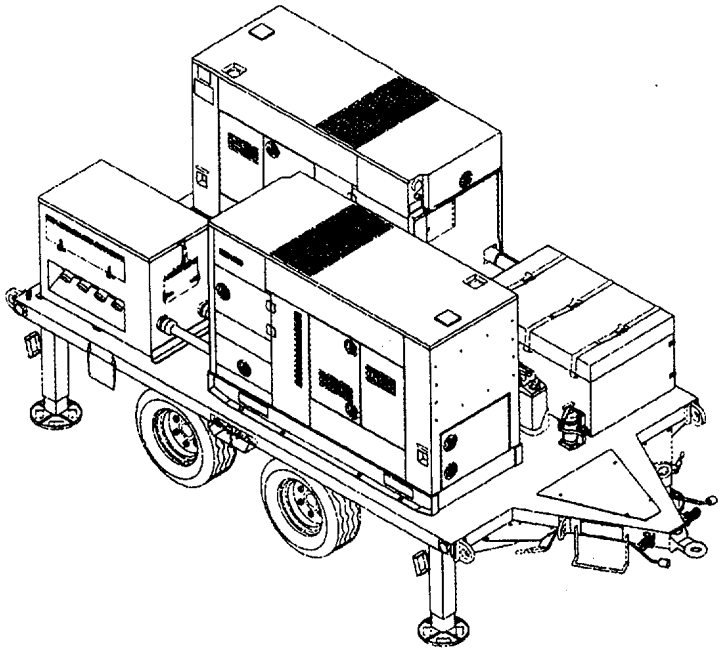
TECHNICAL MANUAL

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

FOR

AN/MJQ-1612 60kW 50/60 Hz POWER PLANT, DIESEL ENGINE DRIVEN, 5 TON TRAILER MOUNTED (NSN 6115-01-349-1536)

AN/MJQ-1632 60kW 400 Hz POWER PLANT, DIESEL ENGINE DRIVEN, 5 TON TRAILER MOUNTED (NSN 6115-01-364-0157)



**HEADQUARTERS, DEPARTMENT OF THE ARMY
AND THE AIR FORCE
30 DECEMBER 1994**

5 SAFETY STEPS TO FOLLOW IF SOMEONE IS THE VICTIM OF ELECTRICAL SHOCK

1. DO NOT TRY TO PULL OR GRAB THE INDIVIDUAL

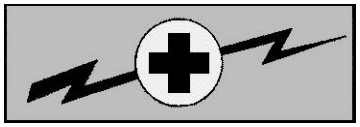
2. IF POSSIBLE, TURN OFF THE ELECTRICAL POWER

3. IF YOU CANNOT TURN OFF THE ELECTRICAL POWER, PULL, PUSH, OR LIFT THE PERSON TO SAFETY USING A WOODEN POLE OR A ROPE OR SOME OTHER INSULATING MATERIAL

4. SEND FOR HELP AS SOON AS POSSIBLE

5. AFTER THE INJURED PERSON IS FREE OF CONTACT WITH THE SOURCE OF ELECTRICAL SHOCK, MOVE THE PERSON A SHORT DISTANCE AWAY AND IMMEDIATELY START ARTIFICIAL RESUSCITATION

WARNING



HIGH VOLTAGE
is used in the operation of this equipment

DEATH ON CONTACT

may result if personnel fail to observe safety precautions

Never work on electronic equipment unless there is another person nearby who is familiar with the operation and hazards of the equipment and who is competent in administering first aid. When the technicians are aided by operators, they must be warned about dangerous areas.

Whenever possible, the power supply to the equipment must be shut off before beginning work on the equipment. Take particular care to ground every capacitor likely to hold a dangerous potential. When working inside the equipment, after the power has been turned off, always ground every part before touching it.

Be careful not to contact high-voltage connections or 115 volt ac input connections when installing or operating this equipment.

Whenever the nature of the operation permits, keep one hand away from the equipment to reduce the hazard of current flowing through the body.

Warning: Do not be misled by the term "low voltage". Potentials as low as 50 volts may cause death under adverse condition.

For Artificial Respiration, refer to FM 21-11.

WARNING

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

WARNING

Before performing any maintenance that requires climbing on or under trailer, make sure that trailer handbrakes are set and trailer is supported to prevent rolling or tipping. Injury to personnel could result from trailer suddenly rolling or tipping.

WARNING

The fuels used in this generator set are highly explosive. DO NOT smoke or use open flame when performing maintenance. Flames and explosion can occur resulting in severe personal injury or death.

WARNING

Cooling system operates at high temperatures. Personal injury or death from burns or scalding can result from contact with high pressure steam and/or liquid.

WARNING

Exhaust discharge contains deadly gases. DO NOT operate generator set in enclosed areas unless exhaust is properly vented outside. Severe personal injury or death due to carbon monoxide poisoning could result.

WARNING

Battery acid can cause burns to unprotected skin.

WARNING

Batteries give off flammable gas. Do not smoke or use open flame when performing maintenance. Flames and explosion could result in personal injury or death.

WARNING

ENSURE generator set is properly grounded prior to starting. Otherwise serious injury or death could result by electrocution.

WARNING

The fuels used in this generator set are highly explosive. DO NOT smoke or use open flame when performing maintenance. Flames and explosion can occur, resulting in severe personal injury or death.

WARNING

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

WARNING

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

WARNING

Be very careful to avoid contact with high-pressure steam and/or liquid. Cooling system operates at high temperatures, and personal injury or death from burns or scalding can result from such contact.

WARNING

Trailer and towing vehicle must be on level ground to prevent accidental movement resulting in injury to personnel. Failure to observe this warning can result in severe personal injury or death.

WARNING

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

WARNING

Shut down generator sets before performing continuity checks. Failure to observe this warning could result in severe personal injury or death.

WARNING

When lifting the generator set, use lifting equipment with a minimum lifting capacity of 6000 lb. Do not stand under the generator set while it is being lifted. Do not permit generator set to swing. Failure to observe this warning can result in severe personal injury or death.

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TECHNICAL MANUAL

NO. 9-6115-666-13&P

HEADQUARTERS, DEPARTMENTS OF
THE ARMY AND THE AIR FORCE
WASHINGTON, D.C., 30 December 1994

OPERATOR, UNIT, AND DIRECT SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST) FOR AN/MJQ-1612 60kW 50/60 Hz POWER PLANT, DIESEL ENGINE DRIVEN, 5 TON TRAILER MOUNTED (NSN 6115-01-349-1536)

AN/MJQ-1632 6OkW 400 Hz POWER PLANT, DIESEL ENGINE DRIVEN, 5 TON TRAILER MOUNTED (NSN 6115-01-364-0157)

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes, or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Forms 2028-2 located in the back of this manual direct to: Commander, U.S. Army Aviation and Troop Command, ATTN: AMSAT-I-MP, 4300 Goodfellow Boulevard, St. Louis, MO 63120-1798. A reply will be furnished to you.

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

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LIST OF TABLES

HOW TO USE THIS MANUAL

DESCRIPTION OF THE MANUAL.

Manual Organization. This manual is designed to help you operate and maintain the Power Plant, AN/MJQ-1612 and AN/MJQ-1632. Warning pages are located in the front of this manual.

The major elements of this manual are its chapters and appendices. Each chapter has one or more sections. The Table of Contents 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 C also has a table of contents to help you locate the items listed in that appendix.

The front cover of this manual has an index that lists the most important areas of the manual. Each item indexed on the front cover has a black box at the edge of the cover. There is a corresponding black box on the first text page for each subject listed on the cover index.

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 ten appendices. Each chapter is divided into sections. Each section is divided into descriptive paragraphs. The paragraphs have specific information about the power plant and its major components.

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

Examples:
1.9 PRIMARY SIDE HEAD.
1.9.1 First Subordinate Side head.
1.9.1.1 Second Subordinate Side head
1.10 PRIMARY SIDE HEAD FOLLOWED BY PROCEDURAL STEPS
a. First Level Procedural Step.
(1) Second Level Procedural Step
(a) Third Level Procedural Step

Figure 3-3. is the third illustration in chapter 3.
Table 2-1. is the first table in chapter 2.

Appendices. Each appendix covers a specific subject; sometimes general, such as the list of references in Appendix; or sometimes very detailed, such as the mandatory replacement parts list in Appendix J.

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

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

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

Section III. PRINCIPLES OF OPERATION
This section provides functional description of the power plant.

CHAPTER 2. OPERATING INSTRUCTIONS
Chapter 2 provides instructions for operating the power plant. The chapter is divided into four sections, as follows:

Section I. DESCRIPTION AND USE OF OPERATOR'S CONTROLS AND INDICATORS
This section provides references to the applicable generator set technical manuals and trailer technical manuals. Those references contain information on operator's controls and indicators for the generator sets and trailers. Detailed coverage is provided for the power plant switch box controls and indicators.

Section II. OPERATOR PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)
This section contains detailed instructions for the before, during, and after operation preventive maintenance checks and services that the operator must perform. Coverage includes all operator PMCS for the generator sets and trailers that make up the power plant. Operator PMCS for the switch box used on the power plant is also covered.

Section III. OPERATION UNDER USUAL CONDITIONS
This section contains instructions for preparing the power plant 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. This section also covers preparation of the power plant for movement to a new worksite.

Section IV. OPERATION UNDER UNUSUAL CONDITIONS
This section provides references to the applicable generator set and trailer technical manuals.

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

Section I. OPERATOR LUBRICATION
This section provides references to the applicable lubrication instructions.

Section II. TROUBLESHOOTING
This section provides references to the applicable generator set and trailer technical manuals.

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

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

Section I. REPAIR PARTS; SPECIAL TOOLS; TEST, MEASUREMENT, AND DIAGNOSTIC EQUIPMENT (TMDE); AND SUPPORT EQUIPMENT.
This section lists references that contain the required information.

Section II. SERVICE UPON RECEIPT
This section contains instructions for inspecting and servicing each power 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 plant. Also included are instructions on positioning the power plant for operation and connecting an external fuel source.

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

Section IV. UNIT PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)
This section contains instructions covering the PMCS that must be performed at the unit maintenance level. A table provides information on maintenance intervals and actions required.

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

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

Section VII. ADMINISTRATIVE STORAGE
This section provides information on short term, intermediate term, and long tern storage.

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

Section I. REPAIR PARTS; SPECIAL TOOLS; TEST, MEASUREMENT, AND DIAGNOSTIC EQUIPMENT; AND SUPPORT EQUIPMENT
This section lists the documents that contain the needed information.

Section II. TROUBLESHOOTING
This section includes instructions for troubleshooting faults in the operation of the generator distribution box assembly. It includes eight go-no-go flowcharts for eight possible distribution 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 the power plant components not covered in the generator set and trailer references.

APPENDICES

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

APPENDIX B. MAINTENANCE ALLOCATION CHART
This appendix has four sections, as follows:

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

Section II. MAINTENANCE ALLOCATION CHART
This section contains a tabular listing that assigns maintenance functions to specific maintenance levels. It lists the work time needed to perform each maintenance function at the assigned level. It also contains a column that has entries keyed to the tools and equipment listed in section III. Another column has entries keyed to the remarks in section IV.

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. UNIT AND DIRECT SUPPORT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST
This appendix lists and authorizes the repair parts and special tools needed to perform operator, unit, and direct support maintenance of the power 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 identification of the parts. The lists include information that tells which maintenance levels are authorized to use the part, the part number that identifies the part, the name of the part, and the quantity used.

Section III. SPECIAL TOOLS LIST
This section informs the user if any special tools are needed. This section Includes information on the tool or test equipment reference code used in the MAC, the lowest level of maintenance authorized to use the item, the name of the tool or test equipment, and the national stock number or part number.

Section IV. CROSS-REFERENCE INDEXES
This section contains three indexes, a national stock number index, a part number index, and a figure and item number index. Each index lists all of the parts contained in Section II. The national stock number index is in National Item Identification Number (NIIN) sequence. The part number index is in alphanumeric part number sequence. The figure and item number index is in alphanumeric sequence by figure and item number.

APPENDIX D. COMPONENTS OF END ITEM (COEI) AND BASIC ISSUE ITEMS (BII) LISTS
This appendix lists the items that are usually packaged separately but needed for installation and operation of the power plant. The appendix has three sections, as follows:

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

Section II. COMPONENTS OF END ITEM
The power plant is 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 plant.

APPENDIX E. ADDITIONAL AUTHORIZATION LIST (AAL)
This appendix lists additional items you are authorized for support of the power plant.

APPENDIX F. EXPENDABLE AND DURABLE ITEMS LIST
This appendix lists expendable/durable supplies and materials needed to operate and maintain the power plant. The appendix contains two sections, as follows:

Section I. INTRODUCTION
This section explains the entries in Section II.

Section II. EXPENDABLE AND DURABLE SUPPLIES AND MATERIALS LIST
The list indicates the maintenance level that needs each item and identifies the items by National Stock Number, description, and unit of measure.

APPENDIX G. OPERATOR'S LUBRICATION INSTRUCTIONS
This appendix lists all lubrication instructions as specified in appendix A.

APPENDIX H. 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 I. TORQUE LIMITS
This appendix lists standard torque values for bolts and screws used in the power plant.

APPENDIX J MANDATORY REPLACEMENT PARTS
This appendix lists all mandatory replacement parts referenced in the task setups and procedures.

GLOSSARY
This glossary has two sections, as follows:

Section I. ABBREVIATIONS
This section lists the special or unique abbreviations used in this technical manual. Special or unique abbreviations are those not listed in MIL-STD-12D.

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 dictionary (AR 310-25).

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

HOW TO FIX A POWER PLANT MALFUNCTION.

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

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

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

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

d. For troubleshooting at the unit maintenance level, find the malfunction listing in the troubleshooting symptom index. 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 task. DO NOT START THE TASK UNTIL:

   (1) You know what is needed

   (2) You have everything you need

   (3) You understand what to do

b. If parts are listed, they can be drawn from technical supply. Before you start the task, check to make sure you can get the needed parts. National stock numbers (NSNs) and part numbers for generator set parts are listed in the generator Repair Parts and Special Tools List (RPSTL) manual, TM 9-6115-645-24P. NSNs and part numbers for the trailer chassis parts are listed in TM 9-2330-376-14&P. NSNs and part numbers for the next higher assembly and trailer chassis are listed in Appendix C.

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

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

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

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

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

   (1) Tag electrical wiring before disconnecting it.

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

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

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

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

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

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

(8) Torque to the special torque cited when the task instructions include the words "torque to." Use standard torque 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 I. GENERAL INFORMATION

1.1. SCOPE.

This manual is for your use in operating and maintaining the Power Plants AN/MJQ-1612 and AN/MJQ-1632 (figure 1-1 and figure 1-2). The manual covers operating instructions and operator, unit, and direct support maintenance requirements for the power plant. It also contains a Repair Parts and Special Tools List (RPSTL) for the power plant. The power plant AN/MJQ-1612 consists of two 60 kW 50/60 Hz Tactical Quiet Generator sets, a switch box, and a cable storage box. The AN/MJQ-1632 consists of two 60KW 400 Hz Tactical Quiet Generator sets, a switch box, and a cable storage box.

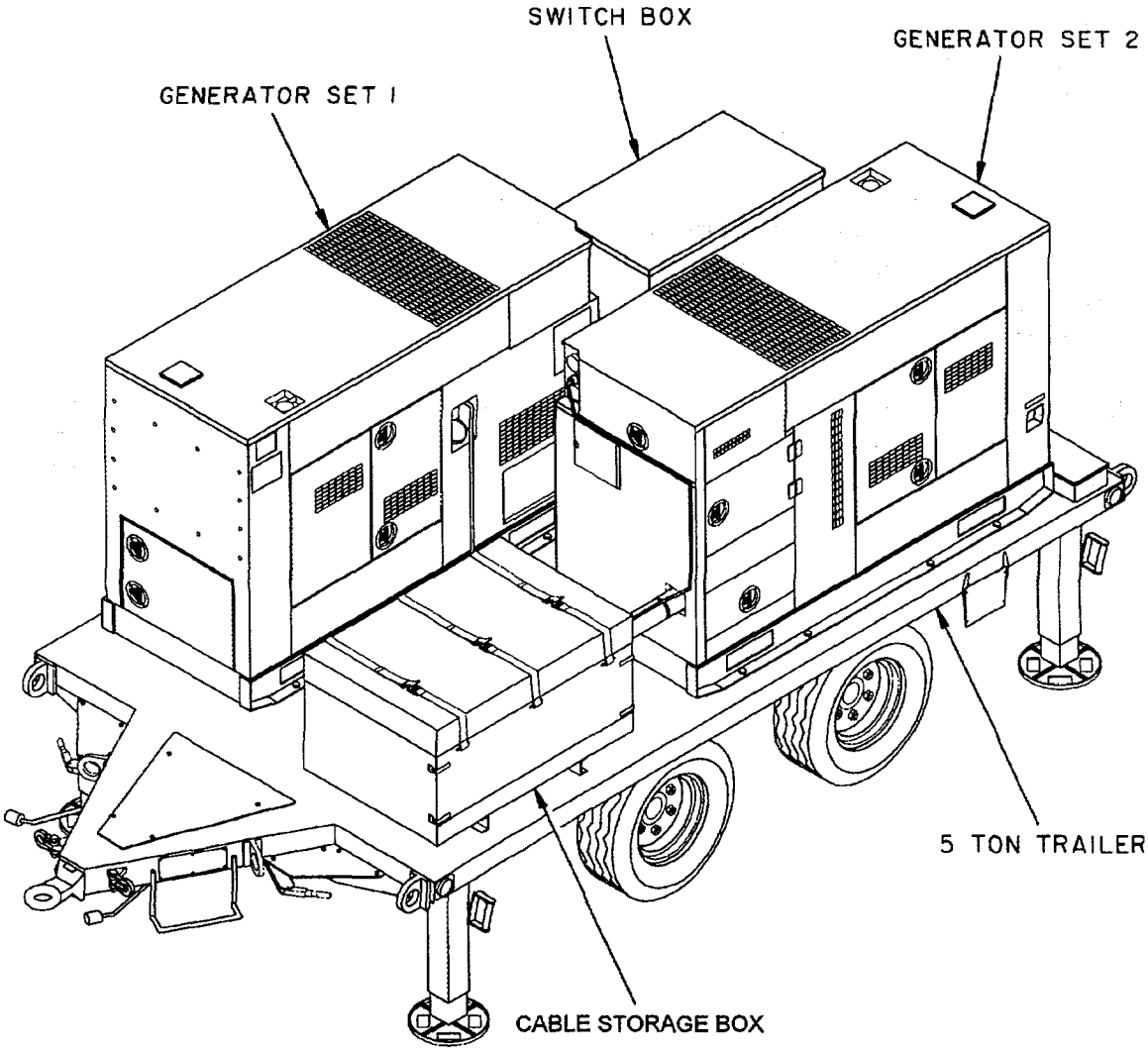


Figure 1-1. Roadside Front Three Quarter View

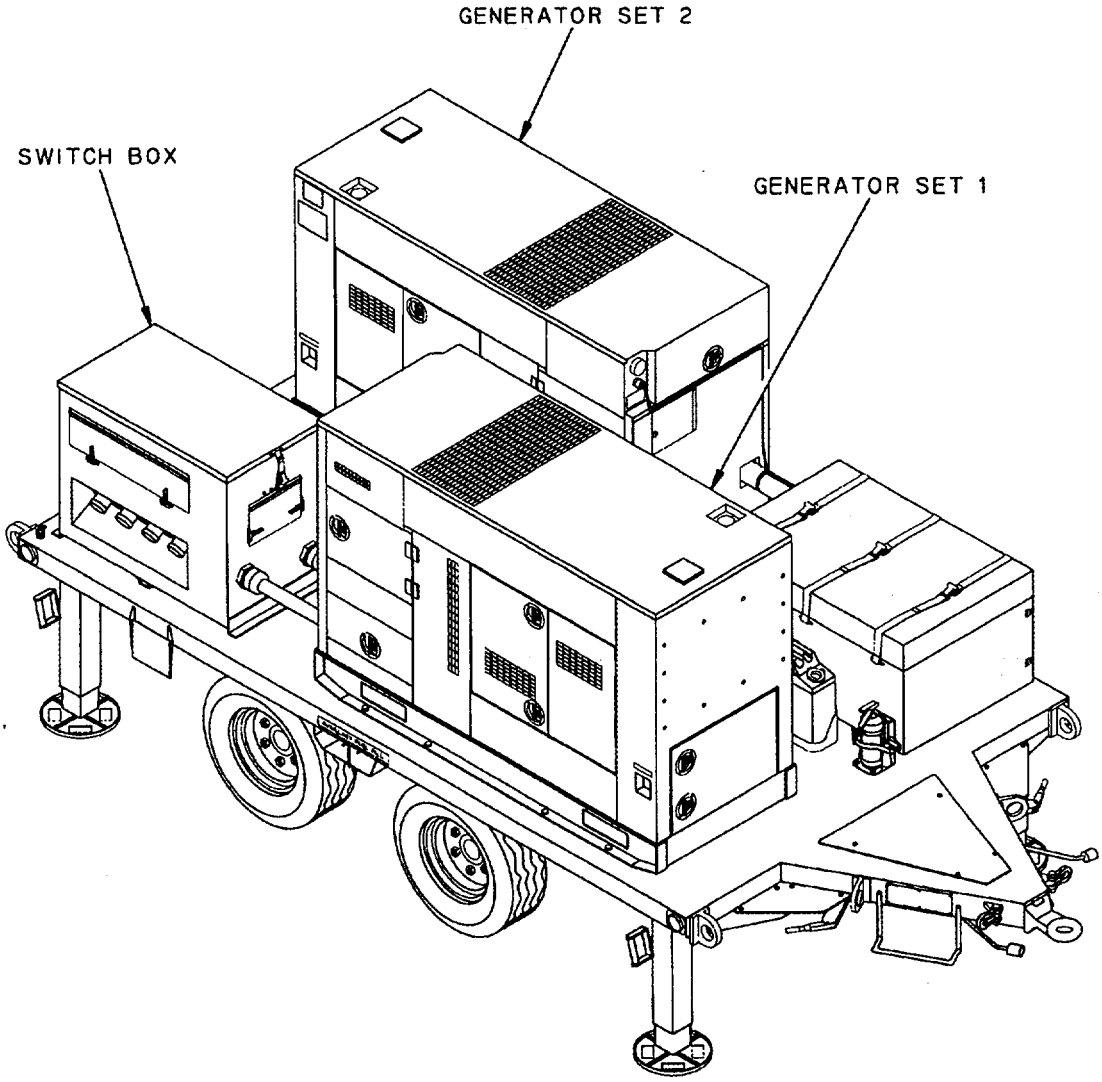


Figure 1-2. Curbside Front Three Quarter View

1.2. MAINTENANCE FORMS AND PROCEDURES.

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.

1.4.1. Preparation for shipment. Preservation and other protective measures taken in the preparation of materiel and accompanying tools and equipment for shipment must be sufficient to protect the materiel against deterioration and physical damage during shipment.

a. Remove front and rear fire extinguisher from mounting brackets and store in cable storage box.

b. Close all generator set doors.

c. Store ladder on top of cable storage box and secure with straps.

d. Clean all surfaces completely.

e. Ensure all surfaces are completely dry.

f. Lubricate the trailer in accordance to TM 9-2330-376-14&P.

1.4.2. Administrative storage. Refer to Chapter 4, Section VII**.**

1.5. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATION (EIR).

If your AN/MJQ-1612 or AN/MJQ-1632 needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance. Put it on SF 368 (Product Quality Deficiency Report). Mail it to us at Commander, U.S. Army Aviation and Troop Command, ATTN: AMSAT-I-MDO, 4300 Goodfellow Boulevard, St. Louis, MO 63120-1798. We will send you a reply.

1.6. CORROSION PREVENTION AND CONTROL (CPC).

CPC of Army materiel is a continuing concern. It is important that any corrosion problems with this item be reported so that the problem can be corrected and improvements can be implemented to prevent the problem in future items. While corrosion is typically associated with rusting of metals, it can also include deterioration of other materials, such as rubber and plastic. Unusual cracking, softening, swelling, or breaking of the materials may be a corrosion problem. If a corrosion problem is identified, it can be reported using STD Form 368, Product Quality Deficiency Report. Using key words such as "*rust", "deterioration", "corrosion", or "cracking*" will insure that the information is identified as a CPC problem. The form should be submitted to the address specified in DA Pam 738-750.

1.7. QUALITY ASSURANCE (QA)

Refer to Quality Assurance/Quality Control specification MIL-Q-9858A for Quality Assurance/Quality Control information.

1.8. NOMENCLATURE CROSS-REFERENCE LIST.

Shortened nomenclature is used in this manual to make procedures easier for you to read. A cross-reference between the shortened nomenclature and the official nomenclature is shown in the following table.

Table 1-1. Nomenclature Cross-Reference List.

Common Name	Official nomenclature
AN/MJQ-1612	Power Plant, Diesel Engine Driven, 5 Ton Trailer Mounted, 60 kW, 50/60 Hz
AN/MJQ-1632	Power Plant, Diesel Engine Driven, 5 Ton Trailer Mounted, 60 kW, 400 Hz
MEP-806A	Generator Set, 60 kW, 50/60 Hz
MEP-816A	Generator Set, 60 kW, 400 Hz
XM1061E1	Modified, Trailer: 5 Ton, 4 Wheel

1.9. LIST OF ABBREVIATIONS/ACRONYMS.

Refer to the glossary at the back of this manual.

1.10. GLOSSARY.

Refer to the glossary at the back of this manual.

SECTION II. EQUIPMENT DESCRIPTION

1.11. EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES.

1.11.1. Characteristics. Two generator sets are mounted on a modified XM1061E1 5 ton, 4 wheel trailer. The modification to the basic trailer includes generator, a switch box, an accessory box and fire extinguisher brackets. Refer to TM 9-23 30-376-14&P for detailed equipment characteristics about the XM1061E1.

1.11.1.1. Power Plant AN/MJQ-1612. The AN/MJQ-1612 Power Plant consists of two MEP-806A Generator Sets, cable storage box and switch box. The generator sets are DOD MEP-806A liquid-cooled, diesel engine driven units, with a load capacity of 60 kW at 50/60 Hz. Refer to TM 9-6115-645-10 for detailed equipment characteristics about the generator sets.

1.11.1.2. Power Plant AN/MJQ-1632. The AN/MJQ-1632 Power Plant consists of two MEP-816A Generator Sets, cable storage box and switch box. The generator sets are DOD MEP-8 16A liquid-cooled, diesel engine driven units, with a load capacity of 60 kW at 400 Hz. Refer to TM 9-6115-645-I0 for detailed equipment characteristics about the generator sets.

1.11.2. Capabilities and Features. The generator sets for the AN/MJQ-1612 and AN/MJQ-1632 are mounted on the same trailer. Electrical outputs are provided in paragraphs 1.11.2.1 and 1.11.2.2.

1.11.2.1. Power Plant AN/MJQ-1612. The electrical output of the power plant is as follows:

ELECTRICAL OUTPUT - 50/60 Hz:	
120/208 volts, three phase, 50 Hz	416 amps
240/416 volts, three phase, 50 Hz	208 amps
120/208 volts, three phase, 60 Hz	344 amps
240/416 volts, three phase, 60 Hz	164 amps

1.11.2.2. Power Plant AN/MJQ-1632. The electrical output of the power plant is as follows:

ELECTRICAL OUTPUT - 400 Hz:	
120/208 volts, three phase, 400 Hz	416 amps
240/416 volts, three phase, 400 Hz	208 amps

1.12. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS.

Figure 1-3 illustrates the location of major components on the AN/MJQ-1612 and AN/MJQ-1632. Table 1-2 lists the major components of the power plants.

Table 1-2. Description of Major Components, Power Plant AN/MJQ-1612 andAN/MJQ-1632.

Item No.	Item Name	Description
1	Switch box	Allows control and connection of the two generator sets.
2	Generator Set	Refer to TM 9-6115-645-10 for major components of the generator set.
3	Trailer	Modified 5 ton, 4 wheel trailer. Refer to TM 9-2330-376-14&P for breakdown of basic trailer.

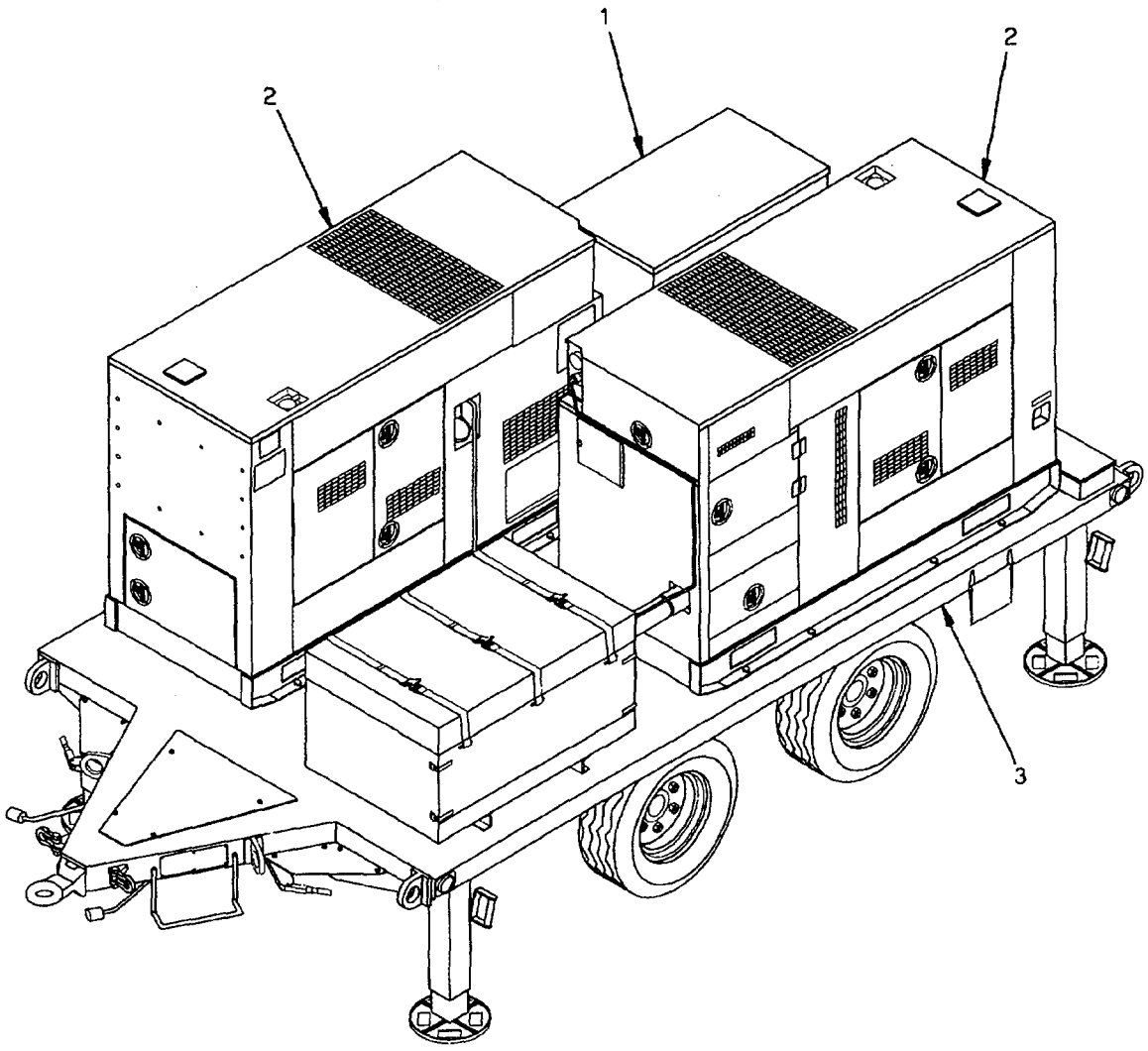


Figure 1-3. Location of Major Components, Power Plant, AN/MJQ-1612 andAN/MJQ-1632.

1.13. DIFFERENCES BETWEEN MODELS.

Table 1-3. Differences Between Models

Component	AN/MJQ-1612	AN/MJQ-1632
Generator Set, 50/60 Hz	2	
Generator Set, 400 Hz		2
Switch Box	1	1
Power Cable	6 (50ft. each)	4 (50 ft. each)

1.14. EQUIPMENT DATA.

1.14.1. Generator Sets. Refer to TM 9-6115-645-10 for the data on the generator set.

1.14.2. Trailer Chassis. Refer to TM 9-2330-376-14&P for the data on the trailer chassis.

1.14.3. Tabulated Data. Refer to table 1-4 for tabulated data.

Table 1-4. Tabulated Data for Power Plants

Tabulated Data	AN/MJQ-1612	AN/MJQ-1632
Overall length, inches	222.62	222.62
Overall width, inches	96.00	96.00
Overall height, inches	96.00	96.00
Operational weight, pounds	15,800	15,800
Shipping weight, pounds	14,700	14,700

SECTION III. PRINCIPLES OF OPERATION

1.15. FUNCTIONAL DESCRIPTION.

1.15.1. Power Plant Functional Description. The power plant consists of two MEP-806A (50/60 Hz) or two MEP-816A (400 Hz) skid mounted Tactical Quiet Generators (TQGs), a switch box (A1), and a cable storage box containing a NATO slave cable with two adapters and 100 amp user power cables (6 each 50/60 Hz, or 4 each 400 Hz). The two TQGs are hard wired to provide output from either generator at one time, independent switching between the two generators without power interruption, or to run the two generator sets in parallel mode. The power plant (PP) has a single ground (gnd) point located on the rear of the trailer. The power plant is grounded using one of the ground rods provided. Generator grounding is provided using the W1 and W2 cables from the N (L0) generator load terminal through the N (L0)-to-gnd switch box bus bar jumper, to the PP gnd point. The N-to-gnd strap at the generator has been disconnected to prevent a ground loop when running in parallel operation. The electrical output is normally supplied from the 100 amp output connectors located on the switch box and is controlled by a circuit breaker located directly above each output connector. The generator output source is controlled by the individual generator controls. Switches S1 and S2, located on the switchbox, control the output of both generators. Refer to TM 9-6115-645-10 for operation and TM 9-6115-645-24 for detailed functional description of the generator sets. Refer to TM 9-2330-376-14&P for a detailed functional description of the trailer.

1.16. RELATED TECHNICAL MANUALS.

Refer to appendix A for related technical manuals and lubrication order.

CHAPTER 2

OPERATING INSTRUCTIONS

Subject Index Page

SECTION I. DESCRIPTION AND USE OF OPERATOR CONTROLS AND INDICATORS

2.1. OPERATOR CONTROLS AND INDICATORS.

Refer to TM 9-6115-645-10 for the generator sets. Refer to TM 9-2330-376-14&P for the trailer. Refer to figure 2-1 and table 2-1 for the AN/MJQ-1612 and AN/MJQ-1632 switch box assembly.

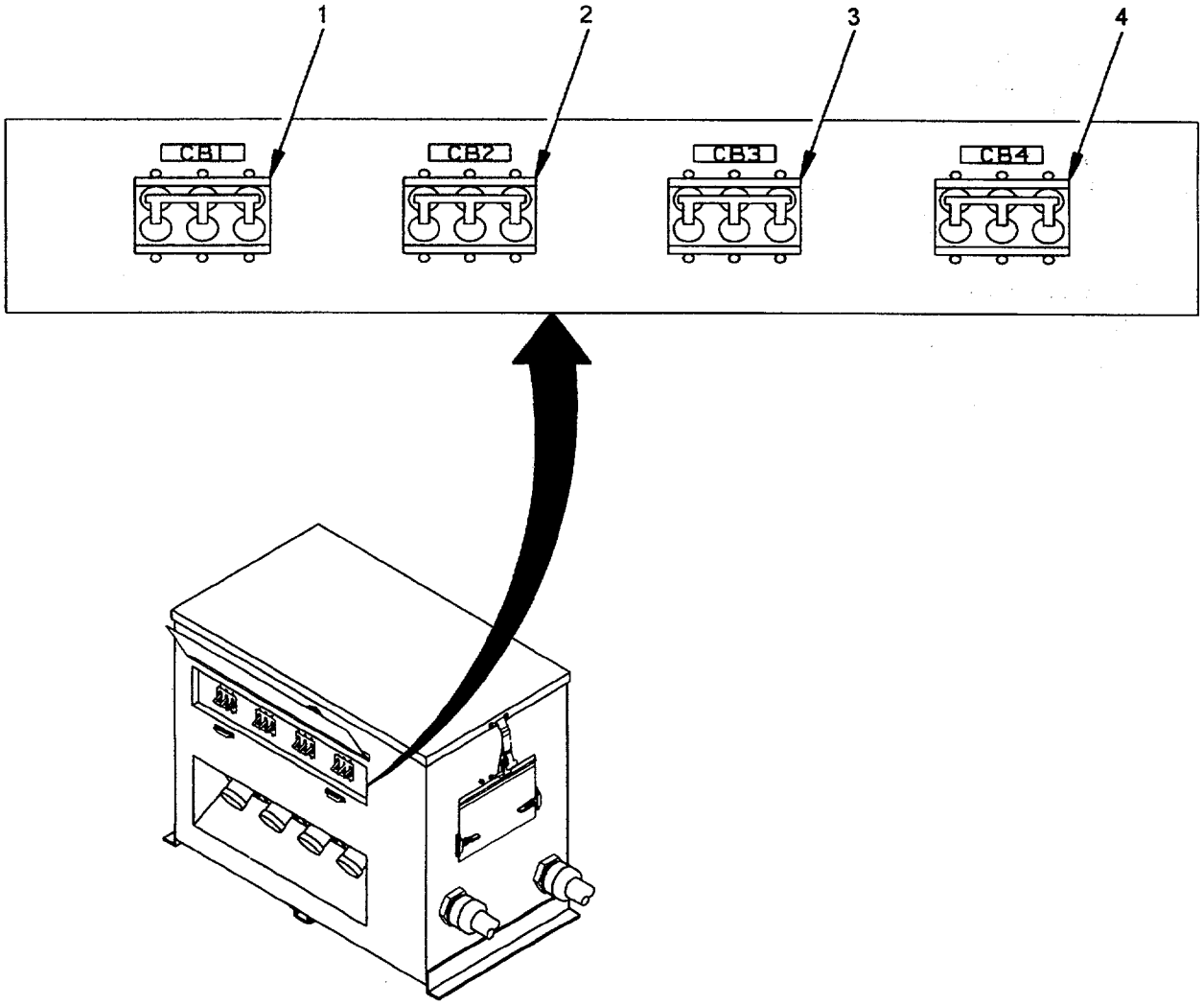


Figure 2-1. Switch Box Controls and Indicators for AN/MJQ-1612 andAN/MJQ-1632 (sheet 1 of 3).

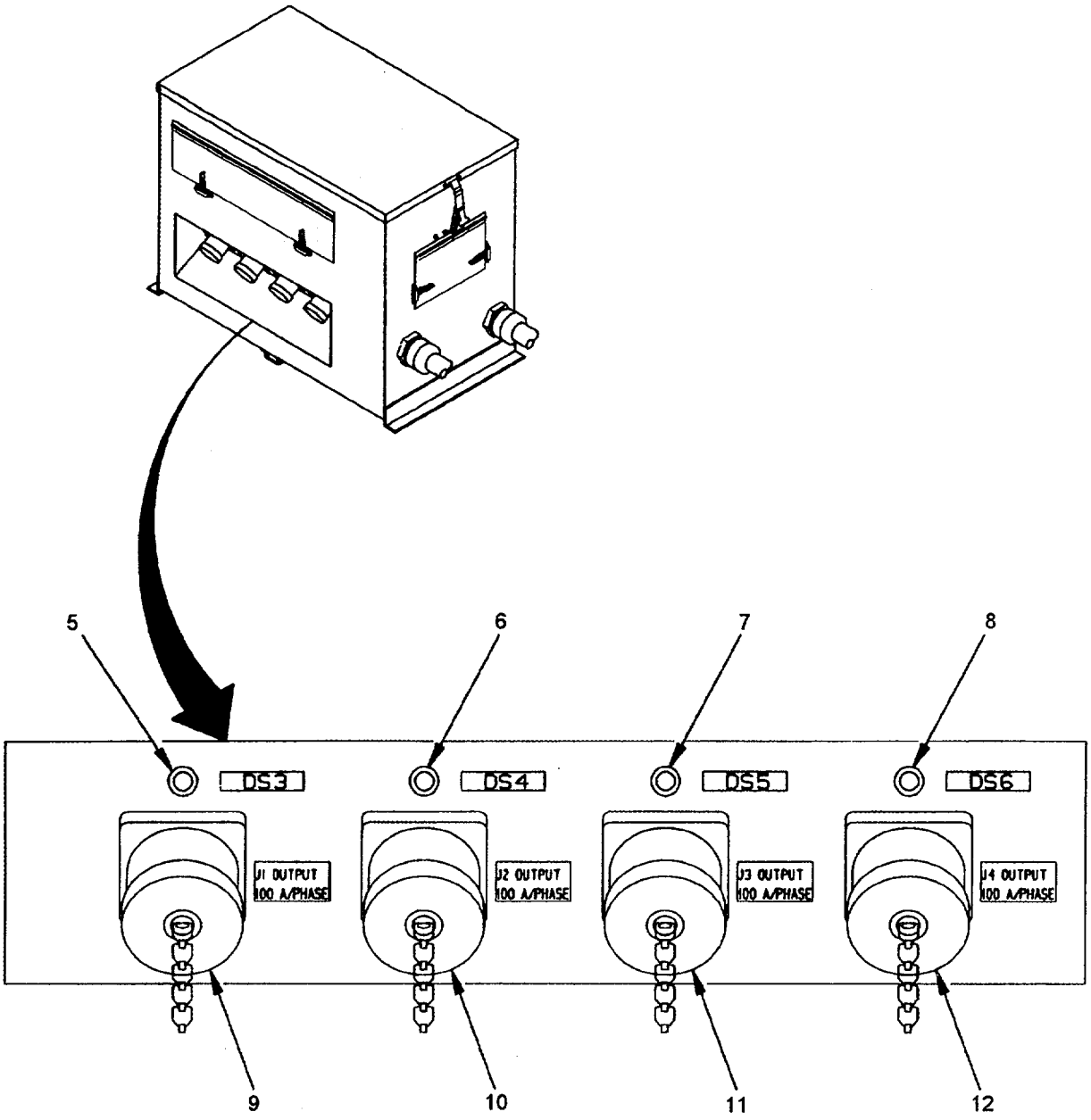


Figure 2-1. Switch Box Controls and Indicators for AN/MJQ-1612 andAN/MJQ-1632 (sheet 2 of 3).

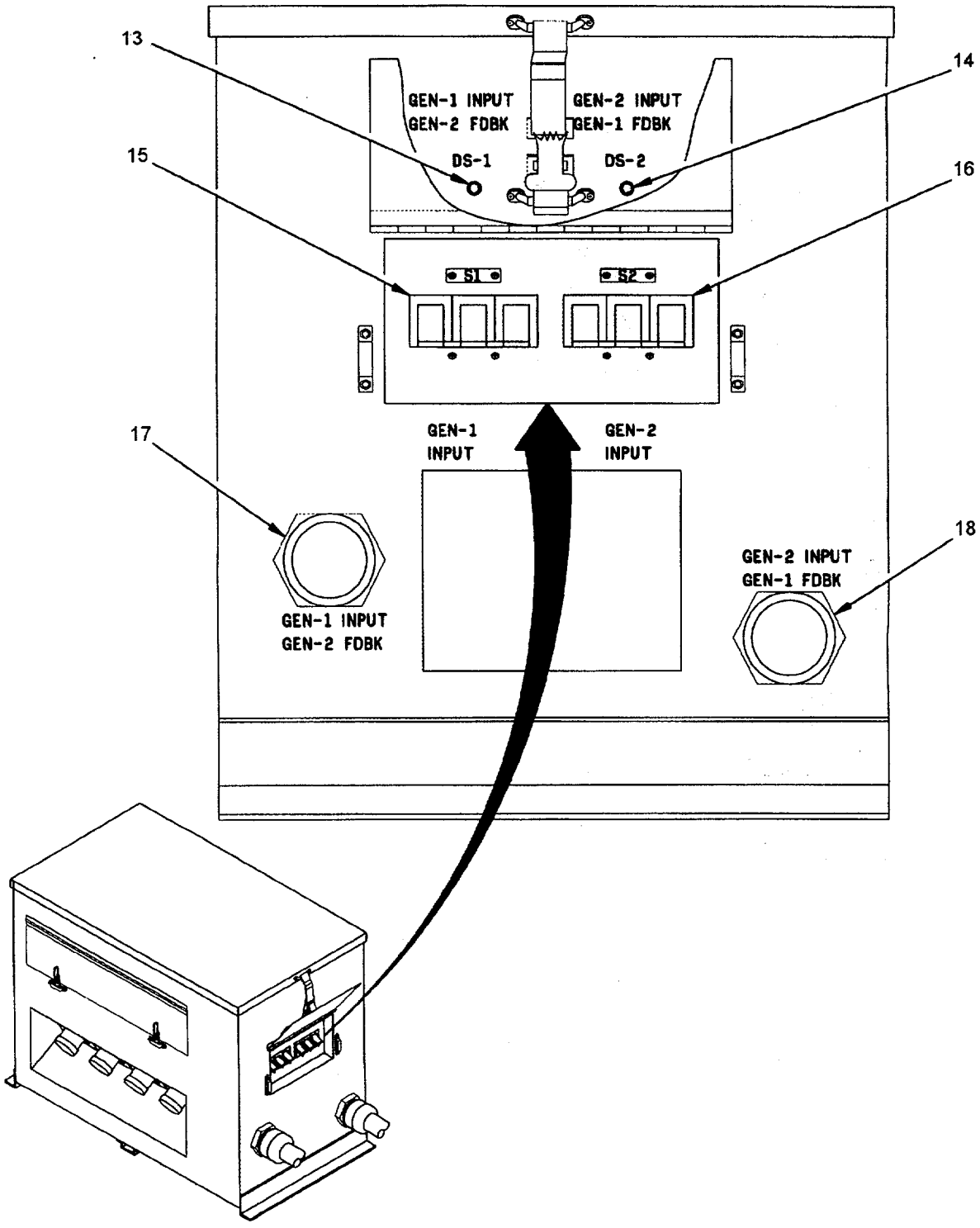


Figure 2-1. Switch Box Controls and indicators or AN/MJQ-1612 andAN/MJQ-1632 (sheet 3 of 3).

Table 2-1. Description of Switch Box Controls and Indicators for AN/MJQ-1612 and AN/MJQ-1632.

Item Number	Description	Function
1	Circuit Breaker CB 1	Used to supply voltage to J1 OUTPUT connector.
2	Circuit Breaker CB2	Used to supply voltage to J2 OUTPUT connector.
3	Circuit Breaker CB3	Used to supply voltage to J3 OUTPUT connector.
4	Circuit Breaker CB4	Used to supply voltage to J4 OUTPUT connector.
5	Indicator Light DS3	Lights when output power is being supplied to connector J1.
6	Indicator Light DS4	Lights when output power is being supplied to connector J2.
7	Indicator Light DS5	Lights when output power is being supplied to connector J3.
8	Indicator Light DS6	Lights when output power is being supplied to connector J4.
9	J1 OUTPUT Connector	Connector used to supply 100 amp output to load.
10	J2 OUTPUT Connector	Connector used to supply 100 amp output to load.
11	J3 OUTPUT Connector	Connector used to supply 100 amp output to load.
12	J4 OUTPUT Connector	Connector used to supply 100 amp output to load.
13	DS1	Lights when S1 is activated.
14	DS2	Lights when S2 is activated.
15	S1	Used to place Generator set on line.
16	S2	Used to place Generator set on line.
17	GEN 1 INPUT CABLE	Connects Generator set to Switch Box.
18	GEN 2 INPUT CABLE	Connects Generator set to Switch Box

SECTION II. OPERATOR PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

2.2. INTRODUCTION TO OPERATOR PMCS TABLE.

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

2.2.1. Warnings, Cautions, and Notes. Always observe the *WARNINGS, CAUTIONS*, and *NOTES* appearing in your PMCS table. Warnings and cautions appear before applicable procedures. You must observe *WARNINGS* to prevent serious injury to yourself and others. You must observe *CAUTIONS* to prevent your equipment from being a 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 (Army), AFTO Form 244/245 (Air Force), (Equipment Inspection and Maintenance Worksheet), include the item number for the check/service indicating a fault. Item numbers also appear in the order that you must do checks and services for the intervals listed.

2.2.2.2. Interval Column. This column tells you when you must do the procedure in the procedure column. "BEFORE" procedures must be done before you operate the 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 make 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 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. Use the following information to help identify potential problems before and during checks and services.

WARNING

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

CAUTION

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

a. Keep it clean. Dirt, grease, and oil get in the way and may cover up a serious problem. Use dry cleaning solvent to clean metal surfaces.

b. Use soap and water to clean rubber or plastic parts and material.

c. Check all bolts, nuts, and screws to make sure they are not loose, missing, bent, or broken. Do not try to check them 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 great enough to form drops that fall from the item being checked/ inspected.

2.2.6. Operation of Power Plant with Minor Leaks.

CAUTION

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

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

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

2.2.7. Corrosion Prevention and Control (CPC). CPC of Army material is of continuing concern. It is important that any corrosion problems with the equipment be reported so that the problem can be corrected and improvements can be made to prevent the problem in future items. While corrosion is typically associated with rusting of metals, it can also include deterioration of other materials, such as rubber and plastic. Unusual cracking, softening, swelling, or breaking of these materials may be a corrosion problem. If a corrosion problem is identified, it can be reported using Standard Form 368, Product Quality Deficiency Report. Use of key words such as "corrosion," "rust," "deterioration," or "cracking" will ensure that the information is identified as a CPC problem. The form should be submitted to the address specified in DA Pam 738-750, (Army), AFR 400-54, (Air Force).

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 the power plant consists of two generator sets and PMCS must be performed on each generator set*. The number callouts on figure 2-2 correspond to the numbers in the Item No. column of table 2-2, for "BEFORE" PMCS.

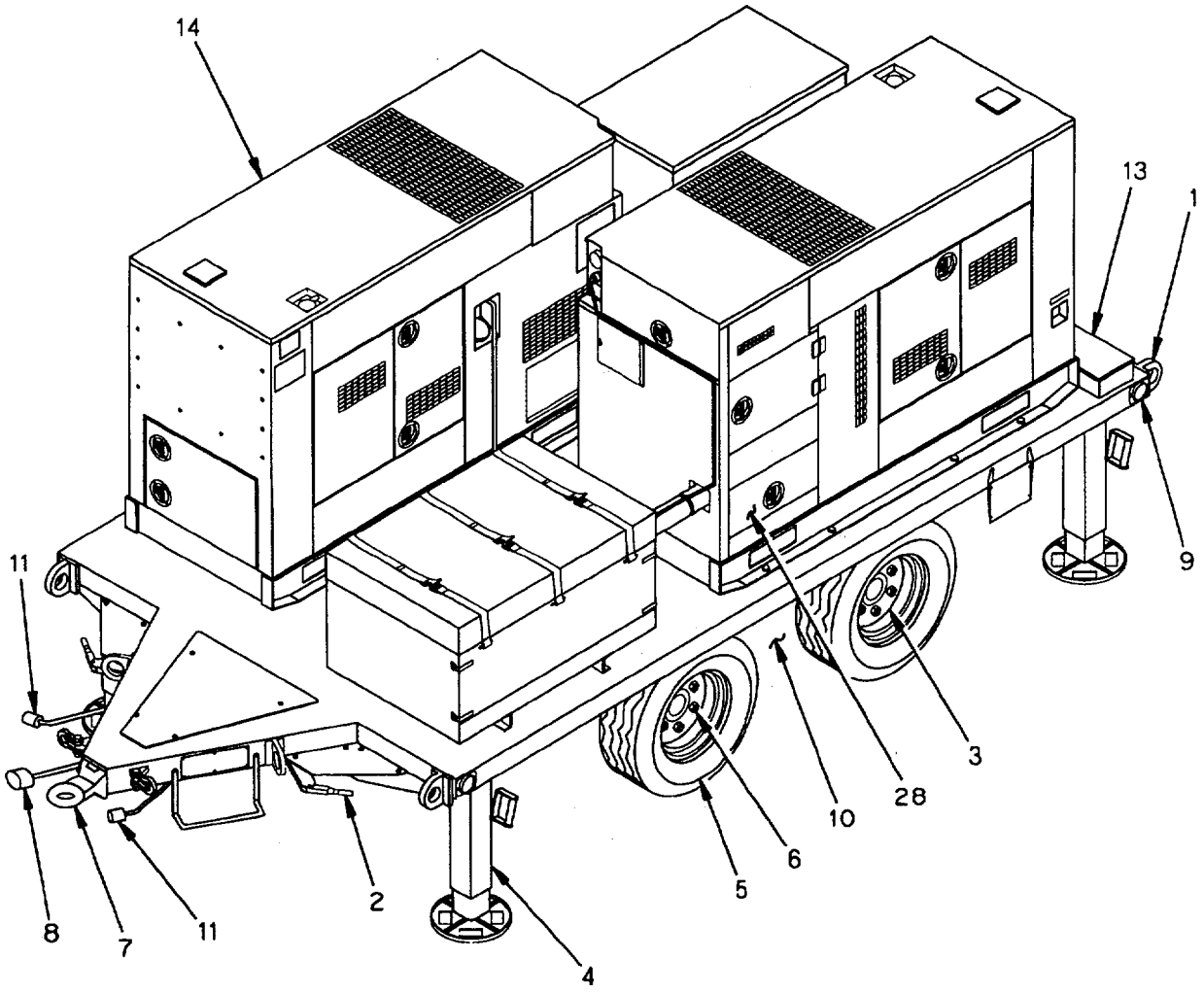


Figure 2-2. Operators PMCS Routing Diagram (sheet 1 of 2).

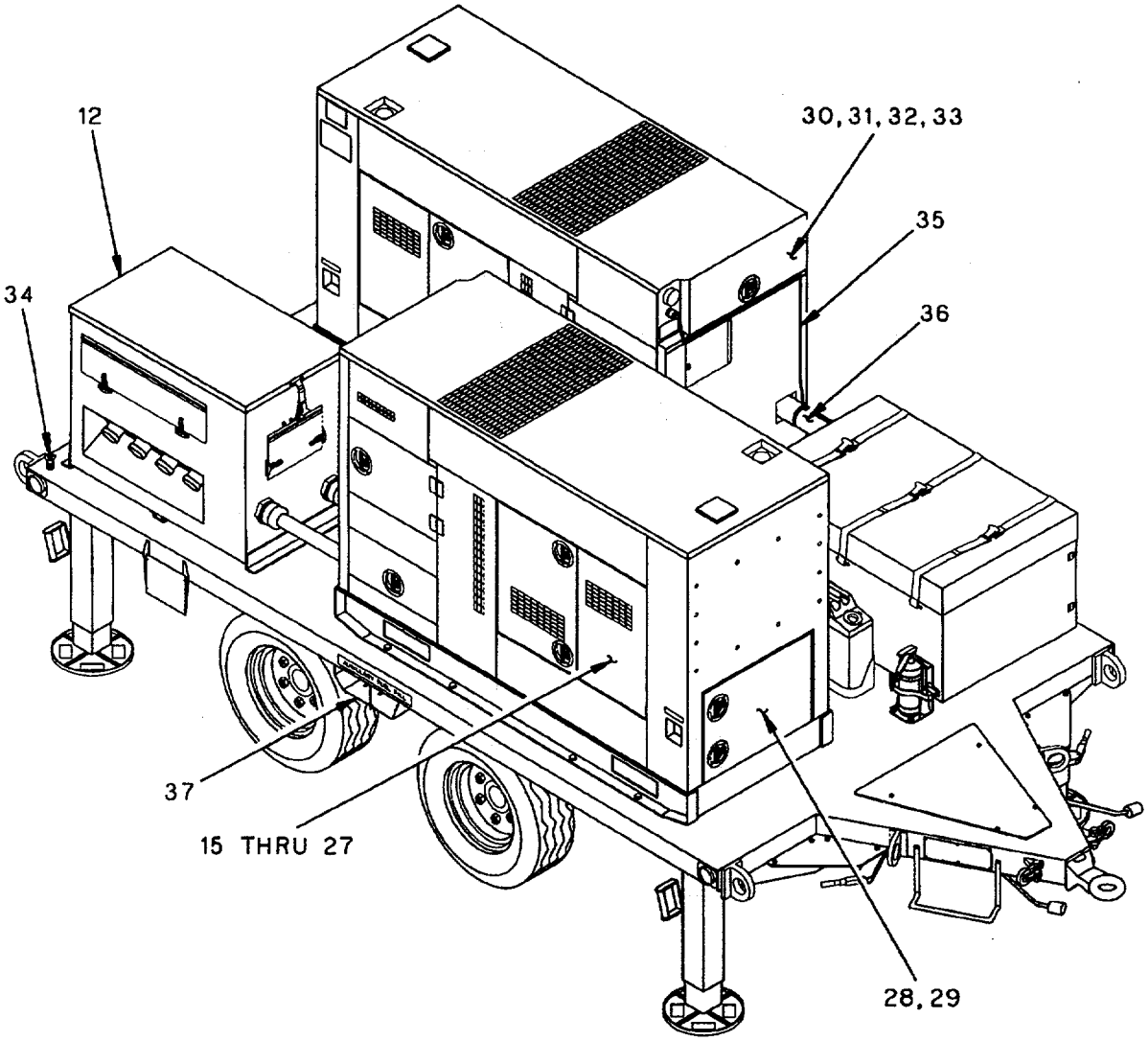


Figure 2-2. Operators PMCS Routing Diagram (sheet 2 of 2).

Table 2-2. Operator Preventive Maintenance Checks and Services for AN/MJQ-1612 and AN/MJQ-1632

NOTE
Trailer PMCS is only required prior to, during, and after operation of trailer

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 Before performing any maintenance that requires climbing on or under trailer, make sure that trailer handbrakes are set and trailer is supported to prevent rolling or tipping. Injury to personnel could result from trailer suddenly rolling or tipping.		
		TRAILER		
1	Before	VISUAL INSPECTION • Body • Reflectors • Leveling Jacks • Lunette • Chains • Identification plates	a. Check for damage. b. Check on, around and under equipment for fuel, oil or coolant leaks.	Any condition renders the power plant not mission capable. Class III coolant or any class fuel leak is detected.
2	Before	HANDBRAKE	a. Check operation of handbrake levers (1 or 2). Lever should move freely through its entire travel. 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.	Handbrake lever locked in applied position.

Table 2-2. Operator Preventive Maintenance Checks and Services for AN/MJQ-1612 andAN/MJQ-1632 (Continued)

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		TRAILER - continued	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(l). 2. Turn adjustment knob (2) clockwise to tighten or counter-clockwise to loosen. If unable to adjust, or if adjustment has been used up, refer to Unit Level Maintenance. 3. Check adjustment (Refer to step d). Repeat steps 1 and 2 as required. Repeat step c.	

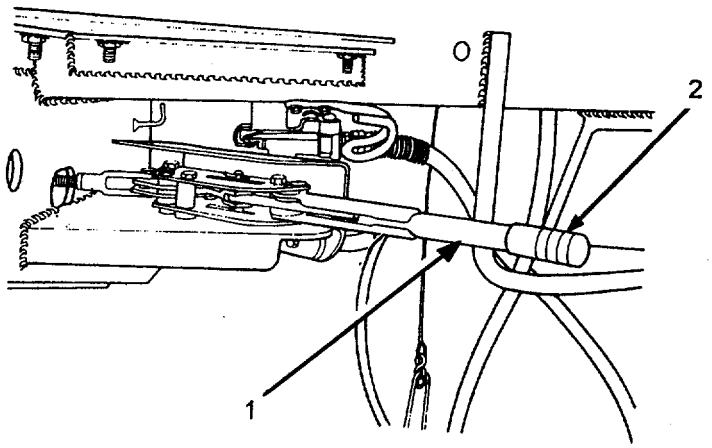


Table 2-2. Operator Preventive Maintenance Checks and Services for AN/MJQ-1612 and AN/MJQ-1632

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		TRAILER - continued		
3	Before	BRAKE SYSTEM	a. Test brake system by connecting trailer to towing vehicle. Connect service brake (left side) hose assemblies and emergency brake (right side) hose assemblies and make sure the towing vehicle service air line is turned on. Actuate the service brakes during operation	Service brakes fail to brake trailer.
			WARNING Serious buns can result from touching an overheated brake drum.	
			b. During halts cautiously feel drums and hubs for overheated condition. Hot drums indicates dragging brake. Cool drum indicates inoperative brake. If overheated, notify Unit Maintenance.	
4	Before	LEVELING JACKS	Check for loose, missing, damaged or corroded parts, and for any unusual signs of deterioration. a. With trailer connected to towing vehicle, check leveling jacks (3) for easy operation. b. Check leveling jacks for proper mounting, alignment, and general condition.	Leveling jack assemblies will not secure in stored position, or will not support trailer

Table 2-2. Operator Preventive Maintenance Checks and Services for AN/MJQ-1612 and AN/MJQ-1632 (Continued)

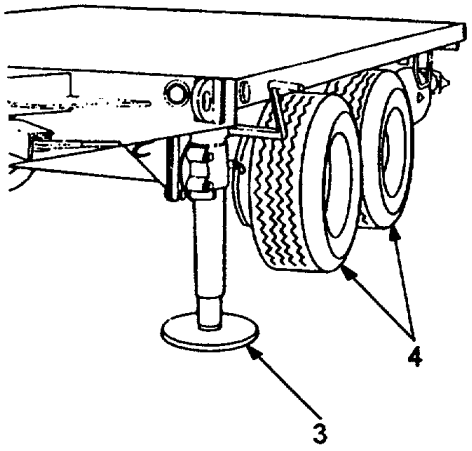
Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		TRAILER - continued		
				
5	Before	TIRES	a. Check tires (4) for cuts, bruises, bulges, or unusual treadwear. Remove any foreign objects from between treads. b. Check tire pressure when tires are cool, for 65 psi.	Tires are unserviceable Tire will not hold air pressure.
6	Before	WHEELS	a. Check wheels for damage and for leakage around flange gasket b. Check to see if stud nuts are loose or missing.	Wheel has Class III leak at flange gasket. One stud nut is loose or missing.
7	Before	DRAWBAR RINGS AND SAFETY CHAINS	a. Check drawbar rings (5) for secure mounting and obvious damage. b. Check safety chains for secure mounting and obvious damage.	Drawbar rings are loose or bent. Safety chains are missing or mounting is loose.

Table 2-2. Operator Preventive Maintenance Checks and Services for AN/MJQ-1612 and AN/MJQ-1632

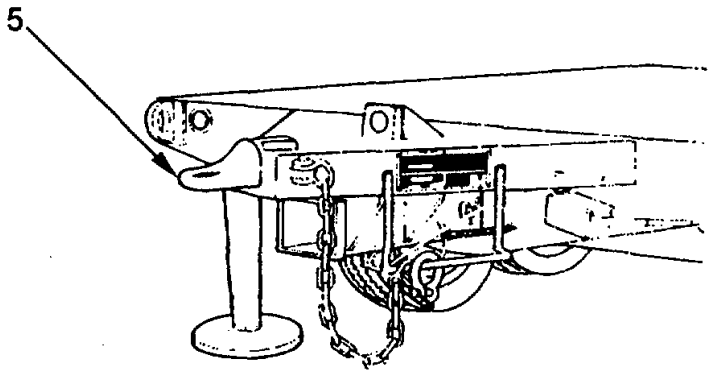
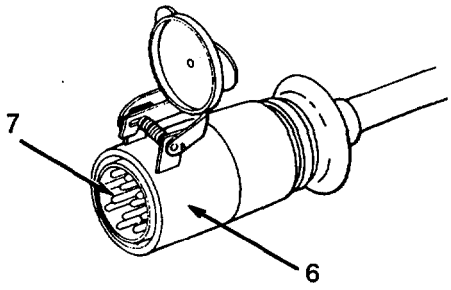
Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		TRAILER continued		
				
8	Before	ELECTRICAL CONNECTION AND WIRING	a. Visually inspect connector body (6) for damage. b. Visually inspect pins (7) for dirt, bends, bums or damage. c. Visually inspect wiring harness, clips, receptacles and shells for correct assembly and good condition. d. Visually inspect insulator for signs of deterioration or arcing. e. Open cable protective cover. Inspect for broken, missing and burned pins.	Lights do not work for night mission.
				

Table 2-2. Operator Preventive Maintenance Checks and Services for AN/MJQ-1612 andAN/MJQ-1632 (Continued)

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		TRAILER continued		
9	Before	LIGHTS AND REFLECTORS	a. Check for obvious damage or looseness of lights and lenses (8). NOTE An assistant is required while checking brake lights. b. Connect the inter vehicular cable to the towing vehicle. c. Operate the vehicle light switch through all settings and check the lights. d. Check for damaged or missing reflectors (9).	Lights are damaged, not serviceable
10	Before	AIR TANK (Located under trailer)	a. Pull air drain handle to drain condensation. b. Visually inspect air tank for damage and/or leaking.	Tank is leaking or damaged.

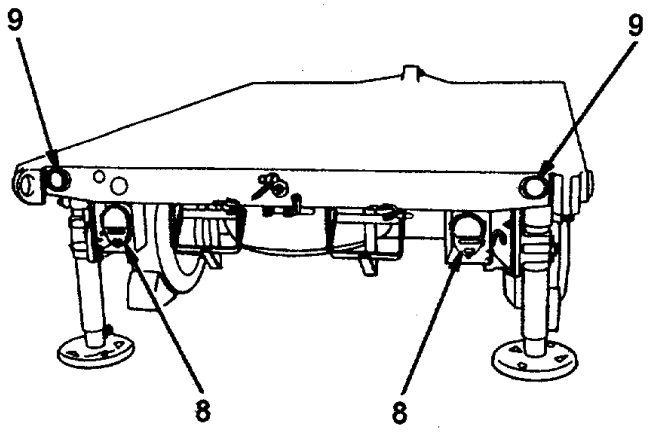


Table 2-2. Operator Preventive Maintenance Checks and Services for AN/MJQ-1612 andAN/MJQ-1632

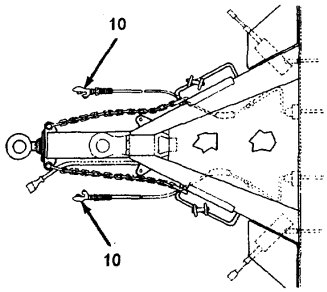
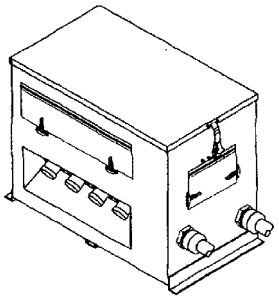
Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		TRAILER continued		
11	Before	AIR LINE CONNECTORS	a. Inspect gladhands (10) for damage and leaking. Clean dirt from mounting surfaces.	Gladhands are broken, missing or leaking.
				
12	Before	SWITCH BOX ASSEMBLY	Visually check for the following:	
			• Loose or missing mounting hardware	Two or more mounting bolts missing.
			• Damaged indicator lights	Indicator lights are damaged.
			• Loose or damaged switches	Switches loose or damaged.
			• Damaged or missing output connectors	Output connectors will not secure load cables.
				

Table 2-2. Operator Preventive Maintenance Checks and Services for AN/MJQ-1612 andAN/MJQ-1632 (Continued)

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		TRAILER continued		
13	Before	ACCESSORIES	Check that the following accessories are not missing or damaged: • Auxiliary fuel hose • Fire extinguishers, check seal.	Fire extinguishers missing or seal open.
			NOTE Remaining accessories are stored in accessory box. • Fuel container adapter • Ground rod • Hammer, 8 lb. • Slide hammer • Ground cable • Oil drain hose	Ground rod and/or ground cable missing.
		GENERATOR SET		
14	Before	HOUSING	Check doors, panels, hinges, and latches for damaged, loose or corroded items. Inspect air intake and exhaust grills for debris.	Cannot secure doors.
15	Before	ACOUSTICAL MATERIALS	Ensure that acoustical materials are free of damage or not missing.	
		WARNING With any access door open, the noise level of this generator set could cause hearing damage. Hearing protection must be worn when working near the generator set while running.		
		WARNING The fuels used in this generator set are highly explosive. DO NOT smoke or use open flame when performing maintenance. Flames and explosion can occur resulting in severe personal injury or death.		
16	Before	ENGINE ASSEMBLY	Check for loose, damaged, or missing hardware.	

Table 2-2. Operator Preventive Maintenance Checks and Services for AN/MJQ-1612 and AN/MJQ-1632

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		GENERATOR SET - continued		
17	Before	FUEL SYSTEM	Inspect fuel system for leaks, damaged, loose or missing parts	Any fuel leaks, damaged, loose or missing parts.
18	Before	FUEL FILTER/WATER SEPARATOR	a. Inspect fuel filter/water separator (11) for leaks, proper mounting, cracks, damage, or missing parts b. Drain water from fuel filter/water separator into appropriate container. Drain hose is located in battery box	Any fuel leaks. Fuel filter/water separator not drained.
19	Before	ETHER START SYSTEM	a. Check for deteriorated, loose or missing parts.	
20	Before	LUBRICATION SYSTEM	a. Inspect for leaks, damaged, loose or missing parts. b. Check engine oil level (12). Add as necessary c. Check engine oil for contamination	Class III leaks. Damaged, loose or missing parts. Oil level is below ADD level Engine oil shows signs of contamination.
		WARNING Cooling system operates at high temperatures. Personal injury or death from burns or scalding can result from contact with high pressure steam and/or liquid.		
		COOLING SYSTEM		
21	Before	RADIATOR	Check radiator (13) for leaks, damage or missing parts.	Class III leaks. Radiator cap missing.

Table 2-2. Operator Preventive Maintenance Checks and Services for AN/MJQ-1612 and AN/MJQ-1632 (Continued)

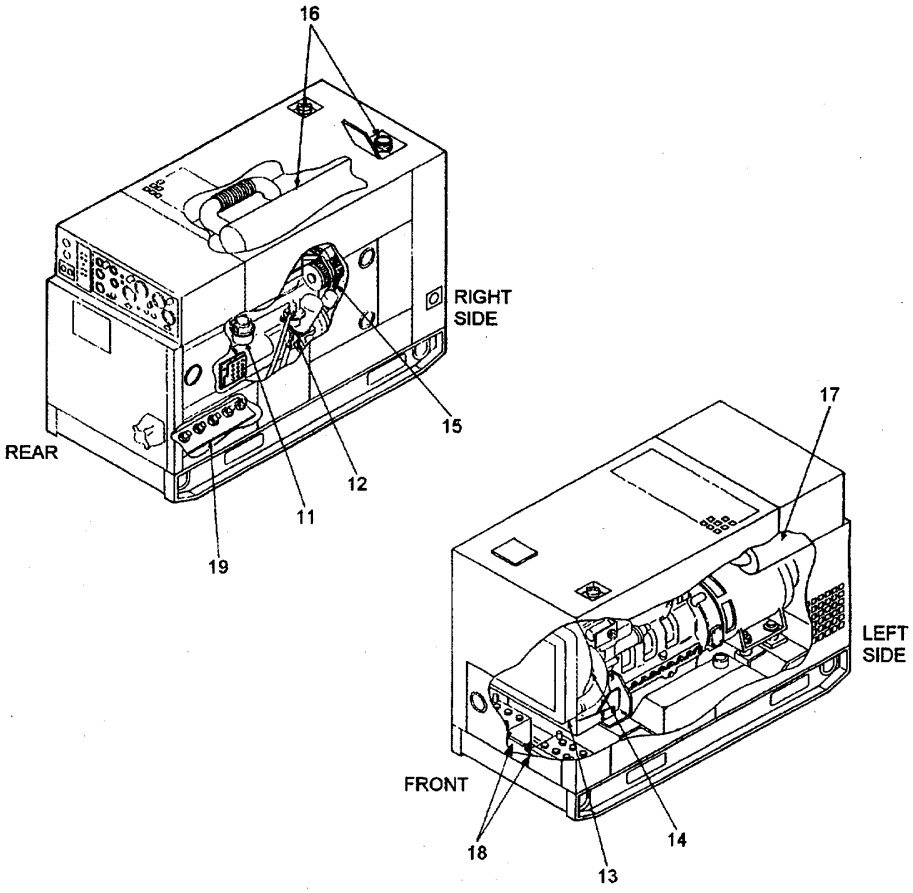
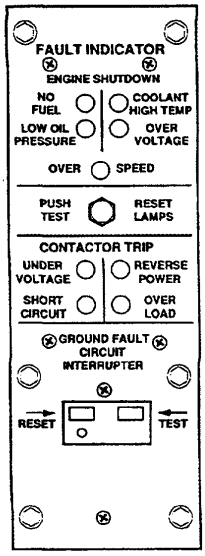
Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		GENERATOR SET - continued		
				
22	Before	HOSES	Check hoses (14) for leaks, cracks or deterioration.,	Class III leaks.
23	Before	COOLING FAN	Check fan for damage or looseness, or deterioration.	Cooling fan is damaged or loose.
24	Before	FAN BELTS	Inspect belts (1 5) for cracks, fraying or looseness.	Broken or loose belt(s).

Table 2-2. Operator Preventive Maintenance Checks and Services for AN/MJQ-1612 andAN/MJQ-1632

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		GENERATOR SET - continued		
25	Before	OVERFLOW BOTTLE	a. Check overflow bottle for leaks or missing parts b. Check coolant level.	Class III leaks. Coolant level is below cold line.
		WARNING Exhaust discharge contains deadly gases. DO NOT operate generator set in enclosed areas unless exhaust is properly vented outside. Severe personal injury or death due to carbon monoxide poisoning could result..		
26	Before	EXHAUST SYSTEM	a. Check muffler (16) for leaks and exhaust system for corrosion, damaged or missing parts.	Muffler or exhaust system damaged or leaking.
27	Before	AIR CLEANER ASSEMBLY	Inspect air cleaner assembly (17) and piping for loose or damaged connections. Check restriction indicator for clogged element	Clogged element is indicated or piping and connections are loose
		WARNING Battery acid can cause burns to unprotected skin.		
		WARNING Batteries give off flammable gas. Do not smoke or use open flame when performing maintenance. Flames and explosion could result in personal injury or death.		
28	Before	BATTERIES	Check electrolyte level	
29	Before	BATTERY CABLES	Inspect cables and connectors (18) for corrosion, loose, damaged or damaged or missing.	Cables are loose, missing parts

Table 2-2. Operator Preventive Maintenance Checks and Services for AN/MJQ-1612 and AN/MJQ-1632 (Continued)

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		WARNING High voltage is produced when this generator set is in operation. Improper operation could result in personal injury or death.		
30	Before	OUTPUT BOX ASSEMBLY	a. Check for loose or damaged wiring or cables. b. Check output terminals (19) for damaged or missing hardware	Loose or damaged wiring or cables. Damaged or missing hardware
31	Before	CONTROL BOX ASSEMBLY	Check inside control box for loose or damaged wiring.	Loose or damaged wires.
32	Before	CONTROL AND INDICATORS	a. Check all controls and indicators for damaged or missing parts b. Ensure all indicators are operating properly	Controls or indicators damaged or missing. Frequency or AC Voltmeter inoperative.



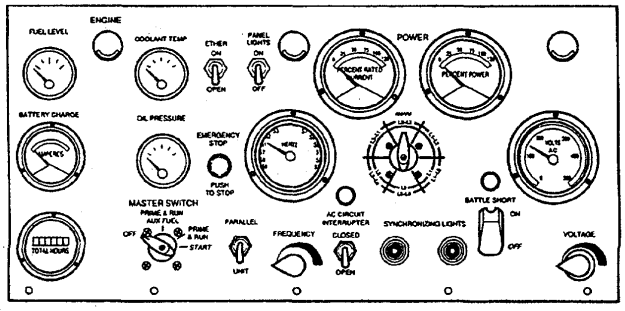


Table 2-2. Operator Preventive Maintenance Checks and Services for AN/MJQ-1612 andAN/MJQ-1632

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		GENERATOR SET - continued		
33	Before	CONTROL BOX HARNESS	Check for loose or damaged wiring.	Loose or damaged wires.
34	Before	GROUND ROD CABLE AND CONNECTION	Inspect ground rod and cable for loose connections, breaks, damage and corrosion.	Cable is missing or damaged.
		WARNING ENSURE generator set is properly grounded prior to starting. Otherwise serious injury or death could result by electrocution.		
35	Before	PARALLEL CABLE	Inspect parallel cable for damage.	Cable is damaged.
36	Before	CABLE ASSEMBLY	Inspect cable assembly for damage.	Cable is damaged.
37	Before	AUXILIARY FUEL SYSTEM	Inspect auxiliary fuel system for leaks, damaged, loose or missing parts	Any leaks, damaged, loose or missing parts.
38	During	SWITCH BOX ASSEMBLY	Check indicator lights. Ensure indicator lights are operating properly.	
39	During	HOUSING	a. Check doors, hinges, and latches for damage, loose, or corroded items. b. Inspect air intake and exhaust grills for debris.	Cannot secure door. Grills plugged; air flow cut off
		WARNING With any access door open, the noise level of this generator set could cause hearing damage. Hearing protection must be worn when working near the generator set while running.		

Table 2-2. Operator Preventive Maintenance Checks and Services for AN/MJQ-1612 andAN/MJQ-1632 (Continued)

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		WARNING The fuels used in this generator set are highly explosive. DO NOT smoke or use open flame when performing maintenance. Flames and explosion can occur, resulting in severe personal injury or death.		
		WARNING Exercise extreme caution when performing "DURING" checks inside engine compartment. Avoid contact with moving or hot engine parts. Failure to observe this warning can result in severe personal injury or death.		
		GENERATOR SET - continued		
40	During	ENGINE ASSEMBLY	Check for loose, damaged or missing parts.	
41	During	FUEL SYSTEM	Inspect for leaks.	Any fuel leaks.
42	During	LUBRICATION SYSTEM	a. Inspect for leaks b. Check oil level on dipstick, both sides.	Class III leaks. Oil level below ADD level.
43	During	COOLING FAN	Listen for unusual noise in fan area.	
44	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 this generator set is operating. Improper operation could result in injury or death.		

