TECHNICAL MANUAL

AVIATION INTERMEDIATE MAINTENANCE MANUAL (Including Repair Parts and Special Tools List)

FOR

DISPENSER, GENERAL PURPOSE AIRCRAFT: M130 PN 9311430 (1095-01-036-6886)

HEADQUARTERS, DEPARTMENT OF THE ARMY

18 July 1995

SUMMARY OF WARNINGS AND FIRST AID

The list summarizes critical WARNINGS in this manual. They are repeated here to let you know how important they are. Study these WARNINGS carefully; they can save your life and the lives of soldiers you work with.

WARNING

Personnel performing instructions involving operations, procedures, and practices which are included or implied in this technical manual shall observe the following instructions. Disregard of these warnings and precautionary information can cause serious injury or DEATH.

Read How to Use This Manual, Chapter 1 and Chapter 2 before starting any inspection, check, service, alinement or maintenance procedures.

LOADING

WARNING

Flare, chaff, or impulse cartridges that exhibit any sign of visible damage, or have been subjected to rough handling, will not be loaded into payload module assemblies. Unserviceable flare or impulse cartridges will be disposed of by Explosive Ordnance Disposal (EOD) personnel. Unserviceable chaff cartridges will be scrapped. Flare or chaff cartridges shall not be hammered or forced into payload module assemblies.

A mixture of flare and chaff cartridges shall not be loaded in a payload module assembly. Flare cartridges will not be loaded in aircraft installations specified for chaff cartridges only.

Payload module assemblies loaded with munitions must be handled with extreme care to avoid damage to plastic payload module assembly and ammunition. Modules with visible damage will not be used. Damaged munitions will be disposed of by EOD personnel.

If there is an indication that a misfire occurred, notify EOD personnel for disposition and disposal.

Be familiar with all safety precautions prior to handling ammunition to prevent injury or damage to equipment.

TEST AND MAINTENANCE

WARNING

Before installing the payload module assembly perform the following: on dispenser control panel, ensure ARM-SAFE switch is in the SAFE position and RIPPLE FIRE switch guard is in DOWN position. Ensure “Remove Before Flight” safety pin is installed. Ensure that the C-F selector switch index on dispenser assembly is pointing to correct position for flare (F) or chaff (C).

System tests must be performed to ensure there is no stray voltage. All aircraft power must be removed from the system prior to loading the payload module assembly into the dispenser assembly.

Keep hands and face away from the front of payload module assembly when sliding into or removing from dispenser assembly.

All aircraft power to the M130 general purpose dispenser system must be turned off prior to removal of payload module assembly from dispenser assembly. Safety pin(s) must be installed on electronics module assembly(ies) and/or exterior connection.

For aircraft with AN/ALQ-156(V) countermeasures set installed: do not allow personnel to stand within 3 feet of the transmit antenna when the AN/ALQ-156(V) equipment is on. High frequency electromagnetic radiation can cause internal burns without causing any sensation of heat. If you feel the slightest warming effect while near the transmit antenna, move away quickly.

Ensure payload module is not connected to dispenser assembly that is to be tested, and ensure that safety pin(s) is installed in safety switch(s).

If ARM lamp does not go out after safety pin is installed, **DO NOT** attempt to load the payload module assembly into the dispenser assembly.

FIRST AID

For further information on first aid, see FM 21-11 (TEST).

TECHNICAL MANUAL
No. 9-1095-206-30&P*

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington D.C., 18 July 1995

Aviation Intermediate Maintenance Manual
(Including Repair Parts and Special Tools List)

For

DISPENSER, GENERAL PURPOSE, AIRCRAFT: M130
PN 9311430 (1095-01-036-6886)

Current as of July, 1994 for appendix B

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual direct to: Director, Armament and Chemical Acquisition and Logistics Activity, ATTN: AMSTA-AC-MAS, Rock Island, IL 61201-9948. A reply will be furnished to you.

Approved for public release; distribution is unlimited.

This manual along with TM 9-1095-206-12&P supersedes TM 9-1095-206-23&P dated 15 November 1988, with changes.

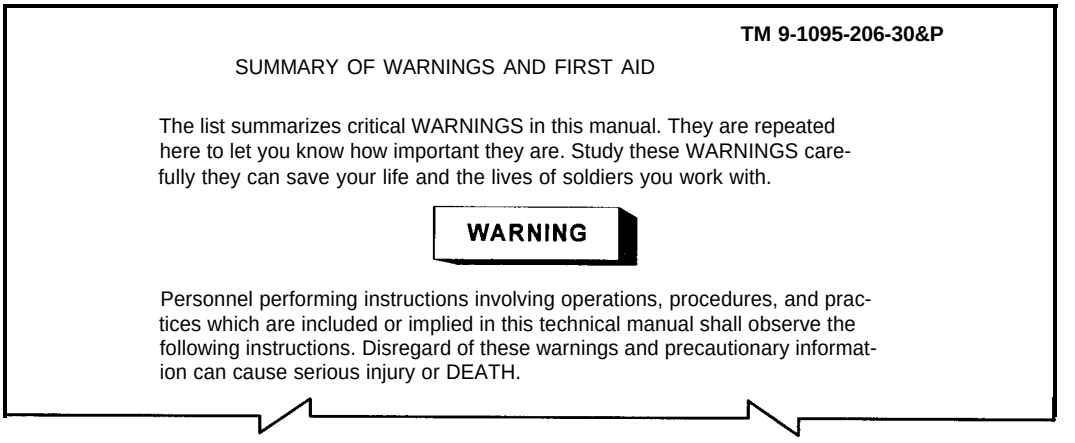
LIST OF ILLUSTRATIONS

LIST OF ILLUSTRATIONS (cent)

HOW TO USE THIS MANUAL

This manual covers Aviation Intermediate Maintenance (AVIM) levels maintenance support tasks for the M130 general purpose aircraft dispenser.

WHAT'S IN THE MANUAL - FRONT TO BACK



TM 9-1095-206-30&P

SUMMARY OF WARNINGS AND FIRST AID

The list summarizes critical WARNINGS in this manual. They are repeated here to let you know how important they are. Study these WARNINGS carefully they can save your life and the lives of soldiers you work with.

WARNING

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SUMMARY OF WARNINGS AND FIRST AID lists the warnings and first aid information in this manual. These warnings contain additional information about things that could hurt or kill personnel. The maintenance task may have a slightly different version of these warnings.

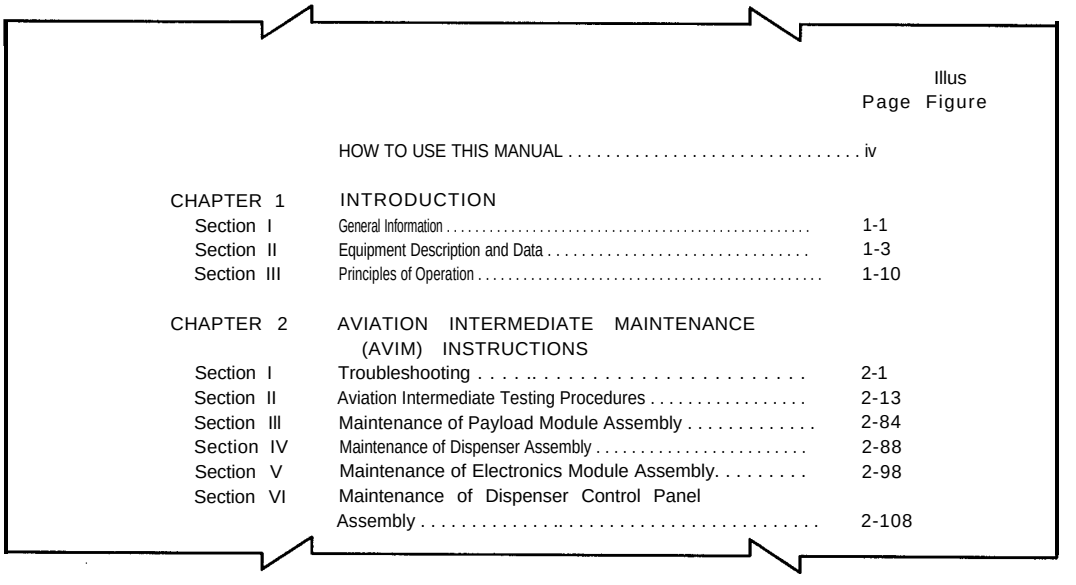
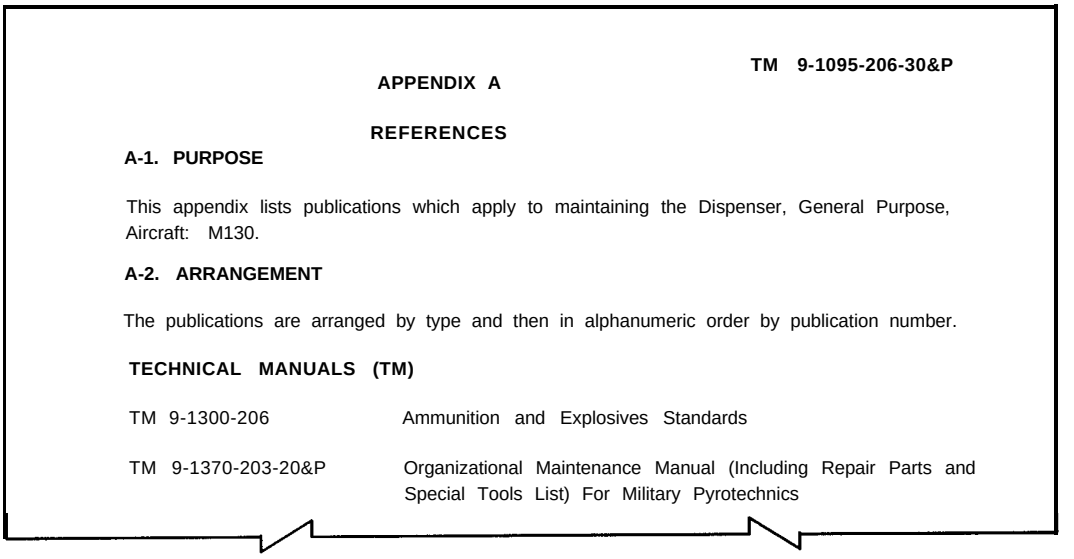


TABLE OF CONTENTS lists the chapters, sections, and appendixes in this manual. It also lists the pages where chapters, sections, and appendixes can be found.

CHAPTER 1 covers general information and gives a quick review of major components and features of the Ml 30 general purpose aircraft dispenser.

CHAPTER 2 contains Troubleshooting, Testing, and Maintenance authorized to be performed at the Aviation Intermediate Maintenance (AVIM) level.

APPENDIX A lists references such as technical manuals and other publications to be used by personnel.



TM 9-1095-206-30&P

APPENDIX A

REFERENCES

A-1. PURPOSE

This appendix lists publications which apply to maintaining the Dispenser, General Purpose, Aircraft: M130.

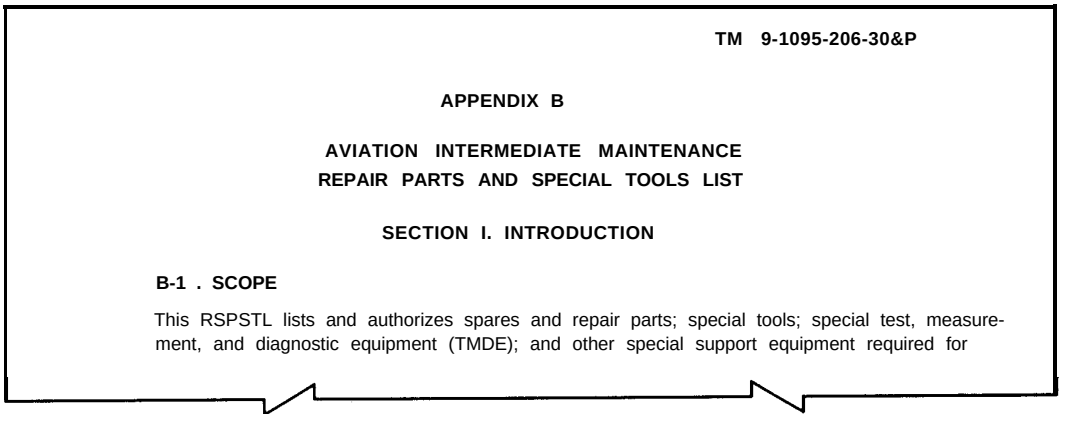
A-2. ARRANGEMENT

The publications are arranged by type and then in alphanumeric order by publication number.

TECHNICAL MANUALS (TM)

TM 9-1300-206	Ammunition and Explosives Standards
TM 9-1370-203-20&P	Organizational Maintenance Manual (Including Repair Parts and Special Tools List) For Military Pyrotechnics

APPENDIX B lists repair parts and special tools required for the operation and performance of



TM 9-1095-206-30&P

APPENDIX B

AVIATION INTERMEDIATE MAINTENANCE
REPAIR PARTS AND SPECIAL TOOLS LIST

SECTION I. INTRODUCTION

B-1 . SCOPE

This RSPSTL lists and authorizes spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMDE); and other special support equipment required for

operator’s and aviation unit and aviation intermediate maintenance.

TM 9-1095-206-30&P

APPENDIX C

EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

Section I. INTRODUCTION

C-1 . SCOPE

This appendix lists expendable/durable supplies and materials you will need to operate and maintain the M130 general purpose dispenser.

APPENDIX C lists expendable/durable supplies and materials used to maintain or repair the system.

TM 9-1095-206-30&P

APPENDIX D

ILLUSTRATED LIST OF MANUFACTURED ITEMS

D-1 . INTRODUCTION

This appendix includes complete instructions for making items authorized to be manufactured or fabricated at aviation intermediate maintenance. All bulk materials needed for manufacture of an item are listed in a tabular list on the illustration, as fabrication notes..

APPENDIX D lists and provides instructions to make items authorized to be manufactured or fabricated.

TM 9-1095-206-30&P

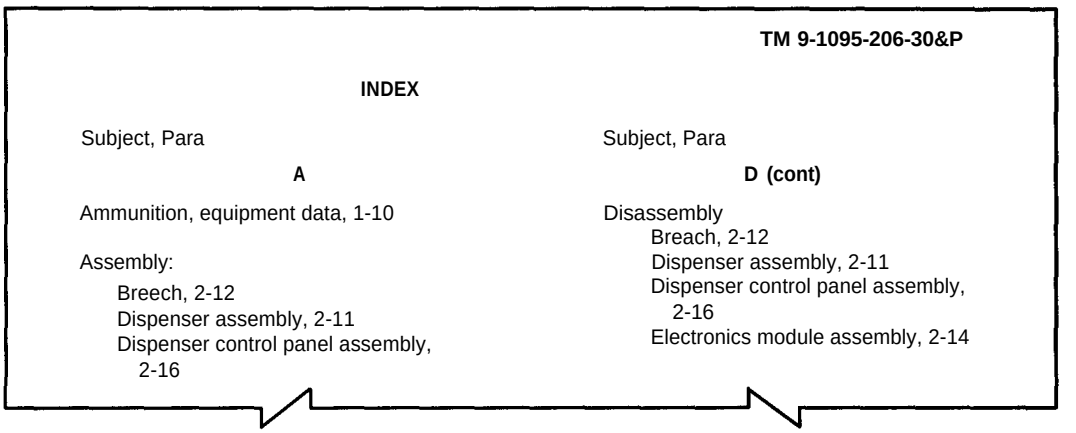
APPENDIX E

ELECTRICAL WIRING/LOGICAL DIAGRAMS

E-1. PURPOSE

This appendix lists diagrams which could aid an experienced individual in troubleshooting methods to is date uncommon electrical functional faults not covered by the test procedures of this manual for maintaining the Dispenser, General Purpose, Aircraft: M130. These diagrams

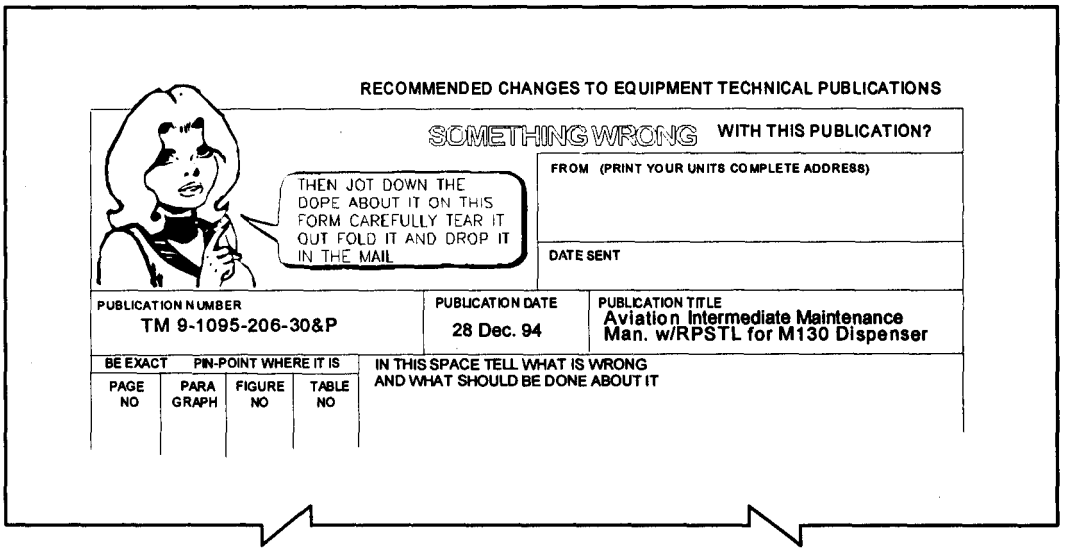
APPENDIX E lists and provides electrical wiring/logical diagrams to aid in the troubleshooting of the M130 general purpose dispenser system.



TM 9-1095-206-30&P

INDEX

INDEX contains an alphabetical list of information. Usually each subject is presented in more than one way to make information easier to find.



RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

SOMETHING WRONG WITH THIS PUBLICATION?

THEN JOT DOWN THE DOPE ABOUT IT ON THIS FORM CAREFULLY TEAR IT OUT FOLD IT AND DROP IT IN THE MAIL

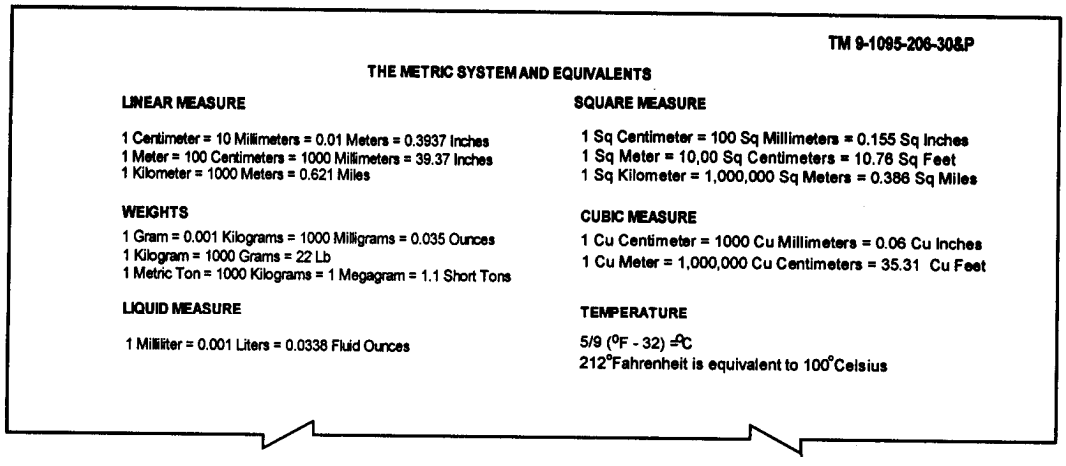
FROM (PRINT YOUR UNITS COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER	PUBLICATION DATE	PUBLICATION TITLE
TM 9-1095-206-30&P	28 Dec. 94	Aviation Intermediate Maintenance Man. w/RPSTL for M130 Dispenser

BE EXACT PIN-POINT WHERE IT IS				IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT
PAGE NO	PARA GRAPH	FIGURE NO	TABLE NO	

DA FORM 2028-2 is used to recommend changes to the manual.



TM 9-1095-206-30&P

THE METRIC SYSTEM AND EQUIVALENTS

LINEAR MEASURE

1 Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches
1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches
1 Kilometer = 1000 Meters = 0.621 Miles

WEIGHTS

1 Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces
1 Kilogram = 1000 Grams = 22 Lb
1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces

SQUARE MEASURE

1 Sq Centimeter = 100 Sq Millimeters = 0.155 Sq Inches
1 Sq Meter = 10,00 Sq Centimeters = 10.76 Sq Feet
1 Sq Kilometer = 1,000,000 Sq Meters = 0.386 Sq Miles

CUBIC MEASURE

1 Cu Centimeter = 1000 Cu Millimeters = 0.06 Cu Inches
1 Cu Meter = 1,000,000 Cu Centimeters = 35.31 Cu Feet

TEMPERATURE

5/9 (°F - 32) =°C
212°Fahrenheit is equivalent to 100°Celsius

METRIC SYSTEM AND EQUIVALENTS provides information to convert between English and Metric equivalents.

USING YOUR MANUAL ON THE JOB

Like any tool, the best way to learn about this manual is to practice using it. Knowing how to use this manual will save both time and money.

To help you find the information you need, each chapter and section of this manual begins with an index which lists the contents of the chapter and/or section by title and page/paragraph number

Where do you start?

A malfunction is discovered in one of two ways: during normal operation; or during normal maintenance such as inspection, PMCS, or other scheduled testing. The symptoms of the malfunction may be common or unusual, but identification of fault symptoms is the first step in the troubleshooting process.

Entry into the troubleshooting process is based on observed fault symptoms. It is important that you identify the fault symptoms as accurately as possible and then use the Symptom Index as an aid to identify the item that needs repair or replacement. If you feel confident that you have defined the fault symptoms as well as you can, you can refer directly to the Symptom Index.

The Symptom Index describes the more common fault symptoms that you may encounter, specifies the actions to be taken, and references the places where these actions can be found.

SYMPTOM INDEX

	Troubleshooting Procedure (Page)
DISPENSER ASSEMBLY	
One or more chaff or flare cartridges do not dispense	2-4
Second dispenser does not function after first dispenser dispensed complete payload (both dispensers used for same payload)	2-5
Three flares are dispensed each time dispense button is activated	2 -4

How do you fix the problem - A Quick Overview

1. Turn to the task referenced in the Symptom Index and read it carefully before starting. Pay attention to warnings and cautions. Get the equipment, supplies, and any other personnel needed. If a task requires part replacement, refer to the Repair Parts and Special Tools List (RPSTL), Appendix B.

2. Start with step 1 in the task and do each step in order. When the last step is done, the problem will be corrected.

Finding A Task

Using another manual could result in reference to a task in this manual. For example, you were referenced to this manual to find the task REPAIR OF DISPENSER ASSEMBLY. To find where the task is located, refer to the Index at the back of this manual.

Using the INDEX

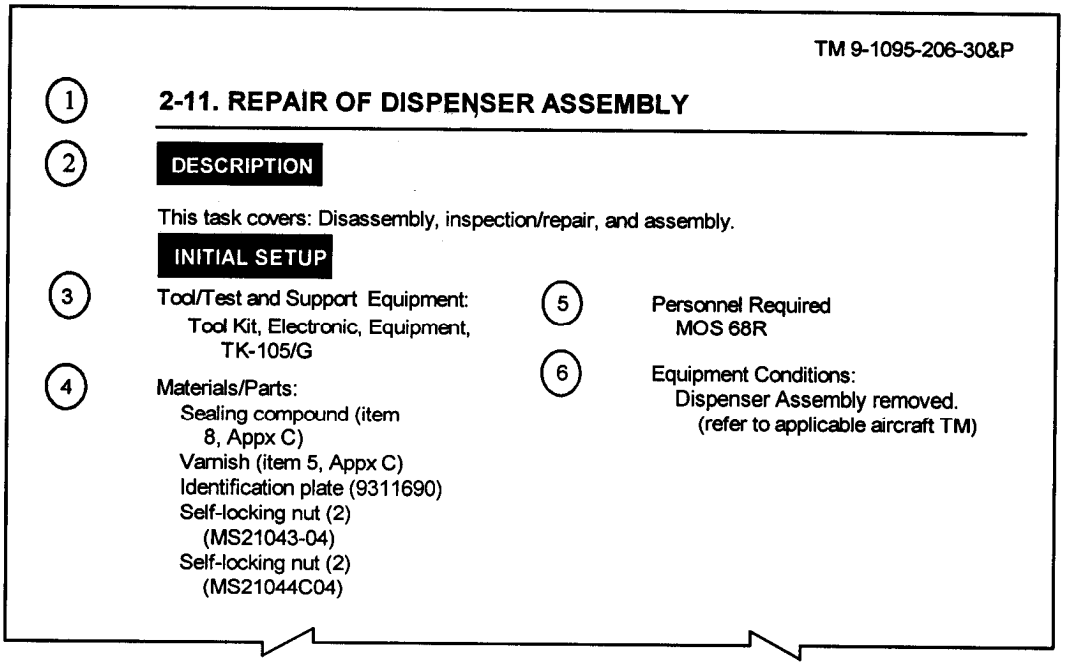
The Index lists each task under one or more headings. The task, REPAIR OF DISPENSER ASSEMBLY could be found:

Under "D"
Dispenser Assembly - Repair, 2-11

Turn to paragraph 2-11.

Beginning the Task

When you find paragraph 2-11, read the top half of the page. See the following example with its legend.



Legend to Example Above

1.	Title	This is the paragraph/task number and name of the task.
2.	Description	This describes the overall actions you will perform.
3.	Tools	These are the tools and equipment you will need to complete the task. Tools found in the general, electroinc tool kit are not listed separately.
4.	Materials	These are the consumable materials you will need to do the task. Consumable materials are listed in the Expendable/Durable Supplies and Materials List (Appendix C). Use the Repair Parts and Special Tools List (RPSTL) to order the parts you need for the task.
5.	Personnel Required	This identifies the personnel and skill level needed to perform the task.
6.	Equipment Conditions	This identifies the precondition functions that must be performed before you start the task.

Using the Task Steps

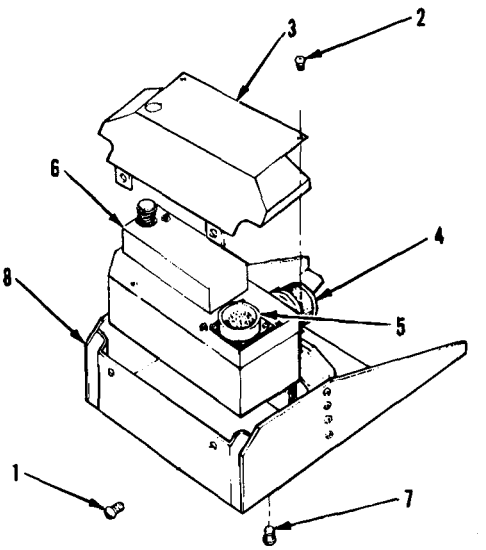
Read through the task for step-by-step illustrated instructions. The numbered steps in capital letters tell WHAT to do and HOW to do it.

Below is the bottom half of the first page of the task, REPAIR OF DISPENSER ASSEMBLY. As you read step 1, match each numbered part in the instructions with the same number in the illustration. It is important to do each step in the order given. Note the boxed word, DISASSEMBLY, in the top left corner. It labels one of the major actions for this task. In this and other tasks, you could also see boxed words like INSPECTION/REPAIR and ASSEMBLY.

DISASSEMBLY

1. REMOVE FOUR SCREWS (1 AND 2) AND ACCESS COVER (3).
2. DISCONNECT PLUG (4) FROM THE CONNECTOR RECEPTACLE (5) OF THE SEQUENCER ASSEMBLY (6).
3. REMOVE FOUR SCREWS (7) AND SEQUENCER ASSEMBLY (6) FROM DISPENSER MOUNTING PLATE (8).

NOTE
Check that sequencer assembly has switch return spring, p/n 9347355, installed. If not refer to paragraph 2-13 for instructions.



DEFINITION OF TASK TERMS

Warnings, Cautions, and Notes

Pay attention to all warnings and cautions within the task. ignoring a warning could cause death or injury to personnel. Ignoring a caution could cause damage to equipment. Notes contain facts to make the task easier. Both warnings and cautions always appear before the steps to which they apply.

WARNINGs: Call attention to conditions, practices, or procedures which could kill or injure personnel. Warnings are also listed in the front of the manual.

WARNING

Ensure payload module assembly is not connected-to dispenser assembly at any time during this test.

CAUTIONs: Call attention to conditions, practices, or procedures which could damage equipment.

CAUTION

On the M92 test set, do not press STRAY VOLTAGE SELF TEST switch during the following system not reset test.

NOTEs: Contain essential information of special importance, interest, or aid in job performance to make the task easier

NOTE

Ensure that no cable or other object will block the flare simulator light from the flare sensor assembly.

KINDS OF TASKS

"Repair . . . ."
Tasks which disassemble, inspect, repair, and assemble components.

". . . . . Test"
Tasks which test the functions of the armament subsystem for proper operation.

COMMENTS ON TASKS

The following comments apply to all tasks.

1. The term task or paragraph maybe used interchangeably.
2. Consumable materials are listed under materials.
3. Removed components must be cleaned, inspected, and reinstalled if found to be serviceable.
4. Cleaning and inspection must be done according to general maintenance instructions.
5. A new component must be installed if inspection indicates a removed component is unserviceable.
6. Disposition of unserviceable components must be handled in accordance with maintenance direction.

CHAPTER 1
INTRODUCTION

CHAPTER CONTENTS

Section I. GENERAL INFORMATION

1-1. SCOPE

The scope of this manual is listed below.

1. **Type of Manual.** Aviation Intermediate Maintenance (AVIM).

2. **Model Number and Equipment Name.** M130 general purpose aircraft dispenser.

3. **Purpose of Equipment.** Provides Army aircraft with effective countermeasure against hostile radarguided weapon systems and infrared-seeking missile threats.

1-2. MAINTENANCE FORMS, RECORDS, AND REPORTS

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA PAM 738-751, The Army Maintenance Management System Aviation (TAMMS-A).

1-3. DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE

Refer to TM 750-244-1-5 for destruction of ammunition. Refer to TM 750-244-7 for destruction of the M130 general purpose dispenser.

1-4. PREPARATION FOR STORAGE OR SHIPMENT

Instructions for processing and packaging the M130 general purpose dispenser for storage or shipment are given in Aviation Unit Maintenance (AVUM) Manual TM 9-1095-206-12&P.

1-5. QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

Refer to applicable TM for all pertinent QA/QC information.

1-6. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR'S)

If your M130 general purpose dispenser 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. Put it on an SF 368 (Quality Deficiency Report). Mail it direct to: Commander, Armament Research, Development and Engineering Center (ARDEC), ATTN: AMSTA-AR-QAW (R), Rock Island, IL 61299-7630. We'll send you a reply.

1-7. CORROSION INFORMATION

Corrosion prevention and control (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 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, Quality Deficiency Report. Use of key words such as "corrosion", "rust", or "cracking" will ensure that the information is identified as a CPC problem.

The form should be submitted to:

Commander
U.S. Army Armament Research, Development and Engineering Center
ATTN: AMSTA-AR-QAW (R)
Rock Island, IL 61299-7300

Section II. EQUIPMENT DESCRIPTION AND DATA

1-8. EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES

The characteristics, capabilities, and features of the M130 general purpose dispenser are listed below.

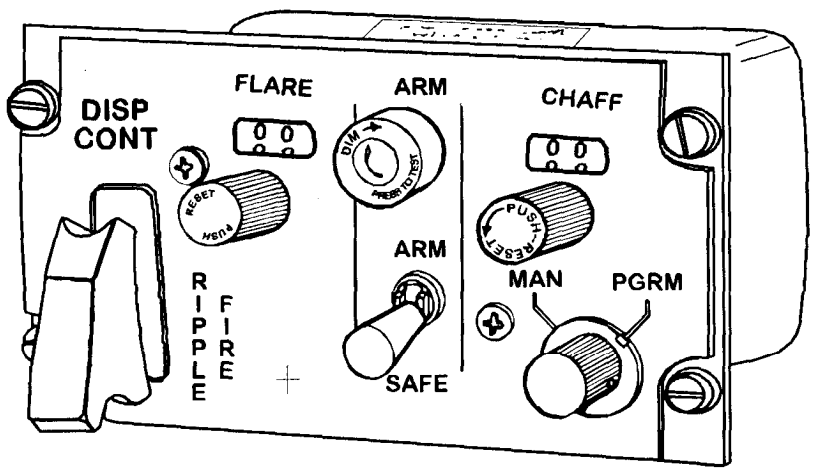
1. **Characteristics.** Electrically-powered and constructed of modules for fast replacement.

2. **Capabilities and Features.** Can disperse either thirty decoy flares or thirty chaff cartridges as applicable. Additional dispenser assembly and payload module assembly will increase the capability of the system.

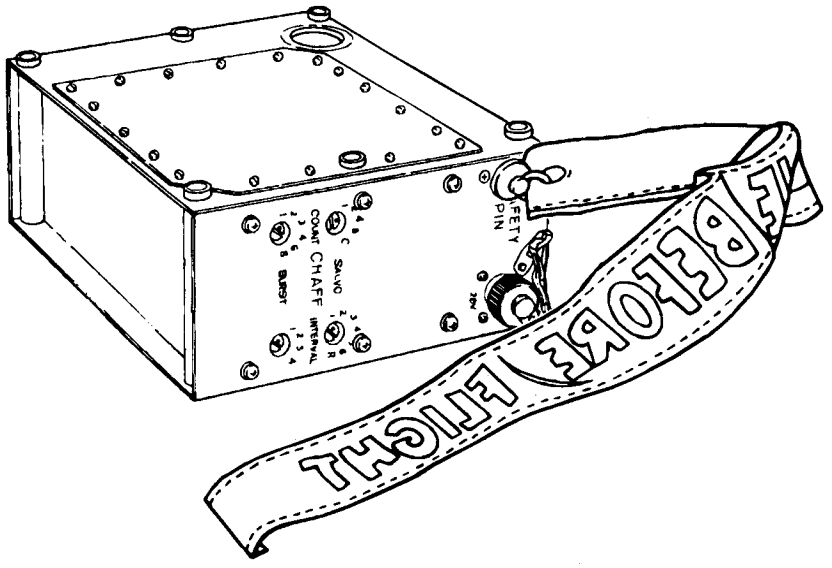
1-9. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS

The M130 general purpose dispenser consists of the following major components.

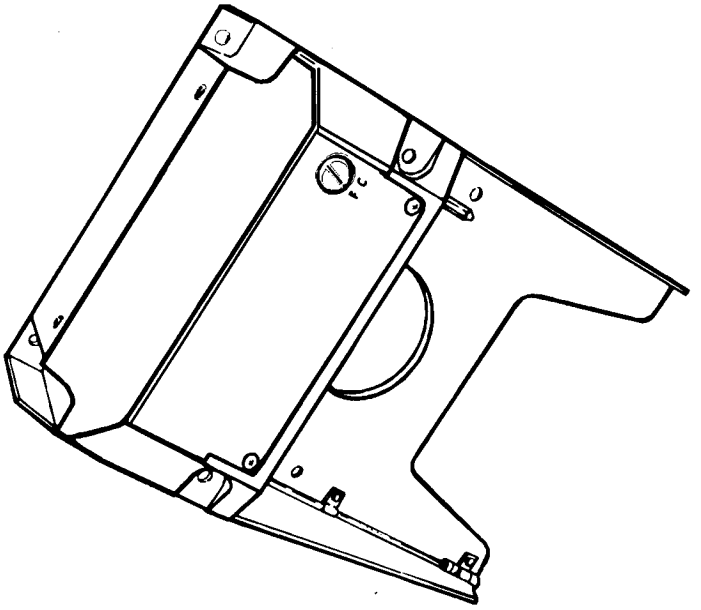
1. **Dispenser Control Panel Assembly (DCP).** Mounted inside the aircraft, it has the necessary controls to fire the chaff or flare. The counters indicate the number of chaffs or flares remaining in the payload module assembly. The counters are manually set prior to each mission to agree with the number of chaffs or flares loaded.



2. Electronics Module Assembly (EM). Attached either internally or to the external surface of the aircraft, it contains a programmer and a cable assembly which includes a 28-volt supply receptacle and a safety pin with flag assembly. On some aircraft installations the 28-volt supply receptacles and the safety switch have been relocated in the aircraft cable and are therefore remote from the EM.



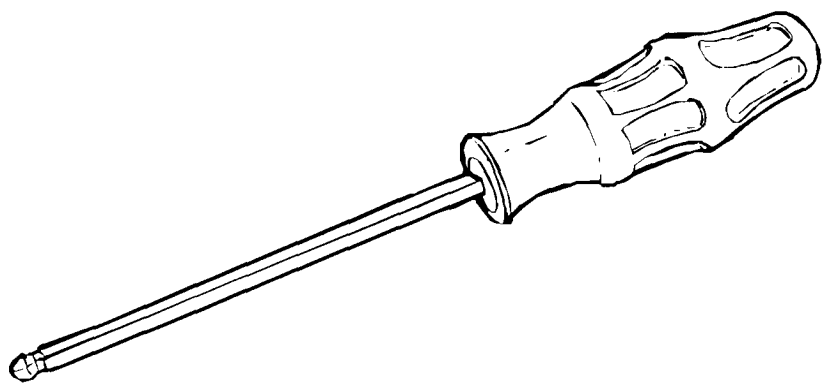
3. Dispenser Assembly. Attaches to the electronics module assembly or the external surface of the aircraft. It contains the breech, flare sensor, selector switch (C and F) for chaff or flare, reset switch, and housing. The housing contains the sequencer assembly which furnishes impulses to fire (in sequential order) each of the impulse cartridges.



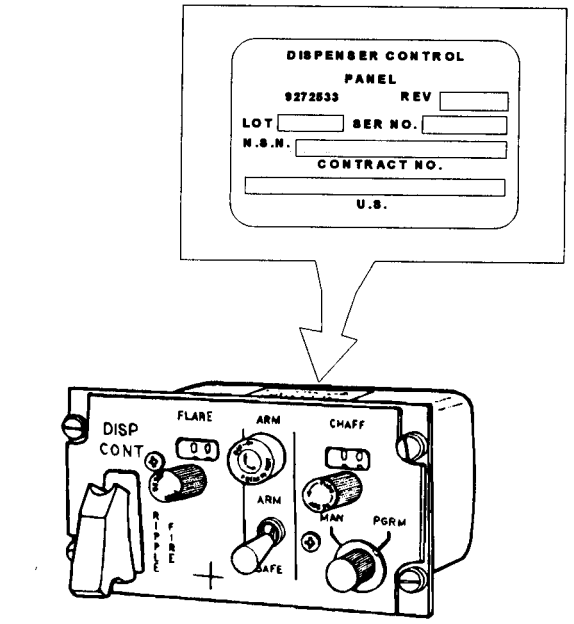
4. **Payload Module Assembly.** Attaches to the dispenser assembly and consists of a payload module and retaining plate. The module has thirty chambers which will accept either chaff or flare cartridges.

5. **Ball Hexagonal Key Screwdriver.** Used to connect M91 test set to dispenser assembly

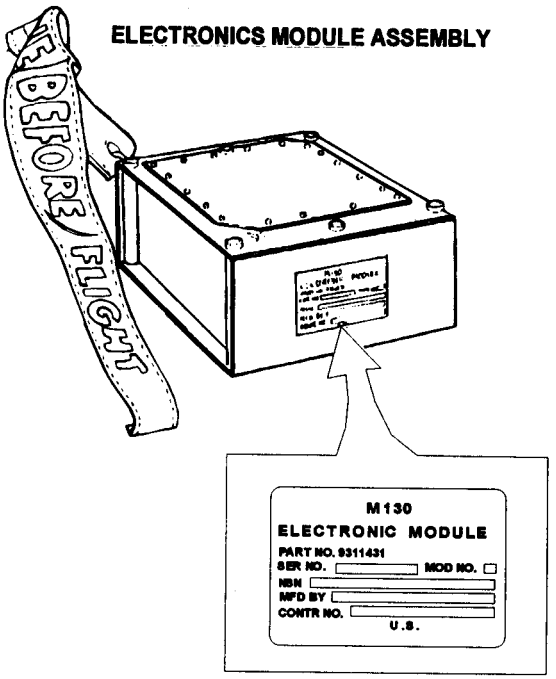
and dispenser test adapter to dispenser assembly. This is a component of the M91 test set.



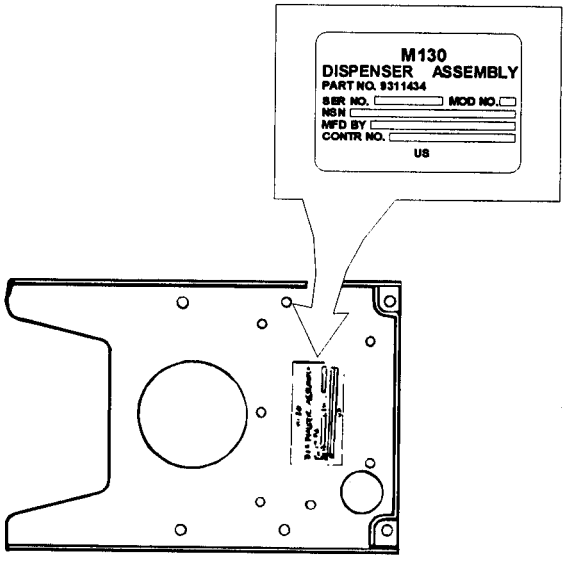
6. Data Plates. Refer to the following illustrations for the locations of data plates.



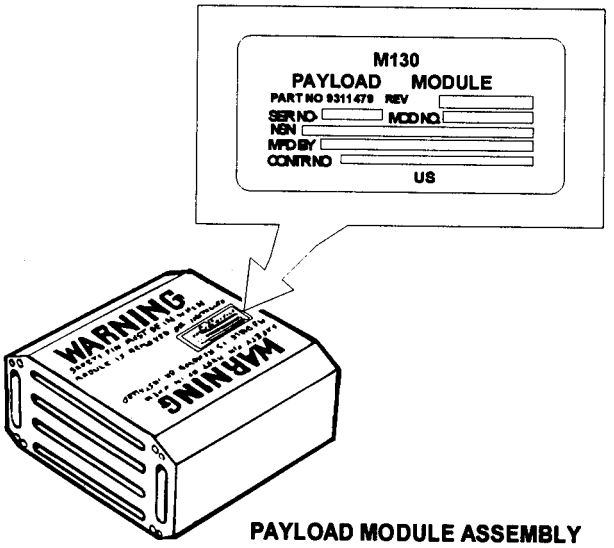
DISPENSER CONTROL PANEL ASSEMBLY



ELECTRONICS MODULE ASSEMBLY



DISPENSER ASSEMBLY

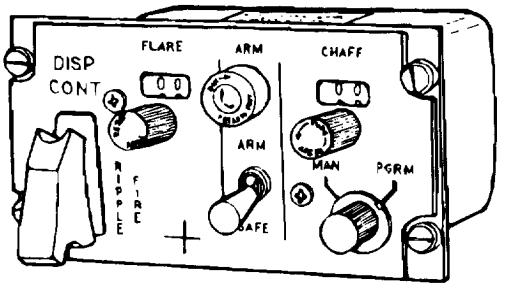


PAYLOAD MODULE ASSEMBLY

1-10. EQUIPMENT DATA

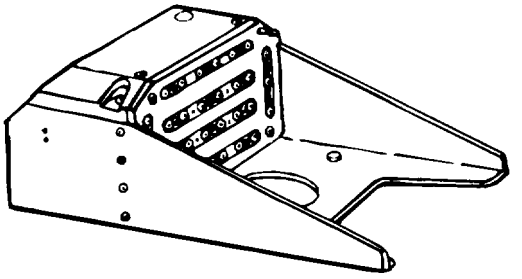
Equipment data for M130 general purpose dispenser is provided in the following tabulations.

1. Dispenser Control Panel Assembly



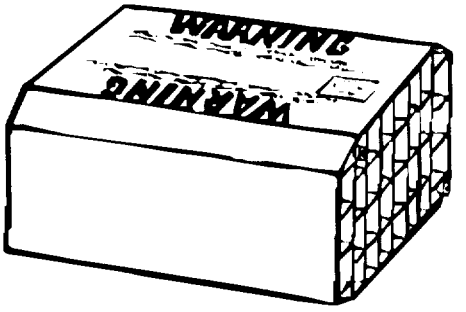
	US CUSTOMARY	METRIC
Width	5.75 in.	14.61 cm
Height	3.00 in.	7.62 cm
Weight	1.30 lb	0.59 kg
Length	3.13 in.	13.03 cm

2. Dispenser Assembly



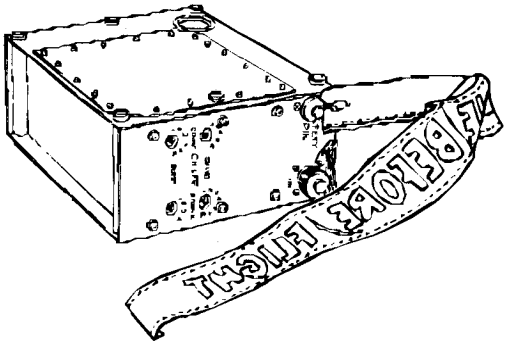
Length	12.93 in.	32.84 cm
Width	8.95 in.	22.73 cm
Height	4.53 in.	11.51 cm
Weight	9.01 lb	4.10 kg

3. Payload Module Assembly



Length	8.12 in.	20.62 cm
Width	8.65 in.	22.05 cm
Height	4.43 in.	11.25 cm
Weight	2.50 lb	1.13 kg

4. Electronics Module Assembly (Safety pin installed)



	US CUSTOMARY	METRIC
Length	8.95 in.	22.73 cm
Width	7.62 in.	19.35 cm
Height	3.84 in.	9.75 cm
Weight	4.8 lb	2.18 kg

5. Weights

Complete system with 30 chaff cartridges	25.0 lb	11.34 kg
Complete system with 30 flare cartridges	28.0 lb	12.70 kg
Chaff (30 cartridges)	9.9 lb	4.49 kg
Flare (30 cartridges)	12.9 lb	5.85 kg
Drum, metal shipping	25 lb	11.34 kg
Shipping weight of system without munition	49 lb	22.23 kg

6. Munition

a. Weight

Chaff cartridge (30 each/system)	0.33 lb/unit	0.15 kg/unit
Flare cartridge (30 each/system)	0.43 lb/unit	0.20 kg/unit
Impulse cartridge (60/can and 36 cans/box)	0.141 oz/unit	0.06 kg/unit

b. M206 Aircraft Countermeasure Flare

Length	8.08 in.	20.52 cm
Width	0.99 in.	2.51 cm
Height	0.99 in.	2.51 cm
Shipping:		
Quantity-distance class	1.3	
Storage compatibility group	G	
DOT shipping class	B	
DOT markings .. SPECIAL FIREWORKS-HANDLE CAREFULLY-KEEP FIRE AWAY		

	US CUSTOMARY	METRIC
c. M1 and RR-170A/AL Countermeasure Chaff		
Length	8.08 in.	20.52 cm
Width	0.99 in.	2.51 cm
Height	0.99 n.	2.51 cm
d. M796 Impulse Cartridge		
Length	0.500 in.	1.27 cm
Diameter (flange)	0.625 in.	1.59 cm
Diameter (body)	0.490 in.	1.24 cm
Shipping:		
Quantity-distance class	1.4	
Storage compatibility group	G or S	
DOT shipping class	C	
DOT markings	Class C Explosive-Handle Carefully	

1-11. SAFETY, CARE, AND HANDLING

The following special safety precautions apply.

1. Before installing a loaded payload module assembly, perform the system tests according to the procedures in chapter 2 of TM 9-1095-206-12&P.

2. Chaff, flare, and impulse cartridges will be kept away from all fires and excessively high temperatures.

3. Impulse cartridges must be handled with extreme care. Each cartridge generates an extremely high gas pressure and temperature if accidentally initiated. Under no circumstances will a chaff or flare cartridge be hammered or forced into a payload module assembly.

4. The safety pin flag, “remove before flight” must be installed in the safety switch when the aircraft is parked. Safety pin is removed only to perform authorized tests or immediately prior to take-off.

5. Avoid exposure to high concentration of chaff, which can cause temporary irritation to eyes and/or throat.

6. Munition shipping containers will be protected at all times from excessive heat and rain in storage. They must not be stored near radiators or other heat sources.

7. The remaining units in an ammunition shipping container that have been opened and only partially emptied, will be secured in the container with appropriate type of packing material to protect contents against moisture and jostling.

8. All munitions in storage must be retained in their original shipping containers. Only one shipping container will be opened at a time.

9. Loading of impulse cartridges into chaffs or flares will be accomplished one at a time.

10. Chaff, flare, and impulse cartridges must not be dropped, rolled, or handled in a rough or careless manner. Chaff, flare, or impulse cartridges that exhibit any sign of visible damage, or have been subjected to rough handling, will not be loaded into payload modules. Unserviceable flare or impulse cartridges will be disposed of by EOD personnel. Unserviceable chaff cartridges will be scrapped.

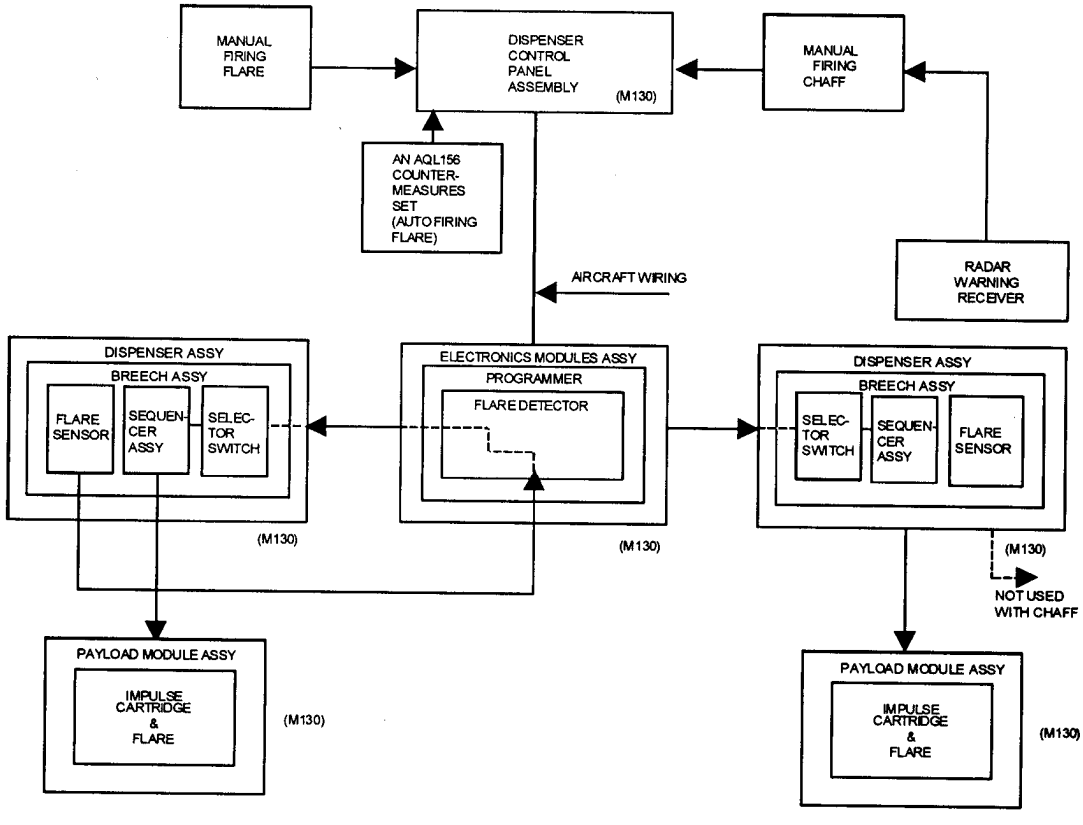
11. Payload module assemblies loaded with these munitions must be handled with extreme care to avoid striking or dropping. The plastic material, of which the payload module is made, may crack or split when subjected to impact. Loaded payload module assemblies that have been dropped or roughly handled and visibly damaged will not be used. Damaged munitions will be disposed of by EOD personnel.

12. Refer to TM 9-1300-206, Ammunition and Explosives Standards, for general ammunition care, handling, and safety.

Section III. PRINCIPLES OF OPERATION

1-12. GENERAL

General principles of operation of the M130 general purpose dispenser system are illustrated in the following functional block diagram.



1-13. FUNCTIONAL DESCRIPTION

The M130 general purpose dispenser system provides effective survival countermeasures against radar guided weapon systems and/or infrared seeking missile threats. It has the capacity of dispensing 30 chaff or flare cartridges.

The principles of operation for the M130 general purpose dispenser are described in the following information.

1. Dispenser Control Panel Assembly. The dispenser control panel assembly (DCP) contains a manual ARM-SAFE switch which is provided to arm the dispenser system. When the ARM-SAFE switch is moved to the ARM position and the safety flag pin(s) has been removed from the system safeing switch(s), the ARM lamp will light. The flare ripple fire switch, when activated, will salvo fire all remaining flares in the event of an inflight emergency. The two-way MANUAL, PROGRAMMED switch controls the firing of chaff only. When the switch is in PROGRAMMED position, the number of bursts (series of shots) per salvo (any number of bursts) fired is automatically controlled by the preset programmer. The MANUAL position of the switch bypasses the programmer and fires one chaff cartridge each time the firing switch is activated.

2. Dispenser Assembly. The sequencer assembly receives power through the firing switches circuit and furnishes pulses to each of the 30 contacts of the breech assembly, in sequential order 1 through 30. Flare/Chaff (F/C) selector switch allows selection between flare or chaff dependant on aircraft configuration. It also contains a flare detector to ensure a burning flare is ejected from the aircraft.

3. Payload Module Assembly. Chaffs or flares are loaded through the studded end of the payload module, one per chamber, and secured in place by the retaining plate.

4. Electronics Module Assembly. It contains a programmer circuit which allows for the setting of chaff burst number, chaff salvo number, chaff burst interval, and chaff salvo interval.

CHAPTER 2
AVIATION INTERMEDIATE MAINTENANCE INSTRUCTIONS

CHAPTER CONTENTS

Section I. TROUBLESHOOTING

Section Contents

2-1. TROUBLESHOOTING INFORMATION

This section contains the troubleshooting information for locating and correcting most of the troubles which may develop in the Ml 30 general purpose dispenser. Each malfunction for an individual component, unit, or system is followed by a list of tests or inspections which will help you to determine the proper corrective actions to remedy the malfunctions.

The symptom index can be used as a quick guide to troubleshooting. Common malfunctions are listed in alphabetical order with a page number reference to the troubleshooting table where a test or inspection and corrective action are provided.

This manual cannot list all possible malfunctions which may occur, nor all tests or inspections and corrective actions. If a malfunction is not listed, notify your supervisor.

SYMPTOM INDEX

2-1. TROUBLESHOOTING INFORMATION (cont)

Table 2-1. TROUBLESHOOTING

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
ELECTRONICS MODULE ASSEMBLY		
1. CHAFF CARTRIDGES DO NOT DISPENSE IN ACCORDANCE WITH PRESET PROGRAM.	Step 1. Perform electrical system test in paragraph 2-4. (This test will reveal malfunction prior to operation.)	a. If no electrical malfunction is indicated, Proceed to malfunction 3, dispenser assembly. b. If step 1 confirms the malfunction, proceed to step 2.
	Step 2. Perform EM programmer module electrical test in paragraph 2-7.	a. If incorrect indications occur, replace circuit card assembly (CCA) power supply no. 1 (para 2-15) and repeat step 2. b. If incorrect indications still occur, replace CCA power supply no. 2 (para 2-15) and repeat step 2. c. If incorrect indications still occur, test chaff programmer (para 2-8), if chaff programmer malfunctions replace parts (para 2-15), and repeat step 2. d. If incorrect indications still occur, replace branched wiring harness (para 2-14) and repeat step 2.
2. ADDITIONAL FLARES ARE NOT DISPENSED WHEN FIRST FLARE DISPENSED FAILS TO IGNITE.	Step 1. Perform electrical system test in paragraph 2-5 to confirm malfunction. (Electrical system test will reveal malfunction prior to operation.)	Replace EM and repeat step 1.
	Step 2. Perform EM electrical test in paragraph 2-7 to confirm malfunction	Replace CCA flare detector (para 2-1 5) and repeat EM electrical test.

2-1. TROUBLESHOOTING INFORMATION (cont)

Table 2-1. TROUBLESHOOTING (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
DISPENSER ASSEMBLY		
3. **ONE OR MORE CHAFF OR FLARE CARTRIDGES DO NOT DISPENSE.**	Step 1. Perform dispenser assembly electrical system test in paragraph 2-4 for chaff or paragraph 2-5 for flare. (This test will reveal malfunctions prior to operation.)	a. If no electrical malfunction is indicated, report malfunction to ammunition maintenance. b. If step 1 confirms the malfunction, replace DCP and repeat step 1. c. If malfunction is still indicated, replace EM and repeat step 1. d. If malfunction is still indicated, replace dispenser assembly and repeat step 1. e. If step 1 (performed on aircraft) still indicates a malfunction, refer to maintenance instructions for installation hardware in applicable aircraft TM.
	Step 2. Perform sequencer assembly electrical test in paragraph 2-8.	a. If correct indications occur in step 2, replace breech (para 2-11) and repeat step 1. b. If incorrect indications occur in step 2, replace CCA of sequencer assembly (para 2-13) and repeat step 2. c. If incorrect indications still occur in step 2, replace electronics components assembly (para 2-13) and repeat step 2.
4. **THREE FLARES ARE DISPENSED EACH TIME DISPENSE BUTTON IS ACTIVATED.**	Perform electrical system test in paragraph 2-5. (Electrical system test will reveal malfunction prior to operation.)	a. If step 1 confirms the malfunction, replace EM and repeat step 1. b. If malfunction is still indicated, replace dispenser assembly and repeat step 1. c. If malfunction is still indicated, replace flare sensor assembly (para 2-11) and repeat step 1.

Table 2-1. TROUBLESHOOTING (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
DISPENSER ASSEMBLY (cont)		
5. SECOND DISPENSER DOES NOT FUNCTION AFTER FIRST DISPENSER DISPENSED COMPLETE PAYLOAD (BOTH DISPENSERS USED FOR SAME PAYLOAD.)	Perform dispenser assembly test in paragraph 2-4 for chaff or paragraph 2-5 for flare on second dispenser.	a. If no malfunction is indicated, repeat step 1 on first dispenser to confirm defective cascade transmission, replace first dispenser, and repeat step 1. b. If step 1 indicates a malfunction, replace second dispenser and repeat step 1.
DISPENSER CONTROL PANEL ASSEMBLY		
6. ARM LAMP DOES NOT LIGHT WHEN DEPRESSED.	Step 1. Ensure aircraft power is applied.	
	Step 2. Check fuse in DCP.	a. Replace Fuse (TM 9-1095-206-12&P, chapter 2) b. If replacement of fuse does not correct malfunction, proceed to step 3.
	Step 3. Check ARM lamp.	a. Replace lamp (TM 9-1095-206-12&P, chapter 2). b. If replacement of lamp does not correct malfunction, replace DCP and proceed to step 4.
	Step 4. Perform electrical system test on aircraft in accordance with TM 9-1095-206-12&P, paragraph 2-24 to confirm correction or malfunction.	a. If no malfunction is indicated in step 4, repair or replace DCP (para 2-16). b. If step 4 indicates a malfunction, refer to powered circuit maintenance instructions in applicable aircraft TM.

2-1. TROUBLESHOOTING INFORMATION (cont)

Table 2-1. TROUBLESHOOTING (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
DISPENSER CONTROL PANEL ASSEMBLY (cont)		
6. (cont)	Step 5. Set ARM-SAFE switch in SAFE position and with no connection to J1, connect the (-) lead of an ohmmeter to the base of diode CR7 and the (+) lead to the anode of CR7. Ohmmeter reads approximately 10 to 50 ohms. Reverse leads, and the ohmmeter reads infinity.	a. If incorrect indications occur in step 5, replace diode bracket assembly (para 2-17). b. If correct indications occur in step 5, proceed to step 6.
	Step 6. Replace ARM indicator light (para 2-17)	
7. ARM LAMP DOES NOT LIGHT WHEN ARM-SAFE SWITCH IS IN ARM POSITION	Step 1. Perform dispenser assembly test in paragraph 2-5.	a. If step 1 confirms the malfunction, replace DCP and repeat step 1. b. If malfunction is still indicated, replace EM and repeat step 1. c. If malfunction is still indicated, replace dispenser assembly and repeat step 1. d. If step 1 (performed on aircraft) still indicates a malfunction, refer to maintenance instructions for installation hardware in applicable aircraft TM.
	Step 2. Perform steps 9 and 17 of DCP electrical test in paragraph 2-9 and test procedure 2 in table 2-4 (para 2-3) to confirm malfunction.	a. If incorrect indications occur in step 2, replace ARM lamp (TM 9-1095-206-12&P, chapter 2) and repeat step 2. b. If replacement of lamp does not correct malfunction, replace ARM indicator light (para 2-17) and repeat step 2.

Table 2-1. TROUBLESHOOTING (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
DISPENSER CONTROL PANEL ASSEMBLY (cont)		
8. FLARE OR CHAFF COUNTER READINGS DO NOT CORRE-SPOND TO NUMBER OF CARTRIDGES DISPENSED	Perform electrical system test in paragraph 2-4 for chaff or paragraph 2-5 for flare. (This test will reveal malfunction prior to operation.)	a. If no malfunction is indicated, report malfunction to ammunition maintenance. b. If step 1 confirms the malfunction, replace DCP and repeat step 1. c. If malfunction is still indicated, replace EM and repeat step 1. d. If malfunction is still indicated, replace dispenser assembly and repeat step 1. e. If step 1 (performed on aircraft) still indicates a malfunction, refer to maintenance instructions for installation hardware in applicable aircraft TM.
9. PANEL LIGHTING DOES NOT FUNCTION.	Step 1. Ensure aircraft power is applied, Step 2. Check fuse in DCP. Step 3. Perform test procedure 2 of DCP electrical test in table 2-4 (para 2-3) to confirm malfunction.	a. Replace fuse (TM 9-1095-206-12&P, chapter 2). b. If replacement fuse does not correct malfunction, replace DCP. a. If incorrect indications occur in step 3, replace indicating light panel (para 2-17) and repeat step 3. b. If replacement of indicating light panel does not correct malfunction, replace receptacle connector (para 2-18) and repeat step 3.
10. DCP COM-PLETELY IN-OPERALE.	Perform DCP electrical test in paragraph 2-9.	If incorrect indications occur, replace DCP.
11. ARM-SAFE SWITCH IS DEFECTIVE	Perform steps 14, 15, and 16 in DCP electrical test in paragraph 2-9 to confirm malfunction.	a. If incorrect indications occur, replace ARM-SAFE switch (para 2-17) and repeat the test above. b. If replacement of switch does not correct malfunction, replace DCP.

2-1. TROUBLESHOOTING INFORMATION (cont)

Table 2-1. TROUBLESHOOTING (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
DISPENSER CONTROL PANEL ASSEMBLY (cont)		
12. FLARES OR CHAFF FIRE AS SOON AS POWER IS APPLIED TO SYSTEM.	Perform steps 15 and 16 in DCP electrical test in paragraph 2-9 to confirm malfunction.	a. If meter reading is obtained at CHECK-POINT-JACK J, K, L, or N, replace ARM-SAFE switch and repeat the test above. b. If replacement of switch does not correct malfunction, replace DCP.
13. RIPPLE FIRE SWITCH DOES NOT FUNCTION WITH ARM-SAFE SWITCH IN ARM POSITION.	Perform step 12 (para 2-6) and steps 13, 15, 16, and 20 in DCP electrical test in paragraph 2-9 to confirm malfunction.	c. If incorrect indications occur, replace RIPPLE FIRE switch (para 2-17) and repeat the tests above. d. If replacement of switch does not correct-malfunction, replace DCP.
14. CHAFF OR FLARE COUNTER DOES NOT FUNCTION	Step 1. Perform test procedures 1, 3, and 4 of DCP electrical test in table 2-4 (para 2-3) to confirm malfunction and proceed to step 2. Step 2. Facing rear of counter, touch ground test lead P9 of test cable no. 1 to right hand terminal (negative, N) of the counter with C-F COUNT switch set either to the FLARE or CHAFF position depending on which is being tested. If counter operates, check continuity with an ohmmeter between counter (facing rear) - left hand terminal (positive, p) and J1 connector - pin P.	a. If no continuity is observed, replace DCP. b. If continuity is indicated, replace circuit card assembly (para 2-17) and repeat step 1.

Table 2-1. TROUBLESHOOTING (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
DISPENSER CONTROL PANEL ASSEMBLY (cont)		
15. MAN-PGRM SWITCH DOES NOT FUNCTION.	Perform steps 13 and 17 of DCP electrical test in paragraph 2-8 and test procedures 1 and 3 in table 2-4 (para 2-3) to confirm malfunction.	a. If incorrect indications occur, replace MAN-PGRM switch (para 2-17) and repeat the tests above. b. If replacement of switch does not correct malfunction, replace DCP.
16. RIPPLE FIRE SWITCH DOES NOT FUNCTION WITH ARM-SAFE SWITCH IN SAFE POSITION.	Step 1. Perform steps 15, 16, 18, 19, and 20 of DCP electrical test in paragraph 2-9 to confirm malfunction and proceed to step 2. Step 2. Connect the (-) lead of an ohmmeter to the base of CR8 diode (connector J1 - pin P) and the (+) lead connected to the anode of the diode (connector JI - pin S). Ohmmeter reads approximately 10 to 50 ohms. Reverse leads, and the ohmmeter reads infinity.	a. If incorrect indications occur in step 2, replace diode bracket assembly (para 2-17) and repeat step 1. b. If replacement of diode bracket assembly does not correct malfunction, replace DCP.
ELECTRICAL SYSTEM TESTS (BENCH)		
17. POWER ON LAMP DOES NOT LIGHT	Step 1. Check test set fuse. Step 2. Check test set lamp. Step 3. Check test set light fixture.	Replace fuse (TM 9-4940-497-13&P). Replace lamp (TM 9-4940-497-13&P). Replace test set (TM 9-4940 -497-13&P).

