

**TECHNICAL MANUAL  
 UNIT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL  
 TOOLS LIST**

**for  
 ANCILLARY EQUIPMENT FOR LOW  
 VELOCITY AIR DROP SYSTEM (LVADS)**

LINE, MULTI-LOOP (EXTRACTION LINES, DEPLOYMENT LINES, BAG CLUSTERING LINES, RISER EXTENSION, SUSPENSION SLINGS):  
 NSNs 1670-01-062-6301, 1670-01-062-6306, 1670-01-062-6304,  
 1670-01-062-6305, 1670-01-063-7760, 1670-01-062-6310,  
 1670-01-062-6303, 1670-01-062-6307, 1670-01-063-7761,  
 1670-01-062-6308, 1670-01-062-6302, 1670-01-064-4453,  
 1670-01-062-6309, 1670-01-064-4451, 1670-01-064-4452,  
 1670-01-062-6313, 1670-01-062-6311, 1670-01-062-6312,  
 1670-01-107-7651, 1670-01-107-7652,  
 COUPLING, EXTRACTION FORCE TRANSFER: NSNs 1670-00-434-5783,  
 1670-00-434-5785, 1670-00-434-5787, 1670-00-434-5782,  
 1670-01-326-7309  
 RELEASE, CARGO PARACHUTE, M-1: NSN 1670-01-097-8816  
 RELEASE, CARGO PARACHUTE, M-2: NSN 1670-01-097-8817  
 LINK ASSEMBLY, SINGLE SUSPENSION, TYPE IV: NSN  
 1670-00-783-5988  
 ASSEMBLY, HEAVY DUTY NSNs  
 LINK, 4-POINT: NSN 1670-00-006-2752  
 COVER, LINK, TYPE IV: NSN 1670-00-360-0329  
 CLEVIS, AERIAL DELIVERY: NSNs 4030-00-360-0304, 4030-00-678-8562,  
 4030-00-090-5354, 4030-00-432-2516  
 COVER, CLEVIS: NSN 1670-00-360-0328  
 STRAP, PARACHUTE RELEASE, SINGLE KNIFE: NSN 1670-00-998-0116  
 STRAP, PARACHUTE RELEASE, MULTI-KNIFE: NSN 4340-00-040-8219  
 LINK ASSEMBLY, COUPLING, 3-POINT: NSN 1670-01-307-0155  
 BRACKET, SUSPENSION: NSN 1670-01-207-7223  
 BRACKET, SUSPENSION: NSN 1670-00-078-4319  
 PLATE, SUSPENSION: NSN 1670-01-141-1522  
 TIEDOWN, CARGO, 10K: NSN 1670-00-937-0271  
 TIEDOWN, CARGO, QUICK-RELEASE: NSN 1670-01-333-6082  
 TIEDOWN, CARGO, AIRCRAFT: NSN 1670-00-545-9063  
 DRIVE OFF AID, TYPE IV: NSN 1670-01-344-0825  
 JETTISON SYSTEM, PARACHUTE, EXTRACTION:  
 NSN 1670-01-475-1990

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\*This manual together with TM 10-1670-297-20&P, 15 September 1995, TM 10-1670-298-20&P, 15 September 1995, and TM 10-1670-299-20&P, 15 September 1995, supersedes TM 10-1670-240-20, 14 April 1970, including all changes.

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**TM 10-1670-296-20&P**

**CHANGE  
NO. 1**

**HEADQUARTERS, DEPARTMENT OF THE ARMY  
WASHINGTON, D.C., 1 December 2001**

**TECHNICAL MANUAL  
UNIT MAINTENANCE MANUAL INCLUDING  
REPAIR PARTS AND SPECIAL TOOLS LIST  
FOR**

**ANCILLARY EQUIPMENT FOR  
LOW VELOCITY AIR DROP SYSTEM  
(LVADS)**

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TM 10-1670-296-20&P, 15 September 1995, is updated as follows:

1. File this sheet in front of the manual for reference.
2. This change is a result of new Extraction Parachute Jettison System (EPJS).
3. New or updated text is indicated by a vertical bar in the outer margin of the page.
4. Added illustrations are indicated by a vertical bar adjacent to the figure number. Changed illustrations are indicated by a miniature pointing hand adjacent to the updated area and a vertical bar adjacent to the figure number.
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C-61 and C-62  
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C-73 through C-74  
F-1 through F-3/(F-4 blank)

B-3, B-4  
C-59/(C-60 blank)  
C-61 and C-62  
C-63 through C-68  
C-73/(C-74 blank)  
F-1, F-2

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To be distributed in accordance with Initial Distribution Number (IDN 256283), requirements for TM 10-1670-296-20&P).

**WARNING**

Personnel performing instructions involving operations, procedures, and practices that are included or implied in this technical manual will observe the following instructions. Disregard of these instructions can result in serious injury or death.

**WARNING****FIRST AID**

For artificial respiration, refer to FM 21-11.

**WARNING**

Depending upon mission requirements, the squib may be installed on EPJD or stored separately. Squib must be stowed or installed with squib cable and safety cap installed. DO NOT SEPARATE SQUIB CABLE WITH SAFETY CAP FROM SQUIB. Failure to follow precautions can result in injury to personnel.

**WARNING**

Squib must be installed with squib cable and safety cap installed. DO NOT SEPARATE SQUIB CABLE WITH SAFETY CAP FROM SQUIB. Failure to follow precautions can result in injury to personnel

**WARNING**

After the squib has been installed in the EPJD, handle EPJD from the bottom only. Failure to do so can result in injury to personnel.

**WARNING**

The squib is a pyrotechnic device. When not installed in aircraft, and all cabling and equipment is not installed, then squib cable safety cap must be installed on squib cable. Use care when handling the squib to prevent accidental firing of the device. Avoid dropping or jarring the squib and avoid static electricity. Failure to follow precautions can result in injury to personnel.

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Date of issue for the original manual and changed pages are:

Original ..... 15 September 1995  
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TECHNICAL MANUAL  
NO. TM 10-1670-296-20&P

HEADQUARTERS,  
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WASHINGTON, D.C., 15 September 1995

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JETTISON SYSTEM, PARACHUTE, EXTRACTION: NSN 1670-01-475-1990

**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 these procedures, please let us know. Mail DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA form 2028-2, located in the back of this manual, direct to: Commander, U.S. Army Soldier Biological and Chemical Command, ATTN: AMSSB-RIM-E(N), 15 Kansas Street, Natick, MA 01760. You may also send in your recommended changes via electronic mail directly to <AMSSB-RIM-E@natick.army.mil>. A reply will be furnished directly to you. Instructions for sending an electronic 2028 may be found at the back of this manual immediately preceding the hard copy 2028.

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## HOW TO USE THIS MANUAL

Be sure to read all WARNINGS before using your equipment.

This manual incorporates a quick reference tab feature that allows you to quickly locate the most often referenced subjects and topics appearing in the manual. The reference tab feature consists of the following components:

### **Cover Page Index**

Index boxes are located in the right-hand edge of the cover page. Each index box contains a subject title, page number, and black index tab.

### **Table of Contents**

The Table of Contents lists all the major subjects contained in this manual. Subjects that are surrounded by a black box correspond to those that appear on the cover page index.

### **Page Numbers and Index Tabs**

Each page of this manual is identified with a page number. Pages that contain the subjects identified on the cover page index also contain a black tab on the right edge of the page that aligns with the cover index tab.

To use the quick reference tab features, select the title of the subject you are trying to find from the cover page index. You can either turn to the indicated page or bend back the pages and thumb to the page tab that aligns with the cover index tab.

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### SECTION I. GENERAL INFORMATION

#### 1.1 SCOPE.

a. Type of Manual. Unit Maintenance Manual, including Repair Parts and Special Tools List (RPSTL). This manual is published for use by personnel responsible for performing unit maintenance on the ancillary equipment for the Low Velocity Air Drop System (LVADS). Rigging procedures pertaining to items included in this manual are outlined in the FM 10-500-Series publications.

b. Part Number and Equipment Name.

Part Nos. 68F217-48, 68F217-52, 68F217-49, 68F217-53, 68F217-58, 68F217-59, 68F217-50, 68F217-54, 68F217-22, 68F217-55, 68F217-51, 68F217-56, 68F217-57, 68F217-47, 68F217-45, 68F217-30, 68F217-32, 68F217-41, 68F217-33, 68F21 7-60, 68F217-61 Line, Multi-Loop (Extraction lines, deployment lines, bag clustering lines, riser extension, suspension slings).

Part No. 11-1-2060 Coupling, Extraction Force Transfer

Part No. 11-1-1487-2 Release, Cargo Parachute, M-1

Part No. 11-1-565-2 Release, Cargo Parachute, M-2

Part No. 11-1-3359 Link Assembly, Single Suspension, Type IV

Part No. 66B1883 Link Assembly, Heavy Duty

Part No. 65D3820 Link, 4-Point

Part No. 50C7496 Cover, Link, Type IV

Part No. MS70087 Clevis, Aerial Delivery

Part No. 50C7406 Cover, Clevis

Part No. 11-1-129 Strap, Parachute Release, Single-Knife

Part No. 11-1-484 Strap, Parachute Release, Multi-Knife

Part No. 11-1-1715-2 Link Assembly, Coupling, 3-Point

Part No. 53C7084-1 Bracket, Suspension

- Part No. 53C7084-2 Bracket, Suspension
- Part No. 11-1-2615 Plate, Suspension
- Part No. 11-1-721 Tiedown, Cargo, 10K
- Part No. 11-1-3922 Tiedown, Cargo, Quick-Release
- Part No. 11-1-3771 Drive Off Aid, Type IV
- Part No. MIL-T-25959 Tiedown, Cargo, Aircraft
- Part No. 811-00429 Jettison System, Extraction Parachute

c. Purpose of Equipment. The LVADS Ancillary Equipment includes miscellaneous canvas, webbing, and metal items necessary for attaching parachutes to airdrop cargo loads. This equipment is used by airborne/rigger qualified personnel. It does not include the parachutes or platforms used in Low Velocity Air Drop.

### **1.2 MAINTENANCE FORMS, RECORDS, AND REPORTS.**

Maintenance forms and records that you are required to use are DA Form 2402 (Exchange Tag), DA Form 5504 (Maintenance Request), and Standard Form (SF) 368 Product Quality Deficiency Report (PQDR). Their use and procedures for filling out these forms are explained in DA PAM 738-750, The Army Maintenance Management System (TAMMS).

### **1.3 DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE.**

Refer to TM 750-244-3 for instructions for destruction of LVADS Ancillary Equipment.

### **1.4 CORROSION PREVENTION AND CONTROL (CPC).**

Corrosion Prevention and Control of Army materiel is a continuing concern; it is important that any corrosion problems with these items be reported so the problem can be corrected and improvements 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 or plastic. Unusual cracking, softening, swelling, or breaking of the materials may be a corrosion problem.

If a corrosion problem is identified, it can be reported using SF 368 PQDR. Using key words such as "corrosion," "rust," "deterioration," or "cracking" will ensure the information is identified as a CPC problem.

The form should be submitted to the address specified in DA PAM 738-750.

### **1.5 REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR).**

If your LVADS ancillary equipment needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance. Put it on an SF 368 PQDR. Mail it to: U.S. Army Soldier Biological and Chemical Command, Attn: AMSSB-RIM-E(N), 15 Kansas Street, Natick, MA 01760. A reply will be furnished to you.

### **1.6 NOMENCLATURE CROSS REFERENCE LIST.**

<u>Common Name</u>	<u>Official Nomenclature</u>
Arm Clustering Assembly	Link, 4-Point
Crocus Cloth	Cloth, Abrasive, Ferric Oxide and Quartz
Timer and Stem Assembly	Timing Movement, Mechanical

**1.7 LIST OF ABBREVIATIONS/ACRONYMS.**

AMP	Ampere
AVIM	Aviation Intermediate Maintenance
AVUM	Aviation Unit Maintenance
BOI	Basic of Issue
CAGEC	Commercial and Government Entity Code
CPC	Corrosion Prevention and Control
CTA	Common Table of Allowance
EIR	Equipment Improvement Recommendations
EPJD	Extraction Parachute Jettison Device
EPJS	Extraction Parachute Jettison System
JTA	Joint Table of Allowances
LED	Light Emitting Diode
LVADS	Low Velocity Air Drop System
MAC	Maintenance Allocation Chart
MILSTAMP	Military Standard Transportation and Movement Procedures
MTOE	Modified Table of Organization and Equipment
MWO	Modification Work Order
NIIN	National Item Identification Number
NMP	National Maintenance Point
NSN	National Stock Number
PCB	Printed Circuit Board
PMCS	Preventive Maintenance Checks and Services
PQDR	Product Quality Deficiency Report
QTY REQD	Quantity Required
RPSTL	Repair Parts and Special Tools List
SMR	Source, Maintenance and Recoverability
SRA	Special Repair Activity
SF	Standard Form
TAMMS	The Army Maintenance Management System
TDA	Table of Distribution and Allowance
TMDE	Test Measurement and Diagnostic Equipment
TOE	Table of Organization and Equipment
UOC	Usable on Code
U/I	Unit of Issue
U/M	Unit of Measure
VAC	Volts Alternating Current
VDC	Volts Direct Current

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**SECTION II. DESCRIPTION AND DATA**

**1.8 EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES.**

a. Characteristics.

All equipment is lightweight and heavy-duty.

Equipment can be combined in multiple configurations for customization.

b. Capabilities and Features.

Safely drop platform loads without landing aircraft.

Drop single platform or multiple articulated platforms.

**1.9 LOCATION AND DESCRIPTION OF MAJOR COMPONENTS.**

a. Line. Multi-Loop. The multi-loop line (1) is constructed of Type XXVI nylon. These lines are used for extraction lines, deployment lines, bag clustering lines, riser extensions, and suspension slings. They have a sliding webbing keeper (2) on each end and one or more fixed keepers (3) constructed of nylon filament pressure sensitive tape. They have buffers (4) on the inside of both loops

(1) One-Loop Line. The one-loop lines are made in 36- and 160-foot (11.0- and 48.8-m) lengths. The 36-foot (11-m) one-loop line has no sliding keepers

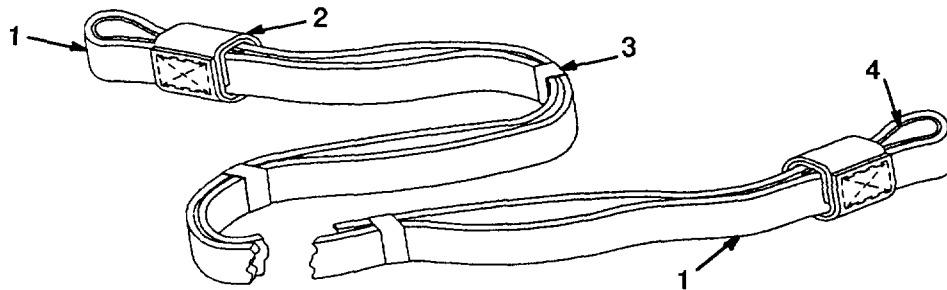


Figure 1-1. A Typical One-Loop Line, Multi-Loop.

(2) Two-Loop Line. The two-loop lines are made in 3-, 9-, 11-, 12-, 16-, 20-, and 120-foot (0.9-, 2.7-, 3.4-, 3.7-, 4.9-, 6.1-, 36.6-m) lengths.

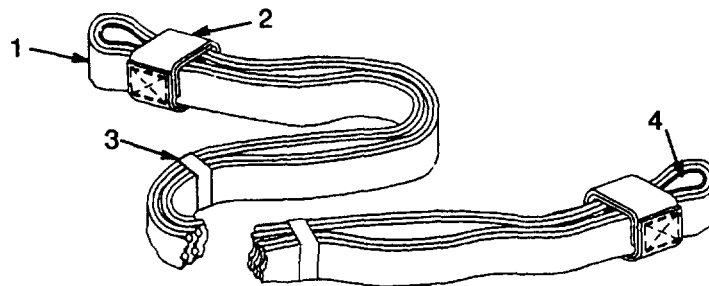


Figure 1-2. A Typical Two-Loop Line, Multi-Loop.

(3) Three-Loop Line. The three-loop lines are made in 60- and 140-foot (18.3- and 42.7-m) lengths.

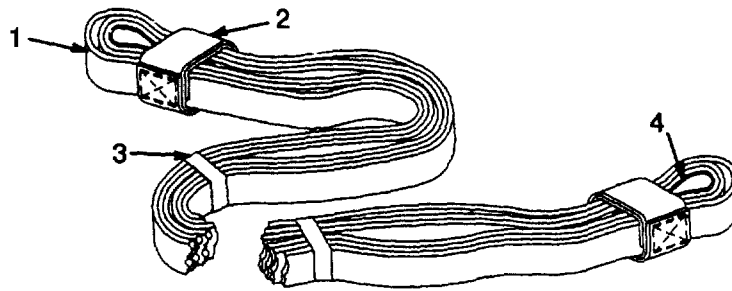


Figure 1-3. A Typical Three-Loop Line, Multi-Loop.

(4) Four-Loop Line. The four-loop lines are made in 3-, 9-, 11-, 12-, 16-, 20-, and 28-foot (0.9-, 2.7-, 3.4-, 3.7-, 4.9-, 6.1-, 8.5-m) lengths.

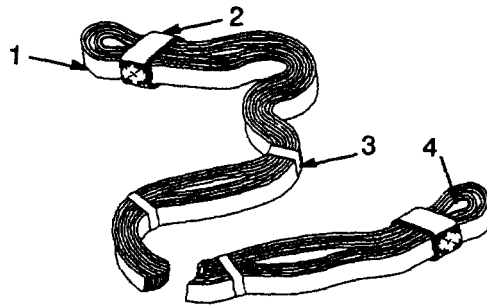


Figure 1-4. A Typical Four-Loop Line, Multi-Loop.

(5) Six-Loop Line. The six-loop lines are made in 60- and 120-foot (18.3- and 36.6-m) lengths.

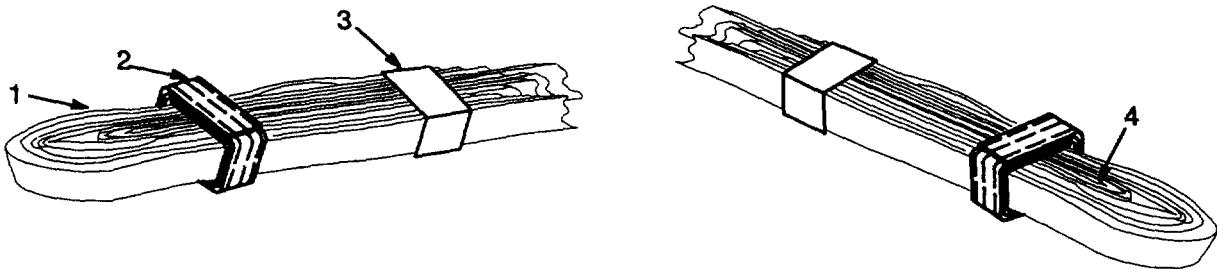


Figure 1-5. A Typical Six-Loop Line, Multi-Loop.

b. Coupling. Extraction Force Transfer. The extraction force transfer coupling consists of an actuator assembly (1), latch assembly (2), link assembly (3), a link assembly adapter (4), and a cable assembly (5). The coupling transfers the pull force of a cargo extraction parachute from the extracted airdrop load to the cargo parachute deployment line. Immediately after the load departs the aircraft, the arm of the actuator assembly (1) is released and pulls upon the cable assembly (5). The pull on this cable, in turn, causes the latch assembly (2) to release the link assembly (3), transferring the pull force. The cable assembly (5) is constructed in 12-, 16-, 20-, 24-, and 28-foot (3.7-, 4.9-, 6.1-, 7.3-, 8.5-m) lengths. The link assembly adapter (4) connects an extraction line to the link assembly (3). It is equipped with a large spacer (6) and a small spacer (7) that distribute the extraction force applied to the link assembly by providing a two or three loop separation when a five and six-loop extraction line is used.

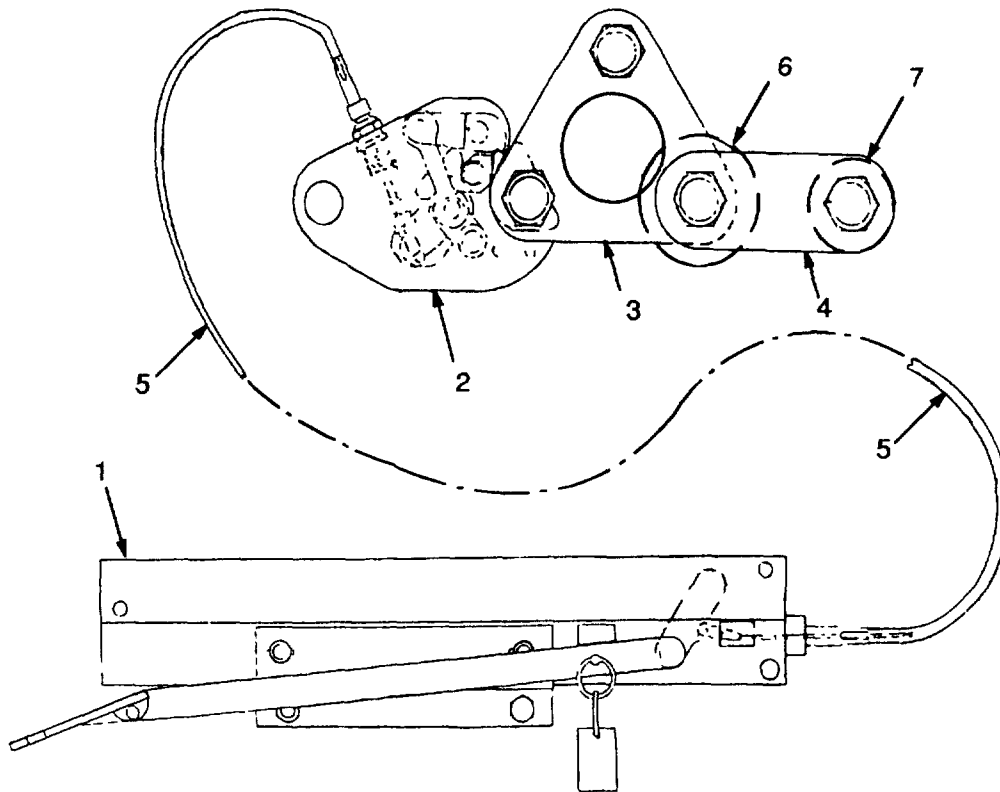


Figure 1-6. The Coupling, Extraction Force Transfer.

c. Release. Cargo Parachute. M-1. The M-1 cargo parachute release consists of a arming wire lanyard (1), arming wire (2), parachute connectors (3), upper load suspension link (4), a timer delay assembly contained within the release body (5), and lower suspension links (6). A cargo parachute release separates medium (64-foot diam G-12D) or large (100-foot diam G-11A) cargo parachutes from an air dropped load upon ground contact. This prevents the dragging or overturning of the load by winds. The Release, Cargo Parachute, M-1 is designed for use in the airdrop of loads weighing from 200 to 15,000 pounds (90 to 6,800 kg). The M-1 release is capable of accommodating four G-11A or three G-12D cargo parachutes. The two lower suspension links connect to four airdrop platform suspension slings. Cargo parachutes are joined to the M-1 release by connectors that are held in place by a toggle mechanism. The parachutes separate when the release body tilts at a critical angle as the suspended load contacts the ground. The mechanical delay release timer prevents early separation. The timer is activated when the load parachute(s) begin to deploy, pulling on a nylon webbing lanyard (2) that is attached to an arming wire (4) installed in the release timer.

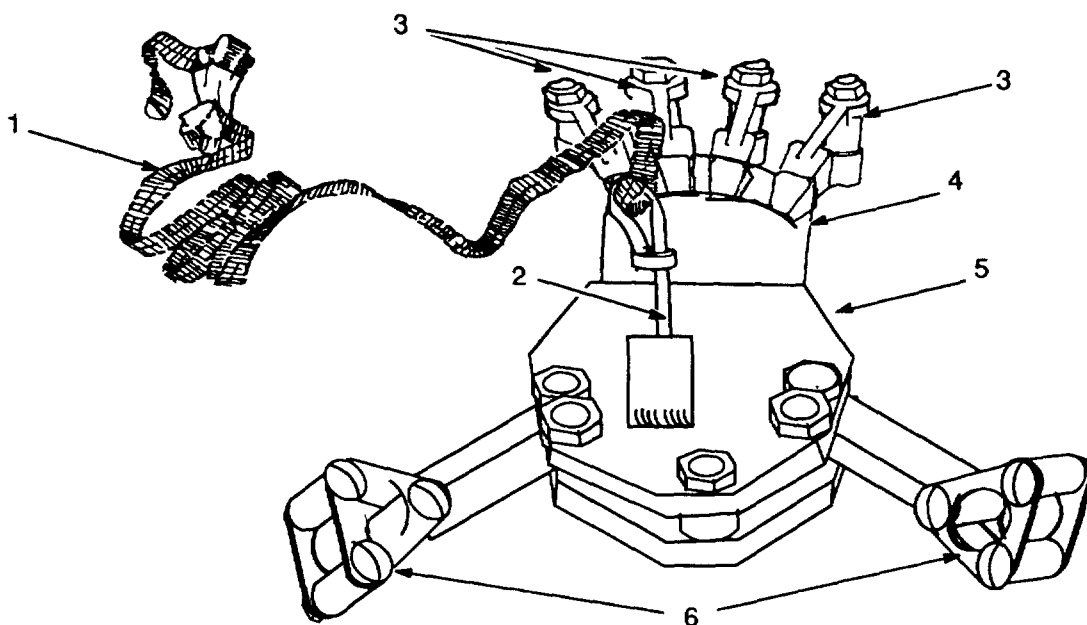


Figure 1-7. The Release, Cargo Parachute, M-1.

**NOTE**

The delay release timer, parachute release connector, arming wire, and arming wire lanyard are interchangeable for use between the M-1 and M-2 airdrop cargo parachute releases.

d. Release Cargo Parachute, M-2. The M-2 cargo parachute release is similar to the M-1 described in paragraph c., above. It also consists of a arming wire lanyard (1), arming wire (2), parachute connectors (3), upper load suspension link (4), a timer delay assembly contained within the release body (5), and lower suspension links (6). It is designed for use in the airdrop of loads ranging in weight from 6,000 to 35,000 pounds (2,700 to 15,900 kg), using G-11A cargo parachutes. Because it handles heavier loads, the M-2 release can accommodate three to eight G-11A cargo parachutes. The lower suspension links (4) are connected to four airdrop platform suspension slings.

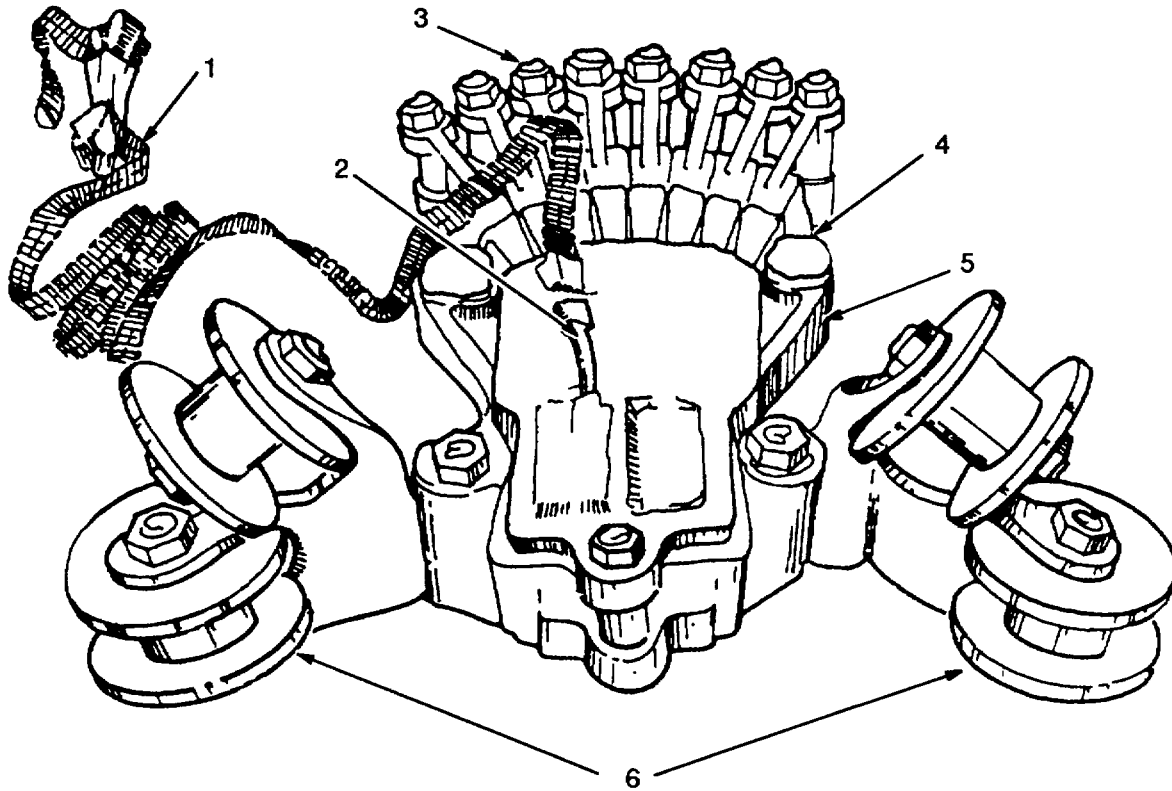


Figure 1-8. The Release, Cargo Parachute, M-2.

e. Link Assembly, Single Suspension, Type IV. The Type IV single suspension link assembly (1) consists of a body (2), pins (3), rollers (4), spring (5), button (6), plate (7), and lock (8). Stops (9) on the side link plate prevent removal of the side link cover lock. This assembly is used in the formation of the extraction system. The Type IV link can also be used when a single extraction link is required.

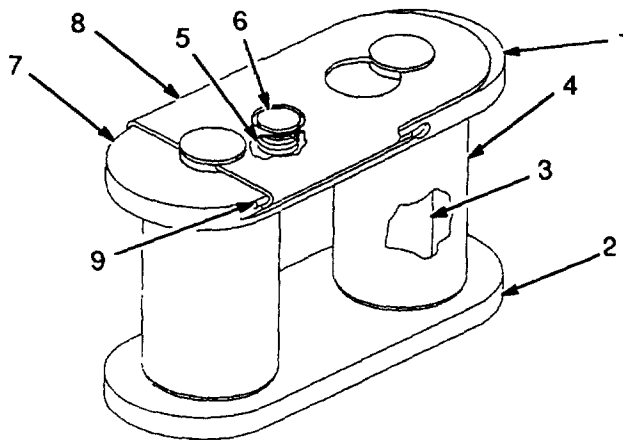


Figure 1-9. The Link Assembly, Single Suspension, Type IV or Extraction Link.

f. Link Assembly, Heavy Duty. The heavy duty link assembly (1) is assembled as required using two 3 3/4- or 5 1/2-inch (9.5 or 14.0-m) side plates (2). They use spacer, sleeve, small (3) and spacer, sleeve, large (4), as required, and are secured with bolts (5) and nuts (6). Assemblies (also called two-point links) are used to join extraction lines to LVADS platform, or between LVADS platforms to form articulated link (7) for tandem loads. The length used is determined by the load being rigged.

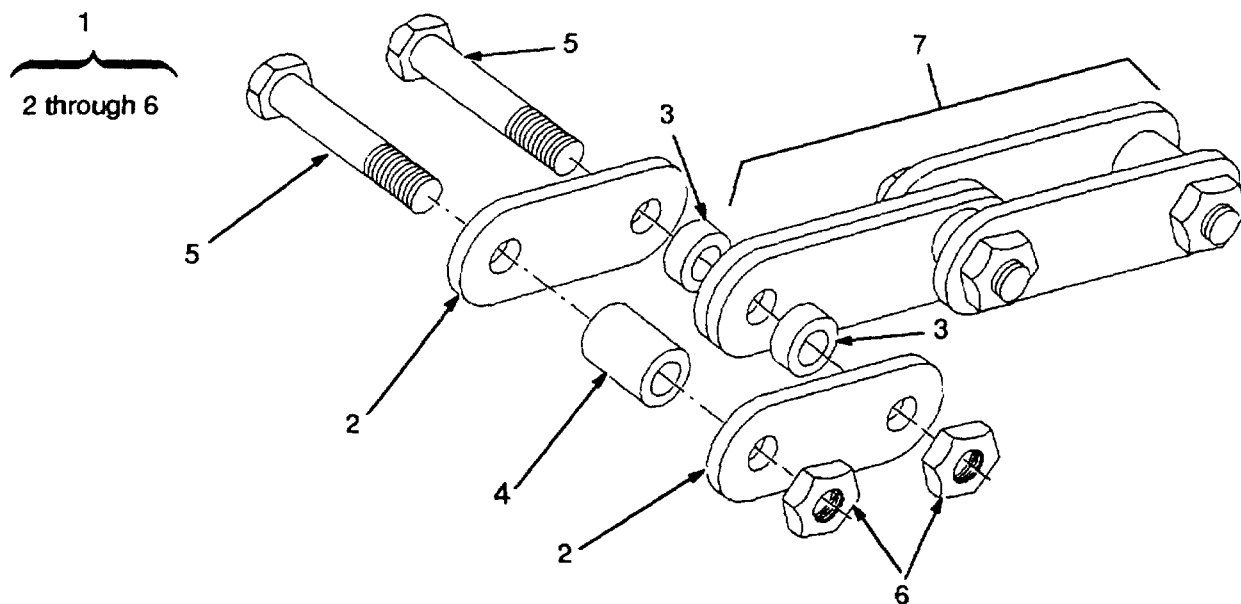


Figure 1-10. The Link Assembly, Heavy Duty.

g. Link, 4-Point. The four-point link, also called the Arm Clustering Assembly, provides for two extraction parachutes to be connected to the extraction line. It consists of two aluminum alloy side plates (1), and four bolts (2) with aluminum sleeves (3), four hexagun nuts (4), and a loop spacer (5).

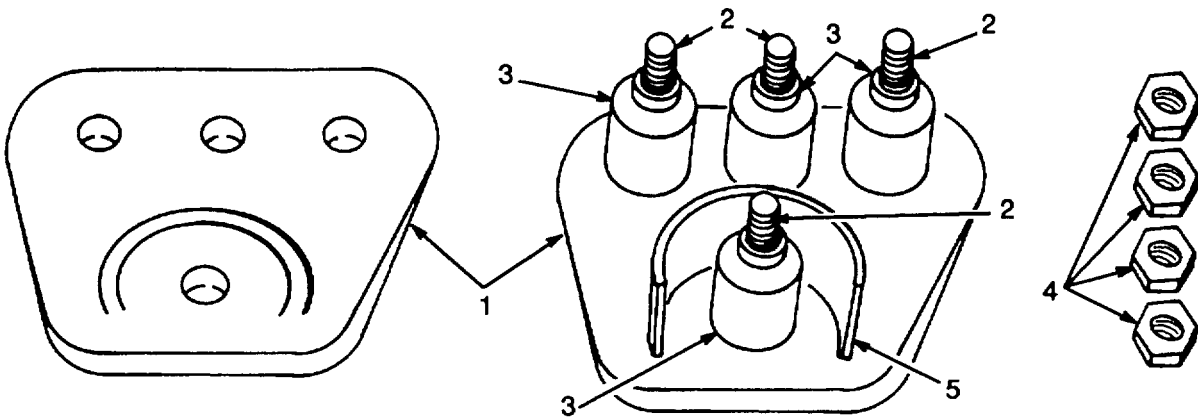


Figure 1-11. The Link, 4-Point.

h. Cover, Link, Type IV. The link cover (1) is used for covering a single link assembly. The cover is made of Type III cotton duck cloth with a Type III nylon cord draw-string (2) placed in a channel around each open end (3) of the cover.

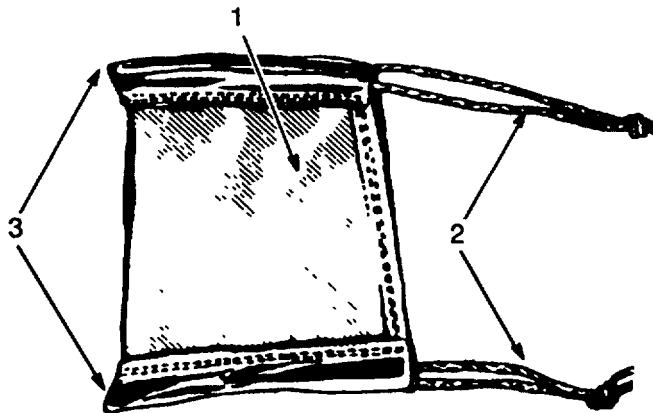


Figure 1-12. The Cover, Link, Type IV.

i. Clevis, Aerial Delivery. Three of the four types of aerial delivery devices consist of a clevis (1), cap screw (2), and nut (3). They are made in three sizes.

(1) 5/8-inch (1.6-cm) Clevis. The 5/8-inch (1.6-cm) clevis is used as the primary attaching point for the rear suspension slings on the 1/4-ton truck.

(2) 3/4-inch (1.9-cm) Clevis. The 3/4-inch (1.9-cm) clevis is used on the G-12 parachute and also used to replace the dual suspension link assemblies as the attaching points for the cargo slings.

(3) 1 -inch (2.5-cm) Clevis. The 1-inch (2.5-cm) clevis is used at various points when rigging a load for airdrop.

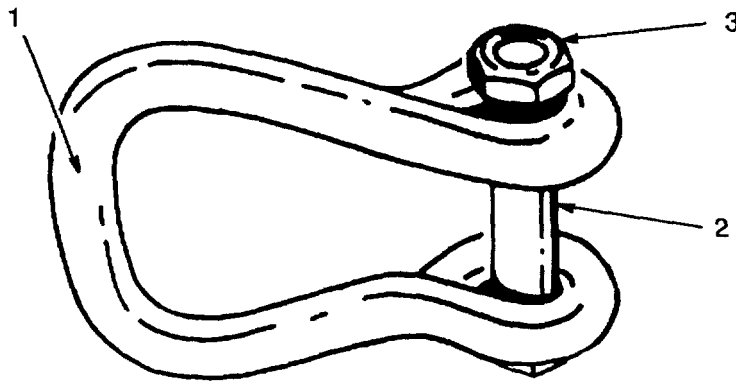


Figure 1-13. A Typical Clevis, Aerial Delivery.

(4) 1-1/8-inch (2.9-cm) Screw Pin Clevis. There is also a screw pin clevis (1) that has a screw-pin (2) and 2-inch diameter sleeve (3) instead of a bolt and nut. It is used as an attachment for suspension sleeves.

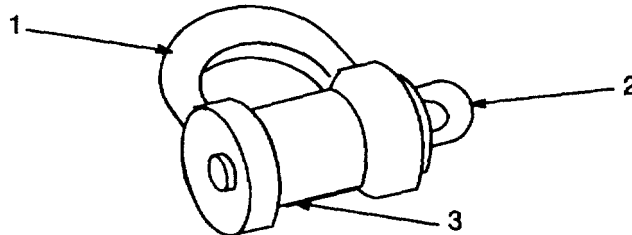


Figure 1-14. The Screw Pin Clevis.

j. Cover, Clevis. The clevis cover is made of Type II cotton duck with a Type VII cotton webbing (1) reinforcement, and three brass grommets (2). The cover has a slot cut in the closed end to allow passage of the suspension slings. Grommets near the mouth of the cover permit tying the cover around the suspension clevis bolt and nut.



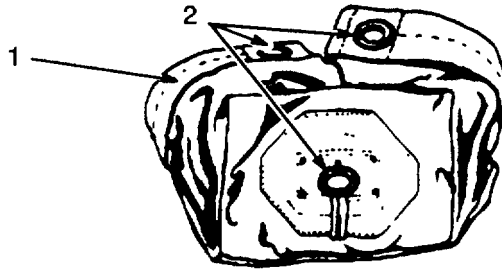


Figure 1-15. The Cover, Clevis.

k. Strap, Parachute Release, Single Knife. This parachute release strap (1) is made of 1 3/4-inch wide by 8-foot long (4 4-cm wide by 2.4-m long) Type VIII cotton webbing. A release knife (2) is attached to one end of the strap and a quick-fit fastener (3) is attached 6 inches (15 cm) from the knife. This strap provides a means for cutting the parachute restraint strap, releasing the cargo parachutes from the load.

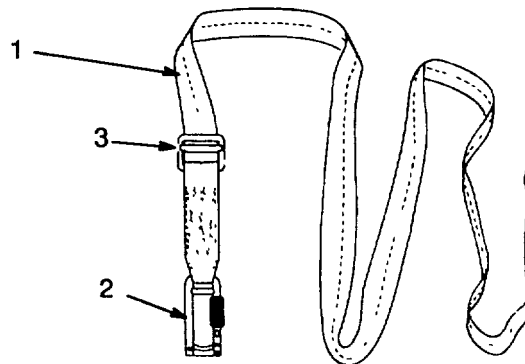


Figure 1-16. The Strap, Parachute Release, Single Knife.

l. Strap, Parachute Release, Multi-Knife. The multi-cut parachute release strap is made of 1-inch wide, 11-foot long (2.5-cm wide, 3 4-m long), Type III nylon webbing (1). Up to three release knives (2) can be attached to loops that are 10 1/2-inch (27-cm) long. The strap provides a means for cutting the parachute restraint strap, releasing the cargo parachute from the load.

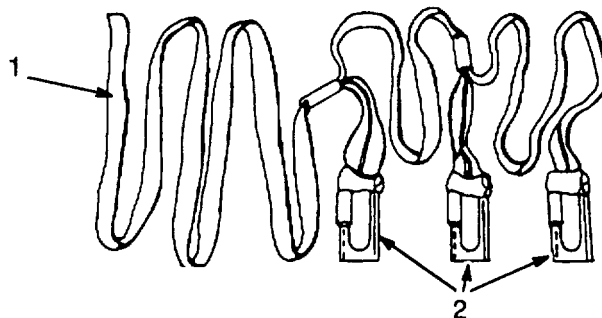


Figure 1-17. The Strap, Parachute Release, Multi-Knife.

m. Link Assembly, Coupling, 3-Point. The three-point link coupling assembly provides for three extraction parachutes to be connected to the extraction line. It consists of two aluminum alloy side plates (1), and three spacers (2) with screws (3) and hexagon nuts (4).

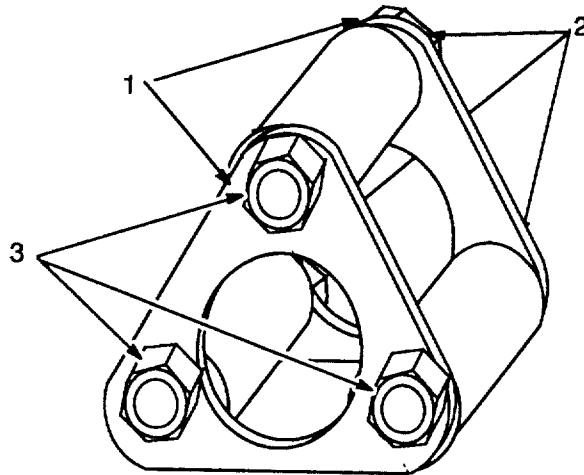


Figure 1-18. The Link Assembly, Coupling, 3-Point.

n. Bracket, Suspension. The M-35 suspension bracket is secured to the rear frame on the M-34, M-35, M-35A1, and M-36C 2 1/2-ton (2,300-kg) truck for airdrop. It is used as an attaching point for the suspension slings to the rigged load. The assembly consists of a left and a right side plate (1), two 5/8-inch hexagon cap screws (2), two 5/8-inch lock washers (3), and two 5/8-inch hexagon nuts (4).

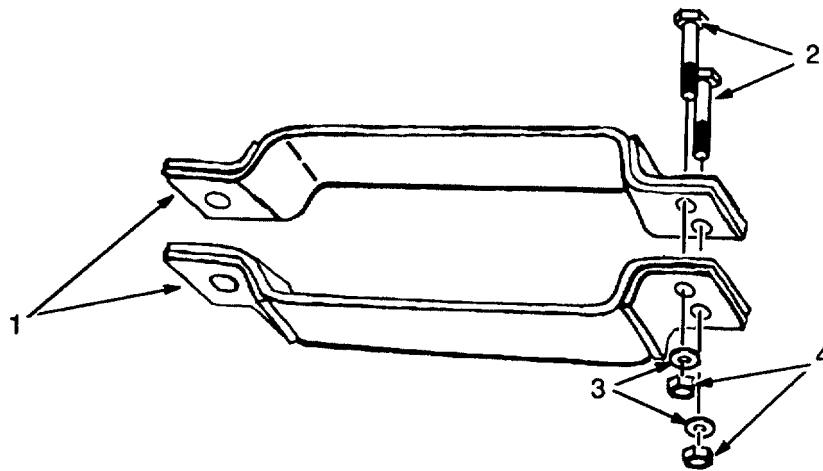


Figure 1-19. The M-35 Suspension Bracket.

o. Bracket, Suspension. The M-59 suspension bracket is secured to the rear frame on the M-59, 2 1/2-ton (2300-kg) dump truck for airdrop. It is used as an attaching point for the suspension slings to the rigged load. It consists of the same components used in the M-35 suspension bracket described in paragraph n., above.

