TM 9-6115-662-13&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, 2 1/2 TON TRAILER MOUNTED, 30 kW, 50/60 Hz, PU-803 (NSN: 6115-01-317-2136) PU-803B/G (NSN: 6115-01-470-6376)

POWER UNIT, DIESEL ENGINE DRIVEN, 2 1/2 TON TRAILER MOUNTED, 30 kW, 400 Hz, PU-804 (NSN: 6115-01-317-2135) PU-804B/G (NSN: 6115-01-471-1507)

POWER PLANT, DIESEL ENGINE DRIVEN, 2 1/2 TON TRAILER MOUNTED, 30 kW, 50/60 Hz, AN/MJQ-40 (NSN: 6115-01-299-6033) AN/MJQ-40B (NSN: 6115-01-474-3783)

This manual supersedes TM 9-6115-662-13&P dated 1 October 2005.

HEADQUARTERS, DEPARTMENT OF THE ARMY

1 MARCH 2008

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

High voltage is produced when this 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, 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 or paralleling 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

Prior to making any connections for parallel operation, ensure that there is no input to the load and that the generator sets are shut down. Failure to comply with this warning can cause injury or death to personnel.

WARNING SUMMARY – Cont'd

WARNING

If it is necessary to move a generator set which has been operating in parallel with another generator set, shut down remaining generator set connected to the load, prior to removing load and ground 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.

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

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 SUMMARY – Cont'd

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 injury or death to personnel, and damage to the generator set.

WARNING

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

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 injury or death to personnel from trailer tipping or rolling, and damage to the equipment.

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 injury to personnel and damage to equipment.

WARNING

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

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 injury or death to personnel from trailer suddenly rolling or tipping.

WARNING SUMMARY – Cont'd

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 injury 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 injury to personnel.

WARNING

When lifting generator set, use lifting equipment with minimum lifting capacity of 6000 pounds (2722 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 cause injury or death to personnel, and damage to the generator set.

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 cause injury to personnel, and damage to the equipment.

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 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 can cause injury to personnel, and damage to the equipment.

FOR FIRST AID, REFER TO FM 4-25.11.

LIST OF EFFECTIVE PAGES

INSERT LATEST CHANGED PAGES, DESTROY SUPERSEDED PAGES

Note: a vertical line in the outer margins of the page indicates the portion of the text affected by the changes, Changes to illustrations are indicated by miniature pointing hands. Shaded areas indicated changes to diagrams.

NOTE: This manual supersedes TM 9-6115-662-13&P. Zero in the "Change No." column indicates an original page.

Dates of issue for original and changed pages are:

Original … 0 … 1 March 2008

TOTAL NUMBER OF PAGES IN THIS PUBLICATION IS 424, CONSISTING OF THE FOLLOWING:

Page No.	*Change No.	Page No.	*Change No.	Page No.	*Change No.
Cover	0	F-75 Blank	0		
Blank	0	F-76 – F-123	0		
a – f	0	F-124 Blank	0		
A	0	G-1 – G-14	0		
B Blank	0	G-15 Blank	0		
i – xiv	0	G-16 – G-20	0		
1-1 – 1-10	0	H-1	0		
2-1 – 2-61	0	H-2 Blank	0		
2-62 Blank	0	Glossary-1 – Glossary-2	0		
3-1 – 3-10	0	Index-1 – Index -6	0		
4-1 – 4-70	0	FP-1	0		
5-1– 5-55	0	FP-2 Blank	0		
5-56 Blank	0	FP-3	0		
A-1 – A-4	0	FP-4 Blank	0		
B-1 – B-8	0	Metric Chart	0		
C-1 – C-4	0	Back Cover	0		
D-1 – D-2	0				
E-1	0				
E-2 Blank	0				
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F-29 Blank	0				
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* Zero in this column indicates an original page.

TECHNICAL MANUAL

NO. 9-6115-662-1

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, 1 MARCH 2008

TECHNICAL MANUAL

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

FOR

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30 kW, 50/60 Hz, AN/MJQ-40B (NSN: 6115-01-474-3783)

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:

(a) (A) Army - 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 CECOM Life Cycle Management Command (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 732-532-1556, DSN 992-1556. 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 9-6115-662-13&P dated 1 October 2005.**

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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 Power Unit PU-803, Power Unit PU-803B/G, Power Unit PU-804, Power Unit PU-804B/G, Power Plant AN/MJQ-40 and Power Plant AN/MJQ-40B. 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 ii, 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 table of contents to help you locate the items listed in the Repair Parts and Special Tools List (RPSTL).

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 plants 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.

Appendices. Each appendix covers a specific subject. Some appendices are general, such as the list of references in Appendix A; others are 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 plants. 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 that the operator must perform before, during, and after preventive maintenance checks and services. 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 units or power plants 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

Chapter 3 covers maintenance of the power units and power plants to be performed by the operator. Its purpose is to provide you with the information that 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 Procedures. This section provides troubleshooting procedures and corrective actions that are to be performed by the operator. It also 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

Chapter 4 provides instructions covering the power units and power plants 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 units or power plants 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 unit or power plant components not covered in the generator set and 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 Procedures. 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 not covered in the generator set and trailer references.

Section VII – Preparation for Storage and Shipment. This section provides information on short-term, intermediate-term, and long-term storage.

CHAPTER 5 - DIRECT SUPPORT MAINTENANCE

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 (TDME); and Support Equipment. This section lists the documents that contain the needed information.

Section II - Troubleshooting Procedures. 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.

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 referenced in the various chapters of the technical manual. The listing includes the title and document number of each publication.

APPENDIX B - MAINTENANCE ALLOCATION CHART (MAC)
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 (MAC). 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.

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 usually packaged separately but needed for installation and operation of the power units and power plants. The appendix has three sections, as follows:

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

Section II - Components of End Item. The power units and power plants 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 plants.

APPENDIX D - ADDITIONAL AUTHORIZATION LIST (AAL)
This appendix lists additional items you are authorized for support of the power units and power plants. This appendix contains two sections, as follows:

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

Section II - Additional Authorized Items List. This section lists the Additional Authorized Items.

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 plants. The appendix contains two sections, as follows:

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

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

APPENDIX F - REPAIR PARTS AND SPECIAL TOOLS LIST (RPSTL)
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 plant. 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 identifying 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.

NOTE

Switch boxes for the power plants have undergone many design changes over the years. The data in this RPSTL contains all three versions of switch boxes (A, B, and C) with detailed information relative to the Version C switch box.

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

Section IV - Cross-Reference Indexes. This section contains three indexes: an NSN index, a part number index, and a figure and item number index. Each index lists all of the parts contained in Section II. The NSN 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 plants.

GLOSSARY
This glossary has two sections, as follows:

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

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

ALPHABETICAL INDEX
An alphabetical index at the back of this technical manual provides a listing of subjects covered, cross-referenced to the applicable paragraph, figure, and page number.

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 ii).

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 in 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) manuals, TM 9-6115-644-24P and TM 9-6115-671-24P, and the engine RPSTL manuals, TM 9-2815-255-24P and TM 6115-259-24P. NSNs and part numbers for the 2 1/2-ton trailer chassis parts are listed in TM 9-2330-205-14&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, RPSTL.

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.

(1) Tag electrical wiring before disconnecting it.

(2) Discard used preformed packing, retainers, gaskets, cotter pins, lockwashers, 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

Subject Index Page

Section 1. GENERAL INFORMATION

1-1 SCOPE.

This manual is for your use in operating and maintaining the Power Unit PU-803, Power Unit PU-803B/G, Power Unit PU-804, Power Unit PU-804B/G, Power Plant AN/MJQ-40 and Power Plant AN/MJQ-40B (Figure 1-1 and Figure 1-2). The manual covers operating instructions and operator, unit and direct support maintenance requirements for the equipment. It also contains a Repair Parts and Special Tools List (RPSTL) for the power units and power plants. Power Units PU-803 and PU-803B/G are mobile units used to supply 30kW of 50/60 Hz power. PU-804 and PU-804B/G are mobile units used to supply 30kW of 400 Hz power. Power Plant AN/MJQ-40 consists of two PU-803 Power Units, a Switch Box, and a power cable. Power Plant AN/MJQ-40B consists of two PU-803B/G Power Units, a Switch Box, and a power cable.

NOTE

The B/G models of the power units have a MEP-805B or MEP-815B generator set with a Digital Control System (DCS) and the B model of the power plant has a MEP-805B generator set with a DCS (refer to Figure 1-1). In this manual only the PU-803, PU-804 or AN/MJQ-40 (analog) will be depicted in the majority of illustrations.

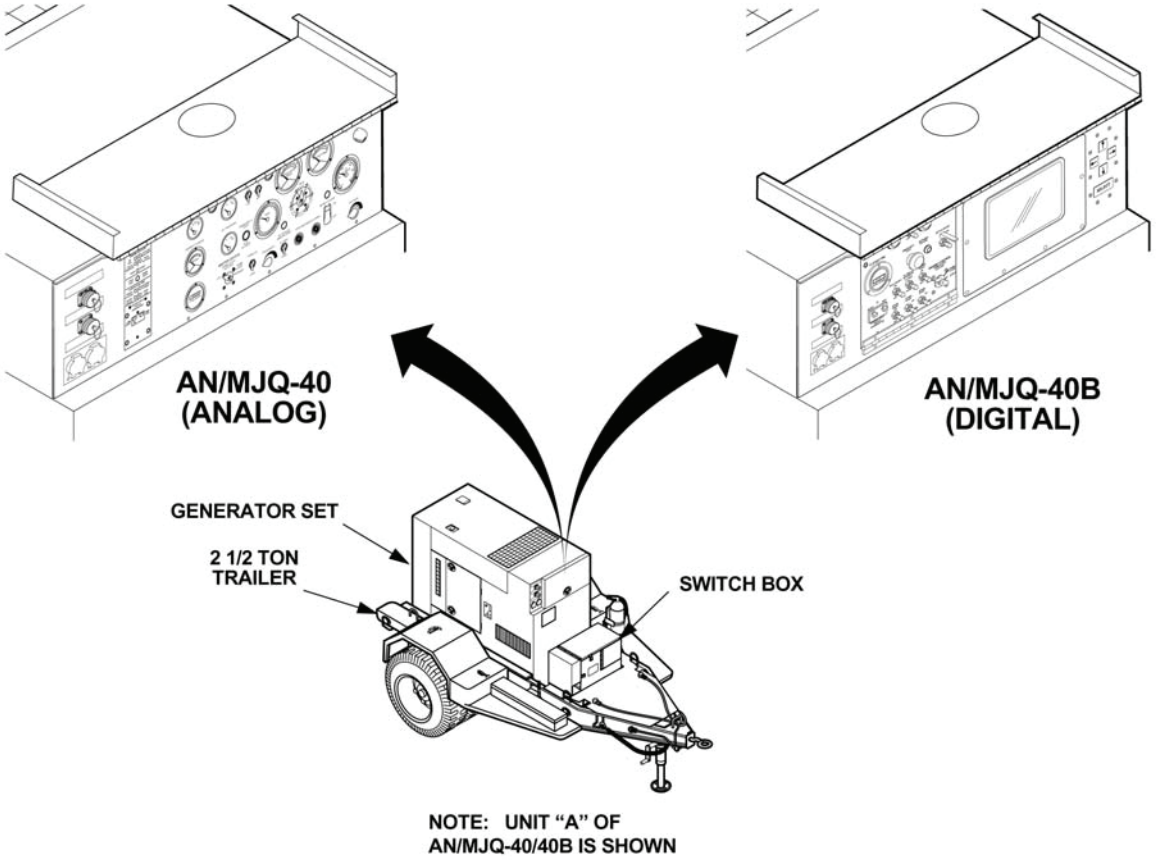


Figure 1-1. Curbside Front Three-Quarter View.

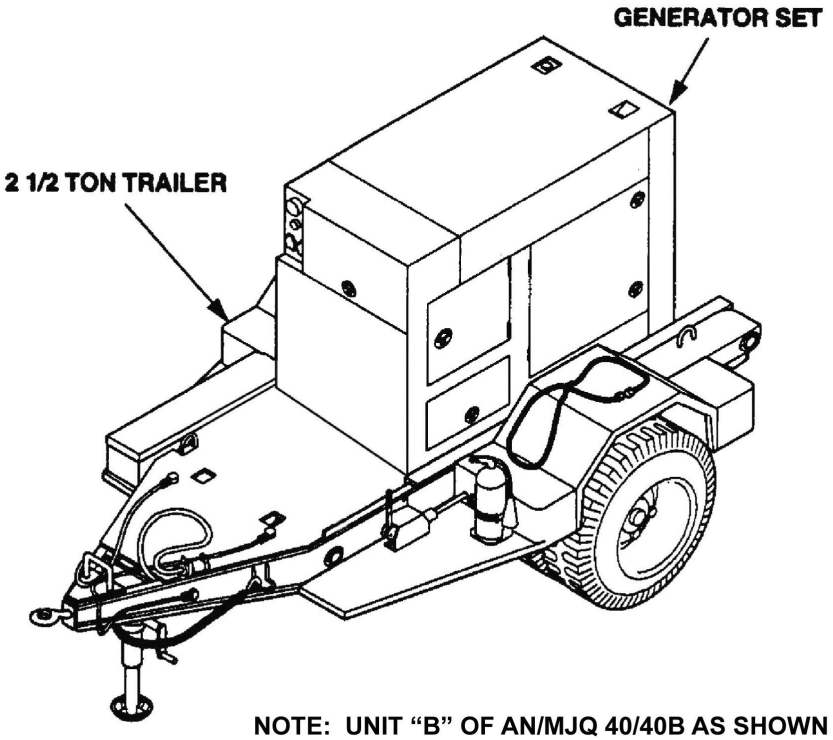


Figure 1-2. Roadside Front Three-Quarter View.

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 AND SHIPMENT.

Refer to Chapter 4. Section VII for detailed instructions.

1-5 EQUIPMENT IMPROVEMENT RECOMMENDATION (EIR).

If your PU-803, PU-803B/G, PU-804, PU-804B/G, AN/MJQ-40, or AN/MJQ-40B need 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 (CE-LCMC), ATTN: AMSEL-LC-LEO-E-ED, Fort Monmouth, NJ 07703-5006. We will send you a reply.

1-6 NOMENCLATURE CROSS-REFERENCE LIST.

The common name of the power units and power plants is listed with its official nomenclature in Table 1-1.

Table 1-1. Nomenclature Cross-Reference List.

Common Name	Official Nomenclature
PU-803	Power Unit, Diesel Engine Driven, 2 ½ Ton Trailer Mounted, 30kW, 50/60 Hz
PU-803B/G	Power Unit, Diesel Engine Driven, 2 ½ Ton Trailer Mounted, 30kW, 50/60 Hz
PU-804	Power Unit, Diesel Engine Driven, 2 ½ Ton Trailer Mounted, 30kW, 400 Hz
PU-804B/G	Power Unit, Diesel Engine Driven, 2 ½ Ton Trailer Mounted, 30kW, 400 Hz
AN/MJQ-40	Power Plant, Diesel Engine Driven, 2 ½ Ton Trailer Mounted, 30kW, 50/60 Hz
AN/MJQ-40B	Power Plant, Diesel Engine Driven, 2 ½ Ton Trailer Mounted, 30kW, 50/60 Hz
MEP-805A	Generator Set (analog), 30kW, 50/60 Hz
MEP-805B	Generator Set (DCS), 30kW, 50/60 Hz
MEP-815A	Generator Set (analog), 30kW, 400 Hz
MEP-815B	Generator Set (DCS), 30kW, 400 Hz
M200A1	Chassis, Trailer, 2 ½ Ton, 2/4 Wheel (altered)

1-7 LIST OF ABBREVIATIONS/ACRONYMS.

Refer to the Glossary at the back of this manual.

1-8 INDEX.

Refer to the Index at the back of this manual.

Section II. EQUIPMENT DESCRIPTION

1-9 EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES.

NOTE

A modification to the M200A1 trailer in 2005 changed from the 4-tire configuration to a 2-tire configuration. The illustrations in this manual depict the 4-tire configuration.

1-9.1 Characteristics. The 30kW Power Units and Power Plants consist of one DOD Model MEP 805A, 805B, 815A or 815B Tactical Quiet Generator Set mounted on a modified M200A1 2 ½ ton trailer. The modification to the basic M200A1 trailer includes generator mounting rails, special fenders, an accessory box, and a fire extinguisher bracket. For detailed information about the M200A1 trailer refer to TM 9-2330-205-14&P. Each generator set is a liquid cooled, diesel engine-driven unit operating at 50/60 or 400 Hz with a load capacity of 30kW @ .8 power factor.

1-9.1.1 Power Unit PU-803. The PU-803 has a Tactical Quiet Generator Set (analog), DOD Model MEP-805A, liquid-cooled, diesel engine-driven unit, with a load capacity of 30kW, mounted on a modified M200A1, 2 ½ ton trailer. Refer to TM 9-6115-644-10 for detailed information about the generator set.

1-9.1.2 Power Unit PU-803B/G. The PU-803B/G has a Tactical Quiet Generator Set (DCS), DOD Model MEP-805B, liquid-cooled, diesel engine-driven unit, with a load capacity of 30kW, mounted on a modified M200A1, 2 ½ ton trailer. Refer to TM 9-6115-671-14 for detailed information about the generator set.

1-9.1.3 Power Unit PU-804. The PU-804 has a Tactical Quiet Generator Set (analog), DOD Model MEP-815A, liquid-cooled, diesel engine-driven unit, with a load capacity of 30kW, mounted on a modified M200A1, 2 ½ ton trailer. Refer to TM 9-6115-644-10 for detailed information about the generator set.

1-9.1.4 Power Unit PU-804B/G. The PU-804B/G has a Tactical Quiet Generator Set (DCS), DOD Model MEP-815B, liquid-cooled, diesel engine-driven unit, with a load capacity of 30kW, mounted on a modified M200A1, 2 ½ ton trailer. Refer to TM 9-6115-671-14 for detailed information about the generator set.

1-9.1.5 Power Plant AN/MJQ-40. The AN/MJQ-40 Power Plant consists of two PU-803 Power Units, a power cable and a switch box. The PU-803 Power Units have been identified as either Unit A or Unit B. The Switch Box is mounted on Unit A and the power cable is stored on Unit B. The electrical output and towing information are the same as listed for the PU-803 in paragraph 1-9.2.1.

1-9.1.6 Power Plant AN/MJQ-40B. The AN/MJQ-40B Power Plant consists of two PU-803B/G Power Units, a power cable and a switch box. The PU-803B/G Power Units have been identified as either Unit A or Unit B. The Switch Box is mounted on Unit A and the power cable is stored on Unit B. The electrical output and towing information are the same as listed for the PU-803B/G in paragraph 1-9.2.2.

1-9.2 Capabilities and Features. All Power Units and Power Plants are mounted on the same trailer, a modified M200A1, 2 ½ ton trailer. The towing capabilities and features are as follows:

NOTE

Refer to M200A1 trailer TM 9-2330-205-14&P for information concerning unique driving conditions.

1-9.2.1 Power Units PU-803 and PU-803B/G.

TOWING VEHICLE ..... 2 ½ Ton 6X6 or 5 Ton 6X6

TIRE PRESSURE (Highway) ……35 psi (241.3 kPa)
(Dual Radial)……70 psi (482.6 kPa)

ELECTRICAL OUTPUT – 50/60Hz:
120/208 volts, three phase, 50 Hz …… 86 amps
240/416 volts, three phase, 50 Hz …… 43 amps
120/208 volts, three phase, 60 Hz …… 104 amps
240/416 volts, three phase, 60 Hz …… 52 amps

1-9.2.2 Power Unit PU-804 and PU-804B/G.

TOWING VEHICLE ……2 ½ Ton 6X6 or 5 Ton 6X6

TIRE PRESSURE (Highway) ……35 psi (241.3 kPa)
(Dual Radial)……70 psi (482.6 kPa)

ELECTRICAL OUTPUT – 400 Hz:
120/208 volts, there phase, 400 Hz …… 104 amps
240/416 volts, three phase, 400 Hz …… 52 amps

1-9.2.3 Power Plants AN/MJQ-40 and AN/MJQ-40B. The electrical output and towing capabilities are the same as listed for Power Units PU-803 and PU-803B/G in paragraph 1-9.2.1.

1-10 LOCATION AND DESCRIPTION OF MAJOR COMPONENTS.

The illustration, Figure 1-3, shows Unit A of the AN/MJQ-40. Unit A of the AN/MJQ-40B has the same components as the AN/MJQ-40 Unit A. Unit B of the AN/MJQ-40 and AN/MJQ-40B has the same components and also contains a power cable, but does not contain a Switch Box. The PU-803, PU-803B/G, PU-804 and PU-804B/G also have the same components as Unit A listed above, but do not contain a Switch Box. The accessory box on Unit A has been removed from the front platform and mounted on the curbside step. Table 1-2 lists the major components of the power units or power plants.

Table 1-2. Description of Major Components, Power Unit or Power Plant.

Item No.	Item Name	Description
1	Switch Box (AN/MJQ-40 and AN/MJQ-40B (Unit A only))	Allows connection of two generator sets provided with the AN/MJQ-40 and AN/MJQ-40B.
2	Generator Set (Refer to TM 9-6115-644-10 for MEP-805A/MEP-815A) (Refer to TM 9-6115-671-14 for MEP-805B/MEP-815B)	Produces 120/208 or 240/416 three phase AC power at 30kW. DOD Model MEP-805A TQG set for the AN/MJQ-40 and PU-803. DOD Model MEP-805B TQG set for the AN/MJQ-40B and PU-803B/G. DOD Model MEP-815A TQG set for the PU-804. DOD Model MEP-815B TQG set for the PU-804B/G
3	Trailer (Power cable is mounted on AN/MJQ-40 and AN/MJQ-40B (Unit B only))	All Power Units and Power Plants – modified trailer M200A1 (TM 9-2330-205-14&P).

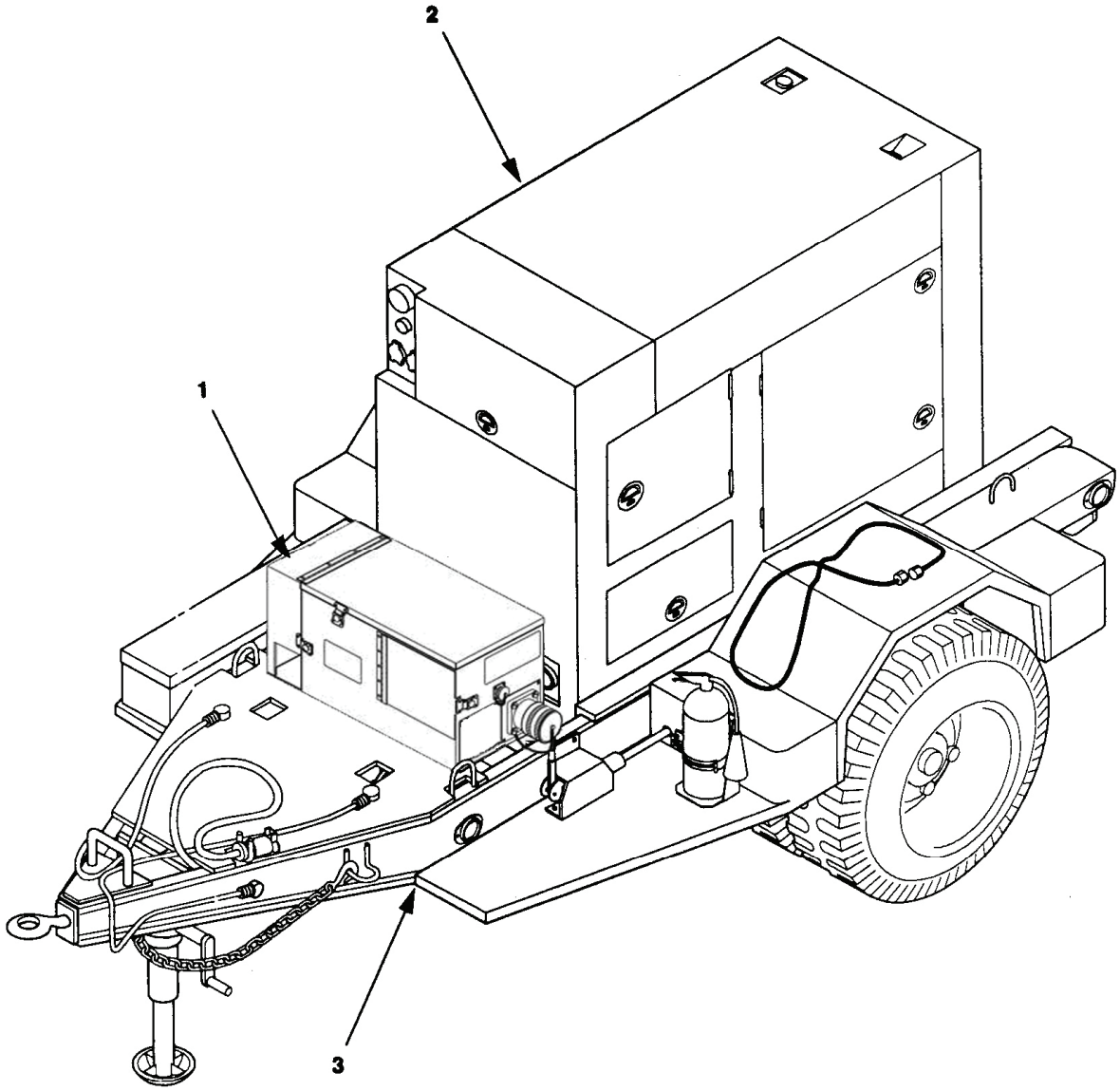


Figure 1-3. Location of Major Components, Power Unit or Power Plant.

1-11 DIFFERENCES BETWEEN MODELS.

Differences between the PU-803, PU-803B/G, PU-804, PU-804B/G, AN/MJQ-40, and AN/MJQ-40B are identified in Table 1-3. 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 1-3. Differences Between Models.

CAUTION

An AN/MJQ-40 generator set should not be paralleled with an AN/MJQ-40B generator set as extreme damage could occur to either or both of the generator sets (an analog TQG set should not be paralleled with a DCS TQG set).

Component	AN/MJQ-40 UNIT A	AN/MJQ-40 UNIT B	AN/MJQ-40B UNIT A	AN/MJQ-40B UNIT B	PU-803	PU-803B/G	PU-804	PU-804B/G
MEP-805A TQG Set, 50/60 Hz	1	1			1			
MEP-805B TQG Set, 50/60 Hz			1	1		1		
MEP-815A TQG Set, 400 Hz							1	
MEP-815B TQG Set, 400 Hz								1
Switch Box	1		1					
Power Cable		1		1				
Trailer, 2 ½ Ton	1	1	1	1	1	1	1	1

1-12 EQUIPMENT DATA

1-12.1 Generator Set. Refer to TM 9-6115-644-10 (MEP 805A/MEP-815A) or TM 9-6115-671-14 (MEP-805B/MEP-815B) for data on the generator set.

1-12.2 Trailer Chassis. Refer to TM 9-2330-205-14&P (2 ½ Ton Trailer) for data on the trailer chassis.

1-12.3 Tabulated Data. Tabulated data for the power units and power plants are provided in Table 1-4.

Table 1-4. Tabulated Data for Power Units and Power Plants.

Component	AN/MJQ-40 UNIT A	AN/MJQ-40 UNIT B	AN/MJQ-40B UNIT A	AN/MJQ-40B UNIT B	PU-803	PU-803B/G	PU-804	PU-804B/G
Overall length, inches (cm)	165.0 (419)	165.0 (419)	165.0 (419)	165.0 (419)	165.0 (419)	165.0 (419)	165.0 (419)	165.0 (419)
Overall width, inches (cm)	94.5 (240)	94.5 (240)	94.5 (240)	94.5 (240)	94.5 (240)	94.5 (240)	94.5 (240)	94.5 (240)
Overall height, inches (cm)	83.5 (212)	83.5 (212)	84.5 (215)	84.5 (215)	83.5 (212)	84.5 (215)	83.5 (212)	84.5 (215)
Operational weight, Lbs (kg)	5590 (2539)	5590 (2539)	5590 (2539)	5590 (2539)	5525 (2510)	5525 (2510)	5545 (2519)	5545 (2519)
Shipping weight, Lbs (kg)	5390 (2448)	5390 (2448)	5390 (2448)	5390 (2448)	5320 (2416)	5320 (2416)	5340 (2426)	5340 (2426)

1-12.4 Switch Boxes. Three generations of switch boxes have been introduced with the Power Plant configurations. Refer to Table 1-5 and Figure 1-4 for switch box differences. Appendix F (RPSTL) includes repair parts for all three versions of the switch box, identified as A Model, B Model, and C Model.

Table 1-5. Switch Box Differences.

Equipment	Differences
Switch Box A (1st generation)	Physical appearance, internal wiring, spare bulbs with control panel, 1 load terminal wrench
Switch Box B (2nd generation)	Physical appearance, internal wiring, no spare bulbs, 1 load terminal wrench, identification plate
Switch Box C (3rd generation)	Physical appearance, internal wiring, no spare bulbs, 1 load terminal wrench, identification plate

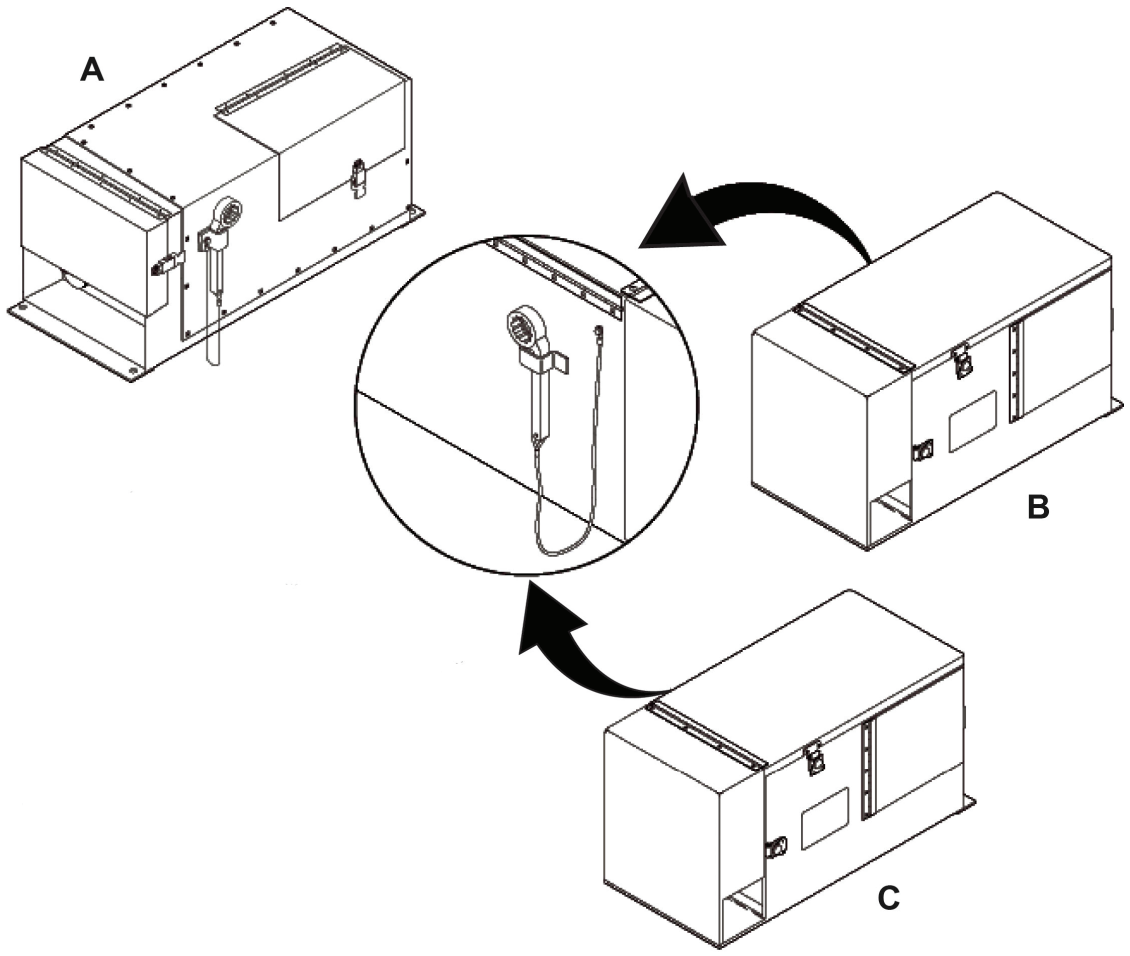


Figure 1-4. Switch Box Differences.

Section III. PRINCIPLES OF OPERATION

1-13 FUNCTIONAL DESCRIPTION.

1-13.1 Power Unit Functional Description. The Power Units are mobile power sources and each consists of a 30kW Tactical Quiet Generator (TQG) Set mounted on a modified M200A1 trailer. 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 reconnection board that allows it to be positioned for a power output of 120/208-volt, three phase, or 240/416-volt, three phase AC power. The PU-803 uses a DOD Model MEP- 805A (PU-803B/G uses MEP-805B) TQG Set operating at 50/60 Hz with a load capacity of 30kW. The PU-804 uses a DOD Model MEP-815A (PU-804B/G uses MEP-815B) TQG Set operating at 400 Hz. System or equipment load cables are to be connected to the load terminals on the generator set. Refer to TM 6115-644-10 for operation and TM 6115-644-24 for a detailed functional description of the MEP-805A/MEP-815A TQG Sets. Refer to TM 6115-671-14 for operation and a detailed functional description of the MEP-805B/MEP-815B TQG Sets. Refer to TM 9-2330-205-14&P for a functional description of the M200A1 2 ‰ton trailer.

1-13.2 Power Plant Functional Description.

1-13.2.1 AN/MJQ-40 Power Plant. The AN/MJQ-40 Power Plant consists of two PU-803 Power Units, a Switch Box and Power Cable. The two PU-803 Power Units have been modified to provide independent switching between the Power Units. One PU-803 is modified by moving the accessory storage box to the curbside fender, adding a switch box and identifying the modified PU-803 as AN/MJQ-40 UNIT A. The second PU-803 is modified by adding a power cable and identifying the modified PU-803 as AN/MJQ-40 UNIT B. Refer to paragraph 1-13.1 for the functional description of the PU-803. Output electrical power is normally supplied through the switch box assembly located on UNIT A. The cable supplied with UNIT B connects the generator sets through the switch box on UNIT A. The control panel of the switch box controls the output source. The output source is usually either the UNIT A or UNIT B generator set as determined by the control panel switches. When both ON/OFF switches are placed in the ON position and both generators are ON, the generators operate in parallel. Parallel operation of the generators allows for an uninterrupted load transfer between UNIT A and UNIT B. The output power cable to external equipment may be connected to the switch box from load terminals (N, L1, L2, L3, and GND) of the switch box. Refer to TM 9-6115-644-10 for operation and TM 9-6115-644-24 for a detailed functional description of the generator sets without a switch box.

1-13.2.2 AN/MJQ-40B Power Plant. The AN/MJQ-40B Power Plant consists of two PU-803B/G Power Units, a Switch Box and Power Cable. The two PU-803B/G Power Units have been modified to provide independent switching between the Power Units. One PU-803B/G is modified by moving the accessory storage box to the curbside fender, adding a switch box and identifying the modified PU-803B/G as AN/MJQ-40B UNIT A. The second PU-803B/G is modified by adding a power cable and identifying the modified PU-803B/G as AN/MJQ-40B UNIT B. Refer to paragraph 1-13.1 for the functional description of the PU-803B/G. Output electrical power is normally supplied through the switch box assembly located on UNIT A. The cable supplied with UNIT B connects the generator sets through the switch box on UNIT A. The control panel of the switch box controls the output source. The output source is usually either the UNIT A or UNIT B generator set as determined by the control panel switches. When both ON/OFF switches are placed in the ON position and both generators are ON, the generators operate in parallel. Parallel operation of the generators allows for an uninterrupted load transfer between UNIT A and UNIT B. The output power cable to external equipment may be connected to the switch box from load terminals (N, L1, L2, L3, and GND) of the switch box. Refer to TM 9-6115-671-14 for operation and a detailed functional description of the generator sets without a switch box.

1-14 RELATED TECHNICAL MANUALS.

Refer to Appendix A for related technical manuals and Lube Order for MEP-805A/MEP-815A. Lube Order instructions for MEP-805B/MEP-815B can be found in TM 9-6115-671-14.

CHAPTER 2

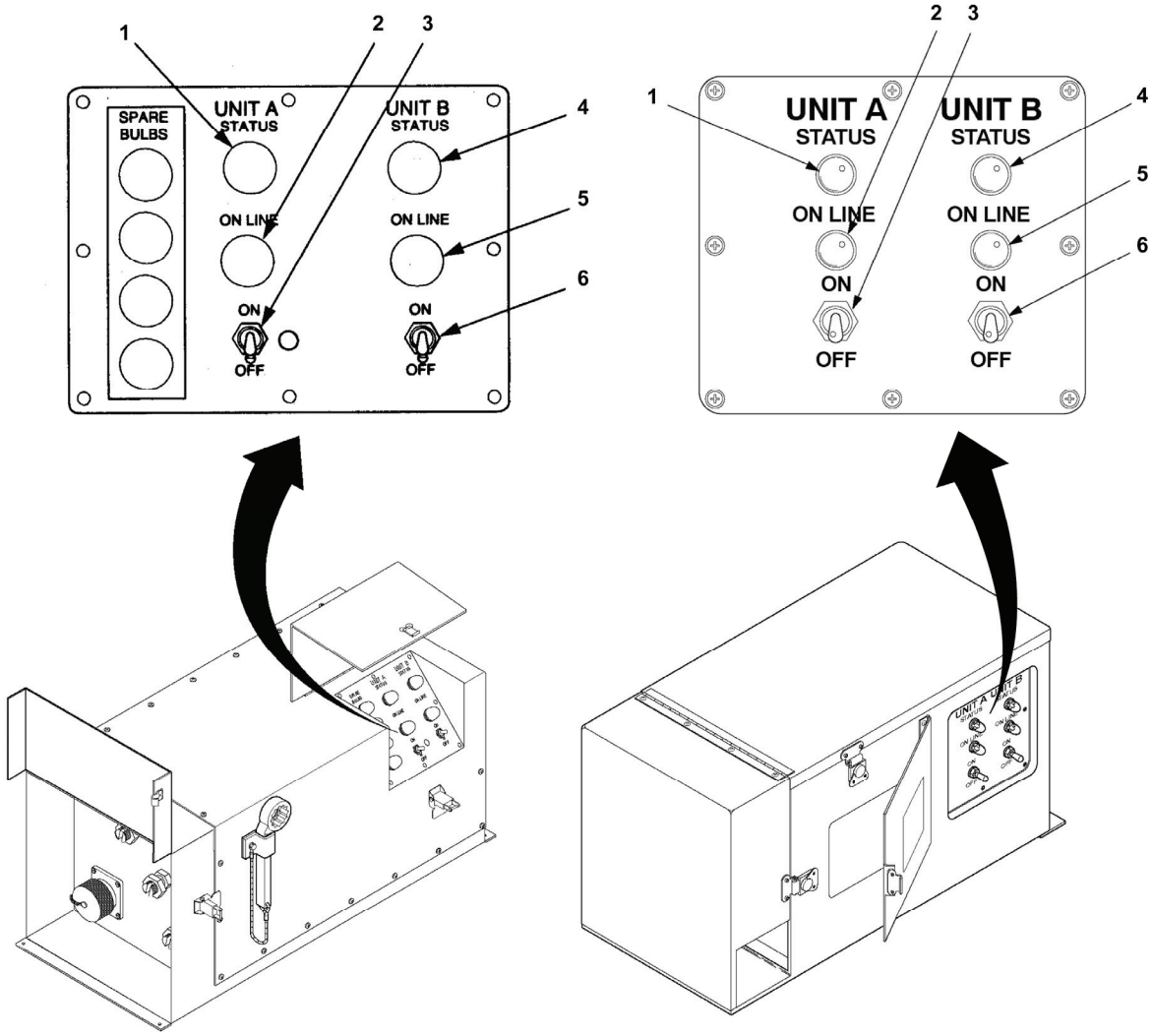
OPERATING INSTRUCTIONS

Subject Index Page

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

2-1 OPERATOR'S CONTROLS AND INDICATORS

Refer to TM 9-6115-644-10 and TM 9-6115-671-14 for the generator set. Refer to TM 9-2330-205-14&P for the 2 ½ ton M200A1 trailer. Refer to Figure 2-1 and Table 2-1 for the switch box assembly. Refer to Chapter 1, paragraph 1-11 (Table 1-3) for differences between models.



A Model **B&C Model**

Figure 2-1. Switch Box Controls and Indicators.

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

Item Number	Description	Function
1	STATUS light for Unit A generator set.	Lights when Unit A generator set is supplying power to switch box.
2	ON LINE light for Unit A generator set.	Lights when Unit A generator set is supplying power to the load.
3	ON/OFF switch for Unit A generator set.	Toggle switch, used to place Unit A generator set on line when generator set is ready or take it off line before shutting it down.
4	STATUS light for Unit B generator set.	Lights when Unit B generator set is supplying power to switch box.
5	ON LINE light for Unit B generator set.	Lights when Unit B generator set is supplying power to the load.
6	ON/OFF switch for Unit B generator set.	Toggle switch, used to place Unit B generator set on line when generator set is ready or take it off line before shutting it down.
	4 Spare Bulbs (shown with A Model switch box).	Located on left side of control panel on A Model 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. The PMCS table is divided into five columns. Each column is explained in the following paragraphs.

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 described in the procedure column. "BEFORE" procedures must be done before you operate the equipment for its intended mission. "DURING" procedures must be done during the time you are operating the equipment for its intended mission. "AFTER" procedures must be done immediately after you have operated the equipment. 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 unit or power plant is ready or available for its intended mission or operation. You must do the procedure at the time stated in the interval column.

2-2.2.5 Not Fully Mission Capable if: Column. Information in this column tells you what faults will keep your equipment from being capable of performing its primary mission. If you perform checks or services that show faults listed in this column, do not operate the equipment.

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 services.

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, switch box 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 injury to personnel, and damage to the equipment.

CAUTION

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

a. Keep the generator set 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 with a tool, but look for chipped paint, bare metal, or rust around bolt heads. If you find one loose, report it to the next-higher level of maintenance.

d. Inspect welds for loose or chipped paint, rust, or gaps where parts are welded together. If a broken weld is found, report it to the next-higher level of maintenance.

e. Inspect electrical wires, connectors, terminals, and receptacles for cracked or broken insulation, bare wires, and loose or broken connectors. Tighten loose connectors. Examine terminals and receptacles for serviceability. If deficiencies are found, report them to the next-higher level of maintenance.

f. Inspect hoses and fluid lines. Look for wear, damage, and leaks. Make sure that clamps and fittings are tight. Wet spots and stains around a fitting or connector can mean a leak. If a leak comes from a loose connector, or if something is broken or worn out, report it to the next-higher level of maintenance.

2-2.5 Leakage Definitions. You must know how fluid leakage affects the status of your equipment. The following are definitions of the types/classes of leakage you need to know to be able to determine the status of your equipment. Learn and be familiar with them. When in doubt, *notify your supervisor.*

Leakage Class	Leakage Definition
Class I	Seepage of fluid (as indicated by wetness or discoloration) not great enough to form drops.
Class II	Leakage of fluid great enough to form drops, but not enough to cause drops to drip from the item being checked/inspected.
Class III	Leakage of fluid (other than fuel) greater than three drops per minute that fall from the item being inspected.

2-2.6 Operation of Power Unit/Power Plant with Minor Leaks.

CAUTION

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

a. Consider the equipment's capacity for the fluid that is leaking. If the capacity is small, the fluid level may soon become too low for continued operation. If in doubt, *notify your supervisor.*

b. Check the fluid level more often than required in the PMCS table. Add fluid as needed.

2-2.7 Corrosion Prevention and Control (CPC). CPC of Army materiel is of continuing concern. It is important that any corrosion problems with the equipment be reported so that the problem can be corrected and improvements can be made to prevent the problem in future items. Although 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 SF 368, Product Quality Deficiency Report. Use of key words such as "corrosion," "rust," "deterioration," or "cracking" will ensure that the information is identified as a CPC problem. The form should be submitted to the address specified in DA Pam 738-750.

2-2.8 Order in Which PMCS Will be Done. Figure 2-2 shows the order in which you are to perform your PMCS. The figure shows a typical configuration having one generator set. *Keep in mind that a power plant consists of two power units and PMCS must be performed on each power unit.* The number callouts on Figure 2-2 correspond to the numbers in the Item No. column of Table 2-2, for "BEFORE" PMCS.

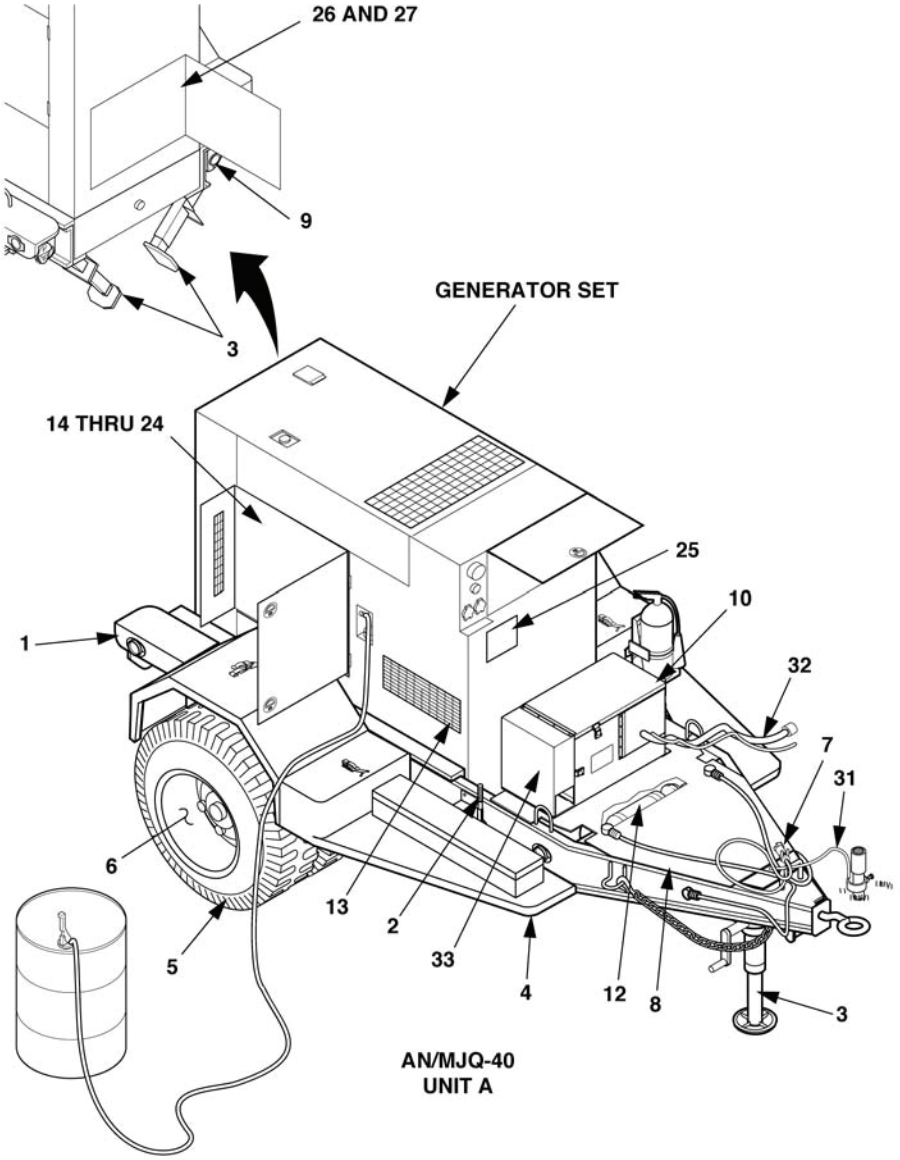


Figure 2-2. Operator PMCS Routing Diagram (Sheet 1 of 2).

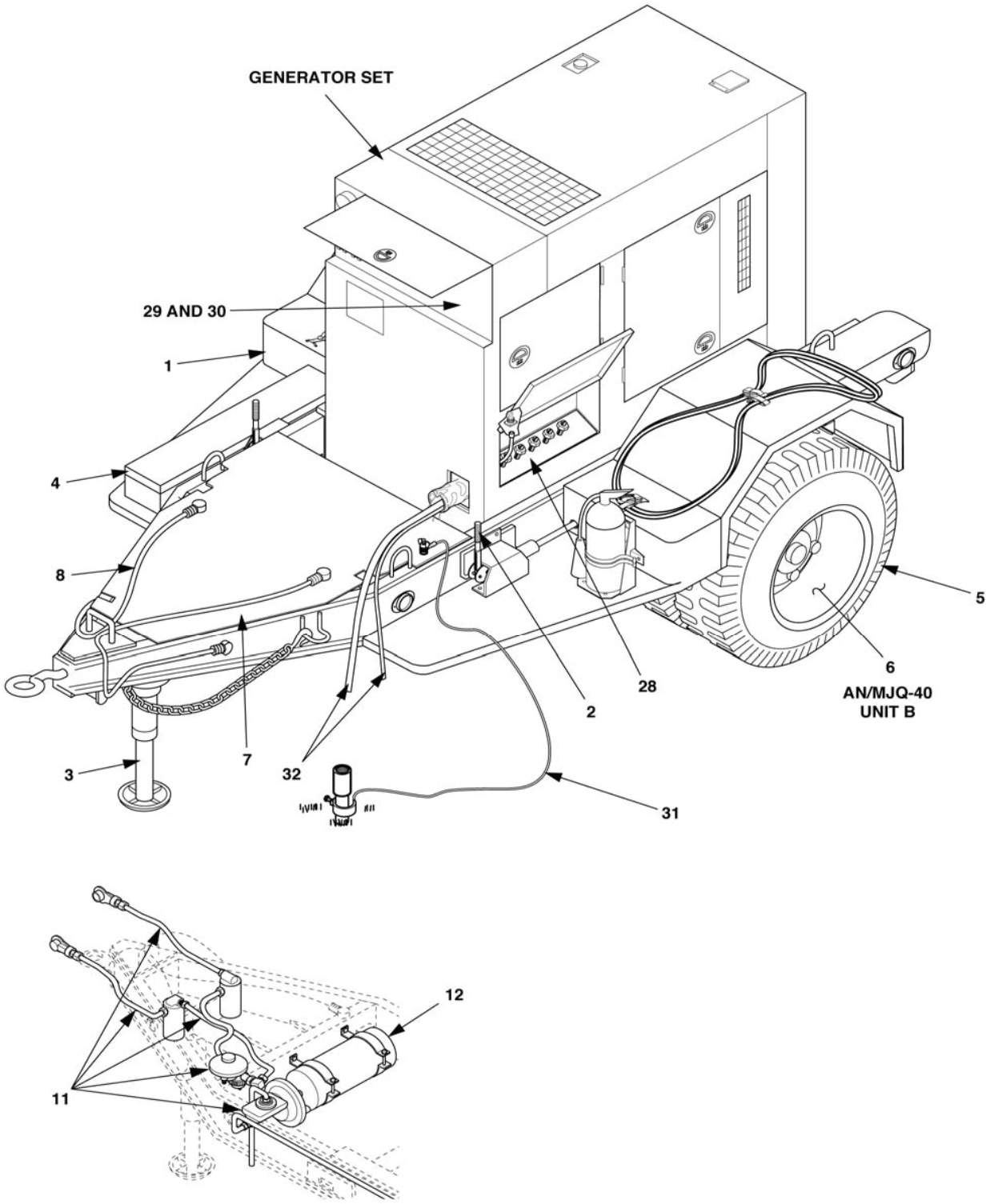


Figure 2-2. Operator PMCS Routing Diagram (Sheet 2 of 2).

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

(PU-803, PU-803B/G, PU-804, PU-804B/G, AN/MJQ-40, and AN/MJQ-40B)

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 **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 **Do not disconnect trailer from towing vehicle before hand brakes are set and front landing leg and rear support leg lowered. Failure to observe this warning could result in severe personal injury or death from trailer tipping or rolling, and damage to the equipment.**		
		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 injury to personnel and damage to equipment.**		
		TRAILER		
1	Before	VISUAL INSPECTION • Fenders/body • Gen set door • Reflectors • Landing leg • Skid base • Lunette • Chains • Identification plates • Fuel and coolant	a. Check for damage. b. Check on, around, and under equipment for fuel, oil, or coolant leaks.	Any condition that renders the power unit/power plant not mission capable. Class III coolant or any class fuel leak is detected.
2	Before	HANDBRAKE	a. Check operation of handbrake lever (1). Lever should move freely through its entire travel.	Handbrake lever (1 or 2) locked in applied position.

Table 2-2. Operator Preventive Maintenance Checks and Services *(continued).*
(PU-803, PU-803B/G, PU-804, PU-804B/G, AN/MJQ-40, and AN/MJQ-40B)

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		TRAILER – continued		
2	Before	HANDBRAKE - continued	b. Check adjustment of handbrake lever (1). Lever is properly adjusted when it is difficult to move beyond two-thirds of the way to the applied position. If out of adjustment, see step d. c. With trailer hooked to towing vehicle, set handbrake lever (1). Move trailer slightly to see if handbrakes hold wheels. If not, proceed to step d. d. Adjust handbrake as follows. 1. Release handbrake lever (1). 2. Turn adjustment knob (2) clockwise to tighten or counterclockwise to loosen. If unable to adjust, refer to Field Level Maintenance. 3. Check adjustment (Refer to step b). Repeat steps 1 and 2 as required. Repeat step c.	

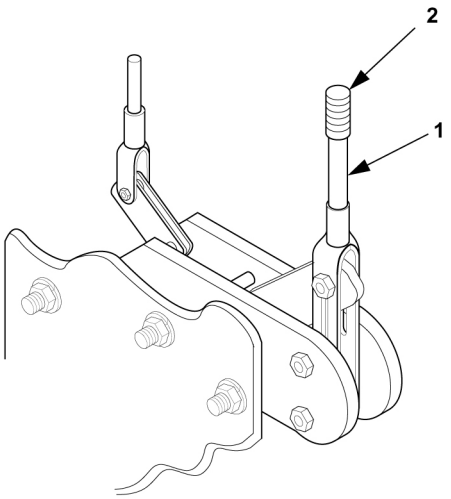
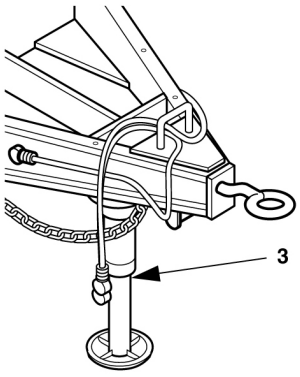


Table 2-2. Operator Preventive Maintenance Checks and Services *(continued).*
(PU-803, PU-803B/G, PU-804, PU-804B/G, AN/MJQ-40, and AN/MJQ-40B)

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		TRAILER – continued		
3	Before	LANDING LEG AND STEP JACK	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 easy operation.	Landing leg assembly will not secure in stored position, or will not support trailer.
			b. Check landing leg for proper mounting, alignment, and general condition.	
			c. Check jacks (4) for ease of operation.	
			d. Check jacks (4) for secure mounting.	
			e. Ensure step jacks can be locked in stored and support positions.	Rear support leg/step jacks will not secure in stored position, or will not support trailer.
			f. Ensure locking pin is attached to step jack with chain.	
			g. Ensure step jacks can be adjusted up or down.	



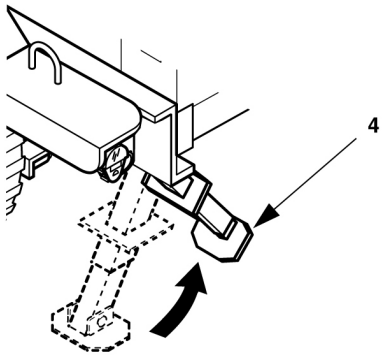


Table 2-2. Operator Preventive Maintenance Checks and Services *(continued).*
((PU-803, PU-803B/G, PU-804, PU-804B/G, AN/MJQ-40, and AN/MJQ-40B)

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		TRAILER - *continued*		
4	Before	ACCESSORIES	Check that following accessories are not missing or damaged: • Auxiliary fuel hose(s) (stored behind battery access door). • Fire Extinguisher (stored in fire extinguisher bracket on fender), check seal.	Fire extinguisher is missing, seal is broken.
			NOTE **Remaining accessories are stored in accessory box, and ground rod may be stored in generator set (5).**	Ground rod and/or ground cable missing.
			• Fuel container adapter • Ground rod • Hammer, 8 lb • Load terminal wrench • Slide hammer • Ground cable	

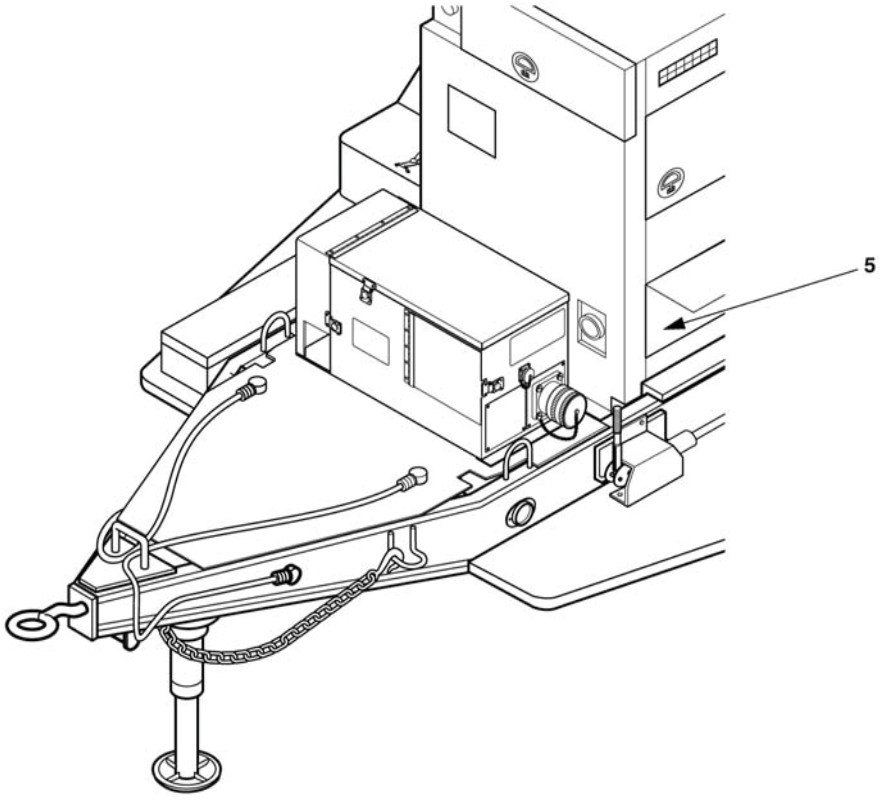


Table 2-2. Operator Preventive Maintenance Checks and Services *(continued).*
(PU-803, PU-803B/G, PU-804, PU-804B/G, AN/MJQ-40, and AN/MJQ-40B)

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		TRAILER - continued		
5	Before	TIRES	a. Check tires (6) for cuts, bruises, bulges, or unusual tread wear. Remove any foreign objects from between treads.	Tires are unserviceable.
			b. Check tire pressure, when tires are cool, for 45 psi (248 kPa).	Tire will not hold air pressure.
6	Before	WHEELS	a. Check wheels (7) for damage and for leakage around flange gasket.	Wheel has Class III leak at flange gasket.
			b. Check to see if stud nuts (8) are loose or missing.	One stud nut is loose or missing.
7	Before	INTER-VEHICULAR CABLE	a. Check inter-vehicular cable (9) for cuts and breaks.	Cable is severed or missing.
			b. Open cable protective cover. Inspect for broken, missing and burnt pins.	

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 injury to personnel.

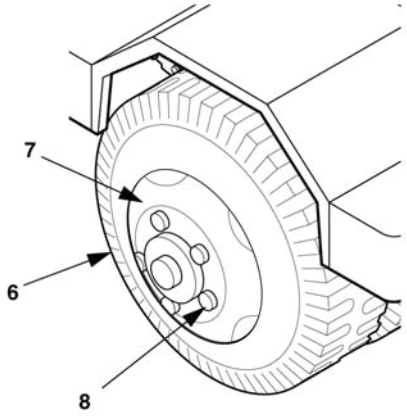
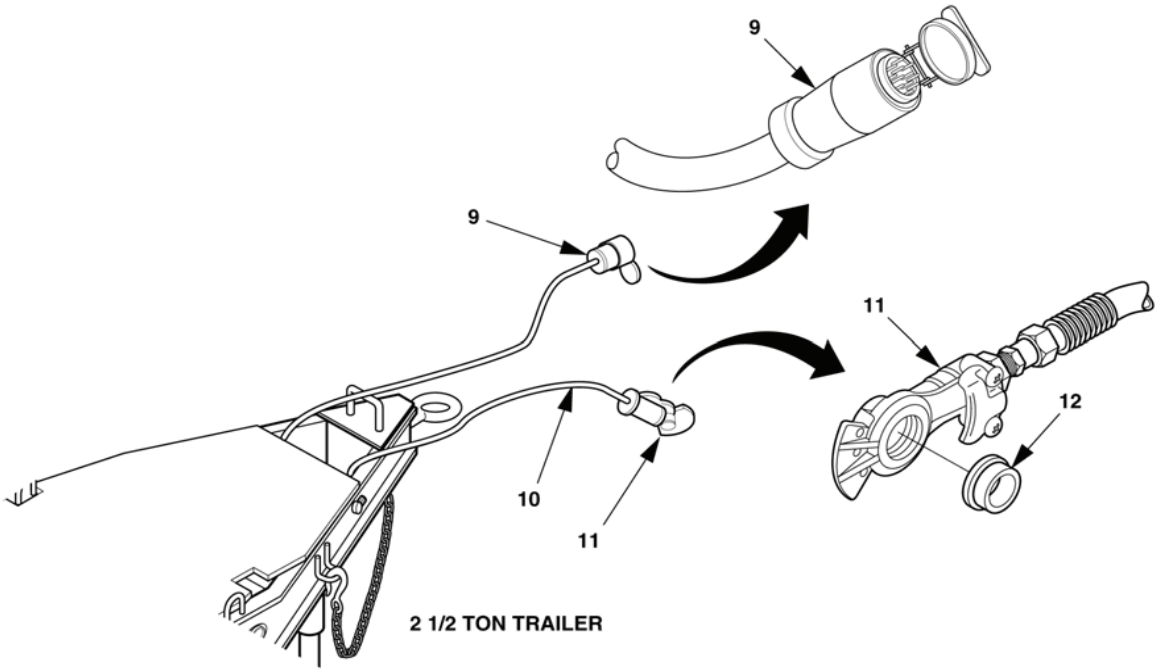


Table 2-2. Operator Preventive Maintenance Checks and Services *(continued).*
(PU-803, PU-803B/G, PU-804, PU-804B/G, AN/MJQ-40, and AN/MJQ-40B)

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		TRAILER - continued		
8	Before	AIR HOSE AND COUPLER	a. With trailer hooked to towing vehicle, check air hose (10) for leaks, cuts, and abrasions.	Air leaks are found, or cuts in hose are deep enough for cords to show.
			b. Check coupler body (11) for damage. Check if seal (12) is missing or damaged.	Coupler body is cracked or broken. Seal is missing.
9	Before	LIGHTS	a. Check for obvious damage or looseness of lights and lenses. **NOTE** An assistant is required while checking brake lights. b. Connect the inter-vehicular cable (9) to the towing vehicle. c. Operate the vehicle light switch through all settings, and check the lights.	Lights are damaged, not serviceable.



2 1/2 TON TRAILER

Table 2-2. Operator Preventive Maintenance Checks and Services *(continued).*
(PU-803, PU-803B/G, PU-804, PU-804B/G, AN/MJQ-40, and AN/MJQ-40B)

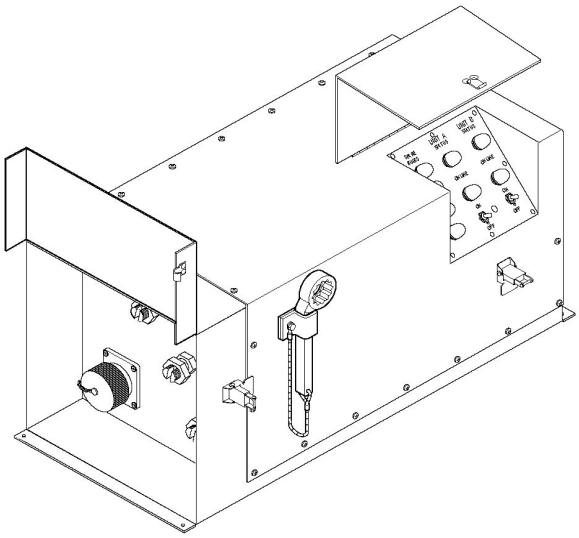
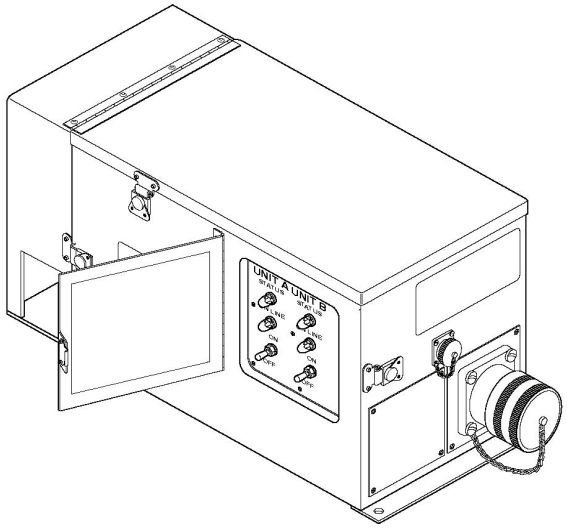
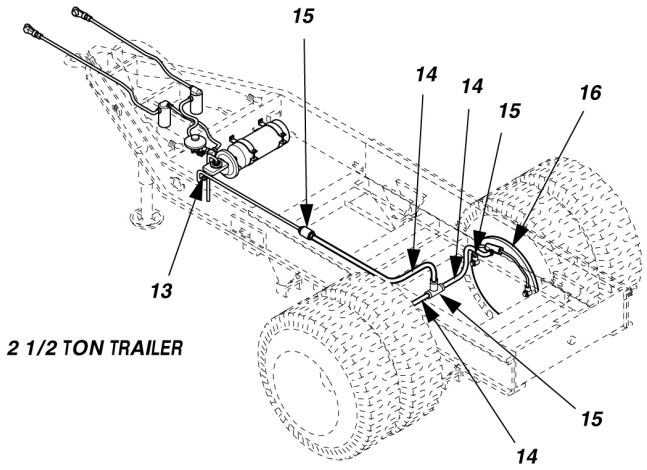
Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		TRAILER - continued		
		 A Model	 B & C Model	
10	Before	SWITCH BOX ASSEMBLY (POWER PLANT UNIT A ONLY)	Check for the following: • Loose or missing mounting hardware	Two or more mounting bolts missing.
			• Damaged indicator lights	Indicator lights are damaged.
			• Damaged or missing hinges and latches	Hinges missing or damaged.
			• Loose or damaged switches	Switches loose or damaged.
			• Tightness of load terminals	Load terminals loose.
			• Damaged or missing output terminals or connectors.	Damaged, loose or missing terminals or connectors will not secure load cables.

Table 2-2. Operator Preventive Maintenance Checks and Services *(continued).*
(PU-803, PU-803B/G, PU-804, PU-804B/G, AN/MJQ-40, and AN/MJQ-40B)

Item No.	Interval	Location / Item to Check/Service	Procedure	Not Fully Mission Capable if:
		TRAILER - continued		
11	Before	SERVICE BRAKE SYSTEM	a. Check for leakage of brake fluid from master cylinder (13).	Cable is broken or missing.
			b. Check for leakage of brake fluid from hydraulic brake lines (14), fittings (15), or at backing plates (16).	Brake system has any leaks or brakes do not hold.



2 1/2 TON TRAILER

12	Before	AIR RESERVOIR, LINES, AND FITTINGS	a. Check for damage and loose or missing parts.	Hose is damaged or parts are loose or missing.
			b. Ensure that drain cock (17) is closed.	Drain cock will not close.

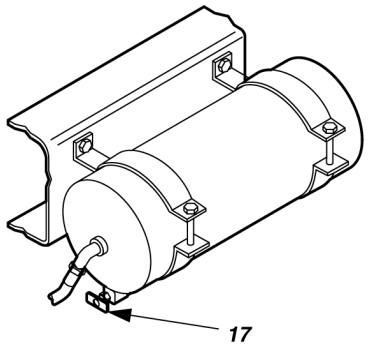


Table 2-2. Operator Preventive Maintenance Checks and Services *(continued).*
(PU-803, PU-803B/G, PU-804, PU-804B/G, AN/MJQ-40, and AN/MJQ-40B)

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		GENERATOR SET		
13	Before	ACOUSTICAL MATERIALS	Ensure that acoustical materials, located in the grill areas, are secure, and 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 cause injury or death to personnel, and damage to the generator set.**		
14	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. • DEAD CRANK switch to NORMAL.	Any condition that renders power unit/power plant not mission capable.

Table 2-2. Operator Preventive Maintenance Checks and Services *(continued).*
(PU-803, PU-803B/G, PU-804, PU-804B/G, AN/MJQ-40, and AN/MJQ-40B)

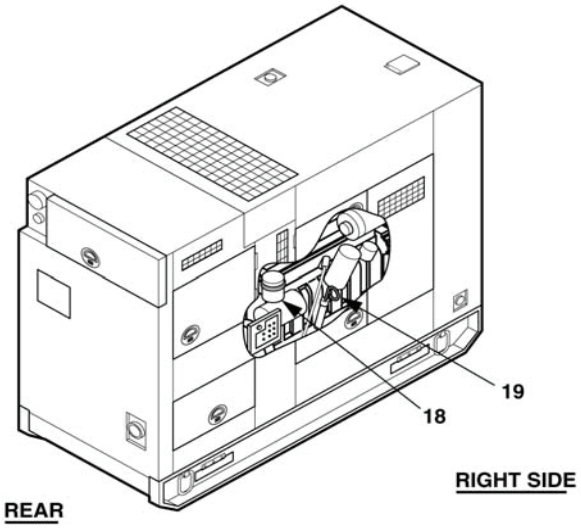
Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		GENERATOR SET - continued		
15	Before	FUEL SYSTEM	Inspect fuel injector, fuel injector line, fuel pump, and fuel line for leaks, damage, and loose or missing hardware.	Any fuel leaks, damage, or loose or missing parts.
				
16	Before	FUEL FILTER/WATER SEPARATOR	a. Inspect fuel filter/water separator (18) for leaks, proper mounting, cracks, damage, or missing parts. b. Drain water from fuel filter/water separator (18).	Any fuel leaks.
17	Before	ETHER SYSTEM	Inspect for leaks and for damaged, loose or missing parts.	
18	Before	LUBRICATION SYSTEM	a. Inspect lubrication system for leaks and for damaged, loose, or missing parts. b. Check oil level (19). Add oil, as necessary. c. Check engine oil for contamination.	Class III leaks, or damaged, loose, or missing parts. Engine oil shows signs of contamination.

Table 2-2. Operator Preventive Maintenance Checks and Services *(continued).*
(PU-803, PU-803B/G, PU-804, PU-804B/G, AN/MJQ-40, and AN/MJQ-40B)

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.		
		GENERATOR SET - continued		
19	Before	RADIATOR	Check radiator (20) for leaks, damage, or missing parts.	Class III leaks. Radiator cap missing.
20	Before	HOSES	Check hoses (21) for leaks, cracks, or deterioration.	Class III leaks.
21	Before	COOLING FAN	Check fan (22) for damage or looseness.	Damaged or loose.
22	Before	FAN BELT	Inspect belt (23) for cracks, fraying, or looseness.	Broken or loose belt.
23	Before	OVERFLOW BOTTLE	a. Check overflow bottle (24) for leaks or missing parts. b. Check coolant level.	Class III leaks.

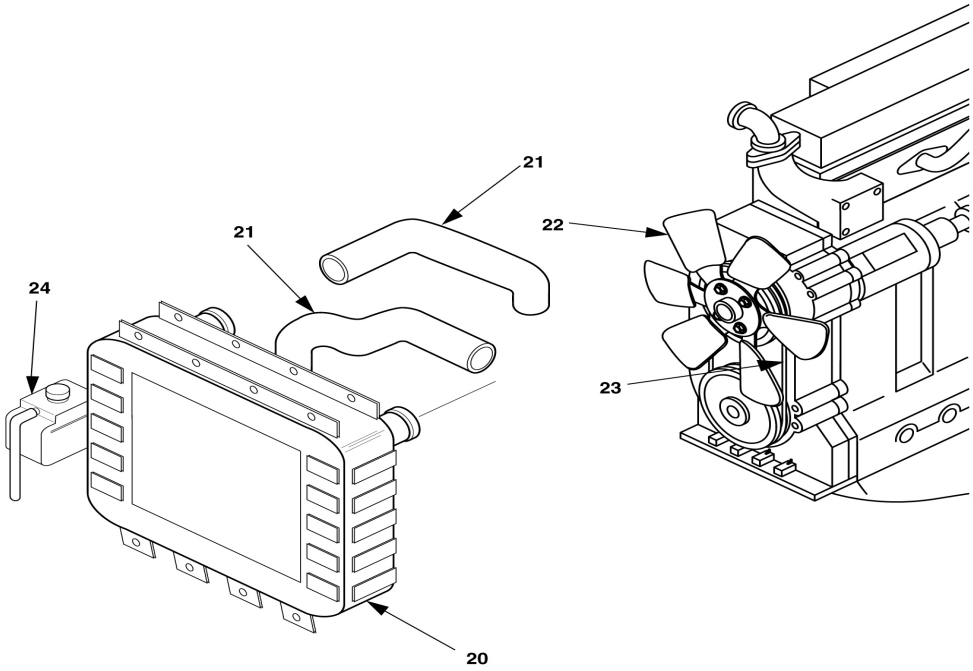


Table 2-2. Operator Preventive Maintenance Checks and Services *(continued).*
(PU-803, PU-803B/G, PU-804, PU-804B/G, AN/MJQ-40, and AN/MJQ-40B)

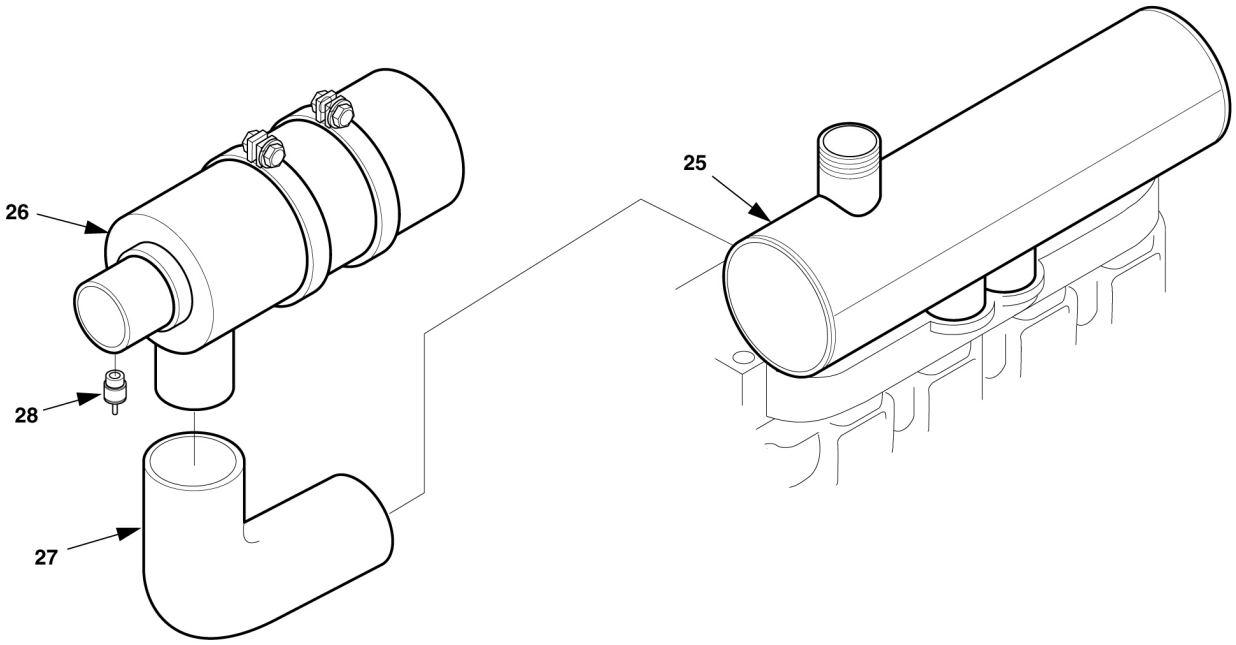
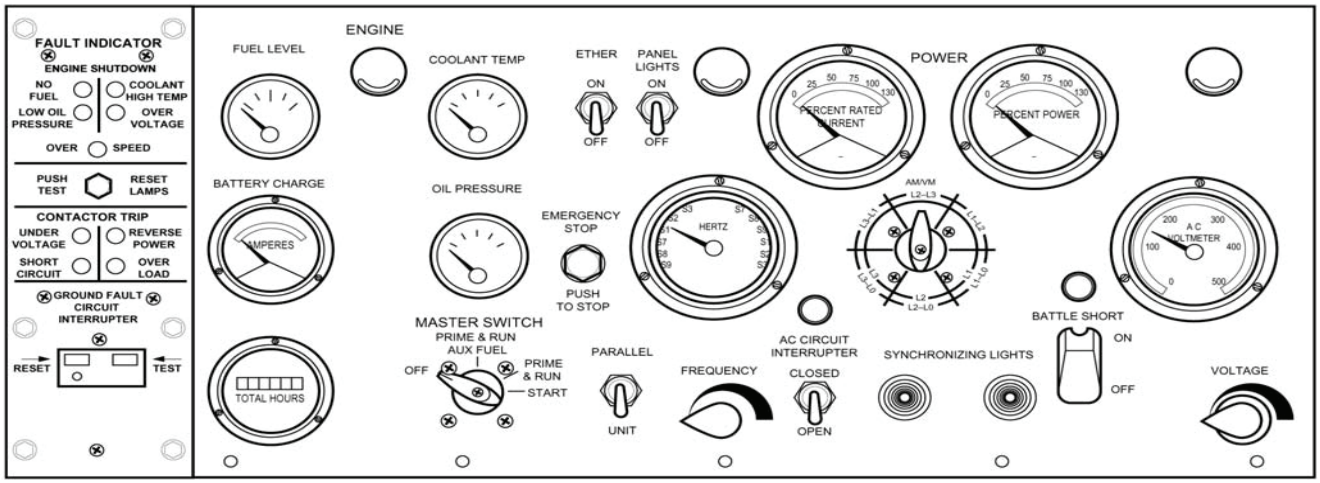
Item No.	Interval	Location / Item to Check/Service	Procedure	Not Fully Mission Capable if:
		WARNING **Exhaust discharge contains deadly gases including carbon monoxide. DO NOT operate generator set in enclosed areas unless exhaust discharge is properly vented outside. Failure to comply with this warning can cause injury or death to personnel.**		
		GENERATOR SET - continued		
24	Before	EXHAUST SYSTEM	Check muffler (25) for evidence of leakage and exhaust system for corrosion, damage, or missing parts.	Muffler or exhaust system damaged or leaking.
				
25	Before	AIR CLEANER ASSEMBLY	Inspect air cleaner assembly (26) and piping (27) for loose or damaged connections. Inspect restriction indicator (28) for clogged element. If indicator shows red, notify next-higher level of maintenance.	Loose or damaged connections. Clogged element is indicated, or piping and connections are loose.

Table 2-2. Operator Preventive Maintenance Checks and Services *(continued).*
(PU-803, PU-803B/G, PU-804, PU-804B/G, AN/MJQ-40, and AN/MJQ-40B)

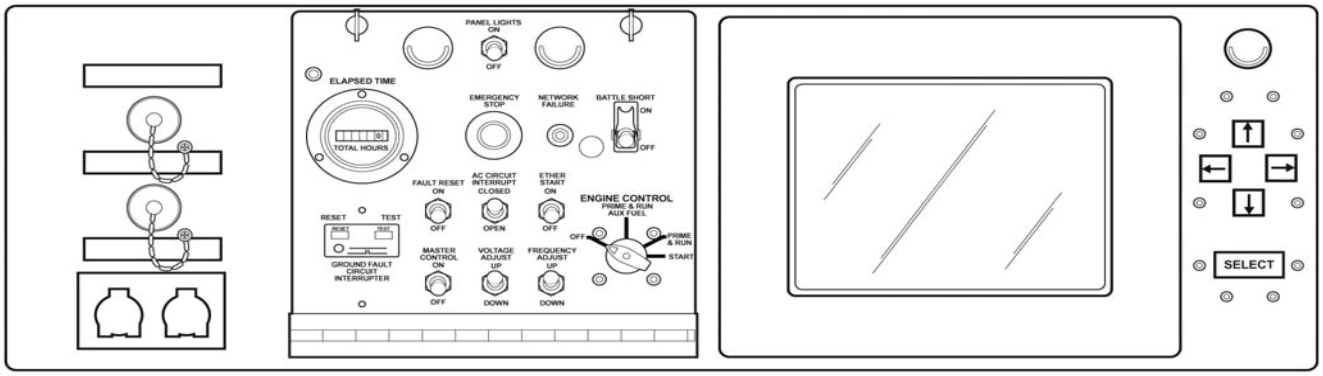
Item No.	Interval	Location / Item to Check/Service	Procedure	Not Fully Mission Capable if:
		WARNING		
		Battery acid can cause burns to unprotected skin. Wear safety goggles and chemical gloves and avoid acid splash while working on batteries. Failure to comply with this warning can cause injury to 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 injury or death to personnel, and damage to the generator set.		
		GENERATOR SET - continued		
26	Before	BATTERIES	a. Check batteries for damage or missing caps (front of generator in battery compartment). b. Inspect electrolyte level. If low notify next-higher maintenance level.	Batteries not charged.
27	Before	BATTERY CABLES	Inspect cables and connectors for corrosion, damage, and loose or missing parts.	Cables are damaged or missing.
		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, switch box or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.		
28	Before	OUTPUT BOX ASSEMBLY	a. Check for loose or damaged wiring or cables. b. Check output terminals for damage or missing hardware.	Missing or damaged wiring or cables. Damaged or missing hardware.

Table 2-2. Operator Preventive Maintenance Checks and Services *(continued).*
(PU-803, PU-803B/G, PU-804, PU-804B/G, AN/MJQ-40, and AN/MJQ-40B)

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		GENERATOR SET - continued		
29	Before	CONTROLS AND INDICATORS	a. Check indicators and controls for damage or missing parts. b. Place PRIME & RUN switch to AUX PRIME & RUN and press TEST RESET LAMPS button on fault indicator. All test lamps must light. c. Check fuel gauge for fuel level.	Indicators or controls damaged or missing.
30	Before	CONTROL BOX HARNESS	Check inside control box for loose or damaged wiring.	Loose or damaged wires.



Analog Control Panel



Digital Control Panel

Table 2-2. Operator Preventive Maintenance Checks and Services *(continued).*
(PU-803, PU-803B/G, PU-804, PU-804B/G, AN/MJQ-40, and AN/MJQ-40B)

Item No.	Interval	Location / Item to Check/Service	Procedure	Not Fully Mission Capable if:
		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.**		
		GENERATOR SET-concluded		
31	Before	GROUND ROD CABLE AND CONNECTIONS	Inspect ground rod and cable for loose connections, breaks, damage, and corrosion.	Cable is missing or damaged.
32	Before	INPUT LOAD AND PARALLELING CABLES	Ensure cables are properly installed. Inspect for damage and cutting.	Cables are improperly installed, or damaged.
33	Before	OUTPUT CONNECTORS	Inspect output connectors for missing hardware or damage.	Output connectors are missing hardware or damaged.

Table 2-2. Operator Preventive Maintenance Checks and Services *(continued).*
(PU-803, PU-803B/G, PU-804, PU-804B/G, AN/MJQ-40, and AN/MJQ-40B)

Item No.	Interval	Location / Item to Check/Service	Procedure	Not Fully Mission Capable if:
		TRAILER		
34	During	TRAILER OPERATION	a. Be alert for unusual noises when towing the trailer. Stop and investigate such noises.	
			b. Ensure that the trailer is tracking/following correctly behind towing vehicle with no side pull.	Brakes locked up.
35	During	SWITCH BOX ASSEMBLY	Check indicator lights. Ensure indicator lights are operating properly.	
36	During	HOUSING	a. Check doors, hinges, and latches for damage, and loose or corroded items.	Cannot secure door.
			b. Inspect air intake and exhaust grills for debris.	Grills plugged; air flow cut off.

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 cause injury or death to personnel, and damage to the generator set.

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.

Table 2-2. Operator Preventive Maintenance Checks and Services *(continued).*
((PU-803, PU-803B/G, PU-804, PU-804B/G, AN/MJQ-40, and AN/MJQ-40B)

Item No.	Interval	Location / Item to Check/Service	Procedure	Not Fully Mission Capable if:
		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.		
		GENERATOR SET		
37	During	ENGINE ASSEMBLY	Check for loose, damaged, or missing parts.	
38	During	FUEL SYSTEM	Inspect for leaks.	Any fuel leaks.
39	During	LUBRICATION SYSTEM	a. Inspect for leaks.	Class III leaks.
			b. Check oil level on dipstick, both sides.	Oil level below ADD level.
40	During	COOLING FAN	Listen for unusual noise in fan area.	
41	During	GROUND ROD CABLE AND CONNECTIONS	Inspect ground rod and cable for loose connections, breaks, damage, and corrosion.	Cable is missing or damaged.
		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 or paralleling cables while the generator set is running. Failure to comply with this warning can cause injury or death to personnel.		
42	During	CONTROLS AND INDICATORS	Observe the following indicators and ensure they are functioning: • Coolant temp, 170-200°F (77-93° C) • Oil pressure, 25-60 psi (172-414 kPA)	

Table 2-2. Operator Preventive Maintenance Checks and Services *(continued).*
(PU-803, PU-803B/G, PU-804, PU-804B/G, AN/MJQ-40, and AN/MJQ-40B)

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. 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.**		
		GENERATOR SET -continued		
43	After	HOUSING	a. Check doors, panels, hinges, and latches for damage, and loose or corroded items.	Cannot secure doors.
			b. Inspect air intake and exhaust grills for debris.	Intake and exhaust grills plugged.
44	After	IDENTIFICATION PLATES	Check to be sure identification plates are secure.	
45	After	SKID BASE	Inspect skid base for cracks and corrosion.	Skid base cracked or shows signs of structural damage.
		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 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.**		

Table 2-2. Operator Preventive Maintenance Checks and Services *(continued).*
(PU-803, PU-803B/G, PU-804, PU-804B/G, AN/MJQ-40, and AN/MJQ-40B)

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
46	After	ENGINE ASSEMBLY	Check for loose, damaged, or missing hardware.	
47	After	FUEL SYSTEM	Inspect fuel system for leaks, and damaged, loose, or missing hardware.	Any fuel leaks, or damaged, loose, or missing parts.
48	After	FUEL FILTER/WATER SEPARATOR	a. Inspect fuel filter/water separator for leaks, cracks, damage, proper mounting, or missing parts.	Any fuel leaks.
			b. Drain water from fuel filter/water separator.	
49	After	LUBRICATION SYSTEM	a. Inspect lubrication system for leaks, and damaged, loose, or missing parts.	Class III leaks, damaged, loose, or missing parts.
			b. Check oil level.	Oil level is below ADD level.
			c. Check engine oil for contamination.	Engine oil shows contamination.
		COOLING SYSTEM		
		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.**		
50	After	RADIATOR	Check radiator for leaks, damage, or missing parts.	Class III leaks. Radiator cap missing.
51	After	HOSES	Check hoses for leaks or cracks.	Class III leaks.

Table 2-2. Operator Preventive Maintenance Checks and Services *(continued).*
(PU-803, PU-803B/G, PU-804, PU-804B/G, AN/MJQ-40, and AN/MJQ-40B)

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
52	After	FAN BELT	Inspect belt for cracks, fraying, or looseness.	Broken belt.
53	After	OVERFLOW BOTTLE	Check overflow bottle for leaks or missing parts. Check coolant level.	Class III leaks. Coolant level is below COLD line.
		CONTROL BOX ASSEMBLY		
54	After	CONTROLS AND INDICATORS	Check all indicators and controls for damaged or missing parts.	Indicators or controls damaged or missing.

Section III. OPERATION UNDER USUAL CONDITIONS

2-3 ASSEMBLY AND PREPARATION FOR USE

2-3.1 Assembly of the Equipment. Assembly must be performed by unit level maintenance personnel.

2-3.2 Installation Instructions.

2-3.2.1 Positioning Power Unit/Power Plant. Position the equipment at the worksite as follows:

CAUTION

Before selecting generator sets for parallel operations, check generator sets make and model type. Digital display control sets can only be paralleled with other digital display sets that are the same make and model. Digital display sets cannot be paralleled with non-digital display sets. Failure to observe this caution could result in severe damage to one or both of the generator sets.

NOTE

There will be two units each for the Power Plants AN/MJQ-40 and AN/MJQ-40B. This procedure must be performed on each unit and trailer. The two units for each power plant must be positioned to allow the interconnection of the supplied cables.

a. Select an area as level as possible to install equipment.

b. When configuring the power plant, locate the two power units side by side as shown in Figure 2-3.

c. Set the trailer handbrakes and lower trailer support devices. Refer to TM 9-2330-205-14&P for detailed installation of the 2 ½ ton trailer.

d. Remove fire extinguishers from brackets on both units. Locate fire extinguishers on ground away from equipment.

2-3.3 Grounding of Power Unit/Power Plant (Trailer). Ground the equipment in accordance with Army Technical Bulletin TB 43-0125 and Field Manual FM 4-524. Typical ground rod installations are shown in Figure 2-4. If a ground rod is used, install and connect it as follows:

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.

NOTE

A power plant consists of two power units. One ground rod must be installed for each power unit.

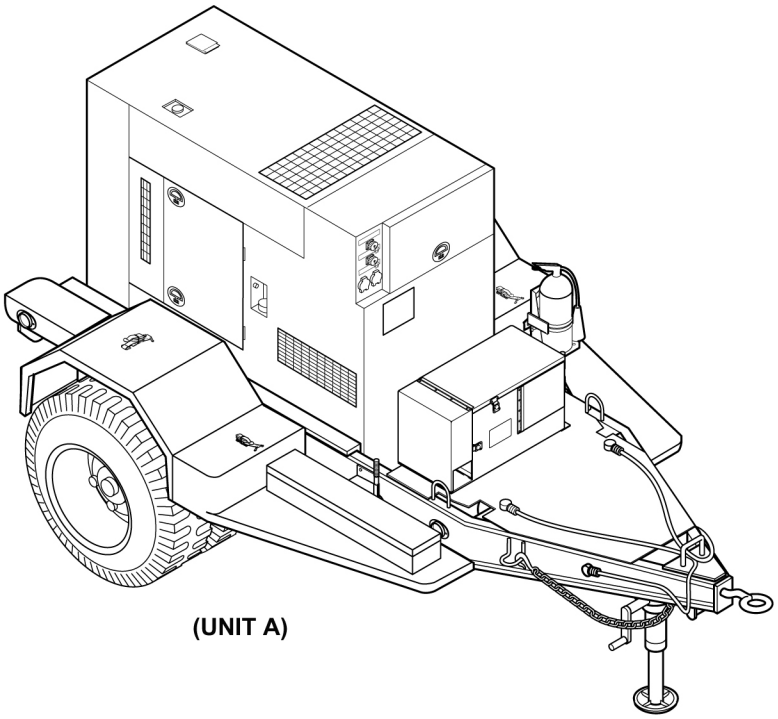
a. Remove ground rods, grounding straps, and slide hammer (Figure 2-5) from accessory box. Perform assembly steps (1) through (4).

WARNING

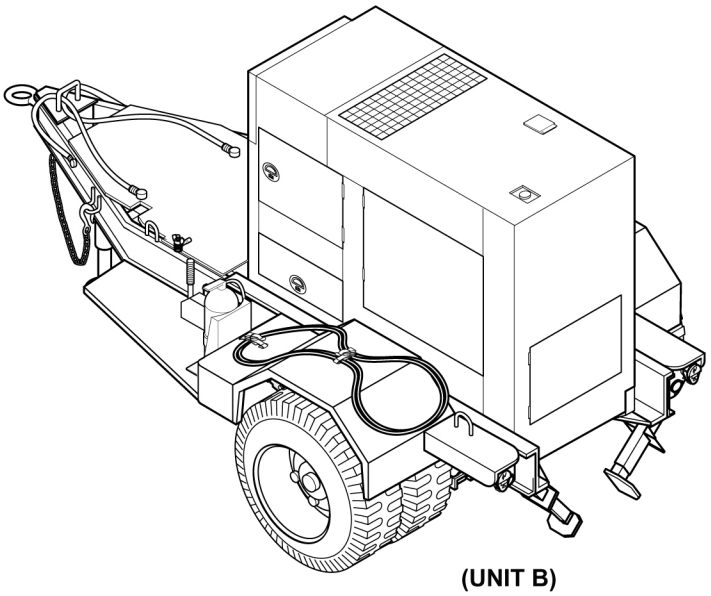
Impact disk must be tightened to end of threads on rod. Also, lock washer and nut must be tightened firmly against impact disk. Failure to comply with this warning can cause injury to personnel, and damage to the equipment.

NOTE

The terminal lug supplied with the ground rods is too small. Use additional ground straps provided with power units.



(UNIT A)



(UNIT B)

Figure 2-3. Power Plant Unit A and Unit B Installation.

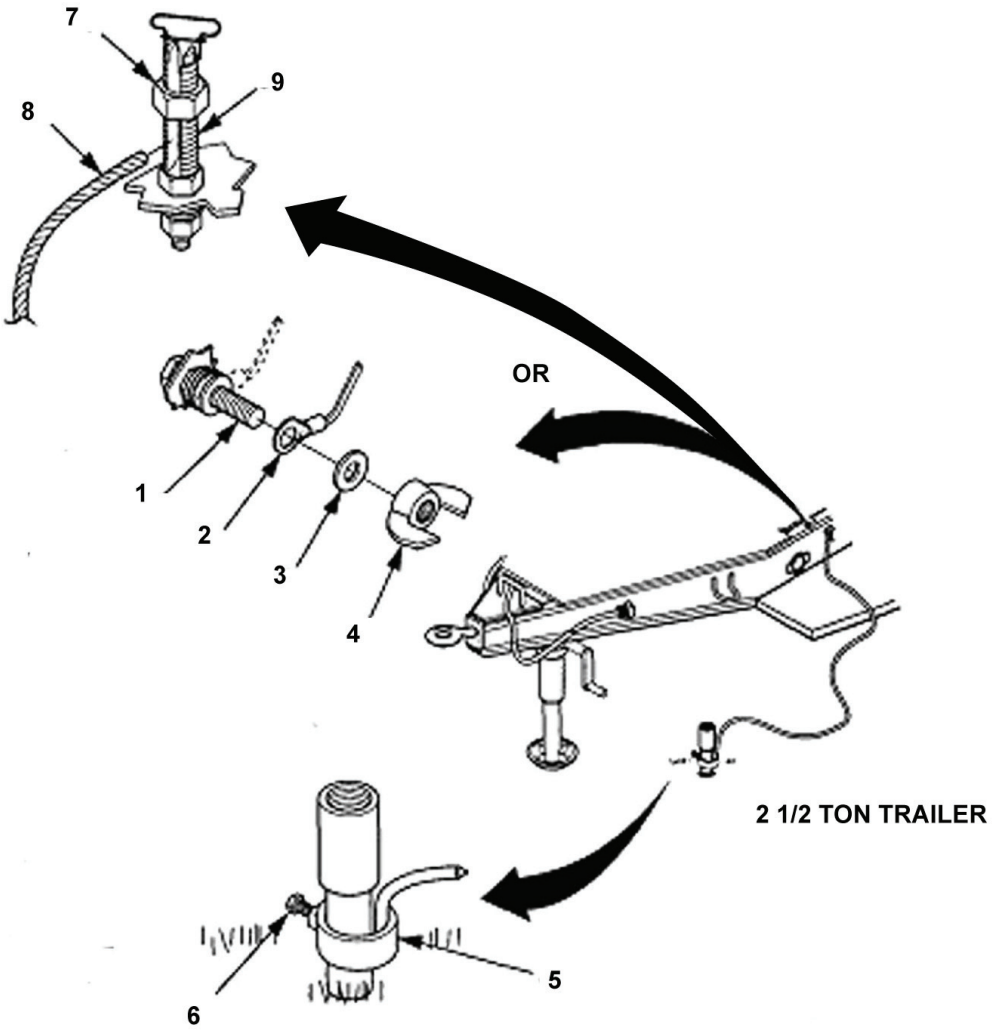


Figure 2-4. Typical Ground Rod Installations.