Table 2-2. Operator Preventive Maintenance Checks and Services for AN/MJQ-1612 and AN/MJQ-1632

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		GENERATOR SET - continued		
45	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)	
46	During	AUXILIARY FUEL SYSTEM	Inspect for leaks.	Any fuel leaks.
47	After	HOUSING	a. Check doors, panels, hinges, and latches for drainage, loose, or corroded items. b. Inspect air intake and exhaust grills for debris.	Cannot secure doors. Intake and exhaust grills plugged
48	After	IDENTIFICATION PLATES	Check to be sure identification plates are secure.	
49	After	SKID BASE	Inspect skid base for cracks and corrosion	Skid base cracked or. shows signs of structural damage.
		WARNING DO NOT smoke or use flame near this generator set. The fuels used in it are highly explosive. Flames and explosion can occur, resulting in severe personal injury or death.		
50	After	ENGINE ASSEMBLY	Check for loose, damaged, or missing hardware.	
5 1	After	FUEL SYSTEM	Inspect fuel system for leaks, damaged, loose, or missing hardware.	Any fuel leaks, damaged, loose, or missing parts.

Table 2-2. Operator Preventive Maintenance Checks and Services for AN/MJQ-1612 and AN/MJQ-1632 (Continued)

Item No.	Interval	Location Item to Check/Service	Procedure	Not Fully Mission Capable if:
		GENERATOR SET - continued		
52	After	FUEL FILTER/WATER SEPARATOR	a. Inspect fuel filter/water separator for leaks, cracks damage, proper mounting, or missing parts b. Drain water from fuel filter/water separator.	Any fuel leaks.
53	After	LUBRICATION SYSTEM	a. Inspect lubrication system for leaks, damaged, loose, or missing parts. b. Check oil level. c. Check engine oil for contamination.	Class III leaks, damaged, loose, or missing parts. Oil level is below ADD level Engine oil shows contamination.
		WARNING Be very careful to avoid contact with high-pressure steam and/or liquid. Cooling system operates at high temperatures, and personal injury or death from burns or scalding can result from such contact.		
		COOLING SYSTEM		
54	After	RADIATOR	Check radiator for leaks, damage, or missing parts.	Class III leaks. Radiator cap missing.
55	After	HOSES	Check hoses for leaks or cracks.	Class III leaks.
56	After	FAN BELTS	Inspect belts for cracks, fraying, or Looseness.	Broken belt.
57	After	OVERFLOW BOTTLE	Check overflow bottle for leaks or missing parts. Check coolant level	Class III leaks. Coolant level is below cold line.
58	After	CONTROLS AND INDICATORS	Check all controls and indicators for damaged or missing parts.	Controls or indicators damaged or missing.

SECTION III. OPERATION UNDER USUAL CONDITIONS

2.3. ASSEMBLY AND PREPARATION FOR USE.

2.3.1. Unpacking the Equipment. Unpacking must be performed by unit level maintenance personnel.

2.3.2. Installation Instructions.

2.3.2.1. Positioning Power Plant. Position the equipment at the worksite as follows:

WARNING

Trailer and towing vehicle must be on level ground to prevent accidental movement resulting in injury to personnel. Failure to observe this warning can result in severe personal injury or death.

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

b. Set the trailer handbrakes and lower the leveling jacks as shown in figure 2-3. Refer to TM 9-2330-376-14&P for detailed installation of trailer.

c. Remove fire extinguishers from brackets. Locate on ground away from equipment.

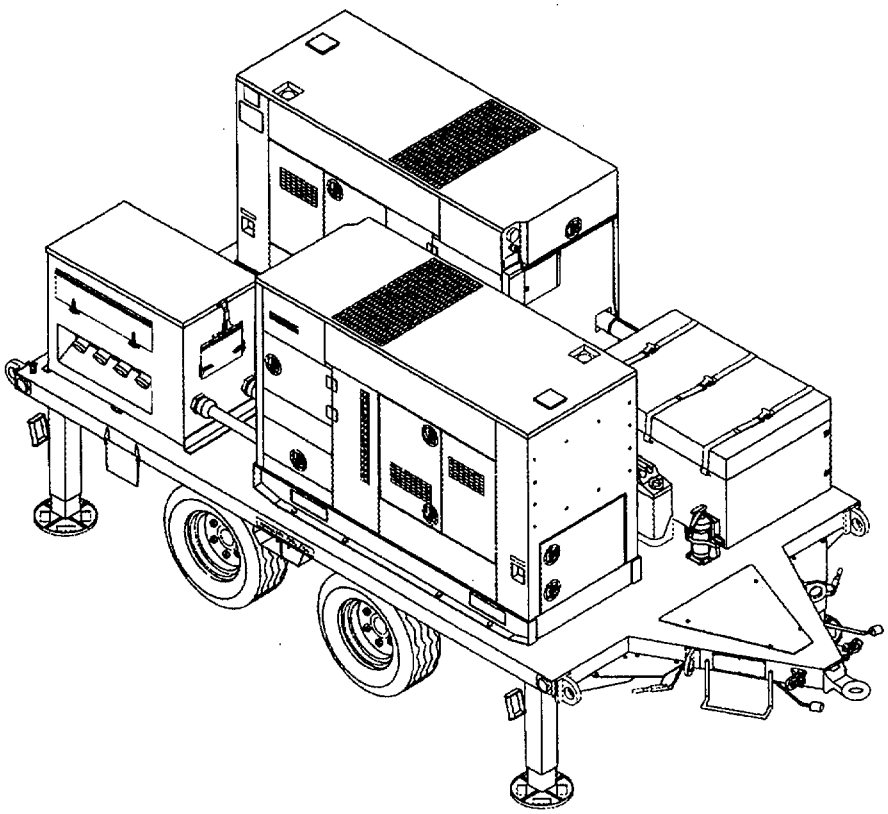


Figure 2-3. Power Plant Installation

2.3.3. Grounding of Power Plant. Ground the equipment in accordance with Army Field Manual FM 20-3 1. Install and connect the ground rod as follows:

a. Remove ground rod, grounding strap, and slide hammer (figure 2-4) from accessory box. Perform assembly steps (1) through (3).

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 observe this warning could result in severe personal injury and/or death and damage to the equipment.

(1) Install impact disk (3) on rod (4). Tighten impact disk to end of threads on rod.

(2) Install lock washer (2) and nut (1). Tighten nut and lock washer securely against impact disk.

NOTE

Nut (6) must be removed before positioning hammer.

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

b. Connect ground coupling (8) to ground rod (7) and screw slide hammer (4) into coupling (8). Make sure that slide hammer rod (4) seats on ground rod (7).

c. Drive ground rod (7) into ground until coupling (1O) is just above surface.

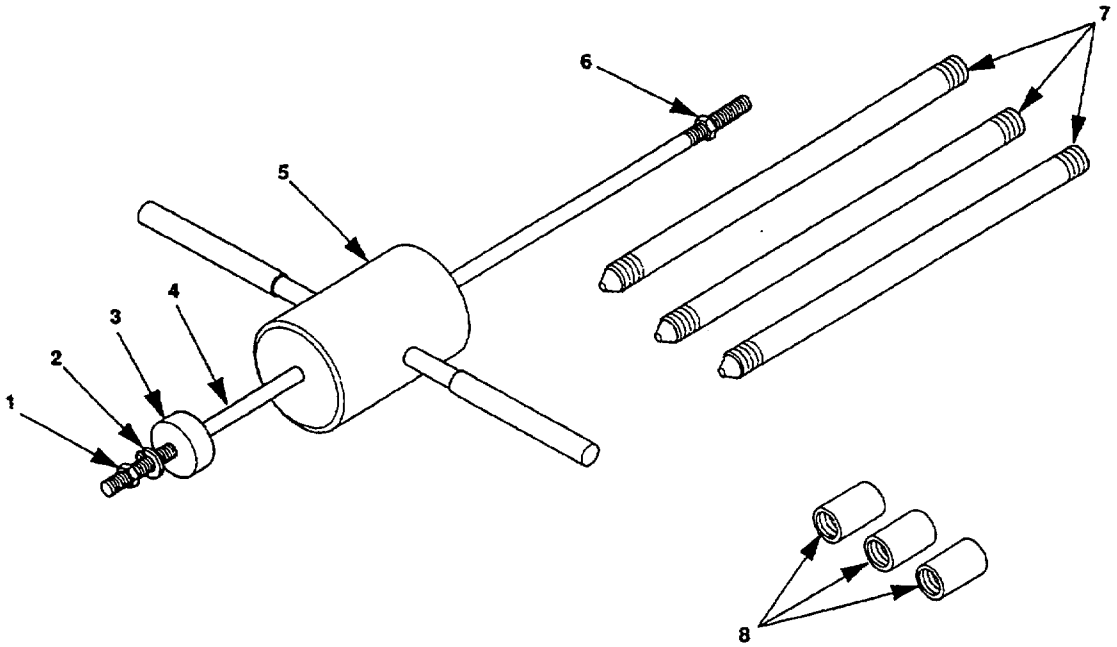


Figure 2-4. Ground Rod, Grounding Strap, and Slide Hammer.

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

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

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

g. Connect ground cable as follows:

h. Remove and retain wing nut (1, figure 2-5) and washer (2) from trailer ground stud (4) and position ground cable terminal (3) on ground stud.

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

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

(4) Install ground cable end into ground cable clamp (5) and tighten clamp screw (6).

WARNING

ENSURE that the ground cable from the Switch Box Assembly is properly connected to the trailer ground stud.

i. Disassemble slide hammer as follows:

(1) Remove nut (6, figure 2-4) from end of ground rod (4) and retain.

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

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

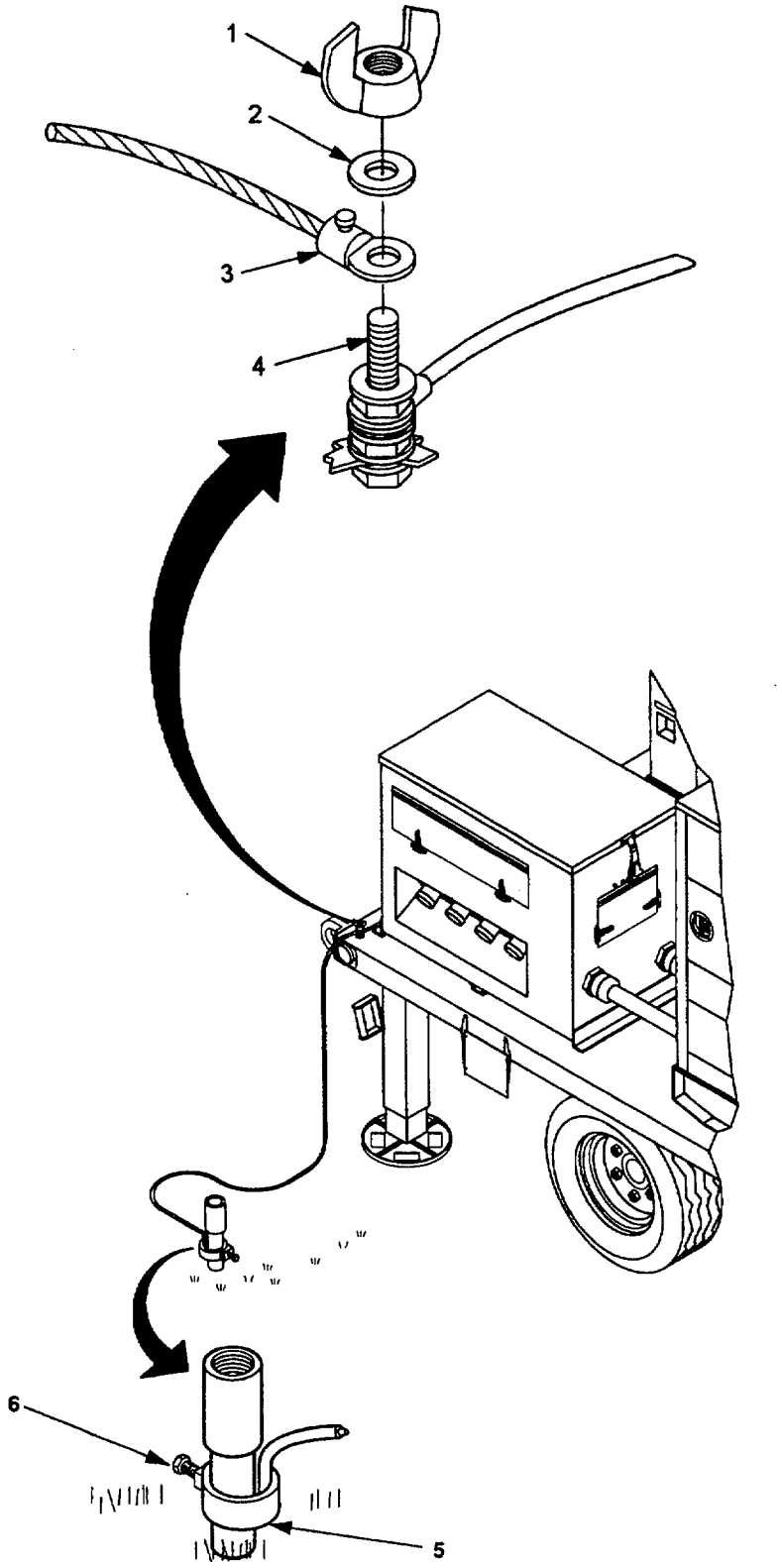


Figure 2-5. Typical Ground Rod Installation.

2.3.4. Connecting Load Cables.

WARNING

Never attempt to connect or disconnect load cables while the generator is running. Failure to observe this warning could result in severe personal injury or death by electrocution.

NOTE

Before connecting the load, determine voltage and frequency requirements of the system or device that is being supplied with power. Refer to TM 9-61-15-645-10 and 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 Plant. Load can be connected to the switch box using any combination of connectors, J1 through J4, figure 2-6. The paralleling cable is already connected between the generators.

a. Remove load cables from the cable storage box located on trailer.

b. Connect the plug end of cable (1) to the desired connector of the switch box.

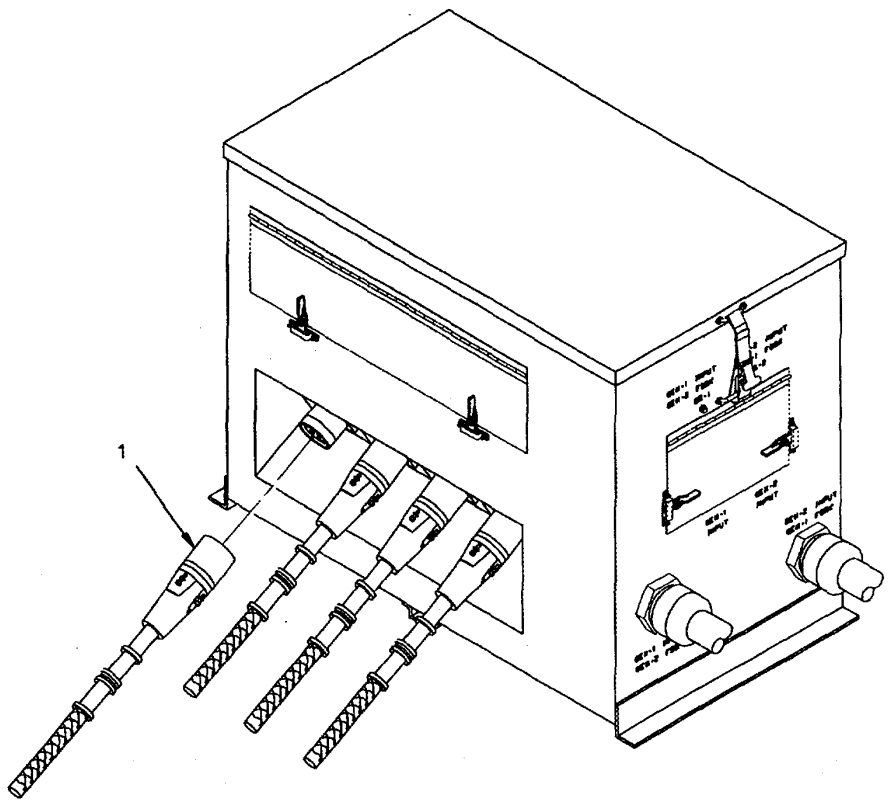


Figure 2-6. Connecting Load Cables.

2.3.5. Auxiliary Fuel Source. Each generator set has provisions for obtaining fuel from an external source. This enables operation for long intervals without frequent refilling of the fuel tanks.

WARNING

Before performing any maintenance that requires climbing on or under trailer, make sure that trailer handbrakes are set and trailer is supported to prevent rolling or tipping.

WARNING

The fuel in this generator set is highly explosive. Do not smoke or use open flame within 50 feet of generator set when performing maintenance. Flames and explosion could result in severe personal injury or death.

NOTE

Make sure that the fuel container adapter components are clean.

NOTE

Before connecting fuel hose to power plant auxiliary fuel fill connection, ensure both valves are in the OFF position, refer to figure 2-7.

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

b. Remove fuel container adapter (figure 2-7) from accessory box. The fuel container adapter consists of strainer clamp (1), adapter (2), pipe (3), and extension pipe (4).

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

d. Remove auxiliary fuel hose from generator set.

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

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

g. Remove protective cap (5) from power plant auxiliary fuel fill connection (6).

h. Connect free end of fuel hose to fuel fill connector (6) and tighten.

i. Insert fuel container adapter into external fuel source. Secure fuel container adapter by pressing down on strainer clamp (1).

j. Turn fuel valve (7) ON to supply fuel to generator set 1 and fuel valve (8) to supply fuel to generator set 2.

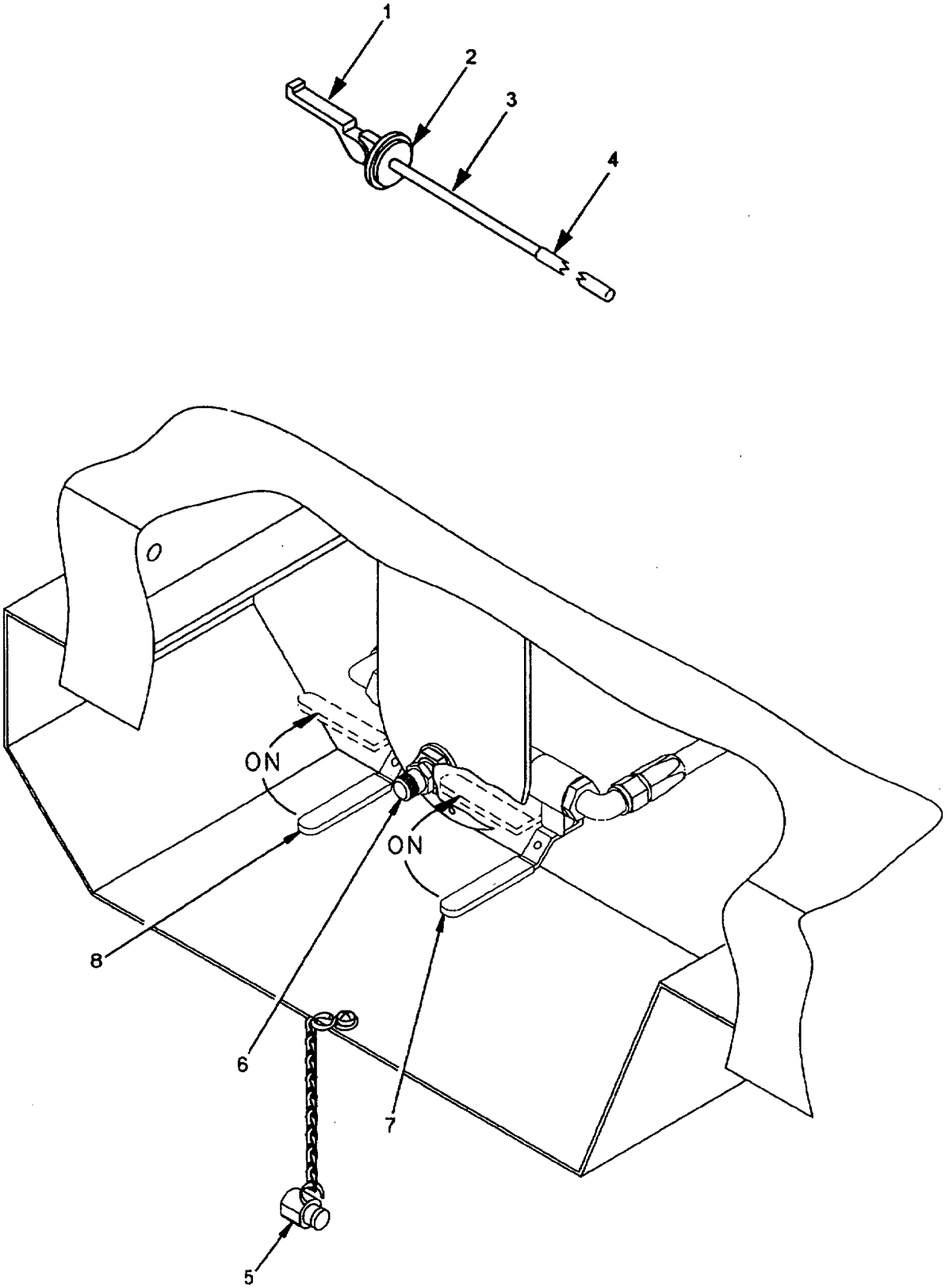


Figure 2-7. Auxiliary Fuel Connection.

2.4. INITIAL ADJUSTMENTS, CHECKS, AND SELF TEST.

Refer to TM 9-6115-645-10 for initial adjustments, checks, and self test.

2.5. OPERATING PROCEDURES.

2.5.1. Generator Set Operating Procedures. Refer to TM 9-6115-645-10 for generator set operating procedures.

2.5.2. Trailer Operating Procedures. Refer to TM 9-2330-376-14&P for trailer operating procedures.

2.5.3. Power Plant Switch Box Operating Procedures. 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, generators in parallel, or transfer of the load from one generator to another.

2.5.3.1. Operating a Single Generator Set.

WARNING

Do not operate equipment until it is properly grounded and all load terminals are not shorted. Failure to observe this warning can result in severe personal injury or death.

WARNING

The load terminals on both generators have voltage present when both INPUT switches are ON and only one generator is running and the output "AC CIRCUIT INTERRUPTER SWITCH" is in the closed position. Failure to observe this warning can result in severe personal injury or death.

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. Open input control access cover on Switch Box Assembly. Place both switches in OFF (down) position.

c. To start either generator set, rotate the MASTER switch (1, figure 2-8) to START position. Hold MASTER switch in START position until oil pressure reaches 25 psi (172 k PA), and voltage reaches the appropriate required value.

d. Release MASTER (1) switch to PRIME AND RUN position or PRIME & RUN AUX. FUEL depending on fuel source.

e. Adjust VOLTAGE potentiometer (2) to required voltage.

f. Adjust FREQUENCY potentiometer (3) to required frequency.

g. Place AC CIRCUIT INTERRUPTER (4) switch in the closed position.

h. Check switch box to make sure that DS 1 or DS2 (5 or 6) indicator lights are on.

i. At the switch box, set the INPUT switch S 1 or S2 (7 or 8), which corresponds with the indicator light that turned on in step h, in the ON (up) position.

j. Close the input control access cover on the switch box and secure.

k. Place OUTPUT circuit breaker(s) (CB1 through CB4) (9) to the ON (up) position, corresponding light DS3-DS6 should lit. Generator is now supplying power to load.

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

m. To shut down generator set, place OUTPUT circuit breaker (s) (CB 1 through CB4 (9)) to the OFF (down) position

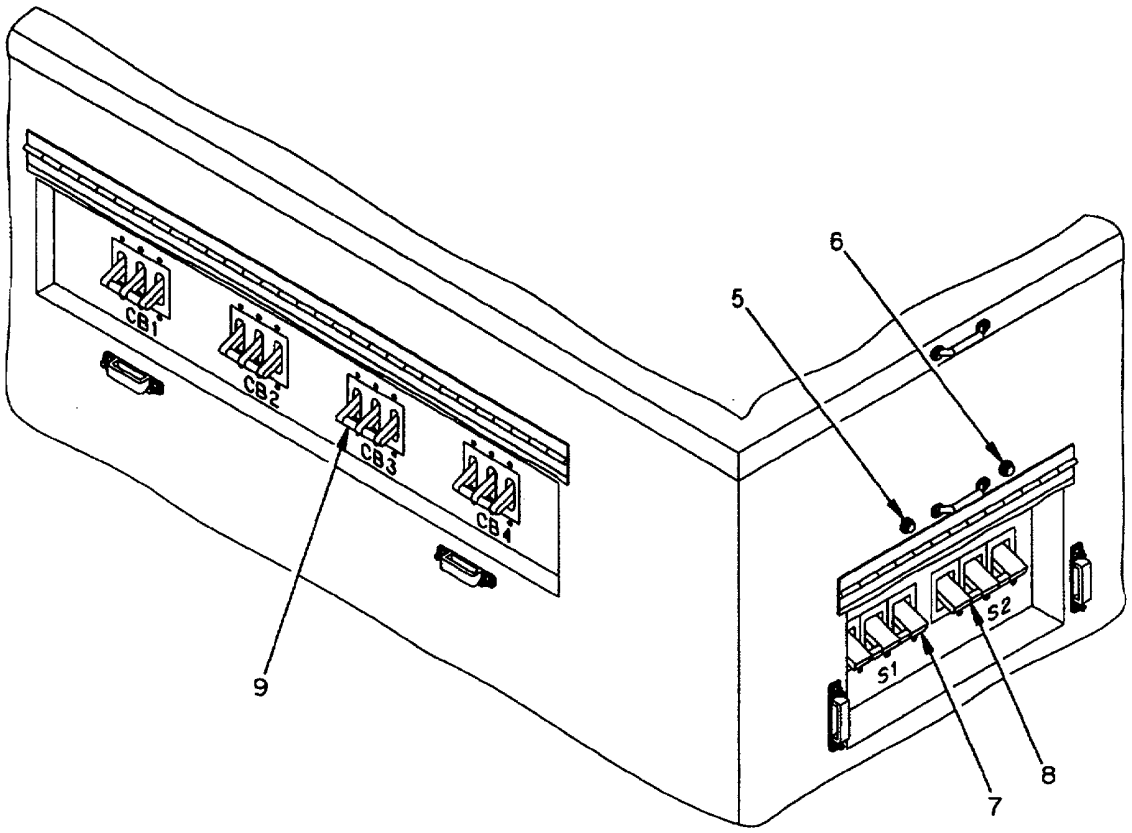
n. On the switch box, place the switch, S1 or S2 (7 or 8), for the operating generator in the OFF (down) position.

o. Place AC CIRCUIT INTERRUPTER SWITCH (4) in the OPEN position.

NOTE

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

p. On the generator control panel rotate the MASTER switch (1) to the OFF position.



400 Hz meter for (MEP-816A)

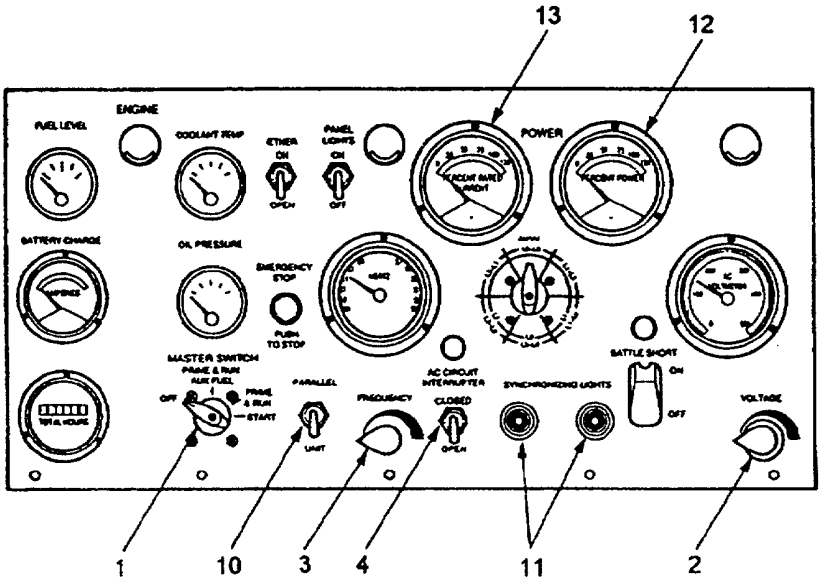


Figure 2-8. Power Plant Operation

2.5.3.2. Operating Generator Sets in Parallel. The generator sets can be operated in parallel through the switch box or at the generator set load terminals. When paralleling at the generator set load terminals, refer to paralleling procedures in TM 9-6115-645-10. 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 observe this warning can result in serious injury or death by electrocution.

WARNING

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

NOTE

In this procedure, generator set one is started first and generator set two is started second.

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 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 2.5.3.1 steps b through i , to start the first generator set and bring it on line.

d. On the operating generator set (generator set 1) position UNIT-PARALLEL switch (10, figure 2-8) to PARALLEL.

e. Start generator set and adjust voltage and frequency to match operating generator set.

f. At switch box, set generator set switch S1 or S2 (7 or 8), to ON (up) (CHECK TO SEE THAT BOTH INDICATOR LIGHTS, DS1 (5) AND DS2 (6) ARE ON).

g. At generator set control panel:

(1) Set UNIT-PARALLEL switch (10) to PARALLEL.

CAUTION

If SYNCHRONIZING LIGHTS (11) on generator set 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 (11) blink together one or more times per second.

(3) Decrease frequency until SYNCHRONIZING LIGHTS (11) blink together as slow as possible. Lights should remain OFF for at least 5 to 6 seconds.

CAUTION

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

(4) When both SYNCHRONIZING LIGHTS (11) are dark, position and hold AC CIRCUIT INTERRUPTER switch (4) of generator set in the CLOSED position until indicator light comes on. SYNCHRONIZING LIGHTS (11) should go out indicating both generators are now operating in parallel.

h. Rotate VOLTAGE adjust potentiometer (2) of generator set until AC AMPERES meter (13) reads approximately "O".

i. Rotate FREQUENCY adjust potentiometer (3) of generator set until percent power meter (12) reads approximately "O".

j. Place OUTPUT circuit breaker(s) (CB1 through CB4) (9) to the ON (up) position. Corresponding light(s) DS3 through DS6 should light. Generator is now supplying power to load.

NOTE

If the REVERSE POWER indicator on the FAULT INDICATOR PANEL of either generator set lights, and the AC circuit interrupter relay opens, open the load contactor at load and resynchronize the generator sets (Repeat the necessary steps c through i).

k. Compare AC AMPERES meter (13) readings of both generator sets. Compare PERCENT POWER meter (12) readings of both generator sets. If readings are not within 10 percent, proceed to step 1. If readings are good proceed to step m.

l. Rotate FREQUENCY adjust potentiometer (3) of either generator set until readings are as close as possible. If readings are not within 10 percent, notify next higher level of maintenance.

m. Close control panel access cover and secure with clamping catch.

n. Perform the PMCS listed as DURING in table 2-2.

2.5.3.3. Removal from Parallel Operation.

WARNING

If 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 observe this warning can result in injury or death by electrocution.

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 control panel of the generator set that is to be taken off line, position AC CIRCUIT INTERRUPTER switch (4, figure 2-8) in the OPEN position until indicator light (14) goes out.

b. Set UNIT-PARALLEL switch (10) to UNIT.

c. On the switch box, place the input switch S1 or S2 (7 or 8), for the generator set that is to be taken off line in the OFF (down) position. (At switch box, indicator lights DS 1 or DS2 (5 or 6) for the generator shut down should be off).

d. Rotate MASTER switch (1) to OFF position.

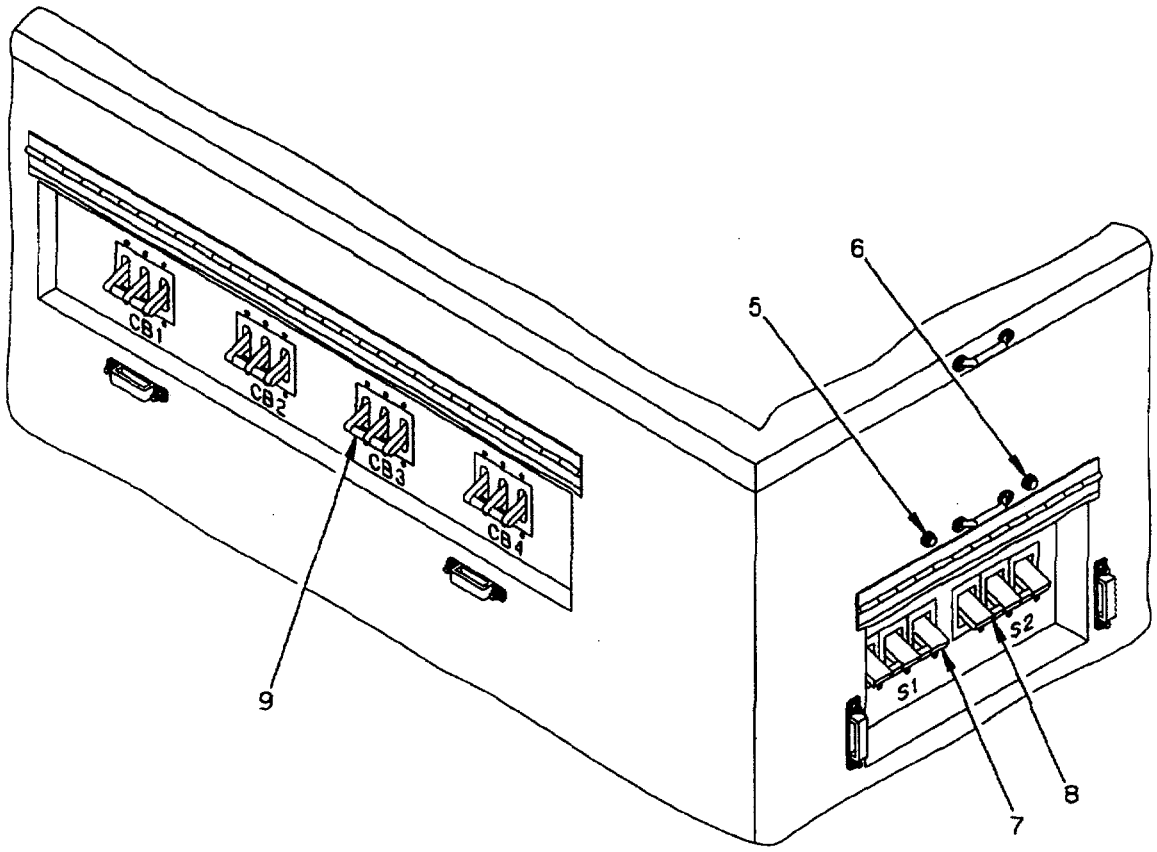
e. At the control panel of the operating generator set, place the UNIT-PARALLEL switch (10) to UNIT.

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

2.5.3.4. Load Transfer Procedures (Sets connected for parallel operation).

NOTE

In this procedure, generator set one is started first and generator set two is started second.



400 Hz meter for (MEP-816A)

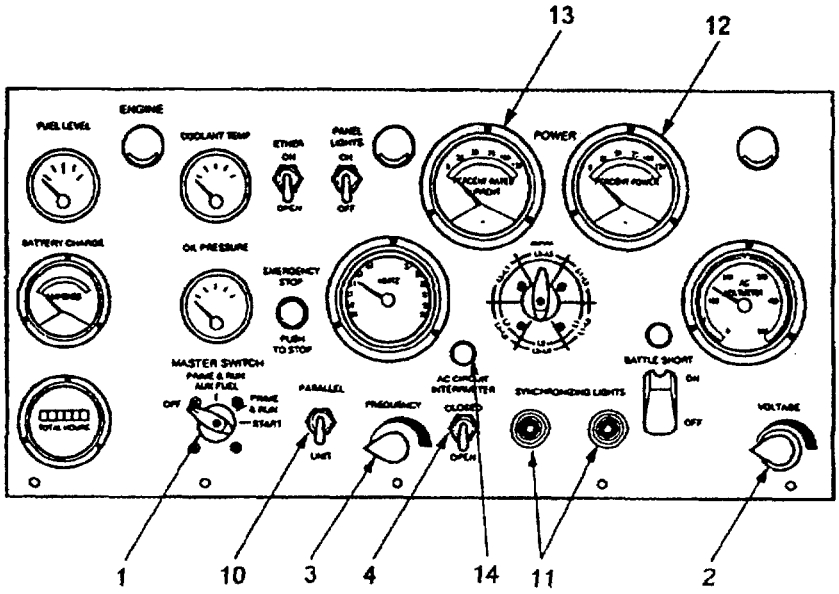


Figure 2-9. Load Transfer Operation.

a. One generator set should already be on line and supplying power to the load.

b. For the generator set not running, perform the PMCS listed as BEFORE in table 2-2.

c. On operating generator set, set UNIT-PARALLEL switch (10, figure 2-9) to PARALLEL.

d. Start generator set. Adjust voltage and frequency to match generator set.

e. At switch box, set generator set input switch S1 or S2 (7 or 8) to ON (up) (Switch box indicator lights DS1 (5) and DS2 (6) should be lit).

f. At generator set control panel:

(1) Set UNIT-PARALLEL switch (10) to PARALLEL

CAUTION

If synchronizing lights on generator set 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 (11) blink together one or more times per second.

(3) Decrease remain frequency until SYNCHRONIZING LIGHTS (11) blink together as slow as possible. Lights should OFF for at least 5 to 6 seconds.

(4) While both synchronizing lights are dark, position and hold AC CIRCUIT INTERRUPTER switch (4) of generator set in the closed position until indicator light comes on. SYNCHRONIZING LIGHTS (11) should go out (both generators are now operating in parallel).

g. Once both of the generator sets are on line and supplying power to the load in parallel, perform the following steps to transfer the load.

(1) At the control panel of the generator set that is to be taken off line, set the AC CIRCUIT INTERRUPTER switch (4) to the OPEN position. Set UNIT-PARALLEL switch (10) to UNIT, MASTER SWITCH (1) to OFF.

(2) At the control panel of the running generator set, place the UNIT-PARALLEL switch (10) to UNIT. The load has now been transferred.

(3) Turn input switch S1 or S2 (7 or 8) OFF (down).

(4) At the switch box, DS 1 or DS2 (5 or 6) indicator light for generator set being taken off line should go off

h. Perform the generator PMCS listed as DURING for generator set and AFTER for generator set.

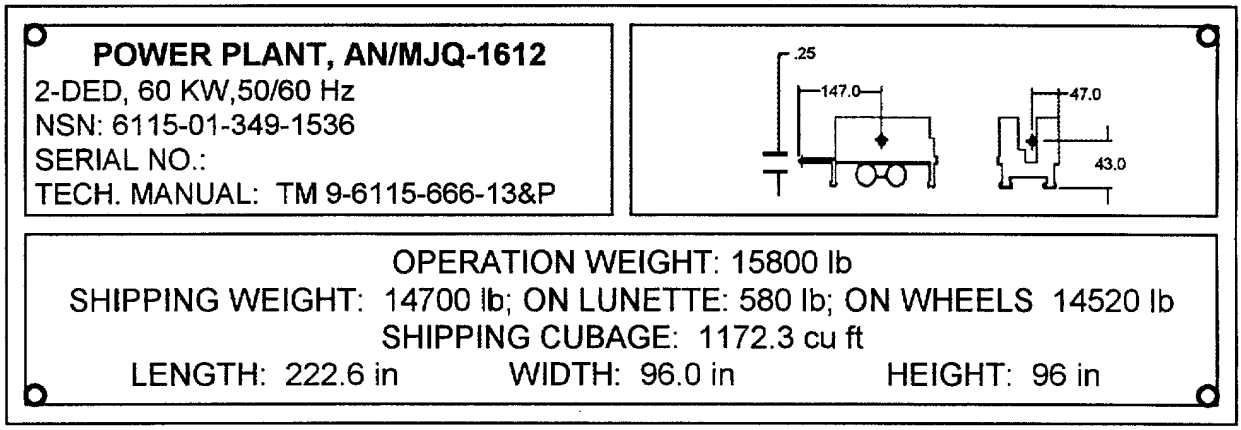


Figure 2-10. AN/MJQ-1612 Identification/Transportation Data Plate.

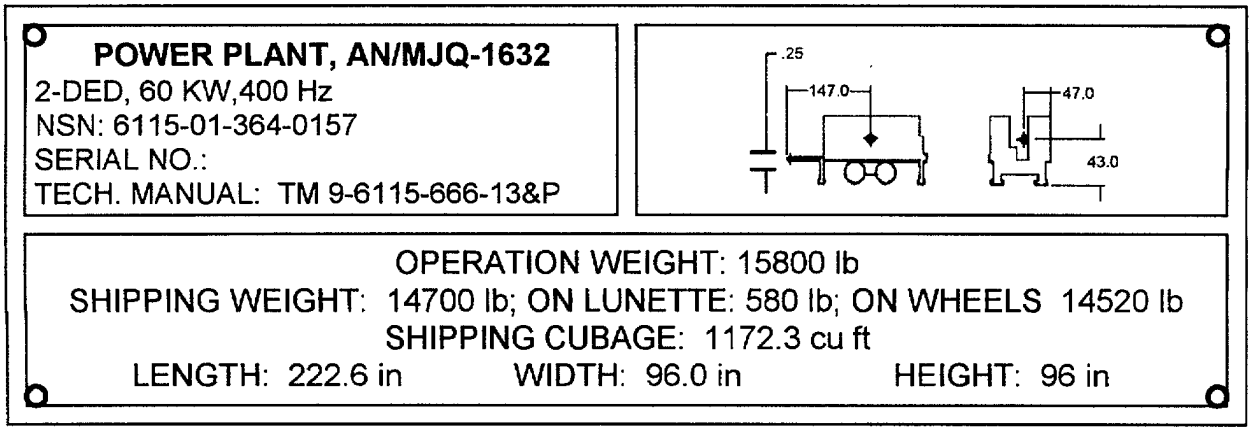


Figure 2-11. AN/MJQ-1632 Identification/Transportation Data Plate.

NOTE

Power plant operating procedures instruction plate is stored in the generator set document storage box.

POWER PLANT OPERATING PROCEDURES

BEFORE OPERATION

1. CHECK/SERVICE BOTH SETS BEFORE OPERATION. CHECK "GND" TERMINAL TO GROUND.

INDICATOR LIGHTS

1. DS1 LIGHT INDICATES LINE BETWEEN GEN. 1 AND SWITCH BOX IS HOT.
2. DS2 LIGHT INDICATES LINE BETWEEN GEN. 2 AND SWITCH BOX IS HOT.
3. CIRCUIT BREAKER LIGHT INDICATES OUTPUT CIRCUIT BREAKER IS "ON" (DS3 THRU DS6)

OPERATING PROCEDURES

1. START EITHER GEN. ADJUST VOLTAGE AND FREQUENCY.
2. PUT GEN. "AC CIRCUIT INTERRUPTER SWITCH" IN "CLOSED" POSITION.
3. ON SWITCH BOX SET "INPUT" TO "ON.

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

1. ON "OPERATING" GEN. (GEN. NO. 1) SET "UNIT-PARALLEL" SWITCH TO "PARALLEL".
2. START GEN. NO. 2. ADJUST VOLTAGE AND FREQUENCY TO MATCH OPERATING GEN. SET.
3. AT SWITCH BOX, SET GEN. NO. 2 "ON-OFF" SWITCH TO "ON" (DS2 LIGHT SHOULD LIGHT).
4. AT GEN. NO. 2, SET "UNIT-PARALLEL" SWITCH TO "PARALLEL".
5. INCREASE FREQUENCY UNTIL "SYNCHRONIZING" LIGHTS BLINK TOGETHER ONE OR MORE TIMES PER SECOND.
6. DECREASE FREQUENCY UNTIL "SYNCHRONIZING" LIGHTS BLINK TOGETHER AS SLOW AS POSSIBLE. LIGHTS SHOULD STAY OFF TOGETHER FOR AT LEAST 5 TO 6 SECONDS.
7. WHEN LIGHTS ARE DARK, SET GEN. NO. 2 "AC CIRCUIT INTERRUPTER SWITCH" TO "CLOSE", "SYNCHRONIZING" LIGHTS SHOULD GO OUT.
8. AT GEN. NO. 1, SET "AC CIRCUIT INTERRUPTER SWITCH" TO "OPEN", SET "UNIT-PARALLEL" SWITCH TO "UNIT", TURN "MASTER" SWITCH TO "STOP".
9. AT SWITCH BOX, SET GEN. 1 "ON-OFF" SWITCH TO "OFF" (DS1 LIGHT FOR GEN. 1 SHOULD GO OFF).
10. AT GEN. NO. 2, SET "UNIT-PARALLEL" SWITCH TO "UNIT".

Figure 2-12. Power Plant Instruction Plate.

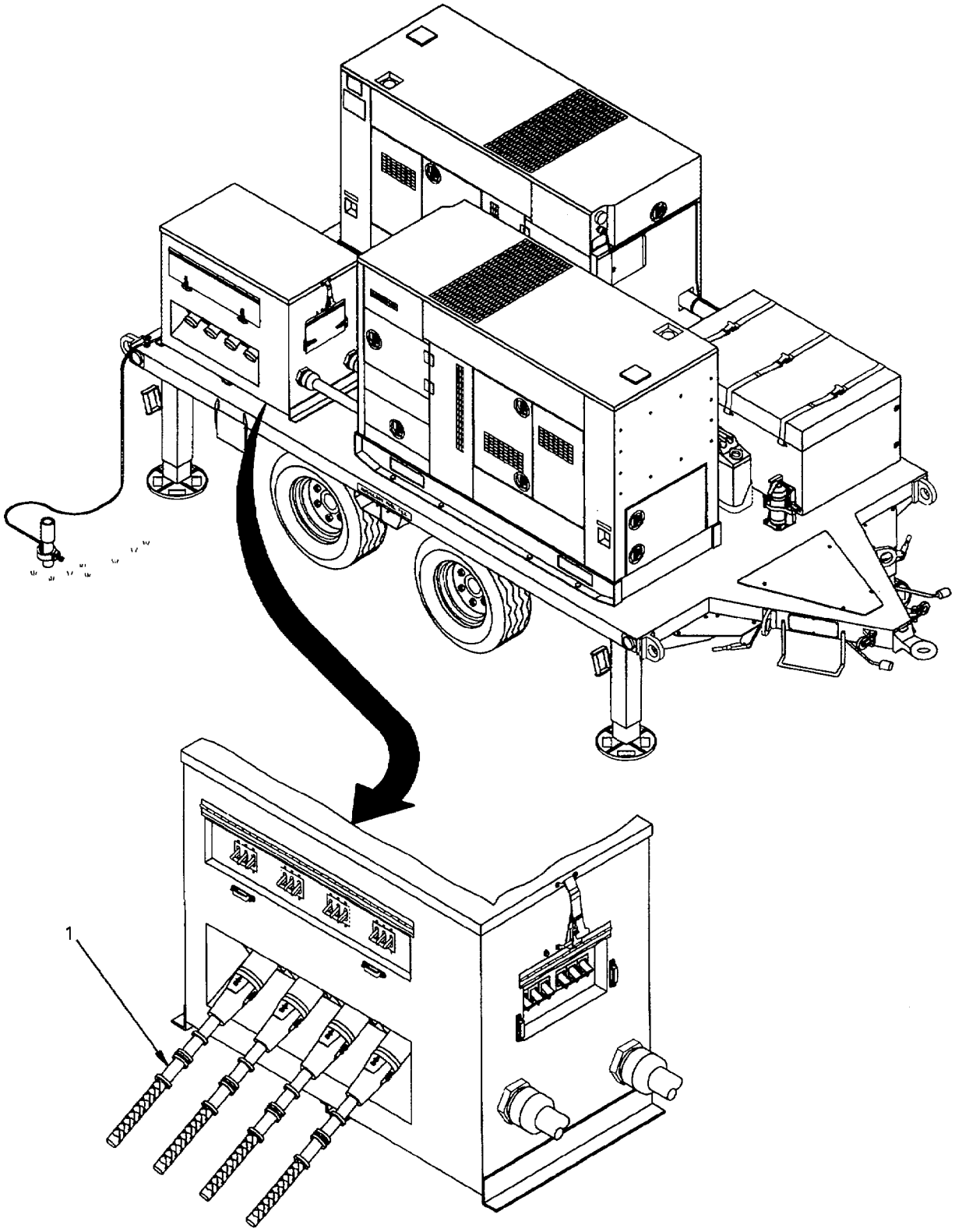


Figure 2-13. Disconnecting Load Cables.

2.6.1. AN/MJO-1612 and AN/MJO-1632 Identification/Transportation Data Plate. Refer to figure 2-10 and figure 2-11. This plate is located on the trailer body.

2.6.2. Power Plant Instruction Plate. Refer to figure 2-12. This plate covers power plant operating procedures for the AN/MJQ-1612 and AN/MJQ-1632. It is located inside of the switch box cover.

2.7. PREPARATION FOR MOVEMENT.

2.7.1. Shut Down Generator Set. Refer to paragraph 2.5.3.1 (steps m through o) and stop both generators.

2.7.2. Disconnecting Load Cables.

WARNING

Never attempt to connect or disconnect load cables while the generator is running. Failure to observe this warning could result in severe personal injury or death by electrocution.

a. Disconnect leads from load terminals.

b. Disconnect plug end of power cable from connectors located on switch box (1, figure 2-13).

c. Store cables in storage box.

2.7.3. Disconnecting Ground Cable and Ground Rod. Disconnect the ground cable and ground rod as follows:

a. Using slide hammer (9, figure 2-14) remove ground rod (8) as follows:

(1) Loosen clamp screw (6) and remove ground cable.

(2) Remove wing nut (1) , washer (2), and terminal (3) from ground stud (4). Roll up ground cable and store in accessory box.

(3) Install washer (2) and wing nut (1) removed in step a.(2) on ground stud (4).

(4) Remove coupler (7) and ground cable clamp (5) from ground rod section (8).

(5) Install coupler (7) on ground rod section (8).

WARNING

Connect nuts securely to slide hammer. Faulty connections could result in death or serious injury.

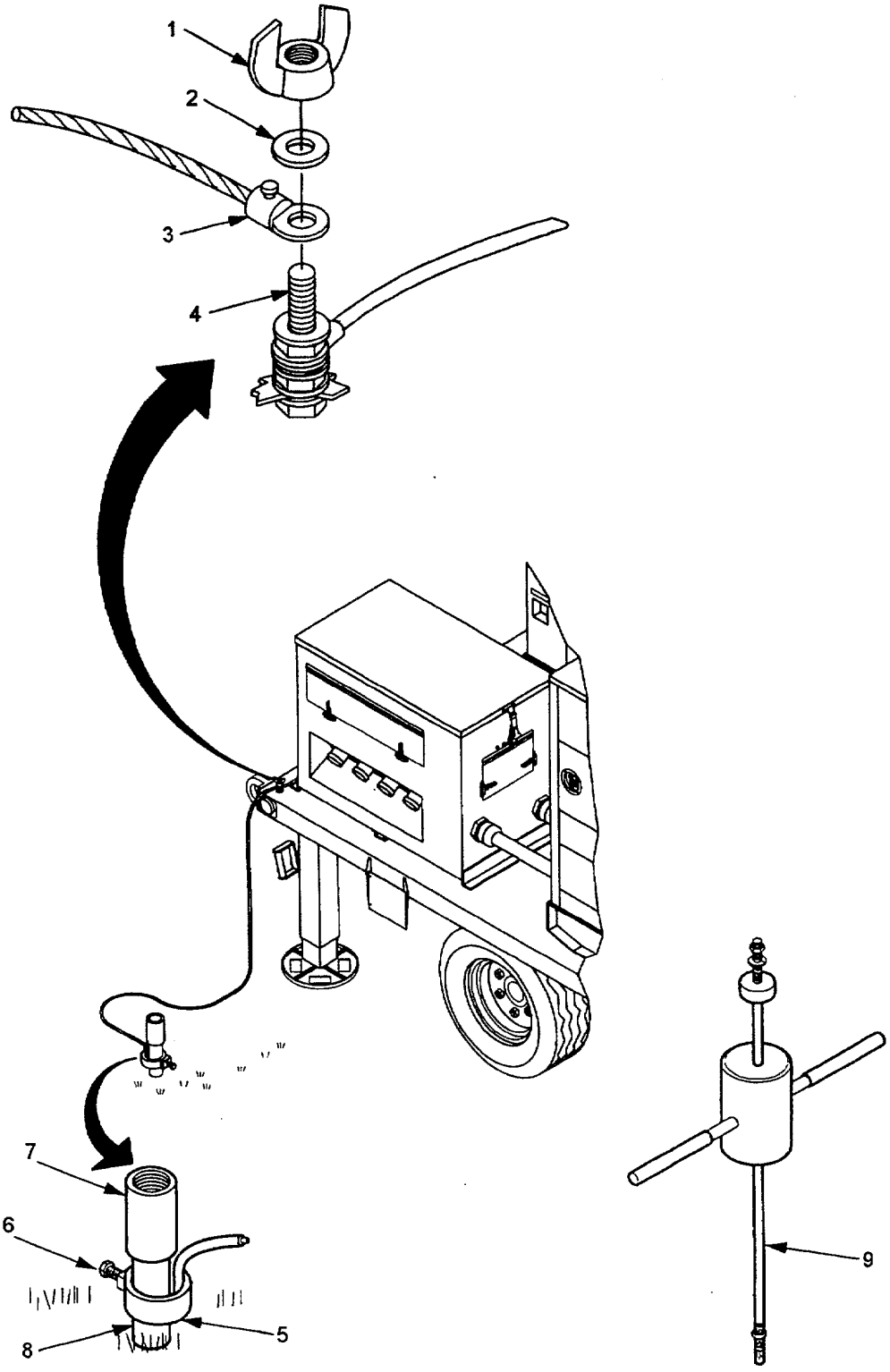


Figure 2-14. Ground Rod Removal

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 observe this warning could result in severe personal injury and/or death and damage to the equipment.

(6) Remove slide hammer (5, figure 2-15) from accessory box.

(7) Install impact disk (3) on rod (4). Tighten impact disk to end of threads on rod.

(8) Install lock washer (2) and nut (1). Tighten nut and lock washer securely against impact disk.

NOTE

Nut (6) must be removed before positioning hammer.

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

(10) Connect slide hammer (9) end to ground rod coupler (7).

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

(12) Disconnect top ground rod section from second ground rod coupler (7).

(13) Disconnect slide hammer (9) from top of ground rod section.

(14) Repeat steps 7 through 10 for the second and third ground rod sections.

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

(16) Clean ground rod sections (8) and couplers (7).

(17) To disassemble slide hammer, remove nut (6, figure 2-15) from end of ground rod (4) and retain.

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

(19) Store hammer and rod with assembled parts in accessory box.

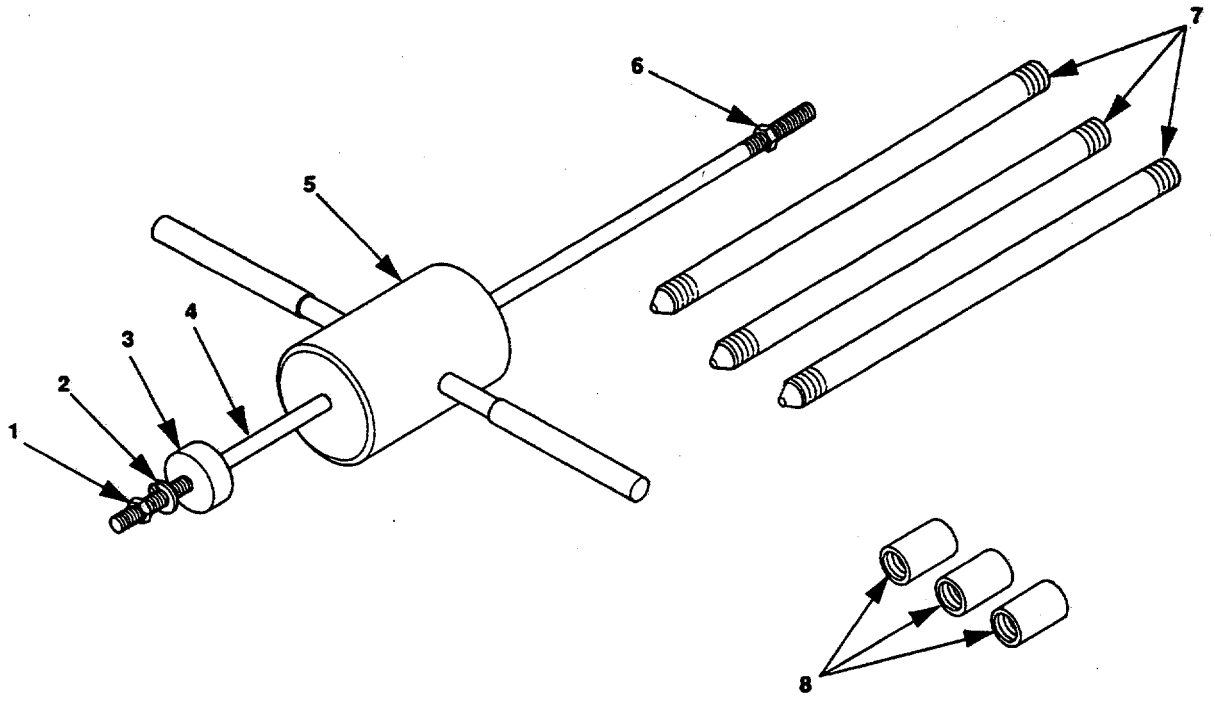


Figure 2-15. Ground Rod, Grounding, and Slide Hammer Disassembly.

SECTION IV. OPERATION UNDER UNUSUAL CONDITIONS

2.8. GENERATOR SETS.

Refer to TM 9-6115-645-10.

2.9. TRAILER.

Refer to TM 9-2330-376-14&P.

CHAPTER 3

OPERATOR MAINTENANCE

Subject Index

SECTION I OPERATOR LUBRICATION

3.1. OPERATOR LUBRICATION.

Lubrication instructions for the generator set are contained in LO 9-6115-645-12.

SECTION II. TROUBLESHOOTING

3.2. TROUBLESHOOTING

Refer to TM 9-6115-645-10 for generator set troubleshooting instructions, TM 9-2815-256-10 for engine troubleshooting instructions, and refer to TM 9-2330-376-14&P for trailer troubleshooting instructions. The symptom index for the power plant lists faults associated with switch box operation. Figures 3-1, 3-2, 3-3, and 3-4 provide a go-no-go- flowchart of each malfunction. Each malfunction listed includes a corrective action 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

SECTION III. MAINTENANCE PROCEDURES

3.3. OPERATOR MAINTENANCE.

Refer to TM 9-6115-645-10 for generator set maintenance instructions and refer to TM 9-2330-376-14&P for trailer maintenance instructions. The maintenance functions for the power plant are provided in paragraph 3.4.

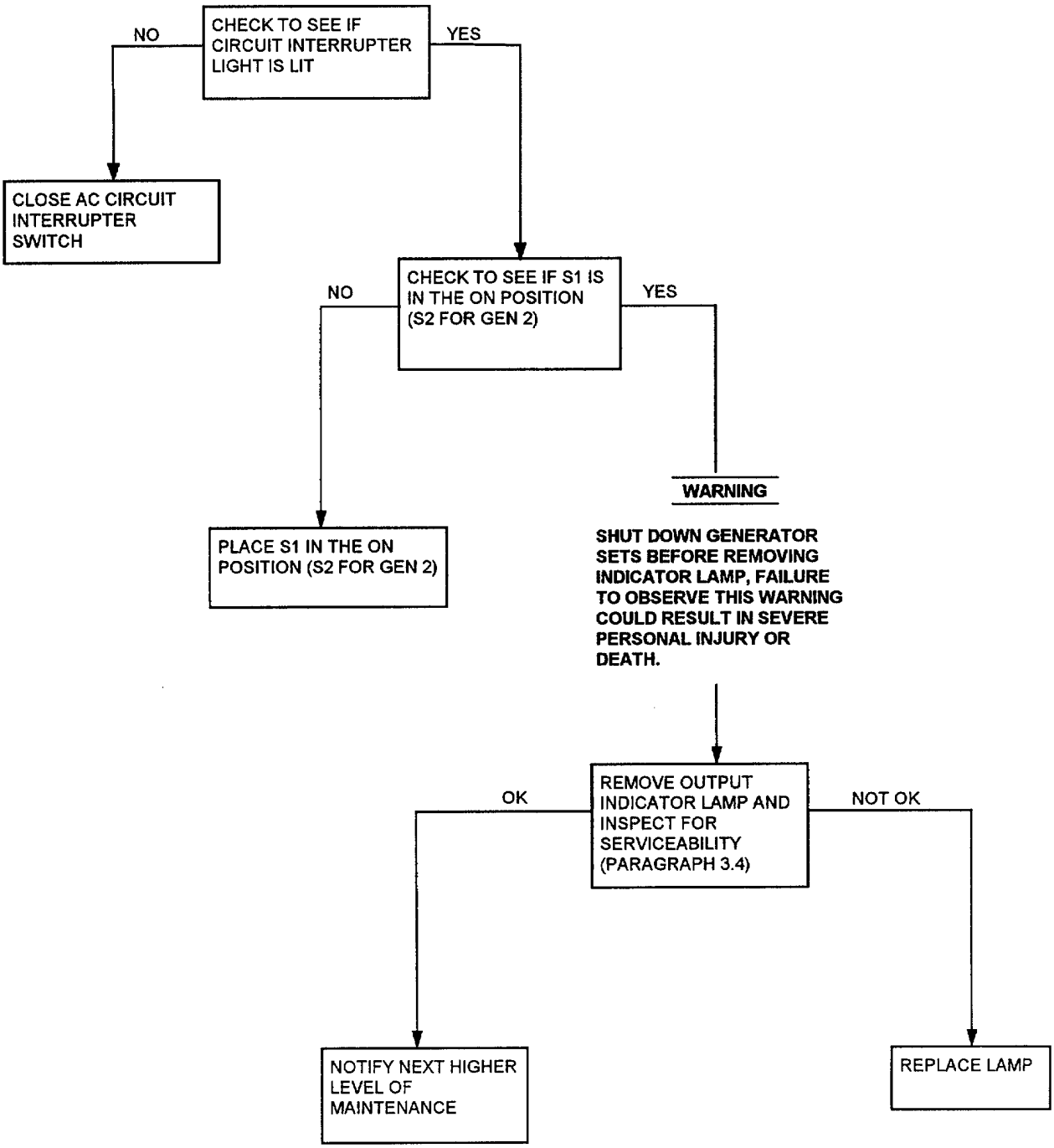


Figure 3-1. Indicator Lamps DS1 or DS2 Fails to Light With Generator Set Running .

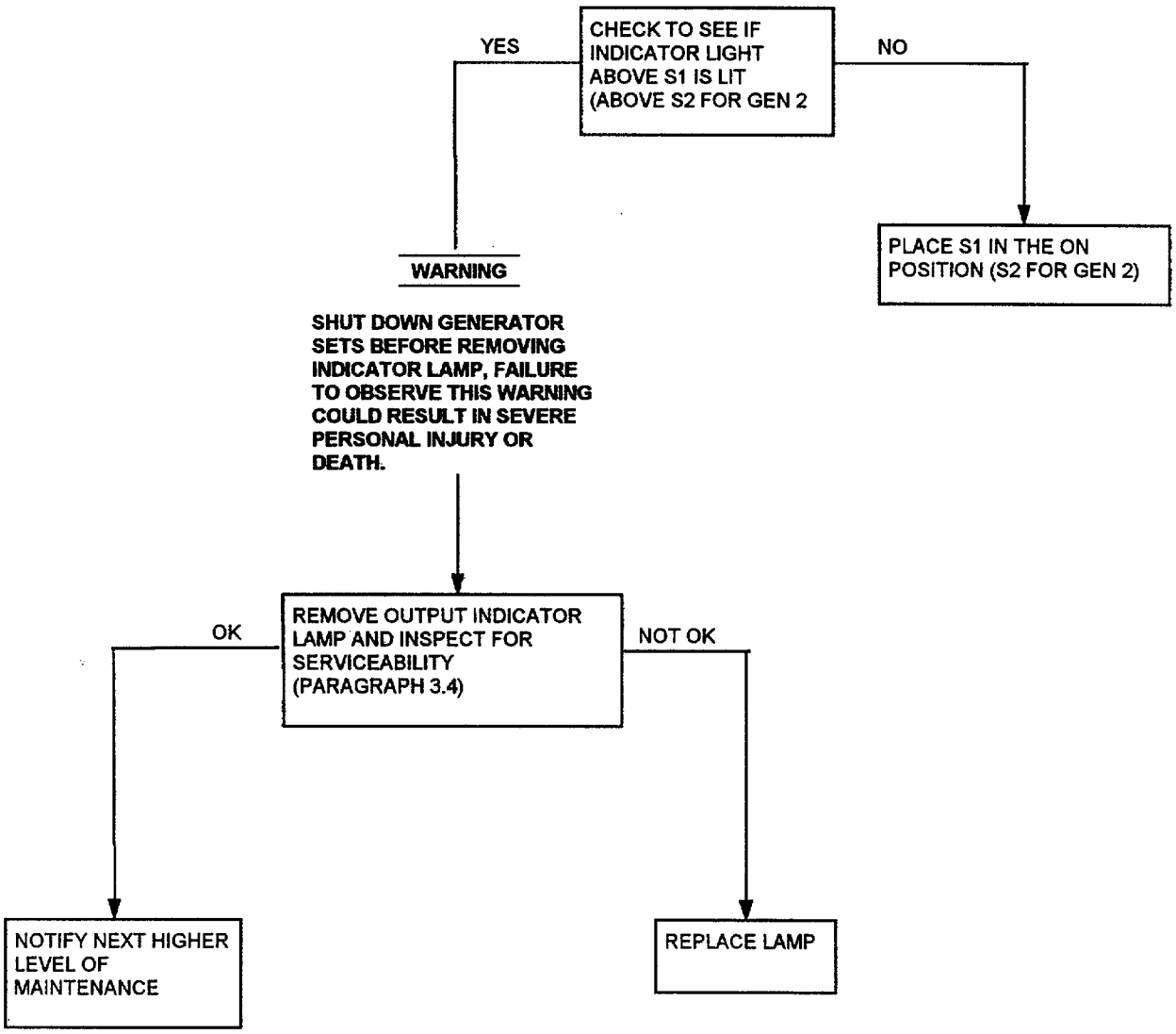


Figure 3-2. Output Indicator Lamp(s) (DS3 thru DS6)Fails to Light When Circuit Breaker(s) (CB1 thru CB4) is placed in the ON position .

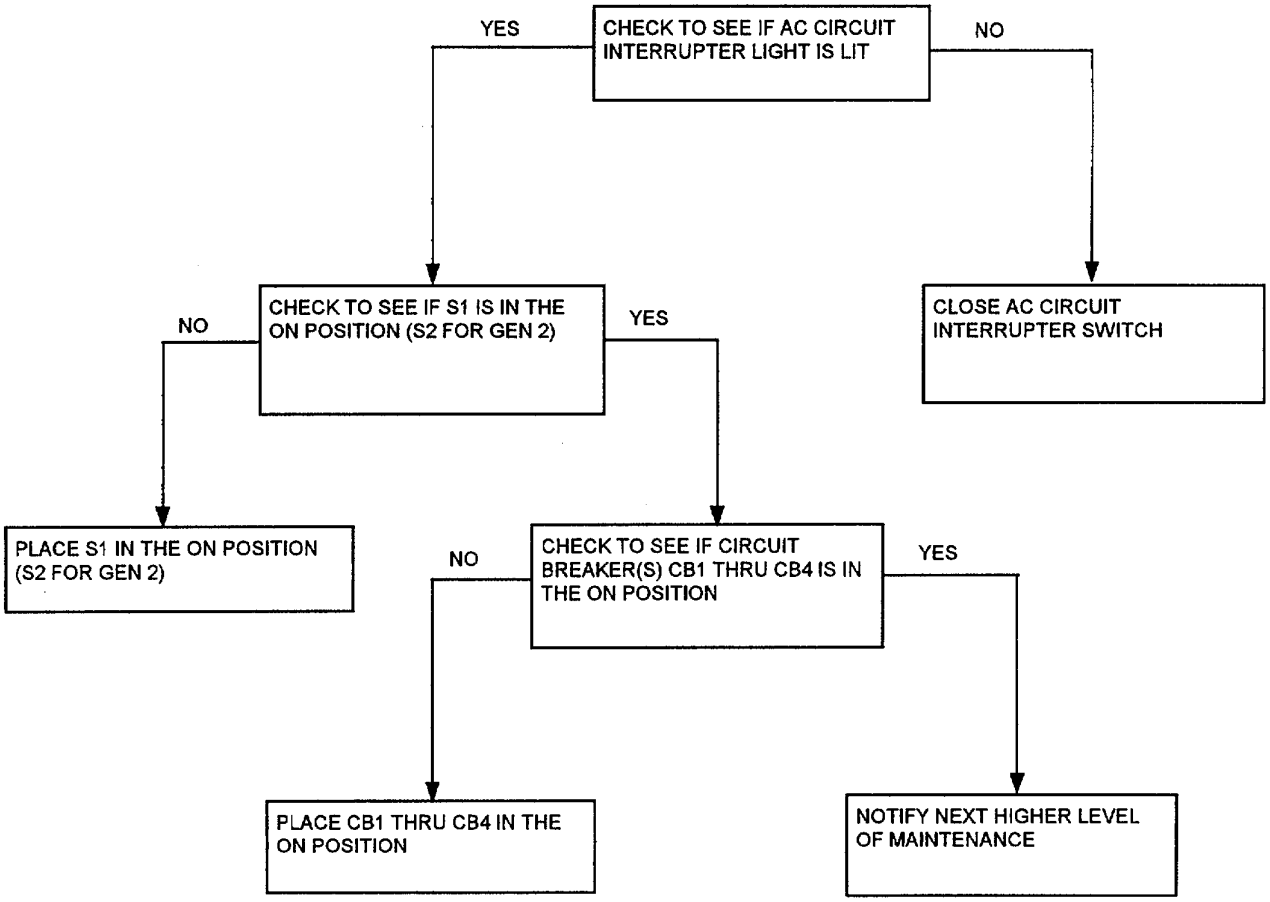


Figure 3-3. Switch Box has no power output.

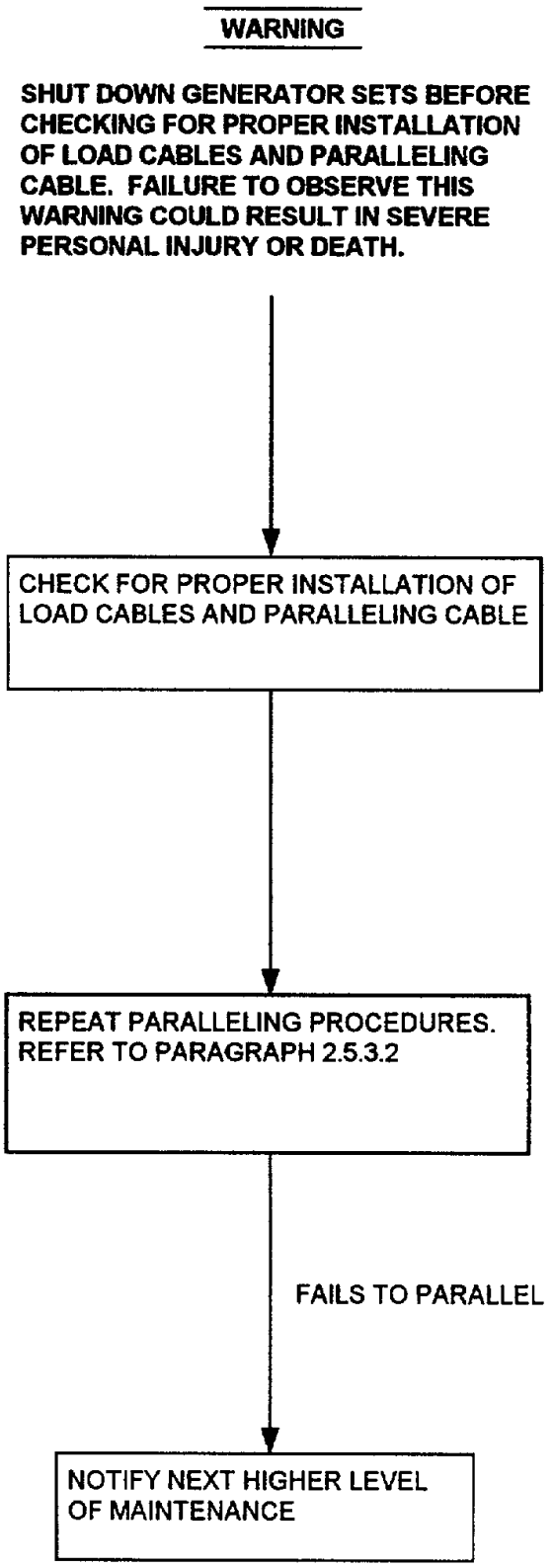


Figure 3-4. Power Plant Fails to Parallel.

3.4. INDICATOR LAMP AND/OR LENS REPLACEMENT.

This task covers:

a. Removal **b. Replacement**

INITIAL SETUP:

Equipment Conditions

Reference
Both generator sets shut down, paragraph 2.5.3.1, steps m through o
Switch box cover, paragraph 4.11
Clear plastic panel covers removed, paragraph 4.12

REMOVAL

1. Grip and unscrew lens cap (1)

2. Remove lamp (2) by grasping the base and pulling outward.

INSTALLATION

1. Insert lamp (2) into lens cap (1) and push inward.

2. Install lens cap (1) with lamp (2) by threading lens cap into housing and tightening lens cap firmly.

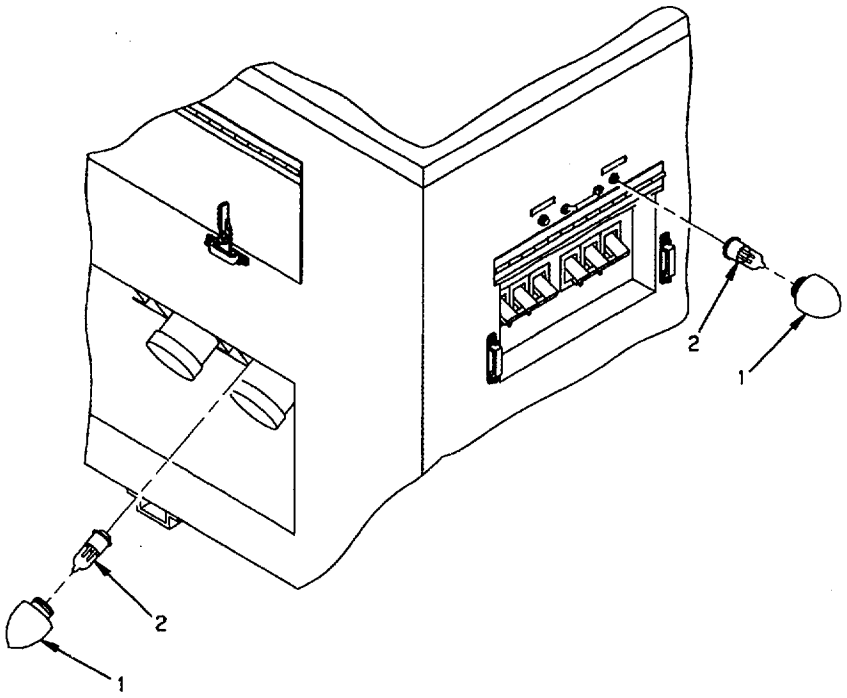


Figure 3-5. Indicator Lamp Maintenance.

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 Modified Table of Organization and Equipment (MOTE) (Army) or Table of Allowance TA795 and CA/CRL (Air Force) 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 plant. Refer to TM 9-6115-645-24 for generator set special tools and/or support equipment. Refer to TM 9-2815-256-24 for engine special tools and/or equipment.

4.3. REPAIR PARTS.

Refer to TM 9-6115-645-24 for generator set parts and TM 9-2815-256-24 for engine parts. Refer to TM 9-2330-376-14&P for trailer repair parts. Power plant repair parts not covered in the generator, engine, or trailer RPSTL are listed and illustrated in Appendix C.

SECTION II. SERVICE UPON RECEIPT

4.4. SERVICE UPON RECEIPT OF MATERIEL.

4.4.1. Unpacking. The generator sets will have been boxed prior to shipment. Unpack the power plant as follows:

a. Remove and set aside packing list from side of box. Also remove and set aside shortage packing list if there is one.

WARNING

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

b. Using metal cutters, carefully cut metal strapping from box covering generator sets. Remove metal strapping. Boxes may also be secured by lag screws at each end of box, near bottom. If so, remove lag screws. Remove boxes.

c. On power plants AN/MJQ-1612 and AN/MJQ-1632, use metal cutters to carefully cut steel strapping form plywood box covering switch box. Remove plywood box.

d. Switch box covers may have been secured with tape. If so, remove tape.

e. Unpack and secure fire extinguisher in brackets on trailer.

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

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

4.4.2. Checking Unpacked Equipment.

a. Inspect the equipment for damage incurred during shipment. If the equipment has been damaged, report the damage on SF 364, Report of Discrepancy (ROD).

b. Check the equipment against the packing list(s) to see if the equipment is complete. Report all discrepancies in accordance with the instructions in DA Pam 738-750, (Army), AFR 400-54, (Air Force).

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

4.4.3. Deprocessing, Unpacked Equipment. Refer to DA Form 2258, Depreservation Guide for Vehicles and Equipment, packed with the power plant. 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.

Refer to paragraph 2.3.

4.6. PRELIMINARY SERVICING AND ADJUSTMENT OF EQUIPMENT.

Refer to TM 9-6115-645-24 for generator set and TM 9-2815-256-24 for engine. Refer to TM 9-2330-376-14&P for trailer.