2-1. TROUBLESHOOTING INFORMATION (cont)

Table 2-1. TROUBLESHOOTING (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
ELECTRICAL SYSTEM TESTS (BENCH) (cont)		
18. ARM LAMP DOES NOT LIGHT WHEN DEPRESSED.	Step 1. Check aircraft power to DCP (if test is on aircraft).	Ensure aircraft power is applied.
	Step 2. Check DCP fuse.	Replace fuse (TM 9-1095-206-12&P, chapter 2).
	Step 3. Check ARM lamp.	Replace ARM lamp (TM 9-1095-206-12&P, chapter 2).
	Step 4. Check DCP.	Replace DCP.
19. ARM LAMP DOES NOT LIGHT WITH ARM-SAFE SWITCH TO ARM.	Step 1. Check DCP.	Replace DCP.
	Step 2. Check EM cable assembly.	Replace EM.
20. FIRING ORDER INDICATOR (FOI) NO. 1 REMAINS RED.	Step 1. Check DCP.	Perform the dispenser assembly electrical system test in paragraph 2-5.
	Step 2. Check EM.	Perform the EM test in paragraph 2-7.
21. FOI'S NO. 1, 2, AND 3 CHANGE TO WHITE.	Check flare sensor assembly and/or EM.	Perform dispenser assembly test in paragraph 2-5.
22. FLARE COUNTER READS OTHER THAN 29.	Step 1. Check flare counter.	Replace DCP.
	Step 2. Check EM.	Perform dispenser assembly test in paragraph 2-5.

Table 2-1. TROUBLESHOOTING (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
ELECTRICAL SYSTEM TESTS (BENCH) (cont)		
23. ONE OR MORE FOI'S REMAIN RED AND/OR FLARE COUNTER READS OTHER THAN 00.	Step 1. Check DCP. Step 2. Check EM or dispenser assembly.	Perform dispenser assembly test in paragraph 2-5. Perform dispenser assembly test in paragraph 2-5.
24. ONE OR MORE FOI'S REMAIN RED AND/OR FLARE COUNTER DOES NOT SHOW CORRECT NUMBER.	Step 1. Check EM. Step 2. Check dispenser assembly. Step 3. Check FLARE counter. Step 4. Check FLARE DISP button or FLARE HAND switch.	Perform dispenser assembly test in paragraph 2-5. Perform dispenser assembly test in paragraph 2-5. Replace DCP Refer to applicable aircraft manual.
25. LESS THAN 2 SECONDS OR MORE THAN 3 SECONDS DELAY OCCURS BETWEEN GROUPS OF 3 COUNTS ON FLARE COUNTER (OR FOI'S).	Check defective intervalometer of "A" kit.	Refer to applicable aircraft maintenance manual.
26. ARM LAMP DOES NOT LIGHT AND/OR FLARE COUNTER READS OTHER THAN 00 AND ALL FOI'S REMAIN RED.	Check DCP.	Replace DCP.

2-1. TROUBLESHOOTING INFORMATION (cont)

Table 2-1. TROUBLESHOOTING (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
ELECTRICAL SYSTEM TESTS (BENCH) (cont)		
27. ARM LAMP DOES NOT GO **OUT.**	Step 1. Check DCP ARM lamp wiring. Step 2. Check ARM-SAFE switch.	Replace DCP. Replace DCP.
28. ONE OR MORE FOI'S REMAIN RED AND/OR FLARE COUNTER READS OTHER THAN 26,	Step 1. Check EM. Step 2. Check FLARE counter.	Perform EM test in paragraph 2-7. Replace DCP.
29. SOME FOI'S CHANGE BUT DO NOT TOTAL PROGRAM COUNT.	Check EM.	Perform EM test in paragraph 2-7
30. FOI NO. 1 REMAINS RED AND/OR CHAFF COUNTER READS OTHER THAN 29.	Step 1. Check DCP. Step 2. Check EM.	Replace DCP. Perform EM test in paragraph 2-7.

Section II. AVIATION INTERMEDIATE TESTING PROCEDURES

2-2. SCOPE

1. The following AVIM test procedures shall be conducted prior to installing the components on the aircraft, except as noted.

2. Follow troubleshooting procedures (para 2-1) if any improper indications occur during the tests.

2-3. SETUP FOR M92 TEST SET

NOTE

When the M92 test set is installed on the dispenser assembly, or when the MANUAL SYSTEM RESET switch on the test set is pressed and released and 28 VDC aircraft power has been applied, the sequencer switch inside the dispenser assembly resets making a sound as it rotates. There will be no such sound if the sequencer switch has been previously reset or if the switch is in position 12 or 24.

The following figures show the overall setups and block diagrams for the testing procedures in paragraphs 2-4 thru 2-9 except figure 2-2 which is used prior to installation of the M92 test set on aircraft. Refer to applicable test procedures for detailed instructions. The tables which follow give information needed for the testing.

2-3. SETUP FOR M92 TEST SET (cont)

SETUP FOR M92 TEST SET (cont)

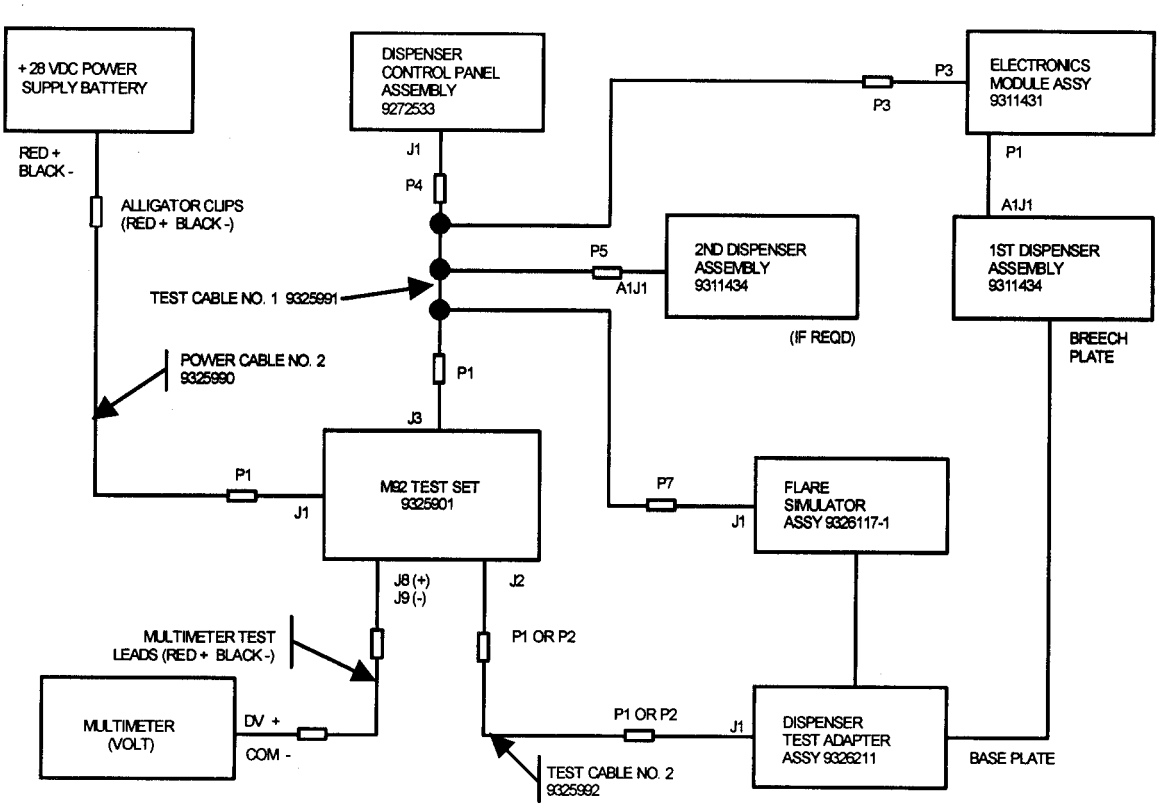


Figure 2-1. Block Diagram for M130 General Purpose Dispenser Electrical System Bench Test.

SETUP FOR M92 TEST SET (cont)

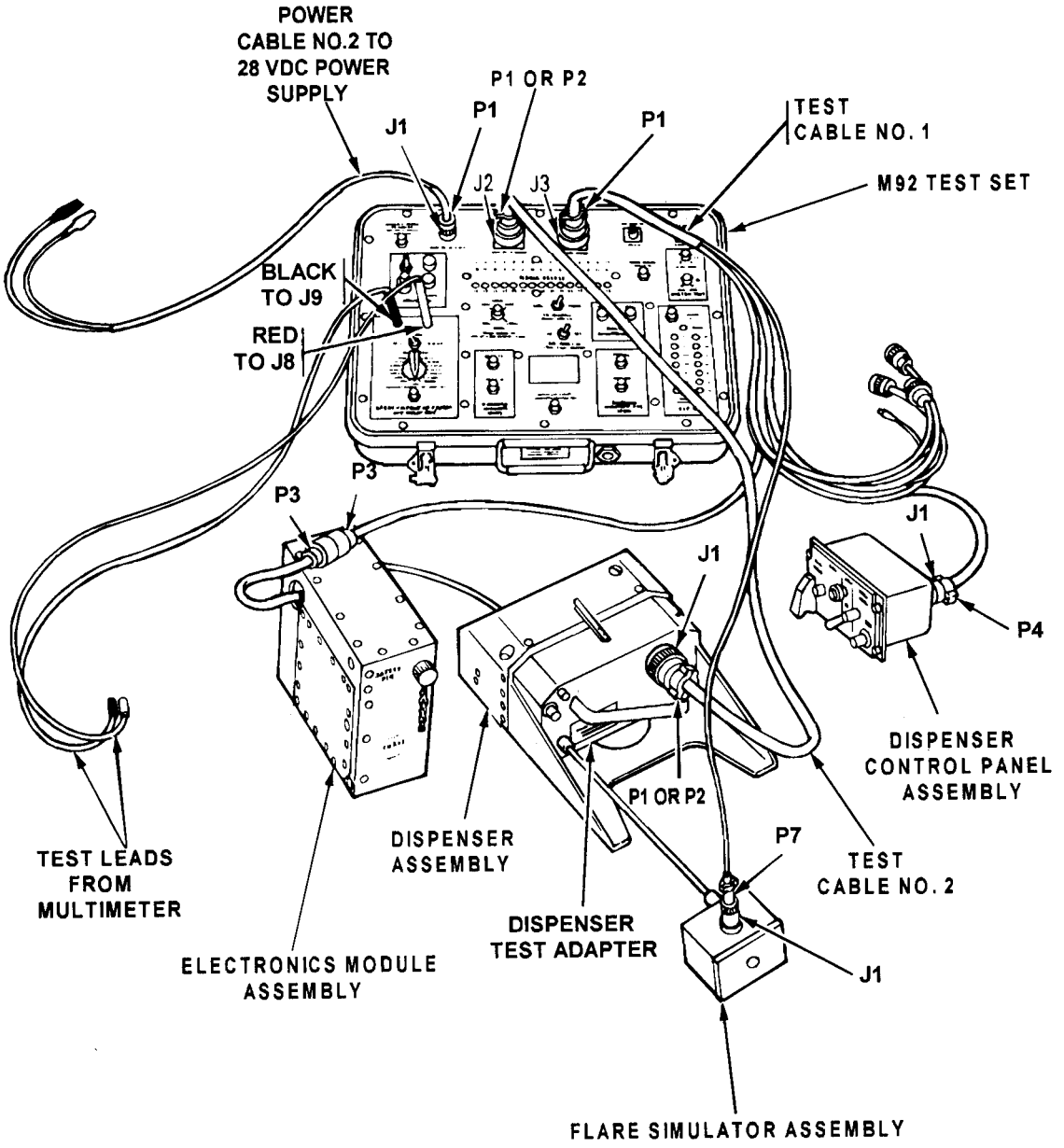


Figure 2-2. Setup for M130 General Purpose Dispenser Electrical System Bench Test.

2-3. SETUP FOR M92 TEST SET (cont)

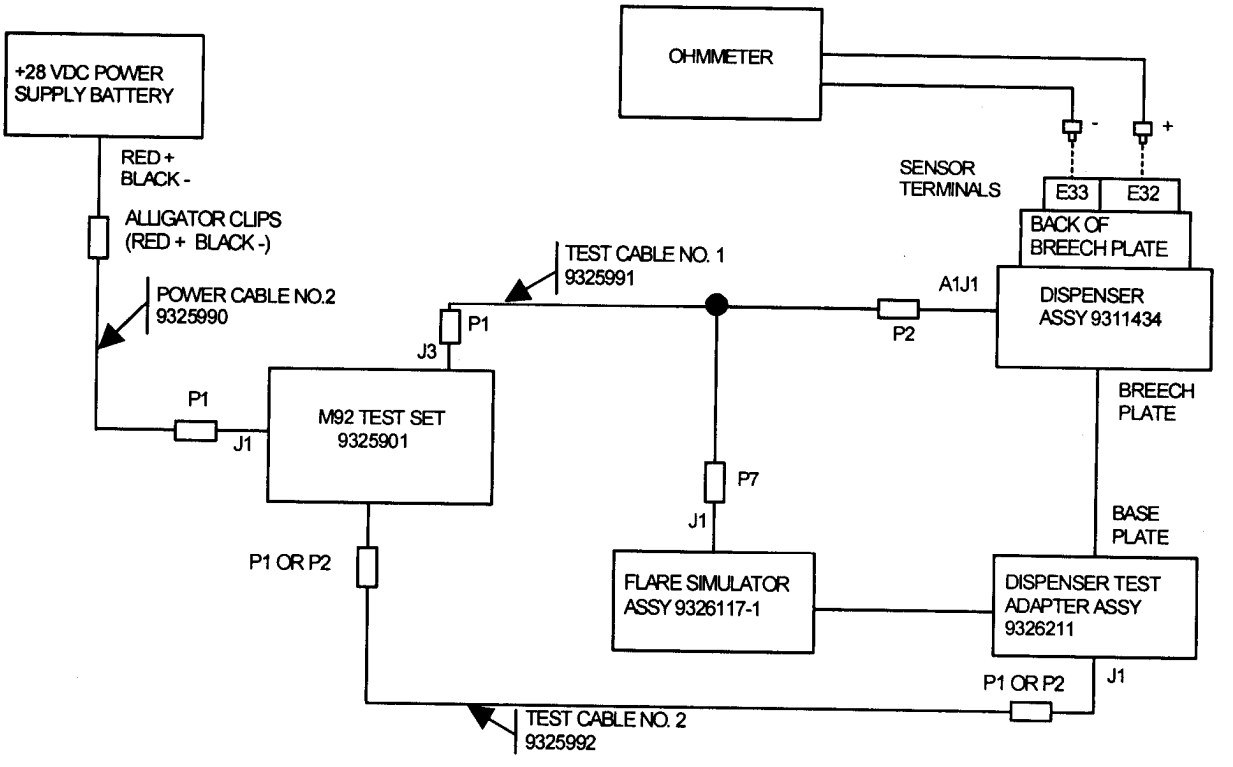


Figure 2-3. Block Diagram for Flare or Chaff Dispenser Assembly Bench Test.

SETUP FOR M92 TEST SET (cont)

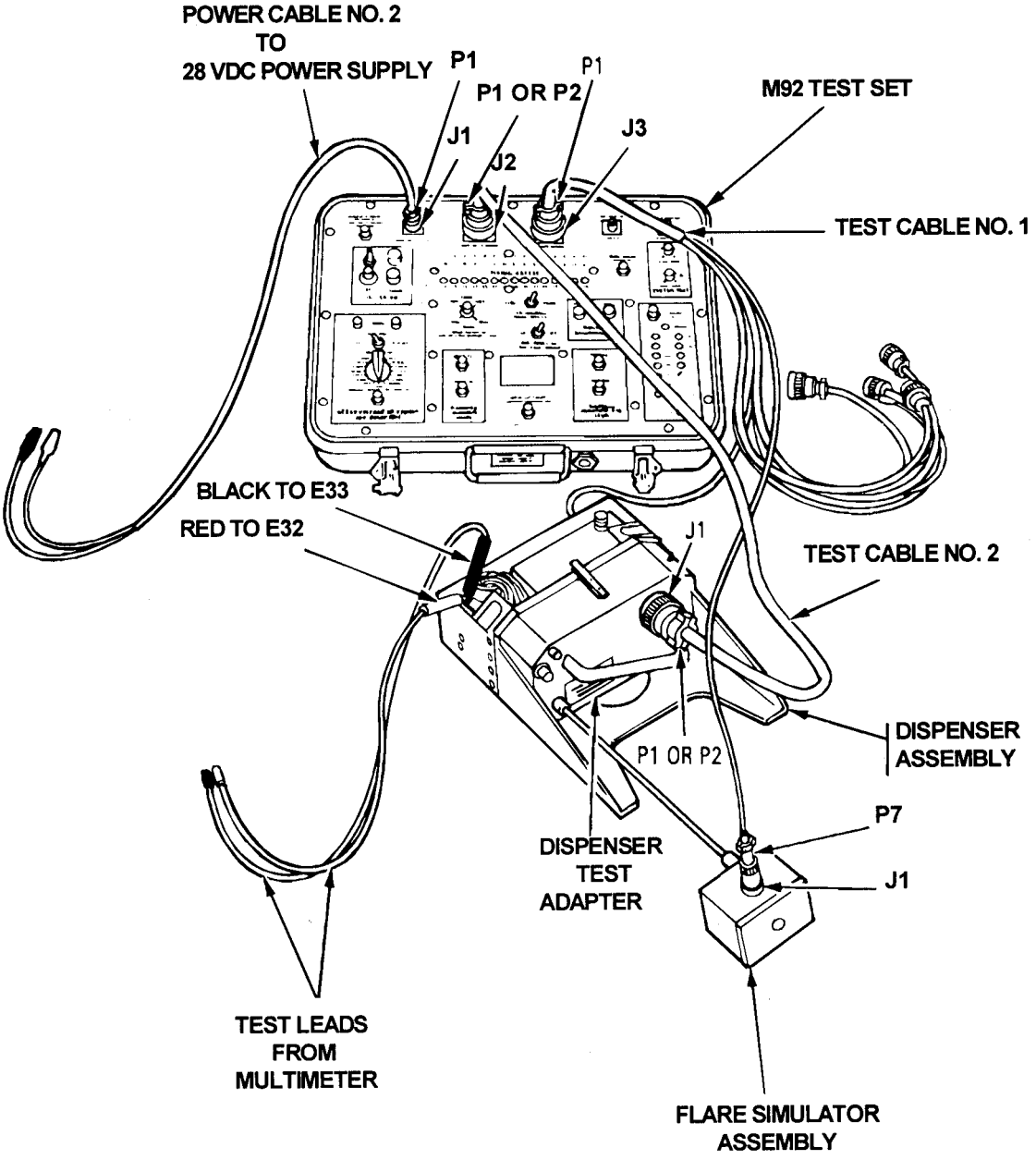


Figure 2-4. Setup for Flare or Chaff Dispenser Assembly Bench Test.

2-3. SETUP FOR M92 TEST SET (cont)

SETUP FOR M92 TEST SET (cont)

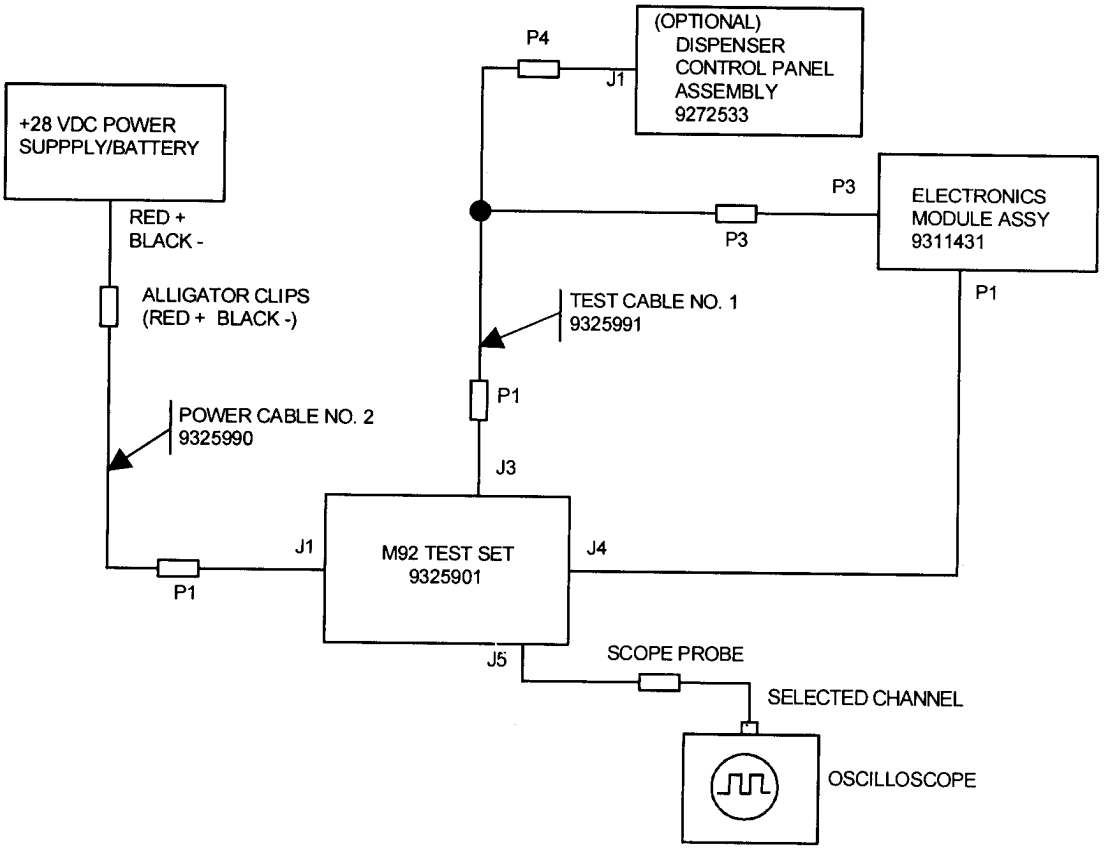


Figure 2-5. Block Diagram of Electrical Test of Electronics Module Assembly.

SETUP FOR M92 TEST SET (cont)

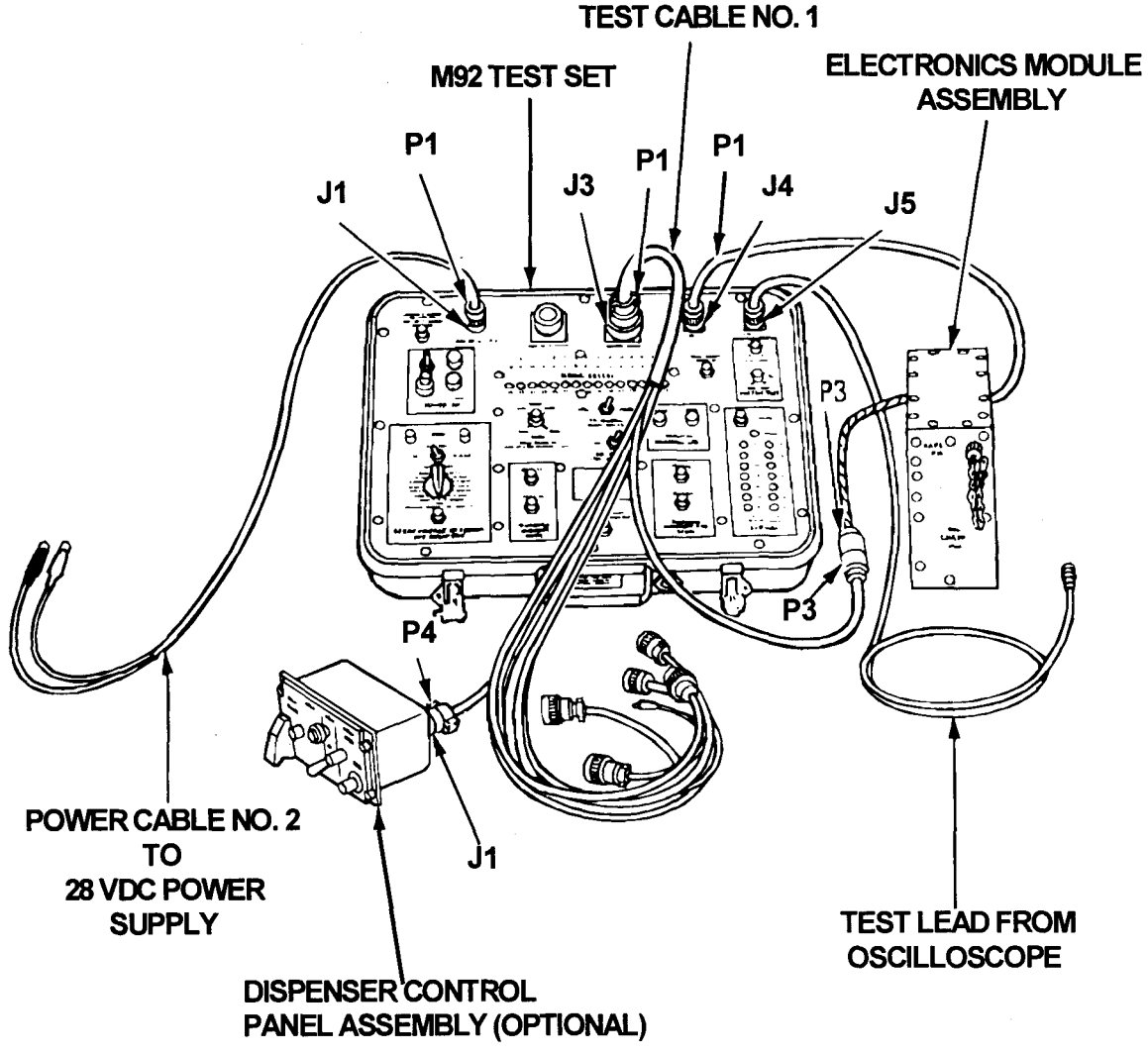


Figure 2-6. Setup for Electrical Test of Electronics Module Assembly.

2-3. SETUP FOR M92 TEST SET (cont)

SETUP FOR M92 TEST SET (cont)

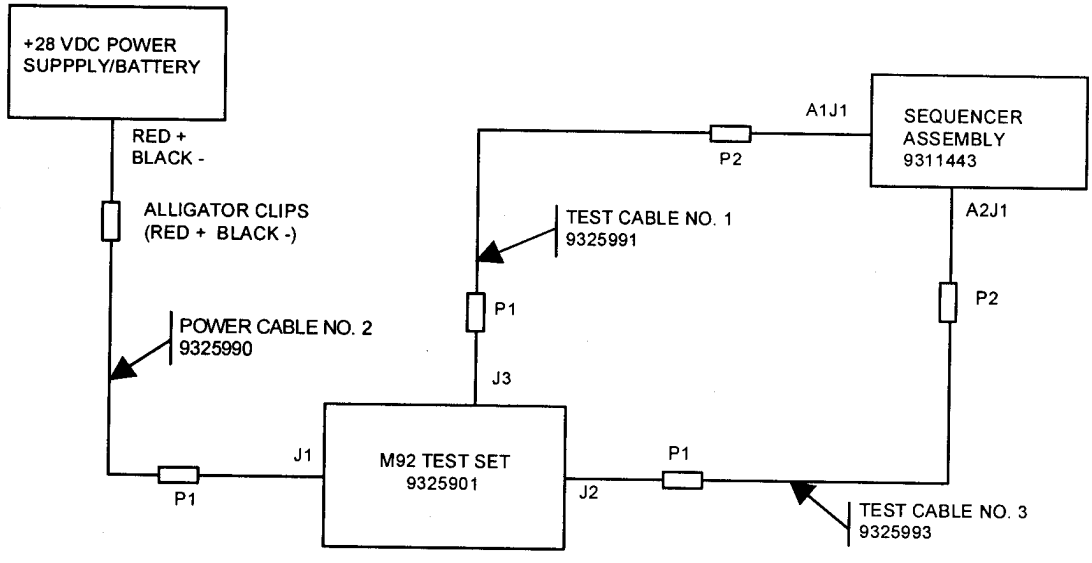


Figure 2-7. Block Diagram of Electrical Test of Sequencer Assembly.

SETUP FOR M92 TEST SET (cont)

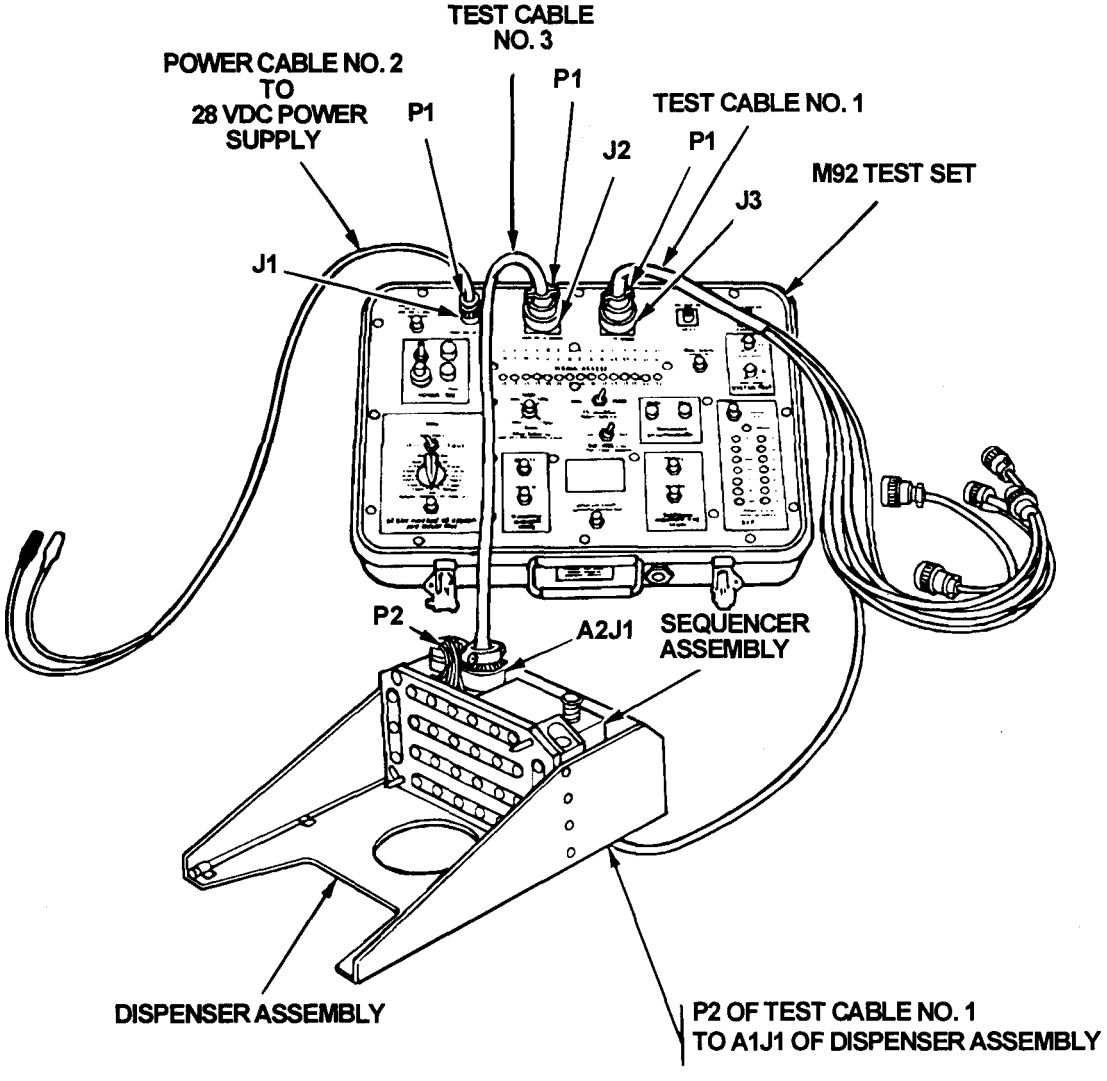


Figure 2-8. Setup for Electrical Test of Sequencer Assembly.

2-3. SETUP FOR M92 TEST SET (cont)

SETUP FOR M92 TEST SET (cont)

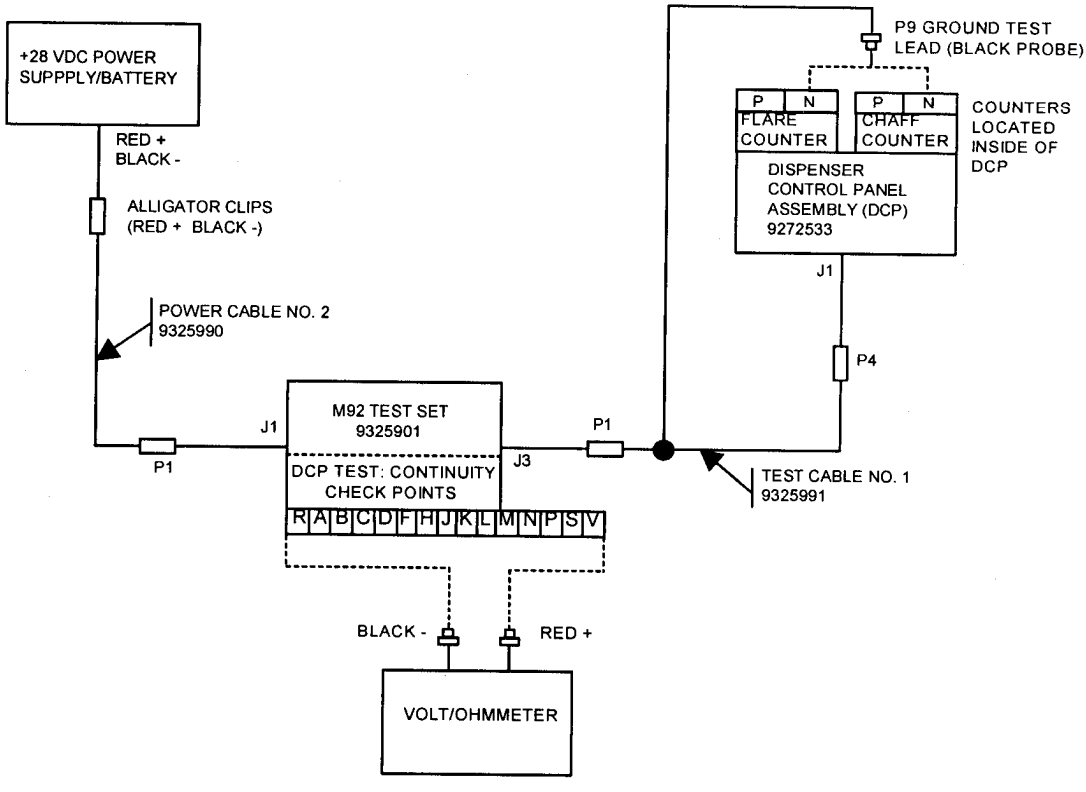


Figure 2-9. Block Diagram of Electrical Test of Dispenser Control Panel Assembly.

SETUP FOR M92 TEST SET (cont)

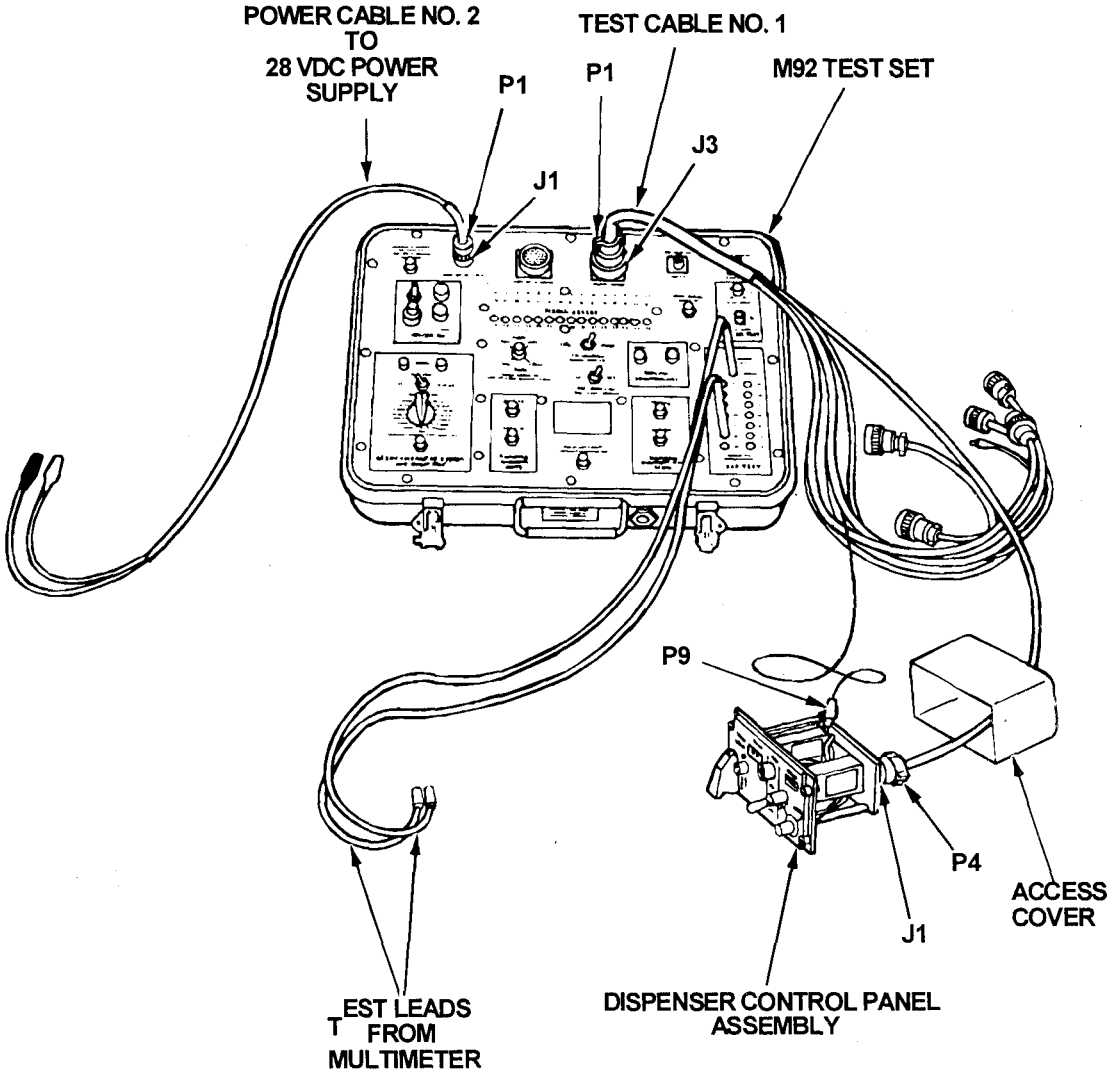


Figure 2-10. Setup for Electrical Test of Dispenser Control Panel Assembly.

2-3. SETUP FOR M92 TEST SET (cont)

SETUP FOR M92 TEST SET (cont)

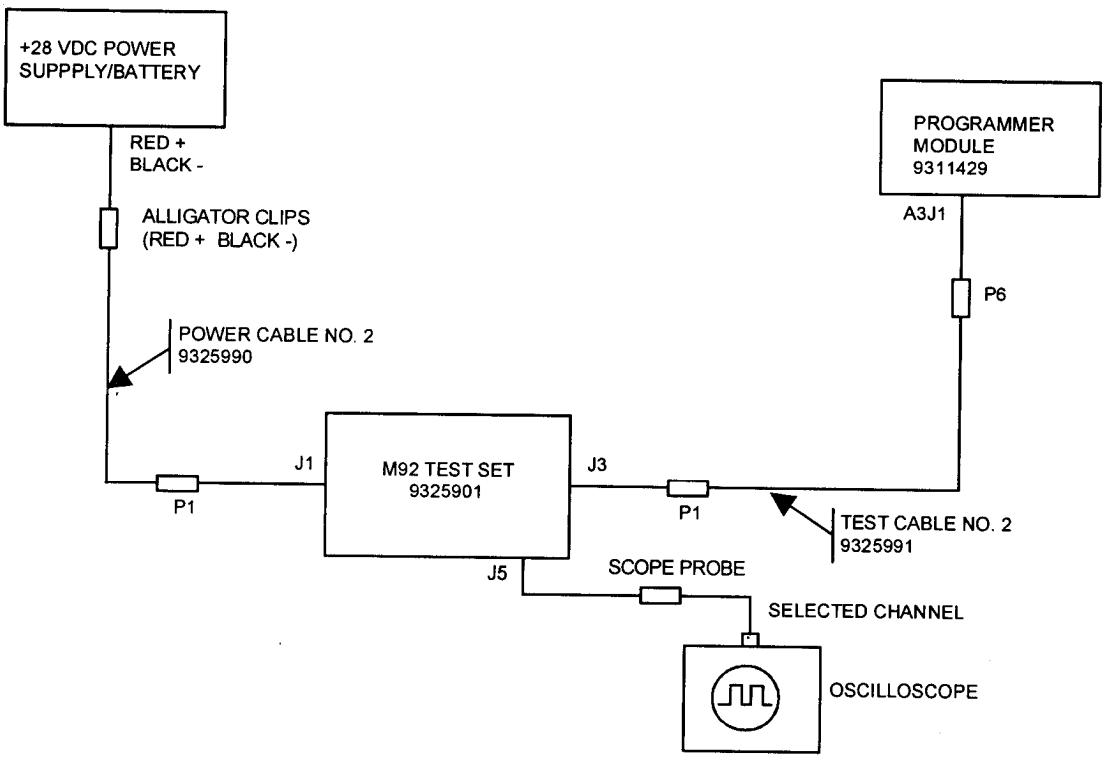


Figure 2-11. Block Diagram of Electrical Test of Programmer Module.

SETUP FOR M92 TEST SET (cont)

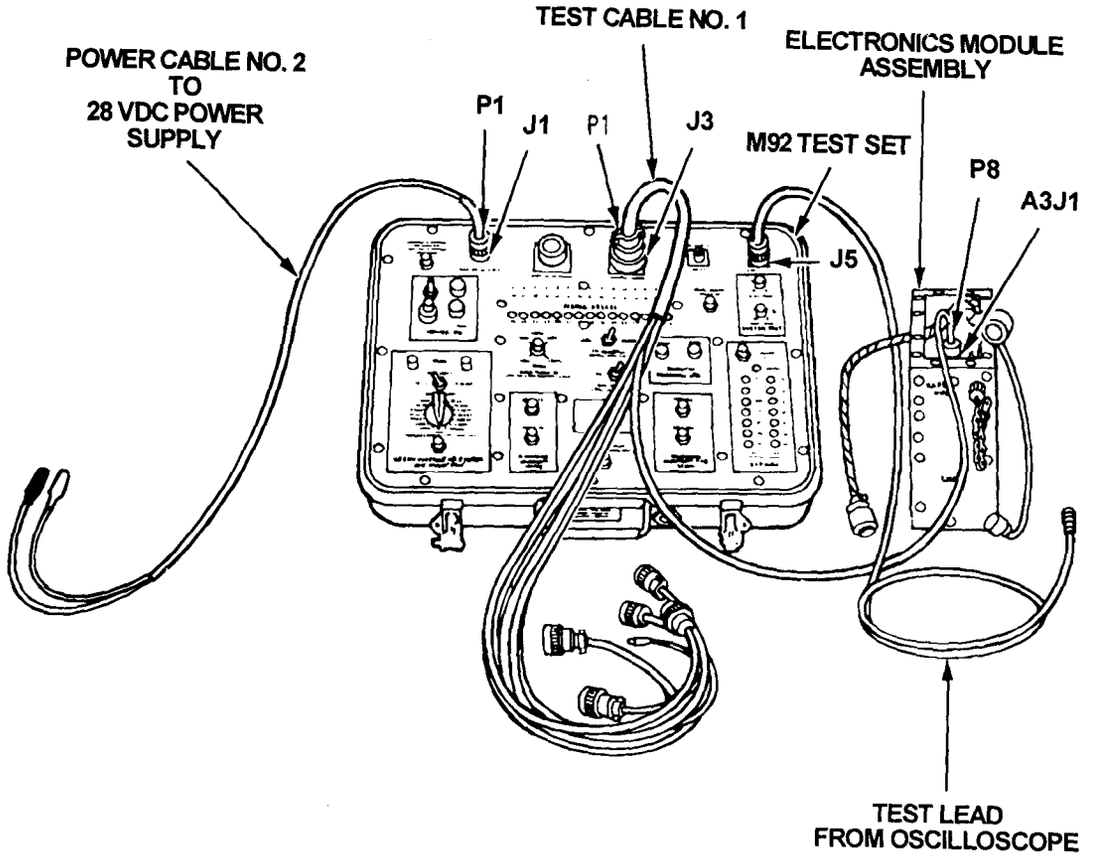


Figure 2-12. Setup for Electrical Test of Programmer Module.

2-3. SETUP FOR M92 TEST SET (cont)

Table 2-2. OSCILLOSCOPE SETTINGS FOR CHAFF PROGRAM MODE

Electronics Module Assembly Setting				Oscilloscope Readings (second ± 10%)	
Salvo		Burst			
Count	Intvl	Count	Intvl		
1	1	1	0.1	0.048	(48 milli-sec)
2	1	1	0.1	1	
4	1	1	0.1	3	
8	1	1	0.1	7	
C	1	1	0.1	1	from 1st pulse to 2nd (continuous pulses)
2	2	1	0.1	2	
4	2	1	0.1	6	
8	2	1	0.1	14	
C	2	1	0.1	2	from 1st pulse to 2nd (continuous pulses)
2	3	1	0.1	3	
4	3	1	0.1	9	
8	3	1	0.1	21	
C	3	1	0.1	3	from 1st pulse to 2nd (continuous pulses)
2	4	1	0.1	4	
4	4	1	0.1	12	
8	4	1	0.1	28	
C	4	1	0.1	4	from 1st pulse to 2nd (continuous pulses)
2	5	1	0.1	5	
4	5	1	0.1	15	
8	5	1	0.1	35	
C	5	1	0.1	5	from 1st pulse to 2nd (continuous pulses)
2	8	1	0.1	8	
C	8	1	0.1	8	from 1st pulse to 2nd (continuous pulses)
1	1	2	0.1	0.1	
1	1	3	0.1	0.2	
1	1	4	0.1	0.3	
1	1	6	0.1	0.5	

SETUP FOR M92 TEST SET (cont)

Table2-2. OSCILLOSCOPE SETTINGS FOR CHAFF PROGRAM MODE (cont)

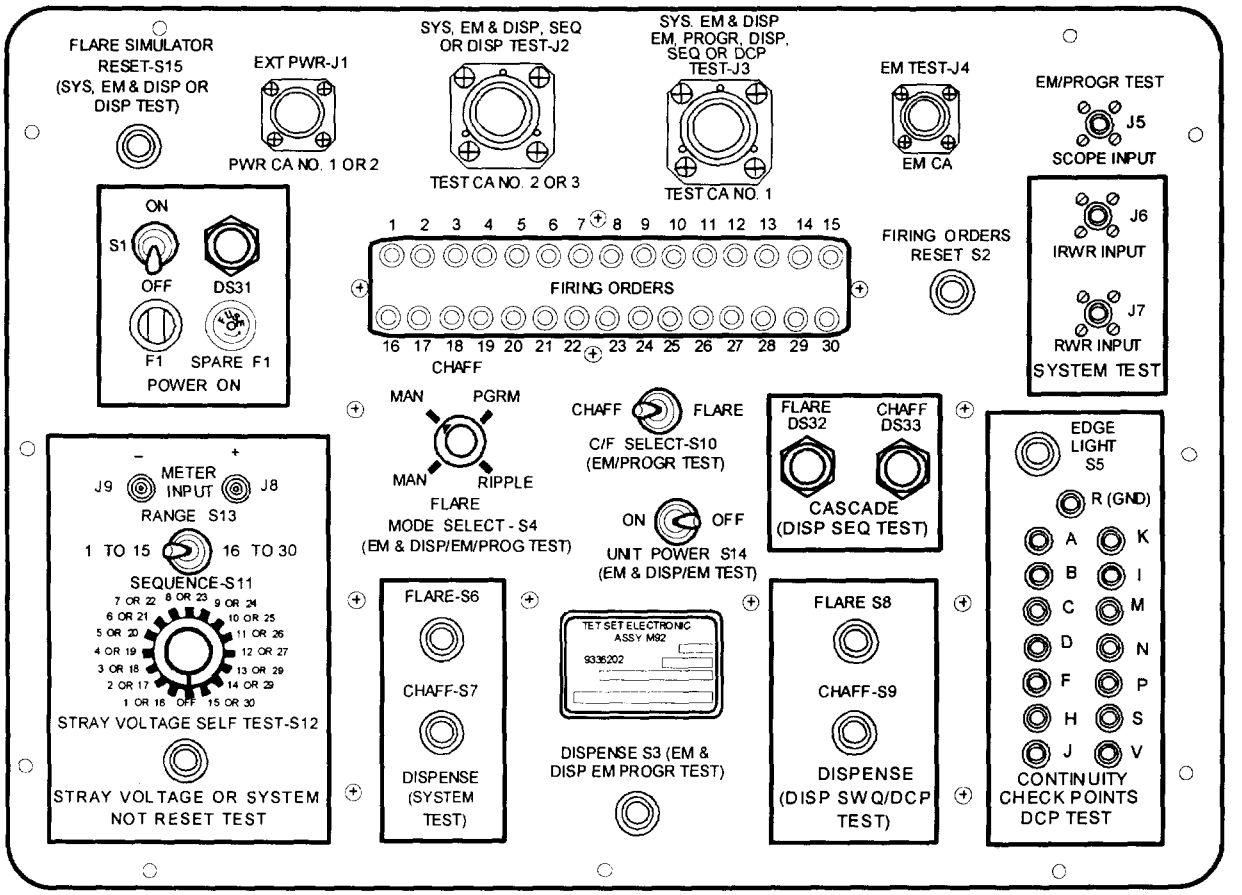
Electronics Module Assembly Setting				Oscilloscope Readings (second ± 10%)
Salvo		Burst		
Count	Intvl	Count	Intvl	
1	1	8	0.1	0.7
1	1	2	0.2	0.2
1	1	3	0.2	0.4
1	1	4	0.2	0.6
1	1	6	0.2	1
1	1	8	0.2	0.1
1	1	2	0.3	0.3
1	1	3	0.3	0.6
1	1	4	0.3	0.9
1	1	6	0.3	1.5
1	1	8	0.3	2.1
1	1	2	0.4	0.4
1	1	3	0.4	0.8
1	1	4	0.4	1.2
1	1	6	0.4	2
1	1	8	0.4	2.8
2	R	1	0.1	3
4	R	1	0.1	9.6

Table 2-3. VOLTAGE CHECK POINTS FOR DCP

CONTINUITY CHECK POINT	Meter Reading	
	+28 VDC (approximate)	0 VDC
A		X
B		X
C	X	
D		X
F		X
J		X
K		X
L		X
M	X	
N		X
P	X	
S		X
V		X
H	X	

2-3. SETUP FOR M92 TEST SET (cont)

SETUP FOR M92 TEST SET (cont)



INITIAL CONTROLS SETTING FOR M92 TEST SET:

SWITCH	POSITION
POWER ON/ S1	OFF
MODE SELECT / S4	MAN
C/F SELECT / S10	CHAFF
UNIT POWER / S14	OFF
SEQUENCE / S11	OFF
RANGE / S13	1 TO 15

Figure 2-13. M92 Test Set Electronic Assembly Initial Controls Settings

SETUP FOR M92 TEST SET (cont)

Table 2-4. DCP CONTINUITY CHECK POINT TEST

Depress	On DCP Observe	On M92 Test Set (DCP TEST, CONTINUITY CHECK POINTS)
1. CHAFF S9 Button. *	CHAFF counter reads 29.	Apply red (+) lead to A and D with black (-) lead to R. Meter reads + 28 VDC (approximate).
2. Light S5 Button.	ARM lamp and panel light.	
3. CHAFF S9 Button. **	CHAFF counter reads 28.	Apply red (+) lead to B and D with black (-) lead to R. Meter reads +28VDC (approximate).
4. FLARE S8 Button.	FLARE counter reads 29.	

* Before depressing S9 on M92, on DCP, set MAN-PGRM switch to MAN position.
** Before depressing S9 on M92, on DCP, set MAN-PGRM switch to PGRM position

2-4. CHAFF DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH)

DESCRIPTION

This task covers: Chaff dispenser assembly electrical test (bench).

INITIAL SETUP

Tools/Test and Support Equipment:
Tool Kit, Electronic, Equipment TK-105/G
M92 Test Set
Power Supply, 28 VDC

Personnel Required:
MOS 68R

Equipment Conditions:
On bench in shop.
Bench power ready,

General Safety Instructions: Never work on electronic equipment unless there is another person nearby who is familiar with operation and hazards of this equipment and first aid. When aided by operator, technician must warn operator about dangerous area.

Power must not be applied to unit under test while test leads are being connected to or removed from unit assemblies/circuits under test.

CHAFF DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH)

NOTE

Refer to figures 2-1 and 2-2 (para 2-3) for overall setup details and figure 2-13 for M92 initial setup.

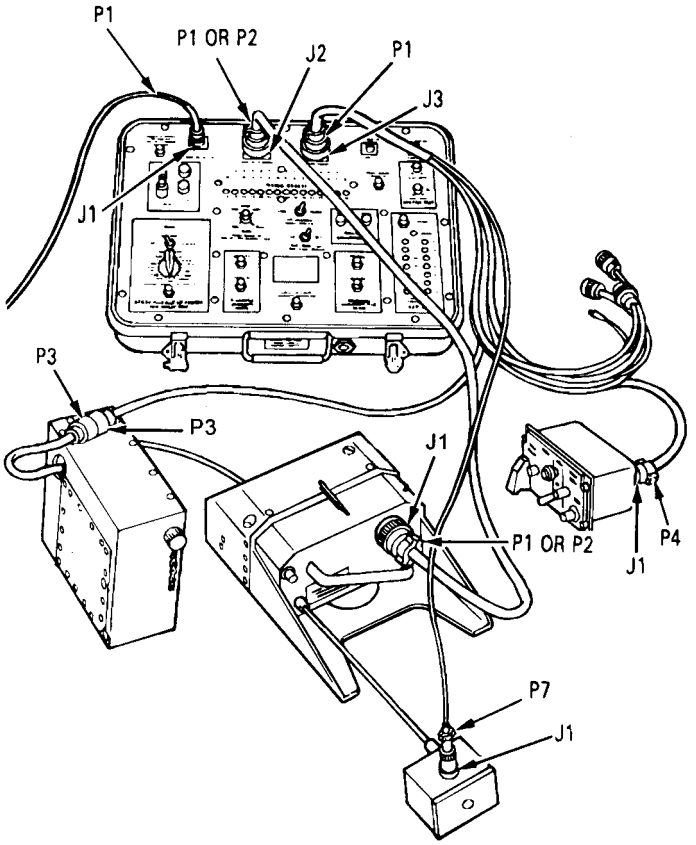
1. SET MISSION CHAFF PROGRAM ON EM (IAW APPLICABLE AIRCRAFT MISSION REQUIREMENT SETTINGS).

2. REMOVE SYSTEM SAFETY PIN FROM EM.

2-4. CHAFF DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

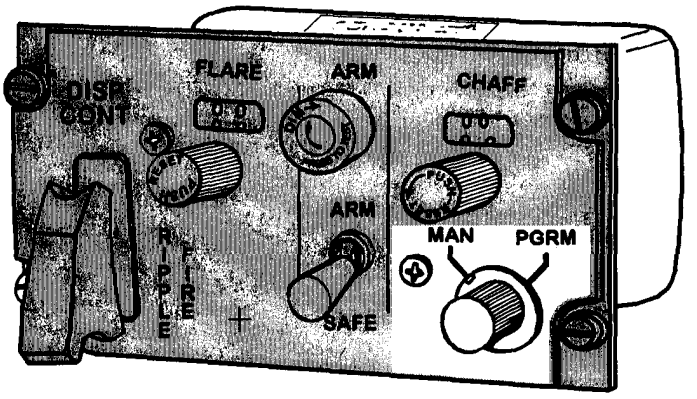
CHAFF DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

3. ON M92 TEST SET, PLACE UNIT POWER SWITCH IN OFF POSITION.
4. SET C-F SELECTOR SWITCH TO "C" POSITION ON DISPENSER ASSEMBLY.
5. CONNECT PI ON CABLE ASSEMBLY OF EM TO A1J1 ON BOTTOM OF DISPENSER ASSEMBLY.
6. ON M92 TEST SET, CONNECT P3 ON TEST CABLE NO. 1 TO J3.
7. CONNECT P3 ON TEST CABLE NO. 1 TO P3 ON CABLE ASSEMBLY OF EM.
8. CONNECT P4 ON TEST CABLE NO. 1 TO J1 ON DCP.
9. CONNECT ALLIGATOR CLIPS (+ RED-BLACK) ON POWER CABLE NO. 2 TO A 28 VDC POWER SUPPLY.
10. CONNECT PI ON POWER CABLE NO. 2 TO J1 ON M92 TEST SET.
11. CONNECT EITHER END (P1 OR P2) OF TEST CABLE NO. 2 TO J2 OF M92 TEST SET.
12. CONNECT OTHER END (P1 OR P2) OF TEST CABLE NO. 2 TO J1 OF DISPENSER TEST ADAPTER ASSEMBLY (P/N 9326211, PROVIDED WITH M92 TEST SET). INSERT MOUNT ROD OF FLARE SIMULATOR ASSEMBLY INTO FACE PLATE OF DISPENSER TEST ADAPTER ASSEMBLY WITH J1 FACING UP. SECURE THUMB SCREWS AT INTERCONNECT.
13. CONNECT DISPENSER TEST ADAPTER ASSEMBLY TO BREECH OF DISPENSER ASSEMBLY. SECURE BOTH MOUNTING STUDS.

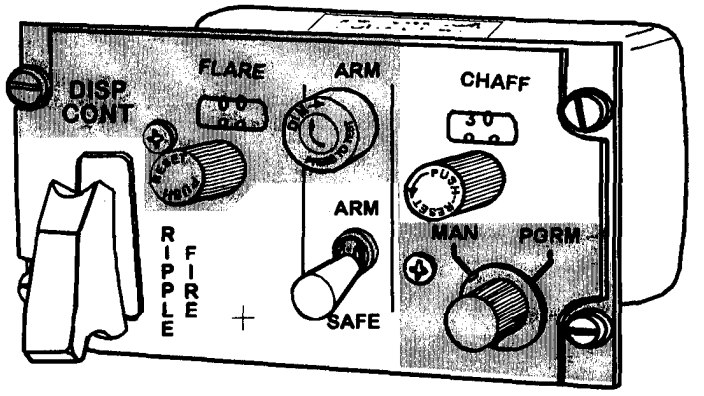


CHAFF DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

14. ON DCP, SET MAN-PGRM SWITCH TO MAN POSITION.



15. ON DCP, ENSURE ARM-SAFE SWITCH IS IN SAFE POSITION AND RIPPLE FIRE SWITCH GUARD IS IN DOWN POSITION. SET CHAFF COUNTER TO 30.



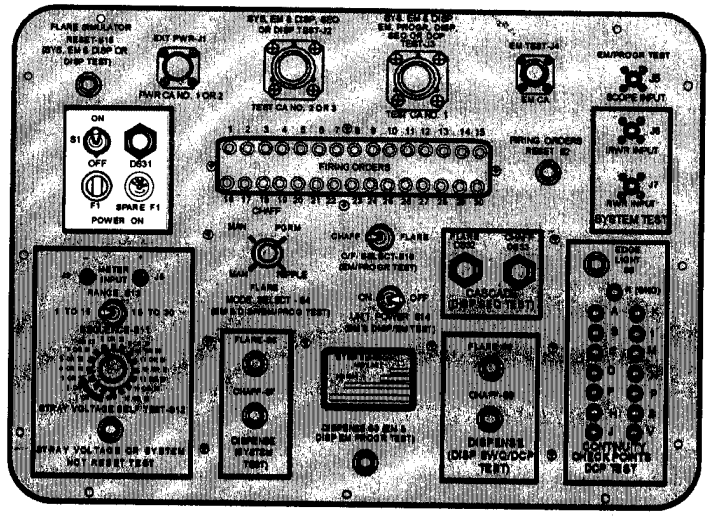
16. ON DC POWER SUPPLY, SET POWER SWITCH TO ON POSITION.

2-4. CHAFF DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

CHAFF DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

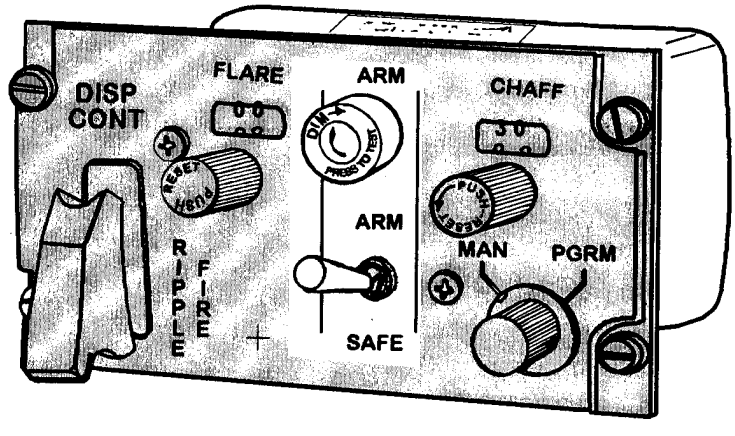
17. 0N M92 TEST SET, PRESS POWERONLAMP, LAMPLIGHTS. (IF LAMP DOESN'T LIGHT, REFER TO MALFUNCTION 17 IN TABLE 2-1.) RELEASE LAMP, LIGHT GOES OUT.

18. ON M92 TEST SET, SET POWER ON SWITCH TO ON POSITION. POWER ON LAMP LIGHTS.



19. ON DCP, PRESS ARM LAMP, ARM LAMP LIGHTS. (IF LAMP DOESN'T LIGHT, REFER TO MALFUNCTION 18 IN TABLE 2-1 .) RELEASE ARM LAMP, ARM LAMP GOES OUT. (REFER TO MALFUNCTION 27 TABLE 2-1, IF LIGHT DOES NOT GO OUT.)

20. ON DCP, SET ARM-SAFE SWITCH TO ARM. ARM LAMP LIGHTS. (IF LAMP DOESN'T LIGHT, REFER TO MALFUNC-TION 19 IN TABLE 2-1.)



CHAFF DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

21. PRESS AND RELEASE MANUAL SYSTEM RESET SWITCH ON DISPENSER TEST ADAPTER TO RESET SYSTEM.

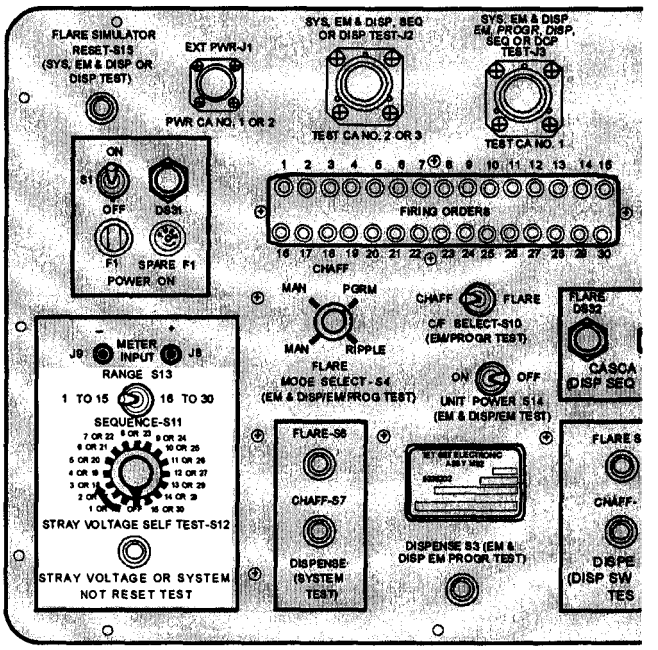
22. PERFORM THE TEST FOR STRAY VOLTAGE AND SYSTEM NOT RESET (STEPS 23-33):

23. USING MULTIMETER, CONNECT RED(+) LEAD OF MULTIMETER TO J8 OF M92 TEST SET AND BLACK (-) LEAD OF MULTIMETER TO J9 OF M92 TEST SET. SET MULTIMETER SCALE TO READ 28 VDC OR GREATER.

24. ON M92 TEST SET, SET RANGE SWITCH TO 1 TO 15 POSITION AND SEQUENCE SWITCH TO OFF.

25. ON M92 TEST SET, PRESS STRAY VOLTAGE SELF TEST SWITCH, MULTIMETER READS 28 VDC (APPROXIMATELY). RELEASE STRAY VOLTAGE SELF TEST SWITCH.

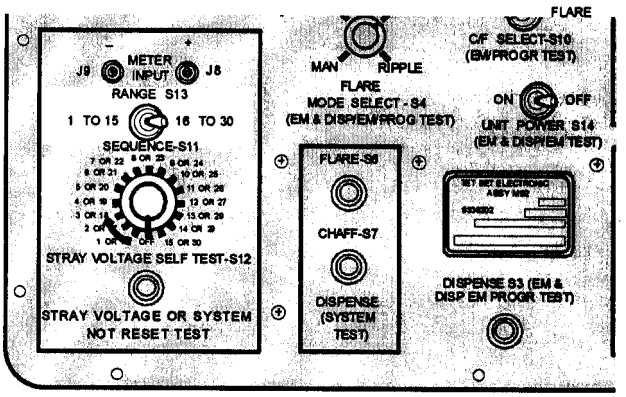
26. ON M92 TEST SET, ROTATE SEQUENCE SWITCH CLOCKWISE, PRESS STRAY VOLTAGE SWITCH AT EACH POSITION TO READ MULTIMETER, UNTIL THE SWITCH IS RETURNED TO THE OFF POSITION. IF THERE IS ANY READING ON THE MULTIMETER, REJECT THE M130 GENERAL PURPOSE DISPENSER SYSTEM FOR MAINTENANCE. (A READING NO GREATER THAN 0.01 VOLT CONTINUOUS, OR OF LESS THAN 1 VOLT FOR LESS THAN 3 SECONDS DURATION, SHALL NOT BE CAUSE FOR REJECTION.)



2-4. CHAFF DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

CHAFF DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

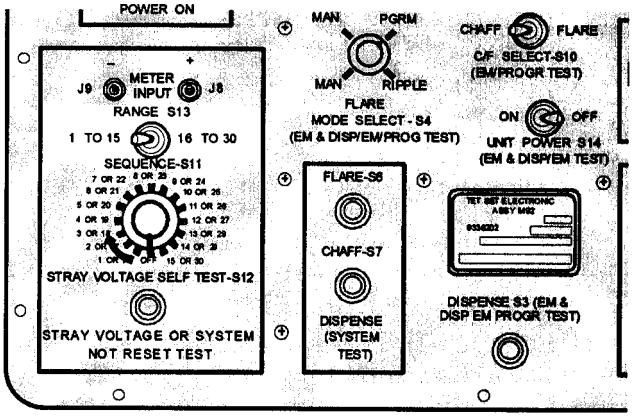
27. 0N M92 TEST SET, SET RANGE SWITCH T0 16 T0 30 POSITION AND REPEAT STEP 26.