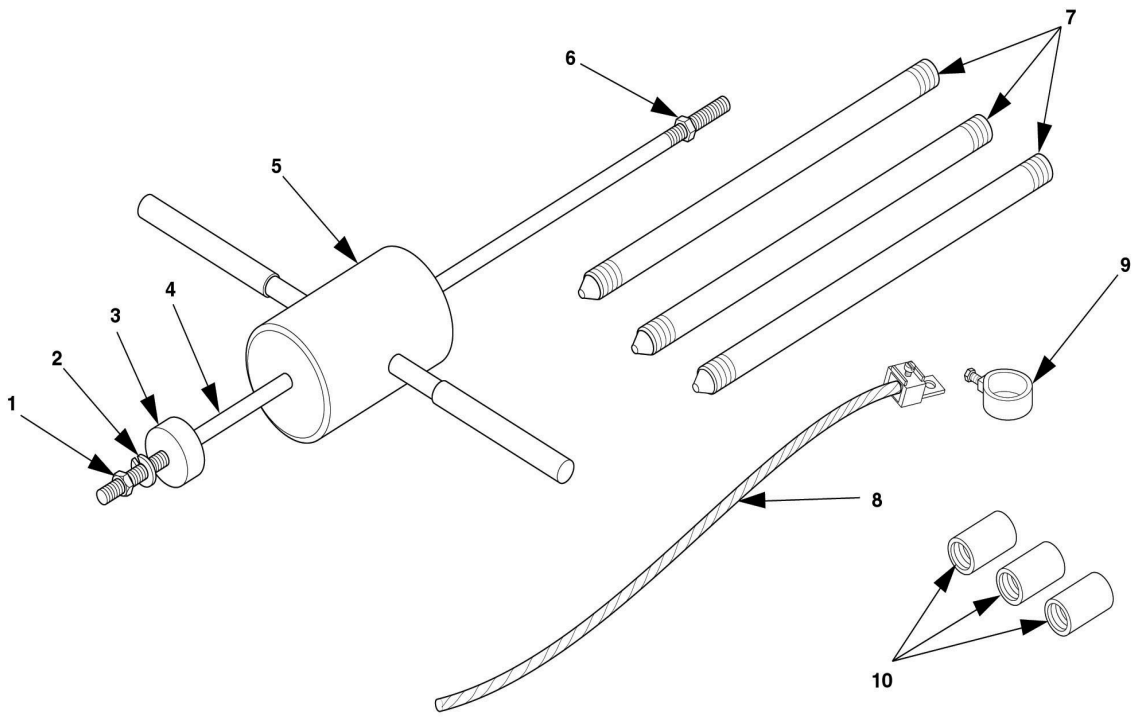


Figure 2-5. Ground Rod, Grounding Strap, and Slide Hammer.

(1) Install impact disk (3, Figure 2-5) on rod (4). Tighten impact disk (3) to end of threads on rod (4).

(2) Install lockwasher (2) and nut (1). Tighten nut (1) and lockwasher (2) securely against impact disk (3).

(3) Remove nut (6) before positioning slide hammer.

(4) Position slide hammer (5) on rod (4). Install nut (6) and tighten to end of threads on rod (4).

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

c. Drive ground rod into ground until coupler (10) is just above surface.

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

e. Install another coupler (10) and then the slide hammer assembly. Drive ground rod (7) down until new coupler (10) is just above ground surface.

f. Repeat steps d and e until ground rod (7) has been driven eight feet or deeper, providing an effective ground.

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

h. Connect ground cable (8) as follows.

NOTE

There are two possible configurations for the ground terminal on the M200A1 2 ½ ton trailer, a load terminal or a stud with associated hardware.

(1) If a trailer having the load terminal is being used, perform steps (5) through (7). Otherwise perform steps (2) through (4) and step (7).

(2) Remove and retain wing nut (4, Figure 2-4) and washers (3) from trailer ground stud (1) and install ground terminal (2) to ground stud (1).

(3) Install washers (3) on ground stud (1).

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

(5) Loosen nut (7) on trailer ground terminal (9).

NOTE

Ground terminal will have two cables in slot after the following step is performed.

(6) Insert ground cable (8) through slot of ground terminal (9) making sure that the ground wire from the generator remains in the slot.

(7) Insert ground cable end into ground cable clamp (5) and tighten screw (6).

i. Disassemble slide hammer (5, Figure 2-5) as follows:

(1) Remove nut (6) from end of rod (4) and retain.

(2) Remove slide hammer (5) from rod (4) and thread nut (6) on end of rod to prevent loss.

(3) Store slide hammer (5) and rod (4) with assembled parts in accessory box.

2-3.4 Connecting Load and/or Paralleling Cables.

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, switch box 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.

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 or paralleling cables while the generator set is running. Failure to comply with this warning can cause injury or death to personnel.

CAUTION

Before selecting generator sets for parallel operations, check generator sets make and model type. Digital display control sets can only be paralleled with other digital display sets that are the same make and model. Digital display sets cannot be paralleled with non-digital display sets. Failure to observe this caution could result in severe damage to one or both of the generator sets.

NOTE

Before connecting the load, determine voltage and frequency requirements of the system or device that is being supplied with power. Refer to TM 9-6115-644-10 and TM 9-6115-671-14. Verify that voltage reconnection board is in proper position for voltage requirements and the frequency select switch is in the proper position. If board requires repositioning notify next-higher level of maintenance.

2-3.4.1 Power Unit. Refer to TM 9-6115-644-10 and TM 9-6115-671-14 for installation of load cables.

2-3.4.2 Power Plant. Refer to Figure 2-6 for installation of power cables and load cables. Load may be connected to the switch box by either of two methods. One method is to connect the load cable to the J1 connector (6). The other method is to connect load cables to the load terminals (1, 2, 3, 4, and 5). Connect Unit A to Unit B as follows:

NOTE

A paralleling cable is furnished with each generator set. Cables are located in a storage box inside battery access doors.

a. Connect paralleling cables as follows:

(1) Connect one end of cable (13) to connector J3 (15) of the switch box located on Unit A.

(2) Route the other end of cable (13) through power cable sock (10) and connect to connector J16 (8) on Unit B generator set.

(3) Connect the other paralleling cable (11) between the two paralleling receptacles (7) located on the generator set control panels.

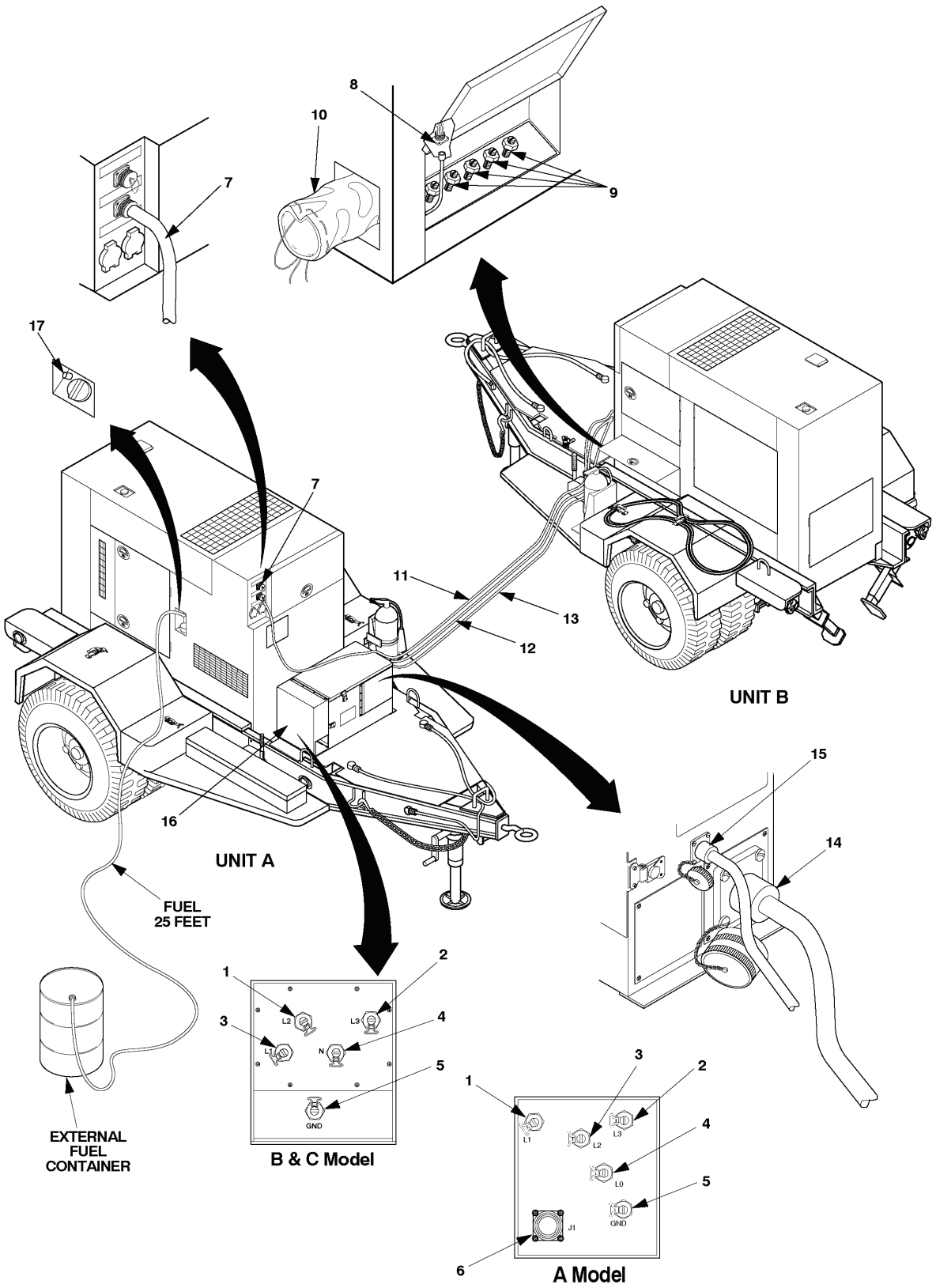


Figure 2-6. Connecting Power Plant.

b. Remove power cable (12) from fender (Unit B) and connect as follows:

(1) Route the other end of cable (12) through power cable sock (10) and connect leads (Ground, L3, L2, L1, and N) to appropriate load terminals (9) on Unit B. Leads will be labeled with load terminal designations. (Two persons are required to perform this step.)

(2) Connect the plug end of power cable (12) to connector J2 (14) of the switch box (16) located on Unit A.

2-3.5 External Fuel Source. Each generator set has provisions for obtaining fuel from an external source, such as a 55-gallon diesel fuel container. This enables operation for long intervals without frequent refilling of the fuel tanks. To use an external fuel source:

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 injury or death to personnel from trailer tipping or rolling, and damage to the equipment.

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 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 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.

a. Place external fuel source away, but no more than 25 feet (7.6 meters), from the equipment.

b. Remove fuel container adapter (Figure 2-7) from accessory box. The fuel container adapter consists of a strainer clamp (1), adapter (2), pipe (3), and extension pipe (4). The extension pipe is not needed if the external fuel source is a 5-gallon fuel can.

c. Make sure that the fuel container adapter components are clean.

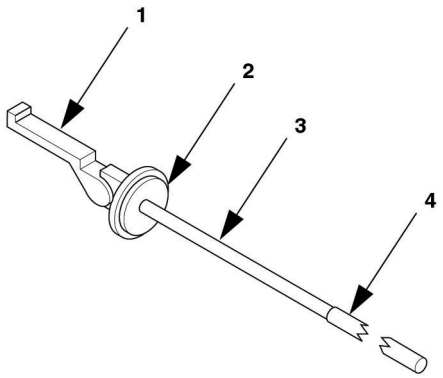


Figure 2-7. Fuel Container Adapter.

d. Thread fuel pipe (3) into adapter (2). Thread extension pipe (4) into fuel pipe (3).

e. Remove auxiliary fuel hose from behind battery access door.

f. Make sure that fittings on auxiliary fuel hose are clean.

g. Thread one end of auxiliary fuel hose into fuel container adapter fitting and tighten.

h. Connect free end of auxiliary fuel hose to generator set external fuel supply connection and tighten. Connection is located on generator set, near fuel tank filler cap (17, Figure 2-6).

i. Insert fuel container adapter into external fuel source. Secure fuel container adapter by pressing down on strainer clamp (1, Figure 2-7).

2-4 INITIAL ADJUSTMENTS, CHECKS, AND SELF TEST

Refer to TM 9-6115-644-10 and TM 9-6115-671-14 for initial adjustments, checks, and self test.

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 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

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 9-6115-644-10 and TM 9-6115-671-14 for generator set operating procedures.

2-5.2 Trailer Operating Procedures. Refer to TM 9-2330-205-14&P for trailer operating procedures.

CAUTION

Before selecting generator sets for parallel operations, check generator sets make and model type. Digital display control sets can only be paralleled with other digital display sets that are the same make and model. Digital display sets cannot be paralleled with non-digital display sets. Failure to observe this caution could result in severe damage to one or both of the generator sets.

2-5.3 Power Plant Switch Box Operating Procedures Using Analog Generator Sets. The power plant can be operated either in a single generator set configuration or parallel operation of the generator sets. The following paragraphs provide operating procedures for a single generator or two generator sets in parallel.

2-5.3.1 Operating a Single Generator Set from a Power Plant.

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.

NOTE

Before operating generator sets, all connections must be made to the switch box assembly.

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

b. Release the clamping catch (8, Figure 2-8) and open the control panel access cover (7).

c. To start the generator set, rotate the MASTER switch (17) to START position, until oil pressure reaches 25 psi and voltage reaches the appropriate required value.

d. Release MASTER switch (17) to PRIME & RUN position.

e. If external fuel system is being used, place MASTER switch (17) to PRIME & RUN AUX FUEL position.

f. Readjust VOLTAGE potentiometer (11) to required voltage.

g. Readjust FREQUENCY potentiometer (15) to required frequency.

h. Place AC CIRCUIT INTERRUPTER switch (13) in the CLOSED position.

i. Check switch box (18) to make sure STATUS light (1 or 4) is lit for the generator set just started.

j. At the switch box (18), set the ON/OFF switch (3 or 6) to the ON position (ON LINE light (2 or 5) should light). Generator is now supplying power to the load.

k. Perform the PMCS listed as "DURING" in Table 2-2.

l. On the Power Plant switch box (18), place the ON/OFF switch (3 or 6) for the operating generator set in the OFF position.

m. To shut down generator set, place AC CIRCUIT INTERRUPTER switch (13) in the OPEN position.

NOTE

Before shutting generator set off, allow it to operate five minutes with no load applied.

n. On the generator control panel rotate the MASTER switch (17) to the OFF position.

2-5.3.2 Operating Analog Generator Sets in Parallel. These generator sets can be operated in parallel through all models of the switch box (A, B, and C). When paralleling at the switch box, perform the following procedures:

WARNING

Prior to making any connections for parallel operation, ensure that there is no input to the load and that the generator sets are shut down. 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.

NOTE

"Set 1" is the generator set that is first started and/or running. "Set 2" is the generator that will be paralleled with "Set 1" or the generator to which the load will be transferred to.

a. Ensure that load requirement is equal to or below the combined rated capacity of the two generator sets.

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

CAUTION

Do not close the AC CIRCUIT INTERRUPTER switch (13) on either of the generator sets or close the load contactor at load until specifically directed to do so. Closing any of these devices at any other time may severely damage one or both of the generator sets.

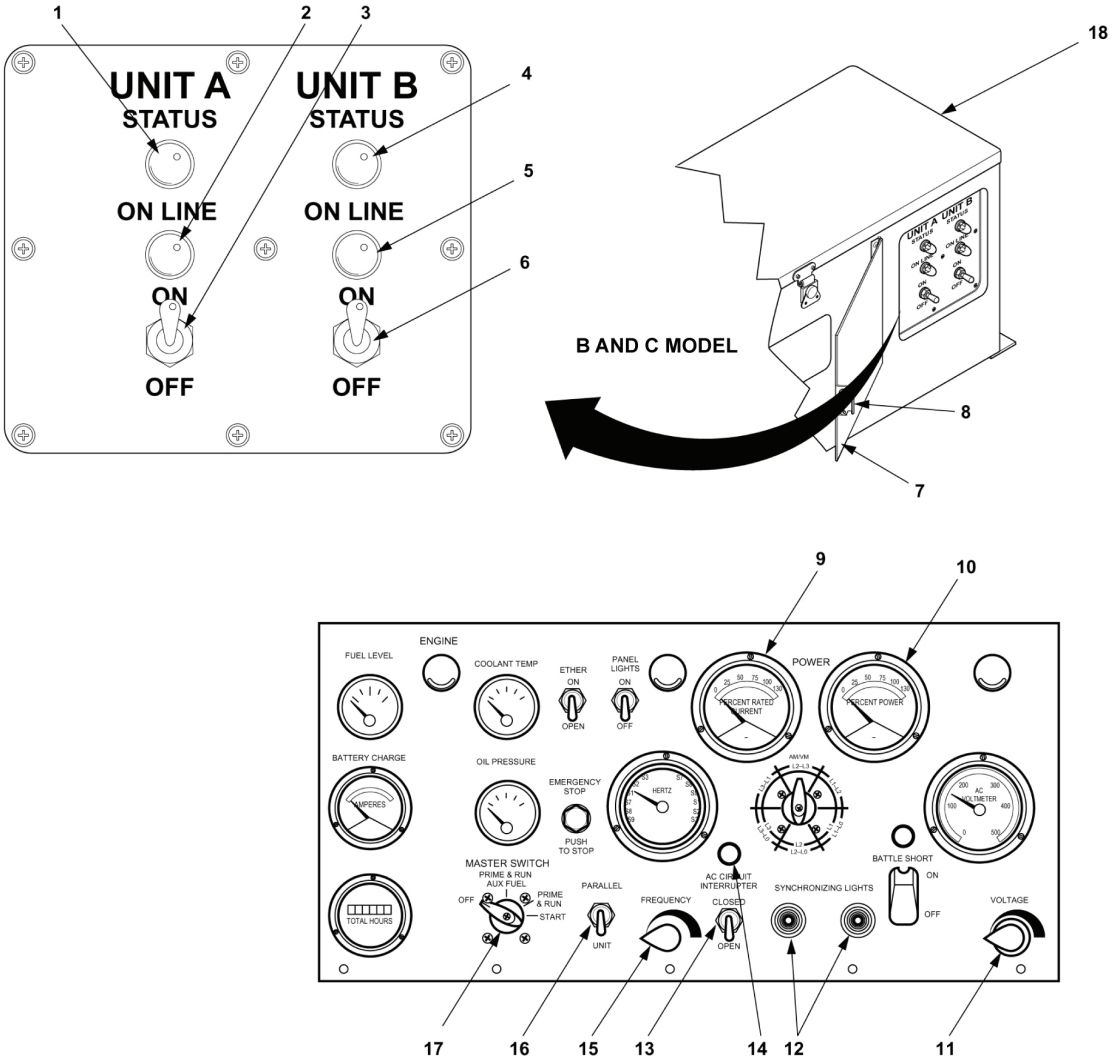


Figure 2-8. Power Plant Operation Using Analog Generator Sets (Sheet 1 of 2).

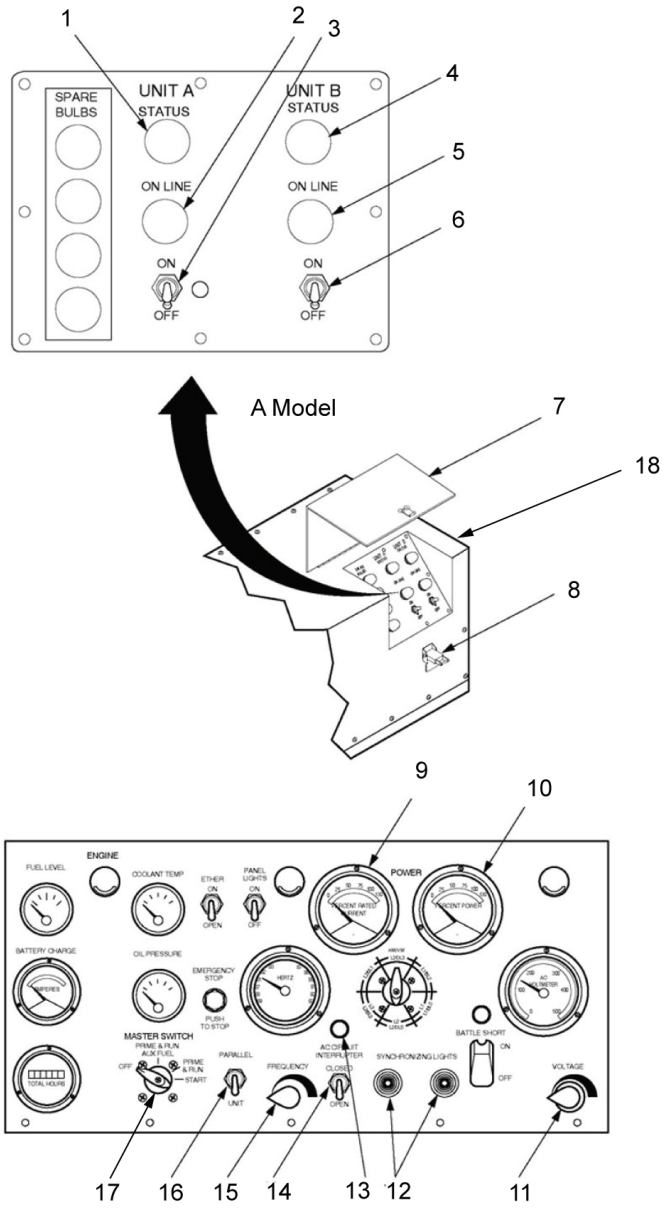


Figure 2-8. Power Plant Operation Using Analog Generator Sets (Sheet 2 of 2).

c. Refer to paragraph 2-5.3.1 (steps c through j) to start a generator set and bring it on line. If generator set is already operating and supplying power, skip this step.

d. On operating generator set (generator Set 1) position UNIT-PARALLEL switch (16, Figure 2-8) to PARALLEL position.

e. Refer to paragraph 2-5.3.1 (steps c through g) to start generator Set 2. Adjust voltage and frequency to match generator Set 1.

f. At switch box (18), set generator Set 2 ON-OFF switch (3 or 6) to ON (switch box STATUS & ON-LINE lights for both generators should be lit).

CAUTION

Check to see the load contactor at load is open before attempting to place generator on line. Failure to observe this caution can result in damage to the generator sets.

g. At generator Set 2 control panel:

(1) Set UNIT-PARALLEL switch (16) to PARALLEL. Both SYNCHRONIZING LIGHTS (12) should be alternating on and off together.

CAUTION

If SYNCHRONIZING LIGHTS on generator Set 2 do not go bright and dark in unison, the phasing is wrong. Shut down generator sets and check that load cables are connected properly. Failure to observe this caution can result in damage to generator sets.

(2) Increase frequency until SYNCHRONIZING LIGHTS (12) blink together one or more times per second. The light may blink slower at some point before increasing.

(3) Decrease frequency until SYNCHRONIZING LIGHTS (12) blink together once every 3-4 seconds.

(4) When both SYNCHRONIZING LIGHTS (12) are dark, position and hold AC CIRCUIT INTERRUPTER switch (13) of generator Set 2 in the CLOSED position until indicator light (14) goes out. SYNCHRONIZING LIGHTS (12) should go out (both generators are now operating in parallel with no load).

h. Rotate FREQUENCY adjust potentiometer (15) of generator Set 2 until AC AMPERES meter (9) is approximately "0."

i. Rotate VOLTAGE adjust potentiometer (11) of generator Set 1 until AC AMPERES meter (9) is approximately "0."

j. Perform the PMCS listed as “DURING” in Table 2-2.

2-5.3.3 Removal from Parallel Operation (Load Transfer).

WARNING

If it is necessary to move a generator set which has been operating in parallel with another generator set, shut down remaining generator set connected to the load, prior to removing load and ground cables. Failure to comply with this warning can cause injury or death to personnel.

CAUTION

Prior to removal of generator set from parallel operation, make sure load does not exceed full load rating of generator set remaining on line. Failure to observe this caution can result in damage to generator set.

a. At the switch box (18, Figure 2-8) for the set being taken off line, turn switch (3 or 6) to the off position.

b. Set UNIT-PARALLEL switch (16) to UNIT on the remaining operating set.

c. At the control panel of the generator set to be taken off line, position AC CIRCUIT INTERRUPTER switch (13) to the OPEN position until indicator (14) goes out. At switch box (18), STATUS and ON LINE lights for the generator shut down should be off.

d. On the set being shut down, rotate MASTER switch (17) to OFF position.

e. At the control panel of the shut down generator set, place the UNIT-PARALLEL switch (16) to UNIT.

f. Perform the PMCS listed as “AFTER” in Table 2-2 for the generator set that was shut down.

g. Repeat steps a through f for generator Set 1, if it is being shut down also.

2-5.4 Power Plant Switch Box Operating Procedures Using Digital Generator Sets. The power plant can be operated either in a single generator set configuration or parallel operation of the generator sets. The following paragraphs provide operating procedures for a single generator or two generator sets in parallel.

2-5.4.1 Operating a Single Generator Set from a Power Plant.

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.

NOTE

Before operating generator sets, all connections must be made to the switch box assembly.

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

b. Release the clamping catch (8, Figure 2-9) and open the control panel access cover (7).

c. To start the generator set, place the MASTER CONTROL switch (11) in the ON position. After CIM (Computer Interface Module) (16) has booted, ensure CIM display screen (16) is in main mode.

d. Hold FAULT RESET switch (10) in ON position (for 2 seconds). Release switch.

e. Hold ENGINE CONTROL switch (15) in START position (for 2 seconds) and observe CIM display screen (16) until oil pressure reaches 25 psi (172 kPA), and engine has reached stable operating speed.

f. Release ENGINE CONTROL switch (15) to PRIME & RUN position.

g. If external fuel system is being used, place ENGINE CONTROL switch (15) to PRIME & RUN AUX FUEL position.

h. Adjust VOLTAGE ADJUST switch (13) to required voltage.

i. Adjust FREQUENCY ADJUST switch (14) to required frequency.

j. Hold AC CIRCUIT INTERRUPT switch (12) in the closed position until CONTACTOR POSITION on CIM display screen (16) reads CLOSED.

k. Check switch box (9) to make sure that STATUS light (1 or 4) is lit for the generator set just started. If light is not on, see Chapter 3 for troubleshooting procedures.

l. At the switch box (9), set the ON/OFF switch (3 or 6) to the ON position (ON LINE light (2 or 5) should light). The generator set is now ready to supply power to the load.

m. Close the control panel access cover (7) and secure with clamping latch (8).

n. Perform the PMCS listed as "DURING" in Table 2-2.

o. On the Power Plant switch box (9), place the ON LINE switch (3 or 6) for the operating generator set in the OFF position.

p. To shut down generator set, place AC CIRCUIT INTERRUPT switch (12) in the OPEN position.

NOTE

Before shutting generator set off, allow it to operate five minutes with no load applied.

q. On the generator control panel rotate the ENGINE CONTROL switch (15) to the OFF position. Move display cursor (18) to shut down computer, then place the MASTER CONTROL switch (11) in the OFF position once prompted.

NOTE

If using digital generator set (B Model), use switch box B&C Models only.

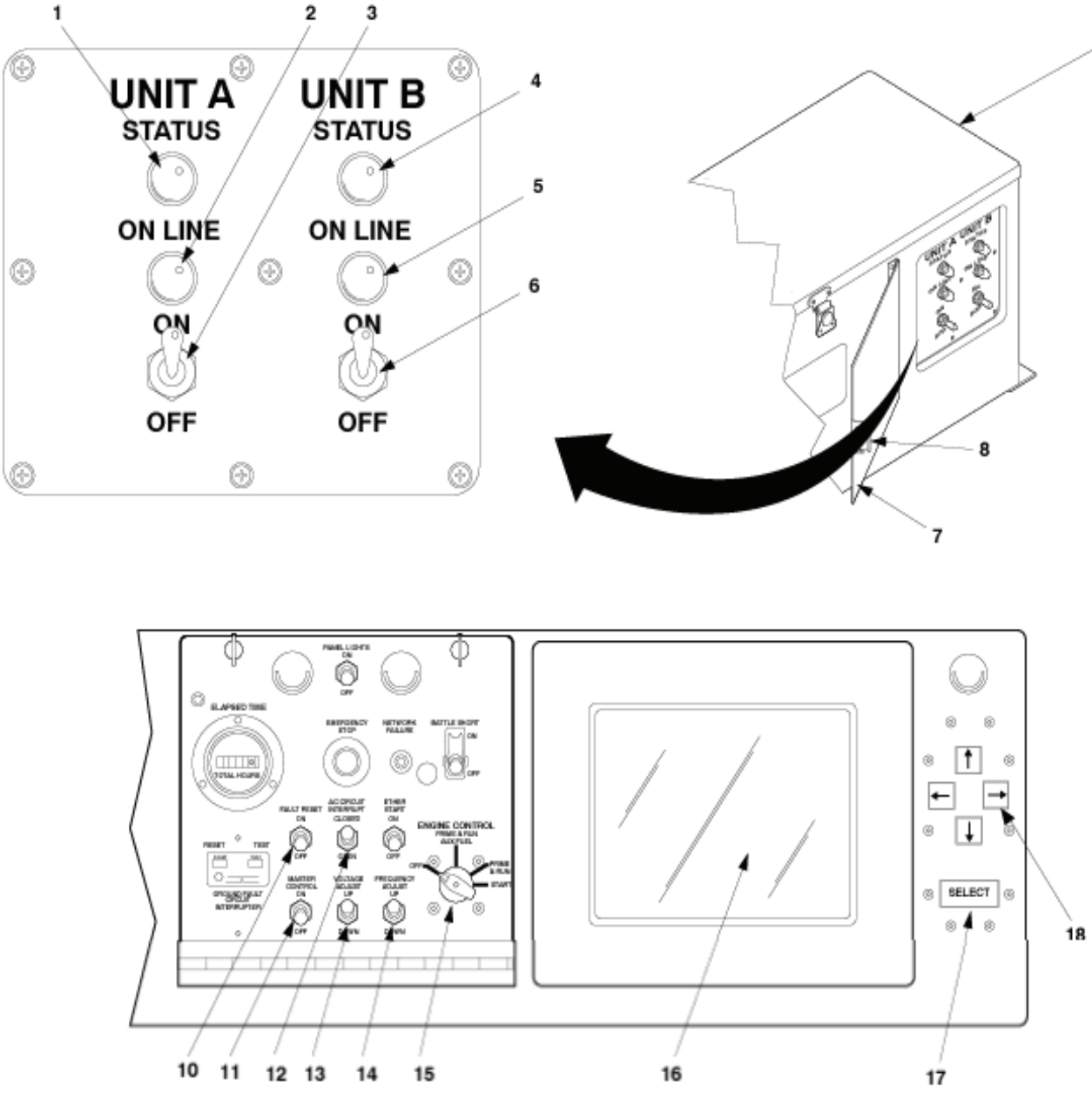


Figure 2-9. Power Plant Operation Using Digital Generator Sets.

2-5.4.2 Operating Digital Generator Sets in Parallel. These generator sets can be operated in parallel through the B&C Models switch box (9, Figure 2-9). When paralleling at the switch box, perform the following procedures:

WARNING

Prior to making any connections for parallel operation, ensure that there is no input to the load and that the generator sets are shut down. 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.

NOTE

"Set 1" is the generator set that is first started and/or running. "Set 2" is the generator that will be paralleled with "Set 1" or the generator to which the load will be transferred to.

a. Ensure that load requirement is equal to or below the combined rated capacity of the two generator sets.

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

CAUTION

Do not close the AC CIRCUIT INTERRUPT switch (12) on either of the generator sets or close the load contactor at load until specifically directed to do so. Closing any of these devices at any other time may severely damage one or both of the generator sets.

c. Refer to paragraph 2-5.4.1 (steps c through k) to start a generator set and bring it on line. If generator set is already operating and supplying power, skip this step. Once on line, ensure CIM (Computer Interface Module) (16) shows contactor CLOSED.

d. Refer to paragraph 2-5.4.1 (steps c through k) to start generator Set 2. Adjust voltage and frequency to match generator Set 1.

e. At switch box (9), set generator Set 2 ON-OFF switch (3 or 6) to ON (switch box STATUS lights (1 and 4) and ON-LINE lights (2 and 5) for both generator sets should be lit).

f. At generator Set 2 control panel, place AC CIRCUIT INTERRUPT switch (12) in the CLOSED position. The CONTACTOR POSITION on the CIM display (16) should read CLOSED.

g. Close switch box control panel access cover (7), secure with clamping catch (8), and close generator set control panel access cover.

h. Perform the PMCS listed as DURING in Table 2-2.

2-5.4.3 Removal from Parallel Operation (Load Transfer).

WARNING

If it is necessary to move a generator set which has been operating in parallel with another generator set, shut down remaining generator set connected to the load, prior to removing load and ground cables. Failure to comply with this warning can cause injury or death to personnel.

CAUTION

Prior to removal of generator set from parallel operation, make sure load does not exceed full load rating of generator set remaining on line. Failure to observe this caution can result in damage to generator set.

a. At the switch box (9, Figure 2-9) for the set being taken off line, place ON-OFF switch (3 or 6) in the OFF position.

b. Momentarily hold the AC CIRCUIT INTERRUPT switch (12) on the control panel of the generator set to be taken off line in the OPEN position until CONTACTOR POSITION on the CIM display screen (16) reads OPEN. At the generator set switch box (9), the ON and ON LINE lights should go off.

c. Place ENGINE CONTROL switch (15) in the OFF position.

d. Perform the PMCS listed as “AFTER” in Table 2-2 for the generator set that was shut down.

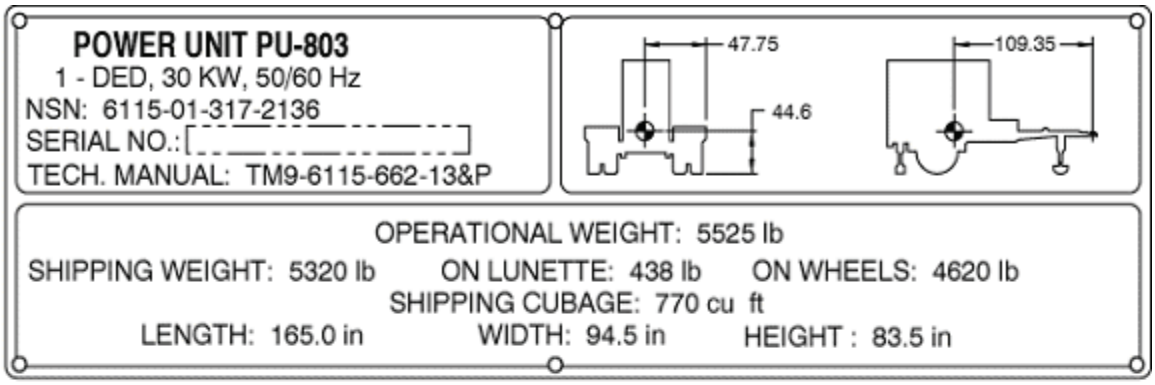
e. On generator Set 2 being taken off line, use the keypad arrow buttons (18) to move cursor up or down until SHUTDOWN COMPUTER is displayed on the CIM display screen (16). Press SELECT button (17), and, from CIM display screen (16) select EXIT button to exit the DCS (Digital Control System).

f. When the CIM display screen (16) displays a message that it is safe to turn off the computer, place the MASTER CONTROL switch (11) in the OFF position.

g. Repeat steps a through f for generator Set 1, if it is being shut down also.

2-6 IDENTIFICATION AND INFORMATION PLATES

2-6.1 PU-803 and PU-803B/G Identification/Transportation Data Plates. Refer to Figure 2-10. This plate is located on the trailer body.



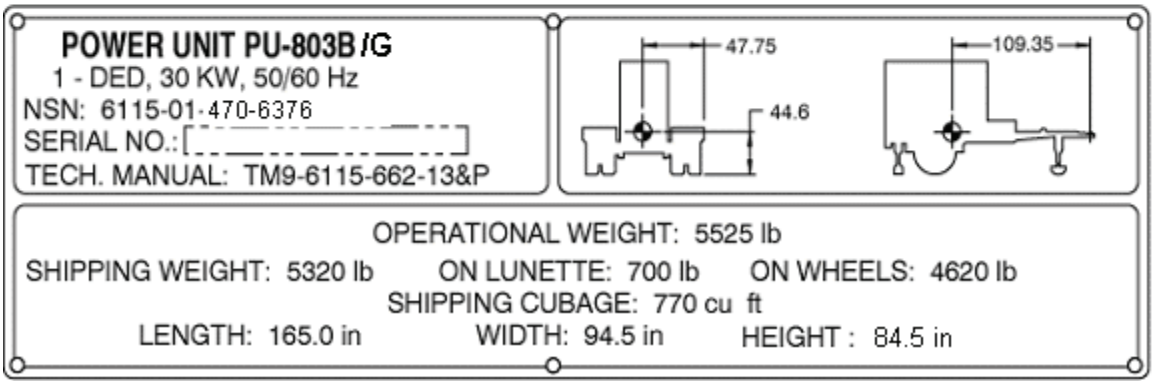


Figure 2-10. PU-803 and PU-803B/G Identification/Transportation Data Plates.

2-6.2 PU-804 and PU-804B/G Identification/Transportation Data Plates. Refer to Figure 2-11. This plate is located on the trailer body.

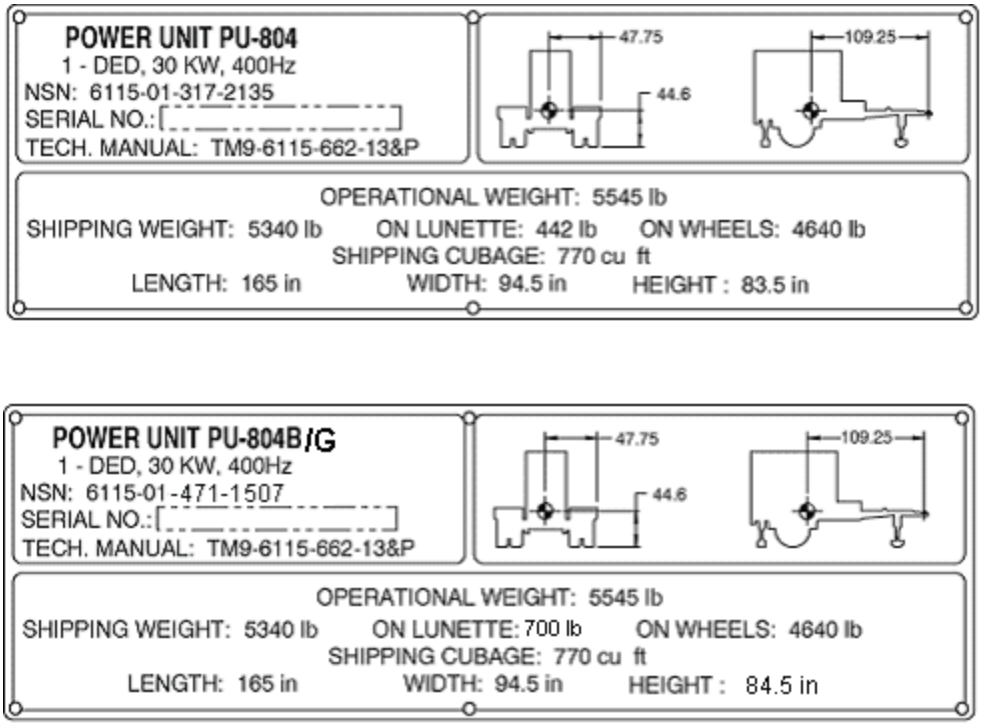


Figure 2-11. PU-804 and PU-804B/G Identification/Transportation Data Plates.

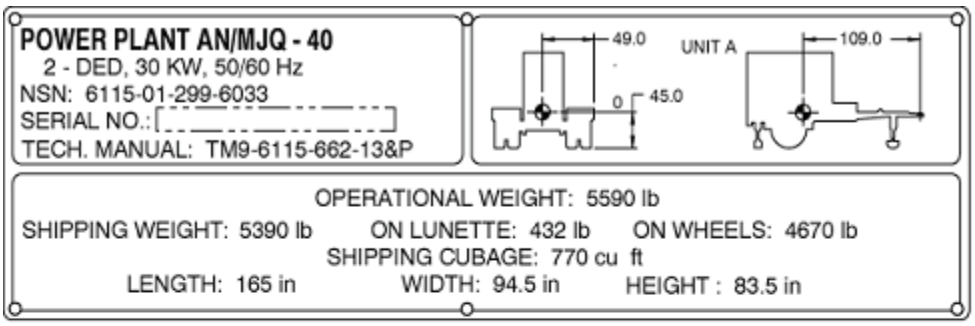
2-6.3 AN/MJQ-40 and AN/MJQ-40B Unit A Identification/Transportation Data Plates. Refer to Figure 2-12. This plate is located on the trailer body.

CAUTION

An AN/MJQ-40 generator set should not be paralleled with an AN/MJQ-40B generator set as extreme damage could occur to either or both of the generator sets.

NOTE

The switch box is mounted on Unit "A" of the AN/MJQ-40 and AN/MJQ-40B power plants.



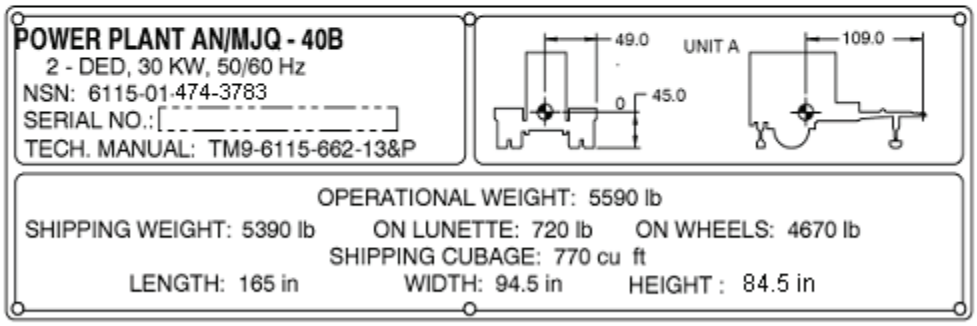


Figure 2-12. AN/MJQ-40 and AN/MJQ-40B Unit A Identification/Transportation Data Plates.

2-6.4 AN/MJQ-40 and AN/MJQ-40B Unit B Identification/Transportation Data Plates. Refer to Figure 2-13. This plate is located on the trailer body.

CAUTION

An AN/MJQ-40 generator set should not be paralleled with an AN/MJQ-40B generator set as extreme damage could occur to either or both of the generator sets.

NOTE

The switch box is mounted on Unit "A" of the AN/MJQ-40 and AN/MJQ-40B power plants.

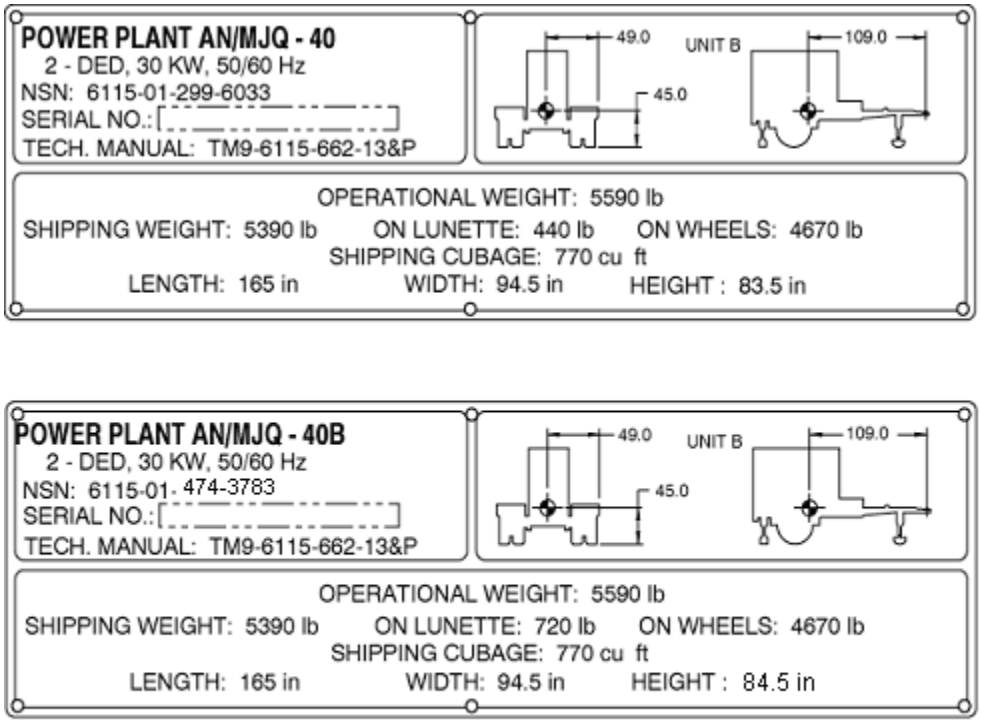


Figure 2-13. AN/MJQ-40 and AN/MJQ-40B Unit B Identification/Transportation Data Plates.

2-6.5 Power Plant Instruction Plates. Refer to Figure 2-14. These plates cover operating and load transfer procedures for the AN/.MJQ-40 power plant. The operating procedures plate is located outside the right side panel of the switch box. The load transfer procedures plate is on the inside cover of the switch box.

POWER PLANT OPERATING PROCEDURES

BEFORE OPERATION

1. CHECK/SERVICE BOTH GEN SETS BEFORE OPERATION. CONNECT “GND“ TERMINAL TO GROUND. CONNECT CONTACTOR POWER CABLE.

INDICATOR LIGHTS

1. STATUS LIGHT INDICATES LINE BETWEEN GEN AND SW BOX IS HOT.
2. ON LINE LIGHT. INDICATES SWITCH BOX CONTACTOR IS CLOSED FOR INDICATED GEN.

OPERATING PROCEDURES

1. START EITHER GEN. ADJUST VOLTAGE AND FREQUENCY.
2. PUT GEN “CKT INTRP SW” IN “CLOSED” POSITION. (SWITCH BOX “STATUS” LIGHT SHOULD LIGHT.)
3. AT SWITCH BOX, SET “ON-OFF” SWITCH TO “ON”. (“ON LINE” LIGHT SHOULD LIGHT.)

LOAD TRANSFER PROCEDURES (SETS CONNECTED FOR PARALLEL OPERATION PER TM)

FOR ANALOG DISPLAY (AN/MJQ-39, AN/MJQ-40 AND AN/MJQ-41) SETS:

1. ON "OPERATING" GEN, (GEN NO. 1) SET "UNIT-PARALLEL" SWITCH TO "PARALLEL".
2. START GEN NO. 2. ADJUST VOLTAGE AND FREQUENCY TO MATCH GEN NO. 1.
3. AT SWITCH BOX, SET GEN NO. 2 “ON-OFF” SWITCH TO “ON”. (“ON-LINE” AND “STATUS” LIGHTS SHOULD LIGHT.)
4. AT GEN NO. 2, SET "UNIT-PARALLEL" SWITCH TO "PARALLEL". BOTH "SYNCHRONIZING" LIGHTS SHOULD BE GOING BRIGHT TO DARK TOGETHER.
5. INCREASE FREQUENCY UNTIL SYNCHRONIZING LIGHTS BLINK TOGETHER ONE OR MORE TIMES PER SECOND.
6. DECREASE FREQUENCY UNTIL LIGHTS BLINK TOGETHER ONCE EVERY 3-4 SECONDS.
7. WHEN LIGHTS ARE DARK, SET GEN NO. 2 "CKT INTRPT SWITCH" TO "CLOSE". GEN CONTACTOR LIGHT SHOULD LIGHT AND "SYNCHRONIZING" LIGHTS SHOULD GO OUT.
8. AT GEN NO. 1, SET "CKT INTRPT SWITCH" TO "OPEN", SET "UNIT-PARALLEL" SWITCH TO "UNIT". TURN "MASTER" SWITCH TO "STOP". (AT SWITCH BOX, "ON LINE" AND "STATUS" LIGHTS FOR GEN NO. 1 SHOULD GO OFF)
9. AT GEN NO. 2, SET "UNIT-PARALLEL" SWITCH TO "UNIT".

FOR DIGITAL DISPLAY (AN/MJQ-40B AND AN/MJQ-41B) SETS:

1. START GEN NO. 2. ADJUST VOLTAGE AND FREQUENCY TO MATCH GEN NO. 1.
2. AT SW BOX, SET GEN NO. 2 "ON-OFF" SWITCH TO "ON". ("ON LINE" AND "STATUS" LIGHTS SHOULD LIGHT)
3. SET GEN NO. 2 "CKT INTRPT SWITCH" TO "CLOSE". THE INDICATOR ON THE CIM DISPLAY SCREEN SHOULD READ "CLOSED".
4. AT GEN NO. 1, SET "CKT INTRPT SWITCH" TO "OPEN". TURN "MASTER" SWITCH TO "STOP". (AT SWITCH BOX, "ON LINE" AND "STATUS" LIGHTS FOR GEN NO. 1 SHOULD GO OFF).

Figure 2-14. Power Plant Instruction Plates.

2-7 PREPARATION FOR MOVEMENT

2-7.1 Shut Down Generator Set. For analog sets, refer to paragraph 2-5.3.3 (steps a-g) and shut down both generator sets. For digital sets, refer to paragraph 2-5.4.3 (steps a-g) and shut down both generator sets.

2-7.2 Disconnecting Load and/or Paralleling Cables.

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, switch box 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 or paralleling cables while the generator set is running. Failure to comply with this warning can cause injury or death to personnel.

NOTE

Before connecting the load, determine voltage and frequency requirements of the system or device that is being supplied with power. Refer to TM 9-6115-644-10 and TM 9-6115-671-14. Verify that voltage reconnection board is in proper position for voltage requirements and the frequency select switch is in the proper position. If board requires repositioning notify next-higher level of maintenance.

a. Disconnect power cable W19 (12, Figure 2-15) from Unit B to the switch box.

b. Disconnect paralleling cables (11 and 13) from generator to generator and from Unit B to the switch box.

2-7.2.1 Power Unit. Refer to TM 9-6115-644-10 and TM 9-6115-671-14 for removal of power cables.

2-7.2.2 Power Plant. For switch box A Model, load may be disconnected from the switch box (Figure 2-15) by either of two methods. One method is to disconnect the power cable from the J1 connector (6). The other method is to disconnect load cables from the load terminals (1, 2, 3, 4, and 5). Disconnect the load cable using the appropriate method. Disconnect Unit A from Unit B as follows:

a. Disconnect paralleling cables as follows:

(1) Disconnect generator set paralleling cable (11) from paralleling receptacles (7) on both generator sets. Store paralleling cable (11) with Unit B generator set.

(2) Disconnect the switch box end of cable (13) from J16 (8) on Unit B generator set and remove from power cable sock (10).

(3) Disconnect the other end of switch box cable (13) from connector J3 (15) of the switch box (16) located on Unit A. Store paralleling cable (13) with Unit A generator set.

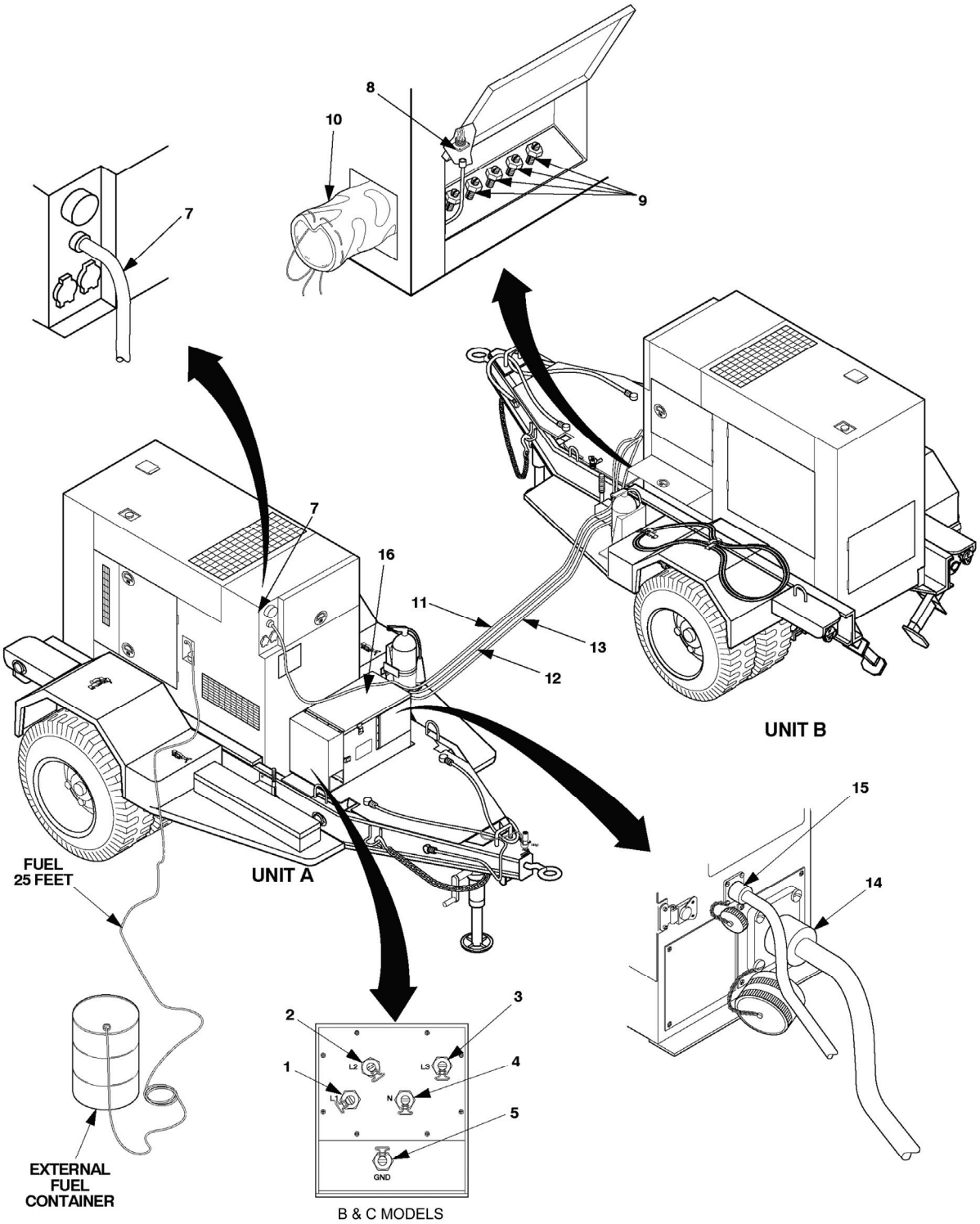


Figure 2-15. Disconnection of Power Plant (Sheet 1 of 2).

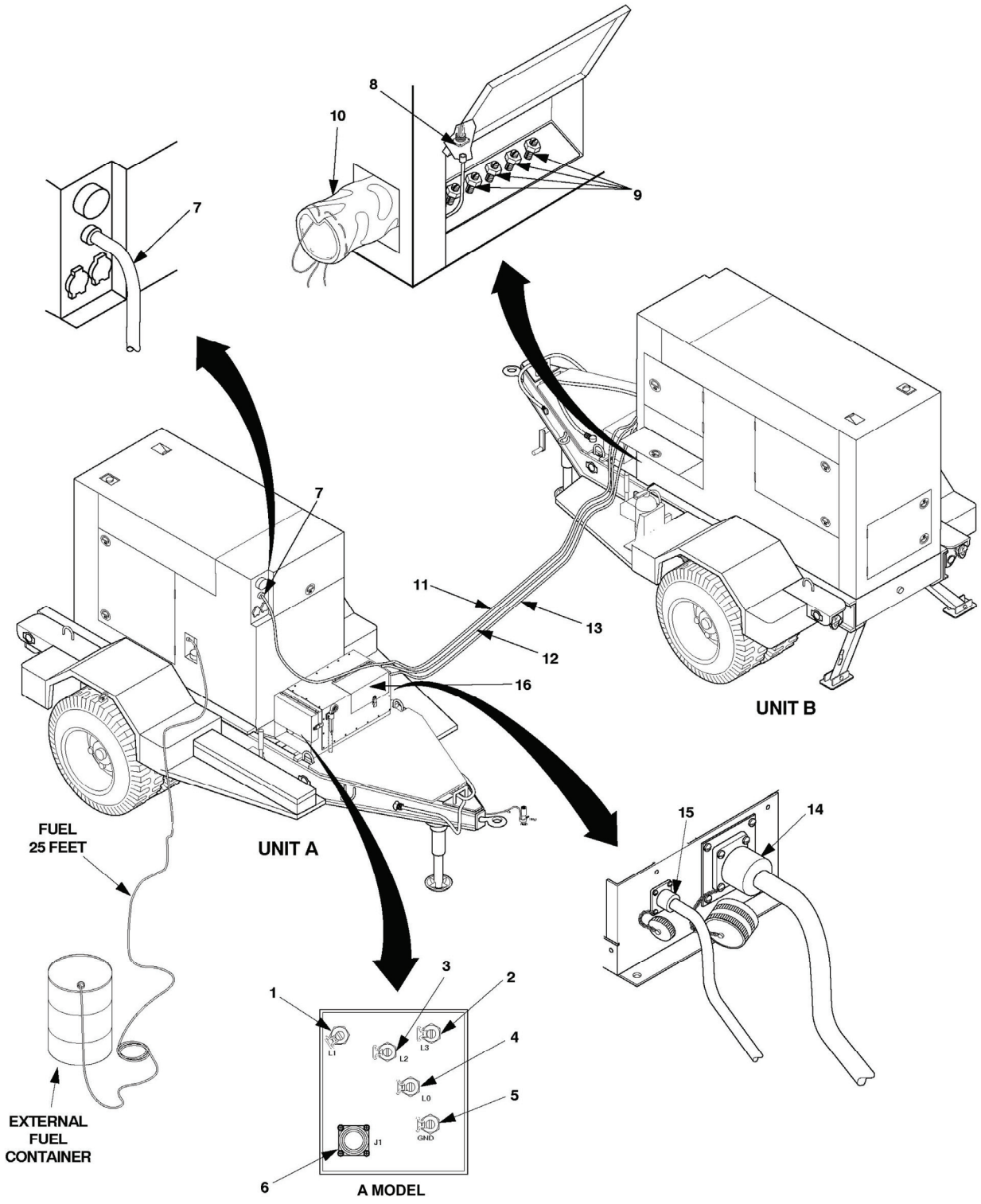


Figure 2-15. Disconnection of Power Plant (Sheet 2 of 2).

2-7.3 Removal of Ground Rod Assembly. Disconnect ground cable (11, Figure 2-16) as follows:

Using slide hammer (9), remove ground rod (8) as follows:

a. Loosen clamp screw (1) and remove ground cable (11).

b. Loosen nut (10) from ground stud (12). Roll up ground cable (11) and store in accessory box.

c. Tighten nut (10), loosened in step b, from ground stud (12).

d. Remove coupler (6) and ground cable clamp (7) from ground rod section (8).

e. Install coupler (6) on ground rod section (8).

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 cause injury to personnel, and damage to the equipment.

f. Refer to paragraph 2-3.3, step a, and Figure 2-5. Assemble slide hammer (9, Figure 2-16).

g. Connect slide hammer end (9) to ground rod coupler (6).

h. Using slide hammer (9), pull ground rod (8) out of the ground until the second coupler is exposed.

i. Disconnect slide hammer (9) from top of ground rod coupler (6).

j. Disconnect top ground rod section from second ground rod section.

k. Repeat steps f through j for second and third ground rod sections.

l. Remove couplers (7) from each ground rod section (8).

m. Clean ground rod sections (8) and couplers (6).

n. Refer to paragraph 2-3.3, step i, and disassemble slide hammer (9).

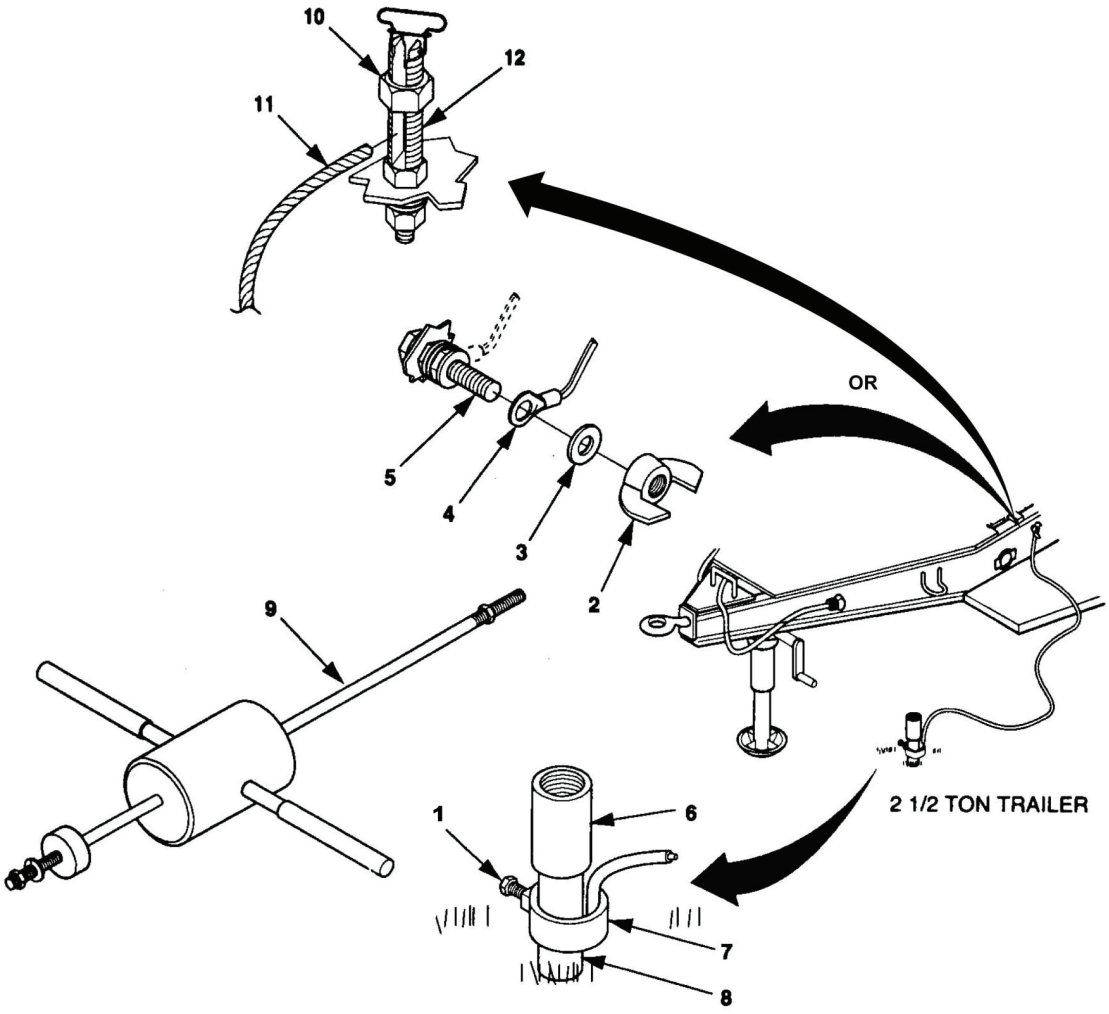


Figure 2-16. Removal of Ground Rod Assembly.

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.

2-7.4 <u>Disconnect External Fuel Source</u>. Disconnect auxiliary fuel hose as follows:

a. Disconnect the auxiliary fuel hose from the generator set external fuel supply connector. Elevate the free end of the auxiliary fuel hose to drain fuel back into the external fuel source. Place free end of auxiliary fuel hose on a clean surface.

b. Disconnect auxiliary fuel hose from fitting on container adapter (2, Figure 2-17).

c. Store auxiliary fuel hose behind battery access door.

d. Remove extension pipe (4), pipe (3), adapter (2), and strainer clamp (1) and store in the accessory box.

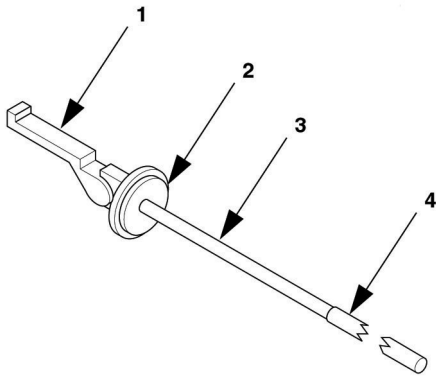


Figure 2-17. Auxiliary Fuel Source (Typical).

Section IV. OPERATION UNDER UNUSUAL CONDITIONS

2-8 GENERATOR SETS

Refer to TM 9-6115-644-10 and TM 9-6115-671-14.

2-9 TRAILER

Refer to TM 9-2330-205-14&P.

CHAPTER 3

OPERATOR MAINTENANCE

Subject Index Page

Section I. OPERATOR LUBRICATION

3-1 LUBRICATION

Lubrication instructions for the generator set are contained in LO 9-6115-644-12, TM 9-6115-671-14, and TM 9-6115-644-10. Lubrication instructions for the diesel engine are contained in TM 9-2815-255-24 and TM 9-2815-259-24. Lubrication instructions for the trailer are contained in TM 9-2330-205-14&P.

Section II. TROUBLESHOOTING PROCEDURES

3-2 GENERAL

Refer to TM 9-6115-644-10 and TM 9-6115-671-14 for generator set troubleshooting instructions, TM 9-2815-255-24 and TM 9-2815-259-24 for engine troubleshooting instructions, and TM 9-2330-205-14&P for trailer troubleshooting instructions. The symptom index for the power plant lists faults associated with switch box operation. Figures 3-1 through 3-4 provide a go-no-go flowchart of each malfunction. Each malfunction listed includes a reference to the applicable figure that contains a chart to help you determine probable causes and corrective actions to take. The symptom index cannot list all faults that may occur, nor all the 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 for assistance.

SYMPTOM INDEX

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, switch box 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.

NOTE

The troubleshooting charts cover all three versions of the switch boxes, A, B, and C.

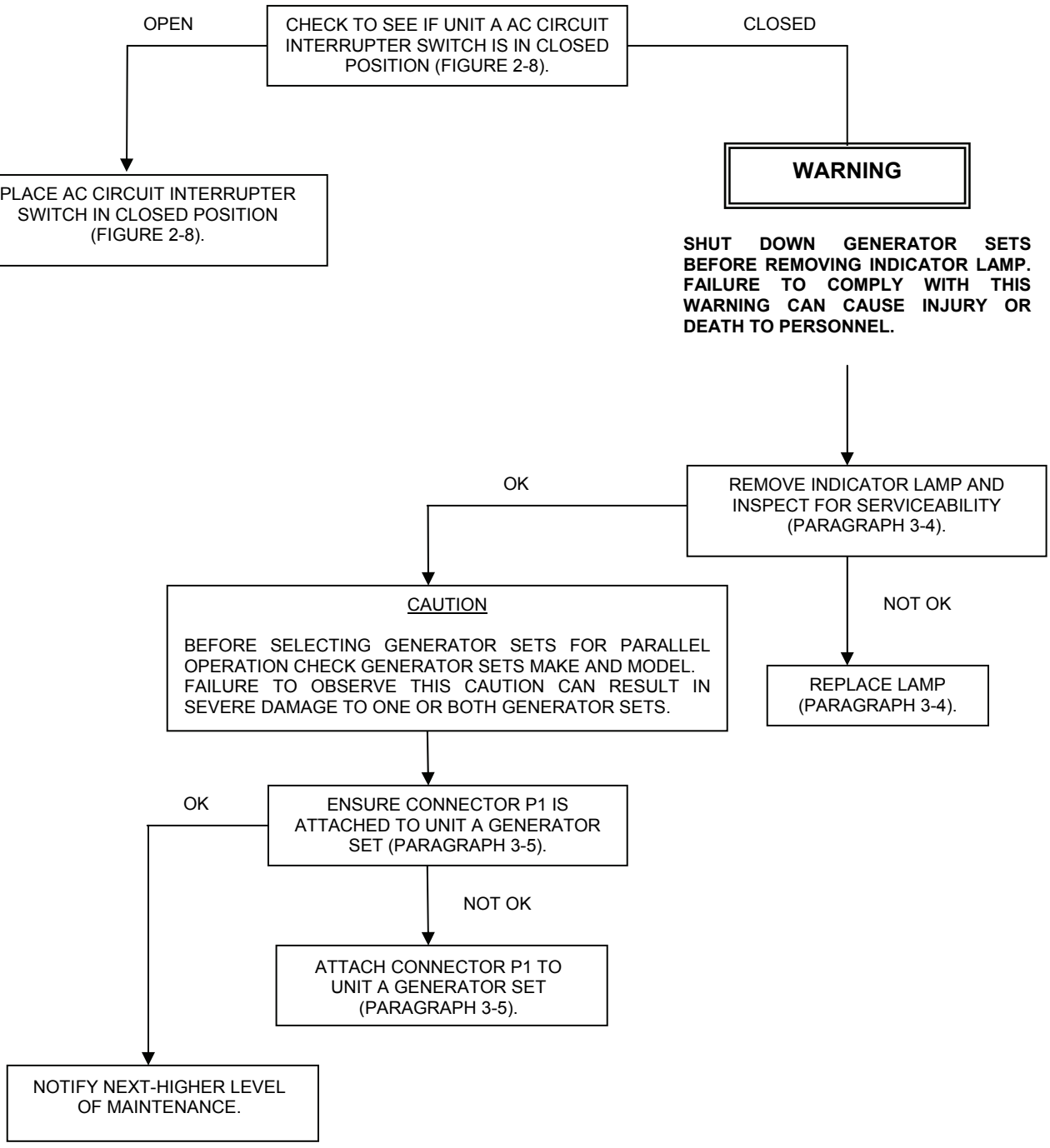


Figure 3-1. Unit A STATUS Indicator Lamp Fails to Light With Generator Set Running.

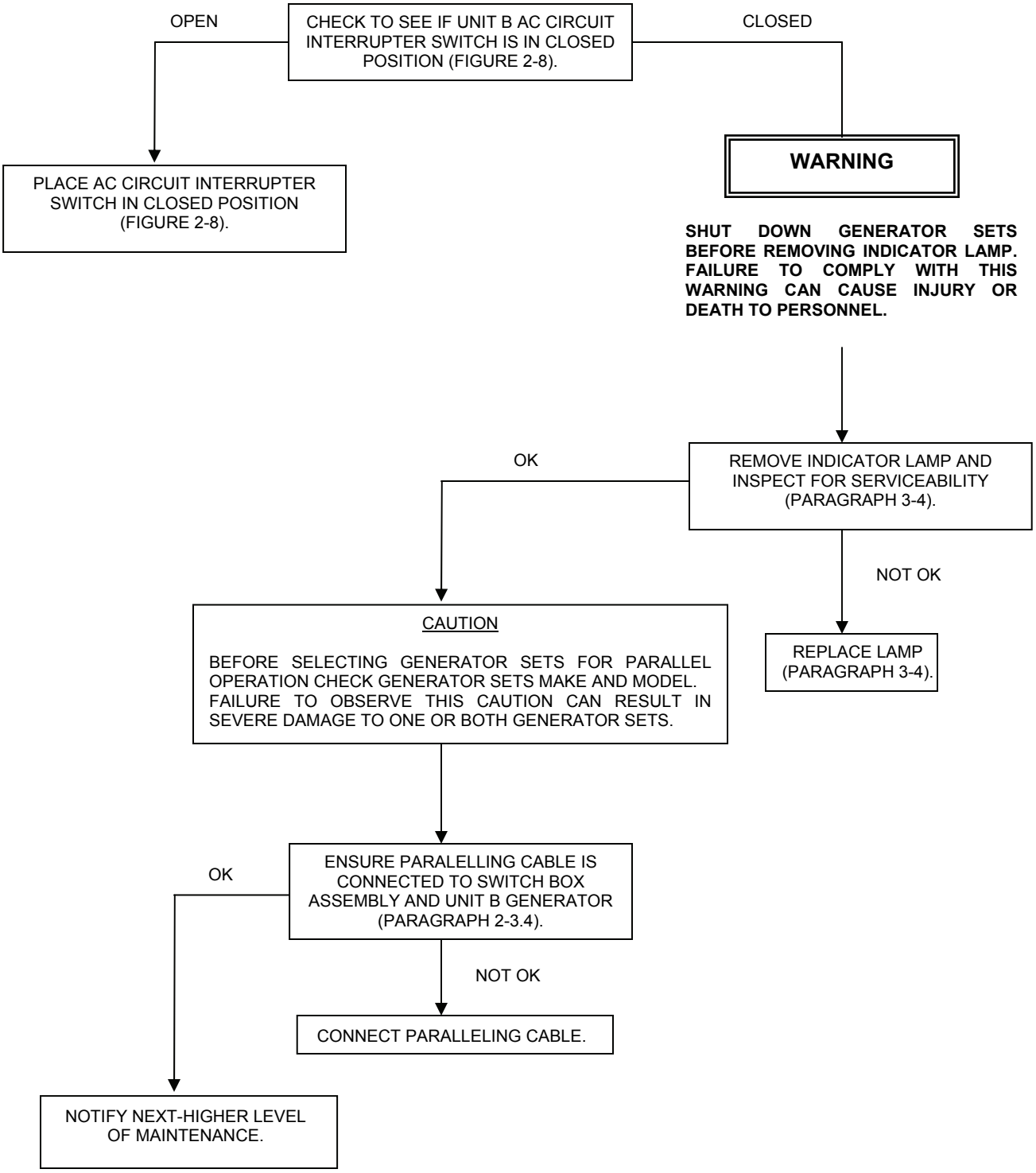


Figure 3-2. Unit B STATUS Indicator Lamp Fails to Light With Generator Set Running.

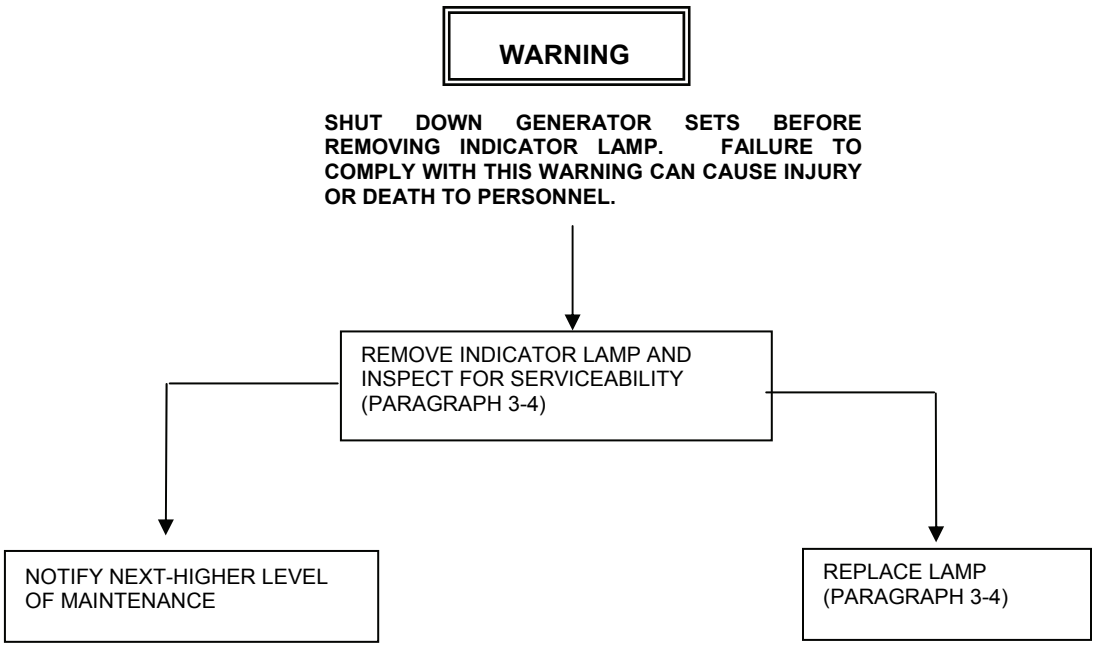


Figure 3-3. ON LINE Indicator Lamp Fails to Light When ON/OFF Switch Is Placed to ON Position.

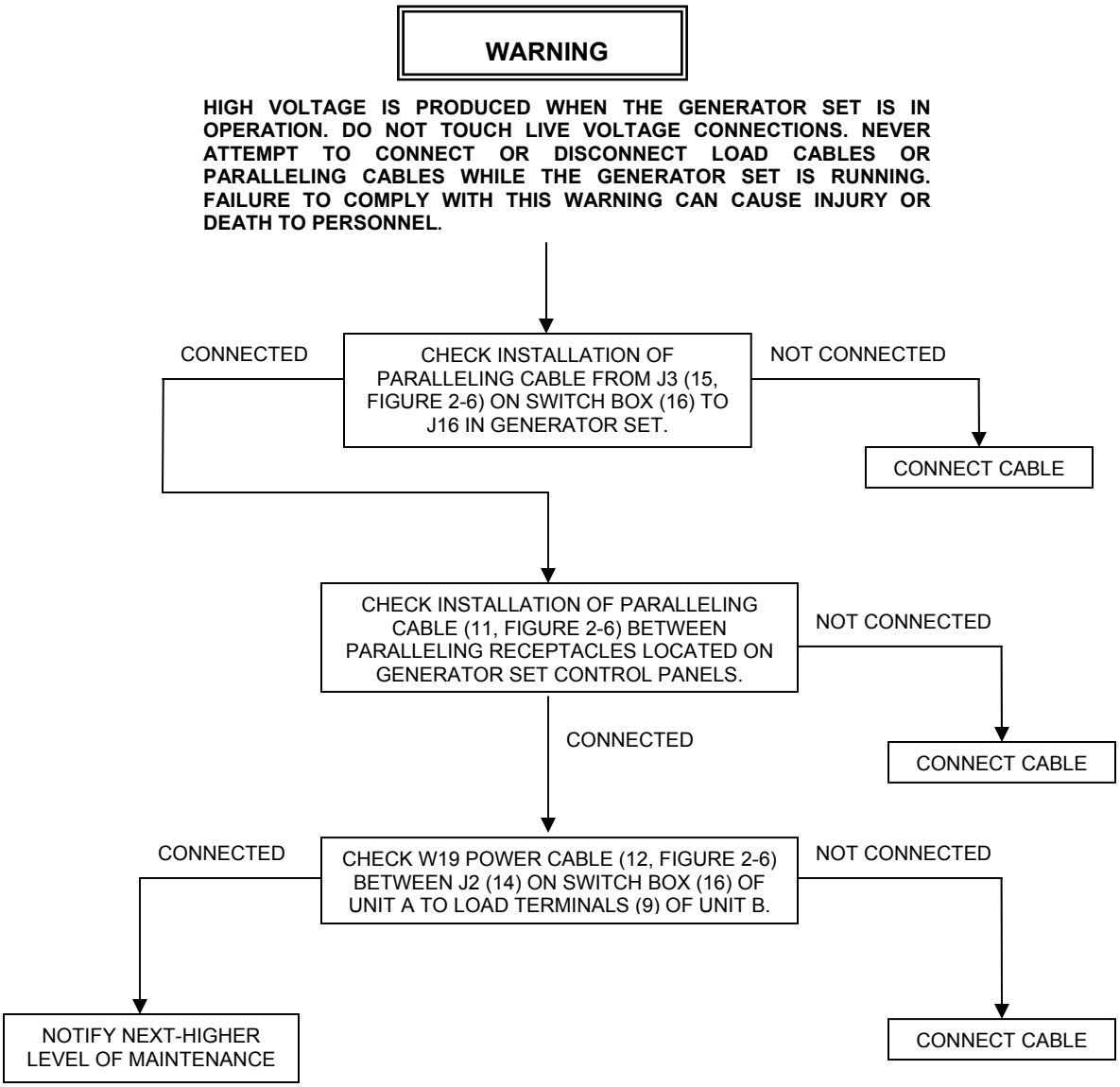


Figure 3-4. Cables Are Connected Properly, But Unit Fails to Parallel Through Switch Box.

Section III. MAINTENANCE PROCEDURES

3-3 OPERATOR MAINTENANCE

Refer to TM 9-6115-644-10 and TM 9-6115-671-14 for generator set maintenance instructions; refer to TM 9-2330-205-14&P for trailer maintenance instructions. The operation maintenance functions for the power units/power plants are provided in paragraphs 3-4 and 3-5.

3-4 INDICATOR LAMP AND/OR LENS REPLACEMENT.

This task covers: a. Remove b. Install

INITIAL SETUP

Equipment Conditions

Reference
Both generator sets shut down,
paragraph 2-5.3.3, steps a-g (analog),
paragraph 2-5.4.3, steps a-g (digital).
Trailer support devices are lowered, paragraph 2-3.2.1.

WARNING

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

REMOVE

1. Release clamping catch (7, Figure 3-5) and open control panel access cover (3).
2. Grip and unscrew lens cap (1).
3. Remove lamp (2) by grasping the base and pulling outward.

INSTALL

1. Insert lamp (2) into lens cap (1) and push inward.
2. Install lens cap (1) with lamp (2) by threading lens cap (1) into housing. Tighten lens cap (1) firmly.
3. Close control panel access cover (3) and secure clamping catch (7).

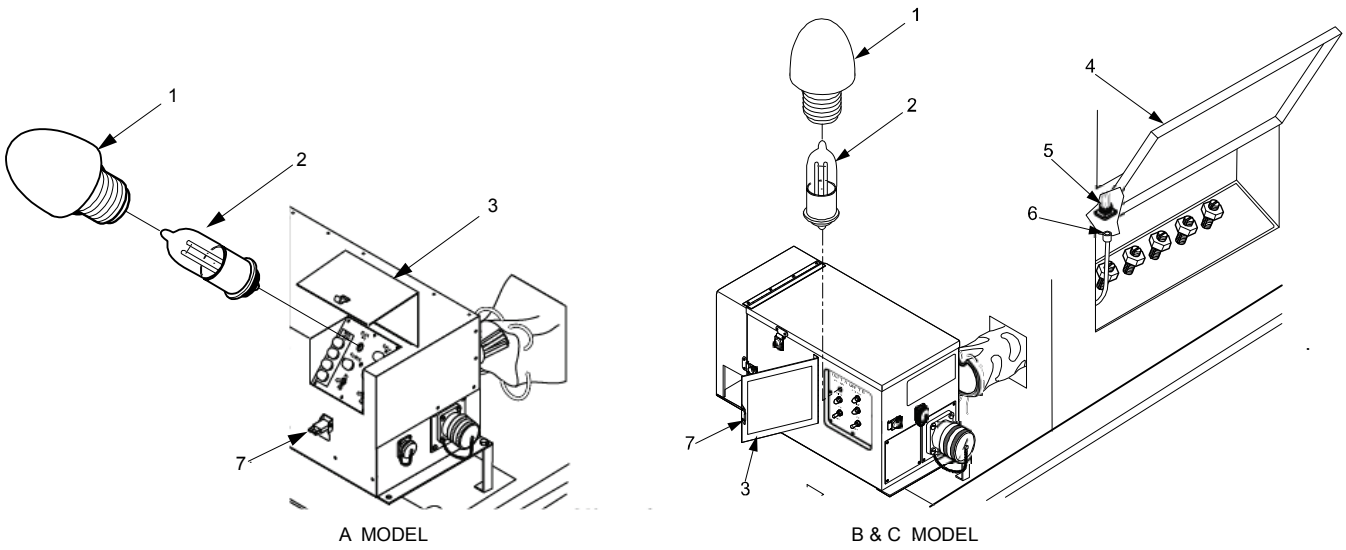


Figure 3-5. Indicator Lamps and P1 Connector Maintenance.

3-5 ATTACHING CONNECTOR P1 TO UNIT A.

This task covers: a. Install

INITIAL SETUP

Equipment Conditions

Reference
Both generator sets shut down,
paragraph 2-5.3.3, steps a-g (analog),
paragraph 2-5.4.3, steps a-g (digital).
Trailer support devices are lowered, paragraph 2-3.2.1.

INSTALL

1. Open access panel (4, Figure 3-5) to unit A generator load terminals.
2. Attach connector P1 (6) to J16 (5) inside generator set.

CHAPTER 4

UNIT MAINTENANCE

Subject Index Page

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

No special tools or support equipment are required for maintenance of the power units or power plants. Refer to TM 9-6115-644-24P and TM 9-6115-671-24P for generator set special tools and/or support equipment. Refer to TM 9-2815-255-24P and TM 9-6115-259-24P for engine special tools and/or support equipment.

4-3 REPAIR PARTS

Refer to TM 9-6115-644-24P and TM 9-6115-671-24P for generator set parts and TM 9-2815-255-24P and TM 9-6115-259-24P for engine parts. Refer to TM 9-2330-205-14&P for trailer repair parts. Power plant and 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 Power Unit. (Refer to Figure 4-1.) The power unit is wrapped in plastic prior to shipment to OCONUS units. It is secured by metal banding for shipment to CONUS units. The PU-803, PU-803B/G, PU-804 and PU-804B/G are identical, with the exception of the electrical output frequency of the generator sets. Two Power Units are modified to make up a Power Plant. Therefore, the unpacking procedures and Figure 4-1 are typical for each configuration. Each generator set is packed in place on its respective trailer.

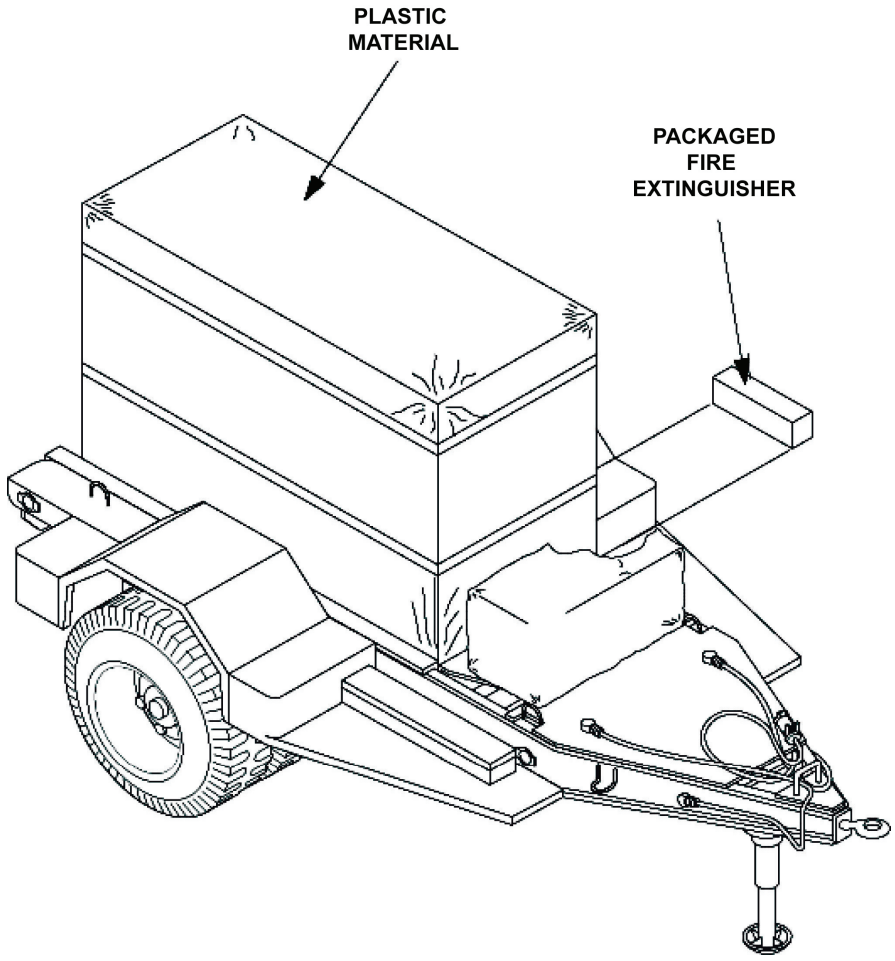


Figure 4-1. Power Unit Packed for Shipment.

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 injury to personnel.

b. Using metal cutters, carefully cut strapping from plastic covering generator set, accessory box, and, when unpacking unit A, the switch box. Remove strapping.

c. Remove plastic cover over generator set by lifting off the cover.

d. Technical manuals are packaged and may be attached to barrier material. If so, remove and save technical manuals.

e. Remove packaged fire extinguisher from within generator set enclosures. Unpack and secure fire extinguisher in bracket on trailer.

f. Open accessory box and remove all packaging/cushioning material from accessories.

g. Using the packing list(s) removed in step a, inventory the accessories. Check missing items against shortage packing list (if any). Report any discrepancies to your supervisor.

4-4.2 Checking 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, Functional User s Manual for the Army Maintenance Management System (TAMMS).

c. Check to see whether the equipment has been modified.

4-4.3 Deprocessing Equipment.

Refer to DA Form 2258, Depreservation Guide for Vehicles and Equipment, packed with the equipment. 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 mechanics tool kit is required for installation of the power unit/power plant.

4-5.2 Assembly of Equipment.

NOTE

The following warnings apply to assembly of all model power plants and power units covered in this technical manual.

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.

4-5.2.1 Assembly Of Power Plants.

NOTE

There are two possible configurations for the ground terminal on the trailer, a load terminal or a stud with associated hardware.

Refer to Figure 4-2 and assemble the AN/MJQ-40 or AN/MJQ-40B power plant as follows.

a. Remove power cable provided with Unit B power unit, located on Unit B (left fender).

b. Locate the leads and ensure they are marked L1, L2, L3, N, and GND.

NOTE

The neutral terminal may be designated "LO" instead of "N."

c. GND (ground) should be marked as a separate lead.

d. Open the access door panel (5, Figure 4-2) to Unit B generator load terminals, then connect power cable leads as follows:

(1) Connect lead marked L3 to generator set load terminal L3.

(2) Connect lead marked L2 to generator set load terminal L2.

(3) Connect lead marked L1 to generator set load terminal L1.

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

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

e. For Units A and B remove 60 inch ground wire (2) from accessory box. If necessary, remove one inch of insulation from both ends of ground wire (2) and connect as follows:

(1) If a trailer having the load terminal is being used, perform steps (5) through (8). Otherwise perform steps (2), (3), (4), (7), and (8).

(2) Remove and retain wing nut (6), washers (7 and 9), and nut (8) from trailer ground stud (10) and install ground terminal (11) to ground stud (10).

(3) Install washers (7 and 9) and nut (8) on ground stud (10).

(4) Install wing nut (6) on ground stud (10) and tighten.

(5) Loosen nut (1) on trailer ground terminal.

(6) Insert ground wire (2) through slot of ground terminal.

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.

(7) Route ground wire (2) through power cable sock (3).

(8) Connect ground wire (2) to generator set ground terminal (4).

4-5.2.2 Assembly Of Power Units.

NOTE

There are two possible configurations for the ground terminal on the trailer, a load terminal or a stud with associated hardware.

Refer to Figure 4-2 and assemble the PU-803, PU-803B/G, PU-804 or PU-804B/G power unit as follows:

a. Remove 60 inch ground wire (2, Figure 4-2) from accessory box. If necessary, remove one inch of insulation from both ends of ground wire (2) and connect as follows.

(1) If a trailer having the load terminal is being used, perform steps (5) through (8). Otherwise perform steps (2), (3), (4), (7), and (8).

(2) Remove and retain wing nut (6), washers (7 and 9), and nut (8) from trailer ground stud (10) and install ground terminal (11) to ground stud (10).

(3) Install washers (7 and 9) and nut (8) on ground stud (10).

(4) Install wing nut (6) on ground stud (10) and tighten.

(5) Loosen nut (1) on trailer ground terminal.

NOTE

Ground terminal will have two cables in slot after the following step is performed.

(6) Insert ground wire (2) through slot of ground terminal.

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.

(7) Route ground wire (2) through power cable sock (3).

(8) Connect ground wire (2) to generator set ground terminal (4).

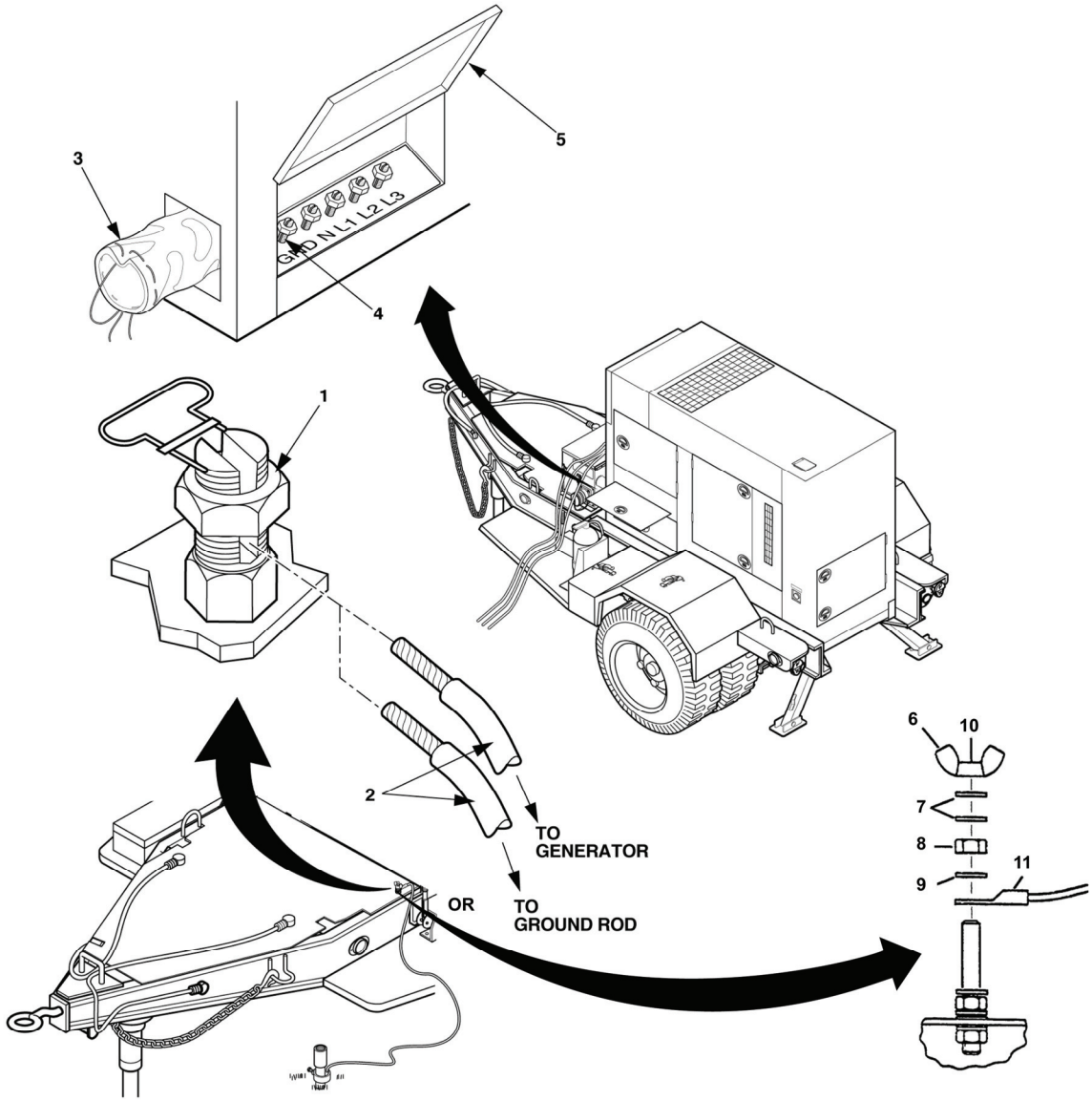


Figure 4-2. Installation Instructions.

4-6 PRELIMINARY SERVICING AND ADJUSTMENT OF EQUIPMENT

Refer to TM 9-6115-644-24 and TM 9-6115-671-14 for generator set and TM 9-2815-255-24 and TM 9-2815-259-24 for engine. Refer to TM 9-2330-205-14&P for trailer.

Section III. UNIT LUBRICATION

4-7 POWER UNIT/POWER PLANT LUBRICATION

Refer to LO 9-6115-644-12, TM 9-6115-644-24, and TM 9-6115-671-14 for generator set and TM 9-2330-205-14&P for trailer.

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, 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.

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 described 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 procedure 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 unit or power plant is ready or available for its intended mission or operation. You must do the procedure at the time stated in the interval column.

4-8.2.5 Not Fully Mission Capable if: Column. Information in this column tells you what faults will keep your equipment from being capable of performing its primary mission. If you perform checks or services that show faults listed in this column, do not operate the equipment.

4-8.3 Other Table Entries. Be sure to observe all special information and notes that appear in your table.

4-8.4 Special Instructions. Preventive maintenance is not limited to performing the checks and services listed in the PMCS table. Refer to Figure 4-3 for PMCS routing. 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 services.

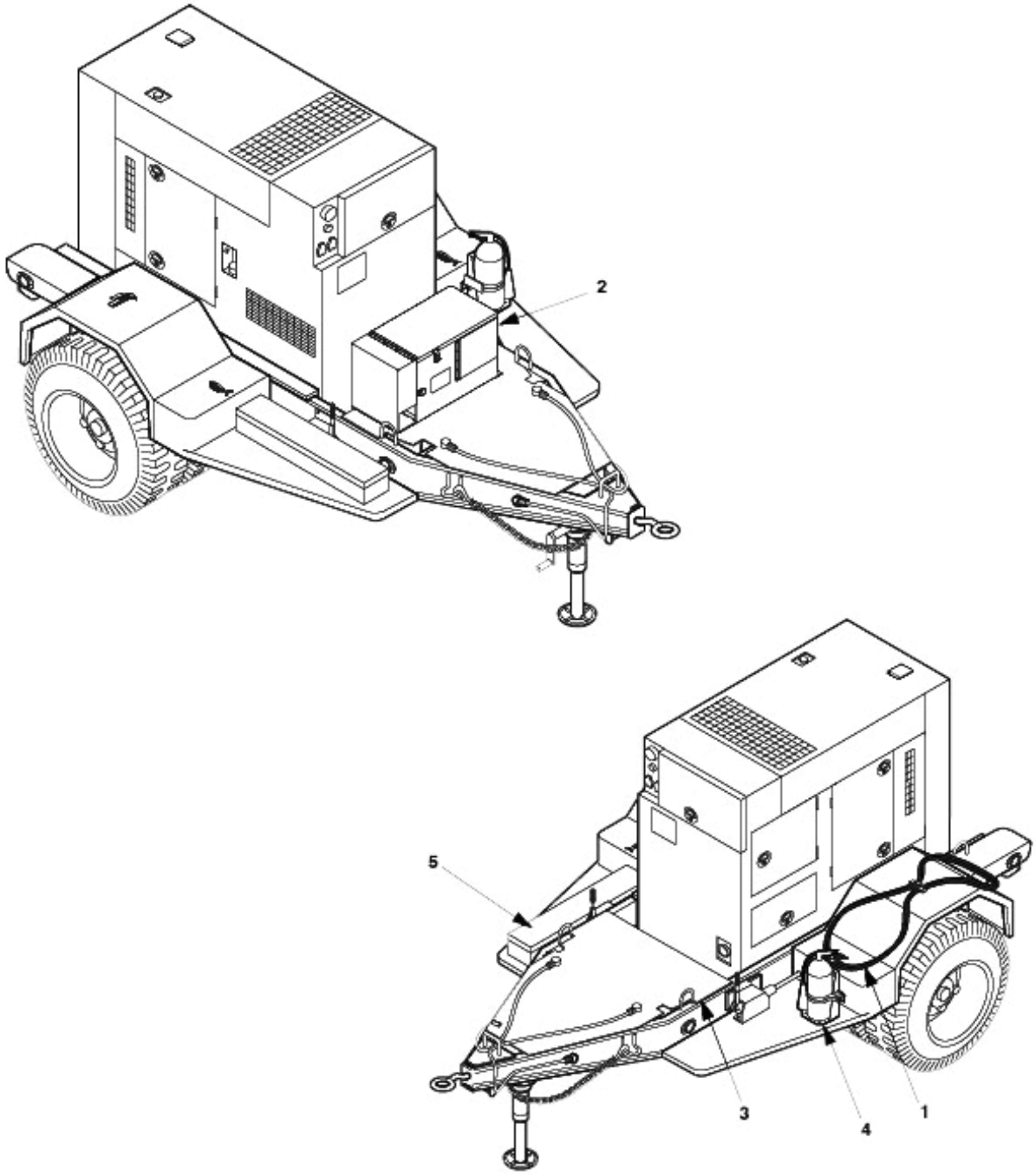


Figure 4-3. Unit PMCS Routing Diagram.

