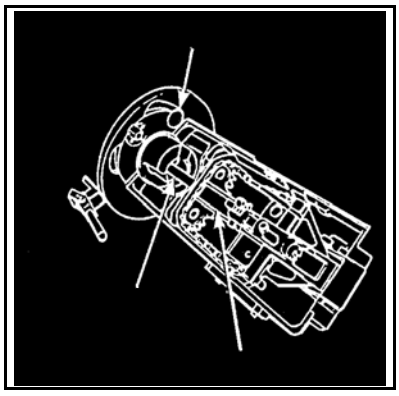


Figure 10. Face of bolt, chamber, and forward eject port.

EVALUATION PREPARATION

Setup: Provide the soldier with a BFV, basic issue items, a loaded 25-mm automatic gun, and ammunition in the HE and AP feed chutes.

Brief Soldier: Tell the soldier he must unload the 25-mm automatic gun feed chutes and feeder on a BFV.

EVALUATION GUIDE

Performance Measures	Results	
1. Prepares the turret.	P	F
2. Unloads the AP side of the feeder.	P	F
3. Unloads the HE side of feeder.	P	F
4. Clears the 25-mm feeder and receiver.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 9-2350-252-10-2	None

BORESIGHT THE 25-MM AUTOMATIC GUN ON A BFV
071-314-0008

CONDITIONS

Given a stationary BFV parked on level ground with an installed and cleared 25-mm automatic gun, a complete boresight kit, an aiming point at least 1,200 meters away with horizontal and vertical lines, and one assistant.

STANDARDS

Boresight the 25-mm automatic gun so that the cross hairs are aligned with the integrated sight unit (ISU) cross hairs on the same aiming point.

TRAINING AND EVALUATION
Training Information Outline

WARNING

Looking at the sun through the ISU may cause blindness.

1. Move the turret power switch to ON.

Notes: 1. Boresighting requires two soldiers, one looking through the boresight telescope and the other moving the turret and adjusting the ISU. The soldier on the outside of the vehicle is the assistant.
2. Night vision controls need 10 minutes to cool before being operated.

2. To boresight the daysight, move the NIGHT VISION PWR switch on the ISU to ON.

Note: A square shape makes the best target to boresight the 25-mm gun.

3. Select a suitable target 1,200 meters away. Pick an aiming point on the target that has vertical and horizontal lines.

4. Open the ballistic sight cover doors.

5. Set the daysight controls on the ISU (Figure 1).

a. Set the range control knob to 0.
b. Set the MAG switch to HIGH until it clicks.
c. Move the sensor select switch to CLEAR or NEUTRAL.

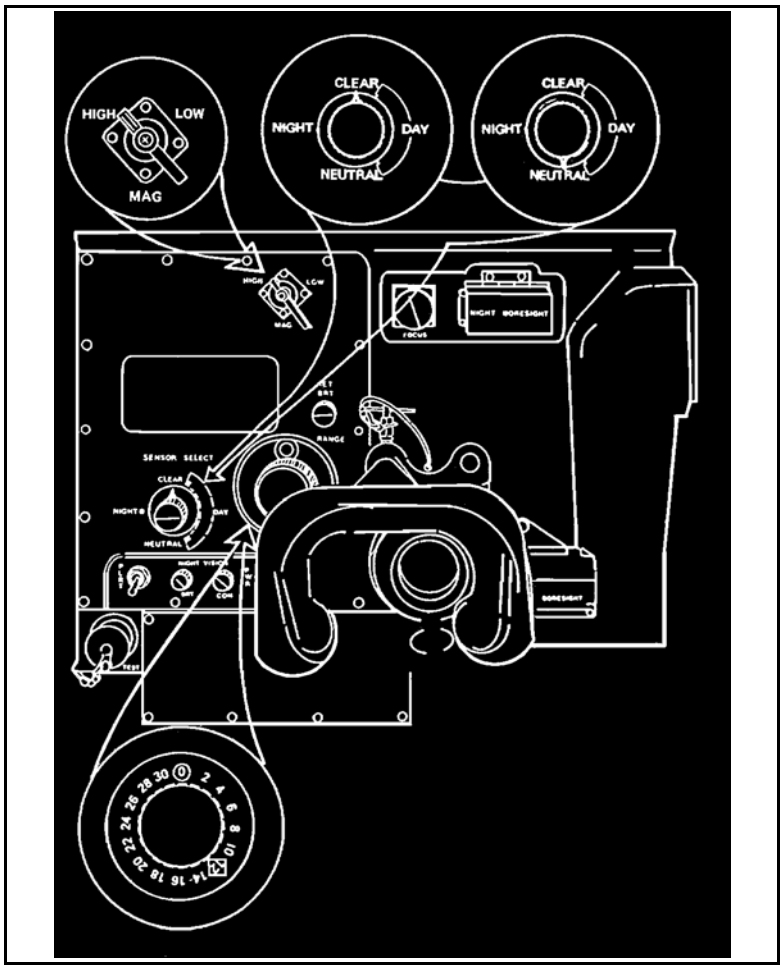


Figure 1. MAG switch, sensor select switch, and range control knob.

6. Press the AP SS button on the weapon control box (Figure 2).

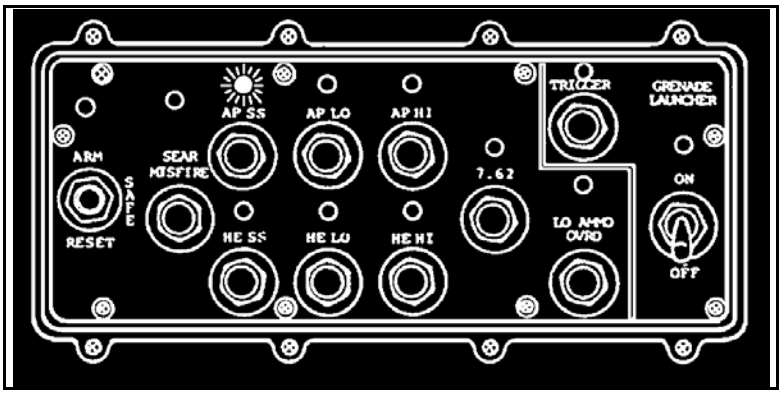


Figure 2. AP SS button and indicator light.

7. Check the status indicator on the AP reticle and adjust reticle brightness (Figure 3).

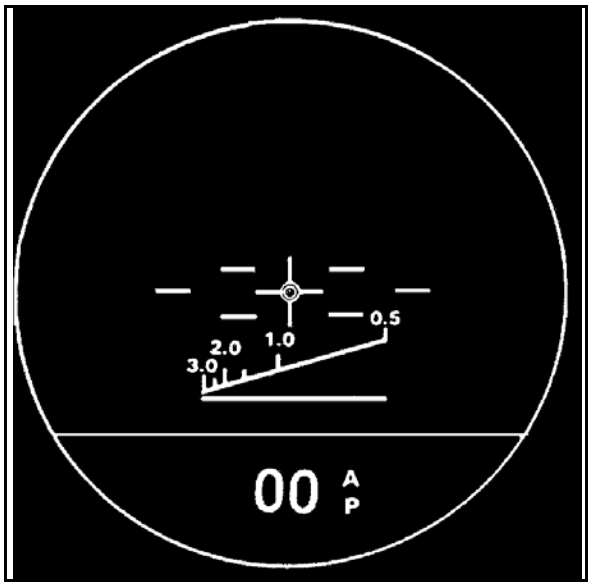


Figure 3. Status indicator.

8. Move the turret traverse drive select lever to the MANUAL position.

9. Move the gun elevation drive select lever to the MANUAL position.

CAUTIONS

1. Never turn the gun elevation with both TOW elevation select lever and gun elevation select lever in the manual position. Linkage between the TOW and the gun elevation system can be damaged if the gun elevation handwheel is turned while both levers are in the manual position.
2. Do not jam the boresight telescope into the 25-mm boresight adapter. Too much force will damage the boresight telescope.

10. Move the TOW elevation drive select lever to the POWER position.

Note: The boresight telescope shank is tapered. Slide the shank into the 25-mm boresight adapter far enough so that the boresight telescope can be turned and the telescope will hold its own weight.

11. Center the gun reticle on the aiming point of the target, and pull out the travel lock lever and release the turret.

12. *Helper:* Install the 25-mm boresight kit (Figure 4).

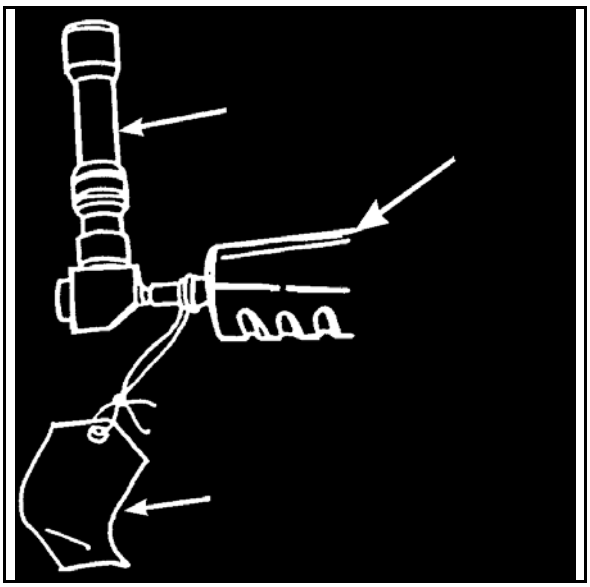


Figure 4. Boresight kit.

a. Install the 25-mm boresight adapter into the muzzle end of the 25-mm gun barrel with UP to the top. Push the 25-mm adapter into the muzzle until it is seated.

b. Install the shank of the boresight telescope in the 25-mm boresight adapter. Push the boresight telescope gently into the 25-mm adapter until seated.

c. Turn the boresight telescope so that the eyepiece is on top.

d. Hang a red streamer on the 25-mm boresight adapter.

Note: A red streamer is used to let the helper know that the boresighting adapter is still in the barrel and must be removed before firing.

13. *Helper:* Move the vernier focus dial on the boresight telescope to focus on the target.

WARNING

Fast motion of the 25-mm gun during boresighting may result in injury. Ensure that the 25-mm gun and turret are in the manual. Move the 25-mm gun very slowly during boresighting.

14. Elevate or depress the 25-mm gun with the elevation handwheel, as directed by the helper, to align the elevation cross hair in the reticle of the boresight telescope on the aiming point of the target.

Note: The gun elevation handwheel is turned backward to elevate the 25-mm gun and forward to depress the 25-mm gun.

15. Traverse the turret left or right with the traverse handwheel, as directed by the helper, to align the azimuth cross hair in the reticle of the boresight telescope on the aiming point of the target (Figure 5).

16. The helper checks for accuracy of the boresight telescope.

a. Rotates the boresight telescope 90 degrees to the right and looks at the aiming point in the reticle.

b. Rotates the boresight telescope 90 degrees to the left and looks at the aiming point in the reticle. If the aiming point does not stay in the inner ring of the reticle, the boresight telescope is not accurate. Insert another boresight telescope and repeat the boresight procedures.

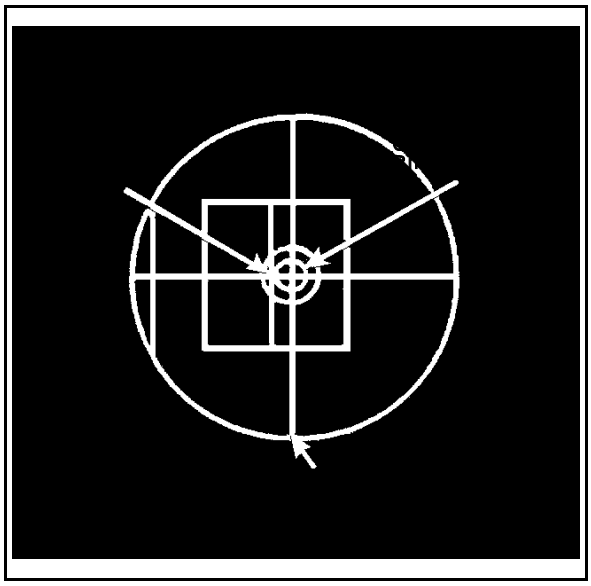


Figure 5. Boresight reticle.

17. Turn the focus barrel to focus the gun reticle.

18. Check to see if the reticle in the gunner's eyepiece is aligned on the target.
    a. If the reticle in the gunner's eyepiece is aligned on the target, the boresight is correct.
    b. If the reticle in the gunner's eyepiece is not aligned on the target, align the gun reticle on the aiming point of the target.
    (1)Lift the gun boresight cover on the ISU (Figure 6, page 3-136).

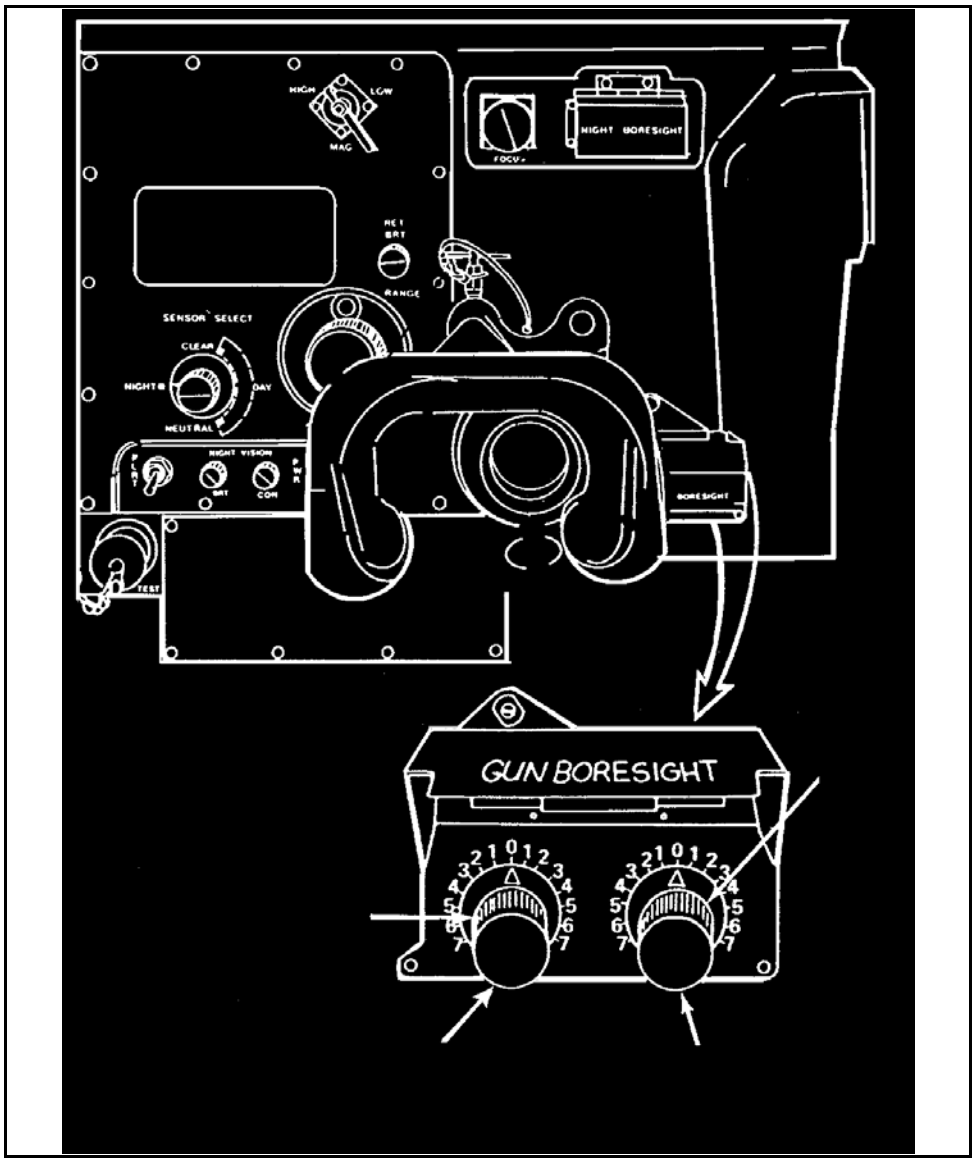


Figure 6. Gun boresight cover

(2)Turn the EL knob to align the elevation cross hair of the gun reticle on the aiming point of the target (Figure 7).

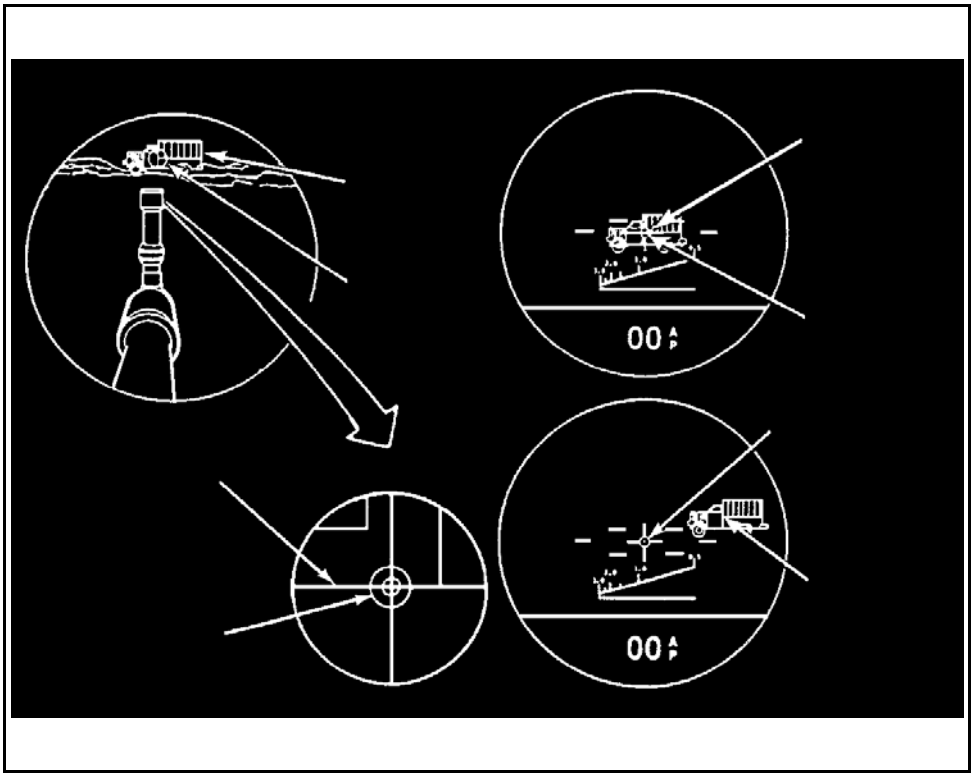


Figure 7. Alignment.

Note: Turning the EL adjustment knob to the right moves the reticle up. Turning the EL adjustment knob to the left moves the reticle down.

(3) Turn the AZ knob to align the azimuth cross hair of the gun reticle on the aiming point of the target (Figure 7).

Note: Turning the AZ adjustment knob to the right moves the reticle to the right. Turning the AZ adjustment knob to the left moves the reticle to the left.

(4) Close the gun boresight cover.

Note: If the reticle does not align on the aiming point of the target, notify the chain of command and unit maintenance.

CAUTION

Be careful when pulling the boresight telescope from the 25-mm boresight adapter. Too much force will damage the boresight telescope.

19. The helper removes the boresight kit and informs the gunner that the boresight kit is removed.

Notes: 1. ISU controls should not be operated until after the nightsight is boresighted.
2. To prevent loss of nightsight accuracy, when outside air temperature changes by 20 degrees Fahrenheit (11 degrees Centigrade), either up or down, boresight nightsight to daysight. A square shape makes the best target to boresight the nightsight.

20. To boresight the nightsight, select the same target 1,200 meters away. Pick an aiming point on the target that has vertical and horizontal lines, such as a house.

21. Move the sensor select switch to NIGHT position.

22. Adjust the nightsight controls for a clear view of the aiming point image on the target (Figure 8).

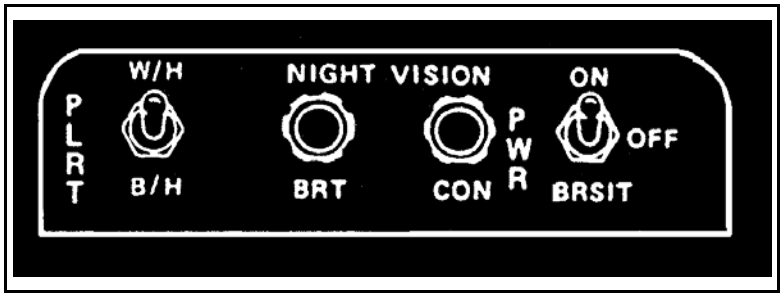


Figure 8. Nightsight controls.

a. Turn the night BRT control knob to adjust the brightness.
b. Turn the CON control knob to adjust the contrast.
c. Turn the FOCUS to focus the aiming point image.

Note: A free-wheeling effect will be noticed if the focus knob is turned to the left (counterclockwise) more than seven to nine turns from a fully right position.

23. Look at the aiming point in the gunner's eyepiece.
a. If the aiming point is in the center of the reticle, the nightsight is boresighted.

b. If the aiming point is not in the center of the reticle, align the reticle on the aiming point of the target.

(1)Lift the night boresight cover.

(2)Turn the EL adjustment knob to the right to move the reticle up. Turn the EL adjustment knob to the left to move the reticle down.

(3)Turn the AZ adjustment knob to the right to move the reticle to the right. Turn the AZ adjustment knob to the left to move the reticle left.

24. Move the sensor select switch to CLEAR or NEUTRAL position after boresighting.

25. Look at the aiming point in the gunner's eyepiece.
   a. If the reticle cross hairs are aligned on the aiming point, shut down the turret.
   b. If the reticle cross hairs will not align, notify organizational maintenance.

Note: The M240C machine gun should be boresighted immediately after boresighting the 25-mm gun. Turret controls and ISU controls should not be operated until the M240C machine gun is boresighted.

26. Close the night boresight cover.

EVALUATION PREPARATION

Setup: Provide the soldier all the equipment and materials outlined in the conditions statement.

Brief Soldier: Tell the soldier to boresight the 25-mm automatic gun and the ISU to the same aiming point. Soldier will also talk helper through installation and removal of the boresight telescope.

EVALUATION GUIDE

Performance Measures	**Results**	
1. Moves the turret power switch to ON.	P	F
2. Moves the NIGHT VISION PWR switch to ON.	P	F
3. Selects a suitable aiming point.	P	F
4. Sets the daysight controls.	P	F

Performance Measures	Results	
5. Selects the appropriate button on the weapon control box.	P	F
6. Ensures that the turret is in manual mode.	P	F
7. Talks the helper through boresight telescope installation and accuracy checkout procedures.	P	F
8. Talks the helper through boresight telescope removal procedure.	P	F
9. Adjusts the ISU to the thermal night mode and adjusts the nightsight controls for a clear view of the target.	P	F
10. Adjusts the nightsight boresight controls, as necessary, to align the nightsight to the daysight.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 9-2350-252-10-2

ZERO THE 25-MM AUTOMATIC GUN ON A BFV
071-024-0009

CONDITIONS

Given a BFV with a boresighted 25-mm automatic gun, loaded ammunition cans, an identified target at a range of 1,200 meters, and a requirement to zero the 25-mm automatic gun.

STANDARDS

The 25-mm automatic gun is zeroed so that the point of aim and the strike of the rounds impact at the same point on the target.

TRAINING AND EVALUATION
Training Information Outline

1. Zero the daysight to the 25-mm automatic gun.
   a. Select an aiming point 1,200 meters away.
   b. Set the integrated sight unit controls (Figure 1, page 3-142).
   (1)Turn the RANGE control knob to 12 (1,200 meters).
   (2)Move the MAG switch to HIGH (12X) (until it clicks).

CAUTION

HE ammunition will explode the target. Do not use HE ammunition to zero the ISU and 25-mm automatic gun.

   c. Move the manual safe handle to the FIRE position.

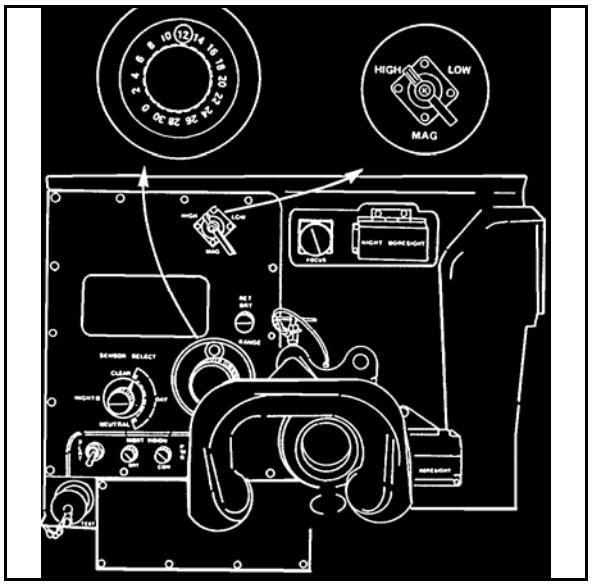


Figure 1. RANGE control knob and MAG switch.

d. Push the AP SS or HE SS button on the weapon control box (Figure 2).

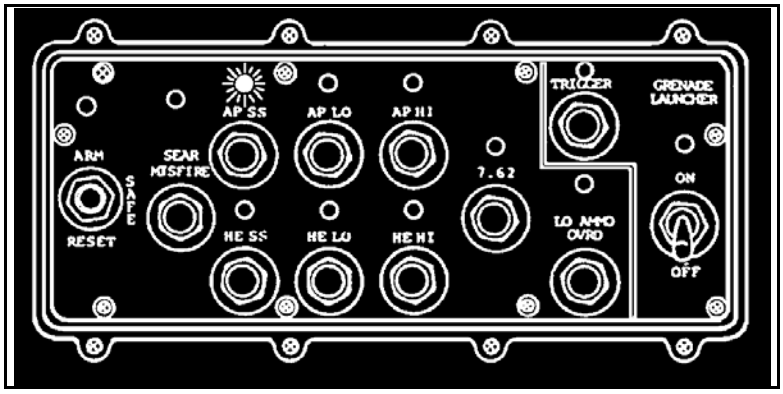


Figure 2. AP SS button and indicator light.

e. Look through the gunner's eyepiece. Use the gunner's controls to align the reticle on the center of the target (Figure 3).

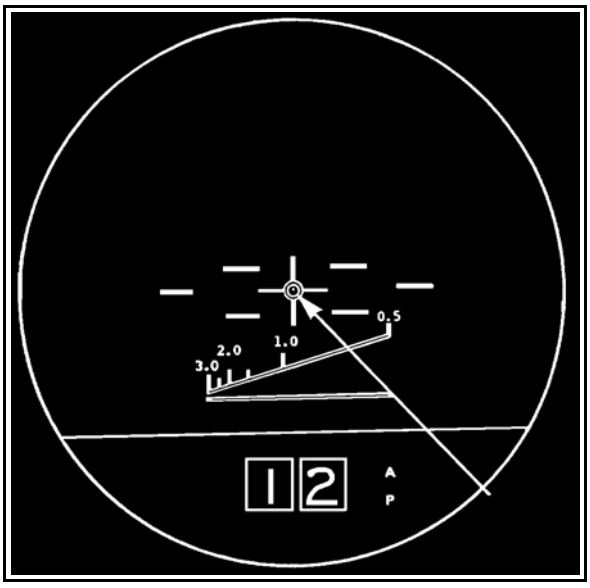


Figure 3. Reticle.

f. Move the ARM-SAFE-RESET switch to ARM (Figure 4).

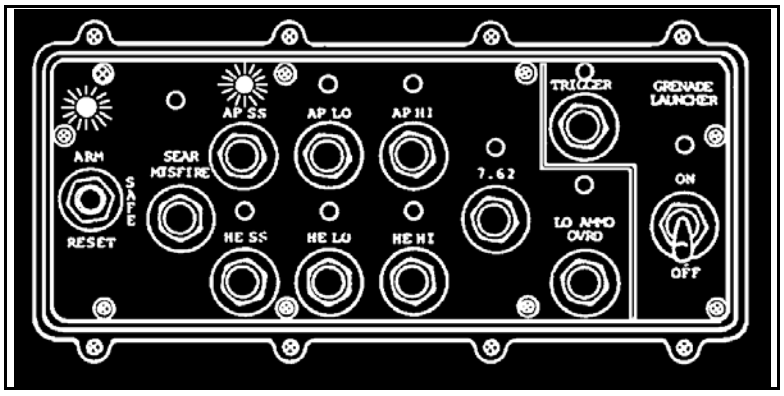


Figure 4. ARM-SAFE-RESET switch and indicator light.

g. Fire one round at the target.
h. Look at the strike of the round through the gunner's eyepiece (Figure 5, page 3-144).
(1)If the round strikes in the aiming point, the gun is zeroed.
(2)If the round strikes off-center, adjust the reticle to the strike of the round to obtain a zero.

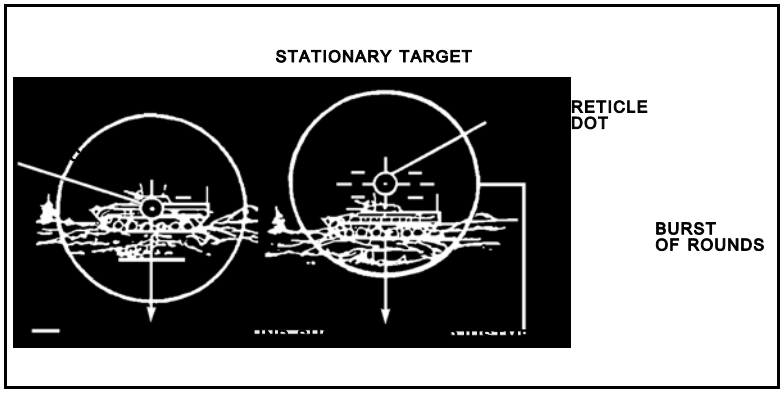


Figure 5. Strike of round.

i. To adjust the reticle to the strike of the round—

(1)Open the gun boresight cover (Figure 6).

(2)To adjust the reticle, turn the elevation and azimuth boresight adjustment knobs to center the reticle crosshairs on the strike of the round.

(3)Close the gun boresight cover (Figure 6).

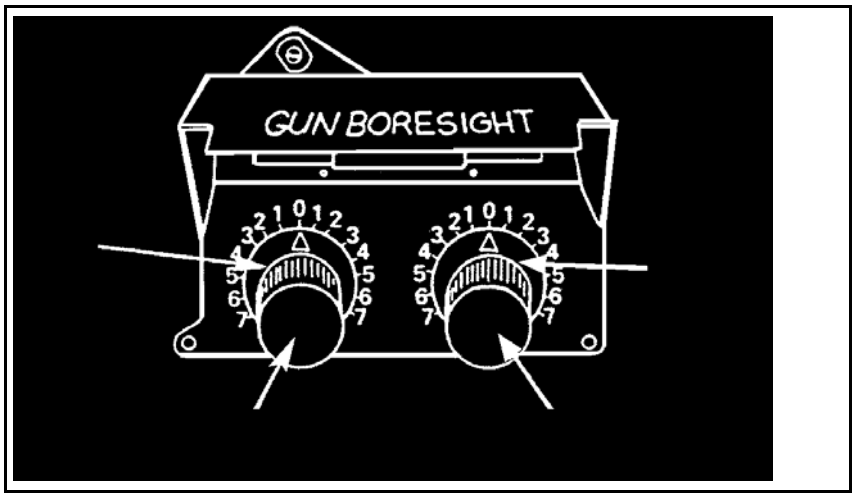


Figure 6. Gun boresight cover.

j. Use the gunner's controls to align the reticle aiming point on target.

k. Repeat zeroing procedures until the 25-mm automatic gun is zeroed or zeroing has been attempted three times. If the 25-mm automatic gun cannot be zeroed after three times, report to organizational maintenance.

l. After zeroing with AP SS, select HE HI and fire a burst of three to five rounds; the rounds should impact within 5 mils of the aiming point.

Note: Remember, the first round fired will be the ammunition of the previous selection (AP).

m. Move the ARM-SAFE-RESET switch to RESET, then to SAFE.

2. Align the nightsight reticle to the daysight reticle (use procedures listed under task 071-314-0008: *Boresight the 25-mm automatic gun on a BFV*). One 25-mm AP round is fired to confirm the nightsight zero.

EVALUATION PREPARATION

Setup: Provide the soldier with the equipment and materials outlined in the conditions statement.

Brief Soldier: Tell the soldier to zero the 25-mm automatic gun so that the strike of the round is the same as the point of aim.

EVALUATION GUIDE

Performance Measures	Results	
1. Selects an aiming point 1,200 meters away.	P	F
2. Sets the integrated sight unit controls.	P	F
3. Selects proper ammunition and rate of fire on the weapon control panel.	P	F
4. Observes the strike of the round.	P	F
5. Adjusts the integrated sight unit reticle to the strike of the round, if necessary.	P	F
6. Confirms zero of the nightsight with ammunition.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	**Related**
None	TM 9-2350-252-10-2

PERFORM MISFIRE PROCEDURES ON THE 25-MM AUTOMATIC GUN ON A BFV 071-314-0011

CONDITIONS

Given a BFV with basic issue items, belted 25-mm ammunition, and an installed 25-mm automatic gun that fails to fire.

STANDARDS

Perform misfire procedures so that the 25-mm automatic gun fires, without causing damage to equipment or injury to personnel.

TRAINING AND EVALUATION
Training Information Guide

Note: A loss of vehicle or turret power will cause the 25-mm gun to fire slowly or to stop firing.

1. Announce the 25-mm misfire to the crew.

2. Make sure the ARM-SAFE-RESET switch is in the ARM position. Release the trigger and wait 5 seconds.

3. Press the single-shot button on the weapon control box for the type of ammunition that was being fired before the misfire.

4. Press the MISFIRE button.

5. Squeeze the trigger on the gunner's control handles (Figure 1, page 3-148).

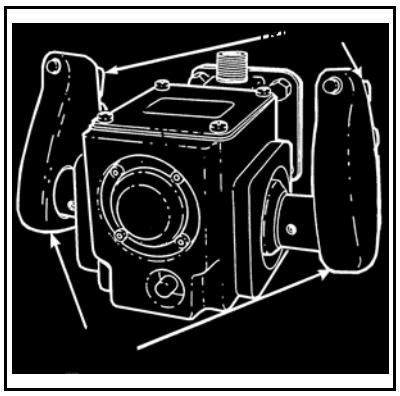


Figure 1. Gunner's control handles.

Note: The 25-mm gun should cycle from the MISFIRE to the SEAR position when the triggers are squeezed. The sear indicator light should come on.

6. Check that the sear indicator light is on (Figure 2).

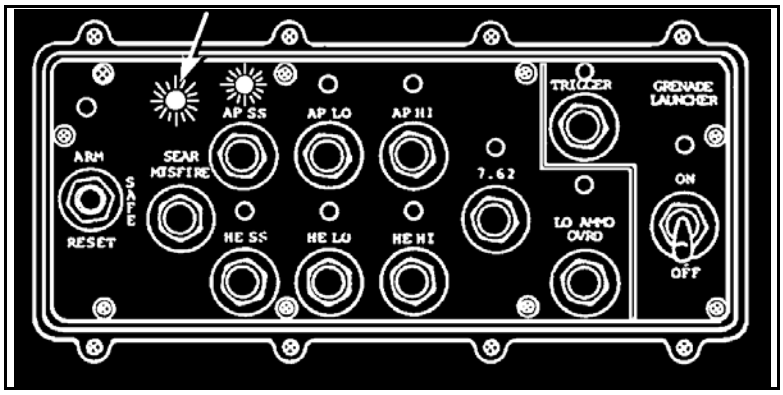


Figure 2. Sear indicator light.

a. If the sear indicator light is on, squeeze the trigger switches on the gunner's control handles and continue firing.

b. If the sear indicator light is on, but the 25-mm gun will not fire, follow the troubleshooting procedures in TM 9-2350-252-10-2.

c. If the sear indicator light is off, go to the next step.

6. Remove the gun guard.

7. Check the bolt position indicator (Figure 3).

WARNING

Soldiers can be injured by the 25-mm gun cookoff. If more than 100 rounds have been fired in 15 minutes (hot gun), there is a cookoff danger.

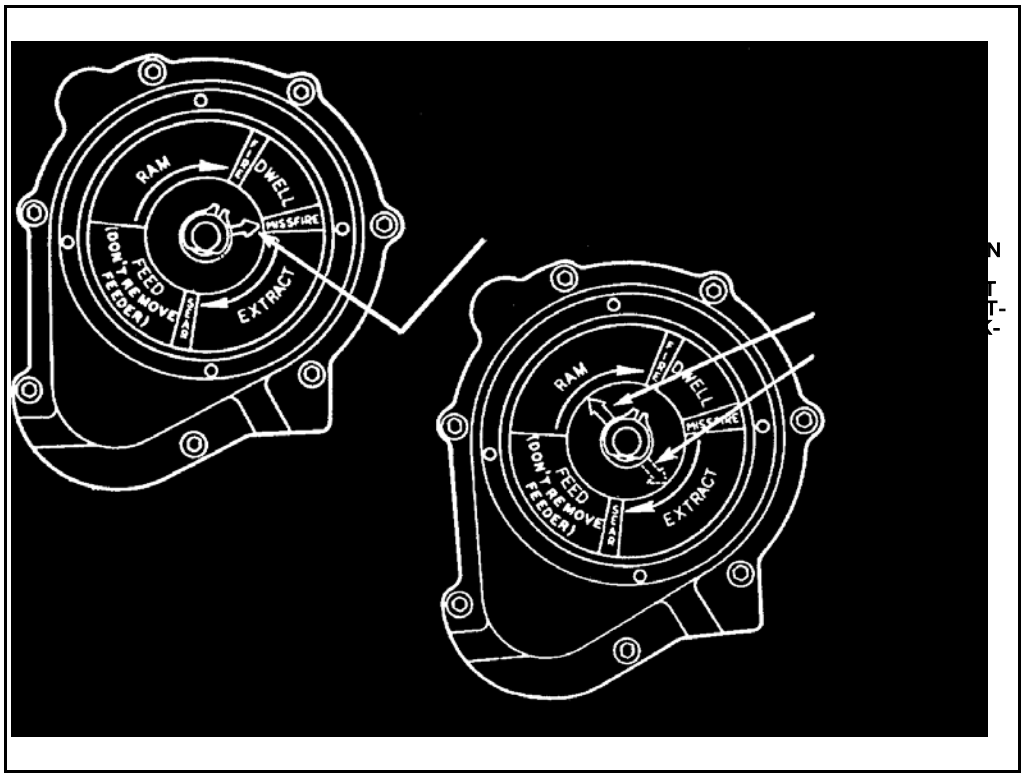


Figure 3. Bolt position indicator.

a. If the bolt position indicator is in SEAR, close the gun guard, squeeze the trigger on the gunner's hand controls, and continue firing.

b. If the bolt position indicator is in any position other than SEAR and the gun is cold, troubleshoot and perform remedial action.

WARNING

A 25-mm gun cookoff could kill or injure personnel. During a training exercise, do not inspect the feeder, remove the round, or recycle the gun. All personnel must leave the vehicle for 30 minutes before starting troubleshooting and remedial action. The driver must not exit through the driver's hatch.

c. If the 25-mm gun is hot and the bolt position indicator is not in the cookoff danger zone, troubleshoot and perform remedial action. If the bolt position indicator is in the cookoff danger zone, go to another weapon system and take corrective action as soon as the tactical situation permits.

EVALUATION PREPARATION

Setup: Provide the soldier with a BFV fully equipped with a misfired gun loaded with AP dummy ammunition.

Brief Soldier: Tell the soldier that he will be evaluated on the ability to perform misfire procedures on the 25-mm gun.

EVALUATION GUIDE

Performance Measures	Results	
1. Announces the 25-mm misfire to the crew.	P	F
2. Ensures ARM-SAFE-RESET switch is in the ARM position.	P	F
3. Checks the sear indicator light. Releases the trigger and waits 5 seconds.	P	F
4. Selects single shot for the type of 25-mm ammunition being fired.	P	F
5. Presses the misfire button.	P	F
6. Squeezes the trigger.	P	F

Performance Measures	Results
7. Checks the sear indicator light.	P F
8. Squeezes the trigger.	P F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 9-2350-252-10-2

ENGAGE TARGETS WITH THE 25-MM AUTOMATIC GUN ON A BFV 071-314-0012

CONDITIONS

Given a BFV with a 25-mm automatic gun installed and loaded with belted 25-mm ammunition, and a target identified within range. The manual safety is on the FIRE position.

STANDARDS

Engage targets with the 25-mm automatic gun using the integrated sight unit (ISU) so that the target is destroyed.

TRAINING/EVALUATION
Training Information Outline

Notes: 1. This task is for firing the 25-mm automatic gun electrically. To fire in the manual mode, see TM 9-2350-252-10-2.
2. After the Bradley commander identifies the target, he moves the turret using the Bradley commander's control handle to bring the gunner's field of view on the target. As the Bradley commander moves the turret, he issues an initial fire command, GUNNER, SABOT, PC, TWELVE HUNDRED METERS.

1. Select AP and rate of fire (SS, LO, HI) by pressing the button on the weapon control box (Figure 1).

2. Ensure that the sear indicator light is on.

3. Move the ARM-SAFE-RESET switch to ARM.

4. Acquire the target using the ISU.

5. Gunner announces, "Identified."

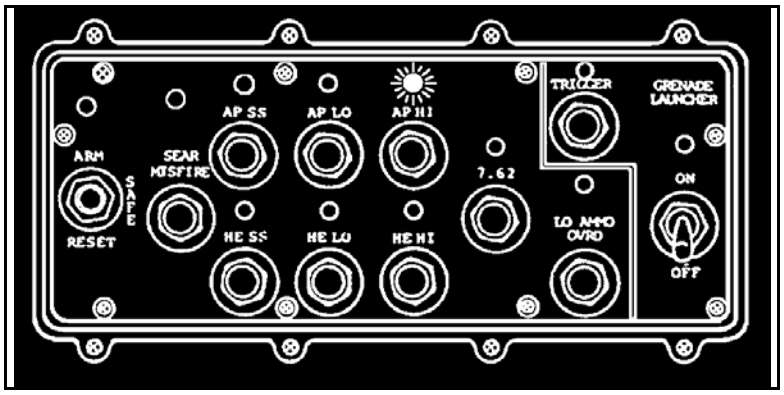


Figure 1. Weapon control box.

Note: When the gunner announces, "Identified," the Bradley commander releases his grip on the control handle. The gunner may now track the target using his control handles.

6. Move the MAG switch to HIGH (Figure 2).

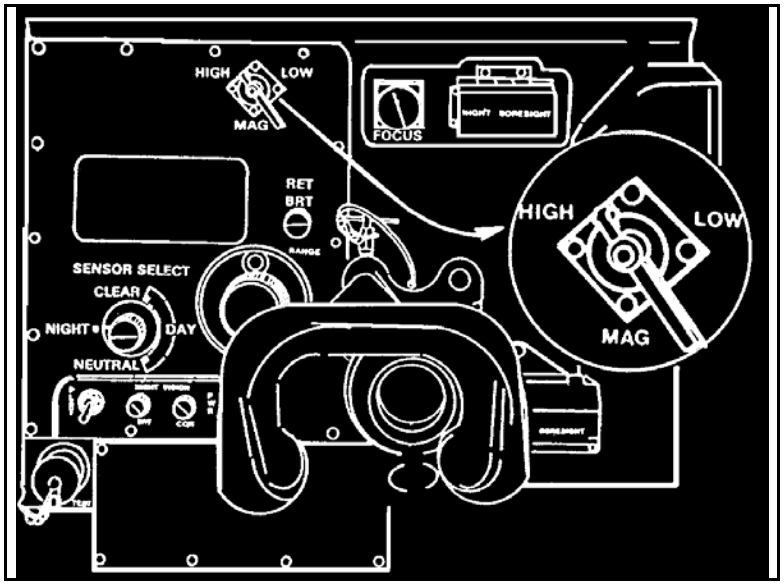


Figure 2. Magnification switch.

