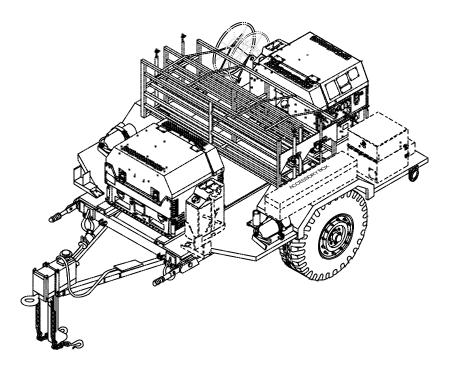
#### **TECHNICAL MANUAL**

# OPERATOR, UNIT AND DIRECT SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)



POWER PLANT, DIESEL ENGINE DRIVEN, 1-TON TRAILER MOUNTED (WITH RACKS) 3kW, 60 Hz, AN/MJQ-42 (NSN 6115-01-322-8583)

POWER PLANT, DIESEL ENGINE DRIVEN, 1-TON TRAILER MOUNTED (WITHOUT RACKS) 3kW, 60 Hz, AN/MJQ-43 (NSN 6115-01-322-8582)

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DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

# **HEADQUARTERS, DEPARTMENT OF THE ARMY**

## **Warning Summary**

#### NOTE

The warnings in the generator set and engine and trailer technical manuals must also be considered as part of these warning summaries.

WARNING

High voltage is produced when this generator set is in operation. Improper operation could result in severe personal injury or death.

WARNING

Never attempt to start the generator set if it is not properly grounded. Failure to observe this warning could result in severe personal injury or death by electrocution.

WARNING

Make sure generator sets are shut down before connecting load cables. Failure to observe this warning can cause severe personal injury or death.

WARNING

Ensure ground stud nut is properly secured creating a good ground. Failure to observe this warning could result in severe personal injury or death.

WARNING

Dangerous voltage is on live circuits. Handle them with care and never work alone. Failure to observe this warning could result in severe injury or death.

WARNING

Shut down generator sets before performing internal inspections of switch box. Failure to observe this warning could result in severe personal injury or death.

WARNING

Dangerous voltage exists on live circuits. Always observe precautions and never work alone. Failure to observe this warning could result in severe personal injury or death.

# WARNING

The fuels used in this generator set are flammable. Do not smoke or use open flame when performing maintenance. Flames and explosion can occur resulting in severe personal injury or death.

# WARNING

Keep spilled fuel from hot engine and all fires, and wash with warm water after getting any on skin. Fuel is highly flammable and is irritating to skin.

# WARNING

Dry cleaning solvent used to clean parts is potentially dangerous to personnel and property. Clean parts in a well-ventilated area. Avoid inhalation of solvent fumes. Wear goggles and rubber gloves to protect eyes and skin. Wash exposed skin thoroughly. Do not smoke or use near open flame or excessive heat. Failure to observe this warning could result in severe injury or death.

### WARNING

Exercise extreme caution when performing checks inside engine compartment. Avoid contact with moving or hot engine parts. Failure to observe this warning can result in severe personal injury or death.

# WARNING

Muffler and flex hoses get hot. Allow them to cool before touching them to avoid burn injury.

# WARNING

Do not attempt to perform any tasks inside generator housing with generator running. Failure to observe this warning could result in severe injury or death.

# WARNING

With any access door open, the noise level of this generator set when operating could cause hearing damage. Hearing protection must be worn when working near the generator set while running.

# WARNING

Before performing any maintenance that requires climbing on or under trailer, make sure that the trailer handbrakes are set, and front and rear trailer support legs are lowered. Failure to observe this warning could result in severe injury or death.

# WARNING

Do not disconnect trailer from towing vehicle before brakes are set and front landing leg/support leg are lowered. Failure to observe this warning could result in severe personal injury or death from trailer tipping or rolling.

# WARNING

If trailer is not coupled to towing vehicle, ensure that wheels are securely chocked. Failure to do so may cause trailer to roll, resulting in injury to personnel or damage to equipment.

# WARNING

Before removing trailer leveling-support jack, support rear of trailer with jack stands. Failure to observe this warning can cause severe personal injury or death.

# WARNING

Impact disk must be tighten to end of threads on rod. Also, lock washer and nut must be tightened firmly against impact disk. Failure to observe this warning could result in severe personal injury and/or death and damage to the equipment.

# WARNING

Steel strapping used in packaging of the power plant has sharp edges. Use care when cutting and handling steel strapping. Failure to observe this warning could result in severe personal injury or death.

# **WARNING**

Steel strapping used in packaging of the power plant has sharp edges. To avoid injury to personnel, use care when cutting and handling steel strapping.

# **WARNING**

When lifting generator set, use lifting equipment with minimum lifting capacity of 750 pounds. Do not stand or put arms, legs, or any parts of the body under hoisted load. Do not permit generator set to swing. Failure to observe this warning can result in severe personal injury or death to personnel or damage to equipment.

Refer to FM 21-11 for first aid.

#### LIST OF EFFECTIVE PAGES

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#### **TECHNICAL MANUAL**

NO. 9-6115-658-13&P

HEADQUARTERS DEPARTMENT OF THE ARMY Washington, D.C., 1 March 2002

OPERATOR, UNIT AND DIRECT SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)

POWER PLANT, DIESEL ENGINE DRIVEN, 1-TON TRAILER MOUNTED (WITH RACKS) 3kW, 60 Hz, AN/MJQ-42 (NSN 6115-01-322-8583)

POWER PLANT, DIESEL ENGINE DRIVEN, 1-TON TRAILER MOUNTED (WITHOUT RACKS) 3kW, 60 Hz, AN/MJQ-43 (NSN 6115-01-322-8582)

#### REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes, or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual, direct to: Commander, U.S. Army Communications and Electronics Command, ATTN: AMSEL-LC-LEO-D-CS-CFO, Fort Monmouth, NJ 07703-5006. The fax number is 732-532-1413, DSN 992-1413. A reply will be furnished directly to you. You may also e-mail your recommendation to: AMSEL-LC-LEO-PUBS-CHG@mail1.monmouth.army.mil.

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#### **HOW TO USE THIS MANUAL**

This manual contains operation and maintenance instructions for the operator, unit and direct support maintenance, and a Repair Parts and Special Tools List (RPSTL) for the AN/MJQ-42 and AN/MJQ-43 Power Plants.

There are five chapters and nine appendixes (A-I) in this manual. Chapter 1 is an introduction containing information about the equipment that makes up the AN/MJQ-42 and AN/MJQ-43 and valuable details pertaining to principles of operation. Chapter 1 also provides information on maintenance forms and records and how to send Equipment Improvement Recommendations (EIR). Chapter 2 contains the instructions needed by the operator to use or operate the equipment under usual and unusual conditions. It also contains the operator's controls and indicators and Preventive Maintenance Checks and Services (PMCS).

Maintenance procedures are located in Chapters 3, 4 and 5. In using these procedures, you must familiarize yourself with an entire maintenance procedure before beginning a specific maintenance task. Read all Warnings before you begin operating your equipment. Read each procedure completely before beginning a task.

Appendix A is a listing of references found in the manual. Appendix B contains the Maintenance Allocation Chart (MAC). Appendix C lists the Repair Parts and Special Tools List (RPSTL). Appendix D is the Expendable and Durable Supplies and Materials List. Appendix E provides the Additional Authorization List (AAL). Appendix F contains Fabrication/Assembly instructions. Appendix G provides Torque Limits. Appendix H contains Mandatory Replacement Items. Appendix I contains Components Of End Item (COEI) And Basic Issue Items (BII) List. A glossary of terms is located after the appendices followed by an alphabetical index.

#### **CHAPTER 1**

#### INTRODUCTION

#### Section I. GENERAL INFORMATION

#### 1-1 SCOPE.

This technical manual is for your use in operating and maintaining the 3 kW AN/MJQ-42 and AN/MJQ-43 Power Plant. The manual covers operator, unit maintenance, and direct support instructions for the power Plant (s). It also contains a Repair Parts and Special Tools List (RPSTL) for the power plants. The power plant AN/MJQ-42 consists of two 3kW, 60 Hz generators, a switch box, trailer assembly, a cable reel and stowage rack. The power plant AN/MJQ-43 consists of two 3kW, 60 Hz generators, a switch box and trailer assembly.

#### 1-2 MAINTENANCE FORMS AND RECORDS.

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA PAM 738-750 (The Army Maintenance System (TAMMS) Maintenance Management UPDATE).

#### 1-3 EQUIPMENT IMPROVEMENT RECOMMENDATION (EIR).

If the equipment in any of your 3kW Power Plants, AN/MJQ-42 or AN/MJQ-43 needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance. Put it on SF 368 (Product Quality Deficiency Report). Mail it to us at Commander, U.S. Army Communications and Electronics Command, ATTN: AMSEL-LC-LEO-D-CS-CFO, Fort Monmouth, New Jersey 07703-5000. We will send you a reply.

#### 1-4 CORROSION PREVENTION AND CONTROL.

Corrosion Prevention and Control (CPC) of Army material is a continuing concern. It is important that any corrosion problems with this item are reported so that the problem can be corrected and improvements can be made to prevent the problem in the future items.

While corrosion is typically associated with rusting of metals, it can also include deterioration of other materials, such as rubber or plastic. Unusual cracking, softening, swelling, or breaking of these materials may be a corrosion problem.

If a corrosion problem is identified, it can be reported using Standard Form 368, Product Quality Deficiency Report. Use of keywords such as "corrosion", "rust", "deterioration", or "cracking" will ensure that the information is identified as a CPC problem.

#### 1-5 OZONE DEPLETING SUBSTANCES (ODS).

The continued use of ODS has been prohibited by Executive Order 12856 of 3 August 1993. The use of ODS in the Department of the Army Technical Manuals is prohibited. Acquiring activity will provide a listing of these substances.

#### 1-6 DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE.

Destruction of Army materiel to prevent enemy use shall be in accordance with TM 750-244-3.

#### 1-7 PREPARATION FOR STORAGE AND SHIPMENT.

Refer to Generator TM 9-6115-639-24.

#### TM 9-6115-658-13&P

#### 1-8 LIST OF ABBREVIATIONS.

Refer to glossary at the back of this manual.

#### 1-9 LEVELS OF MAINTENANCE.

(A) Army users shall refer to the Maintenance Allocation Chart (MAC) for tasks and levels of maintenance to be performed.

#### Section II. EQUIPMENT DESCRIPTION AND DATA

#### 1-10 **EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES.**

- **1-10.1** Characteristics. The power plants consist of two DOD Model MEP-831A Tactical Quiet Generator Sets mounted on a modified M116A3 one ton trailer. Each generator set operates at 60Hz and is an air-cooled, diesel engine driven, single-phase unit, with a load capacity of 3 kW. Refer to TM 9-6115-639-13 for detailed equipment characteristics about the 3kW generator set. Modifications to the M116A3 trailer chassis used for both power plants consist of platform/fenders, accessory box, rear leveling-support jack, fire extinguisher/brackets, and generator set mounting rails. In addition, the AN/MJQ-42 Power Plant trailer contains a stowage rack, used to carry an antenna mast, mast kit, and mast extension kit, cable reel, mast supports, and antenna mounts. Power plant output is supplied from either generator set to the system or equipment being powered through a switch box mounted on the trailer. For operation of a single generator set, the load cables may be connected directly to the generator set output load terminals. Refer to TM 9-2330-202-14&P for detailed equipment characteristics about the M116A3 trailer.
- **1-10.1.2** Power Plant AN/MJQ-42. This power plant has two generator sets, a cable reel, a stowage rack and a switch box mounted on a modified one ton trailer.
- **1-10.1.3** Power Plant AN/MJQ-43. This power plant has two generator sets and a switch box mounted on a modified one ton trailer.

#### 1-10.2 <u>Capabilities and Features</u>.

#### 1-10.2.1 Power Plant AN/MJQ-42.

TOWING VEHICLE AN/MJQ-42	CUCV or HMMWV
TIRE PRESSURE (Highway)	35 psi (241.3 kPa)
ELECTRICAL OUTPUT - 60 Hz: 120 volts, single phase, 2 wire	

#### 1-10.2.2 Power Plant AN/MJQ-43.

TOWING VEHICLE	CUCV or HMMWV
TIRE PRESSURE (Highway)	35 psi (241.3 kPa)
ELECTRICAL OUTPUT - 60 Hz: 120 volts, single phase, 2 wire	

#### 1-11. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS.

Refer to Figures 1-3 and 1-4 and Tables 1-3 and 1-4.

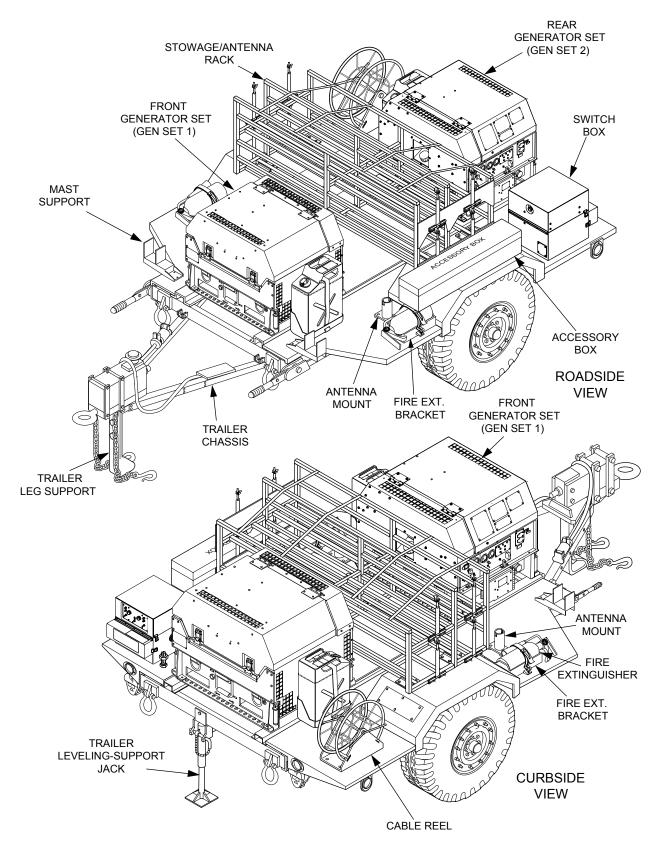


Figure 1-1. Features of AN/MJQ-42

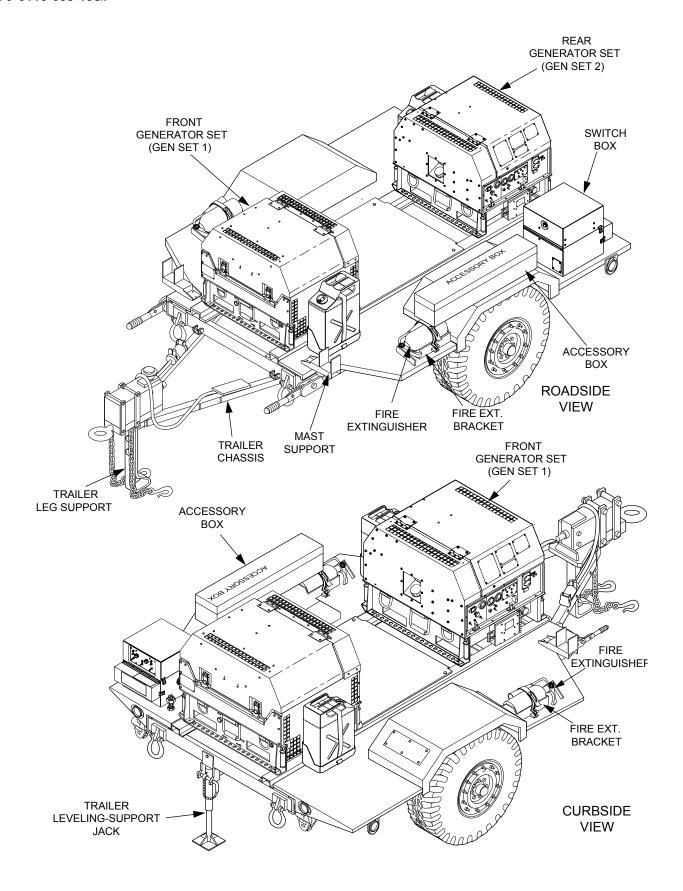


Figure 1-2. Features of AN/MJQ-43

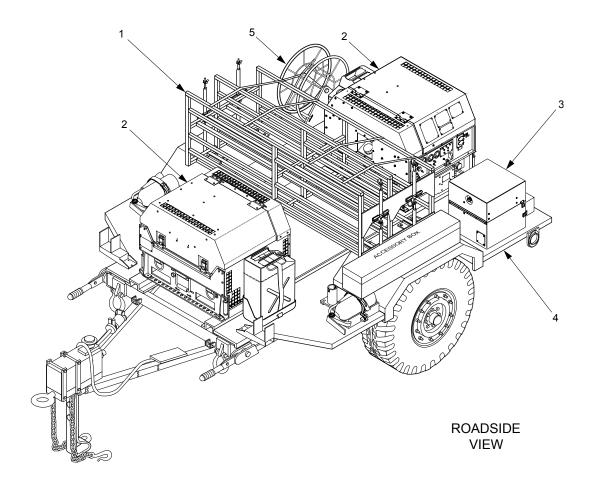


Figure 1-3. Location of Major Components for AN/MJQ-42

Table 1-1. Description of Major Components, AN/MJQ-42

ITEM NO.	COMPONENT	DESCRIPTION
1	STOWAGE/ANTENNA RACK	Provides capability for stowing antenna mast, mast kit, and mast extension kit.
2	GENERATOR SETS	Supplies power to the load. Refer to TM 9-6115-639-13 for major components of generator set.
3	SWITCH BOX	Connects output of generator set to the load, and permits switching between generators without power loss.
4	TRAILER ASSEMBLY	Provides support and mounting for switch box, generator sets, and accessory box, stowage rack, antenna mounts and supports, and cable reel, modified M116A3 1-ton trailer. Refer to TM 9-2330-202-14&P for breakdown of basic trailer
5	CABLE REEL ASSEMBLY	Provides storage for the Power Cable.

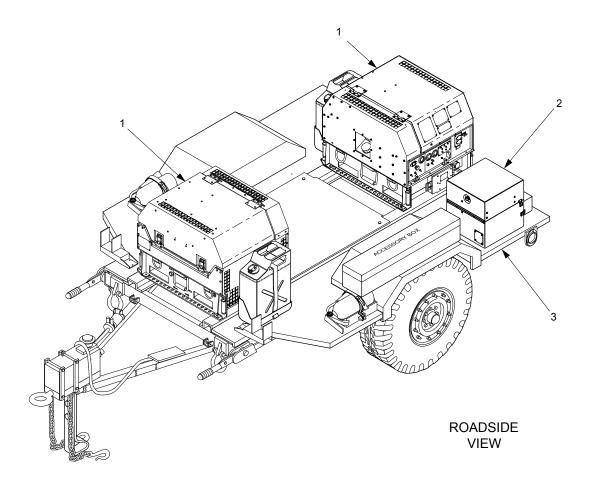


Figure 1-4. Location of Major Components for AN/MJQ-43

Table 1-2. Description of Major Components, AN/MJQ-43

ITEM NO.	COMPONENT	DESCRIPTION
1	GENERATOR SETS	Supplies power to the load. Refer to TM 9-6115-639-13 for major components of generator set.
2	SWITCH BOX	Connects output of generator set to the load, and permits switching between generators without power loss.
3	TRAILER ASSEMBLY	Provides support and mounting for switch box, generator sets, and accessory box. Refer to TM 9-2330-202-14&P for breakdown of basic trailer

#### 1-12 DIFFERENCES BETWEEN MODELS.

Differences between the AN/MJQ-42 and AN/MJQ-43 are identified in table 1-4. A number (quantity) under the applicable power plant column heading indicates that the item is a component of that plant.

Table 1-3. Differences Between Models

COMPONENT	AN/MJQ-42	AN/MJQ-43
Generator Set, 3kW, 60 Hz	2	2
Switch Box	1	1
Trailer Chassis, 1-Ton, M116A3	1	1
Fire Extinguisher Bracket	2	2
Stowage/Antenna Rack Assembly	1	
Antenna Mount	2	
Mast, Support	2	
Cable Reel Assembly	1	

#### 1-13 EQUIPMENT DATA

- **1-13-1 Generator Set.** Refer to TM 9-6115-639-13.
- **1-13.2 Trailer Chassis.** Refer to TM 9-2330-202-14&P.

#### 1-13.3 Tabulated Data for Power Plants.

Table 1-4. Tabulated Data for Power Plants.

DATA	AN/MJQ-42	AN/MJQ-43
Overall Length, inches (cm)	145.0 (368.3)	145.0 (368.3)
Overall Width, inches (cm)	83.5 (212.1)	83.5 (212.1)
Overall Height, inches (cm)	60.0 (152.4)	60.0 (152.4)
Operational Weight, pounds (kg)	2900 (1315.411)	2212 (1003.341)
Shipping Weight, pounds (kg)	2412 (1094.059)	2187 (992.001)

#### Section III. PRINCIPLES OF OPERATION

#### 1-14 FUNCTIONAL DESCRIPTION.

The Power Plants are mobile. The power source for each power plant is two DOD Model MEP-831A 60 Hz Tactical Quiet 3 kW Generator Sets mounted on a single modified M116A3, 1 ton trailer. Each generator set consists of an air-cooled, single cylinder, diesel engine, direct coupled, rotating field, synchronous generator, excitation system, speed governing system, fuel system, 24-volt direct current starting system, control system, and malfunction protection system. The generator set has a voltage reconnection switch that allows either of two output configurations: 120-volt, single phase, 2 wires; or 120/240-volt, single phase 3 wires. Electrical power to the supported system or equipment is supplied through a switch box assembly. The switch box assembly is connected between the two generator sets by power cables. The switch box enables transfer of the load from one generator set to the other with no interruption of power. Load cables may be connected directly to the generator set load terminals when only one generator set is to be used.

#### 1-15 RELATED TECHNICAL MANUALS.

Refer to Appendix A for related technical manuals.

# **CHAPTER 2**

# **OPERATING INSTRUCTIONS**

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# Section I. DESCRIPTION AND USE OF OPERATOR'S CONTROLS AND INDICATORS

- 2-1 OPERATOR CONTROLS AND INDICATORS.
- **2-1.1 Generator Set.** Refer to TM 9-6115-639-13.
- **2-1.2 Trailer.** Refer to TM 9-2330-202-14&P.
- **2-1.3 Power Plant Switch Box Controls.** Refer to Figure 2-1 and Table 2-1 for operator controls and indicators.

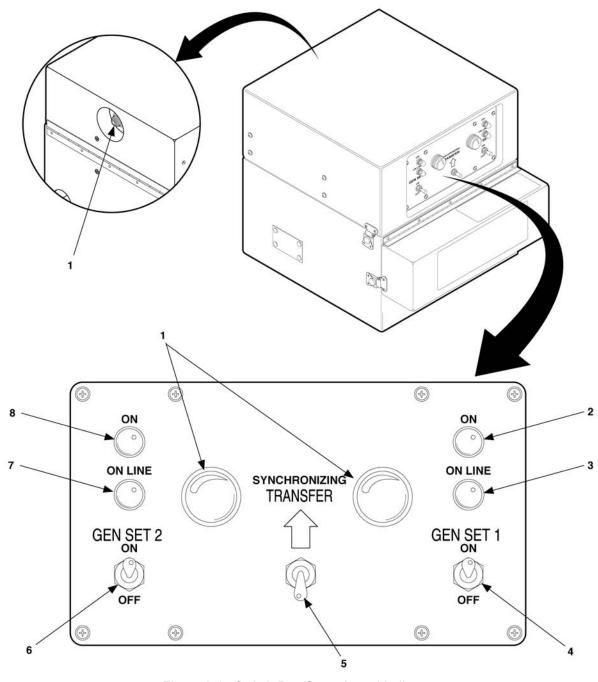


Figure 2-1. Switch Box Controls and Indicators.

Table 2-1. Description of Switch Box Controls and Indicators.

ITEM NUMBER	DESCRIPTION	FUNCTION
1	SYNCHRONIZING LIGHT	Used to synchronize generator sets for transferring load. All three lights are dark when only one generator set is operating. The lights simultaneously go from bright to dark and back to bright in repeated cycles after TRANSFER switch (5) is engaged while one generator set is on line and the other is ready to go on line. All three lights are again dark after load has been transferred.
2	ON light for GEN SET 1 (front generator set)	Lights when front generator set is supplying power to switch box.
3	ON LINE light for GEN SET 1 (front generator set)	Lights when front generator set is supplying power to the load.
4	ON/OFF switch for GEN SET 1 (front generator set)	Toggle switch, used to place front generator set on line when generator set is ready or take it off line before shutting it down.
5	TRANSFER SWITCH	Toggle switch, used to transfer load when one generator set is on line and SYNCHRONIZING lights (1) indicate that other generator set is ready to go on line.
6	ON/OFF switch for GEN SET 2 (rear generator set)	Toggle switch, used to place rear generator set on line when generator set is ready or take it off line before shutting it down.
7	ON LINE light for GEN SET 2 (rear generator set)	Lights when rear generator set is supplying power to the load.
8	ON light for GEN SET 2 (rear generator set)	Lights when rear generator set is supplying power to switch box.

# Section II. OPERATOR PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

#### 2-2 INTRODUCTION TO OPERATOR PMCS TABLE.

Table 2-2 (Operator PMCS Table) has been provided so you can keep your equipment in good operating condition and ready for its primary mission.

2-2.1 <u>Warnings, Cautions, and Notes.</u> Always observe the *WARNINGS, CAUTIONS*, and *NOTES* appearing in

your PMCS Table. Warnings and Cautions appear before applicable procedures. You must observe **WARNINGS** to prevent serious injury to yourself and others. You must observe **CAUTIONS** to prevent your equipment from being damaged. You must observe **NOTES** to ensure procedures are performed properly.

#### 2-2.2 <u>Explanation of Table Entries.</u>

- **2-2.2.1** <u>Item No. Column.</u> Numbers in this column are for reference. When completing DA Form 2404 (Equipment Inspection and Maintenance Worksheet), or DD Form 5988E, include the item number for the checks/service indicating a fault. Item numbers also appear in the order that you must do checks and services for the intervals listed.
- **2-2.2.2** <u>Interval Column.</u> This column tells you when you must do the procedure in the procedure column. "BEFORE" procedures must be done before you operate the generator with modification kits installed for its intended mission. "DURING" procedures must be done during the time you are operating the generator for its intended mission. "AFTER" procedures must be done immediately after shutting down the generator. Perform "WEEKLY" procedures at the listed interval.
- **2-2.2.3** <u>Location, Item to Check/Service Column.</u> This column lists the location and the item to be checked or serviced. The item location is underlined.
- **2-2.2.4** <u>Procedure Column.</u> This column gives the procedure for checking or servicing the item listed in the location, item to check/service column. You must perform the procedure to know if the generator is ready or available for its intended mission or operation. You must do the procedure at the time stated in the interval column.
- **2-2.2.5** <u>Not Fully Mission Capable if: Column.</u> Information in this column tells you what faults will keep your modified generator from being capable of performing its primary mission. If you make checks or services that show faults listed in this column, do not operate the generator.
- **2-2.3** Other Table Entries. Be sure to observe all special information and notes that appear in your table.
- **2-2.4** <u>Special Instructions.</u> Preventive maintenance is not limited to performing the checks and services listed in the PMCS Table. Covering unused receptacles, stowing unused accessories, and other routine procedures such as equipment inventory, cleaning components, and touch up painting are not listed in the table. These are things you should do any time you see that they need to be done. If a routine check is listed in the PMCS Table, it

is because experience has shown that problems may occur with this item. Take along tools and cleaning cloths needed to perform the required checks and services. Use the following information to help identify potential problems before and during checks and services. Use the information in the following paragraphs to help you identify problems at any time.

- **2-2.4.1 Trailer PMCS.** Trailer checks and services in the PMCS Table are described as performed on a specific model trailer.
- **2-2.4.2** <u>Generator Set PMCS.</u> Generator set checks and services in the PMCS Table are described as performed on a single generator set. The procedures must be performed on each of the generator sets that make up a power plant.

**2-2.4.3** Routine Inspections. Use the following information to help identify potential problems before and during checks and services.

WARNING

Dry cleaning solvent used to clean parts is potentially dangerous to personnel and property. Clean parts in a well-ventilated area. Avoid inhalation of solvent fumes. Wear goggles and rubber gloves to protect eyes and skin. Wash exposed skin thoroughly. Do not smoke or use near open flame or excessive heat. Failure to observe this warning could result in severe injury to personnel or death.

CAUTION

Keep cleaning solvents, gasoline and lubricants away from rubber or soft plastic parts. They will deteriorate material.

- a. Keep it clean. Dirt, grease, and oil get in the way and may cover up a serious problem. Use dry cleaning solvent to clean metal surfaces.
- b. Use soap and water to clean rubber or plastic parts and material.
- c. Check all bolts, nuts, and screws to make sure they are not loose, missing, bent, or broken. Do not try to check them all with a tool, but look for chipped paint, bare metal, or rust around bolt heads. If you find one loose, tighten it or report it to unit level of maintenance.
- d. Inspect welds. Look for loose or chipped paint, rust, or gaps where parts are welded together. If a broken weld is found, report it to unit level of maintenance.
- e. Inspect electrical wires, connectors, terminals, and receptacles. Look for cracked or broken insulation, bare wires, and loose or broken connectors. Tighten loose connectors and make sure wires are in good condition. Examine terminals and receptacles for serviceability. If deficiencies are found, report them to unit level of maintenance.
- f. Inspect hoses and fluid lines. Look for wear, damage, and leaks. Make sure that clamps and fittings are tight. Wet spots and stains around a fitting or connector can mean a leak. If a leak comes from a loose connector, or if something is broken or worn out, report it to unit level of maintenance.
- **2-2.5** Leakage Definitions. You must know how fluid leakage affects the status of your equipment. The following are definitions of the types/classes of leakage you need to know to be able to determine the status of your equipment. Learn and be familiar with them. When in doubt, notify your supervisor.

Leakage Class

Leakage Definition

- Class I Seepage of fluid (as indicated by wetness or discoloration) not great enough to form drops.
- Class II Leakage of fluid great enough to form drops, but not enough to cause drops to drip from the item being checked/inspected.

Class III Leakage of fluid great enough to form drops that fall from the item being checked/inspected.

#### 2-2.6 Operation of Power Plant with Minor Leaks.

# CAUTION

Equipment operation is allowable with minor leakage (Class I or II) of any fluid except fuel. Fluid capacity must be considered before deciding to continue operation of the equipment with minor leaks. When operating with Class I or II leaks, fluid level must be checked more often than required by the PMCS Table. Parts without fluid will stop working and/or cause equipment damage.

- a. Consider the equipment's capacity for the fluid that is leaking. If the capacity is small, the fluid level may soon become too low for continued operation. If in doubt, notify your supervisor.
- b. Check the fluid level more often than required in the PMCS Table. Add fluid as needed.
- **2-2.7 Corrosion Prevention and Control (CPC).** CPC of Army material is of continuing concern. It is important that any corrosion problems with the power plant be reported so that the problem can be corrected and improvements can be made to prevent the problem in the future items. While corrosion is typically associated with rusting of metals, it can also include deterioration of other materials, such as rubber and plastic. Unusual cracking, softening, swelling, or breaking of these materials may be a corrosion problem. If a corrosion problem is identified, it can be reported using Standard Form 368, Product Quality Deficiency Report. Use of key words such as "corrosion," "rust," "deterioration," or "cracking" will ensure that the information is identified as a CPC problem. The form should be submitted to the address specified in DA Pam 738-750.
- **2-2.8** Order in Which PMCS Will be Done. Figure 2-2 shows the order in which you are to perform your PMCS. The figure shows the AN/MJQ-42 Power Plant, which is similar to the AN/MJQ-43 Power Plant except for the stowage rack, cable reel, and antenna mast mounts and supports, which the AN/MJQ-43 does not have. The number call outs on Figure2-2 correspond to the numbers in the Item No. Column of Table 2-2.

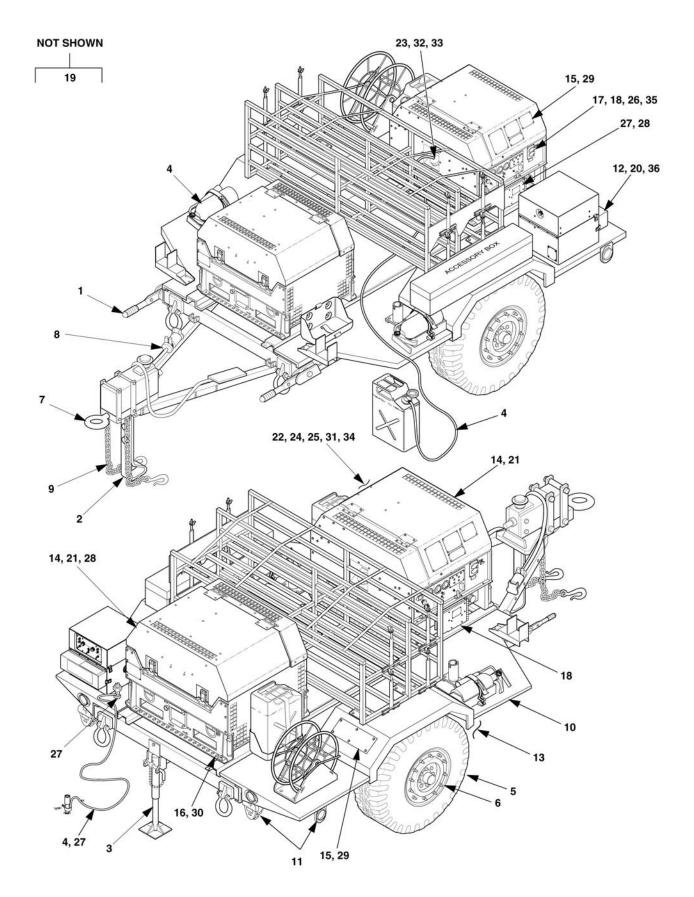


Figure 2-2. Operator PMCS Routing Diagram.

#### **Table 2-2. Operator Preventive Maintenance Checks and Services**

#### NOTE

If the equipment must be in continuous operation, check and service only those items that can be checked and serviced without disturbing operation. Make the complete checks and services when the equipment can be shut down.

ITEM NO.	INTERVAL	LOCATION	PROCEDURE	NOT FULLY MISSION CAPABLE IF:
		Item to Check/Service		
			WARNING	•
	sure	that trailer handbrakes	ntenance that requires climbing on or under tra s are set, and front and rear trailer support legs varning could result in severe personal injury o	are lowered.
		TRAILER		
1	Before	HANDBRAKES	a. Check for proper operation of handbrake lever (1). Handbrake lever should move freely throughout its entire travel.	Handbrake lever (1) is locked in the applied position.
			b. Check for proper adjustment of handbrake lever (1). Handbrake lever is properly adjusted when additional force is required to move handbrake lever beyond two-thirds distance of travel toward the applied position. If improperly adjusted, refer to step d.	
			c. With trailer hooked to towing vehicle, set the handbrake lever (1). Move the trailer slightly to see if the handbrakes hold the wheels. If not, proceed to step d.	
			1 (TYPICAL)	
			(TYPICAL)	

Table 2-2. Operator Preventive Maintenance Checks and Services – (continued)

ITEM NO.	INTERVAL	LOCATION	PROCEDURE	NOT FULLY MISSION CAPABLE IF:
		ITEM TO CHECK/SERVICE		CAPABLE IF:
	cl		warning o towing vehicle, ensure that wheels are securel so may cause trailer to roll, resulting in injury to o equipment.	у
			NOTE	
	Bot	th handbrake levers (1	) are adjusted the same way. This procedure co	overs one handbrake
			d. Handbrake Lever Adjustment	
			(1) Release handbrake lever (1).	
			(2) Turn adjustment knob (2) clockwise to tighten or counterclockwise to loosen. If unable to adjust, or adjustment has been used up, refer to Unit Level Maintenance.	
			(3) Check adjustment (Refer to step b). Repeat steps (1) and (2) as required. Repeat step c.	
2	Before	LANDING LEG ASSEMBLY	a. With trailer connected to towing vehicle, check landing leg assembly (3) for ease of operation.	Landing leg assem bly will not secure i stored position, or will not support
			b. Check landing leg assembly (3) for proper mounting, alignment, and general condition.	trailer.
			c. Ensure landing leg assembly (3) can be locked in stored and support positions.	
			d. Ensure locking lever (4) moves freely.	

Table 2-2. Operator Preventive Maintenance Checks and Services – (continued)

ITEM NO.	INTERVAL	LOCATION ITEM TO	PROCEDURE	NOT FULLY MISSION CAPABLE IF:
		CHECK/SERVICE		
3	Before	REAR LEVELING- SUPPORT JACK	<ul> <li>a. Check rear leveling-support jack (5) for ease of operation.</li> <li>b. Check rear leveling-support jack (5) for secure mounting.</li> <li>c. Ensure rear leveling-support jack can be locked in stored and support positions.</li> <li>d. Ensure locking pin (6) is attached to leg with chain (7).</li> <li>e. Ensure leveling-support jack foot can be adjusted up and down.</li> </ul>	Rear leveling- support jack will not secure in stored position or will not support trailer.
			5 (TYPICAL)	

Table 2-2. Operator Preventive Maintenance Checks and Services – (continued)

ITEM NO.	INTERVAL	LOCATION  ITEM TO	PROCEDURE	NOT FULLY MISSION CAPABLE IF:
		CHECK/SERVICE		
4	Before	ACCESSORIES	Check that following accessories are not missing or damaged:  Auxiliary fuel hose(s) (stored in storage box inside right access door under control box on	
			generator).  Fire extinguisher(s), check seal (stored in fire extinguisher bracket on fender).	Fire extinguisher is missing, or seal is broken.
			NOTE	
		Remaining ac	ccessories are stored in accessory box.	
			Container adapter	
			Ground rod	
			Hammer, 8 lb	
			Load terminal wrench	
			Slide hammer	
			Ground cable	

Table 2-2. Operator Preventive Maintenance Checks and Services – (continued)

ITEM NO.	INTERVAL	LOCATION	PROCEDURE	NOT FULLY MISSION CAPABLE IF:
		ITEM TO CHECK/SERVICE		
5	Before	TIRES	a. Check tires (8) for cuts, bruises, bulges, or unusual tread wear. Remove any foreign objects from between treads.	One tire is missing or unserviceable.
			b. Check tire pressure when tires are cool, as follows:	Tire will not hold air pressure.
			8 10	
6	Before	WHEELS	a. Check wheels (9) for damage.	Wheel is damaged.
			b. Check if stud nuts (10) are loose or missing.	One stud nut is loose or missing.

Table 2-2. Operator Preventive Maintenance Checks and Services – (continued)

ITEM NO.	INTERVAL	LOCATION	PROCEDURE	NOT FULLY MISSION CAPABLE IF:		
		ITEM TO CHECK/SERVICE				
7	Before	DRAWBAR RING	Check drawbar ring (11) for secure mounting and obvious damage.	Ring is loose or bent.		
	13					
8	Before	INTERVEHICULAR CABLE	a. Check intervehicular cable (12) for cuts and breaks.	Cable is severed or missing.		
			b. Open protective cover (13). Inspect for broken, missing, and burnt pins (14).			
9	Before	SAFETY CHAINS	Check safety chains (15) for secure mounting and obvious damage.	Chain is missing or unsecured.		

Table 2-2. Operator Preventive Maintenance Checks and Services – (continued)

ITEM NO.	INTERVAL	LOCATION	PROCEDURE	NOT FULLY MISSION CAPABLE IF:
		ITEM TO CHECK/SERVICE		
10	Before	FENDERS	Check for damaged, loose, or missing hardware.	Damage is to extent where it poses a safety hazard or prevents trailer from being towed.
11	Before	LIGHTS AND REFLECTORS	a. Check for obvious damage or looseness of lights, lenses, and reflectors.	Lights are not serviceable.
			NOTE	
		An assistant is	required while checking the brake lights.	
			b. Connect the intervehicular cable (16) to the towing vehicle.	
			c. Operate the vehicle light switch through all settings and check the lights (17).	
			d. Check for damage and presence of reflectors (18).	
18			16	

Table 2-2. Operator Preventive Maintenance Checks and Services – (continued)

ITEM NO.	INTERVAL	LOCATION	PROCEDURE	NOT FULLY MISSION CAPABLE IF:	
		ITEM TO CHECK/SERVICE			
12	Before	SWITCH BOX ASSEMBLY (POWER PLANTS ONLY)	a. Check for loose or missing mounting hardware. Refer to Figure 2-6.	Two or more mounting bolts missing.	
		ONLT	b. Check for damaged indicator lights. Refer to Figure 2-1.	Indicator lights are damaged.	
			c. Check hinges and clamping catches.		
			d. Check for loose or damaged switches.	Switches loose or damaged.	
			e. Check output terminals and connectors for damaged or missing hardware. Refer to Figure 2-6.	Output terminals or connectors will not properly secure load cables.	
13	Before	HYDRAULIC BRAKES	Check for leakage of brake fluid from master cylinder (19), hydraulic brake lines and fittings (20), and backing plates (21).	Brake system has any leak.	
	19 20 21				

Table 2-2. Operator Preventive Maintenance Checks and Services – (continued)

ITEM NO.	INTERVAL	LOCATION	PROCEDURE	NOT FULLY MISSION CAPABLE IF:
		ITEM TO CHECK/SERVICE		
		GENERATOR SET ASSEMBLY		
			NOTE	
	If the equipment must be kept in continuous operation, check and service only the items that can be checked and serviced without disrupting operations. Complete checks and services when equipment is shut down.			
14	Before	HOUSING	a. Check door (22), panel (23), hinges (24), and latches (25) for damaged, loose, or corroded items.	Cannot secure door.
			b. Inspect exhaust grills (26) and (air intake left side panel not shown) for debris.	
			NOTE	
			Check all data plates.	
15	Before	IDENTIFICATION PLATES	Check to ensure identification plates (27) are secure and legible.	
16	Before	SKID BASE	Inspect skid base (28) for cracks and corrosion.	Skid base is cracked or shows signs of structural damage.

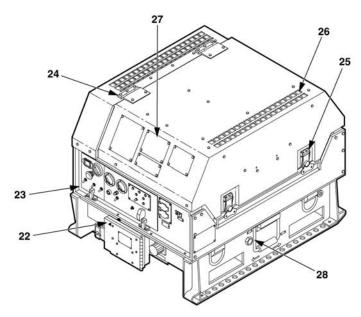


Table 2-2. Operator Preventive Maintenance Checks and Services – (continued)

ITEM NO.	INTERVAL	LOCATION  ITEM TO CHECK/SERVICE	PROCEDURE	NOT FULLY MISSION CAPABLE IF:
17	Before	CONTROLS AND INDICATORS PANEL	<ul> <li>a. Check all indicators and controls for damage or missing parts.</li> <li>b. Generator start switch (29) should be in "RUN" position.</li> <li>c. Press PUSH TEST RESET LAMPS button (30) on fault indicator. All lights must light.</li> <li>d. Return switch (29) to stop position.</li> </ul>	Indicators or controls damaged or missing.
	HOURS HERGENCY STOP ON	FUEL LEVEL VOI	ELECTRICAL GROUP  LTAGE  LOAD  PENGINE LOW OIL HIGH TEMP PRESSURE  OVER VOLTAGE SHORT OF SHOR	ON OFF
18	Before	CONTROL BOX HARNESS TRAILER	Open control and indicator panel. Check inside control box for loose or damaged wiring.	Loose or damaged wiring.
19	During	OPERATION	<ul><li>a. Be alert for any unusual noises while towing the trailer. Stop and investigate any unusual noises.</li><li>b. Ensure that the trailer is tracking/following correctly behind towing vehicle with no side pull.</li></ul>	
20	During	SWITCH BOX ASSEMBLY	Check indicator lights. Ensure indicator Lights are operating properly.	

Table 2-2. Operator Preventive Maintenance Checks and Services – (continued)

ITEM NO.	INTERVAL	LOCATION ITEM TO	PROCEDURE	NOT FULLY MISSION CAPABLE IF:	
		CHECK/SERVICE			
		GENERATOR SET ASSEMBLY			
21	During	HOUSING	a. Check door, panel, hinges, and clamping catches for damaged, loose, or corroded items.	Cannot secure door	
			b. Inspect exhaust grills and air intake grills for debris.		
			WARNING		
	C		open, the noise level of this generator set when  Hearing protection must be worn when workir ning.		
			WARNING		
	The fuels used in this generator set are highly explosive. Do not smoke or use open flame when performing maintenance. Flames and explosion can occur resulting in severe personal injury or death.				
			WARNING		
	ļ ,		on when performing "During" checks inside eng ring or hot engine parts. Failure to observe this al injury or death.		
22	During	ENGINE ASSEMBLY	Check for loose, damaged, or missing parts.		
23	During	FUEL SYSTEM	Inspect for leaks, damaged, loose, or missing parts.	Any fuel leaks, damaged or loose	
24	During	LUBRICATION SYSTEM	Inspect for leaks, damaged, loose, or missing parts.	parts. Class III leaks, and damaged, or	
25	During	COOLING FAN	Listen for unusual noise in fan area.	loose parts.	
			WARNING		
		• • •	ed when this generator set is in operation. Implined in severe personal injury or death.	roper	
2-18					

Table 2-2. Operator Preventive Maintenance Checks and Services – (continued)

ITEM NO.	INTERVAL	LOCATION	PROCEDURE	NOT FULLY MISSION CAPABLE IF:
		ITEM TO CHECK/SERVICE		
26	During	CONTROLS AND INDICATORS PANEL	Observe the following indicators and ensure they are operating properly.	
			OIL PRESSURE 25-60 psi (172-414-kPa) VOLTAGE 120-240 VAC	
27	During	GROUND ROD CABLE AND CONNECTIONS	Inspect ground rod and cable for loose connections, breaks, damage and corrosion.	Cable is missing or damaged.
28	After	HOUSING	a. Check door, panel, hinges, and clamping catches for damaged, loose, or corroded items.	Cannot secure doors.
			b. Inspect air intake and exhaust grills for debris.	
29	After	IDENTIFICATION PLATES	Check to ensure identification plates are secure.	
30	After	SKID BASE	Inspect skid base for cracks and corrosion.	Skid base is cracked or shows signs of structural damage.
			WARNING	
	f		penerator set are flammable. Do not smoke or u maintenance. Flames and explosion can occur or death.	
31	After	ENGINE ASSEMBLY	Check for loose, damaged, or missing hardware.	
32	After	FUEL SYSTEM	Inspect fuel system for leaks, and Damaged, loose, or missing hardware.	Any fuel leaks, and damaged, loose, or missing parts.
33	After	FUEL FILTER/ WATER SEPARATOR	a. Inspect fuel filter/water separator for leaks, cracks, damage, improper mounting, or missing parts.	Any fuel leaks.
			b. Drain water from fuel filter/water separator.	

Table 2-2. Operator Preventive Maintenance Checks and Services – (continued)

ITEM	INTERVAL	LOCATION	PROCEDURE	NOT FULLY
NO.				MISSION CAPABLE IF:
		ITEM TO CHECK/SERVICE		
34	After	LUBRICATION SYSTEM	a. Inspect lubrication system for leaks, damaged, loose, or missing parts.	Class III leaks, damaged, loose, or missing parts.
			b. Check oil level.	Oil level is below add level.
			c. Check engine oil for contamination.	Engine oil shows signs of contamination.
35	After	CONTROLS AND INDICATORS	Check all controls and indicators for Damaged or missing parts.	Controls or indicators damaged or missing.
		TRAILER		
36	After	SWITCH BOX ASSEMBLY	a. Check for loose or missing hardware.	Two or more mounting bolts missing.
			b. Check for damaged indicator lights.	Indicator lights are damaged.
			c. Check hinges and clamping catches.	
			d. Check for loose or damaged switches.	Switches loose or damaged.
			e. Check output terminals and connectors for damaged or missing hardware.	Output terminals or connectors will not properly secure load cables.

## Section III. OPERATION UNDER USUAL CONDITIONS

- 2-3 ASSEMBLY AND PREPARATION FOR USE.
- **2-3.1** Assembly of the Power Plants. Assembly must be performed by unit level maintenance personnel.
- **2-3.2** <u>Installation Instructions</u>. Before the power plant is started and operated, it is towed to the worksite and positioned.

#### 2-3.2.1 Positioning the Power Plant.

a. Locate the trailer on as level a surface as possible. This is necessary for efficient operation of the generator set(s).



Do not disconnect trailer from towing vehicle before brakes are set and front landing leg/support leg is lowered. Failure to observe this warning could result in severe personal injury or death from trailer tipping or rolling.

- b. Using the two handbrake levers, set trailer brakes securely to prevent any movement.
- c. Refer to TM 9-2330-202-14&P for uncoupling trailer from towing vehicle.
- d. Adjust rear support leveling leg used to level the trailer.
- e. Pull out pin (1, Figure 2-3) that secures rear leveling-support jack (2) in travel position.

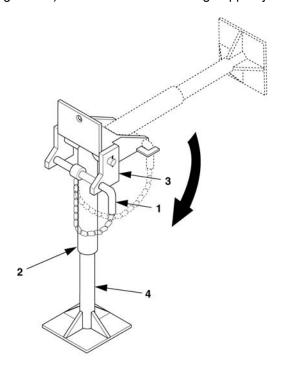


Figure 2-3. Jack, Leveling-Support.

- f. Pull rear leveling-support jack (2) down. Insert pin (1) in bracket (3) to secure rear leveling-support jack (2) in down position.
- g. Turn leg base (4) until it makes firm contact with ground.

**2-3.2.2** External Fuel Line Connection. Each generator set has provisions for obtaining fuel from an external source, such as a 5-gallon fuel can or a 55-gallon diesel fuel container. This enables operation for long intervals without frequent refilling of the fuel tank. To use an external fuel source:

## WARNING

The fuel in this generator set is highly explosive. Do not smoke or use open flame when performing maintenance. Flames and explosion could result in severe personnel injury or death.

## NOTE

Do not attempt to fuel generator set AN/MJQ-42 at main fuel port.

a. Place the external fuel source (2, Figure 2-4) several feet, but no more than 25 feet, away from the generator set

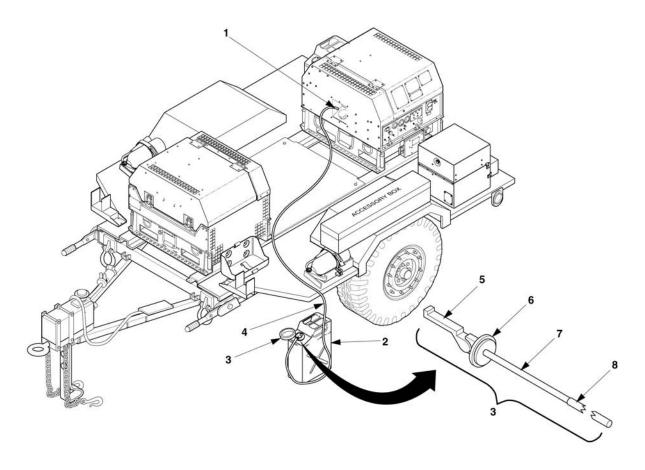


Figure 2-4. Auxiliary Fuel (Typical).

b. Remove the container adapter (3) from the accessory storage box. If disassembled, remove all components. The components are the assembled clamp and head (5 and 6), a fuel pickup tube (7), and an extension pipe (8). The extension pipe (8) is not needed if the external fuel source is a 5-gallon fuel can (2).