Table 4-1. Unit Preventive Maintenance Checks and Services.
(For PU-803, PU-803B/G, PU-804, PU-804B/G, AN/MJQ-40 and AN/MJQ-40B)

NOTE

This PMCS table lists the checks and services as performed on a single power unit. These procedures must be duplicated on each power unit that makes up the power plants.

Unit B of the power plants and the power units do not have a switch box. Maintenance for the switch box is only applicable to Unit A of the power plants.

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 injury or death to personnel from trailer suddenly rolling or tipping.**			
1	Semi -annually	POWER CABLE (AN/MJQ-40/40B)	Inspect power cable 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-40/40B)	a. Inspect switch box assembly. Refer to paragraph 4-12, 4-12.A.	Loose, missing or broken parts; worn wire insulation.
			b. Inspect mounting brackets for cracks or for loose or missing hardware.	Mounting bracket is cracked; loose or missing hardware.
3	Semi -annually	MOUNTING RAILS	Inspect for cracks and deformation.	Mounting rail is cracked or deformed.
4	Semi -annually	FIRE EXTINGUISHER	a. Inspect for broken seal and damage to handle.	Seal broken or missing.
			b. Weigh to determine whether charge is sufficient. Weight is about 13 pounds when fully charged. If weight is 12.5 pounds or less, send to specialized activity for recharging.	Fire extinguisher not charged.
5	Semi -annually	ACCESSORY BOX	Inspect clamping catch, hasp, and rivets for rust, corrosion, and wear.	Clamping catch and hasp are unserviceable.

Section V. TROUBLESHOOTING PROCEDURES

4-9 GENERAL

Refer to TM 9-6115-644-24 and TM 9-6115-671-14 for generator set troubleshooting procedures and to TM 9-2815-255-24 and TM 2815-259-24 for engine troubleshooting procedures. Refer to TM 9-2330-205-14&P for trailer troubleshooting procedures. The symptom index for the power plant lists faults associated with switch box operation. Figure 4-4 through Figure 4-8 provide an OK-NOT OK flowchart of each malfunction. Each malfunction listed includes a reference to the applicable figure that contains a chart to help you determine probable causes and corrective actions to take. The symptom index cannot list all faults that may occur, nor all the 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 for assistance.

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 procedures. 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

NOTE

The troubleshooting charts cover all three versions of the switch boxes, A, B, and C.

NOTE

Verify the problem is resolved after performing each corrective action.

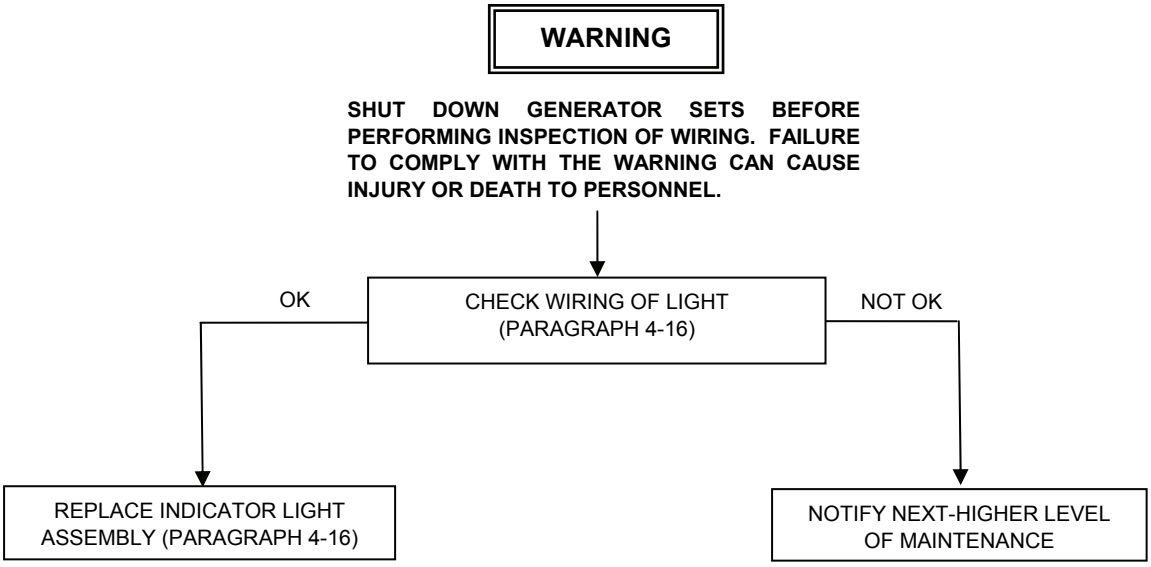


Figure 4-4. Indicator Lamp Is Good But Does Not Light.

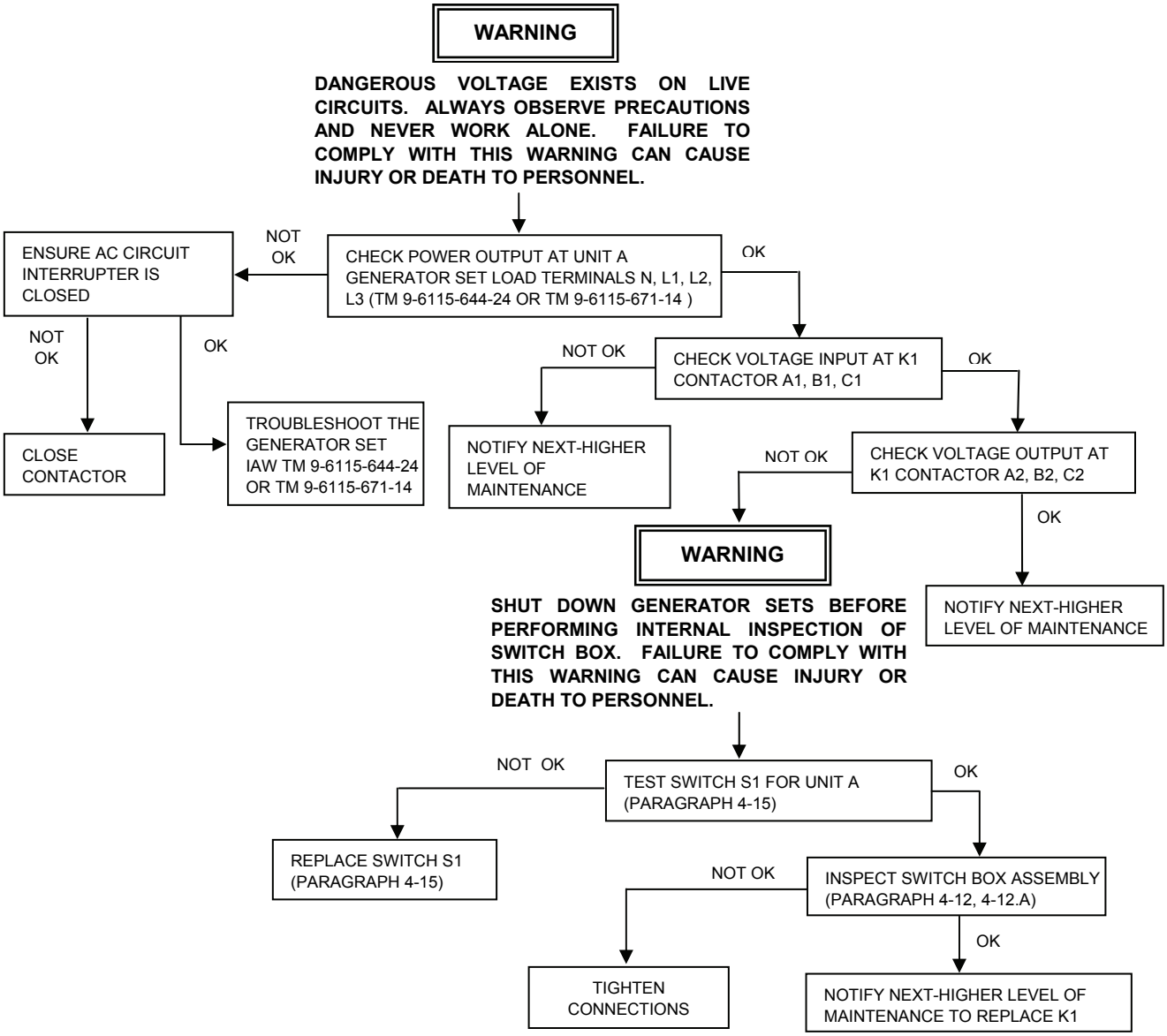


Figure 4-5. Unit A Has No Power.

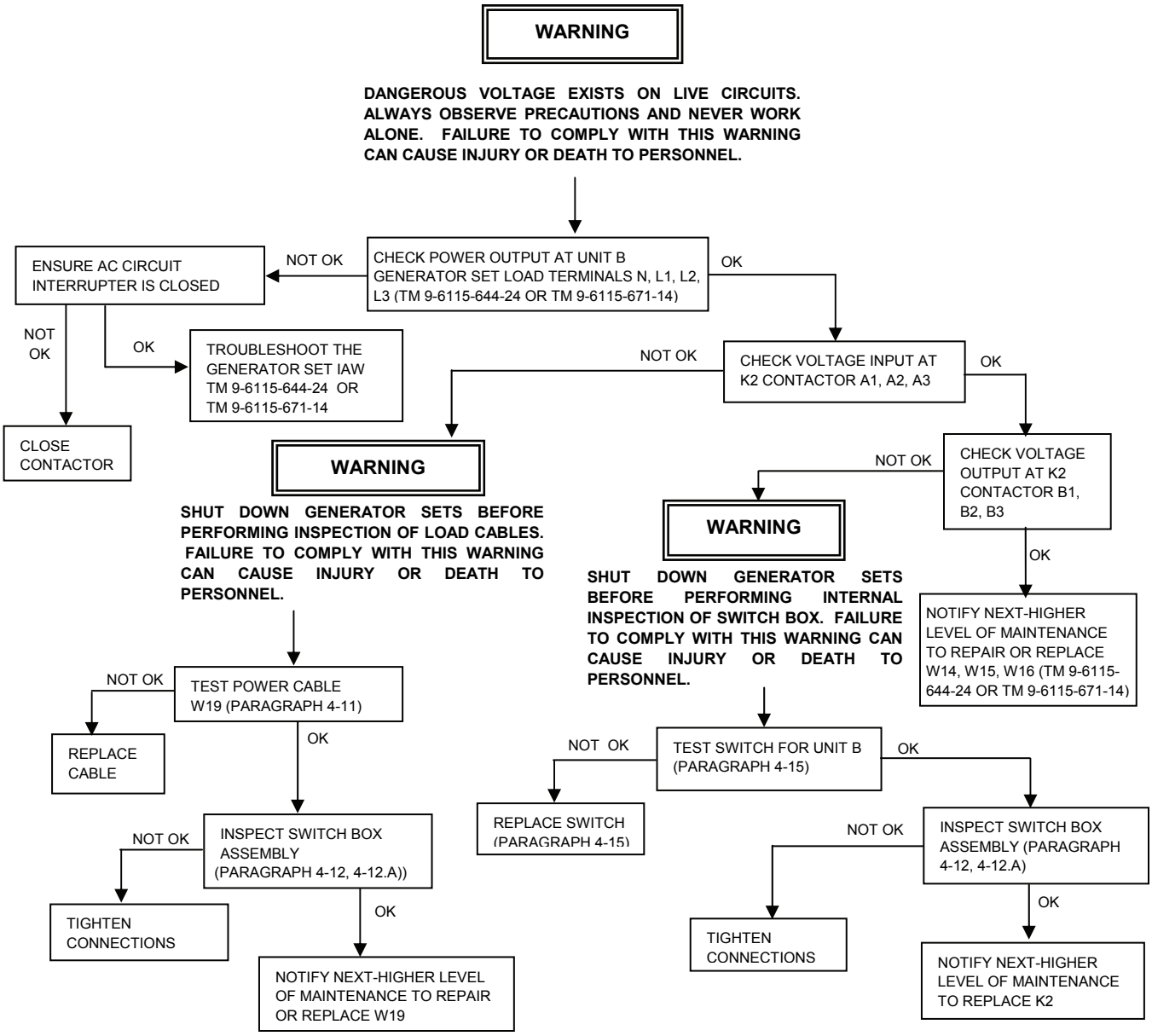
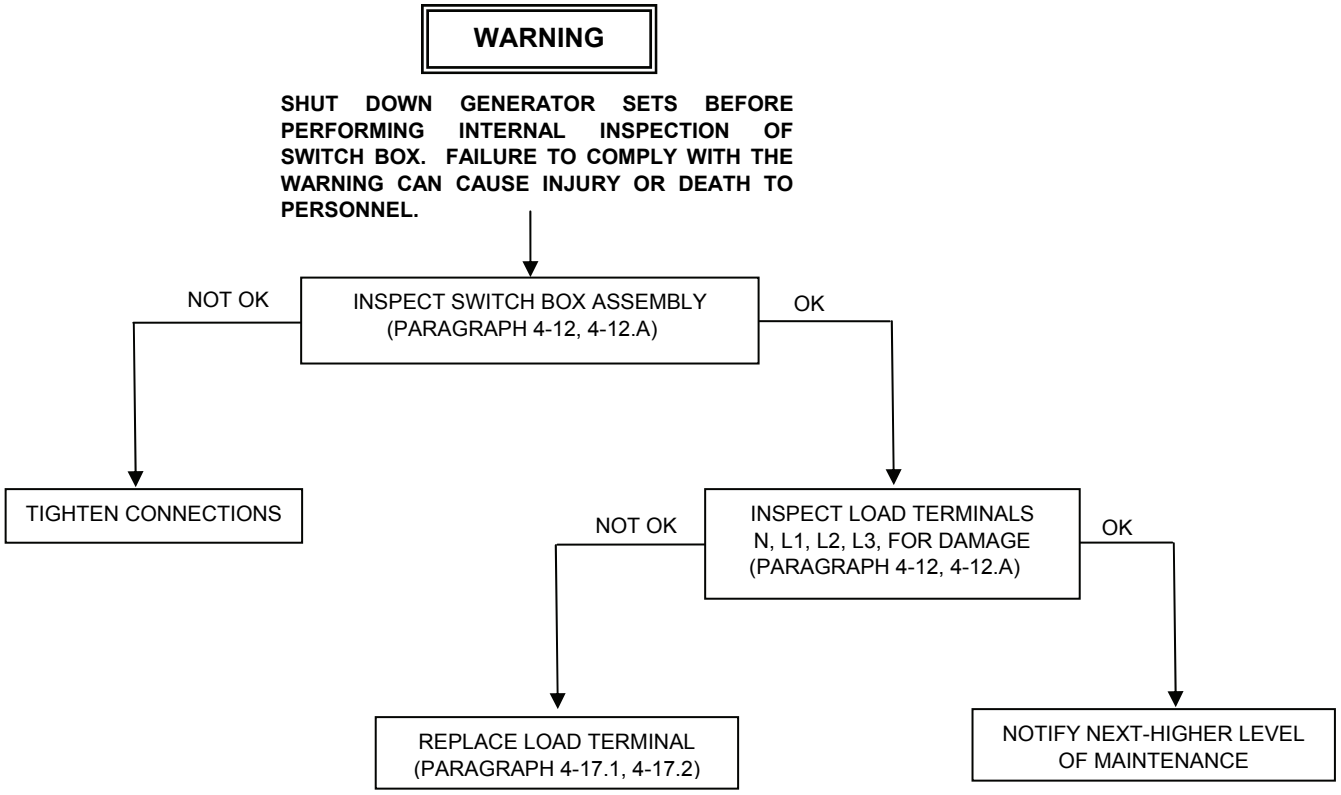


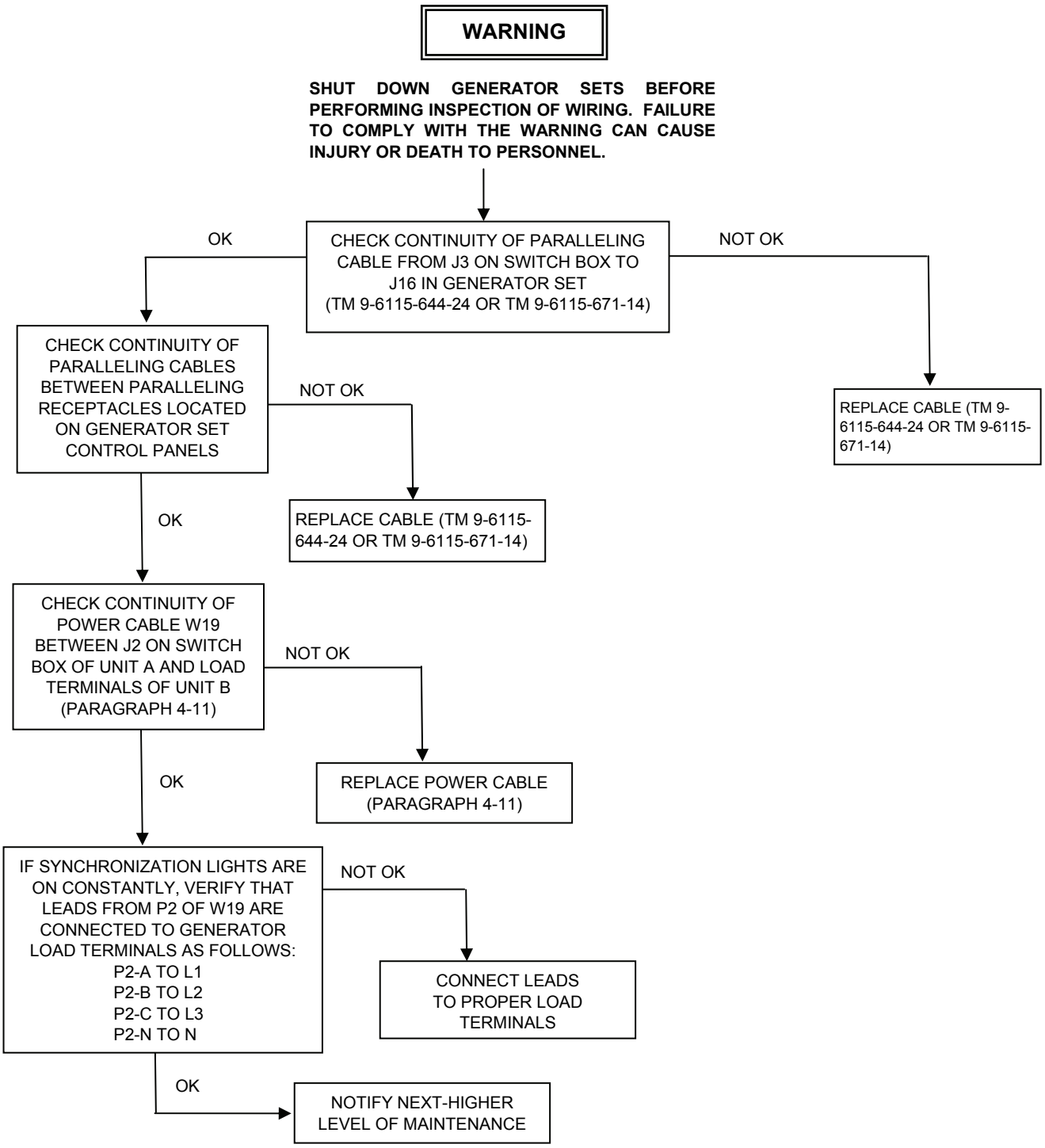
Figure 4-6. Unit B Has No Power.



NOTE

On previous model switch boxes, load terminal N is designated L0.

Figure 4-7. Power Is Absent at All Switch Box Load Terminals.



NOTE

On previous model switch boxes, load terminal N is designated L0.

Figure 4-8. Cables Are Connected Properly, But Unit Fails to Parallel Through Switch Box.

Section VI. MAINTENANCE PROCEDURES

4-10 MAINTENANCE OF GENERATOR SETS

Refer to TM 9-6115-644-24 and TM 9-6115-671-14 for generator sets and to TM 9-2815-255-24 and TM 9-6115-259-24 for the engine.

4-11 POWER CABLE W19 MAINTENANCE

This task covers: a. Remove b. Test c. Install

INITIAL SETUP

Tools	Equipment Conditions
Tool Kit, General Mechanic's (item 1, Section III, appendix B) Multimeter (item 4, Section III, appendix B)	Reference Both generator sets shut down, paragraph 2-5.3.3, steps a-g (analog), paragraph 2-5.4.3, steps a-g (digital). Power plant prepared for movement, paragraph 2-7.

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 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, switch box 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.

NOTE

The above warnings apply to all procedures listed in paragraph 4-11.

REMOVE

Disconnect electrical leads of power cable (12, Figure 2-6) from unit B.

TEST

1. Set multimeter for resistance.
2. Refer to FO-1 and check continuity of each electrical lead from P2.

NOTE

Pins G1, G2, G3, and G4 are common points and should read continuity to each green wire. Ensure that G1, G2, G3, and G4 are common points and read continuity to each other.

Table 4-2. Cable Assembly W19

Wire Color	From	To
Black	P2-A	L1
Red	P2-B	L2
Blue	P2-C	L3
White	P2-N	N
Green	P2-G1	GND
Green	P2-G2	GND
Green	P2-G3	GND
Green	P2-G4	GND

INSTALL

Connect the leads of the power cable to the generator set on unit B.

4-12 SWITCH BOX ASSEMBLY MAINTENANCE (A Model)

This task covers: a. Remove b. Inspect c. Install

INITIAL SETUP

Tools

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

Materials/Parts

Lock-nuts
Washers, Lock

Equipment Conditions

Reference
Both generator sets are shut down, paragraph 2-5.3.3, steps a-g (analog), paragraph 2-5.4.3, steps a-g (digital).
Trailer support devices are 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.

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

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.

NOTE

The above warnings apply to all procedures listed in paragraph 4-12.

REMOVE

1. Remove four lock-nuts (14, Figure 4-9), eight flat washers (5), and four cap screws (6) that secure the

switch box assembly. Discard lock-nuts (14).

2. Disconnect L1, L2, L3, and N from generator set load terminals (9).
3. Disconnect GND from the generator set ground terminal (10).
4. Disconnect P1 (7) from J16 (8) of generator set.
5. Remove switch box assembly.

INSPECT

1. Release clamping catch (15) and open control panel access cover (4).
2. Inspect control panel assembly (16) for missing or broken parts.
3. Close control panel access cover (4) and secure with clamping catch (15).
4. Release clamping catch (17) and open load terminal door (18).
5. Inspect load terminals (9) and ground terminal (10) for missing or broken parts.
6. Close load terminal door (18) and secure with clamping catch (17).
7. Remove cap screws (3), lock washers (2), and flat washers (1). Discard lock washers (2).

CAUTION

The control panel connector P3 is connected to connector J4. Movement of the switch box cover is limited. Slide the switch box cover from the switch box assembly carefully to prevent damage to control panel wiring harness.

8. Carefully position switch box cover (19) in front of switch box assembly.
9. Disconnect P3 (11) from J4 (13).
10. Remove switch box cover (19).
11. Inspect for loose component mounting and missing connections. Tighten all loose connections.
12. Inspect all leads and wires for worn or deteriorated insulation that reveals bare spots in conductors. If found, notify next-higher level of maintenance.
13. Position switch box cover (19) in front of switch box assembly.
14. Connect P3 (11) to J4 (13).
15. Position switch box cover (19) over switch box assembly and align mounting holes.
16. Install flat washers (1), new lock washers (2), and cap screws (3), which secure the switch box cover (19).

INSTALL

1. Position switch box assembly on switch box support (22) and front platform.
2. Route electrical leads (20) and cable harness (21) through the power cable sock (12).
3. Align mounting holes of the switch box assembly and switch box support (22).
4. Install four cap screws (6), eight flat washers (5), and four new lock-nuts (14), to secure switch box assembly.
5. Connect P1 (7) to J16 (8) of generator set.
6. Connect W1, W2, W3, W4, and W5 to the load terminals (9) of the generator set as follows:
    a. Connect W1 to L1.
    b. Connect W2 to L2.
    c. Connect W3 to L3.
    d. Connect W4 to L0.
7. Connect W5 to GND (10).

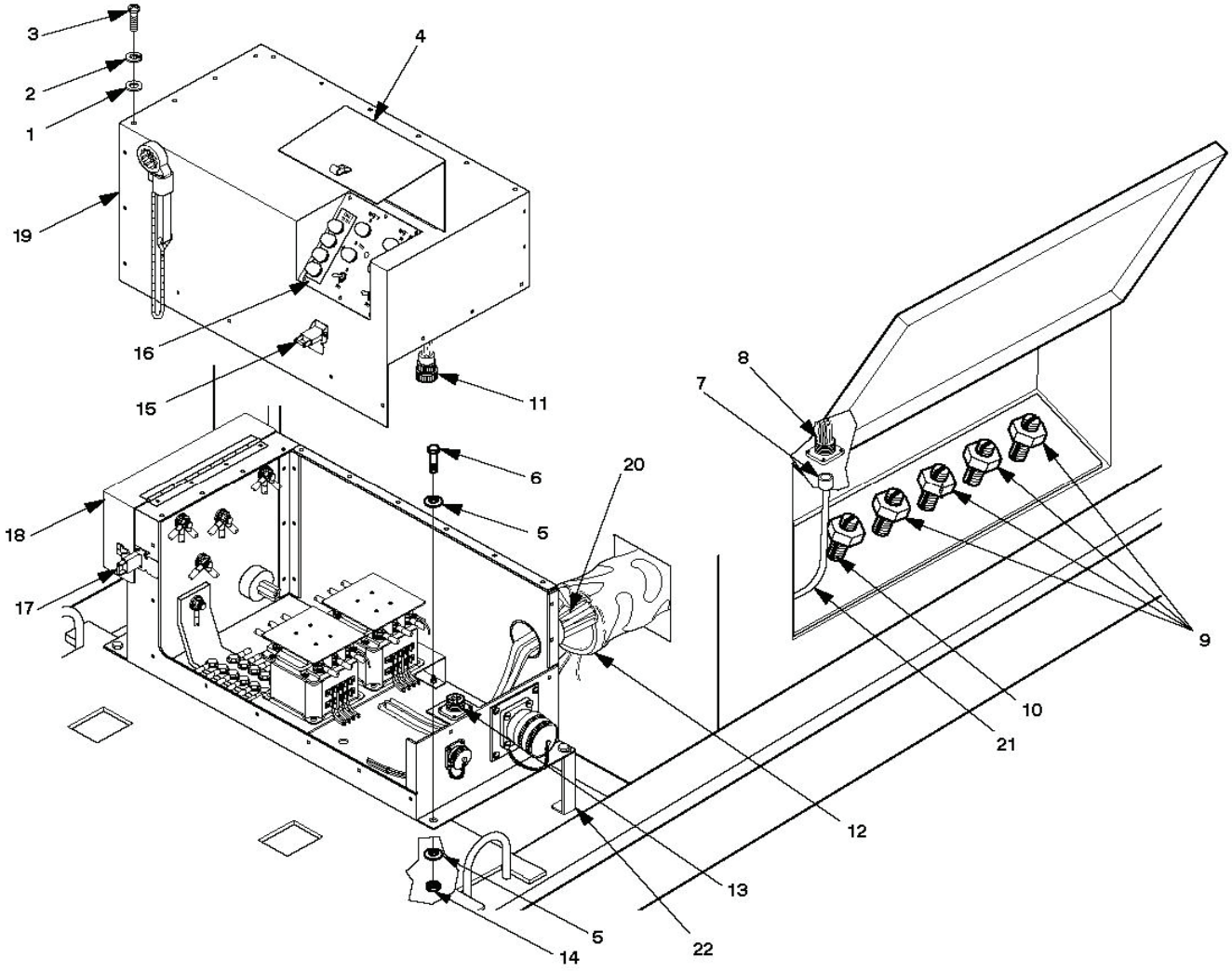


Figure 4-9. Switch Box Assembly Maintenance (Typical A Model).

4-12.A SWITCH BOX ASSEMBLY MAINTENANCE (B&C Models)

This task covers: a. Remove b. Inspect c. Install

INITIAL SETUP

Tools	Equipment Conditions
Tool Kit, General Mechanic's (item 1, section III, appendix B)	Reference Both generator sets are shut down, paragraph 2-5.3.3, steps a-g (analog), paragraph 2-5.4.3, steps a-g (digital). Trailer support devices are lowered, paragraph 2-3.2.1.
Materials/Parts	
Washers, Lock	

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

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.

NOTE

The above warnings apply to all procedures listed in paragraph 4-12.A.

REMOVE

1. Remove nuts (12, Figure 4-9.1), lock washers (15), flat washers (3), and cap screws (2) that secure the switch box assembly. Discard lock washers (15).

2. Disconnect L1, L2, L3, and N from the generator set load terminals (8).
3. Disconnect GND from the generator set ground terminal (9).
4. Disconnect P1 (6) from J16 (7) of the generator set.
5. Remove switch box assembly, carefully pulling P1 (6) through the power cable sock (11).

INSPECT

1. Release clamping catch (13) and open the control panel access cover (14).
2. Inspect control panel assembly for missing or broken parts.
3. Close control panel access cover (14) and secure with clamping catch (13).
4. Release clamping catches and open load terminal door (1).
5. Inspect load terminals (8) and ground terminal (9) for missing or broken parts.
6. Close load terminal door (1) and secure with clamping catches.
7. Release clamping catches (13) of switch box cover (4) in front of switch box assembly.
8. Lift switch box cover (4).
9. Inspect for loose component mounting and missing connections. Tighten all loose connections.
10. Inspect all leads and wires for worn or deteriorated insulation that reveals bare spots in conductors. If found, notify next-higher level of maintenance.
11. Close switch box cover (4) and secure clamping catches (13) in front of switch box assembly.

INSTALL

1. Position switch box assembly on the front platform.
2. Route electrical leads (5) and cable harness (10) through the power cable sock (11).
3. Align mounting holes of switch box assembly.
4. Install cap screws (2), flat washers (3), new lock washers (15), and nuts (13) to secure switch box assembly.
5. Connect P1 (6) to J16 (7) of generator set.
6. Connect W1, W2, W3, W4, and W5 to load terminals (8) of generator set as follows:
    a. Connect W1 to L1.
    b. Connect W2 to L2.
    c. Connect W3 to L3.
    d. Connect W4 to N.
7. Connect W5 to GND (9).

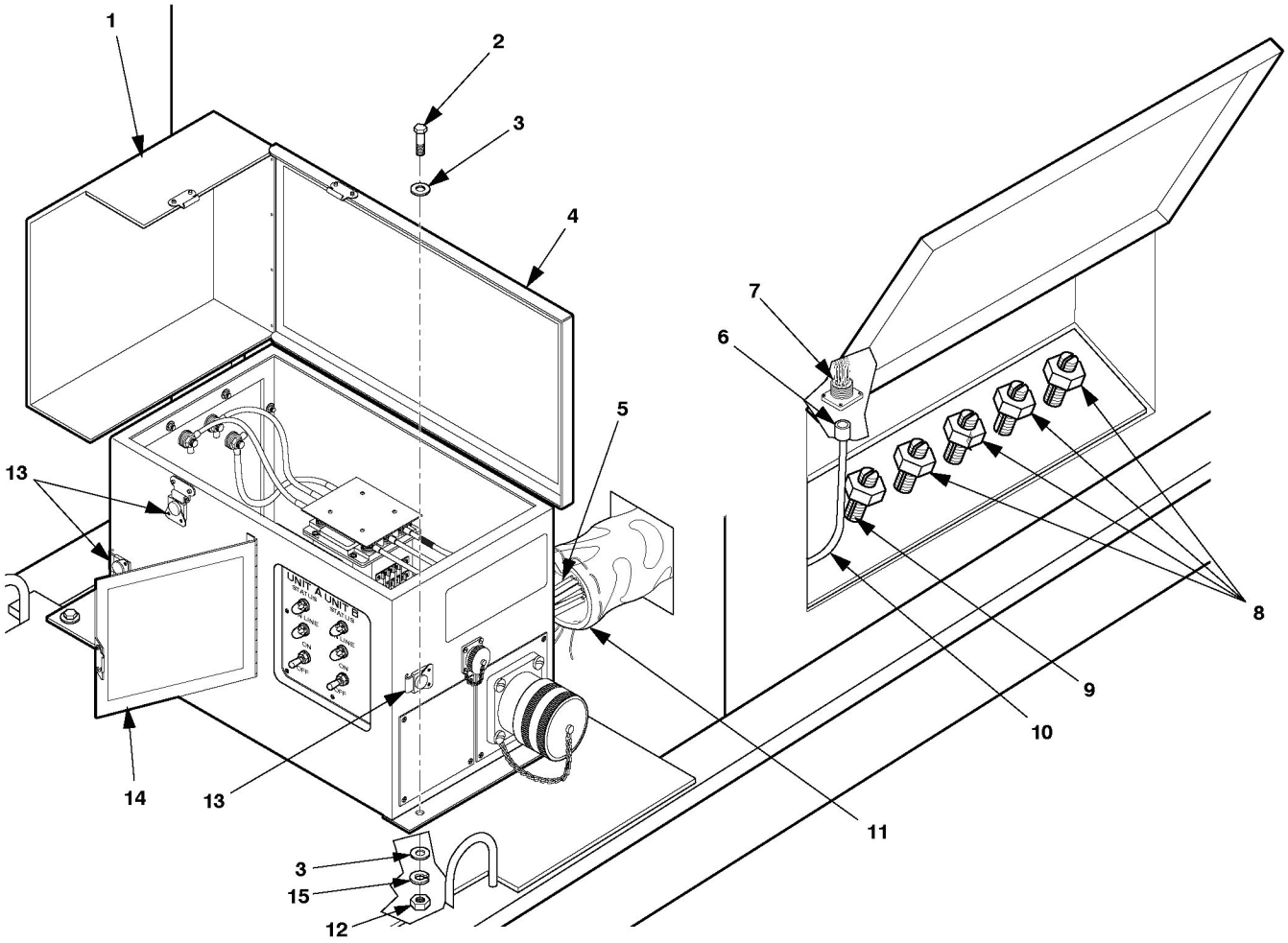


Figure 4-9.1. Switch Box Assembly Maintenance (Typical B&C Models).

4-13 LOAD TERMINAL WRENCH ASSEMBLY MAINTENANCE (A MODEL)

This task covers: a. Remove b. Repair c. Install

INITIAL SETUP

Tools

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

Materials/Parts

Washers, Lock

Equipment Conditions

Reference
Both generator sets shut down,
paragraph 2-5.3.3, steps a-g (analog),
paragraph 2-5.4.3, steps a-g (digital).
Trailer support devices are lowered,
paragraph 2-3.2.1.

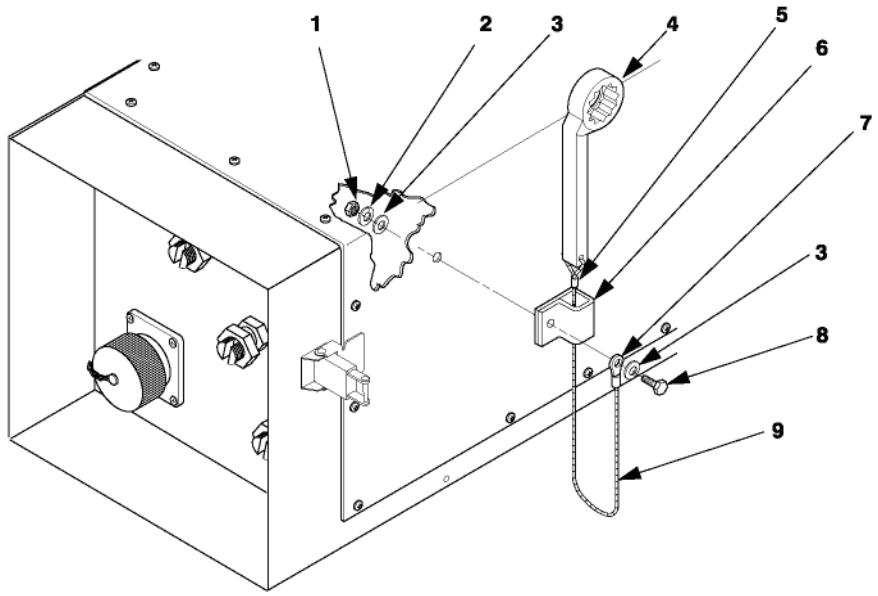


Figure 4-10. Switch Box Load Terminal Wrench Assembly Replacement (A Model).

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.

NOTE

The above warnings apply to all procedures listed in paragraph 4-13.

REMOVE

1. Refer to paragraph 4-12 and perform steps 7 through 10 of Inspect.
2. Remove cap screw (8, Figure 4-10), two flat washers (3), lock washer (2), nut (1), loop clamp (6), and box wrench (4) with attached rope (9). Discard lock washer (2).

REPAIR

When the rope (9) requires replacement, perform the following:

1. Cut old rope (9) from box wrench (4).
2. On new rope, heat each end to prevent unraveling.
3. Install new terminal lug (7) to one end of rope (9).
4. Thread other end of rope through the opening in handle of box wrench (4).
5. Install conductor splice (5) to secure rope (9) to box wrench (4).

INSTALL

1. Place loop clamp (6) so mounting holes are aligned with switch box cover (19, Figure 4-9) holes.
2. Drop terminal lug end of rope (9, Figure 4-10) with box wrench (4) through loop clamp (6), as shown in Figure 4-10.
3. Install cap screw (8), two flat washers (3), terminal lug (7), new lock washer (2), and nut (1) which secure loop clamp (6) to switch box cover (19, Figure 4-9).
4. Refer to paragraph 4-12 and perform steps 13 through 16 of Inspect.

4-13.A LOAD TERMINAL WRENCH ASSEMBLY MAINTENANCE (B&C MODELS)

This task covers: a. Remove b. Repair c. Install

INITIAL SETUP

Tools

Tool Kit, General Mechanic's
(item 1, section III, appendix B)
Drill, …inch (component of item 2,
section III, appendix B)

Materials/Parts

Rivets, Blind Head

Equipment Conditions

Reference
Both generator sets shut down,
paragraph 2-5.3.3, steps a-g (analog),
paragraph 2-5.4.3, steps a-g (digital).
Trailer support devices are lowered,
paragraph 2-3.2.1.

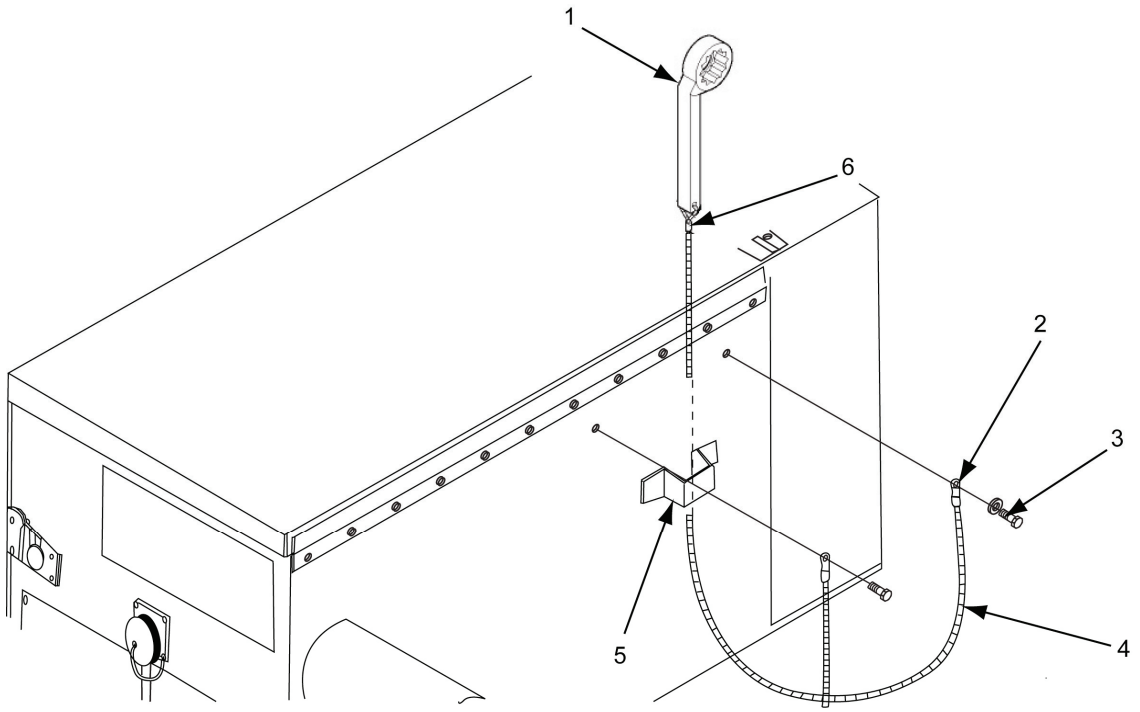


Figure 4-10.1. Switch Box Load Terminal Wrench Assembly Replacement (B&C Models).

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.

NOTE

The above warnings apply to all procedures listed in paragraph 4-13.A.

REMOVE

1. Drill out rivet (3, Figure 4-10.1) that secures rope (4) to switch box.
2. Remove box wrench (1) with attached rope (4) from loop clamp (5).

REPAIR

When the rope (4) requires replacement, perform the following:

1. Cut old rope (4) from box wrench (1).
2. On new rope, heat each end to prevent unraveling.
3. Install new terminal lug (2) to one end of rope (4).
4. Thread other end of rope (4) through opening in handle of box wrench (1).
5. Install conductor splice (6) to secure rope (4) to box wrench (1).

INSTALL

1. Replace box wrench (1) with attached rope (4) in loop clamp (5).
2. Position terminal lug end (2) of rope (4) over mounting hole and secure with rivet (3).

4-14 CLAMPING CATCH MAINTENANCE (A MODEL)

This task covers: a. Remove b. Install

INITIAL SETUP

Tools

Tool Kit, General Mechanic's
(item 1, section III, appendix B)
Drill, 1/4-inch
(component of item 2, section III, appendix B)
Riveter, Blind Head
(component of item 3, section III, appendix B)

Equipment Conditions

Reference
Both generator sets shut down,
paragraph 2-5.3.3, steps a-g (analog),
paragraph 2-5.4.3, steps a-g (digital).
Trailer support devices are lowered,
paragraph 2-3.2.1.

Materials/Parts

Rivets, Blind Head

NOTE

A new clamping catch and latch have been added to the supply system. The figure depicts the old clamping catch and latch. The remove and install procedures remain the same.

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.

NOTE

The above warnings apply to all procedures listed in paragraph 4-14.

REMOVE

1. Drill out rivets (1, Figure 4-11) that secure clamping catch (2).
2. Remove defective clamping catch (2).

INSTALL

1. Position new clamping catch (2) and secure with rivets (1).
2. Close cover.

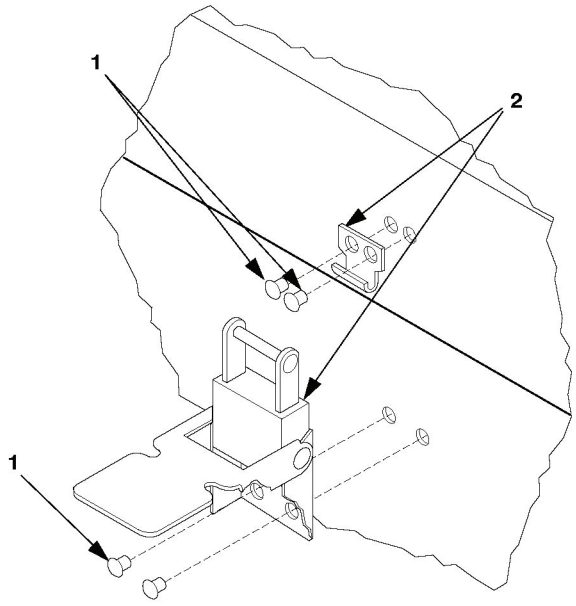


Figure 4-11. Clamping Catch Replacement (A Model).

4-14.A CLAMPING CATCH MAINTENANCE (B&C MODELS)

This task covers: a. Remove b. Install

INITIAL SETUP

Tools

Tool Kit, General Mechanic's
(item 1, section III, appendix B)
Drill, 1/4-inch
(component of item 2, section III, appendix B)
Riveter, Blind Head
(component of item 3, section III, appendix B)

Equipment Conditions

Reference
Both generator sets shut down,
paragraph 2-5.3.3, steps a-g (analog),
paragraph 2-5.4.3, steps a-g (digital).
Trailer support devices are lowered,
paragraph 2-3.2.1.

Materials/Parts

Rivets, Blind Head

NOTE

A new clamping catch and latch have been added to the supply system. The figure depicts the old clamping catch and latch. The remove and install procedures remain the same.

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.

NOTE

The above warnings apply to all procedures listed in paragraph 4-14.A.

REMOVE

1. Drill out rivets (1, Figure 4-11.1) that secure clamping catch (2).
2. Remove defective clamping catch (2).

INSTALL

1. Position new clamping catch (2) and secure with rivets (1).
2. Close cover.

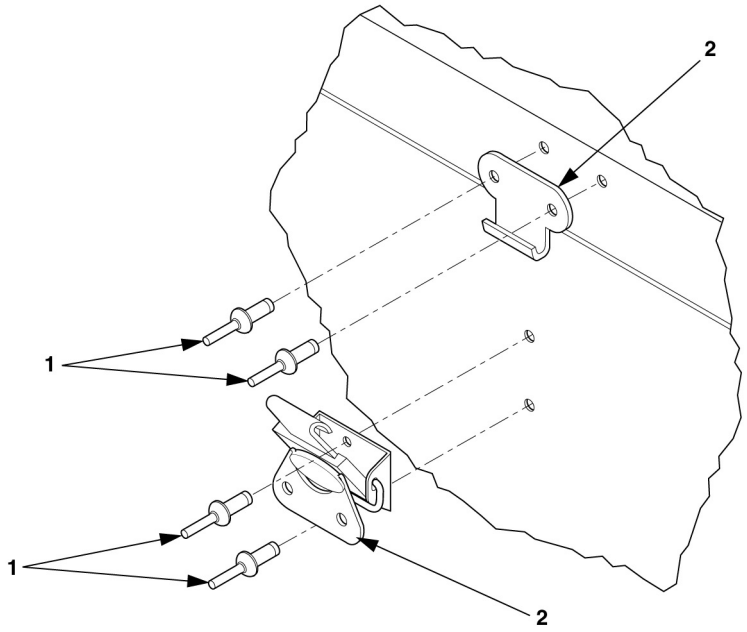


Figure 4-11.1. Clamping Catch Replacement (B&C Models).

4-15 SWITCH BOX TOGGLE SWITCH MAINTENANCE (A, B, & C MODELS)

This task covers: a. Remove b. Test c. Install

INITIAL SETUP

Tools	**Equipment Conditions**
Tool Kit, General Mechanic's (item 1, appendix B) Multimeter, AN/PSM-45A (item 4, appendix B)	Reference Both generator sets shut down, paragraph 2-5.3.3, steps a-g (analog), paragraph 2-5.4.3, steps a-g (digital). Trailer support devices are lowered, paragraph 2-3.2.1.
Materials/Parts	
Washers, Lock	

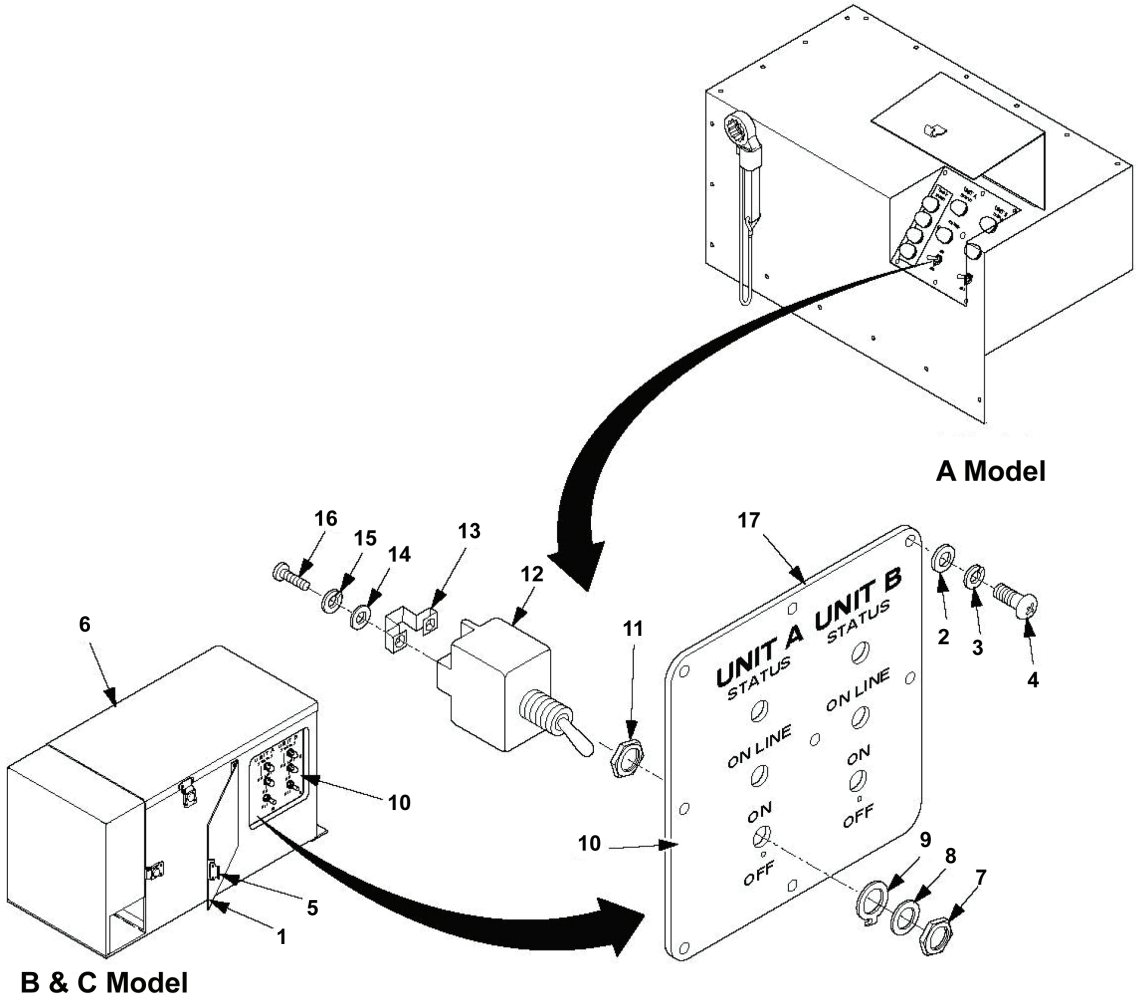


Figure 4-12. Toggle Switch Replacement (A, B, & C Models).

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.

NOTE

The above warnings apply to all procedures listed in paragraph 4-15.

REMOVE

1. Release clamping catch (5, Figure 4-12) and open the control panel access cover (1).
2. Remove cap screws (4), lock washers (3), and flat washers (2). Remove control panel assembly (10) from switch box cover (6). Discard lock washers (3).
3. Tag wires on terminals 3, 4, and 6 on back of switch (12).
4. Remove terminal screws (16), lock washers (15), flat washers (14) and conductor bus (13) from switch terminals. Discard lock washers (15).
5. Remove nut (7), lock washer (8), locking ring (9) and switch (12).

TEST

1. Set multimeter for continuity test.
2. With switch (12) in center position, check continuity of switch between terminals 3 and 5.
3. If no continuity in step 2, replace switch.

4. With switch (12) in OFF position, check continuity of switch between:
   a. Terminals 3 and 5
   b. Terminals 2 and 6
   c. Terminals 3 and 6
   d. If there is continuity in steps a, b, or c, replace switch.

INSTALL

1. Remove nut (7), lock washer (8), and locking ring (9) from new switch.
2. Hand tighten nut (11) on switch.

NOTE

Make sure terminals 3 and 6 of switch are toward bottom of panel when installing toggle switch.

3. Insert switch body (12) into mounting hole and position nut (11) against control panel assembly (10).
4. Install locking ring (9) into keyway of switch until alignment tip goes into control panel assembly (10).
5. Install lock washer (8) against locking ring (9).
6. Install nut (7) and tighten, making sure that locking ring (9) alignment tip is engaged in control panel assembly (10).
7. Remove screws (16) with washers from terminals of new switch (12).
8. Install conductor bus (13) between terminals 2 and 5.
9. Install tagged wires, terminal screws (16), new lock washers (15), and flat washers (14) to terminals.
10. Position control panel assembly (10) with gasket (17) on switch box cover (6) and align mounting holes.
11. Install flat washers (2), new lock washers (3), and cap screws (4).
12. Close control panel access cover (1) and secure with clamping catch (5).

4-16 INDICATOR LIGHT MAINTENANCE (A, B, & C MODELS)

This task covers: a. Remove b. Test c. Install

INITIAL SETUP

Tools

Tool Kit, General Mechanic's
(item 1, section III, appendix B)
Multimeter, AN/ASM-45A
(item 4, appendix B)
Solder gun (component of item 2, section III, appendix B)
Heat shrink gun (component of item 2, section III, appendix B)

Equipment Conditions

Reference
Both generator sets shut down, paragraph 2-5.3.3, steps a-g (analog), paragraph 2-5.4.3, steps a-g (digital).
Trailer support devices are lowered, paragraph 2-3.2.1

Materials/Parts

Solder (component of item 7, appendix E)
Washers, Lock
Heat shrink tubing

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 removing indicator lamp. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in paragraph 4-16.

REMOVE

1. Release clamping catch (8, Figure 4-13) and open control panel access cover (7).
2. Remove screws (11), lock washers (10), flat washers (9), and control panel assembly (12). Discard lock washers (10).

NOTE

The switch box assembly has four lamps. Replacement procedures are the same for each indicator lamp.

3. Tag leads (16) connected to each terminal of indicator lamp housing to be replaced, peel back heat shrink tubing (13), and unsolder each lead.
4. Remove and discard heat shrink tubing (13) from leads (16).
5. Remove and retain lens (1), O-ring (14), and lamp (2).
6. Remove mounting nut (6) and internal tooth lock washer (5).
7. Slide indicator housing (3) out of control panel assembly (12) and remove O-ring (4).

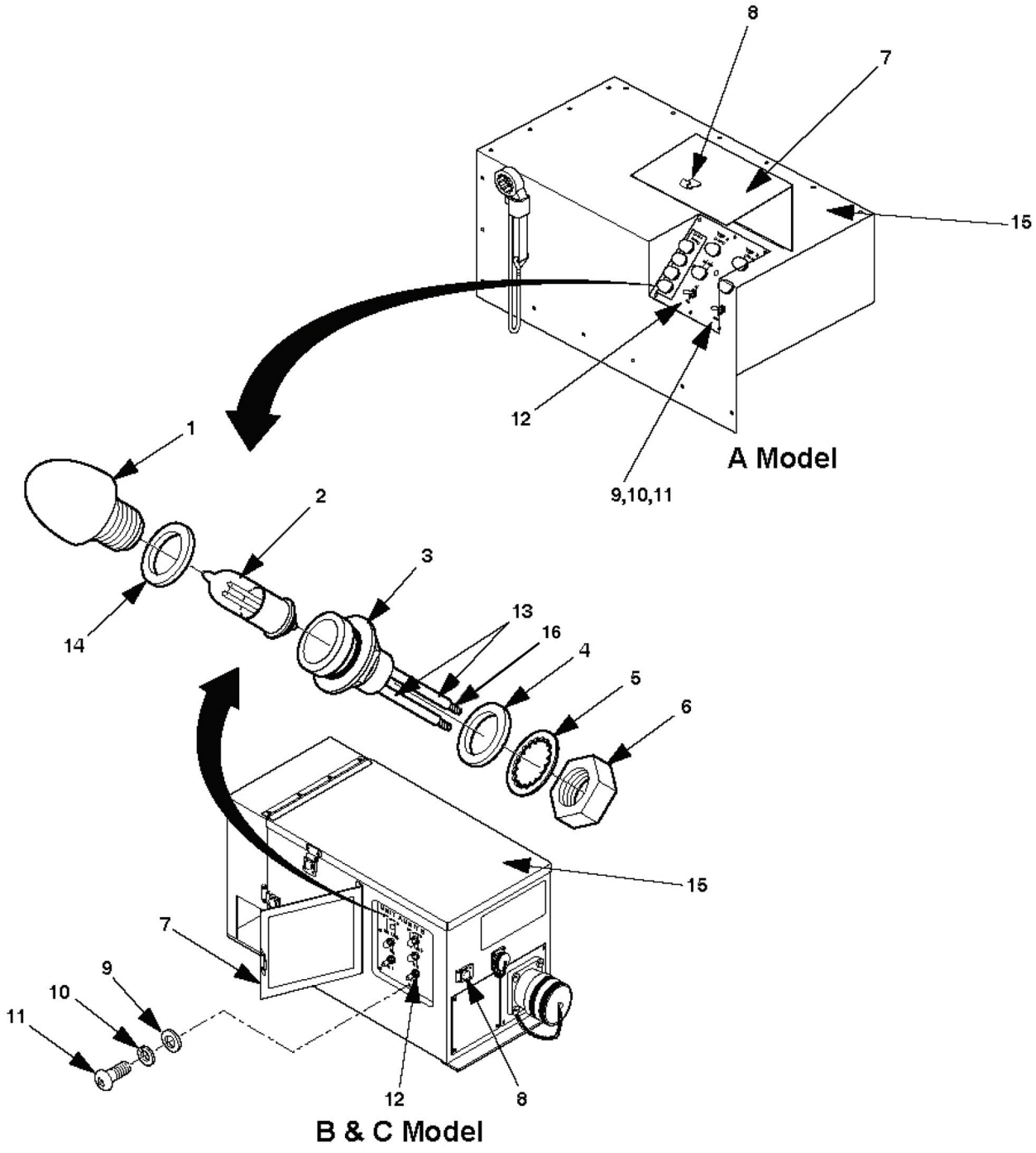


Figure 4-13. Indicator Light Replacement.

TEST

Using multimeter, measure continuity between pins (13). If no continuity, replace lamp (2). If lamp (2) does not light and continuity exists, replace indicator housing (3).

INSTALL

1. Remove mounting nut (6), internal tooth lock washer (5), and O-ring (4) from new indicator housing (3).
2. Install O-ring (4) on indicator housing (3) and insert indicator housing (3) through control panel assembly (12).
3. Install internal tooth lock washer (5) on indicator housing (3).
4. Install mounting nut (6) on indicator housing (3).
5. Slip new heat shrink tubing (13) over leads (16).
6. Solder leads (16) to the applicable terminals and remove tags.
7. Slide heat shrink tubing (13) over soldered connections and shrink tubing.
8. Position control panel assembly (12) with gasket on switch box cover (15) and align mounting holes.
9. Install flat washers (9), new lock washers (10), cap screws (11), and control panel assembly (12).

4-17.1 SWITCH BOX LOAD TERMINAL MAINTENANCE (A MODEL)

This task covers: a. Remove b. Repair c. Install

INITIAL SETUP

Tools

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

Materials/Parts

Terminal, Load
ASTM A313 TY302 CONDB ROND 0.105
Washers, Lock

Equipment Conditions

Reference
Both generator sets shut down,
paragraph 2-5.3.3, steps a-g (analog),
paragraph 2-5.4.3, steps a-g (digital).
Trailer support devices are 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.

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.

NOTE

The above warnings apply to all procedures listed in paragraph 4-17.1.

REMOVE

1. Release clamping catch (5, Figure 4-14) and open load terminal door (1).

2. Remove cap screws (2), lock washers (3), and flat washers (4). Discard lock washers (3).

CAUTION

The control panel connector P3 is connected to connector J4. Movement of the switch box cover is limited. Slide the switch box cover from the switch box assembly carefully to prevent damage to control-panel wiring harness.

3. Carefully position switch box cover (15) in front of switch box assembly.
4. Disconnect P3 (6) from J4 (7).
5. Remove switch box cover (15).
6. Disconnect external load terminal lead from defective terminal (14).

NOTE

For removal of ground load terminal go to step 6.

7. Remove nut (8), internal tooth lock washer (9), and leads (10) from defective load terminal (14).
8. Remove nut (11) that secures the load terminal (14) to the mounting plate (17).
9. Remove load terminal (14).

REPAIR

NOTE

Repair consists of replacing a missing or damaged bail. Removal of terminal is not required. Any other damage to the terminal requires replacement. The bail is fabricated using bulk wire, item 29, Bulk.

1. Release clamping catch (5, Figure 4-14) and open load terminal door (1).
2. Cut off 5-3/4 inches of bulk wire (Item 29, Bulk).
3. Make sure nut (13) is installed on load terminal (14).
4. Fabricate and install terminal clip in accordance with Figure 4-15.
5. Close load terminal door (1, Figure 4-14) and secure with clamping catch (5).

INSTALL

1. Position new load terminal (14) on mounting plate (17) so alignment pin fits in hole provided.
2. Install and tighten nut (11).
3. Install leads (10).

4. Install internal tooth lock washer (9) and nut (8) on load terminal (14).
5. Close load terminal door (1) and secure with clamping catch (5).
6. Position switch box cover (15) over switch box assembly and align mounting holes.
7. Connect P3 (6) to J4 (7).
8. Install flat washers (4), new lock washers (3), and cap screws (2), which secure the switch box cover (15).

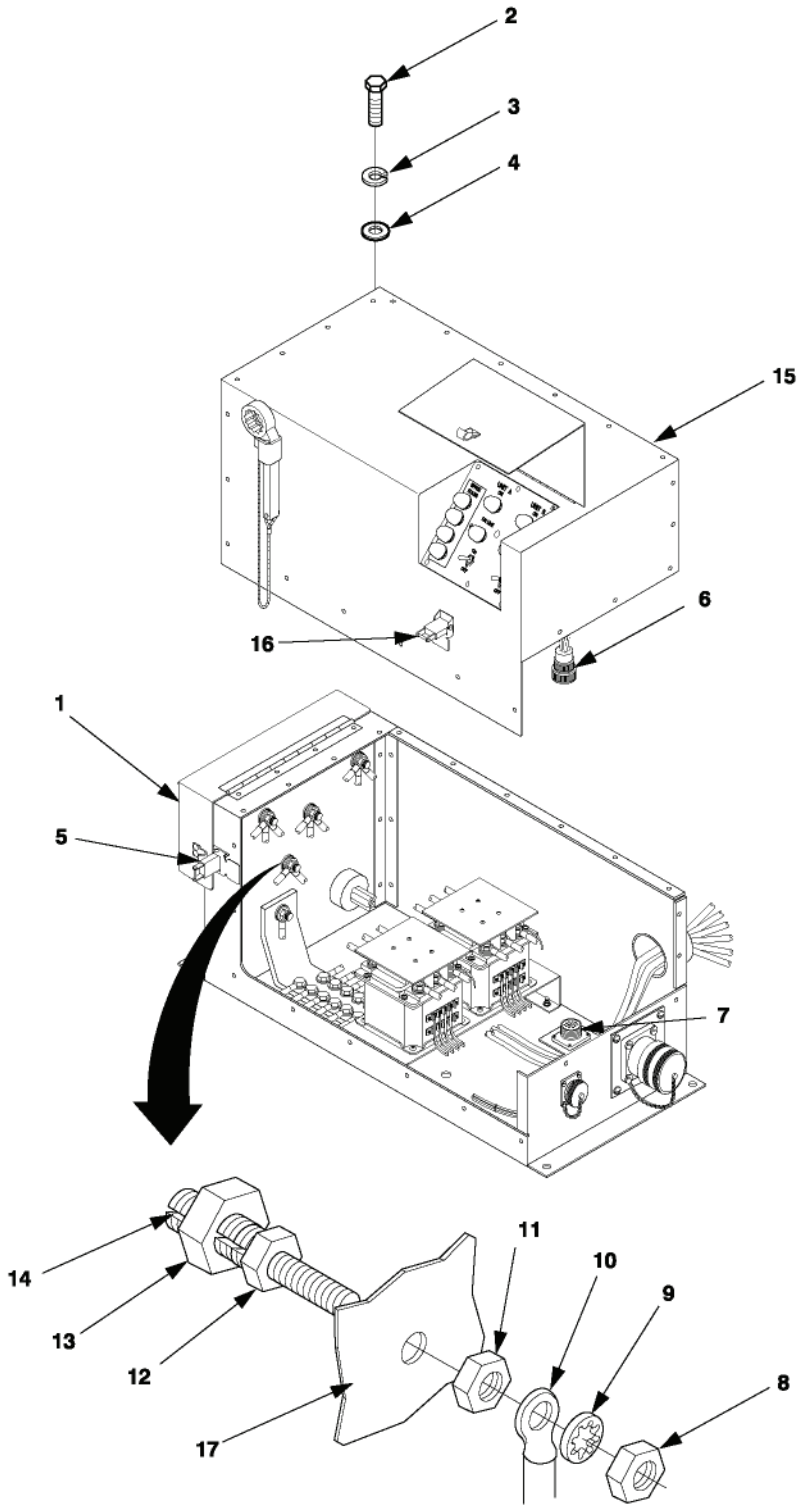


Figure 4-14. Switch Box Load Terminal Maintenance (A Model).

4-17.2 SWITCH BOX LOAD TERMINAL MAINTENANCE (B&C MODELS)

This task covers: a. Remove b. Repair c. Install

INITIAL SETUP

Tools

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

Materials/Parts

Terminal, Load
ASTM A313 TY302 CONDB ROND 0.105

Equipment Conditions

Reference
Both generator sets shut down,
paragraph 2-5.3.3, steps a-g (analog),
paragraph 2-5.4.3, steps a-g (digital).
Trailer support devices are 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.

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.

NOTE

The above warnings apply to all procedures listed in paragraph 4-17.2.

REMOVE

1. Release clamping catch (3, Figure 4-14.1) and open load terminal door (1).
2. Release clamping catch (3) of switch box cover (2) in front of switch box assembly.

3. Lift switch box cover (2).
4. Disconnect external load terminal lead from defective terminal (9).

NOTE

For removal of ground load terminal go to step 6.

5. Remove nut (4), tooth lock washer (5), and leads (6) from defective load terminal (9).
6. Remove nut (7) that secures load terminal (9) to mounting plate (10).
7. Remove load terminal (9).

REPAIR

NOTE

Repair consists of replacing a missing or damaged bail. Removal of terminal is not required. Any other damage to the terminal requires replacement. The bail is fabricated using bulk wire, item 29, Bulk.

1. Release clamping catch (3) and open load terminal door (1).
2. Cut off 5-3/4 inches of bulk wire.
3. Make sure nut (8) is installed on terminal load (9).
4. Fabricate and install terminal clip in accordance with Figure 4-15.
5. Close load terminal door (1, Figure 4-14.1) and secure with clamping catch (3).

INSTALL

1. Position new load terminal (9) on mounting plate (10) so that alignment pin fits in hole provided.
2. Install and tighten nut (7).
3. Install leads (6).
4. Install tooth lock washer (5) and nut (4) on load terminal (9).
5. Close load terminal door (1) and secure with clamping catch (3).
6. Close switch box cover (2) of switch box assembly and secure with clamping latch (3).

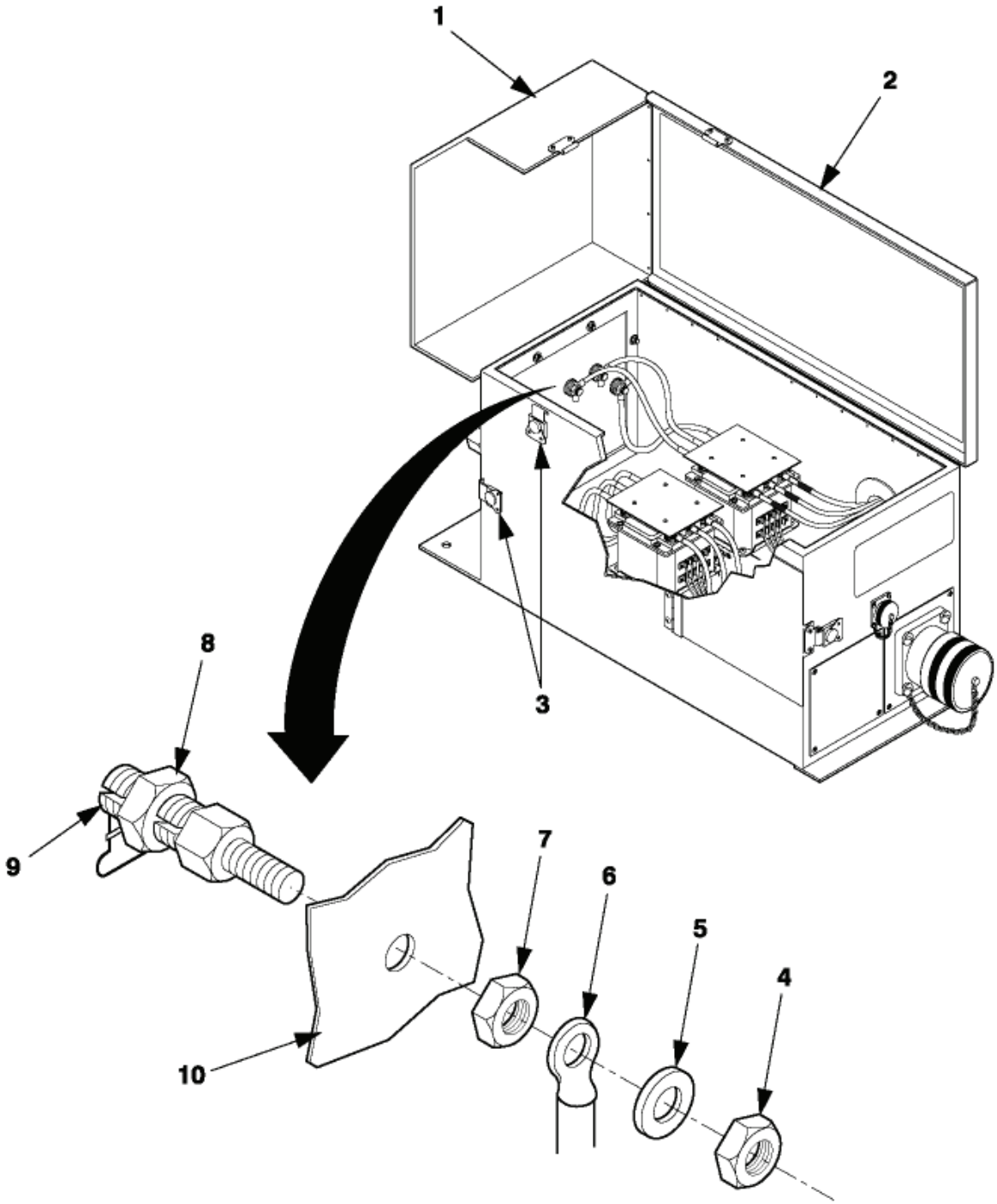


Figure 4-14.1. Switch Box Load Terminal Maintenance (B&C Models).

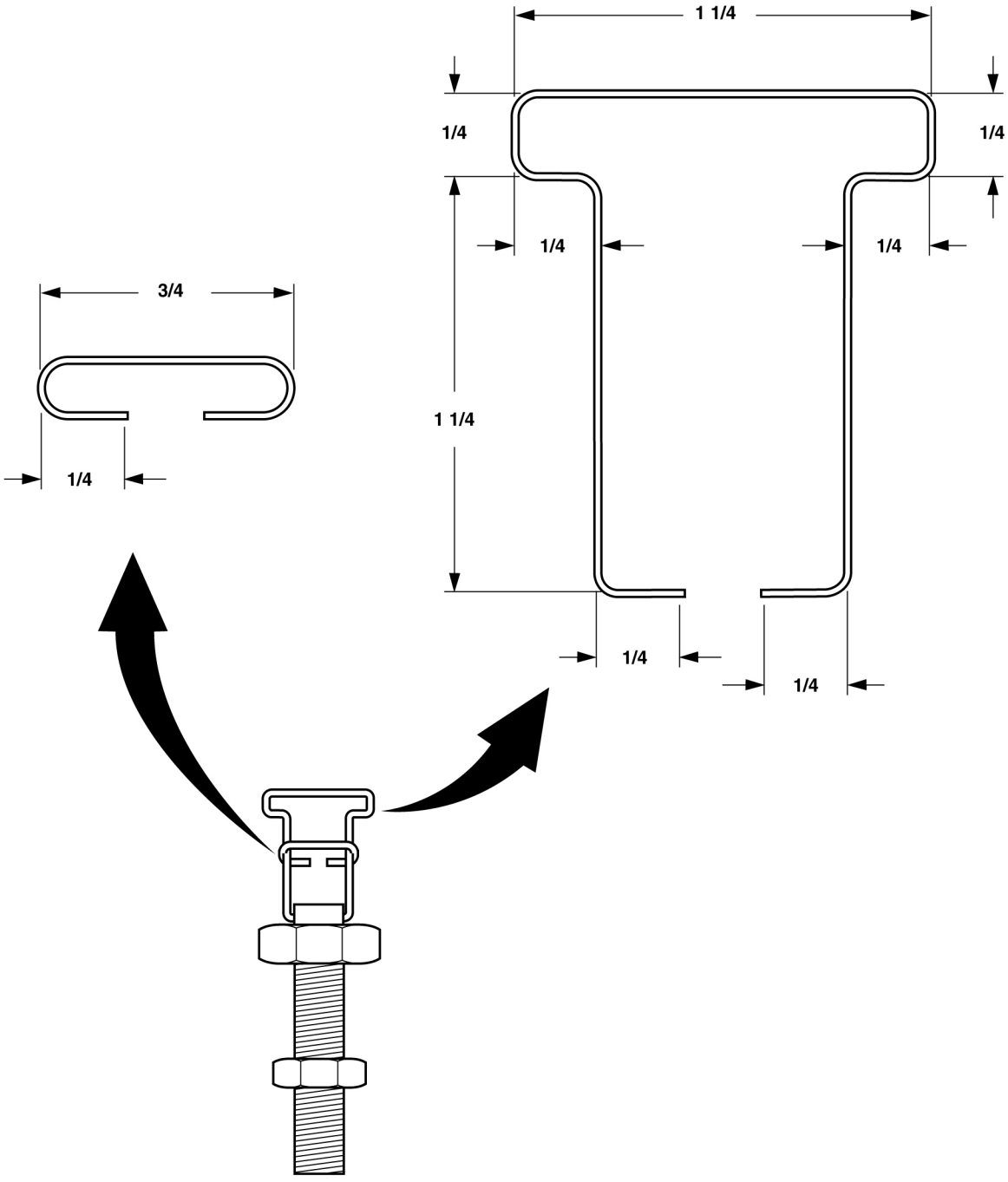


Figure 4-15. Switch Box Load Terminal Repair (A, B, & C Models).

4-18 REAR STEPS MAINTENANCE

This task covers: a. Remove b. Install

INITIAL SETUP

Tools

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

Equipment Conditions

Reference
Trailer support devices are lowered, paragraph 2-3.2.1.

Materials/Parts

Lock-nuts

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.

NOTE

The above warnings apply to all procedures listed in paragraph 4-18.

REMOVE

1. To remove either rear step, remove lock-nuts (5, Figure 4-16), flat washers (3), and bolts (2) that secure rear step (4) to trailer frame. Discard lock-nuts (5).
2. Remove lock-nuts (5), flat washers (3), and bolts (2), that secure rear step (4) to fender (1). Discard lock-nuts (5).
3. Remove rear step (4) from trailer.

INSTALL

1. Position rear step on trailer frame and align five mounting holes of the rear step (4) and fender (1).
2. Install bolts (2), flat washers (3), and new lock-nuts (5) that secure rear step (4) to fender (1). Do not tighten bolts.
3. Install bolts (2), flat washers (3), and new lock-nuts (5) to secure rear step (4) to trailer frame.
4. Tighten all bolts.

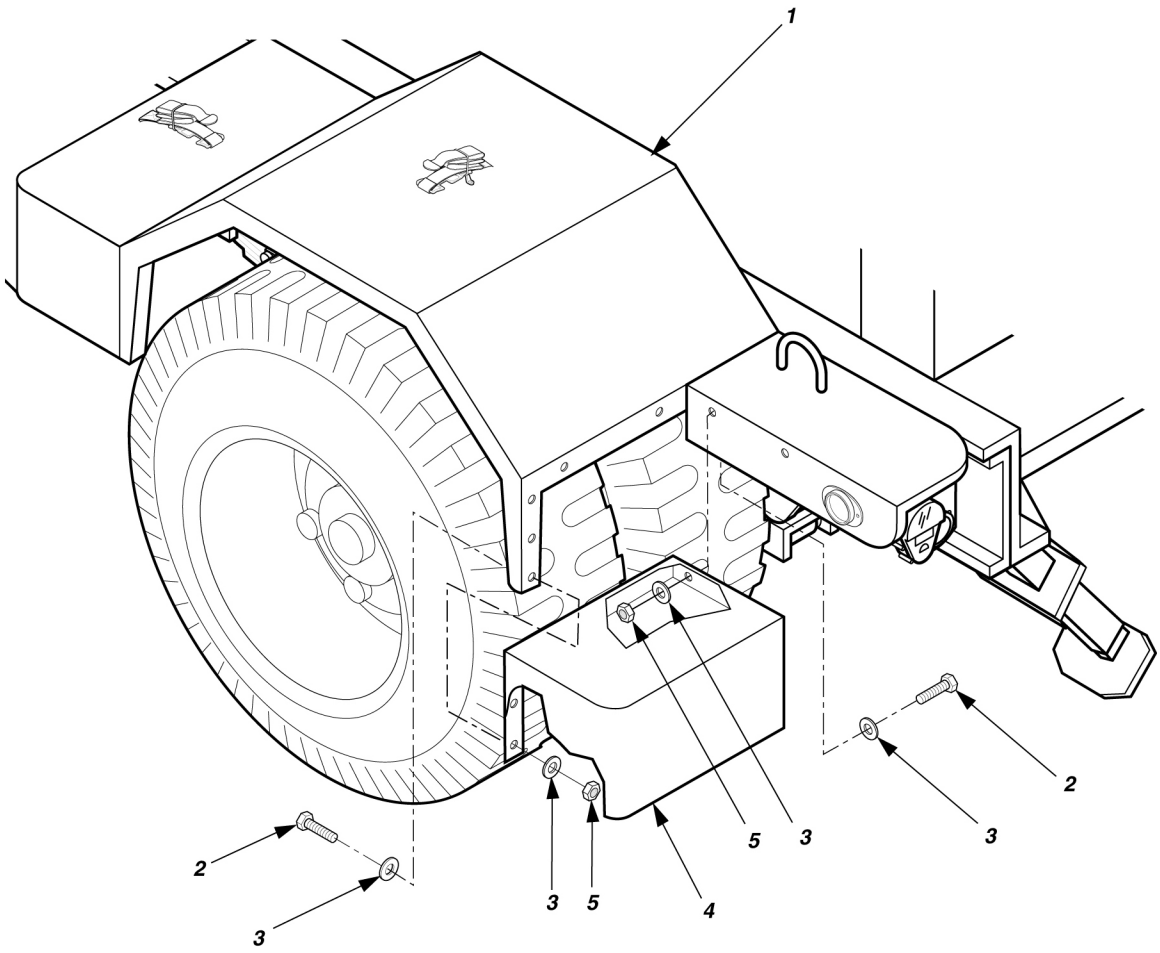


Figure 4-16. Rear Step Replacement (if installed).

4-19 ACCESSORY BOX MAINTENANCE

This task covers: a. Remove b. Repair c. Install

INITIAL SETUP

Tools

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

Equipment Conditions

Reference
Trailer support devices are
lowered, paragraph 2-3.2.1.

Materials/Parts

Lock-nuts
Rivets, Blind Head

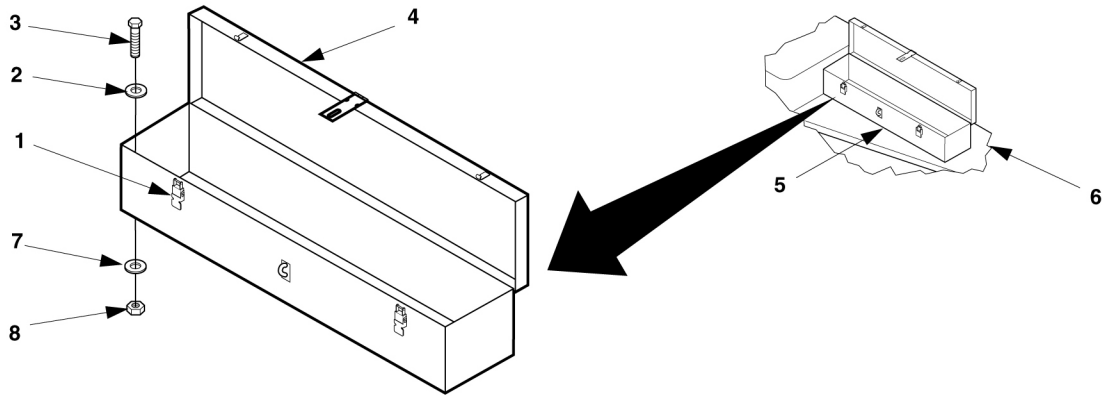


Figure 4-17. Accessory Box Replacement.

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.

NOTE

The above warnings apply to all procedures listed in paragraph 4-19.

REMOVE

1. Release clamping catches (1, Figure 4-17) and open accessory box cover (4).
2. Remove any stored accessories from accessory box (5).
3. Remove lock-nuts (8), flat washers (2 and 7), and bolts (3) that secure accessory box (5) to trailer chassis (6). Discard lock-nuts (8).
4. Lift accessory box (5) off trailer chassis (6).

REPAIR

Refer to paragraph 4-14 (A Model) or 4-14.A (B&C Models), and replace clamping catches.

INSTALL

1. Position accessory box (5) over mounting holes in trailer chassis (6).
2. Install bolts (3), flat washers (2 and 7), and new lock-nuts (8) that secure accessory box (5).
3. Store in accessory box (5) accessories removed in step 2 of remove.
4. Close accessory box cover (4) and secure with clamping catches (1).

4-20 STRAP ASSEMBLY MAINTENANCE

This task covers: a. Remove b. Install

INITIAL SETUP

Tools

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

Equipment Conditions

Trailer support devices are
lowered, paragraph 2-3.2.1.

Materials/Parts

Washers, Lock

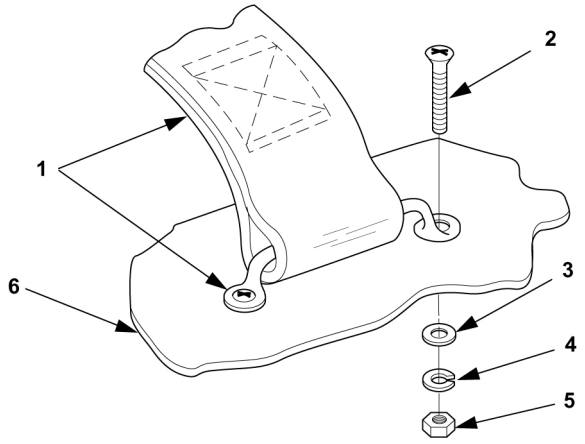


Figure 4-18. Strap Assembly Maintenance.

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.

NOTE

The above warnings apply to all procedures listed in paragraph 4-20.

REMOVE

1. Remove nuts (5, Figure 4-18), lock washers (4), flat washers (3), and screws (2) that secure strap assembly (1) to trailer chassis (6). Discard lock washers (4).

2. Remove strap assembly (1).

INSTALL

1. Position strap assembly (1) over mounting holes.

2. Install screws (2), flat washers (3), new lock washers (4), and nut (5) that secure strap assembly (1).

4-21 FENDER MAINTENANCE

This task covers: a. Remove b. Install

INITIAL SETUP

Tools

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

Equipment Conditions

Reference
Trailer support devices are lowered, paragraph 2-3.2.1.

Materials/Parts

Lock-nuts

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 injury to personnel.

NOTE

The above warnings apply to all procedures listed in paragraph 4-21.

REMOVE

1. Remove seventeen lock-nuts (5, Figure 4-19), flat washers (4), bolts (2), and flat washers (3), securing fender (1) to trailer frame. Discard lock-nuts (5).
2. Remove fender (1).

INSTALL

1. Position fender (1) on trailer.
2. Install bolt (2) on front step (6) and bolt (2) on rail (7), leaving new lock-nuts (5) loose.
3. Install fifteen bolts (2), flat washers (3 and 4), and new lock-nuts (5). Tighten all lock-nuts.

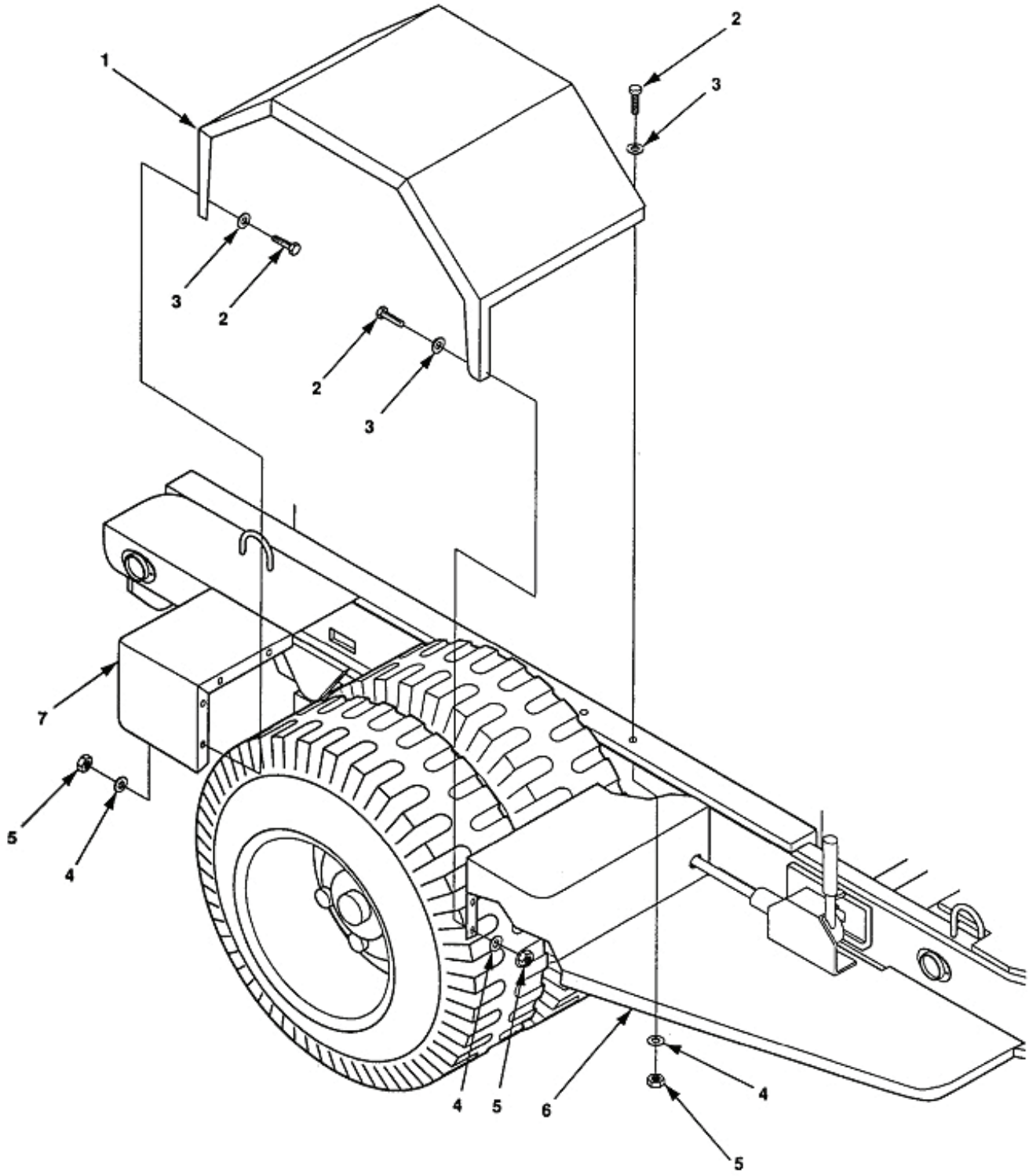


Figure 4-19. Fender Replacement.

4-22 FRONT STEPS MAINTENANCE

This task covers: a. Remove b. Install

INITIAL SETUP

Tools

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

Materials/Parts

Cotter pin (TM 9-2330-205-14&P)
Lock-nuts

Equipment Conditions

Reference
Trailer support devices are 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.

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 injury to personnel and damage to equipment.

NOTE

The above warnings apply to all procedures listed in paragraph 4-22.

REMOVE

1. When replacing roadside front step, remove fire extinguisher bracket (paragraph 4-24). When replacing curbside front step, remove accessory box (paragraph 4-19).
2. Release brake.
3. Remove cotter pin (13, Figure 4-20), spacer (16), and clevis pin (22), securing handbrake cable to handbrake lever mechanism (15). Discard cotter pin (13).
4. Remove lock-nuts (26), flat washers (25), and cap screws (14) which secure handbrake bracket (19) to trailer frame. Discard lock-nuts (26).

5. Remove lock-nuts (21), flat washers (18), and cap screws (17), securing handbrake bracket (19) to front step (3). Discard lock-nuts (21).

6. Remove handbrake bracket (19) and handbrake mechanism (15).

7. Remove lock-nuts (11), flat washers (12), and cap screws (23), which secure brake cable bracket (24) to front step (3). Remove clevis (20). Discard lock-nuts (11).

8. Remove lock-nuts (1), flat washers (2), and cap screws (10), securing front step (3) to front edge of fender. Discard lock-nuts (1).

9. Remove lock-nuts (9), flat washers (5), and cap screws (4), securing front step (3) to trailer frame. Discard lock-nuts (9).

10. Remove lock-nuts (8), flat washers (7), and cap screws (6), securing front step (3) to chassis. Discard lock-nuts (8).

11. Remove front step (3).

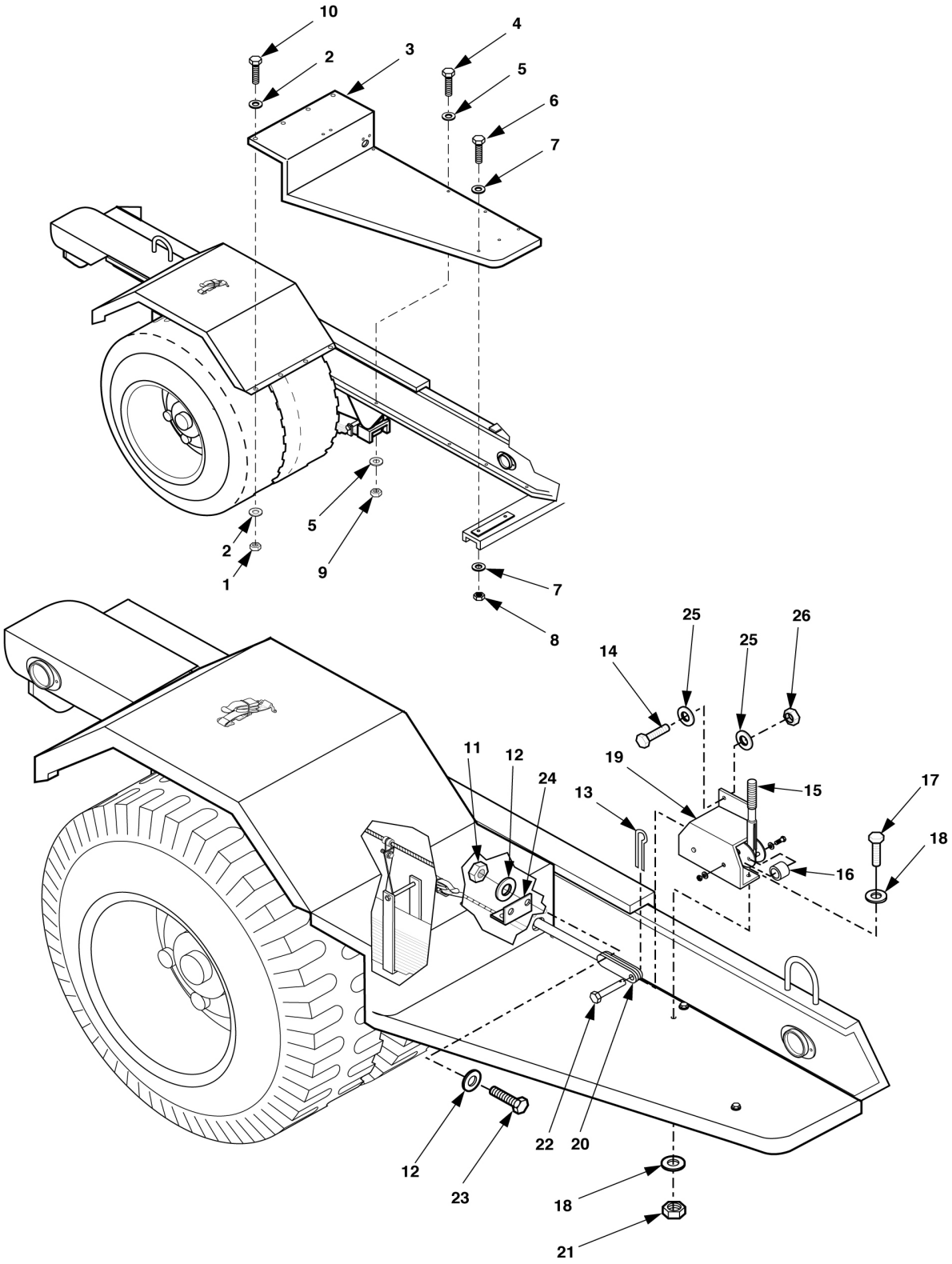


Figure 4-20. Front Step Replacement

INSTALL

1. Position front step (3, Figure 4-20) on cross braces and trailer frame. Insert handbrake clevis (20) through hole in front step (3).

2. Install cap screws (6), flat washers (7), and new lock-nuts (8), which secure front step (3) to chassis.

3. Install cap screws (4), flat washers (5), and new lock-nuts (9), which secure front step (3) to trailer frame.

4. Install cap screws (10), flat washers (2), and new lock-nuts (1), which secure front step (3) to fender.

5. Install cap screws (23), flat washers (12), and new lock-nuts (11), which secures brake cable bracket (24) to front step (3).

6. Position handbrake bracket (19) and handbrake lever mechanism (15) on front step (3).

7. Install cap screws (17), flat washers (18), and new lock-nuts (21), which secure hand break bracket (19) and hand break mechanism (15) to front step (3).

8. Install cap screws (14), flat washers (25), and new lock-nuts (26) which secure hand break bracket (19) to trailer frame.

9. Position handbrake cable to handbrake mechanism (15) and install clevis pin (22), spacer (16), and secure with new cotter pin (13).

10. Install either fire extinguisher bracket or accessory box removed in step 1. Refer to paragraph 4-19 to install accessory box. Install fire extinguisher bracket (paragraph 4-24).

4-23 FRONT PLATFORM MAINTENANCE

This task covers: a. Remove b. Install

INITIAL SETUP

Tools

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

Materials/Parts

Lock-nuts
Washers, Lock

Equipment Conditions

Reference
Trailer support devices are 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.

NOTE

The above warnings apply to all procedures listed in paragraph 4-23.

REMOVE

1. Older Version:

   a. When removing front platform (4, Figure 4-21) on Unit A, refer to paragraph 4-12 and remove switch box.
   b. To remove switch box supports (3) from the older model platform, remove hex nuts (8), flat washers (2), lock washers (7), and cap screws (1) which secure switch box supports (3). Discard lock washers (7).
   c. To remove the platform from the trailer, remove lock-nuts (9), flat washers (6 and 10), and cap screws (5) which secure the platform (4) to trailer. Discard lock-nuts (9).

2. Newer Version:

   a. When removing front platform on Unit A, refer to paragraph 4-12.A and remove switch box.
   b. Remove hex nuts (4, Figure 4-21.A), flat washers (3), lock washers (5), and cap screws (2). Discard lock washers (5).
   c. To remove the platform from trailer, remove hex nuts (4), flat washers (3), lock washers (5), and cap screws (2), which secure new platform (1) to trailer. Discard lock washers (5).

3. Remove front platform.

NOTE

Refer to RPSTL illustration, F-29, for pictorial differences in front platform.

INSTALL

1. Older Version:

   a. Position new front platform (4) on trailer over mounting holes.
   b. Install cap screws (5), flat washers (6 and 10), and new lock-nuts (9) to secure platform (4) to trailer.
   c. Install cap screws (1), new lock washers (7), flat washers (2), and hex nuts (8), which secures switch box supports (3).
   d. When replacing front platform for Unit A, refer to paragraph 4-12 and install switch box assembly.