SECTION III. UNIT LUBRICATION

4.7. POWER PLANT LUBRICATION.

Refer to LO 9-6115-645-12 for generator set and TM 9-2330-376-14&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), (Air Force TO Form 2440 and AFTO Form 95 Historical Record) include the item number for the check/service indicating a fault. Item numbers also appear in the order that you must do checks and services for the intervals listed.

4.8.2.2. Interval Column. This column tells you when you must do the procedure in the procedure column. Perform procedures such as Monthly or Quarterly at the listed calendar interval. Perform procedures designated by number of hours when the equipment has been operated for that many hours.

4.8.2.3. Item to be Checked or Serviced Column. This column lists the item to be checked or serviced.

4.8.2.4. Procedure Column. This column gives the procedure for checking or servicing the item listed in the 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.

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 make 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 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.

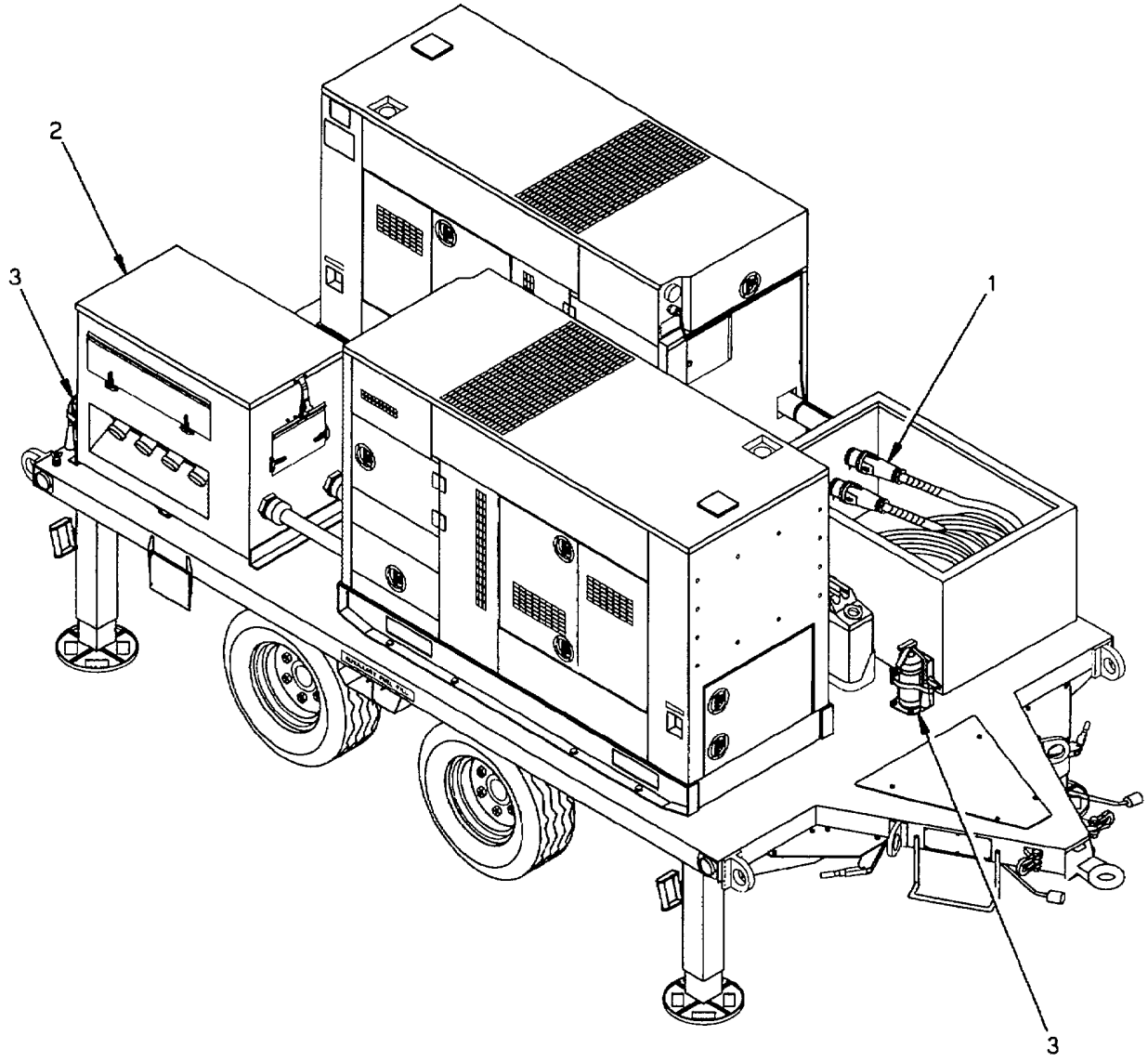


Figure 4-1. Unit PMCS Routing Diagram.

Table 4-1. Unit Preventive Maintenance Checks and Services for AN/MJQ-1612 and AN/MJQ-1632

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 hand brakes are set, trailer leveling jacks are lowered. Injury to personnel could result from trailer suddenly rolling or tipping.			
1	Semi-annually	POWER CABLE	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	a. Inspect switch box assembly. Refer to paragraph 4.11 b. Inspect mounting brackets for cracks or loose or missing hardware	
3	Semi-annually	FIRE EXTINGUISHER	a. Inspect for broken seal and damage to handle. 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.

SECTION V. TROUBLESHOOTING

4.9. GENERAL.

Refer to TM 9-6115-645-24 for generator set troubleshooting procedures, and to TM 9-2815-256-24 for engine troubleshooting procedures. Refer to TM 9-2330-376-14&P for trailer troubleshooting procedures. The symptom index for the power plant lists faults associated with switch box operation. Figure 4-4, figure 4-5, figure 4-6, and figure 4-7, 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.

NOTE
Before using this table, be sure to perform Preventive Maintenance Checks and Services.

NOTE
Before using this table, ensure that operator level troubleshooting steps have been performed.

NOTE
Refer to electrical schematic, FO-1 as an aid to troubleshooting.

SYMPTOM INDEX

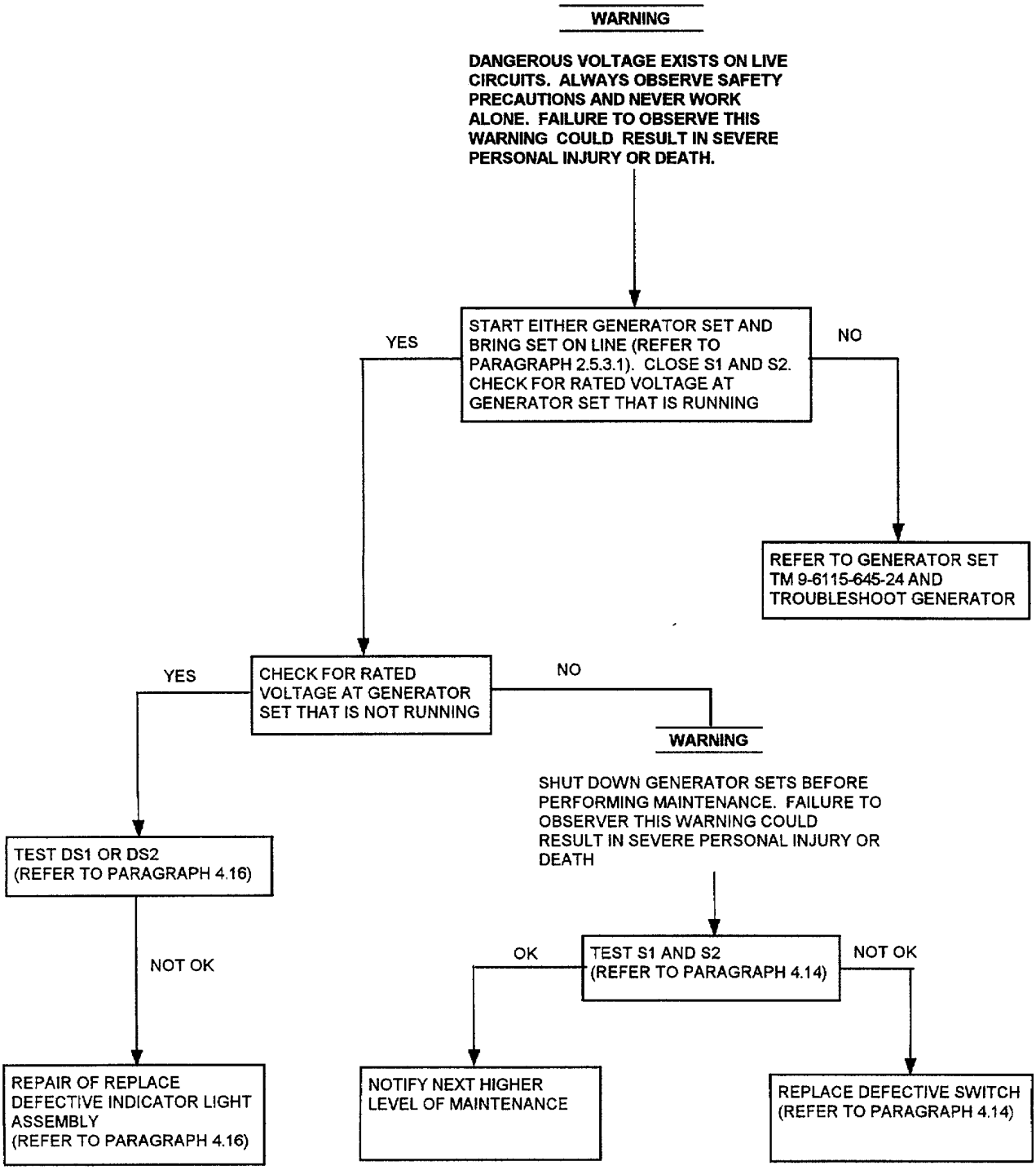


Figure 4-2. Indicator Lamps, DS1 or DS2 are good but do not light.

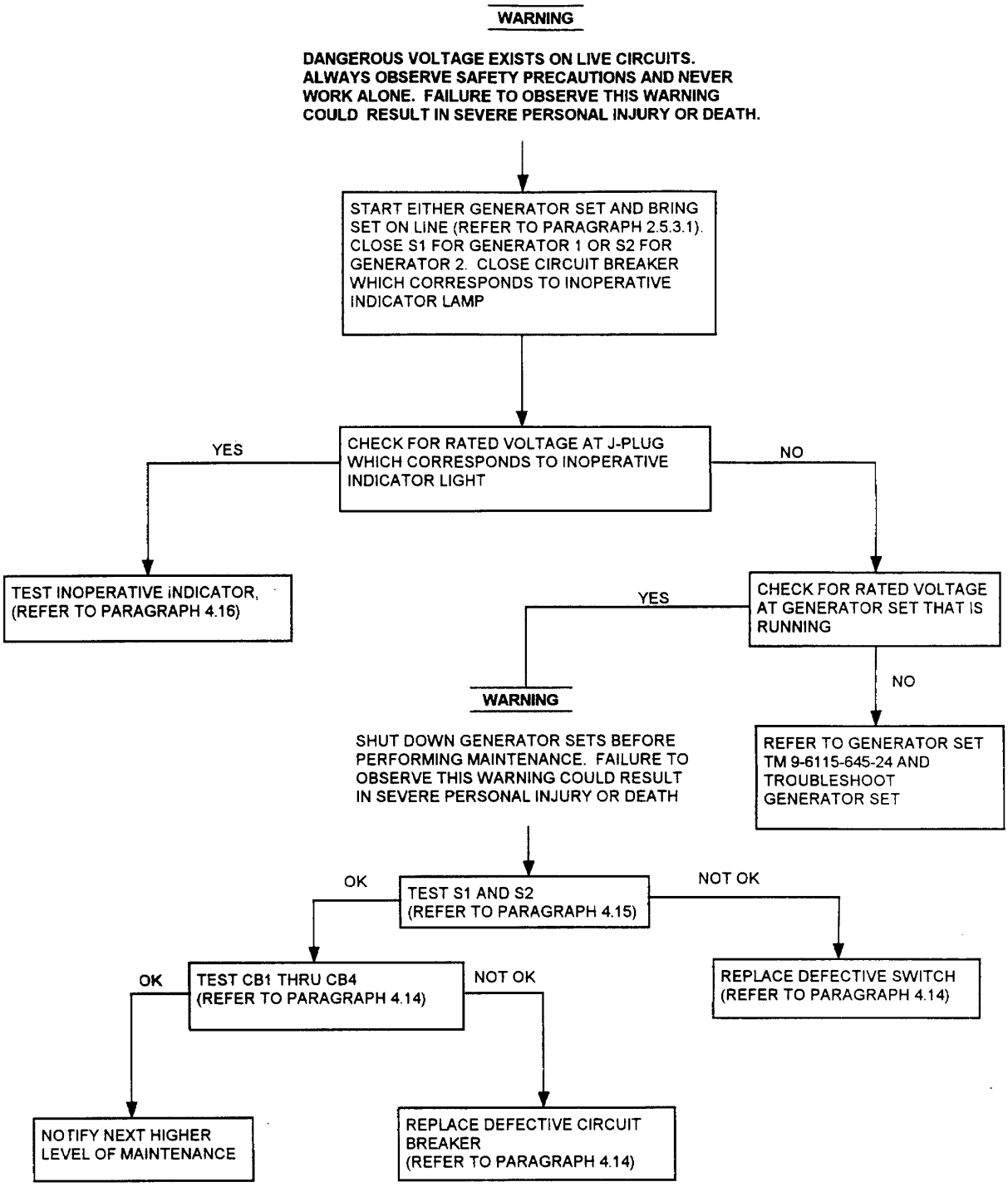


Figure 4-3. Output Indicator Lamp (DS3 thru DS6) Fails to light when Circuit Breaker is placed in the ON position.

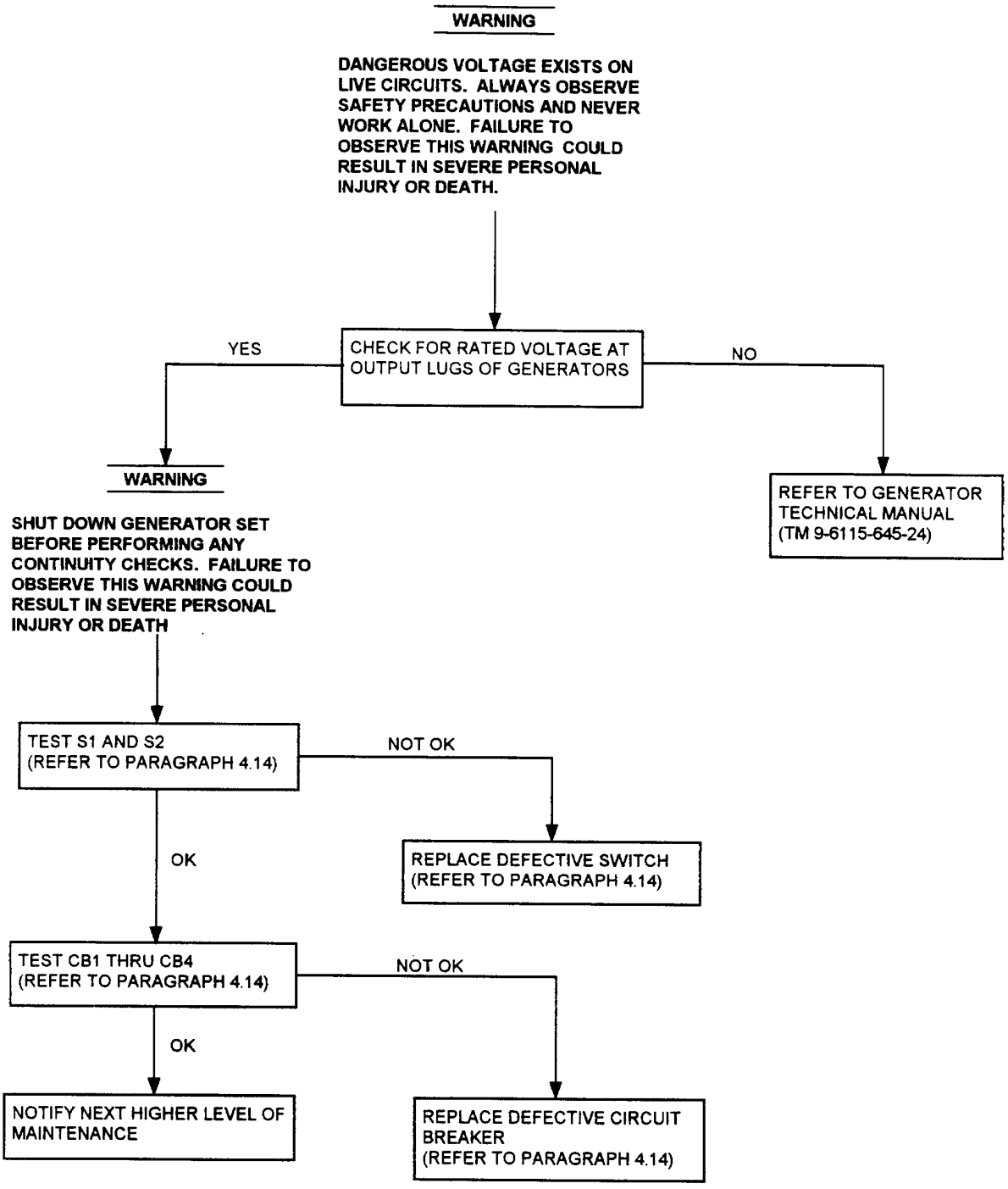


Figure 4-4. Switch Box has no power output.

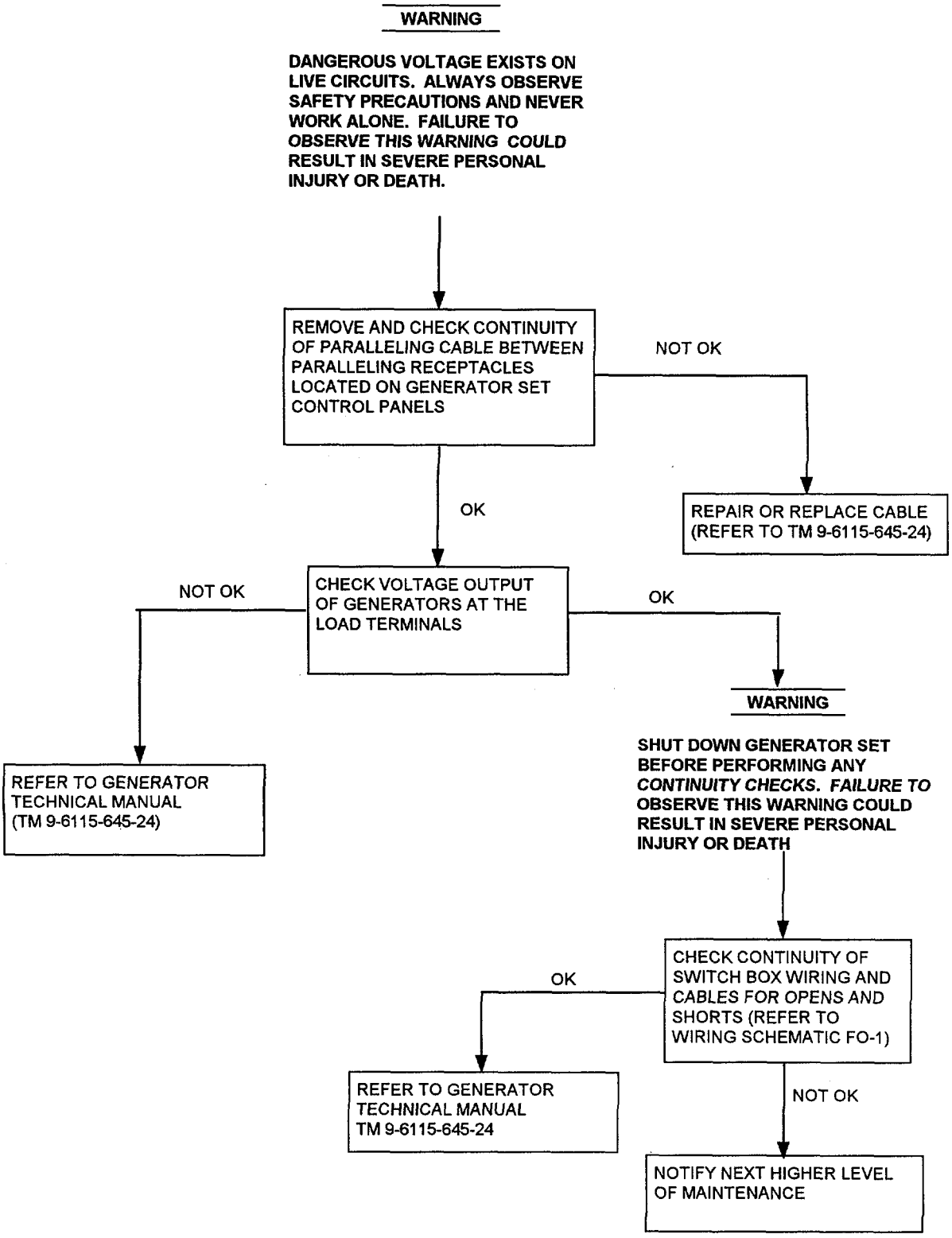


Figure 4-5. Power Plant fails to parallel.

SECTION VI. MAINTENANCE PROCEDURES

4.10. MAINTENANCE OF GENERATOR SETS.

Refer to TM 9-6115-645-24 for generator sets and to TM 9-2815-256-24 for engine.

4.11. SWITCH BOX ASSEMBLY MAINTENANCE.

This task covers:

a. Inspection
b. Removal
c. Installation

INITIAL SETUP:

Tools	Equipment Conditions
Tool Kit, General Mechanic's (item 1, appendix B)	Reference Both generator sets are shut down, paragraph 2.7.1

INSPECTION

1. Unlatch and open cover for output breakers and inspect for loose, broken or missing hardware.
2. Close output cover and latch.
3. Unlatch and open cover for input switch and inspect for any loose, broken or missing hardware.
4. Close input cover and latch.
5. Release straps and inspect.
6. Remove switch box cover.
7. Inspect interior for any missing or broken parts.
8. Inspect all leads and wires for worn or deteriorated insulation. If found, notify next higher level of maintenance.

REMOVAL

1. Disconnect cables W1 (1, figure 4-6) and W2 (2) from the generator load terminals (3).
2. Remove tie down straps connecting cable W2 to the paralleling cable, and ensure cable W2 is free to move.
3. Remove ground cable (4) from the trailer ground terminal (5).
4. Remove four nuts (6), flat washers (7), and screws (8) that secure the switch box assembly (9) to trailer.
5. With the aid of a suitable lifting device remove switch box assembly from trailer.

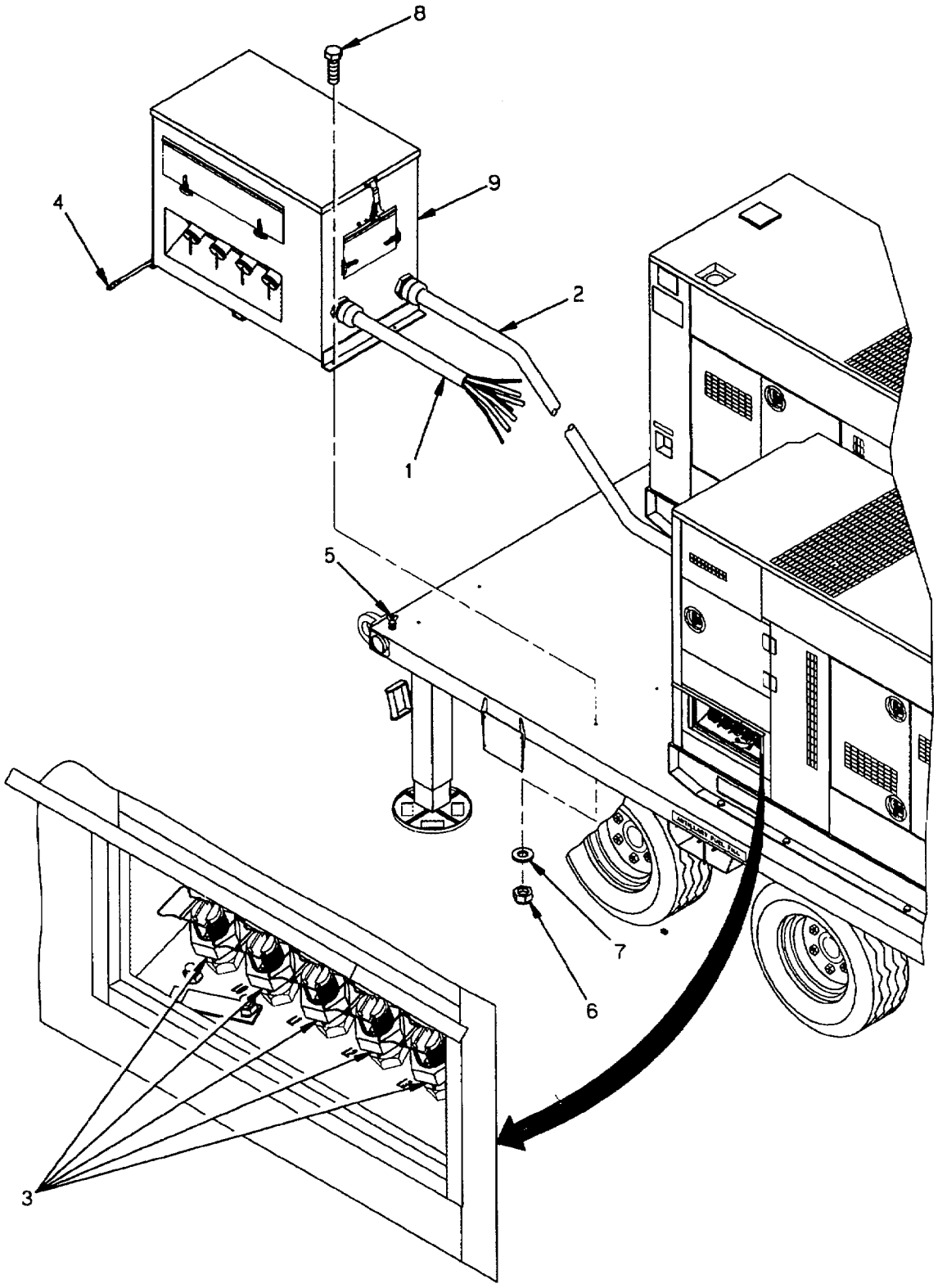


Figure 4-6. Switch Box Replacement

4.11. SWITCH BOX ASSEMBLY MAINTENANCE (Continued).

INSTALLATION

1. With the aid of a suitable lifting device position switch box assembly (9) on trailer.
2. Align mounting holes of the switch box with holes in trailer.
3. Install four screws (8), flat washers (7), and nuts (6) to secure the switch box assembly to the trailer.
4. Install ground cable (4) to the trailer ground terminal (5).
5. Refer to FO-1 and table 4-2 and table 4-3.
    a. Connect power cable W1 (1) to generator set number 1.
    b. Connect power cable W2 (2) to generator set number 2.
6. Install tie down straps connecting power cable W2 (2) to the paralleling cable.

Table 4-2. Cable Assembly W1.

Wire Color	From	To
BLUE	S1-LN5	L3
RED	S1-LN3	L2
BLACK	S1-LN1	L1
WHITE	W4-7(N)	N
GREEN	W5-1 1 (GND)	GND

Table 4-3. Cable Assembly W2.

Wire Color	From	To
BLUE	S2-LN5	L3
RED	S2-LN3	L2
BLACK	S2-LN1	L1
WHITE	W4-7(N)	N
GREEN	W5-12(GND)	GND

4.12. SWITCH BOX COVER AND LATCH MAINTENANCE

This task covers:

a. Removal
b. Installation
c Repair

INITIAL SETUP:

Tools

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

Equipment Conditions

Reference
Both generator sets shut down, paragraph 2.7.1
Trailer support devices are lowered
Switch box cover removed, paragraph 4.11

REMOVAL

1. Latch and keeper removal:

   a. Remove lock nut (1, figure 4-7), flat washer (2), and bushing (3) securing latch (4) to cover and remove latch.

   b. Remove nut (5), lock washer (6), flat washer (7), and screw (8) securing keeper (9) to switch box.

2. Cover removal:

   Remove seven nuts (10), lock washers (1 1), flat washers (12), and screws (13) securing input switch cover (14) to switch box.

NOTE

Fifteen nuts, lock washers, flat washers, and screws are used to secure output breaker cover.

INSTALLATION

1. Latch and keeper installation:

   a. Install latch (4), bushing (3), flat washer (2) and new lock nut (1) to secure latch to switch box.

   b. Install screw (8), keeper (9), flat washer (7), lock washer (6), and lock nut (5), to secure keeper.

2. Cover installation:

   a. Position cover (14) on switch box.

   b. Install screws (13), flat washers (12), lock washers (11) and nuts (10).

c. Close and secure cover.

4.12. SWITCH BOX COVER AND LATCH MAINTENANCE (Continued)h.

REPAIR

NOTE

Latch and keeper repair is limited to removal and replacement only. Repair of covers is limited to straightening of sheet metal, replacement of self clinching stud, and replacement of gasket.

1. Cover repair:

   a. Remove latch assembly.

   b. Using a hammer, carefully drive self clinching stud (15) from cover.

   c. Press in new self clinching stud (15) to secure.

   d. For replacement of gasket material refer to appendix H.

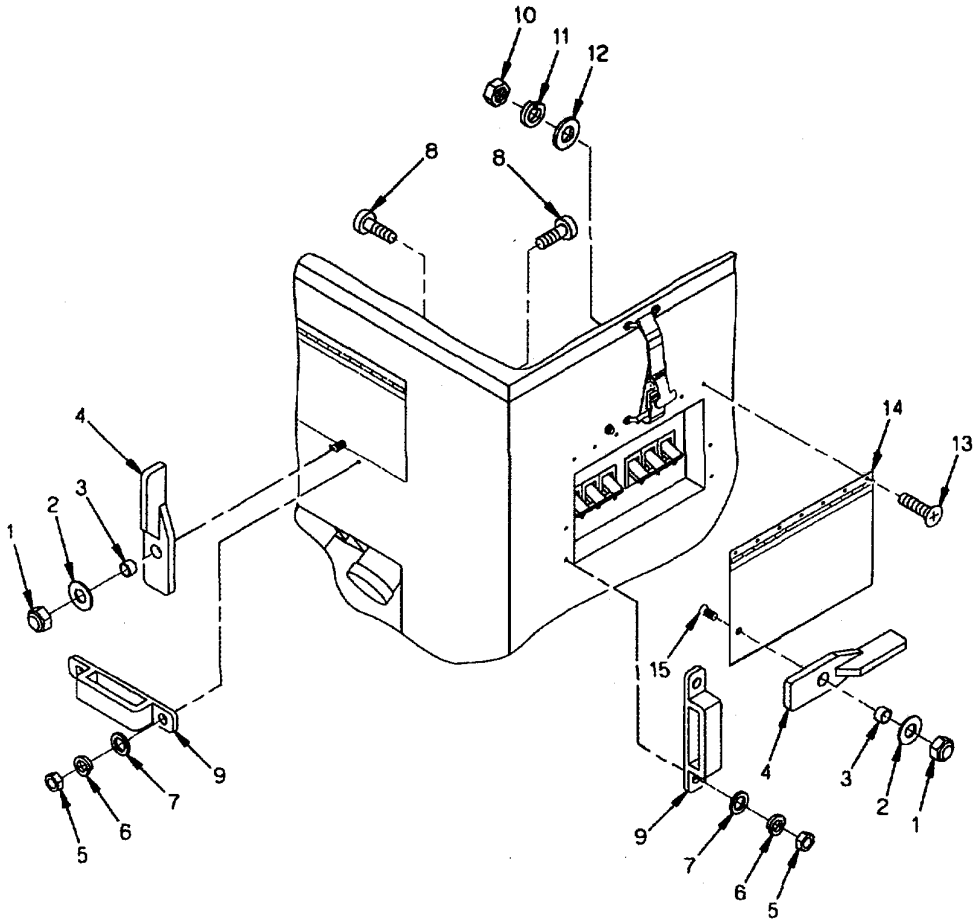


Figure 4-7. Switch Box Latch Replacement

4.13. SWITCH BOX STRAP ASSEMBLY MAINTENANCE.

This task covers:

a. Removal **b. Installation**

INITIAL SETUP:

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Drill, 1/4 inch (item 2, appendix B)
Blind Fastener Installation Kit (item 8, appendix B)

Equipment Conditions

Reference
Both generator sets shut down, paragraph 2.7.1
Trailer support devices are lowered.
Switch box cover removed, paragraph 4.11
Clear plastic panel covers removed, paragraph 4.12

REMOVAL

1. Release strap securing top cover on switch box and remove switch box cover.
2. Remove two nuts (1, figure 4-8), flat washers (2), lock washers (3), and screws (4) that secure strap (5), and loop (6) assembly to switch box.
3. Remove strap (5) and loop (6) assembly.
4. Drill out rivets (7) securing loop (8) to cover.

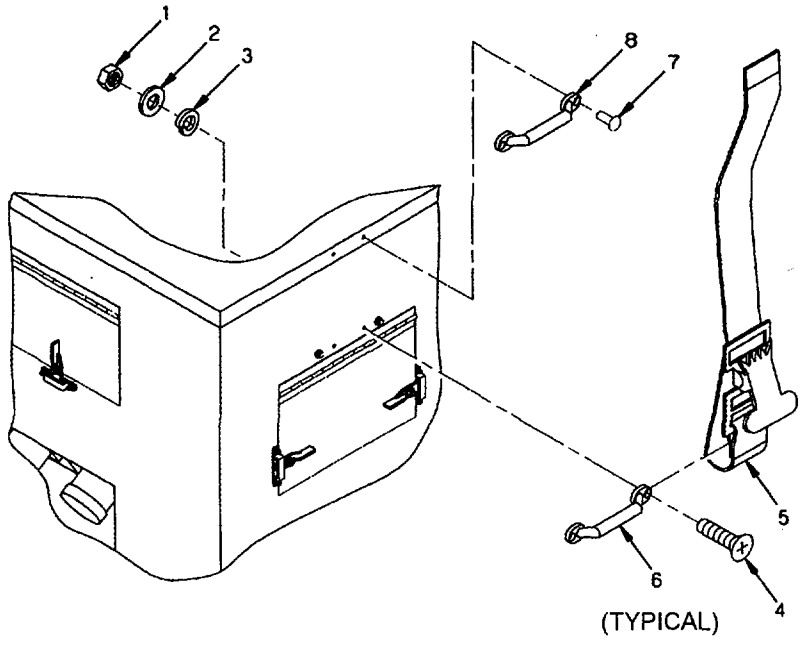


Figure 4-8. Switch Box Strap Assembly Replacement

4.13. SWITCH BOX STRAP ASSEMBLY MAINTENANCE (Continued).

INSTALLATION

1. Position loop (6) into strap (5) assembly.
2. Position assembly over mounting holes.
3. Install two screws (4), new lock washers (3), flat washers (2) and nut (1) that secure loop (6) assembly to switch box.
4. Position loop (8) on cover.
5. Install new rivets (7) and secure.
6. Install switch box cover.

NOTE

Ensure loose end of strap(s) is secure to prevent it from scratching paint off the switch box.

5. Secure cover with strap assembly.

4.14. SWITCH BOX CIRCUIT BREAKER/SWITCH MAINTENANCE.

This task covers:

a. Removal
b. Test
c. Installation

INITIAL SETUP:

Tools

Tool Kit, General Mechanic's
(item 1, appendix B)
Multimeter, AN/PSM-45
(item 2, appendix B)

Equipment Conditions

Reference
Both generator sets shut down, paragraph 2.7.1
Trailer support devices are lowered.
Switch box cover removed, paragraph 4.11.
Clear plastic panel covers removed, paragraph 4.12.

REMOVAL

NOTE

The switch box contains four output circuit breakers and two input switches. Replacement procedures are the same except the input switches have four screws and the output circuit breakers have six screws.

1. Tag wires on circuit breaker(s) (2, figure 4-9) or switch (4) terminals and remove.

2. Remove six screws (1) securing the circuit breaker(s) (2) to the switch box or four screws (3) securing the input switch (4).

4.14. SWITCH BOX CIRCUIT BREAKER/SWITCH MAINTENANCE (Continued).

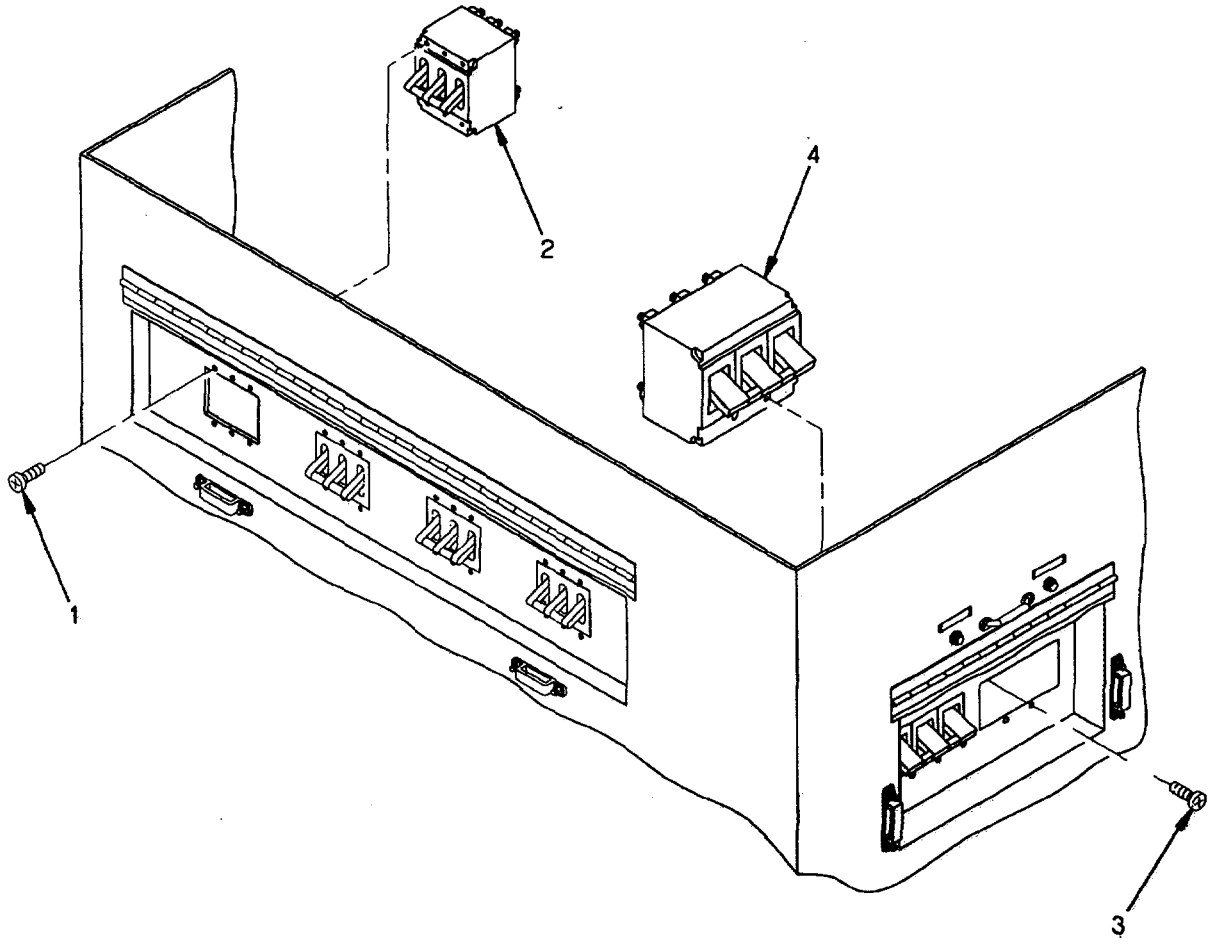


Figure 4-9. Circuit Breaker/Switch Replacement

TEST

1. Set multimeter to continuity test.
2. Check continuity between the line side and load side terminals. Refer to table 4-4 and FO-1.
3. Replace circuit breaker(s) (2) or switch (4) that do not pass continuity in step 2.

Table 4-4. Circuit Breaker/Switch Continuity

CONTINUITY (ON Position)	NO CONTINUITY (OFF Position)
1-2	1-2
3-4	3-4
5-6	5-6

4.14. SWITCH BOX CIRCUIT BREAKER/SWITCH MAINTENANCE (Continued).

INSTALLATION

NOTE

Prior to installing a new switch the insulator on the rear of the switch must be removed. Using old switch as a guide, remove approximately 1/4 inch of the insulator to allow for mounting hardware. Do not remove any insulator located between the terminal lugs.

1. Install circuit breaker(s) (2) or switch (4) in panel and secure with screws (1) or (3).

2. Connect electrical leads to terminals on circuit breaker(s) (2) or switch (4).

4.15. SWITCH BOX ELECTRICAL LEAD MAINTENANCE.

This task covers:

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

INITIAL SETUP:

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Crimp Tool (item 4, appendix B)
Multimeter, AN/PSM-45 (item 2, appendix B)

Equipment Conditions

Reference
Both generator sets shut down, paragraph 2.7.1
Trailer support devices are lowered
Switch box cover removed, paragraph 4.11.
Two clear plastic covers removed, paragraph 4.12.

REMOVAL

Tag and disconnect electrical leads from power bus or circuit breaker/switch, refer to FO-1.

TEST

1. Set multimeter for continuity.
2. Refer to FO-1, and table 4-5 and check continuity of electrical leads.

Table 4-5. Electrical Leads.

Wire Number	From	To
A1W30	DS1-OUT	W4-6 (N)
A1W31	DS1-CTR	S1-LN1
A1W32	DS2-OUT	W4-6 (N)
A1W33	DS2-CTR	S2-LN1
A1W34	DS3-OUT	W4-2 (N)
A1W35	DS3-CTR	CB1-LD2
A1W36	DS4-OUT	W4-3 (N)
A1W37	DS4-CTR	CB2-LD2
A1W38	DS5-OUT	W4-4 (N)
A1W39	DS5-CTR	CB3-LD2
A1W40	DS6-OUT	W4-5 (N)
A1W41	DS6-CTR	CB4-LD2

4.15. SWITCH BOX ELECTRICAL LEAD MAINTENANCE - continued.

REPAIR

Refer to appendix H and repair or manufacture electrical lead.

INSTALLATION

1. Connect electrical leads to bus bar or circuit breaker/switch as indicated on the wiring diagram FO-1.
2. Install panel covers and switch box top cover on switch box.

4.16. INDICATOR LIGHT MAINTENANCE.

This task covers:

a. Removal **c. Installation**
b. Test **d. Repair**

INITIAL SETUP:

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Multimeter AN/PSM-45 (item 2, appendix B)
Solder Gun (item 2, appendix B)

Equipment Conditions

Reference
Both generator sets shut down, paragraph 2.7.1
Trailer support devices are lowered
Switch box cover removed, paragraph 4.11
Clear plastic panel covers removed, paragraph 4.12

REMOVAL

NOTE

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

1. Tag leads connected to each terminal (1, figure 4-10) of indicator lamp housing to be replaced, and unsolder each lead.
2. Remove and retain lens (2), O-ring (3) and lamp (4).
3. Remove mounting nut (5) and internal tooth lock washer (6).
4. Slide indicator housing (7) out of switch box assembly.

TEST

Using multimeter, measure continuity between pins. If continuity exists, replace indicator housing.

4.16. INDICATOR LIGHT MAINTENANCE (cntinued).

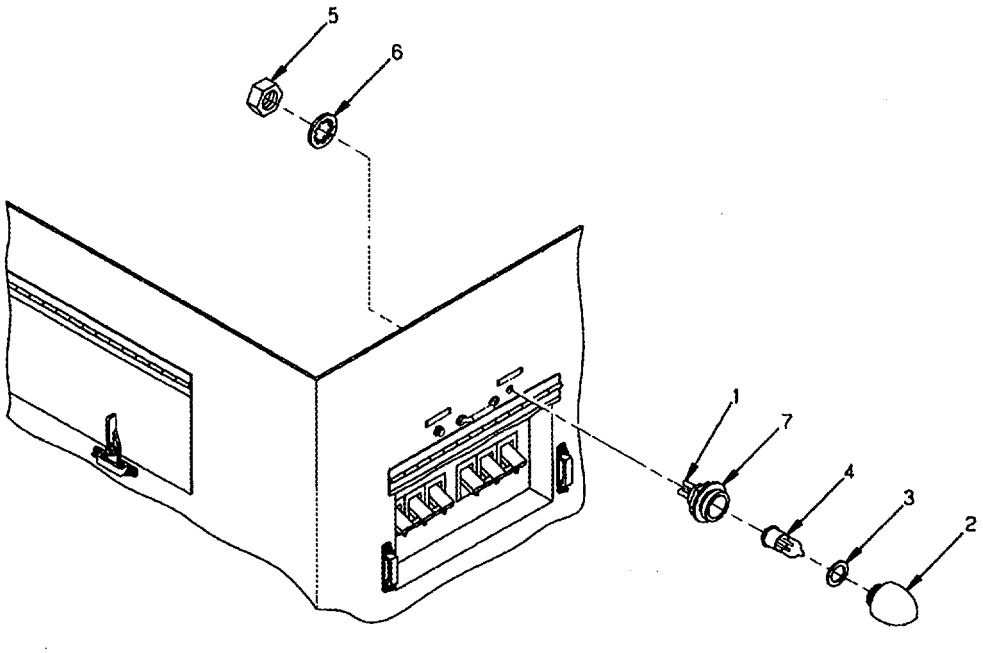


Figure 4-10. Indicator Light Replacement.

INSTALLATION

1. Remove mounting nut (5), and internal tooth lock washer (6) from new indicator housing (7).
2. Insert indicator housing (7) through switch box panel.
3. Install new internal tooth lock washer (6) on indicator housing.
4. Install mounting nut (5) on indicator housing.
5. Solder wires to the applicable terminals and remove tags.
6. Install lens (2), O-ring (3), and lamp (4).
7. Position panel covers and secure using six screws.
8. Install switch box cover and secure with strap assembly.

REPAIR

Repair is limited to removal and installation of new indicator lamp housing.

4.17. FUEL SYSTEM MAINTENANCE.

This task covers:

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

INITIAL SETUP:

Tools

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

Equipment Conditions

Reference
Both generator sets shut down, paragraph 2.7.1
Trailer support devices are lowered

INSPECT

Visually inspect the fuel system for damage.

REMOVAL

1. Fuel line system replacement.

   a. Close both fuel valves (1, figure 4-11) and remove cap (2) from fuel fitting straight adapter (3).

   b. Place container beneath fuel fitting.

   c. Disconnect hose fittings (4) on hose (5) and (6) and remove.

   d. Remove nut (7), flat washer (8) clamp (9), flat washer (1 0), and screw (1 1) securing fuel line to trailer chassis.

   e. Remove nut (12) and tube nipple (13).

   f. Remove elbow (14) valve (1), and pipe nipple (15).

   g. Remove straight adapter (3), self locking nut (16), and internal tooth washer (17).

   h. Remove pipe tee (18) and pipe coupling (19).

2. Fuel system bracket replacement.

   a. Remove any fuel line system components required to remove fuel system brackets.

   b. Remove four self locking nuts (1, figure 4-12), flat washers (2), screws (3), flat washers (4), and remove fuel valve bracket (5).

   c. Remove two self locking nuts (6), flat washers (7), screws (8), flat washers (9), and remove fuel fill bracket (10).

   d. Remove two self locking nuts (11), fuel line shield (14), flat washers (13), and screws (12).

   e. Remove fuel can (15) from mounting bracket (19).

4.17. FUEL SYSTEM MAINTENANCE - (continued).

f. Remove four self locking nuts (16), screws (17), flat washers (18), and remove bracket (19).

REPAIR

1. Repair of fuel system components is limited to replacement of missing or broken items, refer to appendix C.

2. For repair of fuel hoses refer to appendix H.

INSTALLATION

1. Fuel system bracket installation.

   a. Install bracket (19, figure 4-12), using flat washers (18), screws (17), and self locking nuts (16).

   b. Install fuel can (15) in mounting bracket (19).

   c. Install screws (12), flat washers (13), fuel line shield (14), and self locking nuts (11).

   d. Install fuel fill bracket (10), using flat washers (9), screws (8), flat washers (7), and self locking nuts (6).

   e. Install fuel valve bracket (5), using flat washers (4), screws (3), flat washers (2), and self locking nuts (1).

2. Fuel system components installation.

   a. Install pipe coupling (19, figure 4-11), and pipe tee (18).

   b. Install internal tooth washer (17), self locking nut (16), and straight adapter (3).

   c. Install pipe nipple (15), valve (1), and elbow (14).

   d. Install tube nipple (13) and nut (12).

   e. Secure fuel line to trailer chassis by installing screw (11), flat washer (10), clamp (9), flat washer (8), and nut (7).

   f. Connect hose fittings (4) on hoses (5) and (6).

   g. Close both fuel valves (1) and replace cap (2) on fuel fitting straight adapter (3).

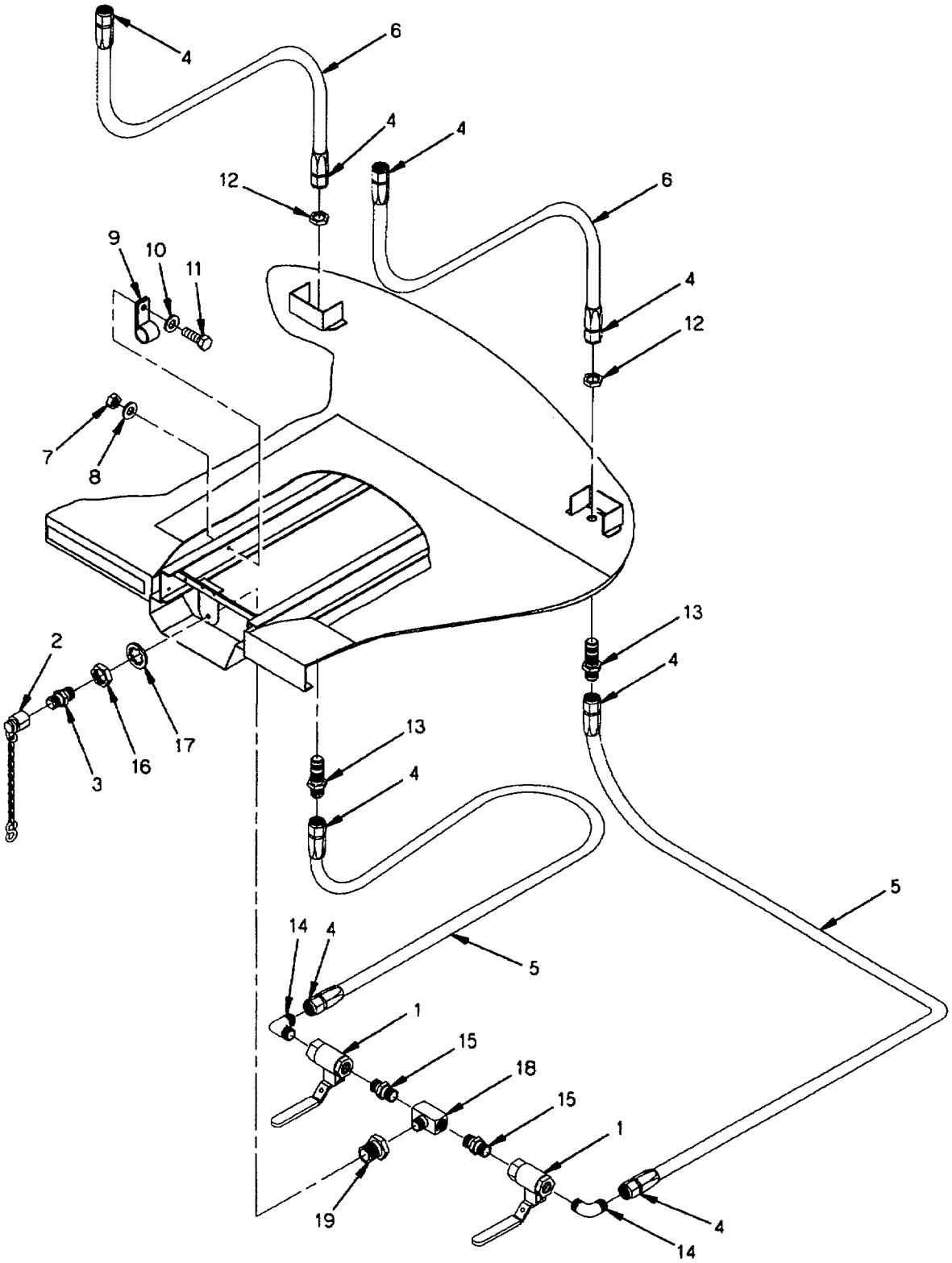


Figure 4-11. Fuel System Components.

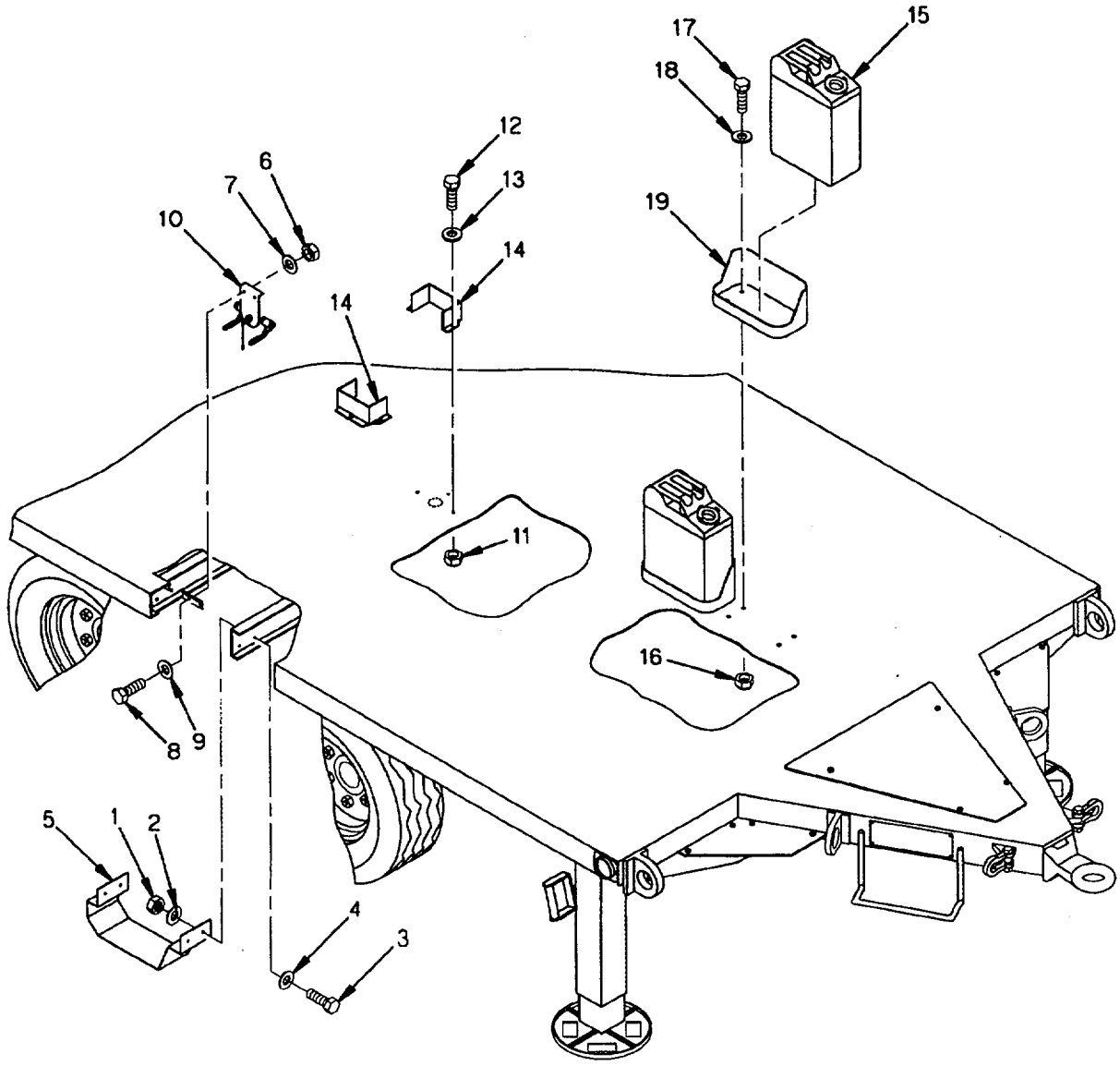


Figure 4-12. Fuel System Bracket Components.

4.18. CABLE STORAGE BOX MAINTENANCE.

This task covers:

a. Removal
b. Repair
c. Installation

INITIAL SETUP:

Tools

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

Equipment Conditions

Reference
Trailer support devices are lowered

REMOVAL

1. Remove vinyl cover (1, figure 4-13) from cable storage box (2).
2. Remove any stored items.
3. Remove six self-locking nuts (3), 12 flat washers (4), and six bolts (5) that secure the cable storage box (2) to the trailer chassis.
4. With the aid of a suitable lifting device, remove the cable storage box.

REPAIR

1. Refer to paragraph 4.13 and replace strap assembly.
2. Drill out blind rivets securing the catch assembly.
3. Position new catch assembly and secure with new blind rivets.

INSTALLATION

1. With the aid of a suitable lifting device position cable storage box (2) over mounting holes in trailer chassis.
2. Install six bolts (5), 12 flat washers (4), and six new self-locking nuts (3) that secure cable storage box.
3. Store items removed in step 2 of the removal procedure.
4. Replace vinyl cover (1) on cable storage box (2).

4.18. CABLE STORAGE BOX MAINTENANCE - continued.

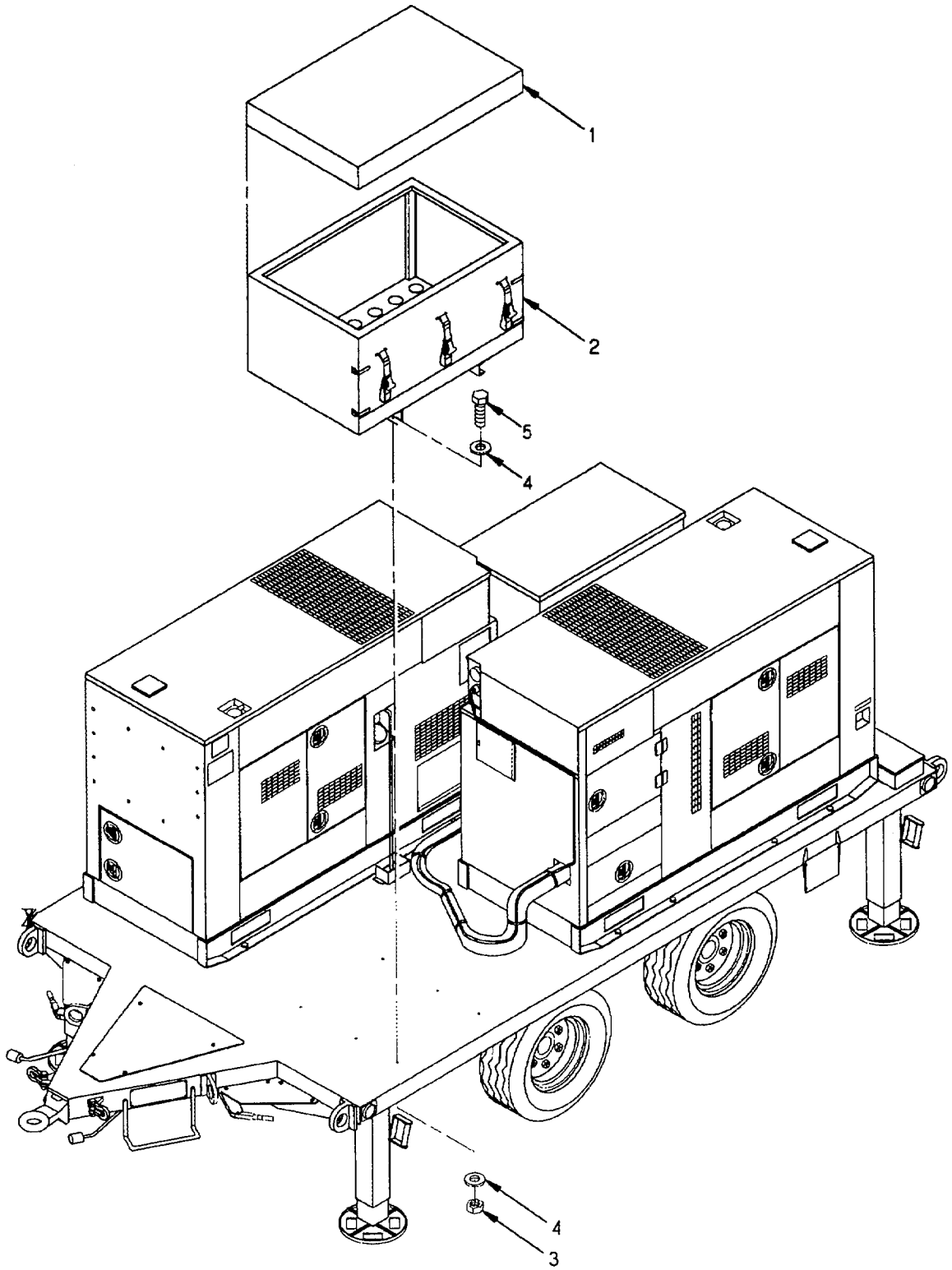


Figure 4-13. Cable Storage Box Replacement.

4.19. FIRE EXTINGUISHER BRACKET MAINTENANCE (TYPICAL).

This task covers:
a. Removal **b. Installation**

INITIAL SETUP:

Tools

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

Equipment Conditions

Reference
Both generator sets shut down, paragraph 2.7.1
Trailer support devices are lowered
Clear plastic panel covers removed, paragraph 4.12

REMOVAL

NOTE
The power plant has two fire extinguisher brackets. One located on the switch box and the other located on the cable storage box. Replacement procedures are the same for each bracket.

1. Remove fire extinguisher from bracket.
2. Remove stored items from cable storage box and/or switch box top cover.
3. Remove four self-locking nuts (1, figure 4-14), flat washers (2), cap screws (3), and remove fire extinguisher bracket (4).

INSTALLATION

1. Install fire extinguisher bracket (4), four cap screws (3), flat washers (2), and new self-locking nuts (1).
2. Place items removed from cable storage box into the box and/or install two clear plastic panels (paragraph 4.14) and cover on switch box.
3. Place fire extinguisher in bracket.

4.19. FIRE EXTINGUISHER BRACKET MAINTENANCE (TYPICAL) - (continued).

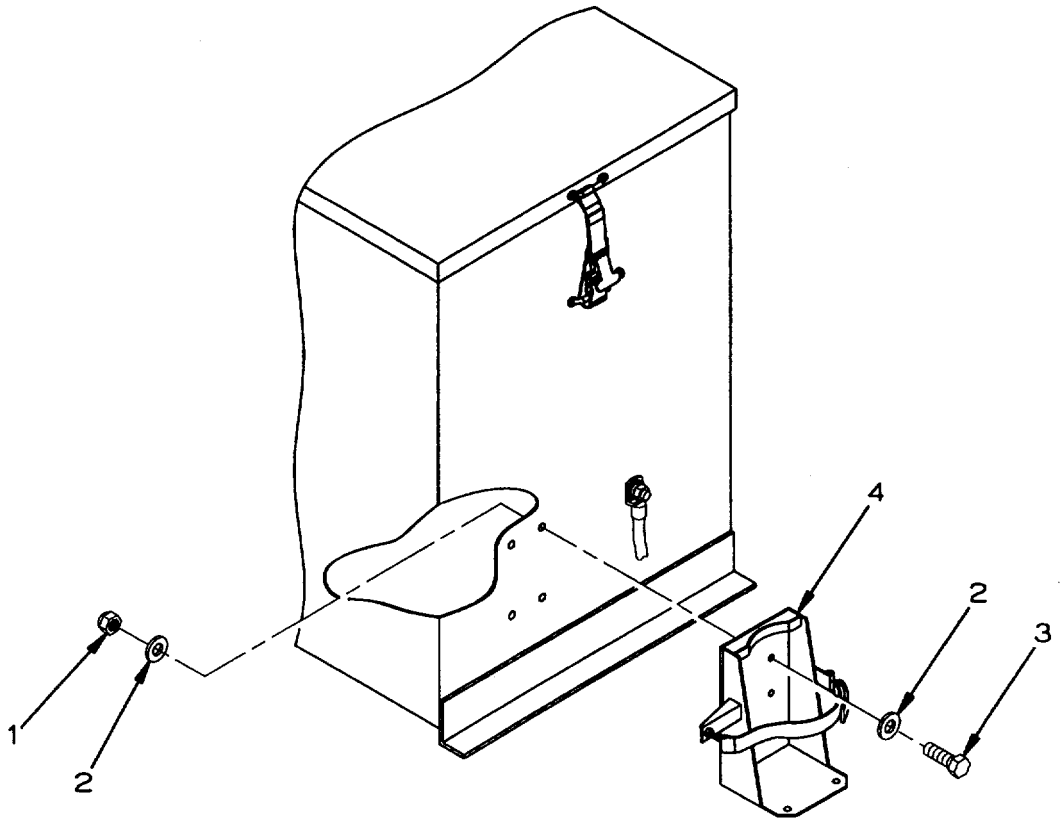


Figure 4-14. Fire Extinguisher Bracket Maintenance (Typical).

4.20. ACCESSORY BOX MAINTENANCE

This task covers:

a. Removal
b. Repair
c. Installation

INITIAL SETUP:

Tools	Equipment Conditions
Tool Kit, General Mechanic's (item 1, appendix B) Drill, 1/4-inch (item 2, appendix B) Riveter, Blind Head (item 5, appendix B)	Reference Trailer support devices are lowered.

REMOVAL

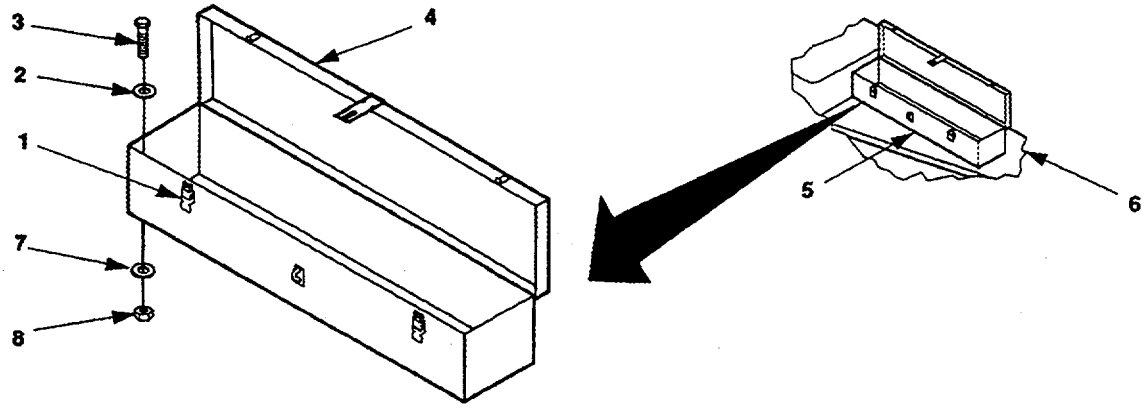


Figure 4-15. Accessory Box Replacement.

1. Release clamping catches (1, figure 4-15) and open accessory box cover (4).
2. Remove any stored accessories from accessory box (5).
3. Remove four self-locking nuts(8), eight flat washers (2 and 7), and four bolts (3) that secure accessory box (5) to trailer chassis (6).
4. Lift accessory box (5) off trailer chassis (6).

REPAIR

Refer to paragraph 4.21 and replace clamping catches.

4.20. ACCESSORY BOX MAINTENANCE - continued.

INSTALLATION

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

4.21. ACCESSORY BOX CLAMPING CATCH MAINTENANCE

This task covers:

a. Removal **b. Installation**

INITIAL SETUP:

Tools	Equipment Conditions
Tool Kit, General Mechanic's (item 1, appendix B) Drill, 1/4 inch (item 2, appendix B) Riveter, Blind Head (item 5, appendix B)	Reference Both generator sets shut down, paragraph 2.7.1 Trailer support devices are lowered.

REMOVAL

1. Drill out rivets (1, figure 4-16) that secure clamping catch (2).
2. Remove defective clamping catch (2).

INSTALLATION

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

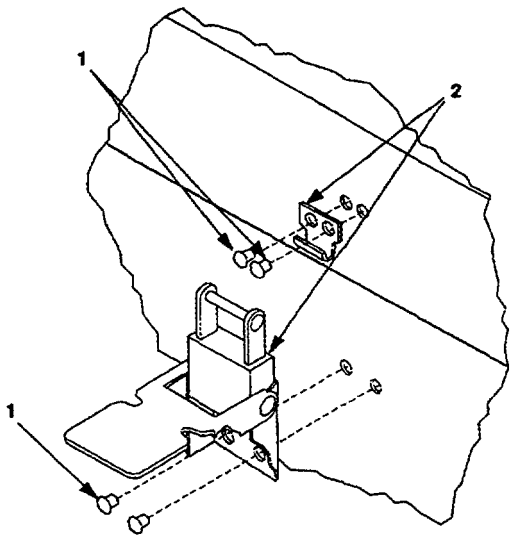


Figure 4-16. Clamping Latch Replacement

4.22. LADDER ASSEMBLY MAINTENANCE

This task covers:

a. Inspect **b. Removal**
b. Repair **d. Installation**

INITIAL SETUP:

Tools	Equipment Conditions
Tool Kit, General Mechanic's (item 1, appendix B)	Reference Trailer support devices are lowered.

INSPECT

Visually inspect ladder, bracketry, and quick release pins for damage.

REPAIR

Repair of ladder is limited to replacement of missing or broken items, refer to appendix C.

REMOVAL

Remove quick release pins securing ladder to trailer and remove ladder.

INSTALLATION

1. Refer to appendix H for replacement of existing ladder mounting brackets.

2. After replacing ladder brackets, install ladder on trailer mount and insert quick release pins.

SECTION VII. ADMINISTRATIVE STORAGE.

4.21. ADMINISTRATIVE STORAGE.

4.21.1. Short Term Storage. Placement of equipment in administrative storage should be for short periods of time when a shortage of maintenance effort exist. Items should be in mission readiness within 24 hours or within the time factors as determined by the directing authority. During the storage period, appropriate maintenance records shall be kept.

a. Before placing the equipment in administrative storage, current preventive maintenance checks and services should be completed, shortcomings and deficiencies should be corrected, and all Modification Work Orders (MWO) should be applied.

b. Storage site selection. Inside storage is preferred for items selected for administrative storage. If inside storage is not available, trucks, vans, conex containers, and other containers may be used.

4.21.2. 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 preservation and packing may be required.

4.21.3. Long Term Storage. This type of storage is used when the equipment is expected to be stored for more than 180 days. Level A preservation and packing may be required.

CHAPTER 5

DIRECT SUPPORT MAINTENANCE

Subject Index

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 plant. Refer to TM 9-6115-645-24P for generator set and TM 9-2815-256-24P for engine, and TM 9-2330-376-14&P for trailer.

5.3. REPAIR PARTS.

Refer to Refer to TM 9-6115-645-24P for generator set and TM 9-2815-256-24P for engine. Refer to TM 9-2330-376-14&P for trailer parts. Power plant repair parts not covered in the generator, engine, or trailer RPSTL are listed and illustrated in Appendix C.

SECTION II. TROUBLESHOOTING

5.4. GENERAL.

Refer to TM 9-6115-645-24 for generator set troubleshooting procedures and to TM 9-6115-256-24 for engine troubleshooting procedures. Refer to TM 9-2330-376-14&P for trailer trouble shooting procedures. The symptom index for the power plant lists faults associated with switch box assembly operation. Figures 5-1 through 5-4 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

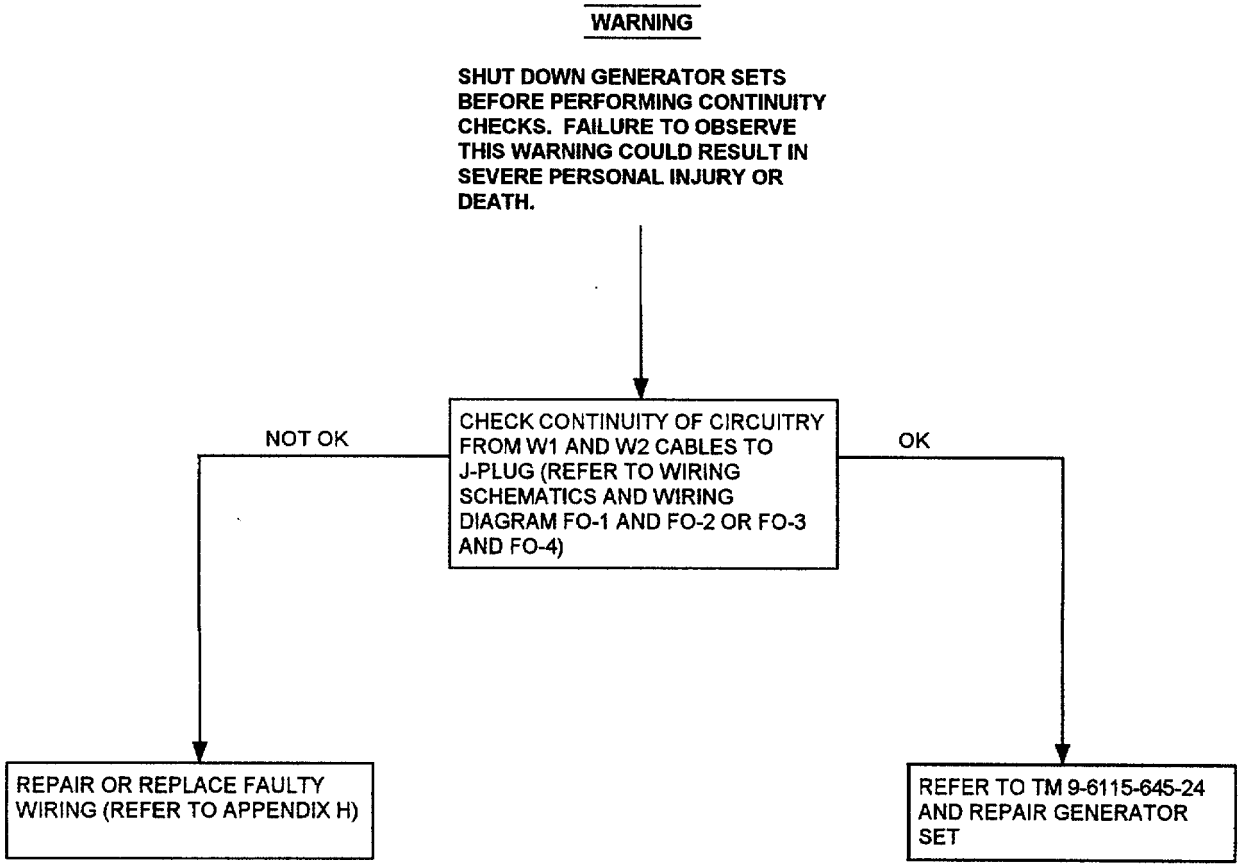


Figure 5-1. No Voltage Output from switch box

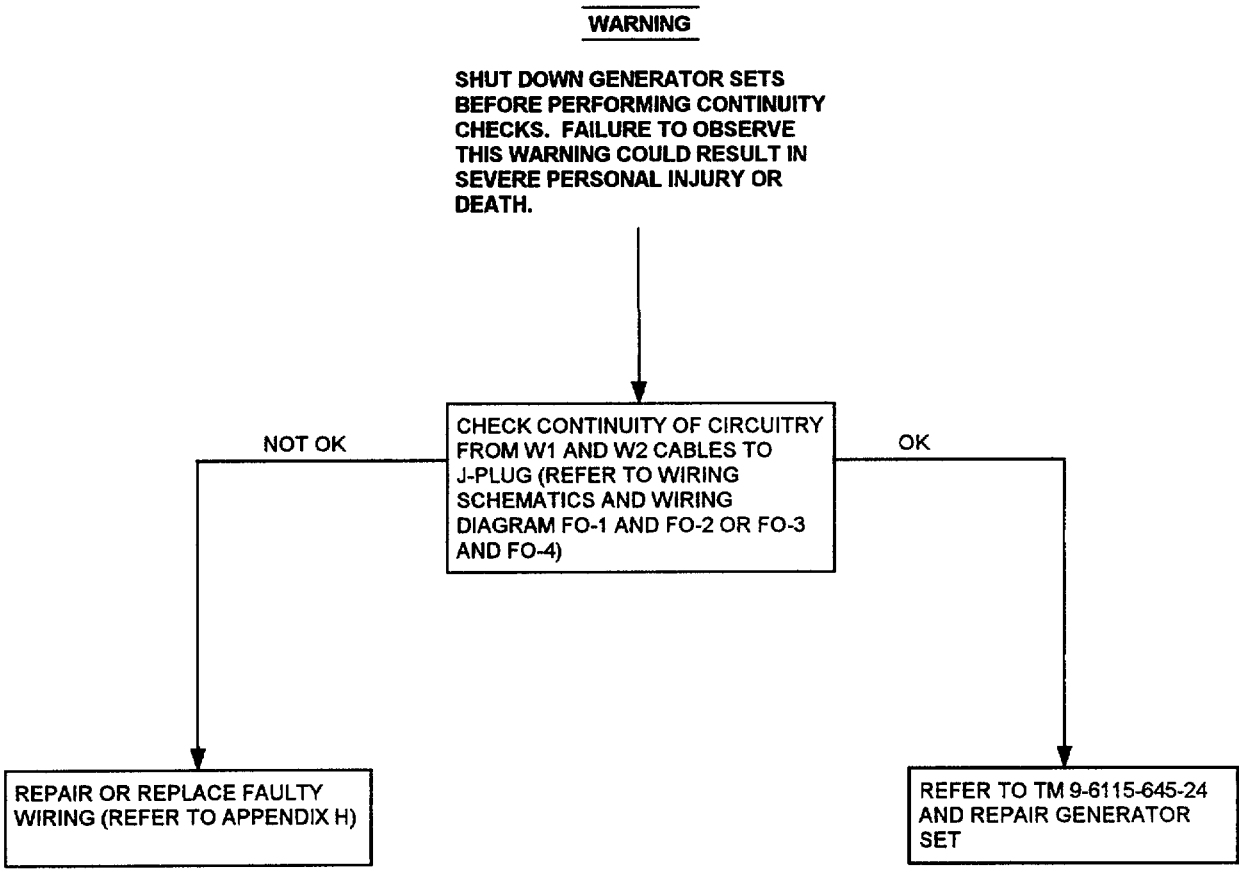


Figure 5-2. Power Plant fails to parallel

SECTION III. MAINTENANCE PROCEDURES

5.5. GENERAL.

Refer to TM 9-6115-645-24 for generator set maintenance, and to TM 9-2815-256-24 for engine maintenance. Refer to TM 9-2330-376-14&P for trailer maintenance. Direct Support maintenance procedures are provided in paragraphs 5.6 through 5.12.