7. Acquire the range to the target.

a. Use the controls to align the stadia line and baseline so that the target appears between the stadia line and baseline (chokesight) in the reticle.

b. Read the target's range at the point where the top of the target or the top of the hull appears to touch the stadia line (Figure 3).

Note: If the entire target is not visible, compensate for the portion of the target that is not in view.

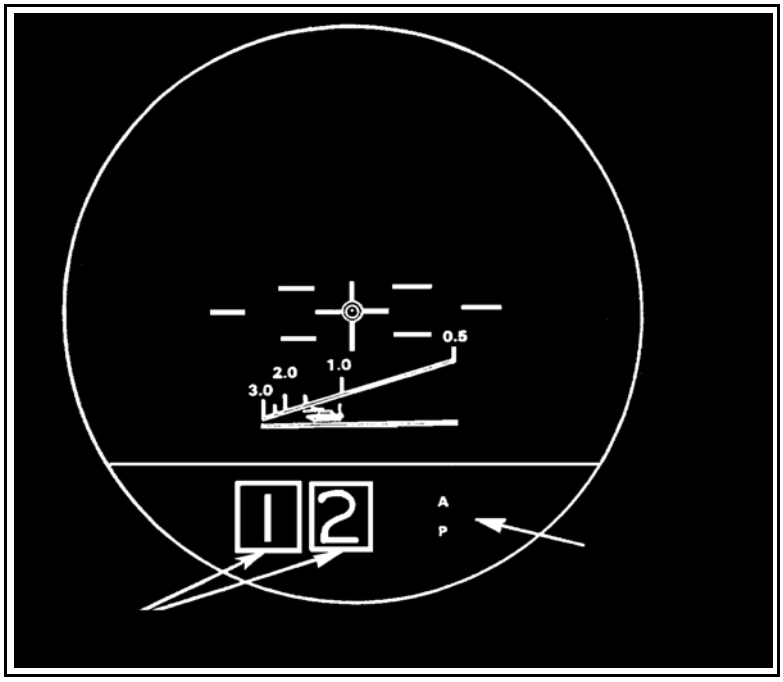


Figure 3. Stadia line.

8. Turn the range control knob on the ISU to the estimated range (Figure 4).

Note: The status indicator in the bottom of the reticle shows the type of ammunition selected (HE or AP) and the range to target selected on the range control knob (12 equals 1,200 meters). Do not move from the sight while setting the range on the ISU (Figure 3).

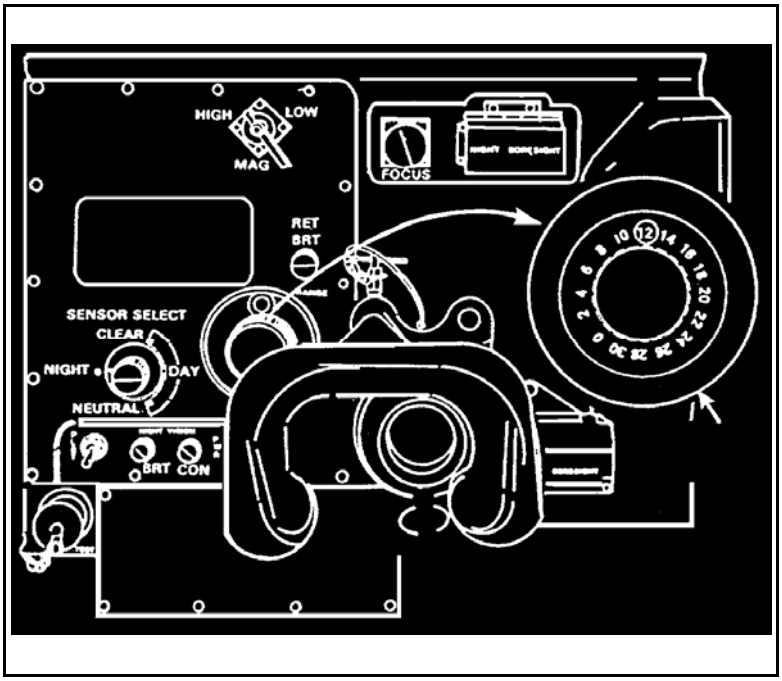


Figure 4. Range control knob.

9. Use the control handles to align the sight reticle on the target.

Note: The gunner will receive the command FIRE from the Bradley commander.

10. Gunner announces, “On the way.”

11. Fire at the target by squeezing the trigger switches on the gunner’s control handles. Fire one round at a time for sensing (Figure 5, page 3-156).

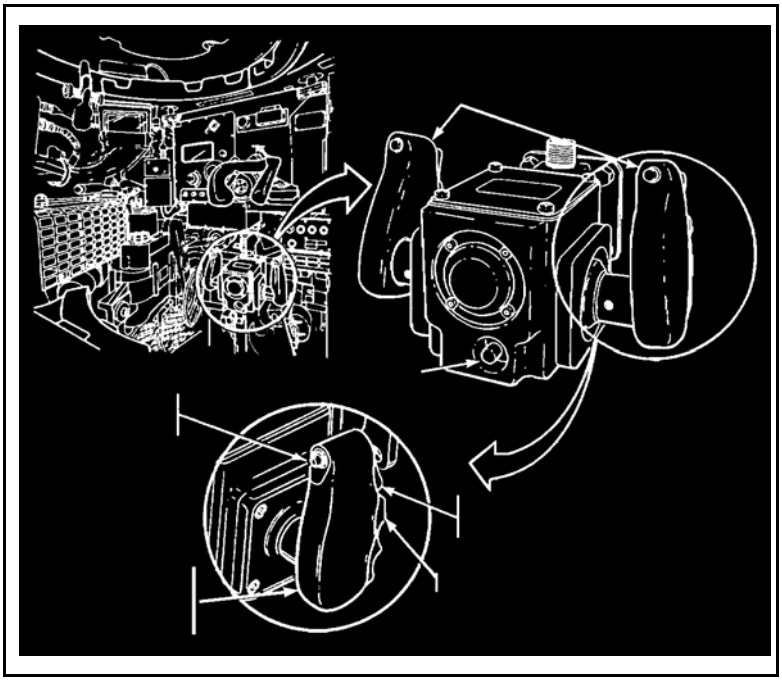


Figure 5. Gunner's control handle.

12. Sense the round impact.

Note: When the ammunition change is made, the first round is fired the same as the previous round. However, automatic elevation correction for the range is set for the new ammunition selection. If one HE round is fired using the AP superelevation correction, the round will fall short of the target. If one AP round is fired using the HE superelevation correction, the round will fall past the target.

13. When the sensing round hits the target, the Bradley commander commands TARGET. The gunner maintains the initial sight picture and fires and adjusts three- to five-round bursts until given the command CEASE FIRE by the Bradley commander (Figure 6).

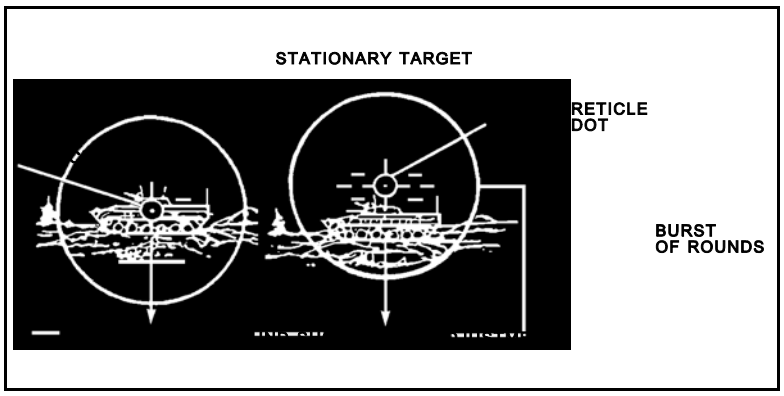


Figure 6. Round adjustment.

14. If the gun fails to fire, perform misfire procedure (task 071-314-0011: *Perform Misfire Procedures on the 25-mm Automatic Gun on a BFV*).

15. If the LO AMMO OVRD indicator light flashes on the weapon control box, either push the LO AMMO OVRD button and continue firing or stop firing and reload.

16. Move the ARM-SAFE-RESET switch to RESET, then to SAFE.

17. Move the MAG switch to LOW.

18. Continue to scan for other targets.

EVALUATION PREPARATION

Setup: Provide the soldier a BFV with an installed, functional 25-mm automatic gun and ISU, 50 rounds of 25-mm ammunition, and targets at the following ranges on a live-fire range complex:

One BMP-size target between 250 and 500 meters.
Two BMP-size targets between 500 and 1,000 meters.
One BMP-size target between 1,000 and 1,500 meters.
One BMP-size target between 1,500 and 2,000 meters.

Brief Soldier: Tell the soldier to successfully engage all the targets using the ISU and achieve kills (three to five rounds hitting the target) on at least three of the five targets.

EVALUATION GUIDE

Performance Measure	Results
Successfully engages three of five targets.	P F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	FM 23-1
	TM 9-2350-252-10-2

M240C COAXIAL MACHINE GUN

LOAD THE M240C COAXIAL MACHINE GUN ON A BFV
071-026-0001

CONDITIONS

Given a BFV with an installed M240C coaxial machine gun and 800 rounds of belted 7.62-mm ammunition, master power and turret power switches ON, and turret drive system switch OFF. The ARM-SAFE-RESET switch is on SAFE.

STANDARDS

Load the M240C coaxial ammunition box and M240C machine gun with 7.62-mm ammunition so that the machine gun is ready to fire. Ensure all safety precautions are followed.

TRAINING AND EVALUATION
Training Information Outline

1. Access the 7.62-mm coax ammunition chute. Remove any debris from the coaxial ammunition box (Figure 1).

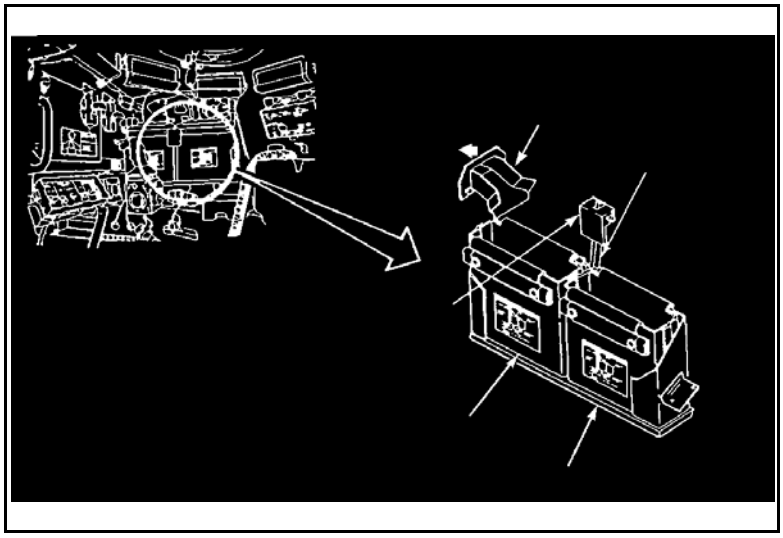


Figure 1. 7.62-mm access chute.

2. Clear the M240C coaxial machine gun.

a. Open the M240C coaxial machine gun access doors by—
(1)Pulling down the handle on the right door and pushing the door inward.
(2)Pulling down the handle on the left door and pulling the door outward.
b. Set the manual safety and inspect the M240C coaxial machine gun.

Note: Safety (S) or fire (F) is pushed through one side of the gun to the other side. Safety (S) is seen on the right side of the gun. Fire (F) is seen on the left side of the gun.

(1)Pull charger handle back firmly.
(2)Push manual safety through to “S” position (Figure 2).

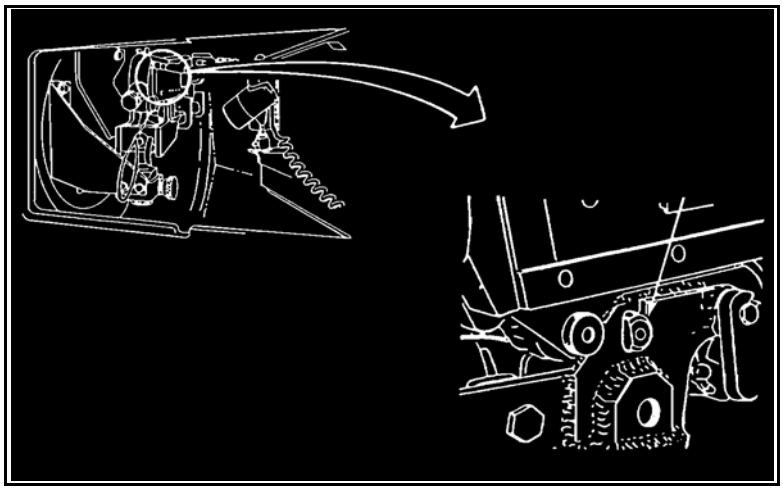


Figure 2. Manual safety.

(3)Open the cover assembly and the feed tray, and inspect and feel the chamber.

3. Load the ammunition box (Figure 3).

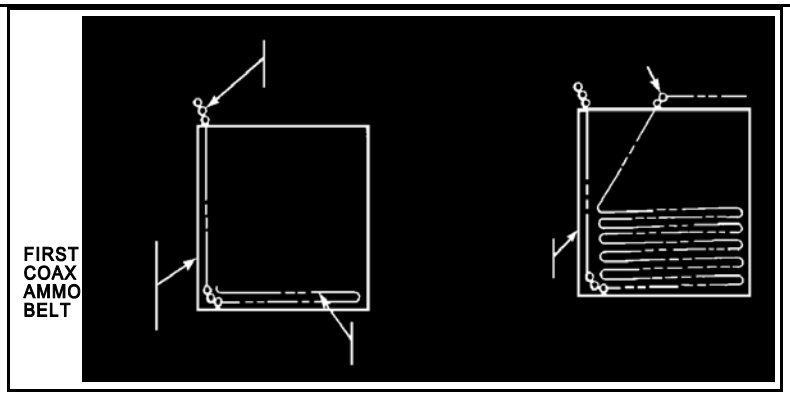


Figure 3. 100-round belt of ammunition loaded in ammunition box.

a. Take one 100-round belt of ammunition from a box of 7.62-mm ammunition. Inspect the rounds and links for alignment or damage. Realign if necessary. DO NOT load unserviceable ammunition.

b. Feed the first 100-round belt into the first section of the ammunition box (compartment nearest the chute) by placing, links down, a full link next to the left wall of the ammunition box, cartridges pointing away from the loader. Fold the layers of the belt into the first section of the ammunition box.

c. Continue loading 100-round belts into the ammunition box by linking new belts to the loaded belt, snapping the single link to the last cartridge of the new belt. As other ammunition boxes are opened and 100-round belts are taken out, inspect rounds and links for misalignment or damage. Again, realign if necessary, and DO NOT load unserviceable ammunition. Continue to load until the first section of the ammunition box is full, then the second section (Figure 4).

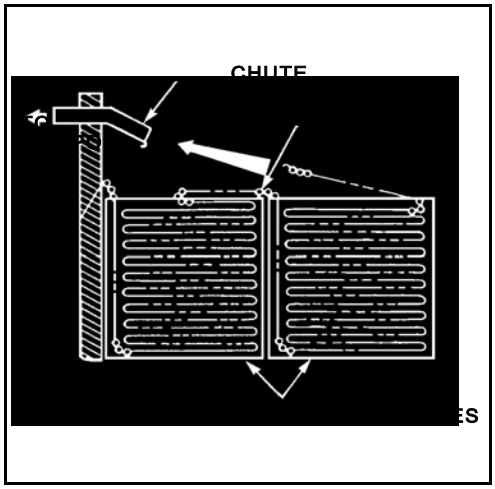


Figure 4. Load second and third sections.

d. When the second section is full, guide the belt back across all sections. Loading the ammunition box in this manner will use seven 100-round belts.

4. Load the ammunition chute.

a. Feed the ammunition belt into the chute from the ammunition box, with the cartridges pointing away from the loader and the single link leading (Figure 5).

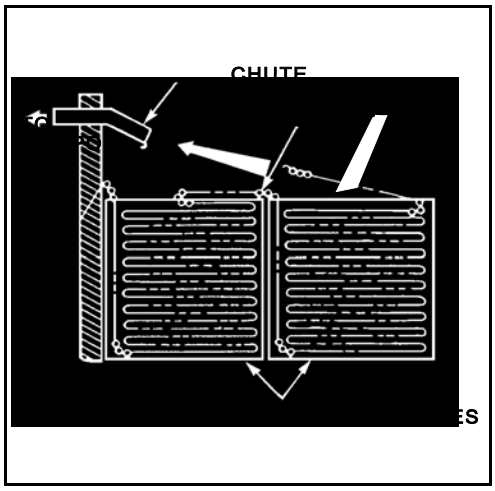


Figure 5. Fully loaded ammunition box.

b. Forward ammunition up the chute until first round stops at the feed tray of the weapon.

c. Hold the belt in place at the feed tray to prevent the belt from sliding,

4. Load the weapon.

a. Ensure the charger handle is pulled to the rear and the bolt locked to the rear.

b. Lower the feed tray.

c. Place the ammunition belt in the feed tray with the first cartridge resting against the cartridge stop (Figure 6).

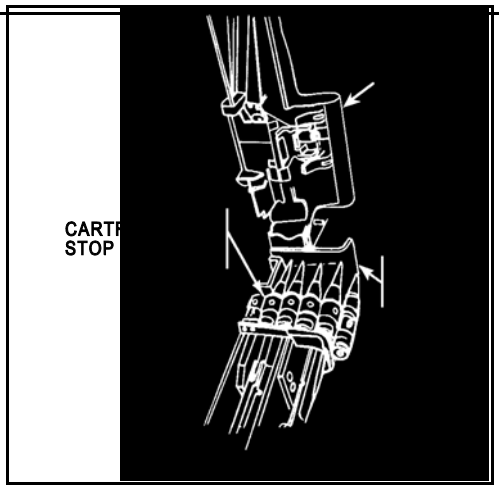


Figure 6. Cartridge stop.

d. Close the cover assembly.

Note: Leave the manual safety on SAFE until cleared to move the manual safety to the FIRE position.

e. Close the machine gun access doors.

EVALUATION PREPARATION

Setup: Provide the soldier with a BFV with an installed M240C coaxial machine gun and belted 7.62-mm ammunition.

Brief Soldier: Tell the soldier to load the M240C coaxial machine gun so that it is ready to fire.

EVALUATION GUIDE

Performance Measures	**Results**	
Performance measures must be done in sequence.		
1. Clears the weapon.	P	F
2. Loads the ammunition box.	P	F
3. Loads the chute.	P	F

4. Loads the weapon. P F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required **Related**

TM 9-2350-252-10-2

UNLOAD THE M240C COAXIAL MACHINE GUN ON A BFV
071-026-0002

CONDITIONS

Given a BFV with an installed M240C coaxial machine gun loaded with belted 7.62-mm ammunition, master power and turret power switches ON.

STANDARDS

Unload and clear the M240C machine gun so that no ammunition is in the chamber and ammunition is stowed into ammunition cans, without causing damage to equipment or injury to personnel.

TRAINING AND EVALUATION
Training Information Outline

WARNING

Accidental firing of the M240C machine gun could result in death or injury. Make sure that the ARM-SAFE-RESET switch is at the SAFE position.

1. On the weapon control panel, move the ARM-SAFE-RESET switch to RESET, then to SAFE. Move the turret drive system switch to OFF (Figure 1).

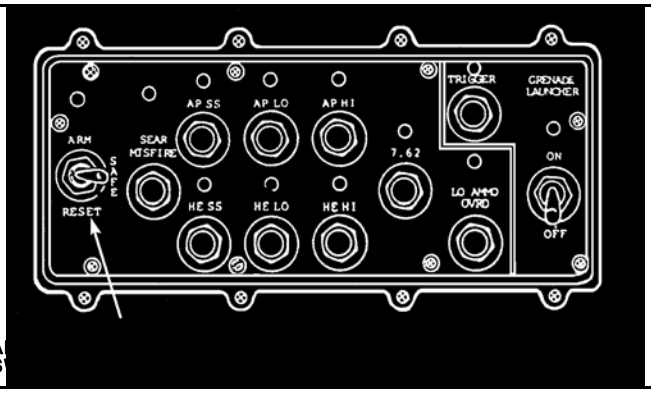


Figure 1. ARM-SAFE-RESET switch.

2. Clear the M240C machine gun (task 071-026-0001: *Load the M240C Coaxial Machine Gun on a BFV).*

3. Unload the feed chute.
   a. Pull the ammunition out of the ammunition feed chute back into the M240C ready box.
   b. Inspect the ammunition feed chute to ensure it is clear of ammunition.
   c. Close the coax machine gun access door.

4. Unload the ammunition box.
   a. Unstow empty 7.62-mm ammunition cans.
   b. Count off 100 cartridges on the belt. Twist the belt and separate the belt at the 100th cartridge.
   c. Place a 100-round belt of ammunition in the ammunition can ensuring that the double link is placed in first.
   d. Repeat steps *b* and *c* until the 7.62-mm ammunition can is full.
   e. Close the lid on the ammunition can.
   f. Unload the remaining 7.62-mm ammunition from M240C ready box and stow in the 7.62-mm ammunition cans.
   g. Repeat steps *a* through *f* until the 7.62-mm ready box is empty.
   h. Stow the 7.62-mm ammunition cans.

EVALUATION PREPARATION

Setup: Provide the soldier with a BFV with an installed M240C machine gun loaded with belted 7.62-mm ammunition.

Brief Soldier: Tell the soldier to unload and clear the M240C machine gun and to follow all safety precautions.

EVALUATION GUIDE

Performance Measures	**Results**	
1. Moves the ARM-RESET-SAFE switch to SAFE.	P	F
2. Clears the weapon.	P	F
3. Unloads the feed chute.	P	F
4. Unloads the ammunition box.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	**Related**
None	TM 9-2350-252-10-2

ZERO THE M240C COAXIAL MACHINE GUN ON A BFV
071-026-0003

CONDITIONS

Given a boresighted and mounted M240C machine gun on a BFV, loaded with linked 7.62-mm ammunition, and a target at 800 meters.

STANDARDS

Zero the M240C machine gun to the ISU so that the strike of the rounds coincides with the aiming point as seen through the sight reticle.

TRAINING AND EVALUATION
Training Information Outline

Note: When a target at a range of 800 meters is not available, a target at a minimum range of 400 meters can be used.

1. The Bradley commander selects a target 800 meters away.

2. The gun is prepared for firing.
   a. Turn the range control knob to 8 (800 meters).
   b. Push the 7.62 button on the weapon control box. The 7.62 indicator light should come on (Figure 1).

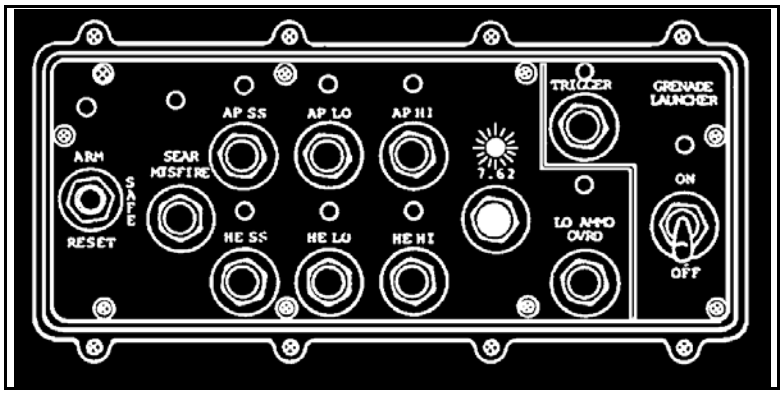


Figure 1. 7.62 button and indicator.

c. Look through the gunner's eyepiece and elevate and traverse in the power mode to align the reticle on the center of the target (Figure 2).

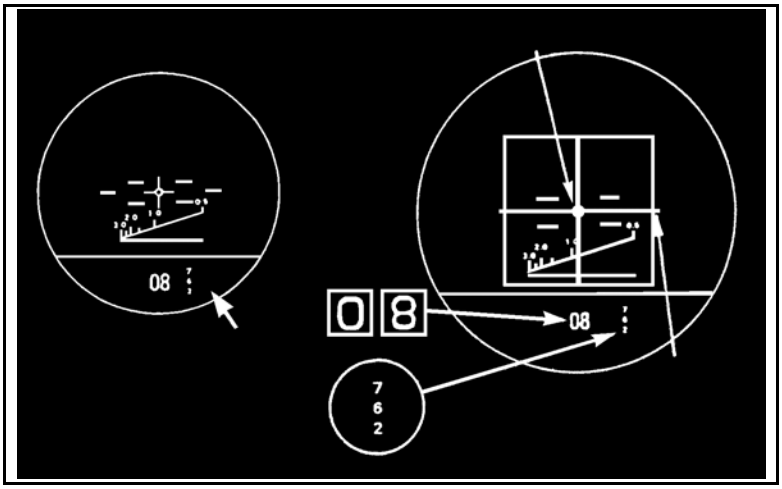


Figure 2. 7.62 reticle.

d. Move the ARM-SAFE-RESET switch to ARM.

WARNING

Gases from the weapons are poisonous. Close the coax machine gun access doors before firing the coax.

2. Fire a short burst (10 to 15 rounds) at the target. Observe the tracer's impact or flight in relation to the target.

a. If the burst cluster strikes around the center of the target, the machine is zeroed (Figure 3, page 3-170).

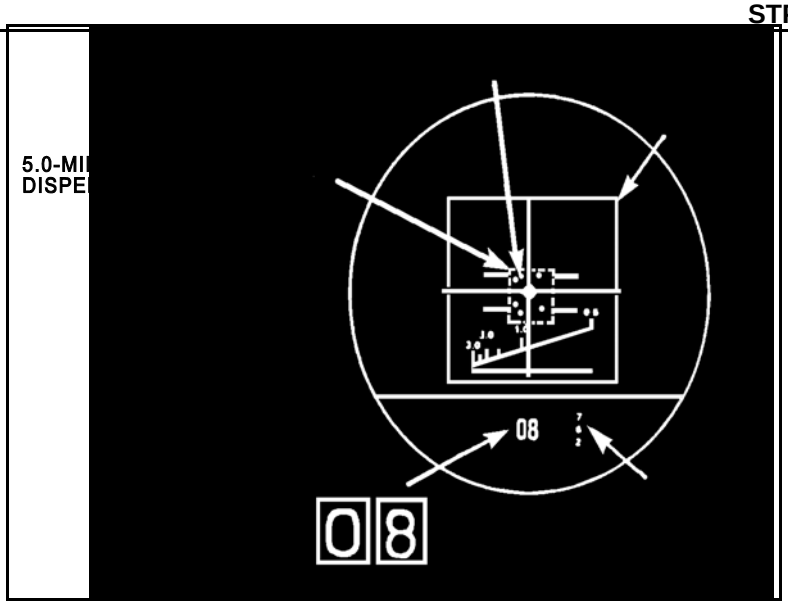


Figure 3. Rounds on aiming point.

b. If the burst strikes off center, adjust the machine gun (Figure 4).

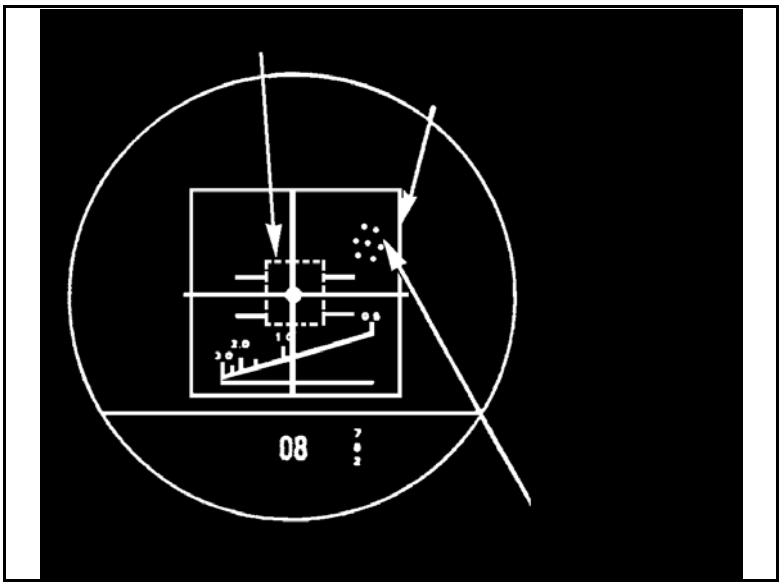


Figure 4. Rounds off center.

3. Estimate the number of mils of elevation and the number of mils of azimuth between the strikes of the rounds and the center of the reticle. In the sight reticle, each lead line and each space between the lead lines are 2.5 mils. Each crosshair is 5 mils.

Note: To zero the M240C machine gun, adjust the gun so that it points to the center of the zero target. Do not move the boresight controls on the ISU. Do not move the turret.

4. Move the ARM-SAFE-RESET switch to SAFE before making gun adjustments.

5. Make adjustments to move the strike of the rounds into the target area (Figure 5).
   a. Open the machine gun access door.

Note: Each click of the elevation adjustment knob equals 0.5 mils on the reticle.

b. Turn the elevation adjustment knob right or left to center the strike of rounds on the target. Turning the elevation adjustment knob to the right elevates the strikes of the rounds. Turning the elevation knob to the left depresses the strikes of the rounds.

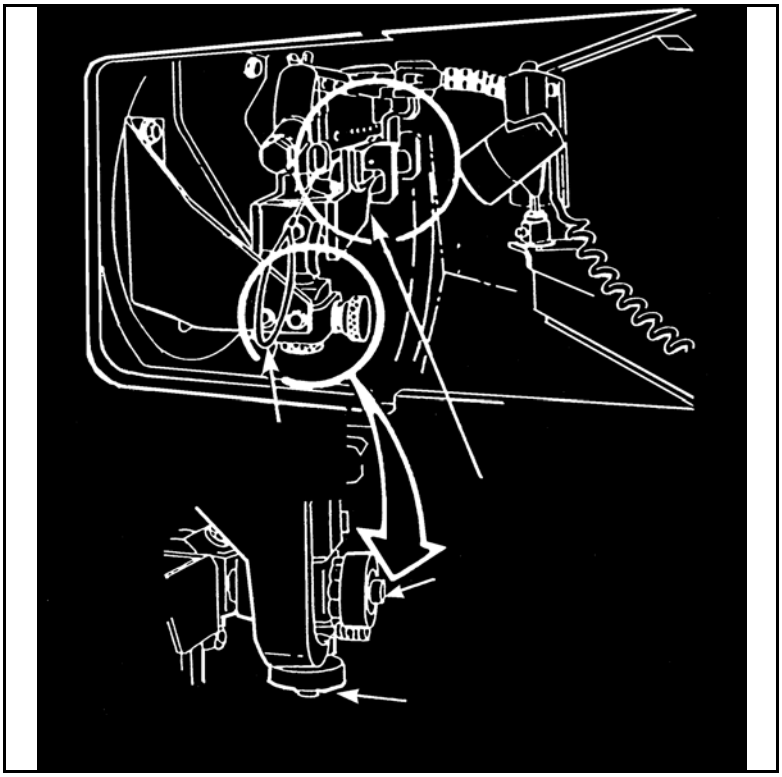


Figure 5. Elevation and azimuth adjustment knobs.

c. Turn the azimuth adjustment knob backward or forward to center the strike of the round. Turning the azimuth adjustment knob backward moves the strikes of the rounds to the right. Turning the azimuth adjustment knob forward moves the strikes of the rounds to the left.

d. Close the machine gun access doors.
e. Repeat the zeroing procedures until the M240C machine gun is zeroed.

EVALUATION PREPARATION

Setup: Provide the soldier with all the equipment and materials as outlined in the task conditions statement.

Brief Soldier: Tell the soldier to zero the M240C machine gun to the ISU so the round dispersion is centered around the aiming point of the ISU.

EVALUATION GUIDE

Performance Measures	**Results**	
1. Selects the M240C machine gun target 800 meters away.	P	F
2. Sets the ISU controls.	P	F
3. Selects the 7.62-mm ammunition on the weapon control panel.	P	F
4. Observes the strike of the rounds.	P	F
5. Adjusts the M240C machine gun, as necessary, to coincide the strike of rounds with ISU aiming point.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	**Related**
None	TM 9-2350-252-10-2

BORESIGHT THE M240C COAXIAL MACHINE GUN ON A BFV
071-313-4004

CONDITIONS

Given a BFV parked on level ground, with a boresighted 25-mm automatic gun, an M240C machine gun installed and cleared, a complete boresight kit, an aiming point at least 1,200 meters with horizontal and vertical lines, and one helper.

STANDARDS

Boresight the M240C machine gun so that the crosshairs are aligned with the ISU crosshairs on the same aiming point.

TRAINING AND EVALUATION
Training Information Outline

WARNING

Looking at the sun through the ISU may cause blindness. Do not look at the sun through the unit.

Notes: 1. The M240C machine gun should be boresighted immediately after boresighting the 25-mm gun. Turret controls and ISU controls should not be operated until the M240C machine gun is boresighted.

2. Boresighting requires two soldiers. One soldier looks through the boresight telescope and the other soldier adjusts the M240C machine gun. The soldier on the outside of the vehicle is the helper.

1. Prepare to boresight the M240C machine gun.
   a. Press the 7.62 button. Check that 7.62 appears in the status indicator (Figure 1, page 3-174).

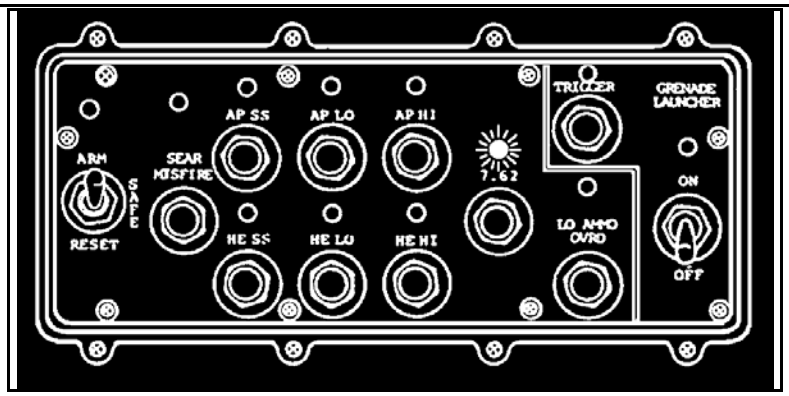


Figure 1. 7.62 button and indicator light.

b. Check the alignment of the gun reticle on the aiming point of the target. If the reticle is aligned, continue with the task; if the reticle is not aligned, notify unit maintenance.

c. Move from the gunner's seat to the Bradley commander's seat.

2. *Helper:* Install the boresight adapter into the muzzle end of the M240C machine gun barrel.

CAUTION

Do not jam the boresight telescope into the boresight adapter. Too much force will damage the boresight telescope.

Note: The boresight telescope shank is tapered. Slide the shank into the boresight adapter far enough so that the telescope will hold its own weight.

3. *Helper:* Install the boresight telescope (Figure 2).
   a. Install the shank of the boresight telescope into the boresight adapter.
   b. Turn the boresight telescope so that the eyepiece is to the top.
   c. Hang a red streamer on the boresight adapter.
   d. Tell the gunner that the boresight telescope and adapter are in.

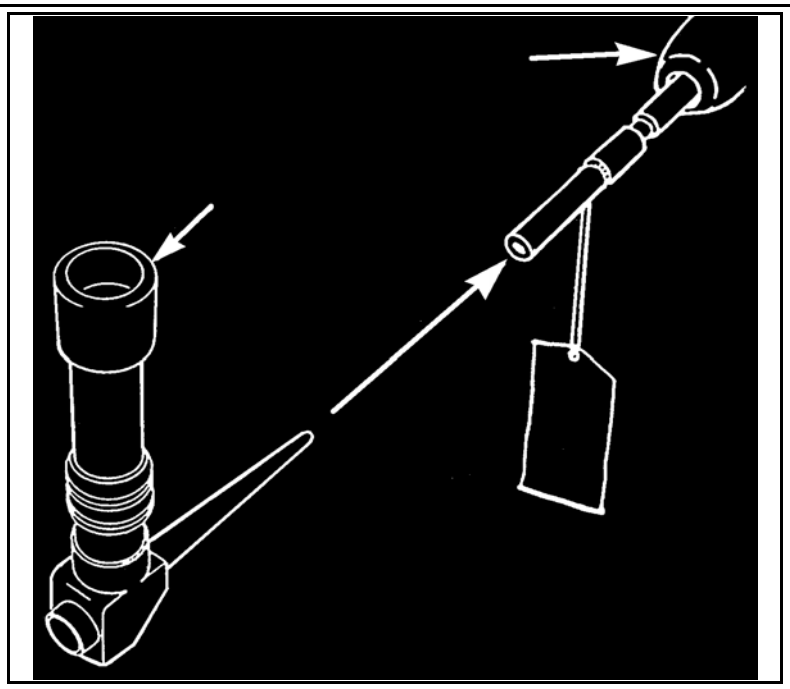


Figure 2. Boresight kit.

4. *Helper:* Move the vernier focus dial on the boresight telescope up or down to focus on the target.

5. *Helper:* Look at the aiming point image in the boresight reticle (Figure 3, page 3-176).

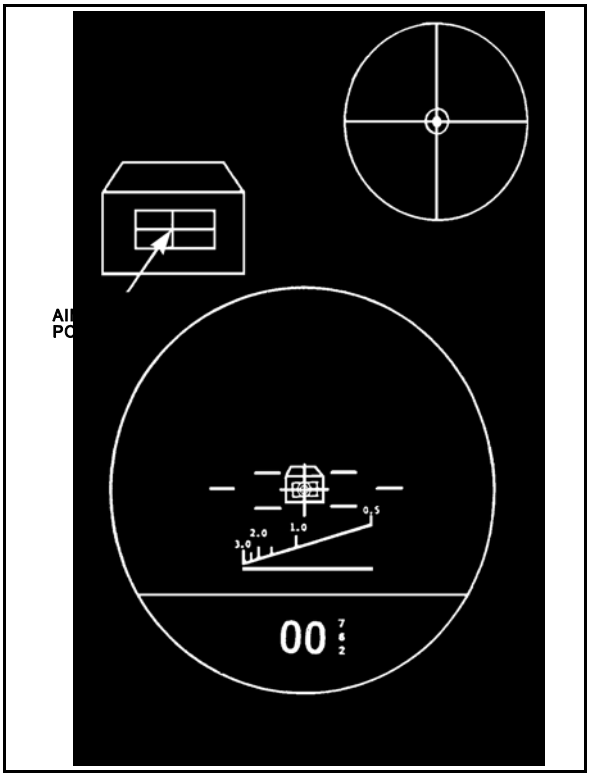


Figure 3. Aiming point image in the boresight reticle.

a. If the aiming point image is in the center of the reticle where the crosshairs intersect, the M240C machine gun is boresighted (Figure 4).

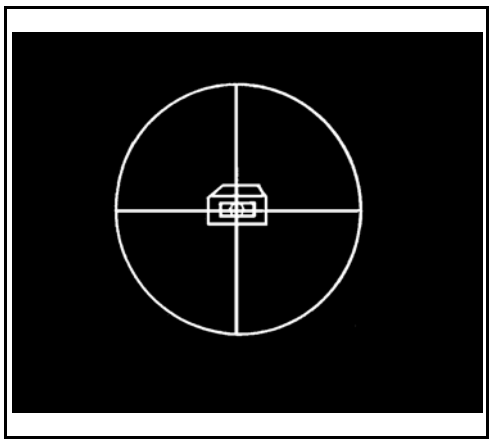


Figure 4. Reticle aligned on the aiming point.

b. If the aiming point image is not in the center, tell the gunner to adjust the coax mount.

6. Open the machine gun access doors.

Notes: 1. The azimuth adjustment knob on the rear gun mount is turned backward to move the M240C machine gun to the right or forward to move it to the left.

2. The inner ring of the boresight reticle is 1 mil across when the boresight reticle is centered on the aiming point of target.

7. Elevate or depress the M240C machine gun using the elevation adjustment knob as directed by the helper to align the elevation crosshair in the reticle of the boresight telescope on the aiming point of the target (Figure 5).

8. Traverse the M240C machine gun to the left or right using the azimuth adjustment knob as directed by the helper to align the azimuth crosshair in the reticle of the boresight telescope on the aiming point of the target (Figure 5).

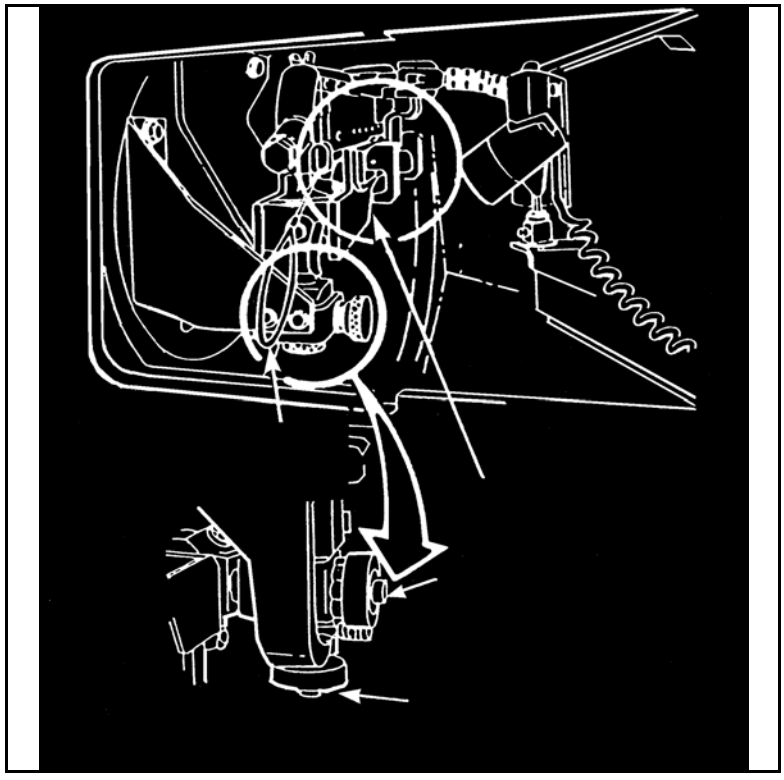


Figure 5. Azimuth and elevation adjustment knobs.

CAUTION

Be careful when pulling the boresight telescope from the boresight adapter. Too much force will damage the boresight telescope.

9. *Helper:* Remove the boresight kit and inform the gunner that the boresight kit has been removed.

Note: Boresight the TOW launcher after boresighting the M240C machine gun. Integrated sight unit controls should not be operated until after boresighting the TOW launcher.

10. Close the M240C machine gun access doors.

EVALUATION PREPARATION

Setup: Provide the soldier with the equipment outlined in the conditions statement.

Brief Soldier: Tell the soldier to boresight the M240C machine gun to the same aiming point as seen through the ISU.

EVALUATION GUIDE

Performance Measures	Results	
1. Prepares to boresight the M240C machine gun.	P	F
2. Talks the helper through the installation of the boresight adapter and telescope.	P	F
3. Identifies the aiming point.	P	F
4. Boresights the M240C machine gun.	P	F
5. Talks the helper through the removal of the boresight telescope and adapter.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 9-2350-252-10-2

CORRECT MALFUNCTIONS OF THE M240C COAXIAL MACHINE GUN ON A BFV 071-313-4006

CONDITIONS

Given a BFV with basic issue items, belted 7.62-mm ammunition, an installed M240C machine gun that fails to fire, but is not a hot gun.

STANDARDS

Correct the interruption of the cycles of function on the M240C machine gun without damaging equipment or injuring troops.

TRAINING AND EVALUATION
Training Information Outline

Note: The machine gun is considered hot when 200 rounds have been fired in 2 minutes or less.

1. If the M240C machine gun stops firing, perform immediate action if the M240C is not in cookoff condition.
   a. Move the ARM-SAFE-RESET switch to RESET, then to SAFE (Figure 1).

