TM 9-6115-659-13&P

TECHNICAL MANUAL

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

FOR

POWER UNIT, DIESEL ENGINE DRIVEN, 1 TON TRAILER MOUNTED, 5 kW, 50/60 Hz, PU-797 (NSN: 6115-01-332-0741)

POWER UNIT, DIESEL ENGINE DRIVEN, LIGHT TACTICAL TRAILER MOUNTED, 5 kW, 50/60 Hz, PU-797A (NSN: 6115-01-413-3820)

POWER PLANT, DIESEL ENGINE DRIVEN, 1 TON TRAILER MOUNTED, 5 kW, 50/60 Hz, AN/MJQ-35 (NSN: 6115-01-313-4216)

POWER PLANT, DIESEL ENGINE DRIVEN, LIGHT TACTICAL TRAILER MOUNTED, 5 kW, 50/60 Hz, AN/MJQ-35A (NSN: 6115-01-414-9697)

POWER PLANT, DIESEL ENGINE DRIVEN, 1 1/2 TON TRAILER MOUNTED, 5 kW, 50/60 Hz, AN/MJQ-36 (NSN: 6115-01-313-4215)

This manual supersedes TM 9-6115-659-13&P dated 15 October 1993, including Changes 1 through 3.

HEADQUARTERS, DEPARTMENT OF THE ARMY

1 June 2007

WARNING SUMMARY

This Warning Summary provides a summary of all critical safety information in this manual. The Summary contains all warnings used throughout this manual.

Prior to starting any procedure, the WARNINGS included in the text and at the beginning of each maintenance procedure must be reviewed and understood.

The WARNINGS located in the generator set technical manuals and the trailer technical manuals must also be considered.

This manual describes physical and chemical processes that may require the use of chemicals, solvents, paints, or other commercially available material. Users of the manual should obtain the material safety data sheets (Occupational Safety and Health Act (OSHA) Form 20 or equivalent) from the manufacturers or suppliers of materials to be used. Users must be completely familiar with manufacturer/supplier information and adhere to their procedures, recommendations, warnings, and cautions for safe use, handling, storage, and disposal of these materials.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switch box or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box Failure to comply with this warning can cause injury or death to personnel.

WARNING SUMMARY – Cont'd

WARNING

Shut down generator sets before performing inspection of load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing inspection of wiring. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Ensure nuts on ground terminals are properly secured creating a good ground. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. DO NOT touch live voltage connections. Never attempt to connect or disconnect load cables while the generator set is running. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Dangerous voltage exists on live circuits. Always observe precautions and never work alone. Failure to comply with this warning can cause injury or death to personnel.

WARNING

A qualified technician must make the power connections and perform all continuity checks. The power source may be a generator or commercial power. Failure to comply with this warning can cause injury or death to personnel.

WARNING SUMMARY – Cont'd

WARNING

Shut down generator sets before removing indicator lamp. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Diesel fuel is flammable and toxic to eyes, skin, and respiratory tract. Skin and eye protection are required when working in contact with diesel fuel. Avoid repeated or prolonged contact. Provide adequate ventilation. Operators are to wash exposed skin and change chemical-soaked clothing promptly if exposed to fuel. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Fuels used in the generator set are flammable. Do not smoke or use open flames when performing maintenance. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set.

WARNING

Fuels used in the generator set are flammable. When filling the fuel tank, maintain metal-to-metal contact between filler nozzle and fuel tank opening to eliminate static electrical discharge. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set.

WARNING

Hot engine surfaces from the engine and generator circuitry are possible sources of ignition. When hot refueling with DF-1, DF-2, JP5 or JP8, avoid fuel splash and fuel spill. Do not smoke or use open flame when performing refueling. Remember PMCS is still required. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set.

WARNING SUMMARY – Cont'd

WARNING

Cooling system operates at high temperature and pressure. Contact with high pressure steam and/or liquids can result in burns and scalding. Shut down generator set, and allow system to cool before performing checks, services and maintenance, or wear gloves and additional protective clothing and goggles as required. Failure to comply with this warning can cause injury or death to personnel.

WARNING

In extreme cold weather, skin can stick to metal. Avoid contacting metal items with bare skin in extreme cold weather. Failure to comply with this warning can cause injury to personnel.

WARNING

Operating the generator set exposes personnel to a high noise level. Hearing protection must be worn when operating or working near the generator set when the generator set is running. Failure to comply with this warning can cause hearing damage to personnel.

WARNING

Exhaust discharge contains deadly gases including carbon monoxide. DO NOT operate generator set in enclosed areas unless exhaust discharge is properly vented outside. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Hot exhaust gases can ignite flammable materials. Allow room for safe discharge of hot gases and sparks. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Top housing panels and exhaust system can get very hot. Shut down generator set, and allow system to cool before performing checks, services and maintenance. Failure to comply with this warning can cause severe burns and injury to personnel.

WARNING SUMMARY – Cont'd

WARNING

Top housing panels and exhaust system can get very hot. When performing DURING PMCS, wear gloves and additional protective clothing as required. Failure to comply with this warning can cause severe burns and injury to personnel.

WARNING

Exercise extreme caution when performing DURING PMCS checks inside engine compartment. Avoid contact with moving or hot engine parts. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Batteries give off a flammable gas. Do not smoke or use open flame when performing maintenance. Failure to comply with this warning can cause severe personal injury or death and equipment damage.

WARNING

Battery acid can cause burns to unprotected skin. Wear safety goggles and chemical gloves and avoid acid splash while working on the batteries. Failure to comply with this warning can cause severe personal injury.

WARNING

Do not disconnect trailer from towing vehicle before hand brakes are set and front landing leg and rear support leg lowered. Failure to comply with this warning can cause personal injury or death from trailer tipping or rolling, and equipment damage.

WARNING

If trailer is not coupled to towing vehicle, ensure that wheels are securely chocked. Failure to comply with this warning can cause trailer to roll, resulting in severe personal injury and damage to equipment.

WARNING SUMMARY – Cont'd

WARNING

Before removing trailer leveling-support jack, support rear of trailer with jack stand (s). Failure to comply with this warning can cause severe personal injury or death.

WARNING

Before performing any maintenance that requires climbing on or under trailer, make sure that trailer handbrakes are set, trailer front landing leg/support leg is lowered, and leveling-support jack is lowered. Failure to comply with this warning can cause personal injury or death to personnel from trailer suddenly rolling or tipping.

WARNING

Steel strapping used in packaging of the power plant/power unit has sharp edges. Wear gloves and use care when cutting and handling steel strapping. Failure to comply with this warning can cause personal injury.

WARNING

Use the aid of an assistant when removing the fender, splash guard, and switch box as an assembly. Failure to comply with this warning can cause severe personal injury.

WARNING

When lifting generator set, use lifting equipment with minimum lifting capacity of 1750 pounds (793.8 kg). Do not stand or put arms, legs, or any part of the body under hoisted load. Do not permit generator set to swing. Failure to comply with this warning can result in personal injury or death and damage to equipment.

WARNING

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

WARNING SUMMARY – Cont'd

WARNING

Before removing trailer leveling-support jack, support rear of trailer with jack stand (s). Failure to comply with this warning can cause severe personal injury or death.

WARNING

Do not attempt to seat a lockring when tire is inflated. Improperly seated lockring could fly off. Failure to comply can cause severe personal injury to personnel.

WARNING

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 comply with this warning cause severe personal injury and/or damage to equipment.

WARNING

Exercise extreme caution when performing DURING PMCS checks inside engine compartment. Avoid contact with moving or hot engine parts. Failure to comply with this warning can cause injury or death to personnel.

FOR FIRST AID, REFER TO FM 4-25.11.

LIST OF EFFECTIVE PAGES

NOTE: This manual supersedes TM 9-6115-659-13&P. Zero in the "Change No." column indicates an original page.

Date of issue for revision is:

Original 1 June 2007

TOTAL NUMBER OF PAGES IS 460 CONSISTING OF THE FOLLOWING:

Page No.	Change No.	Page No.	Change No.
Cover	0	F-77 – F-80	0
Blank	0	F-81 Blank	0
Warning Summary		F-82 – F-89	0
a – g	0	F-90 Blank	0
h Blank	0	F-91 – F-94	0
i – xiv	0	F-95 Blank	0
1-1 – 1-13	0	F-96 – F-126	0
1-14 Blank	0	G1 – G-20	0
2-1 – 2-64	0	H-1	0
3-1 – 3-10	0	H-2 Blank	0
4-1 – 4-84	0	I-1	0
5-1 – 5-71	0	I-2 Blank	0
5-72 Blank	0	Glossary-1 – Glossary-2	0
A-1 – A-4	0	Index-1 – Index-5	0
B-1 – B-9	0	Index-6 Blank	0
B-10 Blank	0	FP-1	0
C-1 – C5	0	FP-2 Blank	0
C-6 Blank	0	FP-3	0
D-1 – D-2	0	FP-4 Blank	0
E-1	0	FP-5	0
E-2 Blank	0	FP-6 Blank	0
F-1 – F-7	0	Cover (metric table)	0
F-8 Blank	0	Cover	0
F-9 Blank	0		
F-10 – F-23	0		
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F-25 – F-28	0		
F-29 Blank	0		
F-30 – F-46	0		
F-47 Blank	0		
F-48 – F-49	0		
F-50 Blank	0		
F-51 – F-63	0		
F-64 Blank	0		
F-65 – F-72	0		
F-73 Blank	0		
F-74 – F-75	0		
F-76 Blank	0		

TECHNICAL MANUAL

NO. 9-6115-659-13&P

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington DC, 1 June 2007

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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. Reports, as applicable by the requiring Service, should be submitted as follows: Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) located in the back of this manual, directly to: Commander, U.S. Army Communications-Electronics Life Cycle Management Command (C-E LCMC) and Fort Monmouth, ATTN: AMSEL-LC-LEO-E-ED, Fort Monmouth, NJ 07703-5006. You may also send in your recommended changes via electronic mail or by fax. Our fax number is 732-532-3421, DSN 992-3421. Our e-mail address is MONM-AMSELLEOPUBSCHG@conus.army.mil. Our online web address for entering and submitting DA Form 2028s is http://edm.monmouth.army.mil/pubs/2028.html. A reply will be furnished to you.

***This manual supersedes TM 9-6115-659-13&P dated 15 October 1993, including Changes 1 through 3.**

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LIST OF TABLES

HOW TO USE THIS MANUAL

DESCRIPTION OF THE MANUAL.

Manual Organization. This manual is designed to help you operate and maintain the 5kW Power Units PU-797, PU-797A and Power Plants AN/MJQ-35, AN/MJQ-35A and AN/MJQ-36. Warning pages are located in the front of this manual. Read the warnings before operating or doing maintenance on the equipment.

The major elements of this manual are its chapters and appendices. Each chapter has one or more sections. The Table of Contents, beginning on page i, is provided for quick reference to the subjects covered by each chapter, section, and appendix. Each chapter also has a chapter index. The chapter index lists the chapter sections and paragraphs. Appendix F also has a cross reference index to help you locate the items listed in that appendix.

The front cover of this manual has an index that lists the most important areas of the manual.

A glossary follows the last appendix. The glossary lists and explains the special or unique abbreviations and the unusual terms used in this manual.

An alphabetical index follows the glossary. That index is for use in locating specific items of information.

Chapters. This manual has five chapters and eight appendices. Each chapter is divided into sections. Each section is divided into descriptive paragraphs. The paragraphs have specific information about the power units and power plant and their major components.

Paragraph Numbering. All paragraphs are numbered. This helps you find what you need when you need it. USE THE TABLE OF CONTENTS OR ALPHABETICAL INDEX TO FIND THE SECTION OR PARAGRAPH YOU NEED. Some paragraphs have a related illustration, to show the items discussed in the paragraph. Also, some paragraphs have a related table that provides a detailed list of items introduced by the paragraph. Each primary paragraph, illustration, and table is identified by the number of the chapter in which it appears, followed by a dash and another number. The number after the dash indicates the sequence in which the paragraph, illustration, or table appears in the chapter. Some paragraphs are further divided into subparagraphs. Subparagraphs are identified by the number of the primary paragraph followed by a decimal number, as follows:

Examples:
- 4-5. is the fifth paragraph in chapter 4.
- 4-5.1 is the first subparagraph of paragraph 4-5.
- 4-5.2 is the second subparagraph of paragraph 4-5.
- 4-5.2.1 is the first subparagraph under 4-5.2.
- Figure 3-3. is the third illustration in chapter 3.
- Table 2-1. is the first table in chapter 2.

Appendices. Each appendix covers a specific subject; sometimes general, such as the list of references in Appendix A; or sometimes very detailed, such as the repair parts and special tools list in Appendix F.

CHAPTER 1 - INTRODUCTION.

Chapter 1 provides an introduction to the power units and power plant. It is divided into three sections, as follows:

Section I - General Information. This section provides general information about this manual and the related forms and records. Instructions are provided for making equipment improvement recommendations. Coverage includes a reference to the TM that contains instructions on destruction of materiel to prevent enemy use. Also, a nomenclature cross-reference list is provided.

Section II - Equipment Description. This section describes power unit and power plant capabilities, characteristics, and features. It provides basic equipment data and shows the locations of major power unit and power plant components. Descriptions of the major components are also provided.

Section III - Principles of Operation. This section provides functional descriptions of the power units and power plants.

CHAPTER 2 - OPERATING INSTRUCTIONS.

Chapter 2 provides instructions for operating the power units and power plants. The chapter is divided into four sections, as follows:

Section I - Description and Use of Operator's Controls and Indicators. This section provides references to the applicable generator set technical manuals and trailer technical manuals. Those references contain information on operator's controls and indicators for the generator sets and trailers. Detailed coverage is provided for the power plant switch box controls and indicators.

Section II - Operator Preventive Maintenance Checks and Services (PMCS). This section contains detailed instructions for the before, during, and after operation preventive maintenance checks and services that the operator must perform. Coverage includes all operator PMCS for the generator sets and trailers that make up the power units and power plants. Operator PMCS for the switch box used on the power plants is also covered.

Section III - Operation Under Usual Conditions. This section contains instructions for preparing the power units and power plants for use and operating them under normal conditions. Coverage includes instructions for connecting power plant load to the switch box and operating the switch box. Instructions for connecting power unit load to the generator set are also covered. This section also covers preparation of the power unit or power plant for movement to a new worksite.

Section IV - Operation Under Unusual Conditions. This section provides references to the applicable generator set and trailer technical manuals.

CHAPTER 3 - OPERATOR MAINTENANCE INSTRUCTIONS.

Chapter 3 covers maintenance of the power units and power plant that is to be performed by the operator. Its purpose is to provide you with the information you need to keep the equipment in good operating condition. The chapter is divided into three sections, as follows:

Section I - Operator Lubrication. This section provides references to the applicable lubrication instructions.

Section II - Troubleshooting. This section covers troubleshooting procedures and corrective actions that are to be performed by the operator. This section provides references to the applicable generator set and trailer technical manuals.

Section III - Maintenance Procedures. This section refers the operator to the preventive maintenance checks and services required by section II of chapter 2.

CHAPTER 4 - UNIT MAINTENANCE INSTRUCTIONS.

Chapter 4 provides instructions covering the power unit and power plant maintenance that must be performed at unit level. The chapter is divided into seven sections, as follows:

Section I - Repair Parts; Special Tools; Test, Measurement, and Diagnostic Equipment (TMDE); and Support Equipment. This section lists references that contain the required information.

Section II - Service Upon Receipt. This section contains instructions for inspecting and servicing each power unit and power plant when it is received. It includes instructions for unpacking the equipment when it is received. The instructions include unpacking and stowing the basic issue items that accompany the power unit or power plant. Also included are instructions on positioning the power unit or power plant for operation and connecting an external fuel source.

Section III - Unit Lubrication. This section lists the applicable references that contain lubrication instructions for the generator sets and trailers. It also contains specific lubrication instructions for the power units or power plant components not covered in the generator set or trailer references.

Section IV - Unit Preventive Maintenance Checks and Services (PMCS). This section contains instructions covering the PMCS that must be performed at the unit maintenance level. A table provides information on maintenance intervals and actions required.

Section V - Troubleshooting. This section covers troubleshooting procedures and corrective actions that are to be performed at the unit maintenance level.

Section VI - Maintenance Procedures. This section lists the applicable references that cover unit maintenance of the generator sets and trailers. It also contains detailed instructions on unit level maintenance of the power unit and power plant components that are not covered in the generator set and trailer references.

Section VII - Administrative Storage. This section provides information on short term, intermediate term, and long term storage of Power Plants and Power Units.

CHAPTER 5 - DIRECT SUPPORT MAINTENANCE INSTRUCTIONS.

Chapter 5 provides instructions for the maintenance actions designated to be performed at the direct support maintenance level. The chapter is divided into three sections, as follows:

Section I - Repair Parts; Special Tools; Test, Measurement, and Diagnostic Equipment; and Support Equipment. This section lists the documents that contain the needed information.

Section II - Troubleshooting. This section includes instructions for troubleshooting faults in the operation of the generator switch box assembly. It includes eight go-no-go flowcharts for eight possible switch box malfunctions that are to be performed at Direct Support Maintenance Level.

Section III - Maintenance Procedures. This section lists the references that contain direct support maintenance instructions for the generator sets and trailers. In addition, it contains detailed instructions for direct support maintenance of power unit and power plant components not covered in the generator set and trailer references.

APPENDICES.

Appendix A - References. This appendix lists all publications that are referenced in the various chapters of the technical manual. The listing includes the title of each publication.

Appendix B - Maintenance Allocation Chart. This appendix has four sections, as follows:

Section I - Introduction. This section explains what is covered in the maintenance allocation chart.

Section II - Maintenance Allocation Chart. This section contains a tabular listing that assigns maintenance functions to specific maintenance levels. It lists the work time needed to perform each maintenance function at the assigned level. It also contains a column that has entries keyed to the tools and equipment listed in section III. Another column has entries keyed to the remarks in section IV. This change implements Army Maintenance Transformation and changes the Maintenance Allocation Chart (MAC) to support Field and Sustainment Maintenance.

Section III - Tool and Test Equipment Requirements. This section contains complete identification information for the items referenced in the tools and equipment column of section II.

Section IV - Remarks. This section provides additional information for each entry in the remarks column of section II.

Appendix C - Components of End Item (COEI) and Basic Issue Items (BII) Lists. This appendix lists the items that are usually packaged separately but needed for installation and operation of the power unit and power plant. The appendix has three sections, as follows:

Section I - Introduction. This section explains what is covered in section II and section III.

Section II - Components of End Item. The power units and power plant are normally shipped fully assembled, so this section is not applicable.

Section III - Basic Issue Items. This section contains a list of the accessories needed for installation and operation of the power units and power plant.

Appendix D - Additional Authorization List (AAL). This appendix lists additional items you are authorized for support of the power unit/power plant.

Section I - Introduction.

Section II –Additional Authorized Items List

Appendix E - Expendable and Durable Items List. This appendix lists expendable/durable supplies and materials needed to operate and maintain the power units and power plant. The appendix contains two sections, as follows:

Section I - Introduction. This section explains the entries in section II.

Section II - Expendable and Durable Supplies and Materials List. The list indicates the maintenance level that needs each item and identifies the items by National Stock Number, description, and unit of measure.

Appendix F - Unit and Direct Support Maintenance Repair Parts and Special Tools List. This appendix lists and authorizes the repair parts and special tools needed to perform operator, unit, and direct support maintenance of the power units and power plants. It contains four sections, as follows:

Section I - Introduction. This section explains what is covered in sections II, III, and IV.

Section II - Repair Parts List. This section contains illustrations and lists. The illustrations aid in identification of the parts. The lists include information that tells which maintenance levels are authorized to use the part, the part number that identifies the part, the name of the part, and the quantity used.

Section III - Special Tools List. This section informs the user that no special tools are needed.

Section IV - Cross-Reference Indexes. This section contains two indexes, a national stock number index and a part number index. Each index lists all of the parts contained in section II. The national stock number index is in National Item Identification Number (NIIN) sequence. The part number index is in alphanumeric part number sequence.

Appendix G - Illustrated List of Manufactured Items. This appendix provides instructions for making the items authorized to be manufactured or fabricated at the unit maintenance level and direct support maintenance level.

Appendix H - Torque Limits. This appendix lists standard torque values for bolts and screws used in the power units and power plant.

Glossary. This Glossary has two sections, as follows:

Section I - Abbreviations. This section lists the special or unique abbreviations used in this technical manual. Special or unique abbreviations.

Section II - Definition of Unusual Terms. This section lists and defines the terms used in this technical manual that are not listed in AR 310-25 (Dictionary of United States Army Terms).

ALPHABETICAL INDEX.

An alphabetical index at the back of this technical manual provides a listing of subjects covered, cross-referenced to the applicable paragraph.

HOW TO FIX A POWER UNIT OR POWER PLANT MALFUNCTION.

Determining the Cause. Finding the cause of a malfunction, troubleshooting, is the first step in fixing the power unit or power plant and returning it to operation. Follow these simple steps to determine the root of the problem:

a. Turn to the Table of Contents in this manual (page i).

b. Locate "Troubleshooting" under the chapter that covers your level of maintenance. Turn to the page indicated.

c. For operator troubleshooting, follow the instructions in the references listed in Chapter 3.

d. For troubleshooting at the unit maintenance level, find the malfunction listing in the troubleshooting symptom index Chapter 4, Section V. Follow the instructions in the figure (troubleshooting chart) indicated by the symptom index.

e. For troubleshooting at the direct support level, find the malfunction listing in the troubleshooting symptom index in Chapter 5, Section II. Follow the instructions in the Figure (troubleshooting chart) indicated by the symptom index.

Preparing for a Task. Be sure that you understand the entire maintenance procedure before beginning any maintenance task. Make sure that all parts, materials, and tools are handy. Read all steps before beginning. Prepare to do the task as follows:

a. Carefully read the entire task before starting. It tells you what you will need and what you have to know to start the task. DO NOT START THE TASK UNTIL:

(1) You know what is needed.

(2) You have everything you need

(3) You understand what to do

b. If parts are listed, they can be drawn from technical supply. Before you start the task, check to make sure you can get the needed parts. National stock numbers (NSNs) and part numbers for generator set parts are listed in the generator Repair Parts and Special Tools List (RPSTL) manual, TM 9-6115-641-24P, and the engine RPSTL manual, TM 9-2815-252-24P. NSNs and part numbers for the 1-ton trailer (M116A3) are listed in TM 9-2330-202-14&P. NSNs and part numbers for the 1 1/2-ton trailer (M103A3) chassis parts are listed in TM 9-2330-213-14&P. NSNs and part numbers for the Light Tactical Trailer (LTT) are listed in TM 9-2330-392-14&P. NSNs and part numbers for the next higher assembly (the power unit or power plant, less generator set(s) and trailer chassis) are listed in Appendix F.

c. If expendable/durable supplies or materials are needed, get them before starting the task. Refer to Appendix E for the correct nomenclature and NSN.

How to do the Task. Before starting, read the entire task. Be sure that you understand the entire procedure before you begin the task. As you read, remember the following:

a. PAY ATTENTION TO WARNINGS, CAUTIONS, AND NOTES.

b. Use the GLOSSARY if you do not understand the special abbreviations or unusual terms used in this manual.

c. The following are standard maintenance practices. Instructions about these practices are usually not included in task steps. When standard maintenance practices do not apply, the task steps will tell you. The standard maintenance practices are:

(1) Tag electrical wiring before disconnecting it.

(2) Discard used preformed packing, retainers, gaskets, cotter pins, lock washers, and similar items. Install new parts to replace the discarded items.

(3) Coat packing before installation, in accordance with the task instructions.

(4) Disassembly procedures describe the disassembly needed for total authorized repair. You may not need to disassemble an item as far as described in the task. Follow the disassembly steps only as far as needed to repair/replace worn or damaged parts.

(5) Clean the assembly, subassembly, or part before inspecting it.

(6) Before installing components having mating surfaces, inspect the mating surfaces to make sure they are in serviceable condition.

(7) Hold the bolt (or screw) head with a wrench (or screwdriver) while tightening or loosening a nut on the bolt (or screw).

(8) Torque to the special torque cited when the task instructions include the words "torque to." Use standard torques at all other times.

(9) When a cotter pin is required, align the cotter pin holes within the allowable torque range.

(10) Inspect for foreign objects after performing maintenance.

CHAPTER 1

INTRODUCTION

Section I. GENERAL INFORMATION

1-1 SCOPE.

This manual is for your use in operating and maintaining the Power Plant, AN/MJQ-35 (figure 1-1); Power Plant, AN/MJQ-36 (figure 1-2); Power Plant, AN/MJQ-35A (figure 1-2.1); Power Unit, PU-797A (figure 1-2.2); and Power Unit, PU-797 (figure 1-3). The manual covers operating instructions and operator, unit, and direct support maintenance requirements for the power plants and power units. It also contains a Repair Parts and Special Tools List (RPSTL) for the power plants and power units. The power plants and power unit are mobile. The power plants and power units may be used to supply electric power to any system or equipment requiring up to 5 kW of 60 Hz power.

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 Management System (TAMMS)) (Maintenance Management UPDATE).

1-3 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.

1-4 PREPARATION FOR STORAGE OR SHIPMENT.

Refer to Chapter 4, Section VII.

1-5 REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATION (EIR).

If your power plant or power unit 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, US Army Communications-Electronics Life Cycle Management Command (C-E LCMC), ATTN: AMSEL-LC-LEO-ED, Fort Monmouth, NJ 07703-5006.

1-6 NOMENCLATURE CROSS-REFERENCE LIST.

Refer to table 1-1 for nomenclature cross-reference list.

Table 1-1. Nomenclature Cross-Reference List

Common Name	Official Nomenclature
AN/MJQ-35	Power Plant, Diesel Engine Driven, 1-ton Trailer Mounted, 5 kW, 60 Hz
AN/MJQ-35A	Power Plant, Diesel Engine Driven, Light Tactical Trailer Mounted, 5kW, 60 Hz
AN/MJQ-36	Power Plant, Diesel Engine Driven, 1 1/2-ton Trailer Mounted, 5 kW, 60 Hz
PU-797	Power Unit, Diesel Engine Driven, 1-ton Trailer Mounted, 5 kW, 60 Hz
PU-797A	Power Unit, Diesel Engine Driven, Light Tactical Trailer Mounted, 5kW, 60 Hz
MEP-802A	Generator Set, 5 kW, 60 Hz
M103A3	Chassis, Trailer: 1 1/2-ton, 2 Wheel (altered)
M116A3	Chassis, Trailer: 1-ton, 2 Wheel (altered)
LTT	Chassis, Trailer: Light Tactical Trailer, 2 Wheel (altered)

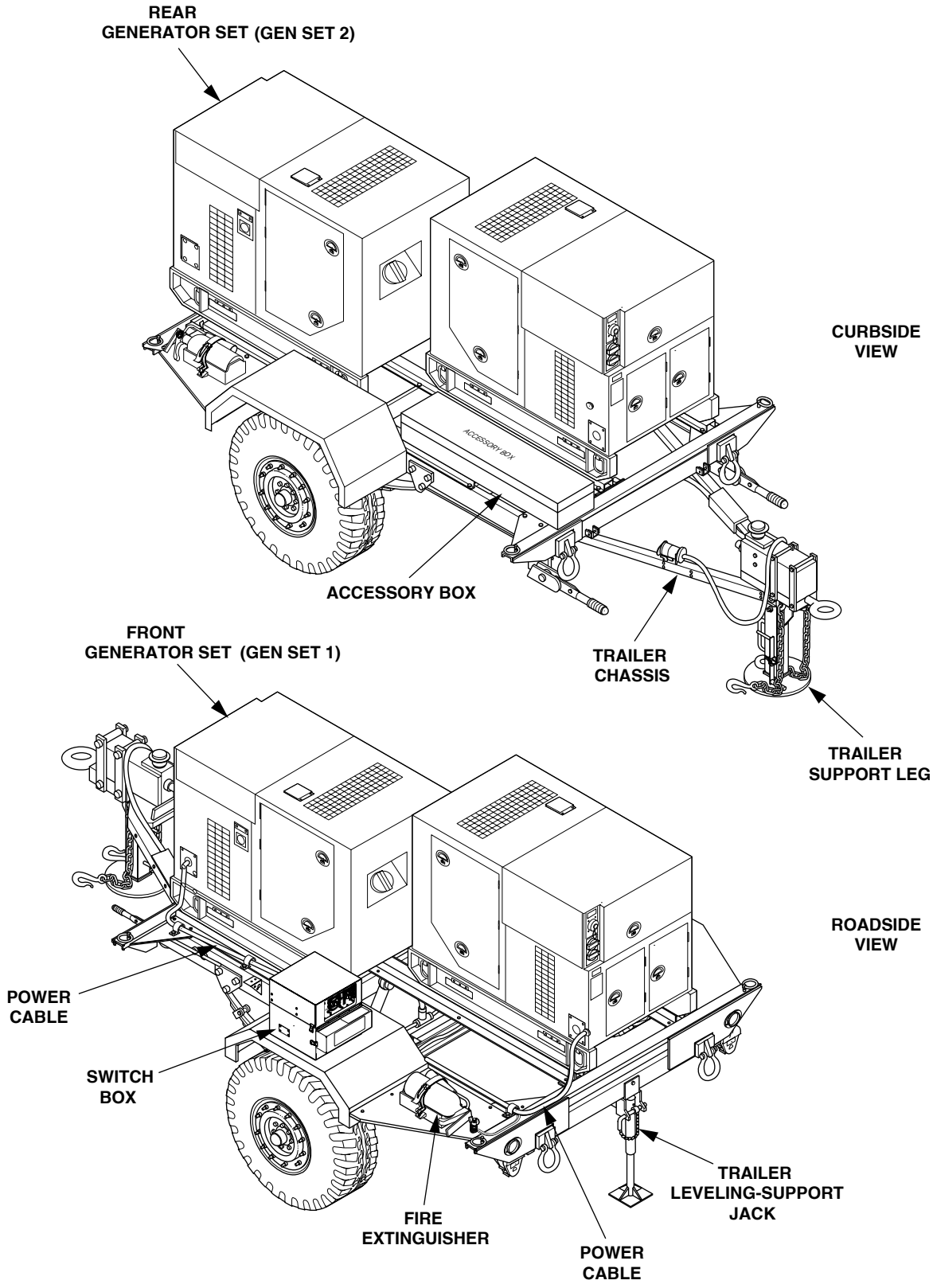


Figure 1-1. Features of AN/MJQ-35.

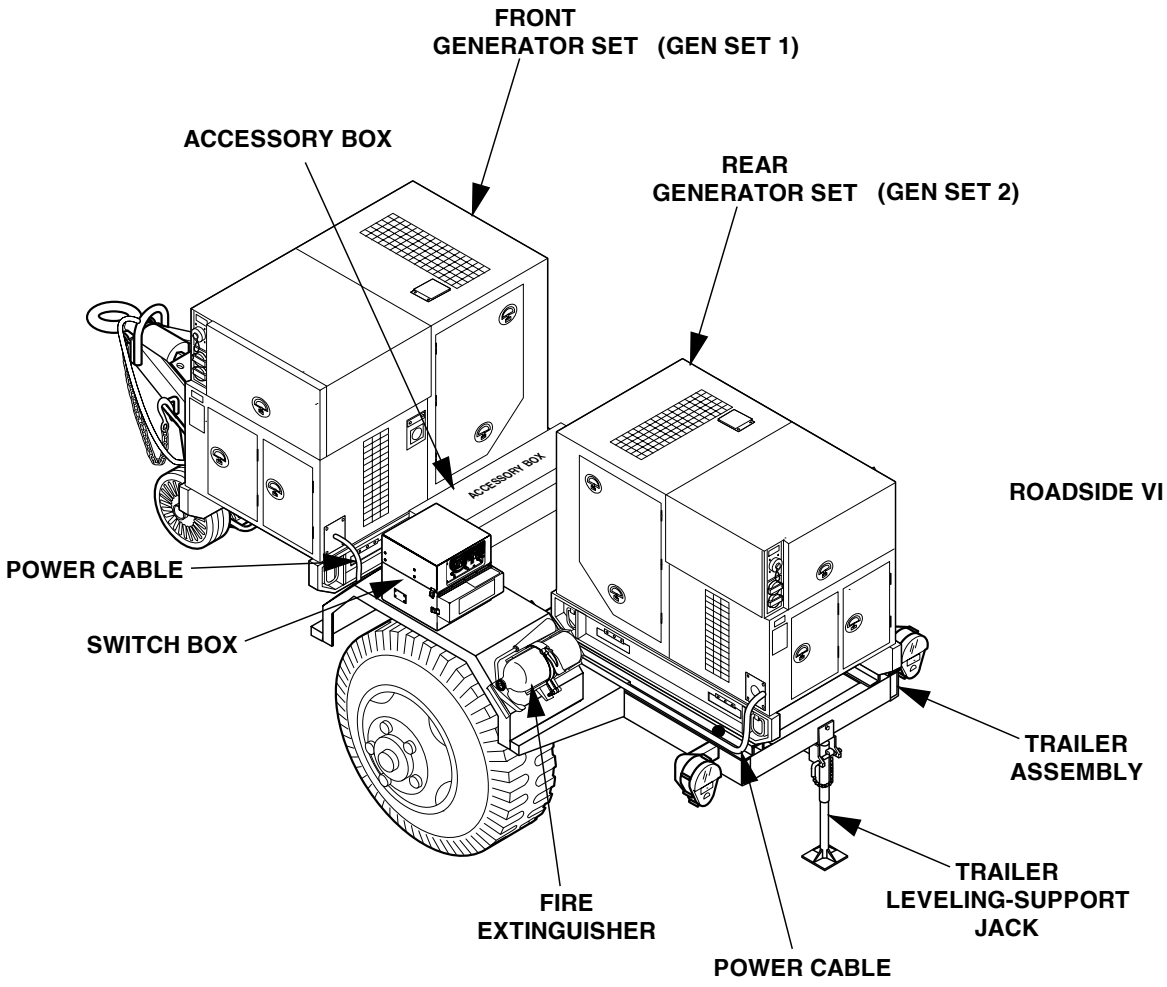


Figure 1-2. Features of AN/MJQ-36.

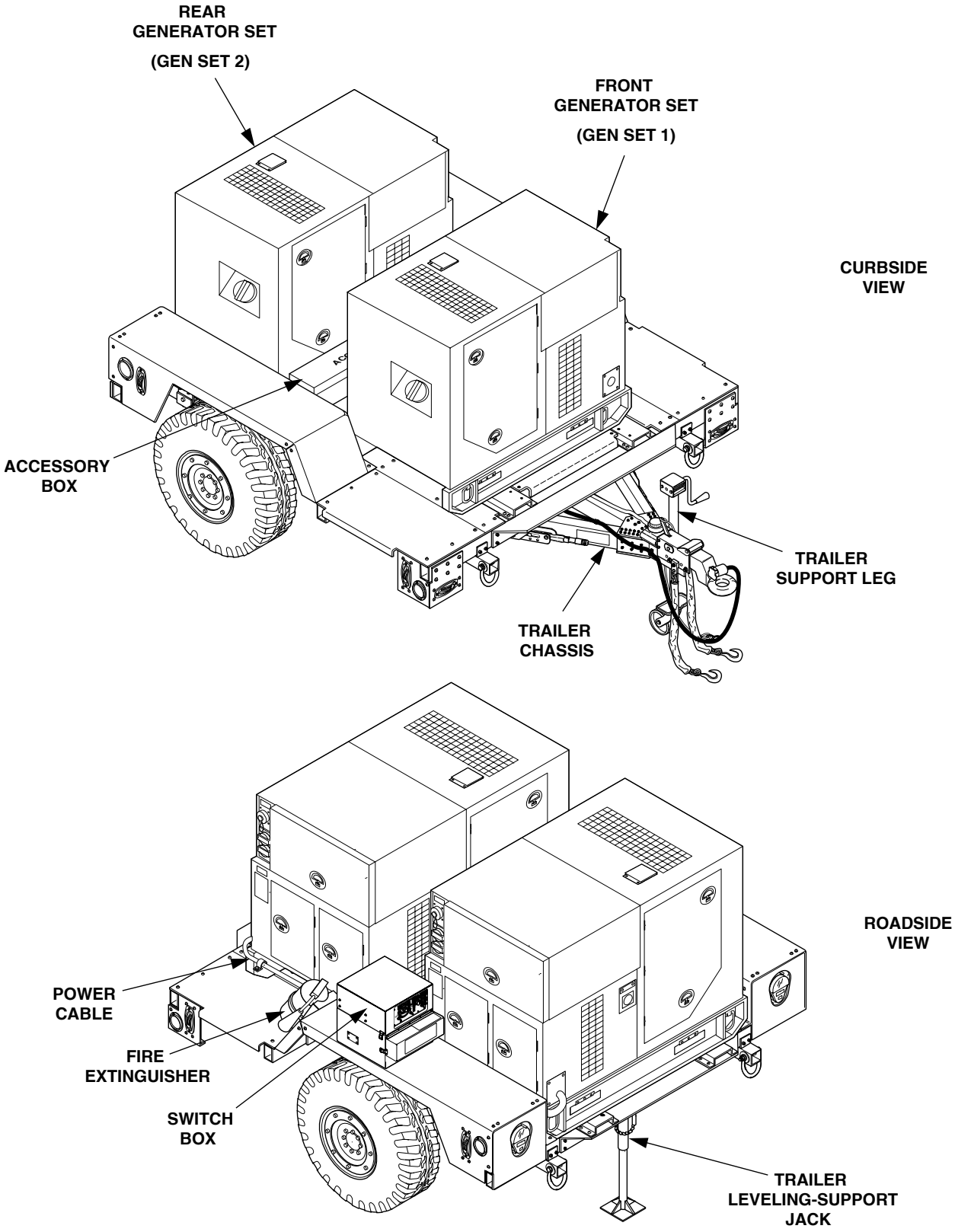


Figure 1-2.1. Features of AN/MJQ-35A

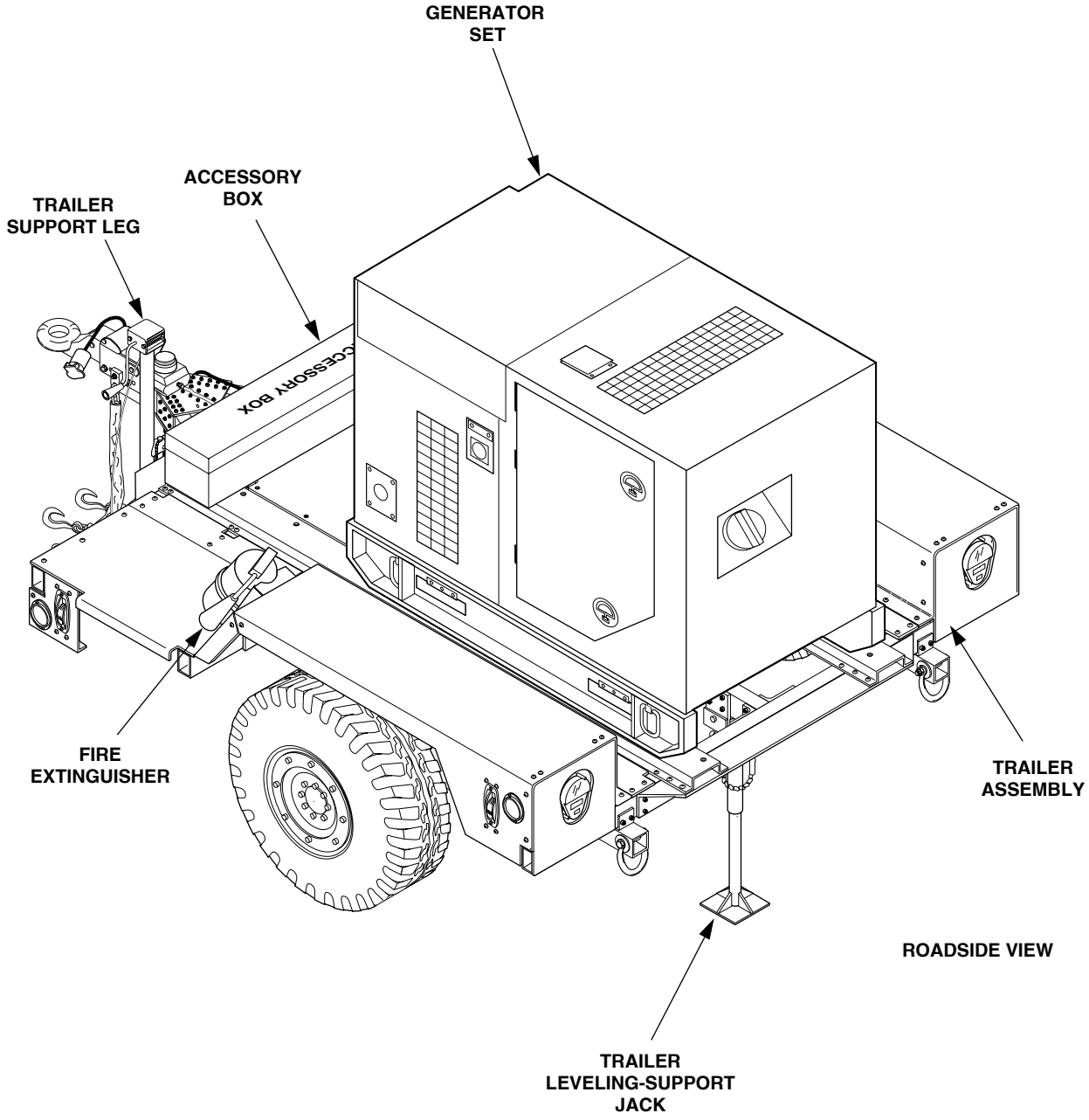


Figure 1-2.2. Features of PU-797A

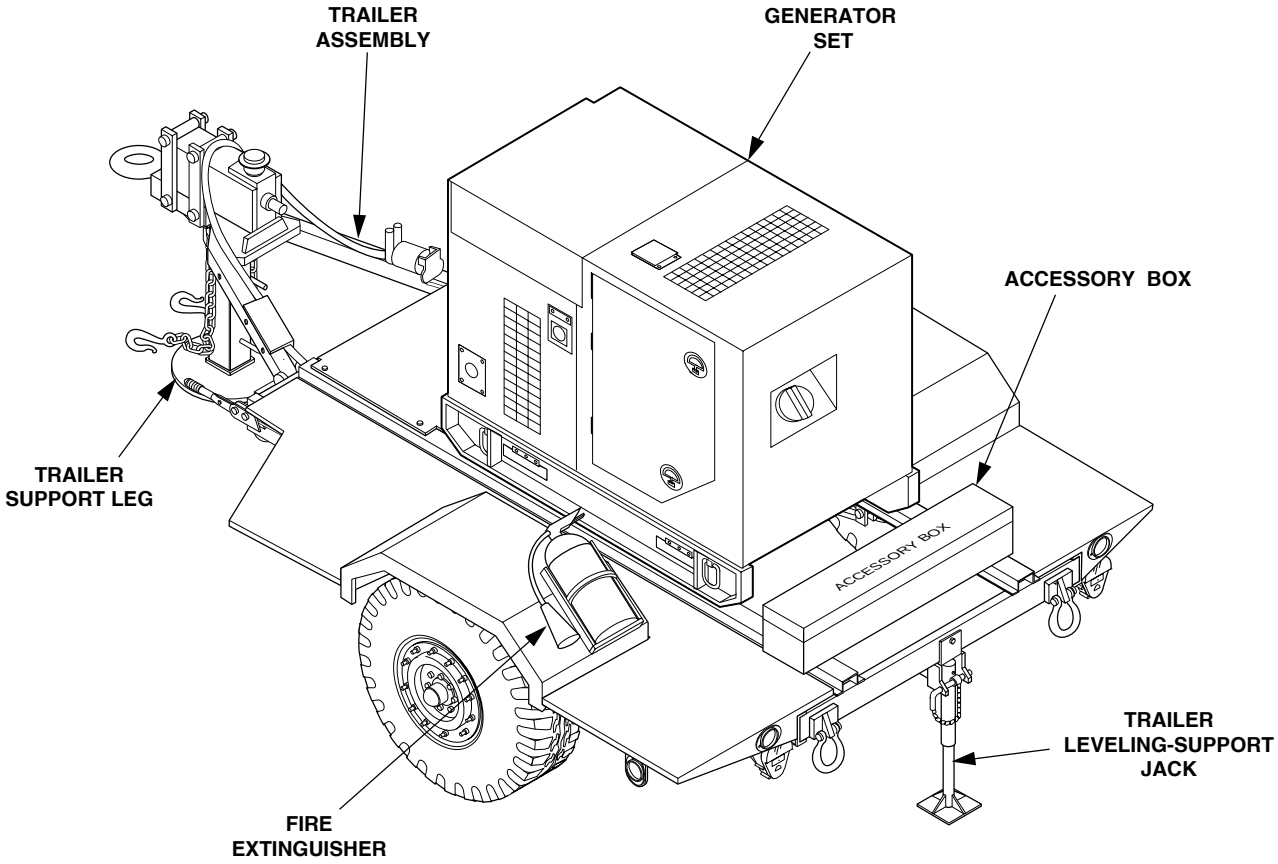


Figure 1-3. Features of PU-797.

1-7 LIST OF ABBREVIATIONS/ACRONYMS.

Refer to the glossary at the back of this manual.

1-8 GLOSSARY.

Refer to the glossary at the back of this manual.

Section II. EQUIPMENT DESCRIPTION

1-9 EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES.

1-9.1 Characteristics. The power plants and power units consist of one or two DOD Model MEP-802A Tactical Quiet Generator Sets mounted on modified M116A3, 1-ton, M103A3, 1 1/2-ton, or Light Tactical trailers (LTT). Refer to TM 9-2330-202-14&P for detailed equipment characteristics about the M116A3, TM 9-2330-213-14&P for information about the M103A3 and TM 9-2330-392-14&P for information about the light tactical trailer. The modifications to the trailers include generator mounting rails, special lifting rings, special fenders, accessory box, fire extinguisher brackets, and rear leveling-support jack. Each generator set is a liquid-cooled, diesel engine driven unit, operating at 60 Hz with a load capacity of 5 kW. Refer to TM 9-6115-641-10 for detailed equipment characteristics about the generator set.

1-9.1.1 Power Plant AN/MJQ-35. This power plant has two generator sets and a switch box mounted on a modified 1-ton trailer, M116A3.

1-9.1.2 Power Plant AN/MJQ-35A. This power plant has two generator sets and a switch box mounted on a modified light tactical trailer (LTT).

1-9.1.3 Power Plant AN/MJQ-36. This power plant has two generator sets and a switch box mounted on a modified 1 1/2-ton trailer, M103A3.

1-9.1.4 Power Unit PU-797. This power unit has one generator set mounted on a modified 1-ton trailer, M116A3.

1-9.1.5 Power UNIT PU-797A. This power unit has one generator set mounted on a Light Tactical Trailer (LTT).

1-9.2 Capabilities and Features.

1-9.2.1 Power Plant AN/MJQ-35 and AN/MJQ-35A.

TOWING VEHICLE
- AN/MJQ-35 ..... CUCV (Commercial Utility Cargo Vehicle) or HMMWV (High Mobility Multipurpose Wheeled Vehicle)
- AN/MJQ-35A ..... HMMWV

TIRE PRESSURE (Highway)..... 35 psi (241.3 kPa)

ELECTRICAL OUTPUT - 60 Hz:
- 120 volts, single phase, 2 wire..... 52 amps
- 120/240 volts, single phase, 3 wire..... 26 amps
- 120/208 volts, three phase, 4 wire..... 17 amps

1-9.2.2 Power Plant AN/MJQ-36.

TOWING VEHICLE..... 2 1/2 ton 6x6 or 5 ton 6x6

TIRE PRESSURE (Highway)..... 35 psi (241.3 kPa)

ELECTRICAL OUTPUT - 60 Hz:
- 120 volts, single phase, 2 wire..... 52 amps
- 120/240 volts, single phase, 3 wire..... 26 amps
- 120/208 volts, three phase, 4 wire..... 17 amps

1-9.2.3 Power Unit PU-797 and PU 797A.

TOWING VEHICLE
PU-797 ..... CUCV or HMMWV
PU-797A ..... HMMWV

TIRE PRESSURE (Highway)..... 35 psi (241.3 kPa)

ELECTRICAL OUTPUT - 60 Hz:
120 volts, single phase, 2 wire..... 52 amps
120/240 volts, single phase, 3 wire ..... 26 amps
120/208 volts, three phase, 4 wire..... 17 amps

1-10. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS.

Refer to Figures 1-4, 1-5, and 1-6, and Tables 1-2, 1-3, and 1-4.

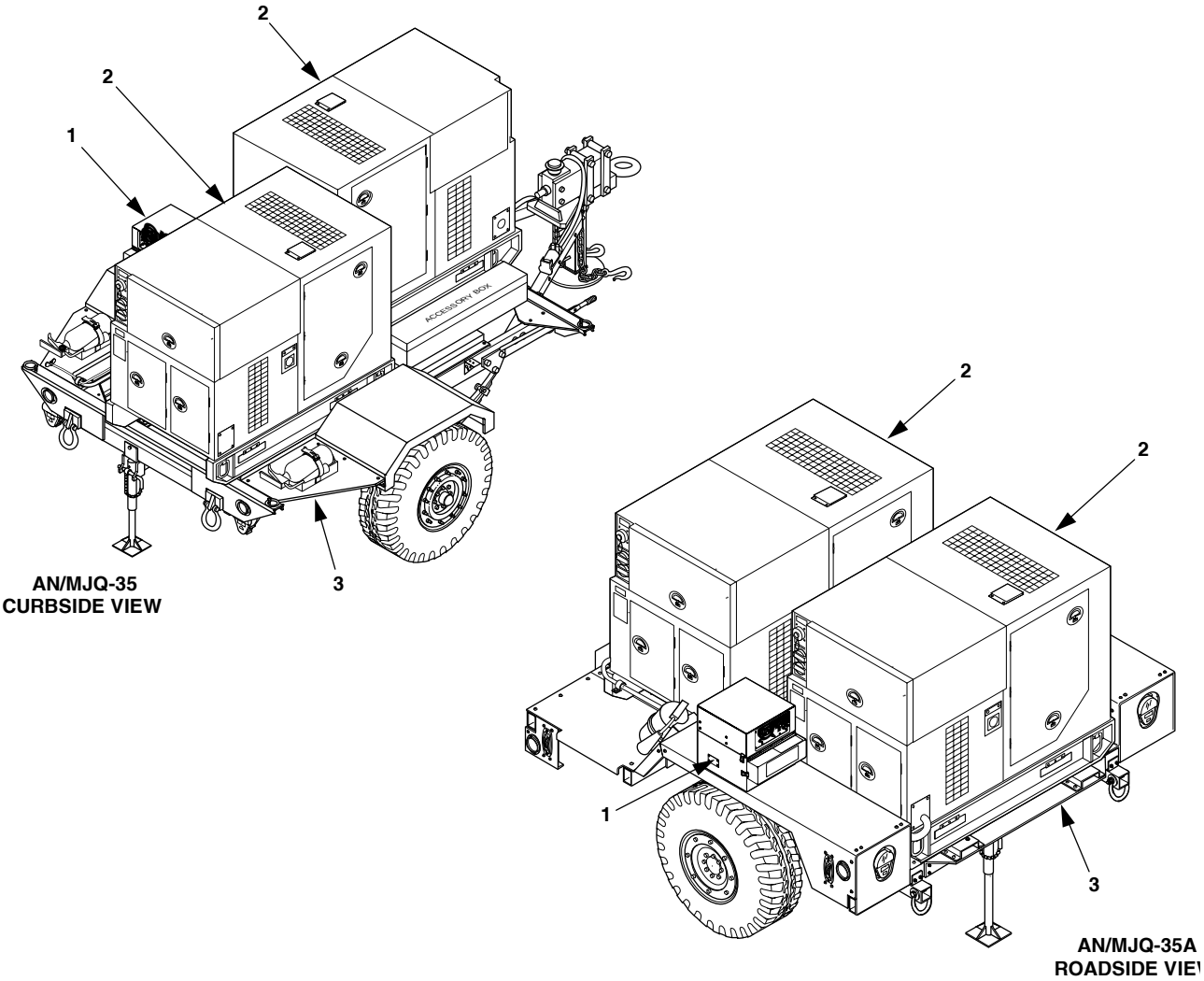


Figure 1-4. Location of Major Components, AN/MJQ-35 and AN/MJQ-35A.

Table 1-2. Description of Major Components, AN/MJQ-35 AND AN/MJQ-35A

Item No.	Item Name	Description
1	SWITCH BOX	Connects output of generator set to the load, and permits switching between generators without power loss.
2	GENERATOR SETS	Supplies power to the load. Refer to TM 9-6115-641-10 for major components of generator set.
3	TRAILER ASSEMBLY	Provides support and mounting for switch box, generator sets, and accessory box.

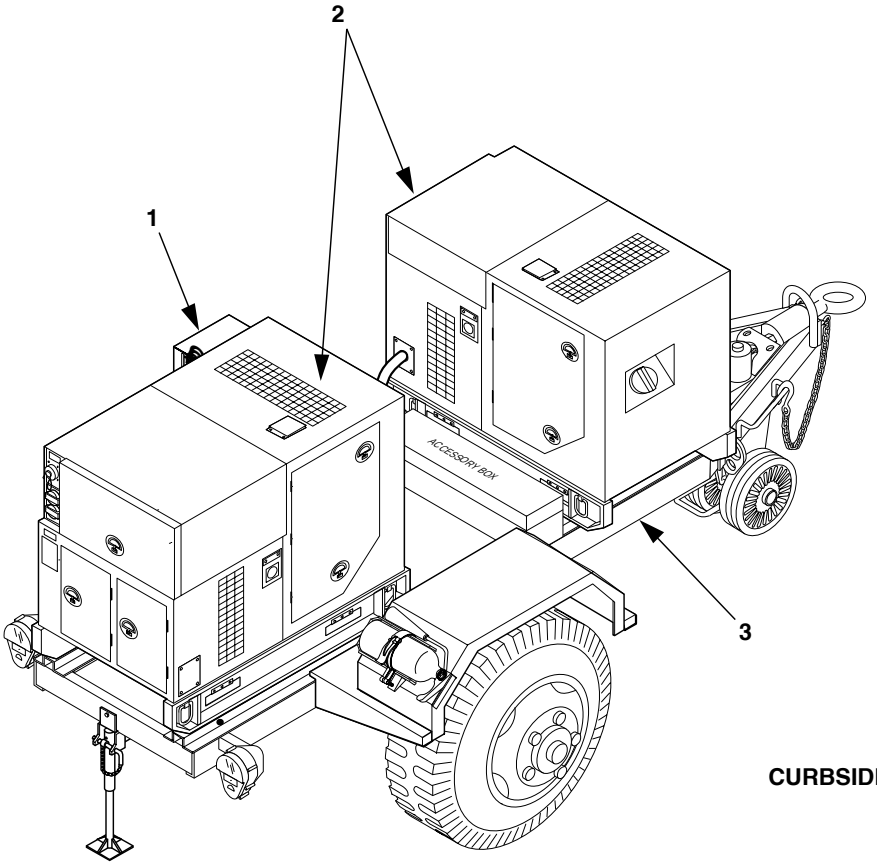


Figure 1-5. Location of Major Components, AN/MJQ-36.

Table 1-3. Description of Major Components, AN/MJQ-36

Item No.	Item Name	Description
1	SWITCH BOX	Connects output of generator set to the load, and permits switching between generators without power loss.
2	GENERATOR SETS	Supplies power to the load. Refer to TM 9-6115-641-10 for major components of generator set.
3	TRAILER ASSEMBLY	Provides support and mounting for switch box, generator sets, and accessory box.

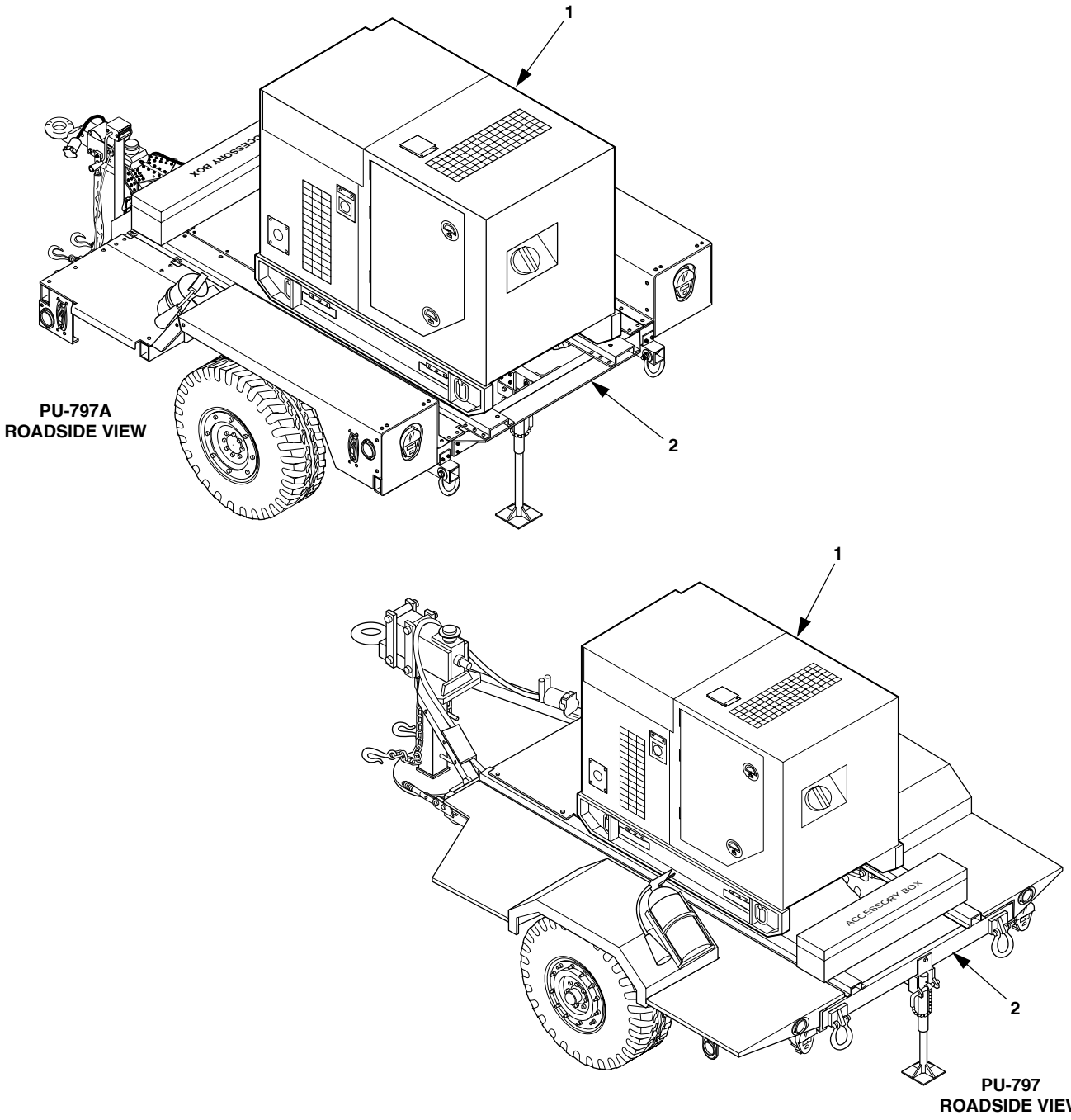


Figure 1-6. Location of Major Components, PU-797 and PU-797A.

Table 1-4. Description of Major Components, PU-797 and PU-797A

Item No.	Item Name	Description
1	GENERATOR SET	Supplies power to the load. Refer to TM 9-6115-641-10 for major components of generator set.
2	TRAILER ASSEMBLY	Provides support and mounting for generator set and accessory box.

1-11. DIFFERENCES BETWEEN MODELS.

Differences between the AN/MJQ-35, AN/MJQ-35A, AN/MJQ-36, PU-797, and PU-797A are identified in Table 1-5. A number (quantity) under the applicable power plant or power unit column heading indicates that the item is a component of that power plant or power unit.

Table 1-5. Differences Between Models

Component	AN/MJQ-35	AN/MJQ-35A	AN/MJQ-36	PU-797	PU-797A
Generator Set, 60 Hz	2	2	2	1	1
Switch Box	1	1	1		
Trailer Chassis, 1-ton, M116A3	1			1	
Trailer, Chassis, 1 1/2-ton, M103A3			1		
Trailer, Chassis, Light Tactical Trailer		1			1

1-12. EQUIPMENT DATA.

1-12.1 Generator Set. Refer to TM 9-6115-641-10.

1-12.2 Trailer Chassis.

1-12.2.1 AN/MJQ-35, 1-ton Trailer Chassis (M116A3). Refer to TM 9-2330-202-14&P.

1-12.2.2 AN/MJQ-36 1 1/2-ton Trailer Chassis (M103A3). Refer to TM 9-2330-213-14&P.

1-12.2.3 PU-797 1-ton Trailer Chassis (M116A3). Refer to TM 9-2330-202-14&P.

1-12.2.4 AN/MJQ-35A and PU-797A, Light Tactical Trailer Chassis (LTT). Refer to TM 9-2330-392-14&P.

1-12.3 Tabulated Data for Power Plants/Power Units.

Table 1-6. Tabulated Data for Power Plants/Power Units

Data	AN/MJQ-35	AN/MJQ-35A	AN/MJQ-36	PU-797	PU-797A
Overall length, Inches (cm)	154.0 (391.2)	135.0 (342.9)	165.0 (419.1)	145.0 (368.3)	135.0 (342.9)
Overall width, Inches (cm)	83.5 (212.1)	86.0 (218.4)	83.0 (210.8)	83.5 (212.1)	86.0 (218.4)
Overall height, Inches (cm)	74.0 (188.0)	66.0 (167.6)	70.2 (178.3)	76.0 (193.0)	66.0 (167.6)
Operational weight, Pounds (kg)	3087 (1400.3)		3785 (1716.9)	2320 (5114.7)	
Shipping weight, Pounds (kg)	3285 (1490.1)	3140 (1424.3)	3985 (1807.5)	2360 (1070.5)	2257 (1023.8)

Table 1-7. Towed Speeds for Power Plants/Power Units.

Equipment	Paved Highway	Cross Country
AN/MJQ –35, 35A and 36 (1, 1½, or Light Tactical Trailer)	50	20
PU-797 and 797A (1,1½,or Light Tactical Trailer)	50	20

1-12.4 Differences between Switch Boxes. Currently there are two versions of the switch box that may be encountered in the field, the older version manufactured starting in 1993 (refer to figure 2-11.1 Chapter 2) and a newer version manufactured from 1996 forward which is pictured in this manual (refer to figure 2-11, Chapter 2) Maintenance procedures are the same for both versions of the switch box. Old switchbox is no longer available. Part number for new switchbox is D13230E6535.

Section III. PRINCIPLES OF OPERATION

1-13. FUNCTIONAL DESCRIPTION.

1-13.1 Power Plant Functional Description. The Power Plants are mobile. The power source for each power plant is two DOD Model MEP-802A 60 Hz Tactical Quiet 5 kW Generator Sets mounted on a single modified 2-wheel trailer. The AN/MJQ-35 is mounted on a modified Model M116A3, 1-ton, trailer. The AN/MJQ-35A is mounted on a modified light tactical trailer. The AN/MJQ-36 is mounted on a modified Model M103A3 1 ½-ton trailer. Each generator set consists of a liquid-cooled diesel engine, brushless 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 three output configurations: 120-volt, single phase, 2-wire; 120/240-volt, single phase, 3-wire; or 120/208-volt, three phase, 4-wire. 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 without interruption of power. The system or equipment load cable may be connected to the switch box by either of two arrangements. One way is to connect a load cable to the switch box output connector. The other way is to connect a load cable to the switch box load terminals.

1-13.2 Power Unit Functional Description. The Power Unit is mobile. The power source is one Tactical Quiet 5 kW Generator Set mounted on a modified Model M116A3, 2-wheel, 1-ton trailer (PU-797) or a modified light tactical trailer (PU-797A). The generator set consists of a liquid-cooled diesel engine, brushless 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 three output configurations: 120-volt, single phase, 2-wire; 120/240-volt, single phase, 3-wire; or 120/208-volt, three phase, 4-wire. The Power Unit uses a DOD Model 802A Generator Set operating at 60 Hz. System or equipment load cables are to be connected to the load terminals on the generator set output panel.

1-14. RELATED TECHNICAL MANUALS.

Refer to Appendix A for related technical manuals and lubrication orders.

CHAPTER 2

OPERATING INSTRUCTIONS

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 9-6115-641-10.

2-1.2 Trailer. Refer to TM 9-2330-202-14&P for AN/MJQ-35 and PU-797, TM 9-2330-392-14&P for AN/MJQ-35A and PU-797A, and TM 9-2330-213-14&P for AN/MJQ-36.

2-1.3 Power Plant Switch Box Controls. Refer to figure 2-1 and table 2-1 for operator controls and indicators.

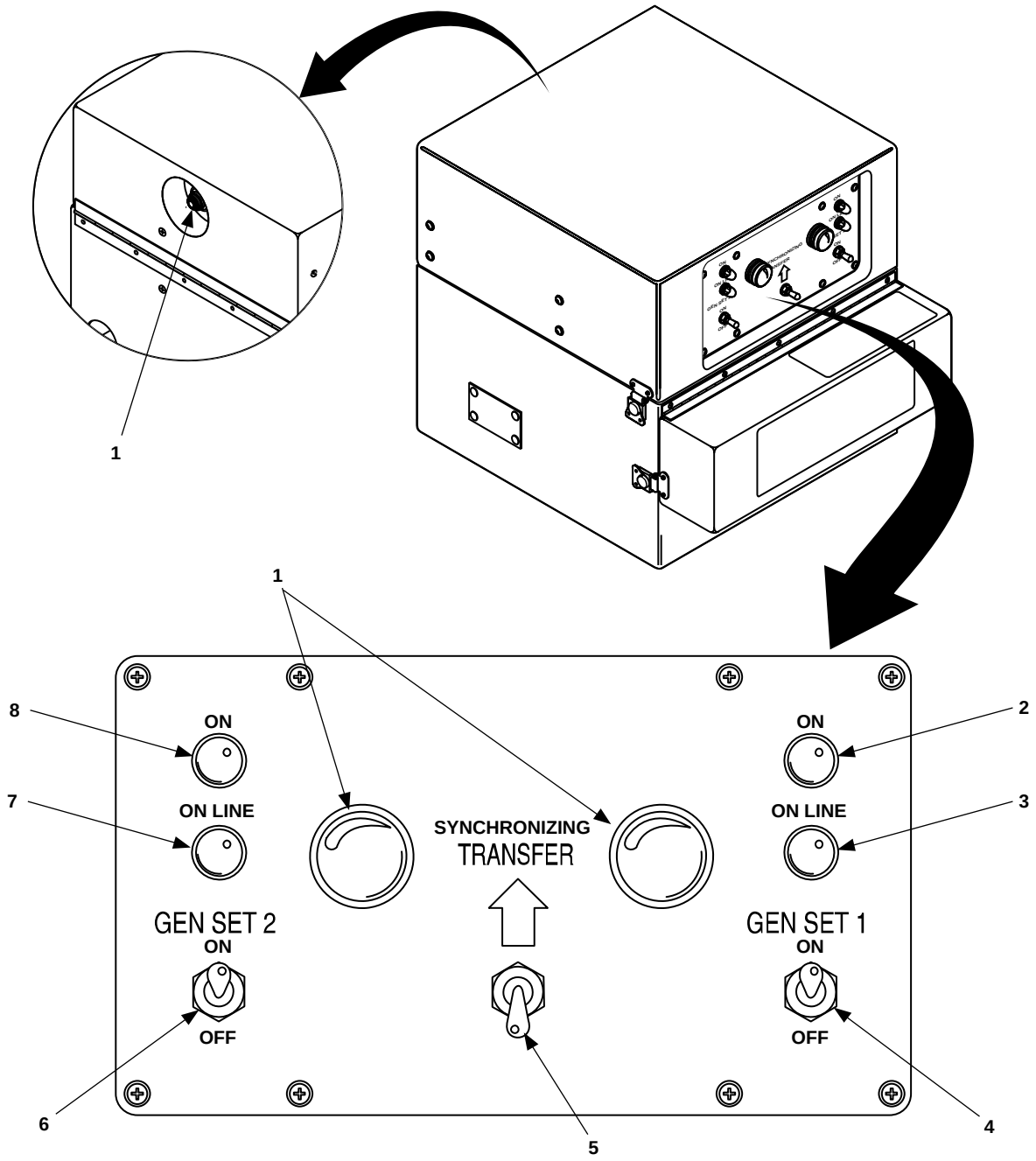


Figure 2-1. Switch Box Controls and Indicators (Sheet 1 of 2) (NEW).

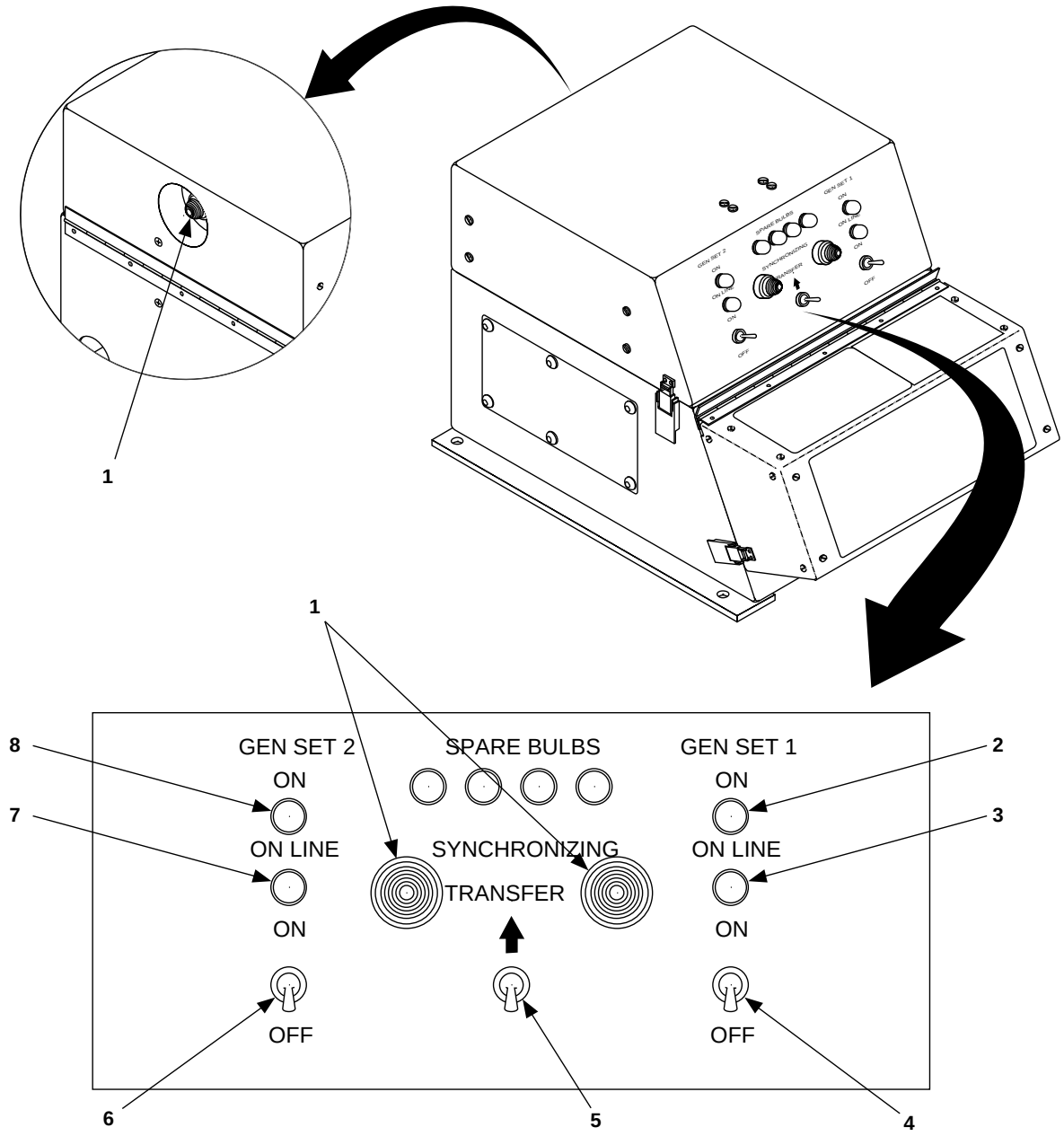


Figure 2-1. Switch Box Controls and Indicators (Sheet 2 of 2) (OLD).

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

Item No.	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 other is ready to go on line. All three 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 (PMCS table) has been provided so you can keep your equipment in good operating condition and ready for its primary mission.

2-2.1 Warnings, Cautions, and Notes. 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 Explanation of Table Entries.

2-2.2.1 Item No. Column. 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.

2-2.2.2 Interval Column. This column tells you when you must do the procedure in the procedure column. "BEFORE" procedures must be done before you operate the power plant or power unit for its intended mission. "DURING" procedures must be done during the time you are operating the power plant or power unit for its intended mission. "AFTER" procedures must be done immediately after you have operated a power plant, immediately after shutting down one of the generator sets on a power plant, or immediately after you have operated a power unit. Perform "Weekly" procedures at the listed interval.

2-2.2.3 Location, Item to Check/Service Column. This column lists the location and the item to be checked or serviced. The item location is underlined.

2-2.2.4 Procedure Column. 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 power plant or power unit 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 Not Fully Mission Capable if: Column. Information in this column tells you what faults will keep your power plant or power unit 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 power plant or power unit.

2-2.3 Other Table Entries. Be sure to observe all special information and notes that appear in your table.

2-2.4 Special Instructions. Preventive maintenance is not limited to performing the checks and services listed in the PMCS table. Covering unused receptacles, stowing unused accessories, and performing 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 information in the following paragraphs to help you identify problems at any time and to help identify potential problems before and during checks and service.

2-2.4.1 Trailer PMCS. Trailer checks and services in the PMCS table are described as performed on a specific model trailer. Refer to table 1-1 to determine appropriate model number.

2-2.4.2 Generator Set PMCS. 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

All metal jewelry can conduct electricity and become entangled in generator components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

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 comply with this warning can cause severe personal injury and/or damage to equipment.

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 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 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 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 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 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/Power Unit 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 materiel is of continuing concern. It is important that any corrosion problems with the power plant or power units be reported so that the problem can be corrected and improvements can be made to prevent the problem in 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. Figures 2-2, 2-3, 2-4, 2-5, and 2-6 show the order in which you are to perform your before operation PMCS. Figure 2-2 is for the AN/MJQ-35, figure 2-3 is for the AN/MJQ-36, figure 2-4 is for the AN/MJQ-35A, figure 2-5 is for the PU-797A, and figure 2-6 is for the PU-797. Callouts on figures 2-2, 2-3, and 2-4 for one Power Plant generator set apply to both of the Power Plant generator sets.

NOTE

The item numbers in Figures 2-2, 2-3, 2-4, 2-5 and 2-6 correspond to the item number column in Table 2-2

NOTE

The find numbers called out in the illustrations within Table 2-2 refer only to the illustrations located within Table 2-2 itself.

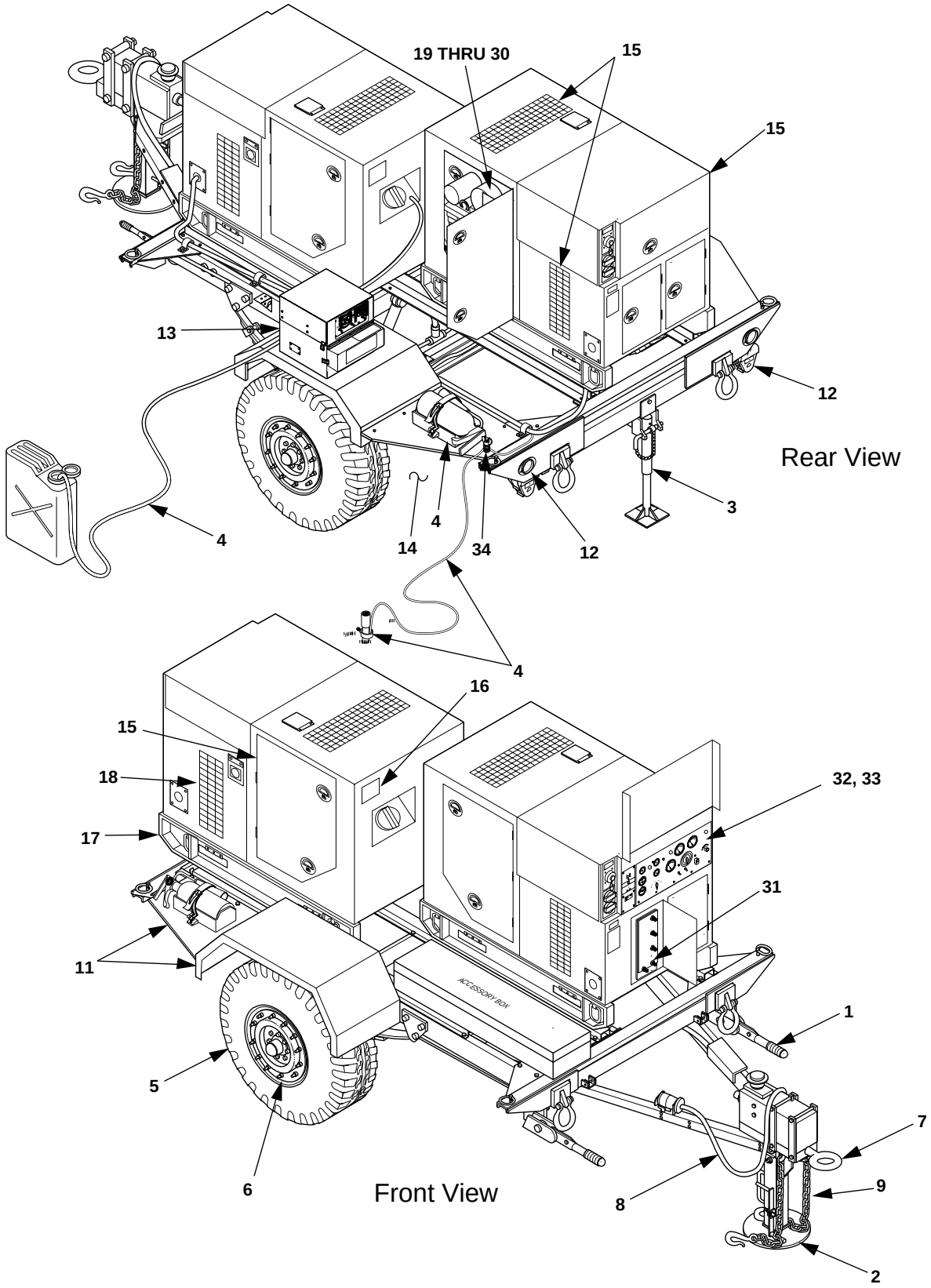


Figure 2-2. Power Plant AN/MJQ-35 Operator PMCS Routing Diagram.

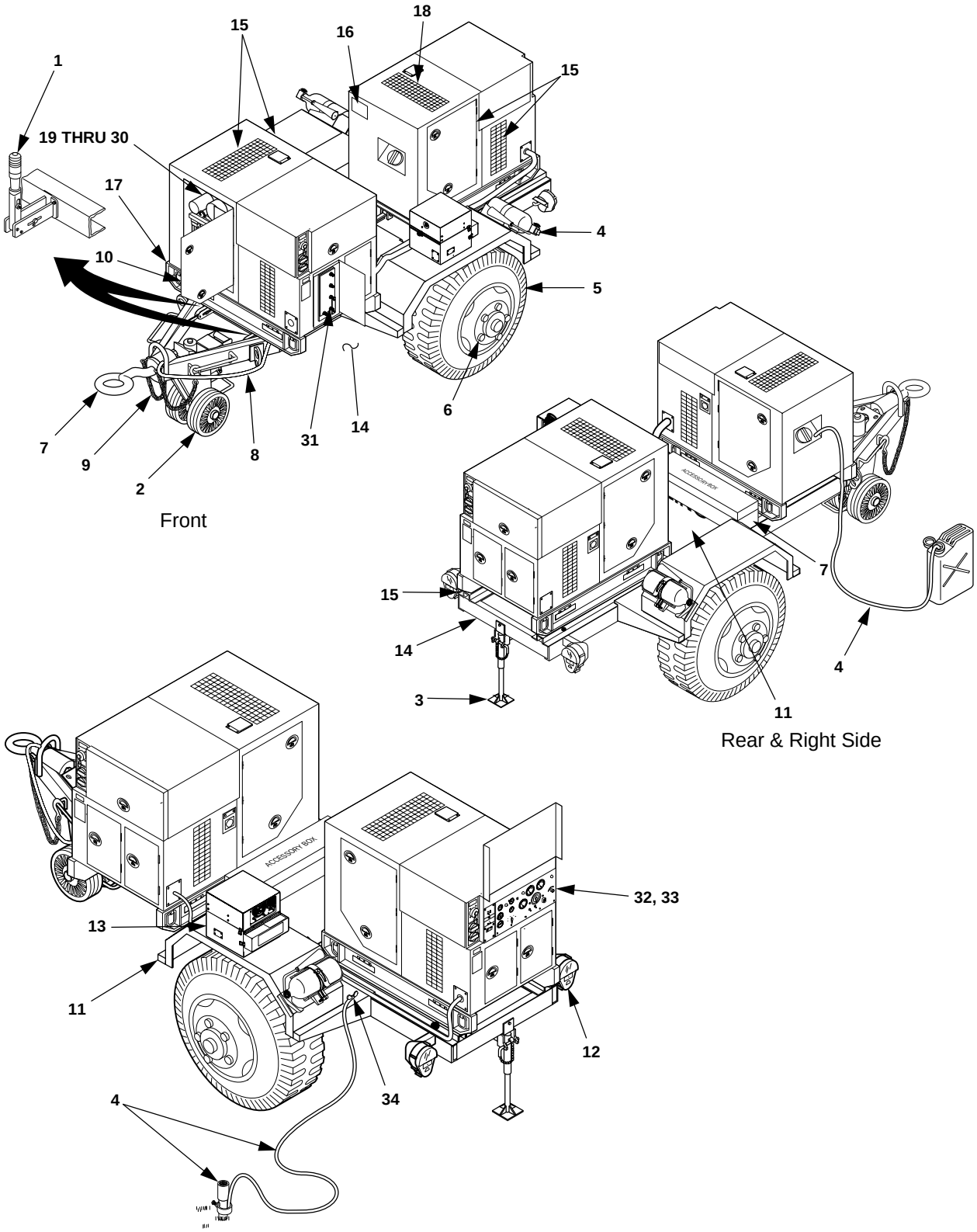
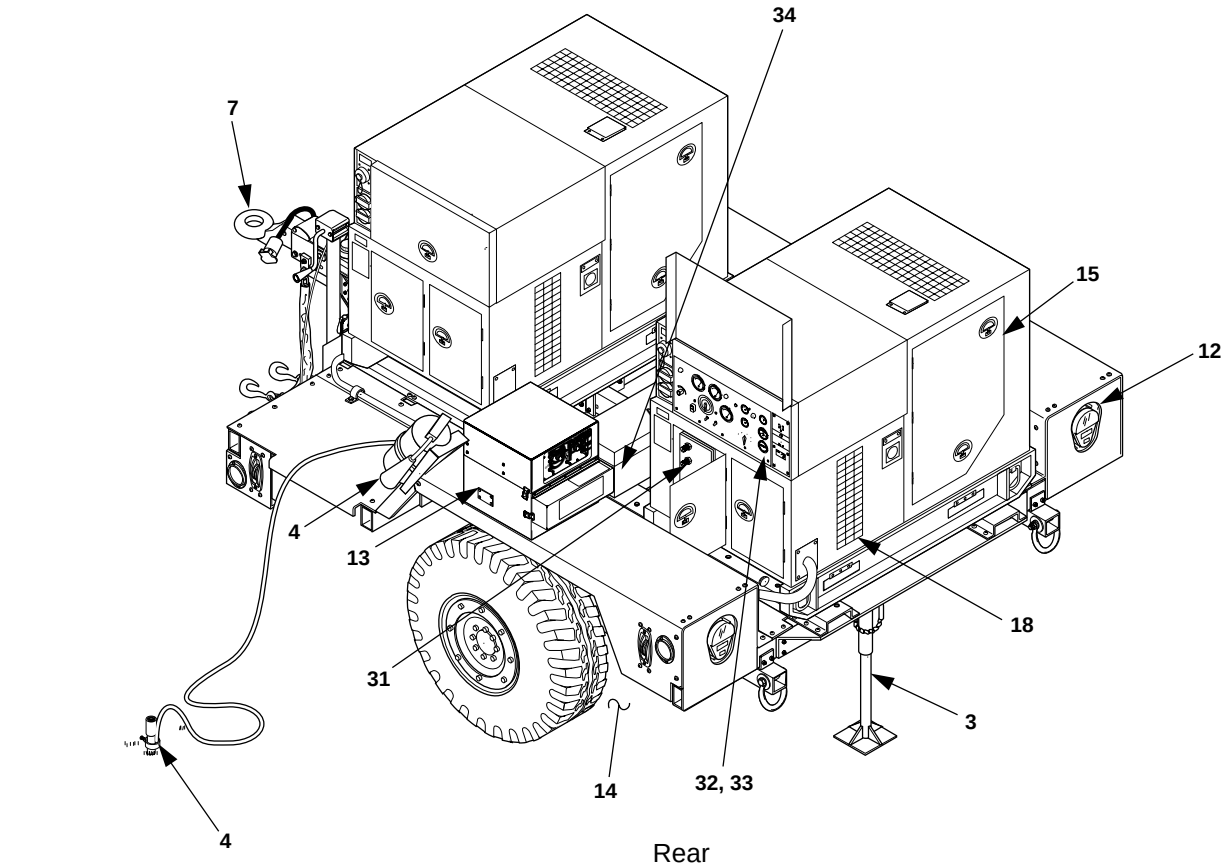


Figure 2-3. Power Plant AN/MJQ-36 Operator PMCS Routing Diagram.



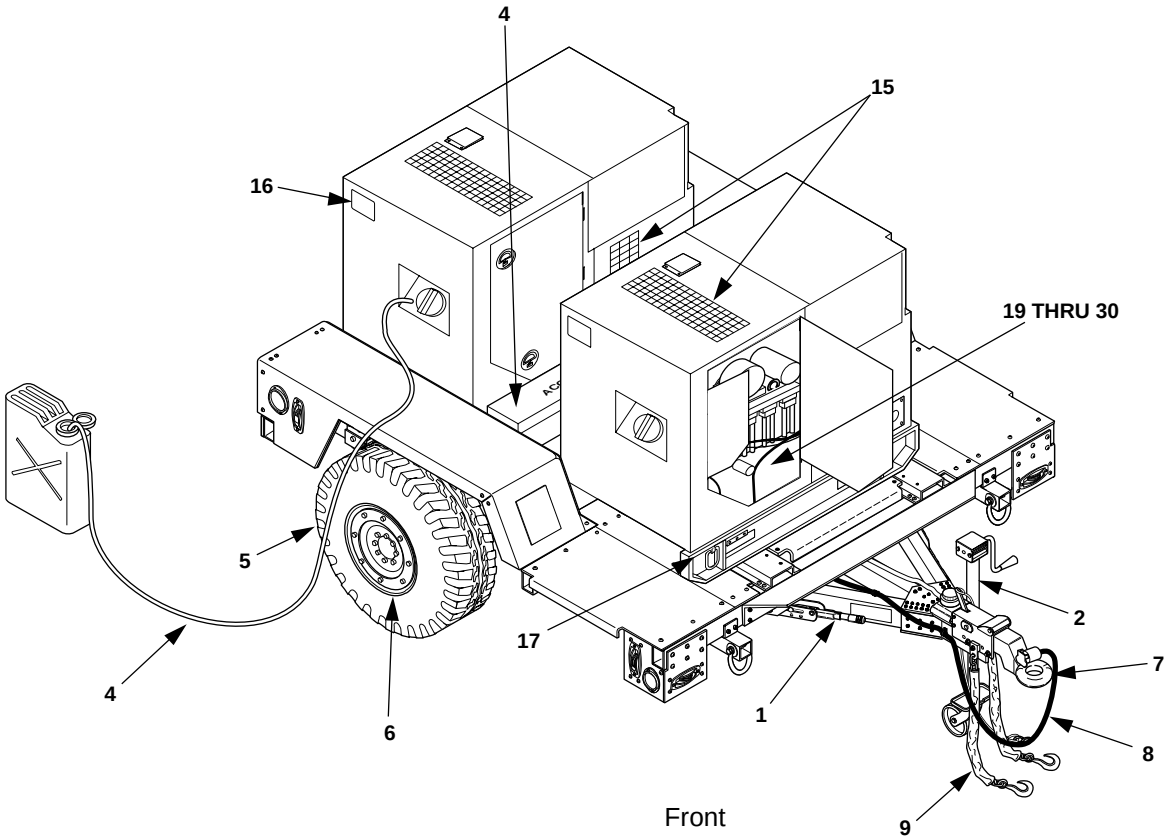


Figure 2-4. Power Plant AN/MJQ-35A Operator PMCS Routing Diagram.

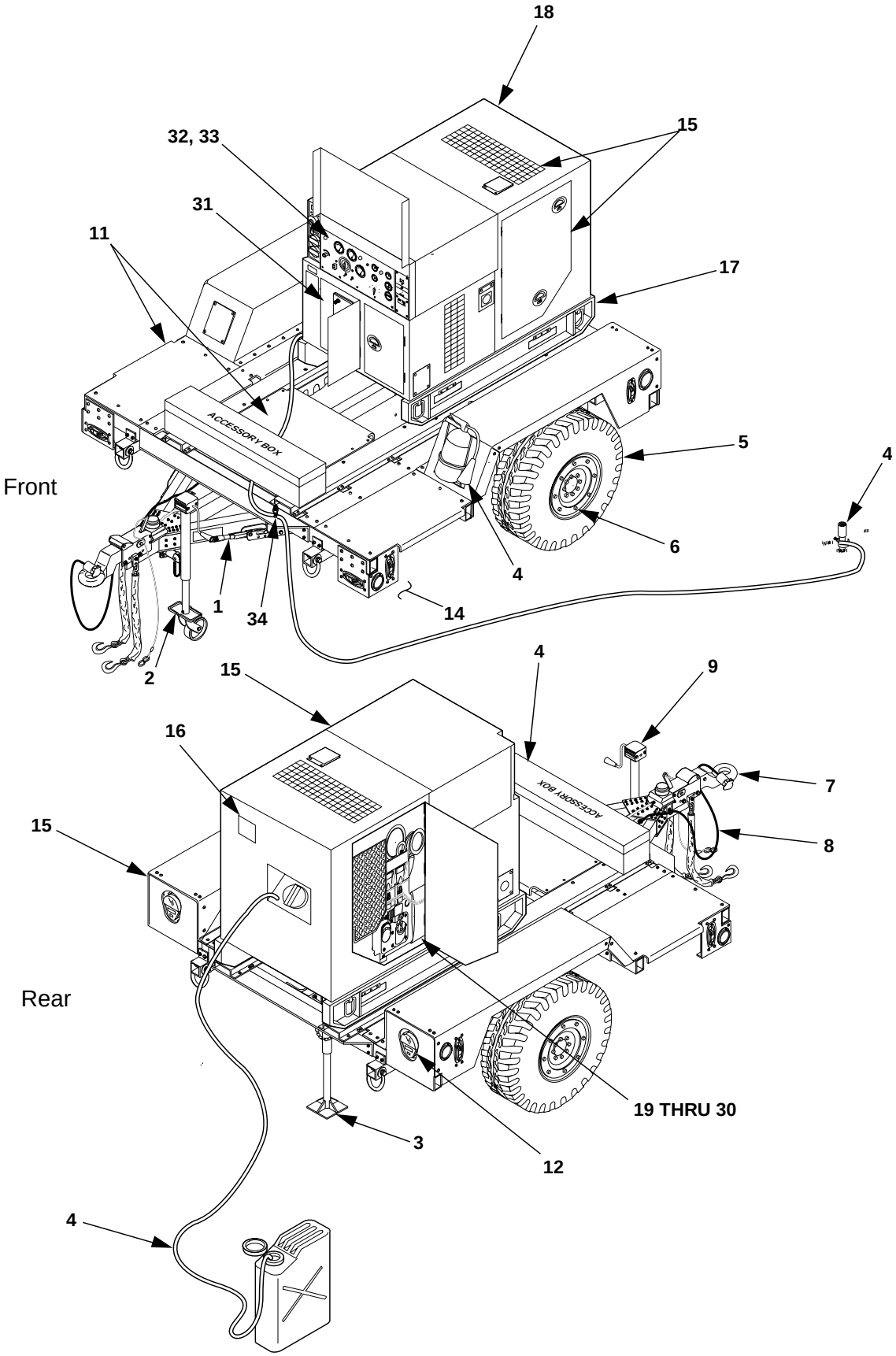


Figure 2-5. PU-797A Power Unit Operator PMCS Routing Diagram.

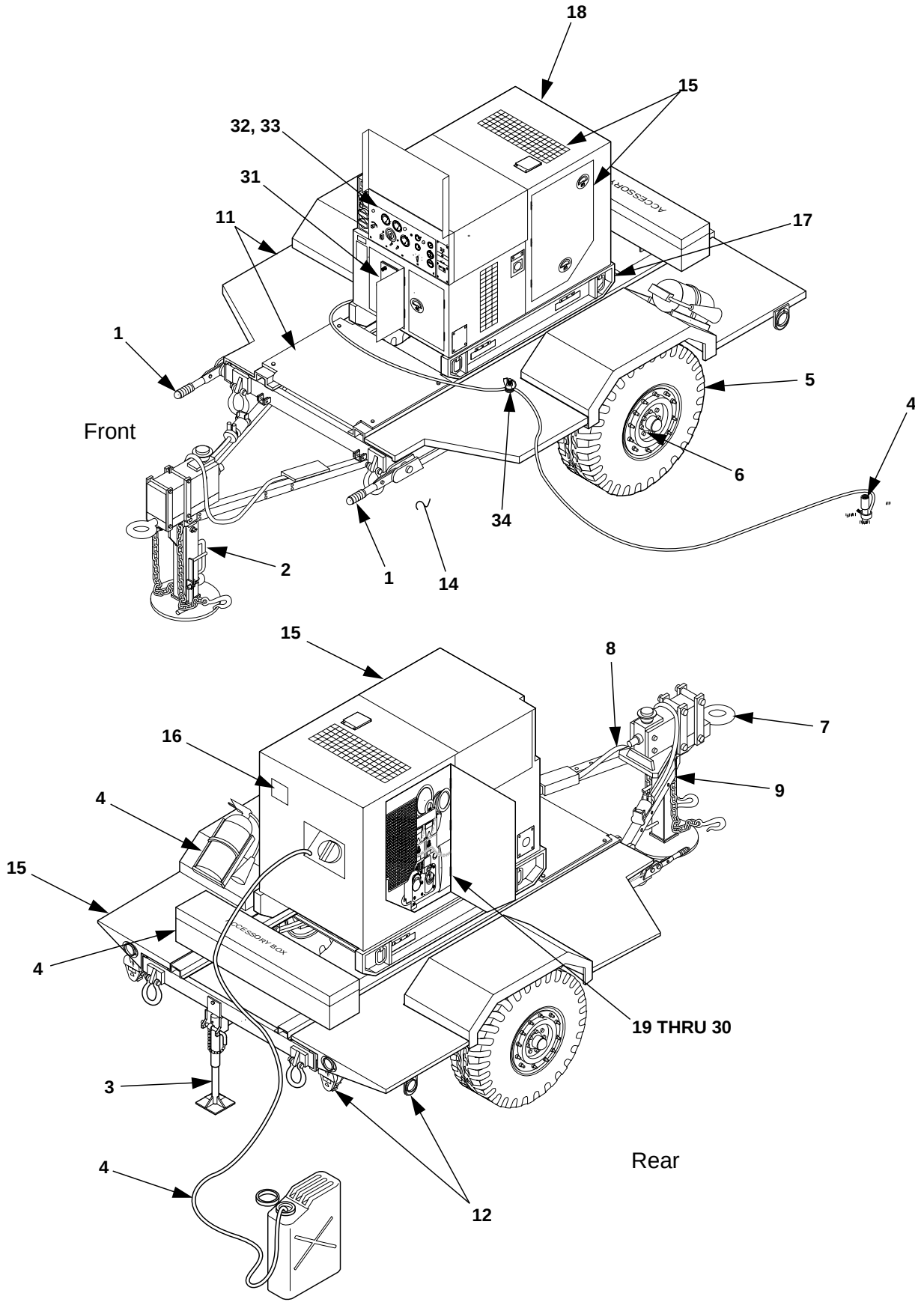


Figure 2-6. PU-797 Power Unit Operator PMCS Routing Diagram.

Table 2-2. Operator Preventive Maintenance Checks and Services

NOTE

If equipment must be in continuous operation, check and service only those items that can be checked and serviced without disturbing operation. Make complete checks and services when equipment can be shut down. When a procedure is required for both weekly and BEFORE intervals, it is not necessary to do the procedure twice if the equipment is operated during the weekly period.

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
			WARNING Do not disconnect trailer from towing vehicle before hand brakes are set and front landing leg and rear support leg are lowered. Failure to comply with this warning can cause personal injury or death from trailer tipping or rolling, and equipment damage.	
	Before	TRAILER VISUAL INSPECTION Fenders/Body Gen Set Door Reflectors Landing leg Skid base Lunette Chains Identification Plates	a. Check for damage.	Any condition renders the power unit/power plant not mission capable
		Fuel and Coolant	b. Check on, around, and under equipment for fuel, oil, or coolant leaks.	Class III coolant or any class fuel leak is detected.

Table 2-2. Operator Preventive Maintenance Checks and Services - continued

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
			WARNING In extreme cold weather, skin can stick to metal. Avoid contacting metal items with bare skin in extreme cold weather. Failure to comply with this warning can cause injury to personnel.	
1	Before	HANDBRAKES	a. Check for proper operation of handbrake lever (1). Handbrake lever should move freely throughout its entire travel. 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 handbrake holds the wheels. If not, proceed to step d.	Handbrake lever (1) is locked in the applied position.

Table 2-2. Operator Preventive Maintenance Checks and Services - continued

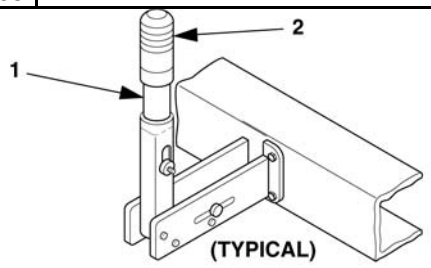
Item No.	Interval	Location / Item to Check/Service	Procedure	Not Fully Mission Capable if:
				
			WARNING If trailer is not coupled to towing vehicle, ensure that wheels are securely chocked. Failure to comply with this warning to can cause trailer to roll, resulting in severe personal injury and damage to equipment.	
			NOTE Both handbrake levers (1) are adjusted the same way. This procedure covers 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 Field Level Maintenance. (3) Check adjustment (Refer to step b). Repeat steps (1) and (2) as required. Repeat step c.	
2	Before	LANDING LEG ASSEMBLY	Check for loose, missing, damaged, or corroded parts, and for any unusual signs of deterioration. a. With trailer connected to towing vehicle, check landing leg assembly (3) for ease of operation. b. Check landing leg assembly (3) for proper mounting, alignment, and general condition. c. Ensure landing leg assembly (3) can be locked in stored and support positions.	Landing leg assembly will not secure in stored position or will not support trailer.

Table 2-2. Operator Preventive Maintenance Checks and Services - continued

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
			d. Ensure locking lever (4) moves freely. e. Ensure landing leg foot or wheels (5) can be adjusted up and down.	
3	Before	REAR LEVELING-SUPPORT JACK	a. Check rear leveling-support jack (6) for ease of operation and secure mounting. b. Ensure rear leveling-support jack can be locked in stored and support positions. c. Ensure locking pin (7) is attached to leg with chain (8). d. Ensure leveling-support jack foot can be adjusted up and down.	Rear leveling-support jack will not secure in stored position or will not support trailer.

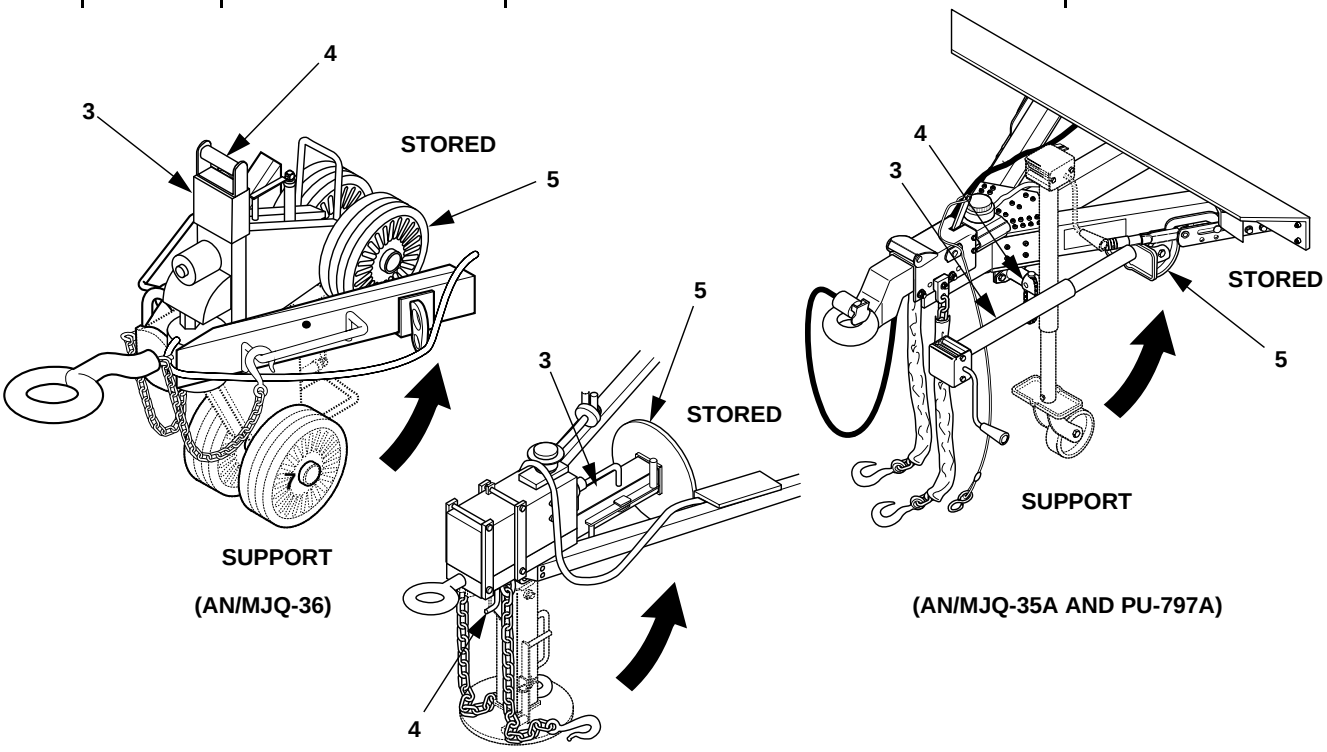


Table 2-2. Operator Preventive Maintenance Checks and Services – continued

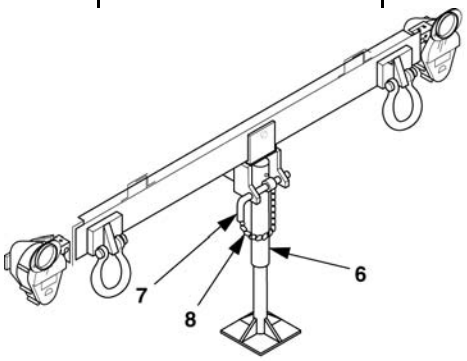
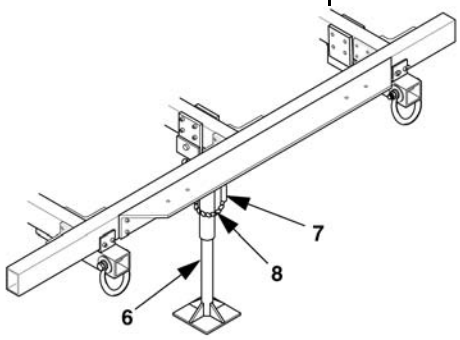
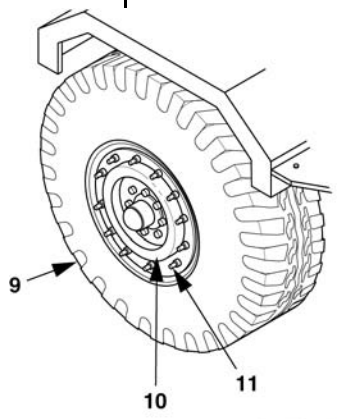
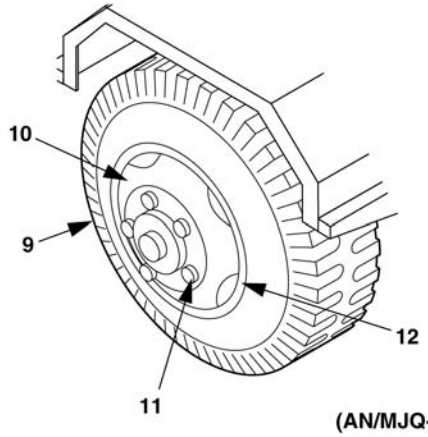
Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
			 **AN/MJQ-35** **AN/MJQ-36** **PU-797**	 **AN/MJQ-35A** **PU-797A**
4	Before	ACCESSORIES	Check that following accessories are not missing or damaged: Auxiliary fuel hose(s) (stored in storage box inside right access door under control box on generator). Fire extinguisher(s), check seal (stored in fire extinguisher bracket on fender). Check accessory box for damaged or missing components.	Fire extinguisher is missing, seal is broken.
			NOTE Remaining accessories 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 Item to Check/Service	Procedure	Not Fully Mission Capable if:
5	Before	TIRES	a. Check tires (9) for cuts, bruises, bulges, or unusual tread wear. Remove any foreign objects from between treads. b. Check tire pressure when tires are cool, as follows: Power Plant: AN/MJQ-35, AN/MJQ-35A, AN/MJQ-36 — Power Unit: PU-797, PU-797A Highway: 35 psi (241.3 kPa) — 35 psi (241.3 kPa)	Tires are unserviceable. Tires will not hold pressure.



(AN/MJQ-35 AND PU-797)



(AN/MJQ-36)

6	Before	WHEELS	a. Check wheels (10) for damage and for leakage around flange gasket. c. Check if stud nuts (11) are loose or missing.	Wheel is damaged. One stud nut is loose or missing.

WARNING

Do not attempt to seat a lockring when tire is inflated. Improperly seated lockring could fly off. Failure to comply with this warning can cause severe personal injury to personnel.

			d. Model AN/MJQ-36 only, check for proper mounting of wheel assembly lockring (12).	Lockring not properly seated.

Table 2-2. Operator Preventive Maintenance Checks and Services - continued

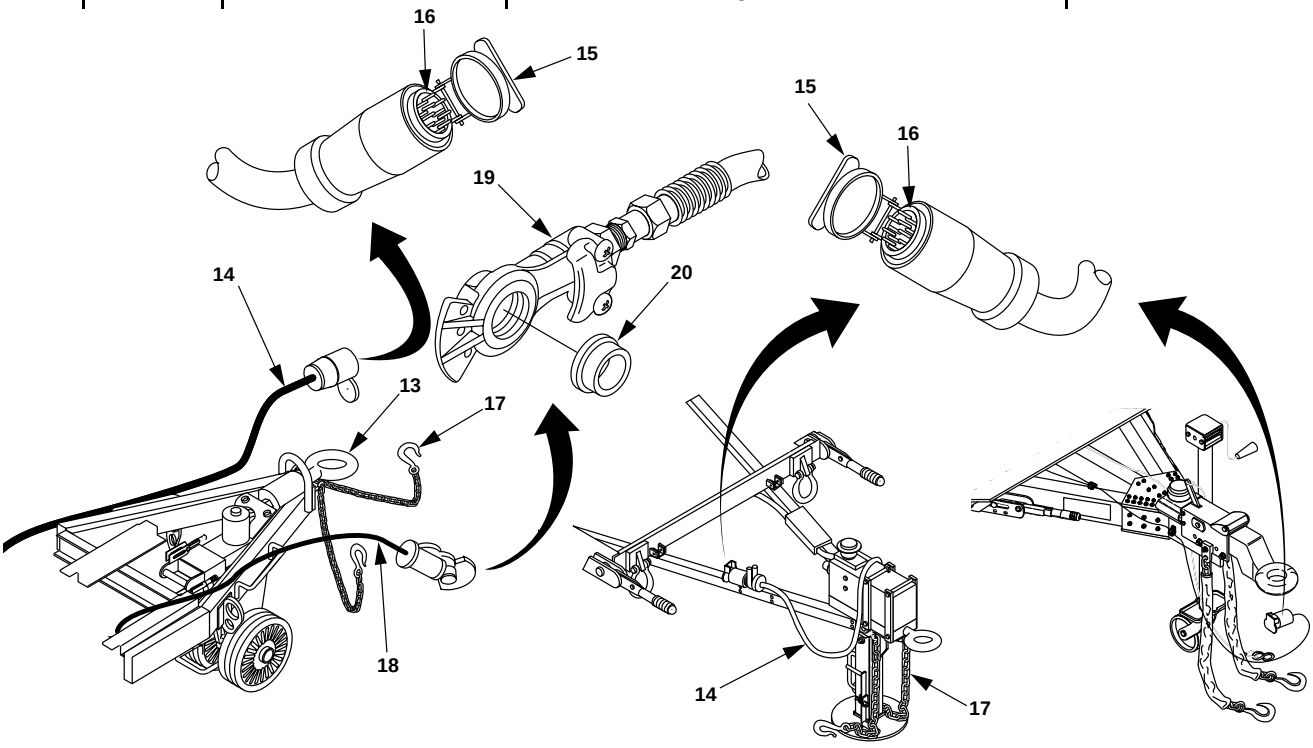
Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
7	Before	DRAWBAR RING	Check drawbar ring (13) for secure mounting and obvious damage.	Ring is loose or bent.
				
			(AN/MJQ-36) (AN/MJQ-35 AND PU-797) (AN/MJQ-35A AND PU-797A)	
8	Before	INTERVEHICULAR CABLE	a. Check intervehicular cable (14) for cuts and breaks. b. Open protective cover (15). Inspect for broken, missing, and burnt pins (16).	Cable is severed or missing.
9	Before	SAFETY CHAINS	Check safety chains (17) for secure mounting and obvious damage.	Chain is missing or unsecured.
10	Before	AIR HOSE AND COUPLER (AN/MJQ-36 ONLY)	a. With trailer hooked to towing vehicle, check air hose (18) for leaks, cuts, and abrasions. b. Check coupler body (19) for damage. Check if seal (20) is missing or damaged.	Air leaks are found or hose is cut deep enough for cords to show. Coupler body is cracked or broken. Seal is missing.