#### NOTE

Make sure that all components are clean.

- c. Thread the fuel pickup tube (7) into the head (6). If the external fuel source is a 55-gallon container, thread the extension pipe (8) onto the fuel pickup tube (7).
- d. Remove the auxiliary fuel hose (4) from its storage location. It is stored in a compartment below the generator set control panel, behind the bottom-right access door.
- e. Thread one end of the auxiliary fuel hose (4) onto the fitting on the container adapter (3). Tighten the connection.
- f. Connect the free end of the auxiliary fuel hose (4) onto the generator set external fuel supply elbow connection (1). The connection is located beside the generator set fuel tank filler neck. Tighten the connection.

## WARNING

The fuels used in this generator set are flammable. Do not smoke or use open flames when performing maintenance. Flames and explosion could result in severe personal injury or death.

g. Insert the container adapter (3) into the external fuel source (2). Secure the container adapter by pressing down on the handle of the clamp (5).

## WARNING

Never attempt to start the generator set if it is not properly grounded. Failure to observe this warning could result in severe personal injury or death by electrocution.

- **2-3.3 Grounding of Generator Set.** Ground the equipment in accordance with Army Field Manual FM 5-424. Typical ground rod installations are shown in Figure 2-5. If a ground rod is used, install and connect it as follows:
  - a. Remove ground rod (7), grounding strap (8), an slide hammer (5), (Figure 2-5) from accessory box (Figure 1-2).
  - b. Perform assembly steps as follow on the next page (1) through (4).

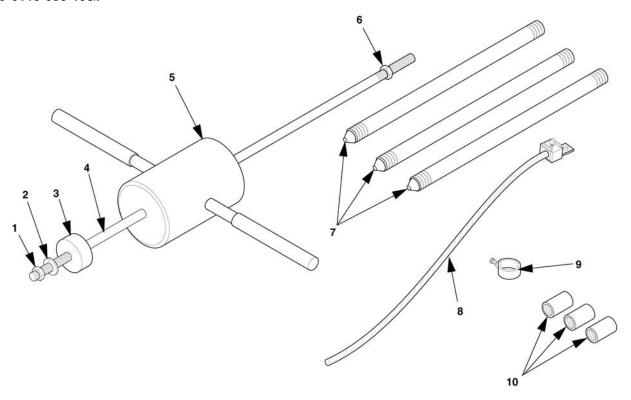


Figure 2-5. Ground Rod and Slide Hammer.



Impact disk (3) must be tightened to end of threads on ground rod. Also, lock washer and nut must be tightened firmly against impact disk. Failure to observe this warning could result in severe personal injury and/or death and damage to the equipment.

## NOTE

The terminal lug supplied with the ground rod is too small. Use additional ground strap provided with power unit. Refer to generator TM 9-6115-639-13.

- (1) Install impact disk (3) on rod (4). Tighten impact disk (3) to end of threads on rod (4).
- (2) Install lock washer (2) and nut (1). Tighten nut (1) and lock washer (2) securely against impact disk (3).
- (3) If installed, remove nut (6).
- (4) Position hammer (5) on rod (4). Install nut (6) and tighten to end of threads on rod (4).
- c. Connect ground rod coupling (10) to ground rod (7) and screw slide hammer rod (4) into coupling (10). Make sure that slide hammer rod (4) seats on ground rod (7).
- d. Drive ground rod into ground until coupling (10) is just above surface.
- e. Remove slide hammer assembly and install another section of ground rod (7).
- f. Install another coupling (10) and the slide hammer assembly. Drive ground rod down until new coupling is just above ground surface.

- g. Repeat steps e and f until ground rod has been driven eight feet or deeper, providing an effective ground.
- h. Connect clamp (9) and ground cable (8) to ground rod (7) and tighten clamp screw.
- i. Connect ground cable (8) to trailer as follows.
  - (1) Loosen nut (1), (Figure 2-6) from trailer ground stud (2).
  - (2) Insert wire (3) through slot of ground terminal (2) and tighten nut (1).
  - (3) Insert wire (3) to ground rod clamp (4) and tighten screw (5).



Figure 2-6. Ground Cable Connection.

- i. Disassemble slide hammer as follows:
  - (1) Remove nut (6), (Figure 2-5) from end of rod (4) and retain.
  - (2) Remove hammer (5) from rod (4) and thread nut (6) on end of rod to prevent loss.
  - (3) Store hammer (5) and rod (4) with assembled parts in accessory box.

#### 2-3.4 Connecting Load.



Make sure generator sets are shut down before connecting load cables. Failure to observe this warning can cause severe personal injury or death.

Load cables and instructions for connecting them are normally furnished with the equipment that is to be supplied with electric power. The load is normally connected to the switch box load terminals. Before connecting the load, determine the voltage requirement that is to receive electric power.

## 2-3.4.1 Connection to Switch Box Load Terminals.

a. Open load terminal cover (1, Figure 2-7).

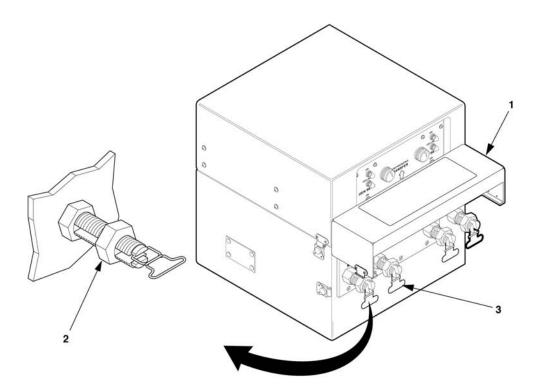


Figure 2-7. Switch Box Load Cable Connections.

b. Select required output terminals from Table 2-3.

Table 2-3. Load Terminal Voltage

GENERATOR OUTPUT	TERMINALS	VOLTAGE READING
120V 1PH	L1 - N	120 VOLTS
120/240V 1PH	L1 - L2 L1 - N L2 - N	240 VOLTS 120 VOLTS 120 VOLTS

- c. Using load terminal box wrench located in accessory box, loosen terminal nuts (2) on terminals (3) selected from table in step b.
- d. Insert ends of cables into slots of load terminal studs (3).
- e. Tighten load terminal nuts (2) and close clip and load terminal cover (1).

**2-3.5** <u>Positioning of Fire Extinguishers</u>. Remove fire extinguisher(s) (Figure 1-2) from bracket(s) on trailer. Locate fire extinguisher(s) on ground away from power plant.

## 2-4 INITIAL ADJUSTMENTS, CHECKS, AND SELF TEST.

Refer to Table 2-2 and perform all "Before" PMCS. Refer to TM 9-6115-639-13 and perform generator set initial adjustments, checks, and self-tests.

- 2-5 OPERATING PROCEDURES.
- **2-5.1** Generator Set Operating Procedures. Refer to TM 9-6115-639-13.
- **2-5.2** Trailer Operating Procedures. Refer to TM 9-2330-202-14&P.
- 2-5.3 Power Plant Switch Box Operating Procedures.

## 2-5.3.1 Operating a Single Generator Set.

- a. Perform the Preventive Maintenance Checks and Services (PMCS) listed as "Before" in Table 2-2.
- b. Check that both ON/OFF switches (4 and 6, Figure 2-8) on switch box are at center position.
- c. Check that TRANSFER switch (5) on switch box is at bottom position.

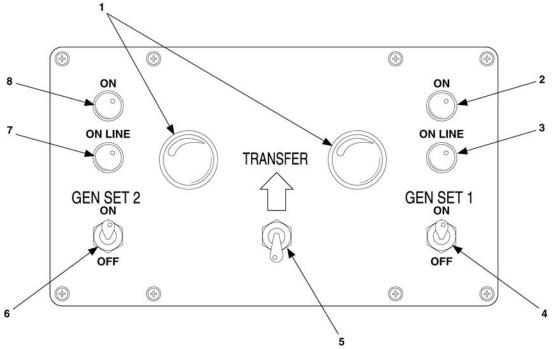


Figure 2-8. Power Plant Operation.

- d. Refer to TM 9-6115-639-13 and:
  - (1) Start one of the generator sets.
  - (2) Use generator set VOLTAGE adjustable rheostat to adjust voltage to required value.
  - (3) Set AC CIRCUIT INTERRUPTER switch on the operating generator set to CLOSED position.
- e. Check switch box to make sure that GEN SET ON light (8) or (2) is lit for generator set just started.
- f. Set switch box ON/OFF switch (6) or (4) below lit GEN SET ON light to ON position.

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- g. Check that switch box ON light (8)or (2) and ON LINE light (7) or (3) for operating generator set are both lit. The generator set is now supplying power to the connected load.
- h. Refer to Table 2-2 and perform generator set "During" PMCS.

## 2-5.3.2 Load Transfer.

- a. For the generator set that is not operating:
  - (1) Refer to Table 2-2 and perform the "Before" PMCS.
  - (2) Check that switch box ON/OFF switch (6) or (4) is at center position.
  - (3) Check that switch box TRANSFER switch (5) is at bottom position.
  - (4) Refer to TM 9-6115-639-13 and:
    - (a) Start the generator set.
    - (b) Use generator set VOLTAGE adjustable rheostat to adjust voltage to required value.
    - (c) Set AC CIRCUIT INTERRUPTER switch to CLOSED position.
  - (5) Check switch box controls and indicators (Figure 2-8) to ensure that:
    - (a) GEN SET ON light (8) or (2), Figure 2-8 and ON LINE light (7) or (3), Figure 2-8 is lit for generator set that has been supplying electric power to the load.
    - (b) GEN SET ON light (8) or (2) for generator set just started is lit.
  - (6) Move switch box TRANSFER switch (5) in the direction of the arrow. All SYNCHRONIZING lights (1) should be going from bright to dark at the same time. If SYNCHRONIZING lights do not begin to function, report problem to next higher level of maintenance.
  - (7) When SYNCHRONIZING lights (1) are dark, hold the switch box ON/OFF switch (6)or (4) for the generator set that was just started to ON position until ON light remains on. Release the switch. The ON LINE light for the first generator set that was running should immediately go out.
  - (8) Check switch box lights, as follows:
    - (a) The ON LINE light (7) or (3) should be lit for the generator set that was just started.

- (b) The ON LINE light (7) or (3) for the other generator set should be off.
- (9) If lights fail to go on or off, repeat steps (6), (7), and (8). If lights do not function properly, report the problem to the next higher level of maintenance.
- b. The second generator set is now supplying electric power to the connected load. All SYNCHRONIZING lights (1) should be dark.
- c. Refer to TM 9-6115-639-13 and set AC CIRCUIT INTERRUPTER switch for generator set that is now off line to OPEN position.
- d. Check that switch box ON/OFF switch (6 or 4) for the off line generator set is at center position.
- e. Refer to TM 9-6115-639-13 and:
  - (1) Shut down generator set that is now off line.
  - (2) Using generator set VOLTAGE adjustable rheostat, adjust voltage of generator set that is now on line to the desired value.
- f. Refer to Table 2-2 and perform "After" PMCS for the generator set that was shut down.
- g. For the generator set that is now ON LINE, perform the PMCS listed as "During" in Table 2-2.

## 2-5.3.3 Stopping Generator Set.

- a. Set the switch box ON/OFF switch (6 or 4, Figure 2-8) for the generator set to be stopped to OFF position.
- b. Stop the generator set in accordance with TM 9-6115-639-13.
- c. Perform the generator set PMCS listed as "After" in Table 2-2.

#### 2-6 IDENTIFICATION AND INFORMATION PLATES.

**2-6.1 AN/MJQ-42 Identification/Transportation Data Plate.** Refer to Figure 2-9. This plate is located on rear of curbside fender.

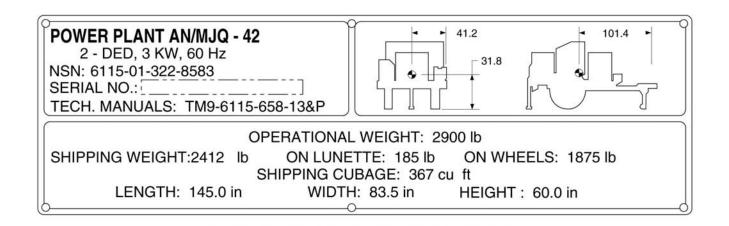


Figure 2-9. AN/MJQ-42 Identification/Transportation Data Plate.

**2-6.2** <u>AN/MJQ-43 Identification/Transportation Data Plate</u>. Refer to Figure 2-10. This plate is located on front of roadside fender.

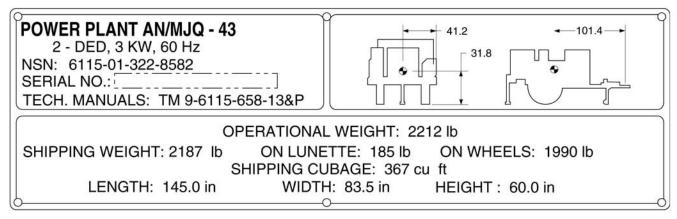


Figure 2-10. AN/MJQ-43 Identification/Transportation Data Plate.

## 2-7 PREPARATION FOR MOVEMENT.

- **2-7.1 Shut Down Power Plant.** If power plant is operating, stop generator set as follows:
- **2-7.1.1 Power Plant.** Refer to paragraph 2-5.3.3.

## 2-7.2 <u>Disconnect Load Cables</u>.

## WARNING

Make sure generator sets are shut down before connecting load cables. Failure to observe this warning can cause severe personal injury or death.

- a. For Power Plant configuration where load cables are connected to switch box load terminals, perform the following:
  - (1) Release both clamping catches (1, Figure 2-11) and raise load terminal cover (2).
  - (2) Using load terminal box wrench, loosen load terminal nuts.
  - (3) Disconnect load cables (3) from switch box load terminals.
  - (4) Store load cables with equipment that was being supplied with electric power.

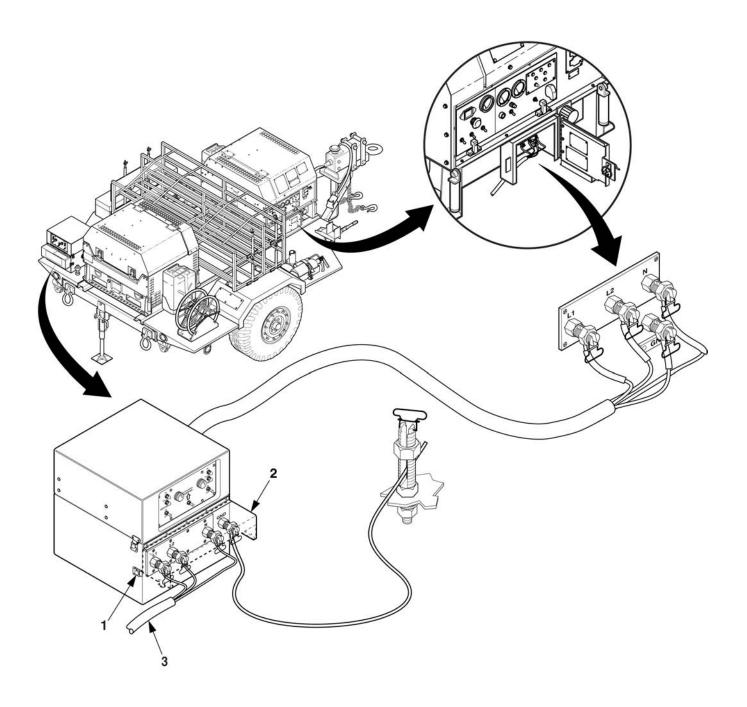


Figure 2-11. Disconnect Load Cables.

## 2-7.3 Retrieve Ground Cable and Rod.

- a. Loosen terminal nut (1, Figure 2-12) and ground stud nut (2). Remove ground cable (4) from ground stud (3).
- b. Loosen clamp (9, Figure 2-5) and remove ground cable (8) from clamp.
- c. Store ground cable in accessory box.
- d. Remove slide hammer components from accessory box and assemble as follows:
  - (1) If installed, remove nut (6, Figure 2-5) from rod (4).
  - (2) Place hammer (5) on rod (4).
  - (3) Install nut (6) on rod (4) and tighten to end of threads.

## WARNING

Impact disk must be tightened to end of threads on rod. Also, lock washer and nut must be firmly tightened against impact disk. Failure to observe this warning could result in severe personal injury or death and damage to the equipment.

- (4) Check that impact disk (3) is tightened to end of threads on rod (4). Tighten as needed.
- (5) Tighten nut (1) and lock washer (2) securely against impact disk (3).
- e. Remove ground rod as follows:

## CAUTION

Slide hammer rod and ground rod must make firm contact inside ground rod coupler. If not in firm contact, ground rod, coupler and slide hammer could be damaged.

(1) Refer to Figure 2-13 and position slide hammer above ground rod coupling (3). Invert slide hammer so that end having impact disk (1) is up. Connect slide hammer rod (2) to ground rod coupling (3). Tighten so that end of rod (2) makes firm contact with end of ground rod section (4) inside coupling (3).

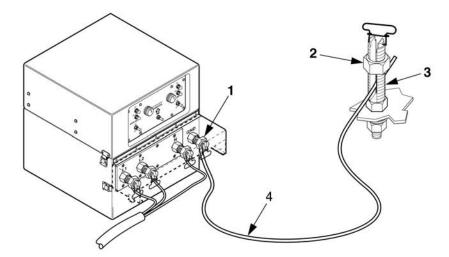


Figure 2-12. Remove Ground Cable.

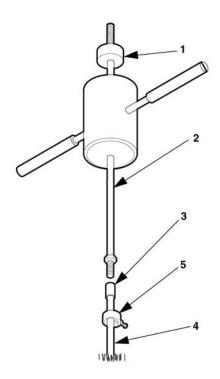


Figure 2-13. Remove Ground Rod.

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- (2) Use slide hammer to pull ground rod section (4) out of ground. Pull until second coupling (3) is exposed.
- (3) Disconnect slide hammer from top coupling (3).
- (4) Disconnect top ground rod section (4) from bottom coupling (3).
- (5) Remove clamp (5) from ground rod (4). Store clamp in accessory box.
- (6) Connect slide hammer rod (2) to coupling (3) on ground rod section (4) still in ground.
- (7) Use slide hammer to pull second ground rod section (4) out of ground. Pull ground rod section (4) until third coupling (3) is exposed.
- (8) Repeat steps (6) and (7) for third ground rod section (4).
- (9) Use slide hammer to pull remaining ground rod section (4) out of ground.
- (10) Disconnect slide hammer rod (2) from ground rod coupling (3).
- (11) Remove couplings (3) from ground rod sections (4).
- f. Clean the couplings (3) and ground rod sections (4). Store cleaned items in accessory box.
- g. Partially disassemble slide hammer as follows:
  - (1) Remove nut (6, Figure 2-5).
  - (2) Remove hammer (5).
  - (3) Loosely install nut (6).
- h. Return slide hammer to its storage location in accessory box.
- 2-7.4 Retrieve Fire Extinguisher(s). Retrieve fire extinguisher(s) and stow in bracket(s) on trailer.
- 2-7.5 Disconnect External Fuel Source. Disconnect auxiliary fuel hose as follows:
  - a. Disconnect the auxiliary fuel hose (4, Figure 2-14) from the generator set external fuel supply connection (1). Elevate the free end of the auxiliary fuel hose to drain fuel back into the external fuel source (2). Place free end of auxiliary fuel hose on a clean surface.
  - b. Disconnect auxiliary fuel hose (4) from fitting on container adapter (3).
  - c. Store auxiliary fuel hose in the generator set storage compartment below the generator set control panel, behind the bottom-right access door.
  - d. Release the container adapter from the external fuel source by lifting the handle of the clamp (5). Remove the container adapter from the external fuel source. Close the external fuel source and load onto appropriate transportation.
  - e. Store the container adapter in the accessory box.

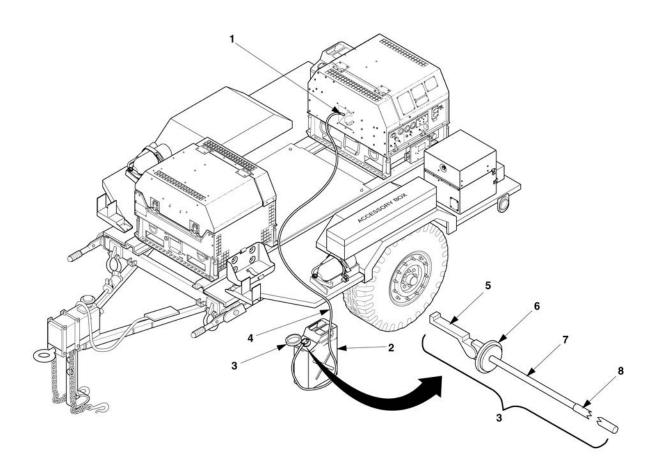


Figure 2-14. Disconnect Auxiliary Fuel (Typical).

## Section IV. OPERATION UNDER UNUSUAL CONDITIONS

## 2-8 GENERATOR SETS.

Refer to TM 9-6115-639-13.

## 2-9 TRAILER.

Refer to TM 9-2330-202-14&P.

## **CHAPTER 3**

## **OPERATOR MAINTENANCE INSTRUCTIONS**

Subject Inc	lex	Page
Section I	Lubrication Instructions	3-2
3-1	Lubrication	3-2
Section II	Operator's Maintenance Instructions	3-ć
3-2	Operator Maintenance	3-ć
Section III	Operator Troubleshooting	3-4
3-3	Troubleshooting	3-4

## **Section I. OPERATOR LUBRICATION**

## **3-1 LUBRICATION INSTRUCTIONS**

Lubrication instructions for the generator set and engine are contained in TM 9-6115-639-13. Lubrication instructions for the trailer are contained in TM 9-2330-202-14&P.

## Section II. OPERATOR MAINTENANCE PROCEDURES

- 3-2 OPERATOR MAINTENANCE.
- **3-2.1 Generator Set.** Refer to TM 9-6115-639-13.
- **3-2.2 Power Plant.** The maintenance functions that the Maintenance Allocation Chart authorizes the operator to perform are the preventive maintenance checks and services listed in table 2-2 and the replacement of indicator lamps located on the switch box. Perform the following steps to replace GEN 1 or GEN 2 indicator lamps:
  - a. Unscrew lens from lamp housing and remove lamp from lens (see paragraph 4-14).
  - b. Install new lamp in housing screw lens on housing (see paragraph 4-14).

## Section III. OPERATOR TROUBLESHOOTING

- 3-3 TROUBLESHOOTING.
- **3-3.1 Generator Set.** Refer to TM 9-6115-639-13.
- **3-3.2 Trailer.** Refer to TM 9-2330-202-14&P.
- **3-3.3** Power Plant. The following symptom index lists faults associated with switch box operation. Figures 3-1 and 3-2 provide a go/no-go flowchart of each malfunction. Each malfunction listed includes a reference to the applicable figure that contains a chart that will help you determine probable causes and corrective actions to take. The symptom index cannot list all faults that may occur, nor all tests or inspections and corrective actions. If a malfunction is not listed or cannot be corrected by listed corrective actions, notify next higher level of maintenance.

#### SYMPTOM INDEX

OTHER TOWN INDEX	
	Troubleshooting Procedure (Figure)
GEN 1 OR GEN 2 INDICATOR ON LAMP FAILS TO LIGHT WITH CORRESPONDING GENERATOR SET RUNNING	3-1
WITH GEN 1 OR GEN 2 ON LINE INDICATOR LAMP ON, NO POWER EXISTS AT SWITCH BOX LOAD TERMINALS	3-2

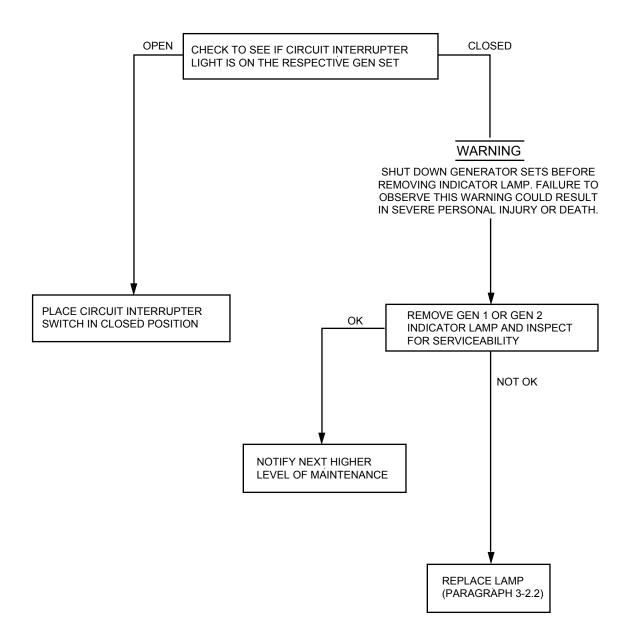


Figure 3-1. GEN 1 or GEN 2 Indicator Lamp Fails To Light With Corresponding Generator Set Running.

TM 9-6115-658-13&P

NOTIFY NEXT HIGHER LEVEL OF MAINTENANCE

Figure 3-2. With GEN 1 Or GEN 2 On Line Indicator Lamp On, No Power Exists At Switch Box Load Terminals.

## **CHAPTER 4**

## **UNIT MAINTENANCE INSTRUCTIONS**

Subject Inde	ex	Page
Section I	Service Upon Receipt of Equipment	
4-1	Service Upon Receipt of Materiel	
4-2	Installation Instructions	
4-3	Preliminary Servicing and Adjustment of Equipment	4-4
Section II	Repair Parts; Special Tools; Test, Measurement, and Diagnostic Equipment	
	(TMDE); and Special Support Equipment	
4-4	Common Tools and Equipment	
4-5	Special Tools, TMDE, and Support Equipment	
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4-7	General	4-6
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4-8	Introduction to Unit PMCS Table	4-7
Section V	Unit Troubleshooting	4-9
4-9	General	4-9
Section VI	Maintenance Procedures	4-13
4-10	Maintenance of Generator Sets	4-13
4-11	Maintenance of Trailers	4-13
4-12	Cable, Power Maintenance	4-13
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4-14	Light/Lamp Assembly Maintenance	4-22
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4-16	Switch, Toggle Maintenance	4-26
4-17	Switch Box Terminal, Load Maintenance	
4-18	Terminal, Load Cover Maintenance	4-31
4-19	Box, Accessory Maintenance	
4-20	Bracket, Fire Extinguisher Replacement	
4-21	Plate, ID and Reflector Replacement	
4-22	Platform Trailer Replacement	
4-23	AN/MJQ-42/43 Fender, Roadside/Fender, Curbside Maintenance	
4-24	Jack, Leveling-Support Maintenance	
4-25	Mount, Antenna and Support, Mast Replacement	
4-26	Reel, Cable and Bracket, Reel Maintenance	
4-27	Rack, Stowage Maintenance	
4-28	Terminal, Ground Replacement	
Section VII	Administrative Storage	4-54
4-29	Administrative Storage	
. 20		

## Section I. SERVICE UPON RECEIPT OF EQUIPMENT

#### 4-1 SERVICE UPON RECEIPT OF MATERIEL.

- **4-1.1** <u>Unpacking</u>. The generator sets will have been boxed prior to shipment. Unpack the power plant as follows:
  - a. Remove and set aside packing list from side of box. Also remove and set aside shortage packing list if there is one.

WARNING

Steel strapping used in packaging of the power plant has sharp edges. Use care when cutting and handling steel strapping.

- b. Using metal cutters, carefully cut metal strapping from boxes covering generator sets. Remove metal strapping. Boxes may also be secured by lag screws at each end of box, near bottom. If so, remove lag screws. Remove boxes.
- c. On power plants AN/MJQ-42 and AN/MJQ-43, use metal cutters to carefully cut steel strapping from plywood box covering switch box. Remove plywood box.
- d. Switch box cover and switch box load terminal cover may have been secured with tape. If so, remove tape.

**WARNING** 

Steel strapping used in packaging of the power plant has sharp edges. To avoid injury to personnel, use care when cutting and handling steel strapping.

- e. Unpack and secure fire extinguishers in brackets on trailer.
- f. If accessory box is secured with strapping, carefully cut and remove strapping. Open accessory box and remove any packaging/cushioning material from accessories.
- g. Using the packing list(s) removed in step a., inventory the accessories. Check missing items against shortage packing list (if any). Report any discrepancies to your supervisor.

#### 4-1.2 Checking Unpacked Equipment.

- a. Inspect the equipment for damage incurred during shipment. If the equipment has been damaged, report the damage on SF 364, Report of Discrepancy (ROD).
- b. Check the equipment against the packing list(s) to see if the equipment is complete. Report all discrepancies in accordance with the instructions in DA Pam 738-750.
- c. Check to see whether the equipment has been modified.

## 4-1.3 Deprocessing Unpacked Equipment.

Refer to DA Form 2258, Depreservation Guide for Vehicles and Equipment, packed with the power plant. The depreservation guide explains what was done to the equipment prior to packaging. It also explains what has to be done before placing the equipment in operation. Perform all depreservation actions required by the depreservation guide.

#### 4-2 INSTALLATION INSTRUCTIONS.

**4-2.1** Tools, Test Equipment, and Materials Required for Installation. A general mechanic's tool kit is required for installation of the power plant.

#### 4-2.2 Assembly of Equipment.

**4-2.2.1** <u>Assembly of Power Plants AN/MJQ-42 and AN/MJQ-43</u>. Refer to Figure 4-1 and assemble the AN/MJQ-42 and AN/MJQ-43 Power Plants as follows:

## NOTE

AN/MJQ-42 is illustrated in Figure 4-1. Installation of power cables on AN/MJQ-43 is identical.

- a. Open load terminal access door (1, Figure 4-1).
- b. Connect power cable W1-1 (W1-4 for AN/MJQ-42) leads (3) to generator set load terminals (2) as follows:
  - (1) Connect lead marked L1 to generator set load terminal L1.
  - (2) Connect lead marked L2 to generator set load terminal L2.
  - (3) Connect lead marked N to generator set load terminal N.
  - (4) Connect lead marked GND to generator set GND terminal.
- c. Position cable (3) inside two clamps (5) and secure clamps (5) to trailer using two screws (4), flat washers (6) lock washers (7), and nuts (8).
- d. Repeat steps a. through c. for rear generator set.
- e. unscrew nut (10).
- f. Position ground cable (11) through ground stud (9).



Ensure ground stud nut is properly secured creating a good ground. Failure to observe this warning could result in severe personal injury or death.

g. Tighten nut (10).

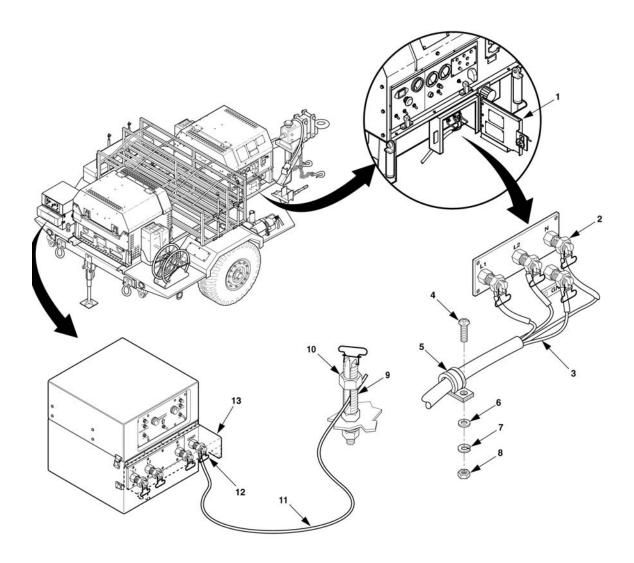


Figure 4-1. Installation of Power Cables

- h. Unlatch and open switch box load terminal cover (13).
- i. Connect ground wire (11) to switch box ground terminal (12).
- j. Close and latch switch box load terminal cover (13).

## 4-3 PRELIMINARY SERVICING AND ADJUSTMENT OF EQUIPMENT.

- **4-3.1 Generator Set**. Refer to TM 9-6115-639-13, TM 9-6115-639-24.
- **4-3.2 Trailer**. Refer to TM 9-2330-202-14&P.

# Section II. REPAIR PARTS; SPECIAL TOOLS; TEST, MEASUREMENT, AND DIAGNOSTIC EQUIPMENT (TMDE); AND SPECIAL SUPPORT EQUIPMENT

## 4-4 COMMON TOOLS AND EQUIPMENT.

For authorized common tools and equipment refer to the Modified Table of Organization and Equipment (MTOE) applicable to your equipment.

## 4-5 SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT.

Refer to generator set TM 9-6115-639-13.

- 4-6 REPAIR PARTS.
- **4-6.1** Generator Set Repair Parts. Refer to generator set TM 9-6115-639-13.
- **4-6.2 Trailer Repair Parts.** Refer to TM 9-2330-202-14&P.
- **4-6.3 Power Plant Repair Parts.** Power Plant repair parts not covered in the generator, engine, or trailer RPSTL are listed and illustrated in Appendix C.

## Section III. UNIT LUBRICATION

#### 4-7 GENERAL.

#### 4-7.1 POWER PLANT LUBRICATION.

Detailed instructions for lubrication of major components of the power plants are contained in the applicable generator set and trailer TMs. The following paragraphs identify the applicable references and contain lubrication instructions that are not included in the references.

- **4-7.1.1** <u>Generator Set Lubrication</u>. Refer to TM 9-6115-639-13 for generator set and engine lubrication instructions. See Appendix D for expendable supplies and materials needed for lubrication.
- **4-7.1.2** <u>Trailer Assembly Lubrication</u>. Refer to TM 9-2330-202-14&P for trailer chassis lubrication instructions. See Appendix D for expendable supplies and materials needed for lubrication.
- **4-7.1.3** <u>Jack, Leveling-Support Lubrication</u>. The rear leveling-support jack is a modification to the standard 1 ton trailer chassis. Lubrication of this rear leveling-support jack is not covered in the trailer TMs. See figure 4-2 and lubricate the rear leveling-support jack semiannually, as follows:



Dry cleaning solvent used to clean parts is potentially dangerous to personnel and property. Clean parts in a well-ventilated area. Avoid inhalation of solvent fumes. Wear goggles and rubber gloves to protect eyes and skin. Wash exposed skin thoroughly. Do not smoke or use near open flame or excessive heat. Failure to observe this precaution can cause injury to personnel or damage to equipment.

a. Clean the lubrication fitting (1) with dry cleaning solvent. Expendable supplies and materials needed for lubrication are listed in Appendix D.

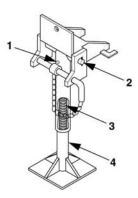


Figure 4-2. Jack, Leveling-Support Lubrication Points.

- b. Inject sufficient GAA grease into lubrication fitting (1) to lubricate screw threads (3) inside leg base (4).
- c. Apply OE lubricating oil to both ends of rear leveling-support jack pivot shaft (2).

## Section IV. UNIT PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

#### 4-8 INTRODUCTION TO UNIT PMCS TABLE.

Table 4-1 (PMCS) table) has been provided so you can keep your equipment in good operating condition and ready for its primary mission.

**4-8.1 Warnings and Cautions.** Always observe the **WARNINGS** and **CAUTIONS** appearing in your PMCS table. Warnings and cautions appear before applicable procedures. You must observe these **WARNINGS** and **CAUTIONS** to prevent serious injury to yourself and others or prevent your equipment from being damaged.

## 4-8.2 Explanation of Table Entries.

- **4-8.2.1** <u>Item No. Column</u>. Numbers in this column are for reference. When completing DA Form 2404 (Equipment Inspection and Maintenance Worksheet), include the item number for the check/service indicating a fault. Item numbers also appear in the order that you must do checks and services for the intervals listed.
- **4-8.2.2** <u>Interval Column</u>. This column tells you when you must do the procedure in the procedure column. Perform procedures such as "Monthly" or "Quarterly" at the listed calendar interval. Perform procedures designated by number of hours when the equipment has been operated for that many hours.
- 4-8.2.3 Item to be Checked or Serviced Column. This column lists the item to be checked or serviced.
- **4-8.2.4 Procedure Column.** This column gives the procedures for checking or servicing the item listed in the item to be checked or serviced column. You must perform the procedure to know if the power plant is ready or available for its intended mission or operation. You must do the procedure at the time stated in the interval column.
- **4-8.2.5 Not Fully Mission Capable if: Column.** Information in this column tells you what faults will keep the power plant from being capable of performing its primary mission. If checks or services show faults listed in this column, do not return the power plant/power unit to service until the faults have been corrected.
- **4-8.3** Other Table Entries. Be sure to observe all special information and notes that appear in the table.

## 4-8.4 Special Instructions.

- a. Trailer, generator, and engine PMCS must be done along with the Power Plant PMCS. Refer to TM 9-2330-202-14&P for trailer PMCS. Refer to TM 9-6115-639-24 for generator PMCS.
- b. Preventive maintenance is not limited to performing the checks and services listed in the PMCS table. Covering unused receptacles, stowing unused accessories, and other routine procedures such as equipment inventory, cleaning components, and touch-up painting are not listed in the table. These are things you should do any time you see that they need to be done. If a routine check is listed in the PMCS table, it is because experience has shown that problems may occur with that item. Take along tools and cleaning cloths needed to perform the required checks and services. Figure 4-3 is a routing diagram that shows the locations of the items to be checked/serviced. AN/MJQ-43 is shown but is applicable to AN/MJQ-42. The callout numbers on Figure 4-3 correspond to the numbers listed in the Item No. column of Table 4-1.

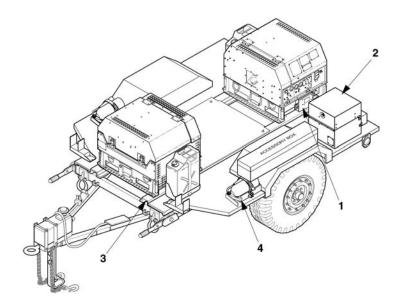


Figure 4-3. Unit PMCS Routing Diagram.

Table 4-1. Unit Preventive Maintenance Checks and Services

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	NOT FULLY MISSION CAPABLE IF:
			WARNING	
		Before performing any or under trailer, make s trailer front landing leg/support jack is lowered trailer suddenly rolling of		
1	Semi- Annually	POWER CABLES  Inspect power cables for worn, frayed, or cracked insulation, loose terminal lugs, and loose connections. Tighten as needed.		Power cable is unserviceable.
2	Semi- Annually	SWITCH BOX Inspect switch box assembly (refer to paragraph 4-13).		
3	Semi- Annually	MOUNTING RAILS Inspect for cracks and deformation.		Mounting rail is cracked or deformed.
4	Semi- Annually	FIRE EXTINGUISHER  a. Inspect for broken seal and damage to handle.		
			b. Weigh to determine whether charge is sufficient. Weight is 13 pounds when fully charged. If weight is 12.5 pounds or less, send to specialized activity for recharging.	Fire extinguisher not charged.

## Section V. UNIT TROUBLESHOOTING

#### 4-9 GENERAL.

Paragraph 4-9.3 covers troubleshooting procedures for components unique to the power plant/power unit. Refer to the applicable generator set or trailer technical manual, as listed below, for generator and trailer troubleshooting procedures.

- **4-9.1 Generator Set Troubleshooting.** Refer to TM 9-6115-639-13.
- **4-9.2** Trailer Troubleshooting. Refer to TM 9-2330-202-14&P.
- **4-9.3 Power Plant Troubleshooting.** The following symptom index contains troubleshooting information for locating and correcting operating troubles that may develop in components unique to the power plant end item. The symptom index lists malfunctions associated with switch box operation. Each malfunction listing includes a reference to the applicable figure that contains a chart. The chart will help you determine probable causes and corrective actions to take. The symptom index cannot list all malfunctions that may occur, nor all tests or inspections and corrective actions. If a malfunction is not listed or cannot be corrected by listed corrective actions, notify next higher level of maintenance.

## **SYMPTOM INDEX**

	Troubleshooting Procedure (Figure)
GEN 1 OR GEN 2 INDICATOR LAMP SERVICEABLE BUT FAILS TO LIGHT WITH GENERATOR SET RUNNING	4-4
NO POWER AT LOAD TERMINAL L1 WITH SWITCH SET TO OPERATING GENERATOR	4-5
NO POWER AT LOAD TERMINAL L2 WITH SWITCH SET TO OPERATING GENERATOR AND GEN SET CONNECTED FOR 120/240 VAC	4-6

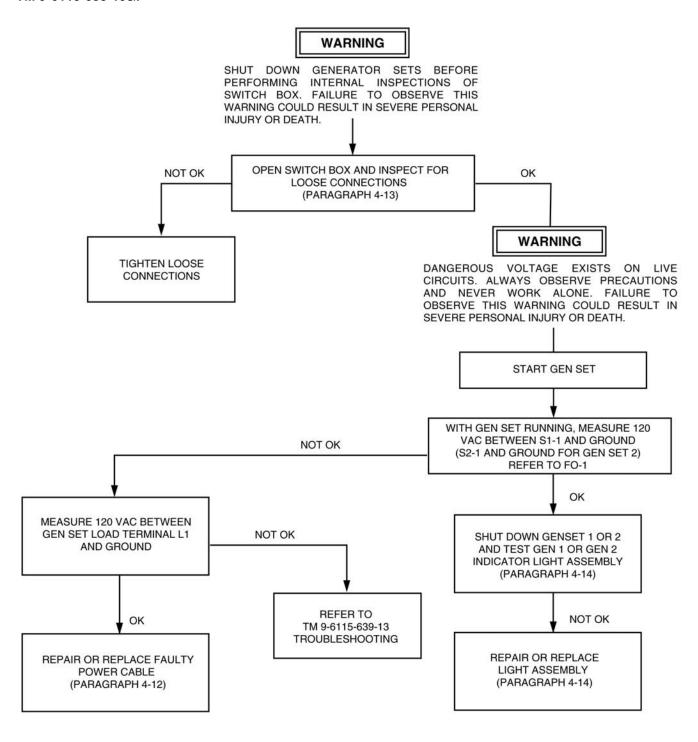


Figure 4-4. Indicator Lamp Serviceable but Fails to Light With Generator Set Running.

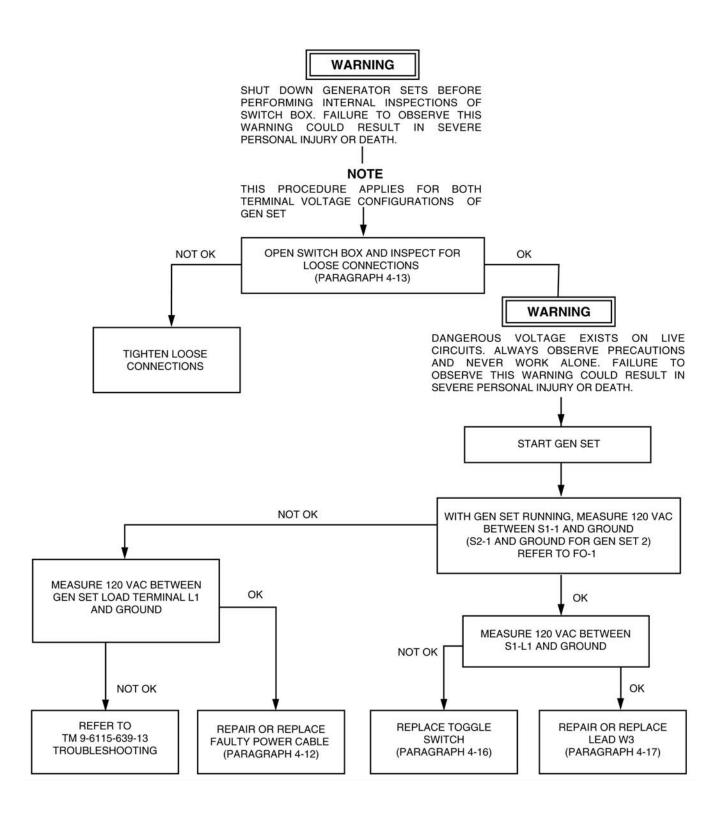


Figure 4-5. No Power At Load Terminal L1 with Switch Set to Operating Generator.

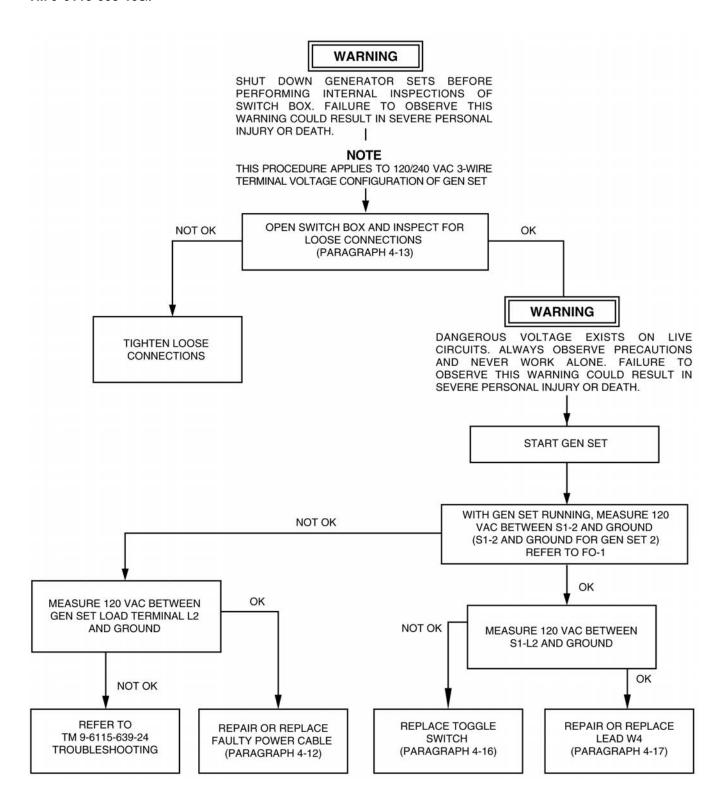


Figure 4-6. No Power At Load Terminal L2 with Switch Set To Operating Generator And GEN SET Connected for 120/240 VAC.

## Section VI. MAINTENANCE PROCEDURES

#### 4-10 MAINTENANCE OF GENERATOR SETS.

Refer to generator TM 9-6115-639-24.

#### 4-11 MAINTENANCE OF TRAILERS.

Refer to TM 9-2330-202-14&P.

### 4-12 CABLE, POWER MAINTENANCE.

This task covers:

a. Test

c. Installation

Removal

#### **INITIAL SETUP**

<u>Tools</u> <u>Equipment Conditions</u>

Tool Kit, General Mechanic's (item 1, Appendix B)

Multimeter

Reference

Both generator sets shut down; paragraph

2-5.3.3.

# **WARNING**

Make sure generator sets are shut down before performing any electrical maintenance. Failure to observe this warning could result in severe personal injury or death.

## **TEST**

- 1. Release two clamping catches (11, Figure 4-7) and open switch box cover (1).
- 2. Disconnect power cable to be tested from generator set load terminals.

#### NOTE

Cable leads L1, L2 terminate in switch box at contactor K1 for Generator 1 (front) and contactor K2 for Generator 2 (rear). N and Ground leads terminate at switch box load terminals.

3. Use multimeter to check continuity of each electrical lead in power cable. Each lead should have continuity between bare end of conductor at generator set load terminal and terminal lug (9). Check for continuity between lead marked ground and switch box ground load terminal, lead marked N and switch box N load terminal, lead marked L1 and contactor terminal 1, lead marked L2 and contactor terminal 1. If no continuity, notify next higher level of maintenance.

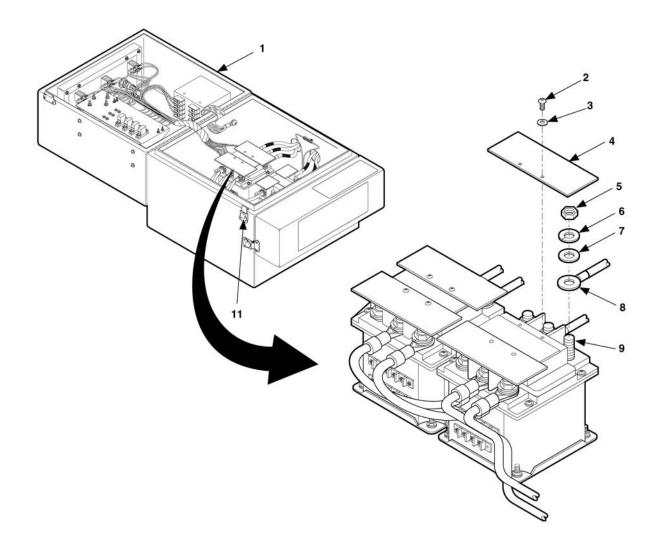


Figure 4-7. Power Cable Connections to Switch Box Contactors.

- 4. Use multimeter to check for shorts in power cable. Check for continuity between ground and N, L1, L2. Continuity in any of these tests indicates a shorted cable which must be replaced.
- 5. Close switch box cover (1) and secure with clamping catches (11).

## **REMOVAL**

1. To disconnect electrical leads and ground lead from generator set refer to Figure 4-1 or Figure 4-8 and reverse the procedures of connecting the power cables as listed in paragraph 4-2.2.1.

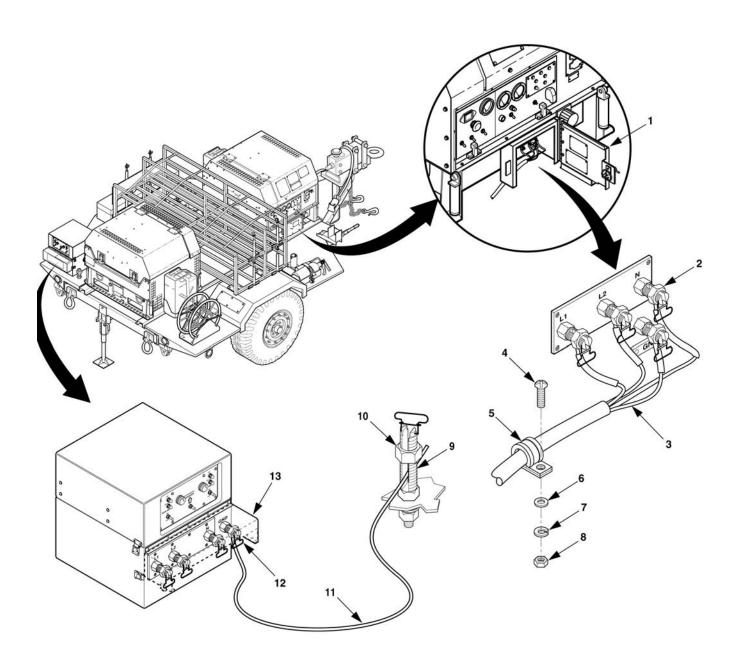


Figure 4-8. Disconnect Power Cable from Generator Set.