28. 0N M92 TEST SET, SET RANGE SWITCH TO 1 T0 15 POSITION.

CAUTION

On the M92 test set, do not press STRAY VOLTAGE SELF TEST switch during the following system not reset test.

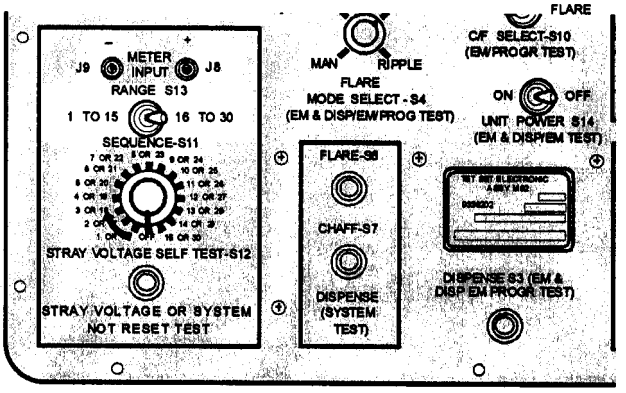


29. SET MULTIMETER TO THE LOWEST DC VOLTAGE RANGE AND REPEAT STEP 26.

30. ON M92 TEST SET, SET RANGE SWITCH TO 16 TO 30 POSITION AND REPEAT STEP 26.

NOTE

If there is a reading on the multimeter, reject the M130 general purpose dispenser system for maintenance.



31. SET MULTI METER TO THE APPROPRIATE SCALE TO OBTAIN THE READINGS AS INDICATED IN STEP 32 BELOW.

CHAFF DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

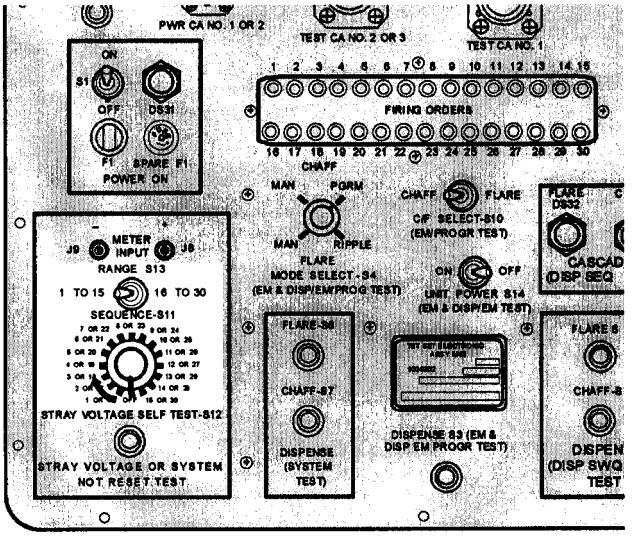
32. ON M92 TEST SET, SET RANGE SWITCH TO 1 TO 15 POSITION.

    a. On M92 test set, rotate SEQUENCE switch clockwise, pausing at each position to read multimeter, until the switch is returned to the OFF position.

    b. Multimeter should read 250 to 400 ohms in first position (number 1).

    c. Multimeter should read 800 to 1000 ohms when in positions 2 through 15.

    d. If multimeter reads 600 to 700 ohms at any position (2 through 15), press and release manual system reset switch on dispenser test adapter to reset system. Restart test (a. above).

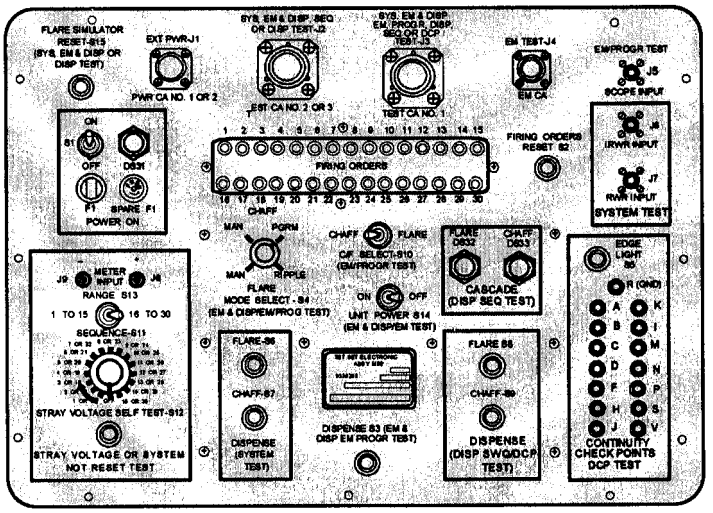


33. ON M92 TEST SET, SET RANGE SWITCH TO 16 TO 30.

    a. On M92 test set, rotate SEQUENCE switch clockwise, pausing at each position to read multimeter, until the switch is returned to the OFF position.

    b. Multimeter should read 800 to 1000 ohms when in positions 16 through 30.

    c. If multimeter reads 600 to 700 ohms at any position (16 through 30), press and release manual system reset switch on dispenser test adapter to reset system. Restart test (a. above).

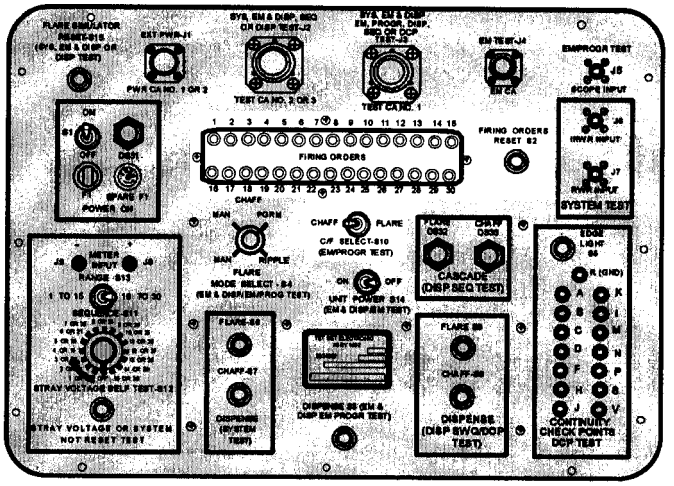


2-4. CHAFF DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

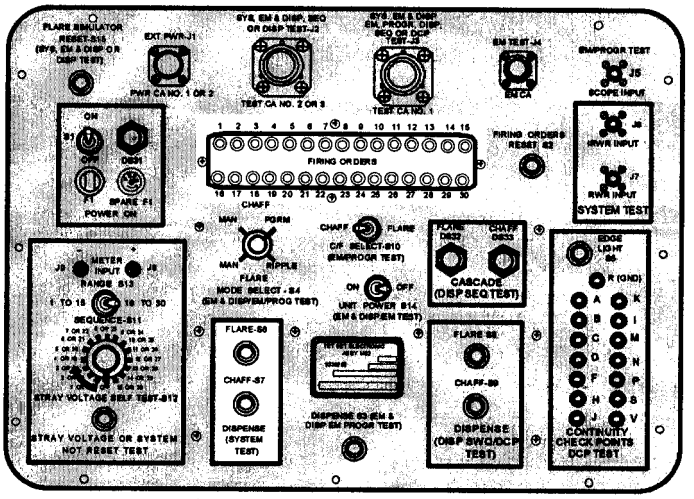
CHAFF DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

34. ON M92 TEST SET, SET CF SELECT S10 (EM PROGR TEST) SWITCH TO CHAFF.

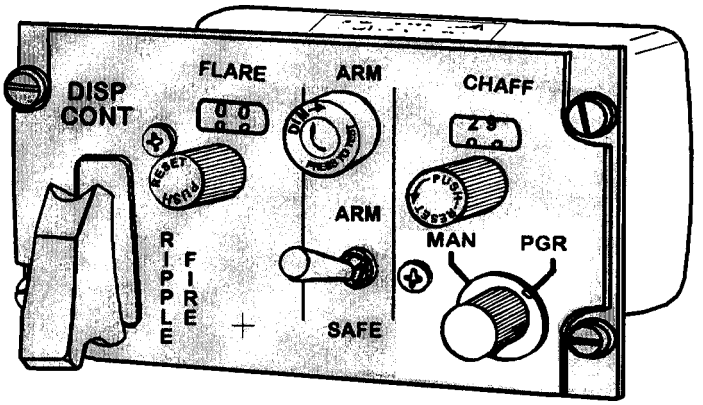
35. ON M92 TEST SET, PRESS FIRING ORDER RESET BUTTON, FIRING ORDER INDICATORS NO. 1 THRU 30 CHANGE TO RED.



36. ON M92 TEST SET, PRESS CHAFF DISPENSE (SYSTEM TEST) BUTTON (S7). FIRING ORDER INDICATOR NO. 1 CHANGES FROM RED TO WHITE. ON DCP, CHAFF COUNTER READS 29. (IF NOT, REFER TO MALFUNCTION 30 IN TABLE 2-1.)

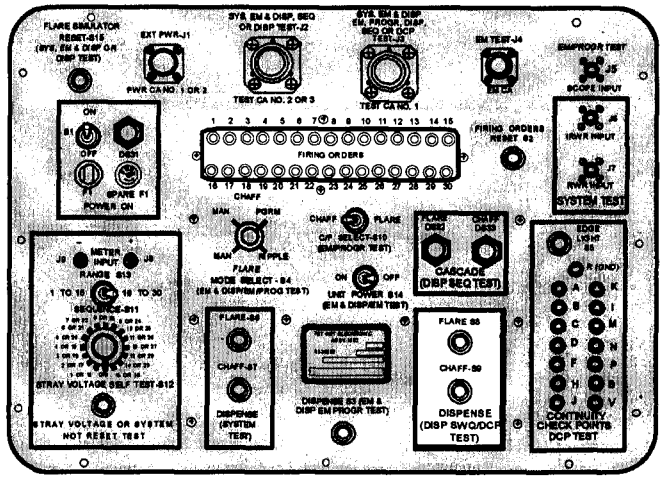


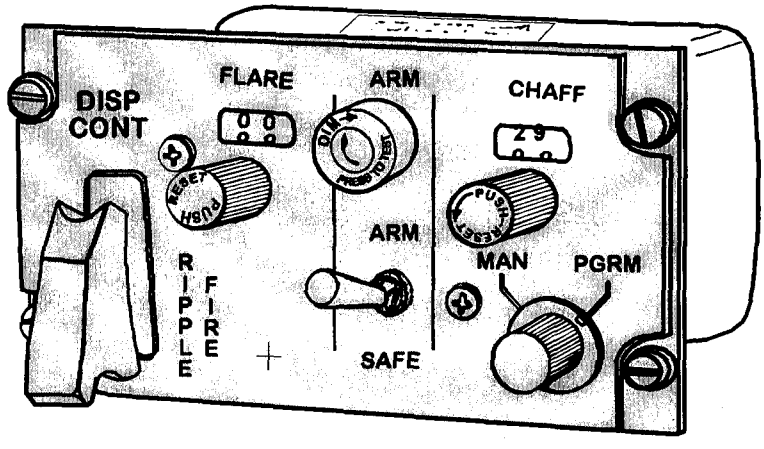
37. ON DCP, SET MAN-PGRM SWITCH TO PGRM POSITION.

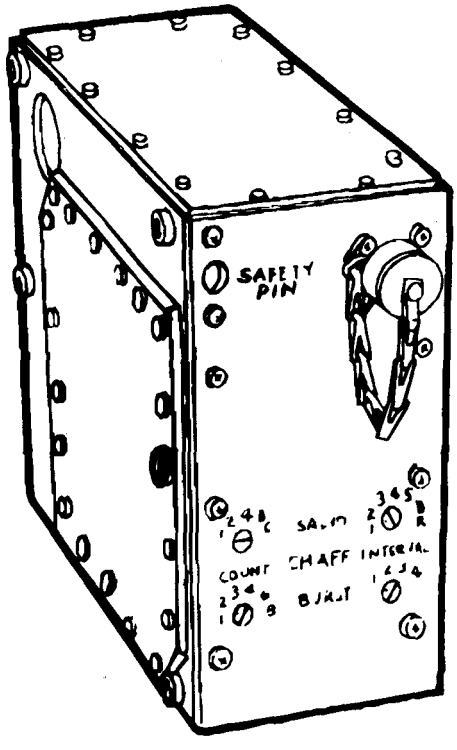


CHAFF DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

38. ON M92 TEST SET, PRESS CHAFF S3 DISPENSE (DISP/SEQ/DCP TEST) (SYSTEM TEST) BUTTON. ON DCP, CHAFF COUNTER READS 29. MULTIPLY COUNT SET ON SALVO BY THE COUNT SET ON BURST. SUBTRACT THAT AMOUNT FROM THE CHAFF COUNTER READING OF 29. ON M92 TEST SET, THE SAME NUMBER OF FIRING ORDER INDICATORS CHANGE FROM RED TO WHITE. REPEAT PROGRAM BY PRESSING CHAFF DISPENSE (SYSTEM TEST) BUTTON AGAIN UNTIL ALL FIRING ORDER INDICATORS CHANGE FROM RED TO WHITE. (IF NOT, REFER TO MALFUNCTION 29 IN TABLE 2-1.)





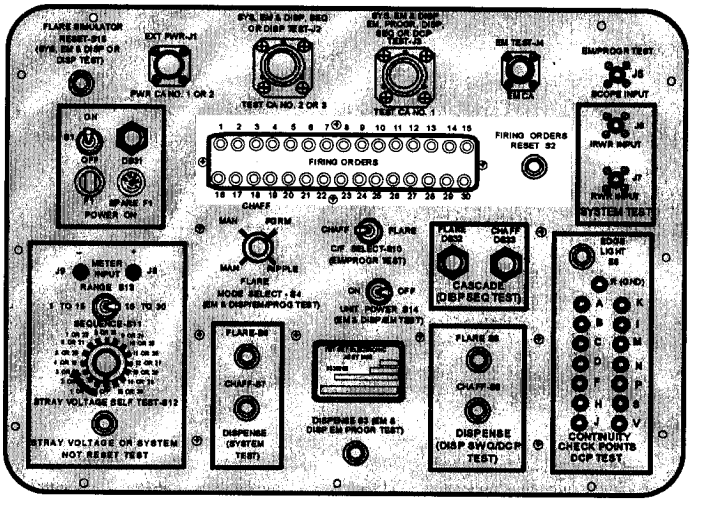


2-4. CHAFF DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

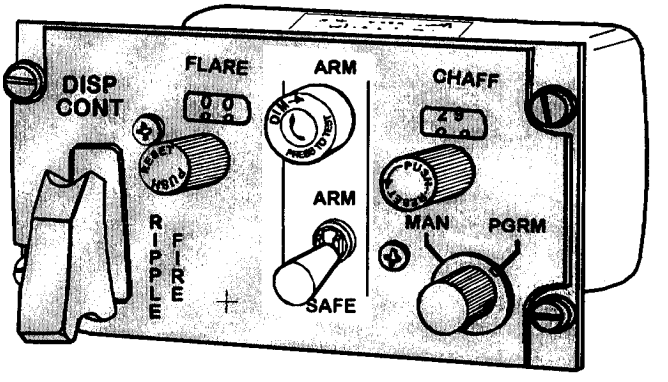
CHAFF DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

39. ON DISPENSER TEST ADAPTER ASSEMBLY, PRESS AND RELEASE MANUAL SYSTEM RESET SWITCH.

40. 0N M92 TEST SET, PRESS FIRING ORDER RESET BUTTON. FIRING ORDER INDICATORS NO. 1 THRU 30 CHANGE TO RED.

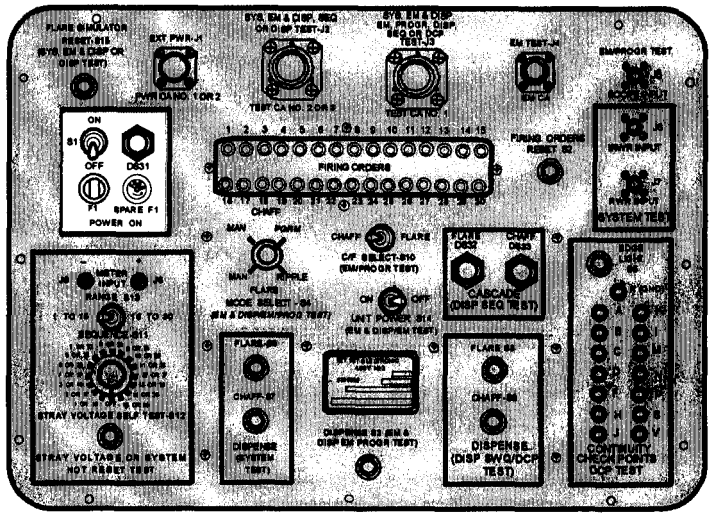


41. ON DCP, SET ARM-SAFE SWITCH TO SAFE POSITION, ARM LAMP GOES OUT. (IF NOT, REFER TO MALFUNCTION 27 IN TABLE 2-1.)



CHAFF DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

42. ON M92 TEST SET, SET POWER ON SWITCH TO OFF POSITION, POWER ON LAMP GOES OUT.



43. REINSTALL SYSTEM SAFETY PIN IN EM.

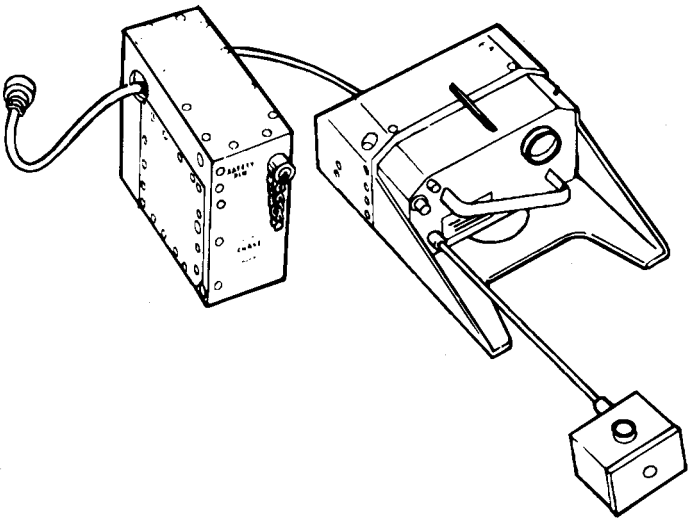
44. TURN OFF POWER AND DISCONNECT ALL CONNECTIONS ON POWER CABLE NO. 2 AND TEST CABLES NO. 1 AND 2.

2-4. CHAFF DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

CHAFF DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

45. DISCONNECT DISPENSER TEST ADAPTER ASSEMBLY FROM DISPENSER ASSEMBLY. DISCONNECT FLARE SIMULATOR ASSEMBLY FROM DISPENSER TEST ADAPTER ASSEMBLY.

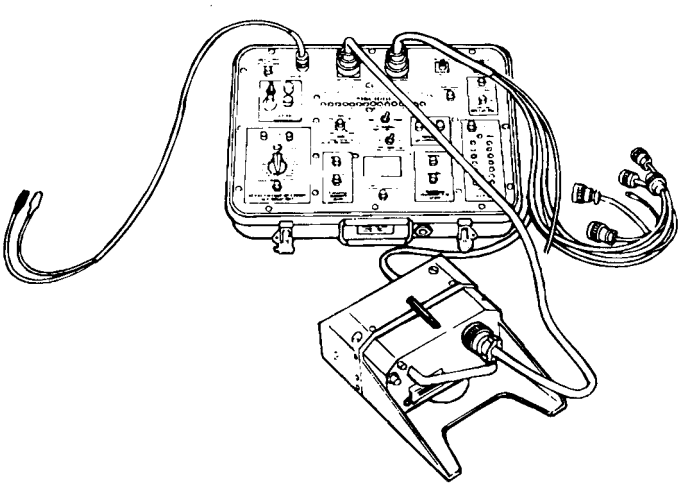
46. DISCONNECT P1 ON CABLE ASSEMBLY OF EM FROM A1 J1 ON DISPENSER ASSEMBLY.



47. DISCONNECT ALL CONNECTIONS ON POWER CABLE NO. 2 AND TEST CABLES NO. 1 AND 2.

48. DISCONNECT MULTIMETER (IF USED) FROM DISPENSER ASSEMBLY.

49. DISCONNECT DISPENSER TEST ADAPTER ASSEMBLY FROM DISPENSER ASSEMBLY.



CHAFF DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

50. DISCONNECT FLARE SIMULATOR ASSEMBLY FROM DISPENSER TEST ADAPTER ASSEMBLY.

NOTE

If failures are indicated during this test of the dispenser assembly, proceed to the electrical test of the sequencer assembly in paragraph 2-8.

51. RETURN ALL TEST CABLES, POWER CABLE, AND TEST ADAPTERS TO CARRYING CASE COVER OF M92 TEST SET.

52. CLOSE AND SECURE M92 TEST SET.

END OF TEST

2-5. FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH)

DESCRIPTION

This task covers: Flare dispenser assembly electrical test (bench).

INITIAL SETUP

Tools/Test and Support Equipment:
- Tool Kit, Electronic, Equipment, TK-105/G
- M92 Test Set
- Power Supply, 28 VDC
- Multimeter AN/PSM-45A

Personnel Required:
- MOS 68R

Equipment Conditions:
- On bench in shop.
- Bench power ready.

General Safety Instructions: Never work on electronic equipment unless there is another person nearby who is familiar with operation and hazards of this equipment and first aid. When aided by operator, technician must warn operator about dangerous area.

Power must not be applied to unit under test while test leads are being connected to or removed from unit assemblies/circuits under test.

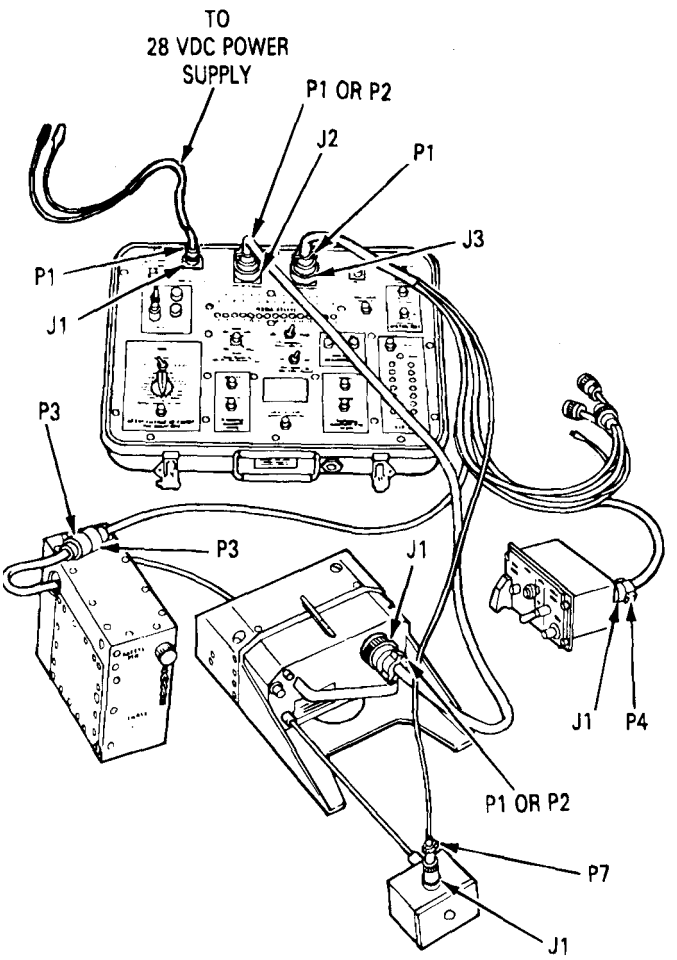
FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH)

NOTE

Refer to figures 2-1, 2-2, and 2-13 (para 2-3) for overall setup details.

1. REMOVE SYSTEM SAFETY PIN FROM EM.
2. ON M92 TEST SET, PLACE UNIT POWER SWITCH IN OFF POSITION.
3. SET C-F SELECTOR SWITCH TO “F” POSITION ON DISPENSER ASSEMBLY.

FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)



4. CONNECT PI ON CABLE ASSEMBLY OF EM TO A1 J1 ON BOTTOM OF DISPENSER ASSEMBLY.

5. ON M92 TEST SET, CONNECT PI ON TEST CABLE NO. 1 TO J3.

6. CONNECT P3 ON TEST CABLE NO. 1 TO P3 ON CABLE ASSEMBLY OF EM.

7. CONNECT P4 ON TEST CABLE NO. 1 TO J1 ON DCP.

8. CONNECT ALLIGATOR CLIPS (+ RED, - BLACK) ON POWER CABLE NO. 2 TO A 28 VDC POWER SUPPLY.

9. CONNECT PI ON POWER CABLE NO. 2 TO J1 ON M92 TEST SET.

10. CONNECT EITHER END (P1 OR P2) OF TEST CABLE NO. 2 TO J2 OF M92 TEST SET.

11. CONNECT OTHER END (P1 OR P2) OF TEST CABLE NO. 2 TO J1 OF DISPENSER TEST ADAPTER ASSEMBLY (P/N 9326211, PROVIDED WITH M92 TEST SET).

12. INSERT MOUNTING ROD OF FLARE SIMULATOR ASSEMBLY (P/N 9326117-1, PROVIDED WITH M92 TEST SET) INTO THE FACE PLATE OF DISPENSER TEST ADAPTER ASSEMBLY, WITH J1 ON FLARE SIMULATOR ASSEMBLY FACING UP. SECURE THUMBSCREW AT INTERCONNECTION.

13. CONNECT DISPENSER TEST ADAPTER ASSEMBLY TO BREECH OF DISPENSER ASSEMBLY. SECURE BOTH MOUNTING STUDS.

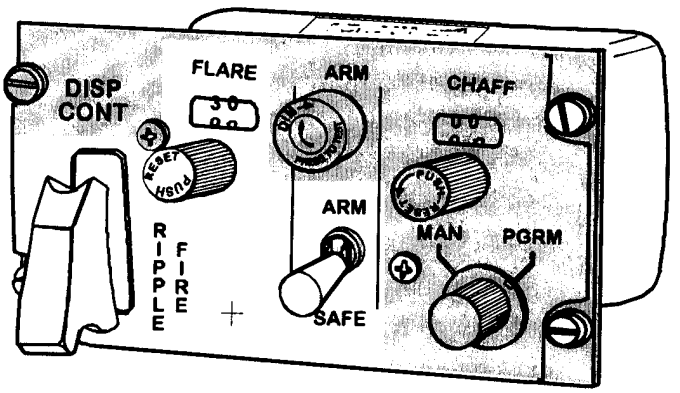
14. CONNECT P7 ON TEST CABLE NO. 1 TO J1 ON FLARE SIMULATOR ASSEMBLY. SUPPORT FLARE SIMULATOR ASSEMBLY WHEN MAKING CONNECTION.

2-5. FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

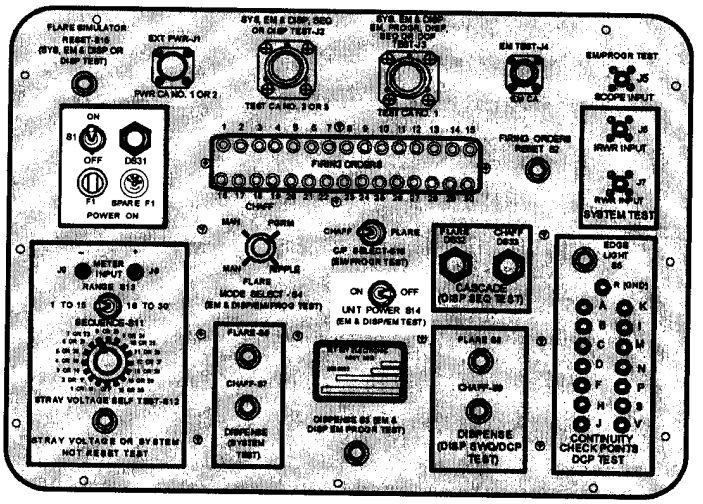
15. ON DCP, ENSURE ARM-SAFE SWITCH IS IN SAFE POSITION. SET FLARE COUNTER T0 30. ENSURE RIPPLE FIRE SWITCH GUARD IS IN DOWN POSITION.

16. ON DC POWER SUPPLY, SET POWER SWITCH TO ON POSITION.



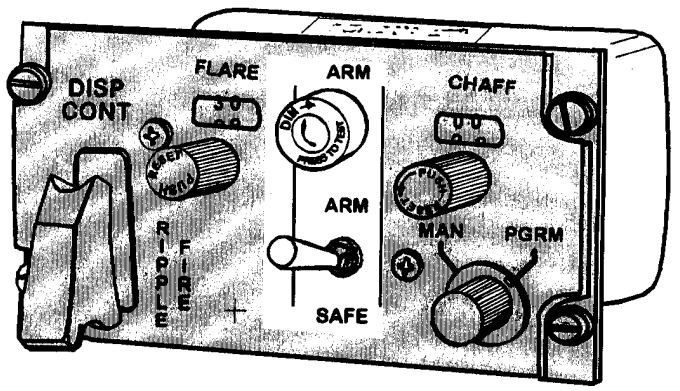
17. ON M92 TEST SET, PRESS POWER ON LAMP, LAMP LIGHTS. (IF LAMP DOESN'T LIGHT, REFER TO MALFUNCTION 17 IN TABLE 2-1.) RELEASE LAMP, LIGHT GOES OUT.

18. ON M92 TEST SET, SET POWER ON SWITCH TO ON POSITION. POWER ON LAMP LIGHTS.



19. ON DCP, PRESS ARM LAMP, ARM LAMP LIGHTS. (IF LAMP DOESN'T LIGHT, REFER TO MALFUNCTION 18 IN TABLE 2-1.) RELEASE ARM LAMP, ARM LAMP GOES OUT. REFER TO MALFUNCTION 27 TABLE 2-1, IF LIGHT DOES NOT GO OUT.

20. ON DCP, SET ARM-SAFE SWITCH TO ARM. ARM LAMP LIGHTS. (IF LAMP DOESN'T LIGHT, REFER TO MALFUNCTION 19 IN TABLE 2-1.)

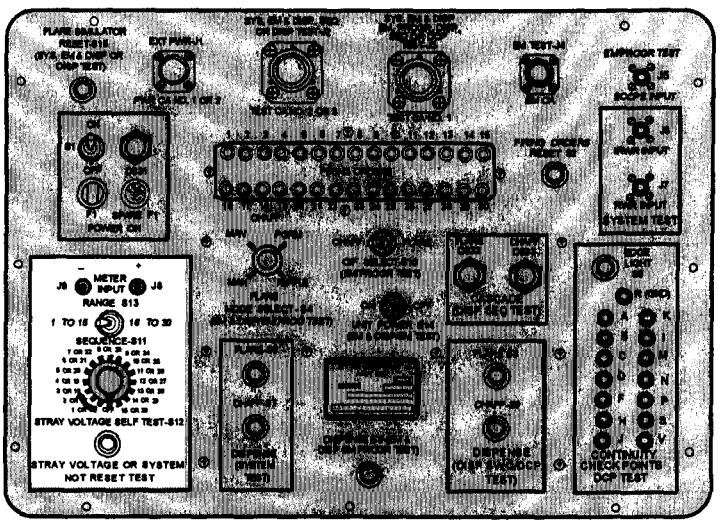


FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

21. PRESS AND RELEASE MANUAL SYSTEM ON DISPENSER TEST ADAPTERTORESET SYSTEM

22. PERFORM THE TESTS FOR STRAY VOLTAGE AND SYSTEM NOT RESET (PERFORM STEPS 23-33):

23. OBTAIN MULTIMETER (MODEL AN/USM-223 OR EQUIVALENT) AND CONNECT RED (+) LEAD OF MULTIMETER TO J8 0F M92 TEST SET AND BLACK (-) LEAD OF MULTIMETER TO J9 0F M92 TEST SET. SET MULTIMETER SCALE TO READ 28 VDC OR GREATER.



24. ON M92 TEST SET, SET RANGE SWITCH TO 1 TO 15 POSITION AND SEQUENCE SWITCH TO OFF.

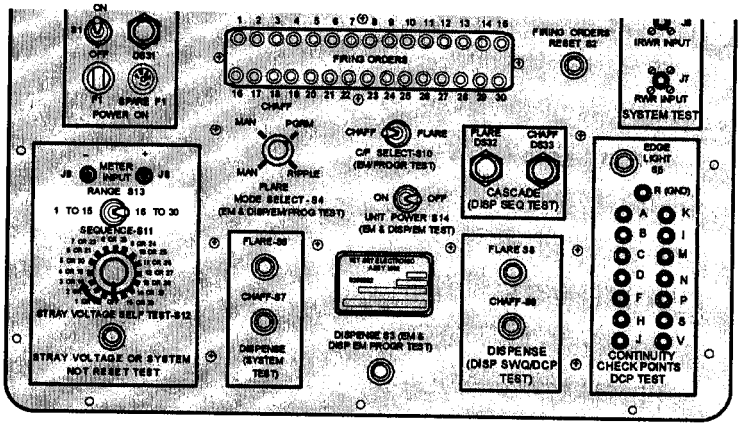
25. ON M92 TEST SET, PRESS STRAY VOLTAGE SELF TEST SWITCH, MULTIMETER READS 28 VDC (APPROXIMATELY). RE-LEASE STRAY VOLTAGE SELF TEST SWITCH.

26. ON M92 TEST SET, ROTATE SE-QUENCE SWITCH CLOCKWISE, PRESS STRAY VOLTAG E SWITCH AT EACH POSITION TO READ MULTIMETER, UNTIL THE SWITCH IS RETURNED TO THE OFF POSITION.IF THERE IS ANY READING ON THE MULTIMETER, REJECT THE M130 GENERAL PURPOSE DISPENSER SYSTEM FOR MAINTENANCE. (A READING NO GREATER THAN 0.01 VOLT CONTINUOUS, OR OF LESS THAN 1 VOLT FOR LESS THAN 3 SECONDS DURATION, SHALL NOT BE CAUSE FOR REJECTION.)

2-5. FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

27. ON M92 TEST SET, SET RANGE SWITCH TO 16 TO 30 AND REPEAT STEP 26.

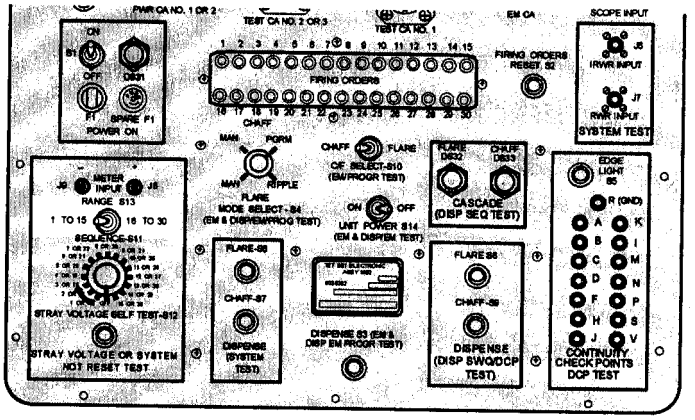


28. 0N M92 TEST SET, SET RANGE SWITCH TO 1 TO 15 POSITION.

CAUTION

On the M92 test set, do not press STRAY VOLTAGE SELF TEST switch during the following system not reset test.

29. SET MULTIMETER TO THE LOWEST DC VOLTAGE RANGE AND REPEAT STEP 25.

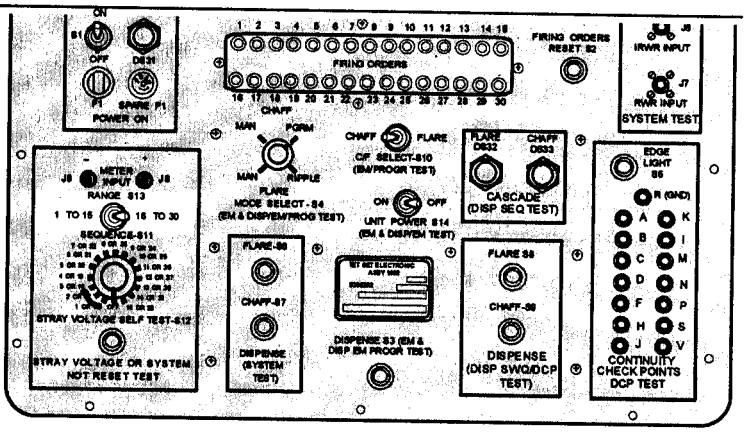


30. ON M92 TEST SET, SET RANGE SWITCH TO 16 TO 30 AND REPEAT STEP 26.

NOTE

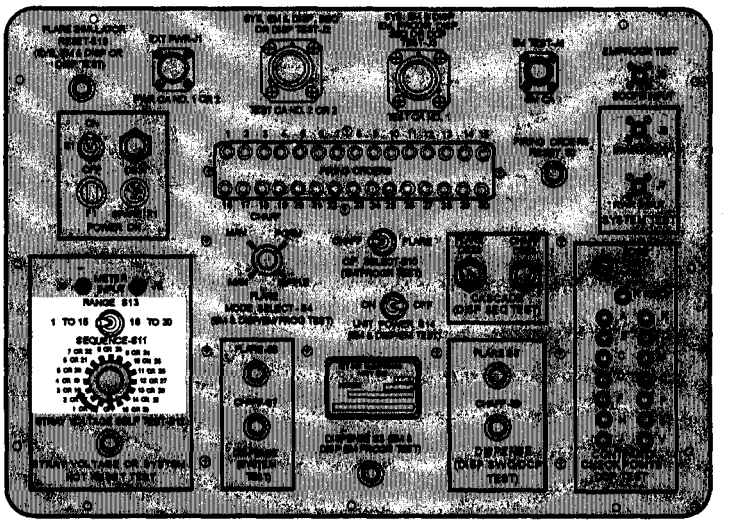
If there is a reading on the multimeter, reject the M130 general purpose dispenser system for maintenance.

31. SET MULTIMETER TO THE APPROPRIATE SCALE TO OBTAIN THE READINGS AS INDICATED IN STEP 32 BELOW.



FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

32. 0N M92 TEST SET, SET RANGE SWITCH TO 1 TO 15 POSITION.



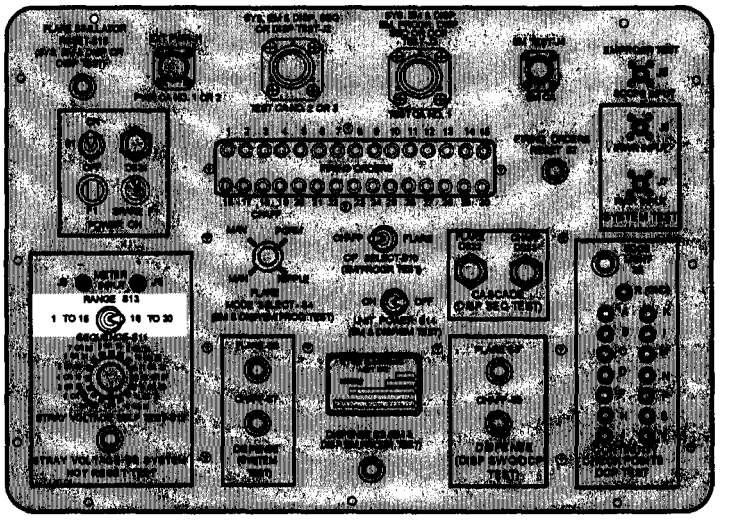
a. On M92 test set, rotate SEQUENCE switch clockwise, pausing at each position to read multimeter, until the switch is returned to the OFF position.

b. Multimeter should read 250 to 400 ohms in first position (number 1).

c. Multimeter should read 800 to 1000 ohms when in positions 2 through 15.

d. If multimeter reads 600 to 700 ohms at any position (2 through 15), press and release manual system reset switch on dispenser test adapter to reset system. Restart test (a. above).

33. ON M92 TEST SET, SET RANGE SWITCH TO 16 TO 30.



a. On M92 test set, rotate SEQUENCE switch clockwise, pausing at each position to read multimeter, until the switch is returned to the OFF position.

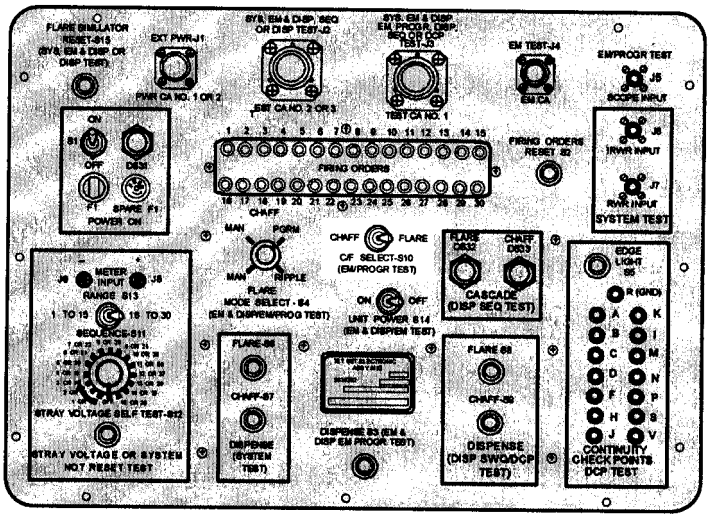
b. Multimeter should read 800 to 1000 ohms when in positions 16 through 30.

c. If multimeter reads 600 to 700 ohms at any position (16 through 30), press and release manual system reset switch on dispenser test adapter to reset system. Restart test (a. above).

2-5. FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

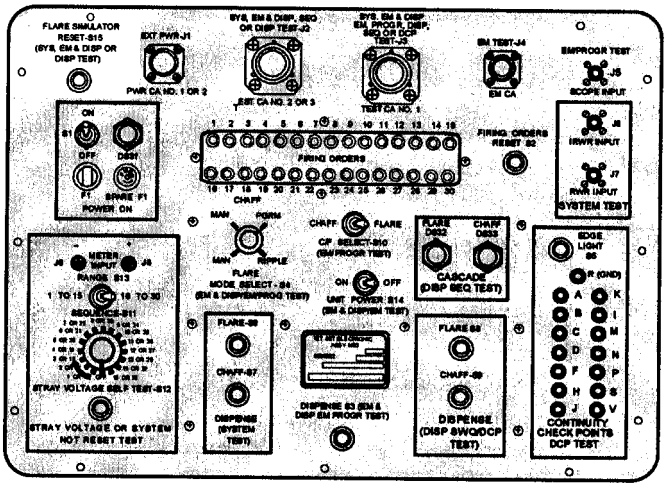
34. ON M92 TEST SET, SET C-F SELECT S10 (EM PROGR TEST) SWITCH TO FLARE.



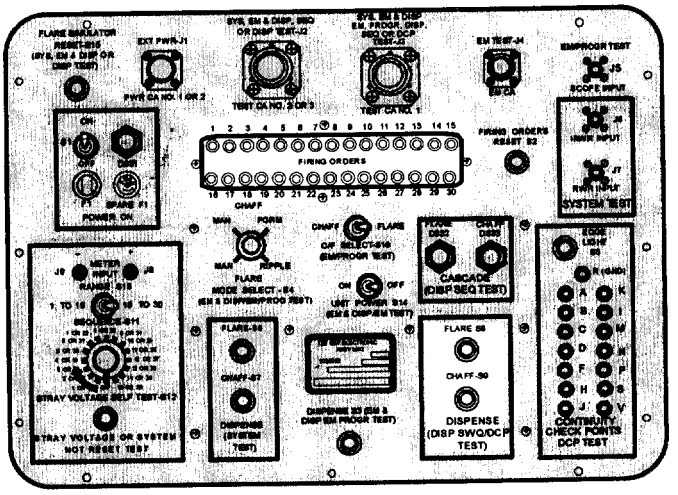
35. IF INDICATOR LAMP (AMBER) ON FLARE SIMULATOR ASSEMBLY IS NOT LIT, PRESS FLARE SIMULATOR RESET BUTTON ON M92 TEST SET AND HOLD DOWN APPROXIMATELY 10 SECONDS UNTIL THE INDICATOR LAMP ON FLARE SIMULATOR ASSEMBLY LIGHTS.

NOTE

Ensure that no cable or other object will block the flare simulator light from the flare sensor assembly.

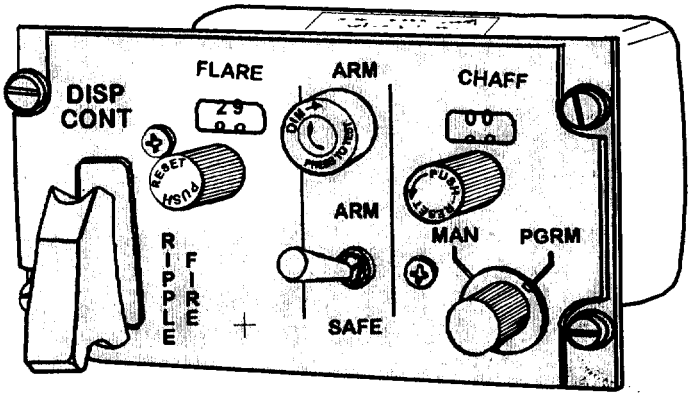


FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)



36. ON M92 TEST SET, PRESS FLARE S8 DISPENSE (DISP/SEQ/DCP TEST) BUTTON. FIRING ORDER INDICATOR NO. 1 CHANGES FROM RED TO WHITE, ON DCP, FLARE COUNTER READS 29. (IF NOT, REFER TO MAL-FUNCTIONS 20,21, AND 22 IN TABLE 2-1.)

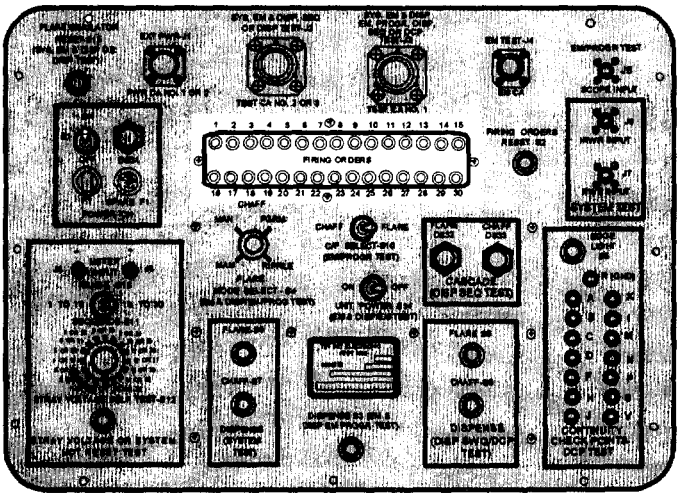
37, ON M92 TEST SET, AGAIN PRESS FLARE DISPENSE (SYSTEM TEST) BUTTON. FIRING ORDER INDICA-TORS NO. 2, 3, AND 4 CHANGE FROM RED TO WHITE. ON DCP, FLARE COUNTER READS 26. (IF NOT, REFER TO MALFUNCTION 8 IN TABLE 2-1 .)

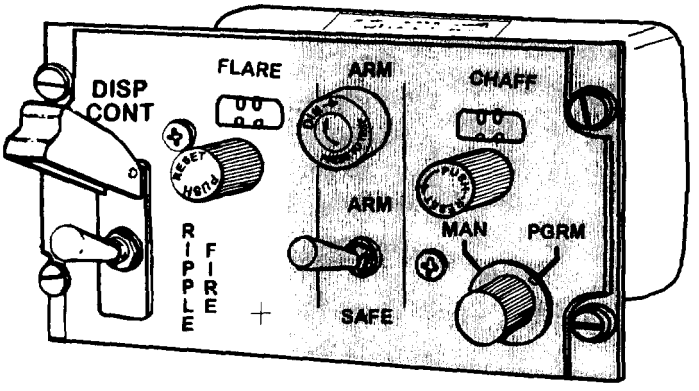


2-5. FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

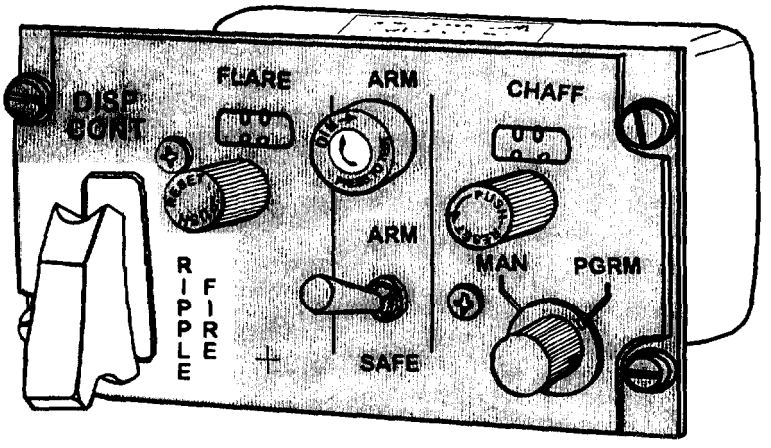
38. ON DCP, RAISE RIPPLE FIRE SWITCH GUARD AND PLACE SWITCH IN UP POSITION UNTIL FLARE COUNTER READS 00. ON M92 TEST SET, THE REMAINING FIRING ORDERS CHANGE FROM RED TO WHITE. (IF NOT, REFER TO MALFUNCTIONS 23 AND 26 IN TABLE 2-1.)





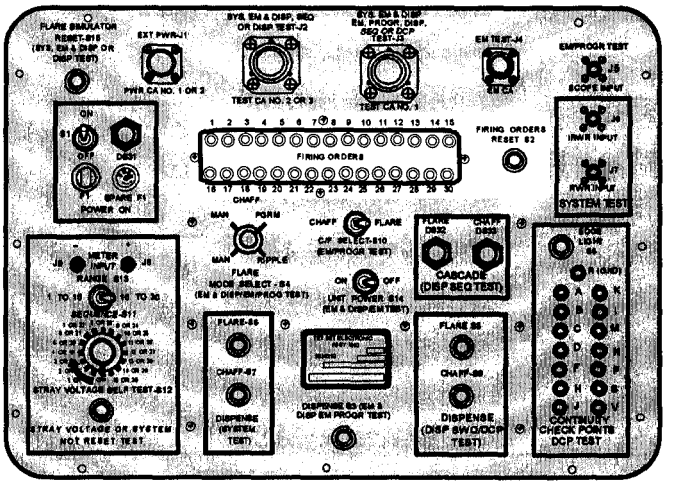
39. ON DCP, DEPRESS RIPPLE FIRE SWITCH GUARD TO DOWN POSITION.

40. ON DISPENSER TEST ADAPTER ASSEMBLY, PRESS AND RELEASE MANUAL SYSTEM RESET SWITCH.

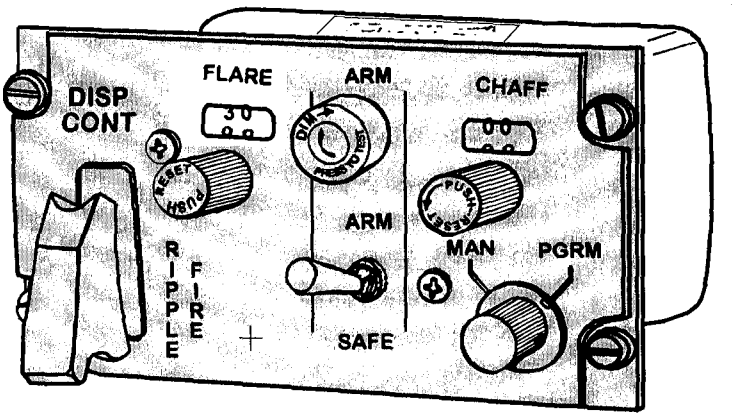


FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

41. ON M92 TEST SET, PRESS FIRING ORDER RESET BUTTON. FIRING ORDER INDICATORS NO. 1 THRU 30 CHANGE TO RED.



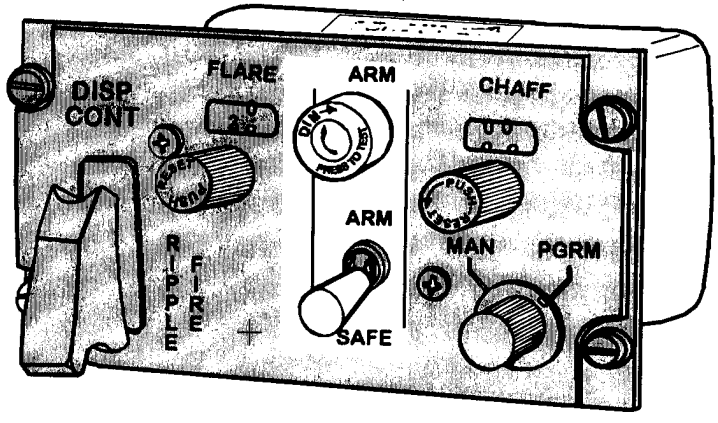
42. ON DCP, RESET FLARE COUNTER TO READ 30.



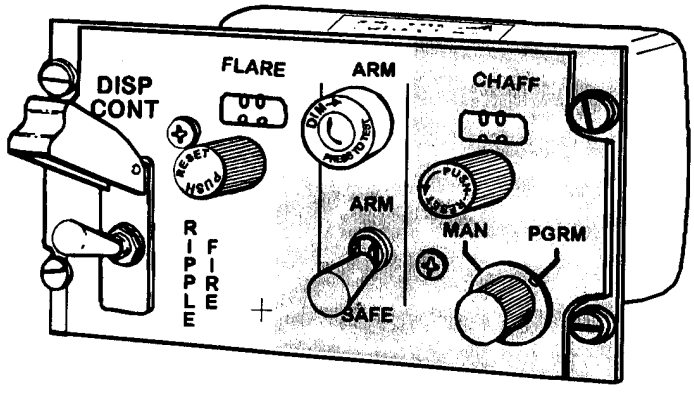
2-5. FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

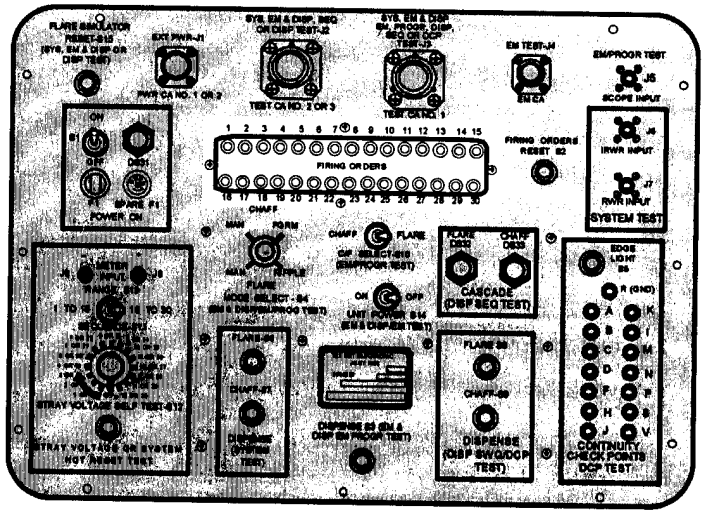
FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

43. ON DCP, SET ARM-SAFE SWITCH TO SAFE POSITION, ARM LAMP GOES OUT. (IF NOT, REFER TO MALFUNCTION 27 IN TABLE 2-1 .)



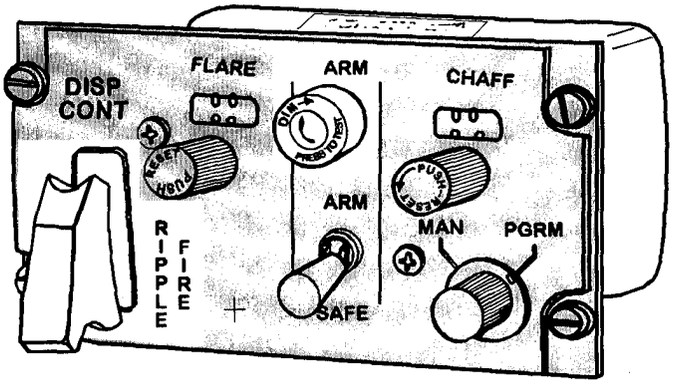
44. ON DCP, RAISE RIPPLE FIRE SWITCH GUARD AND PLACE SWITCH TO UP POSITION UNTIL FLARE COUNTER READS 00 AND ARM LAMP LIGHTS. ON M92 TEST SET, FIRING ORDER INDICATORS NO. 1 THRU 30 CHANGE FROM RED TO WHITE. (IF NOT, REFER TO MALFUNCTIONS 23 AND 26 IN TABLE 2-1.) (THIS TEST IS TO VERIFY THAT RIPPLE FIRE FEATURE IS OPERATIVE WHEN SYSTEM IS NOT IN THE ARMED MODE).



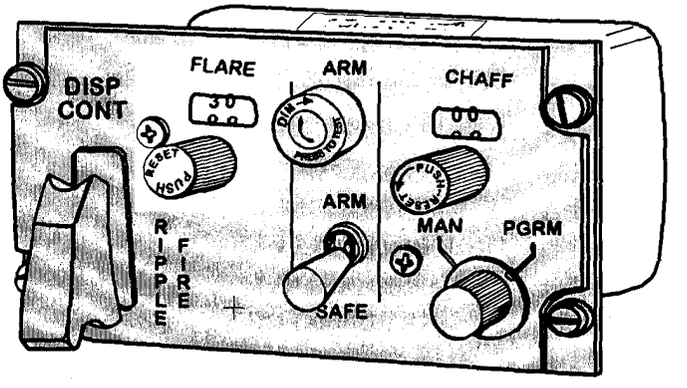


FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

45. ON DCP, DEPRESS RIPPLE FIRE SWITCH GUARD TO DOWN POSITION AND ARM LAMP GOES OUT. (IF NOT, REFER TO MALFUNCTION 27 IN TABLE 2-1.)



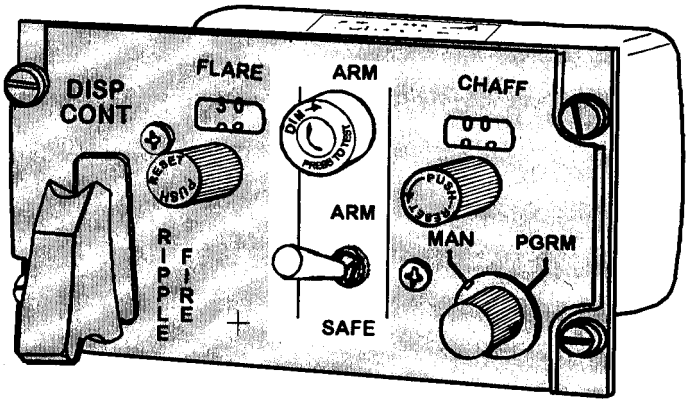
46. ON DCP, RESET FLARE COUNTER TO READ 30.



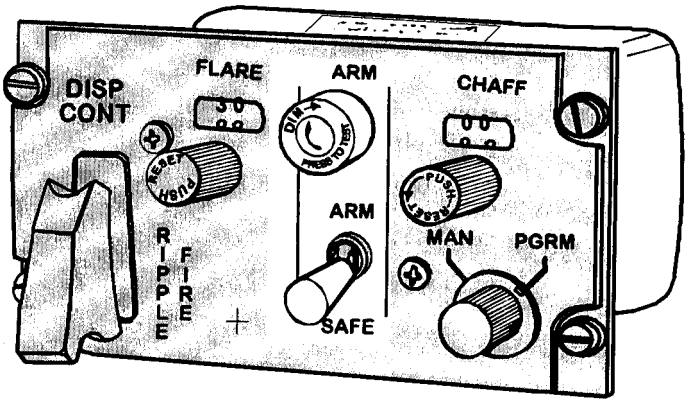
2-5. FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

47. ON DCP, SET ARM-SAFE SWITCH TO ARM POSITION. ARM LAMP LIGHTS. (IF LAMP DOESN'T LIGHT, REFER TO MALFUNCTION 19 IN TABLE 2-1 .)

48. ON DISPENSER TEST ADAPTER ASSEMBLY, PRESS AND RELEASE MANUAL SYSTEM RESET SWITCH.

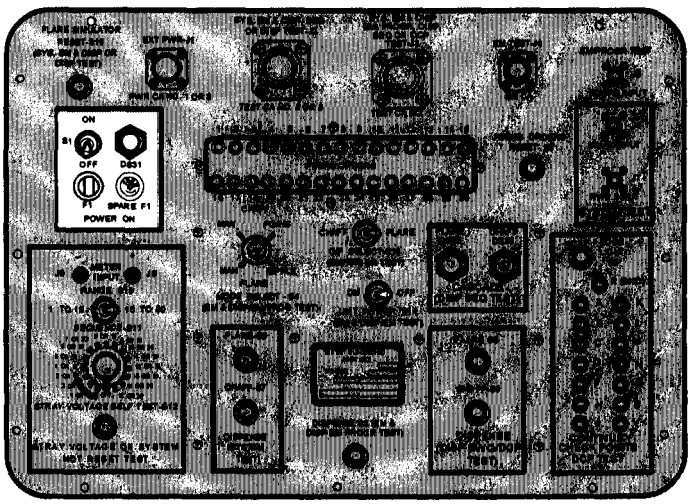


49. ON DCP, SET ARM-SAFE SWITCH TO SAFE POSITION. ARM LAMP GOES OUT. (IF NOT, REFER TO MALFUNCTION 27 IN TABLE 2-1.)



FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

50. ON M92 TEST SET, SET POWER ON SWITCH TO OFF POSITION, POWER ON LAMP GOES OUT.



51. INSTALL SYSTEM SAFETY PIN IN EM.

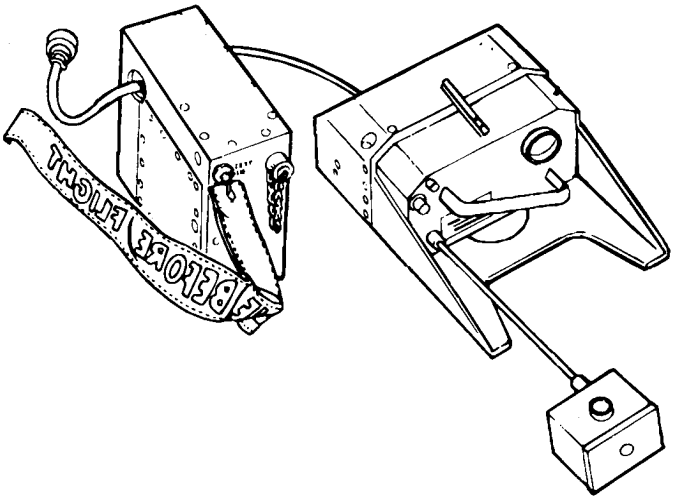
52. TURN OFF POWER AND DISCONNECT ALL CONNECTIONS ON POWER CABLE NO. 2 AND TEST CABLES NO. 1 AND 2.

2-5. FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

53. DISCONNECT DISPENSER TEST ADAPTER ASSEMBLY FROM DISPENSER ASSEMBLY. DISCONNECT FLARE SIMULATOR ASSEMBLY FROM DISPENSER TEST ADAPTER ASSEMBLY.

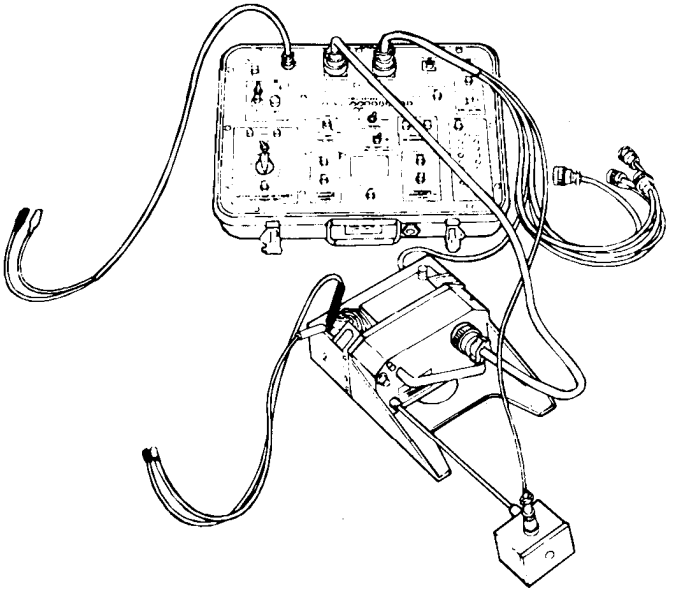
54. DISCONNECT PI ON CABLE ASSEMBLY OF EM FROM A1J1 ON DISPENSER ASSEMBLY.



55. DISCONNECT FLARE SIMULATOR ASSEMBLY FROM DISPENSER TEST ADAPTER ASSEMBLY.

NOTE

If failures are indicated during this test of the dispenser assembly, proceed to the electrical test of the sequencer assembly in para 2-8.



FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

56. RETURN ALL TEST CABLES, POWER CABLE, TEST ADAPTERS, AND FLARE SIMULATOR ASSEMBLY TO CARRYING CASE COVER OF M92 TEST SET.

57. CLOSE AND SECURE M92 TEST SET.

END OF TEST

2-6. DUAL CHAFF AND FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH)

DESCRIPTION

This task covers: DUAL Chaff and Flare dispenser assembly electrical test (bench).

INITIAL SETUP

Tools/Test and Support Equipment:
- Tool Kit, Electronic, Equipment, TK-105/G
- M92 Test Set
- Power Supply, 28 VDC
- Multimeter AN/PSM-45A

Personnel Required:
- MOS 68R

Equipment Conditions:
- On bench in shop.
- Bench power ready.

General Safety Instructions: Never work on electronic equipment unless there is another person nearby who is familiar with operation and hazards of this equipment and first aid. When aided by operator, technician must warn operator about dangerous area.

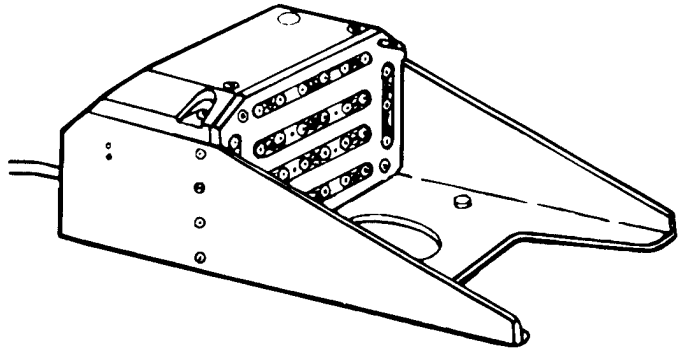
Power must not be applied to unit under test while test leads are being connected to or removed from unit assemblies/circuits under test.