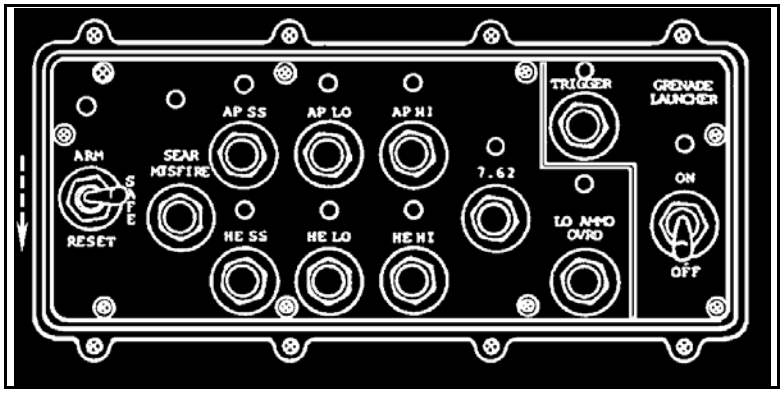


Figure 1. ARM-SAFE-RESET switch.

   b. Move the turret drive system switch to OFF.
   c. Announce over the intercommunications set that the coax has misfired.

Note: Steps that are to be accomplished by an individual on the Bradley commander's side are marked as (BC).

d. (BC) Open the coax access doors.
e. (BC) Pull the charger handle to the rear and charge the weapon. If the machine gun fails to charge or to feed, perform remedial action (Step 2).
f. (BC) Close the machine gun access doors.
g. Turn the turret drive system switch to ON.
h. Move the ARM-SAFE-RESET switch on the weapon control box to ARM.
i. Press the 7.62 push button on the weapon control box.
j. Squeeze the triggers on the control handles.

Note: If the gun fires, continue with the mission. If the gun fails to charge or fire, perform remedial action (Step 2).

2. If the gun fails to charge or fire after performing immediate action, perform remedial action.

WARNING

Cookoff of a live round could result in death or injury. If the M240C machine gun is hot, do NOT inspect the feed tray, remove the round, or recharge the machine gun. Close the machine gun access doors, and keep the doors closed for 15 minutes.

a. Move the ARM-SAFE-RESET switch on the weapon control box to RESET, then to SAFE.
b. Move the turret drive system switch on the turret control box to OFF.
c. (BC) Open the machine gun access doors.
d. (BC) Charge the machine gun.
e. (BC) Push the manual safety through to “S” (safe position) (Figure 2).

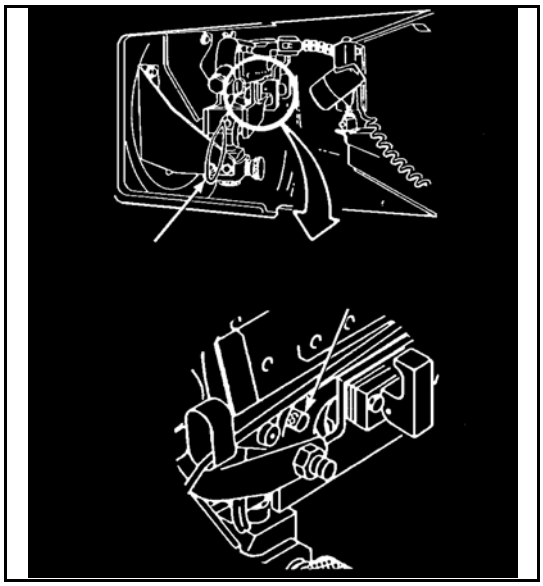


Figure 2. Manual safety.

f. (BC) Open the feed tray.

g. (BC) Check the receiver and the chamber for jammed rounds or links. Remove the residue.

h. (BC) Make sure the rounds are aligned evenly on the ammunition belt.

i. (BC) Check that both feed chute latches are secure (Figure 3, page 3-182).

j. (BC) Reload the machine gun.

k. (BC) Press the manual safety through to “F” (fire).

l. (BC) Close the machine gun access doors.

m. Move the turret drive system switch on the turret control box to ON.

n. Move the ARM-SAFE-RESET switch on the weapon control box to RESET, then to ARM.

o. Press the 7.62 push button on the weapon control box.

p. Squeeze the triggers on the control handles.

q. If the gun fails to fire and the primer on the ejected rounds are not dented, check the firing pin to see if it is broken.

3. When the weapon is firing sluggishly—

a. Check for insufficient gas pressure for the weapon to function.

b. Check the gas regulator and adjust as required.

4. If the feeding mechanism is sticking, the weapon needs to be cleaned and lubricated as soon as possible.

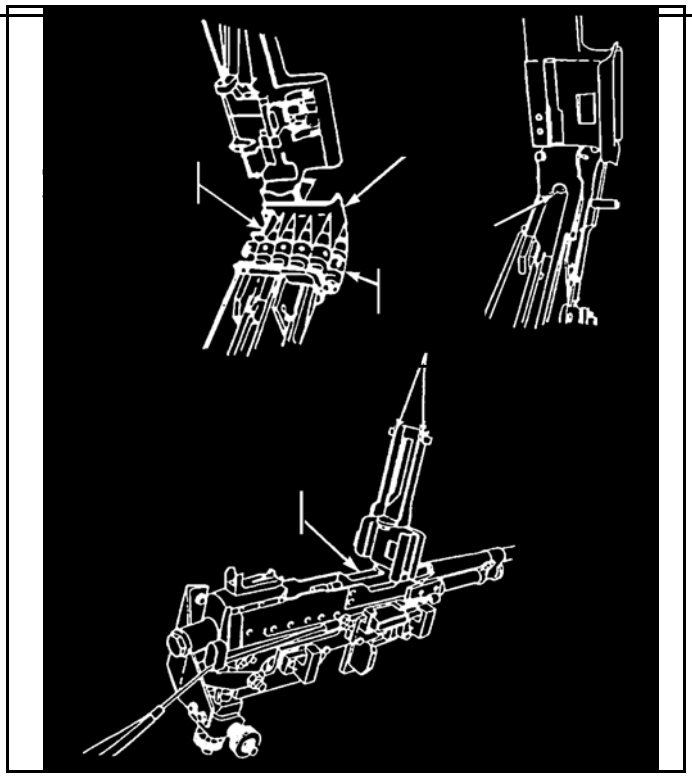


Figure 3. Feed chute latches.

5. When there is a short recoil of the bolt, the bolt and operating rod assembly need cleaning.

6. In the event of a runaway gun, keep the weapon oriented on the target until the problem is eliminated or ammunition is expended.

a. Move the turret power switch to OFF.

b. (BC) Grasp the ammunition belt at the ammunition box. Twist the belt and hold it until the coax stops firing.

c. Tell the crew there is a cookoff danger.

d. In a training situation, wait 30 minutes before taking corrective action on the weapon.

e. (BC) Clear and unload the weapon.

f. Check for a broken, worn, or burred sear.

Note: If corrective action cannot be performed within a specified time, select another belt of ammunition and continue to engage targets. Keep the chain of command informed of the situation at all times.

EVALUATION PREPARATION

Setup: Provide the soldier with a BFV and an installed M240C machine gun, loaded with dummy rounds, that failed to fire.

Brief Soldier: Tell the soldier he will be required to correct a malfunction of the M240C machine gun without damaging the equipment or injuring himself or other personnel.

EVALUATION GUIDE

Performance Measures	Results	
1. Moves the ARM-SAFE-RESET switch to RESET, then to SAFE.	P	F
2. Turns the turret drive system OFF.	P	F
3. Tells the BC to charge the weapon manually.	P	F
4. Turns the turret drive system switch to ON.	P	F
5. Moves the ARM-SAFE-RESET switch to ARM.	P	F
6. Presses the 7.62 push button on the weapon control box.	P	F
7. Attempts to fire.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 9-1005-313-10
	TM 9-2350-252-10-2

ENGAGE TARGETS WITH THE M240C COAXIAL MACHINE GUN ON A BFV 071-313-4007

CONDITIONS

Given a BFV with an operational ISU, an M240C coaxial machine gun installed and loaded with 7.62-mm ammunition, and a target identified with a range of 0 to 900 meters.

STANDARDS

Engage targets with the M240C coaxial machine gun using the ISU so that each target is suppressed or destroyed, without causing damage to equipment or injury to personnel.

Note: This task is for firing the machine gun electrically. To fire in the manual mode, see TM 9-2350-252-10-2.

TRAINING AND EVALUATION
Training Information Outline

Note: A target is considered suppressed when rounds are striking in the target area.

WARNING

Keep the weapon on electrical safe until ready to fire.

Note: After the Bradley commander identifies the target, he moves the turret using the Bradley commander's control handles to bring the gunner's field of view on the target. As the Bradley commander moves the turret, he issues the initial fire command GUNNER, COAX, TROOPS, SIX HUNDRED.

1. The gunner presses the 7.62-mm button on the weapon control box. He checks that the indicator light comes on (Figure 1).

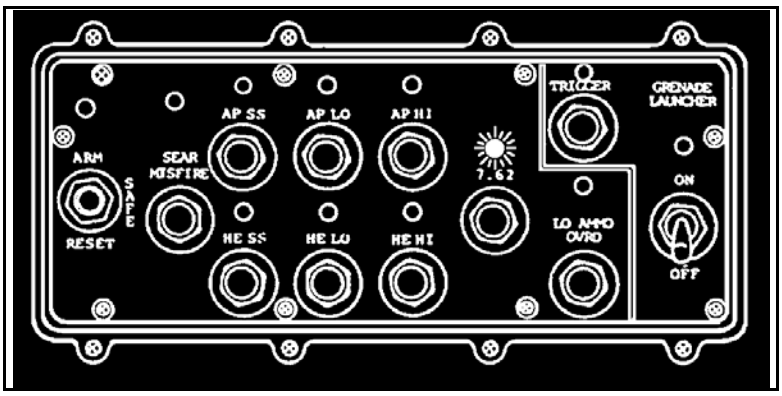


Figure 1. 7.62 indicator and button.

2. Look into the gunner's eyepiece (Figure 2).

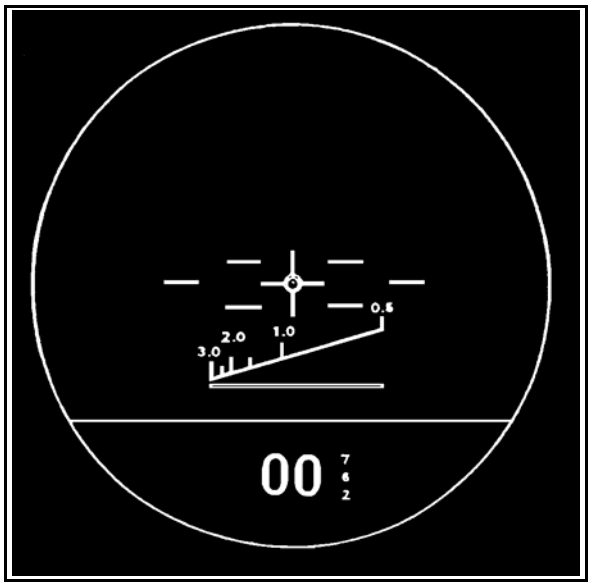


Figure 2. Status indicator.

Note: Status indicator on the reticle in the gunner's eyepiece should read 7.62.

3. Move the ARM-SAFE-RESET switch on the weapon control box to ARM. Check that the indicator light comes on (Figure 3, page 3-187).

Figure 3. ARM-SAFE-RESET switch.

4. The Bradley commander finds the range of the target using the range finder in the reticle and announces the range to the gunner—for example, “Six hundred” (Figure 4).

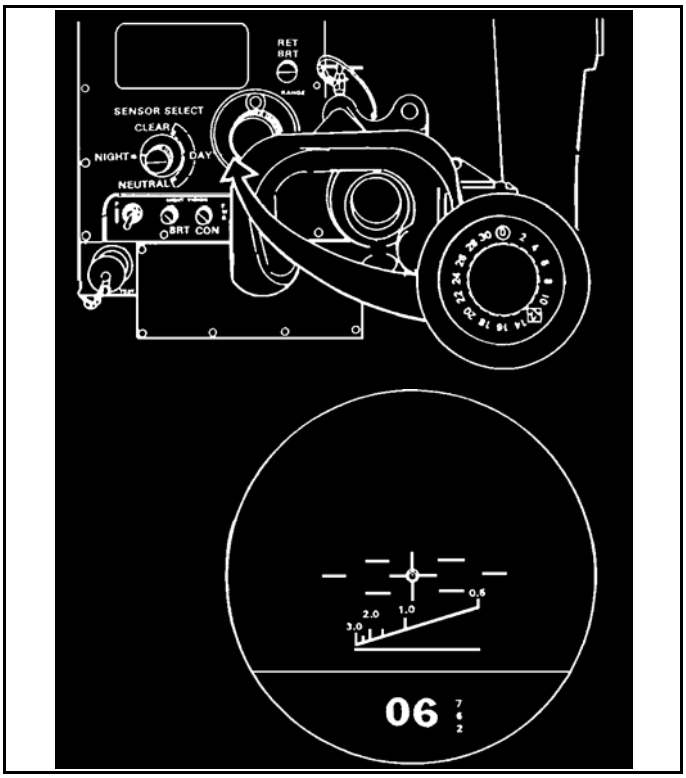


Figure 4. Range control knob and status indicator.

a. Gunner sets the range control on the sight to the number of meters obtained from the fire command.

Note: Range is set at 200-meter increments up to 800 meters for the M240C coaxial machine gun. Targets can be engaged up to 900 meters (tracer burnout).

b. Acquire the target using the ISU.

5. Gunner announces, “Identified.”

Note: When the gunner announces, “Identified,” the Bradley commander releases his grip on the control handle. The gunner may now track the target using his control handle.

6. Gunner moves the magnification switch to HIGH (12X) until it clicks (Figure 5).

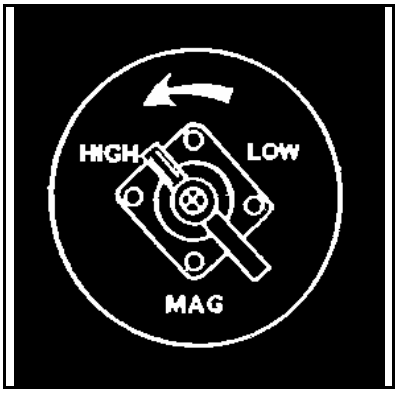


Figure 5. MAG switch.

7. Bradley commander commands FIRE or, if he wishes to delay the engagement, he commands AT MY COMMAND, FIRE.

8. Gunner uses the control handles to center the reticle crosshairs on the target in the sight reticle.

9. Gunner announces, “On the way” (only for the initial burst).

10. Fire at the target by squeezing the trigger switches on the gunner’s control handles (Figure 6, page 3-188).

11. Sense tracers and adjust 20- to 25-round bursts onto the target area in a Z pattern from the near to far edge of the target until the target is destroyed or suppressed, or until CEASE FIRE is given by the Bradley commander (Figure 7, page 3-188).

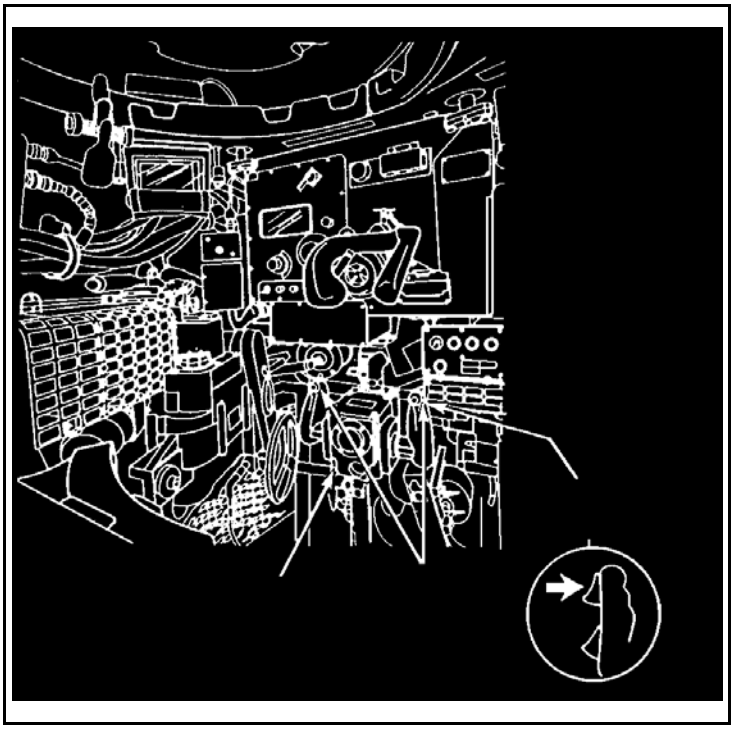


Figure 6. Gunner's control handles.

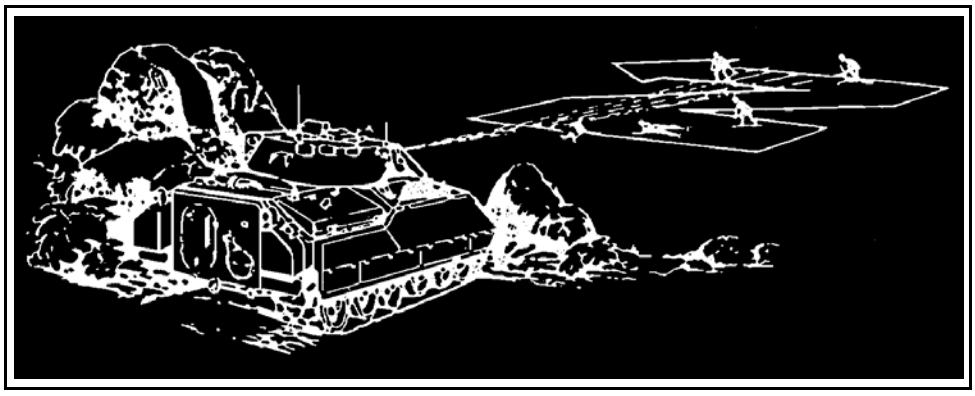


Figure 7. Z pattern of fire.

12. If the M240C fails to fire, apply misfire procedures (task 071-313-4006: *Correct Malfunctions of the M240C Coaxial Machine Gun on a BFV*).

13. If the LO AMMO OVRD button flashes on the weapon control box, either push the LO AMMO OVRD button and continue firing until the gun runs out of ammunition or stop firing and reload.

14. Move the ARM-SAFE-RESET switch to RESET, then to SAFE.

15. Move the magnification switch to LOW.

16. Continue to scan for other targets.

EVALUATION PREPARATION

Setup: Provide the soldier a BFV with an installed, functional M240C machine gun and ISU, 500 rounds of 7.62-mm ammunition, and targets at the following ranges on a live-fire range complex:

Five E-type targets between 50 and 150 meters.
Five E-type targets between 150 and 250 meters.
Ten E-type targets between 250 and 400 meters.
Ten E-type targets between 400 and 600 meters.
Ten E-type targets between 600 and 900 meters.

Brief Soldier: Tell the soldier to successfully engage all the sets of targets using the ISU and achieve target suppression on at least three of the five target sets.

Note: Target suppression is defined as tracer coverage of at least four-fifths of the target area.

EVALUATION GUIDE

Performance Measures	Results
Successfully engages three of five target sets.	P F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	FM 23-1
	TM 9-2350-252-10-2

PERFORM OPERATOR MAINTENANCE ON AN M240/M240C MACHINE GUN 171-122-1012

CONDITIONS

Given a dismounted M240/M240C machine gun; TM 9-1005-313-10; DA Form 2404 (Equipment Inspection and Maintenance Worksheet); cleaning rod; bore brush; chamber and receiver brushes; clean cotton rags and swabs; and Break Free cleaner, lubricant, preservative (CLP).

STANDARDS

1. The machine gun is cleared.

2. The machine gun is disassembled.

3. The machine gun is inspected, cleaned, and lubricated.

4. Defective or worn parts are replaced or reported to organizational maintenance on DA Form 2404.

5. The machine gun is reassembled.

6. A safety and function check is performed.

EVALUATION GUIDE

Performance Measures	Results	
Note: Refer to TM 9-1005-313-10 for the following performance measures.		
1. Clears the machine gun.	P	F
2. Disassembles the machine gun.	P	F
3. Inspects, cleans, and lubricates the machine gun.	P	F
4. Replaces or reports all defective or worn parts on DA Form 2404.	P	F
5. Reassembles the machine gun.	P	F
6. Performs a safety and function check.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 9-1005-313-10	None

INSTALL/REMOVE AN M240C MACHINE GUN ON AN M2/M3 BRADLEY 171-132-1004

CONDITIONS

Given a stationary M2/M3 Bradley with the TURRET POWER switched to OFF, the turret locked, and a cleared M240C machine gun.

STANDARDS

1. Install the M240C machine gun so the solenoid cable is connected, the gun is secure in its mount, and it passes a function check.

2. Clear and remove the M240C machine gun so the machine gun access doors are closed and the machine gun is stowed in accordance with unit SOP.

EVALUATION GUIDE

Performance Measures	Results	
WARNING		
Make sure the coax machine gun is cleared.		
1. Installs the coax machine gun.		
a. Manually elevates the gun rotor to 200 mils.	P	F
b. Opens the coax machine gun access doors.	P	F
c. Mounts the coax machine gun.	P	F
d. Joins and secures the rear mount to the coax machine gun.	P	F
e. Connects the solenoid cable plug to the plenum jack (only if the firing solenoid is installed on the coax machine gun).	P	F
f. Closes the coax machine gun access doors.	P	F
g. Performs an electrical function check.	P	F
2. Removes the coax machine gun.		
a. Manually elevates the gun rotor to 200 mils.	P	F
b. Opens the coax machine gun access doors.	P	F
c. Clears the M240C machine gun.	P	F

d. Disconnects the solenoid cable plug from the plenum jack (only if the firing solenoid is installed on the coax machine gun).	P	F
e. Disconnects rear mount pin handle from mount pin hole.	P	F
f. Removes the coax machine gun from the plenum.	P	F
g. Closes the coax machine gun access doors.	P	F
h. Stows the coax machine gun in accordance with unit SOP.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 9-1005-313-10
	TM 9-2350-252-10-2

M257 SMOKE GRENADE LAUNCHER

LOAD THE M257 SMOKE GRENADE LAUNCHER ON A BFV 071-034-0005

CONDITIONS

Given a BFV with operational M257 smoke grenade launchers, 16 smoke grenades, and a helper.

STANDARDS

Inspect the smoke grenades and the M257 smoke grenade launchers. Load the M257 smoke grenade launchers so they are ready to fire.

TRAINING AND EVALUATION
Training Information Outline

1. Turn the turret drive system OFF and engage the turret travel lock.

2. Inspect and clean the smoke grenade stowage bins and launcher tubes in accordance with TM 9-2350-252-10-2. Be sure not to misplace the discharger caps (Figure 1).

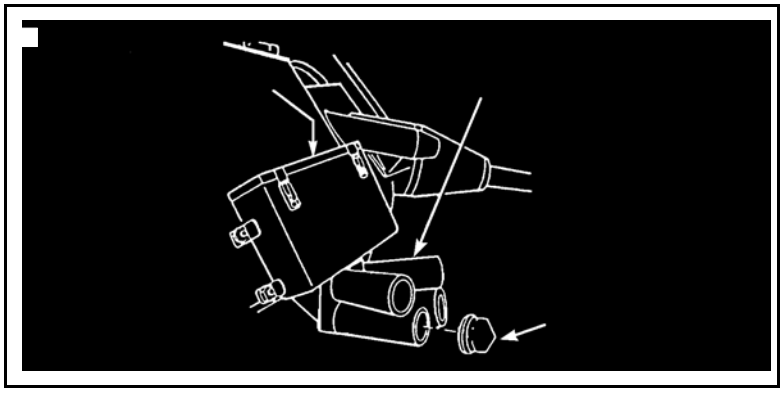


Figure 1. M257 smoke grenade launcher.

Note: The loader and the helper can work on the right and left sides at the same time.

3. Unpack and inspect the smoke grenades.

WARNING

Do NOT maintain and clean damaged grenades; the red phosphorus can cause severe burns if the round explodes. Keep grenades away from electric sparks and high heat. Do NOT drop or throw them. Do NOT force grenades into tubes. Death or injury could occur.

4. Stow eight smoke grenades with metal ends down in the stowage bins, four grenades on each side.

5. Load eight smoke grenades in the launch tubes, four grenades on each side (Figure 2).

a. Straddle the launch tubes or load from the cargo hatch; be sure that no portion of the body is in front of the loaded tubes.

b. Grasp the smoke grenade around the sides and carefully push the metal end first, all the way into the tubes, until two clicks are heard or felt. This seats the grenade on the firing pin.

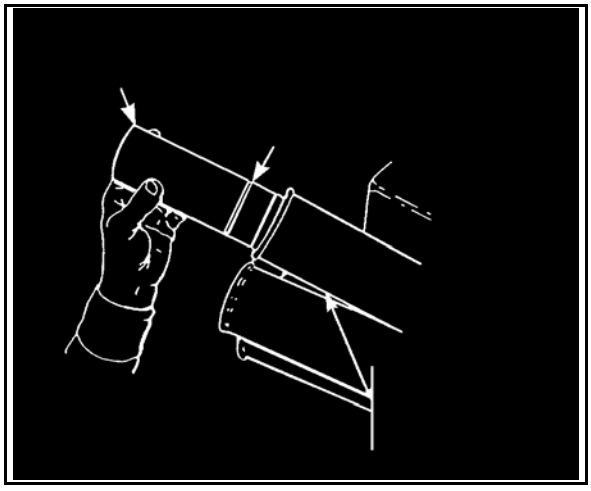


Figure 2. Smoke grenade.

c. Turn the smoke grenade one-half turn to the right (clockwise). This ensures a good electrical contact.

d. Pull gently on the grenade to ensure it is properly seated.

6. Repeat the steps above to load all eight launch tubes. Reinstall the discharger caps.

7. Turn the turret drive system on and notify the chain of command when loading is completed.

EVALUATION PREPARATION

Setup: Provide the soldier with the equipment and material as outlined in the task conditions statement.

Brief Soldier: Tell the soldier to load smoke grenades without damaging equipment or injuring personnel.

EVALUATION GUIDE

Performance Measures	Results	
1. Turn the turret drive system OFF and engage the travel lock.	P	F
2. Inspect and clean the smoke grenade stowage bins and launcher tubes.	P	F
3. Loads smoke grenades.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 9-2350-252-10-2

UNLOAD THE M257 SMOKE GRENADE LAUNCHER ON A BFV 071-034-0006

CONDITIONS

Given a BFV with operational M257 smoke grenade launchers, 16 smoke grenades, and a helper.

STANDARDS

Unload and stow the smoke grenades from the smoke grenade launcher. Unload a misfired smoke grenade without causing damage to equipment or injury to personnel.

TRAINING AND EVALUATION
Training Information Outline

1. Unload the smoke grenades. Ensure the turret drive system switch and the turret power switch are turned to OFF and the turret travel lock is engaged (Figure 1).

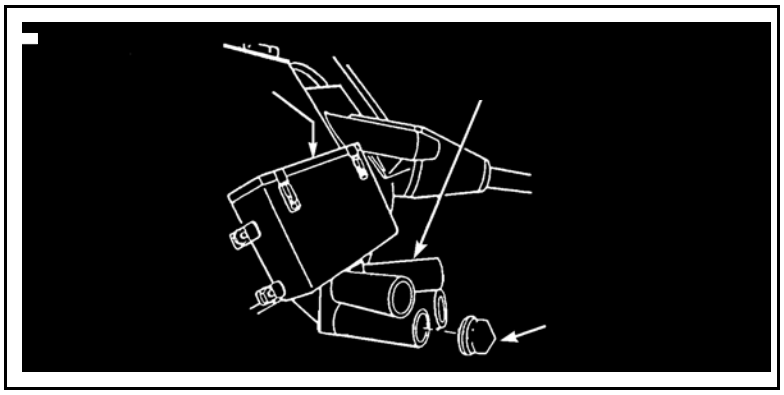


Figure 1. Smoke grenade and launcher.

2. Unload the launch tubes. Inspect and clean the smoke grenade stowage bins and launcher tubes in accordance with TM 9-2350-252-10-2. Be sure not to misplace the discharger caps.

a. Stow eight smoke grenades with metal ends down in the stowage bins, four grenades on each side.

WARNING

Do NOT put any part of the body in front of the loaded tubes. Death or injury could occur.

Note: One soldier can unload the smoke grenades; however, two soldiers (one on each side) should do it at the same time.

(1) Straddle the smoke grenade launch tubes.
(2) Grasp the grenade with the thumb and first finger and pull while twisting to the left (counterclockwise).
(3) Lift the grenade out of the launch tube.
b. Repeat the steps above to unload all eight launch tubes. Reinstall the discharger caps.

3. If a misfired smoke grenade is unloaded, hand it down to the helper. Move it at least 200 meters from the vehicle and personnel. Mark and notify chain of command of its location or destroy in accordance with the unit SOP.

4. Unload the smoke grenades from the stowage bins.
a. Inspect the grenades for damage. Pack serviceable grenades into their original container(s).
b. Turn the turret drive system ON (if required). Notify chain of command when unloading is completed.

EVALUATION PREPARATION

Setup: Provide the soldier with the equipment and material as outlined in the task conditions statement.

Brief Soldier: Tell the soldier to unload smoke grenades and dispose of a misfired smoke grenade without damaging equipment or injuring personnel.

EVALUATION GUIDE

Performance Measures	**Results**
1. Turns the turret drive system OFF and engages the turret travel lock.	P F

2. Unloads smoke grenades.	P	F
3. Unloads and disposes of a misfired smoke grenade.	P	F
4. Reinstalls the discharger caps.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	**Related**
None	TM 9-2350-252-10-2

FIRE THE M257 SMOKE GRENADE LAUNCHER ON A BFV 071-324-4003

CONDITIONS

Given a moving or stationary BFV with all power on and the M257 launch tubes loaded.

STANDARDS

Fire the smoke grenades from the M257 grenade launcher to prevent enemy observation of the BFV and without damage to equipment or injury to personnel.

TRAINING AND EVALUATION
Training Information Outline

Note: If the tactical situation permits, remove the discharger caps before firing the smoke grenades.

WARNING

Before firing, close all hatches, and make sure no friendly personnel or obstacles are in front of or above the BFV.

1. The Bradley commander announces, "Grenade launcher," to alert the crew that the grenade launcher is to be fired.

2. The gunner moves the grenade launcher switch to ON (Figure 1).

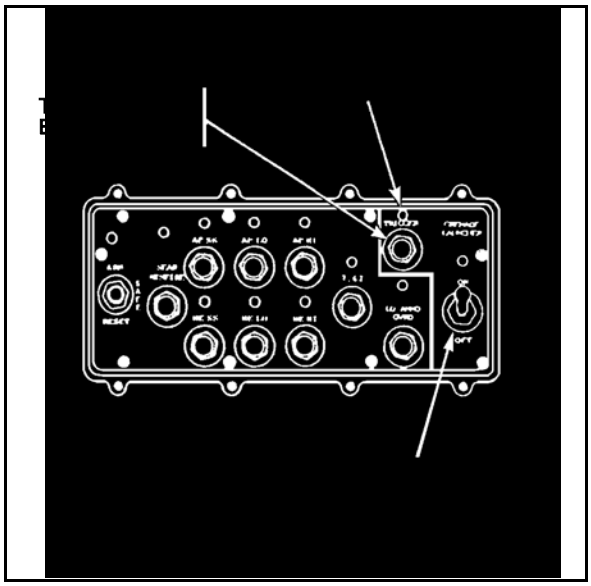


Figure 1. Weapon control box.

3. On the command FIRE, press the smoke grenade trigger button to fire the smoke grenades, and check the trigger indicator light.

4. If the trigger indicator light is on, the Bradley commander announces, "Grenades launched." The gunner moves the grenade launcher switch to OFF.

5. If the trigger indicator light is not on, the gunner takes immediate action.
   a. Press the trigger button again.
   b. Look through the periscopes for smoke.

Note: Seeing smoke does not mean that all grenades have launched.

   c. Move the grenade launcher switch to OFF.

6. When the tactical situation permits, the gunner checks the launch tubes for misfired smoke grenades.

7. The Bradley commander notifies the chain of command of the situation.

Note: To remove smoke grenades from the launch tubes, see task 071-034-0005: *Load and Unload the M257 Smoke Grenade Launcher on a BFV.*

EVALUATION PREPARATION

Performance Measures	Results	
1. Moves the smoke grenade launcher switch to ON.	P	F
2. Bradley commander announces, "Grenade launcher," and ensures that all hatches are closed.	P	F
3. Presses the smoke grenade trigger button.	P	F
4. Checks the trigger indicator.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 9-2350-252-10-2
	FM 23-1

TOW

OPERATE THE TOW LAUNCHER ON A BFV
071-056-0003

CONDITIONS

Given a BFV with the TOW launcher in the stow position, basic issue items, and a requirement to operate the launcher.

STANDARDS

Operate the TOW launcher to the ERECT position and back to the STOW position. Operate the launcher in the manual mode and the power mode.

TRAINING AND EVALUATION
Training Information Outline

1. Operate the TOW launcher in the POWER mode.
   a. Move the turret power and turret drive system switches to the ON position.
   b. Move the turret traverse drive select lever to the POWER position (Figure 1).

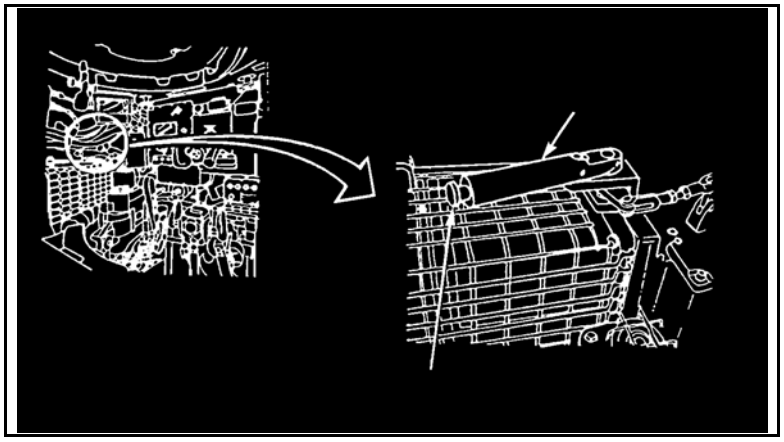


Figure 1. Turret traverse drive select lever.

(1)Press and hold the push button.
(2)Pull the select lever to the right to POWER and release the push button.

WARNING

Ensure soldiers and equipment are not in the path of the moving TOW launcher.

CAUTION

Do not squeeze the palm switches for more than 10 seconds; to do so can cause damage to the TOW elevation drive motor. If the launcher UP-DN indicator light does not come on in 10 seconds, release the palm switches and notify unit maintenance.

Note: There are two types of TOW control boxes. The launcher UP-DN switch and indicator light are the same for both.

c. Raise the TOW launcher (Figure 2).

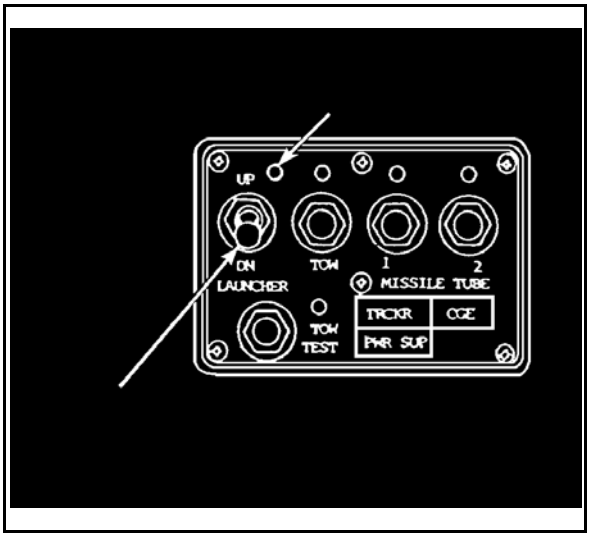


Figure 2. M2 TOW control box.

(1) Move the launcher UP-DN switch to the UP position.

(2) Squeeze the palm switches until the indicator light comes on, but do not hold the switches for more than 10 seconds.

Note: Each line on the elevation indicator equals 10 mils. Each number equals 100 mils.

d. Elevate the TOW launcher.
(1) Squeeze and hold the palm switches.
(2) Pull back on the gunner's control handles until the launcher reaches the desired angle or stops.
(3) Center the control handles and release the palm switches.

Note: At maximum depression (–180 mils), the elevation indicator pointer will be about 1 inch below number 10.

e. Depress the TOW launcher.
(1) Squeeze and hold the palm switches.
(2) Push forward on the control handles until the launcher reaches the desired angle or stops.
(3) Center the control handles and release the palm switches.
f. Lower the TOW launcher.
(1) Move the launcher UP-DN switch to DN position.
(2) Squeeze the palm switches until the TOW launcher stows against the turret and the indicator light goes out.

2. Operate the TOW manually by moving the turret power switch to ON and the turret drive system switch to the OFF position.
a. Move the turret traverse drive select lever to MANUAL position.
(1) Press and hold the push button.
(2) Move the select lever left to the MANUAL position and release the push button.
b. Move the gun elevation drive select lever to the POWER position (Figure 3, page 3-206).
(1) Press and hold the push button.
(2) Move the gun select lever to the right and release the push button.

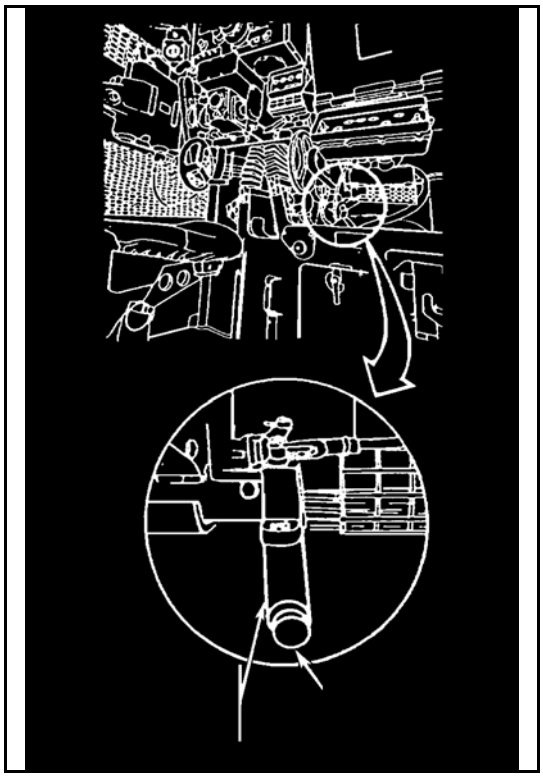


Figure 3. Gun elevation drive select lever.

CAUTION

Linkage between the TOW launcher and gun elevation systems can be damaged if the gun elevation handwheel is turned while both levers are in the manual position. Never turn the gun elevation handwheel with both the TOW elevation drive select lever and gun elevation drive select lever in the manual position.

c. Move the TOW elevation drive select lever to MANUAL (Figure 4).
(1)Press and hold the push button.
(2)Move the TOW select lever to MANUAL and release the push button.

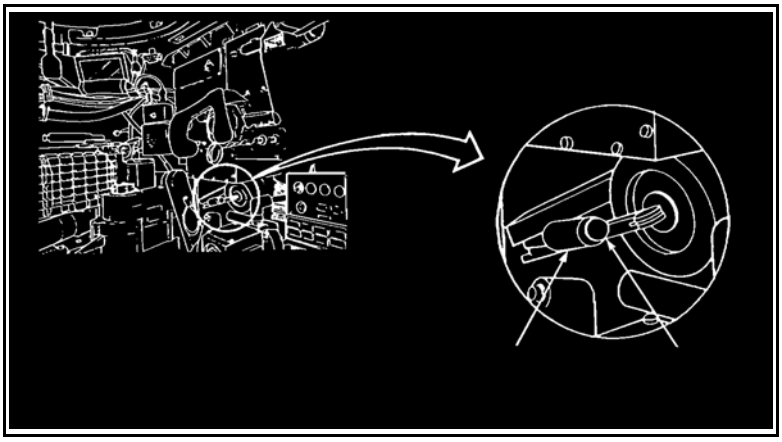


Figure 4. TOW elevation drive select lever.

d. Remove the spring from the handle of the gun elevation handwheel (Figure 5).

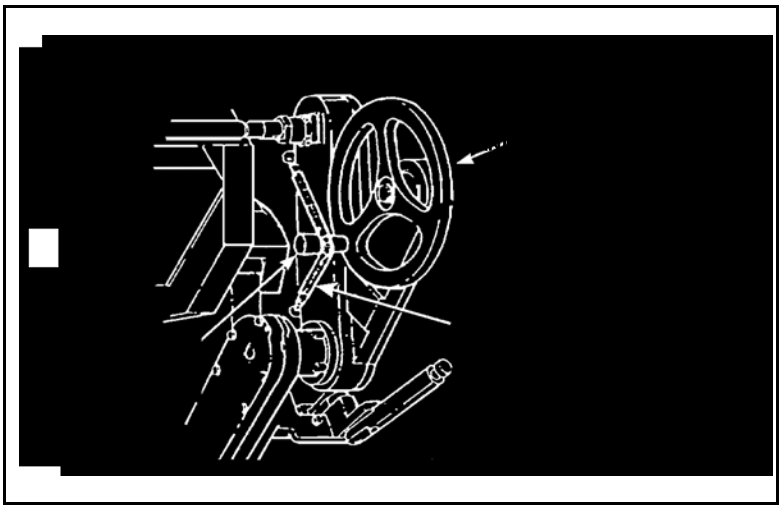


Figure 5. Gun elevation handwheel.

e. Depress the TOW launcher by turning the handwheel forward to clear the stow pin from the saddle (Figure 6).

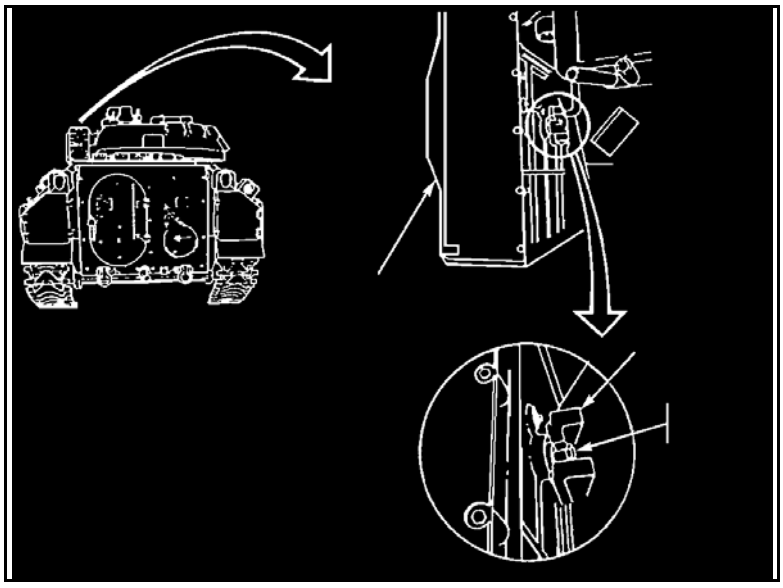


Figure 6. Stow pin and saddle.

f. Raise the TOW launcher to the firing position by using the 14-mm ratchet wrench on the TOW manual lift drive shaft by turning clockwise until the launcher is fully elevated and the TOW light comes on (Figure 7).

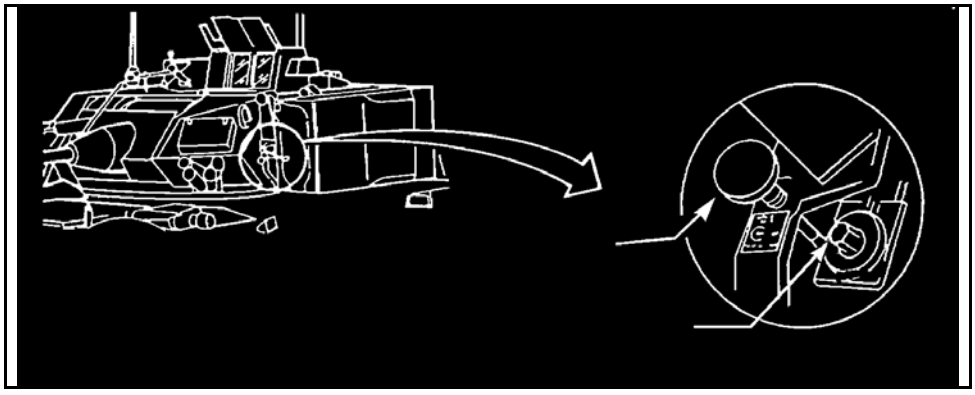


Figure 7. TOW manual lift drive shaft.