5.6. REPLACE GENERATOR SET.

This task covers:

a. Removal **b. Installation**

INITIAL SETUP:

Tools

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

Equipment Conditions

Reference
Both generator sets shut down, paragraph 2.7.1
Trailer supports devices are lowered.

Personnel Required
Four

REMOVAL

WARNING

When lifting the generator set, use lifting equipment with a minimum lifting capacity of 6000 lb. Do not stand under the generator set while it is being lifted. Do not permit generator set to swing. Failure to observe this warning can result in severe personal injury or death.

1. When removing the generator set from the power plant trailer, disconnect cable W1 or W2 (1, figure 5-3) depending on the generator to be removed. W1 is connected to generator set 1 and W2 is connected to generator set 2. Refer to FO-1 and table 5-6 and table 5-7 for assistance in disconnecting cables.

2. Disconnect paralleling cable (2) from generator set paralleling connector.

3. Disconnect auxiliary fuel line (3) connected to generator set (4).

4. Disconnect ground cable from generator terminal (5).

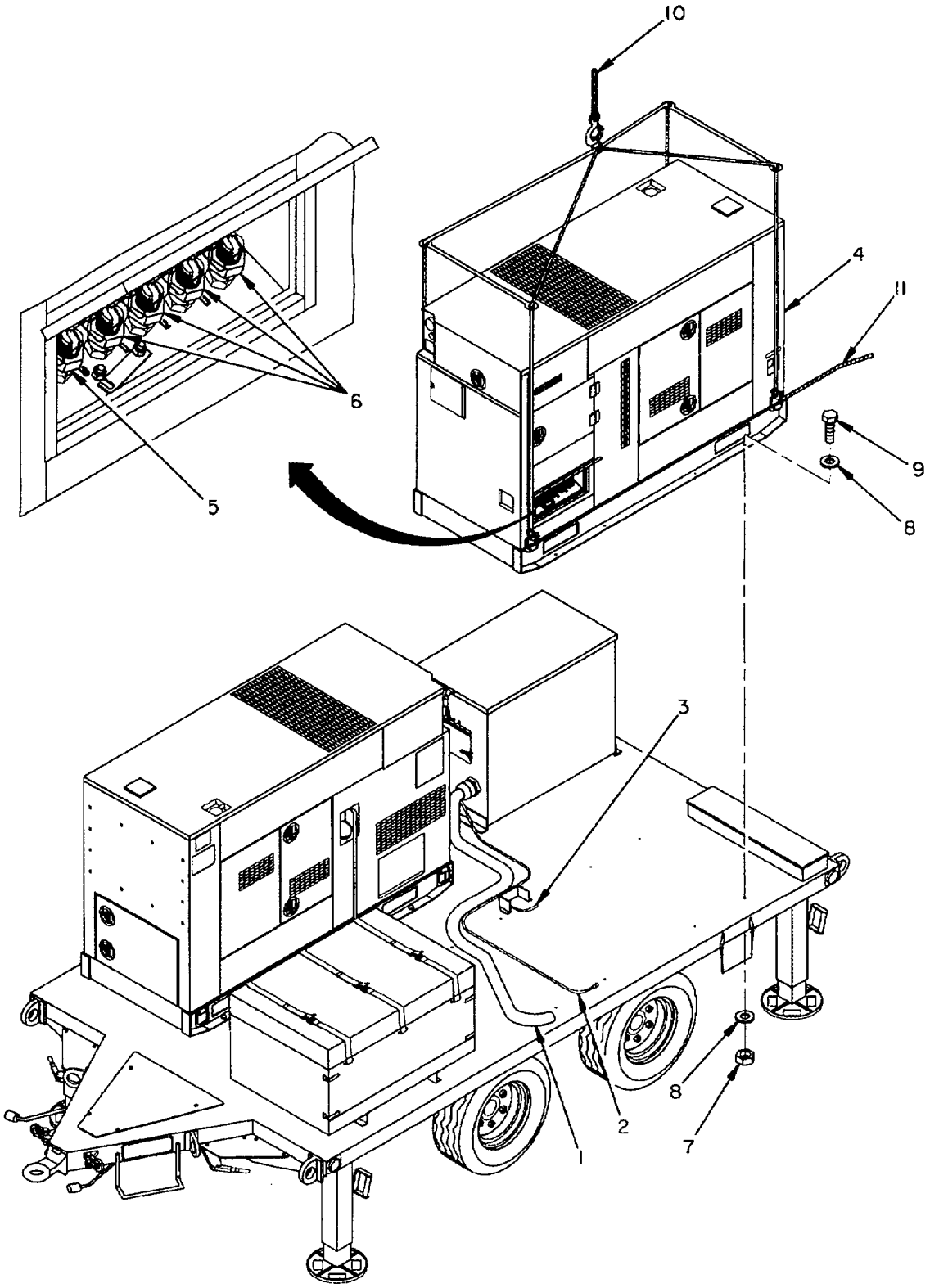


Figure 5-3. Generator Replacement

5.6. REPLACE GENERATOR SET (Continued).

5. Remove eight self-locking nuts (7), 16 flat washers (8), and eight screws (9) securing the generator set to the trailer.

CAUTION

Ensure lifting sling (figure 5-3) consists of a suitable spreader bar arrangement to prevent damage to the generator set housing.

6. Connect lifting device (10).

7. Insert ropes (11) through each of four lifting rings on the generator set.

8. With one person at each rope (11) to steady and guide the generator set (4), lift generator set.

INSTALLATION

WARNING

When lifting the generator set, use lifting equipment with a minimum lifting capacity of 6000 lb. Do not stand under the generator set while it is being lifted. Do not permit generator set to swing. Failure to observe this warning can result in severe personal injury or death.

CAUTION

Ensure lifting sling (figure 5-3) consists of a suitable spreader bar arrangement to prevent damage to the generator set housing.

1. Attach lifting device (10) and lifting sling with a minimum lifting capacity of 6000 lb. as shown in figure 5-3.

2. Insert rope (11) through each of four lifting rings on generator set (4).

3. With one person at each rope (11) to steady and guide the generator set (4), lift the generator set.

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

5. Position generator set over mounting holes on trailer.

6. Install eight screws (9), 16 flat washers (8), and eight new self-locking nuts (7) that secure generator set (4).

7. Disconnect lifting device (10) and (11).

8. Route cable W 1 or W2 (1) through power cable sock on front of generator set.

9. Reconnect ground cable to generator set terminal (5) and electrical leads to terminals (6) and tighten lugs.

5.6. REPLACE GENERATOR SET (Continued).

1. Connect paralleling cable (2) to paralleling connector on generator set.
2. Connect auxiliary fuel line (3) to generator.

5.7. BUS BAR MAINTENANCE

This task covers:

a. Inspection **b. Removal**
c. Installation

INITIAL SETUP:

Tools

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

Equipment Conditions

Reference
Both generator sets shut down, paragraph 2.7.1
Trailer support devices are lowered
Switch box cover removed, paragraph 4.11
Two clear plastic panel covers removed, paragraph 4. 12.

INSPECTION

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

REMOVAL

1. Locate defective bus bar (1, figure 5-4).
2. Tag electrical leads (2) connected to defective bus bar (1).
3. Remove self-locking nuts (3) flat washers (4), and screws (5) securing electrical leads (2) to bus bar (1).
4. Remove three self-locking nuts (6), six flat washers (7), and three screws (8) securing the bus bar (1) to the mount (9).
5. Remove bus bar.

INSTALLATION

1. Position bus bar (1, figure 5-4) in place.
2. Install three screws (8), three flat washers (7), and three new self-locking nuts (6).
3. Install leads (2), screws (5), flat washers (4), and new self-locking nuts (3) and remove tags.
4. Install two clear plastic covers using six screws and switch box cover.

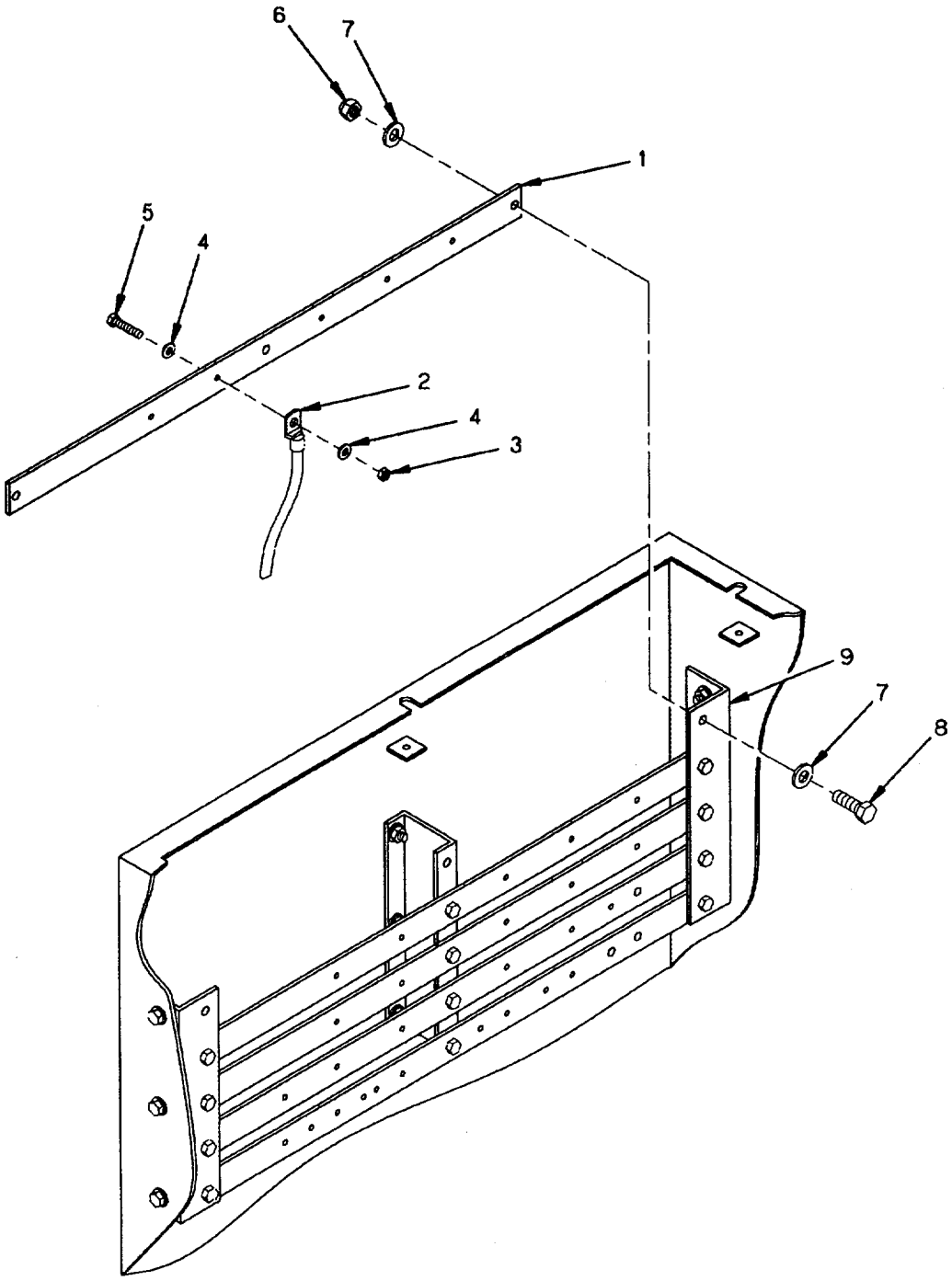


Figure 5-4. Bus Bar Maintenance.

5.8. ELECTRICAL LEADS MAINTENANCE

This task covers:

a. Inspection
b. Removal
c. Test
d. Repair
e. Installation

INITIAL SETUP:

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Crimp Tool (item 4)
Multimeter, AN/PSM-45 (item 2, appendix B)

Equipment Conditions

Reference
Both generator sets shut down, paragraph 2.7.1

INSPECTION

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

REMOVAL

1. Release strap securing top cover on switch box and remove switch box cover.
2. Remove six screws securing two clear plastic panel covers.
3. Refer to table 5-1 and FO-1, tag each end of lead to be replaced.
4. Disconnect and remove lead.

TEST

1. Set multimeter for continuity.
2. Refer to FO-1 and table 5-1 and check continuity of electrical leads.

REPAIR

Refer to appendix H and repair or manufacture lead.

5.8. ELECTRICAL LEADS MAINTENANCE (Continued).

INSTALLATION

1. Position new lead in place.
2. Connect lead as indicated on wiring diagram FO-1 and table 5-1.
3. Install panel covers and switch box cover.

Table 5-1. Electrical Leads.

Wire Identification	From	To
A1W10	A1S1-1	A1W1-5(L1)
A1W11	A1S1-3	A1W2-5(L2)
A1W12	A1S1-5	A1W3-5(L3)
A1W13	A1S2-1	A1W1-5(L1)
A1W14	A1S2-3	A1W2-5(L2)
A1W15	A1S2-5	A1W3-5(L3)
A1W16	A1W5-1(GND)	A1W4-1(N)
A1W17	A1W5-2(GND)	A1E1-(GND)
A1W18	A1CB1-LN5	A1W1-1(L1)
A1W19	A1CB1-LN3	A1W2-1(L2)
A1W20	A1CB1-LN1	A1W3-1(L3)
A1W21	A1CB2-LN5	A1W1-2(L1)
A1W22	A1CB2-LN3	A1W2-2(L2)
A1W23	A1CB2-LN1	A1W3-2(L3)
A1W24	A1CB3-LN5	A1W1-3(L1)
A1W25	A1CB3-LN3	A1W2-3(L2)
A1W26	A1CB3-LN1	A1W3-3(L3)
A1W27	A1CB4-LN5	A1W1-4(L1)
A1W28	A1CB4-LN3	A1W2-4(L2)
A1W29	A1CB4-LN1	A1W3-4(L3)

5.9. WIRING HARNESS MAINTENANCE

This task covers:

a. Inspection
b. Removal
c. Test
d. Repair
e. Installation

INITIAL SETUP:

Tools	Equipment Conditions
Toot Kit, General Mechanic's (item 1, appendix B) Crimp Too] (item 4) Multimeter, AN/PSM-45, (item 2, appendix B)	Reference Both generator sets shut down, paragraph 2.7.1 Switch box cover removed, paragraph 4.11 Two clear plastic panel covers removed, paragraph 4.12

INSPECTION

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

REMOVAL

1. Refer to FO-1, and tag each lead of the wiring harness to be replaced.
2. Remove four self-locking nuts (1, figure 5-5), flat washers (2), and screws (3) securing wiring harness (4) to switch box.
3. Remove nuts (5), lock washers (6), flat washers (7), and screws (8) securing terminal lugs (9) to bus bar assembly.
4. Remove wire harness from switch box.

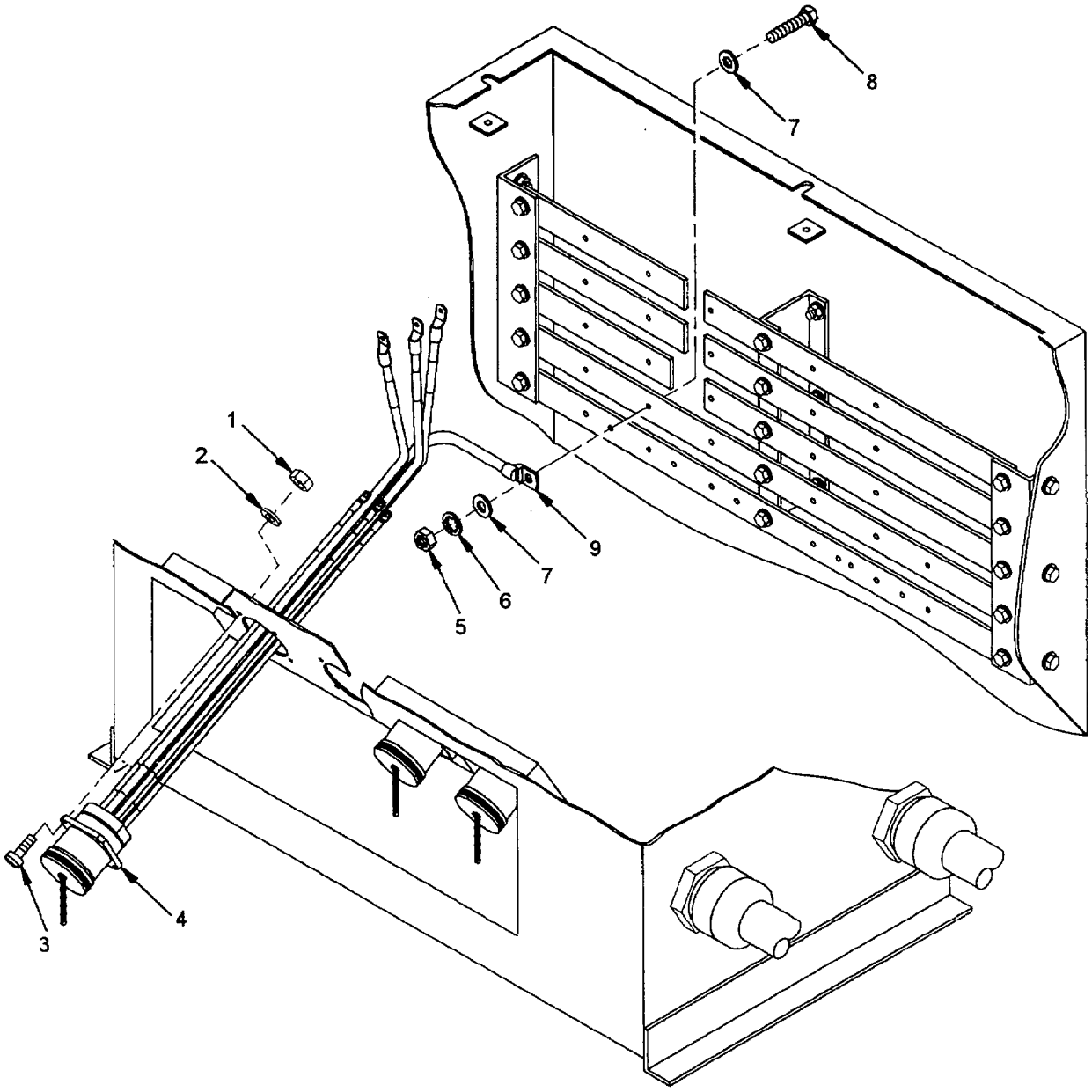


Figure 5-5. Wiring Harness Maintenance.

5.9. WIRING HARNESS MAINTENANCE (Continued).

Table 5-2. Wire Harness W6

Wire Number	From	To
1	A1J1-A	A1CB1-LD6
2	A1J1-B	A1CB1-LD4
3	A1J1-C	A1CB1-LD2
4	A1J1-N	A1W4-2(LO)
5	A1J1-G1	A1W5-3(GND)
6	A1J1-G2	A1W5-3(GND)
7	A1J1-G3	A1W5-4(GND)
8	A1J1-G4	A1W5-4(GND)

Table 5-3. Wire Harness W7

Wire Number	From	To
1	A1J2-A	A1CB2-LD6
2	A1J2-B	A1CB2-LD4
3	A1J2-C	A1CB2-LD2
4	A1J2-N	A1W4-3(LO)
5	A1J2-G1	A1W5-5(GND)
6	A1J2-G2	A1W5-5(GND)
7	A1J2-G3	A1W5-6(GND)
8	A1J2-G4	A1W5-6(GND)

Table 5-4. Wire Harness W8

Wire Number	From	To
1	A1J3-A	A1CB3-LD6
2	A1J3-B	A1CB3-LD4
3	A1J3-C	A1CB3-LD2
4	A1J3-N	A1W4-4(LO)
5	A1J3-G1	A1W5-7(GND)
6	A1J3-G2	A1W5-7(GND)
7	A1J3-G3	A1W5-8(GND)
8	A1J3-G4	A1W5-8(GND)

Table 5-5. Wire Harness W9

Wire Number	From	To
1	A1J4-A	A1CB4-LD6
2	A1J4-B	A1CB4-LD4
3	A1J4-C	A1CB4-LD2
4	A1J4-N	A1W4-5(LO)
5	A1J4-G1	A1W5-9(GND)
6	A1J4-G2	A1W5-9(GND)
7	A1J4-G3	A1W5-10(GND)
8	A1J4-G4	A1W5-10(GND)

5.9. WIRING HARNESS MAINTENANCE (Continued).

TEST

1. Set multimeter for continuity.
2. Refer to FO-1 and tables 5-2 through 5-5 and check continuity of wiring harness.

REPAIR

Refer to appendix H and repair or manufacture wiring harness.

INSTALLATION

1. Install new wiring harness in switch box.
2. Install screws (3), flat washers (2), and four self-locking nuts (1), securing wiring harness (4) to switch box. Remove tags.
3. Install screws (8), flat washers (7), lock washers (6), and nuts (5) to secure terminal lugs (9) to bus bar.
4. Install two clear plastic panel covers and switch box cover.

5.10. CABLE ASSEMBLY MAINTENANCE.

This task covers:

a. Inspection
b. Removal
c. Repair
d. Installation

INITIAL SETUP:

Tools

Tool Kit, General Mechanic's (item 1, appendix B)
Crimp Tool (item 4)

Equipment Conditions

Reference
Both generator sets shut down, paragraph 2.7.1
Switch box cover removed.
Two clear plastic panel covers removed.

INSPECTION

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

REMOVAL

1. Refer to Table 5-1 and FO-1, wiring diagram.
2. Disconnect cable assembly (1, figure 5-6) from generator terminals (2) and pull cable through power cable sock (14) on generator set (15).
3. Loosen stuffing tube (3).
4. Remove lock nuts (4), lock washers (5), and flat washers (6) securing cable terminal ends (7) to input switch (8).
5. Remove lock nuts (9), flat washers (10), and screws (1 1) securing terminal ends (12) to bus bar (13) and pull cable assembly through stuffing tube..

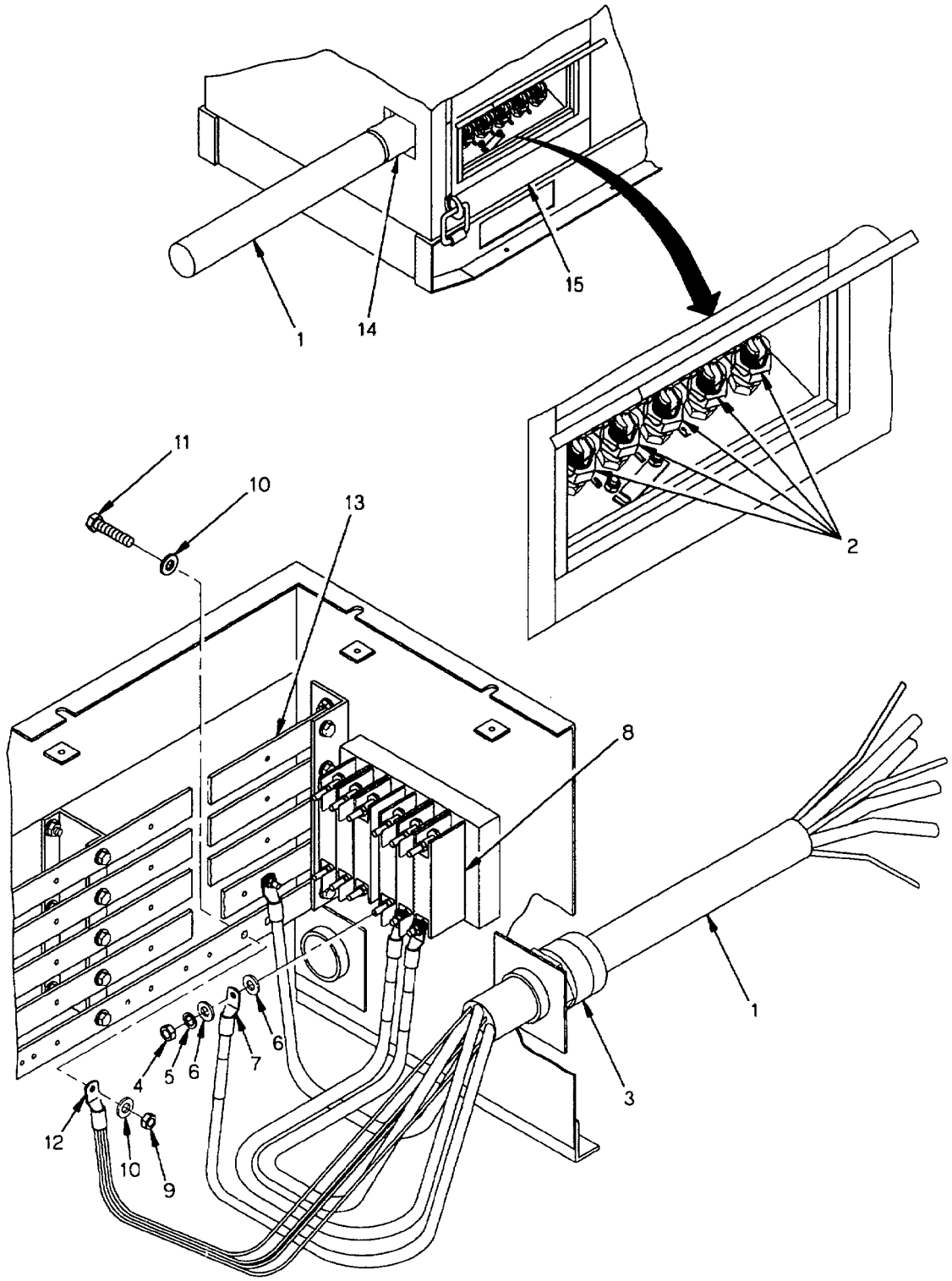


Figure 5-6. Cable Assembly Maintenance.

5.10. CABLE ASSEMBLY MAINTENANCE (Continued).

Table 5-6. Cable Assembly W1

Wire Color	From	To
BLUE	A1S1-LN6	L3
RED	A1S1-LN4	L2
BLACK	A1S1-LN2	L1
WHITE	A1W4-7(N)	N
GREEN	A1W5-11(GND)	GND

Table 5-7. Cable Assembly W2.

Wire Color	From	To
BLUE	A1S2-LN6	L3
RED	A1S2-LN4	L2
BLACK	A1S2-LN2	L1
WHITE	A1W4-7(N)	N
GREEN	A1W5-12(GND)	GND

REPAIR

Refer to appendix H and repair or manufacture cable assembly.

INSTALLATION

1. Route cable assembly through power cable sock (1 4) on generator set (1 5).
2. Route cable assembly through stuffing tube (3) on switch box assembly.
3. Connect cable (1) as shown in table 5-6 or table 5-7 and FO-1, wiring diagram.
4. Connect cable terminal ends (7) to input switch (8) using flat washers (6), lock washers (5), and new lock nuts (4)
5. Connect cable terminal ends (12) to bus bar (13) using screws (1 1), flat washers (10) and new lock nuts (9).
6. Install two clear plastic panel covers and switch box cover.

5.11. OUTPUT CABLE MAINTENANCE.

This task covers:

a. Inspection
b. Test
c. Repair

INITIAL SETUP:

Tools

Tool Kit, General Mechanic's
(item 1, appendix B)
Crimp Tool (item 4)

Equipment Conditions

Reference
Both generator sets shut down, paragraph 2.7.1

INSPECTION

Visually inspect connectors and cable for loose, broken, or corroded connections.

TEST

1. Set multimeter to continuity.
2. Refer to table 5-8 and check continuity of cable assembly.
3. Check continuity between all connector pins and the case to ensure no wires are shorted.

Table 5-8. Output Cable Assembly wire List

WIRE COLOR.	FROM	TO
BLACK	P1-A	J1-A
RED	P1-B	J1-B
BLUE	P1-C	J1-C
WHITE	P1-N	J1-N
GREEN	P1-G1	J1-G1
GREEN	P1-G2	J1-G2
GREEN	P1-G3	J1-G3
GREEN	P1-G4	J1-G4

REPAIR

Refer to appendix H and repair or manufacture cable assembly.

5.12. TRAILER MAINTENANCE.

This task covers:

a. Inspection
b. Repair
c. Replace

INITIAL SETUP:

Tools

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

Equipment Conditions

Reference
Both generator sets shut down, paragraph 2.7.1

INSPECTION

Visually inspect trailer for damage.

REPAIR

Refer to TM 9-2330-376-14&P and TM 9-237 for repair procedures.

REPLACE

1. Replacement of the trailer consists of removing the generator sets (paragraph 5.6), switch box (paragraph 4.11), fuel system (paragraph 4.17), cable storage box (paragraph 4.18), accessory box (paragraph 4.20), and ladder assembly (paragraph 4.21), and installing them on the new trailer.

2. Ground Stud

   a. Remove wing nut (1, figure 5-7), two flat washers (2), nut (3), flat washer (4), ground cable (5) and flat washer (6).

   b. Remove nut (7), internal tooth washer (8), nut (1O), internal tooth washer (1 1), and remove ground stud.

3. Ladder mounting bracket replacement.

   a. Remove nut (1, figure 5-8), screw (2), flat washer (3), wire rope assembly (4), and remove ladder mounting bracket (5).

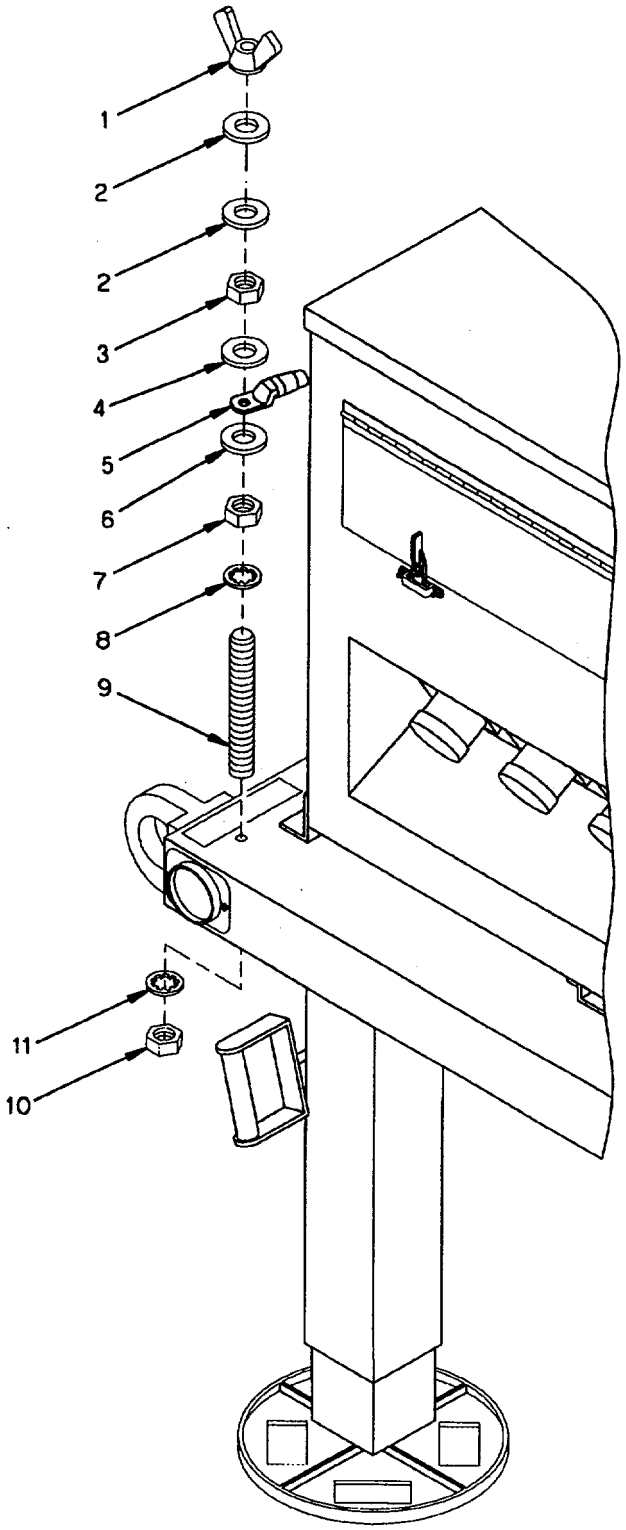


Figure 5-7. Ground Stud Replacement.

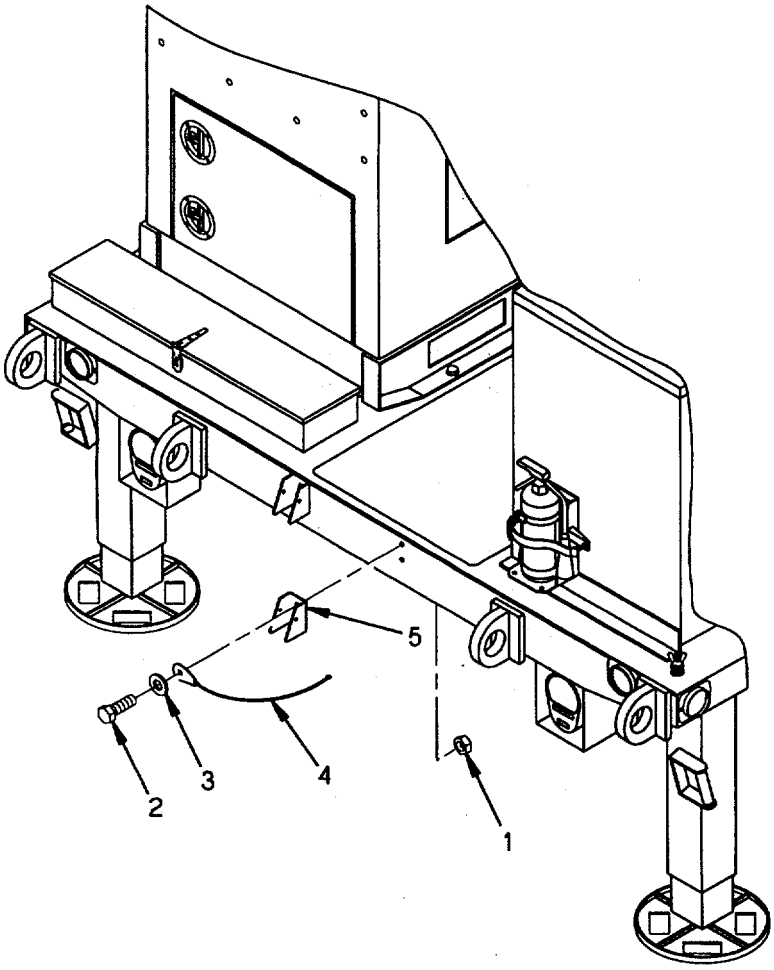


Figure 5-8. Ladder Bracket Replacement.

APPENDIX A

REFERENCES

A.1. SCOPE.

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

A.2. FORMS.

Recommended Changes to Publications and Blank Forms .....DA Form 2028

Recommended Changes to Equipment Technical Publications .....DA Form 2028-2

Depreservation Guide for Vehicles and Equipment .....DA Form 2258

Equipment Inspection and Maintenance Worksheet .....DA Form 2404

Packaging Improvement Report .....DD Form 6

Report of Discrepancy SF-364

Product Quality Deficiency Report .....SF 368

A.3. ARMY REGULATIONS.

Dictionary of United States Army Terms .....AR 310-25

A.4. DEPARTMENT OF THE ARMY PAMPHLETS.

The Army Maintenance Management System (TAMMS) .....DA PAM 738-750

A.5. MILITARY SPECIFICATIONS.

Preservation, Methods of MI-P-116

Barrier Materials, Transparent, Flexible, Heat Sealable MI-B-22191

Generator Sets, Mobile Electric Power; Packaging of MIL-G-28554

A.6. FEDERAL SPECIFICATIONS.

Plywood, Flat Panel NN-P-530

Paperboard, Wrapping and Cushioning PPP-P-291

Boxes, Wood, Cleated Plywood PPP-B-601

A.6. FEDERAL SPECIFICATIONS - continued.

Tape, Packaging, Paper (for Carton Sealing) PPP-T-76

Strapping, Steel, and Seals QQ-S-781

Expendable/Durable Items (except medical, class V repair parts, and heraldic items) ..... CTA 50-790

Army Medical Department Expendable/Durable Items ..... CTA 8-100

A.7. MILITARY STANDARDS.

Abbreviations for Use on Drawings, and in Specifications, Standards and Technical Documents MIL-STD-12

Marking for Shipment and Storage MIL-STD-129

Standard Requirements for Soldered Electrical and Electronic Assemblies MIL-STD-2000

A.8. TECHNICAL MANUALS.

Operator's, Unit, Intermediate Direct Support and General Support Maintenance (Including Repair Parts and Special Tools List), Trailer Flatbed; 5 Ton, 4-Wheel, XM1061E1 (NSN 2330-207-3533) ..... TM 9-2330-376-14&P
TO 35C2-3-444-11

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, 60 kW, 50/60 and 400 Hz
MEP-806A (50/60 Hz) 6115-01-274-7389
MEP-816A (400 Hz) 6115-01-274-7394 ..... TM 9-6115-645-10
TO 35C2-3-444-12

Unit, Direct Support and General Support Maintenance Manual, Generator Set, Skid Mounted, Tactical, Quiet, 60 kW, 50/60 and 400 Hz
MEP-806 (50/60 Hz) 6115-01-274-7389
MEP-816 (400 Hz) 6115-01-274-7394 ..... TM 9-6115-645-24
TO 35C2-3-44-14

Repair Parts and Special Tools List: Generator Set, Tactical Quiet, 60 kW 50/60 and 400 Hz ..... TM 9-6115-645-24P

Procedures for Destruction of Equipment to Prevent Enemy Use (Mobility Equipment Command) ..... TM 750-244-3

A.8. TECHNICAL MANUALS - continued.

Operator Welding Theory and Application ..... TM 9-237

Repair Parts and Special Tools List: Diesel Engine
Model No.: 6059T 6 Cylinder 5.9 Liter 9-2815-256-24P
TO 38G1-96-4

A.9. LUBRICATION ORDERS.

Lubrication Order: Generator Set, Skid Mounted, Tactical,
Quiet, 60 kW, 50/60 and 400 Hz
MEP-806 (50/60 Hz) 6115-01-274-7389
MEP-816 (400 Hz) 6115-01-274-7394 ..... LO 9-6115-645-12
TO 35C2-3-444-11-1

A.10. FIELD MANUALS.

Electrical Power Generation in the Field ..... FM 20-31

A.11. TECHNICAL BULLETINS.

Tactical Wheeled Vehicles; Repair of Frames ..... TB 9-2330-247-40

A.12. MISCELLANEOUS PUBLICATIONS.

Air Force Maintenance Forms and Records ..... AFR 66-1

Air Force Reporting of Items and Packaging Discrepancies ..... AFR 400-54

Warranty Technical Bulletin ..... TB 9-6115-645-24

Military Standard Abbreviations MIL-STD-12

APPENDIX B

MAINTENANCE ALLOCATION CHART

SECTION I. INTRODUCTION

B.1. GENERAL.

B.1.1. This section provides a general explanation of all maintenance and repair functions authorized at various maintenance levels.

B.1.2. The Maintenance Allocation Chart (MAC) in section II designates overall authority and responsibility for the performance of maintenance functions on the identified end item or component. The application of the maintenance functions to the end item or component will be consistent with the capacities and capabilities of the designated maintenance levels.

B.1.3. Section III lists the tools and test equipment (both special tools and common tool sets) required for each maintenance function as referenced from section II.

B.1.4. Section IV contains supplemental instructions and explanatory notes for a particular maintenance function.

B.2. MAINTENANCE FUNCTIONS.

Maintenance functions will be limited to and defined as follows:

B.2.1. 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).

B.2.2. Test. To verify serviceability by measuring the mechanical, pneumatic, hydraulic, or electrical characteristics of an item and comparing those characteristics with prescribed standards.

B.2.3. Service. Operations required periodically to keep an item in proper operating condition, i.e., to clean (includes decontaminate, when required), to preserve, to drain, to paint, or to replenish fuel, lubricants, chemical fluids, or gases.

B.2.4. Adjust. To maintain or regulate, within prescribed limits, by bringing into proper or exact position, or by setting the operating characteristics to specified parameters.

B.2.5. Align. To adjust specified variable elements of an item to bring about optimum or desired performance.

B.2.6. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments or test, measuring, and diagnostic equipment used in precision measurement. Consists of comparisons of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.

B.2.7. Remove/Install. To remove and install the same item when required to perform service or other maintenance functions. Install may be the act of placing, seating, or fixing into position a spare, repair part, or module (component or assembly) in a manner to allow the proper functioning of an equipment or system.

B.2.8. Replace. To remove an unserviceable item and install a serviceable counterpart in its place. "Replace" is authorized by the MAC and is shown as the 3d position code of the SMR code.

B.2.9. Repair. The application of maintenance services[1], including fault location/troubleshooting[2], removal/installation, and disassembly/assembly[3] procedures, and maintenance actions4 to identify troubles and restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.

B.2.10. Overhaul. That maintenance effort (service/action) prescribed to restore an item to a completely serviceable/operational condition as required by maintenance standards in appropriate technical publication (i.e., DMWR). Overhaul does not normally return an item to like new condition.

B.2.11. Rebuild. Consists of those services/actions necessary for the restoration of unserviceable equipment to a like new condition in accordance with original manufacturing standards. Rebuild is the highest degree of materiel maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurement (hour/miles, etc.) considered in classifying Army equipment/components.

B.3. EXPLANATION OF COLUMNS IN THE MAC, SECTION II.

B.3.1. Column 1, Group Number. Column I lists functional group code numbers, the purpose of which is to identify maintenance significant components, assemblies, subassemblies, and modules with the next higher assembly. End item group number shall be "00."

B.3.2. Column 2, Component/Assembly. Column 2 contains the names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

B.3.3. Column 3, Maintenance Function. Column 3 lists the functions to be performed on the item listed in Column 2. (For detailed explanation of these functions, see paragraph B.2.)

B.3.4. Column 4, Maintenance Level. Column 4 specifies, by the listing of a work time figure in the appropriate subcolumn(s), the level of maintenance authorized to perform the function listed in Column 3. This 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 vary at different maintenance categories, appropriate work time figures will be shown for each category. The work time figure represents the average time required to restore an item (assembly, subassembly, component, module, end item, or system) to a serviceable condition under typical field operating conditions. This time includes preparation time (including any necessary disassembly/assembly time), troubleshooting/fault location time, and quality assurance/quality control time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the maintenance allocation chart. The symbol designations for the various maintenance categories are as follows:

[1] Services - inspect, test, service, adjust, align, calibrate, and /or replace.

[2] Fault locate/troubleshoot - The process of investigating and detecting the cause of equipment malfunctioning; the act of isolating a fault within a system or unit under test (UT).

[3] Disassemble/assemble - encompasses the step-by-step taking apart or breakdown) of a spare/functional group coded item to the level of its least componency identified as maintenance significant (i e., assigned an SMR code)for the level of maintenance under consideration.

[4] Actions - welding, grinding, riveting, straightening, facing remachinery, and /or resurfacing.

C..... Operator or crew

O..... Unit Maintenance

F ..... Direct Support Maintenance

H..... General Support Maintenance

L ..... Specialized Repair Activity (SRA)5

D..... Depot maintenance

B.3.5. Column 5, Tools and Equipment. Column 5 specifies, by code, those common tool sets (not individual tools) and special tools, TMDE, and support equipment required to perform the designated function.

B.3.6. Column 6, Remarks. This column shall, when applicable, contain a letter code, in alphabetic order, which shall be keyed to the remarks contained in Section IV.

B.4. EXPLANATION OF COLUMNS IN TOOL AND TEST EQUIPMENT REQUIREMENTS, SECTION III.

B.4.1. Column 1, Reference Code. The tool and test equipment reference code correlates with a code used in the MAC, Section II, Column 5.

B.4.2. Column 2, Maintenance Category. The lowest category of maintenance authorized to use the tool or test equipment.

B.4.3. Column 3, Nomenclature. Name or identification of the tool or test equipment.

B.4.4. Column 4, National Stock Number. The National stock number of the tool or test equipment.

B.4.5. Column 5, Tool Number. The manufacturer's part number.

B.5. EXPLANATION of COLUMNS in REMARKS, SECTION IV

B.5.1. Column 1, Reference Code. The code recorded in Column 6, Section II.

B.5.2. Column 2, Remarks. This column lists information pertinent to the maintenance function being performed as indicated in the MAC, Section II.

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[5] This maintenance level is not included in Section Ill, column (4) of the Maintenance Allocation Chart. To identify functions to this category of maintenance, enter a work time figure in the "H" column of Section II, column (4), and use an associated reference code in the Remarks column (6). Key the code to Section IV, Remarks, and explain the SRA complete repair application there. The explanatory remark(s) shall reference the specific Repair Parts and Special Tools List (RPSTL) TM which contains additional SRA criteria and the authorized spare/repair parts.

SECTION II. MAINTENANCE ALLOCATION CHART FOR AN/MJQ-1612 AND AN/MJQ-1632 POWER PLANTS

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIRECT SUPPORT	GENERAL SUPPORT	DEPOT	TOOLS & EQPT	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	REF CODE	REMARKS SCODE
00	POWER PLANT	INSPECT	0.4						A
0100	GENERATOR SET	INSPECT	0.2	0.5					A,B
		TEST		1.0	1.0				C,D
		SERVICE	0.3	0.3					C,D
		ADJUST		0.3					C,D
		REPAIR		1.5	1.5				C,D
		R/I			1.5			1,3	
		REPLACE			I.5			1,3	E
0200	SWITCH BOX ASSEMBLY	INSPECT	0.1	0.1					A
		R/I		0.1				1	
		REPAIR		0.5	1.0			1,5	
		REPLACE		1.0				1	E
0201	COVERS	INSPECT	0.1	0.1					A
		R/I		0.1				1	
		REPAIR		0.5				1,2,5	
		REPLACE		0.1				1	E
0202	CIRCUIT BREAKERS/ SWITCHES	INSPECT		0.1					A
		TEST		0.4				1,2	
		R/I		0.4				1	
		REPLACE		0.4				1	E
0203	ELECTRICAL LEADS	INSPECT		0.1	0.1				A
		TEST		0.2	0.2			3	
		R/I		0.3	0.3			1	
		REPAIR		0.5	0.8			1,2,3,4	
		REPLACE		0.3	0.3			1	E
0204	WIRING HARNESS	INSPECT		0.1	0.1				A
		TEST			0.2			3	
		R/I			0.5			1	
		REPAIR			0.9			1,3,4,9	
		REPLACE			0.5			1	E
0205	LIGHT, INDICATOR	INSPECT	0.1	0.1					A
		TEST		0.2				2	
		R/I		0.2				1,2	
		REPAIR		0.2				1,2	
		REPLACE		0.2				1,2	E
0206	CABLE ASSEMBLY	INSPECT	0.1		0.1				A
		TEST			0.3			2	
		R/I			0.3			1	
		REPAIR			0.6			1,3,4,9	
		REPLACE		0.3				1	E

SECTION II. MAINTENANCE ALLOCATION CHART FOR AN/MJQ-1612 AND AN/MJQ-1632 POWER PLANTS (continued)

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIRECT SUPPORT	GENERAL SUPPORT	DEPOT	TOOLS & EQPT	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	REF CODE	REMARKS SCODE
0207	ENCLOSURE, SWITCH BOX	INSPECT	0.1	0.1					A
		REPAIR		0.3				1,2,8	G
		REPLACE		1.5				1	E
0300	CABLE ASSEMBLY	INSPECT	0.1		0.1				A
		TEST			1.3			1,2	
		REPAIR			0.6			1,3,4,9	
0400	FUEL SYSTEM	INSPECT	0.1	0.1					A
		R/I		0.6				1	
		REPAIR		0.2				1	
0401	HOSE ASSEMBLY	INSPECT	0.1	0.1					A
		R/I		0.2				1	
		REPAIR		0.4				1	
		REPLACE		0.2				1	E
0500	ACCESSORIES	INSPECT	0.1	0.1					A
		REPAIR		0.1				1	
0501	CABLE STORAGE BOX	INSPECT	0.1	0.1					A
		R/I		0.5				1	
		REPAIR		0.3				1,8	
		REPLACE		0.5				1	E
0502	FIRE EXTINGUISHER	INSPECT	0.1	0.1					A
0503	ACCESSORY BOX	INSPECT	0.1	0.1					A
		R/I		0.2				1	
		REPAIR		0.3				1,2,5	
		REPLACE		0.2				1	E
0504	LADDER ASSEMBLY	INSPECT	0.1	0.1					
		R/I		0.4				1	
		REPAIR		0.5				1	
		REPLACE		0.5				1	E
0600	TRAILER ASSEMBLY	INSPECT	0.2	0.2					A, F
		REPAIR		0.5	1.0			1,6,7	F
		REPLACE			6.0			1,3	

SECTION III. TOOL AND TEST EQUIPMENT REQUIREMENTS FOR AN/MJQ-1612 AND AN/MJQ-1632 POWER PLANTS

(1) TOOL OR TEST EQUIPMENT REF CODE	(2) MAINTENANCE LEVEL	(3) NOMENCLATURE	(4) NATIONAL STOCK NUMBER	(5) TOOL NJMBER
1	O, F	TOOL KIT, GENERAL MECHANIC'S	5180-00-177-7033	SC 5180-90-CL-N26
2	O	SHOP EQUIPMENT, AUTOMOTIVE MANTENANCE AND REPAIR: ORGANIZATONAL MAINTEANCE COMMON #1, LESS POWER	4910-00-754-0654	SC 4910-95-CL-A74
3	F	SHOP EQUIPMENT, ELECTRICAL REPAIR, SEMITRAILER MOUNTED:	4940-00-294-9517	SC 4940-95-CL-B05
4	F	CRIMPING TOOL, HYDRAULIC, WIRE SIZE 8 THRU 4/0	5130-00-863-8006	MS25441-5
5	O	RIVETER,BLINDHEAD	5120-01-148-5847	
6	F	TOOL KIT, BODY AND FENDER REPAIR	5180-00-357-7731	SC 5180-90-CL-N62
7	F	SHOP EQUIPMENT, WELDING, FIELD	3470-00-357-7268	SC 3470-95-CL-A08
8	O	BLIND FASTENER INSTALLATION KIT	5180-01-2614978	D-100-MIL-1
9	F	CRIMPING TOOL	5120-01-235-7875	400-1-200-5KL

SECTION IV. REMARKS

(1) REMARKS CODE	(2) REMARKS
A	PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)
B	REFER TO TM 9-61 15-645-10 FOR GENERATOR SET OPERATOR MANTENANCE
C	REFER TO TM 9-6115-645-24 FOR GENERATOR SET UNIT AND HIGHER LEVEL MAINTENANCE
D	REFER TO TM 9-2815-256-24 FOR ENGINE MAINTENANCE
E	REMOVAL AND INSTALLATION ARE THE SAME AS REPLACEMENT
F	REFER TO TM 9-2330-376-14&P FOR TRAILER MAINTENANCE
G	REPAIR IS LIM1ED TO STRAIGHTENING OF SHEET METAL AND REPLACEMENT OF BLIND NUTS

APPENDIX C
UNIT AND DIRECT SUPPORT MAINTENANCE
REPAIR PARTS AND SPECIAL TOOLS LIST

SECTION I. INTRODUCTION

C.1. SCOPE

This manual lists and authorizes spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMIDE); and other special support equipment required for the performance of operators, unit, and direct support maintenance of the AN/MJQ-1612 and AN/MJQ-1632. It authorizes the requisitioning, issue, and disposition of spares, repair parts and special tools as indicated by the source, maintenance, and recoverability (SMR) codes.

C.2. GENERAL

In addition to Section I, Introduction, this Repair Parts and Special Tools List is divided into the following sections:

C.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. This list also includes parts which must be removed for replacement of the authorized parts. Parts list are composed of functional groups in ascending alphanumeric sequence, with the parts in each group listed in ascending item number sequence. Figure numbers are listed directly beneath the group header. Bulk materials are listed in item name sequence. Repair part kits are listed separately in their own functional group within Section II. Repair parts for reparable special tools are also listed in this section. Items
listed are shown on the associated illustration.

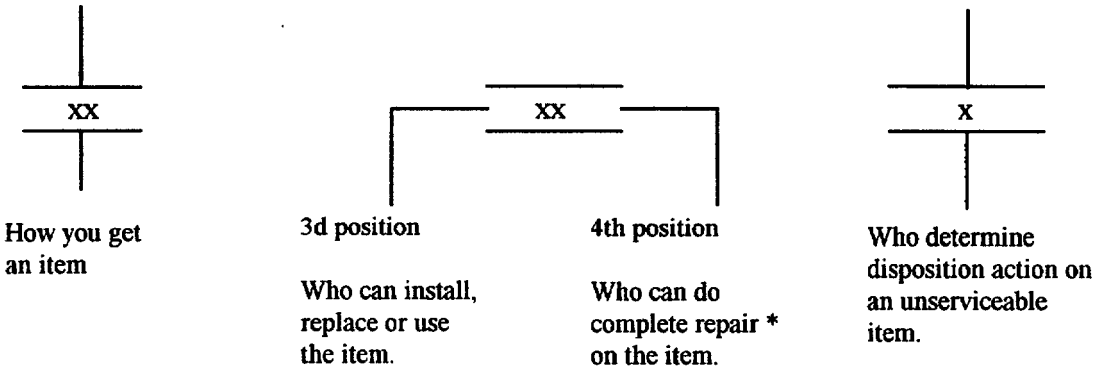
C.2.2. SECTION III. - Special Tools List. Not applicable.

C.2.3. Section IV. Cross-Reference Indexes. A list, in National item identification number (NIIN) sequence, of all National stock number items appearing in the listing, followed by a list in alphanumeric sequence of all part numbers appearing in the listings. National stock numbers and part numbers are cross-referenced to each illustration figure and item number appearance. The figure number and item number index lists figure and item numbers in numeric sequence and cross-references National stock number, Commercial and Government Entity Code, and part numbers.

C.3. EXPLANATION OF COLUMNS (Section II and III)

C.3.1. ITEM NO. (Column (1)). Indicates the number used to identify items called out in the illustration.

C.3.2. SMR CODE (Column (2)). The source, maintenance, and recoverability (SMR) code is a five-position code containing supply/requisitioning information, maintenance level authorization criteria and disposition instruction, as shown in the following breakout.



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

C.3.2.1. Source Code. The source code tells you how to get an item needed for maintenance, repair, or overhaul of an end item/equipment. Explanations of source codes follows:

Code	*Explanation*
PA PB PC** PD PE PF PG	Stocked items: Use the applicable NSN to request/requisition items with these source codes. They are authorized to the level indicated by the code entered in the third position of the SMR code. ** NOTE Items coded PC are subject to deterioration.
KD KF KB	Items with these codes are not to be requested/requisitioned individually. They are part of a kit which is authorized to the maintenance level indicated in the third position of the SMR code. The complete kit must be requisitioned and applied.
MO- (Made at Unit/ AVUM Level) MF- (Made at DS/ AVUM Level) MH- (Made at GS Level) ML- (Made at Specialized Repair Act (SRA)) MD- (Made at Depot)	Items with these codes are not to be requested/requisitioned individually. They must be made from bulk material which is identified by the part number in the description and usable on code (UOC) column and listed in the Bulk Material group of the repair parts list. If the item is authorized to you by the third position code of the SMR code, but the source code indicates it is made at a higher level, order the item from the higher level of maintenance.

Code		***Explanation***
AO-	(Assembled by Unit AVUM Level)	Items with these codes are not to be requested/requisitioned individually. The parts that make up the assembled item must be requisitioned or fabricated and assembled at the level of maintenance indicated by the source code. If the third position code of the SMR code authorizes you to replace the item, but the source code indicates the item is assembled at a higher level, order the item from the higher level of maintenance.
AF-	(Assembled by DS AVUM Level)	
AH-	(Assembled by GS Level)	
AL-	(Assembled by SRA)	
AD-	(Assembled by Depot)	

XA - Do not requisition an "XA" coded item. Order its next higher assembly. (also, refer to NOTE below.)
XB - If an "XB" item is not available from salvage, order it using the CAGEC and part number given.
XC - Installation drawing, diagram, instruction sheet, field service drawing, that is identified by manufacturer's part number.
XD - Item is not stocked. Order an "XD" coded item through normal supply channels using the CAGEC and part number given, if no NSN is available.

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

C.3.2.2. Maintenance Code. Maintenance codes tell you the level 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:

C.3.2.2.1. Maintenance Code Third Position. The maintenance code entered in the third position tells you the lowest maintenance level authorized to remove, replace, and use an item. The maintenance code entered in the third position will indicate authorization to one of the following categories of maintenance.

Code	**Application/Explanation**
C	- Crew of operator maintenance done within organizational or aviation maintenance.
O	- Organizational or aviation unit level can remove, replace, and use the item.
F	- Direct support or aviation intermediate level can remove, replace, and use the item.
H	- General support level can remove, replace, and use the item.
L	- Specialized repair activity can remove, replace, and use the item.
D	- Depot level can remove, replace, and use the item.

C.3.2.2.2. Maintenance Code Fourth Position. The maintenance code entered in the fourth position tells whether or not the item is to be repaired and identifies the lowest maintenance level with the capability to do complete repair (i.e., perform all authorized repair functions). This position will contain one of the following maintenance codes.

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.

Code	Explanation
O	- Organizational or aviation unit is the lowest level that can be complete repair of the item.
F	- Direct support or aviation intermediate is the lowest level that can be complete repair of the item.
H	- General support is the lowest level that can do complete repair of the item.
L	- Specialized repair activity (designate the specialized repair activity) is the lowest level that can do complete repair of the item.
D	- Depot is the lowest level that can do complete repair of the item.
Z	- Nonreparable. No repair is authorized.
B	- No repair is authorized. (No parts or special tools are assigned for the maintenance of a "B" coded items.) However, the item may be reconditioned by adjusting, lubricating, etc., at the level.

C.3.2.3. Recoverability Code. Recoverability codes are assigned to items to indicate the disposition action on unserviceable items. The recoverability code is entered in the fifth position of the SMR code as follows:

Recoverability Code	Explanation
Z	- Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in the third position of SMR code.
O	- Reparable item. When uneconomical reparable, condemn and dispose of the item at organizational or aviation unit level.
F	- Reparable item. When uneconomically reparable, condemn and dispose of the item at direct support of aviation intermediate level.
H	- Reparable item. When uneconomically reparable, condemn and dispose of the item at general support level.
D	- Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item not authorized below depot level.
L	- Reparable item. Condemnation and disposal not authorized below specialized repair activity (SRA).
A	- Item requires special handling or condemnation procedures because of specific reasons (e.g., precious metal content, high dollar value, critical material, or hazardous material. Refer to appropriate manuals/directives for specific instructions.

C.3.2.4. CAGEC (Column (3)). The Commercial and Government Entity Code (CAGEC) is a 5 digit numeric code which is used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

C.3.2.5. 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 difference part number from the part ordered.

C.3.2.6. DESCRIPTION AND USABLE ON CODE (UOC) (COLUMN (5)). This column includes the following information:

a. The Federal item name and, when required, a minimum description to identify the item.

b. The statement 'END OF FIGURE" appears just below the last item description in Column (5) for a given figure in both section II and section III.

C.3.2.7. QTY (Column (6)). Indicates the quantity of the item used in the breakdown shown on the illustration figure, which is prepared for a functional group, subfunctional group, or an assembly. A "V" appearing in this column in lieu of a quantity indicates that the quantity is variable and the quantity may vary from application to application.

C.4. EXPLANATION OF COLUMNS (SECTION IV)

C.4.1. NATIONAL STOCK NUMBER (NSN) INDEX .

C.4.1.1. STOCK NUMBER column. This column lists the NSN by National item identification number (NIIN) sequence. The NUN consists of the last nine digits of the NSN. When using this column to locate an item, ignore the first four digits of the NSN. When requisitioning items use the complete NSN (13 digits) sequence.

C.4.1.2. FIG. column. This column lists the number of the figure where the item is identified/located. The illustrations are in numerical sequence in sections II and III.

C.4.1.3. ITEM column. The item number identifies the item associated with the figure listed in the adjacent Fig. Column. This item is also identified by the NSN listed on the same line.

C.4.2. PART NUMBER INDEX. Part numbers in this index are listed by part number in ascending alphanumeric sequence.

C.4.2.1. CAGEC column. This column lists the Commercial and Government Entity Code (CAGEC).

C.4.2.2. PART NUMBER column. This column indicates the part number assigned to the item.

C.4.2.3. STOCK NUMBER column. This column lists the National stock number for the associated part number and manufacturer identified in the part number and CAGEC columns to the left.

C.4.2.4. FIG. column. This column lists the number of the figure where the item is identified located in sections II and III.

C.4.2.5. ITEM column. The item number is that number assigned to the item as it appears in the figure referenced in the adjacent figure number column.

C.4.3. FIGURE AND ITEM NUMBER INDEX.

C.4.3.1. FIG. column. This column lists the number of the figure where the item is identified/located in sections II and III.

C.4.3.2. ITEM column. The item number is that number assigned to the item as it appears in the figure referenced in the adjacent figure number column.

C.4.3.3. STOCK NUMBER column. This column lists the National stock number for the item.

C.4.3.4. CAGEC column. The Commercial and Government Entity Code (CAGEC) is a 5-digit numeric code used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

C.4.3.5. PART NUMBER column. Indicates the primary number used by the manufacturer (individual, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications, standards, and inspection requirements to identify an item or range of items.

C.5. SPECIAL INFORMATION

C.5.1. Usable on Code. The usable on code appears in the lower left corner of the description column heading. Usable on codes are shown as "UOC": "in the description column (justified left) on the first line applicable item description nomenclature. Uncoded items are applicable to all models. Identification of the usable on codes used in this RPSTL are:

Code	Used on
FJZ	AN/MJQ-1612
FKA	AN/MJQ-1632

C.5.2. Fabrication Instructions. Bulk materials required to manufacture items are listed in the BULK MATERIALS functional group of this RPSTL. Part numbers for bulk materials are also referenced in the DESCRIPTION AND UOC column of the line item entry for the item to be manufactured/fabricated. Detailed fabrication instructions for the items source coded to be manufactured or fabricated are contained in Appendix H.

C.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 National Stock Number/Part Number Index and the bulk material list in section II.

C.6. HOW TO LOCATE REPAIR PARTS

C.6.1. When National Stock Number or Part Number is Not Known.

C.6.1.1. First. Using the table of contents, determine the assembly group or subassembly group to which the item belongs. This is necessary since figures are prepared for assembly groups and subassembly groups, and listings are divided into the same groups.

C.6.1.2. Second. Find the figure covering the assembly group or subassembly group to which the item belongs.

C.6.1.3. Third. Identify the item on the figure and note the item number.

C.6.2. When National Stock Number or Part Number is Known.

C.6.2.1. First. Using the index of National stock numbers and part numbers, find the pertinent National stock number or part number. The NSN index is in National item identification number (NIIN) sequence (para 4a(1)). The part numbers in the part number index are listed in ascending alphanumeric sequence (para 4b). Both indexes cross-reference you to the illustration figure and item number of the item you are looking for.

C.6.2.2. Second. After finding the figure and item number, verify that the item is the one you're looking for, then locate the item number in the repair parts list for the figure.

C.7. ABBREVIATIONS

Not applicable.

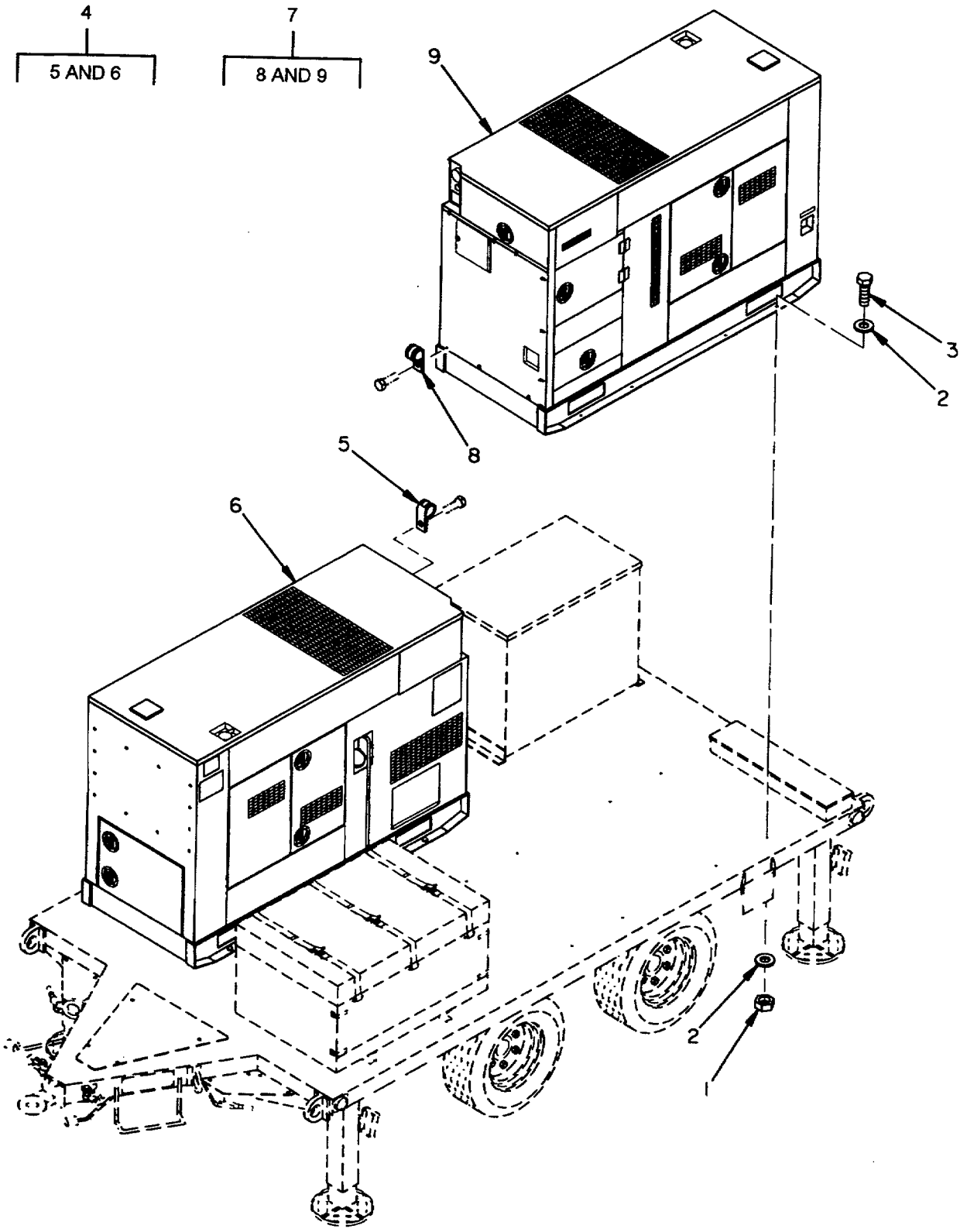


Figure 1. Generator Set Installation.