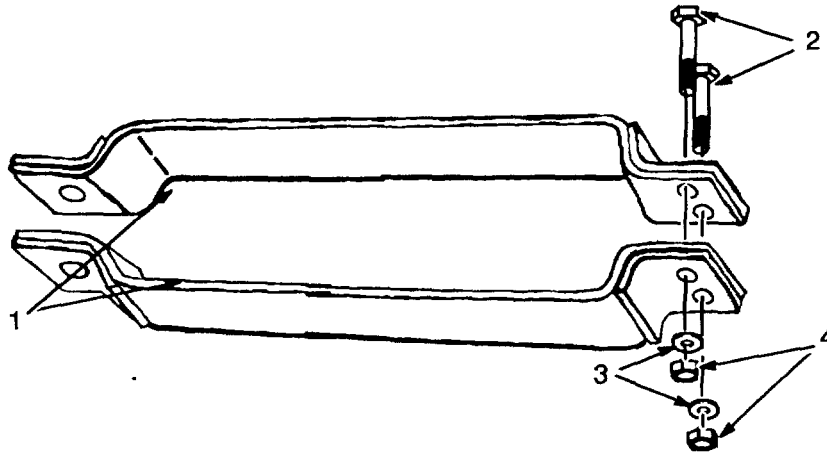


Figure 1-20. The M-59 Suspension Bracket.

p. Plate, Suspension. The suspension plate is secured to the wheel of the M-114A1 155-mm howitzer for airdrop. It has a clevis pin hole (1) for attaching the steel clevis block assembly.

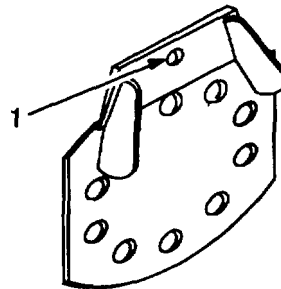


Figure 1-21. The Plate, Suspension.

q. Tiedown, Cargo, 10K. The 10,000-pound (4,500-kg) capacity cargo tiedown is used to secure equipment and supplies to an airdrop platform. The tiedown consists of a 15-foot long (4.6-m long) by 1 3/4-inch wide (4 4-cm wide), Type V, low elongation, polyester textile webbing strap (1) with a steel dee ring permanently attached to one end (2), a cargo tiedown binder (3) that has an open hook on each end, and a sliding steel dee ring (4).

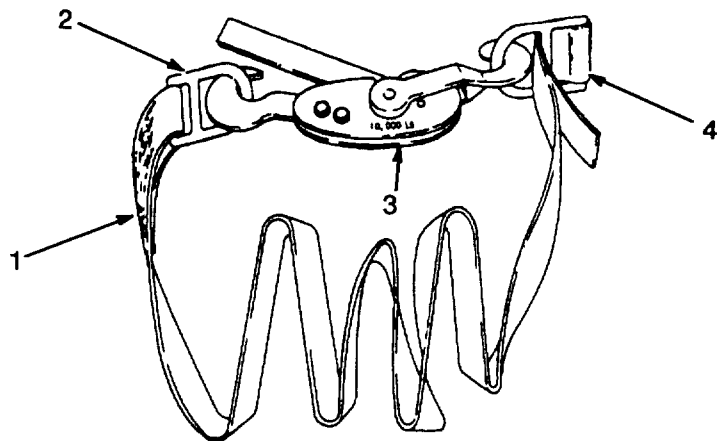


Figure 1-22. The Tiedown, Cargo, 10K.

r. Tiedown, Cargo, Quick-Release. The quick-release tiedown consists of a 17-foot long (5 2-m long) by 2-inch wide (5 1 -cm wide), Type V webbing strap (1) with a quick-release lever (2).

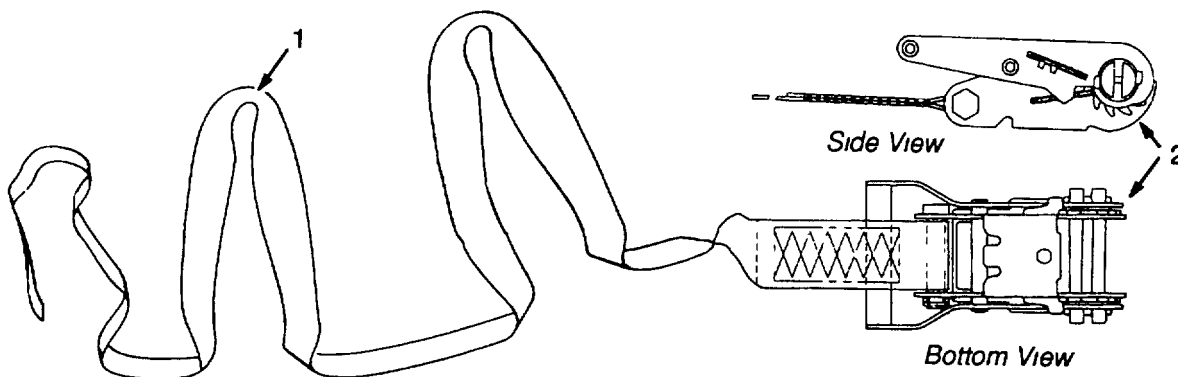


Figure 1-23. The Tiedown, Cargo, Quick-Release.

s. Drive Off Aid, Type IV. The drive-off aid is used to assist in the removal of a vehicle from an airdrop platform after the airdrop when the honeycomb will not allow the wheels to make contact with the platform. It consists of two traction webs (1)

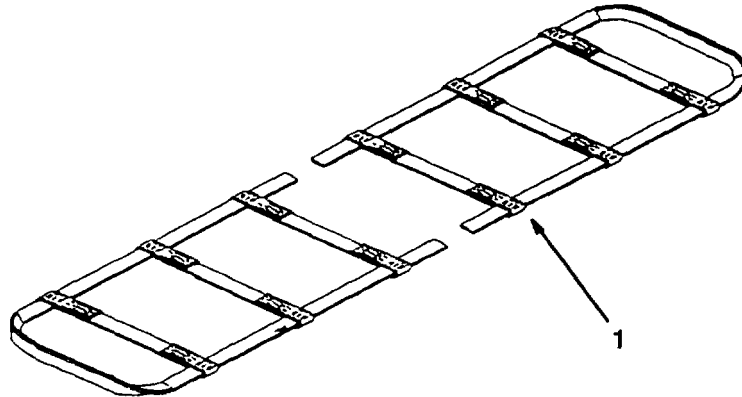


Figure 1-24. The Drive Off Aid, Type IV.

t. Tiedown, Cargo. Aircraft. The MB-1 and MB-2 aircraft cargo tiedowns consist of a 108-inch length of steel chain (2) with a grab hook (3) and a turn-buckle tightening device (1) with a quick-release lever. The MB-1 tiedown has a load capacity of 10,000 pounds (4,500 kg) and the MB-2 has a capacity of 25,000 pounds (11,200 kg). These tiedowns are used to secure rigged loads on the transport vehicle while enroute to an aircraft and while installed inside an aircraft.

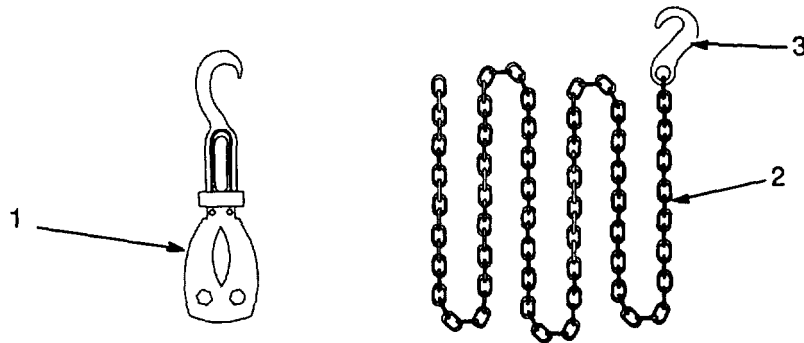


Figure 1-25. The Aircraft Cargo Tiedown.

u. Extraction Parachute Jettison System (EPJS). The EPJS is designed for remote jettison of deployed extraction systems up to and including the extraction parachute. The EPJS is comprised of the components listed below. The system requires no modification to the aircraft and requires a 28 VDC power source. A power cable is provided to connect the system to the iron lung outlet of the aircraft. All cable connectors are keyed to prevent incorrect installation.

1. 4 ea. Extraction Parachute Jettison Device (EPJD)
2. 4 ea. Y-Connector
3. 4 ea. Y-Connector Mounting Box (C-130; C-141; C-17)
- 4 ea. Y-Connector Mounting Box (C-5 only)
4. 1 ea. Control Box
5. 4 ea. Squib (installed in EPJD)
6. 4 ea. Squib Cable, 18-inch (yellow)
7. 4 ea. Platform Cable, 10-foot (yellow)
8. 3 ea. Interconnect Cable, 10-foot (black)
9. 1 ea. Main Cable, 50-foot (black)
10. 1 ea. Power Cable, 20-foot (red)
11. 4 ea. Cover
12. 1 ea. Kit Bag (not shown)
13. 4 ea. Extension Cable, 4-foot (yellow) (C-5 and C-17 only) (not shown)
14. 4 ea. Tiedown Bracket (C-5 only)
15. 1 ea. Power Cable Extension, 20-foot (red) (C-17 only) (not shown)
16. 1 ea. Power Cable Adapter, 1-foot (red) (C-5 only) (not shown)
17. 4 ea. Safety Cap (installed in EPJD)
18. 4 ea. Initiator Simulator (not shown)
19. 1 ea. Squib Tester (not shown)

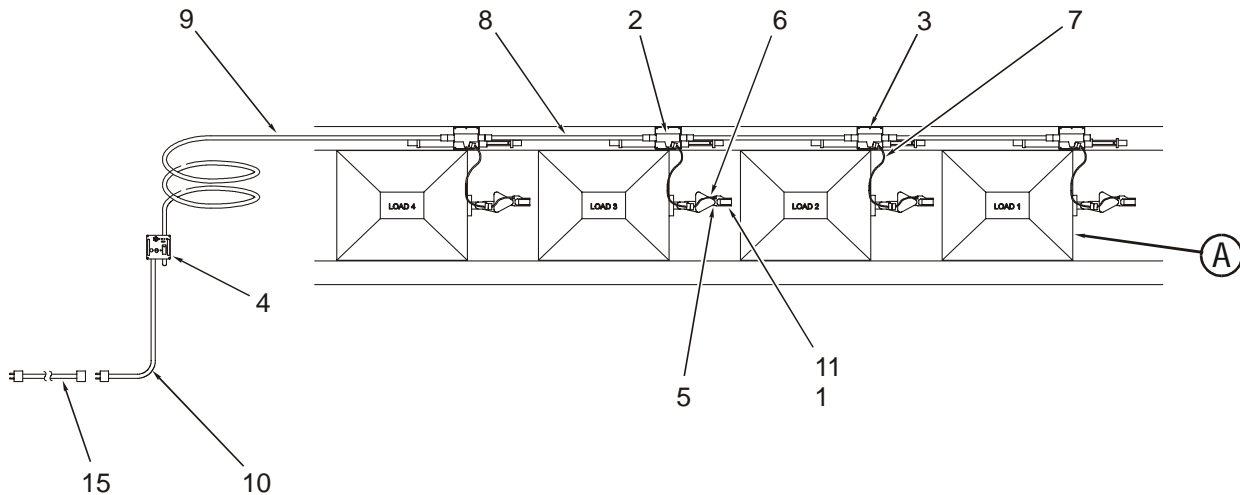
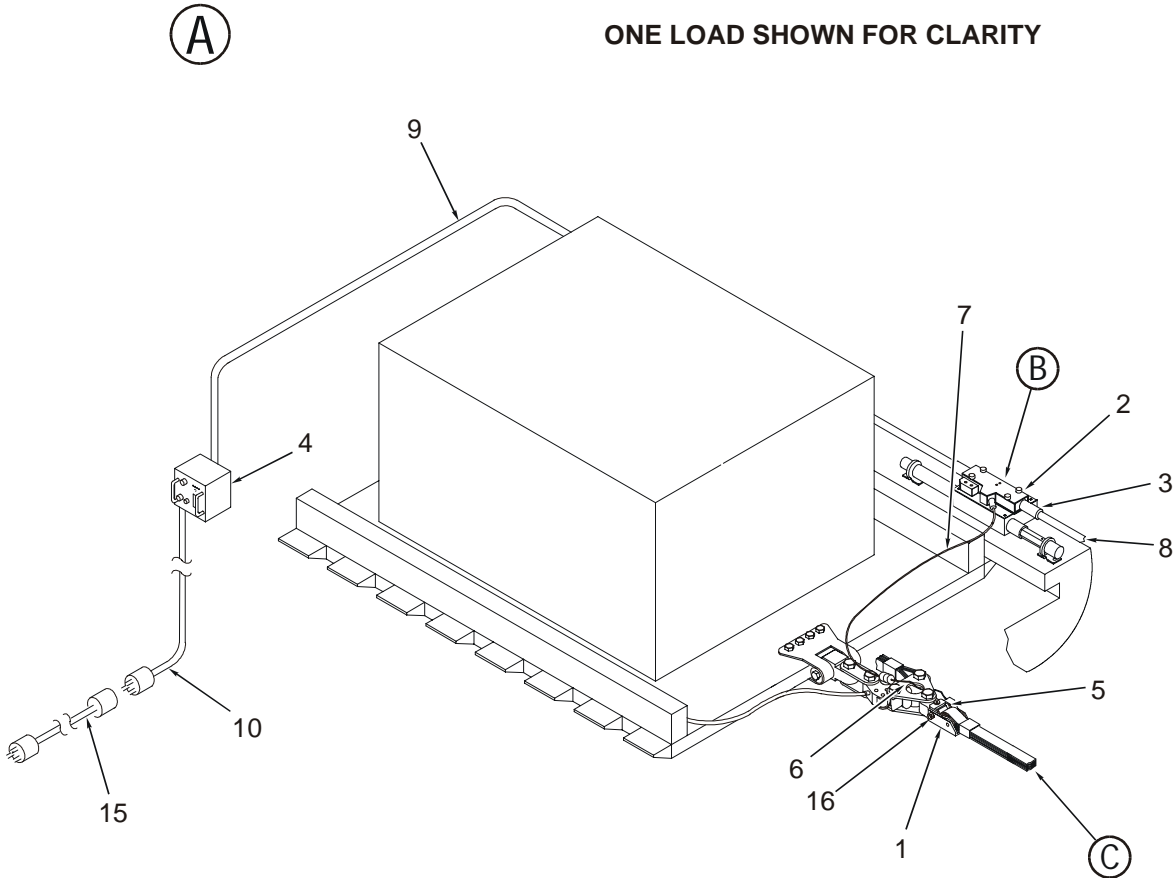


Figure 1-26. Jettison System, Parachute, Extraction  
(Sheet 1 of 3)



**(B)** FOR C-5 ONLY

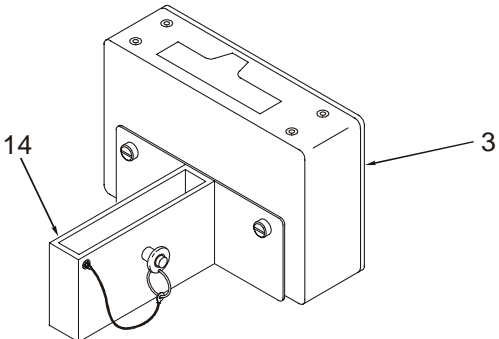


Figure 1-26. Jettison System, Parachute, Extraction  
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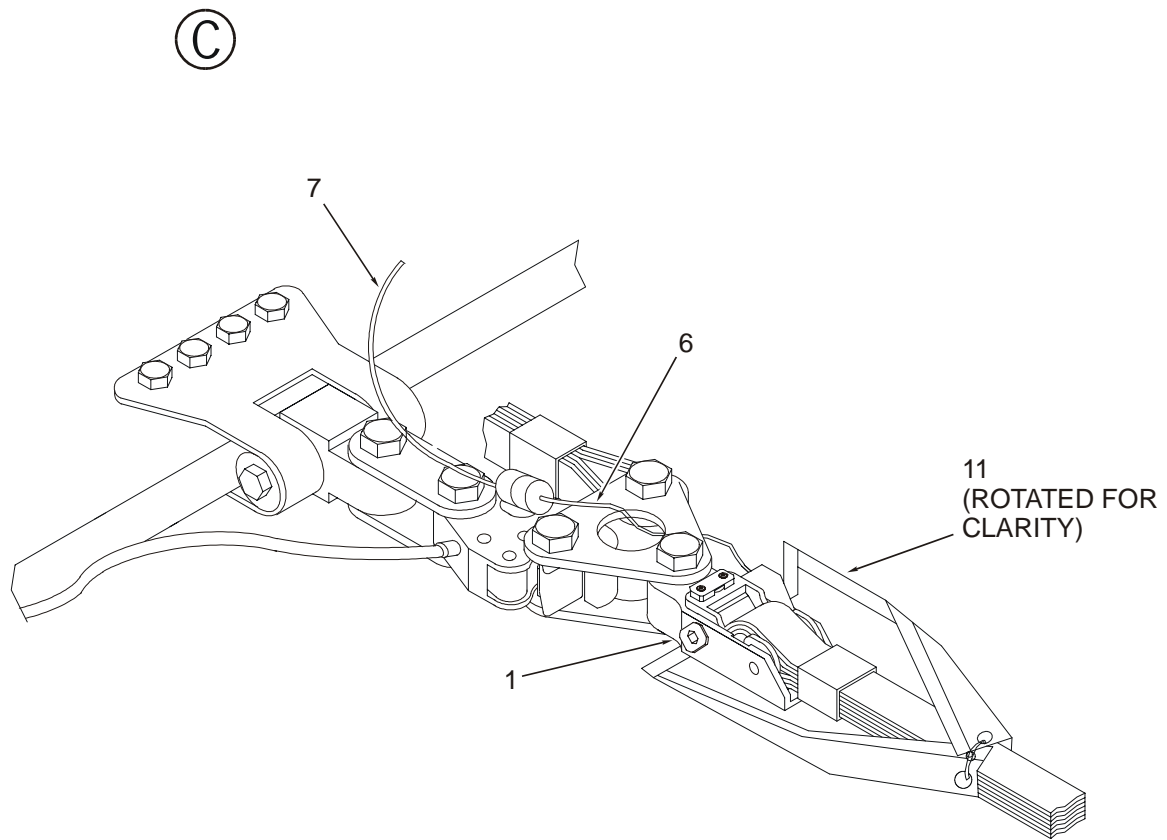


Figure 1-26. Jettison System, Parachute, Extraction  
(Sheet 3 of 3)



(1) Extraction Parachute Jettison Device (EPJD). The EPJD couples the extraction line with the 3-point-link assembly. One device is required for each platform. In normal operation, the extraction parachute is deployed and the payload exits the aircraft. In the event the extraction parachute is deployed and the payload fails to exit the aircraft, the load master can activate the JETTISON SWITCH on the control box which fires the squibs in the system and releases the extraction parachute(s) from the payload(s).

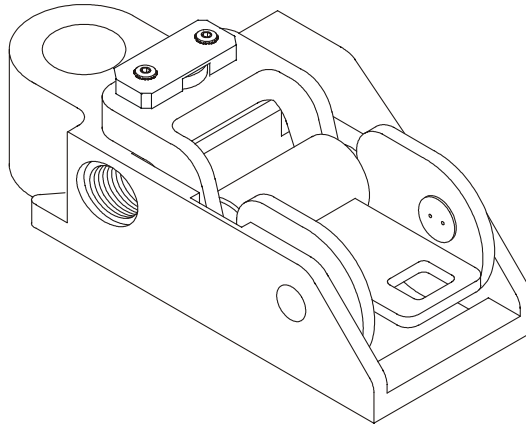


Figure 1-27. Jettison Device, Parachute, Extraction

(2) Y-Connector. The Y-connector contains a LAMP TEST switch, a blue indicator Light Emitting Diode (LED), a connector for the platform cable, and two connectors for the interconnecting cables. The LAMP TEST switch, when pressed, will illuminate the blue LEDs when the system is installed and powered ON. The LED, when lit, indicates that one or both circuits from the Y-connector to the squib are intact. The internal circuit contains capacitors for storing the energy required to fire the squibs and has solid state switches which are actuated by the JETTISON SWITCH on the control box. The Y-connector is attached to the Y-connector mounting box; one set is used for each platform.

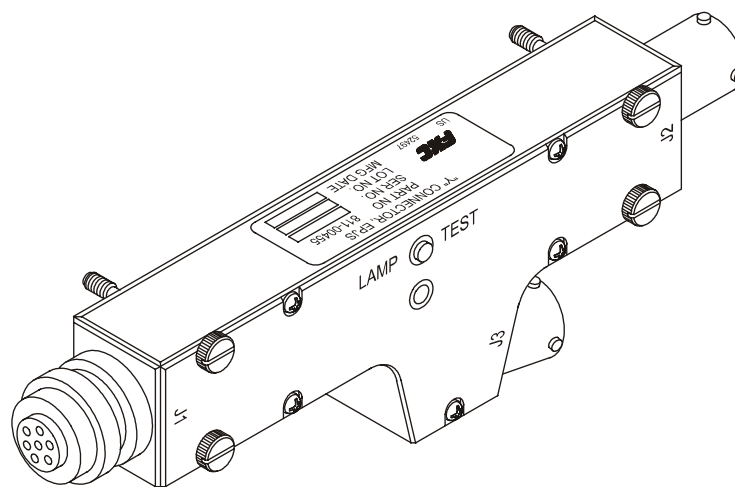


Figure 1-28. Y-Connector

(3) Y-Connector Mounting Box. The Y-connector mounting box is secured to the floor rings of the aircraft. The Y-connector mounting box is a die-cast aluminum box. The C-130, C-141, and C-17 mounting box is equipped with a mounting tube and extendable shaft. The C-5 mounting box does not have a mounting tube or shaft.

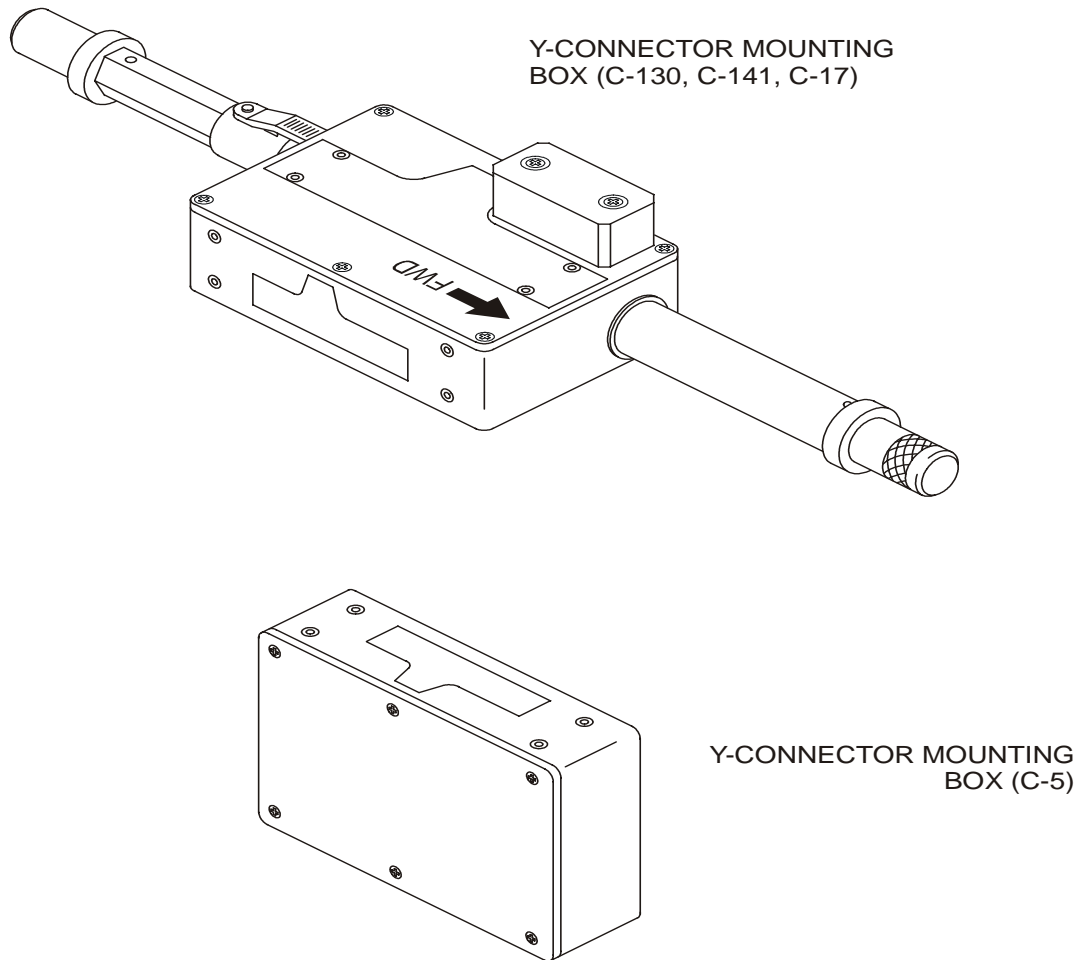


Figure 1-29. Mounting Box, Y-Connector

(4) Control Box. The control box contains a power switch (1), and circuit breaker (2), a jettison switch (3), a lamp test switch (4), four blue LEDs (5), a dimmer adjust knob (6), a power input connector (7), and a connector (8) to the loads. The POWER switch has a locking-lever to prevent it from being accidentally switched ON/OFF. The lock is released by pulling the switch handle out while moving the handle to either position. The switch should remain in the OFF position until the system is installed and ready for testing or use. Before switching the power ON, confirm that the JETTISON SWITCH is OFF to prevent the squibs from firing. The circuit breaker is an aircraft type, 1-amp, trip-free, push-pull. The JETTISON SWITCH is guarded to prevent accidental firing of the squibs installed in the system. When the JETTISON SWITCH is activated, all the squibs installed in the system will fire, thus releasing all the extraction lines from their system. The LAMP TEST switch, when pressed, will illuminate the four blue LEDs on the control box when the system is installed and powered ON. The blue LEDs, when lit, only indicate the quantity of loads installed, not their location. If one load is installed, the left-most LED will illuminate. If two loads are installed, the two left-most LEDs will illuminate. If the quantity of illuminated LEDs does not match the quantity of loads installed, the LED on the Y-connectors should be observed to determine which load is not installed correctly. The DIMMER adjust knob controls the brightness of the LEDs on the control box and on the Y-connectors. Rotate the knob clockwise to increase the brightness, counter-clockwise to decrease the brightness. The cover of the control box may be rotated in relation to the two cable connectors depending on mission.

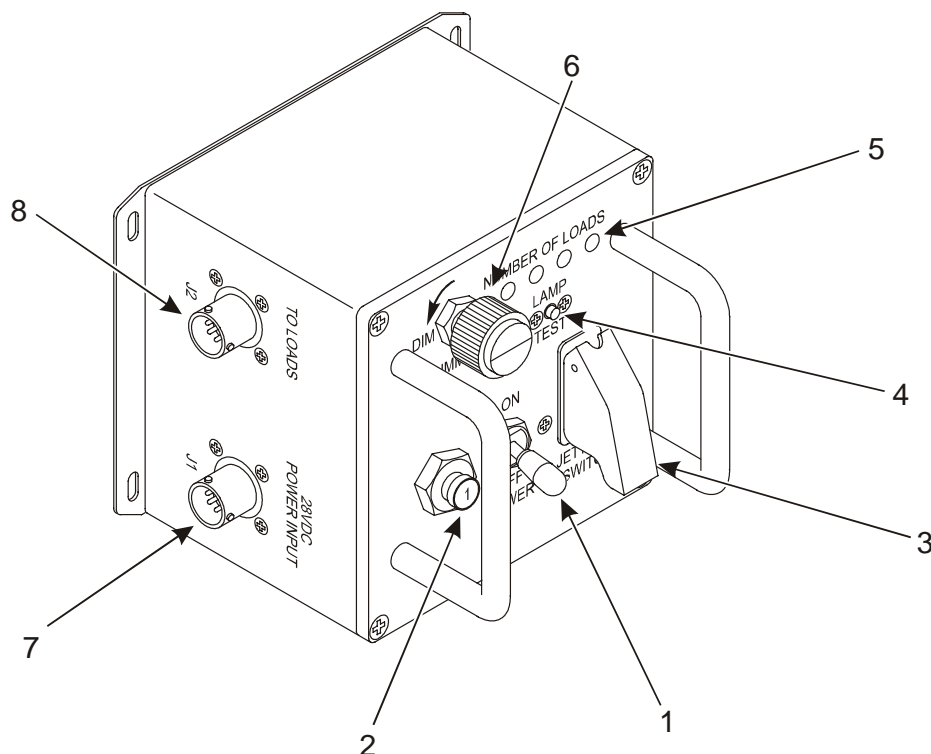


Figure 1-30. Box, Control

(5) Squib. The squib is an electrically initiated gas-generating device. The squib is screwed into a closed chamber in the housing of the EPJD. When the fire signal is sent from the control box, the gas-generating material in the squib burns and creates a tremendous amount of pressure inside the system housing. This pressure is used to force a piston up against the latch of the system, thus breaking the shear bolt and releasing the extraction line.

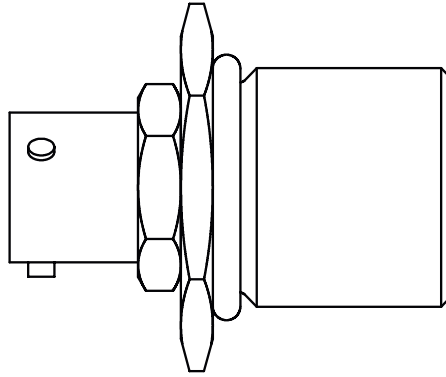


Figure 1-31. Squib

(6) Squib Cable. The squib cable is used to connect the squib to the platform cable. The squib cable is 18-inches long and is protected with a flexible plastic-wrap cover to help prevent damage to the cable when the platform hits the ground. The plastic wrap can be easily removed and replaced during maintenance. The squib cable quick disconnects from the platform cable when the link assembly is released from the latch assembly.

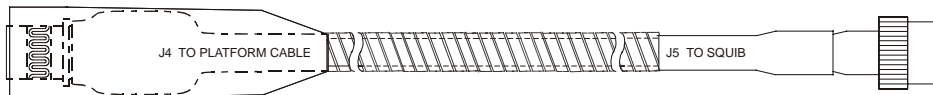


Figure 1-32. Cable, Squib, 18-Inch

(7) Platform Cable. The platform cable is used to connect the Y-connector to the squib cable. The connectors at both ends of the cable are modified to quick disconnect. The platform cable is 10-feet long and secured to the platform. As the platform exits the aircraft, the platform cable will disconnect from the Y-connector. After the link assembly is released from the latch assembly, the squib cable will disconnect from the platform cable.



Figure 1-33. Cable, Platform, 10-Foot

(8) Interconnect Cable. The interconnect cable is 10-feet long and connects one Y-connector to another Y-connector. The interconnect cables may also be connected to each other without the Y-connector to produce a much longer cable for varying missions.



Figure 1-34. Cable, Interconnect, 10-Foot

(9) Main Cable. The main cable is a 50-foot cable used to connect the control box to the Y-connector.



Figure 1-35. Cable, Main, 50-Foot

(10) Power Cable. The power cable connects the control box to the 28 VDC iron lung power outlet in the aircraft. The C-5 and C-17 aircraft require adapter cables. The power cable is 20-feet long.

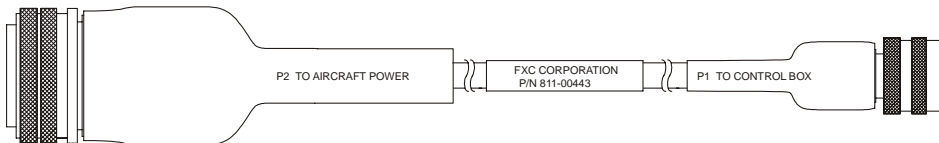
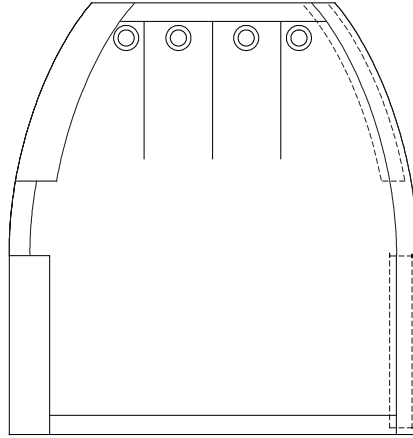


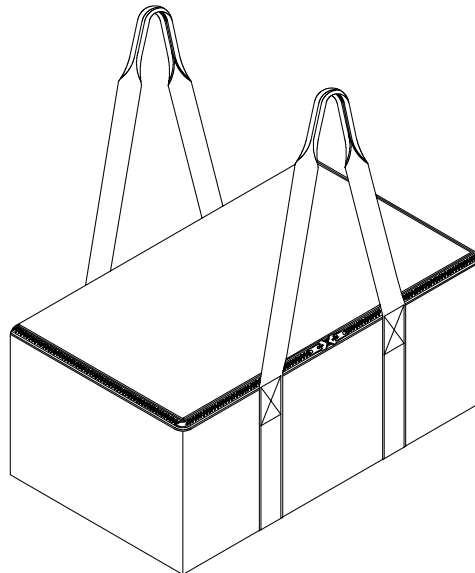
Figure 1-36. Cable, Power, 20-Foot

(11) Cover. The cover is used to prevent metal-to-metal contact between the aircraft and the EPJD.



*Figure 1-37. Cover*

(12) Kit Bag. The kit bag is used for storing the system components. There is a lower-level compartment used to store the control box, four Y-connectors, four Y-connector mounting boxes and C-5 mounting brackets and mounting boxes. The upper level compartment stores the cables.



*Figure 1-38. Bag, Kit*

(13) Extension Cable. The C-17 and C-5 aircraft use the basic EPJS equipment with the addition of an extension cable. Up to four extension cables (for the platform cables) can be used. Each extension cable is 4-feet long.

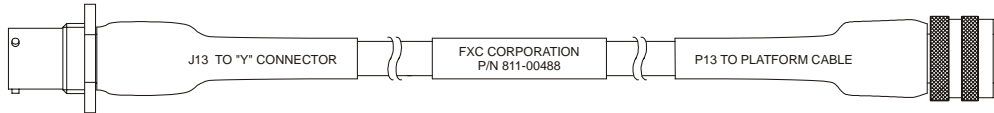


Figure 1-39. Cable, Extension, 4-Foot (C-5 and C-17)

(14) Tiedown Bracket. The tiedown bracket is used to provide a means to secure the Y-connector to the C-5 aircraft to ensure clean disconnects of cable during normal extraction.

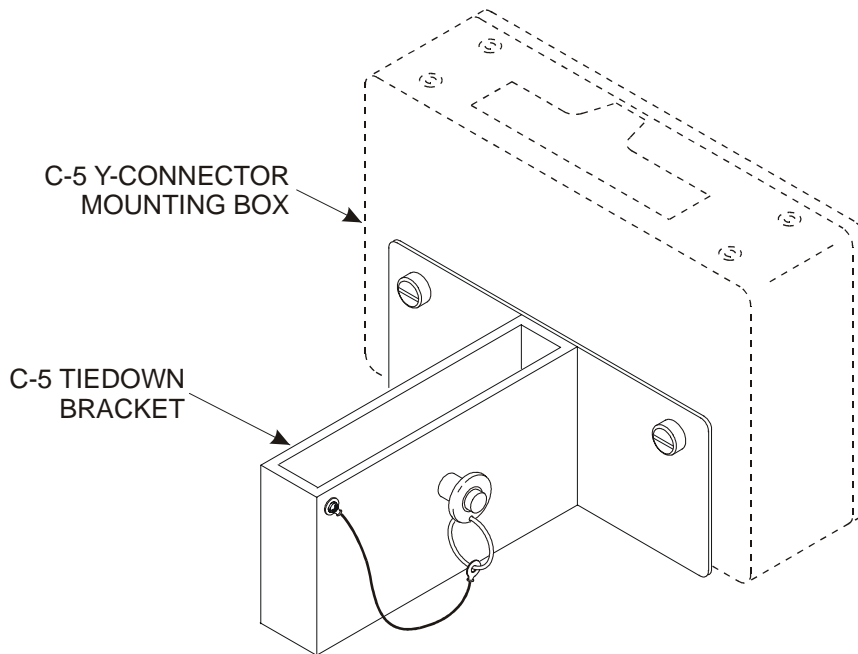


Figure 1-40. Bracket, Tiedown (C-5)



(15) Power Cable Extension. The power cable extension is used to connect the aircraft power to the control box. The 20-foot long power cable extension provides aircraft 28 VDC power to the control box. The 20-foot cable is for the C-17 only; the 1-foot cable is for the C-5 only.



Figure 1-41. Extension, Power Cable, 20-Foot (C-17)

(16) Power Cable Adapter. The C-5 aircraft uses the basic EPJS equipment. However, the standard 20-foot power cable must be adapted to plug into the 28 VDC iron lung power outlet in the aircraft. The power cable adapter performs this function. The power cable adapter connects between the 20-foot power cable and the 28 VDC iron lung power outlet.



Figure 1-42. Adapter, Power Cable, 1-Foot (C-5)

(17) Safety Cap. The safety cap is used to prevent accidental firing of the squib. When plugged into the squib cable, which is in turn plugged into the squib, the squib contacts are shorted together, thus preventing any electrical charge from being applied to the squib. When not in use, the safety cap is stored by installing in the side of the EPJD.

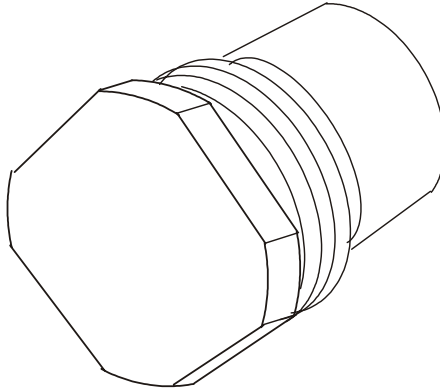


Figure 1-43. Safety Cap

(18) Initiator Simulator. The initiator simulator is used during testing of the EPJS to simulate the squib. When the EPJS components are connected and functioning properly, the initiator simulator will indicate if the EPJS jettison circuits are functioning properly. The initiator simulator has two small capacity circuit breakers that will operate (throw) from ON to OFF when 28 VDC is applied by setting the JETTISON SWITCH on the control box to ON. The squib has two redundant firing circuits. The two circuit breakers simulate these two redundant squib firing circuits.

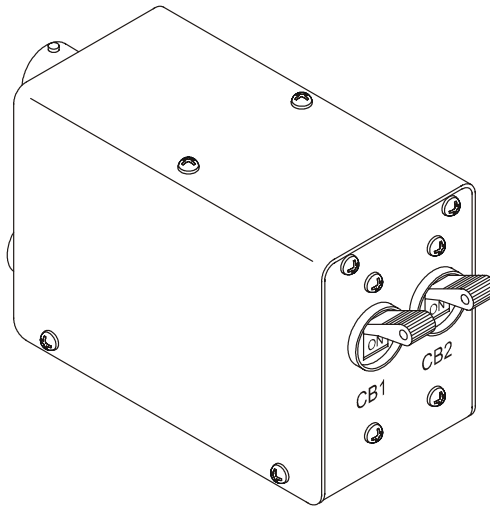


Figure 1-44. Simulator, Initiator

(19) Squib Tester. The squib tester is used to confirm that the squib's two redundant firing circuits are properly wired and functioning. It allows the squib circuits to be tested without firing the squib. The squib contains two standard AA batteries and two LED lamps. These lamps provide a positive indication of open and shorted squib firing circuits.

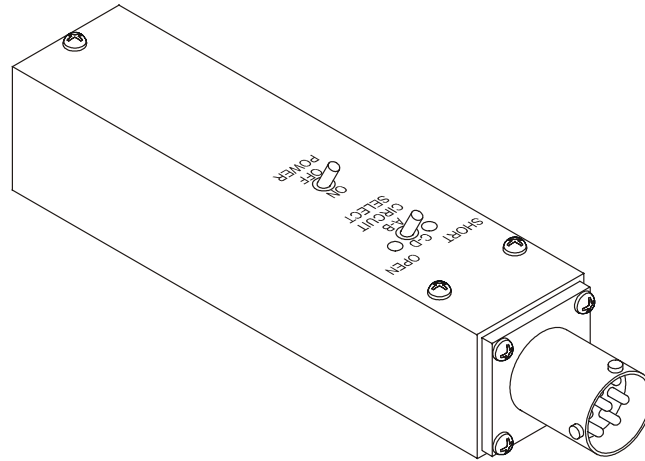


Figure 1-45. Tester, Squib

**1.10 EQUIPMENT DATA.**

a. Line, Multi-Loop.

Material	Type XXVI Nylon	
Tensile Strength		
One-Loop Line	22,250-pounds	10,000 kg
Two-Loop Line	44,500-pounds	20,000 kg
Three-Loop Line	67,500-pounds	30,600 kg
Four-Loop Line	89,000-pounds	40,400 kg
Six-Loop Line	135,000-pounds	61,200 kg

b. Coupling, Extraction Force Transfer.

Load	6,000-pounds	2,700 kg
Cable Assembly		
12-foot long (3.7-m long)		
Weight	2.5-pounds	1.1 kg
16-foot long (4.9-m long):		
Weight	3.0-pounds	1.3 kg
120-foot long (6.1-m long):		
Weight	3.5-pounds	1.6 kg
24-foot long (7.3-m long):		
Weight	40-pounds	1.8 kg
28-foot long (8.5-m long)		
Weight	4.5-pounds	2.0 kg
Actuator Assembly:		
Length	18 3/8-inches	46 cm
Width	1-inch	2 cm
Height	3-inches	76 cm
Weight	11-pounds	5.0 kg
Latch Assembly:		
Length	7-inches	17 cm
Width	2-inches	5 cm
Height	45/8-inches	11 cm
Weight	8-pounds	3.6 kg
Link Assembly:		
Length	6-inches	15 cm
Width	31/6-inches	8 cm
Height	6-inches	15 cm
Weight	9-pounds	4.1 kg

Link Assembly Adapter-

Length	12 1/4 inches	31 cm
Width	3 3/4 inches	9 cm
Height	2 inches	5 cm
Weight	6 pounds	2.7 kg

c. Release, Cargo Parachute. M-1.

Capacities:

Minimum	200 pounds	90.7 kg
Maximum	15,000 pounds	6,800 kg

Performance:

Parachute Adaptability	One to four cargo parachutes in accordance with applicable FM 10-500-Series Publications
Type load use	Cargo bag or Modular airdrop platform
Activation method	Arming cable
Actuation method	Timer delay

Specifics:

Gross weight	41 pounds	18.6 kg
Height	14 inches	36 cm
Width	8 inches	20 cm
Thickness	3 1/2 inches	89 cm

d. Release, Cargo Parachute. M-2.

Capacities:

Minimum	6,000 pounds	2,700 kg
Maximum	35,000 pounds	1,600 kg

Performance:

Parachute Adaptability	Three to eight cargo parachutes In accordance with applicable FM 10-500-Series Publications
Type load use	Modular airdrop platform
Activation method	Arming cable
Actuation method	Timer delay

Specifics.