2. Newer Version:

   a. Position front platform (1) on trailer over mounting holes.
   b. Install cap screws (2), flat washers (3), new lock washers (5), and hex nuts (4) to secure platform (1) to trailer.
   c. Install cap screws (2), flat washers (3), new lock washers (5), and hex nuts (4) which secures switch box assembly.
   d. When replacing front platform for Unit A, refer to paragraph 4-12.A and install switch box assembly.

NOTE

Refer to RPSTL illustration, Figure F-31, for pictorial differences on front platform.

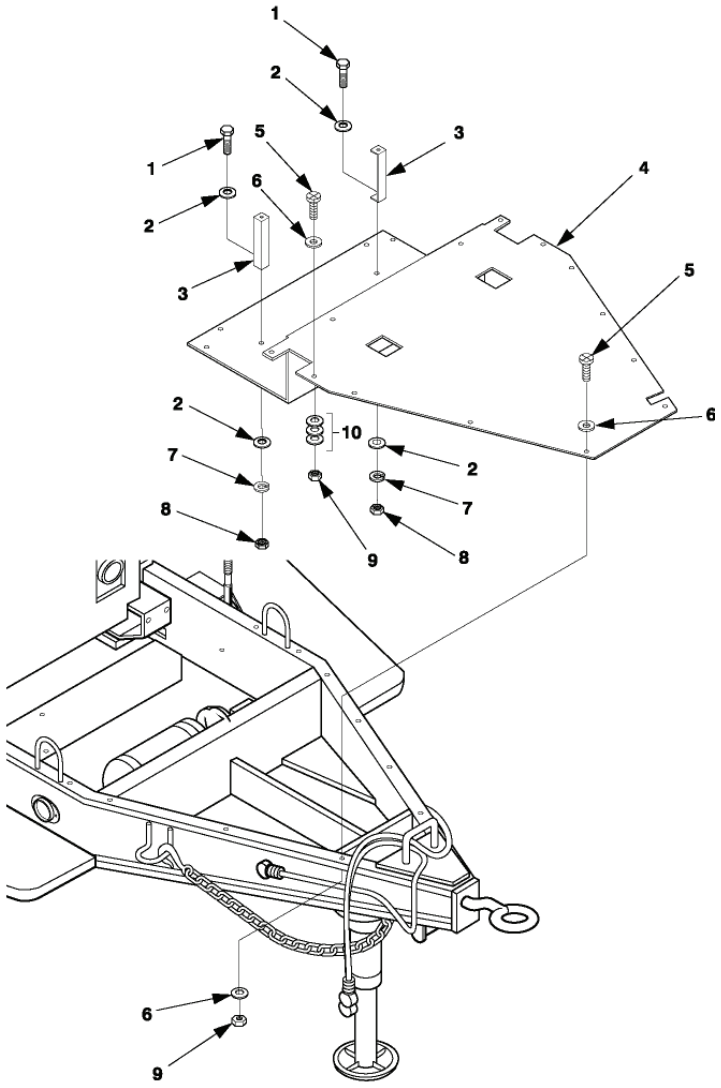


Figure 4-21. Front Platform Replacement , 2 ‰Ton Trailer (Older Model).

NOTE

This platform (Figure 4-21) is used with power plants equipped with older model switch boxes.

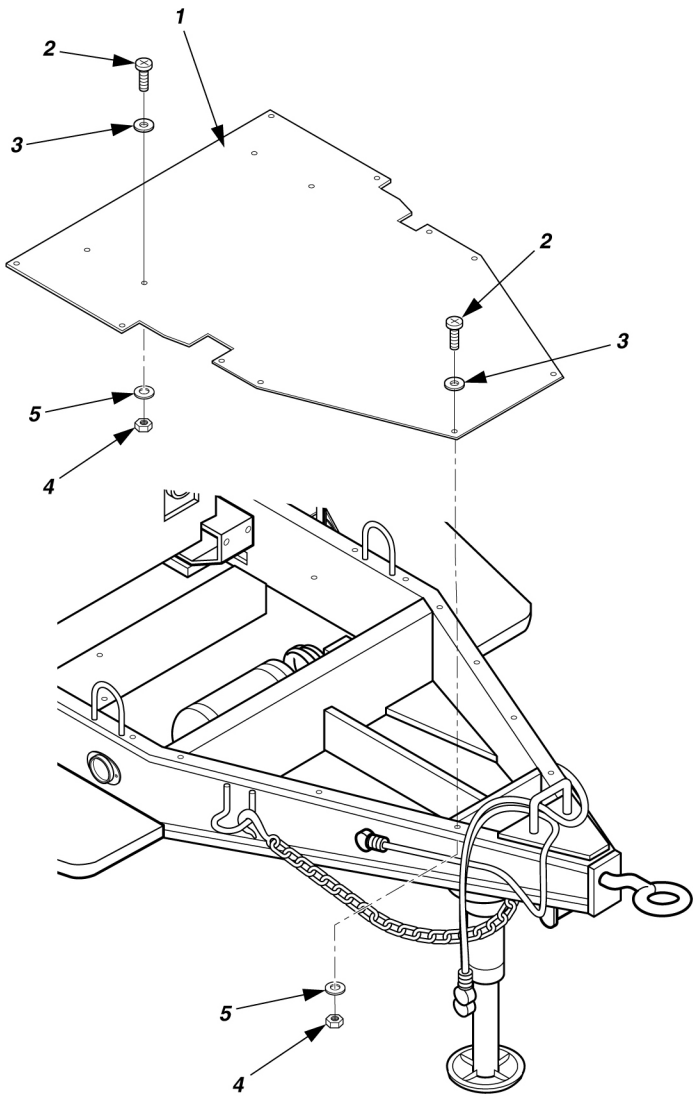


Figure 4-21.A. Front Platform Replacement, 2 ‰ Ton Trailer (Newer Model).

NOTE 1

This newer model platform is used with power plants with modified trailer.

NOTE 2

This platform (Figure 4-21.A) comes with drill holes to accommodate Unit A. Unit B platform does not contain drill holes.

4-24 FIRE EXTINGUISHER BRACKET MAINTENANCE

This task covers: a. Remove b. Install

INITIAL SETUP

Tools

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

Materials/Parts

Lock-nuts

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.

NOTE

The above warnings apply to all procedures listed in paragraph 4-24.

REMOVE

1. Remove fire extinguisher from bracket (1, Figure 4-22).
2. Remove lock-nuts (4), flat washers (3), and cap screws (2). Remove fire extinguisher bracket (1) from fender. Discard lock-nuts (4).

INSTALL

1. Install fire extinguisher bracket (1), cap screws (2), flat washers (3), and new self-locking nuts (4). Tighten lock-nuts (4).
2. Place fire extinguisher in bracket (1).

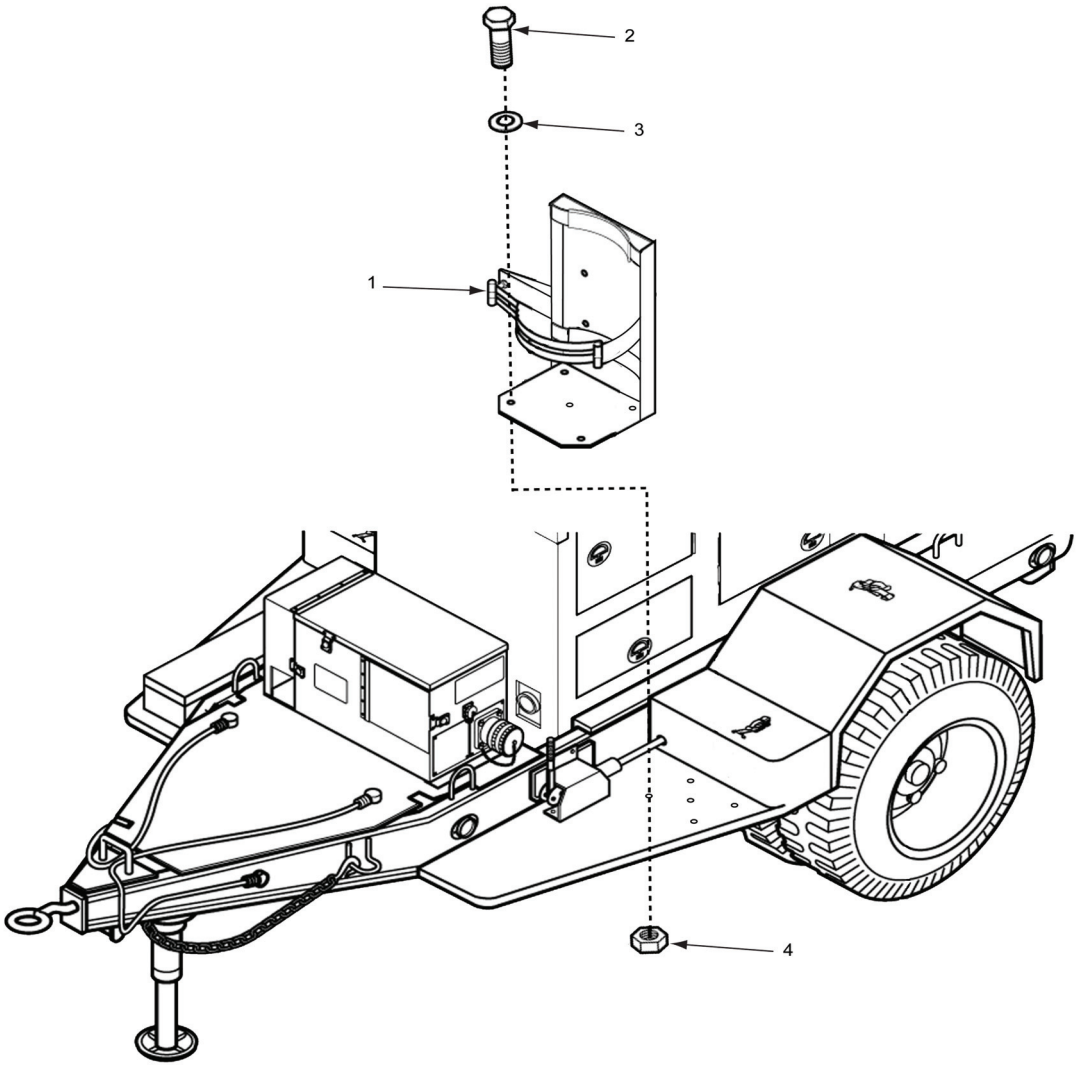


Figure 4-22. Fire Extinguisher Bracket.

Section VII. PREPARATION FOR STORAGE AND SHIPMENT

4-25 ADMINISTRATIVE STORAGE

4-25.1 Short-Term Storage. This type of storage is used when the equipment 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 maintenance services and serviceability criteria evaluations before placing equipment in administrative storage. Correct shortcomings and deficiencies.

b. If possible, select an inside storage site. If inside storage is not available, a truck, van container, or other suitable container may be used.

c. When in administrative storage, the equipment should be capable of being made mission ready within 24 hours unless a different time frame is directed by the approving authority.

d. Additional Level A or B (PPP-G-2919) preservation and packing may be required.

4-25.2 Intermediate-Term Storage. This type of storage is used when the equipment is expected to be stored from 45 to 180 days. Level A or B (PPP-G-2919) preservation and packing may be required.

4-25.3 Long-Term Storage. This type of storage is used when the equipment is expected to be stored for more than 180 days. Level A (PPP-G-2919) preservation and packing may be required.

CHAPTER 5

DIRECT SUPPORT MAINTENANCE

Subject Index Page

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

No special tools or support equipment are required for maintenance of the power units or power plants. Refer to TM 9-6115-644-24P and TM 9-6115-671-24P for the generator set, TM 9-2815-255-24P and TM 9-2815-259-24P for the engine, and TM 9-2330-205-14&P for the trailer.

5-3 REPAIR PARTS

Refer to TM 9-6115-644-24P and TM 9-6115-671-24P for the generator set, and TM 9-2815-255-24P and TM 9-2815-259-24P for the engine. Refer to TM 9-2330-205-14&P for trailer parts. Power units and power plants repair parts not covered in the generator, engine, or trailer RPSTL are listed and illustrated in Appendix F.

Section II. TROUBLESHOOTING PROCEDURES

5-4 GENERAL

Refer to TM 9-6115-644-24 and TM 9-6115-671-14 for generator set troubleshooting procedures, and to TM 9-2815-255-24 and TM 9-6115-259-24 for engine troubleshooting procedures. Refer to TM 9-2330-205-14&P for trailer troubleshooting procedures. The symptom index for the power plants lists faults associated with switch box assembly operation. Figures 5-1 through 5-9 provide a go-no-go flowchart of each malfunction. Each malfunction listed includes a reference to the applicable figure that contains a chart to help you determine probable causes and corrective actions to take. The symptom index cannot list all faults that may occur, nor all the 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 for assistance.

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.

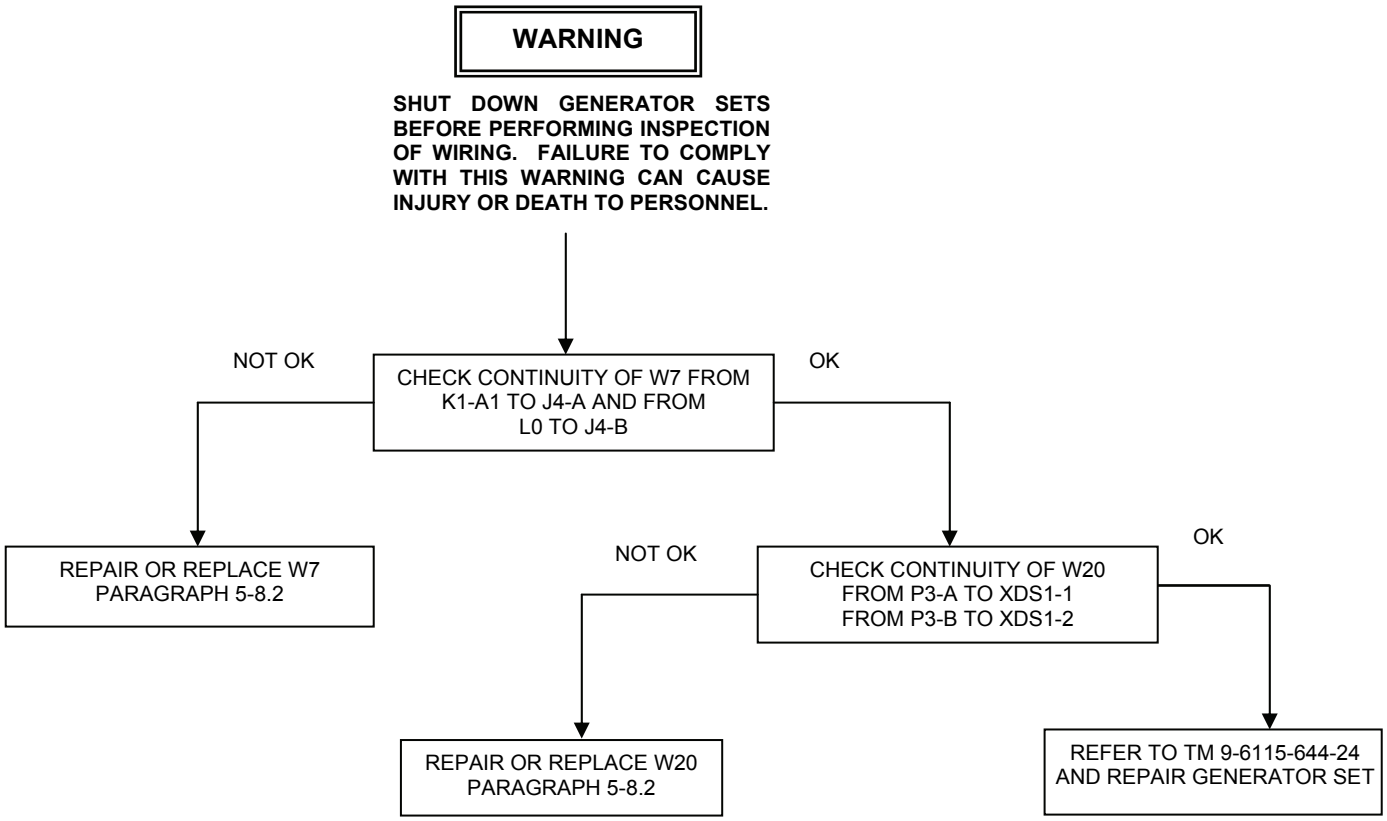
WARNING

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, switch box 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.

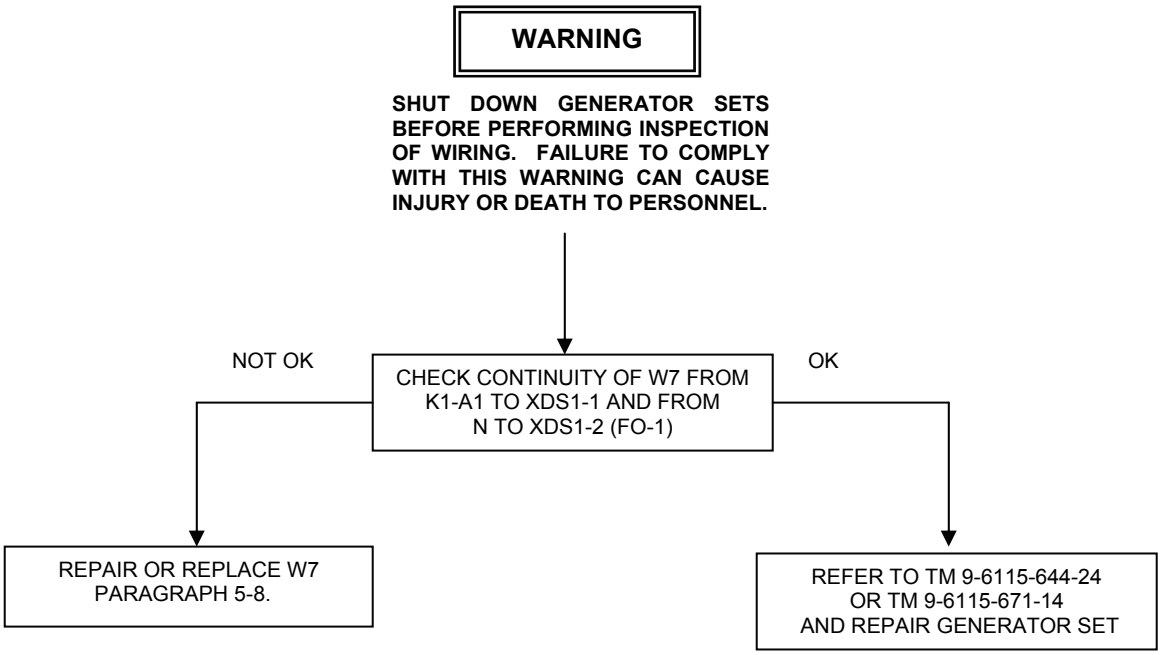
SYMPTOM INDEX



NOTE

Load terminal Neutral is designated L0. This troubleshooting chart covers the A Model of the switch box.

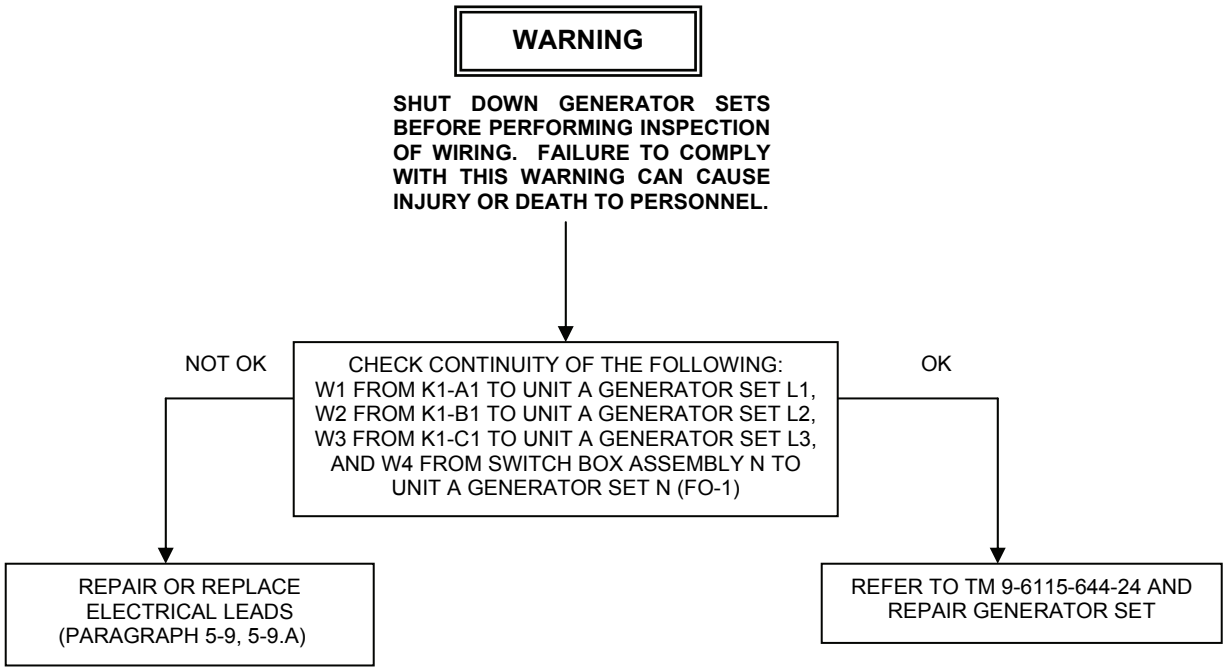
Figure 5-1. Unit A STATUS Lamp Does Not Light With Generator Set AC CIRCUIT INTERRUPTER Switch Closed (A Model).



NOTE

On previous model switch boxes, load terminal N is designated L0. This troubleshooting chart covers the B&C Models of the switch box.

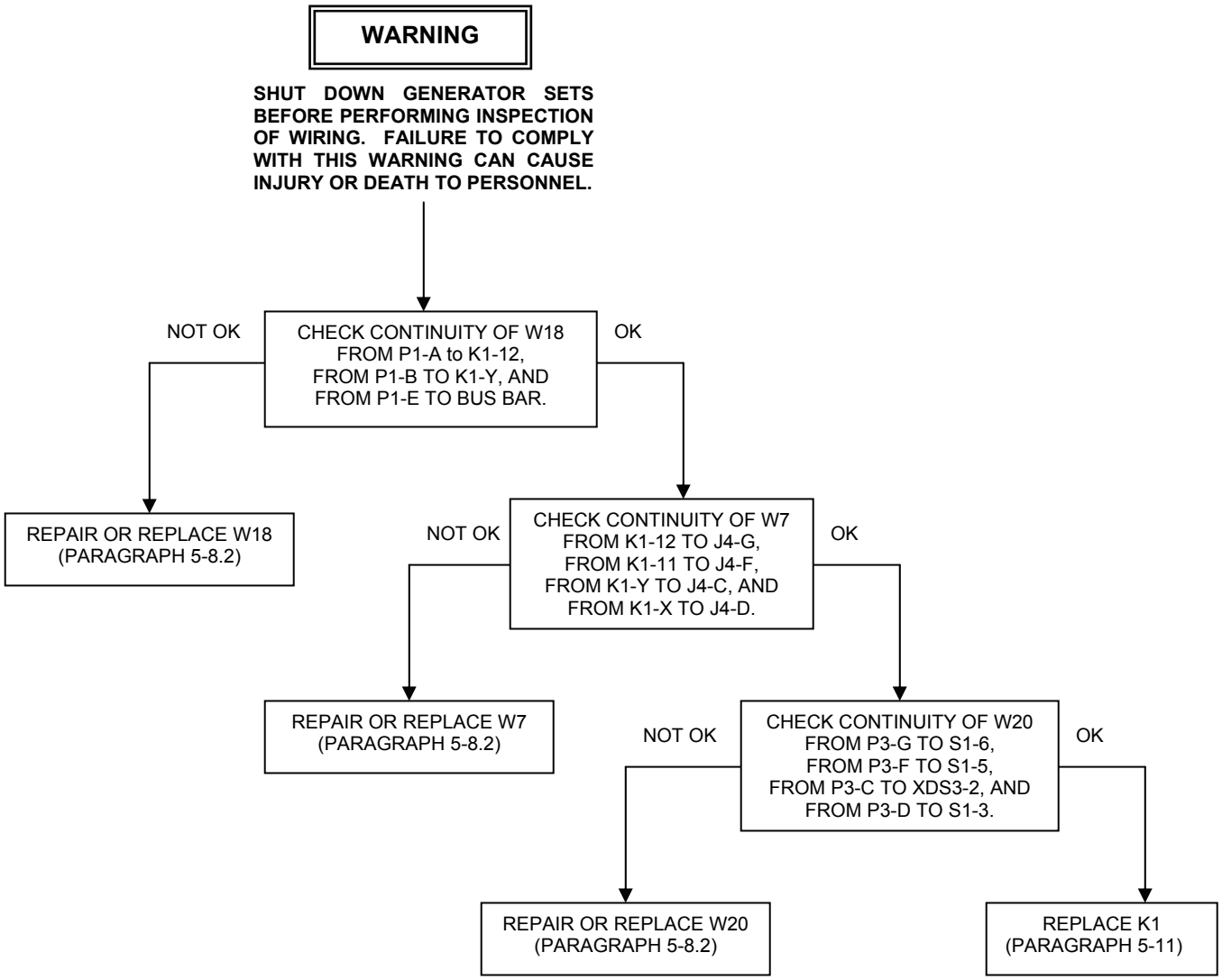
Figure 5-1.1. Unit A STATUS Lamp Does Not Light With Generator Set AC CIRCUIT INTERRUPTER Switch Closed (B&C Models).



NOTE

On previous model switch boxes, load terminal N is designated L0. This troubleshooting chart covers A, B, & C Models of the switch box.

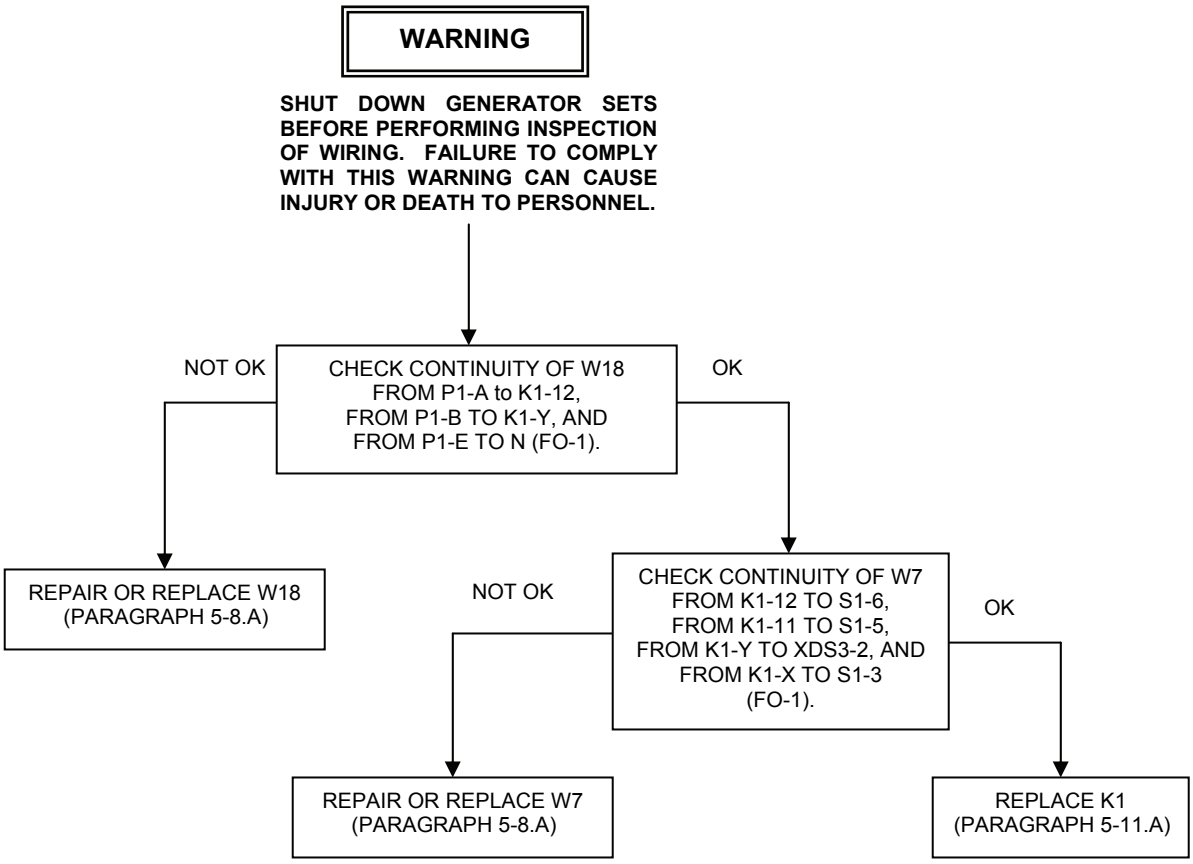
Figure 5-2. Unit A Has No Input Power to K1.



NOTE

This troubleshooting chart covers the A Model of the switch box.

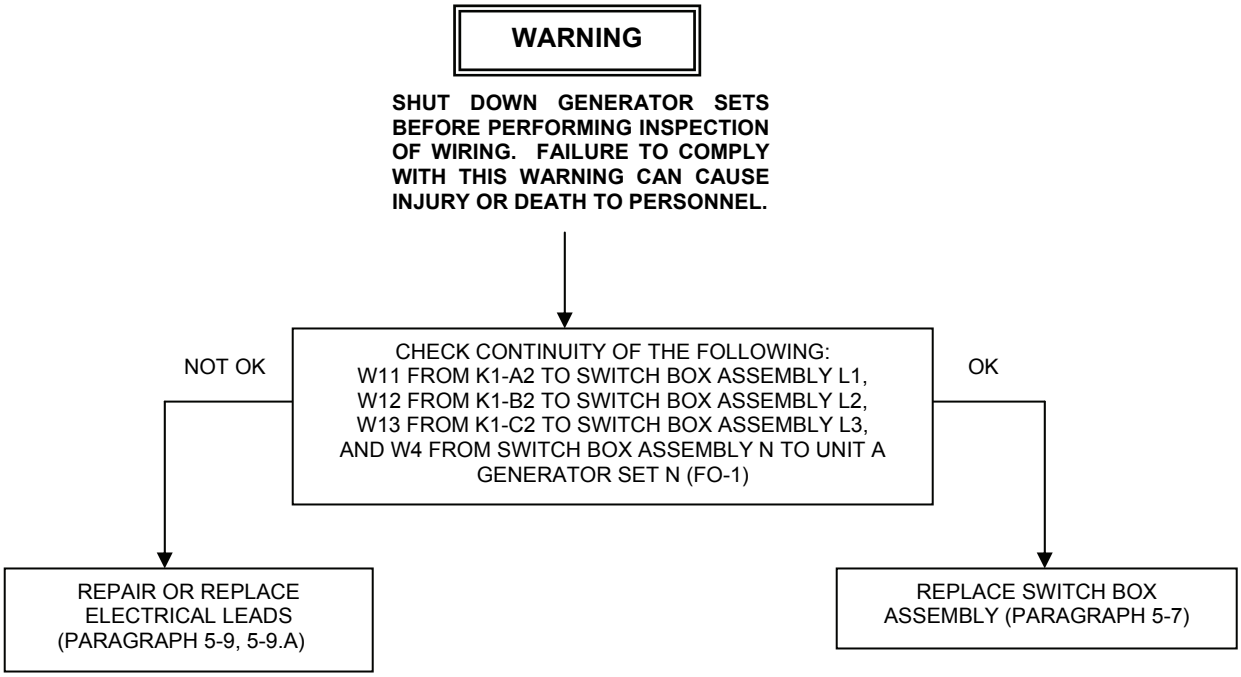
Figure 5-3. Unit A Has No Output Power from K1 (A Model).



NOTE

This troubleshooting chart covers the B&C Models of the switch box.

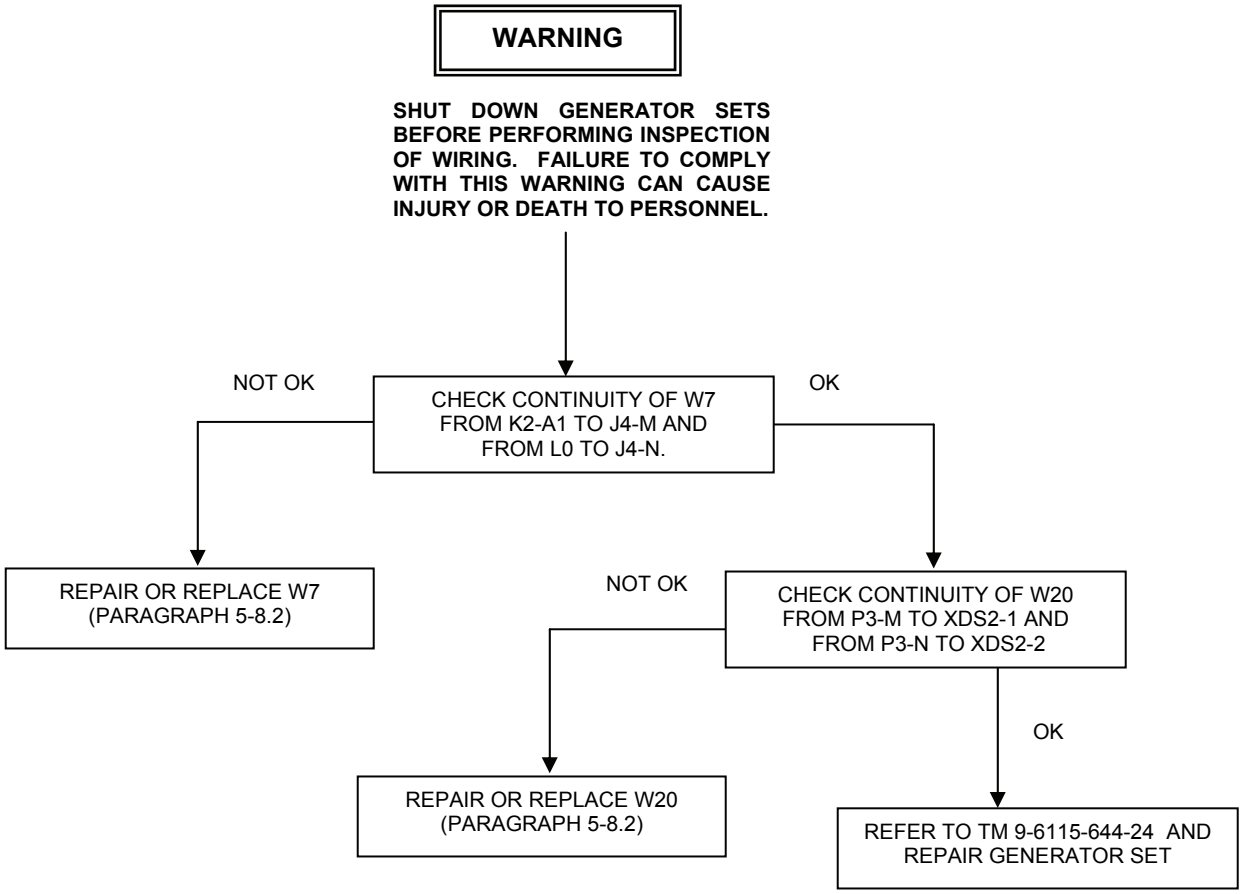
Figure 5-3.1. Unit A Has No Output Power from K1 (B&C Models).



NOTE

On previous model switch boxes, load terminal N was designated L0. This troubleshooting chart covers A, B, & C Models of the switch box.

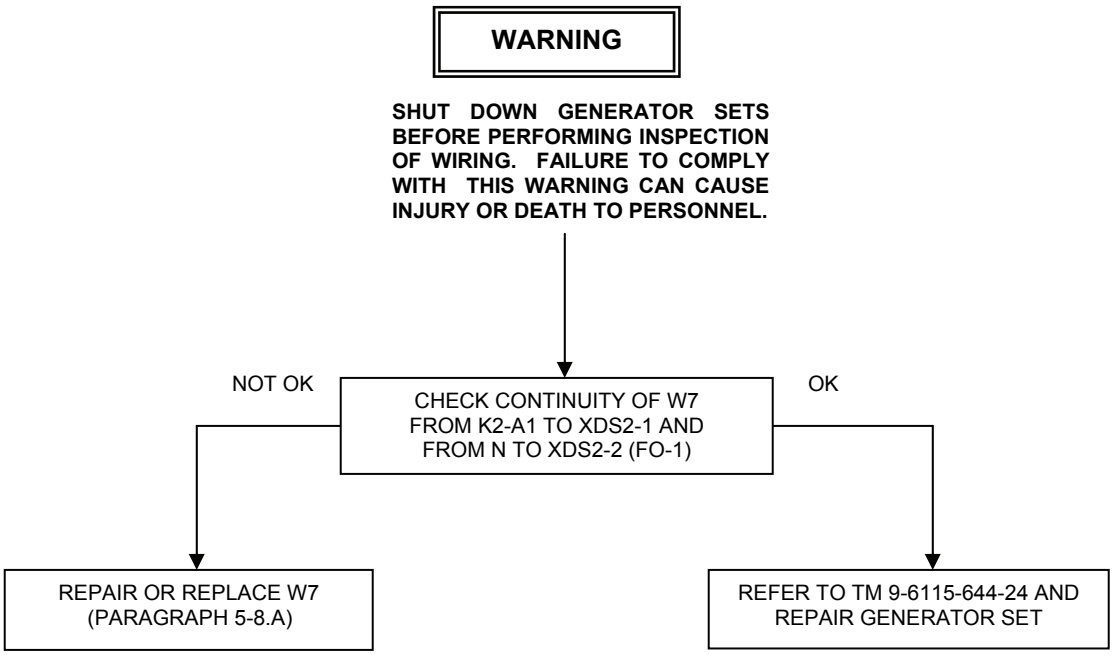
Figure 5-4. Unit A Has Output Power from K1 But No Output at One or More Load Terminals.



NOTE

This troubleshooting chart covers the A Model of the switch box.

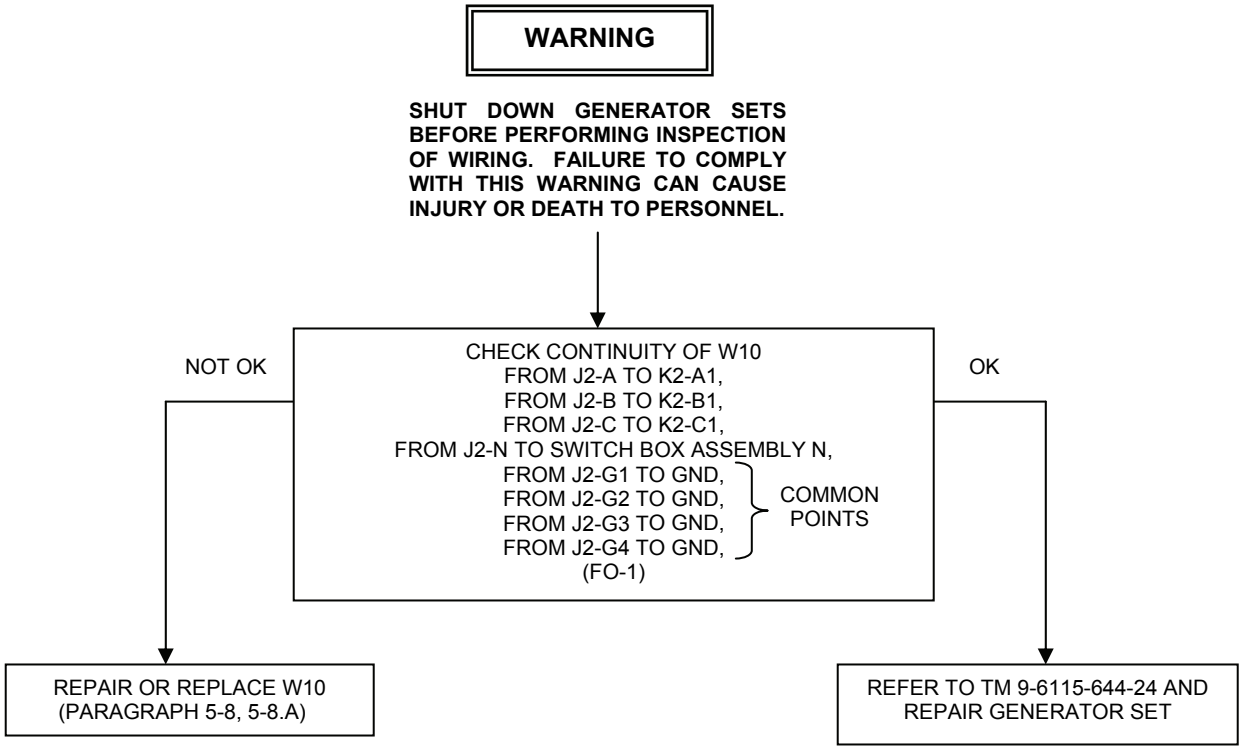
Figure 5-5. Unit B STATUS Lamp Does Not Light With Generator Set AC CIRCUIT INTERRUPTER Switch Closed (A Model).



NOTE

This troubleshooting chart covers the B&C Models of the switch box.

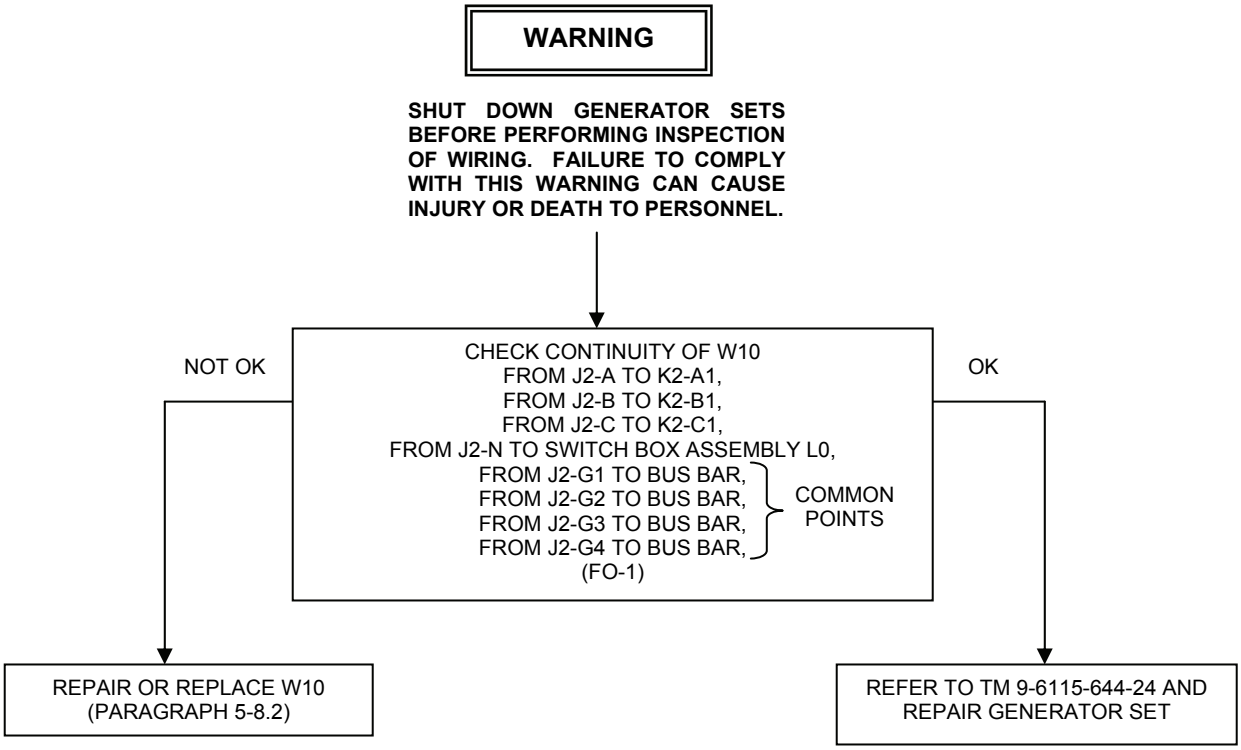
Figure 5-5.1. Unit B STATUS Lamp Does Not Light With Generator Set AC CIRCUIT INTERRUPTER Switch Closed (B&C Models).



NOTE

On previous model switch boxes, load terminal N was designated L0. This troubleshooting chart covers A, B, & C Models of the switch box.

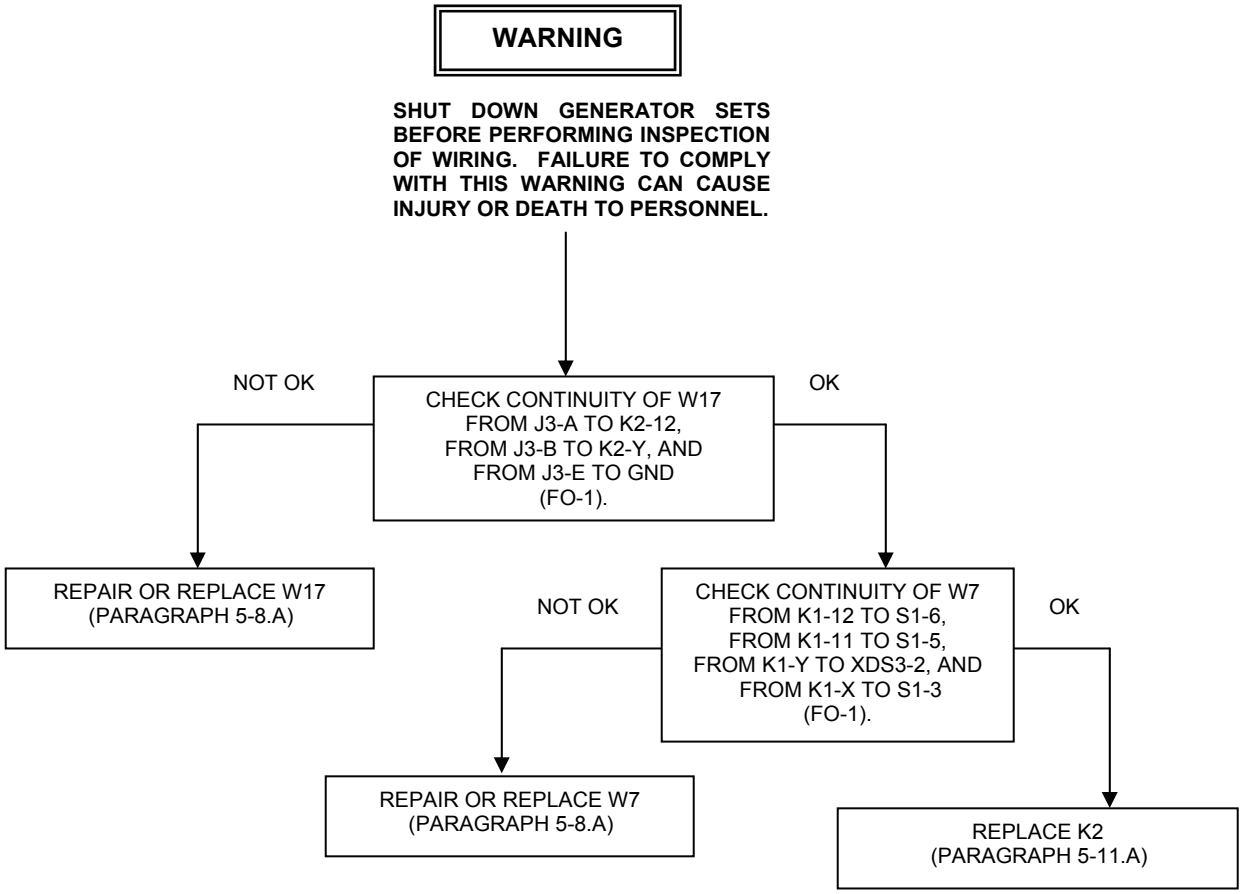
Figure 5-6. Unit B Has No Input Power to K2.



NOTE

This troubleshooting chart covers only the A Model of the switch box.

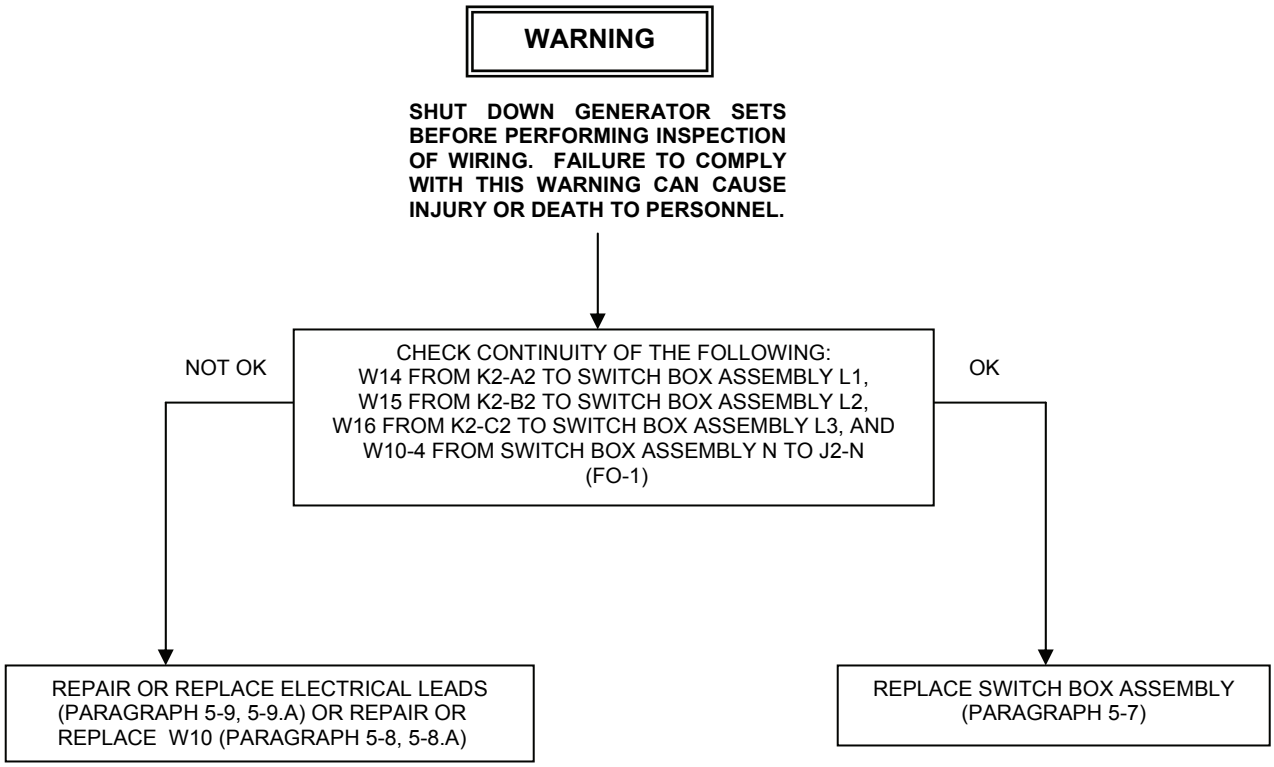
Figure 5-7. Unit B Has No Output Power from K2 (A Model).



NOTE

This troubleshooting chart covers the B&C Models of the switch box.

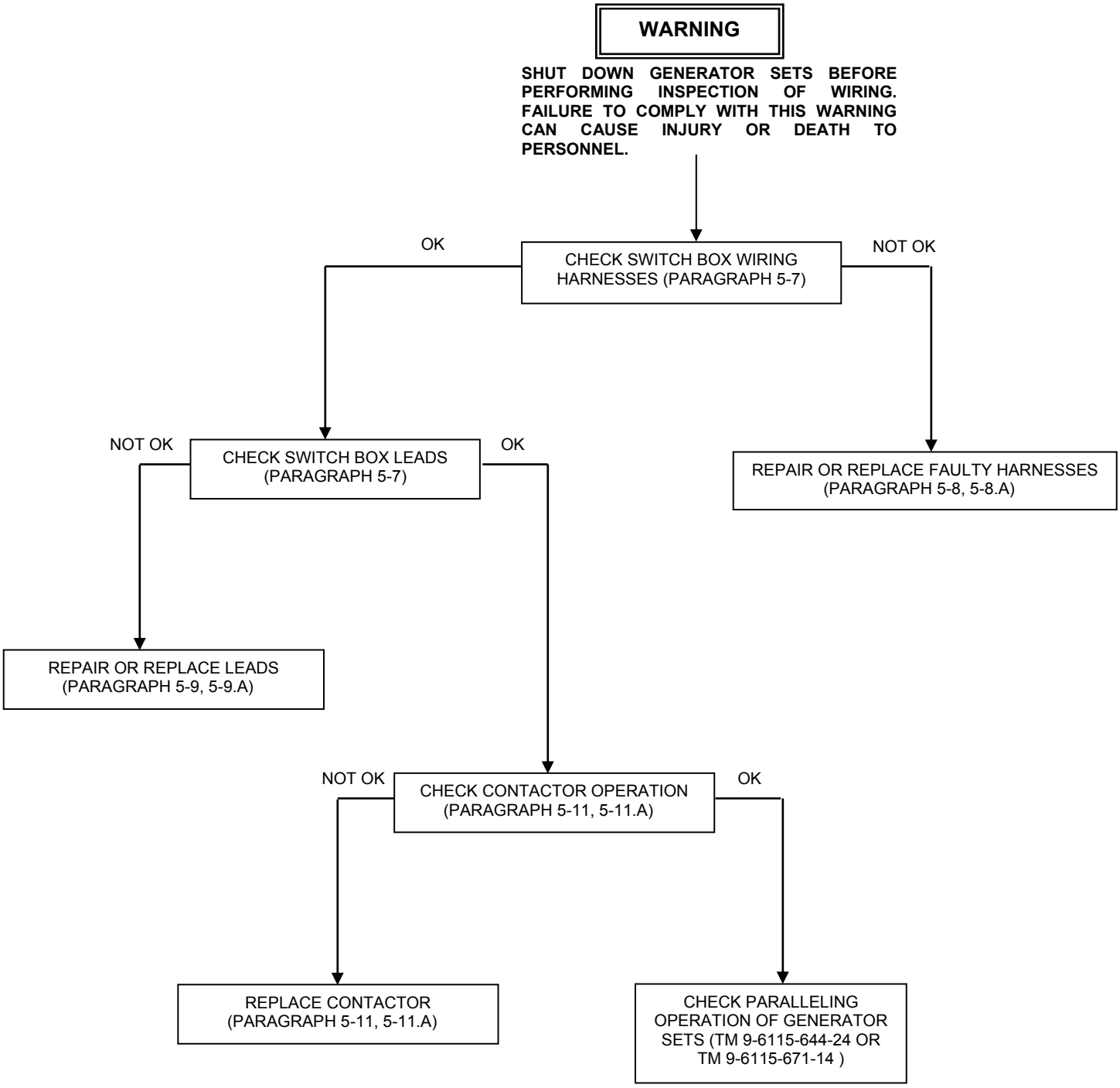
Figure 5-7.1. Unit B Has No Output Power from K2 (B&C Models).



NOTE

On previous model switch boxes, load terminal N was designated L0. This troubleshooting chart covers A, B, & C Models of the switch box.

Figure 5-8. Unit B Has Output Power from K2 But No Output at One or More Load Terminals.



NOTE

This troubleshooting chart covers A, B, & C Models of the switch box.

Figure 5-9. Power Cable W19 and Paralleling Cable Are Good, But Unit Fails to Parallel Through Switch Box.

Section III. MAINTENANCE PROCEDURES

5-5 GENERAL

Refer to TM 9-6115-644-24 and TM 9-6115-671-14 for generator set maintenance, and to TM 9-2815-255-24 and TM 9-2815-259-24 for engine maintenance. Refer to TM 9-2330-205-14&P for trailer maintenance. Direct Support level maintenance procedures are provided in paragraphs 5-6 through 5-13.

5-6 REPLACE GENERATOR SET

This task covers: a. Remove b. Install

INITIAL SETUP

Tools

Tool Kit, General Mechanic's
(item 1, appendix B)
Lifting device with 6000 lb capacity

Materials/Parts

Lock-nuts
Rope

Equipment Conditions

Reference
Both generator sets shut down,
paragraph 2-5.3.3, steps a-g (analog),
paragraph 2-5.4.3, steps a-g (digital).

Personnel Required

Four

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, switch box or when connecting or disconnecting 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 6000 pounds (2722 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 cause injury or death to personnel, and damage to the generator set.

NOTE

The above warnings apply to all procedures listed in paragraph 5-6.

REMOVE

1. When removing the generator set from Unit A of the power plant, detach power cable connector P1 (3, Figure

5-10) from generator set and pull power cable (3) out of generator set through power cable sock (12).

2. Loosen L1, L2, L3, N, and GND terminals (4 and 5) of Unit A/Unit B generator sets, disconnect electrical leads (13) from generator set and pull electrical leads (13) out of generator set through power cable sock (12).

3. Remove the four screws (1), eight flat washers (7), and four lock-nuts (6) securing the generator set to the trailer. Discard lock-nuts (6).

4. Attach lifting equipment (2) with a minimum capacity of 6000 lbs.

5. Insert ropes (10) through each of four lifting rings (8) on generator set (9).

6. With one person at each rope (10) to steady and guide generator set (9), lift generator set.

INSTALL

1. Attach lifting equipment (2) with a minimum lifting capacity of 6000 lb.

2. Insert rope (10) through four lifting rings (8) on generator set (9).

3. With one person at each rope (10) to steady and guide generator set (9), lift generator set.

4. Guide generator set skids into position on trailer and lower generator set onto trailer.

5. For all power units, install four screws (1), eight flat washers (7), and four new lock-nuts (6) that secure generator set (9).

6. Disconnect lifting equipment (2).

7. Route power cable (3) and electrical leads (13) through power cable sock (12) on front of Unit A generator set (9).

8. Connect ground cable to GND terminal (5) of generator set (9) and tighten nut.

9. Reconnect electrical leads (4) and connector P1 (3) to generator set when installing generator set on Unit A.

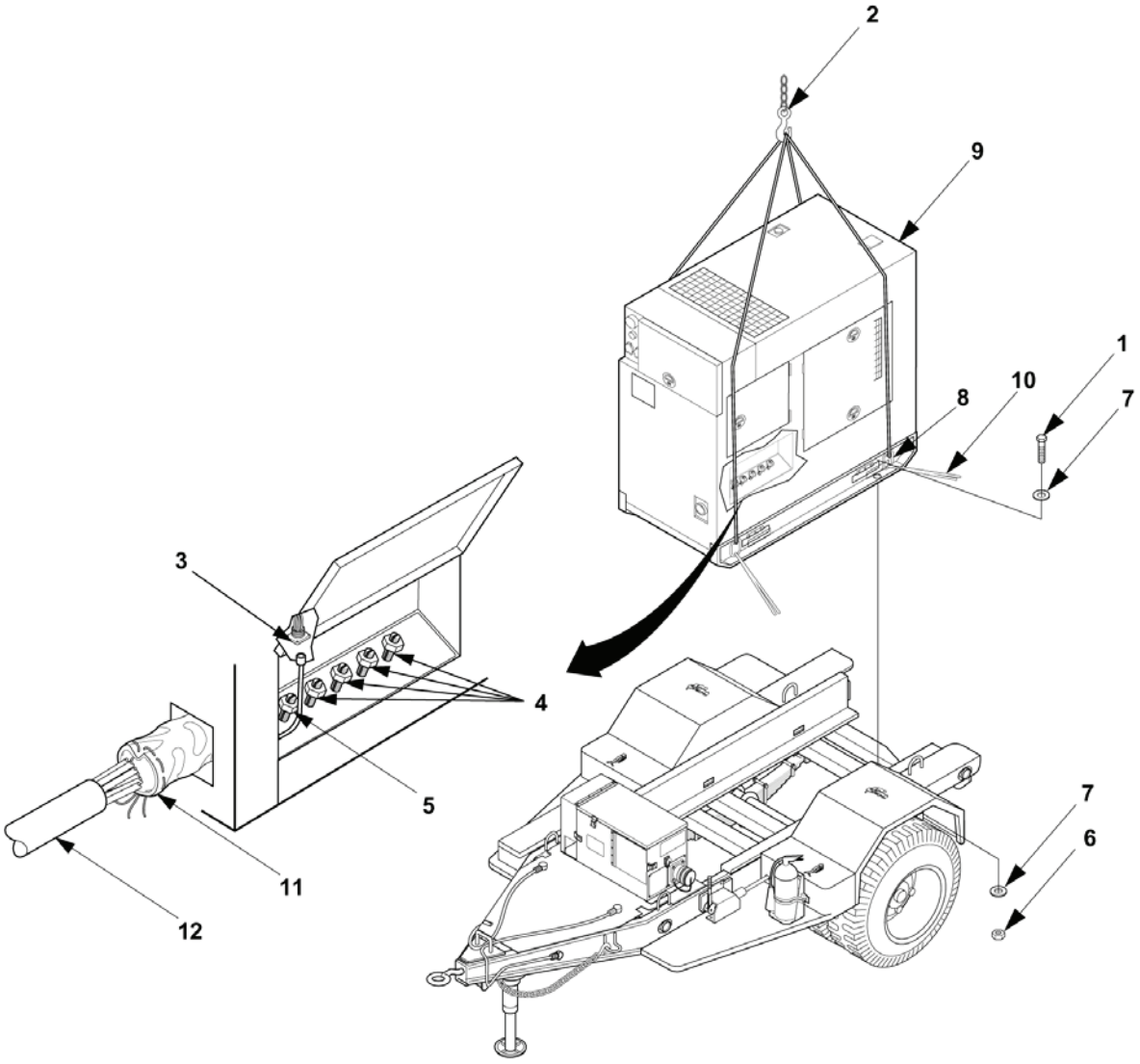


Figure 5-10. Generator Set Removal.

5-7 SWITCH BOX ASSEMBLY MAINTENANCE (A, B, & C MODELS)

This task covers: a. Replace b. Repair c. Test

INITIAL SETUP

Tools

Tool Kit, General Mechanic's
(item 1, appendix B)
Multimeter, AN/PSM-45A
(item 4, appendix B)
120VAC Power Source
(item 5, appendix B)

Equipment Conditions

Reference
Both generator sets shut down,
paragraph 2-5.3.3, steps a-g (analog),
paragraph 2-5.4.3, steps a-g (digital).
Trailer support devices are lowered,
paragraph 2-3.2.1.

Materials/Parts

Washers, Lock

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, 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 could cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in paragraph 5-7.

REPLACE

Refer to paragraph 4-12 and 4-12.A to remove and install switch box assembly.

REPAIR

Repair is accomplished by identifying the fault and determining the proper procedure for returning the switch box to operational status.

TEST (A Model)

1. Disassemble switch box assembly for test as follows:

    a. Remove 21 screws (1, Figure 5-11), flat washers (3), and lock washers (2) that secure the switch box cover (4) to the switch box assembly. Discard lock washers (2).

CAUTION

The control panel connector P3 is connected to connector J4. Movement of the switch box cover is limited. To prevent damage to control panel wiring harness, use caution removing switch box cover. Failure to observe this caution could result in equipment damage.

    b. Carefully position switch box cover (4) in front of switch box.

    c. Disconnect P3 (8) from J4 (11) and set switch box cover (4) out of the way.

2. Remove two lamps for Unit A and two lamps for Unit B from switch box control panel.

3. Refer to power plant wiring diagram (Figure FO-1) for identification of components inside switch box assembly and check.

    a. Refer to Table 5-1 and check continuity of wiring harness W20 (7).

Table 5-1. Wiring Harness W20

Wire Number	From	To
1	XDS1-1	P3-A
2	XDS1-2	P3-B
3	XDS3-2	P3-C
4	S1-3	P3-D
5	S1-5	P3-F
6	S1-6	P3-G
7	S2-6	P3-H
8	S2-5	P3-I
9	S2-3	P3-K
10	XDS4-2	P3-L
11	XDS2-1	P3-M
12	XDS2-2	P3-N
13	S1-3	XDS3-1
14	S2-3	XDS4-1

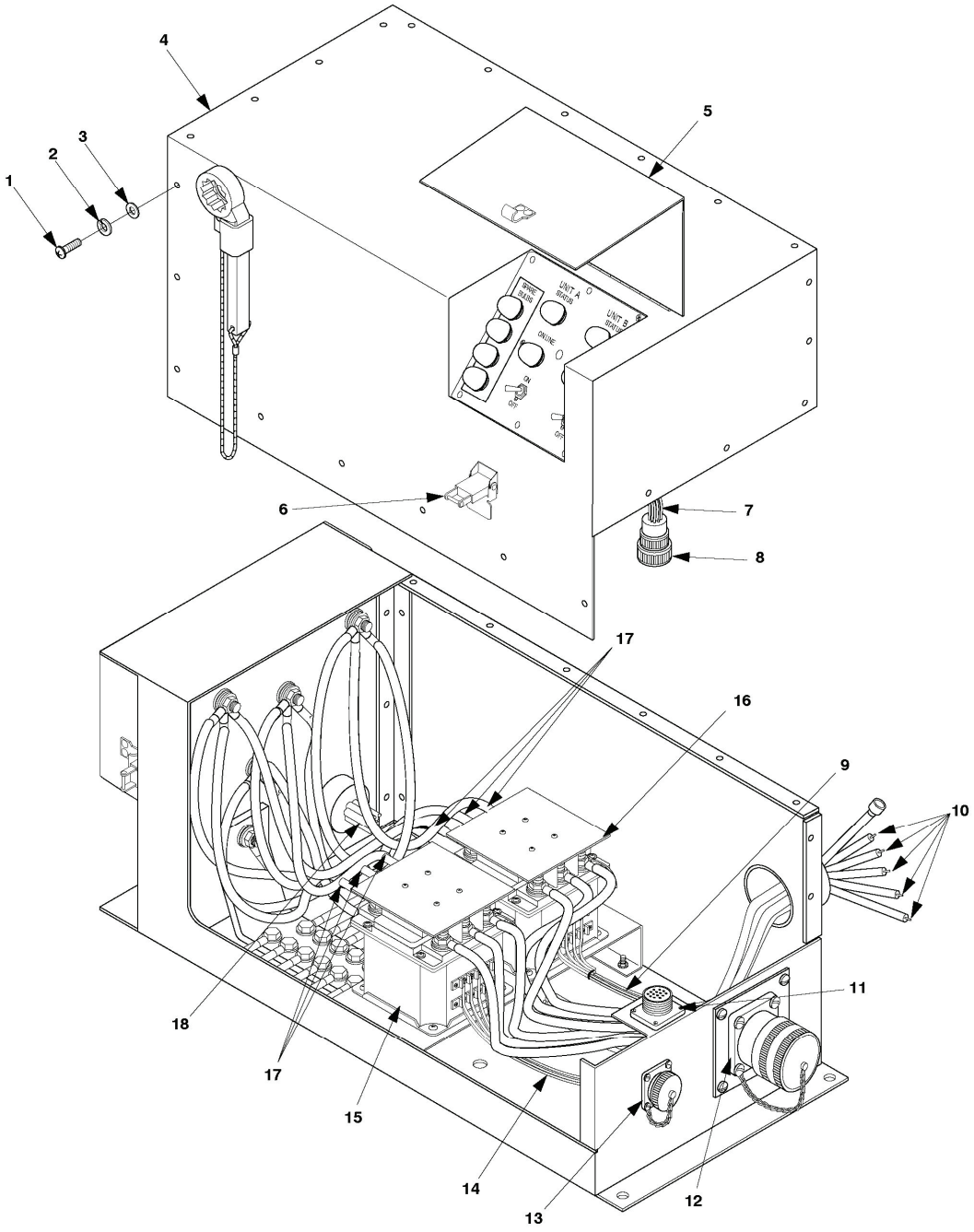


Figure 5-11. Switch Box Assembly Test (A Model).

b. Remove electrical connector cover; refer to Table 5-2 and check continuity of wiring harness W9 (18).

NOTE

The bus bar is physically connected to L0 of the switch box assembly and is a common ground. Wires connected to bus bar may be connected to any terminal on the bus bar.

Table 5-2. Wiring Harness W9

Wire Number	From	To
1	J1-A	L1
2	J1-B	L2
3	J1-C	L3
4	J1-N	L0
5	J1-G1	BUS BAR
6	J1-G2	BUS BAR
7	J1-G3	BUS BAR
8	J1-G4	BUS BAR

c. Refer to Table 5-3 and check continuity of wiring harness W10 (12).

Table 5-3. Wiring Harness W10

Wire Number	From	To
1	J2-A	K2-A1
2	J2-B	K2-B1
3	J2-C	K2-C1
4	J2-N	L0
5	J2-G1	BUS BAR
6	J2-G2	BUS BAR
7	J2-G3	BUS BAR
8	J2-G4	BUS BAR

d. Refer to Table 5-4 and check continuity of wiring harness W17 (13).

Table 5-4. Wiring Harness W17

Wire Number	From	To
1	J3-A	K2-12
2	J3-B	K2-Y
3	J3-E	BUS BAR

e. Refer to Table 5-5 and check continuity of wire harness W18 (9).

Table 5-5. Wiring Harness W18

Wire Identification	From	To
1	P1-A	K1-12
2	P1-B	K1-Y
3	P1-E	BUS BAR

NOTE

The cannon electrical plug connector for the W7 wiring harness is small. Ensure that multimeter leads are making good contact with the pins of the electrical plug connector.

f. Refer to Table 5-6 and check continuity of wiring harness W7 (14).

Table 5-6. Wiring Harness W7

Wire Identification	From	To
1	K1-A1	J4-A
2	Switch Box Assembly L0	J4-B
3	K1-Y	J4-C
4	K1-X	J4-D
5	K1-11	J4-F
6	K1-12	J4-G
7	K2-12	J4-H
8	K2-11	J4-I
9	K2-X	J4-K
10	K2-Y	J4-L
11	K2-A1	J4-M
12	Switch Box Assembly L0	J4-N

g. Refer to Table 5-7 and check continuity for each power lead, W1 through W5 (10).

Table 5-7. Input Power Leads

Wire Identification	From	To
W1	K1-A1	Unit A Generator Set L1
W2	K1-B1	Unit A Generator Set L2
W3	K1-C1	Unit A Generator Set L3
W4	Switch Box Assembly L0	Unit A Generator Set LO(N)
W5	BUS BAR	Unit A Generator Set GND

h. Refer to Table 5-8 and check continuity for each power lead, W11 through W16 (17).

Table 5-8. Output Power Leads

Wire Identification	From	To
W11	K1-A2	Switch Box Assembly L0
W12	K1-B2	Switch Box Assembly L0
W13	K1-C2	Switch Box Assembly L0
W14	K2-A2	Switch Box Assembly L0
W15	K2-B2	Switch Box Assembly L0
W16	K2-C2	Switch Box Assembly L0

4. Test contactor as follows:

a. Using a multimeter, test contactor K1 (15, Figure 5-11) as follows:

(1) Refer to Figure 5-12 and perform the following continuity checks. If any multimeter indication is not correct, replace contactor (Paragraph 5-11).

Lead Placement

Contactor Terminals	Multimeter Indication
32 and 33	continuity
21 and 22	open circuit
11 and 12	open circuit
A1 and A2	open circuit
B1 and B2	open circuit
C1 and C2	open circuit
A1 and B1	open circuit
B1 and C1	open circuit
C1 and A1	open circuit

(2) Connect 120 VAC power source to terminals X and Y of contactor.

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.

(3) Turn on power source.

(4) Listen for sound of contactor operation; if necessary, have second person listen for contactor operation.

(5) Perform following continuity checks. If any multimeter indication is not correct, replace contactor (Paragraph 5-11).

Lead Placement

Contactor Terminals	Multimeter Indication
32 and 33	open circuit
21 and 22	continuity
11 and 12	continuity
A1 and A2	continuity
B1 and B2	continuity
C1 and C2	continuity
A1 and B1	open circuit
B1 and C1	open circuit
C1 and A1	open circuit

(6) Measure resistance across terminals X and Y of contactor.

(7) Turn off power source and disconnect lines connected in step a(2).

b. Repeat steps a(1) through (7) for contactor K2 (16, Figure 5-11).

5. Install two lamps for Unit A and two lamps for Unit B into switch box control panel.

6. Reassemble switch box assembly as follows:

a. Refer to paragraphs 5-8 through 5-11.A and repair or replace any defective parts.

b. Carefully position switch box cover (4, Figure 5-11) in front of switch box.

c. Connect P3 (8) to J4 (11) and place switch box cover (4) on the switch box assembly.

d. Install 21 screws (1), flat washers (3), and new lock washers (2) that secure the switch box cover (4) to the switch box assembly.

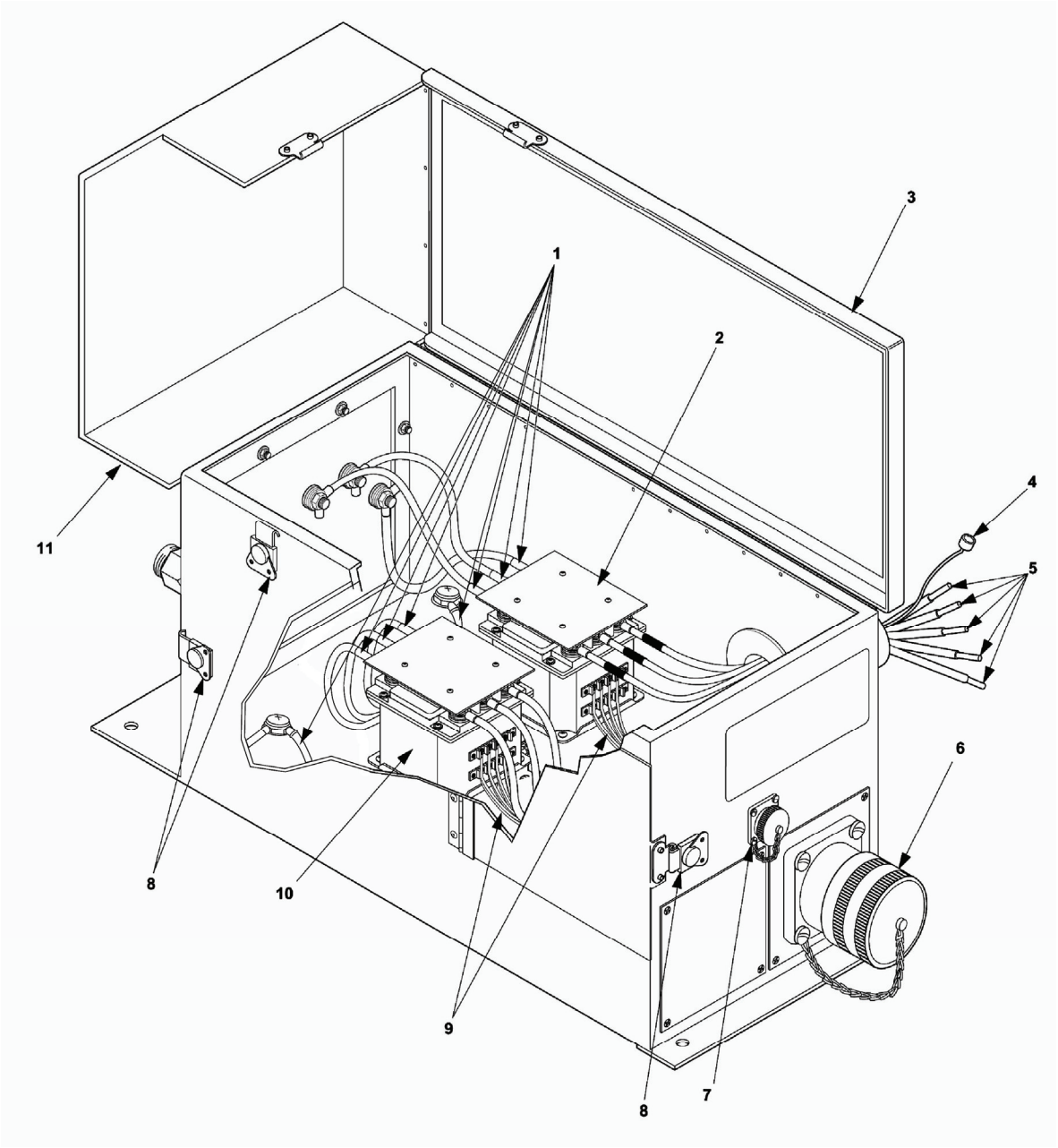


Figure 5-11.1 Switch Box Assembly Test (B&C Models).

TEST (B&C Model)

1. Release clamping catches (8, Figure 5-11.1), on switch box cover (3) and load terminal cover (11). Lift switch box cover (3).

2. Refer to power plant wiring diagram (Figure FO-1) for identification of components inside switch box assembly and check.

    a. Refer to Table 5-9. and check continuity of wiring harness W7 (9, Figure 5-11.1).

Table 5-9. Wiring Harness W7

Wire Number	From	To
1	XDS1-1	K1-A1
2	XDS1-2	Switch Box Assembly N
3	XDS3-2	K1-Y
4	S1-3	K1-X
5	S1-5	K1-11
6	S1-6	K1-12
7	S2-6	K2-12
8	S2-5	K2-11
9	S2-3	K2-X
10	XDS4-2	K2-Y
11	XDS2-1	K2-A1
12	XDS2-2	Switch Box Assembly N
13	S1-3	XDS3-1
14	S2-3	XDS4-1
15	GND	GND 1

    b. Refer to Table 5-10 and check continuity of wiring harness W10 (6).

Table 5-10. Wiring Harness W10

Wire Number	From	To
1	J2-A	K2-A1
2	J2-B	K2-B1
3	J2-C	K2-C1
4	J2-N	N
5	J2-G1	GND 2
6	J2-G2	GND 2
7	J2-G3	GND 2
8	J2-G4	GND 2

    c. Refer to Table 5-11 and check continuity of wiring harness W17 (7).

Table 5-11. Wiring Harness W17

Wire Number	From	To
1	J3-A	K2-12
2	J3-B	K2-Y
3	J3-E	GND 2

d. Refer to Table 5-12 and check continuity of wire harness W18 (4).

Table 5-12. Wiring Harness W18

Wire Identification	From	To
1	P1-A	K1-12
2	P1-B	K1-Y
3	P1-E	GND 2

e. Refer to Table 5-13 and check continuity of wiring harness W-1 through W-5 (5).

Table 5-13. Input Power Leads

Wire Identification	From	To
W1	K1-A1	Unit A Generator Set L1
W2	K1-B1	Unit A Generator Set L2
W3	K1-C1	Unit A Generator Set L3
W4	Switch Box Assembly N	Unit A Generator Set N
W5	GND 1	Unit A Generator Set GND

f. Refer to Table 5-14 and check continuity for each power lead, W-11 through W-16, W21, W22 (1).

Table 5-14. Output Power Leads/Ground Leads

Wire Identification	From	To
W11	K1-A2	Switch Box Assembly L1
W12	K1-B2	Switch Box Assembly L2
W13	K1-C2	Switch Box Assembly L3
W14	K2-A2	Switch Box Assembly L1
W15	K2-B2	Switch Box Assembly L2
W16	K2-C2	Switch Box Assembly L3
W21	GND1	GND2
W22	GND1	GND

3. Test contactor as follows:

a. Using a multimeter, test contactor K1 (10, Figure 5-11.1) as follows:

(1) Refer to Figure 5-12 and perform the following continuity checks. If any multimeter indication is not correct, replace contactor (Paragraph 5-11.A).

Lead Placement

Contactor Terminals	Multimeter Indication
32 and 33	continuity
21 and 22	open circuit
11 and 12	open circuit
A1 and A2	open circuit
B1 and B2	open circuit
C1 and C2	open circuit
A1 and B1	open circuit
B1 and C1	open circuit
C1 and A1	open circuit

(2) Connect 120VAC power source to terminals X and Y of contactor.

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.

(3) Turn on power source.

(4) Listen for sound of contactor operation; if necessary, have second person listen for contactor operation.

(5) Perform following continuity checks. If any multimeter indication is not correct, replace contactor (paragraph 5-11.A).

Lead Placement

Contactor Terminals	Multimeter Indication
32 and 33	open circuit
21 and 22	continuity
11 and 12	continuity
A1 and A2	continuity
B1 and B2	continuity
C1 and C2	continuity
A1 and B1	open circuit
B1 and C1	open circuit
C1 and A1	open circuit

(6) Measure resistance across terminals X and Y of contactor.

(7) Turn off power source and disconnect lines connected in step a(2).

b. Repeat steps a (1) through (7) for contactor K2 (2, Figure 5-11.1).

4. Reassemble switch box assembly as follows:

a. Refer to paragraphs 5-8 through 5-11.A and repair or replace any defective parts.

b. Close the switch box cover (3, Figure 5-11.1) and secure clamping catches (8).

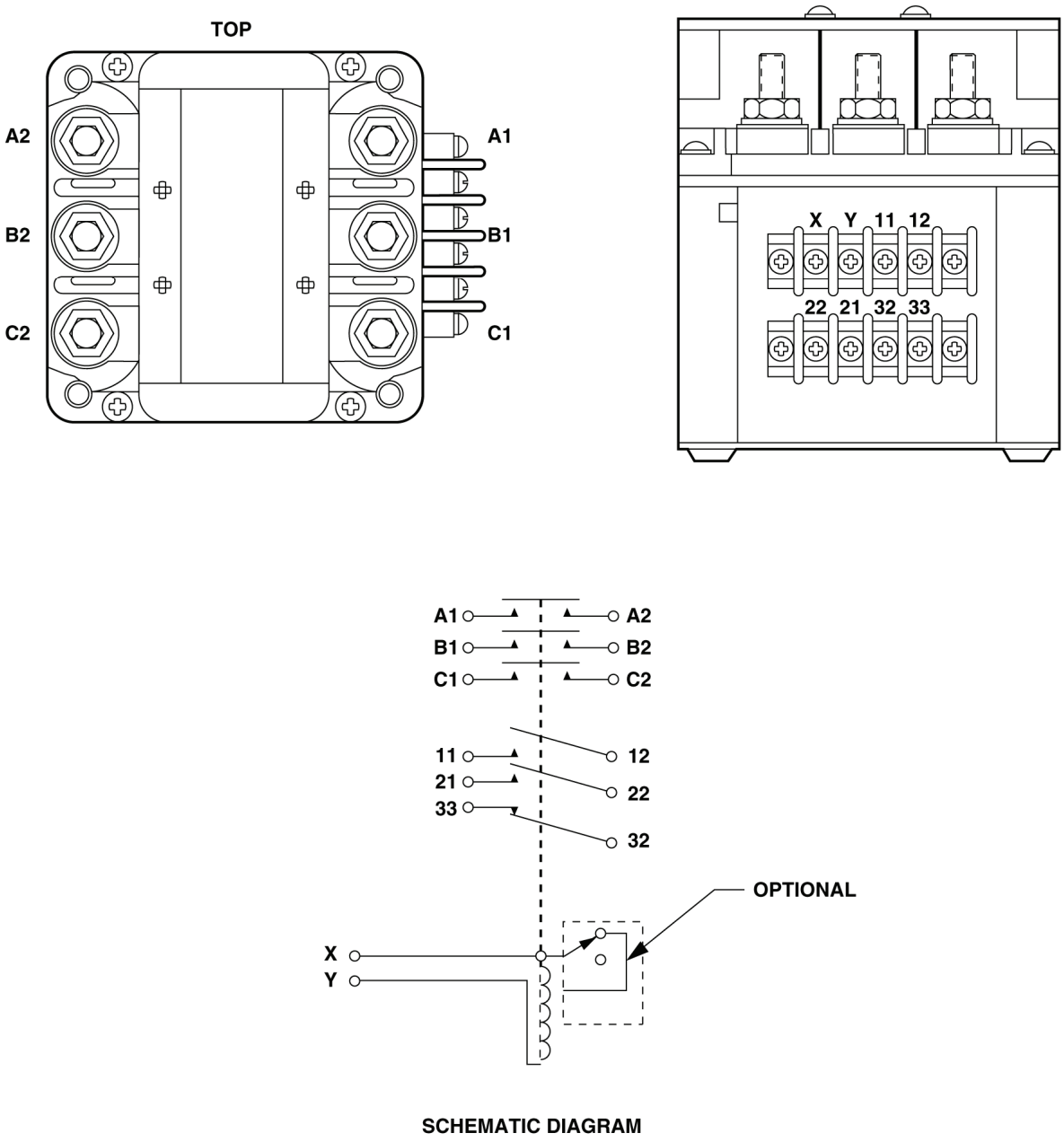


Figure 5-12. Contactor Test Points (A, B, & C Models).

5-8 WIRING HARNESS MAINTENANCE (A MODEL)

This task covers:
a. Remove
b. Inspect
c. Repair
d. Install

INITIAL SETUP

Tools

Tool Kit, General Mechanic's
(item 1, Section III, appendix B)
Crimp Tool
(component of item 3, Section III, appendix B)

Equipment Conditions

Reference
Both generator sets shut down,
paragraph 2-5.3.3, steps a-g (analog),
paragraph 2-5.4.3, steps a-g (digital).

Materials/Parts

Washers, Lock

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, 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 could cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in paragraph 5-8.2.

REMOVE

1. Remove screws (1, Figure 5-11), lock washers (2), and flat washers (3) that secure the switch box cover (4) to switch box assembly. Discard lock washers (2).

CAUTION

The control panel connector P3 is connected to connector J4. Movement of the switch box cover is limited. To prevent damage to control panel wiring harness, use caution removing switch box cover. Failure to observe this caution could result in equipment damage.

2. Carefully position switch box cover (4) in front of switch box assembly.
3. Disconnect P3 (8) from J4 (11) and set switch box cover (4) out of the way.
4. Refer to FO-1. Then label all leads and plugs at each end of wiring harness (7) to be replaced.
5. Disconnect all leads and plugs.
6. Remove wiring harness (7).

INSPECT

Visually inspect wiring harness for damaged or frayed wires, and loose, broken, or corroded connections.

REPAIR

Refer to appendix G and repair or manufacture wiring harness (7).

INSTALL

1. Position new wiring harness (7) in place.
2. Connect leads and plugs as indicated on wiring diagram (FO-1).
3. Connect P3 (8) to J4 (11) and position switch box cover (4) over switch box assembly.
4. Install screws (1), flat washers (3), and new lock washers (2) that secure the switch box cover (4) to the switch box assembly.

5-8.A WIRING HARNESS MAINTENANCE (B&C MODELS)

This task covers:
a. Remove
b. Inspect
c. Repair
d. Install

INITIAL SETUP

Tools

Tool Kit, General Mechanic's
(Item 4, appendix B)

Equipment Conditions

Reference
Both generator sets shut down,
paragraph 2-5.3.3, steps a-g (analog),
paragraph 2-5.4.3, steps a-g (digital).

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, 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 could cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in paragraph 5-8.

REMOVE

1. Release clamping catches (8, Figure 5-11.1) on switch box cover (3).
2. Lift switch box cover (3).
3. Refer to Figure FO-1. Label all leads and plugs at each end of the wiring harness (9) to be replaced.

4. Disconnect and tag all leads and plugs.
5. Remove wiring harness (9).

INSPECT

Visually inspect wiring harness (9) for damaged or frayed wires, and loose, broken, or corroded connections.

REPAIR

Refer to appendix G and repair or manufacture wiring harness (9).

INSTALL

1. Position the new wiring harness (9) in place.
2. Connect leads and plugs as indicated on wiring diagram (FO-1).
3. Close switch box cover (3) and secure clamping catches (8).

5-9 ELECTRICAL LEADS MAINTENANCE (A MODEL)

This task covers:
a. Remove
b. Inspect
c. Repair
d. Install

INITIAL SETUP

Tools

Tool Kit, General Mechanic's
(item 4, appendix B)

Materials/Parts

Washers, Lock

Equipment Conditions

Reference
Both generator sets shut down,
paragraph 2-5.3.3, steps a-g (analog),
paragraph 2-5.4.3, steps a-g (digital).

REMOVE

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, 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 could cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in paragraph 5-9.

1. Remove screws (1, Figure 5-11), flat washers (3), and lock washers (2) that secure switch box cover (4) to the switch box assembly. Discard lock washers (2).

CAUTION

The control panel connector P3 is connected to connector J4. Movement of the switch box cover is limited. To prevent damage to control panel wiring harness, use caution removing switch box cover. Failure to observe this caution could result in equipment damage.

2. Carefully slide switch box cover (4) off switch box and set in front of switch box assembly.
3. Disconnect P3 (8) from J4 (11) and set switch box cover (4) out of the way.
4. Refer to FO-1. Then label each end of lead to be replaced.
5. Disconnect and remove lead.

INSPECT

Visually inspect lead for loose, broken, or corroded connections.

REPAIR

Refer to appendix G, and repair or fabricate lead.

INSTALL

1. Position new lead in place.
2. Connect lead as indicated on wiring diagram (FO-1).
3. Connect P3 (8) to J4 (11) and position switch box cover (4) over switch box assembly.
4. Install screws (1), flat washers (3), and new lock washers (2) that secure the switch box cover (4) to the switch box assembly.

5-9.A ELECTRICAL LEADS MAINTENANCE (B&C MODELS)

This task covers:
a. Remove
b. Inspect
c. Repair
d. Install

INITIAL SETUP

Tools

Tool Kit, General Mechanic's
(item 2, appendix B)

Equipment Conditions

Reference
Both generator sets shut down,
paragraph 2-5.3.3, steps a-g (analog),
paragraph 2-5.4.3, steps a-g (digital).

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, 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 could cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in paragraph 5-9.A.

REMOVE

1. Release clamping catches (8, Figure 5-11.1) on switch box cover (3).
2. Lift switch box cover (3).
3. Refer to FO-1. Label each end of lead to be replaced.

4. Disconnect and remove lead.

INSPECT

Visually inspect lead for loose, broken, or corroded connections.

REPAIR

Refer to appendix G and repair or fabricate lead.

INSTALL

1. Position new lead in place.
2. Connect lead as indicated on wiring diagram (FO-1).
3. Close switch box cover (3) and secure clamping catches (8).

5-10 BUS BAR MAINTENANCE (A MODEL)

This task covers:
a. Inspect
b. Remove
c. Repair
d. Install

INITIAL SETUP

Tools

Tool Kit, General Mechanic's
(component of item 4, appendix B)

Materials/Parts

Washers, Lock

Equipment Conditions

Reference
Both generator sets shut down,
paragraph 2-5.3.3, steps a-g (analog).

NOTE

The Bus Bar is not a component of the B&C Model switch boxes.

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, 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 could cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in paragraph 5-10.

INSPECT

Visually inspect for corrosion, damage, or for loose or missing hardware.

REMOVE

1. Remove screws (1, Figure 5-11), flat washers (3), and lock washers (2) that secure the switch box cover (4) to the switch box assembly. Discard lock washers (2).

CAUTION

The control panel connector P3 is connected to connector J4. Movement of the switch box cover is limited. To prevent damage to control panel wiring harness, use caution removing switch box cover. Failure to observe this caution could result in equipment damage.

2. Carefully position switch box cover (4) in front of switch box assembly.

3. Disconnect P3 (8) from J4 (11) and set switch box cover (4) out of the way.

NOTE

The bus bar is physically connected to L0 of the switch box assembly and is a common ground. Leads connected to bus bar may be connected to any terminal on the bus bar.

4. Remove cap screws (4, Figure 5-13), lock washers (10), flat washers (9), and electrical leads (5) from bus bar (1). Discard lock washers (10).

5. Remove nut (3) and lock washer (2). Discard lock washer (2)

6. Remove nut (6), lock washer (7), and flat washer (8). Discard lock washer (7).

7. Remove bus bar (1).

REPAIR

1. Disconnect and label electrical leads (5) connected to bus bar (1).

2. Remove defective insert (11).

3. Using a suitable insertion tool, rotate handle counter-clockwise until you can install insert (11) into barrel with tang toward hole.

4. Turn handle clockwise until one thread of insert (11) protrudes from hole.

5. Position over bus bar (1) and turn handle clockwise until insert (11) is installed.

6. Turn handle counter-clockwise to remove insertion tool.

7. Install small punch into hole until it contacts tang. Break off and remove tang.

INSTALL

1. Position bus bar (1, Figure 5-13) in place.

2. Install flat washer (8), new lock washer (7), and nut (6).

3. Install new lock washer (2) and nut (3).

4. Install electrical leads (5), flat washers (9), new lock washers (10), and cap screws (4).

5. Connect P3 (8, Figure 5-11) to J4 (11) and position switch box cover (4) over switch box assembly.

6. Install flat washers (3), new lock washers (2), and screws (1) that secure the switch box cover (4) to the switch box assembly.

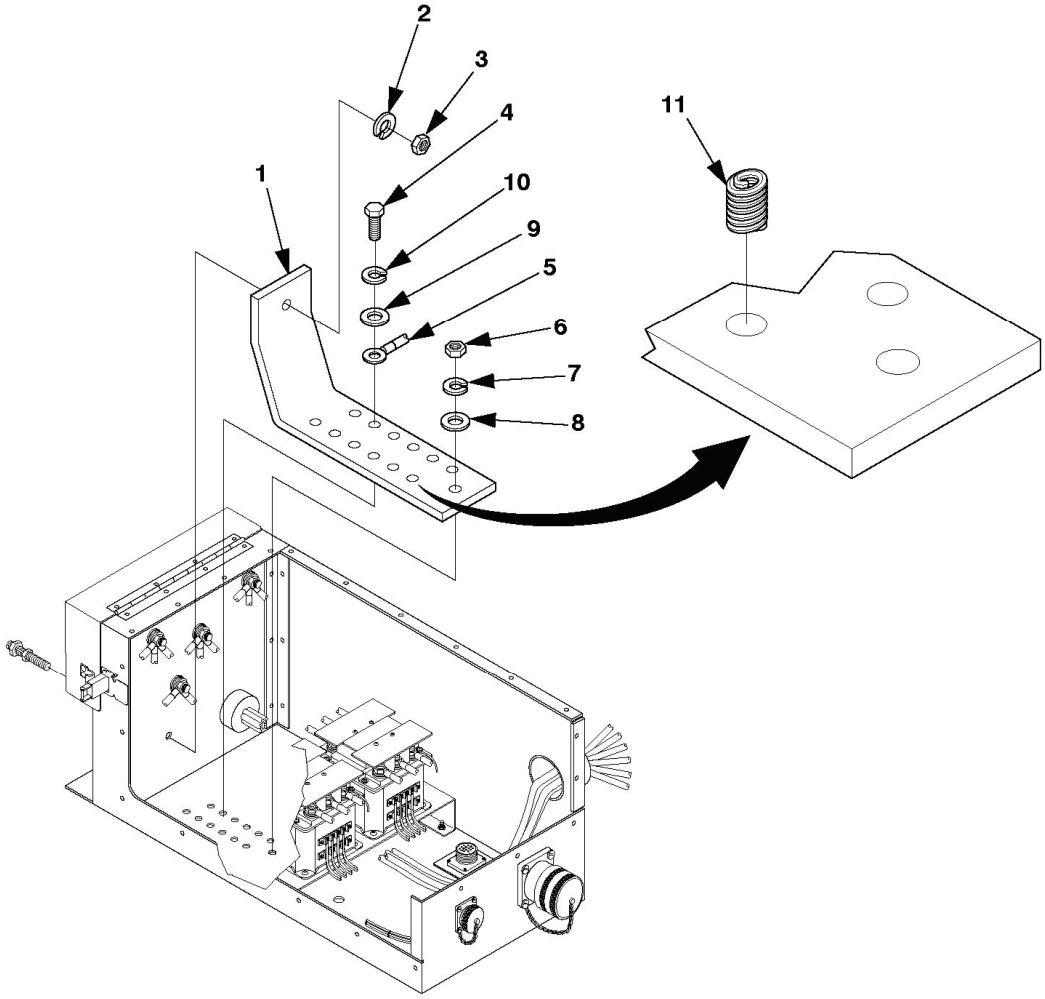


Figure 5-13. Bus Bar Maintenance (A Model).

5-11 CONTACTOR MAINTENANCE (A MODEL)

This task covers: a. Remove b. Install c. Test

INITIAL SETUP

Tools

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

Materials/Parts

Washers, Lock
Contactor

Equipment Conditions

Reference
Both generator sets shut down, para 2-5.3.1, paragraph 2-5.3.3, steps a-g (analog), paragraph 2-5.4.3, steps a-g (digital).

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, 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 could cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in paragraph 5-11.

REMOVE

1. Remove screws (1, Figure 5-14), lock washers (2), and flat washers (3) that secure switch box cover (4) to switch box assembly. Discard lock washers (2).

CAUTION

The control panel connector P3 is connected to connector J4. Movement of the switch box cover is limited. To prevent damage to control panel wiring harness, use caution removing switch box cover. Failure to observe this caution could result in equipment damage.

2. Carefully position switch box cover (4) in front of switch box assembly.
3. Disconnect P3 (5) from J4 (6) and set switch box cover (4) out of the way.
4. Remove screws (7) and one terminal shield (8) from the contactor (9).
5. Remove nuts (10) and flat washers (11). Tag and remove leads from contactor (9).
7. Remove terminal screws (12) and flat washers (13). Tag and remove wiring harnesses from contactor (9).
8. Remove nuts (14), lock washers (18), screws (15), flat washers (16), and contactor (9). Discard lock washers (18).

INSTALL

1. Position new contactor (9) over mounting holes in bracket (17).
2. Install a flat washer (16) on each screw (15).
3. Install screws (15), flat washers (16), new lock washers (18), and nuts (14) to secure contactor (9).
4. Remove screws (7) and terminal shield (8) from the new contactor (9).
5. Connect wiring harness and electrical leads. Install washers (13 and 11), screws (12), and nuts (10).
6. Install terminal shield (8) on new contactor (9) and secure with screws (7).
7. Connect P3 (5) to J4 (6) and position switch box cover (4) over switch box assembly.
8. Install flat washers (3), new lock washers (2), and screws (1) that secure the switch box cover (4) to the switch box assembly.

TEST

Refer to paragraph 5-7.