(1)	(2) SMR CODE a.	b.	(3)	(4)	(5)	(6)
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 01 GENERATOR SET FIG. 1 GENERATOR SET INSTALLATION AND DATA PLATES	
1	PAFZZ	PAOZZ	96906	MS17829Z8C	NUT, SELF-LOCKING	16
2	PAFZZ	PAOZZ	81343	MS51412-9	WASHER, FLAT	32
3	PAFZZ	PAOZZ	80204	B1821BH050C175N	SCREW, HEX HEAD	16
4	AFFFF	AOO	97403	13230E4590-1	GEN SET 60KW, 50/60HZ UOC:FJZ,	1
4	AFFFF	AOO	97403	13230E4590-3	GEN SET 60KW, 400HZ UOC:FKA,	1
5	PAOZZ	PAOZZ	96906	MS21333-102	.CLAMP, LOOP-STEEL CUSHIONED	6
6	PDFFH	PDOOO	30554	MEP-806A	.GEN SET, DIESEL ENGINE GENERATOR DIESEL MEP-806A. UOC: FJZ,	1
6	PDFFH	PDOOO	30554	MEP-816A	.GEN SET, DIESEL ENGINE GENERATOR DIESEL MEP-816A. UOC: FKA,	1
7	AFFFF	AOO	97403	13230E4590-2	GEN SET 60KW, 50/60HZ UOC: FJZ,	1
7	AFFFF	AOO	97403	13230E4590-4	GEN SET 60KW, 400HZ UOC:FKA,	1
8	PAOZZ	PAOZZ	96906	MS21333-102	.CLAMP, LOOP-STEEL CUSHIONED	9
9	PDFFH	PDOOO	30554	MEP-806A	.GEN SET, DIESEL ENG IE GENERATOR DIESEL MEP-806A UOC: FJZ,	1
9	PDFFH	PDOOO	30554	MEP-816A	.GEN SET, DIESEL ENGNE GENERATOR DIESEL MEP-816A UOC:FKA,	1
					END OF FIGURE	

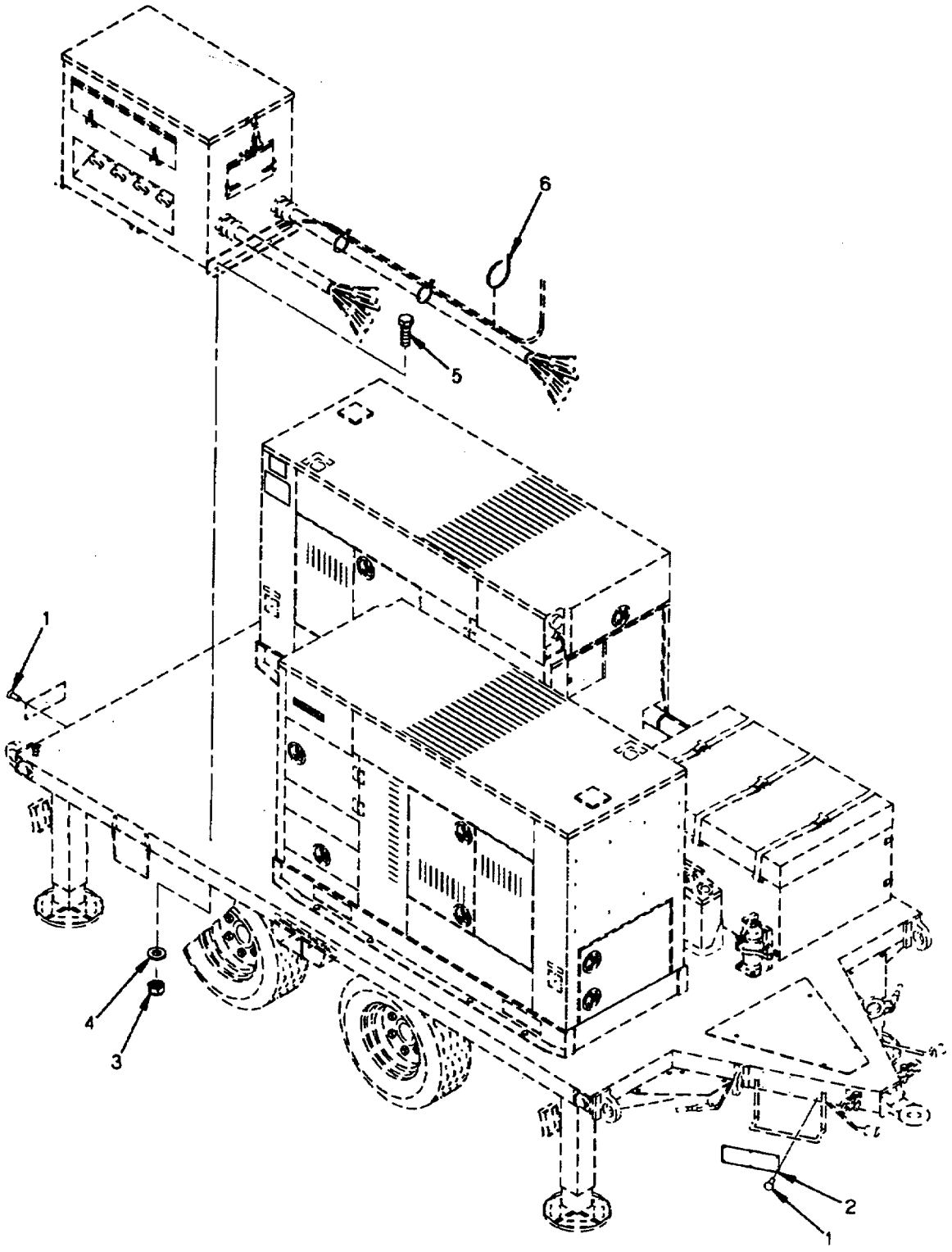


Figure 2. Switch Box Mounting

(1)	(2) SMR CODE a.	b.	(3)	(4)	(5)	(6)
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 01 GENERATOR SET	
					FIG. 2 SWITCH BOX INSTALLATION	
1	PAOZZ	PAOZZ	96906	MS20604AD4W4	RIVIT, BLIND	12
2	MDOZZ	MDO	97403	13230E4578-1	PLATE, IDENTIFICATION ..... UOC:FJZ,	1
2	MDOZZ	MDO	97403	13230E4578-2	PLATE, IDENTIFICATION ..... UOC:FKA,	1
3	PAOZZ	PAOZZ	96906	MS17829Z8C	NUT, SELF-LOCKING.....	4
4	PAOZZ	PAOZZ	81343	MS51412-9	WASHER, FLAT	4
5	PAOZZ	PAOZZ	80204	B1821BH050C175N	SCREW, HEX HEAD	4
6	PAOZZ	PAOZZ	96906	MS3367-6-9	STRAP, TIEDOWN, ELECTRIC	V

END OF FIGURE

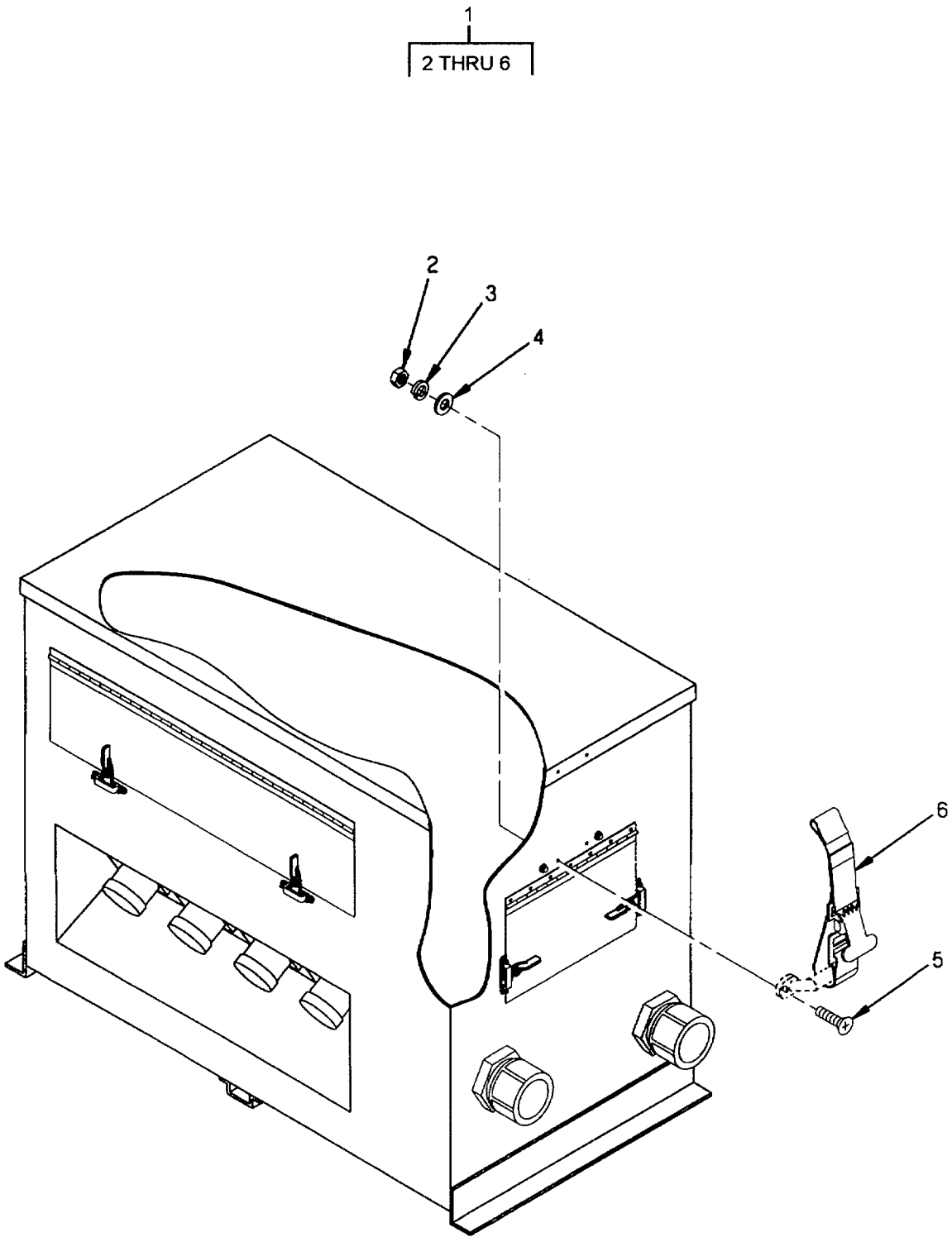


Figure 3. Switch Box Assembly

(1)	(2) SMR CODE a.	b.	(3)	(4)	(5)	(6)
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 02 SWITCH BOX ASSEMBLY	
					FIG. 3 SWITCH BOX	
1	XDFFF	XB	97403	13230E4550-1	SWITCH BOX ASSEMBLY ..... UOC: FJZ,	1
1	XDFFF	XB	97403	13230E4550-2	SWITCH BOX ASSEMBY ..... UOC:FKA,	1
2	PAOZZ	PAOZZ	96906	MS35649-204	.NUT, HEX.....	4
3	PAOZZ	PAOZZ	96906	MS35338-138	.WASHER, LOCK.....	4
4	PAOZZ	PAOZZ	96906	MS15795-848	.WASHER, FLAT.....	4
5	PAOZZ	PAOZZ	96906	MS51959-65	.SCREW, MA CHINE	4
6	PAOZZ	PAOZZ	97403	13220E0670-10	.STRAP, ASSEMBLY	2

END OF FIGURE

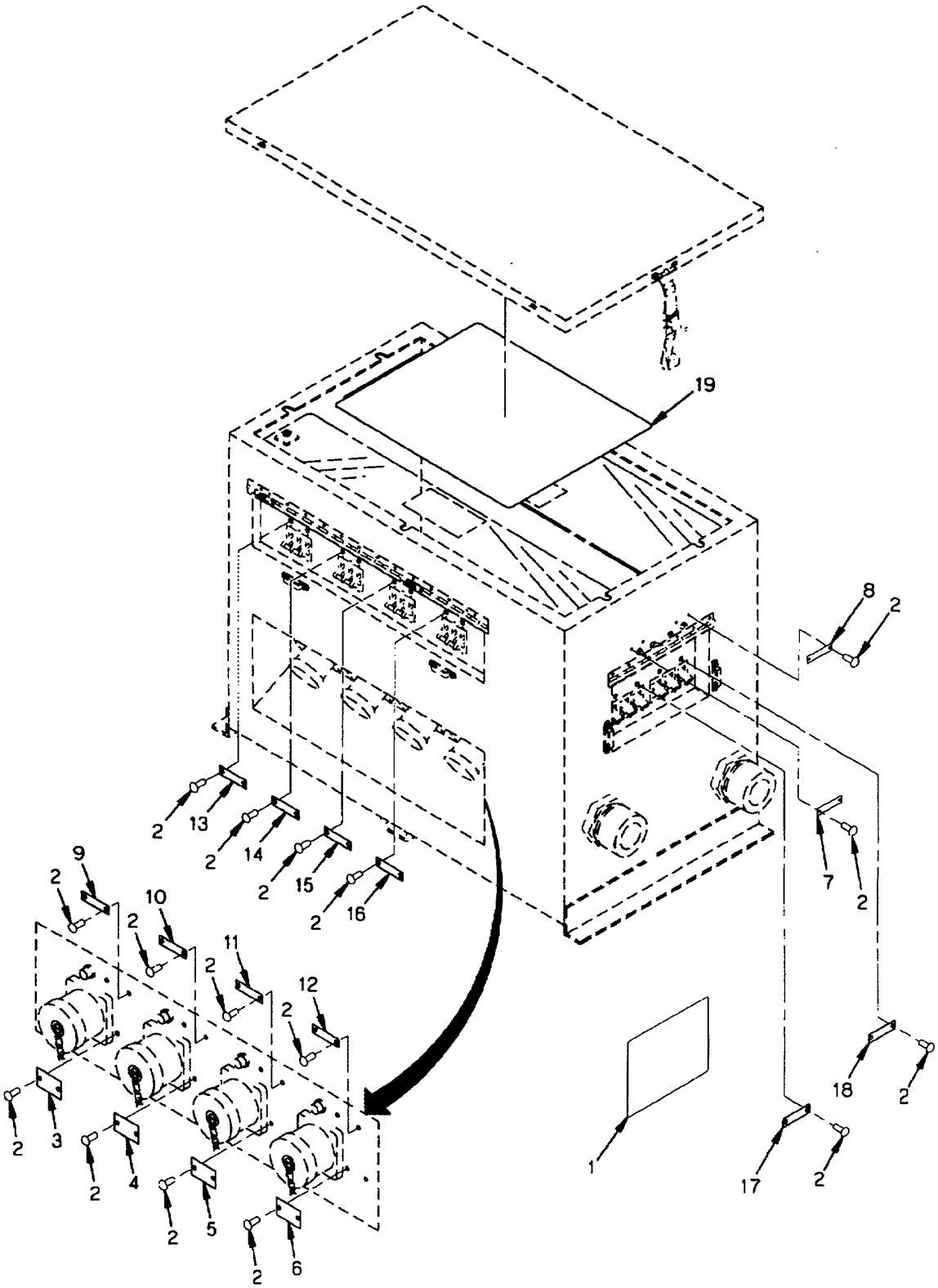


Figure 4. Switch Box Identification Plates

(1)	(2) SMR CODE a.	b.	(3)	(4)	(5)	(6)
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP02 SWITCH BOX ASSEMBLY	
					FIG. 4 SWITCH BOX I.D. PLATES	
1	MDOZZ	PAOZZ	97403	13230E4585	.PLATE, IDENTIFICATI POWER PLANT OPERATING PROCEDURES	1
2	PAOZZ	PAOZZ	96906	MS20604AD4W4	.RIVET, BLIND.	28
3	MDOZZ	MDO	97403	13230E4568-1	.PLATE,IDENTIFICATION J1 OUTPUT	1
4	MDOZZ	MDO	97403	13230E4568-2	.PLATE,IDENTIFICATION J2 OUTPUT.	1
5	MDOZZ	MDO	97403	13230E4568-3	.PLATE,IDENTIFICATION J3 OUTPUT.	1
6	MDOZZ	MDO	97403	13230E4568-4	.PLATE,IDENTIFICATION J4 OUTPUT.	1
7	MDOZZ	MDO	97403	13230E4568-5	.PLATE,IDENTIFICATION DS1	1
8	MDOZZ	MDO	97403	13230E4568-6	.PLATE, IDENTIFICATION DS2	1
9	MDOZZ	MDO	97403	13230E4568-7	.PLATE, IDENTIFICATION DS3.....	1
10	MDOZZ	MDO	97403	13230E4568-8	.PLATE, IDENTIFICATION DS4	1
11	MDOZZ	MDO	97403	13230E4568-9	.PLATE, IDENTIFICATION DS5.....	1
12	MDOZZ	MDO	97403	13230E4568-10	.PLATE, IDENTIFICATION DS6.....	1
13	MDOZZ	MDO	97403	13230E4568-11	.PLATE, IDENTIFICATION CB1.....	1
14	MDOZZ	MDO	97403	13230E4568-12	.PLATE, IDENTIFICATION CB2.....	1
15	MDOZZ	MDO	97403	13230E4568-13	.PLATE, IDENTIFICATION CB3	1
16	MDOZZ	MDO	97403	13230E4568-14	.PLATE, IDENTIFICATION CB4	1
17	MDOZZ	MDO	97403	13230E4568-15	.PLATE, IDENTIFICATION S1.....	1
18	MDOZZ	MOD	97403	13230E4568-16	.PLATE IDENITIFICATION S2.....	1
19	MDOZZ	MDO	97403	13230E4566	.PLATE, IDENTIFICATION SCHEMATIC. DIAGRAM UOC: FJZ,	1
19	MDOZZ	MDO	97403	13230E4593	.PLATE, IDENTIFICATION SCHEMATIC DIAGRAM UOC:FKA,	1
					END OF FIGURE	

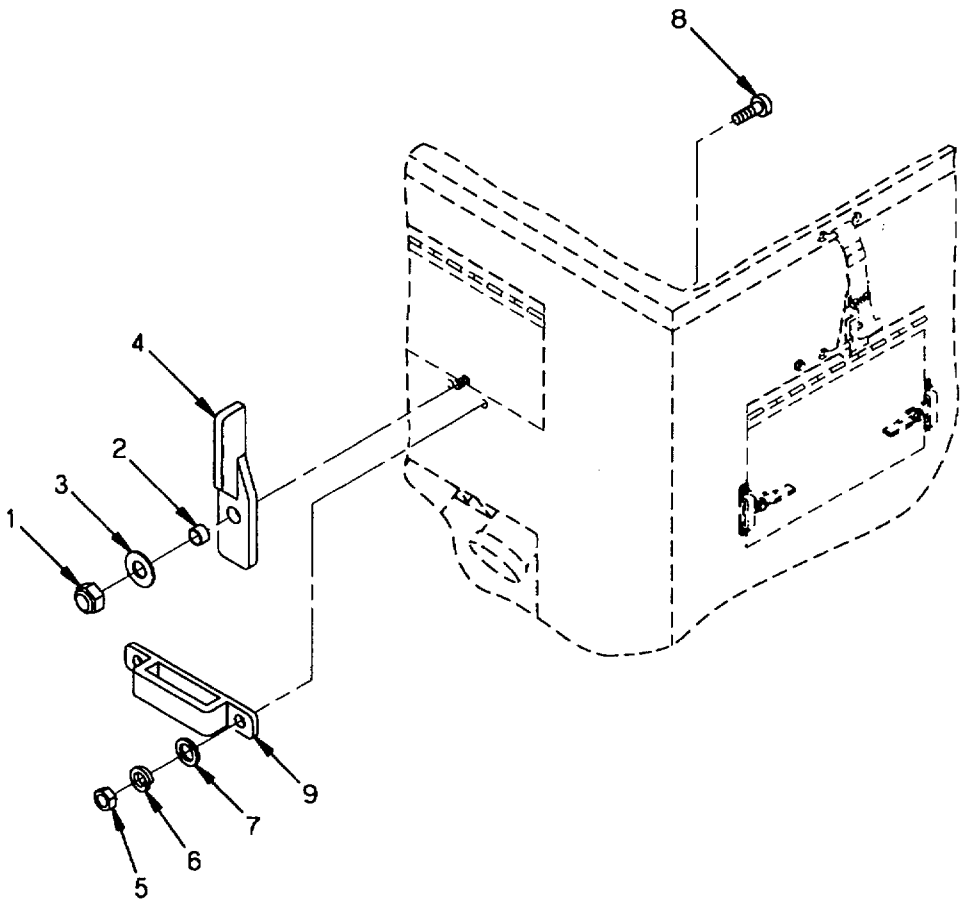


Figure 5. Latch Assembly

(1)	(2) SMR CODE a.	b.	(3)	(4)	(5)	(6)
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 02 SWITCH BOX ASSEMBLY	
					FIG. 5 LATCH ASSEMBLIES	
1	PAOZZ	PAOZZ	96906	MS21043-3	.NUT, SELF-LOCKING	4
2	PAOZZ	PAOZZ	97403	13217E2048	.BUSHING, SLEEVE	4
3	PAOZZ	PAOZZ	97403	13217E2051-1	.WASHER, WAVE SPRING	4
4	PAOZZ	PAOZZ	97403	13217E2047	.LEVER, LOCK-RELEASE.....	4
5	PAOZZ	PAOZZ	96906	MS35649-204	.NUT, HEX.....	8
6	PAOZZ	PAOZZ	96906	MS35338-138	.WASHER, LOCK	8
7	PAOZZ	PAOZZ	96906	MS15795-848	.WASHER, FLAT.....	8
8	PAOZZ	PAOZZ	96906	MS51957-64	.SCREW, PAN HEAD.....	8
9	PAOZZ	PAOZZ	97403	13217E2046	.KEEPER.....	4

END OF FIGURE

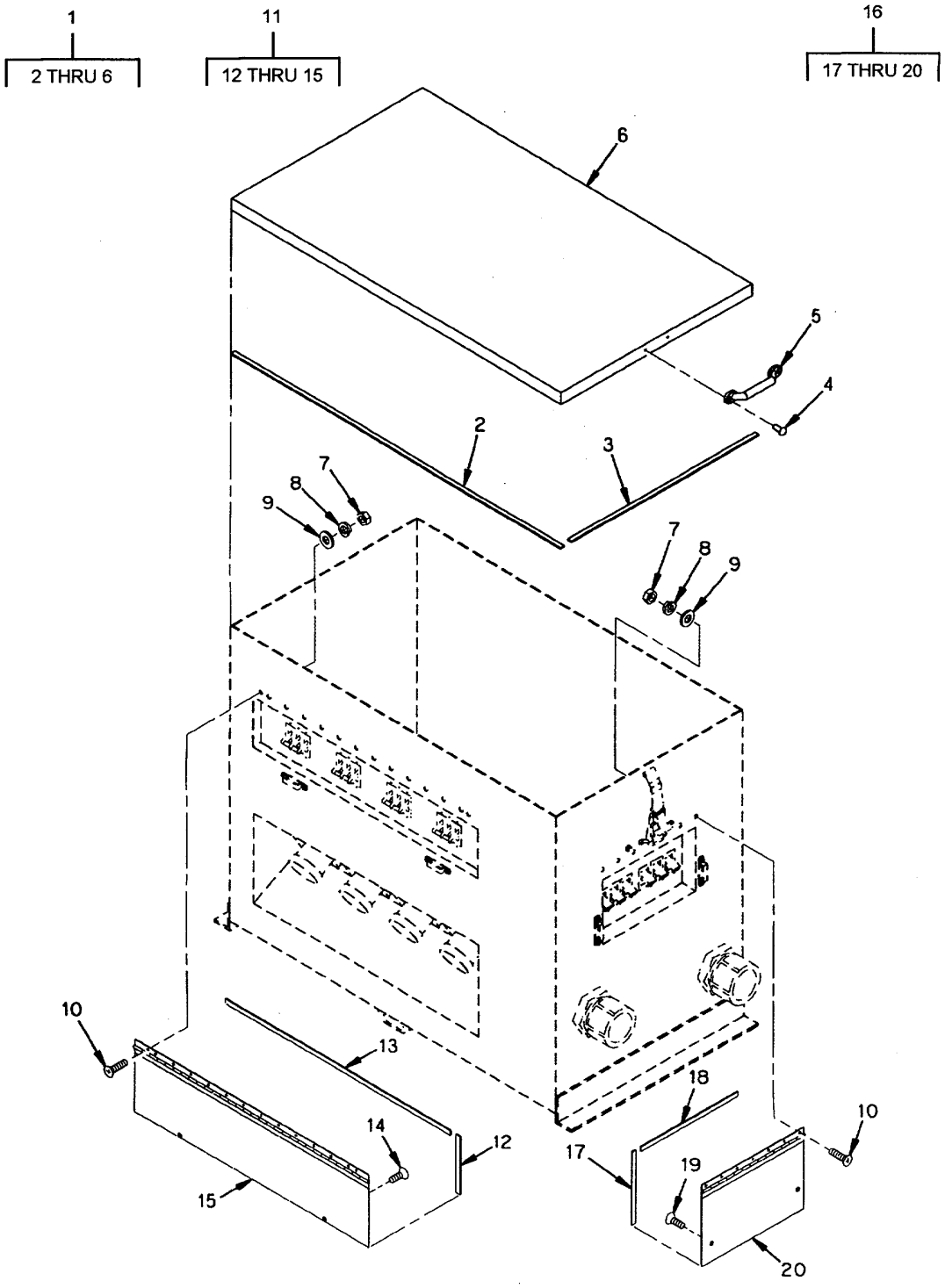


Figure 6. Covers

(1)	(2) SMR CODE a.	b.	(3)	(4)	(5)	(6)
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 02 SWITCH BOX ASSEMBLY	
					FIG. 6 COVERS	
1	XDOOO	XB	97403	13230E4552	.COVER, SWITCH BOX	1
2	MOOZZ	MOO	19099	13230E4552-2	..STRIP, RUBBER MAKE FROM P/N 2B2B2C1 F2 (81346) 42.5 INCHES REQUIRED	2
3	MOOZZ	MOO	19099	13230E4552-3	..STRIP, RUBBER MAKE FROM P/N 2B2B2C1 F2 (81346) 23.5 INCHES REQUIRED	2
4	PAOZZ	PAOZZ	96906	MS20601B6W4	..RIVET BLIND	4
5	PAOZZ	PAOZZ	96906	MS51939-3	..LOOP, STRAP FASTNER	2
6	XAOZZ	XA	19099	13230E4552-1	..COVER	1
7	PAOZZ	PAOZZ	96906	MS35649-204	.NUT, HEX	22
8	PAOZZ	PAOZZ	96906	MS35338-138	.WASHER, LOCK	22
9	PAOZZ	PAOZZ	96906	MS15795-848	.WASHER, FLAT	22
10	PAOZZ	PAOZZ	96906	MS51957-54	.SCREW, PAN HEAD	22
11	XDOOO	XB	97403	13230E4555	.COVER, OUTPUT CONTROL	1
12	MOOZZ	MOO	19099	13230E4555-3	..STRIP, RUBBER MAKE FROM P/N 2B2B2C1 F2 (81346) 6.5 INCHES REQUIRED	2
13	MOOZZ	MOO	19099	13230E4555-4	..STRIP, RUBBER MAKE FROM P/N 2B2B2C1 F2 (81346) 29.0 INCHES REQUIRED	2
14	PAOZZ	PAOZZ	46384	FHS-032-10	..STUD, SELFCLINCHING	2
15	XAOZZ	XA	19099	13230E4555-1	..COVER	1
16	XDOOO	XB	97403	13230E4554	.COVER, INPUT CONTROL	1
17	MOOZZ	MOO	19099	13230E4554-3	..STRIP, RUBBER MAKE FROM P/N 2B2B2C1 F2 (81346) 8.12 INCHES REQUIRED	2
18	MOOZZ	MOO	19099	13230E4554-4	..STRIP, RUBBER MAKE FROM P/N 2B2B2C1 F2 (81346) 12.0 INCHES REQUIRED	2
19	PAOZZ	PAOZZ	46384	FHS-032-10	..STUD, SELF-CLINCHIN	2
20	XAOZZ	XA	19099	13230E4554-1	..COVER	1

END OF FIGURE

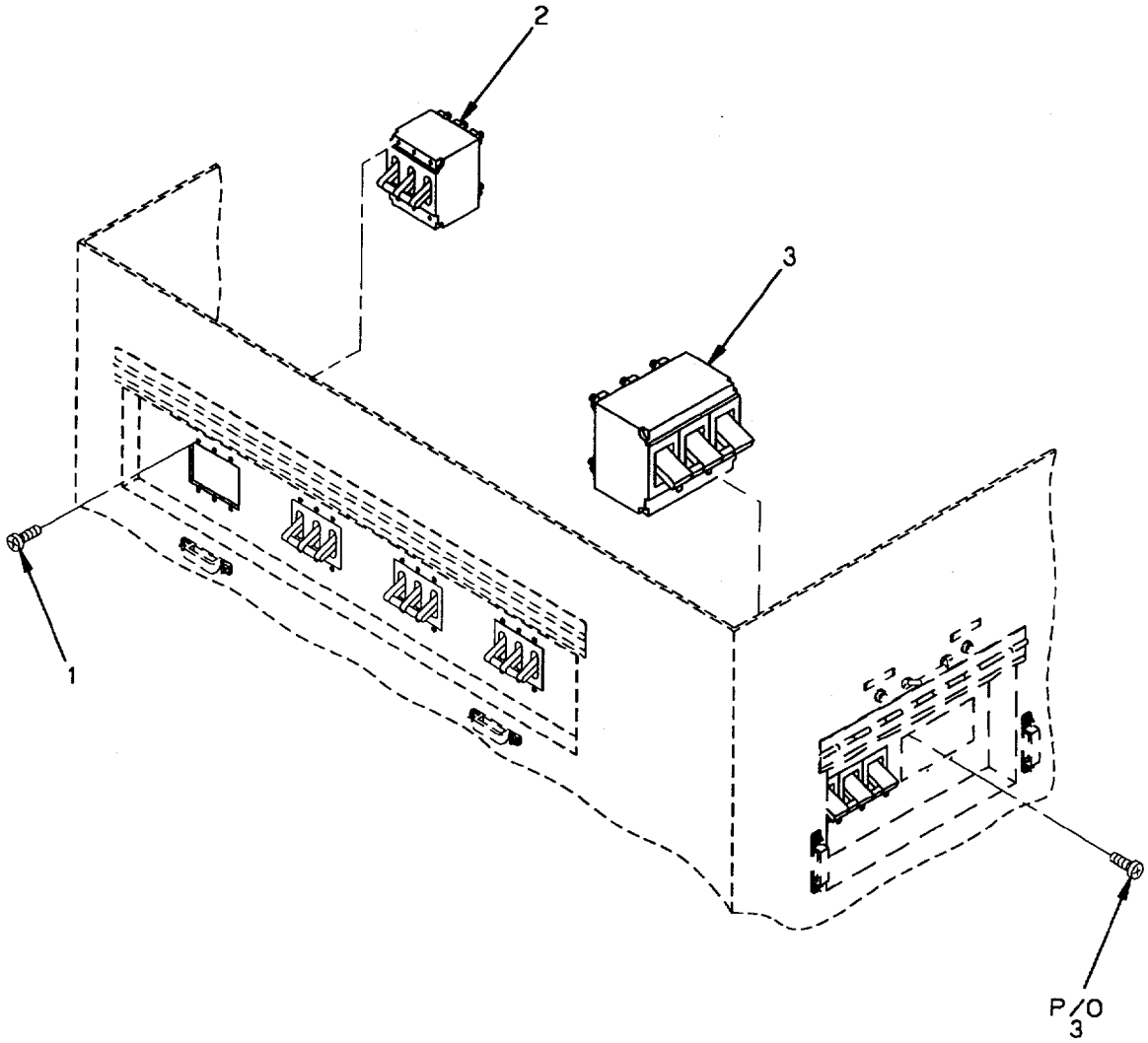


Figure 7. Circuit Breaker/Switch

(1)	(2) SMR CODE		(3)	(4)	(5)	(6)
ITEM NO.	a. ARMY	b. AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 02 SWITCH BOX ASSEMBLY	
					FIG. 7 CIRCUIT BREAKERS SWITCHES	
1	PAOZZ	PAOZZ	96906	MS51957-28	.SCREW, MACHINE	24
2	PAOZZ	PAOZZ	74193	CD3-Z631-1	.CIRCUIT, BREAKER ..... UOC:FJZ,	4
3	PAOZZ	PAOZZ	97403	13230E4579	.SWITCH, 3 POLE	2
					END OF FIGURE	

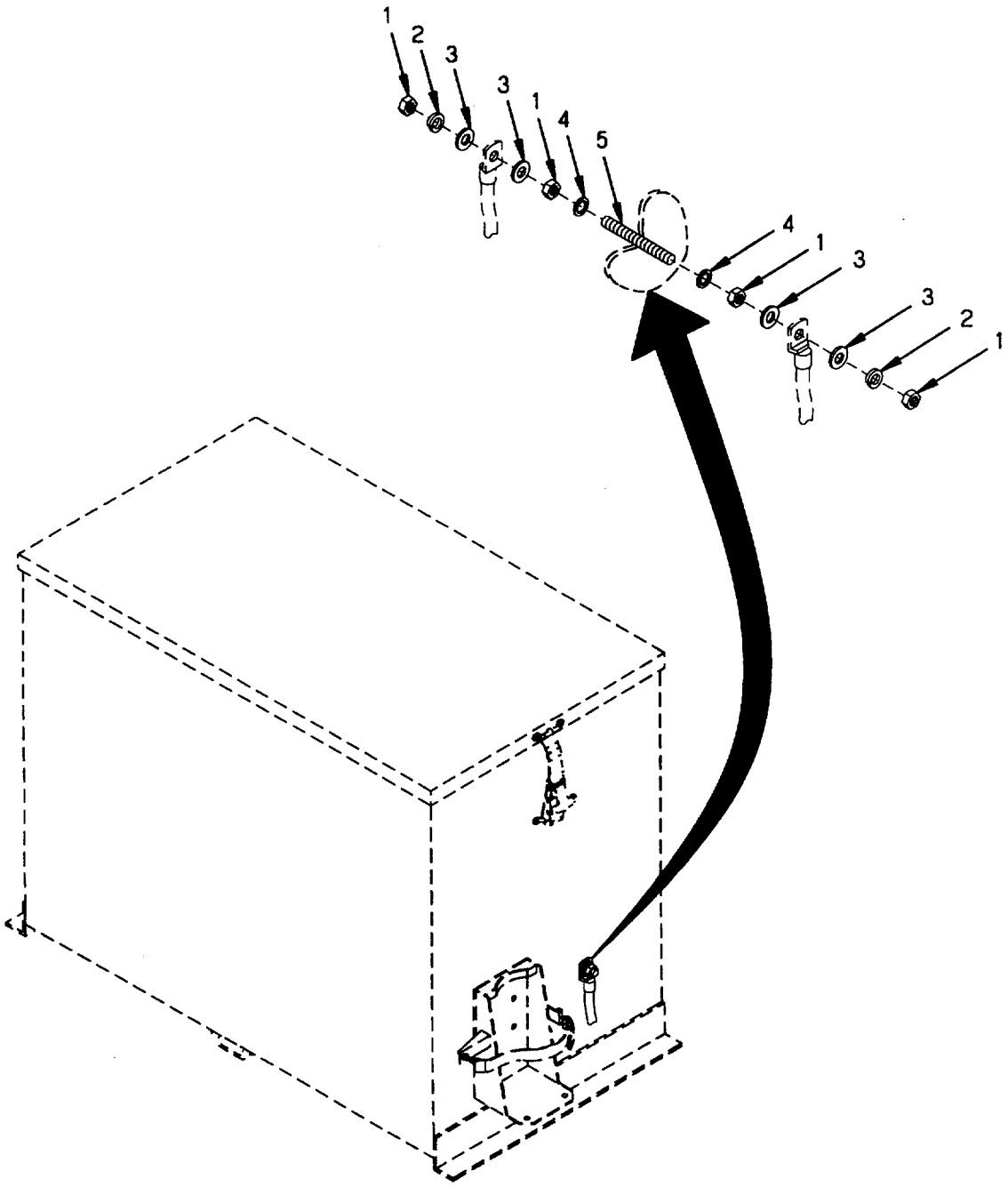


Figure 8. Ground Stud

(1)	(2) SMR CODE a.	b.	(3)	(4)	(5)	(6)
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 02 SWITCH BOX ASSEMBLY	
					FIG. 8 GROUND STUD	
1	PAOZZ	PAOZZ	96906	MS16203-27	.NUT, PLAIN HEXAGON	4
2	PAOZZ	PAOZZ	96906	MS35338-103	.WASHER, LOCK	2
3	PAOZZ	PAOZZ	88044	AN961-616	.WASHER, FLAT	4
4	PAOZZ	PAOZZ	96906	MS35333-110	.WASHER, LOCK	2
5	PAOZZ	PAOZZ	97403	13214E1223	.STUD, CONTINUOUS	1
					END OF FIGURE	

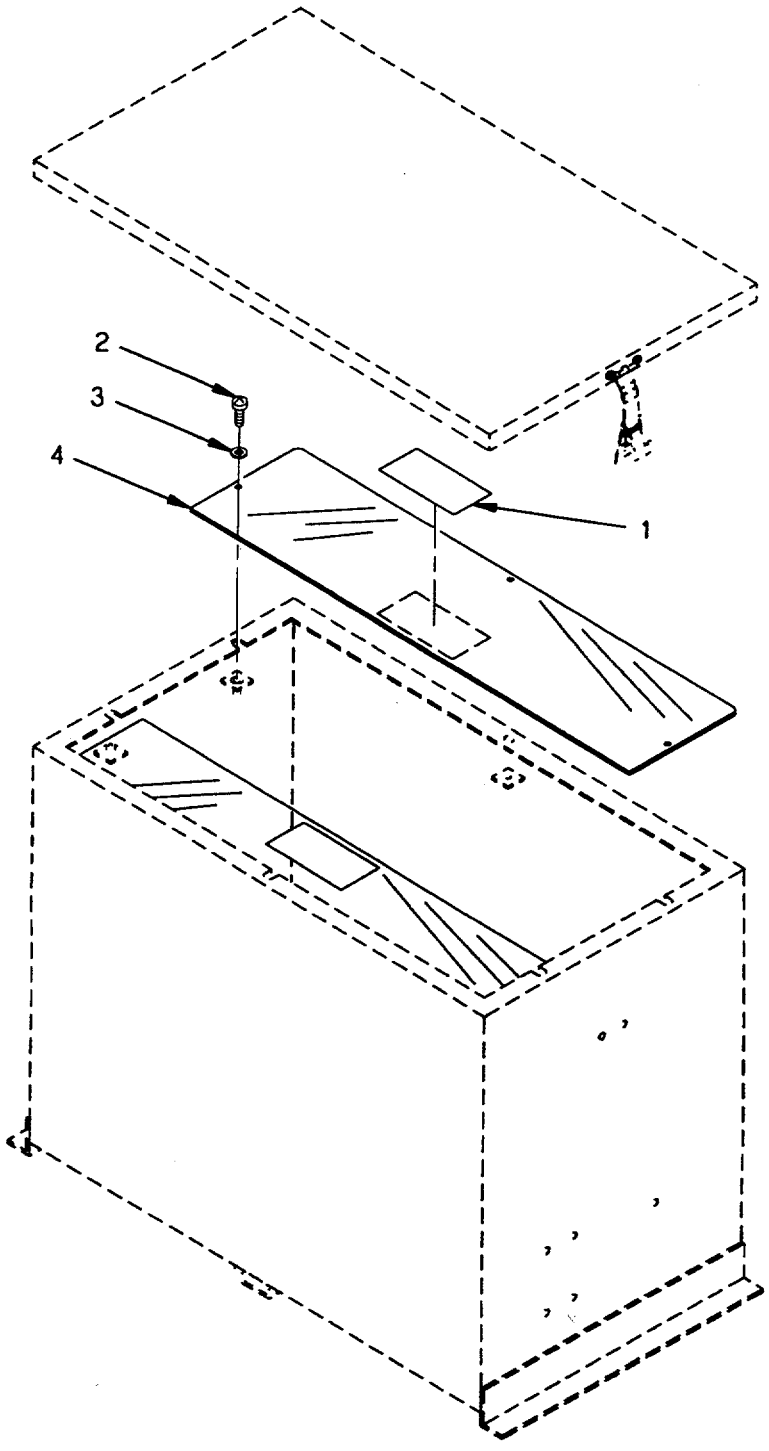


Figure 9. Panel Cover

(1)	(2) SMR CODE		(3)	(4)	(5)	(6)
ITEM NO.	a. ARMY	b. AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 02 SWITCH BOX ASSEMBLY	
					FIG. 9 PANEL COVERS	
1	MDOZZ	MDO	97403	13230E4569	.PLATE, IDENTIFICATION WARNING..	2
2	PAOZZ	PAOZZ	96906	MS51958-67	.SCREW, MACHINE.....	6
3	PAOZZ	PAOZZ	96906	MS15795-848	.WASHER, FLAT.....	6
4	MOOZZ	MOO	97403	13230E4556	PANEL, COVER MAKE FROM P/N..... MIL-P-83310 (81349) 41.25 X 10 INCHES REQUIRED	2
					END OF FIGURE	

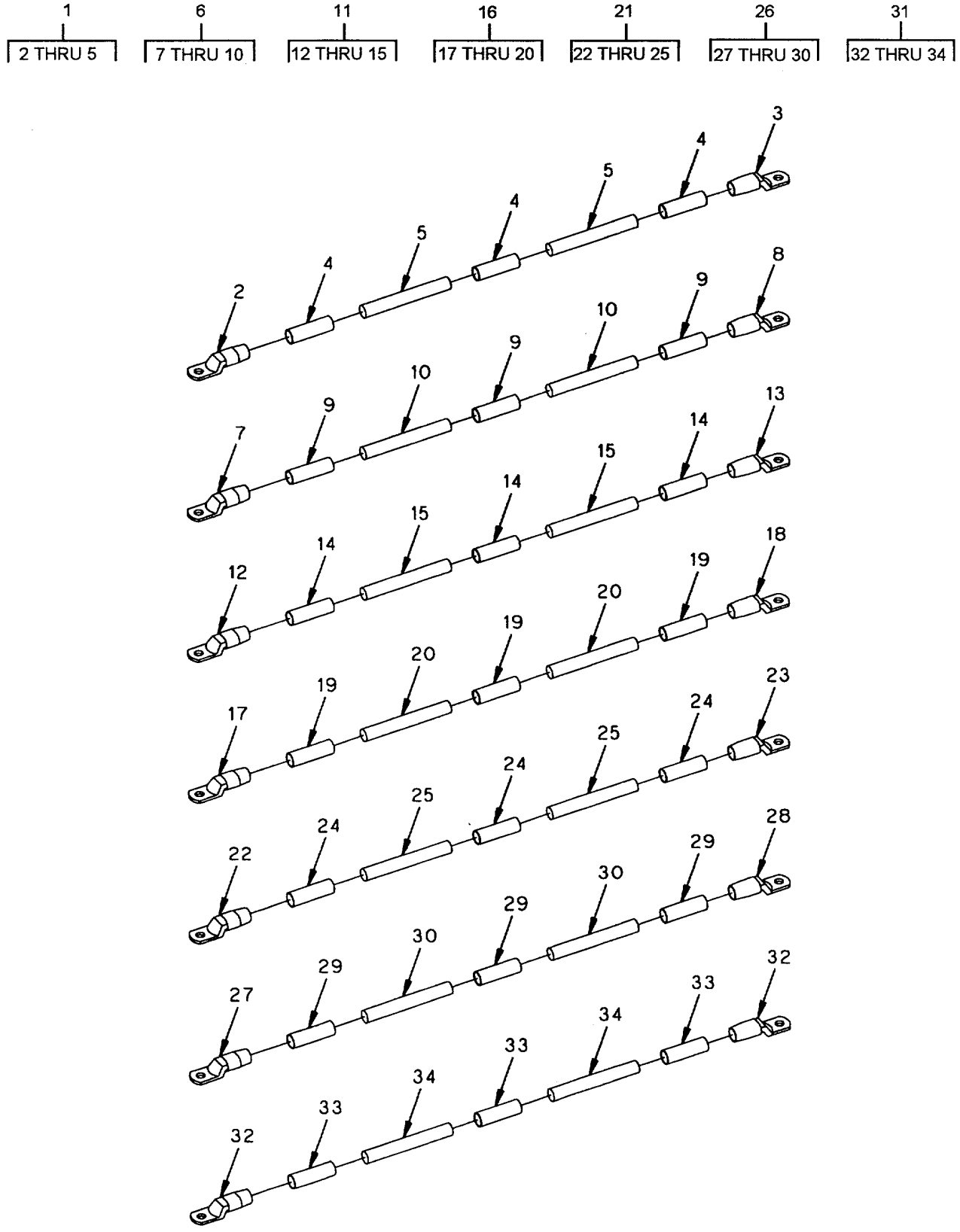


Figure 10. Electrical Leads, A1W10 thru A1W29 and Ground Cable (Sheet 1 of 3)

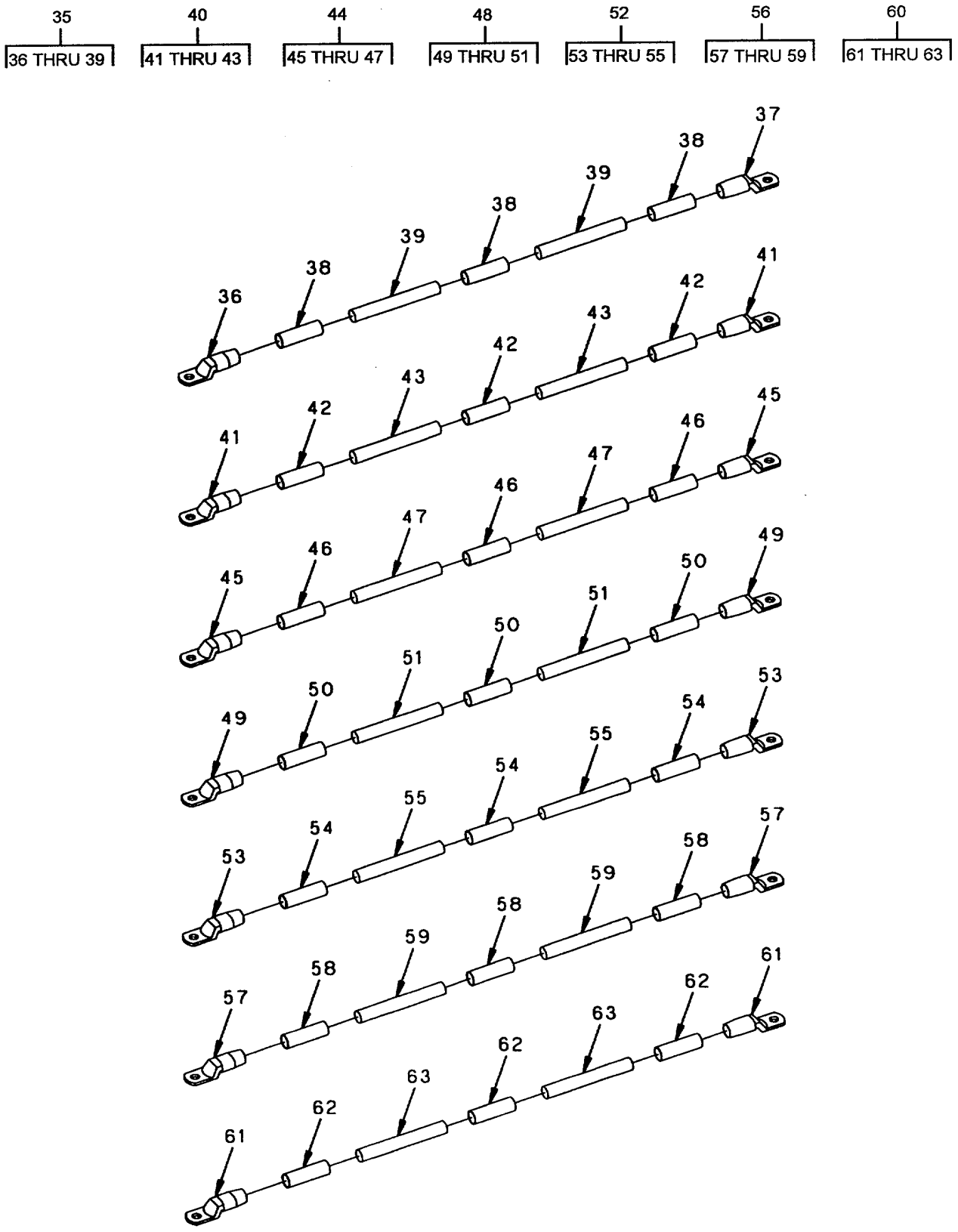


Figure 10. Electrical Leads, A1W10 thru A1W29 (Sheet 2 of 3)

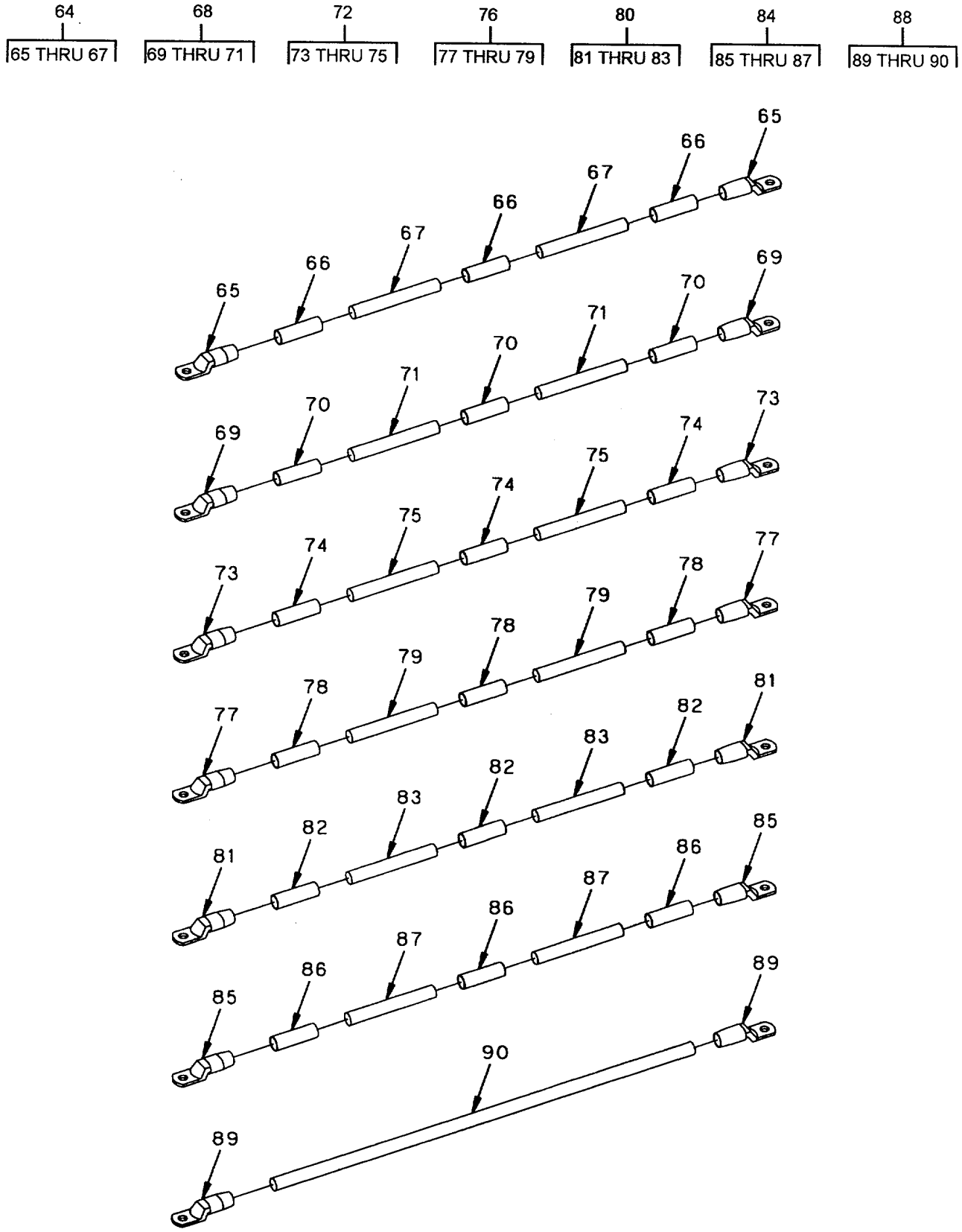


Figure 10. Electrical Leads, A1W10 thru A1W29 (Sheet 3 of 3)

(1)	(2) SMR CODE a.	b.	(3)	(4)	(5)	(6)
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 02 FIG. 10 SWITCH BOX ASSEMBLY ELECTRICAL LEADS, A1W10 THRU A1W29 AND GROUND CABLE	
1	AFFFF	AOO	97403	13230E4561-1	.LEAD, ELECTRICAL A1W10.....	1
2	PAFZZ	PAOZZ	96906	MS25036-136	..TERMINAL, LUG.....	1
3	PAFZZ	PAOZZ	96906	MS20659-153	..TERMINAL, LUG.....	1
4	MFFZZ	MOO	19099	13230E4561-1-8	..INSULATION, SLEEVIN MAKE FROM P/N M23053/5-109-0 (81349) 2.0 INCHES REQUIRED	3
5	MFFZZ	MOO	19099	13230E4561-1-1	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-02-9 (81349) 26.00 INCHES REQUIRED	1
6	AFFFF	AOO	97403	13230E4561-2	.LEAD, ELECTRICAL A1W11.....	1
7	PAFZZ	PAOZZ	96906	MS25036-136	..TERMINAL, LUG.....	1
8	PAFZZ	PAOZZ	96906	MS20659-153	..TERMINAL, LUG.....	1
9	MFFZZ	MOO	19099	13230E4561-2-8	..INSULATION, SLEEVIN MAKE ..... FROM P/N M23053/5-109-0 (81349) 2.0 INCHES REQUIRED	3
10	MFFZZ	MOO	19099	13230E4561-2-1	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-02-9 (81349) 22.00 INCHES REQUIRED	1
11	AFFFF	AOO	97403	13230E4561-3	.LEAD, ELECTRICAL A1W12.....	1
12	PAFZZ	PAOZZ	96906	MS25036-136	..TERMINAL, LUG.....	1
13	PAFZZ	PAOZZ	96906	MS20659-153	..TERMINAL, LUG.....	1
14	MFFZZ	MOO	19099	13230E4561-3-8	..INSULATION, SLEEVIN MAKE ..... FROM P/N M23053/5-109-0 (81349) 2.0 INCHES REQUIRED	3
15	MFFZZ	MOO	19099	13230E4561-3-1	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-02-9 (81349) 18.00 INCHES REQUIRED	1
16	AFFFF	AOO	97403	13230E4561-4	.LEAD, ELECTRICAL A1W13.....	1
17	PAFZZ	PAOZZ	96906	MS25036-136	..TERMINAL, LUG.....	1
18	PAFZZ	PAOZZ	96906	MS20659-153	..TERMINAL, LUG.....	1
19	MFFZZ	MOO	19099	13230E4561-4-8	..INSULATION, SLEEVIN MAKE ..... FROM P/N M23053/5-109-0 (81349) 2.0 INCHES REQUIRED	3
20	MFFZZ	MOO	19099	13230E4561-4-1	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-02-9 (81349) 26.00 INCHES REQUIRED	1
21	AFFFF	AOO	97403	13230E4561-5	.LEAD, ELECTRICAL A1W14.....	1
22	PAFZZ	PAOZZ	96906	MS25036-136	..TERMINAL, LUG.....	1
23	PAFZZ	PAOZZ	96906	MS20659-153	..TERMINAL, LUG.....	1
24	MFFZZ	MOO	19099	13230E4561-5-8	..INSULATION, SLEEVIN MAKE ..... FROM P/N M23053/5-109-0 (81349) 2.0 INCHES REQUIRED	3
25	MFFZZ	MOO	19099	13230E4561-5-1	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-02-9 (81349) 22.00 INCHES REQUIRED	1
26	AFFFF	AOO	97403	13230E4561-6	.LEAD, ELECTRICAL AW15.....	1
27	PAFZZ	PAOZZ	96906	MS25036-136	..TERMINAL, LUG.....	1
28	PAFZZ	PAOZZ	96906	MS20659-153	..TERMINAL, LUG.....	1

(1)	(2) SMR CODE		(3)	(4)	(5)	(6)
ITEM NO.	a. ARMY	b. AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
29	MFFZZ	MOO	19099	13230E4561-6-8	..INSULATION, SLEEVIN MAKE ..... FROM M23053/5-109-0 (81349) 2.0 INCHES REQUIRED	3
30	MFFZZ	MOO	19099	13230E4561-6-1	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-02-9 (81349) 18.00 INCHES REQUIRED	1
31	AFFFF	AOO	97403	13230E4561-7	.LEAD, ELECTRICAL A1W16.....	1
32	PAFZZ	PAOZZ	96906	MS25036-129	..TERMINAL, LUG	2
33	MFFZZ	MOO	19099	13230E4561-7-8	..INSULATION, SLEEVIN MAKE ..... FROM P/N M23053/5-109-0 (81349) 2.0 INCHES REQUIRED	3
34	MFFZZ	MOO	19099	13230E4561-7-2	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-1-9 (81349) 12.00 INCHES REQUIRED	1
35	AFFFF	AOO	97403	13230E4561-8	.LEAD, ELECTRICAL AW17.....	1
36	PAFZZ	PAOZZ	96906	MS25036-129	..TERMINAL, LUG	1
37	PAFZZ	PAOZZ	96906	MS25036-130	..TERMINAL, LUG	1
38	MFFZZ	MOO	19099	13230E4561-8-8	..INSULATION, SLEEVIN MAKE ..... FROM P/N M23053/5-109-0 (81349) 2.0 INCHES REQUIRED	3
39	MFFZZ	MOO	19099	13230E4561-8-2	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-1-9 (81349) 24.00 INCHES REQUIRED	1
40	AFFFF	AOO	97403	13230E4561-9	.LEAD, ELECTRICAL A1W18.....	1
41	PAFZZ	PAOZZ	96906	MS25036-129	..TERMINAL, LUG	2
42	MFFZZ	MOO	19099	13230E4561-9-8	..INSULATION, SLEEVIN MAKE ..... FROM P/N M23053/5-109-0 (81349) 2.0 INCHES REQUIRED	3
43	MFFZZ	MOO	19099	13230E4561-9-2	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-1-9 (81349) 22.00 INCHES REQUIRED	1
44	AFFFF	AOO	97403	13230E4561-10	.LEAD, ELECTRICAL AW19	1
45	PAFZZ	PAOZZ	96906	MS25036-129	..TERMINAL, LUG	2
46	MFFZZ	MOO	19099	13230E4561-10-8	..INSULATION, SLEEVIN MAKE ..... FROM P/N M23053/5-109-0 (81349) 2.0 INCHES REQUIRED	3
47	MFFZZ	MOO	19099	13230E4561-10-2	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086-2-1-9 (81349) 24.00 INCHES REQUIRED	1
48	AFFFF	AOO	97403	13230E4561-11	.LEAD, ELECTRICAL A1W20.....	1
49	PAFZZ	PAOZZ	96906	MS25036-129	..TERMINAL, LUG	2
50	MFFZZ	MOO	19099	13230E4561-11-8	..INSULATION, SLEEVIN MAKE ..... FROM P/N M23053/5-109-0 (81349) 2.0 INCHES REQUIRED	3
51	MFFZZ	MOO	19099	13230E4561-11-2	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-1-9 (81349) 26.00 INCHES REQUIRED	1
52	AFFFF	AOO	97403	13230E4561-12	.LEAD, ELECTRICAL A1W21.....	1
53	PAFZZ	PAOZZ	96906	MS25036-129	..TERMINAL, LUG	2
54	MFFZZ	MOO	19099	13230E4561-12-8	..INSULATION, SLEEVIN MAKE ..... FROM P/N M23053/5-109-0 (81349) 2.0 INCHES REQUIRED	3

(1)	(2) SMR CODE a.	b.	(3)	(4)	(5)	(6)
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
55	MFFZZ	MOO	19099	13230E4561-12-2	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-1-9 (81349) 22.00 INCHES REQUIRED	1
56	AFFFF	AOO	97403	13230E4561-13	.LEAD, ELECTRICAL A1W22.....	1
57	PAFZZ	PAOZZ	96906	MS25036-129	..TERMINAL, LUG.....	2
58	MFFZZ	MOO	19099	13230E4561-13-8	..INSULATION, SLEEVIN MAKE..... FROM P/N M23053/5-109-0 (81349) 2.0 INCHES REQUIRED	3
59	MFFZZ	MOO	19099	13230E4561-13-2	..WIRE, ELECTRICAL MAKE FROM..... P/N M5085/2-1-9 (81349) 24.00 INCHES REQUIRED	1
60	AFFFF	AOO	97403	13230E4561-14	.LEAD, ELECTRICAL A1W23.....	1
61	PAFZZ	PAOZZ	96906	MS25036-129	..TERMINAL, LUG.....	2
62	MFFZZ	MOO	19099	13230E4561-14-8	..INSULATION, SLEEVIN MAKE..... FROM P/N M23053/5/109-0 (81349) 2.0 INCHES REQUIRED	3
63	MFFZZ	MOO	19099	13230E4561-14-2	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-1-9 (81349) 26.00 INCHES REQUIRED	1
64	AFFFF	AOO	97403	13230E4561-15	.LEAD, ELECTRICAL A1W24.....	1
65	PAFZZ	PAOZZ	96906	MS25036-129	..TERMINAL, LUG.....	2
66	MFFZZ	MOO	19099	13230E4561-15-8	..INSULATION, SLEEVIN MAKE..... FROM P/N M2305315-109-0 (81349) 2.0 INCHES REQUIRED	3
67	MFFZZ	MOO	19099	13230E4561-15-2	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-1-9 (81349) 22.00 INCHES REQUIRED	1
68	AFFFF	AOO	97403	13230E4561-16	.LEAD, ELECTRICAL A1W25.....	1
69	PAFZZ	PAOZZ	96906	MS25036-129	..TERMINAL, LUG.....	2
70	MFFZZ	MOO	19099	13230E4561-16-8	..INSULATION, SLEEVIN MAKE..... FROM P/N M23053/5-109-0 (81349) 2.0 INCHES REQUIRED	3
71	MFFZZ	MOO	19099	13230E4561-16-2	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-1-9 (81349) 24.00 INCHES REQUIRED	1
72	AFFFF	AOO	97403	13230E4561-17	.LEAD, ELECTRICAL A1W26.....	1
73	PAFZZ	PAOZZ	96906	MS25036-129	..TERMINAL, LUG.....	2
74	MFFZZ	MOO	19099	13230E4561-17-8	..INSULATION, SLEEVIN MAKE..... FROM P/N M23053/5-109-0 (81349) 2.0 INCHES REQUIRED	3
75	MFFZZ	MOO	19099	13230E4561-17-2	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2/1/9 (81349) 26.00 INCHES REQUIRED	1
76	AFFFF	AOO	97403	13230E4561-18	.LEAD, ELECTRICAL A1W27.....	1
77	PAFZZ	PAOZZ	96906	MS25036-129	..TERMINAL, LUG.....	2
78	MFFZZ	MOO	19099	13230E4561-18-8	..INSULATION, SLEEVIN MAKE..... FROM P/N M23053/5-109-0 (81349) 2.0 INCHES REQUIRED	3
79	MFFZZ	MOO	19099	13230E4561-18-2	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-1-9 (81349) 22.00 INCHES REQUIRED	1
80	AFFFF	AOO	97403	13230E4561-19	.LEAD, ELECTRICAL A1W28.....	1
81	PAFZZ	PAOZZ	96906	MS25036-129	.TERMINAL, LUG.....	2

(1)	(2) SMR CODE a.	b.	(3)	(4)	(5)	(6)
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
82	MFFZZ	MOO	19099	13230E4561-19-8	..INSULATION, SLEEVIN MAKE ..... FROM P/N M23053/5-109-0 (81349) 2.0 INCHES REQUIRED	3
83	MFFZZ	MOO	19099	13230E4561-19-2	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-1-9 (81349) 24.00 INCHES REQUIRED	1
84	AFFFF	AOO	97403	13230E4561-20	.LEAD, ELECTRICAL A1W29.....	1
85	PAFZZ	PAOZZ	96906	MS25036-129	..TERMINAL, LUG	2
86	MFFZZ	MOO	19099	13230E4561-20-8	..INSULATION, SLEEVIN MAKE ..... FROM P/N M23053/5-109-0 (81349) 2.0 INCHES REQUIRED	3
87	MFFZZ	MOO	19099	13230E4561-20-2	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-1-9 (81349) 26.00 INCHES REQUIRED	1
88	AFFFF	AOO	97403	13230E4561-33	.LEAD, ELECTRICAL GROUND.....	1
89	PAFZZ	PAOZZ	96906	MS25036-130	..TERMINAL, LUG	2
90	MFFZZ	MOO	19099	13230E4561-33-1	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-1-0 (81349) 19.00 INCHES REQUIRED	1

END OF FIGURE

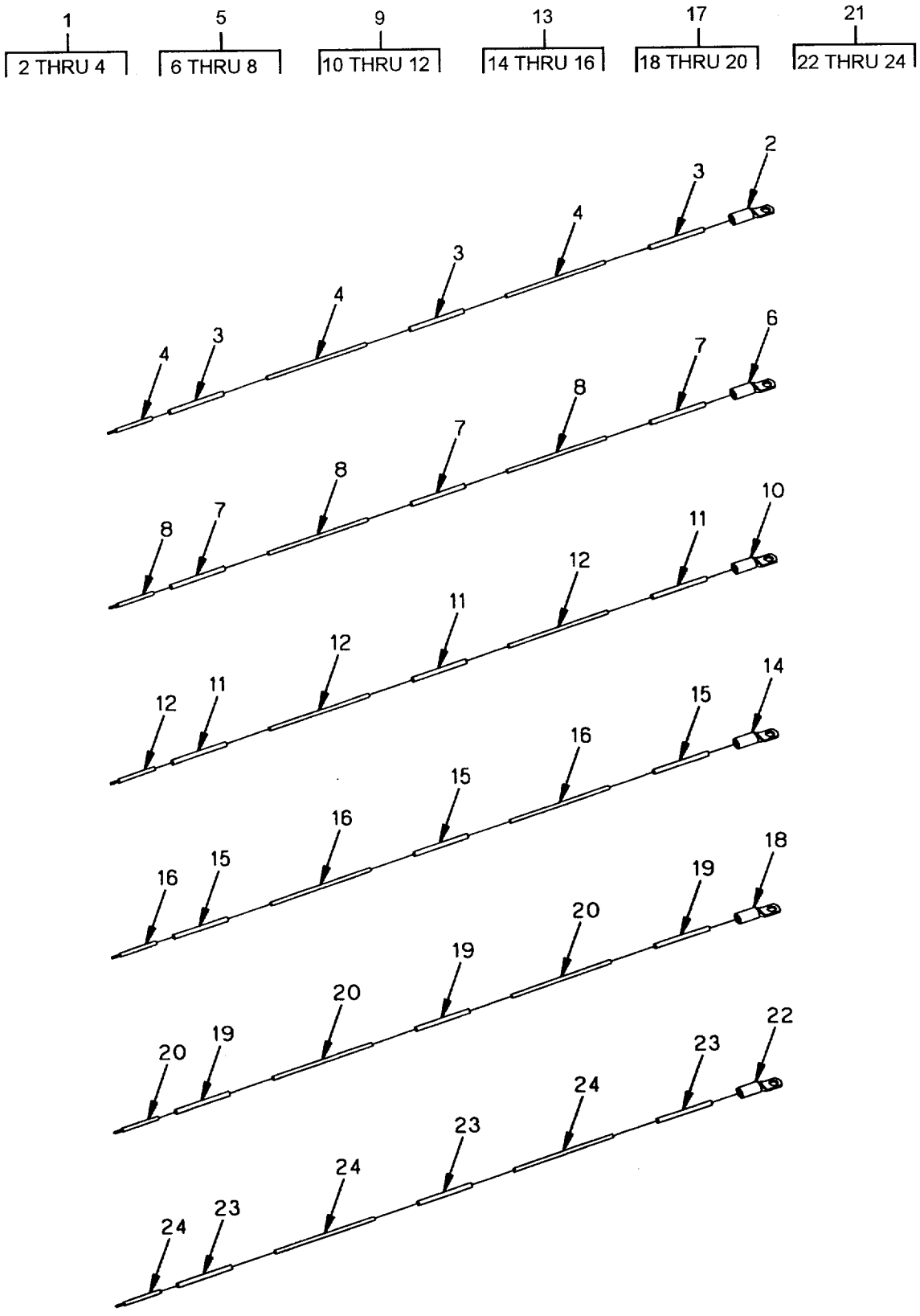


Figure 11. Electrical Leads, A1W30 thru A1W41 (Sheet 1 of 2)

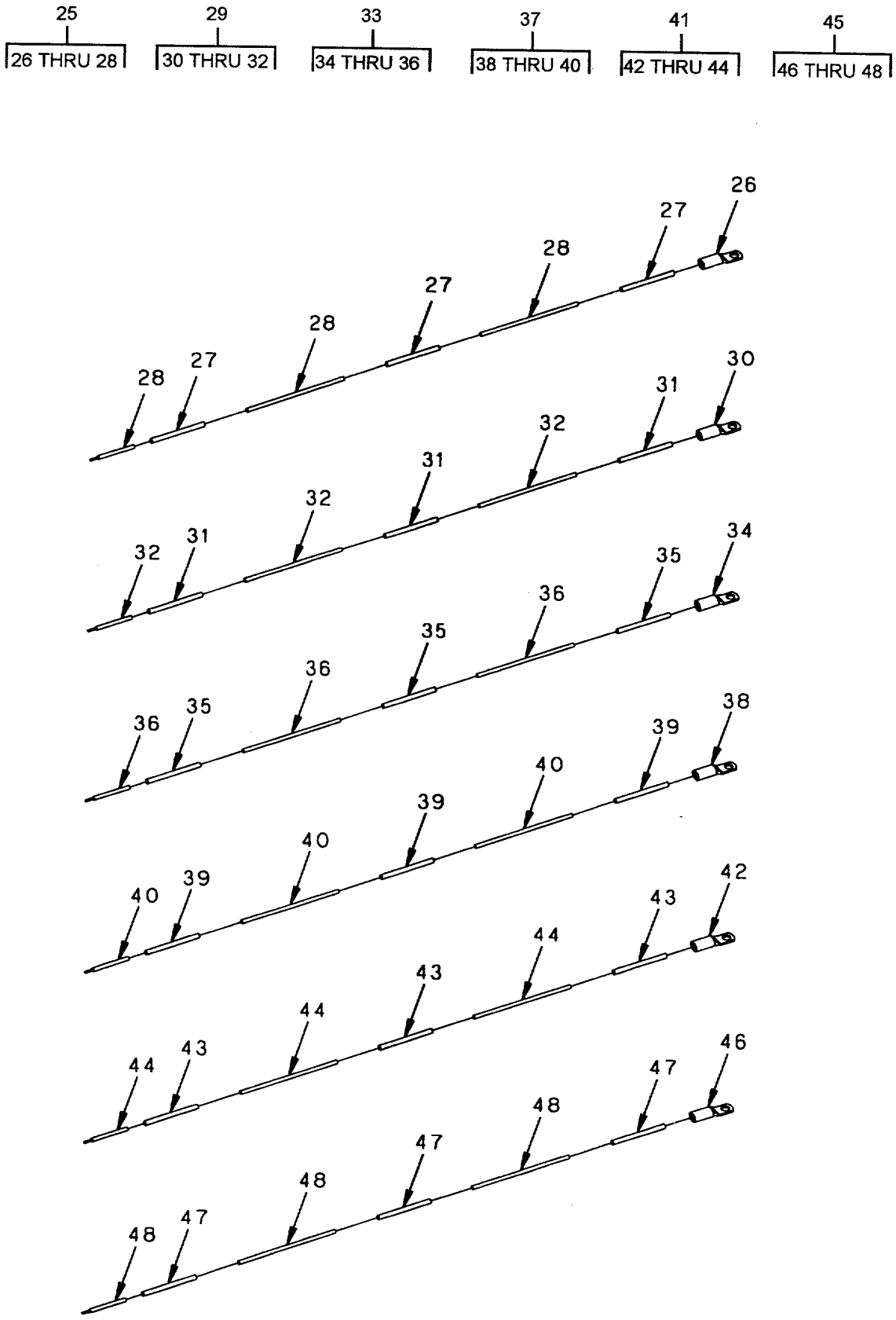


Figure 11. Electrical Leads, A1W30 thru A1W41 (Sheet 2 of 2)

(1)	(2) SMR CODE a.	b.	(3)	(4)	(5)	(6)
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 02 SWITCH BOX ASSEMBLY	
					FIG. 11 ELECTRICAL LEADS, A1W30 THRU A1W41	
1	AOOOO	AOO	97403	13230E4561-21	.LEAD, ELECTRICAL A1W30.....	1
2	PAOZZ	PAOZZ	96906	MS25036-150	..TERMINAL, LUG.....	1
3	MOOZZ	MOO	19099	13230E4561-21-9	..INSULATION, SLEEVIN MAKE..... FROM P/N M23053/5-104-0 (81349) 2.0 INCHES REQUIRED	3
4	MOOZO	MOO	19099	13230E4561-21-3	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-18-9 (81349) AS REQUIRED	1
5	AOOOO	AOO	97403	13230E4561-22	.LEAD, ELECTRICAL A1W31.....	1
6	PAOZZ	PAOZZ	96906	MS25036-105	..LUG. TERMINAL.....	1
7	MOOZZ	MOO	19099	13230E4561-22-9	..INSULATION, SLEEVIN MAKE..... FROM P/N M23053/5-104-0 (81349) 2.0 INCHES REQUIRED	3
8	MOOZZ	MOO	19099	13230E4561-22-3	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-18-9 (81349) AS REQUIRED	1
9	AOOOO	AOO	97403	13230E4561-23	.LEAD, ELECTRICAL A1W32.....	1
10	PAOZZ	PAOZZ	96906	MS25036-150	..TERMINAL, LUG.....	1
11	MOOZZ	MOO	19099	13230E4561-23-9	..INSULATION, SLEEVIN MAKE..... FROM P/N M23053/5-104-0 (81349) 2.0 INCHES REQUIRED	3
12	MOOZZ	MOO	19099	13230E4561-23-3	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-18-9 (81349) AS REQUIRED	1
13	AOOOO	AOO	97403	13230E4561-24	.LEAD, ELECTRICAL A1W33.....	1
14	PAOZZ	PAOZZ	96906	MS25036-105	..LUG. TERMINAL.....	1
15	MOOZZ	MOO	19099	13230E4561-24-9	..INSULATION, SLEEVIN MAKE..... FROM P/N M23053/5-104-0 (81349) 2.0 INCHES REQUIRED	3
16	MOOZZ	MOO	19099	13230E4561-24-3	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-18-9 (81349)AS REQUIRED	1
17	AOOOO	AOO	97403	13230E4561-25	.LEAD, ELECTRICAL A1W34.....	1
18	PAOZZ	PAOZZ	96906	MS25036-150	..TERMINAL, LUG.....	1
19	MOOZZ	MOO	19099	13230E4561-25-9	..INSULATION, SLEEVIN MAKE..... FROM P/N M23053/5-104-0 (81349) 2.0 INCHES REQUIRED	3
20	MOOZZ	MOO	19099	13230E4561-25-3	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-18-9 (81349) AS REQUIRED	1
21	AOOOO	AOO	97403	13230E4561-26	.LEAD, ELECTRICAL A1W35.....	1
22	PAOZZ	PAOZZ	96906	MS25036-150	..TERMINAL, LUG.....	1
23	MOOZZ	MOO	19099	13230E4561-26-9	..INSULATION, SLEEVIN MAKE..... FROM P/N M23053/5-104-0 (81349) 2.0 INCHES REQUIRED	3
24	MOOZO	MOO	19099	13230E4561-26-3	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-18-9 (81349) AS REQUIRED	1
25	AOOOO	AOO	97403	13230E4561-27	.LEAD, ELECTRICAL A1W36.....	1
26	PAOZZ	PAOZZ	96906	MS25036-150	..TERMINAL, LUG.....	1
27	MOOZZ	MOO	19099	13230E4561-27-9	..INSULATION, SLEEVIN MAKE..... FROM P/N M23053/5-104-0 (81349) 2.0 INCHES REQUIRED	3

(1)	(2) SMR CODE a.	b.	(3)	(4)	(5)	(6)
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
28	MOOZZ	MOO	19099	13230E4561-27-3	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-18-9 (81349) AS REQUIRED	1
29	AOOOO	AOO	97403	13230E4561-28	.LEAD, ELECTRICAL A1W37.....	1
30	PAOZZ	PAOZZ	96906	MS25036-150	..TERMINAL, LUG.....	1
31	MOOZZ	MOO	19099	13230E4561-28-9	..INSULATION, SLEEVIN MAKE ..... FROM P/N M23053/5-104-0 (81349) 2.0 INCHES REQUIRED	3
32	MOOZZ	MOO	19099	13230E4561-28-3	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-18-9 (81349) AS REQUIRED	1
33	AOOOO	AOO	97403	13230E4561-29	.LEAD, ELECTRICAL A1W38.....	1
34	PAOZZ	PAOZZ	96906	MS25036-150	..TERMINAL, LUG.....	1
35	MOOZZ	MOO	19099	13230E4561-29-9	..INSULATION, SLEEVIN MAKE ..... FROM P/N M23053/5-104-0 (81349) 2.0 INCHES REQUIRED	3
36	MOOZZ	MOO	19099	13230E4561-29-3	..WIRE, ELECTRICAL MAKE FROM..... P/N M5056/2-18-9 (81349) AS REQUIRED	1
37	AOOOO	AOO	97403	13230E4561-30	.LEAD, ELECTRICAL A1W39.....	1
38	PAOZZ	PAOZZ	96906	MS25036-150	..TERMINAL, LUG.....	1
39	MOOZZ	MOO	19099	13230E4561-30-9	..INSULATION, SLEEVIN MAKE ..... FROM P/N M23053/5-104-0 (81349) 2.0 INCHES REQUIRED	3
40	MOOZZ	MOO	19099	13230E4561-30-3	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-18-9 (81349) AS REQUIRED	1
41	AOOOO	AOO	97403	13230E4561-31	.LEAD, ELECTRICAL A1W40.....	1
42	PAOZZ	PAOZZ	96906	MS25036-150	..TERMINAL, LUG.....	1
43	MOOZZ	MOO	19099	13230E4561-31-9	..INSULATION, SLEEVIN MAKE ..... FROM P/N M23053/5-104-0 (81349) 2.0 INCHES REQUIRED	3
44	MOOZZ	MOO	19099	13230E4561-31-3	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-18-9 (81349) AS REQUIRED	1
45	AOOOO	AOO	97403	13230E4561-32	.LEAD, ELECTRICAL A1W41.....	1
46	PAOZZ	PAOZZ	96906	MS25036-150	..TERMINAL, LUG.....	1
47	MOOZZ	MOO	19099	13230E4561-32-9	..INSULATION, SLEEVIN MAKE ..... FROM P/N M23053/5-104-0 (81349) 2.0 INCHES REQUIRED	3
48	MOOZZ	MOO	19099	13230E4561-32-3	..WIRE, ELECTRICAL MAKE FROM..... P/N M5086/2-18-9 (81349) AS REQUIRED	1

END OF FIGURE

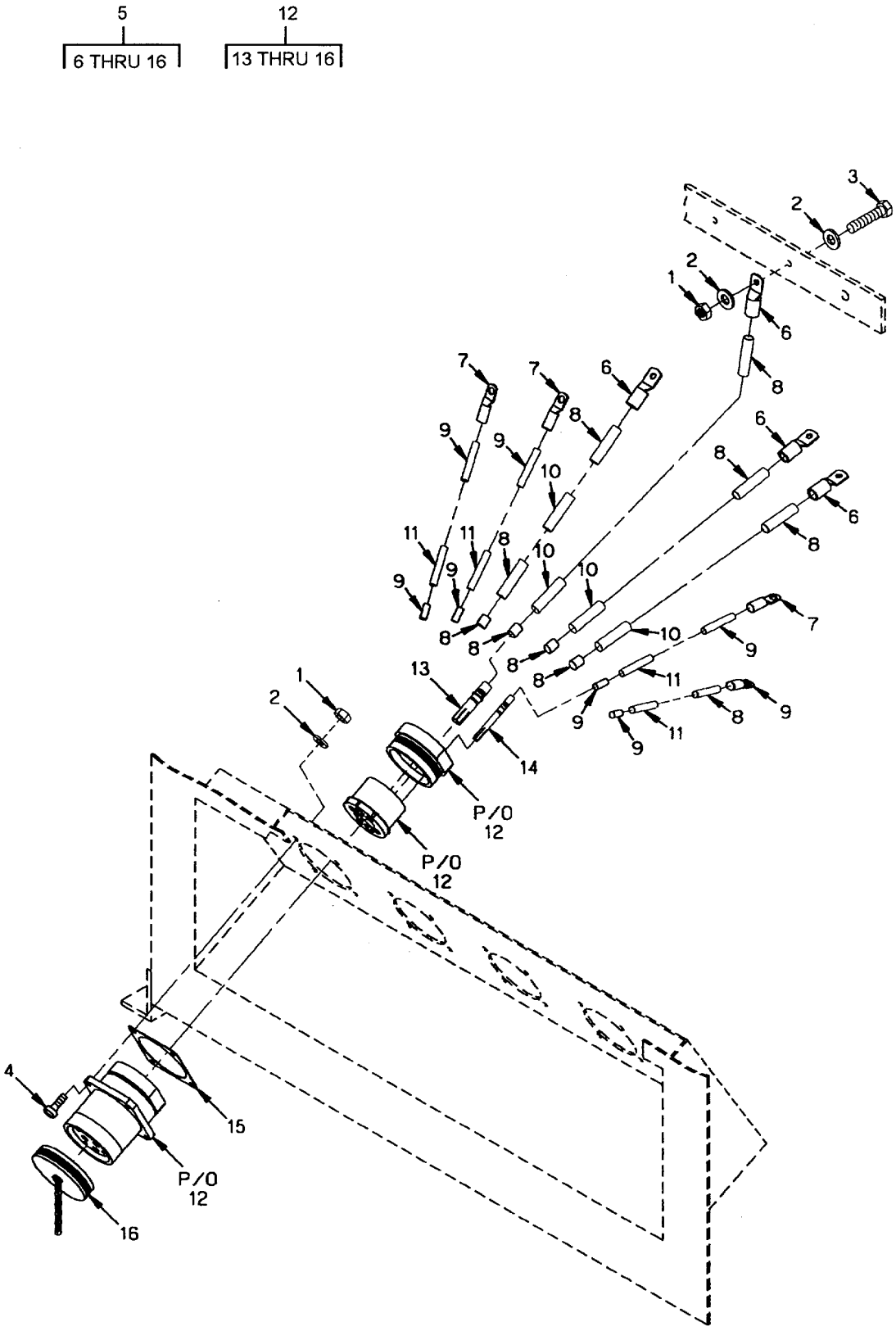


Figure 12. Wiring Harness, A1W6 Through A1W9 (Sheet 1 of 2)

WIRE LIST

HARNESS P/N DASH NO.	CONN REF DES	TERMINATION FROM	TERMINATION TERMINAL ITEM NO.	TERMINATION TO	TERMINATION TERMINAL ITEM NO.	WIRE LENGTH	WIRE ITEM NO.	HARNESS REF DES
-1	J1	A1J1-A	1	A1CB1-LD2	4	36.00	2	A1W6
		A1J1-B		A1CB1-LD4				
		A1J1-C		A1CB1-LD6				
		A1J1-N		A1W4-2(N)		26.00		
		A1J1-G1		A1W5-3(GND)	5	24.00	7	
		A1J1-G2		A1W5-3(GND)				
		A1J1-G3		A1W5-4(GND)				
		A1J1-G4		A1W5-4(GND)				
-2	J2	A1J2-A	1	A1CB2-LD2	4	36.00	2	A1W7
		A1J2-B		A1CB2-LD4				
		A1J2-C		A1CB2-LD6				
		A1J2-N		A1W4-3(N)		26.00		
		A1J2-G1		A1W5-5(GND)	5	24.00	7	
		A1J2-G2		A1W5-5(GND)				
		A1J2-G3		A1W5-6(GND)				
		A1J2-G4		A1W5-6(GND)				
-3	J3	A1J3-A	1	A1CB3-LD2	4	36.00	2	A1W8
		A1J3-B		A1CB3-LD4				
		A1J3-C		A1CB3-LD6				
		A1J3-N		A1W4-4(N)		26.00		
		A1J3-G1		A1W5-7(GND)	5	24.00	7	
		A1J3-G2		A1W5-7(GND)				
		A1J3-G3		A1W5-8(GND)				
		A1J3-G4		A1W5-8(GND)				
-4	J4	A1J4-A	1	A1CB4-LD2	4	36.00	2	A1W9
		A1J4-B		A1CB4-LD4				
		A1J4-C		A1CB4-LD6				
		A1J4-N		A1W4-5(N)		26.00		
		A1J4-G1		A1W5-9(GND)	5	24.00	7	
		A1J4-G2		A1W5-9(GND)				
		A1J4-G3		A1W5-10(GND)				
		A1J4-G4		A1W5-10(GND)				

Figure 12. Wiring Harness, A1W6 Through A1W9 (Sheet 2 of 2)

(1)	(2) SMR CODE a.	b.	(3)	(4)	(5)	(6)
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 02 SWITCH BOX ASSEMBLY	
					FIG. 12 WIRING HARNESS, A1W6 THRU A1W9	
1	PAOZZ	PAOZZ	96906	MS17829Z4C	.NUT, SELF-LOCKING	47
2	PAOZZ	PAOZZ	96906	MS15795-853	.WASHER, FLAT	78
3	PAOZZ	PAOZZ	80204	B1821BH025C100N	.SCREW, HEX HEAD	31
4	PAOZZ	PAOZZ	96906	MS51957-83	.SCREW, PAN HEAD	16
5	AFFFF	AOO	97403	13230E4560-1	.WIRING HARNESS A1W6 UOC:FJZ,	1
5	AFFFF	AOO	97403	13230E4560-2	.WIRING HARNESS A1W7 UOC:FJZ,	1
5	AFFFF	AOO	97403	13230E4560-3	.WIRING HARNESS A1W8 UOC: FJZ,	1
5	AFFFF	AOO	97403	13230E4560-4	.WIRING HARNESS A1W9 UOC: FJZ,	1
5	AFFFF	AOO	97403	13230E4588-1	.WIRING HARNESS A1W6 UOC:FKA,	1
5	AFFFF	AOO	97403	13230E4588-2	.WIRING HARNESS A1W7 UOC:FKA,	1
5	AFFFF	AOO	97403	13230E4588-3	.WIRING HARNESS A1W8 UOC:FKA,	1
5	AFFFF	AOO	97403	13230E4588-4	.WIRING HARNESS A1W9 UOC:FKA,	1
6	PAFZZ	PAOZZ	96906	MS25036-129	..TERMINAL, LUG	4
7	FAFZZ	PAFZZ	96906	MS25036-120	..TERMINAL, LUG	4
8	MFFZZ	MOO	19099	13230E4560-1-3	..INSULATION, SLEEVIN MAKE FROM P/N M23053/5-109-0 (81349) 2.0 INCHES REQUIRED	9
9	MFF7Z	MOO	19099	13230E4560-1-6	..INSULATION, SLEEVIN MAKE FROM P/N M23053/5-107-0 (81349) 2.0 INCHES REQUIRED	8
10	MFFZZ	MOO	19099	13230E4560-1-2	..WIRE, ELECTRICAL MAKE FROM P/N M5086/2-1-9 (81349) AS REQUIRED	4
11	MFFZZ	MOO	19099	13230E4560-1-7	..WIRE, ELECTRICAL MAKE FROM P/N M5086/2-6-9 (81349) AS REQUIRED	4
12	PAFFF	PAOZZ	96906	MS90555C44413S	..CONNECTOR, RECEPTAC UOC:FJZ,	1
12	PAFFF	PAOZZ	96906	MS90555C44413SW	..CONNECTOR, RECEPTAC UOC: FKA,	1
13	PAFZZ	PAOZZ	81349	M39029/49-333	...CONTACT, ELECTRICAL	4
14	PAFZZ	PAOZZ	81349	M39029/49-330	...CONTACT, ELECTRICAL	4
15	XDFZZ	XB	95501	10-40450-48	...GASKET	1
16	PAOZZ	PAOZZ	96906	MS90563-7C	...COVER, ELECTRICAL	1