DUAL CHAFF AND FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH)

NOTE

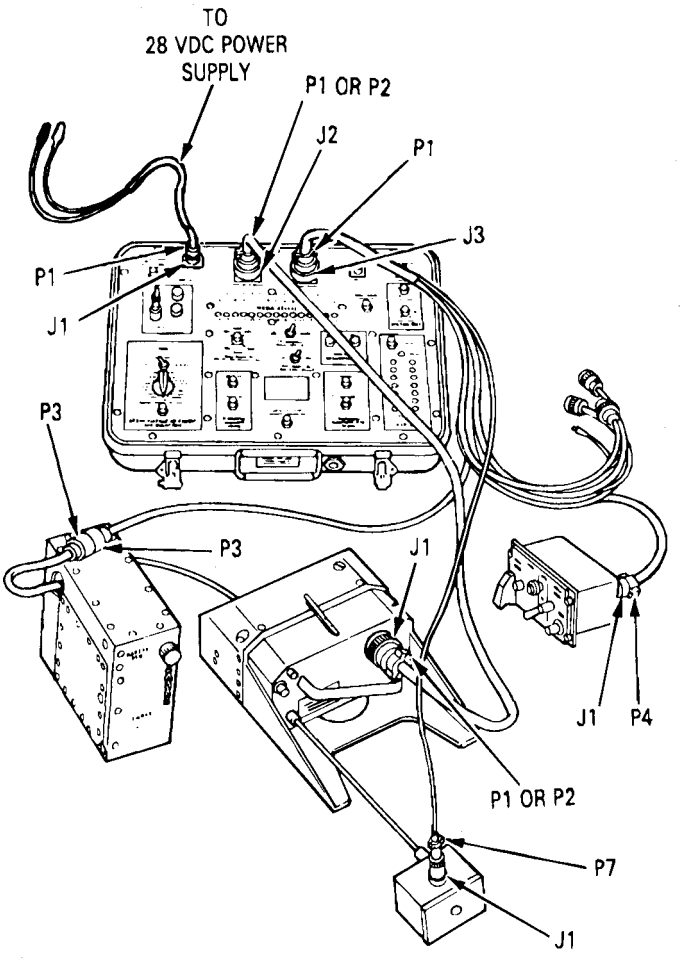
The following test of the dispenser assembly shall be conducted only if two dispenser assemblies are used with the same payload (chaff) prior to installing the M130 general purpose dispenser system on the aircraft. If failures are indicated in steps 58 or 59 below, the dispenser assembly shall be replaced.

Refer to figures 2-1, 2-2, and 2-13 (para 2-3) for overall setup details



DUAL CHAFF AND FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

1. REMOVE SYSTEM SAFETY PIN FROM EM.
2. ENSURE C-F SELECTOR SWITCH IS IN CORRECT POSITION FOR FLARE.
3. CONNECT P1 ON CABLE ASSEMBLY OF EM TO A1J1 ON BOTTOM OF DISPENSER ASSEMBLY NO. I.
4. ON M92 TEST SET, CONNECT PI ON TEST CABLE NO. 1 TO J3.
5. CONNECT P3 ON TEST CABLE NO. 1 TO P3 ON CABLE ASSEMBLY OF EM.
6. CONNECT P4 ON TEST CABLE NO. 1 TO J1 ON DCP.



2-6. DUAL CHAFF AND FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

DUAL CHAFF AND FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

7. CONNECT ALLIGATOR CLIPS (+RED, -BLACK) ON POWER CABLE NO. 2 TO A 28 VDC POWER SUPPLY.

8. CONNECT PI ON POWER CABLE NO. 2 TO J1 ON M92 TEST SET.

9. CONNECT EITHER END (P1 OR P2) OF TEST CABLE NO. 2 TO J2 OF M92 TEST SET.

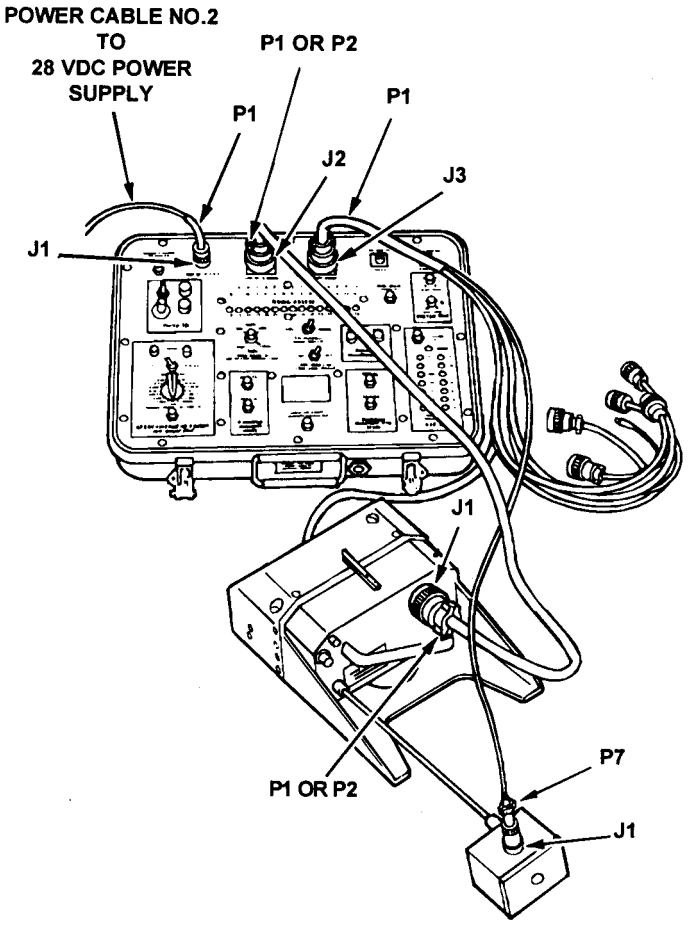
10. CONNECT OTHER END (P1 OR P2) OF TEST CABLE NO. 2 TO J1 OF DISPENSER TEST ADAPTER ASSEMBLY (P/N 9326211, PROVIDED IN M92 TEST SET).

11. INSERT MOUNTING ROD OF FLARE SIMULATOR ASSEMBLY (P/N 9326117-1, PROVIDED WITH M92 TEST SET) INTO THE FACE PLATE OF DISPENSER TEST ADAPTER ASSEMBLY, WITH J1 ON FLARE SIMULATOR ASSEMBLY FACING UP. SECURE THUMB-SCREWAT INTERCONNECTION.

12. CONNECT DISPENSER TEST ADAPTER ASSEMBLY TO BREECH OF DISPENSER ASSEMBLY NO. 1. SECURE BOTH MOUNTING STUDS.

13. CONNECT P7 ON TEST CABLE NO. 1 TO J1 ON FLARE SIMULATOR ASSEMBLY. SUPPORT FLARE SIMULATOR ASSEMBLY WHEN CONNECTION.

14. CONNECT P5 OF TEST CABLE NO. 1 TO A1J1 ON BOTTOM OF DISPENSER ASSEMBLY NO. 2. ENSURE C-F SELECTOR IS IN THE COORECT POSITION FOR CHAFF.



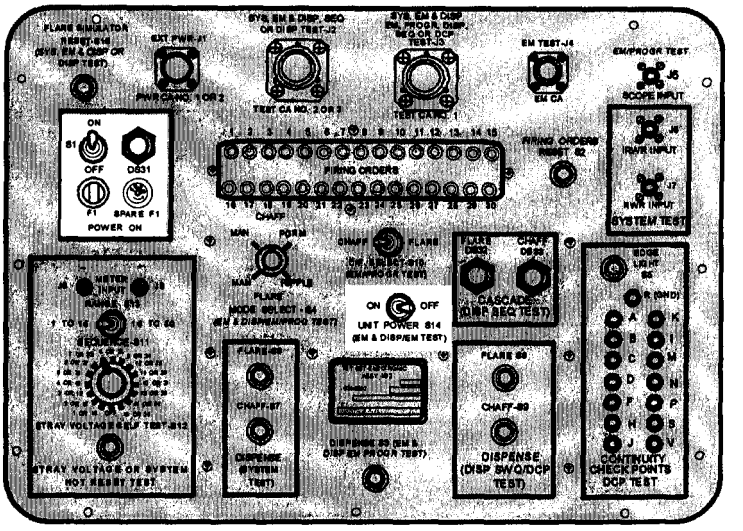
DUAL CHAFF AND FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

15. ON DC POWER SUPPLY, SET POWER SWITCH TO ON POSITION.

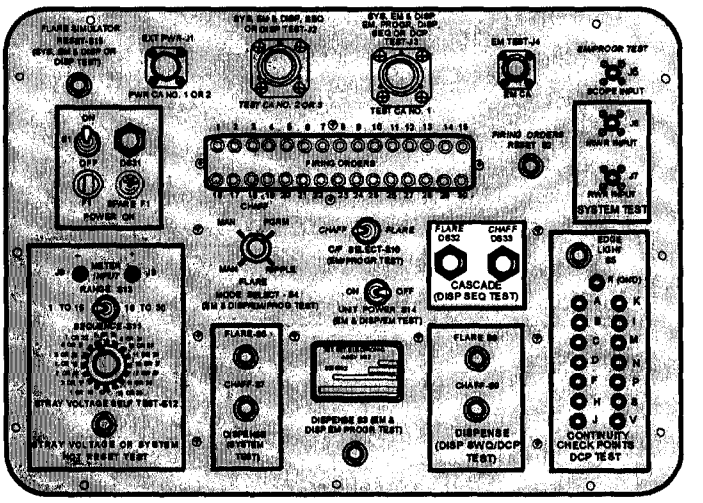
16. ON M92 TEST SET, PRESS POWER ON LAMP, LAMP LIGHTS. (IF LAMP DOESN'T LIGHT, REFER TO MALFUNCTION 17 IN TABLE 2-1.) RELEASE LAMP, LAMP GOES OUT.

17. ON M92 TEST SET, SET UNIT POWER SWITCH TO ON POSITION.

18. ON DCP, SET SAFE/ARM SWITCH TO ARM POSITION. POWER ON LAMP LIGHTS.



19. ON M92 TEST SET, PRESS CHAFF CASCADE LAMP, LAMP LIGHTS. RELEASE LAMP, LIGHT GOES OUT.

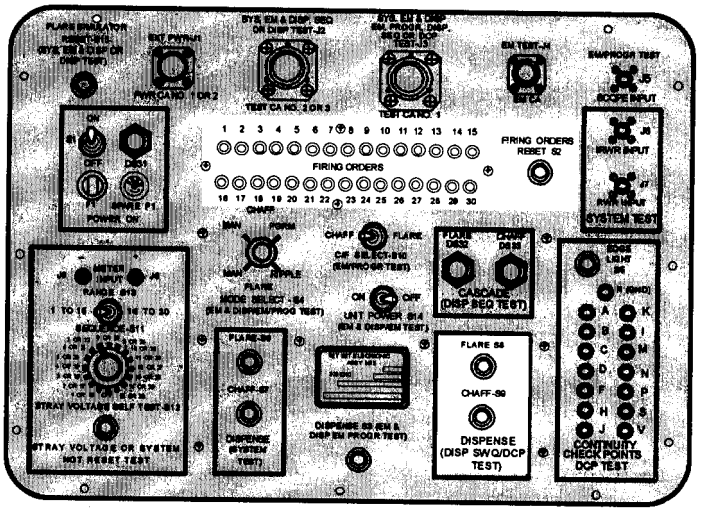


2-6. DUAL CHAFF AND FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

DUAL CHAFF AND FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

20. ON M92 TEST SET, PRESS FIRING ORDER RESET BUTTON. FIRING ORDER INDICATORS NO. 1 THRU 30 CHANGE TO RED.

21. SET CHAFF COUNTER TO 30 ON M92 TEST SET, REPEATEDLY PRESS CHAFF DISPENSE S9 (DISP/SEQ/DCP TEST) BUTTON, ENSURE CHAFF COUNTER READS 00

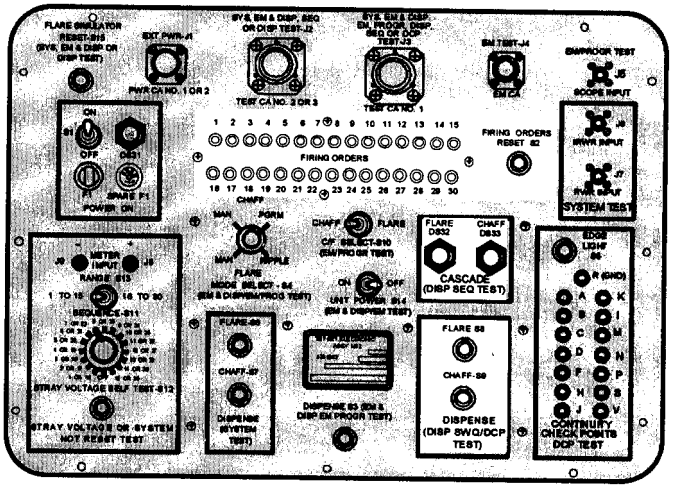


22. SET CHAFF COUNTER TO 30 ON M92 TEST SET, REPEATEDLY PRESS FLARE DISPENSE S8 (DISP/SEQ/DCP TEST) BUTTON, FIRING ORDER INDICATORS CHANGE FROM RED TO WHITE FOR EACH PRESS OF THE BUTTON UNTIL FIRING ORDER INDICATORS NO. 1 THRU 30 ARE WHITE. ENSURE FLARE COUNTER READS 00

23. ON DISPENSER TEST ADAPTER ASSEMBLY, PRESS AND RELEASE MANUAL SYSTEM RESET SWITCH.

24. DEPRESS RESET PLUNGER ON DISPENSER ASSEMBLY NO. 2 BREECH PLATE.

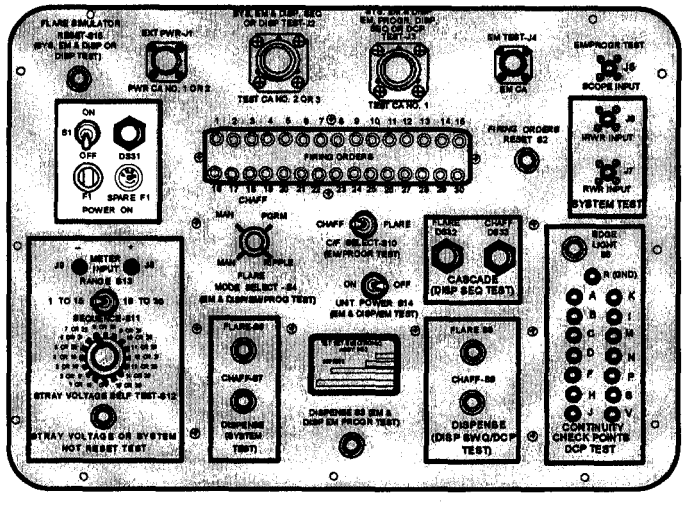
25. ON M92 TEST SET, PRESS FIRING ORDER RESET BUTTON. FIRING ORDER INDICATORS NO. 1 THRU 30 CHANGE TO RED.



DUAL CHAFF AND FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

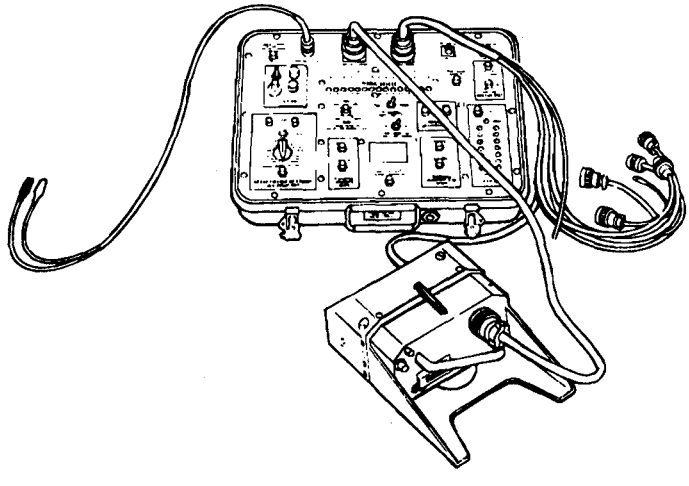
26. ON DCP SET ARM/SAFE SWITCH TO SAFE.

27. ON M92 TEST SET, SET POWER ON SWITCH TO OFF POSITION. POWER ON LAMP GOES OUT.



28. DISCONNECT ALL CONNECTIONS ON POWER CABLE NO. 2 AND TEST CABLES NO. 1 AND 2.

29. DISCONNECT DISPENSER TEST ADAPTER ASSEMBLY FROM DISPENSER ASSEMBLY.



2-6. DUAL CHAFF AND FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

DUAL CHAFF AND FLARE DISPENSER ASSEMBLY ELECTRICAL TEST (BENCH) (cont)

NOTE

If failures are indicated during this test of the dispenser assembly, proceed to the electrical test of the sequencer assembly in paragraph 2-8.

30. RETURN ALL TEST CABLES, POWER CABLE, AND TEST ADAPTERS TO CARRYING CASE COVER OF M92 TEST SET.

31. CLOSE AND SECURE M92 TEST SET.

END OF TEST

2-7. ELECTRONICS MODULE ASSEMBLY/PROGRAMMER MODULE ELECTRICAL TEST

DESCRIPTION

This task covers: Electronics module assembly/programmer module electrical test.

INITIAL SETUP

Tools/Test and Support Equipment:
- Tool Kit, Electronic, Equipment, TK-105/G
- M92 Test Set
- Power Supply, 28 VDC
- Oscilloscope OS-288/G

Personnel Required:
- MOS 68R

Equipment Conditions:
- On bench in shop.
- Bench power ready

General Safety Instructions: Never work on electronic equipment unless there is another person nearby who is familiar with operation and hazards of this equipment and first aid. When aided by operator, technician must warn operator about dangerous area.

Power must not be applied to unit under test while test leads are being connected to or removed from unit assemblies/circuits under test.

ELECTRONICS MODULE ASSEMBLY/PROGRAMMER MODULE ELECTRICA TEST

NOTE

Refer to figures 2-5, 2-6, 2-13, and table 2-2 (para 2-3) for overall setup details.

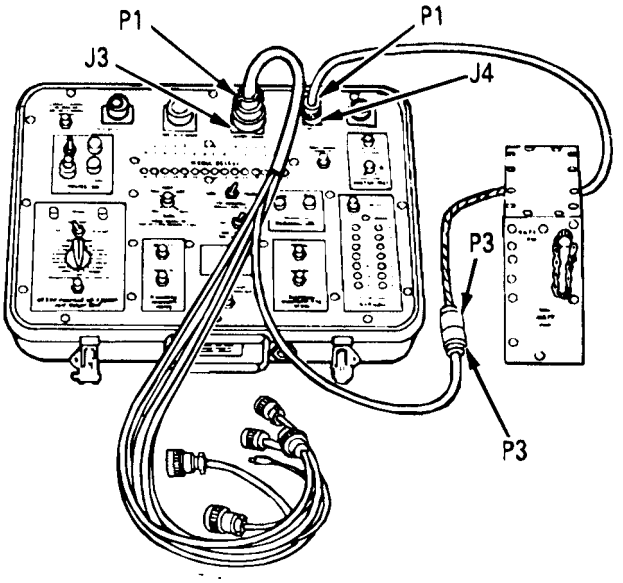
A dispenser control panel may be connected to P4 of test cable no. 1 so that the counters may be used to keep an account of the firing pulses in addition to the oscilloscope readings during the following procedures. The ARM-SAFE switch should be in the ARM position with the ARM lamp lit.

2-7. ELECTRONICS MODULE ASSEMBLY/PROGRAMMER MODULE ELECTRICAL TEST (cont)

ELECTRONICS MODULE ASSEMBLY/PROGRAMMER MODULE ELECTRICAL TEST (cont)

1. REMOVE SYSTEM SAFETY PIN FROM EM.

2. ON M92 TEST SET, CONNECT P1 ON TEST CABLE NO. 1 TO J3 OF M92 TEST SET.



NOTE

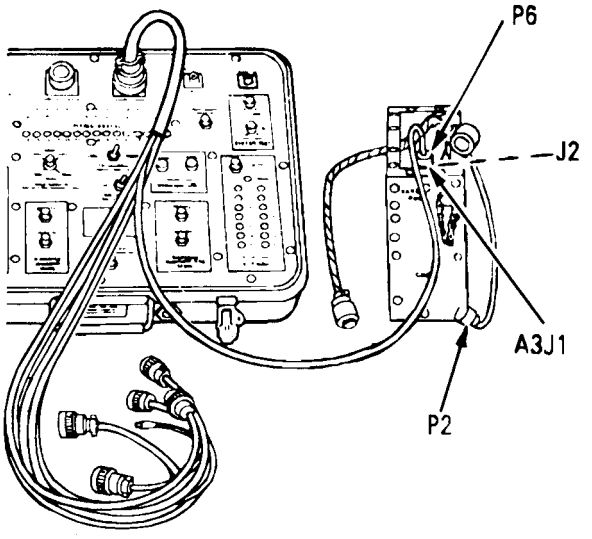
Perform hookups in steps 3 and 4 if testing the entire electronics module assembly. Perform hookups in steps 5 and 6 if testing only the programmer module.

3. CONNECT P3 ON TEST CABLE NO. 1 TO P3 ON CABLE ASSEMBLY OF EM.

4. CONNECT PI OF CABLE ASSEMBLY OF EM TO J4 OF M92 TEST SET.

CAUTION

Testing of the programmer module may be performed with the components removed as a unit from the programmer housing. However, ensure that no metallic objects come into contact with components which could short them out.



5. REMOVE TOP COVER AND DISCONNECT P2 ON CABLE ASSEMBLY ON EM FROM A3J1 OF PROGRAMMER MODULE.

6. CONNECT P6 ON TEST CABLE NO. 1 TO A3J1 ON PROGRAMMER MODULE.

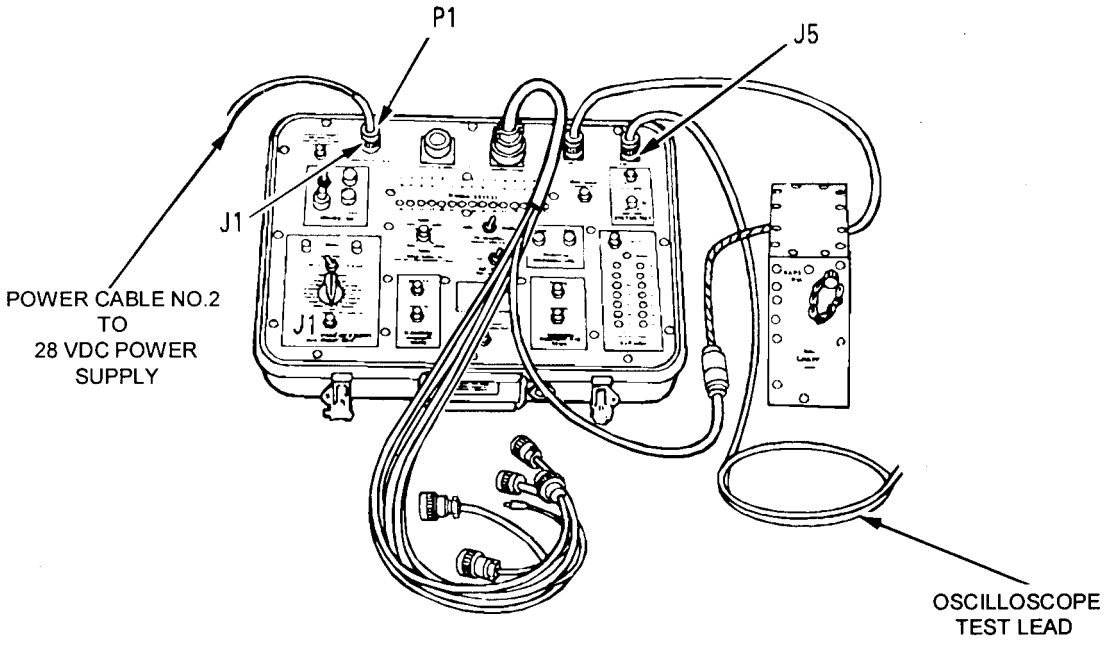
ELECTRONICS MODULE ASSEMBLY/PROGRAMMER MODULE ELECTRICAL TEST (cont)

7. CONNECT OSCILLOSCOPE TO SCOPE INPUT, J5, ON M92 TEST SET.

8. CONNECT ALLIGATOR CLIPS (+ RED, - BLACK) ON POWER CABLE NO, 2 TO A 28 VDC POWER SUPPLY.

9. CONNECT P1 ON POWER CABLE NO. 2 TO J1 ON M92 TEST SET.

10. ON DC POWER SUPPLY, SET POWER SWITCH TO ON POSITION.

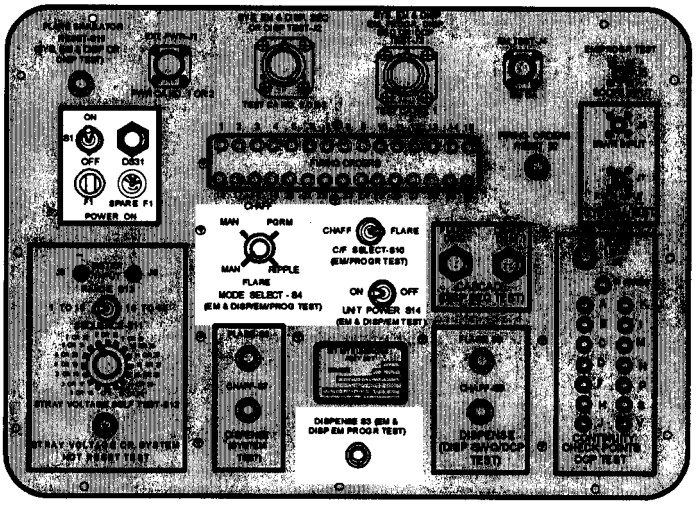


2-7. ELECTRONICS MODULE ASSEMBLY/PROGRAMMER MODULE ELECTRICAL TEST (cont)

ELECTRONICS MODULE ASSEMBLY/PROGRAMMER MODULE ELECTRICAL TEST (cont)

11. ON M92 TEST SET, PRESS POWER ON LAMP, LAMP LIGHTS. RELEASE LAMP, LIGHT GOES OUT. ENSURE UNIT POWER S14 SWITCH IS IN OFF POSITION.

12. SET POWER ON SWITCH TO ON POSITION, POWER ON LAMP LIGHTS. (IF LAMP DOESN'T LIGHT, REFER TO MALFUNCTION 17 IN TABLE 2-1 AND TM 9-4940-497-13&P.)



13. ROTATE MODE SELECT SWITCH TO FLARE, MAN POSITION.

14. SET C-F SELECT S10 SWITCH TO FLARE POSITION.

15. SET UNIT POWER S14 SWITCH TO ON POSITION.

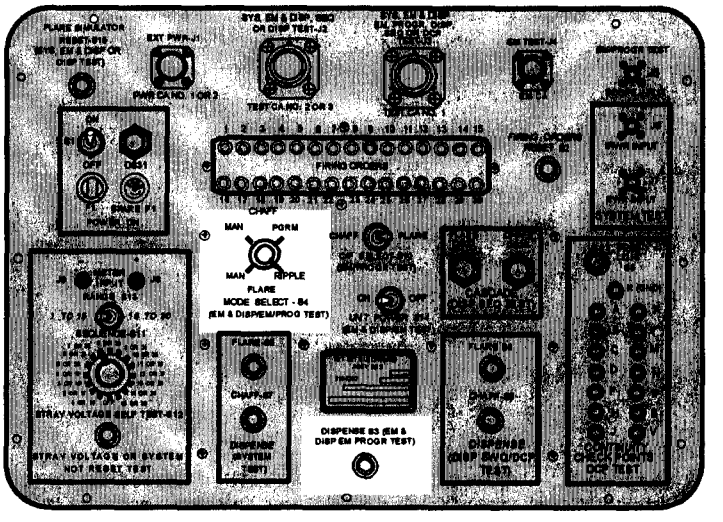
16. TURN ON OSCILLOSCOPE AND SET VOLTAGE SETTING TO ACCEPT PULSE AMPLITUDE OF 28 ±4 VDC; TIME/DIVISION SETTING - OPTION OR ADJUST EACH MEASUREMENT TO BEST POSSIBLE READING; TRIGGER MODE TO INTERNAL/NORMAL; TRIGGER SLOPE TO POSITIVE; COUPLING TO DC.

17. ON M92 TEST SET, DEPRESS DISPENSE S3 BUTTON. THREE SQUARE WAVES APPEAR ON OSCILLOSCOPE EACH WITH PULSE WIDTH OF 45 ± 10 MILLISEC PULSE WITH AN AMPLITUDE OF 28 ±4 VDC AND AN OFF TIME OF 25 MILLISEC MINIMUM AND 75 ±10 MILLISEC TIME BETWEEN LEADING EDGE OF EACH PULSE. (IF TEST FAILS REFER TO MALFUNCTION 1 TABLE 2-1).

ELECTRONICS MODULE ASSEMBLY/PROGRAMMER MODULE ELECTRICAL TEST (cont)

18. SET MODE SELECT SWITCH TO FLARE RIPPLE POSITION.

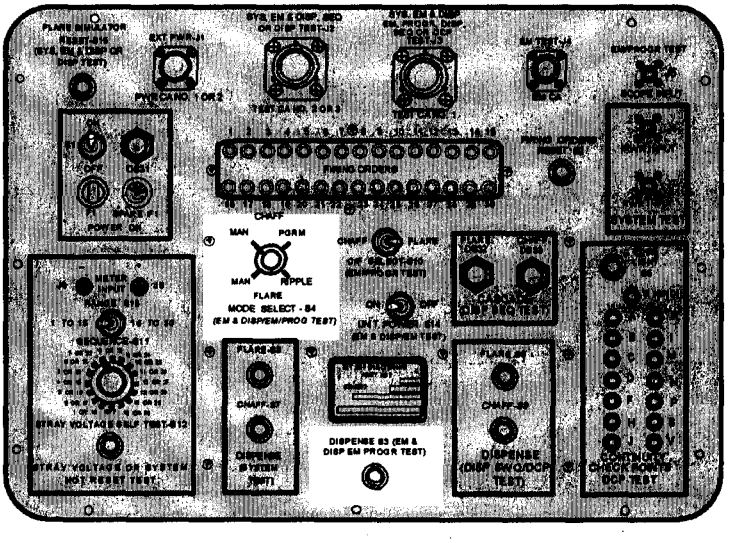
19. DEPRESS AND HOLD DISPENSE S3 BUTTON. A CONTINUOUS SQUARE WAVE WITH PULSE AMPLITUDE OF 28 ±4 VDC, PULSE WIDTH OF 55 ±10 MILLISEC, OFF TIME OF 45 ±10 MILLISEC, AND TIME BETWEEN LEADING EDGES OF EACH PULSE IS 100 ±2O MILLISEC WILL APPEAR ON THE SCREEN. (IF TEST FAILS, REFER TO MALFUNCTION 3 TABLE 2-1).



20. SET MODE SELECT S4 SWITCH TO CHAFF, MAN POSITION.

21. MOMENTARILY DEPRESS DISPENSE S3 BUTTON. A FIRE PULSE WILL APPEAR ON SCREEN.

22. ON OSCILLOSCOPE, ADJUST TIME/DIVISION SETTING TO BEST POSSIBLE READING, IF REQUIRED.



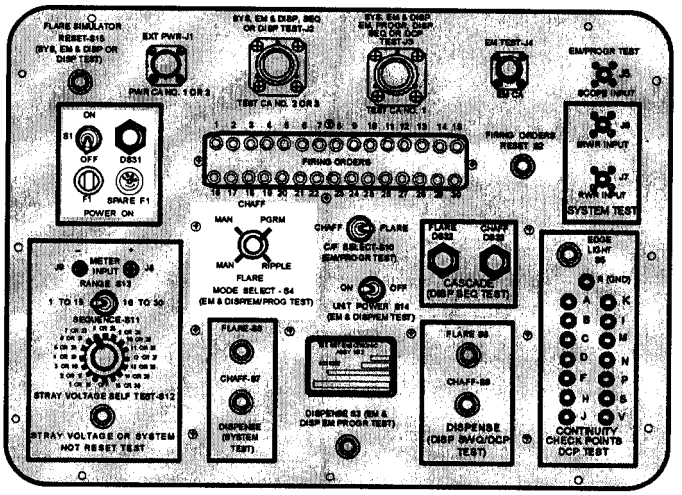
2-7. ELECTRONICS MODULE ASSEMBLY/PROGRAMMER MODULE ELECTRICAL TEST (cont)

ELECTRONICS MODULE ASSEMBLY/PROGRAMMER MODULE ELECTRICAL TEST (cont)

23. SET MODE SELECT S4 SWITCH TO CHAFF, PGRM POSITION.

NOTE

CHAFF COUNT setting (C) on the EM indicates continuous programs; to stop the programs place the POWER ON switch in the OFF position. CHAFF INTERVAL setting (R) on the EM indicates random timing (pattern of 4-3-5-2 seconds).



24. IN A SIMILAR MANNER TO THE PROCEDURES IN STEPS 15 THRU 21 ABOVE, CHECK OUT THE PROGRAM MODE AND ENSURE THAT IT AGREES WITH TABLE 2-2 (PARA 2-3) OR IS IN ACCORDANCE WITH THE BURST, SALVO PROGRAM SET ON THE EM.

25. ON M92 TEST SET, SET POWER ON SWITCH TO OFF POSITION. POWER ON LAMP GOES OUT.

26. REINSTALL SAFETY PIN IN EM.

27. TURN OFF POWER.

28. SET ALL SWITCHES TO OFF POSITION.

29. DISCONNECT ALL TEST CABLES.

30. DISCONNECT OSCILLOSCOPE FROM M92 TEST SET.

31. RETURN ALL TEST CABLES TO CARRYING CASE COVER OF M92 TEST SET.

32. CLOSE AND SECURE M92 TEST SET.

END OF TEST

2-8. SEQUENCER ASSEMBLY ELECTRICAL TEST

DESCRIPTION

This task covers: Sequencer assembly electrical test.

INITIAL SETUP

Tools/Test and Support Equipment:
Tool Kit, Electronic, Equipment, TK-105/G
M92 Test Set
Power Supply, 28 VDC

Personnel Required:
MOS 68R

Equipment Conditions:
On bench in shop.
Bench power ready.

General Safety Instructions: Never work on electronic equipment unless there is another person nearby who is familiar with operation and hazards of this equipment and first aid. When aided by operator, technician must warn operator about dangerous area.

Power must not be applied to unit under test while test leads are being connected to or removed from unit assemblies/circuits under test.

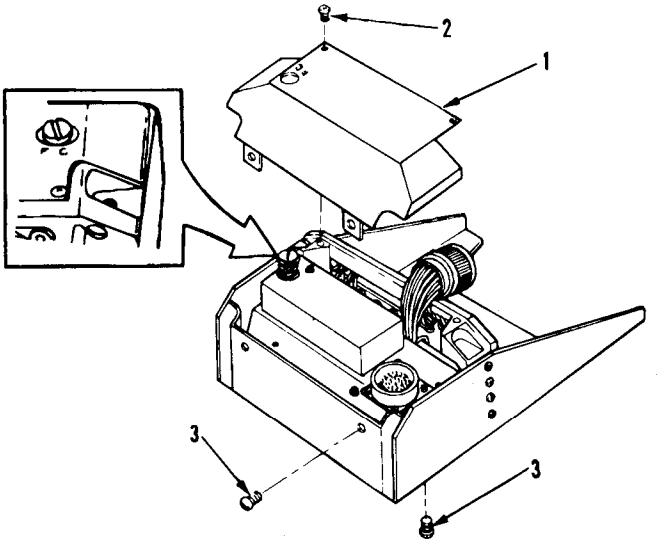
SEQUENCER ASSEMBLY ELECTRICAL TEST

NOTE

When disassembly is required to perform any of the test procedures, refer to appropriate maintenance paragraphs for applicable procedures.

If Sequencer assembly fails any of the following tests, refer to table 2-1.

Refer to figures 2-7, 2-8, and 2-13 (para 2-3) for overall setup details.



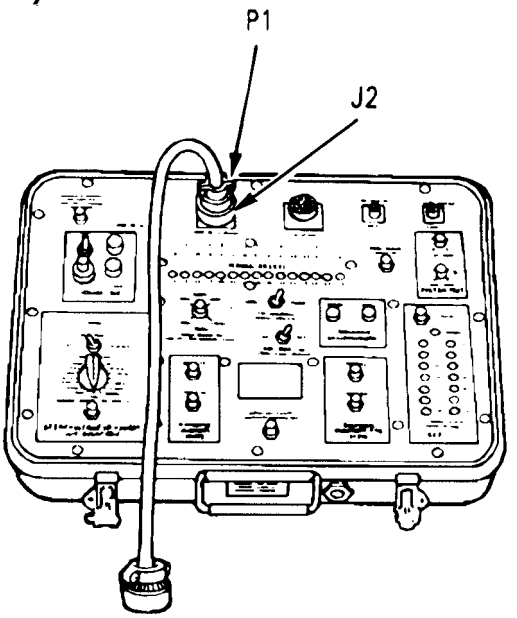
1. ON DISPENSER ASSEMBLY, SET C-F SELECTOR SWITCH TO “C” POSITION.

2. ON DISPENSER ASSEMBLY COVER (l), REMOVE TWO PAN HEAD SCREWS (2) AND TWO FLAT HEAD SCREWS (3) AND REMOVE COVER.

2-8. SEQUENCER ASSEMBLY ELECTRICAL TEST (cont)

SEQUENCER ASSEMBLY ELECTRICAL TEST (cont)

3. CONNECT P1 ON TEST CABLE NO. 3 TO J2 ON M92 TEST SET



4. DISCONNECT P1 ON BREECH ASSEMBLY FROM A2J1 ON SEQUENCER ASSEMBLY (LOCATED ON THE TOP OF SEQUENCER ASSEMBLY).

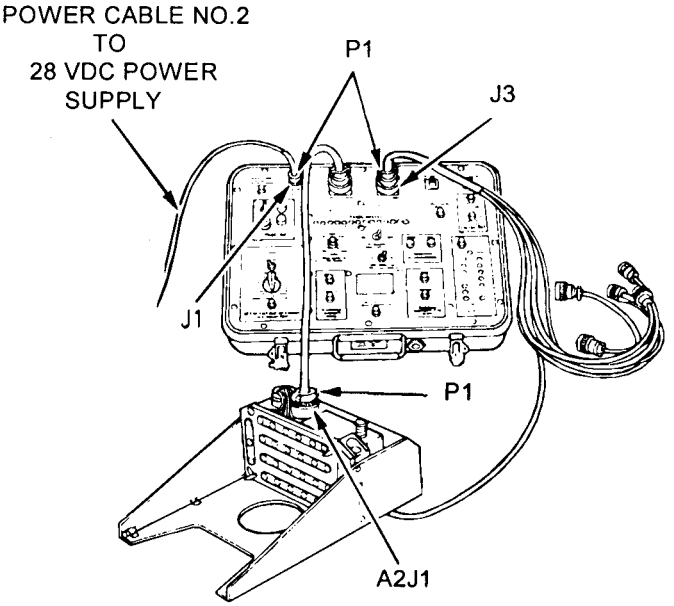
5. CONNECT P2 ON TEST CABLE NO, 3 TO A2J1 ON SEQUENCER ASSEMBLY.

6. CONNECT P1 ON TEST CABLE NO. 1 (PROVIDED WITH M92 TEST SET) TO J3 ON M92 TEST SET.

7. CONNECT P2 ON TEST CABLE NO. 1 TO A1J1 ON SEQUENCER ASSEMBLY (LOCATED ON BOTTOM OF DISPENSER ASSEMBLY).

8. CONNECT ALLIGATOR CLIPS (+ RED, - BLACK) ON POWER CABLE NO. 2 TO A 28 VDC POWER SUPPLY.

9. CONNECT P1 ON POWER CABLE NO. 2 TO J1 ON M92 TEST SET.



SEQUENCER ASSEMBLY ELECTRICAL TEST (cont)

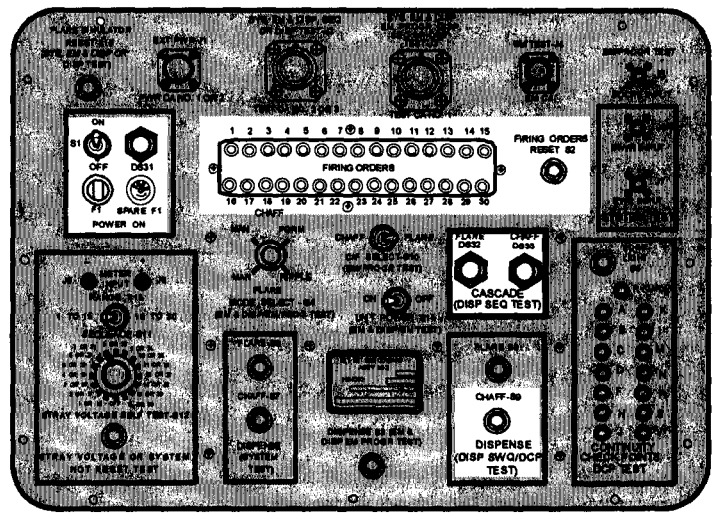
10. ON DC POWER SUPPLY, SET POWER SWITCH TO ON POSITION.

11. ON M92 TEST SET, PRESS POWER ON LAMP, LAMP LIGHTS. RELEASE LAMP, LIGHT GOES OUT. ENSURE UNIT POWER S14 SWITCH IS IN OFF POSITION.

12. SET POWER ON SWITCH TO ON POSITION. POWER ON LAMP LIGHTS.

13. ON M92 TEST SET, PRESS CHAFF AND FLARE CASCADE LAMPS, LAMPS LIGHT. RELEASE LAMPS, LIGHTS GO OUT.

14. PRESS FIRING ORDER RESET BUTTON. FIRING ORDER INDICATORS NO. 1 THRU 30 CHANGE TO RED.

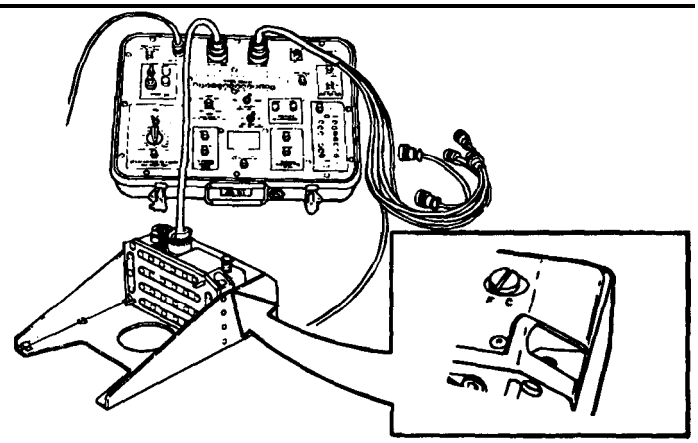


15. RESET SYSTEM BY DEPRESSING PLUNGER RESET SWITCH ON FRONT OF BREECH ASSEMBLY.

16. O
N M92 TEST SET, REPEATEDLY PRESS CHAFF S9 DISPENSE (DISP/SEQ/DCP TEST) BUTTON UNTIL FIRING ORDER INDICATORS NO. 1 THRU 30 CHANGE FROM RED TO WHITE.

17. AGAIN PRESS CHAFF S9 DISPENSE (DISP/SEQ/DCP TEST) BUTTON. CHAFF DS33 CASCADE (DISP/SEQ TEST) LAMP LIGHTS.

18. ON DISPENSER ASSEMBLY, SET C-F SELECTOR SWITCH TO “F POSITION.



2-8. SEQUENCER ASSEMBLY ELECTRICAL TEST (cont)

SEQUENCER ASSEMBLY ELECTRICAL TEST (cont)

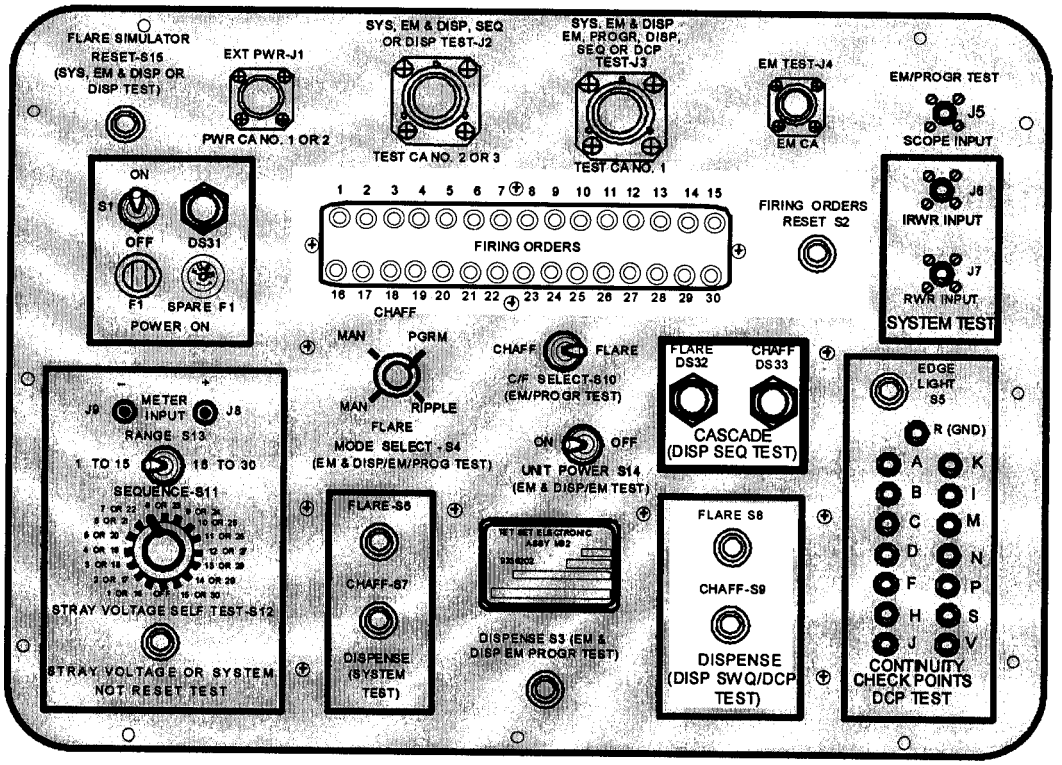
19. ON M92 TEST SET, PRESS FIRING ORDER RESET BUTTON. FIRING ORDER INDICATORS NO. 1 THRU 30 CHANGE TO RED.

20. RESET SYSTEM BY DEPRESSING PLUNGER RESET SWITCH ON FRONT OF BREECH ASSEMBLY.

21. ON M92 TEST SET, REPEATEDLY PRESS FLARE S8 DISPENSE(DISP/SEQ/DCP TEST) BUITON UNTIL FIRING ORDER INDICATORS N0. 1 THRU 30 CHANGE FROM RED TO WHITE.

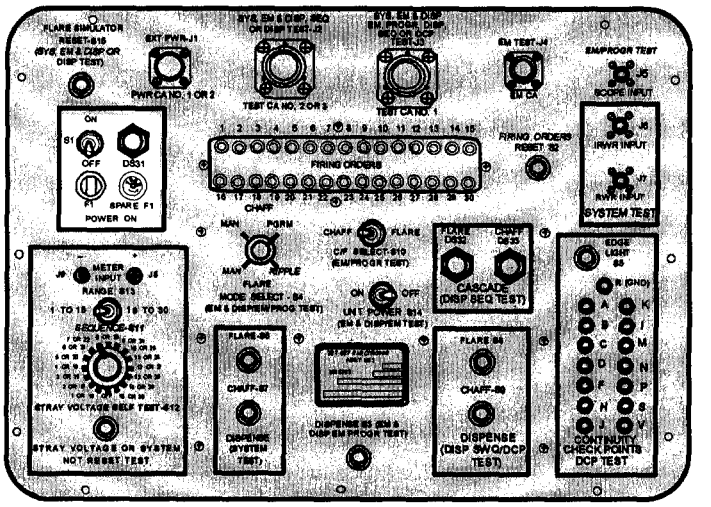
22. 0N M92 TEST SET, AGAIN PRESS FLARE S8 DISPENSE(DISP/SEQ/DCP TEST) BUTTON, FLARE DS32 CASCADE (DISP/SEQ TEST) LAMP LIGHTS.

23. 0N M92 TEST SET, PRESS FIRING ORDER RESET BUTTON. FIRING ORDER INDICATORS NO. 1 THRU 30 CHANGE TO RED.



SEQUENCER ASSEMBLY ELECTRICAL TEST (cont)

24. ON M92 TEST SET, SET POWER ON SWITCH TO OFF POSITION. POWER ON LAMP GOES OUT.
25. TURN OFF POWER.
26. SET ALL SWITCHES TO OFF POSITION.
27. DISCONNECT ALL CABLES.



28. ON DISPENSER ASSEMBLY INSTALL COVER, TWO FLATHEAD SCREWS AND TWO PANHEAD SCREWS.

29. RETURN ALL TEST CABLES TO CARRYING CASE COVER OF M92 TEST SET.
30. CLOSE AND SECURE M92 TEST SET.

END OF TEST

2-9. DISPENSER CONTROL PANEL ASSEMBLY ELECTRICAL TEST

DESCRIPTION

This task covers: Dispenser control panel assembly electrical test.

INITIAL SETUP

Tools/Test and Support Equipment:
- Tool Kit, Electronic, Equipment, TK-105/G
- M92 Test Set
- Power Supply, 28 VDC
- Multimeter AN/PSM-45A

Personnel Required:
- MOS 68R

Equipment Conditions:
- On bench in shop.
- Bench power ready.

General Safety Instructions: Never work on electronic equipment unless there is another person nearby who is familiar with operation and hazards of this equipment and first aid. When aided by operator, technician must warn operator about dangerous area.

Power must not be applied to unit under test while test leads are being connected to or removed from unit assemblies/circuits under test.

DISPENSER CONTROL PANEL ASSEMBLY ELECTRICAL TEST

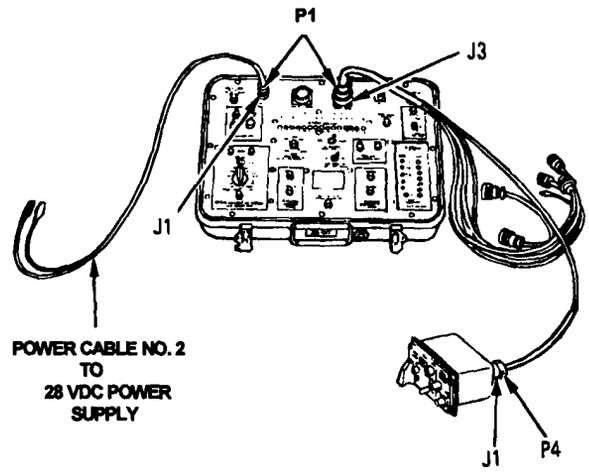
NOTE

When disassembly is required to perform any of the test procedures, refer to appropriate maintenance paragraphs for applicable procedures.

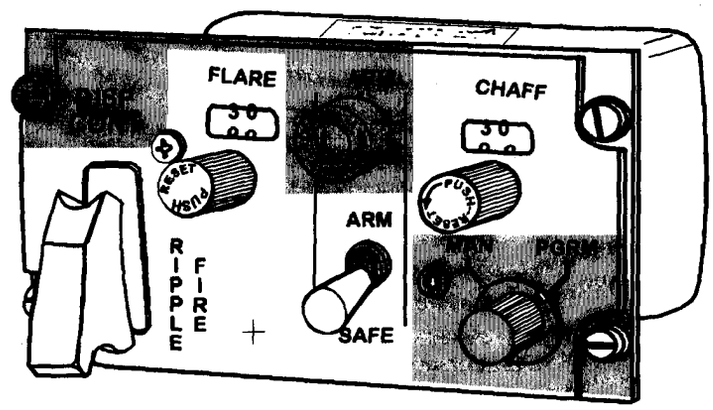
Refer to figures 2-9 and 2-10 (para 2-3) for overall setup details.

DISPENSER CONTROL PANEL ASSEMBLY ELECTRICAL TEST (cont)

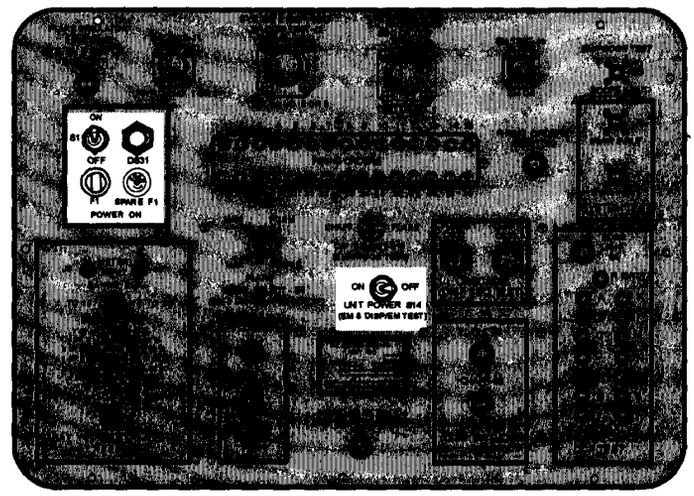
1. OBTAIN M92 TEST SET AND CONNECT P1 ON TEST CABLE NO.1 TO J3 OF M92 TEST SET.
2. CONNECT P4 0N TEST CABLE N0. 1 TO J1 ON DCP.
3. CONNECT ALLIGATOR CLIPS (+ RED, - BLACK) ON POWER CABLE NO. 2 TO A 28 VDC POWER SUPPLY.
4. CONNECT P1 ON POWER CABLE NO. 2 TO J1 ON M92 TEST SET.



5. ON DCP, SET CHAFF AND FLARE COUNTERS TO 30. ENSURE ARM-SAFE SWITCH IS IN SAFE POSITION AND RIPPLE FIRE SWITCH GUARD IS DOWN.



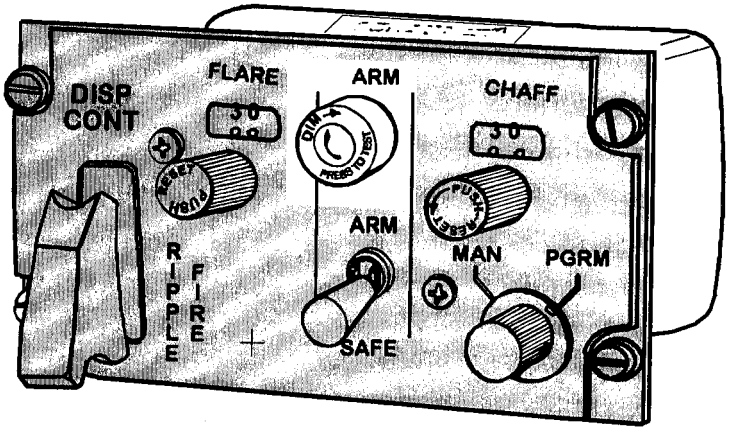
6. ON DC POWER SUPPLY, SET POWER SWITCH TO ON POSITION.
7. ON M92 TEST SET, PRESS POWER ON LAMP, LAMP LIGHTS. RELEASE LAMP, LIGHT GOES OUT. ENSURE UNIT POWER S14- SWITCH IS IN OFF POSITION.
8. SET POWER ON SWITCH TO ON POSITION. POWER ON LAMP LIGHTS.



2-9. DISPENSER CONTROL PANEL ASSEMBLY ELECTRICAL TEST (cont)

DISPENSER CONTROL PANEL ASSEMBLY ELECTRICAL TEST (cont)

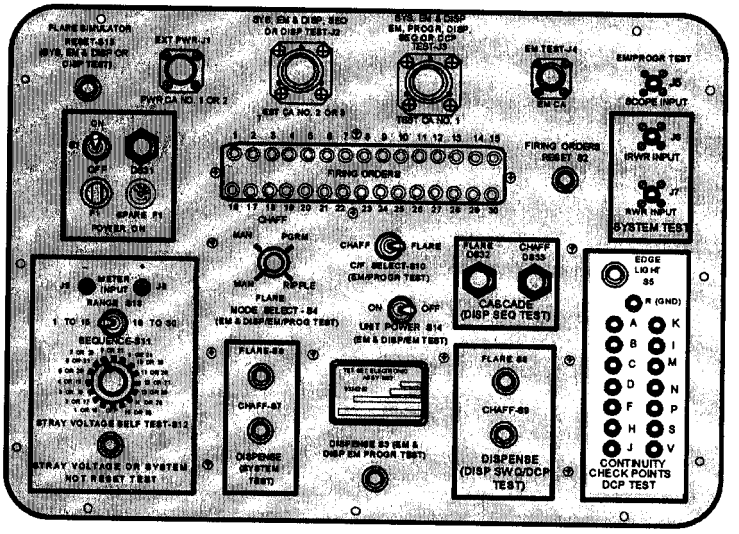
9. ON DCP, PRESS ARM LAMP, ARM LAMP LIGHTS. (IF LAMP DOESN'T LIGHT, REFER TO MALFUNCTION 18 IN TABLE 2-1.) RELEASE ARM LAMP, ARM LAMP GOES OUT.



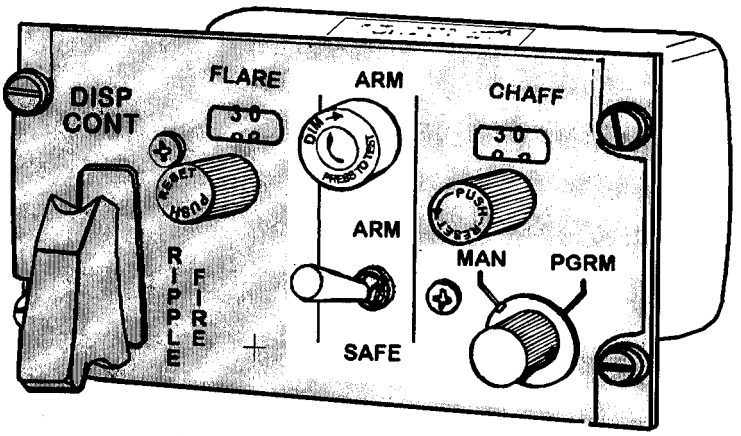
10. SET MULTIMETER TO READ 28 VOLTS.

11. ON M92 TEST SET, APPLY RED (+) LEAD OF METER TO H AND BLACK (-) LEAD TO R OF DCP TEST, CONTINUITY CHECK POINTS. METER READS APPROXIMATELY +28 VDC.

12. APPLY RED (+) LEAD TO THE BALANCE OF CONTINUITY CHECK POINTS A-F AND J-V WITH THE (-) LEAD TO R. NO DEFLECTION ON THE METER SHOULD OCCUR.

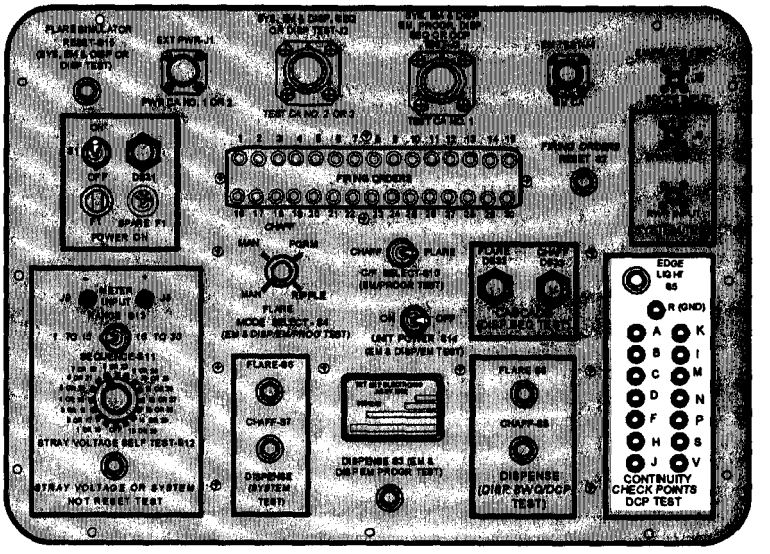


13. ON DCP, SET MAN-PGRM SWITCH TO MAN POSITION AND ARM-SAFE SWITCH TO ARM POSITION. ARM LAMP DOES NOT LIGHT.



DISPENSER CONTROL PANEL ASSEMBLY ELECTRICAL TEST (cont)

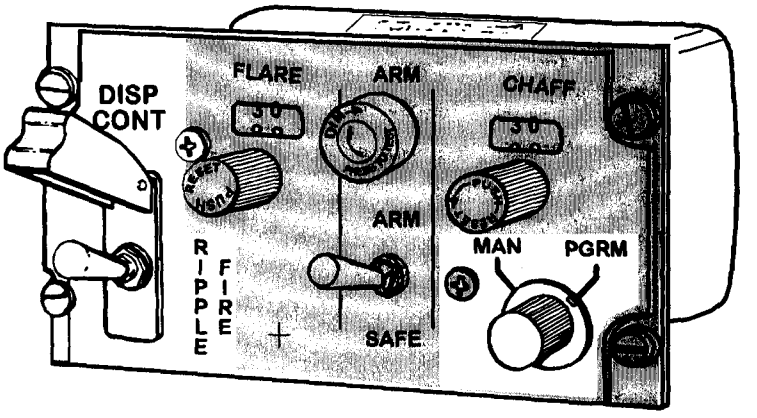
14. ON M92 TEST SET, APPLY RED (+) LEAD TO THE CONTINUITY CHECK POINTS INDICATED IN TABLE 2-3 (PARA 2-3), WITH THE BLACK (-) LEAD TO R. (IF METER READINGS ARE NOT CORRECT, REFER TO MALFUNCTION 15 IN TABLE 2-1.)



15. ON DCP, PERFORM THE FOLLOWING:

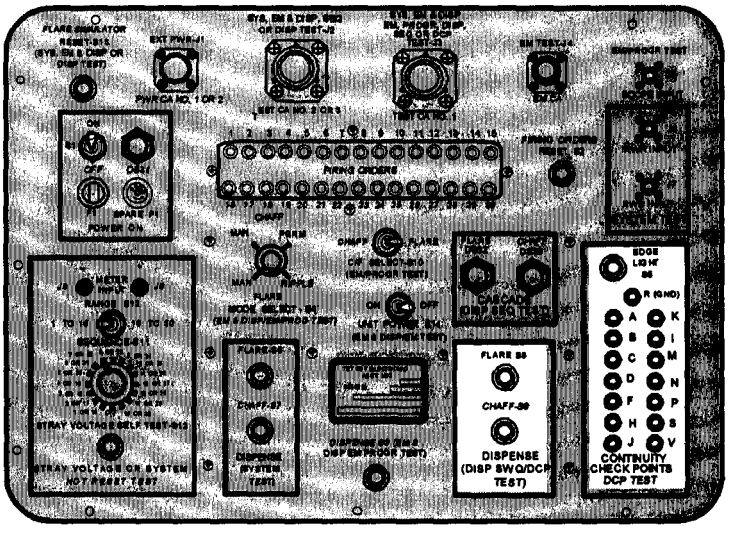
    a. ON DCP, RAISE RIPPLE FIRE SWITCH GUARD AND PIACE SWITCH TO UP POSITION.

    b. SET MAN-PGRM SWITCH TO PGRM POSITION.



16. ON M92 TEST SET, APPLY RED (+) LEAD TO S WITH BLACK (-) LEAD TO R OF DCP TEST, CONTINUITY CHECK POINTS. METER READS APPROXIMATELY + 28 VDC. (IF NOT, REFER TO MALFUNCTION 15 IN TABLE 2-1.)

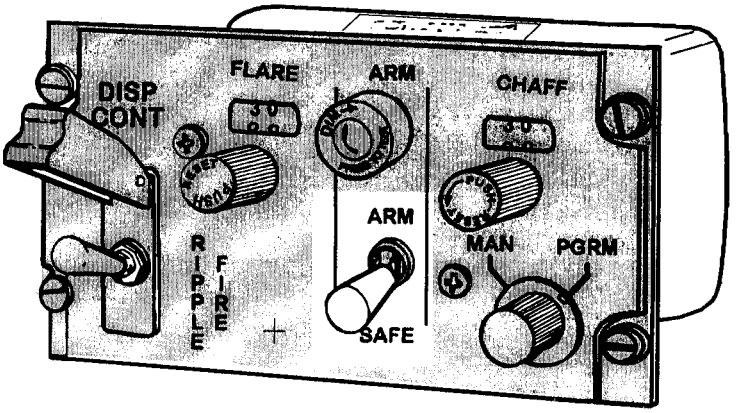
17. ON M92 TEST SET, USING CHAFF S9 AND FLARE S8 DISPENSE (DISP/SEQ/DCP TEST) BUTTONS, PERFORM THE TESTS IN TABLE 2-4 (PARA 2-3).



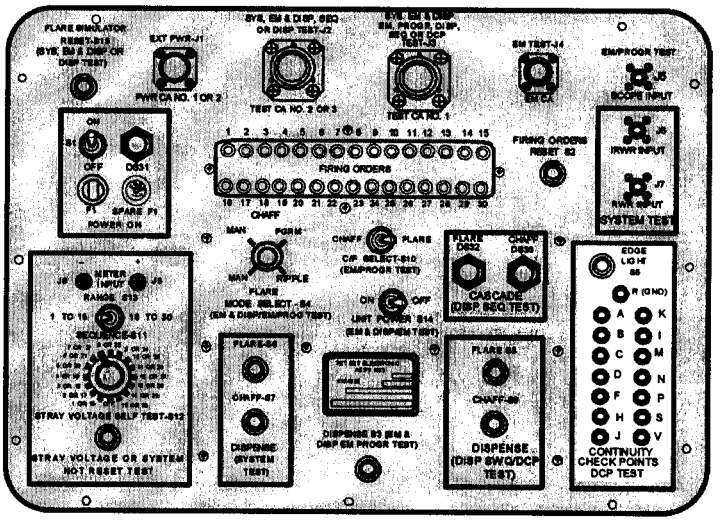
2-9. DISPENSER CONTROL PANEL ASSEMBLY ELECTRICAL TEST (cont)

DISPENSER CONTROL PANEL ASSEMBLY ELECTRICAL TEST (cont)

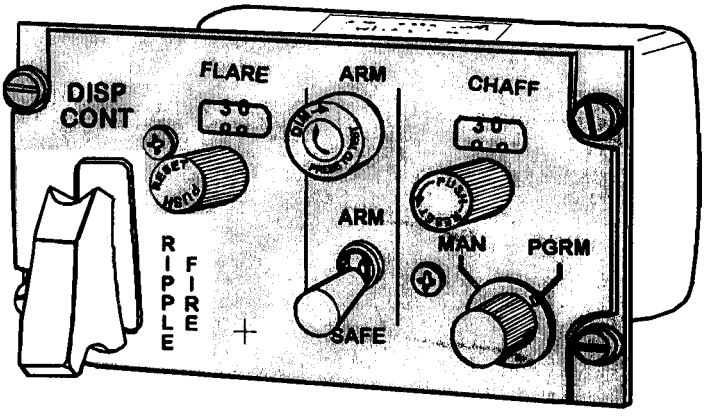
18. ON DCP,RESET ARM-SAFE SWITCH TO SAFE POSITION.