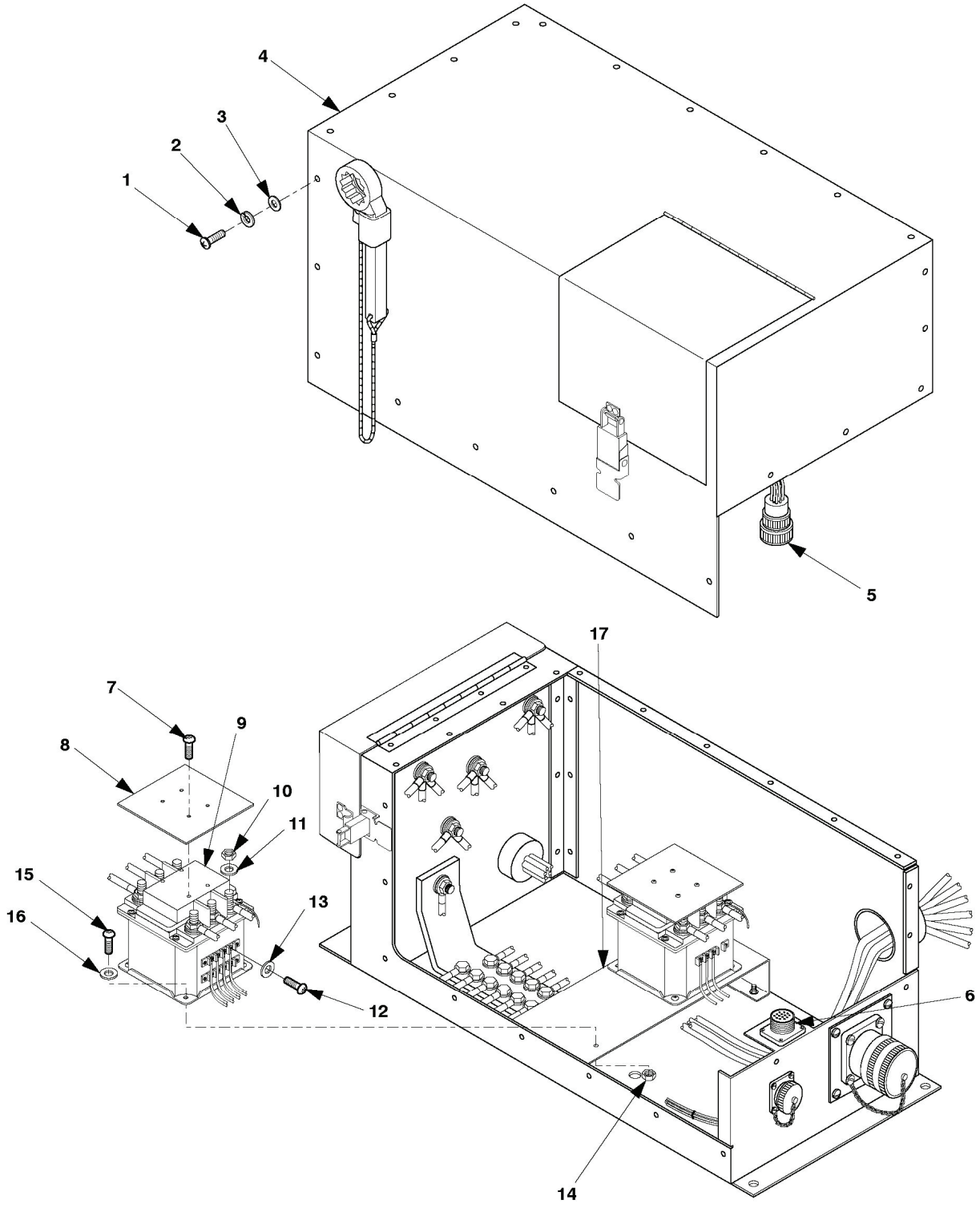


Figure 5-14. Contactor Maintenance (A Model).

5-11.A CONTACTOR MAINTENANCE (B&C MODELS)

This task covers: a. Remove b. Install c. Test

INITIAL SETUP

Tools

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

Materials/Parts

Washers, Lock
Contactor

Equipment Conditions

Reference
Both generator sets shut down, para 2-5.3.1, paragraph 2-5.3.3, steps a-g (analog), paragraph 2-5.4.3, steps a-g (digital).

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, 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 could cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in paragraph 5-11.A.

REMOVE

1. Release clamping catches (1, Figure 5-14.1) on switch box cover (2).
2. Lift switch box cover (2).
3. Remove screws (10) and terminal shield (11) from the contactor (9).

4. Remove nuts (7) and flat washers (6). Tag and remove six leads from contactor (9).
5. Remove terminal screws (4) and flat washers (5). Tag and remove wiring harnesses from contactor (9).
6. Remove screws (12), lock washers (3), flat washers (13), and contactor (9). Discard lock washers (3).

INSTALL

1. Position new contactor (9) over mounting holes in bracket (8).
2. Install a flat washer (13) and new lock washer (3) on each screw (12).
3. Install screws (12) with new lock washers (3) and flat washers (13) to secure contactor (9).
4. Remove screws (10) and terminal shield (11) from new contactor (9).
5. Connect wiring harness and six electrical leads (14). Install flat washers (5 and 6), screws (4), and nuts (7).
6. Install terminal shield (11) on new contactor (9) and secure with screws (10).

TEST

Refer to paragraph 5-7.

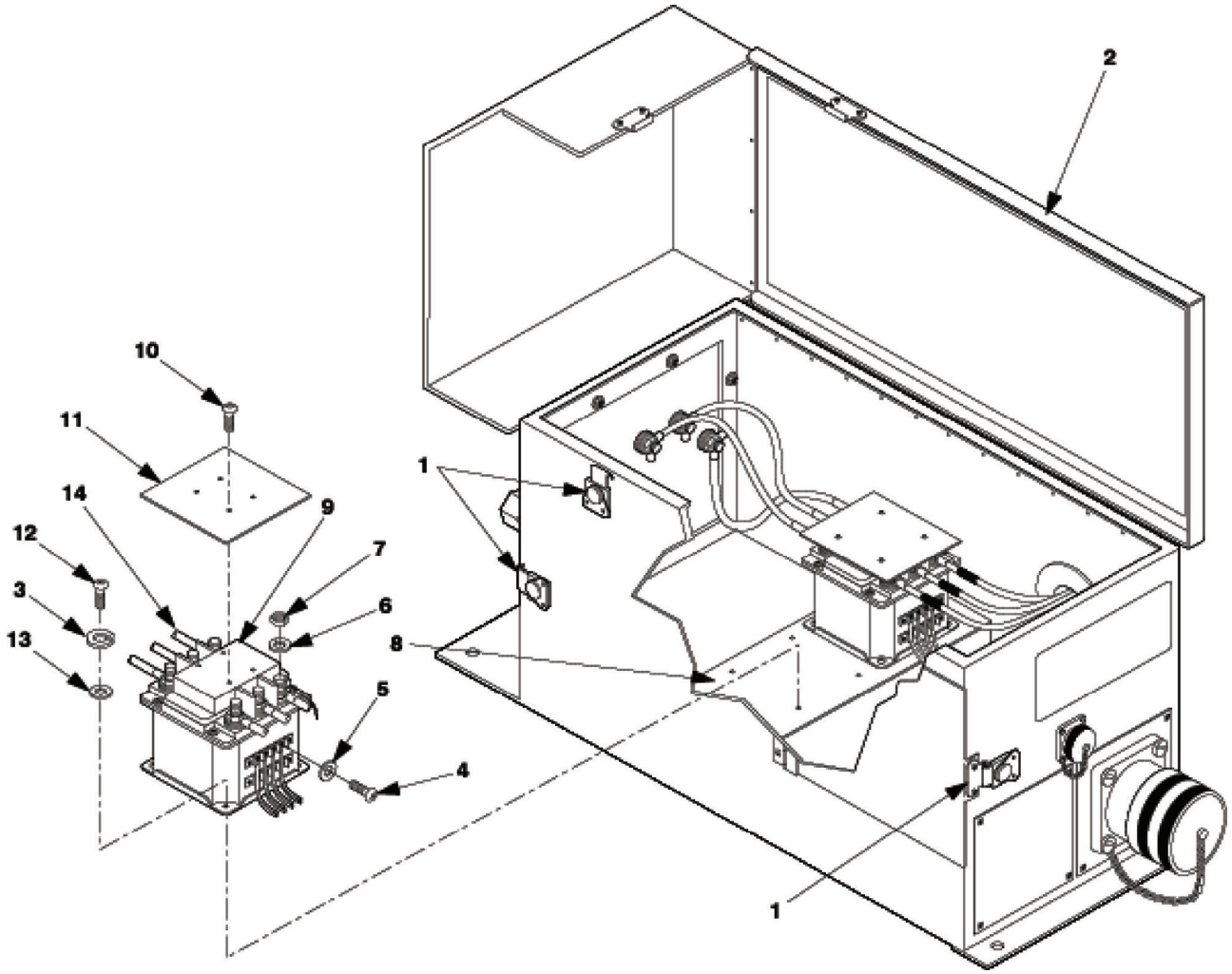


Figure 5-14.1. Contactor Maintenance (B&C Models).

5-12 2 1/2 TON TRAILER FUEL DRAIN ASSEMBLY MAINTENANCE

This task covers: a. Remove b. Repair c. Install

INITIAL SETUP

Tools	Equipment Conditions
Tool Kit, General Mechanic's (item 4, appendix B)	Reference Generator set removed, paragraph 5-6. Trailer support devices are 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.

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 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.

NOTE

The above warnings apply to all procedures listed in paragraph 5-12.

REMOVE

1. Close valve (9 (P/O generator set), Figure 5-15).
2. Close drain cock valve (4, Figure 5-15) and remove cap (2) from fuel drain assembly.
3. Place container beneath fuel drain assembly.

4. Disconnect hose fittings (3) from drain cock valve (4).
5. Remove hose assembly (1).
6. Remove drain cock valve (4), retaining nut (6), and flat washer (5) from tube nipple (7).
7. Remove tube nipple (7).

REPAIR

Refer to appendix G and replace fuel drain assembly.

INSTALL

1. Position tube nipple (7) on the hose fitting (8).
2. Install flat washer (5) on tube nipple (7).
3. Install tube nipple (7), with flat washer (5), through mounting hole and secure with retaining nut (6).
4. Install drain cock valve (4) on tube nipple (7).
5. Install hose assembly (1) and tighten hose fittings (8).
6. Install hose fitting (3) and tube cap (2) on drain cock valve (4).
7. Close drain cock valve (4) and open valve (9).

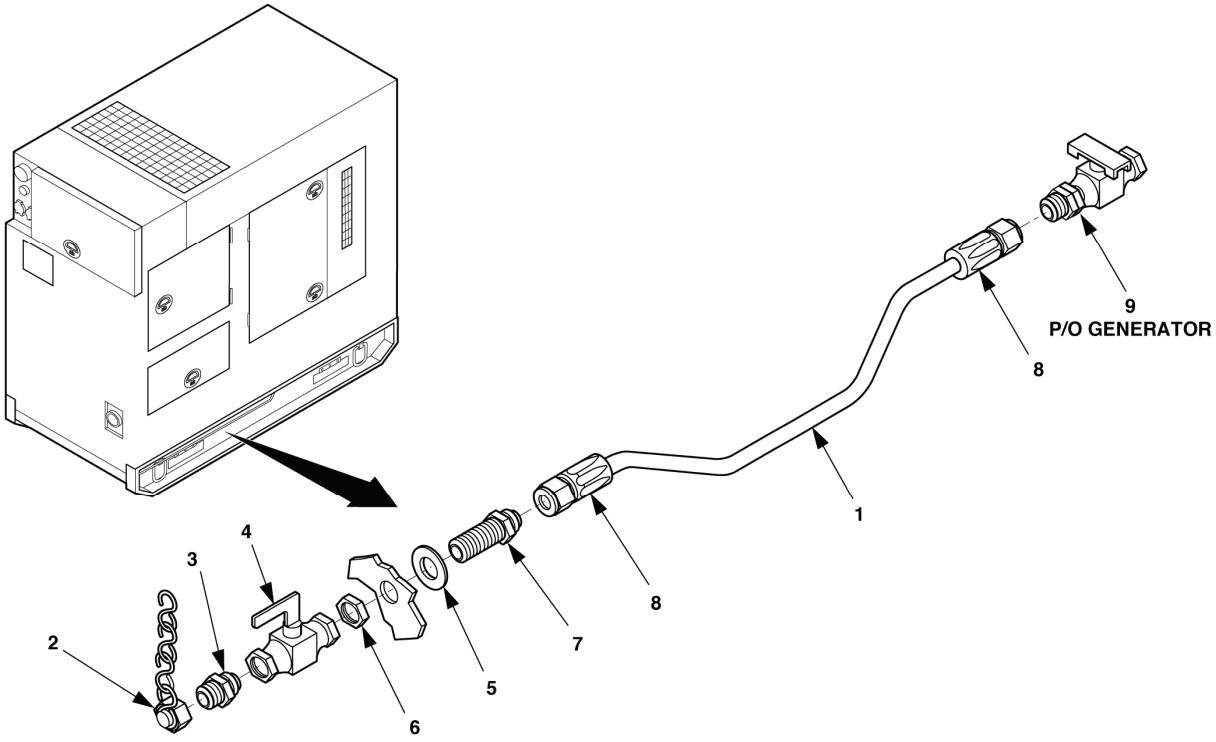


Figure 5-15. Fuel Drain Assembly Replacement.

5-13 TRAILER MODIFICATIONS REPAIR

Repair of the rear steps, fender, front steps and front platform is limited to bending, straightening, and welding. Refer to TM 9-2330-205-14&P for repair procedures.

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 TM.

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
Depreservation Guide for Vehicles and Equipment	DA Form 2258
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
Transportation Discrepancy Report	DD Form 361
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
Report of Discrepancy	SF Form 364
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.

Cables (Power and Special-Purpose) and Wire, Electrical (300 and 600 Volts)	MIL-C-3432
Connectors, Plugs, and Receptacles, Electrical, Waterproof, Quick Disconnect, Heavy Duty Type, General Specification for	MIL-C-22992E
Electrical Wiring, Procedures for	MIL-E-45782C
Insulation Sleeving, Electrical, Heat Shrinkable, Polyolefin, Flexible, Crosslinked	MIL-I-23053/5
Wire, Electrical, Polyvinyl Chloride Insulated; PVC-Glass-Nylon, Tin Coated Copper Conductor, 600 Volt, 105°C	MIL-W-5086/2(C)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)

APPENDIX A

REFERENCES (CONT'D)

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	PPP-G-2919
Abbreviations for Use on Drawings, and in Specifications, Standards and Technical Documents	ASME-Y14.38M

A-7 MILITARY STANDARDS.

Marking for Shipment and Storage	MIL-STD-129P
Identification Marking of U.S. Military Property	MIL-STD-130L
Standard Requirements for Soldered Electrical and Electronic Assemblies	MIL-STD-2000
Preservation, Methods of	MIL-STD-2073-1
General Guidelines for Electronic Equipment	MIL-HDBK-454A
Corrosion and Corrosion Prevention Metals	MIL-HDBK-729
Requirements for Soldering Fluxes	J-STD-004
Requirements for Soldering Pastes	J-STD-005
Requirements for Electronic Grade Solder Alloys and Fluxed and Non-Fluxed Solid Solders for Electronic Soldering Applications	J-STD-006

A-8 TECHNICAL MANUALS.

Procedures for Destruction of Equipment to Prevent Enemy Use (Mobility Equipment Command)	TM 750-244-3
Operator's Unit, Direct Support and General Support Maintenance Manual (Including Repair Parts and Special Tools List), TRAILER, CHASSIS: 2 ½-Ton, 2-wheel M200A1 (NSN 2330-00-331-2307)	TM 9-2330-205-14&P
Organizational, Direct Support, and General Support Maintenance. Care, Maintenance and Repair of Pneumatic Tires and Inner Tubes	TM 9-2610-200-24
Operator's Manual, Generator Set, Skid-Mounted, Tactical Quiet, 30 kW, 50/60 and 400 Hz, MEP-805A (50/60 Hz) (NSN 6115-01-274-7389) MEP-815A (400 Hz) (NSN 6115-01-274-7394)	TM 9-6115-644-10
Unit, Direct Support and General Support Maintenance Manual for Generator Set, Skid-Mounted, Tactical Quiet, 30 kW, 50/60 and 400 Hz, MEP-805A (50/60 Hz) (NSN 6115-01-274-7389) MEP-815A (400 Hz) (NSN 6115-01-274-7394)	TM 9-6115-644-24
Unit, Direct Support and General Support Maintenance Manual for Repair Parts and Special Tools List: Generator Set, Skid-Mounted, Tactical Quiet, 30 kW, 50/60 and 400 Hz, MEP-805A (50/60 Hz) (NSN 6115-01-274-7389) MEP-815A (400 Hz) (NSN 6115-01-274-7394)	TM 9-6115-644-24P
Operator, Unit, Direct Support and General Support Maintenance Manual, Generator Set, Skid-Mounted, Tactical Quiet, 30 kW, 50/60 and 400 Hz, MEP-805B (50/60 Hz) (NSN 6115-01-461-9335) MEP-815B (400 Hz) (NSN 6115-01-462-0290)	TM 9-6115-671-14

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REFERENCES (CONT'D)

Unit, Direct Support and General Support Maintenance Manual for Repair Parts and Special Tools List: Generator Set, Skid-Mounted, Tactical Quiet, 30 kW, 50/60 and 400 Hz,
MEP-805B (50/60 Hz) (NSN 6115-01-461-9335)
MEP-815B (400 Hz) (NSN 6115-01-462-0290)..... TM 9-6115-671-24P

Unit, Direct Support and General Support Maintenance Instructions, Diesel Engine, Model No. 4039TF002, 4 Cylinder, 3.9 Liter, NSN: 2815-01-350-2208..... TM 9-2815-255-24

Unit, Direct Support and General Support Maintenance Manual, Repair Parts and Special Tools List: Diesel Engine, NSN 2815-01-350-2208, Model No. 4039TF002, 4 Cylinder, 4 Cycle, Turbocharged..... TM 9-2815-255-24P

Unit, Direct Support and General Support Maintenance Manual, Diesel Engine, Model No. 4045TF151, 4 Cylinder, 4.5 Liter, NSN: 2815-01-462-2289..... TM 9-2815-259-24

Unit, Direct Support and General Support Maintenance Manual, Repair Parts and Special Tools List: Diesel Engine, NSN 2815-01-462-2289, Model No. 4045TF151, 4 Cylinder, 4.5 Liter..... TM 9-2815-259-24P

Operator Welding Theory and Operation..... TM 9-237

A-9 TECHNICAL BULLETINS.

Installation of Communications Electronic Equipment: Hookup of Electrical Cables to Mobile Generator Sets on Fielded Equipment to Meet Electrical Safety Standards ..... TB 43-0125

A-10 LUBE ORDERS.

Generator Set, Skid Mounted, Tactical Quiet 30KW, 50/60 and 400Hz
MEP-805A, Tactical Quiet, 50/60Hz, NSN 6115-01-274-7389
MEP-815A, Tactical Quiet, 400Hz, NSN 6115-01-274-7394..... LO 9-6115-644-12

A-11 FIELD MANUALS.

Chemical and Biological Contamination Avoidance ..... FM 3-3
NBC Protection ..... FM 3-4
NBC Decontamination..... FM 3-5
First Aid ..... FM 4-25.11
Camouflage..... FM 5-20
Theater of Operations, Electrical Systems..... FM 5-424
Operation and Maintenance of Ordnance Materiel in Cold Weather (0° to –65°) ... FM 9-207
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

APPENDIX A

REFERENCES (CONT'D)

A-12 MISCELLANEOUS PUBLICATIONS.

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
Procedures for Destruction of Electronics Materiel to Prevent Enemy Use	AR 750-244-2
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 B
OPERATOR AND FIELD MAINTENANCE
TWO-LEVEL MAINTENANCE ALLOCATION CHART (MAC)

Section 1. INTRODUCTION

B-1 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.

B-2 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.
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. **Removal/Install**. To remove and install the same item when required to perform a service or other maintenance functions. Install may be the act of emplacing, seating, or fixing into position a spare, repair part, or module (component or assembly) in a manner to allow the proper functioning of an equipment or system.

B-2 Maintenance Functions - Continued

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.

B-3 Explanation of Columns in the MAC

Column (1) Group Number. Column (1) lists functional group code (FGN) 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).

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

B-3 Explanation of Columns in the MAC - Continued

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 Test Equipment Reference Code. Column (5) specifies, by code, those common tool sets (not individual tools), common Test, Measurement and Diagnostic Equipment (TMDE), 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.

B-4 Explanation of Columns in the Tools and Test Equipment Requirements

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.

B-5 Explanation of Columns in the Remarks

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. MAINTENANCE ALLOCATION CHART FOR POWER UNITS PU-803, PU-803B/G, PU-804 AND PU-804B/G POWER PLANTS AN/MJQ-40 AND AN/MJQ-40B

(1)	(2)	(3)	(4) Maintenance Level					(5)	(6)
			Field			Sustainment			
			Unit		Direct Support	General Support	Depot		
Group Number	Component/Assembly	Maintenance Function	C	O	F	H	D	Tools and Equipment Reference Code	Remarks Code
00	POWER PLANT/POWER UNIT	INSPECT	0.4						J
0100	GENERATOR SET	INSPECT	0.2	0.5					J
		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/INSTALL			1.5			1,2	E,F,H
		REPLACE			1.5			1,2	I
0200	ELECTRICAL SYSTEM	INSPECT	0.5						J
0201	CABLE ASSEMBLY, W19	INSPECT	0.1	0.1					J
		TEST		0.3				1,2,4	
		REMOVE/INSTALL		0.3					
		REPAIR			0.6			1,2	K
		REPLACE		0.3					I
0202	SWITCH BOX ASSEMBLY (A, B, & C SWITCH BOXES)	INSPECT	0.1	0.1					J
		REMOVE/INSTALL		0.5				1	
		REPAIR			1.0			1	
		REPLACE		0.3	0.5			1	I
		TEST		0.5				4	
020201	LOAD TERMINAL WRENCH ASSEMBLY (A, B, & C SWITCH BOXES)	INSPECT		0.1					J
		REMOVE/INSTALL		0.2				1	
		REPLACE		0.2				1	I
020202	CONTROL PANEL ASSEMBLY (A, B, & C SWITCH BOXES)	INSPECT	0.1	0.1					J
		REMOVE/INSTALL			1.0			1	
		REPLACE			1.0			1	I
		REPAIR		0.5					
02020201	LEADS/HARNESSES, W20 (A SWITCH BOX ONLY)	INSPECT			0.1				
		TEST			0.2			1,2	
		REMOVE/INSTALL			0.4			1,2	
		REPAIR			0.9				K
		REPLACE			0.4				I
02020202	LIGHT, INDICATOR (A, B, & C SWITCH BOXES)	REMOVE/INSTALL		0.2				1,2	
		TEST		0.2				1,2,4	
		REPLACE		0.2				1,2	I
020203	TERMINALS, LOAD (A, B, & C SWITCH BOXES)	INSPECT	0.1						J
		REMOVE/INSTALL		0.5				1	
		REPAIR		0.2				1	
		REPLACE		0.5				1	I
020204	LEADS/HARNESSES, W9 (A SWITCH BOX ONLY)	INSPECT			0.1				
		TEST			0.2			1,2	
		REMOVE/INSTALL			0.4			1,2	
		REPAIR			0.8			1	K
		REPLACE			0.4				I

Section II. MAINTENANCE ALLOCATION CHART
FOR
POWER UNITS PU-803, PU-803B/G, PU-804 AND PU-804B/G
POWER PLANTS AN/MJQ-40 AND AN/MJQ-40B
(Continued)

(1)	(2)	(3)	(4) Maintenance Level					(5)	(6)
			Field			Sustainment			
			Unit		Direct Support	General Support	Depot		
Group Number	Component/Assembly	Maintenance Function	C	O	F	H	D	Tools and Equipment Reference Code	Remarks Code
020205	LEADS/HARNESSES, W10 (A, B, & C SWITCH BOXES)	INSPECT			0.1				J
		TEST			0.2			1,2	
		REMOVE/INSTALL			0.4			1	
		REPAIR			0.8			1,2	K
		REPLACE			0.4			1	I
020206	LEADS/HARNESSES, W17 (A, B, & C SWITCH BOXES)	INSPECT			0.1				J
		TEST			0.2			1,2	
		REMOVE/INSTALL			0.4			1	
		REPAIR			0.8			1,2	K
		REPLACE			0.4			1	I
020207	LEADS/HARNESSES, W7 (A, B, & C SWITCH BOXES)	INSPECT			0.1				J
		TEST			0.2			1,2	
		REMOVE/INSTALL			0.4			1	
		REPAIR			0.8			1,2	K
		REPLACE			0.4			1	I
020208	LEADS/HARNESSES, W11-W16, W21, W22 (A, B, & C SWITCH BOXES)	INSPECT			0.1				J
		TEST			0.2			1,2	
		REMOVE/INSTALL			0.4			1	
		REPAIR			0.8			1,2	K
		REPLACE			0.4			1	I
020209	BUS BAR GROUNDING (A SWITCH BOX ONLY)	INSPECT			0.1				J
		REMOVE/INSTALL			0.5			1	
		REPAIR			0.8			1	
		REPLACE			0.5			1	I
020210	CONTACTOR (A, B, & C SWITCH BOXES)	REMOVE/INSTALL			0.5			1	
		TEST			0.2			1,2,5	
		REPLACE			0.5			1	I
020211	POWER LEADS, W1-W5 (A, B, & C SWITCH BOXES)	INSPECT			0.1				A,B,C,J
		TEST			0.2			1,2	
		REMOVE/INSTALL			0.5			1	
		REPAIR			1.0			1,3	
		REPLACE			0.5				I
020212	POWER SWITCH HARNESS, W18 (A, B, & C SWITCH BOXES)	INSPECT			0.1				J
		TEST			0.2			1,2	
		REMOVE/INSTALL			0.2			1	
		REPAIR			0.2			1,3	
		REPLACE			0.2			1	I
020213	SWITCH BOX SUPPORT	INSPECT		0.1					J
		REMOVE/INSTALL		0.2				1	
		REPLACE		0.2				1	I

Section II. MAINTENANCE ALLOCATION CHART
FOR
POWER UNITS PU-803, PU-803B/G, PU-804 AND PU-804B/G
POWER PLANTS AN/MJQ-40 AND AN/MJQ-40B
(Continued)

(1)	(2)	(3)	(4) Maintenance Level					(5)	(6)
			Field			Sustainment			
			Unit		Direct Support	General Support	Depot		
Group Number	Component/Assembly	Maintenance Function	C	O	F	H	D	Tools and Equipment Reference Code	Remarks Code
0300	ACCESSORIES	INSPECT	0.1						J
0301	OIL DRAIN AND FIRE EXTINGUISHER	INSPECT	0.1	0.1					J
0302	FUEL DRAIN ASSEMBLY	INSPECT	0.1						J
		REMOVE/INSTALL			0.3 0.3			1	I
		REPAIR			0.3 0.3			1	G, K
		REPLACE			0.3 0.3			1	I
0400	TRAILER ASSEMBLY	INSPECT	0.2	0.2					J
0401	REAR STEPS	INSPECT	0.1	0.1					A, B, C, J
		REMOVE/INSTALL		0.5				1	H
		REPAIR			1.0			1,3	
		REPLACE		0.5				1	I
0402	ACCESSORY BOX	INSPECT	0.1						J
		REMOVE/INSTALL		0.2				1	
		REPAIR		0.5				1,3	
		REPLACE		0.2				1	I
0403	FENDERS	INSPECT	0.1						J
		REMOVE/INSTALL		1.0				1,7	
		REPAIR			1.0			1,3	
		REPLACE		1.0				1,7	I
0404	BRAKE ASSEMBLY	INSPECT			0.1				J
		TEST			0.2			1,2	G
		REMOVE/INSTALL			0.4			1	
		REPAIR			0.9			1,2	G
		REPLACE			0.4			1	I
0405	FRONT STEPS	INSPECT	0.1	0.1					A, B, C, J
		REMOVE/INSTALL		0.5				1	H
		REPAIR			1.0			1,3	
		REPLACE		0.5				1	I

Section II. MAINTENANCE ALLOCATION CHART
FOR
POWER UNITS PU-803, PU-803B/G, PU-804 AND PU-804B/G
POWER PLANTS AN/MJQ-40 AND AN/MJQ-40B
(Continued)

(1)	(2)	(3)	(4) Maintenance Level					(5)	(6)
			Field			Sustainment			
			Unit		Direct Support	General Support	Depot		
Group Number	Component/Assembly	Maintenance Function	C	O	F	H	D	Tools and Equipment Reference Code	Remarks Code
0406	FRONT PLATFORM	INSPECT	0.2	0.2					J
		REMOVE/INSTALL		0.5				1,2	
		REPLACE		0.5				1,2	I
0407	GROUND STUD	INSPECT	0.1						J
		REMOVE/INSTALL		0.5				1	
		REPLACE		0.5				1	I
0408	TRAILER CHASSIS	INSPECT	0.1	0.1	0.1				
		TEST			0.2			1,2	G
		REMOVE/INSTALL			0.4			1	
		REPAIR			0.8			1,2	G
		REPLACE			0.4			1	I

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS FOR POWER UNITS PU-803, PU-803B/G, PU-804 AND PU-804B/G POWER PLANTS AN/MJQ-40 AND AN/MJQ-40B

(1) REFERENCE CODE	(2) MAINTENANCE LEVEL	(3) NOMENCLATURE	(4) NATIONAL STOCK NUMBER	(5) TOOL NUMBER
1	O, F	TOOL KIT, GENERAL MECHANIC'S	5180-00-177-7033	SC 5180-95-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	O, F	TOOL KIT, BODY AND FENDER REPAIR	5180-00-357-7731	SC 5180-95-CL-N62
4	F	MULTIMETER	6625-01-265-6000	AN/PSM-45A
5	F	120VAC POWER SOURCE		
6	F	DRILL		
7	F	RIVET GUN, PNEUMATIC		

Section IV. REMARKS

(1) REFERENCE CODE	(2) REMARKS
A	AN/MJQ-40/40B UNIT A ONLY.
B	AN/MJQ-40/40B UNIT B ONLY.
C	PU-803, PU-803B/G, PU-804, AND PU-804B/G ONLY.
D	REFER TO TM 9-6115-644-10 AND TM 9-6115-671-14 FOR GENERATOR SET OPERATOR MAINTENANCE.
E	REFER TO TM 9-6115-644-24 AND TM 9-6115-671-14 FOR GENERATOR SET UNIT AND HIGHER-LEVEL MAINTENANCE.
F	REFER TO TM 9-2815-255-24 AND TM 9-2815-259-24 FOR ENGINE MAINTENANCE.
G	REFER TO TM 9-2330-205-14&P FOR TRAILER MAINTENANCE.
H	REMOVAL AND INSTALLATION ARE THE SAME AS REPLACEMENT.
I	REPLACE IS THE SAME AS REMOVAL AND INSTALLATION.
J	PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS).
K	REFER TO APPENDIX G FOR REPAIR.

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 (COEI) and Basic Issue Items (BII) lists are divided into the following sections:

C-2.1 Section II, Components of End Item (COEI). 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 (BII). These essential items are required to place the power unit and power plant in operation, operate it, and do emergency repairs. Although shipped separately packaged, BIIs must be with the power units and power plants during operation and when they are 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), Item, gives you the number of the item illustrated.

C.3.2 Column (2), National Stock Number (NSN). 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 (UOC). 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 parentheses) 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:

CODE	USED ON	CODE	USED ON
YHE	AN/MJQ-40	44E	AN/MJQ-40B
YGB	PU-803	44G	PU-803B/G
YFU	PU-804	44H	PU-804B/G

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 (2).

C-3.5 Column (5), Qty Required. Column (5), Qty Required, indicates the quantity required.

Section II. COMPONENTS OF END ITEM

(1) Item	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) U/I	(5) Qty Required
1	6115-01-317-2136	PU-803	EA	1
2	2330-00-331-2307	2.5 Ton Trailer, M200A1, PN:13229E9332	EA	1
3	6115-01-274-7389	Generator, 30kw 50/60Hz, MEP-805A	EA	1
1	6115-01-470-6376	PU-803B/G	EA	1
2	2330-00-331-2307	2.5 Ton Trailer, M200A1, PN:13229E9332	EA	1
3	6115-01-461-9335	Generator, 30kw 50/60Hz, MEP-805B	EA	1
1	6115-01-317-2135	PU-804	EA	1
2	2330-00-331-2307	2.5 Ton Trailer, M200A1, PN:13229E9332	EA	1
3	6115-01-274-7394	Generator, 30kw 400Hz, MEP-815A	EA	1
1	6115-01-471-1507	PU-804B/G	EA	1
2	2330-00-331-2307	2.5 Ton Trailer, M200A1, PN:13229E9332	EA	1
3	6115-01-462-0290	Generator, 30kw 400Hz, MEP-815B	EA	1
1	6115-01-299-6033	PP-AN/MJQ-40	EA	1
2	2330-00-331-2307	2.5 Ton Trailer, M200A1, PN:13229E9332	EA	2
3	6115-01-274-7389	Generator, 30kw 50/60Hz, MEP-805A	EA	2
4	5930-01-457-7115	Switch Box (A, B or C Model), PN 13229E5795-2	EA	1
1	6115-01-474-3783	PP-AN/MJQ-40B	EA	1
2	2330-00-331-2307	2.5 Ton Trailer, M200A1, PN:13229E9332	EA	2
3	6115-01-461-9335	Generator, 30kw 50/60Hz, MEP-805B	EA	2
4	5930-01-457-7115	Switch Box (B or C Model) PN 13229E5795-2	EA	1

Section III. BASIC ISSUE ITEMS

NOTE

The following UOCs apply to all illustrations on the
BII list, YHE, 44E, YGB, 44G, YFU and 44H

(1) Illus. No.	(2) National Stock Number	(3) Description (CAGEC) and Part Number	(4) U/M	(5) Qty PU/PP
1	5342-00-066-1235	Adapter Assy, Fuel Drum (06076) 13211E7541	EA	1/2
2	4710-00-185-6948	Pipe (97403) 13211E7543	EA	1/2
3	4710-00-597-8731	Pipe, Extension (97403) 13211E7542	EA	1/2
4	5120-00-251-4489	Hammer, Hand, Engineers, Double, 8# (58536) A-A-1293	EA	1/2
5	5120-01-013-1676	Slide Hammer, Ground Rod (97403) 13226E7741	EA	1/2
6	4210-01-361-6921	Extinguisher, Fire, Carbon Dioxide (54905) 322	EA	1/2
7	5975-00-878-3791	Rods, Ground (w/attachments), Sectional 9 Ft. (58536) A-A-55804-III-B	EA	1/2
8	4730-00-809-9703	Elbow, Pipe to Hose (97403) 13236380-4	EA	1/2
9	4730-01-470-2409	Clamp, Hose, Low Pressure, Type F, Size 12, SAE J1508 (30554), 88-20561-2	EA	1/2
10	4720-01-386-4210	Hose, Nonmetallic (98441) 160-12-24	EA	1/2
11		TM9-6115-662-13&P	EA	1/2

TM 9-6115-662-13&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, 2 1/2 TON TRAILER MOUNTED, 30 kW, 50/60 Hz, PU-803 (NSN: 6115-01-317-2136) PU-803B/G (NSN: 6115-01-470-6376)

POWER UNIT, DIESEL ENGINE DRIVEN, 2 1/2 TON TRAILER MOUNTED, 30 kW, 400 Hz, PU-804 (NSN: 6115-01-317-2135) PU-804B/G (NSN: 6115-01-471-1507)

POWER PLANT, DIESEL ENGINE DRIVEN, 2 1/2 TON TRAILER MOUNTED, 30 kW, 50/60 Hz, AN/MJQ-40 (NSN: 6115-01-299-6033) AN/MJQ-40B (NSN: 6115-01-474-3783)

This manual supersedes TM 9-6115-662-13&P dated 1 October 2005.

HEADQUARTERS, DEPARTMENT OF THE ARMY

1 MARCH 2008

Item 11 Basic Issue Items. TM 9-6115-662-13&P

APPENDIX D

ADDITIONAL AUTHORIZATION LIST (AAL)

Section I. INTRODUCTION

D-1 SCOPE.

This appendix lists additional items you are authorized to use for the support of the power unit/power plant.

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 all authorized to you by the Common Table of Allowance (CTA), Modification Table of Organization and Equipment (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 are shown under the "Usable on Code" heading in the description column. These codes are identified as:

CODE	USED ON	CODE	USED ON
YHE	AN/MJQ-40	44E	AN/MJQ-40B
YGB	PU-803	44G	PU-803B/G
YFU	PU-804	44H	PU-804B/G

NOTE

All six “usable on” codes listed above apply to all items 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 (W/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 (93742) 0116-1810		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-40 and AN/MJQ-40B Power Plants and PU-803, PU-803B/G, PU-804, and PU-804B/G 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 (U/M). 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	(3) NATIONAL STOCK NUMBER	(4) ITEM NAME, DESCRIPTION, CAGEC, AND PART NUMBER	(5) 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-PRF-10924	EA
4	O	9150-00-189-6727	Oil, Lubrication OE/HDO-10 (81349) MIL-PRF-2104	EA
5	O,F		Solder, Sn60Pb40 (81348)	EA
6	O,F	8040-00-664-4318	Adhesive, 9995460 (18876)	EA

APPENDIX F

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

Section I. INTRODUCTION

NOTE

Switchboxes for the power plants (AN/MJQ-40 and AN/MJQ-40B) have undergone many design changes over the years. The data in this RPSTL contains information relative to the three recent designs: A, B, and C Models.

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 unit and direct support maintenance of the power units (PU-803, PU-803B/G, PU-804, and PU-804B/G) and the power plants (AN/MJQ-40 and AN/MJQ-40B). It authorizes the requisitioning, issue, and disposition of spares, repair parts, and special tools as indicated by the source, maintenance, and recoverability (SMR) codes. Power Plant AN/MJQ-40 is made up of two PU-803 Power Units and a switch box; and Power Plant AN/MJQ-40B is made up of two PU-803B/G Power Units and a switch box.

F-2 GENERAL

In addition to Section I, Introduction, this RPSTL 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 that 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.

F-2.2 **Section III. Special Tools List**. A list of special tools, special TMDE, and special support equipment authorized by this RPSTL (as indicated by Basis of Issue (BOI) information in the DESCRIPTION AND USABLE ON CODE (UOC) column) for the performance of maintenance. There is no Section III with this appendix.

F-2.3 **Section IV. Cross-Reference Indexes**. There are three cross-reference indexes in this RPSTL. The National Stock Number (NSN) Index lists, in National Item Identification Number (NIIN) sequence, all National stock numbered items cross-referenced to figure and item number. The Part Number Index lists part numbers cross-referenced to each NSN, and each illustration figure and item number appearance. The Figure and Item Number index lists figure and item numbers in alphanumeric sequence, cross-referenced to NSN, CAGEC, and part number.

F-3 EXPLANATION OF COLUMNS (Sections II and III)

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

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

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

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

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

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

AD-Assembled by Depot	indicates the item is assembled at a higher level, order the item from the higher level of maintenance.
XA	Do not requisition an "XA" coded item. Order the next higher assembly. (Refer to NOTE below.)
XB	If an item is not available from salvage, order it using the CAGEC and P/N.
XC	Installation drawing, diagram, instruction sheets, field service drawings; identified by manufacturer's P/N.
XD	Item is not stocked. Order an XD-coded item through normal supply channels using the CAGEC and P/N given, if no NSN is available.

NOTE

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

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

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

Maintenance Code	Application/Explanation
C	Crew or operator maintenance done within unit/AVUM maintenance.
O	Unit level/AVUM maintenance can remove, replace, and use the item.
F	Direct support/AVIM maintenance can remove, replace, and use the item.
H	General support maintenance can remove, replace, and use the item.
L	Specialized repair activity can remove, replace, and use the item.
D	Depot can remove, replace, and use the item.

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

NOTE

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

Maintenance Code	Application/Explanation
O	Unit/AVUM is the lowest level that can do complete repair of the item.
F	Direct support/AVIM 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 is the lowest level that can do complete repair of the item.
D	Depot is the lowest level than can do complete repair of the item.
Z	No reparable. No repair is authorized.
B	No repair is authorized. No parts or special tools are authorized for maintenance of "B" coded item. However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

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

Recoverability Code	Application/Explanation
Z	Non-reparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in the 3rd position of SMR code.
O	Reparable item. When uneconomically reparable, condemn and dispose of the item at the unit level.
F	Reparable item. When uneconomically reparable, condemn and dispose of the item at the direct support level.
H	Reparable item. When uneconomically reparable, condemn and dispose of the item at the general support level.
D	Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item are 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 (such as precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.

CAGE (Column (3)). The Commercial and Government Entity Code (CAGEC) is a five-digit code which is used to identify the manufacturer, distributor, or Government agency/activity that supplies the item.

PART NUMBER (Column (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 an NSN to requisition an item, the item you receive may have a different P/N from the number listed.

DESCRIPTION AND USABLE ON CODE (UOC) (Column (5)). This column includes the following information:

1. The federal item name, and when required, a minimum description to identify the item.
2. P/Ns of bulk materials are referenced in this column in the line entry to be manufactured or fabricated.
3. Hardness Critical Item (HCI). A support item that provides the equipment with special protection from electromagnetic pulse (EMP) damage during a nuclear attack.
4. The statement END OF FIGURE appears just below the last item description in column (6) for a given figure in both the repair parts list and special tools list.

QTY (Column (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, sub functional group, or an assembly. A "V" appearing in this column instead of a quantity indicates that the quantity is variable and quantity may change from application to application.

F-4 EXPLANATION OF CROSS-REFERENCE INDEXES AND COLUMNS (Section IV)

F-4.1. National Stock Number (NSN) Index.

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

NSN
(e.g., 5385-01-574-1476)
NIIN

When using this column to locate an item, ignore the first four digits of the NSN. However, the complete NSN should be used when ordering items by stock number.

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

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

F-4.2. Part Number (P/N) Index. P/Ns in this index are listed by in ascending alphanumeric sequence (vertical arrangement of letter and number combinations which places the first letter or digit of each group in order A through Z, followed by the numbers 0 through 9 and each following letter or digit in like order).

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

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

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

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

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

F-4.3. Figure Number and Item Number Indexes.

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

list and special tools list.

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

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

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

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

F-5 SPECIAL INFORMATION

F-5.1 Usable on Code (UOC). The UOC appears in the lower left corner of the Description Column heading. Usable on codes are shown as "UOC: xxx" in the Description Column (justified left) on the first line under the applicable item/nomenclature. Uncoded items are applicable to all models. Identifications of the UOC used in this publication are

Code	Used On
YHE	AN/MJQ-40
44E	AN/MJQ-40B
YGB	PU-803
44G	PU-803B/G
YFU	PU-804
44H	PU-804B/G

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 column of the line item entry for the item to be manufactured/fabricated. Detailed fabrication instructions for items source coded to be manufactured or fabricated are found in Appendix 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 a cross-reference between the NSN / P/N index and the bulk materials list in Section II.

F-6 HOW TO LOCATE REPAIR PARTS

F-6.1. When NSNs or P/Ns Are Not Known.

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

Second. Find the figure covering the assembly group or subassembly group to which the item belongs.

Third. Identify the item on the figure and use the Figure and Item Number Index to find the NSN.

F-6.2. When NSNs Are Known.

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

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

F-6.3. When P/Ns Are Known.

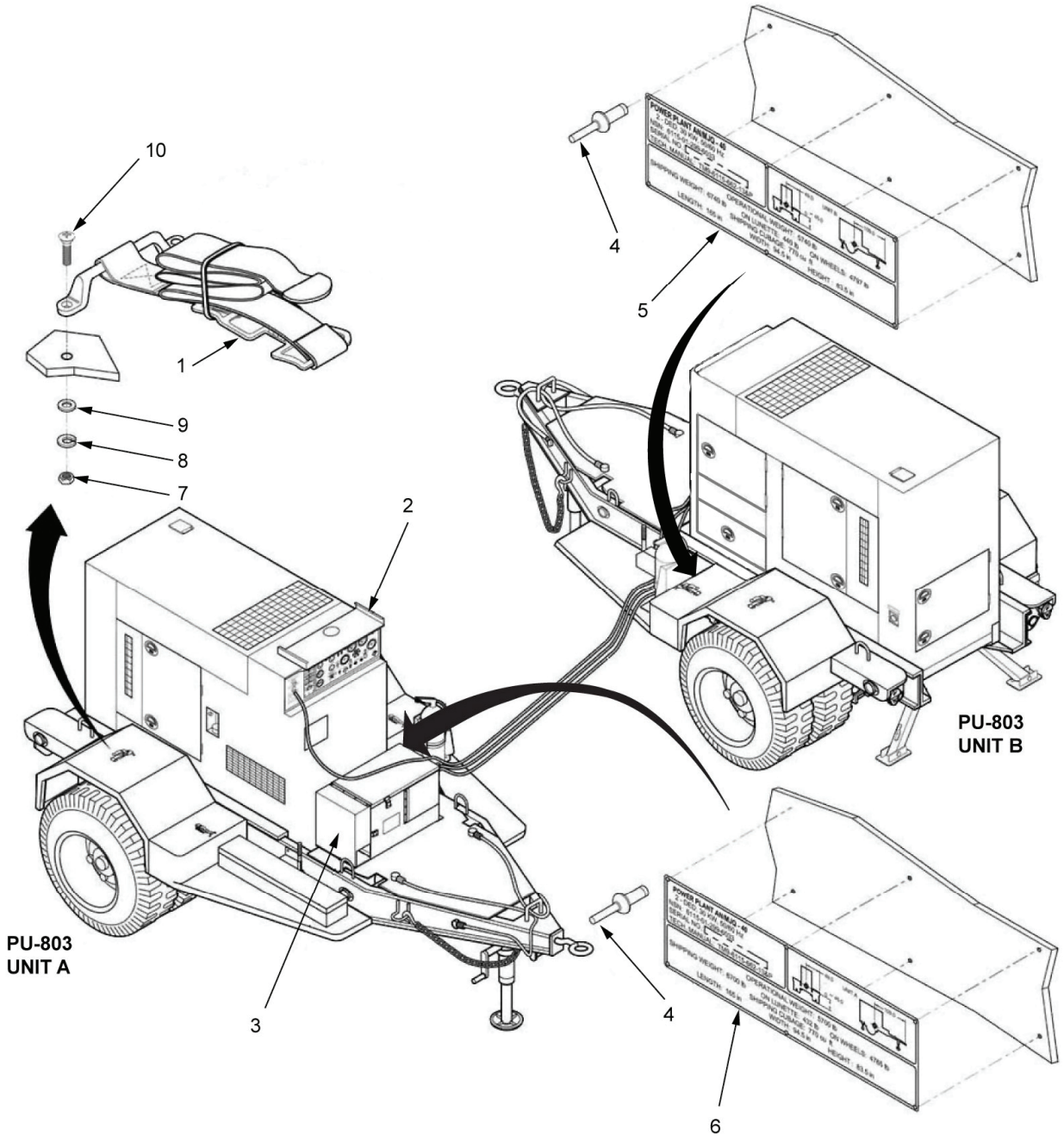
First. If you have the P/N and not the NSN, look in the PART NUMBER column of the P/N Index. Identify the figure and item number.

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

F-7 ABBREVIATIONS

Not applicable.

SECTION II. REPAIR PARTS LIST



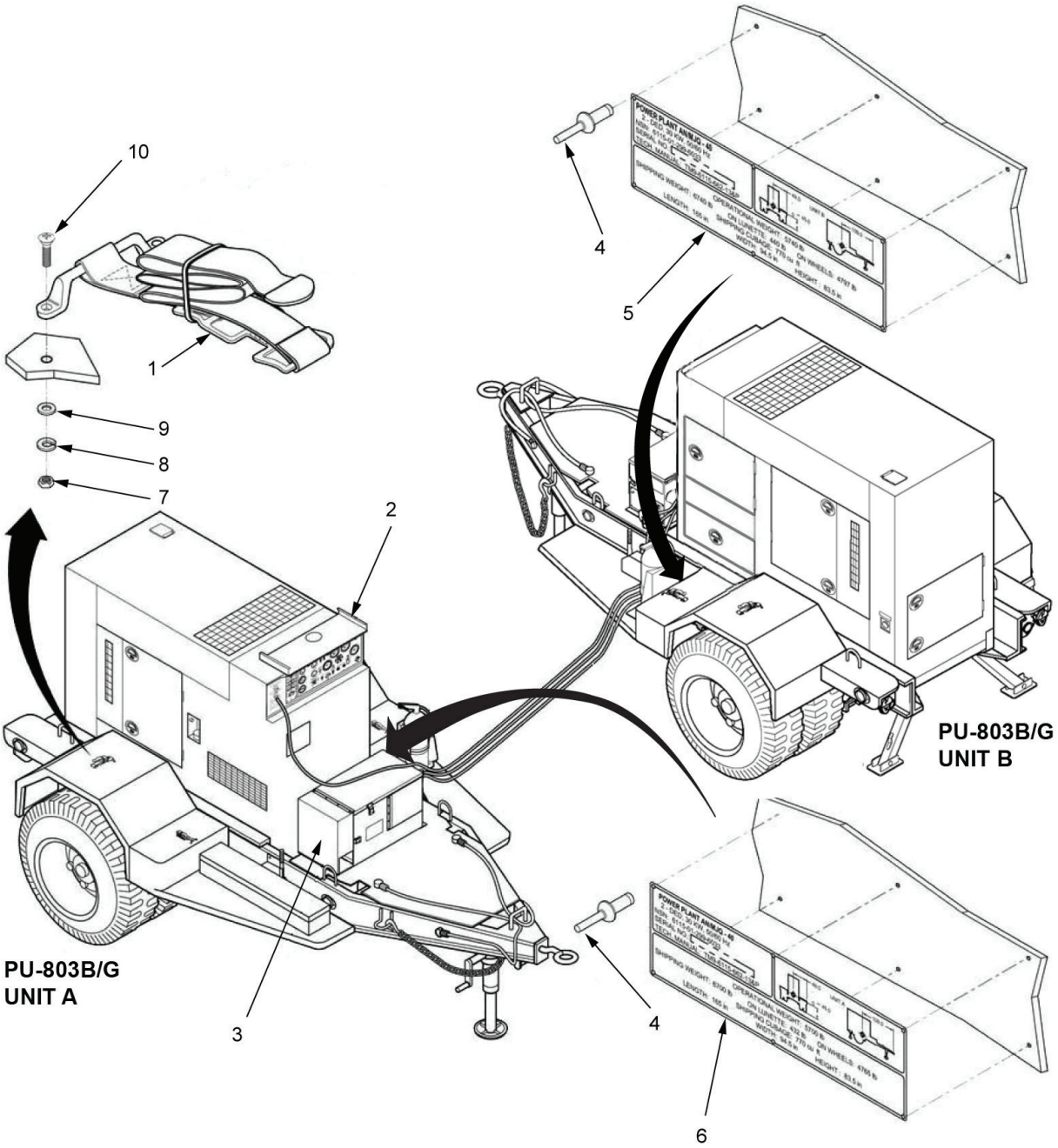
AN/MJQ-40

Figure F-1. Power Plants/Power Units, AN/MJQ-40.

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 00 POWER PLANT/POWER UNIT	
				FIG. F-1 POWER PLANTS/POWER UNITS, AN/MJQ-40	
1	PAOZZ	97403	13218E5091	.STRAP ASSEMBLY UOC: YHE	8
2	PDFZZ	30554	13229E5745	.POWER UNIT, TACTICAL QUIET GEN SET, SIZE 30, MODE I (30KW, 50/60 HZ), PU-803 (SEE FIGURE F-1.2 FOR PARTS BREAKDOWN) UOC: YHE	2
3	XCFZZ	30554	13229E5700-ELE	.ELECTRICAL SYSTEM (SEE FIGURE F-3 FOR PARTS BREAKDOWN) UOC: YHE	1
4	PAOZZ	80205	MS20604AD6W4	..RIVET, BLIND UOC: YHE	12
5	XBFZZ	97403	13229E5666-41	.PLATE, IDENT/TRANSP DATA (2-WHEEL CONFIGURATION) UOC: YHE	1
5	XBFZZ	97403	13229E5666-7	.PLATE, IDENT/TRANSP DATA (4-WHEEL CONFIGURATION) UOC: YHE	1
6	XBFZZ	97403	13229E5666-42	.PLATE, IDENT/TRANSP DATA (2-WHEEL CONFIGURATION) UOC: YHE	1
6	XBFZZ	97403	13229E5666-8	.PLATE, IDENT/TRANSP DATA (4-WHEEL CONFIGURATION) UOC: YHE	1
7	PAOZZ	80205	MS35650-3314	..NUT, PLAIN, HEXAGON UOC: YHE	16
8	PAOZZ	96906	MS35338-43	..WASHER, LOCK UOC: YHE	16
9	PAOZZ	96906	MS51412-21	..WASHER, FLAT UOC: YHE	16
10	PAOZZ	96906	MS51960-66	..SCREW, MACHINE UOC: YHE	16
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)



AN/MJQ-40B

Figure F-1.1. Power Plants/Power Units, AN-MJQ-40B.

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 00 POWER PLANT/POWER UNIT	
				FIG. F-1.1 POWER PLANTS/POWER UNITS, AN/MJQ-40B	
1	PAOZZ	97403	13218E5091	.STRAP ASSEMBLY UOC: 44E	8
2	PDFZZ	30554	13230E6849	.POWER UNIT, TACTICAL QUIET GEN SET, SIZE 30, MODE I (30KW, 50/60 HZ), PU-803B/G (SEE FIGURE F-1.3 FOR PARTS BREAKDOWN) UOC: 44E	2
3	XCFZZ	30554	13230E6853-ELE	.ELECTRICAL SYSTEM (SEE FIGURE F-3 FOR PARTS BREAKDOWN) UOC: 44E	1
4	PAOZZ	80205	MS20604AD6W4	..RIVET, BLIND UOC: 44E	12
5	XBFZZ	97403	13229E5666-28	.PLATE, IDENT/TRANSP DATA UOC: 44E	1
6	XBFZZ	97403	13229E5666-27	.PLATE, IDENT/TRANSP DATA UOC: 44E	1
7	PAOZZ	80205	MS35650-3314	..NUT, PLAIN, HEXAGON UOC: 44E	16
8	PAOZZ	96906	MS35338-43	..WASHER, LOCK UOC: 44E	16
9	PAOZZ	96906	MS51412-21	..WASHER, FLAT UOC: 44E	16
10	PAOZZ	96906	MS51960-66	..SCREW, MACHINE UOC: 44E	16
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

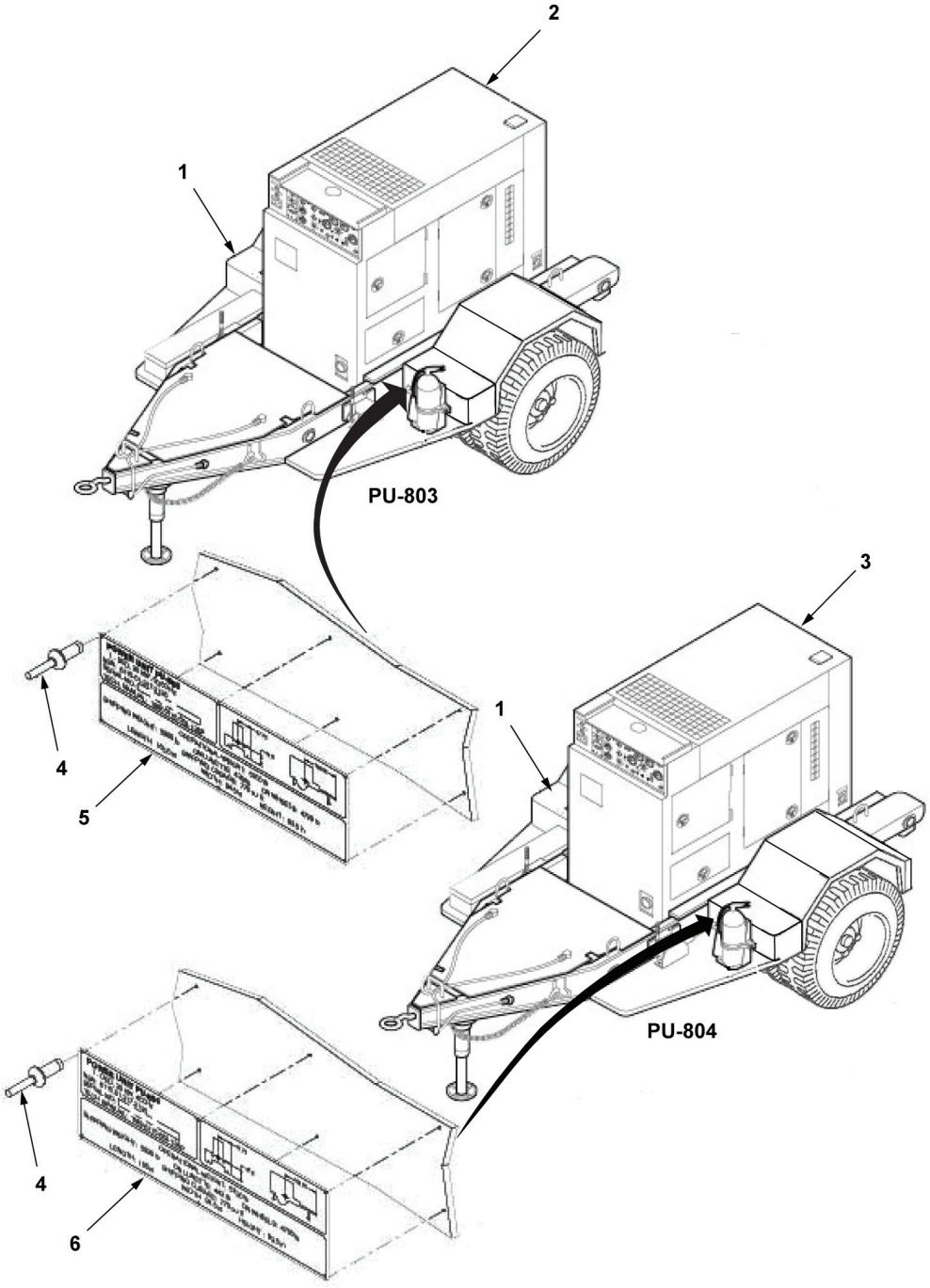


Figure F-1.2. Power Plants/Power Units, PU-803 and PU-804.

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 00 POWER PLANT/POWER UNIT	
				FIG. F-1.2 POWER PLANTS/POWER UNITS, PU-803 AND PU-804	
1	PBFFF	97403	13229E9632	.TRAILER, 2 ½ TON (SEE FIGURE F-25 FOR PARTS BREAKDOWN) UOC: YGB, YFU	2
2	PDFZZ	30554	88-805	.GEN SET, TACTICAL QUIET 30KW, 50/60 HZ (MEP-805A) (SEE FIGURE F-2 FOR INSTALLATION) (SEE TM 9-6115-644-24P FOR PARTS BREAKDOWN) UOC: YGB	1
3	PDFZZ	30554	88-815	.GEN SET, TACTICAL QUIET 30KW, 400 HZ (MEP-815A) (SEE FIGURE F-2 FOR INSTALLATION) (SEE TM 9-6115-644-24P FOR PARTS BREAKDOWN) UOC: YFU	1
4	PAOZZ	80205	MS20604AD6W4	..RIVET, BLIND UOC: YGB, YFU	12
5	XBFZZ	97403	13229E5666-35	.PLATE, IDENT/TRANSP DATA (2-WHEEL CONFIGURATION) UOC: YGB	1
5	XBFZZ	97403	13229E5666-19	.PLATE, IDENT/TRANSP DATA (4-WHEEL CONFIGURATION) UOC: YGB	1
6	XBFZZ	97403	13229E5666-36	.PLATE, IDENT/TRANSP DATA (2-WHEEL CONFIGURATION) UOC: YFU	1
6	XBFZZ	97403	13229E5666-20	.PLATE, IDENT/TRANSP DATA (4-WHEEL CONFIGURATION) UOC: YFU	1
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

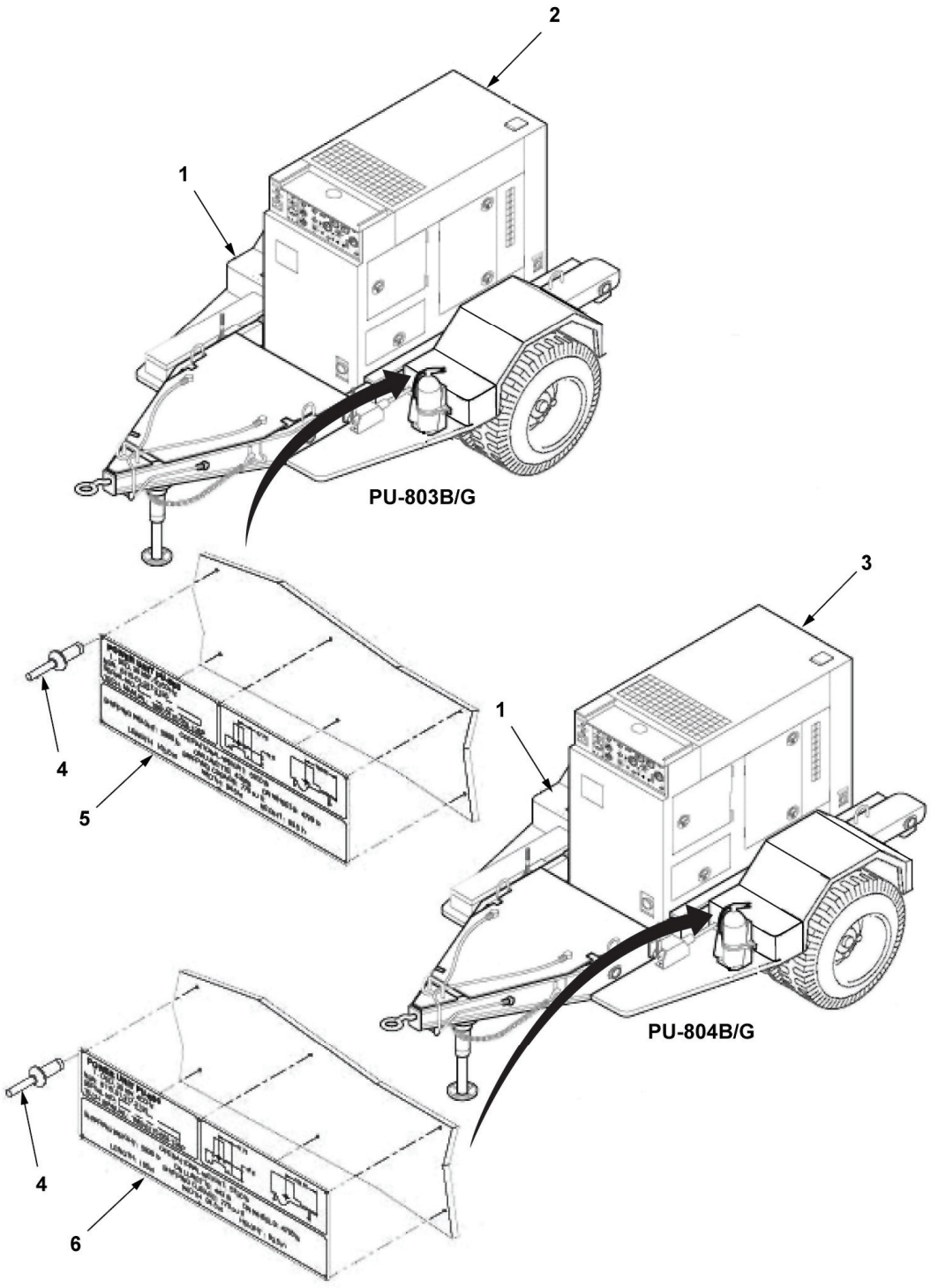


Figure F-1.3. Power Plants/Power Units, PU-803B/G and PU-804B/G.

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 00 POWER PLANT/POWER UNIT	
				FIG. F-1.3 POWER PLANTS/POWER UNITS, PU-803B/G AND PU-804B/G	
1	PBFFF	97403	13229E9632	.TRAILER, 2 ½ TON (SEE FIGURE F-25 FOR PARTS BREAKDOWN) UOC: 44G, 44H	2
2	PDFZZ	30554	96-805	.GEN SET, TACTICAL QUIET 30KW, 50/60 HZ (MEP-805B) (SEE FIGURE F-2 FOR INSTALLATION) (SEE TM 9-6115-671-24P FOR PARTS BREAKDOWN) UOC: 44G	1
3	PDFZZ	30554	96-815	.GEN SET, TACTICAL QUIET 30KW, 400 HZ (MEP-815B) (SEE FIGURE F-2 FOR INSTALLATION) (SEE TM 9-6115-671-24P FOR PARTS BREAKDOWN) UOC: 44H	1
4	PAOZZ	80205	MS20604AD6W4	..RIVET, BLIND UOC: 44G, 44H	12
5	XBFZZ	97403	13229E5666-23	.PLATE, IDENT/TRANSP DATA UOC: 44G	1
6	XBFZZ	97403	13229E5666-24	.PLATE, IDENT/TRANSP DATA UOC: 44H	1
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

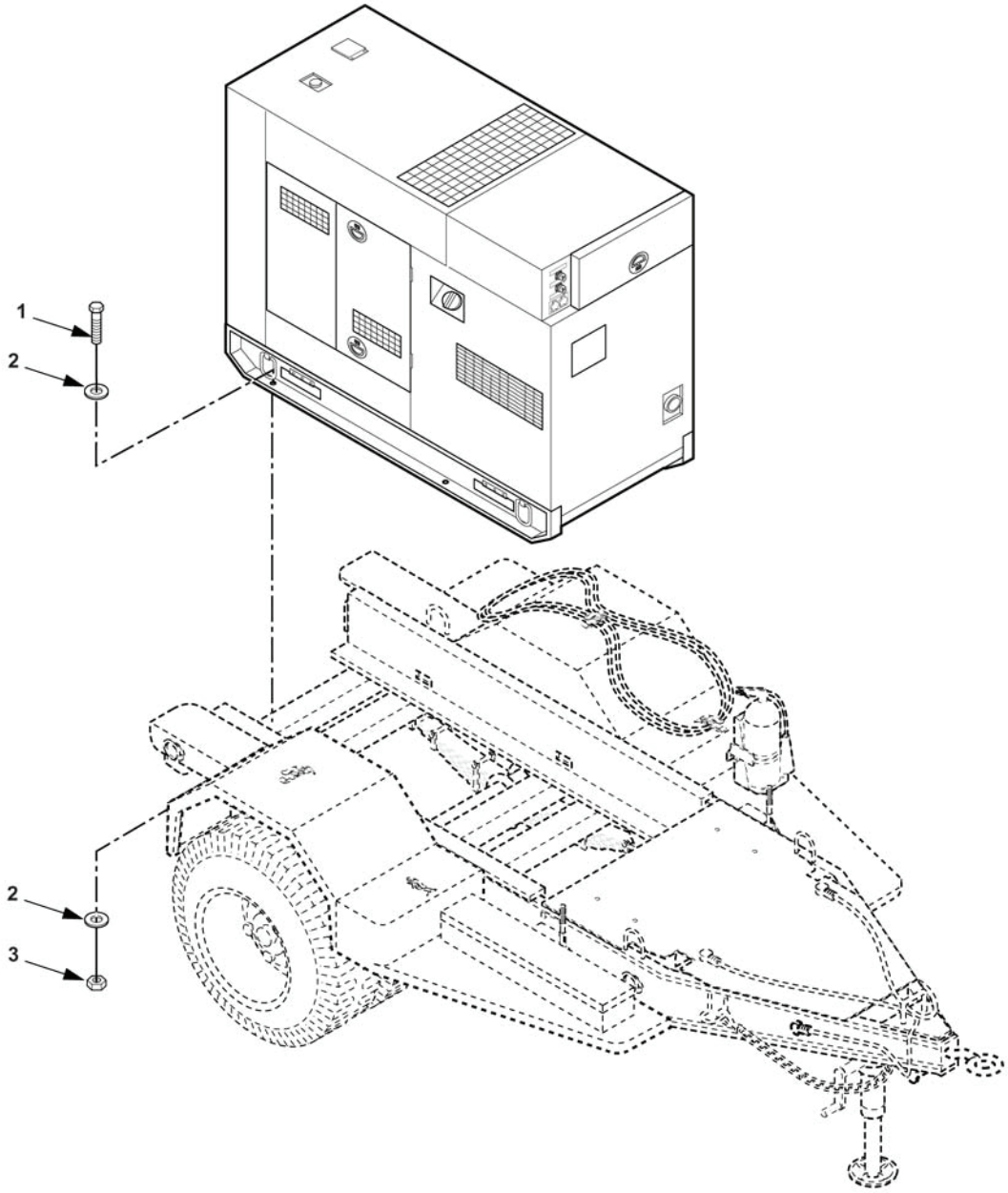


Figure F-2. Generator Set.

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	
1	PAFZZ	80204	B1821BH063C175N	.SCREW, CAP, HEXAGON UOC: YGB, 44G, YFU, 44H	4
2	PAFZZ	96906	MS51412-11	.WASHER, FLAT UOC: YGB, 44G, YFU, 44H	8
3	PAFZZ	81349	M45913/1-10CG5C	.NUT, SELF-LOCKING, HEXAGON UOC: YGB, 44G, YFU, 44H	4
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

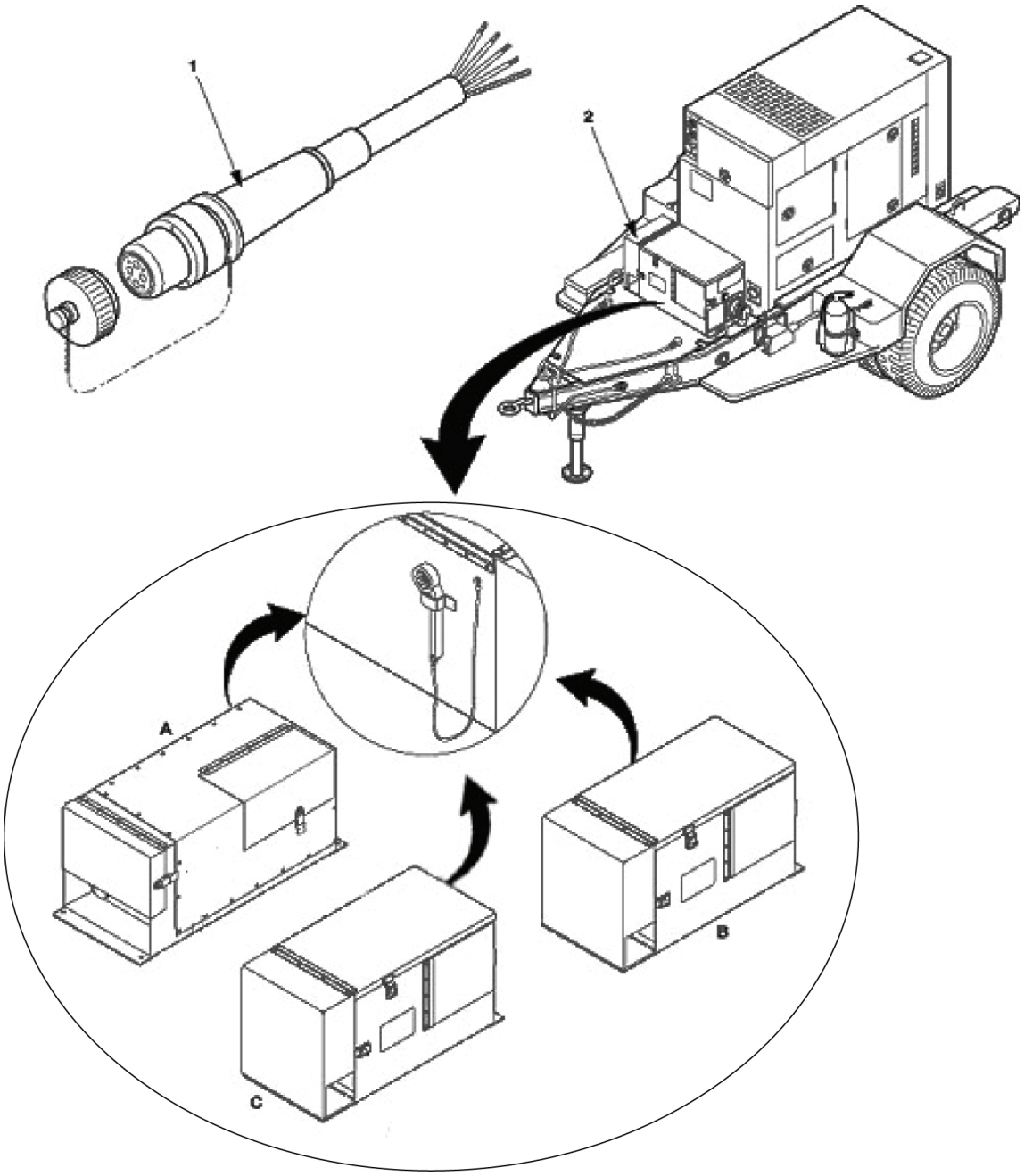


Figure F-3. Electrical System.

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 ELECTRICAL SYSTEM	
1	PBOFF	97403	13229E5738	.CABLE ASSEMBLY, POWER (SEE FIGURE F-4 FOR PARTS BREAKDOWN) UOC: YHE, 44E	1
2	PDFFF	97403	13229E5795-2	.SWITCHBOX (A) (SEE FIGURE F-5 FOR PARTS BREAKDOWN) UOC: YHE	1
2	PDFFF	97403	13229E5795-2	.SWITCHBOX (B&C) (SEE FIGURE F-5.1 FOR PARTS BREAKDOWN) UOC: YHE, 44E	1
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

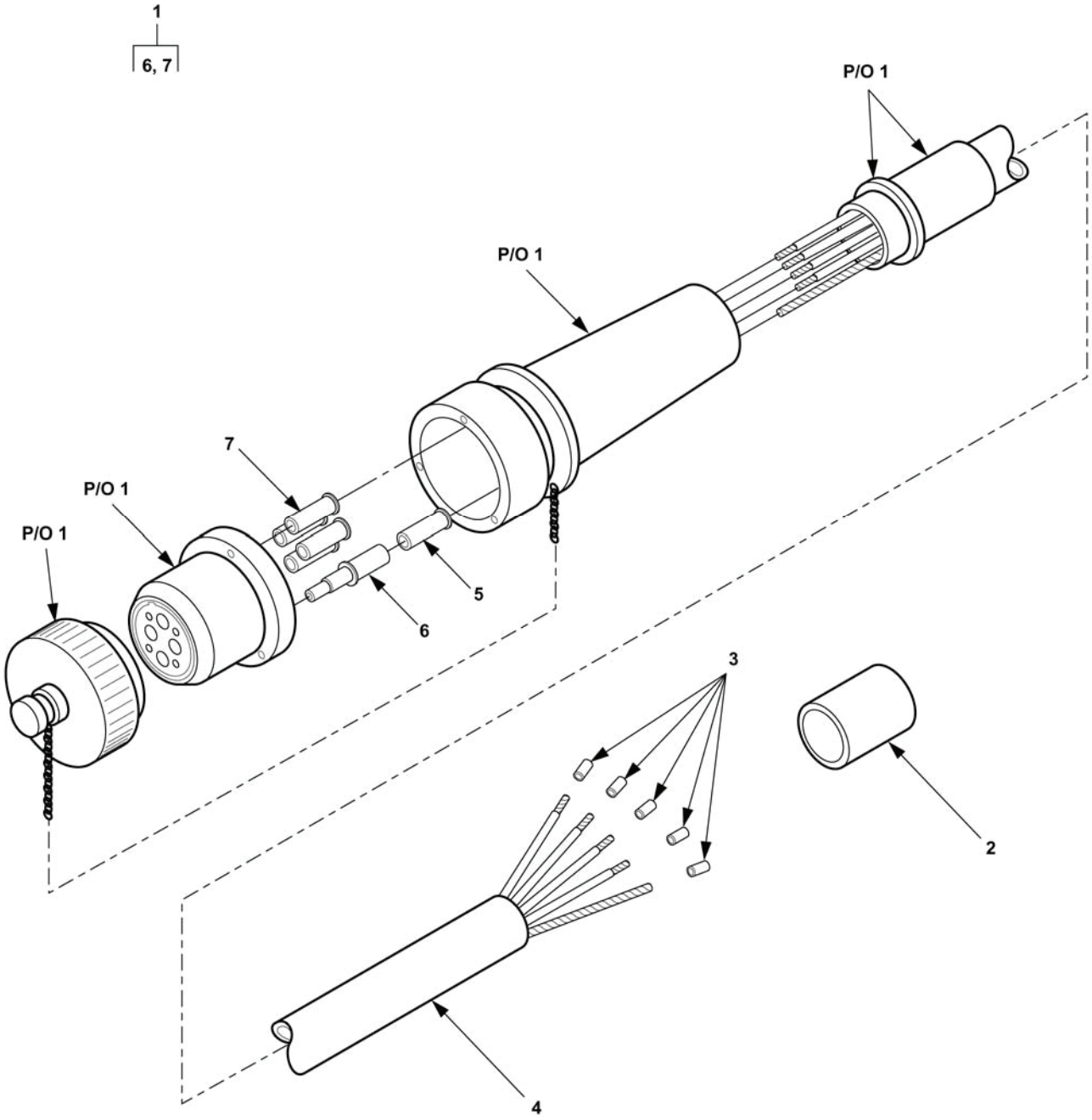


Figure F-4. Cable Assembly, W19.

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 0201 CABLE ASSEMBLY, W19	
				FIG. F-4 CABLE ASSEMBLY, W19	
-	PBOFF	97403	13229E5738	CABLE ASSEMBLY, POWER UOC: YHE, 44E	REF
1	PAFFF	96906	MS90557C44413S	.CONNECTOR, PLUG, ELEC UOC: YHE, 44E	1
2	MFFZZ	19099	13229E5738-3	.INSULATION SLEEVING MAKE FROM M23053/5-113-0 (81349) 2.5 INCHES REQUIRED UOC: YHE, 44E	2
3	MFFZZ	19099	13229E5738-4	.INSULATION SLEEVING MAKE FROM M23053/5-110-9 (81349) 1 INCH REQUIRED UOC: YHE, 44E	5
4	MFFZZ	19099	13229E5738-2	.CABLE, POWER, ELECTRICAL MAKE FROM 012822 (71102) 325 INCHES REQUIRED UOC: YHE, 44E	1
5	PAFZZ	96906	MS3348-6-8L	..CONTACT, ELECTRICAL UOC: YHE, 44E	1
6	PAFZZ	81349	M39029/49-333	CONTACT, ELECTRICAL UOC: YHE, 44E	1
7	PAFZZ	81349	M39029/49-330	CONTACT, ELECTRICAL UOC: YHE, 44E	4
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

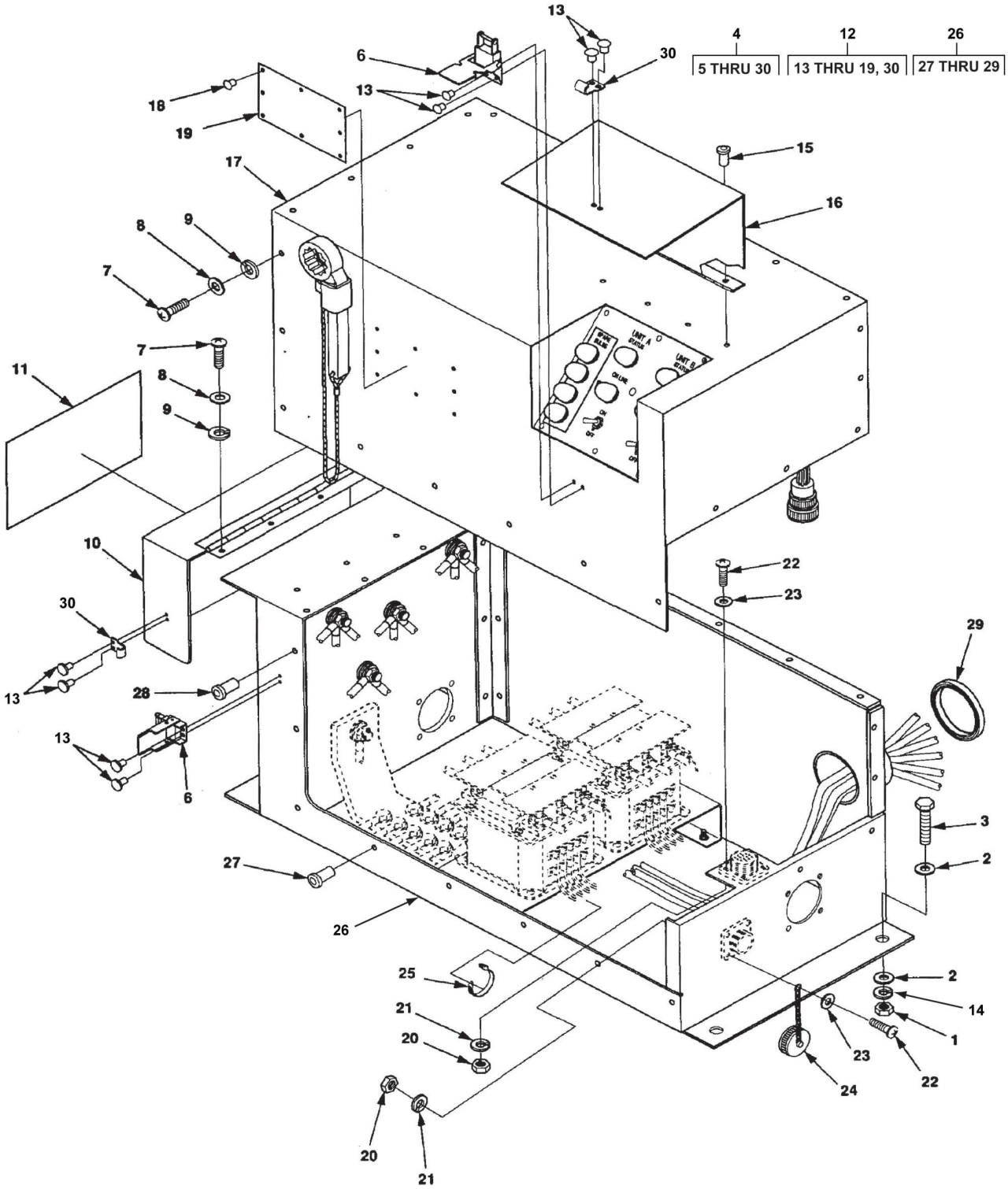


Figure F-5 Switch Box Assembly (A Model).

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 0202 SWITCH BOX ASSEMBLY	
				FIG. F-5 SWITCH BOX ASSEMBLY (A MODEL)	
1	PAFZZ	97403	13230E6382-6	.NUT, SELF LOCKING, HEXAGON UOC: YHE	4
2	PAFZZ	30554	88-20033-314A	WASHER, FLAT UOC: YHE	8
3	PAFZZ	80204	B1821BH038C138N	.SCREW, CAP, HEXAGON H UOC: YHE	4
4	XDFFF	97403	13229E5795-2	.SWITCH BOX ASSEMBLY UOC: YHE	REF
5	NOT USED				
6	PAOZZ	94222	2-57-1735-07	..CATCH, CLAMPING UOC: YHE	2
7	PAOZZ	96906	MS51957-46	..SCREW, MACHINE UOC: YHE	25
8	PAOZZ	96906	MS15795-807	..WASHER, FLAT UOC: YHE	25
9	PAOZZ	96906	MS35338-137	..WASHER, LOCK UOC: YHE	25
10	XDOFF	97403	13229E5804	..DOOR, LOAD TERMINAL UOC: YHE	1
11	MDOZZ	97403	13229E5728-2	...MARKER, WARNING UOC: YHE	1
12	XDOOO	97403	13229E5801-2	...COVER ASSY, SWITCH B UOC: YHE	1
13	PAOZZ	96906	MS20600AD4W3	...RIVET, BLIND UOC: YJV	8
14	PAFZZ	97403	13230E6744-46	...WASHER, LOCK-SPRING, HEL UOC: YHE	4
15	PAOZZ	96906	MS20470AD4-4-5	...RIVET, SOLID UOC: YHE	4
16	XDOZZ	97403	13229E5835	...ENCLOSURE, TOP, SWITC UOC: YHE	1
17	XAOZZ	97403	13229E5834	...COVER, SWITCH BOX UOC: YHE	1
18	PAOZZ	96906	MS20600AD4W2	...RIVET, BLIND UOC: YHE	8
19	MDOZZ	97403	13229E5792-2	...PLATE, IDENTIFICATION, SCHEMATIC UOC: YHE	1
20	PAOZZ	96906	MS35649-244	..NUT, PLAIN, HEXAGON UOC: YHE	8
21	PAOZZ	96906	MS35338-135	..WASHER, LOCK UOC: YHE	8
22	PAOZZ	96906	MS51957-18	..SCREW, MACHINE UOC: YHE	8

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 0202 SWITCH BOX ASSEMBLY	
				FIG. F-5 SWITCH BOX ASSEMBLY (A MODEL)	
23	PAOZZ	88044	AN960-C4	..WASHER, FLAT UOC: YHE	8
24	PAOZZ	96906	MS25043-18DA	..COVER, ELECTRICAL CO UOC: YHE	1
25	PAFZZ	96906	MS3367-1-9	..STRAP, TIEDOWN, ELECT UOC: YHE	1
26	XDFFF	97403	13229E5796-2	..HOUSING, SWITCH BOX UOC: YHE	1
27	PAOZZ	96906	MS27130-96	...NUT, PLAIN, BLIND, RIV UOC: YHE	6
28	PAOZZ	96906	MS27130-93	...NUT, PLAIN, BLIND, RIV UOC: YHE	19
29	MOOZZ	19099	13229E5796-2-15	...GROMMET, PLASTIC EDGE MAKE FROM P/N MS21266-2N (96906) AS REQUIRED UOC: YHE	1
30	PAOZZ	94222	K3-0334-07	…KEEPER UOC: YHE	2
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

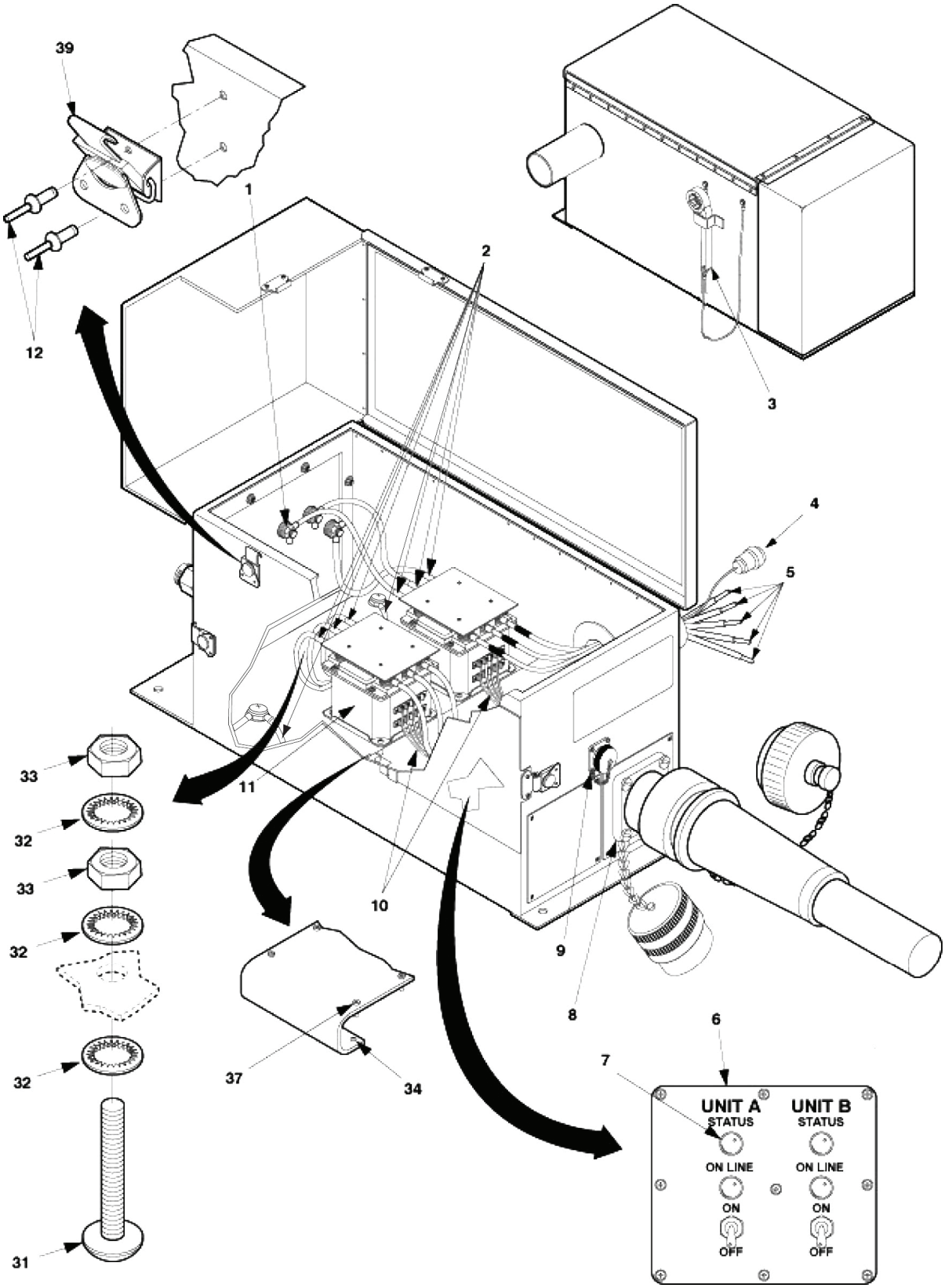


Figure F-5.1. Switch Box Assembly (B&C Models), Sheet 1 of 2.

SECTION II. REPAIR PARTS LIST (CONTINUED)

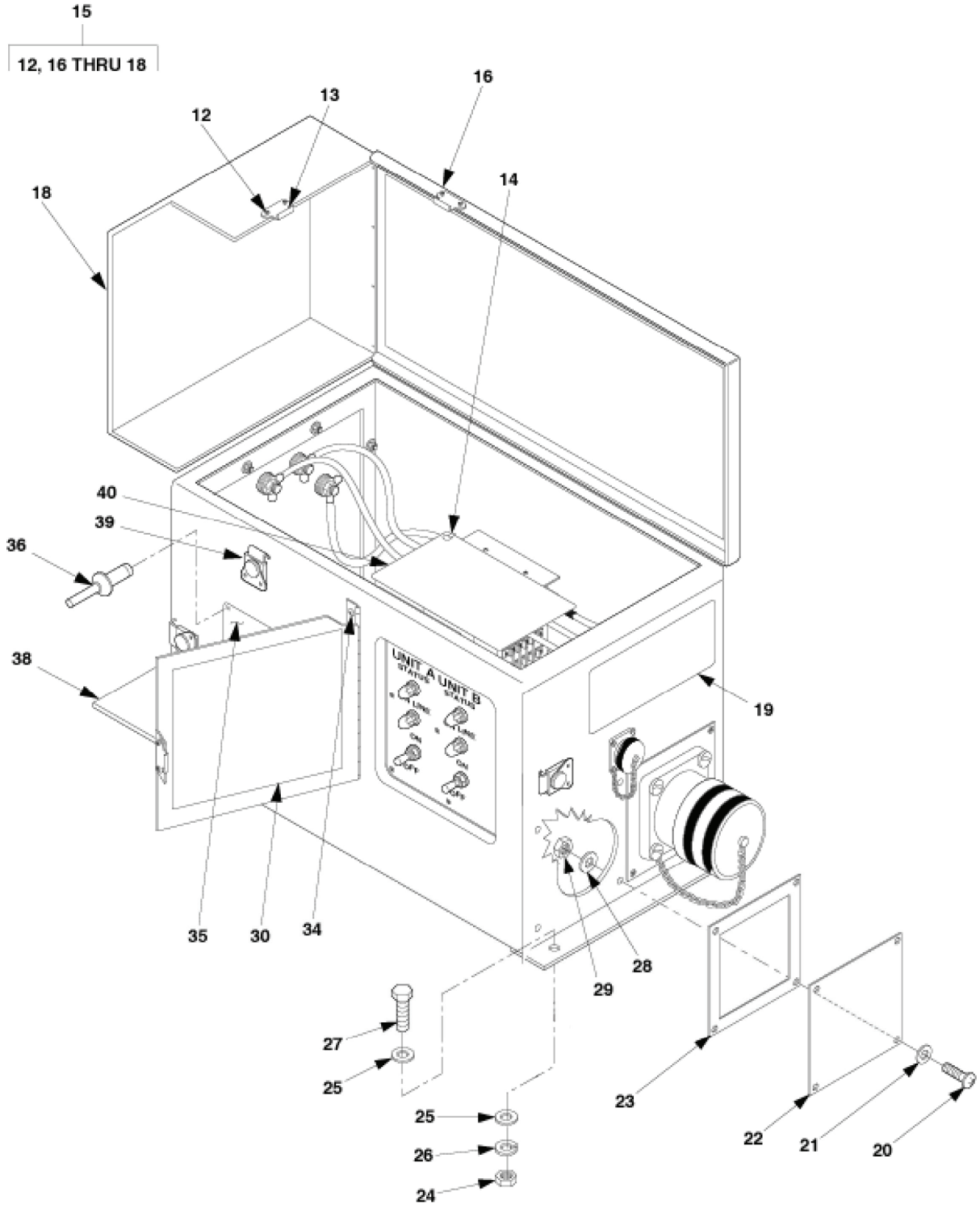


Figure F-5.1. Switch Box Assembly (B&C Models), Sheet 2 of 2.