END OF FIGURE

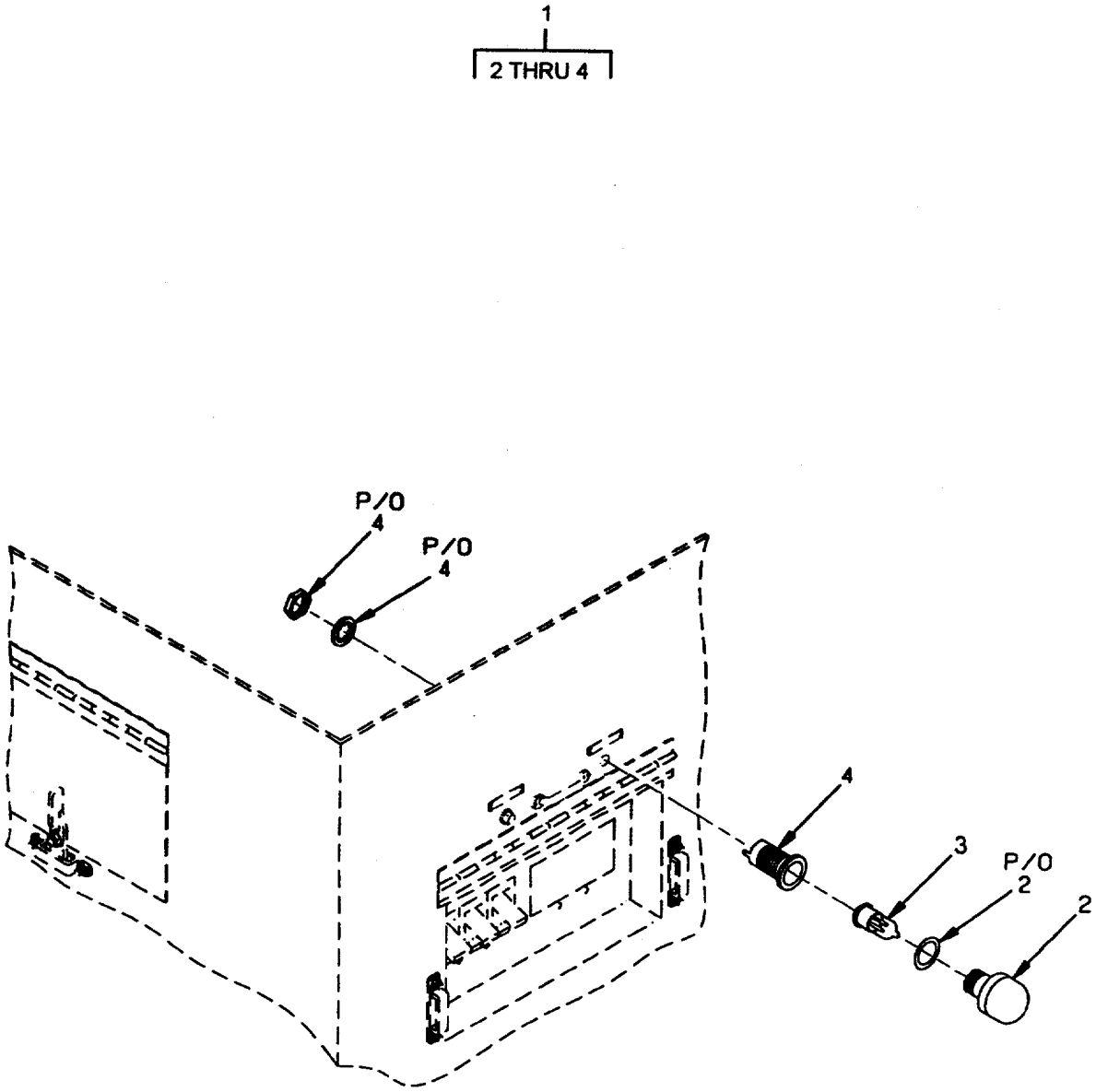


Figure 13. Light Indicator

(1)	(2) SMR CODE a.	b.	(3)	(4)	(5)	(6)
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 02 SWITCH BOX ASSEMBLY	
					FIG. 13 LIGHT INDICATOR	
1	PAOOO	PAOOO	97403	13214E1391	.LIGHT, INDICATOR	6
2	PAOZZ	PAOZZ	72619	181-0937-003	..LENS, LIGHT	1
3	PAOZZ	PAOZZ	58224	G9B	..LAMP	1
4	PAOZZ	PAOZZ	72619	181-8836-09-553	..HOUSING	1
					END OF FIGURE	

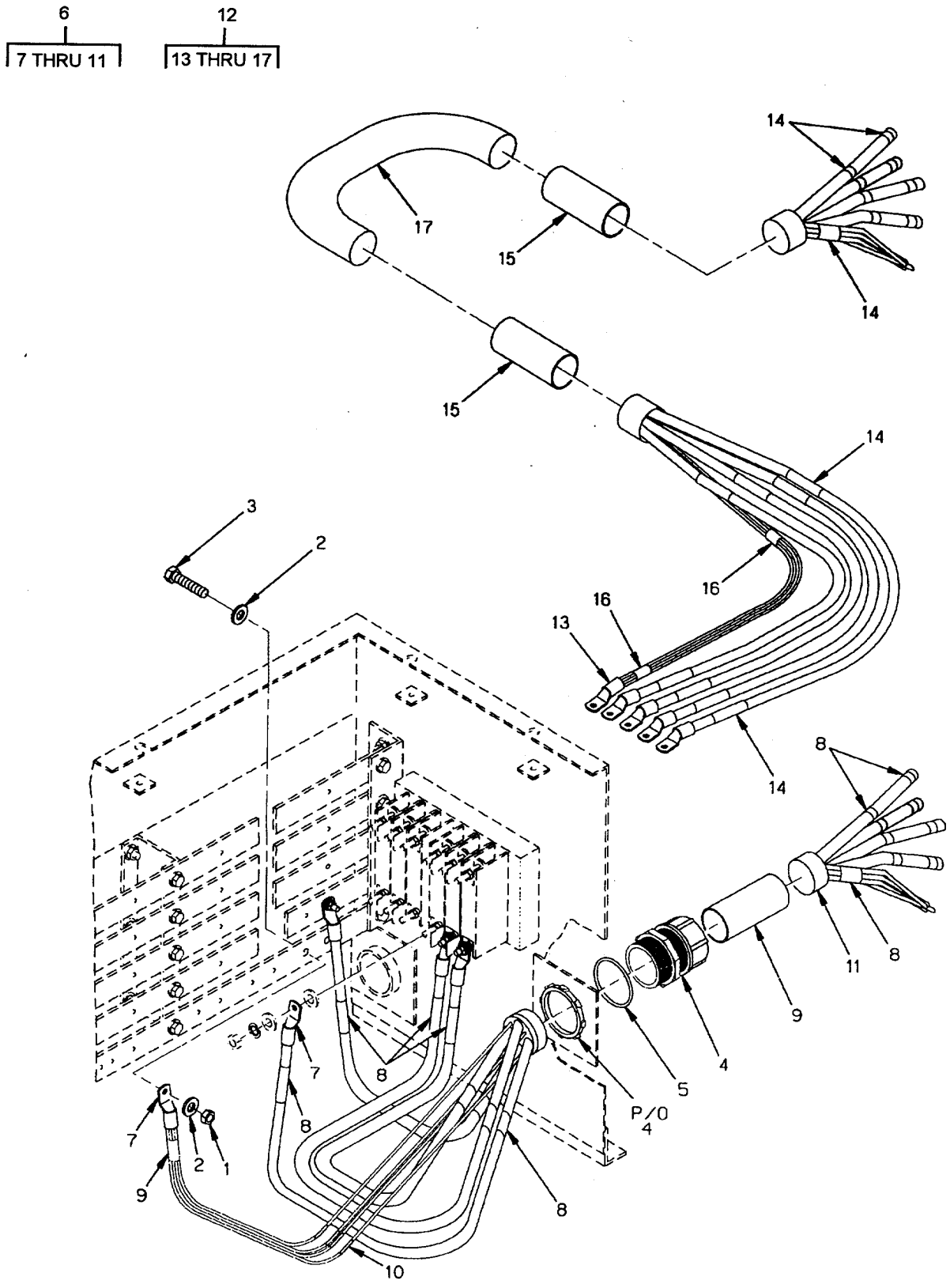


Figure 14. Cable Assembly, W1 and W2

(1)	(2) SMR CODE		(3)	(4)	(5)	(6)
ITEM NO.	a. ARMY	b. AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 02 SWITCH BOX ASSEMBLY **FIG. 14 CABLE ASSEMBLIES** **W1 & W2**	
1	PAOZZ	PAOZZ	96906	MS17829Z6C	.NUT, SELF-LOCKING	3
2	PAOZZ	PAOZZ	96906	MS51412-7	.WASHER, FLAT	6
3	PAOZZ	PAOZZ	80204	B1821BH038C125N	.SCREW, HEX HEAD	3
4	PAOZZ	PAOZZ	97403	13218E5149-16	.STUFFING, TUBE	2
5	PAOZZ	PAOZZ	81349	M83461/1-341	.PACKING, PREFORMED	2
6	AFFFF	AOO	97403	13230E4564-1	.CABLE ASSEMBLY W1	1
7	PAFZZ	PAOZZ	96906	MS25036-140	..TERMINAL, LUG	5
8	MFFZZ	MOO	19099	13230E4564-1-1	..INSULATION, SLEEVING MAKE FROM P/N M23053/5-110-0 (81349) 2.0 INCHES REQUIRED	17
9	MFFZZ	MOO	19099	13230E4564-1-2	..INSULATION, SLEEVING MAKE FROM P/N M23053/5-113-0 (81349) 3.0 INCHES REQUIRED	1
10	MFFZZ	MOO	19099	13230E4564-1-4	..INSULATION, SLEEVING MAKE FROM P/N M23053/5-108-0 (81349) 2.0 INCHES REQUIRED	8
11	MFFZZ	MOO	19099	13230E4564-1-3	..CABLE, POWER MAKE FROM P/N CO-04HDE(4/4/0-4/4R)2380 (81349) 89.5 INCHES REQUIRED	1
12	AFFFF	AOO	97403	13230E4564-2	.CABLE ASSEMBLY W2 UOC:FJZ,	1
13	PAFZZ	PAOZZ	96906	MS25036-140	..TERMINAL, LUG UOC:FJZ,	5
14	MFFZZ	MOO	19099	13230E4564-2-1	..INSULATION, SLEEVING MAKE. FROM P/N M23053/5-110-0 (81349) 2.0 INCHES REQUIRED	17
15	MFFZZ	MOO	19099	13230E4564-2-2	..INSULATION, SLEEVING MAKE FROM P/N M23053/5-113-0 (81349) 3.0 INCHES REQUIRED	2
16	MFFZZ	MOO	19099	13230E4564-2-4	..INSULATION, SLEEVING MAKE FROM P/N M23053/5-108-0 (81349) 2.0 INCHES REQUIRED	8
17	MFFZZ	MOO	19099	13230E4564-2-3	..CABLE, POWER MAKE FROM P/N CO-04HDE(4/4/0-4/4R)2380 (81349) 221.5 INCHES REQUIRED	1

END OF FIGURE

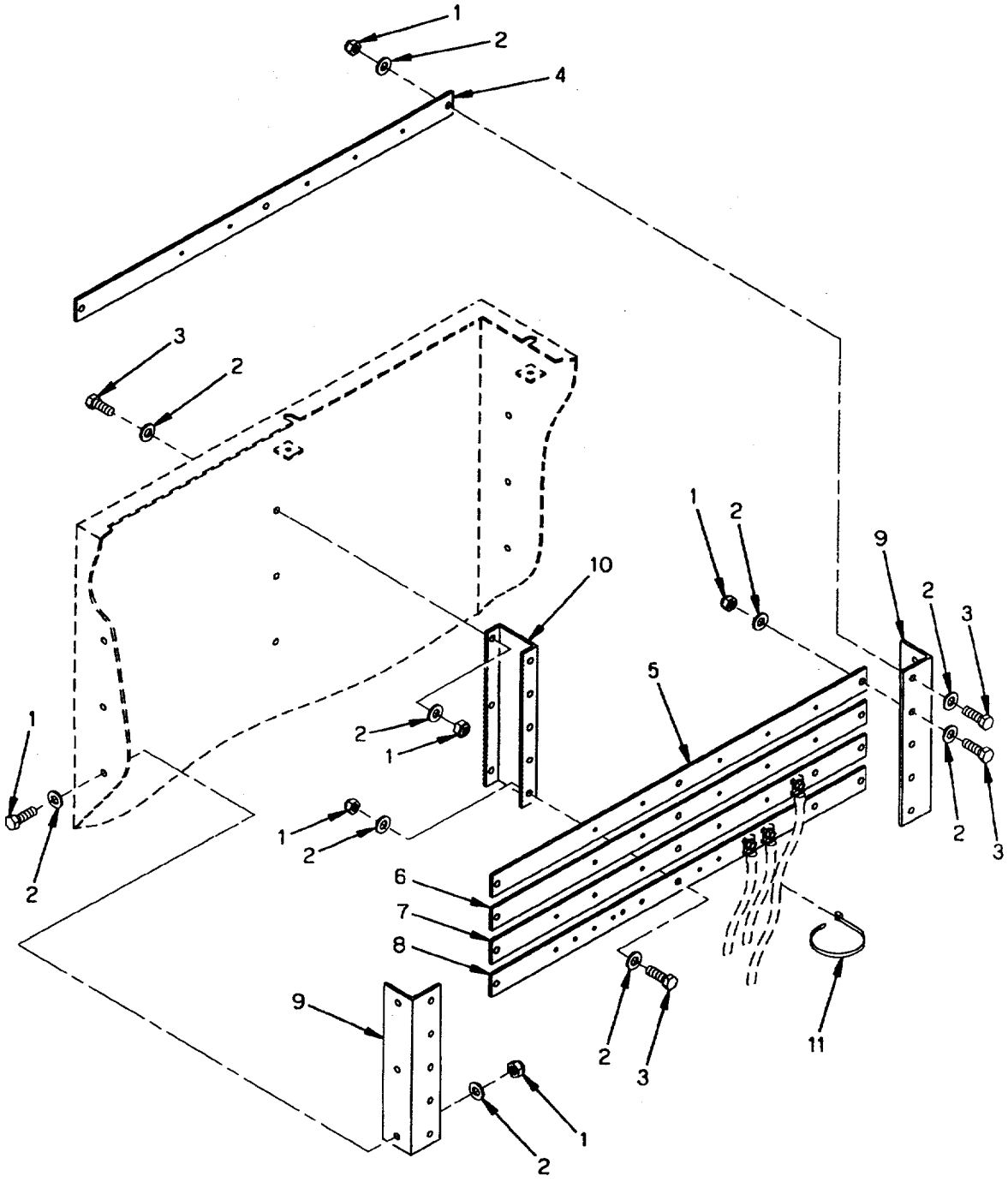


Figure 15. Bus Bar Assembly

(1)	(2) SMR CODE		(3)	(4)	(5)	(6)
	a.	b.				
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 02 SWITCH BOX ASSEMBLY	
					FIG. 15 BUS BAR ASSEMBLY	
1	PAOZZ	PAOZZ	96906	MS17829Z6C	.NUT, SELF-LOC KING	24
2	PAOZZ	PAOZZ	96906	MS51412-7	.WASHER, FLAT	48
3	PAOZZ	PAOZZ	80204	B1821BH038C125N	.SCREW, HEX HEAD	24
4	XDFZZ	XB	97403	13230E4557-1	.CONDUCTOR, BUS A1W1(L1)	1
5	XDFZZ	XB	97403	13230E4557-2	.CONDUCTOR, BUS A1W2(L2)	1
6	XDFZZ	XB	97403	13230E4557-3	.CONDUCTOR, BUS A1W3(L3)	1
7	XDFZZ	XB	97403	13230E4558	.CONDUCTOR, BUS A1W4(N)	1
8	XDFZZ	XB	97403	13230E4559	.CONDUCTOR, BUS A1W5(GND)	1
9	XDFZZ	XB	97403	13230E4562	.BRACKET, BUS MOUNT	2
10	XDFZZ	XB	97403	13230E4563	.BRACKET, BUS MOUNT	1
11	PAOZZ	PAOZZ	96906	MS3367-6-9	.STRAP, TIEDOWN, ELE	V

END OF FIGURE

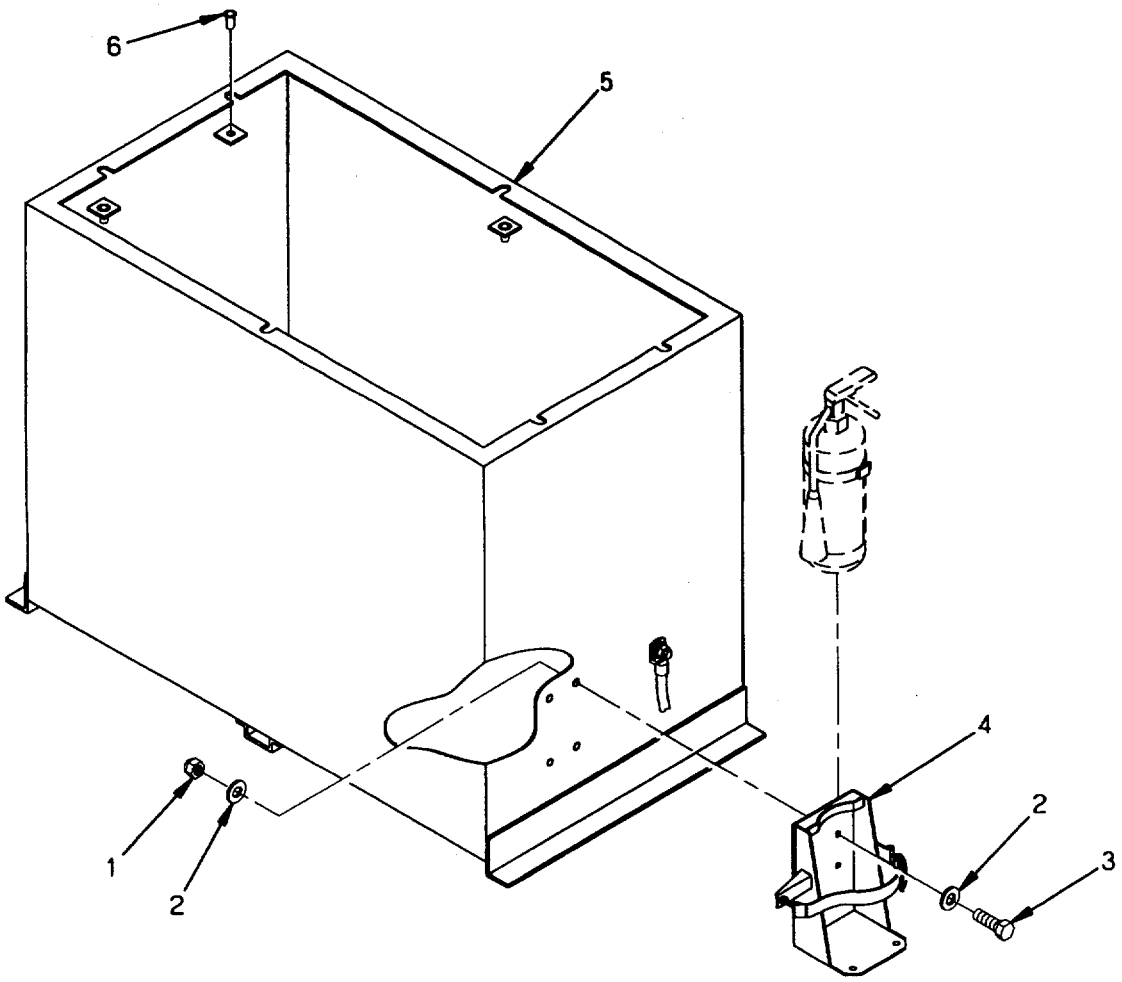


Figure 16. Fire Extinguisher Bracket

(1)	(2) SMR CODE		(3)	(4)	(5)	(6)
	a.	b.				
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 02 SWITCH BOX ASSEMBLY FIG. 16 FIRE EXTINGUISHER BRACKET	
1	PAOZZ	PAOZZ	96906	MS17829Z6C	.NUT, SELF-LOCKING	4
2	PAOZZ	PAOZZ	96906	MS51412-7	.WASHER, FLAT	8
3	PAOZZ	PAOZZ	80204	B1821BH038C125N	.SCREW, HEX HEAD	4
4	PAOZZ	PAOZZ	97403	13214E1235	.BRACKET, FIRE EXTINGUISHER	1
5	XDFFF	XB	97403	13230E4551	.ENCLOSURE, SWITCH BOX	1
6	PAFZZ	PAOZZ	96906	MS27130-A37K	..NUT, BLIND RIVET	6

END OF FIGURE

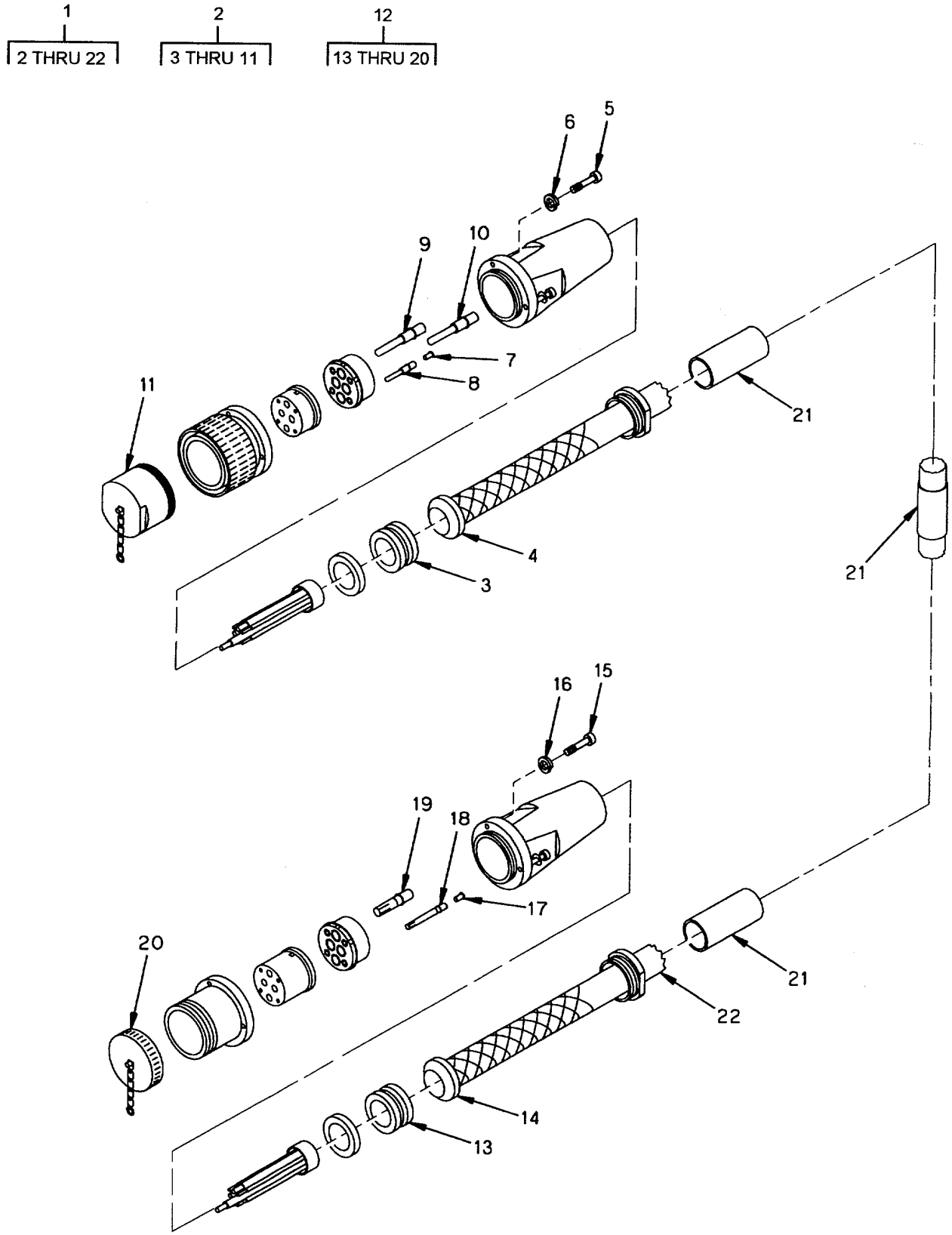


Figure 17. Output Cable Assembly

(1)	(2) SMR CODE a.	b.	(3)	(4)	(5)	(6)
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 03 CABLE ASSEMBLY	
					FIG. 17 OUTPUT CABLE ASSEMBLY	
1	PAOFF	PAOOO	97403	13230E4565	CABLE ASSEMBLY CABLE ASSEMBLY OUTPUT 50/60 HERTZ UOC:FJZ,	6
1	PAOFF	PAOOO	97403	13230E4589	CABLE ASSEMBLY CABLE ASSEMBLY OUTPUT 400 HERTZ UOC:FKA,	4
2	PAFFF	PAOOO	96906	MS90556C44413P	.CONNECTOR, PLUG ELE 50/60..... HERTZ UOC:FJZ,	1
2	PAFFF	PAOOO	96906	MS90556C44413PW	.CONNECTOR, PLUG ELE 400 HERTZ	1
3	XDFZZ	XB	96906	MS23747-16	..GLAND	1
4	XDFZZ	XB	96906	MS90561-16	..CABLE, GRIP	1
5	PAOZZ	PAOZZ	77820	10-473421-3	..SCREW	3
6	PAOZZ	PAOZZ	96906	MS35338-139	..WASHER, LOCK.....	3
7	PAFZZ	PAOZZ	96906	MS3348-6-8L	..CONTACT, ELECTRICAL	4
8	PAFZZ	PAOZZ	81349	M39029/48-319	..CONTACT, ELECTRICAL	4
9	PAFZZ	PAOZZ	81349	M39029/48-324	..CONTACT, ELECTRICAL	1
10	PAFZZ	PAOZZ	81349	M39029/48-323	..CONTACT, ELECTRICAL	3
11	PAOZZ	PAOZZ	96906	MS90564-7C	..COVER, ELECTRICAL	1
12	PAFFF	PAOOO	96906	MS90557C44413S	.CONNECTOR, PLUG ELE 50/60..... HERTZ UOC:FJZ,	1
12	PAFFF	PAOOO	96906	MS90557C44413SW	.CONNECTOR, PLUG ELE 400 HERTZ UOC:FKA,	1
13	XDFZZ	XB	96906	MS23747-16	..GLAND	1
14	XDFZZ	XB	96906	MS90561-16	..CABLE, GRIP	1
15	PAOZZ	PAOZZ	77820	10-473421-3	..SCREW	3
16	PAOZZ	PAOZ0	96906	MS35338-139	..WASHER, LOCK.....	3
17	PAFZZ	PAOZZ	96906	MS3348-6-8L	..CONTACT, ELECTRICAL	4
18	PAFZZ	PAOZZ	81349	M39029/48-330	..CONTACT, ELECTRICAL	4
19	PAFZZ	PAOZZ	81349	M39029/48-333	..CONTACT, ELECTRICAL	4
20	PAOZZ	PAOZZ	96906	MS90564-7C	..COVER, ELECTRICAL.....	1
21	MFFZZ	MOO	19099	13230E4565-2	.INSULATION, SLEEVIN MAKE ..... FROM P/N M23053/5-112-0 (81349) 3.0 INCHES REQUIRED	3
22	MFFZZ	MOO	19099	13230E4565-3	.CABLE MAKE FROM P/N ..... CO-04HDF(4/1-4/8R)1620 (81349) 600.00 INCHES REQUIRED	1

END OF FIGURE

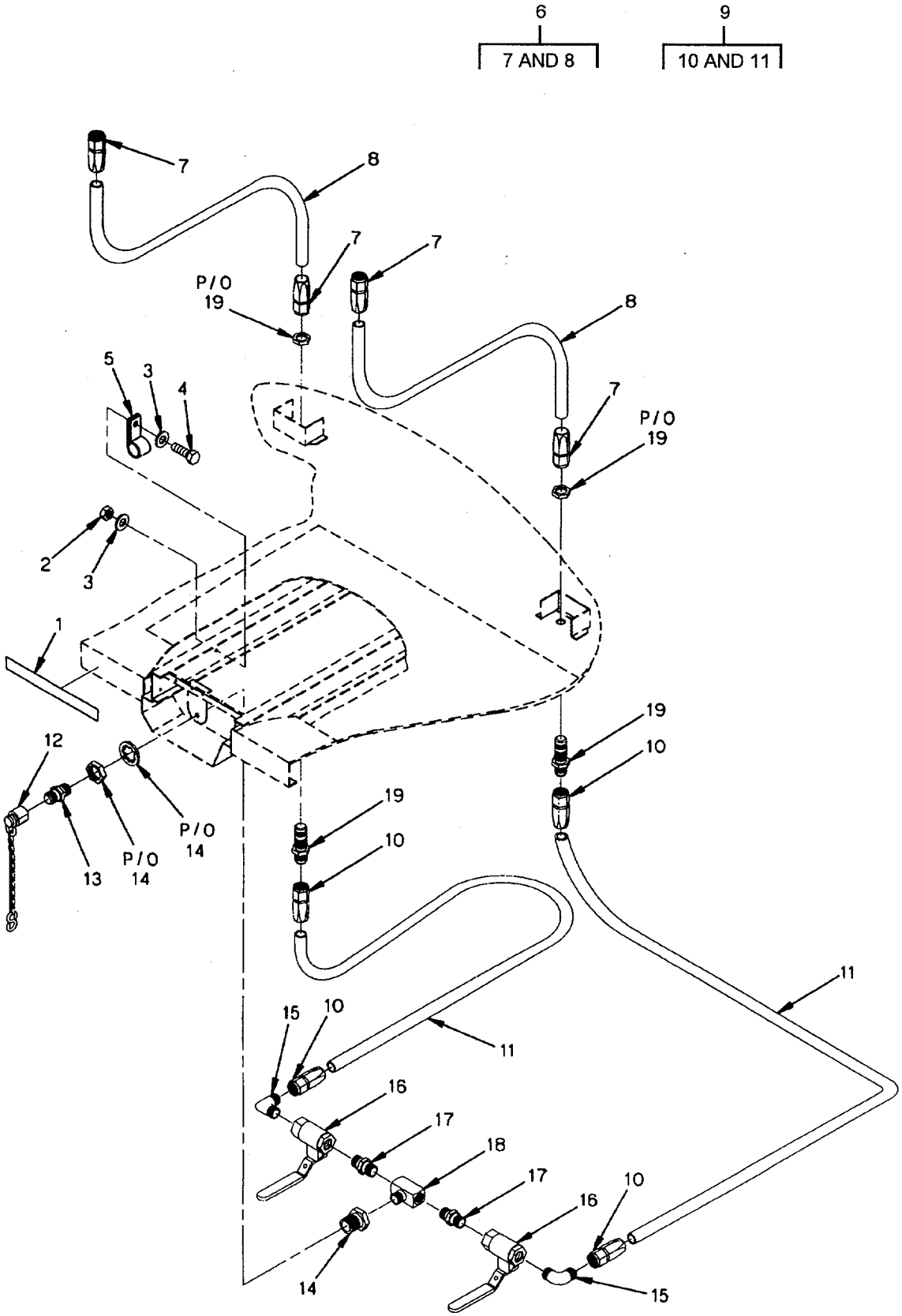


Figure 18. Fuel System

(1)	(2) SMR CODE a.	b.	(3)	(4)	(5)	(6)
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 04 FUEL ASSEMBLY	
					FIG. 18 FUEL SYSTEM	
1	PAOZZ	PAOZZ	97403	13230E4577	.PLATE, IDENTIFICATION AUXILIARY FUEL FILL	1
2	PAOZZ	PAOZZ	96906	MS17829Z4C	.NUT, SELF-LOCKING	6
3	PAOZZ	PAOZZ	96906	MS51412-23	.WASHER, FLAT	12
4	PAOZZ	PAOZZ	80204	B1821BH025C125N	.SCREW, HEX HEAD	6
5	PAOZZ	PAOZZ	96906	MS21333-104	.CLAMP, LOOP	6
6	AOOOO	AOOOO	97403	MS52103B050420R	.HOSE ASSEMBLY.....	2
7	PAOZ0	PAOZZ	81343	4-5250154	.ADAPTER, STRAIGHT..... TUBE TO HOSE	2
8	MOOZZ	MOO	19099	MS52103B050420R-1	.HOSE, NON-METALLIC ..... MAKE FROM P/N FC173-5 (01276), 42 INCHES REQUIRED	1
9	AOOOO	AOOOO	97403	MS52103B050600R	.HOSE ASSEMBLY	2
10	PAOZZ	PAOZZ	81343	4-5250154	.ADAPTER, STRAIGHT..... TUBE TO HOSE	2
11	MOOZZ	MOO	19099	MS52103B050600R-1	.HOSE, NON-METALLIC ..... MAKE FROM P/N FC173-5 (01276) 60 INCHES REQUIRED	1
12	PAOZZ	PAOZZ	97403	13230E6370	.CAP, TUBE	1
13	PAOZZ	PAOZZ	88044	AN816-6B	.ADAPTER, STRAIGHT.....	1
14	PAOZZ	PAOZZ	93061	1207ACBH-4	.COUPLING, PIPE	1
15	PAOZZ	PAOZZ	81343	5-4-070202B	.ELBOW, PIPE TO TUBE.....	2
16	PAOZZ	PAOZZ	79227	B-6000-1/4 NPT	.VALVE	2
17	PAOZZ	PAOZZ	81343	4-4-140137B	.NIPPLE, PIPE	2
18	PAOZZ	PAOZZ	81343	4-4-4-140425B	.TEE, PIPE	1
19	PAOZZ	PAOZZ	96906	MS51520A5Z	.NIPPLE, TUBE	2

END OF FIGURE

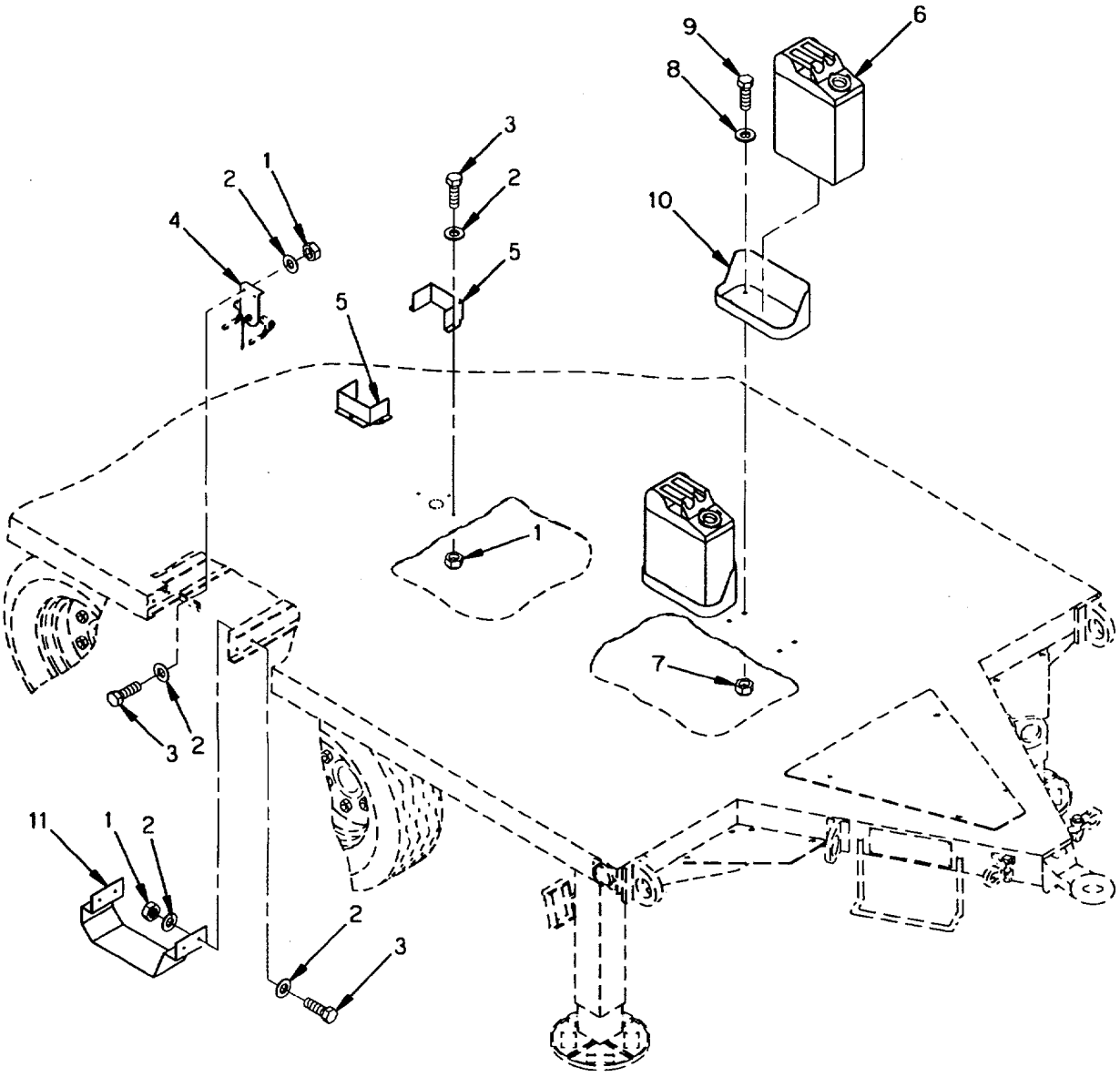


Figure 19. Fuel System Brackets

(1)	(2) SMR CODE		(3)	(4)	(5)	(6)
	a.	b.				
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 04 FUEL SYSTEM	
					FIG. 19 FUEL SYSTEM BRACKETS	
1	PAOZZ	PAOZZ	96906	MS17829Z4C	.NUT, SELF-LOCKING	12
2	PAOZZ	PAOZZ	96906	MS51412-23	.WASHER, FLAT	18
3	PAOZZ	PAOZZ	80204	B1821BH025C125N	.SCREW, HEX HEAD	12
4	XDOZZ	XB	97403	13230E4575	.BRACKET, FUEL FILL	1
5	XDOZZ	XB	97403	13230E4572	.SHIELD, FUEL LINE	2
6	PAOZZ	PAOZZ	81349	MIL-C-53109	.CAN, FUEL	2
7	PAOZZ	PAOZZ	96906	MS17829Z6C	.NUT, SELF-LOCKING	8
8	PAOZZ	PAOZZ	96906	MS51412-7	.WASHER, FLAT	8
9	PAOZZ	PAOZZ	80204	B1821BH038C125N	.SCREW, HEX HEAD	8
10	PAOZZ	PAOZZ	96906	MS53052-1	.BRACKET, FUEL CAN	2
11	XDOZZ	XB	97403	13230E4597	.BRACKET, FUEL VALVE	1

END OF FIGURE

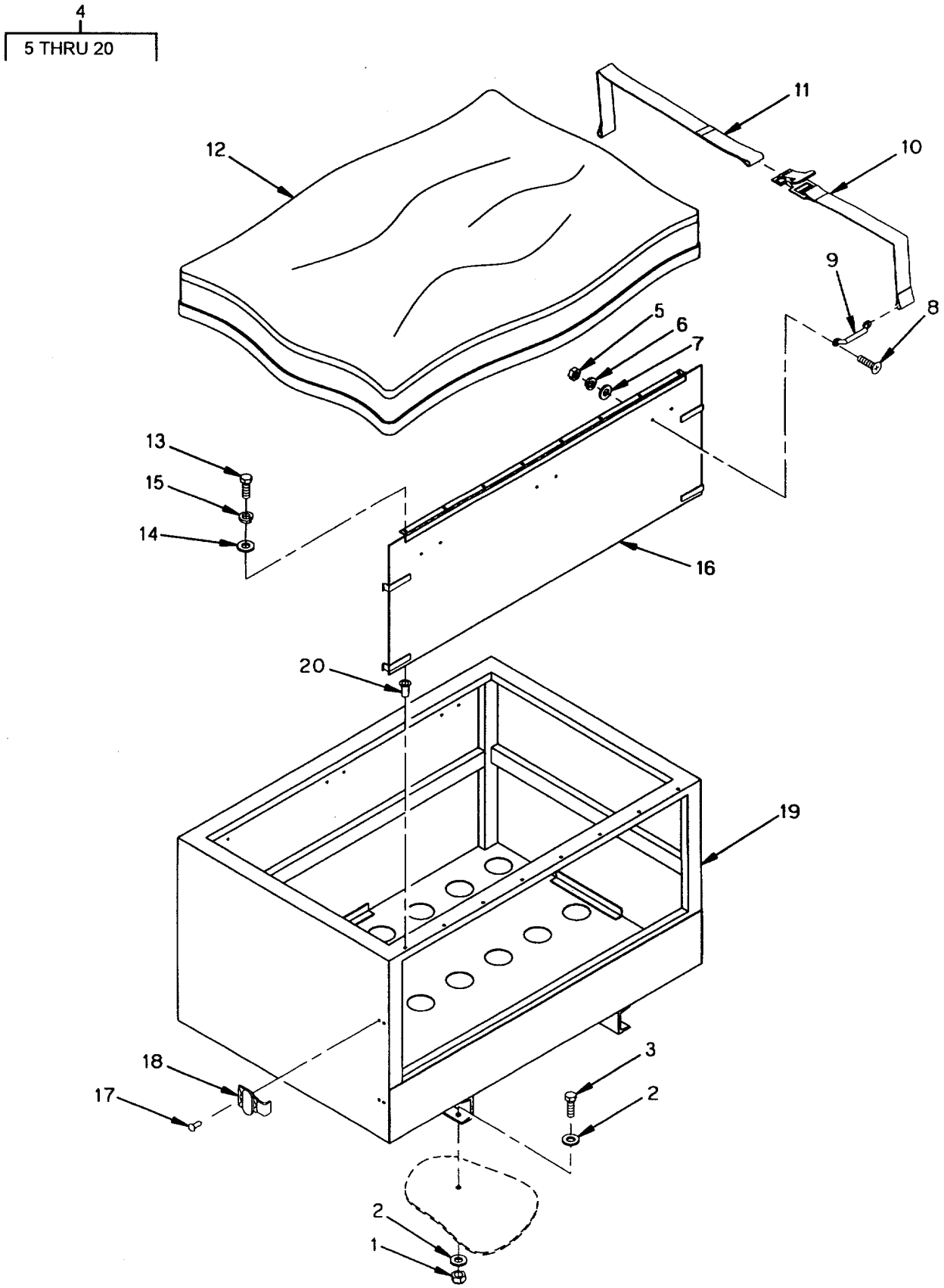


Figure 20. Cable Storage Box

(1)	(2) SMR CODE		(3)	(4)	(5)	(6)
	a.	b.				
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 05 ACCESSORIES	
					FIG. 20 CABLE STORAGE BOX ASSEMBLY	
1	PAOZZ	PAOZZ	96906	MS17829Z6C	NUT, SELF-LOCKING	6
2	PAOZZ	PAOZZ	96906	MS51412-7	WASHER, FLAT	12
3	PAOZZ	PAOZZ	80204	B1821BH038C125N	SCREW, HEX HEAD	6
4	XDFFF	XB	97403	13230E4580	BOX, STORAGE CABLE	1
5	PAOZZ	PAOZZ	96906	MS35650-304	.NUT, PLAIN HEXAGON	12
6	PAOZZ	PAOZZ	96906	MS35338-138	.WASHER, LOCK	12
7	PAOZZ	PAOZZ	96906	MS51412-21	.WASHER, FLAT	12
8	PAOZZ	PAOZZ	96906	MS51960-66	.SCREW, MACHINE	12
9	PAOZZ	PAOZZ	96906	MS51939-3	.LOOP, STRAP FASTNER	6
10	PAOZZ	PAOZZ	97403	13216E7505-2	.STRAP, WEBBING	3
11	PAOZZ	PAOZZ	97403	13216E7504	.STRAP, WEBBING	3
12	PAOZZ	PAOZZ	97403	13230E4583	.COVER, STORAGE BOX	1
13	PAOZZ	PAOZZ	80204	B1821BH025F062N	.SCREW, HEX HEAD	8
14	PAOZZ	PAOZZ	96906	MS51412-23	.WASHER, FLAT	8
15	PAOZZ	PAOZZ	96906	MS51415-5	.WASHER, LOCK	8
16	XDOZZ	MOO	97403	13230E4582	.BOX, STORAGE DOOR	1
17	PAOZZ	PAOZZ	96906	MS20604AD4W3	.RIVET, BLIND	8
18	PAOZZ	PAOZZ	97403	13205E5068	.CATCH, CLAMPING	4
19	XAFFF	XA	97403	13230E4581	.ENCLOSURE, CABLE STORAGE	1
20	PAOZZ	PAOZZ	96906	MS27130-CR105	.NUT, PLAIN BLIND RIVET	8

END OF FIGURE

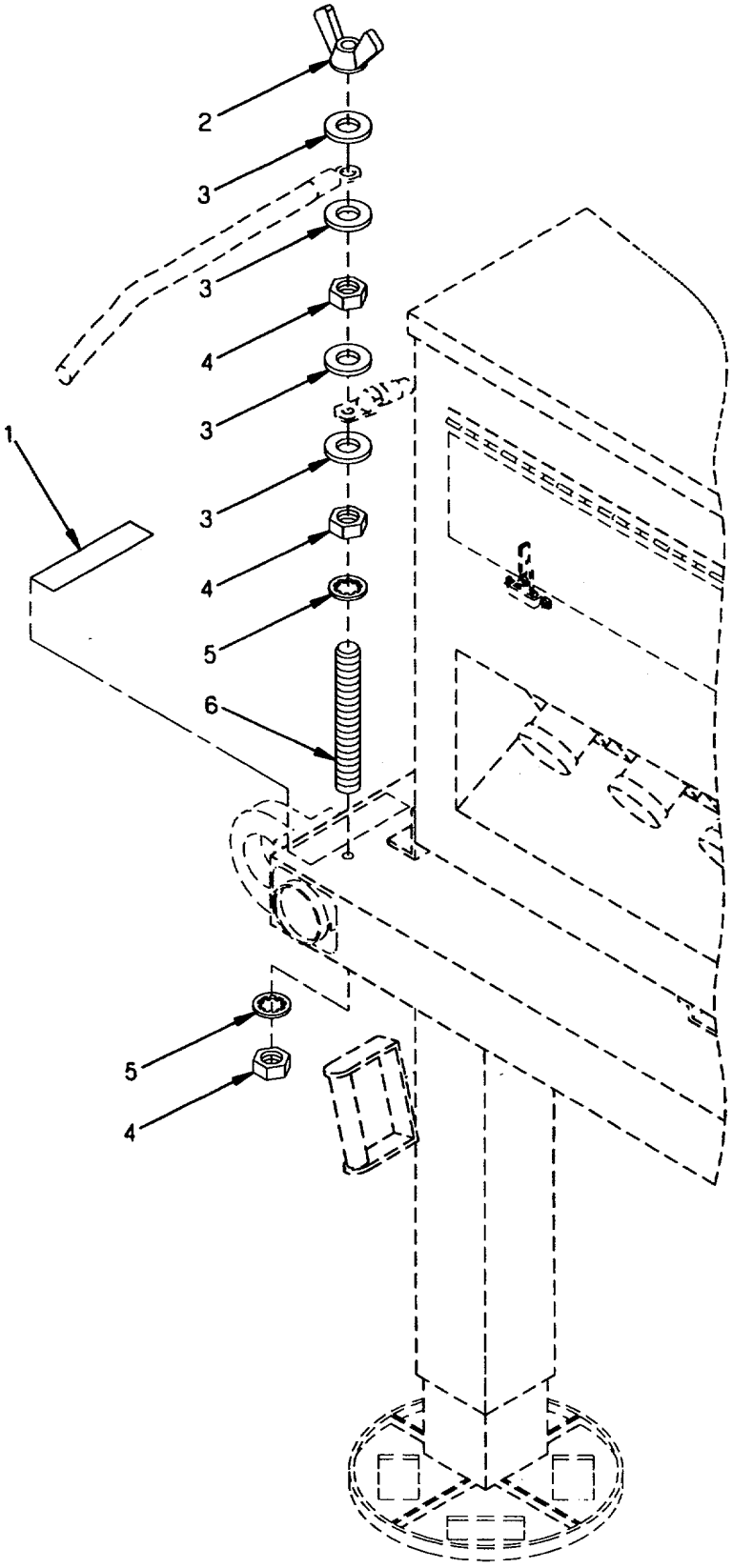


Figure 21. Identification Plates and Ground Stud

(1)	(2) SMR CODE		(3)	(4)	(5)	(6)
ITEM NO.	a. ARMY	b. AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 05 ACCESSORIES	
					FIG. 21 I.D. PLATES & GROUND STUD	
1	PAOZZ	PAOZZ	97403	13205E4918	.PLATE, IDENTIFICATION GROUND ..	1
2	PAOZZ	PAOZZ	96906	MS35425-75	.NUT, PLAIN WING	1
3	PAOZZ	PAOZZ	88044	AN961-616	.WASHER, FLAT	4
4	PAOZ7	PAOZZ	96906	MS16203-27	.NUT, PLAIN HEXAGON	3
5	PAOZZ	PAOZZ	96906	MS35333-110	.WASHER, LOCK	2
6	PAOZZ	PAOZZ	97403	13214E1223	.STUD, CONTINUOUS	1

END OF FIGURE

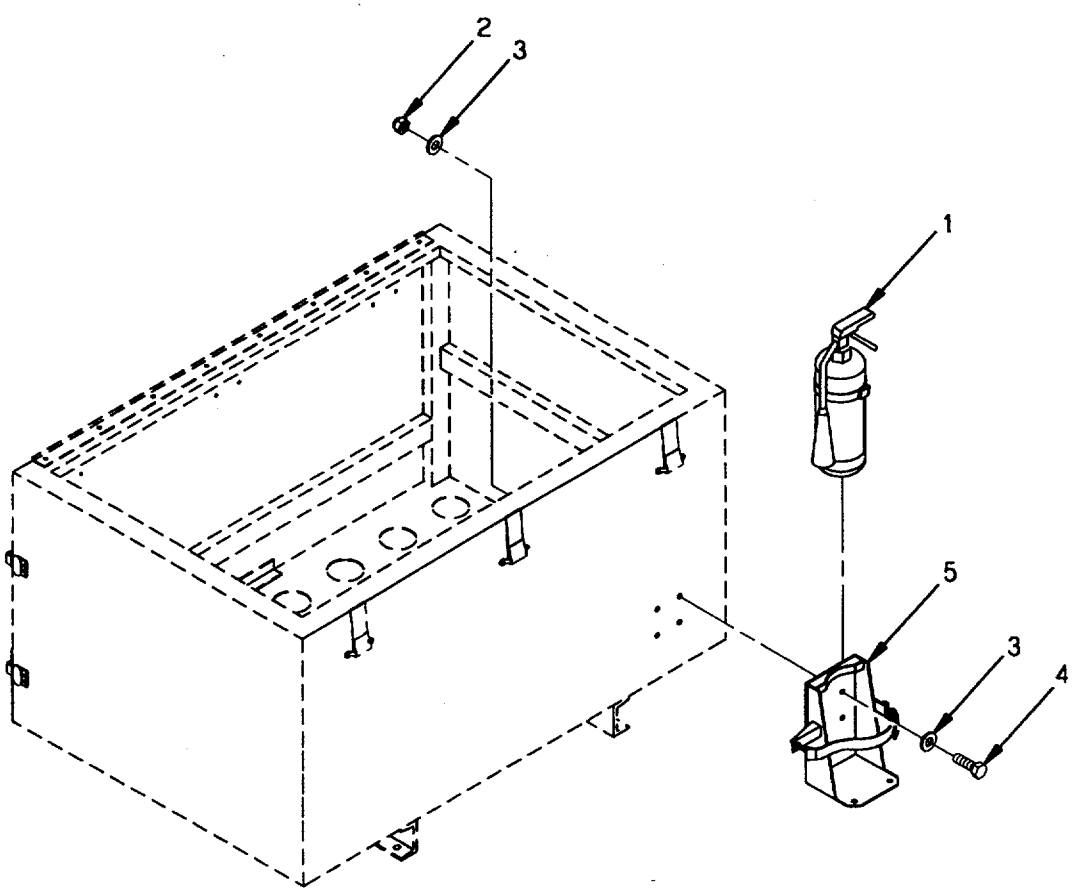


Figure 22. Fire Extinguisher and Bracket

(1)	(2) SMR CODE		(3)	(4)	(5)	(6)
	a.	b.				
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 05 ACCESSORIES	
					FIG. 22 FIRE EXTINGUISHER AND BRACKET	
1	PAOZZ	PAOZZ	99251	3304695-1	.EXTINGUISHER FIRE	1
2	PAOZZ	PAOZZ	96906	MS17829Z6C	.NUT, SELF-LOCKING	4
3	PAOZZ	PAOZZ	96906	MS51412-7	.WASHER, FLAT	8
4	PAOZZ	PAOZZ	80204	B1821BH038C100N	.SCREW, HEX HEAD	4
5	PAOZZ	PAOZZ	97403	13214E1235	.BRACKET, FIRE EXTINGUISHER	1

END OF FIGURE

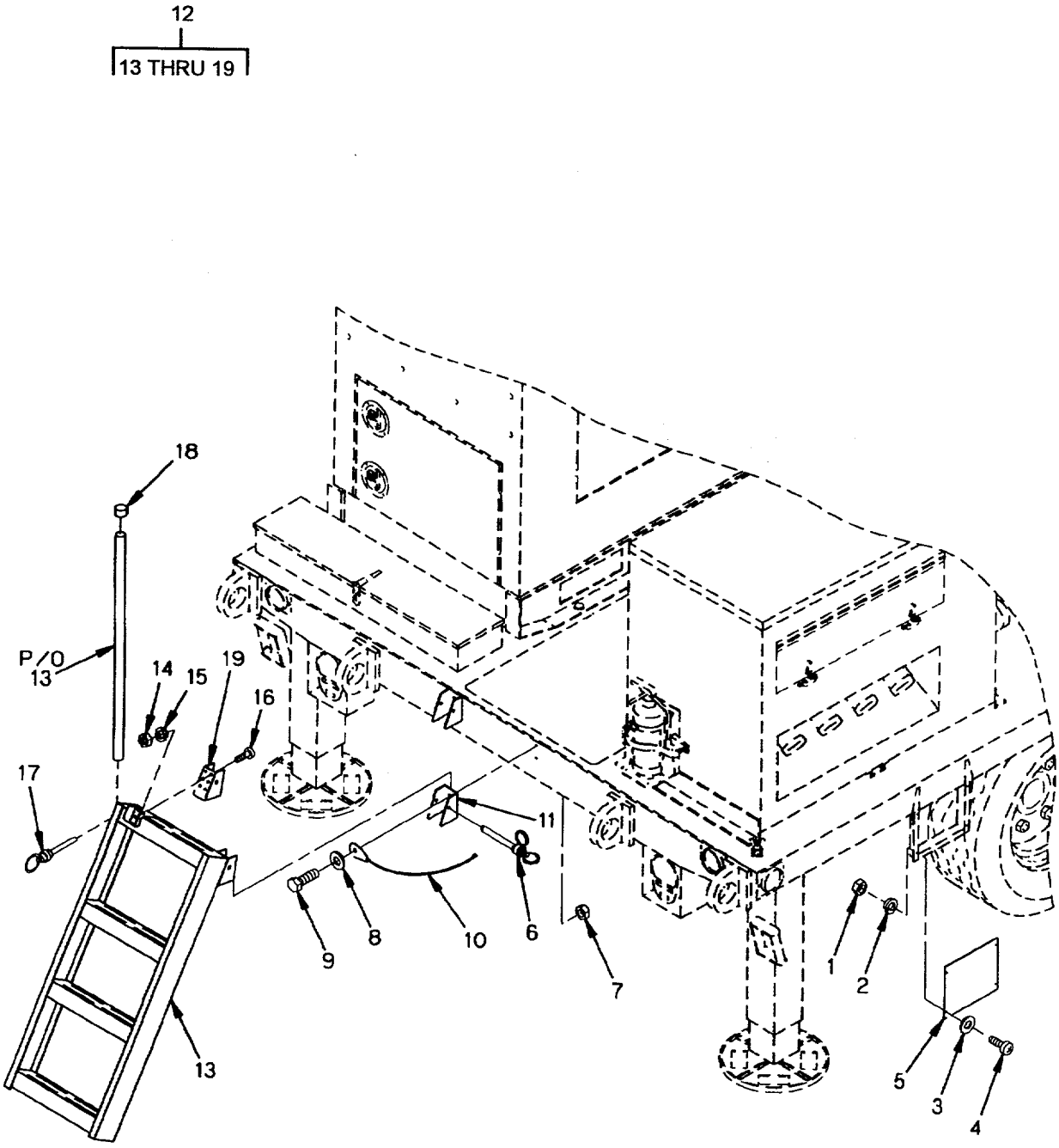


Figure 23. Ladder Assembly

(1)	(2) SMR CODE		(3)	(4)	(5)	(6)
	a.	b.				
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 05 ACCESSORIES FIG. 23 LADDER ASSEMBLY	
1	PAOZZ	PAOZZ	96906	MS35650-304T	.NUT, HEXAGON	8
2	PAOZZ	PAOZZ	96906	MS35338-138	.WASHER, LOCK	8
3	PAOZZ	PAOZZ	96906	MS15795-848	.WASHER, FLAT.....	8
4	PAOZZ	PAOZZ	96906	MS51958-64	.SCREW, PAN HEAD.....	8
5	XDOZZ	XB	97403	13230E4571	.COVER, LADDER OPENING	2
6	PAOZZ	PAOZZ	96906	MS17990C525	.PIN, QUICK RELEASE.....	2
7	PAOZZ	PAOZZ	96906	MS17829Z6C	.NUT, SELF-LOCKING	4
8	PAOZ0	PAOZ0	96906	MS51412-7	.WASHER, FLAT	4
9	PAOZZ	PAOZZ	80204	B1821BH038C100N	.SCREW, HEX HEAD.....	4
10	PAOZZ	PAOZZ	97403	13229E9634-5C6	.WIRE ROPE ASSEMBLY	2
11	XDOZZ	XB	97403	13230E4574	.BRACKET, LADDER	2
12	AOOOO	AOO	97403	13230E4594	.LADDER, BOARDING	1
13	PAOOO	PAOOO	80063	SC-D-147189	..LADDER, ASSEMBLY	1
14	PAOZZ	PAOZZ	96906	MS51967-2	...NUT, PLAIN HEXAGON	10
15	PAOZZ	PAOZZ	96906	MS35339-44	...WASHER, LOCK.....	10
16	PAOZZ	PAOZZ	88044	AN526-420-12	...SCREW, MACHINE.....	10
17	PAOZZ	PAOZZ	81349	M45952/1-C4-21	...PIN, QUICK RELEASE.....	1
18	PAOZZ	PAOZZ	81349	M5501/9-F19	...CAP, PROTECTIVE	1
19	XDOZZ	XB	97403	13230E4573	..BRACKET, LADDER	2

END OF FIGURE

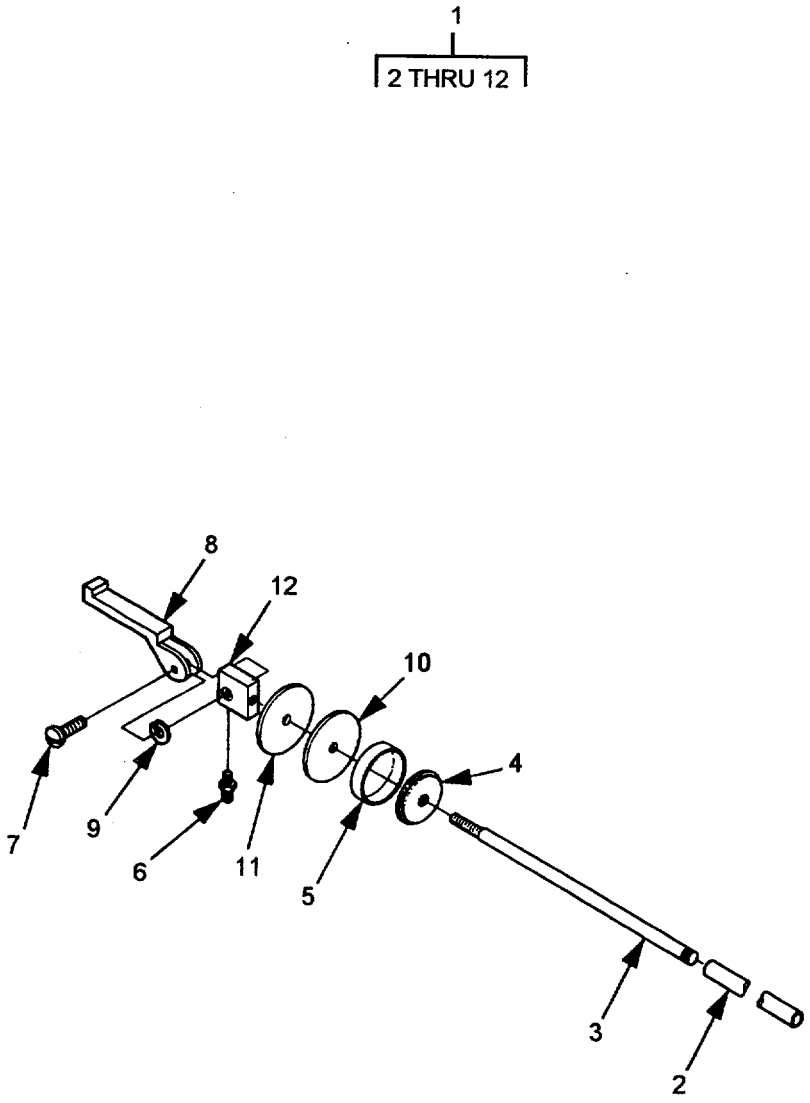


Figure 24. Container Adapter

(1)	(2) SMR CODE a.	b.	(3)	(4)	(5)	(6)
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 05 ACCESSORIES	
					FIG. 24 CONTAINER ADAPTER	
1	PAOOO	PAOOO	06076	13211E7541	.ADAPTER, CONTAINER.....	1
2	PAOZZ	PAOZZ	97403	13211E7542	..PIPE, METALLIC.....	1
3	PAOZZ	PAOZZ	97403	13211E7543	..PIPE, METALLIC.....	1
4	XAOZZ	XA	97403	13211E7544	..WASHER, RECESSED	1
5	PAOZZ	PAOZZ	97403	13211E7546	..GASKET.....	1
6	PAOZZ	PAOZZ	88044	AN816-5-4	..ADAPTER, STRAIGHT.....	1
7	PAOZZ	PAOZZ	00141	4328	..SCREW, SHOULDER	2
8	XAOZZ	XA	97403	13200E6363	..CLAMP, STRAINER	1
9	PAOZZ	PAOZZ	96906	MS35335-60	..WASHER, LOCK.....	2
10	XAOZZ	XA	97403	13211E7547	..WASHER, FLAT.....	1
11	XAOZZ	XA	97403	13200E6361	..WASHER, FLAT.....	1
12	XAOZZ	XA	97403	13211E7548	..HEAD	1

END OF FIGURE

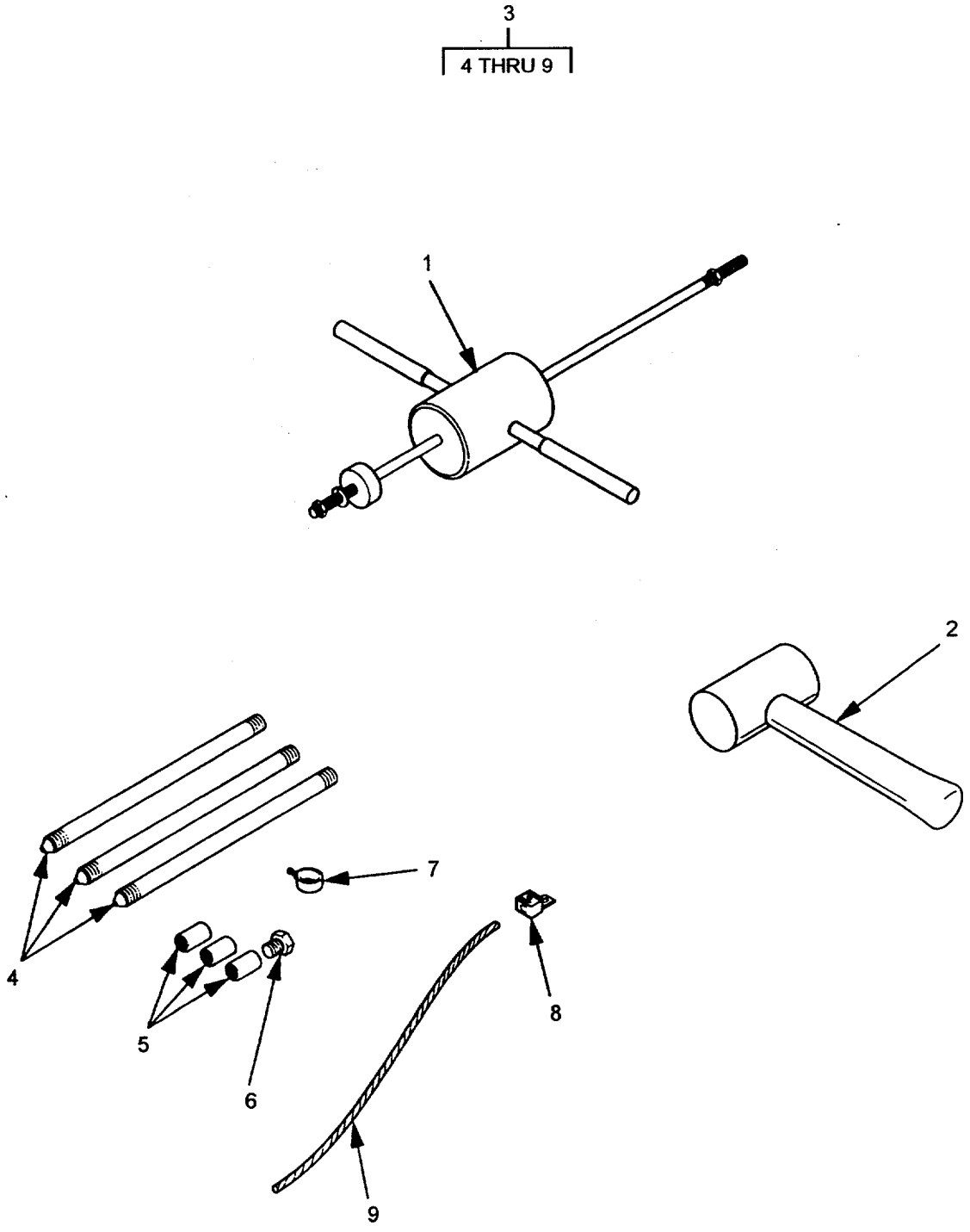


Figure 25. Ground Rod

(1)	(2) SMR CODE a.	b.	(3)	(4)	(5)	(6)
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 05 ACCESSORIES	
					FIG. 25 GROUND ROD	
1	PAOZZ	PAOZZ	97403	13226E7741	.SLIDE HAMMER , GROUND.....	1
2	PAOZZ	PAOZZ	81348	GGG-H-86,TY10CL	.HAMMER, HAND	1
3	PAOOO	PAOOO	15277	FS0216B122-1	.ROD, GROUNDNW ATTACHMENTS .	1
4	XAOZZ	XA	56681	HLP1053A	.ROD, GROUND	3
5	PAOZZ	PAOZZ	0BKK8	GRC-58	..COUPLING, GROUND ROD	3
6	PAOZZ	PAOZZ	73616	GRB58	..DRIVE, HEAD	1
7	PAOZZ	PAOZZ	04655	70-801074	..CLAMP, ELECTRICAL	1
8	PAOZZ	PAOZZ	01667	CBA-70	..TERMINAL, LUG.....	1
9	MOOZZ	MOO	19099	FS0216B122-16	..WIRE, ELECTRICAL MAKE FROM.....	1
					P/N QQW343C06B1B (81348)	
					AS REQUIRED	
					END OF FIGURE	

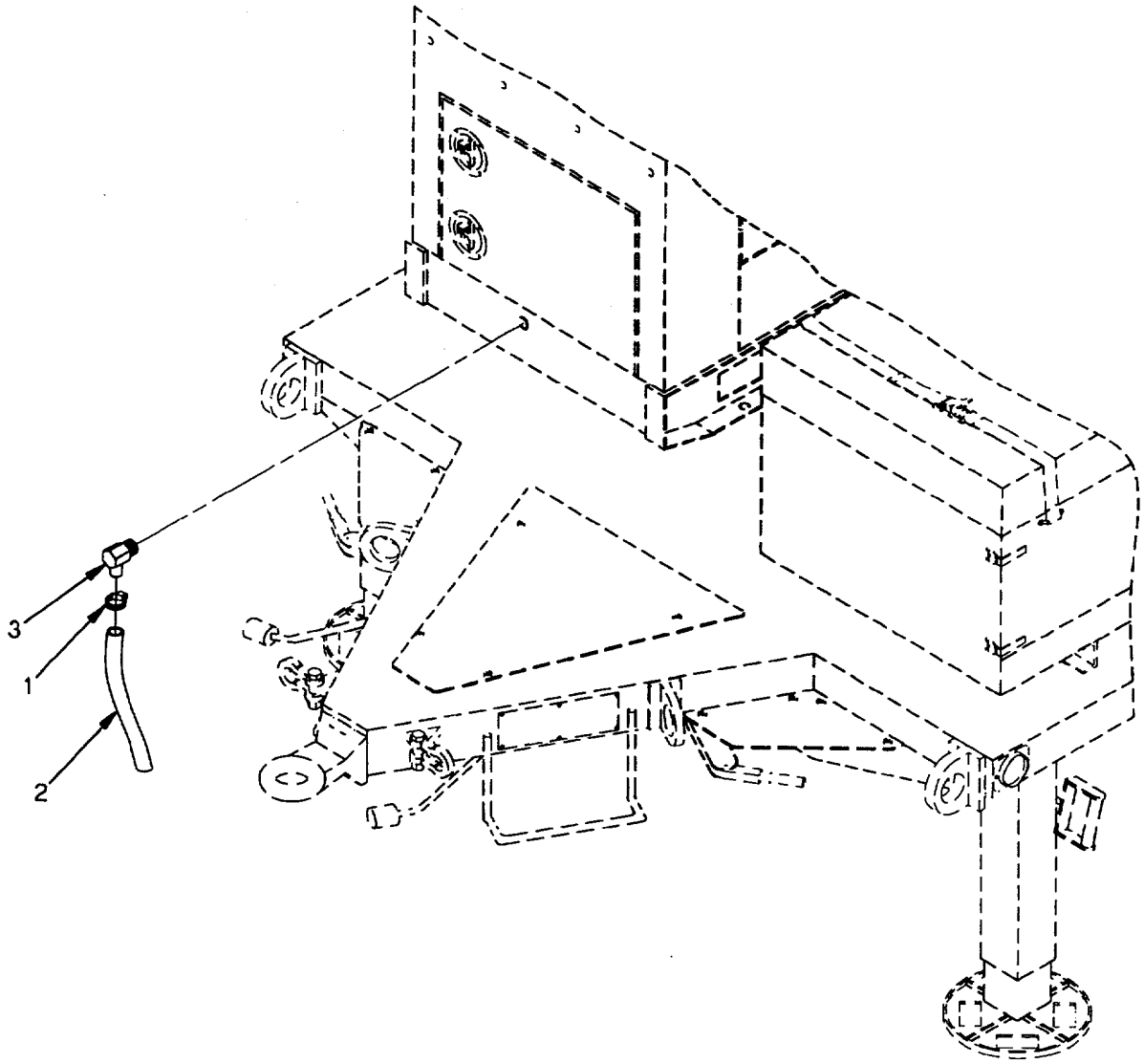


Figure 26. Oil Drain

(1)	(2) SMR CODE a.	b.	(3)	(4)	(5)	(6)
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 05 ACCESSORIES **FIG. 26 OIL DRAIN**	
1	PAOZZ	PAOZZ	96906	MS35842-11	.CLAMP, HOSE.....	1
2	MOOZZ	MOO	19099	13230E9635-62	.HOSE, NON-METALLIC MAKE ..... FROM P/N M6000F00200 (81349) AS REQUIRED	1
3	PAOZZ	PAOZZ	96906	MS24519-9	.ELBOW, PIPE TO HOSE.....	1
					END OF FIGURE	

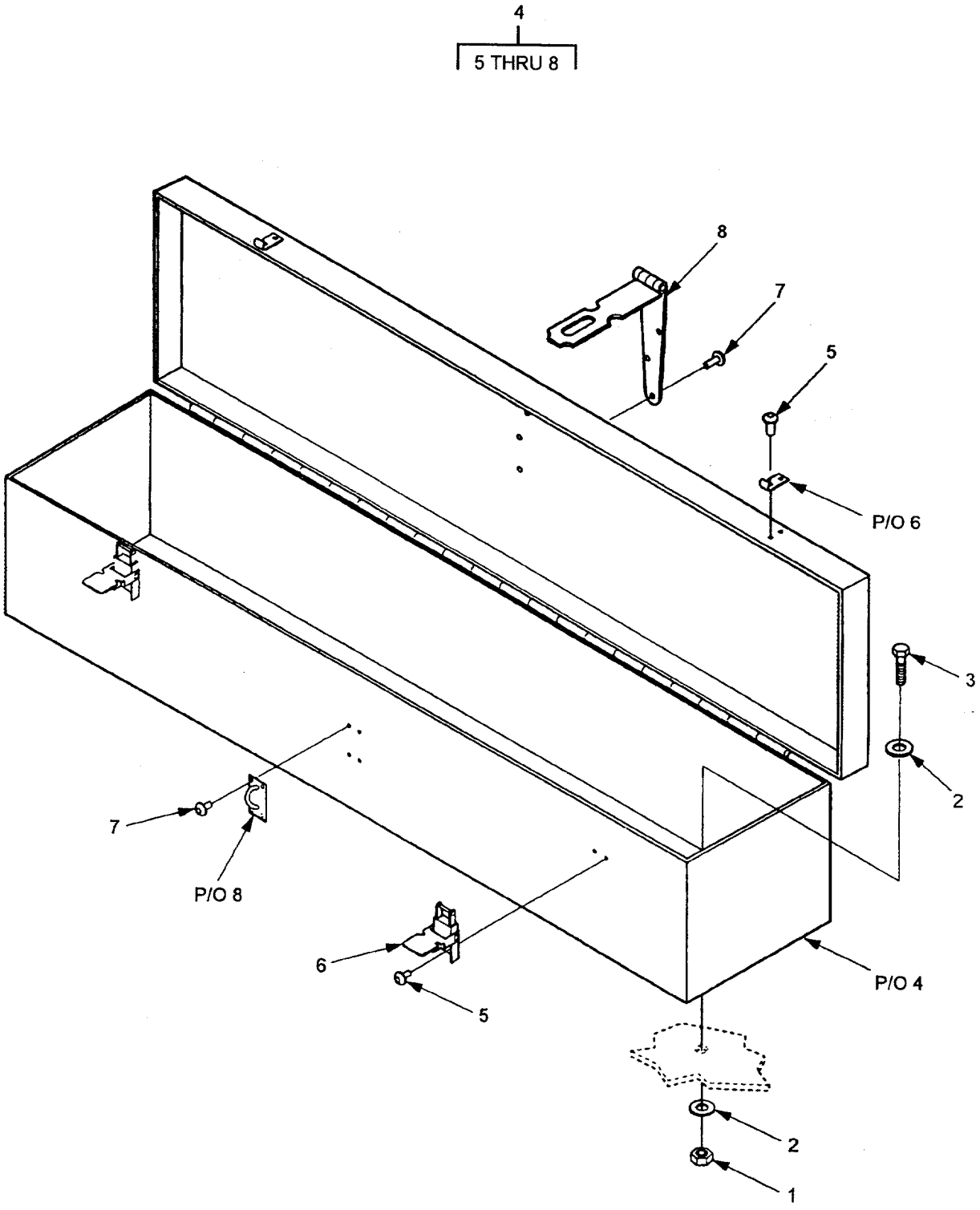


Figure 27. Accessory Box

(1)	(2) SMR CODE		(3)	(4)	(5)	(6)
	a.	b.				
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 05 ACCESSORIES	
					FIG. 27 ACCESSORY BOX	
1	PAOZZ	PAOZZ	96906	MS17829Z5C	.NUT, SELF-LOCKING	4
2	PAOZZ	PAOZZ	96906	MS51412-25	.WASHER, FLAT	8
3	PAOZZ	PAOZZ	80204	B1821BH031C125N	.BOLT, MACHINE	4
4	XDOOO	XB	97403	13229E7946	.BOX, ACCESSORY	1
5	PAOZZ	PAOZZ	96906	MS20613-4P5	..RIVET, SOLID	8
6	PAOZZ	PAOZZ	96906	MS18015-1	..CATCH, CLAMPING	2
7	PAOZZ	PAOZZ	96906	MS20427-4C6	..RIVET, SOLID	8
8	PAOZZ	PAOZZ	96906	MS27969-4	..HASP, HINGED	1

