### **SOLDIER'S MANUAL/TRAINER'S GUIDE**

# QUARTERMASTER AND CHEMICAL EQUIPMENT REPAIRER

**SKILL LEVELS 1, 2** 

**MOS 63J** 

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HEADQUARTERS, DEPARTMENT OF THE ARMY

### **STP 9-63J12-SM-TG**

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DEPARTMENT OF THE ARMY

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### **SOLDIER'S MANUAL and TRAINER'S GUIDE**

### **MOS 63J**

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### Skill Levels 1 and 2

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Supersedes Soldiers Manual and Trainer's Guide dated 22 June 1992

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#### **PREFACE**

This soldier training publication (STP) is intended for soldiers holding MOS 63J, Skill Levels 1 and 2, their supervisors, trainers, and commanders. It contains an MOS Training Plan providing information needed to plan, conduct, and evaluate unit training, one of the most important jobs of military leaders. It includes standardized training objectives in the form of task summaries that can be used to train and evaluate soldiers on critical tasks supporting unit missions during wartime.

Soldiers holding MOS 63J should have access to this publication. Trainers and firstline supervisors should actively plan for soldiers' access, making it available in work areas, unit learning centers, and unit libraries. However, it is not intended for an individual copy to be provided to each MOS holder. The STP is obtainable on line from the Reimer Digital Library (RDL) at:

http://www.adtdl.army.mil/atdls.htm

Tasks in this manual apply to both Active and Reserve Component soldiers.

The proponent of this publication is HQ TRADOC. Submit comments and recommendations on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to: Department of the Army, Training Directorate, Ordnance Training Division, ATTN: ATCL-AO, 401 First Street, Suite 227, Fort Lee, VA 23801-1511.

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

#### **CHAPTER 1**

#### Introduction

- 1-1. <u>General</u>. This soldier training publication (STP) identifies individual MOS training requirements for soldiers holding MOS 63J. Commanders, trainers, and soldiers should use it to plan, conduct, and evaluate individual training in units. The STP is the primary MOS reference for supporting self-development, evaluating MOS proficiency, and training of 63J soldiers. Commanders employ two primary methods to evaluate soldiers' proficiency:
  - Commander's evaluation. Commander's evaluations are local tests or assessments of soldiers' performance of MOS-specific and common tasks critical to the unit mission. They may be conducted year-round.
  - Common task test (CTT). CTTs are hands-on tests used to evaluate proficiency on common tasks. Alternate written tests are provided if equipment is not available for hands-on testing.

This publication is the soldier's primary reference to prepare for a commander's evaluation of MOS-specific tasks. It contains task summaries for all critical tasks specific to the MOS and skill level (SL). Commanders and trainers will use this soldier's manual/trainer's guide (SM/TG) to plan and conduct training and commander's evaluations.

Chapter 2, Trainer's Guide, contains information needed to plan training requirements for this MOS. The trainer's guide

- · Identifies subject areas in which soldiers must be trained.
- Identifies critical tasks for each subject area.
- · Specifies where soldiers are initially trained on each task.
- · Recommends how often each task should be trained to sustain proficiency.
- · Recommends a strategy for cross-training soldiers.
- · Recommends a strategy for training soldiers to perform higher-level tasks.

Use this STP along with STP 21-1-SMCT (Soldier's Manual of Common Tasks, Skill Level 1), STP 21-24-SMCT (Soldier's Manual of Common Tasks, Skill Levels 2-4), Army training and evaluation programs (ARTEPs), FM 25-4 (How to Conduct Training Exercises), FM 25-5 (Training for Mobilization and War), FM 25-100 (Training the Force), and FM 25-101 (Battle-Focused Training) to establish effective training plans and programs that integrate soldier, leader, and collective tasks.

- 1-2. <u>Task Summaries</u>. Task summaries outline wartime performance requirements for each critical task in the STP. They provide both soldier and trainer with the information necessary to prepare, conduct, and evaluate critical task training. As a minimum, task summaries include information soldiers must know and skills they must perform to standard for each task. Following is the task summary format:
  - Task number. The task number is a 10-digit number that identifies the task and skill level. Include the task number and title in any correspondence relating to the task.
  - Task title. The task title identifies the action to be performed.
  - Conditions. The task conditions statement describes the field or garrison conditions under which
    the task will be performed and identifies the equipment, tools, references, job aids, and
    supporting personnel that the soldier needs to perform the task in wartime.

- Standards. The task standards describe how well and to what level of proficiency the soldier must perform the task under wartime conditions. Standards are typically expressed in terms of accuracy, completeness, duration, sequence, speed, and tolerance.
- Performance measures. This section identifies specific actions that the soldier must accomplish to complete the task successfully. Performance measures appear in a GO/NO-GO rating format for easy evaluation. Some tasks 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 can not be trained to the wartime standard under 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.
- References. This section identifies references that provide more detailed explanations of task performance requirements than are given in the task summary.
- Warnings. Warnings alert users to the possibility of immediate personal injury or equipment damage.
- · Notes. Notes provide additional supportive explanations or tips relating to task performance.
- 1-3. <u>Soldier's Responsibilities</u>. Each soldier is responsible for performing individual tasks identified by the first-line supervisor based on the unit's mission-essential task list (METL). Soldiers must perform tasks to the standards included in the task summary. If soldiers have questions about tasks or which tasks in this manual they must perform, they are responsible for asking their first-line supervisor for clarification. First-line supervisors know how to perform each task or can direct soldiers to appropriate training materials, including current field manuals, technical manuals, and Army regulations. Soldiers are responsible for using these materials to maintain performance. They are also responsible for maintaining performance of all common tasks listed in the SMCTs at their current skill level and below.

Periodically, soldiers should ask their supervisor or another solder to check their performance to ensure that they can perform the tasks.

1-4. NCO Self-Development and the STP. Self-development is a key component of leader development. Leaders follow planned, progressive, sequential self-development programs developed by the individual NCO and his or her first-line supervisor to enhance and sustain military competencies. Self-development consists of individual study, research, professional reading, practice, and self-assessment. The self-development concept requires NCOs, as Army professionals, to take responsibility for remaining current in all phases of their MOS. The STP is the NCO's primary source for maintaining MOS proficiency.

Another important resource for self-development is the Army Correspondence Course Program (ACCP). Refer to DA Pamphlet 351-20 (Army Correspondence Course Program Catalog) for detailed eligibility requirements and enrollment information. The catalog is available at local education centers or on line through the Army Institute for Professional Development (AIPD) web site, . The web site offers on-line enrollment.

1-5. <u>Commander's Responsibilities</u>. Commanders must ensure that their unit training plans prepare the unit for war by enabling soldiers to develop and sustain proficiency in their MOS and skill level tasks. Commanders should design unit training programs to provide individual training for all soldiers assigned to the unit and to evaluate soldier proficiency routinely as part of the commander's evaluation program. The unit training program should also integrate individual training with crew drills and other collective training. The MOS training plan provides information on which to base integration, cross-train, train-up, and sustainment training programs. Commanders should use the MOS training plan when developing unit training plans.

1-6. <u>Trainer's Responsibilities</u>. Training is the business of all unit leaders. First-line leaders are the principal trainers in the unit because they directly supervise soldiers and lead crews, squads, sections, and teams.

Trainers can use the MOS training plan to determine the critical tasks each soldier is responsible for. They should tell each soldier which tasks he or she must be able to perform. Trainers should evaluate task performance to determine which tasks each soldier can or cannot perform to standard. Soldiers who cannot perform a task to standard need further training. This STP helps the trainer do what trainers get paid to do train. Developing effective training is explained in detail in FM 25-100 and FM 25-101.

Every task summary in this STP includes performance measures, which trainers may use year-round to determine if soldiers can perform critical tasks to the specified standards. The performance measures identify what the trainer needs to observe to score a soldier's performance. A blank space is provided for the trainer to check either the GO or NO-GO column for each performance measure. Some tasks require the trainer to watch the soldier perform them (evaluate the process). Other tasks call for the trainer to focus on the results of the soldier's performance (evaluate the product). Comments should not be written on the task summary.

Trainers can monitor the progress of their soldiers by recording task go/no-go results. Trainers may use DA Form 5164-R (Hands-On Evaluation) to record the performance measures a soldier passed or failed. The form, which may be locally reproduced, applies to all tasks in this STP. Trainers may have DA Form 5164-R overprinted with information unique to their training requirements before reproducing it. See Appendix A of this STP for a sample DA Form 5164-R with instructions.

Trainers may use DA Form 5165-R (Field Expedient Squad Book) to record hands-on go/no-go results for a group of soldiers (for example, a crew, section, or squad) having the same MOS and skill level. This form supports conduct of commander's evaluations, and can be used to record training results gathered in the field during slack time for all MOSs and skill levels. Use of this form is optional. See Appendix B for a sample DA Form 5165-R with instructions. Trainers should work with each soldier until tasks can be performed to specific task summary standards.

1-7. <u>Training Support</u>. References have been identified for each task to assist in planning and conducting training. A consolidated list of references identified by type, publication number, and title and a comprehensive glossary of acronyms, abbreviations, and definitions are included in this STP.

#### **CHAPTER 2**

#### Trainer's Guide

63J CAREER FIELD DUTY POSITIONS				
Duty Position	Subject	Cross	Train-up/Merger	
	Area	Train		
	S	kill Level	1	
Quartermaster/chemical equipment	1 - 15	NA	63J20/Quartermaster/chemical equipment	
repairer			repairer	
	S	kill Level	2	
Quartermaster/chemical equipment	1 - 15	NA	52C30/Senior Utilities Equipment Repairer	
repairer			52C30/Technical Inspector	
			52C30/Utility Equipment Maintenance	
			Manager	
			52C30/Senior QM & Chemical Equipment	
			Repairer	

2-1. <u>General</u>. The MOS Training Plan (MTP) 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 MTP should be used as a guide for conducting unit training and not a rigid standard. The MTP consists of two parts. Each part is designed to assist the commander in preparing a unit training plan which satisfies integration, cross training, training up, and sustainment training requirements for soldiers in this MOS.

Part One of the MTP shows the relationship of an MOS skill level between duty position and critical tasks. These critical tasks are grouped by task commonality into subject areas.

Section I lists subject area numbers and titles used throughout the MTP. These subject areas are used to define the training requirements for each duty position within an MOS.

Section II identifies the total training requirement for each duty position within an MOS and provides a recommendation for cross training and train-up/merger training.

- **Duty Position column**. This column lists the duty positions of the MOS, by skill level, which have different training requirements.
- **Subject Area column**. This column lists, by numerical key (see Section I), the subject areas a soldier must be proficient in to perform in that duty position.
- Cross Train column. This column lists the recommended duty position for which soldiers should be cross trained.
- **Train-up/Merger column**. This column lists the corresponding duty position for the next higher skill level or MOSC the soldier will merge into on promotion.

Part Two lists, by general subject areas, the critical tasks to be trained in an MOS and the type of training required (resident, integration, or sustainment).

- Subject Area column. This column lists the subject area number and title in the same order as Section I, Part One of the MTP.
- Task Number column. This column lists the task numbers for all tasks included in the subject area.

- Title column. This column lists the task title for each task in the subject area.
- Training Location column. This column identifies the training location where the task is first trained to soldier training publications 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, by brevity code (ANCOC, BNCOC, etc.), the resident course where the task was taught. Figure 2-1 contains a list of training locations and their corresponding brevity codes.

AIT	Advanced Individual Training
AIT/UNIT	Advanced Individual Trng (AC Only)/Unit (RC Only)
UNIT	Trained in the Unit

Figure 2-1. Training Locations

• Sustainment Training Frequency column. This column indicates the recommended frequency at which the tasks should be trained to ensure soldiers maintain task proficiency. Figure 2-2 identifies the frequency codes used in this column.

BA - Biannually
AN - Annually
SA - Semiannually
QT - Quarterly
MO - Monthly
BW - Bi-weekly
WK - Weekly

Figure 2-2. Sustainment Training Frequency Codes

 Sustainment Training Skill Level column. This 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.

#### 2-2. Subject Area Codes.

#### Skill Level 1

- 1 GENERAL SUPPORT
- 2 PUMP 50 GPM 100 FOOT HEAD
- 3 PUMP ASSY, 350 GPM 275 FOOT HEAD
- 4 FILTER UNIT, 12 ABC M7A1
- 5 GENERATOR SMOKE, M157
- 6 GENERATOR SMOKE, M56/M58
- 7 CLEANER STEAM, M116A2
- 8 LAUNDRY UNIT TRAILER MOUNTED M85-100
- 9 LAUNDRY ADVANCE SYSTEM (LADS)
- 10 DECONTAMINATION APPARATUS M17
- 11 DECONTAMINATING APPARATUS M12A1
- 12 WATER PURIFICATION REVERSE OSMOSIS UNITS
- 13 HEATER
- 14 PMCS
- 15 BDAR

### 2-3. <u>Duty Position Training Requirements</u>.

See Chapter 2 Training Guide.

### 2-4. Critical Tasks List.

### MOS TRAINING PLAN 63J12

Subject Area	Task Number	Title	Training Location	Sust Tng Freq	Sust Tng SL		
	Skill Level 1						
1. GENERAL SUPPORT	091-63J-2003	Repair Pump Assembly on a Water Purification Unit Reverse Osmosis	UNIT	AN	1/2		
2. PUMP 50 GPM 100 FOOT HEAD	091-63J-2006	Correct Malfunction of a Pump Assembly on a 50 GPM Pump	UNIT	SA	1/2		
3. PUMP ASSY, 350 GPM 275 FOOT HEAD	091-63J-2009	Correct Malfunction of a Pump Assembly on a 350 GPM Pump	AIT	AN	1/2		
	091-63J-2073	Correct Malfunction of Electrical System on a 350 GPM Pump	AIT	AN	1/2		
	091-63J-2074	Correct Malfunction of the Engine Assembly on a 350 GPM Pump	AIT	AN	1/2		
4. FILTER UNIT, 12 ABC M7A1	091-63J-2075	Correct Malfunction of 12 CFM ABC-M7A1 Filter Unit	AIT	AN	1/2		
5. GENERATOR SMOKE, M157	091-63J-2028	Correct Malfunction of an Air System on a Smoke Generator	AIT	AN	1/2		
	091-63J-2029	Correct Malfunction of a Fuel System on a Smoke Generator	AIT	AN	1/2		
	091-63J-2030	Correct Malfunction of a Control Panel Assembly on a Smoke Generator	AIT	AN	1/2		
	091-63J-2031	Correct Malfunction of a Fog Oil System on a Smoke Generator	AIT	AN	1/2		
	091-63J-2032	Correct Malfunction of a Pulse Jet Engine System on a Smoke Generator	AIT	AN	1/2		
6. GENERATOR SMOKE, M56/M58	091-63J-2076	Correct Malfunction on the Control Module on the M56/M58 Smoke Generator	AIT	AN	1/2		
	091-63J-2077	Correct Malfunction on the Power Module on the M56/M58 Smoke Generator	AIT	AN	1/2		
	091-63J-2078	Correct Malfunction on the Visual Module on	AIT	AN	1/2		