Table 2-2. Operator Preventive Maintenance Checks and Services - continued

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
11	Before	FENDERS-ALL MODELS PLATFORMS-ALL MODELS EXCEPT AN/MJQ-35 SPLASH GUARDS-AN/MJQ-35 ONLY	Check for damaged, loose, or missing hardware.	Damage is to extent where it poses a safety hazard or prevents trailer from being towed.
12	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 (21) to the towing vehicle. c. Operate the vehicle light switch through all settings and check the lights (22). d. Check for damage and presence of reflectors (23).	

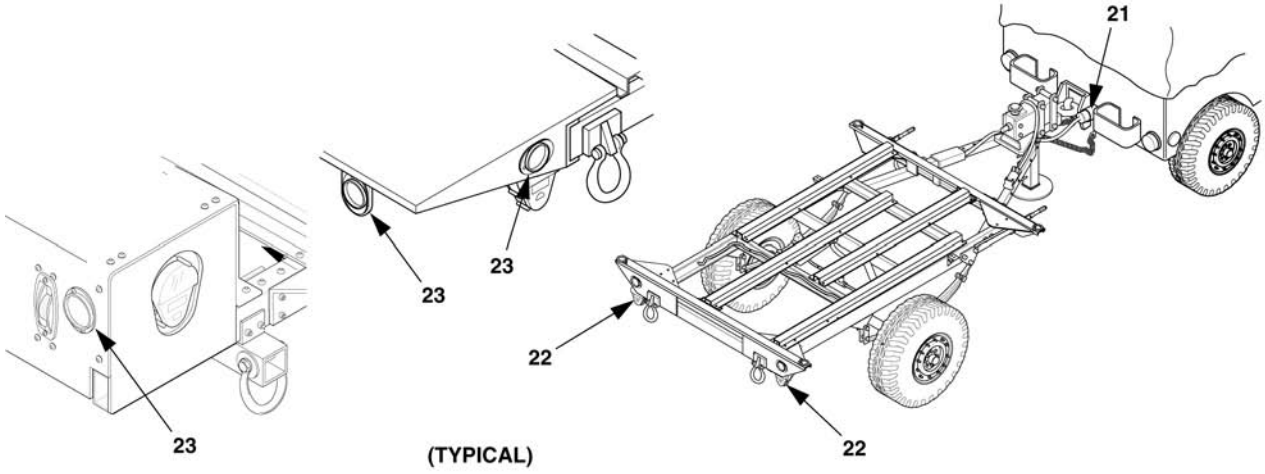
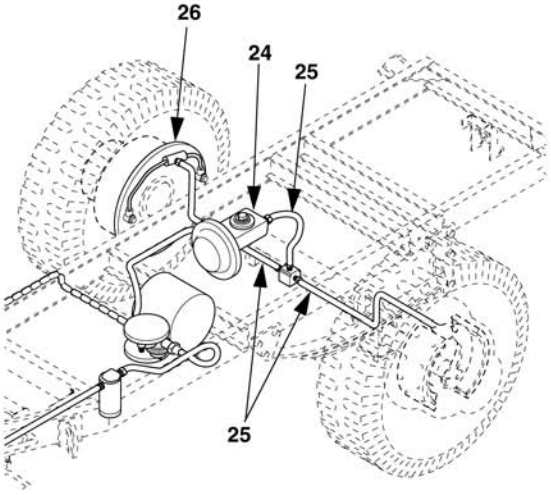
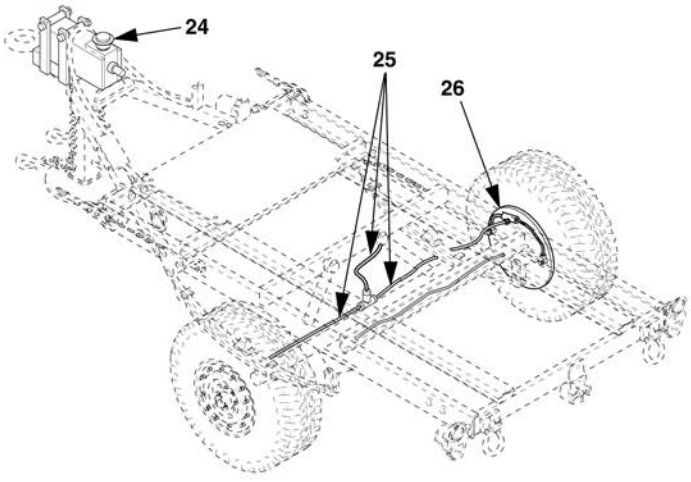


Table 2-2. Operator Preventive Maintenance Checks and Services - continued

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
13	Before	SWITCH BOX ASSEMBLY (POWER PLANTS ONLY)	a. Check for loose or missing mounting 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. Cable is missing or broken.
14	Before	HYDRAULIC BRAKES	Check for leakage of brake fluid from master cylinder (24), hydraulic brake lines and fittings (25), and backing plates (26).	Brake system any leak.



(AN/MJQ-36)



(AN/MJQ-35 AND PU-797)
(AN/MJQ-35A AND PU-797A)

Table 2-2. Operator Preventive Maintenance Checks and Services - continued

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		GENERATOR SET ASSEMBLY		
		NOTE If the equipment must be kept in continuous operation, check and service only those items that can be checked and serviced without disrupting operations. Complete all checks and services when equipment is shut down.		
15	Before	HOUSING	a. Check doors (27), panels (28), hinges (29), and latches (30) for damaged, loose, or corroded items. b. Inspect air intake and exhaust grills (31) for debris.	Cannot secure door.
			NOTE Check all data plates.	
16	Before	IDENTIFICATION PLATES	Check to ensure identification plates (32) are secure and legible.	
17	Before	SKID BASE	Inspect skid base (33) for cracks and corrosion.	Skid base is cracked or shows signs of structural damage.

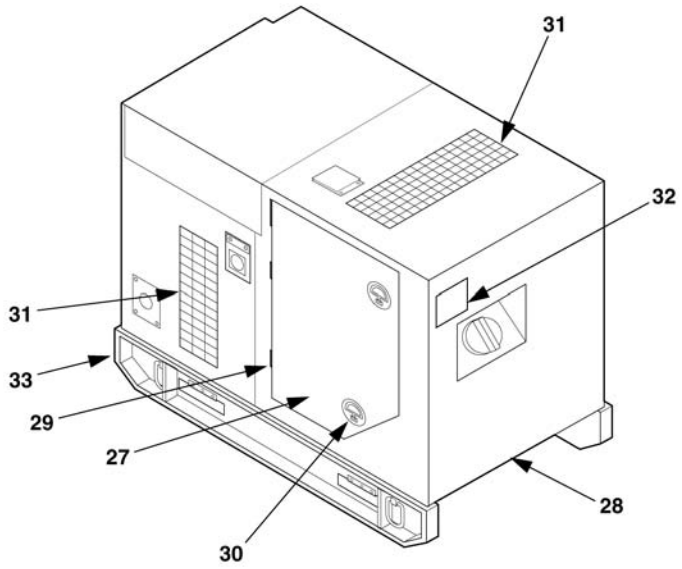


Table 2-2. Operator Preventive Maintenance Checks and Services - continued

Item No.	Interval	Location / Item to Check/Service	Procedure	Not Fully Mission Capable if:
18	Before	ACOUSTICAL MATERIAL	Ensure acoustical materials, located in the grill areas and under the engine, are secure, not damaged, or missing.	

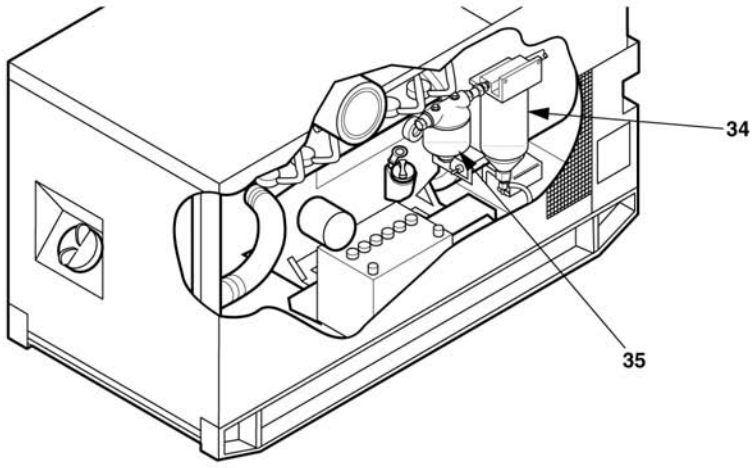
WARNING

Operating the generator set exposes personnel to a high noise level. Hearing protection must be worn when operating or working near the generator set when the generator set is running. Failure to comply with this warning can cause hearing damage to personnel.

WARNING

Fuels used in the generator set are flammable. Do not smoke or use open flames when performing maintenance. Failure to comply with this warning can result in flames and possible explosion and can cause injury or death to personnel and damage to the generator set.

19	Before	ENGINE ASSEMBLY	a. Visually inspect the generator set for fuel, oil, and coolant leaks. Check for proper ground connections.	Any fuel leaks. Any Class III oil or coolant leaks.
			b. Visually inspect the engine for missing, loose, or damaged parts and hardware, and for unusual wear or deterioration.	Any condition that renders power unit/power plant not mission capable.



20	Before	FUEL SYSTEM	Inspect for leaks, damaged, loose, or missing hardware.	Any fuel leaks, damaged, loose, or missing parts.

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

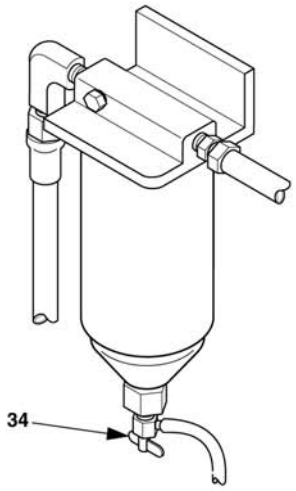
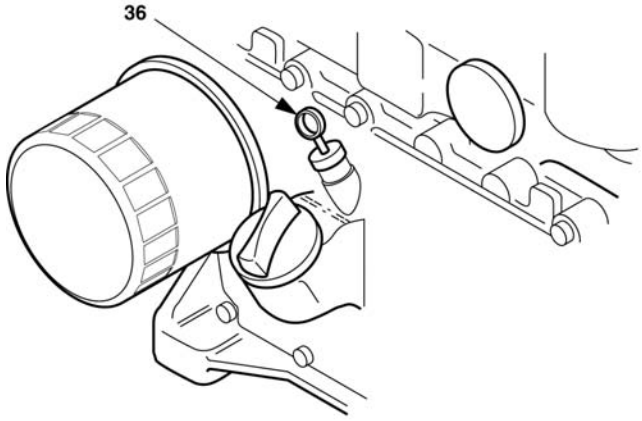
Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
21	Before	FUEL FILTER/ WATER SEPARATOR	a. Inspect fuel filter/water separator (34) and fuel filter (35) for leaks, proper mounting, cracks, damage, or missing parts.	Any fuel leaks.
			b. Drain water from fuel filter/water separator (34).	
				
22	Before	LUBRICATION SYSTEM	a. Inspect lubrication system for leaks, damaged, loose, or missing parts. b. Check oil level (36). Add oil as necessary. c. Check engine oil for contamination.	Class III leaks, damaged, loose, or missing parts. Engine oil shows signs of contamination.
				

Table 2-2. Operator Preventive Maintenance Checks and Services - continued

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
			WARNING Cooling system operates at high temperature and pressure. Contact with high pressure steam and/or liquids can result in burns and scalding. Shut down generator set, and allow system to cool before performing checks, services and maintenance, or wear gloves and additional protective clothing and goggles as required. Failure to comply with this warning can cause injury or death to personnel.	
23	Before	RADIATOR	Check radiator (37) for leaks, damaged, or missing parts.	Class III leaks. Radiator cap missing.
24	Before	HOSES	Check hoses (38) for leaks and cracks.	Class III leaks.
25	Before	COOLING FAN	Check fan (39) for damage or looseness.	Damaged or loose.
26	Before	FAN BELT	Inspect belt (40) for cracks, fraying, or looseness.	Broken belt.

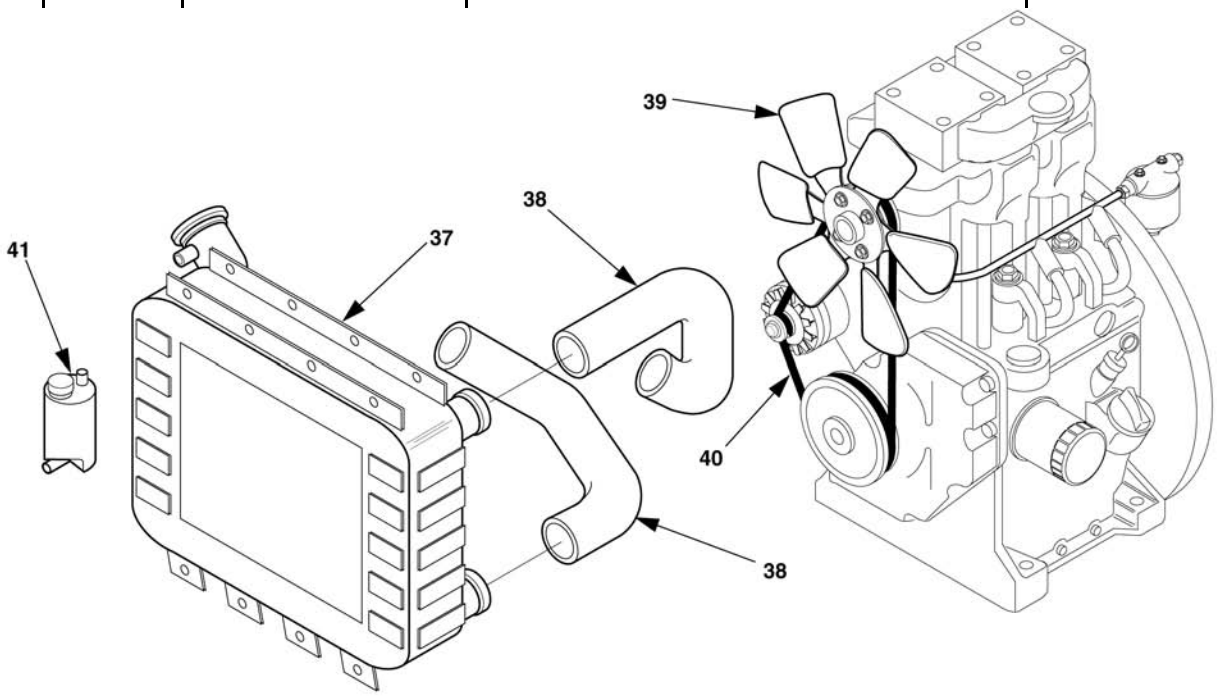


Table 2-2. Operator Preventive Maintenance Checks and Services - continued

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
27	Before	OVERFLOW BOTTLE	Check overflow bottle (41) for leaks or missing parts. Check coolant level.	Class III leaks.
			WARNING Exhaust discharge contains deadly gases including carbon monoxide. DO NOT operate generator set in enclosed areas unless exhaust discharge is properly vented outside. Failure to comply with this warning can cause injury or death to personnel.	
28	Before	EXHAUST SYSTEM	Check muffler (42) for leaks and exhaust system for corrosion, damaged, or missing parts.	Muffler or exhaust system damaged or leaking.
29	Before	AIR CLEANER ASSEMBLY	a. Inspect air cleaner assembly (43) and piping (44) for loose or damaged connections.	Loose or missing parts.
			b. Inspect restriction indicator (45) for clogged element. If indicator shows red, notify next higher level of maintenance.	Clogged element is indicated or piping and connections are loose.

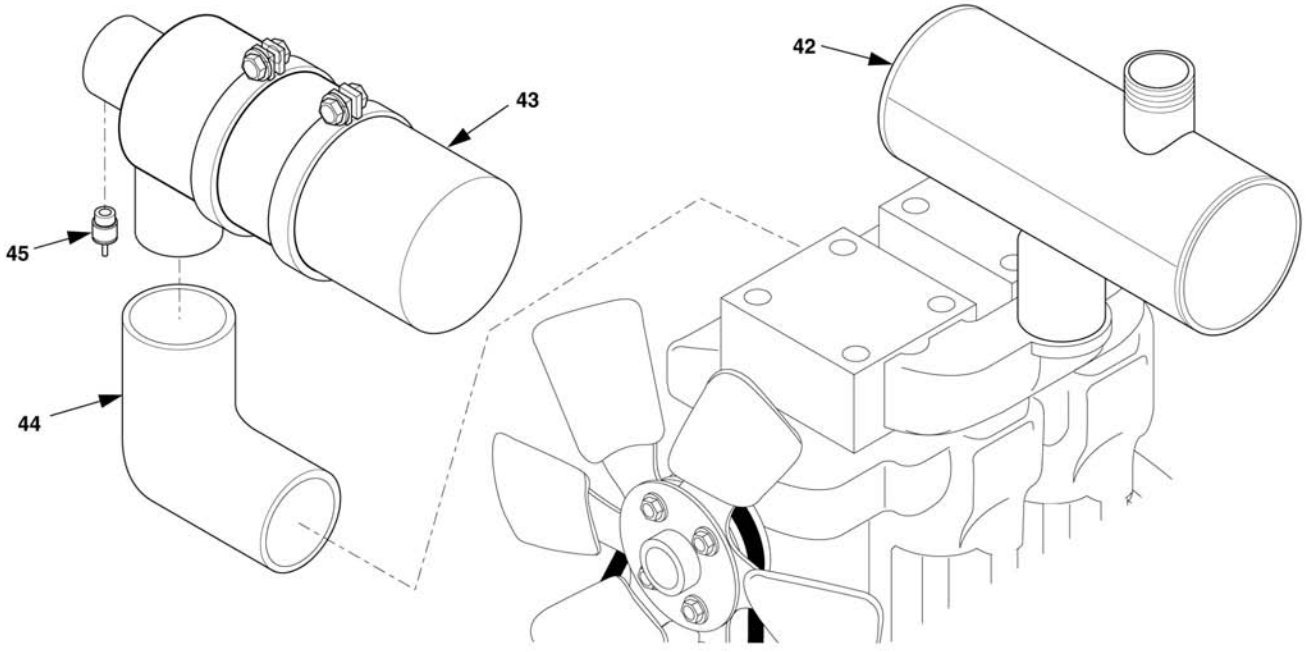
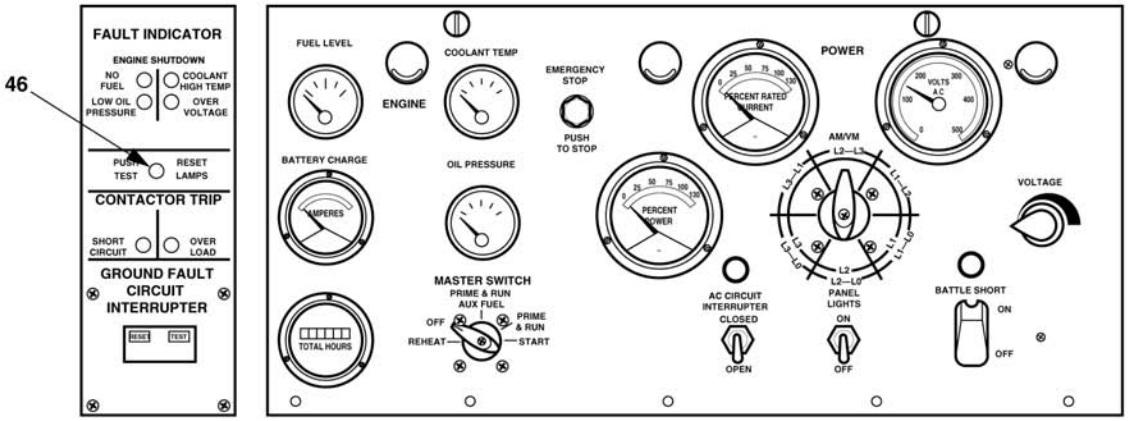


Table 2-2. Operator Preventive Maintenance Checks and Services - continued

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
			WARNING Battery acid can cause burns to unprotected skin. Wear safety goggles and chemical gloves and avoid acid splash while working on the batteries. Failure to comply with this warning can cause severe personal injury.	
			WARNING Batteries give off flammable gas. Do not smoke or use open flame when performing maintenance. Failure to comply with this warning can cause severe injury or death to personnel and equipment damage.	
30	Before	BATTERY CABLES	Inspect cables and connectors for corrosion, damage, loose, or missing parts.	Cables are loose, damaged, or missing.
			WARNING High voltage is produced when this generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.	
31	Before	OUTPUT BOX ASSEMBLY	a. Check for loose or damaged wiring or cables. b. Check output terminals for damage or missing hardware.	Loose or damaged wiring or cables. Damaged or missing hardware.

Table 2-2. Operator Preventive Maintenance Checks and Services - continued

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
32	Before	CONTROLS AND INDICATORS	a. Check all indicators and controls for damage or missing parts. b. Press PUSH TEST RESET LAMPS button (46) on fault indicator. All lights must light.	Indicators or controls damaged or missing.



33	Before	CONTROL BOX HARNESS	Check inside control box for loose or damaged wiring. See TM9-6115-641-10.	Loose or damaged wiring.
34	Before	GROUND ROD CABLE AND CONNECTIONS	a. Inspect for damage, corrosion, and loose connections. b. Inspect ground rod and cable for loose connections, breaks, damage and corrosion.	Cable is missing or damaged.

WARNING

Never attempt to start generator set, unless it is properly grounded. Failure to comply with this warning can result in severe personal injury or death by electrocution.

Refer to generator TM9-6115-641-10.

Table 2-2. Operator Preventive Maintenance Checks and Services - continued

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
35	During	OPERATION	a. Be alert for any unusual noises while towing the trailer. Stop and investigate any unusual noises.	
			b. Ensure that the trailer is tracking/following correctly behind towing vehicle with no side pull.	Brakes locked-up.
36	During	SWITCH BOX ASSEMBLY <u>GENERATOR SET ASSEMBLY</u>	Check indicator lights. Ensure indicator lights are operating properly.	
37	During	HOUSING	a. Check doors, panels, hinges, and clamping catches for damaged, loose, or corroded items.	Cannot secure door.
			b. Inspect air intake and exhaust grills for debris.	Grills plugged or flow cutoff.

WARNING

Operating the generator set exposes personnel to a high noise level. Hearing protection must be worn when operating or working near the generator set when the generator set is running. Failure to comply with this warning can cause hearing damage to personnel.

Table 2-2. Operator Preventive Maintenance Checks and Services - continued

Item No.	Interval	Location / Item to Check/Service	Procedure	Not Fully Mission Capable if:
			WARNING Top housing panels and exhaust system can get very hot. When performing DURING PMCS, wear gloves and additional protective clothing as required. Failure to comply with this warning can cause severe burns and injury to personnel.	
			WARNING Fuels used in the generator set are flammable. Do not smoke or use open flames when performing maintenance. Failure to comply with this warning can result in flames and possible explosion and can cause injury or death to personnel, and damage to the generator set.	
			WARNING Exercise extreme caution when performing DURING PMCS checks inside engine compartment. Avoid contact with moving or hot engine parts. Failure to comply with this warning can cause injury or death to personnel.	
38	During	ENGINE ASSEMBLY	Check for loose, damaged, or missing parts.	
39	During	FUEL SYSTEM	Inspect for leaks, damaged, loose, or missing parts.	Any fuel leaks, damaged or loose parts.
40	During	LUBRICATION SYSTEM	a. Inspect for leaks, damaged, loose, or missing parts.	Class III leaks, and damaged, or loose parts.
			b. Check oil level on both sides of dipstick.	Oil level below ADD level.
41	During	COOLING FAN	Listen for unusual noise in fan area.	
			WARNING High voltage is produced when the generator set is in operation. DO NOT touch live voltage connections. Never attempt to connect or disconnect load cables while generator set is running. Failure to comply with this warning can cause injury or death to personnel.	

Table 2-2. Operator Preventive Maintenance Checks and Services - continued

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
42	During	CONTROLS AND INDICATORS	Observe the following indicators and ensure they are operating properly. COOLANT TEMP. 170-200°F (77-93°C) OIL PRESSURE 25-60 psi (172-414-kPa) FREQUENCY 60 Hz VOLTAGE 120-240 VAC	
			WARNING High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.	
43	During	GROUND ROD CABLE AND CONNECTIONS	Inspect ground rod and cable for loose connections, breaks, damage and corrosion.	Cable is missing or damaged.
			WARNING Top housing panels and exhaust system can get very hot. Shut down generator set, and allow system to cool before performing checks, services and maintenance. Failure to comply with this warning can cause severe burns and injury to personnel.	
44	After	HOUSING	a. Check doors, panels, hinges, and clamping catches for damaged, loose, or corroded items.	Cannot secure doors.
			b. Inspect air intake and exhaust grills for debris.	Intake and exhaust grills plugged.
45	After	IDENTIFICATION PLATES	Check to ensure identification plates are secure.	
46	After	SKID BASE	Inspect skid base 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:
			WARNING Fuels used in the generator set are flammable. Do not smoke or use open flames when performing maintenance. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set.	
			WARNING Diesel fuel is flammable and toxic to eyes, skin and respiratory tract. Skin and eye protection are required when working in contact of diesel fuel. Avoid repeated or prolonged contact. Provide adequate ventilation. Operators are to wash exposed skin and change chemical soaked clothing promptly if exposed to fuel. Failure to comply with this warning can cause injury or death to personnel.	
47	After	ENGINE ASSEMBLY	Check for loose, damaged, or missing hardware.	
48	After	FUEL SYSTEM	Inspect fuel system for leaks, and damaged, loose, or missing hardware.	Any fuel leaks, and damaged, loose, or missing parts.
49	After	FUEL FILTER/ WATER SEPARATOR	a. Inspect fuel filter/water separator for leaks, cracks, damage, proper mounting, or missing parts. b. Drain water from fuel filter/water separator.	Any fuel leaks.

Table 2-2. Operator Preventive Maintenance Checks and Services - continued

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
50	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 on both sides of dipstick.	Oil level is below ADD level.
			c. Check engine oil for contamination.	Engine oil shows signs of contamination.
		WARNING Cooling system operates at high temperature and pressure. Contact with high pressure steam and/or liquids can result in burns and scalding. Shut down generator set, and allow system to cool before performing checks, services and maintenance, or wear gloves and additional protective clothing and goggles as required. Failure to comply with this warning can cause injury or death to personnel.		
51	After	RADIATOR	Check radiator for leaks, damaged, or missing parts.	Class III leaks. Radiator cap missing.
52	After	HOSES	Check hoses for leaks or cracks.	Class III leaks.
53	After	FAN BELT	Inspect belts for cracks, fraying, or looseness.	Broken belt.
54	After	OVER-FLOW BOTTLE	Check over-flow bottle for leaks or missing parts. Check coolant level.	Class III leaks. Coolant level is below COLD line.
		CONTROL BOX ASSEMBLY		
55	After	CONTROLS AND INDICATORS	Check all controls and indicators for damaged or missing parts.	Controls or indicators damaged or missing.

Table 2-2. Operator Preventive Maintenance Checks and Services - continued

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
56	After	TRAILER SWITCH BOX ASSEMBLY (POWER PLANTS ONLY)	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 Unpacking the Power Plants/Power Units. Unpacking must be performed by field level maintenance personnel.

2-3.2 Installation Instructions. Before the power plant/power unit is started and operated, it is towed to the worksite and positioned.

2-3.2.1 Positioning Power Plant/Power Unit.

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

WARNING

Do not disconnect trailer from towing vehicle before hand brakes are set and front landing leg and support leg are lowered. Failure to comply with this warning can cause personal injury or death from trailer tipping or rolling, and equipment damage.

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 AN/MJQ-35 or PU-797 trailer from towing vehicle, TM 9-2330-392-14&P for uncoupling AN/MJQ-35A or PU-797A trailer from towing vehicle, and TM 9-2330-213-14&P for uncoupling AN/MJQ-36 trailer from towing vehicle.

d. Adjust front landing leg using elevation crank to level the trailer.

e. Pull out pin (1, figure 2-7) that secures rear leveling-support jack (2) in travel position.

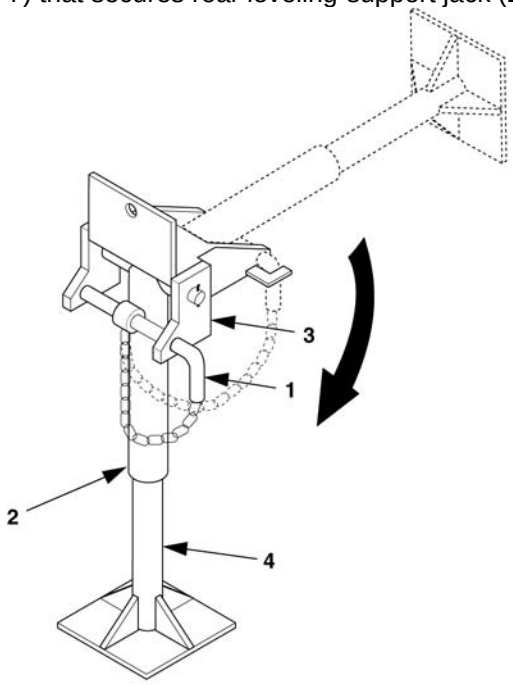


Figure 2-7. Rear Leveling-Support Jack.

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

Fuels used in the generator set are flammable. Do not smoke or use open flames when performing maintenance. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set.

WARNING

Diesel fuel is flammable and toxic to the eyes, skin and respiratory tract. Skin and eye protection are required when working in contact with diesel fuel. Avoid repeated or prolonged contact. Provide adequate ventilation. Operators are to wash exposed skin and change chemical soaked clothing promptly if exposed to fuel. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Fuels used in the generator set are flammable. When filling the fuel tank, maintain metal-to-metal contact between filler nozzle and fuel tank opening to eliminate static electrical discharge. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set.

WARNING

Hot engine surfaces from the engine and generator circuitry are possible sources of ignition. When hot fueling with DF-1, DF-2, JP5 or JP8, avoid fuel splash and fuel spill. Do not smoke or use open flame when performing refueling. Remember PMCS is still required. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set.

a. Place the external fuel source (2, figure 2-8) several feet, but no more than 25 feet, away from the generator set.

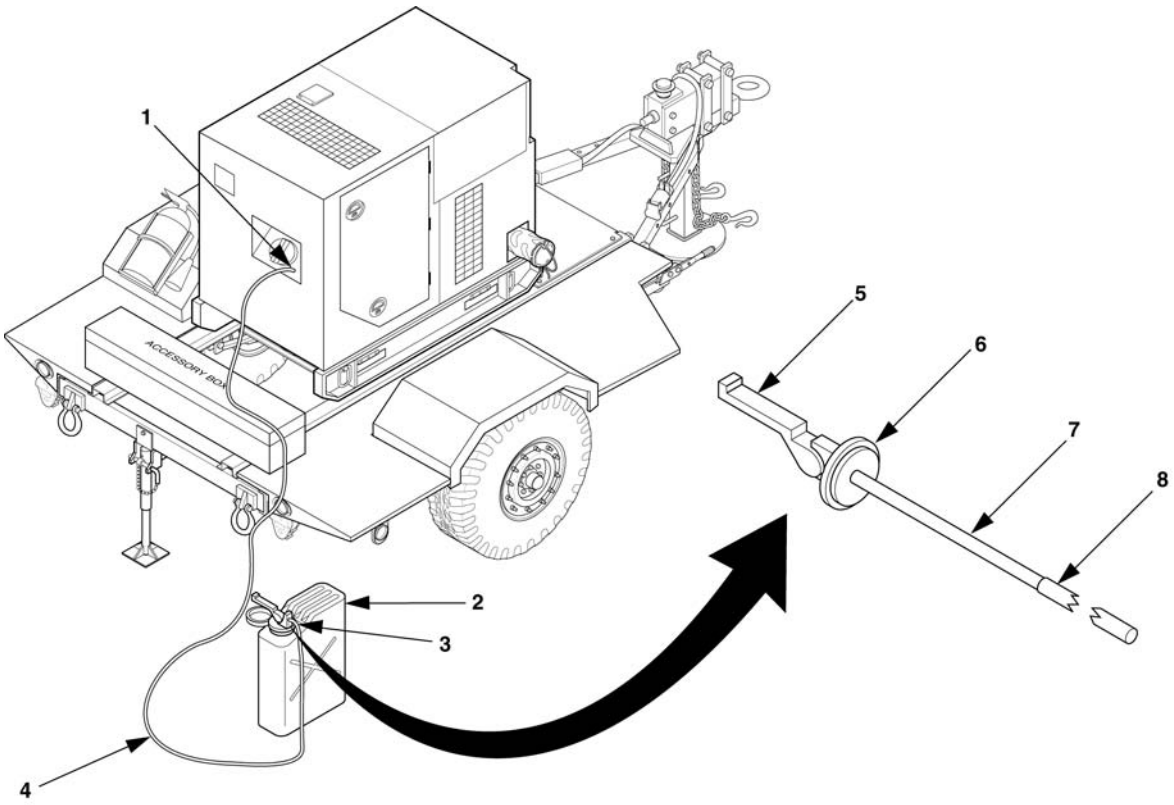


Figure 2-8. Auxiliary Fuel (Typical).

b. Remove the container adapter (3) from the accessory storage box. If disassembled, remove all components. The components are the assembled clamp (5) and head (6), a fuel pickup tube (7), and an extension pipe (8). The extension pipe 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 connection (1). The connection is located beside the generator set fuel tank filler neck. Tighten the connection.

WARNING

Diesel fuel is flammable and toxic to eyes, skin, and respiratory tract. Skin and eye protection are required when working in contact with diesel fuel. Avoid repeated or prolonged contact. Provide adequate ventilation. Operators are to wash exposed skin and change chemical soaked clothing promptly if exposed to fuel. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Fuels used in the generator are flammable. Do not smoke or use open flames when performing maintenance. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set.

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

High voltage is produced when the generator set is in operation. Never attempt to start the generator set if it is not properly grounded. Failure to comply with this warning can cause injury or death to personnel.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

2-3.3 Grounding of Power Unit/Power Plant (Trailer). Ground the equipment in accordance with Army Technical Bulletin, TB 43-0125 (Installation of Communications Electronic Equipment: Hookup of Electrical Cables to Mobile Generator Sets on Fielded Equipment to Meet Electrical Safety Standards) and Field Manual, FM 5-424 (Theatre of Operations Electrical Systems). Typical ground rod installations are shown in figure 2-10. Install and connect ground rod as follows:

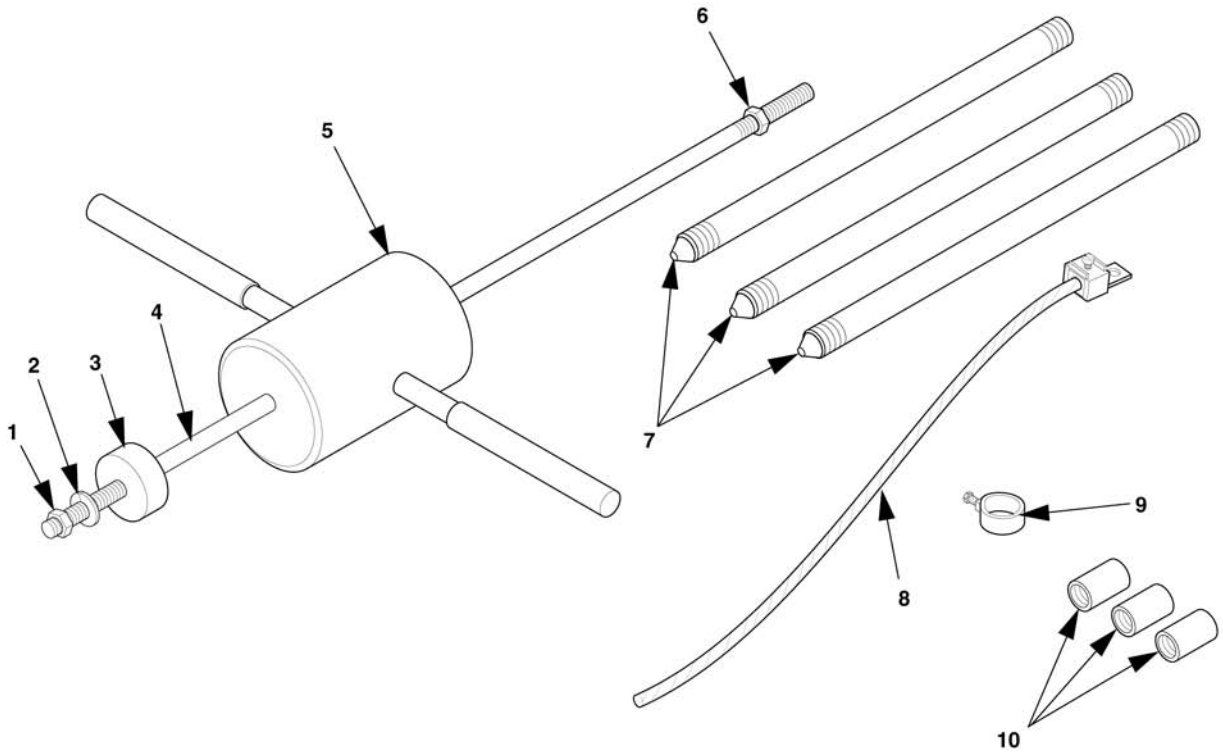


Figure 2-9. Ground Rod and Slide Hammer.

a. Remove ground rod, grounding strap, and slide hammer (figure 2-9) from accessory box. Perform assembly steps (1) through (4).

WARNING

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

NOTE

The terminal lug supplied with the ground rod is too small. Use additional ground strap provided with power unit.

(1) Install impact disk (3) on rod (4). Tighten impact disk 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).

b. Connect ground rod coupling (10) to ground rod (7) and screw slide hammer into coupling (10). Make sure that slide hammer rod (4) seats on ground rod (7).

c. Drive ground rod into ground until coupling is just above surface.

d. Remove slide hammer assembly and install another section of ground rod (7).

e. Install another coupling (10) and the slide hammer assembly. Drive ground rod down until new coupling is just above ground surface.

f. Repeat steps d and e until ground rod has been driven eight feet or deeper, providing an effective ground.

g. Connect clamp (9) and ground cable (8) to ground rod (7) and tighten clamp screw.

h. Connect ground cable (8) to trailer as follows.

NOTE

Ground terminal on LTT is different than one located on other trailers.

(1) If LTT (AN/MJQ-35A or PU-797A) is being used, perform steps (5) and (6). Otherwise perform steps (2) through (4).

(2) Remove and retain wing nut (1, figure 2-10) and flat washer (2) from trailer ground stud (4) and install ground cable terminal lug (3) to ground stud (4).

(3) Install flat washer (2) on ground stud (4).

(4) Install wing nut (1) on the ground stud (4) and tighten.

(5) Loosen nut (5) on LTT ground terminal (6).

(6) Insert wire (7) through slot of ground terminal (6) and tighten nut (5).

i. Disassemble slide hammer as follows:

(1) Remove nut (6, figure 2-9) 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.

WARNING

High voltage is produced when this generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

A qualified technician must make the power connections and perform all continuity checks. The power source may be a generator or commercial power. Failure to comply with this warning can cause injury or death to personnel.

2-3.4 Connecting Load.

2-3.4.1 Power Plant. Load cables and instructions for connecting them are normally furnished with the equipment that is to be supplied with electric power. The load may be connected to the switch box (1, figure 2-11) and (1, figure 2-11.1) by either of two arrangements. One way is to connect a load cable to the switch box output connector (7, figure 2-11.1). The other way is to connect load cables to the switch box load terminals (3, figure 2-11). Before connecting the load, determine voltage requirements of the system or equipment that is to receive electric power.

WARNING

High voltage is produced when this generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage in produced when the generator set is in operation. DO NOT touch live voltage connections. Never attempt to connect or disconnect load cables while the generator set is running. Failure to comply with this warning can cause injury or death to personnel.

2-3.4.1.1 Connection to Switch Box Load Terminals.

a. Remove cap (6, figure 2-11.1) from output connector (7).

b. Connect load cable to output connector (7).

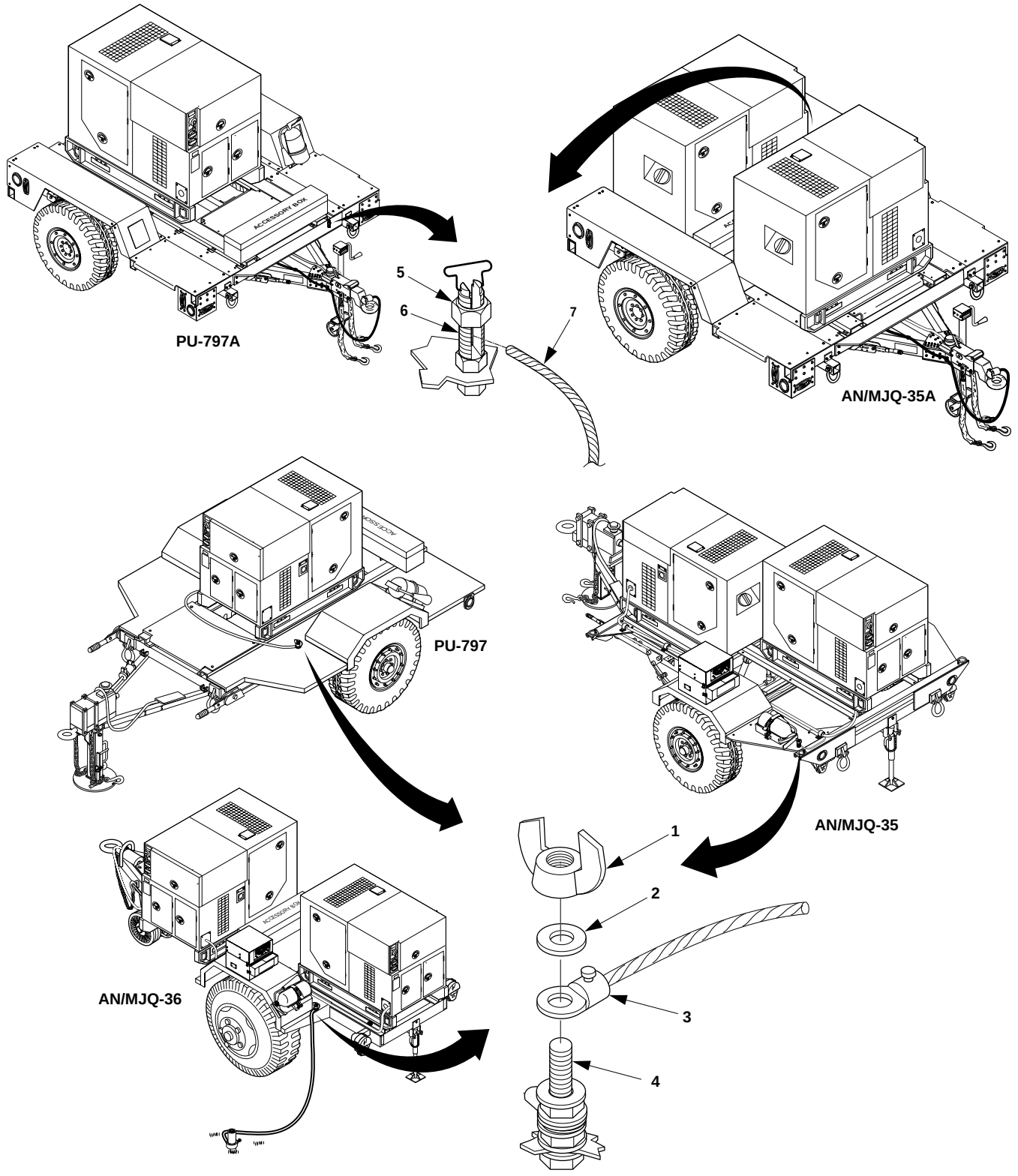


Figure 2-10. Power Plant and Power Unit Ground Connections.

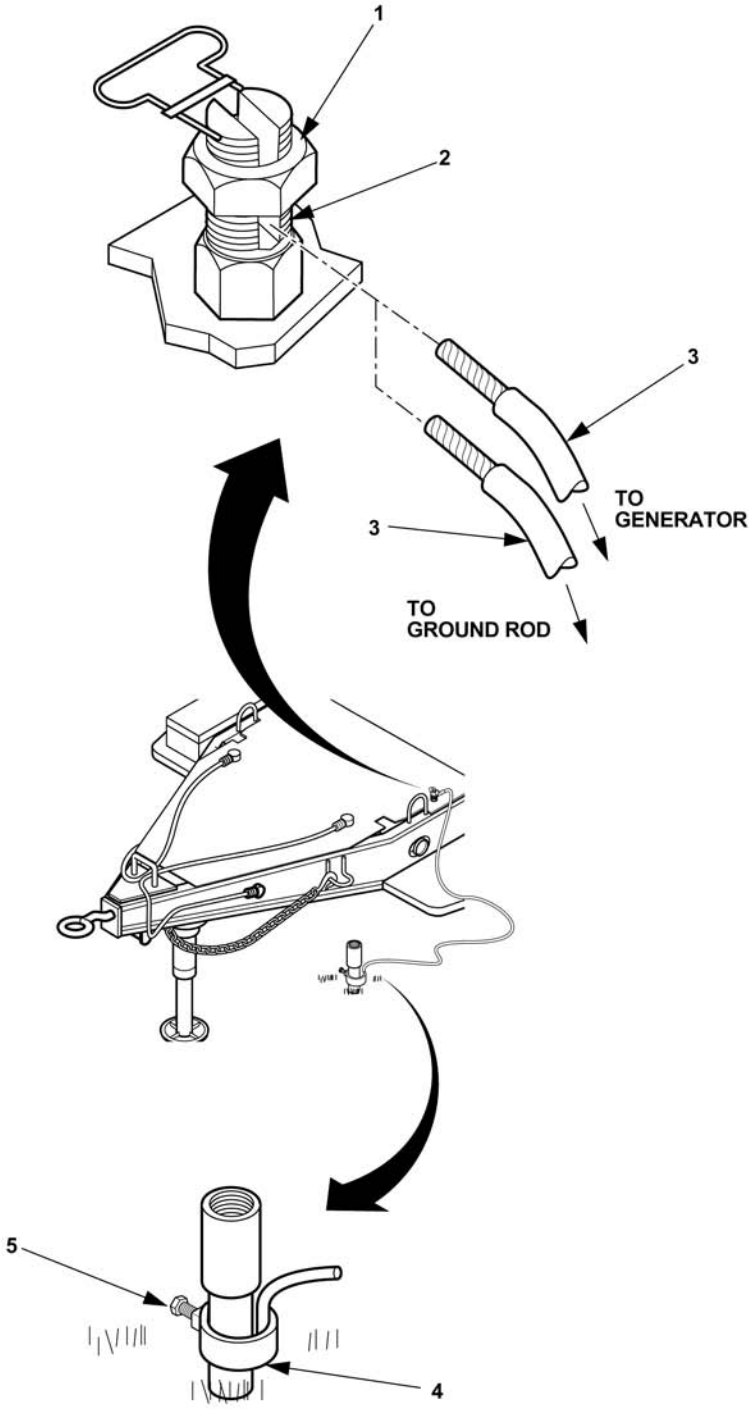


Figure 2-10.1. Typical Ground Rod Installations.

2-3.4.1.2 <u>Connection to Switch Box Load Terminals</u>.

a. Release both clamping catches (4, figure 2-11.) and raise load terminal cover (2).

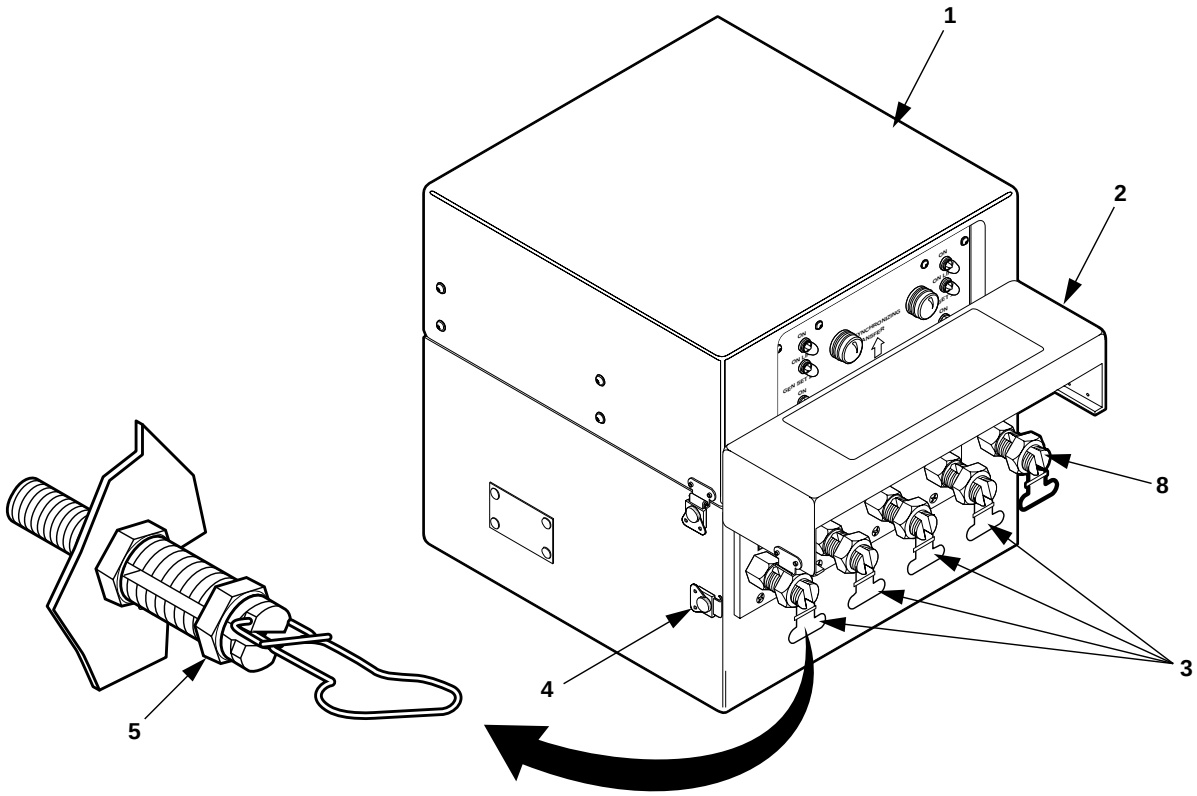


Figure 2-11. Switch Box Load Cable Connections (NEW).

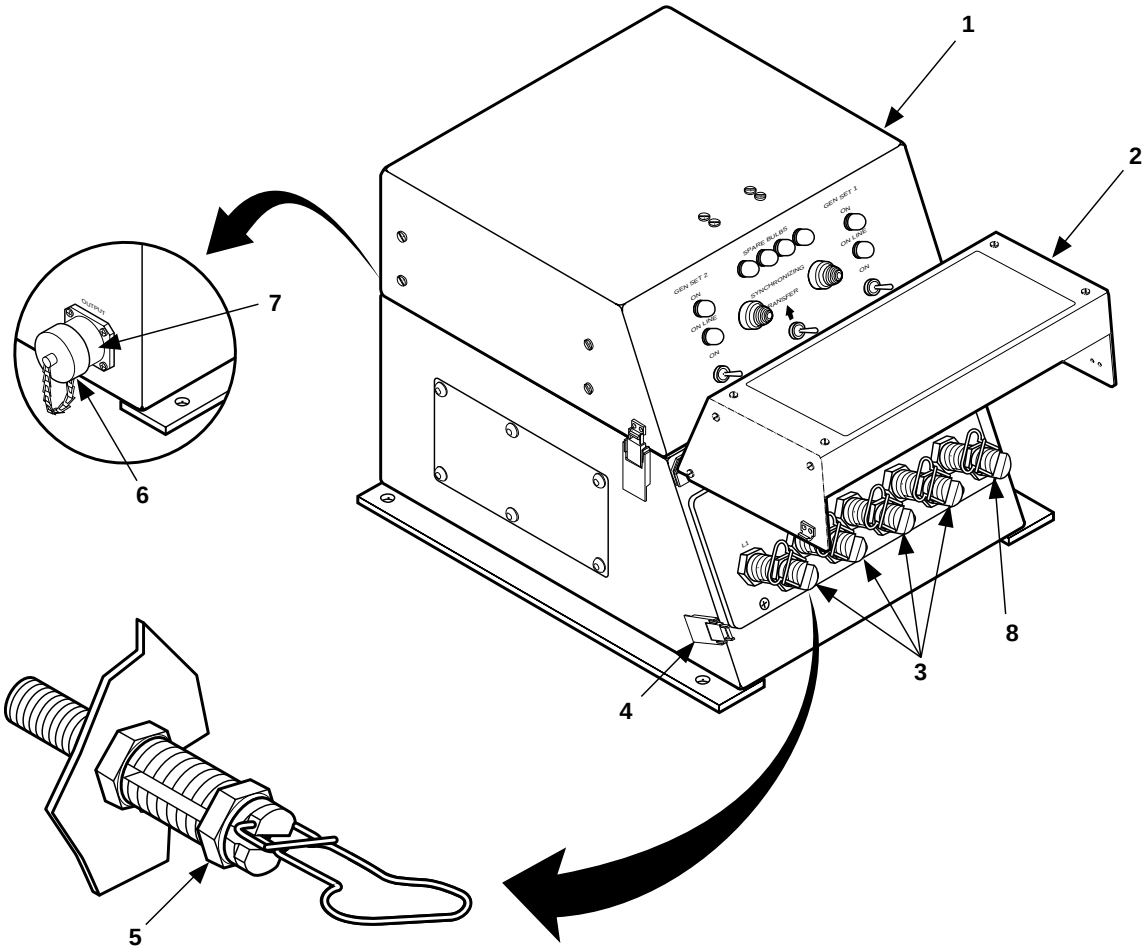


Figure 2-11.1. Switch Box Load Cable Connections (OLD).

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

CAUTION

When using single phase connections, always attempt to balance loads between terminals (do not connect all loads between one terminal and N). Failure to observe this caution can result in damage to generator set.

NOTE

In five wire configuration, ground lead will be connected to ground terminal (8).

Table 2-3. Load Terminal Voltage

Generator Output	Terminals	Phase	Voltage Reading
120/208V 3PH	L1, L2 L3, N	L1 - L2 3 PHASE L2 - L3 3 PHASE L3 - L1 3 PHASE L3 - N 3 PHASE	208 VOLTS 208 VOLTS 208 VOLTS 120 VOLTS
120V 1PH	L3 - N	L3 - N 1 PHASE	120 VOLTS
120/240V 1PH	L3 - L1 L3 - N OR L1 - N	L3 - L1 1 PHASE L3 - N 1 PHASE L1 - N 1 PHASE	240 VOLTS 120 VOLTS 120 VOLTS

c. Using load terminal box wrench located in accessory box, loosen terminal nuts (5) on terminals (3) selected in step b.

d. Insert ends of cables into slots of load terminal studs (3).

e. Tighten load terminal nuts (5).

2-3.4.2 Power Unit. Connect load cables to generator set load terminals. Refer to operating instructions in TM –9-6115-641-10.

2-3.5 Positioning of Fire Extinguishers. Remove fire extinguisher(s) from bracket(s) on trailer. Locate fire extinguisher(s) on ground away from power plant/power unit.

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

Refer to table 2-2 and perform all "Before" PMCS. Refer to TM 9-6115-641-10 and perform generator set initial adjustments, checks, and self tests.

2-5 OPERATING PROCEDURES.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can result in injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Exhaust discharge contains deadly gases including carbon monoxide. DO NOT operate generator set in enclosed areas unless exhaust discharge is properly vented outside. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Hot exhaust gases can ignite flammable materials. Allow room for safe discharge of hot gases and sparks. Failure to comply with this warning can cause injury or death to personnel.

2-5.1 Generator Set Operating Procedures. Refer to TM 9-6115-641-10.

2-5.2 Trailer Operating Procedures. Refer to TM 9-2330-202-14&P for Power Plant AN/MJQ-35 and Power Unit PU-797, TM 9-2330-392-14&P for Power Plant AN/MJQ-35A and Power Unit PU-797A, and TM 9-2330-213-14&P for Power Plant AN/MJQ-36.

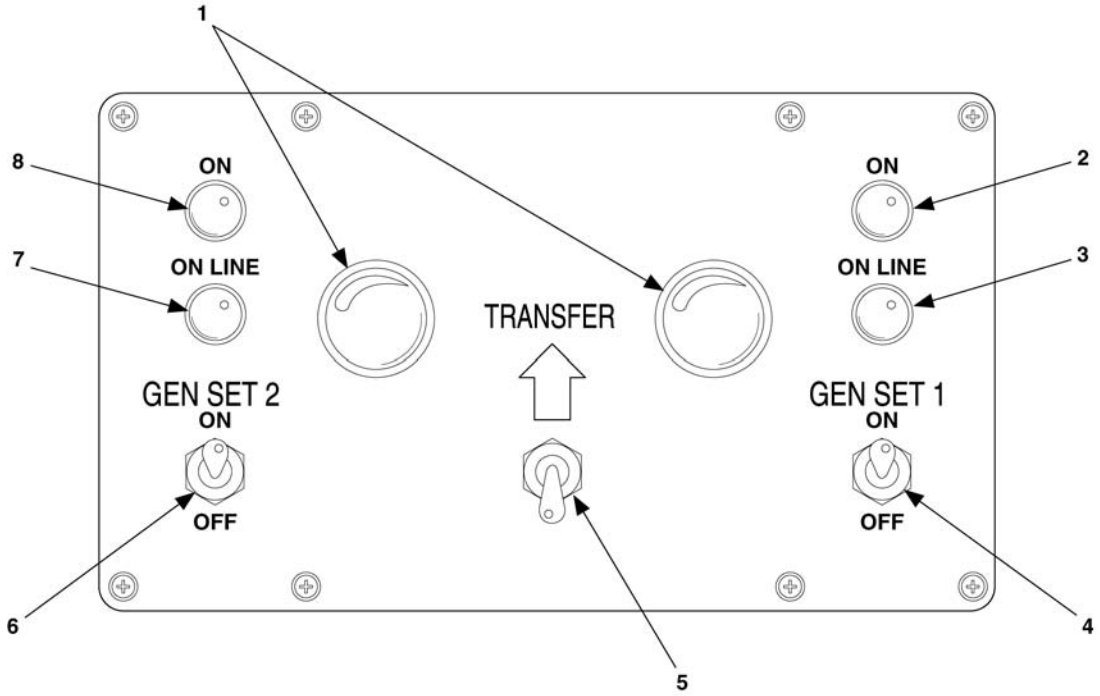
2-5.3 Power Plant Switch Box Operating Procedures.

2-5.3.1 Operating a Single Generator Set.

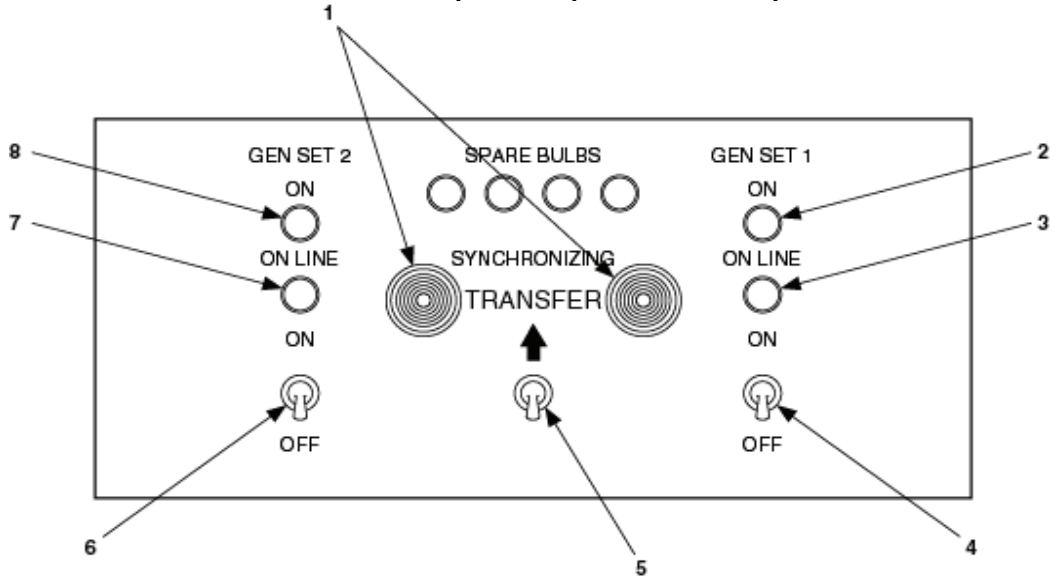
a. Perform the Preventive Maintenance Checks and Services (PMCS) listed as "Before" in Table 2-2.

b. Check that both ON/OFF switches (4 and 6, figure 2-12) on switch box are at center position.

b. Check that TRANSFER switch (5) on switch box is at bottom position.



Power Plant Operation (New Switchbox)



Power Plant Operation (Old Switchbox)

Figure 2-12. Power Plant Operation (OLD and NEW).

d. Refer to TM 9-6115-641-10 and:

(1) Start one of the generator sets.

(2) Use generator set VOLTAGE adjustable rheostat to adjust voltage to required value.

(3) Using generator set frequency adjust control, adjust frequency to required value.

(4) 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.

f. 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. Observe frequency meter and readjust to proper frequency for load if required.

i. 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, figure 2-12) is at center position.

(3) Check that switch box TRANSFER switch (5) is at bottom position.

(4) Refer to TM 9-6115-641-10 and:

(a) Start the generator set.

(b) Use generator set VOLTAGE adjustable rheostat to adjust voltage to required value.

(c) Using generator set frequency adjust control, adjust frequency to required value.

(d) Set AC CIRCUIT INTERRUPTER switch to CLOSED position.

(5) Check switch box controls and indicators (figure 2-12) to ensure that:

(a) GEN SET ON light (8 or 2) and ON LINE light (7 or 3) 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) Refer to TM 9-6115-641-10 and:

(a) Slowly increase frequency of generator set that was just started. Continue until SYNCHRONIZING lights (1) go from bright to dark together at a rate of one or more times per second.

(b) Slowly decrease frequency of generator set that was just started. Continue until SYNCHRONIZING lights (1) blink together at a rate of once every three to four seconds.

(8) 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.

(9) 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.

(10) If lights fail to go on or off, repeat steps (7), (8) and (9). 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 9-6115-641-10 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 9-6115-641-10 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.

(3) Using generator set frequency adjust control, adjust frequency of generator set that is now on line to 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 Power Plant Set.

a. Set the switch box ON/OFF switch (6 or 4, figure 2-12) for the generator set to be stopped to OFF position.

b. Stop the generator set in accordance with TM 9-6115-641-10.

c. Perform the generator set PMCS listed as "After" in table 2-2.

2-6 IDENTIFICATION AND INFORMATION PLATES.

2-6.1 AN/MJQ-35 Identification/Transportation Data Plate. Refer to figure 2-13. This plate is located on rear of curbside fender.

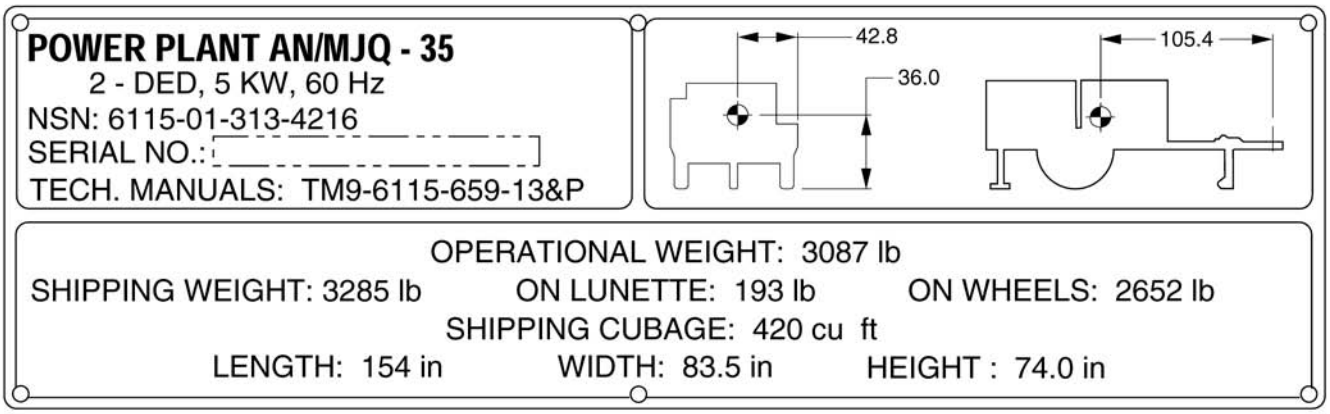


Figure 2-13. AN/MJQ-35 Identification/Transportation Data Plate.

2-6.2 AN/MJQ-36 Identification/Transportation Data Plate. Refer to figure 2-14. This plate is located on front of roadside fender.

2-6.3 PU-797 Identification/Transportation Data Plate. Refer to figure 2-15. This plate is located on rear of curbside fender.

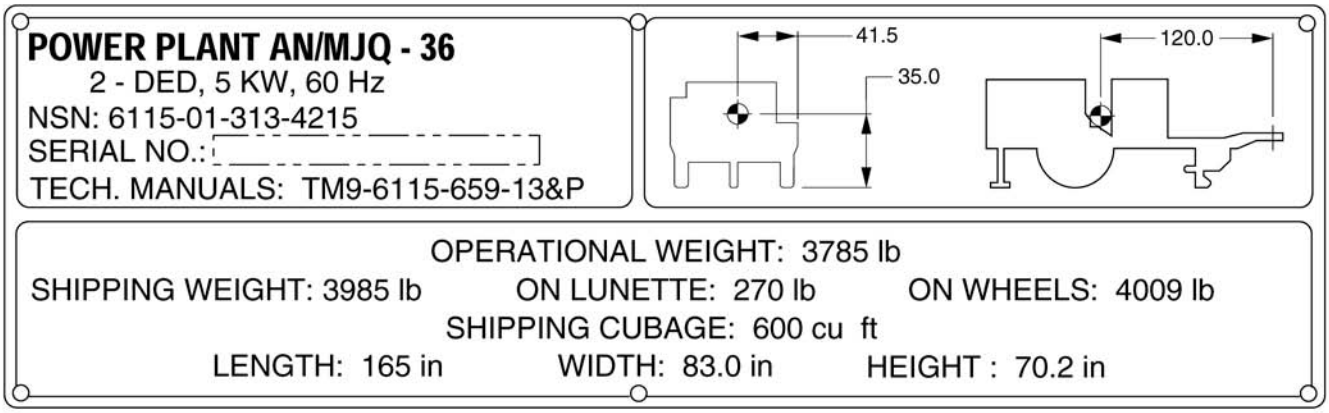


Figure 2-14. AN/MJQ-36 Identification/Transportation Data Plate.

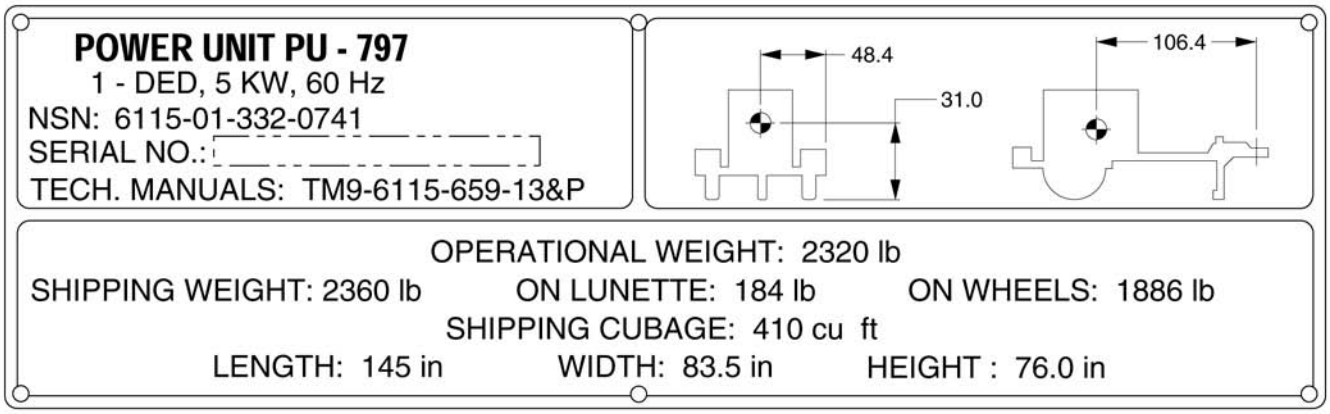


Figure 2-15. PU-797 Identification/Transportation Data Plate.

2-6.4 AN/MJQ-35A Shipping Data/Identification Plate. Refer to figure 2-16. This plate is located on front of curbside fender.

2-6.5 PU-797A Shipping Data/Identification Plate. Refer to figure 2-17. This plate is located on front of curbside fender.

2-6.6 AN/MJQ-35A and PU-797A Trailer Chassis Identification Plate. Refer to figure 2-18. This plate is located on curbside toe bar.

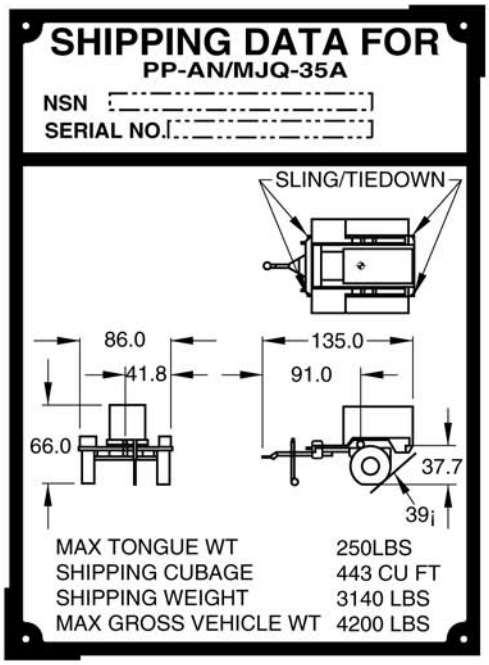


Figure 2-16. AN/MJQ-35A Shipping Data/Identification Plate

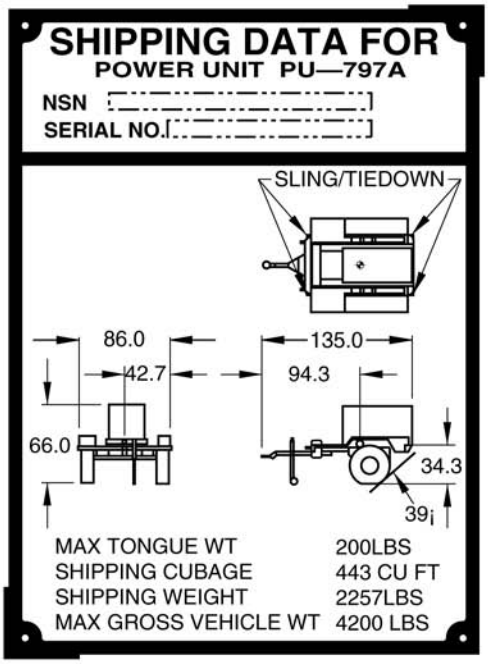


Figure 2-17. PU-797A Shipping Data/Identification Plate.

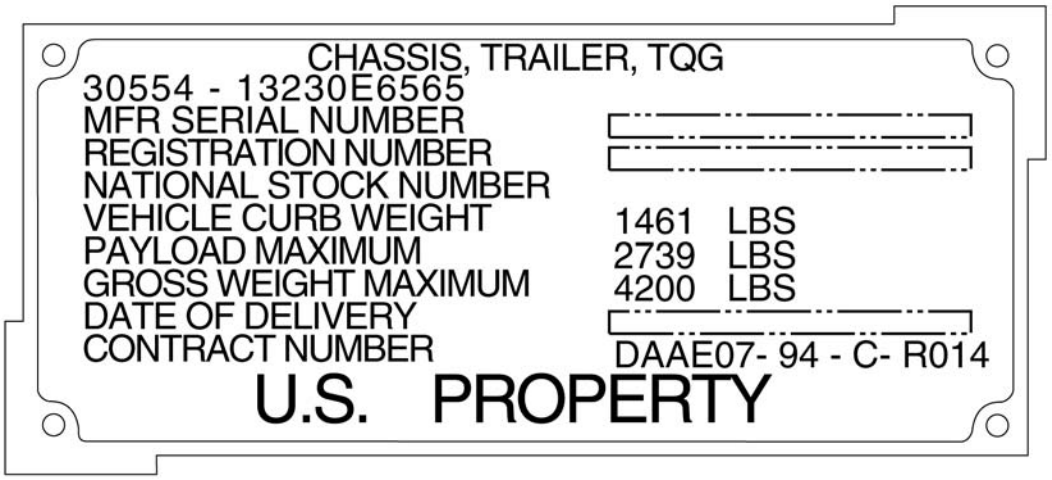


Figure 2-18. AN/MJQ-35A and PU-797A Trailer Chassis Identification Plate

2-6.7 Power Plant Instruction Plate. This plate (figure 2-19) covers operating procedures for power plants AN/MJQ-35, AN/MJQ-35A, and AN/MJQ-36. It is located on top of the switch box load terminal cover.

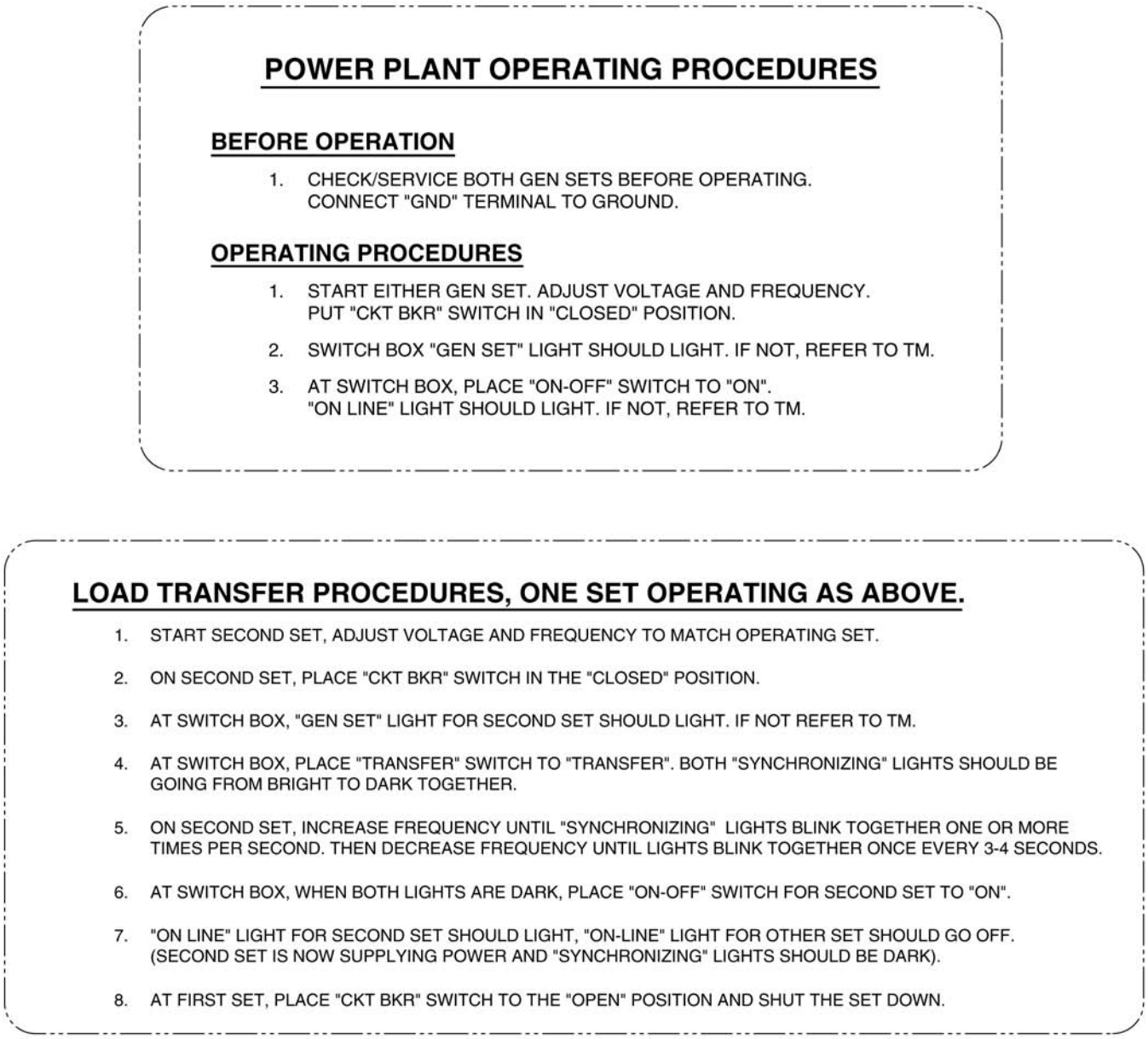


Figure 2-19. Power Plant Instruction Plate.

2-7 PREPARATION FOR MOVEMENT.

2-7.1 Shut Down Power Plant/Power Unit. If power plant/power unit is operating, stop generator set as follows:

2-7.1.1 Power Plant. Refer to paragraph 2-5.3.3.

2-7.1.2 Power Unit.

a. Stop the generator set in accordance with TM 9-6115-641-10.

b. Perform the generator set PMCS listed as "After" in table 2-2, this TM.

WARNING

High voltage is produced when this generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. DO NOT touch live voltage connections. Never attempt to connect or disconnect load cables while the generator set is running. Failure to comply with this warning can cause injury or death to personnel.

2-7.2 Disconnect Load Cables.

a. For Power Unit configuration, refer to TM 9-6115-641-10 and disconnect load cables.

c. For Power Plant configuration where load cable is connected to switch box output connector, perform the following:

(1) Disconnect load cable from switch box output connector (6, figure 2-11.1).

(2) Install cap (5) on output connector (6).

(3) Store load cable with equipment that was being supplied with electric power.

d. For Power Plant configuration where load cables are connected to switch box load terminals, perform the following:

(1) Release both clamping catches (4, figure 2-11) and raise load terminal cover (2).

(2) Using load terminal box wrench, loosen terminal nuts (1).

(3) Disconnect load cables from switch box load terminals (3).

(4) Store load cables with equipment that was being supplied with electric power.

2-7.3 Retrieve Ground Cable and Rod.

a. Remove wing nut (1, figure 2-10) and flat washer (2). Remove ground cable (3) from ground

stud (4). Reinstall flat washer and wing nut on ground stud.

b. Loosen clamp (9, figure 2-9) 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 2-9) 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 comply with this warning can result in severe personal injury and/or 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 2-20 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).

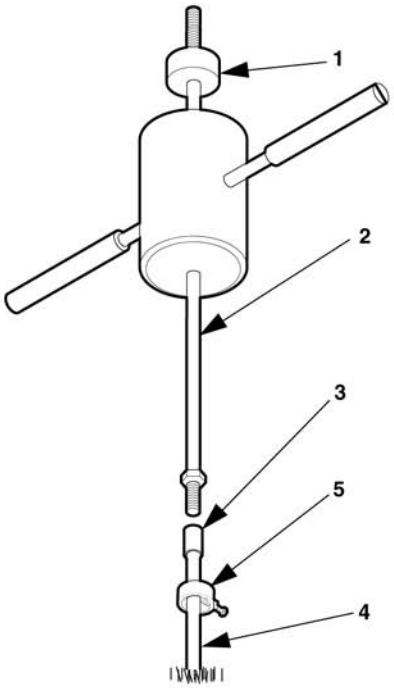


Figure 2-20. Remove Ground Rod.

(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 (3) through (5) 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 2-9).

(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.

WARNING

Diesel fuel is flammable and toxic to eyes, skin and respiratory tract. Skin and eye protection are required when working in contact with diesel fuel. Avoid repeated or prolonged contact. Provide adequate ventilation. Operators are to wash exposed skin and change chemical soaked clothing promptly if exposed to fuel. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Fuels used in the generator set are flammable. Do not smoke or use open flames when performing maintenance. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set.

2-7.5 Disconnect External Fuel Source. Disconnect auxiliary fuel hose as follows:

a. Disconnect the auxiliary fuel hose (4, figure 2-21) 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.

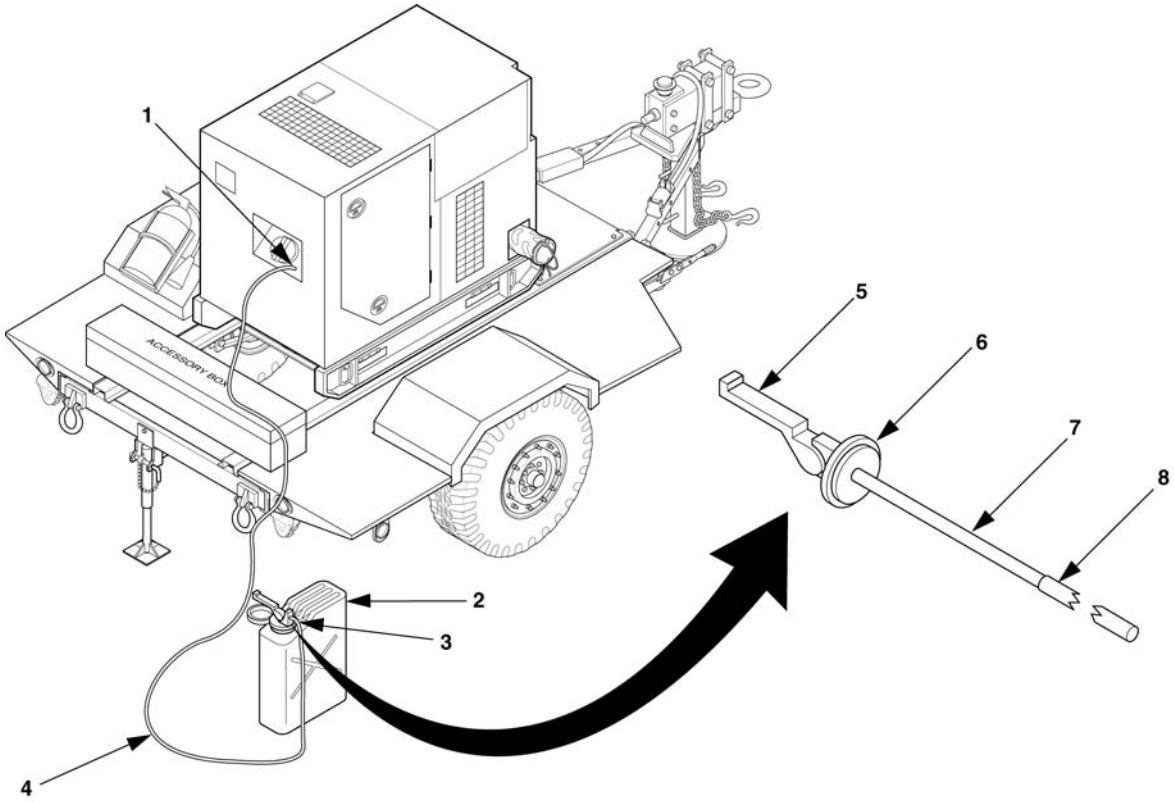


Figure 2-21. Disconnect Auxiliary Fuel (Typical).

Section IV. OPERATION UNDER UNUSUAL CONDITIONS

2-8 GENERATOR SETS.

Refer to TM 9-6115-641-10.

2-9 TRAILER.

Refer to TM 9-2330-202-14&P for Power Plant AN/MJQ-35 and Power Unit PU-797, TM 9-2330-392-14&P for Power Plant AN/MJQ-35A and Power Unit PU-797A, and TM 9-2330-213-14&P for Power Plant AN/MJQ-36.

2-10 WINTERIZATION KIT.

Refer to TB 9-6115-641-13, TM 9-6115-641-10, and TM 9-6115-641-24.

CHAPTER 3

OPERATOR MAINTENANCE

Section I. OPERATOR LUBRICATION

3-1 LUBRICATION.

Lubrication instructions for the generator set and engine are contained in LO 9-6115-641-12. Lubrication instructions for the trailers are contained in TM 9-2330-202-14&P for Power Plant AN/MJQ-35 and PU-797, TM 9-2330-392-14&P for Power Plant AN/MJQ-35A and PU-797A, and TM 9-2330-213-14&P for Power Plant AN/MJQ-36.

Section II. TROUBLESHOOTING

3-2 TROUBLESHOOTING.

3-2.1 Generator Set. Refer to TM 9-6115-641-10.

3-2.2 Trailer. Refer to TM 9-2330-202-14&P for Power Plant AN/MJQ-35 and Power Unit PU-797, TM 9-2330-392-14&P for Power Plant AN/MJQ-35A and Power Unit PU-797A, and TM 9-2330-213-14&P for Power Plant AN/MJQ-36.

3-2.3 Power Plant. The following symptom index lists faults associated with switch box operation. Figures 3-1, 3-2, and 3-3 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.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. Make sure unit is completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.

SYMPTOM INDEX

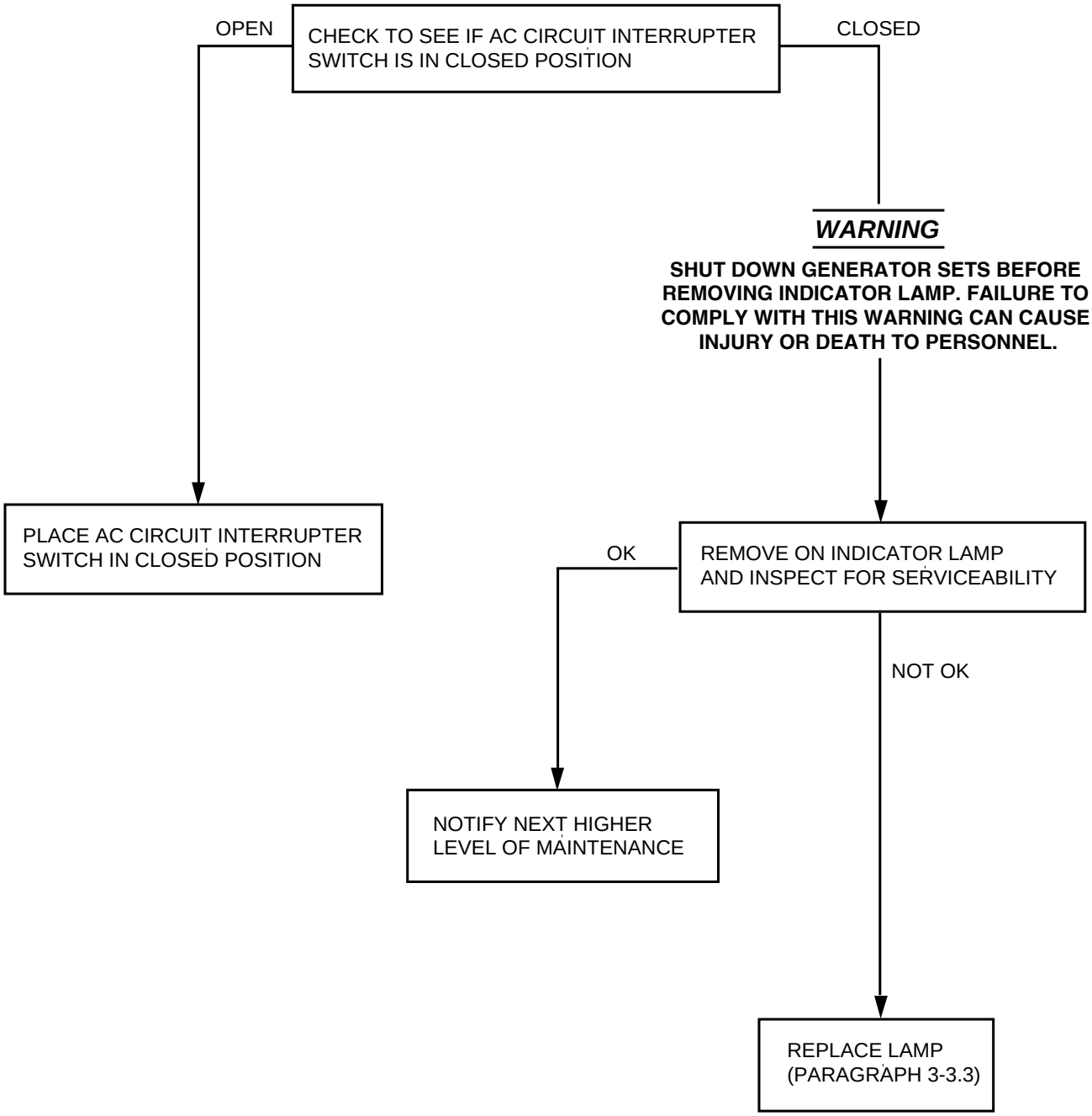


Figure 3-1. ON Indicator Lamp Fails To Light With Generator Set Running.

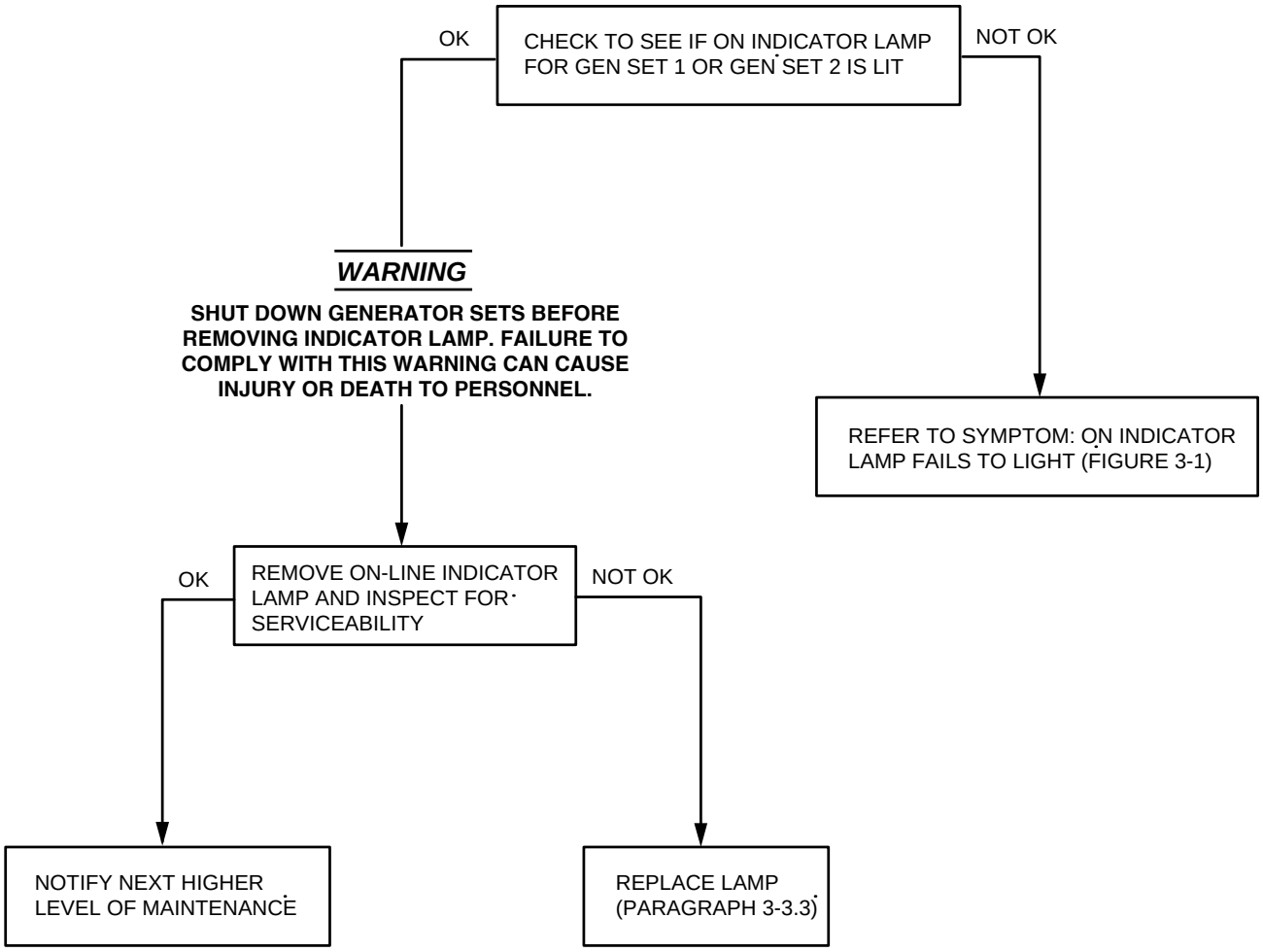


Figure 3-2. ON-LINE Indicator Lamp Fails To Light When ON/OFF Switch is Placed In ON Position

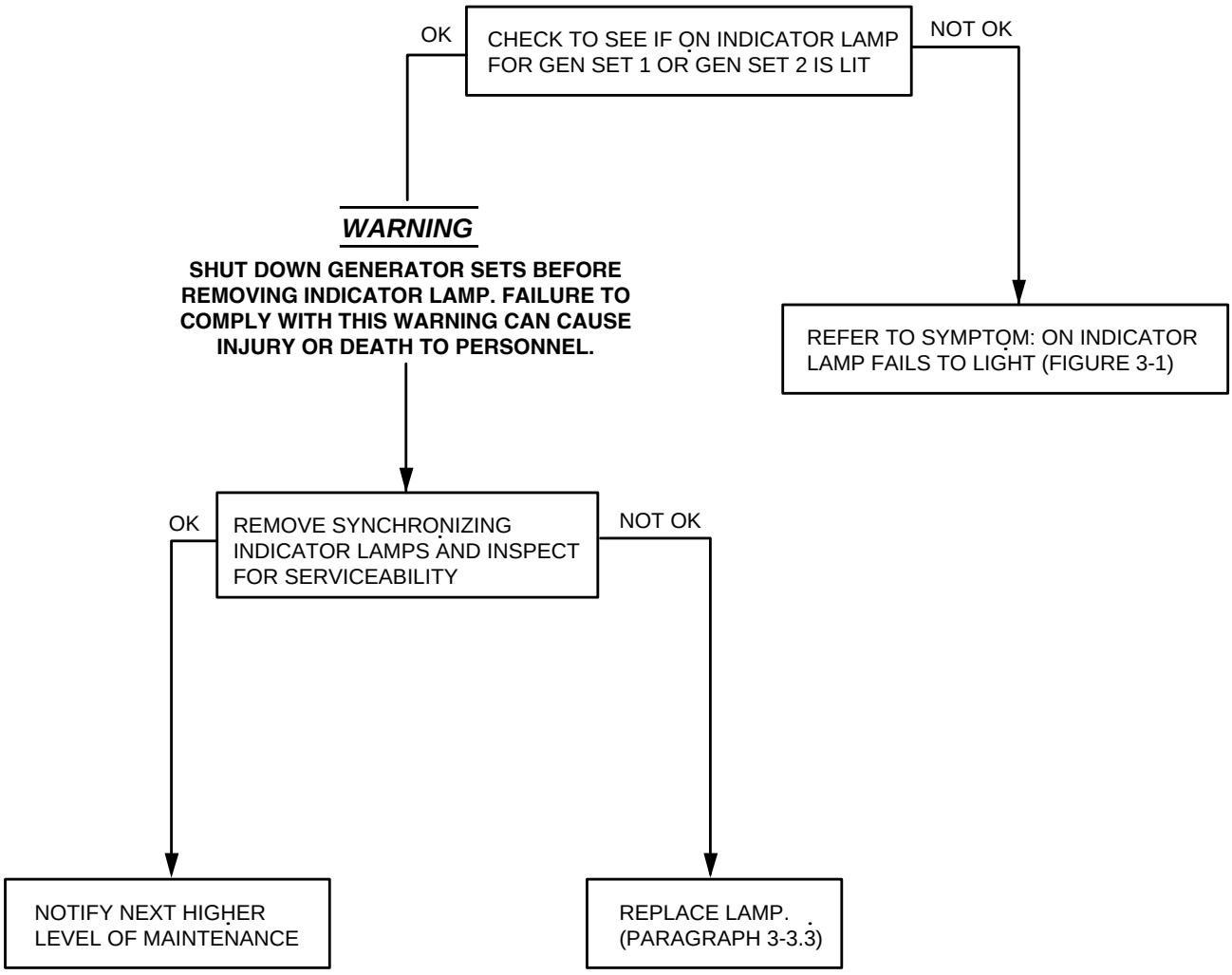


Figure 3-3. SYNCHRONIZING Indicator Lamps Fail To Light When TRANSFER Switch Is Operated.

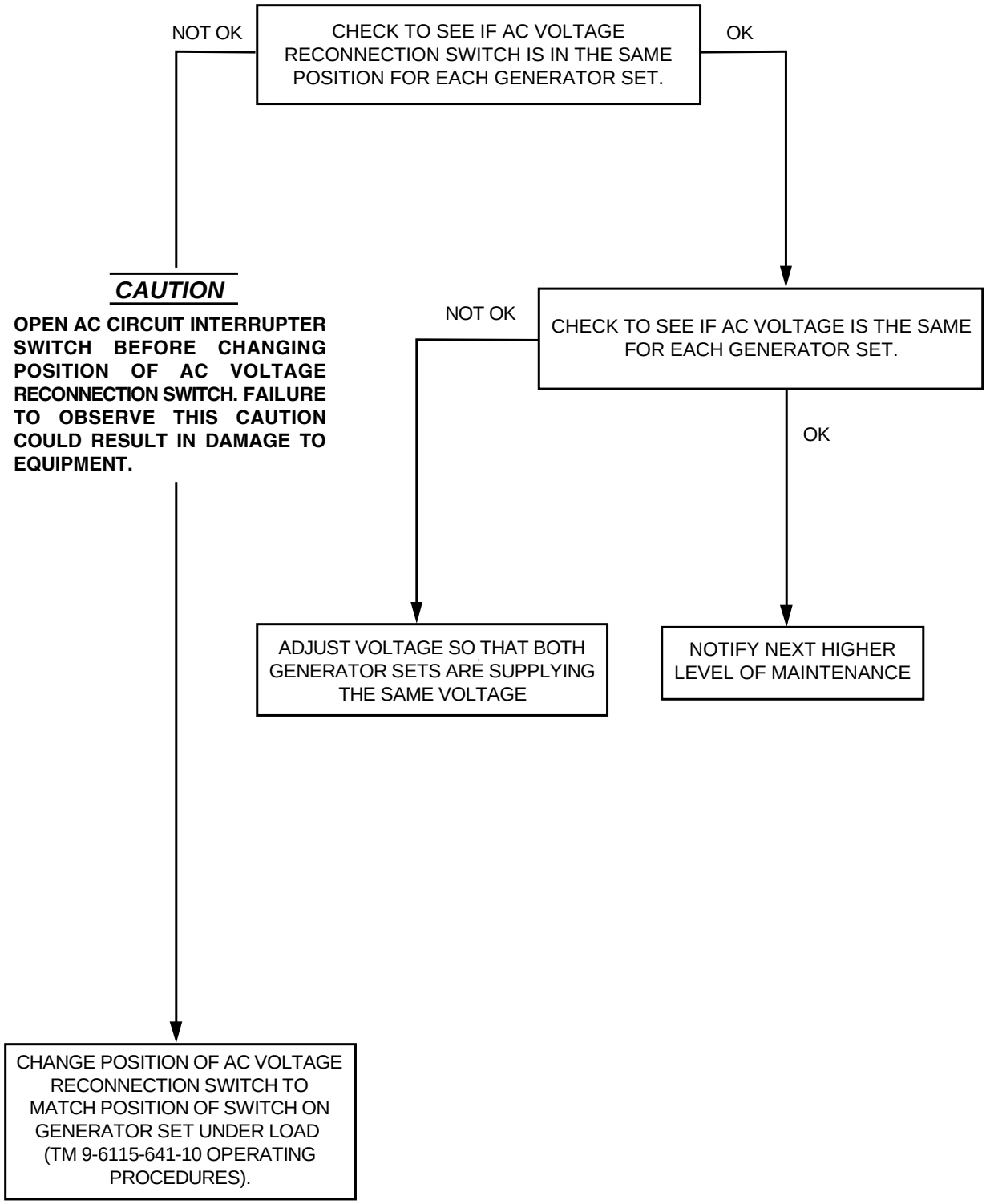


Figure 3-4. With All Indicator Lamps Working Properly, Load Will Not Transfer.

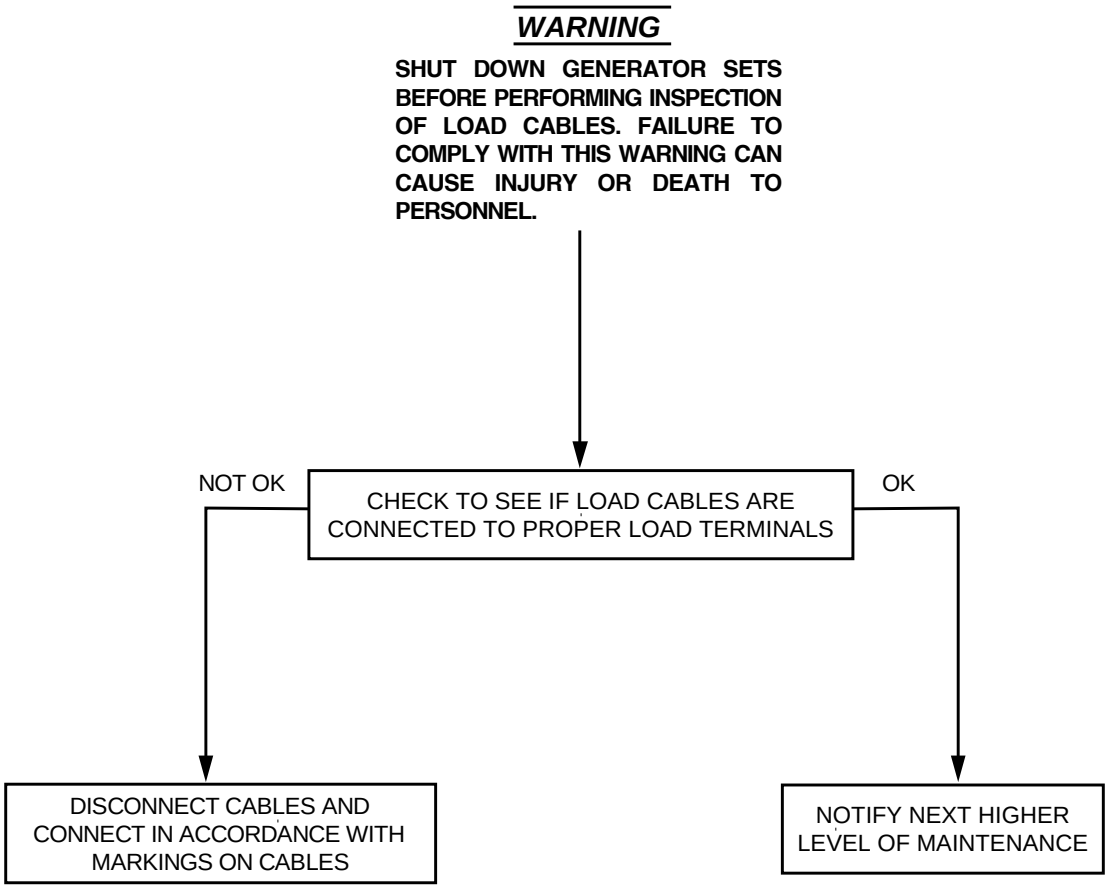


Figure 3-5. SYNCHRONIZING Indicator Lamps Fail To Operate In Unison When Transfer Switch Is Operated

Section III. MAINTENANCE PROCEDURES

3-3 Operator Maintenance.

3-3.1 Generator Set. Refer to TM 9-6115-641-10.

3-3.2 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 ON, ON-LINE, and SYCHRONIZING indicator lamps:

3-3.3 REPLACEMENT OF ON, ON-LINE, and SYCHRONIZING LAMPS:

WARNING

A qualified technician must make the power connections and perform all continuity checks. The power source may be a generator or commercial power. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before removing indicator lamp. Failure to comply with this warning can cause injury or death to personnel.

1. Unscrew lens from lamp housing and remove lamp from lens ON (Figure 3-6, Item 2) and ON-LINE (Item 3) lamps or entire housing for SYNCHRONIZING (Item 1) lamps.

2. Install new lamp in housing for SYNCHRONIZING (Item 1) or install lens and screw lens on for ON (Item 2) and ON-LINE (Item 3) lamps.

CHAPTER 4

UNIT MAINTENANCE

Subject Index

CHAPTER 4

UNIT MAINTENANCE - Continued

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

4-1 COMMON TOOLS AND EQUIPMENT.

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

4-2 SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT.

Refer to generator set TM 9-6115-641-24P and engine TM 9-2815-252-24P.

4-3 REPAIR PARTS.

4-3.1 Generator Set Repair Parts. Refer to generator set TM 9-6115-641-24P and engine TM 9-2815-252-24P.

4-3.2 Trailer Repair Parts. Refer to TM 9-2330-202-14&P for Power Plant AN/MJQ-35 and Power Unit, PU-797, TM 9-2330-392-14&P for Power Plant, AN/MJQ-35A and Power Unit, PU-797A, and TM 9-2330-213-14&P for Power Plant AN/MJQ-36.

4-3.3 Power Plant/Power Unit Repair Parts. Power Plant/Power Unit repair parts not covered in the generator, engine, or trailer RPSTL are listed and illustrated in Appendix F.

Section II. SERVICE UPON RECEIPT

4-4 SERVICE UPON RECEIPT OF MATERIEL.

4-4.1 Unpacking. 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/power unit has sharp edges. Wear gloves and use care when cutting and handling steel strapping. Failure to comply with this warning can cause personal injury.

b. Using metal cutters, carefully cut metal strapping from generator sets. Remove metal strapping.

c. Switch box cover and switch box load terminal cover may have been secured with tape. If so, remove tape.

d. Unpack and secure fire extinguishers in brackets on trailer.

e. If accessory box is secured with strapping, carefully cut and remove strapping. Open accessory box and remove any packaging/cushioning material from accessories.

f. 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.

4-4.2 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.

4-4.3 Deprocessing Unpacked Equipment.

Refer to DA Form 2258, Depreservation Guide for Vehicles and Equipment, packed with the power plant/power unit. 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.

4-5 INSTALLATION INSTRUCTIONS.

4-5.1 Tools, Test Equipment, and Materials Required for Installation. A general mechanic's tool kit is required for installation of the power plant/power unit.

NOTE

The following warnings apply to assembly of all model Power Plants covered in this TM.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing inspection of load cables. Failure to comply with this warning can cause injury or death to personnel.

4-5.2 Assembly of Equipment.

4-5.2.1 Assembly of Power Plants AN/MJQ-35 and AN/MJQ-36. Refer to figure 4-1 and assemble the AN/MJQ-35 and AN/MJQ-36 Power Plants as follows:

NOTE

Refer to sheet 1 of figure 4-1 for installation of power cables on AN/MJQ-35 and sheet 2 of figure 4-1 for installation on AN/MJQ-36.

a. For front generator set, remove stuffing tube locknut (1) from stuffing tube body (7). Slide locknut (1) off power cable leads and ground cable (3).

b. Loosen compression nut (4). Pull in required length of cable to allow installation of leads on terminal board.

c. Insert power cable leads (ends without terminal lugs) (3) through generator output plate (2). Slide stuffing tube locknut (1) over power cable leads.

d. Position stuffing tube body (7) against generator output plate (2). Install and tighten stuffing tube locknut (1).

e. Connect power cable leads and ground cable 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 L3 to generator set load terminal L3.

(4) Connect lead marked N to generator set load terminal N.

(5) Connect lead marked GND to generator set GND terminal.

f. Position cable inside two clamps (10) and secure clamps (10) to trailer using two screws (8), flat washers (9), and nuts (11).

g. Repeat steps a. through f. for rear generator set.

h. To bond generator to trailer remove wing nut (12), two flat washers (13), hex nut (14), and flat washer (15).

i. Position ground cable (16) over ground stud (17).

WARNING

Ensure nuts on ground terminals are properly secured creating a good ground. Failure to comply with this warning can cause injury or death to personnel.

j. Install flat washer (15), hex nut (14), two flat washers (13), and wing nut (12). Tighten nut (12).

k. Unlatch and open switch box load terminal cover (18).

l. Connect ground wire (16) to switch box ground terminal (19).

m. Close and latch switch box load terminal cover (18).

n. Position cable and ground wire inside two clamps (10) and secure clamps to trailer using two screws (8), flat washers (9), and nuts (11).

4-5.2.2 Assembly of Power Plant AN/MJQ-35A. Refer to figure 4-1.1 and assemble the AN/MJQ-35A Power Plant as follows:

a. For front generator set, remove stuffing tube locknut (1) from stuffing tube body (7). Slide locknut (1) off power cable leads and ground cable (3).

b. Loosen compression nut (4). Pull in required length of cable to allow installation of leads on terminal board.

c. Insert power cable leads (ends without terminal lugs) (3) through generator output plate (2). Slide stuffing tube locknut (1) over power cable leads.

d. Position stuffing tube body (7) against generator output plate (2). Install and tighten stuffing tube locknut (1).

e. Connect power cable leads and ground cable 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 L3 to generator set load terminal L3.

(4) Connect lead marked N to generator set load terminal N.

(5) Connect lead marked GND to generator set GND terminal.

f. Position cable inside two clamps (10) and secure clamps (10) to trailer using two screws (8), flat washers (9), and nuts (11).

g. Repeat steps a. through e. for rear generator set.

h. Loosen nut (14) on ground terminal (16).

WARNING

Ensure nuts on ground terminals are properly secured creating a good ground. Failure to comply with this warning can cause injury or death to personnel.

i. Insert wire (15) through slot of ground terminal (16) and tighten nut (14).

j. Unlatch and open switch box load terminal cover (12).

k. Connect loose end of ground wire (15) to switch box ground terminal (13).

l. Close and latch switch box load terminal cover (12).

4-5.2.3 Assembly of PU-797 and PU-797A. If the ground wire was disconnected for Level A preservation of the generator set, install ground wire as follows:

NOTE

Ground stud on light tactical trailer is different than one used on other trailers.

a. If the light tactical trailer (PU-797A) is being used, go to step f. For other trailers, perform steps b. through e. and then go to step h.

b. Remove wing nut (1, figure 4-2), two flat washers (2), hex nut (3), and flat washer (4) from ground stud (6).

c. Retrieve generator ground wire (5) from accessory box (8).

d. Place ground wire terminal (7) on ground stud (6).

WARNING

Ensure nuts on ground terminals are properly secured creating a good ground. Failure to comply with this warning can cause injury or death to personnel.

e. Install flat washer (4), hex nut (3), two flat washers (2), and wing nut (1).

f. Loosen nut (9) on light tactical trailer ground stud (10).

g. Insert wire (11) through slot of ground stud (10) and tighten nut (9).

h. Open generator load terminal access door (12).

i. Route loose end of ground wire (5 or 11) through cable access opening and pull loose end until it reaches ground terminal (13).

j. Connect ground wire loose end to ground terminal (13).

k. Close generator load terminal access door (12).