Gross weight	73 pounds	33.1 kg
Height	17 inches	43 cm
Width	8 Inches	20 cm
Thickness	3 1/2 Inches	89 cm

- e. Link Assembly, Single Suspension. Type IV.
- |        |              |       |
|--------|--------------|-------|
| Length | 5 inches     | 13 cm |
| Width  | 2 7/8 inches | 7 cm  |
| Height | 2 Inches     | 5 cm  |
- f. Link Assembly, Heavy Duty.
- |        |          |      |
|--------|----------|------|
| Length | Variable |      |
| Width  | 2 inches | 5 cm |
- g. Link, 4-Point.
- |        |          |       |
|--------|----------|-------|
| Length | 8 inches | 20 cm |
| Width  | 7 inches | 18 cm |
- h. Cover, Link Type IV.
- |             |  |       |
|-------------|--|-------|
| Material    | Type III cotton duck cloth and Type III nylon cord |       |
| Length      | 8 inches   | 20 cm |
| Width.      |  |       |
| Top         | 7 inches   | 18 cm |
| Bottom      | 5 inches   | 13 cm |
| Cord Length |  |       |
| Top         | 28 inches  | 71 cm |
| Bottom      | 24 inches  | 61 cm |
- i. Clevis, Aerial Delivery.
- |                           |              |       |
|---------------------------|--------------|-------|
| 5/8 inch (1.6 cm) Clevis: |              |       |
| Length                    | 4 1/4 inches | 10 cm |
| Width                     | 3 1/2 inches | 8 cm  |
| 3/4 inch (1.9 cm) Clevis: |              |       |
| Length                    | 6 5/8 inches | 16 cm |
| Width                     | 6 inches     | 15 cm |
| 1 inch (2.5 cm) Clevis:   |              |       |
| Length                    | 8 1/2 inches | 21 cm |
| Width                     | 6 inches     | 15 cm |
| Screw Pin Clevis          |              |       |
| Length                    | 9 inches     | 23 cm |
| Width                     | 2 inches     | 5 cm  |

j. Cover, Clevis.

Material	9.85 ounce cotton duck cloth Type II and VIII cotton webbing and brass grommets, size #4
----------	--

k. Strap, Parachute Release. Single Knife.

Strap:		
Material	Type VIII cotton webbing	
Length	8-feet	2.4 m
Width	1 3/4-inches	3 cm
Tensile strength	2,900-pounds	1,300 kg
Fastener:		
Material	Steel	
Release Knife	Steel	

l. Strap, Parachute Release. Multi-Knife.

Material	Type III nylon webbing	
Length	11-feet	3.4 m
Width	1-inch	3 cm

m. Link Assembly, Coupling. 3-Point.

Length	6-inches	15 cm
Width	3 1/6-inches	8 cm
Height	6-inches	15 cm
Weight	9-pounds	4 1 kg

n. Bracket, Suspension.

Length	24 1/2-inches	62 cm
Width	3 5/8-inches	9 cm

o. Bracket, Suspension.

Length	28 1/4-inches	72 cm
Width	3-inches	8 cm

p. Plate, Suspension

Length	20 1/4-inches	51 cm
Width	15-inches	38 cm
Max Depth	4 3/4-inches	12 cm

q. Tiedown, Cargo, 10K.

Strap:

Material	Type V low-elongation polyester textile webbing	
Tensile	10,000-pounds	4,500 kg
Length	15-feet	4.6m
Width	1 3/4-inches	4.4 cm

r. Tiedown, Cargo, Quick-Release.

Strap:

Material	Type V low-elongation polyester textile webbing	
Tensile Strength	10,000-pounds (4536 kg) when used in a loop configuration	
Length	17-feet	5.2 m
Width	2-inches	5 cm

Fastener:

Width	Approx. 4-inches	10 cm
Length	7 1/2-inches	19 cm
Depth	2 3/8-inches	6 cm

s. Drive Off Aid, Type IV.

Material	Type XVIII nylon webbing	
Length	19-feet 6-inches	5.94 m
Width	10-inches	25 cm

t. Tiedown, Cargo, Aircraft.

Length of Chain	108-inches	2.74 m
Load Capacity		
MB-1	10,000-pounds	4,500 kg
MB-2	25,000-pounds	11,300 kg

u. Extraction Parachute Jettison System (EPJS).

Extraction Parachute Jettison Device (EPJD)

Length	8 1/4-inches	21 cm
Width	3-inches	7.6 cm
Height	4-inches	10 cm
Weight	10 1/2-pounds	5 kg



u. EPJS-continued.

## Y-Connector

Length	9 1/4-inches	23.5 cm
Width	2 3/4-inches	7 cm
Height	1 1/4-inches	3 cm
Weight	1 1/4-pounds	0.6 kg

Y-Connector Mounting Box (C-130;  
C-141; C-17)

Material	Aluminum/Fiberglass	
Length	29 1/2-inches	75 cm
Width	4 3/4-inches	12 cm
Height	3 1/3-inches	8.4 cm
Weight	2 1/2-pounds	1.1 kg

## Y-Connector Mounting Box (C-5 only)

Material	Aluminum	
Length	7 1/3-inches	18.7 cm
Width	4 3/4-inches	12 cm
Height	2 1/4-inches	5.6 cm

## Control Box

Length	5 3/4-inches	15 cm
Width	4 3/4-inches	12 cm
Height	5 1/4-inches	13 cm
Weight	1 3/4-pounds	0.8 kg

## Squib

Length	1 3/8-inches	3.5 cm
Width	1-inch	2.5 cm
Height	1-inch	2.5 cm
Weight	1 1/2-ounces	0.04 kg

## Squib Cable

Length	18-inches	46 cm
Weight	0.2-pounds	0.09 kg

u. EPJS-continued.

Platform Cable

Length	120-inches	3.04 m
Weight	9-ounces	0.25 kg

Interconnect Cable

Length	120-inches	3.04 m
Weight	12-ounces	0.34 kg

Main Cable

Length	600-inches	15.2 m
Weight	53-ounces	1.5 kg

Power Cable

Length	240-inches	6.1 m
Weight	1-pound	0.45 kg

Cover

Material	Cotton Duck Cloth	
Length	14 1/4-inches	36 cm
Width	14 3/4-inches	37.5 cm
Weight	8-ounces	0.23 kg

Kit Bag

Material	Cordura Cloth 1000 Denier	
Weight	178-ounces	5 kg

Extension Cable (C-5 and C-17 only)

Length	48-inches	1.2 m
Weight	0.6-pounds	0.27 kg

Tiedown Bracket (C-5 only)

Length	6-inches	15.25 cm
Width	4 2/3-inches	11.8 cm
Height	3-inches	7.6 cm

u. EPJS-continued.

Power Cable Extension (C-17 only)

Length	240-inches	6.1 m
Weight	20-ounces	0.57 kg

Power Cable Extension (C-5 only)

Length	12-inches	30.5 cm
Weight	0.6-pounds	0.27 kg

Safety Cap

Length	1-inch	2.6 cm
Width	1 1/4-inches	3.2 cm
Height	1 1/4-inches	3.2 cm
Weight	1-ounce	0.03 kg

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**CHAPTER 2**  
**UNIT MAINTENANCE INSTRUCTIONS**

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## SECTION I. LUBRICATION INSTRUCTIONS

### 2.1 GENERAL.

Lubrication not required

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## SECTION II. REPAIR PARTS AND SPECIAL TOOLS LIST

### **2.2 COMMON TOOLS AND EQUIPMENT.**

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

### **2.3 SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT.**

Special tools, TMDE, and support equipment are listed in the Maintenance Allocation Chart (MAC), Appendix B, and the Repair Parts and Special Tools List (RPSTL), Appendix C of this manual.

### **2.4 REPAIR PARTS.**

Repair parts are listed and illustrated in Appendix C of this manual.

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## SECTION III. SERVICE UPON RECEIPT

### 2.5 SERVICE UPON RECEIPT OF MATERIAL.

a. General. When any of the LVADS Ancillary Equipment is initially received from a supply source and issued to a using unit, the items will be unpacked from the shipping containers and inspected by a qualified parachute rigger. The inspection performed will be a technical/rigger-type inspection that will be conducted as authorized in paragraph 2.10. Upon completion of the inspection, the items will be tagged as prescribed in DA Pam 738-751 Serviceable equipment may then be entered either into storage or into use In airdrop operations, as applicable. An unserviceable item will be held and reported in accordance with paragraph 2.14.

#### NOTE

- Personnel other than parachute rigger personnel may assist in the unpacking process of initially received airdrop equipment as directed by the local airdrop equipment maintenance officer. However, the maintenance officer will ensure that the entire unpacking effort is conducted under the direct supervision of a qualified parachute rigger.
- Remember that acceptance of new airdrop equipment from manufacturers is based upon inspections made of sample lots that have been randomly selected in accordance with military standards.
- Changes will sometimes evolve for the original design and occasionally contractors are authorized deviations of material and construction techniques Airdrop equipment that has been In the field cannot be expected to meet exact manufacturing specifications, however, the equipment should closely reflect desired design characteristics.
- Since repairs, modifications, and/or changes can alter or detract from the original configuration, such equipment shall be air worthy, safe, and adequate for its intended use.

b. Unpacking. Each component of the LVADS Ancillary Equipment is separately packaged. Use care when unpacking equipment to avoid damage. Save all containers, shipping cartons, and crates for reuse when possible.

c. Checking Unpacked Equipment.

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

(2) Check the equipment against the packing slip to see if the shipment is complete. Report all discrepancies in accordance with the instructions of DA Pam 738-750 or DA Pam 738-751, as applicable.

(3) Note damage on DA Form 2404, Equipment Inspection and Maintenance Worksheet, and initiate corrective maintenance procedures in accordance with Section VI of this chapter.

d. Processing Unpacked Equipment.

(1) The processing of unpacked airdrop equipment shall be accomplished only by a qualified parachute rigger.

(2) Check DA Pam 25-30 for Maintenance Work Orders (MWO) applicable to your equipment. If any MWOs are listed, check DA Form 2408-5, Equipment Modification Record, to see if MWOs have been applied to the equipment. The MWO number will be shown near the equipment nomenclature label. If a current MWO is listed in DA Pam 25-30, but there is no evidence that it has been applied to the equipment you are processing, note the discrepancy on DA Form 2404, Equipment Inspection and Maintenance Worksheet.

(3) Inspect the items as outlined in Section IV and paragraph 2.10, below.

(4) Clean and dry the LVADS Ancillary Equipment according to paragraph 2.8. A compressed air hose may be used to remove foreign material from inaccessible locations.

#### **SECTION IV. UNIT PREVENTIVE MAINTENANCE CHECKS AND SERVICES FOR LVADS ANCILLARY EQUIPMENT**

**2.6 GENERAL.** Preventive Maintenance Checks and Services (PMCS) means systematic caring, inspecting, and servicing of equipment to keep it in good condition and to prevent breakdowns. As the equipment operator, your mission is to:

a. Be sure to perform your PMCS each time you use the equipment. Always do your PMCS in the same order, so it gets to be a habit. Once you've had some practice, you'll quickly spot anything wrong.

b. Do your BEFORE (B) PMCS just before you use the equipment. Pay attention to WARNINGS, CAUTIONS, and NOTES.

c. Do your DURING (D) PMCS while you use the equipment. During operation means to check the equipment and its related components while it is being used. Pay attention to WARNINGS, CAUTIONS, and NOTES.

d. Do your AFTER (A) PMCS right after using the equipment. Pay attention to WARNINGS, CAUTIONS, and NOTES.

e. Do your WEEKLY (W) PMCS once a week.

f. Do your MONTHLY (M) PMCS once a month.

g. Use DA Form 2404 (Equipment Inspection and Maintenance Worksheet) to record any faults that you discover before, during, or after operation, unless you can fix them. You DO NOT need to record faults that you fix.

#### **2.7 PMCS PROCEDURES.**

a. Your Preventive Maintenance Checks and Services, Table 2-1, lists inspections and care required to keep your equipment in good operating condition. It is set up so you can make your BEFORE (B) OPERATION checks as you walk around the equipment

b. The "ITEM NO." column is used to record the results of checks/services on DA Form 2404.

c. The "INTERVAL" column of Table 2-1 tells you when to do a certain check or service

d. The "PROCEDURE" column of Table 2-1 tells you how to do required checks and services.

Carefully follow these instructions. If you do not have tools, or if the procedure tells you to, notify your supervisor.

#### **NOTE**

Terms "ready/available" and "mission capable" refer to same status:  
Equipment is on hand and ready to perform its combat missions. (See DA Pam 738-750.)

e. The "NOT FULLY MISSION CAPABLE IF:" column in Table 2-1 tells you when your equipment is nonmission capable and why the equipment cannot be used.

f. If the equipment does not perform as required, refer to Chapter 3, Section II, Operator Troubleshooting.

g. If anything looks wrong and you can't fix it, write it on your DA Form 2404 IMMEDIATELY and report it to your supervisor.

h. When you do your PMCS, you will always need a rag or two. Following are checks that are common to the LVADS Ancillary Equipment.

(1) Keep It Clean. Dirt, grease, oil, and debris only get in the way and may cover up a serious problem. Clean as you work and as needed. Use dry cleaning solvent (SD-2) on all metal surfaces. Use soap and water when you clean rubber or plastic material..

(2) Rust and Corrosion. Check equipment for rust and corrosion. If any bare metal or corrosion exists, clean, and apply a thin coat of oil, unless otherwise stated. Report it to your supervisor

(3) Bolts, Nuts, and Screws. Check them all for obvious looseness, missing, bent, or broken condition. You can't try them all with a tool, but look for chipped paint, bare metal, or rust around bolt heads. If you find a bolt, nut, or screw you think is loose, tighten it or report it to your supervisor.

(4) Welds. Look for loose or chipped paint, rust, or gaps where parts are welded together. If you find a bad weld, report it to your supervisor

i. When you check for "operating condition," you look at the component to see if it is serviceable

## **2.8 CLEANING AND DRYING.**

Inspect LVADS Ancillary Equipment after each use for dampness, dirt, or foreign material. Cleaning and drying may be required to prevent a possible malfunction or deterioration of the item(s). Process equipment that has been immersed in water as given in paragraphs 2.14 f and g. Clean the equipment as follows:

### **CAUTION**

If during the cleaning of LVADS Ancillary Equipment, there exists a possibility that a substance to be removed contains acid, an acidity test will be performed as prescribed in paragraph 2.13, below. Should the substance be acid-free, the item will be evacuated to a direct support maintenance activity for determination as to the nature of the substance and item disposition. If a substance cannot be identified or if normal repair procedures will not eliminate all traces of the chemical damage, the item will be condemned.

a. Cleaning. The cleaning of airdrop equipment will be held to a minimum and performed only when it is necessary to eliminate a malfunction potential or the possibility of material deterioration. The cleaning method must be compatible with the type of material to be cleaned and the nature of the substance to be removed. Clean LVADS Ancillary Equipment using the following procedures:

(1) Shaking and Brushing. Clean most LVADS Ancillary Equipment assemblies by shaking or gently brushing with a dry soft-bristle brush. A dry stiff-bristle brush can be used on items made of canvas, metal, or wood

(2) Spot-cleaning. Spot-clean soiled areas on a fabric airdrop item that cannot be cleaned by shaking or brushing as follows:

**WARNING**

Due to flammable properties and nylon-damaging substances, cleaning solvents other than tetrachloroethylene will not be used in the spot-cleaning of airdrop equipment. Tetrachloroethylene will only be used in areas where substantial ventilation is available. Repeated or prolonged inhalation of the solvent vapors can be detrimental to health. In addition, avoid prolonged or repeated contact of the solvent fluid with areas of the skin. Tetrachloroethylene must not be taken internally

**CAUTION**

When rinsing the equipment, do not attempt to wring the equipment fabric or lines.

(a) Cotton Items. Spot-clean a cotton item by rubbing the soiled area with a clean cloth dampened with tetrachloroethylene. Once the foreign substance has been removed, rinse the cleaned area by repeating the rubbing process with clean portion of the cloth that has been dampened with the cleaning solvent. Do not wring out the rinsed area if an undue amount of cleaning solvent is applied. Allow the applicable item to dry thoroughly

(b) Nylon and Rayon Items. A soiled nylon or rayon item may be spot cleaned using the procedures in (a) above. However, the tetrachloroethylene may be substituted by a solution composed of one-half cup of hand dishwashing detergent (liquid or powdered) dissolved in one gallon of warm water. A soiled area cleaned with the soap and water solution will be rinsed with fresh, clean water and allowed to dry thoroughly. Do not attempt to wring out the material that has been cleaned and rinsed.

(c) Plastic and Wood Items. Spot cleaning of a plastic or wood item will be accomplished by using procedures in (a) or (b) above, as required. Imperfections on plastic items may be removed by buffing with crocus cloth. Similar defects on wood items can be fixed with a suitable grade of sandpaper. When applicable, ensure that any adjacent fabric is not damaged when buffing or sanding.

(d) Metal Items. Remove any burrs, rough spots, rust, or corrosion on metal items that cannot be eliminated by brushing or spot-cleaning (paragraphs (1) and (2) above) by buffing and polishing with crocus cloth or steel wool. Ensure that any adjacent materials are not harmed when filing, buffing, or polishing. When the metal item has been properly smoothed, remove all oils and filings by brushing and dipping in tetrachloroethylene. When the tetrachloroethylene has dried, spray the metal item with a dry film lubricant and allow to air dry for 24 hours and put the item back into service. Shield any adjacent fabric when spraying dry film lubricant to prevent saturation. Small amounts of lubricant will not damage fabric, but may cause discoloration and make fabric appear soiled.

b. Drying. Suspend or elevate wet or damp LVADS Ancillary Equipment in a well ventilated room or in a heated drying room. Item drying time may be reduced through the use of electric circulating fans. When heat is used, the temperature will not be higher than 160° F (71.5°C), with a preferred temperature at 140° F (60.0°C) until the item is dry. Fabric or wooden items will not be dried in direct sunlight by laying an item out on the ground, except in an emergency.

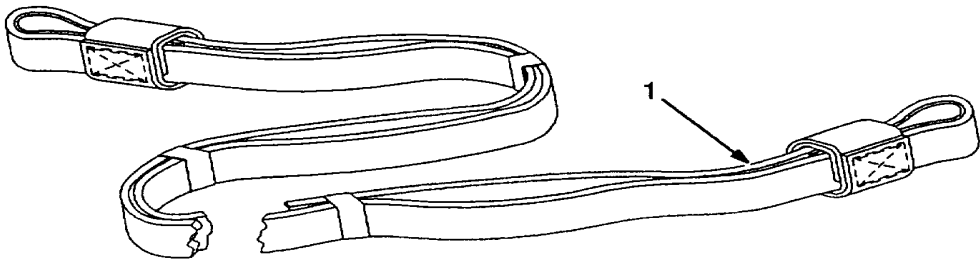
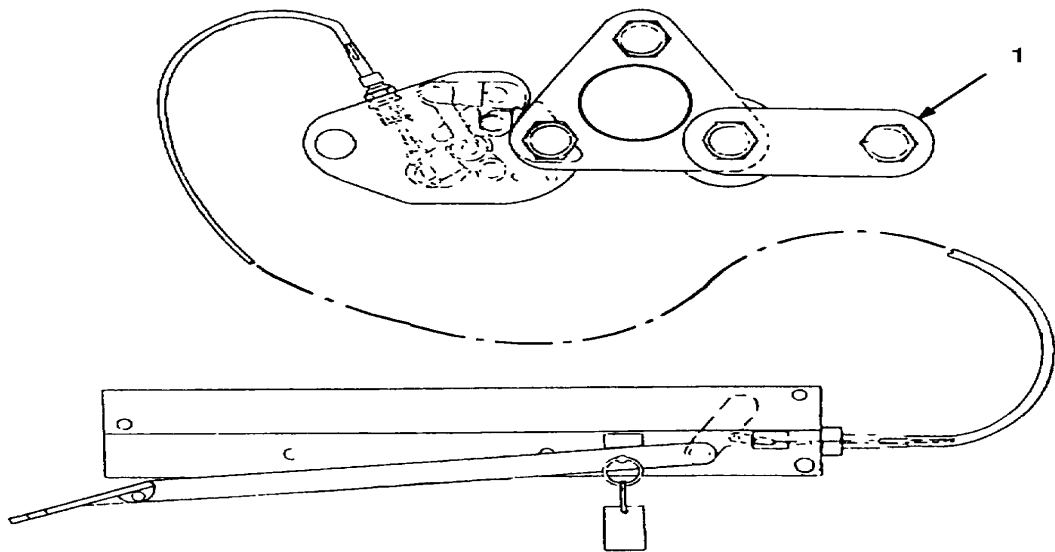
**2.9 CLEANING AGENTS.****WARNING**

- DO NOT use diesel fuel, gasoline, or benzene (benzol) for cleaning.
- DO NOT SMOKE when using cleaning solvent. NEVER USE IT NEAR AN OPEN FLAME. Be sure there is a fire extinguisher nearby and use cleaning solvent only in well ventilated places. Flash point of solvent is 138°F (60°C).
- USE CAUTION when using cleaning solvents. Cleaning solvents evaporate quickly and can irritate exposed skin if solvents contact skin. In cold weather, contact of exposed skin with cleaning solvents can cause frostbite.

**NOTE**

- Only use those authorized cleaning solvents or agents listed in Appendix D.
- Cleaning Rust or Corrosion. When cleaning rust or corrosion from metal parts, use a cleaning solvent. Then apply a thin coat of light oil to affected area
- All PMCS inspections will be a Technical/Rigger Inspection.

**Table 2-1. Preventive Maintenance Checks and Services**

Item No.	Interval	Item to be Checked/ Serviced	Procedure	Not Fully Mission Capable if:
1	Before	Line, Multi-Loop	Inspect multi-loop line (1) for loose or broken stitching, cuts, worn or frayed webbing and presence of foreign matter.	Multi-loop line has loose or broken stitching, cuts, worn or frayed webbing, or foreign matter present
				
2	Before	Coupling, Extraction Force Transfer	Inspect extraction force transfer coupling (1) for presence of foreign matter Ensure that all parts are present and securely fastened together.	Extraction force transfer coupling (1) is not complete or has foreign matter present.
				

**Table 2-1. Preventive Maintenance Checks and Services - continued.**

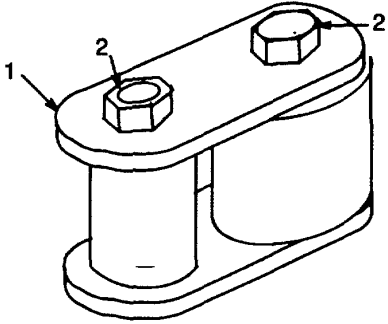
Item No.	Interval	Item to be Checked/ Serviced	Procedure	Not Fully Mission Capable if:
3	Before	Adapter, Link Assembly	<p>Inspect link assembly adapter (1) for rough areas, bends, or cracks. Ensure that threads (2) are not stripped or damaged</p> 	<p>Link assembly adapter (1) has rough areas, bends, or cracks. Threads (2) are stripped.</p>
4	Before	Link Assembly, Coupling	<p>Inspect link assembly, coupling (1) for rough areas, bends, or cracks. Ensure that threads are not stripped or damaged</p>	<p>Link assembly, coupling (1) has rough areas, bends, or cracks. Threads are stripped.</p>
5	Before	Latch Assembly, Coupling	<p>Inspect latch assembly coupling for rough areas, bends, cracks, or foreign material. Check that the retainer hook (1) releases when the latch assembly adapter is activated.</p>	<p>Latch assembly coupling has rough areas, bends, or cracks, or foreign material is present. Retainer hook (1) does not release when the latch assembly adapter is activated</p>

Table 2-1. Preventive Maintenance Checks and Services - continued.

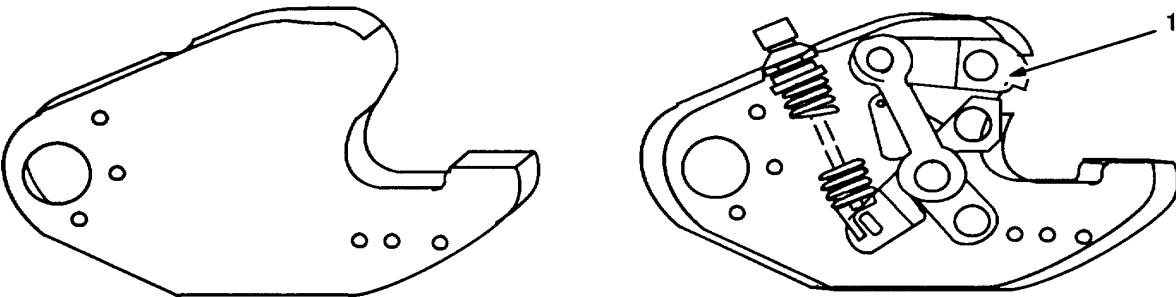
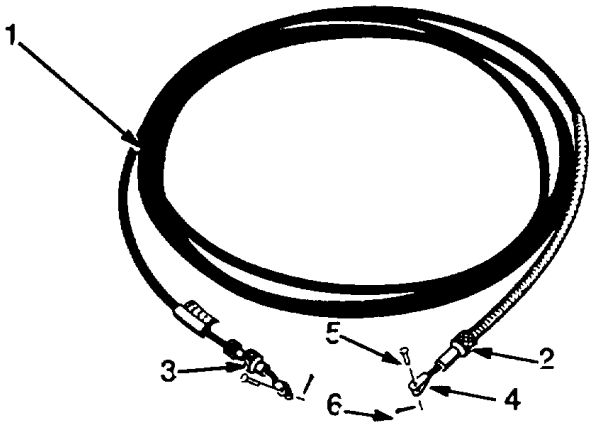
Item No.	Interval	Item to be Checked/ Serviced	Procedure	Not Fully Mission Capable if:
6	Before	Cable Assembly Coupling	 <p>Inspect cable (1) for bends or kinks. Check that cable moves freely within its cover. Ensure that cable's cover is not broken, that the terminals (2) operate properly. Ensure that the adjusting collar set screws (3) are tight. Inspect yokes (4) for rough areas, bends, or cracks. ensure that shank pins (5) and cotter pins (6) are present.</p> 	<p>Cable (1) has bends or kinks. Cable does not move freely within its cover. Cable's cover is broken or damaged. Terminals (2) do not operate properly. Adjusting collar set screws (3) are loose. Yokes (4) have rough areas, bends, or cracks. Shank pins (5) or cotter pins (6) are missing.</p>

Table 2-1. Preventive Maintenance Checks and Services - continued

Item No.	Interval	Item to be Checked/ Serviced	Procedure	Not Fully Mission Capable if:
7	Before	Actuator Assembly	<p>Check assembly (1) operation. Inspect for excessive wear, bends, breaks, or weld separation. Check that safety pin (2), cam arm spring (3), and C-5A trigger arm spring (4) are present. Ensure that actuator arm (5) is not bent, the axle nut (6) is not loose, and there is not excessive play between arm and axle.</p>	<p>Assembly (1) is inoperable or has excessive wear, bends, breaks, or weld separation. Safety pin (2), cam arm spring (3), or C-5A trigger arm spring (4) are missing. Actuator arm (5) is bent, the axle nut (6) is loose, or there is excessive play between arm and axle.</p>
8	Before	Release, Cargo Parachute, M-1	<p>Check release (1) operation. Ensure that, when using a 15-second timer, it activates within 12 and 16 seconds. Check for excessive wear or foreign material present.</p>	<p>Release (1) does not operate properly. Timer is not accurate. Release is worn or has foreign material present.</p>



Table 2-1. Preventive Maintenance Checks and Services - continued

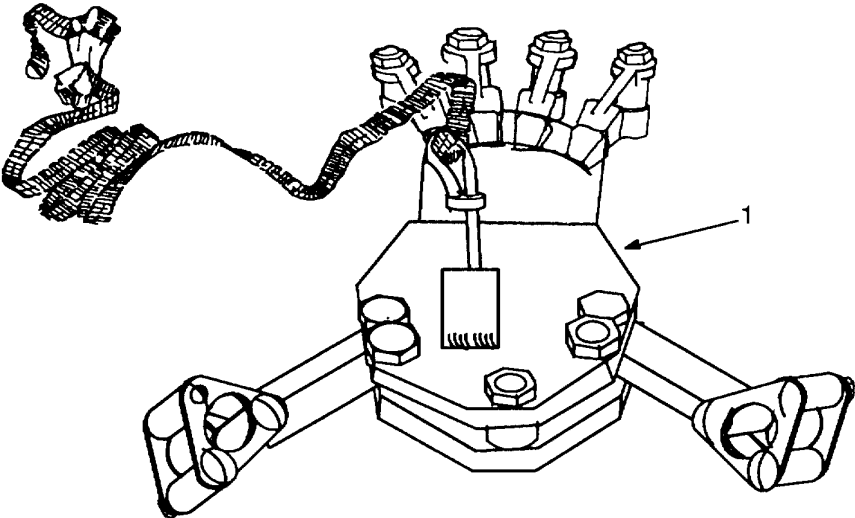
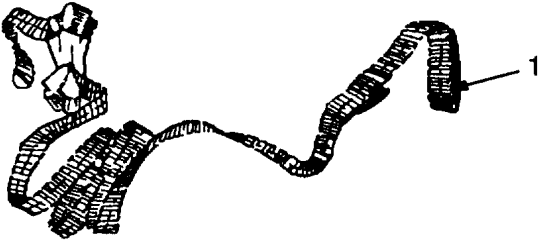
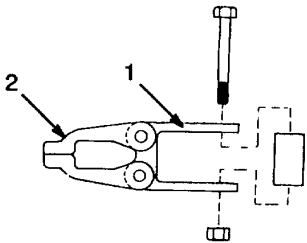
Item No.	Interval	Item to be Checked/ Serviced	Procedure	Not Fully Mission Capable if:
9	Before	Lanyard, Arming Wire	 <p>Inspect lanyard (1) for loose or broken stitching, cuts, worn or frayed webbing, and presence of foreign matter.</p>	Lanyard (1) has loose or broken stitching, cuts, or worn or frayed webbing, or foreign material is present.
10	Before	Connector, Parachute	 <p>Inspect connector (1) for bends, cracks, burrs, and rough areas. Check if threads are stripped or cracked. Check if arms (2) engage into the retaining damp.</p> 	Connector (1) has bends, burrs, or rough areas. Threads are stripped or cracked. Arms (2) do not engage into the retaining damp

Table 2-1. Preventive Maintenance Checks and Services - continued

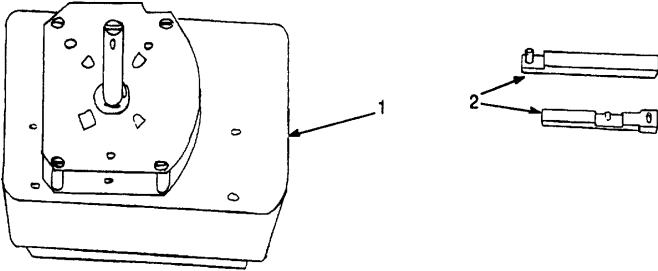
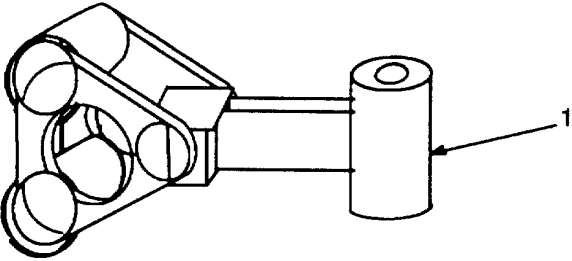
Item No.	Interval	Item to be Checked/ Serviced	Procedure	Not Fully Mission Capable if:
11	Before	Timer Delay Assembly	<p>Inspect timer assembly (1) for bends, cracks, burrs, rough areas, and foreign material. Check if timer activates at the appropriate time and if stem (2) rotates freely in mounting block. Ensure that keys (3) retract at the end of timing sequence.</p> 	<p>Timer assembly (1) has bends, cracks, burrs, or rough areas or foreign material is present. Timer does not activate at the appropriate time or stem (2) does not rotate freely in mounting block. Keys (3) do not retract at the end of timing sequence.</p>
12	Before	Link Lower Suspension	<p>Inspect link (1) for bends, breaks, cracks, burrs, and rough areas. Check for stripped or damaged threads.</p> 	<p>Link (1) has bends, breaks, cracks. Surfaces have burrs or rough areas. Threads are stripped or damaged.</p>
13	Before	Release, Cargo Parachute, M-2	<p>Check release (1) operation. Ensure that, when using a 15-second timer, it activates within 12- and 16-seconds. Check for excessive wear or foreign material. Check lanyard (2) for frayed material, cuts, and loose or broken stitching.</p>	<p>Release (1) does not operate properly. Timer is not accurate. Release is worn or has foreign material present.</p>

Table 2-1. Preventive Maintenance Checks and Services - continued

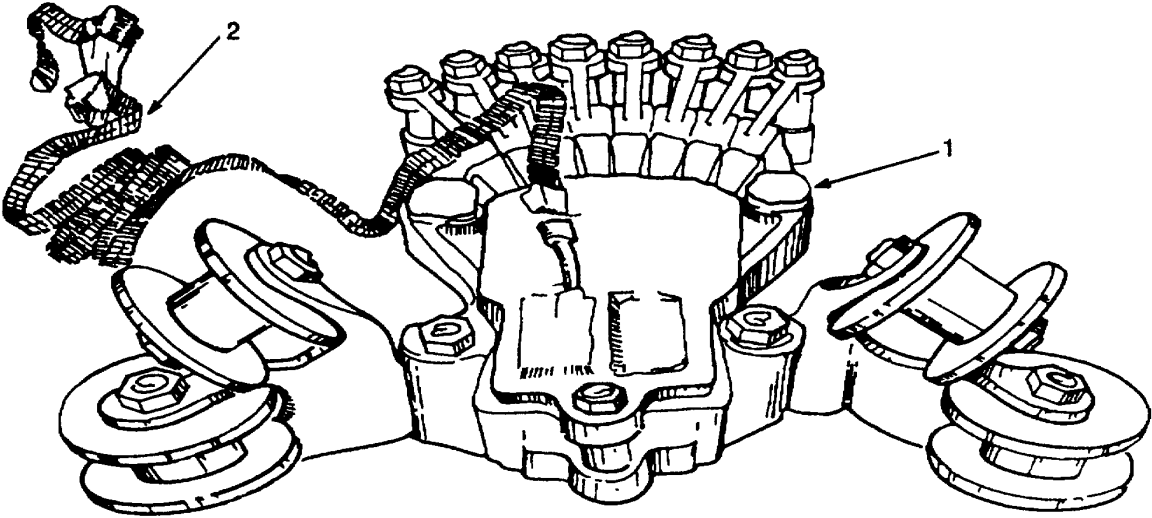
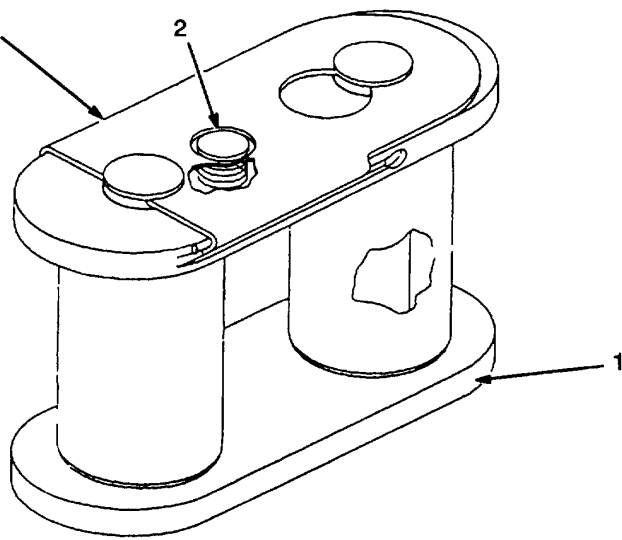
Item No.	Interval	Item to be Checked/ Serviced	Procedure	Not Fully Mission Capable if:
14	Before	Link Assembly, Single Suspension, Type IV	 <p>Inspect link (1) for bends, breaks, cracks, burrs, or rough areas. Ensure proper operation of button (2) and lock (3).</p>	<p>Link (1) has bends, breaks, cracks. Surfaces have burrs or rough areas. Button (2) or lock (3) does not function properly.</p> 

Table 2-1. Preventive Maintenance Checks and Services - continued

Item No.	Interval	Item to be Checked/ Serviced	Procedure	Not Fully Mission Capable if:
15	Before	Link Assembly, Heavy Duty	Inspect plates (1) and spacers (2) for rough areas, bends, breaks, or cracks. Ensure that threads (3) are not stripped or damaged.	Plate (1) or spacer (2) has rough areas, bends, breaks, or cracks. Threads (3) are damaged or stripped.
16	Before	Link, 4-Point	Inspect four-point link (1) for rough areas, bends, breaks, and cracks. Ensure fastener threads (2) are not stripped or damaged.	Link (1) has rough areas, bends, breaks, and cracks. Fasteners have stripped or damaged threads (2).
17	Before	Cover, Link, Type IV	Inspect cover (1) for loose or broken stitches, tears, damaged cord (2), or foreign material.	Cover has loose or broken stitches, tears, damaged cord (2), or foreign matter present.

Table 2-1. Preventive Maintenance Checks and Services - continued

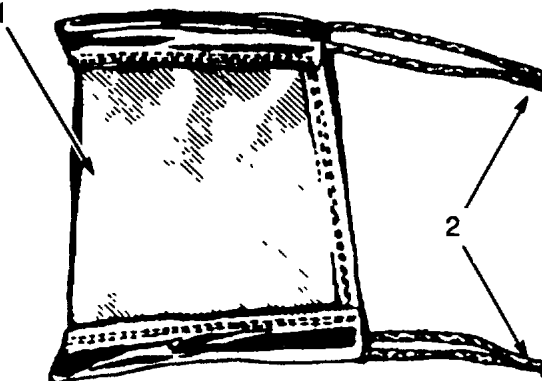
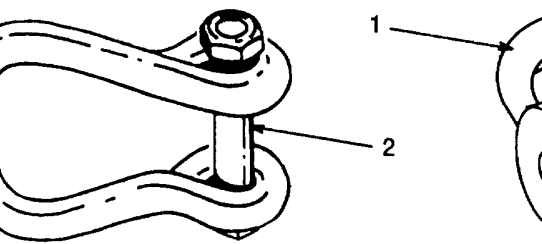
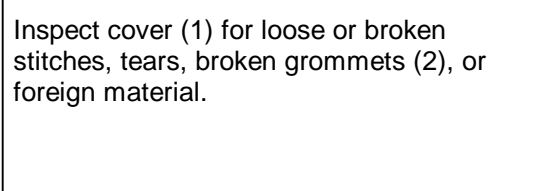
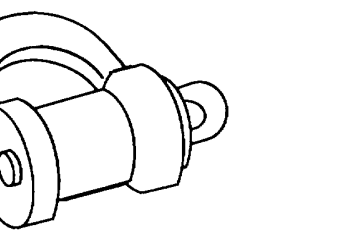
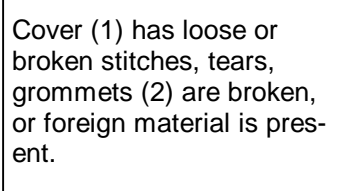
Item No.	Interval	Item to be Checked/ Serviced	Procedure	Not Fully Mission Capable if:
18	Before	Clevis, Aerial Delivery	 <p>Inspect clevis (1) for rough areas, bends, breaks, and cracks. Ensure fastener threads (2) are not stripped or damaged.</p>	<p>Clevis (1) has rough areas, bends, breaks, and Cracks. Fasteners have stripped or damaged threads (2).</p>
19	Before	Cover, Clevis	 <p>Inspect cover (1) for loose or broken stitches, tears, broken grommets (2), or foreign material.</p> 	 <p>Cover (1) has loose or broken stitches, tears, grommets (2) are broken, or foreign material is present.</p> 

Table 2-1. Preventive Maintenance Checks and Services - continued

Item No.	Interval	Item to be Checked/ Serviced	Procedure	Not Fully Mission Capable if:
20	Before	Strap, Parachute Release, Single Knife	Inspect strap (1) for loose or broken stitching, cuts, worn and frayed webbing, or presence of foreign material. Check knife (2) and fastener (3) for rough areas, bends, breaks, and cracks. Check knife edge (4) for sharpness. Ensure that ferrule (5) operates properly.	Strap (1) has loose or broken stitching, cuts, worn or frayed webbing, or foreign material is present. Knife (2) or fastener (3) has rough areas, bends, breaks, or cracks. Knife edge (4) is dull. Ferrule (5) does not cover the safety aperture (6) when unscrewed to the full open position.
21	Before	Strap, Parachute Release, Multi-Knife	Inspect strap (1) for loose or broken stitching, cuts, worn and frayed webbing, or presence of foreign material. Check knives (2) for rough areas, bends, breaks, and cracks, and knife edges (3) for sharpness. Ensure that ferrules (4) operate properly.	Strap (1) has loose or broken stitching, cuts, worn or frayed webbing, or foreign material is present. A knife (2) has rough areas, bends, breaks, or cracks or its edge (3) is dull. A ferrule (4) does not cover the safety aperture (5) when unscrewed to the full open position.
22	Before	Link Assembly, Coupling, 3-Point	Inspect three-point link (1) for rough areas, bends, breaks, and cracks. Ensure fastener threads (2) are not stripped or damaged.	Link (1) has rough areas, bends, breaks, and cracks. Fasteners have stripped or damaged threads (2).

Table 2-1. Preventive Maintenance Checks and Services - continued

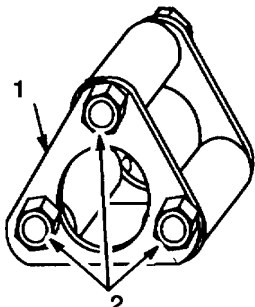
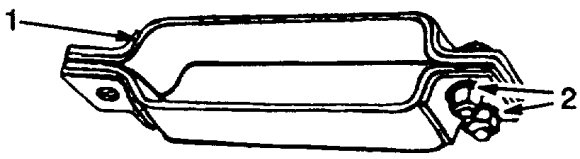
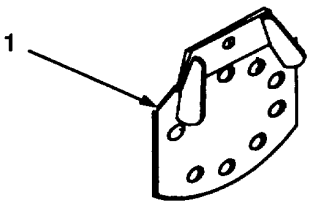
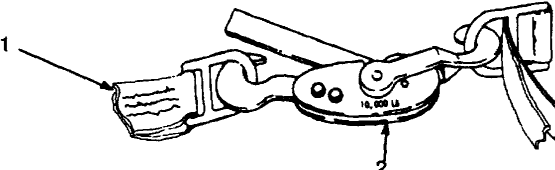
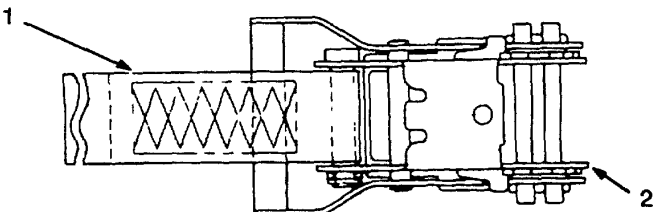
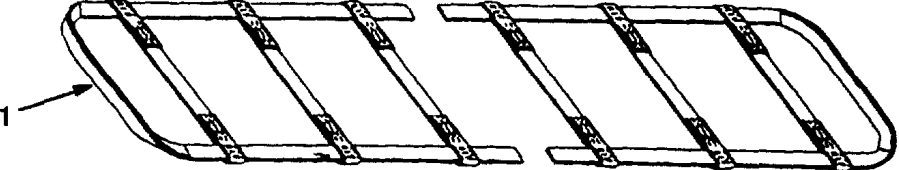
Item No.	Interval	Item to be Checked/ Serviced	Procedure	Not Fully Mission Capable if:
23	Before	Bracket, Suspension	 <p>Inspect bracket (1) for rough areas, bends, breaks, and cracks. Ensure fastener threads (2) are not stripped or damaged.</p>	Bracket (1) has rough areas, bends, breaks, and cracks. Fasteners have stripped or damaged threads (2)
24	Before	Bracket, Suspension	 <p>Inspect bracket (1) for rough areas, bends, breaks, and cracks. Ensure fastener threads (2) are not stripped or damaged.</p>	Bracket (1) has rough areas, bends, breaks, and Cracks. Fasteners have stripped or damaged threads (2)
25	Before	Plate, Suspension	 <p>Inspect plate (1) for rough areas, bends, breaks, and cracks</p>	Plate (1) has rough areas, bends, breaks, and cracks.