Note: Elevation of the TOW launcher to 500 mils is done for loading or unloading of TOW missiles.

g. Elevate the launcher by turning the handwheel counterclockwise.
h. Depress the launcher by turning the handwheel clockwise.
i. Lower the launcher by pulling out the TOW manual lift release handle.
j. Elevate the launcher to move the stow pin into the saddle.
k. Move the TOW elevation drive select lever to the POWER position, and install the spring on the handle of the gun elevation handwheel.

EVALUATION PREPARATION

Setup: Provide the soldier with all the material and equipment listed in the task conditions statement.

Brief Soldier: Tell the soldier that he is to operate the TOW launcher in power and manual modes.

EVALUATION GUIDE

Performance Measures	**Results**	
1. Operates the TOW launcher in the POWER mode.		
a. Raises the launcher.	P	F
b. Elevates the launcher.	P	F
c. Depresses the launcher.	P	F
d. Stows the launcher.	P	F
2. Operates the TOW launcher in the MANUAL mode.		
a. Raises the launcher.	P	F
b. Elevates the launcher.	P	F
c. Depresses the launcher.	P	F
d. Stows the launcher.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	**Related**
None	TM 9-2350-252-10-2

MAINTAIN THE TOW SYSTEM ON A BFV
071-216-0001

CONDITIONS

Given a BFV with the TOW missiles removed from the TOW launcher.

STANDARDS

Inspect and clean the TOW system. Record and report any deficiencies that cannot be corrected to the chain of command.

TRAINING AND EVALUATION
Training Information Outline

Note: To operate the turret, see task 071-324-6004: *Operate the Turret of a BFV*.

WARNING

Do not operate the turret with the hatch covers unlatched and the turret shield door open. Make sure that the path of the turret and gun is cleared of equipment and personnel.

1. Prepare the TOW launcher for maintenance.
   a. Traverse the turret to the TOW load position (5950 mils).
   b. Raise the TOW launcher.
   c. Depress the TOW launcher to -100 mils.
   d. Move the turret drive system, turret power, and master power switches to OFF.

2. Remove and inspect the dust cover for damage (Figure 1).

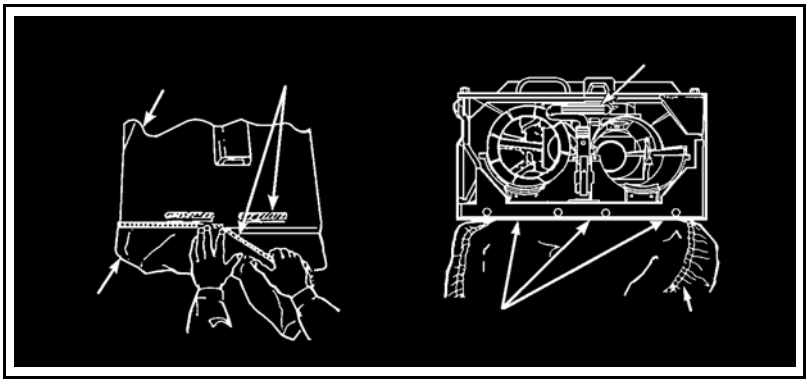


Figure 1. Dust cover.

3. Clean and dry the inside of the TOW launch tubes with wiping rags.

4. Inspect the TOW launcher for damage, dents, broken welds, and missing bolts.

a. Ensure the umbilical connectors do not extend down into the TOW launch tubes (Figure 2).

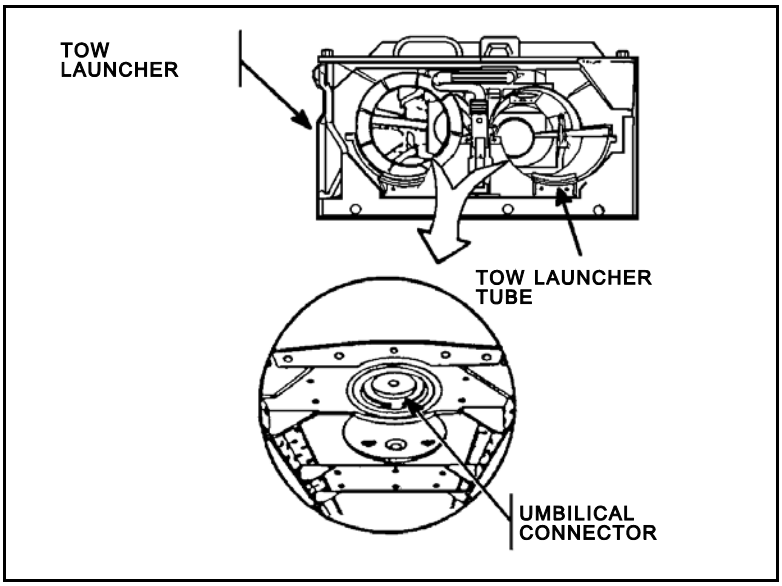


Figure 2. TOW launch tubes.

(1)If the connector extends down, turn the master power and turret power ON, move the ARM-SAFE-RESET switch to SAFE, wait 10 seconds, and turn the power back to OFF. Check the connectors again.

(2)If the connectors do not extend, go to the next step.

b. Inspect the loading handles and handle locks for damage and proper operation.

5. Reinstall the dust cover.

6. Inspect the TOW elevation system for damage.
   a. Pull out and hold the TOW manual lift release handle (Figure 3, page 3-212).
   b. Make sure that the TOW launcher is lowered all the way down.

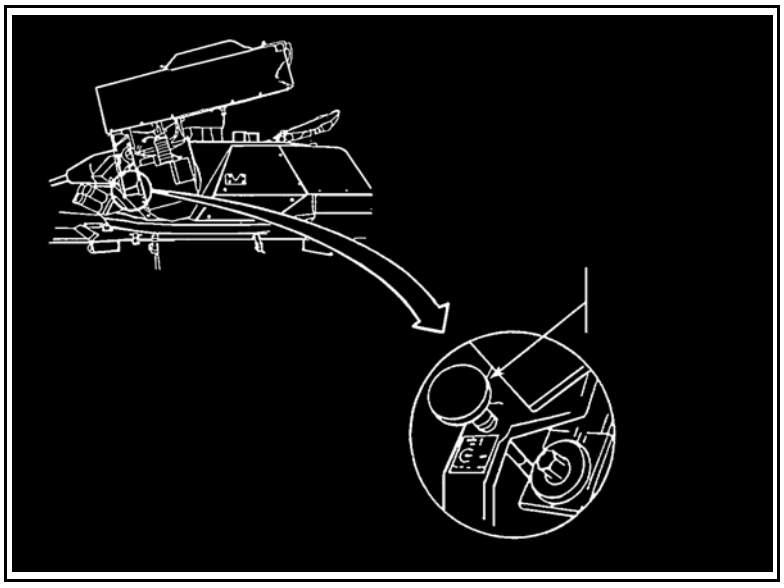


Figure 3. TOW manual lift release handle.

7. Manually elevate the TOW launcher until it stops in the stowed position.

8. Traverse the turret to 6400 mils and operate the turret in the power mode.

9. Record and report all uncorrected deficiencies to the chain of command.

EVALUATION PREPARATION

Setup: Provide the soldier with a BFV with the TOW launcher unloaded and all equipment and materials to accomplish the task.

Brief Soldier: Tell the soldier that he must maintain the TOW launcher without causing damage to equipment or injury to personnel.

EVALUATION GUIDE

Performance Measures	Results	
1. Prepares the TOW launcher for maintenance.	P	F
2. Removes and inspects the dust cover.	P	F
3. Cleans and inspects the TOW launcher.	P	F
4. Reinstalls the dust cover.	P	F
5. Inspects the TOW elevation system.	P	F
6. Manually elevates the TOW launcher.	P	F
7. Records and reports uncorrected deficiencies to the supervisor.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 9-2350-252-10-2

PERFORM MISFIRE PROCEDURES ON THE TOW SYSTEM ON A BFV 071-316-3002

CONDITIONS

Given a BFV with the master power, turret power, and turret drive system switches ON; all hatches closed; rear ramp closed; STAB switch OFF; and a TOW missile that fails to launch.

STANDARDS

Perform misfire procedures without damaging equipment or injuring personnel.

TRAINING AND EVALUATION
Training Information Outline

Note: A misfire is the failure of the missile to fire within 5 seconds after the trigger is depressed.

1. Announce, “Misfire,” over the intercom and attempt to fire again.

2. Immediately resqueeze the palm switch and the trigger on the gunner’s control handles and continue to track the target for 5 seconds.
   a. If the TOW missile fires, the task is over.
   b. During training, if the TOW missile does not fire, move the ARM-SAFE-RESET switch to RESET, then to SAFE (Figure 1).

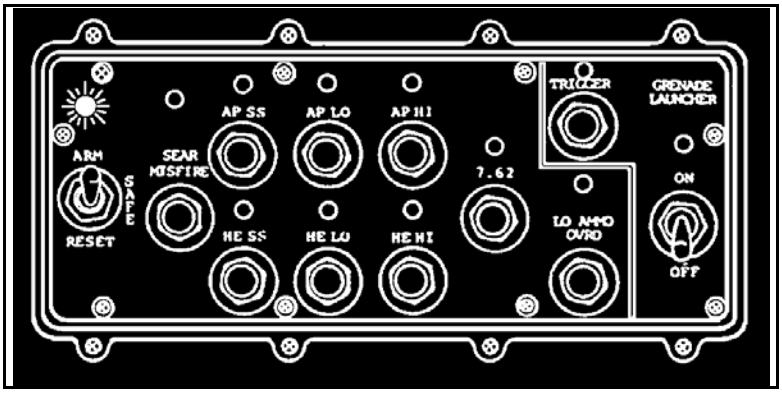


Figure 1. Weapon control box.

3. Press the TOW button on the TOW control box. During training, perform the following steps:

a. If any annunciator light on the TOW control box or annunciator box comes on, the TOW cannot be fired; take corrective action

b. If no annunciator light comes on, reselect the misfired TOW missile. Press the missile tube button on the TOW control box that was pressed the first time (Figure 2).

Note: There are two kinds of TOW control boxes and annunciator lights. Step 3 applies to both. The M2 control box is used in Figure 2.

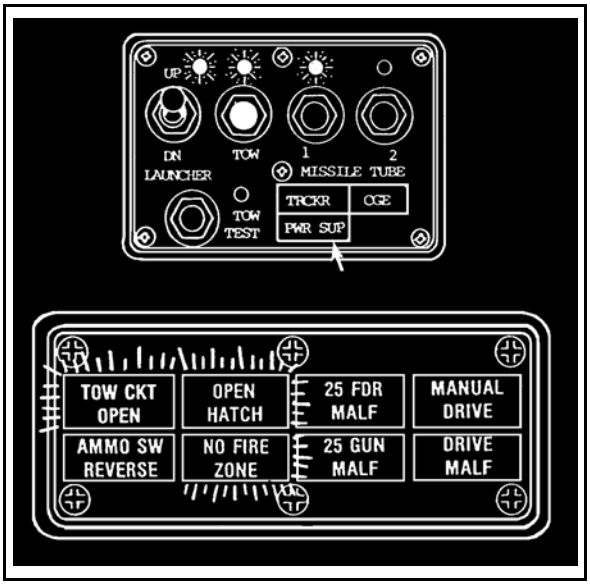


Figure 2. M2 TOW control box and annunciator box.

Note: If the light above the missile tube button flashes when the missile tube button is pressed, that missile tube is empty.

4. Resqueeze and hold the palm switches and the triggers on the gunner's control handles.

a. If the TOW missile fires within 5 seconds, the task is completed.

Note: The misfired TOW missile is taken care of when the tactical situation permits, or the TOW missile is immediately removed and discarded.

b. If the TOW does not fire after 5 seconds, select and fire the other missile.

(1) If the second missile fires, continue with the mission.

(2) If the second missile fails to fire after resqueezing the trigger, go to step 5.

5. Select the 25-mm and prepare to move to a new position.

6. Notify the chain of command that the TOW missiles have misfired on the second attempt.

7. As soon as the situation permits, unload the misfired TOW missile and reload (Figure 3). (In training, exit the turret through the turret shield door; stay in the squad area for 30 minutes.) If the turret has to be positioned to 6400 mils, make sure that no friendly troops are in the line of fire. To remove the misfired missile from the launcher, see task 071-316-3015: *Remove a Misfired TOW Missile from the TOW Launcher on a BFV.*

WARNINGS

1. Soldiers can be injured or killed by the TOW backblast. The backblast area covers all but the right rear portion of the vehicle. If soldiers must leave the vehicle when the TOW is to be fired, keep everyone at least 75 meters from the TOW backblast area.

2. If a defective TOW missile explodes, soldiers could be hurt or killed. All defective TOW missiles must be considered armed.

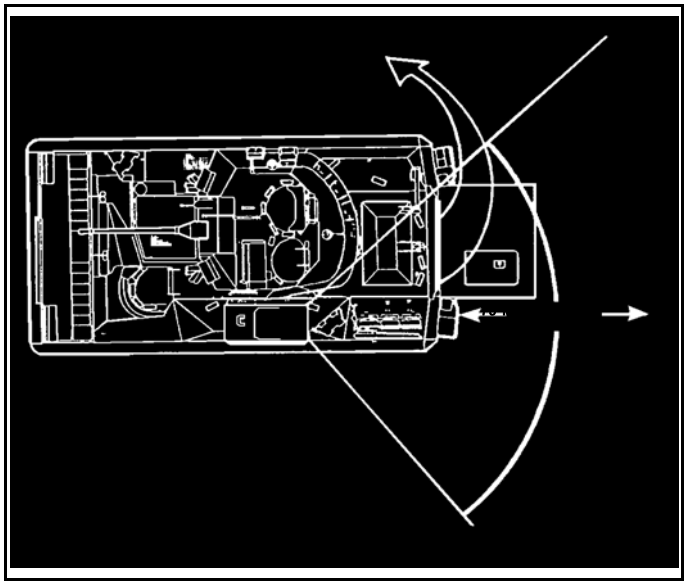


Figure 3. Troop exit.

EVALUATION PREPARATION

Setup: Provide the soldier with a BFV loaded with dummy TOW missiles and a simulated TOW missile misfire.

Brief Soldier: Tell the soldier that he will be evaluated on his ability to perform misfire procedures on the TOW weapon system.

EVALUATION GUIDE

Performance Measures	Results	
1. Alerts the team of a misfire.	P	F
2. Attempts to refire the missile and continues tracking.	P	F
3. Moves the ARM-SAFE-RESET switch to RESET, then to SAFE.	P	F
4. Reselects the TOW system and waits 12 seconds.	P	F
5. Reselects the misfired TOW missile.	P	F
6. Moves the ARM-SAFE-RESET switch to ARM.	P	F
7. Attempts to fire.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 9-2350-252-10-2

BORESIGHT THE TOW LAUNCHER ON A BFV
071-316-3005

CONDITIONS

Given a BFV parked on level ground with the 25-mm automatic gun and the coax machine gun boresighted, a complete boresight kit, an aiming point at least 1,200 meters away with horizontal and vertical lines, and one helper.

STANDARDS

Boresight the TOW launcher so that the aiming point, as seen through the viewing eyepiece of the boresight telescope, is aligned with the same aiming point as seen through the integrated sight unit (ISU).

TRAINING AND EVALUATION
Training Information Outline

WARNING

Looking at the sun through the ISU may cause blindness.

Notes: 1. A square shape makes the best target to boresight the TOW launcher.

2. Boresighting requires two soldiers. One soldier looks through the boresight adapter and the other soldier moves the turret and adjusts the ISU. The soldier on the outside of the vehicle is the helper.

CAUTION

Do not boresight the TOW launcher until the 25-mm gun and the M240C machine gun are boresighted.

1. Select a suitable target 1,200 meters away. Pick an aiming point on the target that has vertical and horizontal lines.

2. Set the daysight controls (Figure 1).
   a. Set the range knob to 0 meters.
   b. Set the MAG switch to HIGH (until it clicks).
   c. Move the sensor selector switch to CLEAR or NEUTRAL.

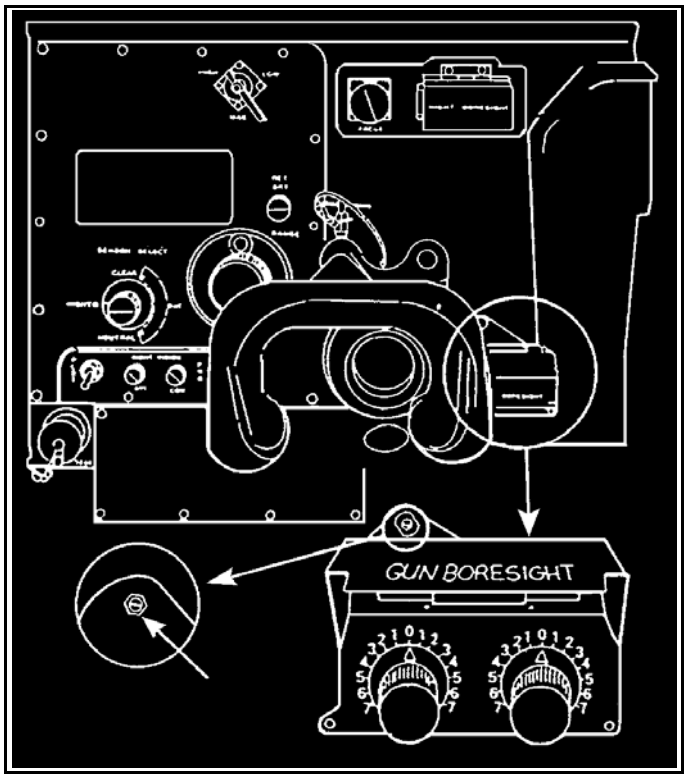


Figure 1. Daysight controls.

3. Move the turret drive system switch to ON (Figure 2, page 3-220).

WARNING

Soldiers on top of the vehicle in the path of the moving TOW launcher could be injured or killed. Check the top of the vehicle and ensure that no soldiers or equipment are in the path of the moving TOW launcher.

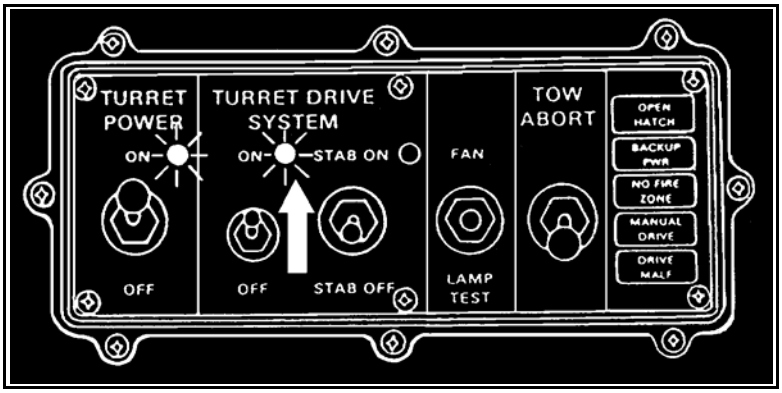


Figure 2. Turret drive system switch and indicator light.

Note: There are two kinds of TOW control boxes. The TOW button is the same for both. The M2 TOW control box is shown in this task.

4. Raise the TOW launcher (Figure 3).

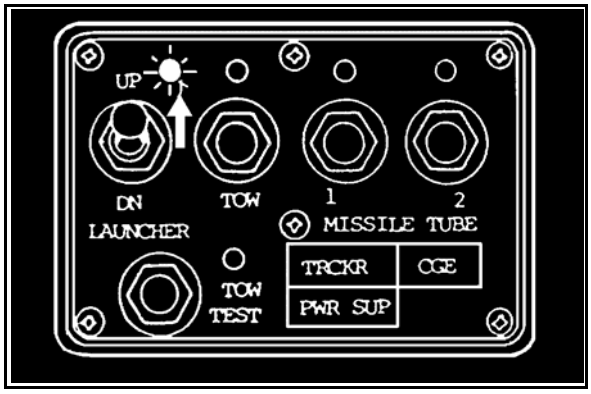


Figure 3. TOW launcher UP-DN switch and indicator lights.

5. Move the turret drive system switch to OFF. Hang a red streamer on the turret drive system switch.

6. Press the TOW push button to ON and wait 12 seconds.

7. Check that the TOW indicator light stays on when the TOW test indicator light goes out (Figure 4).

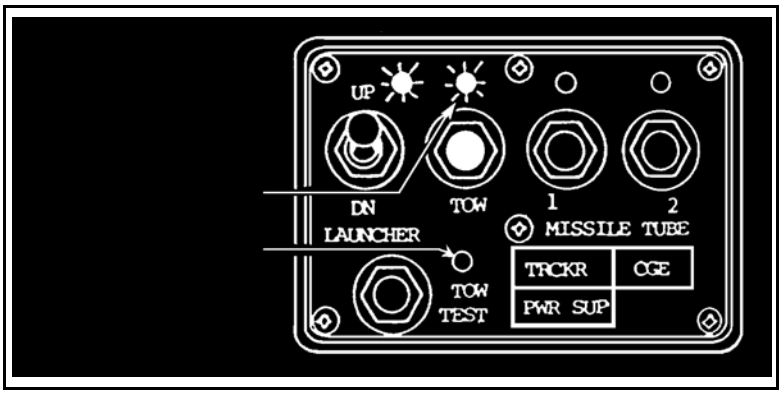


Figure 4. TOW indicator light and TOW test indicator light.

8. Look through the gunner's eyepiece and check the TOW reticle on the status indicator. If TOW does not appear in the status indicator, notify organizational maintenance.

9. Move the TOW elevation select lever to the manual position.

10. Move the gun elevation drive select lever to power position and move the turret traverse drive select lever to manual position (Figure 5, page 3-222).

WARNING

The fast motion of the TOW launcher during boresighting may result in an injury. Ensure the TOW launcher and the turret are in the manual mode. Move the TOW launcher slowly during boresighting.

CAUTION

Do not jam the boresight telescope into the boresight adapter. Too much force will damage the boresight telescope.

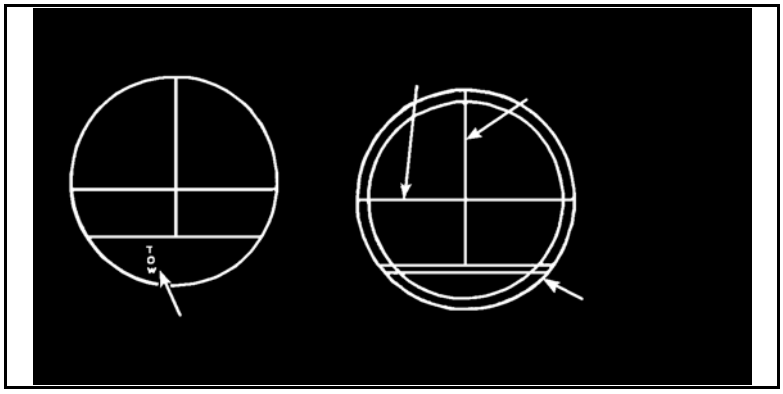


Figure 5. TOW status indicator.

Notes: 1. The boresight mounting hole is on the front of the TOW launcher between the launcher tubes.

2. The boresight telescope shank is tapered. Slide the shank into the TOW launcher far enough so that the boresight telescope will hold its own weight.

11. The helper installs the boresight telescope (Figure 6).

a. Installs the boresight telescope shank in the boresight mounting hole on the TOW launcher and pushes the shank gently into the TOW launcher until it is seated.

b. Turns the boresight telescope so that the eyepiece is at the top and tells the gunner that the boresight telescope is installed.

c. Hangs a red streamer on the boresight telescope and informs the gunner that the boresight telescope is installed.

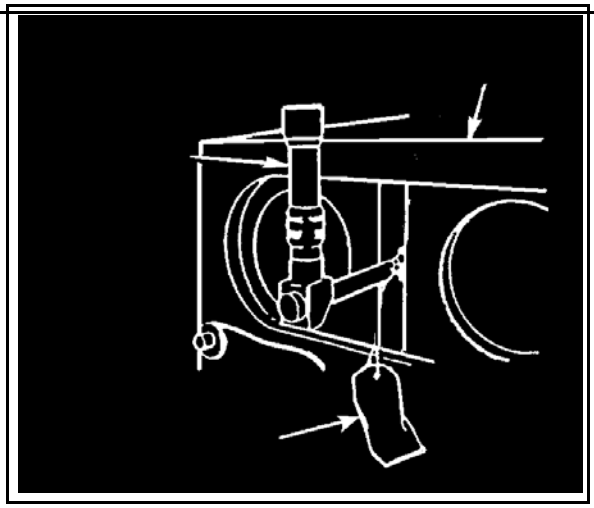


Figure 6. Boresight kit.

CAUTION

Do not operate the elevation handwheel with both the TOW elevation select lever and gun elevation select lever in manual position; to do so will break the linkage. Ensure that the gun elevation select lever is in power position during manual TOW operation.

12. Align the azimuth crosshair of the ISU TOW reticle onto the aiming point on the target by using the turret traverse handwheel.

13. The helper moves the vernier focus dial on the boresight telescope up or down to focus on the target.

14. The helper checks the alignment of the boresight telescope reticle on the aiming point on the target.

a. If the azimuth crosshair of the boresight telescope reticle does not align on the aiming point on the target, align the azimuth crosshair of the boresight reticle on the aiming point.

(1)Loosen the eight mounting screws on the baseplate of the TOW launcher (use a 9/16-inch socket) (Figure 7).

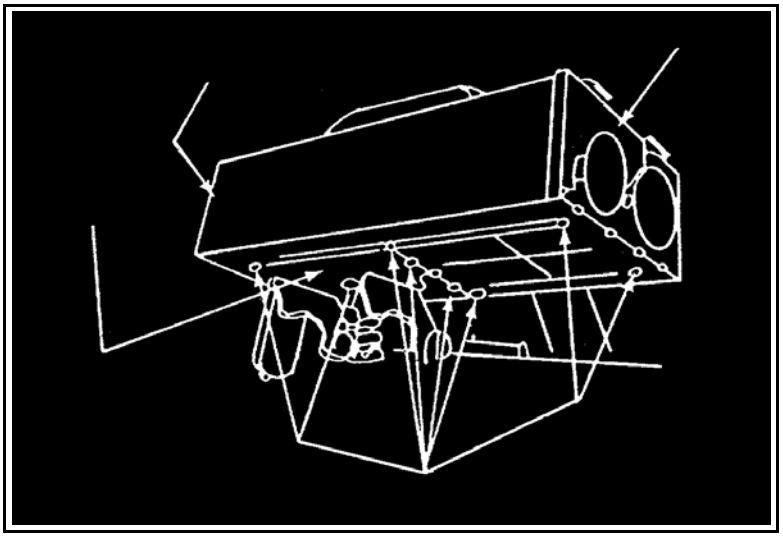


Figure 7. Mounting screws.

(2)Gently pivot the TOW launcher within the armor box until the boresight telescope azimuth crosshair aligns on the aiming point (use the 3/8-inch flat-tip screwdriver).

(3)Tighten the four center TOW launcher mounting screws so that the launcher will not pivot on the baseplate.

(4)Tighten the four end TOW launcher mounting screws so that the launcher will not pivot on the baseplate.

(5)The helper rechecks the azimuth alignment of the boresight telescope on the aiming point on the target.

Note: If necessary, repeat step 14b until the boresight telescope is aligned in azimuth on the aiming point on the target.

15. The helper checks elevation alignment of the boresight telescope reticle on the aiming point on the target.

a. If the elevation crosshair of the boresight telescope reticle aligns on the aiming point, the launcher is boresighted.

b. If the elevation crosshair of the boresight telescope reticle does not align on the aiming point of the target, use the elevation handwheel to elevate or depress the TOW launcher, as directed by the helper, to align the elevation crosshair in the reticle of the boresight telescope on aiming point.

16. Align the elevation crosshair in the gunner's reticle on the aiming point on the target.

a. Turn the TOW boresight adjustment screw, using 1/8-inch flat-tip screwdriver, until the elevation crosshair aligns on the aiming point (Figure 8).

b. Remove the screwdriver after aligning the elevation crosshair.

c. If the aiming point image moves up or down from the crosshair after removing the screwdriver, notify unit maintenance.

17. Press the TOW button on the TOW control box to deselect the TOW system.

CAUTION

Pull the boresight telescope from the TOW launcher with care. Too much force will damage the boresight telescope.

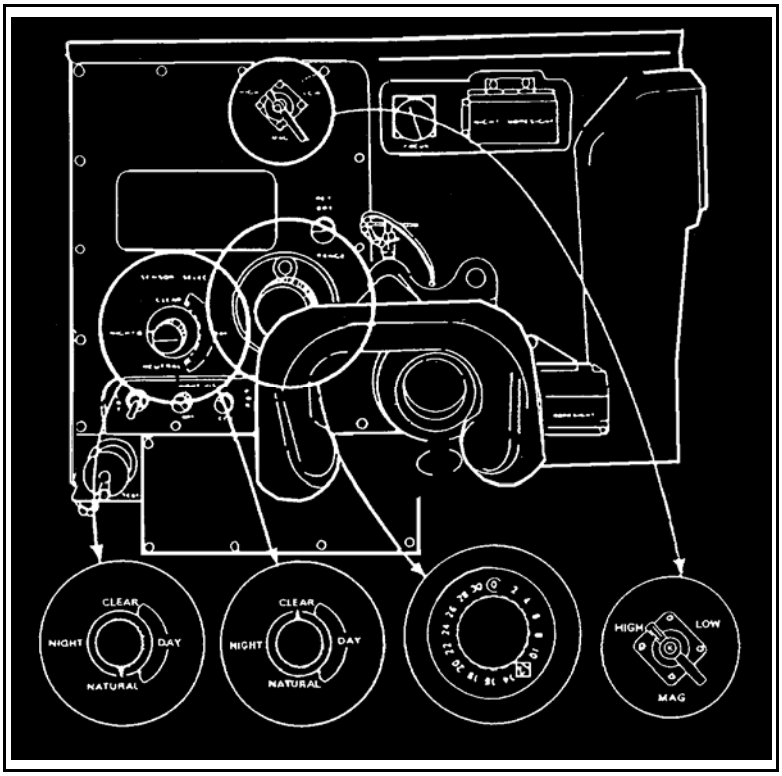


Figure 8. TOW boresight adjustment screw.

18. The helper removes the boresight telescope from the TOW launcher.

a. Pulls the boresight telescope out gently from the TOW launcher.

b. Removes the red streamer.

c. Tells the gunner that the boresight telescope is out.

19. Move the turret traverse drive select lever to POWER position and the gun elevation drive select lever to POWER position.

20. Move the TOW elevation select lever to POWER position.

21. Remove the red streamer and move the turret drive system switch to ON.

22. Lower the TOW launcher.

EVALUATION PREPARATION

Setup: Provide the soldier all the equipment and materials outlined in the task conditions statement.

Brief Soldier: Tell the soldier to boresight the TOW launcher so that the aiming point of the boresight telescope is focused on the same aiming point as seen through the ISU.

EVALUATION GUIDE

Performance Measures	**Results**	
1. Selects a suitable aiming point.	P	F
2. Sets the daysight controls.	P	F
3. Moves the turret drive system switch to ON.	P	F
4. Erects the TOW launcher.	P	F
5. Moves the turret drive system switch to OFF and displays the red streamer.	P	F
6. Presses the TOW push button to ON and waits 12 seconds.	P	F
7. Selects a TOW and ensures that the reticle and the status indicator are correct.	P	F
8. Moves the TOW elevation select lever to the MANUAL position.	P	F

9. Moves the gun elevation drive select lever to the POWER position.	P	F
10. Talks the helper through the boresight telescope installation and accuracy procedure.	P	F
11. Boresights the TOW launcher and reticle.	P	F
12. Deselects the TOW.	P	F
13. Talks the helper through the boresight telescope removal procedure.	P	F
14. Lowers the TOW launcher.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	**Related**
None	TM 9-2350-252-10-2

ENGAGE TARGETS WITH THE TOW SYSTEM ON A BFV 071-316-3006

CONDITIONS

Given a BFV with the TOW launcher loaded with missiles and a target identified at 65 to 3,000 meters (65 to 3,750 meters for TOW 2).

Note: The TOW requires a minimum of 65 meters to arm.

STANDARDS

Engage targets with the TOW so that each target is identified and immobilized or destroyed.

TRAINING AND EVALUATION
Training Information Outline

WARNINGS

1. The TOW backblast may cause injury or death. All vehicle personnel must be inside the vehicle with the hatches closed when the TOW is fired. Dismounted personnel should be at least 75 meters away from the TOW blast area.

2. A TOW or TOW wire touching a high-tension wire may cause injury or death. Do NOT fire the tow over high-tension wires.

Note: Ensure both of the ISU ballistic shield doors are open for TOW usage, and the turret is operating in the POWER mode.

1. Prepare the TOW for operation.

Note: If moving, stop the vehicle in a hull defilade position.

a. The Bradley commander and gunner check the slope indicators to make sure that the vehicle is within the 10-degree slope warning. If the air bubble touches the outer (red) ring, do not fire the TOW. Direct the driver to move the vehicle to more even ground (Figure 1).

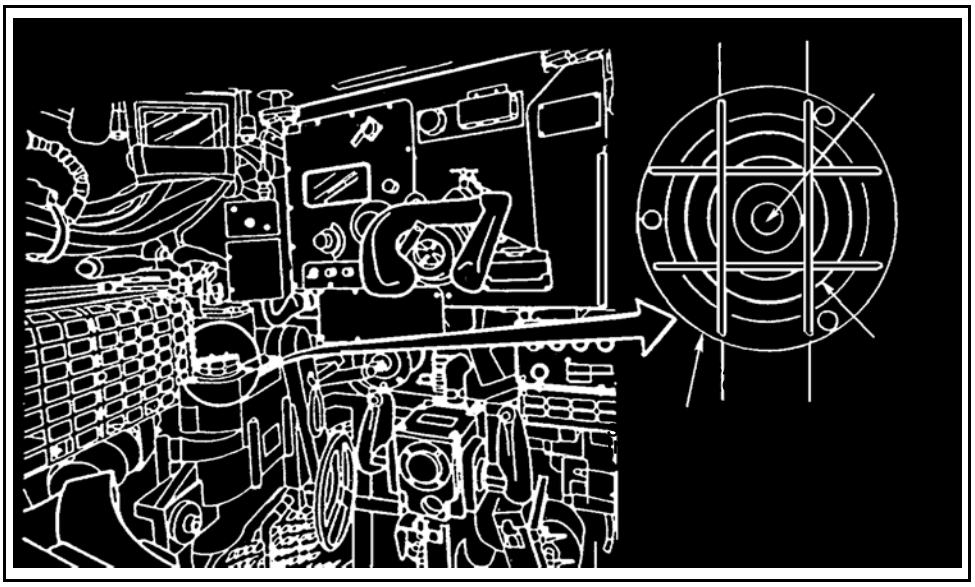


Figure 1. Slope indicator.

b. Prepare the ISU for normal or thermal operation.
c. Turn the MAG switch on the ISU to HIGH until it clicks (Figure 2).

Note: The TOW system will not function with the MAG switch in the LOW position.

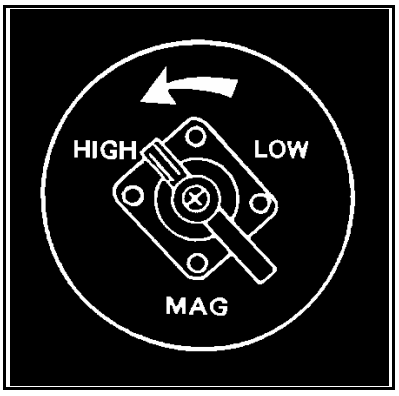


Figure 2. MAG switch.

d. Raise the TOW launcher (Figure 3, page 3-230).
(1) Move the launcher UP-DN switch to UP.
(2) Depress the gunner's palm switches.

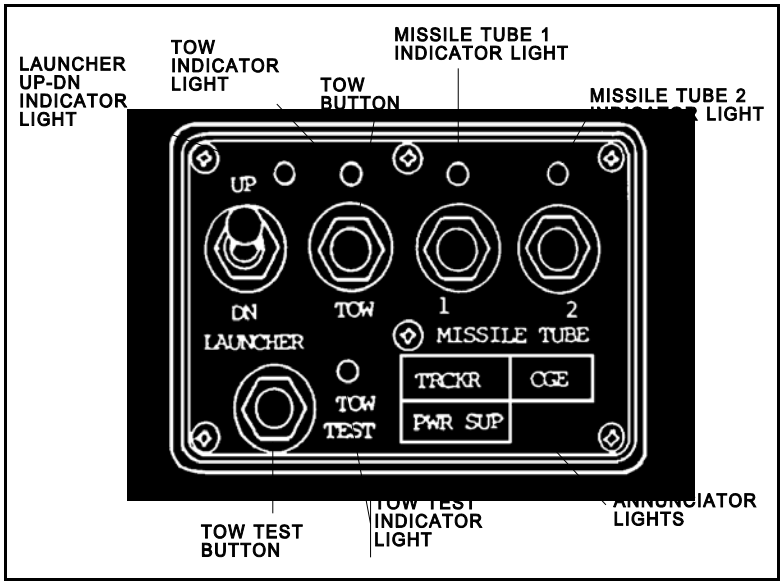


Figure 3. M2 TOW control box.

Note: The TOW control box on the M2A1 and M3A1 is different from the one on the M2 and M3, except for the TOW button and indicator light, and the TOW test button and TOW indicator light are the same.

WARNING

(M2A1 AND M3A1)
Do not fire the TOW 2 missile if the vertical TOW reticles are not between the electronic alignment reticles. Do not fire the TOW 2 missile if the horizontal TOW reticle is not on the electronic alignment reticle. Soldiers can be killed or injured and equipment can be damaged.

Notes: 1. Step *e* applies to the M2A1 and M3A1 only when firing TOW 2 missiles. If standard TOW missiles are to be fired, go to step *f*.
2. Electronic alignment reticles appear during the self-test and turn off after the self-test is completed.

e. Look into the gunner's eyepiece and press the TOW button (Figure 4).

(1)Make sure that the vertical TOW reticle is between the electronic alignment reticles.

(2)Make sure that the horizontal TOW reticle is on the electronic alignment reticle.

(3)If the reticles cannot be seen, readjust the brightness and contrast and press the TOW test button.

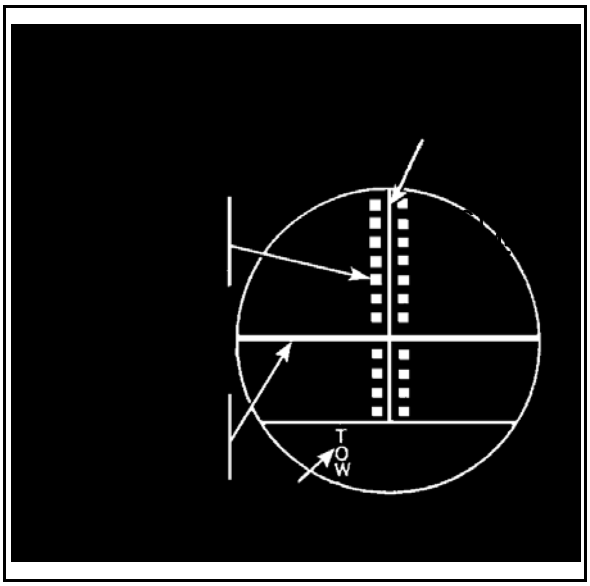


Figure 4. M2A1 eyepiece.

f. Press the TOW button. The system performs a self-test (Figure 5).

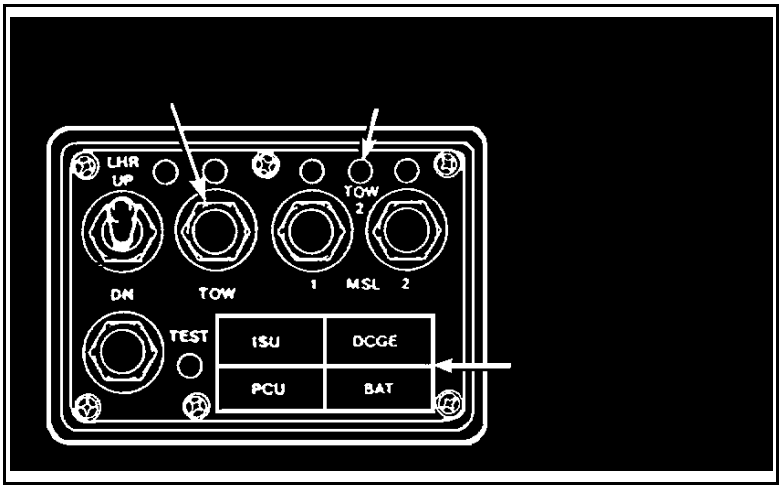


Figure 5. M2A1 TOW control box.

Note: The TOW self-test lasts for 12 seconds (20 seconds for M2A1 and M3A1); the TOW test light should then go out. If time is limited, override the self-test by selecting a missile that the TOW test indicator is still on.

2. Check the annunciator lights on the TOW control box.
   a. If the indicator light goes off in 12 seconds (20 seconds for A1 series), go to step 3.
   b. If the TOW indicator light stays on, press the TOW test button on the control box.

3. Make sure that the annunciator lights on the annunciator box are off (Figure 6).

Note: If any annunciator lights are on, perform task 071-316-3002: *Perform Misfire Procedures on the TOW System on a BFV.*

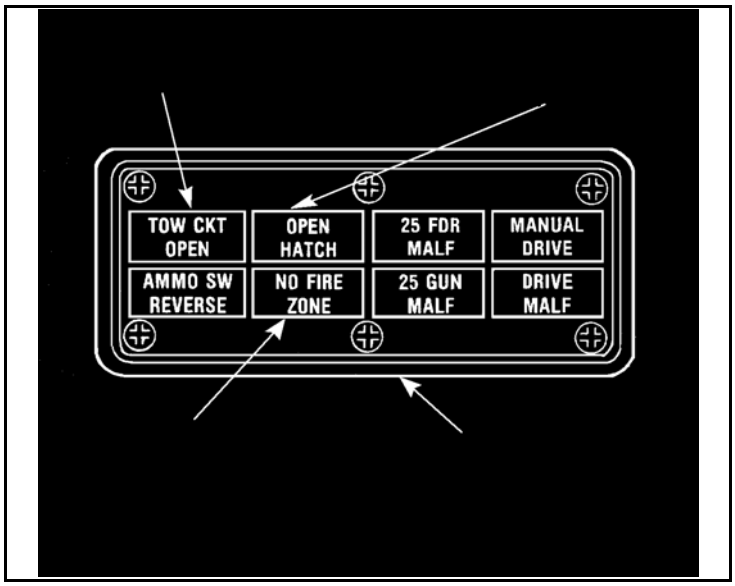


Figure 6. Annunciator box.

Note: If the NO FIRE ZONE, OPEN HATCH, or TOW CKT OPEN lights are on, the TOW cannot be selected.

4. Check the status indicator.
   a. Look through the gunner's eyepiece at the reticle.
   b. Check that TOW appears.

5. Push the missile tube number 1 button.

a. If the indicator light above missile tube number 1 button flashes, missile tube number 1 on the TOW missile launcher is empty.

b. If the indicator light comes ON but does not flash, move the ARM-SAFE-RESET switch to ARM position.

Notes: 1. On the M2A1 and M3A1 control boxes, the TOW 2 indicator light will come on when a TOW 2 missile is in the missile tube selected.

2. After the Bradley commander identifies the target, he moves the turret using the Bradley commander's control handle to bring the gunner's view on to the target. As the Bradley commander moves the turret, he issues an initial fire command, GUNNER, MISSILE, TANK.