4-6 PRELIMINARY SERVICING AND ADJUSTMENT OF EQUIPMENT.

4-6.1 Generator Set. Refer to TM 9-6115-641-10, TM 9-6115-641-24, and TM 9-2815-252-24.

4-6.2 Trailer. Refer to TM 9-2330-202-14&P for Power Plant AN/MJQ-35 and Power Unit PU-797, TM 9-2330-392-14&P for Power Plant AN/MJQ-35A and Power Unit PU-797A, and TM 9-2330-213-14&P for Power Plant AN/MJQ-36.

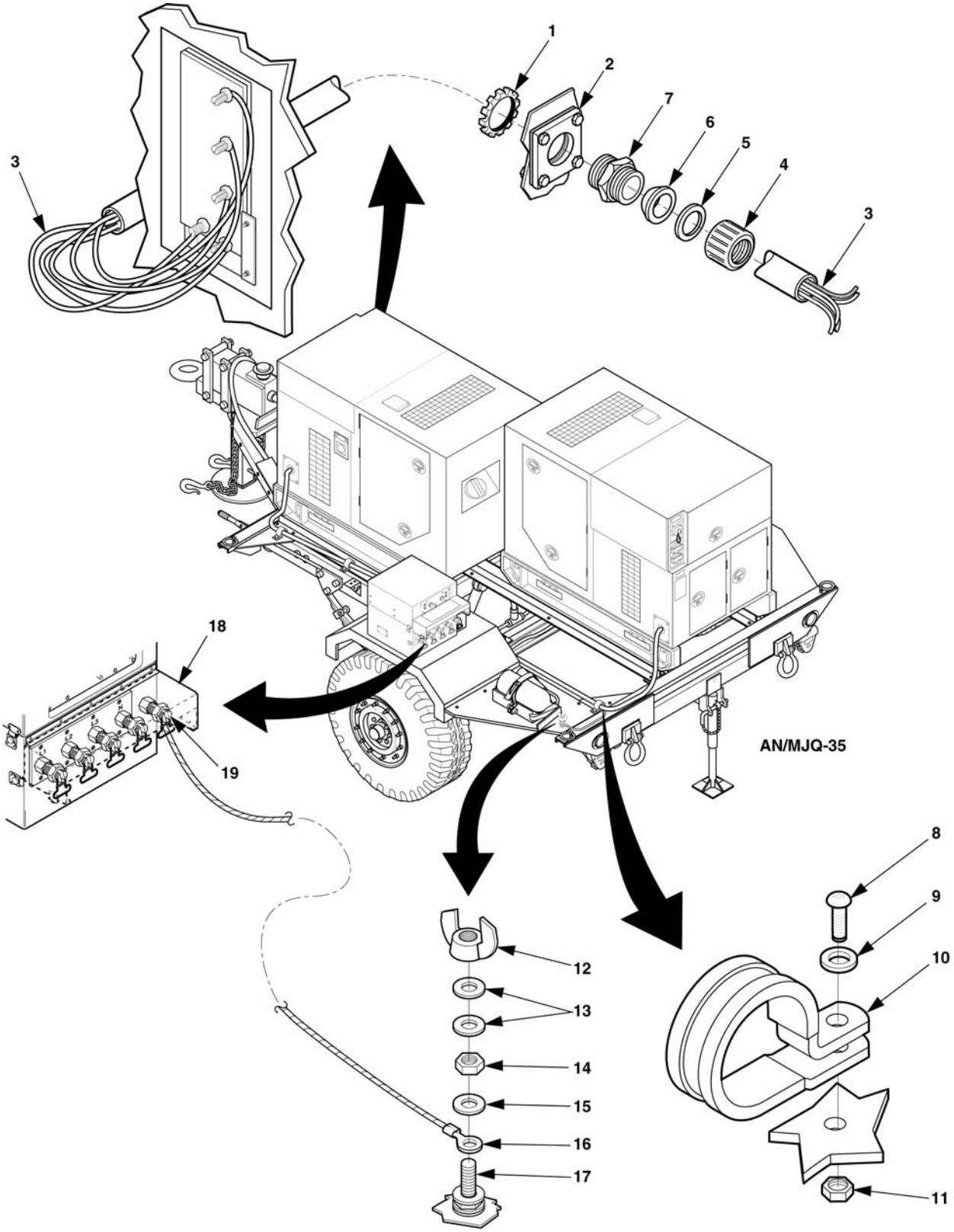


Figure 4-1. Installation of Power Cables on AN/MJQ-35 (Sheet 1 of 3).

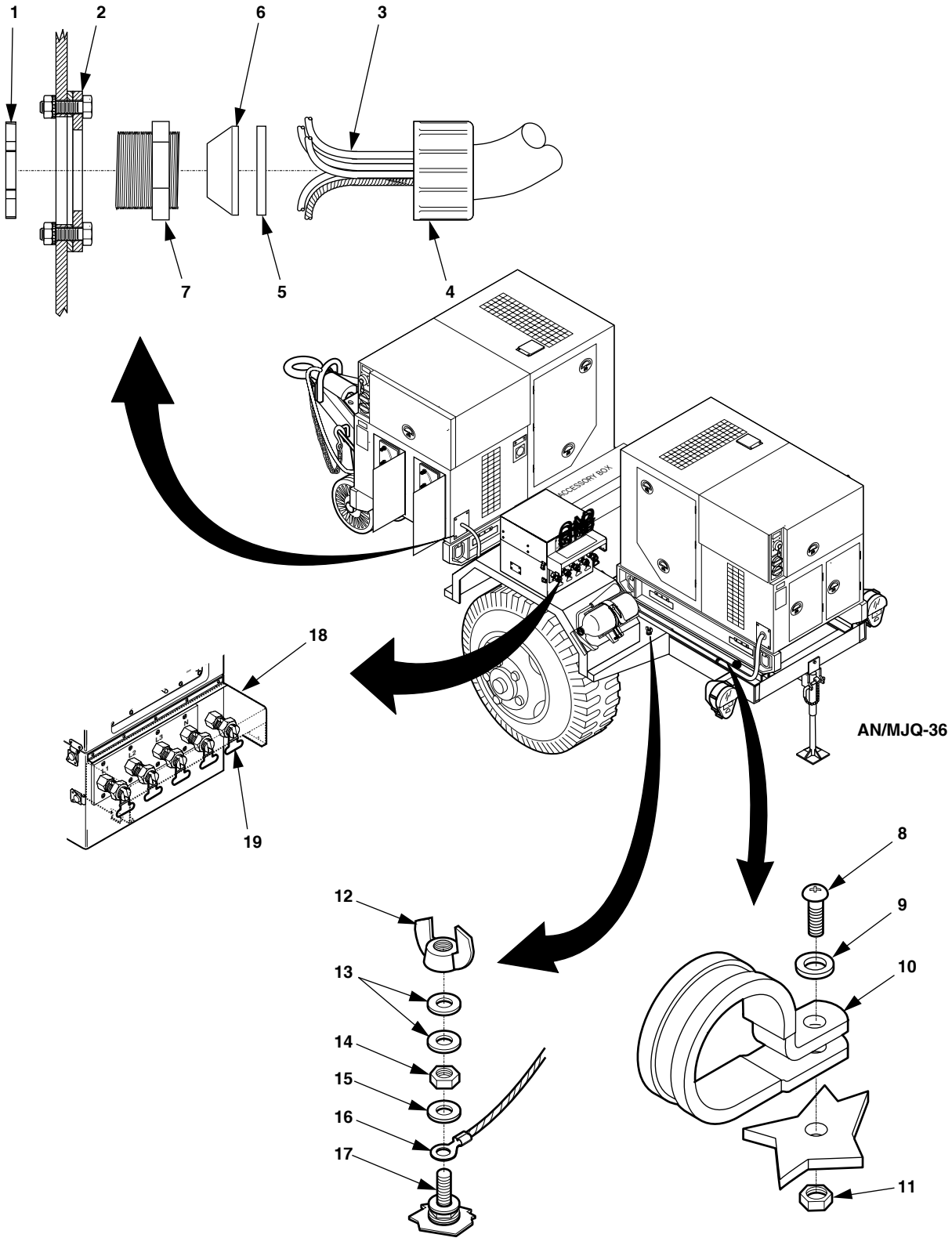


Figure 4-1. Installation of Power Cables on AN/MJQ-36 (Sheet 2 of 3).

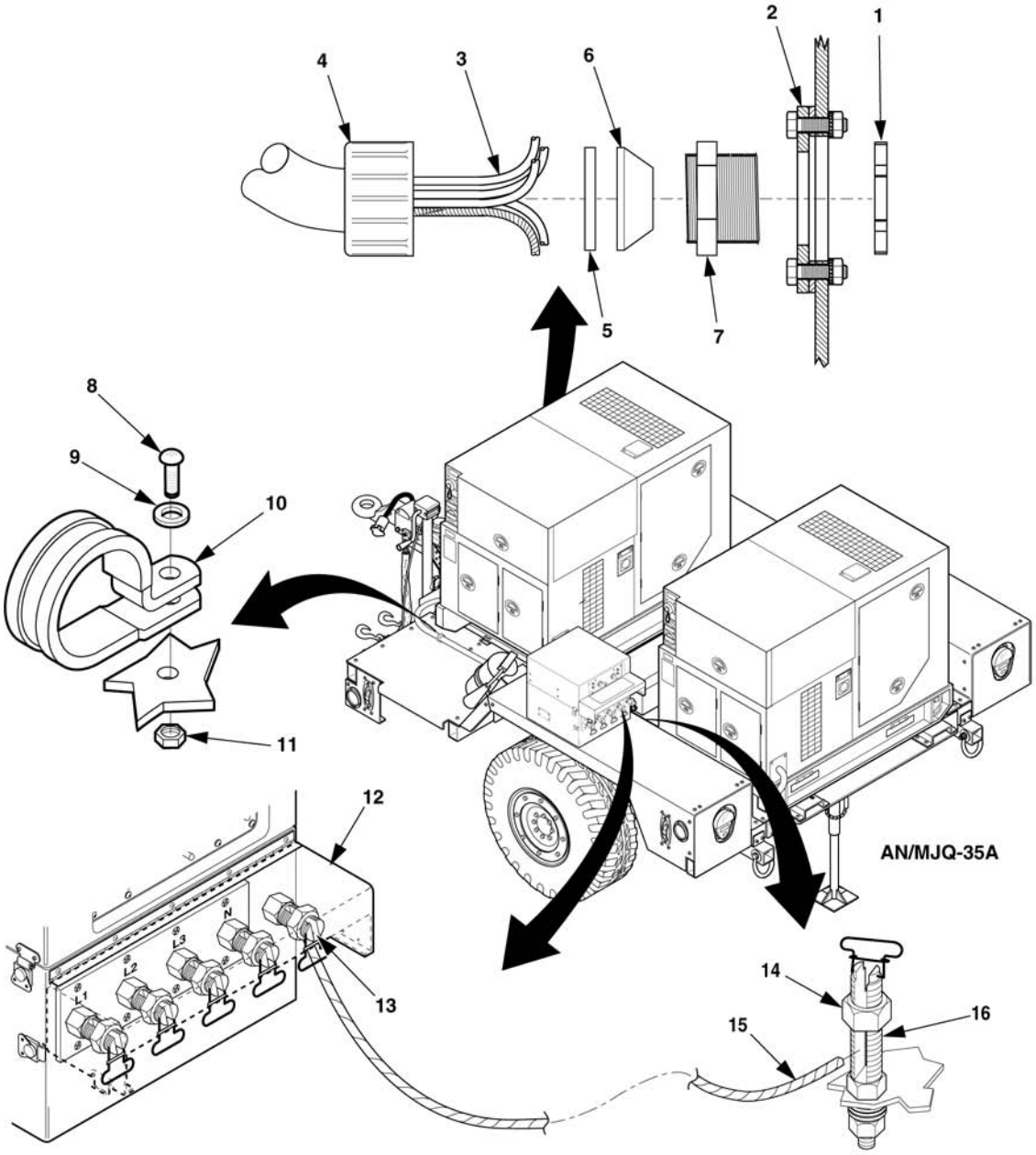


Figure 4-1. Installation of Power Cables on AN/MJQ-35A (Sheet 3 of 3).

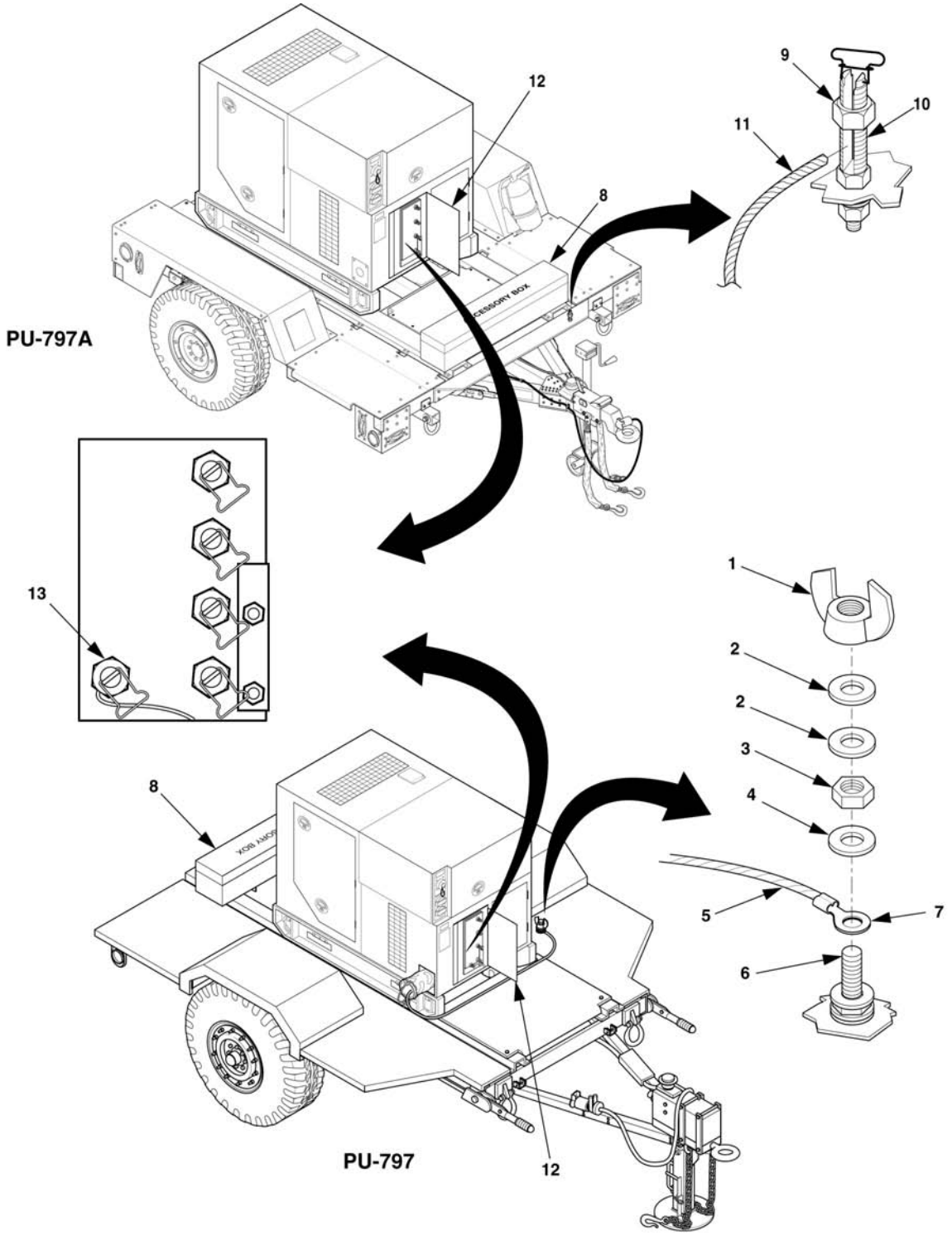


Figure 4-2. PU-797 and PU-797A Ground Wire Installation.

Section III. UNIT LUBRICATION

4-7 POWER PLANT/POWER UNIT LUBRICATION.

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

4-7.1 Generator Set Lubrication. Refer to LO 9-6115-641-12 for generator set and engine lubrication instructions. See Appendix E for expendable supplies and materials needed for lubrication.

4-7.2 Trailer Assembly Lubrication. Refer to TM 9-2330-202-14&P for Power Plant AN/MJQ-35 and Power Unit PU-797 trailer chassis lubrication instructions, TM 9-2330-392-14&P for Power Plant AN/MJQ-35A and Power Unit PU-797A trailer chassis lubrication instructions, and TM 9-2330-213-14&P for Power Plant AN/MJQ-36 trailer chassis lubrication instructions. See Appendix E for expendable supplies and materials needed for lubrication.

4-7.3 Rear Leveling-Support Jack Lubrication. The rear leveling-support jack is a modification to the standard 1 1/2 ton trailer chassis, the standard 1 ton trailer chassis, and the light tactical trailer chassis. Lubrication of this rear leveling-support jack is not covered in the trailer TMs. See figure 4-3 and lubricate the rear leveling-support jack semiannually, as follows:

WARNING

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 comply with this warning can cause severe personal injury and/or damage to equipment.

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

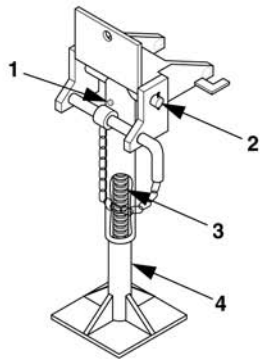


Figure 4-3. Rear Leveling-Support Jack Lubrication Points.

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 Item No. Column. 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 Interval Column. 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/power unit 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/power unit 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 performed along with the Power Unit/Power Plant PMCS. Refer to TM 9-2330-213-14&P for AN/MJQ-36 trailer PMCS, TM 9-2330-202-14&P for AN/MJQ-35 and PU-797 trailer PMCS, and TM 9-2330-392-14&P for AN/MJQ-35A and PU-797A trailer PMCS. Refer to TM 9-6115-641-24 for generator PMCS and TM 9-2815-252-24 for engine 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 4-4 is a routing diagram that shows the locations of the items to be checked/serviced. The callout numbers on figure 4-4 correspond to the numbers listed in the Item No. column of table 4-1.

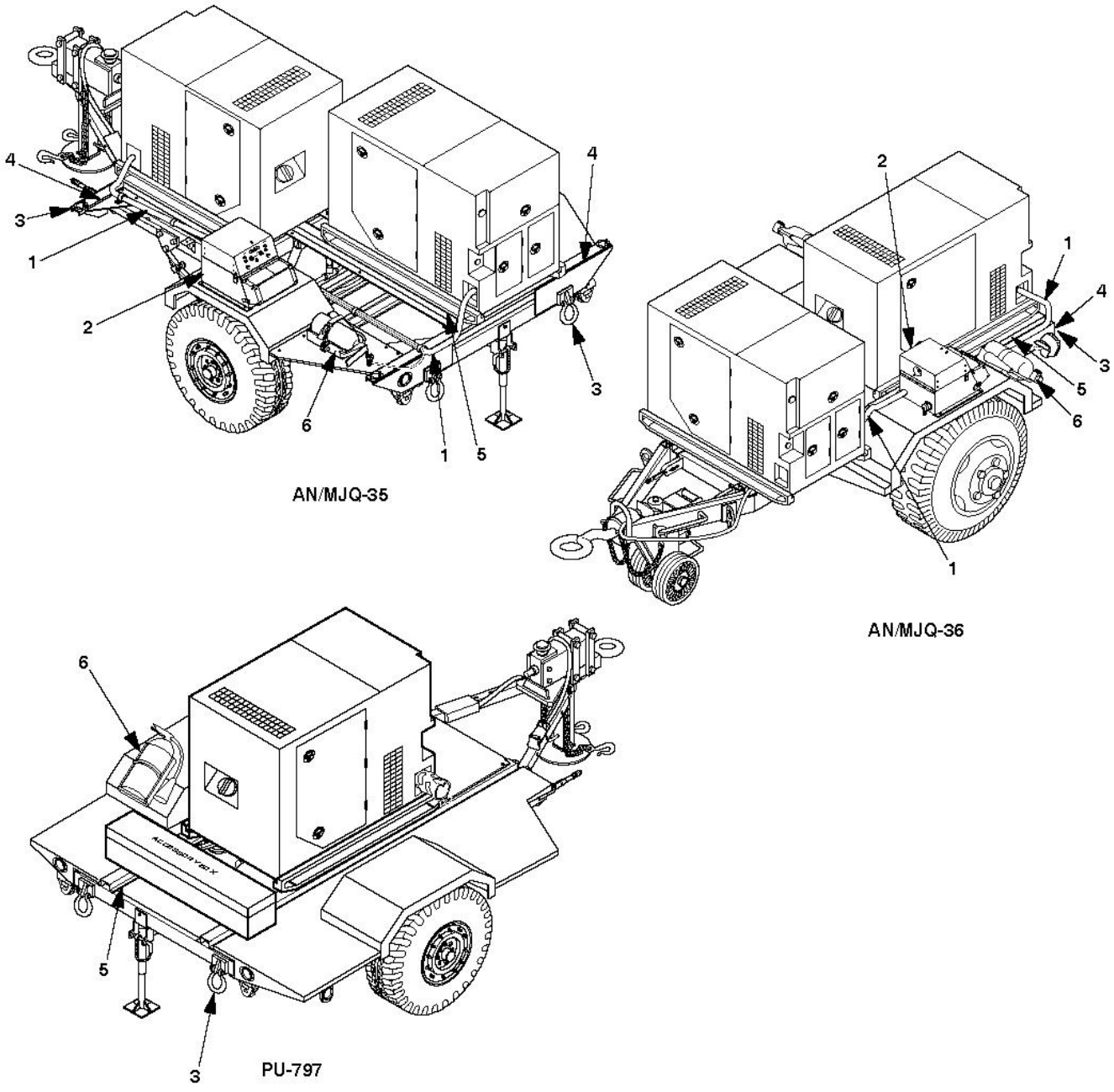
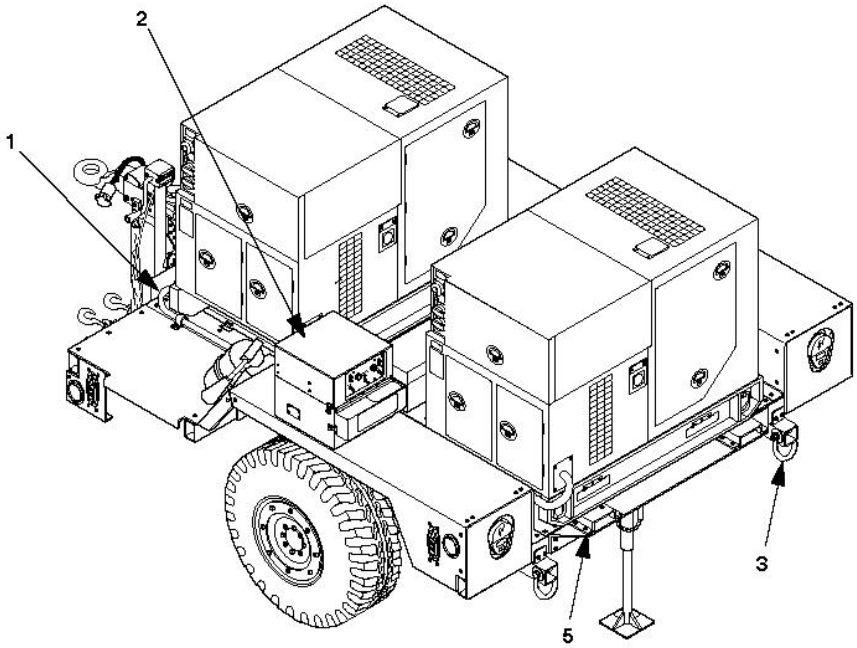
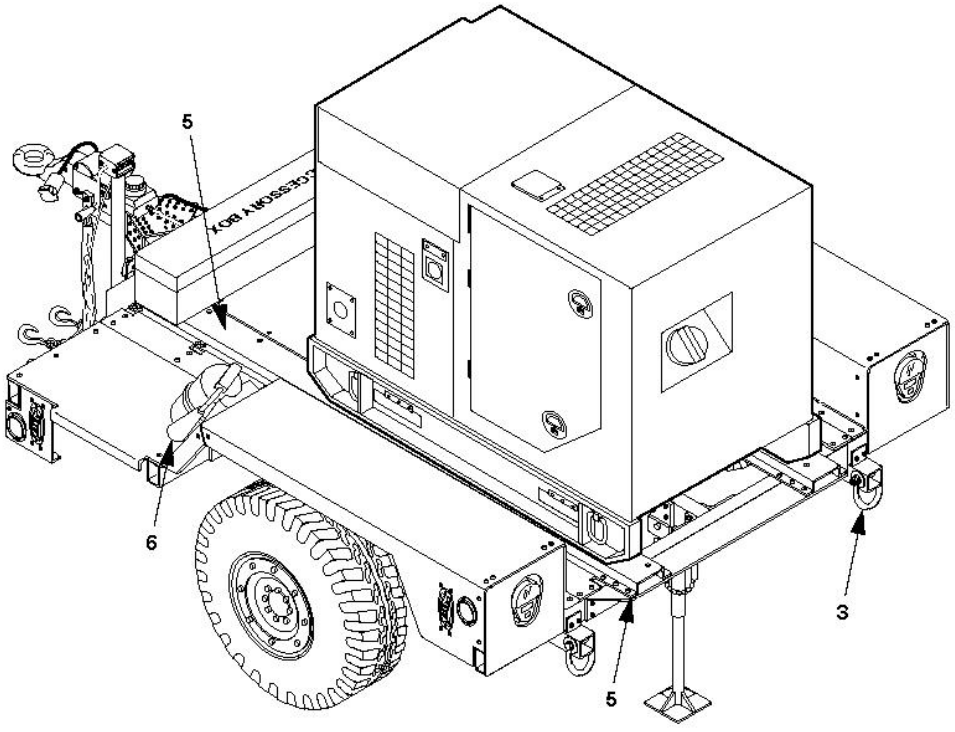


Figure 4-4. Unit PMCS Routing Diagram (Sheet 1 of 2).



AN/MJQ-35A



PU-797A

Figure 4-4. Unit PMCS Routing Diagram (Sheet 2 of 2).

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 maintenance that requires climbing on or under trailer, make sure that trailer handbrakes are set, trailer front landing leg/support leg is lowered, and leveling-support jack is lowered. Failure to comply with this warning can cause personal injury or death to personnel from trailer suddenly rolling or tipping.			
1	Semi-Annually	POWER CABLES (AN/MJQ-35, AN/MJQ-35A, AND AN/MJQ-36 ONLY)	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 ASSEMBLY (AN/MJQ-35, AN/MJQ-35A, AND AN/MJQ-36 ONLY)	Inspect switch box assembly (refer to paragraph 4-13).	
3	Semi-Annually	TRAILER LIFTING RINGS (AN/MJQ-35, AND AN/MJQ-36 ONLY)	Inspect for wear, damage, and loose attaching hardware. If loose or damaged, refer to paragraph 4-21.	
4	Semi-Annually	TRAILER LIFTING BRACKETS (AN/MJQ-35 AND AN/MJQ-36 ONLY)	Inspect for cracks, damage, or broken welds.	
5	Semi-Annually	MOUNTING RAILS	Inspect for cracks and deformation.	Mounting rail is cracked or deformed.
6	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. 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 9-6115-641-24 and TM 9-2815-252-24.

4-9.2 Trailer Troubleshooting. Refer to TM 9-2330-202-14&P for Power Plant AN/MJQ-35 and Power Unit PU-797, TM 9-2330-392-14&P for Power Plant AN/MJQ-35A and Power Unit PU-797A, and TM 9-2330-213-14&P for Power Plant AN/MJQ-36.

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.

NOTE

Prior to the use of any of the following procedures, be sure the switch box is properly wired to the generator sets load terminals. Failure to do so will give misleading results.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

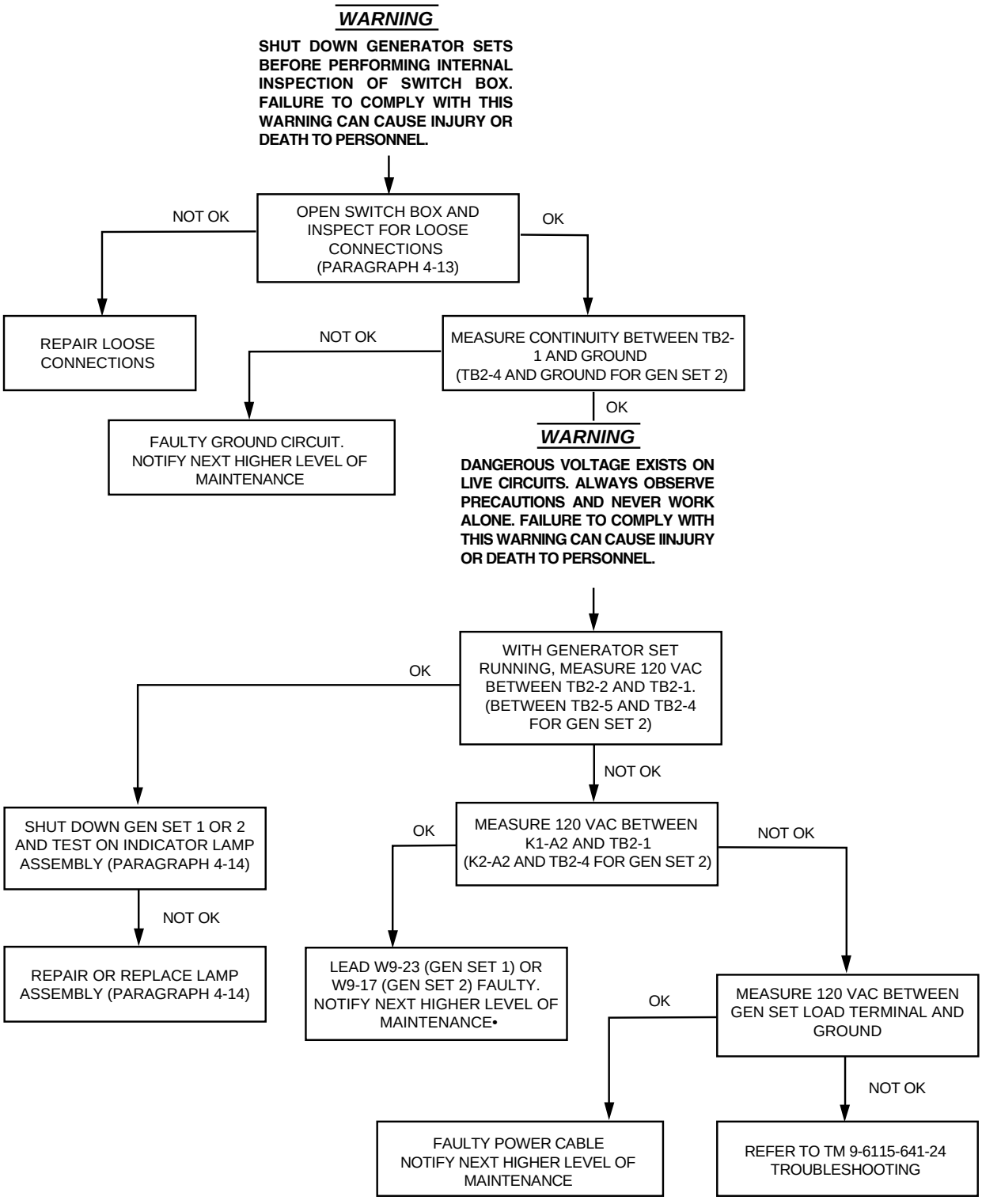
WARNING

High voltage is produced when the generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator set, switch box, or cables, unless specifically directed otherwise in the troubleshooting procedure. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply can cause injury or death to personnel.

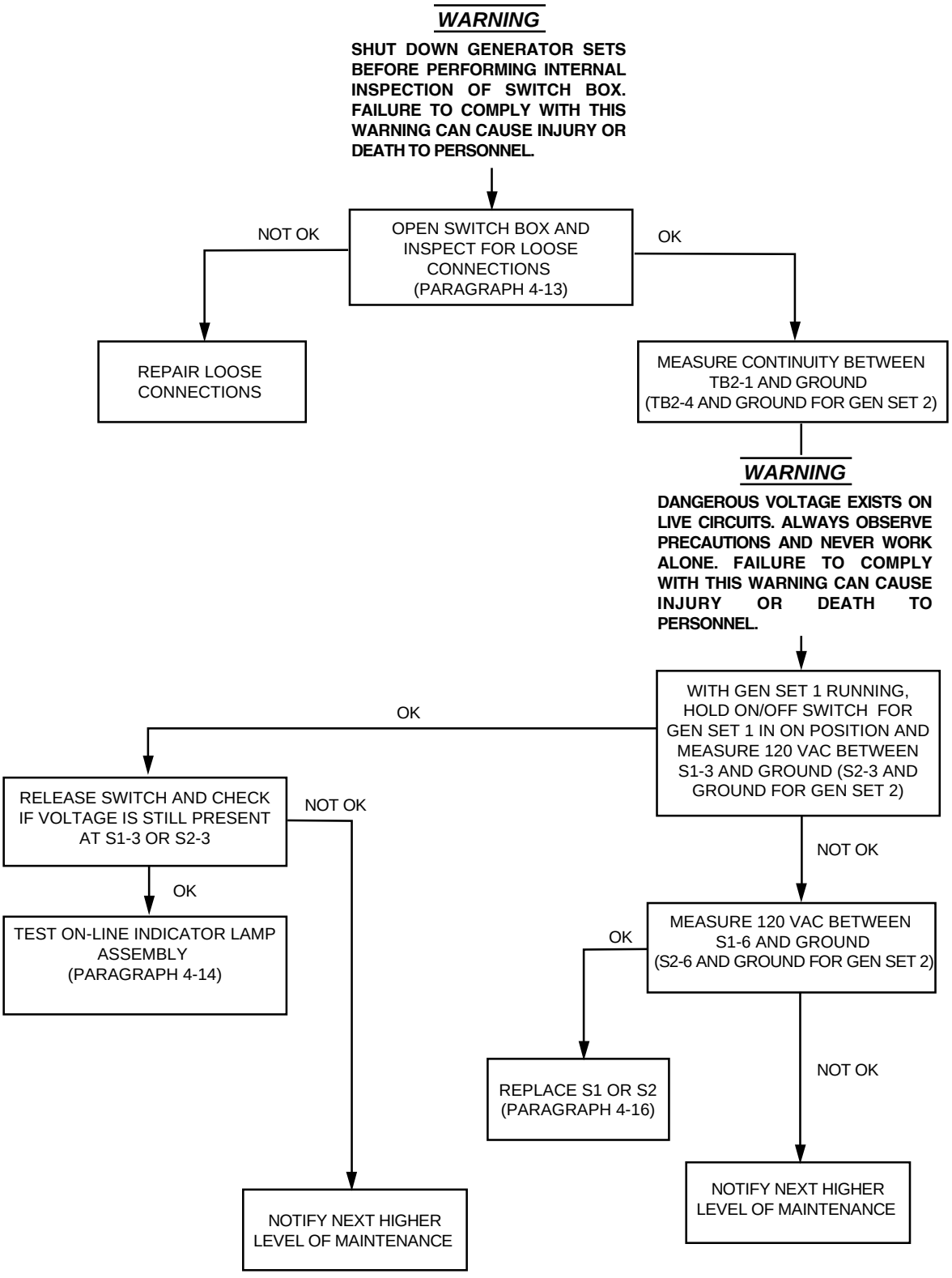
SYMPTOM INDEX



NOTE

This troubleshooting chart covers both versions of the switch boxes.

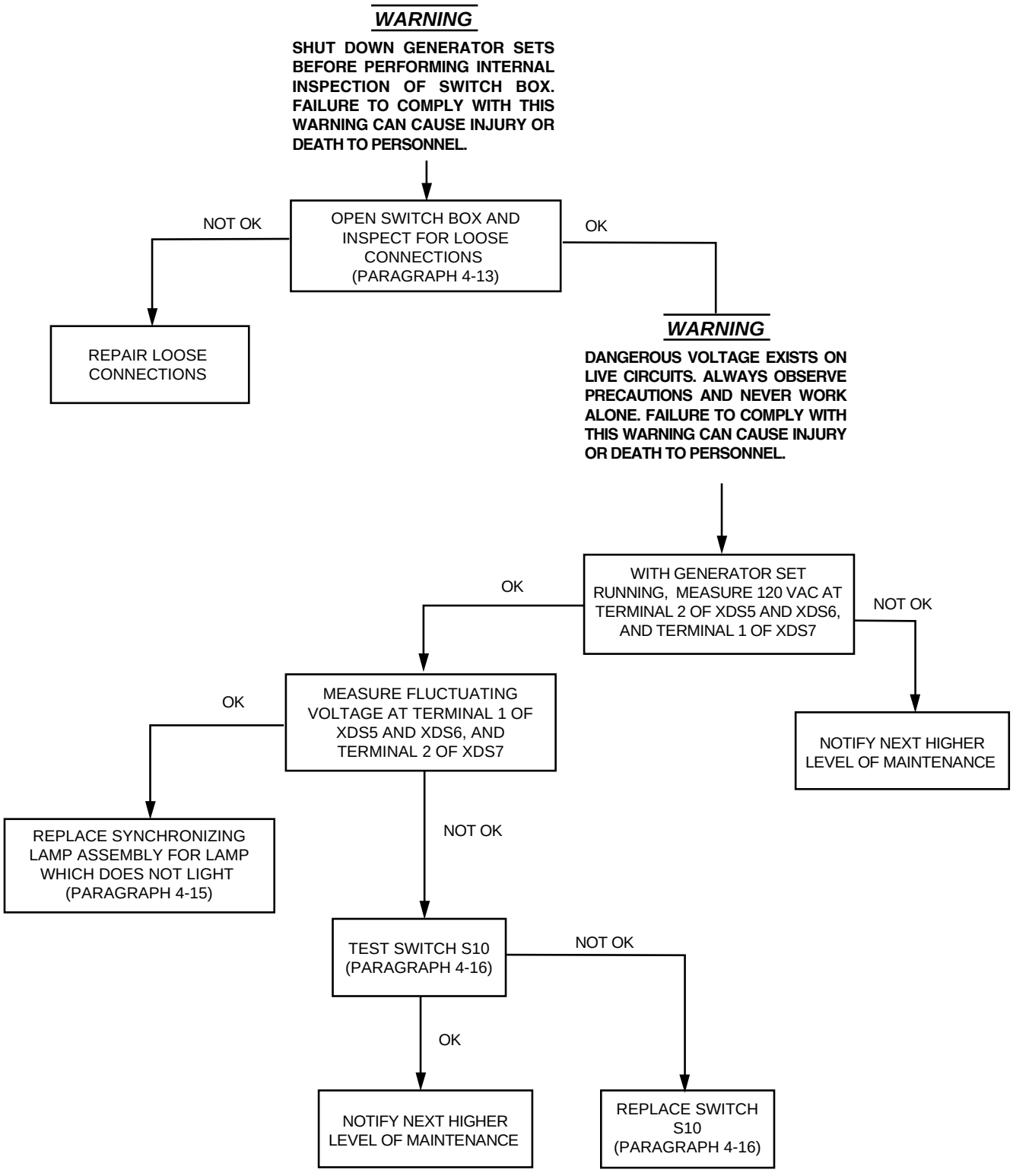
Figure 4-5. ON INDICATOR LAMP SERVICEABLE BUT FAILS TO LIGHT WITH GENERATOR SET RUNNING



NOTE

This troubleshooting chart covers both versions of the switch boxes.

Figure 4-6. ON-LINE INDICATOR LAMP SERVICEABLE BUT FAILS TO LIGHT WHEN ON/OFF SWITCH IS PLACED IN ON POSITION



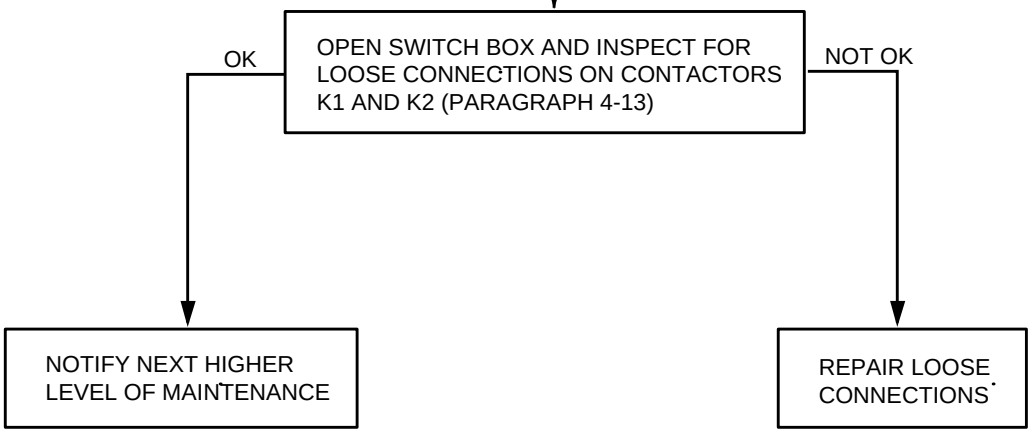
NOTE

This troubleshooting chart covers both versions of the switch boxes.

Figure 4-7. SYNCHRONIZING INDICATOR LAMPS FAIL TO LIGHT WHEN TRANSFER SWITCH IS OPERATED

WARNING

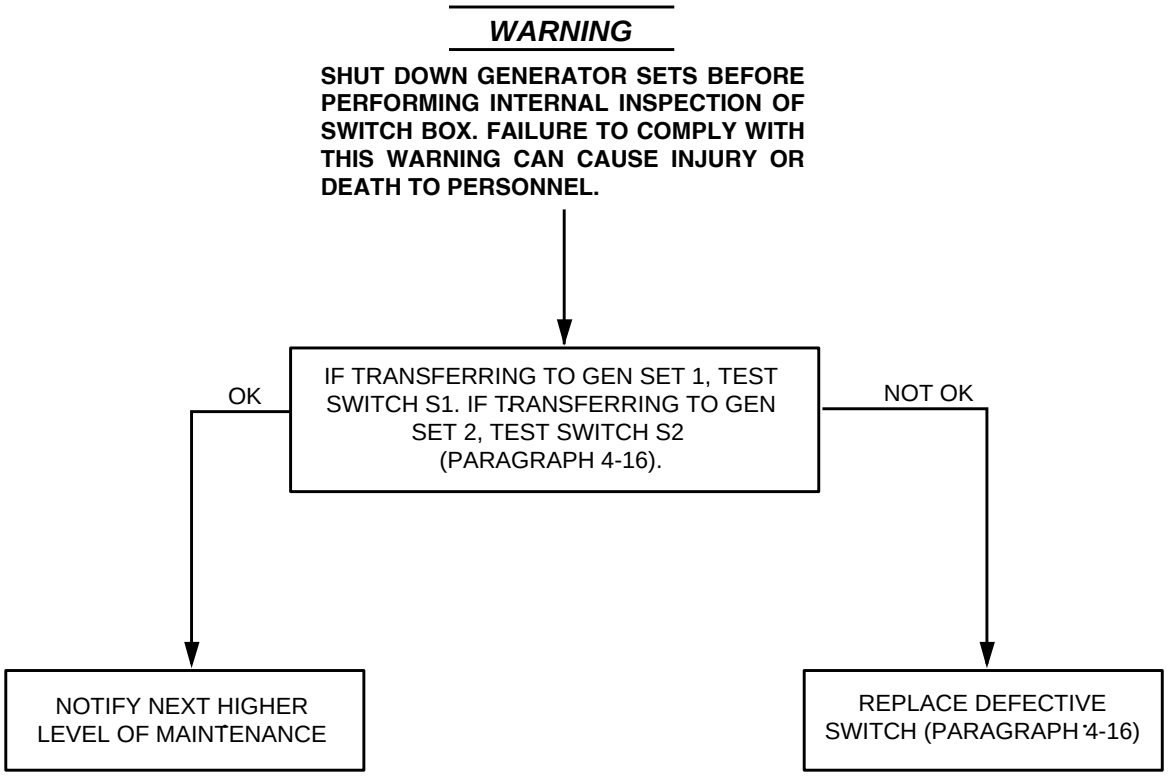
SHUT DOWN GENERATOR SETS BEFORE PERFORMING INTERNAL INSPECTION OF SWITCH BOX. FAILURE TO COMPLY WITH THIS WARNING CAN CAUSE INJURY OR DEATH TO PERSONNEL.



NOTE

On previous model switch boxes, load terminal N is designated LO. This troubleshooting chart covers both versions of the switch box.

Figure 4-8. NO POWER TO LOAD WITH ON-LINE INDICATOR LAMP ON



NOTE

On previous model switch boxes, load terminal N was designated LO. This troubleshooting chart covers both versions of the switch box.

Figure 4-9. ALL INDICATOR LAMPS WORKING PROPERLY BUT LOAD WILL NOT TRANSFER

Section VI. MAINTENANCE PROCEDURES.

4-10 MAINTENANCE OF GENERATOR SETS.

Refer to generator TM 9-6115-641-24 and engine TM 9-2815-252-24.

4-11 MAINTENANCE OF TRAILERS.

Refer to TM 9-2330-202-14&P for Power Plant, AN/MJQ-35 and Power Unit, PU-797, TM 9-2330-392-14&P for Power Plant, AN/MJQ-35A and Power Unit PU-797A, and TM 9-2330-213-14&P for Power Plant, AN/MJQ-36.

4-12 POWER CABLE MAINTENANCE.

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

INITIAL SETUP

Tools

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

Multimeter, (item 9, appendix B)

Equipment Conditions

Reference

Both generator sets shut down; paragraph 2-5.3.3.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.

TEST

1. Release two clamping catches (11, figure 4-10) and open switch box cover (1).

NOTE

Cable leads L1, L2, and L3 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.

2. 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 A1, lead marked L2 and contactor terminal B1, and lead marked L3 and contactor terminal C1. If no continuity, cable is defective and must be repaired or replaced.

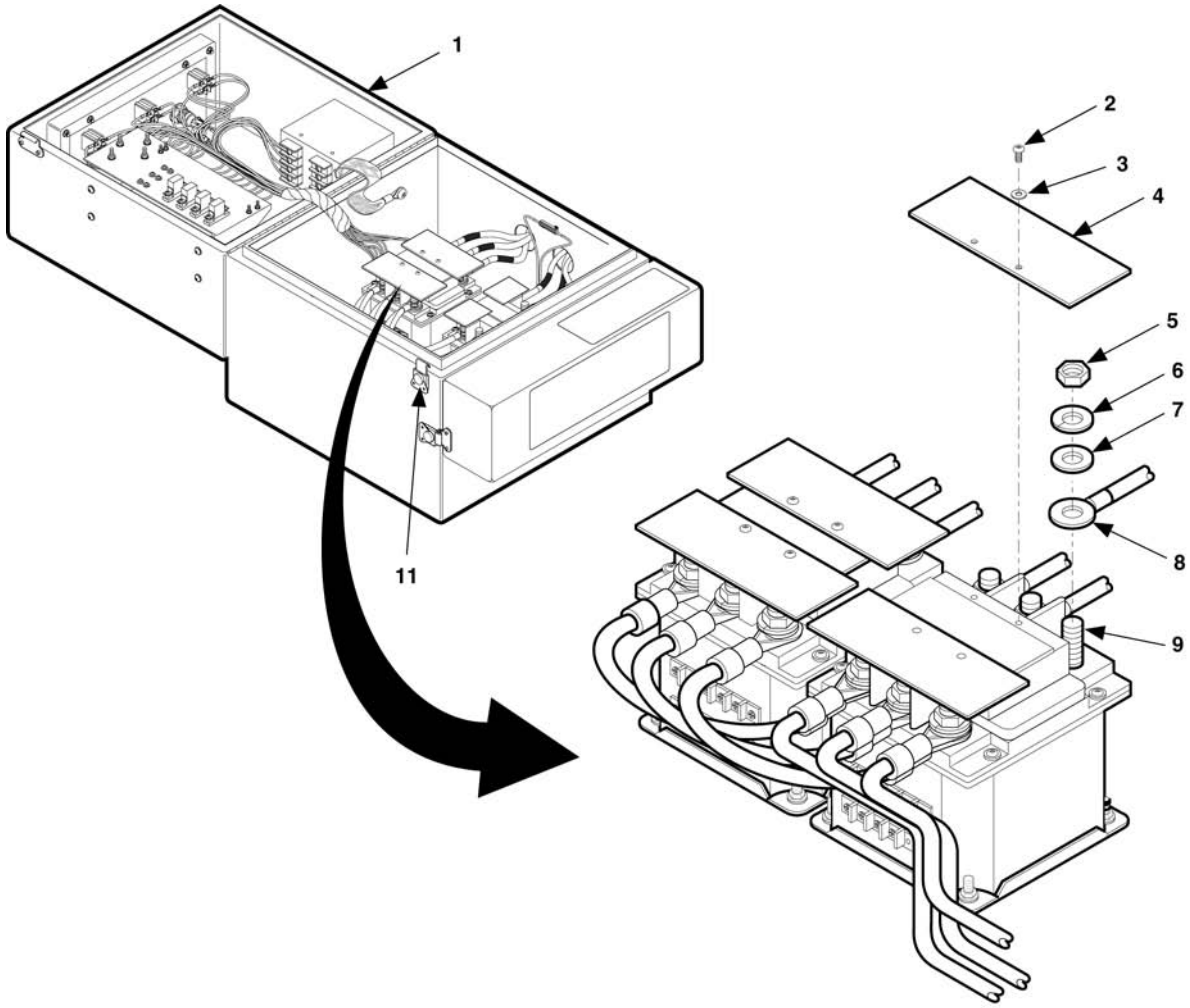


Figure 4-10. Power Cable Connections to Switch Box Contactors.

3. Use multimeter to check for shorts in power cable. Check for continuity between ground and N, L1, L2, and L3; N and L1, L2, and L3; L1, and L3; and L2 and L3. No continuity reading on meter in any of these tests indicates a shorted cable which must be replaced.

4. Close switch box cover (1) and secure with clamping catches (11).

REMOVAL

1. Disconnect electrical leads (1) or (2) and ground lead from generator set.

2. Pull power cable from stuffing tube (11).

   a. Remove stuffing tube compression nut (8, figure 4-11) from stuffing tube body (11).

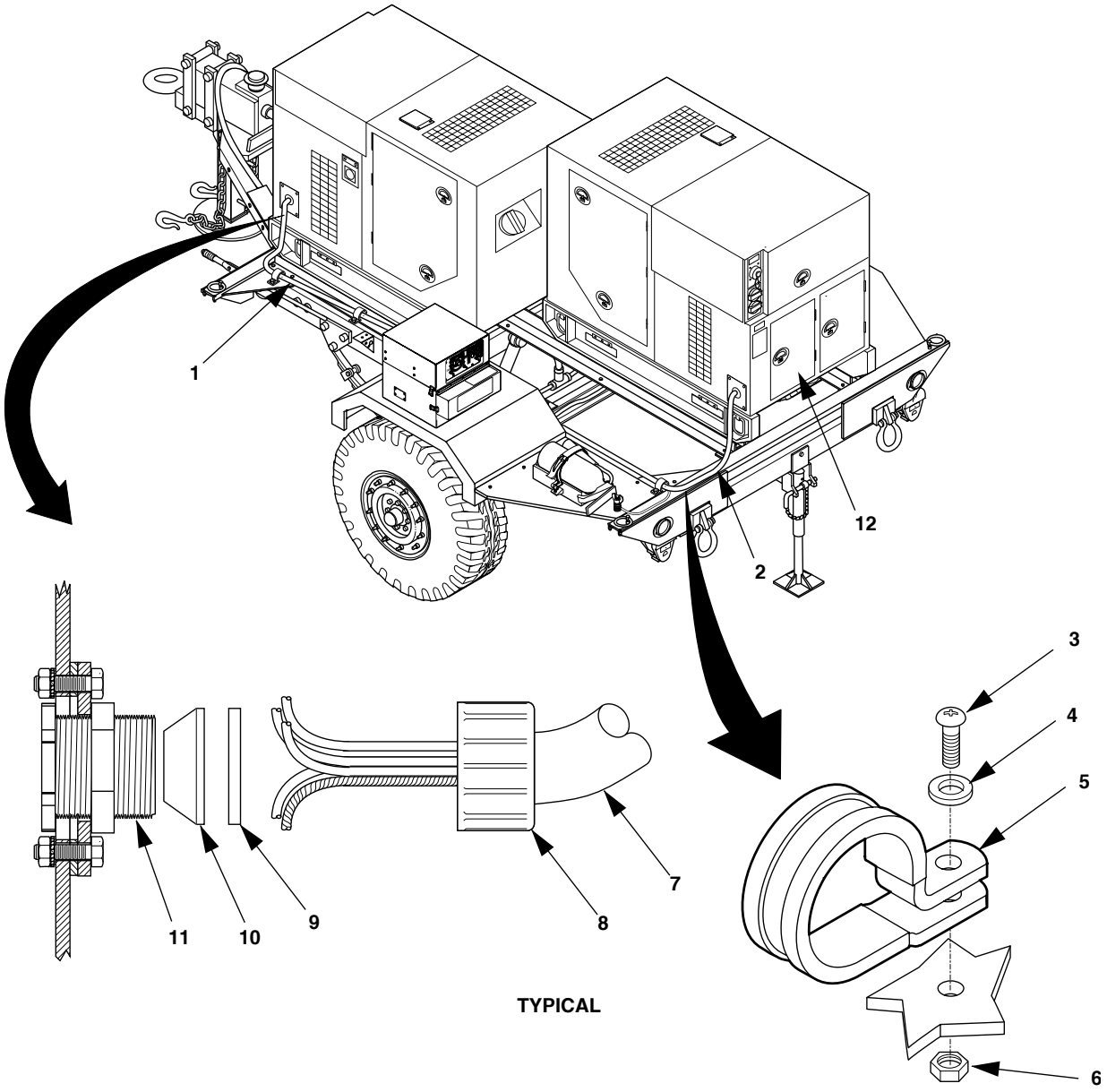


Figure 4-11. Disconnect Power Cable from Generator Set

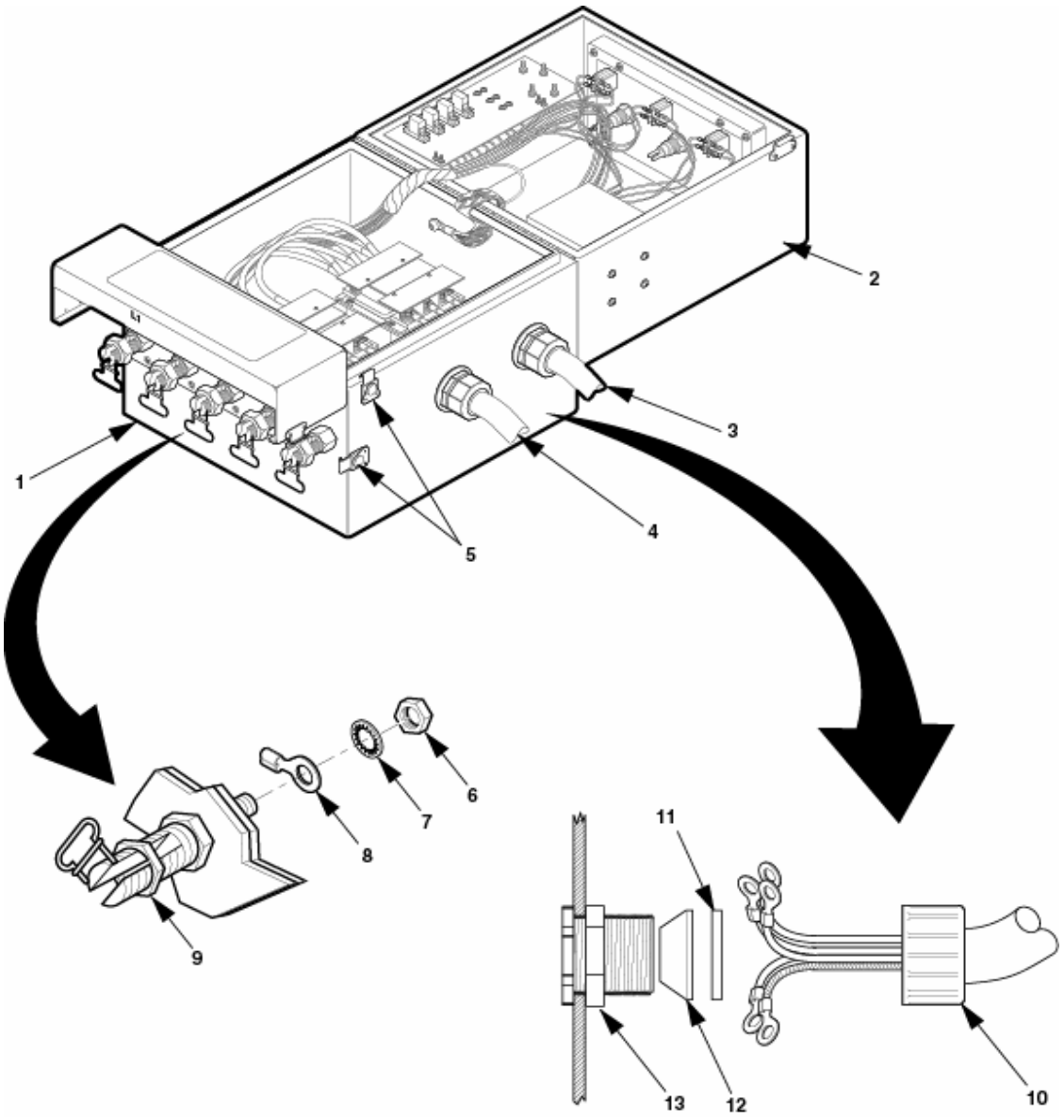


Figure 4-12. Disconnect Power Cable From Switch Box (NEW) Terminals.

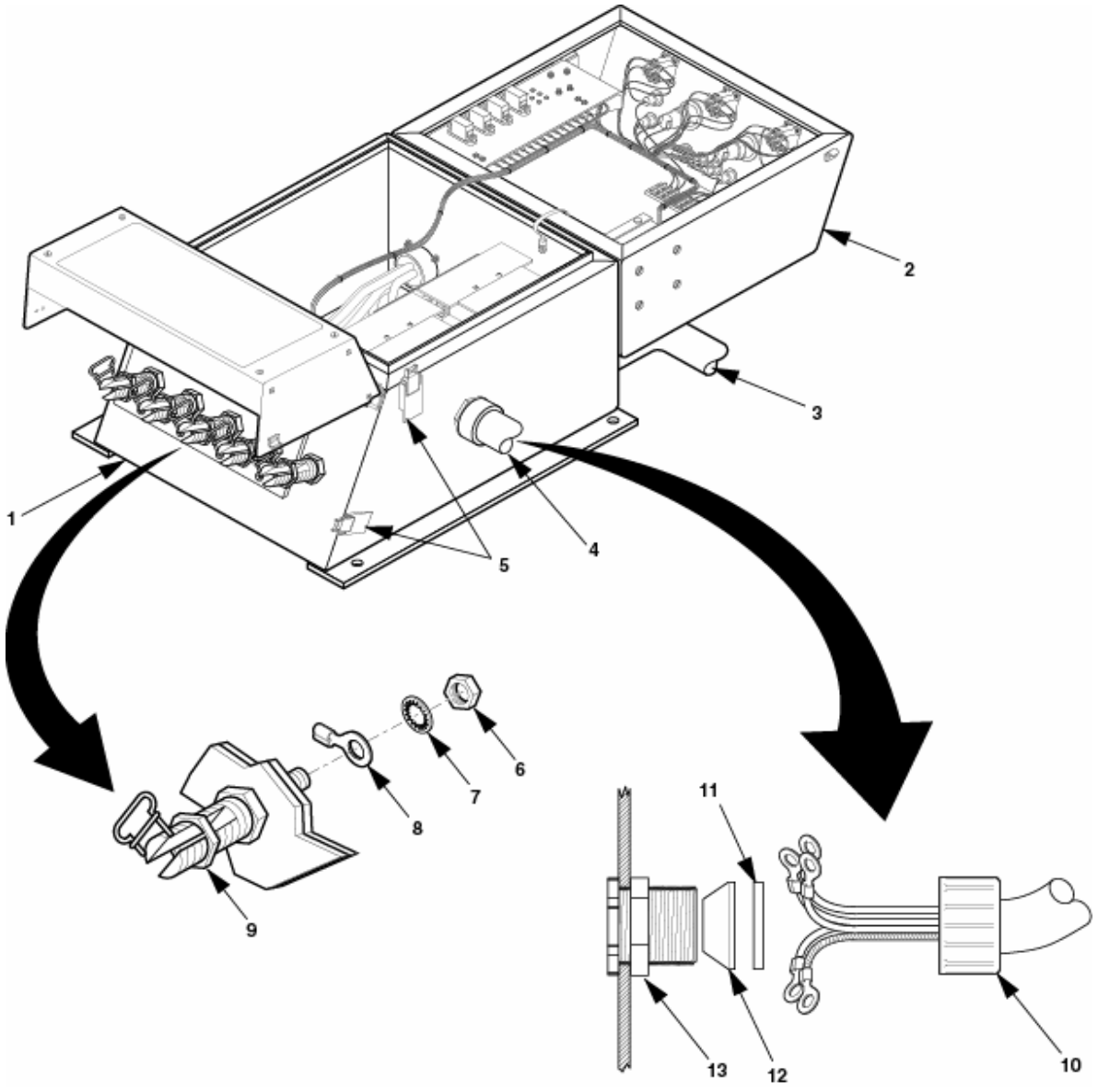


Figure 4-12.1. Disconnect Power Cable From Switch Box (OLD) Terminal.

b. Pull power cable (1) or (2) through stuffing tube until ends of power cable are free of stuffing tube body (11).

c. Remove washer (9), seal (10), and stuffing tube compression nut (8) from power cable (1) or (2). Place items back on stuffing tube and tighten.

3. Disconnect power cable from switch box.

a. Release clamping catches (11, figure 4-10) 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 4-12) 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 (13) until ends of power cable are free of stuffing tube body (13).

l. Remove washer (11), seal (12), and stuffing tube compression nut (10) from power cable (3 or 4). Place items back on stuffing tube and tighten.

4. Remove power cable from clamps.

a. Remove self-locking nuts (6, figure 4-11), screws (3), and flat washers (4) securing clamps (5) to trailer. Remove cable (3 or 4).

b. Remove clamps (5, figure 4-12) off power cable (3 or 4).

INSTALLATION

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

2. Insert terminal lug end of power cable (3 or 4) into stuffing tube assembly (13) and slide forward until end of power cable outer covering is visible inside switchbox (1).

3. 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. Remove nuts (5, figure 4-10), lock washers (6), and flat washers (7) from contactor terminal (9) of contactor associated with power cable being installed.

5. Connect power cable lead marked L1 to contactor terminal A2, lead marked L2 to contactor terminal B2, and lead marked L3 to contactor terminal C2.

9. Install flat washers (7), lock washers (6), and nuts (5) on contactor terminals (9). Tighten nuts.

10. Install contactor terminal shield (4), lock washers (3), and screws (2).

11. Close switch box cover (1) and secure with clamping catches (11).

12. Repeat steps 1, 2, and 3 above and install other end of power cable in stuffing tube on generator set.

13. Connect leads to generator set load terminals as follows:

Lead Marked	to	Generator Set Load Terminal
Ground		Ground
N		N
L1		L1
L2		L2
L3		L3

14. Place clamps (5, figure 4-12) on replacement power cable (3 or 4) and existing ground wire going from switch box ground terminal and trailer ground stud, and install flat washers (4, figure 4-11), screws (3), and self-locking nuts (6).

REPLACE

Replace procedure is the same as removal and installation procedure.

4-13 SWITCH BOX MAINTENANCE (OLD).

This task covers:
a. Inspect
b. Repair
c. Removal
d. Installation

INITIAL SETUP

Tools

Tool Kit, General Mechanic's
(item 1, appendix B)
1/4 Inch Drill
(item 2, appendix B)
Blind Head Riveter
(item 5, appendix B)

Materials/Parts

Blind Rivets
Gasket
Lock Washers (AN/MJQ-35A only)
(item 1, appendix I)

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. Power cables and ground disconnected from switch box; paragraph 4-12

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.

INSPECT

1. Release clamping catches (5, figure 4-13) and open switch box cover (9).

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, repair and/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 (10) on switch box. If required, replace gasket (figure G-7, appendix G).
7. Close switch box cover (9) and secure with clamping catches (5).

REPAIR

1. CLAMPING CATCH REPLACEMENT.
   a. Drill out rivets (1) and remove defective clamping catch (2).
   c. Position new clamping catch (2) and secure with rivets (1).
2. DATA PLATE REPLACEMENT.
   a. Drill out rivets (7) and remove schematic diagram data plate (8).
   b. Position new schematic diagram data plate (8) and secure with blind rivets (7).
3. GASKET REPLACEMENT.
   a. Remove old gasket (10) from switch box and scrape surface to remove old cement.
   b. Cut new gasket material and cement to switch box. Refer to figure G-7, appendix G.
4. STUFFING TUBE REPLACEMENT.
   a. Unscrew locknut (11) from stuffing tube body (12) of stuffing tube and remove from switch box.
   b. Insert stuffing tube body (12) through hole in switch box and secure with locknut (11).

NOTE

Switch box mounting hardware for AN/MJQ-35A (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 4-12.1).
2. Remove four flat washers (4), and cap screws (3), securing switch box (13) to fender. Remove switch box (13).

INSTALLATION

1. Position switch box (13) on trailer fender.
2. Install four cap screws (3), flat washers (4).
3. Connect power cables and ground cable (paragraph 4-12.1).

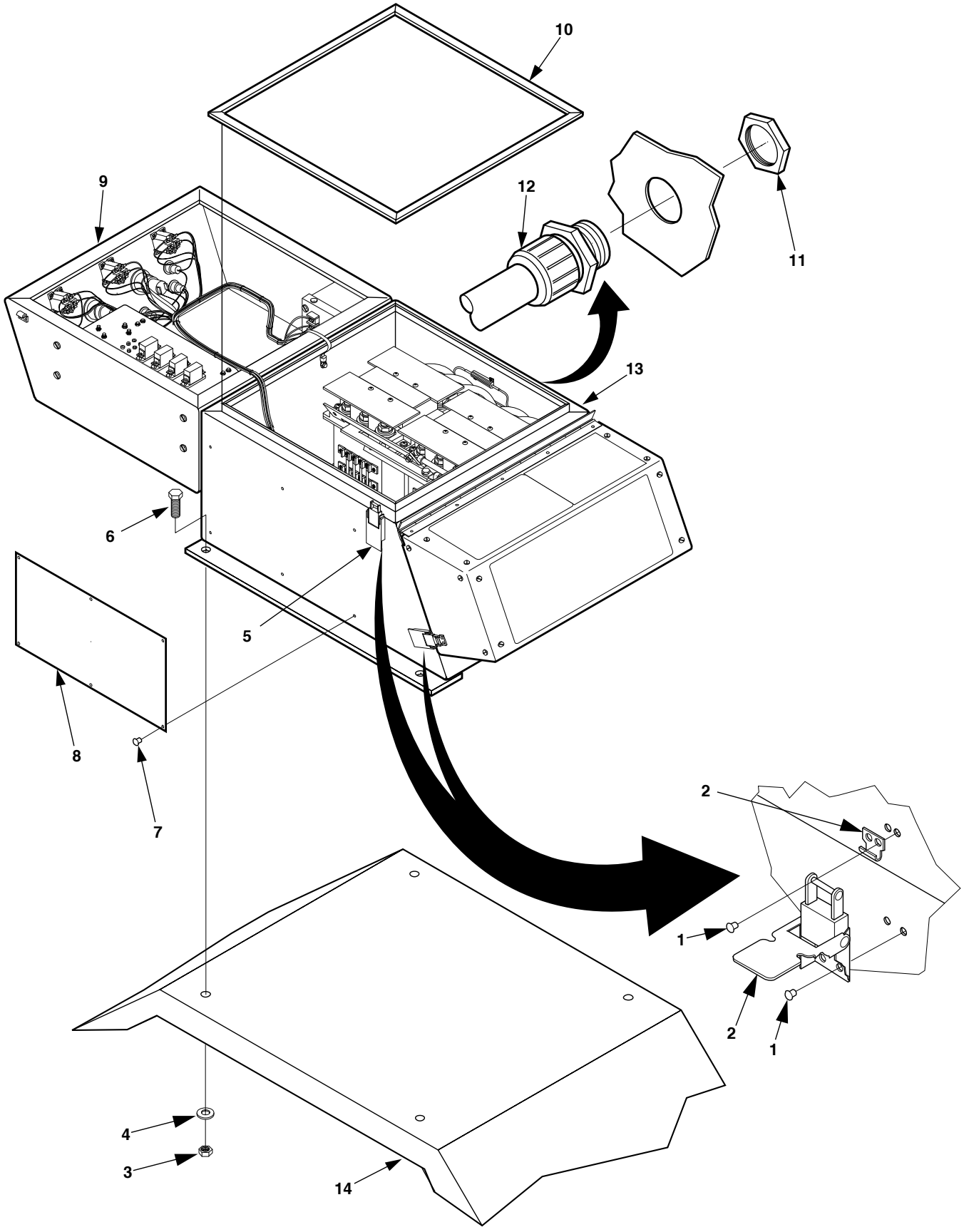


Figure 4-13. Switch Box Repair (OLD).

4-13A SWITCH BOX MAINTENANCE (NEW).

This task covers:
a. Inspect
b. Repair
c. Removal
d. Installation

INITIAL SETUP

Tools

Tool Kit, General Mechanic's
(item 1, appendix B)
1/4 Inch Drill
(item 2, appendix B)
Blind Head Riveter
(item 5, appendix B)

Materials/Parts

Blind Rivets
Gasket
Lock Washers (AN/MJQ-35A only)
(item 1, appendix I)

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. Power cables and ground disconnected from switch box; paragraph 4-12.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.

INSPECT

1. Release clamping catches (5, figure 4-13.1) and open switch box cover (6).

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, repair.
4. Inspect all terminals for looseness. Tighten as needed.
5. Inspect all component mountings for looseness. Tighten as needed.
6. Inspect gasket (7) on switch box. If required, replace gasket (figure G-7, appendix G).
7. Close switch box cover (6) and secure with clamping catches (5).

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).
2. GASKET REPLACEMENT.
   a. Remove old gasket (7) from switch box and scrape surface to remove old cement.
   b. Cut new gasket material and cement to switch box. Refer to figure G-7, Appendix G.
3. STUFFING TUBE REPLACEMENT.
   a. Unscrew lock nut (8) from stuffing tube body (9) of stuffing tube and remove from switch box.
   b. Insert stuffing tube body (9) through hole in switch box and secure with locknut (8).

NOTE

Switch box mounting hardware for AN/MJQ-35A (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 flat washers (4), and cap screws (3), securing switch box (10) to fender (11). Remove switch box (10).

INSTALLATION

1. Position switch box (10) on trailer fender (11).
2. Install four cap screws (3), flat washers (4).
3. Connect power cables and ground cable (paragraph 4-12).

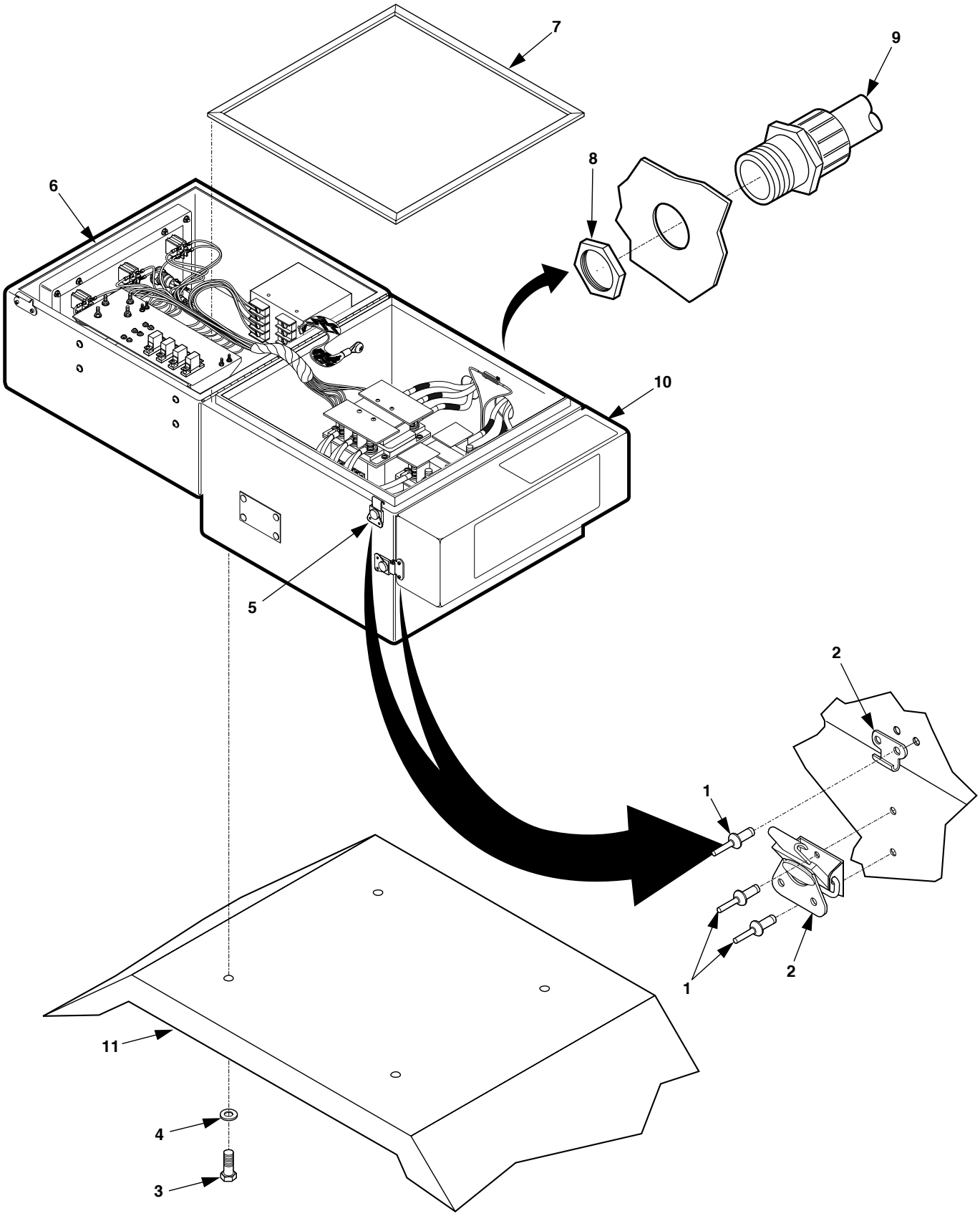


Figure 4-13.1. Switch Box Repair (NEW).

4-14 INDICATOR LIGHT ASSEMBLY MAINTENANCE

This task covers:
a. Test
b. Removal
c. Repair
d. Installation
e. Replace

INITIAL SETUP

Tools

Tool Kit, General Mechanic's
(item 1, appendix B)
Soldering Gun GT7A-3
(item 2, appendix B)
Hand Operated Terminal Crimping Tool
(item 2, appendix B)

Equipment Conditions

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

Materials/Parts

Insulation Sleeving, Heat Shrinkable
Terminal, Lug, Crimp, 22-18 AWG, 0.138 Stud
Solder

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before removing indicator lamp. Failure to comply with this warning can cause injury or death to personnel.

TEST

1. Measure for continuity between terminals (5, figure 4-14). 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.

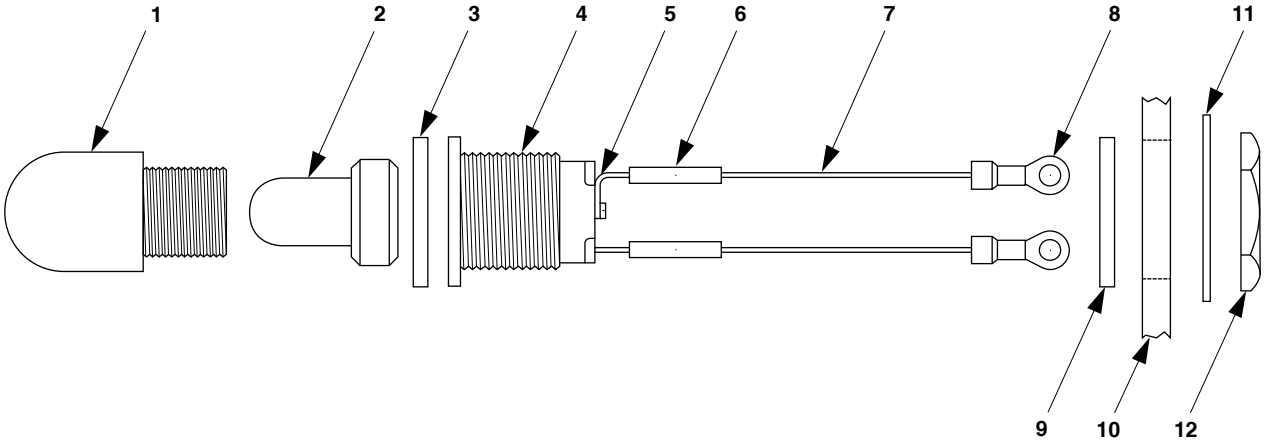


Figure 4-14. Indicator Light Assembly.

NOTE

Refer to F0-1 for Wiring Diagram

Table 4-2. Indicator Light Assembly Test Points

FROM	TO
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
DS3 (center contact)	TB2-4
DS4 (center contact)	S2-3

WARNING

High voltage is produced when the generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before removing indicator lamp. Failure to comply with this warning can cause injury or death to personnel.

REMOVAL

1. Unscrew lens (1, figure 4-14) 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, figure 4-14). 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).

INSTALLATION

1. Insert terminal leads (7, figure 4-14) 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).

    2. Install lens (1) into housing (4) and hand tighten.

REPLACE

Replace procedures are the same as Removal and Installation.

4-15 SYNCHRONIZING LIGHT MAINTENANCE

This task covers:

a. Test
b. Removal
c. Installation
d. Replace

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.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

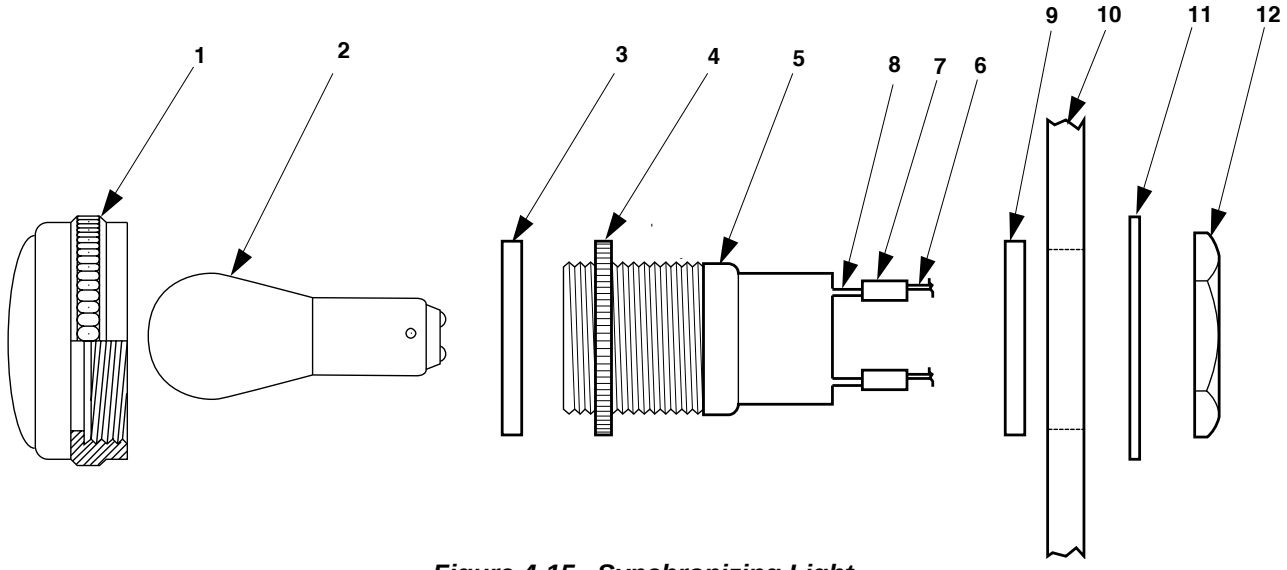


Figure 4-15. Synchronizing Light.

TEST

Remove lens (1, figure 4-15) and bulb (2) and measure for continuity between terminals (8). If continuity exists, replace lamp housing.

WARNING

High voltage is produced when the generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before removing indicator lamp. Failure to comply with this warning can cause injury or death to personnel.

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).
6. Install lamp (2) into housing body (5).
7. Make sure that rubber gasket (3) is in place against mounting collar (4) and install lens (1) on housing body (5).

REPLACE

Replace procedures are the same as Removal and Installation.

4-16 TOGGLE SWITCH MAINTENANCE.

This task covers:

a. Test
b. Removal
c. Installation
d. Replace

INITIAL SETUP

Tools

Tool Kit, General Mechanic's
(item 1, appendix B)
Multimeter AN/PSM-45
(item 9, appendix B)

Equipment Conditions

Reference

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

Materials/Parts

None

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before removing indicator lamp. Failure to comply with this warning can cause injury or death to personnel.

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

WARNING

High voltage is produced when the generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before removing indicator lamp. Failure to comply with this warning can cause injury or death to personnel.

REMOVAL

1. Tag wires connected to terminals of switch to be replaced and remove screws (9, figure 4-16), flat washers (8), and conductor bus (7), and retain 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.

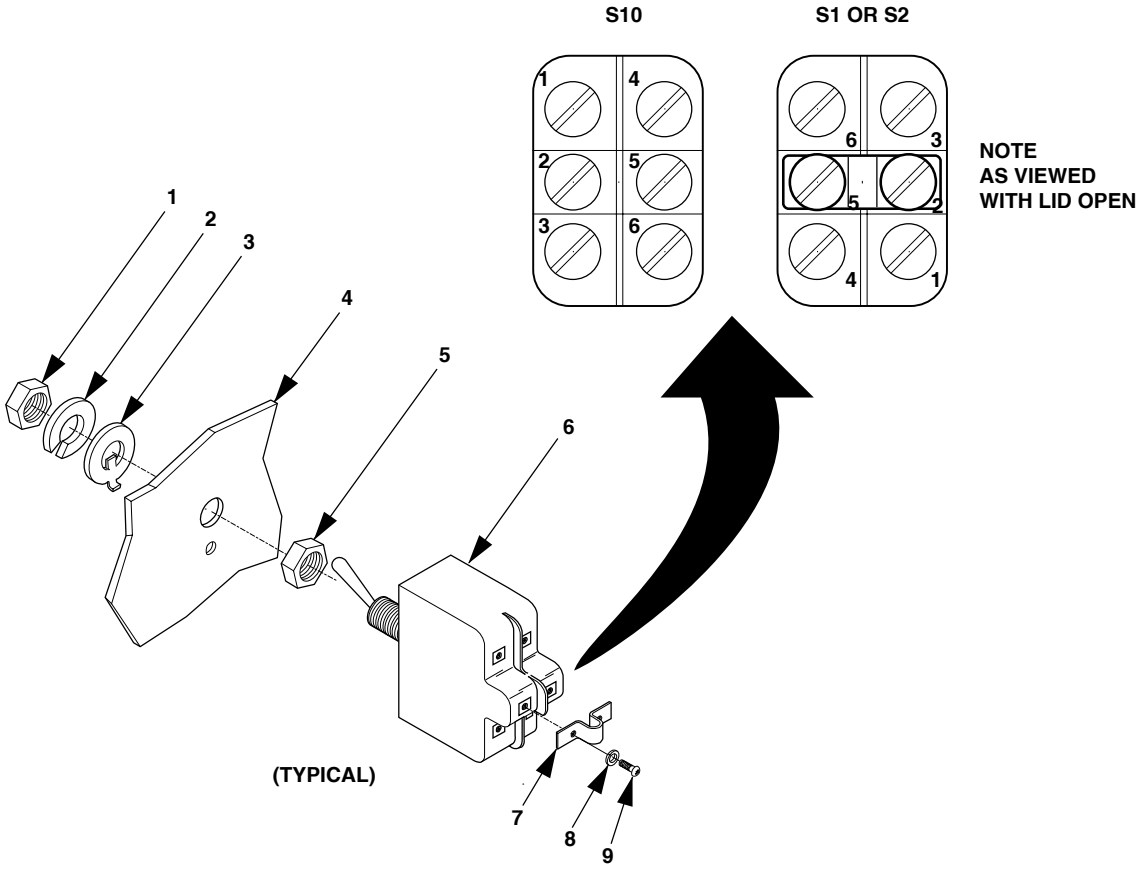


Figure 4-16. Toggle Switch.

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).
4. Install locking ring (3) into keyway of switch until alignment tip goes into mounting plate (4).
5. Install lock washer (2) against locking ring (3).
6. 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.

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

REPLACE

Replace procedures are the same as Removal and Installation.

4-17 SWITCH BOX LOAD TERMINAL MAINTENANCE.

This task covers:
a. Inspect
b. Removal
c. Repair
d. Installation
e. Replace

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.

INSPECT

Inspect for corrosion, broken terminal clip, damaged threads, etc.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before removing indicator lamp. Failure to comply with this warning can cause injury or death to personnel.

NOTE

See wiring diagram FO-1 for the number of wires on each terminal.

REMOVAL

1. Release clamping catches (12, figure 4-17 sheet 1) 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 load terminal (8) to the mounting plate (7).
4. Remove load terminal (8).

REPAIR

NOTE

If 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 load terminal body (8).
4. Fabricate terminal clip (10) in accordance with figure 4-17 (sheet 2).
5. Install terminal clip (10) on load terminal (8), close switch box terminal cover (1) and secure with clamping catch (11).

NOTE

See wiring diagram FO-1 for the number of wires on each terminal.

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).

REPLACE

Replace procedures are the same as Removal and Installation.

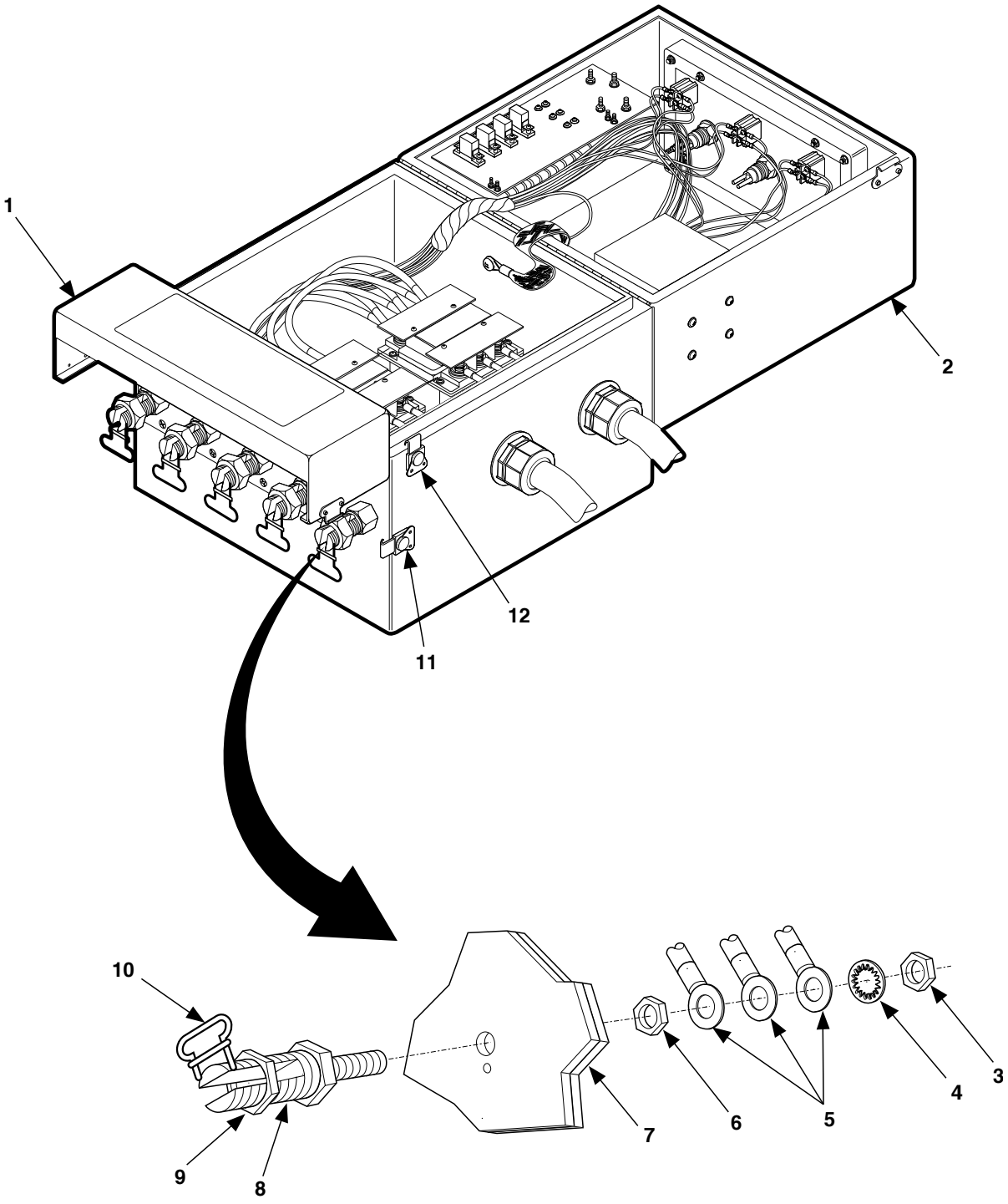


Figure 4-17. Switch Box Load Terminal Maintenance (Sheet 1 of 2)

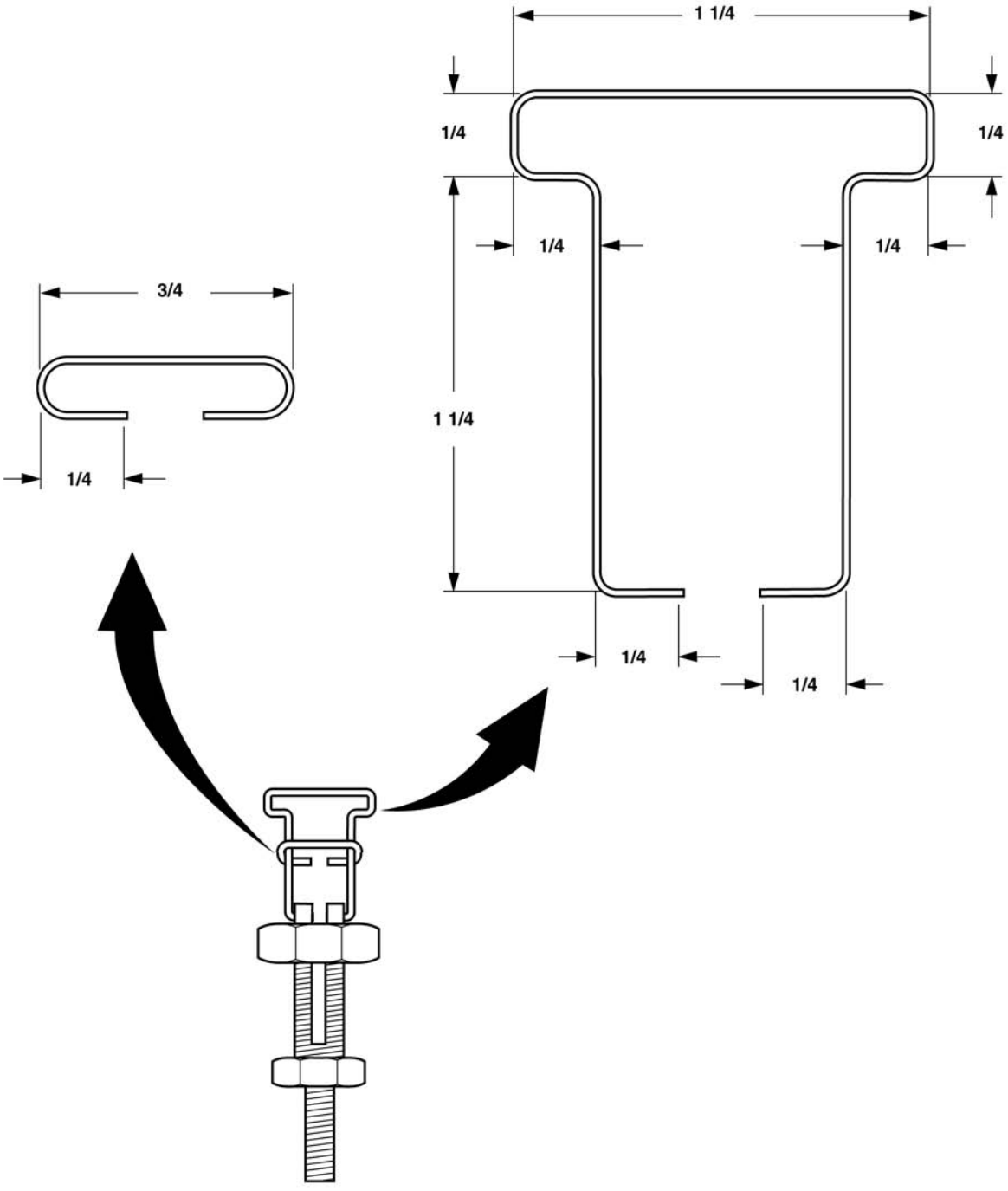


Figure 4-17. Switch Box Load Terminal Maintenance (Sheet 2 of 2).

4-18 LOAD TERMINAL COVER MAINTENANCE (OLD).

This Task Covers:
a. Inspect
b. Removal
c. Installation
d. Replace

INITIAL SETUP

Tools

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

Materials/Parts

None

Equipment Conditions

Reference

Both generator sets shut down, para 2-5.3.3.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

INSPECT

Inspect for corrosion and damaged parts.

REMOVAL

1. Release clamping catches (1, figure 4-18) and open switch box cover (2).
2. Release clamping catches (3) and open load terminal cover (4).
3. Remove six nuts (5), lock washers (6), screws (7), and flat washers (8) and remove load terminal cover (4) and stop (9) from switch box (10).

NOTE

If replacing load terminal cover, step 4 must be performed.

4. Remove four rivets (11) and two clamping catch strikes (12). Retain strikes for installation on new cover.

INSTALLATION

1. Install load terminal cover (4) and stop (9) on switch box (10) with six screws (7), flat washers (8), lock washers (6), and nuts (5).
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).

REPLACE

Replace procedures are the same as Removal and Installation.

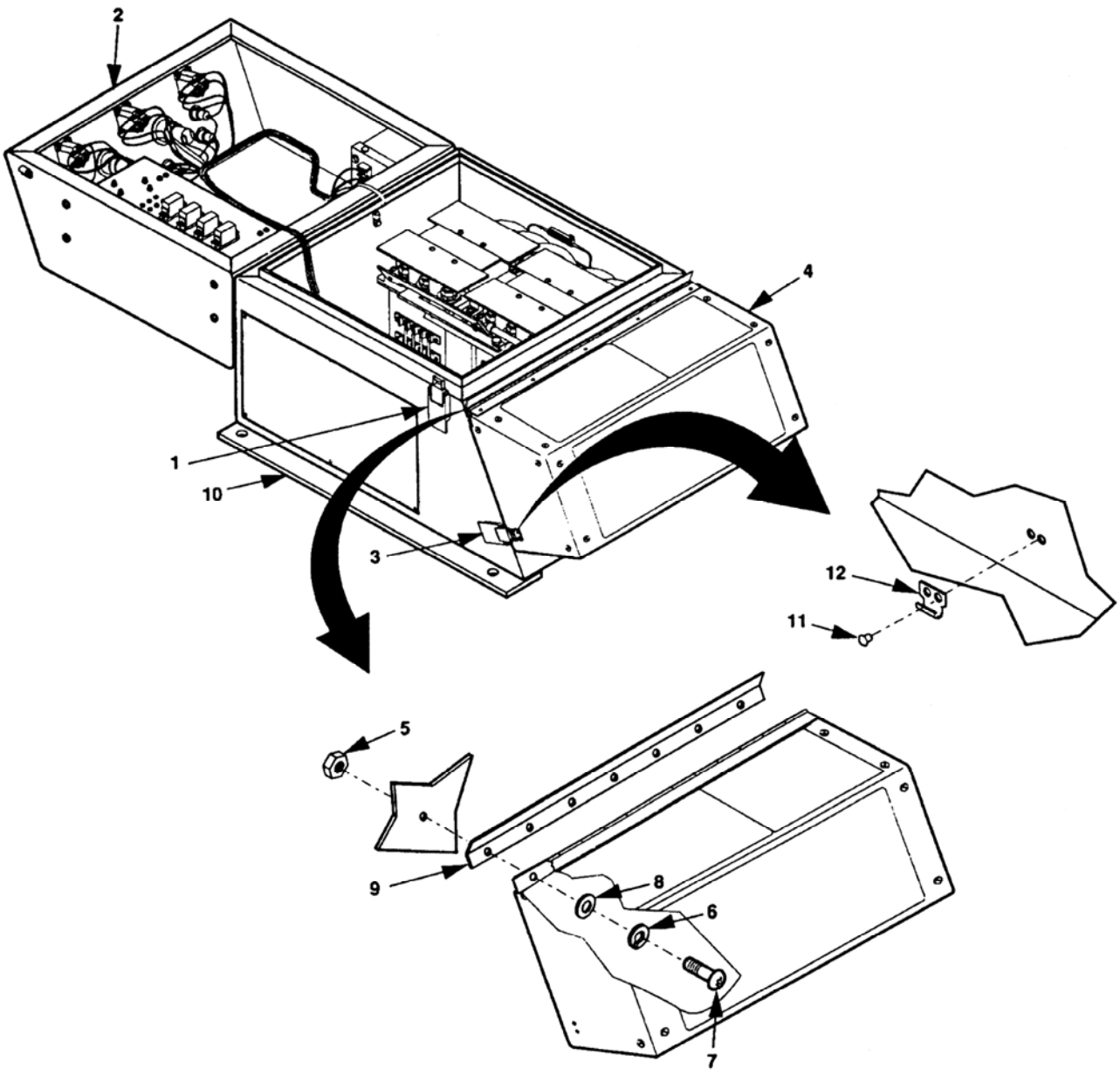


Figure 4-18. Load Terminal Cover (OLD).

4-18A LOAD TERMINAL COVER MAINTENANCE (NEW).

This Task Covers:

a. Inspect
b. Removal
c. Installation
d. Replace

INITIAL SETUP

Tools

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

Materials/Parts

None

Equipment Conditions

Reference

Both generator sets shut down, para 2-5.3.3.

INSPECT

Inspect for corrosion and damaged parts.

REMOVAL

1. Release clamping catches (1, figure 4-18.1) 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 six rivets (6) from butt hinge on load terminal cover (4).
5. Remove four rivets (11) and two clamping catch strikes (12). Retain strikes for installation on new cover.

NOTE

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

INSTALLATION

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

REPLACE

Replace procedures are the same as Removal and Installation.

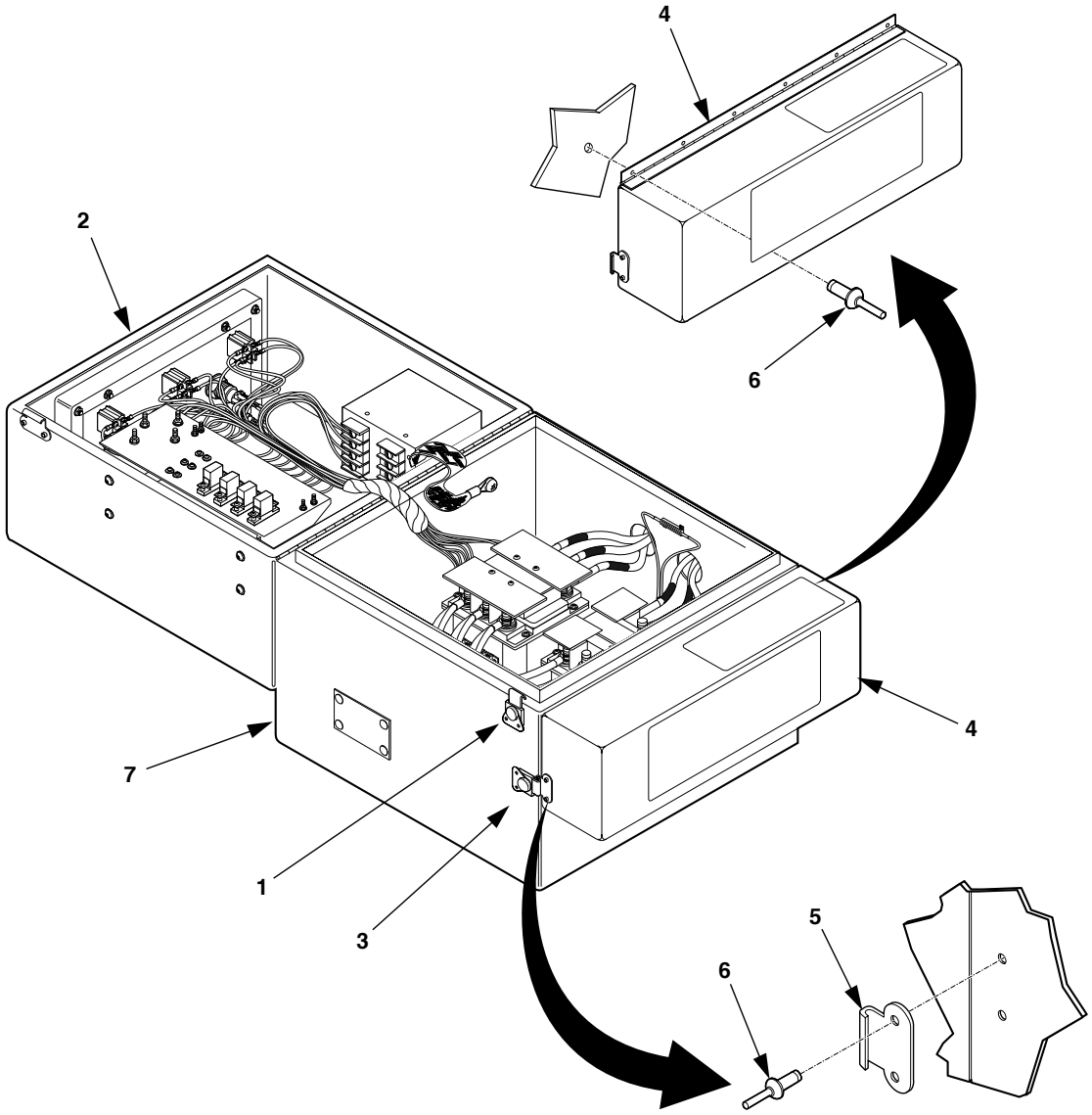


Figure 4-18.1. Load Terminal Cover (NEW).

4-19 ACCESSORY BOX MAINTENANCE POWER PLANT/POWER UNIT.

This task covers:
a. Inspect
b. Removal
c. Repair
d. Installation

INITIAL SETUP

Tools
Tool Kit, General Mechanic's (item 1, appendix B)
1/4-inch Drill (item 2, appendix B)
Blind Head Riveter (item 5, appendix B)

Materials/Parts
Catch, Clamping and Strike
Rivets, Blind

Materials/Parts - continued
Nuts, Self-locking
Hasp
Washers, Lock (item 1, Appendix B)

Equipment Conditions

Reference

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

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

INSPECT

Inspect for corrosion and damaged parts.

REMOVAL

1. Release clamping catches (4, figure 4-19) and open accessory box cover (1).

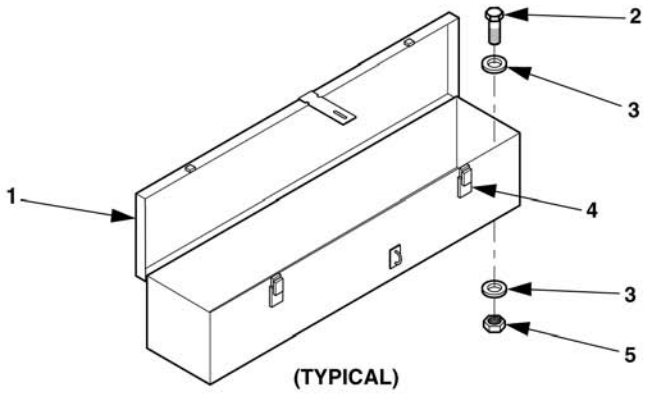


Figure 4-19. Replace Accessory Box.

2. Remove accessories from accessory box.

NOTE

AN/MJQ-35 accessory box is attached at three points. AN/MJQ-35A, AN/MJQ-36, PU-797, and PU-797A accessory box is attached at four points. The two forward mounting screws on AN/MJQ-35A and PU-797A accessory boxes are longer then the rear two.

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.

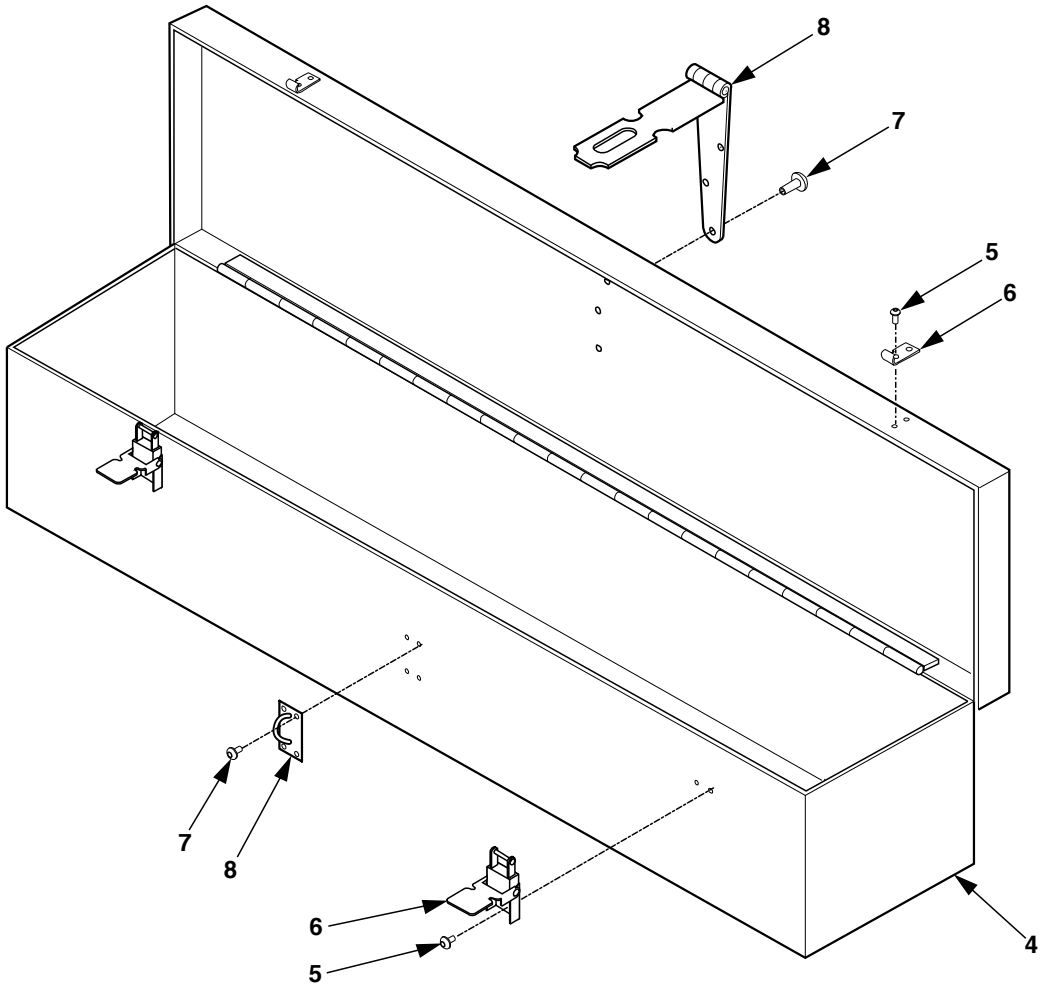


Figure 4-20. Repair Accessory Box.

1. REPLACE CLAMPING CATCH.

   a. Drill out rivets (5, figure 4-20) 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 4-19) 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 FIRE EXTINGUISHER BRACKET MAINTENANCE.

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

INITIAL SETUP

Tools

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

Materials/Parts

Nuts, Self-locking
Washers, Lock (item 2, appendix I)

Equipment Conditions

Reference

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

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

REMOVAL

1. Remove fire extinguisher from bracket.
2. Remove four self-locking nuts, flat washers, cap screws, and remove fire extinguisher bracket.

INSTALLATION

1. Install fire extinguisher bracket, four cap screws, flat washers, and self-locking nuts. Tighten self-locking nuts.
2. Place fire extinguisher in bracket.

REPLACE

Replace procedures are the same as Removal and Installation.

4-21 TRAILER LIFTING RING MAINTENANCE.

This task covers: a. Removal b. Installation

INITIAL SETUP

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Wrench, Torque, 800 Newton-Meter (item 2, appendix B)

Materials/Parts

Nut, 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

Personnel Required

Two

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

REMOVAL

1. Remove nut (4, figure 4-21), flat washer (3) and lifting ring (1) from lifting bracket (2); AN/MJQ-35 only.
2. Remove self-locking nuts (7), flat washers (6), screws (5) and mounting plate (10); AN/MJQ-36 only.
3. Remove self-locking nut (9), lock washer (12), flat washer (8), and lifting ring (11) from mounting plate (10) AN/MJQ-36 only.
4. Remove self-locking nut (9), and lifting ring (11) from chassis mounting bracket (10); LTT only.

INSTALLATION

1. Install lifting ring (1), flat washer (3) and self-locking nut (4). Set ring at an angle of $35^{o} \pm 5^{o}$ measured from line running from front to rear of trailer. With the aid of an assistant, torque to 315-347 lb-ft (427-470 N-m); AN/MJQ-35 only.
2. Install lifting ring (11), flat washer (8), lock washer (12), and nut (9) on mounting plate (10) and torque to 315-347 lb-ft (427-470 N-m).
3. Install mounting plate (10), screws (5), flat washers (6), and self-locking nuts (7).