Subject Area	Task Number	Title	Training Location	Sust Tng Freq	Sust Tng SL
		the M56/M58 Smoke Generator		1104	02
	091-63J-2079	Correct Malfunction on the Infrared (IR) Module on the M56/M58 Smoke Generator	AIT	AN	1/2
7. CLEANER STEAM, M116A2	091-63J-2080	Correct Malfunction on the Fuel System on the M116A2 Steam Cleaner	UNIT	AN	1/2
	091-63J-2081	Correct Malfunction on the Air System on the M116A2 Steam Cleaner	UNIT	SA	1/2
	091-63J-2082	Correct Malfunction on the Mechanical Systems on the M116A2 Steam Cleaner	UNIT	SA	1/2
	091-63J-2083	Correct Malfunction on the Electrical System on the M116A2 Steam Cleaner	AIT	AN	1/2
	091-63J-2084	Correct Malfunction on the Water Pump Mechanical System on the M116A2 Steam Cleaner	UNIT	SA	1/2
8. LAUNDRY UNIT TRAILER MOUNTED M85-100	091-63J-2035	Correct Malfunction of a Washer Assembly on a Laundry Unit	AIT	AN	1/2
	091-63J-2036	Correct Malfunction of an Air Compressor Assembly on a Laundry Unit	AIT	AN	1/2
	091-63J-2037	Correct Malfunction of an Extractor Assembly on a Laundry Unit	AIT	AN	1/2
	091-63J-2039	Correct Malfunction of a Dryer Tumbler Assembly on a Laundry Unit	AIT	AN	1/2
	091-63J-2085	Correct Malfunction of a Water Heater on a Laundry Unit/Bath Unit	AIT	AN	1/2
	091-63J-2086	Correct Malfunction of a Water Pump Assembly on a Laundry Unit/Bath Unit	AIT	AN	1/2
9. LAUNDRY ADVANCE SYSTEM (LADS)	091-63J-2096	Correct Malfunction of a Drum Assembly on a Laundry Advance Unit (LADS)	AIT	SA	1/2
	091-63J-2097	Correct Malfunction of a Heater Assembly on a Laundry Advance System	AIT	AN	1/2
	091-63J-2098	Correct Malfunction of a Control Panel on a Laundry Advance System	AIT/UNIT	AN	1/2
10. DECONTAMI	091-63J-2045	Correct Malfunction of a Burner on an M-17 Decontaminating Apparatus	AIT	AN	1/2

Subject Area	Task Number	Title	Training Location	Sust Tng Freq	Sust Tng SL
NATION APPARATUS M17				•	
	091-63J-2047	Correct Malfunction of a Water Pump Assembly on an M-17 Decontaminating Apparatus	AIT	AN	1/2
	091-63J-2087	Correct Malfunction of Electrical Systems on an M-17 Decontaminating Apparatus	AIT	AN	1/2
11. DECONTAMI NATING APPARATUS M12A1	091-63J-2088	Correct Malfunction of a Fuel System on an M12A1 Decontaminating Apparatus	UNIT	SA	1/2
	091-63J-2089	Correct Malfunction of a Boiler Assembly on an M12A1 Decontaminating Apparatus	UNIT	SA	1/2
	091-63J-2090	Correct Malfunction of a Water Heater Assembly on an M12A1 Decontaminating Apparatus	UNIT	SA	1/2
	091-63J-2091	Correct Malfunction of the Electrical Systems on an M12A1 Decontaminating Apparatus	AIT	AN	1/2
	091-63J-2092	Correct Malfunction of a Control Panel on an M12A1 Decontaminating Apparatus	UNIT	SA	1/2
	091-63J-2093	Correct Malfunction of a Pump Assembly on an M12A1 Decontaminating Apparatus	AIT	AN	1/2
12. WATER PURIFICATIO N REVERSE OSMOSIS UNITS	091-63J-2061	Correct Malfunction of Gauges (Non Electrical) on a Water Purification Unit Reverse Osmosis	AIT	AN	1/2
	091-63J-2062	Correct Malfunction of Water System on a Water Purification Unit Reverse Osmosis	AIT	AN	1/2
	091-63J-2063	Correct Malfunction of Water Purification Electrical System on a Water Purification Unit Reverse Osmosis	AIT	AN	1/2
	091-63J-2064	Correct Malfunction of Water Purification Air System on a Water Purification Unit Reverse Osmosis	AIT	AN	1/2
	091-63J-2066	Correct Malfunction of Water Distribution System on a Water Purification Unit Reverse Osmosis	UNIT	SA	1/2
	091-63J-2094	Correct Malfunction of Reverse Osmosis Pump Assembly on a 600 GPH Water Purification Unit Reverse Osmosis	AIT	AN	1/2

Subject Area	Task Number	Title	Training Location	Sust Tng Freq	Sust Tng SL
	091-63J-2095	Correct Malfunction of High Pressure Pump Assembly on a 3000 GPH Reverse Osmosis Water Purification Unit	AIT	AN	1/2
13. HEATER	091-63J-2067	Correct Malfunction of Fuel System on a Heater	AIT	AN	1/2
	091-63J-2068	Correct Malfunction of Electrical Systems on a Heater	AIT	AN	1/2
	091-63J-2069	Correct Malfunction of Burner Assembly on a Heater	AIT	AN	1/2
14. PMCS	091-63J-2072	Perform Preventive Maintenance Checks and Services on Ground Support Equipment	AIT	AN	1/2
15. BDAR	091-109-8000	Perform Battlefield Damage Assessment and Repair	UNIT	SA	1/2

#### **CHAPTER 3**

#### MOS/Skill Level Tasks

#### Skill Level 1

Subject Area 1: GENERAL SUPPORT

### Repair Pump Assembly on a Water Purification Unit Reverse Osmosis 091-63J-2003

**Conditions:** In a field or garrison environment, given a fluid pumping mechanism, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, TMDE, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** The fluid pump must be maintained and its components replaced IAW the applicable technical publications. When the task is completed, the water purification unit reverse osmosis must be fully mission capable.

Perf	formance Measures	<u>GO</u>	NO GO
1.	Select and use appropriate references.		
2.	Select and use appropriate tools and test equipment.		
3.	Inspect pump components and determine serviceability/malfunction(s).		
4.	Test pump components.		
5.	Service pump components.		
6.	Adjust pump components.		
7.	Replace/repair pump components as required.		
8.	Perform a final test/inspection to verify fault(s) have been corrected.		
9.	Annotate corrective actions taken on the DA Form 5988-E.		
10.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

Required	Related
TM 10-4610-215-24	DA PAM 738-750
TM 10-4610-232-34	TM 10-4610-215-10
TM 10-4610-239-24	TM 10-4610-232-12
	TM 10-4610-239-10

#### Subject Area 2: PUMP 50 GPM 100 FOOT HEAD

# Correct Malfunction of a Pump Assembly on a 50 GPM Pump 091-63J-2006

**Conditions:** In a field or garrison environment, given a 50 GPM pump, general mechanic's tool kit, metric tool kit, torque wrench, compression gauge, rubber hose or tape, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of a pump assembly on a 50 GPM pump IAW applicable technical publications. When the task is completed, the GPM pump must be fully mission capable.

Perf	formance Measures	<u>GO</u>	NO GO
1.	Select and use applicable technical references.		
2.	Select and use applicable tools and equipment.		
3.	Practice shop safety and maintenance equipment.		
4.	Inspect the pump assembly and determine serviceability/malfunction(s).		
5.	Disassemble the pump assembly.		
6.	Service pump components.		
7.	Adjust pump components.		
8.	Replace/repair pump components as required.		
9.	Assemble the pump assembly.		
10.	Perform a final test/inspection to verify fault(s) have been corrected.		
11.	Annotate corrective actions taken on the DA Form 5988-E.		
12.	Maintain tools and equipment.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 5-4320-237-15

Related

#### Subject Area 3: PUMP ASSY, 350 GPM 275 FOOT HEAD

# Correct Malfunction of the Engine Assembly on a 350 GPM Pump 091-63J-2074

**Conditions:** In a field or garrison environment, given a 350 GPM pump engine, general mechanic's tool kit, metric tool kit, torque wrench, compression gauge, rubber hose or tape, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of the engine assembly on a 350 GPM pump IAW applicable technical publications. When the task is completed, the GPM pump must be fully mission capable.

Performance Measures	<u>GO</u>	NO GO
Select and use applicable technical publications.		
2. Select and use applicable tools and equipment.		
3. Practice shop safety and maintenance discipline.		
4. Inspect the engine assembly and determine serviceability/malfunction(s).		
5. Repair the engine assembly as required.		
6. Adjust the engine assembly as required.		
7. Perform a final test/inspection to verify fault(s) have been corrected.		
8. Annotate corrective actions taken on the DA Form 5988-E.		
9. Maintain tools and equipment.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 10-4320-343-14 TM 5-4320-237-15 Related

# Correct Malfunction of Electrical System on a 350 GPM Pump 091-63J-2073

**Conditions:** In a field or garrison environment, given a 350 GPM pump, general mechanic's tool kit, multimeter, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of electrical system on a 350 GPM pump IAW applicable technical publications. When the task is completed, the GPM pump must be fully mission capable.

Performance Measures	<u>GO</u>	NO GO
Select and use applicable technical publications.		
2. Select and use applicable tools, equipment, and TMDE.		
3. Practice shop safety and maintenance discipline.		
4. Inspect the electrical system and determine serviceability/malfunction(s).		
5. Repair electrical system on a 350 GPM pump as required.		
6. Perform a final test/inspection to verify fault(s) have been corrected.		
7. Annotate corrective actions taken on the DA Form 5988-E.		
8. Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 10-4320-226-14 TM 10-4320-343-14 Related DA PAM 738-750

# Correct Malfunction of a Pump Assembly on a 350 GPM Pump 091-63J-2009

**Conditions:** In a field or garrison environment, given a 350 GPM pump, general mechanic's tool kit, metric tool kit, torque wrench, compression gauge, rubber hose or tape, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of a pump assembly on a 350 GPM pump IAW applicable technical publications. When the task is completed, the GPM pump must be fully mission-capable.

Perf	formance Measures	<u>GO</u>	NO GO
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools and equipment.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the pump assembly and determine serviceability/malfunction(s).		
5.	Disassemble the pump assembly.		
6.	Service pump components.		
7.	Adjust pump components.		
8.	Replace/repair pump components as required.		
9.	Assemble the pump assembly.		
10.	Perform a final test/inspection to verify fault(s) have been corrected.		
11.	Annotate corrective actions taken on the DA Form 5988-E.		
12.	Maintain tools and equipment.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 10-4320-343-14 TM 5-4320-237-15 Related

#### Subject Area 4: FILTER UNIT, 12 ABC M7A1

# Correct Malfunction of 12 CFM ABC-M7A1 Filter Unit 091-63J-2075

**Conditions:** In a field or garrison environment, given an M7A1 filter unit, general mechanic's tool kit, air flow tester, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of the 12 CFM ABC-M7A1 filter unit IAW applicable technical publications. When the task is completed, the filter unit must be fully mission capable.

Per	formance Measures	GO	NO GO
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools, equipment, and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the filter unit and determine serviceability/malfunction(s).		
5.	Repair/replace the filter unit, as required.		
6.	Perform a final test/inspection to verify fault(s) have been corrected.		
7.	Annotate corrective actions taken on the DA Form 5988-E.		
8.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 3-4240-201-13

Related

#### Subject Area 5: GENERATOR SMOKE, M157

# Correct Malfunction of a Pulse Jet Engine System on a Smoke Generator 091-63J-2032

**Conditions:** In a field or garrison environment, given an M157 series smoke generator, multimeter, general mechanic's tool kit, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of the pulse jet engine system on a smoke generator IAW applicable technical publications. When the task is completed, the smoke generator must be fully mission capable.

Perf	formance Measures	<u>GO</u>	NO GO
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools, equipment, and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the pulse jet system and determine serviceability/malfunction(s).		
5.	Disassemble the pulse jet engine system.		
6.	Replace/repair the pulse jet engine system components as required.		
7.	Assemble the pulse jet engine system.		
8.	Perform a final test/inspection to verify fault(s) have been corrected.		
9.	Annotate corrective actions taken on the DA Form 5988-E.		
10.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 3-1040-279-12&P Related

# Correct Malfunction of an Air System on a Smoke Generator 091-63J-2028

**Conditions:** In a field or garrison environment, given an M157 series smoke generator, multimeter, general mechanic's tool kit, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of the air system on a smoke generator IAW applicable technical publications. When the task is completed, the smoke generator must be fully mission capable.

erformance Measures	<u>GO</u>	NO GO
1. Select and use applicable technical publications.		
2. Select and use applicable tools, equipment, and TMDE.		
3. Practice shop safety and maintenance discipline.		
4. Inspect the air system and determine serviceability/malfunction(s).		
5. Disassemble the air system.		
6. Repair/replace the air system as required.		
7. Assemble the air system as required.		
8. Perform a final test/inspection to verify fault(s) have been corrected.		
9. Annotate corrective actions taken on the DA Form 5988-E.		
10. Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

Required TM 3-1040-279-12&P Related

# Correct Malfunction of a Control Panel Assembly on a Smoke Generator 091-63J-2030

**Conditions:** In a field or garrison environment, given an M157 series smoke generator, multimeter, general mechanic's tool kit, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of the control panel assembly on a smoke generator IAW applicable technical publications. When the task is completed, the smoke generator must be fully mission capable.

Performance Measures	<u>GO</u>	NO GC
Select and use applicable technical publications.		
2. Select and use applicable tools, equipment, and TMDE.		
3. Practice shop safety and maintenance discipline.		
4. Inspect the control panel assembly and determine serviceability/malfunction(s).		
5. Disassemble the control panel assembly.		
6. Replace/repair the control panel assembly components as required.		
7. Assemble the control panel assembly.		
8. Perform a final test/inspection to verify fault(s) have been corrected.		
9. Annotate corrective actions taken on the DA Form 5988-E.		
10. Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

Required TM 3-1040-279-12&P Related

# Correct Malfunction of a Fuel System on a Smoke Generator 091-63J-2029

**Conditions:** In a field or garrison environment, given an M157 series smoke generator, multimeter, general mechanic's tool kit, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of the fuel system on a smoke generator IAW applicable technical publications. When the task is completed, the smoke generator must be fully mission capable.

ert	ormance Measures	GO	NO GC
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools, equipment, and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the fuel system and determine serviceability/malfunction(s).		
5.	Disassemble fuel system.		
6.	Repair/replace fuel system as required.		
7.	Assemble the fuel system.		
8.	Perform a final test/inspection to verify fault(s) have been corrected.		
9.	Annotate corrective actions taken on the DA Form 5988-E.		
10.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 3-1040-279-12&P Related

# Correct Malfunction of a Fog Oil System on a Smoke Generator 091-63J-2031

**Conditions:** In a field or garrison environment, given an M157 series smoke generator, multimeter, general mechanic's tool kit, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of the fog oil system on a smoke generator IAW applicable technical publications. When the task is completed, the smoke generator must be fully mission capable.

ert	ormance Measures	GO	NO GC
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools, equipment, and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the fog oil system and determine serviceability/malfunction(s).		
5.	Disassemble the fog oil system.		
6.	Replace/repair fog oil system components as required.		
7.	Assemble the fog oil system.		
8.	Perform a final test/inspection to verify fault(s) have been corrected.		
9.	Annotate corrective actions taken on the DA Form 5988-E.		
10.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

Required TM 3-1040-279-12&P Related

#### Subject Area 6: GENERATOR SMOKE, M56/M58

# Correct Malfunction on the Infrared (IR) Module on the M56/M58 Smoke Generator 091-63J-2079

**Conditions:** In a field or garrison environment, given an M56/M58 smoke generator, general mechanic's tool kit, multimeter, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction on the infrared (IR) module on the M56/M58 smoke generator IAW applicable technical publications. When the task is completed, the smoke generator must be fully mission capable.

Perf	ormance Measures	<u>GO</u>	NO GO
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools, equipment, and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the IR module and determine serviceability/malfunction(s).		
5.	Disassemble the IR module.		
6.	Repair/replace the IR module components as required.		
7.	Assemble the IR module.		
8.	Perform a final test/inspection to verify fault(s) have been corrected.		
9.	Annotate corrective actions taken on the DA Form 5988-E.		
10.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 3-1040-285-20 TM 3-1040-285-23P TM 3-1040-285-30

# Correct Malfunction on the Visual Module on the M56/M58 Smoke Generator 091-63J-2078

**Conditions:** In a field or garrison environment, given an M56/M58 smoke generator, general mechanic's tool kit, multimeter, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction on the visual module on the M56/M58 smoke generator IAW applicable technical publications. When the task is completed, the smoke generator must be fully mission-capable.