6. The gunner acquires the target using the ISU.

7. When the gunner announces "Identified," the Bradley commander releases his grip on the control handle. The gunner may now track the target using his control handles.

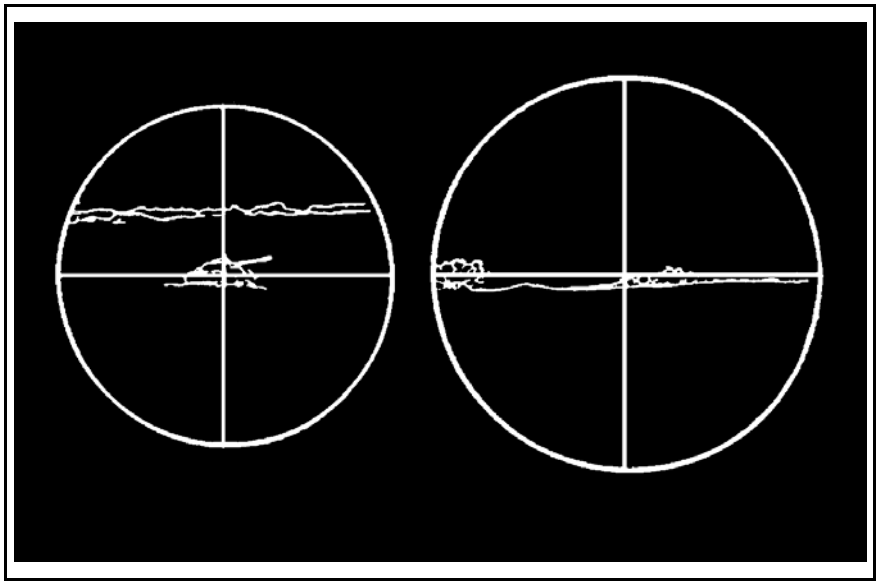


Figure 7. Cross hairs on target.

Note: For TOW engagements, the gunner will not acquire range to target.

8. Center the reticle cross hairs on the target (Figure 7).

Notes: 1. Make sure the target is engageable.
2. If the area between the vertical cross hair and the edge of the sight in the direction of travel is clear of obstructions, the target can be engaged. If it is not clear of obstructions, the target cannot be engaged.

Note: Gunner will receive the command FIRE from the Bradley commander.

9. Gunner announces, "On the way."

10. Fire at the targets using the trigger; squeeze and hold the PALM switch and the trigger on the gunner's control handle.

11. Keep the cross hairs on the center of visible mass of the target, tracking, as necessary, until the missile impacts. When engaging a target at 3,750 meters, the missile takes about 35 seconds to reach the target.

Note: If the missile has not fired after 5 seconds, announce "Misfire," and apply misfire procedures (task 071-316-3002: *Perform Misfire Procedures on the TOW System on a BFV*).

12. When the firing mission is completed, move the ARM-SAFE-RESET switch to RESET, then to SAFE.

EVALUATION PREPARATION

Setup: Provide the soldier a BFV with a functional TOW launcher and ISU, two rounds of TOW ammunition or subcaliber ammunition, and targets at the following ranges on a live-fire range complex or applicable subcaliber range:

One T-72-size target between 1,000 and 1,500 meters.
One T-72-size target between 2,000 and 3,000 meters.

Brief Soldier: Tell the soldier to successfully engage a designated target and achieve a kill using the ISU.

EVALUATION GUIDE

Performance Measures	**Results**
1. Prepares the TOW for operation.	P F
2. Checks the annunciator lights on the TOW control box, Bradley commander's annunciator panel, and gunner's annunciator panel.	P F

3. Checks the status indicator. P F

4. Successfully engages a target. P F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	**Related**
None	FM 23-1
	TM 9-2350-252-10-2

Section IV. 11M30 Skill Level Tasks

BASIC INDIVIDUAL TECHNIQUES (SL3)

PREPARE AN M2 BFV SECTION/SQUAD SECTOR SKETCH 071-410-0007

CONDITIONS

Given a fire team, a designated fire team defensive position, and the appropriate material to prepare the sector sketch.

STANDARDS

Prepare a sector sketch for the fire team that includes the following:

1. The primary and secondary sectors of fire.

2. The main terrain features in the team sector, each primary position, the type of weapon located therein, final protective line (FPL) or principal direction of fire (PDF), or both (as applicable to the team's machine guns), TRPs, OPs, the leader's position, dead space, and obstacles.

TRAINING AND EVALUATION
Training Information Outline

Note: A sector sketch is a rough drawing as close to scale as possible. It should be prepared based on direct observation of the fire team's sector and by using each weapon's range card.

1. Prepare a fire team sector sketch (Figure 1). Identify and draw in the left and right limits of the fire team's sector.

2. Identify and draw in the terrain features (such as hilltops, creeks, wood lines) and man-made objects (such as roads and bridges).

3. Identify and draw each of the fire team's primary positions.

4. Draw the engagement areas or the primary and secondary sectors of fire for each position.

Note: FPLs or PDFs apply when the M60s or M249s are employed with the tripod and the traversing and elevating mechanism.

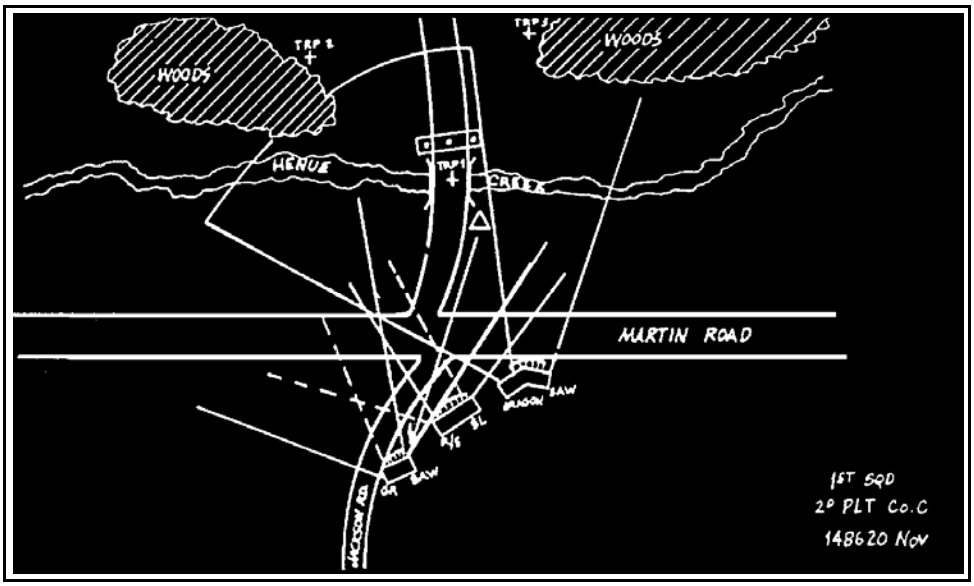


Figure 1. Fire team's sector sketch.

5. Draw in the FPL or the PDF (or both) for the fire team's weapons.

6. Indicate the type of weapon in each position.

7. Identify and draw in the locations of the OP and the squad leader's or fire team leader's position.

8. Show the location of any TRPs in the BFV fire team's sector.

9. Indicate the dead space areas.

10. Draw in obstacles, such as minefields, Claymores, and wire.

11. Marginal information on the right- (left-) hand corner includes:
   a. Unit, not higher than company.
   b. Time and date that the sketch was completed.
   c. Magnetic north symbol.

Note: The parts of the fire team's sector sketch described are the minimum items for a meaningful sketch. The platoon SOP may require more detail.

12. Prepare two copies of the sketch. Give one to the platoon leader and keep one at the team leader's location.

EVALUATION PREPARATION

Setup: Provide the soldier with the equipment and material as outlined in the task conditions statement.

Brief Soldier: Tell the soldier that he is to draw a sector sketch covering his fire team's sector by using the appropriate symbols and markings.

EVALUATION GUIDE

Performance Measurers	Results	
1. Draws the sector sketch.	P	F
2. Indicates the marginal information.	P	F
3. Makes two copies of the sketch.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	FM 7-7J

CONDUCT THE MANEUVER OF AN M2 BFV SECTION/SQUAD 071-420-0007

CONDITIONS

Given a fire team attacking an enemy position.

STANDARDS

Lead the fire team through the enemy position, select the best movement technique, control Dragon fire, control the rate and distribution of fire, and maintain contact with the dismount element leader by visual signals or radio.

TRAINING AND EVALUATION
Training Information Outline

1. Assault techniques. Move forward as rapidly as possible using the best method for the situation: crawling, short rushes, or single rush. Team members follow the leader's example, using every advantage offered by the terrain. Move aggressively.

a. Use crawling when faced with intense enemy fire and little cover. Individuals use either the low or high crawl, depending on their individual situation and the need for speed. This method is slow, but it reduces exposure to enemy observation and fire. When not moving forward, individuals must place fire on the enemy to suppress him. If necessary, the team may advance all the way into and through enemy positions using the crawl method.

b. Use short rushes from cover to cover when enemy fire allows brief exposure. Soldiers rush singly or in pairs in 3- to 5-second rushes. A rush is kept short to keep enemy machine gunners from tracking rushing men.

c. Use the single rush by fire team only under the following conditions:

- When receiving a heavy concentration of indirect fire.
- When the lack of cover and concealment prohibits another course of action.
- When not receiving fire.

Use single rush by standing up and moving directly to the enemy position as quickly as possible. Movement must be rapid and accompanied by suppressive fire. The assault should be conducted over a short distance that can be covered quickly and concentrated where the enemy's defense can be quickly overrun.

2. Control of Dragon fire. When a Dragon is carried, it is kept under direct control. It is fired only at important point targets, such as enemy armored vehicles and key weapons. Designate what type targets are to be engaged with Dragon fire. Lacking proper Dragon targets, the antiarmor specialist fires his rifle.

3. Control of fire. Fires must be heavy enough to suppress the enemy. However, allowing suppressive fire to consume all of a squad's ammunition before an assault is made or a possible counterattack is dealt with would be fatal. Firers must be rigidly controlled to ensure that a steady rate of fire is maintained throughout the assault. Rapid redistribution of ammunition upon the immediate objective will enable the fire team to fight off a counterattack or continue the attack on order.

a. Fire the M203 into the center of the fire team's objective to mark the target. The team fires to the right and left sides of the point where the M203 rounds are hitting. One technique is to fire a colored smoke round to mark the center of the team's objective.

b. The team leader fires his weapon to mark the center of the team's objective or has the machine gunner (M249) fire at the objective tracers.

4. Maintaining contact. To prevent masking the fires of another fire team and to ensure that he can respond to changes in orders by the dismount element leader, the fire team leader maintains contact with the dismount element leader either by radio or by visual contact.

5. Teamwork and control.

a. Methods of control are normally established by SOP. These may include arm-and-hand signals, oral commands, whistles and other sound devices, pyrotechnics, and "do as I do" techniques. It is the team leader's responsibility to obtain and maintain the control and teamwork of his team in all situations.

b. The fire team leader should lead by example. He normally positions himself in the lead to facilitate this method of leadership.

EVALUATION PREPARATION

Setup: This task will be evaluated during the conduct of a platoon or larger tactical exercise. The fire team will maneuver as part of the dismount element conducting either a platoon dismounted movement to contact or deliberate dismounted attack.

Brief Soldier: Tell the soldier that he is the fire team leader moving as part of the dismount element of the platoon. Upon enemy contact, the soldier must maneuver the fire team using correct assault techniques and control the team's suppressive fires.

EVALUATION GUIDE

Performance Measures	**Results**	
1. Uses the correct assault techniques.	P	F
2. Controls the fire team's suppressive fires.	P	F

3. Maintains contact with adjoining teams and dismount element leader. P F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	**Related**
None	FM 7-7J
	11M20

SELECT A WATER CROSSING SITE
071-200-0004

CONDITIONS

As an infantry leader, given a general area of operations, a water obstacle, criteria for determining the fordability and or swimmability of the obstacle, and a requirement to select the site.

STANDARDS

Select a site that meets the minimum criteria. The site selected should provide entrance and exit points that do not exceed 30 percent or 17 degrees. The site should have soil that is firm and free from large rocks and other types of debris. The current speed is not in excess of the prescribed maximum either at midstream or near either bank. The water depth along the crossing route should not exceed 3 1/2 feet for fording operations.

TRAINING AND EVALUATION
Training Information Outline

Note: This task is designed for the infantry leader given the mission of selecting a crossing site for a mechanized unit that has no engineer support or additional expertise to conduct a reconnaissance of the desired crossing site in order to determine its suitability for crossing.

1. Identify the proposed area to be used as the crossing site.

Note: Security should be posted immediately. The far side should be secured as soon as possible.

2. Reconnoiter the area for mines and booby traps. Either mark their location or neutralize them and immediately notify the chain of command.

3. Inspect the entrance point(s) and verify the degree or percentage of the slope to ensure it is within the parameters of the maximum slope that the vehicle(s) can navigate.

4. Conduct an analysis of the soil composition and estimate its load-bearing capability.

5. Determine the water depth. The maximum water depth for fording is 3 1/2 feet.

Note: Water depth may be checked by a variety of techniques, to include the following:

1. Weather permitting, direct a qualified strong swimmer(s) to enter the water and physically check the depth. If this technique is used, a rope must be tied to the swimmer(s) for safety purposes.
2. In a well-planned operation, and if time permits, electrical depth-finders may be used, if available.
3. Tie a rope with measured lengths to a weight and throw it into the water. Readings are normally taken at 3-meter intervals. This will give a rough estimate of the water depth.
4. Other methods may be used and are limited only by the imagination of the individual site supervisor.

6. Determine the width of the water obstacle.

Note: The criteria for the selection of the far side exit point(s) is generally the same as for the entrance point(s).

7. Identify a far-side exit point for each crossing site.

8. Determine the speed of the current. (If the current is 2 mph [3.2 kmph] or less, the BFV can cross straight across; if the current is 3 mph [4.8 kmph] or greater, the BFV must cross at a downstream slant.)

9. Ensure the route across the water obstacle is free of obstacles to vehicle traffic.

Note: The proposed crossing site may have been previously reconnoitered and lanes marked. If this is the case, the site selector must still confirm the site and verify that it is safe for the vehicles to cross.

10. As soon as the situation permits, mark the entrance point(s), the route across the obstacle, and the exit point(s).

11. Upon verification and marking of the site, report the information and site location to the chain of command.

EVALUATION PREPARATION

Setup: Provide the soldier a general area with a water obstacle, equipment, and the assistants required to accomplish this task.

Brief Soldier: Tell the soldier that he is to select a site where vehicle(s) can safely cross a water obstacle.

EVALUATION GUIDE

Performance Measures	Results	
1. Identifies the crossing site.	P	F
2. Reconnoiters the area.	P	F
3. Verifies the degree or percentage of slope of the entrance point(s).	P	F
4. Analyzes the soil.	P	F
5. Determines the water depth.	P	F
6. Determines the width of the water obstacle.	P	F
7. Identifies the far-side exit point(s).	P	F
8. Determines the speed of the current.	P	F
9. Ensures the route across the water obstacle is free of obstacles.	P	F
10. Marks entrance point(s), route across the obstacle, and exit point(s).	P	F
11. Reports the information about site location to the chain of command.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	FM 5-36
	FM 7-7J
	TM 9-2350-252-10-1

CONDUCT POST WATER OPERATIONS
071-200-0005

CONDITIONS

In a field and or combat environment, given a tracked vehicle prepared for water operations, a designated assembly area, a squad-sized element, and a requirement to supervise the return of the vehicle to its normal combat configuration.

STANDARDS

The vehicle commander assigns specific duties to the squad members in regard to returning the vehicle to its normal combat configuration after conduct of a fording operation. He monitors their performance of assigned duties and inspects to ensure that the bilge pump has been turned off and all water drained from the bilges. Additionally, the vehicle commander conducts a check for water in all sight glasses on the vehicle's suspension system. If water was believed to be present, the chain of command is notified and action taken to correct the fault.

TRAINING AND EVALUATION
Training Information Outline

1. Turn off bilge pumps and lower ramp.

Note: The rear upper hull drain plug must be installed.

2. Perform post-water operations.
   a. Drain water from bilge pumps.
   (1)Lift front drain plug access door.
   (2)Turn valve to left and allow water to drain out, then turn valve to right to reseal drain plug.
   (3)Close front drain plug access door.
   (4)Pull up and turn fasteners.
   (5)Remove floor plate.
   (6)Turn valve to left and allow water to drain out, and then turn valve to right to reseal drain plug.
   (7)Install floor plate. Pull up and turn fasteners.
   b. Release fuel filler combat lock from inside vehicle.
   c. Open vent on fuel fill cap.
   (1)Pull lock pin to open fuel fill cap cover.

Note: Fuel fill cap must be removed slowly to let out pressure.

(2) Turn fuel fill cap left slowly and remove cap.
(3) Open vent on inside of fuel fill cap.
(4) Screw fuel fill cap on. Turn fuel fill cap to right until tight.
(5) Close fuel fill cap cover.

d. Engage fuel filler combat lock.

e. Check for water in hub cap oil and final drive oil. Look in sight glasses on hubcaps of road wheels and return idler and on rollers. If bubbles or white color is seen, water is in oil. Report water in oil to organizational maintenance.

EVALUATION PREPARATION

Setup: Provide the soldier with an M2/M3 Bradley, the vehicle's BII, at least one helper, and a water obstacle to negotiate.

Brief Soldier: Tell the soldier to perform post-water operations on an M2/M3 Bradley. The soldier will need assistance for this task.

EVALUATION GUIDE

Performance Measures	Results	
1. Drains bilges.	P	F
2. Opens vent on fuel cap.	P	F
3. Checks oils for water contamination.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	TM 9-2350-252-10-1

CONDUCT A POINT ANTIARMOR AMBUSH BY AN M2 BFV SECTION/SQUAD 071-326-5804

CONDITIONS

As the leader of an M2 Bradley section/squad task organized to conduct an antiarmor ambush, given the ambush site.

STANDARDS

Destroy or disable enemy armor vehicles without being discovered beforehand.

TRAINING AND EVALUATION
Training Information Outline

The conduct of an antiarmor ambush must be well planned and thought out. The situation and mission may not always allow the M2 section/squad leader to observe all of the following guidelines, but he must try.

1. Reconnoiter the site on the ground or by air when possible. As a minimum, conduct a thorough map reconnaissance.

2. Conduct rehearsals, time permitting. These can include what to do if engaged by the enemy before arrival at the site, what to do if the site is attacked by enemy infantry, how to approach the site, and how to leave the site. Ensure all members of each element understand what they are to do. If only able to conduct a map reconnaissance, plan and rehearse the contingency missions.

3. The successful ambush will depend on, among other things, how quickly the unit arrives at the site, executes the ambush, and departs. At any time, the M2 may be lost to hostile action or mechanical failure. Be prepared to use another means of transportation for withdrawal, whether it be by foot, another vehicle (cross-load), or helicopter.

4. Upon arriving at the site, post security and reconnoiter the exact location of the ambush. A good ambush site should be where—

   a. Enemy vehicles are likely to enter. Do not plan kill zones in places where the enemy may not cross (Figure 1, page 3-248).

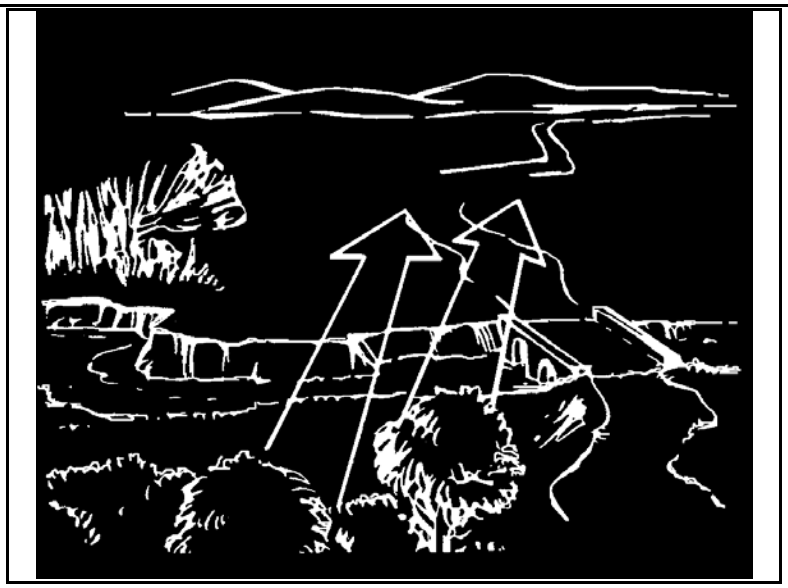


Figure 1. Kill zone where enemy vehicles are likely to cross.

b. The terrain makes it difficult for other armor vehicles to bypass a destroyed vehicle and assault the ambush squad (Figure 2).

Figure 2. Kill zone in difficult terrain.

c. The kill zone permits the M2 or Dragon gunner to hit the flank of a target vehicle (Figure 3).

Figure 3. Gunner has flank shot at target vehicle.

d. A natural obstacle is between the kill zone and the ambush squad/section. If there are no natural obstacles and if time permits, the squad/section can make artificial obstacles, such as minefields (Figure 4).

Figure 4. Kill zone with natural obstacles.

e. The kill zone is large enough to permit the M2 or Dragon gunner to acquire, fire, track, and hit a target vehicle. Generally, if the gunner looks through his sights at the kill zone and no obstructions are in the field of view, the kill zone is large enough (Figure 5).

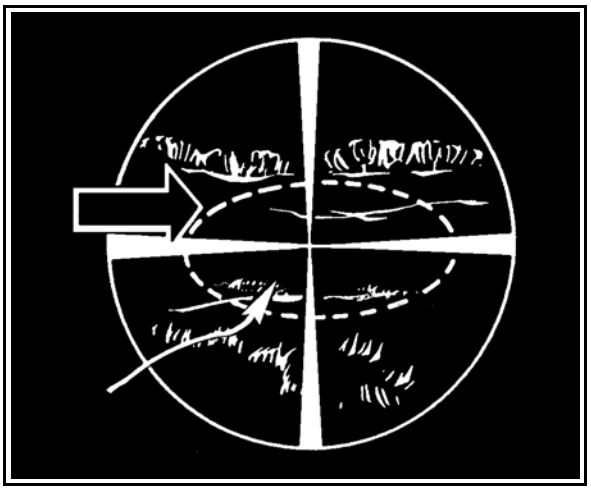


Figure 5. Large kill zone.

Note: With the TOW, the half-sight method is used to determine if the kill zone is large enough. However, if the Dragon is to be used to supplement the TOW (M2), use the full-sight method for the Dragon to determine the adequacy of the kill zone.

f. A target vehicle is isolated and has no other enemy armor over watching it (Figure 6).

Figure 6. Isolated enemy vehicle.

Note: If the M2 is used in the armor-killer team, an M2 hull-down or hide position must be available.

5. The support and security team moves into position to establish security. These elements may have to be repositioned after the armor-killer team sets up. Once the ambush site is secure, the squad leader positions the armor-killer team. Since the primary weapon system available to the antiarmor ambush is the M2, the squad leader should always try to locate the kill zone at the maximum effective range (3,000 meters) from the ambush site.

a. The section leader and gunner choose the best firing position and move to it. When the vehicle is in position, the gunner ensures that all weapon systems are loaded and ready to fire, to include conducting the TOW self-test. He also ensures the cargo hatch is closed completely.

b. When a long-range ambush (1,000 to 3,000 meters) is established, the role of the dismount team is to provide security. In positioning the support/security team, consider the distance between fighting vehicle and dismount team. Position them far enough out to provide security, yet close enough to allow for a quick remount and to provide adequate protection from enemy indirect fire.

c. If the dismount team is used as the armor-killer team, then the Dragon becomes the primary weapon system. The squad leader should locate the kill zone at the maximum effective range (1,000 meters) from the ambush site. When a medium ambush is established (200 to 1,000 meters), the squad leader positions the antiarmor weapon (Dragon) and then the machine gun to cover the kill zone. The remainder of the dismount team provides security for these two weapons.

d. If conducting a close-in ambush (within 200 meters), plan for the use of all available light antitank weapons (LAW/AT4). Position the individual members of the squad, ensuring that each position has—

(1) Good fields of fire into the kill zone.

(2) Cover and concealment.

(3) An obstacle between it and the kill zone.

(4) Covered and concealed withdrawal routes for the squad.

e. Once in position, designate positions within the kill zone to be covered by the various weapon systems. Plot indirect fires on the kill zone or your own position and along the route of withdrawal.

Note: In establishing the ambush, you must provide a position for the M2, whether it be in the armor-killer team or support and security team.

6. Improve the ambush position as time permits. Prepare and improve the M2 position and individual positions.

a. Place Claymore mines, explosives, or smoke pots on fake firing positions and rig for remote firing. They will deceive the enemy as to the location and size of the ambush force and confuse him.

b. If sure that the enemy cannot see the impact, call for check rounds from whatever indirect fire unit(s) is in support. In most cases, a forward observer (FO) will not be with your BFV squad, so call for fire through the FO attached to the platoon.

c. Rehearse so that each man knows his job before, during, and after the ambush.

7. Execute the ambush.

a. Execute long-range ambushes by firing the ( ) TOW. Once the round impacts, cover withdrawal with smoke. To increase the speed of withdrawal, dismount only those men needed to ensure local security of the BFV.

b. Execute medium-range ambushes by firing either the TOW (if the M2 is used as the killer team) or the Dragon (if the dismount team is used as the killer team). Once the round impacts, team members whose weapons have the range to reach the kill zone fire their weapons to cover the withdrawal of the antiarmor specialist. Other members of the dismount team who are providing security shoot if they see enemy within their sector. As soon as the antiarmor specialist has moved to where he cannot be fired at by the enemy, the remainder of the dismount team moves to the remount point and links up with the M2.

c. Conduct a close-in ambush when fields of fire are short (200 meters or less). Plan for the use of all LAWs by the dismount team. If the vehicle is to be used, the 25-mm automatic gun using armor-piercing discarding sabot (APDS) ammunition should be its selected weapon. In a close-in ambush, you must mass a high volume of antiarmor weapons to ensure destruction of the enemy vehicle.

d. Position yourself with the armor-killer team in order to initiate the ambush.

e. Have indirect fires impact on the kill zone as the ambush is executed.

8. Decide if enemy dismounted infantry preceding the armored vehicles into the kill zone pose a threat to the ambush. If they can outflank the ambush site before the enemy armor can be hit, you may decide to withdraw without making contact and try to set up another ambush along the avenues of approach somewhere else. If the enemy infantry is an immediate threat to the squad or appears to be ready to find or trip any mechanical devices, initiate the ambush with automatic weapons. The M2 engages the enemy with the 7.62-mm coax machine gun. All actions are executed exactly as planned, to include smoke and indirect fire, except that the armor-defeating weapons are not fired. When mounted enemy infantry approaches the kill zone of the armor ambush, the carriers are treated like light tanks. They are allowed to close, then they are destroyed one at a time.

9. Because of the speed with which other enemy armored vehicles may react to the ambush, and the responsiveness of enemy artillery, spring the ambush, break contact, and get out of the area as rapidly as possible. The support and security team's role varies with the type of ambush.

a. In the long-range ambush, the support and security team provides local security only because its weapons cannot affect action in the kill zone. Determine the necessary security and

how far out it needs to be placed. Balance this against a quick withdrawal. The larger the force and the greater the distance from the vehicle, the slower the withdrawal.

b. When a medium-range ambush is conducted, most of the dismount team provides security, since most of their weapons will be unable to influence the action in the kill zone. The leader may elect to position the machine gun to engage dismounted infantry preceding the enemy armor.

c. When a close-in ambush is conducted, the support and security team provides both security and support. It must provide flank security and also supporting fires into the kill zone to mass fires. It must also engage any secondary vehicles that enter the kill zone. It provides suppressive fires to withdraw the killer team.

10. The section/squad withdraws under the cover of indirect fire and smoke. If the M2 can be detected in a long-range ambush, it should fire its smoke grenades. In a medium-range or close-in ambush, the chances of detection are greater, and it normally would fire its smoke grenades. The section/squad withdraws along predesignated routes to the remount point. Once linkup has been accomplished, the squad withdraws along a previously reconnoitered route.

11. If possible, maintain communication with your higher headquarters at all times.

EVALUATION PREPARATION

Setup: Provide the squad leader with the support necessary to successfully conduct an antiarmor ambush.

Brief Soldier: Tell the squad leader that he has been provided an ambush site and he is to conduct an antiarmor ambush.

EVALUATION GUIDE

Performance Measures	Results	
1. Posts security and reconnoiters exact location of ambush site.	P	F
2. Selects the right team to conduct ambush based on terrain and distance of ambush.	P	F
3. Destroys or disables enemy armor vehicles without being discovered.	P	F
4. Employs indirect fire into kill zone as ambush is executed.	P	F
5. Withdraws successfully under cover of indirect fire and smoke.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required **Related**

None

CONDUCT MOVEMENT TECHNIQUES BY AN M2 BFV DISMOUNT PLATOON 071-326-5910

CONDITIONS

As the leader of a dismount element moving in various tactical situations that require changes in formations and movement techniques.

STANDARDS

1. Select the formation that—
   a. Provides security (as dictated by the tactical situation).
   b. Allows the fighting vehicle element to support the dismount element whenever possible.
   c. Disperses fire teams.
   d. Provides a position from which maximum firepower can be placed on a known enemy position without jeopardizing security.

2. Employ the correct movement technique based on the mission and the likelihood of contact.

TRAINING AND EVALUATION
Training Information Outline

1. The three basic formations for the dismount element are the *column*, the *line*, and the *wedge*.

   a. Select the dismount element column as the primary movement formation (Figure 1, page 3-256). It has good dispersion in depth and makes control easier. It provides limited fire to the front but a high volume of fire to the flanks. The lead fire team is usually designated as the base team. The other fire teams guide on the base team.

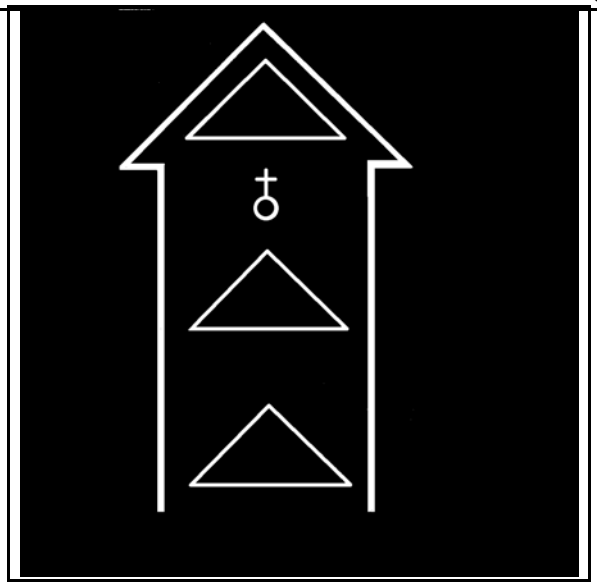


Figure 1. Dismount element column.

b. Select the dismount element line to assault an objective and designate the base fire team (Figure 2). In this formation, the dismount element can deliver maximum fire to the front but little to the flanks.

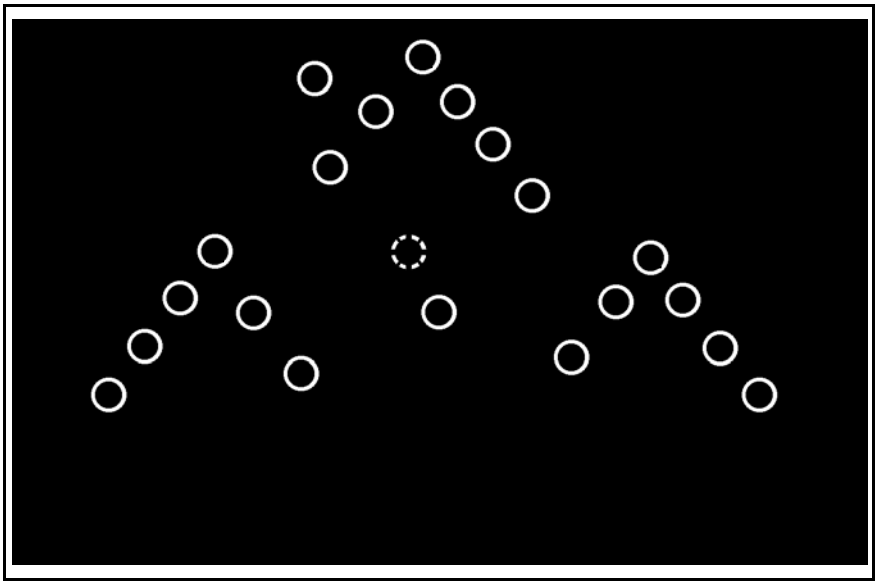


Figure 2. Dismount element line.

c. Use the wedge formation when the situation is uncertain (Figure 3). This formation allows a large volume of fire to the front and to both flanks. It will usually ensure that, on contact with the enemy, at least one fire team will be free to maneuver.

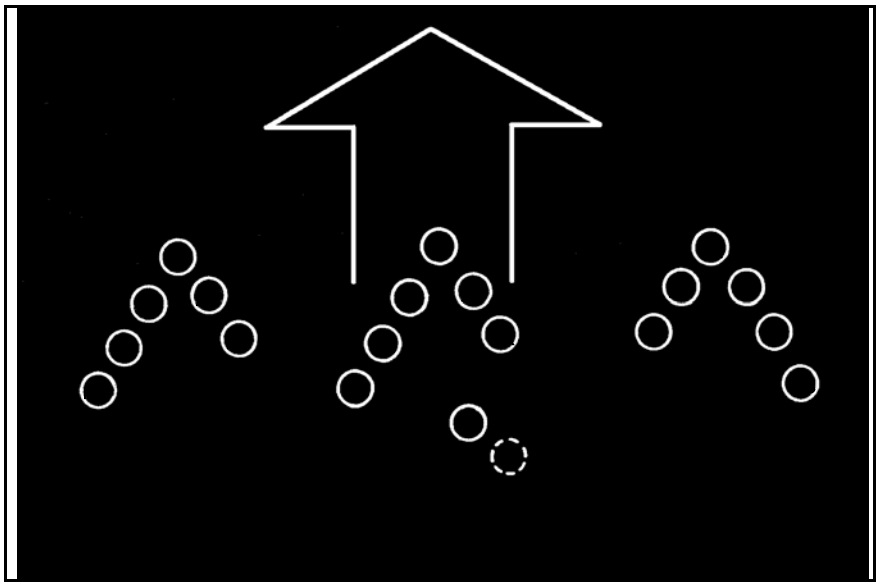


Figure 3. Dismount element wedge.

2. The dismount element will normally use variations of the column and wedge formations.

3. Select movement techniques based on the likelihood of contact. Use of the formations is not fixed or rigid. Distances between fire teams vary based on the terrain and visibility. As the terrain becomes more rugged, as vegetation becomes more dense, or if visibility is reduced, the distance between the fire teams is reduced.

LIKELIHOOD OF CONTACT	MOVEMENT TECHNIQUE
Not likely	Traveling
Possible	Traveling overwatch
Expected	Bounding overwatch

a. Use the traveling technique when speed is important and contact with the enemy is not likely (Figure 4, page 3-258). The dismount element's formation is adjusted to fit the situation. The fire team leaders normally move at the head of their teams so they have better control and can see the dismount element leader. The fighting vehicle element should be in position to support the dismount element, when possible.

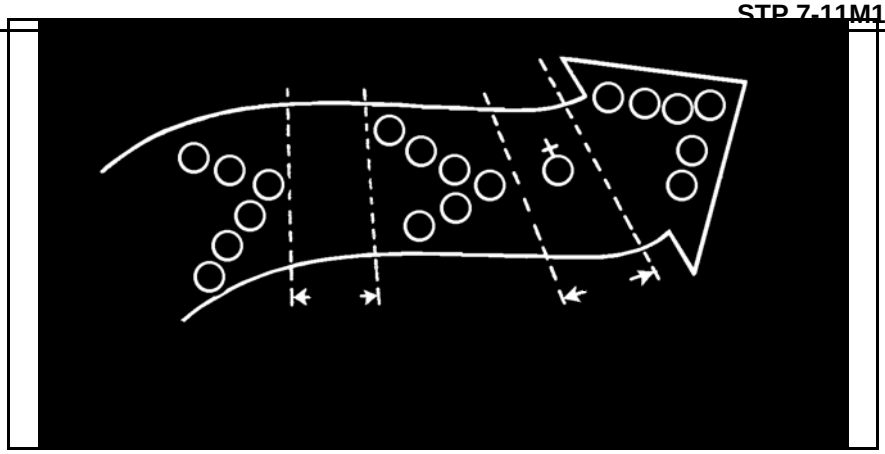


Figure 4. Dismount element—traveling.

b. Use the traveling overwatch technique when enemy contact is possible, but not expected. Use caution, but move quickly. This technique provides more time and distance in which to react if the lead team runs into enemy fire. The dismount element normally uses a column or wedge formation. The lead fire team tries to move at least 50 meters, but preferably 100 meters or more, in front of the rest of the platoon dismount element. The fighting vehicle element may be even farther to the rear or to a flank but should be in position to overwatch the dismount element, particularly the lead fire team.

c. Use the bounding overwatch technique when contact is expected and the terrain will not permit mounted movement, or when the dismount element is separated from the fighting vehicle element (Figure 5). This is the most deliberate and cautious of the movement techniques. The platoon leader directs the overwatching force to cover the progress of the bounding force from a covered, concealed position offering observation and fields of fire against likely enemy positions. The overwatching force must be able to immediately support the bounding force by providing suppressive fire and maneuver if the bounding force makes contact. The bounding force moves forward to a preselected position covered by the overwatching force. It secures the new position so that the overwatching force can then move forward. The length of each bound is tied to the observation, fields of fire, and range of weapons of the overwatching force.

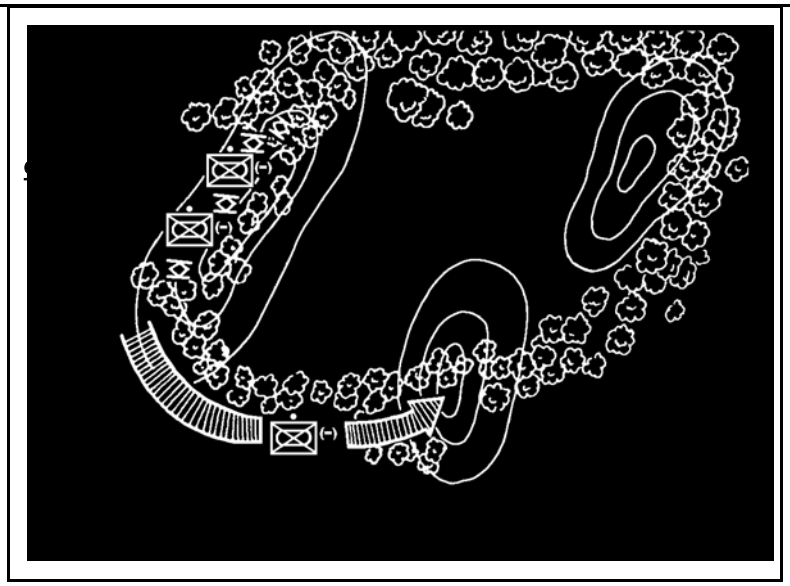


Figure 5. Dismount element—bounding overwatch.

EVALUATION PREPARATION

Setup: Provide the platoon sergeant or acting platoon leader with three fire teams, a company operation order depicting a scheme of maneuver, and a tactical situation.

Brief Soldier: Tell the leader that he is to control the dismount element while moving in various tactical situations that will require changes in formation and movement techniques.

EVALUATION GUIDE

Performance Measures	**Results**	
1. Selects the formation that—		
a. Provides security (as dictated by the tactical situation).	P	F
b. Allows the fighting vehicle element to support the dismount element whenever possible.	P	F
c. Disperses fire teams.	P	F
d. Provides a position from which maximum firepower can be placed on a known enemy position without jeopardizing security.	P	F
2. Employs the correct movement technique based on the mission and the likelihood of contact.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	**Related**
None	FM 7-7J

CONDUCT AN ATTACK ON A BUILDING BY AN M2 BFV SECTION/SQUAD DURING MOUT 071-440-0014

CONDITIONS

As the leader of an M2 Bradley squad that is part of a company or company team conducting an attack on a building with a BFV section in urban terrain (MOUT).

STANDARDS

Secure a building so that no enemy soldiers remain in the building.

TRAINING AND EVALUATION
Training Information Outline

1. Before seizing a building, decide on the makeup of the fighting vehicle element and the dismount element.
   a. Choose a security team to remain with the fighting vehicle element. You must give special consideration to security because of the vehicle's vulnerability in urban terrain.
   b. Arrange the dismount element into two- or three-man assault teams. Designate a part of the dismount element as a demolitions team.

2. The attack is conducted in three steps.
   a. Isolate the building (Figure 1, page 3-262). The fighting vehicle element, supported by indirect and direct fire, isolates the building. Place the fighting vehicle element in an overwatch position. Then direct the fires of the M2s and adjust indirect fires to suppress enemy troops in the building and those in nearby buildings who can fire at the dismount element.

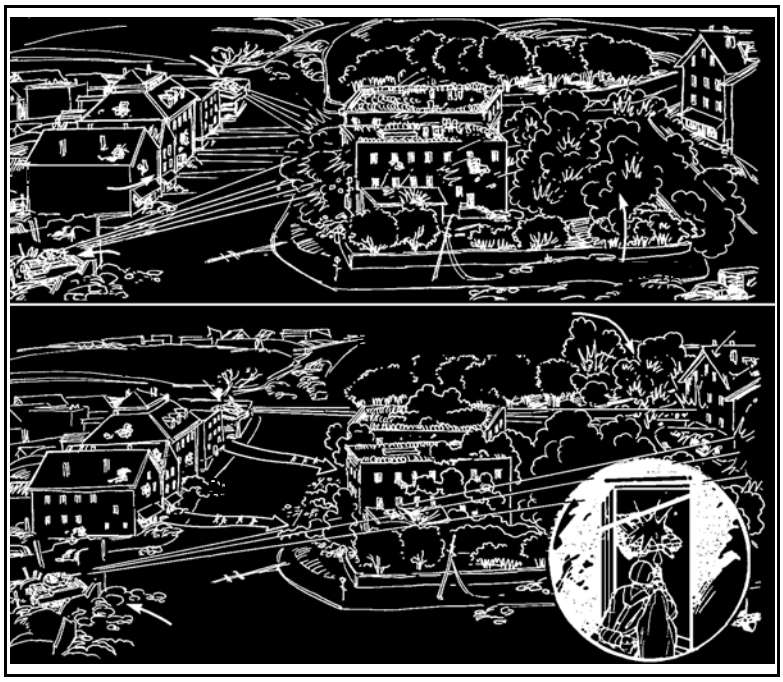


Figure 1. Isolating a building.

Note: To use Dragons and TOWs in urban areas, targets must be beyond minimum arming distance, or 65 meters.

b. Seize a foothold. Have the dismount element enter the building and seize a foothold. The element leader directs the movement to the building along covered and concealed routes. He then directs a dismount team to enter the building at the highest point possible because—

(1) The ground floor and basement are usually the enemy's strongest point.

(2) The roof of a building is normally weaker.

(3) Fighting down the stairs is easier than fighting up the stairs (Figure 2).

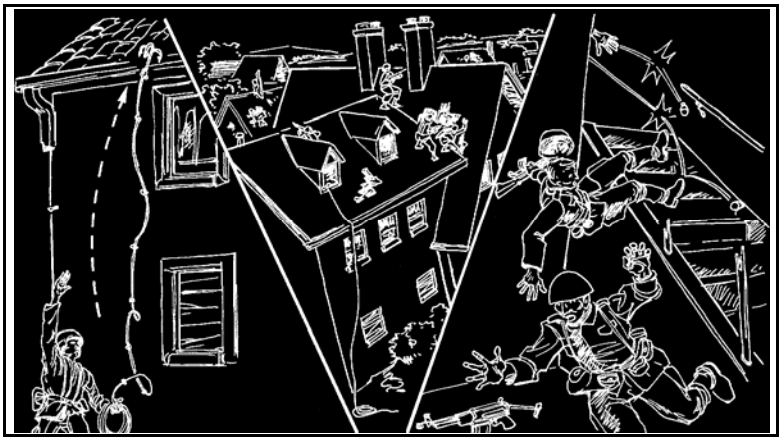


Figure 2. Fighting down stairs.

c. Clear the building (Figure 3). The dismount element leader directs an assault team (covered by fire) to the point of entry. One man throws a grenade into the room. After the explosion, the assault team enters, one man at a time, overwatched by the rest. The first man rushes in, firing his weapon in two- to three-round bursts, and takes a position that allows him to cover the whole room. The other men enter the room and make a quick, thorough search. One man remains inside the room to secure it.