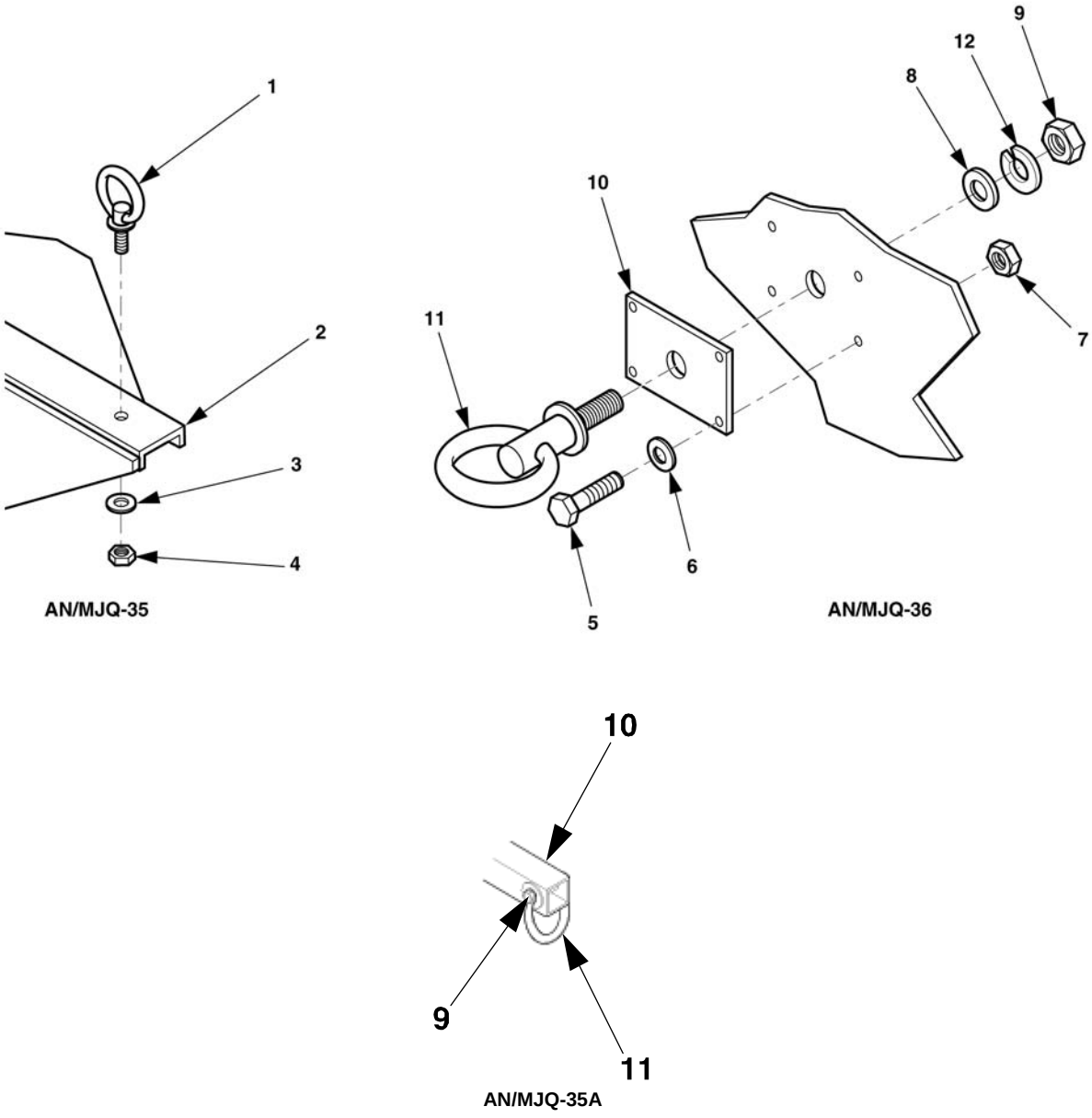


Figure 4-21. Replace Trailer Lifting Ring.

4-22 DATA PLATE AND REFLECTOR MAINTENANCE.

This task covers: a. Replacement

INITIAL SETUP

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Drill, ¼ -inch (item 2, appendix B)
Drill, Twist, 3/16 (item 2, appendix B)
Riveter, Blind Head (item 5, appendix B)

Materials/Parts

Plate, Identification/Transportation Data
Screws, Drive
Rivets (item 3, appendix I)

Equipment Conditions

Reference

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

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

REPLACEMENT

1. REPLACE DATA PLATE

NOTE

For AN/MJQ-35 and PU-797 data plates refer to trailer chassis TM 9-2330-202-14&P. For AN/MJQ-36 data plates refer to trailer chassis TM 9-2330-213-14&P. For AN/MJQ-35A and PU-797A data plates refer to trailer chassis TM 9-2330-392-14&P.

a. Drill out rivets (4, figures 4-22) and remove data plate (3).

b. Position data plate (3) on trailer and install rivets (4).

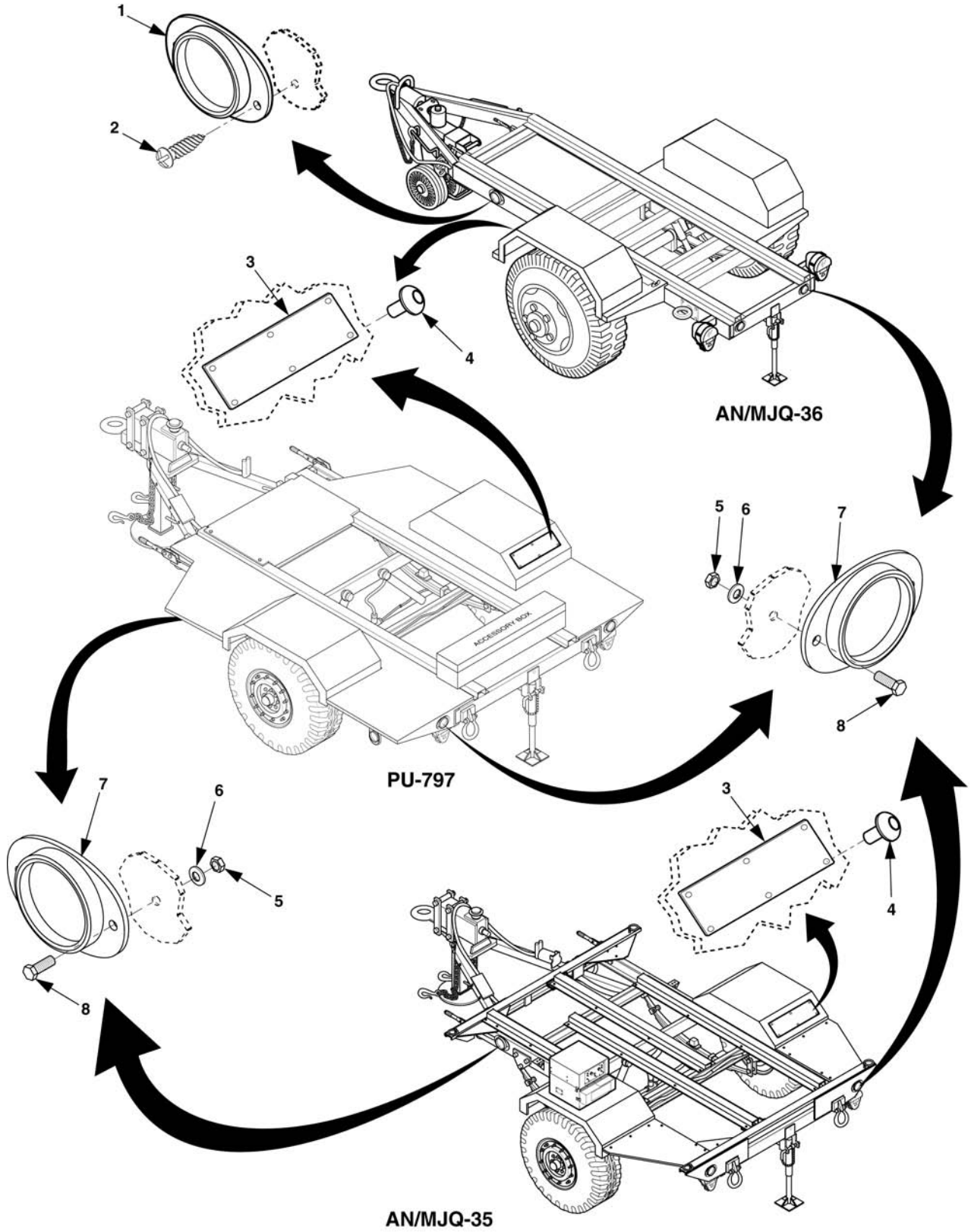


Figure 4-22. Identification/Transportation Data Plate and Reflector Replacement

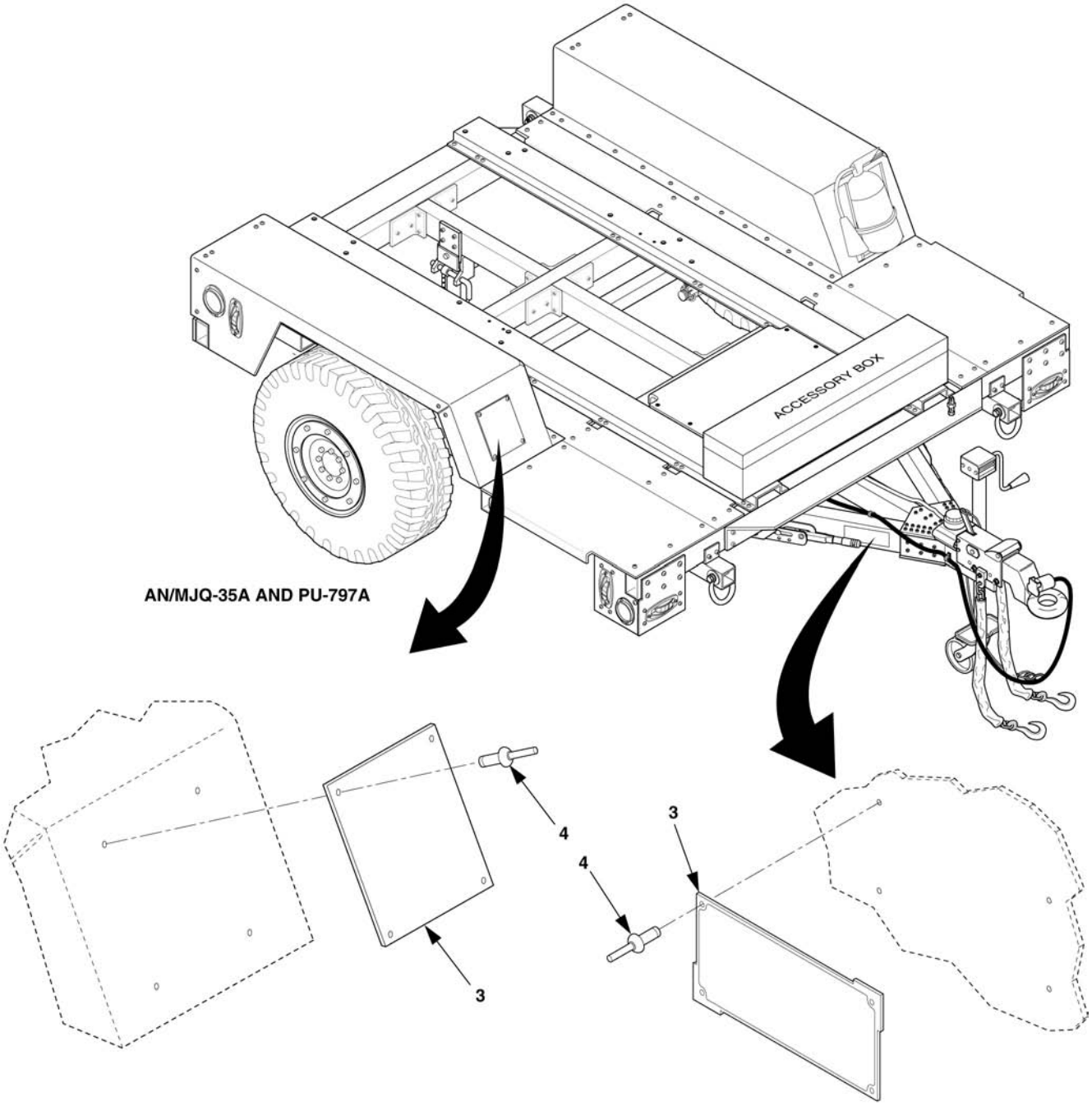


Figure 4-22.1. Shipping Data/Identification Plate Replacement (AN/MJQ-35A and PU-797A)

2. REPLACE REFLECTORS

NOTE

Refer to TM 9-2330-392-14&P for replacement of reflectors on AN/MJQ-35A and PU-797A.

a. Remove self-locking nuts (5, figure 4-22), flat washers (6), screws (8), and reflector (7) from trailer (AN/MJQ-35 and PU-797, and rear of AN/MJQ-36 only).

b. Remove self-tapping screws (2) and reflector (1) from front of trailer (AN/MJQ-36 only).

c. Install reflector, (7), screws (8), flat washers (6), and self-locking nuts (5) on trailer (AN/MJQ-35 and PU-797, and rear of AN/MJQ-36 only).

d. Install reflector (1) and self-tapping screws (2) on front of trailer (AN/MJQ-36 only).

4-23 AN/MJQ-35 TRAILER SPLASH GUARD, BRACKET, AND FENDER MAINTENANCE.

This task covers:
a. Removal
b. Installation
c. Repair
d. Replace

INITIAL SETUP

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Drill, 1/4-inch (item 2, appendix B)

Materials/Parts

Nuts, Self-locking
Washer, Lock, Split-ring
Covering, Deck

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.

Switch box assembly removed; paragraph 4-13 (roadside fender only)

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Use the aid of an assistant when removing the fender, splash guard, and switch box as an assembly. Failure to comply with this warning can cause severe personal injury.

REMOVAL

1. Remove wing nut (13, figure 4-23), two flat washers (14), nut (15), flat washer (16), ground cable (17), and flat washer (18).

NOTE

If replacing splash guards, ground stud and/or fire extinguisher bracket must be removed for installation on new splash guard. Perform steps 2 and/or 3. If not, proceed to step 4.

2. Remove two nuts (19), lock washers (20), internal tooth lock washers (21), and stud (23).

3. Remove fire extinguisher bracket (paragraph 4-20).

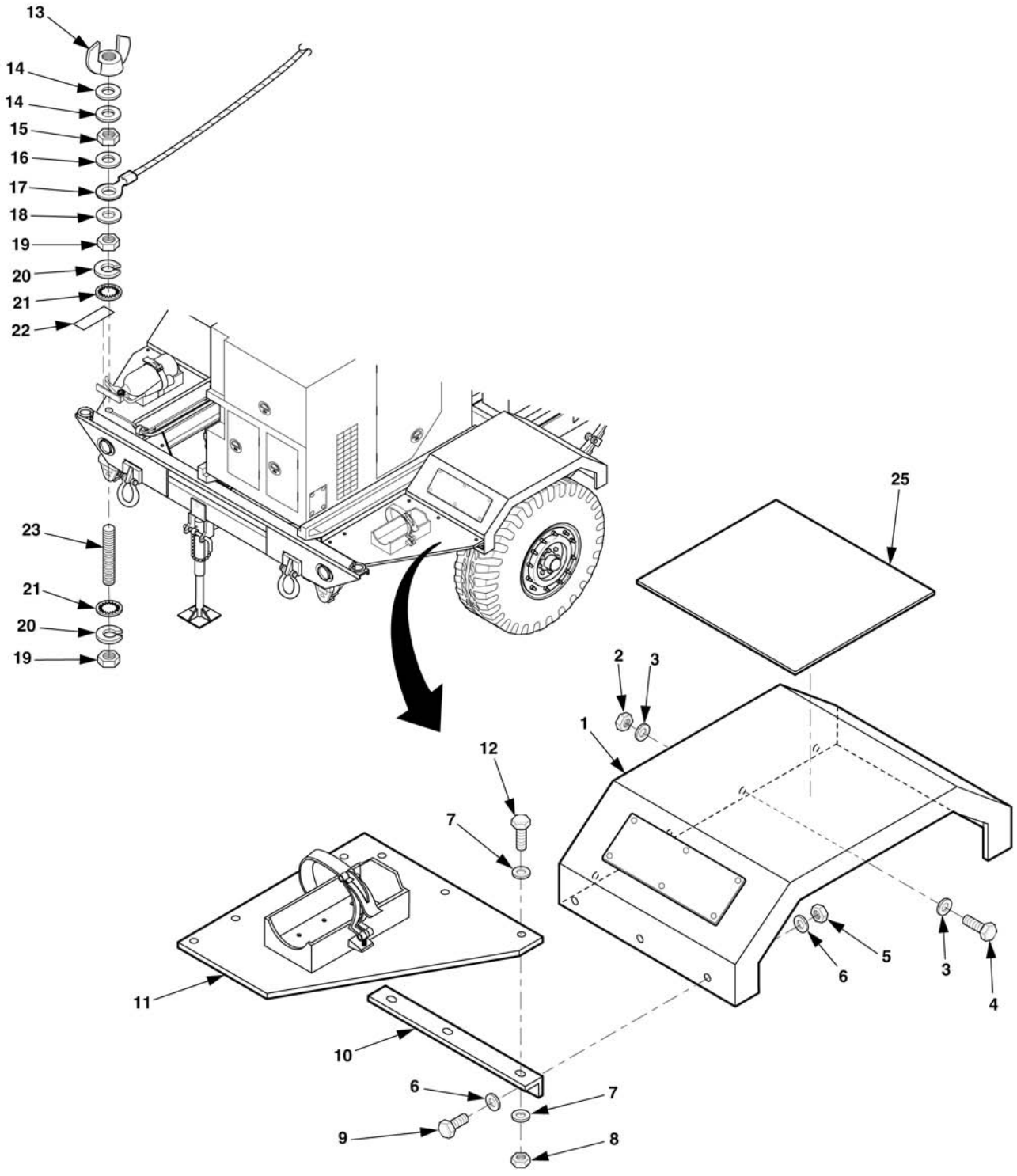


Figure 4-23. AN/MJQ-35 Splash Guard, Bracket, Ground Stud, and Fender.

NOTE

If replacing splash guards, ground stud and/or fire extinguisher bracket must be removed for installation on new splash guard. Perform steps 2 and/or 3. If not, proceed to step 4.

4. Remove data plate (paragraph 4-22).

5. Remove six self-locking nuts (8, figure 4-23), twelve flat washers (7), six cap screws (12), and splash guard (11).

6. Remove three self-locking nuts (5), six flat washers (6), three cap screws (9), and bracket (10).

7. Remove six self-locking nuts (2), 12 flat washer (3), six screws (4), and fender (1).

WARNING

Use the aid of an assistant when removing the fender, splash guard, and switch box as an assembly. Failure to comply with this warning can cause severe personal injury.

INSTALLATION

1. Install fender (1) to trailer chassis using six cap screws (4), 12 flat washers (3), and six self-locking nuts (2).

NOTE

If new curbside fender is being installed, data plate removed during removal procedures must be installed. Perform step 2. If not, proceed to step 3.

2. Install data plate (paragraph 4-22).

3. Install bracket (10, figure 4-23) on fender (1) using three cap screws (9), six flat washers (6), and three self-locking nuts (5).

4. Install splash guard (11) on bracket (10) and mounting rail using six cap screws (12), 12 flat washers (7), and six self-locking nuts (8).

NOTE

If new splash guard is being installed, the ground stud and/or fire extinguisher bracket removed during removal procedures must be installed. Perform steps 5 and 6. If not, proceed to step 7.

5. Install fire extinguisher bracket (paragraph 4-20).

6. For roadside splash guard, install ground stud (23), two internal tooth lock washers (21), lock washers (20), nuts (19), and GROUND data plate (22).

7. Install flat washer (18), ground wire (17), flat washer (16), nut (15), two flat washers (14), and wing nut (13).

REPAIR

NOTE

Repair is limited to replacement of non-skid material (25). Refer to figure G-6, appendix G.

REPLACE

Replace procedures are the same as Remove and Installation.

4-24 PU-797 AND AN/MJQ-36 TRAILER PLATFORM MAINTENANCE.

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

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.

Accessory box removed; paragraph 4-19 (AN/MJQ-36 only).

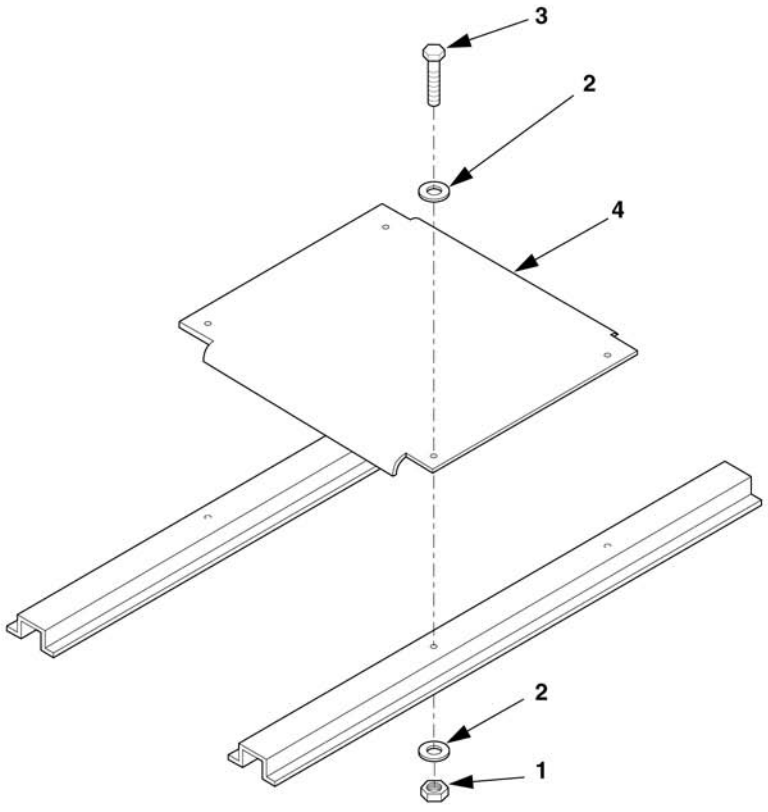


Figure 4-24. PU-797 and AN/MJQ-36 Trailer Platform.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

REMOVAL

Remove four self-locking nuts (1, figure 4-24), eight flat washers (2), four screws (3), and trailer platform (4).

INSTALLATION

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

REPLACE

Replace procedures are the same as Remove and Installation.

4-25 PU-797 FENDER MAINTENANCE.

This task covers:
a. Removal
b. Installation
c. Repair
d. Replace

INITIAL SETUP

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Drill, 1/4-inch (item 2, appendix B)

Materials/Parts

Nuts, Self-locking
Washer, Lock, Split-ring
Covering, Deck

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.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Use the aid of an assistant when removing the fender, splash guard, and switch box as an assembly. Failure to comply with this warning can cause severe personal injury.

REMOVAL

1. Remove wing nut (8, figure 4-25), two flat washers (9), nut (10), flat washer (11), ground cable (12), and flat washer (13).

NOTE

If fender is being replaced, fire extinguisher bracket, data plate, ground stud, and reflectors must be removed and retained for installation on new fender. If replacing roadside fender, perform steps 2,3, 5, and 6.

2. Remove two nuts (14), lock washers (15), internal tooth lock washers (16), and ground stud (18).
3. Remove fire extinguisher bracket (paragraph 4-20) and reflectors (paragraph 4-22).
4. Remove data plate and reflectors (paragraph 4-22).
5. Remove ten self-locking nuts (5), twenty flat washers (4), and ten cap screws (6).

6. Remove five self-locking nuts (3), ten flat washers (2), five cap screws (1), and fender (7).

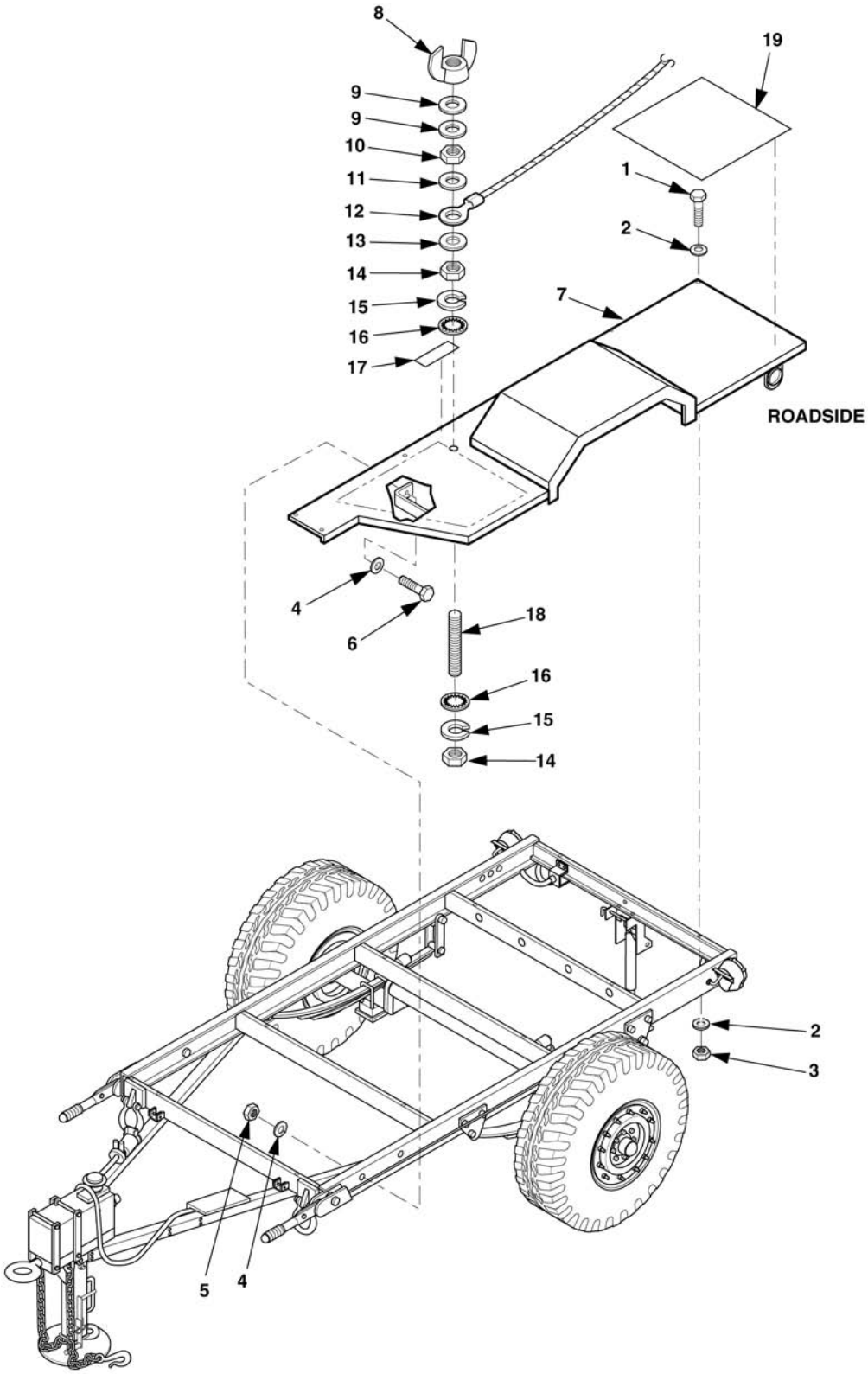


Figure 4-25. PU-797 Fender.

INSTALLATION

1. Position fender (7, figure 4-25) on trailer chassis and loosely install five cap screws (1), ten flat washers (2), and five self-locking nuts (3).

2. Install and tighten ten cap screws (6), twenty flat washers (4), and ten self-locking nuts (5).

3. Tighten five self-locking nuts (3).

NOTE

If new fender(s) are being installed, fire extinguisher bracket, data plate, ground stud, and reflectors removed during removal procedures must be installed. If replacing roadside fender, perform steps 4, 5, and 6. If not, proceed to step 8. If replacing curbside fender, perform steps 6 and 7.

4. Install fire extinguisher bracket (paragraph 4-20).

5. Install ground stud (18), two internal tooth lock washers (16), lock washers (15), nuts (14), and ground data plate (17) using adhesive.

6. Install reflectors (paragraph 4-22).

7. Install data plates (paragraph 4-22).

8. Install flat washer (13), ground wire (12), flat washer (11), nut (10), two flat washers (9), and wing nut (8).

REPAIR

NOTE

Repair is limited to replacement of deck covering (19). Refer to figure G-6, appendix G.

REPLACE

Replace procedures are the same as Remove and Installation.

4-26 AN/MJQ-36 FENDER MAINTENANCE

This task covers:
a. Removal
b. Installation
c. Repair
d. Replace

INITIAL SETUP

Tools

Tool Kit, General Mechanic's
(item 1, appendix B)
Drill, 1/4-inch
(item 2, appendix B)

Materials/Parts
Nuts, Self-locking
Covering, Deck

Equipment Conditions

Reference

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

Switch box removed (only if roadside fender is being replaced); paragraph 4-13.

Personnel Required

Two

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Use the aid of an assistant when removing the fender, splash guard, and switch box as an assembly. Failure to comply with this warning can cause severe personal injury.

REMOVAL

1. Remove wing nut (9, figure 4-26), two flat washers (10), nut (11), flat washer (12), ground cable (13), and flat washer (14).

NOTE

If fender is being replaced, fire extinguisher bracket and/or ground stud and data plate must be removed and retained for installation on new fender. If replacing roadside fender, perform steps 2, 3, 4, 5, and 6. If replacing curbside fender, perform steps 3, 5, and 6.

2. Remove two nuts (15), lock washers (16), internal tooth lock washers (17), and ground stud (19).

3. Remove fire extinguisher bracket (paragraph 4-20).

4. Remove data plate (paragraph 4-22).

5. Remove four self-locking nuts (1), eight flat washers (2), and four cap screws (3).

6. Remove five self-locking nuts (4), ten flat washers (5), five cap screws (6), and fender (7).

INSTALLATION

1. Loosely install fender (7, figure 4-26), five screws (6), ten flat washers (5), and five self-locking nuts (4).

2. Install and tighten four cap screws (3), eight flat washers (2), and four self-locking nuts (1).

3. Tighten five self-locking nuts (4).

NOTE

If replacing fender(s), fire extinguisher bracket, and/or data plate, and ground stud removed during removal procedures must be retained and reinstalled. If replacing roadside fender, perform steps 4, 5, 6 and 7. If replacing curbside fender, perform step 4.

4. Install fire extinguisher bracket (paragraph 4-20).

5 Install data plate (paragraph 4-22).

6 Install ground stud (19), two internal tooth lock washers (17), lock washers (16), nuts (15), and ground data plate (18).

7. Install flat washer (14), ground wire (13), flat washer (12), nut (11), two flat washers (10), and wing nut (9).

REPAIR

NOTE

Repair is limited to replacement of deck covering (8). Refer to figure G-6, appendix G.

REPLACE

Replace procedures are the same as Remove and Installation.

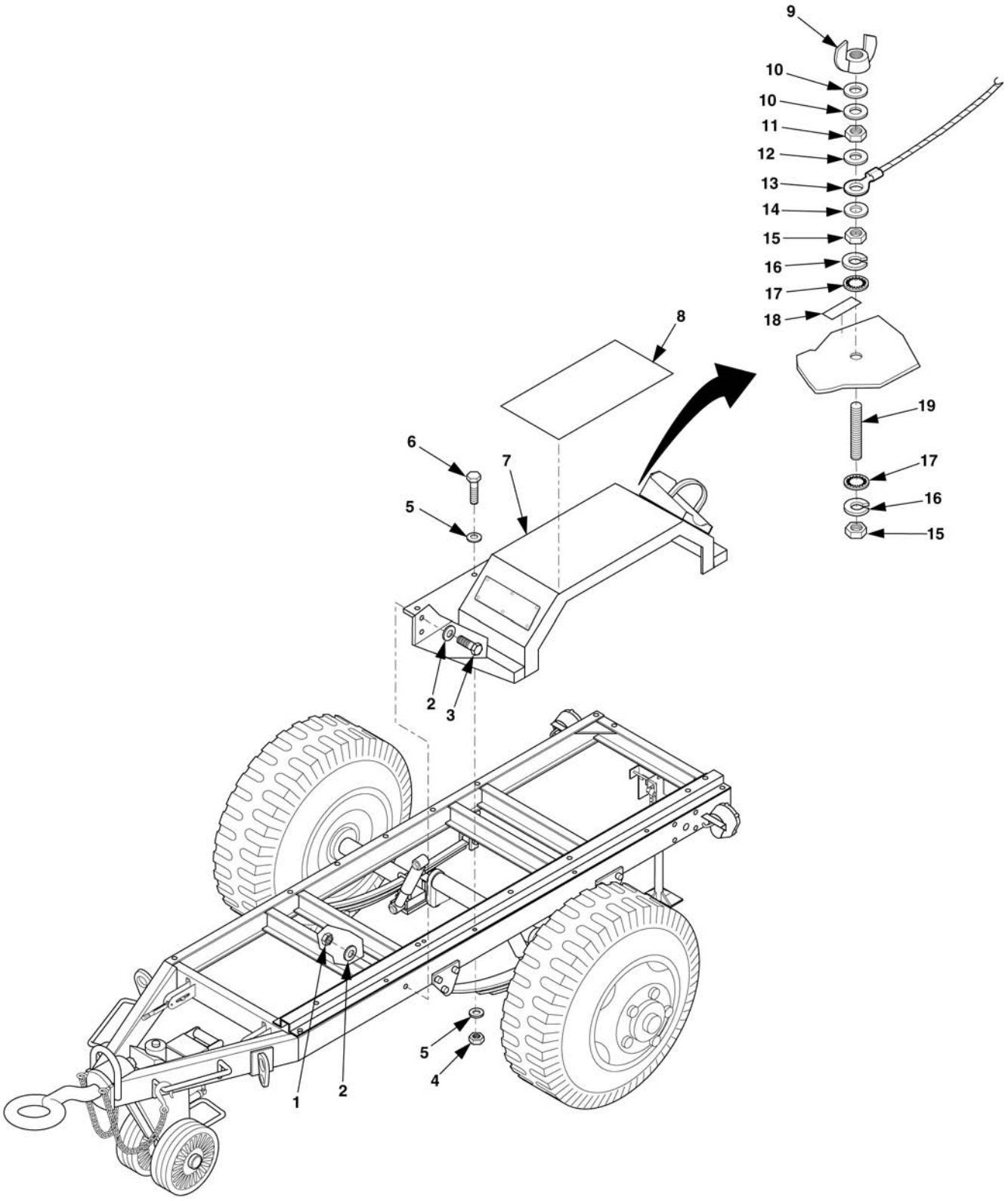


Figure 4-26. AN/MJQ-36 Fender.

4-27 1 TON TRAILER REAR LEVELING-SUPPORT JACK MAINTENANCE.

This task covers:
a. Inspect
b. Service
c. Removal
d. Installation
e. Repair

INITIAL SETUP

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Jack Stand (item 2, appendix B)
Vise (item 2, appendix B)

Materials/Parts

Pin, Cotter
Nut, Self-locking, General Purpose
Pin, Spring
Fitting, Lubrication (if Needed)
Grease, GAA (item 3, Appendix E)

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.

INSPECT

Inspect for operability, corrosion, damage, etc.

SERVICE

Refer to Chapter 3-1 Operator Lubrication.

REMOVAL

WARNING

Before removing trailer leveling-support jack, support rear of trailer with jack stand (s). 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 4-27) 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 cap screws (9).
7. Remove self-locking nut (3), two flat washers (2 and 14), and cap screw (13). Remove bracket (7) from trailer chassis (1).

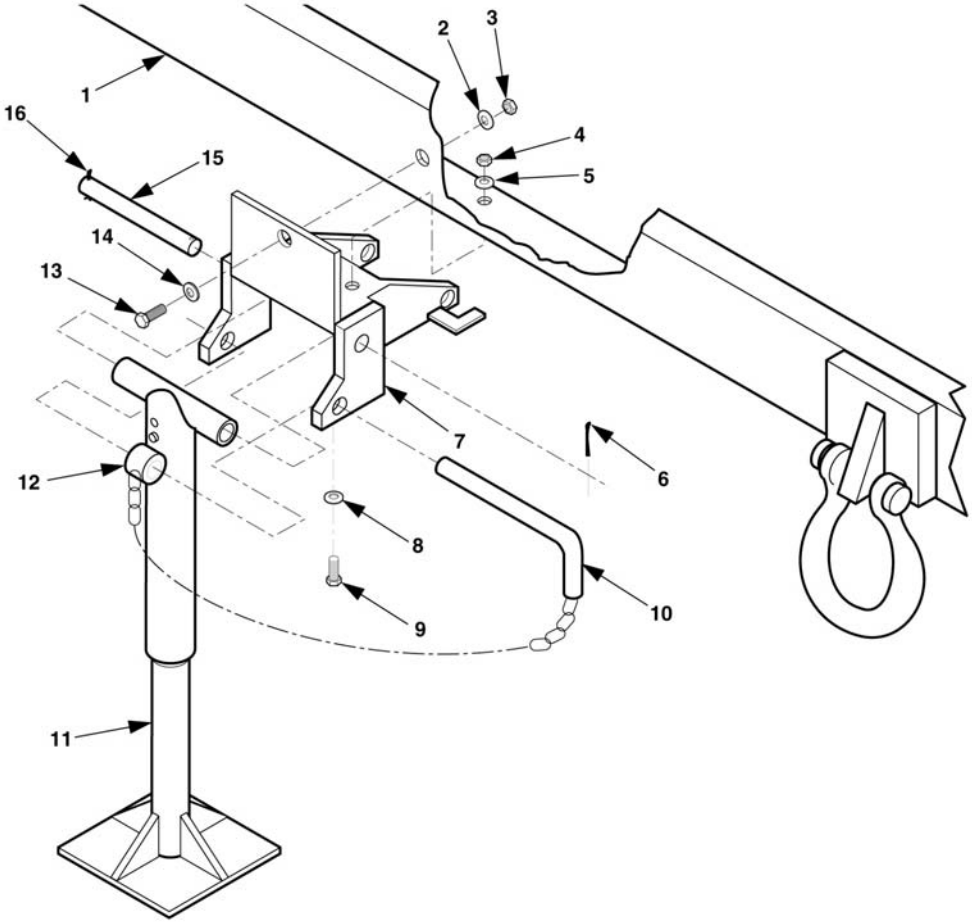


Figure 4-27. Rear Leveling-Support Jack Replacement, 1 Ton Trailer.

INSTALLATION

WARNING

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

1. Install bracket (7, figure 4-27) on trailer chassis (1), with flat washer (14) and cap screw (13), through mounting hole in bracket (7) on trailer chassis (1).
2. Install flat washer (2) and a new self-locking nut (3) on cap screw (13).
3. Install cap screws (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.

REPAIR

WARNING

Before removing trailer rear leveling-support jack, support rear of trailer with jack stand (s). 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 4-27) 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.

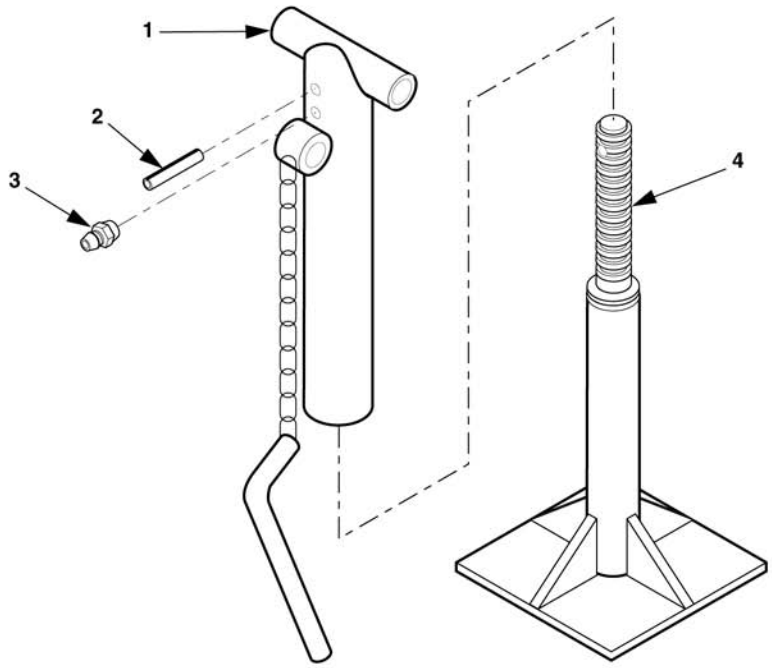


Figure 4-28. Rear Leveling-Support Jack Repair, 1 Ton Trailer.

2. Assemble trailer rear leveling-support jack.

   a. If removed in disassembly, install lubrication fitting (3), figure 4-28.

   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).

4-28 PU-797A AND AN/MJQ-35A GROUND STUD REPLACEMENT.

This task covers: a. Removal b. Installation

INITIAL SETUP

Tools

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

Materials/Parts
Washer, Lock (item 4, appendix I)

Equipment Conditions

Reference

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.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

REMOVAL

NOTE

Figure 2-8 contains location of ground stud.

1. Loosen nut (1, figure 4-29) and remove ground wire (2) from ground stud (3).
2. Remove nut (4), lock washer (5), flat washer (6), and ground stud (3).

INSTALLATION

1. Install ground stud (3), flat washer (6), lock washer (5), and nut (4). Tighten nut (4).
2. Install ground wire (2) in slot of ground stud (3) and tighten nut (1).

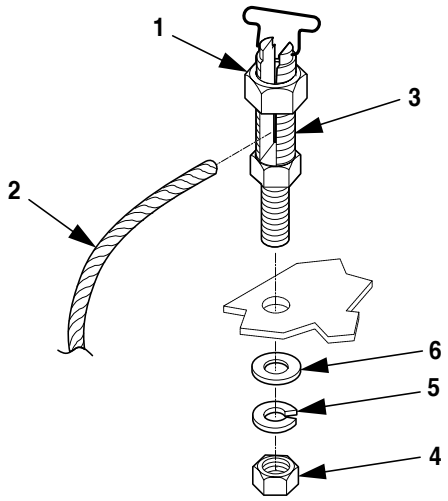


Figure 4-29. PU-797A and AN/MJQ-35A Ground Stud Replacement.

4-29 REMOVAL OF ON, ON-LINE, and SYCHRONIZING LAMPS DURING MISSION:

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

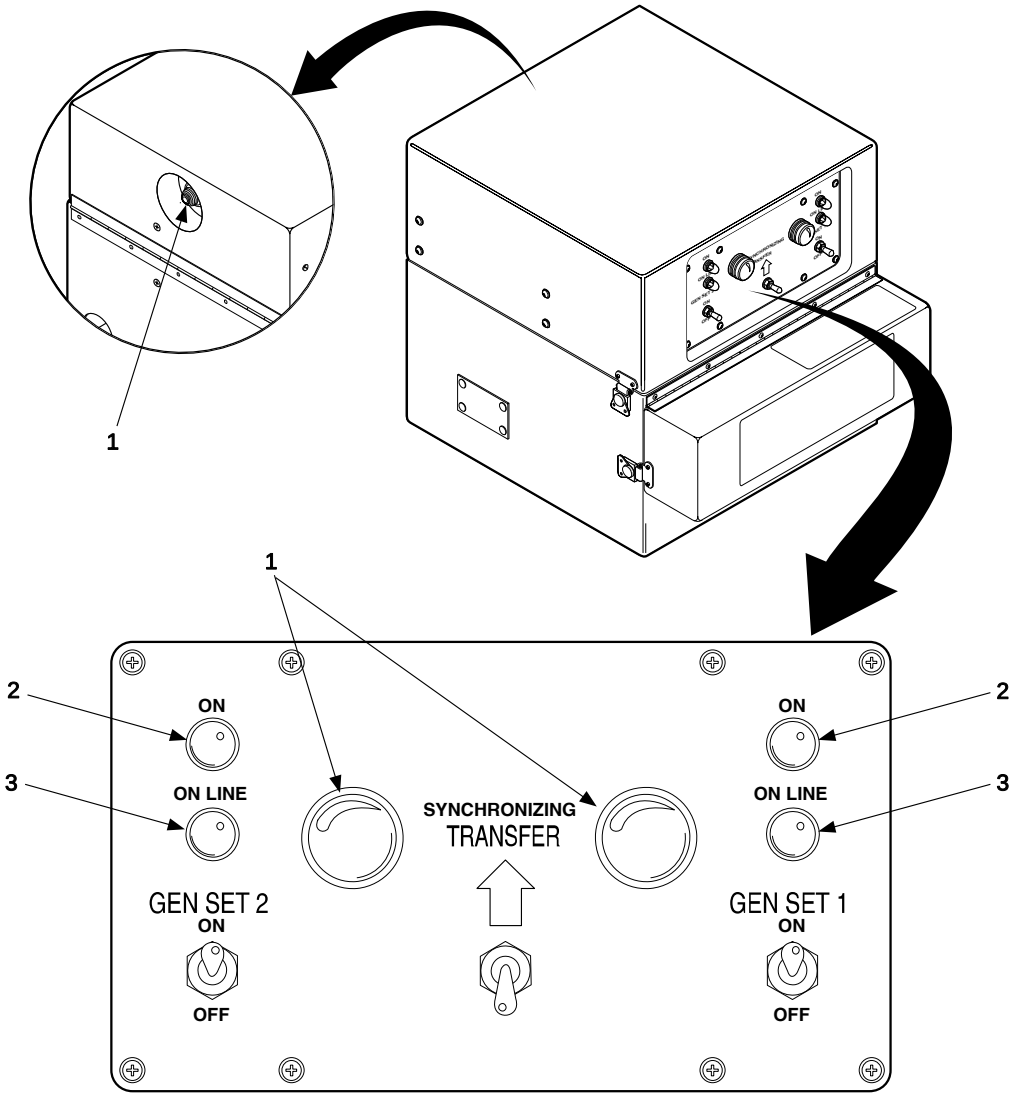
Dangerous voltage exists on live circuits. Always observe precautions and never work alone. Failure to comply with this warning can cause injury or death to personnel.

In the event that the right front and rear synchronizing bulbs do not light during the transfer procedure and the mission cannot be terminated to check the bulbs as described in fig. 3-3, the bulbs will have to be removed as follows with one set running:

NOTE

Failure to maintain the rear bulb operational will cause the switch box to transfer load at any time, throwing both generator sets off line.

1. Shut the on coming generator down, to remove power from the switchbox.
2. Remove the SYCHRONIZING (Item 1) bulb(s), and replace the burned out bulb(s) with new, if available and proceed with transfer.
3. If no spare bulbs are available, swap the left front bulb with the burned out bulb and proceed with the transfer.



Item No.	Item Name
1	SYNCHRONIZING INDICATOR LAMPS
2	ON INDICATOR LAMPS
3	ON-LINE INDICATOR LAMPS

Figure 4-30. ON, ON-LINE, and SYCHRONIZING LIGHTS (NEW).

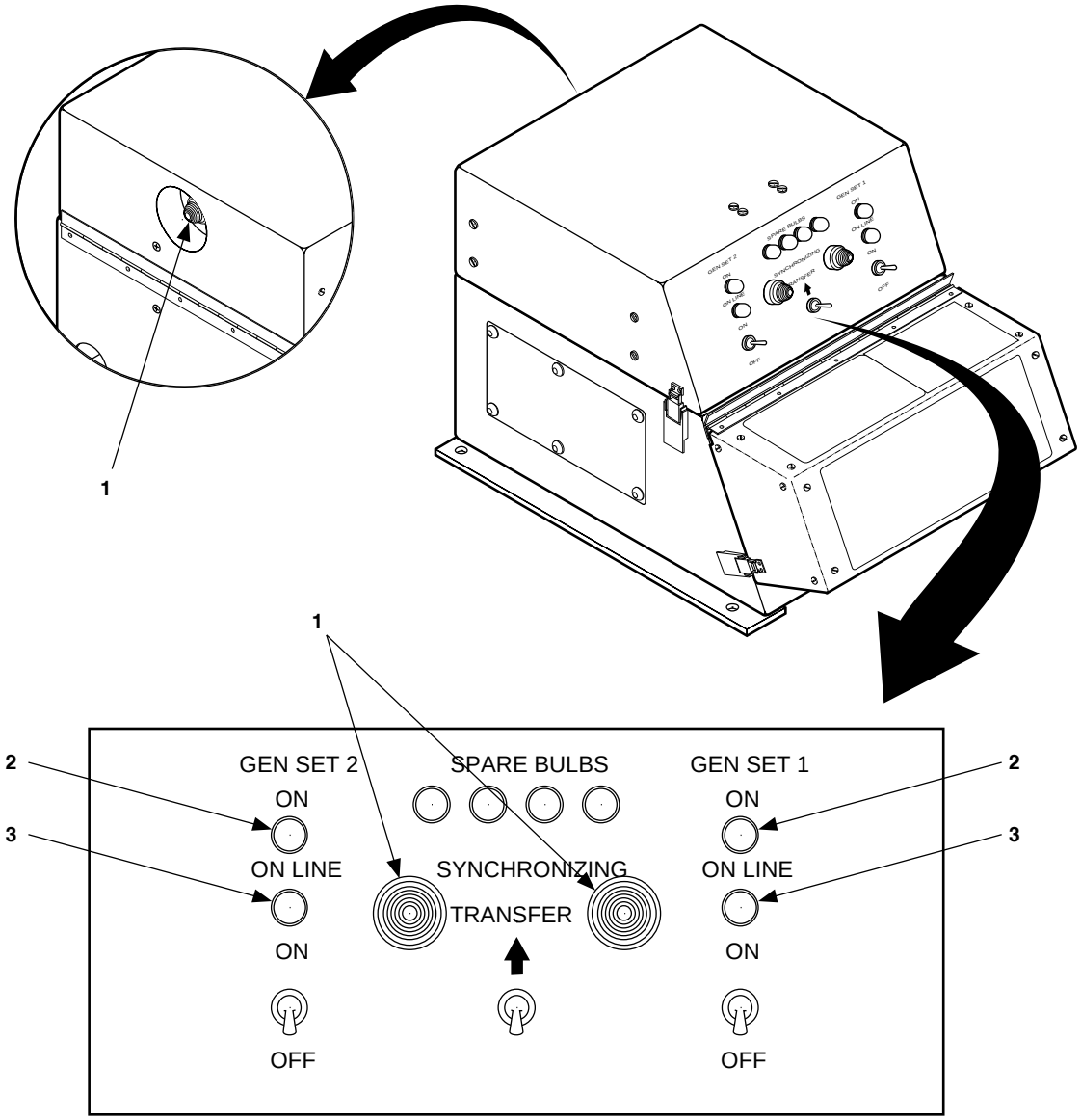


Figure 4-31. ON, ON-LINE, and SYCHRONIZING LIGHTS (OLD).

Section VII. PREPARATION FOR STORAGE OR SHIPMENT

4-30 ADMINISTRATIVE STORAGE.

4-30.1 Short Term Storage. This type of storage is used when the power plant/power unit 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/power unit 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.

4-30.2 Intermediate Term Storage. This type of storage is used when the power plant/power unit is expected to be stored from 45 to 180 days.

4-30.3 Long Term Storage. This type of storage is used when the power plant/power unit is expected to be stored for more than 180 days.

CHAPTER 5

DIRECT SUPPORT MAINTENANCE

Section I. REPAIR PARTS; SPECIAL TOOLS; TEST, MEASUREMENT, AND DIAGNOSTIC EQUIPMENT (TMDE); AND 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 9-6115-641-24P, engine TM 9-2815-252-24P, 1-ton trailer TM 9-2330-202-14&P, Light Tactical Trailer TM 9-2330-392-14&P, and 1 1/2 ton trailer TM 9-2330-213-14&P.

5-3 REPAIR PARTS.

5-3.1 Generator Set Repair Parts. Refer to generator set TM 9-6115-641-24P and engine TM 9-2815-252-24P.

5-3.2 Trailer Repair Parts. Refer to TM 9-2330-202-14&P for Power Plant AN/MJQ-35 and Power Unit PU-797, TM 9-2330-213-14&P for Power Plant AN/MJQ-36, and TM 9-2330-392-14&P for Power Plant AN/MJQ-35A and Power Unit PU-797A.

5-3.3 Power Plant/Power Unit Repair Parts. Power Plant/Power Unit repair parts not covered in the generator, engine, or trailer RPSTL are listed and illustrated in Appendix F.

Section II. TROUBLESHOOTING

5-4 GENERAL.

Paragraph 5-4.3 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.

5-4.1 Generator Set Troubleshooting. Refer to TM 9-6115-641-24 and TM 9-2815-252-24.

5-4.2 Trailer Troubleshooting. Refer to TM 9-2330-202-14&P for Power Plant AN/MJQ-35 and Power Unit PU-797, TM 9-2330-213-14&P for Power Plant AN/MJQ-36, and TM 9-2330-392-14&P for Power Plant AN/MJQ-35A AND Power Unit PU-797A.

5-4.3 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.

NOTE

Prior to the use of any of the following procedures, be sure the switch box is properly wired to the generators load terminals. Failure to do so will give misleading results.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. Make sure unit is completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting the load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.

SYMPTOM INDEX

WARNING

SHUT DOWN GENERATOR SETS BEFORE PERFORMING INTERNAL INSPECTION OF SWITCH BOX. FAILURE TO COMPLY WITH THIS WARNING CAN CAUSE INJURY OR DEATH TO PERSONNEL.

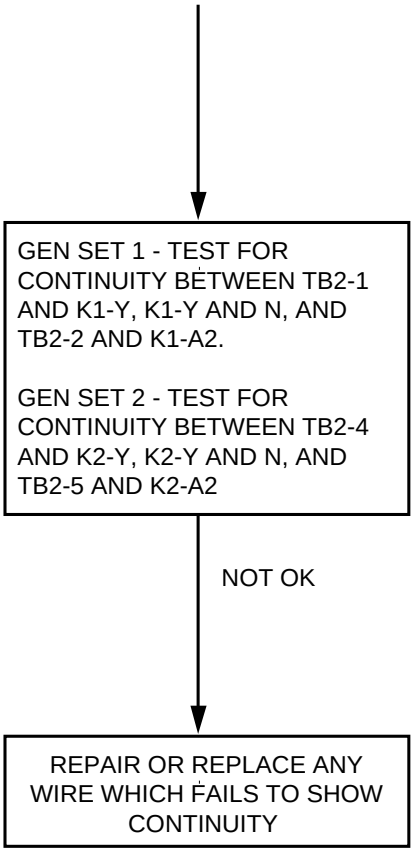


Figure 5-1. ON Indicator Lamp Assembly Tests Good, But ON Indicator Lamp Fails To Light With Generator Set Running.

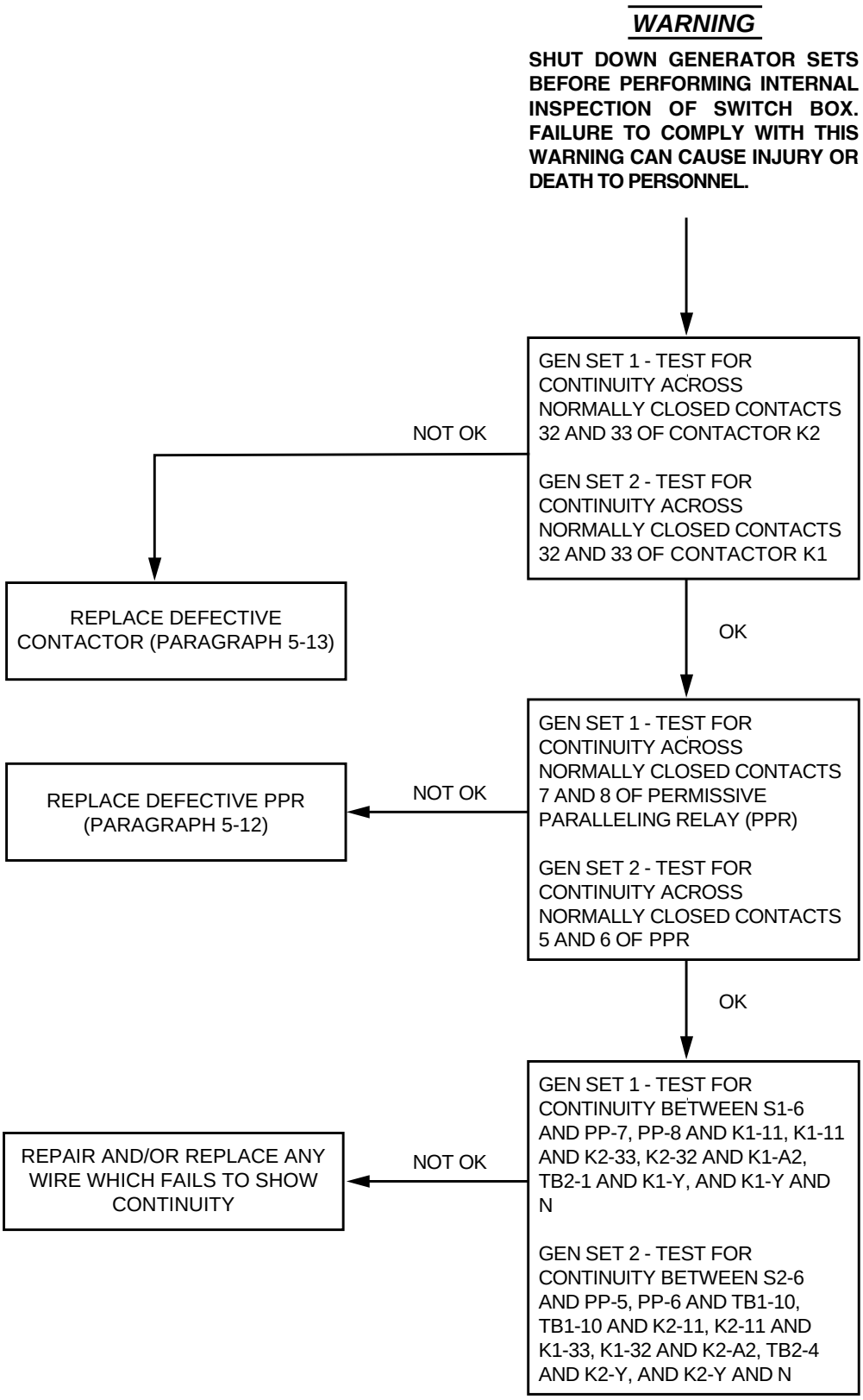


Figure 5-2. ON-LINE Indicator Lamp Assembly And ON/OFF Switch Serviceable But ON-LINE Indicator Lamp Fails To Light When ON/OFF Switch Is Placed In ON Position.

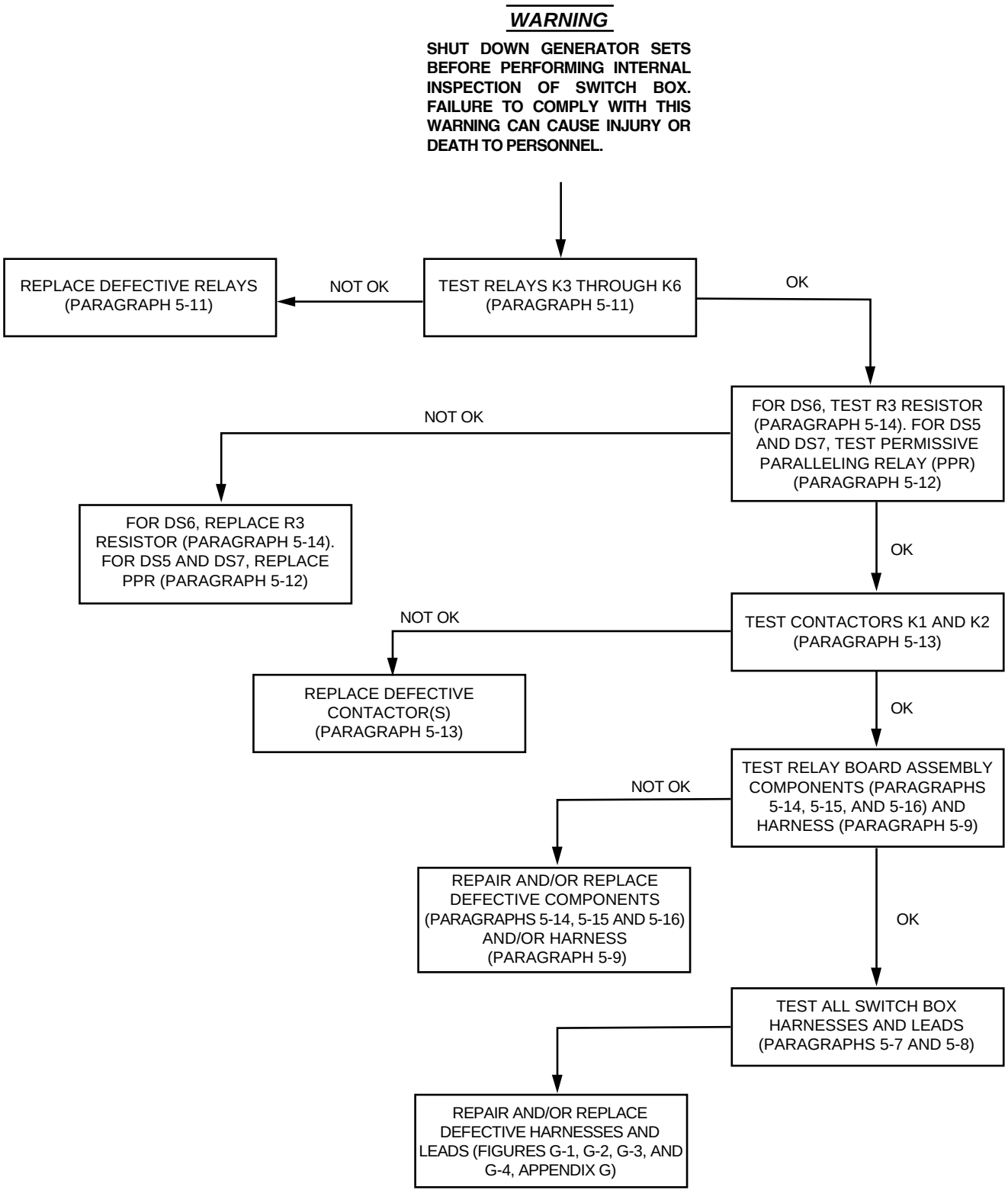


Figure 5-3. SYNCHRONIZING Indicator Lamp Assembly And Transfer Switch Serviceable, But SYNCHRONIZING Indicator Lamps Fail To Light When TRANSFER Switch Is Closed And Then Released.

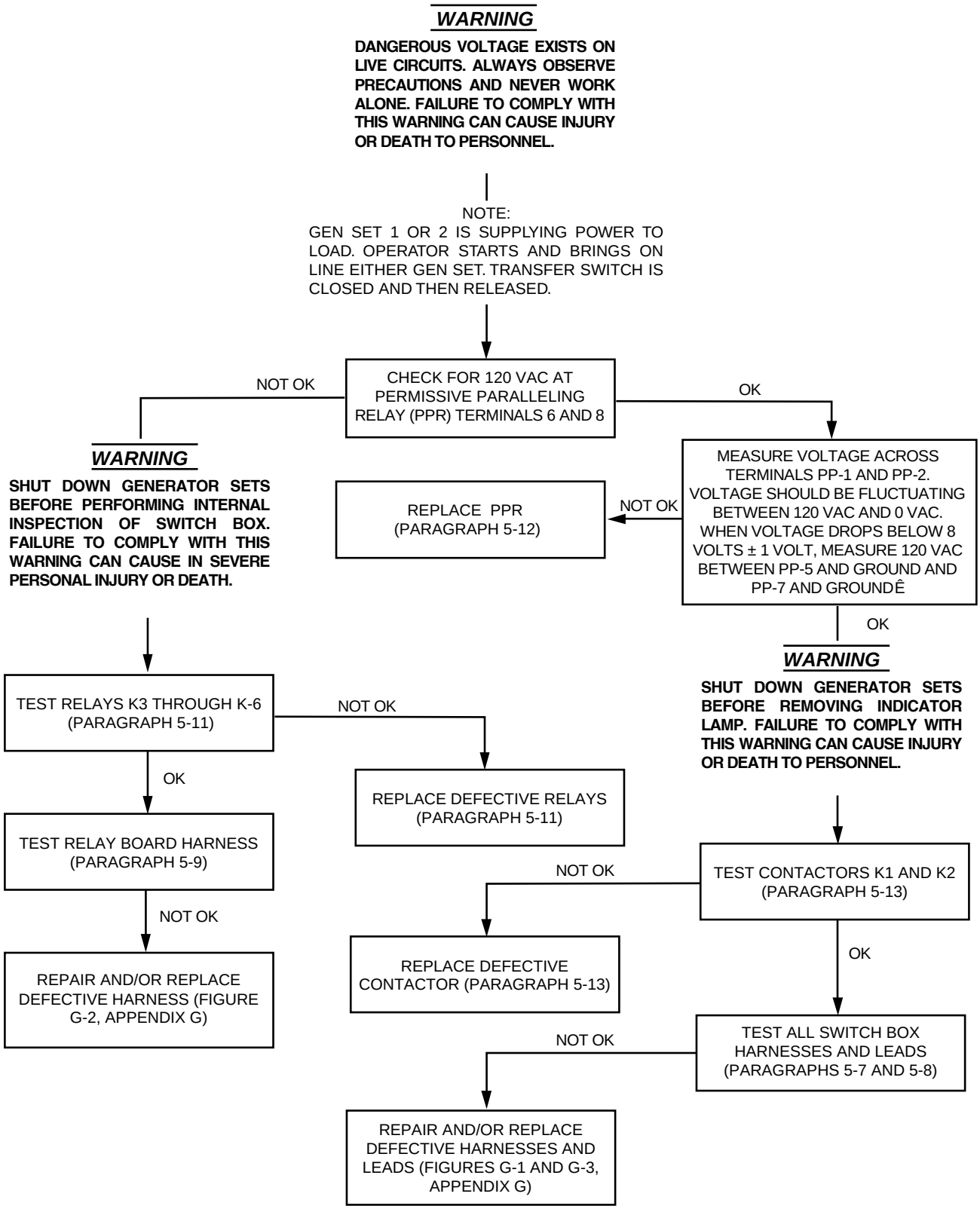


Figure 5-4. All Indicator Lamps Working Properly, But Load Will Not Transfer.

Section III. MAINTENANCE PROCEDURES

5-5 GENERAL.

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

5-5.1 Generator Set Maintenance. Refer to generator set TM 9-6115-641-24 and engine TM 9-2815-252-24.

5-5.2 Trailer Chassis Maintenance. Refer to TM 9-2330-202-14&P for Power Plant AN/MJQ-35 and Power Unit PU-797, TM 9-2330-392-14&P for Power Plant AN/MJQ-35A and Power Unit PU-797A, and TM 9-2330-213-14&P for Power Plant AN/MJQ-36.

5-6 GENERATOR SET MAINTENANCE.

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

INITIAL SETUP

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Torque Wrench, 0-150 ft-lb (item 3, appendix B)
Lifting Device, 1750 lbs. lifting capacity (item 3, appendix B)

Materials/Parts

Nuts, Self-locking
Washers, Lock (item 5, appendix I)

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.

Power cable leads (AN/MJQ-35, AN/MJQ-35A, and AN/MJQ-36) or load cable leads (PU-797 and PU-797A) and ground cable disconnected from generator set load terminals; Paragraph 4-12 and TM 9-6115-641-10.

External fuel source disconnected; paragraph 2-7.5

Personnel Required

Two

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting the load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

When lifting generator set, use lifting equipment with minimum lifting capacity of 1750 pounds (793.8 kg). Do not stand or put arms, legs, or any part of the body under hoisted load. Do not permit generator set to swing. Failure to comply with this warning can result in personal injury or death and damage to equipment.

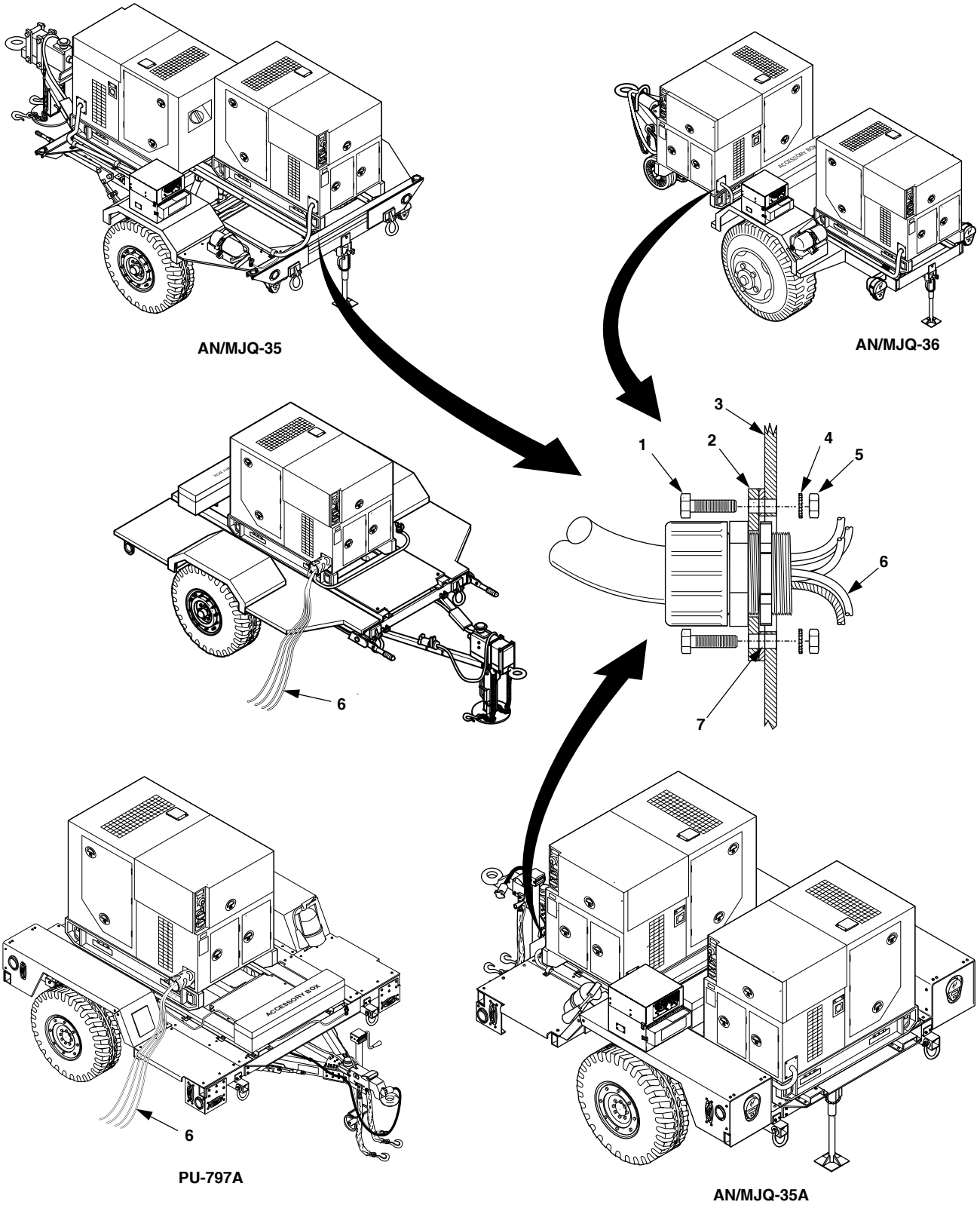


Figure 5-5. Power/Load Cable Removal.

REMOVAL

1. Remove four nuts (5, figure 5-5), lock washers (4) and cap screws (1) from generator output plate (2).

2. For AN/MJQ-35, AN/MJQ-35A and AN/MJQ-36, carefully pull generator output plate (2) away from generator set housing (3). For Power Plants and Power Unit, pull until power cable leads and ground cable (6) are free of generator set housing (3). Remove and retain gasket (7).

NOTE

Steps 3 through 6 must be performed if removing AN/MJQ-35 front generator set.

3. Remove four nuts (3, figure 5-6), flat washers (2), and screws (1) from cable clamps (4).

4. Remove three nuts (7), six flat washers (6), and three screws (5) from inboard edge of splash guard (11).

WARNING

Use the aid of an assistant when removing fender, splash guard, and switch box as an assembly. Failure to comply with this warning can cause severe personal injury.

5. Remove four nuts (10), eight flat washers (9), and four screws (8) from fender (12).

6. Remove fender, splash guard, and switch box from trailer as an assembly.

NOTE

Hardware holding generator sets on trailers differs between configurations. When removing generator sets, refer to figure 5-7 to determine hardware used.

7. Remove self-locking nuts (1, figure 5-7), flat washers (2), lock washers (4), and cap screws (3).

8. Attach a four-leg sling to the four lifting/tiedown rings at the corners of the generator set skid base. The sling must meet the dimension requirements shown on the generator set lifting and tiedown diagram plate.

WARNING

When lifting generator set, use lifting equipment with minimum lifting capacity of 1750 pounds (793.8 kg). Do not stand or put arms, legs, or any part of body under hoisted load. Do not permit generator set to swing. Failure to comply with this warning can result in personal injury or death and damage to equipment.

9. Using a wrecker, crane, or other lifting device having a lifting capacity of at least 1750 lb (793.8 kg) and sufficient lifting height, lift generator set (6) from trailer.

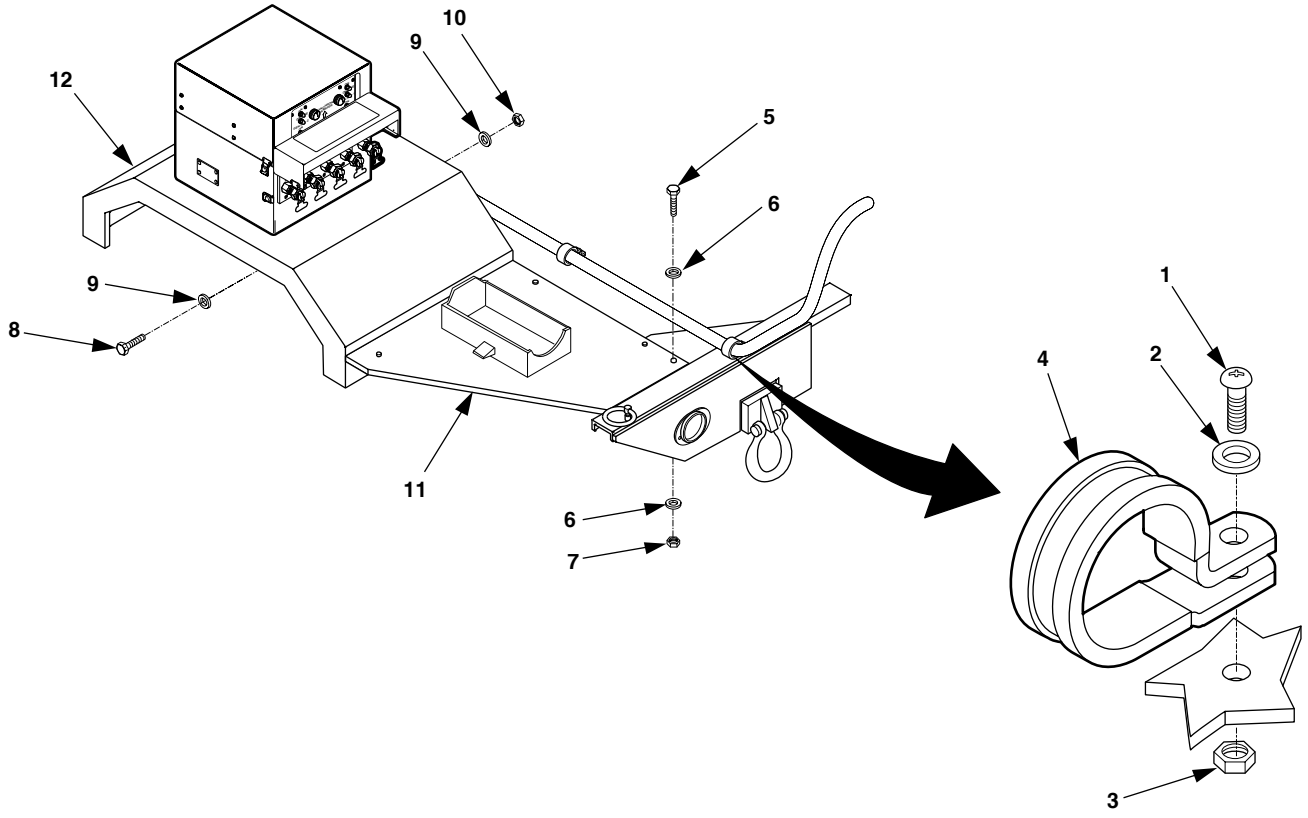


Figure 5-6. AN/MJQ-35 Roadside Fender Assembly Removal.

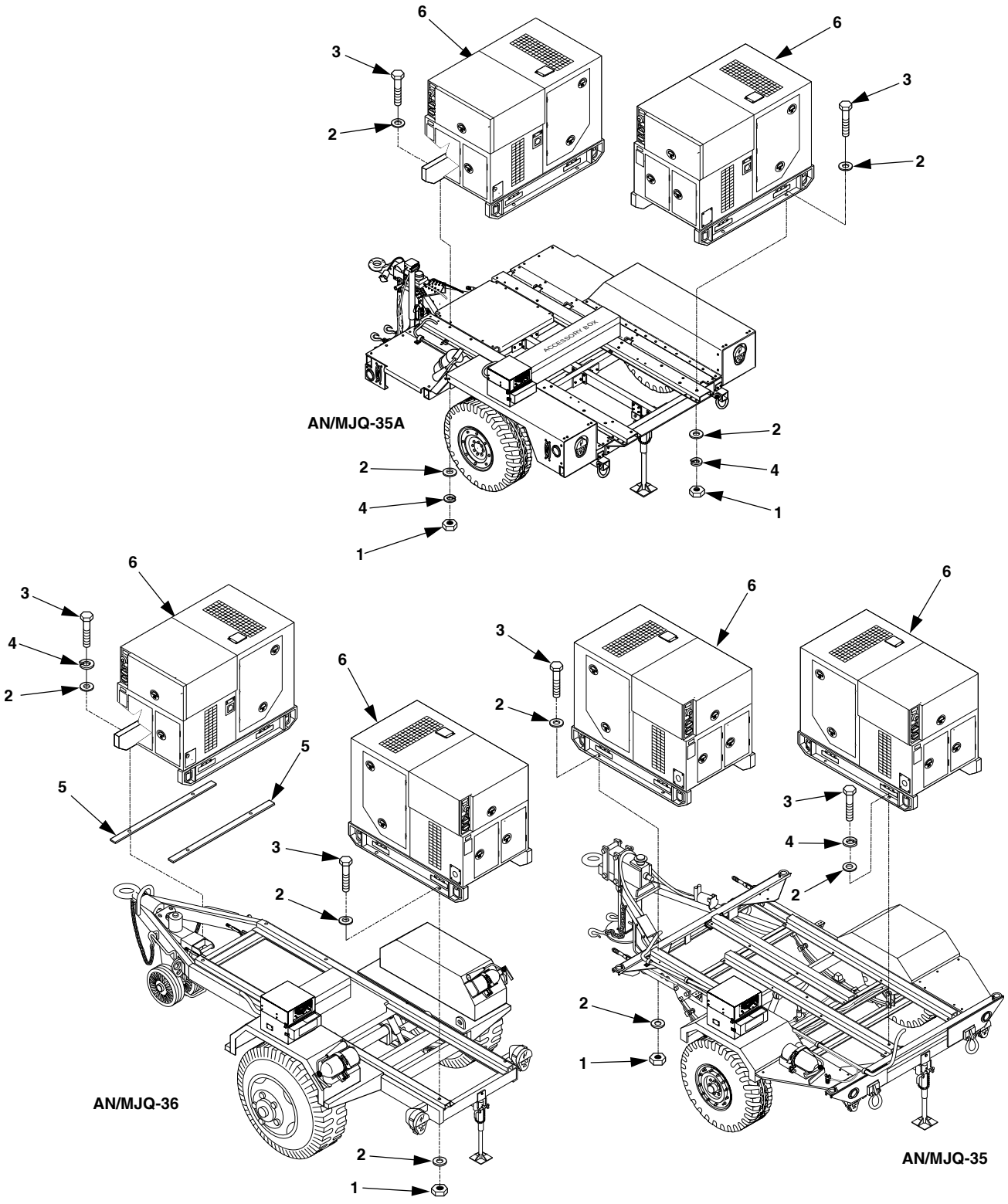


Figure 5-7. Removing Generator Set Mounting Hardware (Sheet 1 of 2).

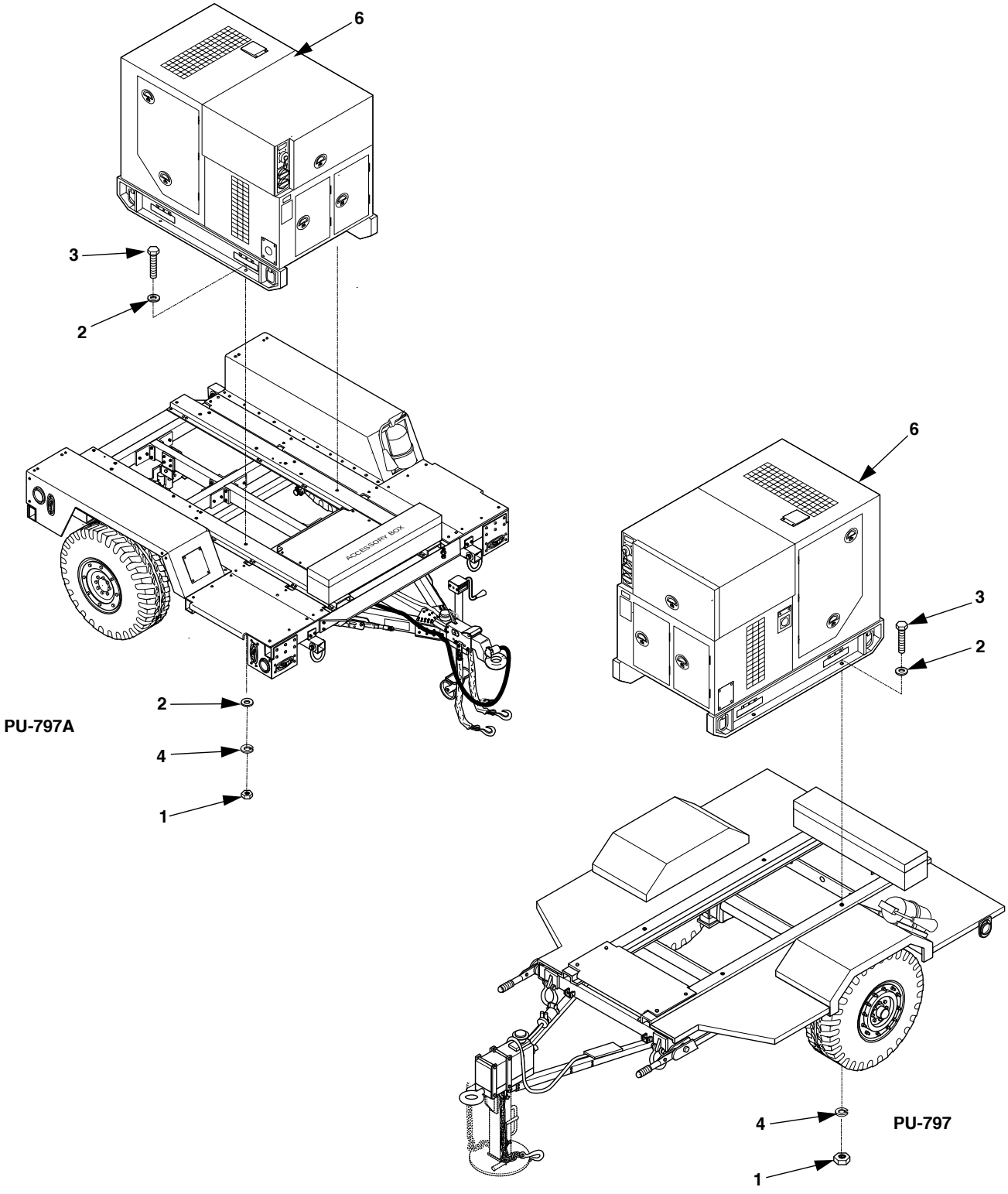


Figure 5-7. Removing Generator Set Mounting Hardware (Sheet 2 of 2).

INSTALLATION

1. Using the same sling as in removal step 8, attach sling to generator set lifting/tiedown rings.

2. Using the same lifting device as in removal step 9, lift generator set (6) and position it on trailer.

NOTE

The location of hardware holding generator sets on trailers differs between configurations. When installing generator sets, refer to figure 5-7 to determine hardware used. Position lock washers as noted in disassembly.

3. Install self-locking nuts (1, figure 5-7), flat washers (2), lock washers (4), and cap screws (3). Torque to 80-88 lb-ft (108.5-119.3 N•m).

4. Position fender, splash guard, and switch box (as an assembly) on trailer chassis.

5. Install four screws (8, figure 5-6), eight flat washers (9), and four self-locking nuts (10) in fender (12).

6. Install three screws (5), six flat washers (6), and three self-locking nuts (7) in inboard edge of splash guard (11).

7. Install cable clamps (4), screws (1), flat washers (2), and self-locking nuts (3).

8. Insert power cable electrical leads and ground cable through generator set access opening from which generator output plate was removed in removal step 1.

9. Position generator output plate (2, figure 5-5, AN/MJQ-35, AN/MJQ-35A and AN/MJQ-36 only) with gasket (7) against generator set housing (3). Secure with four cap screws (1), lock washers (4), and nuts (5).

10. Refer to TM 9-6115-641-10 and connect power cable ends (6) to generator set load terminals as follows:

    (1) Lead marked L1 to L1

    (2) Lead marked L2 to L2

    (3) Lead marked L3 to L3

    (4) Lead marked N to N

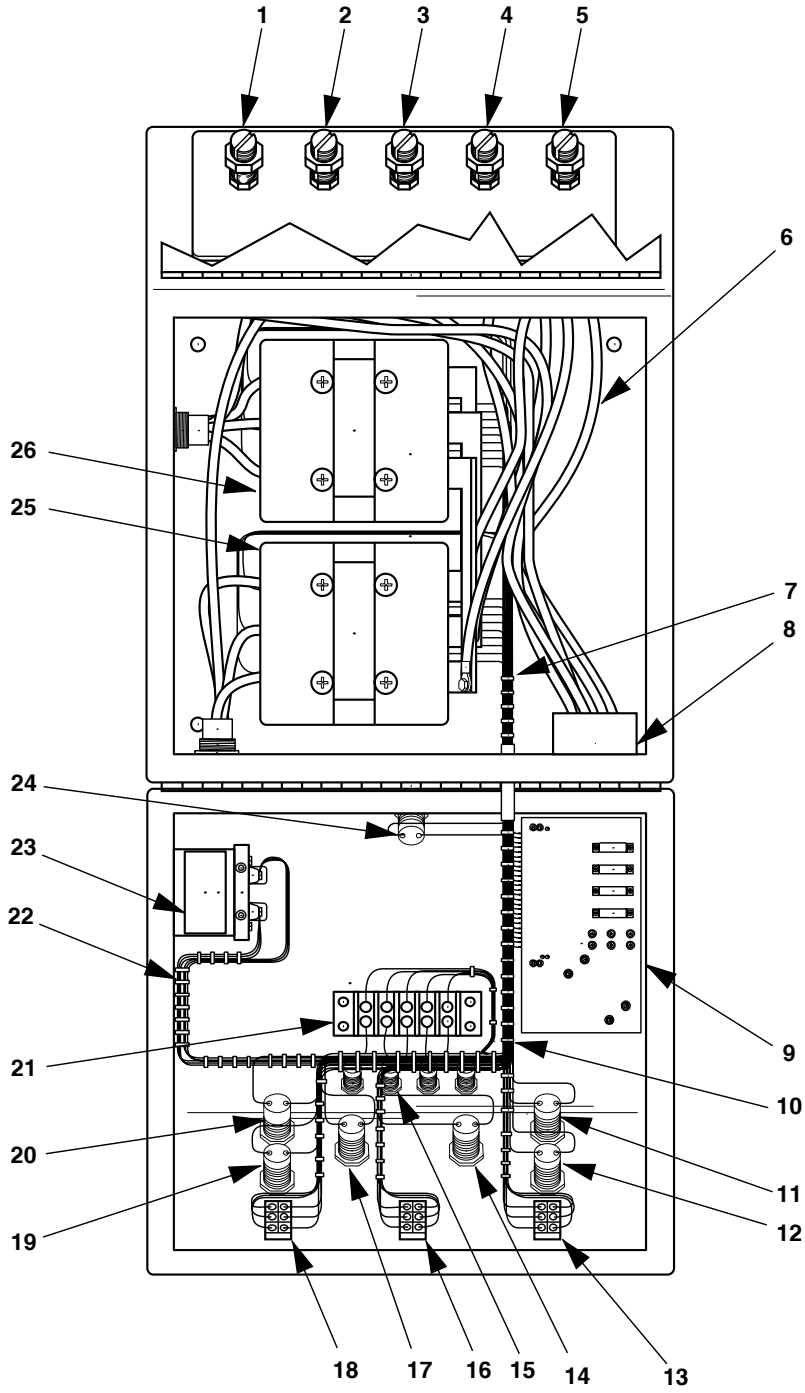
    (5) Ground cable to GND terminal

REPLACE

Replace procedure is the same as removal and installation procedure.

NOTE

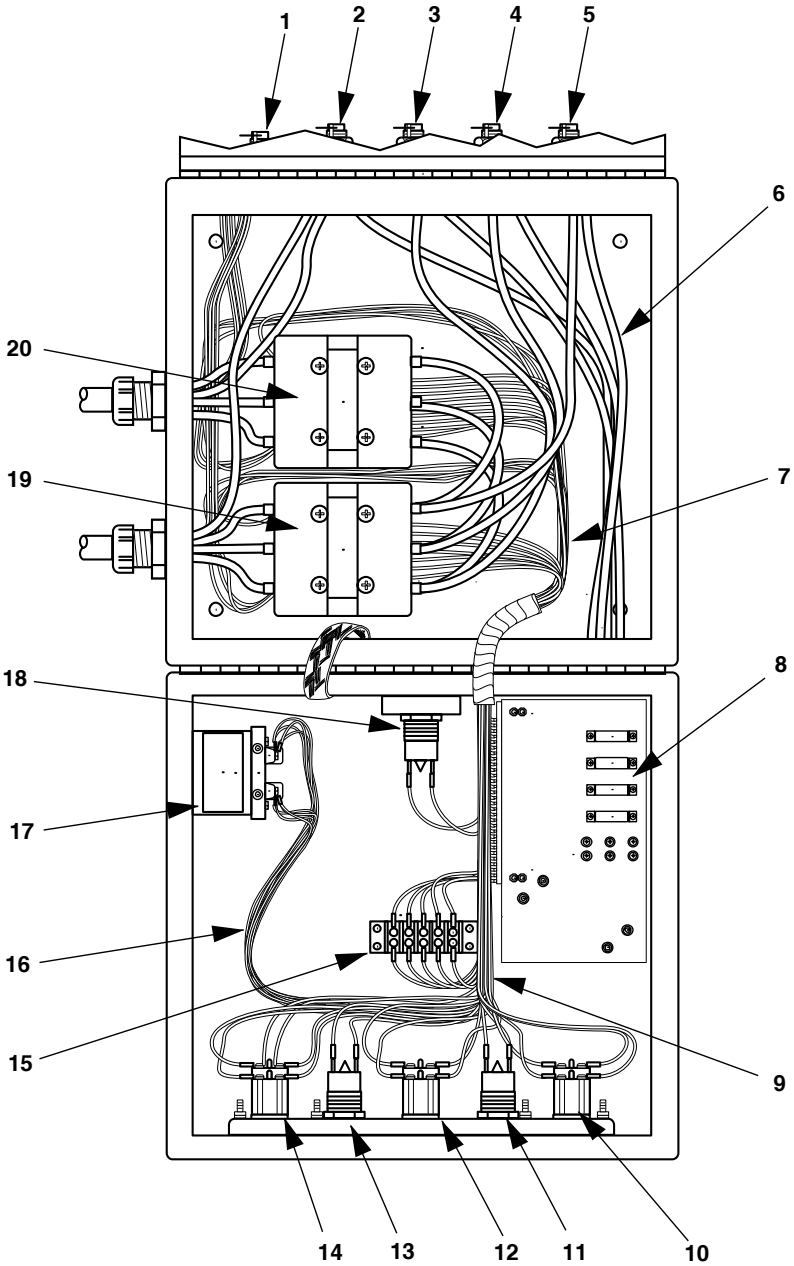
Maintenance of switch box assembly consists of testing, removal, and installation of switch box wiring and other switch box components. Figure 5-8 and Figure 5-8.1, Switch Box Components, are provided as an aid in performing the following maintenance procedures.



LEGEND

1. GND TERMINAL
2. TERMINAL N
3. TERMINAL L3
4. TERMINAL L2
5. TERMINAL L1
6. PART OF OUTPUT CONN HARNESS W10
7. SW BOX HARNESS W9
8. OUTPUT CONN
9. RELAY BOARD ASSY
10. SEE 7
11. IND LIGHT HSG XDS2
12. IND LIGHT HSG XDS4
13. SWITCH S2
14. IND LIGHT HSG XDS6
15. HOUSING FOR SPARE LA (ONE OF FOUR)
16. SWITCH S10
17. IND LIGHT HSG XDS5
18. SWITCH S1
19. IND LIGHT HSG XDS3
20. IND LIGHT HSG XDS1
21. TERMINAL BOARD TB2
22. SEE 7
23. RELAY PP
24. IND LIGHT HSG XDS7
25. CONTACTOR K1
26. CONTACTOR K2

Figure 5-8. Switch Box Components (OLD).



LEGEND

1. GND TERMINAL
2. TERMINAL N
3. TERMINAL L3
4. TERMINAL L2
5. TERMINAL L1
6. PART OF OUTPUT CO HARNESS W10
7. SW BOX HARNESS W
8. RELAY BOARD ASSY
9. SEE 7
10. SWITCH S2
11. IND LIGHT HSG XDS6
12. SWITCH S10
13. IND LIGHT HSG XDS5
14. SWITCH S1
15. TERMINAL BOARD TE
16. SEE 7
17. RELAY PP
18. IND LIGHT HSG XDS7
19. CONTACTOR K1
20. CONTACTOR K2

Figure 5-8.1. Switch Box Components (NEW).

5-7 ELECTRICAL LEADS W3-W8 MAINTENANCE.

This task covers:

a. Test
b. Removal
c. Repair
d. Installation
e. Replace

INITIAL SETUP

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Multimeter (item 9, appendix B)
Crimping Tool, Hydraulic (item 4, appendix B)

Materials/Parts

Lock washers

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. Switch box cover open.

NOTE

Refer to FO-1 for wiring diagram.

NOTE

The following warnings apply to all maintenance tasks in procedure 5-7.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting the load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

When lifting generator set, use lifting equipment with minimum lifting capacity of 1750 pounds (793.8 kg). Do not stand or put arms, legs, or any part of the body under hoisted load. Do not permit generator set to swing. Failure to comply with this warning can result in personal injury or death and damage to equipment.

TEST

1. Check continuity of lead W3 between contactor terminal K1-A1 and switch box load terminal L1.
2. Check continuity of lead W4 between contactor terminal K1-B1 and switch box load terminal L2.
3. Check continuity of lead W5 between contactor terminal K1-C1 and switch box load terminal L3.
4. Check continuity of lead W6 between contactor terminals K1-A1 and K2-A1.
5. Check continuity of lead W7 between contactor terminals K1-B1 and K2-B1.
6. Check continuity of lead W8 between contactor terminals K1-C1 and K2-C1.
7. Repair or replace any lead that does not have continuity (figure G-1, appendix G).

REMOVAL

NOTE

Figure 5-9, Detail A, shows connections at K1 or K2. Detail B shows connections at switch box load terminals.

1. Locate W3-W8 connections to terminals A1, B1, and C1 of contactors (13, figure 5-9 Detail A) and remove four screws (5), lock washers (6), and contactor shield (7).
2. Remove nuts (8), lock washers (9), flat washers (10), and leads (11 and 12).
3. Locate W3-W5 connections to switch box load terminals L1, L2, and L3 (4, Detail B).
4. Remove nuts (1), internal tooth washers (2), and leads (3) from load terminal (4).

REPAIR

Refer to figure G-1, appendix G.

INSTALLATION

1. Install leads W3, W4, and W5 (3), internal tooth washers (2), and nuts (1) on switch box load terminals and tighten.
2. Install other end of leads W3-W6 (11 and 12), flat washers (10), lock washers (9), and nuts (8) on contactors (13).
3. Install contactor shield (7), lock washer (6), and screw (5).

REPLACE

Replace procedure is the same as removal and installation procedure.

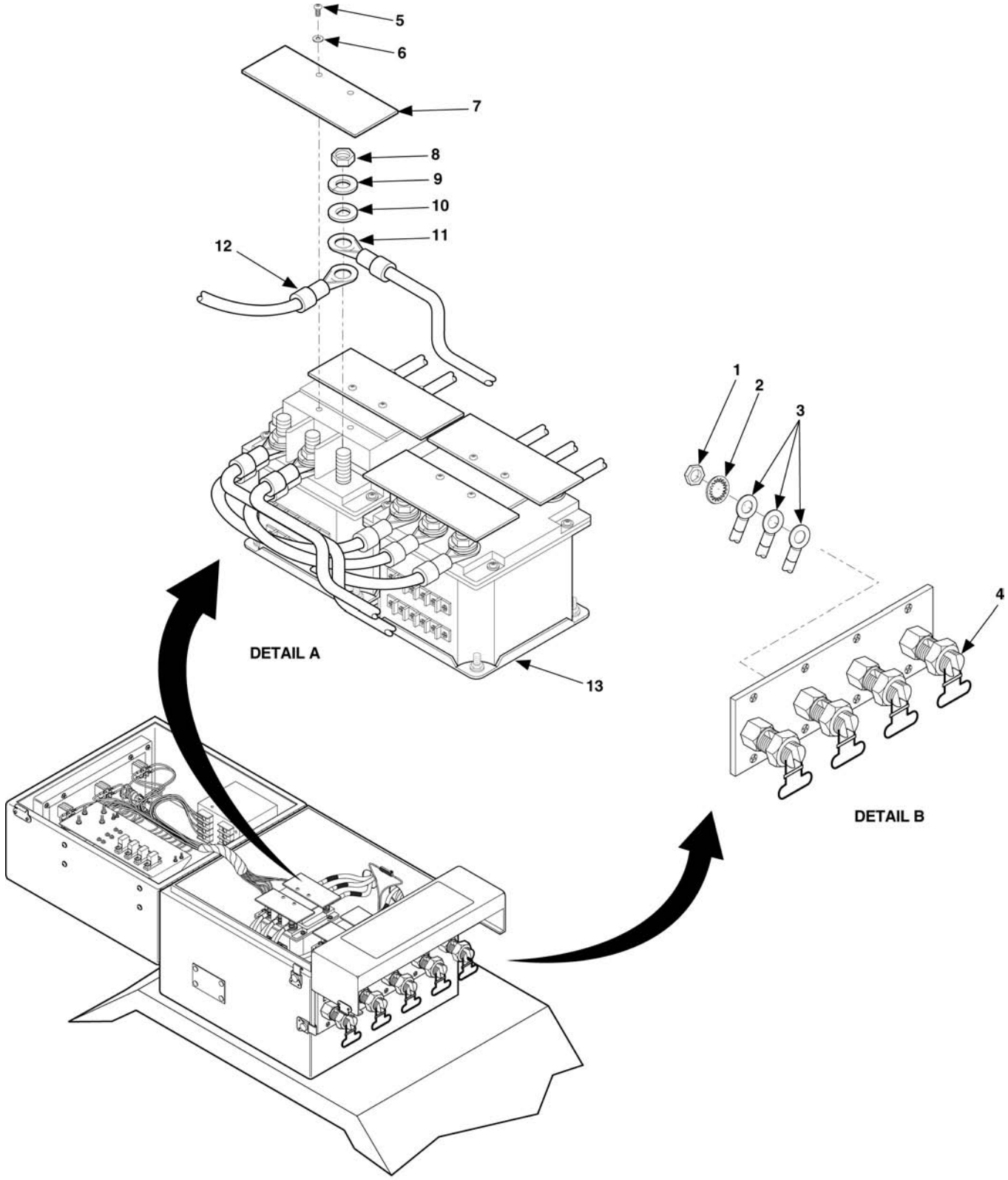


Figure 5-9. Switch Box Lead Connections.

5-8 SWITCH BOX HARNESS W9 MAINTENANCE.

This task covers:

a. Test
b. Removal
c. Repair
d. Installation
e. Replace

INITIAL SETUP

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Solder Gun (item 3, appendix B)
Crimping Tool, Hand (item 3, appendix B)
Multimeter (item 9, appendix B)

Materials/Parts

Lock washers
Solder
Insulation sleeving

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. Switch box cover open.

NOTE

The following warnings apply to all maintenance tasks in procedure 5-8.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting the load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

When lifting generator set, use lifting equipment with minimum lifting capacity of 1750 pounds (793.8 kg). Do not stand or put arms, legs, or any part of the body under hoisted load. Do not permit generator set to swing. Failure to comply with this warning can result in personal injury or death and damage to equipment.

TEST

1. Remove four screws (2, figure 5-10), lock washers (3), and flat washers (4), and invert relay board assembly (1).

NOTE

Disconnect wire being checked at one end to isolate wire for continuity check.

NOTE

Refer to FO-1 for wiring diagram.

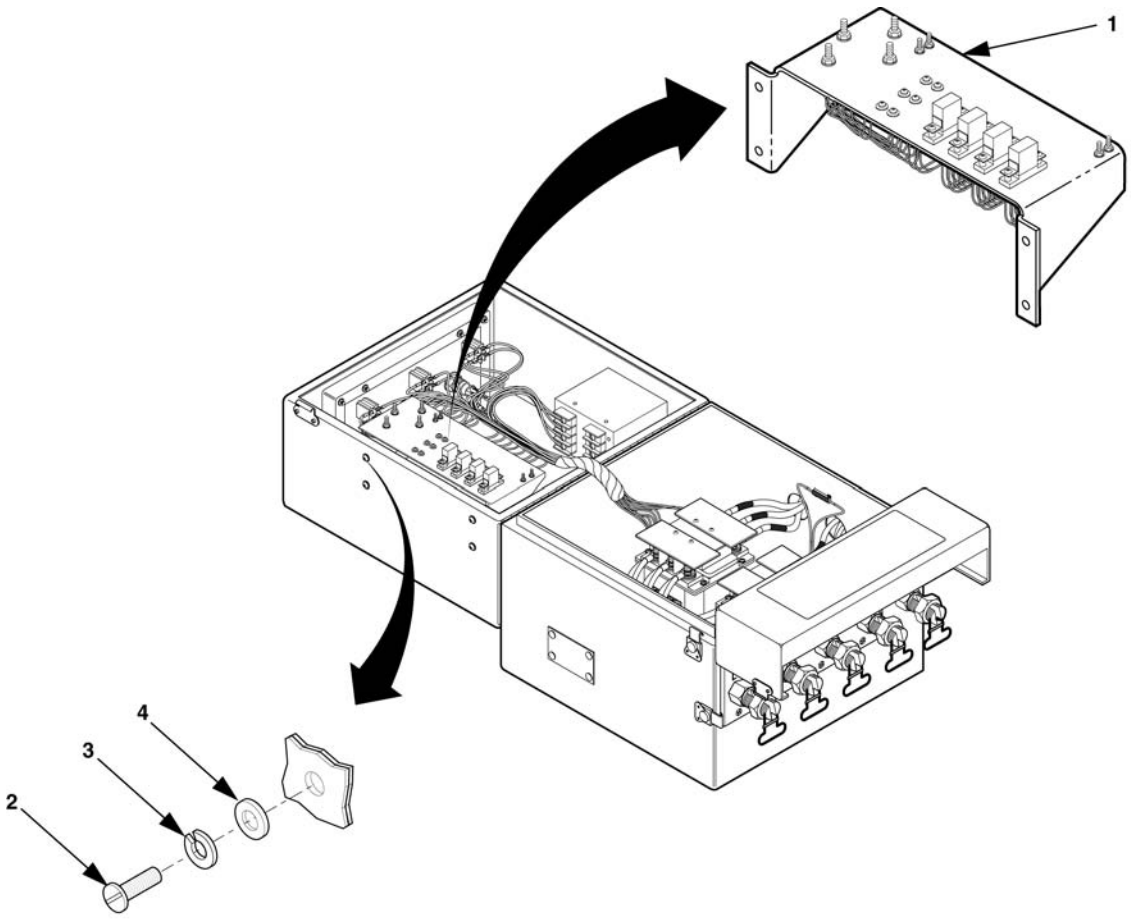


Figure 5-10. Switch Box Relay Board Assembly.

Table 5-1. Switch Box Harness Wire List

WIRE NO.	FROM	TO
W9-1	TB1-17	S10-2
W9-2	TB1-2	PP-4
W9-3	TB1-3	PP-3
W9-4	TB1-4	K2-A2
W9-5	TB1-5	XDS6-2
W9-6	TB1-6	K2-22
W9-7	TB1-7	K1-A2
W9-8	TB1-8	K1-21
W9-9	TB1-9	K1-C2
W9-10	TB1-10	K2-11
W9-11	TB1-10	PP-6
W9-12	TB1-11	PP-8
W9-13	TB1-12	K2-21
W9-14	TB1-13	K1-22
W9-15	TB1-16	S10-5
W9-16	------	------
W9-17	TB2-5	K2-C2
W9-18	------	------
W9-19	TB2-4	K2-Y
W9-20	XDS6-1	R3-1
W9-21	XDS5-2	PP-2
W9-22	XDS5-1	PP-1
W9-23	TB2-2	K1-C2
W9-24	------	------
W9-25	S2-2	S10-4
W9-26	------	------

WIRE NO.	FROM	TO
W9-28	S1-6	PP-7
W9-29	S1-2	S10-1
W9-30	S1-5	K1-12
W9-31	S2-6	PP-5
W9-32	------	
W9-33	S2-5	K2-12
W9-34	K1-11	PP-8
W9-35	PP-4	N
W9-36	XDS7-2	PP-1
W9-37	XDS7-1	L3
W9-38	K1-22	K2-32
W9-39	K2-32	K1-C2
W9-40	K2-22	K2-C2
W9-41	K1-32	K2-C2
W9-42	K1-33	K2-11
W9-43	K2-Y	N
W9-44	K2-X	S2-3
W9-45	K2-33	K1-11
W9-46	K1-X	S1-3
W9-47	K1-Y	N
W9-48	K1-Y	TB2-1
W9-49	K2-A1	R3-2
W9-50	PP-2	PP-3
W9-51	TB1-18	TB2-3
W9-52	TB2-3	Ground

2. Measure continuity of switch box harness W9 as listed in table 5-1. Refer to figure 5-8 and wiring diagram (FO-1).

3. If any wire fails continuity check, repair or replace switch box harness.

4. If all wires pass continuity check, install relay board assembly (1, Figure 5-18), four flat washers (4), screws (2), lock washers (3), and screws (2).

REMOVAL

NOTE

Other leads removed during removal of W9 harness leads must be replaced with any attaching hardware.

1. Remove two screws (1, figure 5-11), lock washers (2), and contactor shields (3) that cover contactor terminals A2, B2, and C2 of contactor K1 and K2, and terminal A1 of contactor K2.

2. Refer to table 5-1 and wiring diagram (figure FO-1), tag leads, and remove nut (4), lock washer (5), and flat washer (6) from contactor terminals (9) and remove W9 leads.

3. Tag and remove leads (12) from terminals (13) by removing screws (11).

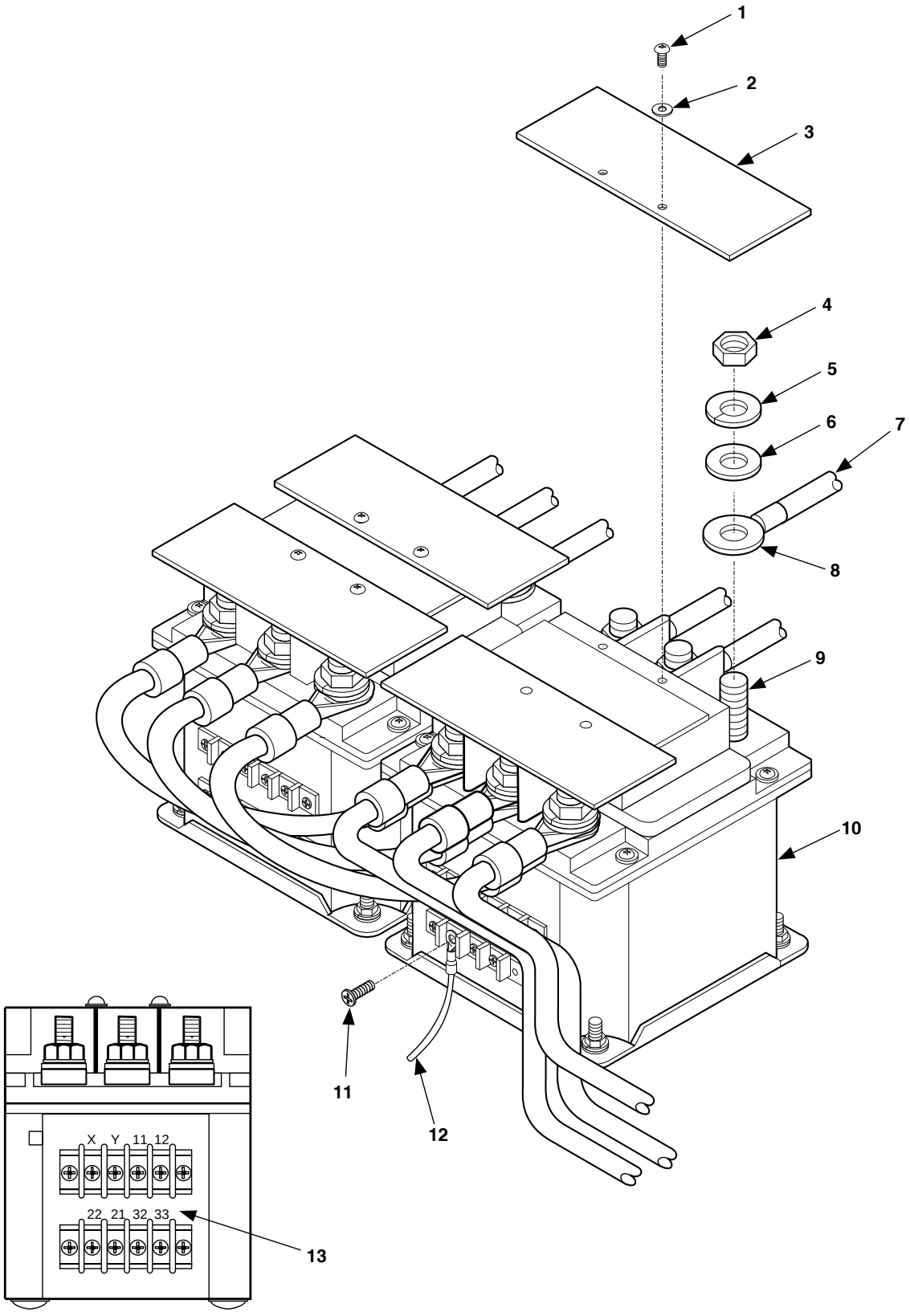


Figure 5-11. Disconnect Switch Box Harness W9 from Contactor

4. Remove insulation from W9-20 and W9-49 connections to resistor R3 and unsolder harness leads.

5. Remove nut (1, figure 5-12), internal tooth washer (2), and W9 harness lead (3) from load terminals N and L3 (4).

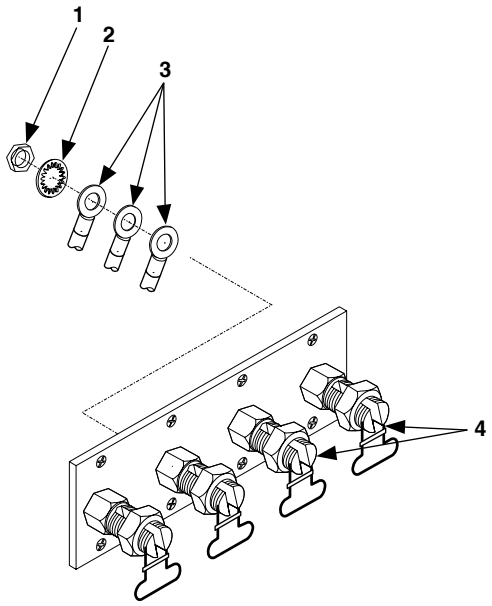


Figure 5-12. Switch Box Load Terminals.