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 0202 SWITCH BOX ASSEMBLY	
				FIG. F-5.1 SWITCH BOX ASSEMBLY (B&C MODELS)	
1	PAOZZ	96906	MS39347-5	.LOAD TERMINAL ASSY (SEE FIGURE F-10.1 FOR PARTS BREAKDOWN) UOC: YHE, 44E	REF
2	MOFFF	97403	13229E5810	.LEADS, ELECTRICAL (SEE FIGURE F-16 FOR PARTS BREAKDOWN) UOC: YHE, 44E	REF
3	AOOOO	30554	72-2029-2	.LOAD TERMINAL WRENCH ASSEMBLY (SEE FIGURE F-6 FOR PARTS BREAKDOWN) UOC: YHE, 44E	1
4	MFFFF	97403	13229E5806-2	.WIRING HARNESS, W18 (SEE FIGURE F-20 FOR PARTS BREAKDOWN) UOC: YHE, 44E	REF
5	MFFFF	97403	13229E5811	.LEADS, POWER (SEE FIGURE F-19 FOR PARTS BREAKDOWN) UOC: YHE, 44E	REF
6	XBFFF	97403	13229E5802-1	.CONTROL PANEL ASSY. (SEE FIGURE F-7.1 FOR PARTS BREAKDOWN) UOC: YHE, 44E	1
7	PAFZZ	97403	13214E1391	LIGHT, INDICATOR, WATERTIGHT (SEE FIGURE F-9.1 FOR PARTS BREAKDOWN) UOC: YHE, 44E	4
8	MFFFF	97403	13229E5809-2	.WIRING HARNESS, W10 (SEE FIGURE F-12.1 FOR PARTS BREAKDOWN) UOC: YHE, 44E	1
9	MFFFF	97403	13229E5806-1	.WIRING HARNESS, W17 (SEE FIGURE F-13 FOR PARTS BREAKDOWN) UOC: YHE, 44E	1
10	MFFFF	97403	13229E5800-1	.WIRING HARNESS, W7 (SEE FIGURE F-15 FOR PARTS BREAKDOWN) UOC: YHE, 44E	1
11	PAFZZ	01XD4	CT350E-120E4	.CONTACTOR (SEE FIGURE F-18.1 FOR PARTS BREAKDOWN) UOC: YHE, 44E	2
12	PAOZZ	96906	MS20604AD4W3	..RIVET, BLIND UOC: YHE, 44E	21
13	PAOZZ	94222	K3-0334-07	..KEEPER UOC: YHE, 44E	3
14	PAFZZ	96906	MS3367-1-9	..STRAP, TIEDOWN, ELECT UOC: YHE, 44E	1
15	XBOOO	97403	13229E5801	.COVER ASSY, SWITCH BOX UOC: YHE, 44E	1
16	XBOZZ	97403	13229E5834	..COVER, SWITCH BOX UOC: YHE, 44E	1
17	PAOZZ	80205	MS20426AD6-8	..RIVET, SOLID (NOT SHOWN) UOC: YHE, 44E	4
18	XBOZZ	97403	13229E5804	..DOOR, LOAD TERMINAL UOC: YHE, 44E	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 0202 SWITCH BOX ASSEMBLY	
				FIG. F-5.1 SWITCH BOX ASSEMBLY (B&C MODELS)	
19	XBFZZ	97403	13229E5792-2	..LABEL, INSTRUCTION UOC: YHE, 44E	1
20	PAOZZ	96906	MS51957-83	..SCREW, MACHINE UOC: YHE, 44E	4
21	PAOZZ	80205	MS15795-852	..WASHER, FLAT UOC: YHE, 44E	4
22	XBOZZ	97403	13230E6529	..PLATE, BLANKING UOC: YHE, 44E	1
23	MOOZZ	97403	13229E5815	..GASKET, CONNECTOR, PL UOC: YHE, 44E	1
24	PAOZZ	81349	M45913/1-6CG5C	..NUT, SELF-LOCKING, HEX UOC: YHE, 44E	4
25	PAOZZ	96906	MS51412-27	..WASHER, FLAT UOC: YHE, 44E	4
26	PAOZZ	80205	MS35338-46	.WASHER, LOCK UOC: YHE, 44E	4
27	PAOZZ	80204	B1821BH038C138N	..SCREW, CAP, HEXAGON UOC: YHE, 44E	4
28	PAOZZ	96906	MS35338-139	..WASHER, LOCK UOC: YHE, 44E	4
29	PAOZZ	80205	MS35650-3254	..NUT, PLAIN, HEXAGON UOC: YHE, 44E	4
30	XBFZZ	97403	13229E5793-2	..LABEL INSTRUCTION UOC: YHE, 44E	1
31	PAOZZ	96906	MS35214-101	..SCREW, MACHINE UOC: YHE, 44E	2
32	PAOZZ	96906	MS35333-113	..WASHER, LOCK UOC: YHE, 44E	6
33	PAOZZ	96906	MS16203-27	..NUT, PLAIN, HEXAGON UOC: YHE, 44E	4
34	PAOZZ	07707	AD64H	..RIVET, BLIND UOC: YHE, 44E	11
35	XBOZZ	97403	13230E6823-2	..PLATE, IDENTIFICATION UOC: YHE, 44E	1
36	PAOZZ	96906	MS20604AD3W2	..RIVET, BLIND UOC: YHE, 44E	4
37	PAOZZ	96906	MS27130-CR26	..NUT, PLAIN, BLIND, RIV UOC: YHE, 44E	8
38	XBOZZ	97403	13229E5796	..HOUSING, SWITCH BOX UOC: YHE, 44E	1
39	PAOZZ	94222	2-57-1735-07	..CATCH, CLAMPING UOC: YHE, 44E	3
40	XBOZZ	97403	13229E5792-3	..PLATE, SCHEMATIC DIA UOC: YHE, 44E	1
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

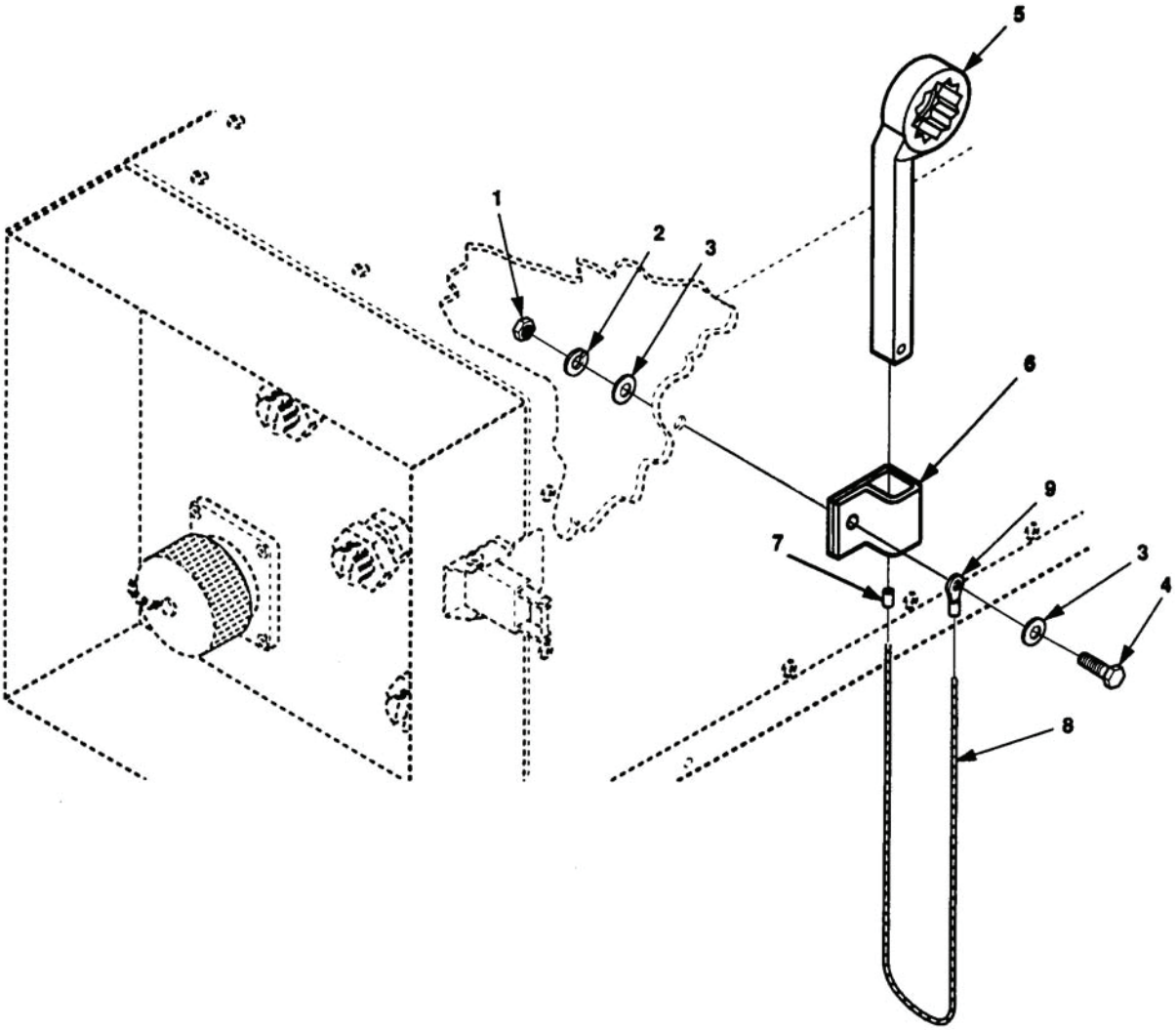


Figure F-6. Load Terminal Wrench Assembly.

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 020201 LOAD TERMINAL WRENCH ASSEMBLY	
				FIG. F-6 LOAD TERMINAL WRENCH ASSEMBLY	
1	PAOZZ	80205	MS35650-3254	..NUT, PLAIN, HEXAGON UOC: YHE, 44E	1
2	PAOZZ	96906	MS35338-139	..WASHER, LOCK UOC: YHE, 44E	1
3	PAOZZ	80205	MS15795-852	..WASHER, FLAT UOC: YHE, 44E	2
4	PAOZZ	80205	MS35308-306	..SCREW, CAP, HEXAGON UOC: YHE, 44E	1
5	PAOZZ	12670	CLE-403002	..WRENCH, BOX UOC: YHE, 44E	1
6	PAOZZ	30554	72-2135	..CLAMP, LOOP UOC: YHE, 44E	1
7	PAOZZ	14726	P1401	..SPLICE, CONDUCTOR UOC: YHE, 44E	1
8	MOOZZ	19099	13229E5795-2-65	..ROPE, FIBROUS MAKE FROM P/N C1832 (88001) 40 INCHES REQUIRED UOC: YHE, 44E	1
9	PAOZZ	96906	MS20659-111	..TERMINAL, LUG UOC: YHE, 44E	1
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

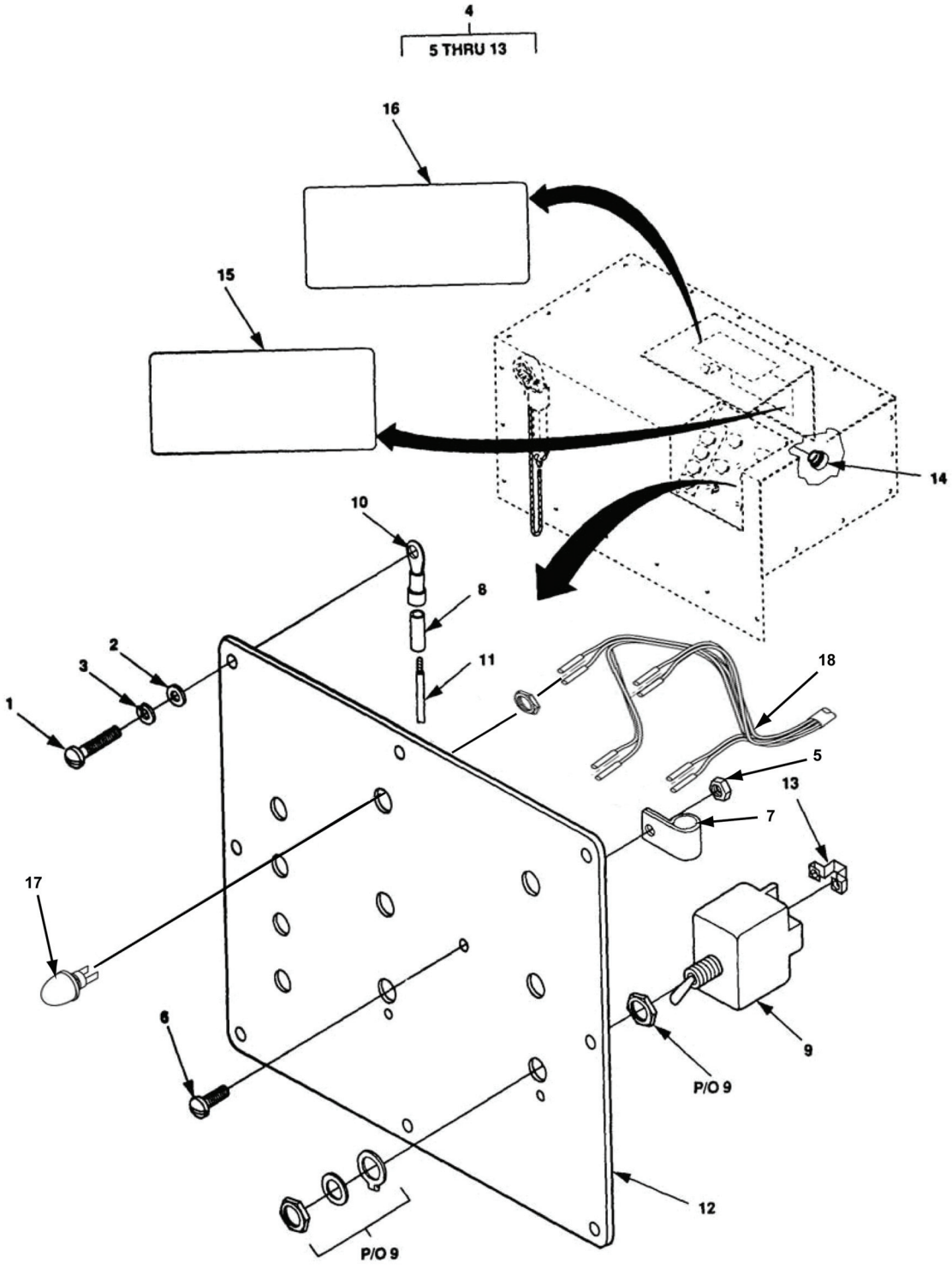


Figure F-7.Control Panel Assembly (A Model).

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 020202 CONTROL PANEL ASSEMBLY	
				FIG. F-7 CONTROL PANEL ASSEMBLY (A MODEL)	
1	PAOZZ	96906	MS51957-45	..SCREW, MACHINE UOC: YHE	8
2	PAOZZ	80205	MS15795-807	..WASHER, FLAT UOC: YHE	8
3	PAOZZ	96906	MS35338-137	..WASHER, LOCK UOC: YHE	8
4	XDFFF	97403	13229E5802-1	..CONTROL PANEL ASSEM UOC: YHE	1
5	PAOZZ	80205	MS21044C08	...NUT, SELF-LOCKING,HE UOC: YHE	1
6	PAOZZ	96906	MS24693-C52	...SCREW, MACHINE UOC: YHE	1
7	PAOZZ	96906	MS21322-33	...CLAMP, LOOP UOC: YHE	1
8	PAOZZ	19099	13229E5802-1-4	...INSULATION, SLEEVING MAKE FROM P/N M23053/5-107-9 (81349), .75 INCH REQUIRED UOC: YHE	16
9	PAOZZ	96906	MS27407-3	...SWITCH, TOGGLE UOC: YHE	2
10	PAOZZ	96906	MS25036-153	...TERMINAL, LUG UOC: YHE	1
11	PAFZZ	19099	13229E5802-1-10	...WIRE, ELECTRICAL MAKE FROM P/N M22759/16-16-9 (81349), 16AWG AS REQUIRED UOC: YHE	1
12	XDOZZ	97403	13229E5805	...PANEL, CONTROL UOC: YHE	1
13	PAOZZ	58536	AA59125/28-TBJA	...BUS, CONDUCTOR UOC: YHE	2
14	PAOZZ	81349	M45938/1-13C	...NUT, PLAIN, CLINCH UOC: YHE	8
15	MDOZZ	97403	13229E5793-1	..LABEL, INSTRUCTION, OPERATING PROCEDURES UOC: YHE	1
16	MDOZZ	97403	13229E5793-2	..LABEL, INSTRUCTION, LOAD TRANSFER PROCEDURES UOC: YHE	1
17	PAOOO	97403	13214E1391	…LIGHT, INDICATOR (SEE FIGURE F-9 FOR PARTS BREAKDOWN) UOC: YHE	8
18	XDFFF	97403	13229E5837	…HARNESS ASSY, W20 (SEE FIGURE F-8 FOR PARTS BREAKDOWN) UOC: YHE	1
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

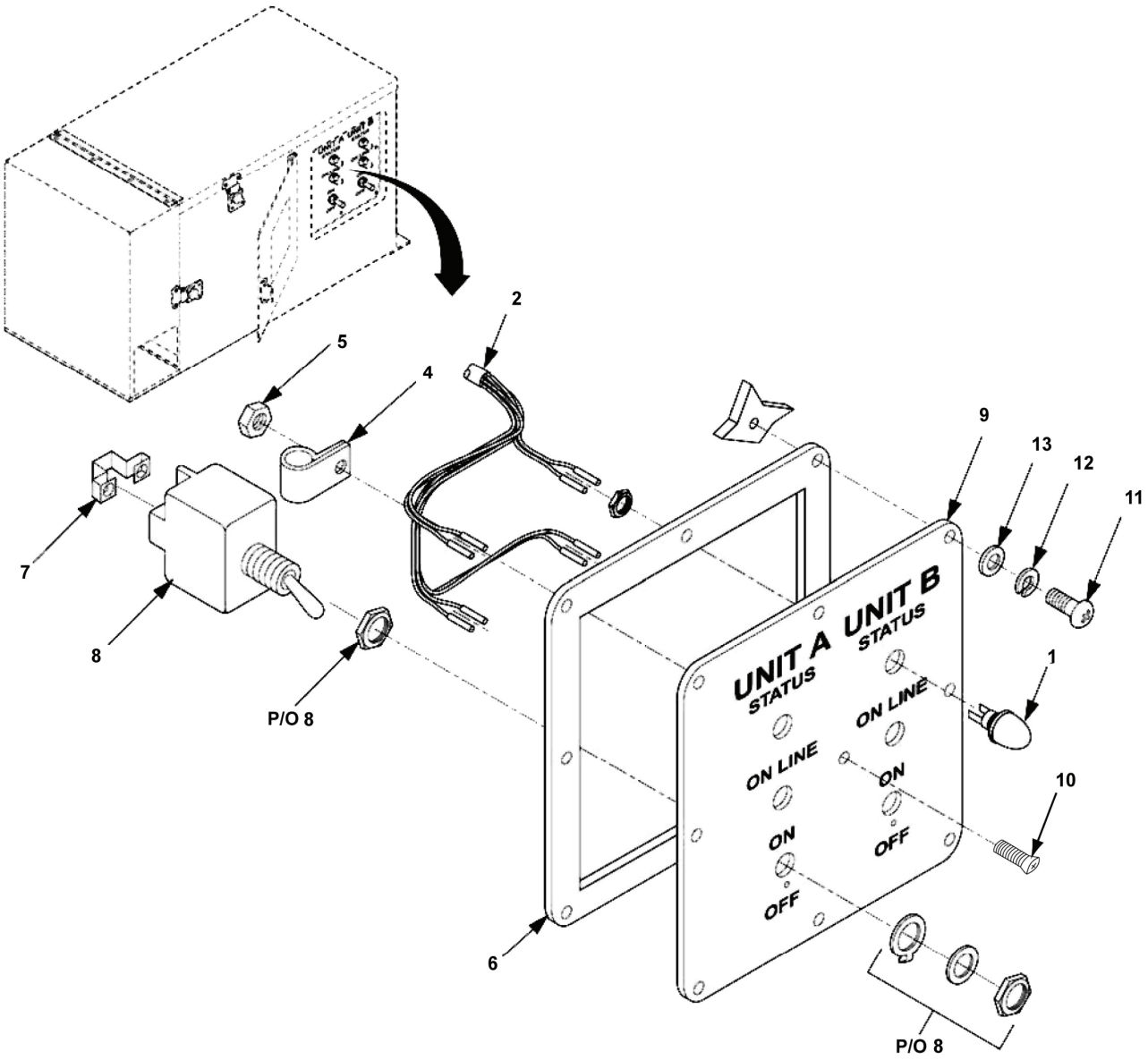
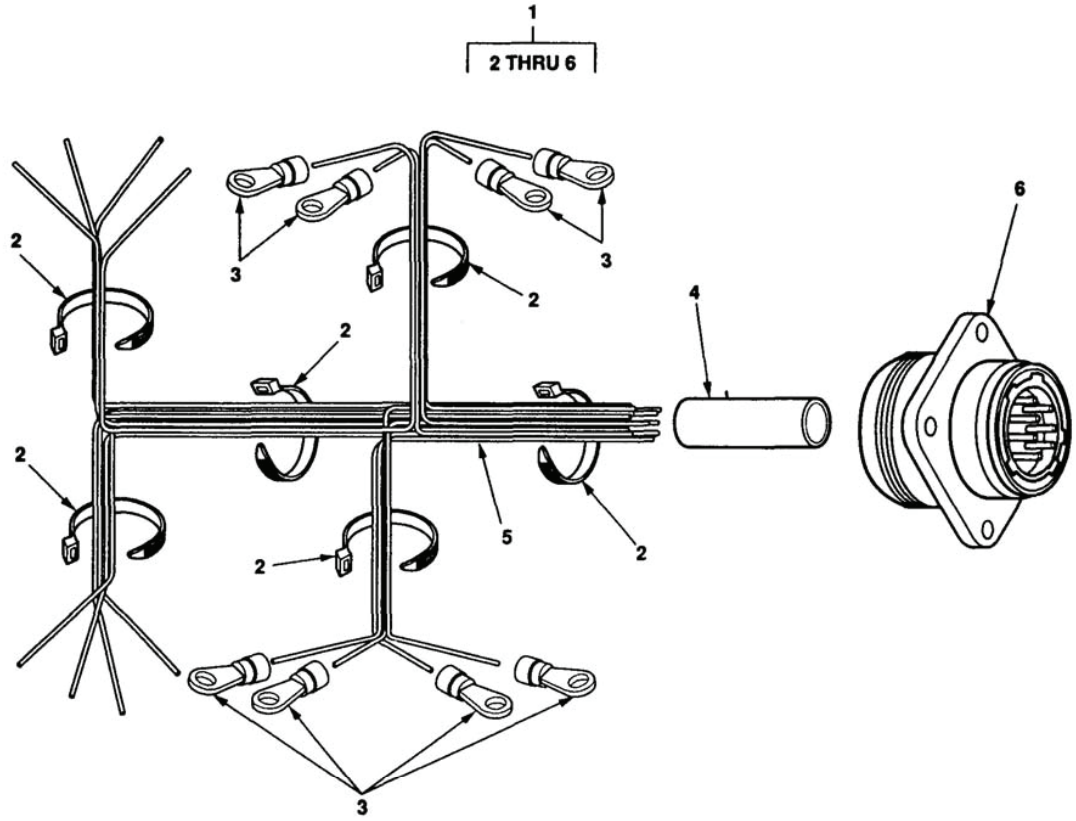


Figure F-7.1. Control Panel Assembly (B&C Models).

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 020202 CONTROL PANEL ASSEMBLY	
				FIG. F-7 CONTROL PANEL ASSEMBLY (B&C MODELS)	
1	PAOOO	97403	13214E1391	.LIGHT, INDICATOR (SEE FIGURE F-9.1 FOR PARTS BREAKDOWN) UOC: YHE, 44E	4
2	MFFFF	97403	13229E5800-1	.HARNESS ASSY, W7 (SEE FIGURE F-15 FOR PARTS BREAKDOWN) UOC: YHE, 44E	REF
3	NOT USED				
4	PAOZZ	96906	MS21322-33	..CLAMP, LOOP UOC: YHE, 44E	1
5	PAOZZ	80205	MS21044C08	..NUT, SELF-LOCKING, HE UOC: YHE, 44E	1
6	MOOZZ	97403	13230E6516	.GASKET, CONTROL PANEL UOC: YHE, 44E	1
7	PAOZZ	58536	AA59125/28-TBJA	..BUS, CONDUCTOR UOC: YHE, 44E	2
8	PAOZZ	96906	MS27407-3	..SWITCH, TOGGLE UOC: YHE, 44E	2
9	XBOZZ	97403	13229E5805	.PANEL, CONTROL UOC: YHE, 44E	1
10	PAOZZ	96906	MS24693-C52	..SCREW, MACHINE UOC: YHE, 44E	1
11	PAOZZ	96906	MS51957-46	..SCREW, MACHINE UOC: YHE, 44E	8
12	PAOZZ	96906	MS35338-137	..WASHER, LOCK UOC: YHE, 44E	8
13	PAOZZ	80205	MS15795-807	..WASHER, FLAT UOC: YHE, 44E	8
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)



WIRE LIST					
WIRE NO.	TERMINATION		TERMINATION		WIRE ITEM NO.
	FROM	ITEM NO.	TO.	ITEM NO.	
1	XDS1-1	—	P3-A	6	5
2	XDS1-2	—	P3-B	6	5
3	XDS3-2	—	P3-C	6	5
4	S1-3	3	P3-D	6	5
5	S1-5	3	P3-F	6	5
6	S1-6	3	P3-G	6	5
7	S2-6	3	P3-H	6	5
8	S2-5	3	P3-I	6	5
9	S2-3	3	P3-K	6	5
10	XDS4-2	—	P3-L	6	5
11	XDS2-1	—	P3-M	6	5
12	XDS2-2	—	P3-N	6	5
13	XDS3-1	—	S1-3	3	5
14	XDS4-1	—	S2-3	3	5

Figure F-8. Harness Assembly, W20 (A Model).

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 02020201 HARNESS ASSEMBLY, W20	
				FIG. F-8 HARNESS ASSEMBLY, W20 (A MODEL)	
1	XDFFF	97403	13229E5837	.HARNESS ASSY, W20 UOC: YHE	REF
2	PAOZZ	96906	MS3367-1-9	..STRAP, TIEDOWN, ELEC UOC: YHE	AR
3	PAOZZ	81343	MS25036-101	..TERMINAL, LUG UOC: YHE	8
4	PAOZZ	19099	13229E5837-3	..INSULATION, SLEEVING MAKE FROM P/N M23053/5-107-9 (81349) 2.5 INCHES REQUIRED UOC: YHE	1
5	PAFZZ	19099	13229E5837-2	..WIRE, ELECTRICAL MAKE FROM P/N M22759/16-20-9 (81349) AS REQUIRED UOC: YHE	1
6	PAFZZ	96906	MS3106R20-27P	..CONNECTOR, PLUG, ELEC UOC: YHE	1
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

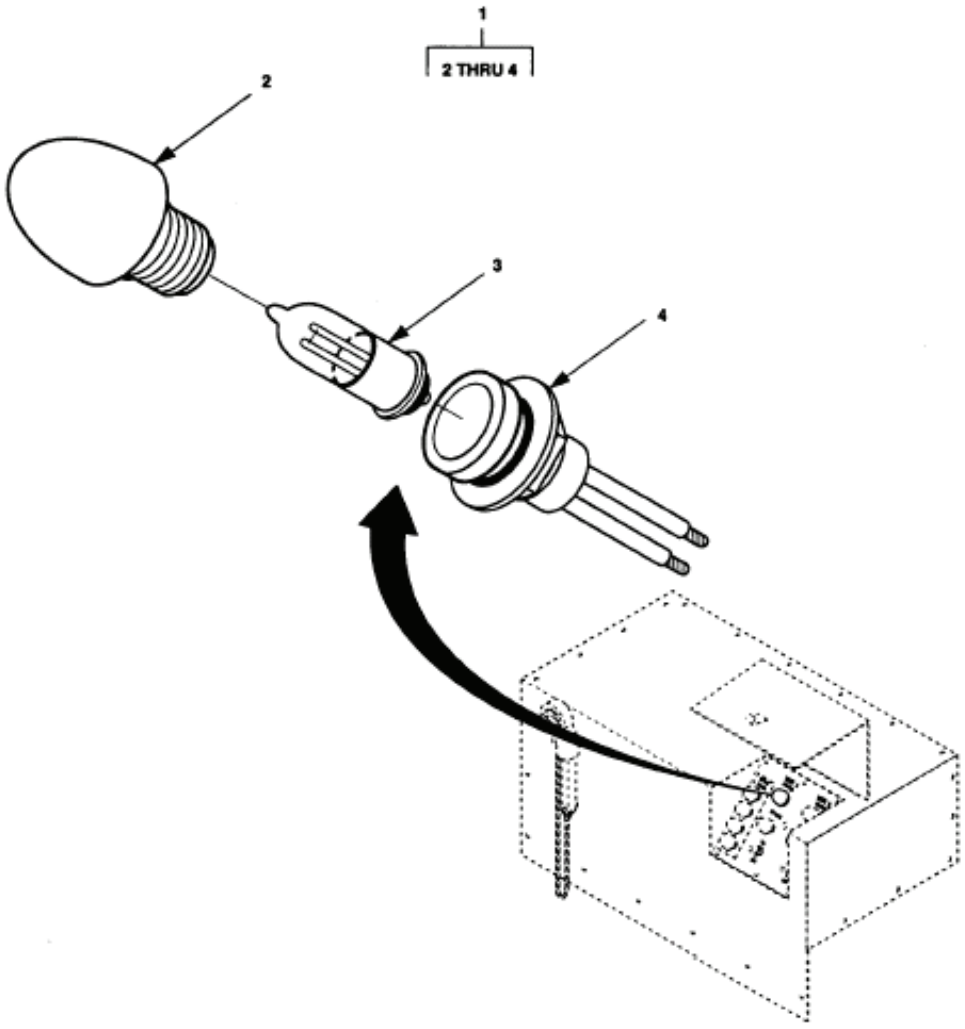


Figure F-9. Light, Indicator (A Model).

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 02020202 LIGHT, INDICATOR	
				FIG. F-9 LIGHT, INDICATOR (A MODEL)	
1	PAOZZ	97403	13214E1391	..LIGHT, INDICATOR UOC: YHE	REF
2	PAOZZ	83330	181-0931-001	..LENS, CLEAR UOC: YHE	1
3	PAOZZ	58224	G9B (GR)	..LAMP UOC: YHE	1
4	PAOZZ	83330	181-8836-09-553	..LIGHT, INDICATOR UOC: YHE	1
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

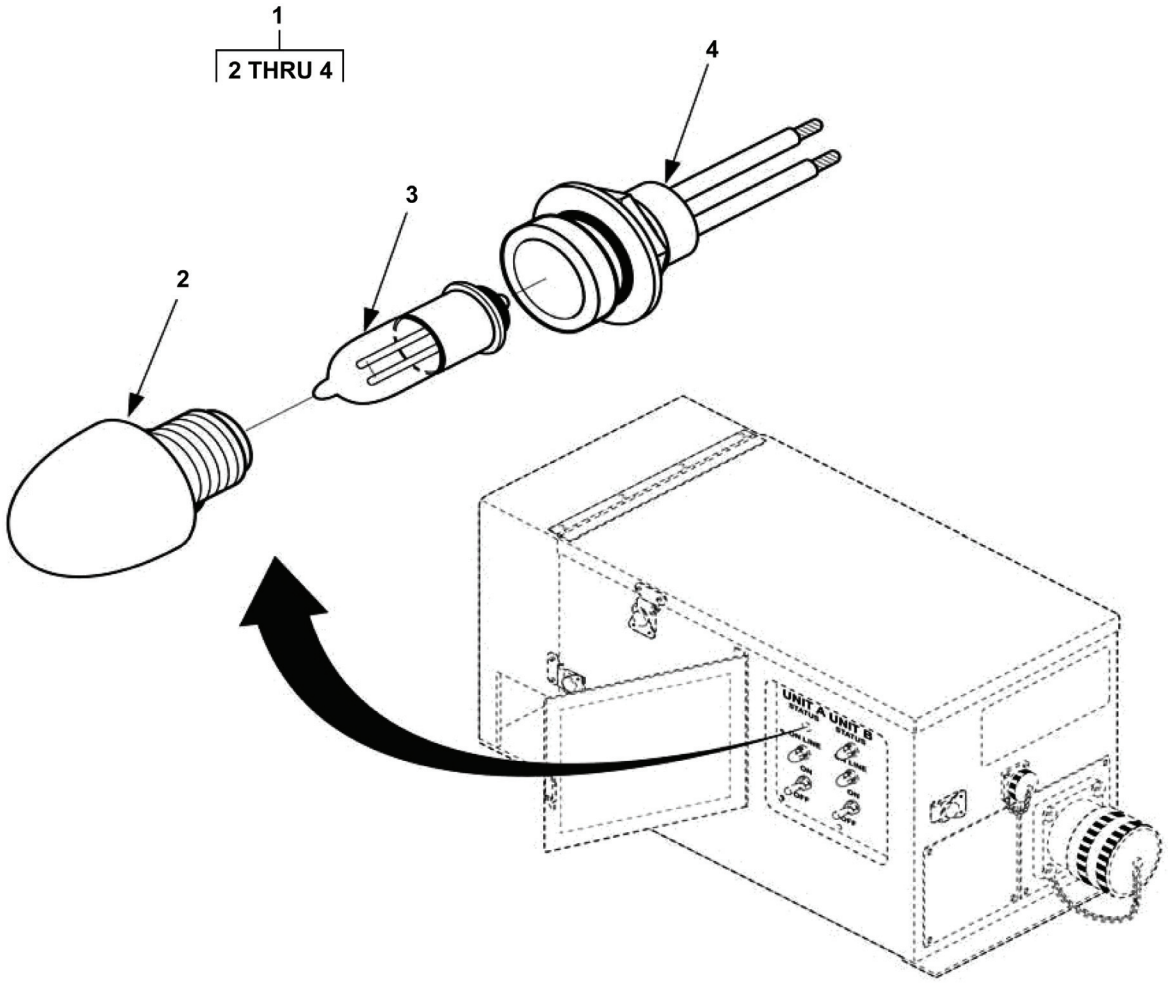


Figure F-9.1. Light, Indicator (B&C Models).

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 02020202 LIGHT,INDICATOR	
				FIG. F-9.1 LIGHT, INDICATOR (B&C MODELS)	
1	PAOZZ	97403	13214E1391	..LIGHT, INDICATOR UOC: YHE, 44E	REF
2	PAOZZ	83330	181-0937-003	..LENS, LIGHT UOC: YHE, 44E	1
3	PAOZZ	08108	6S6AC130V	..LAMP, INCANDESCENT UOC: YHE, 44E	1
4	PAOZZ	83330	181-8836-09-553	..LIGHT, INDICATOR UOC: YHE, 44E	1
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

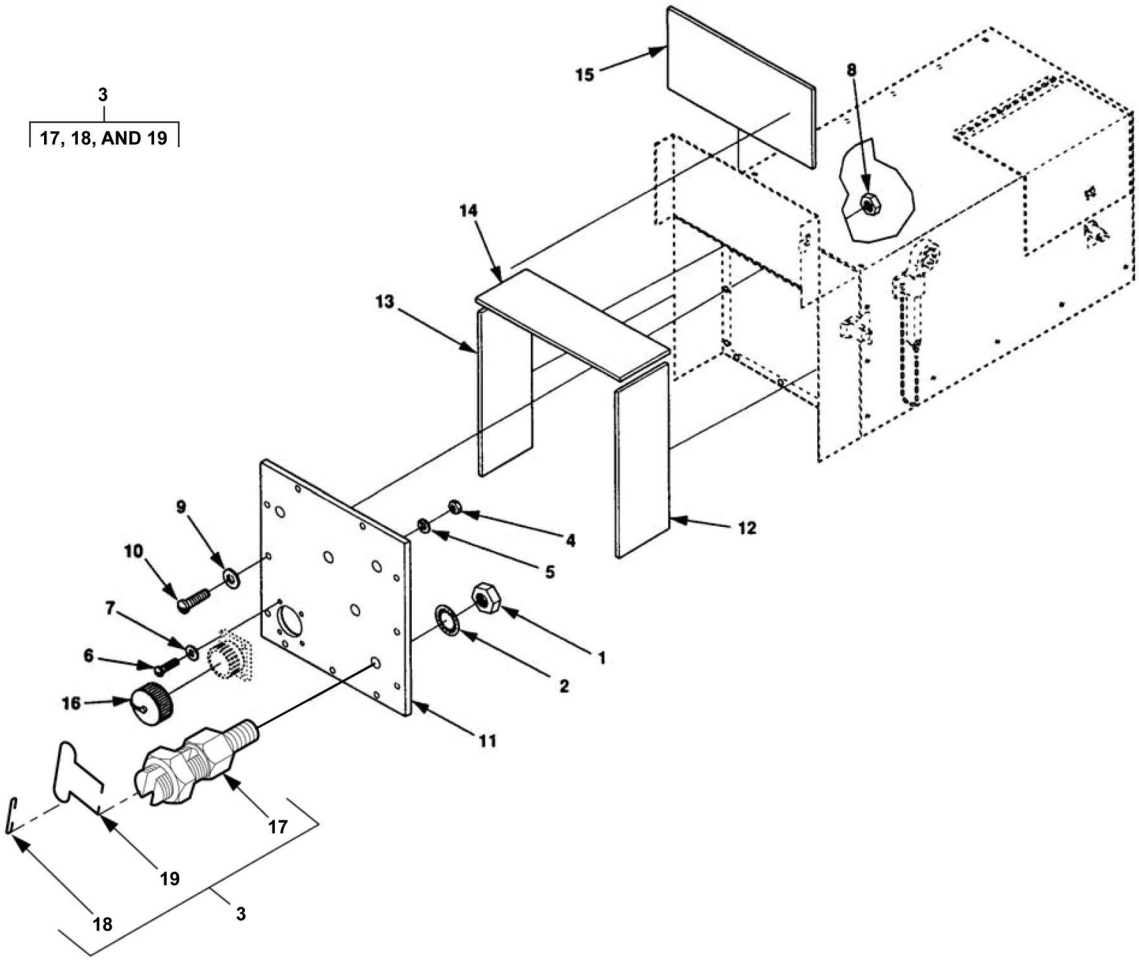


Figure F-10. Terminals, Load (A Model).

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 020203 TERMINALS, LOAD	
				FIG. F-10 TERMINALS, LOAD (A MODEL)	
1	PAOZZ	96906	MS35691-35	..NUT, PLAIN, HEXAGON UOC: YHE	9
2	PAOZZ	96906	MS35333-113	..WASHER, LOCK UOC: YHE	5
3	PAOZZ	96906	MS39347-5	..TERMINAL, STUD UOC: YHE	5
4	PAFZZ	96906	MS35650-3252	..NUT, PLAIN, HEXAGON UOC: YHE	4
5	PAFZZ	96906	MS35338-139	..WASHER, LOCK UOC: YHE	4
6	PAFZZ	96906	MS35207-284	..SCREW, MACHINE UOC: YHE	4
7	PAFZZ	96906	MS15795-852	..WASHER, FLAT UOC: YHE	4
8	PAOZZ	96906	MS51858-4	..NUT, PLAIN, HEXAGON UOC: YHE	11
9	PAOZZ	96906	MS51859-4	..WASHER, FLAT UOC: YHE	11
10	PAOZZ	96906	A-A-55624-68	..SCREW, MACHINE UOC: YHE	11
11	XDOZZ	97403	13229E5807-2	..PLATE, LOAD TERMINAL UOC: YHE	1
12	PAFZZ	19099	13229E5795-2-67	..PLASTIC, SHEET MAKE FROM P/N M24768/2-S-7 (81349) 12.50 X 2.125 INCHES REQUIRED UOC: YHE	1
13	PAFZZ	19099	13229E5795-2-68	..PLASTIC, SHEET MAKE FROM P/N M24768/2-S-7 (81349) 11.38 X 3.75 INCHES REQUIRED UOC: YHE	1
14	PAFZZ	19099	13229E5795-2-69	..PLASTIC, SHEET MAKE FROM P/N M24768/2-S-7 (81349) 3.75 X 12.50 INCHES REQUIRED UOC: YHE	1
15	PAFZZ	19099	13229E5795-2-70	..PLASTIC, SHEET MAKE FROM P/N M24768/2-S-7 (81349) 11.38 X 7.38 INCHES REQUIRED UOC: YHE	1
16	PAFZZ	96906	MS90563-7C	..COVER, ELECTRICAL CO UOC: YHE	1
17	PAOZZ	96906	MS39347-5A	...BODY UOC: YHE	5
18	PAOZZ	19099	MS39347-5B	...BAIL MAKE FROM ASTM A313 (81346), 2.00 INCHES REQUIRED UOC: YHE	5
19	PAOZZ	19099	MS39347-5C	...TERMINAL CLIP MAKE FROM ASTM A313 (81346), 5.75 INCHES REQUIRED UOC: YHE	5
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

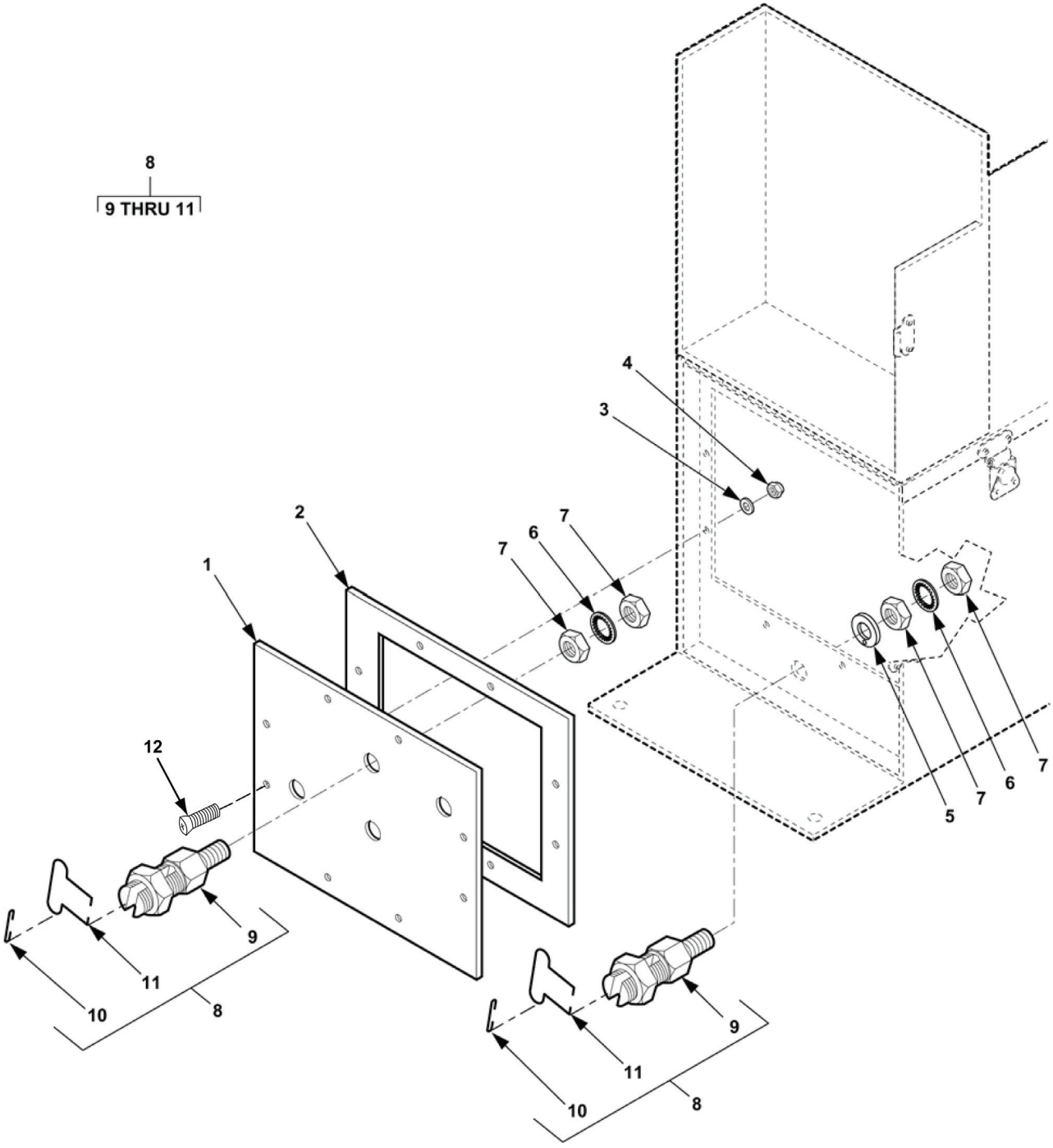
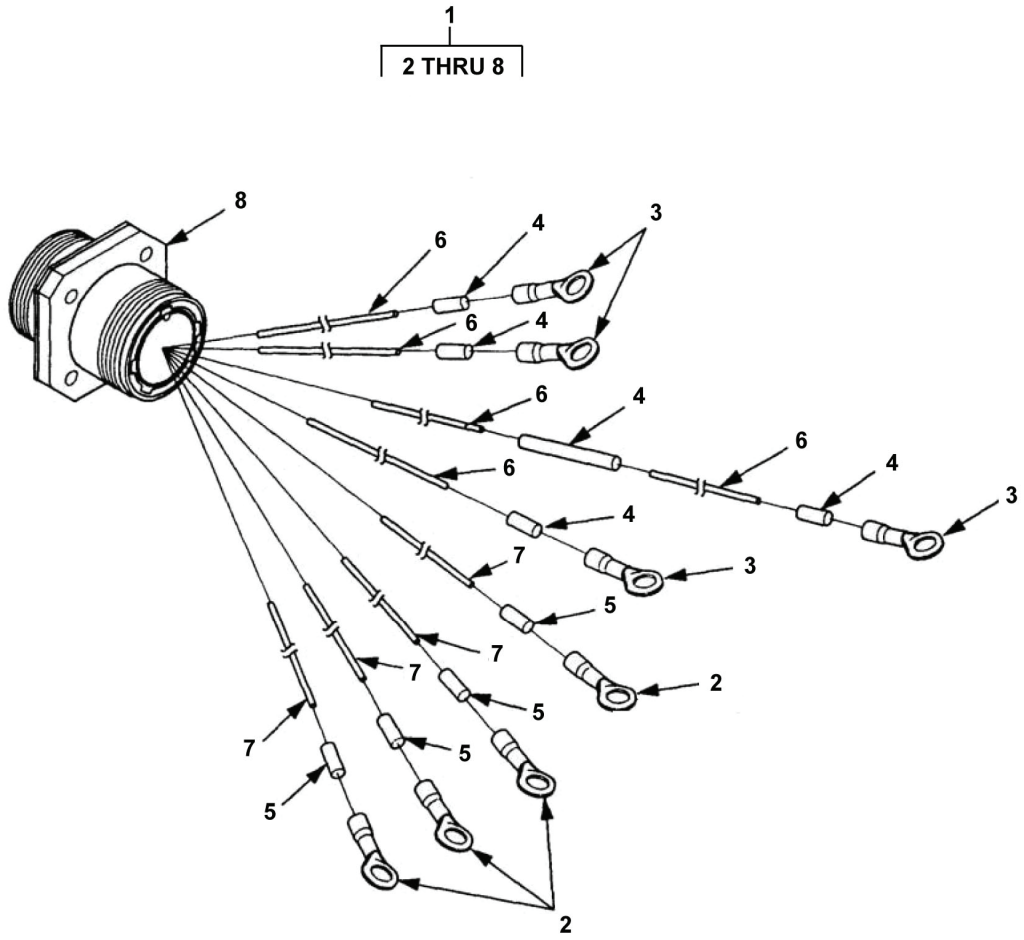


Figure F-10.1. Terminals, Load (B&C Models).

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 020203 TERMINALS, LOAD	
				FIG. F-10.1 TERMINALS, LOAD (B&C MODELS)	
1	XBOZZ	97403	13229E5807-2	.PLATE, LOAD TERMINAL UOC: YHE, 44E	1
2	MFFZZ	97403	13230E6528	..GASKET, LOAD TERMINAL UOC: YHE, 44E	1
3	PAOZZ	30554	88-20033-11C	..WASHER, FLAT UOC: YHE, 44E	8
4	PAOZZ	80205	MS21044C3	..NUT, SELF-LOCKING, HE UOC: YHE, 44E	8
5	XBOZZ	97403	13230E4599-2	..WASHER, LUG CONNECT UOC: YHE, 44E	1
6	PAOZZ	96906	MS35333-113	..WASHER, LOCK UOC: YHE, 44E	5
7	PAOZZ	96906	MS35691-35	..NUT, PLAIN, HEXAGON UOC: YHE, 44E	10
8	PAOZZ	96906	MS39347-5	.TERMINAL, STUD UOC: YHE, 44E	5
9	PAOZZ	96906	MS39347-5A	..BODY UOC: YHE, 44E	5
10	PAOZZ	19099	MS39347-5B	..BAIL MAKE FROM ASTM A313, 2.00 INCHES REQUIRED UOC: YHE, 44E	5
11	PAOZZ	19099	MS39347-5C	..TERMINAL CLIP MAKE FROM ASTM A313, 5.75 INCHES REQUIRED UOC: YHE, 44E	5
12	PAOZZ	96906	MS51960-67	..SCREW, MACHINE UOC: YHE, 44E	8
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)



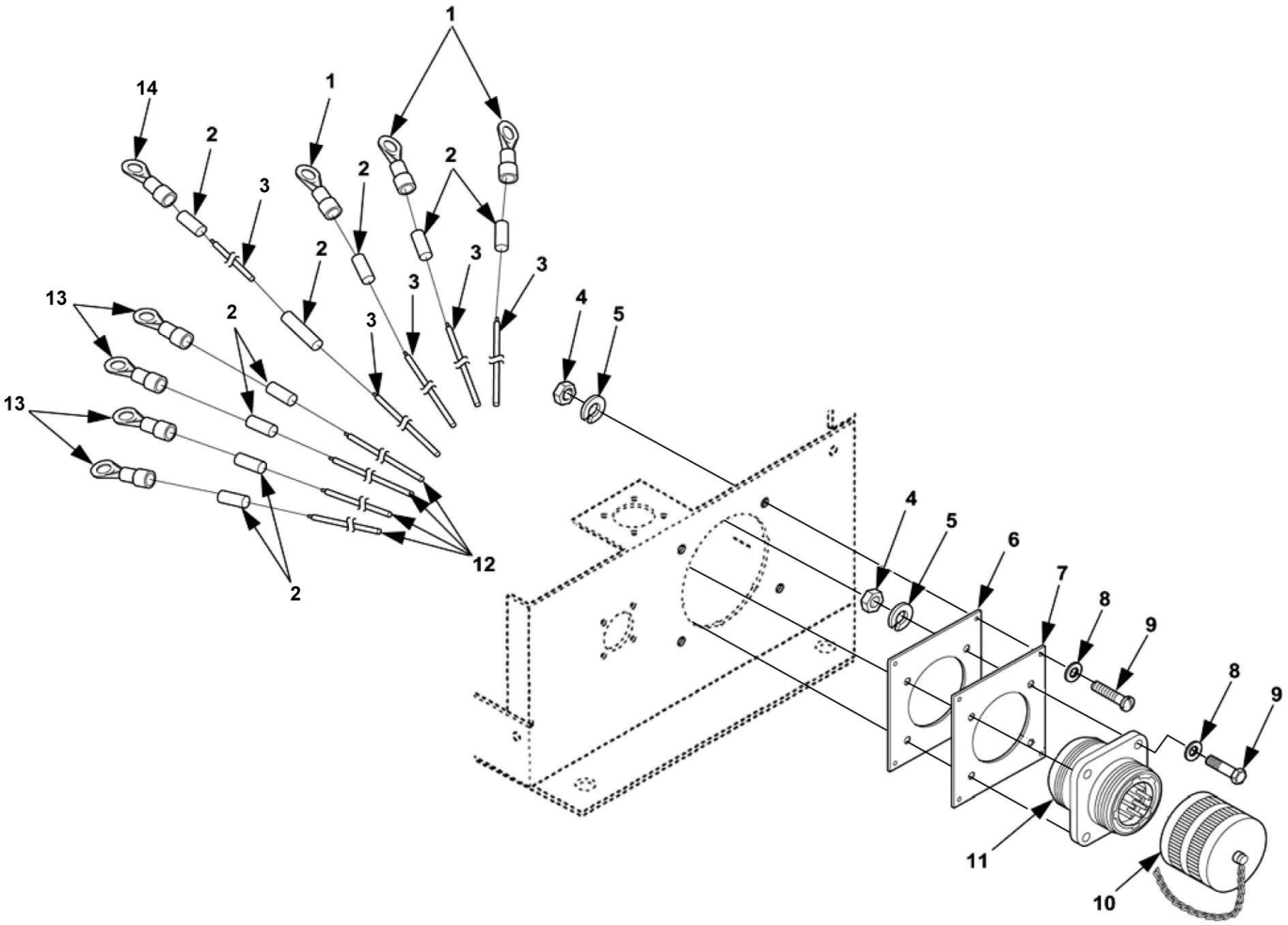
WIRE LIST					
WIRE NO.	TERMINATION		TERMINATION		WIRE ITEM NO.
	FROM	ITEM NO.	TO.	ITEM NO.	
1	J1-A	8	L1	3	7
2	J1-B	8	L2	3	7
3	J1-C	8	L3	3	7
4	J1-N	8	L0	3	7
5	J1-G1	8	GND	2	6
6	J1-G2	8	GND	2	6
7	J1-G3	8	GND	2	6
8	J1-G4	8	GND	2	6

Figure F-11. Wiring Harness, W9 (A Model).

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 020204 LEADS/HARNESSES, W9	
				FIG. F-11 WIRING HARNESS, W9 (A MODEL)	
1	XDFFF	97403	13229E5809-1	..WIRING HARNESS, W9 UOC: YHE	1
2	PAFZZ	96906	MS25036-120	...TERMINAL, LUG UOC: YHE	4
3	PAFZZ	96906	MS25036-131	...TERMINAL, LUG UOC: YHE	4
4	MFFZZ	19099	13229E5809-1-18	...INSULATION SLEEVING MAKE FROM P/N M23053/5-109-4 (81349) 2.5 INCHES REQUIRED UOC: YHE	5
5	MFFZZ	19099	13229E5809-1-16	...INSULATION SLEEVING MAKE FROM P/N M23053/5-108-4 (81349) 2.5 INCHES REQUIRED UOC: YHE	4
6	MFFZZ	19099	13229E5809-1-7	...WIRE, ELECTRICAL MAKE FROM P/N M5086/2-6-9 (81349) AS REQUIRED UOC: YHE	4
7	MFFZZ	19099	13229E5809-1-6	...WIRE, ELECTRICAL MAKE FROM P/N M5086/2-1-9 (81349) AS REQUIRED UOC: YHE	4
8	PAFZZ	96906	MS90555C44413S	...CONNECTOR, RECEPTACLE UOC: YHE	1
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)



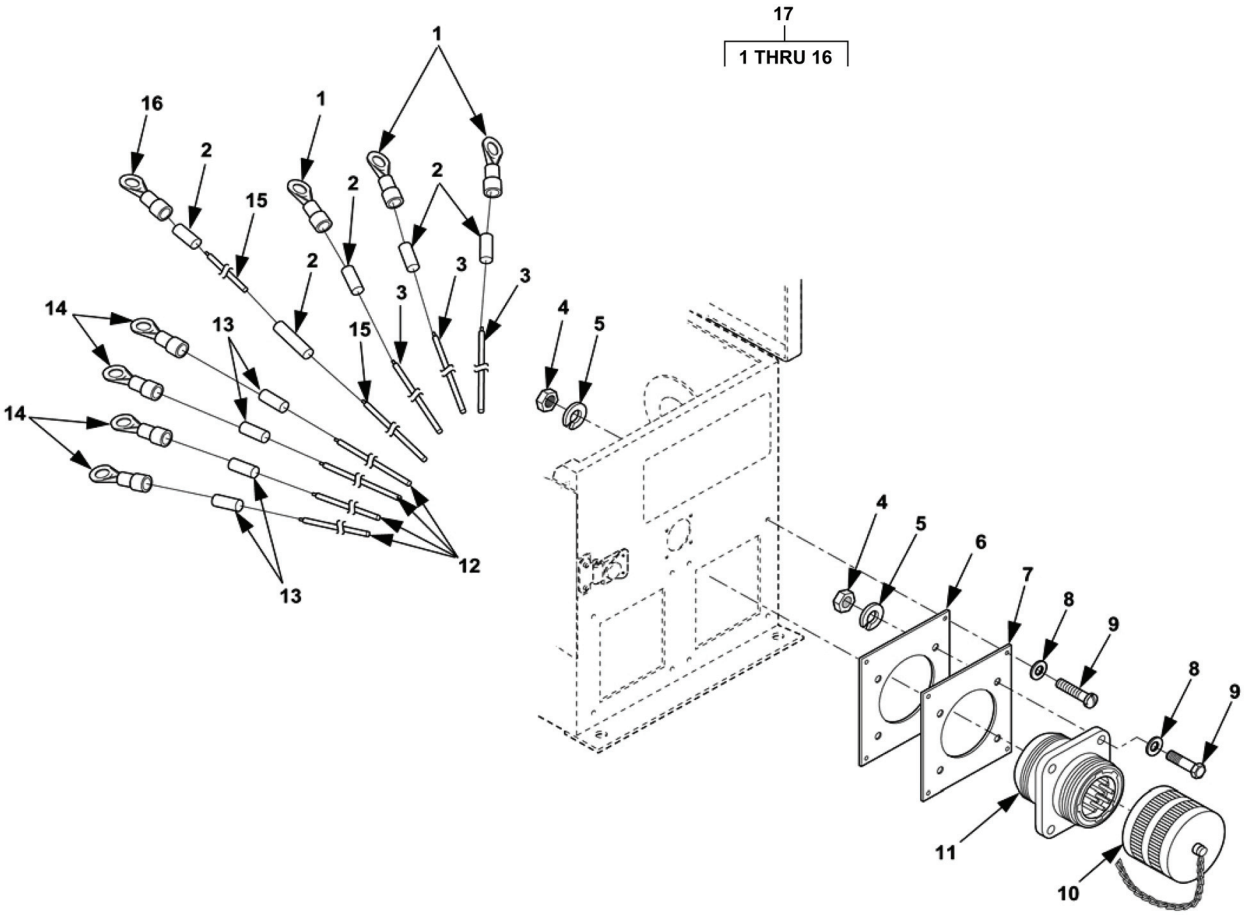
WIRE LIST					
WIRE NO.	TERMINATION		TERMINATION		WIRE ITEM NO.
	FROM	ITEM NO.	TO.	ITEM NO.	
1	J2-A	11	K2-A1	1	3
2	J2-B	11	K2-B1	1	3
3	J2-C	11	K2-C1	1	3
4	J2-N	11	L0	14	3
5	J2-G1	11	BUS BAR	13	12
6	J2-G2	11	BUS BAR	13	12
7	J2-G3	11	BUS BAR	13	12
8	J2-G4	11	BUS BAR	13	12

Figure F-12. Wiring Harness, W10 (A Model).

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 020205 LEADS/HARNESSES, W10	
				FIG. F-12 WIRING HARNESS, W10 (A MODEL)	
1	PAFZZ	96906	MS25036-125	..TERMINAL, LUG UOC: YHE	3
2	PAOZZ	19099	M23053/5-108-4	..INSULATION SLEEVING MAKE FROM P/N M23053/5-108-4 (81349) 2.5 INCHES REQUIRED UOC: YHE	9
3	PAFZZ	19099	M5086/2-4-9	..WIRE, ELECTRICAL MAKE FROM P/N M5086/2-4-9 (81349) AS REQUIRED UOC: YHE	4
4	PAOZZ	80205	MS35650-3254	..NUT, PLAIN, HEXAGON UOC: YHE	8
5	PAOZZ	96906	MS35338-139	..WASHER, LOCK UOC: YHE	8
6	MFFZZ	97403	13229E5815	..GASKET, CONNECTOR, PL UOC: YHE	1
7	XBFZZ	97403	13229E5788-1	..PLATE, CONNECTOR, MOUNT UOC: YHE	1
8	PAOZZ	80205	MS15795-852	..WASHER, FLAT UOC: YHE	8
9	PAOZZ	96906	MS51957-83	..SCREW, MACHINE UOC: YHE	8
10	PAFZZ	96906	MS90564-7C	..COVER, ELECTRICAL CO UOC: YHE	1
11	PAFZZ	96906	MS90558C44413P	..CONNECTOR, RECEPTACLE UOC: YHE	1
12	PAFZZ	19099	M5086/2-6-9	..WIRE, ELECTRICAL MAKE FROM P/N M5086/2-6-9 (81349) AS REQUIRED UOC: YHE	4
13	PAFZZ	96906	MS25036-120	..TERMINAL, LUG UOC: YHE	4
14	PAFZZ	96906	MS20659-145	..TERMINAL, LUG UOC: YHE	1
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)



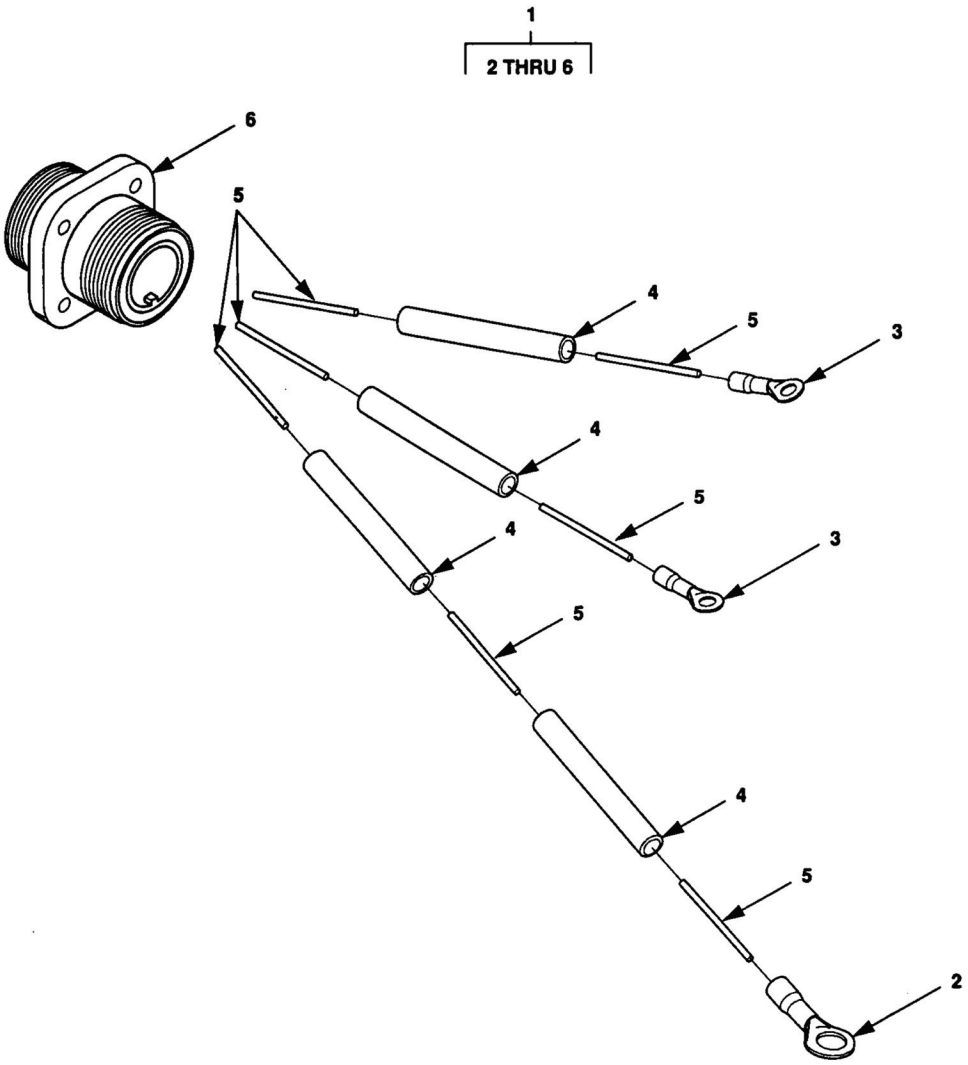
WIRE LIST					
WIRE NO.	TERMINATION		TERMINATION		WIRE ITEM NO.
	FROM	ITEM NO.	TO.	ITEM NO.	
1	J2-A	11	K2-A1	1	3
2	J2-B	11	K2-B1	1	3
3	J2-C	11	K2-C1	1	3
4	J2-N	11	N	16	15
5	J2-G1	11	GND2	14	12
6	J2-G2	11	GND2	14	12
7	J2-G3	11	GND2	14	12
8	J2-G4	11	GND2	14	12

Figure F-12.1. Wiring Harness, W10 (B&C Models).

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 020205 LEADS/HARNESSES, W10	
				FIG. F-12.1 WIRING HARNESS, W10 (B&C MODELS)	
1	PAFZZ	96906	MS25036-130	..TERMINAL, LUG UOC: YHE, 44E	3
2	PAOZZ	19099	13229E5809-2-16	..INSULATION SLEEVING MAKE FROM P/N M23053/5-109-9 (81349) 2.5 INCHES REQUIRED UOC: YHE, 44E	5
3	PAFZZ	19099	13229E5809-2-6	..WIRE, ELECTRICAL MAKE FROM P/N M22759/16-1-9 (81349) 14.5 INCHES REQUIRED UOC: YHE, 44E	3
4	PAOZZ	80205	MS35650-3254	..NUT, PLAIN, HEXAGON UOC: YHE, 44E	8
5	PAOZZ	96906	MS35338-139	..WASHER, LOCK UOC: YHE, 44E	8
6	MFFZZ	97403	13229E5815	..GASKET, CONNECTOR, PL UOC: YHE, 44E	1
7	XBFZZ	97403	13229E5788-2	..PLATE, CONNECTOR, MOUNT UOC: YHE, 44E	1
8	PAOZZ	80205	MS15795-852	..WASHER, FLAT UOC: YHE, 44E	8
9	PAOZZ	96906	MS51957-83	..SCREW, MACHINE UOC: YHE, 44E	8
10	PAFZZ	96906	MS90564-7C	..COVER, ELECTRICAL CO UOC: YHE, 44E	1
11	PAFZZ	96906	MS90558C44413P	..CONNECTOR, RECEPTACLE UOC: YHE, 44E	1
12	PAFZZ	19099	13229E5809-2-7	..WIRE, ELECTRICAL MAKE FROM P/N M22759/16-6-9 (81349) 22.5 INCHES REQUIRED UOC: YHE, 44E	4
13	PAOZZ	19099	13229E5809-2-18	..INSULATION SLEEVING (MAKE FROM P/N M23053/5-108-9 (81349) 2.5 INCHES REQUIRED UOC: YHE, 44E	4
14	PAFZZ	96906	MS25036-122	..TERMINAL, LUG UOC: YHE, 44E	4
15	PAFZZ	19099	13229E5809-2-6	..WIRE, ELECTRICAL MAKE FROM P/N M22759/16-1-9 (81349) 28 INCHES REQUIRED UOC: YHE, 44E	1
16	PAFZZ	96906	MS25036-131	..TERMINAL, LUG UOC: YHE, 44E	1
17	XDFFF	97403	13229E5809-2	.WIRING HARNESS, W10 UOC: YHE, 44E	REF
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)



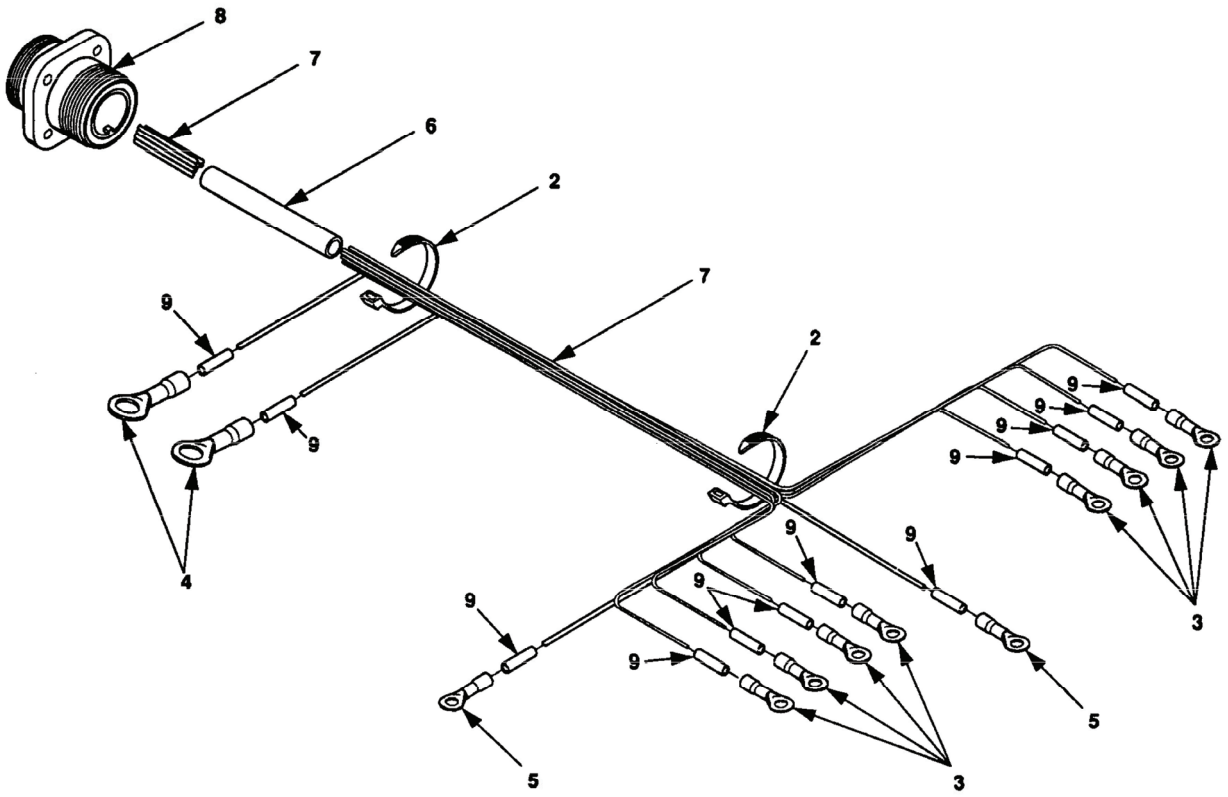
WIRE LIST					
WIRE NO.	TERMINATION		TERMINATION		WIRE ITEM NO.
	FROM	ITEM NO.	TO.	ITEM NO.	
1	J3-A	6	K2-12	3	5
2	J3-B	6	K2-Y	3	5
3(A MODEL)	J3-E	6	BUS BAR	2	5
3(B&C MODELS)	J3-E	6	GND2	2	5

Figure F-13. Wiring Harness, Power, W17.

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 020206 LEADS/HARNESSES, W17	
				FIG. F-13 WIRING HARNESS, POWER, W17	
1	XDFFF	97403	13229E5806-1	..WIRING HARNESS, POWER, W17 UOC: YHE, 44E	REF
2	PAFZZ	96906	MS25036-154	...TERMINAL, LUG UOC: YHE, 44E	1
3	PAFZZ	96906	MS25036-107	...TERMINAL, LUG UOC: YHE, 44E	2
4	PAOZZ	19099	13229E5806-1-5	...INSULATION SLEEVING MAKE FROM P/N M23053/5-104-9 (81349) 2.00 INCHES REQUIRED UOC: YHE, 44E	4
5	PAFZZ	19099	13229E5806-1-2	...WIRE, ELECTRICAL MAKE FROM P/N M22759/16-16-9 (81349) AS REQUIRED UOC: YHE, 44E	3
6	PAFZZ	96906	MS3102R18-11P	...CONNECTOR, RECEPTACLE UOC: YHE, 44E	1
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)



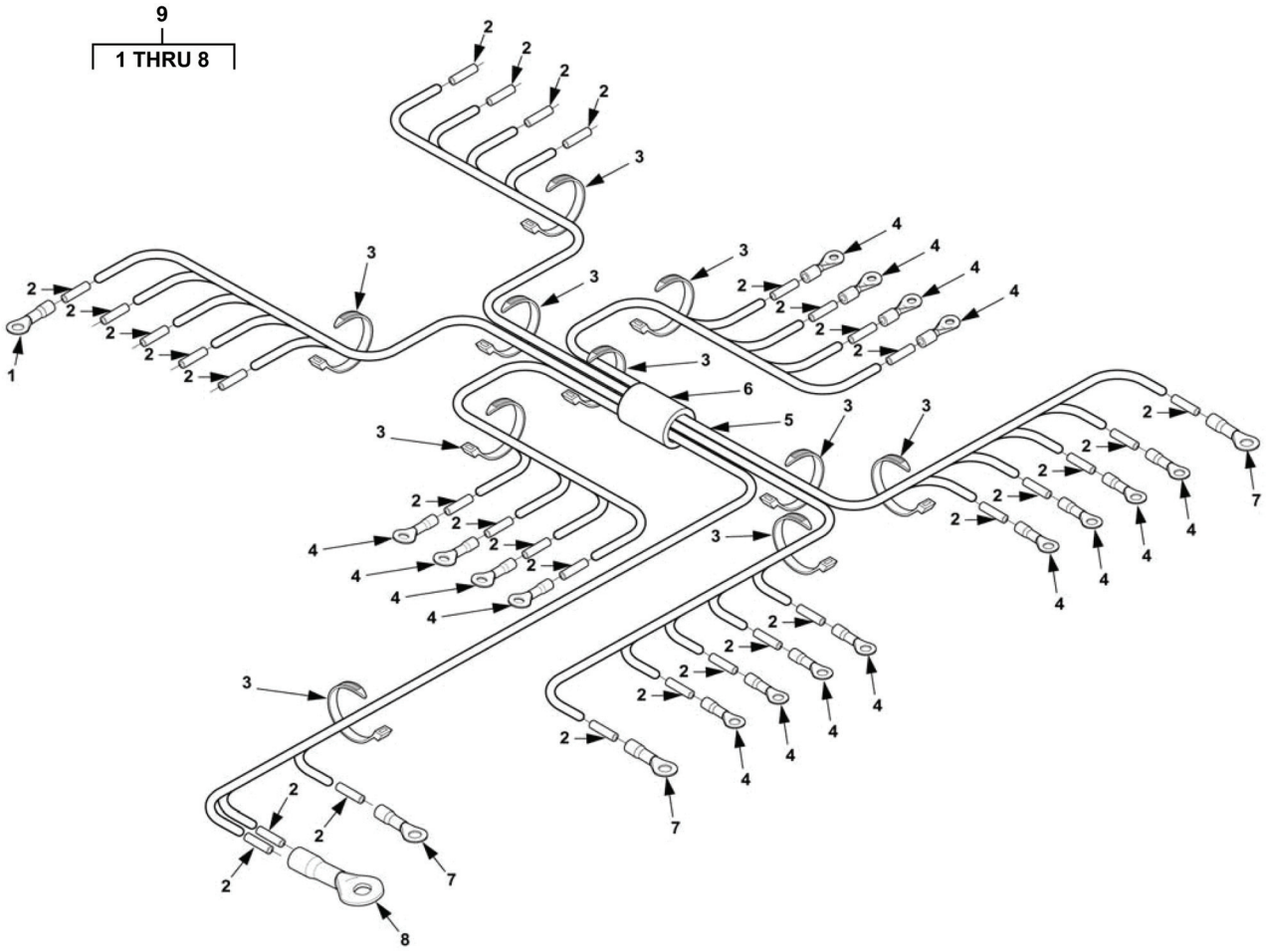
WIRE LIST					
WIRE NO.	TERMINATION		TERMINATION		WIRE ITEM NO.
	FROM	ITEM NO.	TO.	ITEM NO.	
1	J4-A	8	K1-A1	5	7
2	J4-B	8	L0	4	7
3	J4-C	8	K1-Y	3	7
4	J4-D	8	K1-X	3	7
5	J4-F	8	K1-11	3	7
6	J4-G	8	K1-12	3	7
7	J4-H	8	K2-12	3	7
8	J4-I	8	K2-11	3	7
9	J4-K	8	K2-X	3	7
10	J4-L	8	K2-Y	3	7
11	J4-M	8	K2-A1	5	7
12	J4-N	8	L0	4	7

Figure F-14. Wiring Harness, W7 (A Model).

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 020207 LEADS/HARNESSES, W7	
				FIG. F-14 WIRING HARNESS, W7 (A MODEL)	
1	NOT USED				
2	PAFZZ	96906	MS3367-1-9	...STRAP, TIEDOWN, ELECT UOC: YHE	V
3	PAFZZ	96906	MS25036-106	...TERMINAL, LUG UOC: YHE	8
4	PAFZZ	96906	MS25036-155	...TERMINAL, LUG UOC: YHE	2
5	PAFZZ	96906	MS25036-110	...TERMINAL, LUG UOC: YHE	2
6	PAOZZ	19099	M23053/5-108-4	...INSULATION SLEEVING MAKE FROM P/N M23053/5-108-4 (81349) 2.5 INCHES REQUIRED UOC: YHE	1
7	PAFZZ	819099	M22759/16-18-9	...WIRE, ELECTRICAL MAKE FROM P/N M22759/16-18-9 (81349) AS REQUIRED UOC: YHE	1
8	PAFZZ	96906	MS3100R20-27S	...CONNECTOR, RECEPTACLE UOC: YHE	1
9	PAOZZ	19099	M23053/5-105-4	...INSULATION SLEEVING MAKE FROM P/N M23053/5-105-4 (81349) AS REQUIRED UOC: YHE	12
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)



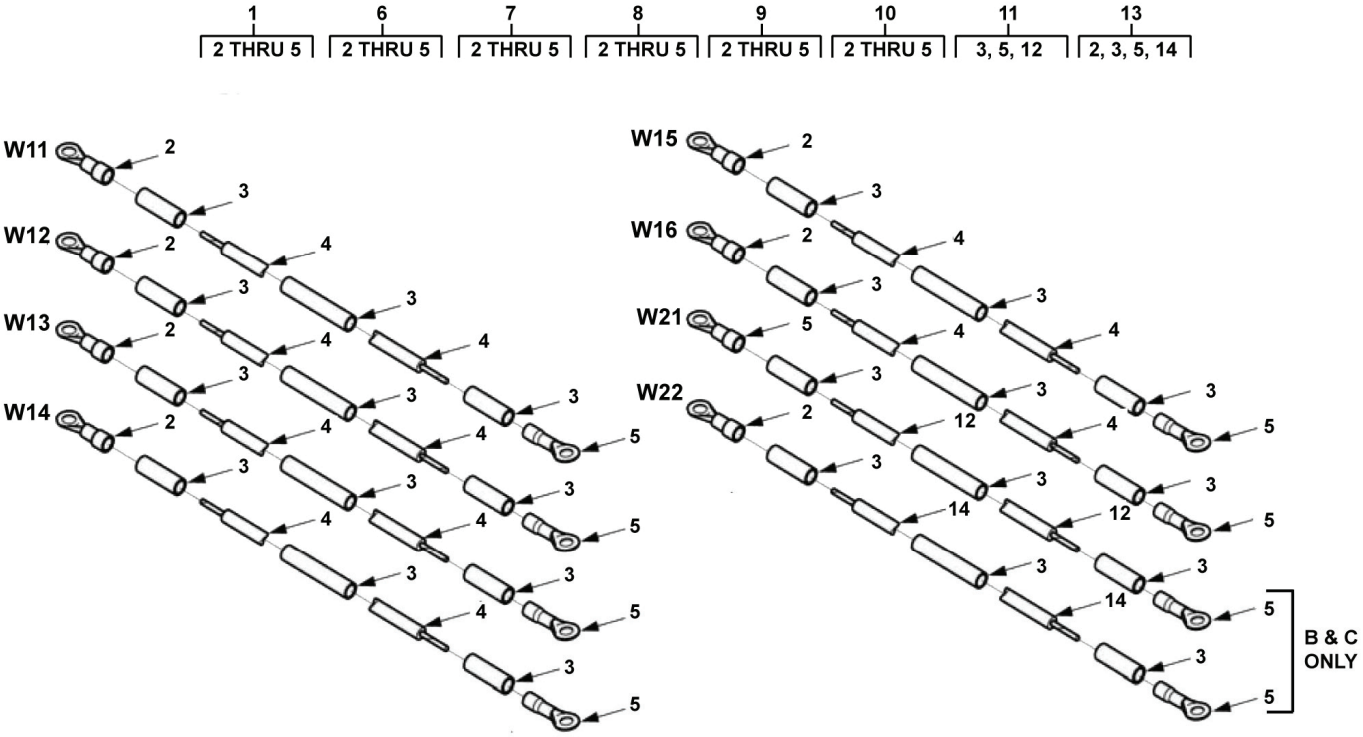
WIRE LIST						
WIRE NO.	TERMINATION		TERMINATION		WIRE ITEM NO.	REMARKS
	FROM	ITEM NO.	TO.	ITEM NO.		
1	XDS1-1	—	K1-A1	7	5	
2	XDS1-2	—	N	8	5	
3	XDS3-2	—	K1-Y	4	5	
4	S1-3	4	K1-X	4	5	
5	S1-5	4	K1-11	4	5	
6	S1-6	4	K1-12	4	5	
7	S2-6	4	K2-12	4	5	
8	S2-5	4	K2-11	4	5	
9	S2-3	4	K2-X	4	5	
10	XDS4-2	—	K2-Y	4	5	
11	XDS2-1	—	K2-A1	7	5	
12	XDS2-2	—	N	8	5	
13	XDS3-1	—	S1-3	4	5	
14	XDS4-1	—	S2-3	4	5	
15	GND	1	GND1	7	5	

Figure F-15. Wiring Harness, W7 (B&C Models).

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 020207 LEADS/HARNESSES, W7	
				FIG. F-15 WIRING HARNESS, W7 (B&C MODELS)	
1	PAFZZ	14726	R4268F	..TERMINAL, LUG UOC: YHE, 44E	1
2	PAOZZ	19099	13229E5800-1-10	..INSULATION SLEEVING MAKE FROM P/N M23053/5-105-9 (81349) AS REQUIRED UOC: YHE, 44E	30
3	PAFZZ	81343	MS3367-1-9	..STRAP, TIEDOWN, ELECT UOC: YHE, 44E	V
4	PAOZZ	81343	MS25036-101	..TERMINAL, LUG UOC: YHE, 44E	16
5	PAFZZ	19099	13229E5800-1-2	..WIRE, ELECTRICAL MAKE FROM P/N M22759/16-18-9 (81349) AS REQUIRED UOC: YHE, 44E	15
6	PAOZZ	19099	13229E5800-1-6	..INSULATION SLEEVING MAKE FROM P/N M23053/5-110-9 (81349) 2.5 INCHES REQUIRED UOC: YHE, 44E	1
7	PAFZZ	14726	R4152F	..TERMINAL, LUG UOC: YHE, 44E	3
8	PAFZZ	56501	RB14-12	..TERMINAL, LUG UOC: YHE, 44E	1
9	XDFFF	97403	13229E5800-1	.WIRING HARNESS, W7 UOC: YHE, 44E	REF
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)



WIRE LIST						
		TERMINATION		TERMINATION		WIRE ITEM NO.
WIRE NO.	REF. DES.	FROM	ITEM NO.	TO.	ITEM NO.	
1	W11	K1-A2	5	L1	2	4
6	W12	K1-B2	5	L2	2	4
7	W13	K1-C2	5	L3	2	4
8	W14	K2-A2	5	L1	2	4
9	W15	K2-B2	5	L2	2	4
10	W16	K2-C2	5	L3	2	4
11	W21	GND-2	5	GND-1	5	12
13	W22	GND-1	5	GND	2	14

Figure F-16. Electrical Lead, W11 –W16, W21, W22.

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 020208 LEADS/HARNESSES, W11-16, W21, W22	
				FIG. F-16 ELECTRICAL LEAD, W11-16, W21, W22	
1	AFFFF	97403	13229E5810-4	.LEAD, ELECTRICAL, W11 UOC: YHE, 44E	1
2	PAFZZ	96906	MS25036-131	..TERMINAL, LUG STUD SIZE .500 UOC: YHE, 44E	7
3	PAOZZ	19099	M23053/5-109-0	..INSULATION SLEEVING MAKE FROM P/N M23053/5-109-0 (81349) AS REQUIRED UOC: YHE, 44E	24
4	PAFZZ	19099	M22759/16-1-9	..WIRE, ELECTRICAL MAKE FROM P/N M22759/16-1-9 (81349) 12.5 INCHES REQUIRED UOC: YHE, 44E	6
5	PAFZZ	96906	MS25036-130	..TERMINAL, LUG STUD SIZE .375 UOC: YHE, 44E	9
6	AFFFF	97403	13229E5810-5	.LEAD, ELECTRICAL, W12 UOC: YHE, 44E	1
7	AFFFF	97403	13229E5810-6	.LEAD, ELECTRICAL, W13 UOC: YHE, 44E	1
8	AFFFF	97403	13229E5810-14	.LEAD, ELECTRICAL, W14 UOC: YHE, 44E	1
9	AFFFF	97403	13229E5810-15	.LEAD, ELECTRICAL, W15 UOC: YHE, 44E	1
10	AFFFF	97403	13229E5810-16	.LEAD, ELECTRICAL, W16 UOC: YHE, 44E	1
11	AFFFF	97403	13229E5810-24	.LEAD, ELECTRICAL, W21 UOC: YHE, 44E	1
12	PAFZZ	19099	M22759/16-1-9	..WIRE, ELECTRICAL MAKE FROM P/N M22759/16-1-9 (81349) 6.88 INCHES REQUIRED UOC: YHE, 44E	1
13	AFFFF	97403	13229E5810-22	.LEAD, ELECTRICAL, W22 UOC: YHE, 44E	1
14	PAFZZ	19099	M22759/16-1-9	..WIRE, ELECTRICAL MAKE FROM P/N M22759/16-1-9 (81349) 9.5 INCHES REQUIRED UOC: YHE, 44E	1
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

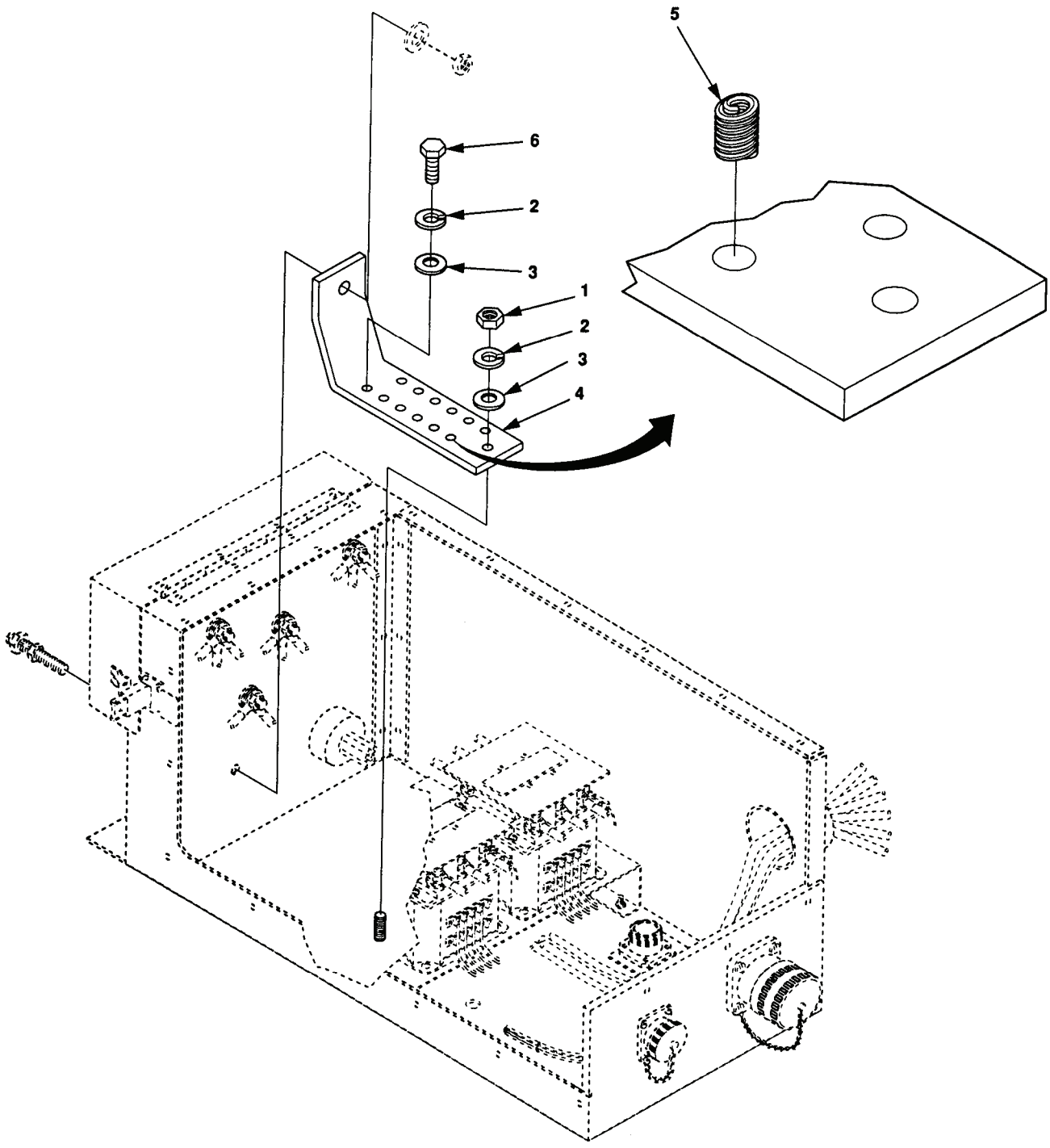


Figure F-17 Bus Bar (A Model).

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 020209 BUS BAR	
				FIG. F-17 BUS BAR (A MODEL)	
1	PAFZZ	80205	MS35649-2254	..NUT, PLAIN, HEXAGON UOC: YHE	1
2	PAFZZ	96906	MS35338-139	..WASHER, LOCK UOC: YHE	6
3	PAFZZ	80205	MS15795-852	..WASHER, FLAT UOC: YHE	6
4	XDFFF	97403	13229E5816-1	..BUS BAR, GROUNDING UOC: YHE	1
5	PAFZZ	96906	MS124696	...INSERT, SCREW THREAD, .250-28, .375 NOM LENGTH UOC: YHE	12
6	PAFZZ	80205	MS35308-3	..SCREW, CAP, HEXAGON UOC: YHE	5

END OF FIGURE

SECTION II. REPAIR PARTS LIST (CONTINUED)

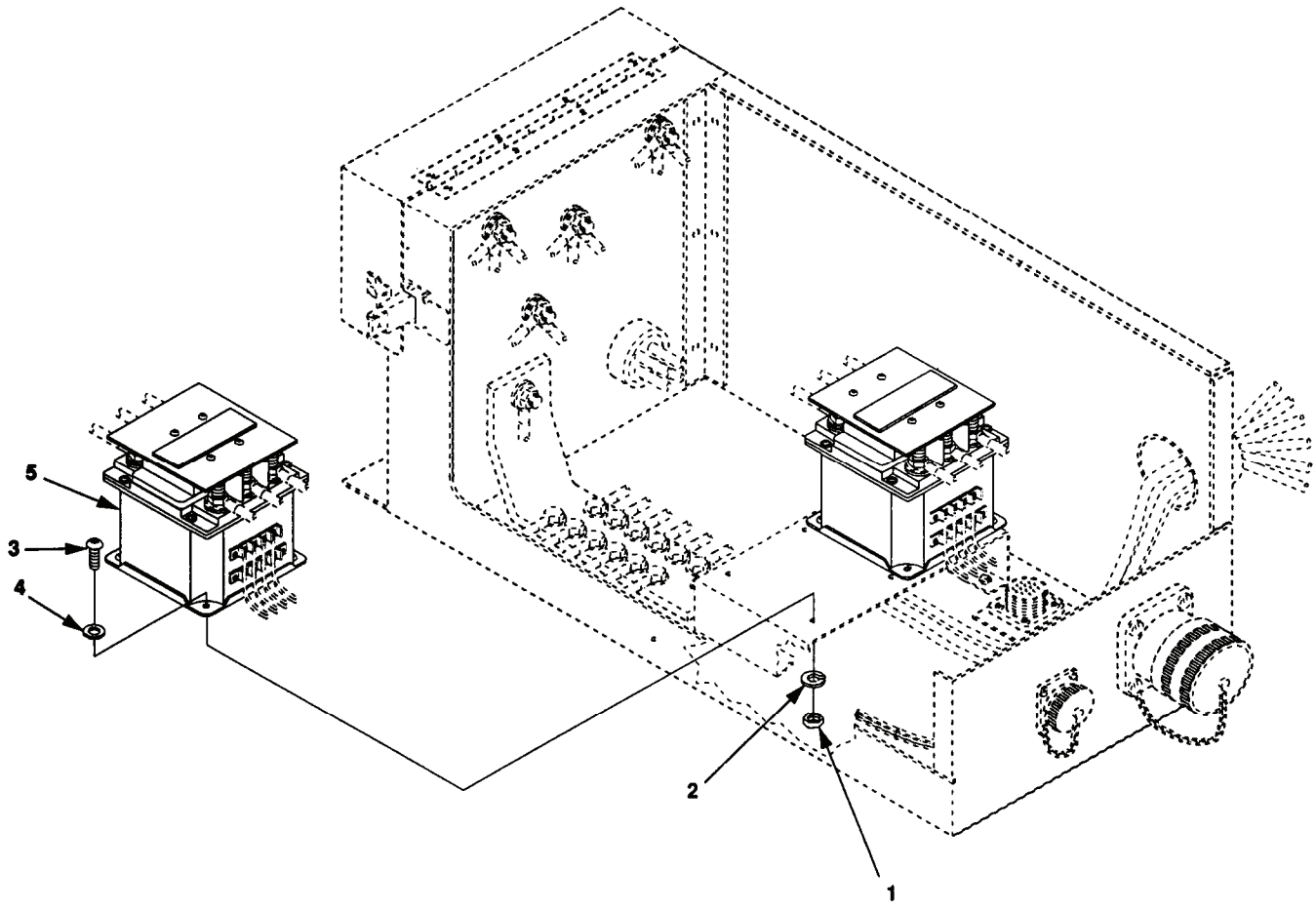


Figure F-18. Contactor (A Model).

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 020210 CONTACTOR FIG. F-18 CONTACTOR (A MODEL)	
1	PAFZZ	80205	MS35649-204	..NUT, PLAIN, HEXAGON UOC: YHE	8
2	PAFZZ	96906	MS35338-138	..WASHER, LOCK UOC: YHE	8
3	PAFZZ	80205	MS51958-64	..SCREW, MACHINE UOC: YHE	8
4	PAFZZ	80205	MS15795-857	..WASHER, FLAT UOC: YHE	8
5	PAFZZ	01XD4	CT350E-120E4	..CONTACTOR UOC: YHE	2
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

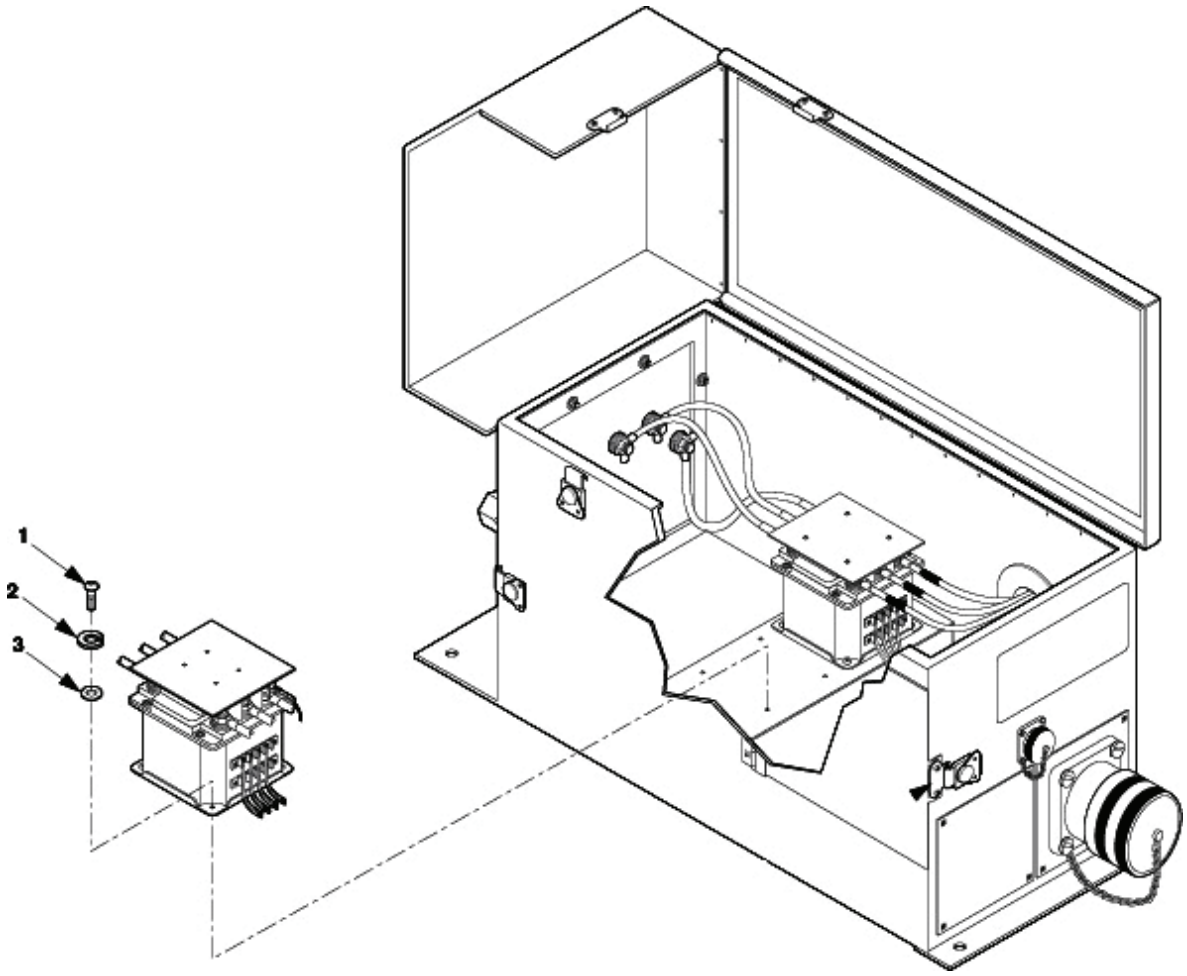
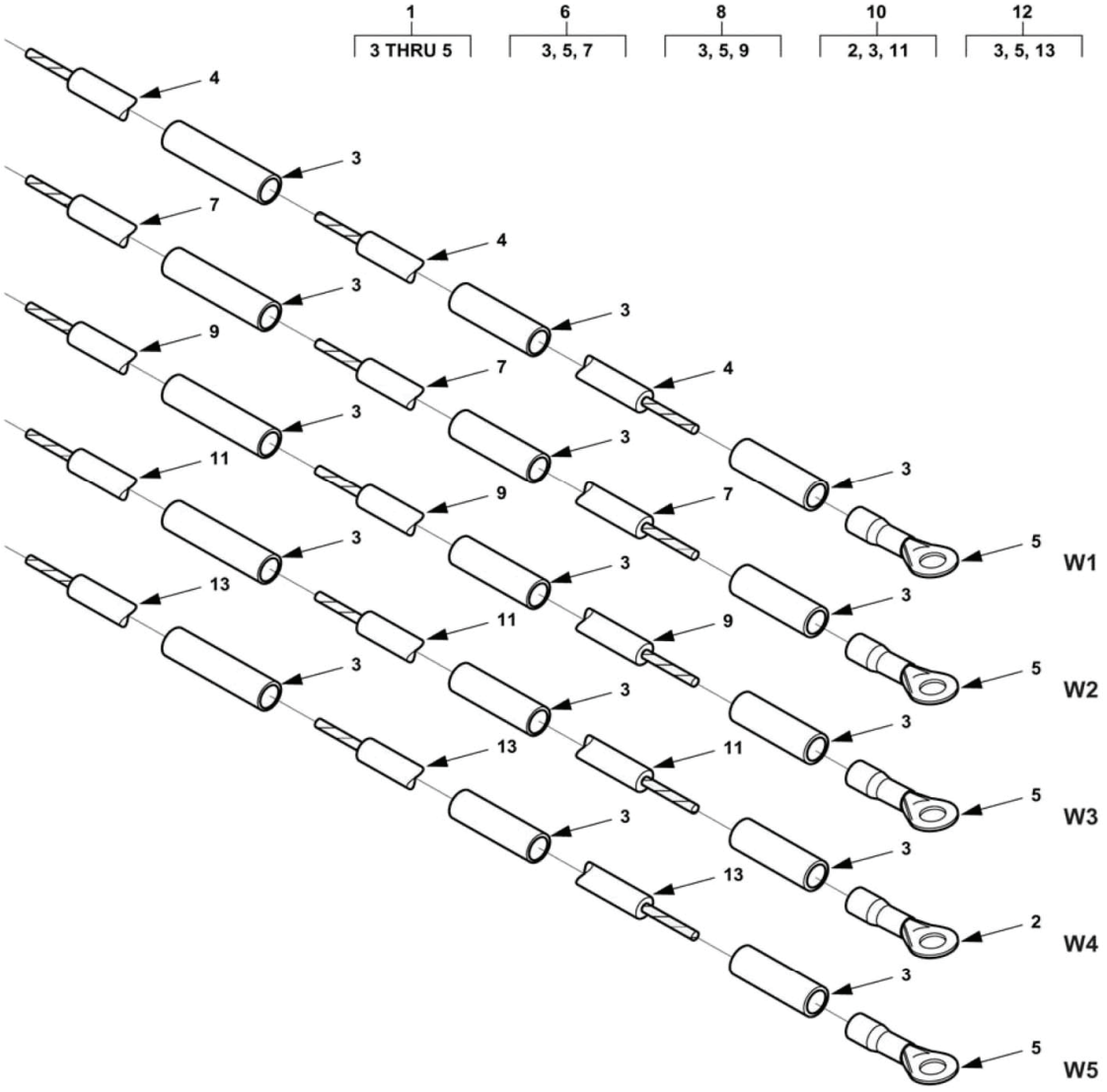


Figure F-18.1. Contactor (B&C Models).