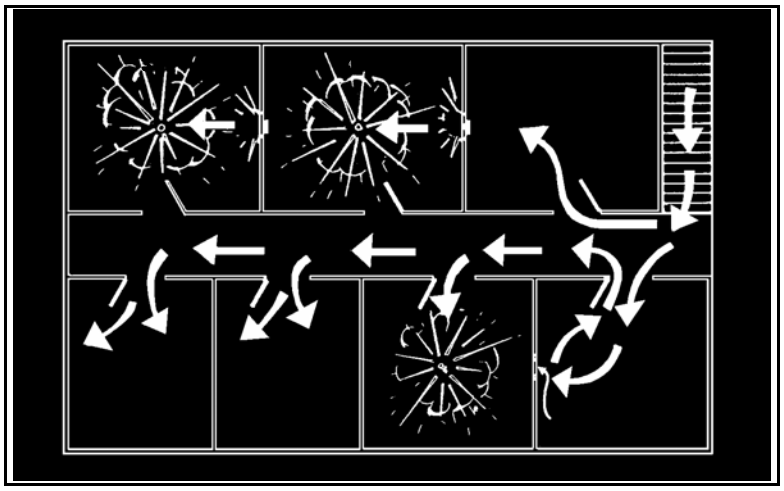


Figure 3. Clearing a building.

(1)The same procedure is repeated from room to room and floor to floor (including the basement, if there is one) until the building is clear of all enemy. Only then is it considered secured.

(2)If there is no covered route to the roof, have the dismount element enter at a lower story or at ground level (Figure 4). In this case, the fighting element seizes a foothold, quickly fights to the highest story, and then clears the building room by room from the top down.

Figure 4. Entering a building at ground level.

EVALUATION PREPARATION

Setup: Provide the squad leader a MOUT training site and an M2 Bradley squad with basic equipment needed to enter and secure a building.

Brief Soldier: Tell the squad leader he must organize his squad into teams to enter and secure a building and clear out all enemy soldiers.

EVALUATION GUIDE

Performance Measures	**Results**	
1. Organizes the squad.		
a. Designates a security element for the vehicle team.	P	F
b. Designates the dismount team into two- or three-man assault teams.	P	F
c. Designates a part of the dismount team as a demolitions team.	P	F

2. Isolates the building.	P	F
3. Seizes a foothold.	P	F
4. Clears the building.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	

Section V. 11M40 Skill Level Tasks

TACTICS

CONDUCT THE MANEUVER OF AN M2 BFV PLATOON
071-326-5912

CONDITIONS

As a platoon leader of an M2 BFV platoon under fire, conducting a movement to contact.

STANDARDS

Select a position for the base-of-fire element, direct fire of the base-of-fire element, and direct actions of the moving force.

TRAINING AND EVALUATION
Training Information Outline

Note: Fire and movement consists of two actions that take place at the same time. A base-of-fire element covers the movement of a moving force by firing at the enemy position. The moving force moves forward to either close with the enemy or to get to a better position from which to fire at the enemy.

1. Whenever possible, move the base-of-fire element undetected into a firing position. Positions for the base-of-fire element should be selected to allow fire support without having movement of the moving force mask the support fire. For this reason, positions selected for the base-of-fire element are often elevated and usually to the flank of the moving force.

2. When the base-of-fire element is in position, direct fires of the element to ensure the following takes place:

a. A heavy volume of fire is placed on the enemy position to destroy or suppress it.

b. When the enemy position is suppressed, the rate of fire is reduced but suppression continues.

c. When the moving force nears its objective, the rate of fire is increased to cause the enemy to stay down. This lets the moving force assault before the enemy has time to react.

3. When the assault begins, signal the base-of-fire element to cease fire, shift its fire to another target area, or, preferably, “walk” its fire across the objective in front of the moving force and then shift or cease its fire (Figure 1).

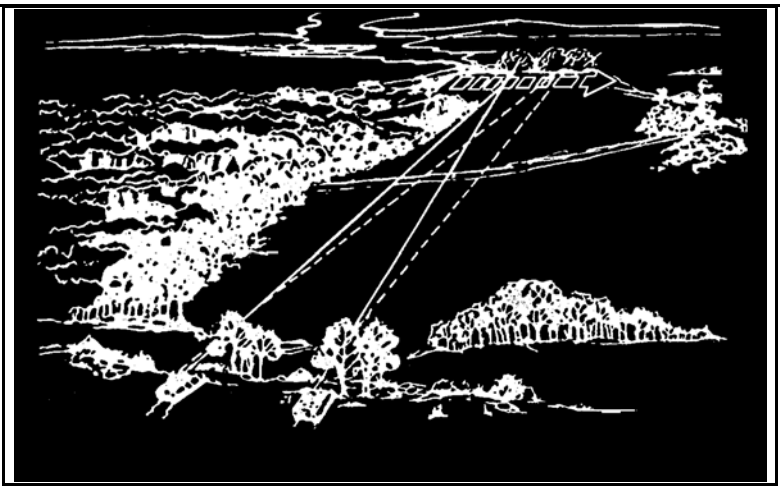


Figure 1. "Walking" fire across objective.

4. The base-of-fire element can deliver point fire or area fire in support of the moving force.

a. Direct point fire against a specific identified target such as a machine gun or antitank guided missile (ATGM) crew (Figure 2). All weapons are fired at the target. Spreading out the base-of-fire element aids in this type of fire because the fire is directed from multiple directions.

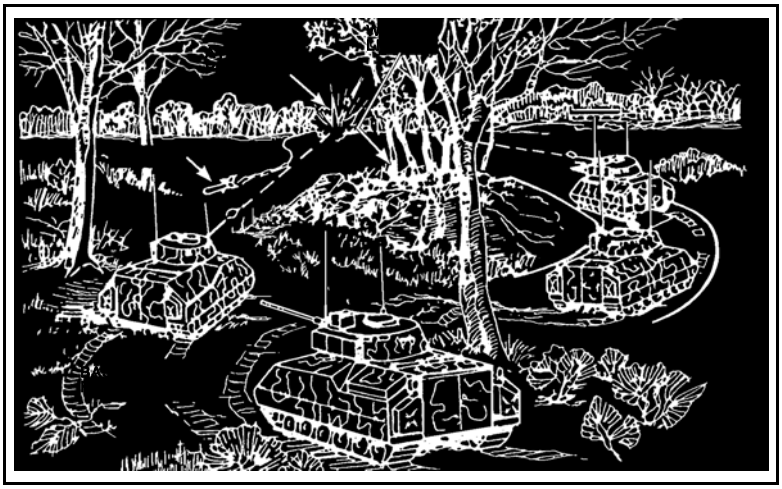


Figure 2. Point fire.

b. Distribute area fire over a larger area when enemy positions are less obvious (Figure 3, page 3-268). Each weapon or BFV in the base-of-fire element is given a specific part of the

target into which it fires. This is done to ensure that the entire target area is covered. Having the fighting vehicle element in the base-of-fire element, the element leader will mark or identify the target area orally or by tracer fire. Each of the three remaining BFVs takes one-third of the target area corresponding to its position in the base-of-fire element—left, middle, or right. The fighting vehicle element leader will not take a specific part of the target area with his vehicle's fire. He will observe and control the fire of the other three vehicles and fire only at targets of opportunity. Fire is distributed in width or depth to keep all parts of the target under fire. Fire is placed on likely enemy positions rather than into a general area.

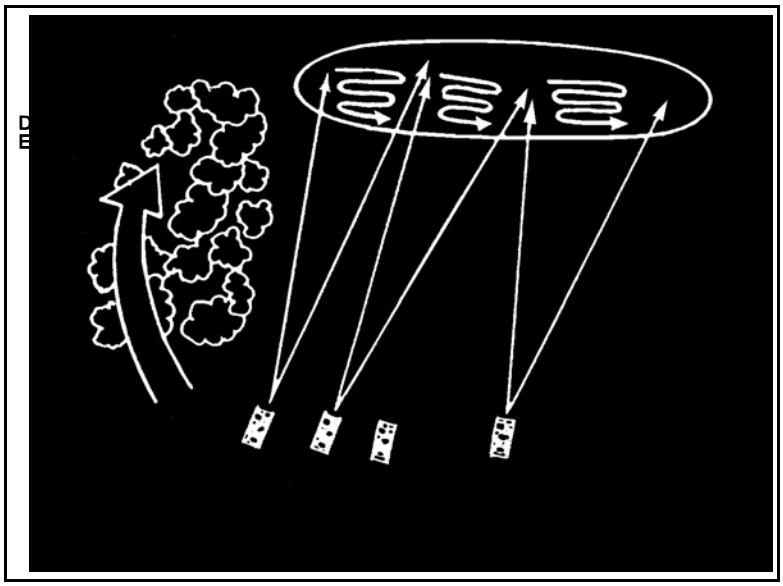


Figure 3. Area fire.

5. The moving force (mounted or dismounted) advances, covered by the base-of-fire element.

a. Have the dismount element leader determine how the force moves based upon the intensity of enemy fire. When it is receiving fire, the moving force moves using fire and movement internally. For example, one fire team advances while covered by the other two, or the fire teams fire and move internally with one man advancing while his buddy covers.

b. Maneuver the platoon's BFVs using techniques similar to the fire teams. Direct individual BFVs to maneuver while the rest of the fighting vehicle element serves as a base-of-fire element. The maneuver may also be accomplished by section (with two BFVs in the base-of-fire element), or by all four BFVs maneuvering at once. During the maneuver, BFVs provide a considerable portion of their own fire support using their stabilized turret weapons (25-mm gun and 7.62-mm coax machine gun).

EVALUATION PREPARATION

Setup: Provide the platoon sergeant or acting platoon leader with an M2 BFV platoon, a company movement to contact operation order, and a tactical situation.

Brief Soldier: Tell the leader that he is to direct the fire and movement of an M2 BFV platoon conducting a movement to contact.

EVALUATION GUIDE

Performance Measures	Results	
1. Selects position for base-of-fire element.	P	F
2. Directs fire of base-of-fire element.	P	F
3. Directs actions of moving force.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	FM 7-7J

CONDUCT MOVEMENT TECHNIQUES BY AN M2 BFV PLATOON WHILE MOUNTED 071-326-5911

CONDITIONS

As the leader of an M2 BFV platoon moving mounted in various tactical situations that require a change in formations.

STANDARDS

Select the formation that provides security, maximum firepower dispersion, and mutual support.

TRAINING AND EVALUATION
Training Information Outline

1. The four basic formations for movement are *column, line, echelon,* and *wedge*. These formations are an aid to command and control. The specific shape of the platoon formation is determined primarily by the mission, enemy situation, and terrain. The formation in which it is traveling prescribes its form only in a general way.

a. Select the column formation for road marches, for movement during limited visibility, and when passing through defiles or thick woods (Figure 1).

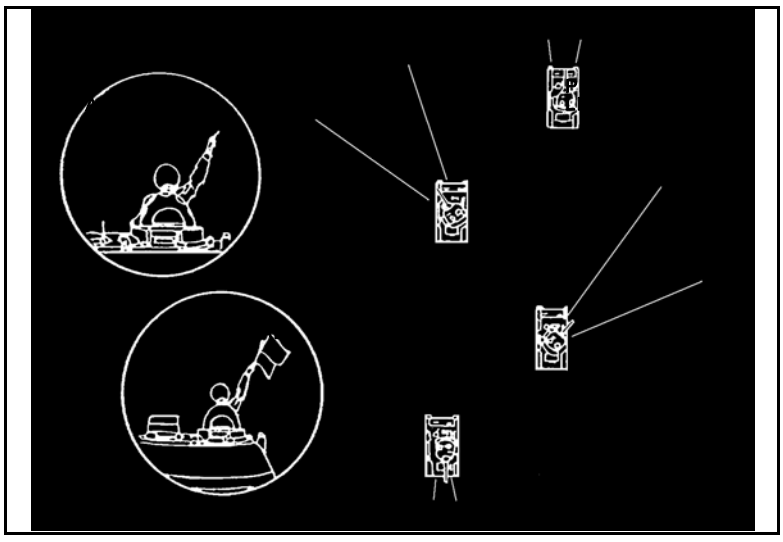


Figure 1. Column formation.

b. Select the line formation when assaulting an objective, crossing open areas, leaving a woodline, or emerging from smoke (Figure 2). Use this formation to cross an objective rapidly with maximum fire to the front. This formation lacks depth when compared to the column or wedge formations.

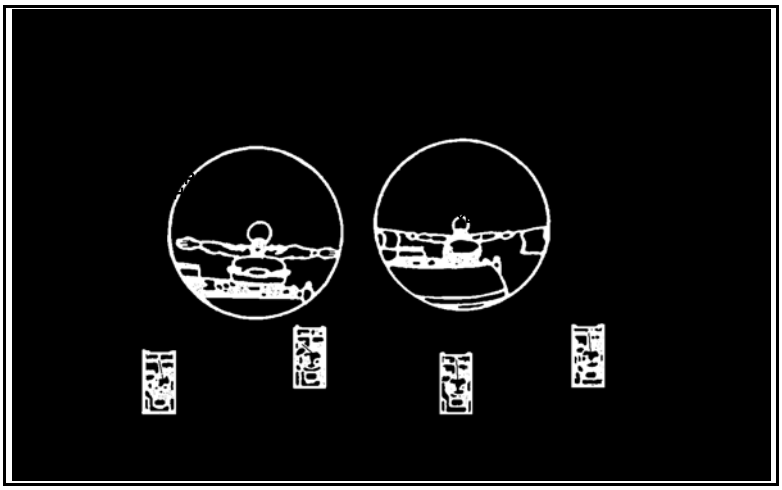


Figure 2. Line formation.

c. Select the echelon formation when it is necessary to cover an exposed flank of a larger force (Figure 3). This formation permits excellent firepower to the front and to either right or left flank.

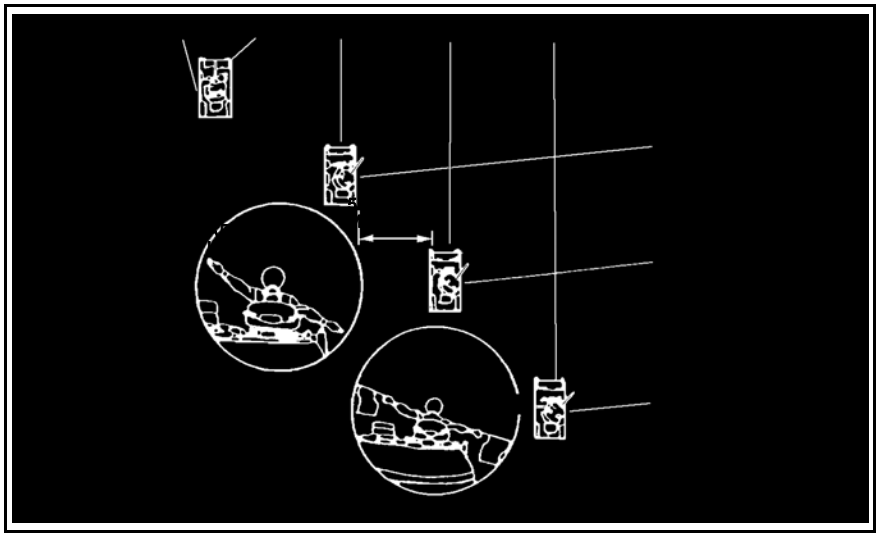


Figure 3. Echelon formation.

d. Select the wedge formation when the enemy situation is vague (Figure 4). This formation provides excellent fire to the front and good fire to each flank. It also allows control of the BFVs and rapid deployment into other formations. The orientation of the pairs is left and right. The platoon leader and platoon sergeant control the other BFV (wingman) of their pair by directing it to follow to the outside and to orient its weapons toward the flank.

Note: Although the depicted visual signal conforms to doctrine, it is not suitable. The configuration of the M2 turret makes it difficult for other BFV commanders to see the signal. An alternative, established by SOP, is to extend the arms upward at a 45-degree angle.

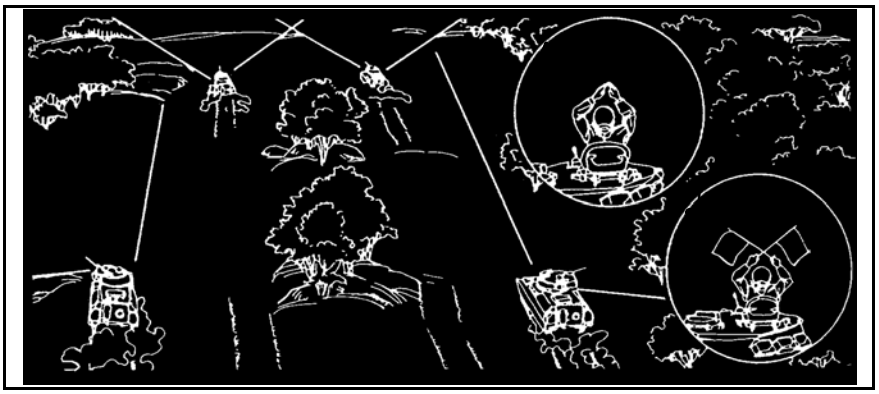


Figure 4. Wedge formation.

2. The two basic stationary formations are *herringbone* and *coil*.

a. When traveling in a column formation, select the herringbone formation to disperse the platoon (Figure 5). Direct this formation during an air attack or when the platoon must stop during movement. Direct the BFVs to be repositioned, as necessary, to take advantage of the best cover, concealment, and fields of fire as time permits. Direct fire teams to establish security during limited visibility or when the halt is more than temporary. Normally, this formation is executed without a radio command.

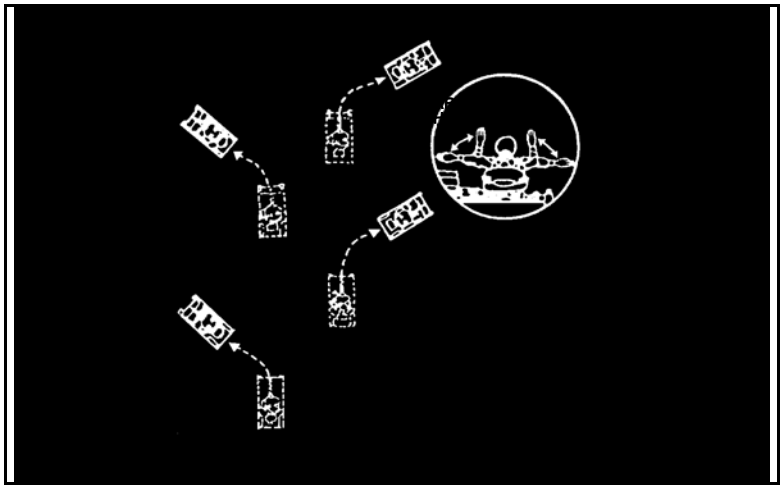


Figure 5. Herringbone.

b. Select the coil formation for tactical refueling and resupply (Figure 6). Do not use it for long periods during daylight, because it presents a lucrative target. Post security elements, to include air guards and fire teams, and ensure the BFV turrets are manned. The two methods to form a coil are as follows:

(1)When visibility is limited, the platoon leader forms the coil by leading the platoon in a circle. When the circle is completed, all BFVs stop, turn 90 degrees outward, and post security.

(2)The platoon leader signals his BFV to quickly move into position and stop. The other vehicles move directly to their assigned position according to the platoon's SOP, seek cover and concealment, and post security. This technique is used during daylight or whenever speed is required.

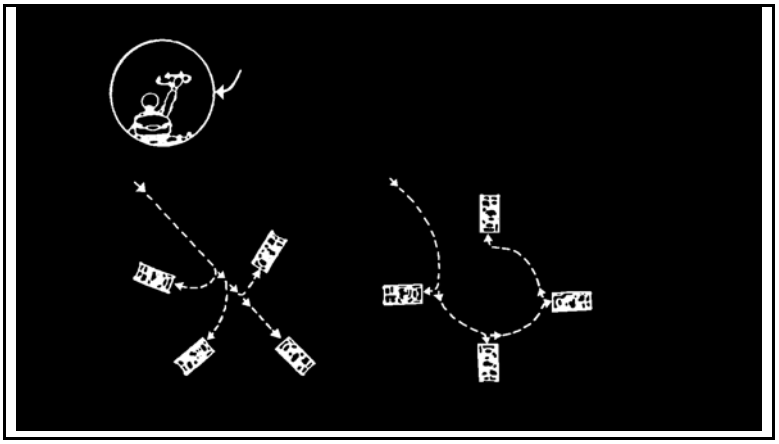


Figure 6. Coil.

EVALUATION PREPARATION

Setup: Provide the platoon sergeant or acting platoon leader a test site, and a flag set containing red, green, and yellow flags.

Brief Soldier: Tell the platoon sergeant or acting platoon leader he will be required to demonstrate the correct arm-and-hand signals for various tactical situations that require a change in formations.

EVALUATION GUIDE

Performance Measures	Results	
1. Gives correct signal and correct explanation of when column formation is used.	P	F
2. Gives correct signal and correct explanation of when line formation is used.	P	F
3. Gives correct signal and correct explanation of when echelon formation is used.	P	F
4. Gives correct signal and correct explanation of when wedge formation is used.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	FM 7-7J

CONDUCT A TACTICAL ROAD MARCH WITH A BFV PLATOON 071-326-3013

CONDITIONS

As an acting platoon sergeant/platoon leader, given a platoon with TOE weapons, personnel, equipment, operational vehicles with BII, a 1:50,000 military map of the road march area, a warning order, and an overlay of your route; under radio listening silence until detected or engaged or when a SPOTREP/STATREP must be sent.

STANDARDS

Within the time allowed in your warning order, conduct a tactical road march from one point to an assembly area, so that you plan, organize, and control the road march and secure the assembly area.

TRAINING AND EVALUATION
Training Information Outline

1. Planning sequence for a tactical road march.
   a. Prepare and issue your warning order.
   b. Prepare an estimate of the situation.
   c. Organize and dispatch reconnaissance and quartering parties IAW unit SOP.
   d. Prepare detailed movement plans.
   (1)Organize the march.
   (2)Review reconnaissance information.
   e. Prepare and issue the complete march order.

2. Issuing the march order. The order includes the following:
   a. Destination (map).
   b. Route of march (map).
   c. Location of start point (SP), critical points, and release point (map).
   d. Start point time.
   e. March interval (in meters).
   f. March speed.
   g. Catch-up speed.
   h. Time and location of scheduled halts.
   i. Time to leave present position.
   j. Order of march.

3. Organizing the march.

a. March columns, regardless of size, are composed of three elements: *head*, *main body*, and *trail*.

(1)The head is the first vehicle of the column and normally sets the pace.

(2)The main body is made up of the major elements of column serials and march units.

(3)The trail party follows the march column and includes personnel and equipment needed for emergency vehicle repair and recovery, medical aid and evaluation, and unscheduled refueling.

b. Ensure that vehicle commanders assign sectors of observation so that there is 360-degree observation around their vehicles. Each vehicle commander must designate an airguard to provide air security.

4. Controlling the march.

a. Route of march. The route for your section to follow is designated in your warning order.

b. Start point. Your section enters the route of march at the SP and moves under control of the platoon leader.

c. Critical point. Places where movement will be slow or difficult or where vehicles may lose their way are critical points.

d. Release point. At the RP, you release your section to their mission responsibilities.

e. March speed and catch-up speed. These are specified in your warning order.

f. Order of march. This includes order of squads in the column and vehicles in the section.

g. March interval. This is the distance to be maintained between vehicles.

h. Closed column. This is the distance (SOP) used at night or in fog for better control of column.

i. Open column. This is the distance (SOP) maintained in daylight for dispersion of vehicles.

5. Actions at halts.

a. Establish security off-road (when possible).

b. Man weapons and radio on each vehicle; ensure each vehicle sector is observed.

c. Maintain air guard.

d. Dismount OP if visibility is poor.

e. Post guides to help other traffic pass.

f. Determine cause of halt (if unscheduled).

g. Eliminate cause of halt.

h. Report status to platoon leader/troop commander.

i. Perform maintenance at scheduled halts.

6. Actions in assembly area.

a. Quartering party NCO guides section/platoon into area.

b. Section/platoon clears release point quickly.

c. One man for each vehicle mans weapon, monitors radio, and observes vehicle sector.

d. Set up OPs.
e. Check primary positions and sectors; adjust if necessary.
f. Camouflage positions.
g. Start rest plan.
h. Prepare range cards.
i. Locate troop command post.
j. Coordinate with flank elements.
k. Select and prepare alternate positions.
l. The platoon leader prepares the platoon fire plan, briefs the TCs, and sends a copy of the plan to troop commander.
m. Perform maintenance.
n. Check personnel and equipment status; report to platoon leader/team/troop commander.
o. Resupply.
p. Check security.

SELF-EVALUATION GUIDE

1. What is the planning sequence for a tactical road march?

2. March columns, regardless of size, are composed of what three elements?

3. What is the purpose of the trail party?

4. What must each vehicle have to provide air security?

5. What is the job of the quartering party NCO in the assembly area upon arrival of the march column?

6. If the march column comes to an unscheduled halt, what actions must you take?

7. In addition to the march speed, what other speed must be covered in your order?

FEEDBACK

If you answer 5 of the 7 questions correctly, score yourself a GO. If you miss 3 or more questions, score yourself a NO-GO. A NO-GO indicates that more work on this task is required.

REFERENCES

Required	**Related**
None	FM 17-95

ANSWER SHEET

1. Planning sequence:
   a. Prepare and issue warning order.
   b. Prepare estimate of the situation.
   c. Organize and dispatch reconnaissance and quartering parties.
   d. Organize the march.
   e. Review reconnaissance party information.
   f. Prepare and issue the complete march order.

2. The head, the main body, and the trail element.

3. To perform emergency vehicle repair and recovery, medical aid, and unscheduled refueling.

4. An air guard.

5. To guide sections/platoons into their areas.

6. Determine the cause of the halt, and eliminate the cause of the halt.

7. The catch-up speed.

PREPARE A PLATOON SECTOR SKETCH
071-326-5770

CONDITIONS

Given a defensive sector, mortar final protective fire (FPF) assigned to the platoon-size element, paper, a map, and pencils. Provide positions for crew-served weapons and medium antitank weapons.

STANDARDS

The sector sketch is drawn as closely as possible to scale showing—

1. The platoon sector.

2. Squad positions (as applicable).

3. Dragon and machine gun positions, with primary sectors of fire for each.

4. Machine gun final protective lines (FPLs) or principal direction of fire (PDF).

5. Observation posts (OPs).

6. Target reference points (TRPs) (if applicable).

7. Mines and other obstacles.

8. Indirect-fire target locations.

9. Indirect-fire FPF location.

10. The location of the platoon command post (CP) and the OP.

11. The unit designation (no higher than company level) and the date-time group.

Note: The parts of the sector sketch described above are the basic ones needed to make the sketch meaningful. The unit SOP or the commander may require more detail.

TRAINING AND EVALUATION
Training Information Outline

1. The platoon sector sketch assists the company or perimeter commander in preparing a company or perimeter fire plan. It also assists the platoon leader in shifting fires within the platoon sector without moving around to determine which weapon can fire into a certain area. If part of the platoon's area is threatened, the platoon leader can consult the sector sketch and quickly determine which weapons can cover the threatened area, and from which positions. The platoon leader can then direct (by radio, voice, or SOP signals) that their fires be shifted to the threatened area or he can instruct them to move to alternate or supplementary positions.

2. The sector sketch is made as follows:

a. Machine guns are assigned primary and secondary sectors of fire. Within the primary sector, the gunner is assigned an FPL or PDF, as appropriate.

b. Each medium antitank weapon that is to cover the primary sector of fire is normally assigned a primary position and one or more alternate firing positions. Only primary positions with primary sectors of fire are shown on the sketch. If a supplementary position is assigned, it should be added to the sketch at the time it is assigned.

Note: Secondary sectors of fire from the primary position may be included if so ordered by the unit commander.

c. TRPs are labeled IAW unit SOP. They are plotted on an overlay to help identify target locations and to aid the control of direct and indirect fires. They should be plotted using man-made objects or terrain features within the platoon area. Indirect fires must be coordinated with the forward observer.

d. An FPF assigned to a platoon or element should be positioned across the most dangerous avenue of approach. The company or perimeter commander has final control of FPF placement, but he may ask for a recommendation from the platoon leader.

e. Any obstacle in the platoon area (stream, defile, dense woods, buildings) should be noted on the overlay. Man-made obstacles, such as minefields and defensive wire, are noted with the appropriate military symbol.

3. The sample sector sketch fire plan in Figure 1 incorporates all the above listed points as taken from the squad sector sketches.

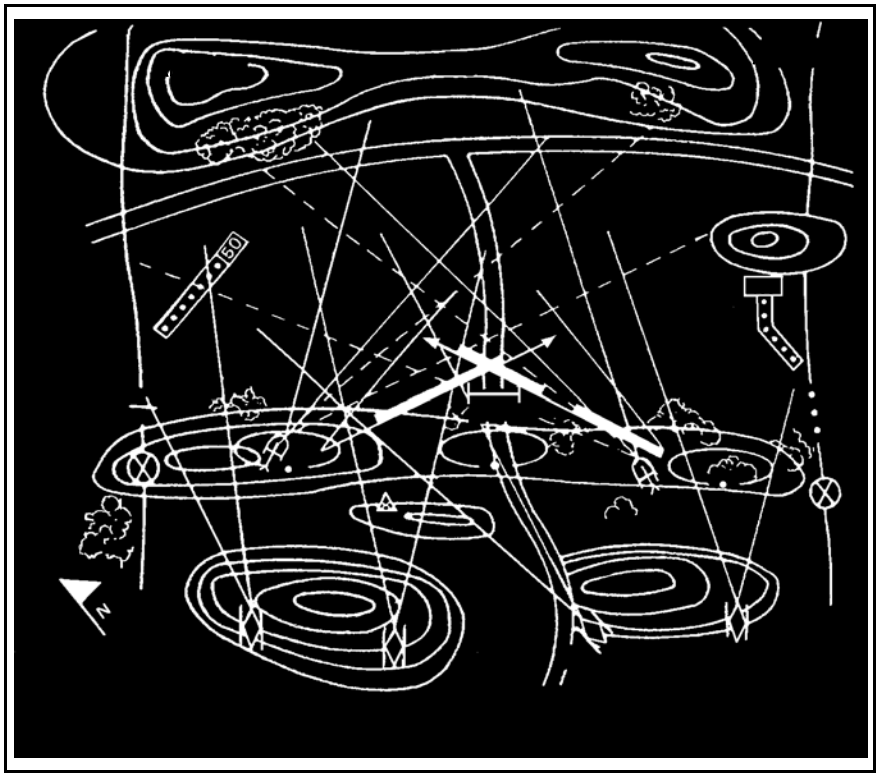


Figure 1. Sample light infantry platoon sector sketch.

EVALUATION PREPARATION

Setup: At the test site, provide all materials and equipment given in the task conditions statement. Provide positions for all crew-served weapons assigned to the platoon-size element.

Brief Soldier: Tell the element leader he will prepare a sector sketch to include an overlay. The sketch will include sectors of fire of all weapons available to his element, plus any other information that will help him prepare his sector sketch.

EVALUATION OUTLINE

Performance Measures	**Results**	
1. Shows the entire element's sector in the sector sketch.	P	F
2. Shows the primary sectors of fire for the machine guns.	P	F

Performance Measures	Results	
3. Shows each Dragon's primary sector of fire.	P	F
4. Shows the assigned Dragon supplementary positions.	P	F
5. Labels the target reference point(s).	P	F
6. Plots the target reference point(s) using identifiable terrain features.	P	F
7. Shows the final protective fires.	P	F
8. Shows constructed or emplaced obstacles that are in the element's area.	P	F
9. Shows observation and command posts.	P	F
10. Shows the unit's designation and date-time group.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Recommended
None	FM 7-7
	FM 7-8
	FM 101-5-1

CONDUCT OCCUPATION OF AN ASSEMBLY AREA 071-410-0012

CONDITIONS

Given a platoon entering an assembly area.

STANDARDS

Receives and issues the order to occupy the assembly area. Directs preparations and properly completes the operation. Spot-checks to ensure that the assembly area is secured.

TRAINING AND EVALUATION
Training Information Outline

1. Issue the order to occupy the assembly area. The order should be clear and concise and should provide all the details necessary for the squad leaders to accomplish their tasks.

2. Ensure local security is posted and tied in with adjacent units.

3. Ensure the crew-served weapons and the vehicles assigned to the platoon are placed where they can be best used.

4. Ensure communication is established within the platoon and to the company CP. Wire and radio communications should be working, and radio listening silence should be observed at the platoon level.

5. Ensure all avenues of approach into the position are covered. Look for dead space and make sure it is covered.

6. After the position is occupied, ensure work is started to improve the position and range cards and sector sketches are begun.

7. Ensure the unit starts to prepare for the next mission as soon as it enters the assembly area.

EVALUATION PREPARATION

Setup: This task should be evaluated during a field training exercise. Otherwise, assign an assembly area to be occupied and a quartering party that has accomplished its tasks according to the company and platoon SOP.

Brief Soldier: Issue an operation order for an operation requiring the occupation of an assembly area.

EVALUATION GUIDE

Performance Measures	Results	
1. Receives order.	P	F
2. Issues order to platoon.	P	F
3. Checks security.	P	F
4. Checks emplacement and employment of crew-served weapons and vehicles.	P	F
5. Checks communications.	P	F
6. Checks coverage of dead space and avenues of approach.	P	F
7. Starts improvements on positions.	P	F
8. Prepares for the next mission.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	FM 7-7
	FM 7-7J
	FM 7-8

CONSOLIDATE A PLATOON FOLLOWING ENEMY CONTACT WHILE IN THE DEFENSE
071-430-0007

CONDITIONS

As a platoon sergeant/acting platoon leader of a platoon defending as part of a larger unit, given that your platoon has just repelled an enemy assault.

STANDARDS

Consolidate the position following enemy contact in preparation for a counterattack.

TRAINING AND EVALUATION
Training Information Outline

In consolidation in the defense, when an enemy assault is repelled, immediately prepare the platoon to meet a renewed assault. To accomplish this task, perform the following actions.

1. Reestablish local security. If the observation post(s) (OP) withdrew to the defensive position, send them back out. If they did not get back, check their status and take appropriate action to get another OP(s) established as soon as possible.

2. Use snipers—this is a good time for them to be active. They may be employed with the OP(s) or at a vantage point on or behind the defensive positions.

3. Restore camouflage and improve positions. Take care not to over-camouflage a position. If it was not found during the first assault, chances are it will not be found during the next try.

4. Reestablish communication. Check the wire to ensure it was not cut during the attack. Change pyrotechnic signals if the enemy may have learned what they mean.

5. If the enemy withdraws far enough, and if time permits, replace obstacles, mines, and early warning devices. This is a risky task, especially if the enemy has snipers. Troops must be careful. Request smoke to cover their movement, or have them wait until darkness to move.

6. Reposition fighting positions and weapons positions. If the platoon has just repelled an attack, the enemy may have found some of the positions. Reposition those that have been compromised.

7. Reassign sectors of fire to ensure that all gaps caused by the evacuation of casualties are covered and that the firing positions remain mutually supporting.

8. Implement sleep and alert plans as soon as feasible.

EVALUATION PREPARATION

Setup: The evaluation of this task requires a platoon in an established defensive position and a communications network.

Note: This task should be evaluated during field training.

Brief Soldier: Inform the soldier that he is the platoon sergeant of a platoon that has just repulsed an enemy attack.

EVALUATION GUIDE

Performance Measures	Results
1. Reestablishes local security.	P F
2. Restores positions to include camouflage.	P F
3. Reestablishes communications within the platoon.	P F
4. Repositions fighting positions.	P F
5. Reassigns sectors of fire to cover all gaps.	P F
6. Implements sleep and alert plans.	P F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier scores NO-GO, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	FM 7-7
	FM 7-8

REORGANIZE A PLATOON FOLLOWING ENEMY CONTACT WHILE IN THE DEFENSE
071-430-0008

CONDITIONS

As a platoon sergeant/acting platoon leader of a platoon defending as part of a larger unit, given that your platoon has just repelled an enemy assault.

STANDARDS

Reorganize the element in the defense following enemy contact.

TRAINING AND EVALUATION
Training Information Outline

1. The platoon leader must plan the required reorganization of the platoon and consolidation of the objective, and he must include the plan in his order to the squad leaders. The plan is tentative and flexible and may be changed as the situation requires, but it must be complete and as detailed as possible.

2. Reorganization is the restoration of order within the unit and the preparation of the unit for further combat. The preparation should—

a. Reestablish the chain of command. Fill all key positions from the remaining element members and ensure that all members are made aware of the new chain of command.

b. Evacuate the dead and seriously wounded. Ensure all positions remain mutually supporting. Check all sectors of fire after the casualties are evacuated to ensure the sectors remain covered. If necessary, shift positions or reassign sectors to cover the gaps.

c. Redistribute or resupply ammunition, weapons, and fuel. Ensure the squad leaders pass out additional ammunition, if available, or divide the remainder equally. Take a quick inventory and request a resupply, if necessary.

d. Ensure all prisoners of war (PW), enemy material, and enemy information are collected, reported, and evacuated, if possible.

e. Ensure all crew-served weapons are manned and positioned on likely avenues of approach.

f. Give the team, company, or perimeter commander a situation report (SITREP) that includes the tactical situation, personnel strength, ammunition, and enemy strengths and captured documents.

EVALUATION PREPARATION

Setup: The evaluation of this task requires a platoon in an established defensive position, simulated casualties (to include squad leaders), simulated PWs, simulated destroyed crew-served weapons, blank ammunition, and a communications network.

Note: This task should be evaluated during field training.

Brief Soldier: Inform the soldier that he is the platoon sergeant of a platoon that has just repulsed an enemy attack.

EVALUATION GUIDE

Performance Measures	Results	
1. Reestablishes the chain of command.	P	F
2. Evacuates the dead and wounded.	P	F
3. Redistributes or resupplies ammunition and weapons.	P	F
4. Ensures all crew-served weapons are manned.	P	F
5. Collects and evacuates all Pws.	P	F
6. Provides SITREP to higher headquarters.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	FM 7-7
	FM 7-8

CONDUCT A DEFENSE BY A PLATOON DURING MOUT 071-440-0009

CONDITIONS

As a platoon sergeant/acting platoon leader of an infantry platoon, given one to three buildings to prepare for defense in urban terrain, a rifle platoon (+ or –) with all TOE weapons, equipment, ammunition, hand grenades, explosives, and construction material (for example, sandbags or timbers).

STANDARDS

Select and prepare key weapon positions and individual rifleman positions to repel an attack or counterattack and prevent infiltration of the building.

TRAINING AND EVALUATION
Training Information Outline

1. Select building(s) to defend.

a. Upon being given the area to defend, determine where the defense will be set up. A rifle platoon will normally defend using one to three buildings. How many buildings used depends on the size, strength, and layout of the buildings. Consider the following points when selecting buildings for defense.

(1)*Protection*. Reinforced concrete or brick buildings protect best. A reinforced cellar is good. Avoid wooden buildings when possible.

(2)*Dispersion*. It is better to have a position in two or three mutually supporting buildings than in one building.

(3)*Concealment*. Avoid obvious positions, especially at the edge of an urban area.

(4)*Fields of fire*. Positions should have good fields of fire in all directions.

(5)*Observation*. The building(s) should permit observation into the adjoining defensive positions.

(6)*Covered routes*. These are used for movement and resupply. The best covered routes are through or behind a building(s).

(7)*Fire hazard*. Avoid buildings that will burn easily.

(8)*Time*. Buildings needing much preparation are undesirable when time is short.

b. Once you have picked the building(s) to defend, select positions for the key weapons within the platoon.

2. Select and prepare positions.

a. M60 machine gun, M249. In the defense, machine guns are best used to cover streets and alleys with grazing fire. Plan final protective lines or a principal direction of fire to exploit the longest unobstructed fields of fire (Figure 1). Whenever possible, emplace machine guns at the lowest level of the building to attain grazing fire (Figure 2). Consider emplacing machine guns in basement windows or loopholes in walls. If fields of fire are blocked by rubble, plunging fires may be attained at higher levels.

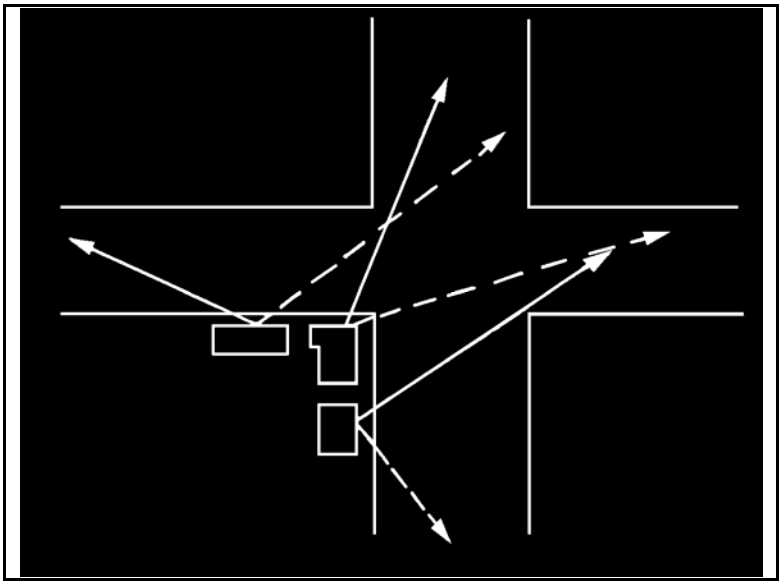


Figure 1. Machine gun final protective lines.

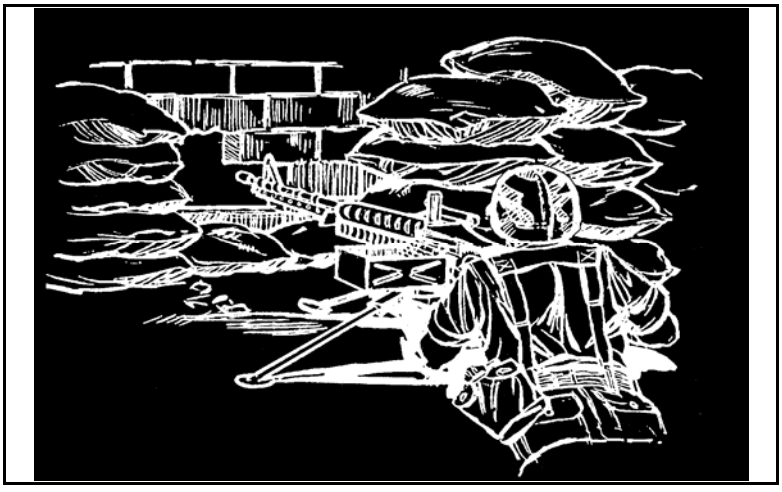


Figure 2. Machine guns at lowest level of building.

b. TOW, Dragon, AT4, or LAW. Position the antitank weapons, whether within the platoon or attached, on upper stories for longer range, coverage, and to permit firing at the deck of tanks (Figure 3).

Figure 3. Antitank weapon positions on upper stories.

(1)Consider backblast in employing these antitank weapons.

(2)None of the antitank weapons described here can be fired from an unvented or completely enclosed room. For them to be fired from inside a building, the following conditions must be met:

(a)The building must be of sturdy construction.

(b)The ceiling must be at least 7 feet high.

(c)The floor size of the room must be at least 17 by 24 feet for TOW, 15 by 12 feet for Dragon, and there must be 4 feet for a LAW/AT4 backblast.