Perf	formance Measures	<u>GO</u>	NO GO
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools, equipment, and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the visual module and determine serviceability/malfunction(s).		
5.	Disassemble the visual module.		
6.	Repair/replace the visual module components as required.		
7.	Assemble the visual module.		
8.	Perform a final test/inspection to verify fault(s) have been corrected.		
9.	Annotate corrective actions taken on the DA Form 5988-E.		
10.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 3-1040-285-20 TM 3-1040-285-23P TM 3-1040-285-30

# Correct Malfunction on the Power Module on the M56/M58 Smoke Generator 091-63J-2077

**Conditions:** In a field or garrison environment, given an M56/M58 smoke generator, general mechanic's tool kit, multimeter, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction on the power module on the M56/M58 smoke generator IAW applicable technical publications. When the task is completed, the smoke generator must be fully mission capable.

erformance Measures		NO GO
1. Select and use applicable technical publications.		
2. Select and use applicable tools, equipment, and TMDE.		
3. Practice shop safety and maintenance discipline.		
4. Inspect the power module and determine serviceability/malfunction(s).		
5. Disassemble the power module.		
6. Repair/replace the power module components as required.		
7. Assemble the power module.		
8. Perform a final test/inspection to verify fault(s) have been corrected.		
9. Annotate corrective actions taken on the DA Form 5988-E.		
I0. Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 3-1040-285-20 TM 3-1040-285-23P TM 3-1040-285-30

# Correct Malfunction on the Control Module on the M56/M58 Smoke Generator 091-63J-2076

**Conditions:** In a field or garrison environment, given an M56/M58 smoke generator, general mechanic's tool kit, multimeter, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction on the control module on the M56/M58 smoke generator IAW applicable technical publications. When the task is completed, the smoke generator must be fully mission capable.

Performance Measures		GO	NO GO
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools, equipment, and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the control module and determine serviceability/malfunction(s).		
5.	Disassemble the control module.		
6.	Repair/replace the control components as required.		
7.	Assemble the control module.		
8.	Perform a final test/inspection to verify fault(s) have been corrected.		
9.	Annotate corrective actions taken on the DA Form 5988-E.		
10.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

Required TM 3-1040-285-20 TM 3-1040-285-23P TM 3-1040-285-30

#### Subject Area 7: CLEANER STEAM, M116A2

# Correct Malfunction on the Water Pump Mechanical System on the M116A2 Steam Cleaner 091-63J-2084

**Conditions:** In a field or garrison environment, given an M116A2 trailer mounted steam cleaner, general mechanic's tool kit, multimeter, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction on the water pump mechanical system on the M116A2 steam cleaner IAW applicable technical publications. When the task is completed, the steam cleaner must be fully mission capable.

Performance Measures		<u>GO</u>	NO GC
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools, equipment, and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the water pump mechanical system and determine serviceability/malfunction(s).		
5.	Disassemble the water pump mechanical system.		
6.	Service the water pump mechanical system as required.		
7.	Adjust the water pump mechanical system as required.		
8.	Repair/replace the water pump mechanical system as required.		
9.	Assemble the water pump mechanical system.		
10.	Perform a final test/inspection to verify fault(s) have been corrected.		
11.	Annotate corrective actions taken on the DA Form 5988-E.		
12.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 9-4940-531-14

Related DA PAM 738-750

# Correct Malfunction on the Mechanical Systems on the M116A2 Steam Cleaner 091-63J-2082

**Conditions:** In a field or garrison environment, given an M116A2 trailer mounted steam cleaner, general mechanic's tool kit, multimeter, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction on the mechanical systems on the M116A2 steam cleaner IAW applicable technical publications. When the task is completed, the steam cleaner must be fully mission capable.

Performance Measures		<u>GO</u>	NO GO
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools, equipment, and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the mechanical system and determine serviceability/malfunction(s).		
5.	Disassemble the mechanical system.		
6.	Service the mechanical system as required.		
7.	Adjust the mechanical system as required.		
8.	Repair/replace the mechanical system as required.		
9.	Assemble the mechanical system.		
10.	Perform a final test/inspection to verify fault(s) have been corrected.		
11.	Annotate corrective actions taken on the DA Form 5988-E.		
12.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 9-4940-531-14

Related DA PAM 738-750

# Correct Malfunction on the Air System on the M116A2 Steam Cleaner 091-63J-2081

**Conditions:** In a field or garrison environment, given an M116A2 trailer mounted steam cleaner, general mechanic's tool kit, multimeter, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction on the air system on the M116A2 steam cleaner IAW applicable technical publications. When the task is completed, the steam cleaner must be fully mission capable.

Performance Measures		<u>GO</u>	NO GO
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools, equipment, and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the air system and determine serviceability/malfunction(s).		
5.	Disassemble the air system.		
6.	Service the air system as required.		
7.	Adjust the air system as required.		
8.	Repair/replace the air system as required.		
9.	Assemble the air system.		
10.	Perform a final test/inspection to verify fault(s) have been corrected.		
11.	Annotate corrective actions taken on the DA Form 5988-E.		
12.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 9-4940-531-14

Related

## Correct Malfunction on the Fuel System on the M116A2 Steam Cleaner 091-63J-2080

**Conditions:** In a field or garrison environment, given an M116A2 trailer mounted steam cleaner, general mechanic's tool kit, multimeter, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction on the fuel system on the M116A2 steam cleaner IAW applicable technical publications. When the task is completed, the steam cleaner must be fully mission capable.

ert	ormance Measures	<u>GO</u>	NO GC
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools, equipment, and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the fuel system and determine serviceability/malfunction(s).		
5.	Disassemble the fuel system.		
6.	Service the fuel system as required.		
7.	Adjust the fuel system as required.		
8.	Repair/replace the fuel system as required.		
9.	Assemble the fuel system.		
10.	Perform a final test/inspection to verify fault(s) have been corrected.		
11.	Annotate corrective actions taken on the DA Form 5988-E.		
12.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 9-4940-531-14

## Correct Malfunction on the Electrical System on the M116A2 Steam Cleaner 091-63J-2083

**Conditions:** In a field or garrison environment, given an M116A2 trailer mounted steam cleaner, general mechanic's tool kit, multimeter, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction on the electrical system on the M116A2 steam cleaner IAW applicable technical publications. When the task is completed, the steam cleaner must be fully mission capable.

Performance Measures	<u>GO</u>	NO GO
Select and use applicable technical publications.		
2. Select and use applicable tools, equipment, and TMDE.		
3. Practice shop safety and maintenance discipline.		
4. Inspect the electrical system and determine serviceability/malfunction(s).		
5. Service the electrical system as required.		
6. Repair the electrical system as required.		
7. Perform a final test/inspection to verify fault(s) have been corrected.		
8. Annotate corrective actions taken on the DA Form 5988-E		
9. Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 9-4940-531-14

Related

DA PAM 738-750

#### Subject Area 8: LAUNDRY UNIT TRAILER MOUNTED M85-100

## Correct Malfunction of a Water Pump Assembly on a Laundry Unit/Bath Unit 091-63J-2086

**Conditions:** In a field or garrison environment, given an M85-100 laundry/bath unit water pump, general mechanic's tool kit, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of a water pump assembly on a laundry unit/bath unit IAW applicable technical publications. When the task is completed, the laundry/bath unit must be fully mission capable.

Performance Measures	<u>GO</u>	NO GO
Select and use applicable technical publications.		
2. Select and use applicable tools and equipment.		
3. Practice shop safety and maintenance discipline.		
4. Inspect the water pump assembly and determine serviceability/malfunction(s).		
5. Disassemble the water pump assembly.		
6. Service the water pump assembly as required.		
7. Adjust the water pump assembly as required.		
8. Repair/replace the water pump assembly as required.		
9. Assemble water pump assembly.		
10. Perform a final test/inspection to verify fault(s) have been corrected.		
11. Maintain tools and equipment.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

 Required
 Related

 TM 10-3510-220-10
 DA PAM 738-750

 TM 10-3510-220-24
 LO 10-3510-220-12

 TM 10-4510-206-14
 TM 10-4510-206-14

## Correct Malfunction of a Water Heater on a Laundry Unit/Bath Unit 091-63J-2085

**Conditions:** In a field or garrison environment, given an M85-100 laundry/bath unit water heater, general mechanic's tool kit, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of a water heater on a laundry unit/bath unit IAW applicable technical publications. When the task is completed, the laundry/bath unit must be fully mission capable.

Perf	formance Measures	<u>GO</u>	NO GC
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools and equipment.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the water heater and determine serviceability/malfunction(s).		
5.	Disassemble the water heater.		
6.	Service the water heater as required.		
7.	Adjust the water heater as required.		
8.	Repair/replace the water heater as required.		
9.	Assemble the water heater.		
10.	Perform a final test/inspection to verify fault(s) have been corrected.		
11.	Annotate corrective actions taken on the DA Form 5988-E.		
12.	Maintain tools and equipment.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

Required LO 10-3510-220-12 TM 10-3510-220-10 TM 10-3510-220-24 TM 10-4510-206-14

## Correct Malfunction of a Dryer Tumbler Assembly on a Laundry Unit 091-63J-2039

**Conditions:** In a field or garrison environment, given an M85-100 laundry unit dryer tumbler, general mechanic's tools kit, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, multimeter, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of the dryer tumbler assembly on a laundry unit IAW applicable technical publications. When the task is completed, the laundry unit must be fully mission capable.

Perf	formance Measures	<u>GO</u>	NO GO
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools, equipment, and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the dryer tumbler assembly and determine serviceability/malfunction(s).		
5.	Disassemble the dryer tumbler assembly.		
6.	Service the dryer tumbler assembly as required.		
7.	Adjust the dryer tumbler assembly as required.		
8.	Replace/repair the dryer tumbler assembly as required.		
9.	Assemble the dryer tumbler assembly.		
10.	Perform a final test/inspection to verify fault(s) have been corrected.		
11.	Annotate corrective actions taken on the DA Form 5988-E.		
12.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 10-3510-220-10 TM 10-3510-220-24

## Correct Malfunction of an Extractor Assembly on a Laundry Unit 091-63J-2037

**Conditions:** In a field or garrison environment, given an M85-100 laundry/bath unit extractor assembly, general mechanic's tools kit, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, multimeter, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of the extractor assembly on a laundry unit IAW applicable technical publications. When the task is completed, the laundry unit must be fully mission capable.

ert	ormance Measures	<u>GO</u>	NO GC
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools and equipment.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the extractor assembly and determine serviceability/malfunction(s).		
5.	Disassemble the extractor assembly.		
6.	Service the extractor assembly as required.		
7.	Adjust the extractor assembly as required.		
8.	Repair/replace the extractor assembly as required.		
9.	Assemble the extractor assembly.		
10.	Perform a final test/inspection to verify fault(s) have been corrected.		
11.	Annotate corrective actions taken on the DA Form 5988-E.		
12.	Maintain tools and equipment.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 10-3510-220-10 TM 10-3510-220-24

## Correct Malfunction of a Washer Assembly on a Laundry Unit 091-63J-2035

**Conditions:** In a field or garrison environment, given an M85-100 laundry/bath unit washer assembly, general mechanic's tools kit, multimeter, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of the washer assembly on a laundry unit IAW applicable technical publications. When the task is completed, the laundry unit must be fully mission capable.

Perf	formance Measures	<u>GO</u>	NO GC
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools, equipment, and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the washer assembly and determine serviceability/malfunction(s).		
5.	Disassemble the washer assembly.		
6.	Service the washer assembly as required.		
7.	Adjust the washer assembly as required.		
8.	Replace/repair the washer assembly as required.		
9.	Assemble the washer assembly.		
10.	Perform a final test/inspection to verify fault(s) have been corrected.		
11.	Annotate corrective actions taken on the DA Form 5988-E.		
12.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 10-3510-220-10 TM 10-3510-220-24

## Correct Malfunction of an Air Compressor Assembly on a Laundry Unit 091-63J-2036

**Conditions:** In a field or garrison environment, given an M85-100 laundry/bath unit air compressor, general mechanic's tools kit, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, multimeter, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of an air compressor assembly on a laundry unit IAW applicable technical publications. When the task is completed, the laundry unit must be fully mission capable.

ert	ormance Measures	<u>GO</u>	NO GC
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools and equipment.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the air compressor assembly and determine serviceability/malfunction(s).		
5.	Disassemble the air compressor assembly.		
6.	Service the air compressor assembly components as required.		
7.	Adjust the air compressor assembly components as required.		
8.	Replace/repair the laundry unit system components as required.		
9.	Assemble the air compressor assembly.		
10.	Perform a final test/inspection to verify fault(s) have been corrected.		
11.	Annotate corrective actions taken on DA Form 5988-E.		
12.	Maintain tools and equipment.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 10-3510-220-10 TM 10-3510-220-24

#### Subject Area 9: LAUNDRY ADVANCE SYSTEM (LADS)

## Correct Malfunction of a Control Panel on a Laundry Advance System 091-63J-2098

**Conditions:** As a Quartermaster and Chemical Equipment Repairer in a field environment, given a Laundry Advance System, Maintenance Request or Inspection Worksheet stating malfunction, General Mechanics Tool Kit, Multimeter, and applicable technical manuals.

**Standards:** Correct malfunction of the control panel assembly on a laundry advance system IAW the applicable technical publications. When the task is completed, the unit must be fully mission capable.

Perf	formance Measures	<u>GO</u>	NO GC
1.	Select and use applicable publications.		
2.	Select and use applicable tools.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the control panel assembly and determine the serviceability/malfunction(s).		
5.	Disassemble the control panel as required.		
6.	Replace/repair defective components on the control panel assembly.		
7.	Assemble the control panel assembly.		
8.	Perform final test/inspection to verify fault(s) have been corrected.		
9.	Annotate corrective actions taken on DA Form 5988-E.		
10.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 10-3510-221-10 TM 10-3510-221-24

## Correct Malfunction of a Heater Assembly on a Laundry Advance System 091-63J-2097

**Conditions:** As a Quartermaster and Chemical Equipment Repairer in a field environment, given a Laundry Advance System, Maintenance Request or Inspection Worksheet stating malfunction, General Mechanics Tool Kit, Multimeter, and applicable technical manuals.

**Standards:** Correct malfunction of heater assembly on a laundry advance system IAW the applicable technical publications. When the task is completed, the unit must be fully mission capable.

Perf	formance Measures	<u>GO</u>	NO GO
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools, equipment and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect heater assembly components and determine serviceability/malfunction(s).		
5.	Disassemble the heater assembly as required.		
6.	Service the heater assembly components as required.		
7.	Replace/repair heater assembly components as required.		
8.	Assemble the heater assembly		
9.	Adjust the heater assembly as required.		
10.	Perform a final test/inspection to verify fault(s) have been corrected.		
11.	Annotate corrective actions taken on DA Form 5988-E.		
12.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 10-3510-221-10 TM 10-3510-221-24

### Correct Malfunction of a Drum Assembly on a Laundry Advance Unit (LADS) 091-63J-2096

**Conditions:** As a Quartermaster and Chemical Equipment Repairer in a field environment, given a Laundry Advance System, Maintenance Request or Inspection Worksheet stating malfunction, General Mechanics Tool Kit, Multimeter, Bearing Puller, 5,000 LB Forklift, Bearing Ring Drive Tool, Spanner Nut Removal Tool, 1-1/2 IN/1/2 IN Drive Socket, 1/2 IN Drive Torque Wrench, 48 IN Level, and appropriate Technical Manuals.

**Standards:** Correct malfunction of drum assembly on a laundry advance system IAW the applicable technical publications. When the task is completed, the unit must be fully mission capable.

**Evaluation Preparation:** Setup: Ensure that all information, references and equipment required to perform the task are available. Use the TM and the evaluation guide to score the soldier's performance. Brief the soldier. Tell the soldier what he is required to do IAW the task conditions and standards.