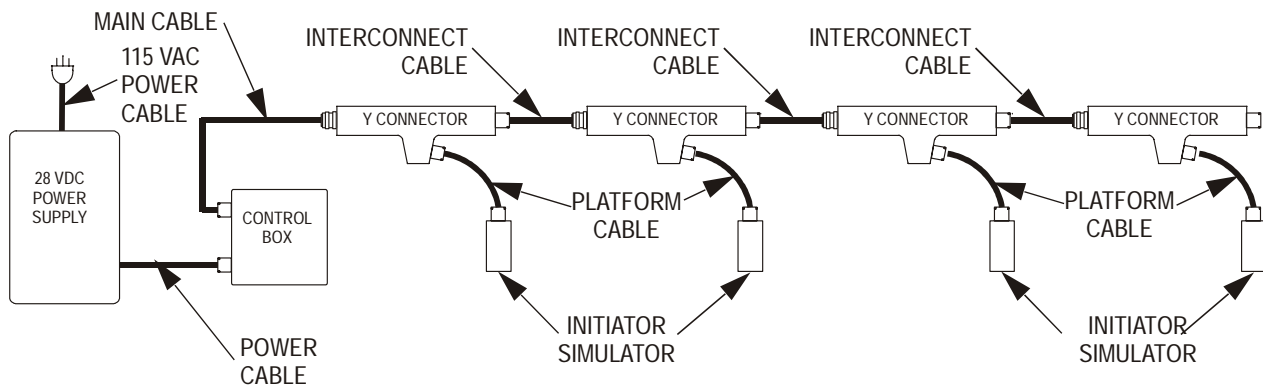
Table 2-1. Preventive Maintenance Checks and Services - continued

Item No.	Interval	Item to be Checked/ Serviced	Procedure	Not Fully Mission Capable if:
26	Before	Tiedown, Cargo, 10K	Inspect tiedown (1) loose or broken stitching, frayed webbing, foreign material, or a defective binder (2). 	Tiedown (1) has loose or broken stitching or frayed webbing, foreign material is present, or the binder (2) is defective.
27	Before	Tiedown, Cargo, Quick-Release	Inspect tiedown (1) loose or broken stitching, frayed webbing, foreign material, or a defective quick-release lever (2) 	Tiedown (1) has loose or broken stitching or frayed webbing, foreign material is present, or the quick-release lever (2) is defective.
28	Before	Drive Off Aid, Type IV	Inspect drive-off aid (1) for loose or broken stitching, frayed webbing, or foreign material. 	Drive-off aid has loose or broken stitching or frayed webbing. Foreign material is present.
29	Before	Tiedown, Cargo, Aircraft	Inspect tiedown chain (1) for weak links, rough areas, bends, breaks, cracks, rust, or foreign material. Ensure turnbuckle threads (2) are not stripped or damaged.	Tiedown chain (1) has weak links, rough areas, bends, breaks, or cracks. Rust, or foreign material is present. Turnbuckle threads are stripped or damaged.



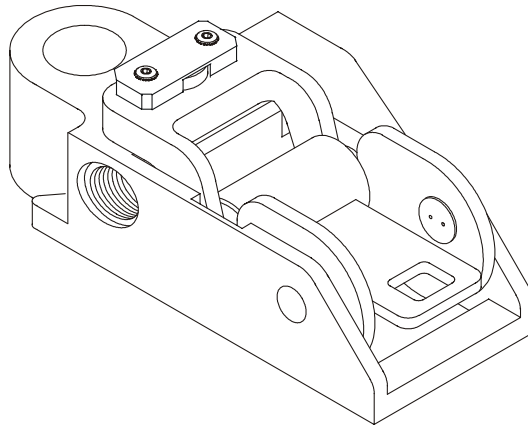
**Table 2-1. Preventive Maintenance Checks and Services - continued.**

Item No.	Interval	Item to be Checked/ Serviced	Procedure	Not Fully Mission Capable if:
29.1	Before	Extraction Parachute Jettison System	<p>Check that all cables are securely connected.</p> <p>Blue LEDs on control box and blue LED on each Y-connector must light to indicate complete circuit.</p> <p>Blue LED lamp(s) must light to indicate the number of loads connected to the system.</p> <p>Check EPJD for squib-fired condition.</p> <p>Check that safety cap is installed on squib cable and squib cable is installed on squib.</p>	<p>Loose or damaged connector.</p> <p>Circuit can not be completed.</p> <p>Any load is not connected to the system properly.</p> <p>Squib is fired.</p> <p>Safety cap and squib cable not installed on squib.</p>

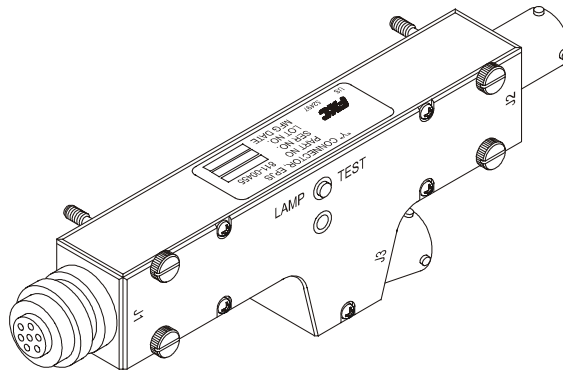


**Table 2-1. Preventive Maintenance Checks and Services - continued.**

Item No.	Interval	Item to be Checked/ Serviced	Procedure	Not Fully Mission Capable if:
29.2	Before	Device, Extraction Parachute Jettison System	Check device for presence of foreign matter. Ensure that all parts are present and securely fastened together.	Device is not complete or has foreign matter present.



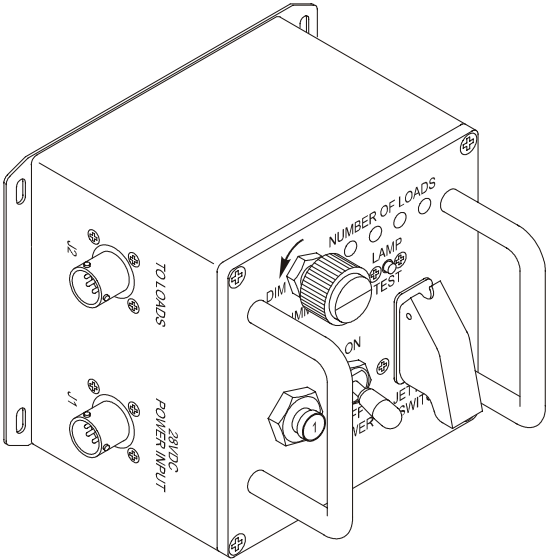
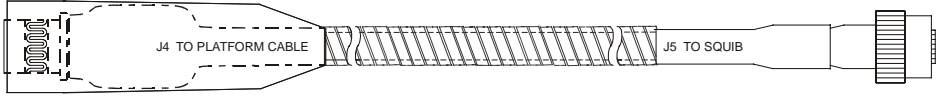
29.3	Before	Y-Connector, Extraction Parachute Jettison System	Check Y-connector for secure attachment.	Y-connector has been forced off mounting area.
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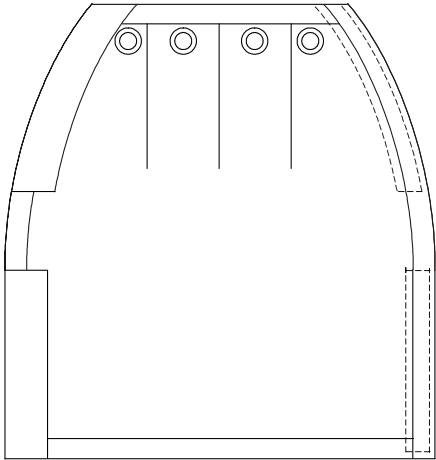
**Table 2-1. Preventive Maintenance Checks and Services - continued.**

Item No.	Interval	Item to be Checked/ Serviced	Procedure	Not Fully Mission Capable if:
29.4	Before	Y-Connector Mounting Box (C-130, C-141, C-17)	Check for missing components, proper operation of extendable arms, ability to mount Y-connector to both positions, and damage.	Mounting box cannot secure Y-connector or cannot be secured to aircraft.
29.5	Before	Y-Connector Mounting Box (C-5)	Check for missing components, ability to mount Y-connector, and damage.	Mounting box cannot secure Y-connector or cannot be secured to aircraft.

Table 2-1. Preventive Maintenance Checks and Services - continued.

Item No.	Interval	Item to be Checked/ Serviced	Procedure	Not Fully Mission Capable if:
29.6	Before	Control Box	Check for missing components and damage effecting functionality.	Box is not complete or obvious damage.
 <p>The diagram shows a rectangular control box with a handle on the right side. On the front panel, there are several controls and connectors: a 'DIM' knob, a 'NUMBER OF LOADS' selector with three positions, a 'LAMP TEST' button, a 'POWER INPUT' connector labeled 'J1', and a 'TO LOADS' connector labeled 'J2'. There are also 'ON' and 'OFF' switches and a 'NET SWITCH'.</p>				
29.7	Before	Cable, Squib	Check flexible cable wrap for excessive abrasions, cuts, wear, and deformation.	Cable covering is damaged and not protecting squib cable.
 <p>The diagram shows a cable assembly with a connector on the left labeled 'J4 TO PLATFORM CABLE' and a connector on the right labeled 'J5 TO SQUIB'. The cable is shown with a protective wrap around the middle section.</p>				

**Table 2-1. Preventive Maintenance Checks and Services - continued.**

Item No.	Interval	Item to be Checked/ Serviced	Procedure	Not Fully Mission Capable if:
29.8	Before	Cables, Extraction Parachute Jettison System	Check all cables for cuts, nicks, or dry rot. Check for broken cable covering. Check for cracked plug or damaged connectors. Make sure connector pins are straight and aligned with mating receptacle.	Cable is damaged.
				
29.9	Before	Cover	Check for rips, tears, holes, loose or damaged fastener tape, and damaged or missing grommets.	Cover has rips, tears, holes, loose or damaged fastener tape, or damaged or missing grommets.
				

**Table 2-1. Preventive Maintenance Checks and Services - continued.**

Item No.	Interval	Item to be Checked/ Serviced	Procedure	Not Fully Mission Capable if:
29.10	Before	Tiedown Bracket (C-5)	Check tiedown bracket for missing components, ability to mount Y-connector mounting box, and damage.	Tiedown bracket cannot secure Y-connector mounting box or cannot be secured to aircraft.
29.11	Before	Safety Cap	Check that safety cap is installed on squib cable and for damage.	Safety cap is missing or damaged.

Table 2-1. Preventive Maintenance Checks and Services - continued

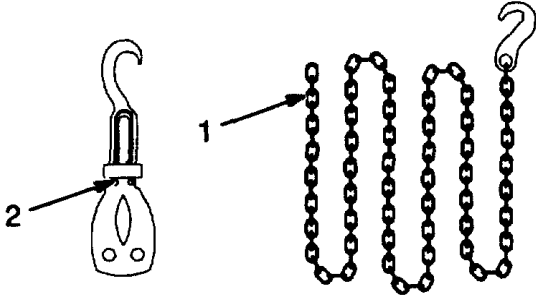
Item No.	Interval	Item to be Checked/ Serviced	Procedure	Not Fully Mission Capable if:
				
30	After	Line, Multi-Loop	Inspect multi-loop line for loose or broken stitching, cuts, worn or frayed webbing and presence of foreign matter.	Multi-loop line has loose or broken stitching, cuts, worn or frayed webbing, or foreign matter present.
31	After	Coupling, Extraction Force Transfer	Inspect extraction force transfer coupling for presence of foreign matter. Ensure that all parts are present and securely fastened together.	Extraction force transfer coupling is not complete or has foreign matter present.
32	After	Adapter, Link Assembly	Inspect link assembly adapter for rough areas, bends, or cracks. Ensure that threads are not stripped or damaged	Link assembly adapter has rough areas, bends, or cracks. Threads are stripped.
33	After	Link Assembly, Coupling	Inspect link assembly, coupling for rough areas, bends, or cracks. Ensure that threads are not stripped or damaged	Link assembly, coupling has rough areas, bends, or cracks. Threads are stripped.
34	After	Latch Assembly, Coupling	Inspect latch assembly coupling for rough areas, bends, cracks, or foreign material. Check that the retainer hook releases when the latch assembly adapter is activated	Latch assembly coupling has rough areas, bends, or cracks, or foreign material is present. Retainer hook does not release when the latch assembly adapter is activated.
35	After	Cable Assembly, Coupling	Inspect cable for bends or kinks Check that cable moves freely within its cover. Ensure that cable's cover is not broken, that the terminals operate properly, and that the threads are not stripped or damaged. Ensure that the adjusting collar set screws are tight. Inspect yokes for rough areas, bends, or cracks. ensure that shank pins and cotter pins are present.	Cable has bends or kinks. Cable does not move freely within its cover. Cable's cover is broken or damaged. Terminals do not operate properly or threads are stripped or damaged. Adjusting collar set screws are loose. Yokes have rough areas, bends, or cracks. Shank pins or cotter pins are missing.

Table 2-1. Preventive Maintenance Checks and Services - continued

Item No.	Interval	Item to be Checked/ Serviced	Procedure	Not Fully Mission Capable if:
36	After	Actuator Assembly	Check assembly operation. Inspect for excessive wear, bends, breaks, or weld separation. Ensure that threads are not stripped or damaged. Check that safety pin, cam arm spring, and C-5A trigger arm spring are present. Ensure that actuator arm is not bent, the axle nut is not loose, and there is not excessive play between arm and axle.	Assembly is inoperable or has excessive wear, bends, breaks, or weld separation. Threads are stripped or damaged. Safety pin, cam arm spring, or C-5A trigger arm spring are missing. Actuator arm is bent, the axle nut is loose, or there is excessive play between arm and axle.
37	After	Release, Cargo Parachute, M-1	Check release operation. Ensure that, when using a 15-second timer, it activates within 12- and 16-seconds. Check for excessive wear or foreign material	Release does not operate properly. Timer is not accurate. Release is worn or has foreign material present.
38	After	Lanyard, Arming Wire	Inspect lanyard for loose or broken stitching, cuts, worn, or frayed webbing, and presence of foreign matter.	Lanyard has loose or broken stitching, cuts, or worn or frayed webbing, or foreign material is present.
39	After	Connector, Parachute	Inspect connector for bends, cracks, burrs, and rough areas. Check if threads are stripped or cracked. Check if arms engage into the retainer damp.	Connector has bends, burrs, or rough areas. Threads are stripped or cracked. Arms do not engage into the retaining damp.
40	After	Timer Delay Assembly	Inspect timer assembly for bends, cracks, burrs, rough areas, and foreign material. Check if timer activates at the appropriate time and if stem rotates freely in mounting block. Ensure that keys retract at the end of timing sequence.	Timer assembly has bends, cracks, burrs, or rough areas or foreign material is present. Timer does not activate at the appropriate time or stem does not rotate freely in mounting block. Keys do not retract at the end of timing sequence
41	After	Link, Lower Suspension	Inspect link for bends, breaks, cracks, burrs, and rough areas. Check for stripped or damaged threads.	Link has bends, breaks, cracks. Surfaces have burrs or rough areas. Threads are stripped or damaged.
42	After	Release, Cargo Parachute, M-2	Check release operation. Ensure that, when using a 15-second timer, it activates within 12- and 16-seconds. Check for excessive wear or foreign material. Check lanyard for frayed material, cuts, and loose or broken stitching.	Release does not operate properly. Timer is not accurate. Release is worn or has foreign material present.



**Table 2-1. Preventive Maintenance Checks and Services - continued**

Item No.	Interval	Item to be Checked/ Serviced	Procedure	Not Fully Mission Capable if:
43	After	Link Assembly, Single Suspension, Type IV	Inspect link for bends, breaks, cracks, burrs, or rough areas. Ensure proper operation of button and lock	Link has bends, breaks, cracks. Surfaces have burrs or rough areas. Button or lock does not function properly.
44	After	Link Assembly, Heavy Duty	Inspect plates and spacers for rough areas, bends, breaks, or cracks. Ensure that threads are not stripped or damaged.	Plate or spacer has rough areas, bends, breaks, or cracks. Threads are damaged or stripped.
45	After	Link 4-Point	Inspect four-point link for rough areas, bends, breaks, and cracks. Ensure fastener threads are not stripped or damaged	Link has rough areas, bends, breaks, and cracks. Fasteners have stripped or damaged threads.
46	After	Cover, Link, Type IV	Inspect cover for loose or broken stitches, tears, damaged cord, or foreign material.	Cover has loose or broken stitches, tears, damaged cord, or foreign matter present.
47	After	Clevis, Aerial Delivery	Inspect clevis for rough areas, bends, breaks, and cracks. Ensure fastener threads are not stripped or damaged.	Clevis has rough areas, bends, breaks, and cracks. Fasteners have stripped or damaged threads.
48	After	Cover, Clevis	Inspect cover for loose or broken stitches, tears, broken grommets, or foreign material.	Cover has loose or broken stitches, tears, grommets are broken, or foreign material is present
49	After	Strap, Parachute Release, Single Knife	Inspect strap for loose or broken stitching, cuts, worn and frayed webbing, or presence of foreign material. Check knife and fastener for rough areas, bends, breaks, and cracks. Check knife edge for sharpness. Ensure that ferrule operates properly.	Strap has loose or broken stitching, cuts, worn or frayed webbing, or foreign material is present. Knife or fastener has rough areas, bends, breaks, or cracks. Knife edge is dull. Ferrule does not cover the safety aperture when unscrewed to the full open position.
50	After	Strap, Parachute Release, Multi-Knife	Inspect strap for loose or broken stitching, cuts, worn and frayed webbing, or presence of foreign material. Check knives for rough areas, bends, breaks, and cracks and knife edges for sharpness. Ensure that ferrules operate properly.	Strap has loose or broken stitching, cuts, worn or frayed webbing, or foreign material is present. A knife has rough areas, bends, breaks, or cracks or its edge is dull. A ferrule does not cover the safety aperture when unscrewed to the full open position.

**Table 2-1. Preventive Maintenance Checks and Services - continued.**

Item No.	Interval	Item to be Checked/ Serviced	Procedure	Not Fully Mission Capable if:
51	After	Link Assembly, Coupling, 3-Point	Inspect 3-point link for rough areas, bends, breaks, and cracks. Ensure fastener threads are not stripped or damaged.	Link has rough areas, bends, breaks, and cracks. Fasteners have stripped or damaged threads.
52	After	Bracket, Suspension	Inspect bracket for rough areas, bends, breaks, and cracks. Ensure fastener threads are not stripped or damaged.	Bracket has rough areas, bends, breaks, and cracks. Fasteners have stripped or damaged threads.
54	After	Plate, Suspension	Inspect plate for rough areas, bends, breaks, and cracks.	Plate has rough areas, bends, breaks, and cracks.
55	After	Tiedown, Cargo, 10K	Inspect tiedown for loose or broken stitching, frayed webbing, foreign material, or a defective binder.	Tiedown has loose or broken stitching or frayed webbing, foreign material is present, or the binder is defective.
56	After	Tiedown, Cargo, Quick-Release	Inspect tiedown for loose or broken stitching, frayed webbing, foreign material, or a defective quick-release lever.	Tiedown has loose or broken stitching or frayed webbing, foreign material is present, or the quick-release lever is defective.
57	After	Drive Off Aid, Type IV	Inspect drive-off aid for loose or broken stitching, frayed webbing, or foreign material.	Drive-off aid has loose or broken stitching or frayed webbing. Foreign material is present.
58	After	Tiedown, Cargo, Aircraft	Inspect tiedown chain for rough areas, bends, breaks, cracks, rust, or foreign material. Ensure turnbuckle threads are not stripped or damaged.	Tiedown chain has rough areas, bends, breaks, or cracks. Rust or foreign material is present. Turnbuckle threads are stripped or damaged.

**Table 2-1. Preventive Maintenance Checks and Services - continued.**

<b>Item No.</b>	<b>Interval</b>	<b>Item to be Checked/ Serviced</b>	<b>Procedure</b>	<b>Not Fully Mission Capable if:</b>
59	After	Extraction Parachute Jettison System	<p>Check all cables for damage.</p> <p>Check EPJD for squib-fired condition.</p> <p>Check cover for rips, tears, holes, loose or damaged fastener tape, and damaged or missing grommets.</p> <p>Check Y-connector mounting box for missing components, proper operation of extendable arms, ability to mount Y-connector to both positions, and damage.</p>	<p>Cable is damaged.</p> <p>Squib is fired.</p> <p>Cover has rips, tears, holes, loose or damaged fastener tape, and damaged or missing grommets.</p> <p>Mounting box cannot secure Y-connector on mounting bracket or cannot be secured to aircraft.</p>
60	After	Device, Extraction Parachute Jettison System	Check EPJD for presence of foreign matter. Ensure that all parts are present and securely fastened together.	Device is not complete or has foreign matter present.
61	After	Y-Connector, Extraction Parachute Jettison System	Check Y-connector for secure attachment.	Y-connector has been forced off mounting area.
62	After	Y-Connector Mounting Box (C-130, C-141, C-17)	Check Y-connector mounting box for missing components, proper operation of extendable arms, ability to mount Y-connector to both positions, and damage.	Mounting box cannot secure Y-connector or cannot be secured to aircraft.
63	After	Y-Connector Mounting Box (C-5)	Check Y-connector mounting box for missing components, ability to mount Y-connector, and damage.	Mounting box cannot secure Y-connector or tiedown bracket, or be secured to aircraft.
64	After	Control Box	Check for missing components and damage effecting serviceability.	Box is not complete or obvious damage.
65	After	Cable, Squib	Check flexible cable wrap for excessive abrasions, cuts, wear, and deformation.	Cable covering is damaged and not protecting squib cable.
66	After	Cables, Extraction Parachute Jettison System	Check all cables for cuts, nicks, and dry rot. Check for broken cable covering. Check for cracked plug or connectors. Make sure connector pins are straight and aligned with mating receptacle.	Cable is damaged.
67	After	Cover	Check cover for rips, tears, holes, loose or damaged fastener tape, and damaged or missing grommets.	Cover has rips, tears, holes, loose or damaged fastener tape, and damaged or missing grommets.

**Table 2-1. Preventive Maintenance Checks and Services - continued.**

Item No.	Interval	Item to be Checked/ Serviced	Procedure	Not Fully Mission Capable if:
68	After	Tiedown Bracket	Check tiedown bracket for missing components, ability to mount Y-connector mounting box, and damage.	Tiedown bracket cannot secure Y-connector mounting box or cannot be secured to aircraft.
69	After	Safety Cap	Check that safety cap is installed on squib cable, and for damage.	Safety cap is missing or damaged.

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## SECTION V. UNIT TROUBLESHOOTING PROCEDURES

**2.10 TECHNICAL/RIGGER INSPECTION.** A technical/rigger-type inspection is a complete and thorough inspection of an individual airdrop item, including associated parts and components. The following paragraphs outline criteria applicable to accomplishing a technical/rigger-type Inspection. It will be performed by a qualified parachute rigger in accordance with AR 750-32.

a. Inspection Intervals.

- (1) Upon initial receipt of procured equipment to a using unit by a supply source.
- (2) Immediately before equipment is packed or rigged for use in airdrop operations.
- (3) Before and after repairs or modifications are made.
- (4) At any other time as deemed necessary by the airdrop equipment maintenance officer.

b. Inspection Function Requirement. Normally, a technical/rigger-type inspection will be performed at a packing, rigging, or repair activity. The Inspection of initial receipt Items will be performed as a separate function from packing or rigging operations. When the inspection is conducted at a rigging activity, the item to be inspected will be placed in proper layout on a packing table or a suitable sized floor area. Should a defect or damage be discovered at any point during the inspection, the inspection will be terminated and the defective item will be processed and forwarded to a repair activity. The repair activity, in turn, will conduct a technical/rigger-type inspection that will be performed by only those parachute rigger personnel cited in AR 750-32. Any defect discovered during an unit level repair activity that exceeds the capability of that activity will require the affected item to be evacuated to a direct support maintenance facility for determination of economic repair and its application, if applicable.

c. Technical/Rigger-Type Inspection Procedures.

- (1) Overall Inspection. An overall inspection will be made of airdrop equipment to check the following

(a) Log Record/Parachute Inspection Data Pocket and Form. As applicable, inspect the assembly log record/parachute inspection data pocket to ensure the Army Parachute Log Record (DA Form 10-42 or 3912) is enclosed and properly attached. Further, remove the log record from the pocket and evaluate the recorded entries.

(b) Assembly Completeness. Ensure that the applicable assembly is complete and no components or parts are missing.

(c) Operational Adequacy. Check the item components and parts to ensure proper assembly that includes attachment and alignment, and that the assembled product function in the prescribed manner. Further, ensure that no stitch formation or sewn seam has been omitted.

(d) Markings and Paint. Inspect each assembly and related components for faded, illegible, obliterated, or missing informational data, identification numbers, and warning marks. Check for chipped, worn or peeled paint, if applicable.

(e) Foreign Material and Stains. Inspect each assembly and related components for dirt or other foreign material. Also check for evidence of mildew, moisture, oil, grease, resin, or peeled paint, as applicable.

- (2) Detailed Inspection. In addition to the overall inspection performed in paragraph (1) above, a detailed inspection will be performed in the materials that constitute the assembly or component construction using the following criteria, as applicable:

(a) Metal. Inspect for rust, corrosion, dents, breaks, burrs, rough spots, sharp edges, wear, or deterioration, damaged, loose, or missing nuts, bolts, screws, safety pins, or rivets, improper welding, or loss of spring tension.

(b) Plastic and Wood. Inspect for bends, breaks, dents, holes, rough spots, sharp edges, and wear.

(c) Cloth. Inspect for breaks, bums, cuts, frays, holes, rips, snags, or tears, loose, missing, or broken stitching or tacking, weak spots, wear, or deterioration.

(d) Fabric Type, Webbing, And Cordage. Inspect for breaks, burns, cuts, frays, holes, snags, incorrect weaving, and sharp edges formed from searing, loose, missing, or broken stitching, tacking, shipping, and sealing, weak spots, wear, and deterioration.

(e) Pressure Sensitive (Adhesive) Tape. Inspect for bums, cuts, holes, tears, and weak spots, looseness, and deterioration.

(f) Rubber and Elastic. Inspect for bums, cuts, holes, tears, and weak spots, loss of elasticity, and deterioration.

(g) Leather. Inspect for bums, cuts, holes, tears, loose, missing, or broken stitching, thin spots, and deterioration.

## 2.11 ROUTINE INSPECTION.

A routine inspection is a visual check of the serviceability of all visible components of an airdrop item that is packed or rigged for use. The inspection will be made on all components that can be inspected without derigging the load. All LVADS Ancillary Equipment will be administered a routine inspection by a parachute rigger prior to issue.

## 2.12 DROP-TESTING PROCEDURES.

Drop-testing of airdrop equipment consists of physically air dropping an item from an aircraft in flight. The drop test proves the serviceability of an item or checks parachute rigger proficiency. It will be performed under the supervision of qualified parachute rigger personnel who satisfy the supervisory requirements outlined in AR 750-32. Drop-testing usually will be conducted by an activity responsible for the inspection and maintenance of airdrop equipment. The criteria required to accomplish a drop test is as follows.

- a. Weight and Conditions. The weight of the test load will be proportional with the standard design load of the specific parachute being tested. The parachute will be released under conditions consistent with the requirements for an equipment drop
- b. Monitoring. During the drop-test of the LVADS, the deployment of the parachute will be thoroughly monitored and observed to detect any evidence of malfunction or defect. Enter a record of the drop-test into the applicable parachute log record as follows:
  - (1) Upon completion of a technical/rigger-type inspection, prepare a log record for the applicable equipment or record the entry in an existing log using the applicable procedures shown below.

### NOTE

Log record book entries will be made with a suitable blue or black marking device that cannot be erased.

- (2) Parachute Log Record. Using the information provided in the parachute canopy data block, make the following entries on the inside front cover of the log record (A, Figure 2-1). Entries may be continued on the inside of the back cover (B, Figure 2-1), if necessary.

SERIAL NO	DA65-3110
TYPE	TROOP-BACK, T-10
PART NO	49,77141-2
DATE OF MFG. (Month & Year)	JAN 67
MANUFACTURER	MILLS
CANOPY CONTRACT NO.	DA-23-204-AMC-03608(T)
STATION & UNIT	504 QM CO
	FT. CAMPBELL, KY

A. Inside Front Cover

STATION & UNIT (continued)
600 <sup>th</sup> QM CO
FT. Bragg, NC

B. Inside Back Cover

Figure 2-1. Typical Parachute Log Record Entries for the Inside Front and Back Covers.

- (a) Enter the equipment serial number.

**NOTE**

An equipment serial number is recorded as a method of establishing control for the maintenance of EIR (Equipment Improvement Report) and QDR (Quality Deficiency Report) documentation, and to ensure the correct original record is reattached should the record become detached. A serial number will not be used for property accountability, except in test projects or other special instances.

- (b) Enter the equipment type.
  - (c) Enter the part number of the equipment
  - (d) Enter the month and year the equipment was manufactured
  - (e) Enter the name of the equipment manufacturer.
  - (f) Enter the entire contract number specified for the equipment.
  - (g) Enter the name of the station and unit to which the equipment is currently assigned. When it is permanently transferred to another station and/or unit, the original entry will be lined out and the name of the receiving station and/or unit will be entered.
  - (h) At the top of the notes page located in the back of the book enter: "Placed In service: (enter the month and year that the item was placed into service)"
- (3) Jump, Inspection, and Repack Data Page. Beginning with the initial packing of a parachute and each time a parachute is repacked or administered a routine inspection, make the appropriate entries on the "JUMP, INSPECTION, AND REPACK DATA" page of the log records (Figure 2-2) as shown below:

JUMP INSPECTION						AND REPACK DATA				
DATE			BAG NUMBER		JUMPED OR DROPPED	REPACK	PACKER'S NAME	INSPECTOR'S NAME	UNIT	
DAY	MO	YR								
1 →	11	4	92	41126		0	IN	Todd	Murray	TCAM 20M
2 →	17	11	92		✓	0			Leiberman	1 <sup>st</sup> TC

1. Entry for initial packing of a parachute.
2. Entry of emergency-type personnel parachute routine inspection.

Figure 2-2 . Typical Record Entries for the Jump, Inspection, and Repack Data Page .

- (a) Enter the date (day, month, and year) of each inspection and packing action applied to the parachute. These actions include the initial pack (1, Figure 2-2), after-use repack, 120-day inspection and repack and routine inspection (2, Figure 2-2), as applicable.
  - (b) No entry for jumped or airdropped equipment.
  - (c) For initial packing, enter the "in", thereafter, enter a checkmark in the column each time the parachute is repacked
  - (d) Enter the packer's name performing the initial pack repack or routine inspection, as applicable. The packer will sign this entry.
  - (e) The inspector who has performed the pack-in process inspection or routine inspection will sign the entry
  - (f) Enter the unit.
- (4) Modification Work Order Compliance Record Page. Beginning with the initial packing of a parachute and each time a parachute is repacked or administered a routine inspection, make the appropriate entries on the "Modification Work Order Compliance Record" page of the log records (Figure 2-3) as shown below:



MODIFICATION WORK ORDER		COMPLIANCE RECORD						
		MODIFIED BY (Name)	INSP. BY	UNIT	DATE			
					DAY	MO.	YR	
1 →	10-1670-213-24 8 AUG 91	ENLARGE ORIFICE	Evans	Brook	1020th	24	1	92
2 →	10-1670-213-24 8 AUG 91	ENLARGE ORIFICE	C/W	Witte	111 <sup>th</sup> Co.	28	11	92

- 1. Modification work order compliance completed.
- 2. Modification completed by unknown due to lost original log record.

Figure 2-3. Typical Log Record Entries for the Modification Work Order Compliance Page.

- (a) Enter the publication number and date of the Modification Work Order (MWO) that prescribes the work (1, Figure 2-3).
  - (b) Enter a short, abbreviated title extracted from the MWO prescribing the work
  - (c) Enter the last name of the individual who has performed the modification. If the original log record for the parachute has been lost and it is obvious that a particular modification was made, enter a "C/W" (2, Figure 2-3 ) in this column, which signifies that the applicable MWO has been complied with.
  - (d) The Individual who inspected the modified equipment signs this entry with the last name only.
  - (e) Enter the unit responsible for performing the MWO. If the log record has been lost, enter the unit to which the inspector is assigned.
  - (f) Enter the date (day, month, and year) that the work was completed.
- (5) Organizational Field And Depot Repair And Inspection Data Page. When a parachute canopy assembly is initially received from a supply source and a technical/rigger-type inspection is performed, document the inspection on the "ORGANIZATIONAL, FIELD, DEPOT REPAIR, AND INSPECTION DATA" page of the individual parachute log record (1, Figure 2-4). Also, document on this page every time the assembly is repaired (2, Figure 2-4) or is administered an inspection due to a one-time Technical Bulletin (TB) (3, Figure 2-4). Enter the data in the following manner:

ORGANIZATIONAL, FIELD, & DEPOT	REPAIR & INSPECTION DATA				
TYPE OF REPAIR	INSP. BY	UNIT	DATE		
			DAY	MO	YR
1 → INITIAL INSPECTION	Evans	1020 <sup>th</sup> Co	24	1	92
2 → 3 FIXED KEEPERS REPLACED	Rusk	111 <sup>th</sup> Co	28	11	92
3 → TB 10-1670-213-2015	Butard	111 <sup>th</sup> Co	16	2	93

1. Initial Inspection completed.
2. Repair accomplishment.
3. Technical bulletin inspection compliance.

Figure 2-4. Typical Log Record Entries for the Organizational, Field, and Depot Repair and Inspection Data Page.

- (a) As applicable, enter the term "INITIAL INSPECTION", the type of repair, or the number of the TB that prescribes an one-time Inspection.
- (b) The individual who performed the initial inspection, Inspection after repair, or one-time inspection, as applicable, signs this entry with the last name only.
- (c) Enter the designation of the unit that performed an inspection on the repair.
- (d) Enter the date (day, month, and year) that the applicable-type Inspection was completed.
- (6) A "NOTE" page is provided at the back of a parachute log record to accommodate recording of additional data pertinent to the serviceability of a parachute canopy assembly (Figure 2-5).

NOTES
<p>RISER MFG DATE JAN 84  IMMERSED IN SALTWATER 3/5/84  RINSED 3/6/84</p>

Figure 2-5. Typical Parachute Log Record Entries for the Note Page.

a. Malfunctioning Equipment. Dispose of any airdrop equipment that shows any evidence of malfunction or defect during or after a drop-test. If it has been used, is unserviceable, but has not exceeded normal fair wear or aging criteria, tag the equipment as prescribed in DA PAM 738-751. Report the equipment on an Equipment Improvement Report (EIR) in accordance with DA PAM 738-751 and AR 750-1. Hold the equipment as an EIR exhibit as outlined in DA PAM 738-750, pending receipt of disposition instructions from the National Maintenance Point (NMP). Do not tamper with the applicable Item or make any attempt to discover the cause of the malfunction. Unnecessary handling of EIR equipment may hamper the judgment of the engineering personnel responsible for the final evaluation of EIR actions.

b. Non-Malfunctioning Equipment. Administer a technical/rigger-type inspection to equipment that does not show evidence of malfunction or defect, as outlined in paragraph 2.10. If serviceable, the item(s) may then remain in use.

### **2.13 FABRIC AND WEBBING ACIDITY TEST.**

Airdrop items or associated components and parts that are constructed from fabric or webbing will be administered an acidity test whenever the material is discolored, stained, or the presence of acid is suspected. Use a Tridicator universal three-color pH paper (P/N 1-11, CAGEC 52419) that is offered in a pocket-size roll dispenser. This accommodates a 20-foot (6-m) long roll of paper and provides a pH color chart on one side for color shade comparison.

a. Using a medicine dropper or equivalent, place one or two drops of water on the item in the intended test area. If the water drops do not penetrate the material, gently rub the moistened area with a flat side of a clean metal packing paddle.

b. Tear a suitably sized piece of Tridicator pH paper from the roll dispenser. Place the piece of pH paper on the wetted area and press the full surface of the paper against the material with a flat side of the packing paddle used in paragraph a., above. Ensure the pH paper becomes thoroughly wet.

c. Using the color chart on the side of the roll dispenser, compare the color of the moistened paper with the pH 1-3 color scale. If the color of the paper changes to orange or red, acid is present in the material. If the material is acidic, the material will be condemned and processed for disposition following the procedures in paragraph 2.14, below.

d. After a packing paddle has been used as outlined in paragraphs a. and b., above, thoroughly rinse and dry the paddle.

## 2.14 EQUIPMENT DISPOSITION.

Airdrop equipment may be rendered unserviceable by either normal fair wear or by aging and will be repaired, modified, or condemned as appropriate. Condemn any equipment that is uneconomically repairable (outdated). Use the following procedures to dispose of LVADS Ancillary Equipment that is condemned, unserviceable, or for which the serviceability is questionable.

a. Item Requiring Repair or Modification. Tag a LVADS Ancillary Equipment item that requires repair or modification in accordance with DA PAM 738-751. Perform further work on the item at the maintenance level specified for the maintenance function in the applicable supporting technical publication.

b. Air Delivery Equipment with Exhausted Age or Service Life. If a LVADS Ancillary Equipment item's service life has expired as specified in TB 43-00024, remove it from service, condemn it, and tag it as prescribed by TB 738-751.

c. Disposition of Faulty LVADS Ancillary Equipment. Equipment involved in a fatality will be retained until engineering studies and investigations have been completed. They will be removed from service and disposed of in accordance with current directives listed in Appendix A of this manual.

d. Rejected Equipment. Report equipment that, prior to use, is deemed unserviceable for use in an Equipment Improvement Recommendation (EIR) in accordance with TM 38-750, as authorized by AR 750-1. Each defective item will be held and safeguarded pending receipt of disposition instructions from the National Maintenance Point (NMP). Always handle EIR exhibit material as prescribed in TM 38-750. If the quality or the serviceability of an item is questionable, clarification and assistance may be obtained by contacting Commander, US Army Troop Support and Aviation Materiel Command, ATTN: DRSTS-MT, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798

e. Equipment of Doubtful Serviceability. Tag equipment that has had previous use and has not exceeded normal fair wear or aging criteria, but of which further serviceability is doubtful, as prescribed in TB 738-751. In addition, the equipment will also be reported in an Equipment Improvement Recommendation (EIR) in accordance with TM 38-750, as authorized by AR 750-1. These items will be held and safeguarded pending receipt of disposition instructions from the National Maintenance Point (NMP). Always handle EIR exhibit material as prescribed in TM 38-750. A maintenance activity holding EIR exhibit material will not tamper with the item(s) or make any attempt to find out cause factors. Unnecessary handling of the EIR exhibit material may disturb or alter peculiar aspects of the affected Item(s), possibly affecting the judgment of engineering personnel who have the responsibility for final evaluation of EIR actions

### CAUTION

When rinsing the equipment, do not attempt to wring the equipment fabric or lines.

f. Equipment Immersed in Salt Water. Any LVADS Ancillary Equipment constructed of cotton that has been immersed in salt water will be condemned. Cotton thread used for tacking will only be replaced when there is visible evidence of deterioration such as extreme discoloration or indications of broken threads. Any equipment constructed of nylon or rayon that has been immersed in salt water for more than 24 hours will be condemned. Also, a nylon or rayon airdrop item that has been immersed in salt water for less than 24 hours, but cannot be rinsed within 48 hours after recovery will also be condemned. However, if these time limits can be met, suspend or elevate the recovered equipment in a shaded area and allow the item to drain for at least 5 minutes. Do not attempt to wring the equipment fabric or lines. Within 48 hours after recovery, under the supervision of a qualified parachute rigger (43E), rinse the recovered equipment as follows:

(1) Place the equipment in a large water-tight container filled with a suitable amount of fresh, dean water to cover the item (s).

### NOTE

If salt water-soaked equipment is too large to be placed into a rinsing container, then use a hose to apply fresh, dean water to the item.

(2) Agitate the container contents by hand for 5 minutes.

- (3) Remove the item(s) from the container and suspend or elevate the equipment in a shaded area, allowing a 5-minute drainage period. Do not attempt to wring the equipment fabric or lines
- (4) Repeat the procedures in (1) through (3) above twice, using fresh, clean water for each rinse
- (5) After the third rinse, allow the equipment to drain thoroughly. After draining, dry the equipment according to the procedures in paragraph 2.8.
- (6) When dried, perform a technical/rigger-type inspection of the item(s). Corroded metal components, or corrosion-stained fabrics or lines, will be either repaired or replaced as prescribed on the Maintenance Allocation Chart (MAC) contained in Appendix B.
- (7) If applicable, record the immersion, rinsing, or any repairs in the individual parachute log record as outlined in paragraph 2.12.b.(2).

g. Equipment Immersed In Fresh Water. Any equipment that has been immersed in a fresh water lake, river, or stream will not require rinsing unless the water is dirty, oily, or otherwise contaminated. Procedures for handling a fresh water immersed item are as follows:

- (1) Contaminated Fresh Water. If LVADS Ancillary Equipment has been immersed in contaminated fresh water, rinse, dry, and, if applicable, repair the item(s) using the procedures in paragraph f, above.
- (2) Uncontaminated Fresh Water. If LVADS Ancillary Equipment has been immersed in uncontaminated fresh water, the item(s) will be cleaned and dried as outlined in paragraph 2.8. No attempt should be made to eliminate a minor discoloration as a slight discoloration is preferable to employing vigorous techniques that may damage the fabric. Remove small stains caused by petroleum products or blood using spot-cleaning procedures in paragraph 2.8.

## **SECTION VI. UNIT MAINTENANCE PROCEDURES**

### **2.15 GENERAL**

This section contains Instructions for performing unit level maintenance procedures on the LVADS Ancillary Equipment as authorized by the Maintenance Allocation Chart (MAC), Appendix B of this manual. Procedures include instructions for inspecting, servicing, repairing, and replacing assemblies and subassemblies. All maintenance procedures can be performed by one person unless otherwise stated in the initial setup.

### **2.16 PERSONNEL SAFETY.**

- a. Personnel must remove all items of jewelry (rings, bracelets, watches, necklaces, etc) and loose clothing before working on equipment. Jewelry and loose fitting clothing can get caught in moving equipment and result in injury to personnel.
- b. Test the equipment after performing maintenance to ensure repairs have been performed correctly and equipment can be returned to service.
- c. Read and understand all WARNINGS, CAUTIONS, NOTES, and instructions carefully before attempting a procedure. Read and observe all WARNINGS at the front of this manual.

### **2.17 PROPER EQUIPMENT.**

Obtain proper equipment before starting maintenance. This includes hand tools and/or special tools, receptacles for storing small parts, and expendable materials required by the maintenance task.

### **2.18 GENERAL REPAIR INSTRUCTIONS.**

Only those repairs prescribed in the Maintenance Allocation Chart (MAC) (Appendix B) are authorized. Repair cost limitations to preclude uneconomical repair of LVADS Ancillary Equipment will conform with the requirements of

TB 43-0002-43. Specific repair procedures for individual items are located in paragraphs 2.22 through 2.50 of this chapter.

**2.19 MARKING AND RESTENCILING.**

Remark original stenciled data or markings that become faded, illegible, obliterated, or are removed during a repair procedure with a ball point pen or felt tip marker, or restencil. Place the markings as close to the original location as possible and should conform to the original lettering type and size. Airdrop items that are fabricated, altered, or modified by directive publications may require the placement of other markings by the original marking or stenciling. Use a contrasting color of parachute marking ink

**NOTE**

Stenciling should be used whenever possible A ball point pen or felt tip marker should be used only where stenciling is not possible. Use only felt tip markers that contain parachute marking ink and marked "FOR PARACHUTE MARKING". Any type of ball point, either black or blue, ink may be used for marking labels.

**2.20 REPAINTING.**

Repaint any warning mark on airdrop equipment that is chipped or worn with red enamel paint using a proper size paintbrush. Repaint with original color enamel any mark previously painted on an airdrop item to signify satisfactory completion of a test, providing the item is still serviceable. Metal items may be repainted with olive drab paint.

**2.21 SEWING.**

Table 2-2 contains sewing machine code symbols. Before restitching, remove all loose or broken stitches. Stitching specifications for each item are given in the specific repair instruction. Thread color should match the color of the original stitching, if possible. Unless otherwise stated, all straight stitching should be locked by back-stitching at least 1/2 inch, (1.7 cm). Zigzag stitching does not require locking, however, zigzag restitching should extend at least 1/4 inch (0.6 cm) into undamaged stitching at each end, if possible. Restitching should be made over original stitching, following the original stitching pattern as possible. Trim thread ends of the stitching as close as possible to the material.