6. Remove four screws (1, figure 5-13), lock washers (2), and flat washers (3), and invert relay board assembly (4).

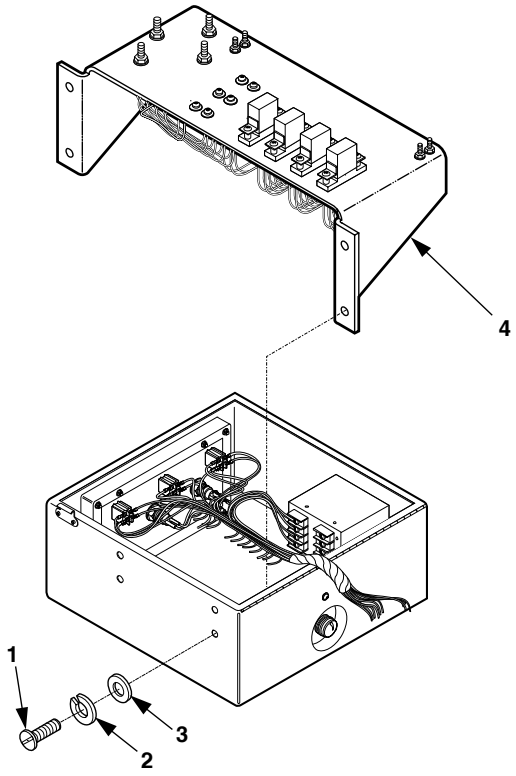


Figure 5-13. Relay Board Assembly Removal.

7. Refer to table 5-1 and tag and disconnect all W9 wires from terminal board TB1 and TB2.

8. Refer to table 5-1 and wiring diagram (figure FO-1), and tag and disconnect all W9 wires from switches S1, S2, and S10; indicator light housings XDS1 through XDS7; and permissive paralleling relay PP.

9. Remove switch box wiring harness W9 from switch box.

REPAIR

Refer to figure G-3, appendix G.

INSTALLATION

1. Position harness in switch box.

2. Using figures 5-8, 5-8.1, and figure FO-1 as a reference, connect wires to switches S1, S2, and S10; indicator light housings XDS1-XDS7; and permissive paralleling relay PP.

3. Refer to table 5-1 and connect all W9 leads to terminal boards TB-1 and TB-2.

4. Position relay board (4, figure 5-13) and install four flat washers (3), lock washers (2), and screws (1).

5. Install W9 harness leads (3, figure 5-12), internal tooth washer (2), and nut (1) on load terminals N and L3 (4).

6. Place insulation sleeving on leads W9-20 and W9-49 and solder leads to resistor R3.

7. Slide sleeving over solder joint and heat shrink.

8. Refer to table 5-1 and install W9 wires (7, figure 5-11), flat washers (6), lock washers (5), and nuts (4) on contactor terminals (9).

9. Refer to table 5-1 and install W9 leads (12) on terminals (13) using screws (11).

10. Install contactor shield (3), two lock washers (2), and screws (1) over contactor terminals A2, B2, and C2.

REPLACE

Replace procedure is the same as removal and installation procedure.

5-9 RELAY BOARD HARNESS W11 MAINTENANCE.

This task covers:

a. Test
b. Removal
c. Repair
d. Installation
e. Replace

INITIAL SETUP

Tools

General Mechanic's Tool Kit (item 1, appendix B)
Solder Gun (item 3, appendix B)
Crimping Tool, Hand (item 3, appendix B)
Multimeter (item 9, appendix B)

Materials/Parts

Solder
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.

NOTE

The following warnings apply to all maintenance tasks in procedure 5-9.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting the load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

TEST

1. Remove four screws (1, figure 5-14), lock washers (2), and flat washers (3), and invert relay board assembly (4).

2. Refer to wiring diagram (figure FO-1) and table 5-2, and perform continuity check of relay board harness W11.

Table 5-2. Relay Board Harness Wire List

WIRE NO.	FROM	TO
W11-1	XK3-2	TB1-1
W11-2	XK3-3	TB1-6
W11-3	XK3-4	TB1-5
W11-4	XK3-5	TB1-3
W11-5	XK3-6	TB1-4
W11-6	XK3-7	TB1-2
W11-7	XK5-2	TB1-1
W11-8	XK5-3	TB1-8
W11-9	XK5-4	TB1-10
W11-10	XK5-5	TB1-17
W11-11	XK5-6	TB1-6
W11-12	E-7	E-6
W11-13	XK4-2	TB1-14
W11-14	XK4-3	TB1-9
W11-15	XK4-4	TB1-5
W11-16	XK4-5	TB1-3
W11-17	XK4-6	TB1-7
W11-18	XK4-7	TB1-15

WIRE NO.	FROM	TO
W11-19	R1-1	TB1-17
W11-20	XK6-3	TB1-12
W11-21	XK6-4	TB1-11
W11-22	XK6-5	TB1-16
W11-23	XK6-6	TB1-13
W11-24	XK6-7	TB1-15
W11-25	R1-2	E6
W11-26	R2-2	E3
W11-27	E5	TB1-1
W11-28	E4	TB1-2
W11-29	R2-1	TB1-16
W11-30	E2	TB1-15
W11-31	E1	E4
W11-32	XK5-7	TB1-2
W11-33	E1	TB1-14
W11-34	E8	TB1-18
W11-35	XK6-2	TB1-14
W11-36	E9	E3

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 wire pass continuity check, install relay board assembly (4), four flat washers (3), lock washers (2) and screws (1).

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 5-2), and tag and disconnect all W11 leads from terminal board (5) and relay sockets (6).

3. Remove relay board harness W11.

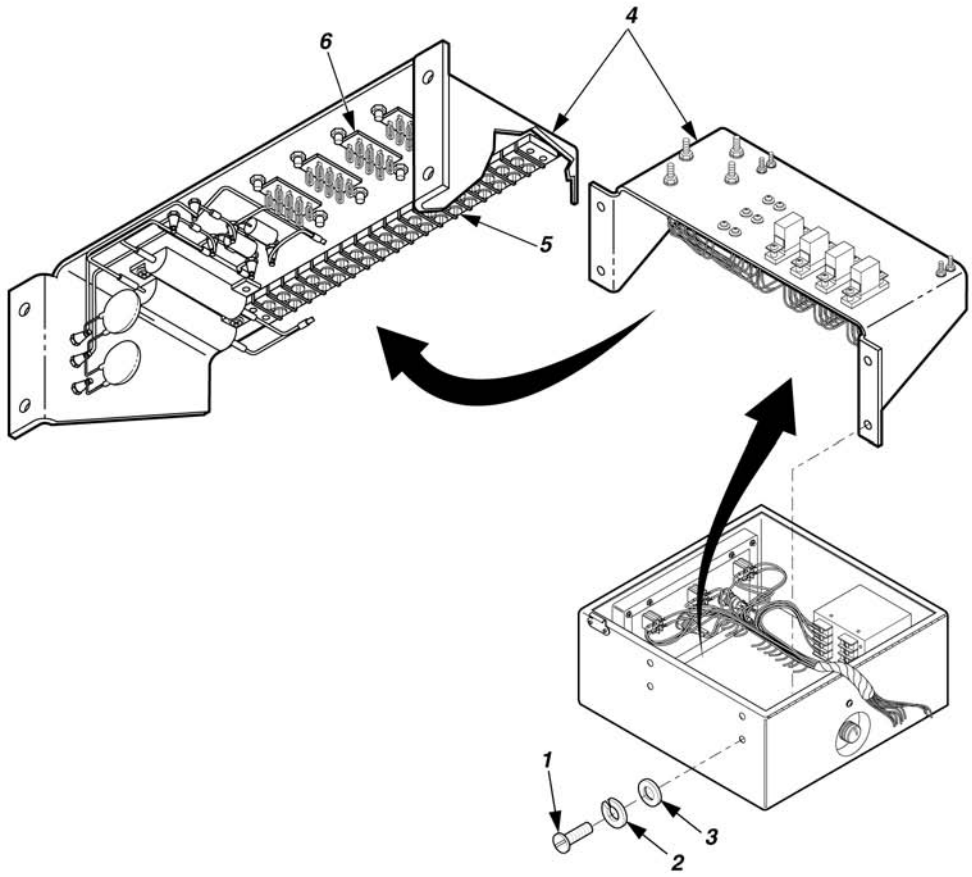


Figure 5-14. Relay Board Harness Assembly W11 Removal.

REPAIR

Refer to figure G-2, appendix G.

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 5-2 and connect all W11 leads.

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

REPLACE

Replace procedure is the same as removal and installation procedure.

5-10 OUTPUT CONNECTOR HARNESS W10 MAINTENANCE (OPTIONAL).

This task covers:

a. Test
b. Removal
c. Repair
d. Installation
e. Replace

INITIAL SETUP

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Solder Gun (item 3, appendix B
Crimping Tool, Hydraulic (item 4, appendix B)
Multimeter (item 9, appendix B)

Materials/Parts

Solder
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.

NOTE

The following warnings apply to all maintenance tasks in procedure 5-10.

NOTE

This connector is optional on the switchbox; check your switchbox to see if this procedure applies. See Chapter 2 for operation.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting the load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

NOTE

Refer to FO-1 for wiring diagram.

TEST

1. Check continuity of output connector harness as listed in table 5-3.

Table 5-3. Output Connector Harness Continuity Check

FROM	TO	CONTINUITY	NO CONTINUITY
N	L1		X
N	L2		X
N	L3		X
N	GND	X	
L1	L2		X
L1	L3		X
L1	GND		X
L2	L3		X
L2	GND		X
L3	GND		X
J1-A	L1	X	
J1-B	L2	X	
J1-C	L3	X	
J1-N	N	X	
J1-G	GND	X	

2. If any wire fails continuity check, repair or replace output connector harness.

REMOVAL

1. Remove nuts (8, figure 5-15) and internal tooth washers (9) from switch box load terminals (11).

NOTE

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

2. Tag and remove output connector leads (10) from switch box load terminals (11).

3. Remove four nuts (7) lock washers (6), eight flat washers (2), chain (3) attached to dust cover, four screws (1), and output connector (4).

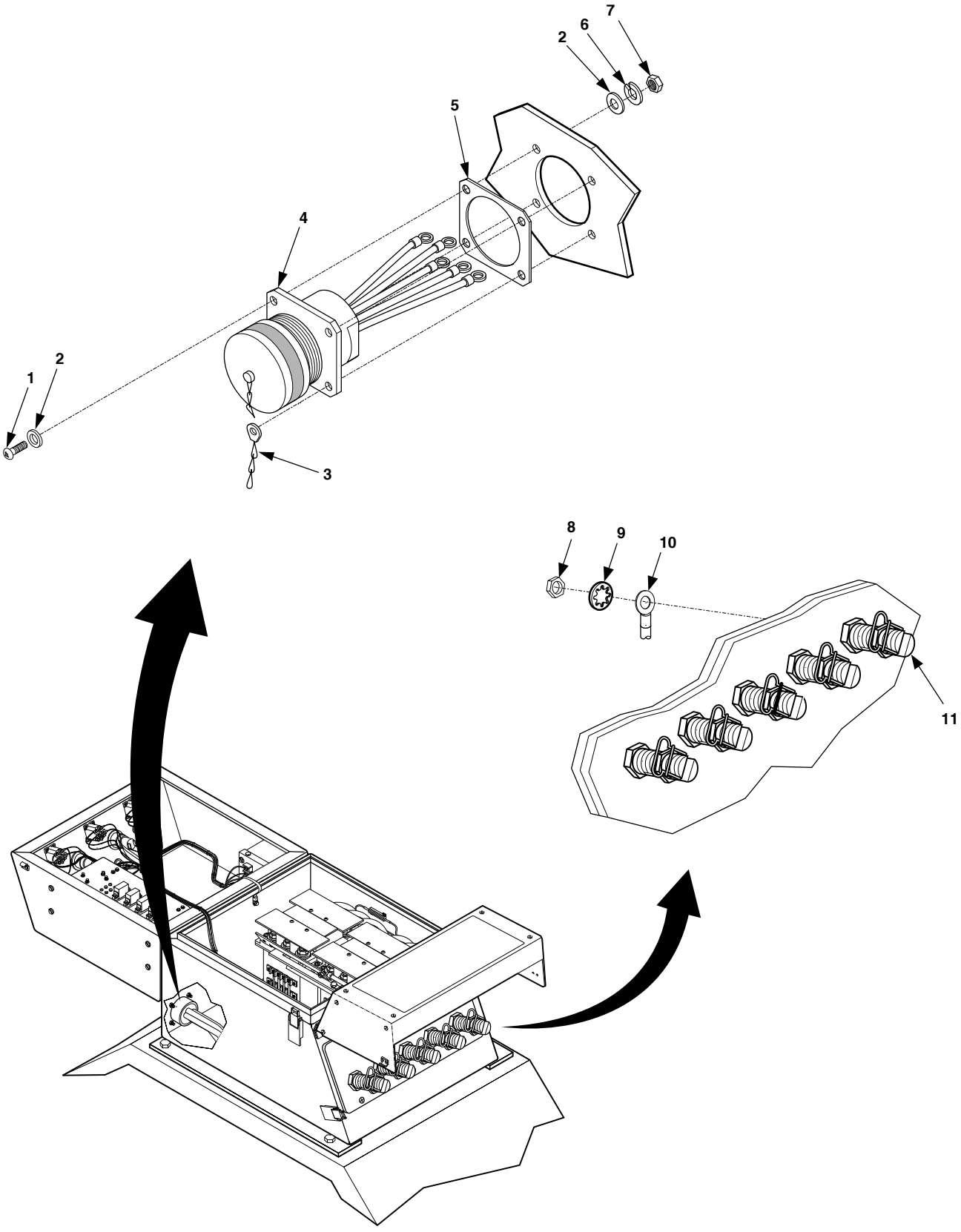


Figure 5-15. Output Connector Harness.

REPAIR

Refer to figure G-4, appendix G.

INSTALLATION

1. Install output connector (4), chain (3) attached to dust cover, four screws (1), eight flat washers (2), four lock washers (6), and nuts (7).

2. Refer to wiring diagram (figure FO-1) and tags placed on leads during removal, and install leads (10), internal tooth washers (9), and nuts (8) on load terminals (11).

REPLACE

Replace procedure is the same as removal and installation procedure.

5-11 RELAYS K3-K6 MAINTENANCE.

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

INITIAL SETUP

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Multimeter (item 9, appendix B)
24 VDC Power Source (item 3, appendix B)

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.

NOTE

The following warnings apply to all maintenance tasks in procedure 5-11.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting the load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

REMOVAL

Remove two screws (1, figure 5-16), washers (2), and relays (3) from relay sockets (4).

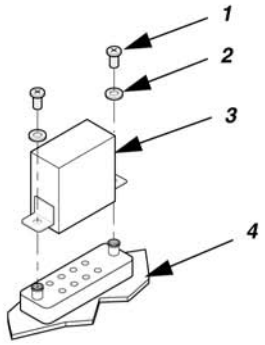


Figure 5-16. Relay K3-K6 Removal.

TEST

1. Repeat removal step above.
2. Refer to figure 5-17 and check continuity of relay coil between pins X1 and X2.

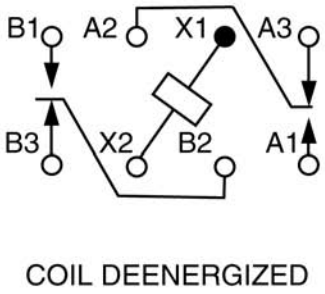


Figure 5-17. Relay K3-K6 Schematic.

WARNING

Dangerous voltage exits on live circuits. Always observe precautions and never work alone. Failure to comply with this warning can cause injury or death to personnel.

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 5-4.

Table 5-4. 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 5-4 perform installation with new relay.

INSTALLATION

Install relay (3, figure 5-16) in relay socket (4) and secure with two washers (2) and screws (1).

REPLACE

Replace procedure is the same as removal and installation procedure.

5-12 PERMISSIVE PARALLELING RELAY MAINTENANCE.

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

INITIAL SETUP

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Multimeter (item 9, appendix B)
Power Oscillator, 50-420 Hz (item 3, appendix B)

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.

NOTE

The following warnings apply to all maintenance tasks in procedure 5-12.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting the load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

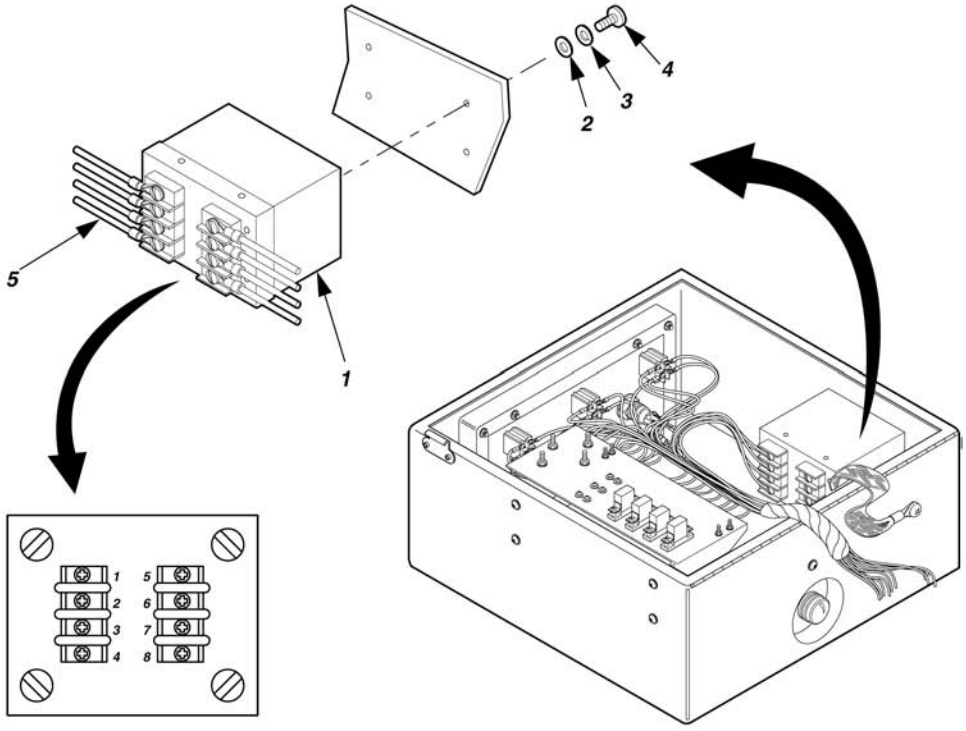


Figure 5-18. Permissive Paralleling Relay.

REMOVAL

Tag and disconnect leads (5, figure 5-18). 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"1 VAC.

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).

REPLACE

Replace procedure is the same as removal and installation procedure.

5-13 CONTACTORS K1 AND K2 MAINTENANCE.

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

INITIAL SETUP

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Multimeter (item 9, appendix B)

Material/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.

NOTE

The following warnings apply to all maintenance tasks in procedure 5-13.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting the load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

REMOVAL

1. Remove four screws (1, figure 5-19), 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 (13, 14, and 15) must be removed along with leads W6, W7, and W8 when contactor K1 is being removed.

3. Tag and remove power cable leads (7) from contactor terminals A2, B2, and C2 (8), and ends of leads W6, W7, and W8 (10, 11, and 12) from contactor terminals A1, B1, and C1.

4. Tag and disconnect terminal lugs of W9 wires from contactor (8) terminals (16) X, Y, 11, 12, 21, 22, 32, and 33.

5. Remove four nuts (17), lock washers (18), flat washers (19), and contactor (9).

TEST

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

WARNING

Dangerous voltage exits on live circuits. Always observe precautions and never work alone. Failure to comply with this warning can cause injury or death to personnel.

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 5-5.

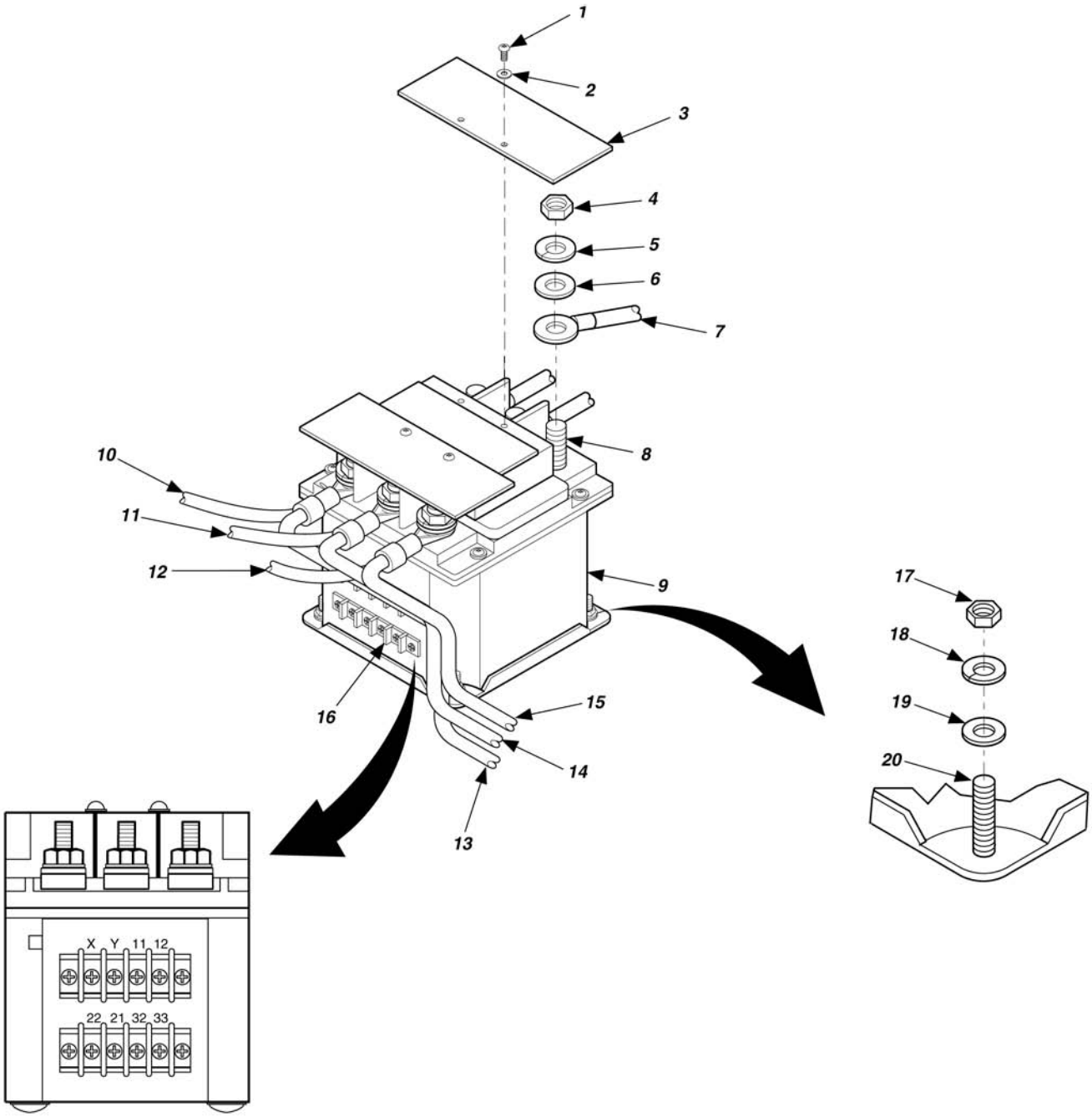


Figure 5-19. Replace Contactor

NOTE

Contactor shown is K2.

Table 5-5. Contactor 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 C1 and C2
Power Applied	21 and 22 11 and 12 A1 and A2 B1 and B2 C1 and C2	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 5-5.

INSTALLATION

1. Position contactor K1 or K2 (9) on studs (20).

2. Install four flat washers (19), lock washers (18), and nuts (17).

3. Refer to wiring diagram (figure FO-1) and tags installed in removal. Connect applicable terminal lugs of W9 wires to contactor terminals (16) 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, C1, A2, B2, and C2.

NOTE

Leads W3, W4, and W5 (13, 14, and 15) must be installed along with leads W6, W7, and W8 (10, 11, and 12) when contactor K1 is being installed.

6. Place free ends of jumpers W6, W7, and W8 (10, 11, and 12) on contactor K2 (9) terminals (8) A1, B1, and C1.

7. Install flat washer (6), lock washer (5), and nut (4) on terminals (8) for A1, B1, and C1. Tighten nuts (4).

8. Place power cable leads (7) on contactor terminals (8) A2, B2, and C2. Remove tags.

9. Install flat washers (6), lock washers (5), and nuts (4) on contactor terminals (8) A2, B2, and C2.

10. Install terminal shields (3), two lock washers (2) and screws (1) on contactor (9).

REPLACE

Replace procedure is the same as removal and installation procedure.

5-14 RESISTORS R1-R3 MAINTENANCE.

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

INITIAL SETUP

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Multimeter (item 9, appendix B)
Soldering Gun (item 3, appendix B)

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.

NOTE

The following warnings apply to all maintenance tasks in procedure 5-14.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting the load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

TEST

NOTE

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

1. Remove four screws (1, figure 5-20), 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 2465-2515 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).

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).

REPLACE

Replace procedure is the same as removal and installation procedure.

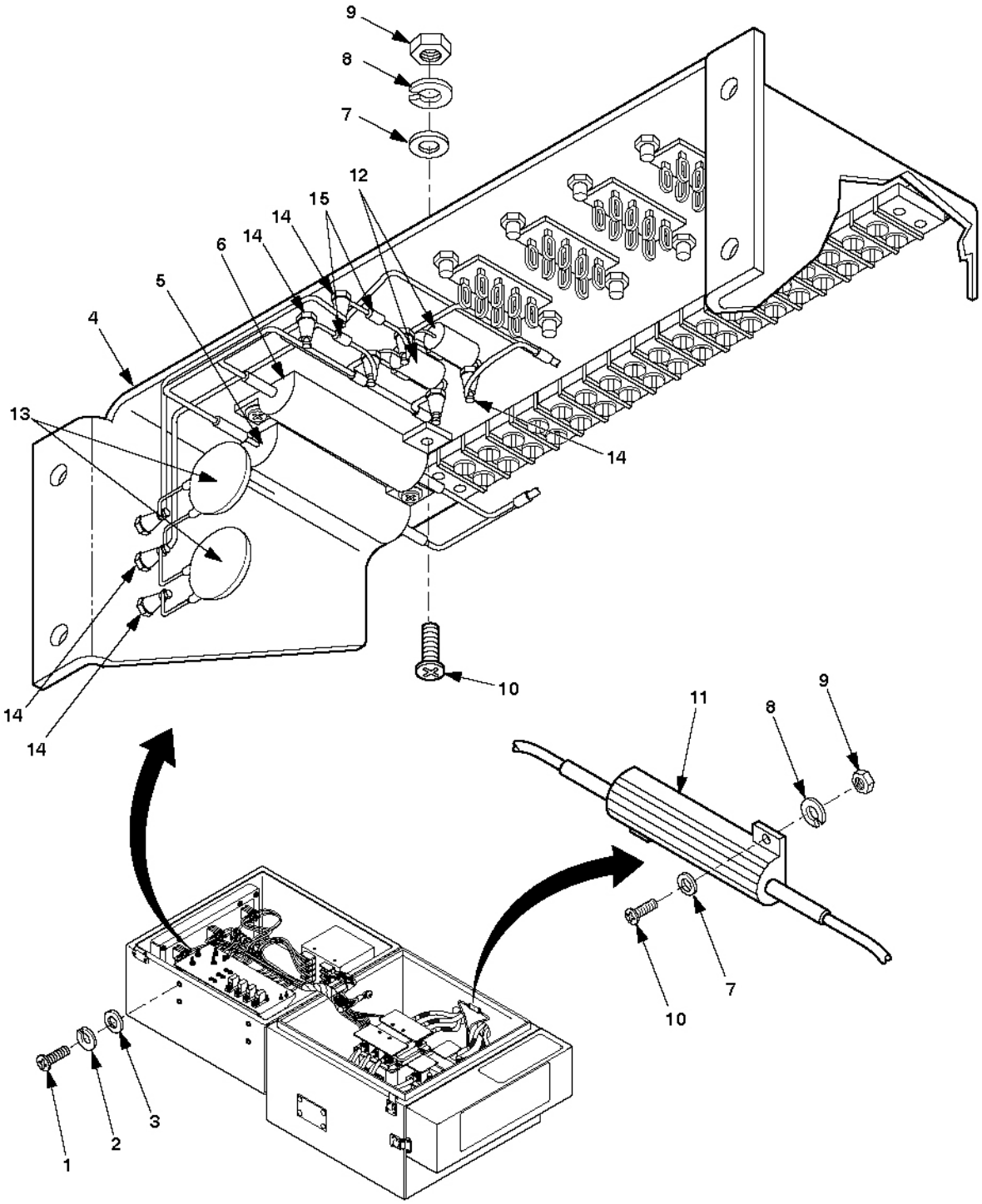


Figure 5-20, Switch Box Components Replacement.

5-15 CAPACITORS C1-C4 MAINTENANCE.

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

INITIAL SETUP

Tools	Equipment Conditions
Tool Kit, General Mechanic's (item 1, appendix B) Multimeter (item 9, appendix B) Soldering Gun (item 3, appendix B) Materials/Parts Solder	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.

NOTE

The following warnings apply to all maintenance tasks in procedure 5-15.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting the load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

NOTE

To perform procedure refer to FO-1.

TEST

1. Remove four screws (1, figure 5-20), lock washers (2), and flat washers (3) and invert relay board assembly (4).

2. Discharge capacitors C1 and C2 (12) and C3 and C4 (13) by shorting across terminals.

3. Isolate capacitors C1 and C2 at E5 and E2 respectively. Tag and remove wire W11-34 at TB1-18 to isolate capacitors C3 and C4.

4. Disconnect one end of capacitor and check continuity between terminals, using a multimeter in the 200 k/ohms range. The meter needle should deflect and return to infinity within a few seconds. (If using a digital meter, the readout should run upscale to infinity).

5. If capacitor fails test, replace it. Refer to removal and installation procedures.

6. If capacitor passes test, place relay board assembly (4) in position and secure with four flat washers (3), lock washers (2), and screws (1).

REMOVAL

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

2. Unsolder capacitor (12 or 13) leads from stud terminals (14) and remove capacitor.

INSTALLATION

CAUTION

Refer to wiring diagram (figure FO-1) and observe polarity of capacitors C1 and C2 before installing. Failure to observe this caution could result in damage to capacitors.

1. Solder capacitor (12 or 13) leads to terminal studs (14) as applicable.

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

5-16 DIODES CR1-CR4 MAINTENANCE.

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

INITIAL SETUP

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Multimeter (item 9, appendix B)
Soldering Gun (item 3, appendix B)

Materials/Parts

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.

NOTE

The following warnings apply to all maintenance tasks in procedure 5-16.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. Make sure unit or units are completely shut down and free of any power source before attempting any repair or maintenance on the unit, switchbox or when connecting or disconnecting the load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

TEST

NOTE

To perform procedure refer to FO-1.

1. Remove four screws (1, figure 5-20), lock washers (2), and flat washers (3) and invert relay board assembly (4).
2. Unsolder one end of diode (15) to be tested.
3. Set multimeter on R x 1 range, and measure the resistance between diode terminals. Reverse multimeter leads and measure again. Resistance should be infinity in one direction and less than 30 ohms in the other.

REMOVAL

1. Remove four screws (1), lock washers (2), and flat washers (3) and invert relay board assembly (4).
2. Unsolder diode (15) from stud terminal (14) and remove diode.

INSTALLATION

1. Refer to wiring diagram (figure FO-1) and solder diode leads to terminal studs (14) as applicable.
2. Invert relay board assembly (4) and install four flat washers (3), lock washers (2), and screws (1).

5-17 PU-797A AND AN/MJQ-35A FLOOR AND FENDER MAINTENANCE.

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

INITIAL SETUP

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Rivet Gun (item 8, appendix B)
¼" Drill (item 2, appendix B)
Tool Kit, Body & Fender Repair (item 6, appendix B)

Materials/Parts

Rivets, (items 6 and 7, appendix I)

Equipment Conditions

Reference

Generator set shut down; paragraph 2-5.3.3.

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

Generator sets removed as required (AN/MJQ-35A); paragraph 5-6.

Switch Box assembly removed (AN/MJQ-35A Roadside fender only); paragraph 4-13.

NOTE

The following warnings apply to all maintenance tasks in procedure 5-17.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

When lifting generator set, use lifting equipment with minimum lifting capacity of 1750 pounds (793.9 kg). Do not stand or put arms, legs, or any part of the body under hoisted load. Do not permit generator set to swing. Failure to comply with this warning can result in personal injury or death and damage to equipment.

REMOVAL

1. Floors

NOTE

PU-797A and AN/MJQ-35A trailers have center and side floors or platforms riveted to the trailer. The side floors are in two sections.

a. Remove rivets (1, figure 5-21) and floor sections (2) from trailer chassis (3), using ¼" drill.

2. Fenders.

a. If necessary, remove the following:

(1) Data plate (paragraph 4-22).

(2) Fire extinguisher and bracket (paragraph 4-20).

(3) Side marker light and reflector (TM 9-2330-392-14&P).

b. Remove rivets (1, figure 5-22) and fender (2) from trailer chassis (3), using ¼" drill.

REPAIR

1. Floors.

Repair of floors consists of welding, straightening, and spot painting as required.

2. Fenders.

Repair of fenders consists of welding, straightening, and spot painting as required, and replacement of rivets (4), fender angle support (5), and tail light bracket (6) (Figure 5-22).

INSTALLATION

1. Floors.

Place floor section (2, figure 5-21) on trailer chassis (3) and secure with rivets (1).

2. Fenders.

a. Place fender (2, figure 5-22) on trailer chassis (3) and secure with rivets (1)

b. If removed, install the following:

(1) Data plate (paragraph 4-22).

(2) Fire extinguisher and bracket (paragraph 4-20).

(3) Side marker light and reflector (TM 9-2330-392-14&P).

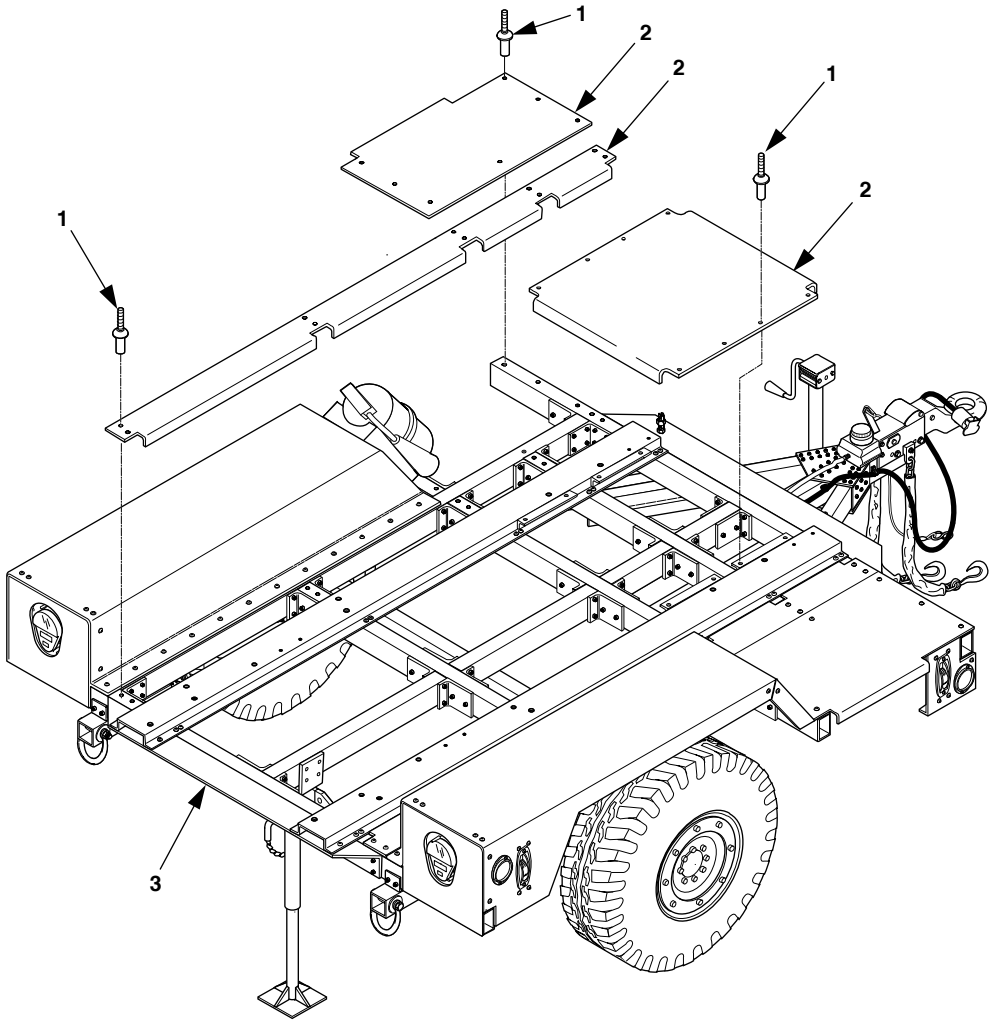


Figure 5-21. PU-797A and AN/MJQ-35A Floor Replacement.

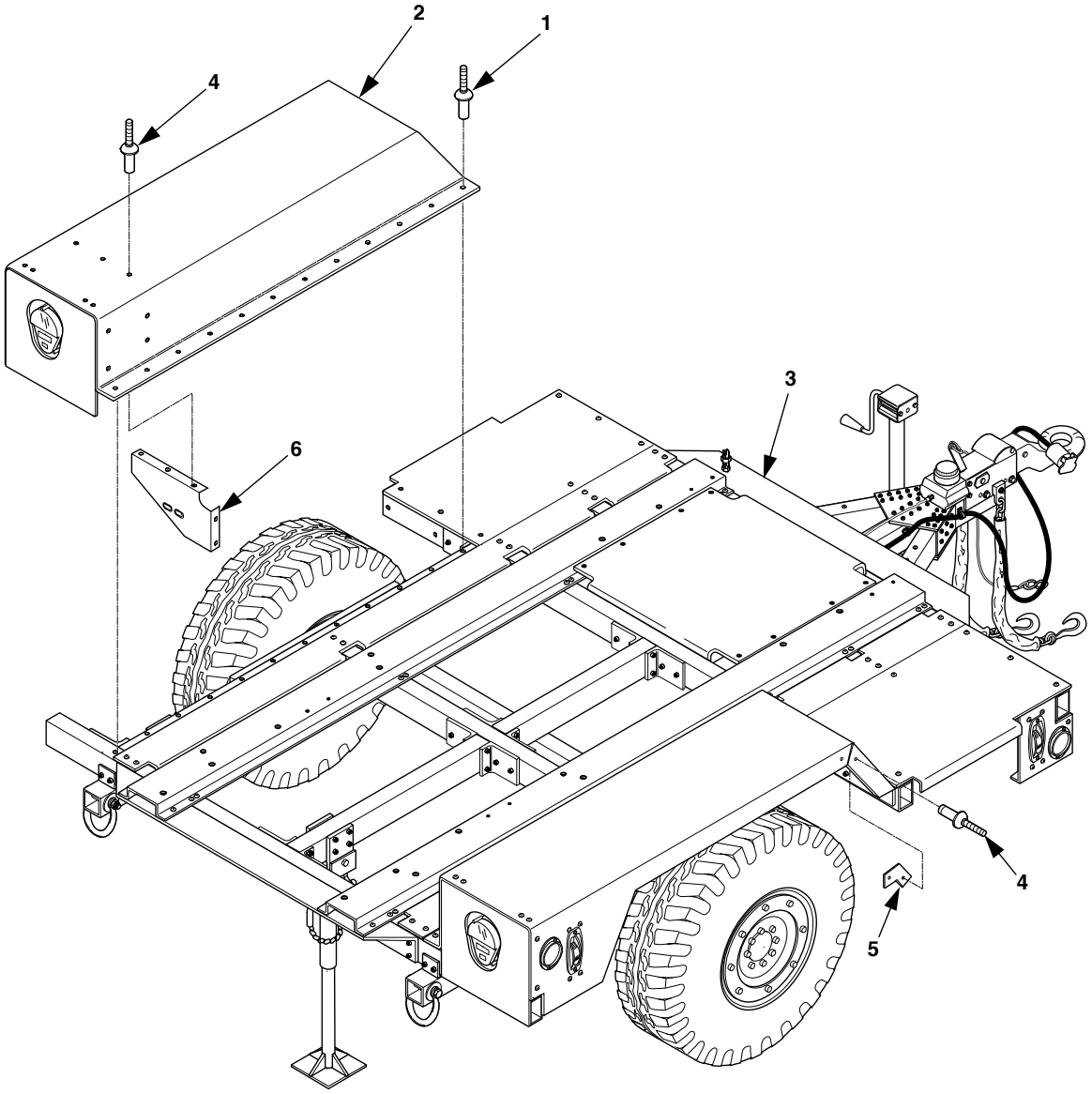


Figure 5-22. PU-797A and AN/MJQ-35A Fender Replacement.

5-18 AN/MJQ-35, AN/MJQ-36, AND PU-797 TRAILER FENDER REPAIR.

This task covers: Repair

INITIAL SETUP

Tools

Tool Kit, General Mechanic's
(item 1, appendix B)
Body and Fender Repair Tool Kit
(item 6, appendix B)
Shop Equipment, Welding, Field
(item 7, appendix B)

Equipment Conditions

Reference

AN/MJQ-35 Trailer Fender removed; paragraph 4-23.
AN/MJQ-36 Trailer Fender removed; paragraph 4-25.
PU-797 Trailer Fender removed; paragraph 4-25.

Materials/Parts

Paint

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

REPAIR

Repair of the trailer fender consists of welding, straightening, and spot painting as required.

5-19 AN/MJQ-35 GENERATOR MOUNTING RAIL MAINTENANCE.

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

INITIAL SETUP

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Tool, Blind Nut (item 2, appendix B)

Materials/Parts

Nuts, Self-locking
Nuts, Blind

Equipment Conditions

Reference

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

Appropriate generator set removed; paragraph 5-6.

Accessory box removed (AN/MJQ-35 curbside Rear Generator rail); paragraph 4-19. Roadside Splash Guard removed (AN/MJQ-35); paragraph 4-23.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

REMOVAL

NOTE

Rails may be shimmed; note location and quantity. Mounting hardware quantity may vary depending on mounting rail being removed.

Remove self-locking nuts (3, figure 5-23), flat washers (2), cap screws (1), and mounting rail (4).

REPAIR

NOTE

Blind nuts are located at rear of mounting rails for rear generator.

Repair of mounting rails consists of replacing blind nuts (5). Refer to instructions supplied with blind nut tool.

INSTALLATION

Install mounting rail (4), cap screws (1), flat washers (2), and self-locking nuts (3) on trailer chassis (6).

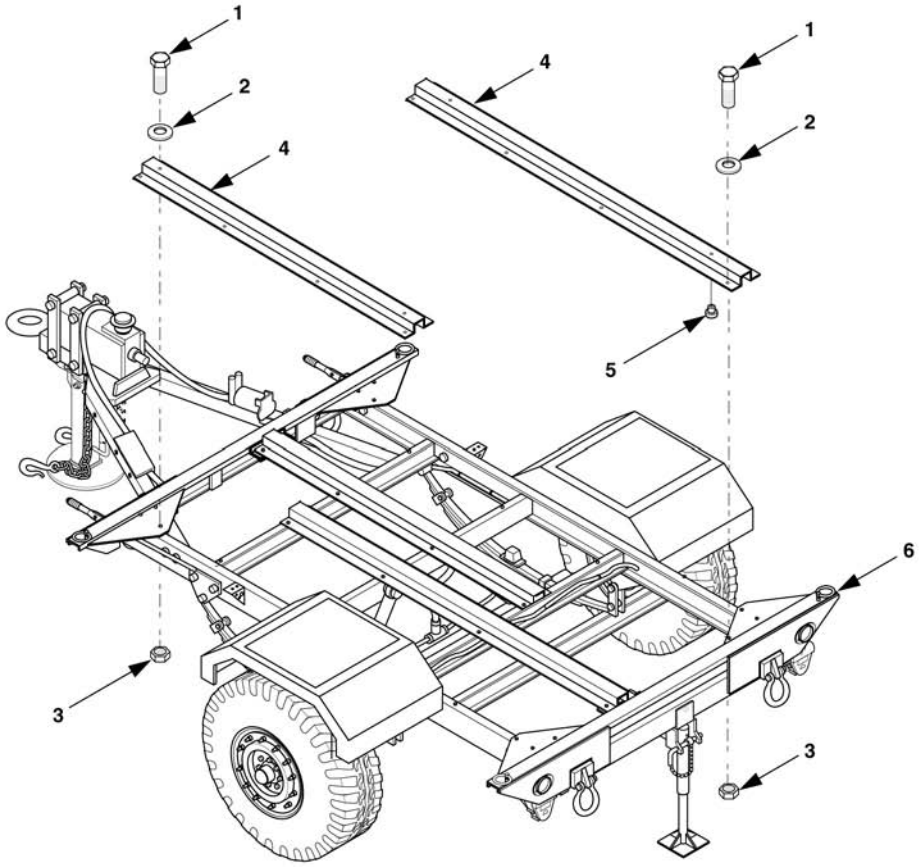


Figure 5-23. Replace AN/MJQ-35 Generator Mounting Rail.

5-20 AN/MJQ-36 GENERATOR MOUNTING RAIL MAINTENANCE.

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

INITIAL SETUP

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Tool, Blind Nut (item 2, appendix B)

Materials/Parts

Nuts, Self-locking
Nuts, Blind

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 removed; paragraph 5-6.
Accessory box removed; paragraph 4-19.
Fenders and platform removed; paragraph 4-25.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

REMOVAL

NOTE

Rails may be shimmed; note location and quantity. Mounting hardware quantity may vary depending on mounting rail being removed. Longer bolts are used at front end of mounting rails.

Remove self-locking nuts (1, figure 5-24), flat washers (2), cap screws (3) and mounting (4).

REPAIR

NOTE

Blind nuts are located at front end of both mounting rails.

Repair of mounting rails consists of replacing blind nuts (5). Refer to instructions supplied with blind nut tool.

INSTALLATION

Position mounting rail (4) on trailer and loosely install cap screws (3), flat washers (2), self-locking nuts (1), then tighten.

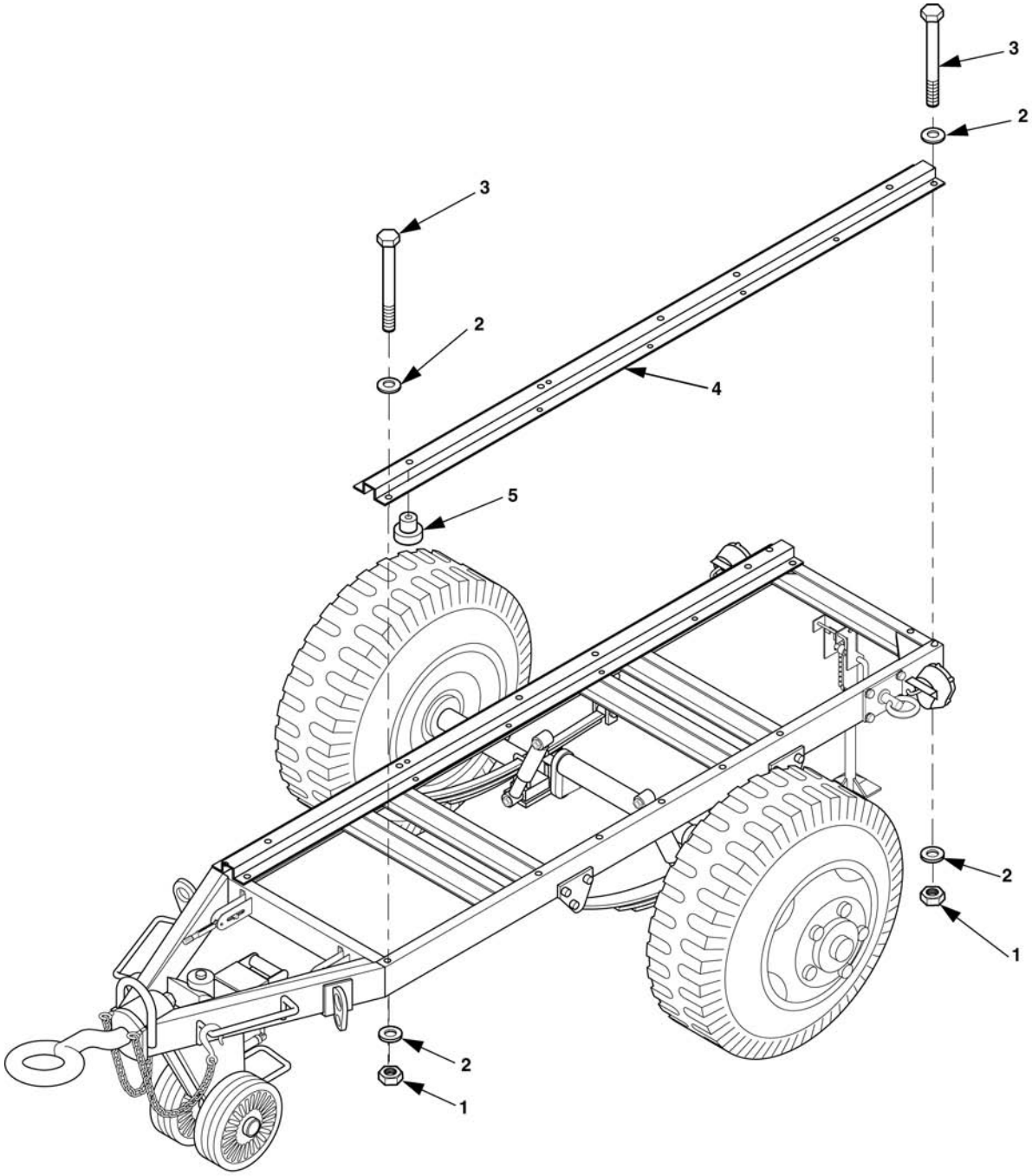


Figure 5-24. Replace AN/MJQ-36 Generator Mounting Rail.

5-21 PU-797 GENERATOR MOUNTING RAIL MAINTENANCE.

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.

Generator set removed; paragraph 5-6.
Accessory box removed; paragraph 4-19.
Front platform removed; paragraph 4-24.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

REMOVAL

Remove self-locking nuts (4, figure 5-25), flat washers (2), cap screws (1), and mounting rail (3).

INSTALLATION

Install mounting rail (3), cap screws (1), flat washers (2), and self-locking nuts (4).

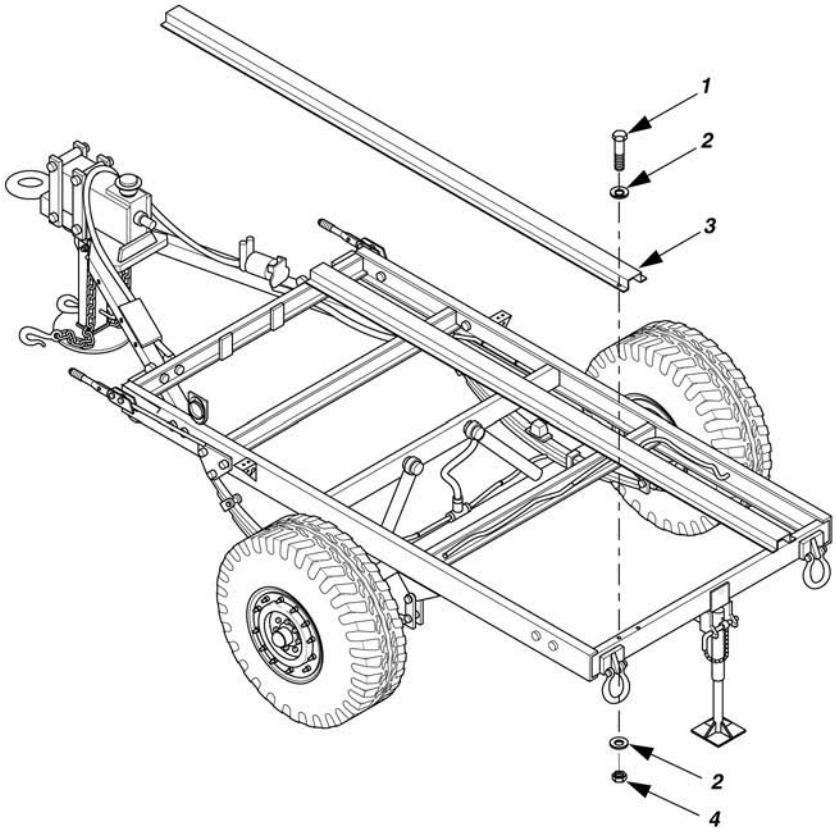


Figure 5-25. Replace PU-797 Generator Mounting Rail.

5-22 AN/MJQ-35 TRAILER LIFTING BRACKET MAINTENANCE.

This task covers: a. Removal b. Installation

INITIAL SETUP

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Jack Stands (item 2, 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.

Front generator set removed (if front lifting Bracket is being removed); paragraph 5-6.

Rear mounting rails removed (if rear lifting bracket is being replaced): paragraph 5-10.
Accessory box removed (if front lifting bracket is being replaced), paragraph 4-19.
Front mounting rails removed (if front lifting bracket is being replaced), para 5-10.

Personnel Required

Two

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

REMOVAL

1. REMOVE FRONT LIFTING BRACKET.

NOTE

If replacing front lifting bracket, proceed to step a. If removing front lifting bracket, proceed to step b.

a. Remove lifting rings (paragraph 4-21).

WARNING

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

b. Separate the power cable from front lifting bracket (2) by removing nut (20, figure 5-26), flat washer (19), and screw (18) from cable clamp (21).

WARNING

If trailer is not coupled to towing vehicle, ensure that wheels are securely chocked. Failure to comply with this warning can cause trailer to roll, resulting in severe personal injury and damage to equipment.

c. Release handbrakes (1).

d. Separate brake relocating brackets (4) from frame by removing two self-locking nuts (6), flat washers (5), and cap screws (3).

e. Remove ten self-locking nuts (16), flat washers (15), and cap screws (17) from front lifting bracket (2).

f. Remove three self-locking nuts (13), flat washers (14), and cap screws (12) that attach front lifting bracket (2) to top of frame.

g. Remove front lifting bracket (2).

2. REMOVE REAR LIFTING BRACKET.

NOTE

If replacing rear lifting bracket, proceed to step a. If removing rear lifting bracket, proceed to step b.

a. Remove lifting rings (paragraph 4-21) and reflectors (paragraph 4-22).

b. Separate the tail light bracket (11, figure 5-26) from trailer chassis by removing two self-locking nuts (8), flat washers (9), and screws (10).

c. Separate the power cable from rear lifting bracket (22) by removing nut (20), flat washer (19), and screw (18) from cable clamp (21).

d. Remove ten self-locking nuts (16), flat washers (15), and cap screws (17) from rear lifting bracket (22).

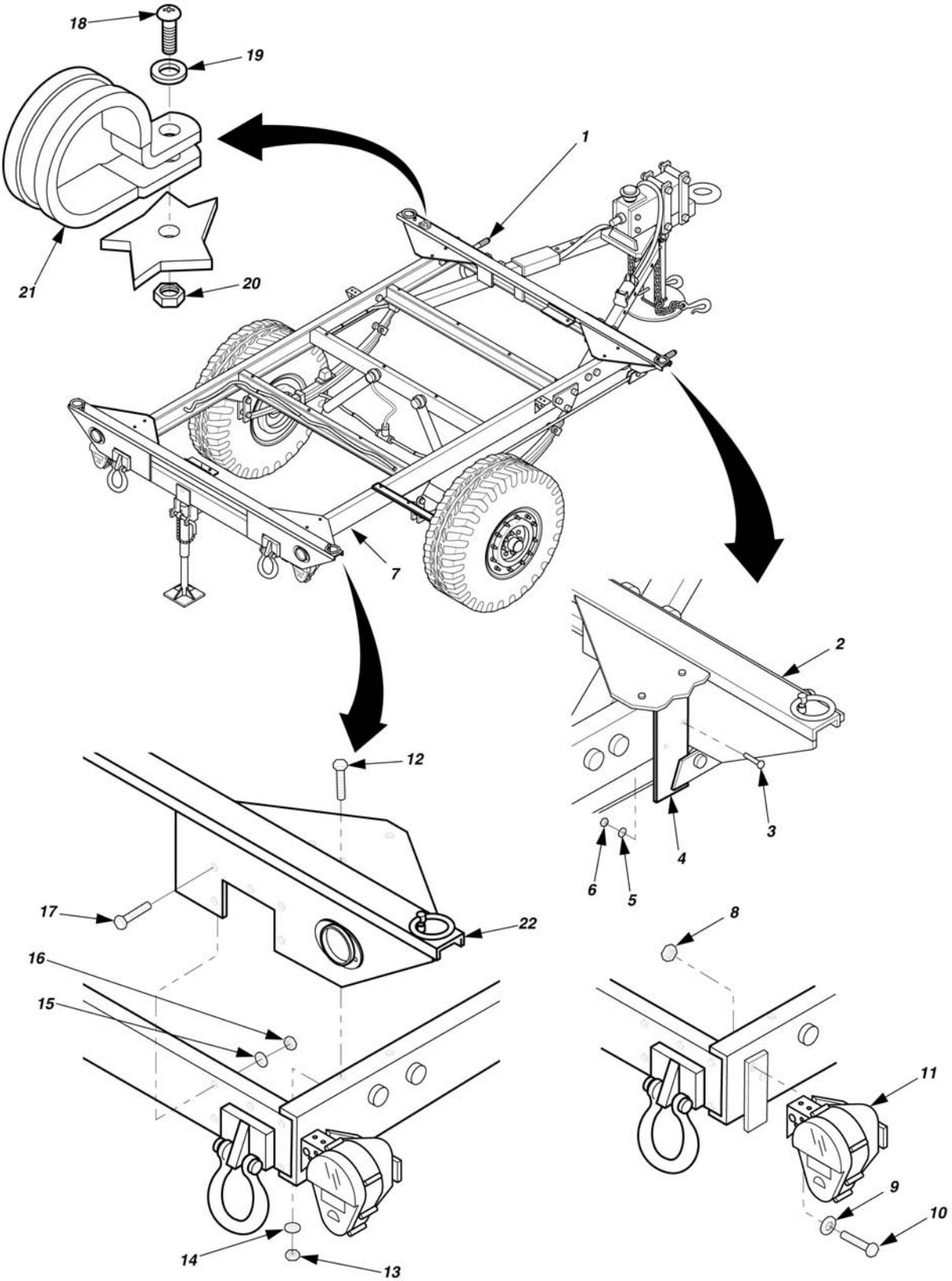


Figure 5-26. AN/MJQ-35 Trailer Lifting Bracket.

NOTE

Two sets of attaching hardware used on roadside and curbside top of bracket are removed when splash guard is removed.

e. Remove screw (12), flat washer (14), and self-locking nut (13) from inboard top hole of rear lifting bracket (22).

f. Remove rear lifting bracket (22).

INSTALLATION

1. INSTALL FRONT LIFTING BRACKET.

a. Position front lifting bracket (2) on trailer chassis (7).

b. Loosely install ten cap screws (17), flat washers (15), and self-locking nuts (16) in front lifting bracket (2).

c. Loosely install three cap screws (12), flat washers (14), and self-locking nuts (13) to attach front lifting bracket (2) to top of curbside front corner of trailer chassis (7).

d. Install mounting rails (paragraph 5-18).

NOTE

Loosely installed screws (12 and 17) will aid in alignment of holes in handbrake bracket.

e. Position brake relocating brackets (4), with attached handbrake lever (1), and loosely install four cap screws (3), flat washers (5), and self-locking nuts (6).

f. Tighten all self-locking nuts installed in steps b through e.

g. Install front generator set (paragraph 5-6).

h. If front lifting bracket is a replacement, install lifting rings (paragraph 4-21).

i. Position power cable clamp (21) and install screw (18), flat washer (19), and nut (20).

j. Set trailer handbrakes and remove wheel chocks.

k. Remove jack stands.

2. INSTALL REAR LIFTING BRACKET.

a. Position rear lifting bracket (22) on trailer chassis (7).

b. Loosely install ten cap screws (17), flat washers (15), and self-locking nuts (16) in rear lifting bracket (22).

NOTE

Two sets of attaching hardware used on roadside and curbside top of bracket are installed when splash guard is installed.

c. Loosely install cap screw (10), flat washer (14), and self-locking nut (13) to attach rear lifting bracket (22) to top of trailer chassis (7).

NOTE

Loosely installed screws (12 and 17) will aid in alignment of holes in handbrake bracket.

d. Install tail light bracket (11), two screws (10), flat washers (9), and self-locking nuts (8).

e. Tighten all self-locking nuts installed in steps b and c.

f. Install rear generator set (paragraph 5-6).

g. If rear lifting bracket is a replacement, install lifting rings (paragraph 4-21) and reflectors (paragraph 4-22).

h. Position power cable clamp (21) and install screw (18), flat washer (19), and nut (20).

5-23 PU-797A AND AN/MJQ-35A GENERATOR MOUNTING RAIL MAINTENANACE.

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

INITIAL SETUP

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Rivet Gun (item 8, appendix B)

Materials/Parts

Rivets (items 6, 8, 9, and 10, appendix I)

Equipment Conditions

Reference

Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered; paragraph 2-3.2.1. Accessory box removed; paragraph 4-19. Generator set removed; paragraph 5-6. Center floor removed; paragraph 5-16

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

REMOVAL

Remove rivets (1 and 2, figure 5-27) and mounting rail (3) from trailer chassis (4).

REPAIR

Repair of generator mounting rails consists of replacing rivets (5) and doubler plates (6 and 7), and rivets (8) and angle supports (9 and 10) as required.

INSTALLATION

Place mounting rail (3) on trailer chassis (4) and secure with rivets (1 and 2).

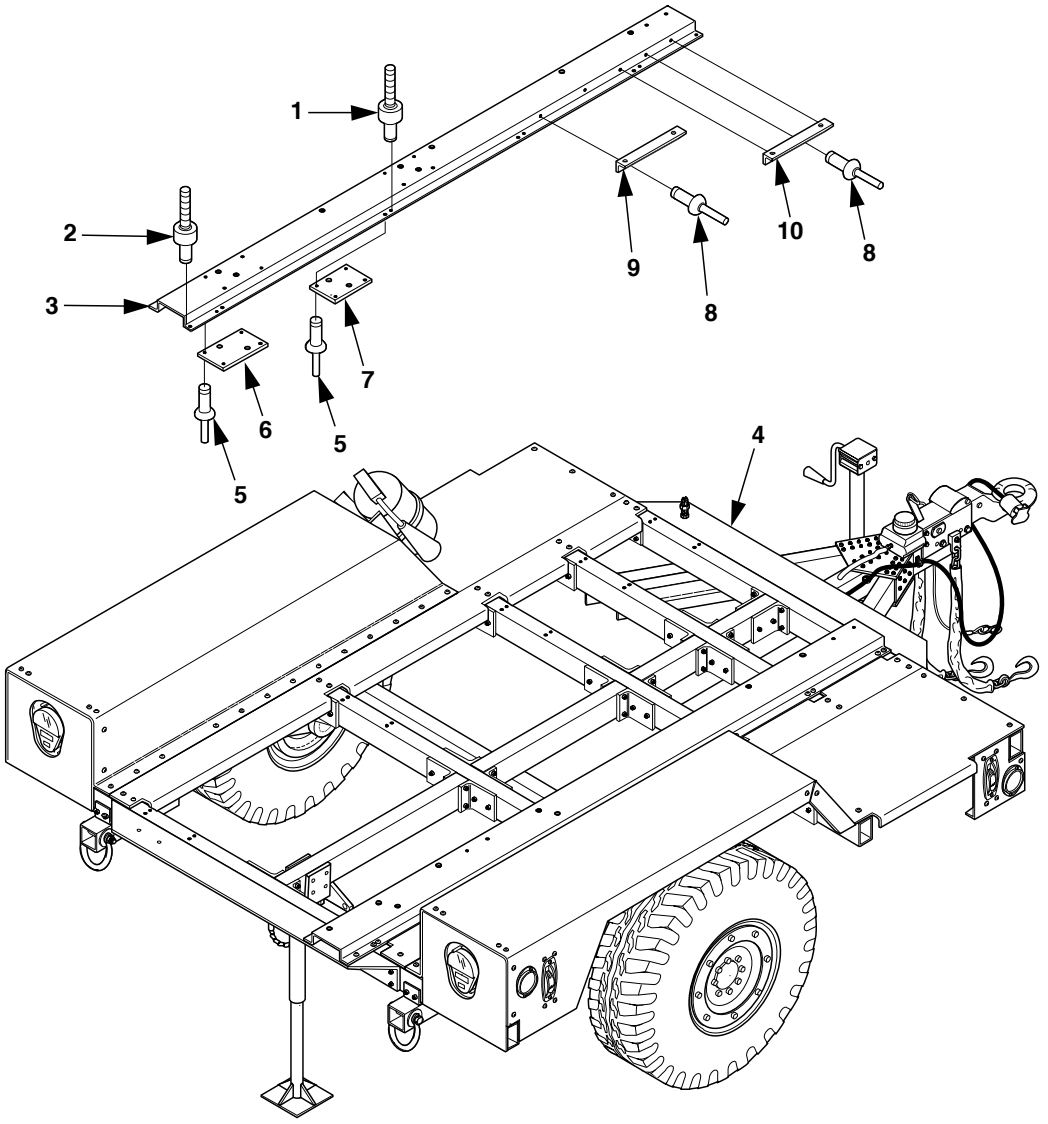


Figure 5-27. PU-797A and AN/MJQ-35A Generator Mounting Rail Replacement.

5-24 LIGHT TACTICAL TRAILER REAR LEVELING-SUPPORT JACK MAINTENANCE.

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

INITIAL SETUP

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Jack Stand (item 2, appendix B)

Materials/Parts

Pin, Cotter
Pin, Spring
Fitting, Lubrication (if needed)

Materials/Parts (Cont.)

Grease, GAA (item 3, appendix E)
Rivets (item 11, appendix I)

Equipment Conditions

Reference

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.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

REMOVAL

WARNING

Before removing trailer leveling-support jack, support rear of trailer with jack stand (s). Failure to observe this warning can cause severe personnel injury or death.

1. Support rear of trailer with jack stands.
2. Turn leg base (1, figure 5-28) to take weight off leg prop.
3. Remove either one of two cotter pins (2 or 3) from pivot shaft (4) and discard cotter pin.
4. Hold leg base (1) steady and remove pivot shaft (4) with remaining cotter pin in place.
5. Lift leg base (1) slightly to take weight off retaining pin (5) and remove retaining pin. Move leg base (1) and attached parts out of bracket (7).
6. Remove three rivets (6) and bracket (7) from trailer chassis (8).

REPAIR

Refer to paragraph 4-27.

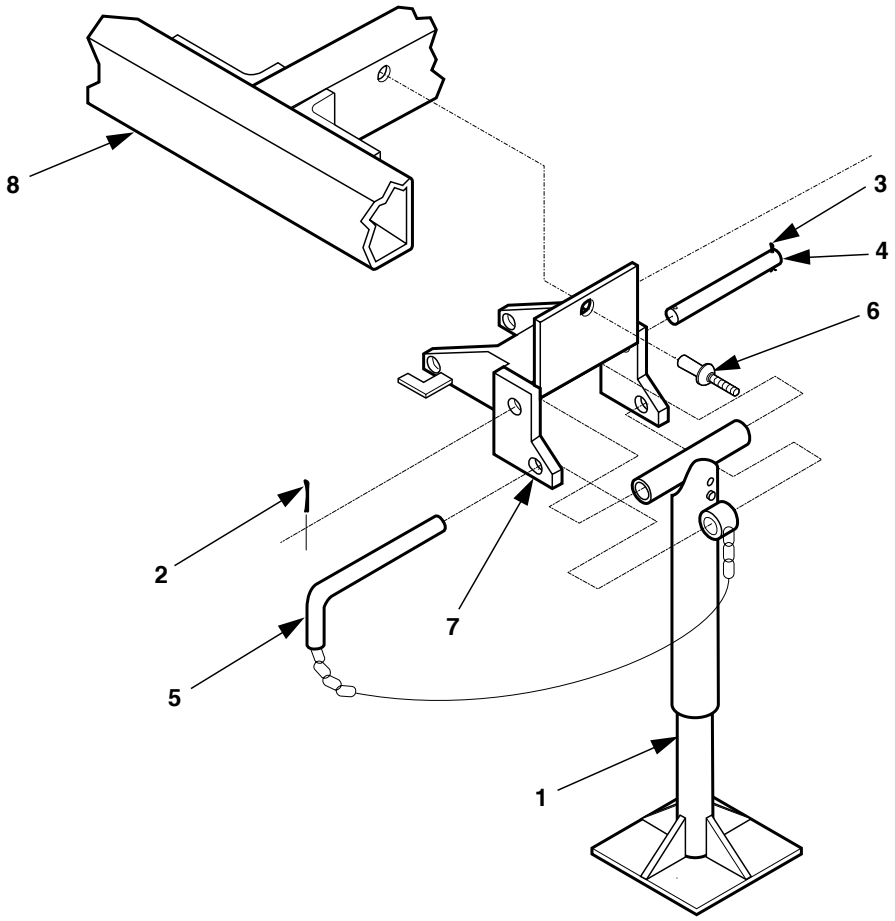


Figure 5-28. Rear Leveling-Support Jack Replacement, Light Tactical Trailer.

INSTALLATION

1. Install bracket (7) on trailer chassis (8), with three rivets (6).
2. Position leg base (1) and attached parts in bracket (7) and install retaining pin (5).
3. Position leg base (1) and install pivot shaft (4).
4. Install new cotter pin (2 or 3) in pivot shaft (4).
5. Lube rear leveling-support jack.

APPENDIX A

REFERENCES

A-1 SCOPE.

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

A-2 FORMS.

Recommended Changes to Publications and Blank Forms	DA Form 2028
Recommended Changes to Equipment Technical Publications	DA Form 2028-2
Hand Receipt	DA Form 2062
Equipment Inspection and Maintenance Worksheet	DA Form 2404
Maintenance Request	DA Form 2407
Equipment Log Assembly (Records)	DA Form 2408
Equipment Control Record	DA Form 2408-9
Oil Analysis Log	DA Form 2408-20
Equipment Inspection and Maintenance Worksheet	DA Form 5988-E
Preventive Maintenance Schedule and Record	DD Form 314
Accident Identification Card	DD Form 518
Processing and Deprocessing Record for Shipment, Storage, and Issue of Vehicles and Spare Engines	DD Form 1397
Motor Vehicle Accident Report	SF Form 91
Transportation Discrepancy Report	SF Form 361
Product Quality Deficiency Report	SF Form 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 738-50

A-5 MILITARY SPECIFICATIONS.

Barrier Materials, Transparent, Flexible, Heat Sealable	MIL-PRF-22191E(1)

A-6 COMMERCIAL ITEM DESCRIPTIONS.

Panels, Wood/Wood-Based, Construction and Decorative	A-A-55057
Paperboard, Wrapping and Cushioning	A-A-1051
Boxes, Wood, Cleated Plywood	ASTM-D6251 (PPP-B-601)
Standard Specification for Pressure-Sensitive Tape for Packing, Box Closure, and Sealing	ASTM-D5486/D5486M
Strapping, Steel, and Seals	ASTM-D3953-87
Generator Sets, Mobile Electric Power, Packaging of	MIL-STD-2073-1
Abbreviations for Use on Drawings, and in Specifications, Standards and Technical Documents	ASME-Y14.38M

APPENDIX A

REFERENCES (CONT'D)

A-7 MILITARY STANDARDS.

Marking for Shipment and Storage	MIL-STD-129P
Standard Requirements for Soldered Electrical and Electronic Assemblies	MIL-STD-2000
Preservation, Methods of	MIL-STD 2073-1

A-8 TECHNICAL MANUALS.

Operator's Unit, Direct Support and General Support Maintenance Manual (Including Repair Parts and Special Tools Lists),
TRAILER, CARGO, ¾ ton, 2-wheel
M101A1 (NSN 2330-00-898-6779)
M101A2 (NSN 2330-01-102-4697)
M101A3 (2330-01-372-5641)

TRAILER, CHASSIS, ¾ ton, 2-wheel
M116A1 (2330-00-898-6780)
M116A2 (2330-01-101-8434)
M116A2E1 (2330-01-333-9773)

TRAILER, CHASSIS, 1-ton, 2-wheel
M116A3 (2330-01-359-0080) ..... TM 9-2330-202-14&P

Operator's Unit, Direct Support and General Support Maintenance Manual (Including Repair Parts and Special Tools Lists),
TRAILER, CHASSIS: 1 ½ Ton, 2-wheel,
M103A1 (NSN 2330-00-835-8629)
M103A3 (NSN 2330-00-141-8052)

TRAILER, CARGO: 1 ½ ton, 2-wheel
M105A1 (NSN 2330-00-835-8631)
M105A2 (NSN 2330-00-141-8050)
M107A2C (NSN 2330-00-542-5688)

TRAILER, VAN, SHOP: FOLDING SIDES, 1-1/2 ton, 2-wheel
M448 (NSN 2330-00-631-5692) ..... TM 9-2330-213-14&P

Operator's Unit, Direct Support and General Support Maintenance Manual (Including Repair Parts and Special Tools Lists),
TRAILER, CARGO: LIGHT, 2-wheel,
M1101 (NSN 2330-01-387-5443)

TRAILER, CARGO: HEAVY 2-wheel
M1102 (NSN 2330-01-387-5426)

TRAILER, CHASSIS: 2-wheel
(NSN 2330-01-387-5424) ..... TM 9 2330-392-14&P

APPENDIX A

REFERENCES (CONT'D)

Operator's Manual, Generator Set, Skid Mounted, Tactical Quiet, 5kW, 60/400 Hz
MEP-802A (60 Hz) 6115-01-274-7387
MEP 812A (400 Hz) 6115-01-274-7391 ..... TM 9-6115-641-10

Unit, Direct Support and General Support Maintenance Manual, Generator Set,
Skid Mounted, Tactical Quiet, 5kW, 60/400 Hz
MEP-802A (60 Hz) 6115-01-274-7387
MEP812A (400 Hz) 6115-01-274-7391 ..... TM 9-6115-641-24

Repair Parts and Special Tools List: Generator Set, Tactical Quiet,
5kW, 60/400 Hz ..... TM 9-6115-641-24P

Unit, Direct Support and General Support Maintenance Instructions for Diesel Engine,
Model DN2M, 2 Cylinder .93 Liter (NSN 2815-01-350-2205) ..... TM 9-2815-252-24

Unit, Direct Support and General Support Maintenance
Repair Parts and Special Tools List: Diesel Engine, Model DN2M-1,
2 Cylinder .93 Liter (NSN 2815-01-350-2205)..... TM 9-2815-252-24P

Procedures for Destruction of Electronics Materiel to Prevent Enemy Use ..... TM 750-244-2

A-9 FIELD MANUALS.

Chemical and Biological Contamination Avoidance..... FM 3-3
NBC Protection..... FM 3-4
NBC Decontamination..... FM 3-5
Camouflage ..... FM 5-20
First Aid ..... FM 4-25.11
Operation and Maintenance of Ordnance Materiel in Cold Weather (0° to –65°).... FM 9-207
Electrical Power Generation in the Field ..... FM 20-31
Techniques of Military Instruction..... FM 21-6
Military Symbols..... FM 21-30
Chemical, Biological, Radiological, and Nuclear Defense..... FM 21-40
Manual for Wheeled Vehicle Driver..... FM 21-305
Basic Cold Weather Manual..... FM 31-70
Northern Operations ..... FM 31-71
Mountain Operations ..... FM 90-6

A-10 MISCELLANEOUS PUBLICATIONS.

Winterization Kit Installed On Generator Set, Skid Mounted, Tactical Quiet,
5kw, 60 And 400 Hz (NSN 6115-01-476-8973) ..... TB 9-6115-641-13
Army Logistics Readiness and Sustainability..... AR 700-138
Reporting of Supply Discrepancies ..... AR 735-11-2
Army Materiel Maintenance Policy and Retail Maintenance Operations ..... AR 750-1
Army Medical Department Expendable/Durable Items ..... CTA 8-100
Expendable Items (Except Medical Class V, Repair Parts, and Heraldic Items) ..... CTA 50-970
Operator's Circular, Welding Theory and Application ..... TC 9-237

APPENDIX A

REFERENCES (CONT'D)

A-11 LUBRICATION ORDERS.

Lubrication Order: Generator Set, Skid Mounted, Tactical Quiet, 5kW, MEP-802A (60 Hz), MEP 812A (400 Hz)……LO 9-6115-641-12

Lubrication Order: Diesel Engine, Model No.: DN2M, 2 Cylinder .93 Liter……LO 9-2815-252-12

APPENDIX B
OPERATOR AND FIELD MAINTENANCE, INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST
TWO-LEVEL MAINTENANCE ALLOCATION CHART (MAC) INTRODUCTION

Section I. INTRODUCTION

The Army Maintenance System MAC

This introduction provides a general explanation of all maintenance and repair functions authorized at various maintenance levels under the two-level Army Maintenance System concept.

The MAC (immediately following the introduction) 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 shall be consistent with the capacities and capabilities of the designated maintenance levels, which are shown on the MAC in column (4) as:

Field Level – includes three subcolumns, C (operator/crew), O (unit) maintenance, and F (direct support)

Sustainment Level – includes two subcolumns, H (general support) and D (depot).

The tools and test equipment requirements (immediately following the MAC) list the tools and test equipment (both special tools and common tool sets) required for each maintenance function as referenced from the MAC.

The remarks (immediately following the tools and test equipment requirements) contain supplemental instructions and explanatory notes for a particular maintenance function.

Maintenance Functions

Maintenance functions are limited to and defined as follows:

1. **Inspect.** 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). This includes scheduled inspection and gagings and evaluation of cannon tubes.
2. **Test.** To verify serviceability by measuring the mechanical, pneumatic, hydraulic, or electrical characteristics of an item and comparing those characteristics with prescribed standards on a scheduled basis, i.e., load testing of lift devices and hydrostatic testing of pressure hoses.
3. **Service.** Operations required periodically to keep an item in proper operating condition; e.g., to mark (restore obliterated identification), to clean (includes decontaminate, when required), to preserve, to drain, to touchup paint, or to replenish fuel, lubricants, chemical fluids, or gases. This includes scheduled exercising and purging of recoil mechanisms.
4. **Adjust.** To maintain or regulate, within prescribed limits, by bringing into proper position, or by setting the operating characteristics to specified parameters.
5. **Align.** To adjust specified variable elements of an item to bring about optimum or desired performance.

Maintenance Functions - Continued

6. **Calibrate.** To determine and cause corrections to be made or to be adjusted on instruments of 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.
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.
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.
9. **Repair.** The application of maintenance services, including fault location/troubleshooting, removal/installation, disassembly/assembly procedures, painting, and maintenance actions 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.

NOTE

The following definitions are applicable to the "repair" maintenance function:

Services. Inspect, test, service, adjust, align, calibrate, and/or replace.

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).

Disassembly/assembly. The step-by-step breakdown (taking apart) of a spare/functional group coded item to the level of its lowest component, that is assigned an SMR code for the level of maintenance under consideration (i.e., identified as maintenance significant).

Actions. Welding, grinding, riveting, straightening, facing, machining, and/or resurfacing.

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 publications (i.e., DMWR/NMWR). Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.
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 measurements (e.g., hours/miles) considered in classifying Army equipment/components.

Explanation of Columns in the MAC, Section II.

Column (1) Group Number. 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).

Column (2) Component/Assembly. Column (2) contains the item names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

Column (3) Maintenance Function. Column (3) lists the functions to be performed on the item listed in column (2). (For a detailed explanation of these functions refer to "Maintenance Functions" outlined above.)

Explanation of Columns in the MAC - Continued

Column (4) Maintenance Level. 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 are to 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 time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the MAC. The symbol designations for the various maintenance levels under the two level maintenance concept are as follows:

Field:
C - Operator or Crew maintenance
O - Unit maintenance
F - Direct Support maintenance

Sustainment:
L - Specialized Repair Activity (SRA)
H - General Support maintenance
D - Depot maintenance

NOTE

The "L" maintenance level is not included in 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.

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.

Column (6) Remarks Code. When applicable, this column contains a letter code, in alphabetical order, which is keyed to the remarks table entries.

Explanation of Columns in the Tools and Test Equipment Requirements, Section III.

Column (1) Tool or Test Equipment Reference Code. The tool or test equipment reference code correlates with a code used in column (5) of the MAC.

Column (2) Maintenance Level. The lowest level of maintenance authorized to use the tool or test equipment under the two-level MAC.

Column (3) Nomenclature. Name or identification of the tool or test equipment.

Column (4) National Stock Number (NSN). The NSN of the tool or test equipment.

Column (5) Tool Number. The manufacturer's part number, model number, or type number.

Explanation of Columns in the Remarks, Section IV.

Column (1) Remarks Code. The code recorded in column (6) of the MAC.

Column (2) Remarks. This column lists information pertinent to the maintenance function being performed as indicated in the MAC.

Section II. TWO-LEVEL MAINTENANCE ALLOCATION CHART FOR POWER UNITS PU-797, PU-797A POWER PLANTS AN/MJQ-35, AN/MJQ-35A, AND AN/MJQ-36

(1) Group Number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance Level					(5) Tools & Equip Ref Code	(6) Remarks Code
			Field			Sustainment			
			Unit		Direct Support	General Support	Depot		
			C	O	F	H	D		
00	POWER PLANT/POWER UNIT	Inspect	0.2						A, B, C
			0.1						A, D
0100	GENERATOR SET	Inspect	0.2	0.5					A
		Test		1.0	1.0				F, G
		Service	0.3	0.3					E, F, G
		Adjust		0.3					F, G
		Repair		1.5	1.5				E, F, G
		Remove			1.5			1, 3	
		Replace			1.5			1, 3	J
0200	ELECTRICAL SYSTEM								B, C
0201	POWER CABLES	Inspect		0.1					A
		Test		0.3				1, 2	
		Remove		0.5				1	
		Repair			1.1			1, 3, 4	K
		Replace		0.5				1	J
0202	SWITCH BOX ASSEMBLY	Inspect	0.1	0.1					A
		Remove		0.5				1	
		Repair		0.3				1, 5	
		Replace			0.5			1	J
020201	RELAY BOARD ASSEMBLY	Test			1.0			1, 3	
		Repair			1.0			1, 3	
02020101	RELAYS	Test			0.2			1, 3	
		Remove			0.1			1	
		Replace			0.1			1	J
020202	RELAY, PERMISSIVE PARALLELING	Test			1.0			1,3	
		Remove			0.5			1	
		Replace			0.5			1	J
020203	LIGHTS/LAMPS	Test		0.2				1, 2	
		Remove		0.2				1	
		Repair		0.3				1,2	
		Replace		0.2				1	J

Section II. TWO-LEVEL MAINTENANCE ALLOCATION CHART FOR POWER UNITS PU-797, PU-797A POWER PLANTS AN/MJQ-35, AN/MJQ-35A, AND AN/MJQ-36 (Continued)

(1) Group Number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance Level					(5) Tools & Equip Ref Code	(6) Remarks Code
			Field			Sustainment			
			Unit		Direct Support	General Support	Depot		
			C	O	F	H	D		
020204	SWITCHES	Test		0.2				1, 2	
		Remove		0.2				1	
		Replace		0.2				1	J
020205	LEADS/HARNESSES	Test			0.3			1, 3	
		Remove			0.4			1	
		Repair			0.9			1, 3, 4	
		Replace			0.4			1	J
020206	TERMINAL LOAD	Inspect	0.1	0.1					A
		Remove		0.5				1	
		Repair		0.2				1	
		Replace		0.5				1	J
020207	CONTACTOR	Test			0.2			1, 3	
		Remove			0.5			1	
		Replace			0.5			1	J
020208	RESISTORS	Test			0.2			1, 3	
		Replace			0.4			1	
0300	ACCESSORIES	Inspect	0.1						A, B, C, D, L, M
0301	BOX, ACCESSORY	Inspect	0.1						A
		Remove		0.2				1	
		Repair		0.5				1, 5	
		Replace		0.2				1	J
0302	FIRE EXTINGUISHER/BRACKET	Inspect	0.1	0.1					A
		Remove		0.2				1	
		Replace		0.2				1	J

Section II. TWO-LEVEL MAINTENANCE ALLOCATION CHART FOR POWER UNITS PU-797, PU-797A POWER PLANTS AN/MJQ-35, AN/MJQ-35A, AND AN/MJQ-36 (Continued)

NOTE

See remarks for applicable Power Unit/Power Plant.

(1) Group Number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance Level					(5) Tools & Equip Ref Code	(6) Remarks Code
			Field			Sustainment			
			Unit		Direct Support	General Support	Depot		
			C	O	F	H	D		
0400	TRAILER ASSEMBLY	Inspect	0.2	0.2					A, H, I, N
0401	FENDERS	Remove		1.5				1	D
				3.0				1	B, C
					2.0			1, 8	L
					4.0			1, 8	M
		Repair			2.0			1, 6, 7	D, L
					4.0			1, 6, 7	B, C, M
		Replace		1.5				1	D, J, L
				3.0				1	B, C, J, M
					2.0			1, 8	J, L
					4.0			1, 8	J, M
0402	TRAILER LEVELLING-SUPPORT JACK	Inspect	0.1	A					
		Service		0.2				1	A
		Remove		0.3				1	B, C, D
					0.5			1, 8	L, M
		Repair		0.8				1	
		Replace		0.3				1	J
					0.5			1, 8	J

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS
POWER UNITS PU-797, PU-797A
POWER PLANTS AN/MJQ-35, AN/MJQ-35A, AND AN/MJQ-36

(1) TOOL OR TEST EQUIP-MENT REF CODE	(2) MAINTENANCE LEVEL	(3) NOMENCLATURE	(4) NATIONAL/NATO STOCK NUMBER	(5) TOOL NUMBER
1	O, F	TOOL KIT, GENERAL MECHANIC'S	5180-00-177-7033	SC 5180-90-CL-N26
2	O	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:	--	--
4	F	CRIMPING TOOL, HYDRAULIC, WIRE SIZE 8 THRU 4/0	5130-00-762-9100	MS25441
5	O	RIVETER, BLIND HEAD	5120-00-148-5847	--
6	F	TOOL KIT, BODY AND FENDER REPAIR	5180-00-357-7731	SC 5180-95-CL-N62
7	F	SHOP EQUIPMENT, WELDING, FIELD	3470-00-357-7268	SC 3470-95-CL-A08
8	F	RIVET GUN, PNEUMATIC	--	--
9	O	MULTIMETER (AN/PSM-45L)	--	--

Section IV. REMARKS

(1) REFERENCE CODE	(2) REMARKS
A	Preventive Maintenance Checks and Service (PMCS).
B	AN/MJQ-35 only.
C	AN/MJQ-36 only.
D	PU-797 only.
E	Refer to TM 9-6115-641-10 for generator set operator maintenance.
F	Refer to TM 9-6115-641-24 for generator set unit and higher level maintenance.
G	Refer to TM 9-2815-252-24 for engine maintenance.
H	Refer to TM 9-2330-202-14&P for 1 ton trailer maintenance.
I	Refer to TM 9-2330-213-14&P for 1 1/2 ton trailer maintenance.
J	Replace is the same as Removal and Installation.
K	Refer to Appendix G for repair.
L	PU-797A only.
M	AN/MJQ-35A only.
N	Refer to TM 9-6115-392-14&P for high mobility trailer maintenance.

APPENDIX C
COMPONENTS OF END ITEM (COEI) AND BASIC ISSUE ITEMS (BII) LISTS

Section I. INTRODUCTION

C-1 SCOPE.

This appendix lists components of the end items and basic issue items for the power unit and power plant to help you inventory the items for safe and efficient operation of the equipment.

C-2 GENERAL.

The Components of End Item and Basic Issue Items (BII) Lists are divided into the following sections:

C-2.1 Section II, Components of End Item. This listing is for information purposes only, and is not authority to requisition replacements. There are no components of end item for the power units and power plant.

C-2.2 Section III, Basic Issue Items. These essential items are required to place the (enter name of end item) in operation, operate it, and to do emergency repairs. Although shipped separately packaged, BII must be with the power units and power plant during operation and when it is transferred between property accounts. Listing these items 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.

C-3 EXPLANATION OF COLUMNS.

C-3.1 Column (1), Illus Number. Column (1), Illus Number, gives you the number of the item illustrated.

C.3.2 Column (2), National Stock Number. Column (2), National Stock Number, identifies the stock number of the item to be used for requisitioning purposes.

C-3.3 Column (3), Description and Usable On Code. Column (3), Description and Usable On Code, identifies the Federal item name (in all capital letters) followed by a minimum description when needed. The last line below the description is the CAGEC (Commercial and Government Entity Code) (in parenthesis) and the part number. If the item you need is not the same for different models of the equipment, a Usable On Code will appear on the right side of the description column on the same line as the part number. These codes are identified below:

USABLE ON CODE	USED ON
YJD	AN/MJQ-35
YJC	AN/MJQ-35A
YJB	AN/MJQ-36
EVR	PU-797
YFS	PU-797A

C-3.4 Column (4), U/I (unit of issue). Column (4), U/I (unit of issue), indicates how the item is issued for the National Stock Number shown in column two.

C-3.5 Column (5), Qty Reqd. Column (5), Qty Reqd, indicates the quantity required.

Section II. COMPONENTS OF THE END ITEM (COEI)

(1) Illus. No.	(2) National Stock Number	(3) Description (CAGEC) and Part Number	(4) U/M	(5) Qty
1	6115-01-332-0741	PU-797	EA	1
2	6115-01-392-0295	1 Ton Trailer, M116A3	EA	1
3	6115-01-274-7387	Generator, 5kw 60Hz, MEP802A	EA	1
1	6115-01-413-3820	PU-797A	EA	1
2	2330-01-387-5424	1 Ton Trailer, LTT	EA	1
3	6115-01-274-7387	Generator, 5kw 60Hz, MEP802A	EA	1
1	6115-01-313-4216	PP-AN/MJQ-35	EA	1
2	6115-01-464-0225	1 Ton Trailer, M116A3	EA	1
3	6115-01-274-7387	Generator, 5kw 60Hz, MEP802A	EA	2
4	5930-01-447-6646	Switch Box, P/N 13230E6535	EA	1
1	6115-01-414-9697	PP-AN/MJQ-35A	EA	1
2	6115-01-464-0225	1 Ton Trailer, LTT	EA	1
3	6115-01-274-2387	Generator, 5kw 60Hz, MEP802A	EA	2
4	5930-01-447-6646	Switch Box, P/N 13230E6535	EA	1
1	6115-01-313-4215	PP-AN/MJQ-36	EA	1
2	2330-00-141-8052	1.5 Ton Trailer, M103A3	EA	1
3	6115-01-274-2387	Generator, 5kw 60Hz, MEP802A	EA	2
4	5930-01-447-6646	Switch Box, P/N 13230E6535	EA	1

Section III. BASIC ISSUE ITEMS (BII)

NOTE

The following usable on codes apply to all illustrations
On the BII list, YJD, YJC, YJB, EVR and YFS.

(1) Illus. No.	(2) National Stock Number	(3) Description (CAGEC) and Part Number	(4) U/M	(5) Qty
1	5342-00-066-1235	Adapter Assy, Fuel Drum (06076) 13211E7541	EA	1
2	4710-00-185-6948	Pipe (97403) 13211E7543	EA	1
3	4710-00-597-8731	Pipe, Extension (97403) 13211E7542	EA	1
4	5120-00-251-4489	Hammer, Hand, Engineers, Double, 8# (58536) A-A-1293	EA	1
5	5120-01-013-1676	Slide Hammer, Ground Rod (97403) 13226E7741	EA	1
6	4210-01-361-6921	Extinguisher, Fire, Carbon Dioxide (54905) 322	EA	1
7	5975-00-878-3791	Rods, Ground (w/attachments), Sectional 9 Ft. (58536) A-A-55804-III-B	EA	1
		Rods, Ground, 3’	EA	3
		Couplings, (Three in Set)	EA	1
		Drive/Head Stud	EA	1
		Wire, Electrical, No. 6 AWG, 7 Strands, Class B, Temper, 6ft Long ASTM B8	EA	1
		Clamp	EA	1
		Ground Terminal Lug	EA	1
8	4730-00-809-9703	Elbow, Pipe to Hose (97403) 13236380-4	EA	1
9	4730-01-470-2409	Clamp, Hose, Low Pressure, Type F, Size 12, SAE J1508 (30554), 88-20561-2	EA	1
10	4720-01-386-4210	Hose, Nonmetallic (98441) 160-12-24	EA	1
11		TM 9-6115-659-13&P	EA	1

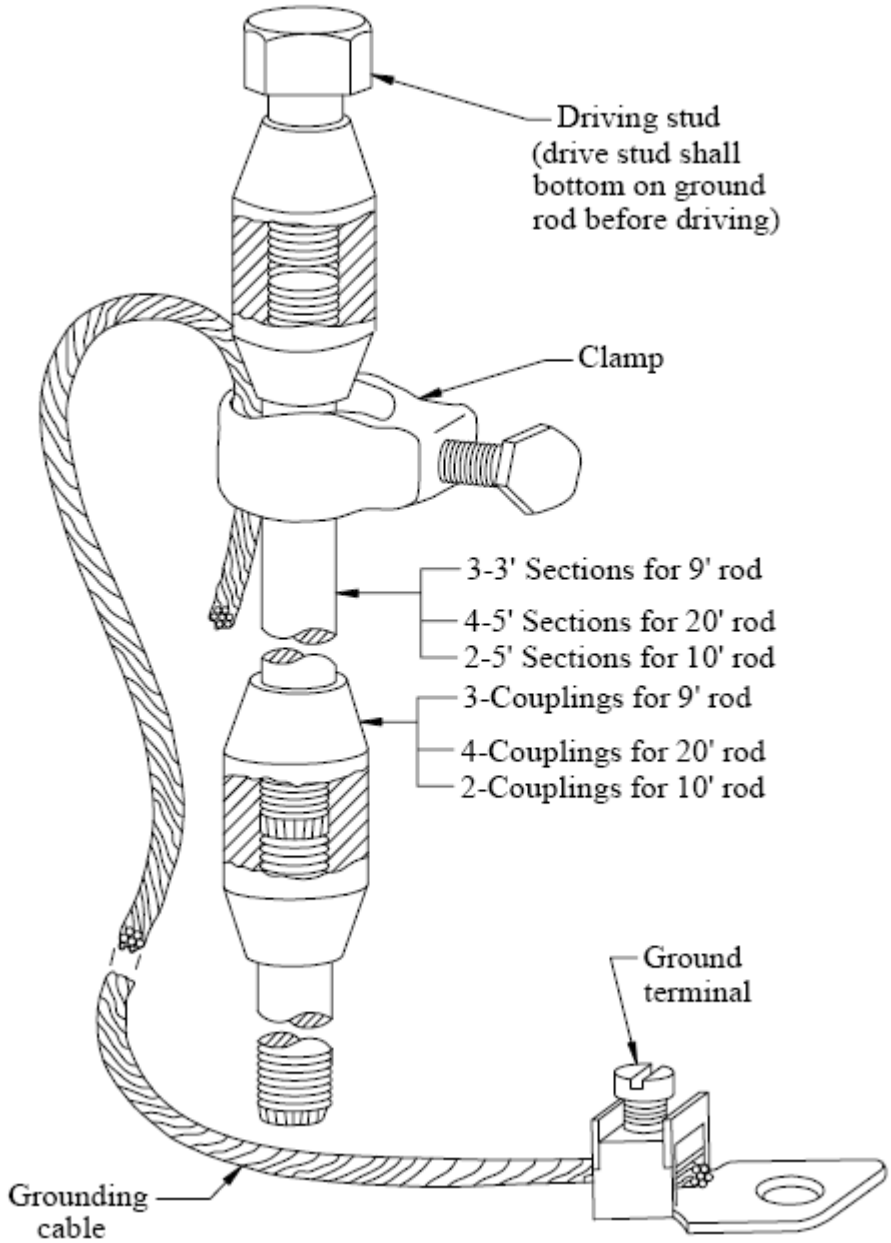
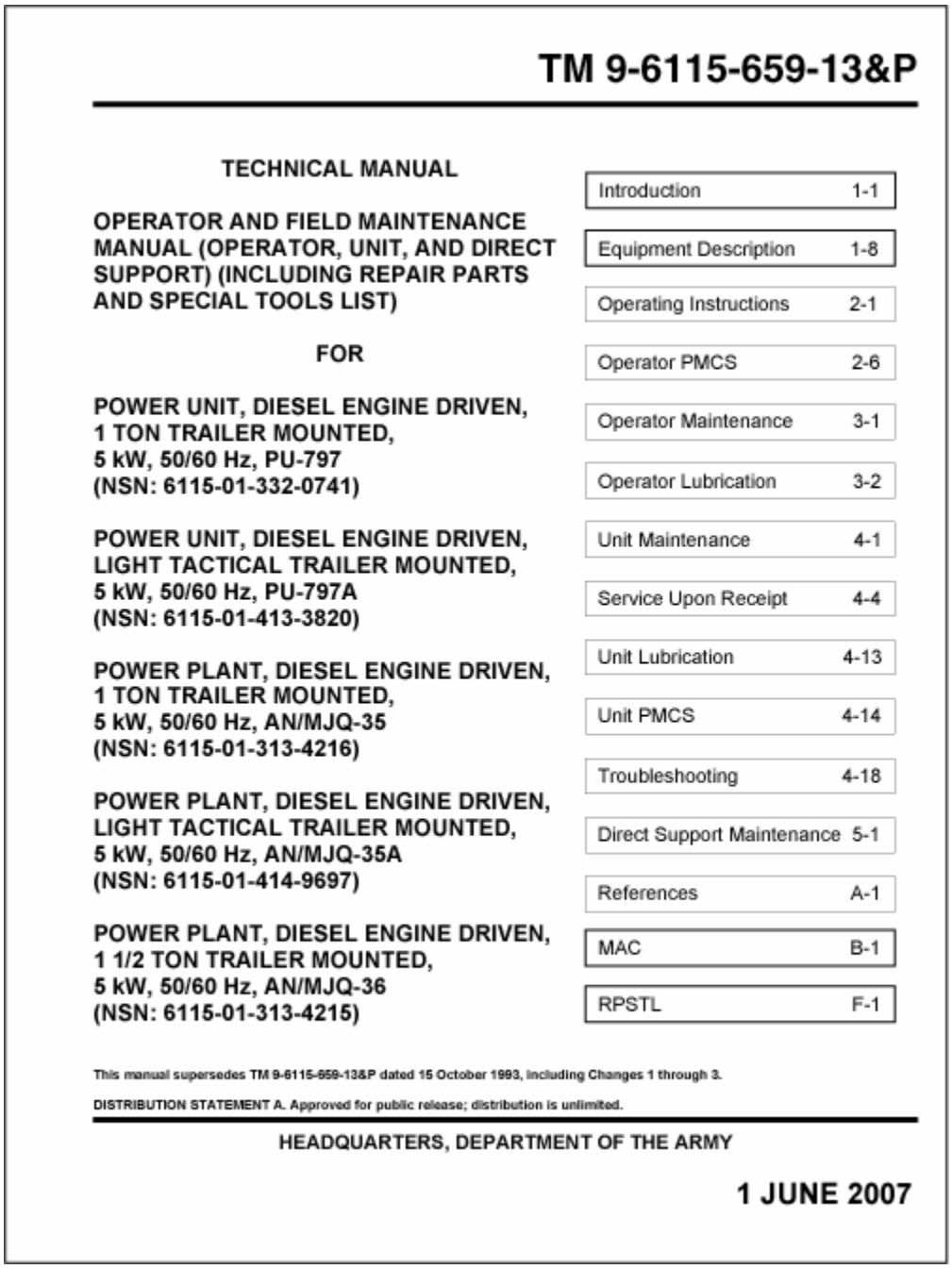


Figure C-1. Item 7, Basic Issue Items, Rods, Ground (with attachments), Sectional 9 Ft.



TM 9-6115-659-13&P

TECHNICAL MANUAL

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

FOR

POWER UNIT, DIESEL ENGINE DRIVEN, 1 TON TRAILER MOUNTED, 5 kW, 50/60 Hz, PU-797 (NSN: 6115-01-332-0741)

POWER UNIT, DIESEL ENGINE DRIVEN, LIGHT TACTICAL TRAILER MOUNTED, 5 kW, 50/60 Hz, PU-797A (NSN: 6115-01-413-3820)

POWER PLANT, DIESEL ENGINE DRIVEN, 1 TON TRAILER MOUNTED, 5 kW, 50/60 Hz, AN/MJQ-35 (NSN: 6115-01-313-4216)

POWER PLANT, DIESEL ENGINE DRIVEN, LIGHT TACTICAL TRAILER MOUNTED, 5 kW, 50/60 Hz, AN/MJQ-35A (NSN: 6115-01-414-9697)

POWER PLANT, DIESEL ENGINE DRIVEN, 1 1/2 TON TRAILER MOUNTED, 5 kW, 50/60 Hz, AN/MJQ-36 (NSN: 6115-01-313-4215)

This manual supersedes TM 9-6115-659-13&P dated 15 October 1993, including Changes 1 through 3.

HEADQUARTERS, DEPARTMENT OF THE ARMY

1 JUNE 2007

Figure C-2. TM 9-6115-659-13&P

APPENDIX D

ADDITIONAL AUTHORIZATION LIST (AAL)

Section I. INTRODUCTION

D-1 SCOPE.

This appendix lists additional items you are authorized for the support of the power plant/power unit.

D-2 GENERAL.

The AAL (Table 1) identifies items that do not have to accompany the power unit/power plant and that do not have to be turned in with it. These items are authorized to you by Common Table of Allowances (CTA), MTOE, Table of Distribution and Allowances (TDA), or Joint Table of Allowances (JTA).

AAL COLUMN DESCRIPTIONS (TABLE 1).

Column (1) – NATIONAL STOCK NUMBER. This column identifies the stock number of the item to be used for requisitioning purposes.

Column (2) – DESCRIPTION, PART NUMBER, AND CAGE. Identifies the Federal item name (in all capital letters) followed by a minimum description when needed. The last line below the description is the CAGE, in parentheses, and the part number.

Column (3) – USABLE ON CODE. When applicable, gives a code if the item you need is not the same for different models of equipment.

Column (4) – U/M. Indicates the unit of measure or count of the item as issued per the National Stock Number shown in column (1).

Column (5) – QTY RECM. Indicates the quantity recommended.

D-3. EXPLANATION OF LISTING.

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 models shown under the “Usable on” heading in the description column. These codes are identified as:

CODE	USED ON	CODE	USED ON
YJD	AN/MJQ-35	YJC	AN/MJQ-35A
YJB	AN/MJQ-36	EVR	PU-797
YFS	PU-797A		

NOTE

All five “usable on” codes listed above apply to all illustrations on the AAL list.

APPENDIX D

ADDITIONAL AUTHORIZATION LIST (AAL) (CONT'D)

Section II. ADDITIONAL AUTHORIZED ITEMS LIST

Table 1. Additional Authorized List.

(1) NATIONAL STOCK NUMBER	(2) DESCRIPTION, CAGEC, AND PART NUMBER	(3) USABLE ON CODE	(4) U/M	(5) QTY RECM
5975-00-878-3791	RODS, GROUND (WITH ATTACHMENTS), SECTIONAL 9 FT (58536) AA55804-III-B		EA	1
5975-00-794-2523	COUPLINGS, (THREE IN SET)		EA	1
5975-00-924-9927	DRIVE/HEAD STUD		EA	1
6145-00-395-8799	WIRE, ELECTRICAL, NO. 6 AWG, 7 STRANDS, CLASS B, TEMPER, 6FT LONG ASTM B8		EA	1
5999-00-186-3912	CLAMP		EA	1
5940-00-271-9504	GROUND TERMINAL LUG		EA	1
5310-01-477-1264	WASHER, FLAT (30554) 88-20564-15		EA	1
5310-01-365-5788	NUT, SELF LOCKING HEXAGON, PREVAILING TORQUE (30554) 88-21930-2		EA	1
5120-01-013-1676	HAMMER, SLIDE (97403) 13226E7741		EA	1
4210-00-361-6921	EXTINGUISHER, FIRE, CARBON DIOXIDE, 5 LB (54905) 322		EA	1
5342-00-066-1235	ADAPTER, CONTAINER (97403) 13211E7541		EA	1
4710-00-185-6948	PIPE (97403) 13211E7543		EA	1
4710-00-597-8731	PIPE, EXTENSION (97403) 1311E7542		EA	1
7240-01-337-5269	FUEL CAN		EA	1
7240-00-177-6154	FLEXIBLE SPOUT		EA	1
5100-00-494-1911	WRENCH, PLIER, CURVED JAW (81348) GGG-W-00649, TYPE 1, CLASS2, STYLE B		EA	2

APPENDIX E

EXPENDABLE AND DURABLE ITEMS LIST

Section I. INTRODUCTION

E-1 SCOPE.

This appendix lists expendable and durable items that you will need to operate and maintain the AN/MJQ-35, AN/MJQ-35A, AN/MJQ-36 Power Plants and PU-797 and PU-79A Power Units. This listing is for information 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 8-1000, Army Medical Department Expendable/Durable Items.

E-2 EXPLANATON OF COLUMNS.

E-2.1. **Column (1), Item Number**. This number is assigned to the entry in the listing and is referenced in the narrative instructions to identify the item (e.g., "Use cleaning solvent, P-D-680. item, 1. Appendix E").

E-2.2 **Column (2), Level.** This column identifies the lowest level of maintenance that requires the item.

E-2.3 **Column (3), National Stock Number.** This is the national stock number assigned to the item, which you can use to requisition it.

E-2.4. **Column (4), Item Name, Description, Commercial and government Entity Code (CAGEC), and Part Number.** This provides the other information you need to identify the item.

E-2.5 **Column (5), Unit of Measure.** This code shows the physical measurement or count of an item, such as gallon, dozen, gross, etc.

Section II. EXPENDABLE AND DURABLE ITEMS LIST

Table 1. Expendable and Durable Items List.

(1) ITEM NUMBER	(2) LEVEL	(31) NATIONAL STOCK NUMBER	(2) ITEM NAME, DESCRIPTION, CAGEC, AND PART NUMBER	(4) U/M
1	O	6850-01-331-3349	Cleaning compound, solvent (81348) P-D-680	EA
2	O	6850-01-331-3350	Cleaning compound, solvent (81348) P-D-680	EA
3	O	9150-00-190-0904	Grease, Automotive/artillery GAA (81349) MIL-G-10924	EA
4	O	9150-00-189-6727	Oil, Lubrication OE/HDO-10 (81349) MIL-D-2104	EA
5	O,F		Solder, Sn60Pb40 (81348)	
6	O,F	8040-00-664-4318	Adhesive, 9995460 (18876)	

APPENDIX F
UNIT AND DIRECT SUPPORT MAINTENANCE
REPAIR PARTS AND SPECIAL TOOLS LIST

Section I. INTRODUCTION

F-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 operator, unit, and direct support maintenance of the AN/MJQ-35, AN/MJQ-35A and AN/MJQ-36 Power Plants and PU-797 and PU-797A Power Unit. It authorizes the requisitioning, issue, and disposition of spares, repair parts and special tools as indicated by the source, maintenance and recoverability (SMR) codes.

F-2 GENERAL.

In addition to Section I, Introduction, the Repair Parts and Special Tools List is divided into the following sections:

F-2.1 Section II. - Repair Parts List. 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. Bulk materials are listed by item name FIG BULK at the end of the section. Repair parts kits or sets are listed separately in their own functional group within Section II.

F-2.2 Section III. - Special Tools List. A list of special tools, special TMDE, and other special support equipment authorized by this RPSTL (as indicated by Basis of Issue (BOI) information in DESCRIPTION AND USABLE ON CODE (UOC) column) for the performance of maintenance. (There are no special tools for the Power Plants/Power Units.).

F-2.3 Section IV. - Cross-reference Indexes. A list, in National item identification number (NIIN) sequence, of all National stock numbered items appearing in the listings, followed by a list in alphanumeric sequence of all part numbers appearing in the listing. National stock numbers and part numbers are cross-referenced to each illustration figure and item number appearance. The figure and item number index lists figure and item number in alphanumeric sequence and cross-references NSN, CAGEC and part number.

F-3 EXPLANATION OF COLUMNS (SECTIONS II and III).

F-3.1 ITEM NO. (Column (1)). Indicates the number used to identify items called out in the illustration.

F-3.2 SMR CODE (Column (2)). The Source, Maintenance, and Recoverability (SMR) code is a 5-position code containing supply/requisitioning information, maintenance category authorization criteria, and disposition instruction, as shown in the following breakout:

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

*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.

F-3.2.1 Source Code. The source code tells you how to get an item needed for maintenance, repair, or overhaul of an end item/equipment. Explanations of source codes follows:

Code	Explanation
PA, PB, PC**, PD, PE, PF, PG	Stocked items; use the applicable NSN to request/requisition items with these codes. They are authorized to the maintenance level indicated by the code entered in the 3d 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 category indicated in the 3d position of the SMR code. The complete kit must be requisitioned and applied.
MO- (Made at Unit/ AVUM Level), MF- (Made at DS/ AVUM Level), MH- (Made at GS Level), ML- (Made at Specialized Repair Act (SRA)), MD- (Made at Depot)	Items with these codes are not to be requested/requisitioned individually. They must be made from bulk material, which is identified by the part number in the DESCRIPTION AND USABLE ON CODE Bulk Material group of the repair parts list in the (UOC) column and listed in the Bulk Material group of the repair parts list in this manual. If the item is authorized to you by the 3d position code of the SMR code, but the source code indicates it is made at a higher level, order the item from the higher level of maintenance.