END OF FIGURE

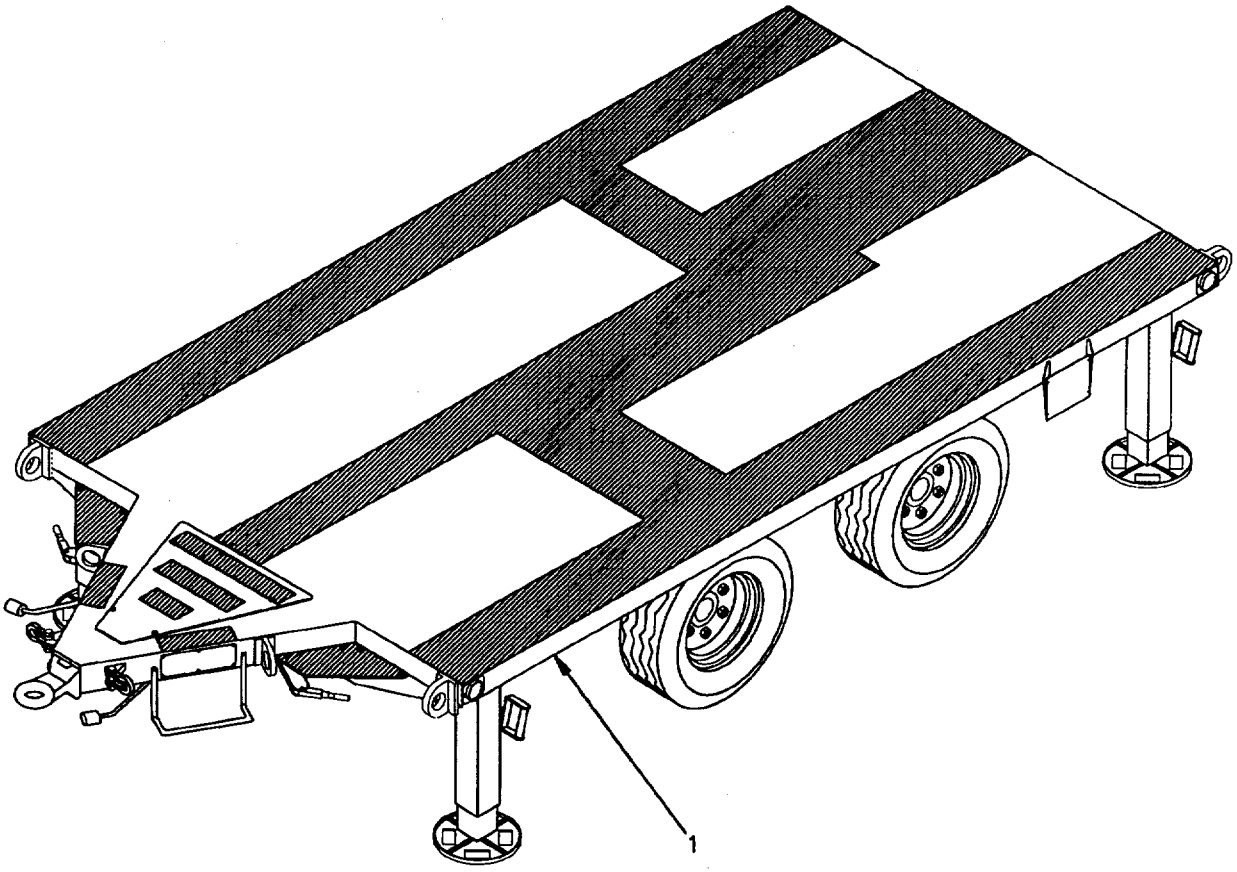


Figure 28. Trailer

(1)	(2) SMR CODE a.	b.	(3)	(4)	(5)	(6)
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 06 TRAILER ASSEMBLY	
					FIG. 28 TRAILER	
1	MDFFF	MDO	97403	13230E4570	TRAILER, GENERATOR, 5 TON.....	1
					END OF FIGURE	

(1)	(2) SMR CODE a.	b.	(3)	(4)	(5)	(6)
ITEM NO.	ARMY	AIR FORCE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
					GROUP 07 BULK ITEMS FIG 29 BULK ITEMS	
1	PAOZZ	PAOZZ	81346	2B2B2C1F2	STRIP, RUBBER	V
2	PAOZZ	PAOZZ	96906	MS35825-14A	HINGE, BUTT	V
3	PAOZZ	PAOZZ	81349	MIL-P-83310	PLASTIC SHEET	V
4	PAFZZ	PAOZZ	81349	M23053/5-109-0	INSULATION, SLEEVING	V
5	PAFZZ	PAOZZ	81349	M5086/2-02-9	WIRE, ELECTRICAL	V
6	PAFZZ	PAOZZ	81349	M5086/2-1-9	WIRE, ELECRTICAL	V
7	PAOZZ	PAOZZ	81349	M23053/5-104-0	INSULATION, SLEEVING	V
8	PAOZZ	PAOZZ	81349	M5086/2-18-9	WIRE, ELECTRICAL	V
9	PAFZZ	PAOZZ	81348	M5086/2-1-0	WIRE, ELECTRICAL	V
10	PAFZZ	PAOZZ	81349	M23053/5-107-0	INSULATION, SLEEVING	V
11	PAFZZ	PAOZZ	81349	M5086/2-69	WIRE, ELECTRICAL	V
12	PAFZZ	PAOZZ	81349	M23053/5-110-0	INSULATION, SLEEVING	V
13	PAFZZ	PAOZZ	81349	M23053/5-113-0	INSULATION, SLEEVING	V
14	PAFZZ	PAOZZ	81349	M23053/5-108-0	INSULATION, SLEEVING	V
15	PAFZZ	PAOZZ	81349	CO-04HDF(4/0000-4R)2380	CABLE, POWER	V
16	PAFZZ	PAOZZ	81349	M23053/5-112-0	INSULATION, SLEEVING	V
17	PAFZZ	PAOZZ	81349	CO-04HDF(4/1-4/8R)1620	CABLE, POWER ELECTRIC	V
18	PAOZZ	PAOZZ	81349	M6000F00200	HOSE, NON-METALLIC	V
19	PAOZZ	PAOZZ	01276	FC173-5	HOSE, NON-METALLIC	V
					END OF FIGURE	

SECTION III

Special Tools Lists

(Not Applicable)

CROSS-REFERENCE INDEXES
NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5310-00-022-8847	8	4	5940-00-115-5008	10	53
5310-00-022-8847	21	5	5940-00-115-5008	10	57
5310-00-044-6477	27	2	5940-00-115-5008	10	61
5305-00-050-9230	5	8	5940-00-115-5008	10	65
5305-00-050-9230	6	10	5940-00-115-5008	10	69
5305-00-054-6652	7	1	5940-00-115-5008	10	73
5305-00-059-3660	23	4	5940-00-115-5008	10	77
5305-00-059-3663	9	2	5940-00-115-5008	10	81
5340-00-066-1235	24	1	5940-00-115-5008	10	85
5305-00-068-0510	22	4	5940-00-115-5008	12	6
5305-00-068-0510	23	9	5975-00-133-8696	2	6
5305-00-068-0511	20	3	5975-00-133-8696	15	11
5305-00-068-0511	14	3	6940-00-143-4773	11	6
5305-00-068-0511	15	3	6940-00-143-4773	11	14
5305-00-068-0511	16	3	5305-00-144-3608	23	16
5305-00-068-0511	19	9	5310-00-184-8971	8	2
5305-00-071-2070	1	3	4710-00-185-6948	24	3
5305-00-071-2070	2	5	5999-00-186-3912	25	7
5340-00-088-1254	18	5	5310-00-187-2413	8	3
5120-00-113-3616	25	2	5310-00-187-2413	21	3
5940-00-113-8184	11	2	5340-00-204-4857	20	11
5940-00-113-8184	11	10	5310-00-209-1239	24	9
5940-00-113-8184	11	18	4210-00-223-4857	16	4
5940-00-113-8184	11	22	4210-00-223-4857	22	5
5940-00-113-8184	11	26	5305-00-225-3843	12	3
5940-00-113-8184	11	30	5306-00-226-4829	27	3
5940-00-113-8184	11	34	5307-00-227-1741	8	5
5940-00-113-8184	11	38	5307-00-227-1741	21	6
5940-00-113-8184	11	42	5340-00-229-0340	6	5
5940-00-113-8184	11	46	5340-00-229-0340	20	9
5340-00-113-9395	20	18	5340-00-234-8422	27	8
5940-00-113-9835	10	2	5310-00-245-3424	27	1
5940-00-113-9835	10	7	4210-00-270-4512	22	1
5940-00-113-9835	10	12	5940-00-271-9504	25	8
5940-00-113-9835	10	17	4730-00-277-5115	24	6
5940-00-113-9835	10	22	5330-00-402-5125	24	5
5940-00-113-9835	10	27	5340-00-409-3880	20	10
5940-00-114-1320	14	7	2590-00-473-6331	19	10
5940-00-114-1320	14	13	5940-00-557-4344	12	7
5940-00-115-5002	10	3	6145-00-578-6594	BULK	11
5940-00-115-5002	10	8	6145-00-578-6597	BULK	6
5940-00-115-5002	10	13	6145-00-578-6600	BULK	5
5940-00-115-5002	10	18	6145-00-578-6602	BULK	8
5940-00-115-5002	10	23	5310-00-584-7995	8	1
5940-00-115-5002	10	28	5310-00-584-7995	21	4
5940-00-115-5007	10	37	4710-00-597-8731	24	2
5940-00-115-5007	10	89	5320-00-616-5536	6	4
5940-00-115-5008	10	32	5310-00-637-9547	23	15
5940-00-115-5008	10	36	5305-00-680-0509	18	4
5940-00-115-5008	10	45	5305-00-680-0509	19	3
5940-00-115-5008	10	49	5305-00-701-5078	3	5

CROSS-REFERENCE INDEXES
NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5320-00-753-3830	27	5	5999-01-130-1899	17	10
5970-00-781-6826	BULK	13	5999-01-131-5588	12	14
5975-00-794-2523	25	5	5935-01-147-9446	17	11
4730-00-809-9703	26	3	5935-01-147-9446	17	20
5970-00-812-2959	BULK	7	5935-01-148-7097	12	12
5970-00-812-2967	BULK	14	4730-01-164-3365	18	10
5310-00-835-2135	16	6	5999-01-167-0838	17	7
5305-00-841-2681	24	7	5999-01-167-0838	17	17
5310-00-844-3302	5	1	5935-01-172-1004	12	16
2540-00-846-8483	23	13	5330-01-175-0311	14	5
5975-00-878-3791	25	3	3120-01-188-9688	5	2
6210-00-900-9423	13	1	5340-01-189-6747	5	4
4730-00-908-3194	26	1	4820-01-192-5819	18	12
5970-00-914-3118	BULK	4	6145-01-199-1418	BULK	17
5975-00-924-9927	25	6	5307-01-203-2484	6	14
5310-00-933-8120	3	3	5307-01-203-2484	6	19
5310-00-933-8120	5	6	5340-01-219-6760	23	18
5310-00-933-8120	6	8	5310-01-228-0597	20	15
5310-00-933-8120	20	6	5340-01-228-5831	3	6
5310-00-933-8120	23	2	6210-01-230-1851	13	4
5310-00-933-8121	17	6	5315-01-241-0984	23	17
5310-00-933-8121	17	16	5310-01-257-7590	14	2
5310-00-934-9760	3	2	5310-01-257-7590	15	2
5310-00-934-9760	5	5	5310-01-257-7590	16	2
5310-00-934-9760	6	7	5310-01-257-7590	19	8
5310-00-934-9765	20	5	5310-01-257-7590	20	2
6210-00-941-6690	13	2	5310-01-257-7590	22	3
5970-00-944-1328	BULK	16	5310-01-257-7590	23	8
5310-00-950-1403	12	2	5310-01-266-4641	1	2
5970-00-954-1624	BULK	10	5310-01-266-4641	2	4
5320-00-954-9568	20	17	5310-01-273-4535	3	4
5320-00-957-2514	2	1	5310-01-273-4535	5	7
5320-00-957-2514	4	2	5310-01-273-4535	6	9
5340-00-975-2126	27	6	5310-01-273-4535	9	3
5340-00-984-8540	1	5	5310-01-273-4535	23	3
5340-00-984-8540	1	8	6115-01-274-7390	1	6
5305-00-995-0437	20	8	6115-01-274-7390	1	9
5120-01-013-1676	25	1	6115-01-274-7395	1	6
5310-01-046-5381	20	20	6115-01-274-7395	1	9
5340-01-055-4206	BULK	2	5310-01-291-3389	23	14
5310-01-078-5996	21	2	5310-01-316-0403	12	1
9905-01-085-7703	21	1	5310-01-316-0403	18	2
5935-01-091-9166	17	12	5310-01-316-0403	19	1
5935-01-091-9166	17	12	5310-01-333-0060	19	2
5915-01-092-3451	12	12	5310-01-333-0060	20	14
6145-01-096-1345	BULK	9	4720-01-337-5130	BULK	19
5935-01-099-0004	17	2	7240-01-337-5269	19	6
5935-01-099-0004	17	2	6145-01-344-3941	BULK	15
5999-01-108-8602	17	8	5305-01-352-5718	12	4
5999-01-113-4552	17	9	5310-01-358-7622	14	1
5999-01-130-1897	12	13	5310-01-358-7622	15	1

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STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5310-01-358-7622	16	1	5310-01-378-8193	1	1
5310-01-358-7622	19	7	5310-01-378-8193	2	3
5310-01-358-7622	20	1	5970-01-382-6781	BULK	12
5310-01-358-7622	22	2	5310-01-386-0481	20	7
5310-01-358-7622	23	7	4720-01-386-4210	BULK	18

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CAGEC	PART NUMBER	STOCK NUMBER	FIG.	ITEM
88044	AN526-420-12	5305-00-144-3608	23	16
88044	AN816-5-4	4730-00-277-5115	24	6
88044	AN816-6B		18	9
88044	AN961-616	5310-00-187-2413	8	3
		5310-00-187-2413	21	3
79227	B-6000-1/4 NPT	4820-01-192-5819	18	12
80204	B1821BH025C100N	5305-00-225-3843	12	3
80204	B1821BH025C125N	5305-00-680-0509	18	4
		5305-00-680-0509	19	3
80204	B1821BH025F062N		20	13
80204	B1821BH031C125N	5306-00-226-4829	27	3
80204	B1821BH038C100N	5305-00-068-0510	22	4
		5305-00-068-0510	23	9
80204	B1821BH038C125N	5305-00-068-0511	20	3
		5305-00-068-0511	14	3
		5305-00-068-0511	15	3
		5305-00-068-0511	16	3
		5305-00-068-0511	19	9
80204	B1821BH050C175N	5305-00-071-2070	1	3
		5305-00-071-2070	2	5
01667	CBA-70	5940-00-271-9504	25	8
74193	CD3-Z631-1		7	2
81349	CO-04HDF(4/0000-4R)2380	6145-01-344-3941	BULK	15
81349	CO-04HDF(4/1-4)8 R)1620	6145-01-199-1418	BULK	17
01276	FC173-5		BULK	19
46384	FHS-032-10	5307-01-203-2484	6	14
		5307-01-203-2484	6	19
15277	FS0216B122-1	5975-00-878-3791	25	3
19099	FS0216B122-1-6		25	9
81348	GGG-H-86,TY10CL1	5120-00-113-3616	25	2
73616	GRB58	5975-00-924-9927	25	6
0BKK8	GRC-58	5975-00-794-2523	25	5
58224	G9B		13	3
56681	HLP1053A		25	4
30554	MEP-806A	6115-01-274-7390	1	6
		6115-01-274-7390	1	9
30554	MEP-816A	6115-01-274-7395	1	6
		6115-01-274-7395	1	9
81349	MIL-C-53109	7240-01-337-5269	19	6
81349	MIL-P-83310		BULK	3
96906	MS15795-848	5310-01-273-4535	3	4
		5310-01-273-4535	5	7
		5310-01-273-4535	6	9
		5310-01-273-4535	9	3
		5310-01-273-4535	23	3
96906	MS15795-853	5310-00-950-1403	12	2
96906	MS16203-27	5310-00-584-7995	8	1
		5310-00-584-7995	21	4
96906	MS17829Z4C	5310-01-316-0403	12	1
		5310-01-316-0403	18	2
		5310-01-316-0403	19	1

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CAGEC	PART NUMBER	STOCK NUMBER	FIG.	ITEM
96906	MS17829Z5C	5310-00-245-3424	27	1
96906	MS17829Z6C	5310-01-358-7622	20	1
		5310-01-358-7622	14	1
		5310-01-358-7622	15	1
		5310-01-358-7622	16	1
		5310-01-358-7622	19	7
		5310-01-358-7622	22	2
		5310-01-358-7622	23	7
96906	MS17829Z8C	5310-01-378-8193	1	1
		5310-01-378-8193	2	3
96906	MS17990C525		23	6
96906	MS18015-1	5340-00-975-2126	27	6
96906	MS20427-4C6		27	7
96906	MS20601B6W4	5320-00-616-5536	6	4
96906	MS20604AD4W3	5320-00-954-9568	20	17
96906	MS20604AD4W4	5320-00-957-2514	2	1
		5320-00-957-2514	4	2
96906	MS20613-4P5	5320-00-753-3830	27	5
96906	MS20659-153	5940-00-115-5002	10	3
		5940-00-115-5002	10	8
		5940-00-115-5002	10	13
		5940-00-115-5002	10	18
		5940-00-115-5002	10	23
		5940-00-115-5002	10	28
96906	MS21043-3	5310-00-844-3302	5	1
96906	MS21333-102	5340-00-984-8540	1	5
		5340-00-984-8540	1	8
96906	MS21333-104	5340-00-088-1254	18	5
96906	MS23747-16		17	3
			17	13
96906	MS24519-9	4730-00-809-9703	26	3
96906	MS25036-105	6940-00-143-4773	11	6
		6940-00-143-4773	11	14
96906	MS25036-120	5940-00-557-4344	12	7
96906	MS25036-129	5940-00-115-5008	10	32
		5940-00-115-5008	10	36
		5940-00-115-5008	10	41
		5940-00-115-5008	10	45
		5940-00-115-5008	10	49
		5940-00-115-5008	10	53
		5940-00-115-5008	10	57
		5940-00-115-5008	10	61
		5940-00-115-5008	10	65
		5940-00-115-5008	10	69
		5940-00-115-5008	10	73
		5940-00-115-5008	10	77
		5940-00-115-5008	10	81
		5940-00-115-5008	10	85
		5940-00-115-5008	12	6
96906	MS25036-130	5940-00-115-5007	10	37
		5940-00-115-5007	10	89

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CAGEC	PART NUMBER	STOCK NUMBER	FIG.	ITEM
96906	MS25036-136	5940-00-113-9835	10	2
		5940-00-113-9835	10	7
		5940-00-113-9835	10	12
		5940-00-113-9835	10	17
		5940-00-113-9835	10	22
		5940-00-113-9835	10	27
96906	MS25036-140	5940-00-114-1320	14	7
		5940-00-114-1320	14	13
96906	MS25036-150	5940-00-113-8184	11	2
		5940-00-113-8184	11	10
		5940-00-113-8184	11	18
		5940-00-113-8184	11	22
		5940-00-113-8184	11	26
		5940-00-113-8184	11	30
		5940-00-113-8184	11	34
		5940-00-113-8184	11	38
		5940-00-113-8184	11	42
		5940-00-113-8184	11	46
96906	MS27130-A37K	5310-00-835-2135	16	6
96906	MS27130-CR105	5310-01-046-5381	20	20
96906	MS27969-4	5340-00-234-8422	27	8
96906	MS3348-6-8L	5999-01-167-0838	17	7
		5999-01-167-0838	17	17
96906	MS3367-6-9	5975-00-133-8696	2	6
		5975-00-133-8696	15	11
96906	MS35333-110	5310-00-022-8847	8	4
		5310-00-022-8847	21	5
96906	MS35335-60	5310-00-209-1239	24	9
96906	MS35338-103	5310-00-184-8971	8	2
96906	MS35338-138	5310-00-933-8120	20	6
		5310-00-933-8120	3	3
		5310-00-933-8120	5	6
		5310-00-933-8120	6	8
		5310-00-933-8120	23	2
96906	MS35338-139	5310-00-933-8121	17	6
		5310-00-933-8121	17	16
96906	MS35339-44	5310-00-637-9547	23	15
96906	MS35425-75	5310-01-078-5996	21	2
96906	MS35649-204	5310-00-934-9760	3	2
		5310-00-934-9760	5	5
		5310-00-934-9760	6	7
96906	MS35650-304	5310-00-934-9765	20	5
96906	MS35650-304T		23	1
96906	MS35825-14A	5340-01-055-4206	BULK	2
96906	MS35842-11	4730-00-908-3194	26	1
96906	MS51412-21	5310-01-386-0481	20	7
96906	MS51412-23	5310-01-333-0060	20	14
		5310-01-333-0060	18	3
		5310-01-333-0060	19	2
96906	MS51412-25	5310-00-044-6477	27	2
96906	MS51412-7	5310-01-257-7590	20	2

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CAGEC	PART NUMBER	STOCK NUMBER	FIG.	ITEM
		5310-01-257-7590	14	2
		5310-01-257-7590	15	2
		5310-01-257-7590	16	2
		5310-01-257-7590	19	8
		5310-01-257-7590	22	3
		5310-01-257-7590	23	8
96906	MS51412-9	5310-01-266-4641	1	2
		5310-01-266-4641	2	4
96906	MS51415-5	5310-01-228-0597	20	15
96906	MS51520A5Z		18	15
96906	MS51939-3	5340-00-229-0340	20	9
		5340-00-229-0340	6	5
96906	MS51957-28	5305-00-054-6652	7	1
96906	MS51957-64	5305-00-050-9230	5	8
		5305-00-050-9230	6	10
96906	MS51957-83	5305-01-352-5718	12	4
96906	MS51958-64	5305-00-059-3660	23	4
96906	MS51958-67	5305-00-059-3663	9	2
96906	MS51959-65	5305-00-701-5078	3	5
96906	MS51960-66	5305-00-995-0437	20	8
96906	MS51967-2	5310-01-291-3389	23	14
97403	MS52103B050420R		18	6
19099	MS52103B050420R-1		18	8
97403	MS52103B050600R		18	7
19099	MS52103B050600R-1		18	11
96906	MS53052-1	2590-00-473-6331	19	10
96906	MS90555C44413S	5935-01-092-3451	12	12
96906	MS90555C44413SW	5935-01-148-7097	12	12
96906	MS90556C44413P	5935-01-099-0004	17	2
96906	MS90556C44413PW	5935-01-099-0004	17	2
96906	MS90557C44413S	5935-01-091-9166	17	12
96906	MS90557C44413SW	5935-01-091-9166	17	12
96906	MS90561-16		17	4
			17	14
96906	MS90563-7C	5935-01-172-1004	12	16
96906	MS90564-7C	5935-01-147-9446	17	11
		5935-01-147-9446	17	20
81349	M23053/5-104-0	5970-00-812-2959	BULK	7
81349	M23053/5-107-0	5970-00-954-1624	BULK	10
81349	M23053/5-108-0	5970-00-812-2967	BULK	14
81349	M23053/5-109-0	5970-00-914-3118	BULK	4
81349	M23053/5-110-0	5970-01-382-6781	BULK	12
96906	M23053/5-112-0	5970-00-944-1328	BULK	16
81349	M23053/5-113-0	5970-00-781-6826	BULK	13
81349	M39029/48-319	5999-01-108-8602	17	8
81349	M39029/48-323	5999-01-130-1899	17	10
81349	M39029/48-324	5999-01-113-4552	17	9
81349	MS39029/48-333		17	18
81349	M39029/48-333		17	19
81349	M39029/49-330	5999-01-131-5588	12	14
81349	M39029/49-333	5999-01-130-1897	12	13

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CAGEC	PART NUMBER	STOCK NUMBER	FIG.	ITEM
81349	M45952/1-C4-21	5315-01-241-0984	23	17
81349	M5086/2-02-9	6145-00-578-6600	BULK	5
81348	M5086/2-1-0	6145-01-096-1345	BULK	9
81349	M5086/2-1-9	6145-00-578-6597	BULK	6
81349	M5086/2-18-9	6145-00-578-6602	BULK	8
81349	M5086/2-6-9	6145-00-578-6594	BULK	11
81349	M5501/9-F19	5340-01-219-6760	23	18
81349	M6000F00200	4720-01-386-4210	BULK	18
81349	M83461/1-341	5330-01-175-0311	14	5
80063	SC-D-147189	2540-00-846-8483	23	13
95501	10-40450-48		12	15
77820	10-473421-3		17	5
			17	15
93061	1207ACBH-4	4730-01-164-3365	18	10
97403	13200E6361		24	11
97403	13200E6363		24	8
97403	13205E4918	9905-01-085-7703	21	1
97403	13205E5068	5340-00-113-9395	20	18
06076	13211E7541	5340-00-066-1235	24	1
97403	13211E7542	4710-00-597-8731	24	2
97403	13211E7543	4710-00-185-6948	24	3
97403	13211E7544		24	4
97403	13211E7546	5330-00-402-5125	24	5
97403	13211E7547		24	10
97403	13211E7548		24	12
97403	13214E1223	5307-00-227-1741	8	5
		5307-00-227-1741	21	6
97403	13214E1235	4210-00-223-4857	16	4
		4210-00-223-4857	22	5
97403	13214E1391	6210-00-900-9423	13	1
97403	13216E7504	5340-00-204-4857	20	11
97403	13216E7505-2	5340-00-409-3880	20	10
97403	13217E2046		5	9
97403	13217E2047	5340-01-189-6747	5	4
97403	13217E2048	3120-01-188-9688	5	2
97403	13217E2051-1		5	3
97403	13218E5149-16		14	4
97403	13220E0670-10	5340-01-228-5831	3	6
97403	13226E7741	5120-01-013-1676	25	1
97403	13229E7946		27	4
97403	13229E9634-5C6		23	10
97403	13230E4550-1		3	1
97403	13230E4550-2		3	1
97403	13230E4551		16	5
97403	13230E4552		6	1
19099	13230E4552-1		6	6
19099	13230E4552-2		6	2
19099	13230E4552-3		6	3
97403	13230E4554		6	16
19099	13230E4554-1		6	20
19099	13230E4554-3		6	17

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CAGEC	PART NUMBER	STOCK NUMBER	FIG.	ITEM
19099	13230E4554-4		6	18
97403	13230E4555		6	11
19099	13230E4555-1		6	15
19099	13230E4555-3		6	12
19099	13230E4555-4		6	13
97403	13230E4556		9	4
97403	13230E4557-1		15	4
97403	13230E4557-2		15	5
97403	13230E4557-3		15	6
97403	13230E4558		15	7
97403	13230E4559		15	8
97403	13230E4560-1		12	5
19099	13230E4560-1-2		12	10
19099	13230E4560-1-3		12	8
19099	13230E4560-1-6		12	9
19099	13230E4560-1-7		12	11
97403	13230E4560-2		12	5
97403	13230E4560-3		12	5
97403	13230E4560-4		12	5
97403	13230E4561-1		10	1
19099	13230E4561-1-1		10	5
19099	13230E4561-1-8		10	4
97403	13230E4561-10		10	44
19099	13230E4561-10-2		10	47
19099	13230E4561-10-8		10	46
97403	13230E4561-11		10	48
19099	13230E4561-11-2		10	51
19099	13230E4561-11-8		10	50
97403	13230E4561-12		10	52
19099	13230E4561-12-2		10	55
19099	13230E4561-12-8		10	54
97403	13230E4561-13		10	56
19099	13230E4561-13-2		10	59
19099	13230E4561-13-8		10	58
97403	13230E4561-14		10	60
19099	13230E4561-14-2		10	63
19099	13230E4561-14-8		10	62
97403	13230E4561-15		10	64
19099	13230E4561-15-2		10	67
19099	13230E4561-15-8		10	66
97403	13230E4561-16		10	68
19099	13230E4561-16-2		10	71
19099	13230E4561-16-8		10	70
97403	13230E4561-17		10	72
19099	13230E4561-17-2		10	75
19099	13230E4561-17-8		10	74
97403	13230E4561-18		10	76
19099	13230E4561-18-2		10	79
19099	13230E4561-18-8		10	78
97403	13230E4561-19		10	80
19099	13230E4561-19-2		10	83

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CAGEC	PART NUMBER	STOCK NUMBER	FIG.	ITEM
19099	13230E4561-19-8		10	82
97403	13230E4561-2		10	6
19099	13230E4561-2-1		10	10
19099	13230E4561-2-8		10	9
97403	13230E4561-20		10	84
19099	13230E4561-20-2		10	87
19099	13230E4561-20-8		10	86
97403	13230E4561-21		11	1
19099	13230E4561-21-3		11	4
19099	13230E4561-21-9		11	3
97403	13230E4561-22		11	5
19099	13230E4561-22-3		11	8
19099	13230E4561-22-9		11	7
97403	13230E4561-23		11	9
19099	13230E4561-23-3		11	12
19099	13230E4561-23-9		11	11
97403	13230E4561-24		11	13
19099	13230E4561-24-3		11	16
19099	13230E4561-24-9		11	15
97403	13230E4561-25		11	17
19099	13230E4561-25-3		11	20
19099	13230E4561-25-9		11	19
97403	13230E4561-26		11	21
19099	13230E4561-26-3		11	24
19099	13230E4561-26-9		11	23
97403	13230E4561-27		11	25
19099	13230E4561-27-3		11	28
19099	13230E4561-27-9		11	27
97403	13230E4561-28		11	29
19099	13230E4561-28-3		11	32
19099	13230E4561-28-9		11	31
97403	13230E4561-29		11	33
19099	13230E4561-29-3		11	36
19099	13230E4561-29-9		11	35
97403	13230E4561-3		10	11
19099	13230E4561-3-1		10	15
19099	13230E4561-3-8		10	14
97403	13230E4561-30		11	37
19099	13230E4561-30-3		11	40
19099	13230E4561-30-9		11	39
97403	13230E4561-31		11	41
19099	13230E4561-31-3		11	44
19099	13230E4561-31-9		11	43
97403	13230E4561-32		11	45
19099	13230E4561-32-3		11	48
19099	13230E4561-32-9		11	47
97403	13230E4561-33		10	88
19099	13230E4561-33-11		10	90
97403	13230E4561-4		10	16
19099	13230E4561-4-1		10	20
19099	13230E4561-4-8		10	19

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CAGEC	PART NUMBER	STOCK NUMBER	FIG.	ITEM
97403	13230E4561-5		10	21
19099	13230E4561-5-1		10	25
19099	13230E4561-5-8		10	24
97403	13230E4561-6		10	26
19099	13230E4561-6-1		10	30
19099	13230E4561-6-8		10	29
97403	13230E4561-7		10	31
19099	13230E4561-7-2		10	34
19099	13230E4561-7-8		10	33
97403	13230E4561-8		10	35
19099	13230E4561-8-2		10	39
19099	13230E4561-8-8		10	38
97403	13230E4561-9		10	40
19099	13230E4561-9-2		10	43
19099	13230E4561-9-8		10	42
97403	13230E4562		15	9
97403	13230E4563		15	10
97403	13230E4564-1		14	6
19099	13230E4564-1-1		14	8
19099	13230E4564-1-2		14	9
19099	13230E4564-1-3		14	11
19099	13230E4564-1-4		14	10
97403	13230E4564-2		14	12
19099	13230E4564-2-1		14	14
19099	13230E4564-2-2		14	15
19099	13230E4564-2-3		14	17
19099	13230E4564-2-4		14	16
97403	13230E4565		17	1
19099	13230E4565-2		17	21
19099	13230E4565-3		17	22
97403	13230E4566		4	19
97403	13230E4568-1		4	3
97403	13230E4568-10		4	12
97403	13230E4568-11		4	13
97403	13230E4568-12		4	14
97403	13230E4568-13		4	15
97403	13230E4568-14		4	16
97403	13230E4568-15		4	17
97403	13230E4568-16		4	18
97403	13230E4568-2		4	4
97403	13230E4568-3		4	5
97403	13230E4568-4		4	6
97403	13230E4568-5		4	7
97403	13230E4568-6		4	8
97403	13230E4568-7		4	9
97403	13230E4568-8		4	10
97403	13230E4568-9		4	11
97403	13230E4569		9	1
97403	13230E4570		28	1
97403	13230E4571		23	5
97403	13230E4572		19	5

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CAGEC	PART NUMBER	STOCK NUMBER	FIG.	ITEM
97403	13230E4573		23	19
97403	13230E4574		23	11
97403	13230E4575		19	4
97403	13230E4577		18	1
97403	13230E4578-1		2	2
97403	13230E4578-2		2	2
97403	13230E4579		7	3
97403	13230E4580		20	4
97403	13230E4581		20	19
97403	13230E4582		20	16
97403	13230E4583		20	12
97403	13230E4585		4	1
97403	13230E4588-1		12	5
97403	13230E4588-2		12	5
97403	13230E4588-3		12	5
97403	13230E4588-4		12	5
97403	13230E4589		17	1
97403	13230E4590-1		1	4
97403	13230E4590-2		1	7
97403	13230E4590-3		1	4
97403	13230E4590-4		1	7
97403	13230E4593		4	19
97403	13230E4594		23	12
97403	13230E4597		19	11
97403	13230E6370		18	8
19099	13230E9635-62		26	2
72619	181-0937-003	6210-00-941-6690	13	2
72619	181-8836-09-553	6210-01-230-1851	13	4
81346	2B2B2C1F2		BULK	1
99251	3304695-1	4210-00-270-4512	22	1
81343	4-4-140137B		18	13
81343	4-4-4-140425B		18	14
00141	4328	5305-00-841-2681	24	7
81343	4-5250154		18	7
			18	10
81343	5-4-070202B		18	11
04655	70-801074	5999-00-186-3912	25	7

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FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
BULK	1	5940-00-113-9835	96906	MS25036-136
BULK	2	5340-01-055-4206	96906	MS35825-14A
BULK	3		81349	MIL-P-83310
BULK	4	5970-00-914-3118	81349	M23053/5-109-0
BULK	5	6145-00-578-6600	81349	M5086/2-02-9
BULK	6	6145-00-578-6597	81349	M5086/2-1-9
BULK	7	5970-00-812-2959	81349	M23053/5-104-0
BULK	8	6145-00-578-6602	81349	M5086/2-18-9
BULK	9	6145-01-096-1345	81348	M5086/2-1-0
BULK	10	5970-00-954-1624	81349	M23053/5-107-0
BULK	11	6145-00-578-6594	81349	M5086/2-6-9
BULK	12	5970-01-382-6781	81349	M23053/5-110-0
BULK	13	5970-00-781-6826	81349	M23053/5-113-0
BULK	14	5970-00-812-2967	81349	M23053/5-108-0
BULK	15	6145-01-344-3941	81349	CO-04HDF(4/0000-4R)2380
BULK	16	5970-00-944-1328	81349	M23053/5-112-0
BULK	17	6145-01-199-1418	81349	C0-04HDF(4/1-4)8 R)1620
BULK	18	4720-01-386-4210	81349	M6000F00200
BULK	19		01276	FC173-5
1	1	5310-01-378-8193	96906	MS17829Z8C
1	2	5310-01-266-4641	96906	MS51412-9
1	3	5305-00-071-2070	80204	B1821BH050C175N
1	4		97403	13230E4590-1
1	4		97403	13230E4590-3
1	5	5340-00-984-8540	96906	MS21333-102
1	6	6115-01-274-7390	30554	MEP-806A
1	6	6115-01-274-7395	30554	MEP-816A
1	7		97403	13230E4590-2
1	7		97403	13230E4590-4
1	8	5340-00-984-8540	96906	MS21333-102
1	9	6115-01-274-7390	30554	MEP-806A
1	9	6115-01-274-7395	30554	MEP-816A
2	1	5320-00-957-2514	96906	MS20604AD4W4
2	2		97403	13230E4578-1
2	2		97403	13230E4578-2
2	3	5310-01-378-8193	96906	MS17829Z8C
2	4	5310-01-266-4641	96906	MS51412-9
2	5	5305-00-071-2070	80204	B1821BH050C175N
2	6	5975-00-133-8696	96906	MS3367-6-9
3	1		97403	13230E4550-1
3	1		97403	13230E4550-2
3	2	5310-00-934-9760	96906	MS35649-204
3	3	5310-00-933-8120	96906	MS35338-138
3	4	5310-01-273-4535	96906	MS15795-848
3	5	5305-00-701-5078	96906	MS51959-65
3	6	5340-01-228-5831	97403	13220E0670-10
4	1		97403	13230E4585
4	2	5320-00-957-2514	96906	MS20604AD4W4
4	3		97403	13230E4568-1
4	4		97403	13230E4568-2
4	5		97403	13230E4568-3

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FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
4	6		97403	13230E4568-4
4	7		97403	13230E4568-5
4	8		97403	13230E4568-6
4	9		97403	13230E4568-7
4	10		97403	13230E4568-8
4	11		97403	13230E4568-9
4	12		97403	13230E4568-10
4	13		97403	13230E4568-11
4	14		97403	13230E4568-12
4	15		97403	13230E4568-13
4	16		97403	13230E4568-14
4	17		97403	13230E4568-15
4	18		97403	13230E4568-16
4	19		97403	13230E4566
4	19		97403	13230E4593
5	1	5310-00-844-3302	96906	MS21043-3
5	2	3120-01-188-9688	97403	13217E2048
5	3		97403	13217E2051-1
5	4	5340-01-189-6747	97403	13217E2047
5	5	5310-00-934-9760	96906	MS35649-204
5	6	5310-00-933-8120	96906	MS35338-138
5	7	5310-01-273-4535	96906	MS15795-848
5	8	5305-00-050-9230	96906	MS51957-64
5	9		97403	13217E2046
6	1		97403	13230E4552
6	2		19099	13230E4552-2
6	3		19099	13230E4552-3
6	4	5320-00-616-5536	96906	MS20601B6W4
6	5	5340-00-229-0340	96906	MS51939-3
6	6		19099	13230E4552-1
6	7	5310-00-934-9760	96906	MS35649-204
6	8	5310-00-933-8120	96906	MS35338-138
6	9	5310-01-273-4535	96906	MS15795-848
6	10	5305-00-050-9230	96906	MS51957-64
6	11		97403	13230E4555
6	12		19099	13230E4555-3
6	13		19099	13230E4555-4
6	14	5307-01-203-2484	46384	FHS-032-10
6	15		19099	13230E4555-1
6	16		97403	13230E4554
6	17		19099	13230E4554-3
6	18		19099	13230E4554-4
6	19	5307-01-203-2484	46384	FHS-032-10
6	20		19099	13230E4554-1
7	1	5305-00-054-6652	96906	MS51957-28
7	2		74193	CD3-Z631-1
7	3		97403	13230E4579
8	1	5310-00-584-7995	96906	MS16203-27
8	2	5310-00-184-8971	96906	MS35338-103
8	3	5310-00-187-2413	88044	AN961-616
8	4	5310-00-022-8847	96906	MS35333-110

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FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
8	5	5307-00-227-1741	97403	13214E1223
9	1		97403	13230E4569
9	2	5305-00-059-3663	96906	MS51958-67
9	3	5310-01-273-4535	96906	MS15795-848
9	4		97403	13230E4556
10	1		97403	13230E4561-1
10	2	5940-00-113-9835	96906	MS25036-136
10	3	5940-00-115-5002	96906	MS20659-153
10	4		19099	13230E4561-1-8
10	5		19099	13230E4561-1-1
10	6		97403	13230E4561-2
10	7	5940-00-113-9835	96906	MS25036-136
10	8	5940-00-115-5002	96906	MS20659-153
10	9		19099	13230E4561-2-8
10	10		19099	13230E4561-2-1
10	11		97403	13230E4561-3
10	12	5940-00-113-9835	96906	MS25036-136
10	13	5940-00-115-5002	96906	MS20659-153
10	14		19099	13230E4561-3-8
10	15		19099	13230E4561-3-1
10	16		97403	13230E4561-4
10	17	5940-00-113-9835	96906	MS25036-136
10	18	5940-00-115-5002	96906	MS20659-153
10	19		19099	13230E4561-4-8
10	20		19099	13230E4561-4-1
10	21		97403	13230E4561-5
10	22	5940-00-113-9835	96906	MS25036-136
10	23	5940-00-115-5002	96906	MS20659-153
10	24		19099	13230E4561-5-8
10	25		19099	13230E4561-5-1
10	26		97403	13230E4561-6
10	27	5940-00-113-9835	96906	MS25036-136
10	28	5940-00-115-5002	96906	MS20659-153
10	29		19099	13230E4561-6-8
10	30		19099	13230E4561-6-1
10	31		97403	13230E4561-7
10	32	5940-00-115-5008	96906	MS25036-129
10	33		19099	13230E4561-7-8
10	34		19099	13230E4561-7-2
10	35		97403	13230E4561-8
10	36	5940-00-115-5008	96906	MS25036-129
10	37	5940-00-115-5007	96906	MS25036-130
10	38		19099	13230E4561-8-8
10	39		19099	13230E4561-8-2
10	40		97403	13230E4561-9
10	41	5940-00-115-5008	96906	MS25036-129
10	42		19099	13230E4561-9-8
10	43		19099	13230E4561-9-2
10	44		97403	13230E4561-10
10	45	5940-00-115-5008	96906	MS25036-129
10	46		19099	13230E4561-10-8

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FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
10	47		19099	13230E4561-10-2
10	48		97403	13230E4561 -11
10	49	5940-00-115-5008	96906	MS25036-129
10	50		19099	13230E4561-11-8
10	51		19099	13230E4561-11-2
10	52		97403	13230E4561-12
10	53	5940-00-115-5008	96906	MS25036-129
10	54		19099	13230E4561-12-8
10	55		19099	13230E4561-12-2
10	56		97403	13230E4561-13
10	57	5940-00-115-5008	96906	MS25036-129
10	58		19099	13230E4561-13-8
10	59		19099	13230E4561-13-2
10	60		97403	13230E4561-14
10	61	5940-00-115-5008	96906	MS25036-129
10	62		19099	13230E4561-14-8
10	63		19099	13230E4561-14-2
10	64		97403	13230E4561-15
10	65	5940-00-115-5008	96906	MS25036-129
10	66		19099	13230E4561-15-8
10	67		19099	13230E4561-15-2
10	68		97403	13230E4561 -16
10	69	5940-00-115-5008	96906	MS25036-129
10	70		19099	13230E4561-16-8
10	71		19099	13230E4561-16-2
10	72		97403	13230E4561-17
10	73	5940-00-115-5008	96906	MS25036-129
10	74		19099	13230E45610-7-8
10	75		19099	13230E4561-17-2
10	76		97403	13230E4561-18
10	77	5940-00-115-5008	96906	MS25036-129
10	78		19099	13230E4561-18-8
10	79		19099	13230E4561-18-2
10	80		97403	13230E4561-19
10	81	5940-00-115-5008	96906	MS25036-129
10	82		19099	13230E4561-19-8
10	83		19099	13230E4561-19-2
10	84		97403	13230E4561-20
10	85	5940-00-115-5008	96906	MS25036-129
10	86		19099	13230E4561-20-8
10	87		19099	13230E4561-20-2
10	88		97403	13230E4561-33
10	89	5940-00-115-5007	96906	MS25036-130
10	90		19099	13230E4561-33-11
11	1		97403	13230E4561-21
11	2	5940-00-113-8184	96906	MS25036-150
11	3		19099	13230E4561-21-9
11	4		19099	13230E4561-21-3
11	5		97403	13230E4561-22
11	6	6940-00-143-4773	96906	MS25036-105
11	7		19099	13230E4561-22-9

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FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
11	8		19099	13230E4561-22-3
11	9		97403	13230E4561-23
11	10	5940-00-113-8184	96906	MS25036-150
11	11		19099	13230E4561-23-9
11	12		19099	13230E4561-23-3
11	13		97403	13230E4561-24
11	14	6940-00-143-4773	96906	MS25036-105
11	15		19099	13230E4561-24-9
11	16		19099	13230E4561-24-3
11	17		97403	13230E4561-25
11	18	5940-00-113-8184	96906	MS25036-150
11	19		19099	13230E4561-25-9
11	20		19099	13230E4561-25-3
11	21		97403	13230E4561-26
11	22	5940-00-113-8184	96906	MS25036-150
11	23		19099	13230E4561-26-9
11	24		19099	13230E4561-26-3
11	25		97403	13230E4561-27
11	26	5940-00-113-8184	96906	MS25036-150
11	27		19099	13230E4561-27-9
11	28		19099	13230E4561-27-3
11	29		97403	13230E4561-28
11	30	5940-00-113-8184	96906	MS25036-150
11	31		19099	13230E4561-28-9
11	32		90991	132304561-28-3
11	33		97403	13230E4561-29
11	34	5940-00-113-8184	96906	MS25036-150
11	35		19099	13230E4561-29-9
11	36		19099	13230E4561-29-3
11	37		97403	13230E4561-30
11	38	5940-00-113-8184	96906	MS25036-150
11	39		19099	13230E4561-30-9
11	40		19099	13230E4561-30-3
11	41		97403	13230E4561-31
11	42	5940-00-113-8184	96906	MS25036-150
11	43		19099	13230E4561-31-9
11	44		19099	13230E4561-31-3
11	45		97403	13230E4561-32
11	46	5940-00-113-8184	96906	MS25036-150
11	47		19099	13230E4561-32-9
11	48		19099	13230E4561-32-3
12	1	5310-01-316-0403	96906	MS17829Z4C
12	2	5310-00-950-1403	96906	MS15795-853
12	3	5305-00-225-3843	80204	B1821BH025C100N
12	4	5305-01-352-5718	96906	MS51957-83
12	5		97403	13230E4560-1
12	5		97403	13230E4560-2
12	5		97403	13230E4560-3
12	5		97403	13230E4560-4
12	5		97403	13230E4588-1
12	5		97403	13230E4588-2

CROSS-REFERENCE INDEXES
FIGURE AND ITEM NUMBER INDEX

FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
12	5		97403	13230E4588-3
12	5		97403	13230E4588-4
12	6	5940-00-115-5008	96906	MS25036-129
12	7	5940-00-557-4344	96906	MS25036-120
12	8		19099	13230E4560-1-3
12	9		19099	13230E4560-1-6
12	10		19099	13230E4560-1-2
12	11		19099	13230E4560-1-7
12	12	5935-01-092-3451	96906	MS90555C44413S
12	12	5935-01-148-7097	96906	MS90555C44413SW
12	13	5999-01-130-1897	81349	M39029/49-333
12	14	5999-01-131-5588	81349	M39029/49-330
12	15		95501	10-40450-48
12	16	5935-01-172-1004	96906	MS90563-7C
13	1	6210-00-900-9423	97403	13214E1391
13	2	6210-00-941-6690	72619	181-0937-003
13	3		58224	G9B
13	4	6210-01-230-1851	72619	181-8836-09-553
14	1	5310-01-358-7622	96906	MS17829Z6C
14	2	5310-01-257-7590	96906	MS51412-7
14	3	5305-00-068-0511	80204	B1821BH038C125N
14	4		97403	13218E5149-16
14	5	5330-01-175-0311	81349	M83461/1-341
14	6		97403	13230E4564-1
14	7	5940-00-114-1320	96906	MS25036-140
14	8		19099	13230E4564-1-1
14	9		19099	13230E4564-1-2
14	10		19099	13230E4564-1-4
14	11		19099	13230E4564-1-3
14	12		97403	13230E4564-2
14	13	5940-00-114-1320	96906	MS25036-140
14	14		19099	13230E4564-2-1
14	15		19099	13230E4564-2-2
14	16		19099	13230E4564-2-4
14	17		19099	13230E4564-2-3
15	1	5310-01-358-7622	96906	MS17829Z6C
15	2	5310-01-257-7590	96906	MS51412-7
15	3	5305-00-068-0511	80204	B1821BH038C125N
15	4		97403	13230E4557-1
15	5		97403	13230E4557-2
15	6		97403	13230E4557-3
15	7		97403	13230E4558
15	8		97403	13230E4559
15	9		97403	13230E4562
15	10		97403	13230E4563
15	11	5975-00-133-8696	96906	MS3367-6-9
16	1	5310-01-358-7622	96906	MS17829Z6C
16	2	5310-01-257-7590	96906	MS51412-7
16	3	5305-00-068-0511	80204	B1821BH038C125N
16	4	4210-00-223-4857	97403	13214E1235
16	5		97403	13230E4551

CROSS-REFERENCE INDEXES
FIGURE AND ITEM NUMBER INDEX

FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
16	6	5310-00-835-2135	96906	MS27130-A37K
17	1		97403	13230E4565
17	1		97403	13230E4589
17	2	5935-01-099-0004	96906	MS90556C44413P
17	2	5935-01-099-0004	96906	MS90556C44413PW
17	3		96906	MS23747-16
17	4		96906	MS90561-16
17	5		77820	10-473421-3
17	6	5310-00-933-8121	96906	MS35338-139
17	7	5999-01-167-0838	96906	MS3348-6-8L
17	8	5999-01-108-8602	81349	M39029/48-319
17	9	5999-01-113-4552	81349	M39029/48-324
17	10	5999-01-130-1899	81349	M39029/48-323
17	11	5935-01-147-9446	96906	MS90564-7C
17	12	5935-01-091-9166	96906	MS90557C44413S
17	12	5935-01-091-9166	96906	MS90557C44413SW
17	13		96906	MS23747-16
17	14		96906	MS90561-16
17	15		77820	10-473421-3
17	16	5310-00-933-8121	96906	MS35338-139
17	17	5999-01-167-0838	96906	MS3348-6-8L
17	18		81349	M39029/48-330
17	19		81349	M39029/48-333
17	20	5935-01-147-9446	96906	MS90564-7C
17	21		19099	13230E4565-2
17	22		19099	13230E4565-3
18	1		97403	13230E4577
18	2	5310-01-316-0403	96906	MS17829Z4C
18	3	5310-01-333-0060	96906	MS51412-23
18	4	5305-00-680-0509	80204	B1821BH025C125N
18	5	5340-00-088-1254	96906	MS21333-104
18	6		97403	MS52103B050420R
18	7		81343	4-5250154
18	8		19099	MS52103B050420R-1
18	9		97403	MS52103B050600R
18	10		81343	4-5250154
18	11		19099	MS52103B050600R-1
18	12		97403	13230E6370
18	13		88044	AN816-6B
18	14	4730-01-164-3365	93061	1207ACBH-4
18	15		81343	5-4-070202B
18	16	4820-01-192-5819	79227	B-6000-1/4 NPT
18	17		81343	4-4-140137B
18	18		81343	4-4-4-140425B
18	19		96906	MS51520A5Z
19	1	5310-01-316-0403	96906	MS17829Z4C
19	2	5310-01-333-0060	96906	MS51412-23
19	3	5305-00-680-0509	80204	B1821BH025C125N
19	4		97403	13230E4575
19	5		97403	13230E4572
19	6	7240-01-337-5269	81349	MIL-C-53109

CROSS-REFERENCE INDEXES
FIGURE AND ITEM NUMBER INDEX

FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
19	7	5310-01-358-7622	96906	MS17829Z6C
19	8	5310-01-257-7590	96906	MS51412-7
19	9	5305-00-068-0511	80204	B1821BH038C125N
19	10	2590-00-473-6331	96906	MS53052-1
19	11		97403	13230E4597
20	1	5310-01-358-7622	96906	MS17829Z6C
20	2	5310-01-257-7590	96906	MS51412-7
20	3	5305-00-068-0511	80204	B1821BH038C125N
20	4		97403	13230E4580
20	5	5310-00-934-9765	96906	MS35650-304
20	6	5310-00-933-8120	96906	MS35338-138
20	7	5310-01-386-0481	96906	MS51412-21
20	8	5305-00-995-0437	96906	MS51960-66
20	9	5340-00-229-0340	96906	MS51939-3
20	10	5340-00-409-3880	97403	13216E7505-2
20	11	5340-00-204-4857	97403	13216E7504
20	12		97403	13230E4583
20	13		80204	B1821BH025F062N
20	14	5310-01-333-0060	96906	MS51412-23
20	15	5310-01-228-0597	96906	MS51415-5
20	16		97403	13230E4582
20	17	5320-00-954-9568	96906	MS20604AD4W3
20	18	5340-00-113-9395	97403	13205E5068
20	19		97403	13230E4581
20	20	5310-01-046-5381	96906	MS27130-CR105
21	1	9905-01-085-7703	97403	13205E4918
21	2	5310-01-078-5996	96906	MS35425-75
21	3	5310-00-187-2413	88044	AN961-616
21	4	5310-00-584-7995	96906	MS16203-27
21	5	5310-00-022-8847	96906	MS35333-110
21	6	5307-00-227-1741	97403	13214E1223
22	1	4210-00-270-4512	99251	3304695-1
22	2	5310-01-358-7622	96906	MS17829Z6C
22	3	5310-01-257-7590	96906	MS51412-7
22	4	5305-00-068-0510	80204	B1821BH038C100N
22	5	4210-00-223-4857	97403	13214E1235
23	1		96906	MS35650-304T
23	2	5310-00-933-8120	96906	MS35338-138
23	3	5310-01-273-4535	96906	MS15795-848
23	4	5305-00-059-3660	96906	MS51958-64
23	5		97403	13230E4571
23	6		96906	MS17990C525
23	7	5310-01-358-7622	96906	MS17829Z6C
23	8	5310-01-257-7590	96906	MS51412-7
23	9	5305-00-068-0510	80204	B1821BH038C100N
23	10		97403	13229E9634-5C6
23	11		97403	13230E4574
23	12		97403	13230E4594
23	13	2540-00-846-8483	80063	SC-D-147189
23	14	5310-01-291-3389	96906	MS51967-2
23	15	5310-00-637-9547	96906	MS35339-44

CROSS-REFERENCE INDEXES
FIGURE AND ITEM NUMBER INDEX

FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
23	16	5305-00-144-3608	88044	AN526-420-12
23	17	5315-01-241-0984	81349	M45952/1-C4-21
23	18	5340-01-219-6760	81349	M5501/9-F19
23	19		97403	13230E4573
24	1	5340-00-066-1235	06076	13211E7541
24	2	4710-00-597-8731	97403	13211E7542
24	3	4710-00-185-6948	97403	13211E7543
24	4		97403	13211E7544
24	5	5330-00-402-5125	97403	13211E7546
24	6	4730-00-277-5115	88044	AN816-5-4
24	7	5305-00-841-2681	00141	4328
24	8		97403	13200E6363
24	9	5310-00-209-1239	96906	MS35335-60
24	10		97403	13211E7547
24	11		97403	13200E6361
24	12		97403	13211E7548
25	1	5120-01-013-1676	97403	13226E7741
25	2	5120-00-113-3616	81348	GGG-H-86,TY10CL1
25	3	5975-00-878-3791	15277	FS0216B122-1
25	4		56681	HLP1053A
25	5	5975-00-794-2523	0BKK8	GRC-58
25	6	5975-00-924-9927	73616	GRB58
25	7	5999-00-186-3912	04655	70-801074
25	8	5940-00-271-9504	01667	CBA-70
25	9		19099	FS0216B122-0-6
26	1	4730-00-908-3194	96906	MS35842-11
26	2		19099	13230E9635-62
26	3	4730-00-809-9703	96906	MS24519-9
27	1	5310-00-245-3424	96906	MS17829Z5C
27	2	5310-00-044-6477	96906	MS51412-25
27	3	5306-00-226-4829	80204	B1821BH031C125N
27	4		97403	13229E7946
27	5	5320-00-753-3830	96906	MS20613-4P5
27	6	5340-00-975-2126	96906	MS18015-1
27	7		96906	MS20427-4C6
27	8	5340-00-234-8422	96906	MS27969-4
28	1		97403	13230E4570

APPENDIX D
COMPONENTS OF END ITEM (COEI)
AND BASIC ISSUE ITEMS (BII) LIST

SECTION I. INTRODUCTION

D.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.

D.2. GENERAL.

The Components of End Item and Basic Issue Items (Bll) Lists are divided into the following sections:

D.2.1. Section II, Components of End Item. This listing is for information purposes only, and is not authority to requisition replacements. There are no components of end item for the power units and power plant.

D.2.2. Section III, Basic Issue Items. These essential items are required to place the AN/MJQ- 1612 and AN/MJQ-1632 power plant in operation, operate it, and to do emergency repairs. Although shipped separately packaged, Bll must be with the power units and power plant during operation and when it is transferred between property accounts. Listing these items is your authority to request/requisition them for replacement based on authorization of the end item by the TOE/MTOE. Illustrations are furnished to help you find and identify the items.

D.3. EXPLANATION OF COLUMNS.

D.3.1. Column (1), Illus. Number. Column (1), Illus. Number, gives you the number of the item illustrated.

D.3.2. Column (2), National Stock Number. Column (2), National Stock Number, identifies the stock number of the item to be used for requisitioning purposes.

D.3.3. Column (3), Description and Usable On Code. Column (3), Description and Usable On Code, identifies the Federal item name (in all capital letters) followed by a minimum description when needed. The last line below the description is the CAGEC (Commercial and Government Entity Code) (in parenthesis) and the part number. If the item you need is not the same for different models of the equipment, a Usable On Code will appear on the right side of the description column on the same line as the part number. These codes are identified below:

CODE	USED ON
FJZ	AN/MJQ-1612
FKA	AN/MJQ-1632

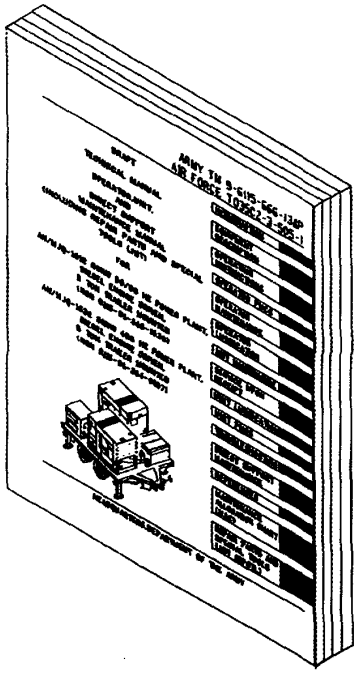
D.3.4. Column (4), U/I (unit of issue). Column (4), U/I (unit of issue), indicates how the item is issued for the National Stock Number shown in column two.

D.3.5. Column (5), Qtv Regd. Column (5), Qty Reqd, indicates the quantity required.

SECTION II. COMPONENTS OF END ITEM

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/I	(5) Qty Reqd
		This section is not applicable to the power plant.			

SECTION III. BASIC ISSUE ITEMS



(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/I	(5) Qty Reqd
1		Manual, Technical TM 9-6115-666-13&P (ARMY) TO 35C2-3-505-1 (AIR FORCE)		EA	1

APPENDIX E
ADDITIONAL AUTHORIZATION LIST

SECTION I. INTRODUCTION

E.1. SCOPE

This appendix lists additional items you are authorized for the support of the power plant.

E.2. GENERAL

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

E.3. EXPLANATION OF 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 model is shown under the "Usable on" heading in the description column. These codes are identified as:

Code	Used on
FJZ	AN/MJQ-1612
FKA	AN/MJQ-1632

SECTION II. ADDITIONAL AUTHORIZED ITEMS LIST			
(1) National Stock Number	(2) Description CAGEC and Part Number Usable on Code	(3) U/I	(4) Qt Recm
2590-00-148-7961	CABLE KIT SPECIAL (56161) 10502786	EA	2
5120-00-494-1911	WRENCH, PLIERS, CURVED JAW (81348) GGG-W-00649, TYPE 1, CLASS 2, STYLE B	EA	2
5935-00-322-8959	ADAPTER, CONNECTOR (19207) 11677570	EA	2
7240-00-222-3088	CAN, GASOLINE, MILITARY (80372) 42-D-1280	EA	2
7240-00-177-6154	SPOUT, CAN, FLEXIBLE (81349) MIL-S-1285	EA	2

APPENDIX F
EXPENDABLE AND DURABLE ITEMS LIST

SECTION I. INTRODUCTION

F.1. SCOPE

This appendix lists expendable and durable items that you will need to operate and maintain the AN/MJQ-1612 and AN/MJQ-1632 Power Plants. 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 8-100, Army Medical Department Expendable/Durable Items.

F.2. EXPLANATION OF COLUMNS

F.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 dry-cleaning solvent P-D-680, Item 1, appendix F").

F.2.2. Column 2, Level. This column identifies the lowest level of maintenance that required the item.

F.2.3. Column 3, National stock number. This is the national stock number assigned to the item which you can use to requisition it.

F.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.

F.2.5. Column 5, Unit of Measure. This code shows the physical measurement or count of an item, such as gallon, dozen, gross, etc.

Section II. EXPENDABLE AND DURABLE ITEMS LIST

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) ITEM NAME, DESCRIPTION CAGEC, PART NUMBER	(5) U/M
1	O	6850-01-331-3349	Solvent, Dry-cleaning and Degreasing, P-D-680, Type III (81349) (5 gallon)	Gl
2	O	6850-01-331-3350	Solvent, Dry-cleaning and Degreasing, P-D-680 Type III (81349) (55 gallon)	Gl
3	O	9150-00-190-0904	Grease, Automotive/artillery GAA MIL-G-10924 (81349)	Lb
4	O	9150-00-189-6727	Oil, Lubrication OE/HDO-10 MIL-D-2140 (81349)	Qt
5	O, F	8040-00-664-4318	Adhesive 9995460 (18876)	Pt
6	O, F	8040-00-221-3811	Adhesive MMM-A-1617, Type 2 (81349)	Pt
7	O		Solder Sn60Pb40 (81348)	Sl

APPENDIX G

OPERATOR LUBRICATION INSTRUCTIONS

For lubrication instructions refer to the following:

Lubrication Order: Generator Set, Skid Mounted, Tactical,
Quiet, 60 kW, 50/60 and 400 Hz
MEP-806 (50/60 Hz) 6115-01-274-7389
MEP-816 (400 Hz) 6115-01-274-7394 ..... LO 9-6115-645-12

Operator, Unit, Intermediate Direct Support and
General Support Maintenance
(Including Repair Parts and Special Tools List).....Refer to TM 9-2330-376-14&P

APPENDIX H

ILLUSTRATED LIST OF MANUFACTURED ITEMS

H.1. INTRODUCTION.

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

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

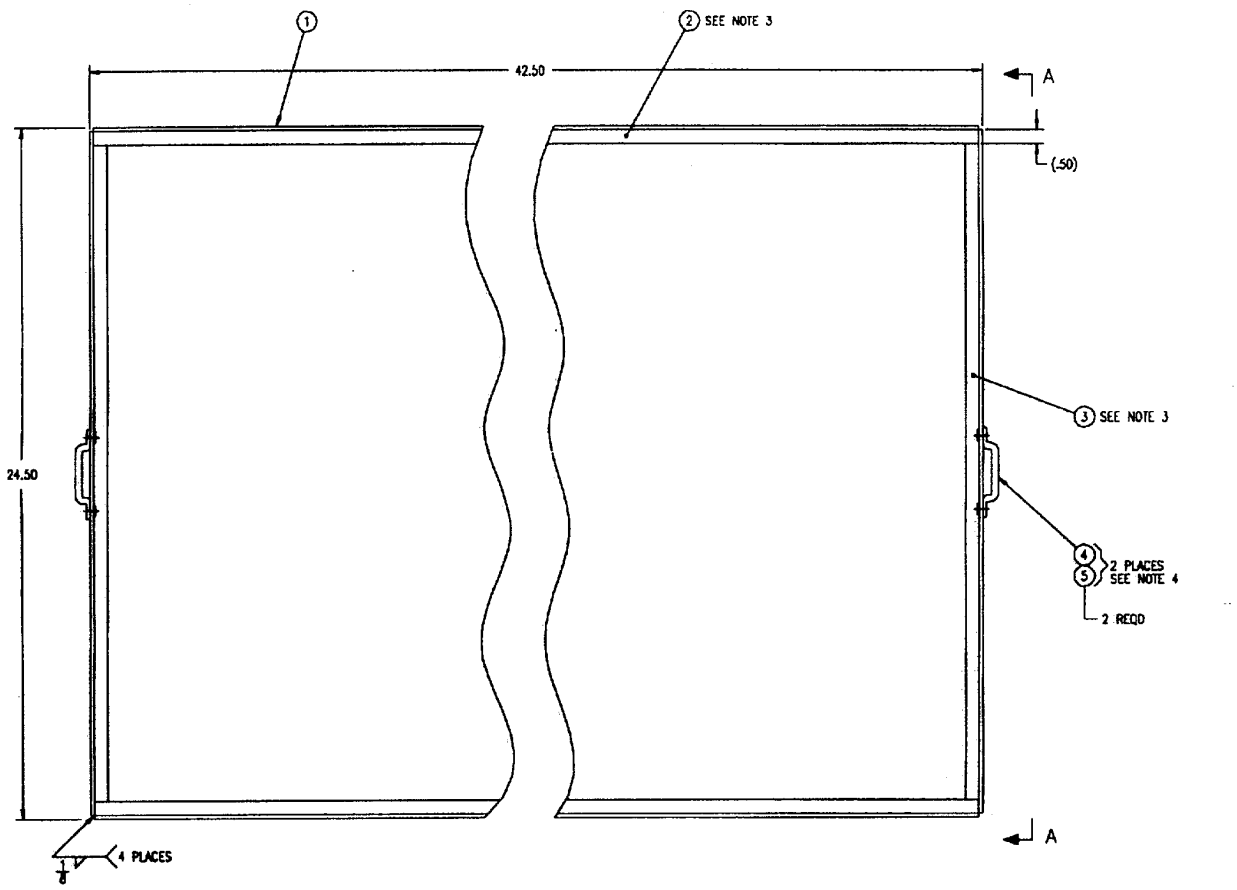
All bulk materials for manufacture of an item are listed by part number or specification number in a tabular list on the illustration.

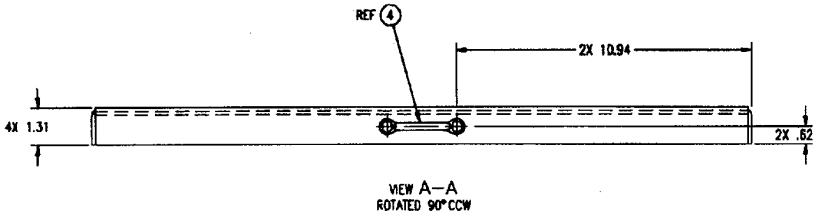
H.2. MANUFACTURED ITEMS PART NUMBER INDEX.

Part Number of Manufactured Item	Applicable Figure
13230E4552	H-1
13230E4554	H-2
13230E4555	H-3
13230E4560 (60Hz)	H-4
13230E4561	H-5
13230E4564	H-6
13230E4565 (60Hz)	H-7
13230E4588 (400Hz)	H-4
13230E4589 (400Hz)	H-7
13230E4594	H-8
MS52103	H-9

H.3. GENERAL INSTRUCTIONS.

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





VIEW A–A
ROTATED 90° CCW

PARTS LIST - 13230E4552

FIND NO	PART NO.	QTY REQD	DESCRIPTION	SPECIFICATION	MATERIAL
1		1	SHEET, .125 STK, UNS A95052-H32	ASTM B 209	AL ALY
2		2	SHEET, 500 WIDE X .188 THK, 2B2B2C1F2	ASTM D 1056	RUBBER
3		2	SHEET, 500 WIDE X .188 THK, 2B2B2C1F2	ASTM D 1056	RUBBER
4	MS51939-3	2	LOOP, STRAP FASTENER		
5	MS20601B6W4	4	RIVET, BLIND, 100° FLUSH, .188 DIA., 188-250		
6		AR	ADHESIVE, TYPE II	MMM-A-1617	

Figure H-1. Cover, Switch Box (Sheet 1 of 2).

NOTES:

1. UNLESS OTHERWISE SPECIFIED, ALL INSIDE BEND RADI SHALL BE .19

2. WELDING AND INSPECTION SHALL BE IN ACCORDANCE WITH AWS D1.2. INSPECTION SHALL BE VISUAL. 5X MAGNIFICATION SHALL BE USED TO EVALUATE ANY AREAS QUESTIONED BY INITIAL VISUAL EXAMINATION

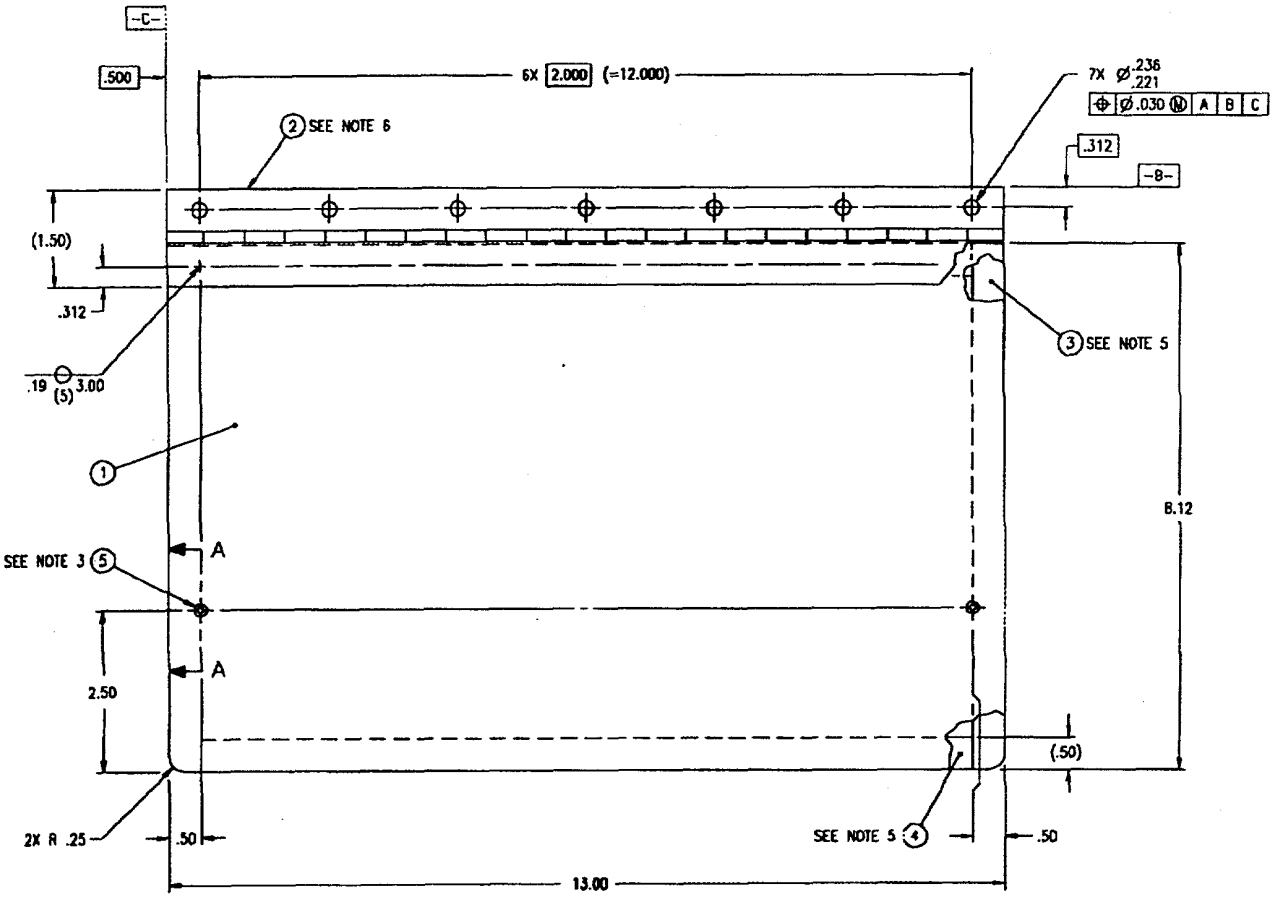
3. BOND SHEET, FIND NO. 2 AND 3, TO SHEET, FIND NO. 1, USING ADHESIVE, FIND NO. 6

4. LOCATE STRAP FASTENER LOOP, FIND NO. 4, AS SHOWN AND ASSEMBLED WITH RIVETS, FIND NO. 5. USE LOOP AS TEMPLATE TO PROVIDE HOLES IN ACCORDANCE WITH 13217E1061, CLASS 3

5. TREAT AND PAINT IN ACCORDANCE WITH MIL-T-704, TYPE G, EXCEPT SURFACES COVERED BY SHEET, FIND NO. 2 AND 3

6. MARK IN ACCORDANCE WITH MIL-STD-530, METHOD OPTIONAL

Figure H-1. Cover, Switch Box (Sheet 2 of 2).



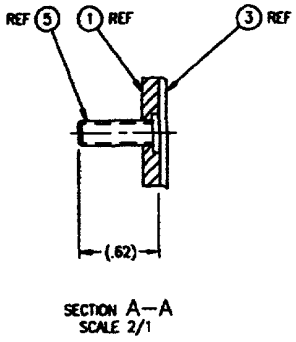


Figure H-2. Cover, Input Control (Sheet 1 of 2).

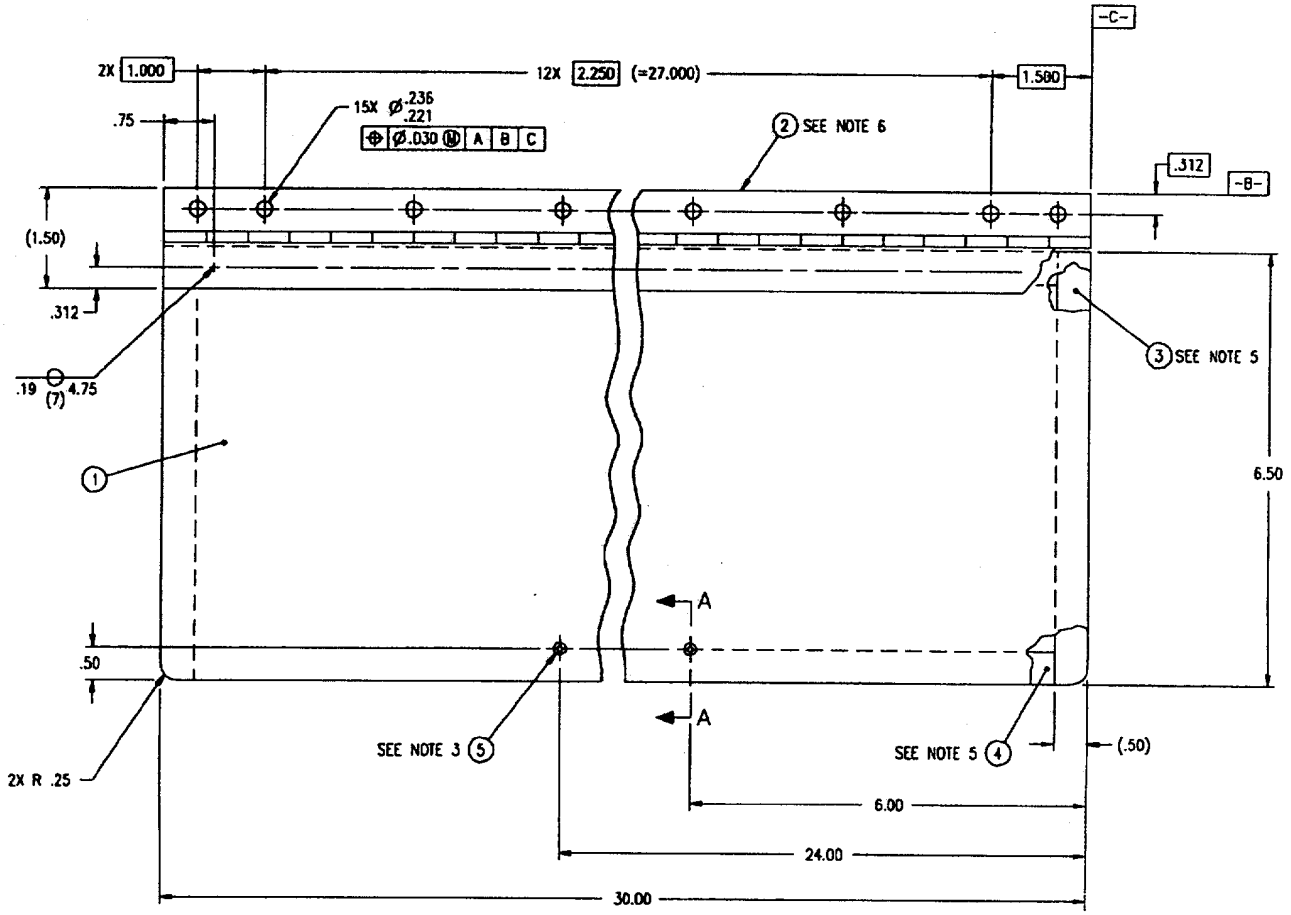
PARTS LIST - 13230E4554

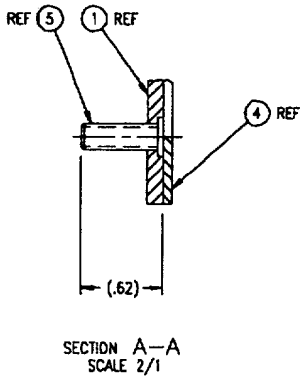
FIND NO	PART NO.	QTY REQD	DESCRIPTION	SPECIFICATION	MATERIAL
1		1	SHEET, .125 STK, UNS A96061-T6	ASTM B 209	AL ALY
2	MS35825-14A	1	HINGE, BUTT, CONT., .060 THK X 13.00 L		
3		2	SHEET, 500 WIDE X ..062 THK, 2B2B2C1F2	ASTM D 1056	RUBBER
4		2	SHEET, 500 WIDE X .062 THK, 2B2B2C1F2	ASTM D 1056	RUBBER
5	13217E1526-90	2	STUD, SELF-CLINCHING, .190-32 UNF-2A X 625 L		
6		AR	ADHESIVE, TYPE II	MMM-A-1617	

NOTES:

1. MARK IN ACCORDANCE WITH MIL-STD- 530, METHOD OPTIONAL
2. WELDING SHALL BE IN ACCORDANCE WITH MIL-W-45210
3. INSTALL STUD, FIND NO. 5, IN ACCORDANCE WITH MANUFACTURES INSTRUCTIONS
4. TREAT AND PAINT IN ACCORDANCE WITH MIL-T-704, TYPE G, EXCEPT SURFACES COVERED BY SHEET, FIND NO. 2 AND 3
5. BOND SHEET, FIND NO. 2 AND 3, TO SHEET, FIND NO. 1, USING ADHESIVE, FIND NO. 6
6. REVERSE LEAVES OF HINGE, FIND NO. 2 AND CAPTIVATE PIN

Figure H-2. Cover, Input Control (Sheet 2 of 2).