**Table 2-2. Sewing Machine Code Symbols**

Code Symbol	Sewing Machine
LD	SEWING MACHINE, INDUSTRIAL: General sewing; 301 stitch; light duty; NSN 3530-01-177-8590.
MD ZZ	SEWING MACHINE, INDUSTRIAL: Zig-zag; 308 stitch; medium duty, NSN 3520-01-181-1421.
LD ZZ	SEWING MACHINE, INDUSTRIAL Zig-zag; 308 stitch, light duty; NSN 3530-01-181-1420.
HD	SEWING MACHINE, INDUSTRIAL: General sewing, 301 stitch; heavy duty, NSN 3530-01-177-8588.
MD	SEWING MACHINE, INDUSTRIAL: General sewing; 301 stitch; medium duty, NSN 3530-01-177-8591.
DN	SEWING MACHINE, INDUSTRIAL: Darning; lockstitch; NSN 3530-01-177-8589.
LHD	SEWING MACHINE, INDUSTRIAL: 301 stitch; light heavy duty; NSN 3530-01-186-3079
ND	SEWING MACHINE, INDUSTRIAL 301 stitch; double-needle; NSN 3530-01-182-2873.

---

**2.22 LINE, MULTI-LOOP.**

---

This task covers:

a. Inspection

b. Repair

c. Replacement

---

**INITIAL SETUP:****Tools**

Knife, Pocket (Item 18, Appendix B)  
Shear, Trimmer (item 19, Appendix B)

**Material/Parts Required**

Line, Multi-Loop (Item 1, Figure C-1, Appendix C)  
Thread, nylon, size FF, OD (Item 2, Figure C-26, Appendix C)  
Thread, Nylon, Size 6, OD (Item 5, Figure C-26, Appendix C)  
Webbing, Cotton, Type VII, (Item 8, Figure C-26, Appendix C)  
Wax, Paraffin, Technical, Type I, Grade A (Item 7, Figure C-26, Appendix C)  
Beeswax  
Tape, Pressure Sensitive, Type IV (Item 12, App F)

**References**

Technical Rigger Inspection (paragraph 2.10)

**Equipment Condition**

Fully Assembled

---

**INSPECTION**

PERFORM A TECHNICAL/RIGGER TYPE INSPECTION OF THE MULTI-LOOP LINE INCLUDING BUFFER, SLIDING KEEPER, AND FIXED KEEPERS IN ACCORDANCE WITH PARAGRAPH 2.10

**REPAIR**

REPAIR SLIDING OR FIXED KEEPERS AS DESCRIBED BELOW.

1. Sliding Keeper.

- a. Cut the stitching (1, Figure 2-6) securing the buffer (2) to inside loop (3) and remove buffer (2).
- b. Slide the defective keeper off the multi-loop line.

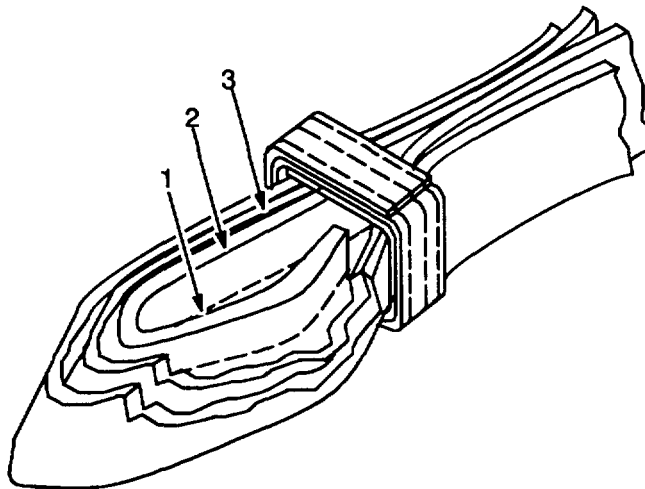


Figure 2-6. Buffer Position.

- c. Cut a length of Type VII cotton webbing long enough to form two turns around the sling and allow for a 1 5/8-inch (4.1-cm) overlap (Figure 2-7).
- d. Stitch 1/8-inch (3 millimeter) from each edge of keeper material around each end of the keeper with size 6 thread, using a VHD sewing machine and 5 to 8 stitches per inch (2 to 3 stitches per cm).
- e. Wax the entire keeper and allow it to cool. Dip the keeper into a mixture of 50% paraffin wax and 50% beeswax. The wax temperature should be high enough to ensure that the wax completely penetrates the material rather than just coating the exterior fabric [180° ± 20°F (82° ± 11°C)].

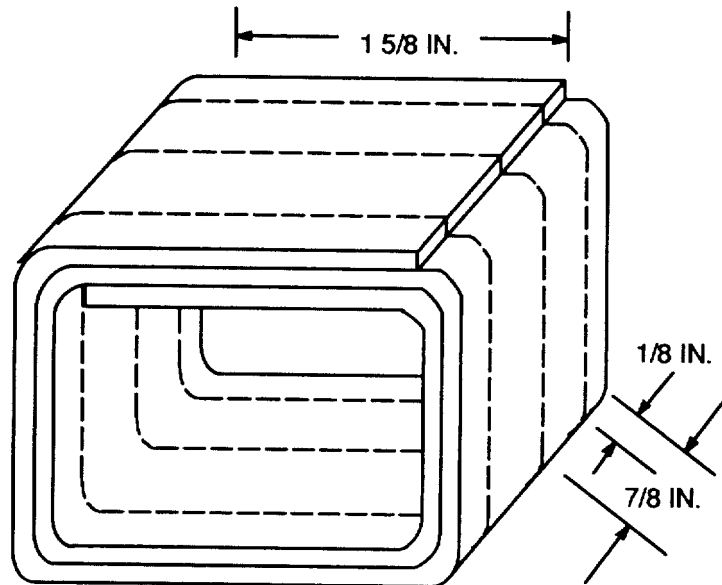


Figure 2-7. Sliding Keeper Repair.

- f. Slide the fabricated keeper onto the line.
- g. Fold buffer in half and insert into loop (3, Figure 2-6). Offset buffer ends by 1-inch (2.5-cm).
- h. Using VHD or HD sewing machine and 8 to 11 stitches per inch (3 to 4 stitches per cm), stitch buffer (2) to inside loop (3) with size FF thread (1) longitudinally along the center line. Stitch 1-inch (2 5-cm) beyond buffer with no back-stitch.

2. Fixed Keeper.

- a. Remove unserviceable fixed keeper by peeling off the tape (1, Figure 2-8), using care not to damage the webbing.

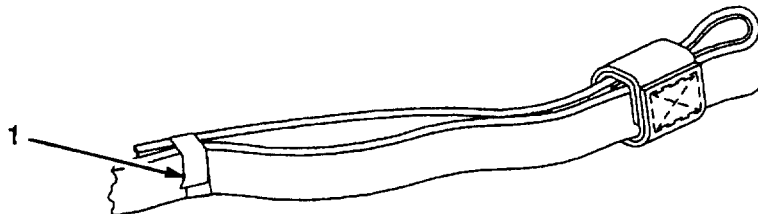


Figure 2-8. Fixed Keeper Removal.



- b. Starting on an outer ply, wrap the first tape strip (1, Figure 2-9) around this ply with the gum side against the webbing.
- c. Wrap tape (1) around the outside of all plies for two full turns with the gummed side away from the webbing.
- d. Cut the tape or, (optional method), fold it over gum-side to gum-side.
- e. Wrap tape (2) in the opposite direction two full turns with the gum side toward the previous wraps.
- f. Cut tape (2).

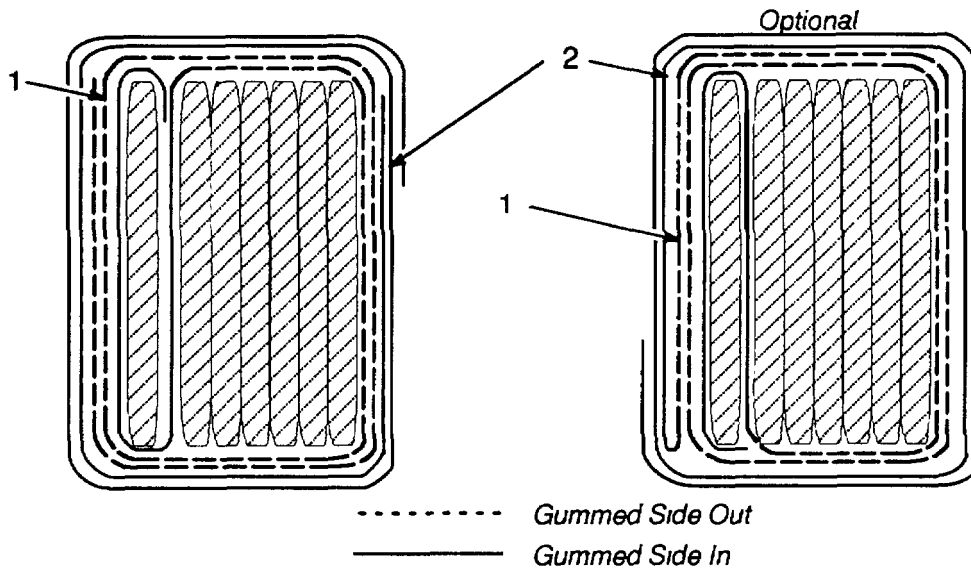


Figure 2-9. Adhesive Tape Wrapping Detail.

**REPLACEMENT**

REPLACE UNSERVICEABLE MULTI-LOOP LINE WITH A SERVICEABLE ONE FROM STOCK.

**2.23 COUPLING, EXTRACTION FORCE TRANSFER.**

This task covers:

a. Inspection

b. Repair

c. Replacement

**INITIAL SETUP:**

**Tools**

None

**Material/Parts Required**

Coupling, Extraction Force Transfer (Items 1 through 5, Figure C-2, Appendix C)  
 Brush, Scrub Household (Item 2, Appendix F)  
 Rag, Wiping (Item 9, Appendix F)  
 Pen, Ballpoint (Item 8, Appendix F)

**References**

PMCS (Table 2-1)

**Equipment Condition**

Fully Assembled

**INSPECTION**

INSPECT THE COMPONENTS OF THE COUPLING EXTRACTION FORCE TRANSFER

1. Use the procedures in Table 2-1, in accordance with paragraph 2.10.
2. Periodically check if the four adjusting collar setscrews are tight.

**REPAIR**

1. REPAIR ACTUATOR (1, FIGURE 2-10) AND CABLE (2) ASSEMBLIES

- a. Remove the locking pin (3) securing the housing cover to the actuator assembly and hinge the cover open.

**CAUTION**

The stake assembly adjusting collar is preset and staked by four set-screws. The collar position shall not be altered at any time or under any condition.

- b. Using a suitable tool, loosen the locking nut (4) securing the cable assembly (2) housing to the actuator assembly (1). Insure the adjusting collar on the cable assembly is not disturbed during the cable removal process.
- c. Remove the cotter pin and straight pin (5) securing the cable end clevis to the cable actuator and remove the cable assembly from the actuator assembly.
- d. Disconnect the cable swaging terminal (6) from the latch assembly (7) by removing the straight headed pin and the 1/2-inch (1.2-cm) long cotter pin.

2. REPAIR LINK ASSEMBLY (8).

Disassemble the link by removing the three 1-inch hexagon jam nuts, the three 1-inch hexagon cap screws, the two spacers, and the single cam from the two assembly side plates.

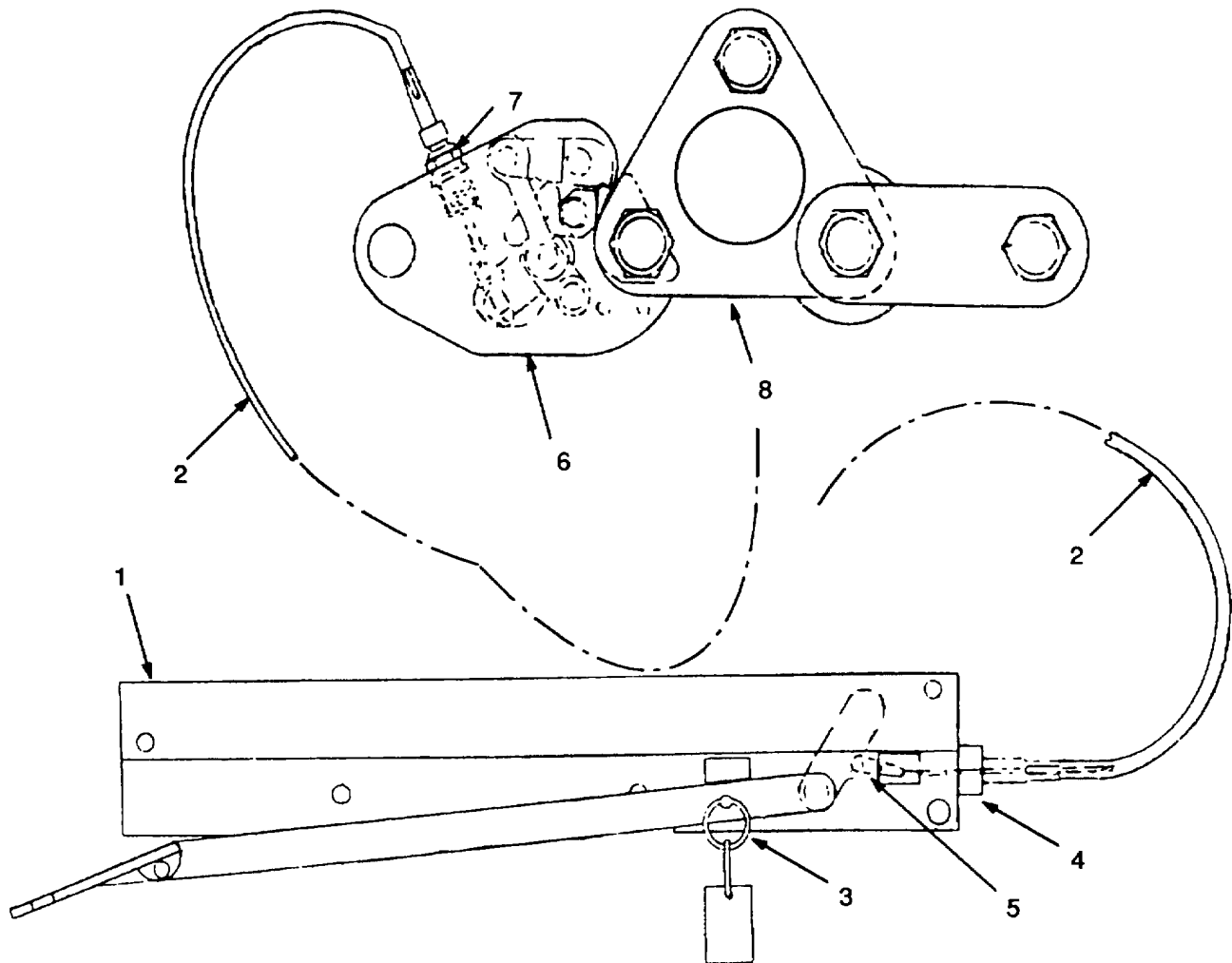


Figure 2-10. Coupling, Extraction Force Transfer Repair.

3. CLEAN EACH COMPONENT.

Use the procedures in paragraph 2.8. In addition, remove dirt and other foreign matter from a component by shaking or brushing, as required. If necessary, remove dirt and debris from inaccessible locations using a compressed air hose.

4. REPAIR EACH COMPONENT AS DESCRIBED IN PARAGRAPHS 2.24 THROUGH 2.28, BELOW.

5. REASSEMBLE LINK ASSEMBLY.

Reassemble the link assembly by connecting the three 1-inch hexagon jam nuts, the three 1-inch hexagon cap screws, the two spacers, and the single cam from the two assembly side plates

6. REASSEMBLE ACTUATOR AND CABLE ASSEMBLIES.

- a. Connect the cable swaging terminal to the latch assembly by installing the straight headed pin and the 1/2-inch (1.2-cm) long cotter pin
- b. To join the cable assembly to the actuator assembly, install the cotter pin and straight pin securing the cable end clevis to the cable actuator.

**CAUTION**

The stake assembly adjusting collar is preset and staked by four set-screws. The collar position will not be altered at any time or under any condition.

- c. Using a suitable tool, tighten the locking nut securing the cable assembly housing to the actuator assembly. Ensure that the adjusting collar on the cable assembly is not disturbed during the cable removal process.
- d. Install the locking pin securing the housing cover to the actuator assembly and shut the cover.

**REPLACEMENT**

1. REPLACE DAMAGED OR MISSING EXTRACTION FORCE TRANSFER COUPLING PARTS ONLY AS AUTHORIZED BY APPENDIX C.
2. REPLACE AN UNSERVICEABLE EXTRACTION FORCE TRANSFER COUPLING WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.24 COUPLING, EXTRACTION FORCE TRANSFER ADAPTER, LINK ASSEMBLY.**

---

This task covers:

- a. Inspection                      b. Replacement
- 

**INITIAL SETUP:**

**Tools**

Wrench, Open-End, 1 7/16 and 1 5/8 Inch  
 (Item 8, Appendix B)  
 Hex Key (Item 17, Appendix B)

**Material/Parts Required**

Coupling, Extraction Force Transfer Adapter, Link  
 Assembly (Item 1, Figure C-3, Appendix C)

**References**

RPSTL (Appendix C)

**Equipment Condition**

Removed from the Extraction Force Transfer  
 Assembly

---

**INSPECTION**

INSPECT THE LINK ASSEMBLY ADAPTER IN ACCORDANCE WITH PARAGRAPH 2.10, USING THE PROCEDURES IN TABLE 2-1.

**REPLACEMENT**

1. REPLACE DAMAGED OR MISSING LINK ASSEMBLY ADAPTER PARTS ONLY AS AUTHORIZED BY APPENDIX C.
2. REPLACE AN UNSERVICEABLE LINK ASSEMBLY ADAPTER WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.25 COUPLING EXTRACTION FORCE TRANSFER LINK ASSEMBLY, COUPLING.**

---

This task covers:

- a. Inspection                      b. Replacement
- 

**INITIAL SETUP:**

**Tools**

Wrench, Open-End, 1 7/16 and 1 5/8 Inch  
 (Item 8, Appendix B)  
 Hex Key (Item 17, Appendix B)

**Material/Parts Required**

Coupling, Extraction Force Transfer Link Assembly,  
 Coupling (Item 1, Figure C-4, Appendix C)

**References**

RPSTL (Appendix C)

**Equipment Condition**

Removed from the Extraction Force Transfer  
 Assembly.

---

**INSPECTION**

INSPECT THE LINK ASSEMBLY, COUPLING IN ACCORDANCE WITH PARAGRAPH 2.10, USING THE PROCEDURES IN TABLE 2-1.

**REPLACEMENT**

1. REPLACE DAMAGED OR MISSING LINK ASSEMBLY, COUPLING PARTS ONLY AS AUTHORIZED BY APPENDIX C.
2. REPLACE AN UNSERVICEABLE LINK ASSEMBLY, COUPLING WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.26 COUPLING EXTRACTION FORCE TRANSFER LATCH ASSEMBLY, COUPLING.**

---

**This task covers:**

**a. Inspection**

**b. Replacement**

---

**INITIAL SETUP:**

**Tools**

Screwdriver, Cross-Tip, No.1 (Item 15, Appendix B)  
 Wrench, Open-End, 1 1/16 and 1 1/8 Inch (Item 3, Appendix B)  
 Wrench, Open-End, 7/16 and 1/2 Inch (Item 9, Appendix B)

**Material/Parts Required**

Coupling, Extraction Force Transfer Latch Assembly, Coupling (Item 1, Figure C-5, Appendix C)

**References**

RPSTL (Appendix C)

**Equipment Condition**

Removed from the Extraction Force Transfer Assembly.

---

**INSPECTION**

INSPECT THE LATCH ASSEMBLY, COUPLING IN ACCORDANCE WITH PARAGRAPH 2.10, USING THE PROCEDURES IN TABLE 2-1.

**REPLACEMENT**

**NOTE**

An unserviceable latch assembly, coupling will not be repaired Replace damaged or missing latch assembly only as authorized by Appendix C

1. REPLACE DAMAGED OR MISSING LATCH ASSEMBLY, COUPLING PARTS ONLY AS AUTHORIZED BY APPENDIX C.
2. REPLACE AN UNSERVICEABLE LATCH ASSEMBLY, COUPLING WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.27 COUPLING, EXTRACTION FORCE TRANSFER CABLE ASSEMBLY.**

---

This task covers:

- a. Inspection                      b. Replacement
- 

**INITIAL SETUP:**

**Tools**

None

**Material/Parts Required**

Coupling, Extraction Force Transfer Cable Assembly,  
Coupling (Item 1, Figure C-6, Appendix C)

**References**

RPSTL (Appendix C)

**Equipment Condition**

Removed from the Extraction Force Transfer  
Assembly

---

**INSPECTION**

INSPECT THE LINK ASSEMBLY, COUPLING IN ACCORDANCE WITH PARAGRAPH 2.10, USING THE PROCEDURES IN TABLE 2-1.

**REPLACEMENT**

1. REPLACE AN UNSERVICEABLE OR MISSING STRAIGHT-HEADED PIN OR 1/2-INCH LONG COTTER PIN ON EITHER END OF THE CABLE WITH A SERVICEABLE ITEM FROM STOCK.
2. REPLACE AN UNSERVICEABLE 12-, 16-, 20-, 24-, 28-FOOT (3.7-, 4.9-, 6.1-, 7.3-, 8.5-METER) LONG CABLE ASSEMBLY WITH A SERVICEABLE ITEM.



---

**2.28 COUPLING, EXTRACTION FORCE TRANSFER ACTUATOR ASSEMBLY.**

---

This task covers:

a. Inspection

b. Replacement

---

**INITIAL SETUP:**

**Tools**

None

**Material/Parts Required**

Coupling, Extraction Force Transfer Actuator Assembly,(Item 1, Figure C-7, Appendix C)

**References**

RPSTL (Appendix C)

**Equipment Condition**

Removed from the Extraction Force Transfer Assembly.

---

**INSPECTION**

INSPECT THE ACTUATOR ASSEMBLY IN ACCORDANCE WITH PARAGRAPH 2.10, USING THE PROCEDURES IN TABLE 2-1.

**REPLACEMENT**

1. REPLACE DAMAGED OR MISSING ACTUATOR ASSEMBLY PARTS ONLY AS AUTHORIZED BY APPENDIX C
2. REPLACE AN UNSERVICEABLE ACTUATOR ASSEMBLY WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.29 RELEASE, CARGO PARACHUTE, M-1.**

---

This task covers:

- a. Inspection**
**b. Repair**
**c. Replacement**
- 

**INITIAL SETUP:**

**Tools**

Wrench, Open-End, 13/16 and 7/8 Inch (Item 13, Appendix B)  
 Screwdriver, Rat-Tip, 3/16 (Item 16, Appendix B)  
 Screwdriver, Cross-Tip, No.2 (Item 14, Appendix B)  
 Wrench, Open-End, 5/8 and 9/16 Inch (Item 11, Appendix B)  
 Wrench, Open-End, 1 1/4 and 1 5/16-Inch (Item 7, Appendix B)  
 Wrench, Open-End, 1 1/2 and 1 3/4-Inch (Item 5, Appendix B)  
 Knife, Pocket (Item 18, Appendix B)  
 Shear, Trimmer (Item 19, Appendix B)

**Material/Parts Required**

Release, Cargo Parachute, M-1 (Item 1, Figure C-8, Appendix C)  
 Brush, Scrub Household (Item 2, Appendix F)  
 Rag, Wiping (Item 9, Appendix F)  
 Pen, Ballpoint (Item 8, Appendix F)  
 Webbing, Cotton, Type I, 1/4inch wide  
 Wire  
 10-ounce (283gram) weight  
 Thread, Nylon, Size FF (Item 2, Figure C-26, Appendix C)  
 Webbing, Cotton Type VII (Item 18, Figure C-26, Appendix C)  
 Marker, Felt-Tip, Black (Item 7, Appendix F)

**References**

Technical/Rigger Inspection Procedures (paragraph 2.10)  
 RPSTL (Appendix C)

**Equipment Condition**

Removed from the parachute linkage.

---

**INSPECTION**

1. INSPECT THE M-1 PARACHUTE RELEASE IN ACCORDANCE WITH PARAGRAPH 2.10, USING THE PROCEDURES IN TABLE 2-1.

**NOTE**

A delay release timer will be tested prior to every use. Testing of a timer will only be conducted with the timer installed and armed within an assembled serviceable parachute release.

2. INSPECT TIMING.
  - a. Cut a suitable length of Type I, 1/4-inch (6-millimeter) wide cotton webbing for use in fabricating an improvised sling.
  - b. Using a length of suitable wire as an aid, pass one end of the webbing length up between the release side plates, over and around the center of the timer, and back down between the side plates to a point below the release body.
  - c. Attach and suspend a 1 0-ounce (280gram) weight to the sling webbing at a point below the release body. This adds resistance to the timer mechanism keys.
  - d. Suspend the release in a vertical position and activate the timer mechanism by pulling the arming wire from the guide block located on the release face side plate.
  - e. Check the time it takes for the release assembly to drop.

- f. When using a 15-second timer, the timer should drop inside the release within a minimum of 12-seconds and a maximum of 16-seconds. If the timer fails to meet the requirements, it is considered defective and should be replaced with a serviceable timer and stem assembly from stock

**NOTE**

If the timer assembly fails to drop in the required time, remove the face plate and check the four screws securing the arming wire guide block to the face plate for burred heads. If the heads are burred, remove it by filing or replacing with new screws.

- g. Remove the fabricated sling and the 10-ounce (283-gram) weight from the release.

**REPAIR**

**1. DISASSEMBLE THE RELEASE**

- a. Place the release (Figure 2-11) on a table or other suitable flat surface with the side plate containing the arming wire guide block (1) facing up.
- b. If the arming wire (2) is installed, pull the wire clear of the guide block and allow the delay release timer to run down.
- c. Remove the five nuts (3) securing the side plate to the release and lift the face side plate from the release.
- d. Remove the exposed toggle (4), toggle lockslide (5), and the delay release timer (6) from the release timer.
- e. Remove the toggle shaft (7) and the upper suspension link (8) with the retaining clamp (9) from the release.
- f. Remove the retaining damp (9) with the retaining damp pin (10) from within the upper suspension link by sliding the damp down and out through the opening in the link.
- g. Remove the remaining toggle (11) and toggle lockslide (12) from the release back side plate.
- h. Lift each of the two lower suspension links (13) from the points of mounting on the 5/8-inch bolts.
- i. Remove the three spacers, two 5/8-inch bolts, and three 3/8-inch bolts from the back side plate.
- j. Disassemble each of the lower suspension links (13) by removing the three 5/8-inch nuts, the three 5/8-inch bolts, the load suspension spacers, and the two load suspension links.
- k. As required, disassemble each parachute release connector (14) by removing the 9/16-inch nut, bolt, and sleeve spacer from the upper end of the connector.
- l. Inspect and repair the parachute connectors (14) and the timer delay assembly (6) as described in paragraphs 2.30 and 2.31, below.

**2. CLEAN COMPONENTS.**

Clean each component, except the arming wire, using procedures in paragraph 2.8. Clean the arming wire only by wiping it with a soft, dry cloth. If necessary, remove dirt and debris from inaccessible locations using a compressed air hose.

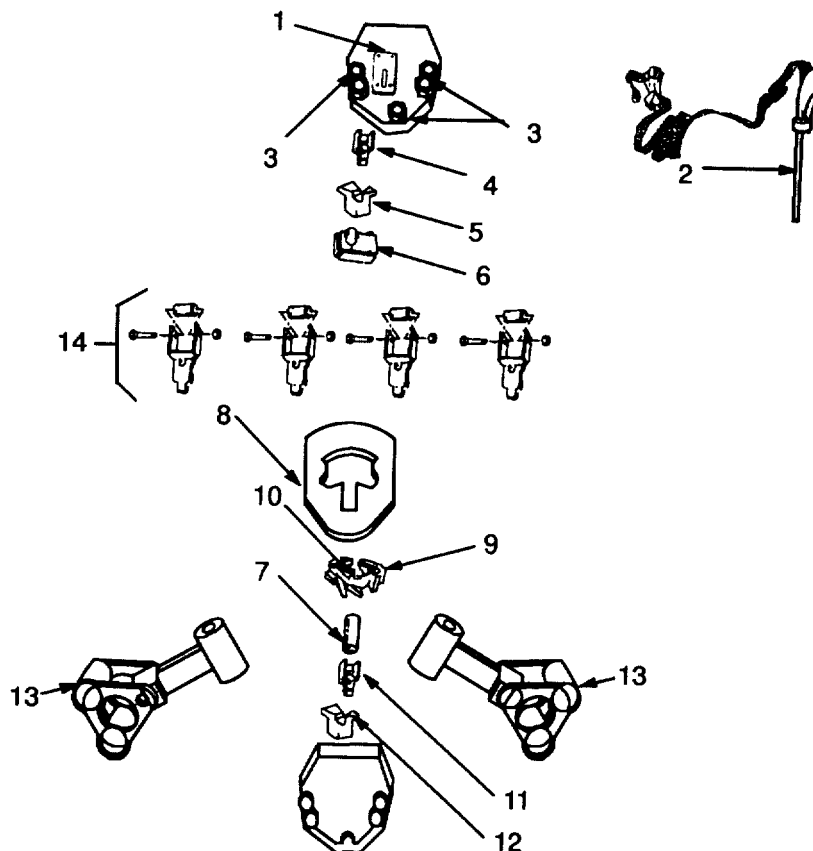


Figure 2-11. Release, Cargo Parachute, M-1 Repair .

### 3. REPAIR TOGGLE AND KEYS.

- a. Remove the four screws that hold the back cover of the delay assembly. Carefully remove cover and toggle and keys (Figure 2-12) from the housing.
- b. Thoroughly brush foreign material away from the toggle and keys and from the surfaces from which the toggle keys were removed. If the parts are rusty, corroded, or pitted, replace them with a serviceable one from stock

#### **CAUTION**

Do not use steel wool or a wire brush to clean, as these will damage the permanent dry film lubricant that was applied to the key-way surfaces when they were manufactured.

- c. Clean housing cover with brush
- d. Insert the short key onto the timer actuator pin, into its slot with its pin facing outward.
- e. Insert the longest key into its slot, also with its pin facing outward.
- f. Adjust the two installed keys so that their pins are aligned with the pin in the housing and install the toggle over all three pins.

- g. Check to see that the short key is properly located onto the timer's spring-loaded actuator pin (6) and that the toggle is located onto all three pins in line.
- h. Replace housing cover over keys with countersunk holes facing outward and rounded corners along outer edge of timer housing. Check for alignment of holes and install four screws carefully. Do not over-tighten screws.
- i. Turn timer stem 1/4 turn to right and check if keys extend from each side of housing. Release stem and allow the timer to run down, making sure that the keys retract at the end when the timer runs down.

**NOTE**

The Interlock pin must be down before the timer can be armed.

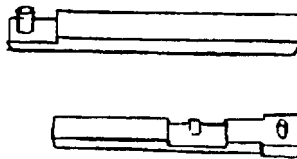


Figure 2-12. Timer Delay Assembly's Keys .

**4. REASSEMBLE RELEASE**

- a. If required, reassemble each parachute release connector.
- b. Reassemble each of the lower suspension links by connecting the three 5/8-inch nuts, the three 5/8-inch bolts, the load suspension spacers, and the two load suspension links.
- c. Place the three spacers, two 5/8-inch bolts, and three 3/8-inch bolts within the back side plate.
- d. Place each of the two lower suspension links on the points of mounting on the 5/8-inch bolts.
- e. Place the first toggle and toggle lockslide into the appropriate depression in the release back side plate.
- f. Replace the retaining clamp with the retaining damp pin within the upper suspension link by sliding the damp up and in through the opening in the link.
- g. Replace the toggle shaft and the upper suspension link with the retaining damp within the release.
- h. Replace the second toggle, toggle lockslide, and the delay release timer within the release timer.
- i. Place the face side plate onto the release. Install the five nuts securing the side plate to the release.
- j. If the arming wire needs to be installed, thread the wire through the appropriate hole. Ensure that the release works properly.

**REPLACEMENT**

1. REPLACE AN UNSERVICEABLE M-1 AIRDROP CARGO PARACHUTE RELEASE WITH A SERVICEABLE ITEM FROM STOCK
2. EXCEPT FOR THE ARMING WIRE LANYARD, ANY OTHER COMPONENT OF THE M-1 AIRDROP CARGO PARACHUTE RELEASE THAT IS MISSING OR UNSERVICEABLE WILL BE REPLACED ONLY AS AUTHORIZED IN APPENDIX C.

3. REPLACE AN UNSERVICEABLE ARMING WIRE LANYARD BY FABRICATION (FIGURE 2-13).

- a. Cut the unserviceable arming wire lanyard from the arming wire.
- b. Cut a 124 1/2-inch (316.2-cm) length and a 7 1/2-inch (19.05-cm) length of 1/2-inch wide (1.2-cm wide) tubular nylon webbing and sear the ends of both webbing lengths. This is done by pressing the material's raw end against a hot surface until the nylon has melted sufficiently. Avoid forming a sharp edge or lumped effect on the melted end.
- c. Mark the 124 1/2-inch (316.2-cm) length of webbing at points 3, 4 1/2, and 13-inches (7.6, 11.4, and 33.0-cm) from one end.
- d. Form the arming wire attaching loop (1) on the webbing length by folding the marked end of the webbing back at the 4 1/2-inch (11.4-cm) mark.
- e. Using a ZZ sewing machine stitching 7 to 11 stitches per inch (3 to 4 stitches per cm), secure the webbing fold-back. Beginning at the 3-inch (7.6-cm) mark, stitch a 2 15/16-inch (7.5-cm) long row of 1/4-inch (0.6-cm) wide double throw zigzag stitching toward the fold-back seared end according to the details in Figure 2-13. End the stitch row at a point 1/6 inch (.4 cm) back from the fold-back seared end.
- f. Mark the 7 1/2-inch (19.05-cm) webbing length at points 3 and 4-inches (7.6 and 10.2-cm) from one end.
- g. Form the safety tie loop (2) by doubling the webbing length at the 4-inch (10.2-cm) mark, allowing one end to overlap the opposite end by 1/2-inch (1.2-cm).
- h. Position the folded 7 1/2-inch (19.05-cm) webbing length on the 124 1/2-inch (316.2-cm) webbing length with the 3-inch long (7.6-cm long) end of the folded webbing face-down and the folded end aligned with the 13-inch (33.0-cm) mark made in Step c. above.
- i. Beginning at the 3-inch (7.6-cm) mark, secure the folded webbing length by stitching as outlined in Step e. above.
- j. Insert the arming wire attaching loop on one end of the lanyard through the loop located at the top of the arming wire.
- k. Pass the opposite end of the lanyard through the arming wire attaching loop and draw the lanyard length taut to form a tight attaching loop at the top of the arming wire.

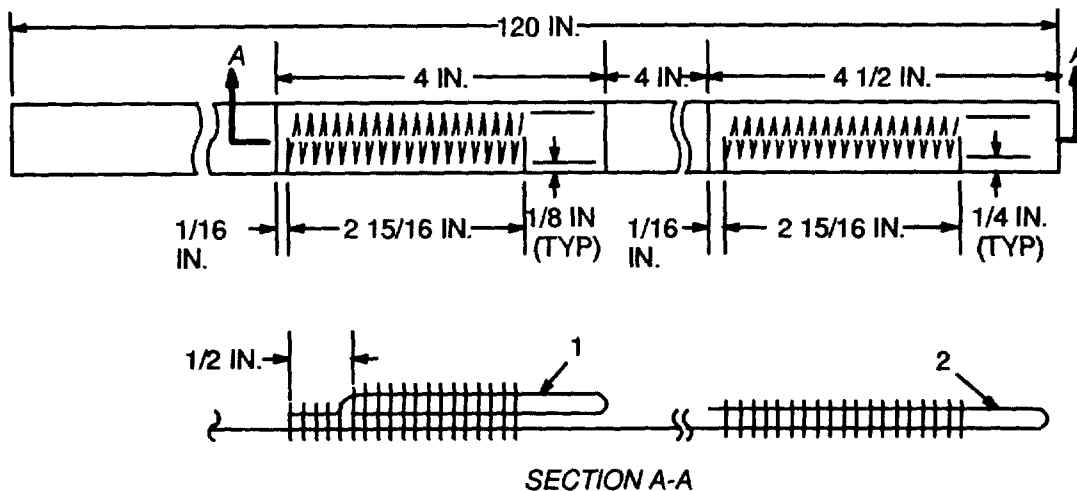


Figure 2-13. Typical Arming Wire Lanyard Construction Details.

**2.30 CONNECTOR, PARACHUTE.**

This task covers:

a. Inspection

b. Replacement

**INITIAL SETUP:**

**Tools**

File, Bastard, 10 inch (Item 1, Appendix B)  
 File, Bastard, 12 Inch (Item 2, Appendix B)

**Material/Parts Required**

Connector, Parachute (Item 4, Figure C-8, Appendix C)  
 Zinc chromate primer  
 Caliper

**References**

RPSTL (Appendix C)

**Equipment Condition**

Removed from the M-1 cargo release assembly.  
 Disassembled.

**INSPECTION**

1. INSPECT THE PARACHUTE CONNECTOR (FIGURE 2-14) IN ACCORDANCE WITH PARAGRAPH 2.10, USING THE PROCEDURES IN TABLE 2-1.
2. INSPECT THE ARM SPACING.
  - a. Ensure that the arms (1) engage into the retainer damp. If they do not, the thickness of the tips is too much.
  - b. The width of the tips of the arms should be between 29/32 and 31/32-inches (2.302 and 2.461-cm).
  - c. If the width is greater than 31/32-inches (2.461 -cm), measure each arm individually. If either arm is larger than 31/64-inches (1.230-cm), file the excess metal from the inside face of the arm to keep within allowable tolerances.
  - d. Place both arms together and check whether the total width is between 29/32 and 31/32-inches (2.302 and 2.461-cm). If they are not, repeat the procedure in paragraph c., above.

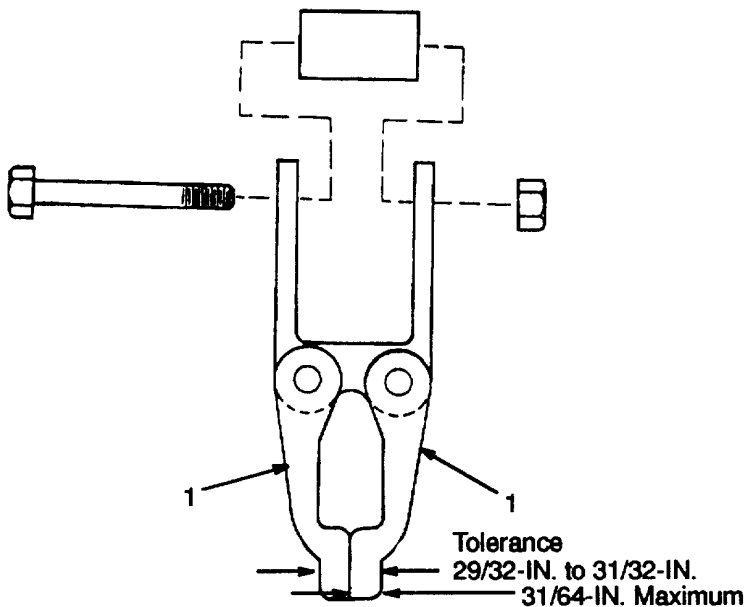


Figure 2-14. Connector, Parachute Repair.

- e. Apply a coat of zinc chromate primer to the exposed surfaces. Allow primer to dry for 24-hours before using connector.

**NOTE**

Do not touch exposed surfaces of metal with hands. Primer will not adhere to an oily surface.

**REPLACEMENT**

REPLACE AN UNSERVICEABLE PARACHUTE CONNECTOR WITH A SERVICEABLE ONE FROM STOCK.



**2.31 TIMER DELAY ASSEMBLY.**

This task covers:

a. Inspection

b. Repair

c. Replacement

**INITIAL SETUP:**

**Tools**

Screwdriver, Flat-Tip, 3/16 (Item 16, Appendix B)  
 Screwdriver, Cross-Tip, No. 1 (Item 15, Appendix B)

**Material/Parts Required**

Timer Delay Assembly (Item 12, Figure C-8, Appendix C)  
 Crocus Cloth (Item 4, Appendix F)

**References**

RPSTL (Appendix C)

**Equipment Condition**

Removed from the M-1 cargo parachute release assembly

**INSPECTION**

1. INSPECT THE TIMER DELAY ASSEMBLY IN ACCORDANCE WITH PARAGRAPH 2.10, USING THE PROCEDURES IN TABLE 2-1.
2. CHECK THE TIME DELAY
  - a. With a screwdriver, turn stem (1) 1/4-turn to the right as if arming in the release assembly and let the time run down.

**NOTE**

The Interlock pin must be down before timer can be armed.

- b. If the time sequence is delayed in any way, check if the stem is binding on the mounting block. If so, loosen three screws and slightly move timer and stem assembly to remove binding. When free, retighten screws and recheck as in paragraph a., above.
- c. Install mounting block with timer and stem assembly, making sure that the retraction pin goes into the hole in the key on the inside of the housing. (Ends of keys (2) must be retracted or even with the outside of the housing). To check the retraction pin, again arm timer and stem assembly by turning the stem 1/4 turn to the right and checking if the key extends from the housing on each end. Release the stem and allow the timer to run down, making sure that keys (2) retract when the timer runs down.

**REPAIR**

1. DISASSEMBLE TIMER DELAY ASSEMBLY.
  - a. Place timer delay on working area and remove the two screws holding mounting block to housing.

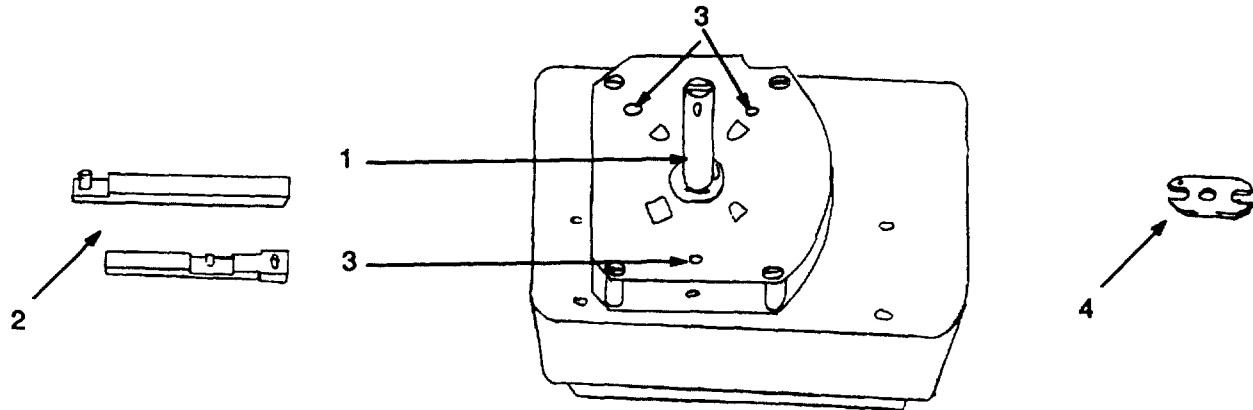


Figure 2-15. Timer Delay Assembly Repair.

- b. Lift mounting block with timer and stem assembly out of housing.
- c. Remove three screws (3) from outside holding timer assembly to mounting block.
- d. Lift damaged timing movement from timer block.

## 2. REASSEMBLE TIMER DELAY.

- a. Insert stem hole of new timer movement in mounting block. Rotate timer and stem assembly so three square sides are even with the top, end, and bottom sides of the mounting block.

### NOTE

If the actuator pin (4) will not fit into the slot of the short key, dean the tip of the actuator pin with crocus cloth.

- b. Insert mounting screws through three screw holes in mounting block into timer and stem.

### NOTE

The repair in paragraph c., below is an authorized expedient to enable continued use of the timer and stem assemblies in which the screw threads in the attachment plate have been damaged or stripped.

- c. Replace the mounting screws with screw NSN 5305-00-983-6730 and nut NSN 5310-00-811-6419. Place the new screws through the three screw holes in the mounting block through timer and stem attachment plate. Install nut on each screw and tighten until snug.
- d. Replace the two screws that hold the mounting block assembly to the housing. Reinspect timer and stem assembly.

## REPLACEMENT

1. REPLACE DAMAGED OR MISSING TIMING MOVEMENT PARTS ONLY AS AUTHORIZED BY APPENDIX C.
2. REPLACE AN UNSERVICEABLE TIMING MOVEMENT WITH A SERVICEABLE ITEM FROM STOCK.