(d)There must be at least 20 square feet of ventilation (room openings) to the rear of the weapon. An open 7- by 3-foot door would provide adequate ventilation.

(e)All glass must be removed from windows, and all loose objects removed from the room.

(f) All soldiers within the room must be forward of the rear of the weapon.

(g)All soldiers in the room must protect their ears when the weapon is fired.

(h)The clearance between the muzzle of the weapon and the opening it is fired from should be 9 inches for a TOW and 6 inches for a Dragon (Figure 4).

Figure 4. Muzzle clearance.

(3)As stated earlier, the LAW, AT4, and Dragon are best employed from the upper stories to attain the longest fields of fire. When deciding whether to dismount the TOWs, consider the advantages of long range versus the disadvantages of loss of mobility.

(4)When emplacing the TOW or Dragon, consider the 65-meter minimum firing distance (arming distance).

3. Prepare positions in building(s).

a. When defending from more than one building, pick a point within one of the buildings to be the control center. Run phone lines from the control center to the other building(s), burying them when possible and at least concealing them. Hide radio antennas by placing them out windows and next to the sides of the building.

b. The platoon's food, water, and ammunition may be stockpiled at each defensive position or at the control centers in each building.

c. When easily obtained, the floors of the rooms being defended should be covered with a light layer of dirt. (Do not place dirt on floor of rooms from which antitank weapons will be fired.)

d. Reinforce and camouflage all firing positions. Dusty areas can be wet down with water to keep dust from rising when weapons are fired (Figures 5 and 6).

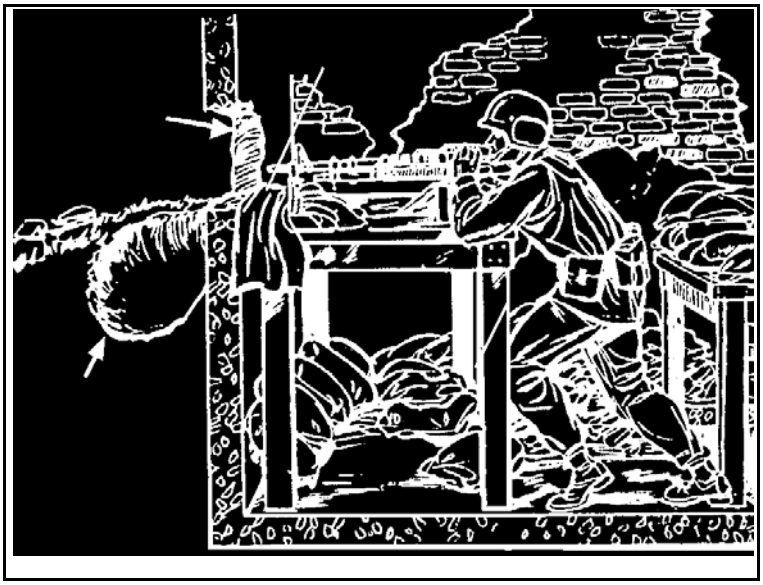


Figure 5. Reinforced firing position.

Figure 6. Dusty areas wet down to control dust.

4. Prepare outside of building(s).

a. When preparing the outside of the building(s), consider using mines and or obstacles to cover dead space and to keep the enemy from using streets, alleys, or rooftops.

b. When possible, cover mines and obstacles by fire.

EVALUATION PREPARATION

Setup: Provide a test site with all the materials and equipment indicated in the task conditions statement.

Brief Soldier: Tell the soldier that he will select key weapon positions in a designated building. Tell the soldier that he will prepare a key weapon position.

EVALUATION GUIDE

Performance Measures	Results	
1. Selects buildings to defend.		
a. Determines where defense will be set up. Evaluates—		
(1)Protection.	P	F
(2)Dispersion.	P	F
(3)Concealment.	P	F
(4)Fields of fire.	P	F
(5)Observation.	P	F
(6)Covered routes.	P	F
(7)Fire hazard.	P	F
(8)Time.	P	F
b. Selects key weapon positions.	P	F
2. Selects and prepares positions.		
a. M60 machine gun.	P	F
b. TOW, Dragon, LAW.	P	F
3. Prepares positions in building.		
a. Picks control center and establishes phone lines.	P	F
b. Stockpiles food, water, and ammunition.	P	F
c. Covers floors with dirt (if no antitank weapons will be fired there).	P	F
d. Reinforces and camouflages firing positions.	P	F
4. Prepares outside of building.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	7-8
	FM 90-10-1

CONDUCT A RELIEF
071-450-0027

CONDITIONS

In a tactical environment, as the acting platoon leader in a BFV platoon, given a mission to conduct a relief as part of the company.

STANDARDS

The platoon's specified and implied task received and analyzed from the company's operation order is accomplished. A warning order is issued to start initial preparation and movement.

TRAINING AND EVALUATION
Training Information Outline

1. The plan for the relief considers the subsequent mission for both the relieved and relieving platoon.

2. Detailed planning is executed concerning the time required to conduct the relief.

3. The plan allows for both a daylight and night reconnaissance so that all leaders are able to identify positions, routes, and assembly areas.

4. Planning considered as a minimum:
   a. Times for starting and completing the platoon's routes.
   b. Routes, guides, and assembly areas for each squad/section.
   c. Critical control measures (that is, signals, contact points, checkpoints).
   d. Sequence of squad/section relief.
   e. Maximum use of limited visibility.
   f. Adjustment for dissimilarities in unit equipment.
   g. Provisions to maintain unit and tactical integrity
   h. When change of sector responsibility would occur.
   i. Assembly areas and appropriate of guides.

5. Supervision for the relief included rehearsal of all approved phases of the plan when time, troop availability, and tactical situation allowed.

EVALUATION PREPARATION

Setup: This task will be evaluated during the conduct of a platoon or larger tactical exercise. The fire team or BFV section will maneuver as part of the platoon or larger element conducting a movement to contact or deliberate relief in place.

Brief Soldier: Tell the soldier that he is the platoon leader moving as part of a larger element of the company. Upon contact the soldier must maneuver the platoon/section and conduct a deliberate relief in place.

EVALUATION GUIDE

Performance Measures	Results	
1. Conducts movement minimizing use of checkpoints and without massing troops.	P	F
2. Exchanges current enemy information between leaders.	P	F
3. Accomplishes communications security through the use of wire.	P	F
4. Exchanges range cards, target lists, and sector sketches with the incoming squad/section and platoon leaders.	P	F
5. Transfers key weapons where identified and coordinated.	P	F
6. Coordinates and transfers all classes of supplies.	P	F
7. Accomplishes and coordinates responsibility for sector as planned.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	FM 71-1
	FM 7-20

CONDUCT AN ATTACK BY A PLATOON DURING MOUT
071-440-0012

CONDITIONS

As a platoon sergeant/acting platoon leader of an infantry platoon, directed to conduct an attack in urban terrain; given a rifle platoon with all TOE weapons and equipment, to include ammunition, hand grenades, LAWs, Dragons, and any special weapons (for example, flame weapons, shape charges, and explosives).

STANDARDS

Organize the platoon into an assault force and a support force and brief the forces on their mission.

TRAINING AND EVALUATION
Training Information Outline

Note: The composition of the support force or the assault force will vary according to the situation and the platoon's mission.

1. Organize the rifle platoon into two forces.
   a. Select the assault force.
   (1)The assault force will normally consist of two rifle squads (+ or –) carrying only the fighting-load components of their load-carrying equipment, with a maximum load of ammunition, extra hand grenades, and LAWs. The platoon leader or acting platoon leader will move with the assault elements.
   (2)Once the assault force enters its assigned building, it splits into smaller assault or support teams to search and secure the building. This action provides a support/securing team for the assault force inside the building.
   b. Select the support force. The support force will consist of the platoon sergeant and the remaining squad (+ or –) carrying only the fighting-load components of their load-carrying equipment, with a maximum load of ammunition and hand grenades. In addition, the squad will have two machine guns, three Dragons or LAWs, and flame weapons.

2. Designate additional or special weapons. The following will dictate when a platoon will have additional or nonorganic weapons attached.
   a. The platoon's mission.
   b. The number of troops and types of weapons the platoon has to cover its sector of fire.
   c. Whether the platoon is expected to be attacked by enemy armor vehicles.
   d. Whether the platoon's position offers good fields of fires against distant enemy targets.

3. Assign responsibilities to the support and assault forces.
   a. The support force will—
   (1)Occupy an overwatch position to support the assault force.
   (2)Isolate the objective or building to prevent the enemy from resupplying, reinforcing, or escaping.
   (3)Adjust indirect fire to suppress enemy fire.
   b. The assault force will—
   (1)Assault a building to enter and seize a foothold.
   (2)Search and clear the building room by room.
   (3)Mark all searched and cleared rooms.

EVALUATION PREPARATION

Setup: Provide a test site with the materials and equipment as indicated in the task conditions statement.

Brief Soldier: Tell the soldier that he will be acting as a platoon leader. Tell the soldier that he will organize the platoon into an assault force and a support force and brief the forces on their mission.

EVALUATION GUIDE

Performance Measures	**Results**	
1. Organizes the rifle platoon into two forces.		
a. Selects the assault force. (The assault force normally consists of two rifle squads [+ or –]).		
(1)Platoon leader moves with assault force.	P	F
(2)Enters building and splits into smaller assault or support teams.	P	F
b. Selects the support force (normally consists of the remaining squad [+ or –]). Platoon sergeant moves with support force.	P	F
2. Designates additional or special weapons. Determines if platoon will have weapon attached.		
a. Mission.	P	F
b. Number of troops and types of weapons available.	P	F
c. If attack is expected.	P	F
d. Position and fields of fire.	P	F

Performance Measures	Results	
3. Assigns responsibilities to support and assault forces.		
a. The support force—		
(1)Occupies overwatch position.	P	F
(2)Isolates objective or building.	P	F
(3)Adjusts indirect fire.	P	F
b. The assault force—		
(1)Assaults building.	P	F
(2)Searches and clears room by room.	P	F
(3) Marks all cleared rooms.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	FM 7-8

CONDUCT A DEFENSE BY AN M2 BFV PLATOON DURING MOUT 071-440-0019

CONDITIONS

As the leader of an M2 Bradley platoon that is part of a larger force defending in urban terrain, given a sector to defend.

STANDARDS

Employ the fighting vehicle teams and dismount teams in their proper roles. Position the platoon, using the urban terrain to maximize weapons capabilities.

TRAINING AND EVALUATION
Training Information Outline

Building the platoon's defense around the M2 in urban areas is more difficult than in other types of terrain, but the fighting vehicle element's role is still important. A platoon normally defends from positions in one to three buildings.

1. To maximize the capabilities of the dismount and fighting vehicle teams, assign missions for which they are suited. Typical missions for the dismount element in defensive military operations in urban terrain (MOUT) include—
   a. Preparing defensive positions.
   b. Emplacing demolitions and obstacles (supported by combat engineers).
   c. Observing to provide security and prevent enemy infiltration.
   d. Engaging and defeating assaulting enemy forces.
   e. Acquiring targets for engagement by tanks and M2 weapons.
   f. Protecting tanks and M2s from close-in antiarmor weapons.

2. Execute typical missions for the fighting vehicle element in the MOUT defense, to include—
   a. Providing fire support for the dismount teams and mutual support to other M2s.
   b. Destroying enemy armored vehicles and direct-fire artillery pieces.
   c. Neutralizing or suppressing enemy positions with 25-mm automatic gun and 7.62-mm coax machine gun fire in support of local counterattacks.
   d. Destroying or making untenable enemy footholds by fire of the vehicle weapons systems.
   e. Providing rapid, protected transport to the dismount teams, as required.
   f. Reinforcing threatened areas by movement through covered and concealed routes to new firing positions.

g. Providing mutual support to other antiarmor fires.
h. Covering obstacles by fire.
i. Providing smoke screens with the M2 smoke screen generator.
j. Resupplying ammunition and other supplies to the dismount teams.
k. Evacuating casualties.

Note: Weigh the overall value of the M2 to the defense against the need to resupply or evacuate casualties.

3. When you select where and how you are going to defend, consider the following:

a. Protection. Reinforced concrete and brick buildings provide the best protection. A reinforced cellar is especially good. Avoid wooden buildings.

b. Dispersion. It is better to have positions in two mutually supporting buildings than in one building that can be bypassed.

c. Concealment. Buildings provide excellent concealment. Avoid obvious positions, especially at the edge of an urban area, because they are the most likely to receive the heaviest enemy fire.

d. Fields of fire. Positions should have good fields of fire in all directions. Wide streets and open areas, such as parks, may offer excellent fields of fire.

e. Observation. The buildings selected should permit observation into the adjacent sector. The higher stories may offer the best observation, but they may also attract enemy fire.

f. Covered routes. Routes that go through or behind buildings are best.

g. Fire hazard. Avoid buildings that will burn easily.

h. Time. Buildings that need extensive preparation are undesirable for defense when time is short.

i. Strength. Buildings in which M2s or tanks are to be placed must be able to withstand the weight of the vehicles and the effects of firing their weapons.

4. Position fighting vehicle teams and dismount teams once you pick the building(s) you will defend. Position dismounted machine guns to have grazing fire, when possible. Position Dragons and light antitank weapons (LAWs) on upper stories for long range and to permit firing at the tops of tanks. Designate primary and, if feasible, supplementary and alternate positions for dismount teams and fighting vehicle teams. These positions should permit continuous coverage of the primary sector and all-round defense.

5. Integrate the M2 into the platoon sector sketch. The 25-mm automatic gun and 7.62-mm coax machine gun fields of fire should cover streets and open areas. Once placed in position, M2s should not be moved for logistical or administrative functions. Other vehicles should accomplish these functions, when possible.

6. Use the 25-mm automatic gun and the 7.62-mm coax machine gun more than the TOW, due to the close engagement ranges on urban terrain. The antitank capability of the M2 is degraded

by the short ranges characteristic of urban terrain. Therefore, Dragons and LAWs/AT4s will be used more frequently. Place Dragons and LAWs/AT4s where they can support an M2, but not attract enemy attention to the location of the M2 (Figure 1). Use the TOW only when absolutely necessary.

Figure 1. Dragon position supporting BFV.

7. Designate where obstacles are placed to reduce enemy mobility and allow longer engagement time for tanks and M2s. Plan mines and demolitions on the outside and inside of buildings to neutralize an enemy force attempting to gain a foothold. Buildings can be selectively destroyed to improve fields of fire and create obstacles.

8. Consider backblast when firing the LAW, AT4, Dragon, or TOW. In urban combat, the backblast is more hazardous due to rubble and channeling caused by buildings, narrow streets, and alleys. Antitank weapons should not be fired from any enclosed spaces. See Table 1 for minimum room dimensions.

MINIMUM DIMENSIONS				
WEAPON	**ROOM SIZE**	**CEILING HEIGHT**	**VENT SIZE**	**MUZZLE CLEARANCE**
Dragon	**15 feet x 12 feet**	**7 feet**	**20 square feet**	**6 inches**
LAW	**4 feet to the back wall**	**7 feet**	**20 square feet**	

Table 1. Minimum dimensions.

9. If possible, position M2s so they can engage the enemy at the longest possible ranges. M2s can be initially placed forward on the edge of the urban area to gain long-range shots, and then displace to the rear before becoming decisively engaged. If this technique is used, provide security for the vehicles. Concealed routes to supplementary and alternate positions should be selected and reconnoitered by the fighting vehicle teams. The speed of the M2 can assist in the rapid movement from one position to another.

EVALUATION PREPARATION

Setup: Provide MOUT site and all training aids and devices necessary to complete task.

Brief Soldier: Tell the leader that he is part of a larger force defending in urban terrain and he is to defend a specified sector.

EVALUATION GUIDE

Performance Measures	**Results**	
1.Employs the fighting vehicle teams and dismount teams in their proper roles.	P	F
2. Positions the platoon, using the urban terrain to maximize weapons' capabilities.	P	F
3. Positions obstacles to reduce enemy mobility and allow longer engagement time to weapon systems.	P	F

Performance Measures	Results	
4. Selects best buildings possible, within sector, to defend.	P	F
5. Places weapon systems to best support defensive position.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required **Related**

None

CONDUCT AN ATTACK BY AN
AN M2 BFV PLATOON DURING MOUT
071-440-0022

CONDITIONS

As the leader of an M2 Bradley platoon operating as part of a larger unit moving through urban terrain, given a mission to move through an urban area to an objective.

STANDARDS

Employ the proper movement techniques into and through the urban terrain.

TRAINING AND EVALUATION
Training Information Outline

1. Use the same general platoon and squad movement techniques in urban terrain as used in other terrain.

a. Use *traveling overwatch* when moving toward an urban area and contact is possible. Upon entering the urban area, dismount teams should be deployed, and the platoon should move using the *bounding overwatch*. Dismount teams should move alongside and through buildings, avoiding open areas whenever possible. When moving down streets, dismount teams should be staggered on alternate sides of a street.

b. Guard against ground-level positions along the street. Assign two or three men to observe the upper floors of the buildings on the opposite side of the street. Fighting vehicle teams, overwatching the movement of the dismount teams, also travel staggered on alternate sides of the street (Figure 1).

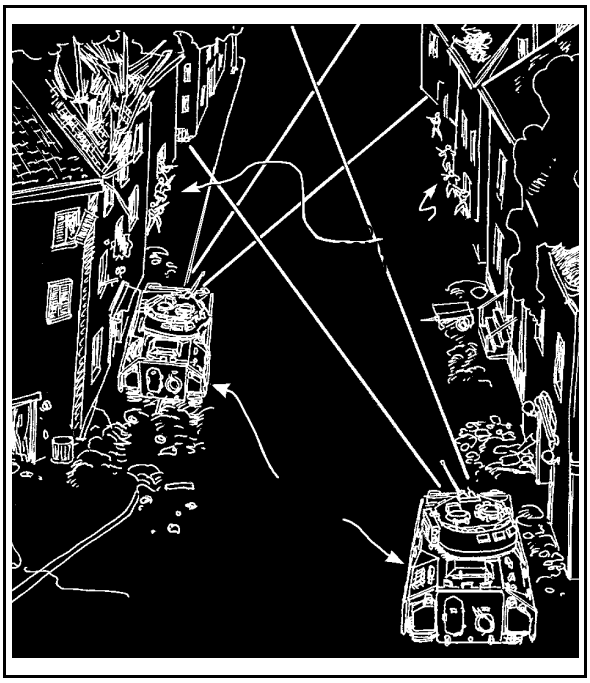


Figure 1. Cover for dismount teams.

2. Use the M2 to provide direct fire support for the dismount team (Figure 2). Have the fighting vehicle teams move behind the dismount teams and move up to engage targets located by the dismount teams.

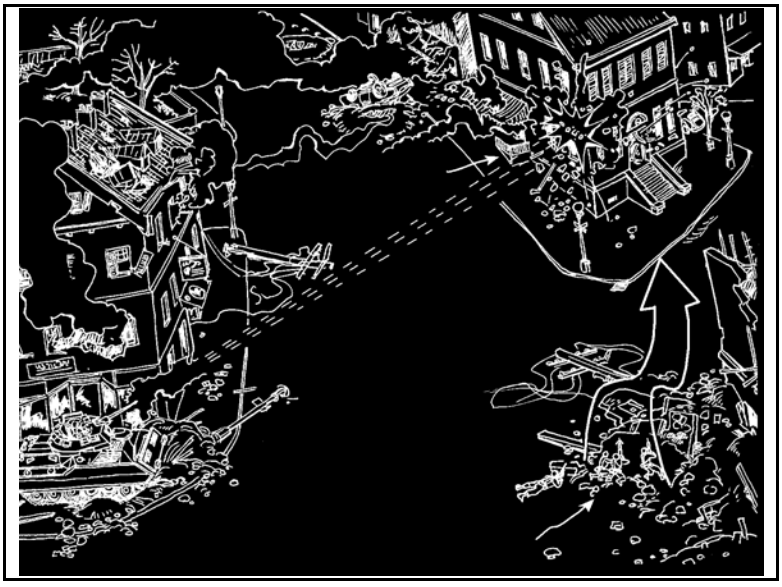


Figure 2. M2 providing direct fire support.

3. Use the fighting vehicle teams to—

a. Destroy enemy positions within a building with the direct fire of the 25-mm automatic gun (using armor-piercing discarding sabot [APDS] ammunition) and the 7.62-mm coax machine gun (when the building is constructed of light material).

b. Suppress enemy gunners within the objective building and adjacent structures (Figure 3).

Figure 3. Suppression by fire.

c. Breach walls en route to and in the objective structure. This is best accomplished with the 25-mm automatic gun, using a spiral firing pattern (Figure 4).

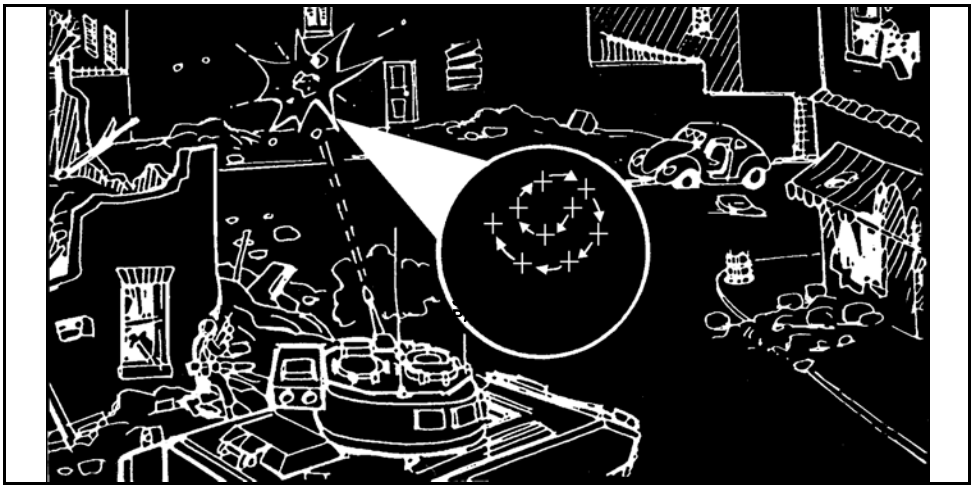


Figure 4. Spiral firing pattern.

4. Use the 25-mm automatic gun, the most effective weapon on the M2, while fighting in urban terrain. Use of the 25-mm automatic gun in support of the dismount teams requires the following safety considerations:

a. High-explosive 25-mm rounds arm 10 meters from the automatic gun and explode on contact.

b. APDS rounds discard plastic sabots to the front of the automatic gun when fired. (This requires a 175-meter safety fan to the front of the 25-mm automatic gun.)

c. When possible, the dismount teams should stay away from the front of the 25-mm automatic gun so that it may be fired as required.

5. Direct the vehicle teams to use their smoke generators to cover the movement of the dismount teams (Figure 5).

Figure 5. Smoke screens movement of dismount team.

Note: The use of smoke requires additional care, because wind currents can be unpredictable between buildings.

EVALUATION PREPARATION

Setup: Provide the leader an M2 Bradley platoon and give him the mission to move through urban terrain.

Brief Soldier: Tell the leader that he is to control the movement of his M2 Bradley platoon through urban terrain while operating as part of a larger unit moving through an urban area to an objective.

EVALUATION GUIDE

Performance Measures	Results	
Employs the proper movement techniques into and through the urban terrain, to include:		
1. Uses staggered formation while moving through streets.	P	F
2. Uses the M2 to provide direct fire support for the close combat team.	P	F
3. Deploys close combat teams upon entering the urban area.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	

REQUEST SUPPLIES AND LOGISTICAL SERVICES
101-521-4051

CONDITIONS

You have been given guidance from your unit commander or unit SOP to maintain an accurate status of supplies and to request replacement of shortages and any needed logistical support.

STANDARDS

1. Maintain an accurate status of all accountable supply items and ammunition (without error), expendable supply items (to within 10%), and rations and water (to within 10%).

2. Report without error on status determined above, as requested or directed by unit SOP.

3. Request resupply of any item, as directed by unit SOP, before a shortage occurs that will detract from the operational effectiveness of your platoon.

TRAINING AND EVALUATION
Training Information Outline

1. As platoon sergeant, it is your responsibility to perform periodic checks on the status and condition of your platoon's supplies and equipment. You should know that your role in the Army's logistical system is that of an assessor. Once you make an assessment of the supply situation in your platoon, you must immediately pass this information on to your commander, executive officer, or supply sergeant.

2. At company level, there is no designated logistics officer. However, the company executive officer usually serves as the commander's principal assistant for planning, organizing, and supervising the logistical operations of the company. He is responsible for supervising the feeding of the company, initiating timely requests to battalion for supplies, supervising the distribution of fuel and ammunition, and organizational maintenance. The company supply sergeant is the commander's principal enlisted assistant for supply matters; he requests and issues ammunition, petroleum-oil-lubricant (POL) supply, and replacement equipment. He maintains supply records, to include usage data.

3. Your status report should identify the status of specified items. Normally, your report will be oral or informally written. Your report is important, however, because it initiates the formal requisitioning of supplies. Your commander or unit SOP may establish guidance for the reporting of shortages or losses to facilitate control and minimize the possibility of over- or under- requisitioning.

4. Normally, your unit's executive officer or supply sergeant will consolidate the individual platoon requests for supplies, rations, ammunition, clothing, and so forth, and requisition supplies and logistical support from the next higher logistics section or support unit (if the item is not available within the company). The executive officer or supply sergeant can request the following items:

Class I items: Rations.
Class II items: Clothing, tools, administrative and housekeeping supplies and equipment.
Class III items: POL.
Class IV items: Construction material.
Class V items: Ammunition.
Class VI items: Personal demand items (candy, soap, cigarettes).
Class VIII items: Medical materiel.
Class IX items: Repair parts.
Class X items: Materiel to support nonmilitary programs.
Miscellaneous items: Water, salvage, maps.

5. It is your responsibility, however, to ensure that members of your platoon are equipped with the supply items necessary for them to effectively perform their jobs and that the platoon is provided the logistical services necessary for their welfare and combat survivability. Your logistical responsibilities are to be aware of the status of supplies within your platoon, and to make timely requests (through your supply section) by type and amount. You must also know the status of TOE equipment and request replacement items for equipment that is lost, damaged, or destroyed. Figure 1 shows an example of an Orange report, which can be used to maintain the status of personnel, equipment, and supplies.

UNIT _____ ORANGE REPORT FOR PERIOD ENDING_____

Section I.	A	S	K	D	W	P	M	L	G	E	N
LINE	ASGD	Start PDY	KIA	DOW	WIA	POW	MIA	Total Losses	Gains	End PDY	Needed
1. Commissioned											
2. Warrant											
3. Enlisted											
4. Total											

Section II. CASUALTY REPORT BATTLE ROSTER #+CODE
K=KIA, D=DOW, W=WIA, M=MIA, P-POW Section III. ATTACHMENTS/DETACHMENTS

Battle Roster	Code	Battle Roster	Code		UNIT	Detached From	Attached To	Unit Strength
					1.			
					2.			
					3.			
					4.			
					5.			
					6.			
					7.			
					8.			

Section IV. EQUIPMENT STATUS REPORT 5 Priority Deadline Items

Code	Make/Model	Bumper/Serial	Date Nonavailable	Location	Fault/Problem	Wpn Stat/Remarks/Part

Figure 1. Example Orange report.

Line 1: CL I Rations O/H			Section 4: Logistics					
a. MRE	Cases		Line 3: NBC O/H Needed			Line 5: Package POL Needed		
b. T-Rat	Modules		M-10 can			c. 80/90 wt		Gal
Line 2: Misc (TA50, BATT, EXC)			M258-A1			d. GAA		Lbs
WW Boot			DS2			e. FRH		Gal
WW Jacket			STB			f. OHT		Gal
WW Pants			M256 Kit			g. 15/40 wt		Gal
Sleeping Bag			DAP 13 Kit			h. Turboshaft		Gal
Parka			Line 4: CL III Fuel O/H Needed			i. Antifreeze		Gal
Line 3: NBC O/H Needed			a. JPs			j. Antarctic oil		Gal
a. S MOPP Suit			b. Mogas			k. GMD		QT
b. M MOPP Suit			c. JP4			l. Reccel FL		PT
c. L MOPP Suit			Line 5: Packaged POL Needed			m.		
			a.					
			b.					

Note 1: Lines 1, 3, 4, Rations, NBC, and Fuel O/H includes nonissued stocks only.
Note 2: Line 5 Change Package POL unit of issue required.

REMARKS:

Figure 1. Example Orange report (continued).

Line 6: CL IV	O/H	Needed
a. Sandbags		
b. Barbed wire		
c. Concertina		
d. Large picket		
e. Small picket		
f. Overhead cover		
g. 4x4		
h. Plywood		
Line 7: CL V AMMO O/H Needed		
a. 105-mm Sabot		
b. 105-mm HEAT		
c. 105-mm HEP		
d. 25-mm HE		
e. 25-mm AP		
f. Cal .50		
g. 7.62-mm 4/1		
h. 5.56-mm M16		
i. 5.56-mm Mix		
j. 9-mm		
k. LAW/AT4		
l. TOW		
m. Dragon		
n. Stinger		
o. Frag grenade		
p. 4.2-in HE		
q. 4.2-in WP		

Line 7: CL V	O/H	Needed
r. 4.2-in ILL		
s. FZ PD/VT		
t. Vulcan		
u. M21 AT		
v. M18 AP		
v1. M16 AP		
w. M14 AT		
x. Smk grenade		
y. 40-mm HE		
z. 40-mm PF		

Line 8: CL VI	O/H	Req	Loss
a. M1			
b. M2			
c. SCT HMMWV			
d. M113			
e. M106			
f. M577			
g. M88			
h. M109			
i. M548			
j. M981			
k. N578			
l. HMMWV			
m. 2 1/2 T			
n. 5 T			
o. 5 T-TPU			

Line 8: CL VI	O/H	Req	Loss
p. M977			
q. M978			
r. Dozer			
s. CEV			
t. AVLB			
u. Dragon			
v. M149 wtr trl			
w.			
x.			
y.			
z.			
aa.			
bb.			
cc.			
dd.			
ee.			
ff.			
Line 9: Medical			
a. MKI Auto			
b. CS Eng			
c.			
Line 10: Water	O/H		Needed
a. Gal			
Line 11: OTHER			
a.			
b.			

Figure 1. Example Orange report (continued).

EVALUATION PREPARATION

Setup: Provide the soldier with a unit SOP giving information regarding unit procedures for accountability of supplies and information on requesting logistical support.

Brief Soldier: Tell the soldier he will be evaluated on his ability to request supplies and logistical support and on his ability to maintain an accurate status of supply items and ammunition as directed by unit SOP.

EVALUATION GUIDE

Performance Measures	Results	
1. Inventories accountable supply items and ammunition.	P	F
2. Maintains an accurate status of supply and ammunition.	P	F
3. Requests resupply of unit supply items and ammunition before shortage occurs.	P	F

FEEDBACK

Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps are failed (F). If the soldier fails any steps, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
None	FM 100-10

APPENDIX A

PROPONENT SCHOOL OR AGENCY CODES

The first three numbers of the task number are the proponent school or agency code. This code indicates the school or agency responsible for the task content.

031 US Army Chemical School
ATTN: ATZN-CM-FI
Fort McClellan, AL 36203-5020

051 US Army Engineer School
ATTN: ATZA-TDI-C
Fort Belvoir, VA 22060-5291

061 US Army Field Artillery School
ATTN: ATSF-DI
Fort Sill, OK 73503-5600

071 US Army Infantry School
ATTN: ATSH-I-V-T-M
Fort Benning, GA 31905-5593

113 US Army Signal Center
ATTN: ATZH-TD-A
Fort Gordon, GA 30905-5070

171 US Army Armor School
ATTN: ATSB-DOTD-TD
Fort Knox, KY 40121-5202

APPENDIX B

DA FORM 5165-R
(FIELD EXPEDIENT SQUAD BOOK)

See STP 21-24-SMCT for the reproducible DA Form 5165-R and instructions for use.

APPENDIX C

DA FORM 5164-R
(Hands-On Evaluation)

Figure C-1 shows an example of a completed DA Form 5165-R (Hands-On Evaluation). See STP 21-24-SMCT for the reproducible DA Form 5164-R and instructions for use.

HANDS-ON EVALUATION

For use of this form, see AR 350-67; the proponent agency is ODCSOPS

DATE: 20 NOV 97

TASK TITLE: LOAD THE 25-MM AMMUNITION CAN (HEI-T) ON A BFV

TASK NUMBER: 071-024-0001

ITEM a	PERFORMANCE STEP TITLE b	SCORE (Check One) PASS c	FAIL d
1	OPENS THE TURRET SHIELD DOOR. REMOVES THE HE AMMUNITION CAN DOOR FROM THE HE AMMUNITION CAN.	☑ P	☐ F
2	INSPECTS THE HE AMMUNITION FOR ALIGNMENT AND SERVICE ABILITY.	☑ P	☐ F
3	CONNECTS THE BELTS TOGETHER UNTIL 230 ROUNDS ARE LINKED TOGETHER.	☑ P	☐ F
4	HANGS THE FIRST 5 ROUNDS AND 19TH AND 24TH AND 25TH ROUNDS ON THE LOADING RAIL.	☑ P	☐ F
7	LOADS THE REMAINDER OF THE AMMUNITION (HANGS EACH 24TH AND 25TH ROUND ON THE LOADING RAIL).	☑ P	☐ F
8	LIFTS THE FIRST AND SECOND AMMUNITION BELT LOOPS OVER THE BAFFLE.	☑ P	☐ F
9	INSTALLS THE HE AMMUNITION CAN DOOR.	☑ P	☐ F
10	MOVES THE HE-AP SELECTOR SWITCH TO THE HE POSITION. CLOSES THE TURRET SHIELD DOOR AND TELLS THE GUNNER THAT THE HE AMMUNITION CAN IS LOADED.	☑ P	☐ F
		☐ P	☐ F
		☐ P	☐ F
		☐ P	☐ F
		☐ P	☐ F
		☐ P	☐ F
		☐ P	☐ F

EVALUATOR'S NAME: SSG KING K. BUNDY

UNIT:

SOLDIER'S NAME: SP4 T. ZIEK

STATUS: ☐ GO ☐ NO GO

DA FORM 5164-R, SEP 85 EDITION OF DEC 82 IS OBSOLETE USAPPC V1.00

Figure C-1. Example completed DA Form 5164-R (Hands-On Evaluation).

APPENDIX D

CRITICAL INDIVIDUAL/ COLLECTIVE TASKS

This appendix lists additional 11M critical tasks by skill level. These tasks were not selected for the 11M soldier's manual due to restrictions on STP development, task difficulty, and the MOS population density or performance frequency of the task. In addition, collective tasks are in the appropriate ARTEP mission training plan (MTP) or drill book. Even though they do not appear in the soldier's manual, 11M soldiers are still responsible for knowing these critical tasks.

Skill Level 1

		REFERENCES
	MOVE	
071-326-0542	Enter a Building During MOUT	FM 90-10-1
051-195-1004	Install Pickets, Make Barbed Wire Ties and Install Concertina	FM 5-34
	WEAPONS	
071-008-0001	Mount a Night Vision Sight AN/PVS-4 on an M16A1 or M16A2 Rifle	TM 11-5855-213-10
071-008-0002	Dismount a Night Vision Sight AN/PVS-4 from an M16A1 or M16A2 Rifle	TM 11-5855-213-10
071-010-0001	Zero a Night Vision Sight AN/PVS-4 to an M249 Machine Gun	TM 11-5855-213-10
071-010-0002	Mount a Night Vision Sight AN/PVS-4 on an M249 Machine Gun	TM 11-5855-213-10
071-010-0003	Dismount a Night Vision Sight AN/PVS-4 from an M249 Machine Gun	TM 11-5855-213-10
071-010-0007	Engage Targets with an M249 Machine Gun Using a Night Vision Sight AN/PVS-4	TM 11-5855-213-10

		REFERENCES
071-312-4032	Prepare a Range Card for an M249 Machine Gun	FM 23-14
071-020-0001	Mount a Night Vision Sight AN/PVS-4 on an M60 Machine Gun	TM 11-5855-213-10
071-020-0002	Dismount a Night Vision Sight AN/PVS-4 from an M60 Machine Gun	TM 11-5855 213-10
071-020-0006	Mount an M60 Machine Gun on an M122 Tripod	FM 23-67
071-020-0007	Dismount an M60 Machine Gun from an M122 Tripod	FM 23-67
071-020-0008	Mount a Night Vision Sight AN/PVS-2 on an M60 Machine Gun	TM 11-5855-213-10
071-020-0009	Dismount a Night Vision Sight AN/PVS-2 from an M60 Machine Gun	TM 11-5855-213-10
071-312-3003	Lay an M60 Machine Gun Using Field Expedients	FM 23-67
071-312-3004	Construct a Fighting Position for an M60 Machine Gun	FM 23-67
071-312-3007	Prepare a Range Card for an M60 Machine Gun	FM 23-67
071-312-3025	Maintain an M60 Machine Gun	FM 23-67
071-312-3030	Zero an M60 Machine Gun	FM 23-67
071-315-0008	Engage Targets with an M60 Machine Gun Using a Night Vision Sight AN/PVS-4	FM 23-67
071-315-2313	Zero a Night Vision Sight AN/PVS-4 to an M60 Machine Gun	TM 11-5855-213-10

		REFERENCES
071-032-0001	Mount a Night Vision Sight AN/PVS-4 on an M60 Machine Gun	TM 11-5855-213-10
071-032-0002	Dismount a Night Vision Sight AN/PVS-4 from an M203 Grenade Launcher	TM 11-5855-213-10
071-052-0001	Maintain an M47 Medium Antitank Weapon	TM 9-1425-213-10
071-070-0001	Maintain an M202A1 Multishot Rocket Launcher	TC 23-2
071-070-0002	Perform a Function Check on an M202A1 Multishot Rocket Launcher	TC 23-2
071-070-0003	Load an M202A1 Multishot Rocket Launcher	TC 23-2
071-070-0004	Unload an M202A1 Multishot Rocket Launcher	TC 23-2
071-070-0005	Perform Misfire Procedures on an M202A1 Multishot Rocket Launcher	TC 23-2
071-070-0006	Prepare an M202A1 Multishot Rocket Launcher for Firing	TC 23-2
071-070-0007	Restore an M202A1 Multishot Rocket Launcher to Carrying Configuration	TC 23-2
071-070-0008	Engage Targets with an M202A1 Multishot Rocket Launcher	TC 23-2
	VEHICLES	
071-200-0002	Tow a Tracked Vehicle	FM 20-22
071-212-0001	Maintain the Air Clearer System on an M113-Series Vehicle	TM 9-2300-257-10

		REFERENCES
071-212-0003	Maintain the Brake System on an M113-Series Vehicle	TM 9-2300-257-10
071-212-0004	Maintain the Cooling System on an M113-Series Vehicle	TM 9-2300-257-20
071-212-0005	Maintain the Engine on an M113-Series Vehicle	TM 9-2300-257-10
071-212-0006	Maintain the Fuel System on an M113-Series Vehicle	TM 9-2300-257-10
071-212-0007	Maintain the Steering System on an M113-Series Vehicle	TM 9-2300-257-10
071-212-0008	Maintain the Transmission System on an M113-Series Vehicle	TM 9-2300-257-10
071-212-0009	Maintain the Personnel Heater on an M113-Series Vehicle	TM 9-2300-257-10
071-212-0010	Maintain the Fire Suppression System on an M113-Series Vehicle	TM 9-2300-257-10
071-212-0011	Maintain the Exhaust System on an M113-Series Vehicle	TM 9-2300-257-10
071-212-0012	Maintain the Bilge System on an M113-Series Vehicle	TM 9-2300-257-10
071-212-0013	Maintain the Hydraulic System on an M113-Series Vehicle	TM 9-2300-257-10
071-212-0014	Maintain the Track and Suspension System on an M113-Series Vehicle	TM-9-2300-257-10
071-212-0015	Maintain the Hull on an M113-Series Vehicle	TM 9-2300-257-10
071-212-0016	Prepare an M113-Series Vehicle for Water Operation	TM 9-2300-257-10

		REFERENCES
071-212-0017	Maintain the Gas Particulate System on an M113-Series Vehicle	TM 9-2300-257-10
071-212-0018	Operate the Gas Particulate System on an M113-Series Vehicle	TM 9-2300-257-10
071-212-0019	Operate the M19 Periscope on an M113-Series Vehicle	TM 9-2300-257-10
071-212-0020	Start an M113-Series Vehicle Using Auxiliary Power	TM 9-2300-257-10
071-212-0021	Drive an M113-Series Vehicle	TM 9-2300-257-10
071-216-0002	Maintain the Smoke Generating System on a BFV	TM 9-2350-252-10-1
071-216-0003	Maintain the Electrical System on a BFV	TM 9-2350-252-10-1
071-216-0005	Maintain the Fire Suppression System on a BFV	TM 9-2350-252-10-1
071-216-0008	Maintain the NBC System on a BFV	TM 9-2350-252-10-1
071-216-0010	Maintain the Exhaust System on a BFV	TM 9-2350-252-10-1
071-216-0011	Maintain the Fuel System on a BFV	TM 9-2350-252-10-1
071-216-0012	Maintain the Cooling System on a BFV	TM 9-2350-252-10-1
071-216-0013	Maintain the Personnel Heater on a BFV	TM 9-2350-252-10-1
071-216-0014	Maintain the Hydraulic System on a BFV	TM 9-2350-252-10-1
071-216-0016	Maintain the Engine on a BFV	TM 9-2350-252-10-1
071-216-0017	Maintain the Communications System on a BFV	TM 9-2350-252-10-1
071-216-0019	Maintain the Bilge System on a BFV	TM 9-2350-252-10-1

		REFERENCES
071-324-6001	Drive a BFV	TM 9-2350-252-10-1
071-324-6022	Extinguish a Fire on a BFV	TM 9-2350-252-10-1
071-324-6025	Start a BFV Using Auxiliary Power	TM 9-2350-252-10-1
551-721-1342	Maintain the Cooling System on an M998-Series Vehicle	TM 9-2350-280-10
551-721-1343	Maintain the Fuel System on an M998-Series Vehicle	TM 9-2350-280-10
551-721-1344	Maintain the Transmission System on an M998-Series Vehicle	TM 9-2350-280-10
551-721-1345	Start an M998-Series Vehicle Using Auxiliary Power	TM 9-2350-280-10
551-721-1346	Drive an M998-Series Vehicle	TM 9-2350-280-10
551-721-1347	Maintain the Air Cleaner System on an M998-Series Vehicle	TM 9-2320-280-10
551-721-1348	Maintain the Steering System on an M998-Series Vehicle	TM 9-2350-280-10
551-721-1349	Maintain the Engine on an M998-Series Vehicle	TM 9-2350-280-10
551-721-1350	Maintain the Brake System on an M998-Series Vehicle	TM 9-2350-280-10
551-721-1351	Maintain the Battery System on an M998-Series Vehicle	TM 9-2350-280-10
	SUSTAIN	
031-507-2006	Conduct Hasty Decontamination	FM 3-5

		REFERENCES
	COMMUNICATE	
071-820-0001	Operate Telephone Set TA-1/PT	TM 11-5805-243-12
071-820-0002	Install Telephone Set TA-1/PT	TM 11-5805-243-12
071-820-0004	Recover Communications Wire Lines	FM 24-20
113-571-1004	Operate in Radio Nets	FM 24-18
113-587-2059	Operate Radio Set AN/PRC-77 with TSEC/KY-57	TM 11-5820-498-12
113-587-2061	Operate Radio Set AN/VRC-64 or AN/GRC-160 with TSEC/KY-57	TM 11-5820-498-12
113-587-2064	Operate Radio Set AN/VRC-12 Series with TSEC/KY-57	TM 11-5820-498-12
113-600-2007	Operate Telephone Set TA-312/PT	TM 11-5805-201-12
113-594-2005	Install and Operate Switchboard, Telephone, Manual SB-993/GT	TM 11-5865-294-15
071-810-0003	Construct a Field-Expedient Antenna	FM 24-20
	RECONNAISSANCE AND SECURITY	
071-315-0031	Maintain Night Vision Goggles AN/PVS-5	TM 11-5855-238-10
071-315-0090	Maintain a Thermal Viewer AN/PAS-7	TM 11-5855-246-10
071-331-0001	Perform as a Member of a Patrol	FM 21-75
071-710-0001	Maintain a Night Vision Sight AN/PVS-4	TM 11-5855-213-10
071-730-0008	Employ Field-Expedient Early Warning Devices	FM 21-3

		REFERENCES
	BASIC TACTICS	
071-600-0001	Destroy Supplies and Equipment	FM 5-25

Skill Level 2

	MOVE	
071-410-0016	Conduct Occupation of an Overwatch Position	FM 7-7J
071-720-0009	Conduct a Local Security Patrol	FM 21-75
	WEAPONS	
071-324-4004	Perform Misfire Procedures on the M257 Smoke Grenade Launcher on a BFV	TM 9-2350-252-10-1
051-192-1119	Install US Antihandling Devices on AT Mines	FM 5-34
051-192-1120	Remove US Antihandling Devices on AT Mines	FM 5-34
051-193-1002	Construct a Nonelectric Initiating/ Detonating Assembly	FM 5-25
051-193-1004	Construct an Electric Initiating/ Detonating Assembly	FM 5-25
051-193-1005	Prime Explosives Electrically	FM 5-25
051-193-1007	Prime Explosives With Detonating Cord	FM 5-25
051-193-1011	Install Dual Firing Systems	FM 5-25
	COMMAND AND STAFF	
071-332-5051	Post a Daily Staff Journal	FM 101-5
301-348-6001	Protect Classified Information and Material	FM 101-5

		REFERENCES
	BASIC TACTICS	
071-600-0005	Enforce Preventive Medicine	FM 21-11

Skill Level 3

	MOVE	
071-326-3002	React to Indirect Fire While Mounted	FM 7-7J
071-326-3056	Direct Dismount of an M2 BFV Rifle Team	FM 7-7J
071-410-0002	React to Direct Fire While Mounted	FM 7-7J
071-430-0024	Conduct a Defense by an M2 BFV Section/Squad	FM 7-7J
071-450-0038	Construct Field-Expedient Flame Weapons	FM 20-33
071-450-0017	Conduct a Raid	FM 7-8
071-720-0006	Conduct Operation of a Patrol Base	FM 7-8
	VEHICLES	
071-200-0001	Conduct Towing of a Vehicle	FM 5-34
071-410-0009	Conduct Preparation of a BFV for Water Operations	TM 9-2350-252-10-1
	COMMUNICATE	
071-810-0001	Maintain an AN/PRC-126 Radio	TM 11-5820 -498-12
071-810-0002	Operate an AN/PRC-126 Radio	TM 11-5820-498-12
	RECONNAISSANCE AND SECURITY	
071-730-0006	Enforce Operations Security	FM 101-5

		REFERENCES
071-730-0007	Conduct Employment of Field-Expedient and Pyrotechnic Early Warning Devices	FM 5-25

BASIC TACTICS

071-400-0001	Adjust Aerial Fire Support	FM 6-30

Skill Level 4

MOVE

071-326-5913	Employ an M2 BFV Platoon in the Aerial Defense Role	FM 7-7J
071-420-0001	Consolidate a Platoon Following Enemy Contact While in the Offense	FM 7-7J
071-420-0002	Reorganize a Platoon Following Enemy Contact While in the Offense	FM 7-7J
071-420-0010	Conduct a Mounted Assault by an M2 BFV Platoon	FM 7-7J
071-420-0013	Conduct a Movement to Contact by an M2 BFV Platoon	FM 7-7J
071-420-0020	Conduct an Attack by an M2 BFV Platoon	FM 7-7J
071-326-5832	Conduct a Disengagement by a Platoon While Under Enemy Pressure	FM 7-7J
071-430-0017	Conduct a Defense by an M2 BFV Platoon	FM 7-7J
071-440-0022	Conduct an Attack by an M2 BFV Platoon During MOUT	FM 7-7J
071-450-0011	Conduct an Antiarmor Area Ambush by an BFV Platoon	FM 7-7J
071-450-0030	Conduct a Passage of Lines	FM 7-7J

		REFERENCES
071-450-0037	Direct Employment of Smoke	FM 7-7J
071-326-5805	Conduct a Route Reconnaissance Mission	FM 7-7J
	SUSTAIN	
071-620-0001	Plan for Decontamination Operations	FM 3-5
	RECONNAISSANCE AND SECURITY	
071-710-0006	Plan Use of Night Vision Devices	FM 7-70
	COMMAND AND STAFF	
071-332-5000	Prepare an Operation Overlay	FM 101-5
071-332-5021	Prepare a Situation Map	FM 101-5
071-332-5031	Prepare a Road Movement Table	FM 101-5
551-721-3359	Prepare a Strip Map	FM 101-5
071-900-0001	Prepare an Operation Plan	FM 101-5
071-900-0003	Prepare a Battalion Operation Order	FM 101-5
071-900-0004	Establish a Tactical Operations Center	FM 101-5
071-900-0005	Conduct Displacement of a Tactical Operations Center	FM 101-5
071-332-5034	Extract Information from a Route Reconnaissance Report	FM 101-5
071-332-5002	Prepare a Battalion Fragmentary Order	FM 101-5
071-332-5004	Prepare a Battalion Warning Order	FM 101-5
071-332-5020	Post an S3 Workbook	FM 101-5
071-332-5022	Prepare a Battalion Situation Report (SITREP)	FM 101-5

		REFERENCES
071-940-0002	Conduct Resupply of a Platoon	FM 7-7J

BASIC TACTICS

071-410-0013	Prepare a Situation Report	FM 101-5

APPENDIX E

BRADLEY GUNNERY SKILLS TEST GUIDE AND PERFORMANCE CHECKLISTS

The Bradley gunnery skills test (BGST) has been placed in this soldier's manual for the soldier`s convenience. The BGST evaluates the crew member's ability to perform gunnery-related skills; however, it does not replace tasks in the soldier's manuals.