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 020210 CONTACTOR	
				FIG. F-18.1 CONTACTOR (B&C MODELS)	
1	PAFZZ	80205	MS51958-64	..SCREW, MACHINE UOC: YHE, 44E	8
2	PAFZZ	96906	MS35338-138	..WASHER, LOCK UOC: YHE, 44E	8
3	PAFZZ	30554	88-20033-11C	..WASHER, FLAT UOC: YHE, 44E	8
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)



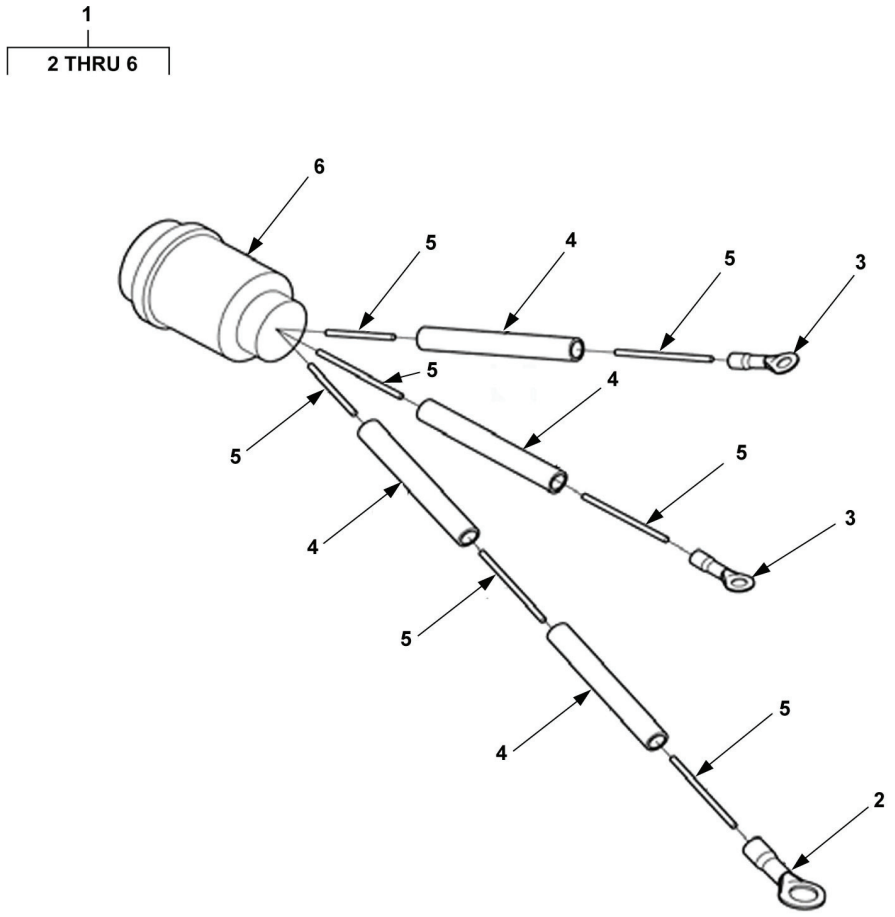
WIRE LIST						
		TERMINATION		TERMINATION		WIRE ITEM NO.
WIRE NO.	REF. DES.	FROM	ITEM NO.	TO.	ITEM NO.	
1	W1	G1-L1	-	K1-A1	5	4
6	W2	G1-L2	-	K1-B1	5	7
8	W3	G1-L3	-	K1-C1	5	9
10	W4	G1-N	-	N	2	11
12	W5	G1-GND	-	GND-1	5	13

Figure F-19. Power Leads, W1-W5.

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 020211 LEADS/HARNESSES, W1-W5	
				FIG. F-19 POWER LEADS, W1-W5	
1	AFFZZ	97403	13229E5811-6	.LEAD, POWER, W1 UOC: YHE, 44E	1
2	PAFZZ	96906	MS25036-131	..TERMINAL,LUG UOC: YHE, 44E	1
3	PAOZZ	19099	M23053/5-108-4	..INSULATION SLEEVING MAKE FROM P/N M23053/5-108-4 (81349) 2.5 INCHES REQUIRED UOC: YHE, 44E	15
4	PAFZZ	19099	13229E5811-6-2	..WIRE, ELECTRICAL MAKE FROM P/N M22759/16-1-9 (81349) 33 INCHES REQUIRED UOC: YHE, 44E	1
5	PAFZZ	96906	MS25036-130	..TERMINAL,LUG UOC: YHE, 44E	4
6	AFFZZ	97403	13229E5811-7	.LEAD,POWER, W2 UOC: YHE, 44E	1
7	PAFZZ	19099	13229E5811-7-2	..WIRE, ELECTRICAL MAKE FROM P/N M22759/16-1-9 (81349) 39 INCHES REQUIRED UOC: YHE, 44E	1
8	AFFZZ	97403	13229E5811-8	.LEAD,POWER, W3 UOC: YHE, 44E	1
9	PAFZZ	19099	13229E5811-8-2	..WIRE, ELECTRICAL MAKE FROM P/N M22759/16-1-9 (81349) 42 INCHES REQUIRED UOC: YHE, 44E	1
10	AFFZZ	97403	13229E5811-9	.LEAD,POWER, W4 UOC: YHE, 44E	1
11	PAFZZ	19099	13229E5811-9-2	..WIRE, ELECTRICAL MAKE FROM P/N M22759/16-1-9 (81349) 48 INCHES REQUIRED UOC: YHE, 44E	1
12	AFFZZ	97403	13229E5811-10	.LEAD,POWER, W5 UOC: YHE, 44E	1
13	PAFZZ	19099	13229E5811-10-2	..WIRE, ELECTRICAL MAKE FROM P/N M22759/16-1-9 (81349) 39 INCHES REQUIRED UOC: YHE, 44E	1
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)



WIRE LIST					
WIRE NO.	TERMINATION		TERMINATION		WIRE ITEM NO.
	FROM	ITEM NO.	TO.	ITEM NO.	
1	P1-A	6	K1-12	3	5
2	P1-B	6	K1-Y	3	5
3 (A MODEL)	P1-E	6	BUS BAR	2	5
3 (B & C MODELS)	P1-E	6	GND 2	2	5

Figure F-20. Wiring Harness, Power, W18.

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 020212 POWER LEAD/HARNESS, W18	
				FIG. F-20 WIRING HARNESS, POWER, W18	
1	XDFFF	97403	13229E5806-2	.WIRING HARNESS, POWER, W18 UOC: YHE, 44E	1
2	PAFZZ	96906	MS25036-154	..TERMINAL, LUG UOC: YHE, 44E	1
3	PAFZZ	96906	MS25036-107	..TERMINAL, LUG UOC: YHE, 44E	2
4	PAOZZ	19099	13229E5806-2-5	..INSULATION SLEEVING MAKE FROM P/N M23053/5-104-4 (81349) 2.00 INCHES REQUIRED UOC: YHE, 44E	4
5	PAFZZ	19099	13229E5806-2-2	..WIRE, ELECTRICAL MAKE FROM P/N M22759/16-16-9 (81349) AS REQUIRED UOC: YHE, 44E	3
6	PAFZZ	96906	MS3456W18-11S	..CONNECTOR, PLUG, ELEC UOC: YHE, 44E	1
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

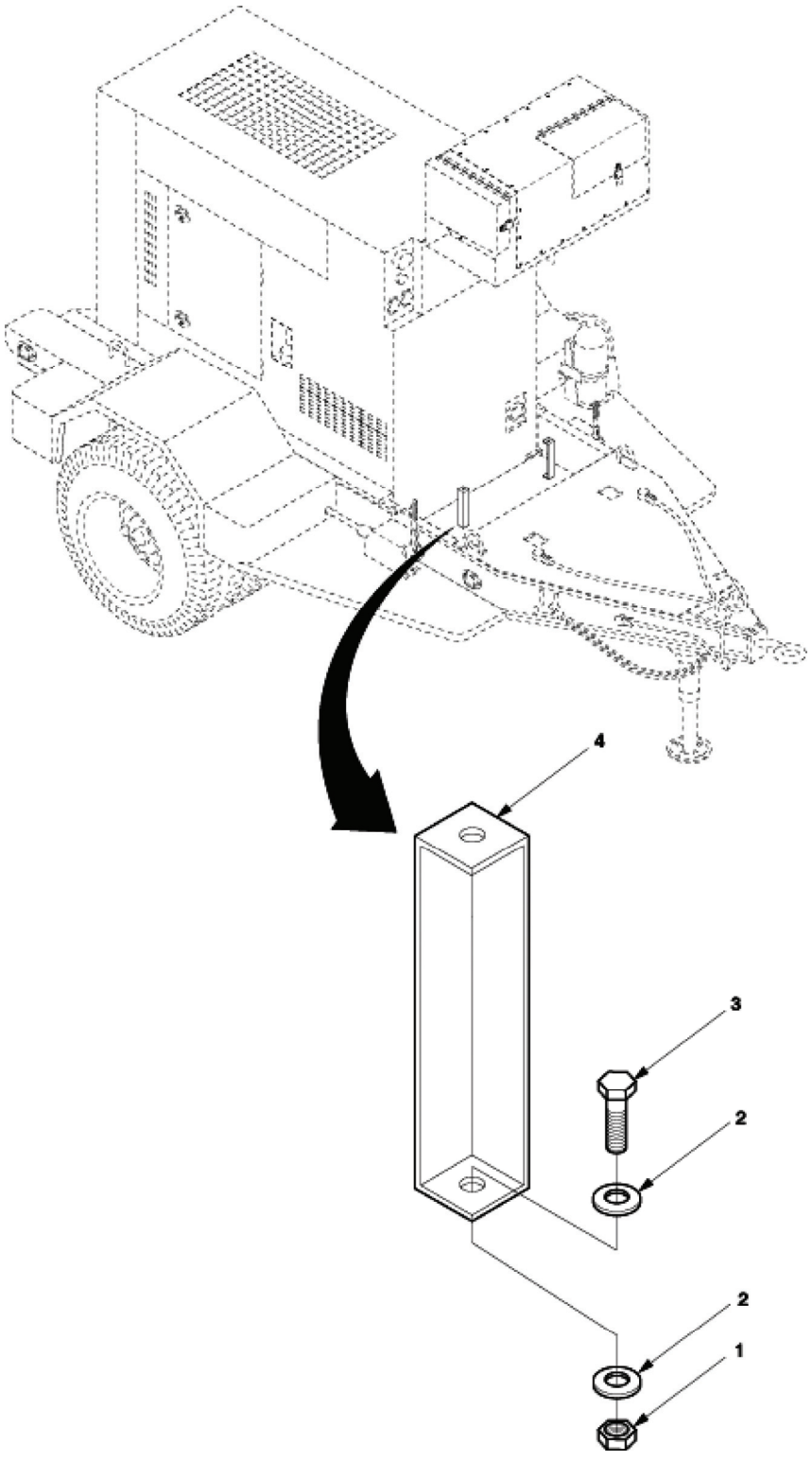


Figure F-21. Switch Box Support (A Model).

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 020213 SWITCH BOX SUPPORT	
				FIG. F-21 SWITCH BOX SUPPORT (A MODEL)	
1	PAFZZ	96906	MS35649-2382	..NUT, PLAIN, HEXAGON UOC: YHE	1
2	PAFZZ	96906	MS51412-27	..WASHER, FLAT UOC: YHE	2
3	PAFZZ	80204	B1821BH038C138N	..SCREW, CAP, HEXAGON UOC: YHE	1
4	XBFZZ	97403	13230E4592	..SUPPORT, SWITCH BOX UOC: YHE **NOTE:** The Switch Box Support (4) and its mounting hardware are used only on models of the trailer that contain the old, step-down type of Front Platform. An example of this platform can be seen in Fig. F-31.	1

END OF FIGURE

SECTION II. REPAIR PARTS LIST (CONTINUED)

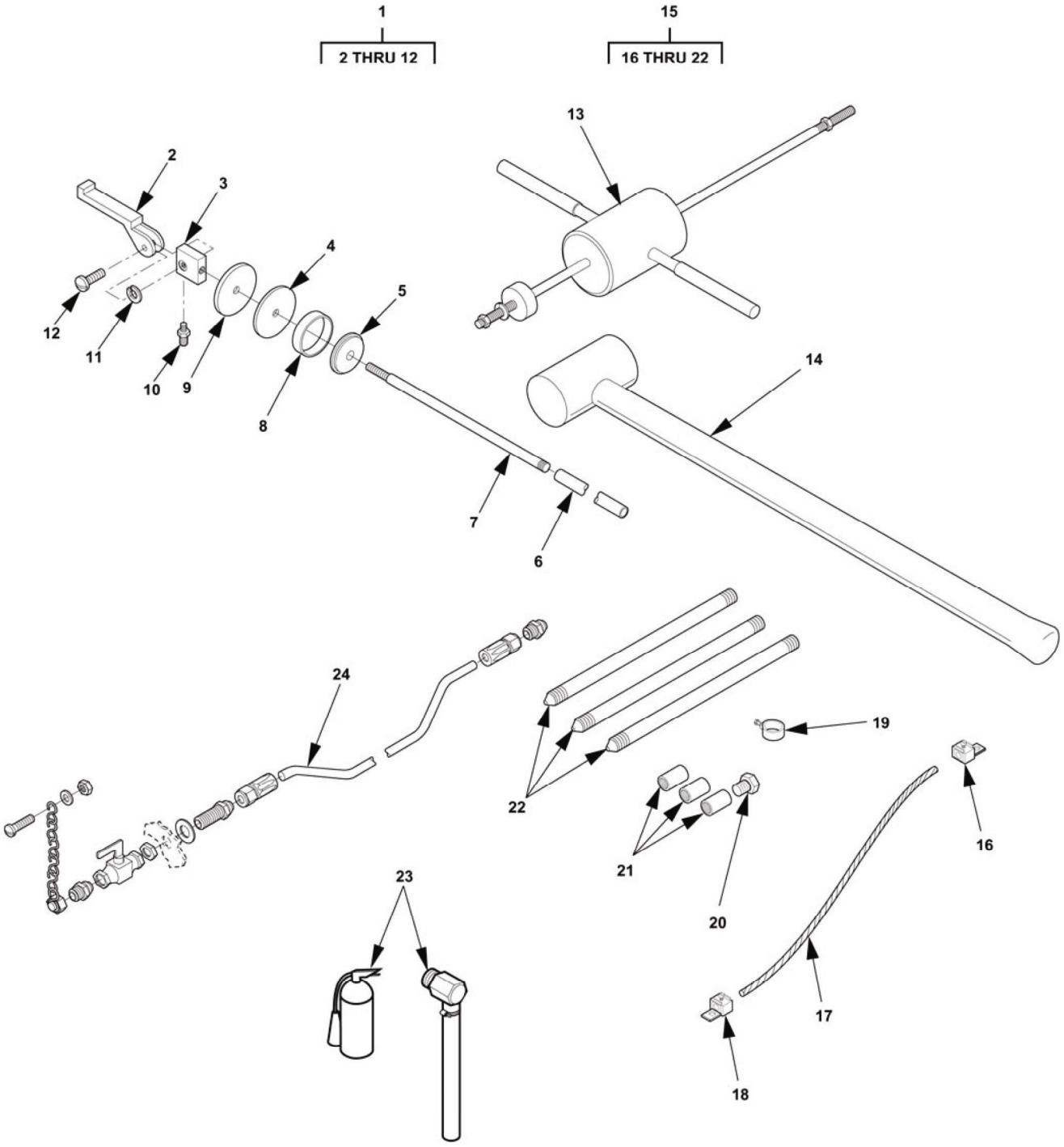


Figure F-22. Accessories.

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-22 ACCESSORIES	
1	PAOZZ	06076	13211E7541	.ADAPTER, CONTAINER UOC: YGB, 44G, YFU, 44H	1
2	XBOZZ	97403	13200E6363	..CLAMP, STRAINER UOC: YGB, 44G, YFU, 44H	1
3	XBOZZ	97403	13211E7548	..HEAD UOC: YGB, 44G, YFU, 44H	1
4	XBOZZ	97403	13211E7547	..WASHER, FLAT UOC: YGB, 44G, YFU, 44H	1
5	PAOZZ	97403	13211E7544	..WASHER, RECESSED UOC: YGB, 44G, YFU, 44H	1
6	PAOZZ	97403	13211E7542	..PIPE, METALLIC UOC: YGB, 44G, YFU, 44H	1
7	PAOZZ	97403	13211E7543	..PIPE, METALLIC UOC: YGB, 44G, YFU, 44H	1
8	PAOZZ	97403	13211E7546	..GASKET UOC: YGB, 44G, YFU, 44H	1
9	XBOZZ	97403	13200E6361	..WASHER, FLAT UOC: YGB, 44G, YFU, 44H	1
10	PAOZZ	96906	MS51500A8-4	..ADAPTER, STRAIGHT UOC: YGB, 44G, YFU, 44H	1
11	PAOZZ	96906	MS35335-60	..WASHER, LOCK UOC: YGB, 44G, YFU, 44H	2
12	PAOZZ	29440	PL-19-3	..SCREW, SHOULDER UOC: YGB, 44G, YFU, 44H	2
13	PAOZZ	97403	13226E7741	.DRIVER/PULLER UOC: YGB, 44G, YFU, 44H	1
14	PAOZZ	58536	A-A-1293	.HAMMER, HAND UOC: YGB, 44G, YFU, 44H	1
15	PAOZZ	58536	A-A-55804-3B	.ROD, GROUND WITH ATTA UOC: YGB, 44G, YFU, 44H	1
16	PAOZZ	01667	CBA-70	..TERMINAL, LUG UOC: YGB, 44G, YFU, 44H	1
17	PAFZZ	19099	QQW343C06B1B	..WIRE, ELECTRICAL MAKE AS REQUIRED UOC: YGB, 44G, YFU, 44H	1
18	PAOZZ	96906	MS25036-122	..TERMINAL, LUG UOC: YGB, 44G, YFU, 44H	1
19	PAOZZ	04655	70-801074	..CLAMP,ELECTRICAL UOC: YGB, 44G, YFU, 44H	1
20	PAOZZ	73616	GRB58	..DRIVE HEAD UOC: YGB, 44G, YFU, 44H	1
21	PAOZZ	0BKK8	GRC 58	..COUPLING,GROUND ROD UOC: YGB, 44G, YFU, 44H	3
22	PAOZZ	58536	A-A-55804	..ROD, GROUND UOC: YGB, 44G, YFU, 44H	3

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 ACCESSORIES	
23	AFFZZ	30554	13230E6380-4A	.OIL DRAIN AND FIRE EXTINGUISHER (SEE FIGURE F-23 FOR PARTS BREAKDOWN) UOC: YGB, 44G, YFU, 44H	REF
24	AFFZZ	30554	13230E6381-2A	.FUEL DRAIN ASSEMBLY (SEE FIGURE F-24 FOR PARTS BREAKDOWN) UOC: YGB, 44G, YFU, 44H	REF
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

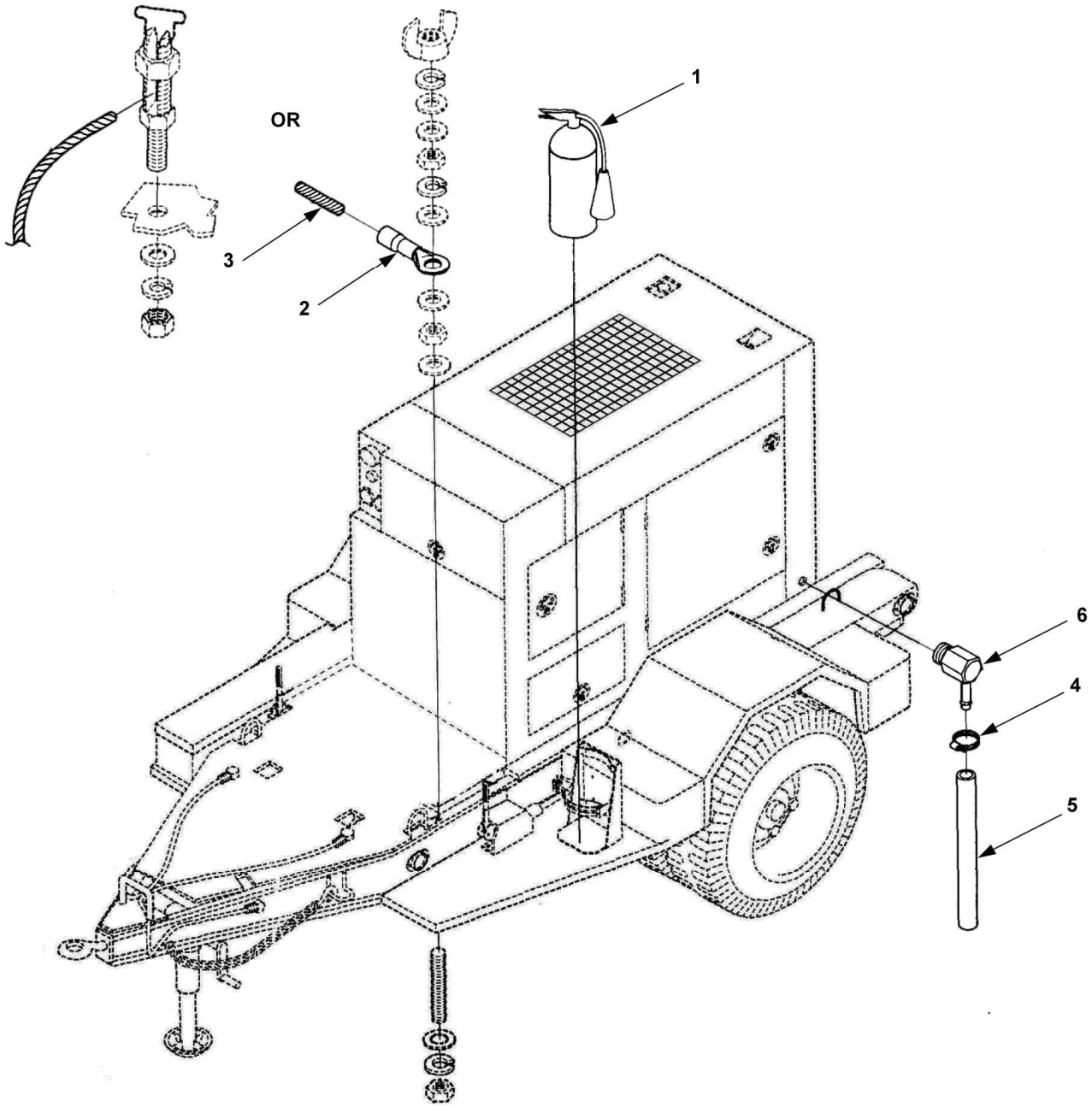


Figure F-23. Oil Drain, Fire Extinguisher and Ground Cable.

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 OIL DRAIN, FIRE EXTINGUISHER AND GROUND CABLE	
1	PAOZZ	97403	13230E6831	.EXTINGUISHER, FIRE UOC: YGB, 44G, YFU, 44H	1
2	PAOZZ	96906	MS25036-122	.TERMINAL, LUG UOC: YGB, 44G, YFU, 44H	1
3	PAFZZ	19099	QQW343C06B1B	.WIRE, ELECTRICAL MAKE AS REQUIRED UOC: YGB, 44G, YFU, 44H	1
4	PAOZZ	96906	MS35842-11	.CLAMP, HOSE UOC: YGB, 44G, YFU, 44H	1
5	PAOZZ	19099	M6000-F-00200	.HOSE, NONMETALLIC MAKE AS REQUIRED UOC: YGB, 44G, YFU, 44H	1
6	PAOZZ	96906	MS24519-9	.ELBOW, PIPE TO HOSE UOC: YGB, 44G, YFU, 44H	1
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

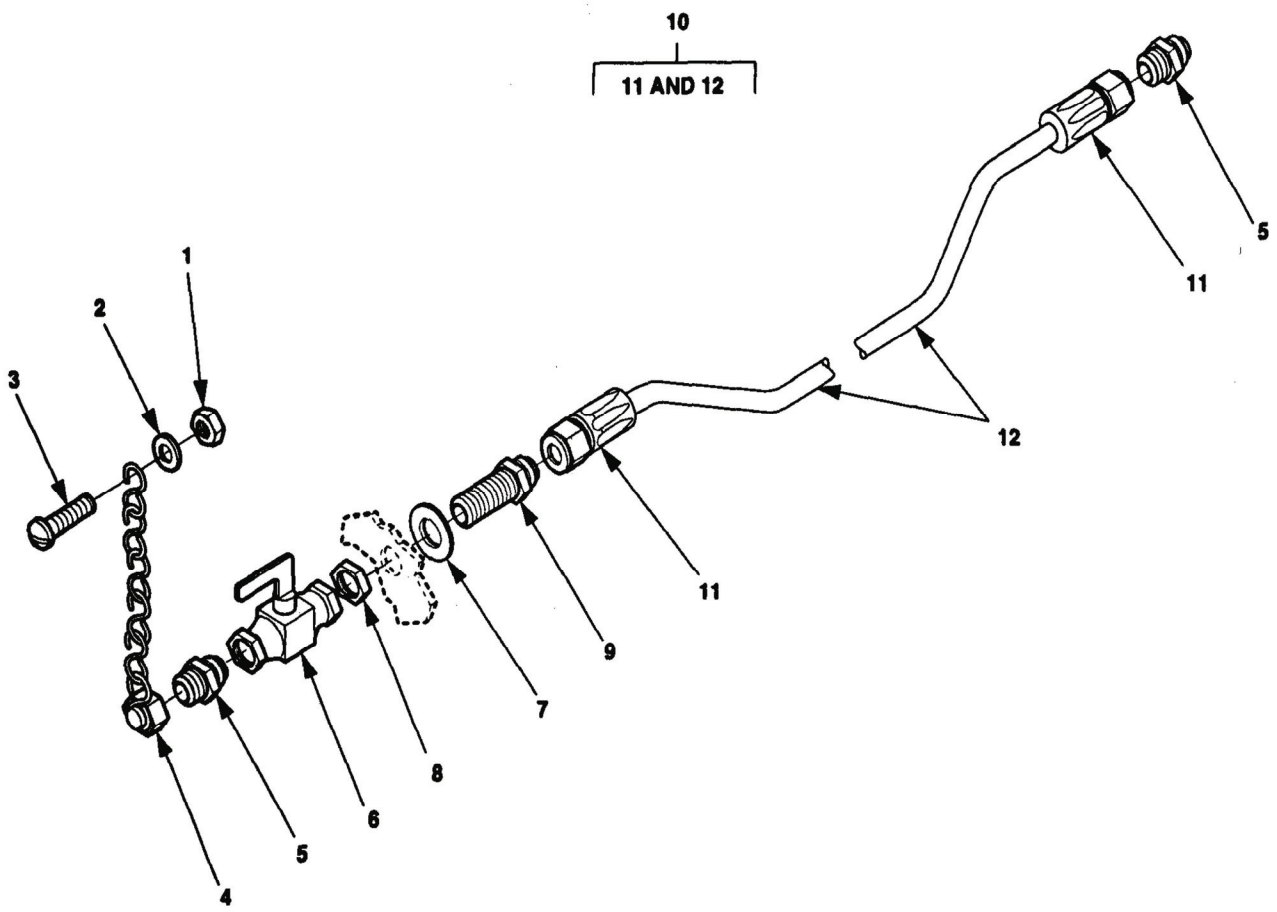


Figure F-24. Fuel Drain Assembly.

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 03 ACCESSORIES	
				FIG. F-24 FUEL DRAIN ASSEMBLY	
1	PAOZZ	96906	MS51922-1	.NUT, SELF-LOCKING, HEX UOC: YGB, 44G, YFU, 44H	1
2	PAOZZ	96906	MS15795-852	.WASHER, FLAT UOC: YGB, 44G, YFU, 44H	2
3	PAOZZ	96906	MS35206-283	.SCREW, MACHINE UOC: YGB, 44G, YFU, 44H	1
4	PAOZZ	93742	69-539-2	.CAP, TUBE UOC: YGB, 44G, YFU, 44H	1
5	PAOZZ	96906	MS51519B5Z/A5Z	.NIPPLE, TUBE UOC: YGB, 44G, YFU, 44H	1
6	PAOZZ	96906	MS35930-2	.COCK, PLUG UOC: YGB, 44G, YFU, 44H	1
7	PAOZZ	96906	MS51860-54	.LOCKNUT, TUBE FITTING UOC: YGB, 44G, YFU, 44H	1
8	PAFZZ	96906	MS27183-17	.WASHER, FLAT UOC: YGB, 44G, YFU, 44H	1
9	PAFZZ	96906	MS51520A5Z	.NIPPLE, TUBE UOC: YGB, 44G, YFU, 44H	1
10	AFFFF	96906	MS52103A050440R	.HOSE ASSEMBLY UOC: YGB, 44G, YFU, 44H	1
11	PAFZZ	96906	MS24587-5	. .ADAPTER, STRAIGHT,TUBE UOC: YGB, 44G, YFU, 44H	2
12	PAOZZ	19099	MS52103-2	. .HOSE,NONMETALLIC MAKE FROM P/N FC173-5 (01276) 40 INCHES REQUIRED UOC: YGB, YFU	1
12	PAOZZ	19099	MS52103-2	. .HOSE,NONMETALLIC MAKE FROM P/N FC173-5 (01276) 37 INCHES REQUIRED UOC: 44G, 44H	1
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

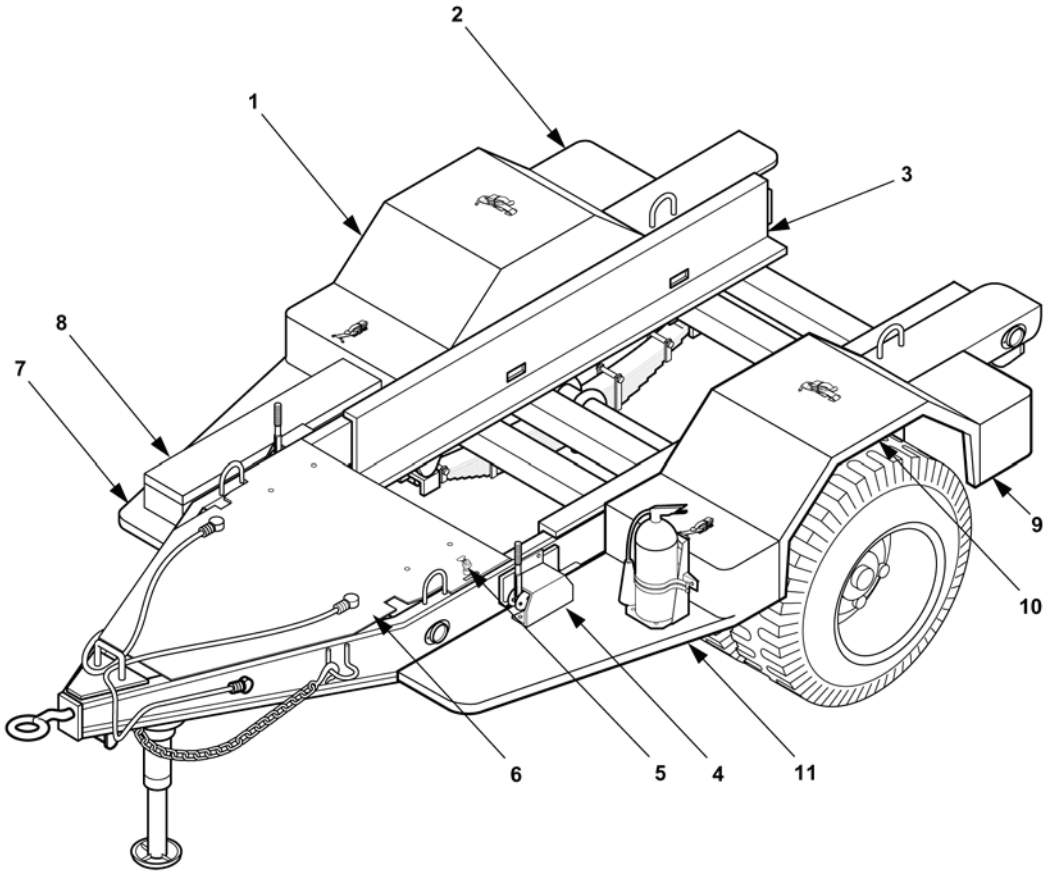


Figure F-25. Trailer Assembly.

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-25 TRAILER ASSEMBLY	
1	PAOZZ	97403	13214E1263	.FENDER, VEHICULAR (SEE FIGURE F-28 FOR PARTS BREAKDOWN) UOC: YGB, 44G, YFU, 44H	1
2	PAOZZ	97403	13214E1259	.STEP, REAR, CURBSIDE (SEE FIGURE F-26 FOR PARTS BREAKDOWN) UOC: YGB, 44G, YFU, 44H	1
3	XAFZZ	97403	13229E9633	.CHASSIS, TRLR, 2.5 TON (SEE FIGURE F-33 FOR INSTALLATION) (SEE TM 9-2330-205-14&P FOR PARTS BREAKDOWN) UOC: YGB, 44G, YFU, 44H	1
4	AFFFF	97403	13229E9632A	.BRAKE ASSEMBLY (SEE FIGURE F-29 FOR PARTS BREAKDOWN) UOC: YGB, 44G, YFU, 44H	2
5	AFFZZ	96906	MS39347-2	.GROUND STUD (SEE FIGURE F-32 FOR INSTALLATION) (SEE FIGURE F-10/F-10.1 FOR PARTS BREAKDOWN) UOC: YGB, 44G, YFU, 44H	1
6	XBOFF	97403	13229E6108	.PLATFORM, FRONT (SEE FIGURE F-31 FOR PARTS BREAKDOWN) UOC: YGB, 44G, YFU, 44H	1
7	PAOZZ	97403	13214E1461	.STEP, FRONT, CURBSIDE (SEE FIGURE F-30 FOR PARTS BREAKDOWN) UOC: YGB, 44G, YFU, 44H	1
8	PAOZZ	97403	13229E7946	.ACCESSORY BOX (SEE FIGURE F-27 FOR PARTS BREAKDOWN) UOC: YGB, 44G, YFU, 44H	1
9	PAOZZ	97403	13214E1261	.STEP, REAR, ROADSIDE (SEE FIGURE F-26 FOR PARTS BREAKDOWN) UOC: YGB, 44G, YFU, 44H	1
10	PAOZZ	97403	13214E1264	.FENDER, ROADSIDE (SEE FIGURE F-28 FOR PARTS BREAKDOWN) UOC: YGB, 44G, YFU, 44H	1
11	PAOZZ	97403	13214E1462	.STEP, FRONT, ROADSIDE (SEE FIGURE F-30 FOR PARTS BREAKDOWN) UOC: YGB, 44G, YFU, 44H	1
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

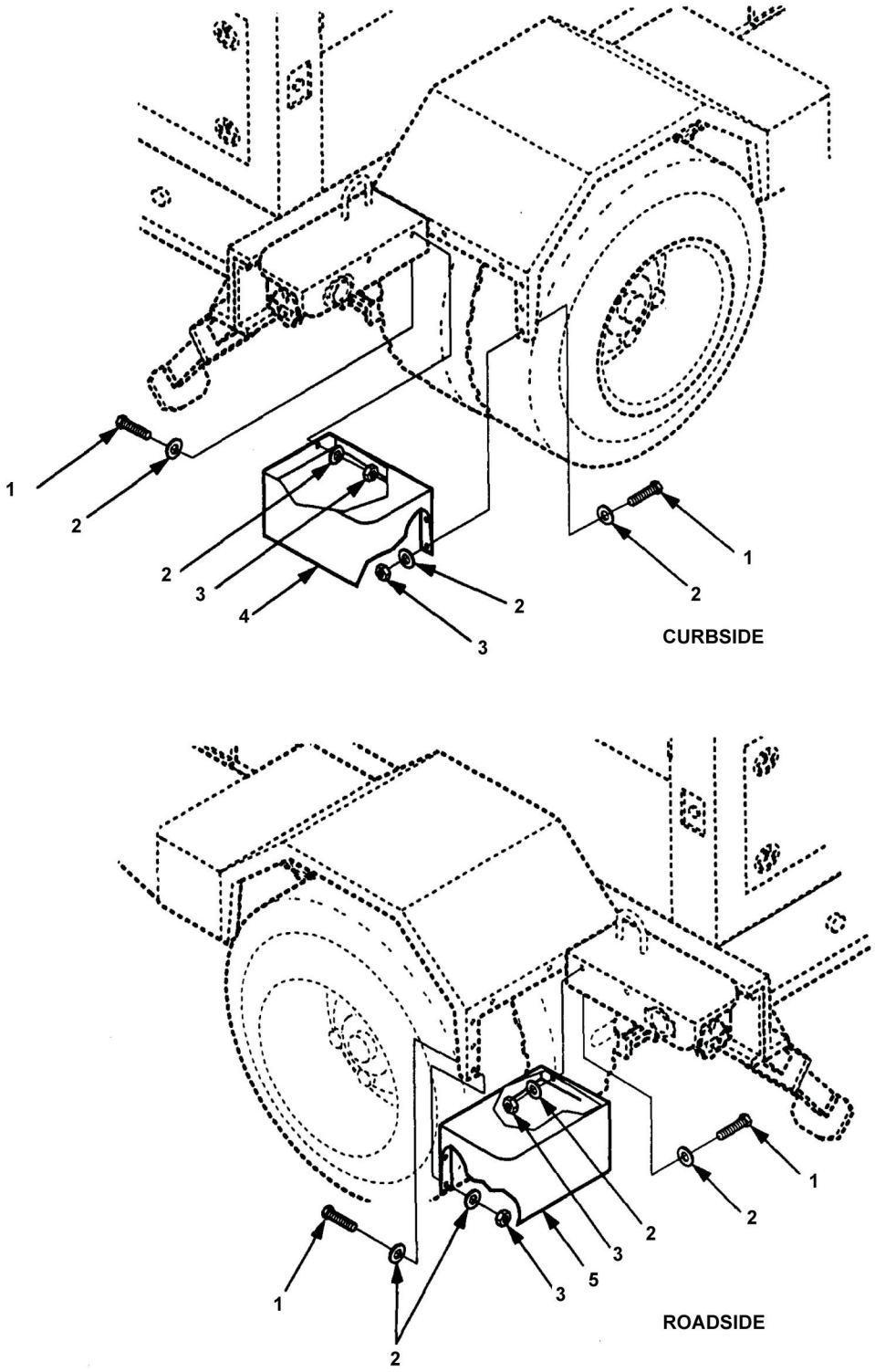


Figure F-26. Rear Steps.

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-26 REAR STEPS	
1	PAOZZ	80204	B1821BH031C125N	.BOLT, MACHINE UOC: YGB, 44G, YFU, 44H	14
2	PAOZZ	96906	MS51412-25	.WASHER, FLAT UOC: YGB, 44G, YFU, 44H	28
3	PAOZZ	96906	MS51922-9	.NUT, SELF-LOCKING, HEX UOC: YGB, 44G, YFU, 44H	14
4	XDOFF	97403	13214E1259	.STEP, REAR CURBSIDE UOC: YGB, 44G, YFU, 44H	—
5	XDOFF	97403	13214E1261	.STEP, REAR ROADSIDE UOC: YGB, 44G, YFU, 44H	—
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

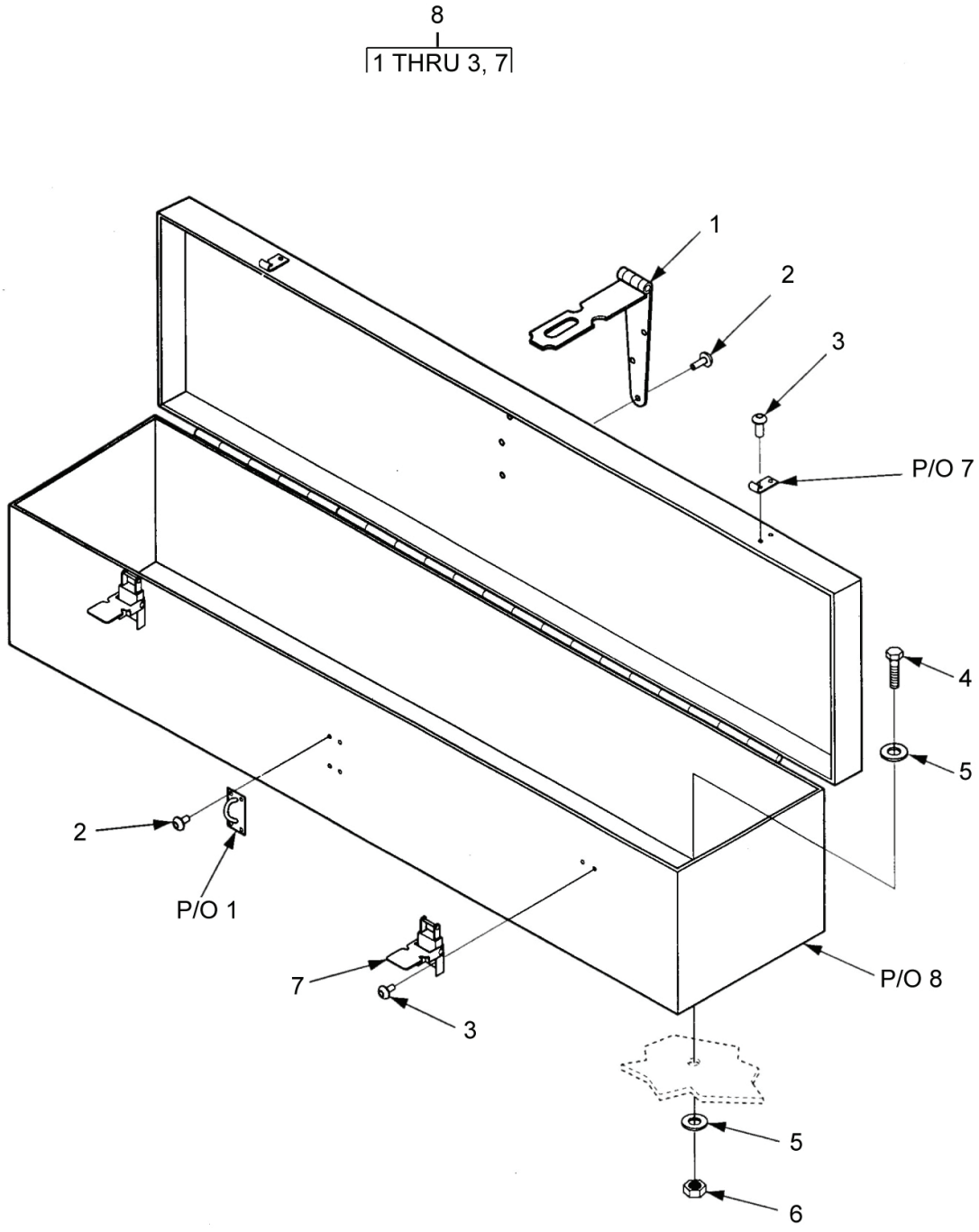


Figure F-27. Accessory Box.

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 04 TRAILER ASSEMBLY	
				FIG. F-27 ACCESSORY BOX	
1	PAOZZ	96906	MS27969-4	..HASP, HINGED UOC: YGB, 44G, YFU, 44H	1
2	PAOZZ	96906	MS20427-4C6	..RIVET, SOLID UOC: YGB, 44G, YFU, 44H	8
3	PAOZZ	96906	MS20613-4P5	..RIVET, SOLID UOC: YGB, 44G, YFU, 44H	8
4	PAOZZ	80204	B1821BH031C125N	.BOLT, MACHINE UOC: YGB, 44G, YFU, 44H	4
5	PAOZZ	96906	MS51412-25	.WASHER, FLAT UOC: YGB, 44G, YFU, 44H	8
6	PAOZZ	96906	MS51922-9	.NUT, SELF-LOCKING, HEX UOC: YGB, 44G, YFU, 44H	4
7	PAOZZ	96906	MS18015-1	..CATCH, CLAMPING UOC: YGB, 44G, YFU, 44H	2
8	XDOZZ	97403	13229E7946	.ACCESSORY BOX UOC: YGB, 44G, YFU, 44H	—
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

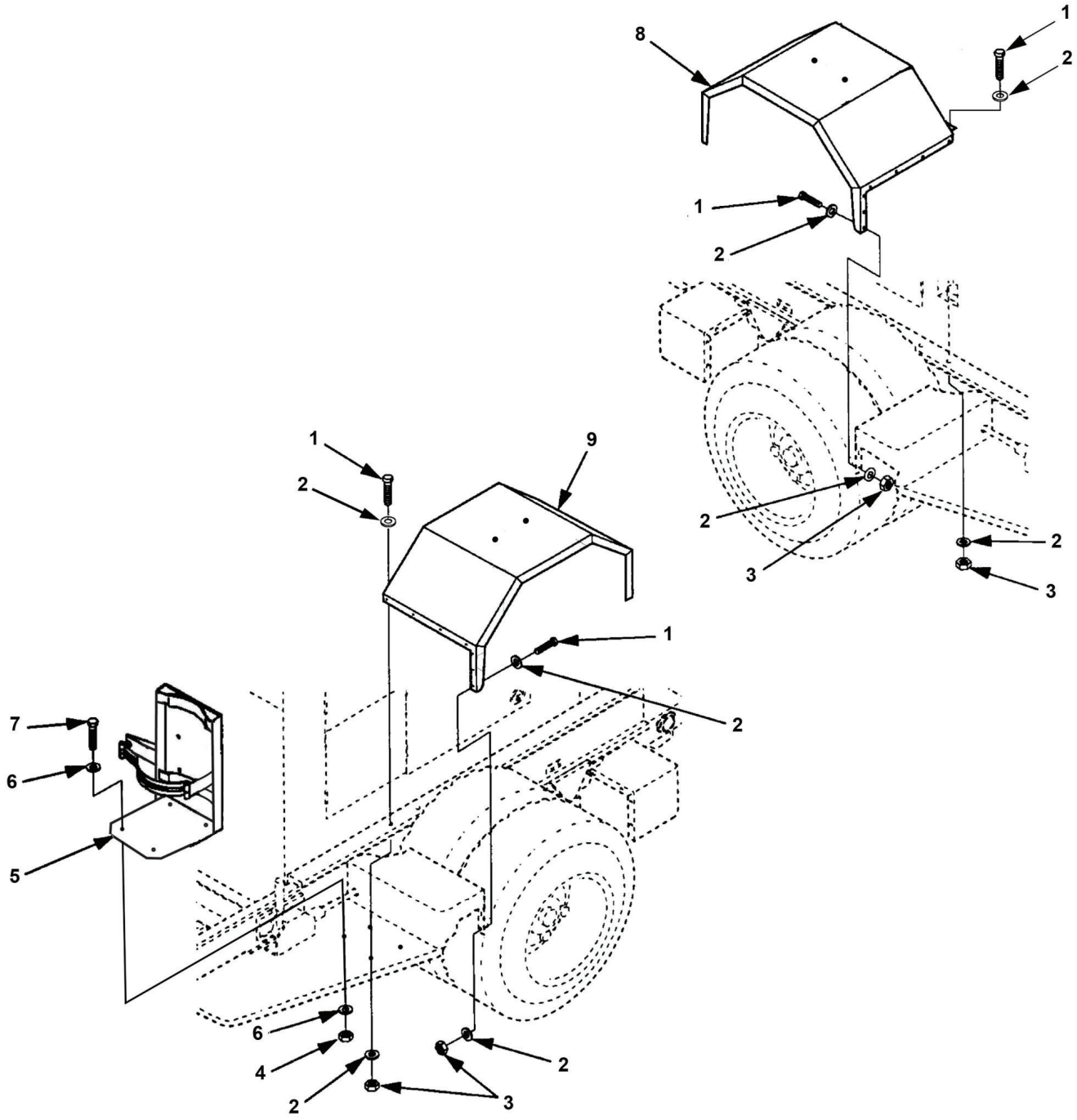


Figure F-28. Fenders.

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	
1	PAOZZ	80204	B1821BH031C125N	.BOLT, MACHINE UOC: YGB, 44G, YFU, 44H	24
2	PAOZZ	96906	MS51412-25	.WASHER, FLAT UOC: YGB, 44G, YFU, 44H	48
3	PAOZZ	96906	MS51922-9	.NUT, SELF-LOCKING, HEX UOC: YGB, 44G, YFU, 44H	24
4	PAOZZ	97403	13230E6382-4	.NUT, SELF-LOCKING, HEX UOC: YGB, 44G, YFU, 44H	4
5	XDOZZ	97403	13230E6858	.BRACKET, FIRE EXTING UOC: YGB, 44G, YFU, 44H	1
6	PAOZZ	30554	88-20033-25A	.WASHER, FLAT UOC: YGB, 44G, YFU, 44H	8
7	PAOZZ	05047	B1821BH031C100N	.SCREW, CAP, HEXAGON UOC: YGB, 44G, YFU, 44H	4
8	PAOFF	97403	13214E1263	.FENDER, CURBSIDE UOC: YGB, 44G, YFU, 44H	—
9	PAOFF	97403	13214E1264	.FENDER, ROADSIDE UOC: YGB, 44G, YFU, 44H	—
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

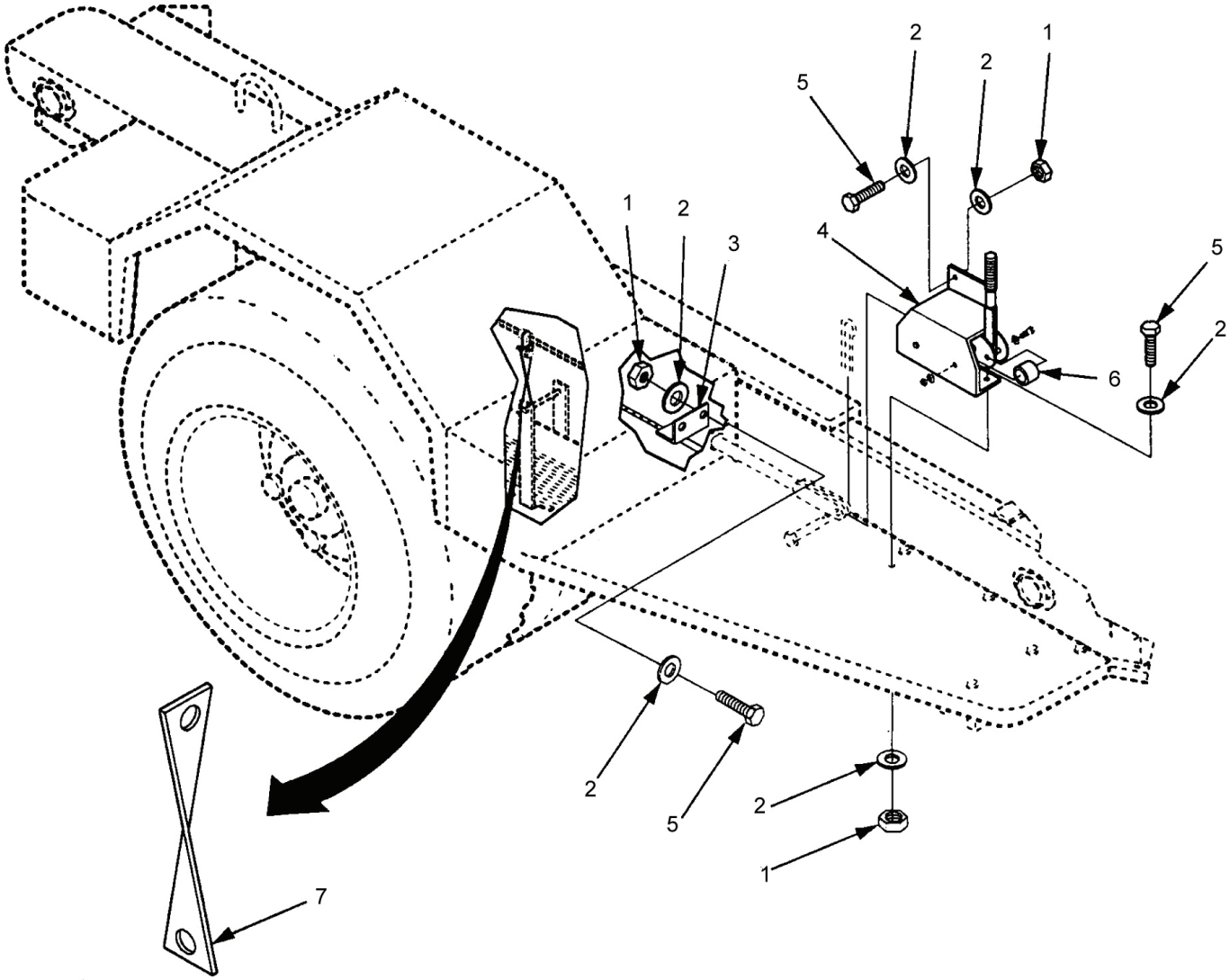


Figure F-29. Brake Assembly.

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-29 BRAKE ASSEMBLY	
1	PAOZZ	96906	MS51922-9	.NUT, SELF-LOCKING, HEX UOC: YGB, 44G, YFU, 44H	12
2	PAOZZ	96906	MS51412-25	.WASHER, FLAT UOC: YGB, 44G, YFU, 44H	24
3	XDOZZ	97403	13214E1270	.BRACKET, ANGLE UOC: YGB, 44G, YFU, 44H	2
4	XDOZZ	97403	13214E1269	.BRACKET, BRAKE UOC: YGB, 44G, YFU, 44H	2
5	PAOZZ	80204	B1821BH031C125N	.BOLT, MACHINE UOC: YGB, 44G, YFU, 44H	12
6	PAOZZ	97403	13214E1272	.SPACER, SLEEVE UOC: YGB, 44G, YFU, 44H	4
7	XDOZZ	97403	13214E1271	.STRAP, BRAKE, CABLE UOC: YGB, 44G, YFU, 44H	2
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

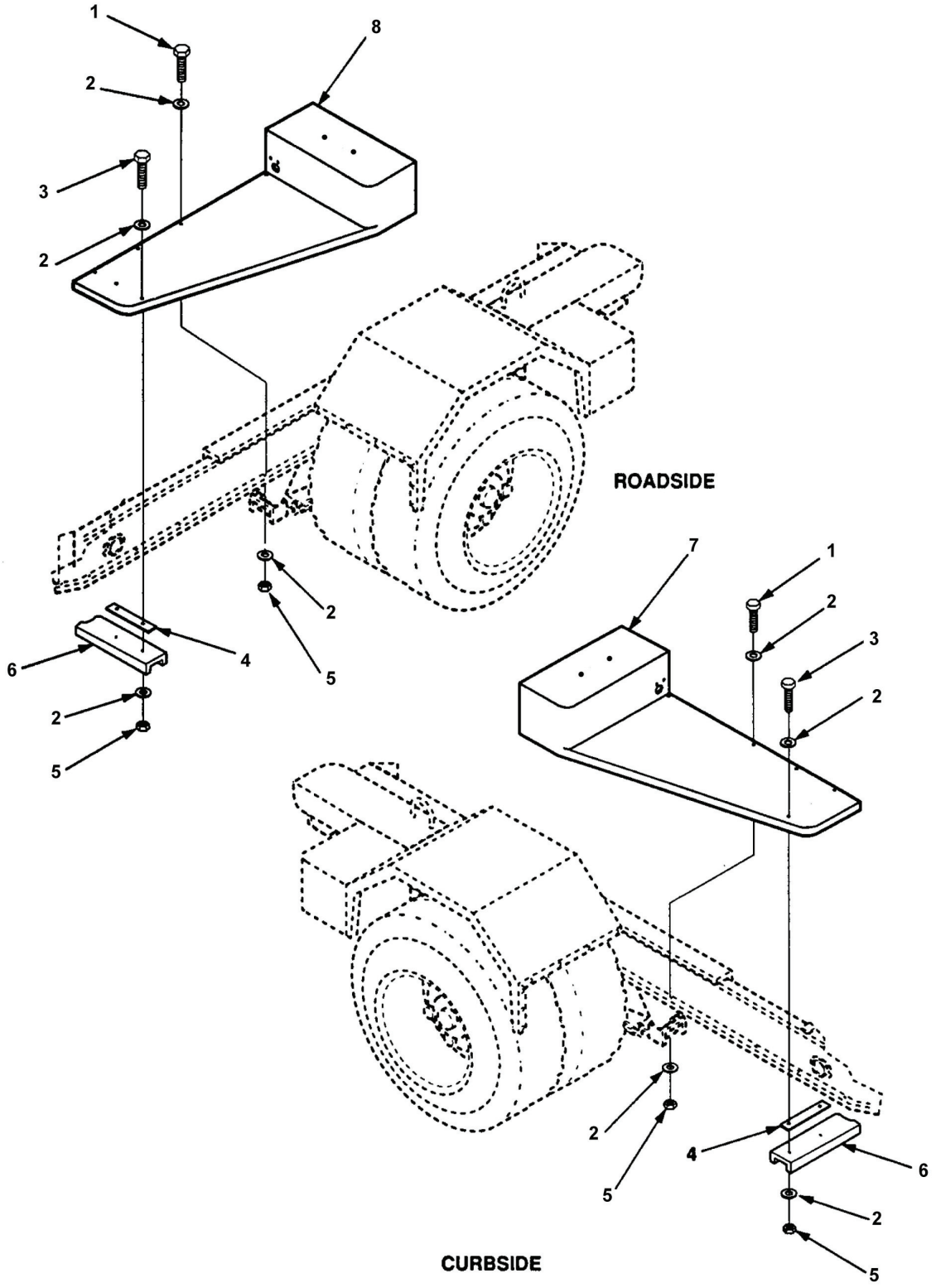


Figure F-30. Front Steps.

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 FRONT STEPS	
1	PAOZZ	80204	B1821BH031C125N	.BOLT, MACHINE UOC: YGB, 44G, YFU, 44H	6
2	PAOZZ	96906	MS51412-25	.WASHER, FLAT UOC: YGB, 44G, YFU, 44H	24
3	PAOZZ	80204	B1821BH031C175N	.BOLT, MACHINE UOC: YGB, 44G, YFU, 44H	6
4	PAOZZ	97403	13214E1267-1	.SPACER, PLATE UOC: YGB, 44G, YFU, 44H	2
5	PAOZZ	96906	MS51922-9	.NUT, SELF-LOCKING, HEX UOC: YGB, 44G, YFU, 44H	12
6	XDOZZ	97403	13214E1268	.CHANNEL UOC: YGB, 44G, YFU, 44H	1
7	PAOFF	97403	13214E1461	.STEP, FRONT, CURBSIDE UOC: YGB, 44G, YFU, 44H	—
8	PAOFF	97403	13214E1462	.STEP, FRONT, ROADSIDE UOC: YGB, 44G, YFU, 44H	—
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

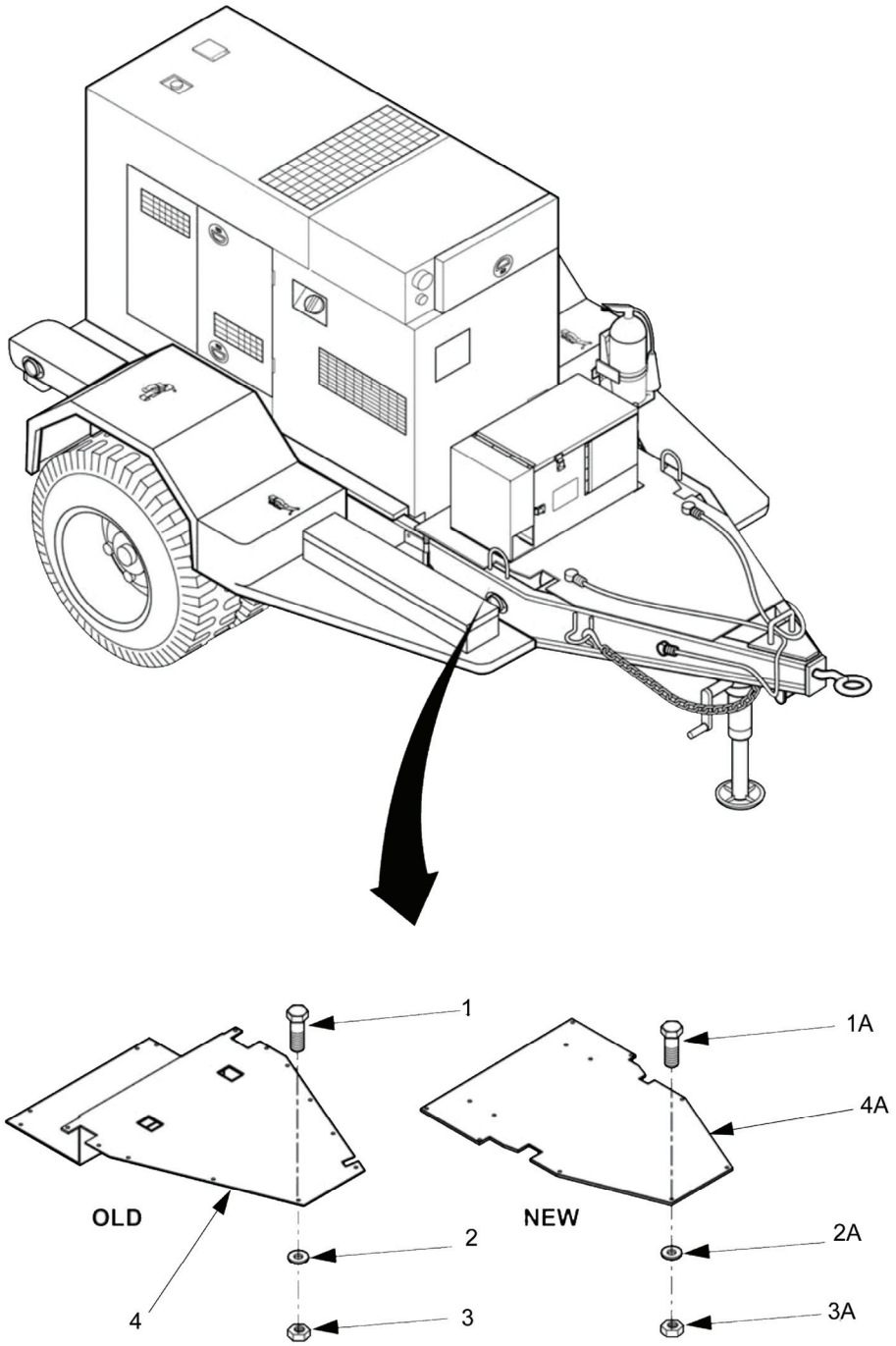


Figure F-31. Front Platform.

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 FRONT PLATFORM	
				FIG. F-31 FRONT PLATFORM	
1	PAOZZ	80204	B1821BH031C125N	..BOLT, MACHINE UOC: YGB, 44G, YFU, 44H	15
1A	PAOZZ	80204	B1821BH031C125N	..BOLT, MACHINE UOC: YGB, 44G, YFU, 44H	8
2	PAOZZ	96906	MS51412-25	..WASHER, FLAT UOC: YGB, 44G, YFU, 44H	15
2A	PAOZZ	96906	MS51412-25	..WASHER, FLAT UOC: YGB, 44G, YFU, 44H	8
3	PAOZZ	81349	MS51922-9	..NUT, SELF-LOCKING, HEX UOC: YGB, 44G, YFU, 44H	15
3A	PAOZZ	81349	MS51922-9	..NUT, SELF-LOCKING, HEX UOC: YGB, 44G, YFU, 44H	8
4	XDOFF	97403	13229E6108	..PLATFORM, FRONT UOC: YGB, 44G, YFU, 44H	1
4A	XDOFF	97403	13229E6108	..PLATFORM, FRONT UOC: YGB, 44G, YFU, 44H	1
				END OF FIGURE	

SECTION II. REPAIR PARTS LIST (CONTINUED)

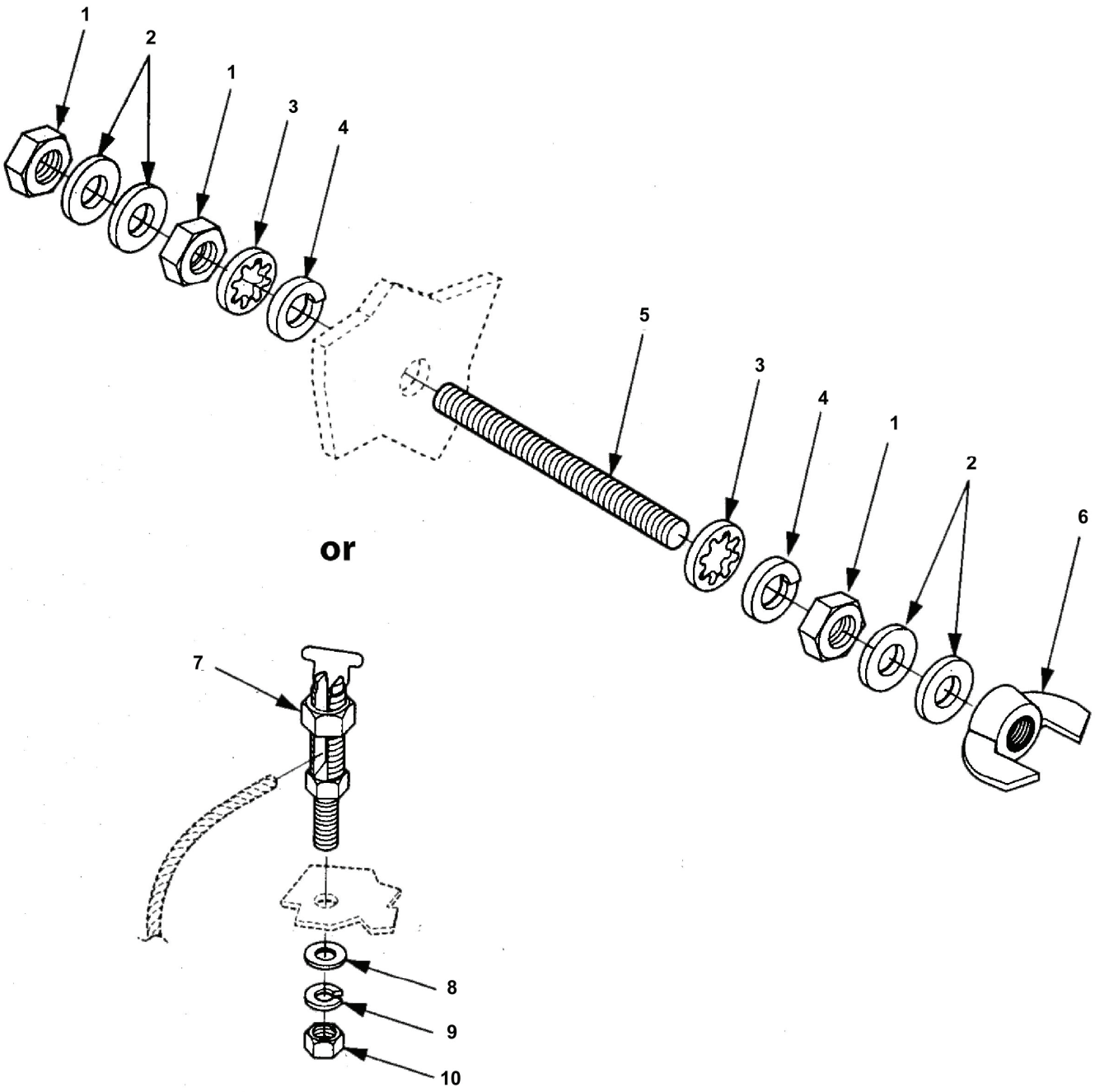


Figure F-32. Ground Stud.

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-32 GROUND STUD	
1	PAOZZ	96906	MS16203-27	.NUT, PLAIN,HEXAGON UOC: YGB, 44G, YFU, 44H	3
2	PAOZZ	88044	AN961-616	.WASHER, FLAT UOC: YGB, 44G, YFU, 44H	4
3	PAOZZ	96906	MS35338-103	.WASHER, LOCK UOC: YGB, 44G, YFU, 44H	2
4	PAOZZ	96906	MS35333-110	.WASHER, LOCK UOC: YGB, 44G, YFU, 44H	2
5	PAOZZ	97403	13214E1223	.STUD, CONTINUOUS THR UOC: YGB, 44G, YFU, 44H	1
6	PAOZZ	96906	MS35425-75	.NUT, PLAIN, WING UOC: YGB, 44G, YFU, 44H	1
7	PAOZZ	96906	MS39347-2	.TERMINAL, STUD UOC: YGB, 44G, YFU, 44H	1
8	PAOZZ	96906	MS15795-810	.WASHER, FLAT UOC: YGB, 44G, YFU, 44H	1
9	PAOZZ	96906	MS35338-158	.WASHER, LOCK UOC: YGB, 44G, YFU, 44H	1
10	PAOZZ	96906	MS35691-3	.NUT, PLAIN, HEXAGON UOC: YFW, YEZ, FMG, YFV	1

SECTION II. REPAIR PARTS LIST (CONTINUED)

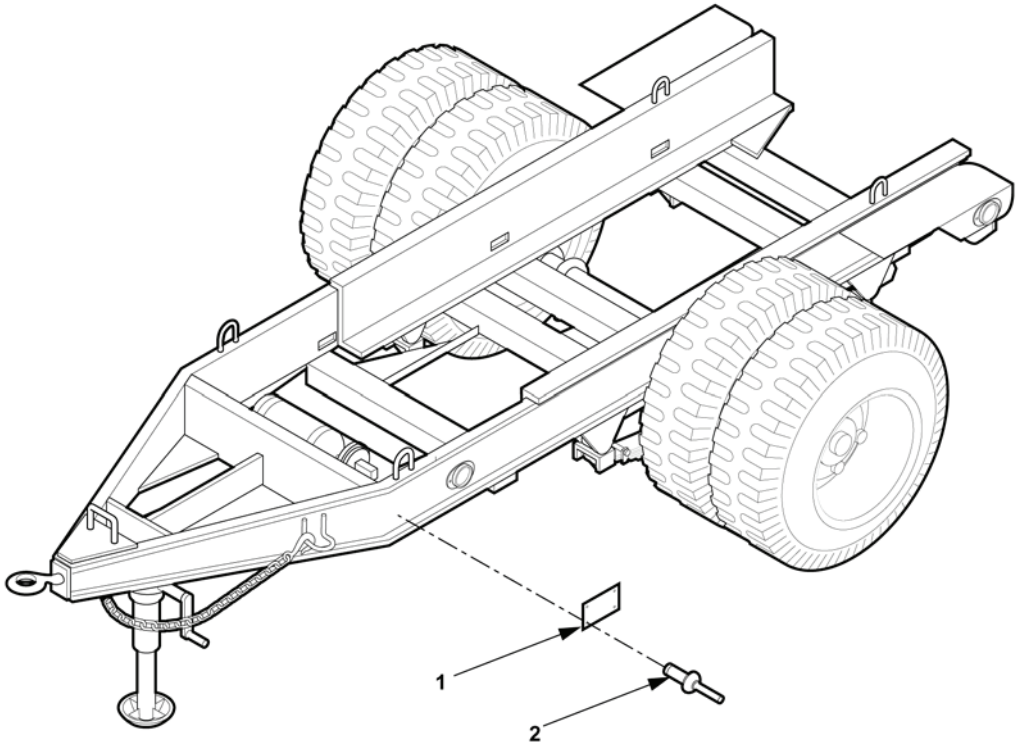


Figure F-33. Trailer Chassis.

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-33 TRAILER CHASSIS	
1	XBFZZ	97403	13230E6797	.PLATE, IDENTIFICATION UOC: YGB, 44G, YFU, 44H	1
2	PAFZZ	80205	MS20604AD6W4	.RIVET, BLIND UOC: YGB, 44G, YFU, 44H	4
				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 MATERIALS	
				FIG. BULK	
1	PAFZZ	71102	012822	CABLE UOC: YHE, 44E	V
2	PAOZZ	96906	MS21266-2N	GROMMET, PLASTIC EDGE UOC: YHE	V
3	PAOZZ	81349	M6000-F-00200	HOSE, NONMETALLIC UOC: YGB, 44G, YFU, 44H	V
4	PAOZZ	01276	FC173-5	HOSE, NONMETALLIC UOC: YGB, 44G, YFU, 44H	V
5	PAOZZ	81349	M23053/5-104-4	INSULATION SLEEVING UOC: YHE, 44E	V
6	PAOZZ	81349	M23053/5-104-9	INSULATION SLEEVING UOC: YHE, 44E	V
7	PAOZZ	81349	M23053/5-105-4	INSULATION SLEEVING UOC: YHE, 44E	V
8	PAOZZ	81349	M23053/5-105-9	INSULATION SLEEVING UOC: YHE, 44E	V
9	PAOZZ	81349	M23053/5-107-9	INSULATION SLEEVING UOC: YHE, 44E	V
10	PAOZZ	81349	M23053/5-108-4	INSULATION SLEEVING UOC: YHE, 44E	V
11	PAOZZ	81349	M23053/5-108-9	INSULATION SLEEVING UOC: YHE, 44E	V
12	PAOZZ	81349	M23053/5-109-0	INSULATION SLEEVING UOC: YHE, 44E	V
13	PAOZZ	81349	M23053/5-109-4	INSULATION SLEEVING UOC: YHE, 44E	V
14	PAOZZ	81349	M23053/5-109-9	INSULATION SLEEVING UOC: YHE, 44E	V
15	PAOZZ	81349	M23053/5-110-9	INSULATION SLEEVING UOC: YHE, 44E	V
16	PAOZZ	81349	M23053/5-113-0	INSULATION SLEEVING UOC: YHE, 44E	V

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
17	MOOZZ	88001	C1832	ROPE, FIBROUS UOC: YHE, 44E	V
18	PAFZZ	81349	M24768/2-S-7	SHEET, PLASTIC UOC: YHE	V
19	PAFZZ	81349	M5086/2-4-9	WIRE, ELECTRICAL UOC: YHE, 44E	V
20	PAFZZ	81349	M5086/2-6-9	WIRE, ELECTRICAL UOC: YHE, 44E	V
21	PAFZZ	81349	M22759/16-1-9	WIRE, ELECTRICAL UOC: YHE, 44E	V
22	PAFZZ	81349	M22759/16-6-9	WIRE, ELECTRICAL UOC: YHE, 44E	V
23	PAFZZ	81349	M22759/16-16-9	WIRE, ELECTRICAL UOC: YHE, 44E	V
24	PAFZZ	81349	M22759/16-18-9	WIRE, ELECTRICAL UOC: YHE, 44E	V
25	PAFZZ	81349	M22759/16-20-9	WIRE, ELECTRICAL UOC: YHE, 44E	V
26	PAFZZ	81349	QQW343C06B1B	WIRE, ELECTRICAL UOC: YGB, 44G, YFU, 44H	V
27	PAOZZ	81349	ASTM A313	WIRE, NONELECTRICAL UOC: YHE, 44E	V

END OF FIGURE

SECTION III. SPECIAL TOOLS GROUP

Special Tools Group

NOT APPLICABLE

SECTION IV. CROSS-REFERENCE INDEXES

NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG.	ITEM
5320-00-005-6279	F-5	15
5940-00-021-3321	F-25	5
	F-32	7
5310-00-022-8847	F-32	4
5310-00-042-4229	F-5.1	32
	F-10	2
	F-10.1	6
5310-00-043-0520	F-10	4
5310-00-044-6477	F-26	2
	F-27	5
	F-28	2
	F-28	6
	F-29	2
	F-30	2
	F-31	2
	F-31	2A
5310-00-045-3296	F-1	8
	F-1.1	8
5305-00-052-1457	F-17	6
5970-00-052-4877	BULK	7
	F-14	9
5305-00-054-5652	F-5	22
5305-00-054-6670	F-7	1
5305-00-054-6671	F-5	7
	F-7.1	11
5310-00-056-3395	F-21	1
5970-00-057-3545	BULK	13
	F-11	4
5305-00-059-3660	F-18	3
	F-18.1	1
5340-00-066-1235	F-22	1
5305-00-071-1318	F-5.1	20
	F-12	9
	F-12.1	9
5305-00-071-1323	F-1	10
	F-1.1	10
5305-00-071-1324	F-10.1	12
5975-00-074-2072	F-5	25
	F-5.1	14
	F-8	2
	F-14	2
	F-15	3
5325-00-074-3301	BULK	2
	F-5	29
5340-00-078-3615	F-7	7
	F-7.1	4
5970-00-082-3942	BULK	8
	F-15	2
5970-00-082-3948	BULK	11
	F-12.1	13
5310-00-087-4652	F-5	1
	F-5.1	24
5310-00-088-1251	F-24	1
5970-00-088-2975	BULK	6
5305-00-088-9671	F-7	6
	F-7.1	10
5970-00-089-6041	BULK	10
	F-11	5
	F-12	2
	F-14	6
	F-19	3
5970-00-105-3075	BULK	18
	F-10	12
	F-10	13
	F-10	14
	F-10	15
5930-00-105-5331	F-7	9
	F-7.1	8
5940-00-113-8179	F-13	3
	F-20	3
5940-00-113-8190	F-12.1	14
	F-22	18
	F-23	2
5940-00-113-9833	F-11	3
	F-12.1	16
	F-16	2
	F-19	2
5940-00-115-2678	F-6	9
5940-00-115-4996	F-12	14
5940-00-115-5007	F-12.1	1
	F-16	5
	F-19	5
5320-00-117-7288	F-5.1	17
5120-00-138-3790	F-6	5
5940-00-143-4771	F-15	1
5940-00-143-4773	F-15	7
5940-00-143-4774	F-7	10
5940-00-143-4793	F-14	5
5310-00-184-8971	F-32	3
4710-00-185-6948	F-22	7
5999-00-186-3912	F-22	19
5310-00-187-2413	F-32	2
5120-00-203-4656	F-22	14
5310-00-208-9255	F-10.1	4
5310-00-209-1239	F-22	11
5310-00-213-4960	F-10	9
5306-00-226-4827	F-28	7
5306-00-226-4829	F-26	1
	F-27	4
	F-28	1
	F-29	5
	F-30	1
	F-31	1
	F-31	1A
5306-00-226-4832	F-30	3
5307-00-227-1741	F-32	5
5940-00-230-0515	F-13	2

SECTION IV. CROSS-REFERENCE INDEXES

NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG.	ITEM
	F-20	2
5340-00-234-8422	F-27	1
5940-00-237-2703	F-5.1	1
	F-10	3
	F-10.1	8
5310-00-250-9477	F-17	1
5310-00-252-8748	F-1	7
	F-1.1	7
5310-00-269-4040	F-2	3
4210-00-270-4512	F-23	1
5940-00-271-9504	F-22	16
4820-00-277-1765	F-24	6
5940-00-283-5280	F-14	3
5340-00-291-3484	F-17	5
5975-00-296-5324	F-22	22
5310-00-400-5503	F-5.1	29
	F-6	1
	F-12	4
	F-12.1	4
5330-00-402-5125	F-22	8
5310-00-408-2561	F-22	4
5310-00-421-9608	F-10	8
4730-00-441-8700	F-22	10
5935-00-506-6540	F-8	6
5310-00-566-9502	F-22	5
5940-00-557-4338	F-12	1
5940-00-557-4344	F-11	2
	F-12	13
5310-00-570-0386	F-7	14
5310-00-571-5090	F-22	9
6145-00-578-6594	BULK	20
	F-12	12
6145-00-578-6595	BULK	19
	F-12	3
5320-00-582-3304	F-5	18
5320-00-582-3305	F-5	13
5320-00-582-5677	F-32	8
5310-00-584-7995	F-5.1	33
	F-32	1
4710-00-597-8731	F-22	6
5310-00-637-9541	F-5.1	26
5940-00-660-3633	F-14	4
5320-00-680-8779	F-27	21
5305-00-685-3511	F-6	4
5305-00-688-2111	F-5	3
	F-5.1	27
	F-21	3
5305-00-724-7221	F-2	1
5970-00-740-2971	BULK	9
	F-7	8
	F-8	4
5320-00-753-3830	F-27	3
5970-00-781-6826	BULK	16
	F-4	2
5970-00-787-2325	BULK	5
	F-20	4
5975-00-794-2523	F-22	21
5935-00-801-6622	F-14	8
5310-00-809-5997	F-24	8
5310-00-809-9703	F-23	6
4730-00-812-1333	F-24	4
5970-00-812-1360	BULK	14
	F-12.1	2
5940-00-813-0698	F-8	3
	F-15	4
5970-00-822-2775	BULK	15
	F-4	3
	F-15	6
5305-00-841-2681	F-22	12
4730-00-842-2201	F-24	11
5935-00-852-9611	F-13	6
5940-00-853-3987	F-6	7
5975-00-878-3791	F-22	15
5310-00-880-5978	F-5	8
	F-7	2
	F-7.1	13
5310-00-883-9417	F-32	9
6210-00-900-9423	F-5.	7
	F-7	17
	F-7.1	1
	F-9	1
	F-9.1	1
3740-00-902-1481	F-22	2
4730-00-908-3194	F-23	4
5970-00-914-3118	BULK	12
	F-16	3
5975-00-924-9927	F-22	20
4020-00-928-3438	BULK	17
	F-6	8
5310-00-933-8118	F-5	21
5310-00-933-8119	F-5	9
	F-7	3
	F-7.1	12
5310-00-933-8120	F-18	2
	F-18.1	2
5310-00-933-8121	F-5.1	28
	F-6	2
	F-10	5
	F-12	5
	F-12.1	5
	F-17	2
5310-00-934-9748	F-5	20
5310-00-934-9760	F-18	1
6210-00-941-6690	F-9.1	2
5365-00-944-2692	F-30	4
5305-00-954-9550	F-5.1	31
5320-00-954-9568	F-5.1	12
5320-00-956-7355	F-5.1	34

SECTION IV. CROSS-REFERENCE INDEXES

NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG.	ITEM
5320-00-957-2507	F-1	4
	F-1.1	4
	F-1.2	4
	F-1.3	4
	F-33	2
5340-00-975-2126	F-27	7
5310-00-982-6814	F-7	5
	F-7.1	5
5310-00-984-3806	F-26	3
	F-27	6
	F-28	3
	F-29	1
	F-30	5
	F-31	3
	F-31	3A
5305-00-988-1727	F-24	3
5310-00-989-0908	F-32	10
5365-00-989-3304	F-29	6
5310-00-989-5945	F-10	1
	F-10.1	7
5320-00-991-7484	F-5.1	36
5305-00-993-2457	F-10	6
5120-01-013-1676	F-22	13
4730-01-020-5607	F-24	7
5935-01-035-5139	F-20	6
6145-01-042-4621	BULK	25
	F-8	5
6145-01-044-8799	BULK	23
	F-13	5
	F-20	5
6145-01-060-7863	BULK	24
	F-14	7
	F-15	5
6145-01-071-1334	BULK	22
	F-11	6
	F-12.1	12
	F-13	5
5310-01-078-5996	F-32	6
5935-01-091-9166	F-4	1
5935-01-092-3451	F-11	8
5935-01-092-4269	F-12	11
	F-12.1	11
5999-01-130-1897	F-4	6
5999-01-131-5588	F-4	7
5310-01-141-6672	F-5	23
5935-01-147-9446	F-12.1	10
2330-01-150-9864	F-25	7
	F-30	7
5310-01-164-4694	F-5	28
5999-01-167-0838	F-4	5
5935-01-172-1004	F-10	16
	F-12	10
5935-01-175-8419	F-5	24
2510-01-195-4273	F-25	1
	F-28	8
2510-01-196-4682	F-25	11
	F-30	8
2510-01-213-3242	F-25	10
	F-28	9
5310-01-219-3472	F-5.1	37
5342-01-226-5766	F-29	4
6145-01-226-9164	BULK	26
	F-22	17
	F-23	3
6210-01-230-1851	F-9	4
	F-9.1	4
6240-01-232-8753	F-9	3
6145-01-240-6923	BULK	21
	F-11	7
	F-12.1	3
	F-12.1	15
	F-16	4
	F-16	12
	F-16	14
	F-19	4
	F-19	7
	F-19	9
	F-19	11
	F-19	13
5310-01-242-2679	F-2	2
6150-01-261-9826	F-7	13
	F-7.1	7
6115-01-274-7389	F-1.1	2
6115-01-274-7394	F-1.1	3
5340-01-277-5068	F-6	6
6115-01-280-0063	F-1	1
	F-1.1	1
5340-01-295-4896	F-5	30
	F-5.1	13
4730-01-297-0185	F-24	5
5310-01-304-8733	F-5.1	21
	F-6	3
	F-10	7
	F-12	8
	F-12.1	8
	F-17	3
	F-24	2
6115-01-317-2136	F-1	2
4720-01-337-5130	BULK	4
	F-24	12
5310-01-352-9599	F-18	4
6240-01-355-4422	F-9.1	3
5310-01-385-7083	F-5.1	25
	F-21	2
5310-01-386-0481	F-1	9
	F-1.1	9
4730-01-386-1770	F-24	9
4720-01-386-4210	BULK	3

SECTION IV. CROSS-REFERENCE INDEXES

NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
	F-23	5			
6110-01-388-0318	F-5.1	11			
	F-18	5			
6115-01-392-0296	F-1.2	1			
	F-1.3	1			
5340-01-397-6096	F-5	6			
	F-5.1	39			
2540-01-417-8036	F-25	8			
	F-27	8			
6150-01-444-2430	F-3	1			
5930-01-457-7115	F-3	2			
5940-01-458-9497	F-15	8			
6115-01-461-9335	F-1.3	2			
6115-01-462-0290	F-1.3	3			
6115-01-470-6376	F-1.1	2			
5310-01-471-0640	F-10.1	3			
	F-18.1	3			
5310-01-478-5703	F-5	14			
9505-01-496-6526	BULK	27			
	F-10	18			
	F-10	19			
	F-10.1	10			
	F-10.1	11			
4210-01-535-1439	F-28	5			

SECTION IV. CROSS-REFERENCE INDEXES

PART NUMBER INDEX

CAGEC	PART NUMBER	STOCK NUMBER	FIG.	ITEM
58536	A-A-12 93	5120-00-203-4656	F-22	14
58536	A-A-55 624-68		F-10	10
58536	A-A-55 804	5975-00-296-5324	F-22	22
58536	A-A-55 804-3B	5975-00-878-3791	F-22	15
58536	AA59125/2 8-TBJA	6150-01-261-9826	F-7	13
			F-7.1	7
07707	AD64 H	5320-00-956-7355	F-5.1	34
88044	AN960 -C4	5310-01-141-6672	F-5	23
88044	AN961 -616	5310-00-187-2413	F-32	2
81349	ASTM A313	9505-01-496-6526	BULK	27
19099			F-10	18
19099			F-10	19
19099			F-10.1	10
19099			F-10.1	11
05049	B1821B H031C100N	5306-00-226-4827	F-28	7
80204	B1821B H031C125N	5306-00-226-4829	F-26	1
			F-27	4
			F-28	1
			F-29	5
			F-30	1
			F-31	1
			F-31	1A
80204	B1821B H031C175N	5306-00-226-4832	F-30	3
80204	B1821B H038C138N	5305-00-688-2111	F-5	3
			F-5.1	27
			F-21	3
80204	B1821B H063C175N	5305-00-724-7221	F-2	1
81347	C18 32	4020-00-928-3438	BULK	17
19099			F-6	8
01667	CBA-70	5940-00-271-9504	F-22	16
12670	CLE-403 002	5120-00-138-3790	F-6	5
01XD4	CT350E-120E4	6110-01-388-0318	F-5.1	11
			F-18	5
01276	FC17 3-5	4720-01-337-5130	BULK	4
19099			F-24	12
58224	G9B (GR)	6240-01-232-8753	F-9	3
73616	GRB58	5975-00-924-9927	F-22	20
0BKK8	GRC 58	5975-00-794-2523	F-22	21
94222	K3-03 34-07	5340-01-295-4896	F-5	30
			F-5.1	13
81349	M2275 9/16-1-9	6145-01-240-6923	BULK	21
19099			F-11	7
19099			F-12.1	3
19099			F-12.1	15
19099			F-16	4
19099			F-16	12
19099			F-16	14
19099			F-19	4
19099			F-19	7
19099			F-19	9
19099			F-19	11
19099			F-19	13

SECTION IV. CROSS-REFERENCE INDEXES

PART NUMBER INDEX

CAGEC	PART NUMBER	STOCK NUMBER	FIG.	ITEM
81349	M2275 9/16-16-9	6145-01-044-8799	BULK	23
19099			F-7	11
19099			F-20	5
81349	M2275 9/16-18-9	6145-01-060-7863	BULK	24
19099			F-14	7
19099			F-15	5
81349	M2275 9/16-20-9	6145-01-042-4621	BULK	25
19099			F-8	5
81349	M2275 9/16-6-9	6145-01-071-1334	BULK	22
19099			F-11	6
19099			F-12.1	12
19099			F-13	5
81349	M2305 3/5-104-4	5970-00-787-2325	BULK	5
19099			F-20	4
81349	M2305 3/5-104-9	5970-00-088-2975	BULK	6
19099			F-13	4
81349	M2305 3/5-105-4	5970-00-052-4877	BULK	7
19099			F-14	9
81349	M2305 3/5-105-9	5970-00-082-3942	BULK	8
19099			F-15	2
81349	M2305 3/5-107-9	5970-00-740-2971	BULK	9
19099			F-7	8
19099			F-8	4
81349	M2305 3/5-108-4	5970-00-089-6041	BULK	10
19099			F-11	5
19099			F-12	2
19099			F-14	6
19099			F-19	3
81349	M2305 3/5-108-9	5970-00-082-3948	BULK	11
19099			F-12.1	13
81349	M2305 3/5-109-0	5970-00-914-3118	BULK	12
19099			F-16	3
81349	M2305 3/5-109-4	5970-00-057-3545	BULK	13
19099			F-11	4
81349	M2305 3/5-109-9	5970-00-812-1360	BULK	14
19099			F-12.1	2
81349	M2305 3/5-110-9	5970-00-822-2775	BULK	15
19099			F-4	3
19099			F-15	6
81349	M2305 3/5-113-0	5970-00-781-6826	BULK	16
19099			F-4	2
81349	M2476 8/2-S-7	5970-00-105-3075	BULK	18
19099			F-10	12
19099			F-10	13
19099			F-10	14
19099			F-10	15
81349	M3902 9/49-330	5999-01-131-5588	F-4	7
81349	M3902 9/49-333	5999-01-130-1897	F-4	6
81349	M4591 3/1-6CG5C	5310-00-087-4652	F-5	1
			F-5.1	24
81349	M4591 3/1-10CG5C	5310-00-269-4040	F-2	3
81349	M4593 8/1-13C	5310-00-570-0386	F-7	14

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CAGEC	PART NUMBER	STOCK NUMBER	FIG.	ITEM
81349	M5086/2 -4-9	6145-00-578-6595	BULK	19
19099			F-12	3
81349	M5086/2 -6-9	6145-00-578-6594	BULK	20
19099			F-12	12
81349	M6000 -F-00200	4720-01-386-4210	BULK	3
19099			F-23	5
96906	MS1246 96	5325-00-291-3484	F-17	5
96906	MS1579 5-807	5310-00-880-5978	F-5	8
			F-7	2
			F-7.1	13
96906	MS1579 5-810	5310-00-582-5677	F-32	8
80205	MS1579 5-852	5310-01-304-8733	F-5.1	21
			F-6	3
			F-10	7
			F-12	8
			F-12.1	8
			F-17	3
			F-24	2
80205	MS1579 5-857	5310-01-352-9599	F-18	4
96906	MS1620 3-27	5310-00-584-7995	F-5.1	33
			F-32	1
96906	MS1801 5-1	5340-00-975-2126	F-27	7
80205	MS2042 6AD6-8	5320-00-117-7288	F-5.1	17
96906	MS2042 7-4C6	5320-00-680-8779	F-27	2
96906	MS2047 0AD4-4-5	5320-00-005-6279	F-5	15
96906	MS2060 0AD4W2	5320-00-582-3304	F-5	18
96906	MS2060 0AD4W3	5320-00-582-3305	F-5	13
96906	MS2060 4AD3W2	5320-00-991-7484	F-5.1	36
96906	MS2060 4AD4W3	5320-00-954-9568	F-5.1	12
80205	MS2060 4AD6W4	5320-00-957-2507	F-1	4
			F-1.1	4
			F-1.2	4
			F-1.3	4
			F-33	2
96906	MS2061 3-4P5	5320-00-753-3830	F-27	3
96906	MS2065 9-111	5940-00-115-2678	F-6	9
96906	MS2065 9-145	5940-00-115-4996	F-12	14
80205	MS2104 4C08	5310-00-982-6814	F-7	5
			F-7.1	5
80205	MS2104 4C3	5310-00-208-9255	F-10.1	4
96906	MS2126 6-2N	5325-00-074-3301	BULK	2
19099			F-5	29
96906	MS2132 2-33	5340-00-078-3615	F-7	7
			F-7.1	4
96906	MS2451 9-9	4730-00-809-9703	F-23	6
96906	MS2458 7-5	4730-00-842-2201	F-24	11
96906	MS2469 3-C52	5305-00-088-9671	F-7	6
			F-7.1	10
81343	MS2503 6-101	5940-00-813-0698	F-8	3
			F-15	4
96906	MS2503 6-106	5940-00-283-5280	F-14	3
96906	MS2503 6-107	5940-00-113-8179	F-13	3

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CAGEC	PART NUMBER	STOCK NUMBER	FIG.	ITEM
			F-20	3
96906	MS2503 6-110	5940-00-143-4793	F-14	5
96906	MS2503 6-120	5940-00-557-4344	F-11	2
			F-12	13
96906	MS2503 6-122	5940-00-113-8190	F-12.1	14
			F-22	18
			F-23	2
96906	MS2503 6-125	5940-00-557-4338	F-12	1
96906	MS2503 6-130	5940-00-115-5007	F-12.1	1
			F-16	5
			F-19	5
96906	MS2503 6-131	5940-00-113-9833	F-11	3
			F-12.1	16
			F-16	2
			F-19	2
96906	MS2503 6-153	5940-00-143-4774	F-7	10
96906	MS2503 6-154	5940-00-230-0515	F-13	2
			F-20	2
96906	MS2503 6-155	5940-00-660-3633	F-14	4
96906	MS2504 3-18DA	5935-01-175-8419	F-5	24
96906	MS2713 0-A93	5310-01-164-4694	F-5	28
96906	MS2713 0-A96		F-5	27
96906	MS2713 0-CR26	5310-01-219-3472	F-5.1	37
96906	MS2718 3-17	5310-00-809-5997	F-24	8
96906	MS2740 7-3	5930-00-105-5331	F-7	9
			F-7.1	8
96906	MS2796 9-4	5340-00-234-8422	F-27	1
96906	MS3100 R20-27S	5935-00-801-6622	F-14	8
96906	MS3102 R18-11P	5935-00-852-9611	F-13	6
96906	MS3106 R20-27P	5935-00-506-6540	F-8	6
96906	MS3348 -6-8L	5999-01-167-0838	F-4	5
96906	MS3367 -1-9	5975-00-074-2072	F-5	25
			F-5.1	14
			F-8	2
			F-14	2
			F-15	3
96906	MS3456 W18-11S	5935-01-035-5139	F-20	6
96906	MS3520 6-283	5305-00-988-1727	F-24	3
96906	MS3520 7-284	5305-00-993-2457	F-10	6
96906	MS3521 4-101	5305-00-954-9550	F-5.1	31
80205	MS3530 8-3	5305-00-052-1457	F-17	6
80205	MS3530 8-306	5305-00-685-3511	F-6	4
96906	MS3533 3-110	5310-00-022-8847	F-32	4
96906	MS3533 3-113	5310-00-042-4229	F-5.1	32
			F-10	2
			F-10.1	6
96906	MS3533 5-60	5310-00-209-1239	F-22	11
96906	MS3533 8-103	5310-00-184-8971	F-32	3
96906	MS3533 8-135	5310-00-933-8118	F-5	21
96906	MS3533 8-137	5310-00-933-8119	F-5	9
			F-7	3
			F-7.1	12

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CAGEC	PART NUMBER	STOCK NUMBER	FIG.	ITEM
96906	MS3533 8-138	5310-00-933-8120	F-18	2
			F-18.1	2
96906	MS3533 8-139	5310-00-933-8121	F-5.1	28
			F-6	2
			F-10	5
			F-12	15
			F-12.1	5
			F-17	2
96906	MS3533 8-158	5310-00-883-9417	F-32	9
96906	MS3533 8-43	5310-00-045-3296	F-1	8
			F-1.1	8
80205	MS3533 8-46	5310-00-637-9541	F-5.1	26
96906	MS3542 5-75	5310-01-078-5996	F-32	6
80205	MS3564 9-204	5310-00-934-9760	F-18	1
80205	MS3564 9-2254	5310-00-250-9477	F-17	1
96906	MS3564 9-2382	5310-00-056-3395	F-21	1
97403	MS3564 9-244	5310-00-934-9748	F-5	20
96906	MS3565 0-3252	5310-00-043-0520	F-10	4
80205	MS3565 0-3254	5310-00-400-5503	F-5.1	29
			F-6	1
			F-12	4
			F-12.1	4
96906	MS3565 0-3314	5310-00-252-8748	F-1	7
			F-1.1	7
96906	MS3569 1-3	5310-00-989-0908	F-32	10
96906	MS3569 1-35	5310-00-989-5945	F-10	1
			F-10.1	7
96906	MS3584 2-11	4730-00-908-3194	F-23	4
96906	MS3593 0-2	4820-00-277-1765	F-24	6
96906	MS3934 7-2	5940-00-021-3321	F-25	5
			F-32	7
96906	MS3934 7-5	5940-00-237-2703	F-5.1	1
			F-10	3
			F-10.1	8
96906	MS3934 7-5A		F-10	17
			F-10.1	9
19099	MS3934 7-5B		F-10	18
			F-10.1	10
19099	MS3934 7-5C		F-10	19
			F-10.1	11
96906	MS5141 2-11	5310-01-242-2679	F-2	2
96906	MS5141 2-21	5310-01-386-0481	F-1	9
			F-1.1	9
96906	MS5141 2-25	5310-00-044-6477	F-26	2
			F-27	5
			F-28	2
			F-29	2
			F-30	2
			F-31	2
			F-31	2A
96906	MS5141 2-27	5310-01-385-7083	F-5.1	25
			F-21	2