**2.32 RELEASE, CARGO PARACHUTE, M-2.**

This task covers:

- |                      |                  |                       |
|----------------------|------------------|-----------------------|
| <b>a. Inspection</b> | <b>b. Repair</b> | <b>c. Replacement</b> |
|----------------------|------------------|-----------------------|

**INITIAL SETUP:**

**Tools**

Wrench, Open-End, 13/16 and 7/8-Inch (Item 13, Appendix B)  
 Wrench, Open-End, 15/16 and 1-Inch (Item 10, Appendix B)  
 Wire  
 Wrench, Open-End, 3/4 and 13/16-Inch (Item 12, Appendix B)

**Material/Parts Required**

Brush, Scrub Household (Item 2, Appendix F)  
 Rag, Wiping (Item 9, Appendix F)  
 Pen, Ballpoint (Item 8, Appendix F)  
 Webbing, cotton, Type I, 1/4 inch  
 Weight, 10 ounce (283 gram)

**References**

Technical/Rigger Inspection Procedures (paragraph 2.10)  
 RPSTL (Appendix C)  
 Release, Cargo Parachute, M-1 (paragraph 2.29)

**Equipment Condition**

Removed from the parachute linkage.

**INSPECTION**

1. INSPECT THE M-2 PARACHUTE RELEASE IN ACCORDANCE WITH PARAGRAPH 2.10, USING THE PROCEDURES IN TABLE 2-1.
2. INSPECT TIMING.

**NOTE**

A delay release timer will be tested prior to every use. Testing of a timer will only be conducted with the timer installed and armed within an assembled serviceable parachute release.

- a. Cut a suitable length of Type I, 1/4-inch (0.6-cm) wide cotton webbing for use in fabricating an improvised sling.
- b. Using a length of suitable wire as an aid, pass one end of the webbing length up between the M-2 release side plates, over and around the center of the timer, and back down between the side plates to a point below the release body.
- c. Attach and suspend a 10-ounce (280-gram) weight to the sling webbing at a point below the release body. This adds resistance to the timer mechanism keys.
- d. Suspend the release in a vertical position and activate the timer mechanism by pulling the arming wire from the guide block located on the release face side plate.
- e. Check the time it takes for the release assembly to drop
- f. When using a 15-second timer, the timer should drop inside the release within a minimum of 12-seconds and a maximum of 16-seconds. If the timer fails to meet the requirements, it is considered defective and should be replaced with a serviceable timer and stem assembly from stock.

**NOTE**

If the timer assembly fails to drop in the required time, remove the face plate and check the four screws securing the arming wire guide block to the face plate for burred heads. If the heads are burred, remove it by filing or replacing with new screws.

- g. Remove the fabricated sling and the 10-ounce (283gram) weight from the release.

**REPAIR****1. DISASSEMBLE THE RELEASE.**

- a. Place the release (Figure 2-16) on a table or other suitable flat surface with the front plate containing the arming wire guide block facing up.
- b. If the arming wire (1) is installed, pull the wire clear of the guide block and allow the delay release timer to run down.
- c. Remove the three nuts (2) securing the face plate (3) to the release and lift the face plate from the release.
- d. Remove the exposed toggle (4), toggle lockslide (5), and the timer mechanism (6) from the release body.
- e. Remove the toggle shaft (7) and the upper suspension link (8) from the release.
- f. Remove the retaining clamp (9) with the retaining damp pin (10) from within the upper suspension link (8) by sliding the damp down and out through the opening in the link.
- g. Remove the remaining toggle (11) and toggle lockslide (12) from the inside of the release back plate (13).
- h. Lift each of the two lower suspension links (14) from the two clevis bolts (15) on the release back plate. Remove the two clevis bolts (15) and the lower stud (16) from the back plate by removing the applicable nuts on the outside of the back plate.
- j. Further disassemble each of the lower suspension links (14) by removing the two 5/8-inch nuts, the two suspension link sleeves, the sling guides, the 9/16-inch clevis bolt nut, the clevis bolt, and the suspension link clevis.
- k. As required, disassemble each parachute release connector (17) by removing by 9/16-inch nut, bolt, and sleeve spacer from the upper end of the connector.

**CAUTION**

Do not apply lubricant of any type to the delay release timer.

**2. CLEAN COMPONENTS.**

Clean each component, except the arming wire, using procedures in paragraph 2.8. Clean the arming wire only by wiping it with a soft, dry cloth. If necessary, remove dirt and debris from inaccessible locations using a compressed air hose.

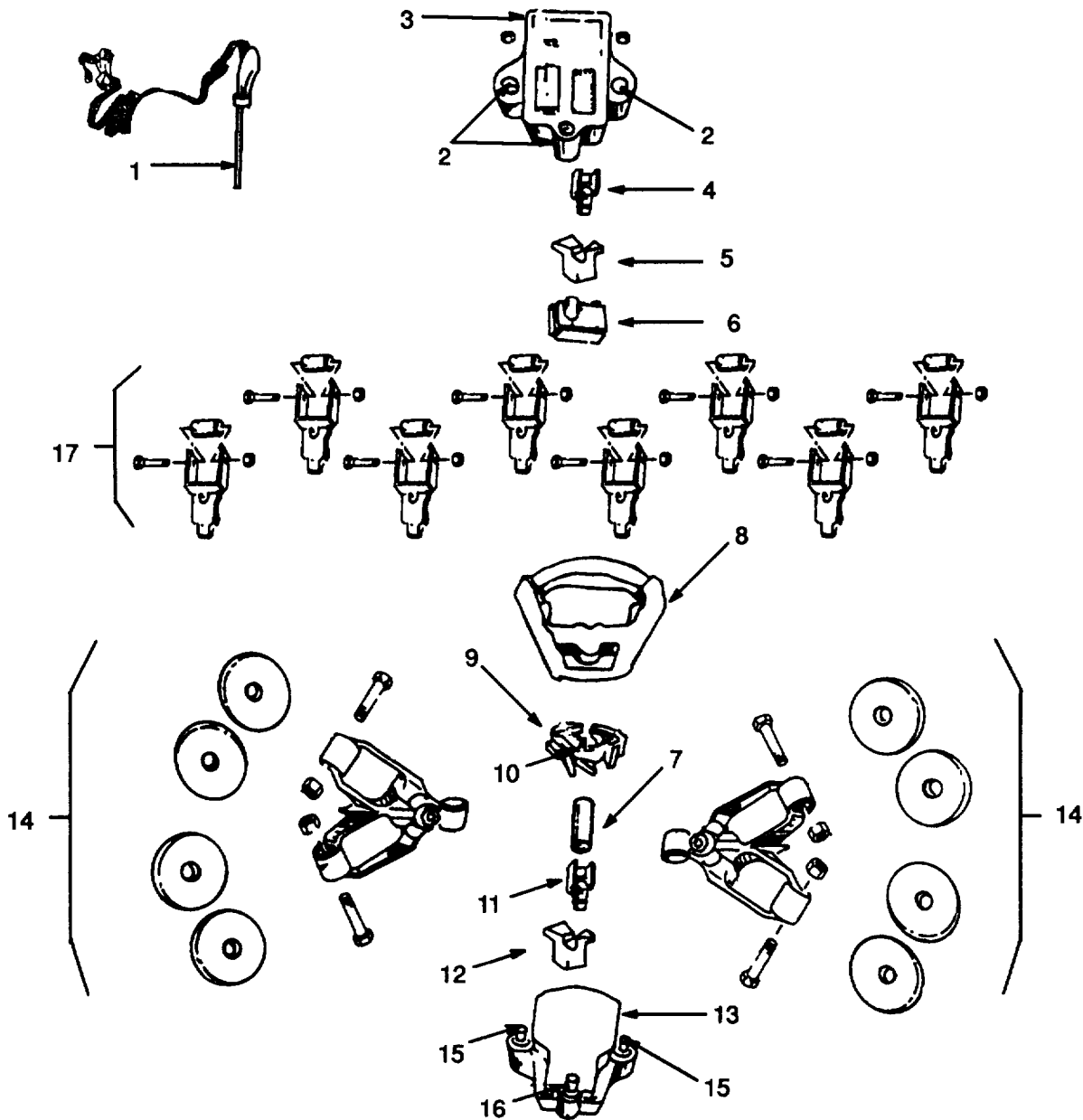


Figure 2-16. Release, Cargo Parachute, M-2 Repair.

3. REPAIR TOGGLE AND KEYS.

- a. Remove the four screws that hold the back cover of the delay assembly. Carefully remove cover and toggle and keys (Figure 2-12) from the housing.
- b. Thoroughly brush foreign material away from the toggle and keys and from the surfaces from which the toggle keys were removed. If the parts are rusty, corroded, or pitted, replace them with a serviceable one from stock.

**CAUTION**

Do not use steel wool or a wire brush to dean, as these will damage the permanent dry film lubricant that was applied to the key-way surfaces when they were manufactured.

- c. Clean housing cover with brush.
- d. Insert the short key onto the timer actuator pin, into its slot with its pin facing outward.
- e. Insert the longest key into its slot, also with its pin facing outward.
- f. Adjust the two installed keys so that their pins are aligned with the pin in the housing and install the toggle over all three pins.
- g. Check to see that the short key is properly located onto the timer's spring-loaded actuator pin (6) and that the toggle is located onto all three pins in line.

**NOTE**

The interlock pin must be down before the timer can be armed.

- h. Replace housing cover over keys with countersunk holes facing outward and rounded corners along outer edge of timer housing. Check for alignment of holes and install four screws carefully. Do not over-tighten screws.
- i. Turn timer stem 1/4 turn to right and check if keys extend from each side of housing. Release stem and allow the timer to run down, making sure that the keys retract at the end when the timer runs down.

**NOTE**

The interlock pin must be down before the timer can be armed.

**REPLACEMENT**

1. REPLACE AN UNSERVICEABLE M-2 AIRDROP CARGO PARACHUTE RELEASE WITH A SERVICEABLE ITEM FROM STOCK
2. EXCEPT FOR THE ARMING WIRE LANYARD, ANY OTHER COMPONENT OF THE M-2 AIRDROP CARGO PARACHUTE RELEASE THAT IS MISSING OR UNSERVICEABLE WILL BE REPLACED ONLY AS AUTHORIZED IN APPENDIX C.
3. REPLACE AN UNSERVICEABLE ARMING WIRE LANYARD AS DESCRIBED IN PARAGRAPH 2.29, ABOVE.

**2.33 CONNECTOR, PARACHUTE.**

This task covers:

- a. Inspection
- b. Replacement

**INITIAL SETUP:**

**Tools**

File, Bastard, 10-inch (Item 1, Appendix B)  
 File, Bastard, 12-Inch (Item 2, Appendix B)

**Material/Parts Required**

Connector, Parachute (Item 5, Figure C-9, Appendix C)  
 Zinc chromate primer  
 Caliper

**References**

RPSTL (Appendix C)

**Equipment Condition**

Removed from the M-2 cargo release assembly  
 Disassembled

**INSPECTION**

1. INSPECT THE PARACHUTE CONNECTOR (FIGURE 2-17) IN ACCORDANCE WITH PARAGRAPH 2.10, USING THE PROCEDURES IN TABLE 2-1.
2. INSPECT THE ARM SPACING.
  - a. Ensure that the arms (1) engage into the retainer damp. If they do not, the thickness of the tips is too much.
  - b. The width of the tips of the arms should be between 29/32 and 31/32-inches (2 302 and 2.461-cm).
  - c. If the width is greater than 31/32-inches (2.461 -cm), measure each arm individually. If either arm is larger than 31/64-inches (1.230-cm), file the excess metal from the inside face of the arm to keep within allowable tolerances.
  - d. Place both arms together and check whether the total width is between 29/32 and 31/32-inches (2 302 and 2.461-cm). If they are not, repeat the procedure in paragraph c., above.
  - e. Apply a coat of zinc chromate primer to the exposed surfaces Allow primer to dry for 24-hours before using connector.

**NOTE**

Do not touch exposed surfaces of metal with hands Primer will not adhere to an oily surface.

**REPLACEMENT**

REPLACE AN UNSERVICEABLE PARACHUTE CONNECTOR WITH A SERVICEABLE ONE FROM STOCK.

---

**2.34 TIMER DELAY ASSEMBLY.**


---

This task covers:

a. Inspection

b. Repair

c. Replacement

---

**INITIAL SETUP:**

**Tools**

Screwdriver, Flat-Tip, 3/16 (Item 16, Appendix B)  
Screwdriver, Cross-Tip, No. 1 item 15, Appendix B)

**References**

RPSTL (Appendix C)

**Material/Parts Required**

Timer Delay Assembly (Item 14, Figure C-9, Appendix C)  
Crocus Cloth (Item 4, Appendix F)

**Equipment Condition**

Removed from the M-2 cargo parachute release assembly.

---

**INSPECTION**

1. INSPECT THE TIMER DELAY ASSEMBLY(FIGURE 2-15) IN ACCORDANCE WITH PARAGRAPH 2.10, USING THE PROCEDURES IN TABLE 2-1.
2. CHECK THE TIME DELAY.
  - a. With a screwdriver, turn stem 1/4turn to the right as if arming in the M-2 release assembly and let the time run down.

**NOTE**

The interlock pin must be down before timer can be armed.

- b. If the time sequence is delayed in any way, check if the stem is binding on the mounting block. If so, loosen three screws and slightly move timer and stem assembly to remove binding. When free, retighten screws and recheck as in paragraph a., above.
- c. Install mounting block with timer and stem assembly, making sure that the retraction pin goes into the hole in the key on the inside of the housing. (Ends of keys must be retracted or even with the outside of the housing). To check the retraction pin, again arm timer and stem assembly by turning the stem 1/4 turn to the right and checking if the key extend from the housing on each end. Release the stem and allow the timer to run down, making sure that keys retract when the timer runs down.

**REPAIR**

1. DISASSEMBLE TIMER DELAY ASSEMBLY.
  - a. Place timer delay on working area and remove the two screws holding mounting block to housing.
  - b. Lift mounting block with timer and stem assembly out of housing.
  - c. Remove three screws from outside holding timer assembly to mounting block.
  - d. Lift damaged timing movement from timer block.
2. REASSEMBLE TIMER DELAY ASSEMBLY.
  - a. Insert stem hole of new timer movement in mounting block Rotate timer and stem assembly so three square sides are even with the top, end, and bottom sides of the mounting block.

**NOTE**

If the actor pin will not fit into the slot of the short key, clean the tip of the actuator pin with crocus cloth.

- b. Insert mounting screws through three screw holes in mounting block into timer and stem.



**NOTE**

The repair in step c., below is an authorized expedient to enable continued use of the timer and stem assemblies in which the screw threads in the attachment plate have been damaged or stripped.

- c. Replace the mounting screws with screw NSN 5305-00-983-6730 and nut NSN 5310-00-811-6419 Place the new screws through the three screw holes in the mounting block through timer and stem attachment plate Install nut on each screw and tighten until snug.
- d. Replace the two screws that hold the mounting block assembly to the housing Inspect the timer and stem assembly as described above.

**REPLACEMENT**

1. REPLACE DAMAGED OR MISSING TIMING MOVEMENT PARTS ONLY AS AUTHORIZED BY APPENDIX C.
2. REPLACE AN UNSERVICEABLE LINK ASSEMBLY WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.35 LINK ASSEMBLY, SINGLE SUSPENSION, TYPE IV.**

---

This task covers:

a. Inspection

b. Replacement

---

**INITIAL SETUP:**

**Tools**

None

**Material/Parts Required**

Link Assembly, Single Suspension, Type IV (Item 1, Figure C-10, Appendix C)

**References**

Technical/Rigger Inspection Procedures  
(paragraph 2.10)  
RPSTL (Appendix C)

**Equipment Condition**

Removed from the cargo parachute linkage.

---

**INSPECTION**

PERFORM A TECHNICAL/RIGGER TYPE INSPECTION OF THE SINGLE SUSPENSION TYPE IV LINK ASSEMBLY IN ACCORDANCE WITH PARAGRAPH 2.10

**REPLACEMENT**

REPLACE AN UNSERVICEABLE SINGLE SUSPENSION TYPE IV LINK WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.36 LINK ASSEMBLY, HEAVY DUTY.**

---

This task covers:

a. Inspection

b. Replacement

---

**INITIAL SETUP:****Tools**

Wrench, Open-End, 1 7/16 and 1 5/8-Inch  
(Item 8, Appendix B)

Wrench, Open-End, 1 1/2 and 1 3/4-Inch  
(Item 5, Appendix B)

**References**

Technical/Rigger Inspection Procedures  
(paragraph 2.10)  
RPSTL (Appendix C)

**Material/Parts Required**

Link Assembly, Heavy Duty (Item 1, Figure C-11,  
Appendix C)

**Equipment Condition**

Removed from the cargo parachute linkage

---

**INSPECTION**

PERFORM A TECHNICAL/RIGGER TYPE INSPECTION OF THE HEAVY-DUTY LINK ASSEMBLY IN ACCORDANCE WITH PARAGRAPH 2.10.

**REPLACEMENT**

1. REPLACE DAMAGED OR MISSING HEAVY-DUTY LINK ASSEMBLY PARTS ONLY AS AUTHORIZED BY APPENDIX C.
2. REPLACE AN UNSERVICEABLE HEAVY-DUTY LINK ASSEMBLY WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.37 LINK, 4-POINT.**

---

This task covers:

a. Inspection

b. Replacement

---

**INITIAL SETUP:****Tools**

Wrench, Open-End, 1 7/16 and 1 5/8-Inch  
(Item 8, Appendix B)  
Wrench, Open-End, 1 1/2 and 1 3/4-Inch  
(Item 5, Appendix B)

**References**

Technical/Rigger Inspection Procedures  
(paragraph 2.10)  
RPSTL (Appendix C)

**Material/Parts Required**

Link, 4Point (Item 1, Figure C-12, Appendix C)

**Equipment Condition**

Removed from the cargo parachute linkage.

---

**INSPECTION**

PERFORM A TECHNICAL/RIGGER TYPE INSPECTION OF THE FOUR-POINT LINK IN ACCORDANCE WITH PARAGRAPH 2.10.

**REPLACEMENT**

1. REPLACE DAMAGED OR MISSING FOUR-POINT LINK PARTS ONLY AS AUTHORIZED BY APPENDIX C.
2. REPLACE AN UNSERVICEABLE ARM CLUSTERING ASSEMBLY WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.38 COVER, LINK, TYPE IV.**

---

**This task consists of:**    **a. Inspection**    **b. Replacement**

---

**INITIAL SETUP**

**Tools**

None

**Material/Parts Required**

Cover, Link, Type IV (Item 1, Figure C-12, Appendix C)  
Type III nylon cord

**References**

Technical/Rigger Inspection Procedures  
(paragraph 2.10)

**Equipment Condition**

Removed from the cargo parachute linkage

---

**INSPECTION**

PERFORM A TECHNICAL/RIGGER TYPE INSPECTION OF THE TYPE IV LINK COVER IN ACCORDANCE WITH PARAGRAPH 2.10.

**REPLACEMENT**

1. REPLACE A DEFECTIVE DRAW-STRING CORD.
  - a. Cut the overhand knot on the defective cord.
  - b Slide the damaged cord out of the sewn channel.
  - c. Cut a 24- or 28-inch (61 - or 71 -centimeter) length of Type III nylon cord as applicable and sear both ends by placing against a hot surface. Make sure that the seared edge is not sharp or lumpy.
  - d Insert one end of the replacement cord into the sewn channel. Make sure that the ends are even.
  - e. Tie the loose ends of the cord together with an overhand knot.
  
2. REPLACE AN UNSERVICEABLE TYPE IV LINK COVER WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.39 CLEVIS, AERIAL DELIVERY.**

---

**This task consists of: a. Inspection b. Replacement**

---

**INITIAL SETUP**

**Tools**

Wrench, Open-End, 15/16 and 1-Inch (Item 10, Appendix B)  
 Wrench, Open-End, 1 1/4 and 1 5/16-Inch (Item 7, Appendix B)  
 Wrench, Open-End, 1 1/2 and 1 3/4-Inch (Item 5, Appendix B)

**Material/Parts Required**

Clevis, Aerial Delivery (Item 1, 4, 7, or 10, Figure C-13, Appendix C)

**References**

Technical/Rigger Inspection Procedures (paragraph 2.10)  
 RPSTL (Appendix C)

**Equipment Condition**

Removed from the cargo parachute linkage.

---

**INSPECTION**

PERFORM A TECHNICAL/RIGGER TYPE INSPECTION OF THE AERIAL DELIVERY CLEVIS IN ACCORDANCE WITH PARAGRAPH 2.10.

**REPLACEMENT**

1. REPLACE DAMAGED OR MISSING AERIAL DELIVERY CLEVIS PARTS ONLY AS AUTHORIZED BY APPENDIX C.
2. REPLACE AN UNSERVICEABLE AERIAL DELIVERY CLEVIS WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.40 COVER, CLEVIS.**

---

**This task consists of. a. Inspection b. Replacement**

---

**INITIAL SETUP**

**Tools**

Grommet Punch

**Material/Parts Required**

Cover, Clevis (Item 1, Figure C-14, Appendix C)

**References**

RPSTL (Appendix C)  
 Technical/Rigger Inspection Procedures  
 (paragraph 2.10)

**Equipment Condition**

Removed from the cargo parachute linkage.

---

**INSPECTION**

PERFORM A TECHNICAL/RIGGER TYPE INSPECTION OF THE CLEVIS COVER IN ACCORDANCE WITH PARAGRAPH 2.10

**REPLACEMENT**

REPLACE AN UNSERVICEABLE CLEVIS COVER WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.41 STRAP, PARACHUTE REL EASE, SINGLE KNIFE.**

---

This task consists of: a. Inspection b. Replacement

---

**INITIAL SETUP**

**Tools**

Round sharpening stone

**Material/Parts Required**

Strap, Parachute Release, Single Knife (Item 1, Figure C-16, Appendix C)

**References**

Technical/Rigger Inspection Procedures (paragraph 2.10)

**Equipment Condition**

Removed from the cargo parachute linkage

---

**INSPECTION**

1. PERFORM A TECHNICAL/RIGGER TYPE INSPECTION OF THE SINGLE KNIFE PARACHUTE STRAP IN ACCORDANCE WITH PARAGRAPH 2.10.

**NOTE**

When the ferrule (1) of a guillotine knife had been unscrewed to the full open position, the safety hole (2) should be covered (Figure 2-18) If the aperture is not covered, the item is unserviceable.

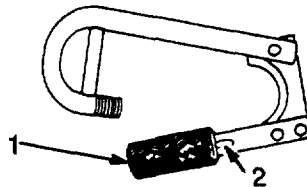


Figure 2-18. Knife Inspection.

2. SHARPEN A DULL KNIFE BLADE WITH A ROUND SHARPENING STONE.

**REPLACEMENT**

REPLACE AN UNSERVICEABLE SINGLE KNIFE PARACHUTE STRAP WITH A SERVICEABLE ITEM FROM STOCK.



---

**2.42 STRAP, PARACHUTE RELEASE, MULTI-KNIFE.**

---

**This task consists of: a. Inspection b Replacement**

---

**INITIAL SETUP**

**Tools**

Round sharpening stone

**Material/Parts Required**

Strap, Parachute Release, Multi-Knife (Item 1, Figure C-17, Appendix C)

**References**

Technical/Rigger Inspection Procedures  
(paragraph 2.10)  
Strap, Parachute, Single Knife (paragraph  
2.41)

**Equipment Condition**

Removed from the cargo parachute linkage.

---

**INSPECTION**

1. PERFORM A TECHNICAL/RIGGER TYPE INSPECTION OF THE SINGLE KNIFE PARACHUTE STRAP IN ACCORDANCE WITH PARAGRAPH 2.10.

**NOTE**

When the ferrule (1) of a guillotine knife had been unscrewed to the full open position, the safety hole (2) should be covered (Figure 2-18) If the aperture is not covered, the Item is unserviceable

2. SHARPEN A DULL KNIFE BLADE WITH A ROUND SHARPENING STONE.

**REPLACEMENT**

REPLACE AN UNSERVICEABLE MULTI-KNIFE PARACHUTE STRAP WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.43 LINK ASSEMBLY, COUPLING, 3-POINT.**

---

**This task consists of: a. Inspection b. Replacement**

---

**INITIAL SETUP**

**Tools**

Wrench, Open-End, 1 1/2 and 1 3/4-Inch  
(Item 5, Appendix B)  
Wrench; Open-End, 1 7/16 and 1 5/8-Inch  
(Item 8, Appendix B)

**Material/Parts Required**

Link Assembly, Coupling, 3-Point (Item 1, Figure C-1 8,  
Appendix C)

**References**

Technical/Rigger Inspection Procedures  
(paragraph 2.10)  
RPSTL (Appendix C)

**Equipment Condition**

Removed from the cargo parachute linkage.

---

**INSPECTION**

PERFORM A TECHNICAL/RIGGER TYPE INSPECTION OF THE THREE-POINT LINK ASSEMBLY IN ACCORDANCE WITH PARAGRAPH 2.10.

**REPLACEMENT**

1. REPLACE DAMAGED OR MISSING THREE-POINT LINK ASSEMBLY COUPLING PARTS ONLY AS AUTHORIZED BY APPENDIX C.
2. REPLACE AN UNSERVICEABLE THREE-POINT LINK ASSEMBLY WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.44 BRACKET, SUSPENSION.**

---

This task consists of a. Inspection b. Replacement

---

**INITIAL SETUP**

**Tools**

None

**Material/Parts Required**

Bracket, Suspension (Item 1, Figure C-19, Appendix C)

**References**

Technical/Rigger Inspection Procedures  
(paragraph 2.10)

**Equipment Condition**

Removed from the cargo parachute linkage.

---

**INSPECTION**

PERFORM A TECHNICAL/RIGGER TYPE INSPECTION OF THE M-35 SUSPENSION BRACKET IN ACCORDANCE WITH PARAGRAPH 2.10.

**REPLACEMENT**

REPLACE AN UNSERVICEABLE M-35 SUSPENSION BRACKET WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.45 BRACKET, SUSPENSION.**

---

This task consists of a. Inspection b Replacement

---

**INITIAL SETUP**

**Tools**

None

**Material/Parts Required**

Bracket, Suspension (Item 1, Figure C-20, Appendix C)

**References**

Technical/Rigger Inspection Procedures  
(paragraph 2.10)

**Equipment Condition**

Removed from the cargo parachute linkage.

---

**INSPECTION**

PERFORM A TECHNICAL/RIGGER TYPE INSPECTION OF THE M-59 SUSPENSION BRACKET IN ACCORDANCE WITH PARAGRAPH 2.10.

**REPLACEMENT**

REPLACE AN UNSERVICEABLE M-59 SUSPENSION BRACKET WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.46 PLATE, SUSPENSION.**

**This task consists of: a. Inspection b. Replacement**

---

**INITIAL SETUP**

**Tools**

None

**Material/Parts Required**

Plate, Suspension (Item 1, Figure C-21, Appendix C)

**References**

Technical/Rigger Inspection Procedures  
(paragraph 2.10)

**Equipment Condition**

Removed from the cargo parachute linkage.

---

**INSPECTION**

PERFORM A TECHNICAL/RIGGER TYPE INSPECTION OF THE SUSPENSION PLATE IN ACCORDANCE WITH PARAGRAPH 2.10.

**REPLACEMENT**

REPLACE AN UNSERVICEABLE SUSPENSION PLATE WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.47 TIEDOWN, CARGO, 10K.**

---

This task consists of a. Inspection b Replacement

---

**INITIAL SETUP**

**Tools**

None

**Material/Parts Required**

Tiedown, Cargo, 10K (Item 1, Figure C-22, Appendix C)

**References**

Technical/Rigger Inspection Procedures  
(paragraph 2.10)  
RPSTL (Appendix C)

**Equipment Condition**

Removed from the cargo parachute linkage.

---

**INSPECTION**

PERFORM A TECHNICAL/RIGGER TYPE INSPECTION OF THE 10K CARGO TIEDOWN IN ACCORDANCE WITH PARAGRAPH 2.10.

**REPLACEMENT**

1. REPLACE DAMAGED OR MISSING 10K CARGO TIEDOWN PARTS ONLY AS AUTHORIZED BY APPENDIX C.
2. REPLACE AN UNSERVICEABLE 10K CARGO TIEDOWN WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.48 TIEDOWN, CARGO, QUICK-RELEASE.**

---

This task consists of: a. Inspection b Replacement

---

**INITIAL SETUP**

**Tools**

None

**Material/Parts Required**

Tiedown, Cargo, Quick-Release (Item 1, Figure C-23, Appendix C)

**References**

Technical/Rigger Inspection Procedures  
(paragraph 2.10)

**Equipment Condition**

Removed from the cargo parachute linkage.

---

**INSPECTION**

PERFORM A TECHNICAL/RIGGER TYPE INSPECTION OF THE QUICK-RELEASE CARGO TIEDOWN IN ACCORDANCE WITH PARAGRAPH 2.10.

**REPLACEMENT**

REPLACE AN UNSERVICEABLE QUICK-RELEASE CARGO TIEDOWN WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.49 DRIVE OFF AID, TYPE IV.**

---

**This task consists of: a. Inspection b. Replacement**

---

**INITIAL SETUP**

**Tools**

None

**Material/Parts Required**

Drive Off Aid, Type IV (Item 1, Figure C-24, Appendix C)

**References**

Technical/Rigger Inspection Procedures  
(paragraph 2.10)

**Equipment Condition**

Fully assembled.

---

**INSPECTION**

PERFORM A TECHNICAL/RIGGER TYPE INSPECTION OF THE TYPE IV DRIVE OFF AID IN ACCORDANCE WITH PARAGRAPH 2.10.

**REPLACEMENT**

REPLACE AN UNSERVICEABLE DRIVE-OFF AID WITH A SERVICEABLE ITEM FROM STOCK.



---

**2.50 TIEDOWN, CARGO, AIRCRAFT.**

---

**This task consists of: a. Inspection b. Replacement**

---

**INITIAL SETUP**

**Tools**

None

**Material/Parts Required**

Tiedown, Cargo, Aircraft (Item 1, Figure C-25, Appendix C)

**References**

Technical/Rigger Inspection Procedures  
(paragraph 2.10)  
RPSTL (Appendix C)

**Equipment Condition**

Fully assembled.

---

**INSPECTION**

PERFORM A TECHNICAL/RIGGER TYPE INSPECTION OF THE 10K CARGO TIEDOWN IN ACCORDANCE WITH PARAGRAPH 2.10.

**REPLACEMENT**

1. REPLACE DAMAGED OR MISSING AIRCRAFT CARGO TIEDOWN PARTS ONLY AS AUTHORIZED BY APPENDIX C.
2. REPLACE AN UNSERVICEABLE AIRCRAFT CARGO TIEDOWN WITH A SERVICEABLE ITEM FROM STOCK.

**2.50.1 EXTRACTION PARACHUTE JETTISON SYSTEM**

This task covers:      **a. Inspect**      **b. Assemble**      **c. Test**      **d. Disassemble**

**INITIAL SETUP**

**Tools**

Simulator, Initiator (Item 20, Appendix B)  
 Power Supply, 28 VDC (Item 30, Appendix B)

**Material/Parts Required**

N/A

**References**

Technical/Rigger Inspection Procedures  
 (PARAGRAPH 2.10)  
 Table 2-1

**Equipment Condition**

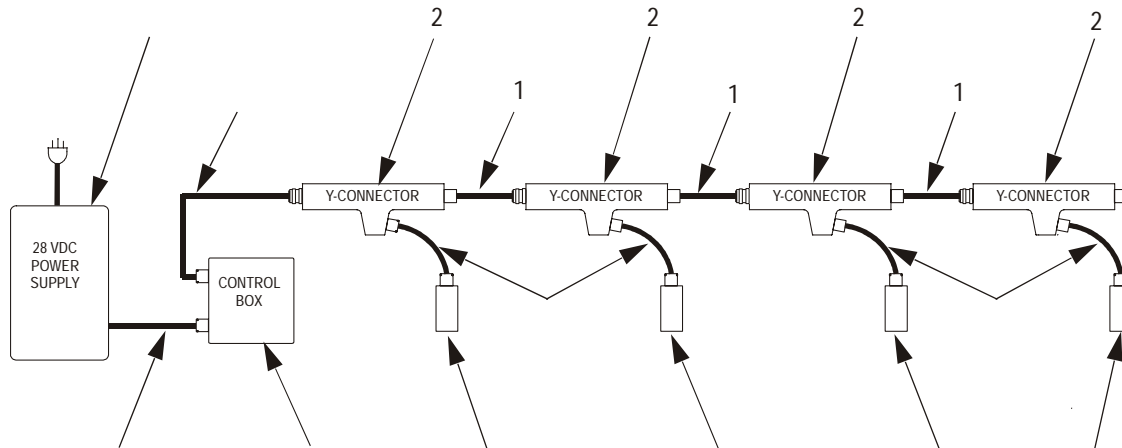
N/A

**INSPECT**

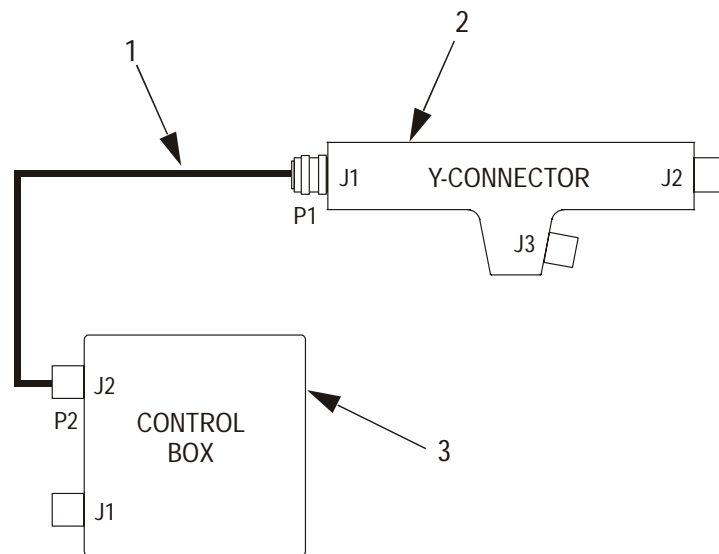
PERFORM A TECHNICAL/RIGGER TYPE INSPECTION OF THE EPJS IN ACCORDANCE WITH PARAGRAPH 2.10 AND TABLE 2-1.

**ASSEMBLE**

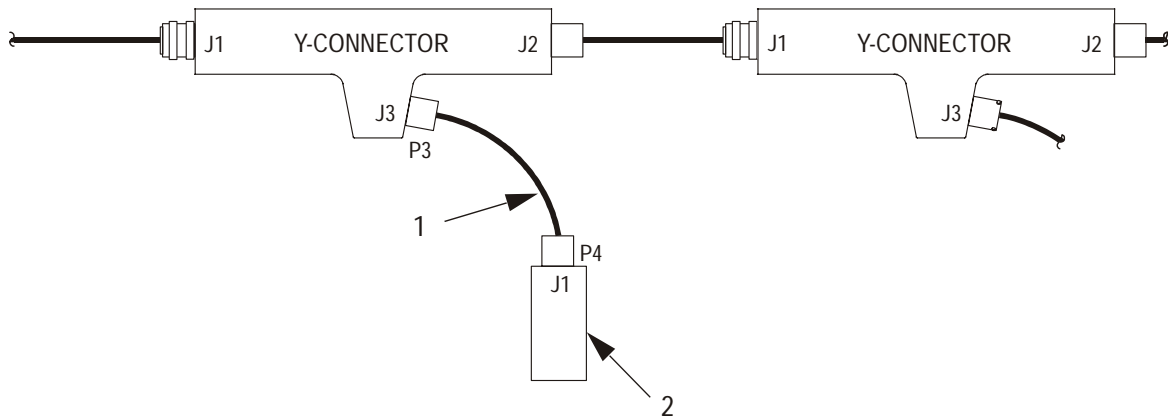
1. Remove all cables from kit bag.
2. Remove Y-connectors and Y-connector mounting boxes from kit bag.
3. Remove control box from kit bag.
4. In a suitable area, layout Y-connector mounting boxes, with Y-connectors (2) installed. Ensure all Y-connector mounting boxes are facing the same direction as indicated by the FWD arrows stenciled on the Y-connector mounting boxes.
5. Install interconnect cables (1) to Y-connectors (2) (P1 connects to J1; and P2 connects to J2).



- Install the 50-foot main cable (1) between the first Y-connector (2) and control box (3) (P1 connects to J1 on Y-connector; P2 connects to control box TO LOADS J2 connector).



- Retrieve and connect four platform cables (1) to initiator simulators (2) (P3 on platform cable connects to J3 on Y-connector; P4 on platform cable connects to J1 on initiator simulator).



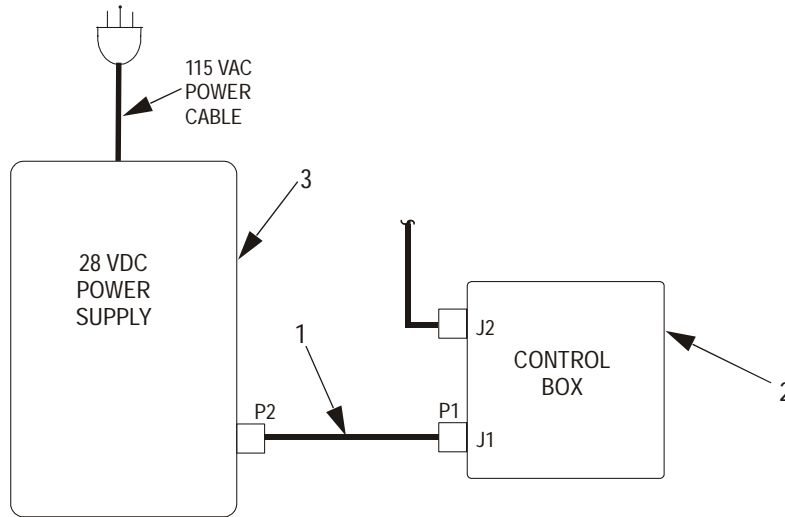
**NOTE**

Ensure 28 VDC power supply is turned OFF and unplugged prior to connecting to EPJS.

**NOTE**

Initiator simulators will be used in place of squibs to functionally test the system. Each initiator simulator uses two 1-AMP circuit breakers to simulate the dual bridge wire in the squib.

8. Install power cable (1) between control box (2) and 28 VDC power supply (3) (P1 connects to 28 VDC power input J1; P2 connects to 28 VDC POWER SUPPLY).



## TEST

1. Set control box POWER and JETTISON switches to OFF.
2. Ensure control box circuit breaker is set (pushed in).
3. Rotate DIMMER control to full on position.
4. Plug 28 VDC power supply into 115 VAC power.
5. Set all initiator simulator circuit breakers to ON.
6. Set 28 VDC POWER switch to ON.
7. Set control box POWER switch to ON. Verify that all four LEDs on control box are illuminated. Verify that the LED on each Y-connector is illuminated. If conditions are not met, proceed to sub-steps a. through d. If conditions are met, proceed to step 8.
  - a. Verify LED is operable by pressing appropriate LAMP TEST switch.
  - b. Verify cabling is properly connected.
  - c. Verify initiator simulator circuit breakers are set to ON.
  - d. If necessary, replace suspected initiator simulator, platform cable and/or Y-connector.
8. Set JETTISON SWITCH, on control box to JETTISON. Verify that all breakers on initiator simulators have tripped (OFF position). If no breaker on any initiator trips, the control box is defective and must be replaced. If the breaker(s) on only one initiator simulator does not trip, the associated Y-connector or the initiator simulator is defective and must be replaced.
9. Set POWER and JETTISON switches on control box to OFF.

10. Disconnect no. 3 and no. 4 Y-connectors and reconnect in opposite positions (no. 3 to no. 4 position and no. 4 to no. 3 position). Reconnect cables and equipment. Set all initiator simulator breakers to ON.
11. Repeat steps 7 and 8.
12. Set POWER and JETTISON switches on control box to OFF. Set 28 VDC POWER switch to OFF.
13. Test squib in accordance with paragraph 2.50.2.

---

**DISASSEMBLE**

---

1. Disconnect 28 VDC power supply from 115 VAC power.
2. Disconnect and remove power cable from control box and 28 VDC power supply.
3. Disconnect and remove platform cables from Y-connectors and initiator simulators.
4. Disconnect and remove 50-foot main cables from first Y-connector and control box.
5. Disconnect and remove interconnect cables from Y-connectors.
6. Stow Y-connectors, Y-connector boxes, control box and cables in kit bag. Stow 28 VDC power supply and initiator simulators in assigned storage location(s).

---

**2.50.2 EXTRACTION PARACHUTE JETTISON DEVICE, SQUIB, AND SQUIB CABLE**

---

**This task covers:**      **a. Inspect**      **b. Test**      **c. Repair**

---

**INITIAL SETUP**

---

**Tools**

Wrench, Torque, 3/8 inch (Item 28, Appendix B)  
 Tester, Squib (Item 21, Appendix B)  
 Kit, Tool (Item 31, Appendix B)

**Material/Parts Required**

Squib (Item 1, Figure C-32, Appendix C)  
 Kit, Refurbish (Item 15, Appendix F)  
 Dishwashing Compound, Hand Flake (Item 5, Appendix F)  
 Rag, Wiping (Item 9, Appendix F)  
 Lube, O-Ring (Item 13, Appendix F)

**References**

Technical/Rigger Inspection Procedures  
 (PARAGRAPH 2.10)  
 RPSTL (Appendix C)  
 Table 2-1

**Equipment Condition**

N/A

---

**INSPECT**

---

PERFORM A TECHNICAL/RIGGER TYPE INSPECTION OF THE EPJD, SQUIB, AND SQUIB CABLE IN ACCORDANCE WITH PARAGRAPH 2.10 AND TABLE 2-1.

**TEST**

---

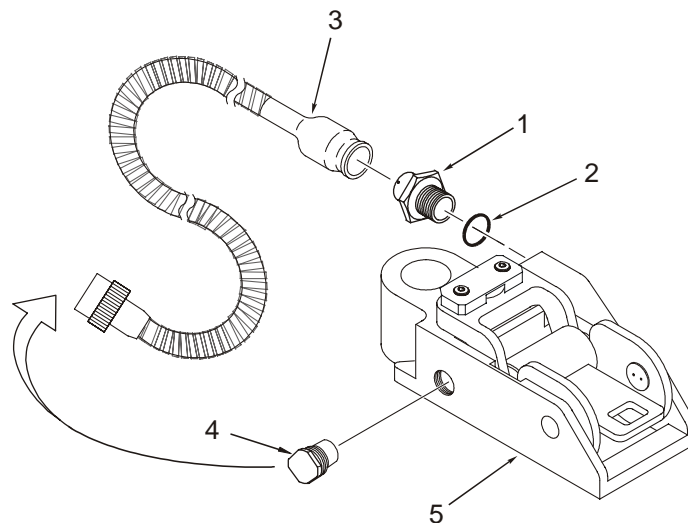
CHECK THE SQUIB WITH THE SQUIB TESTER.

**WARNING**

The squib is a pyrotechnic device. When not installed in aircraft, and all cabling and equipment is not installed, then squib cable safety cap must be installed on squib cable. Use care when handling the squib to prevent accidental firing of the device. Avoid dropping or jarring the squib and avoid static electricity. Failure to follow precautions can result in injury to personnel.

1. In an area away from electrical equipment, remove squib (1) from the storage container. Examine the squib for evidence of damage.
2. Apply a light coating of O-ring lube to the preformed packing (2) and install on squib (1).
3. Remove the shorting device from inside the squib connector. Install squib cable (3) on squib (1).

4. Turn the squib tester ON, and place CIRCUIT SELECT switch to A-B. The OPEN LED illuminates, indicating there is an open circuit, and verifies the battery is operational.
5. Connect the squib tester to the squib cable (3). The OPEN LED should go out.
6. Place the CIRCUIT SELECT switch to C-D.
7. If the OPEN and SHORT LEDs do not go ON when both A-B and C-D circuits are tested, the squib (1) and squib cable (3) are acceptable to use. If an OPEN or SHORT LED illuminates, either the squib or squib cable is defective and must be replaced.



8. Remove squib tester from squib cable (3) and turn squib tester OFF.
9. Remove safety cap (4) from EPJD housing (5) and install on J4 of squib cable (3).

**WARNING**

Depending upon mission requirements, the squib may be installed on EPJD or stored separately. Squib must be stowed or installed with squib cable and safety cap installed. **DO NOT SEPARATE SQUIB CABLE WITH SAFETY CAP FROM SQUIB.** Failure to follow precautions can result in injury to personnel.

10. If squib is not installed in EPJD, without removing squib cable (3) and safety cap (4), thread squib (1) into EPJD housing (5). Using 1-inch wrench from tool kit, tighten squib until flush. Do not remove squib cable and safety cap.
11. Because squib (1) is an explosive device, if not immediately installed in the EPJD, store in accordance with standard operating procedures, with squib cable (3) and safety cap (4) attached.