Perf	formance Measures	<u>GO</u>	NO GO
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools, equipment, and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the drum assembly and determine the serviceability/malfunction(s).		
5.	Disassemble the drum assembly as required.		
6.	Service the drum assembly as required.		
7.	Replace/repair the drum assembly as required.		
8.	Assemble the drum assembly.		
9.	Adjust the drum assembly as required.		
10.	Perform a final test/inspection to verify fault(s) have been corrected.		
11.	Annotate corrective actions taken on DA Form 5988-E.		
12.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

Required TM 10-3510-221-10 TM 10-3510-221-24

#### Subject Area 10: DECONTAMINATION APPARATUS M17

## Correct Malfunction of a Water Pump Assembly on an M-17 Decontaminating Apparatus 091-63J-2047

**Conditions:** In a field or garrison environment, given an M17 decontamination apparatus, metric tool kit, multimeter, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of the water pump assembly on the M17 decontaminating apparatus IAW applicable technical publications. When the task is completed, the decontaminating apparatus must be fully mission capable.

Perf	formance Measures	<u>GO</u>	NO GC
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools, equipment, and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the water pump and determine serviceability/malfunction(s).		
5.	Disassemble the water pump.		
6.	Service the water pump as required.		
7.	Repair/replace the water pump as required.		
8.	Assemble the water pump.		
9.	Perform a final test/inspection to verify fault(s) have been corrected.		
10.	Annotate corrective actions taken on the DA Form 5988-E.		
11.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 3-4230-218-12&P TM 3-4230-218-30&P

## Correct Malfunction of a Burner on an M-17 Decontaminating Apparatus 091-63J-2045

**Conditions:** In a field or garrison environment, given an M17 decontamination apparatus, metric tool kit, multimeter, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction on a burner on the M17 decontaminating apparatus IAW applicable technical publications. When the task is completed, the decontaminating apparatus must be fully mission capable.

Performance Measures		GO	NO GO
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools, equipment, and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the decontaminating apparatus and determine serviceability/malfunction(s).		
5.	Disassemble the decontaminating apparatus.		
6.	Service decontaminating apparatus components.		
7.	Adjust decontaminating apparatus components.		
8.	Replace decontaminating apparatus components as required.		
9.	Assemble the decontaminating apparatus.		
10.	Perform a final test/inspection to verify fault(s) have been corrected.		
11.	Annotate corrective actions taken on the DA Form 5988-E.		
12.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 3-4230-218-12&P TM 3-4230-218-30&P

## Correct Malfunction of Electrical Systems on an M-17 Decontaminating Apparatus 091-63J-2087

**Conditions:** In a field or garrison environment, given an M17 decontamination apparatus, metric tool kit, multimeter, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of the electrical system on the M17 decontaminating apparatus IAW applicable technical publications. When the task is completed, the decontaminating apparatus must be fully mission capable.

Performance Measures	<u>GO</u>	NO GO
Select and use applicable technical publications.		
2. Select and use applicable tools, equipment, and TMDE.		
3. Practice shop safety and maintenance discipline.		
4. Inspect the electrical system and determine serviceability/malfunction(s).		
5. Repair the electrical system as required.		
6. Perform a final test/inspection to verify fault(s) have been corrected.		
7. Annotate corrective actions taken on the DA Form 5988-E.		
8. Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 3-4230-218-12&P TM 3-4230-218-30&P

#### Subject Area 11: DECONTAMINATING APPARATUS M12A1

## Correct Malfunction of a Pump Assembly on an M12A1 Decontaminating Apparatus 091-63J-2093

**Conditions:** In a field or garrison environment, given an M12A1 decontamination apparatus, multimeter, universal spanner, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of the pump assembly on an M12A1 decontaminating apparatus IAW applicable technical publications. When the task is completed, the decontaminating apparatus must be fully mission capable.

Performance Measures	<u>GO</u>	NO GO
Select and use applicable technical publications.		
2. Select and use applicable tools, equipment, and TMDE.		
3. Practice shop safety and maintenance discipline.		
4. Inspect the pump assembly and determine serviceability/malfunction(s).		
5. Disassemble the pump assembly.		
6. Repair/replace the pump assembly components as required.		
7. Assemble the pump assembly.		
8. Perform a final test/inspection to verify fault(s) have been corrected.		
9. Annotate corrective actions taken on the DA Form 5988-E.		
10. Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 3-4230-209-10 TM 3-4230-209-20&P

## Correct Malfunction of a Control Panel on an M12A1 Decontaminating Apparatus 091-63J-2092

**Conditions:** In a field or garrison environment, given an M12A1 decontamination apparatus, multimeter, universal spanner, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of the control panel on an M12A1 decontaminating apparatus IAW applicable technical publications. When the task is completed, the decontaminating apparatus must be fully mission capable.

Performance Measures		O GC
Select and use applicable technical publications.		
2. Select and use applicable tools, equipment, and TMDE.		
3. Practice shop safety and maintenance discipline.		
4. Inspect the control panel and determine serviceability/malfunction(s).		
5. Repair/replace the control panel as required.		
6. Perform a final test/inspection to verify fault(s) have been corrected.		
7. Annotate corrective actions taken on the DA Form 5988-E.		
8. Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

Required DA PAM 738-750 TM 3-4230-209-10 TM 3-4230-209-20&P Related

TM 9-2805-259-14

## Correct Malfunction of the Electrical Systems on an M12A1 Decontaminating Apparatus 091-63J-2091

**Conditions:** In a field or garrison environment, given an M12A1 decontamination apparatus, multimeter, universal spanner, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of the electrical system on an M12A1 decontaminating apparatus IAW applicable technical publications. When the task is completed, the decontaminating apparatus must be fully mission capable.

Performance Measures		NO GC
Select and use applicable technical publications.		
2. Select and use applicable tools, equipment, and TMDE.		
3. Practice shop safety and maintenance discipline.		
4. Inspect the electrical system and determine serviceability/malfunction(s).		
5. Repair the electrical system as required.		
6. Perform a final test/inspection to verify fault(s) have been corrected.		
7. Annotate corrective actions taken on the DA Form 5988-E.		
8. Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 3-4230-209-10 TM 3-4230-209-20&P

## Correct Malfunction of a Water Heater Assembly on an M12A1 Decontaminating Apparatus 091-63J-2090

**Conditions:** In a field or garrison environment, given an M12A1 decontamination apparatus, multimeter, universal spanner, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of the water assembly on the M12A1 decontaminating apparatus IAW applicable technical publications. When the task is completed, the decontaminating apparatus must be fully mission capable.

Perf	ormance Measures	<u>GO</u>	NO GO
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools, equipment, and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the water assembly and determine serviceability/malfunction(s).		
5.	Disassemble the water assembly.		
6.	Repair/replace the water assembly components as required.		
7.	Assemble the water assembly.		
8.	Perform a final test/inspection to verify fault(s) have been corrected.		
9.	Annotate corrective actions taken on the DA Form 5988-E.		
10.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 3-4230-209-10 TM 3-4230-209-20&P

## Correct Malfunction of a Boiler Assembly on an M12A1 Decontaminating Apparatus 091-63J-2089

**Conditions:** In a field or garrison environment, given an M12A1 decontamination apparatus, multimeter, universal spanner, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of the boiler assembly on the M12A1 decontaminating apparatus IAW applicable technical publications. When the task is completed, the decontaminating apparatus must be fully mission capable.

Performance Measures	<u>GO</u>	NO GO
Select and use applicable technical publications.		
2. Select and use applicable tools, equipment, and TMDE.		
3. Practice shop safety and maintenance discipline.		
4. Inspect the boiler assembly and determine serviceability/malfunction(s).		
5. Disassemble the boiler assembly.		
6. Repair/replace the boiler assembly components as required.		
7. Perform a final test/inspection to verify fault(s) have been corrected.		
8. Annotate corrective actions taken on the DA Form 5988-E.		
9. Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 3-4230-209-10 TM 3-4230-209-20&P

## Correct Malfunction of a Fuel System on an M12A1 Decontaminating Apparatus 091-63J-2088

**Conditions:** In a field or garrison environment, given an M12A1 decontamination apparatus, multimeter, universal spanner, fuel system diagrams, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of the fuel system on the M12A1 decontaminating apparatus IAW applicable technical publications. When the task is completed, the decontaminating apparatus must be fully mission capable.

Perf	ormance Measures	<u>GO</u>	NO GO
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools, equipment, and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the fuel system and determine serviceability/malfunction(s).		
5.	Disassemble the fuel system.		
6.	Service the fuel system components, as required.		
7.	Adjust the fuel system components, as required.		
8.	Repair/replace the fuel system components as required.		
9.	Assemble the fuel system.		
10.	Perform a final test/inspection to verify fault(s) have been corrected.		
11.	Annotate corrective actions taken on the DA Form 5988-E.		
12.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 3-4230-209-10 TM 3-4230-209-20&P

#### Subject Area 12: WATER PURIFICATION REVERSE OSMOSIS UNITS

### Correct Malfunction of High Pressure Pump Assembly on a 3000 GPH Reverse Osmosis Water Purification Unit

091-63J-2095

**Conditions:** In a field or garrison environment, given a 3000 GPH ROWPU, general mechanic's tool kit, multimeter, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of the high pressure pump assembly on a 3000 GPH water purification unit reverse osmosis ( ROWPU) IAW applicable technical publications. When the task is completed, the ROWPU must be fully mission capable.

Perf	formance Measures	GO	NO GO
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools, equipment, and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the high pressure pump assembly and determine serviceability/malfunction(s).		
5.	Disassemble high pressure pump assembly.		
6.	Repair/replace the high pressure pump assembly as required.		
7.	Assemble the reverse osmosis pump assembly.		
8.	Perform a final test/inspection to verify fault(s) have been corrected.		
9.	Annotate corrective actions taken on the DA Form 5988-E.		
10.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 10-4610-232-12 TM 10-4610-232-34

### Correct Malfunction of Reverse Osmosis Pump Assembly on a 600 GPH Water Purification Unit Reverse Osmosis

#### 091-63J-2094

**Conditions:** In a field or garrison environment, given a 600 GPH ROWPU, general mechanic's tool kit, multimeter, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of reverse osmosis pump assembly on a 600 GPH water purification unit reverse osmosis (ROWPU) IAW applicable technical publications. When the task is completed, the ROWPU must be fully mission capable.

Performance Measures		GO	NO GC
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools, equipment, and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the reverse osmosis water pump assembly and determine serviceability/malfunction(s).		
5.	Disassemble the reverse osmosis pump assembly.		
6.	Repair/replace the reverse osmosis pump assembly components as required.		
7.	Assemble the reverse osmosis pump assembly.		
8.	Perform a final test/inspection to verify fault(s) have been corrected.		
9.	Annotate corrective actions taken on the DA Form 5988-E.		
10.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

Required TM 10-4610-215-10 TM 10-4610-215-24 TM 10-4610-239-10 TM 10-4610-239-24

## Correct Malfunction of Water Distribution System on a Water Purification Unit Reverse Osmosis 091-63J-2066

**Conditions:** Given a reverse osmosis-type water purification system, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, test equipment, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** The reverse osmosis water purification system must be repaired and its components repaired or replaced IAW the applicable technical publications. When the task is completed, the ROWPU must be fully mission capable.

Performance Measures	<u>GO</u>	NO GO
Select and use applicable technical publications		
2. Select and use applicable tools, equipment, and TMDE.		
3. Practice shop safety and maintenance discipline.		
4. Inspect system components and determine serviceability/malfunction(s).		
<ol><li>Repair/replace the water purification unit reverse osmosis components as required.</li></ol>		
6. Perform a final test/inspection to verify fault(s) have been corrected.		
7. Annotate corrective actions taken on the DA Form 5988-E.		
8. Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

Required Related
TM 10-4610-215-10 DA PAM 738-750
TM 10-4610-215-24
TM 10-4610-232-12
TM 10-4610-232-34
TM 10-4610-239-10
TM 10-4610-239-24

### Correct Malfunction of Water Purification Air System on a Water Purification Unit Reverse Osmosis

#### 091-63J-2064

**Conditions:** In a field or garrison environment, given a 3000 GPH ROWPU, general mechanic's tool kit, multimeter, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of the water purification air system on a water purification unit reverse osmosis (ROWPU) IAW applicable technical publications. When the task is completed, the ROWPU must be fully mission capable.

Perf	ormance Measures	GO	NO GO
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools, equipment, and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the water purification air system and determine serviceability/malfunction(s).		
5.	Disassemble the water purification air system.		
6.	Replace/repair the water purification air system components as required.		
7.	Assemble the water purification air system.		
8.	Perform a final test/inspection to verify fault(s) have been corrected.		
9.	Annotate corrective actions taken on the DA Form 5988-E.		
10.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

Required TM 10-4610-232-12 TM 10-4610-232-34

### Correct Malfunction of Water Purification Electrical System on a Water Purification Unit Reverse Osmosis

#### 091-63J-2063

**Conditions:** In a field or garrison environment, given a 600 GPH ROWPU, general mechanic's tool kit, multimeter, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of the water purification electrical system on a water purification unit reverse osmosis

(ROWPU) IAW applicable technical publications. When the task is completed, the ROWPU must be fully mission capable.

Perf	formance Measures	<u>GO</u>	NO GO
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools, equipment, and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect the water purification electrical system and determine serviceability/malfunction(s).		
5.	Repair water purification electrical system as required.		
6.	Perform a final test/inspection to verify fault(s) have been corrected.		
7.	Annotate corrective actions taken on the DA Form 5988-E.		
8.	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

### References

Required TM 10-4610-215-10 TM 10-4610-215-24 TM 10-4610-232-12 TM 10-4610-232-34

## Correct Malfunction of Water System on a Water Purification Unit Reverse Osmosis 091-63J-2062

**Conditions:** In a field or garrison environment, given a 600 GPH ROWPU, general mechanic's tool kit, multimeter, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of the water system on a water purification unit reverse osmosis (ROWPU) IAW applicable technical publications. When the task is completed, the ROWPU must be fully mission capable.

Per	formance Measures	<u>GO</u>	NO GO
1	Select and use applicable technical publications.		
2	Select and use applicable tools, equipment, and TMDE.		
3	Practice shop safety and maintenance discipline.		
4	Inspect the water system and determine serviceability/malfunction(s).		
5	Disassemble water system.		
6	Replace/repair water system components as required.		
7	Assemble the water system.		
8	Perform a final test/inspection to verify fault(s) have been corrected.		
9	Annotate corrective actions taken on the DA Form 5988-E.		
10	Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

Required TM 10-4610-215-10 TM 10-4610-215-24 TM 10-4610-232-12 TM 10-4610-232-34

## Correct Malfunction of Gauges (Non Electrical) on a Water Purification Unit Reverse Osmosis 091-63J-2061

**Conditions:** In a field or garrison environment, given a 600 GPH ROWPU, general mechanic's tool kit, multimeter, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of gauges (non electrical) on a water purification unit reverse osmosis (ROWPU) IAW applicable technical publications. When the task is completed, the ROWPU must be fully mission capable.

Performance Measures		NO GO
Select and use applicable technical publications.		
2. Select and use applicable tools, equipment, and TMDE.		
3. Practice shop safety and maintenance discipline.		
4. Inspect the gauges (non electrical)and determine serviceability/malfunction(s).		
5. Repair/replace the gauges (non electrical) as required.		
6. Perform a final test/inspection to verify fault(s) have been corrected.		
7. Annotate corrective actions taken on the DA Form 5988-E.		
8. Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

Required TM 10-4610-215-10 TM 10-4610-215-24 TM 10-4610-232-12 TM 10-4610-232-34

#### Subject Area 13: HEATER

## Correct Malfunction of Burner Assembly on a Heater 091-63J-2069

**Conditions:** In a field or garrison environment, given a 400,000 BTU heater, general mechanic's tool kit, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of the burner assembly on a heater IAW applicable technical publications. When the task is completed, the heater must be fully mission capable.