19. ON M92 TEST SET, APPLY RED (+) METER LEAD TO M, P, AND S OF DCP TEST, CONTINUITY CHECK POINTS, WITH BLACK (-) LEAD TO R. METER READS APPROXIMATELY +28 VDC. (IF +28 VDC READING DOES NOT OCCUR, REFER TO MALFUNCTION 15 IN TABLE 2-1.)

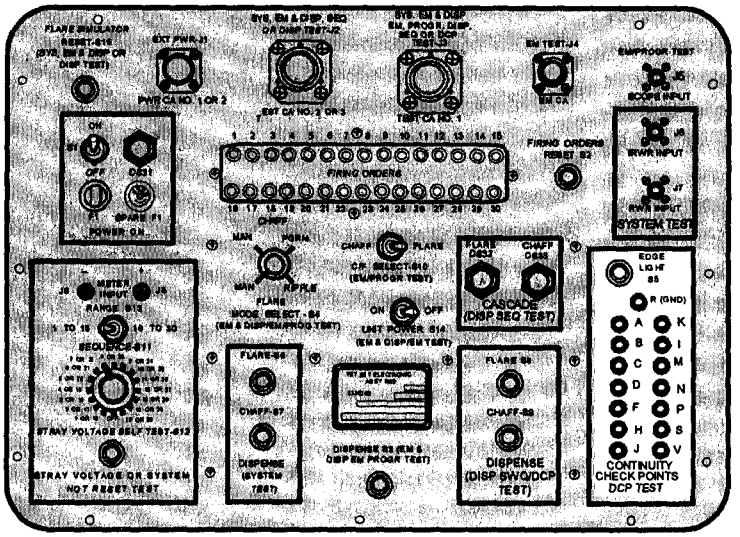


20. ON DCP, RESET RIPPLE FIRE SWITCH BY PRESSING SWITCH GUARD TO DOWN POSITION.



DISPENSER CONTROL PANEL ASSEMBLY ELECTRICAL TEST (cont)

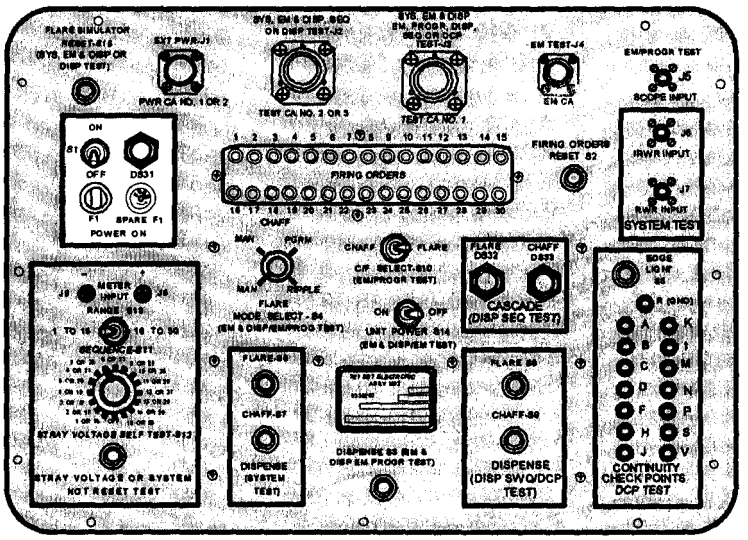
21. WITH A MULTIMETER ON THE LOWEST OHM SCALE, CHECK FOR CONTINUITY BETWEEN J AND N, AS WELL AS KAND L CONTINUITY CHECK POINTS ON M92 TEST SET. CONTINUITY SHOULD EXIST.



22. ON M92 TEST SET, SET POWER ON SWITCH TO OFF POSITION. POWER ON LAMP GOES OUT.

23. TURN OFF POWER.

24. SET ALL SWITCHES TO OFF POSITION.



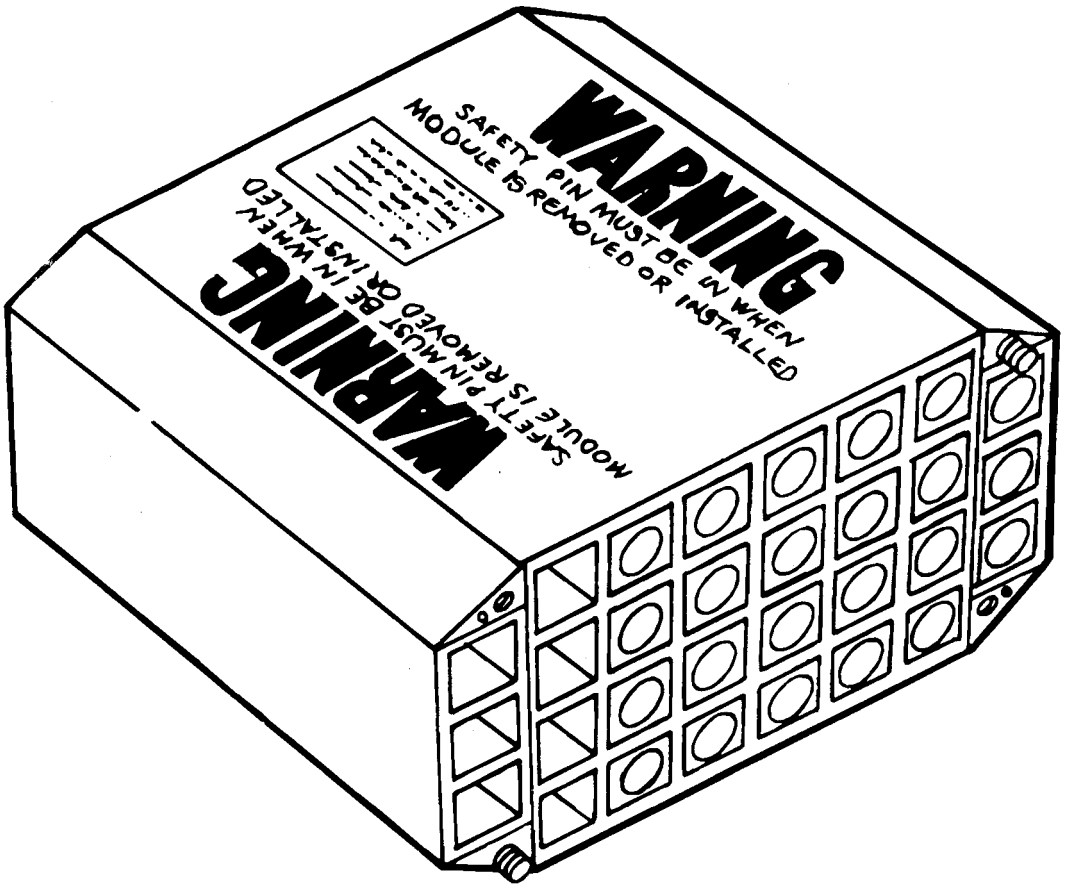
25. DISCONNECT ALL TEST CABLES.

26. RETURN ALL TEST CABLES TO CARRYING CASE COVER OF M92 TEST SET.

27. CLOSE AND SECURE M92 TEST SET.

END OF TEST

Section III. MAINTENANCE OF PAYLOAD MODULE ASSEMBLY



2-10. REPAIR OF PAYLOAD MODULE ASSEMBLY

DESCRIPTION

This task covers: Disassembly, inspection/repair, and assembly.

INITIAL SETUP

Tools/Test and Support Equipment
Tool Kit, Electronics, Equipment, TK-105/G

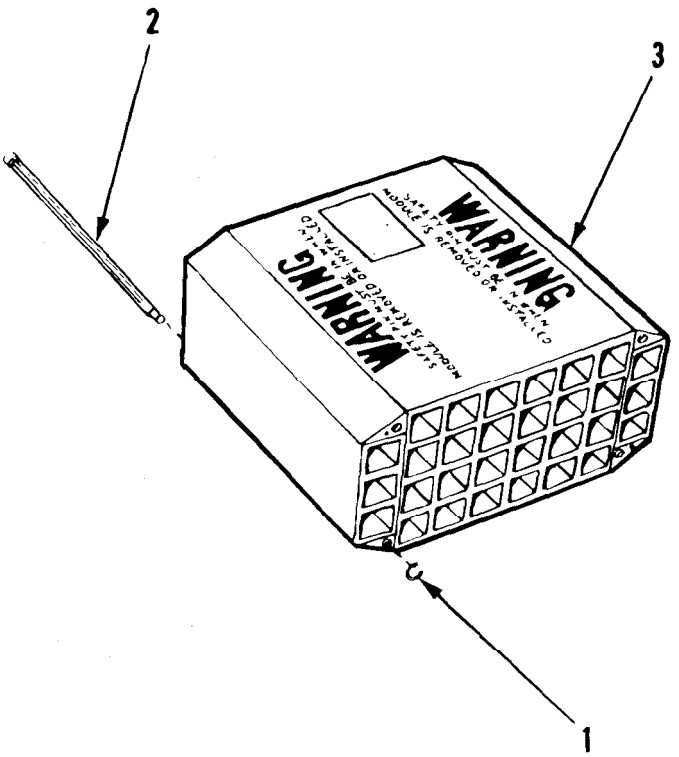
Materials/Parts:
Retaining Ring (2) (MS16632-1025)

Personnel Required:
MOS 68R

Equipment Conditions:
UNLOADING PROCEDURES
See TM 9-1095-206-12&P.
Payload Module Removed. (Refer to applicable aircraft TM).

DISASSEMBLY

REMOVE TWO RETAINING RINGS (1) AND TWO STUD NUTS (2). DISCARD RETAINING RINGS (I).



INSPECTION/REPAIR

1, INSPECT STUD NUTS (2) FOR DISTORTION AND STRIPPED OR DAMAGED THREADS.

2. INSPECT PAYLOAD MODULE (3) FOR DISTORTION, CRACKS, AND STRUCTURAL DAMAGE.

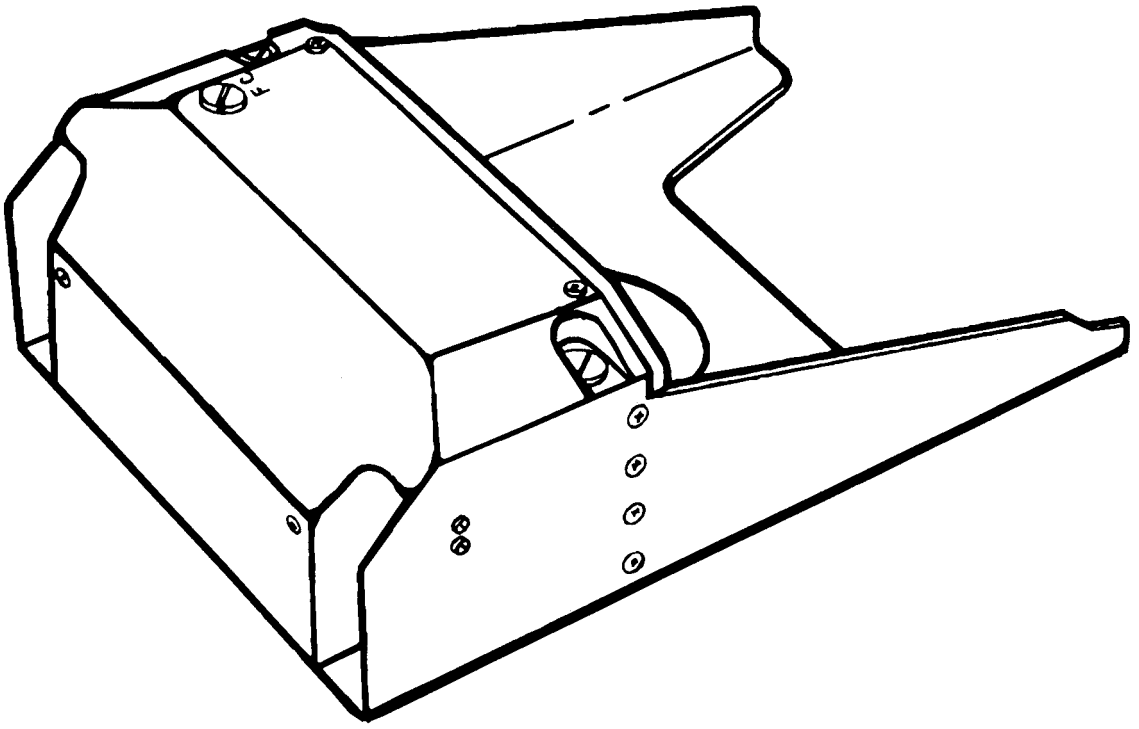
3. REPAIR IS BY REPLACEMENT OF AUTHORIZED PARTS (APPX B) WHICH DO NOT MEET THE INSPECTION CRITERIA.

ASSEMBLY

INSTALL TWO STUD NUTS (2) AND TWO NEW RETAINING RINGS (1).

END OF TASK

Section IV. MAINTENANCE OF DISPENSER ASSEMBLY



2-11. REPAIR OF DISPENSER ASSEMBLY

DESCRIPTION

This task covers: Disassembly, inspection/repair, and assembly.

INITIAL SETUP

Tools/Test and Support Equipment
Tool Kit, Electronics, Equipment, TK-105/G

Materials/Parts:
Sealing compound (item 8, Appx C)
Varnish (item 5, Appx C)
Identification plate (931 1690)
Self-locking nut (2) (MS21043-04)
Self-locking nut (2) (MS21044C04)

Personnel Required:
MOS 68R

Equipment Conditions:
Dispenser assembly removed. (Refer to applicable aircraft TM.)

DISASSEMBLY

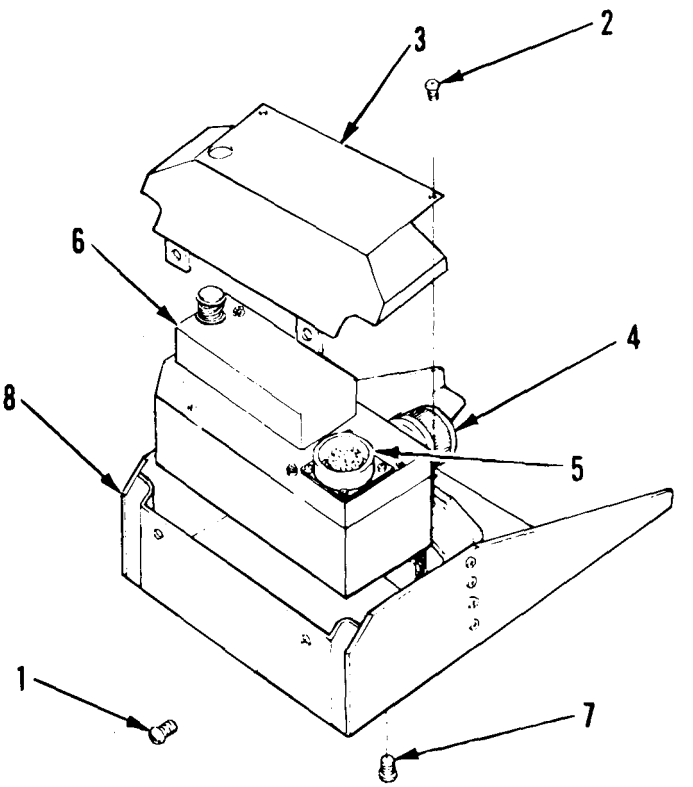
1. REMOVE FOUR SCREWS (1 AND 2) AND ACCESS COVER (3).

2. DISCONNECT CONNECTOR PLUG (4) FROM THE CONNECTOR RECEPTACLE (5) OF THE SEQUENCER ASSEMBLY (6).

3. REMOVE FOUR SCREWS (7) AND SEQUENCER ASSEMBLY (6) FROM DISPENSER MOUNTING PLATE (8).

NOTE

Check that sequencer assembly has switch return spring, p/n 9347355, installed. If not, refer to paragraph 2-13 for instructions.

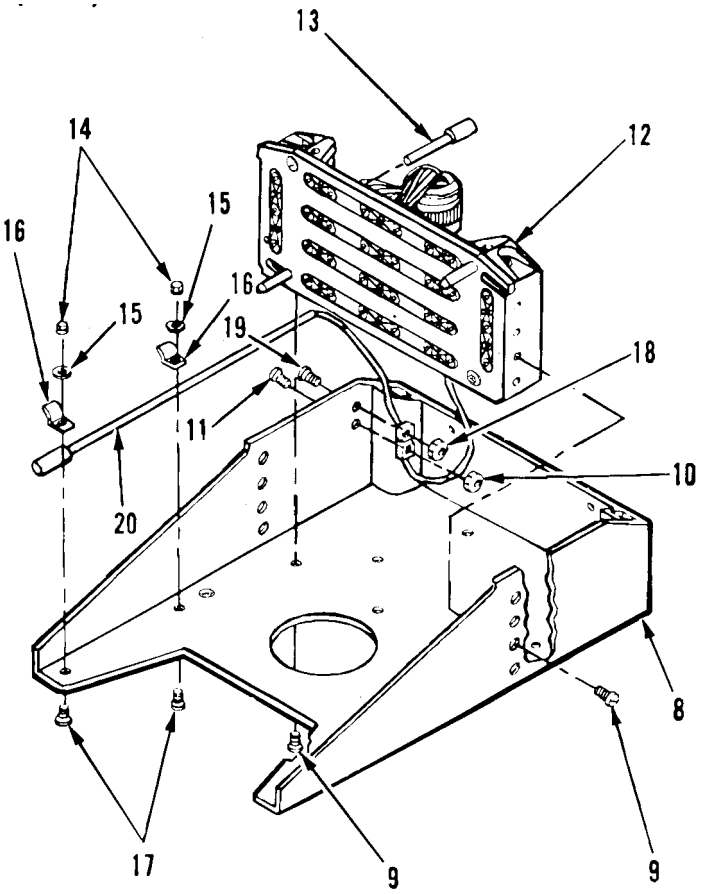


2-11. REPAIR OF DISPENSER ASSEMBLY (cont)

REPAIR OF DISPENSER ASSEMBLY (cont)

DISASSEMBLY (cont)

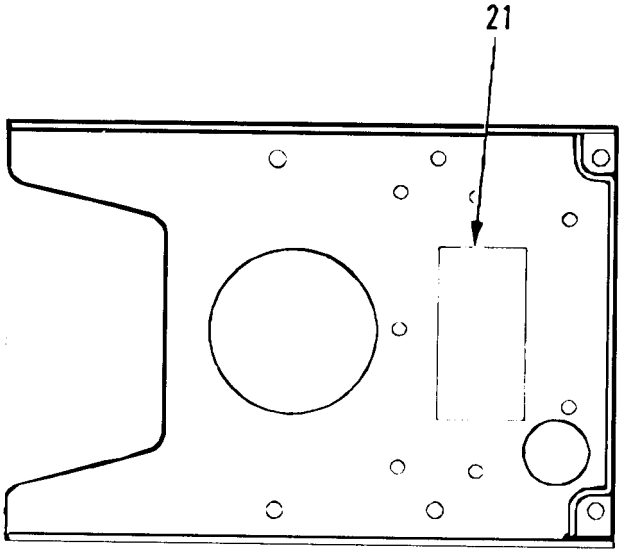
4. REMOVE ELEVEN SCREWS (9), SELF-LOCKING NUT (10), SCREW (11), AND BREECH (12).
5. REMOVE RESET SWITCH PLUNGER (13) FROM BREECH (12).
6. REMOVE TWO SELF-LOCKING NUTS (14), WASHERS (15), RETAINING STRAPS (16), AND SCREWS (17).
7. REMOVE SELF-LOCKING NUT (18), SCREW (19), AND FLARE SENSOR ASSEMBLY (20) FROM DISPENSER MOUNTING PLATE (8).



NOTE

Perform the following procedure only if replacement is necessary.

8. REMOVE IDENTIFICATION PLATE (21).



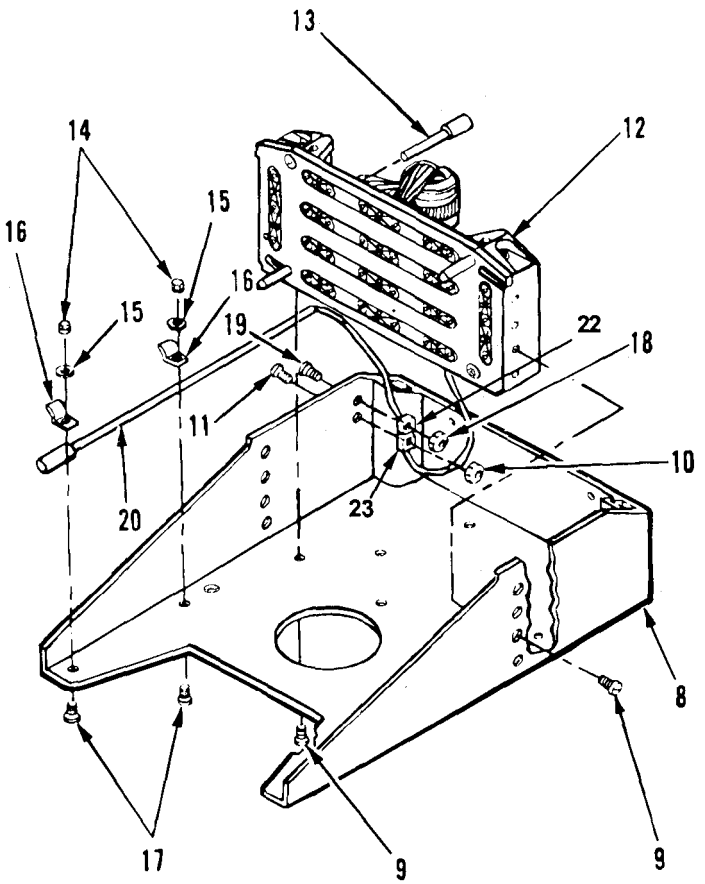
REPAIR OF DISPENSER ASSEMBLY (cont)

INSPECTION/REPAIR

1. CHECK FOR BROKEN, DAMAGED, OR MISSING PARTS.
2. REPAIR IS BY REPLACEMENT OF AUTHORIZED PARTS (APPX B) WHICH DO NOT MEET THE INSPECTION CRITERIA.
3. THE BREECH IS A REPAIRABLE ASSEMBLY; REFER TO PARAGRAPH 2-12.
4. THE SEQUENCER ASSEMBLY ISA REPAIRABLE ASSEMBLY; REFER TO PARAGRAPH 2-13.

ASSEMBLY

1. FASTEN CONNECTOR (22) OF FLARE SENSOR ASSEMBLY (20) TO DISPENSER MOUNTING PLATE (8) WITH SCREW (19) AND NEW SELF-LOCKING NUT (18).
2. INSTALL TWO SCREWS (17), FLARE SENSOR ASSEMBLY (20), TWO RETAINING STRAPS (16), WASHERS (15), AND NEW SELF-LOCKING NUTS (14).
3. APPLY SEALING COMPOUND (ITEM 8, APPX C) TO BEARING SURFACES OF THE BREECH. INSTALL BREECH (12) WITH ELEVEN SCREWS (9).
4. INSTALL SCREW (11), CONNECTOR (23) OF BREECH (12), AND NEW SELF-LOCKING NUT (10).
5. INSTALL RESET SWITCH PLUNGER (13) IN BREECH (12).

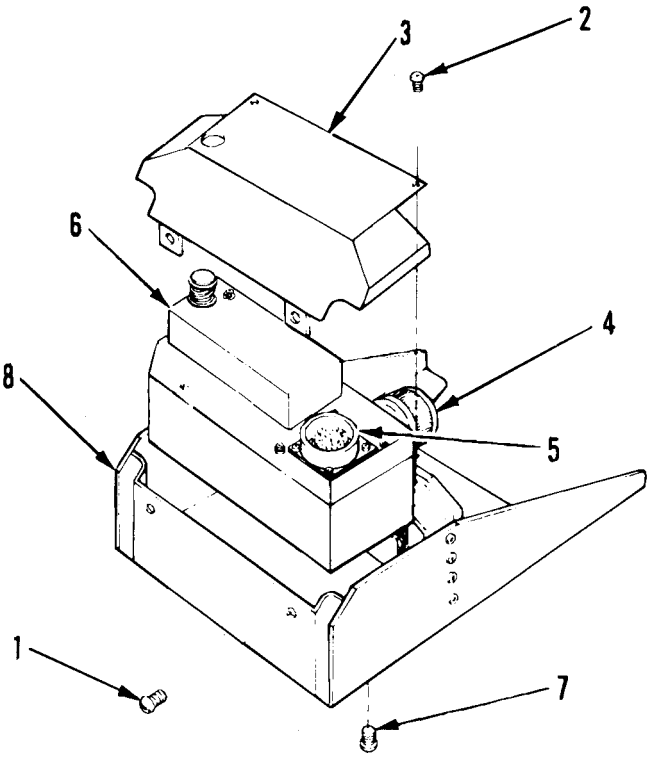


2-11. REPAIR OF DISPENSER ASSEMBLY (cont)

REPAIR OF DISPENSER ASSEMBLY (cont)

ASSEMBLY (cont)

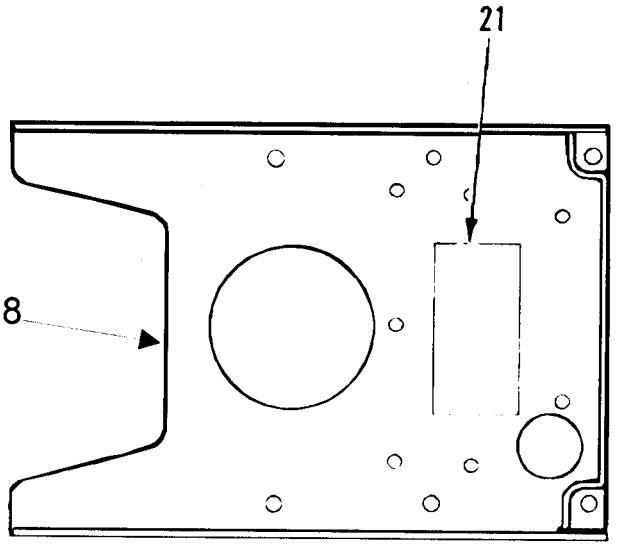
6. COAT BEARING SURFACES OF SEQUENCER ASSEMBLY (6) WITH SEALING COMPOUND (ITEM 8, APPX C). INSTALL SEQUENCER ASSEMBLY(6) WITH FOUR SCREWS (7).
7. CONNECT CONNECTOR PLUG (4) TO CONNECTOR RECEPTACLE (5) OF THE SEQUENCER ASSEMBLY (6).
8. INSTALL ACCESS COVER (3) AND FOUR SCREWS (1 AND 2).



NOTE

The following procedure is necessary only if identification plate was replaced.

9. REMOVE PROTECTIVE MATERIAL FROM NEW IDENTIFICATION PLATE (21) AND POSITION ON DISPENSER MOUNTING PLATE (8). OVERCOAT AND SEAL EDGES OF IDENTIFICATION PLATE WITH VARNISH (ITEM 5, APPX C).



END OF TASK

2-12. REPAIR OF BREECH

DESCRIPTION

This task covers: Disassembly, inspection/repair, and assembly.

INITIAL SETUP

Tools/Test and Support Equipment:
Tool Kit, Electronics, Equipment, TK-105/G

Materials/Parts:
Sealing compound (item 8, Appx C)
Receptacle insert (2) (931 1540)

Personnel Required:
MOS 68R

Equipment Conditions:
REPAIR OF DISPENSER ASSEMBLY performed, para 2-11.
3/8-in, drill bit available.
Screw extractor available,

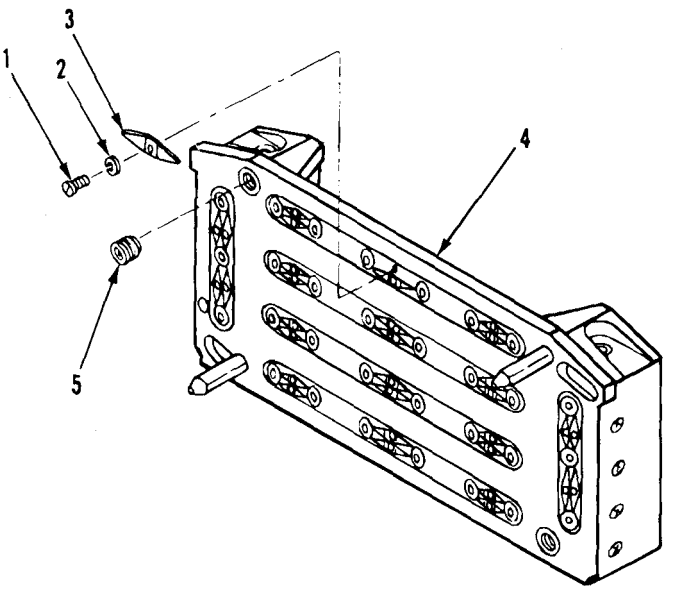
DISASSEMBLY

1. REMOVE THIRTY-TWO SCREWS (1), LOCKWASHERS (2), AND FLAT SPRINGS (3) FROM BREECH PLATE (4).

2. IF REPLACEMENT OF RECEPTACLE INSERTS IS NECESSARY, PERFORM THE FOLLOWING PROCEDURE:

   a. Use a 3/8-in. drill bit to drill out center of receptacle insert (5) to a depth of 9/16 in. (1.43 cm).

   b. Remove receptacle insert.



2-12. REPAIR OF BREECH (cont)

REPAIR OF BREECH (cont)

INSPECTION/REPAIR

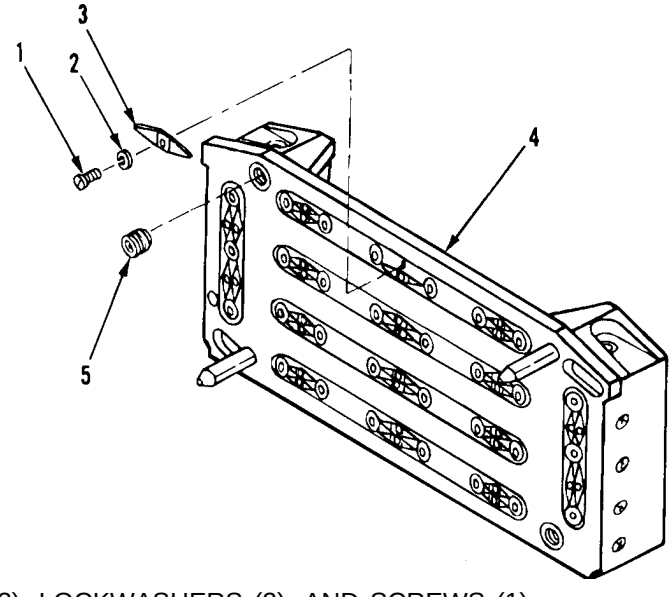
1. INSPECT FOR BROKEN, CRACKED, OR DEFORMED FLAT SPRINGS.
2. INSPECT BREECH PLATE FOR BROKEN OR LOOSE SOLDER CONNECTION, DAMAGED OR DETERIORATED WIRING INSULATION, BROKEN CONNECTOR, AND CRACKS OR DISTORTION.
3. INSPECT IF HARDWARE IS MISSING, DAMAGED, OR BROKEN.
4. REPAIR IS BY REPLACEMENT OF AUTHORIZED PARTS (APPX B) WHICH DO NOT MEET THE INSPECTION CRITERIA.

ASSEMBLY

1. APPLY SEALING COMPOUND (ITEM 8, APPX C) TO RECEPTACLE INSERT THREAD AND MATING THREAD IN BREECH PLATE (4), AND INSTALL RECEPTACLE INSERT (5).

NOTE

Before tightening screws, ensure that the minimum height from top of mounting side of breech plate to top of flat spring is 0.095 in. (0.24 cm).



2. INSTALL THIRTY-TWO FLAT SPRINGS (3), LOCKWASHERS (2), AND SCREWS (1).

END OF TASK

2-13. REPAIR OF SEQUENCER ASSEMBLY

DESCRIPTION

This task covers: Disassembly, inspection/repair, and assembly.

INITIAL SETUP

Tools/Test and Support Equipment:
Tool Kit, Electronics, Equipment, TK-105/G

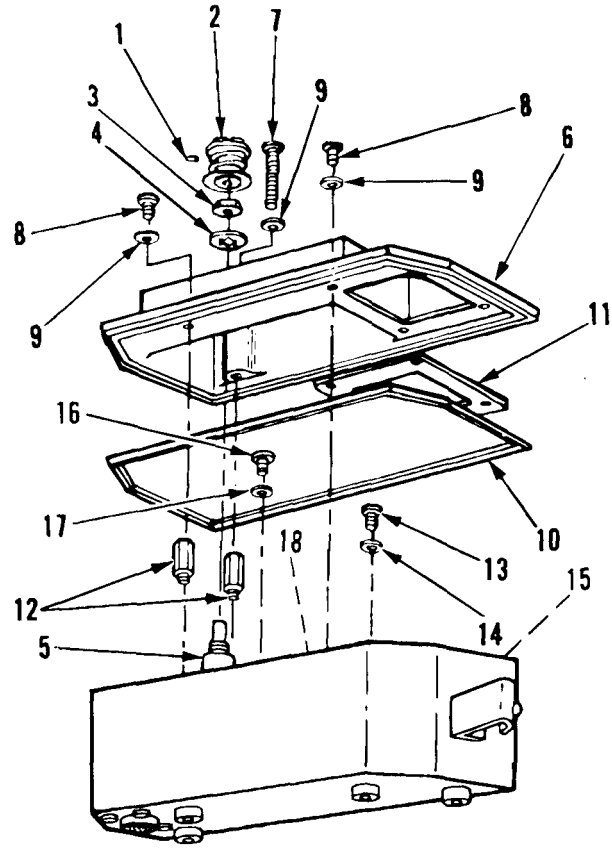
Materials/Parts:
Adhesive (item 1, Appx C)
Sealing compound (item 8, Appx C)
Gasket (931 1481)
Gasket (931 1570)
Nonmetallic seal (931 1415)
Nylon flat washer (12) (LWNY-004BL)
Self-locking setscrew (MS18064-1)

Personnel Required:
MOS 68R

Equipment Conditions:
REPAIR OF DISPENSER ASSEMBLY performed, para 2-11.

DISASSEMBLY

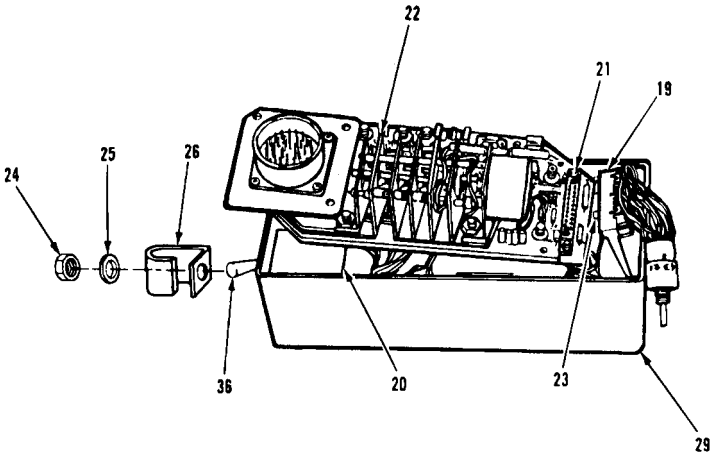
1. REMOVE TWO SELF-LOCKING SET-SCREWS (1) AND KNOB (2).
2. REMOVE NUT (3) AND WASHER (4) HOLDING ROTARY SWITCH (5) TO THE HOUSING COVER (6).
3. REMOVE SCREW (7), FIVE SCREWS (8), SIX NYLON WASHERS (9), HOUSING COVER (6), NONMETALLIC SEAL (10), AND GASKET (11).
4. REMOVE THE TWO POSTS (12) ON EACH SIDE OF ROTARY SWITCH (5).
5. REMOVE TWO SCREWS (13) AND TWO NYLON WASHERS (14) ON EITHER SIDE OF CONNECTOR RECEPTACLE (15).
6. REMOVE SCREW (16) AND FLAT WASHER ((17) LOCATED UNDER THE SOLENOID ROTARY SWITCH (1 8).



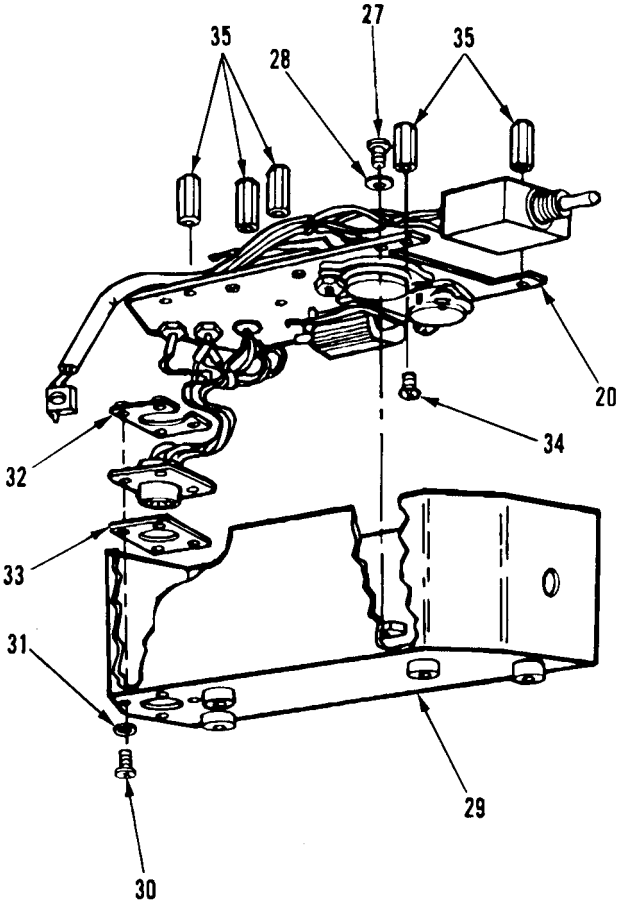
2-13. REPAIR OF SEQUENCER ASSEMBLY (cont)

REPAIR OF SEQUENCER ASSEMBLY (cont)

DISASSEMBLY (cont)



7. DISCONNECT CONNECTOR RECEPTACLE (19) OF THE ELECTRONIC COMPONENTS ASSEMBLY (20) FROM THE ELECTRICAL CONNECTOR PLUG (21) OF CIRCUIT CARD ASSEMBLY (22) BY ALTERNATELY UNSCREWING TWO SCREWS (23).
8. REMOVE CIRCUIT CARD ASSEMBLY (22).
9. REMOVE NUT (24), WASHER (25), AND SWITCH RETURN SPRING (26).



10. REMOVE FIVE SCREWS (27) AND FIVE FLAT WASHERS (28) HOLDING ELECTRONIC COMPONENTS ASSEMBLY (20) TO SEQUENCER HOUSING ASSEMBLY (29).
11. REMOVE FOUR SCREWS (30), FOUR NYLON WASHERS (31), RETAINING PLATE (32), ELECTRONIC COMPONENTS ASSEMBLY (20), AND GASKET (33) FROM SEQUENCER HOUSING ASSEMBLY (29).
12. REMOVE FIVE SCREWS (34) AND FIVE POSTS (35).

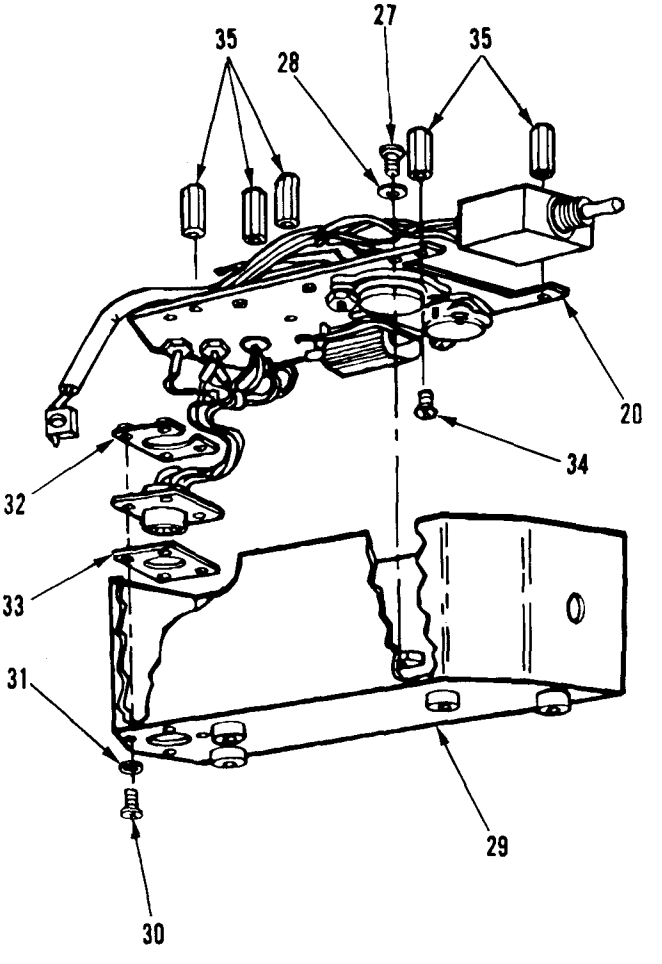
REPAIR OF SEQUENCER ASSEMBLY (cont)

INSPECTION/REPAIR

1. INSPECT CIRCUIT CARD ASSEMBLY AND ELECTRONIC COMPONENTS ASSEMBLY FOR INOPERATIVE SWITCHES, DAMAGED OR DETERIORATED WIRING, AND OVERHEATED OR DAMAGED COMPONENTS.
2. CHECK THAT SWITCH RETURN SPRING IS THE LATEST CONFIGURATION; IT SHOULD BE P/N 9347355, REPLACE IF IT ISN'T.
3. CHECK FOR MISSING, CRACKED, OR DAMAGED PARTS.
4. REPAIR IS BY REPLACEMENT OF AUTHORIZED PARTS (APPX B) WHICH DO NOT MEET THE INSPECTION CRITERIA.

ASSEMBLY

1. ATTACH FIVE POSTS (35) TO ELECTRONIC COMPONENTS ASSEMBLY (20) WITH FIVE SCREWS (34).
2. APPLY ADHESIVE (ITEM 1, APPX C) TO NEW GASKET (33) AND POSITION IT IN SEQUENCER HOUSING ASSEMBLY (29).
3. INSTALL ELECTRONIC COMPONENTS ASSEMBLY (20), FOUR NEW NYLON WASHERS (31), FOUR SCREWS (30), AND RETAINING PLATE (32), APPLY 4-TO 6-IN. -LB TORQUE TO SCREWS.
4. INSTALL FIVE FLAT WASHERS (28) AND FIVE SCREWS (27) HOLDING ELECTRONIC COMPONENTS ASSEMBLY (20) TO SEQUENCER HOUSING ASSEMBLY (29). APPLY 4-TO 6-IN. -LB TORQUE TO SCREWS.



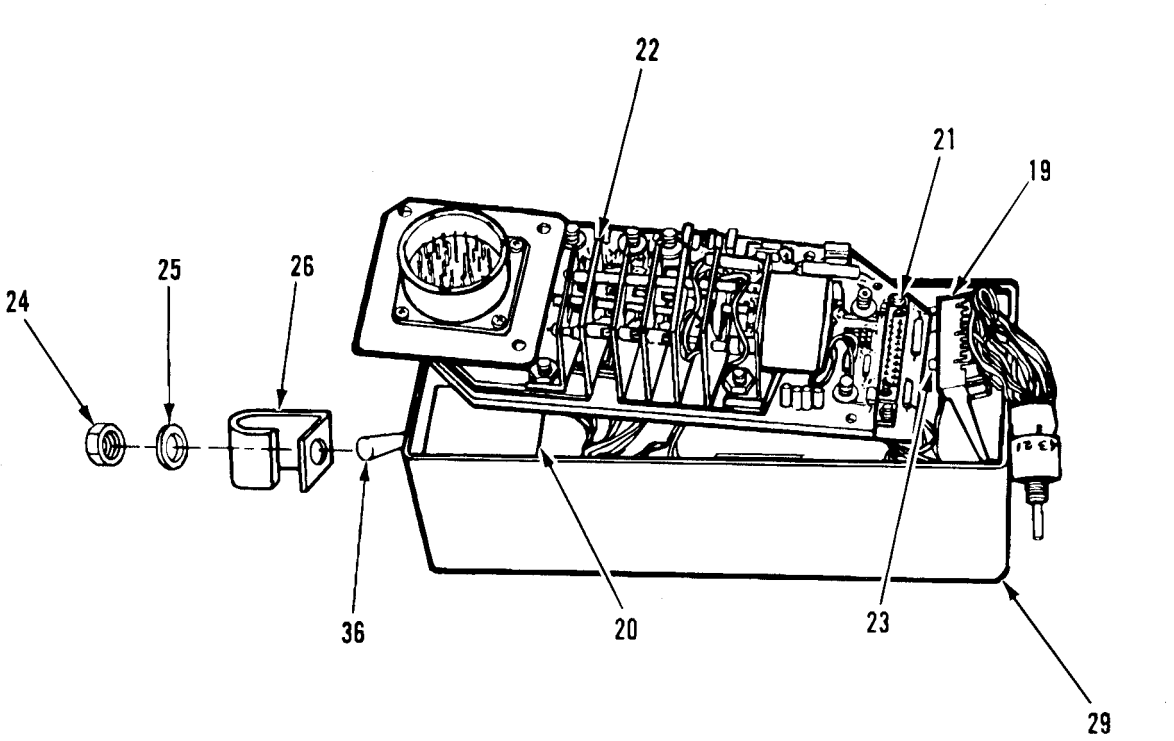
2-13. REPAIR OF SEQUENCER ASSEMBLY (cont)

REPAIR OF SEQUENCER ASSEMBLY (cont)

ASSEMBLY (cont)

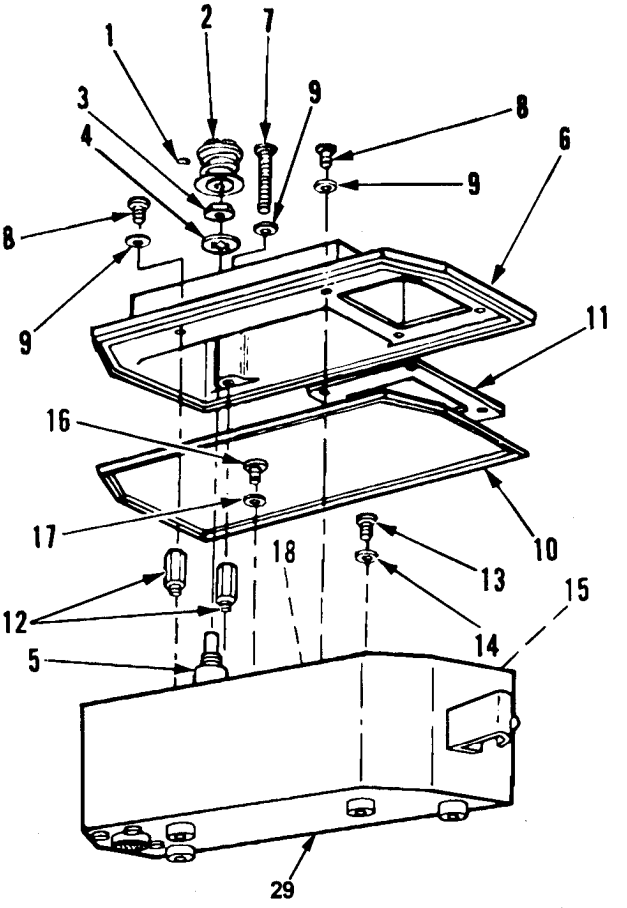
5. INSTALL SWITCH RETURN SPRING (26), WASHER (25), AND NUT (24) ON CIRCUIT BREAKER (36) OF ELECTRONIC COMPONENTS ASSEMBLY (20).

6. INSTALL CONNECTOR RECEPTACLE (19) TO ELECTRiCAL CONNECTOR PLUG (21); TIGHTEN TWO SCREWS (23). POSITION CIRCUIT CARD ASSEMBLY (22) IN SEQUENCER HOUSING ASSEMBLY (29).



REPAIR OF SEQUENCER ASSEMBLY (cont)

ASSEMBLY (cont)



7. APPLY SEALING COMPOUND (ITEM 8, APPX C) TO SCREW THREADS AND INSTALL FLAT WASHER (17) AND SCREW (16) UNDER THE SOLENOID ROTARY SWITCH (1 8).

8. INSTALL TWO POSTS (12), TWO NEW NYLON WASHERS (14), AND TWO SCREWS (13). APPLY SEALING COMPOUND (ITEM 8, APPX C) TO THREADS OF SCREWS PRIOR TO INSTALLATION.

9. APPLY ADHESIVE (ITEM 1, APPX C) TO FOUR CORNERS OF NEW GASKET (11). POSITION GASKET IN HOUSING COVER (6).

10. APPLY ADHESIVE (ITEM 1, APPX C) TO COVER SIDE OF NEW NONMETALLIC SEAL (10). ALINE AND POSITION NONMETALLIC SEAL TO HOUSING COVER (6).

11. POSITION HOUSING COVER (6) ON SEQUENCER HOUSING ASSEMBLY (29). INSTALL FOUR NEW NYLON WASHERS (9) AND FOUR SCREWS (8). APPLY 4-TO 6-IN. -LB TORQUE.

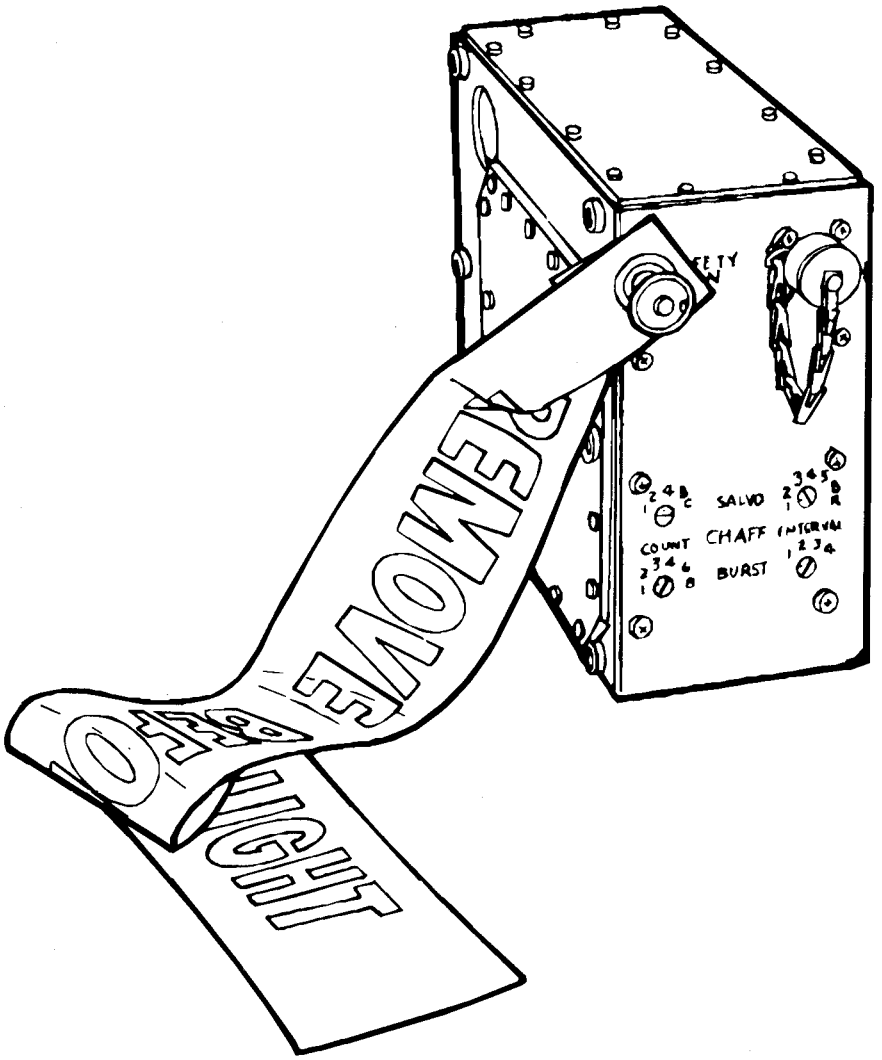
12 APPLY SEALING COMPOUND (ITEM 8, APPX C) TO THREADS OF SCREW (7) AND SCREW (8). INSTALL TWO NEW NYLON WASHERS (9) AND TWO SCREWS (7 AND 8). APPLY 4-TO 6-IN. - LB TORQUE.

13. SECURE ROTARY SWITCH (5) TO HOUSING COVER (6) WITH WASHER (4) AND NUT (3).

14. INSTALL KNOB (2) AND SECURE WITH TWO NEW SELF-LOCKING SETSCREWS (1).

END OF TASK

Section V. MAINTENANCE OF ELECTRONICS MODULE ASSEMBLY



2-14. REPAIR OF ELECTRONICS MODULE ASSEMBLY

DESCRIPTION

This task covers: Disassembly, inspection/repair, and assembly.

INITIAL SETUP

Tools/Test and Support Equipment:
Tool Kit, Electronics, Equipment, TK-105/G

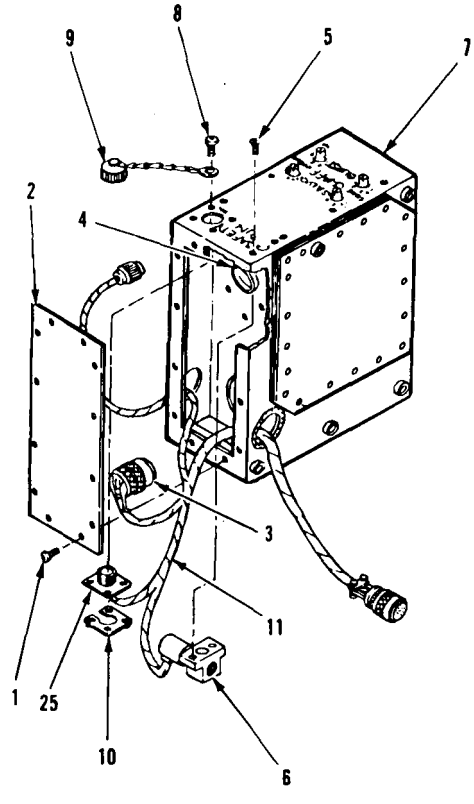
Materials/Parts:
Adhesive (item 1, Appx C)
Sealing compound (item 8, Appx C)
Varnish (item 5, Appx C)
Housing cover gasket (9311563)
Identification plate (9311509)
Nylon washer (4) (575326-1)
Nylon washer (6) (9311567-2)
Nylon washer (931 1567-3)
Programmer gasket (9311475)

Personnel Required:
MOS 68R

Equipment Conditions:
Electronics module assembly removed. (Refer to applicable aircraft TM.)

DISASSEMBLY

1. REMOVE TWELVE SCREWS (1) AND FRONT HOUSING COVER (2).
2. DISCONNECT BRANCHED WIRING HARNESS PLUG (3) FROM CONNECTOR OF PROGRAMMER MODULE (4).
3. REMOVE TWO SCREWS (5) AND SAFETY SWITCH (6) FROM OPENING IN HOUSING ASSEMBLY (7).
4. REMOVE FOUR SCREWS (8), ELECTRICAL CONNECTOR COVER (9), RETAINING PLATE (10), AND BRANCHED WIRING HARNESS (11).



2-14. REPAIR OF ELECTRONICS MODULE ASSEMBLY (cont)

REPAIR OF ELECTRONICS MODULE ASSEMBLY (cont)

DISASSEMBLY (cont)

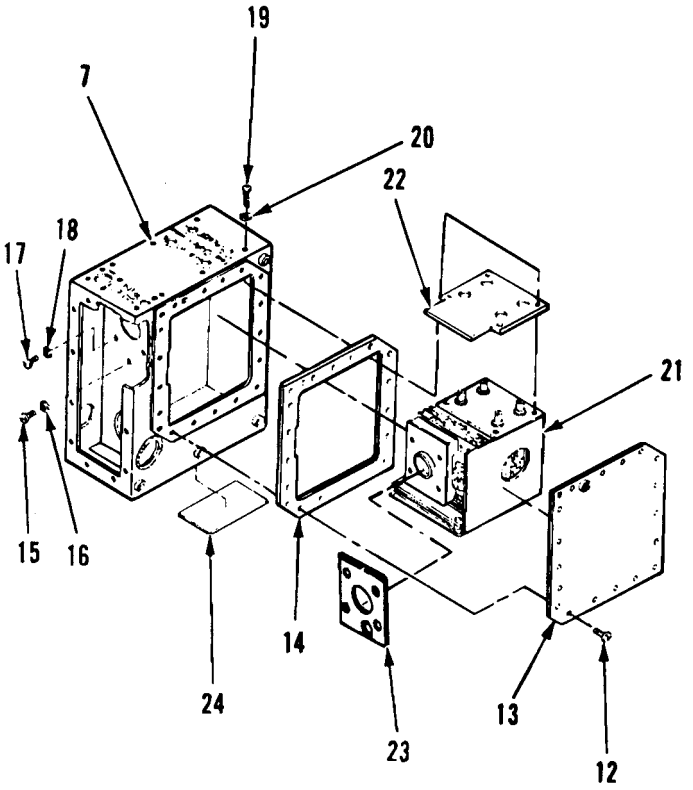
5. REMOVE EIGHTEEN SCREWS (12) AND COVER ASSEMBLY (13). REMOVE HOUSING COVER GASKET (14) FROM COVER ASSEMBLY (13).

6. REMOVE SCREW (15), NYLON WASHER (16), FOUR SCREWS (17), FOUR NYLON WASHERS (18), SIX SCREWS (19), SIX NYLON WASHERS (20), PROGRAMMER MODULE (21), PROGRAMMER GASKET (22), AND HEAT SINK GASKET (23) FROM HOUSING ASSEMBLY (7).

NOTE

Perform the following procedure only if replacement is necessary.

7. REMOVE IDENTIFICATION PLATE (24).



INSPECTION/REPAIR

1. INSPECT BRANCHED WIRING HARNESS FOR DAMAGED OR DETERIORATED WIRING, LOOSE WIRE CONNECTIONS, AND CONNECTORS WITH CRACKED INSULATION.

2. CHECK FOR CRACKED, DAMAGED, OR MISSING PARTS.

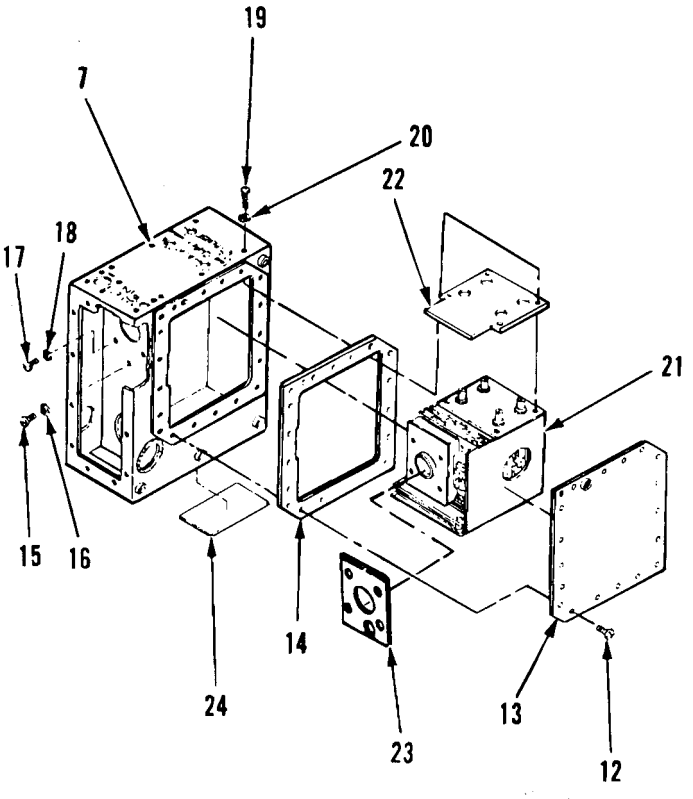
3. REPAIR IS BY REPLACEMENT OF AUTHORIZED PARTS (APPX B) WHICH DO NOT MEET THE INSPECTION CRITERIA.

4. THE PROGRAMMER MODULE ISA REPAIRABLE ASSEMBLY; REFER TO PARAGRAPH 2-15.

REPAIR OF ELECTRONICS MODULE ASSEMBLY (cont)

ASSEMBLY

1. COAT MATING SURFACES WITH ADHESIVE (ITEM 1, APPX C) AND INSTALL NEW PROGRAMMER GASKET (22) AND NEW HEAT SINK GASKET (23) IN HOUSING ASSEMBLY (7).
2. POSITION PROGRAMMER MODULE (21) IN HOUSING ASSEMBLY (7).
3. INSTALL SIX NEW NYLON WASHERS (20), SIX SCREWS (19), NEW NYLON WASHER (16), AND SCREW (15).
4. INSTALL FOUR NEW NYLON WASHERS (18) AND FOUR SCREWS (17). BEFORE INSTALLING, COAT THREADS OF SCREWS WITH SEALING COMPOUND (ITEM 8, APPX C). APPLY 5- TO 7-IN. -LB TORQUE TO SCREWS.
5. COAT MATING SURFACES WITH ADHESIVE (ITEM 1, APPX C) AND INSTALL NEW HOUSING COVER GASKET (14) ON COVER ASSEMBLY (13).
6. INSTALL COVER ASSEMBLY (13) AND EIGHTEEN SCREWS (12). BEFORE INSTALLING, COAT THREADS OF SCREWS WITH SEALING COMPOUND (ITEM 8, APPX C). APPLY 5- TO 7-IN. -LB TORQUE TO SCREWS.



2-14. REPAIR OF ELECTRONICS MODULE ASSEMBLY (cont)

REPAIR OF ELECTRONICS MODULE ASSEMBLY (cont)

ASSEMBLY (cont)

7. INSTALL CABLE ASSEMBLY CONNECTION (25) OF BRANCHED WIRING HARNESS (11), ELECTRICAL CONNECTOR COVER (9), RETAINING PLATE (10), AND FOUR SCREWS (8).

8. INSTALL SAFETY SWITCH (6) OF BRANCHED WIRING HARNESS (11) AND TWO SCREWS (5). BEFORE INSTALLING, COAT THREADS OF SCREWS WITH SEALING COMPOUND (ITEM 8, APPX C).

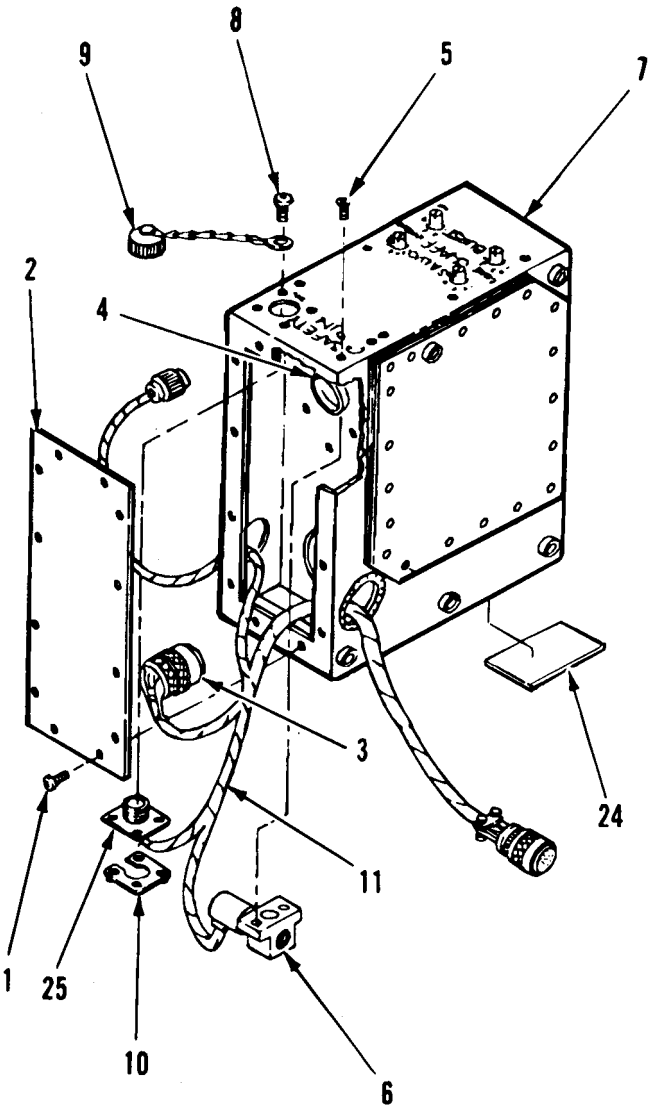
9. CONNECT BRANCHED WIRING HARNESS PLUG (3) TO CONNECTOR OF PROGRAMMER MODULE (4).

10. INSTALL FRONT HOUSING COVER (2) WITH TWELVE SCREWS (1). BEFORE INSTALLING, COAT THREADS OF SCREWS WITH SEALING COMPOUND (ITEM 8, APPX C).

NOTE

The following procedure is necessary only if identification plate was replaced.

11. REMOVE PROTECTIVE MATERIAL FROM NEW IDENTIFICATION PLATE (24) AND POSITION ON HOUSING ASSEMBLY (7). OVERCOAT AND SEAL EDGES OF IDENTIFICATION PLATE WITH VARNISH (ITEM 5, APPX C).



END OF TASK

2-15. REPAIR OF PROGRAMMER MODULE

DESCRIPTION

This task covers: Disassembly, inspection/repair, and assembly.

INITIAL SETUP

Tools/Test and Support Equipment:
Tool Kit, Electronics, Equipment, TK-105/G

Materials/Parts:
Sealing compound (item 8, Appx C)
Nylon washer (6) (931 1567-1)

Personnel Required:
MOS 68R

Equipment Conditions:
REPAIR OF ELECTRONICS MODULE ASSEMBLY performed, para 2-14.

NOTE

Identify the position of the circuit card assemblies (CCA'S) as they are being removed from the programmer module to ensure proper installation with the connections mated. Also identify the position of the chaff programmer when removed to ensure proper installation with the connections alined with their respective receptacles on the connector assembly.