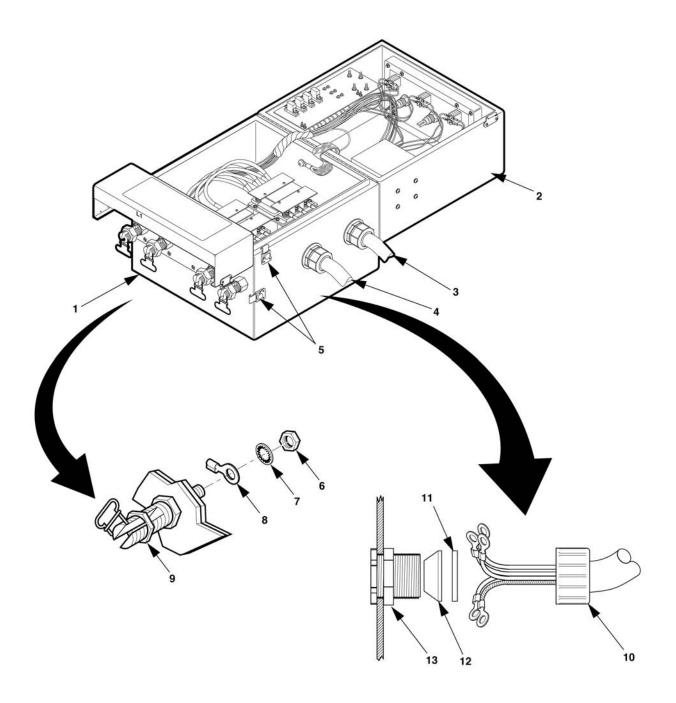


Figure 4-9. Disconnect Power Cable from Switch Box Terminals.

- 2. Disconnect power cable from switch box.
  - a. Release clamping catches (11, Figure 4-7) and open switch box cover (1).
  - b. Remove two screws (2) and lock washers (3) from contactor terminal shield (4) of contactor associated with power cable being removed.
  - c. Remove contactor terminal shield (4).
  - d. Remove nuts (5), lock washers (6), and flat washers (7) from contactor terminals (9).
  - e. Lift terminal leads (8) from contactor terminals (9). Remove only the terminal leads associated with electrical leads of power cable being removed. If necessary to remove other terminal leads to access those for power cable being disconnected, reinstall other terminal leads onto contactor terminals (9).
  - f. Install flat washers (7), lock washers (6), and terminal nuts (5) on contactor terminals (9).
  - g. Remove hex nuts (6, Figure 4-9) and internal tooth washers (7) from ground and N terminals (9) of switch box.
  - h. Remove only the wire associated with the power cable being replaced. If necessary to remove other terminal leads to access those for power cable, reinstall other terminal leads on terminal (9).
  - i. Place internal tooth washers (7) over the end of terminals (9) and loosely install the hex nuts (6).
  - j. Remove stuffing tube compression nut (10) from stuffing tube body (13).
  - k. Pull power cable (3) or (4) through stuffing tube until ends of power cable are free of stuffing tube body (13).
  - I. Remove washer (11), seal (12), and stuffing tube compression nut (10) from power cable (3) or (4). Place items back on stuffing tube body and tighten.

### **INSTALLATION**

1. Install stuffing tube compression nut (10, Figure 4-9), washer (11), and seal (12) on end of power cable (3) or (4) having leads with terminal lugs.

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- 2. Insert terminal lug end of power cable (3 or 4) into stuffing tube body (13) and slide forward until end of power cable outer covering is visible inside switchbox (1).
- Slide seal (12), washer (11), and stuffing tube compression nut (10) forward and tighten compression nut.
- 4. Remove hex nut (6) and internal tooth washer (7) from load terminal N (9) and install lead marked N.
- 5. Install internal tooth washer (7) and hex nut (6). Tighten hex nut.
- 6. Repeat steps 4 and 5 for ground terminal and ground lead.
- 7. Connect power cable lead marked L1 to contactor terminal 2, lead marked L2 to contactor terminal 2.
- 8. Close switch box cover (2) and secure with clamping catches (5).
- 9. Repeat steps 1, 2, and 3 above and install other end of power cable in stuffing tube on generator set.
- 10. Connect leads to generator set load terminals as follows:

Lead Marked	to	<b>Generator Set Load Terminal</b>		
Ground		Ground		
N		N		
L1		L1		
L2		L2		

#### 4-13 ASSEMBLY, SWITCH BOX MAINTENANCE.

This task covers: a. Inspect c

Repair d. Installation

## **INITIAL SETUP**

<u>Tools</u> <u>Equipment Conditions</u>

Tool Kit, General Mechanic's Reference (item 1, Appendix B)

Both generator sets shut down, paragraph 2-5.3.3. Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered; paragraph 2-3.2.1. Power cables and ground disconnected from switch box;

Removal

Materials/Parts paragraph 4-12.

Blind Rivets Gasket Lock Washers

#### NOTE

Refer to paragraph 4-19 for removal of Accessory Box before performing maintenance on Switch Box

#### **INSPECT**

- 1. Release clamping catches (6, Figure 4-10) and open switch box cover (7).
- 2. Inspect all leads and wires for worn or deteriorated insulation that reveals bare spots in conductors. If found, notify next higher level of maintenance.
- 3. Inspect all leads and wires for loose or disconnected terminal lugs. If found, tighten or notify next higher level of maintenance.
- 4. Inspect all terminals for looseness. Tighten as needed.
- 5. Inspect all component mountings for looseness. Tighten as needed.
- 6. Inspect gasket (8) on switch box. If required, replace gasket.
- 7. Close switch box cover (7) and secure with clamping catches (6).

### **REPAIR**

- 1. CLAMPING CATCH REPLACEMENT.
  - a. Drill out rivets (1) and remove defective clamping catch (2).
  - b. Position new clamping catch (2) and secure with rivets (1).

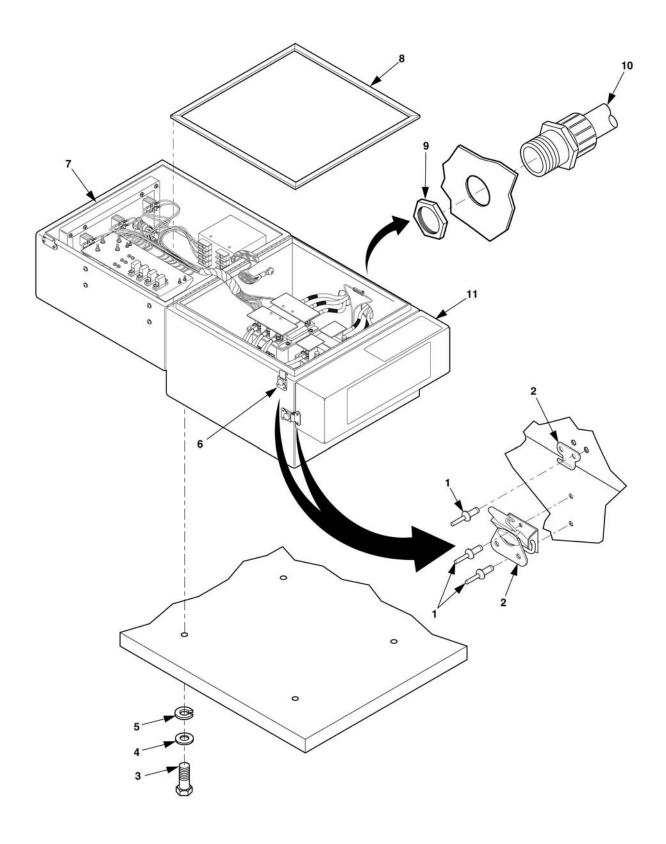


Figure 4-10. Assembly, Switch Box Repair.

- 2. GASKET REPLACEMENT.
  - a. Remove old gasket (8) from switch box and scrape surface to remove old cement.
  - b. Cut new gasket material and cement to switch box.
- 3. STUFFING TUBE REPLACEMENT.
  - a. Unscrew lock nut (9) from stuffing tube body (10) of stuffing tube and remove from switch box.
  - b. Insert stuffing tube body (10) through hole in switch box and secure with locknut (9).

#### NOTE

Switch box mounting hardware for AN/MJQ-42 (plain nuts, lock washers, flat washers, and cap screws) differs from that used on other power plants but removal and installation instructions are similar.

### **REMOVAL**

- 1. Remove power cables and ground cable (paragraph 4-12).
- 2. Remove four bolts (3), lock washers (4), flat washers (5), securing switch box (11) to fender. Remove switch box (11).

## **INSTALLATION**

- 1. Position switch box (11) on trailer fender.
- 2. Install four lock washers (4), flat washers (5) and bolts (3).
- 3. Connect power cables and ground cable (paragraph 4-12).
- 4. Reinstall accessory box and secure with removed hardware.

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## 4-14 LIGHT/LAMP ASSEMBLY MAINTENANCE.

This task covers:

- a. Test
- b. Removal

- c. Repair
- d. Installation

## **INITIAL SETUP**

## **Tools**

Tool Kit, General Mechanic's (item 1, Appendix B) Soldering Gun GT7A-3

Hand Operated Terminal Crimping Tool

## Materials/Parts

Insulation Sleeving, Heat Shrinkable Solder

## **Equipment Conditions**

Reference

Both generator sets shut down. paragraph 2-5.3.3. Switch box cover open.

## **TEST**

- 1. Measure for continuity between terminals (5, Figure 4-11). If continuity exists, replace lamp housing.
- 2. Measure for continuity of indicator light assembly leads (7) between terminals (5 and 8) in accordance with Table 4-2.

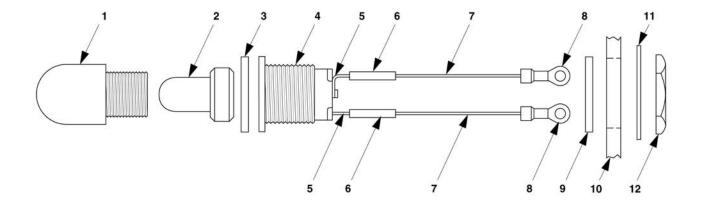


Figure 4-11. Light/Lamp Assembly.

Table 4-2. Indicator Light Assembly Test Points

FROM	ТО
DS1 (center contact)	TB2-2
DS1 (side contact)	TB2-1
DS2 (side contact)	TB2-4
DS2 (center contact)	TB2-5
DS3 (side contact)	TB2-1
DS3 (center contact)	S1-3
DS4 (side contact)	TB2-4
DS4 (center contact)	S2-3

### **REMOVAL**

- 1. Unscrew lens (1) and remove and save lens (1), lamp (2), and O-ring (3).
- 2. Tag and disconnect terminal leads (7) from applicable switch box components.
- 3. Cut wire ties as required.
- 4. Remove nut (12) and lock washer (11).
- 5. Pull housing (4) and attached parts (5 through 8) through opening in switch box cover (10).

## **REPAIR**

## 1. DISASSEMBLY

- a. Unscrew and remove lens (1). Do not take O-ring (3) out of lens (1).
- b. Take lamp (2) out of lens (1) or housing (4), as applicable.
- c. Remove O-ring (9).
- d. Cut and remove insulation sleeving (6) from both wire leads (7).
- e. Unsolder and remove wire leads (7) from terminals (5).

### 2. ASSEMBLY

- a. Solder one end of each wire (7) to a housing terminal (5).
- b. Install insulation sleeving (6) over each soldered connection and heat shrink to a firm fit.
- c. Crimp a terminal lug (8) onto end of each wire (7).
- d. Install O-ring (9).

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## **INSTALLATION**

- 1. Insert terminal leads (7) through opening in switch box housing (10) and pull through until O-ring (9) rests against switch box cover (10).
- 2. Install lock washer (11) and mounting nut (12).
- 3. Connect terminal lugs (8) to switch box components in accordance with Table 4-2.
- 4. Insert lamp (2) and O-ring (3) into lens (1).
- 5. Install lens (1) into housing (4) and hand tighten.

## 4-15 LIGHT SYNCHRONIZING MAINTENANCE.

This task covers:

- a. Test
- b. Removal

c. Installation

## **INITIAL SETUP**

## **Tools**

Tool Kit, General Mechanic's (item 1, Appendix B)

### Materials/Parts

Solder

## **Equipment Conditions**

### Reference

Both generator sets shut down, paragraph 2-5.3.3. Switch box cover open.

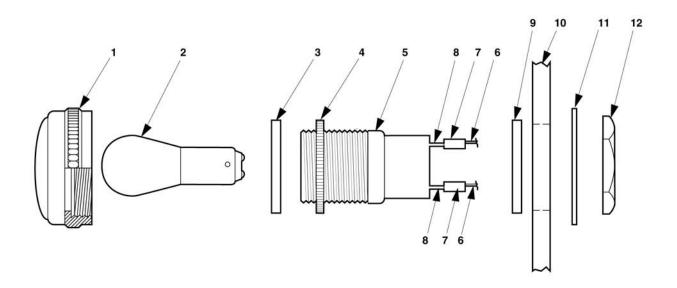


Figure 4-12. Light/Lamp Synchronizing.

### **TEST**

Remove lens (1, Figure 4-12) and bulb (2) and measure for continuity between terminals (8). If continuity Exists, replace lamp housing.

## **REMOVAL**

## **NOTE**

The switch box has three synchronizing lights. Replacement procedures are the same for each synchronizing lights.

- 1. Cut and remove insulation sleeving (7) from both leads (6).
- 2. Tag leads (6) and unsolder.
- 3. Remove mounting nut (12), internal tooth lock washer (11), and housing body (5).

## INSTALLATION

- 1. Position rubber gaskets (3) and (9) against mounting collar (4). If necessary, turn mounting collar (4) until proper amount of threads are exposed for installation of lens (1).
- 2. Insert housing body (5) through opening in switch box cover (10).
- 3. Place internal tooth lock washer (11) on housing body (5).
- 4. Install mounting nut (12) on housing body (5). Tighten mounting nut (12) so that rubber gasket (9) seats firmly against switch box (10).
- 5. Install insulation sleeving (7) on each wire (6).
- 6. Solder tagged wires (6) to housing terminals (8).
- 7. Install lamp (2) into housing body (5).
- 8. Make sure that rubber gasket (3) is in place against mounting collar (4) and install lens (1) on housing body (5).

## 4-16 SWITCH, TOGGLE MAINTENANCE.

This task covers:

Test a.

Removal

c. Installation

Reference

## **INITIAL SETUP**

**Tools Equipment Conditions** 

Tool Kit, General Mechanic's (item 1, Appendix B)

Multimeter Both generator sets shut down,

paragraph 2-5.3.3. Switch box cover open.

### Materials/Parts

None

### **TEST**

## **NOTE**

The following procedures apply to all toggle switches.

Set multimeter for continuity test. Test switches in accordance with Table 4-3. Replace any switch that fails test.

**Table 4-3. Switch Continuity Test** 

	S10 TRANSFER SWITCH		S1 AND S2 ON-LINE SWITCHES	
	Closed Contact	Open Contact	Closed Contact	Open Contact
On Position	1 and 2 4 and 5		2 and 3 5 and 6	
Released Position		1 and 2 4 and 5	2 and 3	5 and 6

## REMOVAL

- 1. Tag wires connected to terminals of switch to be replaced and remove screws (9, Figure 4-13), flat washers (8), and conductor bus (7).
- 2. Remove hex nut (1), lock washer (2), locking ring (3), and switch (6).

## INSTALLATION

- 1. Remove hex nut (1), lock washer (2), and locking ring (3).
- 2. Hand tighten hex nut (5) on switch.

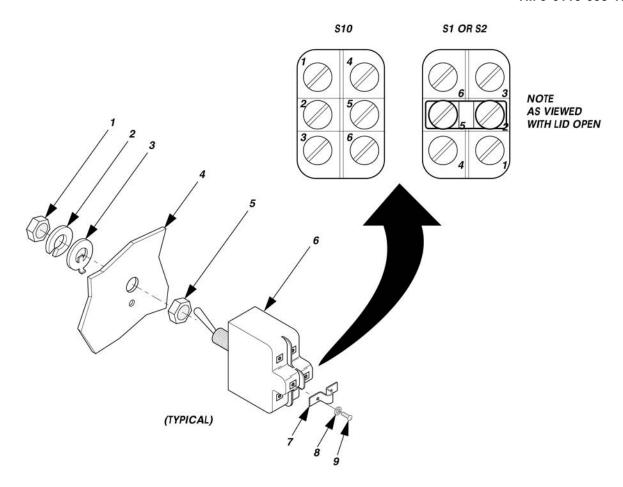


Figure 4-13. Switch, Toggle Maintenance.

## **NOTE**

Make sure terminals 3 and 6 of switch S10 and 1 and 4 of switches S1 and S2 Are toward the bottom as viewed with switch box open.

- 3. Insert switch body (6) into mounting hole and position hex nut (5) against mounting plate (4).
- 9. Install locking ring (3) into keyway of switch until alignment tip goes into mounting plate (4).
- 10. Install lock washer (2) against locking ring (3).
- 11.Install hex nut (1) and tighten making sure that locking ring (3) alignment is engaged in mounting plate (4).

## **NOTE**

When installing new switch, conductor bus from old switch must be installed on new switch.

- 12. Remove and retain terminal screws (9) and washers (8) from terminals of new switch.
- 13. Install wires, conductor bus (7), washers (8), and terminal screws (9).

## 4-17 SWITCH BOX TERMINAL LOAD MAINTENANCE.

This task covers:

a. Removalb. Repair

c. Installation

## **INITIAL SETUP**

Tools

Tool Kit, General Mechanic's (item 1, Appendix B)

Materials/Parts

Wire, Round Steel, 0.072 inch diameter QQ-W-423 Composition 302

**Equipment Conditions** 

Reference

Both generator sets shut down, paragraph 2-5.3.3. Trailer handbrakes set, front support Leg/landing leg lowered, and rear leveling-support jack lowered; paragraph 2-3.2.1. Load cable disconnected from switch

Box load terminals.

### **REMOVAL**

- 1. Release clamping catches (12, Figure 4-14) and open switch box cover (2).
- 2. Remove and retain hex nut (3), internal tooth lock washer (4), and leads (5) from defective terminal (8).
- 3. Remove and retain hex nut (6) that secures the terminal (8) to the mounting plate (7).
- 4. Remove terminal (8).

## **REPAIR**

### NOTE

Repair consists of replacing a missing or damaged terminal clip. Removal of terminal Is not required. Any other damage to the terminal requires replacement. The terminal clip is fabricated using bulk wire National Stock Number (NSN) 9505-00-235-5071.

- 1. Release clamping catch (11) and open switch box load terminal cover (1).
- 2. Cut two pieces of bulk wire 5 3/4 inches and 1 1/4 inches long.
- 3. Make sure nut (9) is installed on terminal body (8).
- 4. Fabricate terminal clip (10) in accordance with Figure 4-15.
- 5. Install terminal clip (10) on terminal (8), close switch box terminal cover (1) and secure with clamping catch (11).

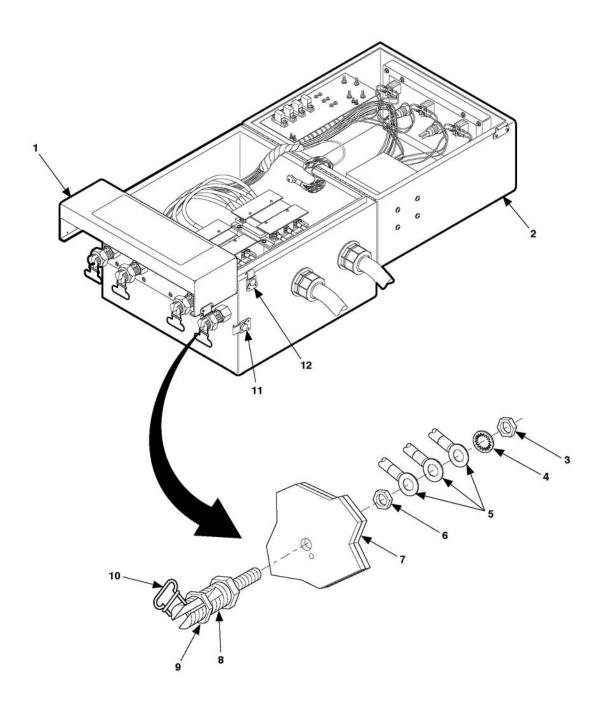


Figure 4-14. Switch Box Terminal Load Maintenance.

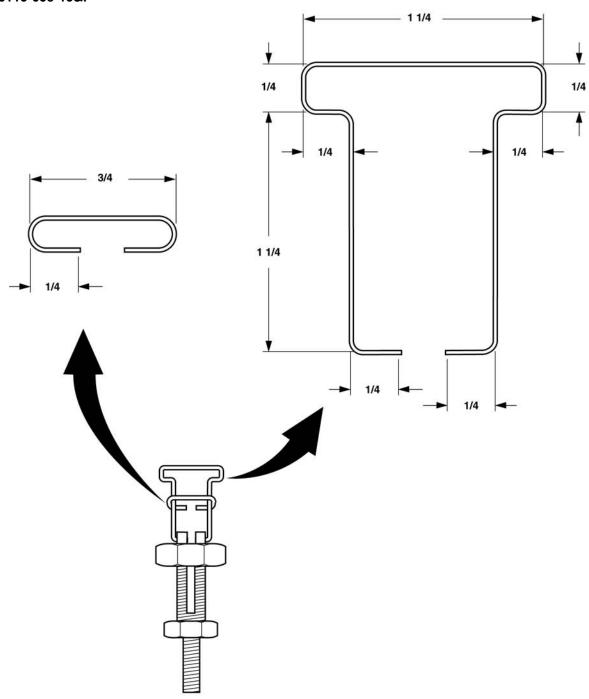


Figure 4-15. Terminal Load Clip Maintenance.

## INSTALLATION

- 1. Position new load terminal (8) on mounting plate so that alignment pin fits in hole provided.
- 2. Install and tighten the hex nut (6).
- 3. Install the leads (5).
- 4. Install internal tooth lock washer (4) and thread hex nut (3) on load terminal (8) and tighten.
- 5. Close switch box terminal cover (1) and switch box cover (2), and secure with clamping catches (11) and (12).

#### 4-18 TERMINAL LOAD COVER MAINTENANCE.

This task covers:

a. Removal

b. Installation

## **INITIAL SETUP**

<u>Tools</u> <u>Equipment Conditions</u>

Tool Kit, General Mechanic's (item 1, Appendix B)

Reference

Both generator sets shut down, para 2-5.3.3.

## Materials/Parts

None

### **REMOVAL**

- 1. Release clamping catches (1, Figure 4-16) and open switch box cover (2).
- 2. Release clamping catches (3) and open load terminal cover (4).
- 3. Remove six rivets (6) and remove load terminal cover (4) from switch box (7).
- 4. Remove four rivets (6) and two clamping catch strikes (5). Retain strikes for installation on new cover.

#### NOTE

If replacing load terminal cover, steps 3 and 4 must be performed.

## **INSTALLATION**

1. Install load terminal cover (4) on switch box (7) with six rivets.

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- 2. Close load terminal cover (4) and secure with clamping catches (3).
- 3. Close switch box cover (2) and secure with two clamping catches (1).

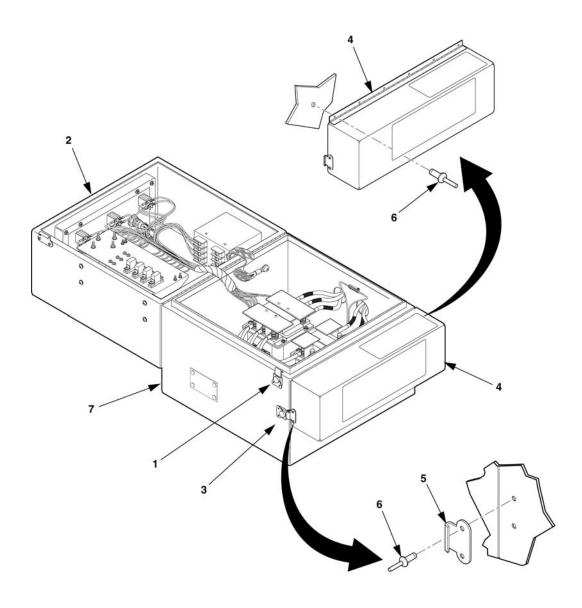


Figure 4-16. Terminal Load Cover Maintenance.

#### 4-19 BOX, ACCESSORY MAINTENANCE.

This task covers: Removal a.

Repair b.

c. Installation

## **INITIAL SETUP**

Tools Materials/Parts - continued

Tool Kit, General Mechanic's Nuts, Self-locking Hasp (item 1, Appendix B)

Washers, Lock

**Equipment Conditions** 

Reference

Materials/Parts Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack

Catch, Clamping and Strike lowered; paragraph 2-3.2.1.

Rivets, Blind

## **NOTE**

Accessory box mounting hardware for AN/MJQ-42 and AN/MJQ-43 (plain nuts, lock washers, flat washers, and bolts) differs from that used on other power plants, but removal and installation procedures are similar.

## **REMOVAL**

1. Release clamping catches (4, Figure 4-17) and open accessory box cover (1).

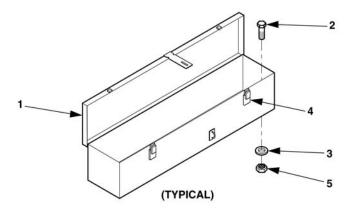


Figure 4-17. Box, Accessory Replacement.

2. Remove accessories from accessory box.

3. Remove self-locking nuts (5), flat washers (3), machine bolts (2), and accessory box (1).

## **REPAIR**

## NOTE

Unit level maintenance of the accessory box consists of replacing clamping catches and hasp. Other repairs, such as straightening or welding, are performed at next higher level of maintenance.

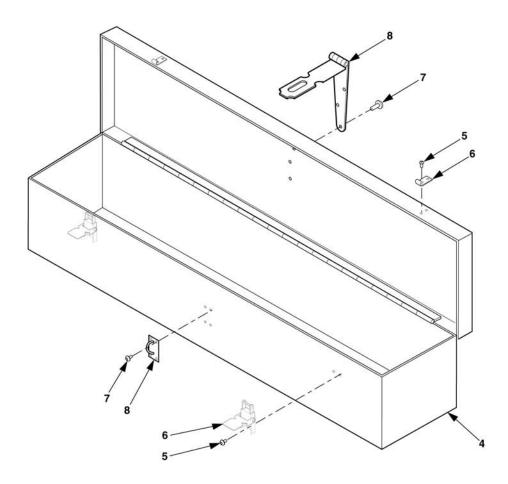


Figure 4-18. Box, Accessory Repair.

### 1. REPLACE CLAMPING CATCH.

- a. Drill out rivets (5, Figure 4-18) that secure defective clamping catch and strike (6) to accessory box (4) and remove clamping catch and strike (6).
- b. Install new clamping catch and strike (6) on accessory box (4) and secure with rivets (5).

## 2. REPLACE HASP

- a. Drill out rivets (7) on hasp (8).
- b. Install new hasp (8) on accessory box (4) with rivets (7).

## **INSTALLATION**

- 1. Position accessory box (1, Figure 4-17) over mounting holes in trailer.
- 2. Install flat washers (3), machine bolts (2), and self-locking nut (5).
- 3. Return accessories to accessory box.
- 4. Close accessory box cover and secure with clamping catches (4).

### 4-20 BRACKET, FIRE EXTINGUISHER REPLACEMENT.

This task covers: a. Removal

b. Installation

### **INITIAL SETUP**

**Tools** 

Tool Kit, General Mechanic's (item 1, Appendix B)

Materials/Parts

Nuts, Self-locking Washers, Lock

**Equipment Conditions** 

Reference

Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling support jack lowered; paragraph 2-3.2.1.

#### **NOTE**

Fire extinguisher bracket mounting hardware for AN/MJQ-42A and AN/MJQ-43 consists of (plain nuts, lock washers, flat washers, and bolts).

### REMOVAL

- 1. Remove fire extinguisher from bracket (1, Figure 4-19).
- 2. Remove four self-locking nuts (3), flat washers (4), bolts (2), and remove fire extinguisher bracket from trailer (5).

## INSTALLATION

- 1. Install fire extinguisher bracket (1), four bolts (2), flat washers (4), and self-locking nuts (3). Tighten self-locking nuts.
- 2. Place fire extinguisher in bracket.

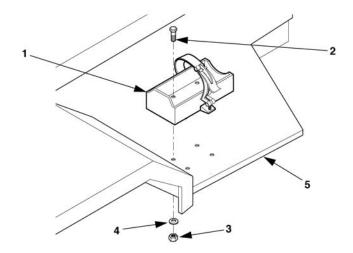


Figure 4-19. Bracket, Fire Extinguisher Replacement.

## 4-21 PLATE, ID AND REFLECTOR REPLACEMENT.

This task covers: Replacement

## **INITIAL SETUP**

<u>Tools</u> <u>Equipment Conditions</u>

Tool Kit, General Mechanic's (item 1, Appendix B)

Reference

Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered; paragraph 2-3.2.1

## Materials/Parts

Plate, Identification/Transportation Data Screws, Driver Rivets

## REPLACEMENT

#### 1. REPLACE DATA PLATE

- a. Drill out rivets (2, Figures 4-20) and remove data plate (1).
- b. Position data plate (1) on trailer and install rivets (2).

### 2. REPLACE REFLECTORS

- a. Remove self-locking nuts (3, Figure 4-20), flat washers (4), screws (5), and reflector (6) from trailer.
- b. Install reflector, (6), screws (5), flat washers (4), and self-locking nuts (3) on trailer.

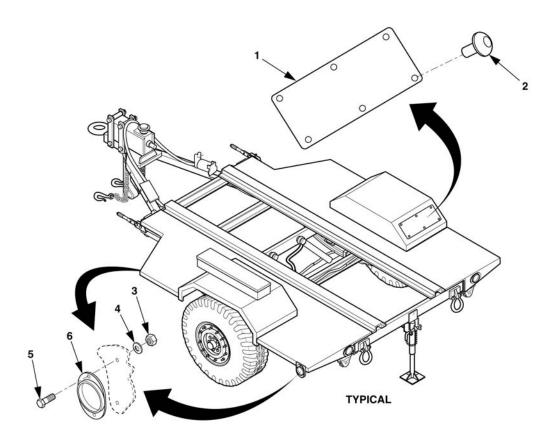


Figure 4-20. Plate, ID and Reflector Replacement.

## 4-22 PLATFORM, TRAILER REPLACEMENT.

This task covers: a. Removal b. Installation

### **INITIAL SETUP**

### **Tools**

Tool Kit, General Mechanic's (item 1, Appendix B)

## Materials/Parts

Nuts, Self-locking

## **Equipment Conditions**

### Reference

Trailer handbrakes set, front support leg/landing leg lowered, and rear Leveling-support jack lowered; paragraph 2-3.2.1.

Both generator sets shut down; paragraph 2-5.3.3.

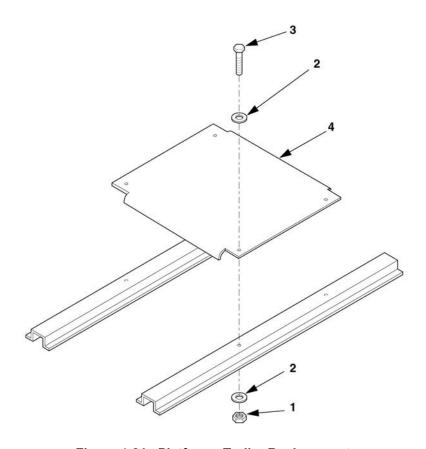


Figure 4-21. Platform, Trailer Replacement.

## **REMOVAL**

Remove four self-locking nuts (1, Figure 4-21), eight flat washers (2), four screws (3), and trailer center plate (4).

## **INSTALLATION**

Install center plate (4), four screws (3), eight flat washers (2), and four self-locking washers (1).

#### 4-23 AN/MJQ42/43 FENDER, ROADSIDE/FENDER, CURBSIDE MAINTENANCE.

This task covers:

Removal a.

b. Installation

## **INITIAL SETUP**

Materials/Parts

**Equipment Conditions** Tools

Tool Kit, General Mechanic's

(item 1, appendix B)

Trailer handbrakes set, front support leg/landing leg lowered, and rear

leveling-support jack lowered; paragraph

2-3.2.1.

Nuts, Self-locking

Washer, Lock

Both generator sets shut down; paragraph

2-5.3.3.

Reference

Personnel Required

Switch box assembly removed (roadside fender only);

paragraph 4-13.

Fire extinguishers removed from trailer.

Stowage rack removed; paragraph 4-27.

## REMOVAL

Two

#### NOTE

If fenders are being replaced, fire extinguisher brackets, data plates, ground stud, and reflectors must be removed and retained for installation on new fender. Roadside fender is shown in Figure 4-22. Both AN/MJQ-42 and AN/MJQ-43 fender replacement is similar.

- 1. Perform the following procedures if replacing curbside fender.
  - a. Remove fire extinguisher bracket; paragraph 4-20.
  - b. Remove cable reel assembly; paragraph 4-26.
  - c. Remove antenna mount and mast support; paragraph 4-25.
  - d. Remove data plate; paragraph 4-21.
- 2. Perform the following procedures if replacing roadside fender.
  - a. Remove accessory box; paragraph 4-19.
  - b. Remove fire extinguisher bracket; paragraph 4-20.
  - Remove antenna mount and mast support; paragraph 4-25.
  - d. Remove ground stud as follows:

- (1) Remove ground cable (1, Figure 4-22) from ground terminal (2) by loosening nut (3).
- (2) Remove nut (7), lock washer (6) and flat washer (5).
- (3) Remove rivets from ground terminal (4) data plate.
- 3. Remove data plate and reflectors (paragraph 4-21).
- 4. Remove four self-locking nuts (11), flat washers (12), bolts (16), from fender cross brace (17).
- 5. Remove five self-locking nuts (10), flat washers (9), bolts (18).
- 6. Remove six self-locking nuts (14), flat washers (13), bolts (8) and fender (15).

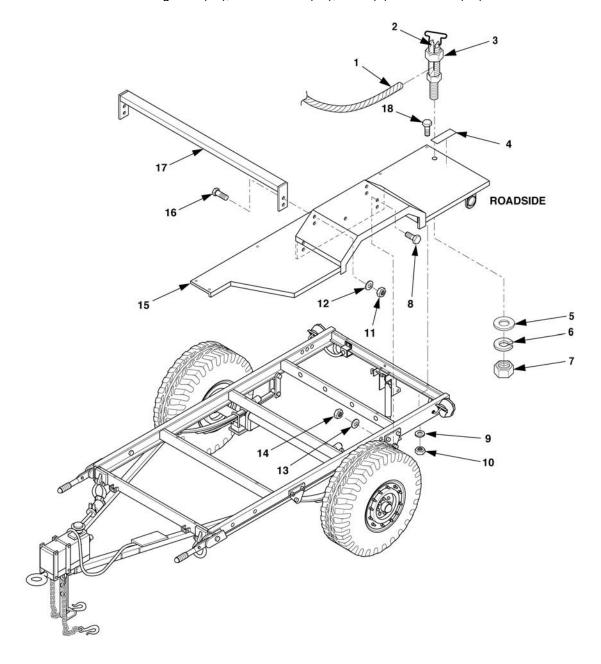


Figure 4-22. AN/MJQ-42/43 Fender, Roadside/Fender, Curbside Maintenance.

## **INSTALLATION**

- 1. Position fender (15, Figure 4-22) on trailer chassis and loosely install five bolts (18), flat washers (9), and five self-locking nuts (10).
- 2. Install and tighten bolts (16), flat washers (12), and self-locking nuts (11), with cross brace (17).
- 3. Install and tighten bolts (8), flat washers (13), and self-locking nuts (14).
- 4. Tighten five self-locking nuts (18).

#### NOTE

If new fender(s) are being installed, fire extinguisher bracket, data plate, ground stud, and reflectors removed during removal procedures must be installed.

- 5. Install fire extinguisher bracket (paragraph 4-20).
- 6. Install ground stud (2), flat washer (5), lock washer (6), nut (7), ground cable (1) and ground terminal data plate (4) using rivets.
- 7. Install reflectors (paragraph 4-21).
- 8. Install data plates (paragraph 4-21).
- 9. Perform the following procedures if replacing curbside fender.
  - a. Replace fire extinguisher bracket; paragraph 4-20.
  - b. Replace cable reel assembly; paragraph 4-26.
  - c. Replace antenna mount and mast support; paragraph 4-25.
  - d. Remove data plate; paragraph 4-21.
- 10. Perform the following procedures if replacing roadside fender.
  - a. Replace accessory box; paragraph 4-19.
  - b. Replace fire extinguisher bracket; paragraph 4-20.
  - c. Replace antenna mount and mast support; paragraph 4-25.

#### 4-24 JACK, LEVELING-SUPPORT MAINTENANCE.

This task covers:

- a. Removal
- b. Repair

c. Installation

## **INITIAL SETUP**

**Tools** 

Tool Kit, General Mechanic's (item 1, Appendix B) Jack Stand Vise

Materials/Parts

Pin, Cotter Nut, Self-locking, General Purpose Pin, Spring Fitting, Lubrication (if Needed) Grease, GAA

## **Equipment Conditions**

Reference

Trailer handbrakes set and front support leg/landing leg lower; paragraph 2-3.2.1.

Both generator sets shut down; paragraph 2-5.3.3.

## REMOVAL

# WARNING

Before removing trailer leveling-support jack, support rear of trailer with jack stands. Failure to observe this warning can cause severe personal injury or death.

- 1. Support rear of trailer with jack stands.
- 2. Turn leg base (11, Figure 4-23) to take weight off leg prop.
- 3. Remove either one of two cotter pins (16) or (6) from pivot shaft (15) and discard.
- 4. Hold leg base (11) steady and remove pivot shaft (15) with remaining cotter pin (16) or (6) in place.
- 5. Lift leg base (11) slightly to take weight off retaining pin (10) and remove retaining pin (10). Move leg base (11) and attached parts out of bracket (7).
- 6. Remove two self-locking nuts (4), four flat washers (5) and (8), and two bolts (9).
- 7. Remove self-locking nut (3), two flat washers (2) and (14), and bolt (13). Remove bracket (7) from trailer chassis (1).

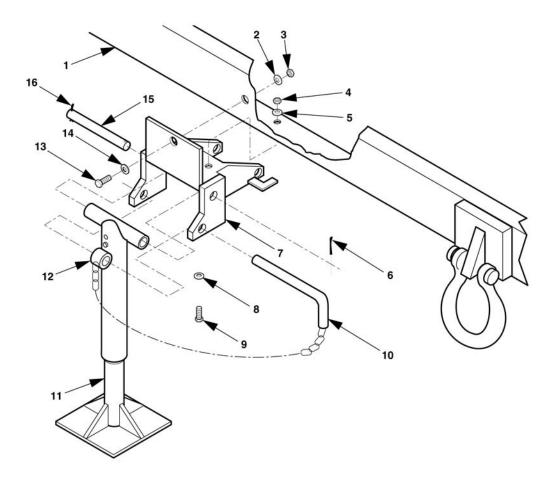


Figure 4-23. Jack, Leveling Support Replacement, 1 Ton Trailer.

#### **REPAIR**

## WARNING

Before removing trailer rear leveling-support jack, support rear of trailer with jack stands. Failure to observe this warning can cause severe personal injury or death.

#### NOTE

Disassemble the trailer rear leveling-support jack only to the extent necessary to replace worn, defective, or damaged parts.

- 1. Disassemble trailer rear leveling-support jack.
  - a. Clamp leg assembly in a vise with spring pin (2, Figure 4-24) facing up.
  - b. Drive the spring pin (2) out of upper leg (1) and remove leg base (4).
  - c. If defective, remove lubrication fitting (3).
  - d. Inspect upper leg (1) and leg base (4) for damage. If either needs to be replaced, replace entire trailer rear leveling-support jack.

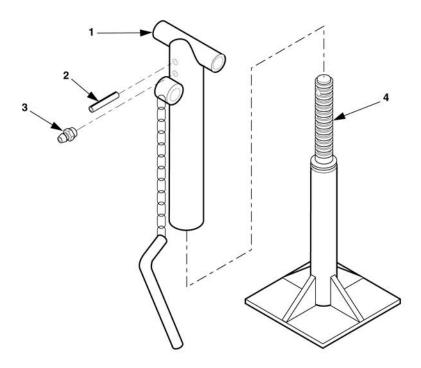


Figure 4-24. Jack, Leveling-Support Repair, 1 Ton Trailer.

- 2. Assemble trailer rear leveling-support jack.
  - a. If removed in disassembly, install lubrication fitting (3).
  - b. Clamp upper leg (1) in a vise with spring pin hole facing up.
  - c. Insert leg base (4), align hole and install a new spring pin (2).

#### **INSTALLATION**

## WARNING

Before removing trailer rear leveling-support jack, support rear of trailer with jack stands. Failure to observe this warning can cause severe personal injury or death.

- 1. Install bracket (7, Figure 4-23) on trailer chassis (1), with flat washer (14) and bolt (13), through mounting hole in bracket (7) on trailer chassis (1).
- 2. Install flat washer (2) and a new self-locking nut (3) on bolt (13).
- 3. Install bolts (9), flat washers (8 and 5), and new self-locking nuts (4).
- 4. Position leg base (11) and attached parts in bracket (7) and install retaining pin (10).
- 5. Position leg base (11) and install pivot shaft (15).
- 6. Install new cotter pin (16 or 6) in pivot shaft (15).
- 7. Lube rear leveling-support jack.

#### 4-25 MOUNT, ANTENNA AND SUPPORT, MAST REPLACEMENT.

This task covers: a. Removal b. Installation

#### **INITIAL SETUP**

<u>Tools</u> <u>Equipment Conditions</u>

Tool Kit, General Mechanic's (item 1, Appendix B)

Frailer handhrakes set and from

Reference

Materials/Parts

Trailer handbrakes set and front support leg/landing leg lowered; paragraph 2-3.2.1.

Both generator sets shut down; paragraph 2-5.3.3.

#### **REMOVAL**

- 1. Remove nut (6 or 8, Figure 4-25) flat washer (9) or (5) and bolt (1) or (4).
- 2. Remove antenna mount (2) or remove mast support (7) from fender (3).

#### **INSTALLATION**

- 1. Place antenna mount (2) or mast support (7) on fender (3).
- 2. Install bolt (1) or (4) into hole and install flat washer (9) or (5) and tighten nut (8) or (6).

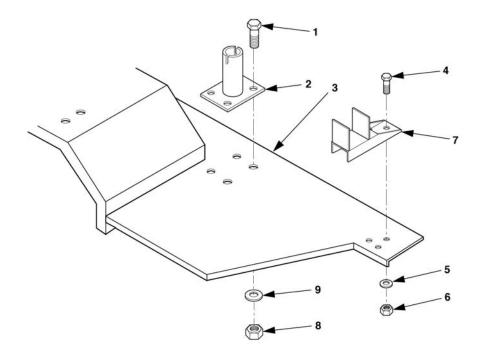


Figure 4-25. Mount, Antenna and Support, Mast Replacement.

#### 4-26 REEL, CABLE AND BRACKET, REEL MAINTENANCE.

This task covers: a. Removal b. Installation

#### **INITIAL SETUP**

<u>Tools</u> <u>Equipment Conditions</u>

Tool Kit, General Mechanic's Reference

(item 1, Appendix B)

Trailer handbrakes set and front support leg/landing leg lowered; paragraph 2-3.2.1.

Washer, Lock Both generator sets shut down; paragraph

2-5.3.3.

#### REMOVAL

1. Remove shaft (11, Figure 4-26), spacer (1) and remove cable reel (2) from mount (4).

2. Remove four nuts (6), flat washers (5), and bolts (3), and remove mount (4) from fender (7).

3. Drill out rivet (8) from web strap (9), and remove metal tip (10).

## **INSTALLATION**

1. Install rivet (8) through web strap (9) with metal tip (10) on to mount (4).

2. Place mount (4) on fender (7). Install bolts (3) flat washers (5), replace and tighten nuts (6).

3. Replace cable reel (2), spacer (1) and screw in shaft (11) into mount (4).

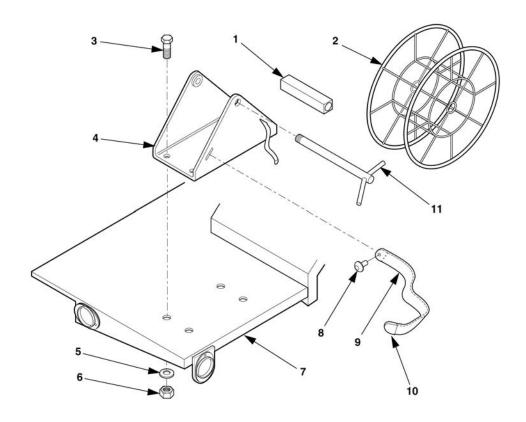


Figure 4-26. Reel, Cable and Bracket, Reel Maintenance.

#### 4-27 RACK, STOWAGE MAINTENANCE.

This task covers: a. Repair

b. Removal

c. Installation

#### **INITIAL SETUP**

Tools Equipment Conditions

Tool Kit, General Mechanic's (item 1, Appendix B)

Reference

Materials/Parts

Trailer handbrakes set and front support leg/landing leg lowered; paragraph 2-3.2.1.

Nuts, Self-locking

**REPAIR** 

#### **NOTE**

Repair of the stowage rack is limited to the replacement of quick screw clamps, runner clamps, runners, tiedown/webbing straps, and strap fasteners.

1. Replace quick screw clamp.

#### **NOTE**

There are eight quick screw clamps on the stowage rack. Replacement procedures are the same for each clamp.

- a. Remove two self-locking nuts (19, Figure 4-27), flat washers (18), bolts (15), and butt hinge (16).
- b. Slide guick screw clamp (14) out of other butt hinge (13).
- c. Position end of new quick screw clamp (14) into butt hinge (13), and place the other butt hinge (16) over end of quick screw clamp (14).
- d. Secure butt hinge (16) with two bolts (15), flat washers (18), and self-locking nuts (19).
- 2. Replace short runner clamp.

#### NOTE

There are four short runner clamps on the stowage rack. Replacement procedures are the same for each clamp.

- a. Remove three flat head screws (8) and short runner clamp (9) from stowage rack (12).
- b. Position replacement short runner clamp (9) on stowage rack (12) and secure with three flat head screws (8).

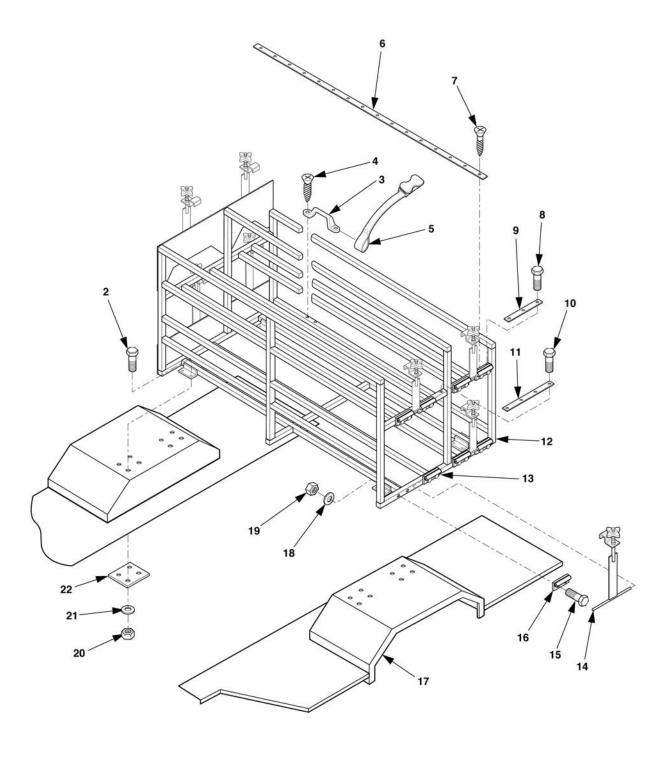


Figure 4-27. Rack, Stowage Maintenance

3. Replace long runner clamp.

#### **NOTE**

There are four long runner clamps on the stowage rack. Replacement procedures are the same for each clamp.

- a. Remove four flat head screws (10) and long runner clamp (11) from stowage rack (12).
- b. Position replacement long runner clamp (11) on stowage rack (12) and secure with four flat head screws (10).
- 4. Replace runner.

#### NOTE

There are eight runners on the stowage rack. Replacement procedures are the same for each runner.

- a. Remove the short runner clamps (repair procedures, step 2) or the long runner clamps (repair procedure, step 3).
- b. Remove 15 flat head self-tapping screws (7) and runner (6) from stowage rack (12).
- c. Position replacement runner (6) on stowage rack (12) and secure with 15 flat head self-tapping screws (7).
- d. Install short runner clamps (repair procedure, step 2) or long runner clamps (repair procedure, step 3).
- 5. Replacement tiedown/webbing strap and strap fasteners.

#### NOTE

There are two tiedown straps and three webbing straps on the stowage rack. Replacement procedures are the same for all straps.

- a. Remove two flat head self-tapping screws (4) that secure strap fastener (3) to stowage rack (12).
- b. Slide strap fastener out of loop of replacement strap (5).
- c. Slide replacement strap fastener (3) into the loop of replacement strap (5).
- d. Position strap fastener (3) on mounting holes in the stowage rack (12) and secure with two flat head self-tapping screws (4).

#### **REMOVAL**

- 1. Remove four self-locking nuts (20), lock washers (21), flat washers (22), backing plate (23) and bolts (2).
- 2. Repeat step a. for each of the three remaining backing plates.
- 3. Lift stowage rack (12) off the trailer fenders (1) and (17).

#### **INSTALLATION**

- a. Position stowage rack (12) over mounting holes in trailer fenders (1) and (17).
- b. Install four cap screws (2), four flat washers (22)), backing plate (23), lock washers (21), and self-locking nuts (20).
- c. Repeat step b. for each of the three remaining backing plates.

4-28 TERMINAL, GROUND REPLACEMENT.			
This task covers: a. Removal	b. Installation		
INITIAL SETUP			
<u>Tools</u>	Equipment Conditions		
Tool Kit, General Mechanic's (item 1, Appendix B)	Reference		
Materials/Parts	Trailer handbrakes set and front support leg/landing leg lowered; paragraph 2-3.2.1.		
Washer, Lock	Both generator sets shut down; paragraph 2-5.3.3.		

## REMOVAL

#### **NOTE**

Figure 2-8 contains location of ground terminal.

- 1. Loosen nut (1, Figure 4-28) and remove ground wire (2) from ground terminal (3).
- 2. Remove nut (4), internal tooth washer (5), and ground terminal (3).

#### **INSTALLATION**

- 1. Install ground terminal (3), internal tooth washer (5), and nut (4). Tighten nut (4).
- 2. Install ground wire (2) in slot of ground terminal (3) and tighten nut (1).