Code		Explanation
AO-	(Assembled by Unit AVUM Level)	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 3d position code 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.
AF-	(Assembled by DS AVUM Level)	
AH-	(Assembled by GS Level)	
AL-	(Assembled by SRA)	
AD-	(Assembled by Depot)	

XA - Do not requisition an "XA"-coded item. Order its next higher assembly. (Also, refer to the NOTE below.)

XB - If an "XB" item is not available from salvage, order it using the CAGEC and part number given.

XC - Installation drawing, diagram, instruction sheet, field service drawing that is identified by manufacturer's part number.

XD - Item is not stocked. Order an "XD"-coded item through normal supply channels using the CAGEC and part number 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 source coded "XA" or those aircraft support items restricted by requirements of AR 700-42.

F-3.2.2 Maintenance Code. Maintenance codes tells 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:

F-3.2.2.1 Maintenance Code 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 one of the following levels of maintenance.

Code	Application/Explanation
C	-Crew or operator maintenance done within unit or aviation unit maintenance.
O	-Unit or aviation unit level can remove, replace, and use the item.
F	-Direct support or aviation intermediate level can remove, replace, and use the item.
H	-General support level can remove, replace, and use the item.
L	-Specialized repair activity can remove, replace, and use the item.
D	-Depot level can remove, replace, and use the item.

F-3.2.2.2 Maintenance Code Fourth Position. The maintenance code entered in the fourth position tells whether or not the item is to be repaired and identifies the lowest maintenance level with the capability to do complete repair (i.e., 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.) This position will contain one of the following maintenance codes.

Code	Application/Explanation
O	-Unit is the lowest level that can do complete repair of the item.
F	-Direct support or aviation intermediate is the lowest level that can do complete repair of the item.
H	-General support is the lowest level that can do complete repair of the item.
L	-Specialized repair activity (non designated for power plants/power units) is the lowest level that can do complete repair of the item.
D	-Depot is the lowest level that can do complete repair of the item.
Z	-Nonreparable. No repair is authorized.
B	-No repair is authorized. (No parts or special tools are authorized for the maintenance of a "B" coded item). However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

F-3.2.3 Recoverability Code. Recoverability codes are assigned to items to indicate the disposition action on unserviceable items. The recoverability code is entered in the fifth position of the SMR Code as follows:

Recoverability Codes	Application/Explanation
Z	-Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in 3d position of SMR Code.
O	-Reparable item. When uneconomically reparable, condemn and dispose of the item at unit or aviation unit level.
F	-Reparable item. When uneconomically reparable condemn and dispose of the item at the direct support or aviation intermediate level.
H -	Reparable item. When uneconomically reparable, condemn and dispose of the item at the general support level.
D	-Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item not authorized below depot level.
L	-Reparable item. Condemnation and disposal not authorized below specialized repair activity (SRA).
A	-Item requires special handling or condemnation procedures because of specific reasons (e.g., precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.

F-3.3 CAGEC (Column (3)). The Commercial and Government Entity Code (CAGEC) is used to identify the

manufacturer, distributor, or Government agency, etc., that supplies the item.

F-3.4 PART NUMBER (Column (4)). 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 a NSN to requisition an item, the item you receive may have a different part number from the part ordered.

F-3.5 DESCRIPTION AND USABLE ON CODE (UOC) (Column (5)). This column includes the following information:

a. The Federal item name and, when required, a minimum description to identify the item.

b. Items that are included in kits and sets are listed below the name of the kit or set.

c. Spare/repair parts that make up an assembled item are listed immediately following the assembled item line entry.

d. Part numbers for bulk materials are referenced in this column in the line entry for the item to be manufactured/fabricated

e. When the item is not used with all serial numbers of the same model, the effective serial numbers are shown on the last line(s) of the description (before UOC).

f. The usable on code, when applicable.

g. The statement "END OF FIGURE" appears just below the last item description in Column 5 for a given figure in both Section II and Section III.

F-3.6 QTY (Column (6)). 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 in lieu of a quantity indicates that the quantity is variable and the quantity may vary from application to application.

F-4 EXPLANATION OF COLUMNS (SECTION IV).

F-4.1 National Stock Number (NSN) Index.

F-4.1.1 STOCK NUMBER column. This column lists the NSN by National item identification number (NIIN) sequence. The NIIN consists of the last nine digits of the NSN

NSN
(i.e., 5305-01-674-1467). When using this column to locate an item, ignore the first 4 digits of the NSN.
NIIN
However, the complete NSN should be used when ordering items by stock number.

F-4.1.2 FIG. column. This column lists the number of the figure where the item is identified/located. The figures are in numerical order in Section II and Section III.

F-4.1.3 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.

F-4.2 PART NUMBER INDEX. Part numbers in this index are listed by part number in ascending alphanumeric sequence (i.e., vertical arrangement of letter and number combination 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).

F-4.2.1 CAGEC column. The Commercial and Government Entity Code (CAGEC) is used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

F-4.2.2 PART NUMBER column. Indicates the primary number used by the manufacturer (individual, 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.

F-4.2.3 STOCK NUMBER column. This column lists the NSN for the associated part number and manufacturer identified in the PART NUMBER and CAGEC columns to the left.

F-4.2.4 FIG. column. This column lists the number of the figure where the item is identified/located in Section II and III.

F-4.2.5 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.

F-4.3 Figure And Item Number Index.

F-4.3.1 FIG. Column. The column lists the number of the figure where the item is identified/located in Section II and III.

F-4.3.2 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.

F-4.3.3 STOCK NUMBER Column. This column lists the NSN for the item.

F-4.3.4 CAGEC Column. The Commercial and Government Entity Code (CAGEC) is used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

F-4.3.5 PART NUMBER Column. Indicates the primary number used by the manufacturer (individual, 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.

F-5 SPECIAL INFORMATION.

F-5.1 Usable on Code. The usable on code appears in the lower left corner of the DESCRIPTION AND USABLE ON CODE (UOC) column heading. Usable on codes are shown as "UOC . . ." on the next line below the last line of the applicable item description/nomenclature. The UOC entry begins at the left edge of the column. Uncoded items are applicable to all models. Identification of the usable on codes used in this publication are:

CODE	USED ON	CODE	USED ON
YJD	AN/MJQ-35	EVR	PU-797
YJC	AN/MJQ-35A	YFS	PU-797A
YJB	AN/MJQ-36		

F-5.2 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 AND UOC column of the line item entry for the item to be manufactured/fabricated. Detailed fabrication instructions for the items source coded to be manufactured or fabricated are contained in Appendix G.

F-5.3 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 used as a cross-reference between the National Stock Number/Part Number Index and the bulk materials list in Section II.

F-6 HOW TO LOCATE REPAIR PARTS.

F-6.1 When National Stock Number or Part Number is Not Known.

F-6.1.1 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 listings are divided into the same groups.

F-6.1.2 Second. Find the figure covering the assembly group or subassembly group to which the item belongs.

F-6.1.3 Third. Identify the item on the figure and use the Figure and Item Number Index to find the NSN.

F-6.2 When National Stock Number or Part Number is Known.

F-6.2.1 First. Using the National Stock Number or the Part Number Index, find the pertinent National Stock Number or Part Number. The NSN index is in National Item Identification Number (NIIN) sequence (see F-4.1.1). The part numbers in the Part Number index are listed in ascending alphanumeric sequence (see F-4.2). Both indexes cross-reference you to the illustration/figure and item number of the item you are looking for.

F-6.2.2 Second. Turn to the figure and item number, verify that the item is the one you're looking for, then locate the item number in the repair parts list for the figure.

F-7 ABBREVIATIONS.

The glossary at the back of this manual contains a list of abbreviations that are used in this manual and not listed in ASME-Y-14.38M.

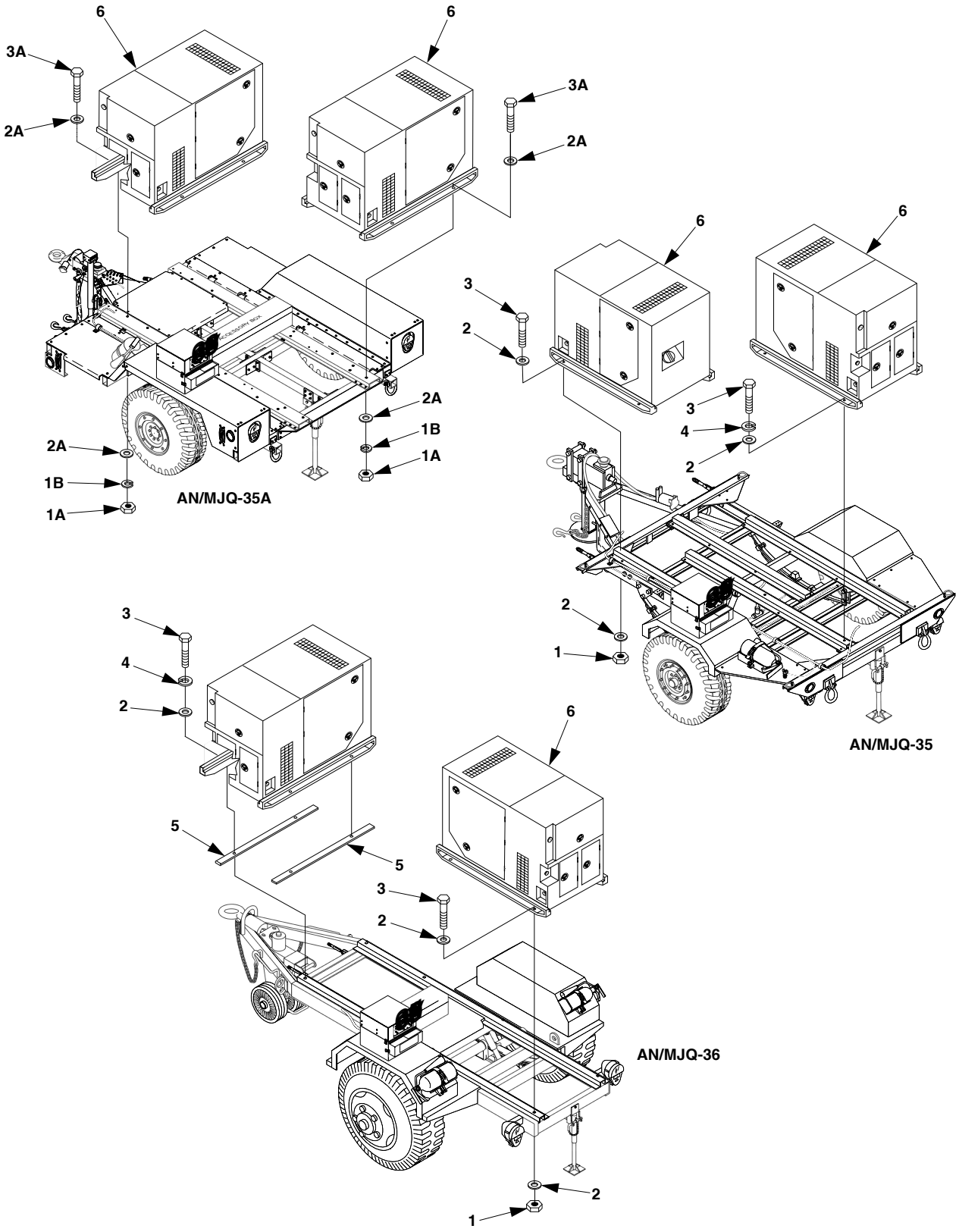


Figure F-1. Generator Set Installation

SECTION II. REPAIR PARTS LIST

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 01 GENERATOR SET FIG. F-1 GENERATOR SET INSTALLATION	
1	PAFZZ	96906	MS51922-33	NUT, SELF-LOCKING	6
				UOC: YJB, YJD	
1A	PAFZZ	96906	MS51971-5	NUT, PLAIN, HEXAGON	4
				UOC: YJC	
1B	PAFZZ	96906	MS35338-143	WASHER, LOCK	4
				UOC: YJC	
2	PAFZZ	96906	MS51412-9	WASHER, FLAT	14
				UOC: YJB, YJD	
2A	PAFZZ	96906	MS15795-817	WASHER, FLAT	8
				UOC: YJC	
3	PAFZZ	80294	B1821BH050C175N	SCREW, CAP, HEXAGON	8
				UOC: YJB, YJD	
3A	PAFZZ	96906	MS35307-414	SCREW, CAP, HEXAGON	4
				UOC: YJC	
4	PAFZZ	96906	MS51415-9	WASHER, LOCK	2
				UOC: YJB, YJD	
5	XDFZZ	97403	13229E9635	PLATE, SUPPORT	2
				UOC: YJC	
6	PDFHH	30554	MEP 802A	GENERATOR SET, DIESEL	2
				UOC: YJB, YJC, YJD	
				END OF FIGURE	

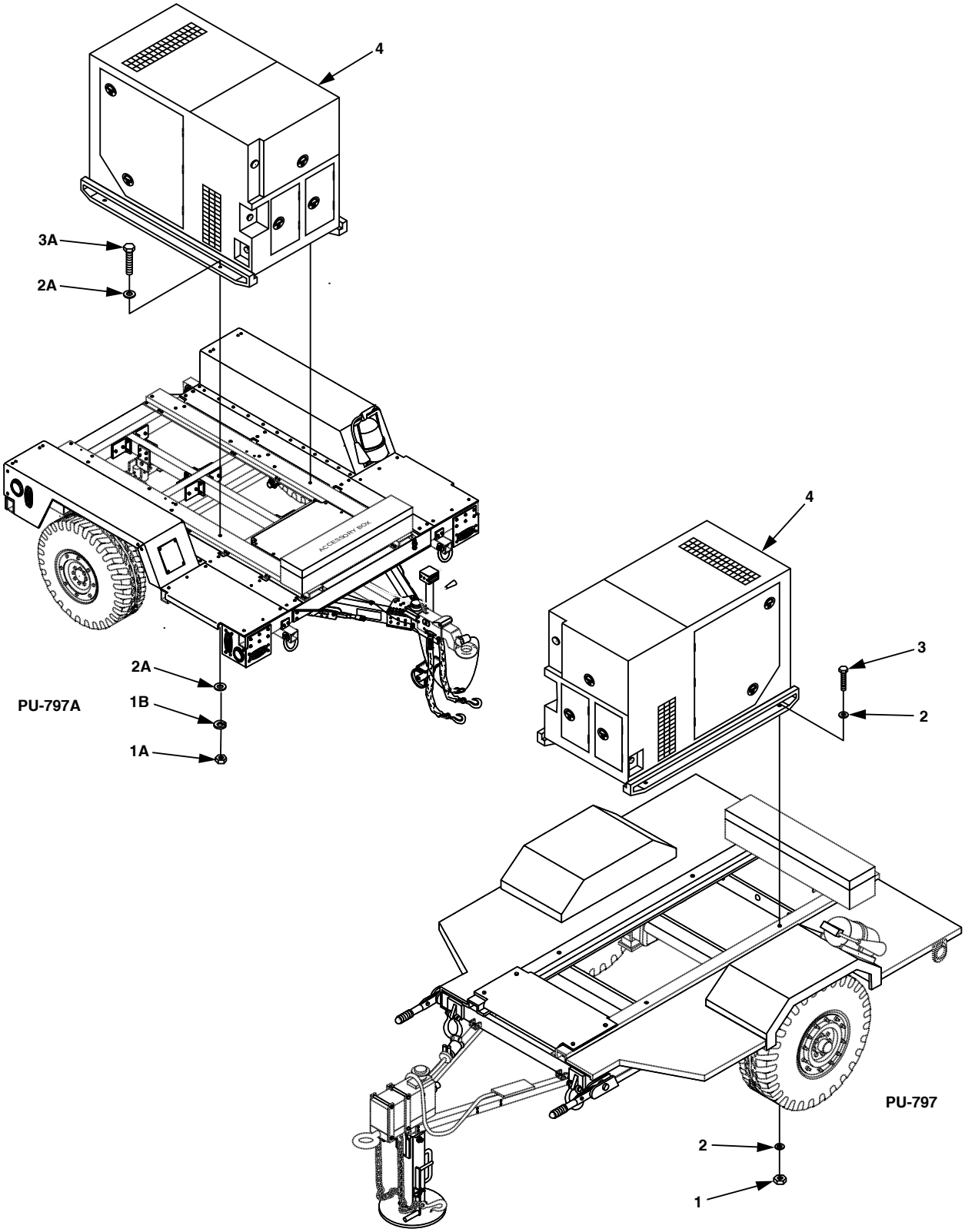


Figure F-2. Generator Set Installation

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 01 GENERATOR SET FIG. F-2 GENERATOR SET, POWER UNIT	
1	PAFZZ	96906	MS51922-33	NUT, SELF-LOCKING, HEXAGON	4
				UOC: EVR	
1A	PAFZZ	96906	MS51971-5	NUT, PLAIN, HEX HEAD	4
				UOC: YFS	
1B	PAFZZ	96906	MS35338-143	WASHER, LOCK	4
				UOC: YFS	
2	PAFZZ	96906	MS51412-9	WASHER, FLAT	8
				UOC: EVR	
2A	PAFZZ	96906	MS15795-817	WASHER, FLAT	8
				UOC: YFS	
3	PAFZZ	80204	B1821BH050C138N	SCREW, CAP, HEXAGON H	4
				UOC: EVR	
3A	PAFZZ	96906	MS35307-414	SCREW, CAP, HEX HEAD	4
				UOC: YFS	
4	PDFHH	30554	MEP 802A	GENERATOR SET, DIESEL	1
				UOC: EVR, YFS	
				END OF FIGURE	

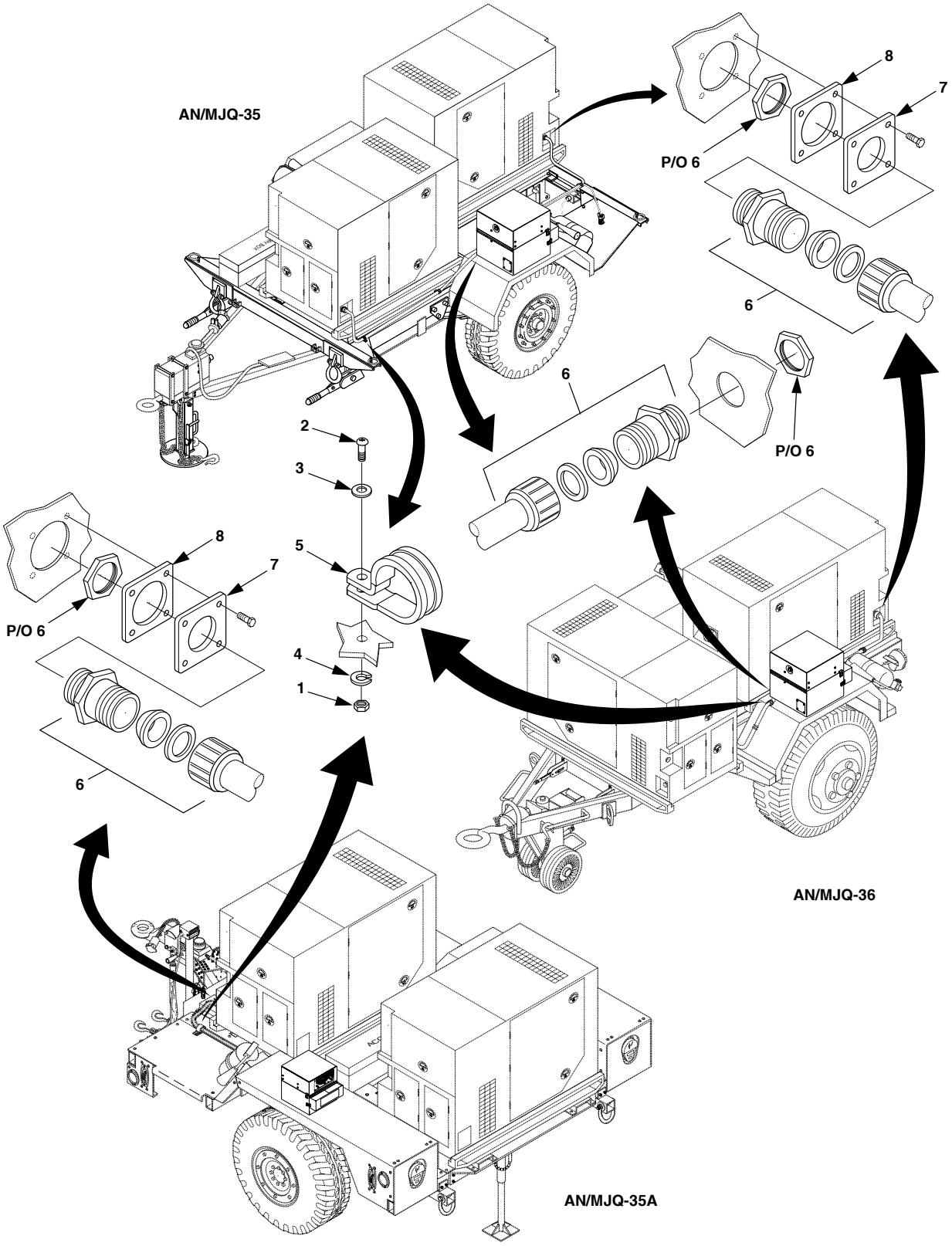


Figure F-3. Power Cables.

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 02 ELECTRICAL SYSTEM FIG. F-3 POWER CABLES	
1	PAOZZ	96906	MS35650-302	. NUT, PLAIN, HEXAGON	4
				UOC: YJB, YJD	
1	PAOZZ	96906	MS35650-302	. NUT, PLAIN, HEXAGON	2
				UOC: YJC	
2	PAOZZ	96906	MS35207-267	. SCREW, MACHINE	4
				UOC: YJB, YJD	
2	PAOZZ	96906	MS35207-267	. SCREW, MACHINE	2
				UOC: YJC	
3	PAOZZ	96906	MS51412-2	. WASHER, FLAT	4
				UOC: YJB, YJD	
3	PAOZZ	96906	MS51412-2	. WASHER, FLAT	2
				UOC: YJC	
4	PAOZZ	96906	MS35338-143	. WASHER, LOCK	4
				UOC: YJB, YJD	
4	PAOZZ	96906	MS35338-143	. WASHER, LOCK	4
				UOC: YJC	
5	PAOZZ	96906	MS21919WCG21	. CLAMP, LOOP	4
				UOC: YJB, YJD	
5	PAOZZ	96906	MS21919WCG21	. CLAMP, LOOP	4
				UOC: YJC	
6	PAOZZ	97403	13218E5149-8	. TUBE, STUFFING	4
				UOC: YJB, YJD, YJC	
7	XDOZZ	97403	13229E5827	. PLATE, GEN OUTPUT	2
				UOC: YJB, YJD, YJC	
8	PAOZZ	97403	M3BE510	. GASKET, RUBBER	2
				UOC: YJB, YJD, YJC	
				END OF FIGURE	

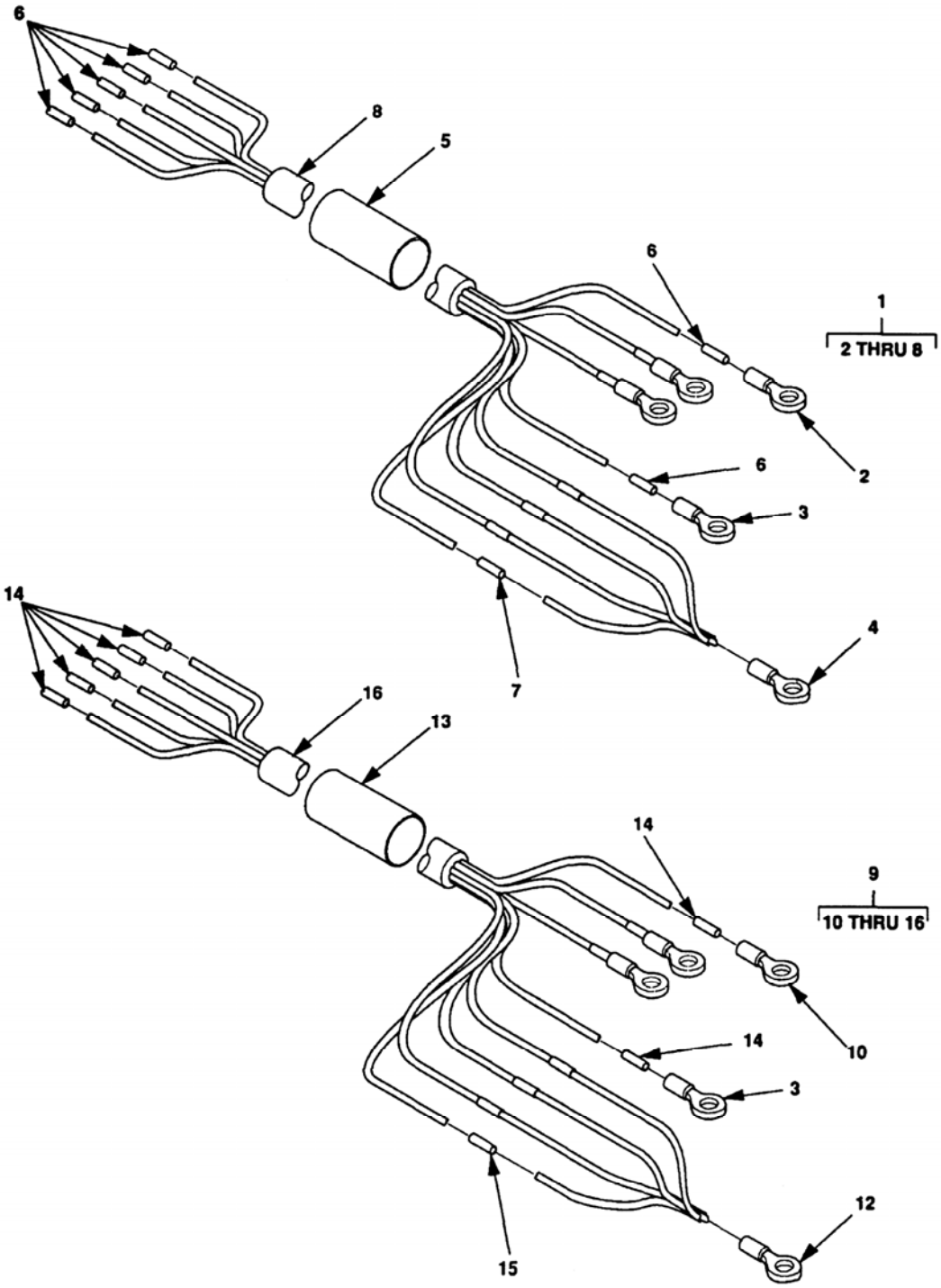


Figure F-4. Cable Assembly.

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODE (UOC)	(6) QTY
				GROUP 02 ELECTRICAL SYSTEM	
				FIG. F-4 CABLE ASSEMBLY	
1	AFOFF	97403	13229E5836-3	CABLE ASSEMBLY FRONT CABLE	1
				UOC: YJB	
2	PAFZZ	96906	MS25036-125	TERMINAL, LUG	3
				UOC: YJB, YJC, YJD	
3	PAFZZ	96906	MS20659-145	TERMINAL, LUG	1
				UOC: YJB, YJC, YJD	
4	PAFZZ	96906	MS20659-143	TERMINAL LUG	1
				UOC: YJB, YJC, YJD	
5	MFFZZ	19099	13229E5836-1-5	INSULATION SLEEVING MAKE FROM	1
				P/N M23053/5-111-0 (81349), 3 IN	
				UOC: YJB, YJC, YJD	
6	MFFZZ	19099	13229E5836-1-6	INSULATION SLEEVING MAKE FROM	9
				P/N M23053/5-107-9 (81349), AS REQUIRED	
				UOC: YJB, YJC, YJD	
7	MFFZZ	19099	13229E5836-1-7	INSULATION SLEEVING MAKE FROM	4
				P/N M23053/5-105-9 (81349), AS REQUIRED	
				UOC: YJB, YJC, YJD	
8	MFFZZ	19099	13229E5836-3-1	CABLE, POWER MAKE FROM	1
				P/N C0-04HDF (4/4-4/12R)1290 (81349),	
				83.5 IN. REQUIRED	
				UOC: YJC	
9	AFOFF	97403	13229E5836-4	CABLE ASSEMBLY, REAR CABLE	1
				UOC: YJB	
10	PAFZZ	69606	MS25036-125	TERMINAL, LUG	3
				UOC: YJB, YJC, YJD	
11	PAFZZ	96906	MS20659-145	TERMINAL, LUG	1
				UOC: YJB, YJC, YJD	
12	PAFZZ	96906	MS20659-143	TERMINAL, LUG	1
				UOC: YJB, YJC, YJD	
13	MFFZZ	19099	13229E5836-1-5	INSULATION SLEEVING MAKE FROM	1
				P/N M23053/5-111-0 (81349), 3 IN. REQUIRED	
				UOC: YJB, YJC, YJD	
14	MFFZZ	19099	13229E5836-1-6	INSULATION SLEEVING MAKE FROM	9
				P/N M23053/5-107-9 (81349), AS REQUIRED	
				UOC: YJB, YJC, YJD	
15	MFFZZ	19099	13229E5836-1-7	INSULATION SLEEVING MAKE FROM	4
				P/N M23053/5-105-9 (81349), AS REQUIRED	
				UOC: YJB, YJC, YJD	
16	MFFZZ	19099	13229E5836-4-1	CABLE, POWER MAKE FROM	1
				P/N C0-04HDF (4/4-4/12R)1290 (81349),	
				111 IN. REQUIRED	
				UOC: YJD	
				END OF FIGURE	

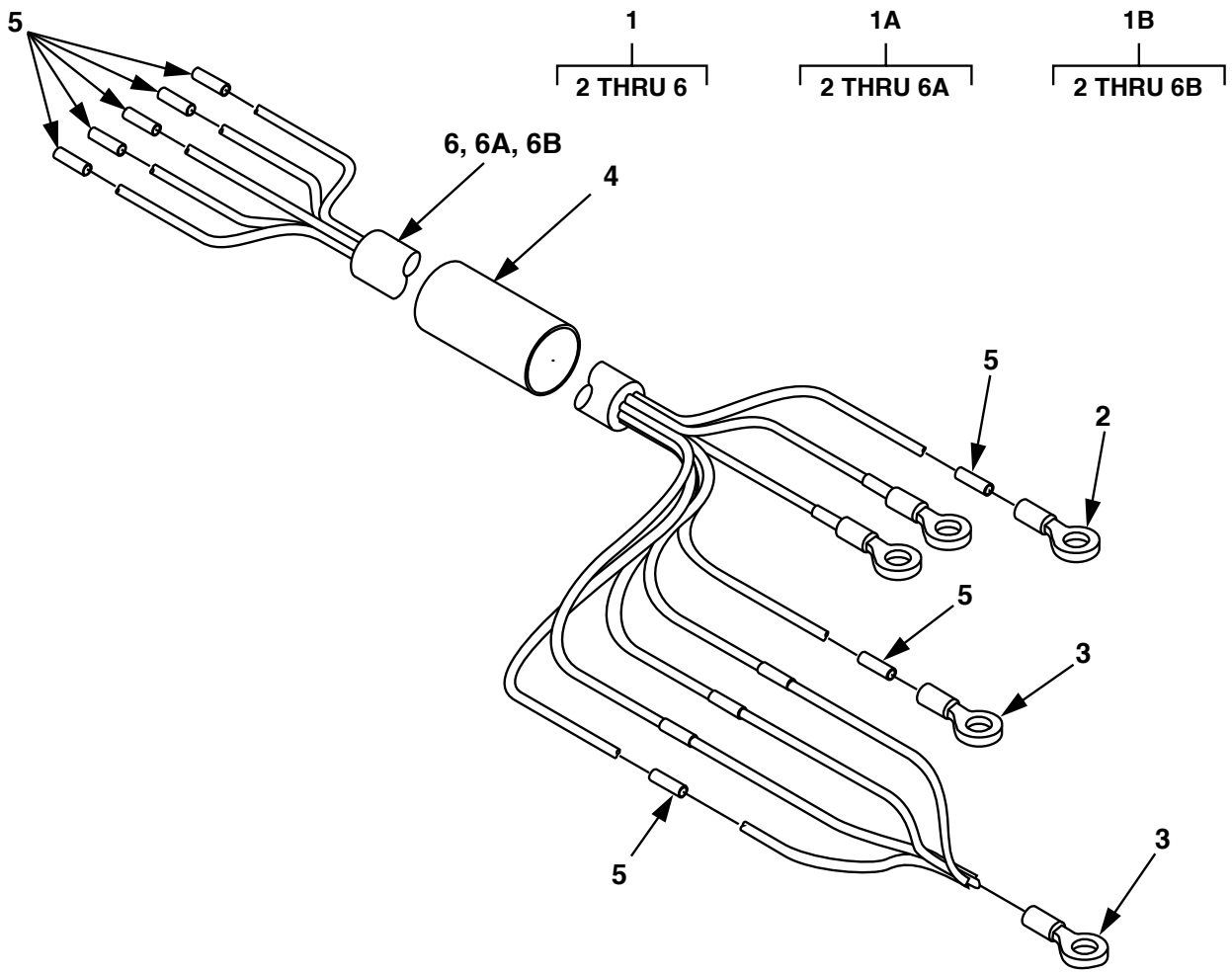


Figure F-4.1. Cable Assembly.

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 02 ELECTRICAL SYSTEM FIG. F-4.1 CABLE ASSEMBLY	
1	AFOFF	97403	13229E6795-1	. CABLE ASSEMBLY FRONT CABLE UOC: YJD	1
1A	AFOFF	97403	13229E6795-2	. CABLE ASSEMBLY FRONT CABLE UOC: YJB	1
1B	AFOFF	97403	13229E6795-3	. CABLE ASSEMBLY FRONT CABLE UOC: YJC	1
2	PAFZZ	96906	MS25036-125	.. TERMINAL, LUG UOC: YJB, YJD, YJC	3
3	PAFZZ	96906	MS20659-145	.. TERMINAL, LUG UOC: YJB, YJD, YJC	2
4	MFFZZ	81349	M23053/5-111-0	.. INSULATION SLEEVING, 3 IN.REQUIRED UOC: YJB, YJD, YJC	1
5	MFFZZ	81349	M23053/5-107-9	.. INSULATION SLEEVING, MAKE AS REQUIRED UOC: YJB, YJD, YJC	10
6	MFFZZ	81349	13230E6407-3	.. CABLE, POWER, 132.5 IN.REQUIRED UOC: YJC	1
6A	MFFZZ	81349	13230E6407-3	.. CABLE, POWER, 132.5 IN.REQUIRED UOC: YJD	1
6B	MFFZZ	81349	13230E6407-3	.. CABLE, POWER, 225.5 IN.REQUIRED UOC: YJB	1
				END OF FIGURE	

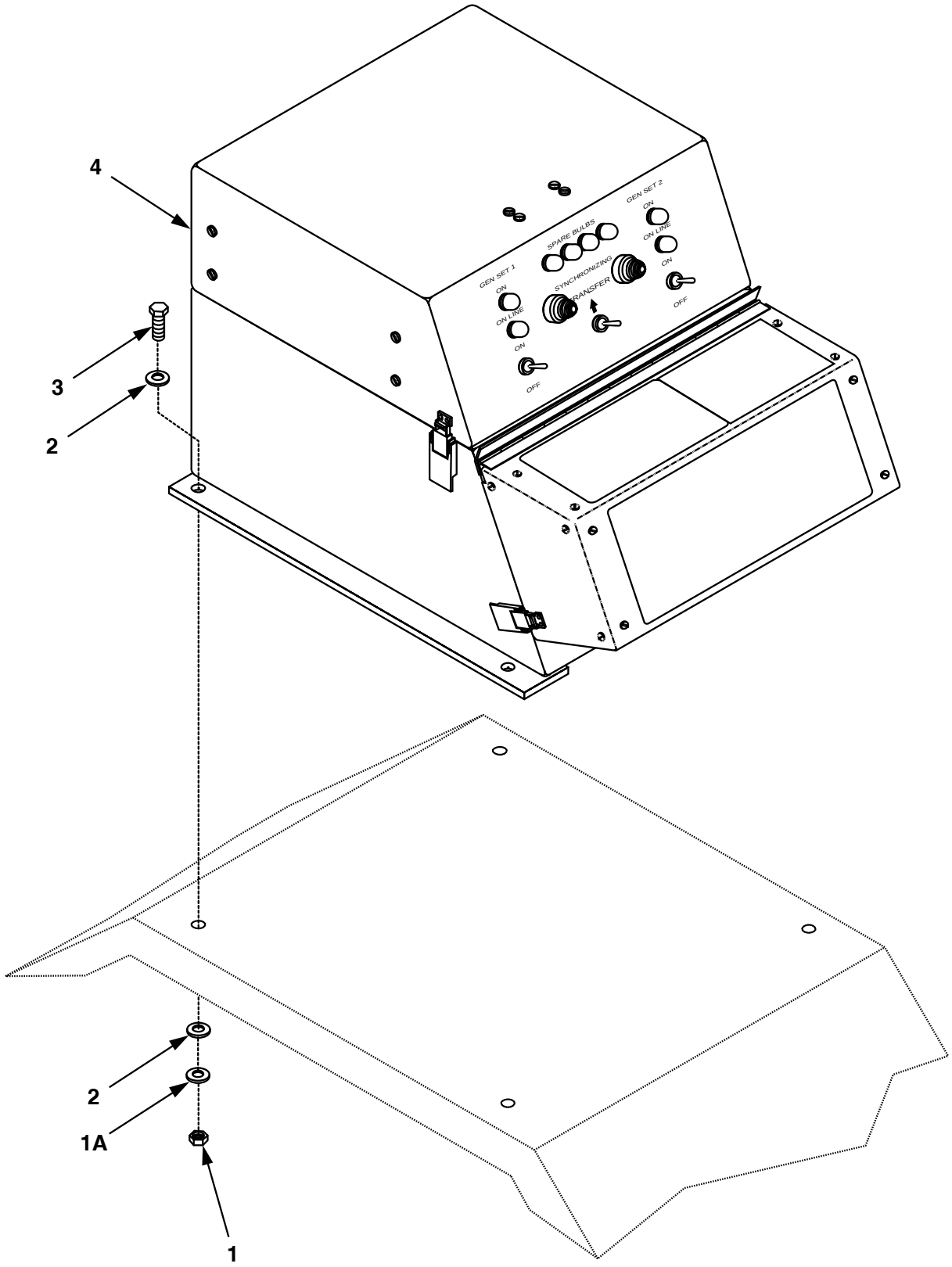


Figure F-5. Switch Box Installation (OLD).

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODE (UOC)	(6) QTY
				GROUP 02 ELECTRICAL SYSTEM	
				FIG. F-5 SWITCH BOX INSTALLATION	
1	PAOZZ	96906	MS51922-17	.NUT, SELF-LOCKIING, HE	4
				UOC: YJB, YJC	
1	PAOZZ	96906	MS35650-3314	.NUT, PLAIN, HEXAGON	4
				UOC: YJC	
1A	PAOZZ	96906	MS35338-140	.WASHER, LOCK	4
				UOC: YJC	
2	PAOZZ	96906	MS51412-7	.WASHER, FLAT	4
				UOC: YJB, YJD	
2	PAOZZ	96906	MS15795-812	.WASHER, FLAT	8
				UOC: YJC	
3	PAOZZ	80204	B1821BH038C150N	.SCREW, CAP, HEXAGON H	4
				UOC: YJB, YJD	
3	PAOZZ	96906	MS35308-334	.BOLT, MACHINE	4
				UOC: YJC	
4	XDFFF	97403	13229E5820-3	.SWITCH BOX ASSEMBLY	1
				UOC: YJB, YJD, YJC	
				END OF FIGURE	

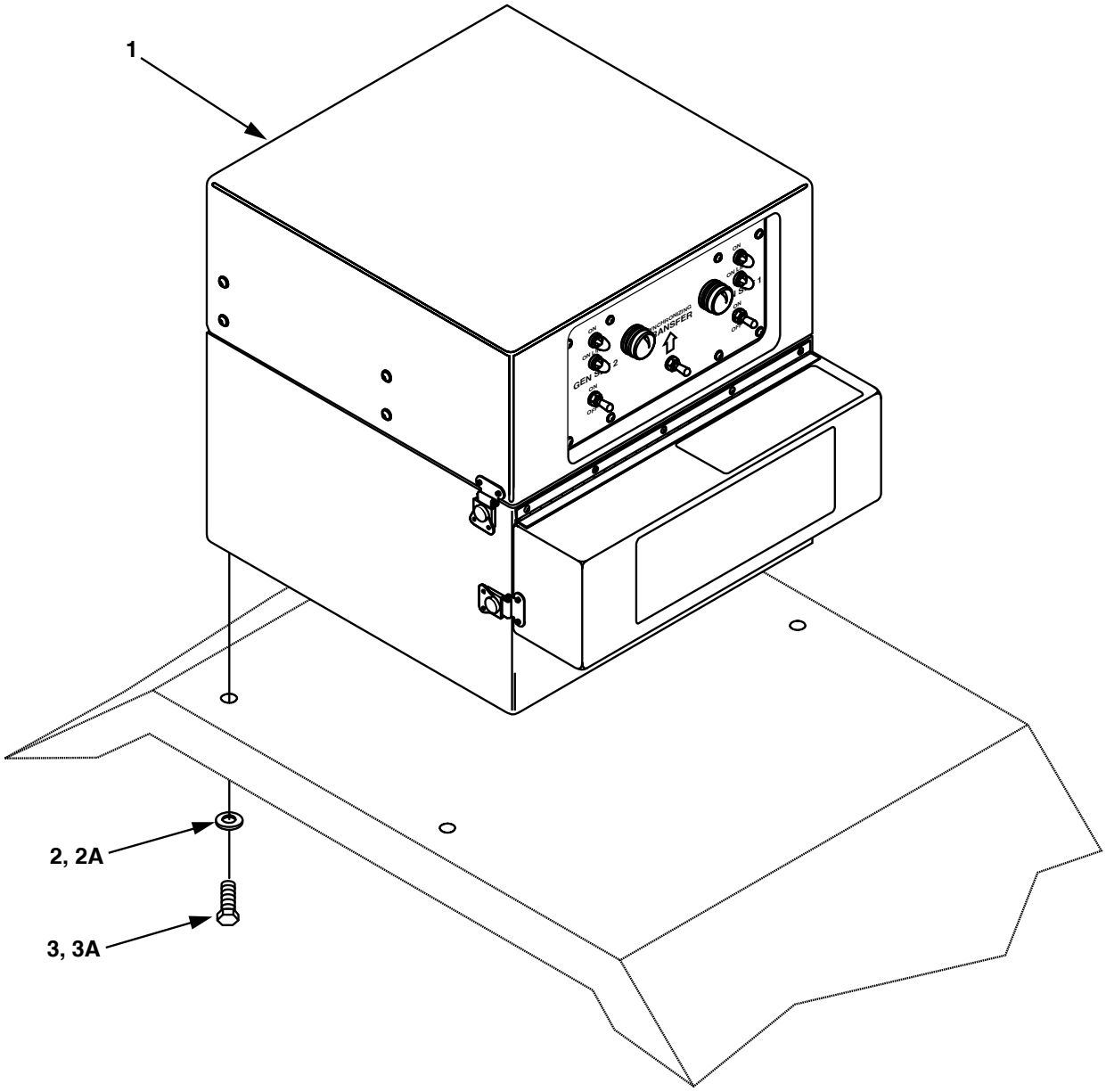


Figure F-5.1. Switch Box Installation (NEW).

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 02 ELECTRICAL SYSTEM FIG. F-5.1 SWITCH BOX INSTALLATION	
1	XDFFF	97403	13230E6535	. SWITCHBOX ASSEMBLY UOC: YJB, YJD, YJC	1
2	PAOZZ	96906	MS51412-7	. WASHER, FLAT UOC: YJB, YJD	4
2A	PAOZZ	96906	MS15795-812	. WASHER, FLAT UOC: YJC	8
3	PAOZZ	80204	B1821BH038C150N	. SCREW, CAP, HEXAGON H UOC: YJB, YJD	4
3A	PAOZZ	96906	MS35308-334	. BOLT, MACHINE UOC: YJC	4
				END OF FIGURE	

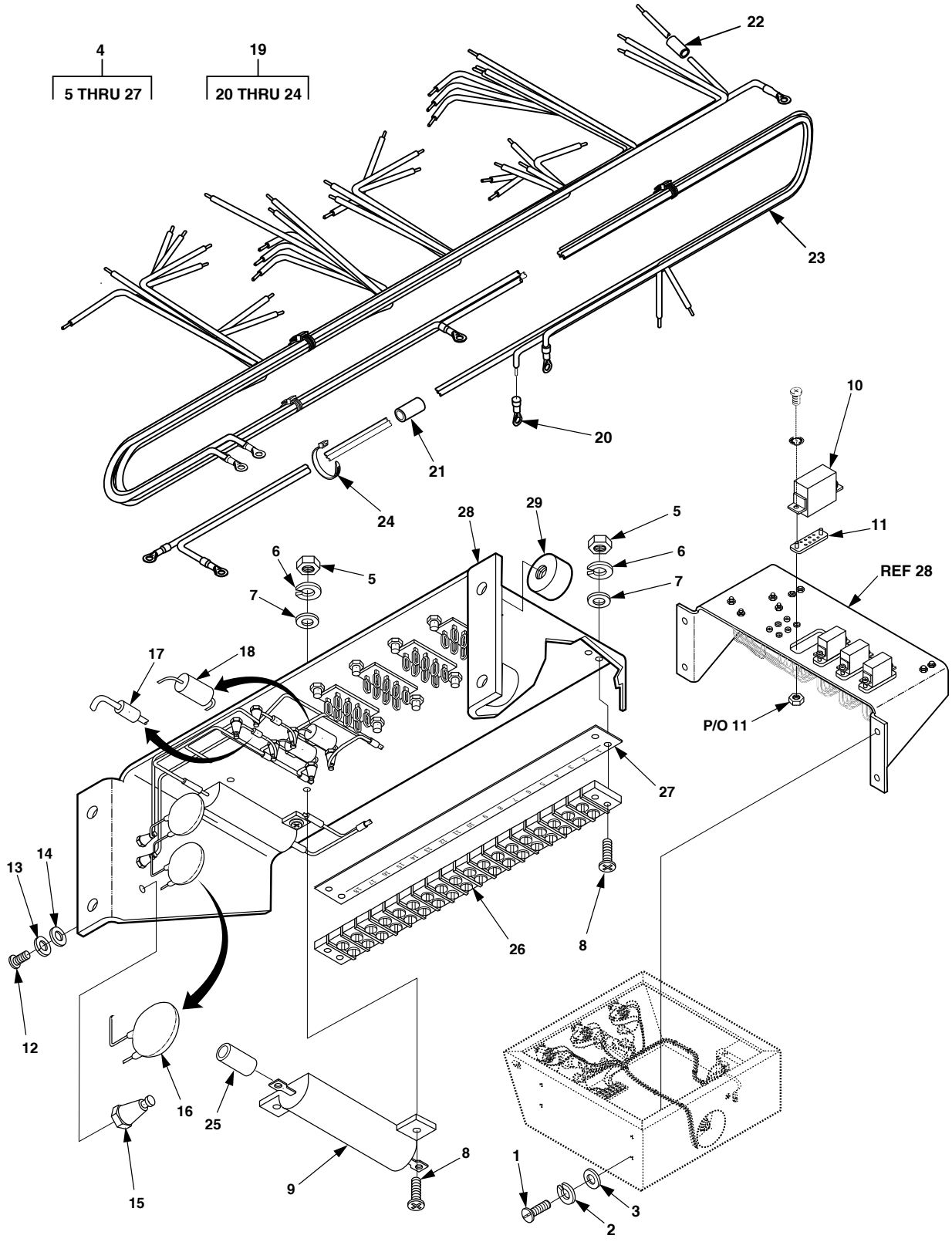


Figure F-6. Relay Board Harness Assembly (Sheet 1 of 2).

WIRE LIST					
WIRE NO.	TERMINATION		TERMINATION		WIRE ITEM NO.
	FROM	ITEM NO.	TO	TERMINAL ITEM NO.	
1	XK3-2		TB1-1	20	23
2	XK3-3		TB1-4	20	23
3	XK3-4		TB1-5	20	23
4	XK3-5		TB1-3	20	23
5	XK3-6		TB1-6	20	23
6	XK3-7		TB1-2	20	23
7	XK5-2		TB1-1	20	23
8	XK5-3		TB1-8	20	23
9	XK5-4		TB1-10	20	23
10	XK5-5		TB1-17	20	23
11	XK5-6		TB1-6	20	23
12	E-7		E-6	-	23
13	XK4-2		TB1-14	20	23
14	XK4-3		TB1-9	20	23
15	XK4-4		TB1-5	20	23
16	XK4-5		TB1-3	20	23
17	XK4-6		TB1-7	20	23
18	XK4-7		TB1-15	20	23
19	R1-1		TB1-17	20	23
20	XK6-3		TB1-12	20	23
21	XK6-4		TB1-11	20	23
22	XK6-5		TB1-16	20	23
23	XK6-6		TB1-13	20	23
24	XK6-7		TB1-15	20	23
25	R1-2		E6	-	23
26	R2-2		E3	-	23
27	E5		TB1-1	20	23
28	E4		TB1-1	20	23
29	R2-1		TB1-16	20	23
30	E3		TB1-15	20	23
31	E-1		E4	-	23
32	XK5-7		TB1-2	20	23
33	E-1		TB1-14	20	23
34	E8		TB1-8	20	23
35	XK6-2		TB1-14	20	23
36	E9		E3		23

Figure F-6. Wire Parts List (Sheet 2 of 2).

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 02 ELECTRICAL SYSTEM FIG. F-6 RELAY BOARD HARNESS ASSY	
1	PAFZZ	96906	MS51957-46	.. SCREW, MACHINE UOC: YJB, YJD, YJC	4
2	PAFZZ	96906	MS35338-137	.. WASHER, LOCK UOC: YJB, YJD, YJC	6
3	PAFZZ	96906	MS15795-841	.. WASHER, FLAT UOC: YJB, YJD, YJC	4
4	XDFFF	97403	13229E5830	.. RELAY BOARD ASSEMBLY UOC: YJB, YJD, YJC	1
5	PAFZZ	96906	MS35649-244	... NUT, PLAIN, HEXAGON UOC: YJB, YJD, YJC	6
6	PAFZZ	96906	MS35338-135	... WASHER, LOCK UOC: YJB, YJD, YJC	6
7	PAFZZ	88044	AN960-C4	... WASHER, FLAT UOC: YJB, YJD, YJC	6
8	PAFZZ	96906	MS51957-18	... SCREW, MACHINE UOC: YJB, YJD, YJC	6
9	PAFZZ	81349	RER75F2490P	... RESISTOR, FIXED WIRE UOC: YJB, YJD, YJC	2
10	PAOZZ	81349	M5757/23-003	... RELAY, ELECTROMAGNET UOC: YJB, YJD, YJC	4
11	PAFZZ	97403	13222E9686	... SOCKET, PLUG-IN ELEC UOC: YJB, YJD, YJC	4
12	PAFZZ	96906	MS51957-27	... SCREW, MACHINE UOC: YJB, YJD, YJC	9
13	PAFZZ	96906	MS35338-136	... WASHER, LOCK UOC: YJB, YJD, YJC	9
14	PAFZZ	96906	MS51412-1	... WASHER, FLAT UOC: YJB, YJD, YJC	9

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 02 ELECTRICAL SYSTEM FIG. F-6 RELAY BOARD HARNESS ASSY	
15	PAFZZ	81349	M55155/199G03	**...** TERMINAL, STUD UOC: YJB, YJD, YJC	9
16	PAFZZ	60705	565C10GAP10	**...** CAPACITOR UOC: YJB, YJD, YJC	2
17	PAFZZ	81349	JANTX1N5619	**...** SEMICONDUCTOR DEVICE UOC: YJB, YJD, YJC	4
18	PAFZZ	81349	M39006/22-0631	**...** CAPACITOR, FIXED, ELE UOC: YJB, YJD, YJC	2
19	XDFFF	97403	13229E5829	**...** HARNESS ASSEMBLY UOC: YJB, YJD, YJC	1
20	PAOZZ	96906	MS25036-101	**...** TERMINAL, LUG UOC: YJB, YJD, YJC	31
21	MFFZZ	81349	M23053/5-107-4	**...** INSULATION SLEEVING, 1.5 IN.REQUIRED UOC: YJB, YJD, YJC	1
22	MFFZZ	81349	M23053/5-105-4	**...** INSULATION SLEEVING, 1.5 IN.REQUIRED UOC: YJB, YJD, YJC	70
23	MFFZZ	81349	M22759/16-20-9	**....** WIRE, ELECTRICAL, MAKE AS REQUIRED UOC: YJB, YJD, YJC	1
24	PAFZZ	96906	MS3367-4-9	**....** STRAP, TIEDOWN, ELECT UOC: YJB, YJD, YJC	V
25	MFFZZ	81349	M23053/5-104-0	**...** INSULATION SLEEVING, MAKE AS REQUIRED UOC: YJB, YJD, YJC	1
26	XDFZZ	81349	37TB18B	**...** TERMINAL BOARD UOC: YJB, YJD, YJC	1
27	PAFZZ	96906	MSA37TB18	**...** MARKER STRIP, TERMINAL UOC: YJB, YJD, YJC	1
28	XDFFF	97403	13229E5823	**...** BRACKET UOC: YJB, YJD, YJC	1
29	PAFZZ	81349	M45938/1-13C	**...** NUT, PLAIN, CLINCH UOC: YJB, YJD, YJC	4
				END OF FIGURE	

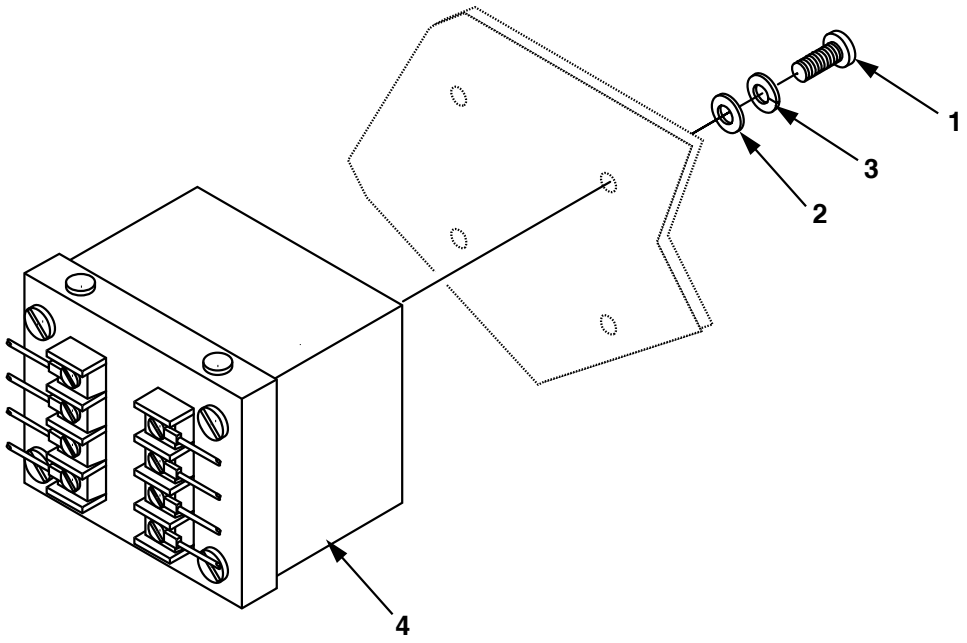


Figure F-7. Permissive Paralleling Relay.

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 02 ELECTRICAL SYSTEM FIG. F-7 PERMISSIVE PARALLELING RELAY	
1	PAFZZ	96906	MS51957-46	.. SCREW, MACHINE UOC: YJB, YJD, YJC	4
2	PAFZZ	96906	MS15795-841	.. WASHER, FLAT UOC: YJB, YJD, YJC	4
3	PAFZZ	96906	MS35338-137	.. WASHER, LOCK UOC: YJB, YJD, YJC	4
4	PAFZZ	60177	11500	.. RELAY, PERMISSIVE PR UOC: YJB, YJD, YJC	1
				END OF FIGURE	

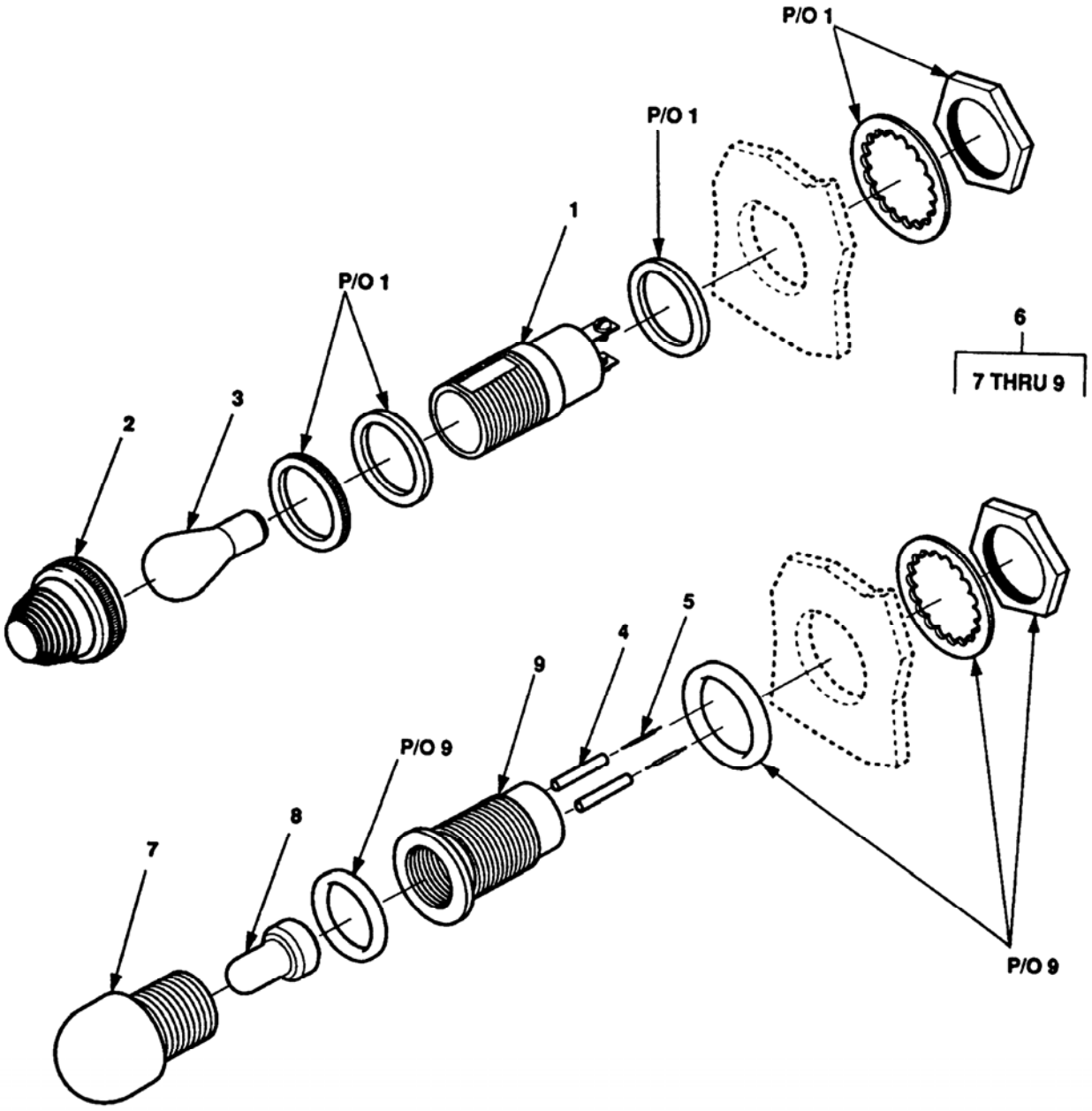


Figure F-8. Indicator Lights.

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 02 ELECTRICAL SYSTEM FIG. F-8 INDICATOR LIGHTS	
1	PAOZZ	81349	LH80/1	.. LIGHT, INDICATOR UOC: YJB, YJD, YJC	3
2	PAOZZ	81349	LC21CN3	.. LENS, LIGHT UOC: YJB, YJD, YJC	3
3	PAOZZ	96906	MS15667-2	.. LAMP, INCANDESCENT UOC: YJB, YJD, YJC	3
4	MOOZZ	81349	M23053/5-107-9	.. INSULATION SLEEVING, MAKE AS REQUIRED UOC: YJB, YJD, YJC	1
5	MOOZZ	81349	M22759/16-20-9	.. WIRE, ELECTRICAL, MAKE AS REQUIRED UOC: YJB, YJD, YJC	1
6	PAOOZ	97403	13214E1391	.. LIGHT, INDICATOR UOC: YJB, YJD, YJC	4
7	PAOZZ	72619	181-0931-001	... LENS, CLEAR UOC: YJB, YJD, YJC	1
8	PAOZZ	58224	G9B	... LAMP UOC: YJB, YJD, YJC	1
9	PAOZZ	72619	181-8836-09-553	... LIGHT, INDICATOR UOC: YJB, YJD, YJC	1
				END OF FIGURE	

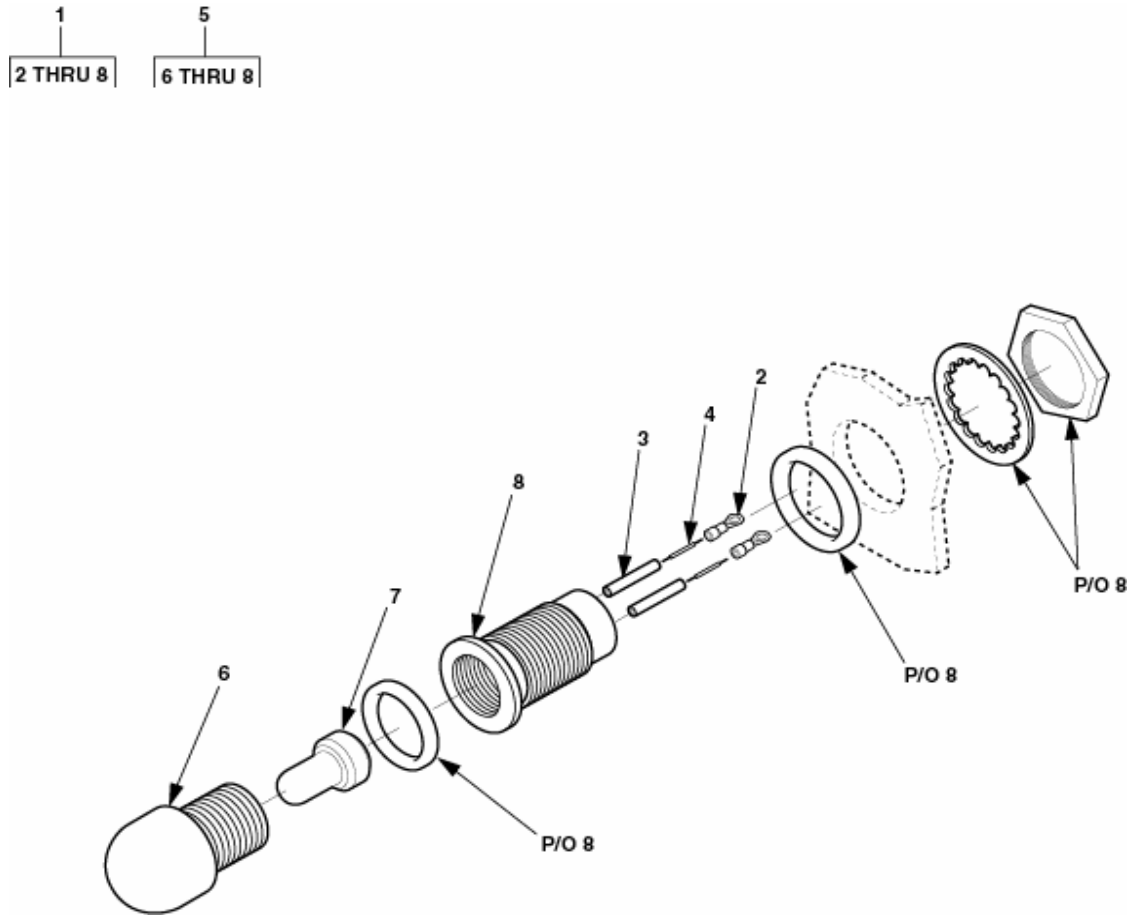


Figure F-9. Light Assembly.

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 02 ELECTRICAL SYSTEM FIG. F-9 LIGHT ASSEMBLY	
1	AOOOO	97403	13229E5764-2	.. LIGHT AND WIRE UOC: YJB, YJD, YJC	4
2	PAOZZ	96906	MS25036-101	... TERMINAL, LUG UOC: YJB, YJD, YJC	2
3	MOOZZ	81349	M23053/5-104-9	... INSULATION SLEEVING, 1 INCH REQUIRED UOC: YJB, YJD, YJC	2
4	MOOZZ	81349	M5086/2-18-9	... WIRE, ELECTRICAL, 8 INCHES REQUIRED UOC: YJB, YJD, YJC	2
5	PAOOO	97403	13214E1391	... LIGHT, INDICATOR UOC: YJB, YJD, YJC	1
6	PAOZZ	72619	181-0931-001	.... LENS, CLEAR UOC: YJB, YJD, YJC	1
7	PAOZZ	58224	G9B	.... LAMP UOC: YJB, YJD, YJC	1
8	PAOZZ	72619	181-8836-09-553	.... LIGHT, INDICATOR UOC: YJB, YJD, YJC	1
				END OF FIGURE	

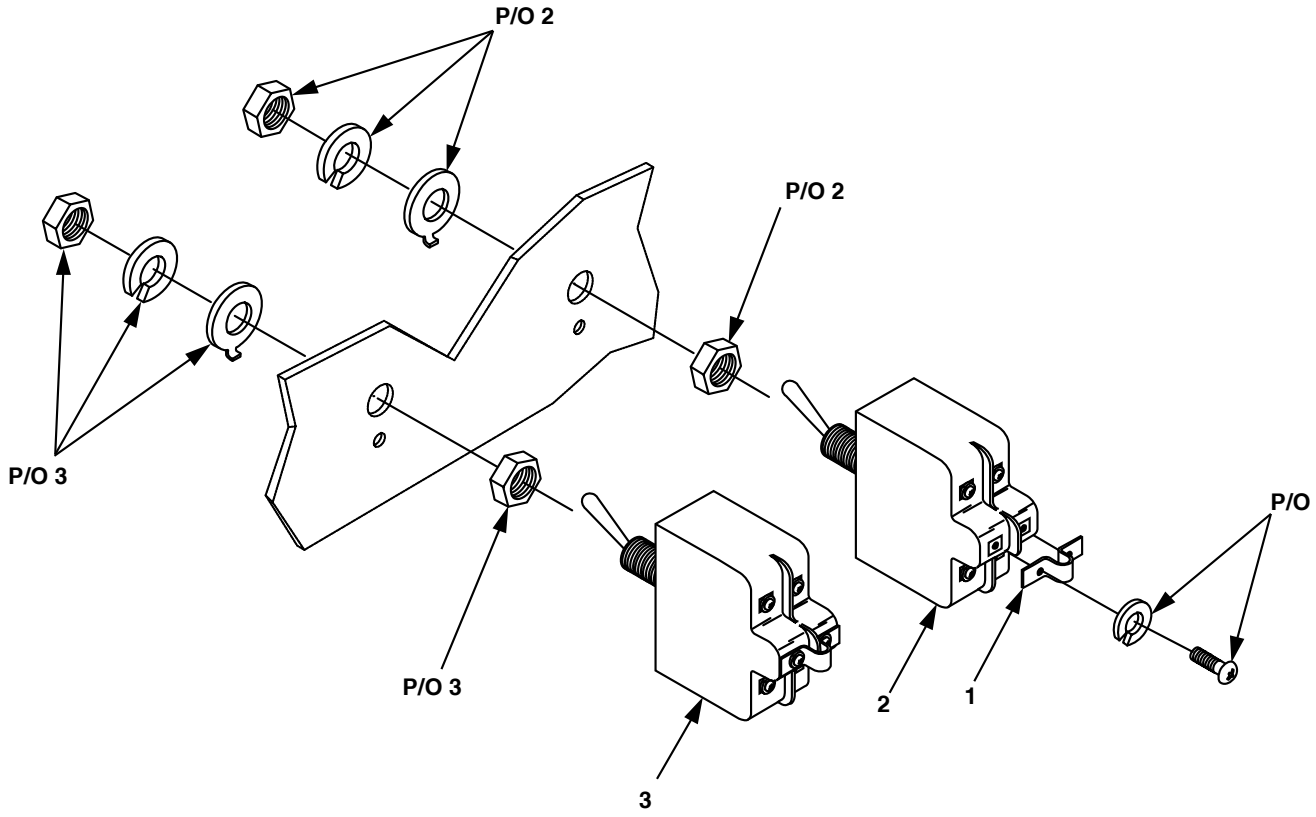


Figure F-10. Switches.

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 02 ELECTRICAL SYSTEM FIG. F-10 SWITCHES	
1	PAOZZ	81349	TBJA	.. BUS, CONDUCTOR UOC: YJB, YJD, YJC	2
2	PAOZZ	96906	MS27407-3	.. SWITCH, TOGGLE ON LINE SWITCH UOC: YJB, YJD, YJC	2
3	PAOZZ	96906	MS24524-30	.. SWITCH, TOGGLE TRANSFER SWITCH UOC: YJB, YJD, YJC	1
				END OF FIGURE	

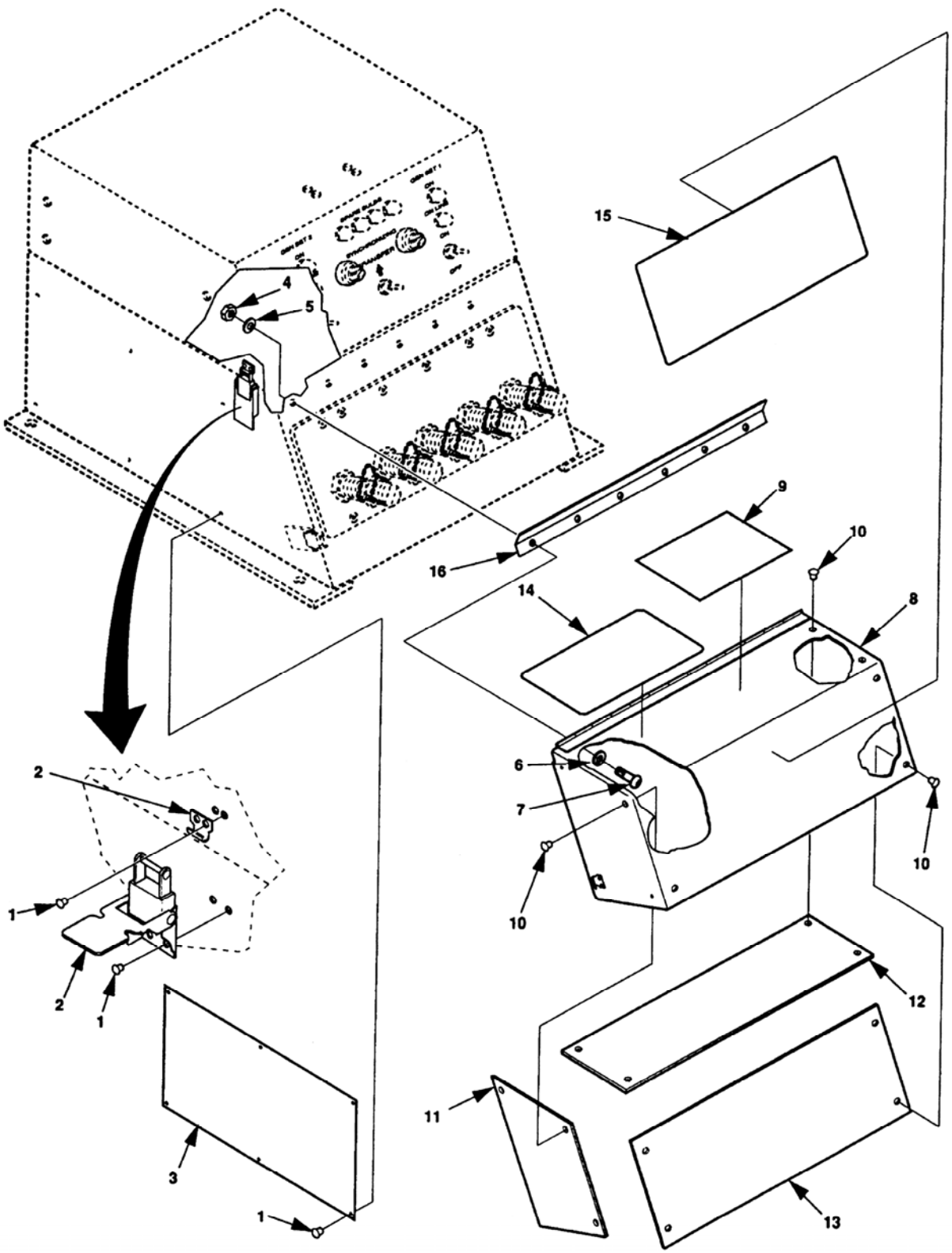


Figure F-11. Load Terminal Cover (OLD).

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODE (UOC)	(6) QTY
				GROUP 02 ELECTRICAL SYSTEM	
				FIG. F-11 LOAD TERMINAL COVER	
1	PAOZZ	96906	MS20600AD4W3	RIVET, BLIND	22
				UOC: YJB, YJC, YJD	
2	PAOZZ	94222	K3-1735-07	CATCH, CLAMPING	4
				UOC: YJB, YJC, YJD	
3	MDOZZ	97403	13229E5819-1	PLATE, IDENTIFICATION SCHEMATIC	1
				UOC: YJB, YJC, YJD	
3	MDOZZ	97403	13229E5819-2	PLATE, IDENTIFICATION SCHEMATIC	1
				UOC: YJB, YJC, YJD	
4	PAOZZ	96906	MS35649-284	NUT, PLAIN, HEXAGON	6
				UOC: YJB, YJC, YJD	
5	PAOZZ	96906	MS35338-137	WASHER, LOCK	6
				UOC: YJB, YJC, YJD	
6	PAOZZ	96906	MS15795-841	WASHER, FLAT	6
				UOC: YJB, YJC, YJD	
7	PAOZZ	96906	MS51957-46	SCREW, MACHINE	6
				UOC: YJB, YJC, YJD	
8	XDOFF	97403	13229E5649-1	COVER, LOAD TERMINAL	1
				UOC: YJB, YJC, YJD	
9	MDOZZ	97403	13229E5728-1	MARKER, WARNING	1
				UOC: YJB, YJC, YJD	
10	PAOZZ	96906	MS20600AD3W3	RIVET, BLIND	18
				UOC: YJB, YJC, YJD	
11	MFFZZ	19099	13229E5649-1-6	SHEET, PLASTIC MAKE FROM	2
				M24768/2-S-7 (81349), 4.5X6.5 IN REQUIRED	
				UOC: YJB, YJC, YJD	
12	MFFZZ	19099	13229E5649-1-12	SHEET, PLASTIC MAKE FROM	1
				M24768/2-S-7 (81349), 5X13.5 IN REQUIRED	
				UOC: YJB, YJC, YJD	
13	MFFZZ	19099	13229E5649-1-13	SHEET, PLASTIC MAKE FROM	1
				M24768/2-S-7 (81349), 4.75X13.5 IN REQUIRED	
				UOC: YJB, YJC, YJD	
14	MDOZZ	97403	13229E5654-1	PLATE IDENTIFICATION POWER PLANT	1
				OPERATIING PROCEDURES	
				UOC: YJB, YJC, YJD	
15	MDOZZ	97403	13229E5654-2	PLATE IDENTIFICATION LOAD	1
				TRANSER PROCEDURES	
				UOC: YJB, YJC, YJD	
16	XDOZZ	97403	13229E9630	STOP, TERMINAL COVER	1
				UOC: YJB, YJC, YJD	
				END OF FIGURE	

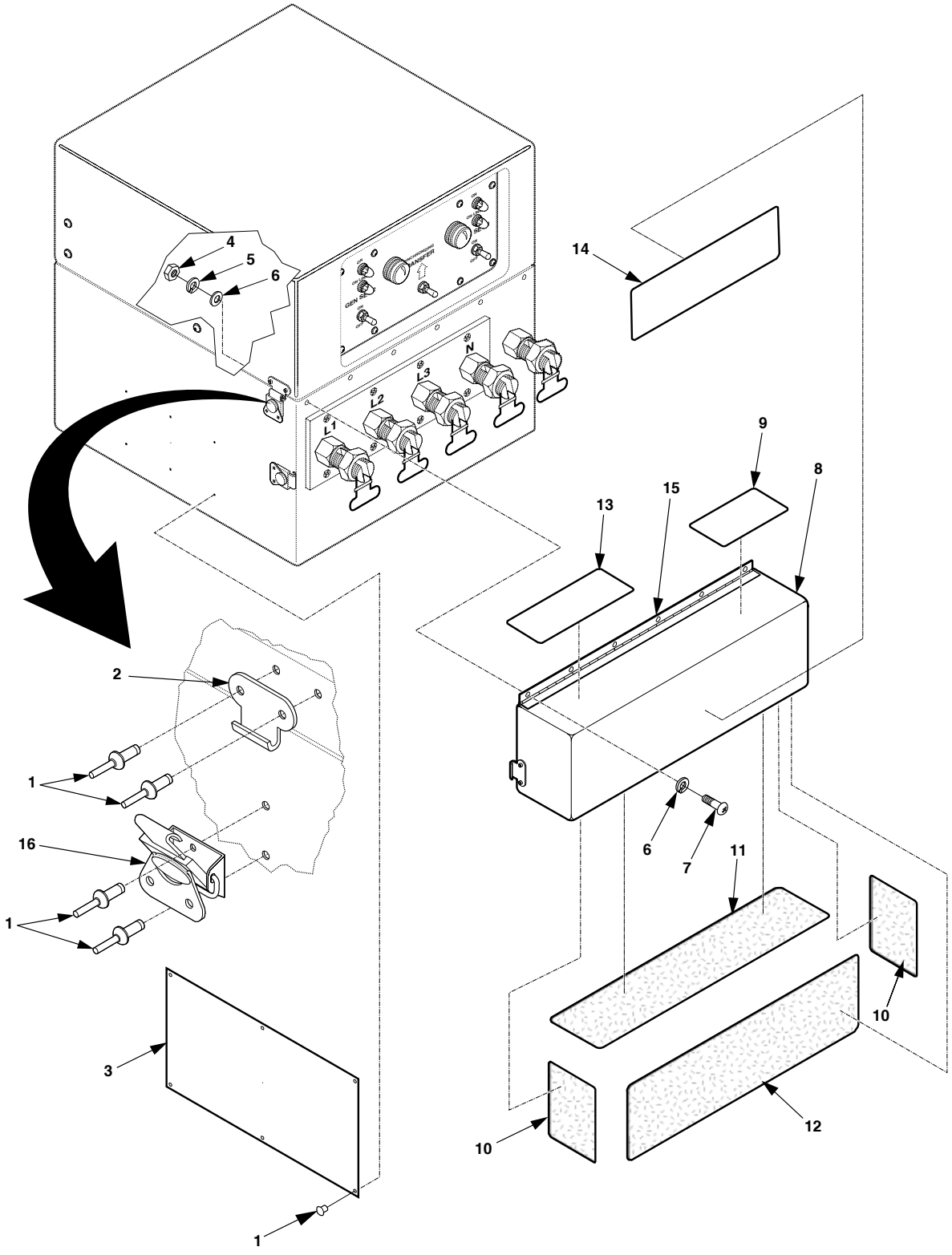


Figure F-11.1. Load Terminal Cover (NEW).

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 021 ELECTRICAL SYSTEM FIG. F-11.1 LOAD TERMINAL COVER	
1	PAOZZ	96906	MS20600AD4W3	.. RIVET, BLIND UOC: YJB, YJD, YJC	22
2	PAOZZ	94222	K3-1735-07	.. CATCH, CLAMPING UOC: YJB, YJD, YJC	4
3	MDOZZ	97409	13229E5819-3	.. PLATE, IDENTIFICATION SCHEMATIC UOC: YJB, YJD, YJC	1
4	PAOZZ	96906	MS35649-284	.. NUT, PLAIN, HEXAGON UOC: YJB, YJD, YJC	6
5	PAFZZ	96906	MS35338-137	.. WASHER, LOCK UOC: YJB, YJD, YJC	6
6	PAOZZ	96906	MS15795-841	.. WASHER, FLAT UOC: YJB, YJD, YJC	6
7	PAOZZ	96906	MS51957-46	.. SCREW, MACHINE UOC: YJB, YJD, YJC	6
8	XDOFF	97403	13229E5649-1	.. COVER, LOAD TERMINAL UOC: YJB, YJD, YJC	1
9	MDOZZ	97403	13229E5728-1	... MARKER, WARNING UOC: YJB, YJD, YJC	1
10	MFFZZ	81349	M24768/2-S-7	... SHEET, PLASTIC, 4.5X6.5 IN.REQUIRED UOC: YJB, YJD, YJC	2
11	MFFZZ	81349	M24768/2-S-7	... SHEET, PLASTIC, 4.75 X 13.5 IN. REQUIRED UOC: YJB, YJD, YJC	1
12	MFFZZ	81349	M24768/2-S-7	... SHEET, PLASTIC, 5X13.5 IN.REQUIRED UOC: YJB, YJD, YJC	1
13	MDOZZ	97403	13229E5654-1	... PLATE, IDENTIFICATION POWER PLANT OPERATING PROCEDURES UOC: YJB, YJD, YJC	1
14	MDOZZ	97403	13229E5654-2	... PLATE, IDENTIFICATION LOAD TRANSFER PROCEDURES UOC: YJB, YJD, YJC	1
15	XDOZZ	97403	13229E9630	.. STOP, TERMINAL COVER UOC: YJB, YJD, YJC	1
16	PAOZZ	94222	K3-1735-07	.. KEEPER UOC: YJB, YJD	4
				END OF FIGURE	

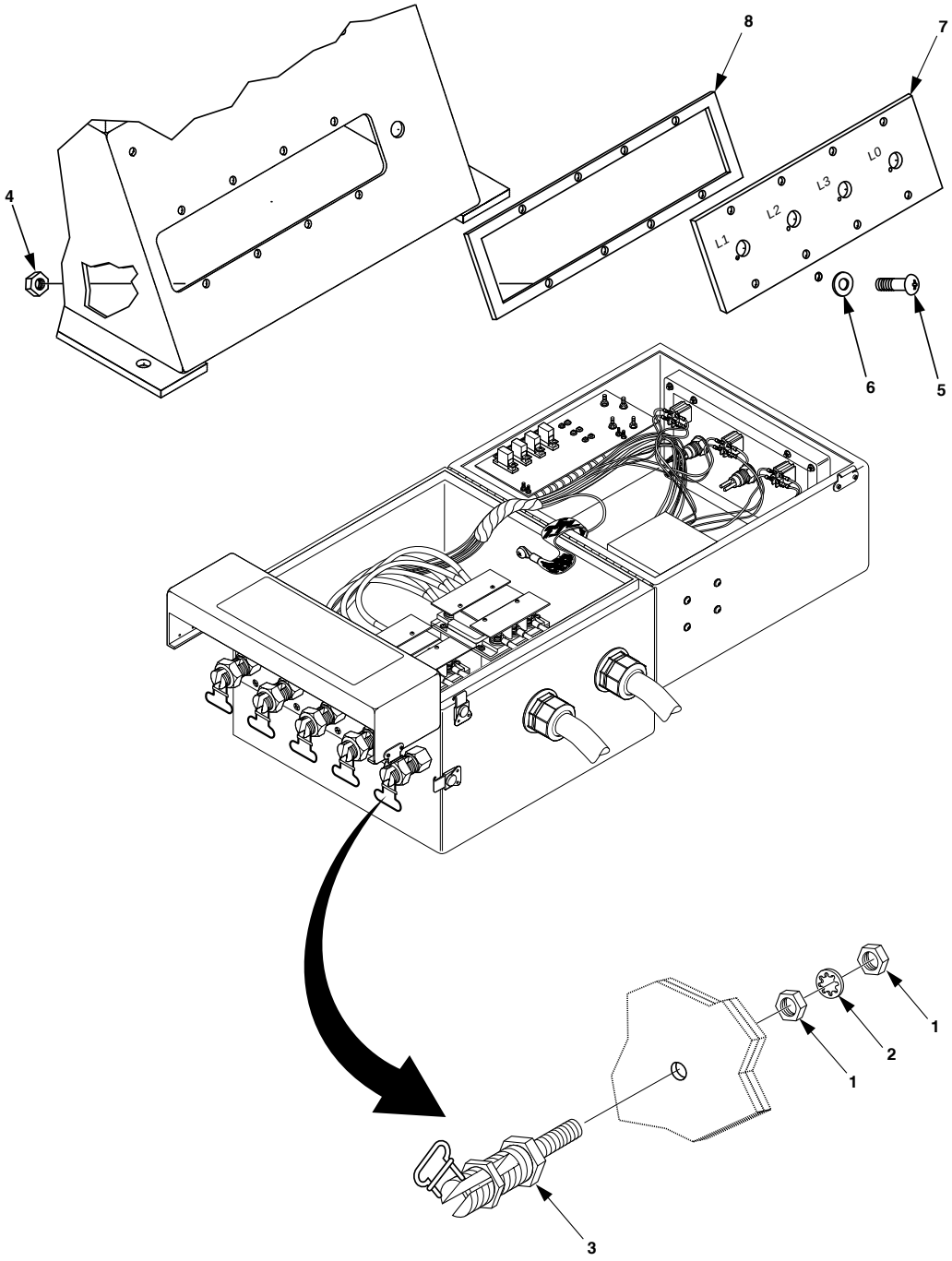


Figure F-12. Load Terminal.

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 02 ELECTRICAL SYSTEM FIG. F-12 LOAD TERMINAL	
1	PAOZZ	96906	MS35691-35	.. NUT, PLAIN, HEXAGON UOC: YJB, YJD, YJC	10
2	PAOZZ	96906	MS35333-113	.. WASHER, LOCK UOC: YJB, YJD, YJC	5
3	PAOOO	96906	MS39347-4	.. TERMINAL, LOAD UOC: YJB, YJD, YJC	5
4	PAOZZ	96906	MS51858-5	.. NUT, PLAIN, HEXAGON UOC: YJB, YJD, YJC	8
5	PAOZZ	96906	MS18212-65	.. SCREW, MACHINE UOC: YJB, YJD, YJC	8
6	PAOZZ	96906	MS51859-5	.. WASHER, FLAT UOC: YJB, YJD, YJC	8
7	XDOZZ	97403	13229E5833	.. PANEL, LOAD TERMINAL UOC: YJB, YJD, YJC	1
8	XDOZZ	97403	13229E9631	.. GASKET, LOAD TERMINAL UOC: YJB, YJD, YJC	1
				END OF FIGURE	

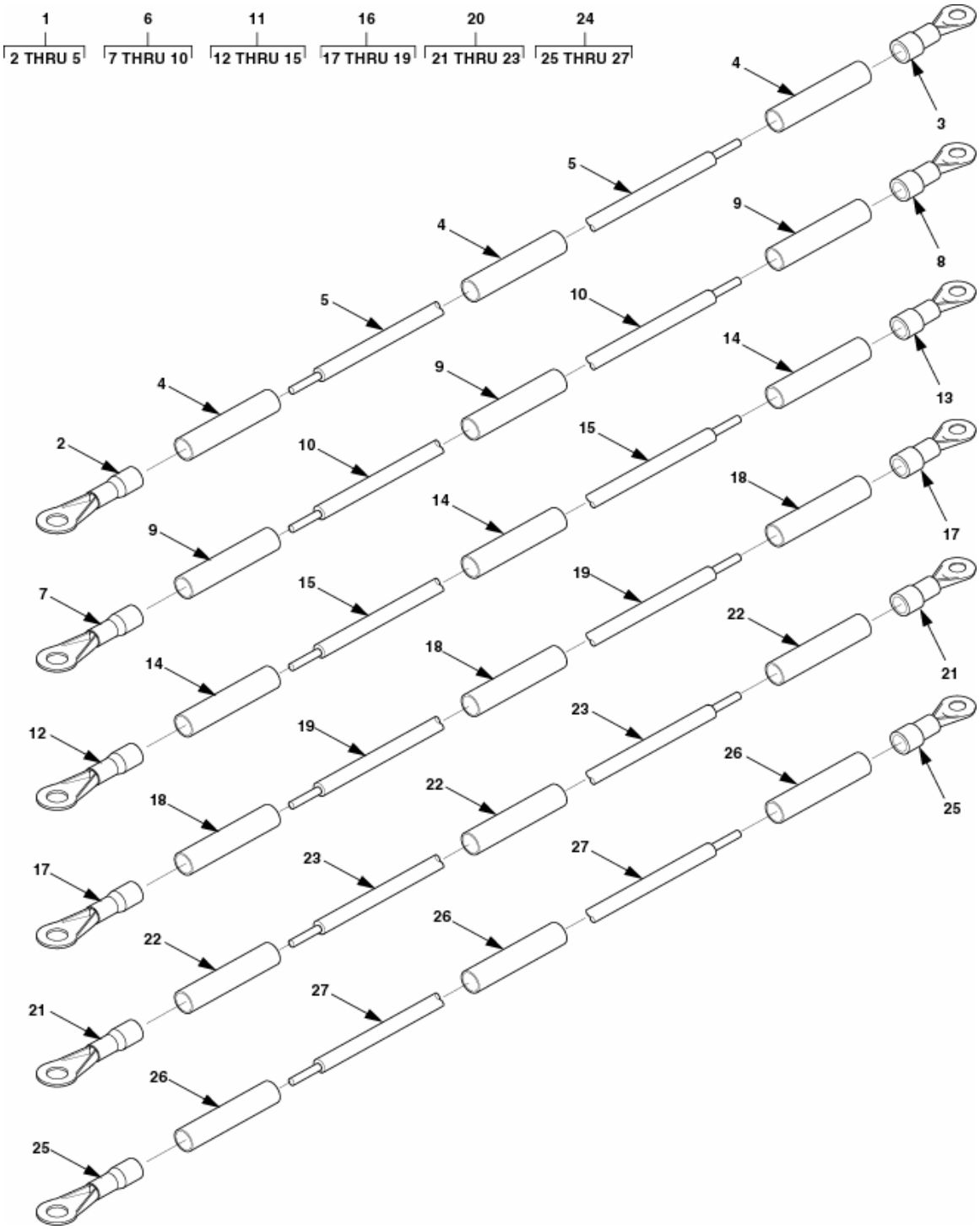


Figure F-13. Electrical Leads.

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 02 ELECTRICAL SYSTEM FIG. F-13 ELECTRICAL LEADS	
1	AFFFF	97403	13229E5828-1	.. LEAD, ELECTRICAL UOC: YJB, YJD, YJC	1
2	PAFZZ	96906	MS20659-145	... TERMINAL, LUG UOC: YJB, YJD, YJC	1
3	PAFZZ	96906	MS25036-125	... TERMINAL, LUG UOC: YJB, YJD, YJC	1
4	MFFZZ	81349	M23053/5-108-4	... INSULATION SLEEVING, 2.5 IN.REQUIRED UOC: YJB, YJD, YJC	3
5	MFFZZ	81349	M5086/2-4-9	... WIRE, ELECTRICAL, 16 IN. REQUIRED UOC: YJB, YJD, YJC	3
6	AFFFF	97403	13229E5828-2	.. LEAD, ELECTRICAL UOC: YJB, YJD, YJC	1
7	PAFZZ	96906	MS20659-145	... TERMINAL, LUG UOC: YJB, YJD, YJC	1
8	PAFZZ	96906	MS25036-125	... TERMINAL, LUG UOC: YJB, YJD, YJC	1
9	MFFZZ	81349	M23053/5-108-4	... INSULATION SLEEVING, 2.5 IN.REQUIRED UOC: YJB, YJD, YJC	3
10	MFFZZ	81349	M5086/2-4-9	... WIRE, ELECTRICAL, 18 IN. REQUIRED UOC: YJB, YJD, YJC	1
11	AFFFF	97403	13229E5828-3	.. LEAD, ELECTRICAL UOC: YJB, YJD, YJC	1
12	PAFZZ	96906	MS20659-145	... TERMINAL, LUG UOC: YJB, YJD, YJC	1
13	PAFZZ	96906	MS25036-125	... TERMINAL, LUG UOC: YJB, YJD, YJC	1
14	MFFZZ	81349	M23053/5-108-4	... INSULATION SLEEVING, 2.5 IN.REQUIRED UOC: YJB, YJD, YJC	3
15	MFFZZ	81349	M5086/2-4-9	... WIRE, ELECTRICAL, 23 IN. REQUIRED UOC: YJB, YJD, YJC	1
16	AFFFF	97403	13229E5828-4	.. LEAD, ELECTRICAL UOC: YJB, YJD, YJC	1
17	PAFZZ	96906	MS20659-145	... TERMINAL, LUG UOC: YJB, YJD, YJC	2
18	MFFZZ	81349	M23053/5-108-4	... INSULATION SLEEVING, 2.5 IN.REQUIRED UOC: YJB, YJD, YJC	3
19	MFFZZ	81349	M5086/2-4-9	... WIRE, ELECTRICAL, 12 IN. REQUIRED UOC: YJB, YJD, YJC	1

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 02 ELECTRICAL SYSTEM FIG. F-13 ELECTRICAL LEADS	
20	AFFFF	97403	13229E5828-5	.. LEAD, ELECTRICAL UOC: YJB, YJD, YJC	1
21	PAFZZ	96906	MS20659-145	... TERMINAL, LUG UOC: YJB, YJD, YJC	2
22	MFFZZ	81349	M23053/5-108-4	... INSULATION SLEEVING, 2.5 IN.REQUIRED UOC: YJB, YJD, YJC	3
23	MFFZZ	81349	M5086/2-4-9	... WIRE, ELECTRICAL, 12 IN. REQUIRED UOC: YJB, YJD, YJC	1
24	AFFFF	97403	13229E5828-6	.. LEAD, ELECTRICAL UOC: YJB, YJD, YJC	1
25	PAFZZ	96906	MS20659-145	... TERMINAL, LUG UOC: YJB, YJD, YJC	2
26	MFFZZ	81349	M23053/5-108-4	... INSULATION SLEEVING, 2.5 IN.REQUIRED UOC: YJB, YJD, YJC	3
27	MFFZZ	81349	M5086/2-4-9	... WIRE, ELECTRICAL, 12 IN. REQUIRED UOC: YJB, YJD, YJC	1
				END OF FIGURE	

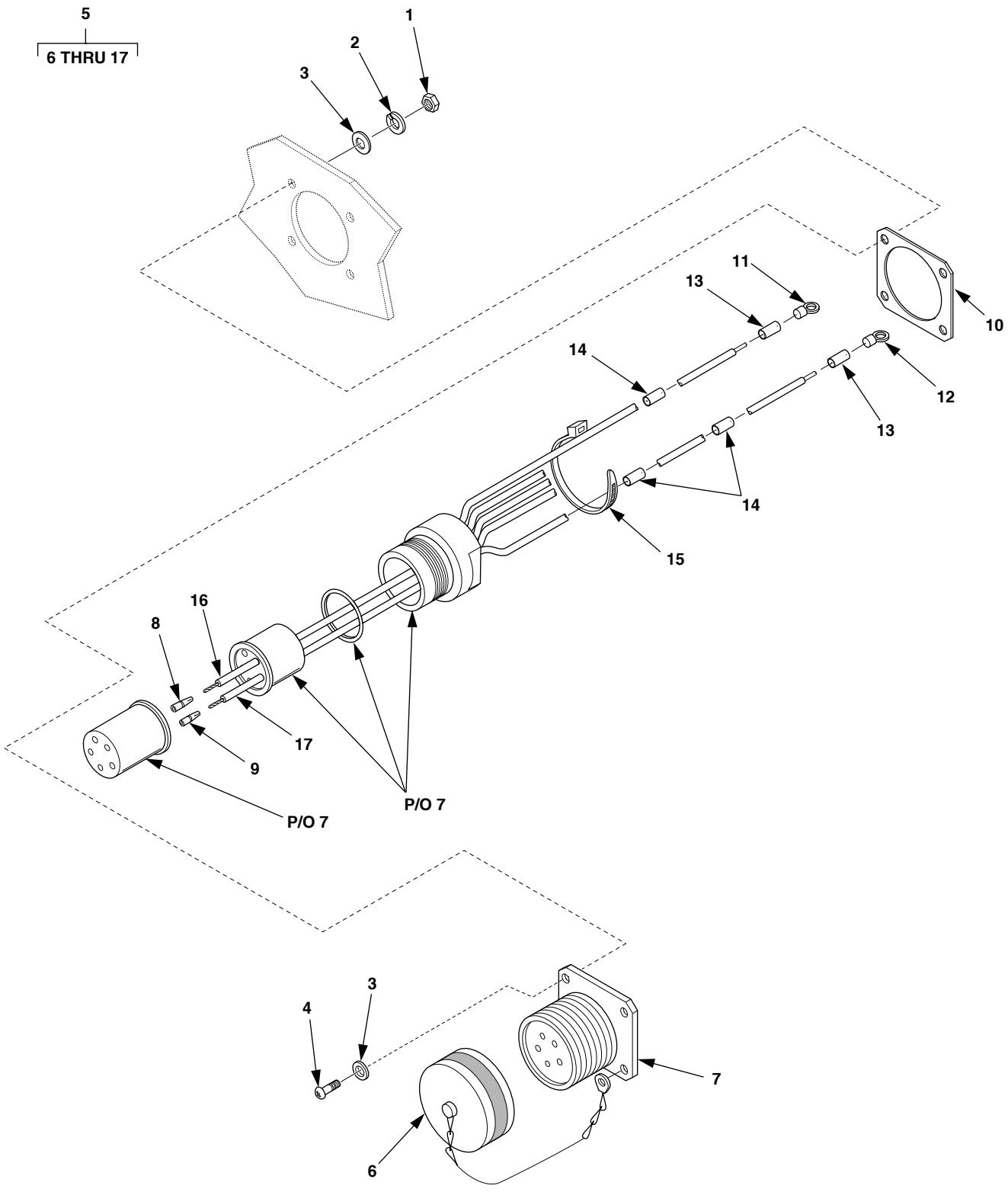


Figure F-14. Output Connector Harness Assembly.

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 02 ELECTRICAL SYSTEM FIG. F-14 OUTPUT CONNECTOR HARNESS ASSEMBLY	
1	PAOZZ	96906	MS35650-304	.. NUT, PLAIN, HEXAGON UOC: YJB, YJD, YJC	4
2	PAOZZ	96906	MS35338-138	.. WASHER, LOCK UOC: YJB, YJD, YJC	4
3	PAOZZ	96906	MS15795-848	.. WASHER, FLAT UOC: YJB, YJD, YJC	8
4	PAOZZ	96906	MS51958-67	.. SCREW, MACHINE UOC: YJB, YJD, YJC	4
5	XDFFF	97403	13229E5832-1	.. HARNESS ASSEMBLY OUTPUT CONNECTOR UOC: YJB, YJD, YJC	1
6	PAOZZ	96906	MS90563-3C	... COVER, ELECTRICAL CO UOC: YJB, YJD, YJC	1
7	PAFZZ	96906	MS90555C32413S	... CONNECTOR, RECEPTACLE UOC: YJB, YJD, YJC	1
8	PAFZZ	81349	M39029/49-331	.... CONTACT, ELECTRICAL UOC: YJB, YJD, YJC	4
9	PAFZA	81349	M39029/49-329	.... CONTACT, ELECTRICAL UOC: YJB, YJD, YJC	1
10	PAFZZ	59501	10-33675-36	.... GASKET UOC: YJB, YJD, YJC	1
11	PAFZZ	96906	MS20659-145	... TERMINAL, LUG UOC: YJB, YJD, YJC	4
12	PAFZZ	96906	MS20659-143	... TERMINAL, LUG UOC: YJB, YJD, YJC	1
13	MFFZZ	81349	M23053/5-108-0	... INSULATION SLEEVING, 1 IN. REQUIRED UOC: YJB, YJD, YJC	5
14	MFFZZ	81349	M23053/5-108-4	... INSULATION SLEEVING MAKE, AS REQUIRED UOC: YJB, YJD, YJC	6
15	PAFZZ	96906	MS3367-1-9	.. STRAP, TIEDOWN, ELECTRICAL UOC: YJB, YJD, YJC	V
16	MFFZZ	81349	M5086/2-4-9	... WIRE, ELECTRICAL, 82 IN. REQUIRED UOC: YJB, YJD, YJC	1
17	MFFZZ	81349	M5086/2-6-9	... WIRE, ELECTRICAL, 26 IN. REQUIRED UOC: YJB, YJD, YJC	1
				END OF FIGURE	

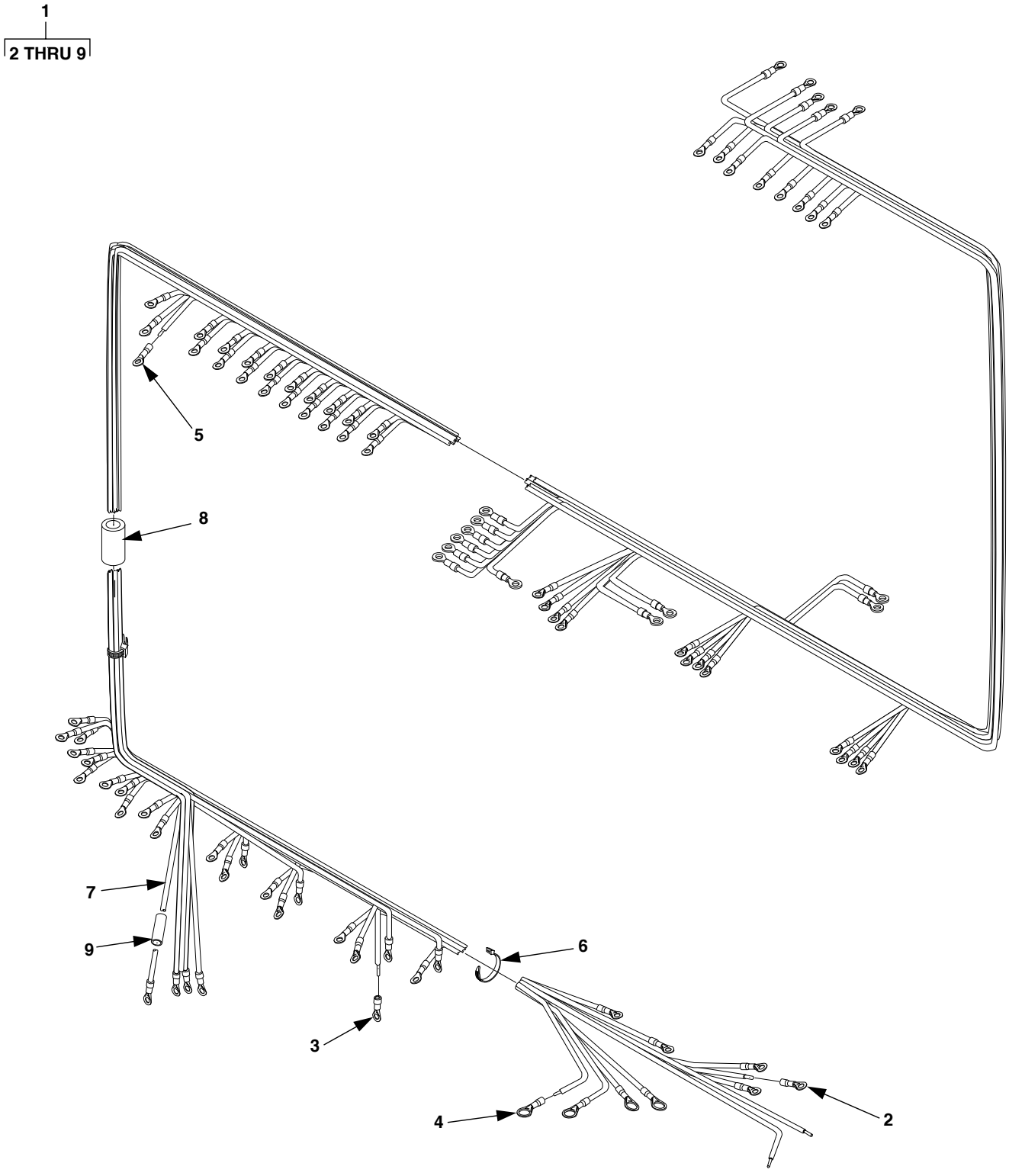


Figure F-15. Switch Box Harness Assembly (Sheet 1 of 2).

WIRE LIST					
WIRE NO.	TERMINATION		TERMINATION		WIRE ITEM NO.
	FROM	ITEM NO.	TO	TERMINAL ITEM NO.	
1	TB1-17	3	S10-2	3	7
2	TB1-2	3	PP-4	3	7
3	TB1-3	3	PP-3	3	7
4	TB1-4	3	K2-C2	2	7
5	TB1-5	3	XDS6-2	-	7
6	TB1-6	3	K2-22	3	7
7	TB1-7	3	K1-A2	2	7
8	TB1-8	3	K1-21	3	7
9	TB1-9	3	K1-C2	2	7
10	TB1-10	3	K2-11	3	7
11	TB1-10	3	PP-6	3	7
12	TB1-11	3	PP-8	3	7
13	TB1-12	3	K2-21	3	7
14	TB1-13	3	K1-22	3	7
15	TB1-16	3	S10-5	3	7
16	-	-	-	-	-
17	TB2-5	-	K2-A2	2	7
18	-	-	-	-	-
19	TB2-4	3	K2-Y	3	7
20	XDS6-1	-	R3-1	-	-
21	XDS5-2	-	PP-3	3	7
22	XDS5-1	-	PP-1	3	7
23	TB2-2	3	K1-A2	2	7
24	-	-	-	-	-
25	S2-2	3	S10-4	3	7
26	-	-	-	-	-
27	-	-	-	-	-
28	S1-6	3	PP-7	3	7
29	S1-2	3	S10-1	3	7
30	S1-5	3	K1-12	3	7
31	S2-6	3	PP-5	3	7
32	-	-	-	-	-
33	S2-5	3	K2-12	3	7
34	K1-11	3	PP-8	3	7
35	PP-4	3	LO	4	7
36	XDS7-2	-	PP-1	3	7
37	XDS7-1	-	L3	4	7
38	K1-22	3	K2-32	3	7
39	K2-32	3	K1-A2	2	7
40	K2-22	3	K2-A2	2	7
41	K1-32	3	K2-A2	2	7
42	K1-33	3	K2-11	3	7
43	K2-Y	3	LO	4	7
44	K2-X	3	S2-3	3	7
45	K2-33	3	K1-11	3	7
46	K1-X	3	S1-3	3	7
47	K1-Y	3	LO	4	7
48	K1-Y	3	TB2-1	3	7
49	K2-A1	2	R3-2	-	7
50	PP-2	3	PP-3	3	7
51	TB1-18	3	TB2-3	3	7
52	G	5	TB2-3	3	7

Figure F-15. Switch Box Harness Assembly (Sheet 2 of 2).

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 02 ELECTRICAL SYSTEM FIG. F-15 SWITCH BOX HARNESS ASSY	
1	XDFFF	97403	13229E5831	.. HARN ASSY, SWITCH BOX UOC: YJB, YJD, YJC	1
2	PAOZZ	96906	MS25036-110	... TERMINAL, LUG UOC: YJB, YJD, YJC	9
3	PAOZZ	96906	MS25036-107	... TERMINAL, LUG UOC: YJB, YJD, YJC	70
4	PAOZZ	96906	MS25036-155	... TERMINAL, LUG UOC: YJB, YJD, YJC	4
5	PAOZZ	96906	MS25036-108	... TERMINAL, LUG UOC: YJB, YJD, YJC	1
6	PAOZZ	96906	MS3367-4-9	... STRAP, TIEDOWN, ELECTRICAL UOC: YJB, YJD, YJC	V
7	MFFZZ	81349	M22759/16-16-9	... WIRE, ELECTRICAL, MAKE AS REQUIRED UOC: YJB, YJD, YJC	1
8	MFFZZ	81349	M23053/5-107-4	... INSULATION SLEEVING, 1.5 IN.REQUIRED UOC: YJB, YJD, YJC	1
9	MFFZZ	81349	M23053/5-105-4	... INSULATION SLEEVING, MAKE AS REQUIRED UOC: YJB, YJD, YJC	10
				END OF FIGURE	

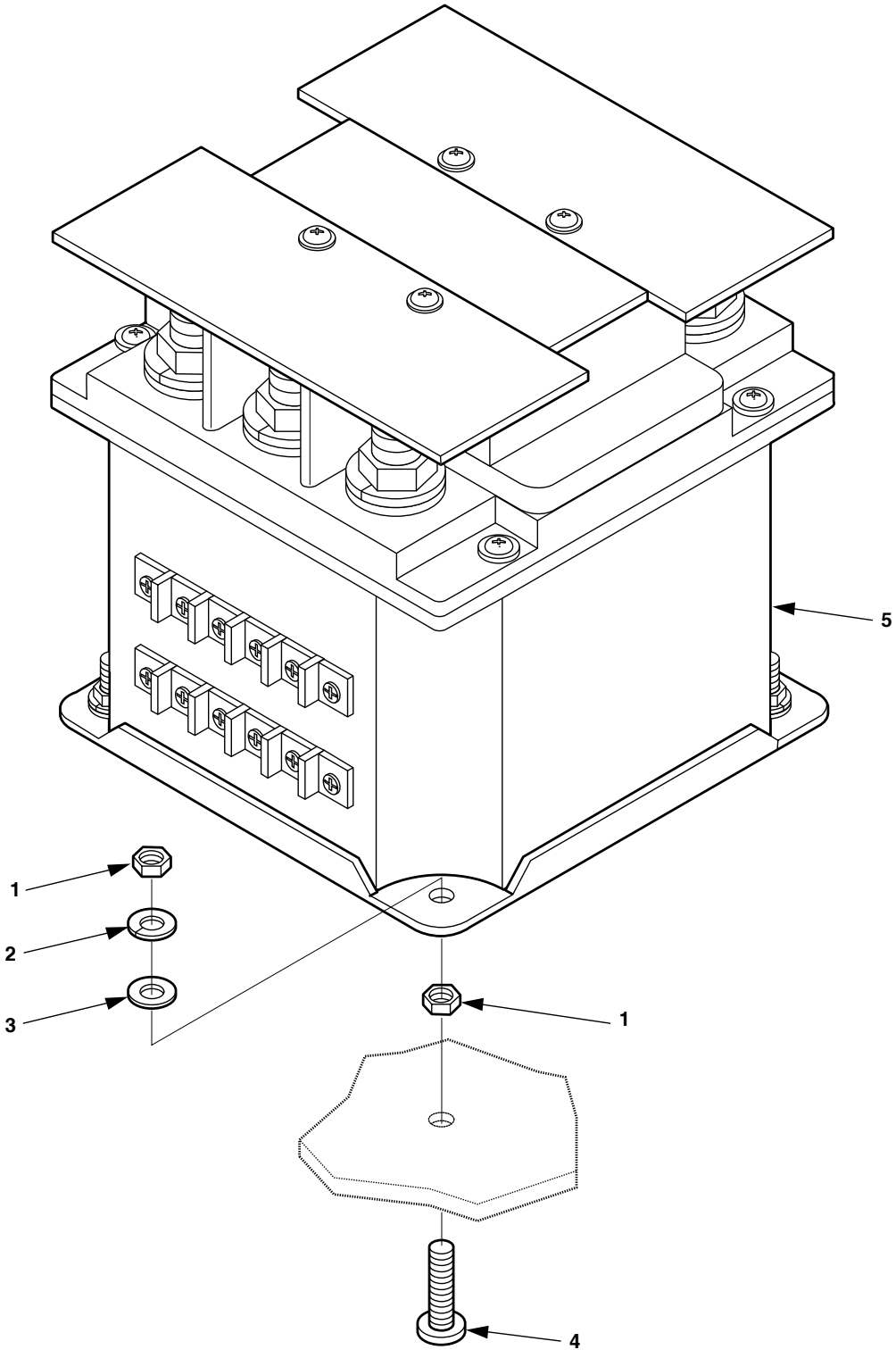


Figure F-16. Contactor.