SECTION A–A
SCALE 2/1

Figure H-3. Cover, Output Control (Sheet 1of 2).

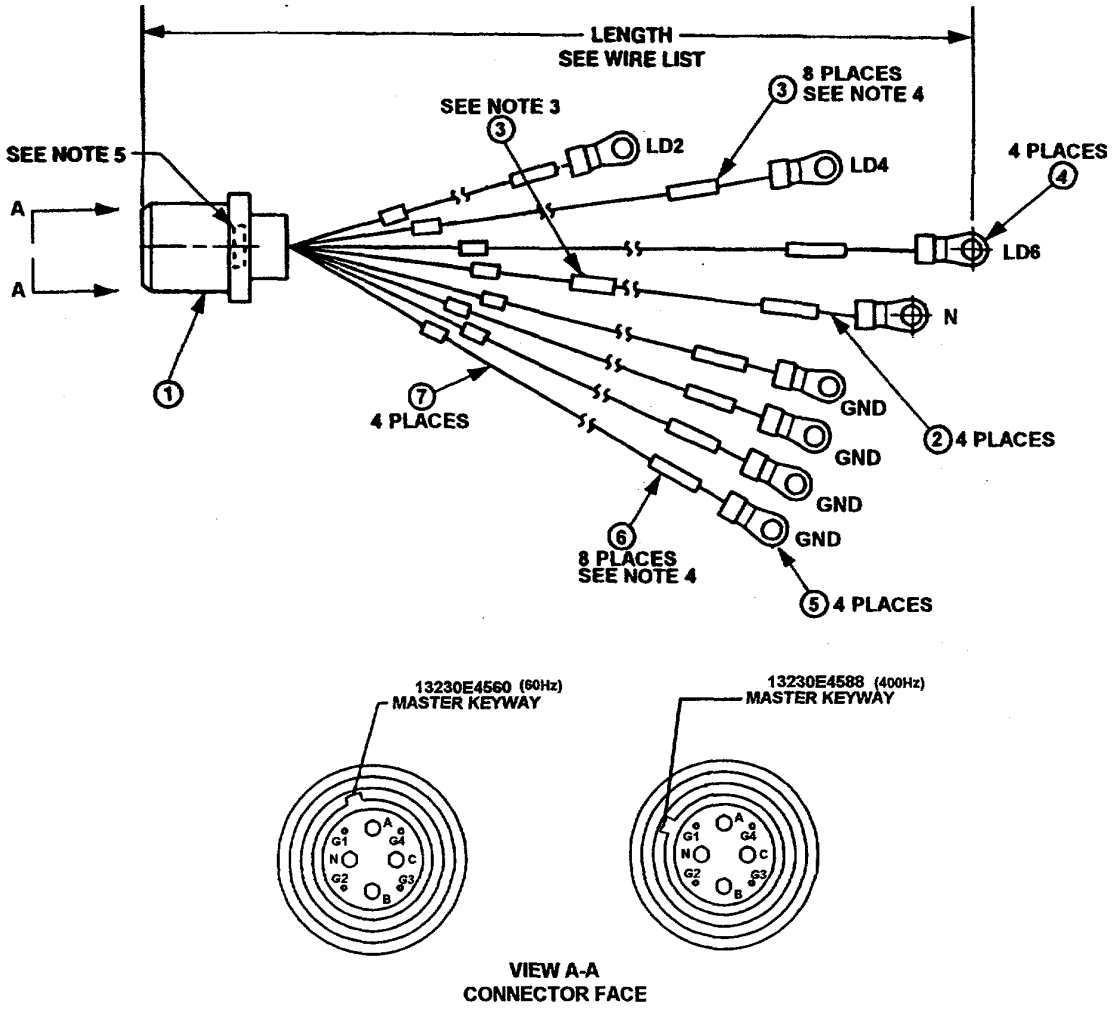
PARTS LIST - 13230E4555

FIND NO	PART NO.	QTY REQD	DESCRIPTION	SPECIFICATION	MATERIAL
1		1	SHEET, .125 STK, UNS A96061-T6	ASTM B 209	AL ALY
2	MS35825-14A	1	HINGE, BUTT, CONT., .060 THK X 30.00 L		
3		2	SHEET, 500 WIDE X ..062 THK, 2B2B2C1F2	ASTM D 1056	RUBBER
4		2	SHEET, 500 WIDE X .062 THK, 2B2B2C1F2	ASTM D 1056	RUBBER
5	13217E1526-90	2	STUD, SELF-CLINCHING, .190-32 UNF-2A X 625 L		
6		AR	ADHESIVE, TYPE II	MMM-A-1617	

NOTES:

1. MARK IN ACCORDANCE WITH MIL-STD- 530, METHOD OPTIONAL
2. WELDING SHALL BE IN ACCORDANCE WITH MIL-W-45210
3. INSTALL STUD, FIND NO. 5, IN ACCORDANCE WITH MANUFACTURES INSTRUCTIONS
4. TREAT AND PAINT IN ACCORDANCE WITH MIL-T-704, TYPE G, EXCEPT SURFACES COVERED BY SHEET, FIND NO. 2 AND 3
5. BOND SHEET, FIND NO. 2 AND 3, TO SHEET, FIND NO. 1, USING ADHESIVE, FIND NO. 6
6. REVERSE LEAVES OF HINGE, FIND NO. 2 AND CAPTIVATE PIN

Figure H-3. Cover, Output Control (Skeet 2 of 2).



PARTS LIST 13230E4560 and 13230E4588

FIND NO.	PART NO.	QUANTITY REQUIRED -1	-2	-3	-4	DESCRIPTION	SPECIFICATION
1	MS90555C144413S	1	1	1	1	CONNECTOR, RECEPTACLE ELECTRICAL	13230E4560
1	MS90555C144413SW	1	1	1	1	CONNECTOR, RECEPTACLE ELECTRICAL	13230E4588
2	M5086/2-1-9	4	4	4	4	WIRE, ELECTRICAL, 1 AWG, WHITE	MIL-W-5086/2
3	M23053/5-109-0	9	9	9	9	INSULATION SLEEVING, HEAT SHRINKABLE, .750 ID X LENGTH AS REQUIRED	MIL-I-23053/5
4	MS25036-129	4	4	4	4	TERMINAL LUG, 6 AWG, .250 STUD SIZE	
5	MS25036-120	4	4	4	4	TERMINAL LUG, 1 AWG, .250 STUD SIZE	
6	M23053/5-107-0	8	8	8	8	INSULATION SLEEVING, HEAT SHRINKABLE, .370 ID X LENGTH AS REQUIRED	MIL-I-23053/5
7	M5086/2-6-9	4	4	4	4	WIRE, ELECTRICAL, 6 AWG, WHITE	MIL-I-5086/2

Figure H-4. Wiring Harness Output Connector A1W6 thru A1W9 (Sheet 1 of 2).

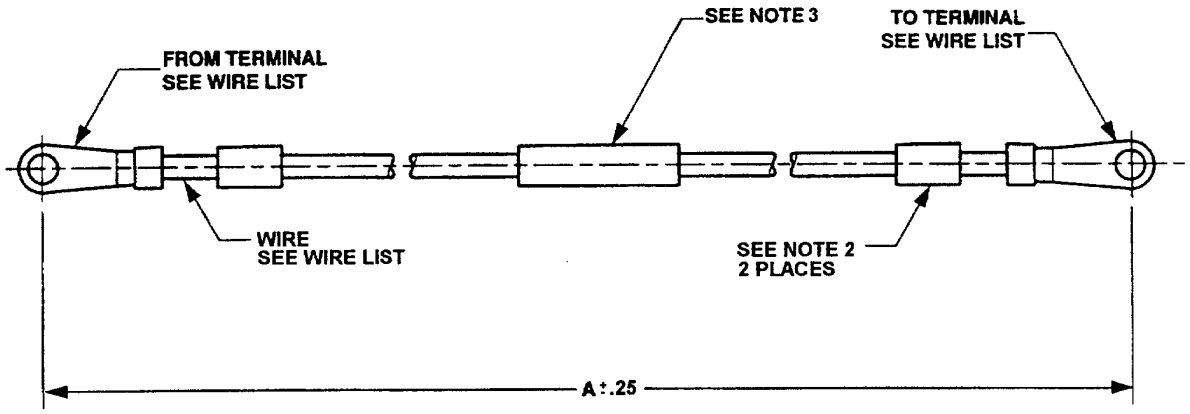
NOTES:

1. ASSEMBLE WIRE, FIND N0. 2 AND 7, INTO CONNECTOR, FIND N0. 1, IN ACCORDANCE WITH MIL-C-22992, CLASS L.
2. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-E-45782.
3. HOT STAMP "A1W( )" INDICATED IN WIRE LIST, AND "97403-13230E4560-( )" WITH APPROPRIATE DASH NO. ON SLEEVING, FIND NO. 3, IN ACCORDANCE WITH MIL-E-60903. LOCATE APPROXIMATELY AT MIDPOINT OF WIRE.
4. HOT STAMP SLEEVING, FIND NO. 3 AND 6, 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.
5. MARK CONNECTORS REFERENCE DESIGNATION IN ACCORDANCE WITH MIL-STD-130, METHOD OPTIONAL.

WIRE LIST

DASH NO.	CONN REF DES	WIRE NO.	TERMINATION FROM	TERMINATION FIND NO.	TERMINATION TO	TERMINATION FIND NO.	WIRE LENGTH	WIRE FIND NO.	HARNESS REF DES
-1	J1	1	A1J1-A	1	A1CB1-LD2	4	36.00	2	A1W6
		2	A1J1-B		A1CB1-LD4				
		3	A1J1-C		A1CB1-LD6				
		4	A1J1-N		A1W4-2(N)		26.00		
		5	A1J1-G1		A1W5-3(GND)	5	24.00	7	
		6	A1J1-G2		A1W5-3(GND)				
		7	A1J1-G3		A1W5-4(GND)				
		8	A1J1-G4		A1W5-4(GND)				
-2	J2	1	A1J2-A	1	A1CB2-LD2	4	36.00	2	A1W7
		2	A1J2-B		A1CB2-LD4				
		3	A1J2-C		A1CB2-LD6				
		4	A1J2-N		A1W4-3(N)		26.00		
		5	A1J2-G1		A1W5-5(GND)	5	24.00	7	
		6	A1J2-G2		A1W5-5(GND)				
		7	A1J2-G3		A1W5-6(GND)				
		8	A1J2-G4		A1W5-6(GND)				
-3	J3	1	A1J3-A	1	A1CB3-LD2	4	36.00	2	A1W8
		2	A1J3-B		A1CB3-LD4				
		3	A1J3-C		A1CB3-LD6				
		4	A1J3-N		A1W4-4(N)		26.00		
		5	A1J3-G1		A1W5-7(GND)	5	24.00	7	
		6	A1J3-G2		A1W5-7(GND)				
		7	A1J3-G3		A1W5-8(GND)				
		8	A1J3-G4		A1W5-8(GND)				
-4	J4	1	A1J4-A	1	A1CB4-LD2	4	36.00	2	A1W9
		2	A1J4-B		A1CB4-LD4				
		3	A1J4-C		A1CB4-LD6				
		4	A1J4-N		A1W4-5(N)		26.00		
		5	A1J4-G1		A1W5-9(GND)	5	24.00	7	
		6	A1J4-G2		A1W5-9(GND)				
		7	A1J4-G3		A1W5-10(GND)				
		8	A1J4-G4		A1W5-10(GND)				

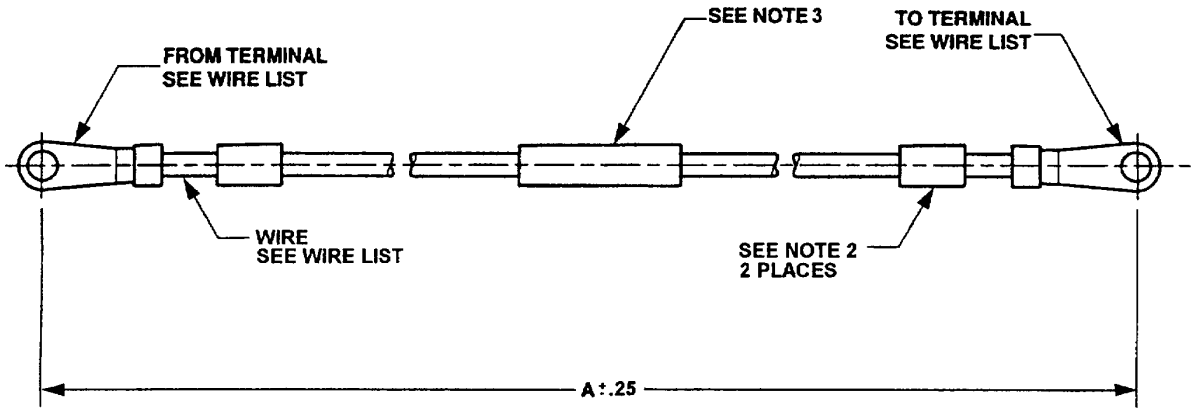
Figure H-4. Wiring Harness Output Connector A1W6 thru A1W9 (Sheet 2 of 2).



PARTS LIST 13230E4561-1 Thru -6

FIND NO.	PART NO.	QUANTITY REQUIRED						DESCRIPTION	SPECIFICATION
		-1	-2	-3	-4	-5	-6		
1	M5086/2-02-9	AR	AR	AR	AR	AR	AR	WIRE, ELECTRICAL, 2/0 AWG, WHITE	MIL-W-5086/2
2	M5086/2-1-9	-	-	-	-	-	-	WIRE, ELECTRICAL, 1 AWG, WHITE	MIL-W-5086/2
3	M5086/2-18-9	-	-	-	-	-	-	WIRE, ELECTRICAL, 18 AWG, WHITE	MIL-W-5086/2
4	MS25036-129	-	-	-	-	-	-	TERMINAL LUG, 1 AWG, .250 STUD SIZE	
5	MS25036-130	-	-	-	-	-	-	TERMINAL LUG, 1 AWG, .375 STUD SIZE	
6	MS25036-136	1	1	1	1	1	1	TERMINAL LUG, 2/0 AWG, .375 STUD SIZE	
7	MS25036-150	-	-	-	-	-	-	TERMINAL LUG, 22-18 AWG, .250 STUD SIZE	
8	M23053/5-109-0	3	3	3	3	3	3	INSULATION SLEEVING, HEAT SHRINKABLE, .750 ID X LENGTH AS REQUIRED	MIL-I-23053/5
9	M23053/5-104-0	-	-	-	-	-	-	INSULATION SLEEVING, HEAT SHRINKABLE, .125 ID X LENGTH AS REQUIRED	MIL-I-23053/5
10	Sn60Pb40	-	-	-	-	-	-	SOLDER	QQ-B-571
11	M5086/2-1-0	-	-	-	-	-	-	WIRE, ELECTRICAL, 1 AWG, BLACK	MIL-W-5086
12	MS25036-105	-	-	-	-	-	-	TERMINAL LUG, 22-18 AWG, .375 STUD SIZE	
13	MS20659-153	1	1	1	1	1	1	TERMINAL LUG, 2 AWG, .250 STUD SIZE	

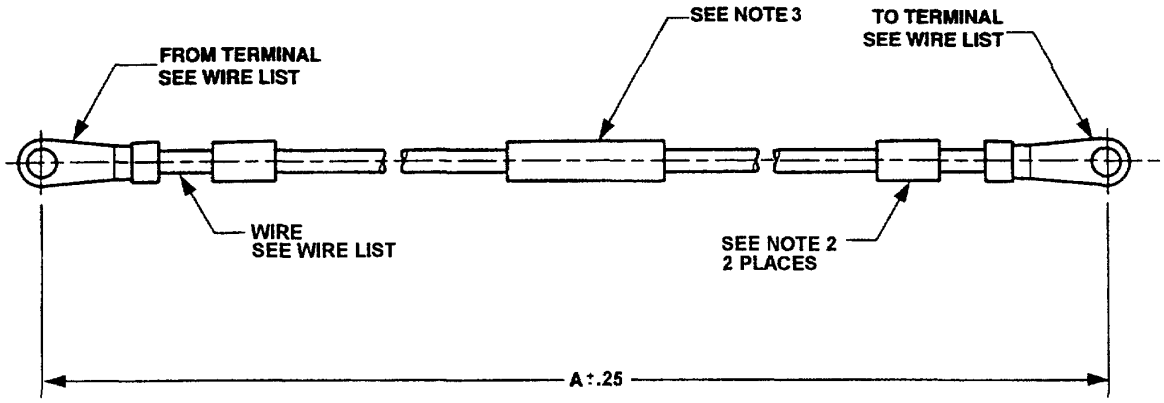
Figure H-5. Wire Leads A1W10 thru A1W41 (Sheet 1 of 7).



PARTS LIST 13230E4561-7 Thru -12

FIND NO.	PART NO.	QUANTITY REQUIRED -7	-8	-9	-10	-11	-12	DESCRIPTION	SPECIFICATION
1	M5086/2-02-9	-	-	-	-	-	-	WIRE, ELECTRICAL, 2/0 AWG, WHITE	MIL-W-5086/2
2	M5086/2-1-9	AR	AR	AR	AR	AR	AR	WIRE, ELECTRICAL, 1 AWG, WHITE	MIL-W-5086/2
3	M5086/2-18-9	-	-	-	-	-	-	WIRE, ELECTRICAL, 18 AWG, WHITE	MIL-W-5086/2
4	MS25036-129	2	1	2	2	2	2	TERMINAL LUG, 1 AWG, .250 STUD SIZE	
5	MS25036-130	-	1	-	-	-	-	TERMINAL LUG, 1 AWG, .375 STUD SIZE	
6	MS25036-136	-	-	-	-	-	-	TERMINAL LUG, 2/0 AWG, .375 STUD SIZE	
7	MS25036-150	-	-	-	-	-	-	TERMINAL LUG, 22-18 AWG, .250 STUD SIZE	
8	M23053/5-109-0	3	3	3	3	3	3	INSULATION SLEEVING, HEAT SHRINKABLE, .750 ID X LENGTH AS REQUIRED	MIL-I-23053/5
9	M23053/5-104-0	-	-	-	-	-	-	INSULATION SLEEVING, HEAT SHRINKABLE, .125 ID X LENGTH AS REQUIRED	MIL-I-23053/5
10	Sn60Pb40	-	-	-	-	-	-	SOLDER	QQ-B-571
11	M5086/2-1-0	-	-	-	-	-	-	WIRE, ELECTRICAL. 1 AWG BLACK	MIL-W-5086
12	MS25036-105	-	-	-	-	-	-	TERMINAL LUG, 22-18 AWG, .375 STUD SIZE	
13	MS20659-153	-	-	-	-	-	-	TERMINAL LUG, 2/0 AWG, .250 STUD SIZE	

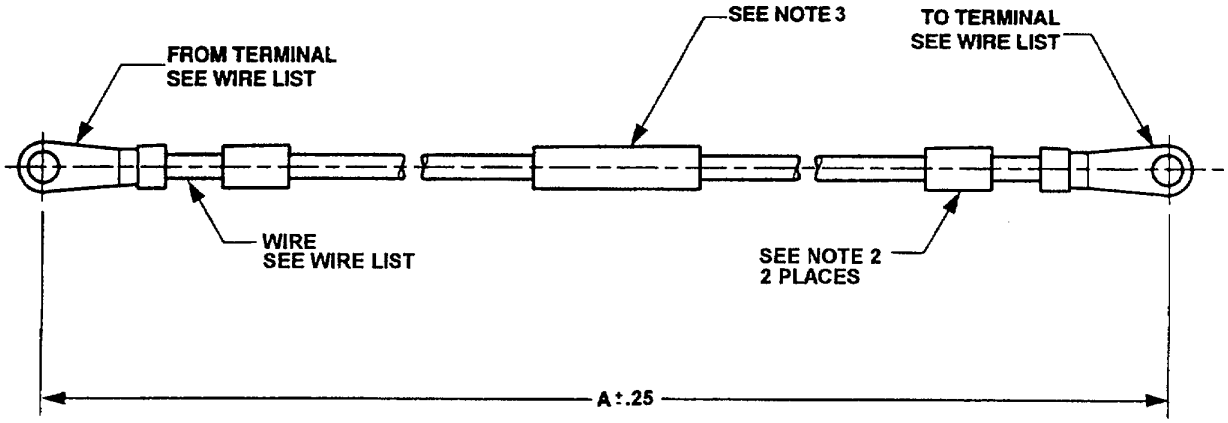
Figure H-5. Wire Leads A1W10 thru A1W41 (Sheet 2 of 7).



PARTS LIST 13230E4561-13 thru -18

FIND NO.	PART NO.	QUANTITY REQUIRED						DESCRIPTION	SPECIFICATION
		-13	-14	-15	-16	-17	-18		
1	M5086/2-02-9	-	-	-	-	-	-	WIRE, ELECTRICAL, 2/0 AWG, WHITE	MIL-W-5086/2
2	M5086/2-1-9	AR	AR	AR	AR	AR	AR	WIRE, ELECTRICAL, 1 AWG, WHITE	MIL-W-5086/2
3	M5086/2-18-9	-	-	-	-	-	-	WIRE, ELECTRICAL, 18 AWG, WHITE	MIL-W-5086/2
4	MS25036-129	2	2	2	2	2	2	TERMINAL LUG, 1 AWG, .250 STUD SIZE	
5	MS25036-130	-	-	-	-	-	-	TERMINAL LUG, 1 AWG, .375 STUD SIZE	
6	MS25036-136	-	-	-	-	-	-	TERMINAL LUG, 2/0 AWG, .375 STUD SIZE	
7	MS25036-150	-	-	-	-	-	-	TERMINAL LUG, 22-18 AWG, .250 STUD SIZE	
8	M23053/5-109-0	3	3	3	3	3	3	INSULATION SLEEVING, HEAT SHRINKABLE, .750 ID X LENGTH AS REQUIRED	MIL-I-23053/5
9	M23053/5-104-0	-	-	-	-	-	-	INSULATION SLEEVING, HEAT SHRINKABLE, .125 ID X LENGTH AS REQUIRED	MIL-I-23053/5
10	Sn60Pb40	-	-	-	-	-	-	SOLDER	QQ-B-571
11	M5086/2-1-0	-	-	-	-	-	-	WIRE, ELECTRICAL, 1 AWG BLACK	MIL-W-5086
12	MS25036-105	-	-	-	-	-	-	TERMINAL LUG, 22-18 AWG, .375 STUD SIZE	
13	MS20659-153	-	-	-	-	-	-	TERMINAL LUG, 2/0 AWG, .250 STUD SIZE	

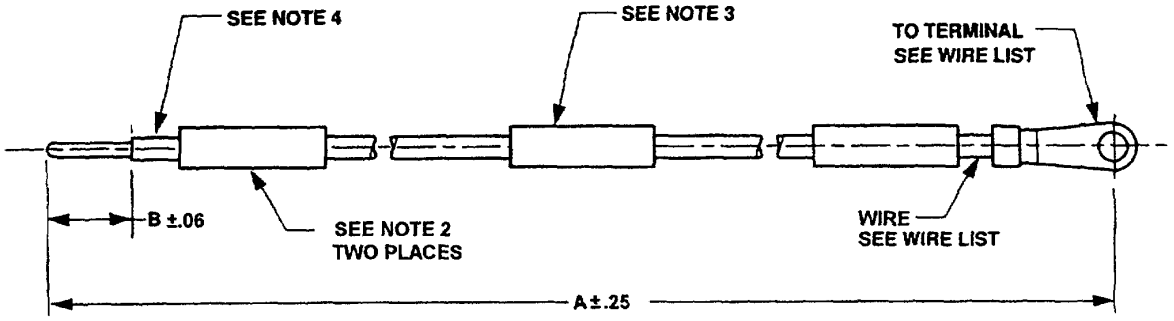
Figure H-5. Wire Leads A1W10 thru A1W41 (Sheet 3 of 7).



PARTS LIST 13230E4561-19,-20 and -33

FIND NO.	PART NO.	QUANTITY REQUIRED -19	-20	-33	DESCRIPTION	SPECIFICATION
1	M5086/2-02-9	-	-	-	WIRE, ELECTRICAL, 2/0 AWG, WHITE	MIL-W-5086/2
2	M5086/2-1-9	AR	AR	-	WIRE, ELECTRICAL, 1 AWG, WHITE	MIL-W-5086/2
3	M5086/2-18-9	-	-	-	WIRE, ELECTRICAL, 18 AWG, WHITE	MIL-W-5086/2
4	MS25036-129	2	2	-	TERMINAL LUG, 1 AWG, .250 STUD SIZE	
5	MS25036-130	-	-	2	TERMINAL LUG, 1 AWG, .375 STUD SIZE	
6	MS25036-136	-	-	-	TERMINAL LUG, 2/0 AWG, .375 STUD SIZE	
7	MS25036-150	-	-	-	TERMINAL LUG, 22-18 AWG, .250 STUD SIZE	
8	M23053/5-109-0	3	3	-	INSULATION SLEEVING, HEAT SHRINKABLE, .750 ID X LENGTH AS REQUIRED	MIL-I-23053/5
9	M23053/5-104-0	-	-	-	INSULATION SLEEVING, HEAT SHRINKABLE, .125 ID X LENGTH AS REQUIRED	MIL-I-23053/5
10	Sn60Pb40	-	-	-	SOLDER	QQ-B-571
11	M5086/2-1-0	-	-	AR	WIRE, ELECTRICAL. 1 AWG BLACK	MIL-W-5086
12	MS25036-105	-	-	-	TERMINAL LUG, 22-18 AWG, .375 STUD SIZE	
13	MS20659-153	-	-	-	TERMINAL LUG, 2/0 AWG, .250 STUD SIZE	

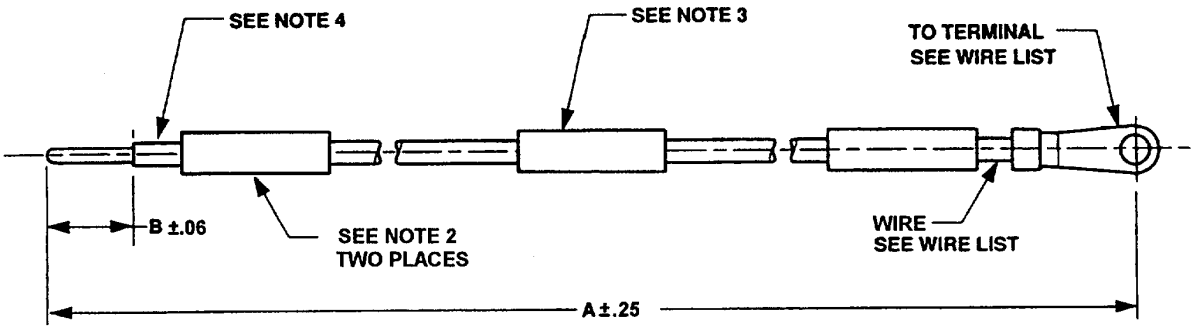
Figure H-5. Wire Leads A1W10 thru A1W41 (Sheet 4 of 7).



PARTS LIST 13230E4561-21 thru -26

FIND NO.	PART NO.	QUANTITY REQUIRED -21	-22	-23	-24	-25	-26	DESCRIPTION	SPECIFICATION
1	M5086/2-02-9	-	-	-	-	-	-	WIRE, ELECTRICAL, 2/0 AWG, WHITE	MIL-W-5086/2
2	M5086/2-1-9	-	-	-	-	-	-	WIRE, ELECTRICAL, 1 AWG, WHITE	MIL-W-5086/2
3	M5086/2-18-9	AR	AR	AR	AR	AR	AR	WIRE, ELECTRICAL, 18 AWG, WHITE	MIL-W-5086/2
4	MS25036-129	-	-	-	-	-	-	TERMINAL LUG, 1 AWG, .250 STUD SIZE	
5	MS25036-130	-	-	-	-	-	-	TERMINAL LUG, 1 AWG, .375 STUD SIZE	
6	MS25036-136	-	-	-	-	-	-	TERMINAL LUG, 2/0 AWG, .375 STUD SIZE	
7	MS25036-150	1		1		1	1	TERMINAL LUG, 22-18 AWG, .250 STUD SIZE	
8	M23053/5-109-0	-	-	-	-	-	-	INSULATION SLEEVING, HEAT SHRINKABLE, .750 ID X LENGTH AS REQUIRED	MIL-I-23053/5
9	M23053/5-104-0	3	3	3	3	3	3	INSULATION SLEEVING, HEAT SHRINKABLE, .125 ID X LENGTH AS REQUIRED	MIL-I-23053/5
10	Sn60Pb40	AR	AR	AR	AR	AR	AR	SOLDER	QQ-B-571
11	M5086/2-1-0	-	-	-	-	-	-	WIRE, ELECTRICAL. 1 AWG BLACK	MIL-W-5086
12	MS25036-105	-	1	-	1	-	-	TERMINAL LUG, 22-18 AWG, .375 STUD SIZE	
13	MS20659-153	-	-	-	-	-	-	TERMINAL LUG, 2/0 AWG, .250 STUD SIZE	

Figure H-5. Wire Leads A1W10 thru A1W41 (Sheet 5 of 7).



PARTS LIST 13230E4561-27 thru -32

FIND NO.	PART NO.	QUANTITY REQUIRED						DESCRIPTION	SPECIFICATION
		-27	-28	-29	-30	-31	-32		
1	M5086/2-02-9	-	-	-	-	-	-	WIRE, ELECTRICAL, 2/0 AWG, WHITE	MIL-W-5086/2
2	M5086/2-1-9	-	-	-	-	-	-	WIRE, ELECTRICAL, 1 AWG, WHITE	MIL-W-5086/2
3	M5086/2-18-9	AR	AR	AR	AR	AR	AR	WIRE, ELECTRICAL, 18 AWG, WHITE	MIL-W-5086/2
4	MS25036-129	-	-	-	-	-	-	TERMINAL LUG, 1 AWG, .250 STUD SIZE	
5	MS25036-130	-	-	-	-	-	-	TERMINAL LUG, 1 AWG, .375 STUD SIZE	
6	MS25036-136	-	-	-	-	-	-	TERMINAL LUG, 2/0 AWG, .375 STUD SIZE	
7	MS25036-150	1	1	1	1	1	1	TERMINAL LUG, 22-18 AWG, .250 STUD SIZE	
8	M23053/5-109-0	-	-	-	-	-	-	INSULATION SLEEVING, HEAT SHRINKABLE, .750 ID X LENGTH AS REQUIRED	MIL-I-23053/5
9	M23053/5-104-0	3	3	3	3	3	3	INSULATION SLEEVING, HEAT SHRINKABLE, .125 ID X LENGTH AS REQUIRED	MIL-I-23053/5
10	Sn60Pb40	AR	AR	AR	AR	AR	AR	SOLDER	QQ-B-571
11	M5086/2-1-0	-	-	-	-	-	-	WIRE, ELECTRICAL. 1 AWG BLACK	MIL-W-5086
12	MS25036-105	-	-	-	-	-	-	TERMINAL LUG, 22-18 AWG, .375 STUD SIZE	
13	MS20659-153	-	-	-	-	-	-	TERMINAL LUG, 2/0 AWG, .250 STUD SIZE	

Figure H-5. Wire Leads A1W10 thru A1W41 (Sheet 6 of 7).

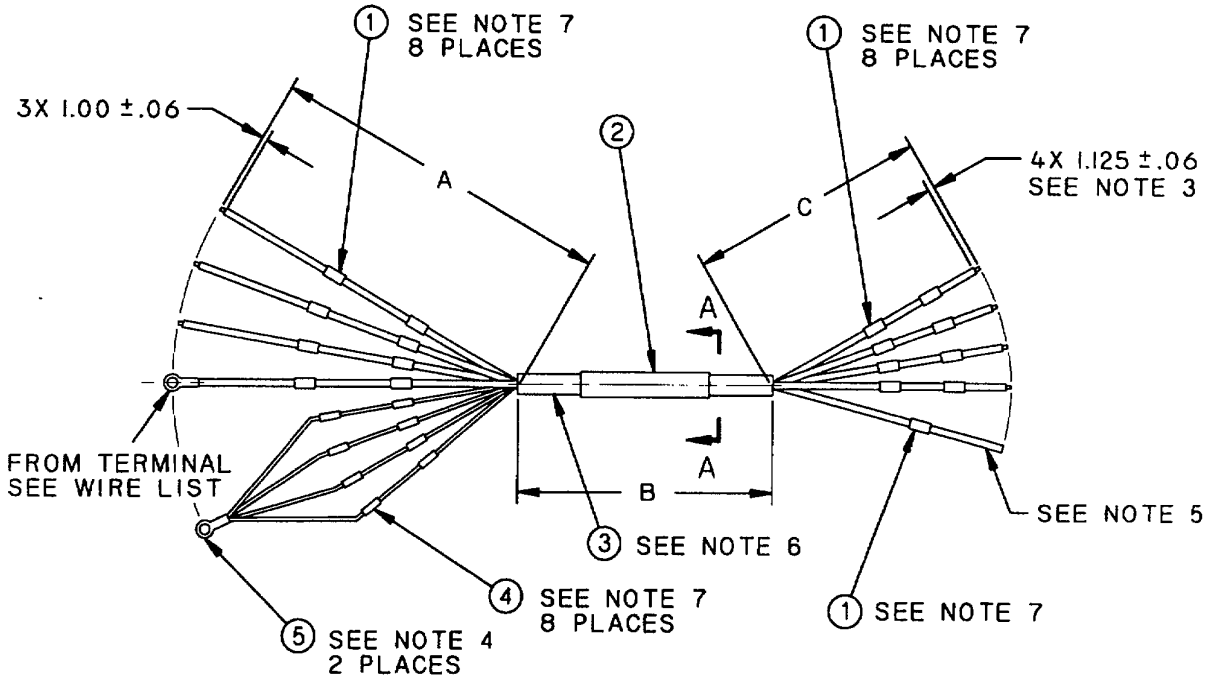
NOTES:

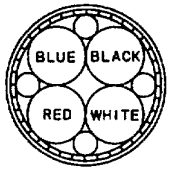
1. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-STD-454, REQUIREMENTS 19.
2. HOT STAMP SLEEVING, FIND NO. 8 OR 9, WITH WIRE ADDRESS WITHIN 2 INCHES OF ITS TERMINATION IN ACCORDANCE WITH MIL-M-60903. THE ADDRESS CONSISTS OF THE FROM TERMINATION, A DOUBLE HEADED ARROW AND THE TO TERMINATION.
3. HOT STAMP WIRE NO. INDICATED IN WIRE LIST, AND "97403-132304561-( ) WITH APPROPRIATE DASH NO. ON SLEEVING, FIND NO. 8 OR 9, IN ACCORDANCE WITH MIL-M-60903. LOCATE APPROXIMATELY AT MIDPOINT OF WIRE.
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.
5. WIRE LENGTH TO BE DETERMINED AT INSTALLATION.

WIRE LIST

DASH NO.	WIRE NO.	TERMINATION FROM	TERMINATION FIND NO.	TERMINATION TO	TERMINATION FIND NO.	DIM A.	DIM B.	WIRE FIND NO.
-1	A1W10	A1S1-1	-	A1W1-5 (L1)	6	25.00	1.00	1
-2	A1W11	A1S1-3	-	A1W2-5 (L2)	6	22.00	1.00	1
-3	A1W12	A1S1-5	-	A1W3-5 (L3)	6	18.00	1.00	1
-4	A1W13	A1S2-1	-	A1W1-5 (L1)	6	26.00	1.00	1
-5	A1W14	A1S2-3	-	A1W2-5 (L2)	6	22.00	1.00	1
-6	A1W15	A1S2-5	-	A1W3-5 (L3)	6	18.00	1.00	1
-7	A1W16	A1W5-1 (GND)	4	A1W4-1 (N)	4	12.00		2
-8	A1W17	A1W5-2 (GND)	4	A1E1-(GND)	5	24.00		2
-9	A1W18	A1CB1-LN5	4	A1W1-1 (L1)	4	22.00		2
-10	A1W19	A1CB1-LN3	4	A1W2-1 (L2)	4	24.00		2
-11	A1W20	A1CB1-LN1	4	A1W3-1 (L3)	4	26.00		2
-12	A1W21	A1CB2-LN5	4	A1W1-2 (L1)	4	22.00		2
-13	A1W22	A1CB2-LN3	4	A1W2-2 (L2)	4	24.00		2
-14	A1W23	A1CB2-LN1	4	A1W3-2 (L3)	4	26.00		2
-15	A1W24	A1CB3-LN5	4	A1W1-3 (L1)	4	22.00		2
-16	A1W25	A1CB3-LN3	4	A1W2-3 (L2)	4	24.00		2
-17	A1W26	A1CB3-LN1	4	A1W3-3 (L3)	4	26.00		2
-18	A1W27	A1CB4-LN5	4	A1W1-4 (L1)	4	22.00		2
-19	A1W28	A1CB4-LN3	4	A1W2-4 (L2)	4	24.00		2
-20	A1W29	A1CB4-LN1	4	A1W3-4 (L3)	4	26.00		2
-21	A1W30	A1XDS1-OUT	-	A1W4-6 (N)	7	SEE NOTE 5	.50	3
-22	A1W31	A1XDS1-CTR	-	A1S1-LN1	-	SEE NOTE 5	.50	3
-23	A1W32	A1XDS2-OUT	-	A1W4-6 (N)	7	SEE NOTE 5	.50	3
-24	A1W33	A1XDS2-CTR	-	A1S2-LN-1	-	SEE NOTE 5	.50	3
-25	A1W34	A1XDS3-OUT	-	A1W4-2 (N)	7	SEE NOTE 5	.50	3
-26	A1W35	A1XDS3-CTR	-	A1CB1-LD2	7	SEE NOTE 5	.50	3
-27	A1W36	A1XDS4-OUT	-	A1W4-3 (N)	7	SEE NOTE 5	.50	3
-28	A1W37	A1XDS4-CTR	-	A1CB2-LD2	7	SEE NOTE 5	.50	3
-29	A1W38	A1XDS5-OUT	-	A1W4-4 (N)	7	SEE NOTE 5	.50	3
-30	A1W39	A1XDS5-CTR	-	A1CB3-LD2	7	SEE NOTE 5	.50	3
-31	A1W40	A1ZDS6-OUT	-	A1W4-5 (N)	7	SEE NOTE 5	.50	3
-32	A1W41	A1XDS6-CTR	-	A1CB4-LD2	7	SEE NOTE 5	.50	3
-33	-	A1E1- (GND)	-	GND STUD	-	SEE NOTE 5	.50	11

Figure H-5. Wire Leads A1W10 thru A1W41 (Sheet 7 of 7).





SECTION A-A
CABLE LAY

PARTS LIST - 13230E4564-1 and -2

FIND NO.	PART NO.	QUANTITY REQUIRED -1	QUANTITY REQUIRED -2	DESCRIPTION	SPECIFICATION
1	M23053/5-110-0	17	17	INSULATION SLEEVING, HEAT SHRINKABLE, 1.00 ID X LENGTH AS REQUIRED	MIL-I-23053/5
2	M23053/5-113-0	1	2	INSULATION SLEEVING, HEAT SHRINKABLE, 3.00 ID X LENGTH AS REQUIRED	MIL-I-23053/5
3	CO-04HDE(4/4/0-4/4R)2380	AR	AR	CABLE POWER, (SEE NOTE 1)	MIL-C-3432
4	M23053/5-108-0	8	8	INSULATION SLEEVING, HEAT SHRINKABLE, .500 ID X LENGTH AS REQUIRED	MIL-I-23053/5
5	MS25036-140	5	5	TERMINAL LUG, 4/0 AWG, .375 STUD SIZE	MIL-S-23053/5
6	SN60PB40	AR	AR	SOLDER	QQ-S-571

Figure H-6. Cable Assembly W1 and W2 (Sheet 1 of 2).

NOTES:

1. INSULATION COLORS, IN ACCORDANCE WITH WIRE LIST, SHALL BE INCLUDED AS PART OF THE ORDERING DATA.

2. TERMINALS SHALL BE INSTALLED IN ACCORDANCE WITH MIL-STD-454, REQUIREMENTS 19.

3. EACH INSULATED CONDUCTOR END SHALL BE STRIPPED AS NOTED WITH THEIR INDIVIDUAL STRANDS TWISTED TOGETHER, SOLDER COATED FOR A LENGTH OF .12 FROM END USING SOLDER, FIND NO. 6.

4. REMOVE BRAID FROM GROUND WIRES (4 AWG), TWIST TOGETHER AND INSTALL TERMINAL LUG, FIND NO. 5 AS SHOWN.

5. AT PIGTAIL END OF CABLE THE FOUR 4 AWG GROUNDING CONDUCTORS SHALL BE TWISTED TOGETHER, STARTING AT THE JACKET, CONDUCTORS SHELL BE SOLDER COATED FOR A LENGTH OF .25 FROM END, USING SOLDER, FIND NO. 6.

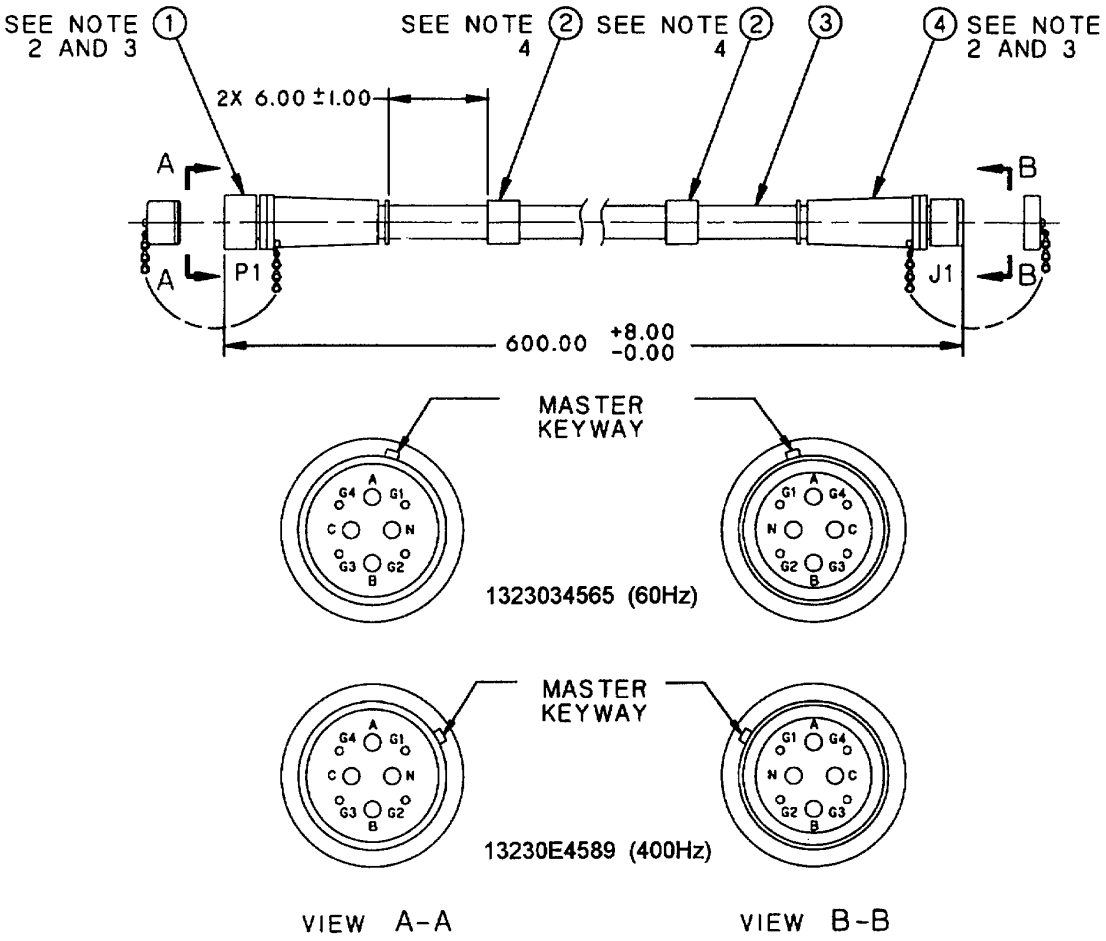
6. HOT STAMP "97403-13230E4564-( )" WITH APPROPRIATE DASH NO. AND "W( ) IN TWO PLACES (180° APART) ON INSULATION SLEEVING, FIND NO. 2, IN ACCORDANCE WITH MIL-E-60903. LOCATE APPROXIMATELY AT MIDPOINT ON -1 AND BOTH ENDS OF CABLE SHIELD ON -2.

7. HOT STAMP TERMINAL DESIGNATION AS SHOWN IN WIRE TABLE IN TWO PLACES (180° APART) ON INSULATION SLEEVING, FIND NO. 1 AND 4, IN ACCORDANCE WITH MIL-M-60903.

WIRE LIST

DASH NO.	WIRE COLOR.	TERMINATION FROM	TERMINATION FIND NO.	TERMINATION TO	TERMINATION WIRE FIND NO.	DIM. A	DIM. B	DIM. C	CABLE REF DES
-1	BLUE	A1S1-LN6	-	L3	-	32.00	34.00	23.50	W1
	RED	A1S1-LN4	-	L2	-			20.00	
	BLACK	A1S1-LN2	-	L1	-			16.50	
	WHITE	A1W4-7 (N)	5	N	-			9.50	
	GREEN	A1W5-11 (GND)	5	GND	-			12.00	
	GREEN	A1W5-11 (GND)		GND	-				
	GREEN	A1W5-11 (GND)		GND	-				
	GREEN	A1W5-11 (GND)		GND	-				
-2	BLUE	A1S2-LN6	-	L3	-	31.00	157.00	22.50	W2
	RED	A1S2-LN4	-	L2	-			19.50	
	BLACK	A1S2-LN2	-	L1	-			17.00	
	WHITE	A1W4-7 (N)	5	N	-			9.50	
	GREEN	A1W5-12 (GND)	5	GND	-	31.00		12.00	
	GREEN	A1W5-12 (GND)		GND	-				
	GREEN	A1W5-12 (GND)		GND	-				
	GREEN	A1W5-12 (GND)		GND	-				

Figure H-6. Cable Assembly W1 and W2 (Sheet 2 of 2).



PARTS LIST - 13230E4565 and 13230E4589

FIND NO.	PART NO.	QUANTITY REQUIRED		DESCRIPTION	SPECIFICATION
		13230E4565	132304589		
1	MS90556C44413P	1		CONNECTOR, PLUG ELECTRICAL, STRAIGHT	
1	MS9055C44413PW		1	CONNECTOR, PLUG ELECTRICAL, STRAIGHT	
2	M23053/5-112-0	3	3	INSULATION SLEEVING, HEAT SHRINKABLE, 2.00 ID X LENGTH AS REQUIRED	MIL-I-23053/5
3	CO-04HDE (4/1-4/8R)1620	AR	AR	CABLE (SEE NOTE 1)	MIL-C-3432
4	MS90557C44413S	1		CONNECTOR, PLUG ELECTRICAL, CABLE CONNECTING	
4	MS90557C44413SW		1	CONNECTOR, PLUG ELECTRICAL, CABLE CONNECTING	

Figure H-7. Cable, Assembly 100 AMP/PHASE 13230E4565 AND 13230E4589 (Sheet 1 of 2).

NOTES:

1. INSULATION COLORS, IN ACCORDANCE WITH WIRE LIST, SHALL BE INCLUDED AS PART OF THE ORDERING DATA.

2. CONNECTOR, FIND NO. 1 AND 4 ARE FURNISHED WITH THE FOLLOWING ITEMS:
   CONTACT BUSHING----------MS3348-6-8L
   GLAND----------MS23747-16
   CABLE GRIP----------MS09561-16
   COVER----------MS90564-7C AND MS90563-7C RESPECTIVELY

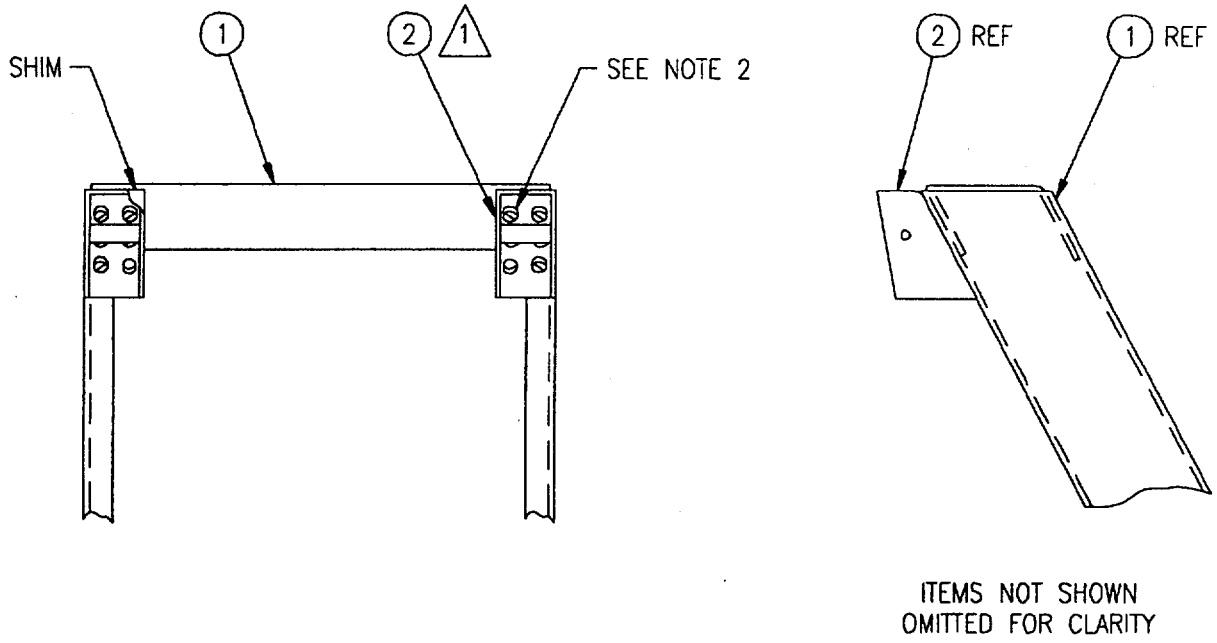
3. CONNECTOR ENDS - CRIMPING REQUIREMENTS:
   A. CRIMPED TERMINATIONS REQUIRING DOWN SIZING BUSHINGS SHALL HAVE THE CONTACT WIRE BARRELS BEFORE CRIMPING.
   B. CONTACTS SHALL BE CRIMPED WITH TOOLS SPECIFIED BY MIL-C-39029.
   C. AFTER INDENTING; THE WIRE BARRELS SHALL REMAIN APPROXIMATELY ROUND.
   D. COMPLETED CRIMPS SHALL MEET THE REQUIREMENTS OF MIL-C-39029.

4. HOT STAMP "97403-13230E4565 OR 97403-132304589, 120/208 VAC, 100 AMP/PHASE" IN TWO PLACES (180° APART) ON INSULATION SLEEVING, FIND NO. 2, IN ACCORDANCE WITH MIL-E-60903. LOCATE APPROXIMATELY AT MIDPOINT AND BOTH ENDS OF CABLE.

WIRE LIST

WIRE		TERMINATION		TERMINATION	
WIRE COLOR.	FIND NO.	FROM	FIND NO.	TO	FIND NO.
BLACK	3	P1-A	1	J1-A	4
RED	3	P1-B	1	J1-B	4
BLUE	3	P1-C	1	J1-C	4
WHITE	3	P1-N	1	J1-N	4
GREEN	3	P1-G1	1	J1-G1	4
GREEN	3	P1-G2	1	J1-G2	4
GREEN	3	P1-G3	1	J1-G3	4
GREEN	3	P1-G4	1	J1-G4	4

Figure H-7. Cable Assembly 100 AMP/PHASE 13230E4565 AND 13230E4589 (Sheet 2 of 2).



NOTES:

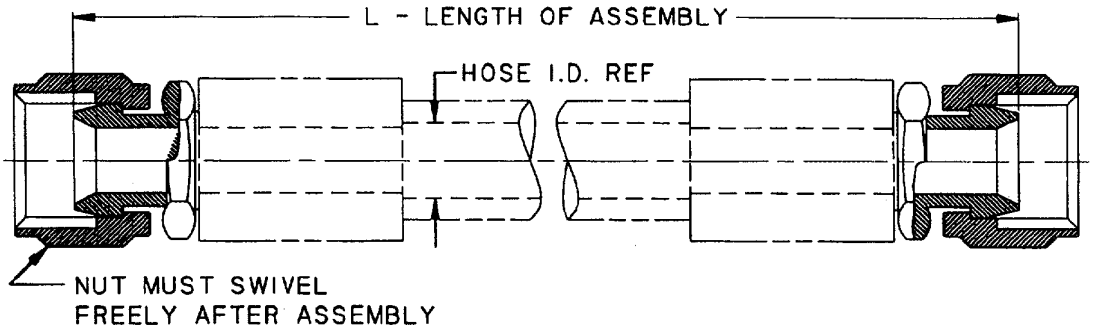
1. LADDER, VEHICLE BOARDING, NSN 2540-00-846-8483, REF 80063, SC-D-147189, SHALL BE MODIFIED AS SHOWN.

2. REUSE EXISTING HARDWARE AND SHIM TO ATTACH LADDER BRACKET, FIND NO. 2, 2 PLACES.

PARTS LIST 13230E4594

FIND NO	PART NO	QTY REQD	DESCRIPTION
1		1	LADDER, VEHICLE BOARDING
2	13230E4573	2	BRACKET, LADDER

Figure H-8. Boarding Ladder.



DASH NO.	HOSE I.D. REF.	HOSE O.D. REF.	FITTING THREAD REF.
- 4	3/16	.484	7/16-20
- 5	1/4	.547	1/2-20
- 6	5/16	.609	9/16-18
- 8	13/32	.734	3/4-16
- 10	1/2	.828	7/8-14
- 12	5/8	.953	1-1/16-12
- 16	7/8	1.203	1-5/16-12
- 20	1-1/8	1.484	1-5/8-12
- 24	1-3/8	.1.722	1-7/8-12
- 32	1-13/16	2.143	2-1/2-12

NOTES:

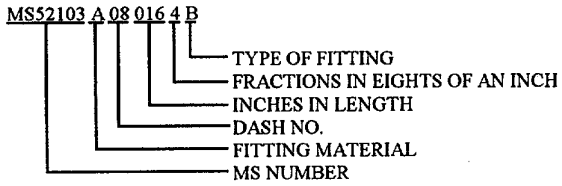
1. MATERIAL: THE HOSE USED IN THESE ASSEMBLIES SHALL BE IN ACCORDANCE WITH MIL-H-13444, TYPE III.

2. FITTINGS SHALL BE OF THE SAE J516 FEMALE 37° FLARED TYPE AS SPECIFIED IN MIL-H-13444.

3. HOSE ASSEMBLIES SHALL BE SPECIFIED IN THE FOLLOWING LENGTH INCREMENTS:
   A. UNDER 24 INCHES - IN 1/2 INCREMENTS.
   B. 24 TO 36 INCHES - IN 1 INCH INCREMENTS.
   C. OVER 36 INCHES - IN NOT LESS THAN 2 INCH INCREMENTS.

4. TOLERANCES: ±1/8 FOR LENGTH UNDER 18 INCHES, ±1/4 FOR LENGTH FROM 18 TO 36 INCHES, ±1/2 FOR LENGTH FROM 36 TO 50 INCHES, ±1% FOR LENGTH OVER 50 INCHES.

5. THE MS PART NUMBER SHALL CONSIST OF THE MS NUMBER; THE DASH NUMBER INDICATING SIZE; THE CODE LETTER INDICATING TYPE OF FITTING ("R" INDICATES REUSABLE AND "P" INDICATES PERMANENT);THE CODE LETTER INDICATING FITTING MATERIAL ("A" INDICATES CARBON STEEL, CADMIUM PLATED; "Z" INDICATES CARBON STEEL, ZINC PLATED; AND "B" INDICATES BRASS (OPTIONAL); AND A CODE NUMBER INDICATES LENGTH.
   EXAMPLE:



H-9. Fuel Line Maintenance MS52103B050420R and MS52103B050600R (Sheet 1 of 2).

NOTES - continued:

6. THREADS SHALL BE IN ACCORDANCE WITH SCREW THREAD STANDARDS FOR FEDERAL SERVICES HANDBOOK H28.

7. FOR DESIGN FEATURE PURPOSES, THIS STANDARD TAKES PRECEDENCE OVER PROCUREMENT DOCUMENTS REFERENCED HERE IN.

8. THIS STANDARD IS NOT INTENDED TO LIMIT CONSTRUCTION TO FEATURES OTHER THAN AS SHOWN HEREON BY DIMENSIONS, NOTATIONS, AND REFERENCED DOCUMENTS.

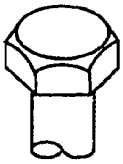
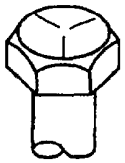
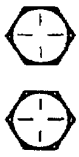
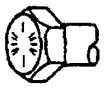
9. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATIONS FOR BID.

10. MARKING SHALL CONSIST OF THE MS PART NUMBER, MANUFACTURER'S IDENTIFICATION, AND DATE OF ASSEMBLY IN ACCORDANCE WITH PROCUREMENT SPECIFICATION AND MIL-STD-190.

H-9. Fuel Line Maintenance MS52103B050420R and MS52103B050600R (Sheet 2 of 2).

APPENDIX I

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.

APPENDIX J

MANDATORY REPLACEMENT PARTS

SECTION I. INTRODUCTION

J.1. SCOPE

This appendix lists all mandatory replacement parts referenced in the task setups and procedures. Items are identified by an item number, nomenclature, and applicable part number.

J.2. EXPLANATION OF COLUMNS

J.2.1. ITEM NUMBER (Column (1)). This number is assigned to parts in numerical order as they are identified in each task setup.

J.2.2. NOMENCLATURE (Column (2)). This column identified the federal item name and, if required, a description to identify the item.

J.2.3. PART NUMBER (Column (3)). This column includes a part number for each item.

SECTION II. PARTS LIST

(1) ITEM NO.	(2) NOMENCLATURE	(3) PART NUMBER
1	Nut, Self-locking	MS21043-3
2	Washer, Lock	MS35338-138
3	Rivet, Blind Head	MS20604AD4W4
4	Lug, Terminal	MS25036-136
5	Lug, Terminal	MS25036-129
6	Lug, Terminal	MS25036-130
7	Lug, Terminal	MS25036-150
8	Lug, Terminal	MS25036-120
9	Lug, Terminal	MS25036-140
10	Nuts, Self-locking	MS17829Z8C
11	Nut, Blind Rivet	MS27130-A26K
12	Nut, Self-locking	MS17829Z4C

GLOSSARY

SECTION I. ABBREVIATIONS

COMMON ABBREVIATIONS.

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

SPECIAL OR UNIQUE ABBREVIATIONS.

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

AAL ..... additional authorization list
BIR ..... basic issue item
BOI ..... basis of issue
C ..... degrees Celsius
CAGE ..... commercial and government entity
CAGEC ..... commercial and government entity code
conex ..... container express
COEI ..... components of end item
CPC ..... corrosion prevention and control
CTA ..... common table of allowance
CUCV ..... commercial utility cargo vehicle
DOD ..... Department of Defense
EIR ..... equipment improvement recommendation
"F" ..... degrees Fahrenheit
HMMWV ..... high mobility multipurpose wheeled vehicle
Hz ..... hertz
JTA ..... joint table of allowances
kg ..... kilogram
kPa ..... kilopascals
kph ..... kilometers per hour
kW ..... kilowatt
lbf-ft ..... foot pound-force
m ..... meter (metric measure)
MAC ..... maintenance allocation chart
MTOE ..... modification table of organization and equipment
NIIN ..... national item identification number
N•m ..... Newton meter
NSNs ..... national stock numbers
PMCS ..... preventive maintenance checks and services
RPSTL ..... repair parts and special tools list
SMR ..... source, maintenance, and recoverability
TAMMS ..... The Army Maintenance Management System
TDA ..... table of distribution and allowances
TMDE ..... test, measurement, and diagnostic equipment
UOC ..... usable on code

SECTION II. DEFINITION OF UNUSUAL TERMS

UNUSUAL TERMS.

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

None.

INDEX

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M - Continued

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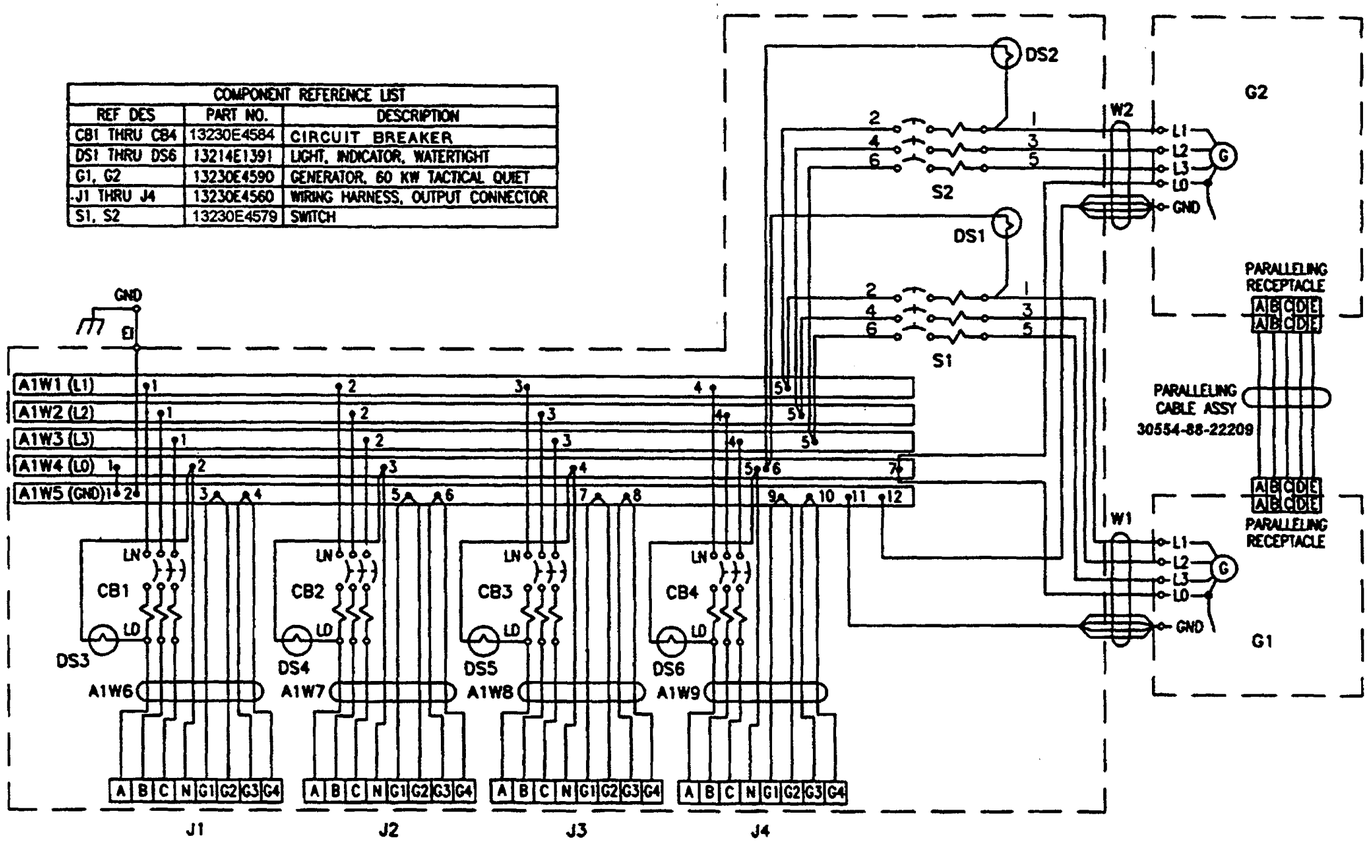
W

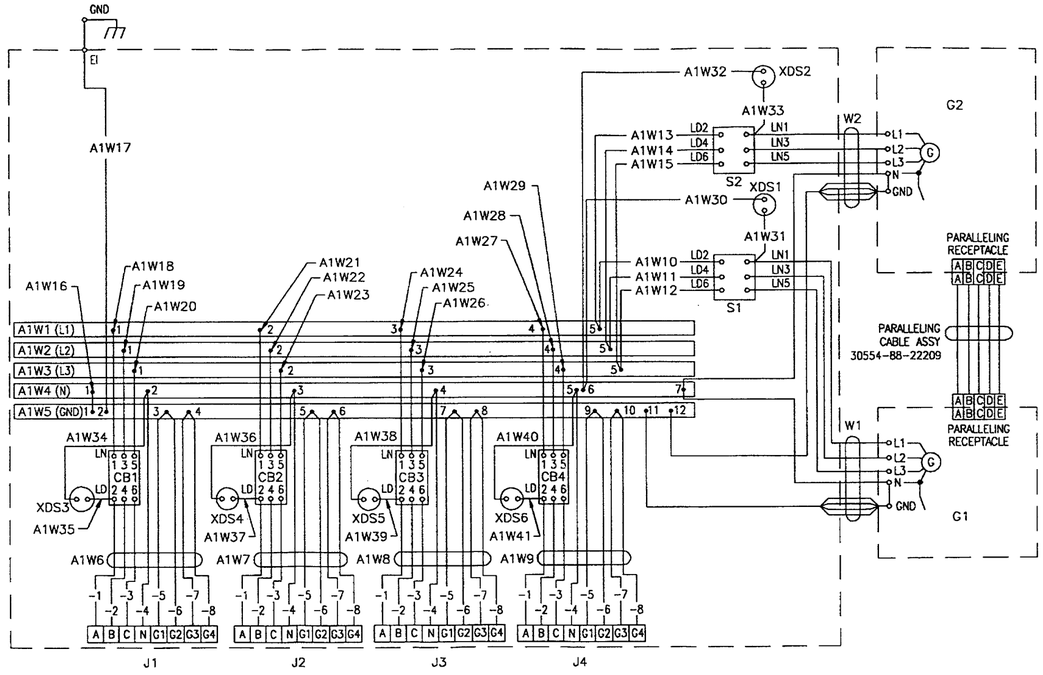
COMPONENT REFERENCE LIST		
REF DES	PART NO.	DESCRIPTION
CB1 THRU CB4	13230E4584	CIRCUIT BREAKER
DS1 THRU DS6	13214E1391	LIGHT, INDICATOR, WATERTIGHT
G1, G2	13230E4590	GENERATOR, 60 KW TACTICAL QUIET
J1 THRU J4	13230E4560	WIRING HARNESS, OUTPUT CONNECTOR
S1, S2	13230E4579	SWITCH



FO-1. 60Hz Power Plant Schematic.

FP-1/(FP-2 blank)

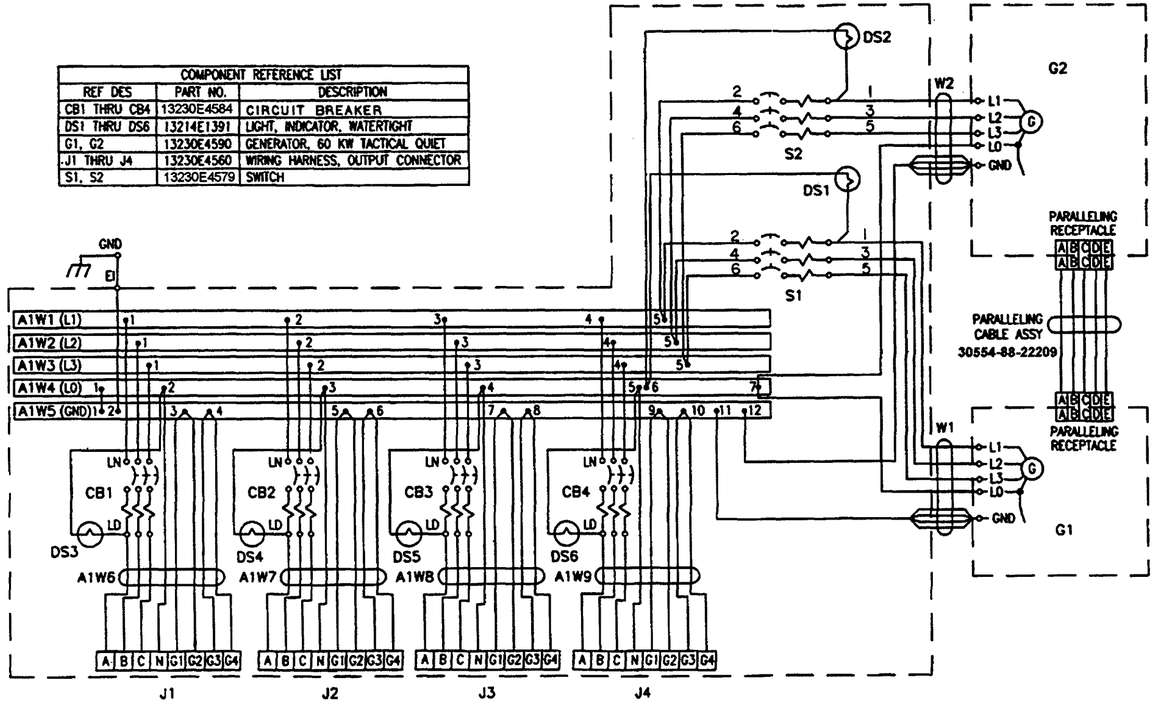
COMPONENTS REFERENCE LIST		
REF DES	PART NO.	DESCRIPTION
A1W1	13230E45557-1	BUS CONDUCTOR
A1W2	13230E45557-2	BUS CONDUCTOR
A1W3	13230E45557-3	BUS CONDUCTOR
A1W4	13230E4558	BUS CONDUCTOR, NEUTRAL
A1W5	13230E4559	BUS CONDUCTOR, GROUND
A1W10	13230E4561-1	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W11	13230E4561-2	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W12	13230E4561-3	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W13	13230E4561-4	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W14	13230E4561-5	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W15	13230E4561-6	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W16	13230E4561-7	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W17	13230E4561-8	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W18	13230E4561-9	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W19	13230E4561-10	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W20	13230E4561-11	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W21	13230E4561-12	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W22	13230E4561-13	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W23	13230E4561-14	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W24	13230E4561-15	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W25	13230E4561-16	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W26	13230E4561-17	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W27	13230E4561-18	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W28	13230E4561-19	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W29	13230E4561-20	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W30	13230E4561-21	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W31	13230E4561-22	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W32	13230E4561-23	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W33	13230E4561-24	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W34	13230E4561-25	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W35	13230E4561-26	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W36	13230E4561-27	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W37	13230E4561-28	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W38	13230E4561-29	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W39	13230E4561-30	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W40	13230E4561-31	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W41	13230E4561-32	LEAD, ELECTRICAL, POWER DISTRIBUTION
	13230E4561-33	LEAD, ELECTRICAL, POWER DISTRIBUTION
CB1 THRU CB3	13230E4584	CIRCUIT BREAKER, MAGNETIC
DS1 THRU DS8	13214E1391	LIGHT INDICATOR, WATERTIGHT
G1, G2	13230E4590	GENERATOR, 60KW TACTICAL QUIET
J1 THRU J4	MS90555C44413S	CONNECTOR, RECEPTACLE, ELECTRICAL
	P/O 13230E4588	
J1	13230E4588-1	WIRING HARNESS, OUTPUT CONNECTOR
J2	13230E4588-2	WIRING HARNESS, OUTPUT CONNECTOR
J3	13230E4588-3	WIRING HARNESS, OUTPUT CONNECTOR
J4	13230E4588-4	WIRING HARNESS, OUTPUT CONNECTOR
S1, S2	13230E4579	SWITCH, THREE POLE
W1	13230E4564-1	CABLE ASSEMBLY, W1, W2
W2	13230E4564-2	CABLE ASSEMBLY, W1, W2



FO-2. 60Hz Power Plant Schematic.

FP-3/(FP-4 blank)

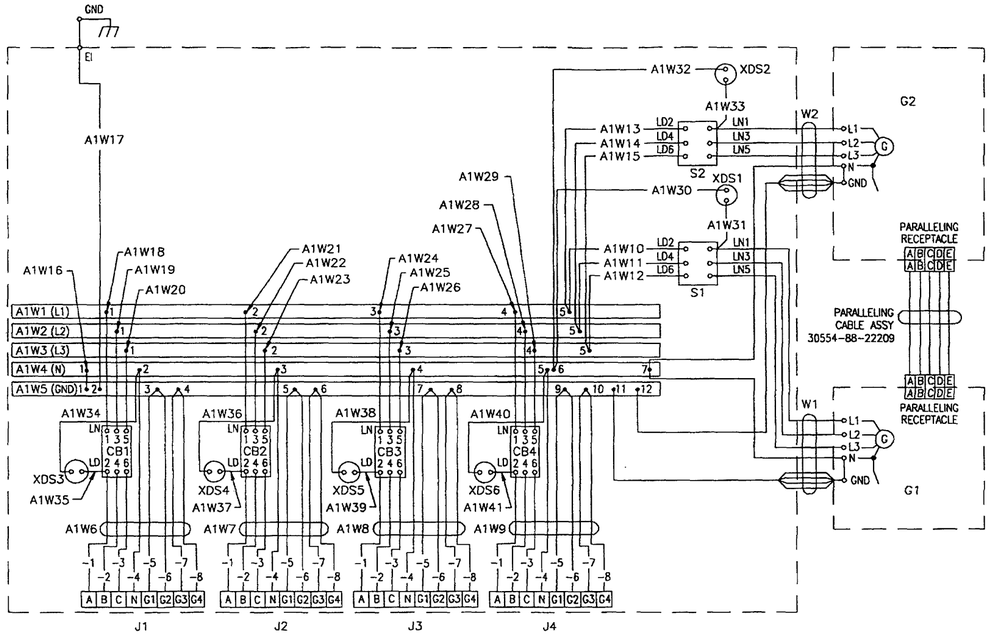
COMPONENT REFERENCE LIST		
REF DES	PART NO.	DESCRIPTION
CB1 THRU CB4	13230E4584	CIRCUIT BREAKER
DS1 THRU DS6	13214E1391	LIGHT, INDICATOR, WATERTIGHT
G1, G2	13230E4590	GENERATOR, 60 KW TACTICAL QUIET
J1 THRU J4	13230E4560	WIRING HARNESS, OUTPUT CONNECTOR
S1, S2	13230E4579	SWITCH



FO-3. 400 Hz Power Plant Schematic.

COMPONENTS REFERENCE LIST

REF DES	PART NO.	DESCRIPTION
A1W1	13230E45557-1	BUS CONDUCTOR
A1W2	13230E45557-2	BUS CONDUCTOR
A1W3	13230E45557-3	BUS CONDUCTOR
A1W4	13230E4558	BUS CONDUCTOR, NEUTRAL
A1W5	13230E4559	BUS CONDUCTOR, GROUND
A1W10	13230E4561-1	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W11	13230E4561-2	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W12	13230E4561-3	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W13	13230E4561-4	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W14	13230E4561-5	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W15	13230E4561-6	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W16	13230E4561-7	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W17	13230E4561-8	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W18	13230E4561-9	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W19	13230E4561-10	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W20	13230E4561-11	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W21	13230E4561-12	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W22	13230E4561-13	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W23	13230E4561-14	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W24	13230E4561-15	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W25	13230E4561-16	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W26	13230E4561-17	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W27	13230E4561-18	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W28	13230E4561-19	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W29	13230E4561-20	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W30	13230E4561-21	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W31	13230E4561-22	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W32	13230E4561-23	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W33	13230E4561-24	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W34	13230E4561-25	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W35	13230E4561-26	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W36	13230E4561-27	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W37	13230E4561-28	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W38	13230E4561-29	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W39	13230E4561-30	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W40	13230E4561-31	LEAD, ELECTRICAL, POWER DISTRIBUTION
A1W41	13230E4561-32	LEAD, ELECTRICAL, POWER DISTRIBUTION
	13230E4561-33	LEAD, ELECTRICAL, POWER DISTRIBUTION
CB1 THRU CB3	13230E4584	CIRCUIT BREAKER, MAGNETIC
DS1 THRU DS8	13214E1391	LIGHT INDICATOR, WATERTIGHT
G1, G2	13230E4590	GENERATOR, 60KW TACTICAL QUIET
J1 THRU J4	MS90555C44413Sw P/O 13230E4588	CONNECTOR, RECEPTACLE, ELECTRICAL
J1	13230E4588-1	WIRING HARNESS, OUTPUT CONNECTOR
J2	13230E4588-2	WIRING HARNESS, OUTPUT CONNECTOR
J3	13230E4588-3	WIRING HARNESS, OUTPUT CONNECTOR
J4	13230E4588-4	WIRING HARNESS, OUTPUT CONNECTOR
S1, S2	13230E4579	SWITCH, THREE POLE
W1	13230E4564-1	CABLE ASSEMBLY, W1, W2
W2	13230E4564-2	CABLE ASSEMBLY, W1, W2



FO-4. 400 Hz Power Plant Schematic.

FP-7/(FP-8 blank)

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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

Weights

1 centigram = 10 milligrams = .15 grain
1 decigram = 10 centigrams = 1.54 grains
1 gram = 10 decigram = .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

Liquid Measure

1 centiliter = 10 milliters = .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 = 264.18 gallons

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

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