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CAGEC	PART NUMBER	STOCK NUMBER	FIG.	ITEM
96906	MS5150 0A8-4	4730-00-441-8700	F-22	10
96906	MS5151 9B5Z/A5Z	4730-01-297-0185	F-24	5
96906	MS5152 0A5Z	4730-01-386-1770	F-24	9
96906	MS5185 8-4	5310-00-421-9608	F-10	8
96906	MS5185 9-4	5310-00-213-4960	F-10	9
96906	MS5186 0-54	4730-01-020-5607	F-24	7
96906	MS5196 0-66	5305-00-071-1323	F-1	10
			F-1.1	10
96906	MS5192 2-1	5310-00-088-1251	F-24	1
96906	MS5192 2-9	5310-00-984-3806	F-26	3
			F-27	6
			F-28	3
			F-29	1
			F-30	5
			F-31	3
			F-31	3A
96906	MS5195 7-18	5305-00-054-5652	F-5	22
96906	MS5195 7-45	5305-00-054-6670	F-7	1
96906	MS5195 7-46	5305-00-054-6671	F-5	7
			F-7.1	11
96906	MS5195 7-83	5305-00-071-1318	F-5.1	20
			F-12	9
			F-12.1	9
80205	MS5195 8-64	5305-00-059-3660	F-18	3
			F-18.1	1
96906	MS5196 0-67	5305-00-071-1324	F-10.1	12
19099	MS5210 3-2	4720-01-337-5130	BULK	4
			F-24	12
96906	MS5210 3A050440R		F-24	10
96906	MS9055 5C44413S	5935-01-092-3451	F-11	8
96906	MS9055 7C44413S	5935-01-091-9166	F-4	1
96906	MS9055 8C44413P	5935-01-092-4269	F-12	11
			F-12.1	11
96906	MS9056 3-7C	5935-01-172-1004	F-10	16
			F-12	10
96906	MS9056 4-7C	5935-01-147-9446	F-12.1	10
14726	P1401	5940-00-853-3987	F-6	7
29440	PL-19 -3	5305-00-841-2681	F-22	12
81349	QQW343 C06B1B	6145-01-226-9164	BULK	26
			F-22	17
			F-23	3
14726	R41 52F	5940-00-143-4773	F-15	7
14726	R42 68F	5940-00-143-4771	F-15	1
56501	RB14 -12	5940-01-458-9497	F-15	8
71102	0128 22		BULK	1
19099			F-4	4
97403	1320 0E6361	5310-00-571-5090	F-22	9
97403	1320 0E6363	3740-00-902-1481	F-22	2
06076	1321 1E7541	5342-00-066-1235	F-22	1
97403	1321 1E7542	4710-00-597-8731	F-22	6
97403	1321 1E7543	4710-00-185-6948	F-22	7
97403	1321 1E7544	5310-00-566-9502	F-22	5

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CAGEC	PART NUMBER	STOCK NUMBER	FIG.	ITEM
97403	1321 1E7546	5330-00-402-5125	F-22	8
97403	1321 1E7547	5310-00-408-2561	F-22	4
97403	13211E7548		F-22	3
97403	1321 4E1223	5307-00-227-1741	30	6
97403	1321 4E1259		F-25	2
			F-26	4
97403	1321 4E1261		F-25	9
			F-26	5
97403	1321 4E1263	2510-01-195-4273	F-25	1
			F-28	8
97403	1321 4E1264	2510-01-213-3242	F-25	10
			F-28	9
97403	1321 4E1267-1	5365-00-944-2692	F-30	4
97403	1321 4E1268		F-30	6
97403	1321 4E1269	5342-01-226-5766	F-29	4
97403	1321 4E1270		F-29	3
97403	1321 4E1271		F-29	7
97403	1321 4E1272	5365-00-989-3304	F-29	6
97403	1321 4E1391	6210-00-900-9423	F-5.1	7
			F-7	17
			F-7.1	1
			F-9	1
			F-9.1	1
97403	1321 4E1461	6540-01-150-9864	F-25	7
			F-30	7
97403	1321 4E1462	2510-01-196-4682	F-25	11
			F-30	8
97403	1321 8E5091	6115-01-280-0063	F-1	1
			F-1.1	1
97403	1322 6E7741	5120-01-013-1676	F-22	13
97403	1322 9E5666-19		F-1.2	5
97403	1322 9E5666-20		F-1.2	6
97403	1322 9E5666-23		F-1.3	5
97403	1322 9E5666-24		F-1.3	6
97403	1322 9E5666-27		F-1.1	6
97403	1322 9E5666-28		F-1.1	5
97403	1322 9E5666-35		F-1.2	5
97403	1322 9E5666-36		F-1.2	6
97403	1322 9E5666-41		F-1	5
97403	1322 9E5666-42		F-1	6
97403	1322 9E5666-7		F-1	5
97403	1322 9E5666-8		F-1	6
30554	1322 9E5700-ELE		F-1	3
97403	1322 9E5728-2		F-5	11
97403	1322 9E5738	6150-01-444-2430	F-3	1
19099	1322 9E5738-2		F-4	4
19099	1322 9E5738-3		F-4	2
19099	1322 9E5738-4		F-4	3
30554	1322 9E5745	6115-01-317-2136	F-1	2
97403	1322 9E5788-1		F-12	7
97403	1322 9E5788-2		F-12.1	7
97403	1322 9E5792-2		F-5	19

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CAGEC	PART NUMBER	STOCK NUMBER	FIG.	ITEM
			F-5.1	19
97403	1322 9E5792-3		F-5.1	40
97403	1322 9E5793-1		F-7	15
97403	1322 9E5793-2		F-5.1	30
			F-7	16
97403	1322 9E5795-2(A Model)		F-3	2
			F-5	4
97403	1322 9E5795-2(B&C Model)	5930-01-457-7115	F-3	2
19099	1322 9E5795-2-65	4020-00-928-3438	F-6	8
19099	1322 9E5795-2-67	5970-00-105-3075	F-10	12
19099	1322 9E5795-2-68	5970-00-105-3075	F-10	13
19099	1322 9E5795-2-69	5970-00-105-3075	F-10	14
19099	1322 9E5795-2-70	5970-00-105-3075	F-10	15
97403	1322 9E5796		F-5.1	38
97403	1322 9E5796-2		F-5	26
19099	1322 9E5796-2-15	5325-00-074-3301	F-5	29
97403	1322 9E5800-1		F-5.1	10
			F-7.1	2
			F-15	9
19099	1322 9E5800-1-10	5970-00-082-3942	F-15	2
19099	1322 9E5800-1-2	6145-01-060-7863	F-15	5
19099	1322 9E5800-1-6	5970-00-822-2775	F-15	6
97403	1322 9E5801		F-5.1	15
97403	1322 9E5801-2		F-5	12
97403	1322 9E5802-1		F-5.1	6
			F-7	4
19099	1322 9E5802-1-10	6145-01-044-8799	F-7	11
19099	1322 9E5802-1-4	5970-00-740-2971	F-7	8
97403	1322 9E5804		F-5	10
			F-5.1	18
97403	1322 9E5805		F-7	12
			F-7.1	9
97403	1322 9E5806-1		F-5.1	9
			F-13	1
19099	1322 9E5806-1-2	6145-01-044-8799	F-13	5
19099	1322 9E5806-1-5	5970-00-088-2975	F-13	4
97403	1322 9E5806-2		F-5.1	4
			F-20	1
19099	1322 9E5806-2-2	6145-01-044-8799	F-20	5
19099	1322 9E5806-2-5	5970-00-787-2325	F-20	4
97403	1322 9E5807-2		F-10	11
			F-10.1	1
97403	1322 9E5809-1		F-11	1
19099	1322 9E5809-1-16	5970-00-089-6041	F-11	5
19099	1322 9E5809-1-18	5970-00-057-3545	F-11	4
19099	1322 9E5809-1-6	6145-01-240-6923	F-11	7
19099	1322 9E5809-1-7	6145-01-071-1334	F-11	6
97403	1322 9E5809-2		F-5.1	8
			F-12.1	17
19099	1322 9E5809-2-16	5970-00-812-1360	F-12.1	2
19099	1322 9E5809-2-18	5970-00-082-3948	F-12.1	13
19099	1322 9E5809-2-6	6145-01-240-6923	F-12.1	3

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CAGEC	PART NUMBER	STOCK NUMBER	FIG.	ITEM
			F-12.1	15
19099	13229E5809-2-7	6145-01-071-1334	F-12.1	12
97403	13229E5810		F-5.1	2
97403	13229E5810-14		F-16	8
97403	13229E5810-15		F-16	9
97403	13229E5810-16		F-16	10
97403	13229E5810-22		F-16	13
97403	13229E5810-24		F-16	11
97403	13229E5810-4		F-16	1
97403	13229E5810-5		F-16	6
97403	13229E5810-6		F-16	7
97403	13229E5811		F-5.1	5
97403	13229E5811-10		F-19	12
19099	13229E5811-10-2	6145-01-240-6923	F-19	13
97403	13229E5811-6		F-19	1
19099	13229E5811-6-2	6145-01-240-6923	F-19	4
97403	13229E5811-7		F-19	6
19099	13229E5811-7-2	6145-01-240-6923	F-19	7
97403	13229E5811-8		F-19	8
19099	13229E5811-8-2	6145-01-240-6923	F-19	9
97403	13229E5811-9		F-19	10
19099	13229E5811-9-2	6145-01-240-6923	F-19	11
97403	13229E5815		F-5.1	23
			F-12	6
			F-12.1	6
97403	13229E5816-1		F-17	4
97403	13229E5834		F-5	17
			F-5.1	16
97403	13229E5835		F-5	16
97403	13229E5837		F-7	18
			F-8	1
19099	13229E5837-2	6145-01-042-4261	F-8	5
19099	13229E5837-3	5970-00-740-2971	F-8	4
97403	13229E6108		F-25	6
			F-31	4
			F-31	4A
30554	13229E6853-ELE		F-1.1	3
97403	13229E7946	2540-01-417-8036	F-25	8
			F-27	8
97403	13229E9632	6115-01-392-0296	F-1.2	1
			F-1.3	1
97403	13229E9632A		F-25	4
97403	13229E9633		F-25	3
97403	13230E4592		F-21	4
97403	13230E4599-2		F-10.1	5
30554	13230E6380-4A		F-22	23
30554	13230E6381-2A		F-22	24
97403	13230E6382-4		F-28	4
97403	13230E6382-6	5310-00-087-4652	F-5	1
97403	13230E6516		F-7.1	6
97403	13230E6528		F-10.1	2
97403	13230E6529		F-5.1	22

SECTION IV. CROSS-REFERENCE INDEXES

PART NUMBER INDEX

CAGEC	PART NUMBER	STOCK NUMBER	FIG.	ITEM
96906	13230E6744-46	5310-01-478-5703	F-5	14
97403	13230E6797		F-33	1
97403	13230E6823-2		F-5.1	35
97403	13230E6831	4210-00-270-4512	F-23	1
30554	13230E6849	6115-01-470-6376	F-1.1	2
97403	13230E6858	4210-01-535-1439	F-28	5
83330	181-0931-001		F-9	2
83330	181-0937-003	6210-00-941-6690	F-9.1	2
83330	181-8836-09-553	6210-01-230-1851	F-9	4
			F-9.1	4
94222	2-57-1735-07	5340-01-397-6096	F-5	6
			F-5.1	39
93742	69-539-2	4730-00-812-1333	F-24	4
08108	6S6AC130V	6240-01-355-4422	F-9.1	3
04655	70-801074	5999-00-186-3912	F-22	19
30554	72-2029-2A		F-5.1	3
30554	72-2135	5340-01-277-5068	F-6	6
30554	88-20033-11C	5310-01-471-0640	F-10.1	3
			F-18.1	3
30554	88-20033-25A	5310-00-044-6477	F-28	6
30554	88-20033-314A		F-5	2
30554	88-805	6115-01-274-7389	F-1.2	2
30554	88-815	6115-01-274-7394	F-1.2	3
30554	96-805	6115-01-461-9335	F-1.3	2
30554	96-815	6115-01-462-0290	F-1.3	3

SECTION IV. CROSS-REFERENCE INDEXES

FIGURE AND ITEM NUMBER INDEX

FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
BULK	1		71102	012822
BULK	2	5325-00-074-3301	96906	MS21266-2N
BULK	3	4720-01-386-4210	81349	M6000-F-00200
BULK	4	4720-01-337-5130	01276	FC173-5
BULK	5	5970-00-787-2325	81349	M23053/5-104-4
BULK	6	5970-00-088-2975	81349	M23053/5-104-9
BULK	7	5970-00-052-4877	81349	M23053/5-105-4
BULK	8	5970-00-082-3942	81349	M23053/5-105-9
BULK	9	5970-00-740-2971	81349	M23053/5-107-9
BULK	10	5970-00-089-6041	81349	M23053/5-108-4
BULK	11	5970-00-082-3948	81349	M23053/5-108-9
BULK	12	5970-00-914-3118	81349	M23053/5-109-0
BULK	13	5970-00-057-3545	81349	M23053/5-109-4
BULK	14	5970-00-812-1360	81349	M23053/5-109-9
BULK	15	5970-00-822-2775	81349	M23053/5-110-9
BULK	16	5970-00-781-6826	81349	M23053/5-113-0
BULK	17	4020-00-928-3438	88001	C1832
BULK	18	5970-00-105-3075	81349	M24768/2-S-7
BULK	19	6145-00-578-6595	81349	M5086/2-4-9
BULK	20	6145-00-578-6594	81349	M5086/2-6-9
BULK	21	6145-01-240-6923	81349	M22759/16-1-9
BULK	22	6145-01-071-1334	81349	M22759/16-6-9
BULK	23	6145-01-044-8799	81349	M22759/16-16-9
BULK	24	6145-01-060-7863	81349	M22759/16-18-9
BULK	25	6145-01-042-4621	81349	M22759/16-20-9
BULK	26	6145-01-226-9164	81349	QQW343C06B1B
BULK	27	9505-01-496-6526	81346	ASTM A313
F-1	1	6115-01-280-0063	97403	13218E5091
F-1	2	6115-01-317-2136	30554	13229E5745
F-1	3		30554	13229E5700-ELE
F-1	4	5320-00-957-2507	80205	MS20604AD6W4
F-1	5		97403	13229E5666-41
F-1	5		97403	13229E5666-7
F-1	6		97403	13229E5666-42
F-1	6		97403	13229E5666-8
F-1	7	5310-00-252-8748	80205	MS35650-3314
F-1	8	5310-00-045-3296	96906	MS35338-43
F-1	9	5310-01-386-0481	96906	MS51412-21
F-1	10	5305-00-071-1323	96906	MS51960-66
F-1.1	1	6115-01-280-0063	97403	13218E5091
F-1.1	2	6115-01-470-6376	30554	13230E6849
F-1.1	3		30554	13229E6853-ELE
F-1.1	4	5320-00-957-2507	80205	MS20604AD6W4
F-1.1	5		97403	13229E5666-28
F-1.1	6		97403	13229E5666-27
F-1.1	7	5310-00-252-8748	80205	MS35650-3314
F-1.1	8	5310-00-045-3296	96906	MS35338-43
F-1.1	9	5310-01-386-0481	96906	MS51412-21
F-1.1	10	5305-00-071-1323	96906	MS51960-66
F-1.2	1	6115-01-392-0296	97403	13229E99632
F-1.2	2	6115-01-274-7389	30554	88-805

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FIGURE AND ITEM NUMBER INDEX

FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
F-1.2	3	6115-01-271-7394	30554	88-815
F-1.2	4	5320-00-957-2507	80205	MS20604AD6W4
F-1.2	5		97403	13229E5666-35
F-1.2	5		97403	13229E5666-19
F-1.2	6		97403	13229E5666-36
F-1.2	6		97403	13229E5666-20
F-1.3	1	6115-01-392-0296	97403	13229E9632
F-1.3	2	6115-01-461-9335	30554	96-805
F-1.3	3	6115-01-462-0290	30554	96-815
F-1.3	4	5320-00-957-2507	80205	MS20604AD6W4
F-1.3	5		97403	13229E5666-23
F-1.3	6		97403	13229E5666-24
F-2	1	5305-00-724-7221	80204	B1821BH063C175N
F-2	2	5310-01-242-2679	96906	MS51412-11
F-2	3	5310-00-269-4040	81349	M45913/1-10CG5C
F-3	1	6150-01-444-2430	97403	13229E5738
F-3	2		97403	13229E5795-2 (A Model)
F-3	2	5930-01-457-7115	97403	13229E5795-2 (B&C Models)
F-4	1	5935-01-091-9166	96906	MS90557C44413S
F-4	2		19099	13229E5738-3
F-4	3		19099	13229E5738-4
F-4	4		19099	13229E5738-2
F-4	5	5999-01-167-0838	96906	MS3348-6-8L
F-4	6	5999-01-130-1897	81349	M39029/49-333
F-4	7	5999-01-131-5588	81349	M39029/49-330
F-5	1	5310-00-087-4652	97403	13230E6382-6
F-5	2		30554	88-20033-314A
F-5	3	5305-00-688-2111	80204	B1821BH038C138N
F-5	4		97403	13229E5795-2 (A Model)
F-5	5	NOT USED		
F-5	6	5340-01-397-6096	94222	2-57-1735-07
F-5	7	5305-00-054-6671	96906	MS51957-46
F-5	8	5310-00-880-5978	96906	MS15795-807
F-5	9	5310-00-933-8119	96906	MS35338-137
F-5	10		97403	13229E5804
F-5	11		97403	13229E5728-2
F-5	12		97403	13229E5801-2
F-5	13	5320-00-582-3305	96906	MS20600AD4W3
F-5	14	5310-01-478-5703	96906	13230E6744-46
F-5	15	5320-00-005-6279	96906	MS20470AD4-4-5
F-5	16		97403	13229E5835
F-5	17		97403	13229E5834
F-5	18	5320-00-582-3304	96906	MS20600AD4W2
F-5	19		97403	13229E5792-2
F-5	20	5310-00-934-9748	97403	MS35649-244
F-5	21	5310-00-933-8118	96906	MS35338-135
F-5	22	5305-00-054-5652	96906	MS51957-18
F-5	23	5310-01-141-6672	88044	AN960-C4
F-5	24	5935-01-175-8419	96906	MS25043-18DA
F-5	25	5975-00-074-2072	96906	MS3367-1-9
F-5	26		97403	13229E5796-2
F-5	27		96906	MS27130-A96

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FIGURE AND ITEM NUMBER INDEX

FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
F-5	28	5310-01-164-4694	96906	MS27130-A93
F-5	29		19099	13229E5796-2-15
F-5	30	5340-01-295-4896	94222	K3-0334-07
F-5.1	1	5940-00-237-2703	96906	MS39347-5
F-5.1	2		97403	13229E5810
F-5.1	3		30554	72-2029-2A
F-5.1	4		97403	13229E5806-2
F-5.1	5		97403	13229E5811
F-5.1	6		97403	13229E5802-1
F-5.1	7	6210-00-900-9423	97403	13214E1391
F-5.1	8		97403	13229E5809-2
F-5.1	9		97403	13229E5806-1
F-5.1	10		97403	13229E5800-1
F-5.1	11	6110-01-388-0318	01XD4	CT350E-120E4
F-5.1	12	5320-00-954-9568	96906	MS20604AD4W3
F-5.1	13	5340-01-295-4896	94222	K3-0334-07
F-5.1	14	5975-00-074-2072	96906	MS3367-1-9
F-5.1	15		97403	13229E5801
F-5.1	16		97403	13229E5834
F-5.1	17	5320-00-117-7288	80205	MS20426AD6-8
F-5.1	18		97403	13229E5804
F-5.1	19		97403	13229E5792-2
F-5.1	20	5305-00-071-1318	96906	MS51957-83
F-5.1	21	5310-01-304-8733	80205	MS15795-852
F-5.1	22		97403	13230E6529
F-5.1	23		97403	13229E5815
F-5.1	24	5310-00-087-4652	81349	M45913/1-6CG5C
F-5.1	25	5310-01-385-7083	96906	MS51412-27
F-5.1	26	5310-00-637-9541	80205	MS35338-46
F-5.1	27	5305-00-688-2111	80204	B1821BH038C138N
F-5.1	28	5310-00-933-8121	96906	MS35338-139
F-5.1	29	5310-00-400-5503	80205	MS35650-3254
F-5.1	30		97403	13229E5793-2
F-5.1	31	5305-00-954-9550	96906	MS35214-101
F-5.1	32	5310-00-042-4229	96906	MS35333-113
F-5.1	33	5310-00-584-7995	96906	MS16203-27
F-5.1	34	5320-00-956-7355	07707	AD64H
F-5.1	35		97403	13230E6823-2
F-5.1	36	5320-00-991-7484	96906	MS20604AD3W2
F-5.1	37	5310-01-219-3472	96906	MS27130-CR26
F-5.1	38		97403	13229E5796
F-5.1	39	5340-01-397-6096	94222	2-57-1735-07
F-5.1	40		97403	13229E5792-3
F-6	1	5310-00-400-5503	80205	MS35650-3254
F-6	2	5310-00-933-8121	96906	MS35338-139
F-6	3	5310-01-304-8733	80205	MS15795-852
F-6	4	5305-00-685-3511	80205	MS35308-306
F-6	5	5120-00-138-3790	12670	CLE-403002
F-6	6	5340-01-277-5068	30554	72-2135
F-6	7	5940-00-853-3987	14726	P1401
F-6	8		19099	13229E5795-2-65
F-6	9	5940-00-115-2678	96906	MS20659-111

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FIGURE AND ITEM NUMBER INDEX

FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
F-7	1	5305-00-054-6670	96906	MS51957-45
F-7	2	5310-00-880-5978	80205	MS15795-807
F-7	3	5310-00-933-8119	96906	MS35338-137
F-7	4		97403	13229E5802-1
F-7	5	5310-00-982-6814	80205	MS21044C08
F-7	6	5305-00-088-9671	96906	MS24693-C52
F-7	7	5340-00-078-3615	96906	MS21322-33
F-7	8		19099	13229E5802-1-4
F-7	9	5930-00-105-5331	96906	MS27407-3
F-7	10	5940-00-143-4774	96906	MS25036-153
F-7	11		19099	13229E5802-1-10
F-7	12		97403	13229E5805
F-7	13	6150-01-261-9826	58536	AA59125/28-TBJA
F-7	14	5310-00-570-0386	81349	M45938/1-13C
F-7	15		97403	13229E5793-1
F-7	16		97403	13229E5793-2
F-7	17	6210-00-900-9423	97403	13214E1391
F-7	18		97403	13229E5837
F-7.1	1	6210-00-900-9423	97403	13214E1391
F-7.1	2		97403	13229E5800-1
F-7.1	3	NOT USED		
F-7.1	4	5340-00-078-3615	96906	MS21322-33
F-7.1	5	5310-00-982-6814	80205	MS21044C08
F-7.1	6		97403	13230E6516
F-7.1	7	6150-01-261-9826	58536	AA59125/28-TBJA
F-7.1	8	5930-00-105-5331	96906	MS27407-3
F-7.1	9		97403	13229E5805
F-7.1	10	5305-00-088-9671	96906	MS24693-C52
F-7.1	11	5305-00-054-6671	96906	MS51957-46
F-7.1	12	5310-00-933-8119	96906	MS35338-137
F-7.1	13	5310-00-880-5978	80205	MS15795-807
F-8	1		97403	13229E5837
F-8	2	5975-00-074-2072	96906	MS3367-1-9
F-8	3	5940-00-813-0698	81343	MS25036-101
F-8	4		19099	13229E5837-3
F-8	5		19099	13229E5837-2
F-8	6	5935-00-506-6540	96906	MS3106R20-27P
F-9	1	6210-00-900-9423	97403	13214E1391
F-9	2		83330	181-0931-001
F-9	3	6240-01-232-8753	58224	G9B (GR)
F-9	4	6210-01-230-1851	83330	181-8836-09-553
F-9.1	1	6210-00-900-9423	97403	13214E1391
F-9.1	2	6210-00-941-6690	83330	181-0937-003
F-9.1	3	6240-01-355-4422	08108	6S6AC130V
F-9.1	4	6210-01-230-1851	83330	181-8836-09-553
F-10	1	5310-00-989-5945	96906	MS35691-35
F-10	2	5310-00-042-4229	96906	MS35333-113
F-10	3	5940-00-237-2703	96906	MS39347-5
F-10	4	5310-00-043-0520	96906	MS35650-3252
F-10	5	5310-00-933-8121	80205	MS35338-139
F-10	6	5305-00-993-2457	96906	MS35207-284
F-10	7	5310-01-304-8733	80205	MS15795-852

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FIGURE AND ITEM NUMBER INDEX

FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
F-10	8	5310-00-421-9608	96906	MS51858-4
F-10	9	5310-00-213-4960	96906	MS51859-4
F-10	10		58536	A-A-55624-68
F-10	11		97403	13229E5807-2
F-10	12		19099	13229E5795-2-67
F-10	13		19099	13229E5795-2-68
F-10	14		19099	13229E5795-2-69
F-10	15		19099	13229E5795-2-70
F-10	16	5935-01-172-1004	96906	MS90563-7C
F-10	17		96906	MS39347-5A
F-10	18		19099	MS39347-5B
F-10	19		19099	MS39347-5C
F-10.1	1		97403	13229E5807-2
F-10.1	2		97403	13230E6528
F-10.1	3	5310-01-471-0640	30554	88-20033-11C
F-10.1	4	5310-00-208-9255	80205	MS21044C3
F-10.1	5		97403	13230E4599-2
F-10.1	6	5310-00-042-4229	96906	MS35333-113
F-10.1	7	5310-00-989-5945	96906	MS35691-35
F-10.1	8	5940-00-237-2703	96906	MS39347-5A
F-10.1	9		96906	MS39347-5A
F-10.1	10		19099	MS39347-5B
F-10.1	11		19099	MS39347-5C
F-10.1	12	5305-00-071-1324	96906	MS51960-67
F-11	1		97403	13229E5809-1
F-11	2	5940-00-557-4344	96906	MS25036-120
F-11	3	5940-00-113-9833	96906	MS20659-131
F-11	4		19099	13229E5809-1-18
F-11	5		19099	13229E5809-1-16
F-11	6		19099	13229E5809-1-7
F-11	7		19099	13229E5809-1-6
F-11	8	5935-01-092-3451	96906	MS90555C44413S
F-12	1	5940-00-557-4338	96906	MS25036-125
F-12	2		19099	M23053/5-108-4
F-12	3	6145-00-578-6595	19099	M5086/2-4-9
F-12	4	5310-00-400-5503	80205	MS35650-3254
F-12	5	5310-00-933-8121	96906	MS35338-139
F-12	6		97403	13229E5815
F-12	7		97403	13229E5788-1
F-12	8	5310-01-304-8733	80205	MS15795-852
F-12	9	5305-00-071-1318	96906	MS51957-83
F-12	10	5935-01-172-1004	96906	MS90563-7C
F-12	11	5935-01-092-4269	96906	MS90558C44413P
F-12	12	6145-00-578-6594	19099	M5086/2-6-9
F-12	13	5940-00-557-4344	96906	MS25036-120
F-12	14	5940-00-115-4996	96906	MS20659-145
F-12.1	1	5940-00-115-5007	96906	MS25036-130
F-12.1	2		19099	13229E5809-2-16
F-12.1	3		19099	13229E5809-2-6
F-12.1	4	5310-00-400-5503	80205	MS35650-3254
F-12.1	5	5310-00-933-8121	96906	MS35338-139
F-12.1	6		97403	13229E5815

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FIGURE AND ITEM NUMBER INDEX

FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
F-12.1	7		97403	13229E5788-2
F-12.1	8	5310-01-304-8733	96906	MS15798-582
F-12.1	9	5305-00-071-1318	96906	MS51957-83
F-12.1	10	5935-01-147-9446	96906	MS90564-7C
F-12.1	11	5935-01-092-4269	96906	MS90558C44413P
F-12.1	12		19099	13229E5809-2-7
F-12.1	13		19099	13229E5809-2-18
F-12.1	14	5940-00-113-8190	96906	MS25036-122
F-12.1	15		19099	13229E5809-2-6
F-12.1	16	5940-00-113-9833	96906	MS25036-131
F-12.1	17		97403	13229E5809-2
F-13	1		97403	13229E5806-1
F-13	2	5940-00-230-0515	96906	MS25036-154
F-13	3	5940-00-113-8179	96906	MS25036-107
F-13	4		19099	13229E5806-1-5
F-13	5		19099	13229E5806-1-2
F-13	6	5935-00-852-9611	96906	MS3102R18-11P
F-14	1	NOT USED		
F-14	2	5975-00-074-2072	96906	MS3367-1-9
F-14	3	5940-00-283-5280	96906	MS25036-106
F-14	4	5940-00-660-3633	96906	MS25036-155
F-14	5	5940-00-143-4793	96906	MS25036-110
F-14	6		19099	M23053/5-108-4
F-14	7	6145-01-060-7863	19099	M22759/16-18-9
F-14	8	5935-00-801-6622	96906	MS3100R20-27S
F-14	9		19099	M23053/5-105-4
F-15	1	5940-00-143-4771	14726	R4268F
F-15	2		19099	13229E5800-1-10
F-15	3	5975-00-074-2072	81343	MS3367-1-9
F-15	4	5940-00-813-0698	81343	MS25036-101
F-15	5		19099	13229E5800-1-2
F-15	6		19099	13229E5800-1-6
F-15	7	5940-00-143-4773	14726	R4152F
F-15	8	5940-01-458-9497	56501	RB14-12
F-15	9		97403	13229E5800-1
F-16	1		97403	13229E5810-4
F-16	2	5940-00-113-9833	96906	MS25036-131
F-16	3		19099	M23053/5-109-0
F-16	4		19099	M22759/16-1-9
F-16	5	5940-00-115-5007	96906	MS25036-130
F-16	6		97403	13229E5810-5
F-16	7		97403	13229E5810-6
F-16	8		97403	13229E5810-14
F-16	9		97403	13229E5810-15
F-16	10		97403	13229E5810-16
F-16	11		97403	13229E5810-24
F-16	12		19099	M22759/16-1-9
F-16	13		97403	13229E5810-22
F-16	14		19099	M22759/16-1-9
F-17	1	5310-00-250-9477	80205	MS35649-2254
F-17	2	5310-00-933-8121	96906	MS35338-139
F-17	3	5310-01-304-8733	80205	MS15795-852

SECTION IV. CROSS-REFERENCE INDEXES

FIGURE AND ITEM NUMBER INDEX

FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
F-17	4		97403	13229E5816-1
F-17	5	5340-00-291-3484	96906	MS124696
F-17	6	5305-00-052-1457	80205	MS35308-3
F-18	1	5310-00-934-9760	80205	MS35649-204
F-18	2	5310-00-933-8120	96906	MS35338-138
F-18	3	5305-00-059-3660	80205	MS51958-64
F-18	4	5310-01-352-9599	80205	MS15795-857
F-18	5	6110-01-388-0318	01XD4	CT350E-120E4
F-18.1	1	5305-00-059-3660	80205	MS51958-64
F-18.1	2	5310-00-933-8120	96906	MS35338-138
F-18.1	3	5310-01-471-0640	30554	88-20033-11C
F-19	1		97403	13229E5811-6
F-19	2	5940-00-113-9833	96906	MS25036-131
F-19	3		19099	M23053/5-108-4
F-19	4		19099	13229E5811-6-2
F-19	5	5940-00-115-5007	96906	MS25036-130
F-19	6		97403	13229E5811-7
F-19	7		19099	13229E5811-7-2
F-19	8		97403	13229E5811-8
F-19	9		19099	13229E5811-8-2
F-19	10		97403	13229E5811-9
F-19	11		19099	13229E5811-9-2
F-19	12		97403	13229E5811-10
F-19	13		19099	13229E5811-10-2
F-20	1		97403	13226E5806-2
F-20	2	5940-00-230-0515	96906	MS25036-154
F-20	3	5940-00-113-8179	96906	MS25036-107
F-20	4		19099	13229E5806-2-5
F-20	5		19099	13229E5806-2-2
F-20	6	5935-01-035-5139	96906	MS3456W18-11S
F-21	1	5310-00-056-3395	96906	MS35649-2382
F-21	2	5310-01-385-7083	96906	MS51412-27
F-21	3	5305-00-688-2111	80204	B1821BH038C138N
F-21	4		97403	13230E4592
F-22	1	5340-00-066-1235	06076	13211E7541
F-22	2	3740-00-902-1481	97403	13200E6363
F-22	3		97403	13211E7548
F-22	4	5310-00-408-2561	97403	13211E7547
F-22	5	5310-00-566-9502	97403	13211E7544
F-22	6	4710-00-597-8731	97403	13211E7542
F-22	7	4710-00-185-6948	97403	13211E7543
F-22	8	5330-00-402-5125	97403	13211E7546
F-22	9	5310-00-571-5090	97403	13200E6361
F-22	10	4730-00-441-8700	96906	MS51500A8-4
F-22	11	5310-00-209-1239	96906	MS35335-60
F-22	12	5305-00-841-2681	29440	PL-19-3
F-22	13	5120-01-013-1676	97403	13226E7741
F-22	14	5120-00-203-4656	58536	A-A-1293
F-22	15	5975-00-878-3791	58536	A-A-55804-3B
F-22	16	5940-00-271-9504	01667	CBA-70
F-22	17	6145-01-226-9164	81348	QQW343C06B1B
F-22	18	5940-00-113-8190	96906	MS25036-122

SECTION IV. CROSS-REFERENCE INDEXES

FIGURE AND ITEM NUMBER INDEX

FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
F-22	19	5999-00-186-3912	04655	70-801074
F-22	20	5975-00-924-9927	73616	GRB58
F-22	21	5975-00-794-2523	OBKK8	GRC 58
F-22	22	5975-00-296-5324	58536	A-A-55804
F-22	23		30554	13230E6380-4A
F-22	24		30554	13230E6381-2A
F-23	1	4210-00-270-4512	97403	13230E6831
F-23	2	5940-00-113-8190	96906	MS25036-122
F-23	3	6145-01-226-9164	81348	QQW343C06B1B
F-23	4	4730-00-908-3194	96906	MS35842-11
F-23	5	4720-01-386-4210	81349	M6000-F-00200
F-23	6	4730-00-809-9703	96906	MS24519-9
F-24	1	5310-00-088-1251	96906	MS51922-1
F-24	2	5310-01-304-8733	96906	MS15795-852
F-24	3	5305-00-988-1727	96906	MS35206-283
F-24	4	4730-00-812-1333	93742	69-539-2
F-24	5	4730-01-297-0185	96906	MS51519B5Z/A5Z
F-24	6	4820-00-277-1765	96906	MS35930-2
F-24	7	4730-01-020-5607	96906	MS51860-54
F-24	8	5310-00-809-5997	96906	MS27183-17
F-24	9	4730-01-386-1770	96906	MS51520A5Z
F-24	10		96906	MS52103A050440R
F-24	11	4730-00-842-2201	96906	MS24587-5
F-24	12	4720-01-337-5130	19099	MS52103-2
F-25	1	2510-01-195-4273	97403	13214E1263
F-25	2		97403	13214E1259
F-25	3		97403	13229E9633
F-25	4		30554	13229E9632A
F-25	5	5940-00-021-3321	96906	MS39347-2
F-25	6		97403	13229E6108
F-25	7	2330-01-150-9864	97403	13214E1461
F-25	8	2540-01-417-8036	97403	13229E7946
F-25	9		97403	13214E1261
F-25	10	2510-01-213-3242	97403	13214E1264
F-25	11	2510-01-196-4682	97403	13214E1462
F-26	1	5306-00-226-4829	80204	B1821BH031C125N
F-26	2	5310-00-044-6477	96906	MS51412-25
F-26	3	5310-00-984-3806	96906	MS51922-9
F-26	4		97403	13214E1259
F-26	5		97403	13214E1261
F-27	1	5340-00-234-8422	96906	MS27969-4
F-27	2	5320-00-680-8779	96906	MS20427-4C6
F-27	3	5320-00-753-3830	96906	MS20613-4P5
F-27	4	5306-00-226-4829	80204	B1821BH031C125N
F-27	5	5310-00-044-6477	96906	MS51412-25
F-27	6	5310-00-984-3806	96906	MS51922-9
F-27	7	5340-00-975-2126	96906	MS18015-1
F-27	8	2540-01-417-8036	97403	13229E7946
F-28	1	5306-00-226-4829	80204	B1821BH031C125N
F-28	2	5310-00-044-6477	96906	MS51412-25
F-28	3	5310-00-984-3806	96906	MS51922-9
F-28	4		96906	13230E6382-4

SECTION IV. CROSS-REFERENCE INDEXES

FIGURE AND ITEM NUMBER INDEX

FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
F-28	5	4210-01-535-1439	97403	13230E6858
F-28	6	5310-00-044-6477	30554	88-20033-25A
F-28	7	5306-00-226-4827	80204	B1821BH031C100N
F-28	8	2510-01-195-4273	97403	13214E1263
F-28	9	2510-01-213-3242	97403	13214E1264
F-29	1	5310-00-984-3806	96906	MS51922-9
F-29	2	5310-00-044-6477	96906	MS51412-25
F-29	3		97403	13214E1270
F-29	4	5342-01-226-5766	97403	13214E1269
F-29	5	5306-00-226-4829	80204	B1821BH031C125N
F-29	6	5365-00-989-3304	97403	13214E1272
F-29	7		97403	13214E1271
F-30	1	5306-00-226-4829	80204	B1821BH031C125N
F-30	2	5310-00-044-6477	96906	MS51412-25
F-30	3	5306-00-226-4832	80204	B1821BH031C175N
F-30	4	5365-00-944-2692	97403	13214E1267-1
F-30	5	5310-00-984-3806	96906	MS51922-9
F-30	6		97403	13214E1268
F-30	7	2330-01-150-9864	97403	13214E1461
F-30	8	2410-01-196-4682	97403	13214E1462
F-31	1	5306-00-226-4829	80204	B1821BH031C125N
F-31	1A	5306-00-226-4829	80204	B1821BH031C125N
F-31	2	5310-00-044-6477	96906	MS51412-25
F-31	2A	5310-00-044-6477	96906	MS51412-25
F-31	3	5310-00-984-3806	96906	MS51922-9
F-31	3A	5310-00-984-3806	96906	MS51922-9
F-31	4		97403	13229E6108
F-31	4A		97403	13229E6108
F-32	1	5310-00-584-7995	96906	MS16203-27
F-32	2	5310-00-187-2413	88044	AN961-616
F-32	3	5310-00-184-8971	96906	MS35338-103
F-32	4	5310-00-022-8847	96906	MS35333-110
F-32	5	5307-00-227-1741	97403	13214E1223
F-32	6	5310-01-078-5996	96906	MS35425-75
F-32	7	5940-00-021-3321	96906	MS39347-2
F-32	8	5310-00-582-5677	96906	MS15795-810
F-32	9	5310-00-883-9417	96906	MS35338-158
F-32	10	5310-00-989-0908	96906	MS35691-3
F-33	1		97403	13230E6797
F-33	2	5320-00-957-2507	80205	MS20604AD6W4

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 that covers fabrication criteria.

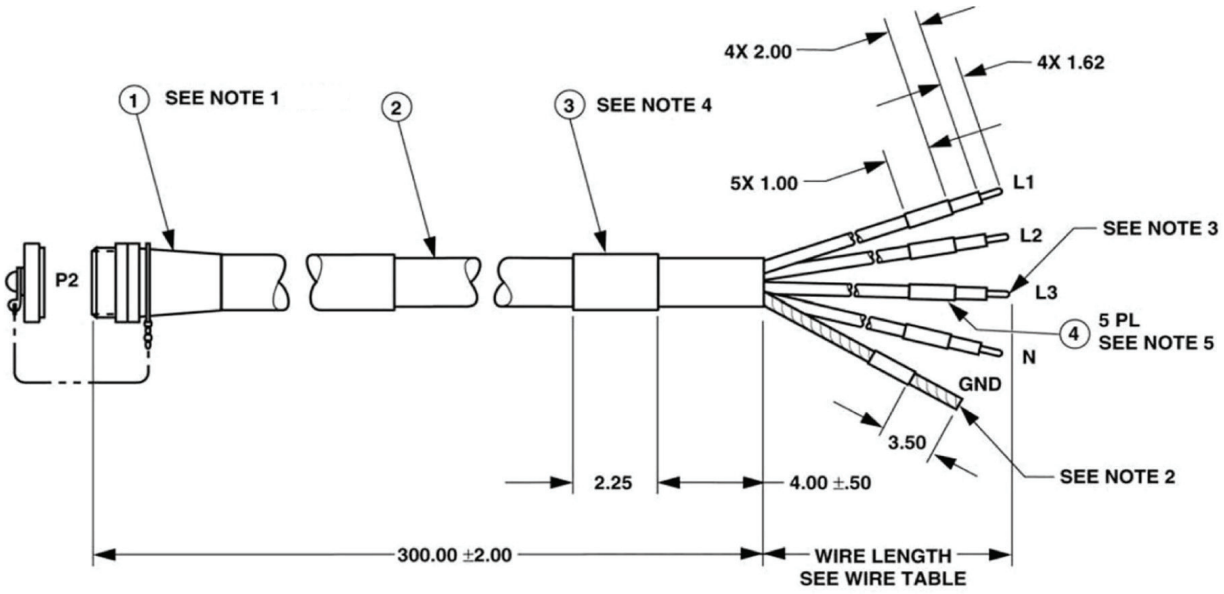
All bulk materials needed for manufacture of an item are listed by part number or specification number in a tabular list on the illustration.

G-2. MANUFACTURED ITEMS PART NUMBER INDEX

Part Number of Manufactured Item	Applicable Figure
13229E5738	G-1
13229E5800-1 (AN/MJQ-40, A Model)	G-2
13229E5800-1 (B&C Models)	G-2.1
13229E5806-1, 2	G-3
13229E5809-1, 2 (AN/MJQ-40, A Model)	G-4
13229E5809-2 (B&C Models)	G-4.1
13229E5810-4, 5, 6, 14, 15, 16, 22, 24	G-5
13229E5811-6, 7, 8, 9, 10	G-6
13229E5837 (AN/MJQ-40, A Model)	G-7
MS52103A050440R	G-8

G-3. GENERAL INSTRUCTIONS

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



PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED	DESCRIPTION	SPECIFICATION
1	MS90557C44413S	1	CONNECTOR, PLUG, ELECT, CABLE CONNECTING	
2	012822	AR	CABLE, SEE NOTE 3	MIL-C-3432
3	M23053/5-113-0	2	INSULATION SLEEVING, HEAT SHRINKABLE, BLK	MIL-I-23053/5
4	M23053/5-110-9	5	INSULATION SLEEVING, HEAT SHRINKABLE, WHT	MIL-I-23053/5
5	SN60WRP2 0.125, 1LB	LB	SOLDER, TIN ALLOY	J-STD-004 J-STD-005 J-STD-006

Figure G-1. Cable Assembly, W19 (Sheet 1 of 2).

NOTES:

1. CRIMP CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-E-45782.

2. AT PIGTAIL END OF CABLE, THE FOUR 8 AWG GROUNDING CONDUCTORS SHALL BE TWISTED TOGETHER, STARTING AT THE JACKET. CONDUCTORS SHALL BE SOLDER COATED FOR A LENGTH OF .250 FROM END USING SOLDER, FIND NO. 5.

3. AT PIGTAIL END OF CABLE, EACH INSULATED CONDUCTOR SHALL HAVE ITS INDIVIDUAL STRANDS TWISTED TOGETHER AND SOLDER COATED FOR A LENGTH OF .25 FROM END, USING SOLDER, FIND NO. 5.

4. HOT STAMP "97403-13229E5738", "W19", AND “NSN 6150-01-444-2430” IN .09-.16 HIGH WHITE CHARACTERS ON INSULATION SLEEVING, FIND NO. 3.

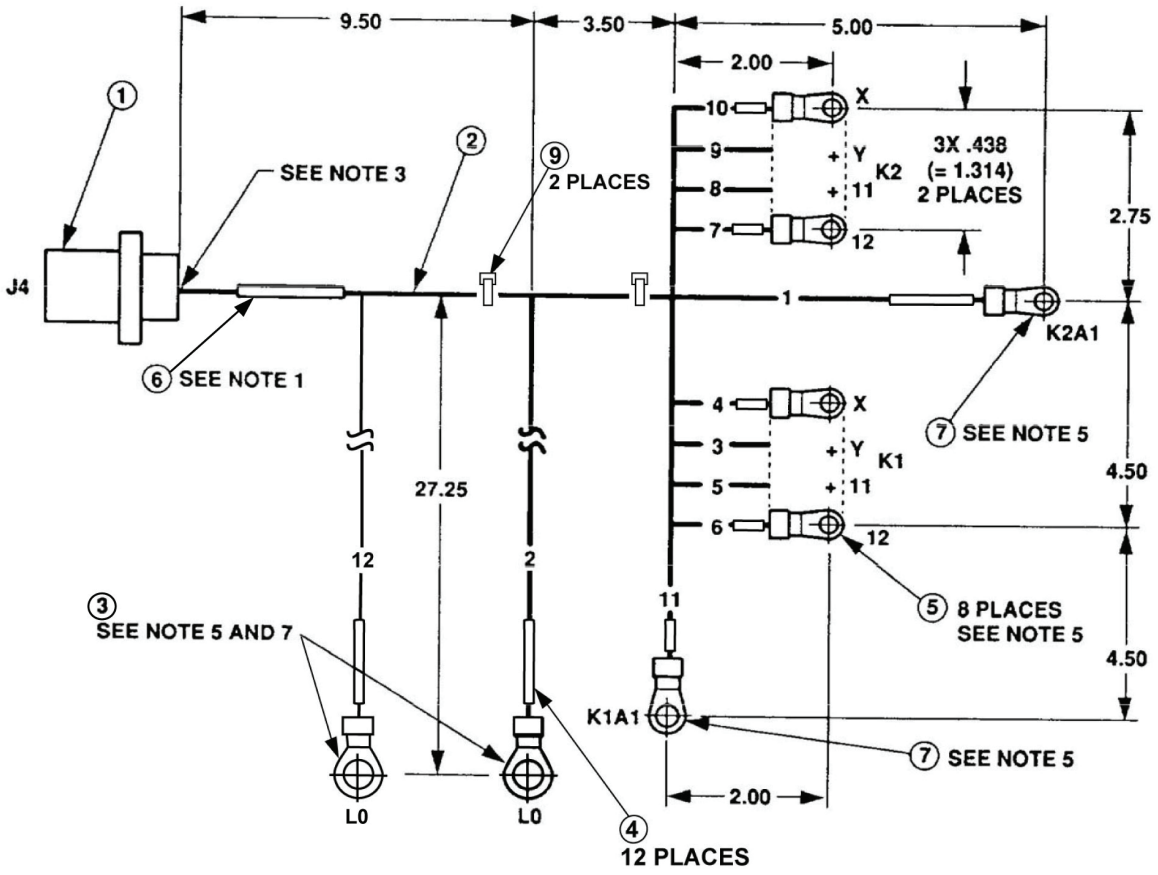
5. HOT STAMP TERMINAL DESIGNATION, AS SHOWN IN WIRE TABLE, USING .09-.16 HIGH BLACK CHARACTERS, IN TWO PLACES (180° APART) ON INSULATION SLEEVING, FIND NO. 4.

6. INSULATION COLORS, IN ACCORDANCE WITH WIRE TABLE, SHALL BE INCLUDED AS PART OF THE ORDERING DATA.

WIRE LIST

TERMINATION		TERMINATION				
FROM	**FIND NO.**	**TO SEE NOTE 7**	**FIND NO.**	**WIRE LENGTH +/- .50**	**WIRE COLOR SEE NOTE 6**	**AWG (REF)**
P2-A	1	G2-L1	-	19.50	BLK	1
P2-B		G2-L2	-	21.50	RED	
P2-C		G2-L3	-	24.50	BLU OR ORN	
P2-N		G2-(N)	-	13.50	WHT	
P2-G1		G2-GND	-	12.50	GRN OR BARE	8
P2-G2			-			
P2-G3			-			
P2-G4			-			

Figure G-1. Cable Assembly, W19 (Sheet 2 of 2).



PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED	DESCRIPTION	SPECIFICATION
1	MS3100R20-27S	1	CONNECTOR, RECEPTACLE, ELECTRICAL	
2	M22759/16-18-9	AR	WIRE, ELECTRICAL, 16 AWG, WHT	MIL-W-22759/16
3	MS25036-155	1	TERMINAL LUG, 16-14 AWG, .500 STUD SIZE	
4	M23053/5-105-4	12	INSULATION SLEEVING, HEAT SHRINKABLE, .187 ID X L AS REQUIRED	MIL-I-23053/5
5	MS25036-106	8	TERMINAL LUG, 16-14 AWG, .138 STUD SIZE	
6	M23053/5-108-4	1	INSULATION SLEEVING, HEAR SHRINKABLE, .500 ID X 2.50 LONG	MIL-I-23053/5
7	MS25036-110	2	TERMINAL LUG, 16-14 AWG, .375 STUD SIZE	
8	Sn60Pb40	AR	SOLDER	QQ-S-571
9	MS3367-1-9	AR	STRAP, TIE DOWN, ELECTRICAL	

Figure G-2. Wiring Harness, W7 (A Model) (Sheet 1 of 2).

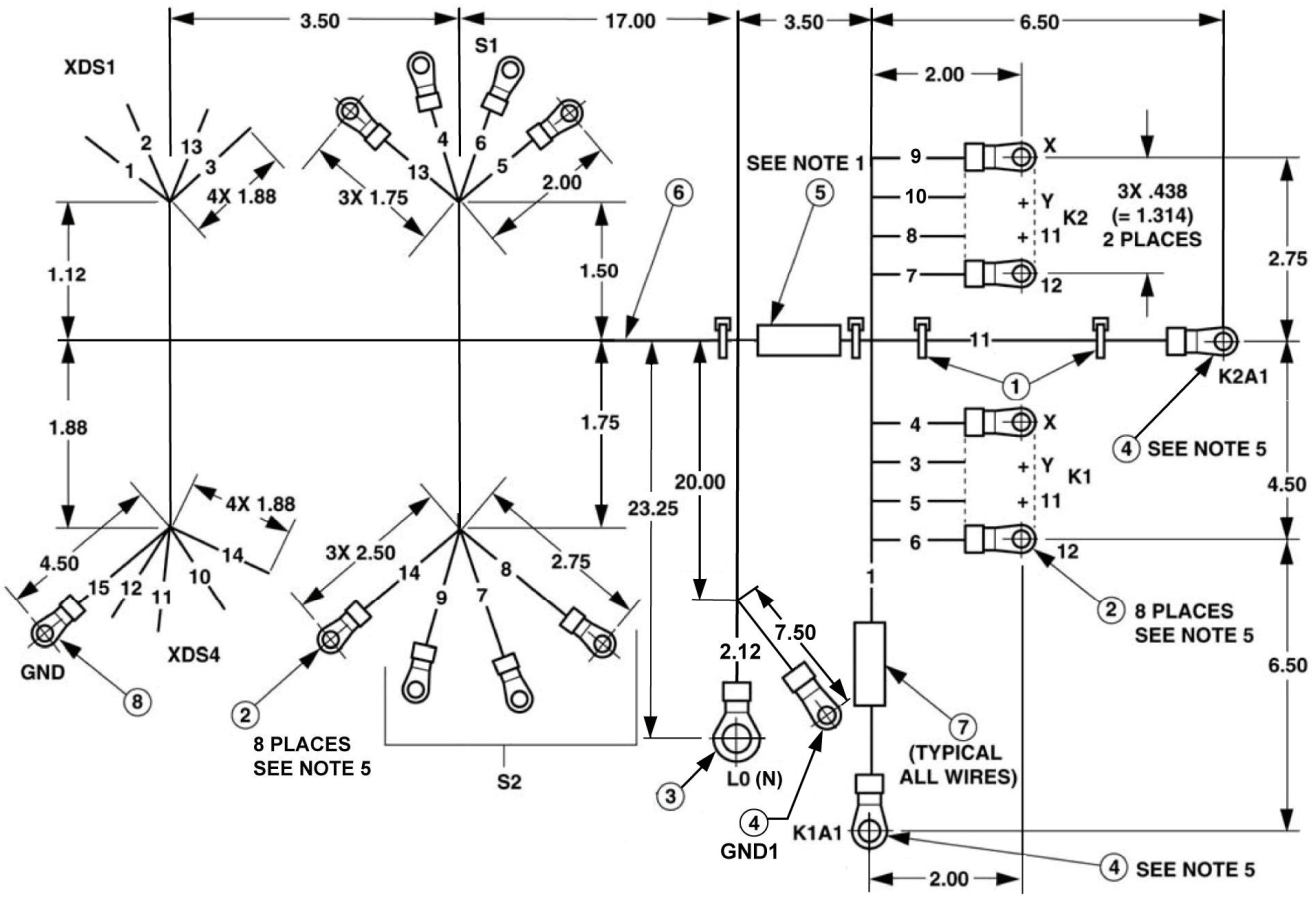
NOTES:

1. HOT STAMP “W7” AND “97403-13229E5800-1” ON SLEEVING, FIND NO. 6, IN ACCORDANCE WITH MIL-M-60903. LOCATE APPROXIMATELY AS SHOWN.
2. HOT STAMP SLEEVING, FIND NO. 4, WITH WIRE ADDRESS WITHIN 2 INCHES OF ITS TERMINATION, IN ACCORDANCE WITH MIL-M-60903. THE ADDRESS CONSISTS OF THE FROM TERMINATION, A DOUBLE HEADED ARROW AND THE TO TERMINATION.
3. SOLDER CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-STD-2000, USING SOLDER, FIND NO. 8.
4. STRIP AND TIN ENDS IN ACCORDANCE WITH MIL-STD-2000.
5. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-E-45782.
6. BUNDLE WIRES USING TIE DOWN STRAPS, FIND NO. 9, AT INTERVALS OF 3.00 MAX. AND AT ALL BREAKOUTS.
7. WIRE NO. 2 AND 12 SHALL TERMINATE AT TERMINAL, FIND NO. 3. CRIMP WIRES IN TERMINAL, FIND NO. 3, AND SOLDER.

WIRE LIST

WIRE NO.	TERMINATION		TERMINATION		
	FROM	FIND NO.	TO	FIND NO.	WIRE FIND NO.
1	J4-A	1	K1-A1	7	2
2	J4-B		L0	3	
3	J4-C		K1-Y	5	
4	J4-D		K1-X	5	
5	J4-F		K1-11	5	
6	J4-G		K1-12	5	
7	J4-H		K2-12	5	
8	J4-I		K2-11	5	
9	J4-K		K2-X	5	
10	J4-L		K2-Y	5	
11	J4-M		K2-A1	7	
12	J4-N		L0	3	

Figure G-2. Wiring Harness, W7 (A Model) (Sheet 2 of 2).



PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED	DESCRIPTION	SPECIFICATION
1	MS3367-1-9	AR	STRAP, TIE DOWN, ELECTRICAL	
2	R4142F	16	TERMINAL LUG, 22-18 AWG, .138 STUD SIZE	
3	RB14-12	1	TERMINAL LUG, 22-18 AWG, .500 STUD SIZE	
4	R4152F	3	TERMINAL LUG, 22-18 AWG, .375 STUD SIZE	
5	M23053/5-110-9	1	INSULATION SLEEVING, HEAT SHRINKABLE, .500 ID X 2.50 LONG	MIL-I-23053/5
6	M22759/16-18-9	AR	WIRE, ELECTRICAL, 18 AWG, WHT	
7	M23053/5-105-9	30	INSULATION SLEEVING, HEAT SHRINKABLE, .187 ID X L. AS REQUIRED	MIL-I-23053/5
8	R4268F	1	TERMINAL LUG, 22-18 AWG, .190 STUD SIZE	
9	SN60WRP92 0.125, 1LB	LB	SOLDER, TIN ALLOY	J-STD-004 J-STD-005 J-STD-006

Figure G-2.1. Wiring Harness, W7 (B&C Models) (Sheet 1 of 2).

NOTES:

1. HOT STAMP "W7" AND "97403-13229E5800-1" ON SLEEVING, FIND NO. 5. LOCATE APPROXIMATELY AS SHOWN.

2. HOT STAMP SLEEVING, FIND NO. 7, WITH WIRE ADDRESS WITHIN 2 INCHES OF ITS TERMINATION. THE ADDRESS CONSISTS OF THE FROM TERMINATION, A DOUBLE-HEADED ARROW, AND THE TO TERMINATION.

3. SOLDER CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-STD-2000, USING SOLDER, FIND NO. 9.

4. STRIP AND TIN ENDS IN ACCORDANCE WITH MIL-STD-2000.

5. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-E-45782.

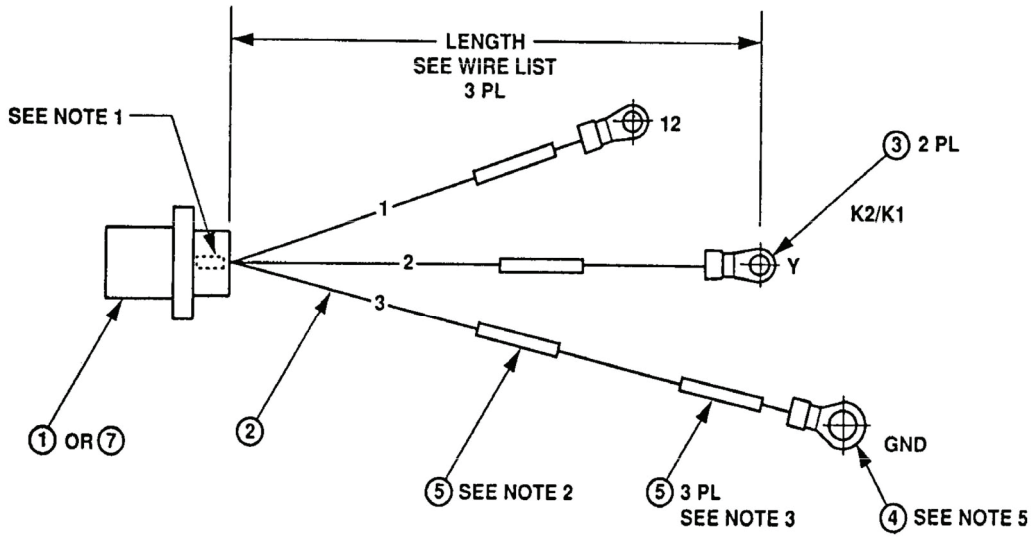
6. BUNDLE WIRES USING TIEDOWN STRAPS, FIND NO. 1, AT INTERVALS OF 3.00 MAX. AND AT ALL BREAKOUTS.

7. WIRE NO. 2 AND 12 SHALL TERMINATE AT TERMINAL FIND NO. 3. CRIMP WIRES IN TERMINAL, FIND NO. 3, AND SOLDER.

WIRE LIST

	TERMINATION		TERMINATION		
WIRE NO.	FROM	FIND NO.	TO	FIND NO.	WIRE FIND NO.
1	XDS1-1	-	K1-A1	4	6
2	XDS1-2	-	L0(N)	3	
3	XDS3-2	-	K1-Y	2	
4	S1-3	2	K1-X	2	
5	S1-5	2	K1-11	2	
6	S1-6	2	K1-12	2	
7	S2-6	2	K2-12	2	
8	S2-5	2	K2-11	2	
9	S2-3	2	K2-X	2	
10	XDS4-2	-	K2-Y	2	
11	XDS2-1	-	K2-A1	4	
12	XDS2-2	-	L0(N)	3	
13	XDS3-1	-	S1-3	2	
14	XDS4-1	-	S2-3	2	
15	GND	8	GND1	4	

Figure G-2.1. Wiring Harness, W7 (B&C Models) (Sheet 2 of 2).



PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED -1	QUANTITY REQUIRED -2	DESCRIPTION	SPECIFICATION
1	MS3102R18-11P	1	-	CONNECTOR, RECEPTACLE, ELECTRICAL	
2	M22759/16-16-9	AR	AR	WIRE, ELECTRICAL, .16 AWG, WHT	MIL-W-22759/16
3	MS25036-107	2	2	TERMINAL LUG, CRIMP STYLE, 16-14 AWG, .138 STUD SIZE	
4	MS25036-154	1	1	TERMINAL LUG, CRIMP STYLE, 16-14 AWG, .250 STUD SIZE	
5	M23053/5-104-4	4	4	INSULATION SLEEVING, HEAT SHRINKABLE, .125 ID X 2.00 LONG	MIL-I-23053/5
6	Sn60Pb40	AR	AR	SOLDER	QQ-S-571
7	MS3456W18-11S	-	1	CONNECTOR, PLUG, ELECTRICAL	

Figure G-3. Wiring Harness, W17 and W18 (Sheet 1 of 2).

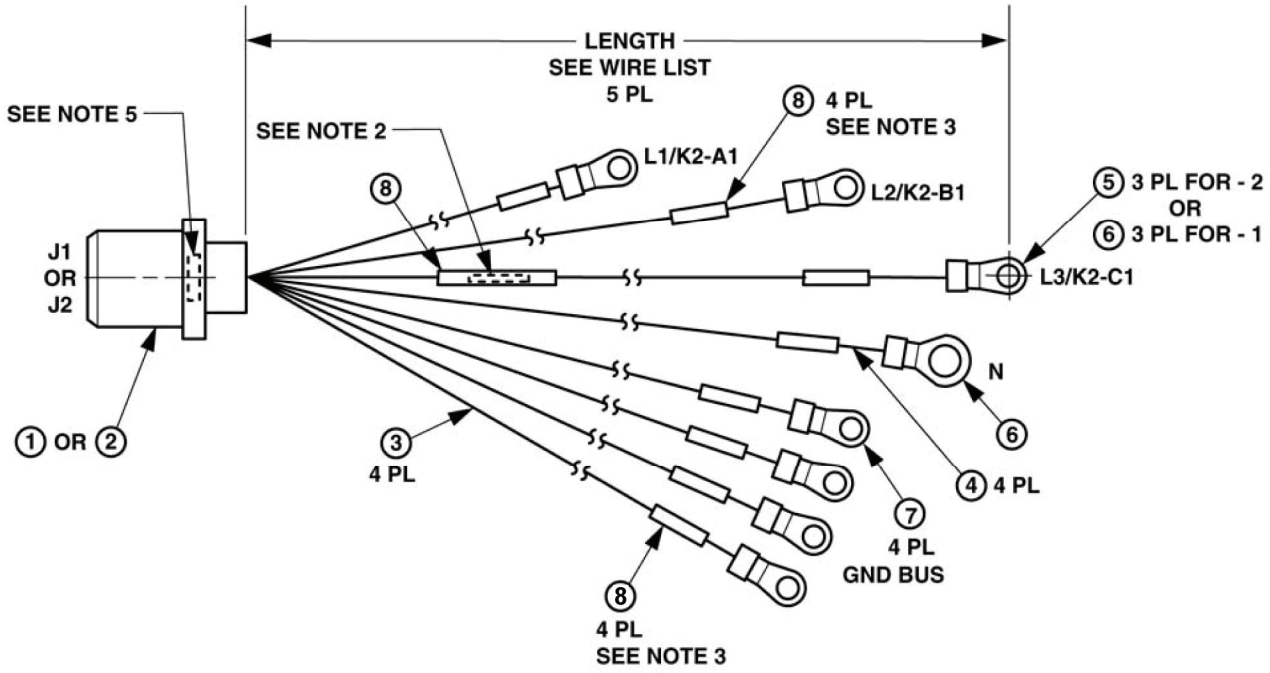
NOTES:

1. MARK REFERENCE DESIGNATION "J3" OR "P1" IN ACCORDANCE WITH MIL-STD-130, METHOD OPTIONAL.
2. HOT STAMP "W17 OR W18", INDICATED IN WIRE LIST, AND "97403-13229E5806- " WITH APPROPRIATE DASH NO. ON SLEEVING, FIND NO. 5, IN ACCORDANCE WITH MIL-M-60903. LOCATE APPROXIMATELY AT MIDPOINT OF WIRE.
3. HOT STAMP SLEEVING, FIND NO. 5, WITH WIRE ADDRESS, WITHIN 2 INCHES OF ITS TERMINATIONS, IN ACCORDANCE WITH MIL-M-60903. THE ADDRESS CONSISTS OF THE FROM TERMINATION, A DOUBLE HEADED ARROW, AND THE TO TERMINATION.
4. SOLDER CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-STD-2000, USING SOLDER, FIND NO. 6.
5. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-E-45782.

WIRE LIST

DASH NO.	WIRE NO.	TERMINATION		TERMINATION		LENGTH +/- .25	HARNESS REF DES.
		FROM	FIND NO.	TO	FIND NO.		
-1	1	J3-A	1	K2-12	3	15.00	W17
	2	J3-B	1	K2-Y	3	15.00	
	3	J3-E	1	GND	4	25.00	
-2	1	P1-A	7	K1-12	3	48.00	W18
	2	P1-B	7	K1-Y	3	48.00	
	3	P1-E	7	GND2	4	60.00	

Figure G-3. Wiring Harness, W17 and W18 (Sheet 2 of 2).



PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED -1	QUANTITY REQUIRED -2	DESCRIPTION	SPECIFICATION
1	MS90555C44413S	1	-	CONNECTOR, RECEPTACLE, ELECTRICAL	
2	MS90558C44413P	-	1	CONNECTOR, RECEPTACLE, ELECTRICAL	
3	M5086/2-6-9	AR	AR	WIRE, ELECTRICAL, 6 AWG, WHT	MIL-W-5086/2
4	M5086/2-4-9	AR	AR	WIRE, ELECTRICAL, 4 AWG, WHT	MIL-W-5086/2
5	MS25036-125	-	3	TERMINAL LUG, 4 AWG, .375 STUD	
6	MS20659-145	4	1	TERMINAL LUG, 4 AWG, .500 STUD SIZE	
7	MS25036-120	4	4	TERMINAL LUG, 6 AWG, .250 STUD SIZE	
8	M23053/5-108-4	9	9	INSULATION SLEEVING, HEAT SHRINKABLE, .500 ID X 2.50 LONG	MIL-I-23053/5

Figure G-4. Wiring Harness, W9 and W10 (A Model) (Sheet 1 of 2).

NOTES:

1. ASSEMBLE WIRE, FIND NO. 3 AND 4, INTO CONNECTOR, FIND NO. 1 OR 2, IN ACCORDANCE WITH MIL-C-22992, CLASS L.

2. HOT STAMP "W_", INDICATED IN WIRE LIST, AND "97403-13229E5808- " WITH APPROPRIATE DASH NO. ON SLEEVING, FIND NO. 8. LOCATE AT MIDPOINT OF WIRE.

3. HOT STAMP SLEEVING, FIND NO. 8, WITH WIRE ADDRESS, WITHIN 2 INCHES OF ITS TERMINATIONS. THE ADDRESS CONSISTS OF THE FROM TERMINATION, A DOUBLE- HEADED ARROW, AND THE TO TERMINATION.

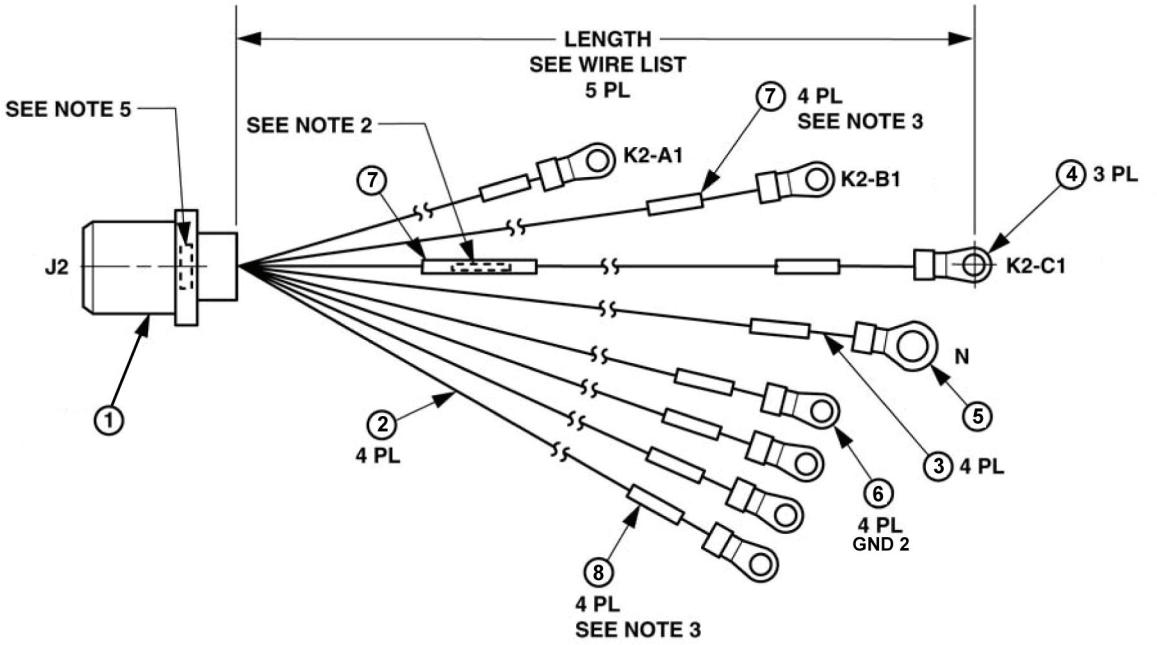
4. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-E-45782.

5. MARK CONNECTOR REFERENCE DESIGNATION IN .12 MIN HIGH CHARACTERS, IN ACCORDANCE WITH MIL-STD-130, METHOD OPTIONAL.

WIRE LIST

DASH NO.	CONN REF DES	WIRE NO.	TERMINATION		TERMINATION		LENGTH +/- .12	WIRE FIND NO.	HARNESS REF DES
			FROM	FIND NO.	TO	FIND NO.			
-1	J1	1	J1-A	1	L1	6	14.00	4	W9
		2	J1-B		L2		17.00		
		3	J1-C		L3		20.00		
		4	J1-N		N(L0)		8.00		
		5	J1-G1		BUS BAR	7		3	
		6	J1-G2						
		7	J1-G3						
		8	J1-G4						
-2	J2	1	J2-A	2	K2-A1	5	14.50	4	W10
		2	J2-B		K2-B1				
		3	J2-C		K2-C1				
		4	J2-N		N(L0)	6	28.00		
		5	J2-G1		BUS BAR	7	22.50	3	
		6	J2-G2						
		7	J2-G3						
		8	J2-G4						

Figure G-4. Wiring Harness, W9 and W10 (A Model) (Sheet 2 of 2).



PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED	DESCRIPTION	SPECIFICATION
1	MS90558C44413P	1	CONNECTOR, RECEPTACLE, ELECTRICAL	
2	M22759/16-6-9	AR	WIRE, ELECTRICAL, 6 AWG, WHT	MIL-W-22759/16
3	M22759/16-1-9	AR	WIRE, ELECTRICAL, 1 AWG, WHT	MIL-W-22759/16
4	MS25036-130	3	TERMINAL LUG, 1 AWG, .375 STUD SIZE	
5	MS25036-131	1	TERMINAL LUG, 1 AWG, .500 STUD SIZE	
6	MS25036-122	4	TERMINAL LUG, 6 AWG, .250 STUD SIZE	
7	M23053/5-109-9	5	INSULATION SLEEVING, HEAT SHRINKABLE, .750 ID X 2.50 LONG	MIL-I-23053/5
8	M23053/5-108-9	4	INSULATION SLEEVING, HEAT SHRINKABLE, .500 ID X 2.50 LONG	MIL-I-23053/5

Figure G-4.1. Wiring Harness, W10 (B&C Models) (Sheet 1 of 2).

NOTES:

1 ASSEMBLE WIRE, FIND NO. 2 AND 3, INTO CONNECTOR, FIND NO. 1, IN ACCORDANCE WITH MIL-DTL-22992, CLASS L.

2. HOT STAMP "W10" AND "97403-13229E5809-2" ON SLEEVING, FIND NO. 7. LOCATE AT MIDPOINT OF WIRE.

3. HOT STAMP SLEEVING, FIND NOS. 7 AND 8, WITH WIRE ADDRESS, WITHIN 2 INCHES OF ITS TERMINATIONS. THE ADDRESS CONSISTS OF THE FROM TERMINATION, A DOUBLE-HEADED ARROW, AND THE TO TERMINATION.

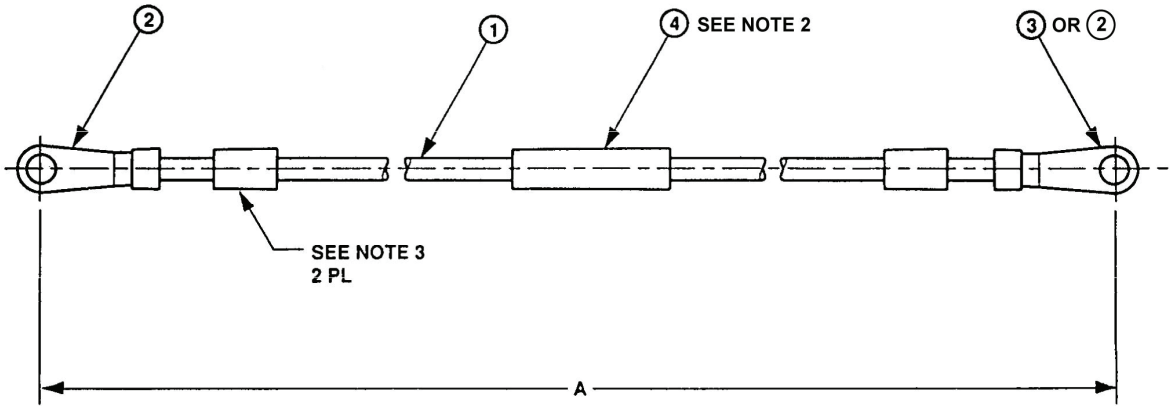
4. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-E-45782.

5. MARK CONNECTOR REFERENCE DESIGNATION IN .12 MIN HIGH CHARACTERS, IN ACCORDANCE WITH MIL-STD-130, METHOD OPTIONAL.

WIRE LIST

CONN REF DES	WIRE NO.	TERMINATION		TERMINATION		LENGTH +/- .12	WIRE FIND NO.
		FROM	FIND NO.	TO	FIND NO.		
J2	1	J2-A	1	K2-A1	4	14.50	3
	2	J2-B		K2-B1			
	3	J2-C		K2-C1			
	4	J2-N		N	5	28.00	
	5	J2-G1		GND 2	6	22.50	2
	6	J2-G2					
	7	J2-G3					
	8	J2-G4					

Figure G-4.1. Wiring Harness, W10 (B&C Models) (Sheet 2 of 2).



PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED			DESCRIPTION	SPECIFICATION
		-4 THRU -6 AND -14 THRU -16	-22	-24		
1	M22759/16-1-9	AR	AR	AR	WIRE, ELECTRICAL	MIL-W-22759/16
2	MS25036-130	1	1	2	TERMINAL LUG, 4 AWG, .375 STUD SIZE	
3	MS25036-131	1	1	-	TERMINAL LUG, 6 AWG, .500 STUD SIZE	
4	M23053/5-109-0	3	3	3	INSULATION SLEEVING, HEAT SHRINKABLE, .750 ID X L AS REQUIRED	MIL-I-23053/5

NOTES:

1. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-STD-454, REQUIREMENT19.

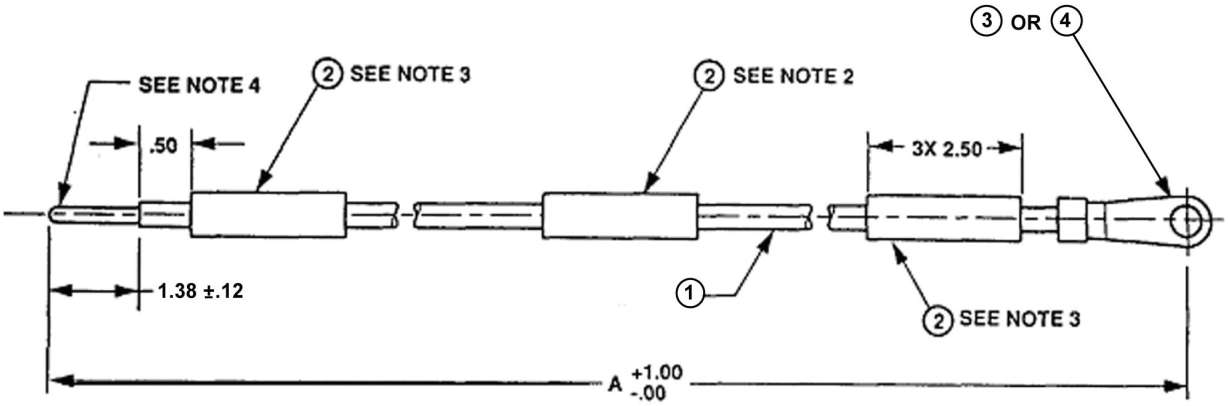
2. HOT STAMP "W_", INDICATED IN WIRE LIST, AND "97403-13229E5810- " WITH APPROPRIATE DASH NO. ON SLEEVING, FIND NO. 4, IN ACCORDANCE WITH MIL-M-60903. LOCATE AT MIDPOINT OF WIRE.

3. HOT STAMP INSULATION SLEEVING, FIND NO. 4, WITH WIRE ADDRESS, WITHIN 2 INCHES OF ITS TERMINATIONS, IN ACCORDANCE WITH MIL-M-60903. THE ADDRESS CONSISTS OF THE FROM TERMINATION, A DOUBLE HEADED ARROW, AND THE TO TERMINATION.

WIRE LIST

DASH NO.	REF DES	TERMINATION		TERMINATION		DIM A	WIRE FIND NO.
		FROM	FIND NO.	TO	FIND NO.		
-4	W11	K1-A2	2	L1	3	12.50	1
-5	W12	K1-B2		L2			
-6	W13	K1-C2		L3			
-14	W14	K2-A2		L1			
-15	W15	K2-B2		L2			
-16	W16	K2-C2		L3			
-22	W22	GND-1		GND		9.50	
-24	W21	GND-2		GND-1	2	6.88	

Figure G-5. Electrical Leads, W11-16, W21, W22.



PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED		DESCRIPTION	SPECIFICATION
		-6 THRU -8, -10	-9		
1	M22759/16-1-9	1	1	WIRE, ELECTRICAL, 1 AWG, WHT	MIL-W-22759/16
2	M23053/5-108-4	3	3	INSULATION SLEEVING, HEAT SHRINKABLE	MIL-I-23053/5
3	MS25036-130	1	-	TERMINAL LUG, CRIMP, 1 AWG, .375 STUD SIZE	
4	MS25036-131	-	1	TERMINAL LUG, CRIMP, 1 AWG, .500 STUD SIZE	

Figure G-6. Power Leads, W1-W5 (Sheet 1 of 2)

NOTES:

1. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-STD-454, REQUIREMENT 19.

2. HOT STAMP "W_", INDICATED IN WIRE LIST, AND "97403-13229E5811- " WITH APPROPRIATE DASH NO. ON SLEEVING, FIND No. 2, IN ACCORDANCE WITH MIL-M-60903. LOCATE AT MIDPOINT OF WIRE.

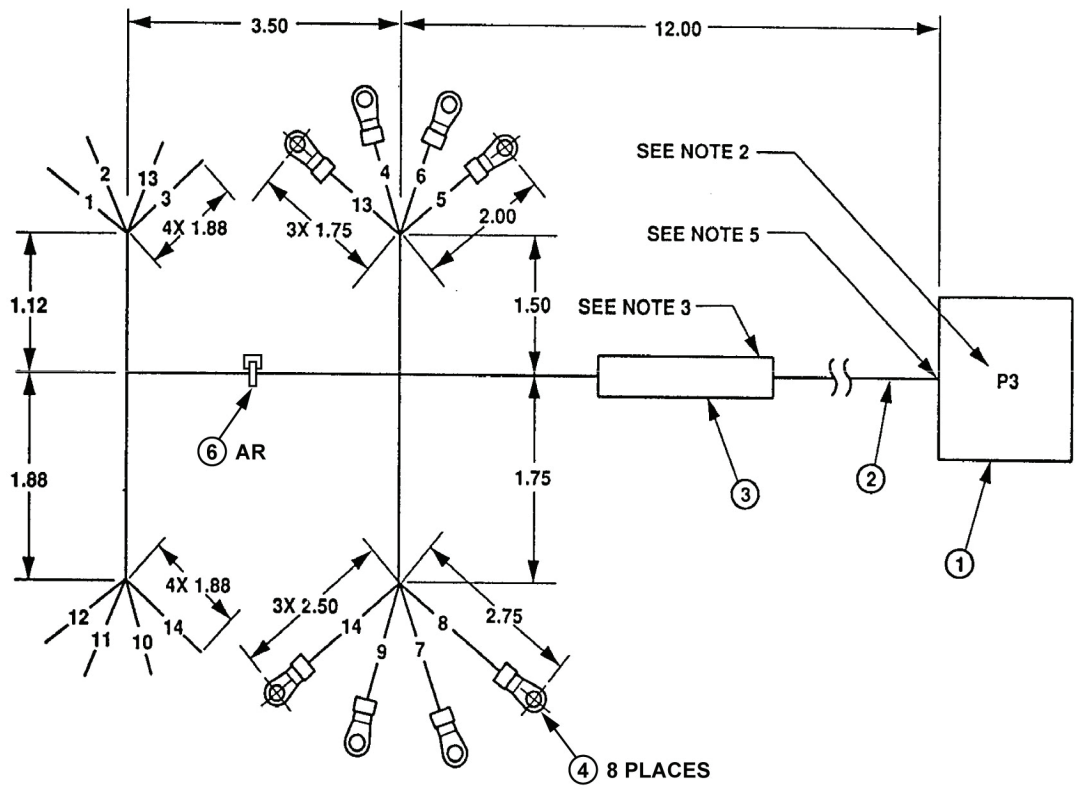
3. HOT STAMP INSULATION SLEEVING, FIND NO. 2, WITH WIRE ADDRESS, WITHIN 2 INCHES OF ITS TERMINATIONS, IN ACCORDANCE WITH MIL-M-60903. THE ADDRESS CONSISTS OF THE FROM TERMINATION, A DOUBLE HEADED ARROW, AND THE TO TERMINATION.

4. STRIP WIRE IN ACCORDANCE WITH WIRE LIST AND TIN EXPOSED CONDUCTOR FOR A DISTANCE OF .12 +/- .03 INCHES FROM CONDUCTOR END IN ACCORDANCE WITH MIL-STD-2000.

WIRE LIST

		TERMINATION		TERMINATION			
DASH NO.	**REF DES**	**FROM**	**FIND NO.**	**TO**	**FIND NO.**	**DIM A**	**WIRE FIND NO.**
-6	W1	G1-L1	-	K1-A1	3	33.00	1
-7	W2	G1-L2	-	K1-B1	3	39.00	1
-8	W3	G1-L3	-	K1-C1	3	42.00	1
-9	W4	G1-N	-	L0(N)	4	48.00	1
-10	W5	G1-GND	-	GND-1	3	39.00	1

Figure G-6. Power Leads, W1-W5 (Sheet 2 of 2).



PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED	DESCRIPTION	SPECIFICATION
1	MS3106R2O-27P	1	CONNECTOR, PLUG, ELECTRICAL	
2	M22759/16-20-9	AR	WIRE, ELECTRICAL, 20 AWG, WHT	MIL-W-22759/16
3	M23053/5-107-9	1	INSULATION SLEEVING, HEAT SHRINK, 2.50 L	MIL-I-23053/5
4	MS25036-101	8	TERMINAL LUG, .22-18 AWG, NO. 6 STUD	
5	Sn60Pb40	AR	SOLDER	QQ-S-571
6	MS3367-1-9	AR	STRAP, TIE DOWN, ELECTRICAL	

Figure G-7. Harness Assembly, W20 (A Model) (Sheet 1 of 2).

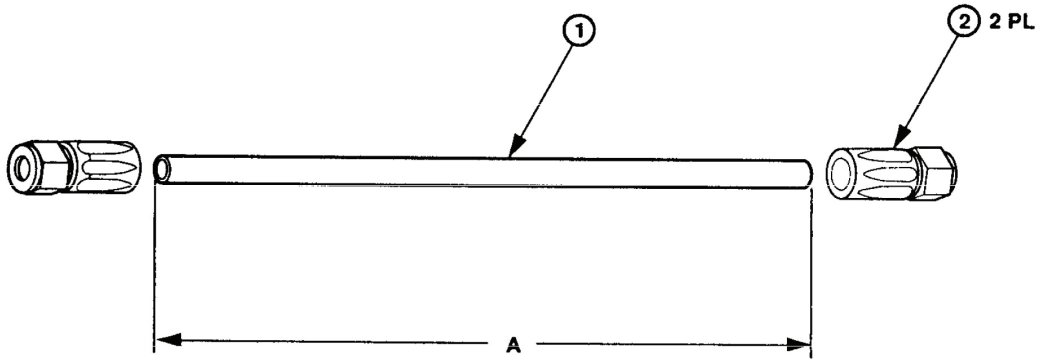
NOTES:

1. USE TIEDOWN STRAPS, FIND NO. 6, TO BUNDLE WIRES AT INTERVALS OF 3.00 MAX.
2. MARK REFERENCE DESIGNATION “P3" IN ACCORDANCE WITH MIL-STD-130, METHOD OPTIONAL.
3. HOT STAMP “W20” AND “97403-13229E5837” ON SLEEVING, FIND NO. 3, IN ACCORDANCE WITH MIL-M-60903. LOCATE APPROXIMATELY AT MIDPOINT OF WIRE.
4. SOLDER CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-STD-2000, USING SOLDER FIND NO. 5.
5. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-E-45782.

WIRE LIST

WIRE NO.	TERMINATION		TERMINATION		WIRE FIND NO.	REMARKS
	FROM	FIND NO.	TO	FIND NO.		
1	XDS1-1		P3-A	1	2	
2	XDS1-2		P3-B			
3	XDS3-2		P3-C			
4	S1-3	4	P3-D			SEE NOTE 1
5	S1-5		P3-F			SEE NOTE 1
6	S1-6		P3-G			SEE NOTE 1
7	S2-6		P3-H			SEE NOTE 1
8	S2-5		P3-I			SEE NOTE 1
9	S2-3		P3-K			SEE NOTE 1
10	XDS4-2		P3-L			
11	XDS2-1		P3-M			
12	XDS2-2		P3-N			
13	XDS3-1		S1-3	4		SEE NOTE 1
14	XDS4-1		S2-3			SEE NOTE 1

Figure G-7. Harness Assembly, W20 (A Model) (Sheet 2 of 2).



PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED	DESCRIPTION	SPECIFICATION
1	MS52103-2	40”	HOSE, NONMETALLIC	
1	MS52103-2	37”	HOSE, NONMETALLIC	
2	MS24587-5	2	FLARED, FITTING	

NOTES:

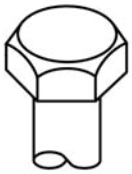
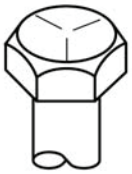
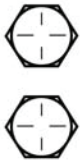
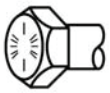
1. CUT NONMETALLIC HOSE TO LENGTH (40” LENGTH FOR PU-803 AND PU-804; 37” LENGTH FOR PU-803B/G AND PU-804B/G). USE OLD HOSE AS A TEMPLATE FOR APPROXIMATE LENGTH.

2. INSTALL FITTING FLARED AT EACH END OF NONMETALLIC HOSE AND TURN COUNTERCLOCKWISE TO INSTALL.

Figure G-8. Fuel Drain Assembly.

APPENDIX H

TORQUE LIMITS

SAE Grade Number	1 or 2	5	6 or 7	8
Quality of Material	Indeterminate	Minimum Commercial	Medium Commercial	Best Commercial
Capscrew Head Markings				

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

GLOSSARY

Section I. ABBREVIATIONS

COMMON ABBREVIATIONS

Common abbreviations used in this manual are in accordance with ASME - Y14.38M.

SPECIAL OR UNIQUE ABBREVIATIONS

The following are special or unique abbreviations and symbols that are used in this manual.

AAL.....Additional Authorization List
BII .....Basic Issue Item
BOI .....Basis Of Issue
ºC.....Degrees Celsius
CAGE.....Commercial And Government Entity
CAGEC .....Commercial And Government Entity Code
CIM.....Computer Interface Module
CONEX.....Container Express
COEI.....Components Of End Item
CPC.....Corrosion Prevention And Control
CTA .....Common Table Of Allowance
CUCV .....Commercial Utility Cargo Vehicle
DCS.....Digital Control System
DOD.....Department Of Defense
EIR .....Equipment Improvement Recommendation
ºF .....Degrees Fahrenheit
FGC.....Functional Group Code
HCI.....Hardness Critical Item
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
LTT.....Light Tactical Trailer
m .....Meter (Metric Measure)
MAC.....Maintenance Allocation Chart
MTOE.....Modification Table Of Organization And Equipment
NHA.....Next Higher Assembly
NIIN.....National Item Identification Number
N●m.....Newton-Meter
NSN.....National Stock Number
P/N.....Part Number
PMCS.....Preventive Maintenance Checks And Services
PSI.....Pound Per Square Inch
RPSTL.....Repair Parts And Special Tools List
SMR.....Source, Maintenance, And Recoverability
SRA.....Specialized Repair Activity

TAMMS.....The Army Maintenance Management System
TDA.....Table Of Distribution And Allowances
TMDE.....Test, Measurement, And Diagnostic Equipment
TOE.....Table of Organization and Equipment
U/I.....Unit Of Issue
UOC.....Usable On Code
UOM.....Unit Of Measure
UUT.....Unit Under Test

Section II. DEFINITIONS OF UNUSUAL TERMS

UNUSUAL TERMS

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

None.

INDEX

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.

EXAMPLE

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
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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
TO: *(Forward to proponent of publication or form) (Include ZIP Code)*	**FROM:** *(Activity and location) (Include ZIP Code)*	

PART I - ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS

PUBLICATION/FORM NUMBER	DATE	TITLE

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**

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.)*

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GEORGE W. CASEY, JR.
General, United States Army
Chief of Staff

Official:

JOYCE E. MORROW
Administrative Assistant to the
Secretary of the Army
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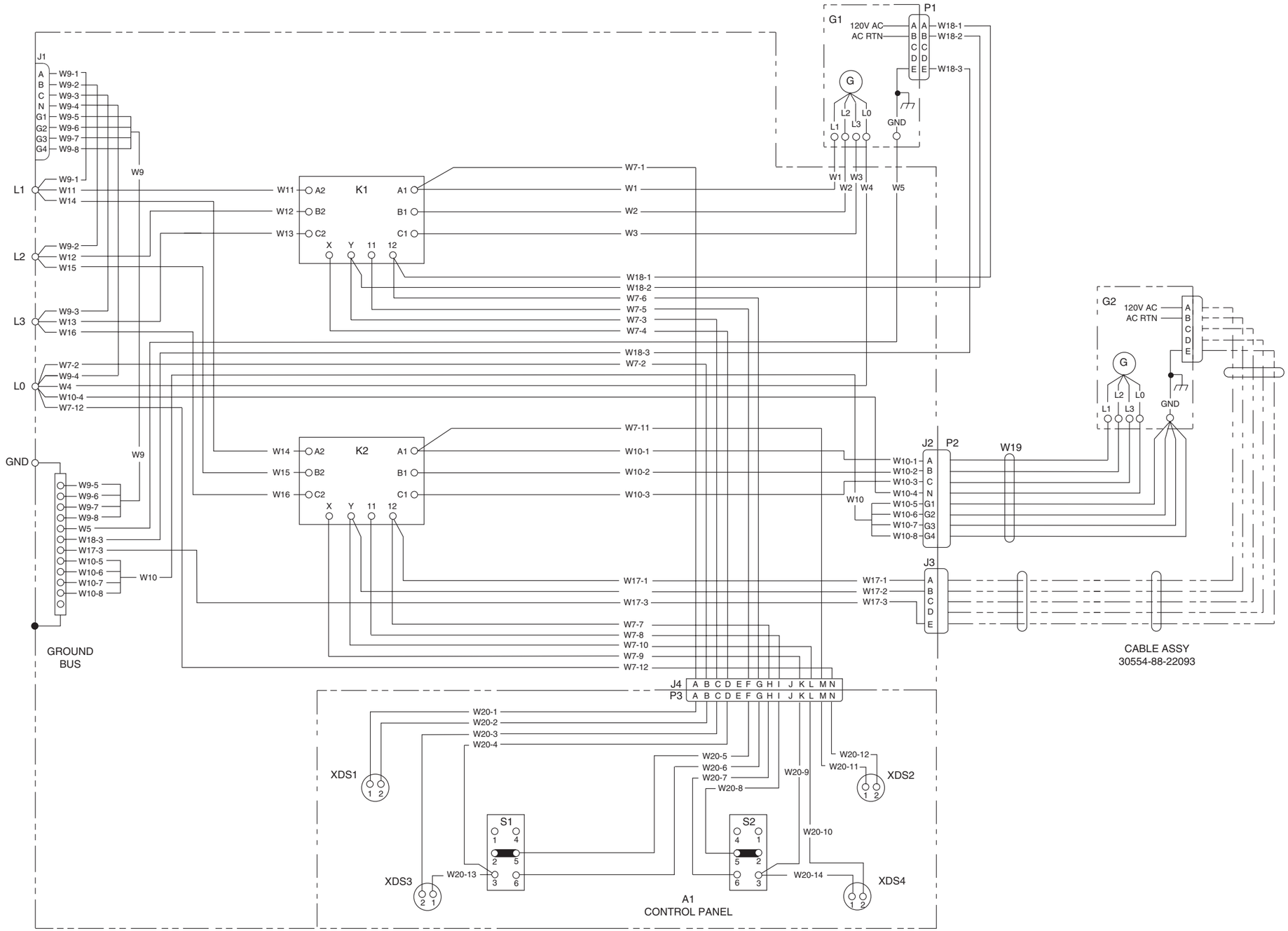
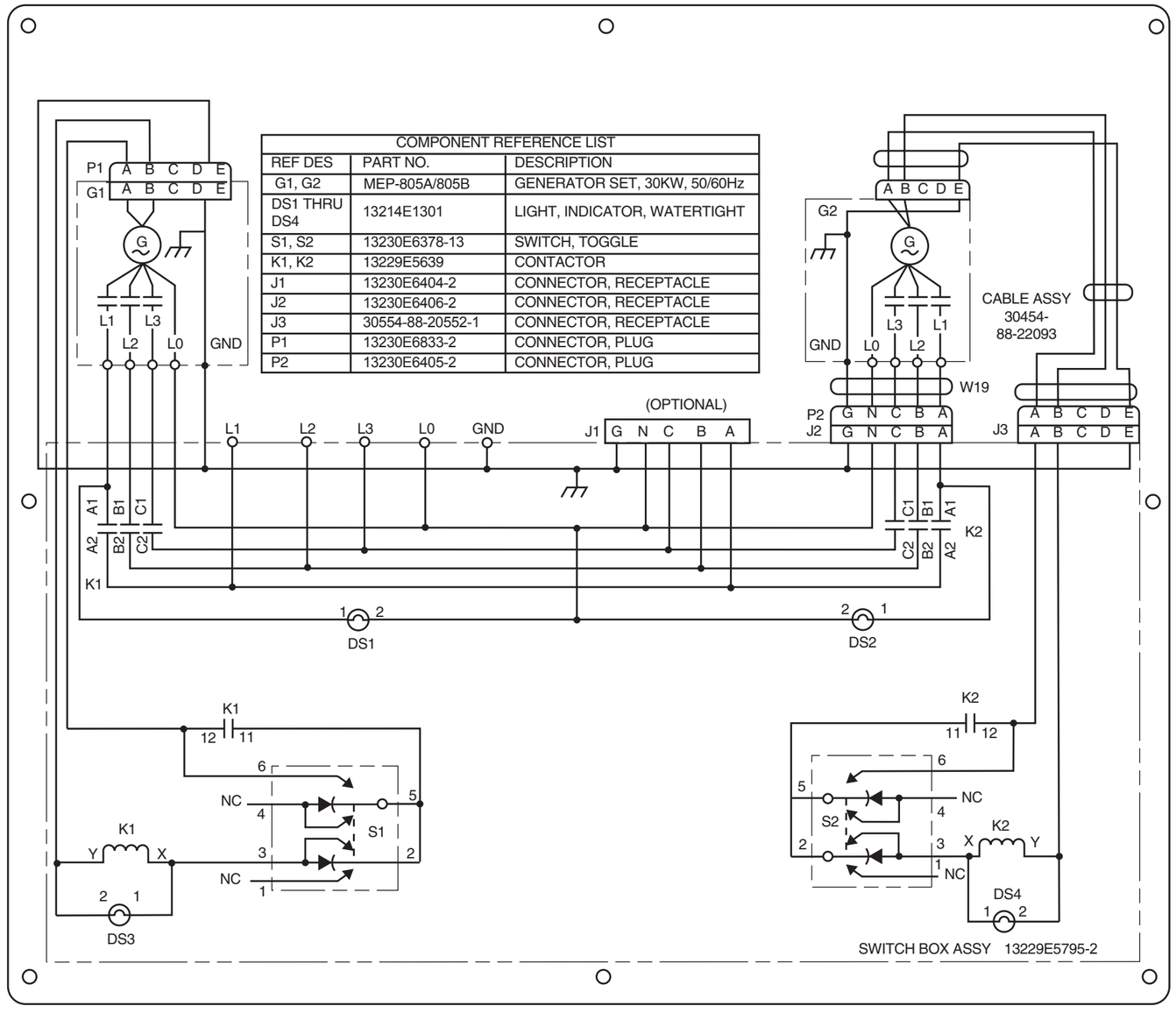


FO-1. Power Plant Wiring Diagram.

COMPONENT REFERENCE LIST		
REF DES	PART NO.	DESCRIPTION
G1, G2	MEP-805A/805B	GENERATOR SET, 30KW, 50/60Hz
DS1 THRU DS4	13214E1301	LIGHT, INDICATOR, WATERTIGHT
S1, S2	13230E6378-13	SWITCH, TOGGLE
K1, K2	13229E5639	CONTACTOR
J1	13230E6404-2	CONNECTOR, RECEPTACLE
J2	13230E6406-2	CONNECTOR, RECEPTACLE
J3	30554-88-20552-1	CONNECTOR, RECEPTACLE
P1	13230E6833-2	CONNECTOR, PLUG
P2	13230E6405-2	CONNECTOR, PLUG



FO-2. 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: 071920-000