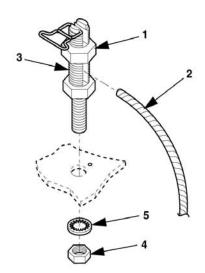


Figure 4-28. Terminal, Ground Replacement.

## Section VII. ADMINISTRATIVE STORAGE

#### 4-29 ADMINISTRATIVE STORAGE.

- **4-29.1** Short Term Storage. This type of storage is used when the power plant is expected to be stored from 1 to 45 days. The storage may be at destination after domestic shipment, or may be administrative storage when there is a shortage of maintenance manpower. For administrative storage:
  - a. Perform current maintenance services and serviceability criteria evaluations before placing power plant in administrative storage. Correct shortcomings and deficiencies and check that all modification work orders have been applied.
  - b. If possible, select an inside storage site. If inside storage is not available, a truck, van, conex container, or other container may be used.
  - c. When in administrative storage, the power plant/power unit should be capable of being made mission ready within 24 hours unless a different time frame is directed by the approving authority.
- **4-29.2** <u>Intermediate Term Storage</u>. This type of storage is used when the power plant is expected to be stored from 45 to 180 days.
- **4-29.3** <u>Long Term Storage</u>. This type of storage is used when the power plant is expected to be stored for more than 180 days.

#### NOTE

For stowage of generator sets refer to TM 9-6115-639-13 and for trailer refer to TM 9-2330-202-14&P.

## **CHAPTER 5**

## **DIRECT SUPPORT MAINTENANCE INSTRUCTIONS**

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# Section I. REPAIR PARTS; SPECIAL TOOLS; TEST, MEASUREMENT, AND DIAGNOSTIC EQUIPMENT (TMDE); AND SPECIAL SUPPORT EQUIPMENT

#### 5-1 COMMON TOOLS AND EQUIPMENT.

For Authorized common tools and equipment refer to the Modified Table of Organization and Equipment (MTOE) applicable to your unit.

#### 5-2 SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT.

Refer to generator set TM 9-6115-639-23P, and 1-ton trailer TM 9-2330-202-14&P.

- 5-3 REPAIR PARTS.
- **5-3.1 Generator Set Repair Parts.** Refer to generator set TM 9-6115-639-23P.
- 5-3.2 Trailer Repair Parts. Refer to TM 9-2330-202-14&P.
- **5-3.3** <u>Power Plant Repair Parts.</u> Power Plant repair parts not covered in the generator, engine, or trailer RPSTL are listed and illustrated in Appendix F.

## **Section II. TROUBLESHOOTING**

#### 5-4 GENERAL.

Refer to the applicable generator set or trailer technical manual, as listed below, for generator and trailer troubleshooting procedures.

- **5-4.1 Generator Set Troubleshooting.** Refer to TM 9-6115-639-13.
- **5-4.2** Trailer Troubleshooting. Refer to TM 9-2330-202-14&P.

#### Section III. MAINTENANCE PROCEDURES

#### 5-5 GENERAL.

This section covers Direct Support level maintenance procedures for power plant components that are not covered in the generator set technical manual, or trailer technical manuals.

- **5-5.1 Generator Set Maintenance.** Refer to generator set TM 9-6115-639-13.
- 5-5.2 Trailer Chassis Maintenance. Refer to TM 9-2330-202-14&P.

This task covers:

a. Removal

b. Installation

## **INITIAL SETUP**

Tools Equipment Conditions

Tool Kit, General Mechanic's (item 1, Appendix B) Torque Wrench, o-150 ft-lb

Lifting Device,750lbs. Lifting capacity

Materials/Parts

Nuts, Self-locking

Reference

Trailer handbrakes set, front support leg/landing leg lowered, and rear

leveling-support jack lowered; paragraph

2-3.2.1.

Cables removed paragraph 2-7.2

Both generator sets shut down; paragraph

2-5.3.3.

#### **REMOVAL**

#### NOTE

Procedure for removal and installation of generator set is the same for both power plants.

- 1. Remove four self-locking nuts (1, Figure 5-1), four flat washers (2), four bolts (4).
- 2. Attach a four-leg sling to the four lifting rings at the sides of the generator set (3). The sling must meet the dimension requirements shown on the generator set lifting and tiedown diagram plate.

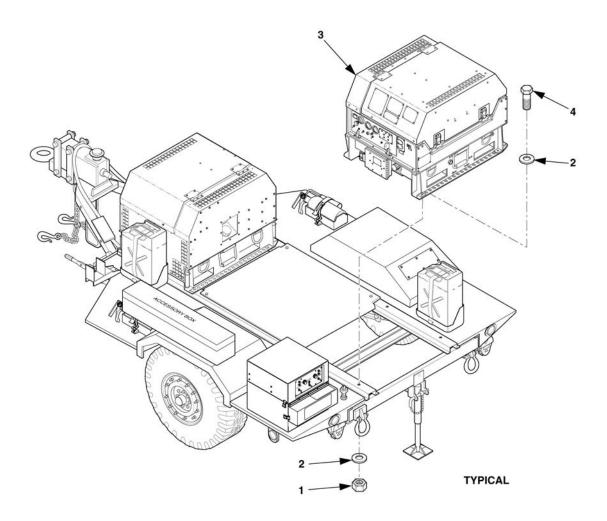


Figure 5-1. Removing Generator, 3kW Mounting Hardware.

WARNING

When lifting generator set, use lifting equipment with minimum lifting capacity of 750 pounds. Do not stand or put arms, legs, or any parts of the body under hoisted load. Do not permit generator set to swing. Failure to observe this warning can result in severe personal injury or death to personnel or damage to equipment.

3. Using a wrecker, crane, or other lifting device having a lifting capacity of at least 750 lbs. and sufficient lifting height, lift generator set (3) from trailer.

#### **INSTALLATION**

- 1. Using the same sling as in removal step 2, attach sling to generator set lifting rings.
- 2. Using the same lifting device as in removal step 3, lift generator set (3) and position it on trailer.
- 3. Install four bolts (4), four flat washers (2), and four self-locking nuts (1). Torque to 80-88 ft-lbs.

## 5-7 FENDER, ROADSIDE/FENDER, CURBESIDE REPAIR.

This task covers:

a. Repair

## **INITIAL SETUP**

Tools Equipment Conditions

Tool Kit, General Mechanic's (item 1, Appendix B) Body and Fender Repair Tool Kit (item 5, Appendix B) Shop Equipment, Welding, Field

Reference

AN/MJQ-42 platform and fender removed.

#### Materials/Parts

Paint

## **REPAIR**

Repair of the fender, curbside/roadside consists of welding, straightening, and spot painting as required.

#### 5-8 RAILS, MOUNTING REPLACEMENT.

This task covers: a. Removal b. Installation

## **INITIAL SETUP**

#### Tools

Tool Kit, General Mechanic's (item 1, Appendix B)

#### Materials/Parts

Nuts, Self-locking

#### **Equipment Conditions**

#### Reference

Trailer handbrakes set, front support leg/landing leg lowered, and rear Leveling-support jack lowered; paragraph 2-3.2.1.

Both generator sets shut down; paragraph 2-5.3.3.

## **REMOVAL**

Remove sixteen self-locking nuts (4, Figure 5-2), thirty-two flat washers (3), sixteen bolts (1), and two mounting rails (2).

## **INSTALLATION**

Install two mounting rails (2), sixteen bolts (1), thirty-two flat washers (3), and sixteen self-locking nuts (4).

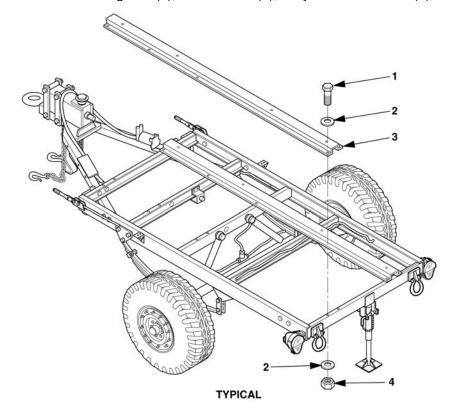


Figure 5-2. Replace Rails, Mounting.

#### 5-9 RELAY BOARD HARNESS W11 MAINTENANCE.

This task covers: a. Test c. Repair

b. Removal d. Installation

#### **INITIAL SETUP**

<u>Tools</u> <u>Equipment Conditions</u>

General Mechanic's Tool Kit (item 1, Appendix B) Soldering Gun Crimping Tool, Hand

Multimeter

Both generator sets shut down; paragraph 2-5.3.3. Trailer handbrakes set, front support leg/landing lowered, and rear leveling-support jack lowered; paragraph 2-3.2.1. Switch box cover open.

Reference

Materials/Parts

Solder Lock washers

## **TEST**

- 1. Remove four screws (1, Figure 5-3), lock washers (2), and flat washers (3), and invert relay board assembly (4).
- 2. Refer to wiring diagram (Figure FO-1) and Table 5-1, and perform continuity check of relay board harness W11. See table on next page.

Table 5-1. Relay Board Harness W11 Wire List

WIRE NO.         FROM         ITEM NO.         TO         ITEM NO.         ITEM NO.           1         K3-2         TB1-1         54         34           2         K3-3         TB1-6         54         34           3         K3-4         TB1-5         54         34           4         K3-5         TB1-3         54         34           5         K3-6         TB1-4         54         34           6         K3-7         TB1-2         54         34           7         K5-2         TB1-1         54         34           8         K5-3         TB1-8         54         34           9         K5-4         TB1-10         54         34           10         K5-5         TB1-17         54         34           11         K5-6         TB1-6         54         34           12         E-7         E-6         -         34           13         K4-2         TB1-14         54         34           14         K4-3         TB1-5         54         34           15         K4-4         TB1-5         54         34           16	WIRE LIST					
WIRE NO.         FROM         ITEM NO.         TO         ITEM NO.         ITEM NO.           1         K3-2         TB1-1         54         34           2         K3-3         TB1-6         54         34           3         K3-4         TB1-5         54         34           4         K3-5         TB1-3         54         34           5         K3-6         TB1-4         54         34           6         K3-7         TB1-2         54         34           7         K5-2         TB1-1         54         34           8         K5-3         TB1-8         54         34           9         K5-4         TB1-10         54         34           10         K5-5         TB1-17         54         34           11         K5-6         TB1-6         54         34           12         E-7         E-6         -         34           13         K4-2         TB1-14         54         34           14         K4-3         TB1-5         54         34           15         K4-4         TB1-5         54         34           16		TERMIN	ATION	TERMINATION		
2         K3-3         TB1-6         54         34           3         K3-4         TB1-5         54         34           4         K3-5         TB1-3         54         34           5         K3-6         TB1-4         54         34           6         K3-7         TB1-2         54         34           7         K5-2         TB1-1         54         34           8         K5-3         TB1-8         54         34           9         K5-4         TB1-10         54         34           10         K5-5         TB1-17         54         34           11         K5-6         TB1-6         54         34           12         E-7         E-6         -         34           13         K4-2         TB1-14         54         34           14         K4-3         TB1-9         54         34           15         K4-4         TB1-5         54         34           16         K4-5         TB1-3         54         34           17         K4-6         TB1-7         54         34           18         K4-7         TB1-15	WIRE NO.	FROM	ITEM NO.	то	ITEM	WIRE ITEM NO.
3         K3-4         TB1-5         54         34           4         K3-5         TB1-3         54         34           5         K3-6         TB1-4         54         34           6         K3-7         TB1-2         54         34           7         K5-2         TB1-1         54         34           8         K5-3         TB1-8         54         34           9         K5-4         TB1-10         54         34           10         K5-5         TB1-17         54         34           11         K5-6         TB1-6         54         34           12         E-7         E-6         -         34           13         K4-2         TB1-14         54         34           14         K4-3         TB1-9         54         34           15         K4-4         TB1-5         54         34           16         K4-5         TB1-3         54         34           17         K4-6         TB1-7         54         34           18         K4-7         TB1-15         54         34           20         K6-3         TB1-	1	K3-2		TB1-1	54	34
3         K3-4         TB1-5         54         34           4         K3-5         TB1-3         54         34           5         K3-6         TB1-4         54         34           6         K3-7         TB1-2         54         34           7         K5-2         TB1-1         54         34           8         K5-3         TB1-8         54         34           9         K5-4         TB1-10         54         34           10         K5-5         TB1-17         54         34           11         K5-6         TB1-6         54         34           12         E-7         E-6         -         34           12         E-7         E-6         -         34           13         K4-2         TB1-14         54         34           14         K4-3         TB1-9         54         34           15         K4-4         TB1-5         54         34           16         K4-5         TB1-3         54         34           17         K4-6         TB1-7         54         34           18         K4-7         TB1-15 <td>2</td> <td>K3-3</td> <td></td> <td>TB1-6</td> <td>54</td> <td>34</td>	2	K3-3		TB1-6	54	34
5         K3-6         TB1-4         54         34           6         K3-7         TB1-2         54         34           7         K5-2         TB1-1         54         34           8         K5-3         TB1-8         54         34           9         K5-4         TB1-10         54         34           10         K5-5         TB1-17         54         34           11         K5-6         TB1-6         54         34           12         E-7         E-6         -         34           13         K4-2         TB1-14         54         34           14         K4-3         TB1-9         54         34           15         K4-4         TB1-5         54         34           16         K4-5         TB1-3         54         34           17         K4-6         TB1-7         54         34           18         K4-7         TB1-15         54         34           19         R1-1         TB1-17         54         34           20         K6-3         TB1-19         54         34           21         K6-4	3	K3-4		TB1-5	54	34
5         K3-6         TB1-4         54         34           6         K3-7         TB1-2         54         34           7         K5-2         TB1-1         54         34           8         K5-3         TB1-8         54         34           9         K5-4         TB1-10         54         34           10         K5-5         TB1-17         54         34           11         K5-6         TB1-6         54         34           12         E-7         E-6         -         34           13         K4-2         TB1-14         54         34           14         K4-3         TB1-9         54         34           15         K4-4         TB1-5         54         34           16         K4-5         TB1-3         54         34           17         K4-6         TB1-7         54         34           18         K4-7         TB1-15         54         34           19         R1-1         TB1-17         54         34           20         K6-3         TB1-11         54         34           21         K6-4		K3-5		TB1-3	54	34
6         K3-7         TB1-2         54         34           7         K5-2         TB1-1         54         34           8         K5-3         TB1-8         54         34           9         K5-4         TB1-10         54         34           10         K5-5         TB1-17         54         34           11         K5-6         TB1-6         54         34           12         E-7         E-6         -         34           13         K4-2         TB1-14         54         34           14         K4-3         TB1-9         54         34           15         K4-4         TB1-5         54         34           16         K4-5         TB1-3         54         34           17         K4-6         TB1-7         54         34           18         K4-7         TB1-15         54         34           19         R1-1         TB1-17         54         34           20         K6-3         TB1-19         54         34           21         K6-4         TB1-11         54         34           22         K6-5 <t< td=""><td>5</td><td></td><td></td><td>TB1-4</td><td>54</td><td></td></t<>	5			TB1-4	54	
8         K5-3         TB1-8         54         34           9         K5-4         TB1-10         54         34           10         K5-5         TB1-17         54         34           11         K5-6         TB1-6         54         34           12         E-7         E-6         -         34           13         K4-2         TB1-14         54         34           14         K4-3         TB1-9         54         34           15         K4-4         TB1-5         54         34           16         K4-5         TB1-3         54         34           17         K4-6         TB1-7         54         34           18         K4-7         TB1-15         54         34           19         R1-1         TB1-17         54         34           20         K6-3         TB1-15         54         34           21         K6-4         TB1-11         54         34           22         K6-5         TB1-16         54         34           23         K6-6         TB1-13         54         34           24         K6-7		K3-7		TB1-2	54	34
8         K5-3         TB1-8         54         34           9         K5-4         TB1-10         54         34           10         K5-5         TB1-17         54         34           11         K5-6         TB1-6         54         34           12         E-7         E-6         -         34           13         K4-2         TB1-14         54         34           14         K4-3         TB1-9         54         34           15         K4-4         TB1-5         54         34           16         K4-5         TB1-3         54         34           17         K4-6         TB1-7         54         34           18         K4-7         TB1-15         54         34           19         R1-1         TB1-17         54         34           20         K6-3         TB1-15         54         34           21         K6-4         TB1-11         54         34           22         K6-5         TB1-16         54         34           23         K6-6         TB1-13         54         34           24         K6-7		-			-	
9         K5-4         TB1-10         54         34           10         K5-5         TB1-17         54         34           11         K5-6         TB1-6         54         34           12         E-7         E-6         -         34           13         K4-2         TB1-14         54         34           14         K4-3         TB1-9         54         34           15         K4-4         TB1-5         54         34           16         K4-5         TB1-3         54         34           17         K4-6         TB1-7         54         34           18         K4-7         TB1-15         54         34           19         R1-1         TB1-17         54         34           20         K6-3         TB1-17         54         34           21         K6-4         TB1-11         54         34           22         K6-5         TB1-16         54         34           23         K6-6         TB1-13         54         34           24         K6-7         TB1-15         54         34           25         R1-2	8			TB1-8	54	
10         K5-5         TB1-17         54         34           11         K5-6         TB1-6         54         34           12         E-7         E-6         -         34           13         K4-2         TB1-14         54         34           14         K4-3         TB1-9         54         34           15         K4-4         TB1-5         54         34           16         K4-5         TB1-3         54         34           17         K4-6         TB1-7         54         34           18         K4-7         TB1-15         54         34           19         R1-1         TB1-17         54         34           20         K6-3         TB1-12         54         34           21         K6-4         TB1-11         54         34           22         K6-5         TB1-16         54         34           23         K6-6         TB1-13         54         34           24         K6-7         TB1-15         54         34           25         R1-2         E6         -         34           26         R2-2				TB1-10	54	
11         K5-6         TB1-6         54         34           12         E-7         E-6         -         34           13         K4-2         TB1-14         54         34           14         K4-3         TB1-9         54         34           15         K4-4         TB1-5         54         34           16         K4-5         TB1-3         54         34           17         K4-6         TB1-7         54         34           18         K4-7         TB1-15         54         34           19         R1-1         TB1-15         54         34           20         K6-3         TB1-17         54         34           21         K6-4         TB1-11         54         34           22         K6-5         TB1-16         54         34           23         K6-6         TB1-13         54         34           24         K6-7         TB1-15         54         34           25         R1-2         E6         -         34           26         R2-2         E3         -         34           28         E4         TB1				TB1-17	54	
12         E-7         E-6         -         34           13         K4-2         TB1-14         54         34           14         K4-3         TB1-9         54         34           15         K4-4         TB1-5         54         34           16         K4-5         TB1-3         54         34           17         K4-6         TB1-7         54         34           18         K4-7         TB1-15         54         34           19         R1-1         TB1-15         54         34           20         K6-3         TB1-17         54         34           21         K6-4         TB1-11         54         34           22         K6-5         TB1-16         54         34           23         K6-6         TB1-13         54         34           24         K6-7         TB1-15         54         34           25         R1-2         E6         -         34           26         R2-2         E3         -         34           27         E5         TB1-1         54         34           29         R2-1         TB1	11	K5-6			54	
13         K4-2         TB1-14         54         34           14         K4-3         TB1-9         54         34           15         K4-4         TB1-5         54         34           16         K4-5         TB1-3         54         34           17         K4-6         TB1-7         54         34           18         K4-7         TB1-15         54         34           19         R1-1         TB1-17         54         34           20         K6-3         TB1-12         54         34           21         K6-4         TB1-11         54         34           22         K6-5         TB1-16         54         34           23         K6-6         TB1-13         54         34           24         K6-7         TB1-15         54         34           25         R1-2         E6         -         34           26         R2-2         E3         -         34           28         E4         TB1-1         54         34           29         R2-1         TB1-16         54         34           30         E2						
14         K4-3         TB1-9         54         34           15         K4-4         TB1-5         54         34           16         K4-5         TB1-3         54         34           17         K4-6         TB1-7         54         34           18         K4-7         TB1-15         54         34           19         R1-1         TB1-17         54         34           20         K6-3         TB1-12         54         34           21         K6-4         TB1-11         54         34           22         K6-5         TB1-16         54         34           23         K6-6         TB1-13         54         34           24         K6-7         TB1-15         54         34           25         R1-2         E6         -         34           26         R2-2         E3         -         34           27         E5         TB1-1         54         34           29         R2-1         TB1-16         54         34           30         E2         TB1-15         54         34           31         E1         E4		K4-2		TB1-14	54	
15         K4-4         TB1-5         54         34           16         K4-5         TB1-3         54         34           17         K4-6         TB1-7         54         34           18         K4-7         TB1-15         54         34           19         R1-1         TB1-17         54         34           20         K6-3         TB1-12         54         34           21         K6-4         TB1-11         54         34           22         K6-5         TB1-16         54         34           23         K6-6         TB1-13         54         34           24         K6-7         TB1-15         54         34           25         R1-2         E6         -         34           26         R2-2         E3         -         34           27         E5         TB1-1         54         34           29         R2-1         TB1-16         54         34           30         E2         TB1-15         54         34           31         E1         E4         -         34           32         K5-7         TB1-2<	_	K4-3		TB1-9		
16         K4-5         TB1-3         54         34           17         K4-6         TB1-7         54         34           18         K4-7         TB1-15         54         34           19         R1-1         TB1-17         54         34           20         K6-3         TB1-12         54         34           21         K6-4         TB1-11         54         34           22         K6-5         TB1-16         54         34           23         K6-6         TB1-13         54         34           24         K6-7         TB1-15         54         34           25         R1-2         E6         -         34           26         R2-2         E3         -         34           27         E5         TB1-1         54         34           29         R2-1         TB1-16         54         34           30         E2         TB1-15         54         34           31         E1         E4         -         34           32         K5-7         TB1-2         54         34           33         E1         TB1-14 </td <td>15</td> <td></td> <td></td> <td>_</td> <td>54</td> <td></td>	15			_	54	
17         K4-6         TB1-7         54         34           18         K4-7         TB1-15         54         34           19         R1-1         TB1-17         54         34           20         K6-3         TB1-12         54         34           21         K6-4         TB1-11         54         34           22         K6-5         TB1-16         54         34           23         K6-6         TB1-13         54         34           24         K6-7         TB1-15         54         34           25         R1-2         E6         -         34           26         R2-2         E3         -         34           27         E5         TB1-1         54         34           28         E4         TB1-2         54         34           29         R2-1         TB1-16         54         34           30         E2         TB1-15         54         34           31         E1         E4         -         34           32         K5-7         TB1-2         54         34           33         E1         TB1-14 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
18         K4-7         TB1-15         54         34           19         R1-1         TB1-17         54         34           20         K6-3         TB1-12         54         34           21         K6-4         TB1-11         54         34           22         K6-5         TB1-16         54         34           23         K6-6         TB1-13         54         34           24         K6-7         TB1-15         54         34           25         R1-2         E6         -         34           26         R2-2         E3         -         34           27         E5         TB1-1         54         34           28         E4         TB1-2         54         34           29         R2-1         TB1-16         54         34           30         E2         TB1-15         54         34           31         E1         E4         -         34           32         K5-7         TB1-2         54         34           33         E1         TB1-14         54         34	17			TB1-7		~ .
19         R1-1         TB1-17         54         34           20         K6-3         TB1-12         54         34           21         K6-4         TB1-11         54         34           22         K6-5         TB1-16         54         34           23         K6-6         TB1-13         54         34           24         K6-7         TB1-15         54         34           25         R1-2         E6         -         34           26         R2-2         E3         -         34           27         E5         TB1-1         54         34           28         E4         TB1-2         54         34           29         R2-1         TB1-16         54         34           30         E2         TB1-15         54         34           31         E1         E4         -         34           32         K5-7         TB1-2         54         34           33         E1         TB1-14         54         34						
20         K6-3         TB1-12         54         34           21         K6-4         TB1-11         54         34           22         K6-5         TB1-16         54         34           23         K6-6         TB1-13         54         34           24         K6-7         TB1-15         54         34           25         R1-2         E6         -         34           26         R2-2         E3         -         34           27         E5         TB1-1         54         34           28         E4         TB1-2         54         34           29         R2-1         TB1-16         54         34           30         E2         TB1-15         54         34           31         E1         E4         -         34           32         K5-7         TB1-2         54         34           33         E1         TB1-14         54         34						
21       K6-4       TB1-11       54       34         22       K6-5       TB1-16       54       34         23       K6-6       TB1-13       54       34         24       K6-7       TB1-15       54       34         25       R1-2       E6       -       34         26       R2-2       E3       -       34         27       E5       TB1-1       54       34         28       E4       TB1-2       54       34         29       R2-1       TB1-16       54       34         30       E2       TB1-15       54       34         31       E1       E4       -       34         32       K5-7       TB1-2       54       34         33       E1       TB1-14       54       34					•	
22     K6-5     TB1-16     54     34       23     K6-6     TB1-13     54     34       24     K6-7     TB1-15     54     34       25     R1-2     E6     -     34       26     R2-2     E3     -     34       27     E5     TB1-1     54     34       28     E4     TB1-2     54     34       29     R2-1     TB1-16     54     34       30     E2     TB1-15     54     34       31     E1     E4     -     34       32     K5-7     TB1-2     54     34       33     E1     TB1-14     54     34						
23         K6-6         TB1-13         54         34           24         K6-7         TB1-15         54         34           25         R1-2         E6         -         34           26         R2-2         E3         -         34           27         E5         TB1-1         54         34           28         E4         TB1-2         54         34           29         R2-1         TB1-16         54         34           30         E2         TB1-15         54         34           31         E1         E4         -         34           32         K5-7         TB1-2         54         34           33         E1         TB1-14         54         34					• •	
24         K6-7         TB1-15         54         34           25         R1-2         E6         -         34           26         R2-2         E3         -         34           27         E5         TB1-1         54         34           28         E4         TB1-2         54         34           29         R2-1         TB1-16         54         34           30         E2         TB1-15         54         34           31         E1         E4         -         34           32         K5-7         TB1-2         54         34           33         E1         TB1-14         54         34					-	
25         R1-2         E6         -         34           26         R2-2         E3         -         34           27         E5         TB1-1         54         34           28         E4         TB1-2         54         34           29         R2-1         TB1-16         54         34           30         E2         TB1-15         54         34           31         E1         E4         -         34           32         K5-7         TB1-2         54         34           33         E1         TB1-14         54         34					54	
26         R2-2         E3         -         34           27         E5         TB1-1         54         34           28         E4         TB1-2         54         34           29         R2-1         TB1-16         54         34           30         E2         TB1-15         54         34           31         E1         E4         -         34           32         K5-7         TB1-2         54         34           33         E1         TB1-14         54         34		_		_	-	
27         E5         TB1-1         54         34           28         E4         TB1-2         54         34           29         R2-1         TB1-16         54         34           30         E2         TB1-15         54         34           31         E1         E4         -         34           32         K5-7         TB1-2         54         34           33         E1         TB1-14         54         34		–			-	
28         E4         TB1-2         54         34           29         R2-1         TB1-16         54         34           30         E2         TB1-15         54         34           31         E1         E4         -         34           32         K5-7         TB1-2         54         34           33         E1         TB1-14         54         34	-			-	54	
29     R2-1     TB1-16     54     34       30     E2     TB1-15     54     34       31     E1     E4     -     34       32     K5-7     TB1-2     54     34       33     E1     TB1-14     54     34		_				
30     E2     TB1-15     54     34       31     E1     E4     -     34       32     K5-7     TB1-2     54     34       33     E1     TB1-14     54     34					_	
31         E1         E4         -         34           32         K5-7         TB1-2         54         34           33         E1         TB1-14         54         34				_	-	
32 K5-7 TB1-2 54 34 33 E1 TB1-14 54 34					-	
33 E1 TB1-14 54 34					54	
					• •	
	34	E8		TB1-14	54	34
35 K6-2 TB1-14 54 34					~ .	
36 E9 E3 - 34		-				-

## **NOTE**

Wire being checked must be disconnected at one location to isolate wire for continuity check.

- 3. If any wire fails continuity check, repair or replace relay board harness.
- 4. If all wires pass continuity check, install relay board assembly (4), four flat washers (3), lock washers 2) and screws (1).

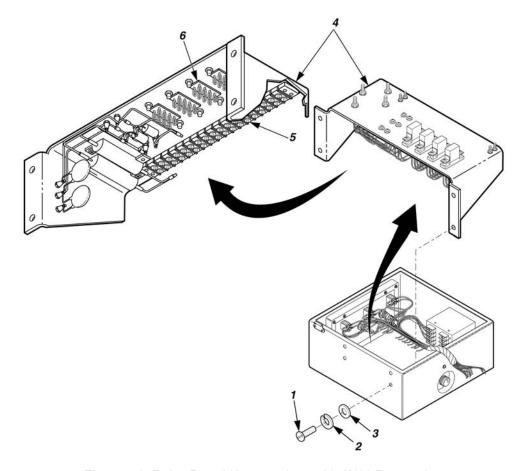


Figure 5-3. Relay Board Harness Assembly W11 Removal.

#### **REMOVAL**

1. Remove four screws (1), lock washers (2), flat washers (3), and invert relay board assembly (4).

#### NOTE

Other leads removed during removal of W11 harness leads must be replaced with any attaching hardware.

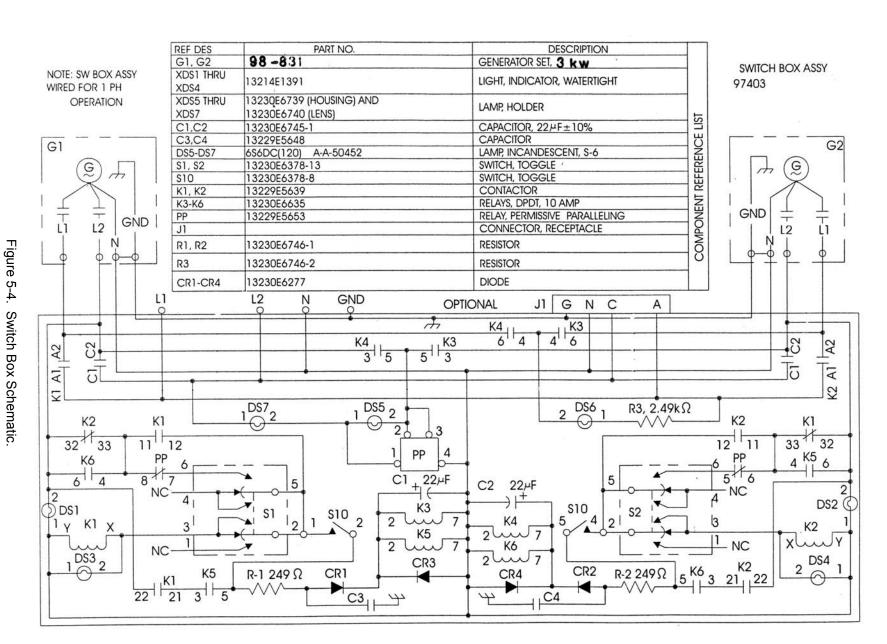
- 2. Refer to relay board harness wire list (Table 5-1), and tag and disconnect all W11 leads from terminal board (5) and relay sockets (6).
- 3. Remove relay board harness W11.

#### **REPAIR**

Refer to Figure F-2, Appendix F.

#### **INSTALLATION**

- 1. Position wiring harness W11 on relay board so that wire ends having terminal lugs are near TB1 terminals (5).
- 2. Refer to Table 5-1 and connect all W11 leads.
- 3. Position relay board assembly (4), and install four flat washers (3), lock washers (2), and screws (1).



	COMPO	NENT REFERENCE LIST
REF DES	PART NO.	DESCRIPTION
A1	13229E5830	RELAY BOARD ASSEMBLY
C1, C2	13230E6745-1	CAPACITOR
C3, C4	13229E5648	CAPACITOR
CR1, CR2, CR3, CR4	13230E6277	DIODE
0S5-0S7	6S6DC (120) A-A-50452	LAMP, INCANDESCENT
E1-E9	13230E6394	TERMINAL, STUD
E10	30554-69-651-1	BUS CONNECTOR
E11, E12	13218E0493-2769PIIC	GROUND, SWITCH BOX ENCLOSURE AND COVER
G1, G2	98-831	GENERATOR SET, 3 kW, 60 Hz
K1, K2	13229E5639	CONTACTOR
K3, K4, K5, K6	13230E6635	RELAY, DPDT
N, L1, L2, GNO	30554-69-692-1	TERMINAL, POST, SERVICE AND GROUND
PP	13229E5653	RELAY, PERMISSIVE, PARALLELING
R1, R2	13230E6746-1	RESISTOR
R3	13230E6746-2	RESISTOR
S1, S2	13230E6378-13	SWITCH, TOGGLE
S10	13230E6378-8	SWITCH, TOGGLE
TB1	13230E6377-6	TERMINAL BOARD
TB2	13230E6377-4	TERMINAL BOARD
W1	13230E6954-1	CABLE ASSEMBLY
W2	13230E6954-2	CABLE ASSEMBLY
W3	13230E6952-1	LEAD, ELECTRICAL
W4	13230E6952-2	LEAD, ELECTRICAL
₩7	13230E6952-3	LEAD, ELECTRICAL
W8	13230E6952-4	LEAD, ELECTRICAL
W9	13230E6951	HARNESS ASSEMBLY, SWITCH BOX
W11	13229E5829	HARNESS ASSEMBLY, RELAY BOARD
XDS1-XDS4	13229E5764-2	LIGHT AND WIRE
X0S5-X0S7	13230E6739 (HOUSING) AND 13230E6740 (LENS)	LAMP HOLDER
XK3-XK6	13222E9686	SOCKET, RELAY

Figure 5-5. Switch Box Reference List

#### 5-10 RELAY MAINTENANCE.

This task covers: a. Removal c. Installation b. Test

INITIAL SETUP

<u>Tools</u> <u>Equipment Conditions</u>

Tool Kit, General Mechanic's (item 1, Appendix B) Multimeter 24 VDC Power Source

Materials/Parts

Lock washers

Both generator sets shut down; paragraph 2-5.3.3. Trailer handbrakes set, front support leg/landing lowered, and rear leveling-support jack lowered; paragraph 2-3.2.1. Switch box cover open.

Reference

## **REMOVAL**

Remove two screws (1, Figure 5-6), washers (2), and relays (3) from relay sockets (4).

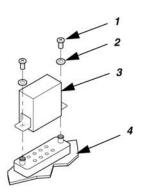
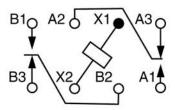


Figure 5-6. Relay Removal.

#### **TEST**

- 1. Repeat removal step above.
- 2. Refer to Figure 5-7 and check continuity of relay coil between pins X1 and X2.



#### **COIL DEENERGIZED**

Figure 5-7. Relay Schematic.



Dangerous voltage exists on live circuits. Always observe precautions and never work alone. Failure to observe this warning could result in severe personal injury or death.

3. Attach 24 VDC power source across pins X1 and X2 of relay and check continuity of relay contacts before and after relay is energized as listed in Table 5-2.

Table 5-2. Relay Operation

RELAY STATUS	CONTINUITY BETWEEN PINS	NO CONTINUITY BETWEEN PINS
Power NOT Applied	A2 and A3 B2 and B3	A1 and A2 B1 and B2
Power Applied	A1 and A2 B1 and B2	A2 and A3 B2 and B3

- 4. If all multimeter indications are correct, perform installation procedures.
- 5. If any multimeter indication is not as listed in Table 5-2 perform installation with new relay.

#### **INSTALLATION**

Install relay (3, Figure 5-6) in relay socket (4) and secure with two washers (2) and screws (1).

## 5-11 RELAY, PERMISSIVE PARALLELING MAINTENANCE.

This task covers: a. Removal

b. Test

c. Installation

#### **INITIAL SETUP**

#### **Tools**

Tool Kit, General Mechanic's (item 1, Appendix B) Multimeter Power Oscillator, 50-420 Hz

#### Materials/Parts

Lock washers

#### **Equipment Conditions**

#### Reference

Both generator sets shut down; paragraph 2-5.3.3. Trailer handbrakes set, front support leg/landing lowered, and rear leveling-support jack lowered; paragraph 2-3.2.1. Switch box cover open.

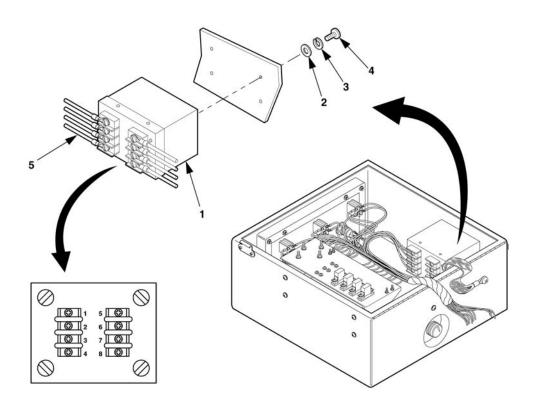


Figure 5-8. Relay, Permissive Paralleling Maintenance.

#### REMOVAL

Tag and disconnect leads (5, Figure 5-8). Remove four screws (4), lock washers (3), flat washers (2), and permissive paralleling relay (1).

#### TEST

- 1. Perform removal procedure above and position permissive paralleling relay (1) on work surface. Connect a variable AC voltage, 50-420 Hz, power oscillator across terminals 1 and 2.
- 2. Connect multimeter across terminals 5 and 6 and check for continuity. If continuity exists, leave multimeter connected for remainder of test. If no continuity exists, replace relay.
- 3. Connect a variable AC voltage, 50-420 Hz power oscillator, across terminals 1 and 2.
- 4. Apply 120 volts AC across terminals 3 and 4.
- 5. Adjust the oscillator output for 60 Hz.
- 6. Increase the oscillator output to a value of 20 volts. Multimeter should indicate no continuity. Slowly decrease the oscillator output until continuity is observed. Oscillator output voltage should be 8±1VAC.
- 7. Increase the oscillator output until multimeter shows no continuity. Oscillator voltage should be no more than 1 volt above previous voltage reading.
- 8. Perform steps 6 and 7 with multimeter connected across terminals 7 and 8.
- 9. Perform installation procedure using new relay if it fails to meet the requirements of steps 6 through 8.
- 10. If relay meets the requirements of steps 6. through 8., perform installation procedures.

#### **INSTALLATION**

Position permissive paralleling relay (1) in switch box and install flat washer (2), lock washer (3), and screw (4). Connect leads (5).

#### 5-12 CONTACTOR MAINTENANCE.

This task covers: a. Removal

b. Test

c. Installation

#### **INITIAL SETUP**

<u>Tools</u> <u>Equipment Conditions</u>

Tool Kit, General Mechanic's (item 1, Appendix B)

Reference

Multimeter Both generator sets shut down; paragraph 2-5.3.3.

Trailer handbrakes set, front support leg/landing low

ered, and rear leveling-support jack lowered; paragraph 2-3.2.1. Switch box cover open.

Materials/Parts

Lock washers

#### **REMOVAL**

1. Remove four screws (1, Figure 5-9), lock washers (2) and terminal shields (3) from contactor (9).

2. Remove nuts (4), lock washers (5), and flat washers (6) from all contactor terminals (8).

#### NOTE

Leads W3, W4, and W5 (11, 10, and 13) must be removed along with leads W7, and W8 when contactor K1 is being removed.

- 3. Tag and remove power cable leads (7) from contactor terminals A2, B2 (8), and ends of leads W7, and W8 (11, and 13) from contactor terminals A1, B1.
- 4. Tag and disconnect terminal lugs of W9 wires from contactor (9) terminals (12) X, Y, 11, 12, 21, 22, 32, and 33.
- 5. Remove four nuts (15), lock washers (16), flat washers (17), and contactor stud (18).

## TEST

1. Check for continuity between contactor terminals "X" and "Y". If no continuity, replace contactor.

WARNING

Dangerous voltage exists on live circuits. Always observe precautions and never work alone. Failure to observe this warning could result in severe personal injury or death.

2. Attach 115 VAC power source across pins "X" and "Y" of contactor and check continuity of relay contacts before and after contactor is energized as listed in Table 5-3.

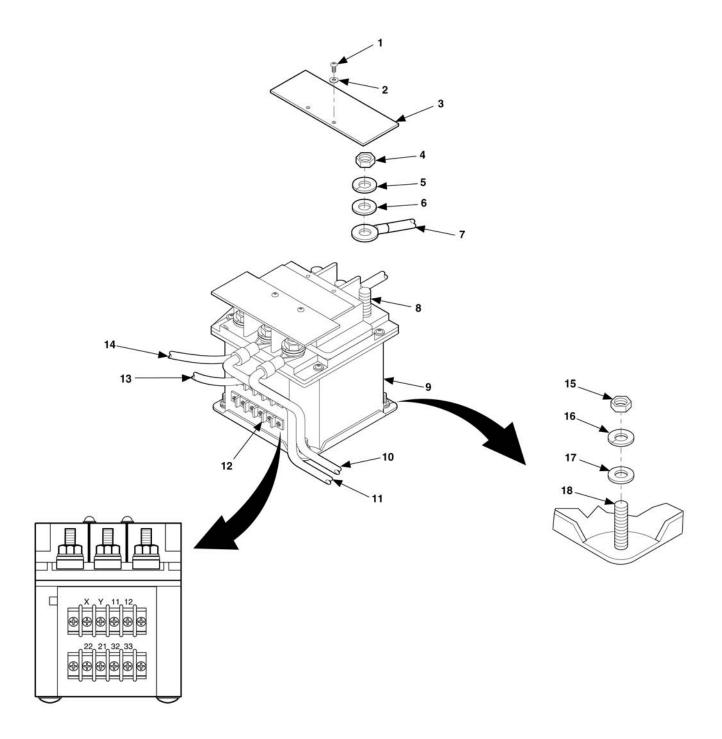


Figure 5-9. Contactor Maintenance.

Table 5-3. Contact	or Operation
--------------------	--------------

CONTACTOR STATUS	CONTINUITY BETWEEN PINS	NO CONTINUITY BETWEEN PINS
Power NOT Applied	32 and 33	21 and 22 11 and 12 A1 and A2 B1 and B2
Power Applied	21 and 22 11 and 12 A1 and A2 B1 and B2	32 and 33

- 3. If all multimeter indications are correct, install contactor terminal shield (3), four flat washers (2), and screws (1).
- 4. Replace contactor if any multimeter indication is not as listed in Table 5-3.

#### **INSTALLATION**

- 1. Position contactor K1 or K2 (9) on studs (18).
- 2. Install four flat washers (17), lock washers (16), and nuts (15).
- 3. Refer to wiring diagram (Figure FO-1) and tags installed in removal. Connect applicable terminal lugs of W9 wires to contactor terminals (12) X, Y, 11, 12, 21, 22, 32, and 33. Remove tags.
- 4. If terminal shields (3) of contactor are installed, remove four screws (1), lock washers (2) and terminal shields (3).
- 5. Remove nuts (4), lock washers (5), and flat washers (6) from contactor terminals (8) A1, B1, A2, B2.

#### NOTE

Leads W3, W4, and W5 (11, 10, and 13) must be installed along with leads W7, and W8 when contactor K1 is being installed.

- 6. Place free ends of jumpers W7, and W8 (11, and 13) on contactor K1 (12) terminals (8) A1, B1.
- 7. Install flat washer (6), lock washer (5), and nut (4) on terminals (8) for A1, B1. Tighten nuts (4).
- 8. Place power cable leads (7) on contactor terminals (8) A2, B2. Remove tags.
- 9. Install flat washers (6), lock washers (5), and nuts (4) on contactor terminals (8) A2, B2.
- 10. Install terminal shields (3), two lock washers (2) and screws (1) on contactor (9).

#### **5-13 RESISTOR MAINTENANCE**

This task covers:

- a. Test
- b. Removal

c. Installation

#### **INITIAL SETUP**

Tools

Tool Kit, General Mechanic's (item 1, Appendix B)

Multimeter Soldering Gun

Materials/Parts

Lock washers Solder **Equipment Conditions** 

Reference

Both generator sets shut down; paragraph 2-5.3.3. Trailer handbrakes set, front support leg/landing lowered, and rear leveling-support jack lowered; paragraph 2-3.2.1. Switch box cover open.

#### **TEST**

#### **NOTE**

If testing R1 or R2, step 1 must be performed.

- 1. Remove four screws (1, Figure 5-10), lock washers (2), and flat washers (3) and invert relay board assembly (4).
- 2. Measure resistance of R1 (5) or R2 (6) for 246.5-251.5 ohms. If resistance is out of tolerance, replace resistor.
- 3. Measure resistance of R3 (11) for 246.5-251.5 ohms. If resistance is out of tolerance, replace resistor.
- 4. If resistors R1 and R2 are within tolerance, place relay board assembly in position and secure with flat washers (3), lock washers (2), and screws (1).

## **REMOVAL**

#### NOTE

If removing R1 or R2, step 1 must be performed.

- 1. Remove four screws (1), lock washers (2), and flat washers (3) and invert relay board assembly (4).
- 2. Tag and unsolder leads from resistor.
- 3. Remove two nuts (9), lock washers (8), flat washers (7), screws (10), and resistor (5, 6, or 11).

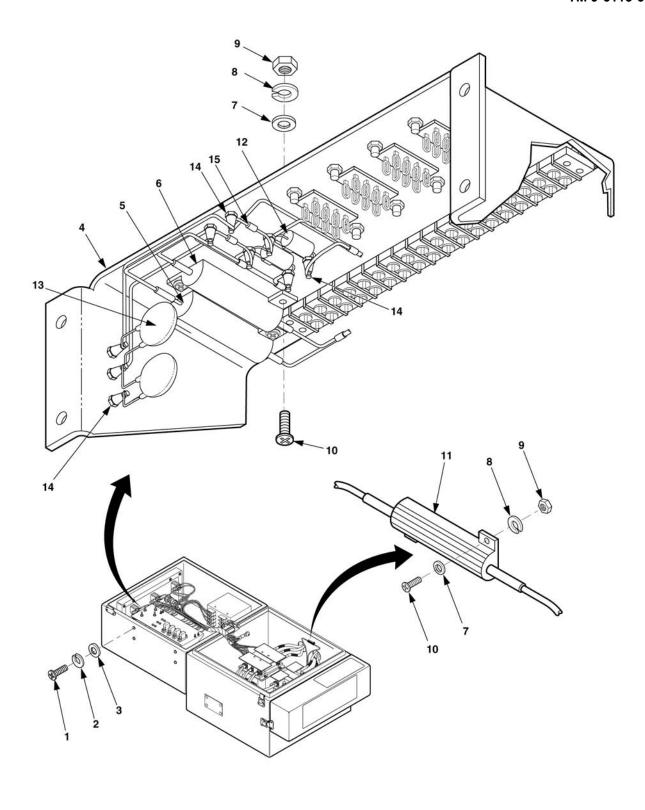


Figure 5-10. Resistor Maintenance.

5-21

## INSTALLATION

- 1. Install resistor (5, 6, or 11), two screws (10), flat washers (7), lock washers (8), and nuts (9).
- 2. Solder leads to resistor.
- 3. Position relay board assembly (4) and install four flat washers (3), lock washers (2), and screws (1).

## **APPENDIX A**

## **REFERENCES**

## A-1 SCOPE.

This appendix lists all forms, regulations, pamphlets, specifications, standards, technical manuals, lubrication orders, and field manuals referenced in this TM.

## A-2 FORMS.

Recommended Changes to Publications and Blank Forms	DA Form 2028
Recommended Changes to Equipment Technical Publications	DA Form 2028-2
Depreservation Guide for Vehicles and Equipment	. DA Form 2258
Equipment Inspection and Maintenance Worksheet	DA Form 2404
Ulls generated Equipment Maintenance and Inspection Worksheet	DD Form 5988-E
Packaging Improvement Report	DD Form 6
Product Quality Deficiency Report	SF 368
A-3 ARMY REGULATIONS.	
Dictionary of United States Army Terms	AR 310-25
A-4 DEPARTMENT OF THE ARMY PAMPHLETS.	
The Army Maintenance Management System (TAMMS)	DA PAM 738-750
A-5 TECHNICAL BULLETINS Specification List of Standard Liquid Fuels, Lubricants, Preservatives, and Related Products Authorized for Use by US Army.	TB 703-1
A-6 TECHNICAL MANUALS.	
Operators, Unit, and Direct Support Maintenance Manual, 3kW Tactical Quiet Generator Set, MEP-831A (60 Hz) (NSN 6115-01-285-3012) MEP-832A (400 Hz) (NSN 6115-01-287-2431)	TM 9-6115-639-13
Unit and Direct Support Maintenance Repair Parts and Special Tools For, 3kW Tactical Quiet Generator Set, MEP-831A (60 Hz) (NSN 6115-01-285-3012), MEP-832A (400 Hz) (NSN 6115-01-287-2431)	TM 9-6115-639-23P
Unit, Direct Support, and Generator Support Maintenance Manual, Diesel Engine Assembly, Model L70AE-DEGFR, (NSN 2815-01-465-5993)	TM 9-2815-257-24
Unit, Direct Support and General Support Maintenance Repair Parts and, Special Tools List For, Diesel Engine, Model L70AE-DEGFR, (NSN 2815-01-465-5993)	TM 9-2815-257-24P

Operators, Organizational, Direct Support and General Support Maintenance Manual,	
(Including Repair Parts and Special Tools List),	
Trailer: Cargo 3/4-Ton, 2-Wheel,	
M101 (NSN 2330-00-738-9509)	
M101A1 (NSN 2330-00-898-6779)	
M101A2 (NSN 2330-01-101-4697)	
Chassis: Trailer 3/4-Ton, 2-Wheel,	
M116 (NSN 2330-00-542-5987)	
M116A1 (NSN 2330-00-898-6780)	
M116A2 (NSN 2330-01-101-8434)	
Chassis: Trailer 1 Ton, 2-Wheel,	
M116A3 (NSN 2330-01-359-0080)	TM 9-2330-202-14&P
A-7 FIELD MANUALS.	
Theater of Operations Electrical Systems	FM 5-424
First Aid	FM 21-11
A-8 COMMON TABLE OF ALLOWANCES.	
Army Medical Department Expendable/Durable Items	
Expendable/Durable Items	CTA 50-790

#### **APPENDIX B**

#### MAINTENANCE ALLOCATION CHART

#### Section I. INTRODUCTION

#### **B-1 GENERAL**

- **B-1.1** This section provides a general explanation of all maintenance and repair functions authorized at various maintenance levels.
- **B-1.2** The Maintenance Allocation Chart (MAC) in section II designates overall authority and responsibility for the performance of maintenance functions on the identified end item or component. The application of the maintenance functions to the end item or component will be consistent with the capacities and capabilities of the designated maintenance levels.
- **B-1.3** Section III lists the tools and test equipment (both special tools and common tool sets) required for each maintenance function as referenced from section II.
- **B-1.4** Section IV contains supplemental instructions and explanatory notes for a particular maintenance function.