2-15. REPAIR OF PROGRAMMER MODULE (cont)

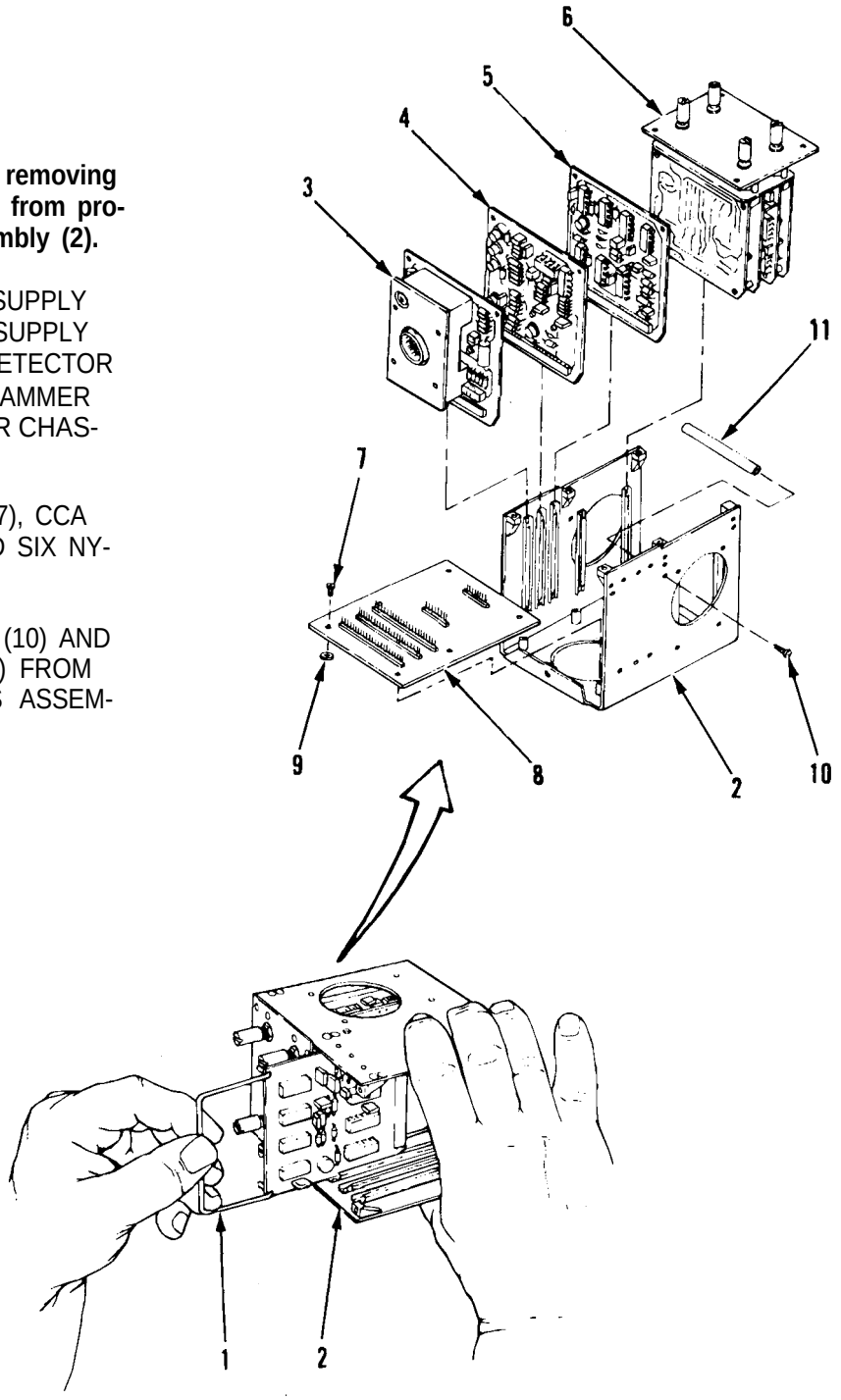
REPAIR OF PROGRAMMER MODULE (cont)

DISASSEMBLY

NOTE

Use extractor (1) when removing circuit card assemblies from programmer chassis assembly (2).

1. REMOVE CCA POWER SUPPLY NO. 1 (3), CCA POWER SUPPLY NO. 2 (4), CCA FLARE DETECTOR (5), AND CHAFF PROGRAMMER (6) FROM PROGRAMMER CHASSIS ASSEMBLY (2).
2. REMOVE SIX SCREWS (7), CCA INTERCONNECT (8), AND SIX NYLON WASHERS (9).
3. REMOVE TWO SCREWS (10) AND CHASSIS STANDOFF (11) FROM PROGRAMMER CHASSIS ASSEMBLY (2).



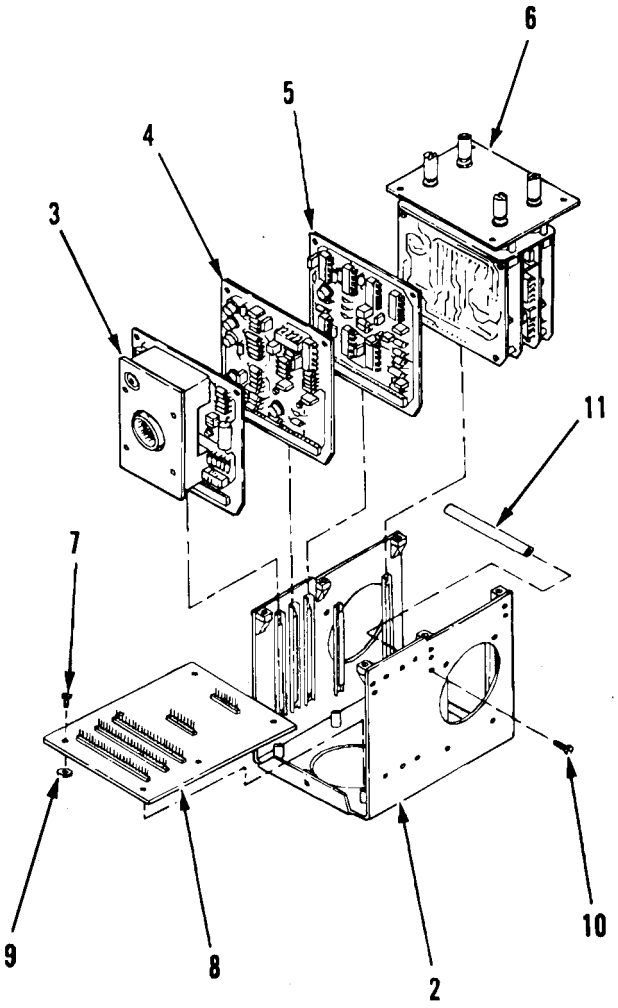
REPAIR OF PROGRAMMER MODULE (cont)

INSPECTION/REPAIR

1. INSPECT CCA's FOR DAMAGED COMPONENTS, CRACKS IN BOARDS, CRACKED INSULATION IN RECEPTACLE, AND LOOSE CONNECTOR PINS.
2. INSPECT PROGRAMMER CHASSIS ASSEMBLY FOR DISTORTION, CRACKS, AND NUT PLATES WITH STRIPPED THREADS.
3. CHECK FOR CRACKED, DAMAGED, OR MISSING PARTS.
4. REPAIR IS BY REPLACEMENT OF AUTHORIZED PARTS (APPX B) WHICH DO NOT MEET THE INSPECTION CRITERIA.

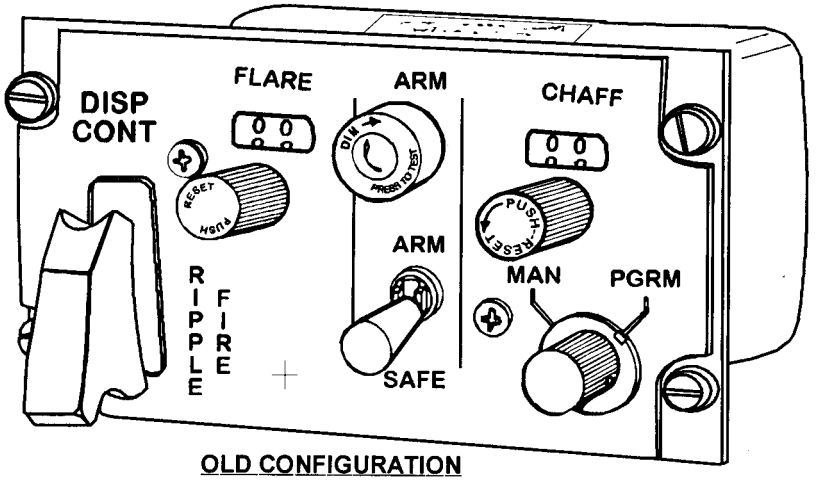
REASSEMBLY

1. INSTALL CHASSIS STANDOFF (11) AND TWO SCREWS (10) IN PROGRAMMER CHASSIS ASSEMBLY (2). APPLY SEALING COMPOUND (ITEM 8, APPX C) TO THREADS OF SCREWS BEFORE INSTALLATION.
2. INSTALL SIX NEW NYLON WASHERS (9), CCA INTERCONNECT (8), AND SIX SCREWS (7) IN PROGRAMMER CHASSIS ASSEMBLY (2).
3. INSTALL CHAFF PROGRAMMER (6), CCA FLARE DETECTOR (5), CCA POWER SUPPLY N0. 2 (4), AND CCA POWER SUPPLY NO. 1 (3).

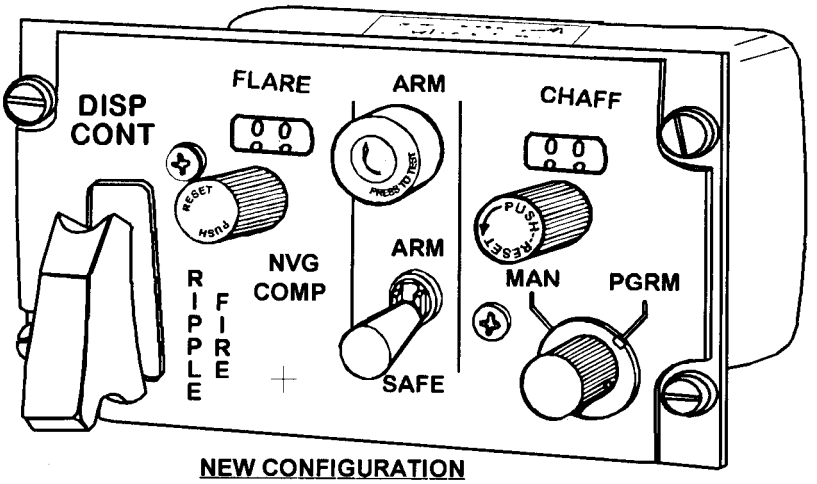


END OF TASK

Section VI. MAINTENANCE OF DISPENSER CONTROL PANEL ASSEMBLY



OLD CONFIGURATION



NEW CONFIGURATION

2-16. REPAIR OF DISPENSER CONTROL PANEL ASSEMBLY

DESCRIPTION

This task covers: Disassembly, inspection/repair, and assembly.

INITIAL SETUP

Tools/Test and Support Equipment
Tool Kit, Electronics, Equipment, TK-105/G

Materials/Parts:
Identification plate (9310959)

Personnel Required:
MOS 68R

Equipment Conditions:
Dispenser control panel assembly removed.
(Refer to applicable aircraft TM.)

2-16. REPAIR OF DISPENSER CONTROL PANEL ASSEMBLY (cont)

REPAIR OF DISPENSER CONTROL PANEL ASSEMBLY (cont)

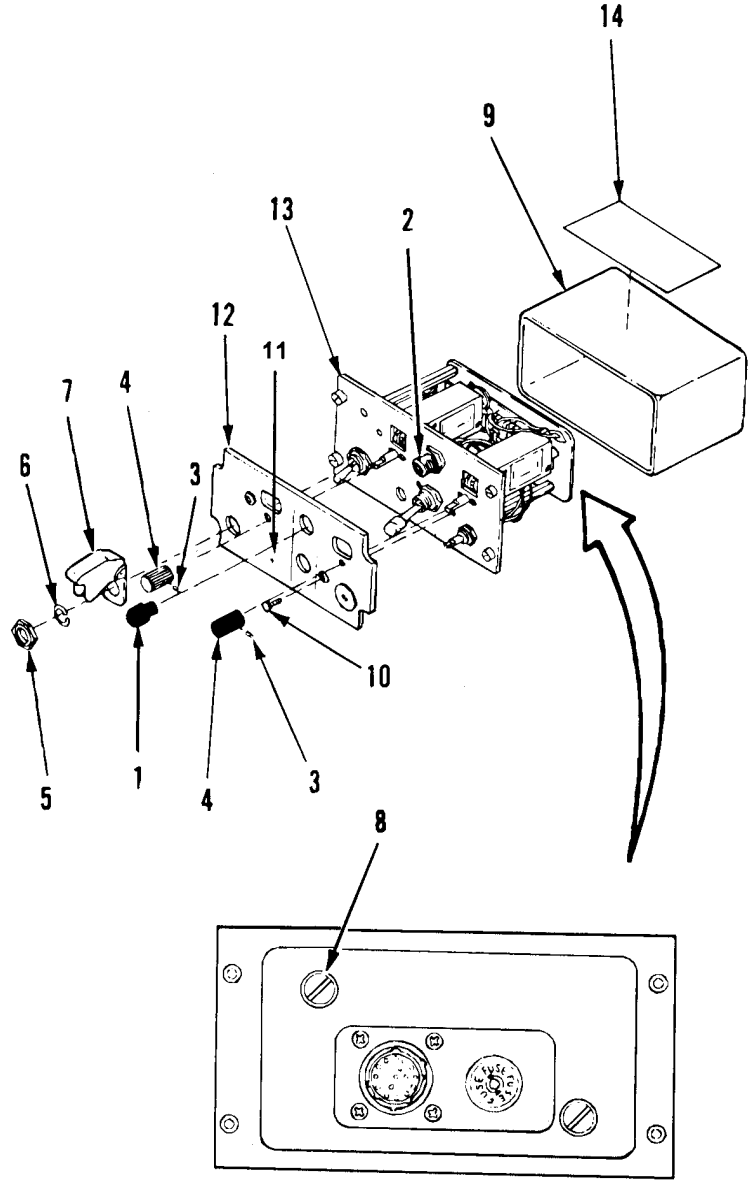
DISASSEMBLY

1. UNSCREW LENS HOLDER (1) FROM INDICATOR LIGHT (2).
2. LOOSE TWO SETSCREWS AND REMOVE MAN/PGRM KNOB (NOT ILLUSTRATED).
3. LOOSEN FOUR SETSCREWS (3) AND REMOVE THE TWO COUNTER-RESET KNOBS (4).
4. REMOVE NUT (5), LOCK-WASHER (6), AND SWITCH GUARD (7).
5. PUSH IN AND TURN THE TWO ACCESS COVER STUD SCREWS (8) 1/4-TURN COUNTERCLOCKWISE. REMOVE ACCESS COVER (9).
6. REMOVE TWO SCREWS (10).

NOTE

Be careful when removing the indicating light panel from the front and rear panel assembly to prevent damage to the plug connector in the rear of the indicating light panel.

7. USE A THIN BLADE SCREWDRIVER NEAR WHERE THE INDICATING LIGHT PANEL IS MARKED "+" (11) AND PRY INDICATING LIGHT PANEL (12) FROM FRONT AND REAR PANEL ASSEMBLY (13).



NOT

Perform the following procedure only if replacement is necessary.

8. REMOVE IDENTIFICATION PLATE (14).

REPAIR OF DISPENSER CONTROL PANEL ASSEMBLY (cont)

INSPECTION/REPAIR

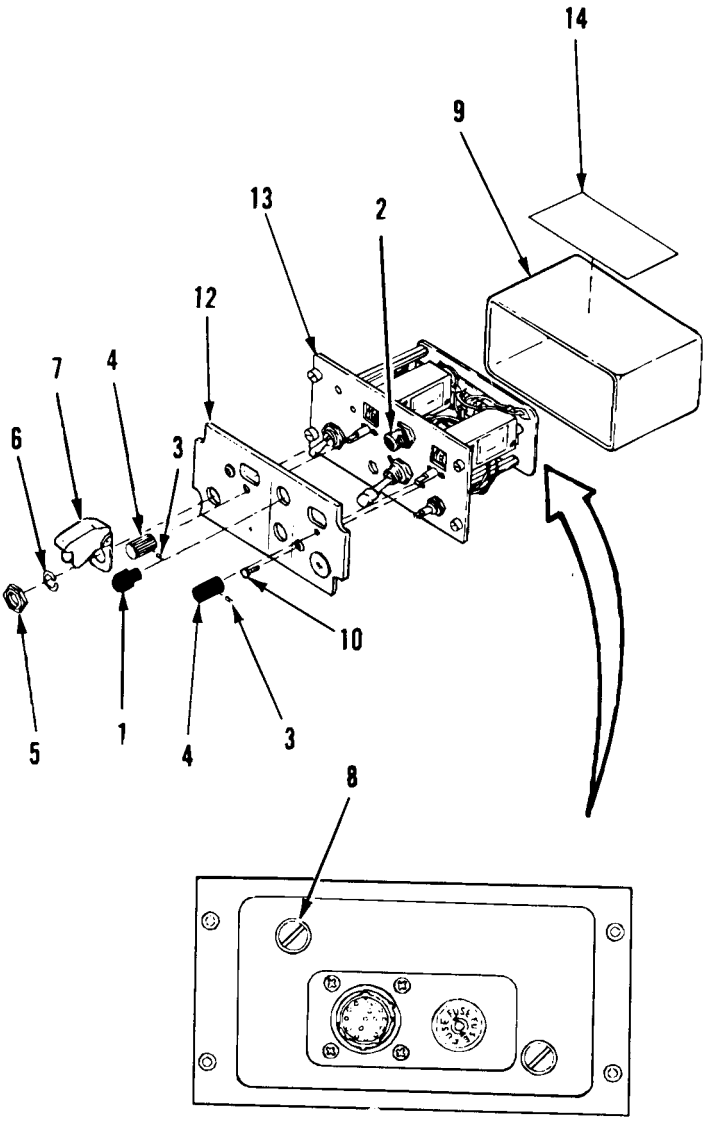
1. INSPECT ACCESS COVER FOR DISTORTION AND BROKEN STUD SCREWS.
2. INSPECT SWITCH GUARD FOR WEAK SPRING ACTION AND CRACKS.
3. INSPECT INDICATING LIGHT PANEL FOR CRACKS, ILLEGIBLE MARKINGS, AND LOOSE CONNECTIONS.
4. CHECK FOR BROKEN, DAMAGED, OR MISSING PARTS.
5. REPAIR IS BY REPLACEMENT OF AUTHORIZED PARTS (APPX B) WHICH DO NOT MEET THE INSPECTION CRITERIA.
6. THE FRONT AND REAR PANEL ASSEMBLY IS A REPAIRABLE ASSEMBLY; REFER TO PARAGRAPH 2-17.

2-16. REPAIR OF DISPENSER CONTROL PANEL ASSEMBLY (cont)

REPAIR OF DISPENSER CONTROL PANEL ASSEMBLY (cont)

ASSEMBLY

1. POSITION INDICATING LIGHT PANEL (12) TO FRONT AND REAR PANEL ASSEMBLY (13) SO PLUG CONNECTOR IN REAR OF INDICATING LIGHT PANEL IS ALINED WITH RECEPTACLE CONNECTOR IN FRONT AND REAR PANEL ASSEMBLY.
2. FASTEN INDICATING LIGHT PANEL (12) WITH TWO SCREWS (10).
3. POSITION AND FASTEN ACCESS COVER (9) TO FRONT AND REAR PANEL ASSEMBLY (13) BY TURNING TWO STUD SCREWS (8) 1/4-TURN CLOCKWISE.
4. INSTALL SWITCH GUARD (7), LOCKWASHER (6), AND NUT (5).
5. INSTALL TWO COUNTER-RESET KNOBS (4) MAINTAINING A CLEARANCE OF 0.06+0.03 IN. (0.15+0.08 CM) BETWEEN BOTTOM EDGE OF KNOBS AND INDICATING LIGHT PANEL (12) WHEN KNOBS ARE DEPRESSED. SECURE TWO COUNTER-RESET KNOBS WITH FOUR SETSCREWS (3).
6. INSTALL MAN/PRGM KNOB. SECURE KNOB WITH TWO SETSCREWS.
7. INSTALL LENS HOLDER (1) ON INDICATOR LIGHT (2).
8. IF REMOVED, POSITION AND INSTALL IDENTIFICATION PLATE (14) ON ACCESS COVER (9).



END OF TASK

2-17. REPAIR OF FRONT AND REAR PANEL ASSEMBLY

DESCRIPTION

This task covers: Disassembly, inspection/repair, and assembly.

INITIAL SETUP

Tools/Test and Support Equipment
Tool Kit, Electronics, Equipment, TK-105/G

Materials/Parts:
Heat-shrinkable sleeving (item 6, Appx C)
Solder (item 9, Appx C)
Self-locking nut (MS21044-N06)
Self-locking screw (4) (MS21093-0409)
Self-locking screw (4) (MS21093-0410)
Self-locking screw (2) (MS21093-0618)
Self-locking screw (2) (MS21093-0620)
Self-locking screw (6) (MS21093-0621)

Personnel Required:
MOS 68R

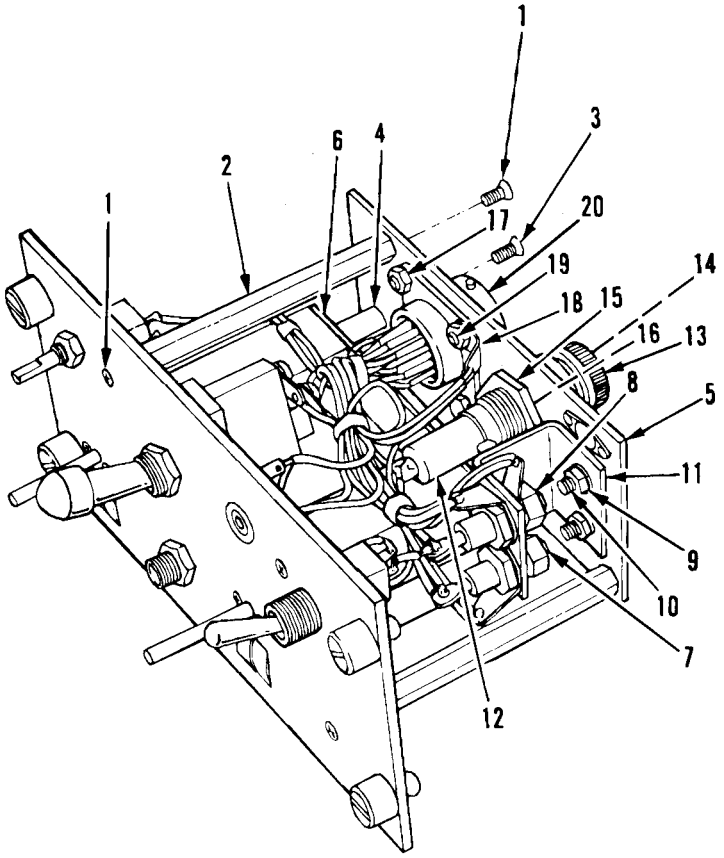
Equipment Conditions:
REPAIR OF DISPENSER CONTROL PANEL ASSEMBLY performed, para 2-16.

2-17. REPAIR OF FRONT AND REAR PANEL ASSEMBLY (cont)

REPAIR OF FRONT AND REAR PANEL ASSEMBLY (cont)

DISASSEMBLY

1. REMOVE SIX SELF-LOCKING SCREWS (1), THREE POSTS (2), TWO SELF-LOCKING SCREWS (3), AND TWO POSTS (4). SLIDE BACK THE REAR PANEL ASSEMBLY (5) AND CIRCUIT CARD ASSEMBLY (6).
2. TAG AND UNSOLDER THE WIRES CONNECTED TO DIODE (CR7) (7) AND DIODE (CR8) (8) AND THE WIRES CONNECTED TO THREE TERMINAL LUGS.
3. REMOVE TWO NUTS (9), TWO SELF-LOCKING SCREWS (10), AND DIODE BRACKET ASSEMBLY (11).
4. TAG AND UNSOLDER THREE WIRES CONNECTED TO FUSEHOLDER (12).
5. REMOVE FUSEHOLDER CAP (13), FUSE (14), NUT (15), WASHER (16), AND FUSEHOLDER (12).
6. REMOVE FOUR NUTS (17), TERMINAL LUG (18), FOUR SELF-LOCKING SCREWS (19), AND SEPARATE RECEPTACLE CONNECTOR (20). REMOVE REAR PANEL ASSEMBLY (5).
7. TAG AND UNSOLDER THE WIRES CONNECTED TO RECEPTACLE CONNECTOR (20). REMOVE RECEPTACLE CONNECTOR (20).
8. TAG AND UNSOLDER WIRES CONNECTED TO CIRCUIT CARD ASSEMBLY (6). REMOVE CIRCUIT CARD ASSEMBLY (6).



REPAIR OF FRONT AND REAR PANEL ASSEMBLY (cont)

DISASSEMBLY (cont)

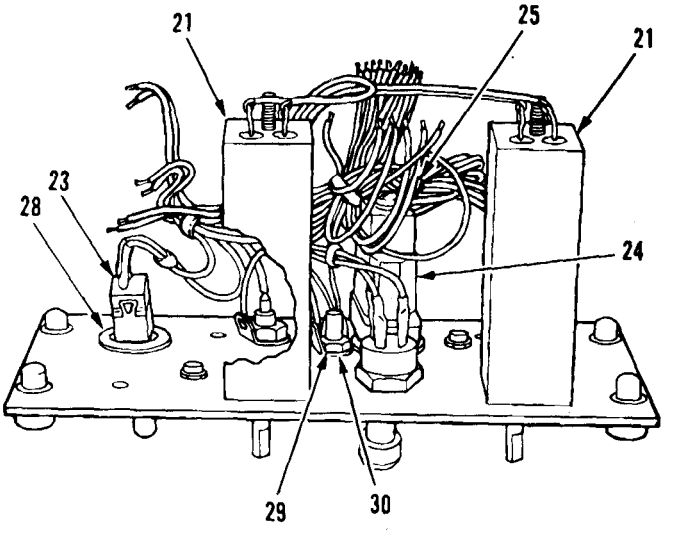
9. TAG AND UNSOLDER THE WIRES FROM THE TWO ELECTRICAL COUNTERS (21).

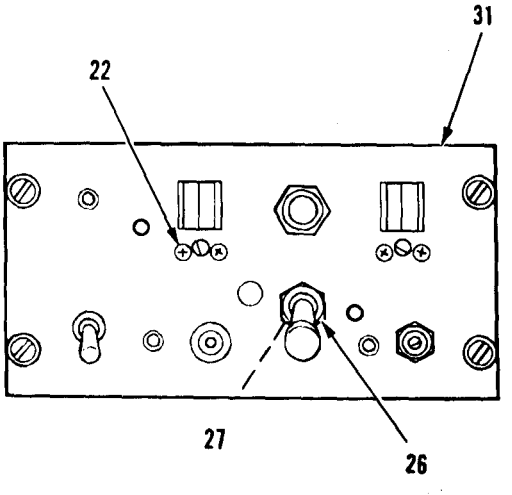
10. REMOVE FOUR SELF-LOCKING SCREWS (22) AND TWO ELECTRICAL COUNTERS (21).

11. TAG AND UNSOLDER WIRES CONNECTED TO TOGGLE SWITCH (S2) (23) AND TOGGLE SWITCH (S3) (24) WITH TERMINAL LUGS (25).

12. REMOVE TWO NUTS (26), TWO LOCKWASHERS (27), TOGGLE SWITCH (S2) (23), TOGGLE SWITCH (S3) (24), TWO LOCKING RINGS (28), SELF-LOCKING NUT (29), AND TWO TERMINAL LUGS (30) FROM FRONT PANEL ASSEMBLY (31).

13. REMOVE TWO TERMINAL LUGS (25) FROM TOGGLE SWITCH (S3) (24).





2-17. REPAIR OF FRONT AND REAR PANEL ASSEMBLY (cont)

REPAIR OF FRONT AND REAR PANEL ASSEMBLY (cont)

DISASSEMBLY (cont)

14. TAG AND UNSOLDER WIRES CONNECTED TO ROTARY SWITCH (S1) (32).

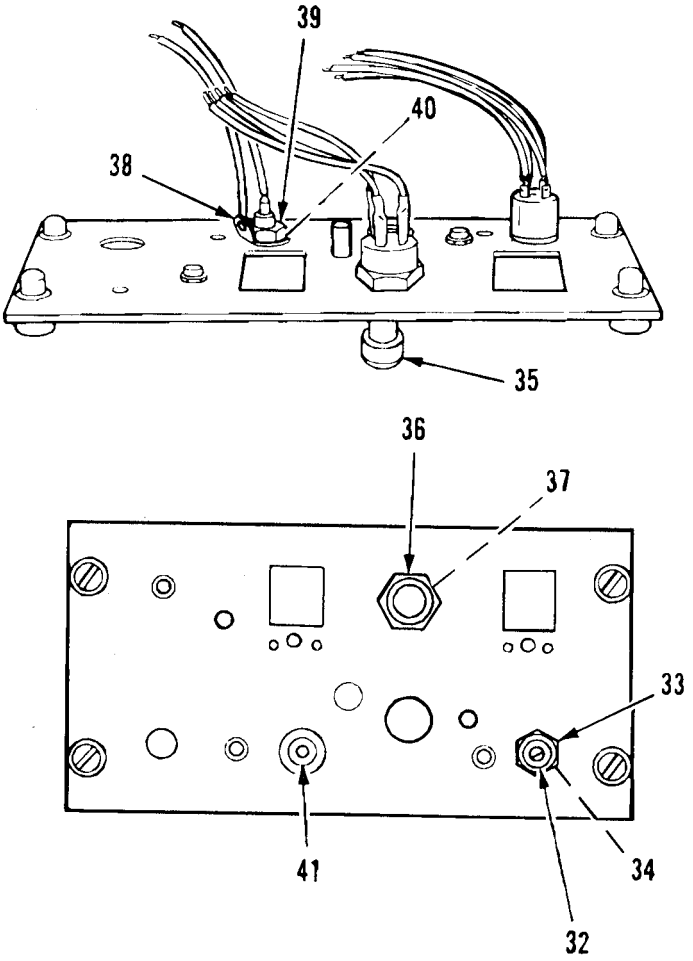
15. REMOVE NUT (33), LOCKWASHER (34), AND ROTARY SWITCH (S1) (32).

16. TAG AND UNSOLDER THREE WIRES CONNECTED TO INDICATOR LIGHT (DSI) (35).

17. REMOVE NUT (36), LOCKWASHER (37), AND INDICATOR LIGHT (DS1) (35).

18. TAG AND UNSOLDER WIRE FROM TERMINAL LUG (38).

19. REMOVE NUT (39), LOCKWASHER (40), RECEPTACLE CONNECTOR (J2) (41), AND TERMINAL LUG (38).



REPAIR OF FRONT AND REAR PANEL ASSEMBLY (cont)

INSPECTION/REPAIR

1. INSPECT WIRES FOR DETERIORATED INSULATION AND BARE WIRES.
2. INSPECT ROTARY AND TOGGLE SWITCHES FOR PROPER FUNCTION AND CONTINUITY.
3. INSPECT CIRCUIT CARD ASSEMBLY FOR BROKEN BANDS AND LOOSE OR DAMAGED COMPONENTS.
4. INSPECT RECEPTACLE CONNECTORS FOR CRACKED INSULATION AND LOOSE WIRE CONNECTORS.
5. CHECK FOR CRACKED, DAMAGED, OR MISSING PARTS.
6. REPAIR IS BY REPLACEMENT OF AUTHORIZED PARTS (APPX B) WHICH DO NOT MEET THE INSPECTION CRITERIA. FOR REPLACEMENT OF WIRES, REFER TO APPENDIX C.

ASSEMBLY

NOTE

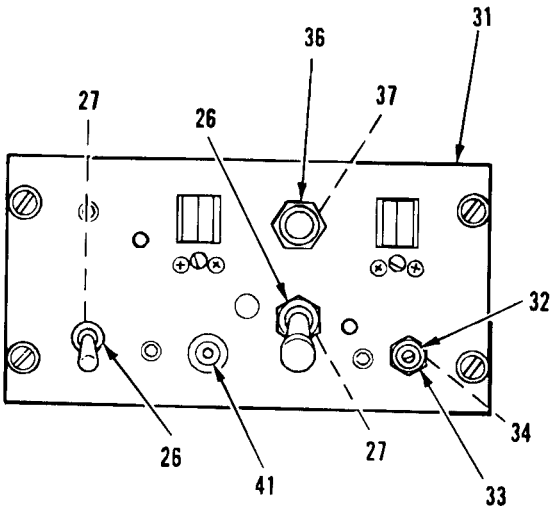
Where it was necessary to remove a shrinkable heat sleeving for unsoldering a connection, a heat shrinkable sleeving (item 6, Appx C) shall be reinstalled prior to resoldering.

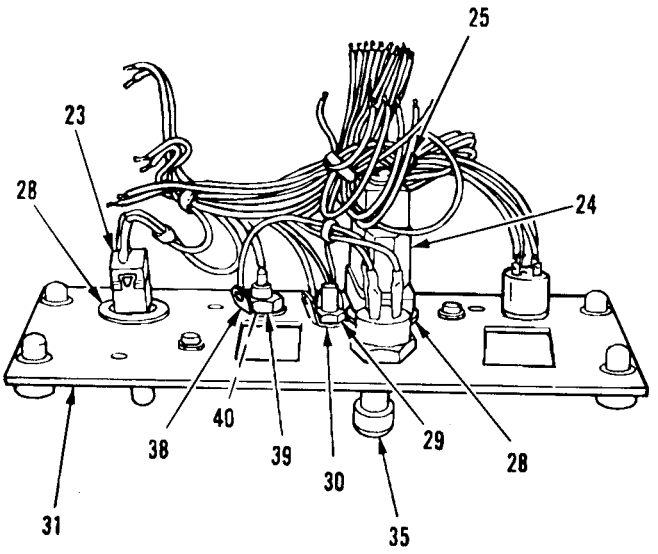
Soldering shall be in accordance with MIL-STD-2000A.

2-17. REPAIR OF FRONT AND REAR PANEL ASSEMBLY (cont)

ASSEMBLY (cont)

1. INSTALL RECEPTACLE CONNECTOR (J2) (41), TERMINAL LUG (38), LOCKWASHER (40), AND NUT (39) ON FRONT PANEL ASSEMBLY (31).
2. SOLDER WIRE TO TERMINAL LUG (38) AND RECEPTACLE CONNECTOR (41).
3. INSTALL INDICATOR LIGHT (DS1) (35), LOCKWASHER (37), AND NUT (36).
4. SOLDER THREE WIRES TO INDICATOR LIGHT (35).
5. INSTALL, ROTARY SWITCH (SI) (32), LOCKWASHER (34), AND NUT (33).
6. SOLDER WIRES TO THE ROTARY SWITCH (32).
7. INSTALL TWO TERMINAL LUGS (30) AND NEW SELF-LOCKING NUT (29).
8. INSTALL LOCKING RING (28), TOGGLE SWITCH (S3) (24), TWO TERMINAL LUGS (25), LOCKWASHER (27), AND NUT (26).
9. SOLDER WIRES TO TERMINAL LUGS (25 AND 30).
10. INSTALL LOCKING RING (28), TOGGLE SWITCH (S2) (23), LOCKWASHER (27), AND NUT (26). SOLDER WIRES TO SWITCH TERMINALS.





REPAIR OF FRONT AND REAR PANEL ASSEMBLY (cont)

ASSEMBLY (cont)

11. INSTALL TWO ELECTRICAL COUNTERS AND FOUR NEW SELF-LOCKING SCREWS (22).

12. SOLDER WIRES TO TERMINALS OF ELECTRICAL COUNTERS (21).

13. SOLDER WIRES TO CIRCUIT CARD ASSEMBLY (6) AND RECEPTACLE CONNECTOR (Jl) (20).

14. INSTALL RECEPTACLE CONNECTOR (20), FOUR NEW SELF-LOCKING SCREWS (19), TERMINAL LUG (18), AND FOUR NUTS (17) ON REAR PANEL ASSEMBLY (5).

15. FASTEN FUSEHOLDER (12) TO REAR PANEL ASSEMBLY (5) WITH WASHER (16) AND NUT (15). INSTALL FUSE (14) AND FUSEHOLDER CAP (13).

16. SOLDER WIRES TO FUSEHOLDER (12) TERMINALS.

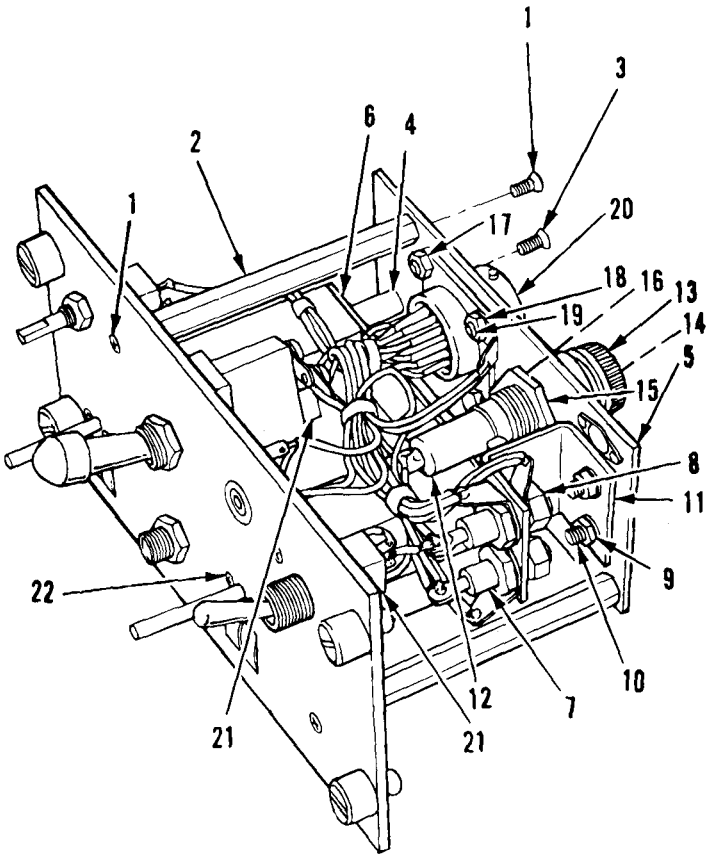
17. INSTALL DIODE BRACKET ASSEMBLY (11) WITH TWO NEW SELF-LOCKING SCREWS (1 O) AND TWO NUTS (9).

18. SOLDER WIRES TO DIODE (CR7) (7), DIODE (CR8) (8), AND TERMINAL LUGS.

19. INSTALL CIRCUIT CARD ASSEMBLY (6), TWO POST (2), AND TWO NEW SELF-LOCKING SCREWS (3).

20. INSTALL THREE POSTS (2) AND SIX NEW SELF-LOCKING SCREWS (1).

21. GO TO PARAGRAPH 2-16, ASSEMBLY.



END OF TASK

APPENDIX A
REFERENCES

A-1 . PURPOSE

This appendix lists publications which apply to maintaining the Dispenser, General Purpose, Aircraft: M130.

A-2. ARRANGEMENT

The publications are arranged by type and then in alphanumeric order by publication number,

TECHNICAL MANUALS (TM)

TM 9-1300-206	Ammunition and Explosives Standards
TM 9-1370-203-20&P	Organizational Maintenance Manual (Including Repair Parts and Special Tools List) For Military Pyrotechnics
TM 9-4940-497-13&P	Aviation Unit Maintenance and Aviation Intermediate Maintenance Manual (Including Repair Parts and Special Tools List) For Test Sets, Electronic Systems, M91 and M92
TM 11-5865-263-12	Operator's and Aviation Unit Maintenance Manual (AVUM) for Countermeasures Set, AN/ALQ-156(V)1, (V)2,(V)3
TM 43-0158	Repair Maintenance for Test Equipment
TM 750-244-1-5	Procedures for the Destruction of Aircraft and Associated Equipment to Prevent Enemy Use
TM 750-244-7	Procedures for Destruction of Equipment in Federal Supply Classifications 1000, 1005, 1010, 1015, 1020, 1025, 1030, 1055, 1090 and 1095 to Prevent Enemy Use
TB 43-0123	Aviation Electronics Configuration Directory
TB 43-180	Calibration and Repair Requirements for the Maintenance of Army Materiel
TB 385-4	Safety Requirements for Maintenance to Electrical and Electronic Equipment

FORMS

DA Form 2028	Recommended Changes to Publications and Blank Forms
DA Form 2028-2	Recommended Changes to Equipment Technical Manuals
DA Form 2404	Equipment Inspection and Maintenance Worksheet
SF Form 364	Report of Discrepancy (ROD)
SF Form 368	Quality Deficiency Report (Category II)

OTHER

AR 700-42	Classification, Reclassification, Maintenance, Issuance and Reporting of Maintenance Training Aircraft
CTA 8-100	Army Medical Department Expendable/Durable Items
CTA 50-970	Expendable/Durable Items (except Medical, Class V, Repair Parts, and Heraldic Items)
DA PAM 738-751	Functional Users Manual for The Army Maintenance Management System-Aviation (TAMMS-A)
FM 21-11 (TEST)	First Aid for Soldiers
MIL-P-116	Methods of Preservation-Packaging
MIL-STD-12D	Abbreviations for Use on Drawings, and in Specifications, Standards and Technical Documents
MIL-STD-129H	Marking for Shipping and Storage
MIL-STD-1460	Soldering of Electrical Connections and Printed Wiring Assemblies, Procedures for
PPP-B-621 D	Boxes, Wood, Nailed and Lock-Corner
PPP-C-850	Cushioning Material, Polystyrene Expanded, Resilient (For Packaging Uses)
SC-5180-91-CL-R13-HR	Tool kit, electronic equipment, TK-101/G
SC-5180-91-CL-R07-HR	Tool kit, electronic equipment, TK-105/G

APPENDIX B
AVIATION INTERMEDIATE MAINTENANCE
REPAIR PARTS AND SPECIAL TOOLS LIST

Section I. INTRODUCTION

B-1 . SCOPE

This RPSTL lists and authorizes spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMDE); and other special support equipment required for performance of aviation unit and aviation intermediate maintenance of the M130 general purpose dispenser. It authorizes the requisitioning, issue, and disposition of spares, repair parts and special tools as indicated by the source, maintenance and recoverability (SMR) codes.

B-2. GENERAL

In addition to Section I. Introduction, this repair parts and special tools list is divided into the following sections:

a. Section Il. Repair Parts List. A list of spares and repair parts authorized by this RPSTL for use in the performance of maintenance. The list also includes parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending alphanumeric sequence, with the parts in each group listed in ascending figure and item number sequence. Bulk materials are listed by item name in FIG BULK at the end of the section. Repair parts kits or sets are listed separately in their own functional group within section Il. Repair parts for repairable special tools are also listed in this section.

b. Section Ill. Special Tools List. A list of special tools, special TMDE, and other special support equipment authorized by this RPSTL (as indicated by Basis of Issue (BOI) information in DESCRIPTION AND USABLE ON CODE (UOC) column) for the performance of maintenance.

c. Section IV. Cross-Reference Indexes. A list, in National item identification number (NIIN) sequence, of all National stock numbered items appearing in the listings, followed by a list in alphanumeric sequence of all part numbers appearing in the listings. National stock numbers and part numbers are cross-referenced to each illustration figure and item number appearance. The figure and item number index lists figure and item numbers in alphanumeric sequence and cross-references NSN, FSCM, and part numbers.

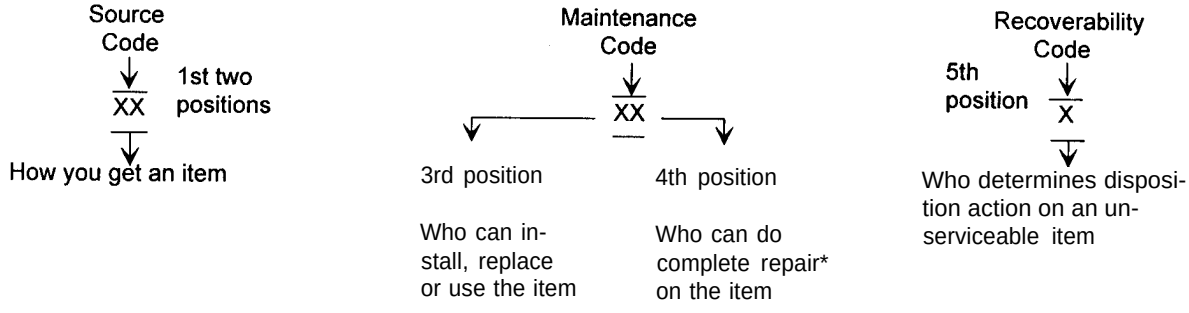
B-3. EXPLANATION OF COLUMNS (SECTIONS II AND Ill)

The columns in sections II and Ill are explained as follows.

a. Item No. (Column (1)). Indicates the number used to identify items called out in the illustration.

B-3. EXPLANATION OF COLUMNS (SECTIONS II AND III) (cont)

b. SMR Code (Column (2)). The Source, Maintenance, and Recoverability (SMR) code is a 5-position code containing supply/requisitioning information, maintenance category authorization criteria, and disposition instruction, as shown in the following breakout:



*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.

(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 category indicated by the code entered in the 3rd position of the SMR code. **NOTE: Items coded PC are subject to deterioration.
KD KF KB	Items with these codes are not to be requested/requisitioned individually. They are part of a kit which is authorized to the maintenance category indicated in the 3rd position of the SMR code. The complete kit must be requisitioned and applied.

Code	Explanation
MO - (Made at AVUM Level) MF - (Made at AVIM 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 in this RPSTL. If the item is authorized to you by the 3rd 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 AVUM Level) AF - (Assembled by AVIM Level) AL - (Assembled by SRA) AD - (Assembled by Depot)	Items with these codes are not to be requested/requisitioned individually. The parts that make up the assembled item must be requisitioned or fabricated and assembled at the level of maintenance indicated by the source code. If the 3rd 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.

XA - Do not requisition an "XA''-coded item. Order its next higher assembly. (Also, refer to the NOTE below.)

XB - If an "XB" item is not available from salvage, order it using the FSCM 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 FSCM 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 "X/4" or those aircraft support items restricted by requirements of AR 700-42.

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

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

Code	Application/Explanation
C	-Crew or operator maintenance done within organizational or aviation unit maintenance.
O	-Aviation unit category can remove, replace, and use the item.
F	-Aviation intermediate 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.

B-3. EXPLANATION OF COLUMNS (SECTIONS II AND Ill) (cont)

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

(NOTE: Some limited repair may be done on the item at a lower level of maintenance, if authorized by the Maintenance Allocation Chart (MAC) and SMR codes.) This position will contain one of the following maintenance codes.

Code	Application/Explanation
O	-Aviation unit is the lowest level that can do complete repair of the item.
F	-Aviation intermediate is the lowest level that can do complete repair of the item.
L	-Specialized repair activity is the lowest level that can do complete repair of the item.
D	-Depot is the lowest level that can do complete repair of the item.
Z	-Nonreparable. No repair is authorized.
B	-No repair is authorized. (No parts or special tools are authorized for the maintenance of a “B” coded item.) However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

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

Recoverability Codes	Application/Explanation
Z	-Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in 3rd position of SMR Code.
o	-Reparable item, When uneconomically reparable, condemn and dispose of the item at aviation unit level.
F	-Reparable item. When uneconomically reparable, condemn and dispose of the item at the aviation intermediate level.

Recoverability Codes	Application/Explanation
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. FSCM (Column (3)). The Federal Supply Code for Manufacturer (FSCM) is a 5-digit numerit code which is used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

d. Part Number (Column (4)). Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications standards, and inspection requirements to identify an item or range of items.

NOTE: When you use an NSN to requisition an item, the item you receive may have a different part number from the part ordered.

e. Description and Usable On Code (UOC) (Column (5)). This column includes the following information:

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

(2) The physical security classification of the item is indicated by the parenthetical entry which is a physical security classification abbreviation (e.g., Phy Sec Cl (C) - Confidential, Phy Sec Cl (S) - Secret, Phy Sec Cl (T) - Top Secret).

(3) Items that are included in kits and sets are listed below the name of the kit or set.

(4) Spare/repair parts that make up an assembled item are listed immediately following the assembled item line entry.

(5) Part numbers for bulk materials are referenced in this column in the line item entry for the item to be manufactured/fabricated.

(6) When the item is not used with all serial numbers of the same model, the effective serial numbers are shown on the last line(s) of the description (before UOC).

(7) The usable on code, when applicable. (See paragraph 5, special information.)

B-3. EXPLANATION OF COLUMNS (SECTIONS II AND Ill) (cont)

(8) In the special tools list section, the basis of issue (BOI) appears as the last line(s) in the entry for each special tool, special TMDE, and other special support equipment. When density of equipment supported exceeds density spread indicated in the basis of issue, the total authorization is increased proportionately.

(9) 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 ill.

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

B-4. EXPLANATION OF COLUMNS (SECTION IV).

The columns in section IV are explained as follows.

a. National Stock Number (NSN) Index.

(1) Stock Number Column. This column lists the NSN by National item identification number (NIIN) sequence. The NIIN consists of the last nine digits of the NSN (i.e., 5305-01-674-1467). When using this column to locate an item, ignore the first 4 digits of the NSN. However, the complete NSN should be used when ordering items by stock number.

(2) Fig. column. This column lists the number of the figure where the item is identified/located. The figures are in numerical order in section II and section Ill.

(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.

b. Part Number Index. Part numbers in this index are listed by part number in ascending alphanumeric sequence (i.e., vertical arrangement of letter and number combination which places the first letter or digit of each group in order A through Z, followed by the numbers 0 through 9 and each following letter or digit in like order).

(1) FSCM Column. The Federal Supply Code for Manufacturer (FSCM) is a 5-digit numeric code used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

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

(3) Stock Number Column. This column lists the NSN for the associated part number and manufacturer identified in the PART NUMBER and FSCM columns to the left.

(4) Fig. Column. This column lists the number of the figure where the item is identified/located in sections II and Ill.

(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. Figure and Item Number Index.

(1) Fig. Column. This column lists the number of the figure where the item is identified/located in Section II and Ill.

(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.

(3) Stock Number Column. This column lists the NSN for the item.

(4) FSCM Column. The Federal Supply Code for Manufacturer (FSCM) is a 5-digit numeric code used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

(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.

B-5. SPECIAL INFORMATION

Assembly Instruction. Detailed assembly instructions for items source coded to be assembled from component spare/repair parts are found in the appropriate maintenance paragraph of this manual. Items that make up the assembly are listed immediately following the assembly item entry or reference is made to an applicable figure.

B-6. HOW TO LOCATE REPAIR PARTS

Information on locating repair parts is as follows,

a. When National Stock Number or Part Number is Not Known.

(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.

(2) Second. Find the figure covering the assembly group or subassembly group to which the item belongs.

(3) Third. Identify the item on the figure and use the Figure and Item Number Index to find the NSN.

B-6. HOW TO LOCATE REPAIR PARTS (cont)

b. When National Stock Number or Part Number is Known.

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

(2) Second. Turn to the figure and item number, verify that the item is the one you're looking for, then locate the item number in the repair parts list for the figure.

B-7. ABBREVIATIONS

Not applicable.

Section II. REPAIR PARTS LIST

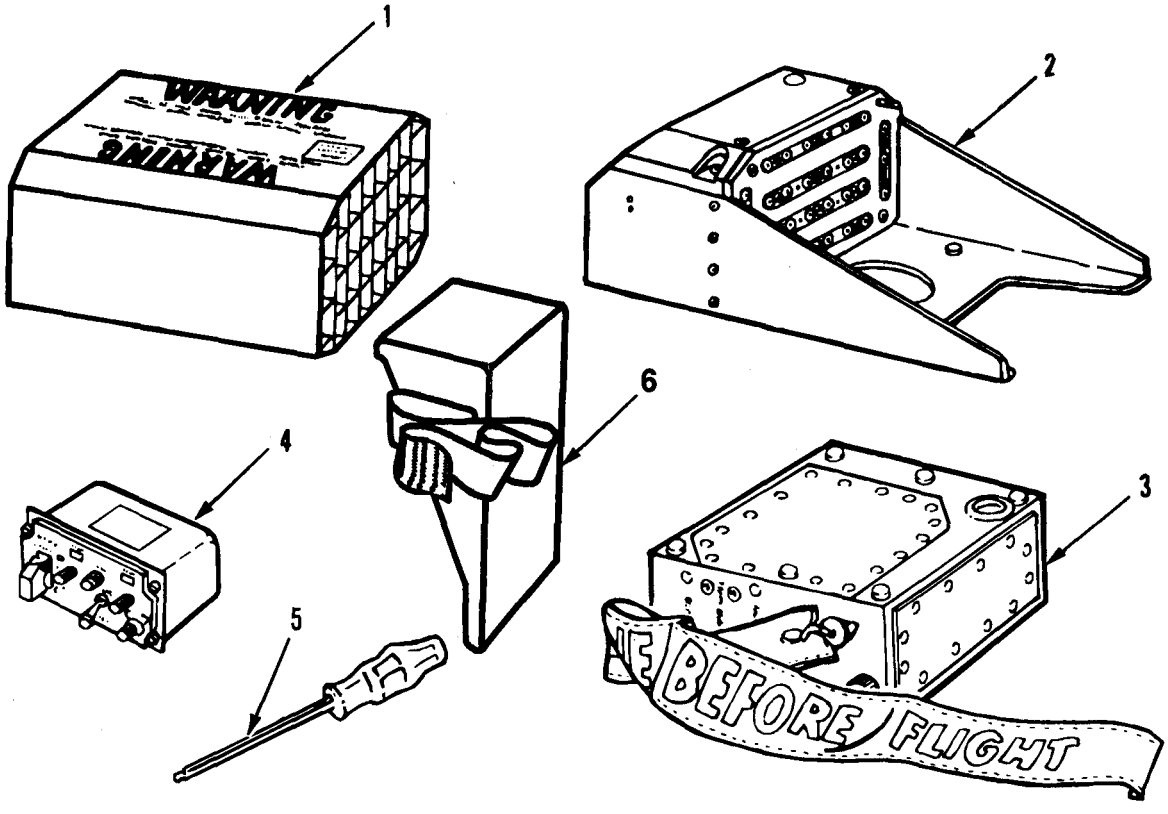


Figure B-1. M130 General Purpose Aircraft Dispenser 9311430.

(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
				GROUP 00 FIG. B-1 M130 GENERAL PURPOSE AIRCRAFT DISPENSER 9311430	
1	PAOOO	19203	9311451	CONTAINER, CARTRIDGE (SEE FIG. B-2 FOR ASSY BKDN)	1
2	PAOFF	19203	9311434	DISPENSER ASSEMBLY (SEE FIG. B-4 FOR ASSY BKDN)	1
3	PAOFF	19203	9311431	CONTROL BOX, PROGRAM (SEE FIG. B-7 FOR ASSY BKDN)	1
4	PAOFF	19203	9272533	CONTROL BOX, DISPENS (SEE FIG. B-9 FOR ASSY BKDN)	1
5	PAOZZ	19200	9326701	KEY, SOCKET HEAD SCREWDRIVER, BALL HEX KEY HEAD	1
6	PAOZZ	02731	7-262120029	COVER, ACCESS, PROTECTIVE	1
				END OF FIGURE	

SECTION II

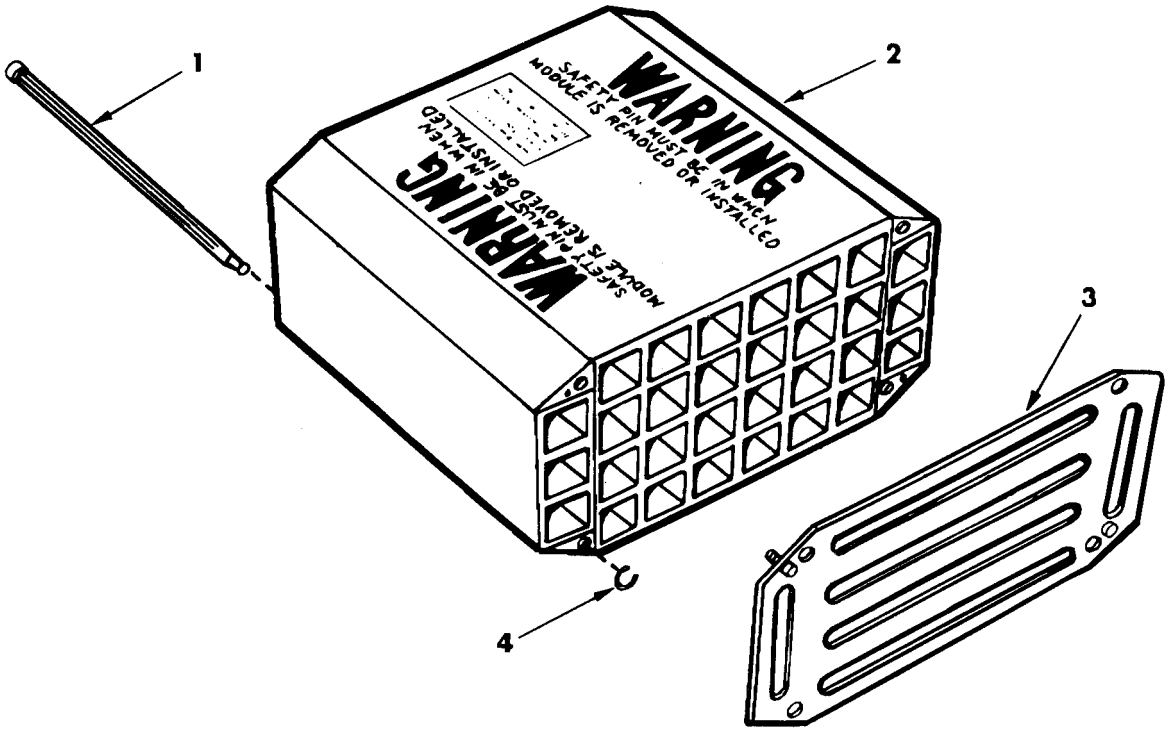


Figure B-2. Cartridge Container 9311451.

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 01 FIG. B-2 CARTRIDGE CONTAINER 9311451 SEE FIG. B-1 FOR NHA)	
1	PAOZZ	19203	9311505	STUD NUT	2
2	XAOZZ	19200	9335632	PAYLOAD MODULE	1
3	PAOOO	19203	9311478	PLATE, RETAINING (SEE FIG. B-3 FOR ASSY BKDN)	1
4	PAOZZ	96906	MS16632-1025	RING RETAINING	2
				END OF FIGURE	

SECTION II

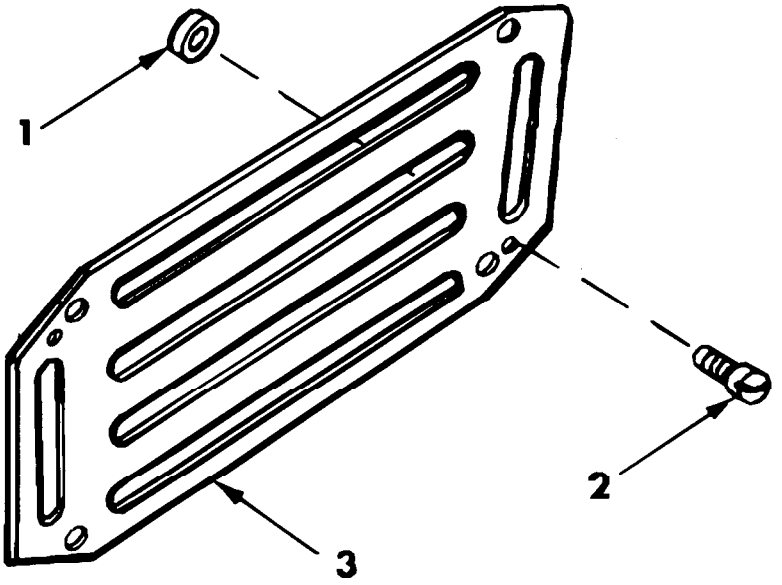


Figure B-3. Retaining Plate 9311478.

(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
				GROUP 0101 FIG. B-3 RETAINING PLATE 9311478 (SEE FIG. B-2 FOR NHA)	
1	PAOZZ	19203	9378454	NUT, PLAIN ROUND	2
2	PAOZZ	96906	MS35275-230	SCREW, MACHINE	2
3	XAOZZ	19203	9311446	PIATE RETAINING	1
				END OF FIGURE	

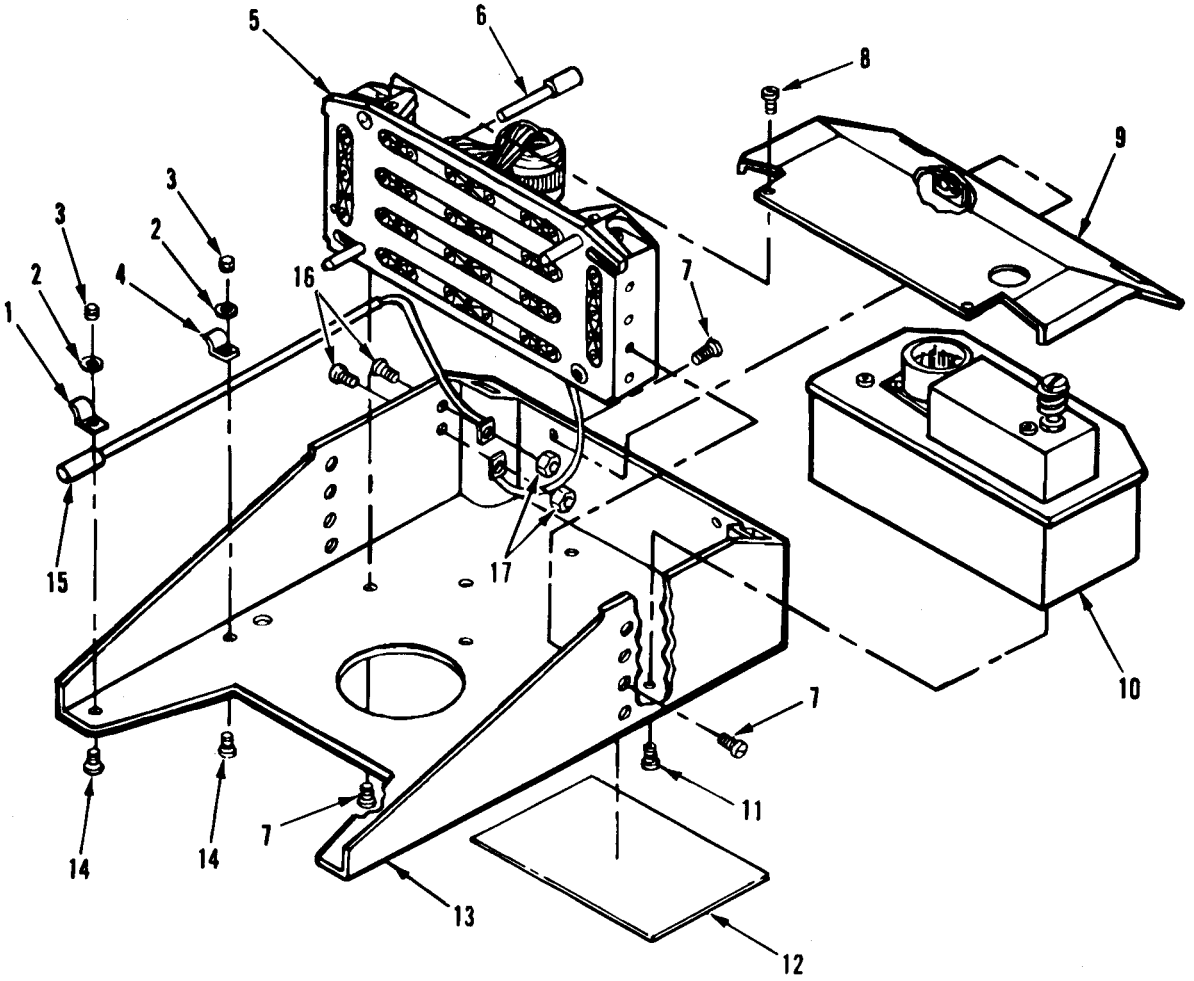


Figure B-4. Dispenser Assembly 9311434.