**REPAIR**

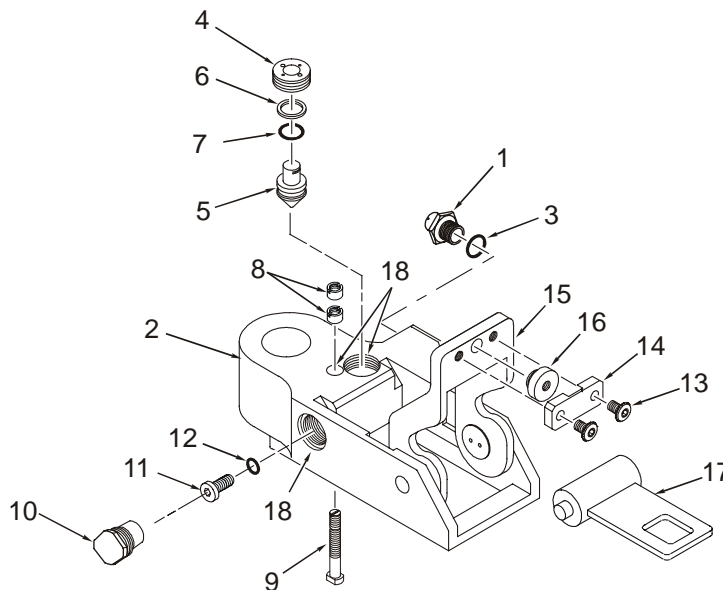
After a squib has been fired, refurbish prior to next use as follows:

1. Disassemble.

- a. If installed, remove squib cable from squib (1).
- b. Using 1-inch wrench, remove squib (1) from housing (2). Remove and discard preformed packing (3).
- c. Using piston stop/shear bolt retainer, remove piston stop (4) and piston (5). Remove and discard backup ring (6) and preformed packing (7).
- d. Using piston stop/shear bolt retainer, remove the two shear bolt retainers (8) and shear bolt (9). (Shear bolt is removed from the bottom of the EPJD).
- e. Remove safety cap (10).
- f. Using T-handled hex driver, remove cross hole plug (11). Remove and discard preformed packing (12).
- g. Remove screws (13) and retainer clamp from latch (14).
- h. Remove latch retainer (16) from latch (15) and discard. If installed, remove keeper (17) from latch.

2. Clean.

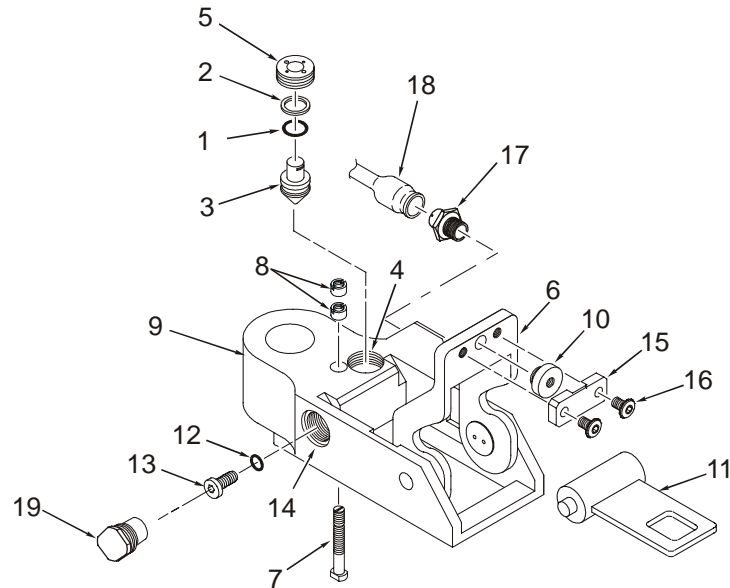
- a. Clean the inside bores (18) of housing (2) that contained the piston (5), squib (1), and cross hole plug (11). Use warm water, mild liquid detergent, and large diameter bristle brush.
- b. Clean small diameter bore used for cross hole plug (11). Use warm water, a mild liquid detergent, and small diameter bristle brush.
- c. Rinse with clean water and dry thoroughly with a clean, lint-free cloth.





3. Assemble.

- a. Apply a light coating of O-ring lube to new preformed packing (1) and backup ring (2). Install backup ring, then preformed packing onto piston (3).



- b. Place piston (3) in top bore (4) and screw in piston stop (5) by hand. Rotate latch (6) closed and apply pressure on latch to seat piston into bore (4). Using piston stop/shear bolt retainer, tighten piston stop (5).
- c. Install new shear bolt (7) and retainers (8) into housing (9). Shear bolt should be installed from the bottom of the EPJD. Retainers should be placed on bolt, notch side up, and installed one at a time. Make sure each retainer is snug. Use piston stop/shear bolt retainer to facilitate installation of retainers and shear bolt.
- d. Install latch retainer (10) and keeper (11) onto latch.
- e. Rotate latch (6) onto housing (9) and screw latch retainer (10) onto shear bolt (7).
- f. Apply a light coating of O-ring lube to new preformed packing (12) and install on cross hole plug (13).
- g. Using T-handle hex driver, thread cross hole plug (13) into side bore (14). Do not tighten at this time.
- h. Torque cross hole plug (13) to 72-inch pounds.
- i. Install retainer clamp (15) in place over latch retainer (10), and secure with two screws (16).
- j. Test squib in accordance with paragraph 2.50.1

**WARNING**

Squib must be installed with squib cable and safety cap installed. DO NOT SEPARATE SQUIB CABLE WITH SAFETY CAP FROM SQUIB. Failure to follow precautions can result in injury to personnel.

- k. If squib (17) is not installed in EPJD, without removing squib cable (18) and safety cap (19), apply a light coating of O-ring lube to a new preformed packing for squib; thread squib into housing (9).

**WARNING**

After the squib has been installed in the EPJD, handle EPJD from the bottom only. Failure to do so can result in injury to personnel.

- l. If storing EPJD with squib installed, install EPJD and squib cable (18) in cover. Ensure velcro closures are on the bottom of the EPJD.

---

### 2.50.3 Y-CONNECTOR

---

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

---

#### INITIAL SETUP

##### Tools

Power Supply, 28 VDC (Item 30, Appendix B)  
 Simulator, Initiator (Item 20, Appendix B)

##### Material/Parts Required

Y-Connector (Item 1, Figure C-28, Appendix C)  
 Box, Control (Item 1, Figure C-31, Appendix C)  
 Cable, Power, 20-foot (Item 1, Figure C-37, Appendix C)  
 LED, Replacement (Item 4, Figure C-28, Appendix C)

##### References

Technical/Rigger Inspection Procedures  
 (PARAGRAPH 2.10)  
 Table 2-1

##### Equipment Condition

Separated from the Y-connector mounting box.

---

#### INSPECT

INSPECT THE Y-CONNECTOR IN ACCORDANCE WITH PARAGRAPH 2.10 AND TABLE 2-1.

#### TEST

TEST THE LED.

1. Ensure the POWER and JETTISON switches of a serviceable control box are both OFF. Connect J1 of the Y-connector to J2 of the control box. Connect the P1 plug of a serviceable power cable to the J1 receptacle of the control box.
2. Connect the P2 plug of the power cable to the 28 VDC power supply.
3. Plug the 28 VDC power supply cord into the 115 VAC power source.
4. Turn the power supply ON. Ensure the control box circuit breaker is pushed in. Set the POWER switch of the control box to the ON position.
5. Rotate the DIMMER adjust knob on the control box fully clockwise.
6. Press the LAMP TEST switch on the Y-connector. If the LED does not light, set the control box POWER switch to the OFF position and replace LED. If the LED does light, set the control box POWER switch to the OFF position and continue with steps 7 through 9.
7. Ensure the circuit breaker switches of the initiator simulator are in the ON position. Connect the J1 connector (quick disconnect) of the initiator simulator to the J3 receptacle of the Y-connector.

8. Set the control box POWER switch to the ON position and activate the JETTISON SWITCH on the control box. The circuit breaker switches should trip to the OFF position. If they do not, replace the Y-connector. If they do, return Y-connector to service.
9. Turn 28 VDC power supply OFF and disconnect from 115 VAC power source. Disconnect initiator simulator from Y-connector; disconnect Y-connector from control box; disconnect 20-foot power cable from control box and 28 VDC power supply.
10. Return pieces and parts to proper storage location.

---

**REPAIR**

---

**REPAIR DEFECTIVE LED.**

1. Remove the four (4) thumbscrews, the five (5) pan head screws, and the cover of the Y-connector.
2. Remove and discard the defective LED from its socket.

**CAUTION**

Make sure that the flat on the flange of the LED lines up with the flat that is marked on the socket. Improper installation may damage LED.

3. Install the new LED so the flat base of the LED matches the flat of the circle on the circuit board.
4. Reinstall the cover, pan head screws, and thumbscrews.
5. Continue with steps 7 through 10, above.

---

**REPLACE**

---

**REPLACE AN UNSERVICEABLE Y-CONNECTOR WITH A SERVICEABLE ITEM FROM STOCK.**

---

**2.50.4 Y-CONNECTOR MOUNTING BOX**

---

**This task covers:**      **a. Inspect**      **b. Replace**

---

**INITIAL SETUP**

---

**Tools**

N/A

**Material/Parts Required**

N/A

**References**

Technical/Rigger Inspection Procedure  
(PARAGRAPH 2.10)  
Table 2-1

**Equipment Condition**

N/A

---

**INSPECT**

---

INSPECT THE Y-CONNECTOR MOUNTING BOX IN ACCORDANCE WITH PARAGRAPH 2.10 AND TABLE 2-1.

**REPLACE**

---

REPLACE AN UNSERVICEABLE Y-CONNECTOR MOUNTING BOX WITH A SERVICEABLE ITEM FROM STOCK.

---

### 2.50.5 CONTROL BOX

---

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

---

---

#### INITIAL SETUP

---

##### Tools

Power Supply, 28 VDC (Item 30, Appendix B)  
Screwdriver, Cross-Tip, No.1 (Item 15, Appendix B)  
Nut Driver, 3/16-inch (Item 29, Appendix B)

##### Material/Parts Required

Cable, Power, 20-foot (Item 1, Figure C-37, Appendix C)  
LED, Replacement (Item 3, Figure C-31, Appendix C)

##### References

Technical/Rigger Inspection Procedures  
(PARAGRAPH 2.10)  
Table 2-1

##### Equipment Condition

Removed from system.  
POWER switch in OFF position.  
JETTISON SWITCH in OFF position.

---

---

#### INSPECT

---

INSPECT THE CONTROL BOX IN ACCORDANCE WITH PARAGRAPH 2.10 AND TABLE 2-1.

---

#### TEST

---

TEST THE LED(s).

1. Connect the P1 plug of a serviceable power cable to the J1 receptacle of the control box.
2. Connect the P2 plug of the power cable to the 28 VDC power supply.
3. Plug 28 VDC power supply cord into 115 VAC power source.
4. Turn the power supply ON. Ensure that the control box circuit breaker is pushed in. Set the POWER switch of the control box to the ON position.
5. Rotate the DIMMER adjust knob on the control box fully clockwise.
6. Press the LAMP TEST switch on the control box.
7. If all four LEDs light up, return control box to service. If all four LEDs do not light up, set POWER switch of control box to OFF and replace 20-foot power cable. Repeat steps 4 through 6.
8. If one or more LEDs do not light, replace defective LED(s).

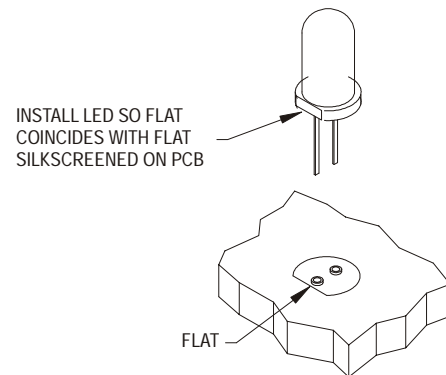
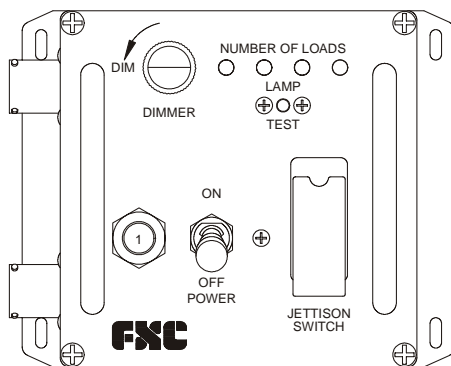
---

**REPAIR**


---

**REPAIR DEFECTIVE LED(s).**

1. Set the POWER switch on the control box and 28 VDC power supply to OFF. Disconnect power cable from the control box.
2. Remove the four screws and the cover of the control box.
3. On the backside of the cover, using nut driver, remove the two (2) nuts holding the printed circuit board (PCB) to the cover. Carefully remove the PCB from the cover.
4. Remove and discard the defective LED(s) from its socket.

**CAUTION**

Make sure that the flat on the flange of the LED lines up with the flat that is marked on the PCB. Improper installation may damage the LED.

5. Install the new LED(s) so the flat side of the LED base matches the flat side of circle on PCB.
6. Reinstall the PCB to the cover using the two (2) nuts.
7. Reinstall the cover of the control box using the four (4) screws.
8. Repeat the inspection procedure to ensure all LEDs light up.

---

**REPLACE**


---

REPLACE AN UNSERVICEABLE CONTROL BOX WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.50.6 PLATFORM CABLE (ALL) / EXTENSION CABLE, 4-FOOT (C-5 and C-17 only)**

---

**This task covers:**      **a. Inspect**      **b. Test**      **c. Replace**

---

**INITIAL SETUP**

---

**Tools**

Power Supply, 28 VDC (Item 30, Appendix B)  
 Simulator, Initiator (Item 20, Appendix B)

**Material/Parts Required**

Box, Control (Item 1, Figure C-31, Appendix C)  
 Cable, Power, 20-foot (Item 1, Figure C-37, Appendix C)  
 Cable, Interconnect, 10-foot (Item 1, Figure C-35, Appendix C)  
 Y-Connector (Item 1, Figure C-28, Appendix C)  
 Cable, Platform, 10-Foot (Item 1, Figure C-34, Appendix C)

**References**

Technical/Rigger Inspection Procedure  
 (PARAGRAPH 2.10)  
 Table 2-1

**Equipment Condition**

N/A

---

**INSPECT**

---

INSPECT THE PLATFORM CABLES AND THE 4-FOOT INTERCONNECT CABLES IN ACCORDANCE WITH PARAGRAPH 2.10 AND TABLE 2-1.

**TEST**

---

TEST CABLE CONTINUITY.

1. Ensure the POWER and JETTISON switches of a serviceable control box are both OFF. Connect the P13 connector of the 4-foot extension cable to the J3 connector of a serviceable Y-connector. Connect the P1 plug of a serviceable interconnect cable to the J1 receptacle of a serviceable Y-connector. Connect the P2 plug of the interconnect cable to the J2 receptacle of a serviceable control box. Connect the P1 plug of a serviceable power cable to the J2 receptacle of the control box.
2. Connect the P2 plug of the power cable to the 28 VDC power supply.
3. Plug 28 VDC power supply cord into 115 VAC power source.
4. Connect the J1 receptacle of a serviceable initiator simulator to the J13 connector of the 4-foot extension cable. Make sure the two circuit breakers on the initiator simulator are set to ON.
5. Turn the power supply ON. Ensure the control box circuit breaker is pushed in. Set POWER switch of the control box to ON.
6. Rotate the DIMMER adjust knob on the control box fully clockwise.



7. Check that one LED on the control box is lit, and the LED on the Y-connector is lit.
8. Lift the guard of the JETTISON SWITCH and place the JETTISON SWITCH in the ON position.
9. Turn 28 VDC power supply OFF and disconnect from 115 VAC power source. Disconnect 20-foot power cable from 28 VDC power supply and control box.
10. Return pieces and parts to proper storage location.

---

**REPLACE**

---

REPLACE AN UNSERVICEABLE PLATFORM CABLE OR 4-FOOT EXTENSION CABLE WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.50.7 INTERCONNECT CABLE, 10-FOOT**

---

**This task covers:**      **a. Inspect**      **b. Test**      **c. Replace**

---

**INITIAL SETUP**

---

**Tools**

Power Supply, 28 VDC (Item 30, Appendix B)

**Material/Parts Required**

Box, Control (Item 1, Figure C-31, Appendix C)  
 Cable, Power, 20-foot (Item 1, Figure C-37, Appendix C)  
 Y-Connector (Item 1, Figure C-28, Appendix C)

**References**

Technical/Rigger Inspection Procedure  
 (PARAGRAPH 2.10)  
 Table 2-1

**Equipment Condition**

N/A

---

**INSPECT**

---

INSPECT THE 10-FOOT INTERCONNECT CABLE IN ACCORDANCE WITH PARAGRAPH 2.10 AND TABLE 2-1.

**TEST**

---

TEST CABLE CONTINUITY.

1. Ensure the POWER and JETTISON switches of a serviceable control box are both OFF. Connect the P1 plug of the 10-foot interconnect cable to the J1 receptacle of a serviceable Y-connector. Connect the P2 plug of the 10-foot interconnect cable to the J2 receptacle of a serviceable control box. Connect the P1 plug of a serviceable power cable to the J1 receptacle of the control box.
2. Connect the P2 plug of the power cable to the 28 VDC power supply.
3. Plug 28 VDC power supply cord into 115 VAC power source.
4. Turn the power supply ON. Ensure the control box circuit breaker is pushed in. Set the POWER switch of the control box to the ON position.
5. Rotate the DIMMER adjust knob on the control box fully clockwise.
6. Press the LAMP TEST switch on the Y-connector. If the LED(s) light up, the 10-foot interconnect cable is serviceable. If the LED(s) do not light, replace the 10-foot interconnect cable.
7. Turn 28 VDC power supply OFF and disconnect from 115 VAC power source. Disconnect 10-foot power cable from 28 VDC power supply and control box.
8. Return pieces and parts to proper storage location.

REPLACE

REPLACE AN UNSERVICEABLE 10-FOOT INTERCONNECT CABLE WITH A SERVICEABLE ITEM FROM STOCK.

---

### 2.50.8 MAIN CABLE, 50-FOOT

---

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

---

#### INITIAL SETUP

##### Tools

Power Supply, 28 VDC (Item 30, Appendix B)

##### Material/Parts Required

Box, Control (Item 1, Figure C-31, Appendix C)  
Cable, Power, 20-foot (Item 1, Figure C-37, Appendix C)  
Y-Connector (Item 1, Figure C-28, Appendix C)

##### References

Technical/Rigger Inspection Procedure  
(PARAGRAPH 2.10)  
Table 2-1

##### Equipment Condition

N/A

---

#### INSPECT

INSPECT THE 50-FOOT MAIN CABLE IN ACCORDANCE WITH PARAGRAPH 2.10 AND TABLE 2-1.

#### TEST

TEST CABLE CONTINUITY.

1. Ensure the POWER and JETTISON switches of a serviceable control box are both OFF. Connect the P1 plug of the main cable to the J1 receptacle of a serviceable Y-connector. Connect the P2 plug of the main cable to the J2 receptacle of a serviceable control box. Connect the P1 plug of a serviceable power cable to the J1 receptacle of the control box.
2. Connect the P2 plug of the power cable to the 28 VDC power supply.
3. Plug 28 VDC power supply cord into 115 VAC power source.
4. Turn the power supply ON. Ensure the control box circuit breaker is pushed in. Set the POWER switch of the control box to the ON position.
5. Rotate the DIMMER adjust knob on the control box fully clockwise.
6. Press the LAMP TEST switch on the Y-connector. If the LED(s) do light up, the 50-foot main cable is serviceable. If the LED(s) do not light up, replace the 50-foot main cable.
7. Turn 28 VDC power supply OFF and disconnect from 115 VAC power source. Disconnect 20-foot power cable from 28 VDC power supply and control box.
8. Return pieces and parts to proper storage location.

REPLACE

REPLACE AN UNSERVICEABLE 50-FOOT MAIN CABLE WITH A SERVICEABLE ITEM FROM STOCK.

---

### 2.50.9 POWER CABLE, 20-FOOT

---

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

---

#### INITIAL SETUP

##### Tools

Power Supply, 28 VDC (Item 30, Appendix B)

##### Material/Parts Required

Box, Control (Item 1, Figure C-31, Appendix C)

##### References

Technical/Rigger Inspection Procedure  
(PARAGRAPH 2.10)  
Table 2-1

##### Equipment Condition

N/A

---

#### INSPECT

INSPECT THE 20-FOOT POWER CABLE IN ACCORDANCE WITH PARAGRAPH 2.10 AND TABLE 2-1.

#### TEST

TEST CABLE CONTINUITY.

1. Ensure the POWER and JETTISON switches of a serviceable control box are both OFF. Connect the P1 plug of the cable to the J1 receptacle of the control box.
2. Connect the P2 plug of the power cable to the 28 VDC power supply.
3. Plug the 28 VDC power supply cord into the 115 VAC power source.
4. Turn the power supply ON. Ensure that the control box circuit breaker is pushed in. Set the power switch of the control box to the ON position.
5. Rotate the DIMMER adjust knob on the control box fully clockwise.
6. Press the LAMP TEST switch on the control box. If the LED(s) do light up, the 20-foot power cable is serviceable. If the LED(s) do not light up, replace the 20-foot power cable.
7. Turn 28 VDC power supply OFF and disconnect from 115 VAC power source. Disconnect 20-foot power cable from 28 VDC power supply and control box.
8. Return pieces and parts to proper storage location.

#### REPLACE

REPLACE AN UNSERVICEABLE 20-FOOT POWER CABLE WITH A SERVICEABLE ITEM FROM STOCK.

**2.50.10 COVER**

**This task covers:**      **a. Inspect**      **b. Repair**

**INITIAL SETUP**

**Tools**

Chuck, Grommet Setting (Item 24, Appendix B)  
 Die, Grommet Setting (Item 25, Appendix B)  
 Sewing Machine, General Sewing, Industrial  
 (Item 27, Appendix B)  
 Sewing Machine, Darning, Industrial (Item 26,  
 Appendix B)  
 Mallet, Rawhide (Item 22, Appendix B)

**Material/Parts Required**

Fastener Tape, Hook, Synthetic, 1 1/2-inch (Item 16,  
 Appendix F)  
 Fastener Tape, Pile, Synthetic, 3/4-inch (Item 17,  
 Appendix F)  
 Thread, Nylon, Size E, Olive Drab (Item 14,  
 Appendix F-3)  
 Grommet, Metallic, Spur, Die Set (Item 2,  
 Figure C-38, Appendix C)

**References**

Technical/Rigger Inspection Procedure  
 (PARAGRAPH 2.10)  
 Table 2-1

**Equipment Condition**

Cover removed from system.  
 Unpacked. Canopy with defects recorded. Clean.

**INSPECT**

PERFORM A TECHNICAL/RIGGER TYPE INSPECTION OF THE COVER IN ACCORDANCE WITH PARAGRAPH 2.10 AND TABLE 2-1.

**REPAIR**

**NOTE**

Sewing requirements will vary according to the type of item being repaired and the type of repair being made. The type of sewing machine, type of thread, the stitch range, and the stitch pattern (if applicable) required to accomplish a sewing procedure will be specified in the paragraph applicable to the item being repaired. All original stitching that is cut during the performance of a sewing procedure will be removed from the applicable item. Immediately after the accomplishment of a machine sewing procedure, trim thread ends to a point as close as possible to the material that has been sewn.

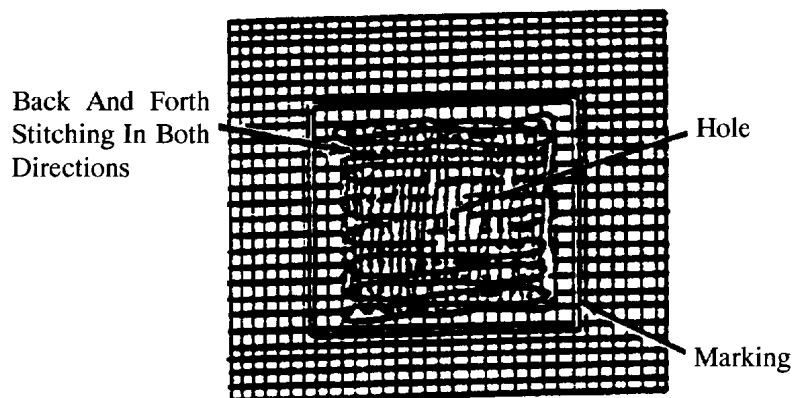
**Table 2-3. Sewing Machine Code Symbols.**

CODE SYMBOL	SEWING MACHINE
LD	SEWING MACHINE, INDUSTRIAL: General Sewing; 301 Stitch; Light Duty; NSN 350-01-177-8590.
MD ZZ	SEWING MACHINE, INDUSTRIAL: Zig-Zag; 308 Stitch; Medium Duty; NSN 3530-01-181-1421.
LD ZZ	SEWING MACHINE, INDUSTRIAL: Zig-Zag; 308 Stitch; Light Duty; NSN 3530-01-181-1420.
HD	SEWING MACHINE, INDUSTRIAL: General Sewing; 301 Stitch; Medium Duty; NSN 3530-01-177-8591.
MD	SEWING MACHINE, INDUSTRIAL: General Sewing; 301 Stitch; Medium Duty; NSN 3530-01-177-8591.
DN	SEWING MACHINE, INDUSTRIAL: Darning; Lock Stitch; NSN 3530-01-177-8589.
LHD	SEWING MACHINE, INDUSTRIAL: 301 Stitch; Light-Heavy Duty; NSN 3530-01-186-3079.
ND	SEWING MACHINE, INDUSTRIAL: 301 Stitch; Double-Needle; NSN 3530-01-182-2873.

**Darning Repair.**

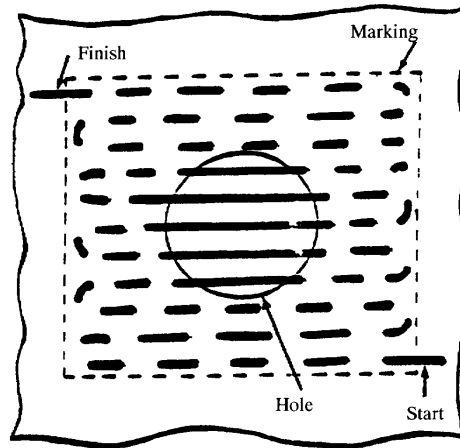
Darning is a sewing procedure used to repair limited size holes, rips, and tears. A darning repair may be made either by hand or by sewing machine, depending upon the method preferred and the availability of equipment. However, a darning machine should be used to darn small holes and tears where fabric is missing. A darning repair will be performed using the following procedures, as appropriate:

1. *Machine darning.* Proceed as follows:
  - a. Using an authorized marking aid of contrasting color, mark a square around the damaged area and ensure the marking is at least ¼-inch back from each edge of the damaged area.
  - b. Darn the damaged area by sewing the material in a back and forth manner, using size A or E nylon thread.
  - c. Turn the material and stitch back and forth across the stitching made in b., above, until the hole or tears completely darned.



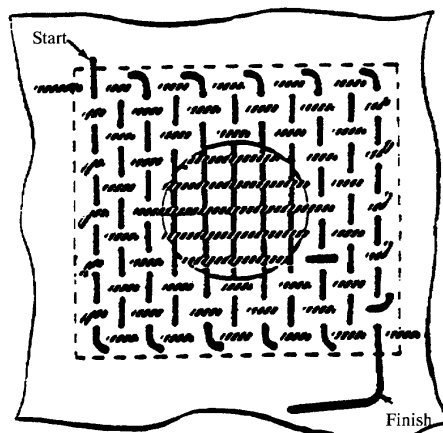


2. *Hand darning.* When repair of a hole or tear is made by hand darning, the darn should match the original weave of the damaged material as closely as possible. Hand darning will be performed as follows:
  - a. Using an authorized marking aid of contrasting color, mark a square around the damaged area and ensure the marking is at least ¼-inch back from each edge of the damaged area.
  - b. Using a darning needle and a length of size A or E nylon thread, begin darning at one corner of the marked area. Working parallel with the marking, pass the needle and thread back and forth through the material until the opposite diagonal corner of the marked area is reached.



(A) Stitching

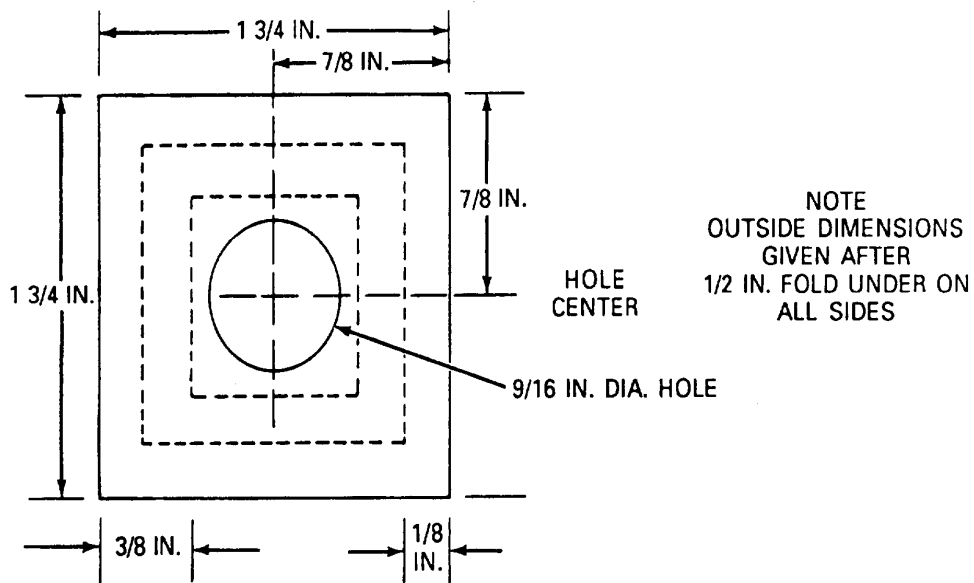
- c. Turn the material and weave the needle and thread back and forth across the stitching made in b., above, until the hole is completely darned.



(B) Hand Darning Completed

**Grommet Repair.**

1. Repair grommet as follows:
  - a. Remove burns, rough spots, rust, or corrosion from an installed grommet by filing with a file or by buffing with a crocus cloth.
  - b. Reseat a loose grommet using the procedures listed in step (2), following.
  - c. If fabric area around original grommet has been damaged, repair area by darning using procedures in darning procedural steps detailed above. If darning does not provide an adequate repair, construct a 2 3/4- by 2 3/4-inch sized reinforcement cloth and fold under 1/2-inch on all sides. After removing original grommet, sew cloth to inside with a medium-duty sewing machine, size E nylon thread, 7 to 11 stitches per inch, one row of stitches 1/8-inch from inside edge and the second row 3/8-inch from outside edge.



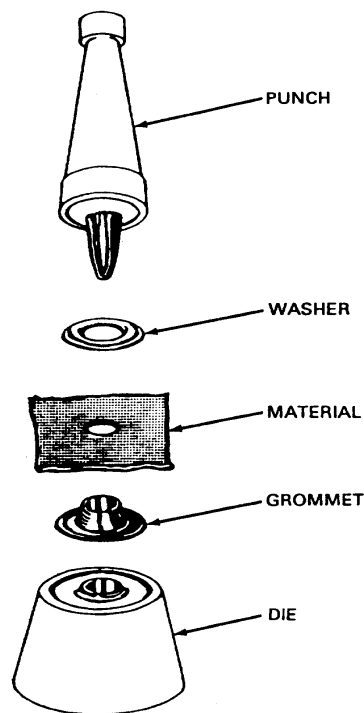
4835-089

2. Replace grommet as follows:

**NOTE**

For grommet installation by the hand-held method, refer to steps (c) through (f), following. For grommet installation by hand-or foot-operated press, refer to steps (g) through (k).

- a. Using a suitable type tool, lift edge of original washer at one point.
- b. Grip lifted washer edge with lineman pliers and roll washer edge back to lift washer from original grommet. Remove original grommet from material.
- c. Insert barrel of replacement grommet through accommodating hole in material and ensure grommet flange is located on same side of material as original grommet.



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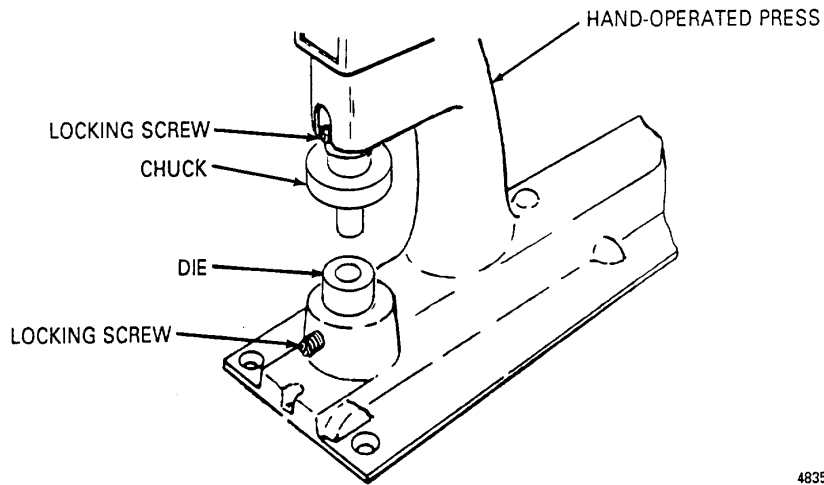
- d. Position grommet on die with barrel facing up, position material over grommet barrel, and place the washer over grommet barrel.

**NOTE**

When installing a flat grommet by the hand-held method, ensure the grommet barrel and washer are aligned to preclude off-center setting of the grommet.

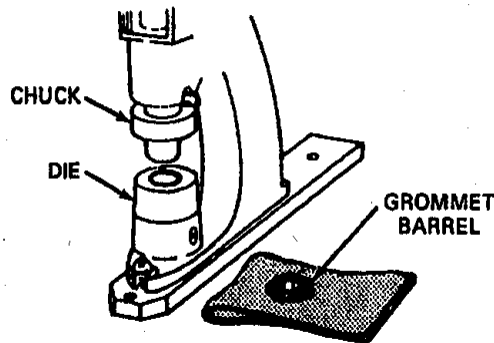
- e. Using a punch and rawhide mallet or other non-steel impact device, spread grommet barrel by hammering until barrel collar is rolled down smooth on washer. If grommet barrel splits during hammering process, remove and replace damaged grommet with a serviceable item from stock, repeating procedures in step (d) and (e), above.

- f. Check seating of grommet. If grommet can be turned by hand, repeat step (e) until grommet is firmly seated.
- g. Install appropriate chuck or die in hand-operated press and secure locking screws with hex wrench, or screwdriver.

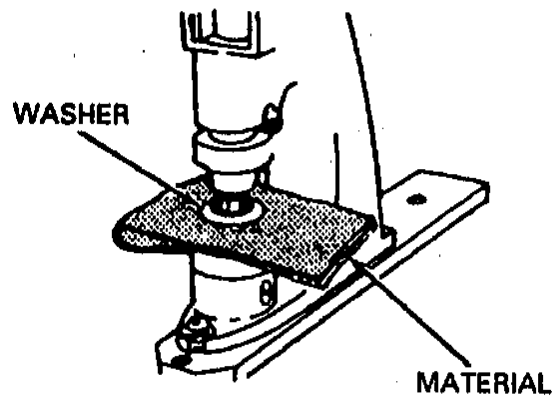


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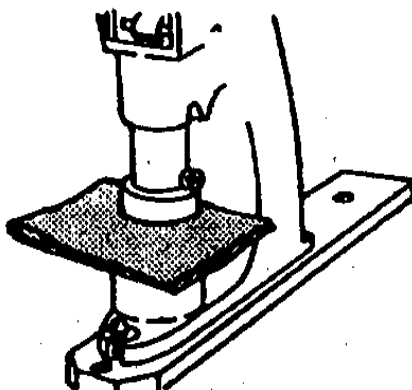
- h. Insert barrel of replacement grommet through hole in material. Ensure grommet flange is on same side of material as original grommet (grommet barrel inserted in material hole).



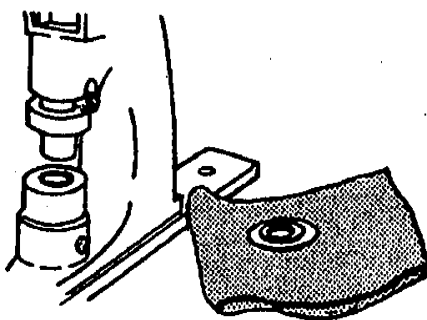
- i. Position grommet on die in press with barrel facing up and place replacement washer over barrel (washer placed over grommet barrel).



- j. Depress handle or foot pedal, spreading grommet barrel until collar is rolled down smoothly on washer (press activated to seat the grommet).



- k. Check grommet for firm seating. If grommet can be turned by hand, repeat step (j), above, until a firm seat is achieved (grommet installation completed).



---

### 2.50.11 KIT BAG

---

This task covers:      a. Inspect      b. Repair

---

### INITIAL SETUP

#### Tools

Sewing Machine, General Sewing, Industrial  
(Item 27, Appendix B)  
Sewing Machine, Darning, Industrial (Item 26,  
Appendix B)

#### Material/Parts Required

Thread, Nylon, Size E, Olive Drab (Item 14,  
Appendix F-3)

#### References

Technical/Rigger Inspection Procedure  
(PARAGRAPH 2.10)

#### Equipment Condition

N/A

---

### INSPECT

PERFORM A TECHNICAL/RIGGER TYPE INSPECTION OF THE COVER IN ACCORDANCE WITH PARAGRAPH 2.10.

### REPAIR

DARNING RIPS, HOLES, AND TEARS.

1. Refer to darning procedures in paragraph 2.50.10.
  - a. Repair damaged seams using a heavy duty sewing machine, in accordance with original construction, using size E nylon thread and 7 to 11 stitches per inch.

---

**2.50.12 TIEDOWN BRACKET**

---

**This task covers:**      **a. Inspect**      **b. Replace**

---



---

**INITIAL SETUP**

---

**Tools**

N/A

**Material/Parts Required**

N/A

**References**

Technical/Rigger Inspection Procedure  
(PARAGRAPH 2.10)  
Table 2-1

**Equipment Condition**

N/A

---



---

**INSPECT**

---

INSPECT THE TIEDOWN BRACKET IN ACCORDANCE WITH PARAGRAPH 2.10 AND TABLE 2-1.

---

**REPLACE**

---

REPLACE AN UNSERVICEABLE TIEDOWN BRACKET (C-5 ONLY) WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.50.13 POWER CABLE EXTENSION, 20-FOOT (C-17 only)**

---

**This task covers:**      a. Inspect      b. Replace

---

---

**INITIAL SETUP**

---

**Tools**

N/A

**Material/Parts Required**

N/A

**References**

Technical/Rigger Inspection Procedure  
(PARAGRAPH 2.10)  
Table 2-1

**Equipment Condition**

N/A

---

---

**INSPECT**

---

INSPECT THE 20-FOOT POWER CABLE EXTENSION IN ACCORDANCE WITH PARAGRAPH 2.10 AND TABLE 2-1.

---

**REPLACE**

---

REPLACE AN UNSERVICEABLE 20-FOOT POWER CABLE EXTENSION (C-17 ONLY) WITH A SERVICEABLE ITEM FROM STOCK.



---

**2.50.14 POWER CABLE ADAPTER, 1-FOOT (C-5 only)**

---

This task covers:      a. Inspect      b. Replace

---

---

**INITIAL SETUP**

---

**Tools**

N/A

**Material/Parts Required**

N/A

**References**

Technical/Rigger Inspection Procedure  
(PARAGRAPH 2.10)  
Table 2-1

**Equipment Condition**

N/A

---

**INSPECT**

---

INSPECT THE POWER CABLE ADAPTER IN ACCORDANCE WITH PARAGRAPH 2.10 AND TABLE 2-1.

---

**REPLACE**

---

REPLACE AN UNSERVICEABLE POWER CABLE ADAPTER (C-5 ONLY) WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.50.15 SAFETY CAP**

---

**This task covers:**      **a. Inspect**      **b. Replace**

---

**INITIAL SETUP**

---

**Tools**

N/A

**Material/Parts Required**

N/A

**References**

Technical/Rigger Inspection Procedure  
(PARAGRAPH 2.10)  
Table 2-1

**Equipment Condition**

N/A

---

**INSPECT**

---

INSPECT THE SAFETY CAP IN ACCORDANCE WITH PARAGRAPH 2.10 AND TABLE 2-1.

**REPLACE**

---

REPLACE AN UNSERVICEABLE SAFETY CAP WITH A SERVICEABLE ITEM FROM STOCK.

---

## 2.50.16 INITIATOR SIMULATOR

---

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

---

### INITIAL SETUP

#### Tools

Power Supply, 28 VDC (Item 30, Appendix B)

#### Material/Parts Required

Y-Connector (Item 1, Figure C-28, Appendix C)  
 Box, Control (Item 1, Figure C-31, Appendix C)  
 Cable, Power, 20-foot (Item 1, Figure C-37, Appendix C)

#### References

Technical/Rigger Inspection Procedure  
 (PARAGRAPH 2.10)

#### Equipment Condition

N/A

---

### INSPECT

PERFORM A TECHNICAL/RIGGER TYPE INSPECTION OF THE INITIATOR SIMULATOR IN ACCORDANCE WITH PARAGRAPH 2.10.

### TEST

TESTING THE INITIATOR SIMULATOR.

1. Ensure the POWER and JETTISON switches of a serviceable control box are OFF. Connect P1 plug of a serviceable 20-foot power cable to J1 receptacle of control box.
2. Connect the P2 plug of the power cable to the 28 VDC power supply.
3. Plug the 28 VDC power supply cord into the 115 VAC power source.
4. Turn the power supply ON. Ensure the control box circuit breaker is pushed in.
5. Connect J1 receptacle of initiator simulator directly into J3 receptacle of a serviceable Y-connector.
6. Connect J1 receptacle of Y-connector directly into J2 receptacle of control box.
7. Set circuit breakers on initiator simulator to ON.
8. Set POWER switch of control box to ON.
9. Set JETTISON SWITCH on control box to ON. If both circuit breakers on the initiator simulator are tripped to OFF, the initiator simulator is serviceable. If either one or both breakers do not trip, the initiator simulator is defective.

TM 10-1670-296-20&P

REPLACE

REPLACE AN UNSERVICEABLE INITIATOR STIMULATOR WITH A SERVICEABLE ITEM FROM STOCK.

---

**2.50.17 SQUIB TESTER**

---

**This task covers:**      **a. Inspect**      **b. Test**      **c. Repair**

---

**INITIAL SETUP**

---

**Tools**

Screwdriver, Cross-Tip, No.1 (Item 15, Appendix B)

**Material/Parts Required**

Battery, 2 ea. (Item 3, Figure C-46, Appendix C)  
LED, Red (Item 4, Figure C-46, Appendix C)

**References**

Technical/Rigger Inspection Procedure  
(PARAGRAPH 2.10)

**Equipment Condition**

N/A

---

**INSPECT**

---

PERFORM A TECHNICAL/RIGGER TYPE INSPECTION OF THE SQUIB TESTER IN ACCORDANCE WITH PARAGRAPH 2.10.

**TEST**

---

TESTING BATTERIES AND LED.

1. Set CIRCUIT SELECT switch to A-B.
2. Set POWER switch to ON. OPEN LED should illuminate. If OPEN LED does not illuminate, skip to REPAIR procedures.
3. Set CIRCUIT SELECT switch to C-D. OPEN LED should illuminate. Replace squib tester if OPEN LED does not illuminate.
4. Using a suitable length of 20-gauge or smaller wire, connect receptacle pins C and D. SHORT LED should illuminate. If SHORT LED does not illuminate, skip to REPAIR procedure step 6.
5. Remove wire from pins C and D and connect receptacle pins A and B.
6. Set CIRCUIT SELECT to A-B. SHORT LED should illuminate. If SHORT LED does not illuminate, replace squib tester.
7. If LEDs illuminate properly, remove wire, turn POWER switch to OFF, and return squib tester to service.