#### **B-2** MAINTENANCE FUNCTIONS.

Maintenance functions will be limited to and defined as follows:

- **B-2.1** <u>Inspect</u>. To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination (e.g., by sight, sound, or feel).
- **B-2.2** Test. To verify serviceability by measuring the mechanical, pneumatic, hydraulic, or electrical characteristics of an item and comparing those characteristics with prescribed standards.
- **B-2.3** Service. Operations required periodically to keep an item in proper operating condition, i.e., to clean (includes decontaminate, when required), to preserve, to drain, to paint, or to replenish fuel, lubricants, chemical fluids, or gases.
- **B-2.4** Adjust. To maintain or regulate, within prescribed limits, by bringing into proper or exact position, or by setting the operating characteristics to specified parameters.
- **B-2.5** Align. To adjust specified variable elements of an item to bring about optimum or desired performance.
- **B-2.6** <u>Calibrate</u>. To determine and cause corrections to be made or to be adjusted on instruments or test, measuring, and diagnostic equipment used in precision measurement. Consists of comparisons of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.

- **B-2.7** Remove/Install. To remove and install the same item when required to perform service or other maintenance functions. Install may be the act of emplacing, seating, or fixing into position a spare, repair part, or module (component or assembly) in a manner to allow the proper functioning of an equipment or system.
- **B-2.8** Replace. To remove an unserviceable item and install a serviceable counterpart in its place. "Replace" is authorized by the MAC and assigned maintenance level is shown as the third position code of the Source, Maintenance and Recoverability (SMR) code.
- **B-2.9** Repair. The application of maintenance services<sup>1</sup>, including fault location/troubleshooting<sup>2</sup>, removal/installation, and disassembly/assembly<sup>3</sup> procedures, and maintenance actions<sup>4</sup> to identify troubles and restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.
- **B-2.10** Overhaul. That maintenance effort (service/action) prescribed to restore an item to a completely serviceable/operational condition as required by maintenance standards in appropriate technical publication. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.
- **B-2.11** Rebuild. Consists of those services/actions necessary for the restoration of unserviceable equipment to a like new condition in accordance with original manufacturing standards. Rebuild is the highest degree of materiel maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurement (e.g., hour/miles) considered in classifying Army equipment/components.
- B-3 EXPLANATION OF COLUMNS IN THE MAC. SECTION II.
- **B-3.1** <u>Column (1), Functional Group Number</u>. Column (1) lists Functional Group Code (FGC) numbers, the purpose of which is to identify maintenance significant components, assemblies, subassemblies, and modules with the Next Higher Assembly (NHA).
- **B-3.2** <u>Column (2), Component/Assembly</u>. Column (2) contains the item names of components, assemblies, subassemblies, and modules for which maintenance is authorized.
- **B-3.3** Column (3), Maintenance Function. Column (3) lists the functions to be performed on the item listed in column (2). (For detailed explanation of these functions, refer to "Maintenance Functions" outlined in paragraph B-2.)
- B-3.4 <u>Column (4), Maintenance Level</u>. Column (4) specifies each level of maintenance authorized to perform each function listed in column (3), by indicating work time required (expressed as man-hours in whole hours or decimals) in the appropriate sub column. This work time figure represents the active time required to perform that maintenance function at the indicated level of maintenance. If the number or complexity of the tasks within the listed maintenance function varies at different maintenance levels, appropriate work time figures will be shown for each level. The work time figure represents the average time required to restore an item (assembly, subassembly, component, module, end item, or system) to a serviceable condition under typical field operating conditions. This time includes preparation time (including any necessary disassembly/assembly time), troubleshooting/fault location time, and quality assurance/quality control time in addition to the time required to perform the specific tasks identified

<sup>&</sup>lt;sup>1</sup>Services - inspect, test, service, adjust, align, calibrate, and/or replace.

<sup>&</sup>lt;sup>2</sup>Fault location/troubleshooting- The process of investigating and detecting the cause of equipment malfunctioning; the act of isolating a fault within a system or Unit Under Test (UUT).

<sup>&</sup>lt;sup>3</sup>Disassembly/assembly - The step-by-step breakdown (taking apart) of a spare/functional group coded item to the level of its least component (i.e., assigned an SMR code) for the level of maintenance under consideration (i.e., identified as maintenance significant).

<sup>&</sup>lt;sup>4</sup>Actions - Welding, grinding, riveting, straightening, facing, machining, and/or resurfacing.

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for the maintenance functions authorized in the MAC.	The symbol designations for the various maintenance levels
are as follows:	

C	Operator or crew maintenance
O	Unit maintenance
F	Direct support maintenance
L	Specialized repair activity (SRA)
Н	General support maintenance
D	Depot maintenance

- **B-3.5** Column (5) Tools and Equipment Reference Code. Column (5) specifies, by code, those common tool sets (not individual tools), common Test, Measurement and Diagnostic Equipment (TMDE), and special tools, special TMDE and special support equipment required to perform the designated function. Codes are keyed to the entries in the tools and test equipment table.
- **B-3.6** Column (6) Remarks Code. When applicable, this column contains a letter code, in alphabetical order, which is keyed to the remarks table entries.
- B-4 EXPLANATION OF COLUMNS IN TOOL AND TEST EQUIPMENT REQUIREMENTS, SECTION III.
- **B-4.1** <u>Column (1) Tool or Test Equipment Reference Code</u>. The tool or test equipment reference code correlates with a code used in the column (5), Section II of the MAC.
- **B-4.2** Column (2) Maintenance Level. The lowest level of maintenance authorized to use the tool or test equipment.
- B-4.3 Column (3) Nomenclature. Name or identification of the tool or test equipment.
- **B-4.4** Column (4) National Stock Number. The National Stock Number (NSN) of the tool or test equipment.
- **B-4.5** Column (5) Tool Number. The manufacturers part number.
- B-5 EXPLANATION OF COLUMNS IN REMARKS, SECTION IV.
- B-5.1 Column (1) Remarks Code. The code recorded in Column (6), Section II of the MAC.
- **B-5.2** Column (2) Remarks. This column lists information pertinent to the maintenance function being performed as indicated in the MAC, Section II.

<sup>&</sup>lt;sup>5</sup>The "L" maintenance level is not included in Section II, column (4) of the MAC. Functions to this level of maintenance are identified by a work time figure in the "H" column of column (4), and an associated reference code is used in the REMARKS column (6). This code is keyed to the remarks and the SRA complete repair application is explained there.

## Section II. MAINTENANCE ALLOCATION CHART FOR POWER PLANTS AN/MJQ-42 AND AN/MJQ-43

(1)	(2)	(3)		(4) MAINTENANCE LEVEL			(5)	(6)	
			U	NIT	DIRECT SUPPORT	GENERAL SUPPORT	DEPOT	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	С	0	F	н	D	EQUIPMENT REFERENCE CODE	REMARKS CODE
00	Power Plant	INSPECT	0.2						Α
01	Trailer	INSPECT	0.2	0.2					E
0101	Modification Kit, Electrical Power and	INSPECT REPLACE	0.1	0.1 0.5				1	F
	Distribution Equipment	REPAIR		0.5				1,2	С
010101	Fender, Curbside	INSPECT		.01				1	E,F
		REPLACE		1.5				1	A,E
		REPAIR			2.0			1,4	
		REMOVE/		1.5	2.0			1	F
		INSTALL						1	
01010101	Bracket, Fire Extinguisher	INSPECT	0.1	0.1					Α
		REPLACE		0.2				1	F
		REMOVE/		0.2				1	
04040400	<b></b>	INSTALL							. 5
01010102	Mount, Antenna	INSPECT REPLACE	0.1	0.2					A,B
		REMOVE/		0.2					
		INSTALL		0.2					
01010103	Support, Mast	INSPECT	0.1	0.1					A,B
01010100	Cupport, Mast	REPLACE	0.1	0.2					7,,5
		REMOVE		0.2					
		INSTALL							
010102	Fender, Roadside	INSPECT		.01				1	A,E
	,	REPLACE		1.5				1	E,F
		REPAIR			2.0			1,4	
		REMOVE/		1.5	2.0			1	F
		INSTALL						1	F

# Section II. MAINTENANCE ALLOCATION CHART (Cont'd) FOR POWER PLANTS AN/MJQ-42 AND AN/MJQ-43

(1)	(2)	(3)			(4) MAINTENAN	CE LEVEL		(5)	(6)
			U	NIT	DIRECT SUPPORT	GENERAL SUPPORT	DEPOT	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	С	0	F	н	D	EQUIPMENT REFERENCE CODE	REMARKS CODE
01010201	Bracket, Fire Extinguisher	INSPECT	0.1	0.1					Α
		REPLACE		0.1				1	
		REMOVE/		0.1				1	F
		INSTALL							
01010202	Support, Mast	INSPECT	0.1	0.1					A,B
		REPLACE		0.1					
		REMOVE/		0.1					
		INSTALL							
01010203	Mount, Antenna	INSPECT	0.1	0.1					A,B
		REPLACE		0.1					
		REMOVE/		0.1					
		INSTALL							
010103	Box, Accessory	INSPECT	0.1						Α
	,	REPLACE		0.2				1	F
		REPAIR		0.5				1,2	
		REMOVE/		0.2				1	
		INSTALL							
010104	Rails, Mounting	INSPECT	0.1						Α
		REPLACE			1.5				
		REMOVE/			1.5				
		INSTALL							
010105	Platform, Trailer	INSPECT	0.1						Α
		REPLACE		0.7					F
		REMOVE/		0.7					F
		INSTALL							
010106	Jack, Leveling-Support	INSPECT	0.1						Α
		SERVICE		0.2				1	Α
		REMOVE/		0.3				1	
		INSTALL							
		REPAIR		0.8				1	
		REPLACE		0.3				1	F

## Section II. MAINTENANCE ALLOCATION CHART (Cont'd) FOR POWER PLANTS AN/MJQ-42 AND AN/MJQ-43

(1)	(2)	(3)			(4) MAINTENAN	CE LEVEL		(5)	(6)
			U	NIT	DIRECT SUPPORT	GENERAL SUPPORT	DEPOT	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	С	О	F	н	D	EQUIPMENT REFERENCE CODE	REMARKS CODE
0102	Chassis	INSPECT	0.2	0.2					A,E
02	Rack, Stowage	INSPECT	0.1						A,B
		REPLACE		0.5					
		REPAIR		0.5					
		REMOVE/		0.5					
2004	5 I O	INSTALL	0.4						
0201	Fender Cross	INSPECT	0.1	٥.					A,B
		REPLACE		0.5					
		REMOVE/ INSTALL		0.5 0.5					
0202	Plate, Backing	INSPECT	0.1	0.5					A,B
0202	Flate, backing	REPLACE	0.1	0.2					A,B
		REMOVE/		0.2					
		INSTALL		0.2					
03	Plate ID	INSPECT	0.1	0.2					Α
	. 10.10	REPLACE	0	0.2					
		REMOVE/		0.2					
		INSTALL		0.2					
04	Generator, 3kW	INSPECT	0.5	0.1	0.4				Α
		TEST	0.1		0.8				С
		SERVICE	0.1	0.1					A,C,D
		ADJUST		0.5					С
		REPAIR		0.8	1.2				С
		REMOVE/			0.5				D
		INSTALL							
05	Reel, Cable	INSPECT	0.1						A,B
		REPLACE		0.2					
		REPAIR		0.5					В
		REMOVE/		0.2					
		INSTALL							
0501	Assembly, Hold-Down	INSPECT	0.1						A,B
		REPLACE		0.1					
		REMOVE/		0.1					
0500	Decelert Decel	INSTALL							A D
0502	Bracket, Reel	INSPECT REPLACE	0.1	0.2					A,B
		REPLACE REMOVE/		0.2 0.2					
		INSTALL		0.2					
		HOTALL							
I			l	l					

## Section II. MAINTENANCE ALLOCATION CHART (Cont'd) FOR POWER PLANTS AN/MJQ-42 AND AN/MJQ-43

(1)	(2)	(3)		(4) MAINTENANCE LEVEL			(5)	(6)	
			U	NIT	DIRECT SUPPORT	GENERAL SUPPORT	DEPOT	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	С	0	F	н	D	EQUIPMENT REFERENCE CODE	REMARKS CODE
06	Assembly, Switch Box	INSPECT	0.1	0.1					Α
		REPLACE		0.5				1	F
		REPAIR		0.3				1,2	
		REMOVE/ INSTALL		0.5				1	
0601	Assembly, Relay Board	TEST			1.0			1,3	
	, 1000, 101a, 20a.a	REPAIR			1.0			1,3	
060101	Relays	TEST			0.2			1,3	
		REMOVE/			0.1			1	
		INSTALL							
		REPLACE			0.1			1	F
0602	Relay, Permissive	TEST			1.0			1,3	
	Paralleling	REMOVE/			0.5			1	
		INSTALL			0.5			4	
0000	Limbte/Leanne	REPLACE		0.2	0.5			1	F
0603	Lights/Lamps	TEST REMOVE/	0.2	0.2				1,2 1	F
		INSTALL	0.2					'	
		REPAIR		0.3				1,2	
		REPLACE		0.2				1	F
0604	Switches	TEST		0.2				1,2	
		REMOVE/		0.2				1	
		INSTALL							
		REPLACE		0.2				1	F
0605	Leads/Harnesses	TEST			0.3			1,3	
		REMOVE/			0.4			1	
		INSTALL						4.0	
		REPAIR REPLACE			0.9 0.4			1,3 1	_
0606	Torminal Load		0.1	0.4	0.4			'	F
0000	Terminal Load	INSPECT REMOVE/	0.1	0.1 0.5				1	Α
		INSTALL		0.5				'	
		REPAIR		0.2				1	
		REPLACE		0.5				1	F
0607	Contactor	TEST			0.2			1,3	
		REMOVE/			0.5			1	
		INSTALL							
		REPLACE			0.5			1	F
0608	Resistors	TEST			0.2			1,3	
		REPLACE			0.4			1	

## Section II. MAINTENANCE ALLOCATION CHART (Cont'd) FOR POWER PLANTS AN/MJQ-42 AND AN/MJQ-43

(1)	(2)	(3)			(4) MAINTENAN	CE LEVEL		(5)	(6)
			UI	NIT	DIRECT SUPPORT	GENERAL SUPPORT	DEPOT	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	С	0	F	Н	D	EQUIPMENT REFERENCE CODE	REMARKS CODE
0609 0610 0611	Cable W1  Cable W2  Cable W9	INSPECT TEST REPLACE REMOVE/ INSTALL REPAIR INSPECT TEST REPLACE REMOVE/ INSTALL REPAIR INSPECT TEST INSTALL REPAIR INSPECT TEST		0.1 0.3 0.5 0.5 1.1 0.1 0.3 0.5 0.5 1.1 0.1 0.3				1,2 1 1,2 1,2 1 1,2 1,2	A F G A F
0612	Cable W11	REPLACE REMOVE/ INSTALL REPAIR INSPECT TEST REPLACE REMOVE/ INSTALL REPAIR		0.5 0.5 1.1	0.1 0.3 0.5 0.5			1 1,2 1,2 1 1 1,2	G A F

## Section III. TOOLS AND TEST EQUIPMENT REQUIREMENTS FOR POWER PLANTS AN/MJQ-42 AND AN/MJQ-43

(1) TOOL OR TEST EQUIPMENT REF CODE	(2) MAINTENANCE LEVEL	(3) NOMENCLATURE	(4) NATIONAL/NATO STOCK NUMBER	(5) TOOL NUMBER
1	0	TOOL KIT, GENERAL MECHANIC'S	5180-00-177-7033	SC 5180-95-CL-N26
2	O, F	SHOP EQUIPMENT, AUTOMOTIVE MAINTENANCE AND REPAIR: ORGANIZATIONAL MAINTENANCE COMMON #1, LESS POWER	4910-00-754-0654	SC 4910-95-CL-A74
3	F	SHOP EQUIPMENT, ELECTRICAL REPAIR, SEMITRAILER MOUNTED	4940-00-294-9517	SC 4940-95-CL-B05
4	F	TOOL KIT, BODY AND FENDER REPAIR	5180-00-357-7731	SC 5180-95-CL-N62

## **Section IV. REMARKS**

(1) REMARKS CODE	(2) REMARKS
А	Preventive Maintenance Checks and Services
В	AN/MJQ-42 Only
С	Refer to TM 9-6115-639-13 for generator set operator maintenance.
D	Refer to TM 9-6115-639-13 for generator set unit and higher level maintenance.
E	Refer to TM 9-2330-202-14&P for 1ton trailer maintenance.
F	Replace is the same as remove and install.
G	Refer to Appendix F for repair.

### **APPENDIX C**

## UNIT AND DIRECT SUPPORT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST (RPSTL)

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#### Section I. INTRODUCTION

#### C-1 SCOPE.

This RPSTL lists and authorizes spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMDE); and other special support equipment required for performance of unit and direct support maintenance of the AN/MJQ-42 and AN/MJQ-43 Power Plants. It authorizes the requisitioning, issue, and disposition of spares, repair parts, and special tools as indicated by the source, maintenance, and recoverability (SMR) codes.

#### C-2 GENERAL.

In addition to Section I, Introduction, this RPSTL is divided into the following sections:

a. <u>Section II. Repair Parts List</u>. A list of spares and repair parts authorized by this RPSTL for use in the performance of maintenance. The list also includes parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending alphanumeric sequence, with the parts in each group listed in ascending figure and item number sequence. Sending units, brackets, filters, and bolts are listed with the component they mount on. Bulk materials are listed by item name FIG. BULK at the end of the section. Repair parts kits are listed separately in their own functional group. Repair parts for reparable special tools are also listed within Section II. Items listed

are shown on the associated illustrations.

- b. <u>Section III. Special Tools List</u>. A list of special tools, special TMDE, and special support equipment authorized by this RPSTL (as indicated by Basis of Issue (BOI) information in the DESCRIPTION AND USABLE ON CODE (UOC) column). Tools that are components of common tool sets and/or Class VII are not listed.
- c. <u>Section IV. Cross Reference Indexes</u>. There are three cross-reference indexes in this RPSTL: The National Stock Number (NSN) Index lists, in National Item Identification Number (NIIN) sequence, all National stock numbered items appearing in the listings followed by a list in alphanumeric sequence of all part numbers appearing in the listing. The Part Number Index lists part numbers which are cross-referenced to each National Stock Number, and each illustration figure and item number appearance. The Figure and Item Number index lists figure and item numbers in alphanumeric sequence and cross-references NSN, CAGEC and part number.

## C-3 EXPLANATION OF COLUMNS IN THE REPAIR PARTS LIST AND SPECIAL TOOLS LIST (Section II and Section III).

ITEM NO. (Column (1)). Indicates the number used to identify items called out in the illustration.

SMR CODE (Column (2)). The SMR code containing supply/requisitioning information, maintenance level authorization criteria, and disposition instruction, as shown in the following breakout:

Source Code XX		Maintenance Code XX				
1st two positions:	3rd position	4th position	5th position			
How to get an item.	Who can install, replace or use the item.	Who can do complete repair* on the item.	Who determines disposition action on unserviceable items.			

<sup>\*</sup>Complete Repair: Maintenance capacity, capability, and authority to perform all corrective maintenance tasks of the "Repair" function in a use/user environment in order to restore serviceability to a failed item.

Source Code. The source code tells you how you get an item needed for maintenance, repair, or overhaul of an end item/equipment. Explanations of source codes follow:

Source Code	Application/Explanation
PA PB PC PD PE PF PG	Stock items; use the applicable NSN to requisition/request items with these source codes. They are authorized to the level indicated by the code entered in the 3 <sup>rd</sup> position of the SMR code.
. •	NOTE
	Items coded PC are subject to deterioration.
KD KF KB	Items with these codes are not to be requested/requisitioned individually. They are part of a kit which is authorized to the maintenance level indicated in the 3 <sup>rd</sup> position of the SMR code. The completed kit must be requisitioned and applied.
MO-Made at unit/ AVUM level MF-Made at DS/ AVIM level MH-Made at GS Level ML-Made at SRA MD-Made at depot	Items with these codes are not to be requisitioned/requested individually. They must be made from bulk material which is identified by the P/N in the DESCRIPTION AND USABLE ON CODE (UOC) column and listed in the bulk material group of the RPSTL. If the item is authorized to you by the 3 <sup>rd</sup> position of the SMR code, but the source code indicates it is made at higher level, order the item from the higher level of maintenance.
AO-Assembled by Unit/AVUM level AF-Assembled by DS/AVIM level AH-Assembled by GS/level AL-Assembled by SRA AD-Assembled by Depot	Items with these codes are not to be requested/requisitioned individually. The parts that make up the assembled item must be requisitioned or fabricated and assembled at the level of maintenance indicated by the source code. If the 3 <sup>rd</sup> position of the SMR code authorizes you to replace the item, but the source code indicates the item is assembled at a higher level, order the item from the higher level of maintenance.
XA	Do not requisition an "XA" coded item. Order the next higher assembly. (Refer to NOTE below.)
ХВ	If an item is not available from salvage, order it using the CAGEC and P/N.

XC	Installation drawing, diagram, instruction sheets, field service drawings; identified by manufacturer's P/N.
XD	Item is not stocked. Order an XD-coded item through normal supply channels using the CAGEC and P/N given, if no NSN is available.

#### **NOTE**

Cannibalization or controlled exchange, when authorized, may be used as a source of supply for items with the above source codes except for those items source coded "XA" or those aircraft support items restricted by the requirements of AR 750-1.

Maintenance Code. Maintenance codes tell you the level(s) of maintenance authorized to use and repair support items. The maintenance codes are entered in the third and fourth positions of the SMR code as follows:

Third Position. The maintenance code entered in the third position tells you the lowest maintenance level authorized to remove, replace, and use an item. The maintenance code entered in the third position will indicate authorization to the following levels of maintenance.

Maintenance Code	Application/Explanation
С	- Crew or operator maintenance done within unit/AVUM maintenance.
Ο	– Unit level/AVUM maintenance can remove, replace, and use the item.
F	- Direct support/AVIM maintenance can remove, replace, and use the item.
Н	- General support maintenance can remove, replace, and use the item.
L	- Specialized repair activity can remove, replace, and use the item.
D	<ul> <li>Depot can remove, replace, and use the item.</li> </ul>

Fourth Position. The maintenance code entered in the fourth position tells you whether or not the item is to be repaired and identifies the lowest maintenance level with the capability to do complete repair (perform all authorized repair functions).

#### **NOTE**

Some limited repair may be done on the item at a lower level of maintenance, if authorized by the Maintenance Allocation Chart (MAC) and SMR codes.

Maintenance Code	Application/Explanation
0	<ul> <li>Unit/AVUM is the lowest level that can do complete repair of the item.</li> </ul>
F	- Direct support/AVIM is the lowest level that can do complete repair of the item.
Н	- General support is the lowest level that can do complete repair of the item.
L	- Specialized repair activity is the lowest level that can do complete repair of the item.
D	<ul> <li>Depot is the lowest level than can do complete repair of the item.</li> </ul>

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- Z Non-repairable. No repair is authorized.
- B No repair is authorized. No parts or special tools are authorized for maintenance of "B" coded item. However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

Recoverability Code. Recoverability codes are assigned to items to indicate the disposition action on unserviceable items. The recoverability code is shown in the fifth position of the SMR code as follows:

#### Application/Explanation

## Recoverability Code

- Non-reparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in the 3rd position of SMR code.
- O Reparable item. When uneconomically reparable, condemn and dispose of the item at the unit level.
- F Reparable item. When uneconomically reparable, condemn and dispose of the item at the direct support level.
- H Reparable item. When uneconomically reparable, condemn and dispose of the item at the general support level.
- Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item are not authorized below depot level.
- Reparable item. Condemnation and disposal not authorized below Specialized Repair Activity (SRA).
- A Item requires special handling or condemnation procedures because of specific reasons (such as precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.

NSN (Column (3)). The NSN for the item is listed in this column.

CAGE (Column (4)). The Commercial and Government Entity Code (CAGEC) is a five-digit code which is used to identify the manufacturer, distributor, or Government agency/activity that supplies the item.

PART NUMBER (Column (5)). Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications, standards, and inspection requirements to identify an item or range of items.

#### **NOTE**

When you use an NSN to requisition an item, the item you receive may have a different P/N from the number listed.

DESCRIPTION AND USABLE ON CODE (UOC) (Column (6)). This column includes the following information:

- 1. The federal item name, and when required, a minimum description to identify the item.
- 2. P/Ns of bulk materials are referenced in this column in the line entry to be manufactured or fabricated.

- 3. Hardness Critical Item (HCI). A support item that provides the equipment with special protection from electromagnetic pulse (EMP) damage during a nuclear attack.
- 4. The statement END OF FIGURE appears just below the last item description in column (6) for a given figure in both the repair parts list and special tools list.

QTY (Column (7)). The QTY (quantity per figure) column indicates the quantity of the item used in the breakout shown on the illustration/figure, which is prepared for a functional group, subfunctional group, or an assembly. A "V" appearing in this column instead of a quantity indicates that the quantity is variable and quantity may change from application to application.

#### C-4 EXPLANATION OF CROSS-REFERENCE INDEXES AND COLUMNS (Section IV).

1. National Stock Number (NSN) Index.

STOCK NUMBER Column. This column lists the NSN in National identification number (NIIN) sequence. The NIIN consists of the last nine digits of the NSN.

NSN (<u>e.g., 5385-01-574-1476)</u> NIIN When using this column to locate an item, ignore the first four digits of the NSN. However, the complete NSN should be used when ordering items by stock number.

FIG. Column. This column lists the number of the figure where the item is identified/located. The figures are in numerical order in the repair parts list and special tools list.

ITEM Column. The item number identifies the item associated with the figure listed in the adjacent FIG. Column. This item is also identified by the NSN listed on the same line.

2. Part Number (P/N) Index. P/Ns in this index are listed by in ascending alphanumeric sequence (vertical arrangement of letter and number combinations which places the first letter or digit of each group in order A through Z, followed by the numbers 0 through 9 and each following letter or digit in like order).

CAGEC Column. The Commercial and Government Entity Code (CAGEC) is used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

PART NUMBER Column. Indicates the P/N assigned to the item.

STOCK NUMBER Column. This column lists the NSN for the item.

FIG. Column. This column lists the number of the figure where the item is identified/located in the repair parts list and special tools list.

ITEM Column. The item number is the number assigned to the item as it appears in the figure referenced in the adjacent figure number column.

3. Figure Number and Item Number Indexes.

FIG. Column. This column lists the number of the figure where the item is identified/located in the repair parts list and special tools list.

ITEM column. The item number is that number assigned to the item as it appears in the figure referenced in the adjacent figure number column.

STOCK NUMBER Column. This column lists the NSN for the item.

CAGEC Column. The Commercial and Government Entity Code (CAGEC) is used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

PART NUMBER Column. Indicates the P/N assigned to the item.

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#### C-5 SPECIAL INFORMATION.

UOC. The UOC appears in the lower left corner of the Description Column heading. Usable on codes are shown as "UOC: ..." in the Description Column (justified left) on the first line under the applicable item/nomenclature. Uncoded items are applicable to all models. Identification of the UOCs used in the RPSTL are:

<u>Code</u>	<u>Used On</u>
YBX	AN/MJQ-42
YBY	AN/MJQ-43

- 1. Fabrication Instructions. Bulk materials required to manufacture items are listed in the bulk material functional group of this RPSTL. Part numbers for bulk materials are also referenced in the Description column of the line item entry for the item to be manufactured/fabricated. Detailed fabrication instructions for items source coded to be manufactured or fabricated are found in Appendix F.
- 2. Index Numbers. Items which have the word BULK in the figure column will have an index number shown in the item number column. This index number is a cross-reference between the NSN / P/N index and the bulk material list in the repair parts list.

#### C-6 HOW TO LOCATE REPAIR PARTS.

1. When NSNs or P/Ns Are Not Known.

First. Using the table of contents, determine the assembly group to which the item belongs. This is necessary since figures are prepared for assembly groups and subassembly groups, and lists are divided into the same groups.

Second. Find the figure covering the functional group or subfunctional group to which the item belongs.

Third. Identify the item on the figure and note the number(s).

Fourth. Look in the repair parts list for the figure and item numbers. The NSNs and part numbers are on the same line as the associated item numbers.

2. When NSN is Known.

First. If you have the NSN, look in the STOCK NUMBER column of the NSN index. The NSN is arranged in NIIN sequence. Note the figure and item number next to the NSN.

Second. Turn to the figure and locate the item number. Verify that the item is the one you are looking for.

3. When P/N is Known.

First. If you have the P/N and not the NSN, look in the PART NUMBER column of the P/N index. Identify the figure and item number.

Second. Look up the item on the figure in the applicable repair parts list.

#### C-7 ABBREVIATIONS.

#### Abbreviation Explanation

Refer to glossary at the back of this manual.

### Section II. REPAIR PARTS LIST

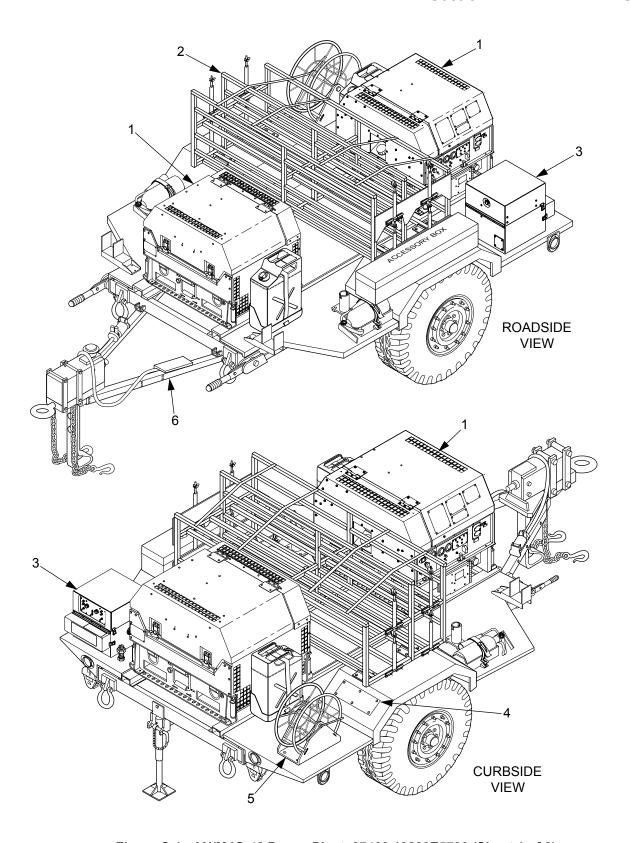


Figure C-1. AN/MJQ-42 Power Plant, 97403 13229E5720 (Sheet 1 of 2)

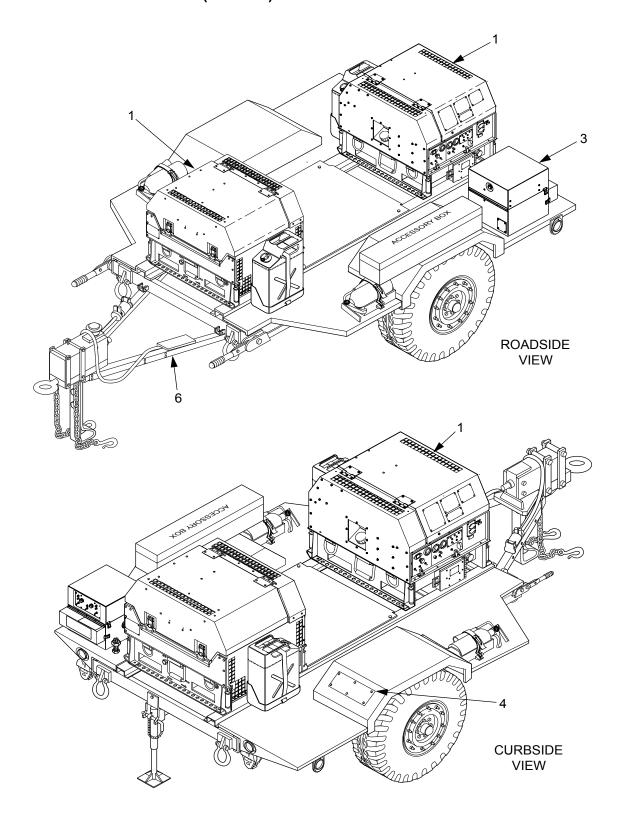


Figure C-1. AN/MJQ-43 Power Plant, 97403 13229E5730 (Sheet 2 of 2)

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 00 FIG. C-1 AN/MJQ-42 POWER PLANT, 97403 13229E5720; AN/MJQ- 43 POWER PLANT, 97403, 13229E5730	
1	PDFHH	6115-01-285-3012	30554	MEP 831A	GENERATOR SET, 3kW (REFER TO TM 9-6115-639-13 FOR INSTALLATION) (SEE FIGURE C-18 FOR PARTS BREAKDOWN)	2
2	XBOOO		97403	13228E9902	STOWAGE RACK ASSEMBLY (AN/MJQ-42 ONLY) UOC: YBX (SEE FIGURE C-16 FOR PARTS BREAKDOWN)	1
3	XBFFF		97403	13230E6950	SWITCH BOX ASSEMBLY (SEE FIGURE C-20 FOR PARTS BREAKDOWN)	1
4	MFOZZ		97403	13229E5666-11	PLATE, IDENT, TRANSPORT UOC: YBX (SEE FIGURE C-17 FOR PARTS BREAKDOWN)	1
4	MFOZZ		97403	13229E5666-12	PLATE, IDENT, TRANSPORT UOC: YBY (SEE FIGURE C-17 FOR PARTS BREAKDOWN)	1
5	AFOOO		97403	13217E2062A	CABLE REEL ASSEMBLY (AN/MJQ-42 ONLY) UOC: YBX (SEE FIGURE C-19 FOR PARTS BREAKDOWN)	1
6	PBFFG	6115-01-464-0224	97403	13230E6832	TRAILER, GENERATOR (REFER TO TM 9-2330-205- 14&P FOR INSTALLATION) (SEE FIGURE C-2 FOR PARTS BREAKDOWN)	1
					END OF FIGURE	

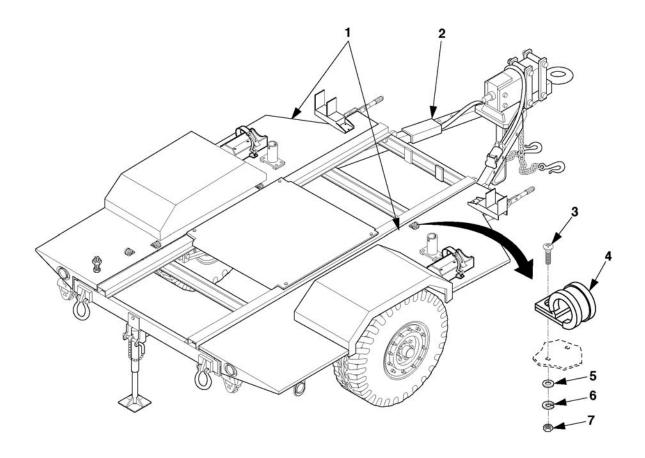


Figure C-2. Trailer 97403 13230E6832

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 01	
					FIG. C-2 TRAILER, 97403 13230E6832	
1	XBOFF		97403	13230E6832A	MODIFICATION KIT, ELECTRICAL POWER AND DISTRIBUTION EQUIPMENT UOC: YBX (SEE FIGURE C-3)	1
1	XBOFF		97403	13230E6832B	MODIFICATION KIT, ELECTRICAL POWER AND DISTRIBUTION EQUIPMENT UOC: YBY (SEE FIGURE C-3)	1
2	XAFFF		97403	13229E5746-3	CHASSIS, TRAILER POW	1
3	PAOZZ	5305-01-406-1192	96906	MS51493-3	SCREW, MACHINE	4
4	PAOZZ	5340-01-169-3006	96906	MS21919WCG12	CLAMP, LOOP, CUSHIONE	4
5	PAOZZ	5310-01-386-0481	96906	MS51412-21	WASHER, FLAT	4
6	PAOZZ	5310-00-045-3296	96906	MS35338-43	WASHER, LOCK	4
7	PAOZZ	5310-00-988-2652	96906	MS35650-103	NUT, MACHINE, HEXAGON	4
					END OF FIGURE	

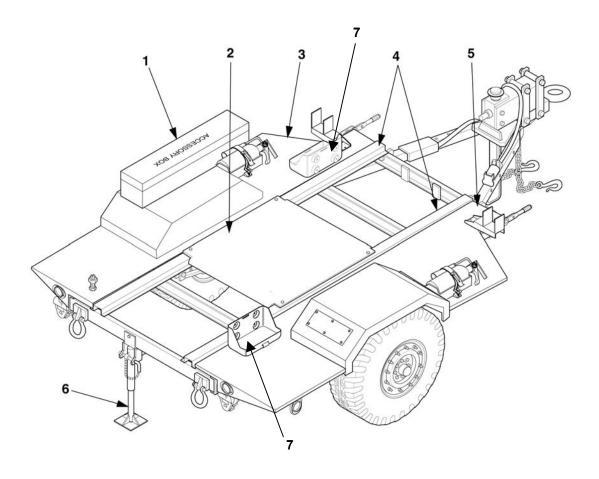


Figure C-3. Modification Kit, Electrical Power and Distribution Equipment, 97403 13230E6832A, 13230E6832B

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 0101  FIG. C-3 MODIFICATION KIT,  ELECTRICAL POWER  AND DISTRIBUTION  EQUIPMENT	
1	XBOOO	2540-01-417-8036	97403	13229E7946	BOX, ACCESSORIES STO (SEE FIGURE C-12 FOR PARTS BREAKDOWN)	1
2	XBOZZ		97403	13230E6753-4	PLATFORM, TRAILER (SEE FIGURE C-14 FOR PARTS BREAKDOWN)	1
3	XBFFF		97403	13229E5789A	PLATFORM-FENDER, ROA UOC: YBX (SEE FIGURE C-8 FOR PARTS BREAKDOWN)	1
3	XBFFF		97403	13229E5789B	PLATFORM-FENDER, ROA UOC: YBY (SEE FIGURE C-8 FOR PARTS BREAKDOWN)	1
4	XBFZZ		97403	13230E4586	RAIL, GENERATOR MOUNT (SEE FIGURE C-13 FOR PARTS BREAKDOWN)	2
5	XBFFF		97403	13229E5813A	PLATFORM-FENDER, CUR UOC: YBX (SEE FIGURE C-4 FOR PARTS BREAKDOWN)	1
5	XBFFF		97403	13229E5813B	PLATFORM-FENDER, CUR UOC: YBY (SEE FIGURE C-4 FOR PARTS BREAKDOWN)	1
6	PA000	2590-00-420-8929	97403	13214E1206-1	JACK, LEVELING-SUPPORT (SEE FIGURE C-15 FOR PARTS BREAKDOWN)	1
7	PAOZZ	2590-00-473-6331	97403	13211E4921	BRACKET ASSEMBLY	2
1					END OF FIGURE	

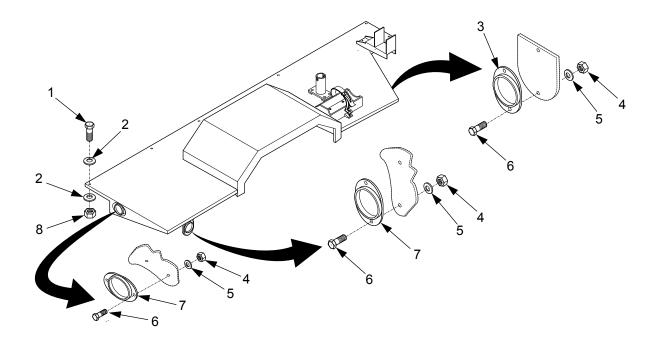


Figure C-4. Fender, Curbside, 97403 13229E5813A, 13229E5813B

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 010101 FIG. C-4 FENDER, CURBSIDE, 97403 13229E5813A, 13229E5813B	
1	PAOZZ	5305-00-725-2317	80204	B1821BH038C150N	SCREW, CAP, HEXAGON	9
2	PAOZZ	5310-01-280-5796	96906	MS27183-57	WASHER, FLAT	14
3	PAOZZ		97403	13228E9910	MOUNT, ANTENNA UOC: YBX (SEE FIGURE C-6 FOR PARTS BREAKDOWN)	1
4	PAOZZ	4210-00-595-4085	0KDP7	90270191	BRACKET, FIRE EXTING MOUNT, ANTENNA (SEE FIGURE C-5 FOR PARTS BREAKDOWN)	1
5	PAOZZ		97403	13229E5814	SUPPORT, MAST UOC: YBX (SEE FIGURE C-7 FOR PARTS BREAKDOWN)	1
6	PAOZZ	9905-00-202-3639	58526	AA52428-2	REFLECTOR, INDICATING	1
7	PAOZZ	5310-00-088-1251	81349	M45913/1-4CG5C	NUT, SELF-LOCKING, HEX	6
8	PAOZZ	5310-00-809-4058	96906	MS27183-10	WASHER, FLAT	6
9	PAOZZ	5305-00-071-2505	80204	B1821BH025C088N	SCREW, CAP, HEXAGON	6
10	PAOZZ	9905-00-205-2795	58526	AA52428-1	REFLECTOR, INDICATING	2
11	PAOZZ	5310-00-087-4652	81349	M45913/1-6CG5C	NUT, SELF-LOCKING, HEX	9
12	PAOZZ	2590-00-473-6331	97403	13211E4921	BRACKET ASSEMBLY	1
					END OF FIGURE	

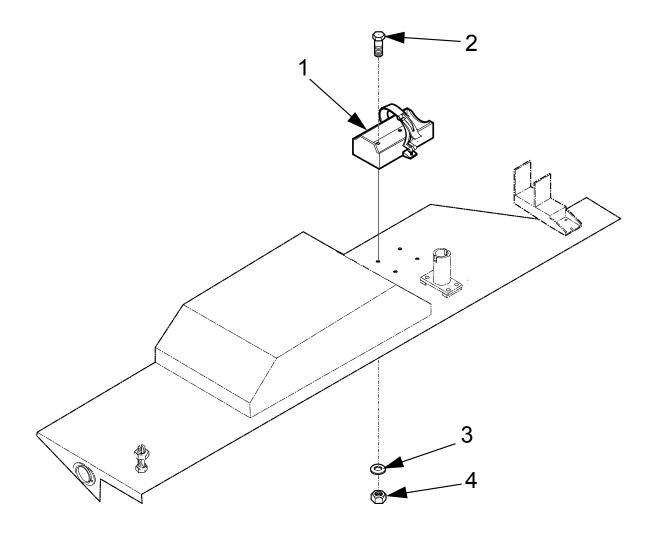


Figure C-5. Fire Extinguisher Bracket, 0KDP7 90270191

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 01010101 FIG. C-5 BRACKET, FIRE EXTINGUISHER, 0KDP7 90270191	
1	PAOZZ	5306-00-226-4827	80204	B1821BH031C100N	BOLT, MACHINE	4
2	PAOZZ	5310-00-044-6477	96906	MS51412-25	WASHER, FLAT	4
3	PAOZZ	5310-00-984-3806	81349	M45913/1-5CG5C	NUT, SELF-LOCKING, HEX	4
					END OF FIGURE	

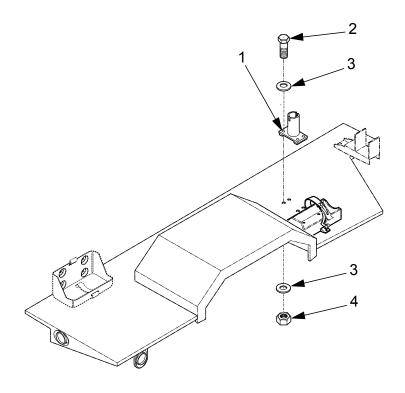


Figure C-6. Mount, Antenna, 97403 13228E9910

(1)	(2)	(3)	(4)	(5)	(6)	(7)
ITEM	SMR	NATIONAL	CAGE	PART	DESCRIPTION AND USABLE	QTY
NO	CODE	STOCK NUMBER		NUMBER	ON CODE (UOC)	
					GROUP 01010102	
					FIG. C-6 MOUNT, ANTENNA, 97403 13228E9910	
1	PAOZZ	5305-00-068-0509	80204	B1821BH025C125N	SCREW, CAP, HEXAGON H UOC: YBX	4
2	PAOZZ	5310-00-809-4058	96906	MS27183-10	WASHER, FLAT UOC: YBX	8
3	PAOZZ	5310-00-088-1251	81349	M45913/1-4CG5C	NUT, SELF-LOCKING, HEX UOC: YBX	4
					END OF FIGURE	

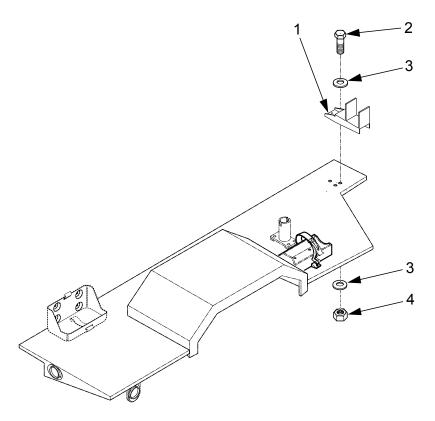


Figure C-7. Support, Mast, 97403 13229E5814

(1) ITEM	(2) SMR	(3) NATIONAL	(4) CAGE	(5) PART	(6) DESCRIPTION AND USABLE	(7) QTY
NO	CODE	STOCK NUMBER		NUMBER	ON CODE (UOC)	
					GROUP 01010103	
					FIG. C-7 SUPPORT, MAST, 97403 13229E5814	
1	PAOZZ	5305-00-725-2317	80204	B1821BH038C150N	SCREW, CAP, HEXAGON UOC: YBX	3
2	PAOZZ	5310-01-280-5796	96906	MS27183-57	WASHER, FLAT UOC: YBX	6
3	PAOZZ	5310-00-087-4652	81349	M45913/1-6CG5C	NUT, SELF-LOCKING, HEX UOC: YBX	3
					END OF FIGURE	

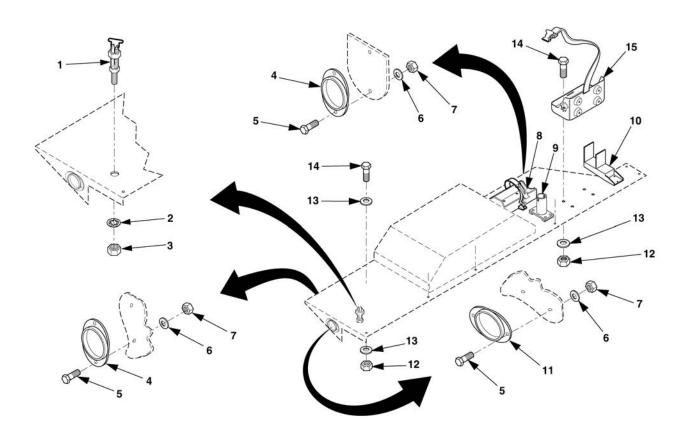


Figure C-8. Fender, Roadside, 97403 13229E5789A, 97403 13229E5789B

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 010102	
					FIG. C-8 FENDER, ROADSIDE, 97403 13229E5789A, 13229E5789B	
1	PAOZZ	5940-00-021-3321	96906	MS39347-2	TERMINAL, STUD	1
2	PAOZZ	5310-00-022-8834	96906	MS35333-108	WASHER, LOCK	1
3	PAOZZ	5310-01-057-1442	95210	031B179PC4	NUT, MACHINE	1
4	PAOZZ	9905-00-202-3639	58536	AA52428-2	REFLECTOR, INDICATING	1
5	PAOZZ	5305-00-071-2505	80204	B1821BH025C088N	SCREW, CAP, HEXAGON	6
6	PAOZZ	5310-00-809-4058	96906	MS27183-10	WASHER, FLAT	6
7	PAOZZ	5310-00-088-1251	81349	M45913/1-4CG5C	NUT, SELF-LOCKING, HEX	6
8	PAOZZ	4210-00-595-4085	0KDP7	90270191	BRACKET, FIRE EXTING (SEE FIGURE C-9 FOR PARTS BREAKDOWN)	1
9	PAOZZ		97403	13228E9910	MOUNT, ANTENNA UOC: YBX (SEE FIGURE C-11 FOR PARTS BREAKDOWN)	1
10	PAOZZ		97403	13229E5814	SUPPORT, MAST UOC: YBX (SEE FIGURE C-10 FOR PARTS BREAKDOWN)	1
11	PAOZZ	9905-00-205-2795	58536	AA52428-1	REFLECTOR, INDICATING	2
12	PAOZZ	5310-00-087-4652	81349	M45913/1-6CG5C	NUT, SELF-LOCKING, HEX	9
13	PAOZZ	5310-01-280-5796	96906	MS27183-57	WASHER, FLAT	14
14	PAOZZ	5305-00-725-2317	80204	B1821BH038C150N	SCREW, CAP, HEXAGON	9
15	PAOZZ	2590-00-473-6331	97403	13211E4921	BRACKET ASSEMBLY	1
					END OF FIGURE	

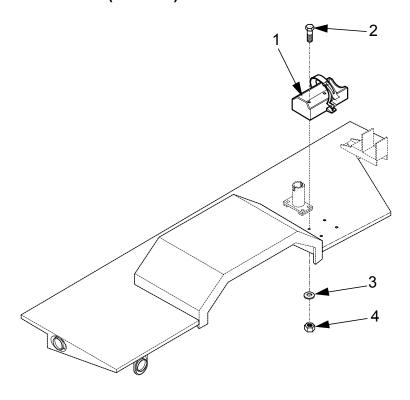


Figure C-9 Bracket, Fire Extinguisher, 0KDP7 90270191

(1)	(2)	(3)	(4)	(5)	(6)	(7)
ITEM	SMR	NATIONAL	CAGE	PART	DESCRIPTION AND USABLE	QTY
NO	CODE	STOCK NUMBER		NUMBER	ON CODE (UOC)	
					GROUP 01010201	
					FIG. C-9 BRACKET, FIRE EXTINGUISHER, 0KDP7 90270191	
1	PAOZZ	5306-00-226-4827	80204	B1821BH031C100N	BOLT, MACHINE	4
2	PAOZZ	5310-00-044-6477	96906	MS51412-25	WASHER, FLAT	4
3	PAOZZ	5310-00-984-3806	81349	M45913/1-5CG5C	NUT, SELF-LOCKING, HEX	4
					END OF FIGURE	

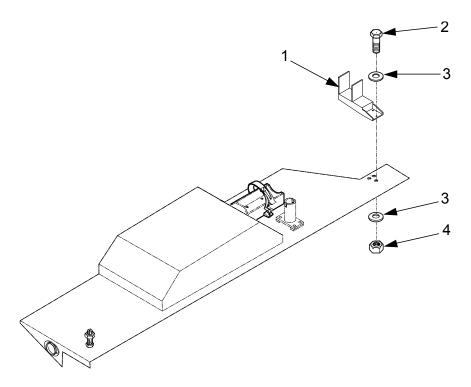


Figure C-10. Support, Mast, 97403 13229E5814

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 01010202	
					FIG. C-10 SUPPORT, MAST, 97403 13229E5814	
1	PAOZZ	5305-00-725-2317	80204	B1821BH038C150N	SCREW, CAP, HEXAGON UOC: YBX	3
2	PAOZZ	5310-01-280-5796	96906	MS27183-57	WASHER, FLAT UOC: YBX	6
3	PAOZZ	5310-00-087-4652	81349	M45913/1-6CG5C	NUT, SELF-LOCKING, HEX UOC: YBX	3
					END OF FIGURE	