Section I. BRADLEY GUNNERY SKILLS TEST

The BGST provides the unit with an evaluation tool that determines readiness to train. It also enables the unit to evaluate crew tasks and to conduct live-fire gunnery to meet the prescribed training levels.

E-1. BGST EVALUATION

The BGST is evaluated in accordance with FM 23-1 and TM 9-2350-252-10-2.

a. The BCs and gunners of M2/M3, M2A2/M2A2ODS, and M3A2/M3A2ODS crews must achieve a GO on *all* tasks to receive an overall GO. Additionally, all other members of an M3/M3A2/ M3A2ODS scout crew and the infantry squad leaders and the fire team leaders of an M2/M2A2/ M2A2ODS platoon should take the test. This assists in cross-training of additional crew members.

b. The BGST may also be used as a diagnostic tool to determine the level and effectiveness of cross-training throughout the infantry squad.

c. The Bradley crew member must complete all actions outlined in the performance checklist and within a specified time limit to achieve a GO for the task.

(1)Personnel receive either a GO or a NO-GO on each task. To achieve an overall GO on the BGST, the crew member must receive a GO on all tasks. NO-GOs are scored for the following:

- Failing to complete the task.
- Incorrectly performing task steps.
- Failing to meet time standards.

(2)At the conclusion of each task, any crew member failing to meet the prescribed standards will be critiqued to include an explanation of mistakes and what to do to correct them. Retesting will be in accordance with the local SOP.

d. The performance checklists for all stations (Section II) must be cross-referenced with the latest TMs. Because the technical manuals have priority, in all instances where the procedures

in this appendix conflict with TM procedures, the TM will be followed. TM procedures *always* take precedence for scoring criteria. Additionally, an attempt to further cross-reference with the applicable soldier's manuals should be made to ensure standardization in training and testing.

E-2. SAMPLE BGST EVALUATION WORK SHEET

A sample BGST evaluation work sheet is shown at Figure E-1.

NAME	RANK	POSITION
SSN	UNIT	DATE

	GO	NO-GO	RETEST
STATION 1. Clear, remove, disassemble, and install an M242 25-mm gun.			
STATION 2. Load an M242 25-mm gun feeder.			
STATION 3. Apply immediate action on an M242 25-mm gun.			
STATION 4. Unload and clear an M242 25-mm gun feeder.			
STATION 5. Install an M240C coax machine gun.			
STATION 6. Load, fire and apply immediate action on an M240C coax machine gun.			
STATION 7. Clear an M240C coax machine gun and unload the 7.62-mm ammunition.			
STATION 8. Remove an M240C coax machine gun.			
STATION 9. Disassemble (field strip) and assemble an M240C coax machine gun.			
STATION 10. Boresight turret weapons systems.			
STATION 11. Load and unload the 25-mm HE ready box.			
STATION 12. Load and unload the 25-mm AP ready box.			
STATION 13. Prepare a Bradley range card.			
STATION 14. Identify combat vehicles.			

EVALUATOR'S NAME:
REMARKS:

Figure E-1. Sample BGST evaluation worksheet.

Section II. ADMINISTRATIVE GUIDE AND PERFORMANCE CHECKLISTS

A test administration guide and recommended performance checklist format are provided for each station.

STATION 1

E-3. STATION 1: CLEAR, REMOVE, DISASSEMBLE, ASSEMBLE, AND INSTALL AN M242 25-MM GUN

a. **Task**: Clear, remove, disassemble, assemble, and install an M242 25-mm gun.
b. **Conditions**: Given a Bradley with an installed 25-mm gun.
c. **Standards**: The crew member will—
- Within 10 minutes, clear, remove, and disassemble the 25-mm gun.
- Within 10 minutes, assemble and install the 25-mm gun so that it functions properly.

d. **Evaluation Procedure**: See performance checklist.

PERFORMANCE CHECKLIST, STATION 1

Task: Clear, remove, disassemble, assemble, and install an M242 25-mm gun.

Performance Measures Results

1. Cleared, removed, and disassembled the 25-mm gun.
   a. Removed feeder.P F

Note: Steps 1 through 10 must be completed in sequence.

(1) Checked to ensure bolt and bolt position indicator were in SEAR.
(2) Ensured manual safety handle was in SAFE.
(3) Raised feeder handle.
(4) Removed power cable.
(5) Lowered feeder handle.
(6) Removed link chutes.
(7) Removed feed chutes.
(8) Pulled out straight drive shaft handle.
(9) Raised feeder handle.
(10) Lowered drive shaft handle.
(11) Removed feeder.
(12) Removed any ammunition from the gun and verified the timing of the feeder.
(13) Cleared feeder.
(14) Placed feeder on a clean, flat surface.
(15) Pushed in straight drive shaft handle on receiver.

(16) Ensured breach, ejection port, and bolt surface were cleared of all spent casings or live ammunition.

b. Removed barrel.P F

(1) Unlocked gun barrel.
(2) Removed gun barrel.
(3) (M2/M3 only) Placed barrel on trim vane.
(4) (M2A2/M2A2ODS/M3A2/M3A2ODS only) Wedged barrel between turret and air intake.

c. Removed bolt and track.P F

(1) Pulled out drive shaft handle.
(2) Cycled bolt out of SEAR position.
(3) Removed track and bolt assembly.
(4) Inserted straight drive shaft handle.

d. Removed receiver.P F

(1) Unlocked 25-mm gun receiver.
(2) Removed receiver from turret to crew area.

e. Disassembled bolt and track assembly.P F

(1) Removed bolt carrier from track assembly.
(2) Unlocked bolt from forward locking position.
(3) Removed firing pin sleeve keeper.
(4) Removed firing pin and sleeve from bolt and separated the pin and sleeve.
(5) Removed cam pin.
(6) Removed bolt from bolt carrier.

f. Completed performance measures within 10 minutes.P F

2. Assembled and installed the 25-mm gun.

a. Assembled track and bolt assembly.P F

(1) Slid bolt into bolt carrier.
(2) Inserted cam pin.
(3) Inserted firing pin and sleeve into bolt.
(4) Inserted firing pin sleeve keeper.
(5) Locked bolt in forward position.
(6) Placed bolt and carrier on track assembly.

b. Installed bolt and track assembly.P F

(1) Lowered drive shaft handle.
(2) Inserted bolt and track assembly into receiver.
(3) Locked track latch handle.
(4) Cycled to SEAR.
(5) Inserted drive shaft handle.

c. Installed receiver.P F

(1) Pulled antirotation latch handle out.
(2) Installed receiver into trunnion.
(3) Locked receiver into place.

d. Installed barrel.P F

(1) Installed barrel into barrel support.
(2) Locked into place.

e. Installed feeder.P F
(1) Verified feeder timing.
(2) Pulled out drive shaft handle.
(3) Ensure 25-mm gun bolt was in SEAR position.
(4) Raised feeder handle.
(5) Positioned feeder on receiver.
(6) Lowered feeder handle.
(7) Inserted and locked drive shaft.
(8) Installed feed chutes.
(9) Installed link eject chutes.
(10) Raised feeder handle.
(11) Installed power cable.
(12) Lowered feeder handle.

f. Completed performance measures within 10 minutes.P F

STATION 2

E-4. STATION 2: LOAD AN M242 25-MM GUN FEEDER

a. **Task**: Load a 25-mm gun feeder.
b. **Conditions**: Given a Bradley with 25-mm ammunition loaded in the AP and HE ready boxes.
c. **Standards**: Within 5 minutes, the crew member will load the 25-mm gun so that it is ready to fire.
d. **Evaluation Procedure**: See performance checklist.

PERFORMANCE CHECKLIST, STATION 2

Task: Load a 25-mm gun feeder.

Performance MeasuresResults

1. Loaded the 25-mm gun feeder.
   a. Ensured that the bolt and bolt position indicator were in SEAR position.P F
   b. Ensured manual safe handle was in SAFE position.P F
   c. Pulled out feed select solenoid to HE position.P F
   d. Forwarded HE ammunition to 25-mm gun feeder.P F
   e. Loaded the 25-mm gun feeder with two rounds of HE ammunition.P F

Performance Measures Results

   f. Released tension off HE ammunition.P F
   g. Pushed feed select solenoid to AP position.P F
   h. Forwarded AP ammunition to 25-mm gun feeder.P F
   i. Loaded 25-mm gun feeder with one round of AP ammunition.P F
   j. Released tension off AP ammunition.P F

2. Completed performance measures within 5 minutes.P F

STATION 3

E-5. STATION 3: APPLY IMMEDIATE ACTION ON AN M242 25-MM GUN

   a. **Task**: Apply immediate action on a 25-mm gun.
   b. **Conditions**: Given a Bradley with 25-mm ammunition loaded, basic issue items, and a 25-mm gun that fails to fire.
   c. **Standards**: Within 1 minute, the crew member will apply immediate action so that the 25-mm gun will fire.
   d. **Evaluation Procedure**: See performance checklist.

PERFORMANCE CHECKLIST, STATION 3

Task: Perform misfire procedures on a 25-mm gun.

Performance Measures Results

1. Performed misfire procedures on the 25-mm gun.
   a. Announced, “25-mm misfire,” to the crew.P F
   b. Ensured ARM-SAFE-RESET switch was in ARM position.P F
   c. Released trigger switches and waited 5 seconds.P F
   d. Pressed SS of ammunition selected.P F

e. Pressed MISFIRE button.P F
f. Squeezed trigger switches.P F
g. Ensured sear indicator light was on.P F

2. Completed performance measures within 1 minute.P F

STATION 4

E-6. STATION 4: UNLOAD AND CLEAR AN M242 25-MM GUN FEEDER

a. **Task**: Unload and clear a 25-mm gun feeder.
b. **Conditions**: Given a Bradley with basic issue items, 25-mm gun installed, loaded with dummy ammunition (M794).
c. **Standards**: Within 10 minutes, the crew member will unload and clear the 25-mm gun feeder.
d. **Evaluation Procedure**: See performance checklist.

PERFORMANCE CHECKLIST, STATION 4

Task: Unload and clear a 25-mm gun feeder.

Performance Measures Results

1. Unloaded the 25-mm gun feeder.
a. Moved ARM-SAFE-RESET switch to RESET, then to SAFE.P F
b. Turned turret power off.P F
c. Moved manual safe to SAFE.P F
d. Disconnected link chutes and removed links.P F
e. Unloaded AP ammunition.P F
f. Unloaded HE ammunition.P F
g. Removed feed chutes.P F
h. Raised feeder handle.P F
i. Lowered straight drive shaft handle.P F
j. Removed feeder.P F
k. Cleared feeder and removed any ammunition from gun rotor.P F
l. Verified the timing of the feeder.P F
m. Removed any rounds or expended casings from receiver and ejection port.P F

2. Completed performance measures within 10 minutes.P F

STATION 5

E-7. STATION 5: INSTALL AN M240C COAX MACHINE GUN

a. **Task**: Install an M240C coax machine gun.

b. **Conditions**: Given a Bradley with basic issue items and a cleared M240C machine gun.
c. **Standards**: Within 2 minutes, the crew member will install the M240C machine gun.
d. **Evaluation Procedure**: See performance checklist.

PERFORMANCE CHECKLIST, STATION 5

Task: Install an M240C coaxial machine gun.

Performance Measures Results

1. Elevated gun to 200 mils.P F

2. Installed M240C coax machine gun.
a. Opened coax access doors.P F
b. Mounted the coax.P F
(1) Old mount (M2/M3):
(a) Placed coax in plenum onto the mount.
(b) Aligned alignment lugs with cradle mount.
(c) Pushed coax all the way in.
(d) Ensured coax was fully seated.
(2) New mount (M2A2/M2A2ODS/M3A2/M3A2ODS):
(a) Removed quick-release pin from rotor. Inserted quick-release pin in bracket.
(b) Placed coax in plenum.
(c) Pushed coax all the way in.
(d) Ensured coax was fully seated.
(e) Pushed in retaining pins fully.
(f) Ensured that the quick-release pin was locked in position by pulling on the rear of coax.
c. (Old mount.) Joined and secured rear mount to coax.P F
d. (Old mount.) Installed solenoid cable plug on plenum jack.P F
e. Closed coax access doors.P F

3. Completed performance measures within 2 minutes.P F

STATION 6

E-8. STATION 6: LOAD, FIRE, AND APPLY IMMEDIATE ACTION ON AN M240C COAX MACHINE GUN

a. **Tasks**: Load, fire, and apply immediate action on an M240C coax machine gun.
b. **Conditions**: Given a Bradley with basic issue items and an M240C machine gun installed, and 300 rounds of dummy 7.62-mm ammunition loaded into the ready box.
c. **Standards**: Within 6 minutes, the crew members will—
- Load the coax machine gun.

- Fire the coax machine gun.
- Apply immediate action to the coax machine gun.

d. **Evaluation Procedure**: See performance checklist.

PERFORMANCE CHECKLIST, STATION 6

Tasks: Load, fire, and apply immediate action on an M240C coax machine gun.

Performance Measures Results

1. Loaded the M240C coax machine gun.
   a. Opened forwarder access door (M2/M3 only).P F
   b. Opened coax machine gun access doors.P F
   c. Charged coax machine gun. P F
   d. Set manual safety on coax to SAFE.P F
   e. Opened cover assembly and feed tray.P F
   f. Inspected chamber for rounds.P F
   g. Placed ammunition in forwarder.P F
   h. Closed forwarder access door (M2/M3 only).P F
   i. Forwarded ammunition to the feed tray.P F
   j. Closed feed tray.P F
   k. Installed ammunition belt on feed tray.P F
   l. Closed cover assembly.P F
   m. Closed forwarder access door.P F

2. Fired coax machine gun.
   a. Ensured turret drive system switch was off.P F
   b. Opened coax machine gun access doors.P F
   c. Pushed manual safety to firing position.P F
   d. Closed coax machine gun access doors.P F
   e. Moved turret drive switch to ON.P F
   f. Pressed 7.62-mm ammunition button.P F
   g. Moved ARM-SAFE-RESET switch to ARM.P F
   h. Fired coax machine gun.P F

3. Applied immediate action procedures to the M240C coax machine gun.
   a. Moved ARM-SAFE-RESET switch to SAFE.P F
   b. Announced, “Coax misfire,” to crew.P F
   c. Moved turret drive system switch to OFF.P F
   d. Opened coax access doors.P F
   e. Pulled charger handle back until bolt locked to the rear.P F
   f. Closed coax access doors.P F
   g. Turned turret drive system switch to ON.P F
   h. Moved ARM-SAFE-RESET switch to ARM.P F
   i. Squeezed palm switch and trigger switch on commander’s control handle.P F

4. Completed performance measures within 6 minutes.P F

STATION 7

E-9. STATION 7: CLEAR AN M240C COAX MACHINE GUN AND UNLOAD 7.62-MM AMMUNITION

a. **Tasks**: Clear a coax machine gun and unload 7.62-mm ammunition.

b. **Conditions**: Given a Bradley with basic issue items and coax machine gun loaded with 300 rounds of 7.62-mm dummy ammunition.

c. **Standards**: Within 10 minutes, the crew member will—

- Clear the M240C.
- Unload the ammunition from the forwarder and stow the ammunition in the ammunition can.

d. **Evaluation Procedure**: See performance checklist.

PERFORMANCE CHECKLIST, STATION 7

Tasks: Clear a coax machine gun and unload 7.62-mm ammunition.

Performance Measures Results

1. Cleared the coax machine gun.
   a. Moved ARM-SAFE-RESET switch to SAFE.P F
   b. Turned turret drive switch to OFF.P F
   c. Opened coax machine gun access doors.P F
   d. Pulled charger handle back firmly.P F
   e. Moved manual safety up to SAFE position.P F
   f. Opened cover assembly.P F
   g. Removed ammunition belt from feed tray.P F
   h. Opened feed tray.P F
   i. Checked to see if chamber was clear of ammunition.P F
   j. Closed feed tray.P F
   k. Closed cover assembly.P F
   l. Moved manual safety to FIRE position.P F
   m. Dry-fired coax machine gun by riding the bolt forward.P F
   n. Pulled charger handle back firmly.P F
   o. Dry-fired coax machine gun by riding the bolt forward.P F
   p. Closed coax machine gun access doors.P F

2. Unloaded 7.62-mm ammunition.
   a. Opened forwarder access door (M2/M3 only).P F
   b. Removed coax ammunition from feed chute and forwarder (M2/M3 only).P F
   c. Removed coax ammunition from feed chute.P F
   d. Closed forwarder access door (M2/M3 only).P F

Performance Measures Results

3. Completed performance measures within 10 minutes.P F

STATION 8

E-10. STATION 8: REMOVE AN M240C COAX MACHINE GUN

a. **Task**: Remove an M240C machine gun.
b. **Conditions**: Given a Bradley with basic issue items and a cleared coax.
c. **Standards**: Within 2 minutes, the crew member will remove the coax machine gun.
d. **Evaluation Procedure**: See performance checklist.

PERFORMANCE CHECKLIST, STATION 8

Task: Remove an M240C coax machine gun.

Performance Measures Results

1. Removed M240C coax machine gun.
   a. Opened coax machine gun access doors.P F
   b. Removed solenoid cable plug from plenum jack (old mount).P F
   c. Disconnected rear mount pin handle from mount pin hole.P F
   d. Removed coax machine gun from plenum.P F
   e. Closed coax machine gun access doors.P F

2. Completed performance measures within 2 minutes.P F

STATION 9

E-11. STATION 9: DISASSEMBLE (FIELD STRIP) AND ASSEMBLE AN M240C COAX MACHINE GUN

a. **Tasks**: Disassemble (field strip) and assemble an M240C machine gun.
b. **Conditions**: Given an M240C coax machine gun, placed on a flat surface and cleared of ammunition.
c. **Standards**: The crew member will—
- Within 2 minutes, disassemble the M240C machine gun.
- Within 2 minutes, assemble the M240C machine gun.

d. **Evaluation Procedure**: See performance checklist.

PERFORMANCE CHECKLIST, STATION 9

Tasks: Disassemble (field strip) and assemble an M240C coax machine gun.

Performance Measures Results

1. Disassembled (field stripped) M240C coax machine gun.
   a. Depressed barrel locking latch and held.P F
   b. Turned barrel release to upright position.P F
   c. Removed barrel.P F
   d. Depressed trigger pin spring and removed pin.P F
   e. Pulled trigger housing assembly down and back.P F
   f. Pulled charger handle through cable guide.P F
   g. Pulled back plate latch and lifted buffer straight up.P F
   h. Pressed driving spring in, then up, and pulled out.P F
   i. Depressed cover latches and raised cover assembly.P F
   j. Pulled charger handle back, pulled out the bolt and operating rod assembly.P F
   k. Closed cover, pushed out spring pin and removed.P F
   l. Pressed latches and removed cover assembly and feed tray.P F

2. Completed performance measures within 2 minutes.P F

3. Reassembled M240C coax machine gun.
   a. Positioned feed tray and cover assembly, pushed cover assembly forward; closed cover and inserted spring pin.P F
   b. Inserted spring pin from right side.P F
   c. Opened cover assembly.P F
   d. Set bolt operating rod assembly on top of rails (receiver).P F
   e. Extended bolt to unlocked position, then pushed assembly all the way in.P F
   f. Closed and locked cover.P F
   g. Inserted driving spring in the operating rod, pushed in fully and lowered it to seat the stud in the hole of the receiver.P F
   h. Installed buffer and made sure it latched.P F
   i. Slid charger handle through cable guide and positioned trigger housing assembly in place.P F
   j. Inserted pin.P F
   k. Inserted barrel fully into socket, pushed barrel release to the right as far as it would go (not less than two or more than seven clicks).P F
   l. Conducted function checks of the M240C.P F

4. Completed performance measures within 2 minutes.P F

STATION 10

E-12. STATION 10: BORESIGHT TURRET WEAPONS SYSTEMS

a. **Task**: Boresight turret weapons systems.

b. **Conditions**: Given an operational Bradley with basic issue items, operational boresight kit with 25-mm gun adapter, coax installed, and TM 9-2350-252-10-2 or TM 9-2350-284-10-2. (This is the only BGST task that requires the use of the technical manual.)

c. **Standards**: Within 25 minutes (30 minutes for M2A2ODS/M3A2ODS), the crew member will boresight—

- 25-mm gun (day and night).
- Auxiliary sight.
- M240C coax.
- TOW launcher.
- Laser range finder (M2A2ODS/M3A2ODS only).

d. **Evaluation Procedure**: See performance checklist.

PERFORMANCE CHECKLIST, STATION 10

Task: Boresight turret weapons systems.

Performance Measures Results

1. Boresighted turret weapons systems.
   a. Turned on turret power.P F
   b. Moved night vision power switch to ON.P F
   c. Opened ballistic sight cover doors.P F
   d. Moved range control knob to 0.P F
   e. Moved magnification switch to HIGH.P F
   f. Moved sensor select to CLEAR or NEUTRAL.P F
   g. Boresighted M242 25-mm automatic gun.P F
   (1) Pressed AP SS button.
   (2) Ensured that AP appeared on status indicator.
   (3) Adjusted reticle brightness knob.
   (4) Moved turret traverse drive select lever to manual position.
   (5) Moved gun elevation drive select lever to manual position.
   (6) Moved TOW elevation drive select level to power position.
   (7) Centered gun reticle on aiming point of target.
   (8) Helper installed 25-mm boresight adapter and boresight telescope on the muzzle end of the 25-mm barrel.
   (9) Helper focused boresight telescope on target.
   (10) Helper aligned elevation crosshair in boresight reticle on aiming point of target.
   (11) Helper aligned azimuth crosshair in boresight reticle on aiming point of target.
   (12) Helper checked accuracy of boresight telescope.
   (13) Aligned gun reticle on aiming point of target.

(14) Helper and gunner switched positions and verified alignment.
(15) Removed boresight telescope and 25-mm boresight adapter from 25-mm gun barrel.

h. Boresighted the laser range finder (M2A2ODS/M3A2ODS only).P F

(1) Moved magnification switch to HIGH.
(2) Moved laser switch to ON.
(3) Engaged and fully locked boresight prism.
(4) Located laser reticle.
(5) Aligned laser reticle in center of the gun reticle circle.
(6) Disengaged and locked boresight prism.
(7) Moved laser switch to OFF.

i. Boresighted the auxiliary sight.P F

(1) Positioned auxiliary sight to the commander's position.
(2) Focused auxiliary sight.
(3) Looked at aiming point image in auxiliary sight reticle.
(4) Performed elevation linkage adjustment.
(5) Loosened horizontal adjustment lock screw.
(6) Centered aiming point image.
(7) Locked horizontal adjustment lock screw.
(8) Checked aiming point image.

j. Boresighted the M240C coax machine gun.P F

(1) Pressed 7.62 button.
(2) Ensured that 7.62 appeared in status indicator.
(3) Ensured alignment of gun reticle on aiming point of target.
(4) Moved to commander's seat.
(5) Helper installed boresight adapter and boresight telescope in muzzle end of M240C coax machine gun.
(6) Helper focused boresight telescope on boresight panel.
(7) Helper aligned azimuth cross hair reticle on aiming point of target.
(8) Helper aligned elevation cross hair in boresight reticle on aiming point of target.
(9) Helper removed boresight telescope and boresight adapter.

k. Moved sensor select switch to NIGHT.P F

(1) Aligned elevation cross hair and azimuth cross hair on gun reticle on aiming point of target.
(2) Moved sensor select switch to CLEAR or NEUTRAL.
(3) Ensured alignment of gun reticle on aiming point of target.

l. Prepared turret for power operation.P F

(1) Moved gun elevation drive select lever to POWER.
(2) Moved turret traverse drive select lever to POWER.

m. Boresight TOW system.P F

(1) Turned on turret drive and raised TOW launcher.
(2) Turned off turret drive.
(3) Hung red streamer on turret drive system switch.
(4) Pressed TOW button.
(5) Ensured that TOW appeared on status indicator.
(6) Moved TOW elevation drive select lever to manual position.
(7) Moved gun elevation drive select lever to power position.
(8) Moved turret traverse drive select lever to manual position.
(9) Helper installed boresight telescope and hung red streamer on boresight telescope.
(10) Aligned azimuth cross hair of TOW reticle on aiming point of target.
(11) Adjusted the TOW launcher for azimuth, if necessary.
(12) Helper aligned elevation cross hair of boresight telescope reticle on aiming point of target.
(13) Aligned elevation cross hair of TOW reticle on aiming point of target.
(14) Helper removed boresight telescope and red streamer from TOW launcher. Gunner visually inspected.
(15) Removed red streamer from turret drive system switch.
(16) Moved TOW elevation drive select lever to POWER.
(17) Moved turret traverse drive select lever to POWER.
(18) Moved turret drive switch to ON.
(19) Lowered TOW launcher.
(20) Moved turret drive system switch to OFF.

2. Completed performance measures within 25 minutes.P F

STATION 11

E-13. STATION 11: LOAD AND UNLOAD THE 25-MM HE READY BOX

a. **Tasks**: Load and unload the HE ready box.
b. **Conditions**: Given a Bradley with the turret positioned at HE load and 75 M794 dummy rounds.
c. **Standards**: The crew member will—

- Within 6 minutes, load 75 rounds in the HE ready box.
- Within 6 minutes, unload 75 rounds from the HE ready box and separate ammunition into five 15-round belts.

d. **Evaluation Procedure**: See performance checklist.

PERFORMANCE CHECKLIST, STATION 11

Tasks: Load and unload HE ready box.

Performance Measures Results

1. Loaded the HE ready box.
   a. Inspected belts for misaligned rounds.P F
   b. Belted the five 15-round belts together.P F
   c. Knocked on turret shield door and announced, “Loading HE..P F
   d. Opened turret shield door.P F
   e. Removed HE ready box door.P F
   f. Hung first five rounds, double link end first.P F
   g. Hung 19th, 25th, and 26th rounds.P F
   h. Counted out 25 rounds and hung 25th and 26th rounds, and continued process until rounds were loaded.P F
   i. Replaced HE ready box door.P F
   j. Ensured ammunition selector lever was in HE position.P F
   k. Closed turret shield door and announced HE loaded.P F
   l. Completed performance measures within 6 minutes.P F

2. Unloaded HE ready box.
   a. Knocked on turret shield door and announced, “Unloading HE.”P F
   b. Opened turret shield door.P F
   c. Removed HE ready box door.P F
   d. Removed ammunition.P F
   e. Replaced HE ready box door.P F
   f. Closed turret shield door and announced, “HE unloaded.”P F
   g. Separated ammunition into five 15-round belts.P F
   h. Completed performance measures within 6 minutes.P F

STATION 12

E-14. STATION 12: LOAD AND UNLOAD THE 25-MM AP READY BOX

a. **Tasks**: Load and unload the AP ready box.

b. **Conditions**: Given a Bradley with the turret positioned at AP load and 45 M794 dummy rounds.

c. **Standards**: The crew member will—

- Within 6 minutes, load 45 rounds in the AP ready box.
- Within 6 minutes, unload 45 rounds from the AP ready box and separate ammunition into three 15-round belts.

d. **Evaluation Procedure**: See performance checklist.

PERFORMANCE CHECKLIST, STATION 12

Tasks: Load and unload AP ready box.

Performance Measures Results

1. Loaded AP ready box.
   a. Inspected belts for misaligned rounds.P F
   b. Belted the three 15-round belts together.P F
   c. Knocked on turret shield door and announced, “Loading AP.”P F
   d. Opened turret shield door.P F
   e. Removed AP ready box door.P F
   f. Hung first round, double link end first.P F
   g. Hung 25th and 26th round.P F
   h. Placed single link end of belt and forwarded ammunition above the forwarder enough that the rounds stay up above the forwarder.P F
   i. Replaced AP ready box door.P F
   j. Ensured ammunition selector lever was in AP position.P F
   k. Closed turret shield door and announced, “AP loaded.”P F
   l. Completed performance measures within 6 minutes.P F

2. Unloaded the AP ready box.
   a. Knocked on turret shield door and announced, “Unloading AP.”P F
   b. Opened turret shield door.P F
   c. Removed AP ready box door.P F
   d. Removed ammunition.P F
   e. Replaced HE ready box door.P F
   f. Closed turret shield door and announced, “AP unloaded.”P F
   g. Separated ammunition into three 15-round belts.P F
   h. Completed performance measures within 6 minutes.P F

STATION 13

E-15. STATION 13: PREPARE A BRADLEY RANGE CARD

a. **Task**: Prepare a Bradley range card.

b. **Conditions**: Given a fully operational Bradley, a sector of fire, compass, paper, pencil, a map (1:50,000), three marking stakes, and a standard range card form (DA Form 5517-R).

c. **Standards**: Within 15 minutes, the crew will prepare a range card that depicts the target area to include:

- Weapon symbol.
- Circle value.
- Sectors of fire.
- Target reference points/reference points.
- Dead space.

- Weapon reference point.
- Magnetic north.
- Identification data.
- Target/sector data.

d. **Evaluation Procedure**: See performance checklist.

PERFORMANCE CHECKLIST, STATION 13

Task: Prepare a Bradley range card.

Performance Measures Results

1. Prepared a Bradley range card.

a. Indicated identification data.P F

(1) Indicated unit identification.
(2) Indicated magnetic north.

b. Filled in sketch portion.P F

(1) Indicated weapon position by proper symbol.
(2) Indicated left and right limits.
(3) Indicated circle value.
(4) Indicated TRPs/RPs.
(5) Indicated dead space.
(6) Indicated maximum engagement lines.
(7) Indicated weapon reference point.

c. Filled in data section.P F

(1) Indicated position identification.
(2) Indicated vehicle type/bumper number.
(3) Indicated circle value in meters.
(4) Indicated target information.
  · Indicated left and right limits.
  · Indicated TRPs.
  · Indicated RPs.
  · Indicated WRPs.
(5) Indicated data/time.

2. Completed performance measures within 15 minutes.P F

STATION 14

E-16. STATION 14: IDENTIFY COMBAT VEHICLES

a. **Tasks**: Identify combat vehicles.

b. **Conditions**: Given a classroom with a 35-mm slide projector screen, slide tray with forty 35-mm slides of combat vehicle exposures; stopwatch; chair; desk or clipboard; and pencil.

c. **Standards**: The crew member will identify 90 percent (36) of the 40 vehicles by nomenclature. Of the 40 vehicle slides, 15 will be tanks; 17 will be a mix of IFVs, APCs, reconnaissance vehicles, and ATGM vehicles; and 8 will be a mix of trucks and SP artillery, ADA, and engineer vehicles. No more than 30 percent (12) of the 40 vehicles will be US or allied.

d. **Evaluation Procedure**: See performance checklist.

PERFORMANCE CHECKLIST, STATION 14

Task: Identify combat vehicles by nomenclature.

Performance Measures Results

Identified the following vehicle slides (Figure E-2).P F

LIGHT AND MAIN BATTLE TANKS

1. M1-series main battle tank.
   a. M1.
   b. M1A1.
   c. M1A2.

2. M60-series main battle tank.
   a. M60A1
   b. M60A3.

3. XM8 armored gun system (AGS).

4. Challenger-series main battle tank.
   a. Challenger 1.
   b. Challenger 2.

Figure E-2. Combat vehicle list.

5. Leopard-series main battle tank.
   a. Leopard 1.

b. Leopard 1A1A1.
c. Leopard 1A4.
d. Leopard 2.

6. AMX-30.

7. Leclerc.

8. M48A5.

9. T-80-series main battle tank.
a. T-80.
b. T-80U.

10. T-72-series main battle tank.
a. T-72.
b. T-90.

11. T-62-series main battle tank.
a. T-62.
b. T-62 modernized.

12. T-54/55-series main battle tank.
a. T-54/55.
b. T-54/55 modernized.

13. PT-76 light amphibious series tank.
a. PT-76.
b. M-1985 (North Korea).

14. Type 88 main battle tank (South Korea).

15. Chieftain Mk-5 main battle tank.

Figure E-2. Combat vehicle list (continued).

IFV/APC/RECONNAISSANCE VEHICLES

1. Light armored vehicle (LAV) family.
   a. LAV-25.
   b. LAV antitank.
   c. LAV 81-mm mortar carrier.

2. M2/M3-series armored fighting vehicle.
   a. M2/M3.
   b. M2A2/M3A2.
   c. M2A2ODS/M3A2ODS.

3. M113-series armored personnel carrier.
   a. M113A1.
   b. M113A2.
   c. M113A3.
   d. M557.
   e. M901 improved TOW vehicle.

4. LVTP-7 (AAV7A1).

5. M-88 armored recovery vehicle.

6. Saxon.

7. Warrior infantry fighting vehicle.

8. FV-432.

9. Marder-series infantry fighting vehicle.
   a. Marder 1.
   b. Marder 1A2.

10. VAB-series.
   a. VAB 4x4.
   b. VAB 6x6.

11. AMX-10P.

Figure E-2. Combat vehicle list (continued).

12. BTR-series.
    a. BTR-60PB.
    b. BTR-70.
    c. BTR-80.

13. BTR-152.

14. BMP-series infantry fighting vehicle.
    a. BMP-1.
    b. BMP-2.
    c. BMP-3.

15. BMD-series airborne combat vehicle.
    a. BMD-1.
    b. BMD-2.
    c. BMD-3.
    d. BTR-D.
    e. 2S9.

16. BTR-50PK.

17. MTLB multipurpose tracked vehicle.

18. BRDM-series.
    a. BRDM-2 with Sagger.
    b. BRDM-2 with Spandrel.
    c. BRDM-1.
    d. BRDM-2.
    e. BRDM-2U.

19. Scorpion-series reconnaissance vehicle.
    a. Scorpion.
    b. Scimitar.

20. Fox NBC reconnaissance vehicle.

21. AMX-10RC.

22. EE-9 Cascavel.

Figure E-2. Combat vehicle list (continued).

TRUCKS/SP ARTILLERY/ADA/ENGINEER VEHICLES

1. HEMTT-series truck.
   a. M978 fueler.
   b. M977 cargo.

2. M998 HMMWV.

3. M92582 (5-ton).

4. M163 Vulcan.

5. M998 Avenger.

6. ZSU-23-4.

7. ZSU-57-2.

8. 2S6.

9. SA-9 Gaskin.

10. Gepard.

11. M-270 multiple launch rocket system (MLRS).

12. M-109 SP artillery series.
   a. M-109A6 Paladin.
   b. M-992 FAASV.

13. 2S1.

14. 2S3.

15. M60 AVLB.

16. M-728 CEV.

17. M-9 ACE.

Figure E-2. Combat vehicle list (continued).

GLOSSARY

Acronyms and Abbreviations

ACCP	Army Correspondence Course Program
ammo	ammunition
AP	armor-piercing
APDS-T	armor-piercing discarding sabot-tracer
ARTEP	Army Training and Evaluation Program
ATGM	antitank guided missile
ATTN	attention
BC	Bradley commander
BFV	Bradley fighting vehicle
CLP	cleaner, lubricant and preservative
co	company
coax	coaxial
COMSEC	communications security
CP	command post
CTT	common task test
CVC	combat vehicle crewman (helmet)
DA	Department of the Army
DC	direct current
EW	electronic warfare
FCTN	function
FH	frequency hopping
FO	forward observer
FPF	final protective fire
FPL	final protective line
gr	grenadier
HE	high explosive
HEI-T	high explosive incendiary-tracer
HQ	headquarters
hr	hour
IAW	in accordance with
ISU	integrated sight unit
LAW	lubricating oil, arctic weapon; light antitank weapon

LD	line of departure
LO	lubrication order
LSA	lubricating oil, semifluid, automatic weapons
m	meter
m/n	mil(s)
MAG	magnification
MEDEVAC	medical evacuation
METL	mission-essential task list
mm	millimeter
MOPP	mission-oriented protective posture
MOS	military occupational specialty
MOUT	military operations on urban terrain
MTP	MOS training plan
NBC	nuclear, biological, and chemical
NCO	noncommissioned officer
NCOIC	noncommissioned officer in charge
NCS	net control station
ODS	Operation Desert Storm
OP	observation post
PC	personnel carrier
PDF	principal direction of fire
plt	platoon
PMCS	preventive maintenance checks and services
PW	prisoner of war
RBC	rifle bore cleaner
rd	road; round
RP	release point
RPG	(a Threat weapon)
SC	single channel
SINCGARS	single-channel ground and airborne radio subsystem
SL	squad leader; skill level
SM	soldier's manual
SMCT	soldier's manual of common tasks
SOI	signal operation instructions
SOP	standing operating procedure
SP	starting point

sqd	squad
STP	soldier's training publication
TG	trainer's guide
TL	team leader
TM	technical manual
TOE	Table of Organization and Equipment
TOW	tube-launched, optically tracked, wire-guided
TP-T	target practice-tracer
TRADOC	United States Army Training and Doctrine Command
TRP	target reference point
US	United States

REFERENCES

DOCUMENTS NEEDED

These documents must be available to the intended users of this publication.

DA Form 2404	Equipment Inspection and Maintenance Worksheet. 01 April 1979.
DA Form 5164-R	Hands-On Evaluation. September 1985.
DA Form 5165-R	Field Expedient Squad Book. September 1985.
DA Pam 738-750	Functional Users Manual for the Army Maintenance Management System (TAMMS). 01 August 1994.
LO 9-2350-252-12	Fighting Vehicle, Infantry, M2, M2A1 and Fighting Vehicle, Cavalry, M3, M3A1. 30 July 1991.
TM 9-1005-313-10	Operator's Manual for Machine Gun, 7.62-mm, M240 and M240B, M240C, M240E1. 19 July 1996.
TM 9-2350-252-10-1	Operator's Manual for Fighting Vehicle, Infantry, M2, M2A1 and Fighting Vehicle, Cavalry, M3, M3A1 Hull. 03 November 1986.
TM 9-2350-252-10-2	Operator's Manual for Fighting Vehicle, Infantry, M2, M2A1 and Fighting Vehicle, Cavalry, M3, M3A1 Turret. 22 September 1986.

READINGS RECOMMENDED

These readings contain relevant supplemental information.

FM 5-34	Engineer Field Data. 14 September 1987.
FM 5-36	Route Reconnaissance and Classification. 10 may 1985.
FM 5-250	Explosives and Demolitions. 30 July 1998.
FM 7-7	The Mechanized Infantry Platoon and Squad (APC). 15 March 1985.
FM 7-7J	Mechanized Infantry Platoon and Squad (Bradley). 07 May 1993.
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By Order of the Secretary of the Army:

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