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODE (UOC)	(6) QTY
				GROUP 02 FIG. B-4 DISPENSER ASSEMBLY 9311434 (SEE FIG.B-1 FOR NHA)	
1	PAFZZ	19203	9311685	STRAP,RETAINING	1
2	PAFZZ	81352	AN960C4L	WASHER,FLAT	2
3	PAFZZ	96906	MS21043-04	NUT,SELF-LOCKING,EX	2
4	PAFZZ	19203	9311689	STRAP,RETAINING	1
5	XAFFF	19203	9311437	BREECH,DISPENSER (SEE FIG.B-5 FOR ASSY BKDN)	1
6	XAFZZ	19200	9311424	PLUNGER,RESET:SWITCH	1
7	PAFZZ	96906	MS24693C49	SCREW,MACHINE	13
8	PAFZZ	96906	MS51957-43	SCREW,MACHINE	2
9	PAFZZ	19203	9311426	COVER,ACCESS	1
10	XAFFF	19200	9311443	SEQUENCER ASSEMBLY: (SEE FIG.B-6 FOR ASSY BKDN)	1
11	PAFZZ	96906	MS24693C47	SCREW,MACHINE	4
12	MDFZZ	19203	9311690	PLATE IDENTIFICATION	1
13	XAFZZ	19203	9311427	MOUNTING PLATE	1
14	PAFZZ	96906	MS51959-15	SCREW,MACHINE	2
15	PAFZZ	19203	9311494	FLARE SENSOR ASSEMBLY	1
16	PAFZZ	96906	MS51959-17	SCREW,MACHINE	2
17	PAFZZ	96906	MS21044C04	NUT,SELF-LOCKING,HE	2
				END OF FIGURE	

SECTION II

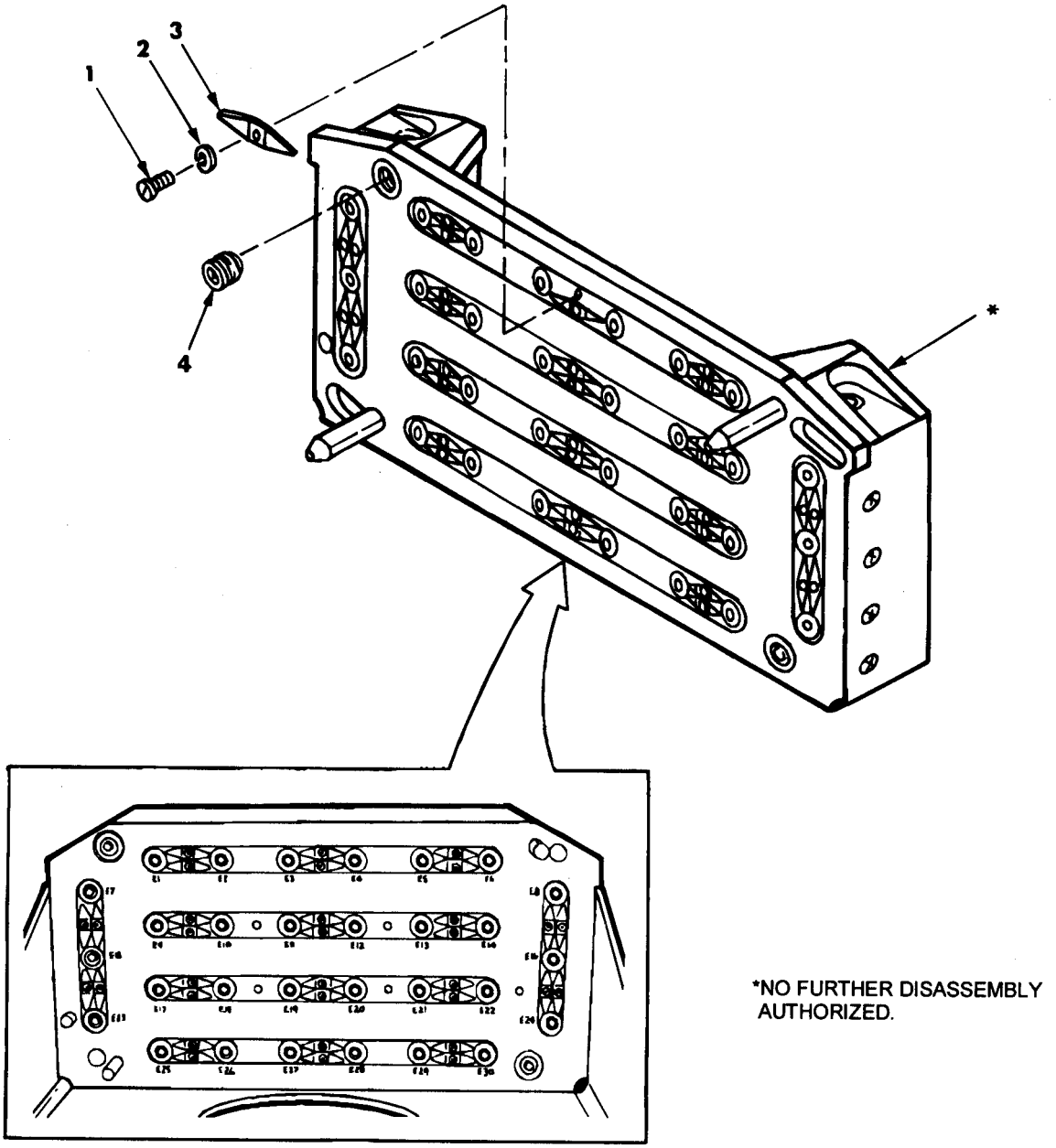


Figure B-5. Dispenser Breech 9311437.

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODE (UOC)	(6) QTY
				GROUP 0201 FIG. B-5 DISPENSER BREECH 9311437 (SEE FIG. B-4 FOR NHA)	
1	PAOZZ	96906	MS51957-2	SCREW,MACHINE	32
2	PAOZZ	96906	MS35338-134	WASHER	32
3	PAOZZ	19203	9311516	SPRING,FLAT	32
4	PAFZZ	19200	9311540	RECEPTACLE,TURNLOCK	2
				END OF FIGURE	

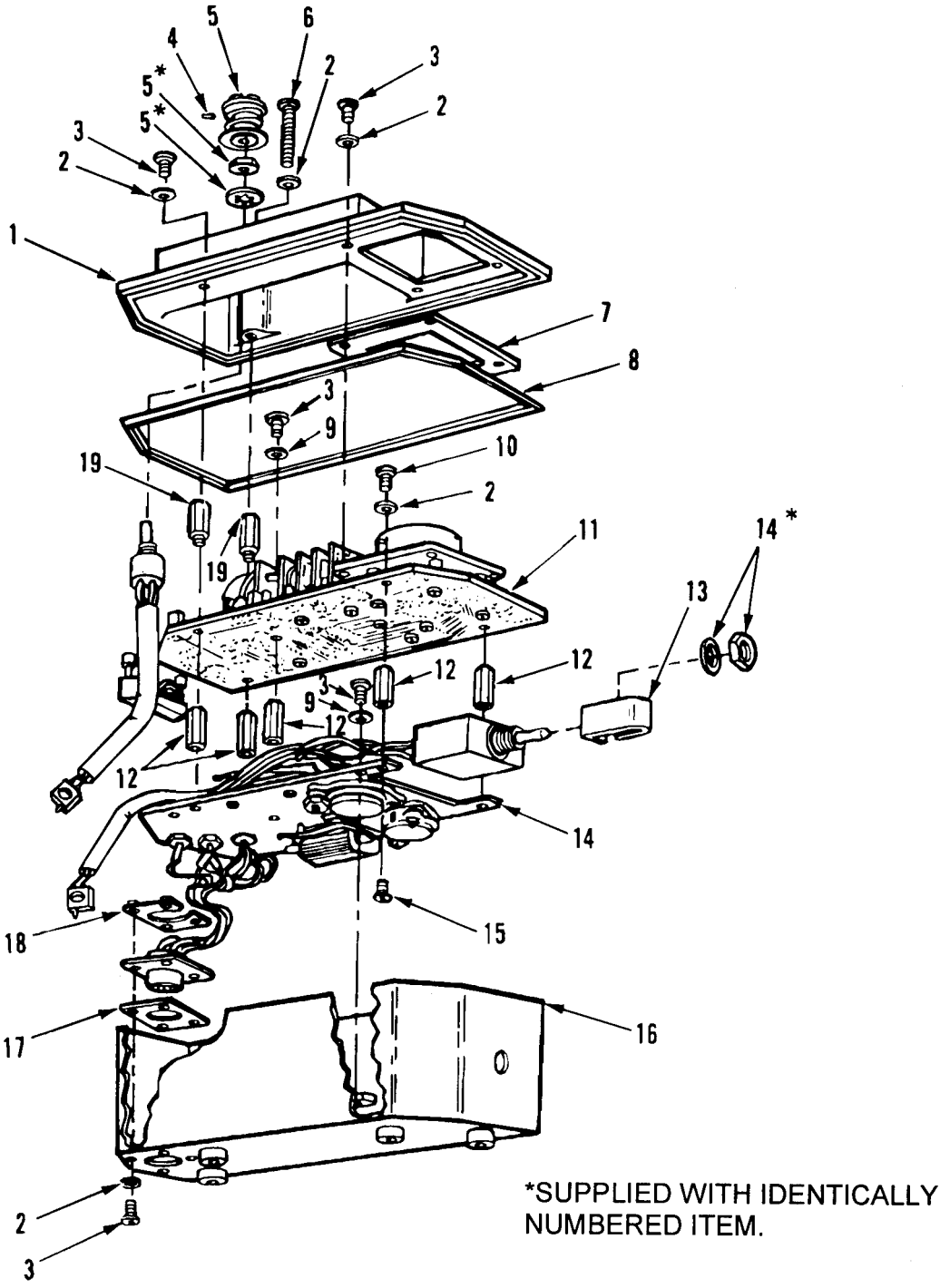


Figure B-6. Sequencer Assembly 9311443.

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODE (UOC)	(6) QTY
				GROUP 0202	
				FIG. B-6 SEQUENCER ASSEMBLY 9311443	
				(SEE FIG.B-4 FOR NHA)	
1	XAFZZ	19200	9311482	COVER,HOUSING:SEQUENCER	1
2	PAFZZ	85480	LWNY-004BL	WASHER,FLAT	12
3	PAFZZ	96906	MS51957-15	SCREW,MACHINE	15
4	PAFZZ	96906	MS51021-101	SETSCREW	2
5	PAFZZ	19203	9311691	KNOB,SEQUENCER	1
6	PAFZZ	96906	MS51957-23	SCREW,MACHINE	1
7	PAFZZ	19200	9311481	GASKET	1
8	PAFZZ	19203	9311415	SEAL,NONMETALLIC CHANNEL	1
9	PAFZZ	81352	AN960C4L	WASHER,FLAT	6
10	PAFZZ	96906	MS51957-14	SCREW,MACHINE	2
11	PAFZZ	19203	9311464	CIRCUIT CARD ASSEMBLY:SEQUENCER SWITCH	1
12	PAFZZ	80205	NAS1831-3B11	POST,ELECTRICAL	5
13	PAFZZ	19200	9347355	CLIP,SPRING TENSION	1
14	PAFZZ	19203	9311488	PLATE ASSEMBLY,SEQUENCER	1
15	PAFZZ	96906	MS24693C4	SCREW,MACHINE	5
16	XAFZZ	19200	9311484	HOUSING ASSEMBLY:SEQUENCER	1
17	PAFZZ	19200	9311570	GASKET	1
18	PAFZZ	19200	9311605-1	PLATE,RETAINING, ELE	1
19	PAFZZ	19203	9311568	POST,ELECTRICAL	2
				END OF FIGURE	

SECTION II

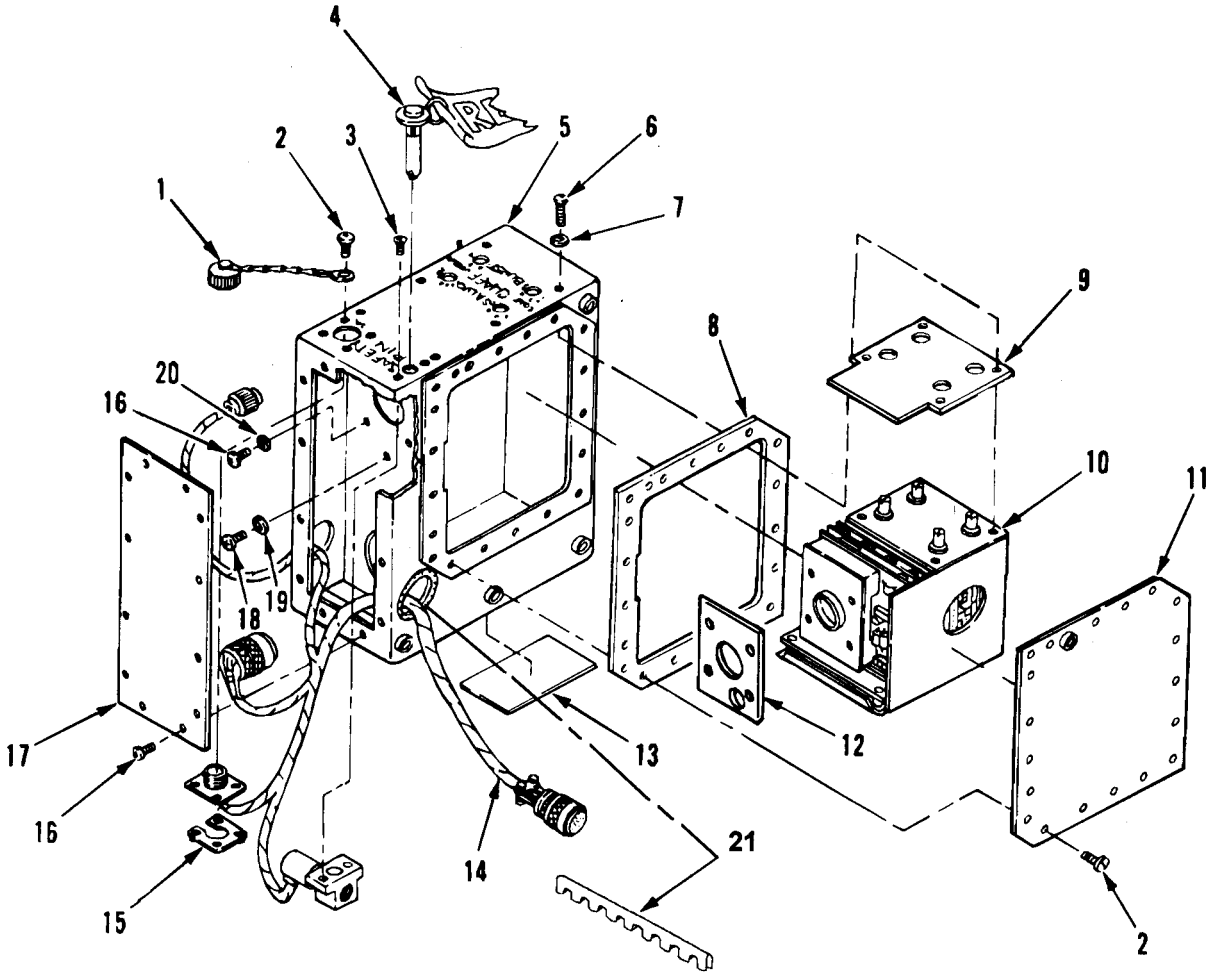


Figure B-7. Program Control Box 9311431

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODE (UOC)	(6) QTY
				GROUP 03 FIG. B-7 PROGRAM CONTROL BOX 9311431 (SEE FIG.B-1 FOR NHA)	
1	PAFZZ	96906	MS25043-12DA	COVER,ELECTRICAL CONNECTOR	1
2	PAFZZ	96906	MS51957-15	SCREW,MACHINE	22
3	PAFZZ	96906	MS24693C24	SCREW,MACHINE	2
4	PAOZZ	19203	9311511	PIN,GROUND SAFETY	1
5	PAFZZ	19200	9311477	HOUSING ASSEMBLY,ELECTRONICS MODULE	1
6	PAFZZ	96906	MS51957-35	SCREW,MACHINE	6
7	PAFZZ	96967	2515	WASHER,FLAT	6
8	PAFZZ	19203	9311563	GASKET	1
9	PAFZZ	19203	9311475	GASKET	1
10	AFFFF	19200	9311429	PROGRAMMER,MODULE:(SEE FIG.B-8 FOR ASSY BKDN)	1
11	PAFZZ	19200	9311695	COVER,ACCESS	1
12	PAFZZ	19203	9311694	GASKET: HEAT SINK	1
13	MDFZZ	19203	9311509	PLATE,IDENTIFICATION	1
14	PAFZZ	19203	9311611	WIRING HARNESS,BRANCHED:	1
15	PAFZZ	19200	9311605-2	PLATE,RETAINING	1
16	PAFZZ	96906	MS51957-14	SCREW,MACHINE	16
17	PAFZZ	19200	9311420	COVER,ACCESS FRONT HOUSING	1
18	PAFZZ	96906	MS51957-45	SCREW,MACHINE	1
19	PAFZZ	80205	NAS1515-H08	WASHER,FLAT	1
20	PAFZZ	13393	575326-1	WASHER,FLAT	4
21	PAFZZ	03296	G51HA1-5-8	GROMMET,NONMETALIC	2
				END OF FIGURE	

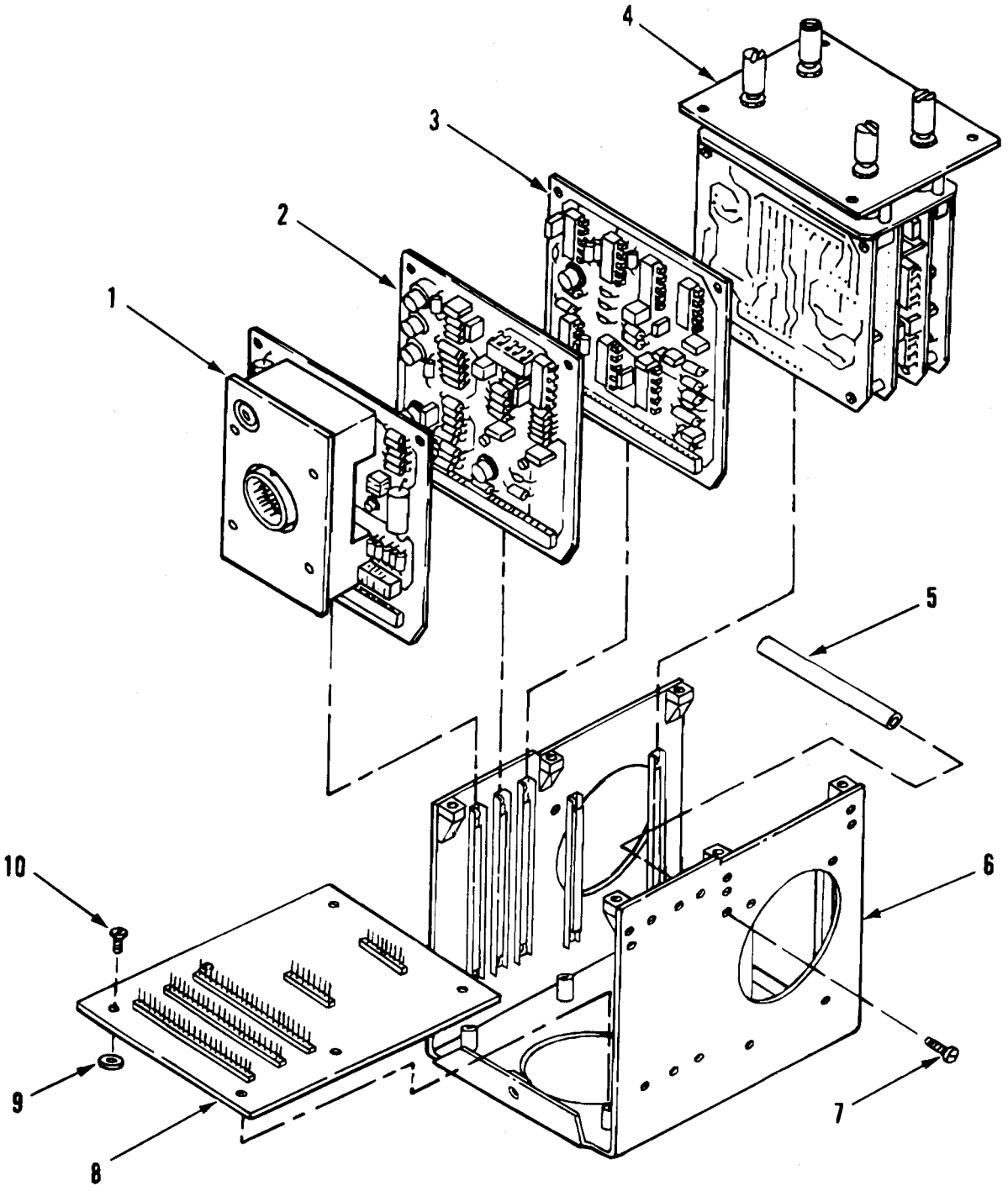
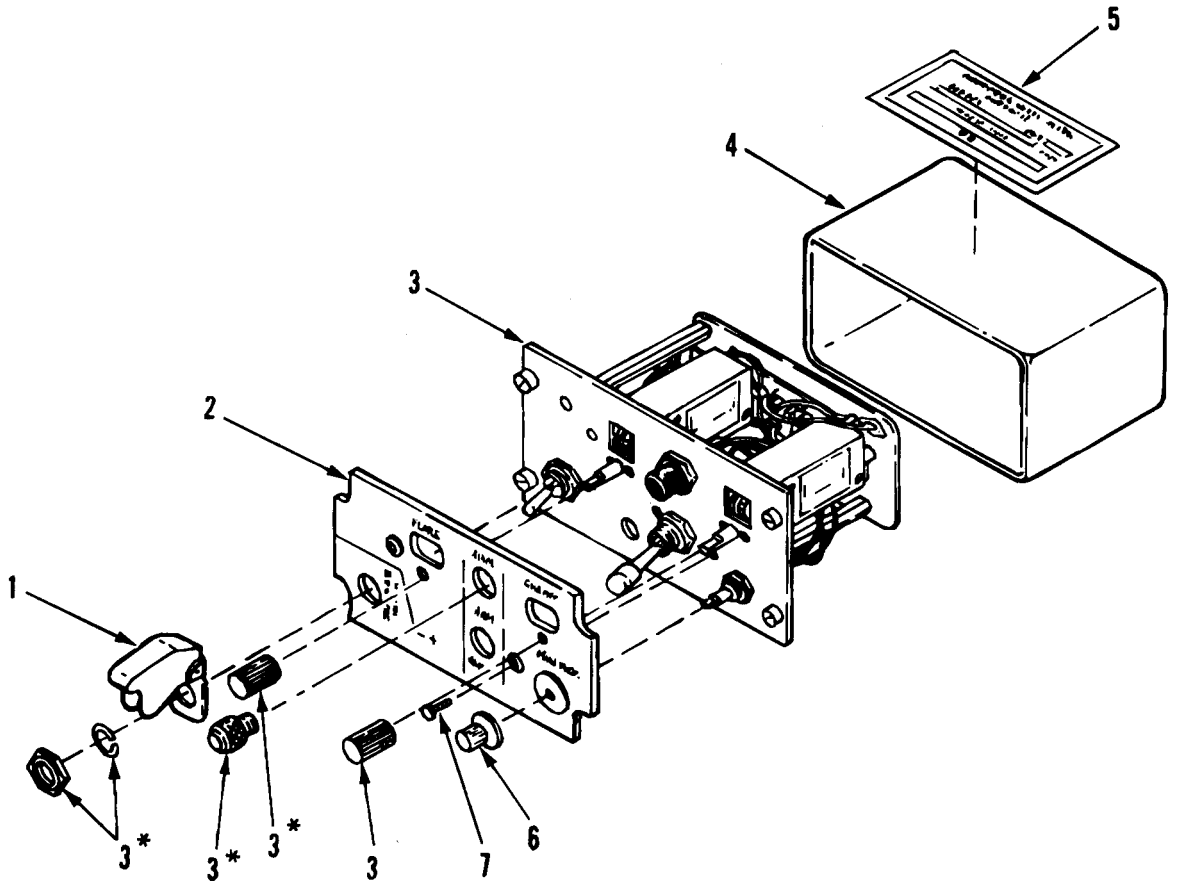


Figure B-8. Module Programmer 9311429

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODE (UOC)	(6) QTY
				GROUP 0301 FIG. B-8 MODULE PROGRAMMER 9311429 (SEE FIG.B-7 FOR NHA)	
1	PAFZZ	19203	9311452	CIRCUIT CARD ASSEMBLY:POWER SUPPLY NO.1	1
2	PAFZZ	19203	9311455	CIRCUIT CARD ASSEMBLY:POWER SUPPLY NO.2	1
3	PAFZZ	19203	9311458	CIRCUIT CARD ASSEMBLY:FLARE DETECTOR	1
4	PAFZZ	19203	9311473	PROGRAMMER,CHAFF	1
5	PAFZZ	19203	9311417	POST, ELECTRICAL	1
6	PAFZZ	19203	9311474	CHASSIS,ELECTRICAL PROGRAMMER:	1
7	PAFZZ	96906	MS51957-26	SCREW,MACHINE	2
8	PAFZZ	19203	9311461	CIRCUIT CARD ASSY,INTERCONNECT	1
9	PAFZZ	13393	5753326-1	WASHER,FLAT	6
10	PAFZZ	96906	MS51957-14	SCREW,MACHINE	6
				END OF FIGURE	



*SUPPLIED WITH IDENTICALLY NUMBERED ITEM.

Figure B-9. Dispenser Control Box 9272533.

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODE (UOC)	(6) QTY
				GROUP 04 FIG. B-9 DISPENSER CONTROL BOX 9272533 (SEE FIG.B-1 FOR NHA)	
1	PAOZZ	96906	MS25224-1	GUARD,SWITCH TWO-POSITION	1
2	PAFZZ	19200	12597636	PANEL,INDICATING,LIGHT TRANSMITTING	1
3	XAFFF	19200	9321318	FRONT AND REAR PANEL ASSEMBLY (SEE FIG.B-10 FOR ASSY BKDN)	1
4	PAFZ	19203	9321326	COVER,ACCESS	1
5	MDFZZ	19203	9310959	PLATE,ID	1
6	PAOZZ	19200	9310970	KNOB	1
7	PAFZZ	96906	MS35206-231	SCREW,MACHINE	2
				END OF FIGURE	

SECTION II

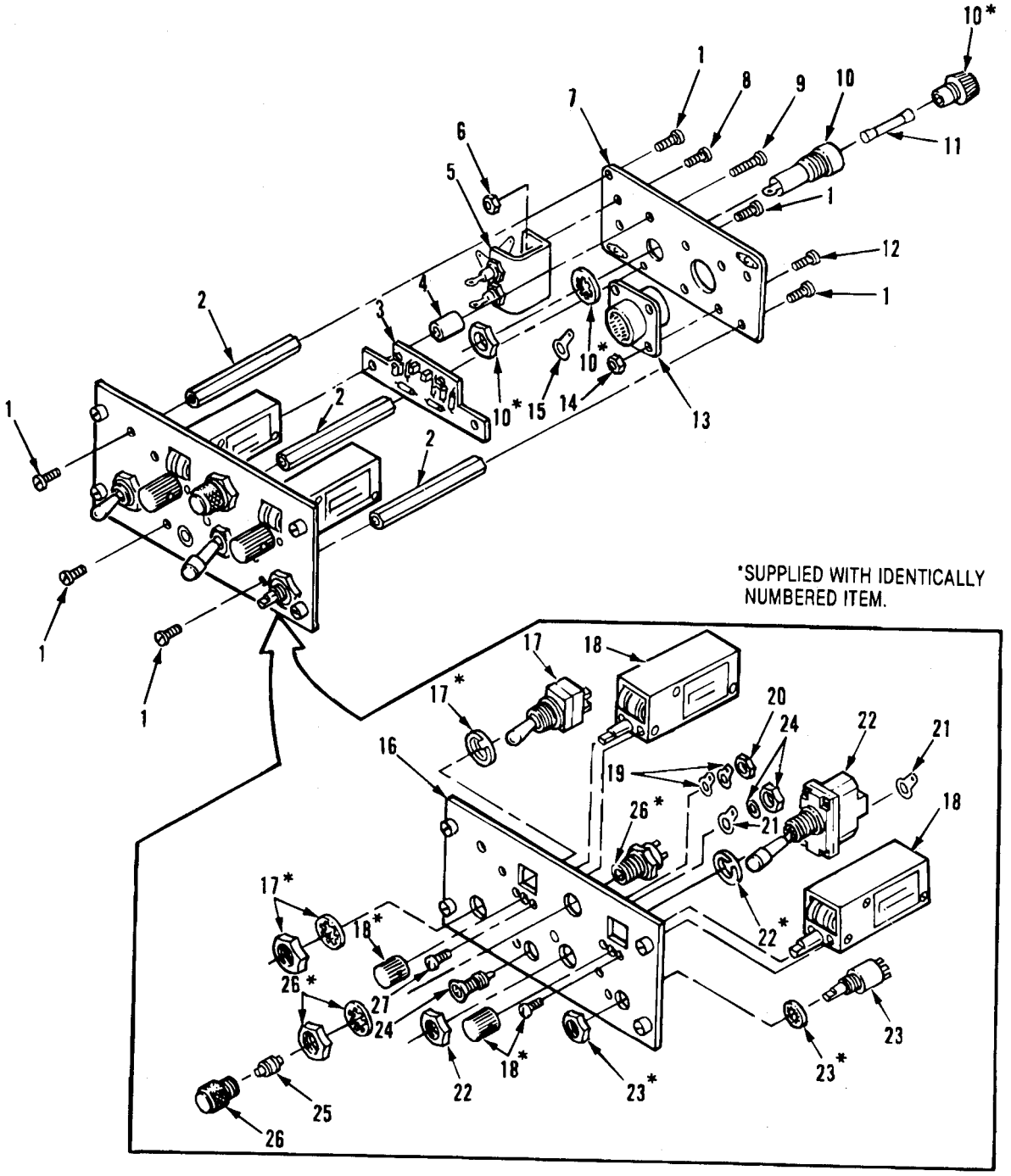


Figure B-10. Front and Rear Panel Assembly 9321318.

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODE (UOC)	(6) QTY
				GROUP 0401 FIG. B-10 FRONT AND REAR PANEL ASSEMBLY 9321318 (SEE FIG.B-9 FOR NHA)	
1	PAFZZ	96906	MS21093-0621	SCREW,SELF-LOCKING	6
2	PAFZZ	19203	9321322	POST,ELECTRICAL	3
3	PAFZZ	19203	9313670	CIRCUIT CARD ASSEMBLY,COUNTER BUFFER ASSEMBLY	1
4	PAFZZ	19203	9313883	POST,ELECTRICAL	2
5	PAFZZ	19200	9311297	SEMICONDUCTOR DEVIC ASSEMBLY:	1
6	PAFZZ	96906	M535649-262	NUT,PLAIN,HEXAGON	2
7	XAFZZ	19200	9310968	REAR PANEL ASSEMBLY:	1
8	PAFZZ	96906	MS21093-0620	SCREW,SELF-LOCKING	2
9	PAFZZ	96906	MS21093-0618	SCREW,SELF-LOCKING	2
10	PAFZZ	81349	FNH26GI	FUSEHOLDER,EXTRACTOR POST	1
11	PAOZZ	81349	F02B32V15A	FUSE,CARTRIDGE	1
12	PAFZZ	96906	MS21093-0410	SCREW,SELF-LOCKING	4
13	PAFZZ	96906	MS3472W14-19P	CONNECTOR,RECEPTACLE:J1	1
14	PAFZZ	96906	MS35649-242	NUT,PLAIN,HEXAGON	4
15	PAFZZ	96906	MS577068-1	TERMINAL, LUG	1
16	XAFZZ	19200	9310969	FRONT PANEL ASSEMBLY:	1
17	PAFZZ	96906	MS90310-231	SWITCH,TOGGLE:S2	1
18	PAFZZ	19203	9310953	COUNTER,ELECTRICAL:M1,M2	2
19	PAFZZ	96906	MS77068-2	TERMINAL,LUG	4
20	PAFZZ	96906	MS21044-N06	NUT,SELF-LOCKING,HE	1
21	PAFZZ	96906	MS0035431-10	TERMINAL, LUG	1
22	PAFZZ	96906	MS24658-22D	SWITCH,TOGGLE:S3	1
23	PAFZZ	19203	9321211-1	SWITCH,ROTARY:S1	1
24	PAFZZ	96906	MS90335-1	CONNECTOR,RECEPTACLE, ELECTRIC:J2	1
25	PAOZZ	96906	MS25237-327AS15	LAMP,INCANDESCENT	4
26	PAOZZ	19200	1256373	LIGHT,INDICATOR	4
27	PAFZZ	96906	MS21093-0409	SCREW,SELF-LOCKING	4
				END OF FIGURE	

Section III. SPECIAL TOOLS LIST

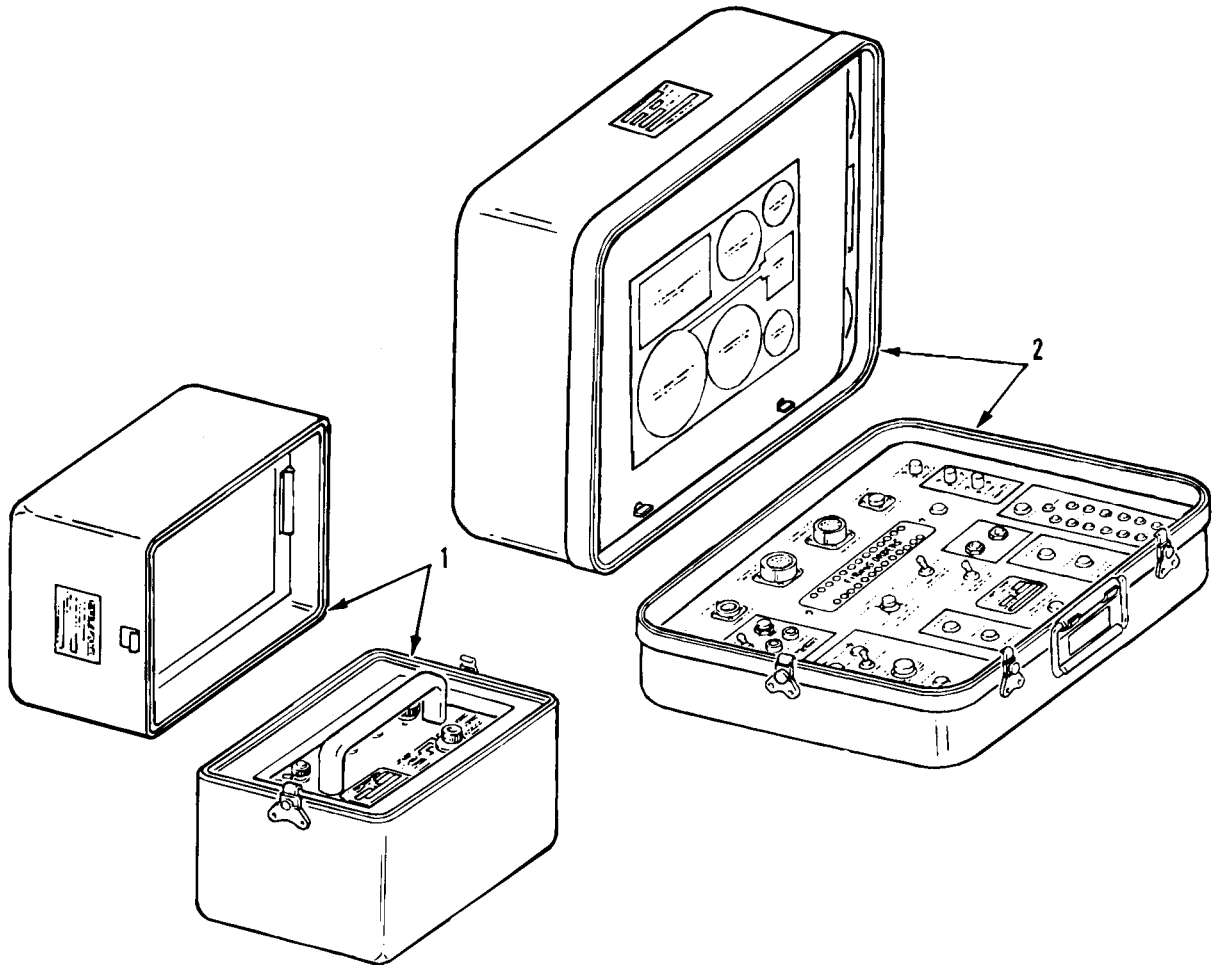


Figure B-11. Special Tools and Equipment.

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 9500 FIG. B-11 SPECIAL TOOLS AND EQUIPMENT	
1	PEOFF	19200	9325900	TEST SET, ELECTRONIC SYSTEMS M91 (TM 9-4940-497-13&P)	
2	PEFFF	19200	9325901	TEST SET, ELECTRONIC SYSTEM M92	

END OF FIGURE

SECTION IV. NATIONAL STOCK NUMBER AND PART NUMBER INDEX
CROSS-REFERENCE INDEXES

NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
1095-01-056-6112	B-7	14	5305-00-940-9491	B-3	2
1095-01-057-0026	B-1	1	5305-01-043-7710	B-6	4
1095-01-057-0027	B-1	3	5310-00-081-8087	B-10	20
1095-01-057-0042	B-6	14	5310-00-470-5458	B-6	2
1095-01-057-0043	B-8	2	5310-00-595-6425	B-4	2
1095-01-057-4592	B-1	4	5310-00-595-6425	B-6	9
1095-01-057-6947	B-2	3	5310-00-796-1117	B-7	7
1095-01-058-8966	B-8	4	5310-00-878-3292	B-4	3
1095-01-059-8329	B-8	1	5310-00-928-2690	B-5	2
1095-01-061-0892	B-6	11	5310-00-934-9739	B-10	14
1095-01-061-0893	B-10	3	5310-00-934-9747	B-10	6
1095-01-065-9028	B-1	2	5310-00-939-0571	B-7	19
1095-01-065-9414	B-4	5	5310-00-973-8660	B-7	20
1095-01-065-9621	B-8	3	5310-00-973-8660	B-8	9
1095-01-065-9833	B-2	1	5310-00-982-4999	B-4	17
1095-01-075-1967	B-6	5	5310-01-204-5929	B-3	1
1095-01-078-4003	B-9	4	5325-00-960-2410	B-1	6
1095-01-078-4540	B-4	9	5325-01-035-1979	B-5	4
1095-01-225-1157	B-7	5	5330-01-075-2908	B-7	9
1095-01-225-1216	B-7	17	5330-01-078-4507	B-7	12
1095-01-225-1217	B-7	11	5330-01-080-0044	B-6	8
1560-01-271-6463	B-7	21	5330-01-084-7070	B-7	8
1730-01-067-3673	B-7	4	5330-01-086-8596	B-6	7
4940-01-048-9677	B-11	2	5330-01-094-1584	B-6	17
4940-01-049-0828	B-11	1	5340-01-065-3725	B-4	1
5120-01-079-9644	B-1	5	5340-01-065-3726	B-4	4
5305-00-054-5636	B-5	1	5340-01-065-9639	B-10	2
5305-00-054-5648	B-6	10	5340-01-067-8324	B-10	4
5305-00-054-5648	B-7	16	5340-01-095-2390	B-6	19
5305-00-054-5648	B-8	10	5340-01-220-1774	B-6	13
5305-00-054-5649	B-6	3	5340-01-225-1213	B-8	5
5305-00-054-5649	B-7	2	5340-01-225-2745	B-6	12
5305-00-054-5657	B-6	6	5355-01-058-7678	B-9	6
5305-00-054-6650	B-8	7	5360-01-058-4394	B-5	3
5305-00-054-6659	B-7	6	5365-00-200-5234	B-2	4
5305-00-054-6668	B-4	8	5920-00-581-6126	B-10	11
5305-00-054-6670	B-7	18	5920-00-892-9311	B-10	10
5305-00-056-9961	B-6	15	5930-00-615-6731	B-9	1
5305-00-056-9962	B-4	11	5930-00-843-8990	B-10	22
5305-00-066-7326	B-7	3	5930-00-914-6458	B-10	17
5305-00-068-5287	B-4	7	5930-01-062-9808	B-10	23
5305-00-102-4558	B-10	9	5935-00-238-6419	B-7	1
5305-00-115-3031	B-10	27	5935-01-059-2456	B-8	8
5305-00-575-5964	B-10	1	5935-01-061-1483	B-10	24
5305-00-726-1239	B-10	12	5935-01-178-8476	B-7	15
5305-00-768-0336	B-4	16	5935-01-169-4144	B-10	13
5305-00-770-2579	B-4	14	5935-01-198-7932	B-6	18
5305-00-869-9582	B-10	8	5940-00-682-2477	B-10	15
5305-00-889-3001	B-9	7	5940-00-827-2653	B-10	19

CROSS-REFERENCE INDEXES

NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5940-01-074-4475	B-10	21			
5961-01-225-1226	B-10	5			
5980-01-067-1656	B-4	15			
5999-01-227-5543	B-8	6			
6210-01-296-3384	B-9	2			
6210-01-302-6002	B-10	26			
6240-00-155-7836	B-10	25			
6680-01-065-6969	B-10	18			

SECTION IV

CROSS-REFERENCE INDEXES

PART NUMBER INDEX

FSCM	PART NUMBER	STOCK NUMBER	FIG.	ITEM
19200	12556373	6210-01-302-6002	B-10	26
19200	12597636	6210-01-296-3384	B-9	2
96967	2515	5310-00-796-1117	B-7	7
13393	575326-1	5310-00-973-8660	B-7	20
13393	575326-1	5310-00-973-8660	B-8	9
02731	7-262120029	1560-01-271-6463	B-1	6
19203	9272533	1095-01-057-4592	B-1	4
19203	9310953	6680-01-065-6969	B-10	18
19203	9310959		B-9	5
19200	9310968		B-10	7
19200	9310969		B-10	16
19200	9310970	5355-01-058-7678	B-9	6
19200	9311297	5961-01-225-1226	B-10	5
19203	9311415	5330-01-080-0044	B-6	8
19203	9311417	5340-01-225-1213	B-8	5
19200	9311420	1095-01-225-1216	B-7	17
19200	9311424		B-4	6
19203	9311426	1095-01-078-4540	B-4	9
19203	9311427		B-4	13
19200	9311429		B-7	10
19203	9311431	1095-01-057-0027	B-1	3
19203	9311434	1095-01-065-9028	B-1	2
19203	9311437	1095-01-065-9414	B-4	5
19200	9311443		B-4	10
19203	9311446		B-3	3
19203	9311451	1095-01-057-0026	B-1	1
19203	9311452	1095-01-059-8329	B-8	1
19203	9311455	1095-01-057-0043	B-8	2
19203	9311458	1095-01-065-9621	B-8	3
19203	9311461	5935-01-059-2456	B-8	8
19203	9311464	1095-01-061-0892	B-6	11
19203	9311473	1095-01-058-8966	B-8	4
19203	9311474	5999-01-227-5543	B-8	6
19203	9311475	5330-01-075-2908	B-7	9
19200	9311477	1095-01-225-1157	B-7	5
19203	9311478	1095-01-057-6947	B-2	3
19200	9311481	5330-01-086-8596	B-6	7
19200	9311482		B-6	1
19200	9311484		B-6	16
19203	9311488	1095-01-057-0042	B-6	14
19203	9311494	5980-01-067-1656	B-4	15
19203	9311505	1095-01-065-9833	B-2	1
19203	9311509		B-7	13
19203	9311511	1730-01-067-3673	B-7	4
19203	9311516	5360-01-058-4394	B-5	3
19200	9311540	5325-01-035-1979	B-5	4
19203	9311563	5330-01-084-7070	B-7	8
19203	9311568	5340-01-095-2390	B-6	19
19200	9311570	5330-01-094-1584	B-6	17
19200	9311605-1	5935-01-198-7932	B-6	18

PART NUMBER INDEX (cont)

FSCM	PART NUMBER	STOCK NUMBER	FIG.	ITEM
19200	9311605-2	5935-01-060-8845	B-7	15
19203	9311611	1095-01-056-6112	B-7	14
19203	9311685	5340-01-065-3725	B-4	1
19203	9311689	5340-01-065-3726	B-4	4
19203	9311690		B-4	12
19203	9311691	1095-01-075-1967	B-6	5
19203	9311694	5330-01-078-4507	B-7	12
19200	9311695	1095-01-225-1217	B-7	11
19203	9313670	1095-01-061-0893	B-10	3
19203	9313883	5340-01-067-8324	B-10	4
19203	9321211-1	5930-01-062-9808	B-10	23
19200	9321318		B-9	3
19203	9321322	5340-01-065-9639	B-10	2
19203	9321326	1095-01-078-4003	B-9	4
19200	9325900	4940-01-049-0828	B-11	1
19200	9325901	4940-01-048-9677	B-11	2
19200	9326701	5120-01-079-9644	B-1	5
19200	9335632		B-2	2
19200	9347355	5340-01-220-1774	B-6	13
19203	9378454	5310-01-204-5929	B-3	1
81352	AN960C4L	5310-00-595-6425	B-4	2
81352	AN960C4L	5310-00-595-6425	B-6	9
81349	F02B32V15A	5920-00-581-6126	B-10	11
81349	FHN26GI	5920-00-892-9311	B-10	10
03296	G51HA1-5-8	1560-01-271-6463	B-7	21
85480	LWNY-004BL	5310-00-470-5458	B-6	2
96906	MS0035431-10	5940-01-074-4475	B-10	21
96906	MS16632-1025	5365-00-200-5234	B-2	4
96906	MS21043-04	5310-00-878-3292	B-4	3
96906	MS21044-N06	5310-00-081-8087	B-10	20
96906	MS21044C04	5310-00-982-4999	B-4	17
96906	MS21093-0409	5305-00-115-3031	B-10	27
96906	MS21093-0410	5305-00-726-1239	B-10	12
96906	MS21093-0618	5305-00-102-4558	B-10	9
96906	MS21093-0620	5305-00-869-9582	B-10	8
96906	MS21096-0621	5305-00-575-5964	B-10	1
96906	MS24658-22D	5930-00-843-8990	B-10	22
96906	MS24693C24	5305-00-066-7326	B-7	3
96906	MS24693C4	5305-00-056-9961	B-6	15
96906	MS24693C47	5305-00-056-9962	B-4	11
96906	MS24693C49	5305-00-068-5287	B-4	7
96906	MS25043-I2DA	5935-00-238-6419	B-7	1
96906	MS25224-1	5930-00-615-6731	B-9	1
96906	MS25237-327AS15	6240-00-155-7836	B-10	25
96906	MS3472W14-19P	5935-01-169-4144	B-10	13
96906	MS35206-231	5305-00-889-3001	B-9	7
96906	MS35275-230	5305-00-940-9491	B-3	2
96906	MS35338-134	5310-00-928-2690	B-5	2
96906	MS35649-242	5310-00-934-9739	B-10	14
96906	MS35649-262	5310-00-934-9747	B-10	6

PART NUMBER INDEX (cont)

FSCM	PART NUMBER	STOCK NUMBER	FIG.	ITEM
96906	MS51021-101	5305-01-043-7710	B-6	4
96906	MS51957-2	5305-00-054-5636	B-5	1
96906	MS51957-14	5305-00-054-5648	B-6	10
96906	MS51957-14	5305-00-054-5648	B-7	16
96906	MS51957-14	5305-00-054-5648	B-8	10
96906	MS51957-15	5305-00-054-5649	B-6	3
96906	MS51957-15	5305-00-054-5649	B-7	2
96906	MS51957-23	5305-00-054-5657	B-6	6
96906	MS51957-26	5305-00-054-6650	B-8	7
96906	MS51957-35	5305-00-054-6659	B-7	6
96906	MS51957-43	5305-00-054-6668	B-4	8
96906	MS51957-45	5305-00-054-6670	B-7	18
96906	MS51959-15	5305-00-770-2579	B-4	14
96906	MS51959-17	5305-00-768-0336	B-4	16
96906	MS77068-1	5940-00-682-2477	B-10	15
96906	MS77068-2	5940-00-827-2653	B-10	19
96906	MS90310-231	5930-00-914-6458	B-10	17
96906	MS90335-1	5935-01-061-1483	B-10	24
80205	NAS1515-H08	5310-00-939-0571	B-7	19
80205	NAS1831-3B11	5340-01-225-2745	B-6	12

SECTION IV

CROSS-REFERENCE INDEXES

FIGURE AND ITEM NUMBER INDEX

FIG.	ITEM	STOCK NUMBER	FSCM	PART NUMBER
B-1	1	1095-01-057-0026	19203	9311451
B-1	2	1095-01-065-9028	19203	9311434
B-1	3	1095-01-057-0027	19203	9311431
B-1	4	1095-01-057-4592	19203	9272533
B-1	5	5120-01-079-9644	19200	9326701
B-1	6	5325-00-960-2410	02731	7-262120029
B-2	1	1095-01-065-9833	19203	9311505
B-2	2		19200	9335632
B-2	3	1095-01-057-6947	19203	9311478
B-2	4	5365-00-200-5234	96906	MS16632-1025
B-3	1	5310-01-204-5929	19203	9378454
B-3	2	5305-00-940-9491	96906	MS35275-230
B-3	3		19203	9311446
B-4	1	5340-01-065-3725	19203	9311685
B-4	2	5310-00-595-6425	81352	AN960C4L
B-4	3	5310-00-878-3292	96906	MS21043-04
B-4	4	5340-01-065-3726	19203	9311689
B-4	5	1095-01-065-9414	19203	9311437
B-4	6		19200	9311424
B-4	7	5305-00-068-5287	96906	MS24693C49
B-4	8	5305-00-054-6668	96906	MS51957-43
B-4	9	1095-01-078-4540	19203	9311426
B-4	10		19200	9311443
B-4	11	5305-00-056-9962	96906	MS24693C47
B-4	12		19203	9311690
B-4	13		19203	9311427
B-4	14	5305-00-770-2579	96906	MS51959-15
B-4	15	5980-01-067-1656	19203	9311494
B-4	16	5305-00-768-0336	96906	MS51959-17
B-4	17	5310-00-982-4999	96906	MS21044C04
B-5	1	5305-00-054-5636	96906	MS51957-2
B-5	2	5310-00-928-2690	96906	MS35338-134
B-5	3	5360-01-058-4394	19203	9311516
B-5	4	5325-01-035-1979	19200	9311540
B-6	1		19200	9311482
B-6	2	5310-00-470-5458	85480	LWNY-004BL
B-6	3	5305-00-054-5649	96906	MS51957-15
B-6	4	5305-01-043-7710	96906	MS51021-101
B-6	5	1095-01-075-1967	19203	9311691
B-6	6	5305-00-054-5657	96906	MS51957-23
B-6	7	5330-01-086-8596	19200	9311481
B-6	8	5330-01-080-0044	19203	9311415
B-6	9	5310-00-595-6425	81352	AN960C4L
B-6	10	5305-00-054-5648	96906	MS51957-14
B-6	11	1095-01-061-0892	19203	9311464
B-6	12	5340-01-225-2745	80205	NAS1831-3B11
B-6	13	5340-01-220-1774	19200	9347355
B-6	14	1095-01-057-0042	19203	9311488
B-6	15	5305-00-056-9961	96906	MS24693C4

FIGURE AND ITEM NUMBER INDEX (CONT)

FIG.	ITEM	STOCK NUMBER	FSCM	PART NUMBER
B-6	16		19200	9311484
B-6	17	5330-01-094-1584	19200	9311570
B-6	18	5935-01-198-7932	19200	9311605-1
B-6	19	5340-01-095-2390	19203	9311568
B-7	1	5935-00-238-6419	96906	MS25043-I2DA
B-7	2	5305-00-054-5649	96906	MS51957-15
B-7	3	5305-00-066-7326	96906	MS24693C24
B-7	4	1730-01-067-3673	19203	9311511
B-7	5	1095-01-225-1157	19200	9311477
B-7	6	5305-00-054-6659	96906	M551957-35
B-7	7	5310-00-796-1117	96967	2515
B-7	8	5330-01-084-7070	19203	9311563
B-7	9	5330-01-075-2908	19203	9311475
B-7	10		19200	9311429
B-7	11	1095-01-225-1217	19200	9311695
B-7	12	5330-01-078-4507	19203	9311694
B-7	13		19203	9311509
B-7	14	1095-01-056-6112	19203	9311611
B-7	15	5935-01-060-8845	19200	9311605-2
B-7	16	5305-00-054-5648	96906	MS51957-14
B-7	17	1095-01-225-1216	19200	9311420
B-7	18	5305-00-054-6670	96906	MS51957-45
B-7	19	5310-00-939-0571	80205	NAS1515-H08
B-7	20	5310-00-973-8660	13393	575326-1
B-7	21	1560-01-271-6463	03296	G51HA1-5-8
B-8	1	1095-01-059-8329	19203	9311452
B-8	2	1095-01-057-0043	19203	9311455
B-8	3	1095-01-065-9621	19203	9311458
B-8	4	1095-01-058-8966	19203	9311473
B-8	5	5340-01-225-1213	19203	9311417
B-8	6	5999-01-227-5543	19203	9311474
B-8	7	5305-00-054-6650	96906	MS51957-26
B-8	8	5935-01-059-2456	19203	9311461
B-8	9	5310-00-973-8660	13393	575326-1
B-8	10	5305-00-054-5648	96906	MS51957-14
B-9	1	5930-00-615-6731	96906	MS25224-1
B-9	2	6210-01-296-3383	19200	12597636
B-9	3		19200	9321318
B-9	4	1095-01-078-4003	19203	9321326
B-9	5		19203	9310959
B-9	6	5355-01-058-7678	19200	9310970
B-9	7	5305-00-889-3001	96906	MS35206-231
B-10	1	5305-00-575-5964	96906	MS21093-0621
B-10	2	5340-01-065-9639	19203	9321322
B-10	3	1095-01-061-0893	19203	9313670
B-10	4	5340-01-067-8324	19203	9313883
B-10	5	5961-01-225-1226	19200	9311297
B-10	6	5310-00-934-9747	96906	MS35649-262
B-10	7		19200	9310968
B-10	8	5305-00-869-9582	96906	MS21093-0620

FIGURE AND ITEM NUMBER INDEX (CONT)

FIG.	ITEM	STOCK NUMBER	FSCM	PART NUMBER
B-10	9	5305-00-102-4558	96906	MS21093-0618
B-10	10	5920-00-892-9311	81349	FHN26G1
B-10	11	5920-00-581-6126	81349	F02B32V15A
B-10	12	5305-00-726-1239	96906	MS21093-0410
B-10	13	5935-01-169-4144	96906	MS3472W14-19P
B-10	14	5310-00-934-9739	96906	MS35649-242
B-10	15	5940-00-682-2477	96906	MS77068-1
B-10	16		19200	9310969
B-10	17	5930-00-914-6458	96906	MS90310-231
B-10	18	6680-01-065-6969	19203	9310953
B-10	19	5940-00-827-2653	96906	MS77068-2
B-10	20	5310-00-081-8087	96906	MS21044-N06
B-10	21	5940-01-074-4475	96906	MS0035431-10
B-10	22	5930-00-843-8990	96906	MS24658-22D
B-10	23	5930-01-062-9808	19203	9321211-1
B-10	24	5935-01-061-1483	96906	MS90335-1
B-10	25	6240-00-155-7836	96906	MS25237-327AS15
B-10	26	6210-00-302-6002	19200	1256373
B-10	27	5305-00-115-3031	96906	MS21093-0409
B-11	1	4940-01-049-0828	19200	9325900
B-11	2	4940-01-048-9677	19200	9325901

APPENDIX C
EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

Section I. INTRODUCTION

C-1 . SCOPE

This appendix lists expendable/durable supplies and materials you will need to operate and maintain the M130 general purpose dispenser. This listing is for informational purposes only and is not authority to requisition the listed items. These items are authorized to you by CTA 50-970, Expendable/Durable Items (Except Medical, Class V, Repair Parts, and Heraldic Items), or CTA 8-100, Army Medical Department Expendable/Durable Items.

C-2. EXPLANATION OF COLUMNS

An explanation of columns is provided below.

a. Column 1-Item Number. This number is assigned to the entry in the listing and is referenced in the narrative instructions to identify the material (e.g., “Use cleaning compound, item 5, Appx C.”)

b. Column 2-Level. This column identifies the lowest level of maintenance that requires the listed item.

O - Aviation Unit Maintenance

F - Aviation Intermediate Maintenance

c. Column 3-National Stock Number. This is the National stock number assigned to the item; use it to request or requisition the item.

d. Column 4-Description. Indicates the Federal item name and, if required, a description to identify the item. The last line for each item indicates the Federal Supply Code for Manufacturer (FSCM) in parentheses followed by the part number.

e. Column 5-Unit of Measure (U/M). Indicates the measure used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in., pr). If the unit of measure differs from the unit of issue, requisition the lowest unit of issue that will satisfy your requirements.

SECTION II. EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) U/M
1	F	8040-00-262-9011	ADHESIVE SYNTHETIC RUBBER, LIQUID, TYPE III, 1-PT (0.47-L) CAN (81348) MMM-A-1617	CN
2	O	8020-00-224-8010	BRUSH,ARTIST'S FLAT, CHISEL EDGE, OX-EAR HAIR (81 348) H-B-118	EA
3	O	8305-01-152-3587	CLOTH, BATISTE WHITE (LINT-FREE), 45-IN. (114.30-CM) WIDE (81349) MIL-C-40129	YD
4	O	7510-00-161-0811	INK, MARKING STENCIL BLACK, TYPE II, 1-GAL. (3.79-L) CAN (81348) TT-I-1795	GL
5	F	5970-00-285-0271	INSULATING VARNISH (81349) MILV173	GL
6	F	5970-00-812-2969	INSULATION SLEEVING HEAT SHRINKABLE, CLASS 1 (81349) MIL-I-23053/5	FT
7	O	8010-00-527-2884	LACQUER BLACK NO. 37038 1-GAL. (3.79-L) CAN (81349) MIL-L-19538	GL
8	F	8030-00-081-2326	SEALING COMPOUND GRADE H (81349) MILS22473GRADEH	CC
9	F	3439-00-006-7764	SOLDER, TIN ALLOY 1-LB (0.45-KG) SPOOL, FORM W, SN 63 COMPOSITION (81348) QQS571	EA
10	O	8135-00-272-9346	TAPE, GUMMED BROWN, OPAQUE, 2-IN. (5.08-CM) WIDE (58536) A-A-1492	RO
11	F	6145-00-107-7913	WIRE, ELECTRICAL SINGLE CON-DUCTOR, AWG 20 (81349)	FT

SECTION II. EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST (CONT)

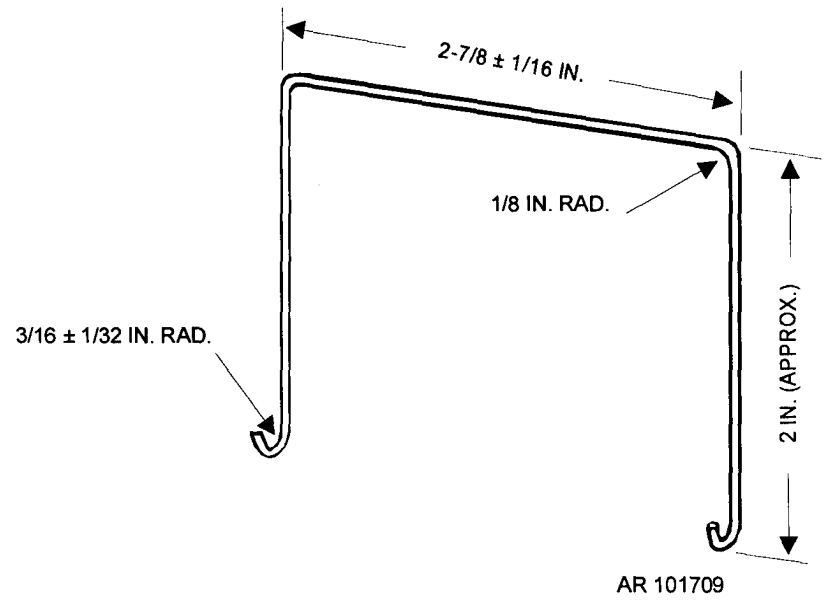
(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) U/M
			M81044/12-20-9	
12	F	6145-00-422-2644	WIRE, ELECTRICAL SINGLE CONDUCTOR, AWG 24 (81349) M81044/12-24-9	FT

APPENDIX D
ILLUSTRATED LIST OF MANUFACTURED ITEMS

D-1 . INTRODUCTION

This appendix includes complete instructions for making items authorized to be manufactured or fabricated at aviation intermediate maintenance. All bulk materials needed for manufacture of an item are listed in a tabular list on the illustration, as fabrication notes.

D-2. MANUFACTURED ITEMS INSTRUCTIONS



FABRICATION NOTES:

1. MATERIAL TYPE - STEEL WIRE
2. MATERIAL THICKNESS -0.110 IN. (APPROX.)
3. MATERIAL LENGTH - 7-5/8 IN. (APPROX.)

Figure D-1. Circuit Card Assembly (CCA) Extractor

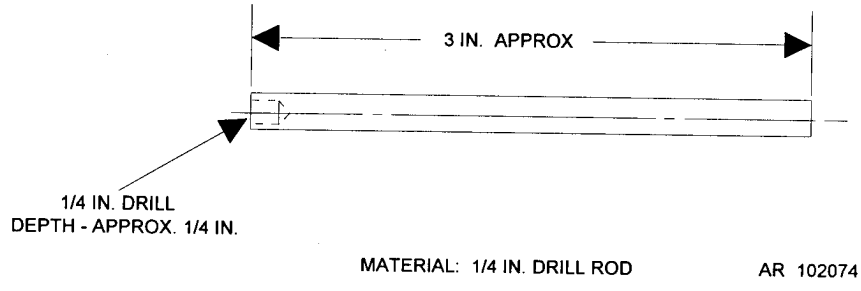


Figure D-2. Terminal Removal Tool

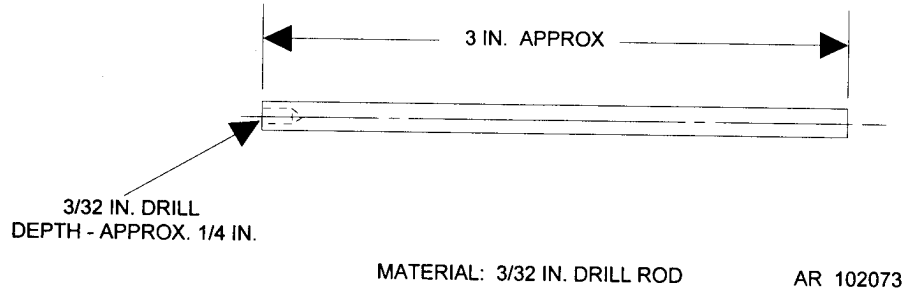


Figure D-3. Terminal Removal Tool

APPENDIX E
ELECTRICAL WIRING/LOGICAL DIAGRAMS

E-1 . PURPOSE

This appendix lists diagrams which could aid an experienced individual in troubleshooting methods to isolating uncommon electrical functional faults not covered by the test procedures of this manual for maintaining the Dispenser, General Purpose, Aircraft: M130. These diagrams address the electrical circuits only.

NOTE

These diagrams are provided as reference information and are under restrictive use by personnel, with authorization from their test/repair facility supervisor.

E-2. DIAGRAMS LISTING

The diagrams are arranged in accordance with system configuration for the electrical components only.

1. M130 General Purpose Aircraft Dispenser

   a. M130 Chaff/Flare Dispenser System Dual Configuration — see fig. E-1

   b. M130 Wiring Interface — see fig. E-2

2. System Major Hardware Configuration Items. - The following lists the M130 general purpose dispenser electrical hardware assemblies, by repair level starting with each major system assembly (sub-system).