Perf	ormance Measures	<u>GO</u>	NO GO
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools and equipment.		
3.	Practice shop safety and maintenance discipline.		
4.	Inspect burner assembly and determine serviceability/malfunction(s).		
5.	Disassemble burner assembly.		
6.	Repair/replace burner assembly as required.		
7.	Assemble burner assembly.		
8.	Perform a final test/inspection to verify fault(s) have been corrected.		
9.	Annotate corrective actions taken on the DA Form 5988-E.		
10.	Select and use applicable tools and equipment.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 5-4520-256-14

Related

DA PAM 738-750

## Correct Malfunction of Electrical Systems on a Heater 091-63J-2068

**Conditions:** In a field or garrison environment, given a 400,000 BTU heater, general mechanic's tool kit, multimeter, pressure gauges, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of electrical systems on a heater IAW applicable technical publications. When the task is completed, the heater must be fully mission capable.

Per	formance Measures	<u>GO</u>	NO GO
1.	Select and use applicable technical publications.		
2.	. Select and use applicable tools, equipment, and TMDE.		
3.	Practice shop safety and maintenance discipline.		
4.	. Inspect electrical systems and determine serviceability/malfunction(s).		
5.	. Repair/replace electrical systems as required.		
6.	Perform a final test/inspection to verify fault(s) have been corrected.		
7.	. Annotate corrective actions taken on the DA Form 5988-E.		
8.	. Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 5-4520-256-14

## Correct Malfunction of Fuel System on a Heater 091-63J-2067

**Conditions:** In a field or garrison environment, given a 400,000 BTU heater, general mechanic's tool kit, multimeter, pressure gauges, maintenance request or equipment inspection worksheet describing equipment malfunctions, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Correct malfunction of fuel system on a heater IAW applicable technical publications. When the task is completed, the heater must be fully mission capable.

erformance Measures	<u>GO</u>	NO GO
1. Select and use applicable technical publications.		
2. Select and use applicable tools, equipment, and TMDE.		
3. Practice shop safety and maintenance discipline.		
4. Inspect fuel system and determine serviceability/malfunction(s).		
5. Disassemble fuel system.		
6. Repair/replace fuel system as required.		
7. Assemble fuel system.		
8. Perform a final test/inspection to verify fault(s) have been corrected.		
9. Annotate corrective actions taken on the DA Form 5988-E.		
I0. Maintain tools, equipment, and TMDE.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

**Required** TM 5-4520-256-14

Related

DA PAM 738-750

#### Subject Area 14: PMCS

## Perform Preventive Maintenance Checks and Services on Ground Support Equipment 091-63J-2072

**Conditions:** In a field or garrison environment, given ground support equipment, general mechanic's tool kit, metric tool kit, torque wrench, compression gauge, rubber hose or tape, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Perform preventive maintenance checks and services on ground support equipment IAW applicable technical publications. When the task is completed, the ground support equipment must be fully mission capable.

Perf	Performance Measures		
1.	Select and use applicable technical publications.		
2.	Select and use applicable tools and equipment.		
3.	Practice shop safety and maintenance discipline.		
4.	Perform before operation checks.		
5.	Test operate the ground support equipment.		
6.	Perform during operation checks.		
7.	Shut down equipment.		
8.	Perform after operation checks.		
9.	Annotate actions taken on the DA Form 5988-E.		
10.	Maintain tools and equipment.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

Related
DA PAM 738-750
LO 10-3510-220-12
TM 3-1040-279-12&P

#### Subject Area 15: BDAR

### Perform Battlefield Damage Assessment and Repair 091-109-8000

**Conditions:** In a field or garrison environment, given a maintenance request or equipment inspection worksheet describing equipment malfunctions, applicable technical publications, and supervision/assistance.

**Standards:** Equipment battle damage assessment and repair (BDAR) must be maintained and it's components replaced or repaired IAW the applicable technical publication procedures and specifications. (See Maintenance Allocation Chart for exact procedures authorized for each MOS and skill level.) When this task was completed, the vehicle or equipment was fully mission capable or maintenance actions required to be performed by other than 63J SL 1/2 personnel must be identified.

Perf	ormance Measures	GO	NO GO
1.	Selected and used applicable technical publications.		
2.	Selected and used applicable tools and TMDE.		
3.	Practiced shop safety and maintenance discipline.		
4.	Described how systems/components operate and function.		
5.	Inspected systems/components.		
6.	Performed troubleshooting of systems/components.		
7.	Replaced defective component(s).		
8.	Repaired defective component(s).		
9.	Adjusted systems/components.		
10.	Performed required PMCS.		
11.	Performed a final operational test to verify fault(s) was corrected.		
12.	Annotated corrective actions taken on the DA Form 5988-E.		
13.	Maintained tools and equipment.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

0. 0000	
Required	Related
TM 10-3510-220-10	DA PAM 738-750
TM 10-3510-220-24	LO 10-3510-220-12
TM 10-4320-343-14	
TM 10-4510-206-14	
TM 10-4610-215-10	
TM 10-4610-215-24	
TM 10-4610-232-12	
TM 10-4610-232-34	
TM 10-4610-239-10	

#### References

Related

**Required** TM 10-4610-239-24

TM 3-1040-279-12&P

TM 3-4230-209-10

TM 3-4230-209-20&P

TM 3-4240-201-13

TM 3-4240-264-12

TM 5-4320-237-15

TM 5-4520-256-14

TM 9-2805-259-14

TM 9-4110-256-14

#### **APPENDIX A -**

# HANDS-ON EVALUATION (DA FORM 5164-R) INSTRUCTIONS (Excerpted from STP 21-24-SMCT, Appendix C)

DA Form 5164-R (Hands-On Evaluation) allows the trainer to keep a record of the performance measures a soldier passes or fails on each task.

#### Before evaluation:

- 1. Obtain a blank copy of DA Form 5164-R, which you may locally reproduce on 8 ½" x 11" paper.
- 2. Enter the task title and 10-digit number from the STP task summary.
- 3. In Column a, enter the performance measure numbers from the task summary.
- 4. In Column b, enter the performance measure corresponding to the number in Column a (you may abbreviate this information if necessary).
- 5. Locally reproduce the partially completed form when evaluating more than one soldier on the task or when evaluating the same soldier more than once.

#### **During evaluation:**

- 1. Enter the date just before evaluating the soldier's task performance.
- 2. Enter the evaluator's name, the soldier's name, and the unit.
- 3. For each performance measure in Column b, enter a check in Column c (PASS) or Column d (FAIL), as appropriate.
- 4. Compare the number of performance measures the soldier passes (and, if applicable, which ones) against the task standards specified in the task summary. If the standards are met or exceeded, check the GO block under STATUS; otherwise, check the NO-GO block.

For use of thi	HANDS-ON EVALUATION s form, see AR 350-57; the proponent agency is ODCSOPS	DATE	
	TASK TITLE	TASK NUMBER	
ITEM a	PERFORMANCE STEP TITLE b		CORE eck One)
		PASS c	FAIL d
		□ P □ □ P	
		□Р	□F
		□P	□F
		□Р	□F
		□P	□F
		P	□F
		□P	F
		□P	□F
		P	☐ F
		□Р	
		P □ P	
		P	
EVALUATOR'S NAME		UNIT	ј шг
SOLDIER'S NAME		STATUS GO	□ NO GO
<b>DA FORM 5164-R</b> , S	EP 85 EDITION OF DEC 82 IS OBSOLETE		USAPPC V2.00

#### **APPENDIX B-**

# FIELD EXPEDIENT SQUAD BOOK (DA FORM 5165-R) INSTRUCTIONS (Excerpted from STP 21-24-SMCT, Appendix C)

DA Form 5165-R (Field Expedient Squad Book) allows the trainer to keep a record of task proficiency for a group of soldiers.

#### Before evaluation:

- 1. Obtain a blank copy of DA Form 5165-R, which you may locally reproduce on 8 ½" x 11" paper.
- 2. Locally reproduce the partially completed form if you are evaluating more than nine soldiers.

#### **During evaluation:**

- 1. Enter the names of the soldiers you are evaluating, one name per column, at the top of the form.
- 2. Under STATUS, record (in pencil) the date in the GO block if the soldier demonstrated task proficiency to soldier's manual standards. Keep this information current by always recording the most recent date on which the soldier demonstrated task proficiency. Record the date in the NO-GO block if the soldier failed to demonstrate task proficiency to soldier's manual standards. Soldiers who failed to perform the task should be retrained and reevaluated until they can meet the standards. When the standards are met, enter the date in the appropriate GO block and erase the previous entry from the NO-GO block.

#### After evaluation:

- 1. Read down each column (GO/NO-GO) to determine the training status of an individual. This will give you a quick indication of which tasks a soldier needs training on.
- 2. Read across the rows for each task to determine the training status of all soldiers. You can readily see which tasks to focus training on.
- 3. Line through the STATUS column of any soldier who leaves the unit.

# **GLOSSARY**

Section I
Abbreviations

AC Active Component

ACCP Army Correspondence Course Program

AIPD Army Institute for Professional Development

AIT advanced individual training

**AN** annually

ANCOC Advanced Noncommissioned Officers Course

AR Army regulation

**ARTEP** Army training and evaluation program

**attn** attention

**BA** biannually

**BDAR** battle damage assessment and repair

**BNCOC** Basic Noncommissioned Officers Course

BTU British thermal unit

**BW** biweekly

**CFM** cubic feet per minute

CTT common task test

**DA** Department of the Army

**FM** field manual

**GPH** gallons per hour

**GPM** gallons per minute

**HQ TRADOC** Headquarters, Training and Doctrine Command

IAW in accordance with

IR infrared

METL mission essential task list

**MO** monthly

MOS military occupational specialty

MOSC military occupational specialty code

MTP MOS training plan

NCO noncommissioned officer

Pam pamphlet

**PMCS** preventive maintenance checks and services

**QT** quarterly

RC Reserve Component

RDL Reimer Digital Library

**ROWPU** reverse osmosis water purification unit

**SA** semiannually

SL skill level

**SM** soldier's manual

**SM/TG** soldier's manual/trainer's guide

**SMCT** soldier's manual of common tasks

**STP** soldier training publication

TG trainer's guide

TM technical manual

TMDE test measurement and diagnostic equipment

USAOC&S United States Army Ordnance Center and School

**WK** weekly

#### **REFERENCES**

**Army Regulations** 

AR 350-57 Self-Development Test (This Item is Included on EM 0001) 17 June

1994

**Department of Army Forms** 

DA FORM 5165-R Field Expedient Squad Book (LRA) (This Item is Included on EM 0001) 1

September 1985

DA FORM 2404 Equipment Inspection And Maintenance Worksheet (This Item is

Included on EM 0001) 1 April 1979

DA FORM 2407 Maintenance Request 1 July 1994

DA FORM 5164-R Hands-On Evaluation (LRA) (This Item is Included on EM 0001) 1

September 1985

**Department of Army Pamphlets** 

DA PAM 738-750 Functional Users Manual for The Army Maintenance Management

System (TAMMS) (This Item is Included on EM 0001) 1 August 1994

DA PAM 750-35 Guide for Motor Pool Operations (This Item is Included on EM 0001) 1

August 1994

**Field Manuals** 

FM 22-100 Army Leadership 31 August 1999

FM 25-100 Training The Force (This Item is Included on EM 0028) 15 November

1988

FM 25-101 Battle Focused Training (This Item is Included on EM 0028) 30

September 1990

FM 25-5 Training for Mobilization and War (This Item is Included on EM 0028) 25

January 1985

**Lubrication Orders** 

LO 10-3510-220-12 Laundry Unit, Trailer Mounted Model M85-100, (NSN 3510-01-2918169)

(This is Included on EM 0127) 3 May 1990

**Soldier Training Publications** 

STP 21-1-SMCT Soldier's Manual Of Common Tasks Skill Level 1 1 October 1994

STP 21-24-SMCT Soldier's Manual Of Common Tasks (SMCT) Skill Level 2-4 1 October

1992

**Technical Manuals** 

TM 10-3510-208-12 Operator's And Organizational Maintenance Manual: Laundry Unit,

Single Trailer Mounted W/Canvas Cover; Army Model M-532 (Eidal Model EIT9T) (NSN 3510-00-782-5294) and (Edro Model EP120-LTU) (3510-00-169-4735) (Reprinted W/Basic Incl C1-7) 16 September 1977

TM 10-3510-208-20P Organizational Maintenance Repair Parts And Special Tools List:

Laundry Unit, Single Trailer Mounted W/Canvas Cover; Army Type M-532 (Eidal Model ELT9T) (NSN 3510-00-782-5294) And (Erdo Model

EP120-LTU) (3510-00-169-4735) 12 May 1978

TM 10-3510-208-34 Direct Support And General Support Maintenance Manual: Laundry Unit,

Single Trailer Mounted W/Canvas Cover, Army Model M-532 (Eidal

	Model ELT9T) (NSN 3510-00-782-5294) And (Edro Model EP120-LTU) (3510-00-169-4735) 17 March 1978
TM 10-3510-209-10	Operator's Manual For Laundry Unit, Trailer Mounted, Model M85(NSN 3510-01-222-9301) 12 February 1988
TM 10-3510-209-24	Unit, Intermediate Direct Support and Intermediate General Support Maintenance Manual For Laundry Unit, Trailer-Mounted, Model M85(NSN 3510-01-222-9301) 17 March 1988
TM 10-3510-209-24P	Unit, Intermediate Direct And General Support Maintenance Repair Parts And Special Tools List For Laundry Unit, Trailer Mounted, Model M85 (NSN 3510-01-222-9301) 31 May 1989
TM 10-3510-220-10	Operator's Maintenance Manual for Laundry Unit, Trailer-Mounted, Model M85-100 (NSN 3510-01-291-8169) 20 April 1990
TM 10-3510-220-24	Unit, Direct Support, and General Support Maintenance Manual for Laundry Unit, Trailer Mounted, Model M85-100 (NSN 3510-01-291-8169) 27 August 1990
TM 10-3510-221-10	Operators Manual for Laundry Advanced Systems (LADS) (NSN 3510-01-463-0114) (This Item is Included on EM 0127) 1 October 2000
TM 10-3510-221-24	Unit, Direct Support, and General Support Maintenance Manual for the Laundry Advanced System (LADS) (NSN 3510-01-463-0114) (This Item is Included on EM 0127) 1 November 2000
TM 10-3530-203-10	Operator's Manual For Clothing Repair Shop, Trailer-Mounted (York Astro Model D8700337), Army Model SPV 34 (NSN 3530-00-819-2007), And York Astro Model D8700680 (3530-00-999-8577) And Natick Model NA-79 (3530-01-075-3503) 18 April 1966
TM 10-3530-203-20P	Organizational Maintenance Repair Parts And Special Tools Lists: Clothing Repair Shop, Trailer-Mounted: York Astro Model D8700377, Army Model SPV-34 (NSN 3530-00-819-2007) And York Astro Model D8700680 (NSN 3530-00-999-8577) 11 May 1971
TM 10-3530-203-24	Organizational, Direct Support And General Support Maintenance Manual For Clothing Repair Shop, Trailer-Mounted York Astro Model B8700377, Army Model SPV-34 (NSN 3530-00-819-2007) And York Astro Model D8700680 (3530-00-999-8577) 1 June 1966
TM 10-3530-203-34P	Direct and General Support Maintenance Repair Parts and Special Tools List for Clothing Repair Shop, Trailer Mounted York Astro Models D8700337, Army Model Spv-34 (NSN 3530-00-819-2007) And (Model D8700680) (3530-00-999-8577) 11 May 1971
TM 10-3530-205-14	Operator's Organizational, Direct Support, and General Support Maintenance Manual for Clothing Repair Shop, Trailer Mounted 15 April 1985
TM 10-3530-205-24P	Organizational, Direct Support and General Support Maintenance Repair Parts and Special Tools List for Clothing Repair Shop, Trailer Mounted 30 January 1986
TM 10-4320-202-15	Operator's Organizational, Direct Support and General Support Maintenance Manual: Pumping Assembly, Flammable Liquid, Bulk Transfer, 50 GPM 21 May 1968
TM 10-4320-202-25P	Organizational, Direct Support, General Support, and Depot Maintenance Repair Parts and Special Tools List: Pumping Assembly, Flammable Liquid, Bulk Transfer, 50 GPM 4 April 1967
TM 10-4320-226-14	Operator's, Unit, Direct Support, and General Support Maintenance Manual for Water Pumping Assembly, Diesel Engine Driven, Wheel Mounted, 350 Gallons Per Minute (GPM), 275 Foot Head, Models: 350PAW (NSN 4320-01-158-2954) and W-87012 31 August 1993