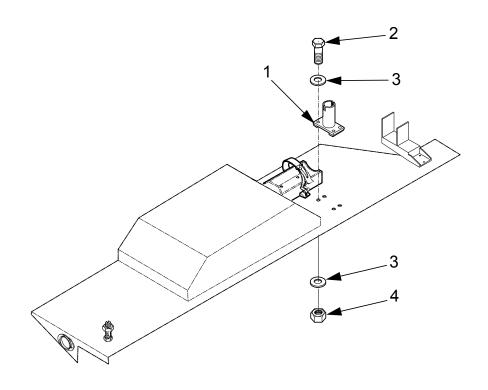


Figure C-11. Mount, Antenna, 97403 13228E9910

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
	0052	OTOGRATION DETA		TTO ME LT	GROUP 01010203	
					FIG. C-11 MOUNT, ANTENNA 97403 13228E9910	
1	PAOZZ	5305-00-068-0509	80204	B1821BH025C125N	SCREW, CAP, HEXAGON UOC: YBX	4
2	PAOZZ	5310-00-809-4058	96906	MS27183-10	WASHER, FLAT UOC: YBX	8
3	PAOZZ	5310-00-088-1251	81349	M45913/1-4CG5C	NUT, SELF-LOCKING, HEX UOC: YBX	4
					END OF FIGURE	

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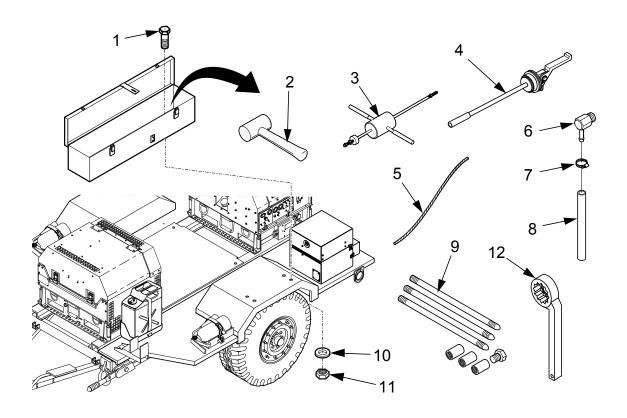


Figure C-12. Accessory Box, 97403 13229E7946

(1)	(2)	(3)	(4)	(5)	(6)	(7)
ITEM NO	SMR CODE	NATIONAL STOCK NUMBER	CAGE	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 010103	
					FIG. C-12 ACCESSORY BOX, 97403 13229E7946	
1	PAOZZ	5306-00-226-4825	80204	B1821BH031C075N	BOLT, MACHINE	4
2	PAOZZ	5120-00-251-4489	77348	Н8Н	HAMMER, HAND	1
3	PAOZZ	5120-01-013-1676	97403	13226E7741	SLIDE HAMMER, GROUND	1
4	PAOZZ	5342-00-066-1235	06076	13211E7541	ADAPTER, CONTAINER	2
5	MOOZZ		81348	QQW343C06B1B	WIRE, ELECTRICAL, MAKE FROM GROUP 99 BULK MATERIAL, ITEM 12, MAKE TO 40 INCHES REQUIRED	1
6	PAOZZ	4730-00-916-2142	81343	J1231-6-8 430260S	ELBOW, PIPE TO HOSE	1
7	PAOZZ	4730-00-908-3195	58536	AA52506-F	CLAMP, HOSE	1
8	MOOZZ		01276	2565-8	HOSE, NONMETALLIC, MAKE FROM GROUP 99 BULK MATERIAL, ITEM 1, MAKE TO 36 INCHES REQUIRED	1
9	PAOZZ	5975-00-878-3791	82370	A104	ROD, GROUND	1
10	PAOZZ	5310-00-044-6477	96906	MS51412-25	WASHER, FLAT	4
11	PAOZZ	5310-00-984-3806	81349	M45913/1-5CG5C	NUT, SELF-LOCKING, HEX	4
12	PAOZZ		30554	72-2029-1	WRENCH, BOX	1
					END OF FIGURE	

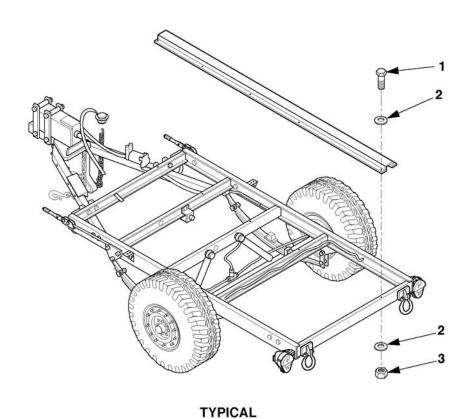


Figure C-13. Rails, Mounting, 97403 13230E4586

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 010104 FIG. C-13 RAILS, MOUNTING, 97403 13230E4586	
1	PAFZZ	5305-00-725-2317	80204	B1821BH038C150N	SCREW, CAP, HEXAGON	16
2	PAFZZ	5310-01-280-5796	96906	MS27183-57	WASHER, FLAT	32
3	PAFZZ	5310-00-087-4652	81349	M45913/1-6CG5C	NUT, SELF-LOCKING, HEX	16
					END OF FIGURE	

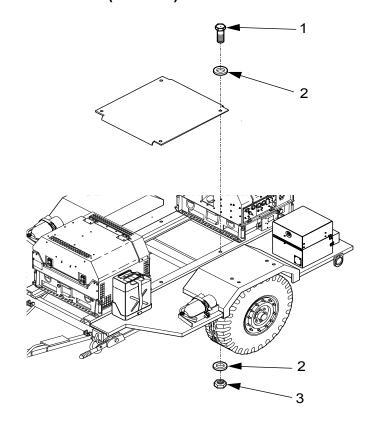


Figure C-14. Platform, Trailer 97403 13230E6753-4

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 010105 FIG. C-14 PLATFORM, TRAILER 97403 13230E6753-4	
1	PAOZZ	5305-00-068-0510	80204	B1821BH038C100N	SCREW, CAP, HEXAGON	4
2	PAOZZ	5310-01-257-7590	96906	MS51412-7	WASHER, FLAT	8
3	PAOZZ	5310-00-087-4652	81349	M45913/1-6CG5C	NUT, SELF-LOCKING, HEX	4
					END OF FIGURE	

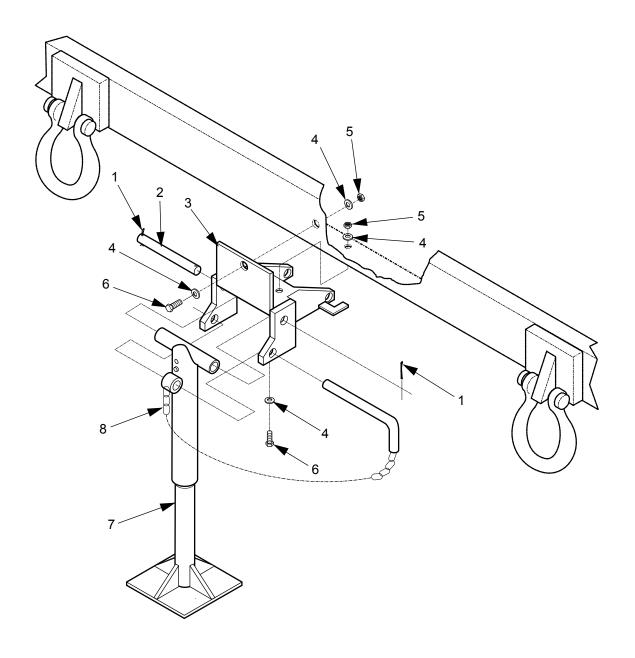


Figure C-15. Jack, Leveling-Support, 97403 13214E1206-1

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
110	OOBL	OTOOK NOMBER		TOMBET	GROUP 010106	
					FIG. C-15 JACK, LEVELING- SUPPORT, 97403 13214E1206-1	
1	PAOZZ	5315-00-839-5822	96906	MS24665-353	PIN, COTTER	2
2	XAOZZ	5315-01-162-0143	97403	13214E1209	PIN, STRAIGHT, HEADLE	1
3	XAOZZ	5342-01-220-1548	97403	13214E1207	BRACKET	1
4	PAOZZ	5310-01-280-5796	96906	MS27183-57	WASHER, FLAT	4
5	PAOZZ	5310-00-087-4652	81349	M45913/1-6CG5C	NUT, SELF-LOCKING, HEX	2
6	PAOZZ	5305-00-725-2317	80204	B1821BH038C150N	SCREW, CAP, HEXAGON	2
7	XAOZZ	2590-01-167-8596	97403	13214E1212-1	SUPPORT BASE, LEG	1
8	XAOZZ	2590-00-453-8977	97403	13214E1208-1	CHAIN, PIN RETAINING	1
					END OF FIGURE	

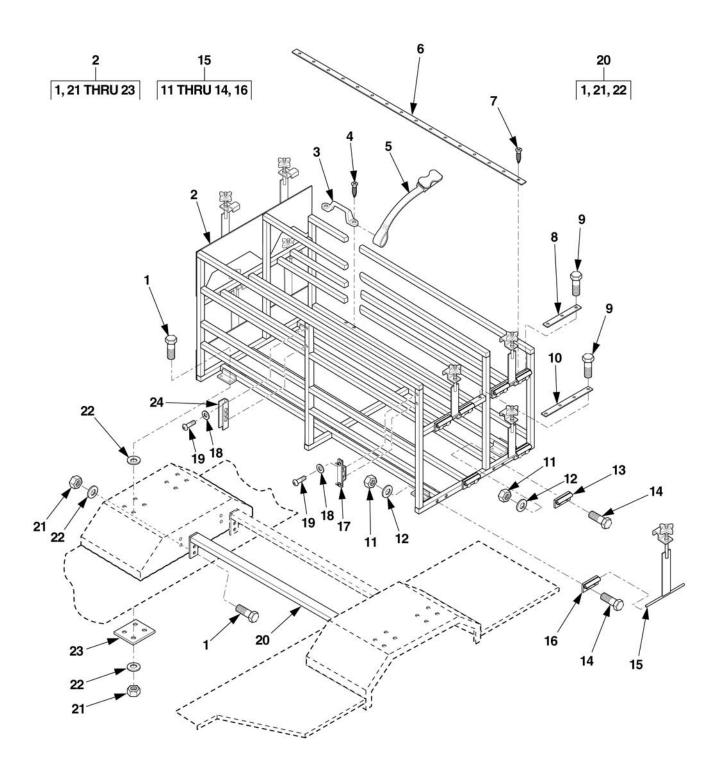


Figure C-16. Rack, Stowage 97403 13228E9902

(1)	(2)	(3)	(4)	(5)	(6)	(7)
ITEM NO	SMR CODE	NATIONAL STOCK NUMBER	CAGE	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 02	
					FIG. C-16 RACK, STOWAGE 97403 13228E9902	
1	PAOZZ	5305-00-725-2317	80204	B1821BH038C150N	SCREW, CAP, HEXAGON UOC: YBX	24
2	XBOZZ		97403	13228E9906	RACK, STOWAGE UOC: YBX	1
3	PAOZZ	5340-00-229-0340	96906	MS51939-3	LOOP, STRAP FASTENER UOC: YBX	8
4	PAOZZ	5305-00-174-4485	96906	MS24628-48	SCREW, TAPPING UOC: YBX	16
5	PAOZZ		97403	13228E9914	STRAP WEBBING UOC: YBX	3
6	PAOZZ		97403	13205E5123	RUNNER UOC: YBX	8
7	PAOZZ	5305-00-052-7479	96906	MS24628-24	SCREW, TAPPING UOC: YBX	120
8	PAOZZ		97403	13205E5120	CLAMP RUNNER UOC: YBX	4
9	PAOZZ	5305-00-071-1324	96906	MS51960-67	SCREW, MACHINE UOC: YBX	28
10	PAOZZ		97403	13205E5121	CLAMP RUNNER UOC: YBX	4
11	PAOZZ	5310-00-088-1251	81349	M45913/1-4CG5C	NUT, SELF-LOCKING, HEX UOC: YBX	32
12	PAOZZ	5310-01-274-3255	96906	MS27183-52	WASHER, FLAT UOC: YBX	32
13	PAOZZ	5340-01-185-6239	97403	13205E5125	LEAF, BUTT HINGE UOC: YBX	8
14	PAOZZ	5305-00-071-2510	80204	B1821BH025C175N	SCREW, CAP, HEXAGON UOC: YBX	32
15	PAOZZ	5120-01-162-6222	97403	13205E5137-2	CLAMP, SCREW, QUICK A UOC: YBX	8

(1) ITEM	(2) SMR	(3) NATIONAL	(4) CAGE	(5) PART	(6) DESCRIPTION AND	(7) QTY
NO	CODE	STOCK NUMBER		NUMBER	USABLE ON CODE (UOC)	
					GROUP 02	
					FIG. C-16 RACK, STOWAGE, 97403 13228E9902	
16	PAOZZ		97403	13228E9915	LEAF, BUTT HINGE UOC: YBX	8
17	PAOZZ		97403	13212E3617	CARRIER, ROD, GROUND UOC: YBX	1
18	PAOZZ	5310-00-582-5677	96906	MS15795-810	WASHER, FLAT UOC: YBX	4
19	PAOZZ	5305-00-082-6721	96906	MS51957-81	SCREW, MACHINE UOC: YBX	4
20	XBOZZ		97403	13228E9903	CROSS BRACE, FENDER UOC: YBX	2
21	PAOZZ	5310-00-087-4652	81349	M45913/1-6CG5C	NUT, SELF-LOCKING, HEX UOC: YBX	24
22	PAOZZ	5310-01-280-5796	96906	MS27183-57	WASHER, FLAT UOC: YBX	40
23	XBOZZ		97403	13228E9907-1	PLATE, BACKING UOC: YBX	4
24	PAOZZ		97403	13228E9899	BRACKET, GROUND RODS UOC: YBX	1
					END OF FIGURE	

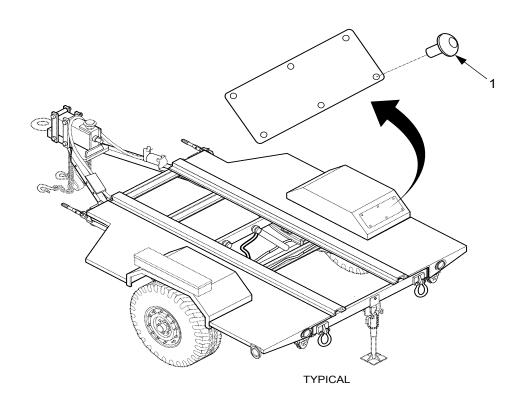


Figure C-17. Plate, ID 97403 13229E5666-11, 97403 13229E5666-12

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 03	
					FIG. C-17 PLATE, ID, 97403 13229E5666-11 97403, 13229E5666-12	
1	PAOZZ	5320-01-086-3593	96906	MS20604AD6C4	RIVET, BLIND	6
					END OF FIGURE	

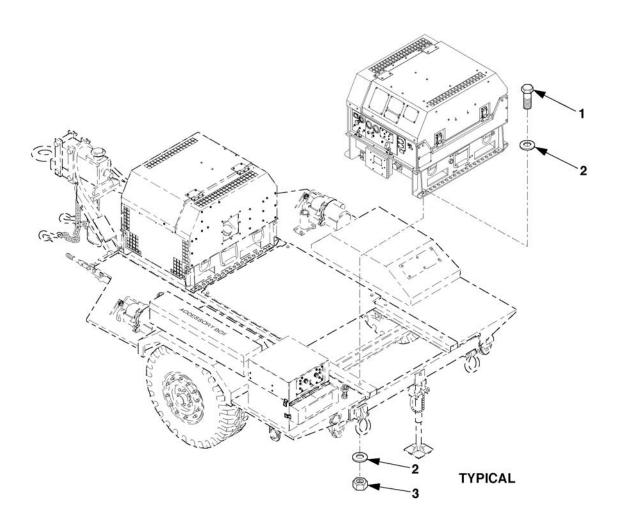


Figure C-18. 3kW Generator, 6115-01-285-3012

(1) ITEM	(2) SMR	(3) NATIONAL	(4) CAGE	(5) PART	(6) DESCRIPTION AND USABLE	(7) QTY
NO	CODE	STOCK NUMBER		NUMBER	0N CODE (UOC)	
					GROUP 04	
					FIG. C-18 3kW GENERATOR, 6115-01-285-3012	
1	PAOZZ	5305-00-071-2069	80204	B1821BH050C150N	SCREW, CAP, HEXAGON	8
2	PAOZZ	5310-01-266-4641	96906	MS51412-9	WASHER, FLAT	16
3	PAOZZ	5310-00-225-6993	81349	M45913/1-8CG5C	NUT, SELF-LOCKING, HEX	8
					END OF FIGURE	

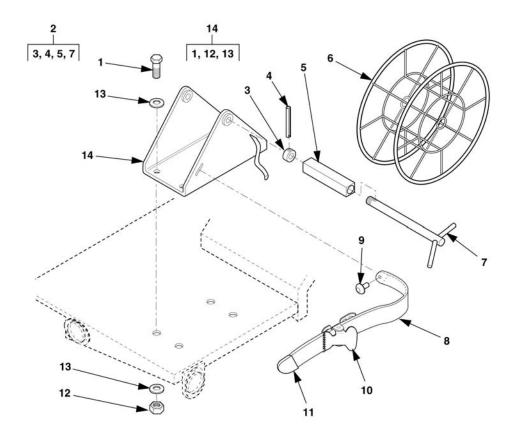


Figure C-19. Reel, Cable 97403 13217E2062A

(1)	(2)	(3)	(4)	(5)	(6)	(7)
ITEM NO	SMR CODE	NATIONAL STOCK NUMBER	CAGE	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 05	
					FIG. C-19 REEL, CABLE,	
					97403 13217E2062A	
1	PAOZZ	5305-00-068-0509	80204	B1821BH025C125N	SCREW, CAP, HEXAGON	4
'	TAOZZ	3303-00-000-0309	00204	B 102 1B11023C 123N	UOC: YBX	7
2	MFOOO		97403	13216E7605	HOLD-DOWN ASSEMBLY	1
					UOC: YBX	
3	MFOZZ		97403	13216E7608	COLLAR REEL	1
					UOC: YBX	
4	PAOZZ	5315-01-007-8299	96906	MS171534	PIN, SPRING UOC: YBX	1
_			07.400	400405-00-		
5	MFOOO		97403	13216E7607	SPINDLE, REEL UOC: YBX	1
6	PAOZZ	8130-01-295-4369	81349	RC-435U	REEL, CABLE	1
	TAOLL	0100-01-200-4000	01040	110 4000	UOC: YBX	'
7	MFOZZ		97403	13216E7606-1	HOLD-DOWN, REEL	1
					UOC: YBX	
8	MFOZZ		81349	MIL-W-530,	STRAP, WEBBING 21 IN. L	2
				TYPE IIA	UOC: YBX	
9	PAOZZ	5320-01-334-3674	96906	MS9319-208	RIVET, SOLID UOC: YBX	2
4.0	D.4.0.7.7		00000			
10	PAOZZ	5340-00-057-6956	96906	MS51929-2	BUCKLE UOC: YBX	2
11	PAOZZ	5340-00-078-7029	96906	MS51926-3	CLIP, END, STRAP	2
''	TAOZZ	3340-00-076-7029	30300	W031920-3	UOC: YBX	2
12	PAOZZ	5310-00-088-1251	81349	M45913/1-4CG5C	NUT, SELF-LOCKING,HEX	4
					UOC: YBX	
13	PAOZZ	5310-00-809-4058	96906	MS27183-10	WASHER, FLAT	8
					UOC: YBX	
14	MFOOO		97403	13217E2062	BRACKET, REEL UOC: YBX	1
					END OF FIGURE	

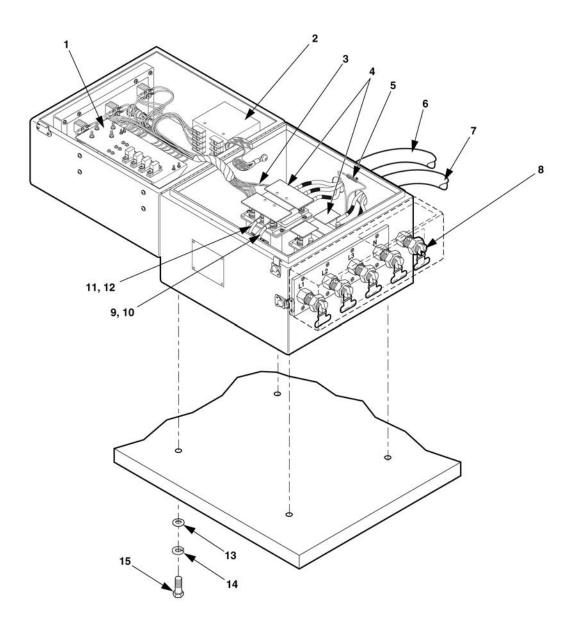


Figure C-20. Switch/Box Assembly, 97403 13230E6950 (Sheet 1 of 3)

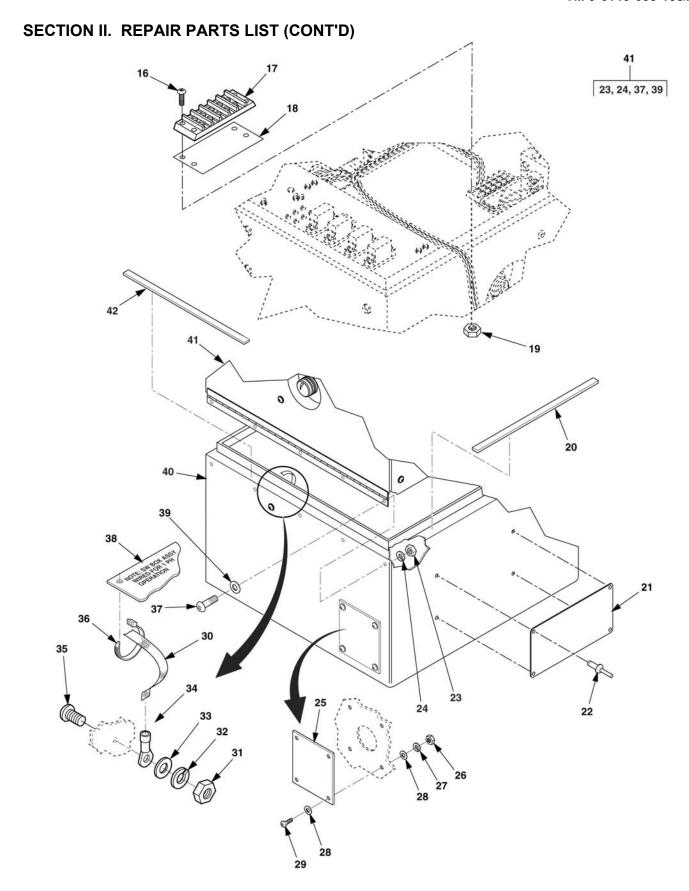


Figure C-20. Switch/Box Assembly, 97403 13230E6950 (Sheet 2 of 3)

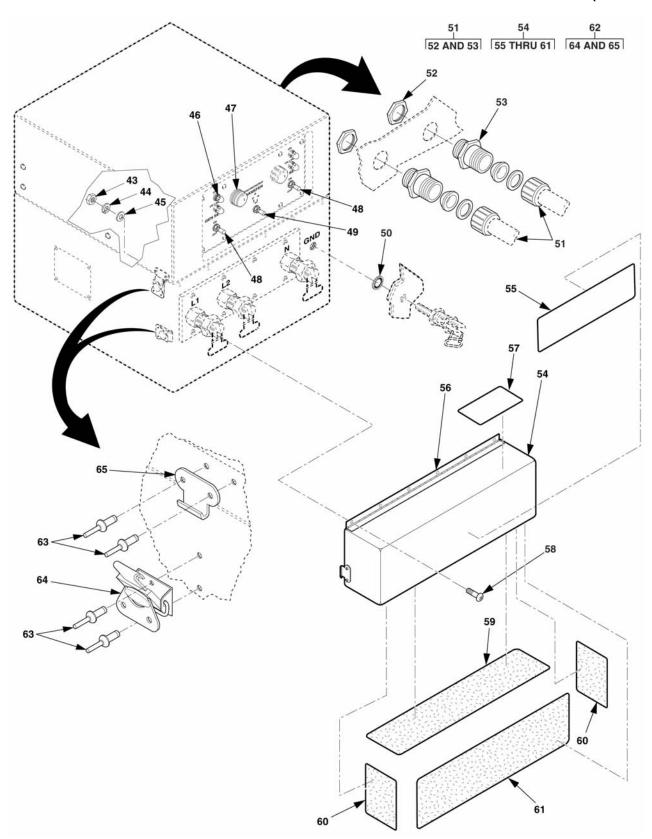


Figure C-20. Switch/Box Assembly, 97403 13230E6950 (Sheet 3 of 3)

(4)	(0)	(0)	(4)	(5)	(0)	(7)
(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE 0N CODE (UOC)	(7) QTY
					GROUP 06	
					FIG. C-20 SWITCH BOX ASSEMBLY, 97403 13230E6950	
1	XBFFF		97403	13229E5830	RELAY BOARD ASSY (SEE FIGURE C-21 FOR PARTS BREAKDOWN)	1
2	PAFZZ	5945-01-376-0827	14850	A3102126	RELAY, PERMISSIVE PARALLELING (SEE FIGURE C-22 FOR PARTS BREAKDOWN)	1
3	AFOOO		97403	13230E6951	HARNESS ASSY CABLE W9, SWITCH (SEE FIGURE C-31 FOR PARTS BREAKDOWN)	1
4	PAFZZ	6110-01-388-0318	7E656	JCG-6026	CONTACTOR, MAGNETIC (SEE FIGURE C-27 FOR PARTS BREAKDOWN)	2
5	PAFZZ	5905-00-024-0591	81349	RER75F2491R	RESISTOR, FIXED, WIRE (SEE FIGURE C-28 FOR PARTS BREAKDOWN)	1
6	AFOOO		97403	13230E6954-1	CABLE, POWER W1 (SEE FIGURE C-29 FOR PARTS BREAKDOWN)	1
7	AFOOO		97403	13230E6954-2	CABLE, POWER W2 (SEE FIGURE C-30- FOR PARTS BREAKDOWN)	1
8	PA000	5940-00-958-1214	74159	S-38615-G5	TERMINAL, STUD (SEE FIGURE C-26 FOR PARTS BREAKDOWN)	5
9	AFFFF		97403	13230E6952-1	LEAD, HARNESSES (SEE FIGURE C-25 FOR PARTS BREAKDOWN)	1

(4)	(2)	(2)	(4)	(E)	(6)	(7)
(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE 0N CODE (UOC)	(7) QTY
					GROUP 06	
					FIG. C-20 SWITCH BOX ASSEMBLY, 97403 13230E6950	
10	AFFFF		97403	13230E6952-4	LEAD, HARNESSES (SEE FIGURE C-25 FOR PARTS BREAKDOWN)	1
11	AFFFF		97403	13230E6952-2	LEAD, HARNESSES (SEE FIGURE C-25 FOR PARTS BREAKDOWN)	1
12	AFFFF		97403	13230E6952-3	LEAD, HARNESSES (SEE FIGURE C-25 FOR PARTS BREAKDOWN)	1
13	PAOZZ	5310-00-186-7411	96906	MS27183-60	WASHER, FLAT	4
14	PAOZZ	5310-01-478-5703	97403	13230E6744-46	WASHER, LOCK	4
15	PAOZZ	5305-00-725-2317	80204	B1821BH038C150N	SCREW, CAP, HEXAGON	4
16	PAOZZ	5305-01-479-1845	97403	13218E0493- 1289PIIC	SCREW, MACHINE	4
17	PAOZZ	5940-01-365-3580	81349	37TB5-B	TERMINAL BOARD	1
18	PAOZZ	5940-01-277-0578	81349	MSA37TB5	MARKER STRIP, TERMINAL	1
19	PAOZZ	5310-00-934-9761	96906	MS35649-264	NUT, MACHINE	4
20	MFZZZ		81349	M46089FSA2	RUBBER SHEET, CELLUL MAKE FROM GROUP 99 BULK MATERIAL, ITEM 14	2
21	MFOZZ		97403	13230E6823-8	PLATE, IDENTIFICATION MAKE FROM ASTM B 209, UNS A91100-H12	1
22	PAOZZ	5320-00-991-7484	96906	MS20604AD3W2	RIVET, BLIND	4
23	PAOZZ	5310-00-934-9759	96906	MS35649-284	NUT, MACHINE	5

(1) ITEM	(2) SMR	(3) NATIONAL	(4) CAGE	(5) PART	(6) DESCRIPTION AND USABLE	(7) QTY
NO	CODE	STOCK NUMBER		NUMBER	ON CODE (UOC) GROUP 06	
					GROUP 00	
					FIG. C-20 SWITCH BOX ASSEMBLY, 97403 13230E6950	
24	PAOZZ	5310-00-933-8119	96906	MS35338-137	WASHER, LOCK	5
25	PAFZZ		97403	13230E6514	PLATE, BLANKING	1
26	PAFZZ	5310-00-252-8748	96906	MS35650-3314	NUT, PLAIN, HEXAGON	4
27	PAFZZ	5310-00-933-8120	96906	MS35338-138	WASHER, LOCK	4
28	PAFZZ	5310-01-471-0640	30554	88-20033-11C	WASHER, FLAT	8
29	PAFZZ	5305-00-050-9233	96906	MS51957-67	SCREW, MACHINE	4
30	MOOZZ		81348	QQB575R30T0437	BRAID, WIRE, MAKE FROM GROUP 99 BULK MATERIAL, ITEM 8, MAKE TO 8 INCHES REQUIRED	1
31	PAOZZ	5310-00-252-8748	96906	MS35650-3314	NUT, MACHINE	2
32	PAOZZ	5310-00-933-8120	96906	MS35338-138	WASHER, LOCK	2
33	PAOZZ	5310-01-471-0640	30554	88-20033-11C	WASHER, FLAT	2
34	PAOZZ	5940-00-114-1310	96906	MS25036-119	TERMINAL, LUG	2
35	PAOZZ	5305-00-050-9230	96906	MS51957-64	SCREW, MACHINE	2
36	PAFZZ	5975-00-984-6582	96906	MS3367-1-0	STRAP, TIEDOWN, ELECT	1
37	PAOZZ	5305-00-054-6671	96906	MS51957-46	SCREW, MACHINE	5
38	MFOZZ		97403	13230E6946	PLATE, SCHEMATIC DIA MAKE FROM GROUP 99 BULK MATERIAL, ITEM 15	1
39	PA0ZZ	5310-00-225-5328	80205	MS15795-841	WASHER, FLAT	5
40	XBFFF		97403	13230E6948	ENCLOSURE, SWITCH BOX	1

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
	<u> </u>				GROUP 06	
					FIG. C-20 SWITCH BOX ASSEMBLY, 97403 13230E6950	
41	XBFFF		97403	13230E6537	COVER, SWITCH BOX	1
42	MFZZZ		81349	M46089FSA2	RUBBER, SHEET, CELLULAR MAKE FROM GROUP 99 BULK MATERIAL, ITEM 14	2
43	PAOZZ	5310-00-934-9759	96906	MS35649-284	NUT, MACHINE	6
44	PAOZZ	5310-00-933-8119	96906	MS35338-137	WASHER, LOCK	6
45	PAOZZ	5310-00-225-5328	80205	MS15795-841	WASHER, FLAT	6
46	PAOZZ		97403	13229E5764-2	LIGHT ASSEMBLY (SEE FIGURE C-23 FOR PARTS BREAKDOWN)	4
47	PAOZZ		97403	13229E6739-Assy	LIGHTS/LAMPS ASSEMBLY (SEE FIGURE C-23 FOR PARTS BREAKDOWN)	3
48	PAOZZ	5930-00-105-5331	96906	MS27407-3	SWITCHES (SEE FIGURE C-24 FOR PARTS BREAKDOWN)	2
49	PAOZZ	5930-00-660-3950	96906	MS24524-30	SWITCHES (SEE FIGURE C-24 FOR PARTS BREAKDOWN)	1
50	PAOZZ		97403	13230E4596	WASHER, LUG CONNECTOR	1
51	AOOZZ		97403	13218E5149-17	ASSY, STUFFING TUBE	2
52	PAOZZ	5975-00-714-8031	03743	BL100	LOCKNUT, ELECTRICAL	2
53	PAOZZ	5975-00-296-6984	15235	CGB396	BOX, CONNECTOR, ELECT	2
54	XBOFF		97403	13230E6949	COVER, LOAD TERMINAL	1

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
INO	CODE	310CK NUMBER		NOWBER	GROUP 06	
					FIG. C-20 SWITCH BOX ASSEMBLY, 97403 13230E6950	
55	MFFZZ		97403	13229E5654-2	PLATE, INSTRUCTION MAKE FROM SAE AMS 7292	1
56	XBOZZ	5340-01-056-3063	96906	MS35825-9A	HINGE, BUTT	1
57	MFOZZ		97403	13229E5654-1	PLATE, INSTRUCTION MAKE FROM SAE AMS 7292	1
58	PAOZZ	5305-00-054-6671	96906	MS51957-46	SCREW, MACHINE	6
59	MFFZZ		81349	M46089FSA2	RUBBER SHEET, CELLULAR MAKE FROM GROUP 99 BULK MATERIAL, ITEM 14	1
60	MFFZZ		81349	M46089FSA2	RUBBER SHEET, CELLULAR MAKE FROM GROUP 99 BULK MATERIAL, ITEM 14	2
61	MFFZZ		81349	M46089FSA2	RUBBER SHEET, CELLULAR MAKE FROM GROUP 99 BULK MATERIAL, ITEM 14	1
62	AFFFF		97403	13230E4683	WING CATCH ASSY	4
63	PAOZZ	5320-00-954-9568	96906	MS20604AD4W3	RIVET, BLIND	16
64	PAOZZ	5340-01-397-6096	94222	2-57-1735-07	CATCH, CLAMPING	4
65	PAOZZ	5340-01-295-4896	94222	K3-0334-07	STRIKE, CATCH	4
					END OF FIGURE	

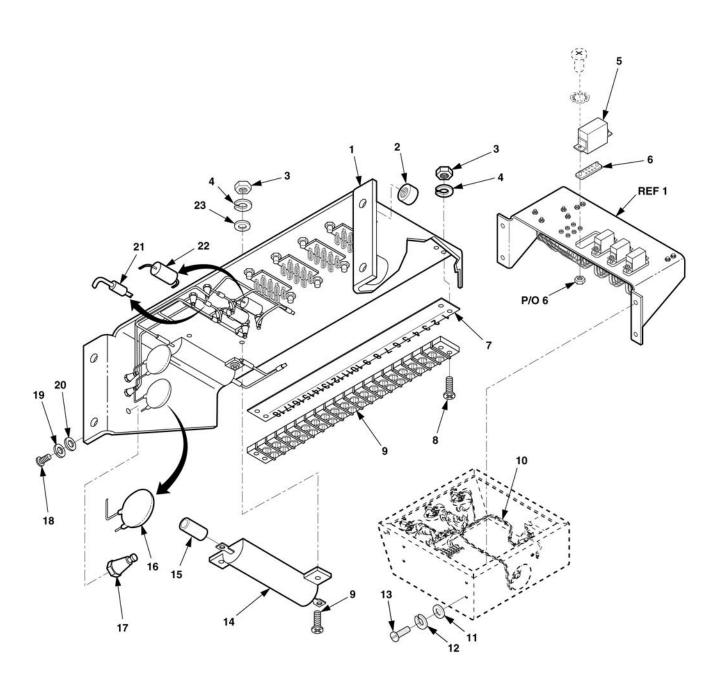


Figure C-21. Assembly, Relay Board 97403 13229E5830

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
-110	- 0052	oreen nember		. romber	GROUP 0601	
					FIG. C-21 ASSEMBLY, RELAY BOARD, 97403, 13229E5830	
1	XBFZZ		97403	13229E5823	BRACKET, RELAY, SWITCH	1
2	PAFZZ	5310-00-570-0386	81349	M45938/1-13C	NUT, PLAIN, CLINCH	4
3	PAFZZ	5310-00-934-9748	96906	MS35649-244	NUT, MACHINE	6
4	PAFZZ	5310-00-933-8118	96906	MS35338-135	WASHER, LOCK	6
5	PAFZZ	5945-00-435-1833	81349	M5757/23-003	RELAY, ELECTROMAGNET	4
6	PAFZZ	5935-01-042-7579	91663	HRCL-6JV2	SOCKET, PLUG-IN ELEC	4
7	PAFZZ	5940-01-229-6776	81349	MSA37TB18	MARKER STRIP, TERMINAL	1
8	PAFZZ	5305-00-054-5652	96906	MS51957-18	SCREW, MACHINE	6
9	PAFZZ	5940-00-983-6059	81349	37TB18	TERMINAL BOARD	1
10	XBFFF		97403	13229E5829	CABLE W11 HARNESS ASSY (SEE FIGURE C-32 FOR PARTS BREAKDOWN)	1
11	PAFZZ	5310-00-225-5328	80205	MS15795-841	WASHER, FLAT	4
12	PAFZZ	5310-00-933-8119	96906	MS35338-137	WASHER, LOCK	4
13	PAFZZ	5305-00-054-6671	96906	MS51957-46	SCREW, MACHINE	4
14	PAFZZ	5905-00-568-2234	81349	RER75F2490R	RESISTOR, FIXED, WIRE	2
15	MFFZZ		81349	M23053/5-104-0	INSULATION SLEEVING, MAKE FROM GROUP 99 BULK MATERIAL, ITEM 5, MAKE TO .75 INCHES REQUIRED	4
16	PAFZZ	5910-01-387-6493	60705	565C10GAP10	CAPACITOR, FIXED, CER	2
17	PAFZZ	5940-01-283-6241	58536	AA59126/19903	TERMINAL, STUD, INSUL	9
18	PAFZZ	5305-00-054-6651	96906	MS51957-27	SCREW, MACHINE	9
19	PAFZZ	5310-00-929-6395	96906	MS35338-136	WASHER, LOCK	9

#### TM 9-6115-658-13&P

(1) ITEM	(2) SMR	(3) NATIONAL	(4) CAGE	(5) PART	(6) DESCRIPTION AND USABLE	(7) QTY
NO	CODE	STOCK NUMBER		NUMBER	ON CODE (UOC)	
					GROUP 0601	
					FIG. C-21 ASSEMBLY, RELAY BOARD, 97403, 13229E5830	
20	PAFZZ	5310-01-303-4701	96906	MS51412-1	WASHER, FLAT	9
21	PAFZZ	5961-00-476-7855	81349	JANTX1N5619	SEMICONDUCTOR DEVICE	4
22	PAFZZ	5910-01-119-4292	81349	M39006/22-0631	CAPACITOR, FIXED, ELE	2
23	PAFZZ	5310-01-141-6672	88044	AN960C4	WASHER, FLAT	4
					END OF FIGURE	

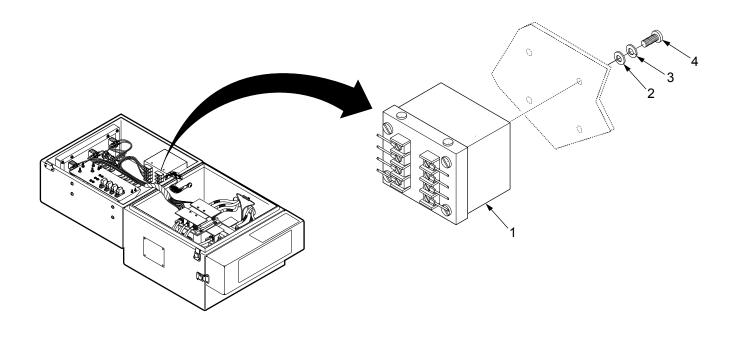


Figure C-22. Relay, Permissive Paralleling, 97403 13229E5653

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 0602  FIG. C-22 RELAY, PERMISSIVE PARALLELING,	
1	PAFZZ	5310-00-225-5328	80205	MS15795-841	14850 A3102126 WASHER, FLAT	4
2	PAFZZ	5310-00-933-8119	96906	MS35338-137	WASHER, LOCK	4
3	PAFZZ	5305-00-054-6671	96906	MS51957-46	SCREW, MACHINE	4
					END OF FIGURE	

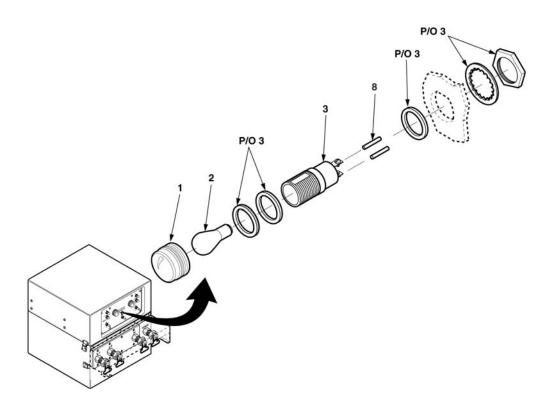


Figure C-23. Lights/Lamps Assembly, 97403 13230E6739-Assy

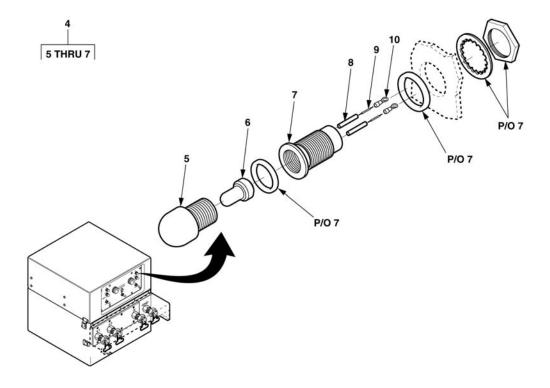


Figure C-23. Lights/Lamps Assembly, 97403 13229E5764-2

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 0603	
					FIG. C-23 LIGHTS/LAMPS, 97403 13229E5764-2	
1	PAOZZ	6210-00-244-2897	81349	LC21CN3	LENS, LIGHT	1
2	PAOZZ	6240-01-466-3528	96906	A50452-1	LAMP, INCANDESCENT	1
3	PAOZZ	6210-00-753-2289	81349	LH80/1	LIGHT, INDICATOR	1
4	A0000	6210-00-900-9423	97403	13214E1391	LIGHT, INDICATOR	1
5	PAOZZ	6210-00-941-6690	83330	181-0937-003	LENS, LIGHT	1
6	PAOZZ	6240-01-355-4422	08108	6S6AC130V	LAMP, INCANDESCENT	1
7	PAOZZ	6210-01-230-1851	83330	181-8836-09-553	LIGHT, INDICATOR	1
8	MOOZZ		81349	M23053/5-104-9	INSULATION SLEEVING MAKE FROM GROUP 99 BULK MATERIAL, ITEM 3, MAKE TO .75 INCHES REQUIRED	2
9	MOOZZ		81349	M22759/16-18-9	WIRE, ELECTRICAL MAKE FROM GROUP 99 BULK MATERIAL, ITEM 10, MAKE TO 8 INCHES REQUIRED	2
10	PAOZZ	5940-00-813-0698	96906	MS25036-101	TERMINAL, LUG	2
					END OF FIGURE	

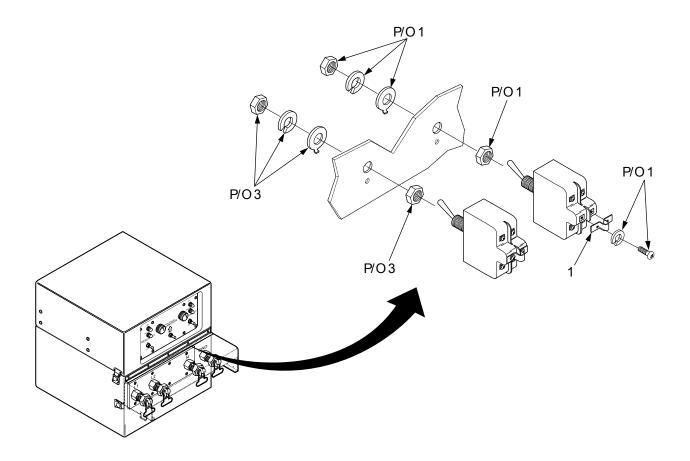
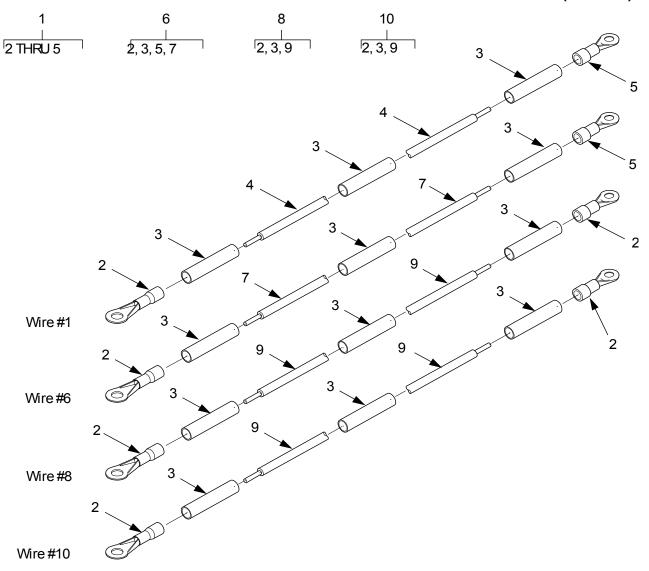


Figure C-24. Switches, 96906 MS27407-3, 96906 MS24524-30

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 0604	
					FIG. C-24 SWITCHES, 96906 MS27407-3, 96906, MS24524- 30	
1	AOOZZ	6150-00-261-9826	81349	TBJA	BUS, CONDUCTOR	2
					END OF FIGURE	



	WIRE LIST									
	TERMINATI									
WIRE NO.	FROM	ITEM NO.	ТО	TERMINAL ITEM NO.	WIRE ITEM NO.					
1	K1-A1	2	L1	5	4					
6	K1-B1	2	L2	5	7					
8	K1-B1	2	K2-B1	2	9					
10	K1-A1	2	K2-A1	2	9					

Figure C-25. Leads/Harnesses, 97403 13230E6952-1, 97403 13230E6952-2, 97403 13230E6952-3, 97403 13230E6952-4

(1) ITEM	(2) SMR	(3) NATIONAL	(4) CAGE	(5) PART	(6) DESCRIPTION AND USABLE	(7) QTY
NO	CODE	STOCK NUMBER	0,102	NUMBER	ON CODE (UOC)	Q. I
					GROUP 0605	
					FIG. C-25 LEADS/HARNESSES, 97403 13230E6952-1, 97403 13230E6952-2, 97403 13230E6952-3, 97403 13230E6952-4	
1	AFFFF		97403	13230E6952-1	LEAD, ELECTRICAL	REF
2	PAFZZ	5940-00-113-9826	96906	MS25036-114	TERMINAL, LUG	6
3	MFFZZ		81349	M23053/5-105-9	INSULATION SLEEVING MAKE FROM GROUP 99 BULK MATERIAL, ITEM 2, MAKE TO 2.5 IN. REQUIRED	12
4	MFFZZ		81349	M22759/16-10-9	WIRE, ELECTRICAL, MAKE FROM GROUP 99 BULK MATERIAL, ITEM 11, MAKE TO 16 INCHES REQUIRED	1
5	PAFZZ	5940-00-682-2445	96906	MS25036-158	TERMINAL, LUG	2
6	AFFFF		97403	13230E6952-2	LEAD, ELECTRICAL	REF
7	MFFZZ		81349	M22759/16-10-9	WIRE, ELECTRICAL, MAKE FROM GROUP 99 BULK MATRIAL, ITEM 11, MAKE TO 18 INCHES REQUIRED	1
8	AFFFF		97403	13230E6952-3	LEAD, ELECTRICAL	REF
9	MFFZZ		81349	M22759/16-10-9	WIRE, ELECTRICAL, MAKE FROM GROUP 99 BULK MATERIAL, ITEM 11, MAKE TO 12 INCHES REQUIRED	2
10	AFFFF		97403	13230E6952-4	LEAD, ELECTRICAL	REF
					END OF FIGURE	

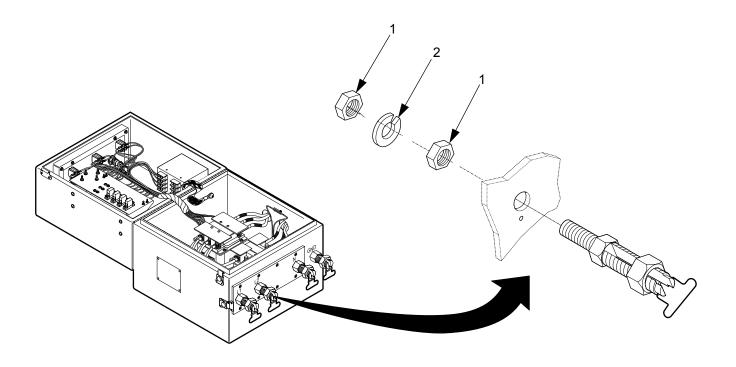


Figure C-26. Terminal, Stud, 74159 S-38615-G5

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 0606	
					FIG. C-26 TERMINAL, STUD, 74159 S-38615-G5	
1	PAOZZ	5310-00-682-5756	96906	MS35691-35	NUT, MACHINE	2
2	PAOZZ	5310-00-042-4229	96906	MS35333-113	WASHER, LOCK	1
					END OF FIGURE	

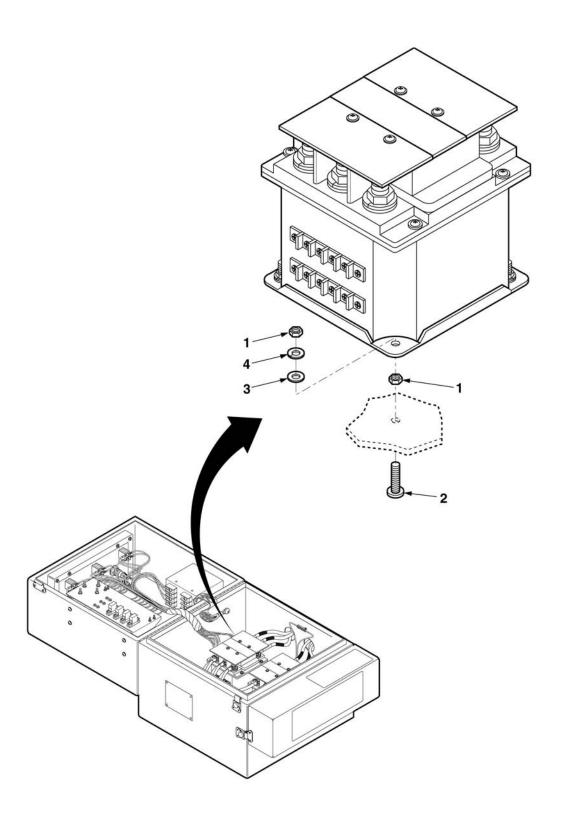


Figure C-27. Contactor, Magnetic 7E656 JCG-6026

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 0607	
					FIG. C-27 CONTACTOR, MAGNETIC 7E656 JCG-6026	
1	PAOZZ	5310-00-252-8748	96906	MS35650-3314	NUT, MACHINE	8
2	PAFZZ	5305-00-050-9233	96906	MS51957-67	SCREW, MACHINE	4
3	PAOZZ	5310-01-471-0640	30554	88-20033-11C	WASHER, FLAT	4
4	PAOZZ	5310-00-933-8120	96906	MS35338-138	WASHER, LOCK	4
					END OF FIGURE	