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 02 ELECTRICAL SYSTEM FIG. F-16 CONTACTOR	
1	PAFZZ	96906	MS35650-304	.. NUT, PLAIN, HEXAGON UOC: YJB, YJD, YJC	16
2	PAFZZ	96906	MS35338-138	.. WASHER, LOCK UOC: YJB, YJD, YJC	8
3	PAFZZ	96906	MS15795-848	.. WASHER, FLAT UOC: YJB, YJD, YJC	8
4	PAFZZ	96906	MS51958-67	.. SCREW, MACHINE UOC: YJB, YJD, YJC	8
5	PAFZZ	7E656	JCG-6026	.. CONTACTOR UOC: YJB, YJD, YJC	2
				END OF FIGURE	

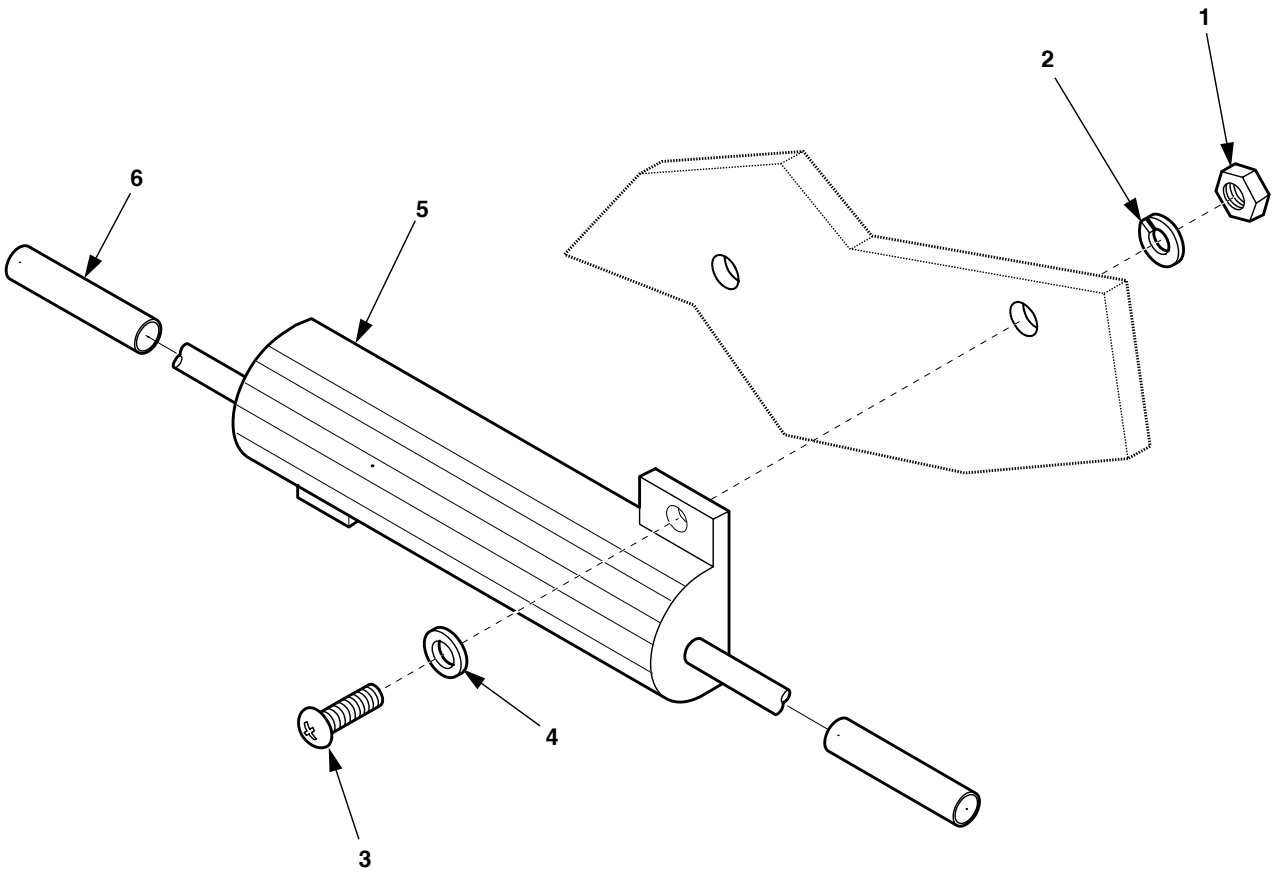


Figure F-17. Resistor R3.

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 02 ELECTRICAL SYSTEM FIG. F-17 RESISTOR R3	
1	PAFZZ	96906	MS35649-244	.. NUT, PLAIN, HEXAGON UOC: YJB, YJD, YJC	2
2	PAFZZ	96906	MS35338-135	.. WASHER, LOCK UOC: YJB, YJD, YJC	2
3	PAFZZ	96906	MS51957-16	.. SCREW, MACHINE UOC: YJB, YJD, YJC	2
4	PAFZZ	88044	AN960-C4	.. WASHER, FLAT UOC: YJB, YJD, YJC	2
5	PAFZZ	81349	RER75F2491R	.. RESISTOR UOC: YJB, YJD, YJC	1
6	MFFZZ	81349	M23053/5-105-0	.. INSULATION SLEEVING, .75 IN.REQUIRED UOC: YJB, YJD, YJC	2
				END OF FIGURE	

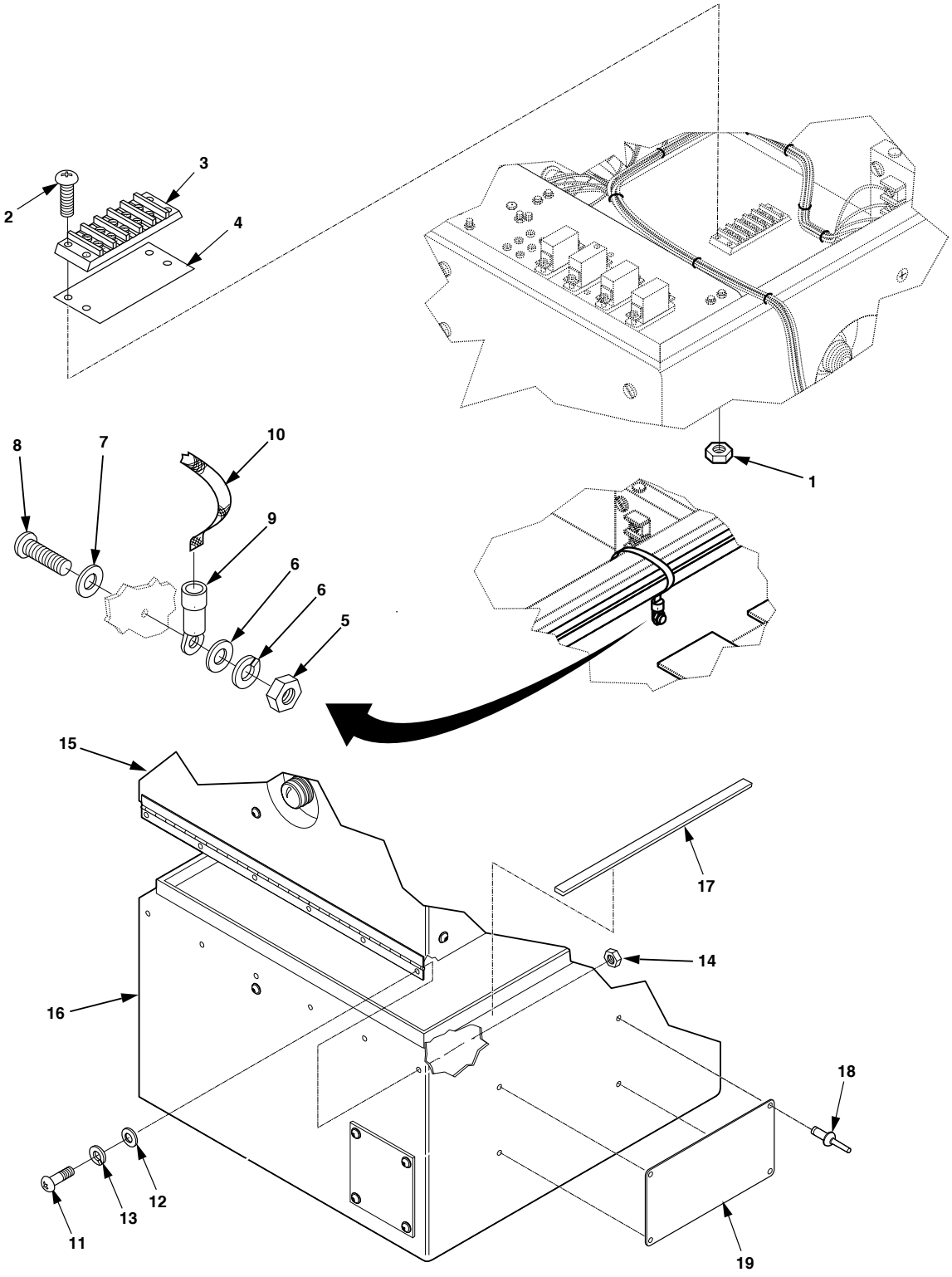


Figure F-18. Switch Box Assembly.

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 02 ELECTRICAL SYSTEM FIG. F-18 SWITCH BOX ASSEMBLY	
1	PAOZZ	96906	MS35649-264	.. NUT, PLAIN, HEXAGON UOC: YJB, YJD, YJC	4
2	PAOZZ	96906	MS51957-31	.. SCREW, MACHINE UOC: YJB, YJD, YJC	4
3	PAOZZ	81349	37TB5	.. TERMINAL BOARD UOC: YJB, YJD, YJC	1
4	PAOZZ	81349	MSA37TB5	.. MARKER STRIP, TERMINAL UOC: YJB, YJD, YJC	1
5	PAOZZ	96906	MS35650-304	.. NUT, PLAIN, HEXAGON UOC: YJB, YJD, YJC	2
6	PAOZZ	96906	MS35338-138	.. WASHER, LOCK UOC: YJB, YJD, YJC	2
7	PAOZZ	96906	MS15795-848	.. WASHER, FLAT UOC: YJB, YJD, YJC	2
8	PAOZZ	96906	MS51958-64	.. SCREW, MACHINE UOC: YJB, YJD, YJC	2
9	PAOZZ	96906	MS25036-119	.. TERMINAL, LUG UOC: YJB, YJD, YJC	2
10	MOOZZ	81348	QQB575F30T0437	.. BRAID, WIRE, 8 IN. REQUIRED UOC: YJB, YJD, YJC	1
11	PAFZZ	96906	MS51957-46	.. SCREW, MACHINE UOC: YJB, YJD, YJC	5
12	PAFZZ	96906	MS15795-841	.. WASHER, FLAT UOC: YJB, YJD, YJC	5
13	PAFZZ	58536	MS35338-137	.. WASHER, LOCK UOC: YJB, YJD, YJC	5
14	PAFZZ	96906	MS35649-284	.. NUT, PLAIN, HEXAGON UOC: YJB, YJD, YJC	5
15	XDFZZ	97403	13230E6537	.. COVER, SWITCHBOX UOC: YJB, YJD, YJC	1
16	XDFFF	97403	13230E6536	.. ENCLOSURE, SWITCHBOX UOC: YJB, YJD, YJC	1
17	MOOZZ	81346	2B2B2C1F2	... STRIP, RUBBER, 14 IN. REQUIRED UOC: YJB, YJD, YJC	4
18	PAFZZ	96906	MS27130-CR93	... NUT, PLAIN, BLIND RIVET UOC: YJB, YJD, YJC	5
19	MDOZZ	97409	13229E5819-3	.. PLATE, IDENTIFICATION SCHEMATIC UOC: YJB, YJD, YJC	1
				END OF FIGURE	

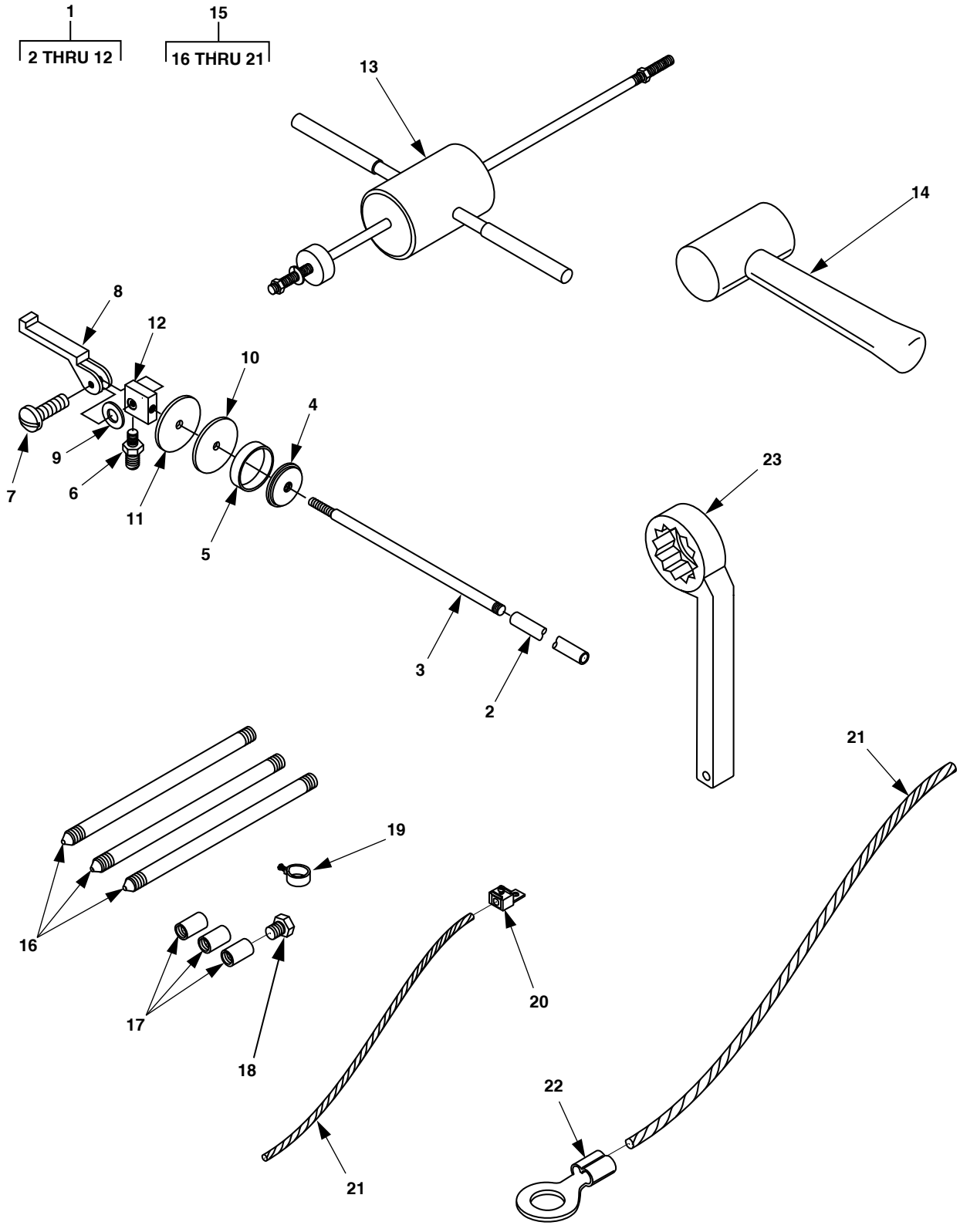


Figure F-19. Accessories.

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 03 ACCESSORIES FIG. F-19 ACCESSORIES	
1	PAOZZ	97403	13211E7541	. ADAPTER, CONTAINER	1
2	PAOZZ	97403	13211E7542	.. PIPE, METALLIC	1
3	PAOZZ	97403	13211E7543	.. PIPE, METALLIC	1
4	PAOZZ	97403	13211E7544	.. WASHER, RECESSED	1
5	PAOZZ	97403	13211E7546	.. GASKET	1
6	PAOZZ	88044	AN816-5-4	.. ADAPTER, STRAIGHT, PI	1
7	PAOZZ	00141	4328	.. SCREW, SHOULDER	2
8	XAOZZ	97403	13200E6363	.. CLAMP, STRAINER	1
9	PAOZZ	96906	MS35335-60	.. WASHER, LOCK	2
10	XAOZZ	97403	13211E7547	.. WASHER, FLAT	1
11	XAOZZ	97403	13200E6361	.. WASHER, FLAT	1
12	XAOZZ	97403	13211E7548	.. HEAD	1
13	PAOZZ	97403	13226E7741	. SLIDE HAMMER, GROUND	1
14	PAOZZ	80244	GGG-H-86,TY10,CL	. HAMMER, HAND	1
15	PAOOZ	15277	FSO216B122-1	. ROD, GROUND WITH ATTACHMENTS	1
16	PAOZZ	56681	A-A-55804-111-B	.. ROD, GROUND	3
17	PAOZZ	OBKK8	GRC 58	.. COUPLING, GROUND ROD	3
18	PAOZZ	73616	GRB58	.. DRIVE HEAD	1
19	PAOZZ	04655	70-801074	.. CLAMP, ELECTRICAL	1
20	PAOZZ	01667	CBA-70	.. TERMINAL, LUG	1
21	MOOZZ	81348	QQW343CO6B1B	.. WIRE, ELECTRICAL, 6 FT REQUIRED	2
22	PAOZZ	96906	MS25036-122	.. TERMINAL, LUG UOC: YJB, YJD, EVR	1
23	PAOZZ	30554	72-2029-1	.. WRENCH, BOX	1
				END OF FIGURE	

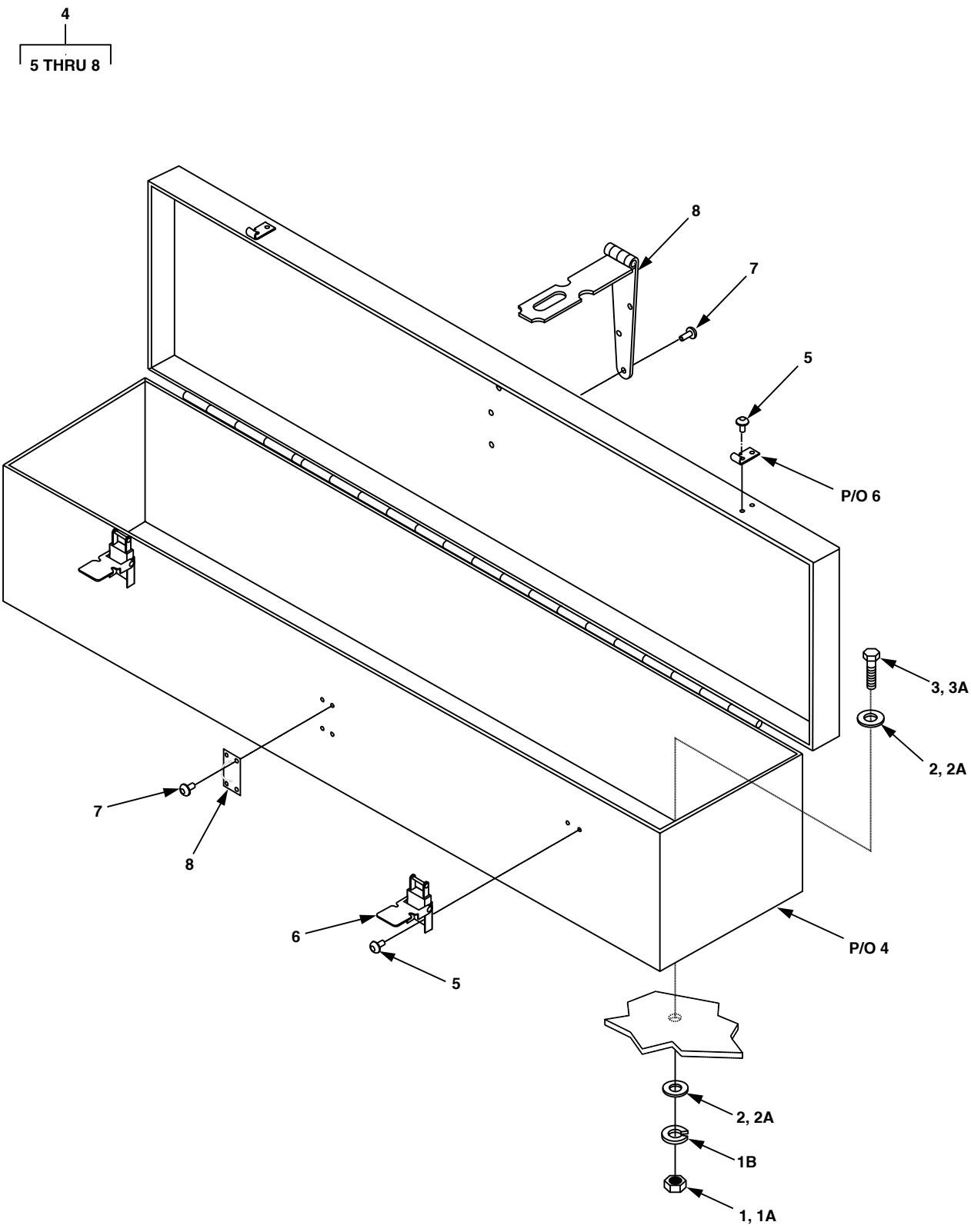


Figure F-20. Accessory Box.

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 03 ACCESSORIES FIG. F-20 ACCESSORY BOX	
1	PAOZZ	96906	MS51922-9	. NUT, SELF-LOCKING, HEXAGON UOC: YJD	3
1A	PAOZZ	96906	MS51922-9	. NUT, SELF-LOCKING, HEXAGON UOC: YJB, EVR	4
1B	PAOZZ	96906	MS35338-140	. WASHER, LOCK UOC: YJC, YFS	4
2	PAOZZ	96906	MS51412-25	. WASHER, FLAT UOC: YJD	3
2A	PAOZZ	96906	MS51412-25	. WASHER, FLAT UOC: YJB	8
3	PAOZZ	80204	B1821BH031C075N	. BOLT, MACHINE UOC: YJD	4
3A	PAOZZ	80204	B1821BH031C100N	. BOLT, MACHINE UOC: YJB, EVR	4
4	XDOFF	97403	13229E7946	. BOX, ACCESSORY	1
5	PAFZZ	96906	MS20613-4P5	.. RIVET, SOLID	8
6	PAFZZ	83014	H2638-1	.. CATCH, CLAMPING	2
7	PAFZZ	96906	MS20427-4C6	.. RIVET, SOLID	7
8	PAFZZ	96906	MS27969-4	.. HASP, HINGED	1
				END OF FIGURE	

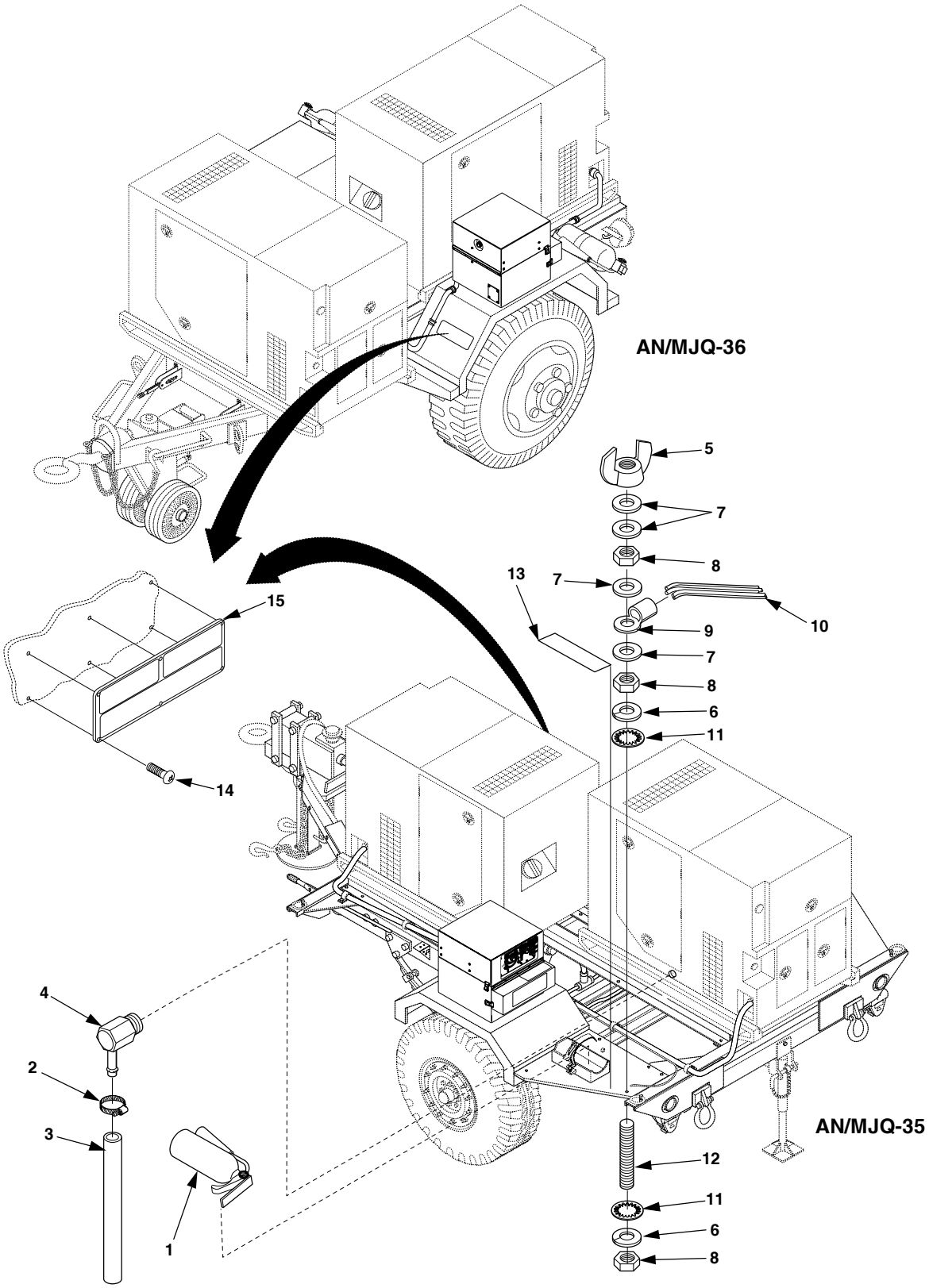


Figure F-21. Power Plant Fire Extinguisher, Oil Drain and Ground Wire (Sheet 1 of 2).

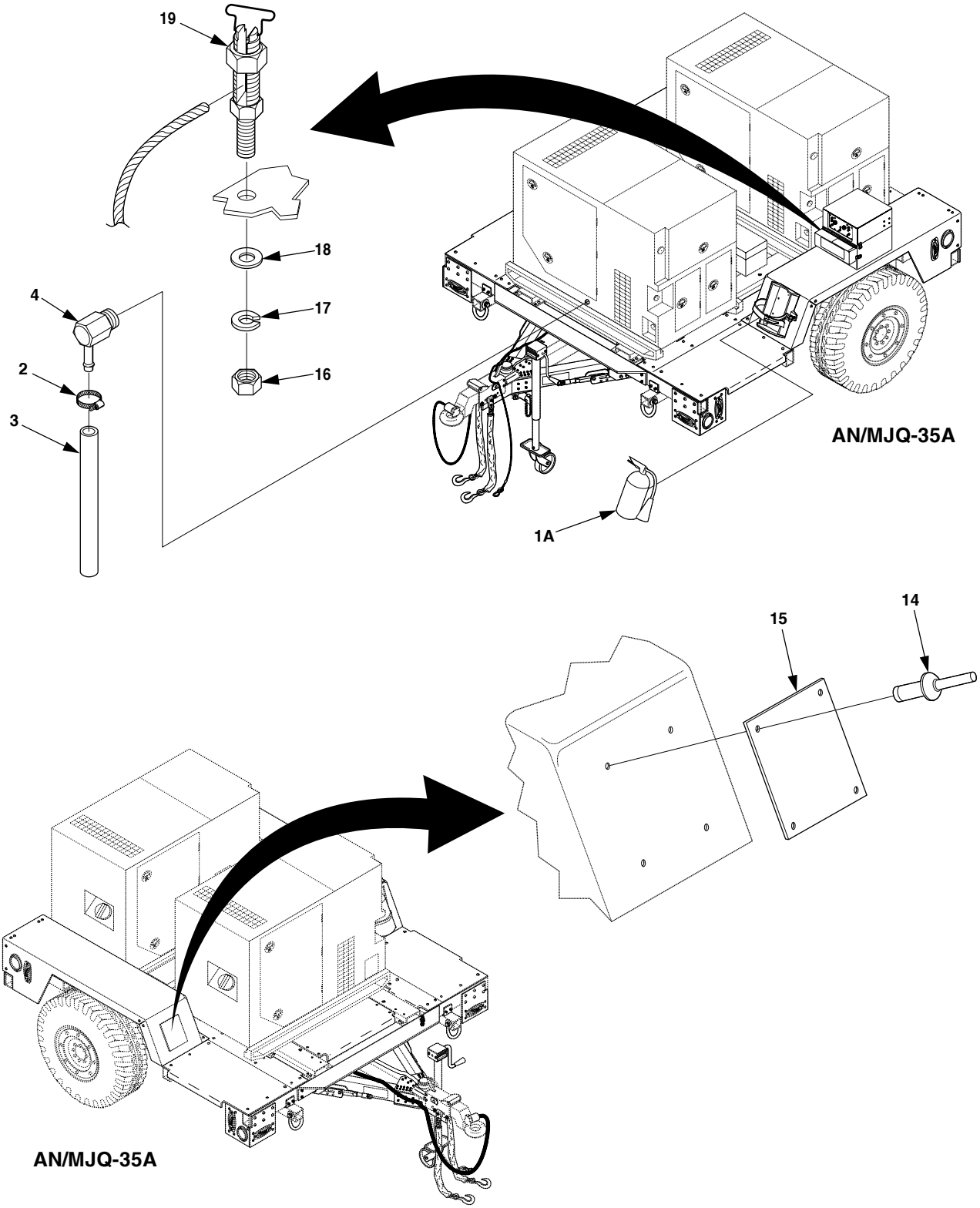


Figure F-21. Power Plant Fire Extinguisher, Oil Drain and Ground Wire (Sheet 2 of 2).

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 03 ACCESSORIES FIG. F-20 ACCESSORY BOX	
1	PAOZZ	96906	MS51922-9	. NUT, SELF-LOCKING, HEXAGON UOC: YJD	3
1A	PAOZZ	96906	MS51922-9	. NUT, SELF-LOCKING, HEXAGON UOC: YJB, EVR	4
1B	PAOZZ	96906	MS35338-140	. WASHER, LOCK UOC: YJC, YFS	4
2	PAOZZ	96906	MS51412-25	. WASHER, FLAT UOC: YJD	3
2A	PAOZZ	96906	MS51412-25	. WASHER, FLAT UOC: YJB	8
3	PAOZZ	80204	B1821BH031C075N	. BOLT, MACHINE UOC: YJD	4
3A	PAOZZ	80204	B1821BH031C100N	. BOLT, MACHINE UOC: YJB, EVR	4
4	XDOFF	97403	13229E7946	. BOX, ACCESSORY	1
5	PAFZZ	96906	MS20613-4P5	.. RIVET, SOLID	8
6	PAFZZ	83014	H2638-1	.. CATCH, CLAMPING	2
7	PAFZZ	96906	MS20427-4C6	.. RIVET, SOLID	7
8	PAFZZ	96906	MS27969-4	.. HASP, HINGED	1
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 03 ACCESSORIES FIG. F-21 POWER PLANT, FIRE EXTINGUISHER, OIL DRAIN AND GROUND WIRE	
15	MDOZZ	97403	13229E5666-2	. PLATE, IDENTIFICATION/TRANSPORTATION DATA UOC: YJB	1
16	PAOZZ	96906	MS35691-3	. NUT, PLAIN, HEXAGON UOC: YJC	1
17	PAOZZ	96906	MS35338-158	. WASHER, LOCK UOC: YJC	1
18	PAOZZ	96906	MS15795-810	. WASHER, FLAT UOC: YJC	1
19	PAOZZ	96906	MS39347-2	. TERMINAL POST, SERVICE AND GROUND UOC: YJC	1
				END OF FIGURE	

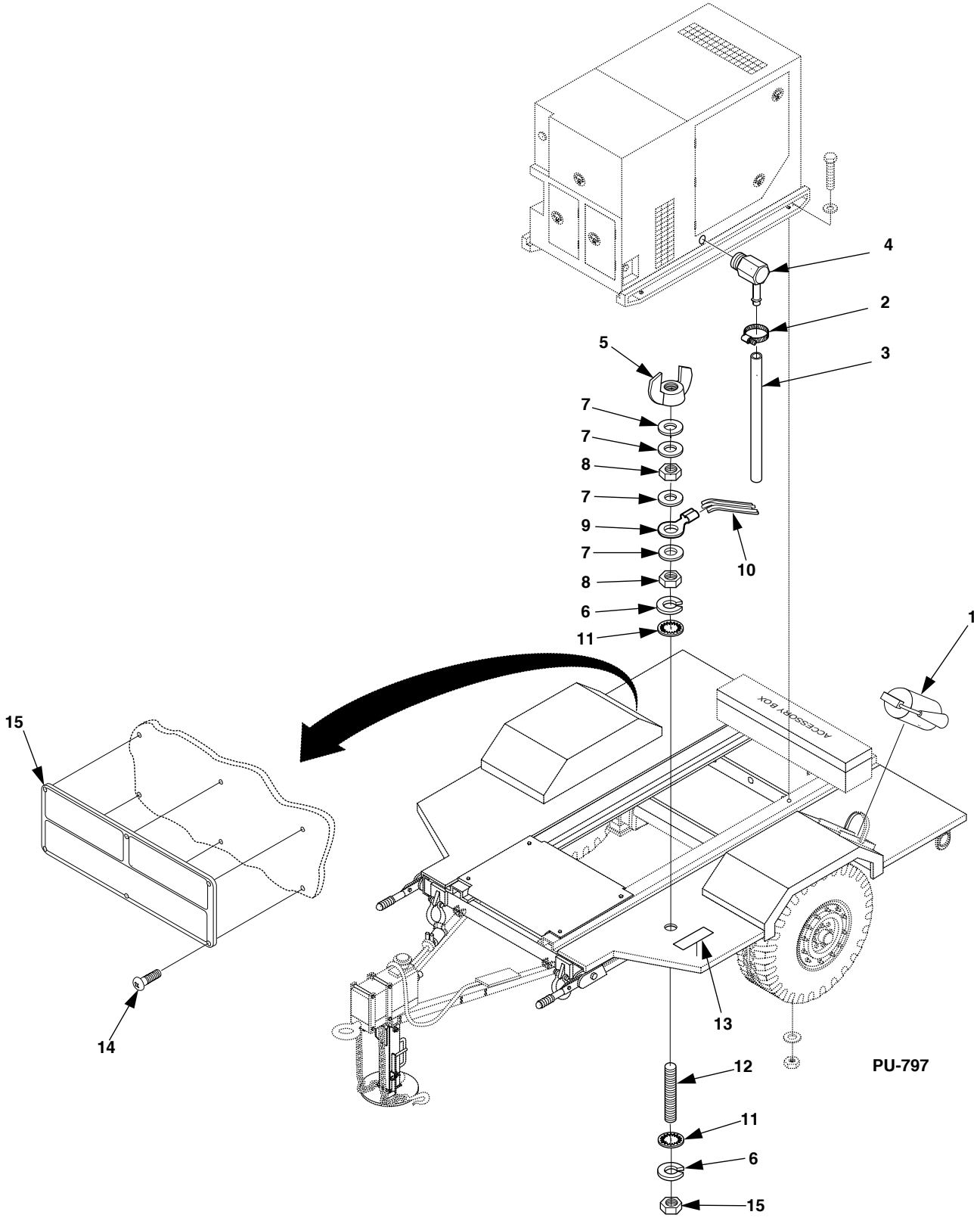


Figure F-22. Power Unit Fire Extinguisher, Oil Drain and Ground Wire (Sheet 1 of 2).

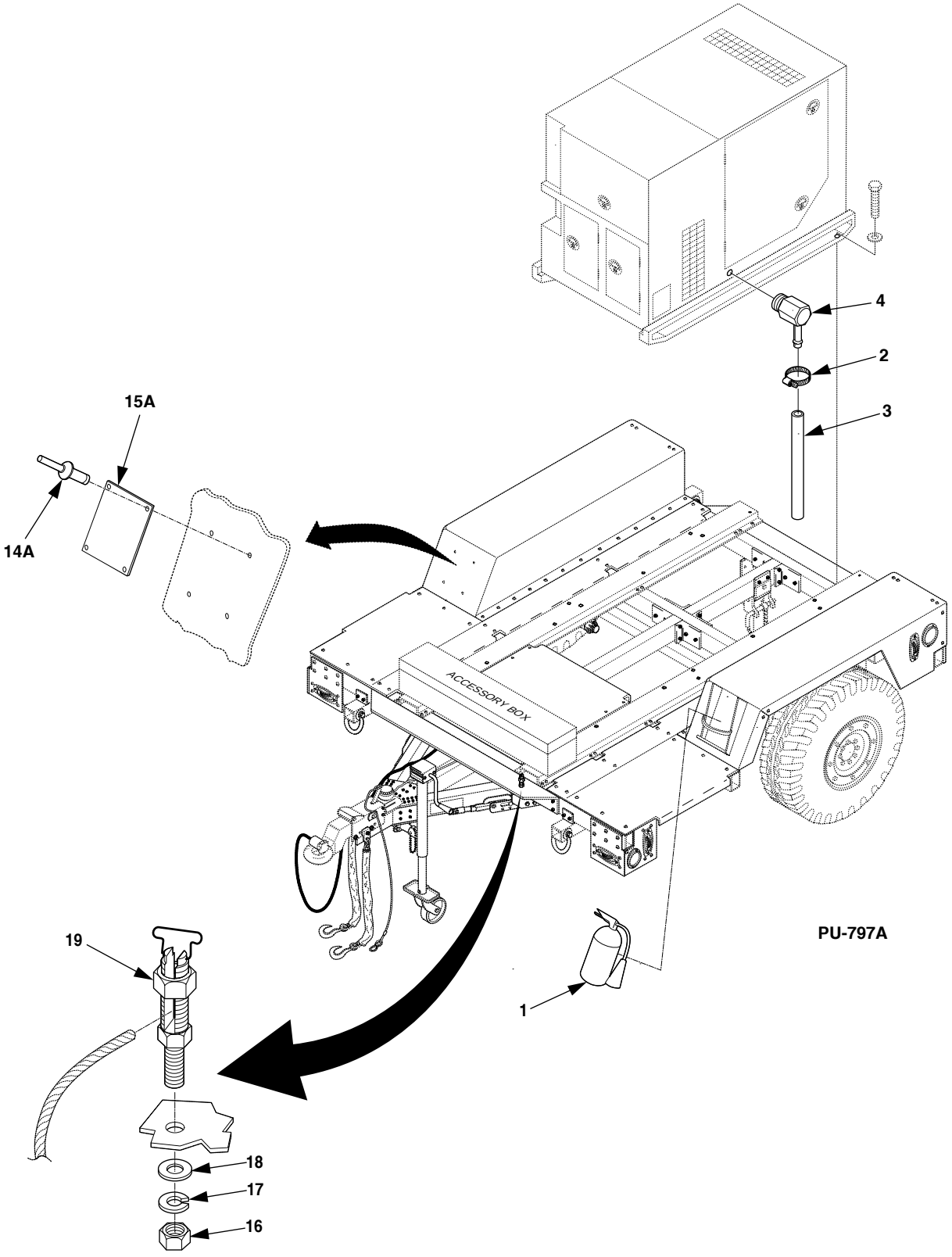


Figure F-22. Power Unit Fire Extinguisher, Oil Drain and Ground Wire (Sheet 2 of 2).

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 03 ACCESSORIES FIG. F-22 POWER UNIT, FIRE EXTINGUISHER, OIL DRAIN AND GROUND WIRE	
1	PAOZZ	58536	A-A-1106	. EXTINGUISHER, FIRE UOC: EVR, YFS	1
2	PAOZZ	96906	MS35842-11	. CLAMP, HOSE UOC: EVR, YFS	1
3	MOOZZ	81349	M6000E00200	. HOSE, NONMETALLIC, 20 IN. REQUIRED UOC: EVR, YFS	1
4	PAOZZ	96906	MS24519-7	. ELBOW, PIPE TO HOSE UOC: EVR, YFS	1
5	PAOZZ	96906	MS35425-75	. NUT, PLAIN, WING UOC: EVR	1
6	PAOZZ	96906	MS35338-103	. WASHER, LOCK UOC: EVR	2
7	PAOZZ	88044	AN961-616T	. WASHER, FLAT UOC: EVR	4
8	PAOZZ	96906	NS16203-27	. NUT, PLAIN, HEXAGON UOC: EVR	3
9	PAOZZ	96906	MS25036-122	. TERMINAL, LUG UOC: EVR	1
10	MOOZZ	81348	QQW343C06B1B	. WIRE, ELECTRICAL, MAKE AS REQUIRED UOC: EVR, YFS	1
11	PAOZZ	96906	MS35333-110	. WASHER, LOCK UOC: EVR	2
12	PAOZZ	97403	13214E1223	STUD, CONTINUOUS THR UOC: EVR	1
13	MDOZZ	97403	13205E4918	. PLATE, IDENTIFICATION UOC: EVR	1
14	PAOZZ	81349	M24243/1-B403	. RIVET, BLIND UOC: EVR	6
14A	PAOZZ	07707	AD45ABS	. RIVET, BLIND UOC: YFS	4
15	MDOZZ	97403	13229E5666-13	. PLATE, IDENTIFICATION/TRANSPORTATION DATA UOC: EVR	1

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 03 ACCESSORIES FIG. F-22 POWER UNIT, FIRE EXTINGUISHER, OIL DRAIN AND GROUND WIRE	
15A	MDOZZ	30554	13230E6521	. PLATE, IDENTIFICATION/SHIPPING DATA UOC: YFS	1
16	PAOZZ	96906	MS35691-3	. NUT, PLAIN, HEXAGON UOC: YFS	1
17	PAOZZ	96906	MS35338-158	. WASHER, LOCK UOC: YFS	1
18	PAOZZ	96906	MS15795-810	. WASHER, FLAT UOC: YFS	1
19	PAOZZ	96906	MS39347-2	. TERMINAL POST, SERVICE AND GROUND UOC: YFS	1
				END OF FIGURE	

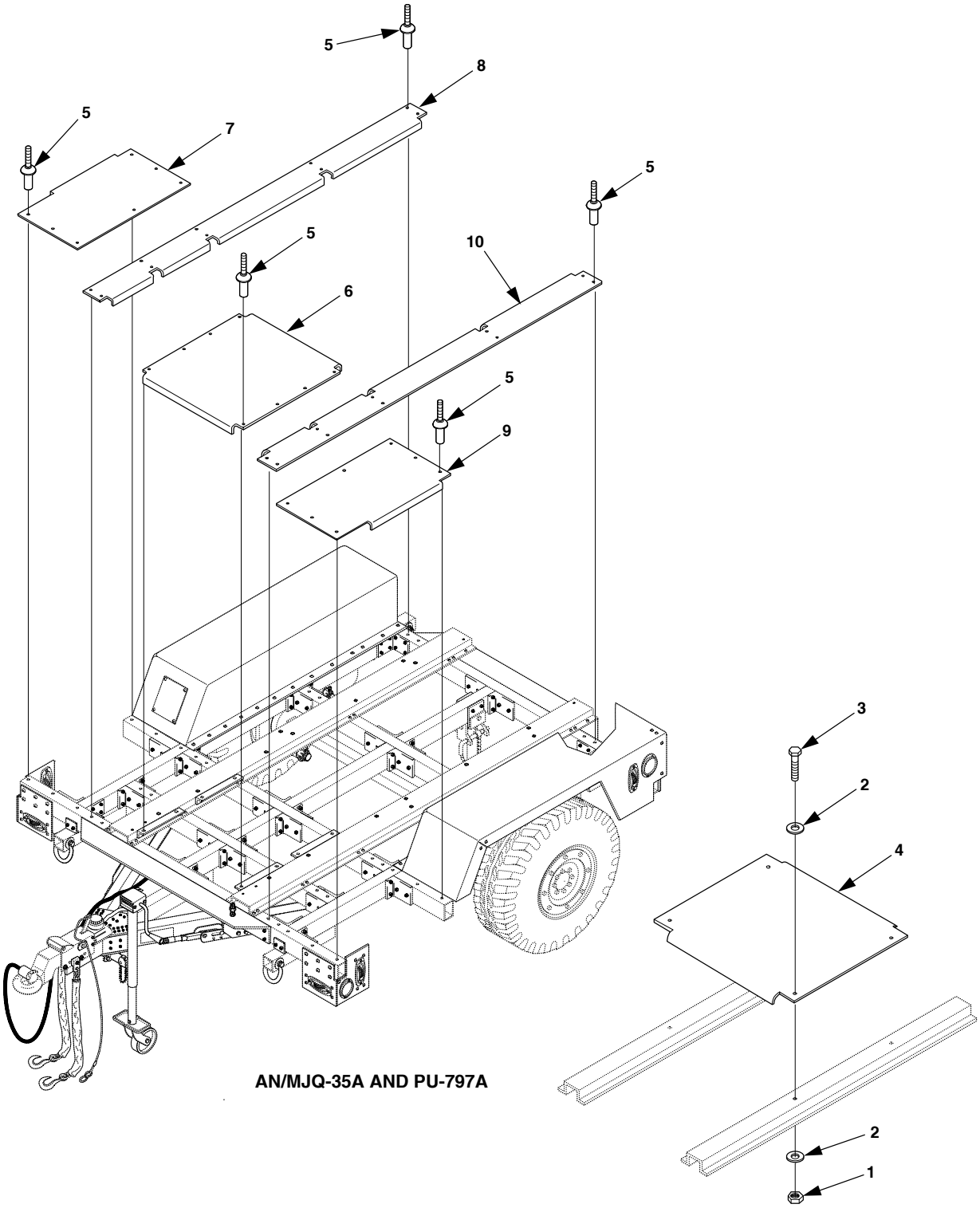


Figure F-23. Platforms.

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 03 ACCESSORIES FIG. F-23 PLATFORMS	
1	PAOZZ	96906	MS51922-17	. NUT, SELF-LOCKING, HEXAGON UOC: YJB, EVR	4
2	PAOZZ	96906	MS51412-7	. WASHER, FLAT UOC: YJB, EVR	8
3	PAOZZ	80204	B1821BH038C100N	. SCREW, CAP, HEXAGON H UOC: YJB, EVR	4
4	XDOZZ	97403	13229E9621-1	. PLATFORM UOC: YJB, EVR	1
5	PAFZZ	17446	MGLP-R8-10	. RIVET, STEEL SHANK UOC: YJC, YFS	42
6	XDFZZ	30554	13230E6568	. FLOOR, CENTER UOC: YJC, YFS	1
7	XDFZZ	30554	13230E6567-1	. FLOOR, SIDE, RH UOC: YJC, YFS	1
8	XDFZZ	30554	13230E6564-1	. FLOOR, SIDE, INNER, RH UOC: YJC, YFS	1
9	XDFZZ	30554	13230E6567-2	. FLOOR, SIDE, LH UOC: YJC, YFS	1
10	XDFZZ	30554	13230E6564-2	. FLOOR, SIDE, INNER, LH UOC: YJC, YFS	1
				END OF FIGURE	

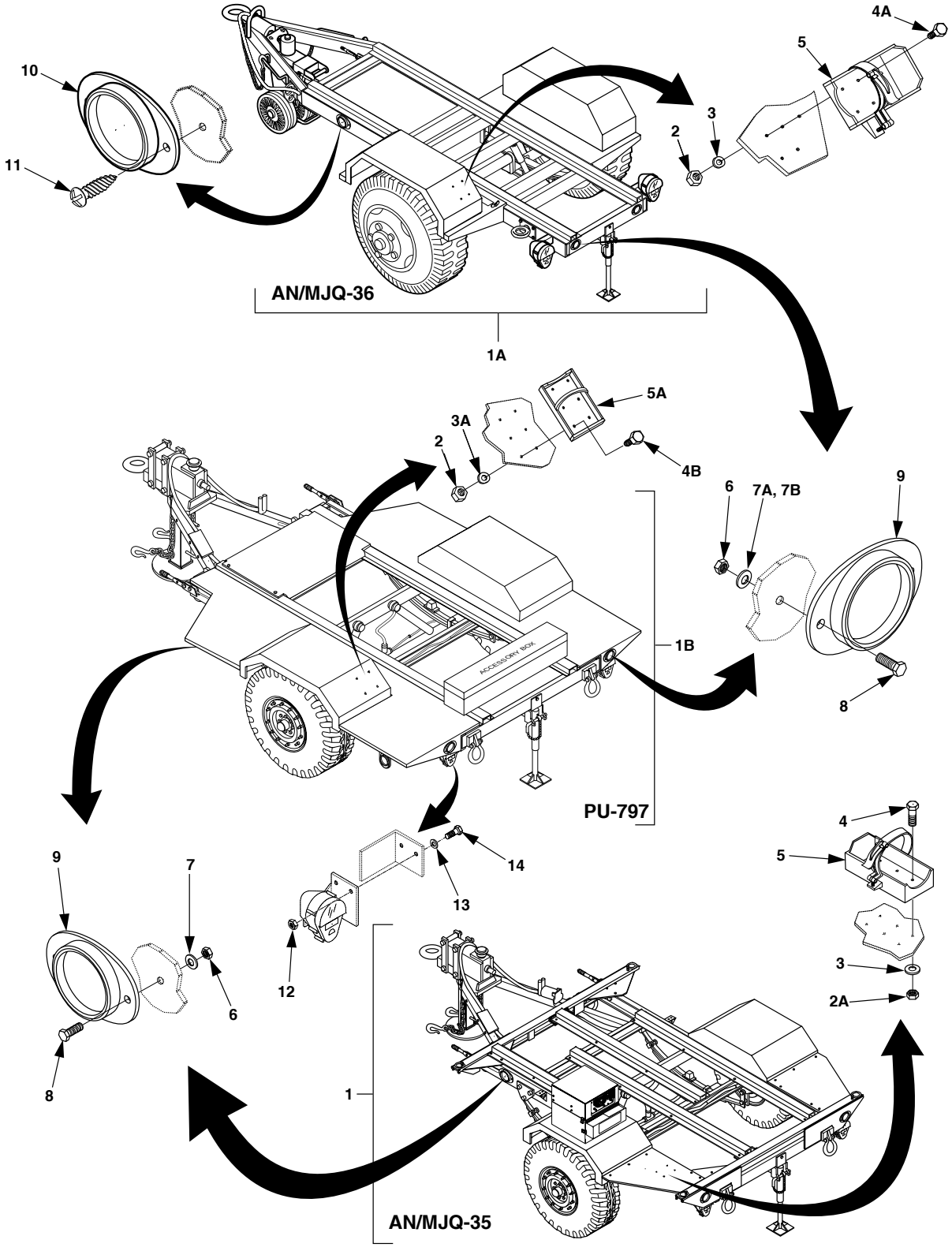


Figure F-24. Power Plant/Power Unit Trailer Assembly (Sheet 1 of 2).

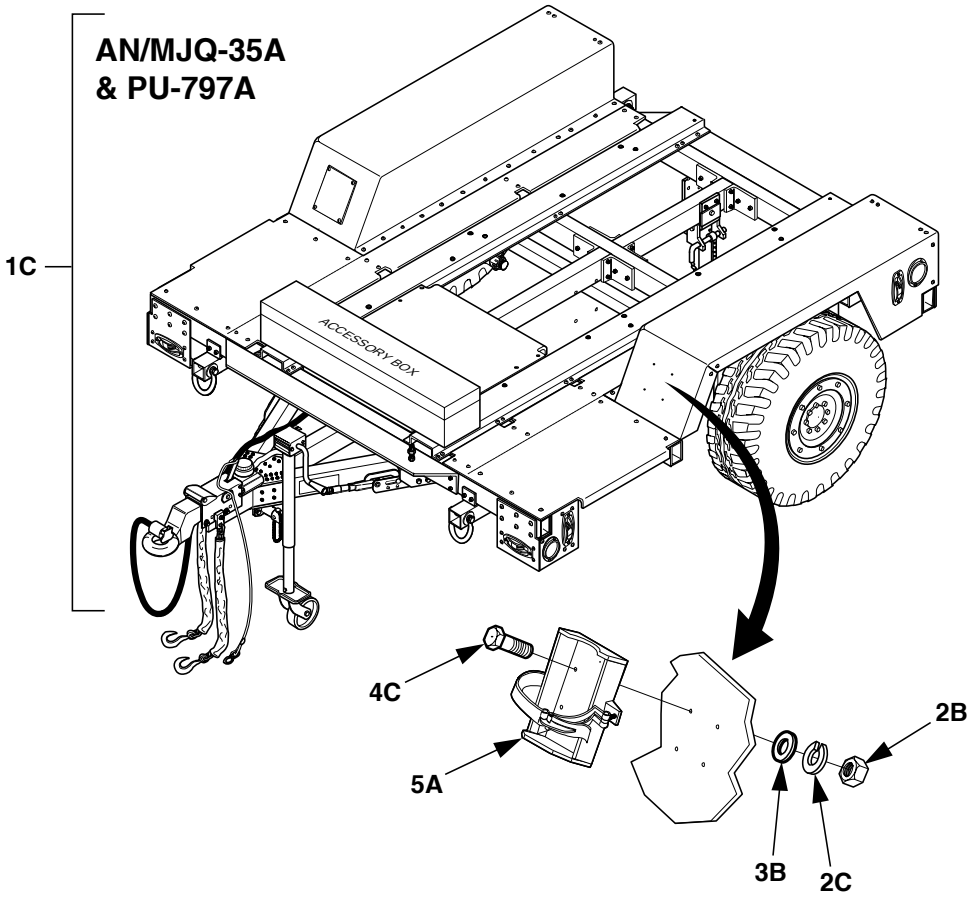


Figure F-24. Power Plant/Power Unit Trailer Assembly (Sheet 2 of 2).

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 04 TRAILER ASSEMBLY FIG. F-24 POWER PLANT/POWER UNIT TRAILER ASSEMBLY	
1	XCFFF	19099	13229E5650-TLR	TRAILER ASSEMBLY UOC: YJD	1
1A	PBFFF	97403	13229E5825	TRAILER ASSEMBLY UOC: YJB	1
1B	PBFFF	97403	13229E5749-1	TRAILER ASSEMBLY UOC: EVR	1
1C	PBFFF	30554	13230E6565	TRAILER ASSEMBLY UOC: YJC, YFS	1
2	PAOZZ	96906	MS51922-17	. NUT, SELF-LOCKING, HE UOC: YJB, YJD	8
2A	PAOZZ	96906	MS51922-17	. NUT, SELF-LOCKING, HE UOC: EVR	4
2B	PAOZZ	96906	MS35650-3384	. NUT, PLAIN, HEXAGON UOC: YJC, YFS	4
2C	PAOZZ	96906	MS35338-141	. WASHER, LOCK UOC: YJC, YFS	4
3	PAOZZ	96906	MS51412-7	. WASHER, FLAT UOC: YJB, YJD	8
3A	PAOZZ	96906	MS51412-27	. WASHER, FLAT UOC: EVR	4
3B	PAOZZ	96906	MS15795-813	. WASHER, FLAT UOC: YJC, YFS	8
4	PAOZZ	96906	B1821BH038C100N	. SCREW, CAP, HEXAGON H UOC: YJD	8
4A	PAOZZ	96906	B1821BH038C100N	. SCREW, CAP, HEXAGON H UOC: YJB	8
4B	PAOZZ	96906	B1821BH038C075N	. SCREW, CAP, HEXAGON H UOC: EVR	4
4C	PAOZZ	96906	MS35308-360	. SCREW, CAP, HEXAGON H UOC: YJC, YFS	4
5	PAOZZ	97403	13214E1235	. BRACKET, FIRE EXTING UOC: YJB, YJD	2
5A	PAOZZ	97403	13214E1235	. BRACKET, FIRE EXTING UOC: EVR, YJC, YFS	1
6	PAOZZ	96906	MS51922-1	. NUT, SELF-LOCKING, HE UOC: YJD, EVR	12

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 04 TRAILER ASSEMBLY FIG. F-24 POWER PLANT/POWER UNIT TRAILER ASSEMBLY	
6	PAOZZ	96906	MS51922-1	. NUT, SELF-LOCKING, HE UOC: YJB	8
7	PAOZZ	96906	MS51412-23	. WASHER, FLAT UOC: YJD	12
7A	PAOZZ	96906	MS51412-4	. WASHER, FLAT UOC: YJB	8
7B	PAOZZ	96906	MS51412-4	. WASHER, FLAT UOC: EVR	12
8	PAOZZ	80204	B1821BH025C088N	. SCREW, CAP, HEXAGON H UOC: YJD, EVR	12
8	PAOZZ	80204	B1821BH025C075N	. SCREW, CAP, HEXAGON H UOC: YJB	8
9	PAOZZ	96906	MS35387-1	. REFLECTOR, INDICATIN RED UOC: YJB, YJD, EVR	4
10	PAOZZ	96906	MS35387-2	. REFLECTOR, INDICATIN AMBER UOC: YJB, YJD, EVR	2
11	PAOZZ	96906	MS51861-37	. SCREW, TAPPING UOC: YJB	4
12	PAOZZ	97403	13230E6382-6	. NUT, SELF-LOCKING, HEXAGON UOC: EVR	4
13	PAOZZ	30554	88-20033-31A	. WASHER, FLAT UOC: EVR	4
14	PAOZZ	80204	ANS-B18.2.1	. SCREW, HEX HEAD UOC: EVR	4
				END OF FIGURE	

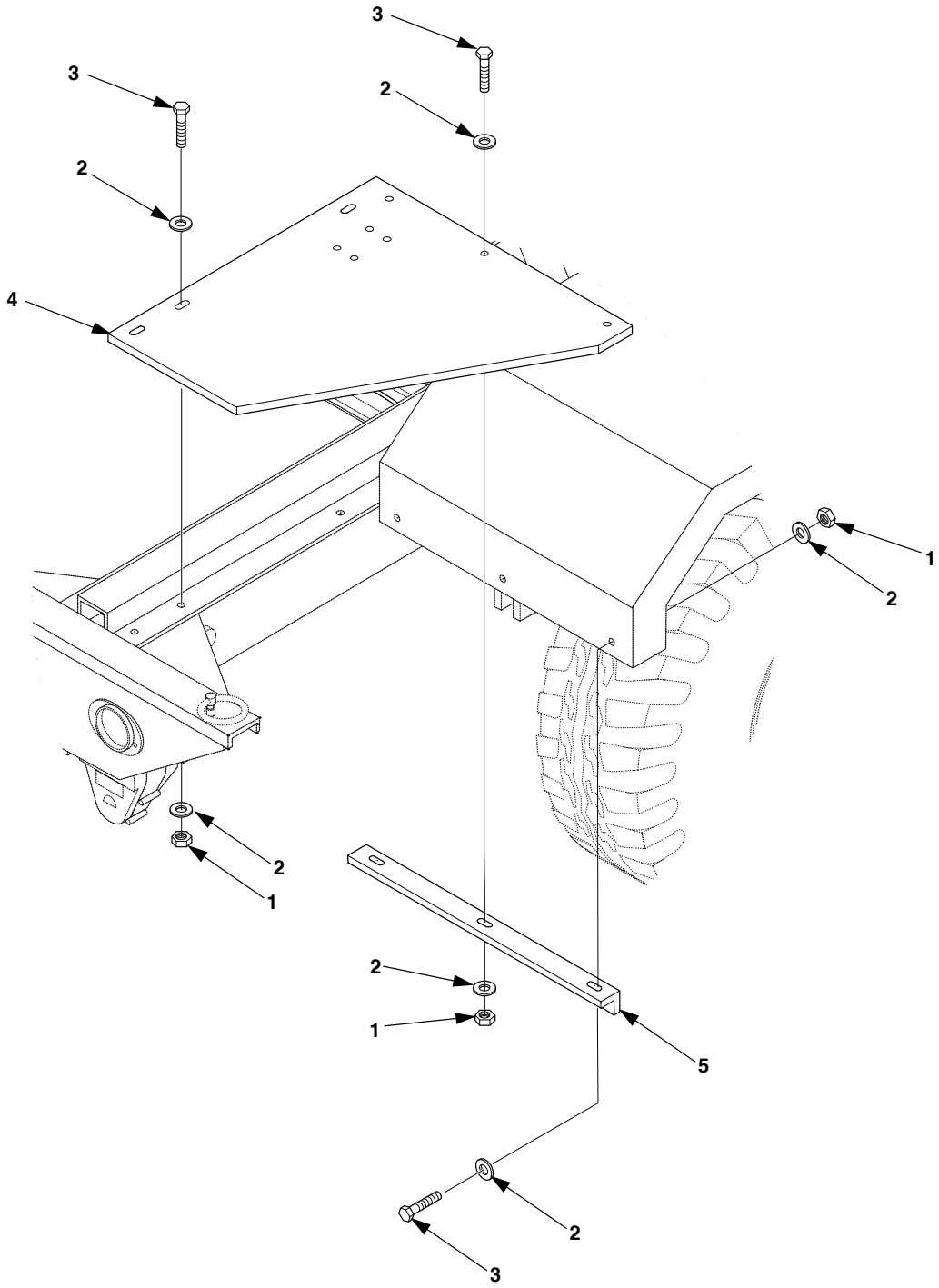


Figure F-25. Splash Guard.

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 04 TRAILER ASSEMBLY FIG. F-25 SPLASH GUARD	
1	PAOZZ	96906	MS51922-17	NUT, SELF-LOCKING, HEXAGON UOC: YJD	18
2	PAOZZ	96906	MS51412-27	WASHER, FLAT UOC: YJD	36
3	PAOZZ	80204	B1821BH038C150N	SCREW, CAP, HEXAGON H UOC: YJD	18
4	XDOZZ	97403	13229E9619-1	GUARD, SPLASH UOC: YJD	2
5	XDOZZ	88900	22806-000-00	BRACKET, SPLASH GUARD UOC: YJD	2
				END OF FIGURE	

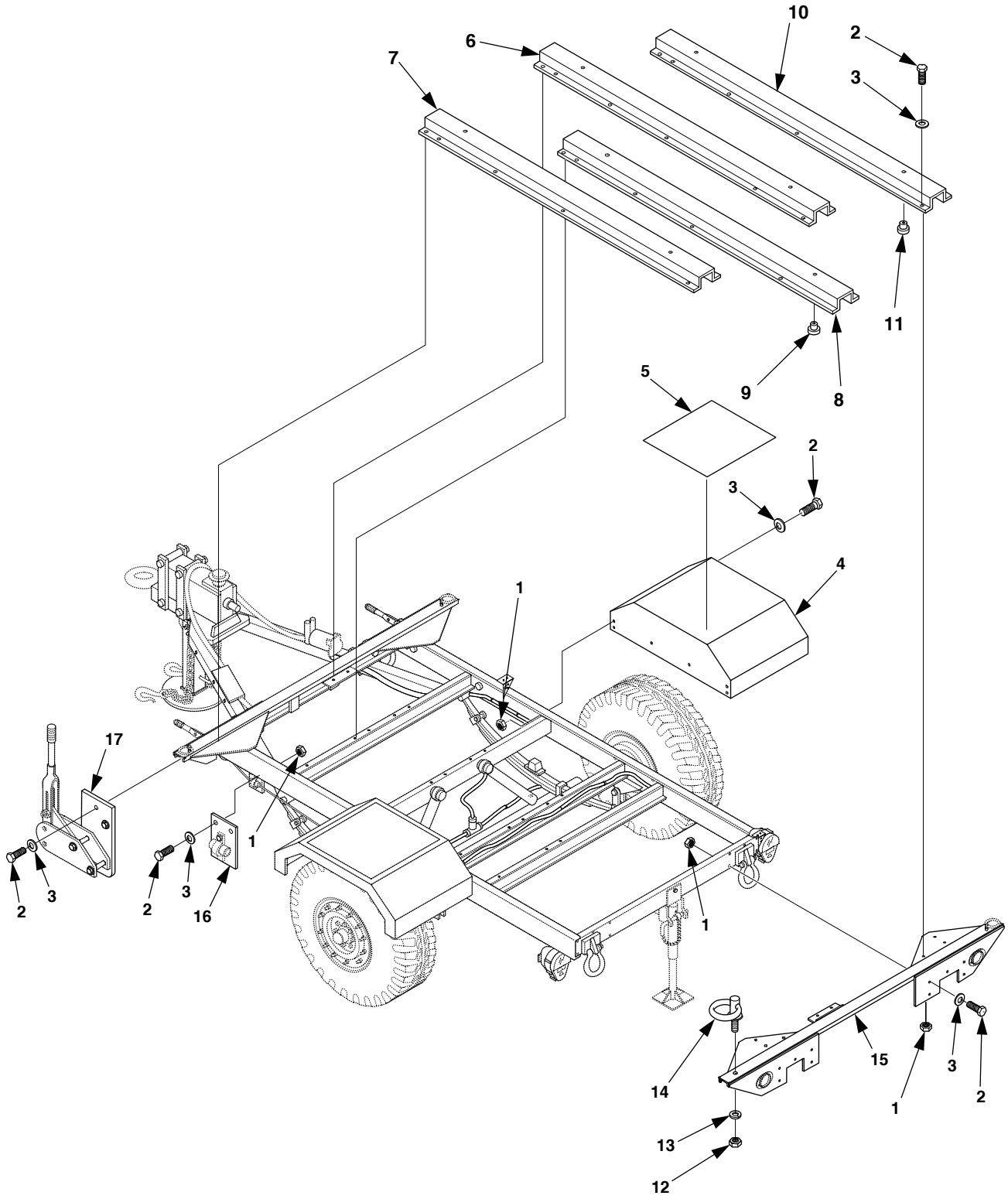


Figure F-26. Fenders, Rails, Lifting Rings and Brackets, 1 Ton Trailer, AN/MJQ-35

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODE (UOC)	(6) QTY
				GROUP 04 TRAILER ASSEMBLY	
				FIG. F-26 FENDERS, RAILS, LIFTING RING AND BRACKETS, 1 TON TRAILER, AN/MJQ-35	
1	PAFZZ	96906	MS51922-17	NUT, SELF-LOCKING, HE	74
				UOC: YJD	
2	PAFZZ	80204	B1821BH038C150N	SCREW, CAP, HEXAGON H	74
				UOC: YJD	
3	PAFZZ	96906	MS51412-7	WASHER, FLAT	74
				UOC: YJD	
4	XDFFF	97403	13229E9622	FENDER	2
				UOC: ESQ	
5	MOOZZ	19099	13229E9622-3	DECK COVERING MAKE FROM P/N	1
				22806-000-00 (88900), AS REQUIRED	
				UOC: YJD	
6	XDFZZ	97403	13229E9625	RAIL, MOUNTING, REAR GENERATOR,	1
				ROADSIDE	
				UOC: YJD	
7	XDFZZ	97403	13229E9623	RAIL, MOUNTING, FORWARD GENERATOR,	1
				ROADSIDE	
				UOC: YJD	
8	PAFZZ	96906	MS27130-CR68	NUT, BLIND RIVET	1
				UOC: YJD	
9	XDFZZ	97403	13229E9626	RAIL, MOUNTING, REAR GENERATOR,	1
				CURBSIDE	
				UOC: YJD	
10	XDFZZ	97403	13229E9624	RAIL, MOUNTING, FORWARD GENERATOR,	1
				CURBSIDE	
				UOC: YJD	
11	PAFZZ	96906	MS27130-CR68	NUT, BLIND RIVET	1
				UOC: YJD	
12	PAOZZ	96906	MS51968-23	NUT, PLAIN, HEXAGON	4
				UOC: YJD	
13	PAOZZ	96906	MS51412-13A	WASHER, FLAT	4
				UOC: YJD	
14	PAOZZ	97403	13229E9629-3	RING, LIFTING	4
				UOC: YJD	
15	XDFZZ	97403	13229E9627	BRACKET, LIFTING	2
				UOC: YJD	
16	XDOZZ	97403	13229E2308	PLATE, RELOCATING	2
				UOC: YJD	
17	XDOZZ	97403	13229E9628	BRACKET, BRAKE RELOCATING	2
				UOC: YJD	
				END OF FIGURE	

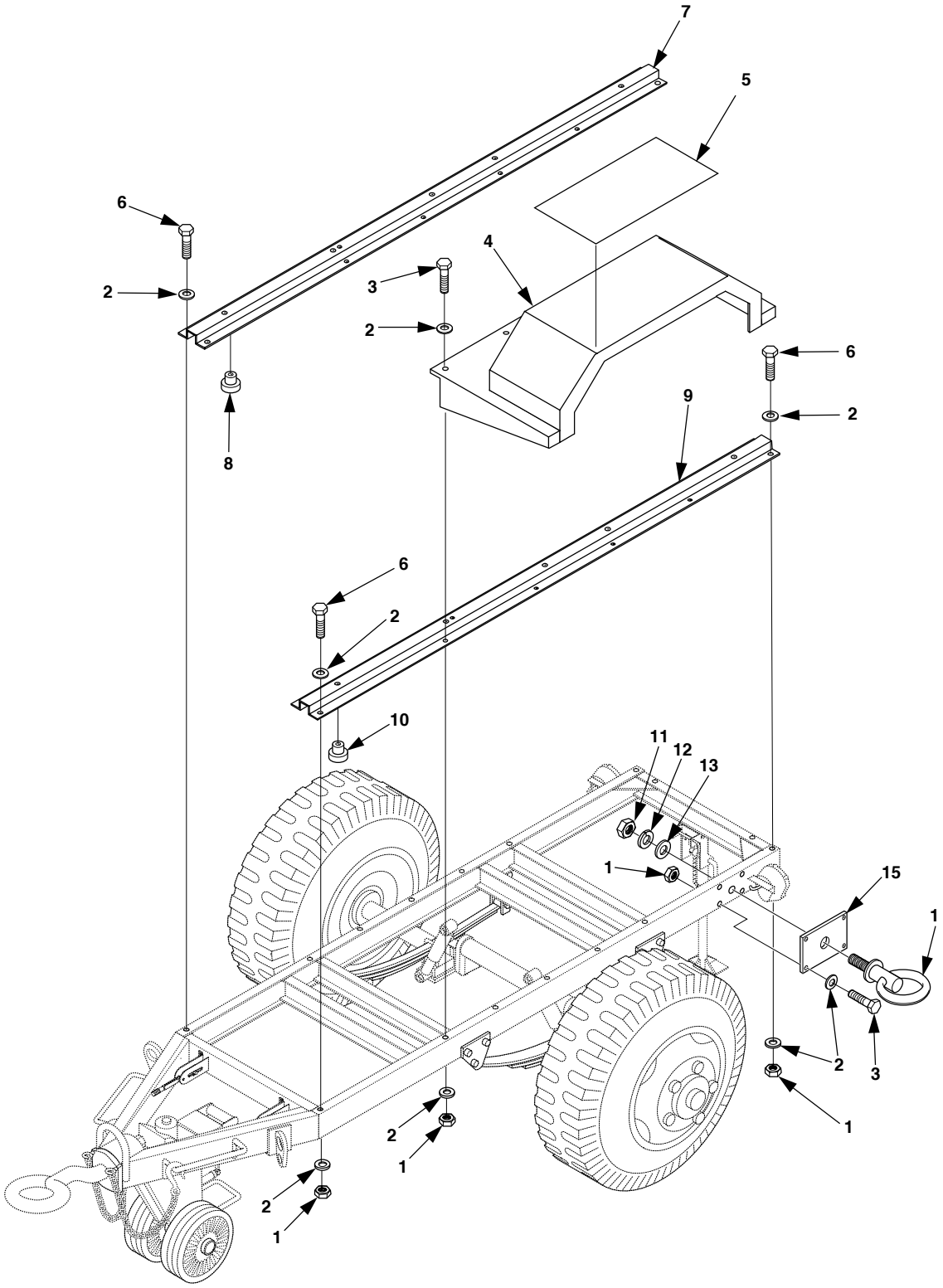


Figure F-27. 1 ½ Ton Trailer, AN/MJQ-36 Fender.

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODE (UOC)	(6) QTY
				GROUP 04 TRAILER ASSEMBLY	
				FIG. F-27 1 ½ TON TRAILER,	
				AN/MJQ-36 FENDER	
1	PAFZZ	96906	MS51922-17	NUT, SELF-LOCKING, HE	42
				UOC: YJB	
2	PAFZZ	96906	MS51412-7	WASHER, FLAT	76
				UOC: YJB	
3	PAFZZ	80204	B1821BH038C125N	SCREW, CAP, HEXAGON, H	38
				UOC: YJB	
4	XDFFF	97403	13229E5817	FENDER	2
				UOC: YJB	
5	MOOZZ	19099	13229E5817-6	DECK COVERING MAKE FROM P/N	16
				22806-000-00 (88900), AS REQUIRED	
				UOC: YJB	
6	PAFZZ	80204	B1821BH038C600N	SCREW, CAP, HEXAGON	4
				UOC: YJB	
7	XDFFF	97403	13229E5677	RAIL, MOUNTING, CURBSIDE	1
				UOC: YJB	
8	PAFZZ	96906	MS27130-CR68	NUT, BLIND RIVET	1
				UOC: YJB	
9	XDFFF	97403	13229E5748	RAIL, MOUNTING, ROADSIDE	1
				UOC: YJB	
10	PAFZZ	96906	MS27130-CR68	NUT, BLIND RIVET	1
				UOC: YJB	
11	PAOZZ	96906	MS51968-23	NUT, PLAIN, HEXAGON	2
				UOC: YJB	
12	PAOZZ	96906	MS51415-11	WASHER, LOCK	2
				UOC: YJB	
13	PAOZZ	96906	MS51412-13	WASHER, FLAT	2
				UOC: YJB	
14	PAOZZ	97403	13229E9629-4	RING, LIFTING	2
				UOC: YJB	
15	XDOZZ	97403	13229E5818	BRACKET, TIEDOWN	2
				UOC: YJB	
				END OF FIGURE	

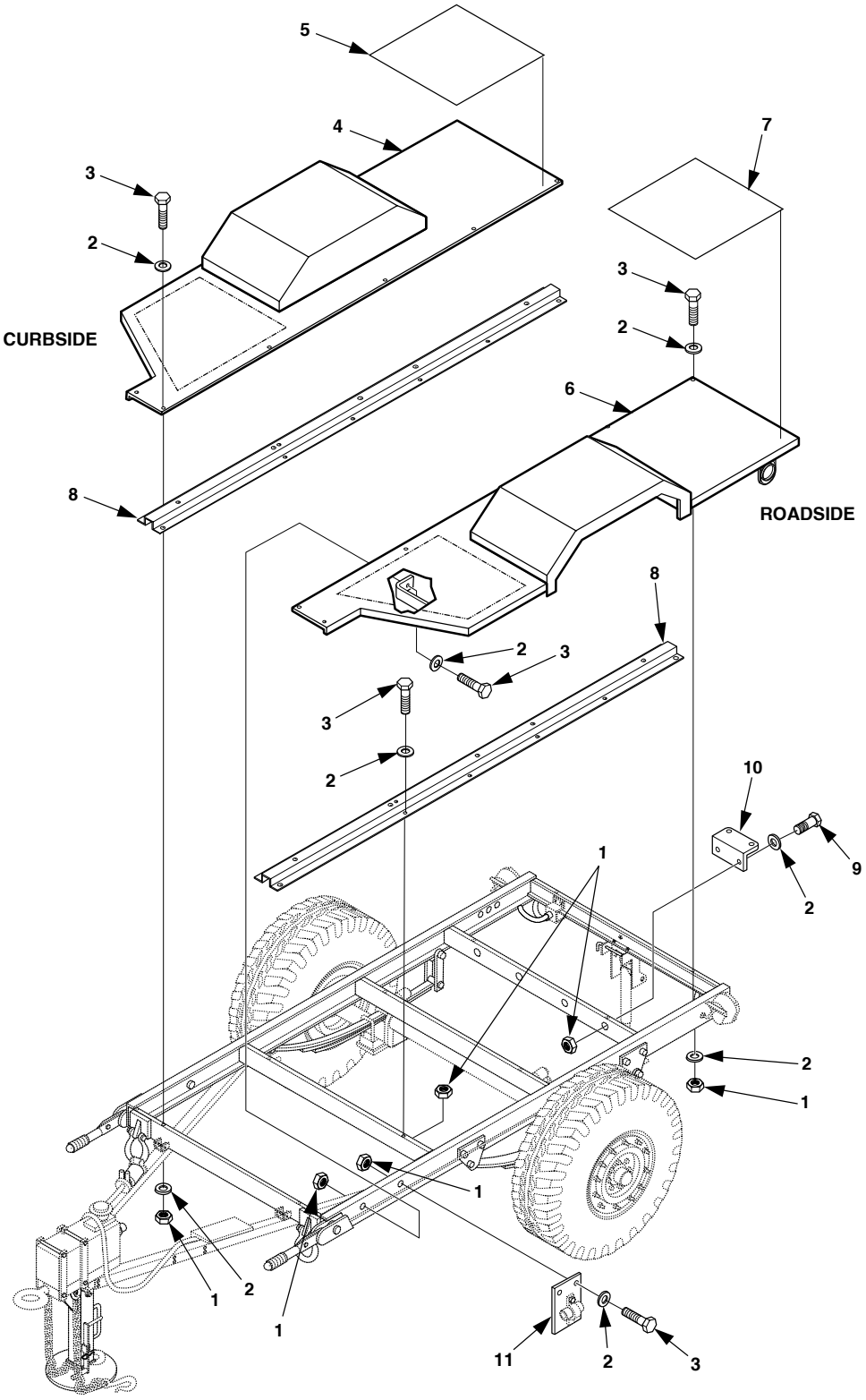


Figure F-28. Fenders, 1 Ton Trailer, PU-797.

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 04 TRAILER ASSEMBLY FIG. F-28 FENDERS, ONE TON TRAILER, PU-797	
1	PAFZZ	96906	MS51922-17	. NUT, SELF-LOCKING, HEXAGON UOC: EVR	60
2	PAFZZ	96906	MS51412-27	. WASHER, FLAT UOC: EVR	104
3	PAFZZ	80204	B1821BH038C150N	. SCREW, CAP, HEXAGON H UOC: EVR	56
4	XDFFF	97403	13229E9619-1	. FENDER, CURBSIDE UOC: EVR	1
5	MOOZZ	88900	22806-000-00	.. DECK COVERING MAKE, AS REQUIRED UOC: EVR	1
6	XDFFF	97403	13229E9620-1	. FENDER, ROADSIDE UOC: EVR	1
7	MOOZZ	88900	22806-000-00	.. DECK COVERING MAKE, AS REQUIRED UOC: EVR	1
8	XDFZZ	97403	13229E5743-1	. RAIL, MOUNTING UOC: EVR	2
9	PAFZZ	80204	B1821BH038C225N	. SCREW, CAP, HEXAGON H UOC: EVR	4
10	XDFZZ	97403	13229E5758	. BRACKET, RAIL MOUNTING UOC: EVR	2
11	XDOZZ	97403	13229E2308	. PLATE, ELOCATING UOC: EVR	2
				END OF FIGURE	

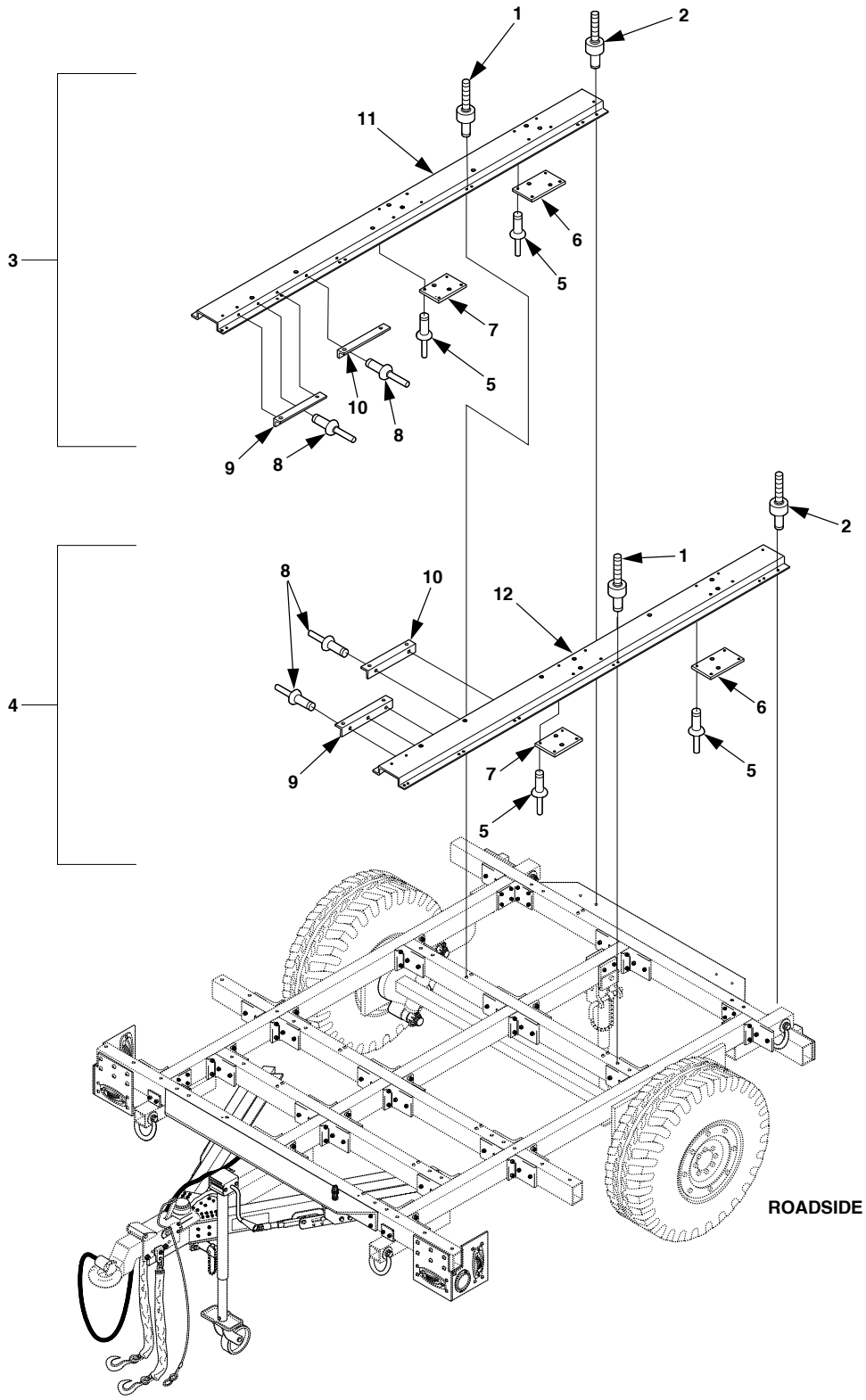


Figure F-29. Light Tactical Trailer, Mounting Rails and Fenders, (AN/MJQ-35A and PU-797A). (Sheet 1 of 2)

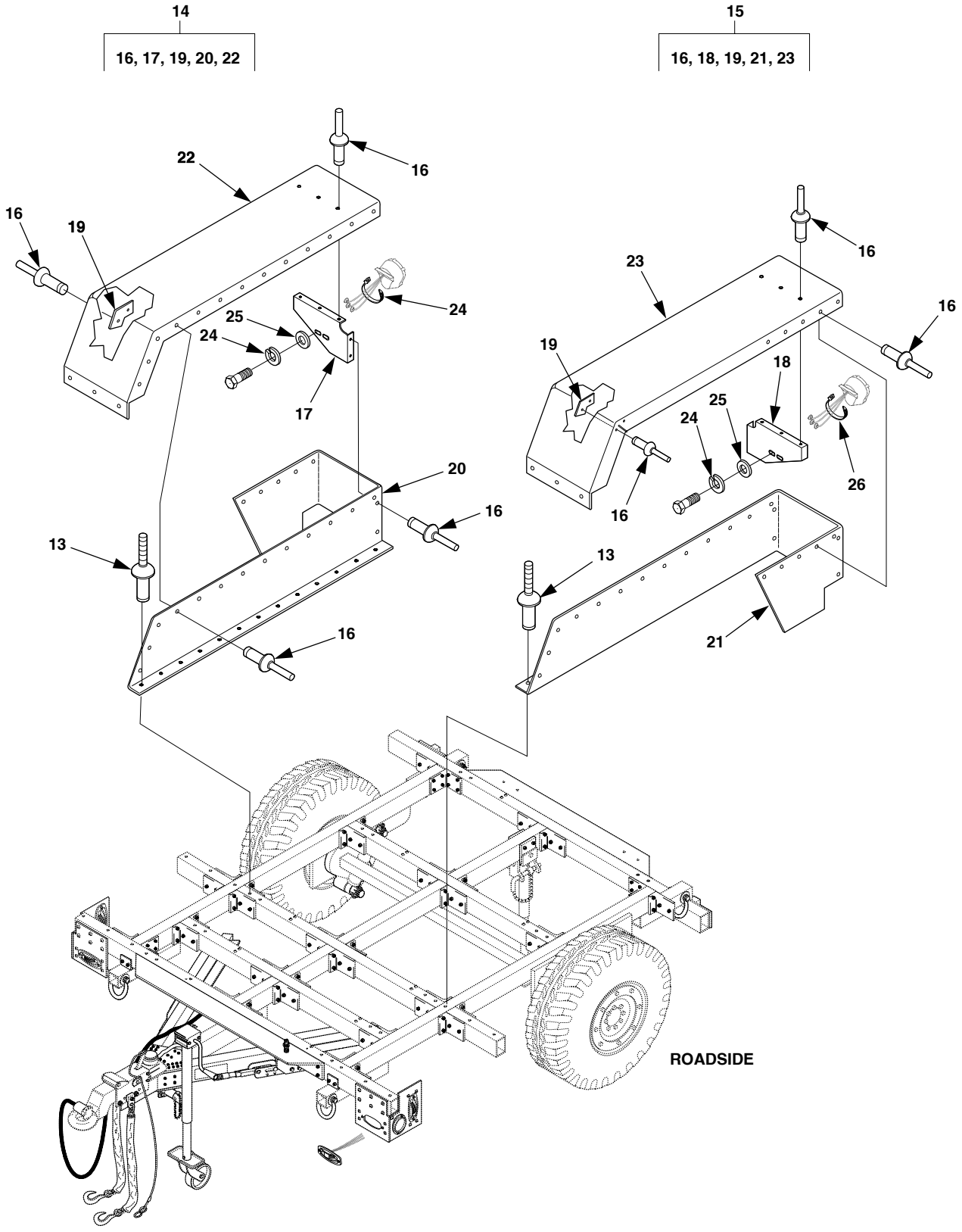


Figure F-29. Light Tactical Trailer, Mounting Rails and Fenders, (AN/MJQ-35A and PU-797A).
(Sheet 2 of 2)

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 04 TRAILER ASSEMBLY FIG. F-29 LTT, MOUNTING RAILS AND FENDERS, AN/MJQ-35A, PU-797A	
1	PAFZZ	9K475	BOM-R8-8	. RIVET, BLIND UOC: YJC, YFS	40
2	PAFZZ	9K475	BOM-R8-10	. RIVET, BLIND UOC: YJC, YFS	4
3	XDFFF	30554	13230E6569-1	. RAIL ASSY, MTG, RH UOC: YJC, YFS	1
4	XDFFF	30554	13230E6569-2	. RAIL ASSY, MTG, LH UOC: YJC, YFS	1
5	PAFZZ	17446	MGL100-R6-9	.. RIVET, BLIND UOC: YJC, YFS	16
6	XDFZZ	30554	13230E6527	.. PLATE, DOUBLER, MTG R UOC: YJC, YFS	2
7	XDFZZ	30554	13230E6576	.. PLATE, DOUBLER, MTG R UOC: YJC, YFS	2
8	PAFZZ	17446	MGLP-R8-10	.. RIVET, BLIND UOC: YJC, YFS	10
9	XDFZZ	30554	13230E6577	.. ANGLE, SUPPORT, MTG R UOC: YJC, YFS	2
10	XDFZZ	30554	13230E6526	.. ANGLE, SUPPORT, MTG R UOC: YJC, YFS	2
11	XDFZZ	30554	13230E6578-1	.. RAIL, MOUNTING GEN, R-H UOC: YJC, YFS	1
12	XDFZZ	30554	13230E6578-2	.. RAIL, MOUNTING GEN, L-H UOC: YJC, YFS	1
13	PAFZZ	17446	MGLP-R8-6	. RIVET, STEEL SHANK UOC: YJC, YFS	38
14	XDFFF	30554	13230E6571-1	. FENDER, ASSEMBLY, RH UOC: YJC, YFS	1
15	XDFFF	30554	13230E6571-2	. FENDER, ASSEMBLY, LH UOC: YJC, YFS	1
16	PAFZZ	17446	MGLP-R8-6	.. RIVET, STEEL SHANK UOC: YJC, YFS	58
17	XDFZZ	30554	13230E6582-1	.. BRACKET, INSIDE FENDER UOC: YJC, YFS	1
18	XDFZZ	30554	13230E6582-2	.. BRACKET, INSIDE FENDER UOC: YJC, YFS	1
19	XDFZZ	30554	13230E6579	.. ANGLE, SUPPORT, FENDER UOC: YJC, YFS	2

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 04 TRAILER ASSEMBLY FIG. F-29 LTT, MOUNTING RAILS AND FENDERS, AN/MJQ-35A, PU-797A	
20	XDFZZ	30554	13230E6583-1	.. FENDER, SIDE, TRAILER UOC: YJC, YFS	1
21	XDFZZ	30554	13230E6583-2	.. FENDER, SIDE, TRAILER UOC: YJC, YFS	1
22	XDFZZ	30554	13230E6580-1	.. FENDER, TOP, TRAILER UOC: YJC, YFS	1
23	XDFZZ	30554	13230E6580-2	.. FENDER, TOP, TRAILER UOC: YJC, YFS	1
24	PAOZZ	96906	MS35338-141	. WASHER, LOCK UOC: YJC, YFS	4
25	PAOZZ	96906	MS15795-813	. WASHER, FLAT UOC: YJC, YFS	4
26	PAOZZ	96906	MS3367-1-0	. STRAP, TIEDOWN, ELECT UOC: YJC, YFS	4
				END OF FIGURE	

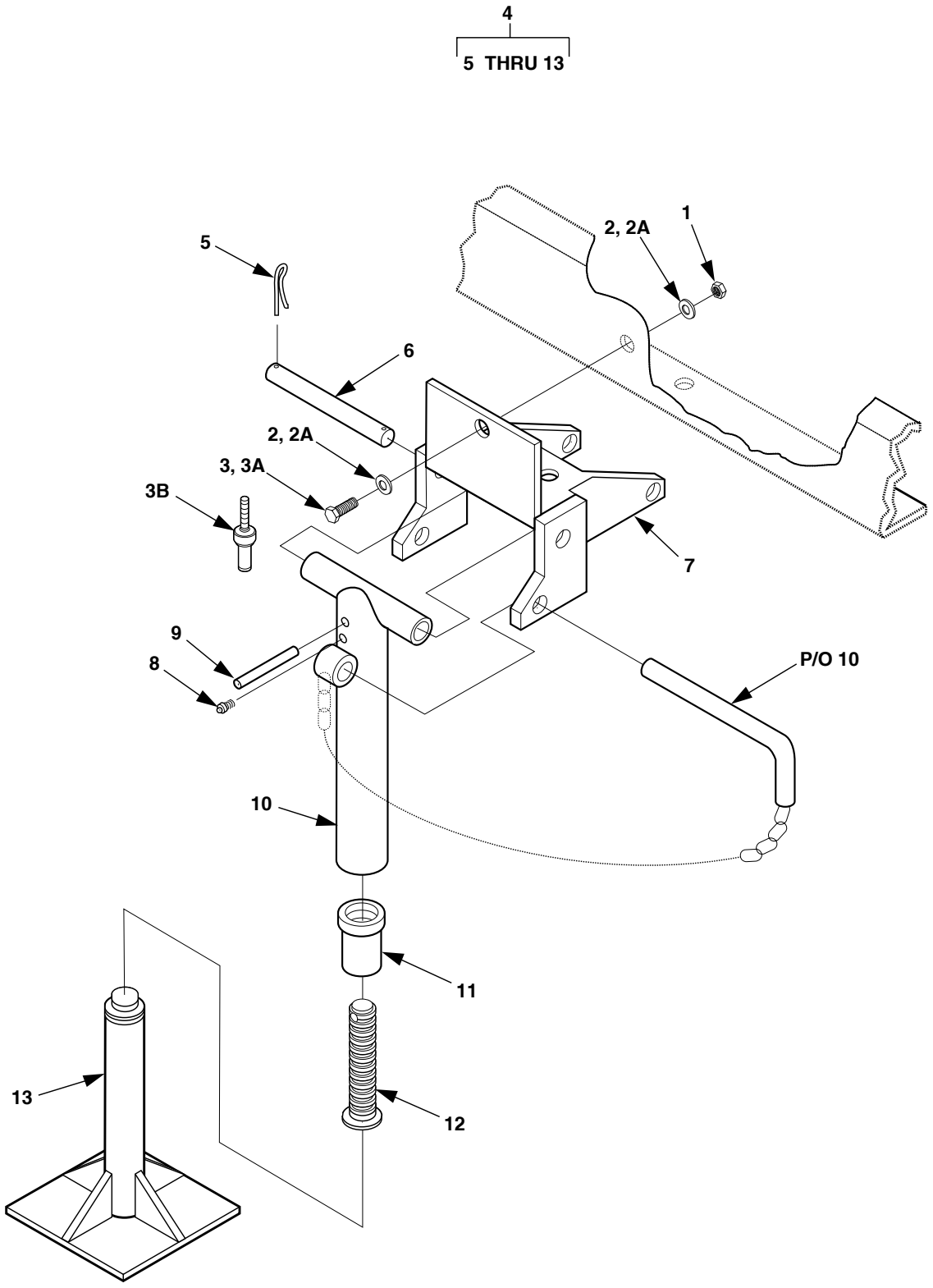


Figure F-30. Jack Leveling-Support Assembly.

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 04 TRAILER ASSEMBLY FIG. F-30 JACK LEVELING-SUPPORT ASSEMBLY	
1	PAOZZ	96906	MS51922-17	. NUT, SELF-LOCKING, HE	3
				UOC: EVP, YJD, EVR	
2	PAOZZ	96906	MS51412-7	. WASHER, FLAT	6
				UOC: YJB, YJD	
2A	PAOZZ	96906	MS51412-27	. WASHER, FLAT	6
				UOC: EVR	
3	PAOZZ	80208	B1821BH038C150N	. SCREW, CAP, HEXAGON H	3
				UOC: YJD, EVR	
3A	PAOZZ	80204	B1821BH038C125N	. SCREW, CAP, HEXAGON H	3
				UOC: YJB	
3B	PAFZZ	17446	BOM-R12-8	. RIVET BLIND	3
				UOC: YJC, YFS	
4	PAOOO	97403	13214E1206-1	. JACK, LEVELING-SUPPORT	1
				UOC: EVP, YJD, EVR	
4	PAOOO	97403	13214E1206-2	. JACK, LEVELING-SUPPORT	1
				UOC: YJC, YFS	
5	PAOZZ	96906	MS24665-353	.. PIN, COTTER	2
6	PBOZZ	97403	13214E1209	.. PIN, STRAIGHT, HEADLE	1
7	XAOZZ	97403	13214E1207	.. BRACKET	1
8	PAOZZ	96906	MS15006-1	.. FITTING, LUBRICATION	1
9	PAOZZ	96906	MS16562-66	.. PIN, SPRING	1
10	XAOZZ	97403	13214E1208-1	.. CHAIN, PIN RETAINING	1
11	XAOZZ	97403	13214E1211	.. NUT, SLEEVE	1
12	XAOZZ	97403	13214E1210	.. SCREW	1
13	PBOZZ	97403	13214E1212-1	.. SUPPORT BASE, LEG	1
				END OF FIGURE	

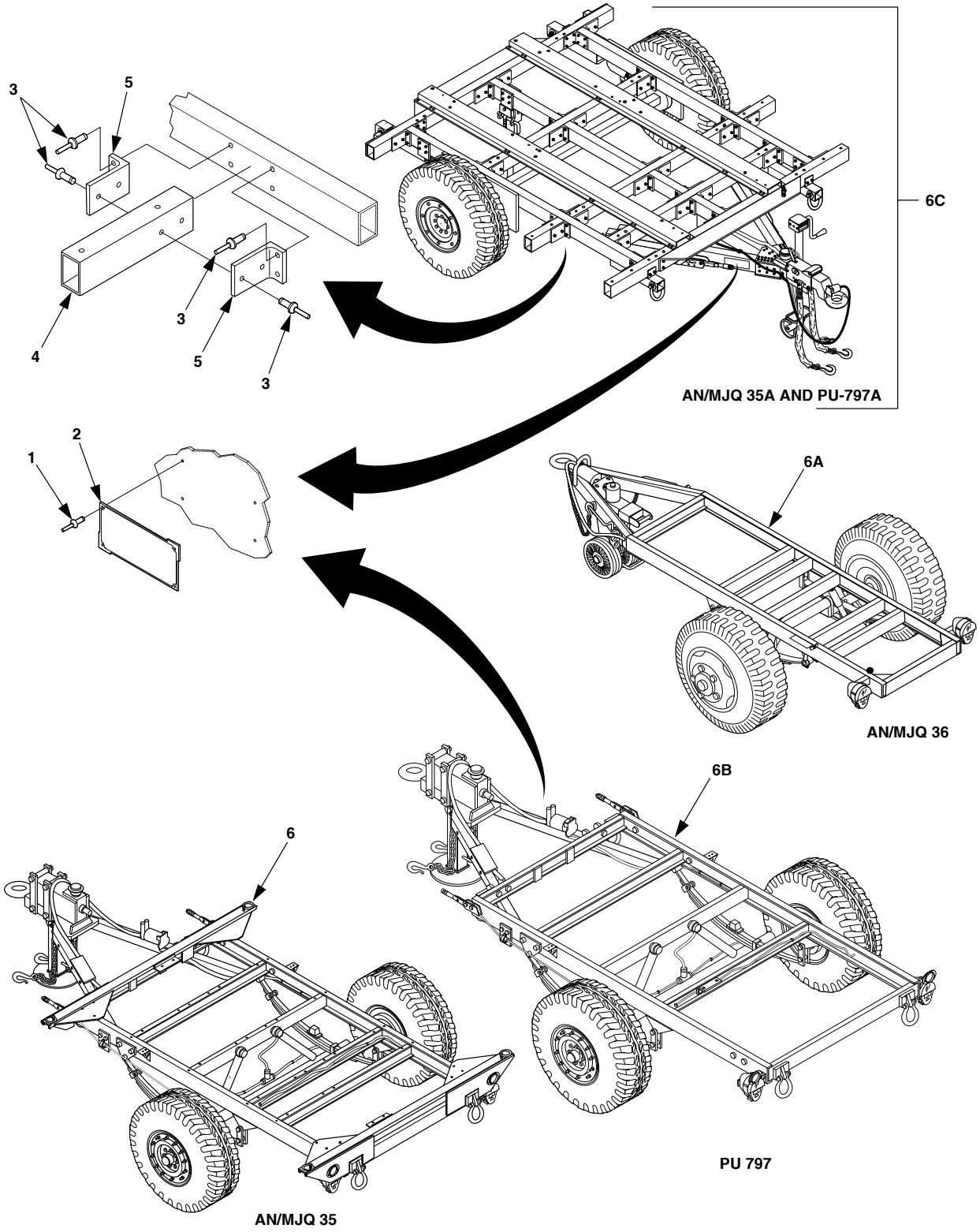


Figure F-31. Power Plant/Power Unit Trailer Chassis Assembly.