TM 10-4320-343-14	Operator, Unit, Direct Support, and General Support Maintenance Manual for Fuel Pumping Assembly, Diesel Engine Driven, Wheel Mounted, 350 Gallons Per Minute (GPM), 275 Foot Head, Models: 350 PAF (NSN 4320-01-092-3551), LPP-TM 30 July 1993
TM 10-4510-201-14	Operator's Organizational, Direct Support And General Support Maintenance Manual For Bath Unit, Portable, 8-Shower Head, M1958 (Orr & Sembower Model 8-SH-1, Army Model SPE35) (NSN 4510-00-679-6493) 11 January 1972
TM 10-4510-206-14	Operator, Organizational, Direct Support and General Support Maintenance Manual for Bath Unit, Portable, Automated Multi-Head, Model PBU-100 (NSN 4510-01-139-4973) 6 July 1984
TM 10-4610-215-10	Operator's Manual for Water Purification Unit, Reverse Osmosis, 600 GPH Trailer Mounted Flatbed Cargo, 5 Ton 4 Wheel Tandem ROWPU Model 600-1 (NSN 4610-01-093-2380) and 600 GPH Skid Mounted POWPU Model 600-3(4610-01-113-8651)(TM 08580A-10/1 5 March 1991
TM 10-4610-215-24	Unit, Direct Support, and General Support Maintenance Manual for Water Purification Unit, Reverse OSMOSIS, 600 GPH Trailer Mounted, Flatbed Cargo, 5 Ton 4 Wheel, TANDEM, Model ROWPU 600-1(EIC-ZII) (NSN 4610-01-093-2380) and 600 GPH Skid Moun 27 March 1992
TM 10-4610-232-12	Operator's and Unit Maintenance Manual for Water Purification Unit, Reserve Osmosis, 3,000 GPH Trailer Mounted, Flatbed Cargo, 22 1/2 ton, 8 Wheel, TANDEM Model No. WTA-060 (NSN 4610-10-219-8707) and Model POWPU-1 (4610-01-371-1790) 13 May 1991
TM 10-4610-232-34	Direct Support and General Support Maintenance Manual for Water Purification Unit, Reverse OSMOSIS, 3,000 GPH Trailer Mounted, Flatbed Cargo, 22 1/2 Ton 8 Wheel, TANDEM Model No WTA-060 (NSN 4610-01-219-8707) 17 July 1991
TM 10-4610-239-10	Operator's Manual for Purification Unit, Reverse OSMOSIS, 600 GPH Trailer Mounted Flatbed Cargo, 5 Ton 4 Wheel TANDEM Model 0996109001(NSN 4610-01-234-2196) and 600 GPH Skid Mounted Model 0966108001(4610-01-234-2190)(TM 08580B-10/1) 5 March 1991
TM 10-4610-239-24	Unit, DS, and GS Maintenance Manual for Water Purification Unit, Reverse Osmosis 600-GPH Trlr-Mtd Flatbed Cargo 5-Ton, 4 Whl Tandem Model and Skid Mtd Model 2190 20 April 1992
TM 10-4940-201-10	Operator's Manual: Cleaning Machine, Fuel Can and Drum 28 January 1960
TM 10-4940-201-20	Organizational Maintenance Manual: Cleaning Machine, Fuel Can and Drum 27 January 1960
TM 10-4940-201-25P	Organizational, Direct Support, General Support, and Depot Maintenance Repair Parts and Special Tools List for Cleaning Machine, Fuel Can and Drum 7 February 1967
TM 10-4940-201-35	Field and Depot Maintenance Manual: Cleaning Machine, Fuel Can and Drum 2 February 1960
TM 3-1040-214-12	Operator's and Organizational Maintenance Manual: Disperser, Riot Control Agent, Portable, M3 18 February 1972
TM 3-1040-214-24P	Organizational, Direct Support and General Support Maintenance Repair Parts and Special Tools List: Disperser, Riot Control Agent, Portable, M3 27 April 1972
TM 3-1040-214-34	Direct Support and General Support Maintenance Manual: Disperser, Riot Control Agent, Portable, M3 17 February 1972

TM 3-1040-220-12&P	Operator's and Organizational Maintenance Manual (Including Repair Parts and Special Tools Lists): Disperser, Riot Control Agent, Helicopter or Vehicle Mounted, M5 25 March 1977
TM 3-1040-220-34&P	Direct Support and General Support Maintenance Manual (Including Repair Parts and Special Tools Lists): Disperser, Riot Control Agent, Helicopter or Vehicle Mounted, M5 6 May 1977
TM 3-1040-255-10	Operator's Manual: Mount, Smoke Generator, M2 And Mount, Fog Oil Drum, M3 (Reprinted W/Basic Incl C1) (This Item Is Included On EM 0033) 29 May 1969
TM 3-1040-262-13&P	Operator's, Organizational, and Direct Support Maintenance Manual (Including Repair Parts and Special Tools List): Disperser, Riot Control Agent, Portable, M33A1 25 September 1978
TM 3-1040-276-10	Operator's Manual For Generator, Smoke, Mechanical: Pulse Jet, M3A4 (NSN 1040-01-143-9506) (Reprinted W/Basic Incl C1) (This Item Is Included On EM 0033) 2 September 1985
TM 3-1040-276-23	Organizational And Direct Support Maintenance Manual For Generator, Smoke, Mechanical: Pulse Jet, M3A4 (NSN 1040-01-143-9506) (Reprinted W/Basic Incl C1) (This Item Is Included On EM 0033) 11 October 1985
TM 3-1040-276-23P	Parts and Special Tools List for Smoke Generator, Mechanical Pulse Jet, M3A4 19 June 1989
TM 3-1040-279-12&P	Operator's and Organizational Maintenance Manual Including Repair Parts and Special Tools List and Depot Maintenance Repair Parts For Generator Set, Smoke, Mechanical: Pulse Jet, M157 W/120 Gal FOG Oil Tank (NSN 1040-01-206-0147); W/80 Gal 22 May 1987
TM 3-1040-285-10	Generator, Smoke, Mechanical: Mechanized Smoke Obscurant System, M58 (1040-01-413-8332) (EIC: 5CG) (This Item is Included on EM 0033) 29 June 1998
TM 3-1040-285-20	Generator, Smoke, Mechanical: Mechanized Smoke Obscurant System, M58 (1040-01-413-8332) (EIC: 5CG) (This Item is Included on EM 0033) 29 June 1998
TM 3-1040-285-23P	Unit and Direct Support Maintenance Repair Parts and Special Tools List for Generator, Smoke, Mechanical: Mechanized Smoke Obscurant System, M58 (1040-01-413-8332) (EIC: 5CG) (This Item is Included on EM 0033) 31 August 1998
TM 3-1040-285-30	Generator, Smoke, Mechanical: Mechanized Smoke Obscurant System, M58 (1040-01-413-8332) (EIC: 5CG) (This Item is Included on EM 0033) 20 June 1998
TM 3-251-BD	Battlefield Damage Assessment And Repair For Chemical Defensive Materiel (Reprinted W/Basic Incl C1-3) (This Item Is Included On EM 0045 and EM 0157) 23 September 1987
TM 3-4230-209-10	Decontaminating Apparatus: Power Driven, Skid Mounted, Multipurpose Nonintegral 500-Gallon, M12A1 (NSN 4230-00-926-9488)(EIC: 5FB) (Reprinted W/Basic Incl C1-2) (This Item Is Included On Em 0157) 20 June 1986
TM 3-4230-209-20&P	Unit Maintenance Manual Including Repair Parts and Special Tools List for Decontaminating Apparatus: Power-Driven, Skid-Mounted, 500 Gallon, M12A1 (NSN 4230-00-926-9488) 28 June 1986
TM 3-4230-209-30&P	Intermediate Direct Support Maintenance Manual Including Repair parts and Special Tools List For Decontaminating Apparatus: Power-Driven, Skid-Mounted, 500 Gallon, M12A1 (NSN 4230-00-926-9488) 29 September 1986

TM 3-4230-218-12&P	Operator's and Organizational Maintenance Manual (Including Repair parts and Special Tools List) For Decontaminating Apparatus: Power-Driven, Portable, Type A/E32U-8 (NSN 4230-01-153-8660) 1 March 1987
TM 3-4230-218-30&P	Direct Support Maintenance Manual (Including Repair Parts and Special Tools List) For Decontaminating Apparatus: Power-Driven, Portable, Type A/E32U-8 (NSN 4230-01-153-8660) 31 March 1987
TM 3-4240-201-13	Operator's, Organizational, and Direct Support Maintenance Manual: Filter Unit, Gas-Particulate, Hospital, Six-Man, 12 CFM, ABC-M7A1 (FSN 4240-203-3999) 15 November 1972
TM 3-4240-201-20P	Organizational Maintenance Repair Parts And Special Tools List For Filter Unit, Gas Particulate, M7A1 (FSN 4240-203-3999) 10 November 1969
TM 3-4240-201-35P	Direct Support, General Support, And Depot Maintenance Repair Parts And Special Tool Lists: Filter Unit, Gas Particulate, M7A1 (FSN 4240- 203-3999) 24 November 1969
TM 3-4240-212-14&P	Operator's, Organizational, Direct Support, And General Support Maintenance Manual (Including Repair Parts And Special Tools List): Breathing Apparatus, Oxygen-Generating, M20 (NSN 4240-00-678-5263) (Reprinted W/Basic Incl C1-2) 1 July 1975
TM 3-4240-241-12	Operator's And Organizational Maintenance Manual For Filter Unit, Gas-Particulate, GED, 300 CFM, ABC-M6A1 and EMD, 300 CFM, ABC-M6A1 (Reprinted W/Basic Incl C1-3) 4 May 1965
TM 3-4240-241-20P	Organizational Maintenance Repair Parts And Special Tool Lists For Filter Units, Gas-Particulate, EMD and GED, 300 CFM, ABC-M6 (FSN 4240-368-6127) (4240-368-6126) and ABC-M6A1 (4240-889-2317) (4240-889-2316) (Reprinted W/Basic Incl C1) 26 October 1972
TM 3-4240-241-34P	Direct Support And General Support Maintenance Repair Parts And Special Tool Lists (Including Depot Maintenance Repair Parts And Special Tools): Filter Unit, Gas-Particulate, EMD And GED, 300 CFM, ABC-M6 (FSN 4240-368-6127, 4240-368-6126) 26 October 1972
TM 3-4240-241-35	Direct Support, General Support, And Depot Maintenance Manual: Filter Unit, Gas-Particulate, GED, 300 CFM, ABC-M6 And EMD, 500 CFM, ABC-M6A1 19 May 1965
TM 3-4240-264-12	Operator's and Organizational Maintenance Manual For Shelter System, Collective Protection, Chemical-Biological: Trailer-Transported, M51 (NSN 4240-00-854-4144) 29 August 1975
TM 3-4240-264-20P	Organizational Maintenance Repair Parts And Special Tools List For Shelter System, Collective Protection, Chemical- Biological: Inflatable Trailer-Transported, M51 (NSN 4240-00-854-4144) (Reprinted W/Basic Incl C1-3) 31 October 1975
TM 3-4240-264-34	Direct Support and General Support Maintenance Manual For Shelter System, Collective Protection, Chemical-Biological: Inflatable, Trailer-Transported, M51(NSN 4240-00-854-4144) 5 December 1975
TM 3-4240-264-34P	Direct Support And General Maintenance Repair Parts And Special Tools List For Shelter System, Collective Protection, Chemical Biological: Inflatable, Trailer- Transported, M51 (NSN 4240-00-854-4144) (Reprinted W/Basic Incl C1-3) 1 November 1975
TM 5-4310-219-10	Operator's Manual For Compressor, Rotary: Air; Wheel Mtd, Pneumatic Tires, Diesel Driven; 600 CFM, 100 PSI (Ingersoll-Rand Model DR-600) Non-Winterized 19 February 1962

TM 5-4310-219-20	Organizational Maintenance Manual For Compressor, Rotary, Air: Wheel MTD, Pneumatic Tires, Diesel Driven; 600 CFM, 100 PSI (Ingersoll-Rand Model DR-600) Nonwinterized 27 March 1962
TM 5-4310-219-20P	Organizational Maintenance Repair Parts And Special Tools List For Compressor, Rotary; Air, Wheel Mtd, Pneumatic Tires, Diesel Driven; 600 CFM, 100 PSI (Ingersoll-Rand Model DR-600) Non-Winterized 22 October 1984
TM 5-4310-219-34P	Direct Support And General Support Maintenance Repair Parts And Special Tools List (Including Depot Maintenance Repair Parts And Special Tools List) For Compressor, Rotary: Air, Wheel Mtd; Pneumatic Tires, Diesel Driven; 600 CFM, 100 PSI 22 October 1984
TM 5-4310-219-35	Direct Support, General Support, And Depot Maintenance Manual For Compressor, Rotary: Air; Wheel MTD, Pneumatic Tires, Diesel Driven; 600 CFM, 100 PSI (Ingersoll-Rand Model DR-600) Nonwinterized 27 April 1962
TM 5-4310-221-15	Operator's, Organizational And Depot Maintenance Manual For Compressor, Rotary, Air; Skid Mtd, Gasoline Driven, 125 CFM, 100 PSI (Ingersoll-Rand Model GER-125) SERIAL NOS. 125CR22346 Thru 125CR22545 And 125CR24901 Thru 125CR25400 6 May 1963
TM 5-4310-221-20P	Organizational Maintenance Repair Parts And Special Tools List For Compressor, Rotary; Air, Skid MTD, Gasoline Driven; 125 CFM, 100 PSI (Ingersoll-Rand Model GER-125), Serial Nos. 125CR22346 Thru 125CR22545 And 125CR24901 Thru 125CR25400 20 February 1969
TM 5-4310-221-35P	Direct And General Support And Depot Maintenance Repair Parts And Special Tools List: Compressor, Rotary, Air: Skid MTD, Gasoline Driven, 125 CFM, 100 PSI (Ingersoll-Rand Model GER-125), Serial Nos. 125CR22340 Thru 125CR22545 And 125CR24901 20 February 1969
TM 5-4310-227-15	Operator's, Organizational, Direct Support, General Support, And Depot Maintenance Manual: Compressor, Reciprocating, Power Driven, Air; Gasoline Engine, 15 CFM, 175 PSI (Champion Pneumatic Models), Receiver Mounted (OEG-458-ENG-1) 7 October 1966
TM 5-4310-227-20P	Organizational Maintenance Repair Parts And Special Tools List For Compressor, Reciprocating, Air: Gasoline Engine Driven; 15 CFM; 175 PSI; Receiver MTD (Champion Pneumatic Model OEG-458-ENG-1) (FSN 4310-861-9818); Receiver Mounted 11 July 1972
TM 5-4310-227-34P	Direct And General Support Maintenance Repair Parts And Special Tools List (Including Depot Maintenance Repair Parts And Special Tools): Compressor, Reciprocating, Air: Gasoline Engine Driven, 15 CFM, 175 PSI, Receiver MTD 11 July 1972
TM 5-4310-241-15	Operator, Organizational, Field, and Depot Maintenance Manual: Compressor, Reciprocating: Air, 5 CFM, 175 PSI; Hand Truck Mounted; Gasoline Driven (Champion Pneumatic Model LP-512-Eng) Less Engine (FSN 4310-861-9820) 9 January 1963
TM 5-4310-241-20P	Organizational Maintenance Repair Parts and Special Tools List for Compressor, Reciprocating, Air: 5 CFM, 175 PSI, Hand Truck Mounted; Gasoline Driven (Champion Pneumatic Model LP-512-Eng) Less Engine (FSN 4310-861-9820) 6 May 1969
TM 5-4310-241-35P	Direct Support, General Support, and Depot Maintenance Repair Parts and Special Tool Lists: Compressor, Reciprocating, Air: 5 CFM, 175 PSI, Hand Truck Mounted; Gasoline Driven (Champion Pneumatic Models Lp-512-Eng) Less Engine 6 May 1969
TM 5-4310-250-15	Organizational, Direct Support, General Support, and Depot Maintenance Manual: Compressor, Rotary, Air; Diesel Engine Driven, 250 CFM, 100