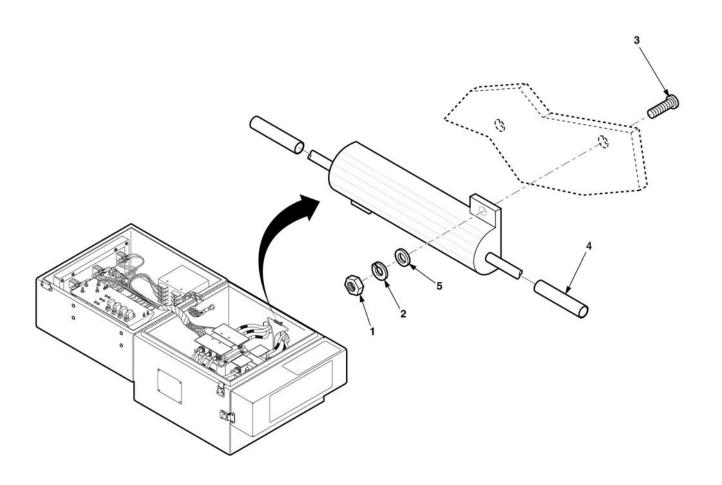
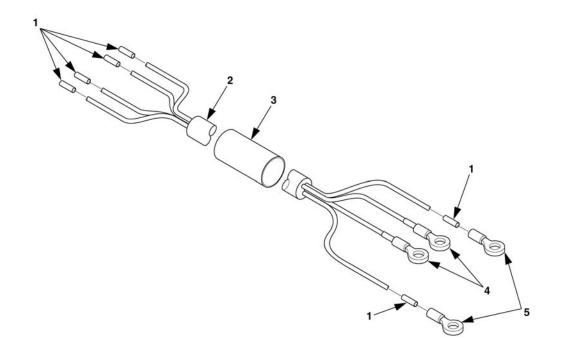


Figure C-28. Resistor, Fixed 97403 13230E6746-2

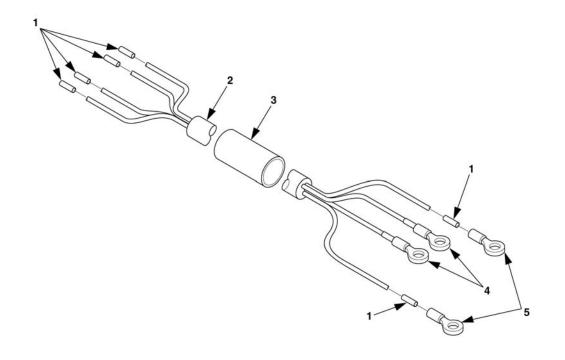
(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 0608	
					FIG. C-28 RESISTOR, FIXED	
1	PAOZZ	5310-00-933-8118	96906	MS35338-135	WASHER, LOCK	2
2	PAOZZ	5310-00-934-9748	96906	MS35649-244	NUT, MACHINE	2
3	PAFZZ	5305-00-054-5650	96906	MS51957-16	SCREW, MACHINE	2
4	MFFZZ		81349	M23053/5-105-9	INSULATION SLEEVING MAKE FROM GROUP 99 BULK MATERIAL, ITEM 2, MAKE TO .75 IN. REQUIRED	2
5	PAFZZ	5310-00-595-6211	96906	MS15795-803	WASHER, FLAT  END OF FIGURE	2



WIRE LIST								
		TERMINA	ATION	TERMINA	ATION			
DASH NO.	WIRE NO.	FROM	ITEM NO.	ТО	ITEM NO.	WIRE COLOR	AWG (REF)	
-1	1	G1-L1	-	K1-A2	4	BLK	10	
-1	2	G2-L2	-	K1-B1	4	RED	10	
-1	3	G1-N	-	N	5	WHT	10	
-1	4	G1-GND	-	GND	5	GRN	10	

Figure C-29. Cable, Power W1, 97403 13230E6954-1

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 0609	
					FIG. C-29 CABLE, POWER W1, 97403, 13230E6954-1	
1	MFOZZ		81349	M23053/5-107-9	INSULATION SLEEVING MAKE FROM GROUP 99 BULK MATERIAL, ITEM 4	8
2	MFOZZ		81774	02727	CABLE, POWER, ELECTRI MAKE FROM GROUP 99 BULK MATERIAL, ITEM 13, MAKE TO 121.0 IN. REQUIRED	1
3	MFOZZ		81349	M23053/5-110-4	INSULATION SLEEVING MAKE FROM GROUP 99 BULK MATERIAL, ITEM 6	2
4	PAOZZ	5940-00-113-9826	96906	MS25036-114	TERMINAL, LUG	2
5	PAOZZ	5940-00-682-2445	96906	MS25036-158	TERMINAL, LUG	2
					END OF FIGURE	



WIRE LIST								
		TERMINA	ATION	TERMINATION				
DASH NO.	WIRE NO.	FROM	ITEM NO.	ТО	ITEM NO.	WIRE COLOR	AWG (REF)	
-2	1	G2-L1	-	K2-A2	4	BLK	10	
-2	2	G2-L2	-	K2-B2	4	RED	10	
-2	3	G2-N	-	N	5	WHT	10	
-2	4	G2-GND	-	GND	5	GRN	10	

Figure C-30. Cable, Power W2, 97403 13230E6954-2

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 0610	
					FIG. C-30 CABLE, POWER W2, 97403,13230E6954-2	
1	MFOZZ		81349	M23053/5-107-9	INSULATION SLEEVING MAKE FROM GROUP 99 BULK MATRIAL, ITEM 4	8
2	MFOZZ		81774	02727	CABLE, POWER, ELECTRICAL MAKE FROM GROUP 99 BULK MATERIAL, ITEM 13, MAKE TO 42.0 IN. REQUIRED	1
3	MFOZZ		81349	M23053/5-110-4	INSULATION SLEEVING MAKE FROM GROUP 99 BULK MATERIAL, ITEM 6	2
4	PAOZZ	5940-00-113-9826	96906	MS25036-114	TERMINAL, LUG	2
5	PAOZZ	5940-00-682-2445	96906	MS25036-158	TERMINAL, LUG	2
					END OF FIGURE	

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			WIRE LIST		
	TERMINA	ΓΙΟΝ	TERMINAT	TION	
WIRE NO.	FROM	ITEM NO.	то	ITEM NO.	WIRE ITEM NO.
1	TB1-17	7	S10-2	7	8
2	TB1-2	7	PP-4	7	8
3	TB1-3	7	PP-3	7	8
4	TB1-4	7	K2-A2	3	8
5	TB1-5	7	XDS6-2	7	8
6	TB1-6	7	K2-22	7	8
7	TB1-7	7	K1-A2	3	8
8	TB1-8	7	K1-21	7	8
9	TB1-9	7	K1-B2	3	8
10 11	TB1-10 TB1-10	7	K2-11 PP-6	7	8
12	TB1-11	7	PP-8	7	8
13	TB1-12	7	K2-21	7	8
14	TB1-13	7	K1-22	7	8
15	TB1-16	7	S10-5	7	8
16	-	-	-	-	-
17	TB2-5	-	K2-B2	3	8
18	-	-	-	-	-
19	TB2-4	7	K2-Y	7	8
20	XDS6-1	-	R3-1	<u>.</u>	8
21	XDS5-2	-	PP-2	7	8
22	XDS5-1	-	PP-1	7	8
23	TB2-2	7	K1-B2	3	8
24	-	-	-	-	-
25	S2-2	7	S10-4	7	8
26	-	-	-	-	-
27	-	-	-	-	-
28	S1-6	7	PP-7	7	8
29	S1-2	7	S10-1	7	8
30	S1-5	7	K1-12	7	8
31	S2-6	7	PP-5	7	8
32	-	<u>-</u>	-	<u>-</u>	-
33	S2-5	7	K2-12	7	8
34	K1-11	7	PP-8	7	8
35 36	PP-4 XDS7-2	7 -	N PP-1	7	8
37	XDS7-2 XDS7-1	-	L2	4	8
38	K1-22	7	K2-32	7	8
39	K2-32	7	K1-B2	3	8
40	K2-22	7	K2-B2	3	8
41	K1-32	7	K2-B2	3	8
42	K1-33	7	K2-11	7	8
43	K2-Y	7	N	4	8
44	K2-X	7	S2-3	7	8
45	K2-33	7	K1-11	7	8
46	K1-X	7	S1-3	7	8
47	K1-Y	7	N	4	8
48	K1-Y	7	TB2-1	7	8
49	K2-A1	3	R3-2	-	8
50	PP-2	7	PP-3	7	8
51 52	TB1-18	7	TB2-3	7	8
	E11	2	TB2-3	7	8

Figure C-31. Cable W9, 97403, 13230E6951 (Sheet 1 of 2)

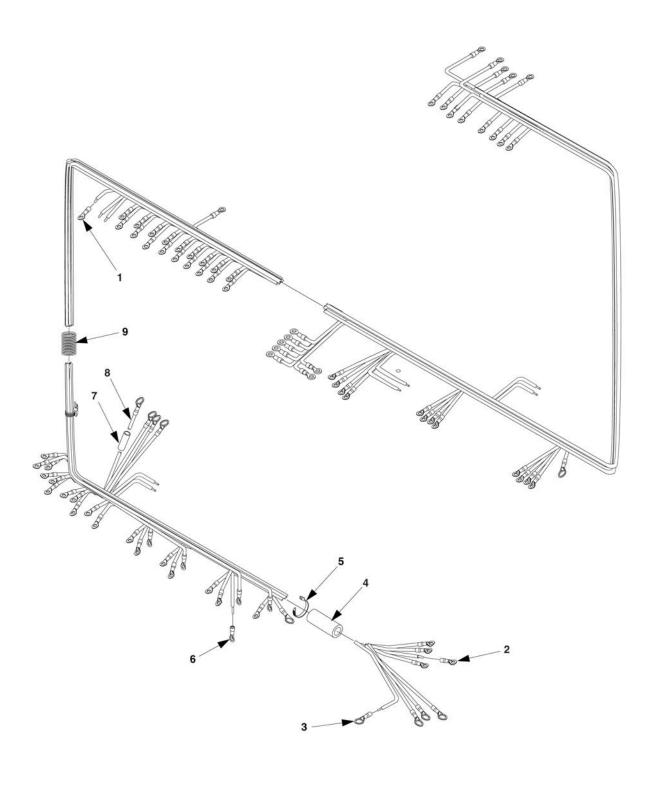
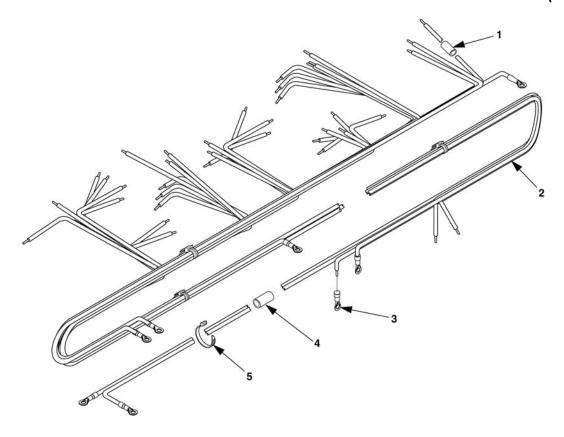


Figure C-31. Cable W9, 97403, 13230E6951 (Sheet 2 of 2)

(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) ITEM NO	(2) SMR CODE	NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 0611	
					FIG. C-31 CABLE W9, 97403 13230E6951	
1	PAOZZ	5940-00-143-4780	56501	RB873	TERMINAL, LUG	1
2	PAOZZ	5940-00-143-4793	96906	MS25036-110	TERMINAL, LUG	9
3	PAOZZ	5940-00-660-3633	96906	MS25036-155	TERMINAL, LUG	5
4	MFOZZ		81349	M23053/5-107-9	INSULATION SLEEVING, MAKE FROM GROUP 99 BULK MATERIAL, ITEM 4, MAKE TO 1.5 IN. REQUIRED	1
5	PAOZZ	5975-00-727-5153	96906	MS3367-4-9	STRAP, TIEDOWN, ELECT	AR
6	PAOZZ	5940-00-283-5280	96906	MS25036-106	TERMINAL, LUG	71
7	MFOZZ		81349	M23053/5-105-9	INSULATION SLEEVING, MAKE FROM GROUP 99 BULK MATERIAL, ITEM 2, MAKE TO REQUIRED LENGTH	94
8	MFOZZ		81349	M22759/16-16-9	WIRE, ELECTRICAL, MAKE FROM GROUP 99 BULK MATERIAL, ITEM 9, MAKE TO REQUIRED LENGTH	47
9	MFOZZ		28520	8949	TUBING, PLASTIC, SPIR MAKE FROM GROUP 99 BULK MATERIAL, ITEM 7, MAKE TO 10 IN. L	1
1		1	I	1	EIND OF FIGURE	



WIRE LIST							
	TERMIN	ATION	TERMII	NATION			
WIRE NO.	FROM	ITEM NO.	ТО	ITEM NO.	WIRE ITEM NO.		
1	XK3-2		TB1-1	3	2		
2	XK3-3		TB1-6	3	2		
3	XK3-4		TB1-5	3	2		
4	XK3-5		TB1-3	3	2		
5	XK3-6		TB1-4	3	2		
6	XK3-7		TB1-2	3	2		
7	XK5-2		TB1-1	3	2		
8	XK5-3		TB1-8	3	2		
9	XK5-4		TB1-10	3	2		
10	XK5-5		TB1-17	3	2		
11	XK5-6		TB1-6	3	2		
12	E-7		E-6	-	2		
13	XK4-2		TB1-14	3	2		
14	XK4-3		TB1-9	3	2		
15	XK4-4		TB1-5	3	2		
16	XK4-5		TB1-3	3	2		
17	XK4-6		TB1-7	3	2		
18	XK4-7		TB1-15	3	2		

	WIRE LIST							
	TERMINATION		TERMI	TERMINATION				
WIRE NO.	FROM	ITEM NO.	ТО	ITEM NO.				
19	R1-1		TB1-17	3	2			
20	XK6-3		TB1-12	3	2			
21	XK6-4		TB1-11	3	2			
22	XK6-5		TB1-16	3	2			
23	XK6-6		TB1-13	3	2			
24	XK6-7		TB1-15	3	2			
25	R1-2		E6	-	2			
26	R2-2		E3	-	2			
27	E5		TB1-1	3	2			
28	E4		TB1-2	3	2			
29	R2-1		TB1-16	3	2			
30	E2		TB1-15	3	2			
31	E1		E4	-	2			
32	XK5-7		TB1-2	3	2			
33	E1		TB1-14	3	2			
34	E8		TB1-18	3	2			
35	XK6-2		TB1-14	3	2			
36	E9		E3	-	2			

Figure C-32. Cable W11, 97403, 13229E5829

#### TM 9-6115-658-13&P

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 0612	
					FIG. C-32 CABLE W11, 97403, 13229E5829	
1	MFFZZ		81349	M23053/5-105-9	INSULATION SLEEVING MAKE FROM GROUP 99 BULK MATERIAL, ITEM 2, MAKE TO 1.5 IN. REQUIRED	72
2	MFFZZ		81349	M22759/16-16-9	WIRE, ELECTRICAL MAKE FROM GROUP 99 BULK MATERIAL, ITEM 9	36
3	PAFZZ	5940-00-283-5280	96906	MS25036-106	TERMINAL, LUG	31
4	MFFZZ		81349	M23053/5-107-9	INSULATION SLEEVING MAKE FROM GROUP 99 BULK MATERIAL, ITEM 4 MAKE TO 1.5 IN. REQUIRED	1
5	PAFZZ	5975-00-727-5153	96906	MS3367-4-9	STRAP, TIEDOWN, ELECT END OF FIGURE	AR

(1) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGE	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 99 BULK MATERIAL	
1	PAFZZ	4720-00-670-6037	01276	2565-8	HOSE, NONMETALLIC	1
2	PAFZZ	5970-00-082-3942	81349	M23053/5-105-9	INSULATION SLEEVING	1
3	PAFZZ	5970-00-088-2975	81349	M23053/5-104-9	INSULATION SLEEVING	1
4	PAFZZ	5970-00-740-2971	81349	M23053/5-107-9	INSULATION SLEEVING	1
5	PAFZZ	5970-00-812-2969	81349	M23053/5-104-0	INSULATION SLEEVING	1
6	PAFZZ	5970-00-959-6336	81349	M23053/5-110-4	INSULATION SLEEVING	1
7	PAFZZ	6115-01-464-0224	28520	8949	TUBING, PLASTIC, SPIR	1
8	PAFZZ	6145-00-191-8405	81348	QQB575R30T0437	BRAID, WIRE	1
9	PAFZZ	6145-01-044-8799	81349	M22759/16-16-9	WIRE, ELECTRICAL	1
10	PAFZZ	6145-01-060-7863	81349	M22759/16-18-9	WIRE, ELECTRICAL	1
11	PAFZZ	6145-01-060-7869	81349	M22759/16-10-9	WIRE, ELECTRICAL	1
12	PAFZZ	6145-01-226-9164	81348	QQW343C06B1B	WIRE, ELECTRICAL	1
13	PAFZZ	6145-01-376-0936	81774	02727	CABLE, POWER, ELECTRICAL	1
14	PAFZZ	9320-00-905-5971	81349	M46089FSA2	RUBBER SHEET, CELLULAR	1
15	PAFZZ	6750-01-424-3616	1BB84	3P75A	FILM, PHOTOSENSITIVE	1

# **Section III. Special Tools Group**

**Special Tools Group** 

**NOT APPLICABLE** 

Section IV. Cross-Reference Indexes; National Stock Number (NSN); Part Number; and Figure and Item Number Indexes

(4)	(0)	(2)
(1) STOCK NUMBER	(2) FIG	(3) ITEM
5940-00-021-3321	C-8	1
5310-00-022-8834	C-8	2
5905-00-024-0591	C-20	5
5310-00-042-4229	C-26	2
5310-00-044-6477	C-12	10
0010 00 011 0177	C-5	2
	C-9	2
5310-00-045-3296	C-2	6
5305-00-050-9230	C-20	35
5305-00-050-9230	C-20 C-20	29
5505-00-050-9255	C-20 C-27	
F20F 00 0F2 7470	C-27 C-16	2 7
5305-00-052-7479		
5305-00-054-5650	C-28	3
5305-00-054-5652	C-21	8
5305-00-054-6651	C-21	18
5305-00-054-6671	C-20	37
	C-20	58
	C-21	13
5040.00.057.0050	C-22	3
5340-00-057-6956	C-19	10
5342-00-066-1235	C-12	4
5305-00-068-0509	C-11	1
	C-19	1
	C-6	1
5305-00-068-0510	C-14	1
5305-00-071-1324	C-16	9
5305-00-071-2069	C-18	1
5305-00-071-2505	C-4	9
	C-8	5
5305-00-071-2510	C-16	14
5340-00-078-7029	C-19	11
5970-00-082-3942	BULK	2
5305-00-082-6721	C-16	19
5310-00-087-4652	C-10	3
	C-13	3
	C-14	3
	C-15	5
	C-16	21
	C-4	11
	C-7	3
	C-8	12
5310-00-088-1251	C-11	3
	C-16	11
	C-19	12

(1)	(2)	(3)
STOCK NUMBER	FIG	ITEM
5310-00-088-1251	C-4	7
	C-6	3
	C-8	7
5970-00-088-2975	BULK	3
5930-00-105-5331	C-20	48
5940-00-113-9826	C-25	2
	C-29	4
	C-30	4
5940-00-114-1310	C-20	34
5940-00-143-4780	C-31	1
5940-00-143-4793	C-31	2
5305-00-174-4485	C-16	4
		13
5310-00-186-7411	C-20	
6145-00-191-8405	BULK	8
9905-00-202-3639	C-4	6
	C-8	4
9905-00-205-2795	C-4	10
	C-8	11
5310-00-225-5328	C-20	39
00.000 220 3020	C-20	45
	C-21	11
5040 00 005 0000	C-22	1
5310-00-225-6993	C-18	3
5306-00-226-4825	C-12	1
5306-00-226-4827	C-5	1
	C-9	1
5340-00-229-0340	C-16	3
6210-00-244-2897	C-23	1
5120-00-251-4489	C-12	2
5310-00-252-8748	C-20	26
00.10 00 202 0. 10	C-20	31
	C-27	1
6150 00 261 0926	C-24	1
6150-00-261-9826		
5940-00-283-5280	C-31	6
	C-32	3
5975-00-296-6984	C-20	53
2590-00-420-8929	C-3	6
5945-00-435-1833	C-21	5
2590-00-453-8977	C-15	8
2590-00-473-6331	C-4	12
	C-8	15
5961-00-476-7855	C-21	21
5905-00-568-2234	C-21	14
5310-00-570-0386	C-21	2
5310-00-582-5677	C-16	18
4210-00-595-4085	C-4	4
	C-8	8

Section IV. Cross-Reference Indexes; National Stock Number (NSN); Part Number; and Figure and Item Number Indexes (Cont'd)

	T	T
(1) STOCK NUMBER	(2) FIG	(3) ITEM
5310-00-595-6211	C-28	5
5940-00-660-3633	C-31	3
5930-00-660-3950	C-20	49
4720-00-670-6037	BULK	1
	C-12	8
5940-00-682-2445	C-25	5
	C-29	5
	C-30	5
5310-00-682-5756	C-26	1
5975-00-714-8031	C-20	52
5305-00-725-2317	C-10	1
	C-13	1
	C-15	6
	C-16	1
	C-20	15
		_
	C-4	1
	C-7	1
	C-8	14
5975-00-727-5153	C-31	5
	C-32	5
5970-00-740-2971	BULK	4
6210-00-753-2289	C-23	3
5310-00-809-4058	C-11	2
	C-19	13
	C-4	8
	C-6	2
	C-8	6
5970-00-812-2969	BULK	5
5940-00-813-0698	C-23	10
5315-00-839-5822	C-25 C-15	10
5975-00-878-3791	C-12	9
6210-00-900-9423	C-23	4
9320-00-905-5971	BULK	14
4730-00-908-3195	C-12	7
4730-00-916-2142	C-12	6
5310-00-929-6395	C-21	19
5310-00-933-8118	C-21	4
	C-28	1
5310-00-933-8119	C-20	24
	C-20	44
	C-21	12
	C-22	2
5310-00-933-8120	C-20	27
00.000000000000000000000000000000000000	C-20	32
	C-27	4
5310-00-934-9748	C-21	3
3310-00-934-9740	C-21 C-28	2
	U-28	
1		<b>l</b>

(1) STOCK NUMBER	(2) FIG	(3) ITEM
5310-00-934-9759	C-20	
5310-00-934-9759		23
	C-20	43
5310-00-934-9761	C-20	19
6210-00-941-6690	C-23	5
5320-00-954-9568	C-20	63
5940-00-958-1214	C-20	8
5970-00-959-6336	BULK	6
5940-00-983-6059	C-21	9
5310-00-984-3806	C-12	11
0010 00 001 0000	C-5	3
	C-9	3
E07E 00 004 CE00		36
5975-00-984-6582	C-20	
5310-00-988-2652	C-2	7
5320-00-991-7484	C-20	22
5315-01-007-8299	C-19	4
5120-01-013-1676	C-12	3
5935-01-042-7579	C-21	6
6145-01-044-8799	BULK	9
5340-01-056-3063	C-20	56
5310-01-057-1442	C-8	3
6145-01-060-7863	BULK	10
6145-01-060-7869	BULK	11
5320-01-086-3593	C-17	1
5910-01-119-4292	C-21	22
5310-01-141-6672	C-21	23
	C-15	2
5315-01-162-0143		
5120-01-162-6222	C-16	15
2590-01-167-8596	C-15	7
5340-01-169-3006	C-2	4
5340-01-185-6239	C-16	13
5342-01-220-1548	C-15	3
6145-01-226-9164	BULK	12
	C-12	5
5940-01-229-6776	C-21	7
6210-01-230-1851	C-23	7
5310-01-257-7590	C-14	2
5310-01-266-4641	C-18	2
5310-01-274-3255	C-16	12
5940-01-277-0578	C-20	18
5310-01-280-5796	C-20 C-10	
5510-01-200-5790		2
	C-13	2
	C-15	4
	C-16	22
	C-4	2

Section IV. Cross-Reference Indexes; National Stock Number (NSN); Part Number; and Figure and Item Number Indexes (Cont'd)

(4)	1 (5)	(2)
(1) STOCK NUMBER	(2) FIG	(3) ITEM
5310-01-280-5796	C-7	2
0010 01 200 0100	C-8	13
5940-01-283-6241	C-21	17
6115-01-285-3012	C-1	1 1
8130-01-295-4369	C-19	6
5340-01-295-4896	C-20	65
5310-01-303-4701	C-21	20
5320-01-334-3674	C-19	9
6240-01-355-4422	C-23	6
5940-01-365-3580	C-20	17
5945-01-376-0827	C-20	2
6145-01-376-0936	BULK	13
5310-01-386-0481	C-2	5
5910-01-387-6493	C-21	16
6110-01-388-0318	C-20	4
5340-01-397-6096	C-20	64
5305-01-406-1192	C-2	3
2540-01-417-8036	C-3	1
6750-01-424-3616	BULK	15
6115-01-464-0224	BULK	7
	C-1	6
6240-01-466-3528	C-23	2
5310-01-471-0640	C-20	28
	C-20	33
	C-27	3
5310-01-478-5703	C-20	14
5305-01-479-1845	C-20	16

(1) CAGE	(2) PART NUMBER	(3) STOCK NUMBER	(4) FIG	(5) ITEM
81774	02727	6145-01-376-0936	BULK	13
01774	02121	0145-01-370-0930	C-29	
				2
05040	0040470004	5040 04 057 4440	C-30	2
95210	031B179PC4	5310-01-057-1442	C-8	3
97403	13205E5120		C-16	8
97403	13205E5121		C-16	10
97403	13205E5123	=======================================	C-16	6
97403	13205E5125	5340-01-185-6239	C-16	13
97403	13205E5137-2	5120-01-162-6222	C-16	15
97403	13211E4921	2590-00-473-6331	C-4	12
			C-8	15
06076	13211E7541	5342-00-066-1235	C-12	4
97403	13212E3617		C-16	17
97403	13214E1206-1	2590-00-420-8289	C-3	6
97403	13214E1207	5342-01-220-1548	C-15	3
97403	13214E1208-1	2590-00-453-8977	C-15	8
97403	13214E1209	5315-01-162-0143	C-15	2
97403	13214E1212-1	2590-01-167-8596	C-15	7
97403	13214E1391	6210-00-900-9423	C-23	4
97403	13216E7605		C-19	2
97403	13216E7606-1		C-19	2 7
97403	13216E7607		C-19	5
97403	13216E7608		C-19	3
97403	13217E2062		C-19	14
97403	13217E2062A		C-1	5
97403	13218E0493-1289PIIC	5305-01-479-1845	C-20	16
97403	13218E5149-17		C-20	51
97403	13226E7741	5120-01-013-1676	C-12	3
97403	13228E9899		C-16	24
97403	13228E9902		C-1	2
97403	13228E9903		C-16	20
97403	13228E9906		C-16	2
97403	13228E9907-1		C-16	23
97403	13228E9910		C-4	3
			C-8	9
97403	13228E9914		C-16	5
97403	13228E9915		C-16	16
97403	13229E5654-1		C-20	57
97403	13229E5654-2		C-20	55
97403	13229E5666-11		C-1	4
97403	13229E5666-12		C-1	4
97403	13229E5746-3		C-2	2
97403	13229E5740-3		C-20	46
97403	13229E5789A		C-3	3
97403	13229E5789B		C-3	3
1 37 703	10220201000	1	1 0-3	1 5 1

(1) CAGE	(2) PART NUMBER	(3) STOCK NUMBER	(4) FIG	(5) ITEM
97403	13229E5813A	OTOOK NOWIDER	C-3	5
97403	13229E5813B		C-3	5
97403	13229E5814		C-4	5
07.100	1022020011		C-8	10
97403	13229E5823		C-21	1
97403	13229E5829		C-21	10
97403	13229E5830		C-20	1
97403	13229E7946	2540-01-417-8306	C-3	1
97403	13230E4586		C-3	4
97403	13230E4596		C-20	50
97403	13230E4683		C-20	62
97403	13230E6514		C-20	25
97403	13230E6537		C-20	41
97403	13230E6739-Assy		C-20	47
97403	13230E6744-46	5310-01-478-5703	C-20	14
97403	13230E6753-4		C-3	2
97403	13230E6823-8		C-20	21
97403	13230E6832	6115-01-464-0224	C-1	6
97403	13230E6832A		C-2	1
97403	13230E6832B		C-2	1
97403	13230E6946		C-20	38
97403	13230E6948		C-20	40
97403	13230E6949		C-20	54
97403	13230E6950		C-1	3
97403	13230E6951		C-20	3
97403	13230E6952-1		C-20	9
			C-25	1
97403	13230E6952-2		C-20	11
			C-25	6
97403	13230E6952-3		C-20	12
			C-25	8
97403	13230E6952-4		C-20	10
			C-25	10
97403	13230E6954-1		C-20	6
97403	13230E6954-2		C-20	7
83330	181-0937-003	6210-00-941-6690	C-23	5
83330	181-8836-09-553	6210-01-230-1851	C-23	7
94222	2-57-1735-07	5340-01-397-6096	C-20	64
01276	2565-8	4720-00-670-6037	BULK	1
			C-12	8
81349	37TB18	5940-00-983-6059	C-21	9
81349	37TB5-B	5940-01-365-3580	C-20	17
1BB84	3P75A	6750-01-424-3616	BULK	15
81343	5-5 070221		C-12	12

(1) CAGE	(2) (3) PART NUMBER STOCK NUMBER		(4) FIG	(5) ITEM
60705	565C10GAP10 5910-01-387-6493		C-21	16
08108	6S6AC130V	6240-01-355-4422	C-23	6
30554	88-20033-11C			28
00004	00 20000 110	0010 01 47 1 0040	C-20 C-20	33
			C-27	3
28520	8949	6115-01-464-0224	BULK	7
20320	0349	0113-01-404-0224	C-31	9
0KDP7	90270191	4210-00-595-4085	C-4	4
OKDI 7	30270131	4210-00-393-4003	C-8	8
82370	A104	5975-00-878-3791	C-8 C-12	9
14850	A3102126	5945-01-376-0827	C-12 C-20	2
96906	A5102126 A50452-1	6240-01-466-3528	C-20 C-23	2
				17
58536	AA59126/19903	5940-01-283-6241	C-21	
88044	AN960C4	5310-01-141-6672	C-21	23
80204	B1821BH025C088N	5305-00-071-2505	C-4	9
00004	D4004DU0050405N	5005 00 000 0500	C-8	5
80204	B1821BH025C125N	5305-00-068-0509	C-11	1
			C-19	1
			C-6	1
80204	B1821BH025C175N	5305-00-071-2510	C-16	14
80204	B1821BH031C075N	5306-00-226-4825	C-12	1
80204	B1821BH031C100N	5306-00-226-4827	C-5	1
			C-9	1
80204	B1821BH038C100N	5305-00-068-0510	C-14	1
80204	B1821BH038C150N	5305-00-725-2317	C-10	1
			C-13	1
			C-15	6
			C-16	1
			C-20	15
			C-4	1
			C-7	1
			C-8	14
80204	B1821BH050C150N	5305-00-071-2069	C-18	1
03743	BL100	5975-00-714-8031	C-20	52
15235	CGB396	5975-00-296-6984	C-20	53
77348	H8H	5120-00-251-4489	C-12	2
91663	HRCL-6JV2	5935-01-042-7579	C-21	6
81343	J1231-6-8 430260S	4730-00-916-2142	C-12	6
81349	JANTX1N5619	5961-00-476-7855	C-21	21
7E656	JCG-6026	6110-01-388-0318	C-20	4
94222	K3-0334-07	5340-01-295-4896	C-20	65
81349	LC21CN3	6210-00-244-2897	C-23	1
81349	LH80/1	6210-00-753-2289	C-23	3
		•	•	

Section IV. Cross-Reference Indexes; National Stock Number (NSN); Part Number; and Figure and Item Number Indexes (Cont'd)

(1) CAGE	(2) PART NUMBER	(3)	(4)	(5) ITEM
81349	M22759/16-10-9	STOCK NUMBER 6145-01-060-7869	FIG BULK	11 EIVI
01349	10122739710-10-9	0145-01-000-7809	C-25	4
			C-25	7
			C-25	9
81349	M22759/16-16-9	6145-01-044-8799	BULK	9
01349	WZZ739/10-10-9	0143-01-044-0799	C-31	8
			C-32	2
81349	M22759/16-18-9	6145-01-060-7863	BULK	10
01040	101227 337 10-10-3	0143-01-000-7000	C-23	9
81349	M23053/5-104-0	5970-00-812-2969	BULK	5
01040	WI2000070 TO-F 0	0070 00 012 2000	C-21	15
81349	M23053/5-104-9	5970-00-088-2975	BULK	3
01010	W.2000070 101 0	0070 00 000 2070	C-23	8
81349	M23053/5-105-9	5970-00-082-3942	BULK	2
	<u>2</u> 0000,0 100 0	00.0 00 002 00.2	C-25	3
			C-28	4
			C-31	7
			C-32	1
81349	M23053/5-107-9	5970-00-740-2971	BULK	4
			C-29	1
			C-30	1
			C-31	4
			C-32	4
81349	M23053/5-110-4	5970-00-959-6336	BULK	6
			C-29	3
			C-30	3
81349	M39006/22-0631	5910-01-119-4292	C-21	22
81349	M45913/1-4CG5C	5310-00-088-1251	C-11	3
			C-16	11
			C-19	12
			C-4	7
			C-6	3
			C-8	7
81349	M45913/1-5CG5C	5310-00-984-3806	C-12	11
			C-5	3
			C-9	3
81349	M45913/1-6CG5C	5310-00-087-4652	C-10	3
			C-13	3
			C-14	3
			C-15	5
			C-16	21
			C-4	11
			C-7 C-8	3 12
81349	M45913/1-8CG5C	5310 00 335 6003	C-8 C-18	3
81349	M45938/1-13C	5310-00-225-6993 5310-00-570-0386	C-16 C-21	2
01048	1V170000/ 1-100	3310-00-370-0300	U-Z I	_

(1)	(2)	(3)	(4)	(5)
CAGE	PART NÚMBER	STOCK NUMBER	FIG	ITEM
81349	M46089FSA2	9320-00-905-5971	BULK	14
			C-20	20
			C-20	42
			C-20	59
			C-20	60
			C-20	61
81349	M5757/23-003	5945-00-435-1833	C-21	5
30554	MEP 831A	6115-01-285-3012	C-1	1
81349	MIL-W-530, TYPE IIA		C-19	8
96906	MS15795-803	5310-00-595-6211	C-28	5
96906	MS15795-810	5310-00-582-5677	C-16	18
80205	MS15795-841	5310-00-225-5328	C-20	39
			C-20	45
			C-21	11
			C-22	1
96906	MS171534	5315-01-007-8299	C-19	4
96906	MS20604AD3W2	5320-00-991-7484	C-20	22
96906	MS20604AD4W3	5320-00-954-9568	C-20	63
96906	MS20604AD6C4	5320-01-086-3593	C-17	1 1
96906	MS21919WCG12	5340-01-169-3006	C-2	4
96906	MS24524-30	5930-00-660-3950	C-20	49
96906	MS24628-24	5305-00-052-7479	C-16	7
96906	MS24628-48	5305-00-174-4485	C-16	4
96906	MS24665-353	5315-00-839-5822	C-15	1
96906	MS25036-101	5940-00-813-0698	C-23	10
96906	MS25036-106	5940-00-283-5280	C-31	6
			C-32	3
96906	MS25036-110	5940-00-143-4793	C-31	2
96906	MS25036-114	5940-00-113-9826	C-25	2
			C-29	4
			C-30	4
96906	MS25036-119	5940-00-114-1310	C-20	34
96906	MS25036-155	5940-00-660-3633	C-31	3
96906	MS25036-158	5940-00-682-2445	C-25	5
			C-29	5
			C-30	5
			C-4	8
96906	MS27183-10	5310-00-809-4058	C-11	2
			C-19	13
			C-6	2
			C-8	6
96906	MS27183-52	5310-01-274-3255	C-16	12
96906	MS27183-57	5310-01-280-5796	C-10	2

(1) CAGE	(2) PART NUMBER	(3) STOCK NUMBER	(4) FIG	(5) ITEM
96906	MS27183-57	5310-01-280-5796	C-13	2
			C-15	4
			C-16	22
			C-4	2
			C-7	2
			C-8	13
96906	MS27183-60	5310-00-186-7411	C-20	13
96906	MS27407-3	5930-00-105-5331	C-20	48
96906	MS3367-1-0	5975-00-984-6582	C-20	36
96906	MS3367-4-9	5975-00-727-5153	C-31	5
			C-32	5
96906	MS35333-108	5310-00-022-8834	C-8	2
96906	MS35333-113	5310-00-042-4229	C-26	2 2
96906	MS35338-135	5310-00-933-8118	C-21	4
			C-28	1
96906	MS35338-136	5310-00-929-6395	C-21	19
96906	MS35338-137	5310-00-933-8119	C-20	24
			C-20	44
			C-21	12
			C-22	2
96906	MS35338-138	5310-00-933-8120	C-20	27
96906	MS35338-138	5310-00-933-8120	C-20	32
			C-27	4
96906	MS35338-43	5310-00-045-3296	C-2	6
96906	MS35387-1	9905-00-205-2795	C-4	10
			C-8	11
58536	AA52428-2	9905-00-202-3639	C-4	6
			C-8	4
96906	MS35649-244	5310-00-934-9748	C-21	3
			C-28	2
96906	MS35649-264	5310-00-934-9761	C-20	19
96906	MS35649-284	5310-00-934-9759	C-20	23
			C-20	43
96906	MS35650-103	5310-00-988-2652	C-2	7
96906	MS35650-3314	5310-00-252-8748	C-20	26
			C-20	31
			C-27	1
96906	MS35691-35	5310-00-682-5756	C-26	1
96906	MS35825-9A	5340-01-056-3063	C-20	56
96906	MS39347-2	5940-00-021-3321	C-8	1
96906	MS51412-1	5310-01-303-4701	C-21	20
96906	MS51412-21	5310-01-386-0481	C-2	5

(1)	(2)	(3)	(4)	(5)
CÀĞE	PART NUMBER	STOCK NUMBER	FIĞ	ITEM
96906	MS51412-25	5310-00-044-6477	C-12	10
			C-5	2
			C-9	2
96906	MS51412-7	5310-01-257-7590	C-14	2
96906	MS51412-9	5310-01-266-4641	C-18	2
96906	MS51493-3	5305-01-406-1192	C-2	3
96906	MS51926-3	5340-00-078-7029	C-19	11
96906	MS51929-2	5340-00-057-6956	C-19	10
96906	MS51939-3	5340-00-229-0340	C-16	3
96906	MS51957-16	5305-00-054-5650	C-28	3
96906	MS51957-18	5305-00-054-5652	C-21	8
96906	MS51957-27	5305-00-054-6651	C-21	18
96906	MS51957-46	5305-00-054-6671	C-20	37
			C-20	58
			C-21	13
			C-22	3
96906	MS51957-64	5305-00-050-9230	C-20	35
96906	MS51957-67	5305-00-050-9233	C-20	29
			C-27	2
96906	MS51957-81	5305-00-082-6721	C-16	19
96906	MS51960-67	5305-00-071-1324	C-16	9
96906	MS9319-208	5320-01-334-3674	C-19	9
81349	MSA37TB18	5940-01-229-6776	C-21	7
81349	MSA37TB5	5940-01-277-0578	C-20	18
81348	QQB575R30T0437	6145-00-191-8405	BULK	8
			C-20	30
81348	QQW343C06B1B	6145-01-226-9164	BULK	12
			C-12	5
56501	RB873	5940-00-143-4780	C-31	1
81349	RC-435U	8130-01-295-4369	C-19	6
81349	RER75F2490R	5905-00-568-2234	C-21	14
81349	RER75F2491R	5905-00-024-0591	C-20	5
74159	S-38615-G5	5940-00-958-1214	C-20	8
81349	TBJA	6150-00-261-9826	C-24	1

(1)	(2)	(3)	(4)	(5)
FIG	ITEM	STOCK NUMBER	CAGE	PART NUMBER
BULK	1	4720-00-670-6037	01276	2565-8
BULK	2	5970-00-082-3942	81349	M23053/5-105-9
BULK	3	5970-00-088-2975	81349	M23053/5-104-9
BULK	4	5970-00-740-2971	81349	M23053/5-107-9
BULK	5	5970-00-812-2969	81349	M23053/5-104-0
BULK	6	5970-00-959-6336	81349	M23053/5-110-4
BULK	7	6115-01-464-0224	28520	8949
BULK	8	6145-00-191-8405	81348	QQB575R30T0437
BULK	9	6145-01-044-8799	81349	M22759/16-16-9
BULK	10	6145-01-060-7863	81349	M22759/16-18-9
BULK	11	6145-01-060-7869	81349	M22759/16-10-9
BULK	12	6145-01-226-9164	81348	QQW343C06B1B
BULK	13	6145-01-376-0936	81774	02727
BULK	14	9320-00-905-5971	81349	M46089FSA2
BULK	15	6750-01-424-3616	1BB84	3P75A
C-1	1	6115-01-285-3012	30554	MEP 831A
C-1	2		97403	13228E9902
C-1	3		97403	13230E6950
C-1	4		97403	13229E5666-11
C-1	4		97403	13229E5666-12
C-1	5		97403	13217E2062A
C-1	6	6115-01-464-0224	97403	13230E6832
C-2	1		97403	13230E6832A
C-2	1		97403	13230E6832B
C-2	2		97403	13229E5746-3
C-2	3	5305-01-406-1192	96906	MS51493-3
C-2	4	5340-01-169-3006	96906	MS21919WCG12
C-2	5	5310-01-386-0481	96906	MS51412-21
C-2	6	5310-00-045-3296	96906	MS35338-43
C-2	7	5310-00-988-2652	96906	MS35650-103
C-3	1	2540-01-417-8036	97403	13229E7946
C-3	2		97403	13230E6753-4
C-3	3		97403	13229E5789A
C-3	3		97403	13229E5789B
C-3	4		97403	13230E4586
C-3	5		97403	13229E5813A
C-3	5		97403	13229E5813B
C-3	6	2590-00-420-8929	97403	13214E1206-1
C-4	1	5305-00-725-2317	80204	B1821BH038C150N
C-4	2	5310-01-280-5796	96906	MS27183-57
C-4	3		97403	13228E9910
C-4	4	4210-00-595-4085	0KDP7	90270191
C-4	5		97403	13229E5814
C-4	6	9905-00-202-3639	58536	AA52428-2
C-4	7	5310-00-088-1251	81349	M45913/1-4CG5C

(1)	(2)	(3)	(4)	(5)
FIG	(2) ITEM	STOCK NUMBER	(4) CAGE	(5) PART NUMBER
C-4	8	5310-00-809-4058	96906	MS27183-10
C-4	9	5305-00-071-2505	80204	B1821BH025C088N
C-4	10	9905-00-205-2795	96906	MS35387-1
C-4	11	5310-00-087-4652	81349	M45913/1-6CG5C
C-4	12	2590-00-473-6331	97403	13211E4921
C-5	1	5306-00-226-4827	80204	B1821BH031C100N
C-5	2	5310-00-044-6477	96906	MS51412-25
C-5	3	5310-00-984-3806	81349	M45913/1-5CG5C
C-6	1	5305-00-968-0509	80204	B1821BH025C125N
C-6	2	5310-00-809-4058	96906	MS27183-10
C-6	3	5310-00-009-4030	81349	M45913/1-4CG5C
C-0 C-7	1	5305-00-725-2317	80204	B1821BH038C150N
C-7 C-7		5310-01-280-5796	96906	MS27183-57
C-7	2 3	5310-01-260-5796		
C-7 C-8		5940-00-021-3321	81349	M45913/1-6CG5C
	1		96906	MS39347-2
C-8	2	5310-00-022-8834	96906	MS35333-108
C-8	3	5310-01-057-1442	95210	031B179PC4
C-8	4	9905-00-202-3639	58536	AA52428-2
C-8	5	5305-00-071-2505	80204	B1821BH025C088N
C-8	6	5310-00-809-4058	96906	MS27183-10
C-8	7	5310-00-088-1251	81349	M45913/1-4CG5C
C-8	8	4210-00-595-4085	0KDP7	90270191
C-8	9		97403	13228E9910
C-8	10		97403	13229E5814
C-8	11	9905-00-205-2795	96906	MS35387-1
C-8	12	5310-00-087-4652	81349	M45913/1-6CG5C
C-8	13	5310-01-280-5796	96906	MS27183-57
C-8	14	5305-00-725-2317	80204	B1821BH038C150N
C-8	15	2590-00-473-6331	97403	13211E4921
C-9	1	5306-00-226-4827	80204	B1821BH031C100N
C-9	2	5310-00-044-6477	96906	MS51412-25
C-9	3	5310-00-984-3806	81349	M45913/1-5CG5C
C-10	1	5305-00-725-2317	80204	B1821BH038C150N
C-10	2	5310-01-280-5796	96906	MS27183-57
C-10	3	5310-00-087-4652	81349	M45913/1-6CG5C
C-11	1	5305-00-068-0509	80204	B1821BH025C125N
C-11	2	5310-00-809-4058	96906	MS27183-10
C-11	3	5310-00-088-1251	81349	M45913/1-4CG5C
C-12	1	5306-00-226-4825	80204	B1821BH031C075N
C-12	2	5120-00-251-4489	77348	H8H
C-12	3	5120-01-013-1676	97403	13226E7741
C-12	4	5342-00-066-1235	06076	13211E7541
C-12	5		81348	QQW343C06B1B
C-12	6	4730-00-916-2142	81343	J1231-6-8 430260S
C-12	7	4730-00-908-3195	58536	AA52506-F

Section IV. Cross-Reference Indexes; National Stock Number (NSN); Part Number; and Figure and Item Number Indexes (Cont'd)

(1) FIG	(2) ITEM	(3) STOCK NUMBER	(4) CAGE	(5) PART NUMBER
C-12	8	STOCK NOWBER	01276	2565-8
C-12	9	5975-00-878-3791	82370	A104
C-12	10	5310-00-044-6477	96906	MS51412-25
C-12	11	5310-00-984-3806	81349	M45913/1-5CG5C
C-12	12	3310-00-304-3000	81343	5-5 070221
C-13	1	5305-00-725-2317 80204		B1821BH038C150N
C-13	2	5310-01-280-5796	96906	MS27183-57
C-13	3	5310-00-087-4652	81349	M45913/1-6CG5C
C-14	1	5305-00-068-0510	80204	B1821BH038C100N
C-14	2	5310-01-257-7590	96906	MS51412-7
C-14	3	5310-00-087-4652	81349	M45913/1-6CG5C
C-15	1	5315-00-839-5822	96906	MS24665-353
C-15	2	5315-01-162-0143	97403	13214E1209
C-15	3	5342-01-220-1548	97403	13214E1207
C-15	4	5310-01-280-5796	96906	MS27183-57
C-15	5	5310-00-087-4652	81349	M45913/1-6CG5C
C-15	6	5305-00-725-2317	80204	B1821BH038C150N
C-15	7	2590-01-167-8596	97403	13214E1212-1
C-15	8	2590-00-453-8977	97403	13214E1208-1
C-16	1	5305-00-725-2317	80204	B1821BH038C150N
C-16	2		97403	13228E9906
C-16	3	5340-00-229-0340	96906	MS51939-3
C-16	4	5305-00-174-4485	96906	MS24628-48
C-16	5		97403	13228E9914
C-16	6		97403	13205E5123
C-16	7	5305-00-052-7479	96906	MS24628-24
C-16	8		97403	13205E5120
C-16	9	5305-00-071-1324	96906	MS51960-67
C-16	10		97403	13205E5121
C-16	11	5310-00-088-1251	81349	M45913/1-4CG5C
C-16	12	5310-01-274-3255	96906	MS27183-52
C-16	13	5340-01-185-6239	97403	13205E5125
C-16	14	5305-00-071-2510	80204	B1821BH025C175N
C-16	15	5120-01-162-6222	97403	13205E5137-2
C-16	16		97403	13228E9915
C-16	17		97403	13212E3617
C-16	18	5310-00-582-5677	96906	MS15795-810
C-16	19	5305-00-082-6721	96906	MS51957-81
C-16	20		97403	13228E9903
C-16	21	5310-00-087-4652	81349	M45913/1-6CG5C
C-16	22	5310-01-280-5796	96906	MS27183-57
C-16	23		97403	13228E9907-1
C-16	24		97403	13228E9899
C-17	1	5320-01-086-3593	96906	MS20604AD6C4

(1)	(2)	(2)	(1)	(5)
(1) FIG	(2) ITEM	(3) STOCK NUMBER	(4) CAGE	(5) PART NUMBER
C-18	1	5305-00-071-2069	80204	B1821BH050C150N
C-18	2	5310-01-266-4641	96906	MS51412-9
C-18	3	5310-00-225-6993	81349	M45913/1-8CG5C
C-19	1	5305-00-068-0509	80204	B1821BH025C125N
C-19 C-19	2	3303-00-008-0309	97403	13216E7605
C-19 C-19	3		97403	13216E7603 13216E7608
	4	E24E 04 007 0200		
C-19		5315-01-007-8299	96906	MS171534
C-19	5	0400 04 005 4000	97403	13216E7607
C-19	6	8130-01-295-4369	81349	RC-435U
C-19	7		97403	13216E7606-1
C-19	8		81349	MIL-W-530, TYPE IIA
C-19	9	5320-01-334-3674	96906	MS9319-208
C-19	10	5340-00-057-6956	96906	MS51929-2
C-19	11	5340-00-078-7029	96906	MS51926-3
C-19	12	5310-00-088-1251	81349	M45913/1-4CG5C
C-19	13	5310-00-809-4058	96906	MS27183-10
C-19	14		97403	13217E2062
C-20	1		97403	13229E5830
C-20	2	5945-01-376-0827	14850	A3102126
C-20	3		97403	13230E6951
C-20	4	6110-01-388-0318	7E656	JCG-6026
C-20	5	5905-00-024-0591	81349	RER75F2491R
C-20	6		97403	13230E6954-1
C-20	7		97403	13230E6954-2
C-20	8	5940-00-958-1214	74159	S-38615-G5
C-20	9		97403	13230E6952-1
C-20	10		97403	13230E6952-4
C-20	11		97403	13230E6952-2
C-20	12		97403	13230E6952-3
C-20	13	5310-00-186-7411	96906	MS27183-60
C-20	14	5310-01-478-5703	97403	13230E6744-46
C-20	15	5305-00-725-2317	80204	B1821BH038C150N
C-20	16	5305-00-725-2517	97403	13218E0493-1289PIIC
C-20	17	5940-01-365-3580	81349	37TB5-B
C-20	18	5940-01-277-0578	81349	MSA37TB5
C-20 C-20	19	5310-00-934-9761	96906	MS35649-264
C-20 C-20	20	3310-00-834-8701	81349	M46089FSA2
C-20 C-20	20		97403	13230E6823-8
C-20 C-20	21	5320-00-991-7484		
			96906	MS20604AD3W2
C-20	23	5310-00-934-9759	96906	MS35649-284
C-20	24	5310-00-933-8119	96906	MS35338-137
C-20	25	5040.00.050.0546	97403	13230E6514
C-20	26	5310-00-252-8748	96906	MS35650-3314
C-20	27	5310-00-933-8120	96906	MS35338-138
C-20	28	5310-01-471-0640	30554	88-20033-11C