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 04 TRAILER ASSEMBLY FIG. F-31 POWER PLANT/POWER UNIT TRAILER CHASSIS ASSEMBLY	
1	PAOZZ	07707	AD45ABS	. RIVET, BLIND	4
				UOC: YJC, YFS	
2	MDOZZ	30554	13230E6572	. PLATE, IDENTIFICATION	1
				CHASSIS VARIANT	
				UOC: YJC, YFS	
3	PAFZZ	17446	BOM-R8-8	. RIVET, BLIND	16
				UOC: YJC, YFS	
4	XDFZZ	30554	13230E6514	. STRUCTURAL SECTION	2
				UOC: YJC, YFS	
5	XDFZZ	30554	13230E6524	. CLIP, FRAME, CORNER	4
				UOC: YJC, YFS	
6	XAFFF	97403	13229E5664	. CHASSIS ASSEMBLY	1
				UOC: YJD	
6A	XAFFF	97403	13229E5824	. CHASSIS ASSEMBLY	1
				UOC: YJB	
6B	XAFZZ	97403	13229E5746-1	. CHASSIS ASSEMBLY	1
				UOC: EVR	
6C	XAFFF	19207	12450001	. CHASSIS, TRAILER-LTT	1
				UOC: YJC, YFS	
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 05 BULK MATERIAL FIG. BULK	
1	PAFZZ	81349	CO-04HDF (4/4-4/12R)1290	CABLE, POWER	V
				UOC: YJB, YJD, YJC	
2	PAOZZ	88900	22806-000-00	DECK COVERING, LIGHT	V
				UOC: YJB, EVR, YJD	
3	PAOZZ	96906	MS35822-9A	HINGE, BUTT	V
				UOC: YJB, YJD, YJC	
4	PAOZZ	96906	MS35823-6D	HINGE, BUTT	V
5	PAOZZ	81349	M6000E00200	HOSE, NONMETALLIC	V
6	PAFZZ	813349	M23053/5-111-0	INSULATION SLEEVING	V
				UOC: YJB, YJD, YJC	
7	PAFZZ	81349	M23053/5-107-9	INSULATION SLEEVING	V
				UOC: YJB, YJD, YJC	
8	PAFZZ	81349	M23053/5-104-0	INSULATION SLEEVING	V
				UOC: YJB, YJD, YJC	
9	PAFZZ	81349	M23053/5-108-0	INSULATION SLEEVING	V
				UOC: YJB, YJD, YJC	
10	PAFZZ	81349	M23053/5-105-9	INSULATION SLEEVING	V
				UOC: YJB, YJD, YJC	
11	PAFZZ	81349	M23053/5-105-4	INSULATION SLEEVING	V
				UOC: YJB, YJD, YJC	
12	PAFZZ	81349	M23053/5-107-4	INSULATION SLEEVING	V
				UOC: YJB, YJD, YJC	
13	PAOZZ	81349	M23053/5-104-9	INSULATION SLEEVING	V
				UOC: YJB, YJD, YJC	
14	PAFZZ	81349	M23053/5-108-4	INSULATION SLEEVING	V
				UOC: YJB, YJD, YJC	
15	PAFZZ	81349	M23053/5-105-0	INSULATION SLEEVING	V
				UOC: YJB, YJD, YJC	
16	PAOZZ	81349	M24768/2-S-7	SHEET, PLASTIC	V
				UOC: YJB, YJD, YJC	
17	PAOZZ	81346	2B2B2C1F2	STRIP, RUBBER	V
				UOC: YJB, YJD, YJC	
18	PAFZZ	81348	QQB575F30T0437	WIRE, BRAID	V
				UOC: YJB, YJD, YJC	

SECTION II. REPAIR PARTS LIST (CONTINUED)

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 05 BULK MATERIAL FIG. BULK	
19	PAFZZ	81349	M22759/16-20-9	WIRE, ELECTRICAL	V
				UOC: YJB, YJD, YJC	
20	PAFZZ	81349	M5086/2-4-9	WIRE, ELECTRICAL	V
				UOC: YJB, YJD, YJC	
21	PAFZZ	81349	M5086/2-6-9	WIRE, ELECTRICAL	V
				UOC: YJB, YJD, YJC	
22	PAFZZ	81349	M22759/16-16-9	WIRE, ELECTRICAL	V
				UOC: YJB, YJD, YJC	
23	PAOZZ	81348	QQW343C06B1B	WIRE, ELECTRICAL	V
24	PAOZZ	81349	M5086/2-18-9	WIRE, ELECTRICAL	V
				UOC: YJB, YJD, YJC	
				END OF FIGURE	

Section III. SPECIAL TOOLS LIST

(Not Applicable)

SECTION IV

CROSS- REFERENCE-INDEXES
NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG	ITEM	STOCK NUMBER	FIG	ITEM
5999-00-014-0952	14	9	5940-00-115-4996	13	21
5940-00-021-3321	22	18		13	25
5306-00-021-3912	20	3		14	11
5306-00-021-4065	20	3	5310-00-138-4315	12	6
5310-00-022-8847	21	11	5940-00-143-4780	15	5
	22	11	5940-00-143-4793	15	2
5310-00-042-4229	12	2	4730-00-172-0049	28	8
5310-00-044-6477	20	2	5310-00-184-8971	21	6
5320-00-052-1972	22	14A		22	6
	29	1	4710-00-185-6948	19	3
5305-00-054-5650	17	3	5999-00-186-3912	9	19
5305-00-054-5652	6	8	5310-00-187-2413	21	7
5305-00-054-6651	6	12		22	17
5305-00-054-6655	18	2	9905-00-2002-3639	24	10
5305-00-054-6671	6	1	4210-00-202-7858	22	1
	7	1	9905-00-205-2795	24	9
	11	7	5310-00-209-1239	19	9
	18	11	4210-00-223-4857	24	5A
5305-00-059-3660	18	8	5310-00-225-5328	6	3
5305-00-059-3663	14	4		7	2
	16	4		11	6
5340-00-066-1235	19	1		18	12
5305-00-068-0508	24	8	5310-00-225-6993	1	1
5305-00-068-0510	23	3		2	1
	24	4	5306-00-226-4827	20	3
5305-00-068-0511	25	3	5307-00-227-1741	21	12
	28	3		22	12
5305-00-071-2068	2	3	5340-00-234-8422	20	8
5305-00-071-2070	1	3	5310-00-245-3612	24	2B
5305-00-071-2505	24	8A	5310-00-252-8748	20	1
5975-00-074-2072	14	15	4210-00-270-4512	21	1
5970-00-082-3942	BULK	11	5940-00-271-9504	19	20
5310-00-087-4652	5	1	4730-00-277-5115	19	6
	23	1	5940-00-283-5280	15	3
	24	2	5330-00-402-5125	19	5
	24	2A	5305-00-432-4172	24	11
	25	1	5945-00-435-1833	6	10
	26	1	5320-00-483-0558	27	1
	28	1			
5310-00-088-1251	24	6A	5305-00-543-4372	24	4A
5940-00-113-8190	19	22	5940-00-557-4338	4	2
	21	9		4	10

SECTION IV

CROSS- REFERENCE-INDEXES
NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG	ITEM	STOCK NUMBER	FIG	ITEM
	22	9		13	3
5940-00-114-1310	18	9		13	8
5935-00-114-8061	14	6	5940-00-115-4996	13	13
5940-00-115-2676	4	4	6145-00-578-6594	BULK	18
	4	12	6145-00-578-6595	BULK	17
	14	12	5320-00-582-3305	11	1
5940-00-115-4996	4	3	5320-00-582-5677	22	18
	4	11	5310-00-584-7995	21	8
5940-00-115-4996	13	12		22	8
	13	17			
4710-00-597-8731	19	2	5310-00-934-9761	18	1
5310-00-614-3506	2	2	5310-00-934-9765	14	1
5310-00-625-5756	20	2		16	1
5305-00-638-8920	26	9		18	5
5940-00-660-3633	15	4	5970-00-954-1622	BULK	12
5305-00-680-4262	24	4B	5310-00-974-6623	20	1A
5305-00-725-2317	5	3	5340-00-975-2126	11	2
	26	3		20	6
	27	3	5940-00-983-6046	18	3
5975-00-727-5153	6	24	5310-00-984-3806	20	1
	15	6	5975-00-984-6582	27	26
5305-00-727-6804	2	3A	5310-00-984-7042	24	2C
5970-00-740-2971	BULK	8		27	24
6210-00-753-2289	8	1	5310-00-989-0908	22	16
5320-00-753-3830	20	5	5310-00-989-5945	12	1
5310-00-763-8901	25	11	5305-00-993-1851	3	2
5310-00-768-0321	2	1	5310-01-012-7400	12	4
5310-00-802-4701	24	3B	5120-01-013-1676	19	13
	27	25	5120-01-019-9564	19	23
5310-00-809-8541	26	2	6145-01-042-4621	BULK	16
5970-00-812-1356	BULK	7	5935-01-042-7579	6	11
5970-00-812-2967	BULK	10	6145-01-044-8799	BULK	19
5970-00-812-2969	BULK	9	5340-01-053-7127	BULK	5
5940-00-813-0698	6	20	5340-01-054-4934	BULK	4
	9	2	5310-01-078-5996	21	5
5315-00-838-4584	27	9		22	5
5315-00-839-5822	27	5	5999-01-091-3187	14	8
5305-00-841-2681	19	7	5320-01-140-1479	27	2
5975-00-878-3791	19	15	5310-01-141-6672	6	7
5310-00-883-9417	22	17		17	4
6210-00-900-9423	8	6	5315-01-162-0143	28	6
	9	5	2590-01-167-8596	28	13

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CROSS- REFERENCE-INDEXES
NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG	ITEM	STOCK NUMBER	FIG	ITEM
5320-00-904-4136	21	14	5310-01-180-7157	2	1B
	22	14	5310-01-216-7390	1	4
4730-00-908-3194	21	2	6210-01-230-1851	8	9
	22	2		9	8
5975-00-924-9927	19	18	5340-01-242-4554	3	4
5310-00-929-6395	6	13	5310-01-257-7590	5	2
5310-00-933-8118	6	6		23	2
	17	2		24	3
5310-00-933-8119	6	2		25	2
	7	3		28	2
	11	5	5310-01-266-4641	1	2
	18	13		2	2
5310-00-933-8120	14	2	6115-01-274-7392	1	5
	16	2		2	4
	18	6	6115-01-275-5061	1	5
5310-00-934-9748	6	5		2	4
			5340-01-295-4896	11	17
				11	2
	17	1	5310-01-303-4701	6	14
5310-00-934-9751	3	1	6240-01-355-4422	8	3
5310-00-934-9759	11	4			

SECTION IV

NATIONAL STOCK NUMBER AND PART NUMBER INDEX
PART NUMBER INDEX

CAGEC	PART NUMBER	STOCK NUMBER	FIG	ITEM
58536	A-A-1106	4210-00-202-7858	22	1
07707	AD45ABS	5320-00-052-1972	22	14A
			29	1
88044	AN816-5-4	4730-00-277-5115	19	6
88044	AN960-C4	5310-01-141-6672	6	7
			17	4
88044	AN961-616T	5310-00-181-2413	21	7
			22	7
17446	BOM-R8-8	5320-00-483-0558	27	1
			29	3
9K475	BOM-R8-10	5320-01-140-1470	27	2
17446	BOM-R12-8		28	3A
80204	B1821BH025C075N	5305-00-068-0508	24	8
80204	B1821BH025C088N	5305-00-071-2505	24	8A
80204	B1821BH031C100N	5306-00-226-4827	20	3
80204	B1821BH038C075N	5305-00-543-4372	24	4A
80204	B1821BH038C100N	5305-00-068-0510	23	3
			24	4
80204	B1821BH038C125N	5305-00-068-0511	25	3
			28	3
80204	B1821BH038C150N	5305-00-725-2317	5	3
			26	3
			28	3
80204	B1821BH038C225N	5305-00-638-8920	26	9
80204	B1821BH038C600N		25	6
80204	B1821BH050C138N	5305-00-071-2068	2	3
80204	B1821BH050C175N	5305-00-071-2070	1	3
01667	CBA-70	5940-00-271-9504	19	20
81349	CO-04HDE(4/4-4/1 2R)1290		BULK	2
15277	FS0216B122-1	5975-00-878-3791	19	15
80244	GGG-H-86, TY OCLI		19	14
73616	GRB58	5975-00-924-9927	19	18
0BKK8	GRC 58	5975-00-794-2523	19	17
58224	G9B		8	8
			9	7
56681	HLP1053A		19	16
81349	JANTXIN5619		6	17
7E656	JCG-6026	6110-01-338-0318	16	5
81349	LC21CN3	6210-00-244-2897	8	2
81349	LH80/1	6210-00-753-2289	8	1

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NATIONAL STOCK NUMBER AND PART NUMBER INDEX
PART NUMBER INDEX

CAGEC	PART NUMBER	STOCK NUMBER	FIG	ITEM
30554	MEP 803A	6115-01-275-5061	1	5
			2	4
30554	MEP 813A	6115-01-274-7392	1	5
			2	4
17446	MGL100.R6-9		27	5
9K475	MGLP-R8-6	5320-01-485-6915	27	16
9K475	MGLP-R8-10	5315-01-466-4174	23	6
			27	8
81349	MSA37TB18	5940-01-229-6776	6	27
81349	MSA37TB5	5940-01-277-0578	18	4
96906	MS15006-1	4730-00-172-0049	28	8
96906	MS15567-2	6240-01-355-4422	8	3
96906	MS15795-810	5310-00-582-5677	22	18
96906	MS15795-812	5310-00-625-5756	20	2
96906	MS15795-813	5310-00-802-4710	24	3B
			27	25
96906	MS15795-810	5310-00-614-3506	2	2A
96906	MS15795-841	5310-00225-5328	6	3
			7	2
			11	6
			18	12
96906	MS15795-848	5310-01-273-4535	14	3
			16	3
			18	7
96906	MS16203-27	5310-00-584-7995	21	8
			22	8
96906	MS16562-66	5315-00-838-4584	28	9
96906	MS18015-1	5340-00-975-2126	20	6
96906	MS18212-65	5305-00-240-0259	12	5
96906	MS20427-4C6	5320-00-680-8779	20	7
96906	MS20600AD3W3		11	10
96906	MS20600AD4W3	5320-00-582-3305	11	1
96906	MS20613-4P5	5320-00-753-3830	20	5
96906	MS20659-143	5940-00-115-2676	4	4
			4	12
			14	12
96906	MS20659-145	5940-00-115-4996	4	3
			4	11
			13	2
			13	7

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NATIONAL STOCK NUMBER AND PART NUMBER INDEX
PART NUMBER INDEX

CAGEC	PART NUMBER	STOCK NUMBER	FIG	ITEM
			13	12
			13	17
			13	21
			13	25
			14	11
96906	MS21919WCG21	5340-01-242-4554	3	4
96906	MS24519-7	4730-00-940-0947	21	4
			22	4
96906	MS24524-30		10	3
96906	MS24665-353	5315-00-839-5822	28	5
96906	MS25036-101	5940-00-813-0698	6	20
			9	2
96906	MS25036-106	5940-00-283-5280	15	3
96906	MS25036-108	5940-00-143-4780	15	5
96906	MS25036-110	5940-00-143-4793	15	2
96906	MS25036-119	5940-00-114-1310	18	9
96906	MS25036-122	5940-00-113-8190	19	22
			21	9
			22	9
96906	MS25036-125	5940-00-557-4338	4	2
			4	10
			13	3
			13	8
			13	13
96906	MS25036-155	5940-00-660-3633	15	4
96906	MS27130-CR68	5310-01-385-8247	25	8
			25	10
96906	MS27130-CR93	5310-00-132-1676	18	17
96906	MS27183-27	5310-00-809-8541	26	2
96906	MS27407-3	5930-00-105-5331	10	2
96906	MS27969-4	5340-00-234-8422	20	8
96906	MS3367-1-0	5975-00-984-6582	27	26
96906	MS3367-1-9	5975-00-074-2072	14	15
96906	MS3367-4-9	5975-00-727-5153	6	24
			15	6
96906	MS35207-267	5305-00-993-1851	3	2
96906	MS35307-414	5305-00-727-6804	2	3A
96906	MS35308-334	5306-00-021-3912	20	3
96906	MS35308-338	5306-00-021-4065	20	3
96906	MS35308-360	5305-00-680-4262	24	48
96906	MS35333-110	5310-00-022-8847	21	11

SECTION IV

NATIONAL STOCK NUMBER AND PART NUMBER INDEX
PART NUMBER INDEX

CAGEC	PART NUMBER	STOCK NUMBER	FIG	ITEM
			22	11
96906	MS35333-113	5310-00-042-4229	12	2
96906	MS35335-60	5310-00-209-1239	19	9
96906	MS35338-103	5310-00-184-8971	21	6
			22	6
96906	MS35338-135	5310-00-933-8118	6	6
			17	2
96906	MS35338-136	5310-00-920-6395	6	13
96906	MS35338-137	5310-00-933-8119	6	2
			7	3
			11	5
			18	13
96906	MS35338-138	5310-00-933-8120	14	2
			16	2
			18	6
96906	MS35338-140	5310-00-974-6623	20	1A
96906	MS35338-141	5310-00-984-7042	24	2C
			27	24
96906	MS35338-143	5310-01-180-7157	2	1B
96906	MS35338-158	5310-00-883-9417	22	17
96906	MS35387-1	9905-00-205-2795	24	9
96906	MS35387-2	9905-00-202-3639	24	10
96906	MS35425-75	5310-01-078-5996	21	5
			22	5
96906	MS3561-3	5310-00-989-0908	22	16
96906	MS35649-244	5310-00-934-9748	6	5
			17	1
96906	MS35649-264	5310-00-934-9761	18	1
96906	MS35649-284	5310-00-934-9759	11	4
96906	MS35650-302	5310-00-934-9751	3	1
96906	MS35650-304	5310-00-934-9765	14	1
			16	1
			18	5
96906	MS35650-3314	5310-00-252-8748	20	1
96906	MS35650-3384	5310-00-245-3612	24	2
96906	MS35691-35	5310-00-989-5945	12	1
96906	MS35822-9A	5340-01-054-4934	BULK	4
96906	MS35823-6A	5340-01-053-7127	BULK	5
96906	MS35842-11	4730-00-908-3194	21	2
			22	2
			12	3

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CAGEC	PART NUMBER	STOCK NUMBER	FIG	ITEM
96906	MS39347-2	5940-00-021-3321	22	19
96906	MS39347-4	5940-01-433-6259	12	3
96906	MS51412-1	5310-01-303-4701	6	14
96906	MS51412-13	5310-01-275-1065	25	13
96906	MS51412-2	5310-01-234-9416	3	3
96906	MS51412-25	5310-00-044-6477	20	2
96906	MS51412-27	5310-01-385-7083	23	2A
			24	3A
			28	2
96906	MS51412-4	5310-01-103-6042	24	7A
96906	MS51412-7	5310-01-257-7590	5	2
			23	2
			24	3
			25	2
			28	2
96906	MS51412-9	5310-01-266-4641	1	2
			2	2
96906	MS51415-11	5310-01-386-0475	25	12
96906	MS51415-9	5310-01-216-7390	1	4
96906	MS51858-5	5310-01-012-7400	12	4
96906	MS51859-5	5310-00-138-4315	12	6
96906	MS51861-37	5305-00-432-4172	24	11
96906	MS51922-1	5310-00-088-1251	24	6A
96906	MS51922-17	5310-00-087-4652	5	1
			23	1
			24	2
			24	2A
			25	1
			26	1
			28	1
96906	MS51922-33	5310-00-225-6993	1	1
			2	1
96906	MS51922-9	5310-00-984-3806	20	1
96906	MS51957-16	5305-00-054-5650	17	3
96906	MS51957-18	5305-00-054-5652	6	8
96906	MS51957-27	5305-00-054-6651	6	12
96906	MS51957-31	5305-00-054-6655	18	2
96906	MS51957-46	5305-00-054-6671	6	1
			7	1
			11	7
96906	MS51957-46	5305-00-054-6671	18	11

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CAGEC	PART NUMBER	STOCK NUMBER	FIG	ITEM
96906	MS51958-64	5305-00-059-3660	18	8
96906	MS51958-57	5305-00-059-3663	14	4
			16	4
96906	MS51968-23	5310-00-763-8901	25	11
96906	MS51971-5	5310-00-768-0321	2	1A
96906	MS90555C32413S	5935-01-087-0201	14	7
96906	MS90555C32413SY	5935-01-154-2483	14	7
96906	MS90563-3C	5935-00-114-8061	14	6
81349	M22759/16-16-9	6145-01-044-8799	BULK	19
81349	M22759/16-20-9	6145-01-042-4621	BULK	16
81349	M23053/5-104-0	5970-00-812-2969	BULK	9
81349	M23053/5-105-0	5970-00-954-1622	BULK	12
81349	M23053/5-105-9	5970-00-082-3942	BULK	11
81349	M23053/5-107-9	5970-00-740-2971	BULK	8
81349	M23053/5-108-0	5970-00-812-2967	BULK	10
81349	M23053/5-108-4	5970-00-089-6041	BULK	14
81349	M23053/5-111-0	5970-00-812-1356	BULK	7
81349	M24243/1B403	5320-00-904-4136	21	14
			22	14
81349	M24768/-S-7	5970-00-105-3075	BULK	13
97403	M3BE510		3	7
81349	M39006/22-0631	5910-01-119-4292	6	18
81349	M39029/49-329	5999-00-014-0952	14	9
81349	M39029/49-331	5999-01-091-3187	14	8
81349	M45938/1-13C	5310-00-570-0386	6	29
81349	M5086/2-4-9	6145-00-578-6595	BULK	17
81349	M5086/2-6-9	6145-00-578-6594	BULK	18
81349	M55155/199G03	5940-01-283-6241	6	15
81349	M5757/23-003	5945-00-435-1833	6	10
81349	M6000E00200	4720-01-386-4192	BULK	6
			22	3
81348	QQB575F30T0437	6145-01-293-1092	BULK	1
81348	QQW343C06B1B	6145-01-226-9164	BULK	20
			19	21
			22	10
81349	RER75F2490P	5905-00-568-2234	6	9
81349	RFR75F2491P		17	5
81349	TBJA	6150-01-217-2787	10	1
59501	10-33675-36		14	10
60177	11500	5945-01-376-0827	7	4
19207	12450001		29	6B

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CAGEC	PART NUMBER	STOCK NUMBER	FIG	ITEM
97403	13200E6361	5310-00-571-5090	19	11
97403	13200E6363	3740-00-902-1481	19	8
97403	13205E4918	9905-01-085-7703	21	13
			22	13
97403	13211E7541	5340-00-066-1235	19	1
97403	13211E7542	4710-00-597-8730	19	2
97403	13211E7543	4710-00-185-6948	19	3
97403	13211E7544	5310-00-566-9502	19	4
97403	13211E7546	5330-00-402-5125	19	5
97403	13211E7547	5310-00-408-2561	19	10
97403	13211E7548		19	12
97403	13212E5748		25	9
97403	13214E1206-1	2590-00-420-8929	28	4
30554	13214E1206-2		28	4
97403	13214E1207	5342-01-220-1548	28	4
97403	13214E1208	2590-00-453-8977	28	10
97403	13214E1209	5315-01-162-0143	28	6
97403	13214E1210		28	12
97403	13214E1211	5310-01-149-0869	28	11
97403	13214E1212-1	2590-01-167-8596	28	13
97403	13214E1223	5307-00-227-1741	21	12
			22	12
97403	13214E1235	4210-00-223-4857	24	5A
97403	13214E1391	6210-00-900-9423	8	6
			9	5
			3	5
97403	13222E9686	5935-01-042-7579	6	11
97403	13226E7741	5120-01-013-1676	19	13
97403	13229E2308		26	11
97403	13229E5649-1		11	8
19099	13229E5649-1-12		11	12
19099	13229E5649-1-13		11	13
19099	13229E5649-1-6		11	11
97403	13229E5654-1		11	14
97403	13229E5654-2		11	15
97403	13229E5666-14		22	15
97403	13229E5666-15		22	15
97403	13229E5666-3		21	15
97403	13229E56664		21	15
19099	13229E5670-24		21	10
19099	13229E567041		21	3

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CAGEC	PART NUMBER	STOCK NUMBER	FIG	ITEM
97403	13229E5677		25	7
19099	13229E5715-22		22	3
97403	13229E5743-2		26	8
97403	13229E5746		29	6
97403	13229E5749-2	6115-01-392-0297	24	1
97403	13229E5758		26	10
97403	13229E5764-2		9	1
19099	13229E5764-2-2		9	3
19099	13229E5764-2-3		9	4
97403	13229E5817		25	4
19099	13229E5817-6		25	5
97403	13229E5818		25	15
97403	13229E5819-1		11	3
97403	13229E5819-2		11	3
97403	13229E5820-1		5	4
97403	13229E5820-2		5	4
19099	13229E582043		8	5
19099	13229E582044		8	4
19099	13229E582048		18	10
19099	13229E5820-51		17	6
97403	13229E5821		18	15
19099	13229E58214		18	16
97403	13229E5822		18	14
97403	13229E5823		6	28
97403	13229E5824		29	6
97403	13229E5825	6115-01-392-2936	24	1
97403	13229E5827		3	6
97403	13229E5828-1		13	1
19099	13229E5828-1-2		13	5
19099	13229E5828-1-4		13	4
97403	13229E5828-2		13	6
19099	13229E5828-2-2		13	10
19099	13229E5828-2-4		13	9
97403	13229E5828-3		13	11
19099	13229E5828-3-2		13	15
19099	13229E5828-34		13	14
97403	13229E58284		13	16
19099	13229E58284-2		13	19
19099	13229E582844		13	18
97403	13229E5828-5		13	20
19099	13229E5828-5-2		13	23

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CAGEC	PART NUMBER	STOCK NUMBER	FIG	ITEM
19099	13229E5828-54		13	22
97403	13229E5828-6		13	24
19099	13229E5828-6-2		13	27
19099	13229E5828-64		13	26
97403	13229E5829		6	19
19099	13229E5829-1		6	23
19099	13229E5829-3		6	21
19099	13229E5829-6		6	22
97403	13229E5830		6	4
19099	13229E5830-9		6	25
97403	13229E5831		15	1
19099	13229E5831-1		15	7
19099	13229E5831-7		15	8
19099	13229E5831-9		15	9
97403	13229E5832-1		14	5
19099	13229E5832-1-2		14	16
19099	13229E5832-1-3		14	17
19099	13229E5832-1-6		14	13
19099	13229E5832-1-8		14	14
97403	13229E5832-2		14	5
97403	13229E5833		12	7
97403	13229E5836-3		4	1
19099	13229E5836-3-1		4	8
19099	13229E5836-3-5		4	5
19099	13229E5836-3-6		4	6
19099	13229E5836-3-7		4	7
97403	13229E5836-4		4	9
19099	13229E58364-1		4	16
19099	13229E5836-4-5		4	13
19099	13229E5836-4-6		4	14
19099	13229E5836-4-7		4	15
97403	13229E7946	2540-01-417-8036	20	4
97403	13229E9619		26	4
19099	13229E9619-1-7		26	5
97403	13229E9620-1		26	6
19099	13229E9620-1-7		26	7
97403	13229E9621-1		23	4
97403	13229E9621-2		23	5
97403	13229E9629-4	5306-01-386-5274	25	14
97403	13229E9630		11	16
97403	13229E9631		12	8

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CAGEC	PART NUMBER	STOCK NUMBER	FIG	ITEM
97403	13229E9635		1	6
30554	13230E6514		29	4
30554	13230E6524		29	5
30554	13230E6526		27	10
30554	13230E6527		27	6
30554	13230E6530-26		22	3
30554	13230E6531		22	15B
30554	13230E6541		22	15C
30554	13230E6564-1		23	9
30554	13230E6564-2		23	11
30554	13230E6565		24	1B
30554	13230E6567-1		23	8
30554	13230E6567-2		23	10
30554	13230E6568		23	7
30554	13230E6569-1		27	3
30554	13230E6569-2		27	4
30554	13230E6571-1		27	14
30554	13230E6571-2		27	15
30554	13230E6572		29	2
30554	13230E6576		27	7
30554	13230E6577		27	9
30554	13230E6579		27	19
30554	13230E6582-1		27	17
30554	13230E6582-2		27	18
30554	13230E6578-1		27	11
30554	13230E6578-2		27	12
30554	13230E6580-1		27	22
30554	13230E6580-2		27	23
30554	13230E6583-1		27	20
30554	13230E6583-2		27	21
72619	181-0931-001		8	7
			9	6
72619	181-8836-09-553	6210-01-230-1851	8	9
			9	8
81346	2B2B2C1F2		BULK	15
8890	22806-000-00	7220-000-205-8389	BULK	3
99251	3304695-1	4210-00-270-4512	21	1
			22	1
81349	37TB18B	5940-01-435-1865	6	26
81349	37TB5	5940-00-983-6046	18	3
00141	4328	5305-00-841-2681	19	7

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CAGEC	PART NUMBER	STOCK NUMBER	FIG	ITEM
60705	565C10GAP10	5910-01-387-6493	6	16
04655	70-801074	5999-00-186-3912	19	19
3554	72-2029-1	5120-01-019-6564	19	23

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FIG	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
BULK	1		81348	QQB575F30T0437
BULK	2		81349	CO-04HDE(4/4-12R)1290
BULK	3		88900	22806-000-00
BULK	4	5340-01-054-4934	96906	MS35822-9A
BULK	5	5340-01-053-7127	96906	MS35823-6A
BULK	6		81349	M6000E00200
BULK	7	5970-00-812-1356	81349	M23053/5-111-0
BULK	8	597-00-740-2971	81349	M23053/5-107-9
BULK	9	5970-00-812-2969	81349	M23053/5-104-0
BULK	10	5970-00-812-2967	81349	M23053/5-108-0
BULK	11	5970-00-082-3942	81349	M23053/5-105-9
BULK	12	5970-00-954-1622	81349	M23053/5-105-0
BULK	13		81349	M24768/2-S-7
BULK	14		81349	M23053/5-108-4
BULK	15		81346	2B2B2C1F2
BULK	16	6145-01-042-4621	81349	M22759/16-20-9
BULK	17	6145-00-578-6595	81349	M5086/2-4-9
BULK	18	6145-00-578-6594	81349	M5086/2-6-9
BULK	19	6145-01-044-8799	81349	M22759/16-16-9
BULK	20		81348	QQW343CO6B1B
1	1	5310-00-225-6993	96906	MS51922-33
1	2	5310-01-266-4641	96906	MS51412-9
1	3	5305-00-071-2070	80204	B1821BH050C175N
1	4	5310-01-216-7390	96906	MS51415-9
1	5	6115-01-275-5061	30554	MEP 803A
1	5	6115-01274-7392	30554	MEP 813A
1	6		97403	13229E9635
2	1	5310-00-225-6993	96906	MS51922-33
2	1A	5310-00-768-0321	96906	MS51971-5
2	1B	5310-01-180-7157	96906	MS35338-143
2	2	5310-01-266-4641	96906	MS51412-9
2	2A	5310-00-614-3506	96906	MS15795-817
2	3	5305-00-071-2068	96906	B1821BH050C138N
2	3A	5305-00-727-6804	96906	MS35307-414
2	4	6115-01-275-5061	30554	MEP 803A
1	4	6115-01274-7392	30554	MEP 813A
3	1	5310-00-934-9751	96906	MS35650-302
3	2	5305-00-993-1851	96906	MS35207-267
3	3		96906	MS51412-2
3	4	5340-01-242-4554	96906	MS21919WCG21
3	5		97403	13218E5149-8

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FIG	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
3	6		97403	13229E5827
3	7		97403	M3BE510
4	1		97403	13229E5836-3
4	2	5940-00-557-4338	96906	MS25036-125
4	3	5940-00-115-4996	96906	MS20659-145
4	4	5940-00-115-2676	96906	MS20659-143
4	5		19099	13229E5836-3-5
4	6		19099	13229E5836-3-6
4	7		19099	13229E5836-3-7
4	8		19099	13229E5836-3-1
4	9		97403	13229E5836-4
4	10	5940-00-557-4338	96906	MS25036-125
4	11	5940-00-115-4996	96906	MS20659-145
4	12	5940-00-115-2676	96906	MS20659-143
4	13		19099	13229E5836-4-5
4	14		19099	13229E5836-4-6
4	15		19099	13229E5836-4-7
4	16		19099	13229E5836-4-1
5	1	5310-00-087-4652	96906	MS51922-17
5	2	5310-01-257-7590	96906	MS51412-7
5	3	5305-00-725-2317	80204	B1821BH038C150N
5	4		97403	13229E5820-1
5	4		97403	13229E5820-2
6	1	5305-00-054-6671	96906	MS51957-46
6	2	5310-00-933-8119	96906	MS35338-137
6	3	5310-00-225-5328	96906	MS15795-841
6	4		97403	13229E5830
6	5	5310-00-934-9748	96906	MS35649-244
6	6	5310-00-933-8118	96906	MS35338-135
6	7	5310-01-141-6672	88044	AN960-C4
6	8	5305-00-054-5652	96906	MS51957-18
6	9		81349	RER75F2490P
6	10	5945-00-435-1833	81349	MS757/23-003
6	11	5935-01-042-7579	97403	13222E9686
6	12	5305-00-054-6651	96906	MS51957-27
6	13	5310-00-929-6395	96906	MS35338-136
6	14	5310-01-303-4701	96906	MS51412-1
6	15		81349	M55155/199G03
6	16		60705	565C10GAP10
6	17		81349	JANTX1N5619
6	18		81349	M39006/22-0631
6	19		97403	13229E5829

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FIG	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
6	20	5940-00-813-0698	96906	MS25036-101
6	21		19099	13229E5829-3
6	22		19099	13229E5829-6
6	23		19099	13229E5829-1
6	24	5975-00-727-5153	96906	MS3367-4-9
6	25		19099	13229E830-9
6	26		81349	37TB18B
6	27		81349	MSA37TB18
6	28		97403	13229E5823
6	29		81349	M45938/1-13C
7	1	5305-00-054-6671	96906	MS51957-46
7	2	5310-00-225-5328	96906	MS15795-841
7	3	5310-00-933-8119	96906	MS35338-137
7	4		60177	11500
8	1	6210-00-753-2289	81349	LH80/1
8	2		81349	LC21CN3
8	3	6240-01-355-4422	96906	MS15567-2
8	4		19099	13229E5820-44
8	5		19099	13229E5820-43
8	6	6210-00-900-9423	97403	13214E1391
8	7		72619	181-0931-001
8	8		58224	G9B
8	9	6210-01-230-1851	72419	181-8836-09-553
9	1		97403	13229E5764
9	2		96906	MS6-101
9	3		19099	13229E57642-2
9	4		19099	13229E5764-2-3
9	5	6210-00-900-9423	97403	13214E1391
9	6		72619	1181-0931-001
9	7		58224	G9B (GRC)
9	8	6210-01-230-1851	72619	181-8836-09-553
10	1	6150-01-217-2787	81349	TBJA
10	2	5390-00-105-5331	96906	MS27407-3
10	3	5930-00-660-3950	96906	MS24524-30
11	1	5320-00-582-3305	96906	MS20600AD4W3
11	2		94222	K3-1735-07
11	3		97403	13229E5819-1
11	3		97403	13229E5819-2
11	4	5310-01-934-9759	96906	MS35649-284
11	5	5310-00-933-8119	96906	MS35338-137
11	6	5310-00-225-5328	96906	MS15795-841
11	7	5305-00-054-6671	96906	MS51957-46

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FIG	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
11	8		97403	13229E5649-1
11	9		97403	13229E5728-1
11	10		96906	MS20600AD3W3
11	11		19099	13229E5649-1-6
11	12		19099	13229E5649-1-12
11	13		19099	13229E5649-1-13
11	14		97403	13229E5654-1
11	15		97403	13229E5654-2
11	16		97403	13229E9630
11	17		94222	K3-0334-07
12	1	5310-00-989-5945	96906	MS35691-35
12	2		96906	MS35331-113
12	3	5940-00-433-6259	96906	MS39347-4
12	4	5310-01-012-7400	96906	MS51858-5
12	5	5305-00-240-0259	96906	MS18212-65
12	6	5310-00-138-4315	96906	MS51859-5
12	7		97403	13229E5833
12	8		97403	13229E9631
13	1		97403	13229E5828-1
13	2	5940-00-115-4996	96906	MS20659-145
13	3	5940-00-557-4338	96906	MS25036-125
13	4		19099	13229E5828-1-4
13	5		19099	13229E5828-1-2
13	6		97403	13229E5828-2
13	7	5940-00-115-4996	96906	MS20659-145
13	8	5940-00-557-4338	96906	MS25036-125
13	9		19099	13229E5828-2-4
13	10		19099	13229E5828-2-2
13	13		97403	13229E5828-3
13	14	5940-00-115-4996	96906	MS20659-145
13	15	5940-00-557-4338	96906	MS25036-125
13	16		97403	13229E5828-4
13	17	5940-00-115-4996	96906	MS20659-145
13	18		19099	13229E5828-4-4
13	19		19099	13229E5828-4-2
13	20		97403	13229E5828-5
13	21	5940-00-115-4996	96906	MS20659-145
13	22		19099	13229E5828-5-4
13	23		19099	13229E5828-5-2
13	24		97403	13229E5828-6
13	25	5940-00-115-4996	95906	MS20659-145
13	26		19099	13229E5828-6-4

SECTION IV

CROSS REFERENCE INDEX
FIGURE AND ITEM NUMBER INDEX

FIG	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
13	27		19099	13229E5828-6-2
14	1	5310-00-934-97906	69606	MS35650-304
14	2	5310-00-933-8120	96906	MS69606-138
14	3	5310-01-273-4535	96906	MS15795-848
14	4	5305-00-059-3663	96906	MS51958-67
14	5		97403	13229E5932-1
14	5		97403	13229E5932-2
14	6	5935-00-114-8061	96906	KS90563-3C
14	7	5935-01-087-0201	96906	MS90555C32413S
14	7	5935-01-154-2483	96906	MS90555C32413SY
14	8	5999-01-091-3187	91349	M39029/49-331
14	9	5999-00-014-0952	91349	M39029/49-329
14	10		59051	10-33675-36
14	11	5940-00-115-4996	96906	MS20659-145
14	12	5940-00-115-2676	96906	MS20659-143
14	13		19099	13229E5832-1-6
14	14		19099	13229E5832-1-8
14	15	5975-0-074-2072	96906	MS3367-1-9
14	16		19099	13229E5832-1-2
14	17		19099	13229E5832-1-3
15	1		97403	13229E5831
15	2	5940-00-143-4793	96906	MS25036-110
15	3	5940-00-283-5280	96906	MS25036-106
15	4	5940-00-660-3633	96906	MS25036-155
15	5	5940-00-143-4780	96906	MS25036-108
15	6	5975-00-727-5153	96906	MS3367-4-9
15	7		19099	13229E5831-1
15	8		19099	13229E5831-7
15	9		19099	13229E5831-9
16	1	5310-00-934-9765	96906	MS35650-304
16	2	5310-00-933-8120	96906	MS35338-138
16	3	5310-01-273-4535	96906	MS15795-848
16	4	5305-00-059-3663	96906	MS51958-67
16	5	6110-01-388-0318	7E656	JCG-6026
17	1	5310-00-934-9748	96906	MS35649-244
17	2	5310-00-933-8118	96906	MS35338-135
17	3	5305-00-054-5650	96906	MS51957-16
17	4	5310-01-141-6672	88044	AN960-C4
17	5		81349	RER75F2491P
17	6		19199	13229E5820-51
18	1	5310-00-934-9761	96906	MS35649-264
18	2	5305-00-054-6655	96906	MS51957-31

SECTION IV

CROSS REFERENCE INDEX
FIGURE AND ITEM NUMBER INDEX

FIG	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
18	3	5940-00-983-6046	81349	37TB5
18	4	5940-01-277-0578	81349	MSA37TB5
18	5	5310-00-934-9765	96906	MS36650-304
18	6	5310-00-933-8120	96906	MS35338-138
18	7	5310-01-273-4535	96906	MS15795-848
18	8	5305-00-059-3660	96906	MS51958-64
18	9	5940-00-114-1310	96906	MS25036-119
18	10		19099	13229E5820-48
18	11	5305-00-054-6671	96906	MS51957-46
18	12	5310-00-225-5328	96906	MS15795-841
18	13	5310-00-933-8119	96906	MS35338-137
18	14		97403	13229E5822
18	15		97403	13229E5821
18	16		19099	13229E5821-4
18	17	5310-01-046-5374	96906	MS27130-CR93
19	1	5340-00-066-1235	97403	13211E7541
19	2	4710-00-597-8731	97403	13211E7542
19	3	4710-00-185-6948	97403-	13211E7543
19	4	5310-00-566-9502	97403	13211E7544
19	5	5330-00-402-5125	97403	13211E7546
19	6	4730-00-277-5115	88044	AN816-5-4
19	7	5305-00-841-2681	00141	4328
19	8	3740-00-902-1481	97403	13200E6363
19	9	5310-00-209-1239	96906	MS35335-60
19	10	5310-00-408-2561	97403	13211E7547
19	11	5310-00-571-5090	97403	13200E6361
19	12		97403	13211E7548
19	13	5120-01-013-1676	97403	13226E7741
19	14		80244	GGG-H-46, TY10 CL1
19	15	5975-00-878-3791	15277	FS0216B122-1
19	16		56681	HLP1053A
19	17	5975-00-794-2523	0BKK8	GRC 58
19	18	5975-00-924-9927	73606	GRB58
19	19	5999-00-186-3912	04655	70-801074
19	20	5940-00-271-9504	01667	CBA-70
19	21	6145-01-226-9164	81348	QQW343C06B1B
19	22	5940-00-113-8190	96906	MS26036-122
19	23	5120-01-019-9564	30554	72-2029-1
20	1	5310-00-984-3806	96906	MS51922-9
20	1	5310-00-252-8748	96906	MS35650-3314
20	1A	5310-00-974-6623	96906	MS35338-140
20	2	5310-00-044-6477	96906	MS51412-25

SECTION IV

CROSS REFERENCE INDEX
FIGURE AND ITEM NUMBER INDEX

FIG	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
20	2	5310-00-044-6477	96906	MS51412-25
20	2	5310-00-625-5756	96906	MS15795-812
20	3	5306-00-226-4827	80204	B1821BH031C100N
20	3	5306-00-021-3912	96906	MS35308-334
20	3	5306-00-021-4065	96906	MS35308-338
20	4	2540-01-417-8036	97403	13229E7946
20	5	5320-00-753-3830	96906	MS20613-4P5
20	6	5340-00-975-2126	83014	H2638-1
20	7	5320-00-680-8779	96906	MS20427-4C6
20	8	5340-00-234-8422	96906	MS27969-4
21	1	4210-00-270-4512	99251	3304695-1
21	2	4730-00-908-3194	96906	MS35842-11
21	3		19099	13229E5670-41
21	4	4730-00-940-0947	96906	MS24519-7
21	5	5310-01-078-5996	96906	MS35425-75
21	6	5310-00-184-8971	96906	MS35338-103
21	7	5310-00-187-2413	88044	AN961-616T
21	8	5310-00-584-7995	96906	MS16203-27
21	9	5940-00-113-8190	96906	MS25036-122
21	10		19099	13229E5670-24
21	11	5310-00-022-8847	96906	MS35333-110
21	12	5307-00-227-1741	97403	13214E1223
21	13	9905-01-085-7703	97403	13205E4918
21	14	5320-00-904-4136	81349	M24243/1B403
21	15		97403	13229E5666-3
21	15		97403	13229E5666-4
22	1	4210-00-202-7858	58536	A-A-1106
22	2	4730-00-908-3794	96906	MS35842-11
22	3	4720-01-386-4192	81349	M6000E00200
22	4	4730-00-940-0947	96906	MS24519-7
22	5	5310-01-078-5996	96906	MS35425-75
22	6	5310-00-184-8971	96906	MS35338-103
22	7	5310-00-187-2413	88044	AN961-616T
22	8	5310-00-584-7995	96906	MS16203-27
22	9	5940-00-113-8190	96906	MS25036-122
22	10		19099	13229E5715-32
22	11	5310-00-022-8847	69606	MS35333-110
22	12	5307-00-227-1741	97403	13214E1223
22	13	9905-01-085-7703	97403	13205E4918
22	14	5320-00-904-4136	81349	M24243/1B403
22	14A	5320-00-052-1972	07707	AD45ABS
22	15		97403	13229E5666-14

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CROSS REFERENCE INDEX
FIGURE AND ITEM NUMBER INDEX

FIG	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
22	15A		97403	13229E5666-15
22	15B		30554	13230E6531
22	15C		30554	13230E6541
22	16	5310-00-989-0908	96906	MS35691-3
22	17	5310-00-883-9417	96906	MS35338-158
22	18	5310-00-582-5677	96906	MS15795-810
22	19	5940-00-021-3321	96906	MS39347-2
23	1	5310-00-087-4652	96906	MS51922-17
23	2	5310-01-257-7590	96906	MS51412-7
23	2A	5310-01-385-7083	96906	MS51412-27
23	3	5305-00-068-0510	80204	B1821BH038C100N
23	4		97403	13229E9621-1
23	5		97403	13229E9621-2
23	6	5315-01-466-4174	9K475	MGLP-R8-10
23	7		30554	13230E6568
23	8		30554	13230E6567-1
23	9		30554	13230E6564-1
23	10		30554	13230E6567-2
23	11		30554	13230E6564-2
24	1	6115-01-392-2936	97403	13229E5825
24	1A	6115-01-392-0297	97403	13229E5749-2
24	1B		30554	13230E6565
24	2	5310-00-087-4652	96906	MS51922-17
24	2A	5310-00-087-4652	96906	MS51922-17
24	2B	5310-00-245-3612	96906	MS35650-3384
24	2C	5310-00-984-7042	96906	MS35338-141
24	3	5310-01-257-7590	96906	MS51412-7
24	3A	5310-01-385-7083	96906	MS51412-27
24	3B	5310-00-802-4701	96906	MS15795-813
24	4	5305-00-068-0510	80204	B1821BH038C100N
24	4A	5305-00-543-4372	80204	B1821BH038C075N
24	4B	5305-0-680-4262	96906	MS35308-360
24	5	4210-00-223-4857	97403	13214E1235
24	5A	4210-00-223-4857	97403	13214E1235
24	6	5310-00-088-1251	96906	MS51922-1
24	6A	5310-00-088-1251	96906	MS51922-1
24	7	5310-01-103-6042	96906	MS51412-4
24	7A	5310-01-103-6042	96906	MS51412-4
24	8	5305-00-068-0508	80204	B1821BH025C075N
24	8A	5305-00-071-2505	80204	B1821BH025C088N
24	9	9905-00-205-2595	96906	MS35387-1
24	10	9905-00-202-3639	96906	MS35387-2

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CROSS REFERENCE INDEX
FIGURE AND ITEM NUMBER INDEX

FIG	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
24	11	5305-00-432-4172	96906	MS51861-37
25	1	5310-00-087-4652	96906	MS51922-17
25	2	5310-01-257-7590	96906	MS51412-7
25	3	5305-00-068-0511	80204	B1821BH038C125N
25	4		97403	13229E5817
25	5		19099	13229E5817-6
25	6	5305-01-386-9051	80204-	B1821BH038C600N
25	7		97403	13229E5677
25	8	5310-01-385-8247	96906	MS27130-CR68
25	9		97403	13212E5748
25	10	5310-01-385-8247	96906	MS27130-CR68
25	11	5310-00-763-8901	96906	MS51968-23
25	12	5310-01-386-0475	96906	MS51415-11
25	13	5310-01-275-1065	96906	MS51412-13
25	14	5306-01-386-5274	97403	13229E9629-4
25	15		97403	13229E5818
26	1	5310-00-087-4652	96906	MS51922-17
26	2	5310-00-809-8541	96906	MS24183-27
26	3	5305-00-725-2317	80204	B1821BH038C150N
26	4		97403	13229E9616-1
26	5		19099	13229E9619-1-7
26	6		97403	13229E9620-1
26	7		19099	13229E9620-1-7
26	8		97403	13229E5743-2
26	9	5305-00-638-8920	80204	B1821BH038C225N
26	10		97403	13229E5758
26	11		97403	13229E2308
27	1	5320-00-483-0558	9K475	BOM-R8-8
27	2	5320-01-140-1479	9K475	BOM-R8-10
27	3		30554	13230E6569-1
27	4		30554	13230E6569-2
27	5		17446	MGL100-R6-9
27	6		30554	13230E6527
27	7		30554	13230E6576
27	8	5315-01-466-4174	9K475	MGLP-R8-10
27	9		30554	13230E6577
27	10		30554	13230E6526
27	11		30554	13230E6578-1
27	12		30554	13230E6578-2
27	13	5320-01-485-6915	9K475	MGLP-R8-6
27	14		30554	13230E6571-1
27	15		30554	13230E6571-2

SECTION IV

CROSS REFERENCE INDEX
FIGURE AND ITEM NUMBER INDEX

FIG	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
27	16	5320-01-485-6915	9K475	MGLP-R8-6
27	17		30554	13230E6582-1
27	18		30554	13230E6582-2
27	19		30554	13230E6579
27	20		30554	13230E6583-1
27	21		30554	13230E6583-2
27	22		30554	13230E6580-1
27	23		30554	13230E6580-2
27	24	5310-00-984-7042	96906	MS35338-141
27	25	5310-00-802-4701	96906	MS15795-813
27	26	5975-00-984-6582	96906	MS3367-1-0
28	1	5310-00-087-4652	96906	MS51922-17
28	2	5310-01-257-7590	96906	MS51412-7
28	2	5310-01-385-7083	96906	MS51412-27
28	3	5305-00-725-2317	80204	B1821BH038C150N
28	3	5305-00-068-0511	80204	B1821BH038C125N
28	3A		17446	BOM-R12-8
28	4	2590-00-420-8929	97403	13214E1206-1
28	4		30665	13214E1206-2
28	5	5315-00-839-5822	96906	MS24665-353
28	6	5315-01-162-0143	97403	13214E1209
28	7	5342-01-220-1548	97403	13214E1207
28	8	4730-00-172-0049	96906	MS15006-1
28	9	5315-00-838-4584	96906	MS16562-66
28	10	2590-00-453-8977	97403	13214E1208-1
28	11	5310-01-149-0869	97403	13214E1211
28	12		97403	13214E1210
28	13	2590-01-167-8596	97403	13214E1212-1
29	1	5320-00-052-1972	07707	AD45ABS
29	2		30554	13230E6572
29	3	5320-00-483-0558	17446	BOM-R8-8
29	4		30554	13230E6514
29	5		30554	13230E6524
29	6		97403	13229E5824
29	6A		97403	13229E5746
29	6B		19207	12450001

APPENDIX G

ILLUSTRATED LIST OF MANUFACTURED ITEMS

G-1 INTRODUCTION.

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

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.

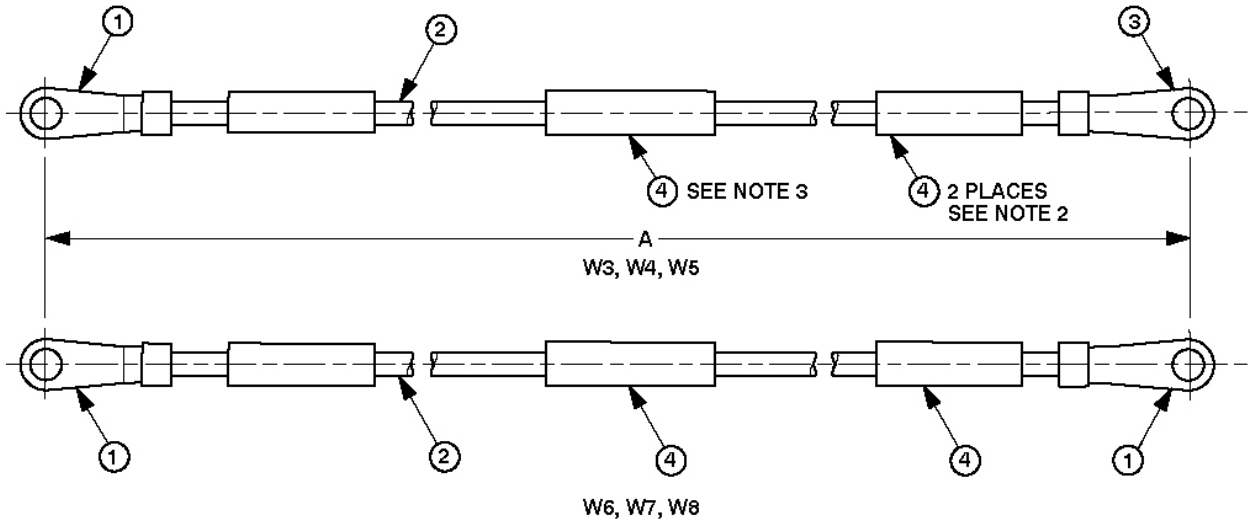
All bulk materials needed for manufacture of an item are listed by part number or specification number in a tabular list on the illustration.

G-2 MANUFACTURED ITEMS PART NUMBER INDEX.

Part Number of Manufactured Item	Applicable Figure
13229E5828	G-1
13229E5829	G-2
13229E5831	G-3
13229E5832	G-4
13229E6795	G-5
22806-000-00	G-6
2B2B2C1F2	G-7

G-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.



NOTES:

1. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-STD-454, REQUIREMENT 19.

2. HOT STAMP LEGEND A, INDICATED IN TABULATION, USING .09 - .16 HIGH BLACK CHARACTERS, IN TWO PLACES (180^{o} APART) ON INSULATION SLEEVING, FIND NO. 4, IN ACCORDANCE WITH MIL-M-60903, WITHIN 2.50 INCHES OF TERMINAL LUG.

3. HOT STAMP LEGEND B, INDICATED IN TABULATION, AND "97403-13229E5828- " WITH APPROPRIATE DASH NUMBER ON INSULATION, FIND NO. 4, IN ACCORDANCE WITH MIL-M-60903. LOCATE APPROXIMATELY AT CENTER OF LEAD.

DIMENSIONS

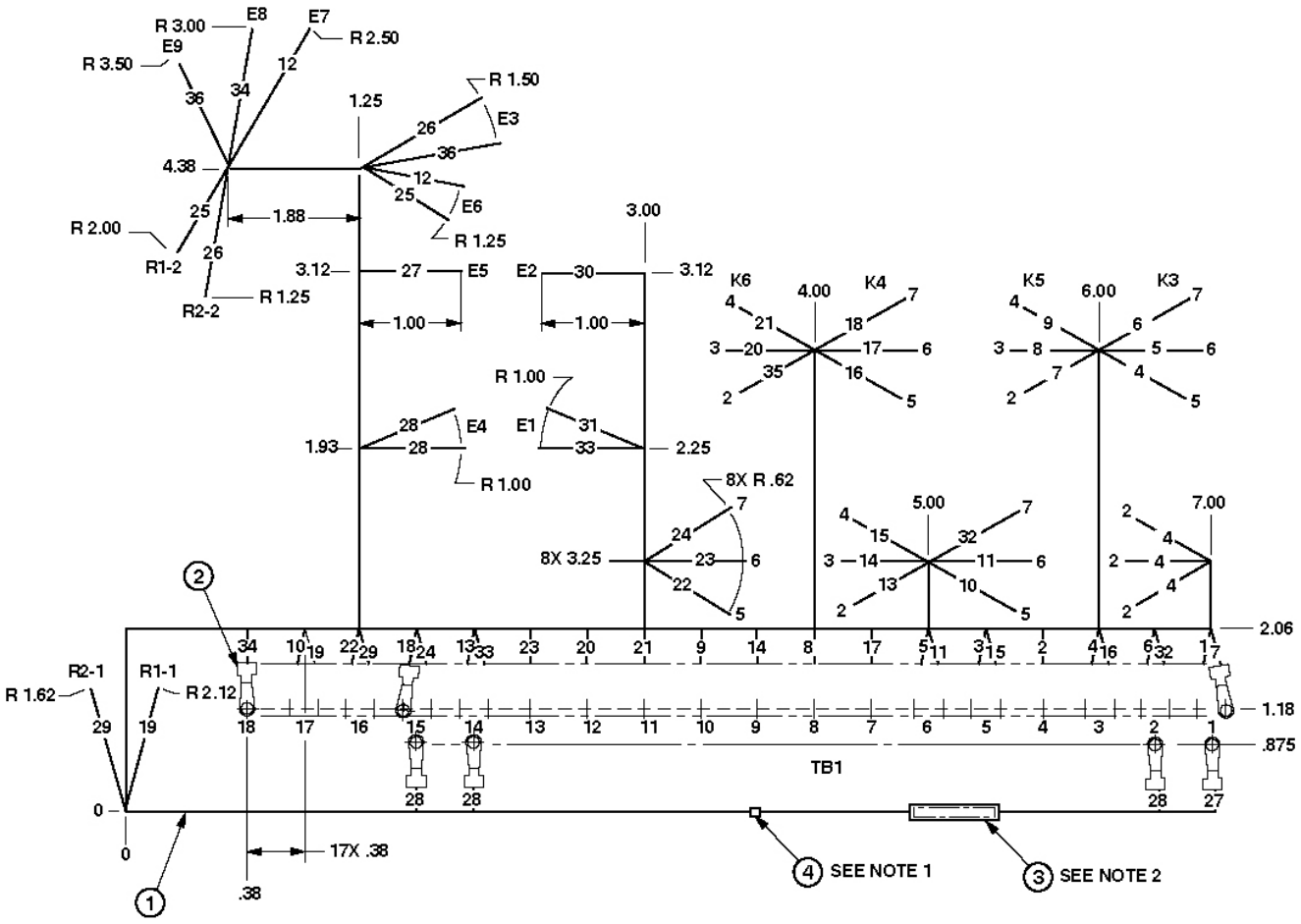
DASH NO.	DIMENSION A +/- 0.50	MARKING	
		LEGEND A	LEGEND B
-1	16.00	K1-A1 - L1	W3
-2	18.00	K1-B1 - L2	W4
-3	23.00	K1-C1 - L3	W5
-4	12.00	K1-C1 - K2-C1	W6
-5	12.00	K1-B1 - K2-B1	W7
-6	12.00	K1-A1 - K2-A1	W8

Figure G-1. Electrical Leads - W3, W4, W5, W6, W7, and W8 (Sheet 1 of 2).

PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED						DESCRIPTION	SPECIFICATION
		-1	-2	-3	-4	-5	-6		
1	MS25036-125	1	1	1	2	2	2	TERMINAL LUG, 4 AWG, .375 STUD SIZE	
2	M5086/2-4-9	AR	AR	AR	AR	AR	AR	WIRE, ELECTRICAL, 4 AWG, WHT	SAE-AS50861/2-
3	MS20659-145	1	1	1	-	-	-	TERMINAL LUG, 4 AWG, .500 STUD SIZE	
4	M23053/5-108-4	3	3	3	3	3	3	INSULATION SLEEVING, HEAT SHRINKABLE, .50 ID AS SUPPLIED X 2.50 LONG	SAE-AMS-I-23053/2

Figure G-1. Electrical Leads - W3, W4, W5, W6, W7, and W8 (Sheet 2 of 2).



PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED	DESCRIPTION	SPECIFICATION
1	M22759/16-20-9	AR	WIRE, ELECTRICAL, 20 AWG, WHITE	MIL-W-22759/16
2	MS25036-101	31	TERMINAL LUG, CRIMP STYLE, INSULATED, 22-18 TERMINAL SIZE, .138 STUD SIZE	
3	M23053/5-107-4	1	INSULATION SLEEVING, .375 ID X 1.50 L	SAE-AMS-23053/2
4	MS3367-4-9	AR	STRAP, TIEDOWN	
5	Sn60Pb40	AR	SOLDER	J-STD-004,5,6
6	M23053/5-105-4	70	INSULATION SLEEVING, .187 ID X 1.50 L	SAE-AMS-23053/2

Figure G-2. Relay Board Harness Assembly W11 (Sheet 1 of 2).

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" IN ACCORDANCE WITH MIL-M-60903 ON SLEEVING FIND NO. 3.
3. EACH WIRE SHALL BE IDENTIFIED BY HOT STAMPING ADDRESS DESIGNATIONS USING .09-.16 HIGH BLACK CHARACTERS ON INSULATION SLEEVING, FIND NO.6, IN ACCORDANCE WITH MIL-M-60903. ATTACH WITHIN TWO INCHES OF BOTH END TERMINATIONS. APPROPRIATE ADDRESS SHALL CONSIST OF THE FROM TERMINATION, A DOUBLE HEADED ARROW AND THE TO TERMINATION.
4. STRIP AND TIN WIRES IN ACCORDANCE WITH MIL-STD-2000, USING SOLDER, FIND NO. 5.
5. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-STD-454, REQUIREMENT 19.

WIRE LIST

WIRE NO.	TERMINATION FROM	TERMINATION FIND NO.	TERMINATION TO	TERMINATION FIND NO.	WIRE FIND NO.
1	XK3-2		TB1-1	2	1
2	XK3-3		TB1-4	2	1
3	XK3-4		TB1-5	2	1
4	XK3-5		TB1-3	2	1
5	XK3-6		TB1-6	2	1
6	XK3-7		TB1-2	2	1
7	XK5-2		TB1-1	2	1
8	XK5-3		TB1-8	2	1
9	XK5-4		TB1-10	2	1
10	XK5-5		TB1-17	2	1
11	XK5-6		TB1-6	2	1
12	E-7		E-6		1
13	XK4-2		TB1-14	2	1
14	XK4-3		TB1-9	2	1
15	XK4-4		TB1-5	2	1
16	XK4-5		TB1-3	2	1
17	XK4-6		TB1-7	2	1
18	XK4-7		TB1-15	2	1

WIRE NO.	TERMINATION FROM	TERMINATION FIND NO.	TERMINATION TO	TERMINATION FIND NO.	WIRE FIND NO.
19	R1-1		TB1-17	2	1
20	XK6-3		TB1-12	2	1
21	XK6-4		TB1-11	2	1
22	XK6-5		TB1-16	2	1
23	XK6-6		TB1-13	2	1
24	XK6-7		TB1-15	2	1
25	R1-2		E-6		1
26	R2-2		E-3		1
27	E-5		TB1-1	2	1
28	E-4		TB1-2	2	1
29	R2-1		TB1-16	2	1
30	E-2		TB1-15	2	1
31	E-1		E-4		1
32	XK5-7		TB1-2	2	1
33	E-1		TB1-14	2	1
34	E-8		TB1-18	2	1
35	XK6-2		TB1-14	2	1
36	E9		E3		1

Figure G-2. Relay Board Harness Assembly W11 (Sheet 2 of 2).

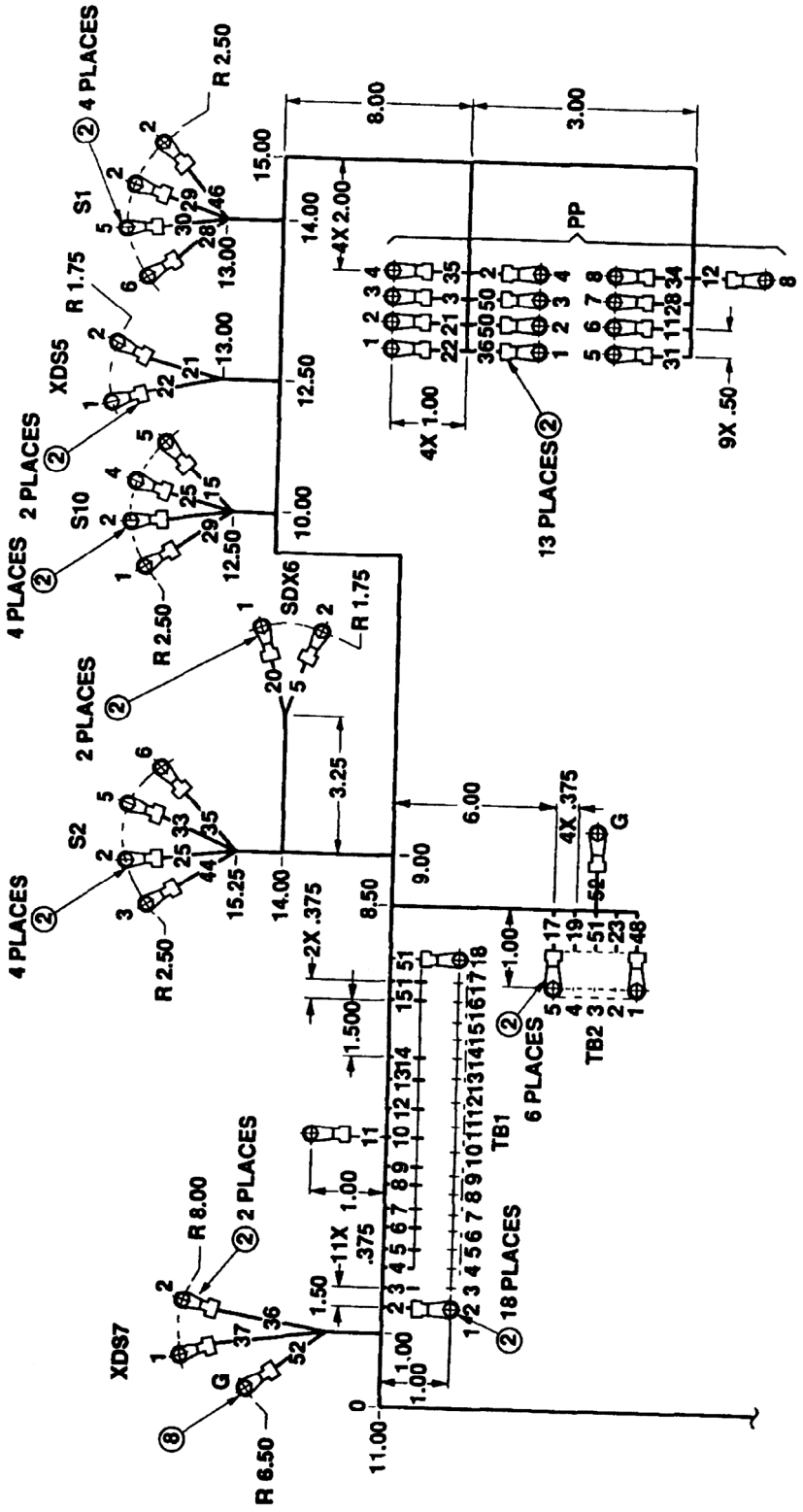


Figure G-3. Switch Box Harness Assembly W9 (OLD) (Sheet 1 of 4).

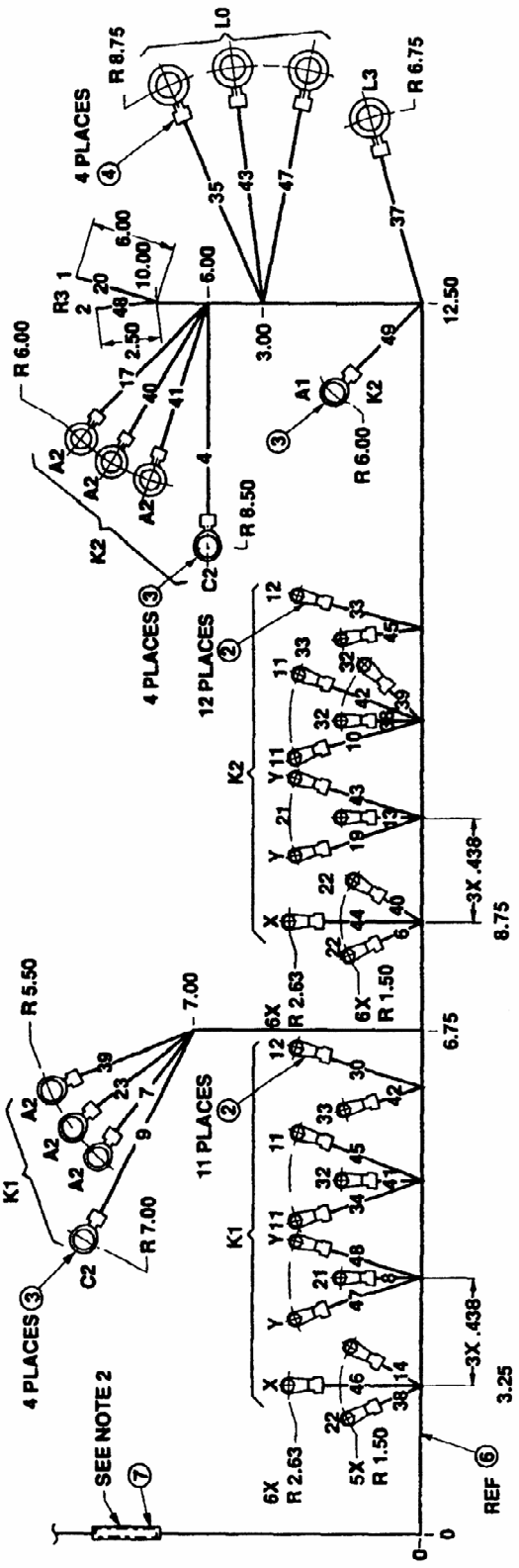


Figure G-3. Switch Box Harness Assembly W9 (OLD) (Sheet 2 of 4).

Note: MIL-I-23053/5 is now changed to SAE-AMS-I-23053/2
SOLDER, QQS 571 is now changed to J-STD-004/5/6

PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED	DESCRIPTION	SPECIFICATION
1	M22759/16-16-9	AR	WIRE, ELECTRICAL, 16 AWG, WHITE	MIL-W-22759/16
2	MS25036-106	70	TERMINAL LUG, CRIMP STYLE, INSULATED, 16-14 AWG TERMINAL SIZE, .138 STUD SIZE	
3	MS25036-110	9	TERMINAL LUG, CRIMP STYLE, INSULATED, 16-14 AWG TERMINAL SIZE, .375 STUD SIZE	
4	MS25036-155	4	TERMINAL LUG, CRIMP STYLE, INSULATED, 16-14 AWG TERMINAL SIZE, .500 STUD SIZE	
5	Sn60Pb40	AR	SOLDER	QQ-S-571
6	MS3367-4-9	AR	STRAP, TIEDOWN	
7	M23053/5-107-4	1	INSULATION SLEEVING, .375 ID X 1.50 L	MIL-I-23053/5
8	MS25036-108	1	TERMINAL LUG, CRIMP STYLE, INSULATED, 16-14 AWG TERMINAL SIZE, .190 STUD SIZE	
9	MS23053/5-105-4	104	INSULATION SLEEVING, .187 ID X L AS REQUIRED	MIL-I-23053/5

NOTES:

1. BUNDLE WIRE HARNESS AT EACH BREAKOUT AND AT 3.00 MAX INTERVALS USING TIEDOWN STRAP, FIND NO.6.
2. HOT STAMP "97403-13229E5831" IN ACCORDANCE WITH MIL-M-60903 ON SLEEVING FIND NO. 3.
3. EACH WIRE SHALL BE IDENTIFIED BY HOT STAMPING ADDRESS DESIGNATIONS USING .09 - .16 HIGH BLACK CHARACTERS ON INSULATION SLEEVING, FIND NO.9, IN ACCORDANCE WITH MIL-M-60903. ATTACH WITHIN TWO INCHES OF BOTH END TERMINATIONS. APPROPRIATE ADDRESS SHALL CONSIST OF THE FROM TERMINATION, A DOUBLE HEADED ARROW AND THE TO TERMINATION.
4. STRIP AND TIN WIRES IN ACCORDANCE WITH MIL-STD-2000, USING SOLDER, FIND NO. 5.
5. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-STD-454, REQUIREMENT 19.

Figure G-3. Switch Box Harness Assembly W9 (OLD) (Sheet 3 of 4).

WIRE LIST

WIRE NO.	TERMINATION FROM	TERMINATION FIND NO.	TERMINATION TO	TERMINATION 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-C2	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-C2	3	1
10	TB1-10	2	K2-11	2	1
11	TB1-10	2	PP-6	2	1
12	TB1-11	2	PP-8	2	1
13	TB1-12	2	K2-21	2	1
14	TB1-13	2	K1-22	2	1
15	TB1-16	2	S10-5	2	1
16	-	-	-	-	-
17	K2-5	-	K2-A2	3	1
18	-	-	-	-	-
19	TB2-4	2	K2-Y	2	1
20	XDS6-1	-	R3-1	-	1
21	XDS5-2	-	PP-2	2	1
22	XDS5-1	-	PP-2	2	1
23	TB2-2	2	K1-A2	3	1
24	-	-	-	-	-
25	S2-2	2	S10-4	2	1
26	-	-	-	-	-

WIRE NO.	TERMINATION FROM	TERMINATION FIND NO.	TERMINATION TO	TERMINATION FIND NO.	WIRE FIND NO.
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	L0	4	1
36	XDS7-2	-	PP-1	2	1
37	XDS7-1	-	L3	2	1
38	K1-22	2	K2-32	2	1
39	K2-32	2	K1-A2	3	1
40	K2-22	2	K2-A2	3	1
41	K1-32	2	K2-A2	3	1
42	K1-33	2	K2-11	2	1
43	K2-Y	2	L0	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	L0	4	1
48	K1-Y	2	TB2-1	2	1
49	K2-A1	3	R3-2	-	1
50	PP-2	2	PP-3	2	1
51	TB1-18	2	TB2-3	2	1
52	G	8	TB2-3	2	1

Figure G-3. Switch Box Harness Assembly W9 (OLD) (Sheet 4 of 4).

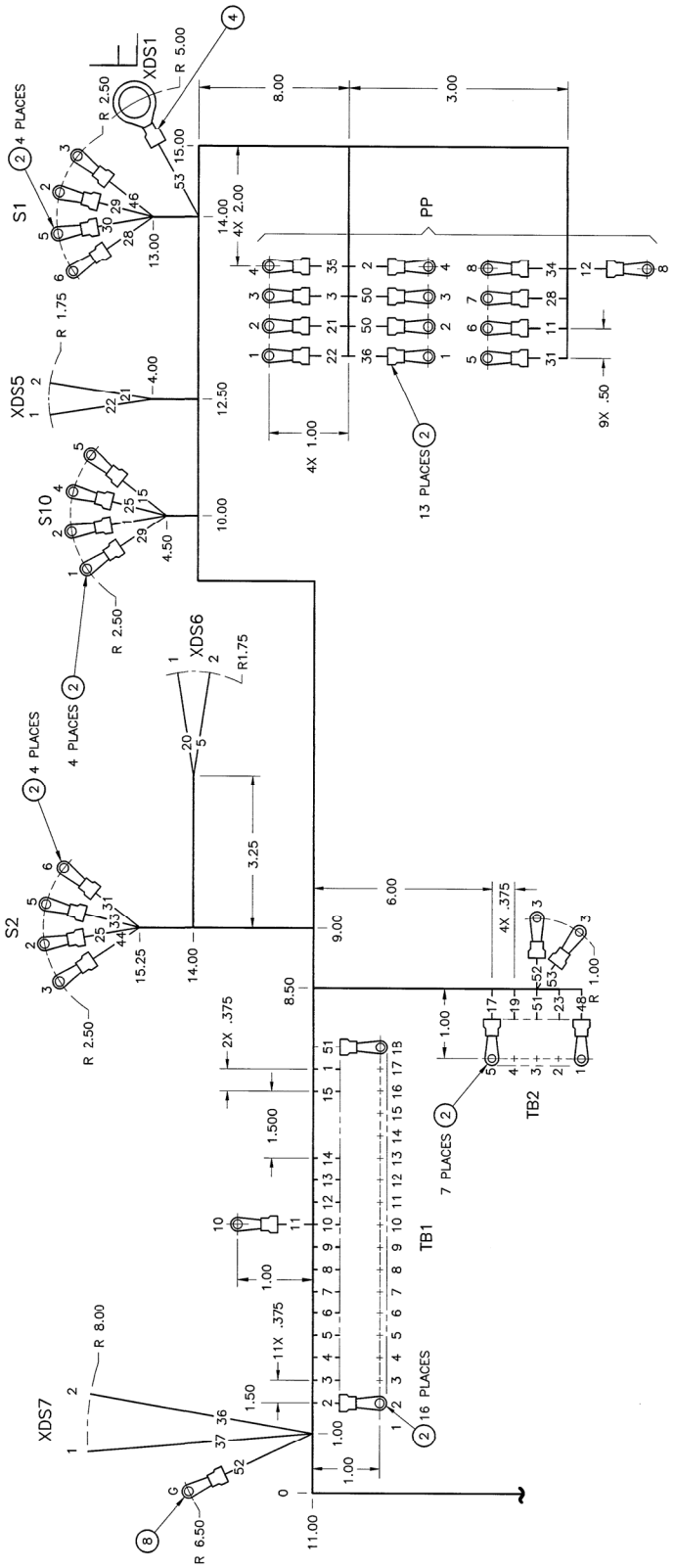


Figure G-3.1. Switch Box Harness Assembly W9 (NEW) (Sheet 1 of 4).

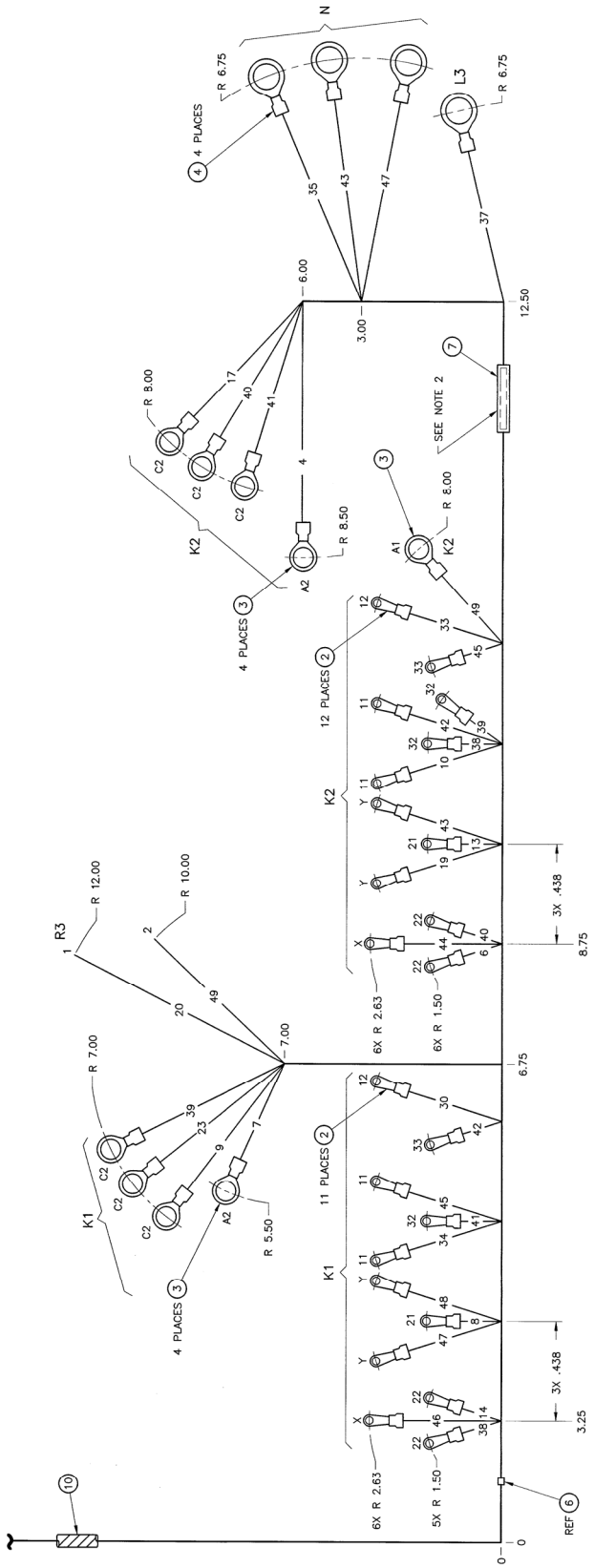


Figure G-3.1. Switch Box Harness Assembly W9 (NEW) (Sheet 2 of 4).

PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED	DESCRIPTION	SPECIFICATION
1	M22759/16-16-9	AR	WIRE, ELECTRICAL, 16 AWG, WHITE	MIL-W-22759/16
2	MS25036-106	70	TERMINAL LUG, CRIMP STYLE, INSULATED, 16-14 AWG TERMINAL SIZE, .138 STUD SIZE	
3	MS25036-110	9	TERMINAL LUG, CRIMP STYLE, INSULATED, 16-14 AWG TERMINAL SIZE, .375 STUD SIZE	
4	MS25036-155	4	TERMINAL LUG, CRIMP STYLE, INSULATED, 16-14 AWG TERMINAL SIZE, .500 STUD SIZE	
5	Sn60Pb40	AR	SOLDER	J-STD-004/5/6
6	MS3367-4-9	AR	STRAP, TIEDOWN	
7	M23053/5-107-4	1	INSULATION SLEEVING, .375 ID X 1.50 L	SAE-AMS-I-23053/2
8	MS25036-108	1	TERMINAL LUG, CRIMP STYLE, INSULATED, 16-14 AWG TERMINAL SIZE, .190 STUD SIZE	
9	MS23053/5-105-4	104	INSULATION SLEEVING, .187 ID X L AS REQUIRED	SAE-AMS-I-23053/2

NOTES:

1. BUNDLE WIRE HARNESS AT EACH BREAKOUT AND AT 3.00 MAX INTERVALS USING TIEDOWN STRAP, FIND NO.6.
2. HOT STAMP "97403-13229E5831" IN ACCORDANCE WITH MIL-M-60903 ON SLEEVING FIND NO. 3.
3. EACH WIRE SHALL BE IDENTIFIED BY HOT STAMPING ADDRESS DESIGNATIONS USING .09-.16 HIGH BLACK CHARACTERS ON INSULATION SLEEVING, FIND NO.9, IN ACCORDANCE WITH MIL-M-60903. ATTACH WITHIN TWO INCHES OF BOTH END TERMINATIONS. APPROPRIATE ADDRESS SHALL CONSIST OF THE FROM TERMINATION, A DOUBLE HEADED ARROW AND THE TO TERMINATION.
4. STRIP AND TIN WIRES IN ACCORDANCE WITH MIL-STD-2000, USING SOLDER, FIND NO. 5.
5. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-STD-454, REQUIREMENT 19.

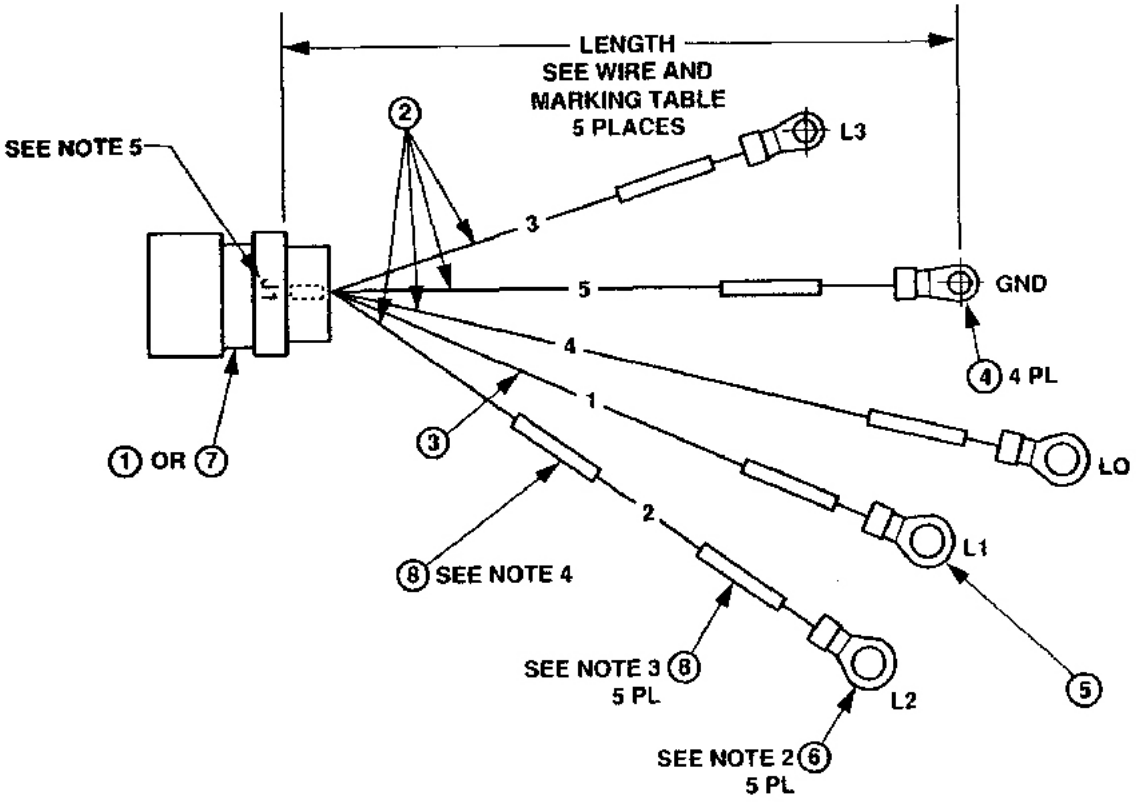
Figure G-3.1. Switch Box Harness Assembly W9 (NEW) (Sheet 3 of 4).

WIRE LIST

WIRE NO.	TERMINATION FROM	TERMINATION FIND NO.	TERMINATION TO	TERMINATION 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-C2	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-C2	3	1
10	TB1-10	2	K2-11	2	1
11	TB1-10	2	PP-6	2	1
12	TB1-11	2	PP-8	2	1
13	TB1-12	2	K2-21	2	1
14	TB1-13	2	K1-22	2	1
15	TB1-16	2	S10-5	2	1
16	-	-	-	-	-
17	K2-5	-	K2-A2	3	1
18	-	-	-	-	-
19	TB2-4	2	K2-Y	2	1
20	XDS6-1	-	R3-1	-	1
21	XDS5-2	-	PP-2	2	1
22	XDS5-1	-	PP-2	2	1
23	TB2-2	2	K1-A2	3	1
24	-	-	-	-	-
25	S2-2	2	S10-4	2	1
26	-	-	-	-	-

WIRE NO.	TERMINATION FROM	TERMINATION FIND NO.	TERMINATION TO	TERMINATION FIND NO.	WIRE FIND NO.
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	L0	4	1
36	XDS7-2	-	PP-1	2	1
37	XDS7-1	-	L3	2	1
38	K1-22	2	K2-32	2	1
39	K2-32	2	K1-A2	3	1
40	K2-22	2	K2-A2	3	1
41	K1-32	2	K2-A2	3	1
42	K1-33	2	K2-11	2	1
43	K2-Y	2	L0	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	L0	4	1
48	K1-Y	2	TB2-1	2	1
49	K2-A1	3	R3-2	-	1
50	PP-2	2	PP-3	2	1
51	TB1-18	2	TB2-3	2	1
52	G	8	TB2-3	2	1
53	XDS1-2	4	TB2-3	1	

Figure G-3.1. Switch Box Harness Assembly W9 (NEW) (Sheet 4 of 4).



NOTES:

1. CRIMP CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-E-45782.
2. INSTALL INSULATION SLEEVING, FIND NO. 6, OVER TERMINALS, FIND NO. 4 AND 5, AND HEAT SHRINK TO A FIRM FIT.
3. HOT STAMP EACH WIRE, WITHIN 2.50 +/- .12 OF TERMINAL, WITH MARKINGS SPECIFIED IN TABULATION. MARKINGS SHALL BE IN ACCORDANCE WITH MIL-M-60903, ON SLEEVING, FIND NO. 8.
4. HOT STAMP "W10" AND "97403-13229E5832-" WITH APPROPRIATE DASH NO. IN ACCORDANCE WITH MIL-M-60903, ON SLEEVING, FIND NO. 8. APPLY SINGLE MARKING APPROXIMATELY CENTERED ON ANY ONE WIRE.
5. MARK REFERENCE DESIGNATION IN .12 MIN. HIGH CHARACTERS IN ACCORDANCE WITH MIL-STD-130, METHOD OPTIONAL.

Figure G-4. Output Connector Harness Assembly W10 (Sheet 1 of 2).

PARTS LIST

		QUANTITY REQUIRED			
FIND NO.	PART NO.	-1	-2	DESCRIPTION	SPECIFICATION
1	MS90555C32413S	1	-	CONNECTOR, RECEPTACLE ELECTRICAL	
2	M5086/2-4-9	AR	AR	WIRE, ELECTRICAL, 4 AWG	SAE-AS50861/2
3	M5086/2-6-9	AR	AR	WIRE, ELECTRICAL, 6 AWG	SAE-AS50861/2
4	MS20659-145	4	4	TERMINAL, 4 AWG, .50 STUD SIZE	
5	MS20659-143	1	1	TERMINAL, 6 AWG, .50 STUD SIZE	
6	M23053/5-108-9	5	5	INSULATION SLEEVING, HEAT SHRINKABLE, .50 MIN ID AS SUPPLIED, 1.00 L	SAE-AMS-I-23053/2
7	MS90555C32413SY	1	-	CONNECTOR, RECEPTACLE ELECTRICAL	
8	M23053/5-108-4	6	6	INSULATION SLEEVING, HEAT SHRINKABLE, .50 MIN ID AS SUPPLIED, L AS REQUIRED	SAE-AMS-I-23053/2

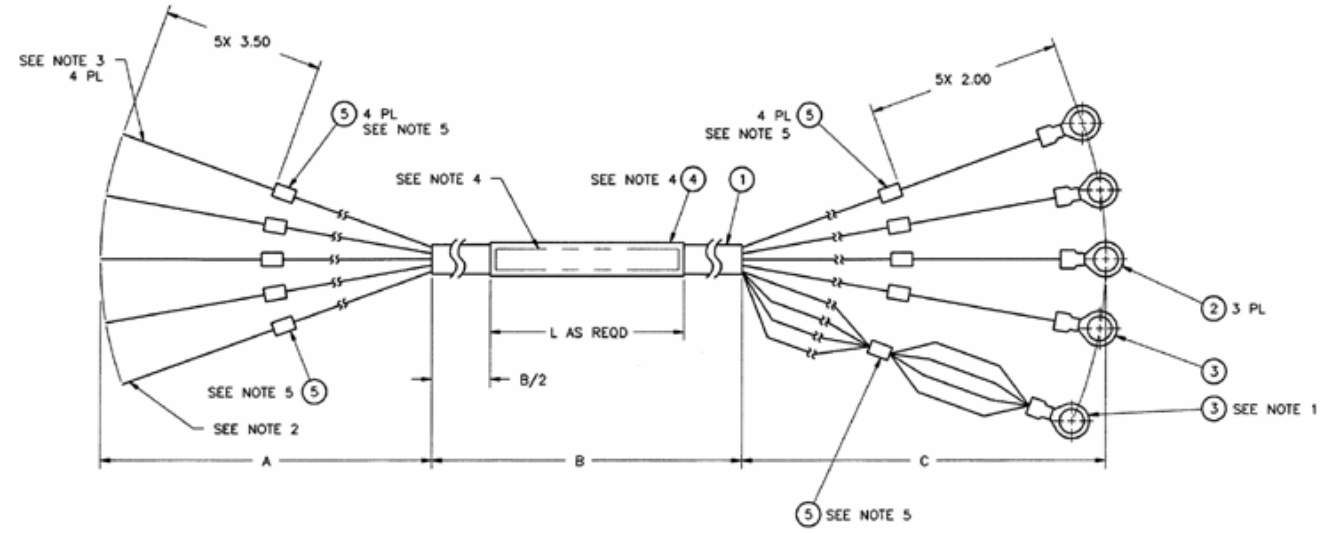
WIRING AND MARKING TABLE

WIRE NO.	FROM	MARKING	LENGTH +.50 -.00
1	J1-A	L1	18.00
2	J1-B	L2	20.00
3	J1-C	L3	22.00
4	J1-N	L0	22.00
5	J1-G	GND	26.00

APPLICATION CODE

DASH NO.	APPLICATION
-1	FOR 60 Hz SYSTEMS
-2	FOR 400 Hz SYSTEMS

Figure G-4. Output Connector Harness Assembly W10 (Sheet 2 of 2).



PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED	DESCRIPTION	SPECIFICATION
1	13230E6407-3	AR	CABLE, POWER	MIL-C-3432
2	95-8162-42	3	TERMINAL LUG, 4 AWG, .375 STUD SIZE	
3	13229E5706-10	2	TERMINAL LUG, 4 AWG, .500 STUD SIZE	
4	88-20541-22	1	INSULATION SLEEVING, HEAT SHRINKABLE, BLK	SAE-AMS-I-23053/2
5	88-20541-16	10	INSULATION SLEEVING, HEAT SHRINKABLE, WHT	SAE-AMS-I-23053/2

Figure G-5. Cable Assembly W1 and W2 (Sheet 1 of 3).

NOTES:

1. REMOVE BRAID FROM FOUR GROUND WIRES (12 AWG). TWIST TOGETHER AND INSTALL TERMINAL LUG, FIND NO. 4, AS SHOWN. TERMINAL SHALL BE INSTALLED IN ACCORDANCE WITH MIL-STD-454, REQUIREMENT 19.

2. AT PIGTAIL END OF CABLE, THE FOUR 12 AWG GROUNDING CONDUCTORS SHALL BE TWISTED TOGETHER, STARTING AT THE JACKET. CONDUCTORS SHALL BE SOLDER COATED FOR A LENGTH OF .25 FROM END USING SOLDER, FIND NO. 8.

3. AT PIGTAIL END OF CABLE, EACH INSULATED CONDUCTOR SHALL BE STRIPPED 1.25 FROM END AND HAVE THEIR INDIVIDUAL STRANDS TWISTED TOGETHER. SOLDER COAT FOR A LENGTH OF .12 FROM END USING SOLDER, FIND NO. 8.

4. INSULATION COLORS, IN ACCORDANCE WITH WIRE LIST, SHALL BE INCLUDED AS PART OF THE ORDERING DATA.

5. HOT STAMP "97403-13229E6795-" WITH APPROPRIATE DASH NO., AND "W-" IN .23-.39 HIGH CHARACTERS ON INSULATION SLEEVING, FIND NO. 5, IN ACCORDANCE WITH MIL-M-60903.

6. HOT STAMP WITH TERMINAL DESIGNATION, AS SHOWN ON WIRE LIST, USING .12-.22 HIGH CHARACTERS, IN TWO PLACES APPROXIMATELY 180° APART ON INSULATION SLEEVING, FIND NO. 6 AND 7, IN ACCORDANCE WITH MIL-M-60903.

WIRE LIST - AN/MJQ-35

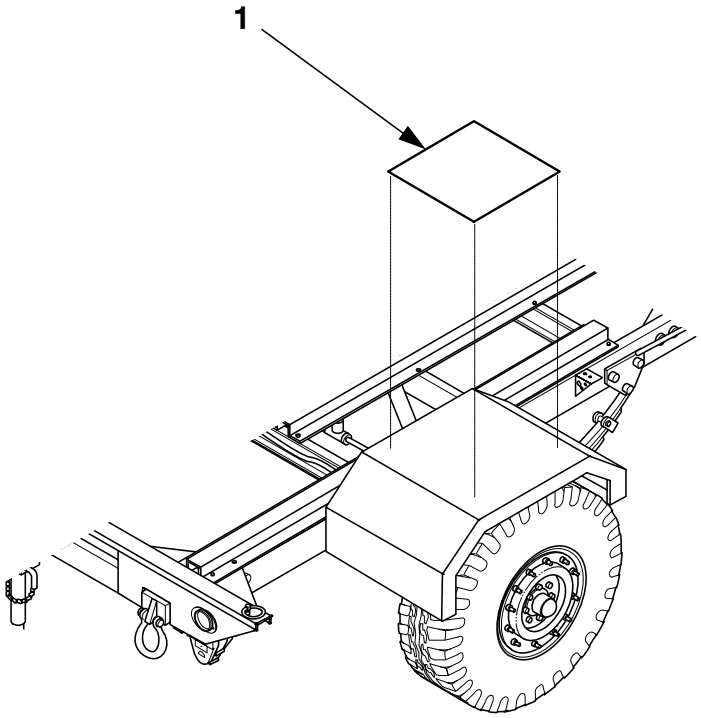
DASH NO.	WIRE	TERMINATION		TERMINATION		WIRE FIND NO.	DIMENSION			CABLE REF DES
		FROM	FIND NO.	TO	FIND NO.		A	B	C	
-1	BLACK	G1-L1	-	K1-A2	2	1	23.50	87.00	3.50	W1
	RED	G1-L2	-	K1-B2	2	1	19.50	87.00	3.00	
	BLUE	G1-L3	-	K1-C2	2	1	15.50	87.00	3.50	
	WHITE	G1-N	-	N	3	1	17.50	87.00	18.00	
	GREEN	G1-GND	-	GND	4	1	17.50	87.00	18.00	
	GREEN	G1-GND	-	GND	4	1	17.50	87.00	18.00	
	GREEN	G1-GND	-	GND	4	1	17.50	87.00	18.00	
	GREEN	G1-GND	-	GND	4	1	17.50	87.00	18.00	
-2	BLACK	G2-L1	-	K2-A2	2	1	23.50	87.00	3.50	W2
	RED	G2-L2	-	K2-B2	2	1	19.50	87.00	3.00	
	BLUE	G2-L3	-	K2-C2	2	1	15.50	87.00	3.50	
	WHITE	G2-N	-	N	3	1	17.50	87.00	18.00	
	GREEN	G2-GND	-	GND	4	1	17.50	87.00	18.00	
	GREEN	G2-GND	-	GND	4	1	17.50	87.00	18.00	
	GREEN	G2-GND	-	GND	4	1	17.50	87.00	18.00	
	GREEN	G2-GND	-	GND	4	1	17.50	87.00	18.00	

Figure G-5. Cable Assembly W1 and W2 (Sheet 2 of 3).

WIRE LIST - AN/MJQ-35A

DASH NO.	WIRE	TERMINATION		TERMINATION		WIRE FIND NO.	DIMENSION			CABLE REF DES
		FROM	FIND NO.	TO	FIND NO.		A	B	C	
-3	BLACK	G1-L1	-	K1-A2	2	1	23.50	180.00	3.50	W2
	RED	G1-L2	-	K1-B2	2	1	19.50	180.00	3.00	
	BLUE	G1-L3	-	K1-C2	2	1	15.50	180.00	3.50	
	WHITE	G1-N	-	N	3	1	17.50	180.00	18.00	
	GREEN	G1-GND	-	GND	4	1	17.50	180.00	18.00	
	GREEN	G1-GND	-	GND	4	1	17.50	180.00	18.00	
	GREEN	G1-GND	-	GND	4	1	17.50	180.00	18.00	
	GREEN	G1-GND	-	GND	4	1	17.50	180.00	18.00	

Figure G-5. Cable Assembly W1 and W2 (Sheet 3 of 3).



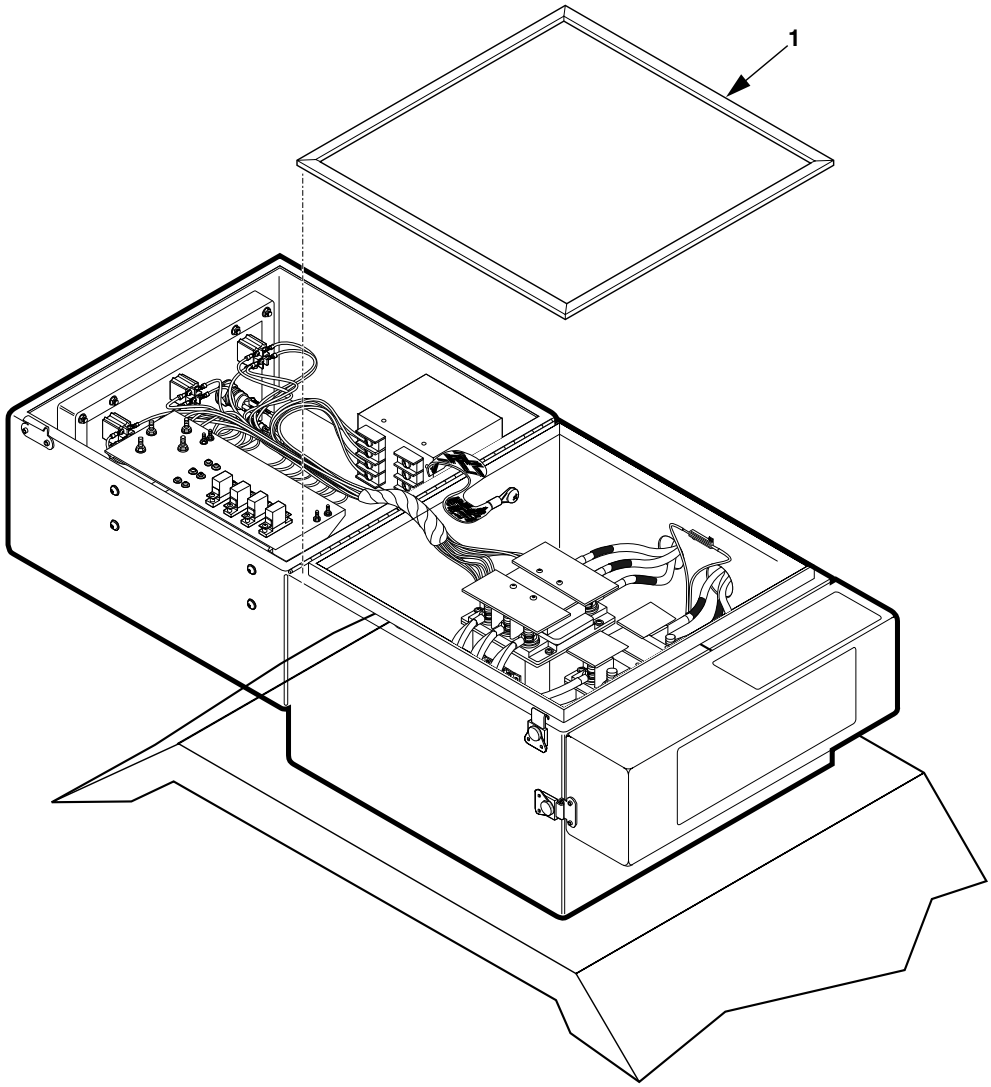
NOTES:

1. Remove old deck covering and clean area.
2. Cut deck covering material (1) to desired length.
3. Remove protective cover from pressure-sensitive adhesive backing and apply to area to be covered.

PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED	DESCRIPTION	SPECIFICATION
1	22806-000-00	AR	Deck Covering, Lightweight, Nonslip	MIL-D-17951E

Figure G-6. Deck Covering.



NOTES:

1. Remove damaged gasket material from switch box and clean thoroughly.
2. Measure switch box for required length and cut rubber gasket material (1).
3. Apply Type II adhesive (item 6, appendix E) to switch box and install gasket material.

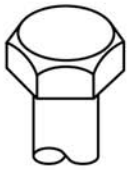
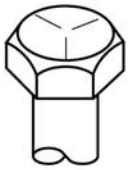
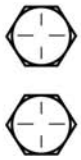
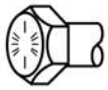
PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED	DESCRIPTION	SPECIFICATION
1	2B2B2C1F2	AR	Strip, Rubber	ASTM D1056

Figure G-7. Switch Box Gasket.

APPENDIX H

TORQUE LIMITS

SAE Grade Number	1 or 2	5	6 or 7	8
Quality of Material Capscrew Head Markings	Indeterminate 	Minimum Commercial 	Medium Commercial 	Best 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)			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)			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.

NOTE

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

APPENDIX I

MANDATORY REPLACEMENT PARTS

Section I. INTRODUCTION

I-1 SCOPE

This appendix lists all parts used on the light tactical trailer that must be discarded when removed during maintenance and installed new.

I-2 GENERAL

All mandatory replacement parts are listed by Item Number, Nomenclature, and Part Number.

Section II. MANDATORY REPLACEMENT PARTS

(1) Item No.	(2) Part Number	(3) National Stock Number (NSN)	(4) Nomenclature	(5) Qty
1	MS35338-140	5310-00-934-9765	WASHER, LOCK (5/16)	
2	MS35338-141	5310-00-984-7042	WASHER, LOCK (3/8)	
3	AD45ABS	5320-00-052-1972	RIVET	
4	MS35338-158	5310-00-883-9417	WASHER, LOCK (1/4)	
5	MS35338-143	5310-00-933-8778	WASHER, LOCK (1/2)	
6	MGLP-R8-10	5315-01-466-4174	RIVET, STEEL SHANK (1/4 .350-.625)	
7	MGLP-R8-6	5320-01-215-9148	RIVET, STEEL SHANK (1/4 .080-.375)	
8	BOM-R8-8	5320-00-483-0558	RIVET, BLIND (1/4 .470-.531)	
9	BOM-R8-10	5320-01-140-149	RIVET, BLIND (1/4 .595-.656)	
10	MGL100-R6-9		RIVET, BLIND (3/16 .305-.500)	
11	BOM-R12-8		RIVET, BLIND (3/8 .438-.562)	
12	MS-3367-1-0	5975-00-984-6582	STRAP, TIEDOWN, ELECTRICAL COMPONENT	
13	MS35338-141	5310-00-984-7042	WASHER, LOCK (3/8)	

GLOSSARY

Section I. ABBREVIATIONS

COMMON ABBREVIATIONS.

The common abbreviations used in this manual.

SPECIAL OR UNIQUE ABBREVIATIONS.

The following are abbreviations and symbols that are used in this manual.

AAL ..... additional authorization list
BII ..... basic issue item
BOI ..... basis of issue
^{o}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 ..... common table of allowance
CUCV ..... commercial utility cargo vehicle
DOD ..... Department of Defense
EIR ..... equipment improvement recommendation
^{o}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 ..... kilowatt
lbf·ft ..... foot pound·force
m ..... meter (metric measure)
MAC ..... maintenance allocation chart
MTOE ..... modification table of organization and equipment
NIIN ..... national item identification number
N•m ..... newton meter
NSNs ..... national stock numbers
PMCS ..... preventive maintenance checks and services
RPSTL ..... repair parts and special tools list
SMR ..... source, maintenance, and recoverability
TAMMS ..... The Army Maintenance Management System
TDA ..... table of distribution and allowances
TMDE ..... test, measurement, and diagnostic equipment
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.

ALPHABETICAL INDEX

F

G

H

I

L

M

M – Continued

N

O

O – Continued

P

R

S

S - Continued

T

U

W

RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS For use of this form, see AR 25-30; the proponent agency is OAASA	Use Part II *(reverse)* for Repair Parts and Special Tool Lists (RPSTL) and Supply Catalogs/Supply Manuals (SC/SM).	DATE 30 August 2002
TO: *(Forward to proponent of publication or form) (Include ZIP Code)* Commander, US Army C-E LCMC ATTN: AMSEL-LC-LEO-E-ED Fort Monmouth, NJ 07703-5006	**FROM:** *(Activity and location) (Include ZIP Code)* Jane Q. Doe, SFC 1234 Any Street Anytown, AL 34565	

PART I - ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS

PUBLICATION/FORM NUMBER	DATE	TITLE
TM 11-1234-567-14	16 Sep 2001	Operator, Field and Sustainment Support Maintenance Manual for Radio, AN/ABC-123

ITEM	PAGE	PARA-GRAPH	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON
1	WP0005 PG 3		2			Test or Correctiive Action column should identify a different WP number.

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
Jane Q. Doe, SFC	123-4567	

TO: *(Forward to proponent of publication or form) (Include ZIP Code)*	**FROM:** *(Activity and location) (Include ZIP Code)*	**DATE**

PART II- REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS

PUBLICATION/FORM NUMBER	DATE	TITLE

PAGE NO.	COLM NO.	LINE NO.	NATIONAL STOCK NUMBER	REFERENCE NO.	FIGURE NO.	ITEM NO.	TOTAL NO. OF MAJOR ITEMS SUPPORTED	RECOMMENDED ACTION

PART III - REMARKS *(Any general remarks or recommendations, or suggestions for improvement of publications and blank forms. Additional blank sheets may be used if more space is needed.)*

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE

RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS For use of this form, see AR 25-30; the proponent agency is OAASA	Use Part II *(reverse)* for Repair Parts and Special Tool Lists (RPSTL) and Supply Catalogs/Supply Manuals (SC/SM).	DATE
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ITEM	PAGE	PARA-GRAPH	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE

TO: *(Forward to proponent of publication or form) (Include ZIP Code)*	**FROM:** *(Activity and location) (Include ZIP Code)*	**DATE**

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By Order of the Secretary of the Army:

GEORGE W. CASEY, JR.
General, United States Army
Chief of Staff

Official:

JOYCE E. MORROW
Administrative Assistant to the
Secretary of the Army
0716512

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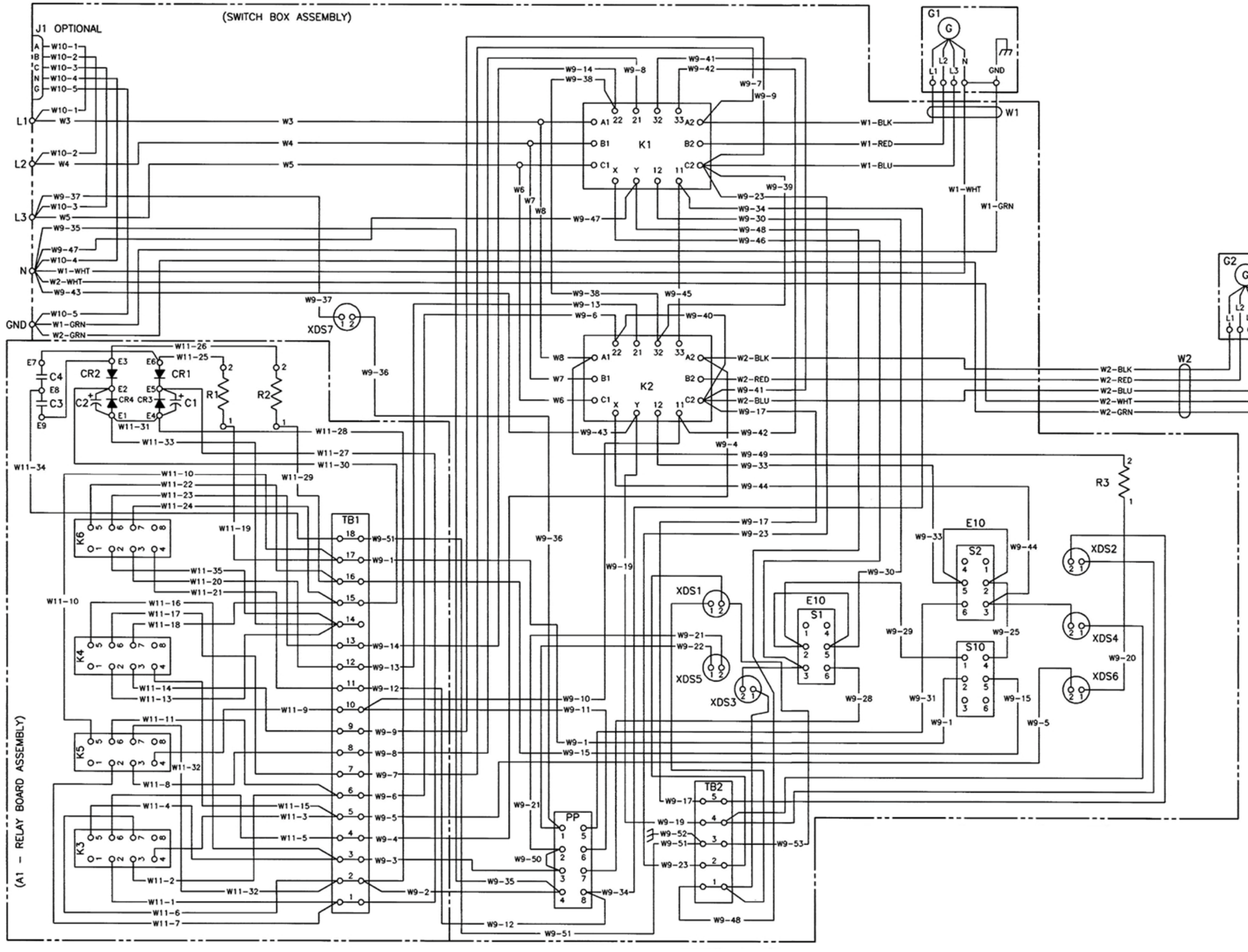

FIGURE FO-1. POWER PLANT WIRING DIAGRAM

COMPONENT REFERENCE LIST		
REF DES	PART NO.	DESCRIPTION
XDS1–XDS4	13229E5764–2	LIGHT AND WIRE
XDS5–XDS7	13230E6739 (HOUSING) AND 13230E6740 (LENS)	LAMP HOLDER
DS5–DS7	6S6DC (120) A–A–50452	LAMP, INCANDESCENT
E1–E9	13230E6394	TERMINAL, STUD
E10	30554–69–651–1	BUS CONNECTOR
K1, K2	13229E5639	CONTACTOR
K3, K4 K5, K6	13230E6635	RELAY, DPDT
PP	13229E5653	RELAY, PERMISSIVE, PARALLELING
S1, S2	13230E6378–13	SWITCH, TOGGLE
S10	13230E6378–8	SWITCH, TOGGLE
G1, G2	SEE TABULATION	SEE TABULATION
N, L1, L2, L3, GND	30554–69–692–1	TERMINAL, POST, SERVICE AND GROUND
J1	SEE TABULATION	CONNECTOR, RECEPTACLE
R1, R2	13230E6746–1	RESISTOR
R3	13230E6746–2	RESISTOR
CR1, CR2 CR3, CR4	13230E6277	DIODE
XK3–XK6	13222E9686	SOCKET, RELAY
W1	SEE TABULATION	CABLE ASSEMBLY
W2	SEE TABULATION	CABLE ASSEMBLY
W3	13229E5828–1	LEAD, ELECTRICAL
W4	13229E5828–2	LEAD, ELECTRICAL
W5	13229E5828–3	LEAD, ELECTRICAL
W6	13229E5828–4	LEAD, ELECTRICAL
W7	13229E5828–5	LEAD, ELECTRICAL
W8	13229E5828–6	LEAD, ELECTRICAL
W9	13229E5831	HARNESS ASSEMBLY, SWITCH BOX
W10	SEE TABULATION	HARNESS ASSEMBLY, OUTPUT CONNECTOR
W11	13229E5829	HARNESS ASSEMBLY, RELAY BOARD
A1	13229E5830	RELAY BOARD ASSEMBLY
TB1	13230E6377–6	TERMINAL BOARD
TB2	13230E6377–4	TERMINAL BOARD
C1, C2	13230E6745–1	CAPACITOR
C3, C4	13229E5648	CAPACITOR

FIGURE FO-2. POWER PLANT WIRING DIAGRAM COMPONENT REFERENCE LIST

NOTE: SW BOX ASSY WIRED FOR 1 PH AND 3 PH OPERATION

REF DES	PART NO.	DESCRIPTION
G1, G2	MEP-802A, MEP-803A, OR MEP-813A	GENERATOR SET, 5 kW/10 kW
XDS1 THRU XDS4	13214E1391	LIGHT, INDICATOR, WATERTIGHT
XDS5 THRU XDS7	13230E6739 (HOUSING) AND 13230E6740 (LENS)	LAMP, HOLDER
C1,C2	13230E6745-1	CAPACITOR, 22μF ±10%
C3,C4	13229E5648	CAPACITOR
DS5-DS7	6S6DC(120) A-A-50452	LAMP, INCANDESCENT, S-6
S1, S2	13230E6378-13	SWITCH, TOGGLE
S10	13230E6378-8	SWITCH, TOGGLE
K1, K2	13229E5639	CONTACTOR
K3-K6	13230E6635	RELAYS, DPDT, 10 AMP
PP	13229E5653	RELAY, PERMISSIVE PARALLELING
J1		CONNECTOR, RECEPTACLE
R1, R2	13230E6746-1	RESISTOR
R3	13230E6746-2	RESISTOR
CR1-CR4	13230E6277	DIODE

COMPONENT REFERENCE LIST

SWITCH BOX ASSY
97403-13230E6535

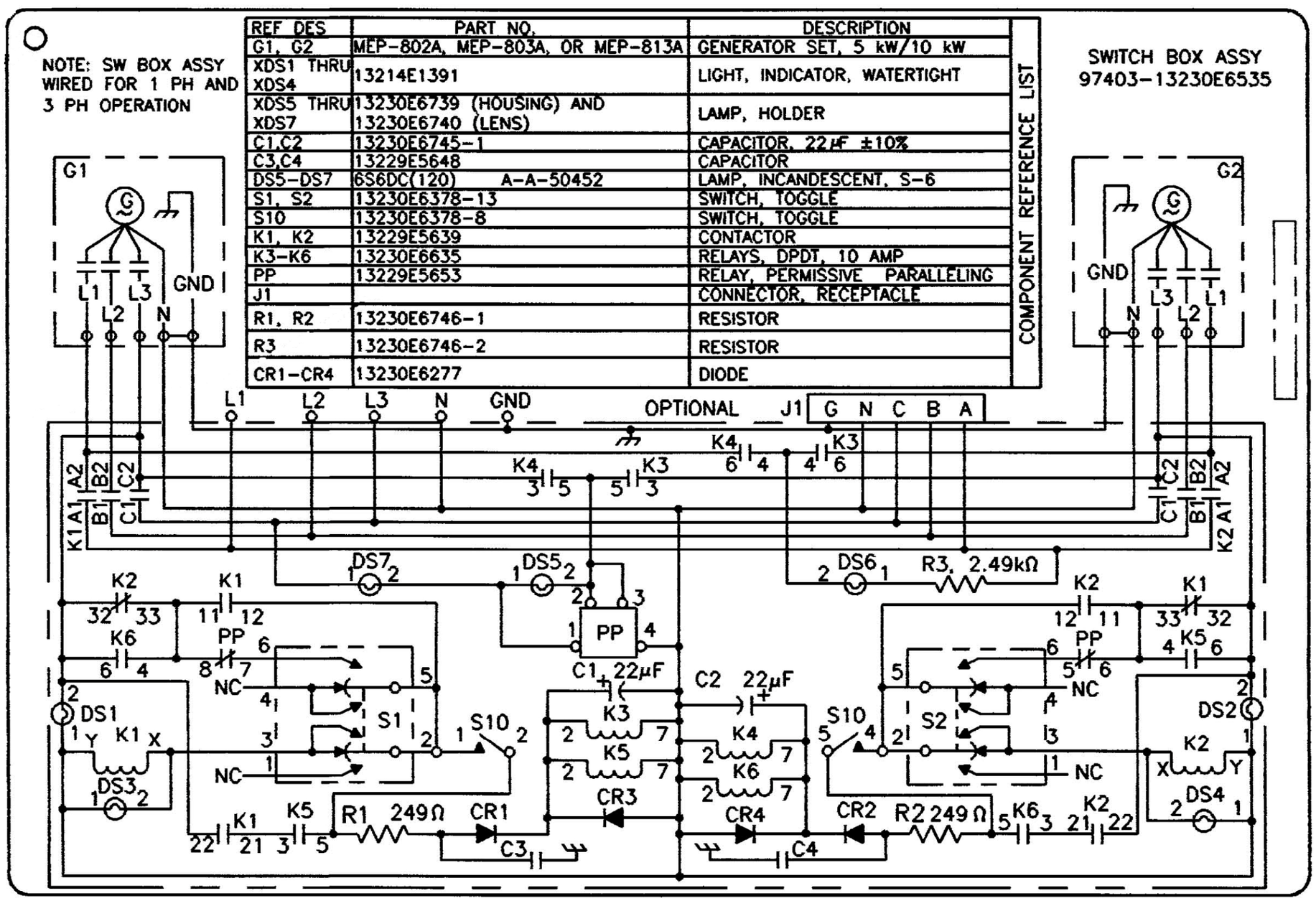

FIGURE FO-3. POWER PLANT SCHEMATIC

The Metric System and Equivalents

Linear Measure

1 centimeter = 10 millimeters = .39 inch
1 decimeter = 10 centimeters = 3.94 inches
1 meter = 10 decimeters = 39.37 inches
1 dekameter = 10 meters = 32.8 feet
1 hectometer = 10 dekameters = 328.08 feet
1 kilometer = 10 hectometers = 3,280.8 feet

Liquid Measure

1 centiliter = 10 milliliters = .34 fl. ounce
1 deciliter = 10 centiliters = 3.38 fl. ounces
1 liter = 10 deciliters = 33.81 fl. ounces
1 dekaliter = 10 liters = 2.64 gallons
1 hectoliter = 10 dekaliters = 26.42 gallons
1 kiloliter = 10 hectoliters = 264.28 gallons

Weights

1 centigram = 10 milligrams = .15 grain
1 decigram = 10 centigrams = 1.54 grains
1 gram = 10 decigrams = .035 ounce
1 dekagram = 10 grams = .35 ounce
1 hectogram = 10 dekagrams = 3.52 ounces

1 kilogram = 10 hectograms = 2.2 pounds
1 quintal = 100 kilograms = 220.46 pounds
1 metric ton = 10 quintals = 1.1 short tons

Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch
1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches
1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet
1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet
1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres
1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch
1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches
1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

Approximate Conversion Factors

To change	To	Multiply by	To change	To	Multiply by
inches	centimeters	2.540	ounce-inches	newton-meters	.007062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.451	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29.573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	newton-meters	1.356	metric tons	short tons	1.102
pound-inches	newton-meters	.11296			

Temperature (Exact)

°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

PIN: 071916-000