	Psi, Skid Mounted (Davey Model 250RPV) (FSN 4310-075-7064), (Davey Model 6M250RPV) 9 November 1965
TM 5-4310-250-24P	Unit Maintenance, Intermediate Direct Support and Intermediate General Support Maintenance Repair Parts and Special Tools Lists For Compressor, Rotary, Air 250 CFM, 100 PSI, Trailer Mtd, DED Army Model M250RPV, (NSN 4310-00-075-7064) 23 May 1988
TM 5-4310-270-15	Operator, Organizational, Direct and General Support and Depot Maintenance Manual: Compressor, Rotary, Power Driven, Air, Two Impeller, Wheelbarrow Frame Mounted, Two Pneumatic Tires, Gasoline Engine, 60 CFM, 6.5 PSI 11 September 1967
TM 5-4310-270-25P	Organizational, Direct Support and General Support, and Depot Maintenance Repair Parts and Special Tools List: Compressor, Rotary; Power Driven, Air, Two Impellers, Wheelbarrow Frame MTD, Two Pneumatic Tires, Gasoline Engine,60 CFM 5 March 1969
TM 5-4310-278-15	Operator, Organizational, Direct Support, General Support, and Depot Maintenance Manual: Compressor, Rotary: Air, Frame Mounted; 2-Wheel, Pneumatic Tired, Gasoline Engine, 60 CFM, 6.5 Psi (Harris Model 4MV) (FSN 4310-935-5345) 27 August 1968
TM 5-4310-278-25P	Organizational, Direct and General Support and Depot Maintenance Repair Parts and Special Tools List For Compressor, Rotary: Air; Frame MTD., 2 Wheel, Pneumatic Tired, Gasoline Engine, 60 CFM, 6.5 Psi (Harris Model 4MV) 14 February 1969
TM 5-4310-280-14	Operator's, Organizational, Direct and General Support Maintenance Manual for Compressor, Rotary, Power-Driven, Air; Wheel MTD, Diesel Driven, 600 CFM, 100 PSI (Worthington Model 2016) (FSN 4310-878- 1905) (Reprinted W/Basic Incl C1) 29 November 1974
TM 5-4310-280-20P	Organizational Maintenance Repair Parts and Special Tools List: Compressor, Rotary, Power-Driven, Air: Wheel Mounted, Diesel Driven, 600 CFM, 100 PSI (Worthington Model 2016) (FSN 4310-878-1905) (Reprinted W/Basic Incl C1-2) 11 May 1973
TM 5-4310-280-34P	Direct and General Support Maintenance Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts and Special Tools): Compressor, Rotary, Power Driven, Air: Wheel Mounted, Diesel Driven, 600 CFM, 100 PSI 10 May 1973
TM 5-4310-345-14	Operator, Organizational, Direct Support and General Support Maintenance Manual for Compressor, Rotary, Air; Diesel Engine Driven, 250 CFM, 100 PSI; Trailer Mounted Two Wheel (Davey Model 14M250RPV) (NSN 4310-00-256-9319) 5 June 1972
TM 5-4310-345-24P	Organizational, Direct Support and General Support Maintenance Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts and Special Tools) For Compressor, Rotary, Air; DED, 250 CFM, 100 PSI, Trailer MTD 21 May 1984
TM 5-4320-208-12&P	Operator's and Organizational Maintenance Manual (Including Repair Parts and Special Tools List) for Pump, Centrifugal: Gasoline Engine Driven; Frame MTD; 2-Inch, 125 GPM, 50 Foot Head (Military Design Model 2-125-50-G) 10 September 1982
TM 5-4320-215-12	Operator's and Organizational Maintenance Manual for Pump, Centrifugal, Fresh Water, Gasoline Driven; 2-Wheel MTD, 4-Inch, 500 GPM, 30 Ft Head (Carver Model K400S) (FSN 4320-810-7311) (Less Engine) (Reprinted W/Basic Incl C1-5) 9 March 1961
TM 5-4320-215-25P	Organizational, Direct and General Support and Depot Maintenance Repair Parts and Special Tools List; Pump, Centrifugal: Fresh Water; Gasoline Engine; 2-Wheel MTD: 4-In., 500 GPM, 30 Ft Head (Carver Model K400S) (Less Engine) 3 November 1970

TM 5-4320-215-35	Field and Depot Maintenance Manual: Pump, Centrifugal, Fresh Water; Gasoline Driven; 2-Wheel Mounted; 4 In., 500 GPM, 30 Ft Head (Carver Model K400S) FSN 4320-810-7311 (Less Engine) 27 February 1961
TM 5-4320-216-15	Operator's, Organizational, Field and Depot Maintenance Manual: Pump, Centrifugal; Fresh Water, Gasoline Driven, Base MTD; 4-Inch, 200 GPM, 300 Ft Head (Carver Model 4whis) Serial No. Range 37715RF Thru 37814RF (FSN 4320-810-7310) 7 September 1961
TM 5-4320-216-20P	Organizational Maintenance Repair Parts and Special Tools List: Pump, Centrifugal; Fresh Water, Gasoline Engine, Base Mounted, 4-Inch, 200 GPM, 300-Ft Head (Carver Models 4whis) (FSN 4320-810-7310) and (Model 4whisa) (4320-830-5344) 16 October 1970
TM 5-4320-216-35P	Direct and General Support and Depot Maintenance Repair Parts and Special Tools List: Pump, Centrifugal; Fresh Water, Gasoline Engine, Base Mounted, 4-Inch, 200 GPM, 300-Ft Head (Carver Models 4whis) (Fsn 4320-810-7310) 16 October 1970
TM 5-4320-218-15	Operator's, Organizational, Direct Support, General Support, and Depot Maintenance Manual for Pump, Centrifugal: Petroleum, Gasoline Driven, Trailer MTD, 4-Inch, 350 GPM, 275-Ft Head (Gorman-Rupp Models 04A12-MVG4D) 2 March 1961
TM 5-4320-218-20P	Organizational Maintenance Repair Parts and Special Tools List for Pump, Centrifugal: Petroleum, Gasoline Driven, Trailer Mounted, 4-Inch, 350 GPM, 275-Ft Head (Gorman-Rupp Models 04A12-MVG4d) (FSN 4320-691-1071) and (Model 04A12B-M 11 April 1968
TM 5-4320-218-35P	Direct and General Support and Depot Maintenance Repair Parts and Special Tools List: Pump, Centrifugal: Petroleum, Gasoline Driven, Trailer Mounted, 4-Inch, 350 GPM, 275-Ft Head (Gorman-Rupp Models 04A12-MVG4D) (FSN 4320-691-1071) 10 April 1968
TM 5-4320-225-20P	Organizational Maintenance Repair Parts and Special Tools Lists: Pump, Centrifugal: Petroleum Pipeline, Gasoline Driven, Skid Mounted (Barnes Mfg., Model CE4P4) (FSN 4320-542-4037); (Reiner, John, Model GP75) (4320-389-6857) 13 December 1968
TM 5-4320-225-35P	Organizational Maintenance Repair Parts and Special Tools List: Pump, Centrifugal: Gasoline Driven, Wheel MTD; 4-Wheel, Pneumatic Tires, 6-Inch; 1500 GPM, 60 Ft Head (Carver Model KN6H-S) Serial No. Range 39310RF Thru 39324RF 13 December 1968
TM 5-4320-233-15	Operator's, Organizational, Direct Support, General Support and Depot Maintenance Manual: Pump, Centrifugal; Gasoline Driven, Skid MTD, 6-Inch, 1120 GPM, Self Priming (Carver Model K906EWA) (FSN 4310-968-6264) (Reprinted W/Basic Incl) 7 February 1966
TM 5-4320-233-20P	Organizational Maintenance Repair Parts and Special Tools Lists: Pump, Centrifugal Gasoline-Driven, Skid-Mounted, 6-Inch 1120-GPM, Self-Priming (Carver Model K906EWA) (FSN 4320-968-6264) 24 September 1968
TM 5-4320-233-35P	Direct Support, General Support And Depot Maintenance Repair Parts and Special Tools List For Pump, Centrifugal, Gasoline Driven, Skid MTD; 6-Inch, 1120 GPM, Self-Priming (Carver Model K906EWA) (FSN 4320-968-6264) 24 September 1968
TM 5-4320-234-12	Operator's and Organizational Manual for Pump, Centrifugal; Self-Priming, Gasoline Engine Driven, Wheel MTD; 6-Inch, 1500 GPM Capacity at 60 Ft Head (Peabody Barnes Inc., Model US90CCG-1) (NSN 4320-00-490-1859) 21 March 1975
TM 5-4320-234-20P	Organizational Maintenance Repair Parts and Special Tools List for Pump, Centrifugal, Self-Priming; Gasoline-Engine Driven, 6-Inch; 1500

	GPM Capacity at 60 Ft Head (Peabody Barnes Inc., Model US90CCG-1) (NSN 4320-00-490-1859) 10 May 1990
TM 5-4320-234-34	Direct Support and General Support Maintenance Manual For Pump, Centrifugal; Self-Priming, Gasoline Engine Driven, Wheel MTD; 6-Inch, 1500 GPM Capacity at 60 Ft Head (Peabody Barnes Inc., Model US90CCG-1) (NSN 4320-00-490-1859) 29 August 1975
TM 5-4320-234-34P	Direct Support and General Support Maintenance Repair Parts and Special Tools Lists for Pump, Centrifugal; Self-Priming, Gasoline Engine Driven; 6-Inch, 1500 Gpm Capacity at 60 Ft Head (Peabody Barnes Inc., Model US90CCG-1) 10 April 1990
TM 5-4320-237-15	Operator's, Organizational, Direct Support and General Support and DEPOT Maintenance Manual: Pump, Centrifugal: Gasoline Engine Driven, 50GPM, 100-Foot Head, Flammable Liquid, Bulk Transfer (BARNES MODEL QM-2-28002) (NSN 4320-00-913-7131) 19 April 1967
TM 5-4320-237-25P	Organizational, Direct and General Support and Depot Maintenance Repair Parts and Special Tools List: Pump, Centrifugal: Gasoline Engine Driven, 50 GPM, 100 Ft Head, Flammable Liquid, Bulk Transfer (Barnes Model QM-2-28002) 25 May 1967
TM 5-4320-242-14	Operator's Organizational, Direct Support and General Support Maintenance Manual: Pump Assembly, Flammable Liquid, Bulk Transfer; Gasoline Engine Driven, 350 GPM Capacity at 190 Foot Head, Wheel Mounted (Gorman-Rupp Model 84C15-4A084) 2 August 1972
TM 5-4320-242-24P	Organizational, Direct Support and General Support Maintenance Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts and Special Tools) The Pumping Assembly, Flammable Liquid, Bulk Transfer: Gasoline Engine 28 May 1982
TM 5-4320-243-15	Operator's, Organizational, DS, GS, and Depot Maintenance Manual: Pump, Centrifugal; Petroleum Pipeline, GED, Skid Mtd, 500 GPM to 1400 GPM 8 July 1968
TM 5-4320-243-20P	Organizational Maintenance Repair Parts and Special Tools List For Pump, Centrifugal, Petroleum Pipeline, Ged, Skid Mtd; 500 GPM To 1400 GPM (John Reiner Model GP-110-5) (FSN 4320-063-7378) 11 December 1969
TM 5-4320-243-35P	Direct And General Support and Depot Maintenance Repair Parts and Special Tool Lists: Pump, Centrifugal, Petroleum Pipeline, Ged, Skid Mounted, 500 GPM To 1400 GPM (John Reiner Model GP-110-5) (FSN4320-063-7368) 15 December 1969
TM 5-4320-272-12	Operation and Organizational Maintenance Manual for Pumping Assembly, Flammable Liquid, Bulk Transfer, Gasoline Engine Driven; 350 GPM Capacity, 275 Ft Total Dynamic Head, Wheel MTD (Peabody Barnes Inc., Model US37ACG) 14 January 1974
TM 5-4320-272-20P	Unit, Maintenance Repair Parts and Special Tools List for Pumping Assembly, Flammable Liquid Bulk Transfer; Gasoline Engine Driven, 350 GPM Capacity, 275 Ft Total Dynamic Head; Wheel MTD, (Peabody Barnes, Inc., Model US37ACG) 20 April 1990
TM 5-4320-272-34	Direct Support and General Support Maintenance Manual for Pumping Assembly, Flammable Liquid, Bulk Transfer, Gasoline Engine Driven, 350 GPM Capacity, 275 Feet Total Dynamic Head, Wheel MTD (Peabody Barnes Inc., Model US37ACG) 18 February 1974
TM 5-4320-272-34P	Direct Support and General Support Maintenance Repair Parts and Special Tools List For Pumping Assembly, Flammable Liquid, Bulk Transfer; Gasoline Engine Driven, 300 GPM Capacity, 275 Feet Total Dynamic Head, Wheel MTD 10 August 1990

TM 5-4520-208-15	Operator's Organizational, Direct and General Support and Depot Maintenance Manual: Heater, Duct-Type, Portable; 400, 000 BTU/Hr; Gasoline Engine and Electric Motor-Driven Blowers W/6 and 12-Inch Ducts, Automatic Temperature Control 20 March 1967
TM 5-4520-208-25P	Organizational, Direct and General Support, and Depot Maintenance Repair Parts and Special Tools List: Heater, Duct Type, Portable Gasoline, 400,000 BTU/Hr, Gasoline Engine and Electric Motor Driven Blowers W/6 and 12-Inch Diameter 20 September 1967
TM 5-4520-224-14	Operator's, Organizational, Direct Support and General Support Maintenance Manual: Heater, Duct-Type, M-68, Portable, Gasoline; 250,000 BTU (VBM Corp., Model VBM-250 and VBM-250A) (NSN 4520-00-001-7726) (Reprinted W/Basic InclC1-8) 19 March 1973
TM 5-4520-224-24P	Organizational, Direct Support and General Support Maintenance Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts and Special Tools) for Heater, Duct Type, M-68, Portable, Gasoline; 250,000 BTU VBM Corp. 18 May 1990
TM 5-4520-242-13	Operator's, Organizational, and Direct Support Maintenance Manual for Heater, Space, Multifuel With Blower; 15,000 BTU/Hr, 28 Vdc(VBM Model VBM 15-Iv) (NSN 4520-01-032-7363) (Reprinted W/Basic Incl C1) (AR) 21 September 1979
TM 5-4520-242-23P	Organizational and Direct Support Maintenance Repair Parts and Special Tools List for Heater, Space, Multifuel W/Blower, 28 Vdc (Model VBM 15-1V) (NSN 4520-01-032-7363) 9 February 1990
TM 5-4520-244-14	Operator's, Organizational, Direct Support and General Support Maintenance Manual for Heater, Duct Type, Portable, Trailer-Mounted, 400,000 Btu/Hr (Fiesta Model FC-400-1) (NSN 4520-01-071-7191) (Reprinted W/Basic Incl C1-6) 11 July 1980
TM 5-4520-244-24P	Unit, Direct Support and General Support Maintenance Repair Parts and Special Tools List for Heater, Duct Type Portable Trailer MTD, 400,000 Btu/Hr Fiesta Model FC-400-1 (NSN 4520-01-071-7191) (Reprinted W/Basic Incl C1-2) 20 April 1991
TM 5-4520-256-14	Operator's, Unit, Intermediate Direct and Intermediate General Support Maintenance for Heater, Duct Type, Portable, HDU-36/E, 120,000 Btu, Model H82 (NSN 4520-01-254-8548) and H83 (4520-01-332-2394) [To 35E7-6-26-1] 5 August 1988
TM 5-4610-205-10	Operator's Manual for Water Purification Unit; Base Mounted, 3000 Gph; Electric Motor Driven, AC, 115/208V, 1 And 3 Phase, 60 Hz (Met-Pro Model 3000-2700A) (NSN 4610-00-857-0330) 14 August 1963
TM 5-4610-205-20P	Organizational Maintenance Repair Parts and Special Tools List for Water Purification Unit, Base Mtd, Electric Driven, AC; 115/208 V, Single Phase and 3 Phase, 60 Hz; 3,000 Gallons Per Hour (Met-Pro Model 3000-2700A) (FSN 4610-857-03) 23 July 1970
TM 5-4610-205-35	Field and Depot Maintenance Manual for Water Purification Unit, Base Mtd; Electric Driven, AC, 115/208 V, Single and 3 Phase, 60 Cycle; 3,000 Gallons Per Hour (Met-Pro Model 3000-2700A) (FSN 4610-857-0330) 23 August 1963
TM 5-4610-205-35P	Direct and General Support and Depot Maintenance Repair Parts and Special Tools List for Water Purification Unit, Base Mtd, Electric Driven, AC; 115-208 V, Single and 3-Phase, 60 Hz; 3,000 and 3-Phase, 60 Hz; 3,000 Gallons Per Hour 23 July 1970
TM 5-4610-218-12	Operator's and Organizational Maintenance Manual: Water Purification Unit, Van Type, Body Mounted; Electric Motor Driven, AC, Dc, 115/208 V, Single and 3 Phase, 60 Hz, 1/20 to 2 Hp 4 January 1980