Section IV. Cross-Reference Indexes; National Stock Number (NSN); Part Number; and Figure and Item Number Indexes (Cont'd)

(4)	(0)	(0)	(4)	(5)
(1) FIG	(2) ITEM	(3) STOCK NUMBER	(4) CAGE	(5) PART NUMBER
C-20	29	5305-00-050-9233	96906	MS51957-67
C-20	30		81348	QQB575R30T0437
C-20	31	5310-00-252-8748	96906	MS35650-3314
C-20	32	5310-00-933-8120	96906	MS35338-138
C-20	33	5310-01-471-0640	30554	88-20033-11C
C-20	34	5940-00-114-1310	96906	MS25036-119
C-20	35	5305-00-050-9230	96906	MS51957-64
C-20	36	5975-00-984-6582	96906	MS3367-1-0
C-20	37	5305-00-054-6671	96906	MS51957-46
C-20	38		97403	13230E6946
C-20	39	5310-00-225-5328	80205	MS15795-841
C-20	40		97403	13230E6948
C-20	41		97403	13230E6537
C-20	42		81349	M46089FSA2
C-20	43	5310-00-934-9759	96906	MS35649-284
C-20	44	5310-00-933-8119	96906	MS35338-137
C-20	45	5310-00-225-5328	80205	MS15795-841
C-20	46		97403	13229E5764-2
C-20	47		97403	13230E6739-Assy
C-20	48	5930-00-105-5331	96906	MS27407-3
C-20	49	5930-00-660-3950	96906	MS24524-30
C-20	50		97403	13230E4596
C-20	51		97403	13218E5149-17
C-20	52	5975-00-714-8031	03743	BL100
C-20	53	5975-00-296-6984	15235	CGB396
C-20	54		97403	13230E6949
C-20	55		97403	13229E5654-2
C-20	56	5340-01-056-3063	96906	MS35825-9A
C-20	57		97403	13229E5654-1
C-20	58	5305-00-054-6671	96906	MS51957-46
C-20	59		81349	M46089FSA2
C-20	60		81349	M46089FSA2
C-20	61		81349	M46089FSA2
C-20	62	5000 00 054 0500	97403	13230E4683
C-20	63	5320-00-954-9568	96906	MS20604AD4W3
C-20	64	5340-01-397-6096	94222	2-57-1735-07
C-20	65	5340-01-295-4896	94222	K3-0334-07
C-21 C-21	1	5310-00-570-0386	97403	13229E5823
C-21	2 3	5310-00-570-0386	81349 96906	M45938/1-13C MS35649-244
C-21	4	5310-00-934-9748	96906	MS353849-244 MS35338-135
C-21 C-21	5	5945-00-435-1833	81349	M5757/23-003
C-21	6	5935-01-042-7579	91663	M5757/23-003 HRCL-6JV2
C-21	7	5940-01-229-6776	81349	MSA37TB18
C-21	8	5305-00-054-5652	96906	MS51957-18
0-21	1	JUUU-UU-UU-UUZ	1 30300	IVIOU 1001-10

(4)	(2)	(2)	(4)	(E)
(1) FIG	(2) ITEM	(3) STOCK NUMBER	(4) CAGE	(5) PART NUMBER
C-21	9	5940-00-983-6059	81349	37TB18
C-21	10	3940-00-983-0039	97403	13229E5829
		5040 00 005 5000		
C-21	11	5310-00-225-5328	80205	MS15795-841
C-21	12	5310-00-933-8119	96906	MS35338-137
C-21	13	5305-00-054-6671	96906	MS51957-46
C-21	14	5905-00-568-2234	81349	RER75F2490R
C-21	15		81349	M23053/5-104-0
C-21	16	5910-01-387-6493	60705	565C10GAP10
C-21	17	5940-01-283-6241	58536	AA59126/19903
C-21	18	5305-00-054-6651	96906	MS51957-27
C-21	19	5310-00-929-6395	96906	MS35338-136
C-21	20	5310-01-303-4701	96906	MS51412-1
C-21	21	5961-00-476-7855	81349	JANTX1N5619
C-21	22	5910-01-119-4292	81349	M39006/22-0631
C-21	23	5310-01-141-6672	88044	AN960C4
C-22	1	5310-00-225-5328	80205	MS15795-841
C-22	2	5310-00-933-8119	96906	MS35338-137
C-22	3	5305-00-054-6671	96906	MS51957-46
C-23	1	6210-00-244-2897	81349	LC21CN3
C-23	2	6240-01-466-3528	96906	A50452-1
C-23	3	6210-00-753-2289	81349	LH80/1
	4			
C-23		6210-00-900-9423	97403	13214E1391
C-23	5	6210-00-941-6690	83330	181-0937-003
C-23	6	6240-01-355-4422	08108	6S6AC130V
C-23	7	6210-01-230-1851	83330	181-8836-09-553
C-23	8		81349	M23053/5-104-9
C-23	9		81349	M22759/16-18-9
C-23	10	5940-00-813-0698	96906	MS25036-101
C-24	1	6150-00-261-9826	81349	TBJA
C-25	1		97403	13230E6952-1
C-25	2	5940-00-113-9826	96906	MS25036-114
C-25	3		81349	M23053/5-105-9
C-25	4		81349	M22759/16-10-9
C-25	5	5940-00-682-2445	96906	MS25036-158
C-25	6		97403	13230E6952-2
C-25	7		81349	M22759/16-10-9
C-25	8		97403	13230E6952-3
C-25	9		81349	M22759/16-10-9
C-25	10		97403	13230E6952-4
C-26	1	5310-00-682-5756	96906	MS35691-35
C-26	2	5310-00-042-4229	96906	MS35333-113
C-27	1	5310-00-042-4229	96906	MS35650-3314
C-27	2	5305-00-050-9233	96906	MS51957-67
C-27 C-27	3			88-20033-11C
		5310-01-471-0640	30554	
C-27	4	5310-00-933-8120	96906	MS35338-138

Section IV. Cross-Reference Indexes; National Stock Number (NSN); Part Number; and Figure and Item Number Indexes (Cont'd)

(1)	(2)	(3)	(4)	(5)
FIG	ITEM	STOCK NUMBER	CAGE	PART NUMBER
C-28	1	5310-00-933-8118	96906	MS35338-135
C-28	2	5310-00-934-9748	96906	MS35649-244
C-28	3	5305-00-054-5650	96906	MS51957-16
C-28	4		81349	M23053/5-105-9
C-28	5	5310-00-595-6211	96906	MS15795-803
C-29	1		81349	M23053/5-107-9
C-29	2		81774	02727
C-29	3		81349	M23053/5-110-4
C-29	4	5940-00-113-9826	96906	MS25036-114
C-29	5	5940-00-682-2445	96906	MS25036-158
C-30	1		81349	M23053/5-107-9
C-30	2		81774	02727
C-30	3		81349	M23053/5-110-4
C-30	4	5940-00-113-9826	96906	MS25036-114
C-30	5	5940-00-682-2445	96906	MS25036-158
C-31	1	5940-00-143-4780	56501	RB873
C-31	2	5940-00-143-4793	96906	MS25036-110
C-31	3	5940-00-660-3633	96906	MS25036-155
C-31	4		81349	M23053/5-107-9
C-31	5	5975-00-727-5153	96906	MS3367-4-9
C-31	6	5940-00-283-5280	96906	MS25036-106
C-31	7		81349	M23053/5-105-9
C-31	8		81349	M22759/16-16-9
C-31	9		28520	8949
C-32	1		81349	M23053/5-105-9
C-32	2		81349	M22759/16-16-9
C-32	3	5940-00-283-5280	96906	MS25036-106
C-32	4		81349	M23053/5-107-9
C-32	5	5975-00-727-5153	96906	MS3367-4-9

#### **APPENDIX D**

# EXPENDABLE AND DURABLE SUPPLIES AND MATERIALS LIST Section I. INTRODUCTION

#### D-1 SCOPE.

This appendix lists expendable and durable items that are needed to operate and maintain the AN/MJQ-42 and AN/MJQ-43 Power Plants. This listing is for informational purposes only and is not authority to requisition the listed items. These items are authorized to you by CTA 50-790, Expendable/Durable Items (except medical, class V, repair parts, and heraldic items), or CTA 8-100, Army Medical Department Expendable/Durable Items.

#### D-2 EXPLANATION OF COLUMNS.

- **a.** <u>Column (1) Item Number</u>. This number is assigned to the entry in the listing and may be referenced in the narrative instructions to identify the item (e.g., "Use Adhesive, item 4, Appendix D").
- b. Column (2) Level. This column identifies the lowest level of maintenance that requires the item.
  - C Operator/Crew Maintenance
  - O Unit Maintenance
  - **F** Direct Support Maintenance
- c. <u>Column (3) National Stock Number</u>. This is the national stock number assigned to the item; use it to requisition the item.
- d. <u>Column (4) Item Name, Description, Commercial and Government Entity (CAGE) Code, and Part Number</u>. This provides the other information needed to identify the item.
- e. <u>Column (5) Unit of Measure (U/M)</u>. This code shows the physical measurement or count of an item, such as Feet, Sheet, etc.

# Section II. TABLE OF EXPENDABLE AND DURABLE SUPPLIES AND MATERIALS

(1)	(2)	(3)	(4)	(5)
ITEM		NATIONAL STOCK	ITEM NAME, DESCRIPTION, CAGE, PART	
NUMBER	LEVEL	NUMBER	NUMBER	U/M
1	F	6145-01-376-0936	Cable, Power, Electrical	FT
2	F	4720-00-809-2889	Hose, Nonmetallic	FT
3	F	6115-01-464-0224	Tubing, Plastic, Spiral	FT
4	F	8040-00-664-4318	Adhesive	PT
5	F	6145-01-060-7869	Wire, Electrical	FT
6	F	6145-01-044-8799	Wire, Electrical	FT
7	F	6145-01-060-7863	Wire, Electrical	FT
8	F	5970-00-812-2969	Insulation Sleeving	FT
9	F	5970-00-088-2975	Insulation Sleeving	FT
10	F	5970-00-082-3942	Insulation Sleeving	FT
11	F	5970-00-740-2971	Insulation Sleeving	FT
12	F	5970-00-959-6336	Insulation Sleeving	FT
13	F	9320-00-905-5971	Rubber Sheet, Cellular	SH
14	F	6145-00-191-8405	Braid, Wire	FT
15	F	6145-01-226-9164	Wire, Electrical	FT

#### **APPENDIX E**

#### ADDITIONAL AUTHORIZATION LIST (AAL)

#### Section I. INTRODUCTION

#### E-1 SCOPE.

This appendix lists additional items you are authorized for the support of the power plants AN/MJQ-42 and AN/MJQ-43.

#### E-2 GENERAL.

This list identifies items that do not have to accompany the power plant and that do not have to be turned in with it. These items are all authorized to you by CTA, MTOE, TDA, or JTA.

#### E-3 EXPLANATION OF COLUMNS.

National stock numbers, descriptions, and quantities are provided to help you identify and request the additional items you require to support this equipment. The items are listed in alphabetical sequence by item name. If the item you require differs between serial numbers of the same model, effective serial numbers are shown in the last line of the description. If item required differs for different models of this equipment, the model is shown under the "Usable on" heading in the description column.

- **E-3.1** Column (1), National Stock Number. The National Stock Number identifies the stock number of the end item to be used for requisitioning purposes.
- **E-3.2** Column (2), Description, CAGEC and Part Number and Usable On Code. Identifies the Federal Item Name followed by a minimum description when needed. The last line below the description is the Commercial and Government Entity Code (CAGEC), the Part Number and the Usable On Code (UOC). The UOC gives you a code if the item you need is not the same for different models of equipment. These codes are identified below:

CODE	<u>USED ON</u>
YBX	AN/MJQ-42
YBY	AN/MJQ-43

- **E-3.3** Column (3), Unit of Issue/Unit of Measure. Indicates how the item is issued for the National Stock Number shown in Column (1).
- E-3.4 Column (4), QTY Recm. Indicates the quantity recommended.

#### Section II. ADDITIONAL AUTHORIZED ITEMS LIST

(1)	(2)		(4)
NATIONAL STOCK NUMBER	DESCRIPTION CAGEC AND PART NUMBER USABLE ON CODE	UI/UM	QTY RECM
7240-01-337-5269	Can, Gasoline, Military (58536) CID A-A-59592	EA	2
7240-00-177-6154	Spout, Can, Flexible (09647) 838A7511	EA	2

#### **APPENDIX F**

## **FABRICATION/ASSEMBLY OF PARTS**

#### F-1. INTRODUCTION.

This appendix includes complete instructions for making items authorized to be manufactured or fabricated at unit and direct support maintenance levels.

A part number index in alphanumeric order is provided for cross-referencing the part number of the item to be manufactured to the figure, which covers fabrication criteria.

All bulk materials needed for manufacture of an item are listed by part number or specification number in a tabular list on the illustration.

#### F-2 MANUFACTURED ITEMS PART NUMBER INDEX.

PART NUMBER OF MANUFACTURED ITEM	APPLICABLE FIGURE
13230E6952	F-1
13229E5829	F-2
13230E6954	F-3
13230E6951	F-4

#### F-3 GENERAL INSTRUCTIONS

The manufacture of items listed above consists of cutting wires to length specified on figures and soldering terminal lugs or connectors on appropriate wires. Use standard shop procedures in the manufacture of these items.

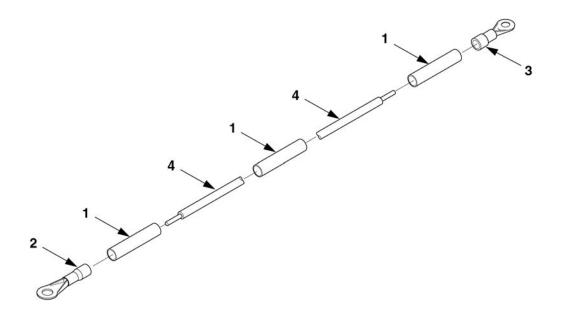


Figure F-1. Electrical Lead.

#### **PARTS LIST**

FIND NO.	PART NO.	QUANTITY REQUIRED	DESCRIPTION
1	M2305315-105-9	1	INSULATION SLEEVING, ELECTRICAL (2.50 LONG)
2	M525036-158	1	TERMINAL, LUG, SMALL, RING, TONGUE, FULLY INSULATED (WIRE SIZE 12-10, STUD SIZE .500)
3	M525036-114	1	TERMINAL, LUG, SMALL, RING, TONGUE, FULLY INSULATED (WIRE SIZE 12-10, STUD SIZE .375)
4	M22759116-10-9	1	WIRE, ELECTRICAL, 600 VOLT

#### NOTES:

- 1. INSTALLED CRIMPED CONNECTIONS SHALL WITHSTAND AN AXIAL LOAD OF 8 POUNDS, SHALL HAVE CONTINUITY, AND SHALL SHOW NO EVIDENCE OF DAMAGE OR ARCING WHEN CRIMPED WITH TERMINAL MANUFACTURER'S RECOMMENDED CRIMPING TOOL.
- 2. HOT STAMP SLEEVING, FIND NO. 1, WITH WIRE ADDRESS, WITHIN 2 INCHES OF ITS TERMINATIONS. HOT-STAMPED MARKING SHALL PROVIDE VISUAL CONTRAST AND SHALL BE IMPRESSED TO A DEPTH NOT EXCEEDING ONE-FOURTH THE THICKNESS OF MATERIAL FOR PERMANENCY AND LEGIBILITY. THE ADDRESS CONSISTS OF THE "FROM TERMINATION", A DOUBLE HEADED ARROW, AND THE "TO TERMINATION". **EXAMPLE:** XK3-2 ←→ TB1-1
- 3. AT PIGTAIL END OF CABLE, EACH INSULATED CONDUCTOR SHALL HAVE THEIR INDIVIDUAL STRANDS TWISTED TOGETHER AND SOLDER COATED FOR A LENGTH OF .125 FROM END USING SOLDER, FIND NO. 5.

4. HOT STAMP "97403-13230E6952-2" IN .23-.39 HIGH WHITE CHARACTERS ON INSULATION SLEEVING, FIND NO. 1, IN ACCORDANCE WITH MIL-M-60903.

#### **WIRE LIST**

TERMIN	NATION	TERMIN		
FROM	FIND NO.	то	FIND NO.	WIRE LENGTH +/50
K1-A1	3	L1	2	16.00
K1-B1	3	L2	2	18.00
K1-B1	3	K2-B1	3	12.00
K1-A1	3	K2-A1	3	12.00

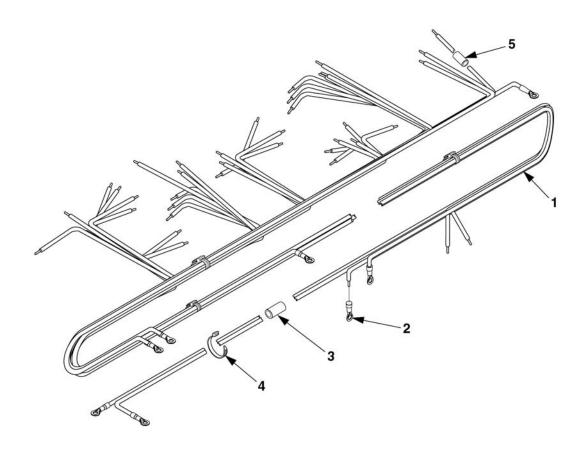


Figure F-2. Relay Board Harness Assembly.

#### **PARTS LIST**

FIND NO.	PART NO.	QUANTITY	DESCRIPTION
1	M22759/6-16-9	AR	WIRE, ELECTRICAL, 600 VOLT
2	M525036-106	31	TERMINAL, LUG, SMALL, RINGS, TONGUE, FULLY INSULATED.
3	M23053/5-107-9	1	INSULATION SLEEVING, ELECTRICAL (1.50 L)
4	M53367-4-9	AR	STRAP, TIEDOWN
5	M23053/5-105-9	70	INSULATION SLEEVING, ELECTRICAL; (1.50 L)

#### NOTES:

- 1. BUNDLE WIRE HARNESS AT EACH BREAKOUT AND AT 3.00 MAX INTERVALS USING TIEDOWN STRAP, FIND NO. 4.
- 2. HOT STAMP "97403-13229E5829". HOT-STAMPED MARKING SHALL PROVIDE VISUAL CONTRAST AND SHALL BE IMPRESSED TO A DEPTH NOT EXCEEDING ONE-FOURTH THE THICKNESS OF MATERIAL FOR PERMANENCY AND LEGIBILITY.
- 3. EACH WIRE SHALL BE IDENTIFIED BY HOT STAMPING ADDRESS DESIGNATIONS USING .09-.16 HIGH BLACK CHARACTERS ON INSULATION SLEEVING, FIND NO. 3. HOT-STAMPED MARKINGS SHALL PROVIDE VISUAL CONTRAST AND SHALL BE IMPRESSED TO A DEPTH NOT EXCEEDING ONE-FOURTH THE THICKNESS OF MATERIAL FOR PERMANENCY AND LEGIBILITY. ATTACH WITHIN TWO INCHES OF BOTH END TERMINATIONS. ADDRESS SHALL CONSIST OF THE "FROM TERMINATION", A DOUBLE HEADED ARROW, AND THE "TO TERMINATION". EXAMPLE:  $XK3-2 \leftarrow \rightarrow TB1-1$
- 4. STRIP AND TIN ENDS IN ACCORDANCE WITH MIL-STD-2000.
- 5. INSTALLED CRIMPED CONNECTIONS SHALL WITHSTAND AN AXIAL LOAD OF 8 POUNDS, SHALL HAVE CONTINUITY, AND SHALL SHOW NO EVIDENCE OF DAMAGE OR ARCING WHEN CRIMPED WITH TERMINAL MANUFACTURER'S RECOMMENDED CRIMPING TOOL.
- 5. FOR SPARE PARTS PROCUREMENT ONLY:
  - A. TEST REQUIREMENTS- WITH AN OHMMETER VERIFIES ELECTRICAL CONTINUITY FOR EACH "FROM-TO" PATH SHOWN ON THE WIRE LIST.
  - B. INSULATION RESISTANCE- MEASURE THE INSULATION RESISTANCE BETWEEN ALL MUTUALLY INSULATED TERMINALS, INCLUDING THE SHELL OF THE CONNECTOR, IN ACCORDANCE WITH ASTM D 257, EXCEPT THE DIRECT VOLTAGE SHALL BE 1000 VOLTS <u>+</u> 10%. THE MINIMUM OBSERVED RESISTANCE SHOULD BE 10 MEGOHMS.

#### **WIRE LIST**

	TERMIN	NATION	TERM	INATION	WIRE FIND NO.	
WIRE NO.	FROM	FIND NO.	ТО	FIND NO.		
1	XK3-2	2	TB1-1	2	1	
2	XK3-3	2	TB1-6	2	1	
3	XK3-4	2	TB1-5	2	1	
4	XK3-5	2	TB1-3	2	1	
5	XK3-6	2	TB1-4	2	1	
6	XK3-7	2	TB1-2	2	1	
7	XK5-2	2	TB1-1	2	1	
8	XK5-3	2	TB1-8 2		1	
9	XK5-4	2	TB1-10 2		1	
10	XK5-5	2	TB1-17	2	1	
11	XK5-6	2	TB1-6	2	1	
12	E-7	-	E-6	-	1	
13	XK4-2	2	TB1-14	2	1	
14	XK4-3	2	TB1-9	2	1	
15	XK4-4	2	TB1-5	2	1	
16	XK4-5	2	TB1-3	2	1	
17	XK4-6	2	TB1-7	2	1	
18	XK4-7	2	TB1-15	2	1	
19	R1-1	2	TB1-17	2	1	
20	XK6-3	2	TB1-12	2	1	
21	XK6-4	2	TB1-11	2	1	
22	XK6-5	2	TB1-16	2	1	
23	XK6-6	2	TB1-13	2	1	
24	XK6-7	2	TB1-15	2	1	
25	R1-2	-	E6	-	1	
26	R2-2	-	E3	-	1	
27	E5	2	TB1-1	2	1	
28	E4	2	TB1-2	2	1	
29	R2-1	2	TB1-16	2	1	
30	E2	2	TB1-15	2	1	
31	E1	-	E4	-	1	
32	XK5-7	2	TB1-2	2	1	
33	E1	2	TB1-14	2	1	
34	E8	2	TB1-18	2	1	

# Wire List (Continued)

	TERMINATION		TERMI	INATION	WIRE FIND NO.
WIRE NO.	FROM	FIND NO.	ТО	FIND NO.	
35	XK6-2	2	TB1-14	2	1
36	E9	-	E3	-	1

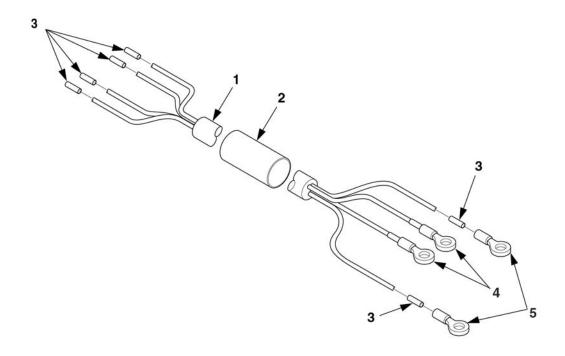


Figure F-3. Power Cable Assembly.

### **PARTS LIST**

FIND	PART NO.	QUANTITY	DESCRIPTION	
NO.		REQUIRED		
1	02727	AR	CABLE, POWER, ELECTRICAL	
2	M23053/5-110-4	2	INSULATION SLEEVING, ELECTRICAL	
3	M23O53/5-107-9	O53/5-107-9 8 INSULATION SLEEVING, ELECTRICAL		
4	M525036-114	2	TERMINAL LUG, SMALL, RING, TONGUE, FULLY INSULATED (10-12 AWG .375 STUD SIZE)	
5	M525036-158	2	TERMINAL LUG, SMALL, RING, TONGUE, FULLY INSULATED (10-12 AWG .500 STUD SIZE)	

#### NOTES:

- 1. INSTALLED CRIMRED CONNECTIONS SHALL WITHSTAND AN AXIAL LOAD OF 8 POUNDS, SHALL HAVE CONTINUITY, AND SHALL SHOW NO EVIDENCE OF DAMAGE OR ARCING WHEN CRIMPED WITH TERMINAL MANUFACTURER'S RECOMMENDED CRIMPING TOOL.
- 2. AT GENERATOR END OF CABLE, THE CONDUCTORS SHALL BE STRIPPED 1.00 FROM END, AND SHALL HAVE THEIR INDIVIDUAL STRANDS TWISTED TOGETHER STARTING AT THE JACKET. CONDUCTORS SHALL BE SOLDER COATED FOR A LENGTH OF .25 ± .12 FROM END, IN ACCORDANCE WITH MANUFACTURER COMMERCIAL PRACTICES.
- 3. INSULATION COLORS, IN ACCORDANCE WITH WIRE TABLE, SHALL BE INCLUDED AS PART OF THE ORDERING DATA.
- 4. HOT STAMP "97403-13230E6954" WITH APPROPRIATE DASH NO. AND "W[]" NUMBER IN .12 MIN HIGH BLACK CHARACTERS ON INSULATION SLEEVING, FIND NO. 2. HOT-STAMPED MARKING SHALL PROVIDE VISUAL CONTRAST AND SHALL BE IMPRESSED TO A DEPTH NOT EXCEEDING ONE-FOURTH THE THICKNESS OF MATERIAL FOR PERMANENCY AND LEGIBILITY.
- 5. HOT STAMP TERMINAL DESIGNATION AS SHOWN IN WIRE TABLE, USING .09-.16 HIGH CHARACTERS, ON INSULATION SLEEVING, FIND NO. 3 HOT-STAMPED MARKING SHALL PROVIDE VISUAL CONTRAST AND SHALL BE IMPRESSED TO A DEPTH NOT EXCEEDING ONE-FOURTH THE THICKNESS OF MATERIAL FOR PERMANENCY AND LEGIBILITY.

#### **WIRE LIST**

		TERMINATION		TERMIN	ATION		
DASH NO.	WIRE NO.	FROM	FIND NO.	то	FIND NO.	WIRE COLOR	AWG (REF)
-1	1	G1-L1	1	K1-A2	4	BLK	10
-1	2	G2-L2	ı	K1-B1	4	RED	10
-1	3	G1-N	-	N	5	WHT	10
-1	4	G1-GND	-	GND	5	GRN	10
-2	1	G2-L1	-	K2-A2	4	BLK	10
-2	2	G2-L2	-	K2-B2	4	RED	10
-2	3	G2-N	-	N	5	WHT	10
-2	4	G2-GND	-	GND	5	GRN	10

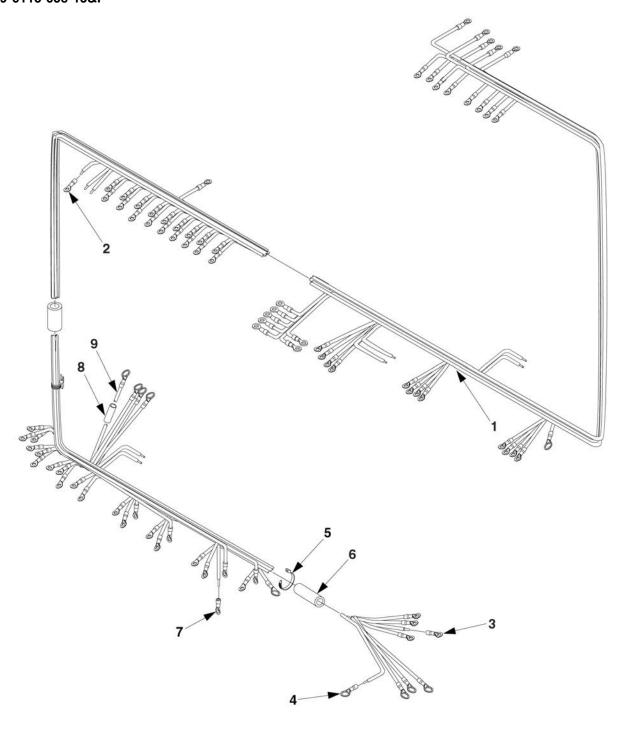


Figure F-4. Switch Box Harness Assembly.

#### **PARTS LIST**

FIND	PART NO.	QUANTITY	DESCRIPTION
NO.		REQUIRED	
1	M22759/16-16-9	AR	WIRE, ELECTRICAL, 600 VOLT (16 AWG)
2	M525036-106	71	TERMINAL LUG, SMALL, RING, TONGUE, FULLY INSULATED (16-14 AWG .138 STUD SIZE)
3	M525036-110	9	TERMINAL LUG, SMALL, RING, TONGUE, FULLY INSULATED (16-14 AWG .375 STUD SIZE)
4	M525036-155	5	TERMINAL LUG (16-14 AWG .500 STUD SIZE)
5	M53367-4-9	AR	STRAP, TIE DOWN
6	M23053/5-107-9	1	INSULATION SLEEVING (1.50 L)
7	RB873	1	TERMINAL LUG, SMALL, RING, TONGUE, FULLY INSULATED (16-14 AWG .190 STUD SIZE)
8	M23053/5-105-9	104	INSULATION SLEEVING, ELECTRICAL (L AS REQD)
9	8949	1	TUBING, PLASTIC, SPIRAL WRAP (10.00 L)

#### NOTES:

- 1. BUNDLE WIRE HARNESS AT EACH BREAKOUT AND AT 3.00 MAX INTERVALS USING TIEDOWN STRAP, FIND NO. 5.
- 2. HOT STAMP "97403-13230E6951 ON INSULATION SLEEVING, FIND NO. 6. HOT-STAMPED MARKING SHALL PROVIDE VISUAL CONTRAST AND SHALL BE IMPRESSED TO A DEPTH NOT EXCEEDING ONE-FOURTH THE THICKNESS OF MATERIAL FOR PERMANENCY AND LEGIBILITY.
- 3. EACH WIRE SHALL BE IDENTIFIED BY HOT STAMPING ADDRESS DESIGNATIONS USING .09-.16 HIGH BLACK CHARACTERS ON INSULATION SLEEVING, FIND NO. 8. HOT-STAMPED MARKINGS SHALL PROVIDE VISUAL CONTRAST AND SHALL BE IMPRESSED TO A DEPTH NOT EXCEEDING ONE-FOURTH THE THICKNESS OF MATERIAL FOR PERMANENCY AND LEGIBILITY. ATTACH WITHIN TWO INCHES OF BOTH END TERMINATIONS. ADDRESS SHALL CONSIST OF THE "FROM TERMINATION", A DOUBLE HEADED ARROW, AND THE "TO TERMINATION". EXAMPLE: XK3-2 ←→ TB1-1.
- 4. WIRES SHALL BE STRIPPED 1.00 FROM END, AND SHALL HAVE THEIR INDIVIDUAL STRANDS TWISTED TOGETHER STARTING AT THE JACKET. CONDUCTORS SHALL BE SOLDER COATED FOR A LENGTH OF .25 ± .12 FROM END, IN ACCORDANCE WITH MANUFACTURER'S COMMERCIAL PRACTICES.
- 6. INSTALLED CRIMPED CONNECTIONS SHALL WITHSTAND AN AXIAL LOAD OF 8 POUNDS, SHALL HAVE CONTINUITY, AND SHALL SHOW NO EVIDENCE OF DAMAGE OR ARCING WHEN CRIMPED WITH TERMINAL MANUFACTURER'S RECOMMENDED CRIMPING TOOL.

#### **WIRE LIST**

	TERMINAT		TERM	INATION	
WIRE NO.	FROM	FIND NO.	то	FIND NO.	WIRE FIND NO.
1	TB1-17	2	S10-2	2	1
2	TB1-2	2	PP-4	2	1
3	TB1-3	2	PP-3	2	1
4	TB1-4	2	K2-A2	3	1
5	TB1-5	2	XDS6-2	-	1
6	TB1-6	2	K2-22	2	1
7	TB1-7	2	K1-A2	3	1
8	TB1-8	2	K1-21	2	1
9	TB1-9	2	K1-B2	3	1
10	TB1-10	2	K2-11 PP-6	2	1
11 12	TB1-10 TB1-11	2	PP-6 PP-8	2	1
13	TB1-11	2	K2-21	2	1
14	TB1-12	2	K1-22	2	1
15	TB1-13	2	S10-5	2	1
16	101-10	-	310-3	-	- '
17	TB2-5	2	K2-B2	3	1
18	102-0		NZ-DZ	<u> </u>	- '
19	TB2-4	2	K2-Y	2	1
20	XDS6-1	-	R3-1	-	1
21	XDS5-1		PP-2	2	1
22	XDS5-2 XDS5-1	-	PP-1	2	1
23	TB2-2	2	K1-B2	3	1
24	102-2	-	K1-D2	-	-
25	S2-2	2	S10-4	2	1
26	-			-	
27	_	-	-	_	_
28	S1-6	2	PP-7	2	1
29	S1-2	2	S10-1	2	1
30	S1-5	2	K1-12	2	1
31	S2-6	2	PP-5	2	1
32	-	-	-	-	
33	S2-5	2	K2-12	2	1
34	K1-11	2	PP-8	2	1
35	PP-4	2	N	4	1
36	XDS7-2	-	PP-1	2	1
37	XDS7-1	-	L2	4	1
38	K1-22	2	K2-32	2	1
39	K2-32	2	K1-B2	3	1
40	K2-22	2	K2-B2	3	1
41	K1-32	2	K2-B2	3	1
42	K1-33	2	K2-11	2	1
43	K2-Y	2	N	4	1
44	K2-X	2	S2-3	2	1
45	K2-33	2	K1-11	2	1
46	K1-X	2	S1-3	2	1
47	K1-Y	2	N	4	1
48	K1-Y	2	TB2-1	2	1
49	K2-A1	3	R3-2	-	1
50	PP2-2	2	PP-3	2	1
51	TB1-18	2	TB2-3	2	1
52	E11	7	TB2-3	2	1
53	XDS1	4	TB2-3	2	1

# APPENDIX G TORQUE LIMITS

Indeterminate	Minimum Commercial	Medium	Best
		Commercial	Commercial
		←	

#### NOTE

Head marking may vary with different manufacturers.

Capscrew Body Size (Inches ) - (Thread)			Torque Ft Lb (N.m)		Torque Ft Lb (N.m)		Torque Ft Lb (N.m)		Torque Ft Lb (N.m)	
1/4	20	5	(7)	8	(11)	10	(14)	12	(16)	
	28	6	(8)	10	(14)			14	(19)	
5/16	18	11	(15)	17	(23)	19	(26)	24	(33)	
	24	13	(18)	19	(26)			27	(37)	
3/8	16	18	(24)	31	(42)	34	(46)	44	(60)	
	24	20	(27)	35	(47)			49	(66)	
7/16	14	28	(38)	49	(66)	55	(75)	70	(95)	
	20	30	(41)	55	(75)			78	(106)	
1/2	13	39	(53)	75	(102)	85	(115)	105	(142)	
	20	41	(56)	85	(115)	100000		120	(163)	
9/16	12	51	(69)	110	(149)	120	(163)	155	(210)	
	18	55	(75)	120	(163)			170	(231)	
5/8	11	83	(113)	150	(203)	167	(226)	210	(285)	
	18	95	(129)	170	(231)			240	(325)	
3/4	10	105	(142)	270	(366)	280	(380)	375	(508)	
	16	115	(156)	295	(400)			420	(569)	
7/8	9	160	(217)	395	(536)	440	(597)	605	(820)	
	14	175	(237)	435	(590)			675	(915)	
1	8	235	(319)	590	(800)	660	(895)	910	(1234)	
	14	250	(339)	660	(895)	10000000		990	(1342)	

#### CAUTION

If replacement capscrews are of a higher grade than originally supplied, use torque specifications for that placement. This will prevent equipment damage due to over torquing.

Always use the torque values listed above when specific torque values are not availiable.

# **APPENDIX H**

# **MANDATORY REPLACEMENT PARTS**

# **Section I. INTRODUCTION**

#### H-1 SCOPE.

This appendix lists all parts used on the AN/MJQ-42 and AN/MJQ-43 power plants that must be discarded when removed during PMCS and installed new.

#### H-2 GENERAL.

There are no mandatory replacement parts for the AN/MJQ-42 and AN/MJQ-43.

#### **APPENDIX I**

# COMPONENTS OF END ITEM (COEI) AND BASIC ISSUE ITEMS (BII) LIST Section I. INTRODUCTION

#### I-1. Scope.

This appendix lists COEI and BII for the power plants to help you inventory the items for safe and efficient operation of the equipment.

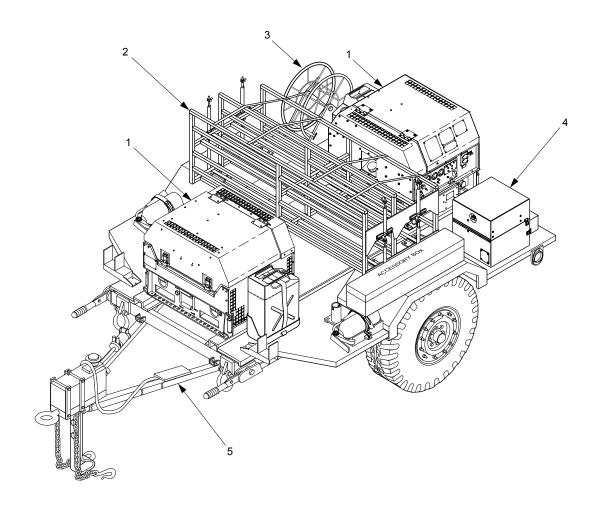
#### I-2. General.

The COEI and BII information is divided into the following lists:

- **a. Section II, Components of End Item.** This listing is for information purposes only, and is not authority to requisition replacements. These items are part of the power plant. As part of the end item, these items must be with the end item whenever it is issued or transferred between property accounts. Items of COEI are removed and separately packaged for transportation or shipment only when necessary. Illustrations are furnished to help you find and identify the items.
- **b. Section III, Basic Issue Items.** These essential items are required to place the power plant in operation, operate it, and to do emergency repairs. Although shipped separately packaged, BII must be with the generator set during operation and when it is transferred between property accounts. This list is your authority to request/requisition them for replacement based on authorization of the end item by the TOE/MTOE. Illustrations are furnished to help you find and identify the items.
- I-3. Explanation of Columns.
- **I-3.1** Column (1), Illus Number. Identifies the number of the item illustrated.
- **I-3.2** Column (2), National Stock Number. Identifies the stock number of the end item to be used for requisitioning purposes.
- **I-3.3** Column (3), Description, CAGEC, and Part Number. Identifies the Federal item name (in all capital letters) followed by a minimum description when needed. The last line below the description is the Commercial and Government Entity Code (CAGEC) (in parentheses) and the part number.
- **I-3.4** Column (4), Usable On Code. Provides a code if the item you need is not the same for different models of equipment. These codes are identified below:

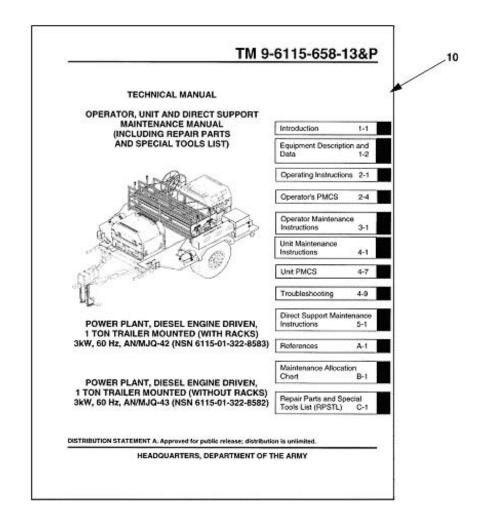
CODE	<u>USED ON</u>
YBX	AN/MJQ-42
YBY	AN/MJQ-43

- e. <u>Column (5), U/M (Unit of Measure).</u> Indicates how the item is issued for the National Stock Number shown in Column (2).
  - f. Column (6), Qty Rqd. Indicates the quantity required.



**Section II. COMPONENTS OF END ITEM** 

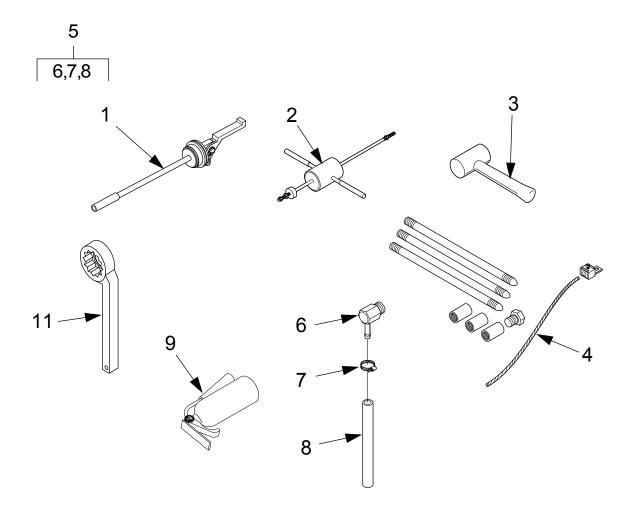
(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	(4) USABLE ON CODE	(5) U/M	(6) QTY RQD
1	6115-01-285-3012	Generator Set,3kw (30554) MEP 831a		EA	2
2		Stowage/Antenna Rack Assembly (97403) 13228E9902	YBX	EA	1
3		Cable Reel Assembly (97403) 13217E2062a	YBX	EA	1
4		Switch Box Assembly (97403) 13230E6950		EA	1
5	6115-01-464-0224	Trailer, Generator (97403) 13230E6832		EA	1



# **Section III. BASIC ISSUE ITEMS**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	(4) USABLE ON CODE	(5) U/M	(6) QTY RQR
1	2910-00-166-1235	Adapter, Container (06076) 13211E7541		EA	2
2	5120-01-013-1676	Slide Hammer, Ground (97403) 13226E7741		EA	1
3	5120-00-251-4489	Hammer, Hand: 8lbs (77348) H8H		EA	1
4	5975-00-878-3791	Rod, Ground (82370) A104		EA	1
5		Oil Drain Assembly (Order Components Below)		NA	NA
6	4730-00-916-2142	Elbow, Pipe To Hose (81343) J1231-6-8 430260S		EA	1
7	4730-00-908-3195	Clamp, Hose (58536) AA52506-F		EA	1
8	4720-00-670-6037	Hose, Nonmetallic (01276) 2565-8		EA	1
9	4210-01-361-6921	Extinguisher, Fire (54905) 322		EA	2
10		Technical Manual (97403) TM 9-6115-658-13&P		EA	1
11		Wrench, Box (30554) 72-2029-1		EA	1

# Section III. BASIC ISSUE ITEMS Continued



# **GLOSSARY**

# Section I. ABBREVIATIONS

#### **COMMON ABBREVIATIONS.**

The common abbreviations used in this manual are in accordance with MIL-STD-12D.

#### SPECIAL OR UNIQUE ABBREVIATIONS.

The following are abbreviations and symbols that are used in this manual and not listed in MIL-STD-12D.

AAL	additional authorization list
BII	basic issue item
BOI	
°C	degrees Celsius
CAGE	commercial and government entity
CAGEC	commercial and government entity code
Conex	container express
COEI	components of end item
CPC	corrosion prevention and control
CTA	
CUCV	commercial utility cargo vehicle
DOD	Department of Defense
EIR	equipment improvement recommendation
°F	degrees Fahrenheit
HMMWV	high mobility multipurpose wheeled vehicle
Hz	hertz
JTA	joint table of allowances
kg	kilogram
kPa	kilopascals
kph	kilometers per hour
kW	
lbf-ft	foot pound-force
m	
MAC	
MTOE	modification table of organization and equipment
NIIN	national item identification number
N•m	newton meter
NSNs	
PMCS	
P/N	
PPR	permissive paralleling relay
RPSTL	
SMR	
TAMMS	
TDA	
TMDE	
UOC	usable on code

# Section II. DEFINITION OF UNUSUAL TERMS

#### **UNUSUAL TERMS.**

The following are terms that are used in this manual and not listed in the Army dictionary (AR 310-25).

None.

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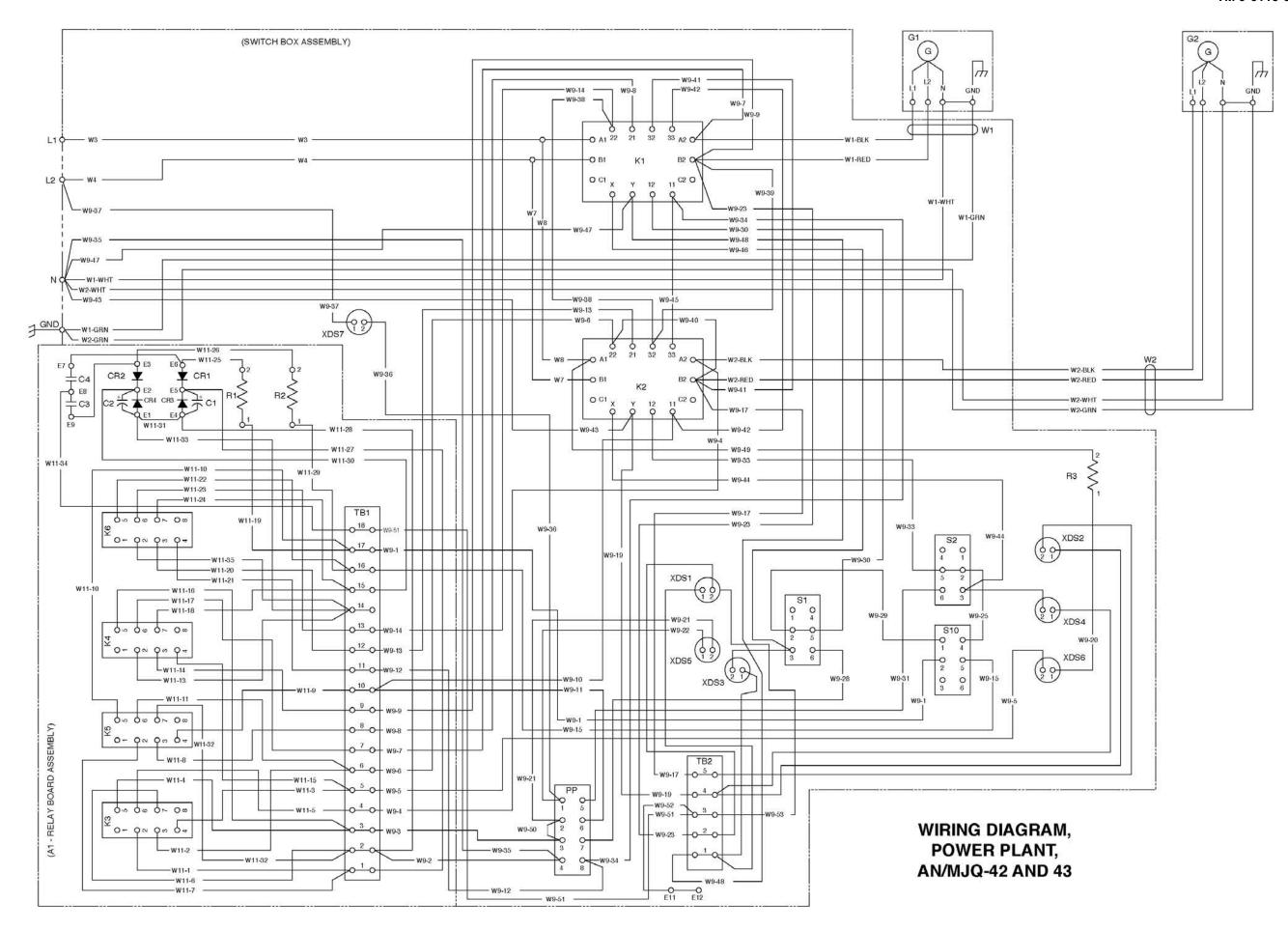
# Subject

Paragraph, Figure, Table, Number

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**W**, **X**, **Y**, **Z** 





TEARALONGOO

# SOMETHING WRONG WITH THIS

THEN ... JOT DOWN THE ABOUT IT ON THIS CAREFULLY TEAR IT FOLD IT AND DROP IT IN MAIL FROM: (PRINT YOUR UNIT'S COMPLETE Commander Stateside Army ATTN: AMSTA-Stateside, N.J. 07703-

DATE SENT

10 July 1975

PUBLICATION PUBLICATION PUBLICATION
TM 11-5840-340-14&P 23 Jan 74 Radar Set AN/PRC-

BE EXACT PIN-POINT WHERE IT		E IT	IN THIS SPACE TELL WHAT IS WRONG	
PAGE NO	PARA GRAPH	FIGURE NO	TABLE NO	AND WHAT SHOULD BE DONE ABOUT IT:
2-25	2-28			Recommend that the installation antenna procedure be changed throughout to specify a 20 antenna lag rather than
				REASON: Experience has shown that with only a 10 the antenna servo system is too sepsitive to wind gusting excess of 25 knots, and has a tendency to rapidly and decelerate as it hunts, causing strain to the drive Hunting is minimized by adjusting the lag to 20 degradation of
3-10	3-3		3-1	Item 5, Functional column. Change "2 dB" to "3
				REASON: The adjustment procedure for the TRANS FAULT indicator calls for a 3 dB (500 watts) adjustment to the TRANS PRIVER FAULT
5-6	5-8			and new step f.1 to read, "Replace cover plate removed step 2.1, above."
			<b>%</b>	REASON: To replace the cover
		FO-3		Zone C 3. On J1-2, change "+24 VDC" to "+5
				REASON: This is the output line of the 5 VDC power +24 VDC is the input

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SSG I. M. DeSpiritof 999-1776

ESG U. A. Kasputy

DA 1 JUL 792028-2

PREVIOUS ARE

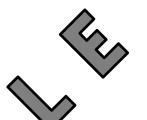
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