Component (Assembly) Level of Repair

1	2	3	4	Diagram Provided
Program Control Box (Electronics Module Assembly (EM)) (P/N 931 1431)				
	Programmer Module (P/N 9311429)			
		Power Supply No. 1 (P/N 931 1452)		See fig. E-3
		Power Supply No. 2 (P/N 931 1455)		See fig. E-4
		Flare Detector (P/N 931 1458)		See fig. E-5

E-2. DIAGRAMS LISTING (cont)

Component (Assembly) Level of Repair				
1	2	3	4	Diagram Provided
(Electronics Module Assembly (EM)) (P/N 931 1431) (cont)	(P/N 931 1429) (cont)	Connector Assembly, Electrical (P/N 9311461)		See fig. E-6
		Chaff Programmer (P/N 9311473)		
			Front Plane (P/N 931 1467)	See fig. E-7
			IC, Burst Chaff (P/N 9311518)	See fig. E-8
			Discrete, Burst C/F (P/N 9311521)	See fig. E-9
			Discrete, Salvo, Chaff (P/N 9311524)	See fig. E-10
			IC, Salvo Chaff (P/N 9311527	See fig. E-11
Dispenser Assembly (P/N 931 1434)				
	Flare Sensor Assembly (P/N 931 1494)			See fig. E-12
	Sequencer Assembly (P/N 931 1443)			
		Sequencer Switch (P/N 931 1464)		See fig. E-13
		Plate Assembly, Sequencer (P/N 931 1488)		See fig. E-14
Dispenser Control Box (P/N 9272533)				See fig, E-15
	Front and Rear Panel Assembly (P/N 9321 318)			
		Counter Buffer Assembly (P/N 9313670)		See fig. E-16

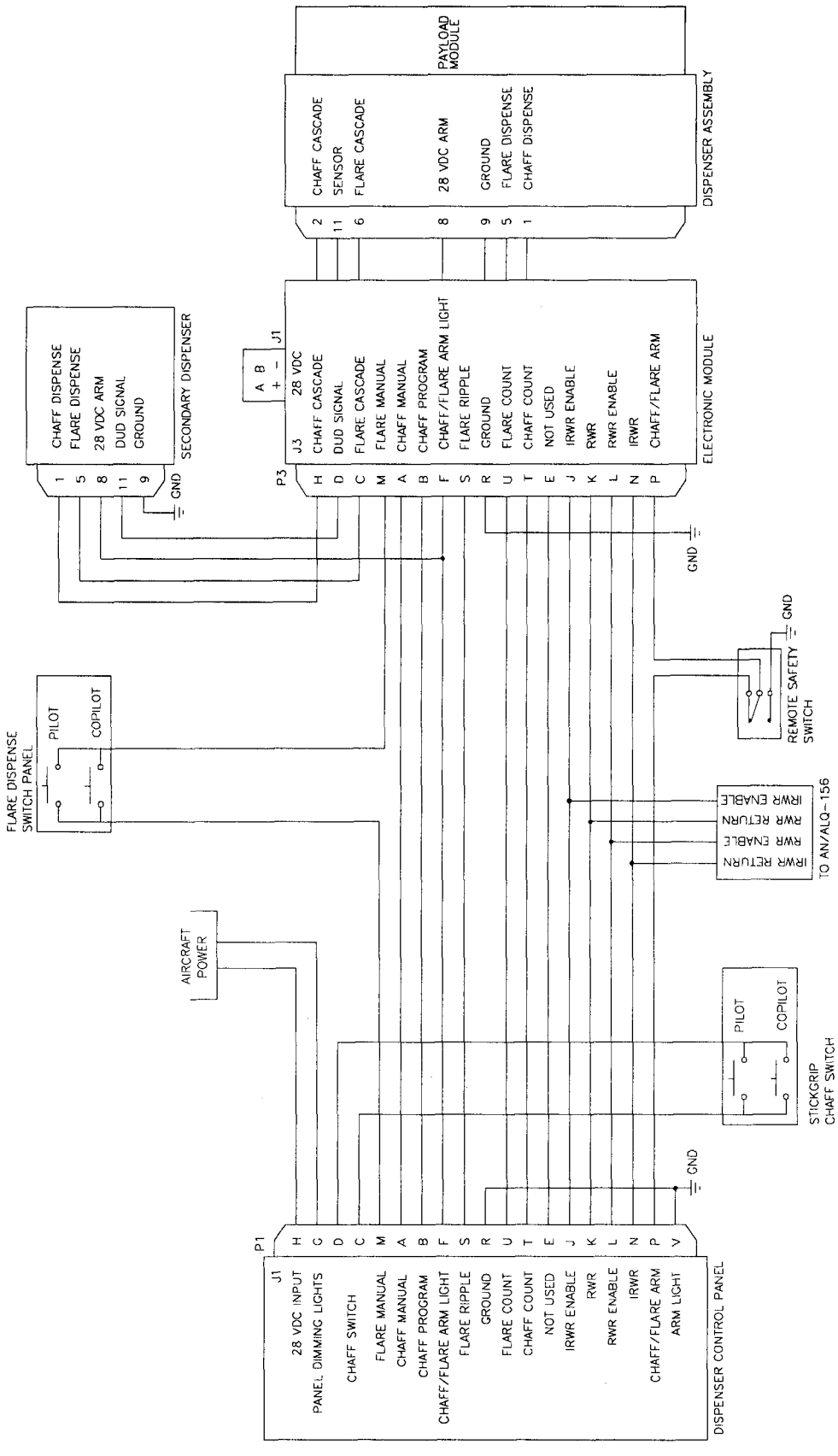


Figure E-1. M130 Chaff/Flare Dispenser System Dual Configuration

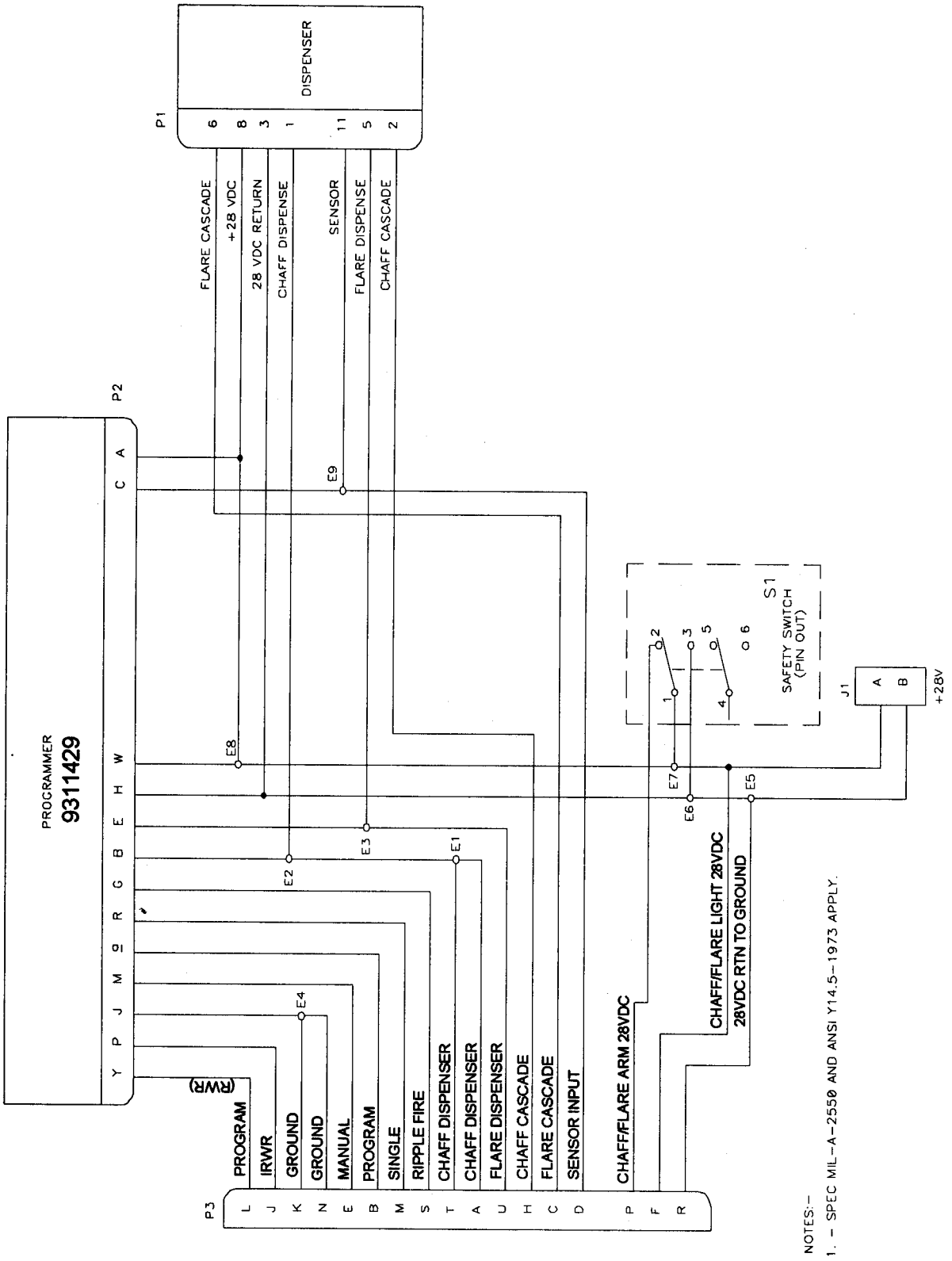
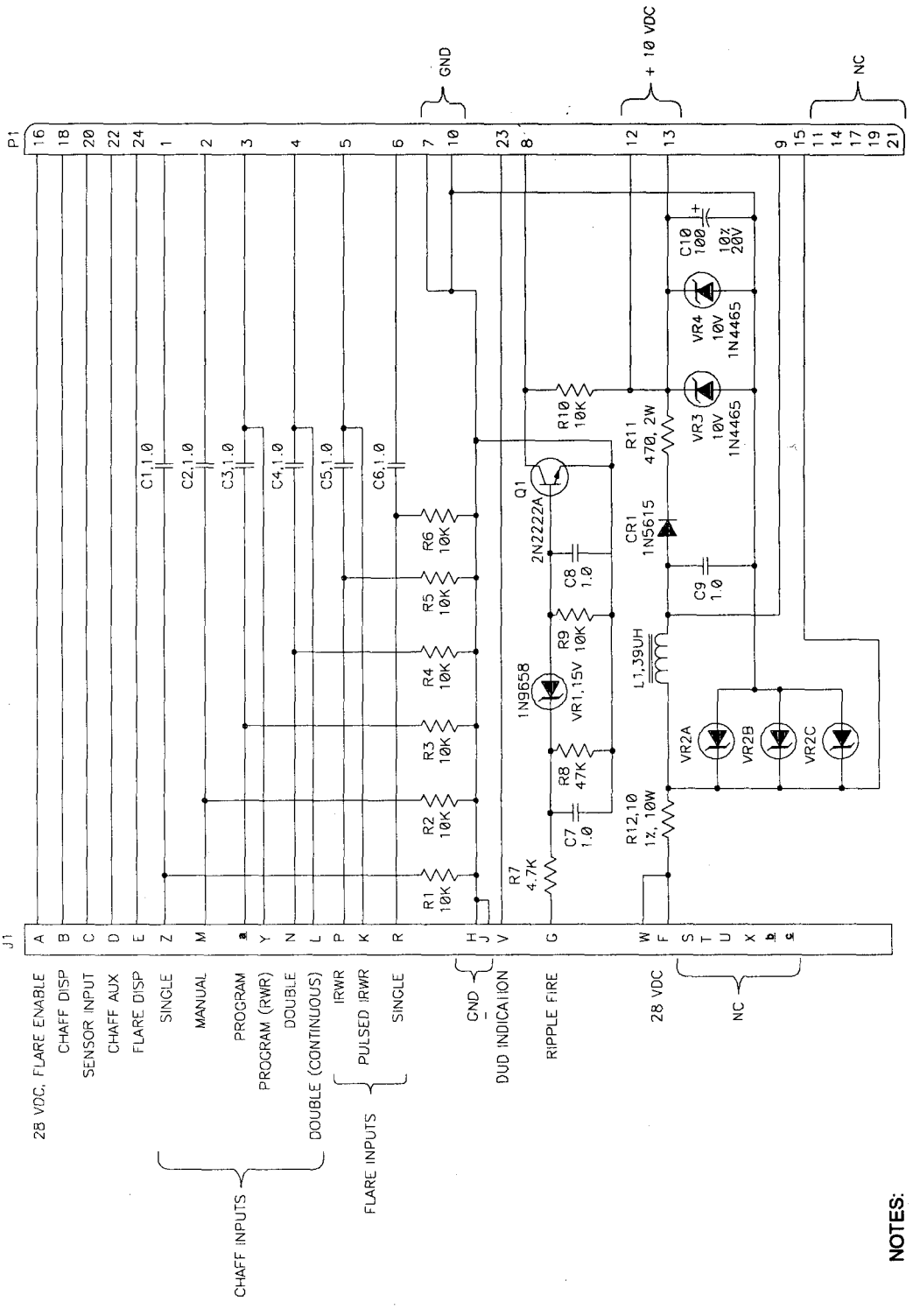


Figure E-2. M130 Wiring Interface (P/N 9311554)



NOTES:

1 - UNLESS OTHERWISE SPECIFIED ALL CAPACITANCE VALUES ARE IN MICROFARADS, ± 10%, 50V.
2 - UNLESS OTHERWISE SPECIFIED ALL RESISTANCE VALUES ARE IN OHMS, ± 5%, 1/4W.

Figure E-3. Power Supply No. 1 (P/N 9311452)

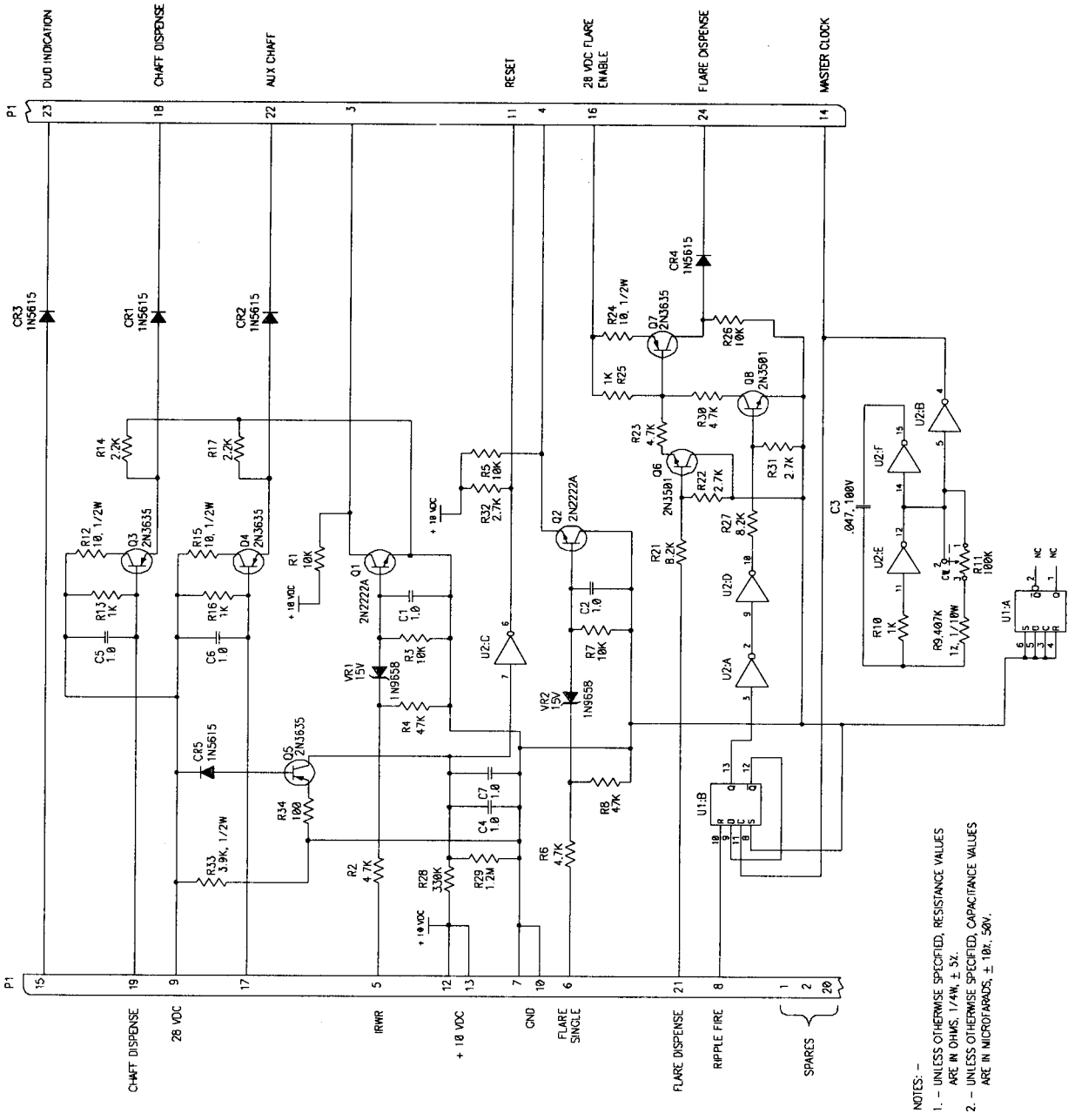


Figure E-4. Power Supply No. 2 (9311455)

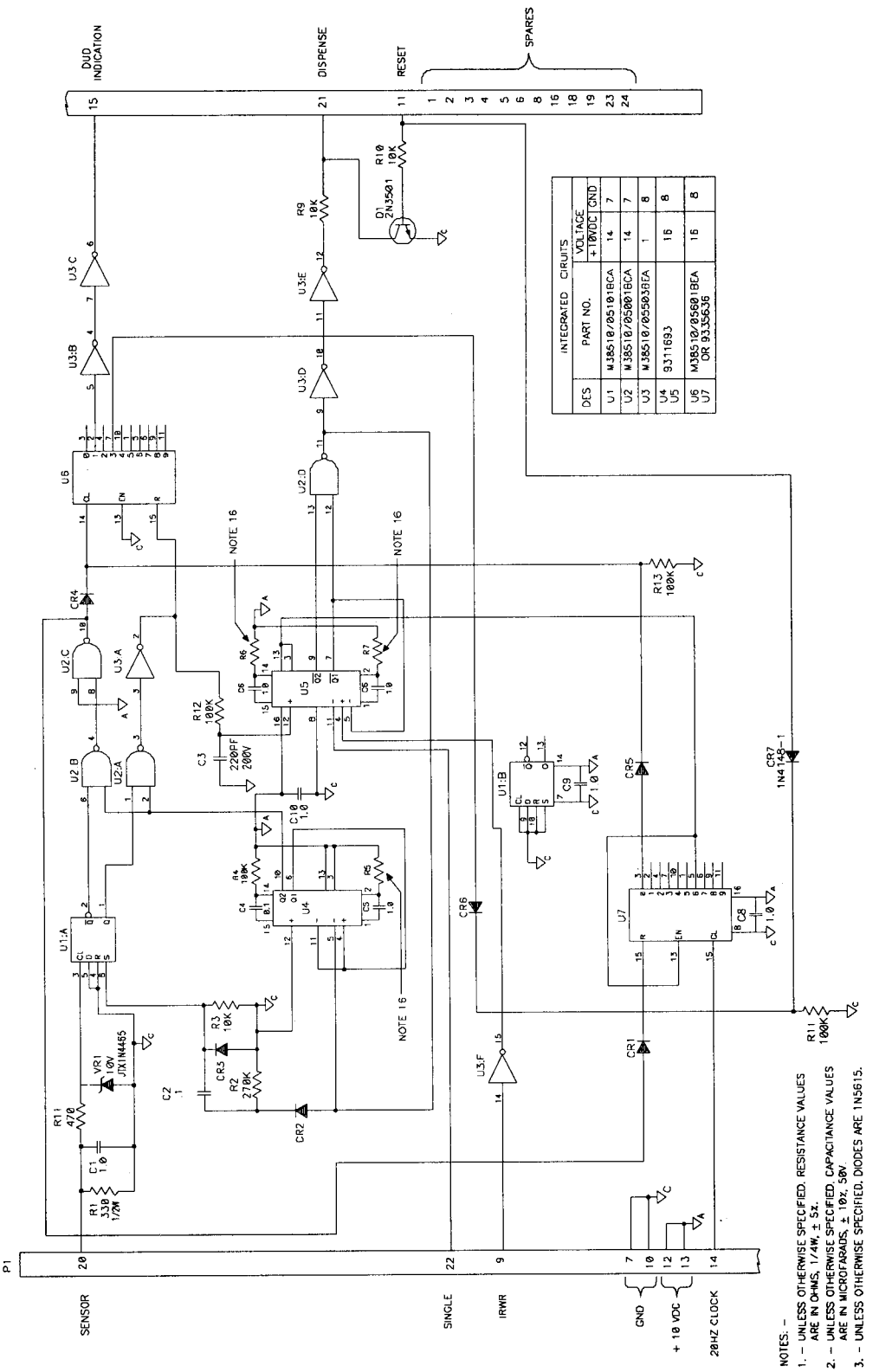


Figure E-5. Flare Detector (P/N 9311458)

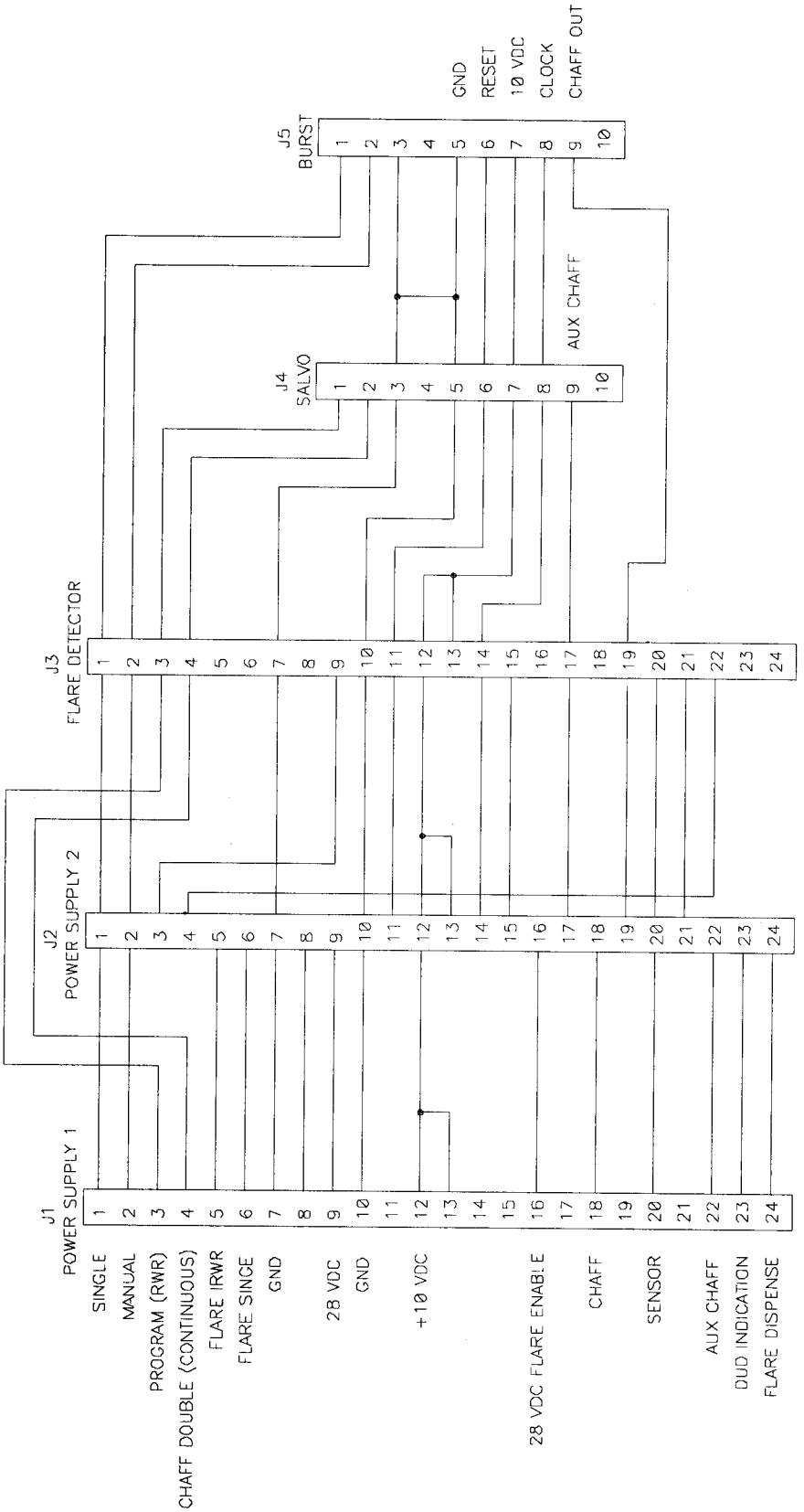


Figure E-6. Connector Assembly, Electrical (P/N 9311461)

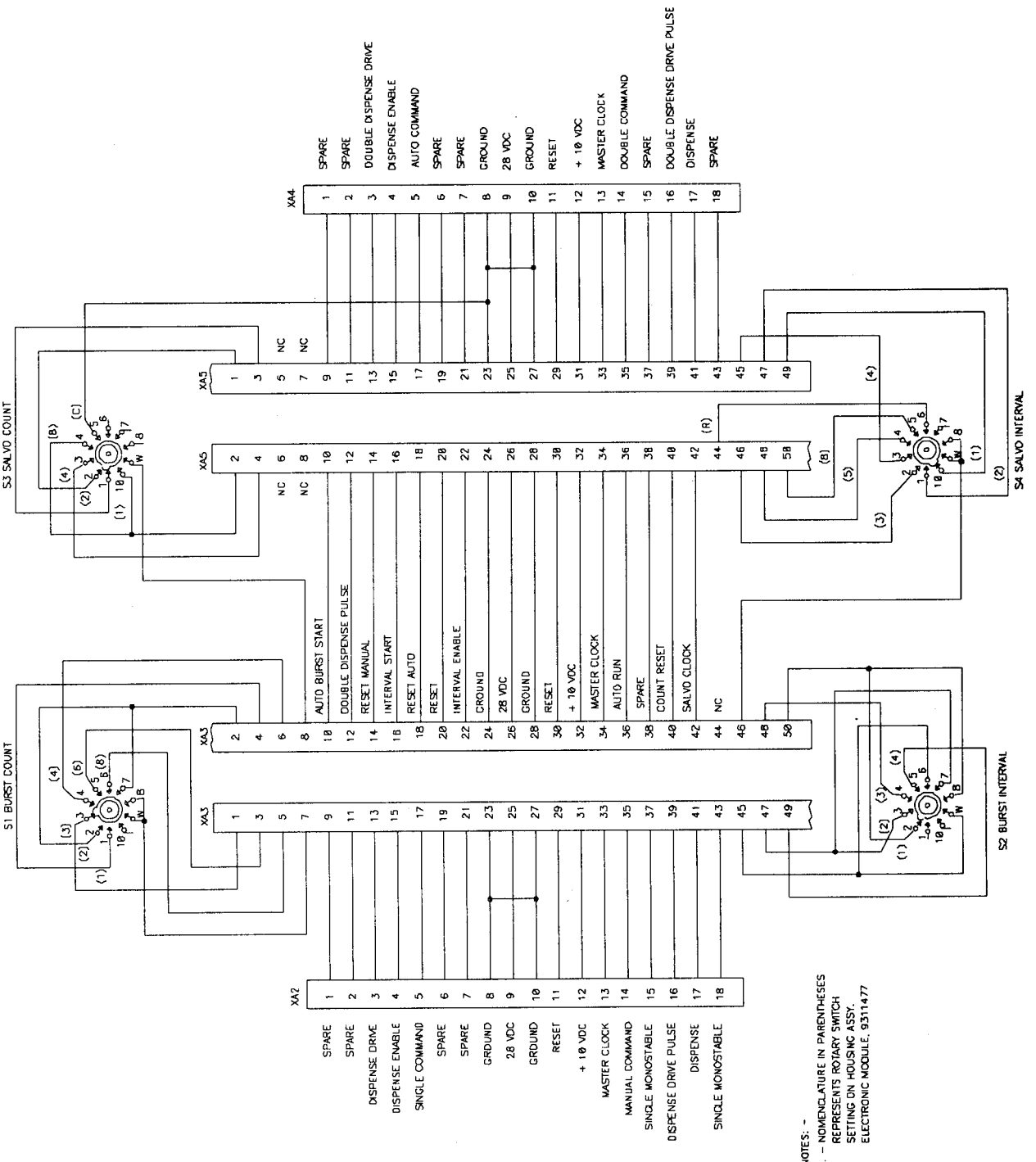


Figure E-7. Front Plane (P/N 9311467)

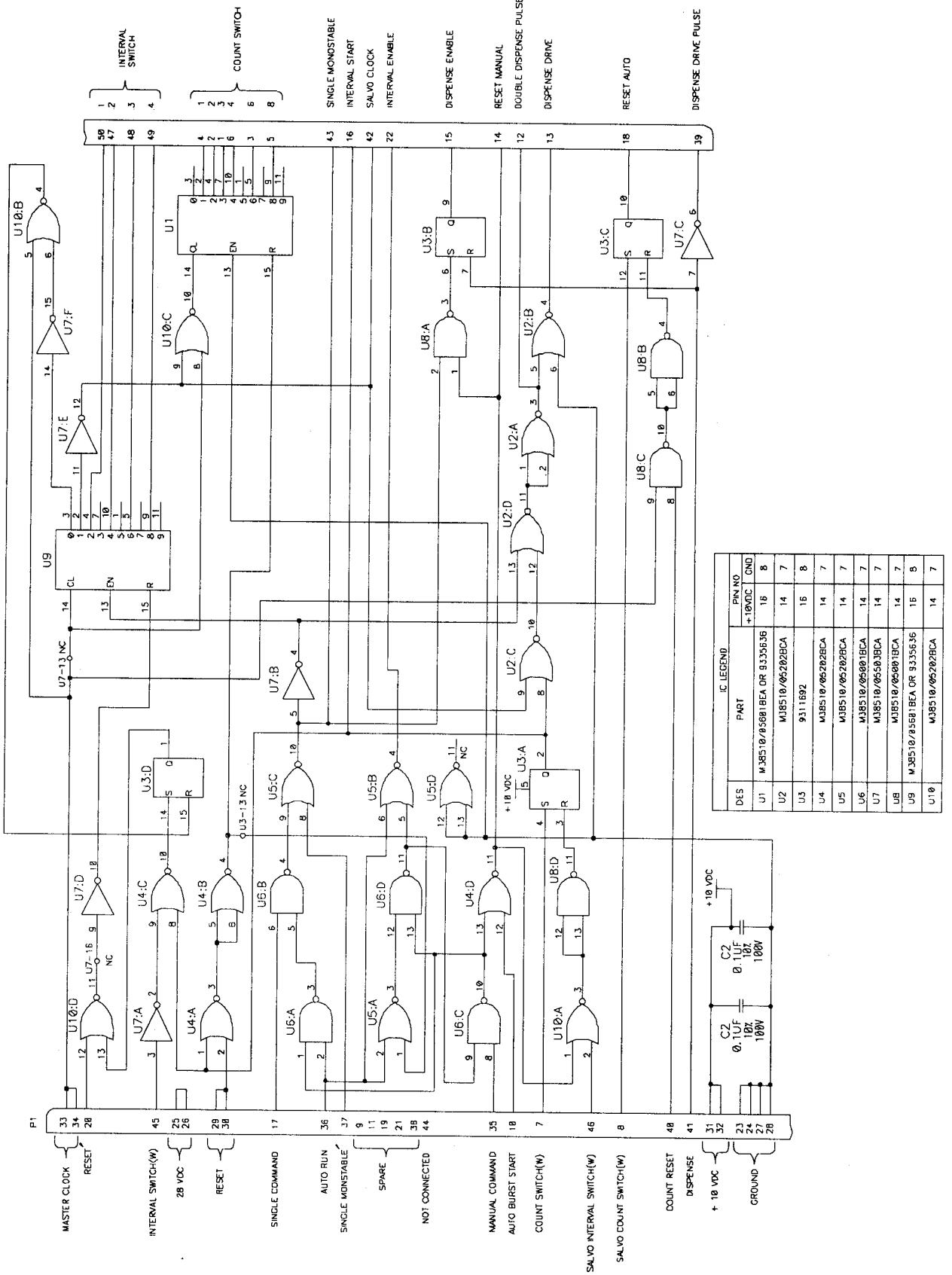


Figure E-8. IC, Burst Chaff (P/N 9311518)

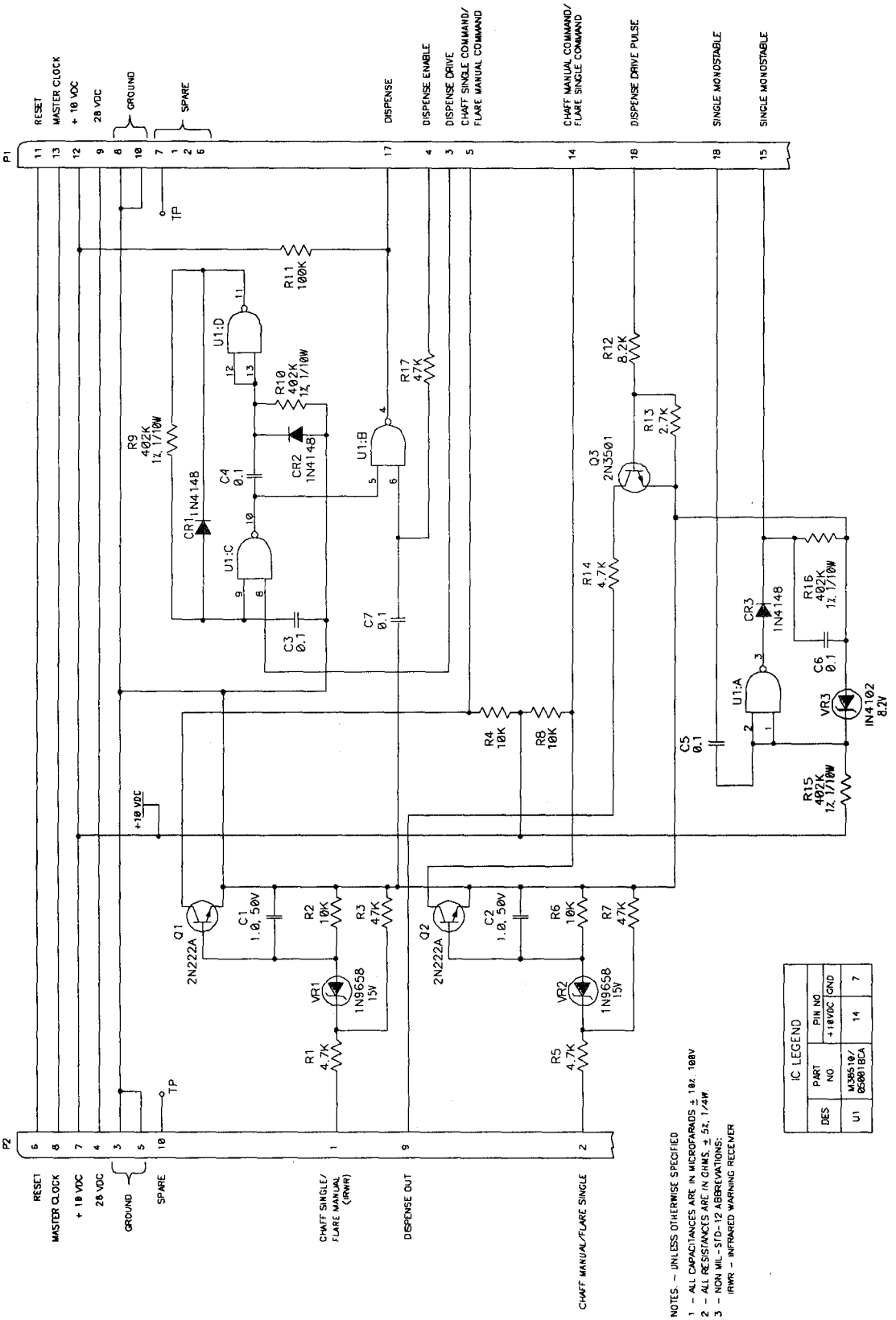
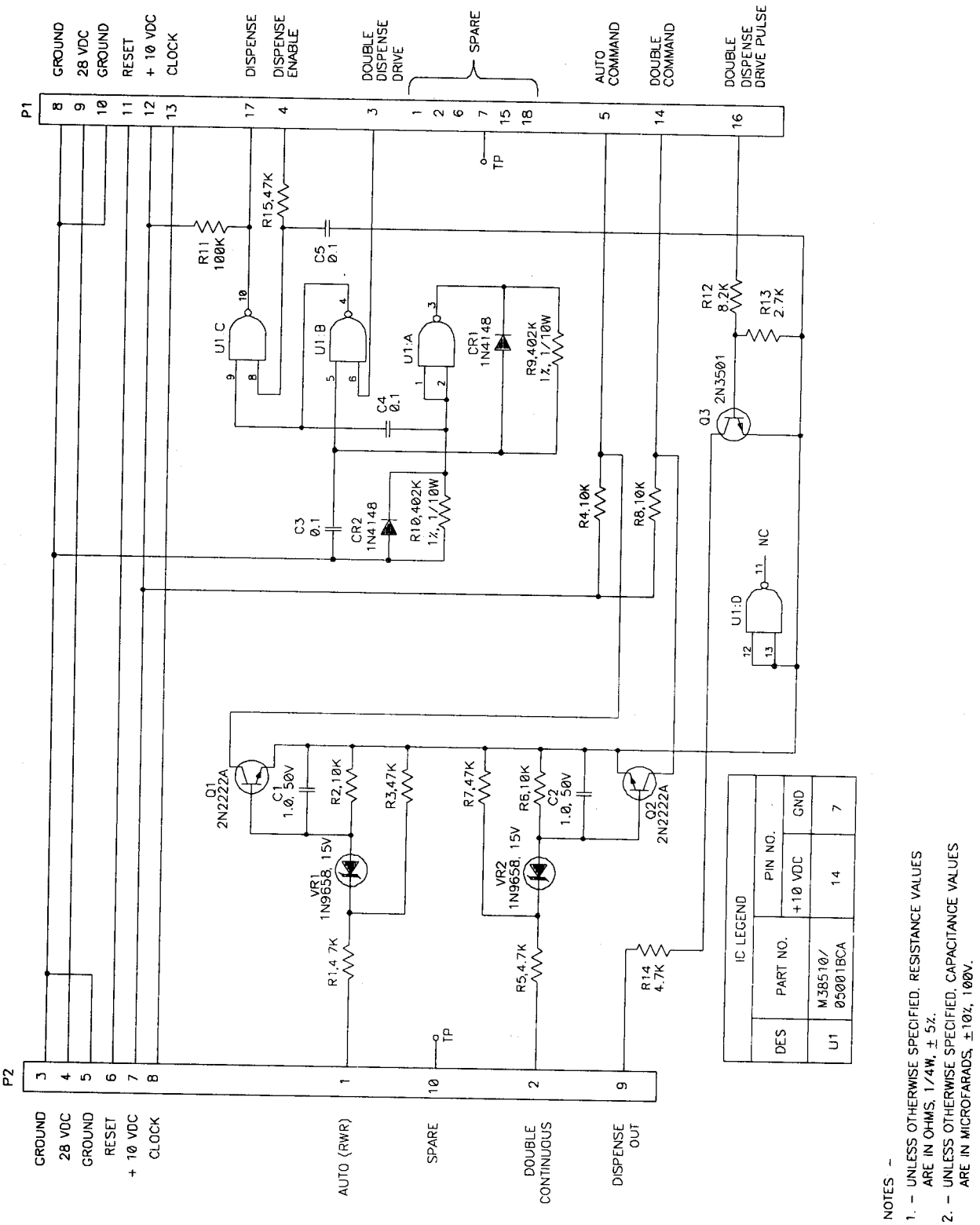


Figure E-9. Discrete, Burst C/F (P/N 9311521)



NOTES -

1. - UNLESS OTHERWISE SPECIFIED, RESISTANCE VALUES ARE IN OHMS, 1/4W, ± 5%.
2. - UNLESS OTHERWISE SPECIFIED, CAPACITANCE VALUES ARE IN MICROFARADS, ±10%, 100V.

Figure E-10. Discrete, Salvo, Chaff (P/N 9311524)

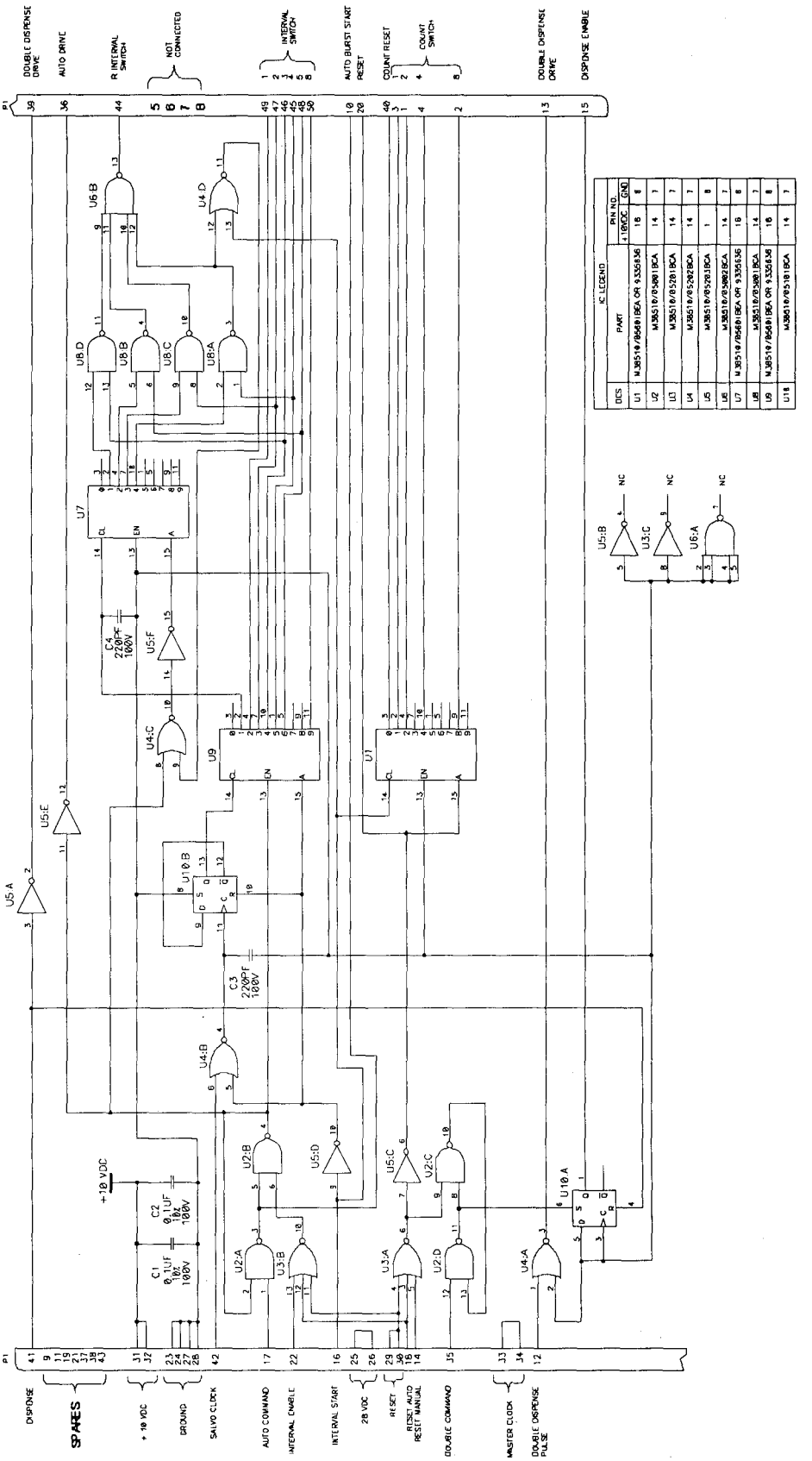
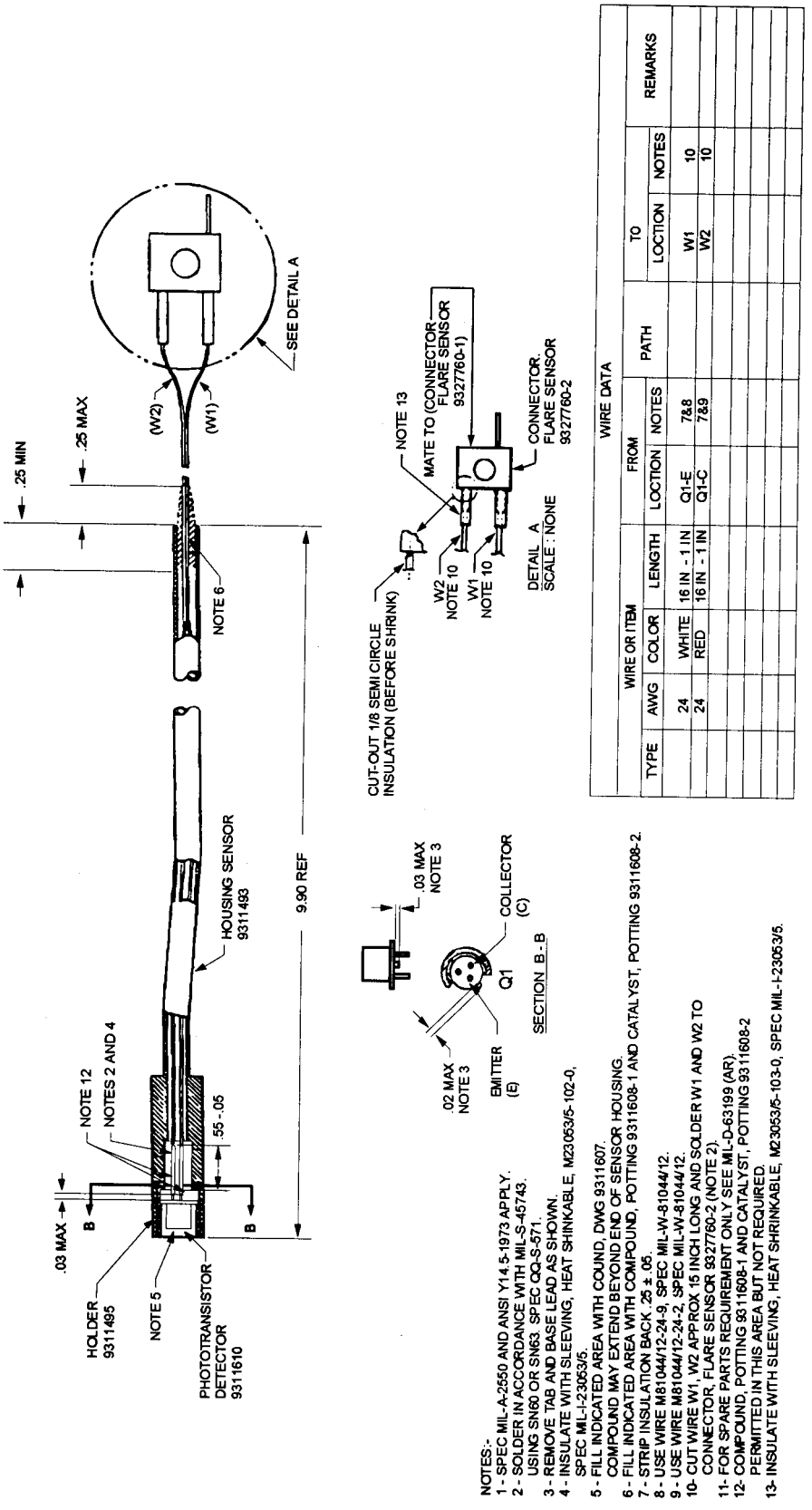


Figure E-11. IC, Salvo Chaff (P/N 9311527)



WIRE DATA

WIRE OR ITEM				FROM		PATH	TO		REMARKS
TYPE	AWG	COLOR	LENGTH	LOCTION	NOTES		LOCTION	NOTES	
	24	WHITE	16 IN - 1 IN	Q1-E	7&8		W1	10	
	24	RED	16 IN - 1 IN	Q1-C	7&9		W2	10	

NOTES:-
1 - SPEC MIL-A-2550 AND ANSI Y14.5-1973 APPLY.
2 - SOLDER IN ACCORDANCE WITH MIL-S-45743. USING SN60 OR SN63 SPEC QQ-S-571.
3 - REMOVE TAB AND BASE LEAD AS SHOWN.
4 - INSULATE WITH SLEEVING, HEAT SHRINKABLE, M23053/5-102-0, SPEC MIL-I-23053/5.
5 - FILL INDICATED AREA WITH COUND, DWG 9311607. COMPOUND MAY EXTEND BEYOND END OF SENSOR HOUSING.
6 - FILL INDICATED AREA WITH COMPOUND, POTTING 9311608-1 AND CATALYST, POTTING 9311608-2.
7 - STRIP INSULATION BACK .25 ± .05.
8 - USE WIRE M81044/12-24-9, SPEC MIL-W-81044/12.
9 - USE WIRE M81044/12-24-2, SPEC MIL-W-81044/12.
10- CUT WIRE W1, W2 APPROX 15 INCH LONG AND SOLDER W1 AND W2 TO CONNECTOR, FLARE SENSOR 9327760-2 (NOTE 2).
11- FOR SPARE PARTS REQUIREMENT ONLY SEE MIL-D-63199 (AR).
12- COMPOUND, POTTING 9311608-1 AND CATALYST, POTTING 9311608-2 PERMITTED IN THIS AREA BUT NOT REQUIRED.
13- INSULATE WITH SLEEVING, HEAT SHRINKABLE, M23053/5-103-0, SPEC MIL-I-23053/5.

Figure E-12. Flare Sensor Assembly (P/N 9311494)

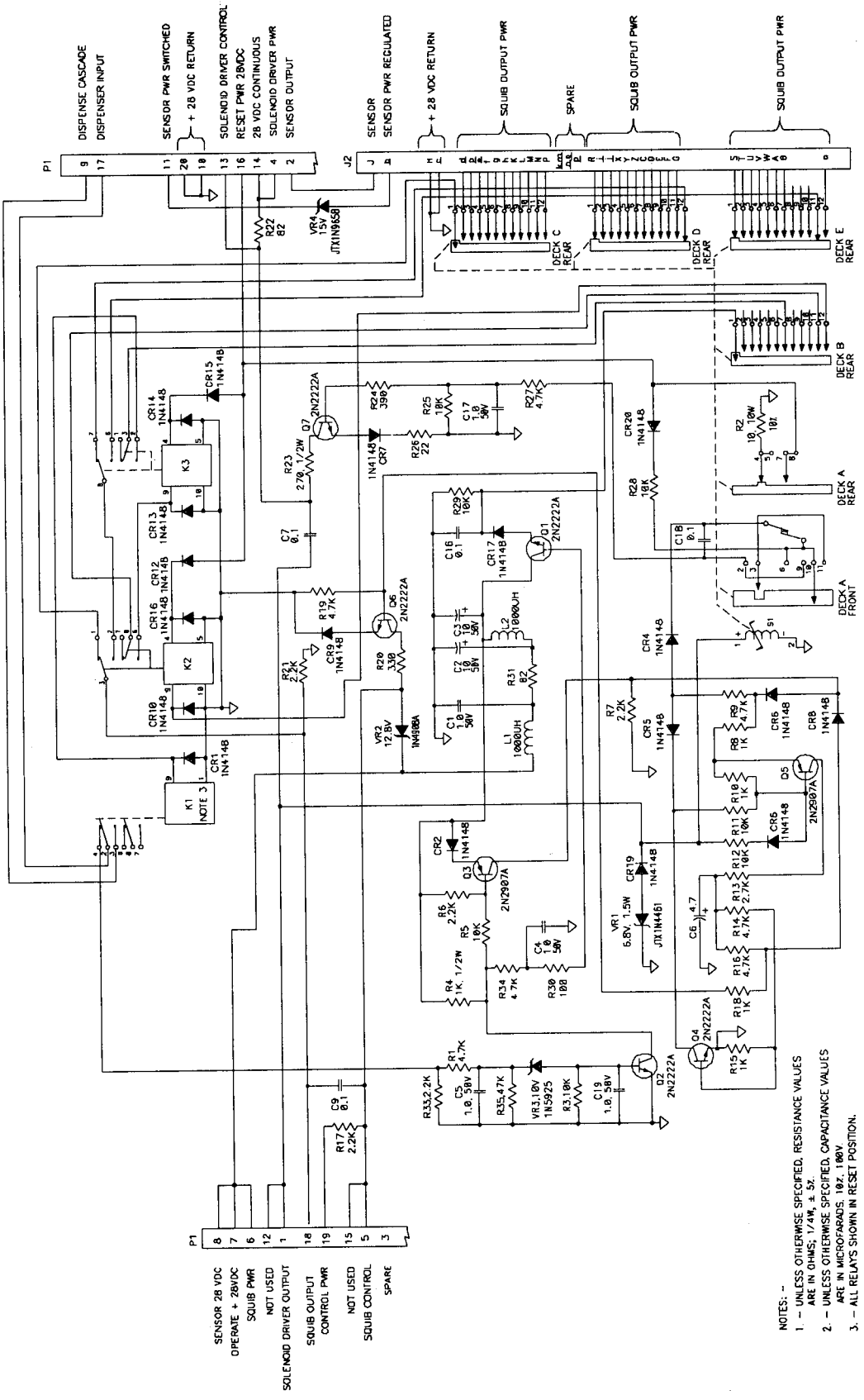


Figure E-13. Sequencer Switch (P/N 9311464)

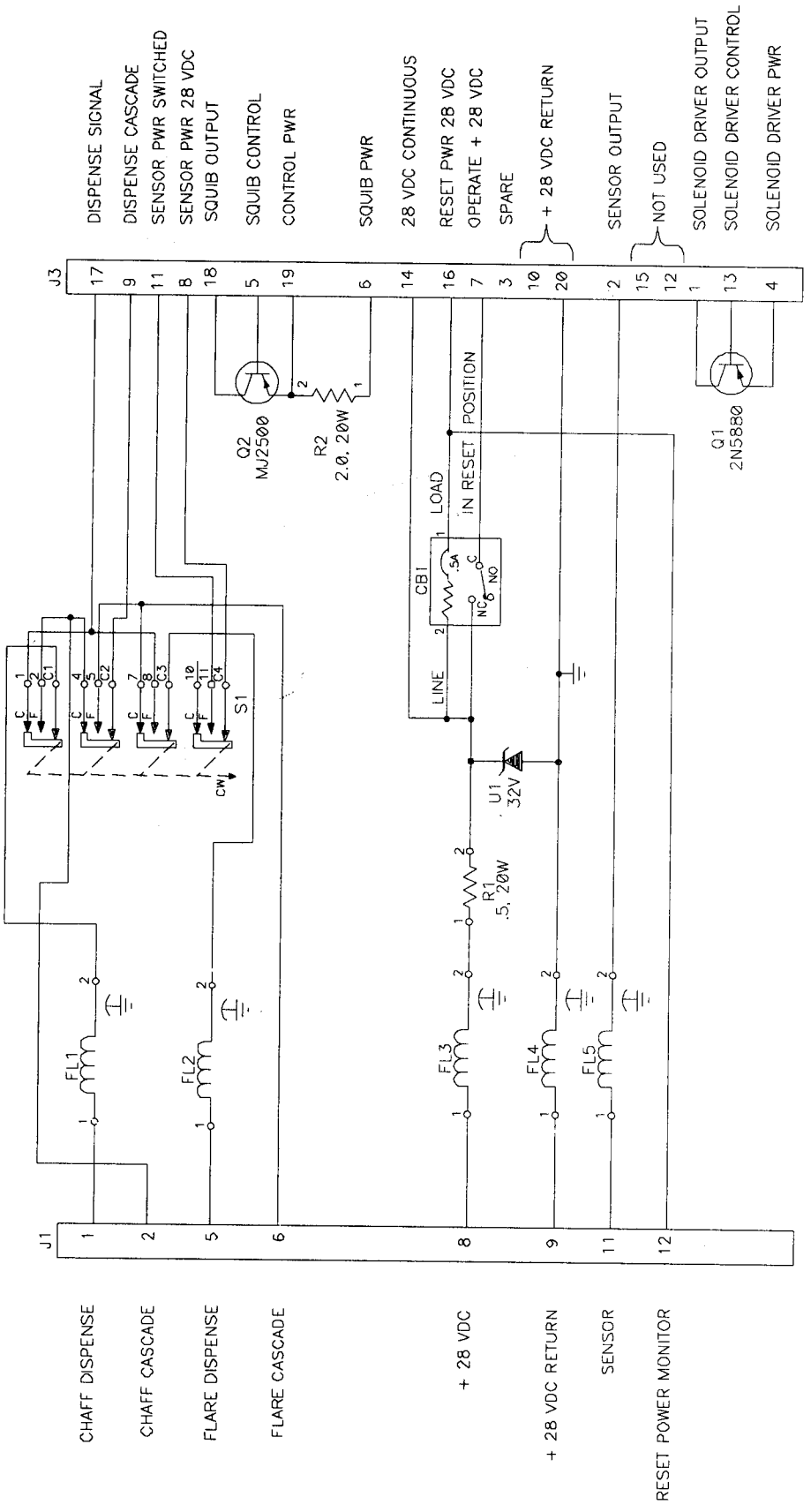


Figure E-14. Plate Assembly, Sequencer (P/N 9311488)

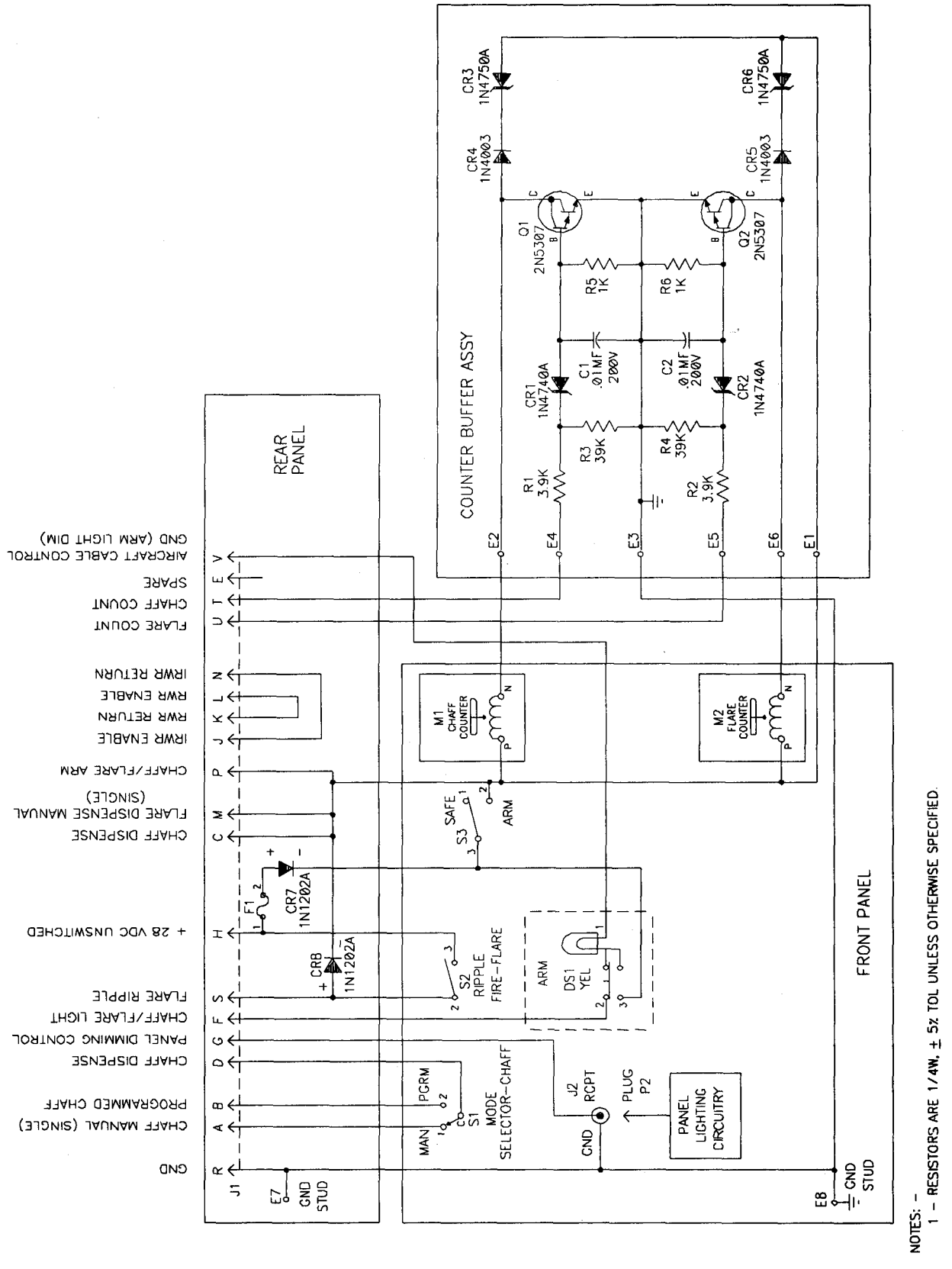
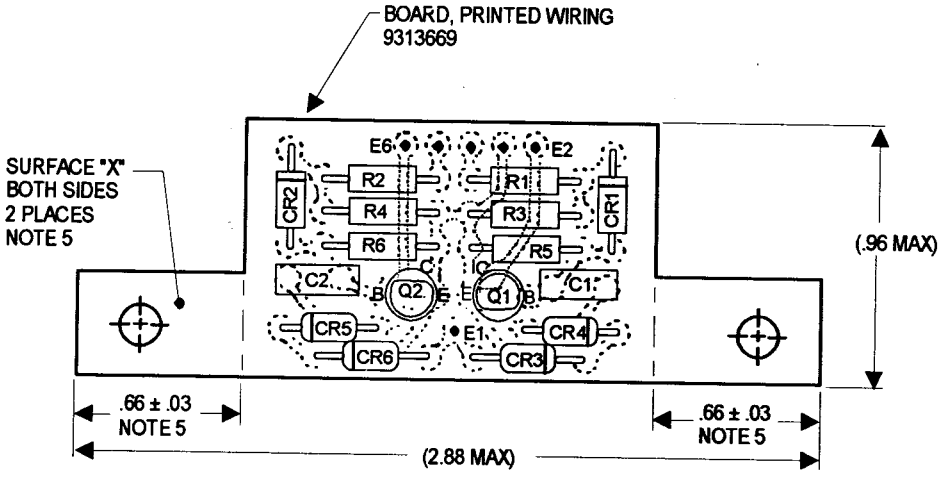
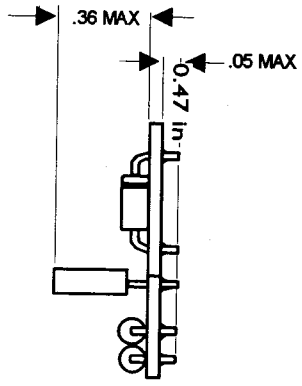


Figure E-15. Dispenser Control Box (P/N 9272533)





NOTES: -

1. - SPEC MIL-A-2550 AND ANSI Y14.5 -1973 APPLY
2. - SOLDER IN ACCORDANCE WITH MIL-STD-1460, USING SOLDER SN60 OR SN63, TYPE S, SPEC QQ-S-571.
3. - ALL DESIGNATIONS ON COMPONENTS AND LANDS ARE FOR REFERENCE ONLY.
4. - FOR APPARATUS LIST SEE SHEET 2.
5. - APPLY A UNIFORM COATING .001 TO .006 INCH THICK, OF INSULATION COMPOUND, ELECTRICAL, TYPE UR, SPEC MIL-I-46058, ON COMPONTS, BOTH SIDES OF BOARD, EXCEPT LANDS MARKED E1 THRU E6 AND AREA MARKED "X" BOTH SIDES, 2 PLACES. CURING TIME 3 HOURS AT 60 C.

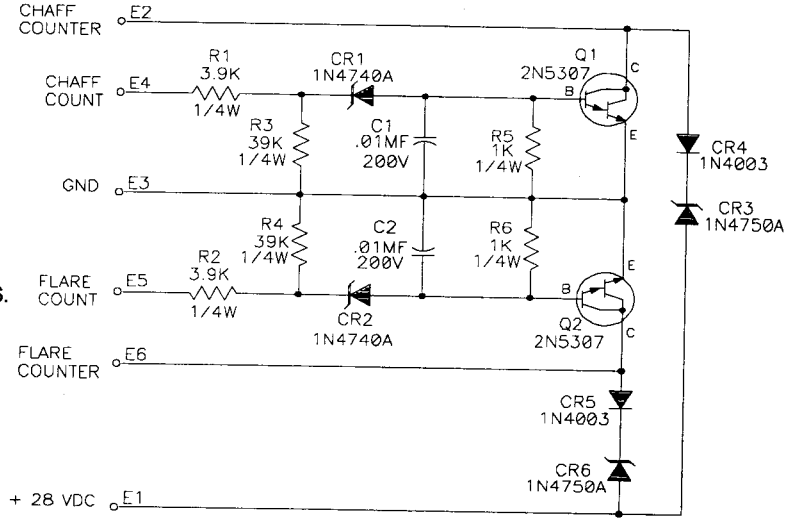


Figure E-16. Counter Buffer Assembly (P/N 9313670)

GLOSSARY

ACFT PWR	Aircraft Power
APPX	Appendix
AR	Army Regulation
AVIM	Aviation Intermediate Maintenance
AVUM	Aviation Unit Maintenance
BITE	Built-In Test Equipment
BOI	Basis of Issue
C	Chaff
(C)	Confidential
CCA	Circuit Card Assemblies
CM	Centimeter
CN	Can
CONT	Continued
CPC	Corrosion Prevention and Control
CTA	Common Tables of Allowances
DA	Department of the Army
DA PAM	Department of the Army Pamphlet
DCP	Dispenser Control Panel
DISP	Dispenser
DISP COMPL	Dispense Complete
DMWR	Depot Maintenance Work Requirement
DX	Direct Exchange
EA	Each
EIR	Equipment Improvement Recommendations
EM	Electronics Module
EOD	Explosive Ordnance Disposal
EQPT	Equipment
ETC	Et cetera
F	Flare
FIG.	Figure
FM	Field Manual
FOI	Firing Order Indicator
FSCM	Federal Supply Code for Manufacturer
FT	Foot
GAL	Gallon
GL	Gallon
GSE	Ground Support Equipment
IN.	Inch
IN.-LB	Inch-Pound
INTVL	Interval
KG	Kilogram
KPA	Kilopascal
LB	Pound
MAC	Maintenance Allocation Chart
MAN-PGRM	Manual-Program

GLOSSARY (cont)

MIL-STD	Military Standard
MTOE	Modified Table of Organization
NATO	North Atlantic Treaty Organization
NIIN	National Item Identification Number
N-M	Newton Meter
NO.	Number
NSN	National Stock Number
OHM	Ohmmeter
PARA	Paragraph
PHY SEC CL	Physical Security Classification
PMCS	Preventive Maintenance Checks and Services
PIN	Part Number
PR	Pair
PSI	Pound-Force Per Square Inch
PT	Pint
QA	Quality Assurance
QC	Quality Control
RO	Roll
ROD	Report of Discrepancy
RPSTL	Repair Parts and Special Tools List
(S)	Secret
SEQ	Sequencer
SF	Standard Form
SMR	Source. Maintenance, and Recoverability
SRA	Specialized Repair Act
S v	Stray Voltage
SYS	System
(T)	Top Secret
TBO	Time Between Overhaul
TM	Technical Manual
TMDE	Test, Measurement, and Diagnostic Equipment
TS	Test Sequence
U/M	Unit of Measure
UOC	Usable On Code
VDC	Volt Direct Current
WRMUP	Warmup
YD	Yard

INDEX

E (cont)

F

G

H

I

J

K

L

M

N

O

P

INDEX (cont)

By Order of the Secretary of the Army:

DENNIS J. REIMER
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Chief of Staff

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1-6	11			The weight of the DCP is 1.3 lbs, not 13 lbs
3-90	3-7			Callout should read multimeter test leads, not to VDC power supply

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THE METRIC SYSTEM AND EQUIVALENTS

LINEAR MEASURE

1 Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches
1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches
1 Kilometer = 1000 Meters = 0.621 Miles

WEIGHTS

1 Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces
1 Kilogram = 1000 Grams = 2.2 Lb.
Feet
1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

LIQUID MEASURE

1 Milliliter = 0.001 liters = 0 0338 Fluid Ounces
1 liter = 1000 Milliliters = 33.82 Fluid Ounces

SOUARE MEASURE

1 Sq Centimeter = 100 Sq Millimeters = 0.155 Sq Inches
1 Sq Meter = 10,000 Sq Centimeters = 10.76 Sq feet
1 Sq Kilometer = 1,000,000 Sq Meters = 0.386 Sq Miles

CUBIC MEASURE

1 Cu Centimeter = 1000 Cu Millimeters = 0.06 Cu Inches
1 Cu Meter = 1,000,000 Cu Centimeters = 35.31 Cu

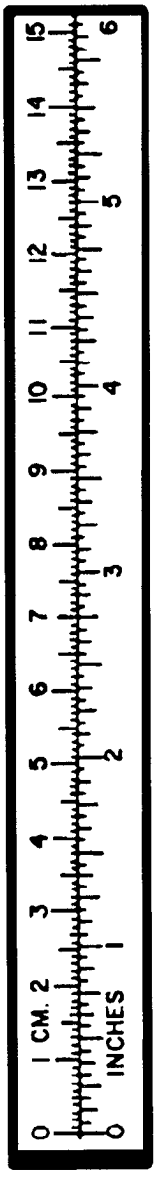
TEMPERATURE

5/9 (^{O}F - 32) = ^{O}C
212^{O} Fahrenheit is equivalent to 100^{O} Celsius
90^{O} Fahrenheit is equivalent to 32.2^{O} Celsius
32^{O} Fahrenheit is equivalent to 0^{O} Celsius
9/5 C^{O} +32 = F^{O}

APPROXIMATE CONVERSION FACTORS

TO CHANGE	TO	MULTIPLY BY
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	0.914
Miles	Kilometers	1.609
Square	Square Centimeters	6.451
Square Feet	Square Meters	0.093
Square Yards	Square Meters	0.836
Square Miles	Square Kilometers	2.590
Acres	Square Hectometers	0.405
Cubic Feet	Cubic Meters	0.028
Cubic Yards	Cubic Meters	0.765
Fluid Ounces	Milliliters	29.573
Pints	Liters	0.473
Quarts	Liters	0.946
Gallons	Liters	3.785
Ounces	Grams	28.349
Pounds	Kilograms	0.473
Short Tons	Metric Tons	0.907
Pound-feet	Newton-Meters	1.356
Pounds per Square Inch	Kilopascals	6.895
Miles per Gallon	Kilometers per Liter	0.425
Miles per Hour	Kilometers per Hour	1.609

TO CHANGE	TO	MULTIPLY BY
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Square	Square Inches	0.155
Square Meters	Square Feet	10.764
Square Meters	Square Yards	1.196
Square Kilometers	Square Miles	0.386
Square Hectometers	Acres	2.471
Cubic	Cubic Feet	35.315
Cubic Meters	Cubic Yards	1.308
Milliliters	Fluid Ounces	0.034
Liters	Pints	2.113
Liters	Quarts	1.057
Liters	Gallons	0.264
Grams	Ounces	0.035
Kilograms	Pounds	2.205
Metric Tons	Short	1.102
Newton-Meters	Pound-Feet	0.738
Kilopascals	Pounds per Square Inch	0.145
Kilometers per liter	Miles per Gallon	2.354
Kilometers per Hour	Miles per Hour	0.621



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