TM 5-4610-218-20P	Organizational Maintenance Repair Parts and Special Tools List for Water Purification Unit, Van-Type, Body Mounted, Electric Driven, AC, 115/208 V, Single and 3 Phase, 60 Hz, 1/20 To 2 Hp, 1500 GPH Model EMC-1500S 15 May 1980
TM 5-4610-218-34	Direct Support and General Support Maintenance Manual for Water Purification Unit, Van Type, Body Mtd, Electric Motor Driven, AC, DC, 115/208 V, Single and 3 Phase, 60 Hz, 1/20 to 2 Hp; 1500 GPH (Model EMC-1500S) (NSN 4610-01-037-8746) 1 August 1979
TM 5-4610-218-34P	Direct Support and General Support Maintenance Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts and Special Tools) for Water Purification Unit, Van-Type, Body Mounted Electric Driven, AC 115/208 V 15 May 1980
TM 5-4610-221-12	Operator's and Organizational Maintenance Manual: Water Purification Unit, Van-Type Body Mounted: Electric Driven; AC, 115/208 V, Single and 3-Phase, 60 Hz 1/2 to 2-Hp; 1500 Gph (Met-Pro Model 1500-2600A) (NSN 4610-00-879-4612) 5 March 1979
TM 5-4610-221-20P	Organizational Maintenance Repair Parts and Special Tools List for Water Purification Unit, Van-Type, Body MTD, Electric Driven, AC 115/208 V, Single and 3 Phase, 60 Hertz, 1/2 to 2 Hp; 1,500 Gph (Met-Pro Model 1500-2600A) 3 May 1982
TM 5-4610-221-34	Direct Support and General Support Maintenance Manual for Water Purification Unit, Van-Type Body MTD, Electric Driven, AC; 115/208 V, Single and 3-Phase, 60 Hz, 1/20 to 2-Hp; 1500 Gph (MET-Pro Model 1500-2600A) (NSN 4610-00-879-4612) 21 December 1979
TM 5-4610-221-34P	Direct Support and General Support Maintenance Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts and Special Tools) for Water Purification Unit: Van-Type Body MTD, Electric Driven, AC, 115, 208 V, Single 3 May 1982
TM 5-4610-223-12	Operator's and Organizational Maintenance Manual for Water Purification Unit, Van-Type, Body Mounted; Electric Driven, AC, 115/208v, Single and 3 Phase, 60 Hz, 1/20 to 2 Hp; 3,000 Gph (Met-Pro Model 3000V) (NSN 4610-00-168-1799) 18 June 1980
TM 5-4610-223-20P	Organizational Maintenance Repair Parts and Special Tool Lists: Water Purification Unit, Van Type Body Mounted, Electric Driven, AC, 115/208 V, Single Phase and 3 Phase, 60 Cycle, 1/20 to 2 Hp, 3,000 GPM (Met-Pro Model 3000V) 15 February 1983
TM 5-4610-223-34	Direct Support and General Support Maintenance Manual for Water Purification Unit, Van-Type, Body Mounted; Electric Driven, AC, 115/208 V, Single Phase, 60 Hz, 1/20 to 2 Hp, 3000 Gph 30 June 1980
TM 5-4610-223-34P	Direct Support and General Support Maintenance Repair Parts and Special Tools List for Water Purification Unit, Van Type Body MTD, Electric Driven, AC, 115/208 V, Single and 3 Phase, 1/20 to 2 Hp; 3,000 Gph (Met-Pro Model 3000V) 10 February 1983
TM 5-4930-230-13	Operator's, Organizational, and Direct Support Maintenance Manual for Tank and Pump Unit, Liquid Dispensing; for Truck Mounting, Military Design Tank and Pump Units, Gasoline Engine Driven, Model (97403) (13217E7100) 17 July 1984
TM 5-4930-230-23P	Organizational and Direct Support Maintenance Repair Parts and Special Tools List For Tank and Pump Unit, Liquid Dispensing for Truck Mounting MIL Design Tank and Pump Units, Gasoline Engine Driven Model (97403) 1Electric Motor Driven 28 January 1992
TM 9-243	Use And Care of Hand Tools And Measuring Tools [M6290-AJ-MAN-010; To 32-1-101; TM-10209-10/1] (Reprinted W/Basic InclC1-2) (This Item is Included on EM 0178) 12 December 1983

TM 9-2805-256-14	Operator, Unit, Direct Support, General Support Maintenance Manual for Engine, Gasoline, 1 1/2 Hp, Military Standard Models (Model 1A08-1), (NSN 2805-00-601-5181); (Model 1A08-2) (2805-00-714-8552); (Model 1A08-3) (2805-00-068-7510) 10 August 1990
TM 9-2805-257-14	Operator, Unit, Direct Support, General Support Maintenance Manual for Engine, 3 Hp, Military Standard Models Model 2A016-1, (NSN 2805-00-601-5127) Model 2A016-2, (2805-00-714-8553), Model 2A016-3, (2805-00-072-4871), Model 2A016-4 15 August 1990
TM 9-2805-258-14	Operator, Unit, Direct Support, General Support Maintenance Manual for Engine, Gasoline, 10 Hp, Military Standard Models (Model 2A042-2 (NSN 2805-00-952-3927)) (Model 2A042-3 (2805-00-872-5971)) [To 38G2-89-21; NAVFAC P-8-614-14E] 23 November 0199
TM 9-2805-259-14	Operator's, Unit, Direct Support, General Support Maintenance Manual For Engine, Gasoline, 20 HP, Military Standard Models (Model 4A084-2, NSN 2805-00-952-3926), (Model 4A084-3, NSN 2805-00-872-5972), (Model 4A084-4, NSN 2805-01-276-5947) 12 June 1990
TM 9-4940-531-14	Operator's, Unit, Direct Support, and General Support Maintenance Manual For Cleaner, Steam, High Pressure Hot and Cold Water Jet, Trailer-Mounted (NSN 4940-01-025-9856) (EIC:2BC) 1 August 1994

# **Related Publications**

Related publications are sources of additional information. They are not required in order to understand this publication.

# **Army Correspondence Course Program Subcourses**

CM 1204	Operation of the M12A1 PDDA
CM 1207	Maintenance of the M12A1 PDDA
CM 3204	Operation and Maintenance of the M3A4 Smoke Generator
CM 3208	Troubleshooting Procedures for the M3A4 Smoke Generator
OD 0010	Electrical System Component Repair
OD 0607	Engine Principles
QM 0646	Laundry Operations in the Field
QM 4905	Supervise Operation of a 600-GPH Reverse Osmosis Water Purification Unit (ROWPU)
QM 4908	Supervise the Operator Maintenance and Operation of the 125-GPM Pump
QM 4938	Inspect Operator Maintenance on a 600-GPH Reverse Osmosis Water Purification Unit (ROWPU)
QM 4939	Inspect Operator Maintenance of a Van-Type Water Purification Unit (WPU)

# **Department of Army Pamphlets**

DA PAM 738-750	Functional Users Manual for The Army Maintenance Management System (TAMMS) (This Item is Included on EM 0001) 1 August 1994
DA PAMPHLET 738-750	Functional Users Manual for the Army Maintenance Management System (TAMMS) 1 August 1994

Lubrication Orders	
LO 10-3510-220-12	Laundry Unit, Trailer Mounted Model M85-100, (NSN 3510-01-2918169) (This is Included on EM 0127) 3 May 1990
Other Product Types	
TVT 690-091-0219-B	Maintenance of Washer-Extractor (Limited Disassembly)
TVT 690-091-0222-B	Maintenance of 250,000-BTU, Duct-Type Heater
TVT 690-091-0225-B	Water Heater
TVT 690-091-0233-B	350-GPM Pumping Assembly
TVT 690-091-0460-B	Water Pump
TVT 690-091-0525-B	Military Standard Engine - Four Cylinder, 20 HP: Removal of Magneto, Inspection, and Magneto Contact Point Adjustment
TVT 690-091-0747-B	Laundry Unit, Mobile (M532), Organizational Maintenance
TVT 690-091-1031-B	Smoke Generator, M3A3, Fog Oil Pump System Disassembly
Technical Manuals	
TM 10-3510-220-10	Operator's Maintenance Manual for Laundry Unit, Trailer-Mounted, Model M85-100 (NSN 3510-01-291-8169) 20 April 1990
TM 10-3510-220-24	Unit, Direct Support, and General Support Maintenance Manual for Laundry Unit, Trailer Mounted, Model M85-100 (NSN 3510-01-291-8169) 27 August 1990
TM 10-4320-343-14	Operator, Unit, Direct Support, and General Support Maintenance Manual for Fuel Pumping Assembly, Diesel Engine Driven, Wheel Mounted, 350 Gallons Per Minute (GPM), 275 Foot Head, Models: 350 PAF (NSN 4320-01-092-3551), LPP-TM 30 July 1993
TM 10-4510-206-14	Operator, Organizational, Direct Support and General Support Maintenance Manual for Bath Unit, Portable, Automated Multi-Head, Model PBU-100 (NSN 4510-01-139-4973) 6 July 1984
TM 10-4610-215-10	Operator's Manual for Water Purification Unit, Reverse Osmosis, 600 GPH Trailer Mounted Flatbed Cargo, 5 Ton 4 Wheel Tandem ROWPU Model 600-1 (NSN 4610-01-093-2380) and 600 GPH Skid Mounted POWPU Model 600-3(4610-01-113-8651)(TM 08580A-10/1 5 March 1991
TM 10-4610-215-24	Unit, Direct Support, and General Support Maintenance Manual for Water Purification Unit, Reverse OSMOSIS, 600 GPH Trailer Mounted, Flatbed Cargo, 5 Ton 4 Wheel, TANDEM, Model ROWPU 600-1(EIC-ZII) (NSN 4610-01-093-2380) and 600 GPH Skid Moun 27 March 1992
TM 10-4610-232-12	Operator's and Unit Maintenance Manual for Water Purification Unit, Reserve Osmosis, 3,000 GPH Trailer Mounted, Flatbed Cargo, 22 1/2 ton, 8 Wheel, TANDEM Model No. WTA-060 (NSN 4610-10-219-8707) and Model POWPU-1 (4610-01-371-1790) 13 May 1991
TM 10-4610-232-34	Direct Support and General Support Maintenance Manual for Water Purification Unit, Reverse OSMOSIS, 3,000 GPH Trailer Mounted, Flatbed Cargo, 22 1/2 Ton 8 Wheel, TANDEM Model No WTA-060 (NSN 4610-01-219-8707) 17 July 1991
TM 10-4610-239-10	Operator's Manual for Purification Unit, Reverse OSMOSIS, 600 GPH Trailer Mounted Flatbed Cargo, 5 Ton 4 Wheel TANDEM Model 0996109001(NSN 4610-01-234-2196) and 600 GPH Skid Mounted Model 0966108001(4610-01-234-2190)(TM 08580B-10/1) 5 March 1991
TM 10-4610-239-24	Unit, DS, and GS Maintenance Manual for Water Purification Unit, Reverse Osmosis 600-GPH Trlr-Mtd Flatbed Cargo 5-Ton, 4 Whl Tandem Model and Skid Mtd Model 2190 20 April 1992

TM 3-1040-279-12&P	Operator's and Organizational Maintenance Manual Including Repair Parts and Special Tools List and Depot Maintenance Repair Parts For Generator Set, Smoke, Mechanical: Pulse Jet, M157 W/120 Gal FOG Oil Tank (NSN 1040-01-206-0147); W/80 Gal 22 May 1987
TM 3-1040-285-10	Generator, Smoke, Mechanical: Mechanized Smoke Obscurant System, M58 (1040-01-413-8332) (EIC: 5CG) (This Item is Included on EM 0033) 29 June 1998
TM 3-4230-209-10	Decontaminating Apparatus: Power Driven, Skid Mounted, Multipurpose Nonintegral 500-Gallon, M12A1 (NSN 4230-00-926-9488)(EIC: 5FB) (Reprinted W/Basic Incl C1-2) (This Item Is Included On Em 0157) 20 June 1986
TM 3-4230-209-20&P	Unit Maintenance Manual Including Repair Parts and Special Tools List for Decontaminating Apparatus: Power-Driven, Skid-Mounted, 500 Gallon, M12A1 (NSN 4230-00-926-9488) 28 June 1986
TM 3-4240-201-13	Operator's, Organizational, and Direct Support Maintenance Manual: Filter Unit, Gas-Particulate, Hospital, Six-Man, 12 CFM, ABC-M7A1 (FSN 4240-203-3999) 15 November 1972
TM 3-4240-264-12	Operator's and Organizational Maintenance Manual For Shelter System, Collective Protection, Chemical-Biological: Trailer-Transported, M51 (NSN 4240-00-854-4144) 29 August 1975
TM 5-4320-237-15	Operator's, Organizational, Direct Support and General Support and DEPOT Maintenance Manual: Pump, Centrifugal: Gasoline Engine Driven, 50GPM, 100-Foot Head, Flammable Liquid, Bulk Transfer (BARNES MODEL QM-2-28002) (NSN 4320-00-913-7131) 19 April 1967
TM 5-4520-256-14	Operator's, Unit, Intermediate Direct and Intermediate General Support Maintenance for Heater, Duct Type, Portable, HDU-36/E, 120,000 Btu, Model H82 (NSN 4520-01-254-8548) and H83 (4520-01-332-2394) [To 35E7-6-26-1] 5 August 1988
TM 9-2805-259-14	Operator's, Unit, Direct Support, General Support Maintenance Manual For Engine, Gasoline, 20 HP, Military Standard Models (Model 4A084-2, NSN 2805-00-952-3926), (Model 4A084-3, NSN 2805-00-872-5972), (Model 4A084-4, NSN 2805-01-276-5947) 12 June 1990
TM 9-4110-256-14	Operator's, Unit, Direct Support, and General Support Maintenance Manual for Refrigeration Unit, Mechanical, 10K BTU, Electrical, Model F10000RE (NSN 4110-01-389-9128)(This Item is Included on EM 0174) 5 January 1996

By Order of the Secretary of the Army:

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