**REPAIR**

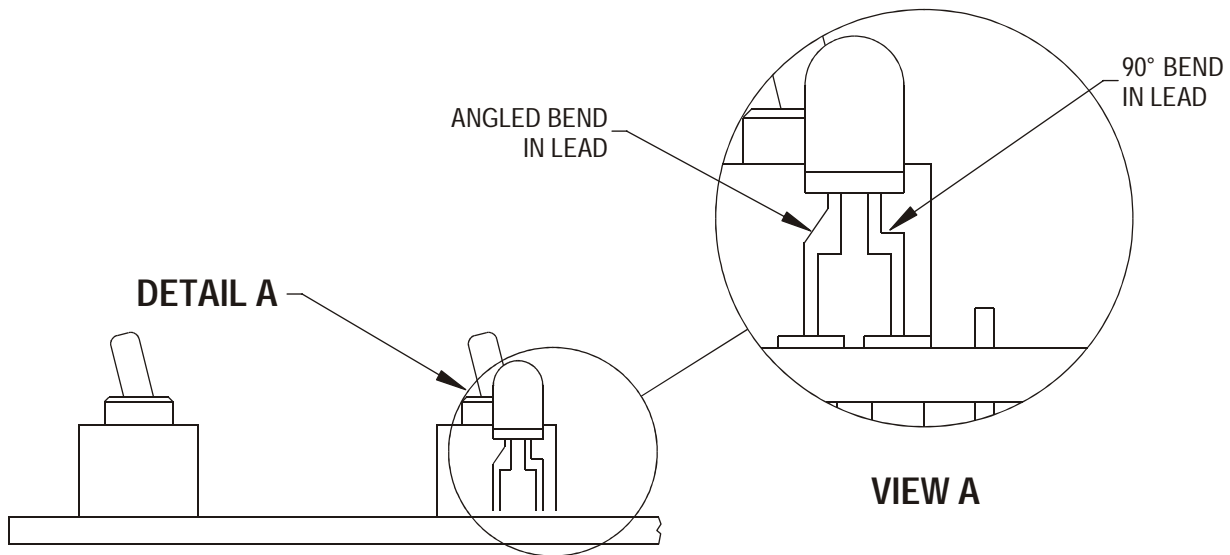
REPLACING BATTERIES AND LEDs.

1. Remove three pan-head screws and cover from squib tester.

**NOTE**

When replacing batteries, always replace both batteries.

2. Replace batteries; make sure to orient battery (+) and (-) terminals as shown in battery holder.
3. Set POWER switch to ON. If OPEN LED illuminates, proceed with paragraph 2.50.13, TEST procedures. If OPEN LED does not illuminate, continue with step 4.
4. Replace LED D1. Orient LED as shown in following illustration.



5. If OPEN LED illuminates, proceed with paragraph 2.50.5, step 1. If OPEN LED does not illuminate, replace squib tester.
6. Replace LED D2. Orient LED as shown in previous illustration.
7. Verify receptacle pins C and D are connected, CIRCUIT SELECT switch is set to C-D and POWER switch is ON. SHORT LED should illuminate. If SHORT LED illuminates, proceed with paragraph 2.50.5, step 1. If SHORT LED does not illuminate, replace squib tester.
8. Remove wire connecting receptacle pins A and B. Replace cover and three pan-head screws and return squib tester to service.

---

## SECTION VII. PREPARATION FOR STORAGE AND SHIPMENT

### 2.51 ADMINISTRATIVE STORAGE.

- a. Placement of LVADS Ancillary Equipment in administrative storage should be for brief periods when a maintenance resource shortage exists. Items should be in mission readiness within 24 hours or within the time factors as determined by the directing authority. During the short period, appropriate maintenance records will be kept.
- b. Before placing the equipment in administrative storage, current preventive maintenance checks and services should be completed, shortcomings and deficiencies should be corrected, and applicable Modification Work Orders (MWO) applied.
- c. Storage Site Selection. To maintain the serviceability of stored LVADS Ancillary Equipment, use the following procedures:
- (1) When available, store the LVADS Ancillary Equipment in a heated building.
  - (2) LVADS Ancillary Equipment should be stored in a controlled temperature, dry, and well-ventilated environment and protected from theft, dampness, fire, dirt, insects, rodents, and direct sunlight.
  - (3) Do not store the equipment where it would prevent ventilation or interfere with light fixtures, heating vents, fire fighting devices, cooling units, exits, or fire doors.
  - (4) Do not store LVADS Ancillary Equipment when it is damaged, dirty, or damp.
  - (5) All stored items will be marked, segregated, and located for accessibility and easy identification.
  - (6) Do not store equipment in direct contact with any building floor or wall. Use bins, shelves, pallets, racks, or dunnage to provide airspace between the storage area floor and the equipment. If preconstructed shelving or other storage accommodations are not available, fabricate storage provisions using suitable lumber or wooden boxes.
  - (7) All available materials-handling equipment should be used as much as possible in the handling of airdrop items.
  - (8) Periodic rotation of stock, conservation of available space, proper housekeeping policies and strict adherence to all safety regulations will be practiced at all times.
- d. Inspection. In addition to the unit PMCS procedures, inspect the equipment for rips, tears, dirt, and missing components.
- e. Cleaning and Drying. Clean and dry the ancillary equipment in accordance with procedures described in paragraph 2.8.

#### NOTE

Cargo parachute releases will not be disassembled for administrative storage.

### 2.52 IN-STORAGE INSPECTION.

An in-storage inspection is a physical check conducted on a random sample basis of stored LVADS Ancillary Equipment. Check that the equipment is ready for issue, that the item is properly identified and segregated from other types of equipment, that no damage or deterioration has occurred, and that all modifications or similar action requirements have been completed. Also, check that the methods and procedures applied to the storage of airdrop items are followed, that the storage facilities are adequate, that rodents and other pests are adequately controlled, and that the equipment is adequately protected against the elements. Stored LVADS Ancillary Equipment will be inspected at least semiannually and at more frequent intervals if prescribed by the local parachute maintenance officer. The frequency of inspection may vary according to the type of storage facilities and local climatic conditions. In-storage inspections will be conducted only by parachute rigger personnel designated by the local parachute maintenance officer.

**2.53 PRESERVATION.**

If the LVADS Ancillary Equipment is to be stored without regular PMCS being performed, consult TM 38-230-2 for preservation requirements.

**2.54 PREPARATION FOR SHIPMENT.**

Prepare the LVADS Ancillary Equipment for shipment by packing components into original or similar containers in which they were received.



**APPENDIX A  
REFERENCES**

**A.1 SCOPE.**

This appendix lists all forms, field manuals, technical manuals, and miscellaneous publications referenced in this manual. Also listed are publications that should be consulted for additional information

**A.2 FORMS.**

Army Parachute Log Record.....	DA Form 1042
Recommended Changed to Publications and Blank Forms .....	DA Form 2028
Recommended Changed to Equipment Technical Publications.....	DA Form 2028-2
Exchange Tag .....	DA Form 2402
Equipment Inspection and Maintenance Worksheet.....	DA Form 2404
Equipment Modification Record .....	DA Form 2408-5
Equipment Log Assembly (Records).....	DA Form 2408-9
Exchange Tag .....	DA Form 2402
Army Parachute Log Record.....	DA Form 3912
Maintenance Request .....	DA Form 5504
Report of Discrepancy .....	SF 364
Quality Deficiency Report .....	SF 368

**A.3 FIELD MANUALS.**

Rigging Procedures .....	FM 10-500 Series
First Aid for Soldiers .....	FM 21-11

**A.4 TECHNICAL MANUALS.**

Repair of Canvas and Webbing .....	TM 10-269
Airdrop of Supplies and Equipment, General .....	TM 10-500
Preservation, Packaging Packing of Military Supplies and Equipment (Vol 1 .....	TM 38-230-1
Preservation, Packaging, Packing of Military Supplies and Equipment (Vol 2) .....	TM 38-230-2
Army Equipment Record Procedures .....	TM 38-750
Procedures for the Destruction of Air Delivery Equipment to Prevent Enemy Use .....	TM 43-0002-1
Technical Training of Parachutist.....	TM 57-220
Administrative Storage of Equipment .....	TM 740-90-1
Storage and Materials Handling .....	TM 743-200-1
Destruction of Army Material to Prevent Enemy Use .....	TM 750-244-3

**A.5 MISCELLANEOUS.**

Military Standard Transportation and Movement Procedures (MILSTAMP) .....	AR 5545
Preservation, Packaging, Packing, and Marking of Items of Supply .....	AR 700-15
Reporting Unsatisfactory Newly Procured and Contractor Maintained Material .....	AR 702-1
Accounting for Lost, Damaged, and Destroyed Property.....	AR 735-11
Packing of Army material for Shipment and Storage .....	AR 746-1
Maintenance of Supplies and Equipment .....	AR 750-1
Airdrop, Parachute Recovery and Aircraft Personnel Escape Systems .....	AR 750-32
Consolidated Index of Army Publications and Forms.....	DA PAM 25-30
The Army Maintenance Management System .....	DA PAM 738-750
Functional User's Manual for the Army Maintenance Management System Aviation .....	DA PAM 738-751
Maintenance Expenditure Limits for FSC Group 16, Classes 1610,1615, 1620, 1630, 1650,1660, 1670, and 1680 .....	TB 43-0002-4
Maintenance Expenditure Limits for FSC Group 16, Class 1670.....	TB 43-0002-43
Abbreviations for Use on Drawings, and in Specifications, Standards, and Technical Documents.....	MIL-STD-12

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## APPENDIX B MAINTENANCE ALLOCATION CHART

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### SECTION I. INTRODUCTION

#### **B.1 GENERAL.**

a. This section provides a general explanation of all maintenance and repair functions authorized at various maintenance levels under the standard Army Maintenance System concept.

b. The Maintenance Allocation Chart (MAC) In Section II designates overall authority and responsibility for the performance of maintenance functions on the Identified end item or component. The application of the maintenance functions to the end item or component will be constant with the capacities and capabilities of the designated maintenance categories.

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

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

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

Maintenance functions will be limited to and defined as follows:

a. Inspect To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination (e g., by sight, sound, or feel).

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

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

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

e. Replace. To remove an unserviceable item and Install a serviceable counterpart in its place. "Replace" is authorized by the MAC and is shown as the 3rd position code of the SMR code.

f. Repair. The application of maintenance services, Including fault location/troubleshooting, removal/ installation, and disassembly/assembly procedures, and maintenance actions to identify troubles, and restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly) end Item, or system.

g. Overhaul. That maintenance effort (service/action) prescribed to restore an item to a completely serviceable/operational condition as required by maintenance standards in appropriate technical publications (i e., DMWR). Overhaul In normally the highest degree of maintenance performed by the Army Overhaul does not normally return an item to like new condition.

h. Rebuild. Consists of those service/actions necessary for the restoration of unserviceable equipment to a like-new condition In accordance with original manufacturing standards. Rebuild is the highest degree of material maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (hours, miles, etc.) considered in classifying Army equipment and components.

**B.3 EXPLANATION OF COLUMNS IN THE MAC - SECTION II.**

a. Column 1 - Group Number. Column 1 lists functional group code numbers, the purpose of which is to identify maintenance significant components, assemblies, subassemblies, and modules with the next higher assembly End item group numbers are "00".

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

c. Column 3 - Maintenance Function. Column 3 lists the functions to be performed on the item listed in column 2. (For detailed explanation of these functions, see Paragraph B.2.

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

- C.....Operator or Crew
- O.....Unit Maintenance
- F.....Direct Support Maintenance
- H.....General Support Maintenance
- D.....Depot Maintenance

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

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

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

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

b. Column 2. Maintenance Level. The lowest category of maintenance authorized to use the tool or test equipment.

c. Column 3. Nomenclature. Name or identification of the tool or test equipment.

d. Column 4. National Stock Number. The National Stock Number of the tool or test equipment.

e. Column 5. Tool Number. The manufacturer's part number.

**B.5 EXPLANATION OF COLUMNS IN REMARKS, SECTION IV.**

a. Column 1. Reference Codes. The code recorded in column 6, Section II.

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

## SECTION II. MAINTENANCE ALLOCATION CHART

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL					(5) TOOLS & EQPT	(6) REMARK S
			UNIT		INTERMEDIATE		DEPOT		
			C	O	F	H	D		
01	Line, Multi-Loop	Inspect Repair Replace		0.2 0.4 0.2				18, 19	A
02	Coupling, Extraction Force Transfer	Inspect Repair Replace		0.5 1.0 0.1				4, 7, 8, 9, 1, 4	A
0201	Adapter, Link Assembly	Inspect Replace		0.1 0.1					A
0202	Link Assembly, Coupling	Inspect Replace		0.1 0.1					A
0203	Latch Assembly, Coupling	Inspect Replace		0.2 0.1					A
0204	Cable Assembly, Coupling	Inspect Replace		0.3 0.1					A
0205	Actuator Assembly	Inspect Replace		0.2 0.1					A
03	Release, Cargo Parachute, M-1	Inspect Repair Replace		0.3 0.6 0.1				10, 11, 13, 15, 16	A
0301	Connector, Parachute	Inspect Replace		0.1 0.1					A
0302	Timer Delay Assembly	Inspect Repair Replace		0.3 0.3 0.1					A
04	Release, Cargo Parachute, M-2	Inspect Repair Replace		0.3 0.6 0.1				10, 12, 13, 15, 16	A
0401	Connector, Parachute	Inspect Replace		0.1 0.1					A
0402	Timer Delay Assembly	Inspect Repair Replace		0.3 0.3 0.1					A

SECTION II. MAINTENANCE ALLOCATION CHART

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL					(5) TOOLS & EQPT	(6) REMARK S
			UNIT		INTERMEDIATE		DEPOT		
			C	O	F	H	D		
05	Link Assembly, Single Suspension, Type IV								
0501	Link Assembly, Heavy Duty								
0502	Link, 4-Point								
0503	Cover, Link, Type IV								
0504	Cover, Aerial Delivery								
0505	Cover, Clevis								
0506	Strap, Parachute Release, Single Knife								
0507	Strap, Parachute Release, Multi-Knife								
0508	Link Assembly, Coupling, 3-Point								
0509	Bracket, Suspension								
0510	Bracket, Suspension								
0511	Plate, Suspension								
0512	Tiedown, Cargo, 10k								
0513	Tiedown, Cargo, Quick Release								
0514	Drive Off Aid, Type IV								
0515	Tiedown, Cargo, Aircraft								

SECTION II. MAINTENANCE ALLOCATION CHART

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL					(5) TOOLS & EQPT	(6) REMARK S
			UNIT		INTERMEDIATE		DEPOT		
			C	O	F	H	D		
06	Jettison System, Parachute, Extraction	Inspect Assemble Test Disassemble		0.5 0.3 0.5 0.1				20, 30	A
0601	Jettison Device, Parachute, Extraction	Inspect Test Repair		0.2 0.1 0.4				21, 28, 31	A
0602	Squib	Inspect Test Repair		0.1 0.1 0.1				21, 28	A, B
0603	Cable, Squib	Inspect Test Repair		0.1 0.1 0.1				21, 28	A
0604	Y-Connector	Inspect Test Repair Replace		0.1 0.2 0.3 0.1				20, 30	A
0605	Mounting Box, Y-Connector (C-130, C-141, C-17) Mounting Box, Y-Connector (C-5)	Inspect Replace		0.1 0.1					A, B
0606	Box, Control	Inspect Test Repair Replace		0.2 0.2 0.3 0.1				15, 29, 30	A
0607	Cable, Platform, 10-Foot	Inspect Test Replace		0.1 0.3 0.1				20, 30	A, B
0608	Cable, Extension, 4-Foot (C-17 only)	Inspect Test Replace		0.1 0.3 0.1				20, 30	A, B
0609	Cable, Interconnect, 10-Foot	Inspect Test Replace		0.1 0.2 0.1				30	A, B

SECTION II. MAINTENANCE ALLOCATION CHART

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL					(5) TOOLS & EQPT	(6) REMARK S
			UNIT		INTERMEDIATE		DEPOT		
			C	O	F	H	D		
0610	Cable, Main, 50-Foot	Inspect Test Replace		0.1 0.2 0.1				30	A, B
0611	Cable, Power, 20-Foot	Inspect Test Replace		0.1 0.2 0.1				30	A, B
0612	Cover	Inspect Repair		0.1 0.3				22, 24, 25, 26, 27	A
0613	Bag, Kit	Inspect Repair		0.1 0.3				26, 27	A
0614	Bracket, Tiedown	Inspect Replace		0.1 0.1					A, B
0615	Cable, Extension, 20-Foot (C-17 only)	Inspect Replace		0.1 0.1					A, B
0616	Adapter, Power Cable, 1-Foot (C-5 only)	Inspect Replace		0.1 0.1					A, B
0617	Cap, Safety	Inspect Replace		0.1 0.1					A, B
0618	Simulator, Initiator	Inspect Test Replace		0.1 0.1 0.1				30	A, B
0619	Tester, Squib	Inspect Test Repair		0.1 0.1 0.2					A



## SECTION III. TOOLS AND TEST EQUIPMENT REQUIREMENTS

TOOL OR TEST EQUIPMENT REF CODE	MAINTENANCE CATEGORY	NOMENCLATURE	NATIONAL/NATO STOCK NUMBER	TOOL NUMBER
1	O	File, Bastard, 10-Inch	5110-00-234-6539	
2	O	File, Bastard, 12-inch	5110-00-239-7770	
3	O	Wrench, Open-End, 1 and 1-1/8 Inch	5120-00-187-7133	
4	O	Wrench, Open-End, 1-1/16 and 1-1/8- Inch	5120-00-293-0190	
5	O	Wrench, Open-End, 1-1/2 and 1-3/4 Inch	5120-00-277-9818	
6	O	Wrench, Open-End, 1-1/8 and 1-1/4 Inch	5120-00-277-2694	
7	O	Wrench, Open-End, 1-1/4 and 1-5/16 Inch	5120-00-277-2321	
8	O	Wrench, Open-End, 1-7/16 and 1-5/8 Inch	5120-00-277-2326	
9	O	Wrench, Open-End, 7/16 and 1/2-Inch	5120-00-187-7123	
10	O	Wrench, Open-End, 15/16 and 1-Inch	5120-00-277-7025	
11	O	Wrench, Open-End, 5/8 and 9/16-Inch	5120-00-187-7126	
12	O	Wrench, Open-End, 3/4 and 13/16 Inch	5120-00-187-7129	
13	O	Wrench, Open-End, 13/16 and 7/8 Inch	5120-00-187-7130	
14	O	Screwdriver, Cross-Tip, No. 2	5120-01-335-6886	
15	O	Screwdriver, Cross-Tip, No 1	5120-01-335-6883	
16	O	Screwdriver, Flat-Tip, 3/16	5120-00-277-7356	
17	O	Hex Key	5120-00-240-5274	
18	O	Knife, Pocket	5110-00-240-5943	
19	O	Shear, Trimmer	5110-00-596-9703	
20	O	Simulator, Initiator		
21	O	Tester, Squib		
22	O	Mallet, Rawhide	5120-00-293-3397	
23	O	Grommet, Metallic, Spur, Die Set, No.2	5120-00-221-1148	
24	O	Chuck, Grommet Setting	5120-00-343-8216	
25	O	Die, Grommet Setting	3460-00-329-3346	
26	O	Sewing Machine, Darning, Industrial	3530-01-177-8589	
27	O	Sewing Machine, General Sewing, Industrial	3530-01-177-8588	

**SECTION III. TOOLS AND TEST EQUIPMENT REQUIREMENTS**

TOOL OR TEST EQUIPMENT REF CODE	MAINTENANCE CATEGORY	NOMENCLATURE	NATIONAL/NATO STOCK NUMBER	TOOL NUMBER
28	O	Torque Wrench, 0-150-inch-pounds, needle on dial	5120-01-396-5684	
29	O	Nut Driver, 3/16-inch	5120-00-596-1263	
30	O	Power Supply, 28 VDC		
31	O	Kit, Tool, Refurbishment		

**SECTION IV. REMARKS**

REFERENCE CODE	REMARKS
A	Is a Technical/Rigger Inspection (Paragraph 2.10)
B	Repair is limited to replacement of defective components.

**APPENDIX C  
REPAIR PARTS AND SPECIAL TOOLS LIST**

**SECTION I. INTRODUCTION**

**C.1 SCOPE.**

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

**C.2 GENERAL.**

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

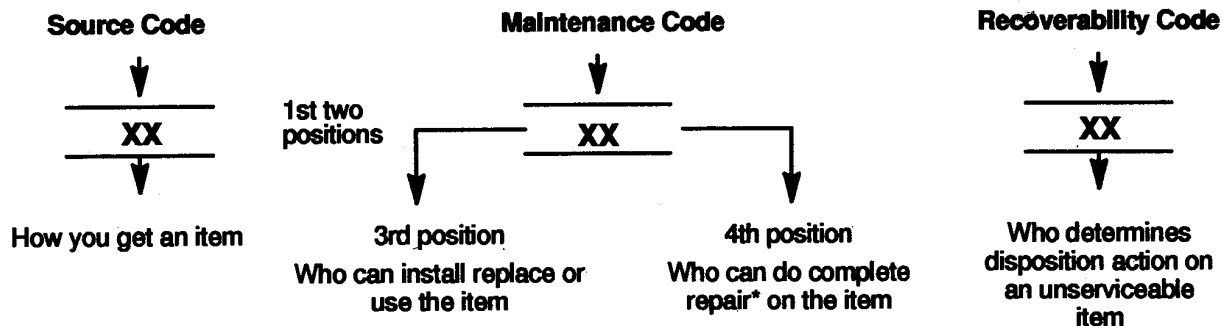
a. Section II. Repair Parts List. A list of spares and repair parts authorized by this RPSTL for use in the performance of maintenance This list also includes parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending alphanumeric sequence, with the parts in each group listed in ascending figure and item number sequence. Bulk materials are listed in item name sequence Items are shown in the associated illustration(s)/figure(s).

b. Section III Special Tools List. A list of special tools, special TMDE, and other special support equipment authorized by this RPSTL (as indicated by Basic of Issue (BOI) information in DESCRIPTION AND USABLE ON CODE column) for 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 listing, followed by a list in alphanumeric sequence of all part numbers appearing in the listings. National stock numbers and part numbers are cross referenced to each illustration figure and item number appearance The figure and item number index lists figure and item numbers in alphanumeric sequence and cross references NSN, CAGEC and part number

**C.3 EXPLANATION OF COLUMNS (SECTIONS II AND III).**

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

**Source Code**

**Explanation**

PA  
PB  
PC\*\*  
PD  
PE  
PF  
PG  
PG  
KD  
KF  
KB



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.

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.

MO (Made at org AVUM level)  
MF (Made at DS/AVUM level)  
MH (Made at GS level)  
ML (Made at Specialized Repair Activity (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 the 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.

AO (Assembled by org AVUM Level)  
AF (Assembled by DS/AVUM Level)  
AH (Assembled by GS Category)  
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 items are 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 CAGE Code 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 CAGE Code and part number given, if no NSN is available.

**NOTE**

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

(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.

<b>Maintenance Code</b>	<b>Application/Explanation</b>
C -	Crew or operator maintenance done within unit/AVUM maintenance.
O -	Unit level/AVUM maintenance can remove, replace, and use the item.
F -	Direct support/AVIM maintenance can remove, replace, and use the item.
H -	General support maintenance can remove, replace, and use the item.
L -	Specialized repair activity can remove, replace, and use the item.
D -	Depot can remove, replace, and use the item.

(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 an item at a lower level of maintenance, if authorized by the Maintenance Allocation Chart and SMR codes.

<b>Maintenance Code</b>	<b>Application/Explanation</b>
O	Unit/AVUM is the lowest level that can do complete repair of the item.
F	Direct support/AVIM is the lowest level that can do complete repair of the item.
H	General Support is the lowest level that can do complete repair of the item.
L	Specialized repair activity is the lowest level that can do complete repair of the item.
D	Depot is the lowest level that can do complete repair of the item.
Z	Nonrepairable. 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:

<b>Recoverability Code</b>	<b>Application/Explanation</b>
Z -	Nonrepairable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in 3d position of SMR Code.
O -	Reparable item. When not economically repairable, condemn and dispose of the item at unit or AVUM level.
F -	Reparable item. When uneconomically repairable, condemn and dispose of the item at the direct support or AVIM level.

Code	Application/Explanation
H	- Reparable item. When uneconomically repairable, condemn and dispose of the item at the general support level.
D	- Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item not authorized below depot level.
L	- Reparable item. Condemnation and disposal not authorized below specialized repair activity (SRA).
A	- Item requires special handling or condemnation procedures because of specific reasons (e.g, precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific Instructions.

c. CAGEC (Column 3). The Commercial and Government Entity Code (CAGEC) is a 5-digit numeric code which is used to identify the manufacturer, distributor, or Government agency/activity 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.

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

**NOTE**

When you use an NSN to requisition an item, the item you receive may have a different part number from the number listed

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

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

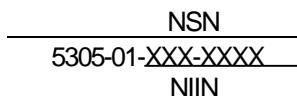
(3) The statement "END OF FIGURE" appears just below the last item description in Column (5) for a given figure in both Section II and Section III.

f. 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 instead of a quantity indicates that the quantity is variable and may vary from application to application.

**C.4 EXPLANATION OF INDEX FORMAT AND COLUMNS (SECTION IV).**

a. National Stock Number (NSN) Index.

(1) Stock Number Column. This column lists the NSN in national item identification number (NIIN) sequence. The NIIN consists of the last nine digits of the NSN, i.e.



When using this column to locate an item, ignore the first four digits of the NSN. Use the complete NSN (13 digits) when requisitioning 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 III.

(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) CAGEC Column. The Commercial and Government Entity Code (CAGEC) is a 5-digit numeric code used to identify the manufacturer, distributor, or Government agency/activity 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 CAGEC columns to the left.

(4) FIG. Column. This column lists the number of the figure where the item is identified/located in Section II and Section III.

(5) ITEM Column. The item number Is that number assigned to the Item as it appears in the figure referenced In 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 Section III

(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) CAGEC Column. The Commercial and Government Entity Code (CAGEC) Is a 5-digit numeric code used to identify the manufacturer, distributor, or Government agency/activity 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.

**C.5 SPECIAL INFORMATION .**

a. USABLE ON CODE. The usable on code appears In the lower left corner of the Description Column heading Usable on codes are shown as "UOC:.." in the Description Column (justified left) on the last line of the applicable item description/nomenclature. Uncoded items are applicable to all models.

b. FABRICATION INSTRUCTIONS. Bulk materials required to manufacture items are listed in the Bulk Material Functional Group of this RPSTL. Part number for bulk materials are also referenced in the description column of the line entry for the item to be manufactured/fabricated. Detailed fabrication instructions for Items source coded are found in this manual.

c. INDEX NUMBERS. Items which have the word BULK in the figure column will have an index number shown In the item number column. This index number is a cross-reference between the National Stock Number/Part Number Index and the bulk material list in Section II.

d. ASSOCIATED PUBLICATIONS. The publications listed below pertain to the LVADS Ancillary Equipment and its components.

<u>Publication</u>	<u>Short Title</u>
TM	Operator, Unit, Direct Support and General Support Maintenance Manual

**C.6 HOW TO LOCATE SPARE PARTS.**a. When National Stock Numbers or Part Numbers are NOT Known.

(1) First. Using the table of contents, determine the assembly 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. When National Stock Number or Part Number is Known.

(1) First. Using the of National Stock Number and Part Number Indexes find the pertinent National Stock Number or Part Number. The NSN index is in National Item identification Number (NIIN) sequence (see paragraph 4.a.). The part numbers in the Part Number index are listed in ascending alphanumeric sequence (see paragraph 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 are looking for, then locate the item number in the repair parts list for the figure

**C.7 ABBREVIATIONS.**

Abbreviations used in this manual are listed In MIL-STD-12.



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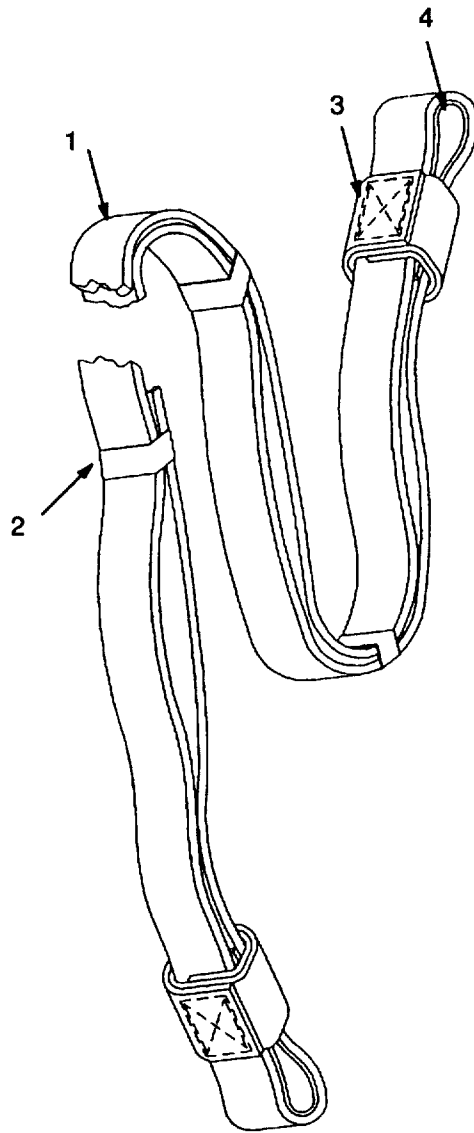


Figure C-1. A Typical Line, Multi-Loop

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SECTION II REPAIR PARTS LIST

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				<b>GROUP 01. LINE, MULTI-LOOP</b>	
				<b>FIG. C-1. A TYPICAL LINE, MULTI-LOOP</b>	
1	PAOOO	81337	68F217-48	LINE, MULTI-LOOP, 2-LOOP, 3-FOOT .....	V
2	MOOZZ	81337	68F217-3	KEEPER, FIXED .....	1
1	PAOOO	81337	68F217-52	LINE, MULTI-LOOP, 4-LOOP, 3-FOOT .....	V
2	MOOZZ	81337	68F217-3	KEEPER, FIXED .....	1
1	PAOOO	81337	68F217-49	LINE, MULTI-LOOP, 2-LOOP, 9-FOOT .....	V
2	MOOZZ	81337	68F217-3	KEEPER, FIXED .....	4
1	PAOOO	81337	68F217-53	LINE, MULTI-LOOP, 4-LOOP, 9-FOOT .....	V
2	MOOZZ	81337	68F217-3	KEEPER, FIXED .....	4
1	PAOOO	81337	68F217-58	LINE, MULTI-LOOP, 2-LOOP, 11-FOOT .....	V
2	MOOZZ	81337	68F217-3	KEEPER, FIXED .....	5
1	PAOOO	81337	68F217-59	LINE, MULTI-LOOP, 4-LOOP, 11-FOOT .....	V
2	MOOZZ	81337	68F217-3	KEEPER, FIXED .....	5
1	PAOOO	81337	68F217-50	LINE, MULTI-LOOP, 2-LOOP, 12-FOOT .....	V
2	MOOZZ	81337	68F217-3	KEEPER, FIXED .....	5
1	PAOOO	81337	68F217-54	LINE, MULTI-LOOP, 4-LOOP, 12-FOOT .....	V
2	MOOZZ	81337	68F217-3	KEEPER, FIXED .....	5
1	PAOOO	81337	68F217-22	LINE, MULTI-LOOP, 2-LOOP, 16-FOOT .....	V
2	MOOZZ	81337	68F217-3	KEEPER, FIXED .....	7
1	PAOOO	81337	68F217-55	LINE, MULTI-LOOP, 4-LOOP, 16-FOOT .....	V
2	MOOZZ	81337	68F217-3	KEEPER, FIXED .....	7
1	PAOOO	81337	68F217-51	LINE, MULTI-LOOP, 2-LOOP, 20-FOOT .....	V
2	MOOZZ	81337	68F217-3	KEEPER, FIXED .....	9
1	PAOOO	81337	68F217-56	LINE, MULTI-LOOP, 4-LOOP, 20-FOOT .....	V
2	MOOZZ	81337	68F217-3	KEEPER, FIXED .....	9
1	PAOOO	81337	68F217-57	LINE, MULTI-LOOP, 4-LOOP, 28-FOOT .....	V
2	MOOZZ	81337	68F217-3	KEEPER, FIXED .....	13
1	PAOOO	81337	68F217-47	LINE, MULTI-LOOP, 1-LOOP, 36-FOOT .....	V
2	MOOZZ	81337	68F217-3	KEEPER, FIXED .....	17
1	PAOOO	81337	68F217-45	LINE, MULTI-LOOP, 1-LOOP, 60-FOOT .....	V
2	MOOZZ	81337	68F217-3	KEEPER, FIXED .....	29
1	PAOOO	81337	68F217-30	LINE, MULTI-LOOP, 3-LOOP, 60-FOOT .....	V
2	MOOZZ	81337	68F217-3	KEEPER, FIXED .....	29
1	PAOOO	81337	68F217-32	LINE, MULTI-LOOP, 6-LOOP, 60-FOOT .....	V
2	MOOZZ	81337	68F217-3	KEEPER, FIXED .....	29
1	PAOOO	81337	68F217-41	LINE, MULTI-LOOP, 2-LOOP, 120-FOOT .....	V
2	MOOZZ	81337	68F217-3	KEEPER, FIXED .....	59
1	PAOOO	81337	68F217-33	LINE, MULTI-LOOP, 6-LOOP, 120-FOOT .....	V
2	MOOZZ	81337	68F217-3	KEEPER, FIXED .....	59
1	PAOOO	81337	68F217-60	LINE, MULTI-LOOP, 3-LOOP, 140-FOOT .....	V
2	MOOZZ	81337	68F217-3	KEEPER, FIXED .....	69

SECTION II REPAIR PARTS LIST

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				<p><b>GROUP 01                    LINE, MULTI-LOOP</b></p> <p><b>FIG. C-1                    A TYPICAL LINE, MULTI-LOOP</b> - continued</p>	
1	PAOOO	81337	68F217-61	LINE, MULTI-LOOP, 1-LOOP, 160-FOOT .....	V
2	MOOZZ	81337	68F217-3	KEEPER, FIXED .....	79
3	MOOZZ	81337	68F217-2	KEEPER, SLIDING .....	2
4	MOOZZ	81337	68F217-5	BUFFER .....	2
END OF FIGURE					

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- 1  
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- 2  
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- 3  
6 through 8, 11, 14
- 4  
6 through 8, 12, 14
- 5  
6 through 8, 13, 14

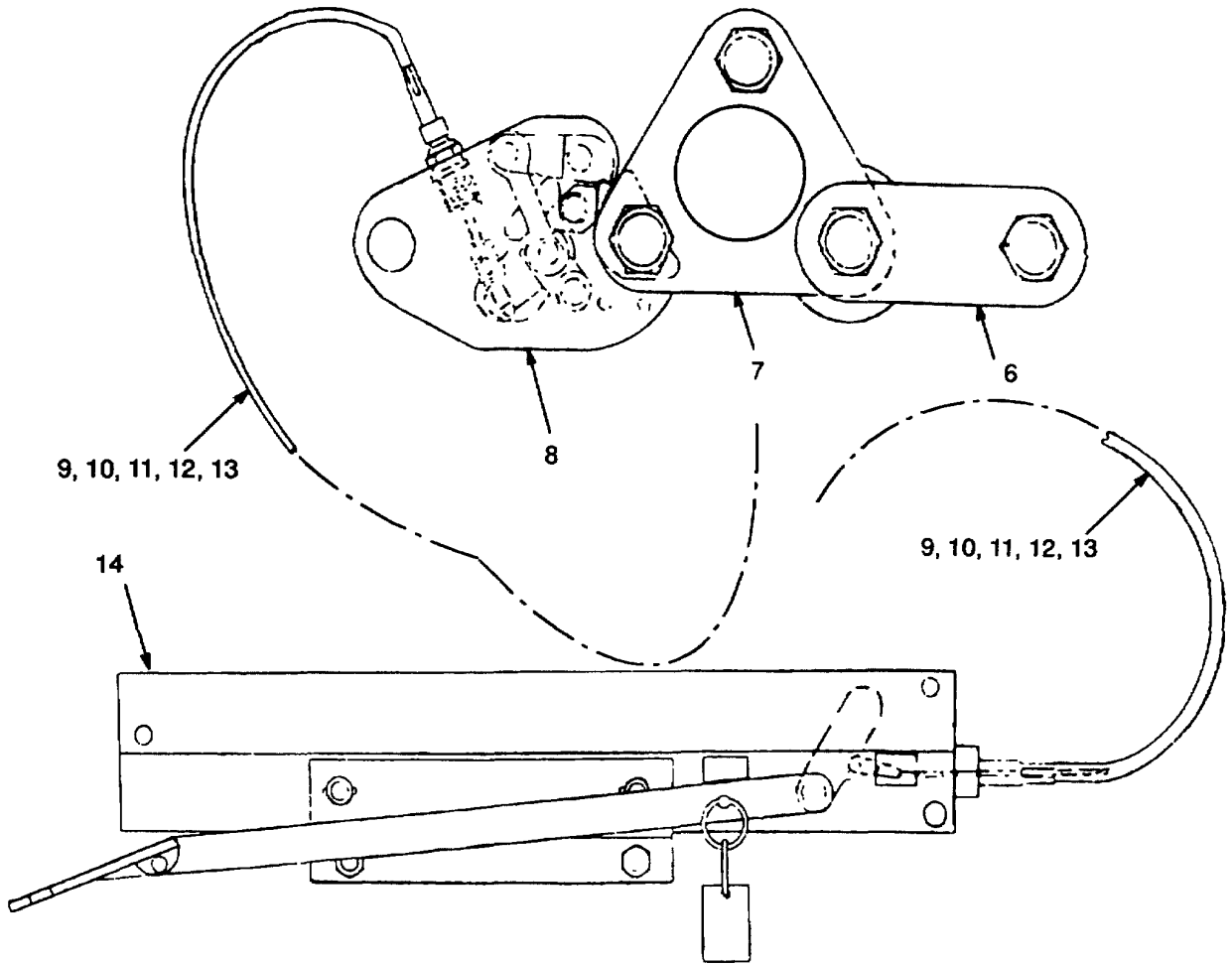


Figure C-2. Coupling, Extraction Force Transfer

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**SECTION II REPAIR PARTS LIST**

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				<b>GROUP 02      COUPLING, EXTRACTION FORCE TRANSFER</b>	
				<b>FIG. C-2.      COUPLING, EXTRACTION FORCE TRANSFER</b>	
	XCOOC	81337	11-1-2060	COUPLING, EXTRACTION FORCE TRANSFER .....	V
1	PAOOC	81337	11-1-2060-1	COUPLING ASSEMBLY, AIRDROP, 12-FOOT .....	V
2	PAOOC	81337	11-1-2060-2	COUPLING ASSEMBLY, AIRDROP, 16-FOOT .....	V
3	PAOOC	81337	11-1-2060-3	COUPLING ASSEMBLY, AIRDROP, 20FOOT .....	V
4	PAOOC	81337	11-1-2060-4	COUPLING ASSEMBLY, AIRDROP, 24-FOOT .....	V
5	PAOOC	81337	11-1-2060-5	COUPLING ASSEMBLY, AIRDROP, 28-FOOT .....	V
6	PAOOC	81337	11-1-1721	ADAPTER, LINK ASSEMBLY .....	2
7	PAOOC	81337	11-1-17151	LINK ASSEMBLY, COUPLING .....	2
8	PAOZZ	81337	11-1-1725	LATCH ASSEMBLY, COUPLING .....	1
9	PAOZZ	81337	11-1-2061-1	CABLE ASSEMBLY, COUPLING, 12-FOOT .....	
10	PAOZZ	96906	11-1-2061-2	CABLE ASSEMBLY, COUPLING, 16-FOOT .....	2
11	PAOZZ	96906	11-1-2061-3	CABLE ASSEMBLY, COUPLING, 20-FOOT .....	2
12	PAOZZ	81337	11-1-2061-4	CABLE ASSEMBLY, COUPLING, 24-FOOT .....	1
13	PAOZZ	81337	11-1-2061-5	CABLE ASSEMBLY, COUPLING, 28-FOOT .....	2
14	PAOOC	81337	11-1-1737	ACTUATOR ASSEMBLY .....	2
				END OF FIGURE	

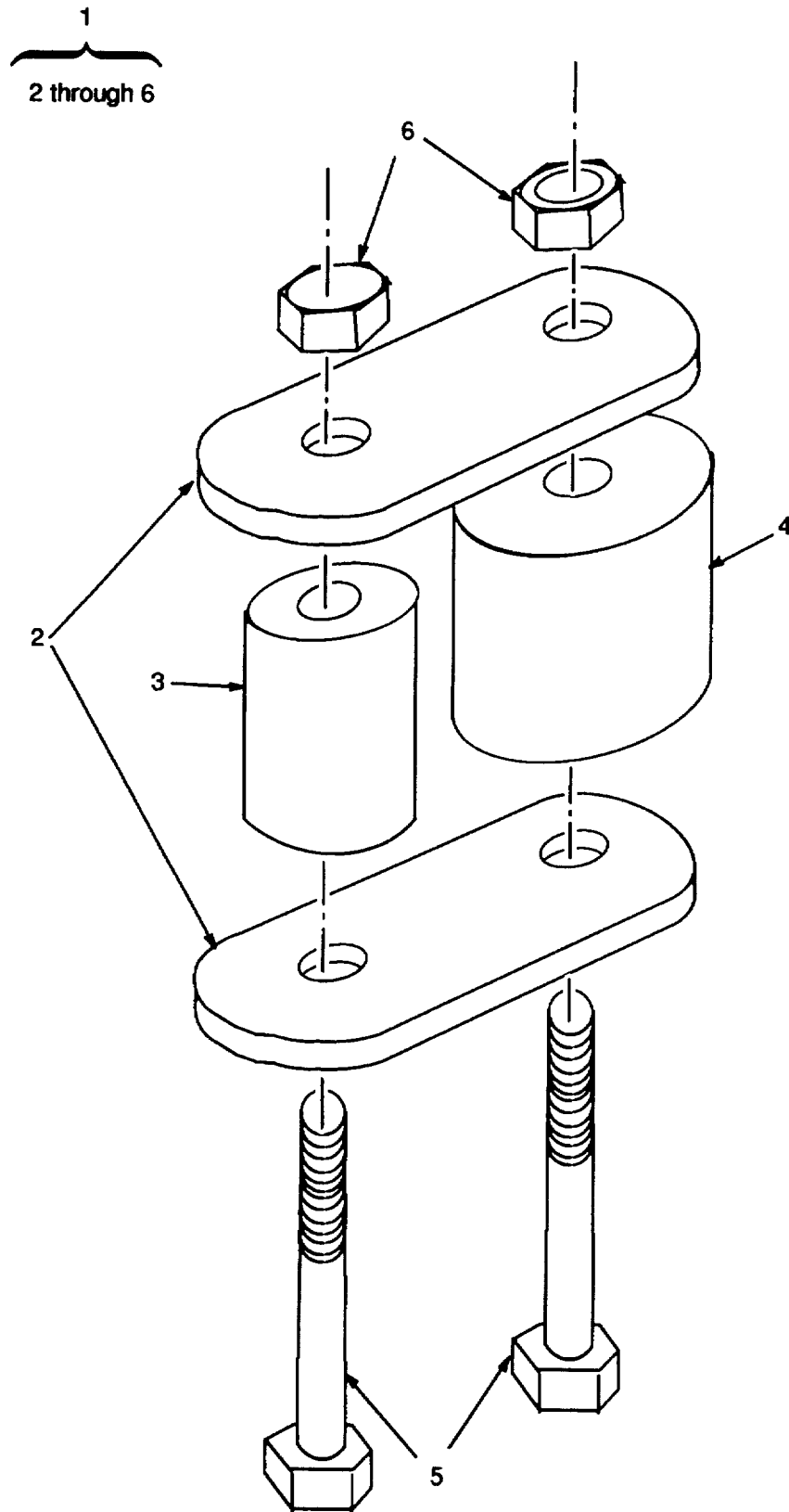


Figure C-3. Adapter, Link Assembly



SECTION II REPAIR PARTS LIST

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				<b>GROUP 0201. ADAPTER, LINK ASSEMBLY</b>	
				<b>FIG C-3 ADAPTER, LINK ASSEMBLY</b>	
1	PAOOO	81337	11-1-1721	ADAPTER, LINK ASSEMBLY .....	2
2	PAOZZ	81337	11-1-1722	SPACER, PLATE .....	2
3	PAOZZ	81337	11-1-1723	SPACER, SLEEVE .....	1
4	XDOZZ	81337	11-1-1724	SPACER, SLEEVE .....	1
5	XDOZZ	96906	MS90727-238	SCREW, CAP, HEXAGON .....	2
6	XDOZZ	96906	MS21083-N16	NUT, SELF-LOCKING, 1-INCH, 12-UNJF-3B .....	2
END OF FIGURE					

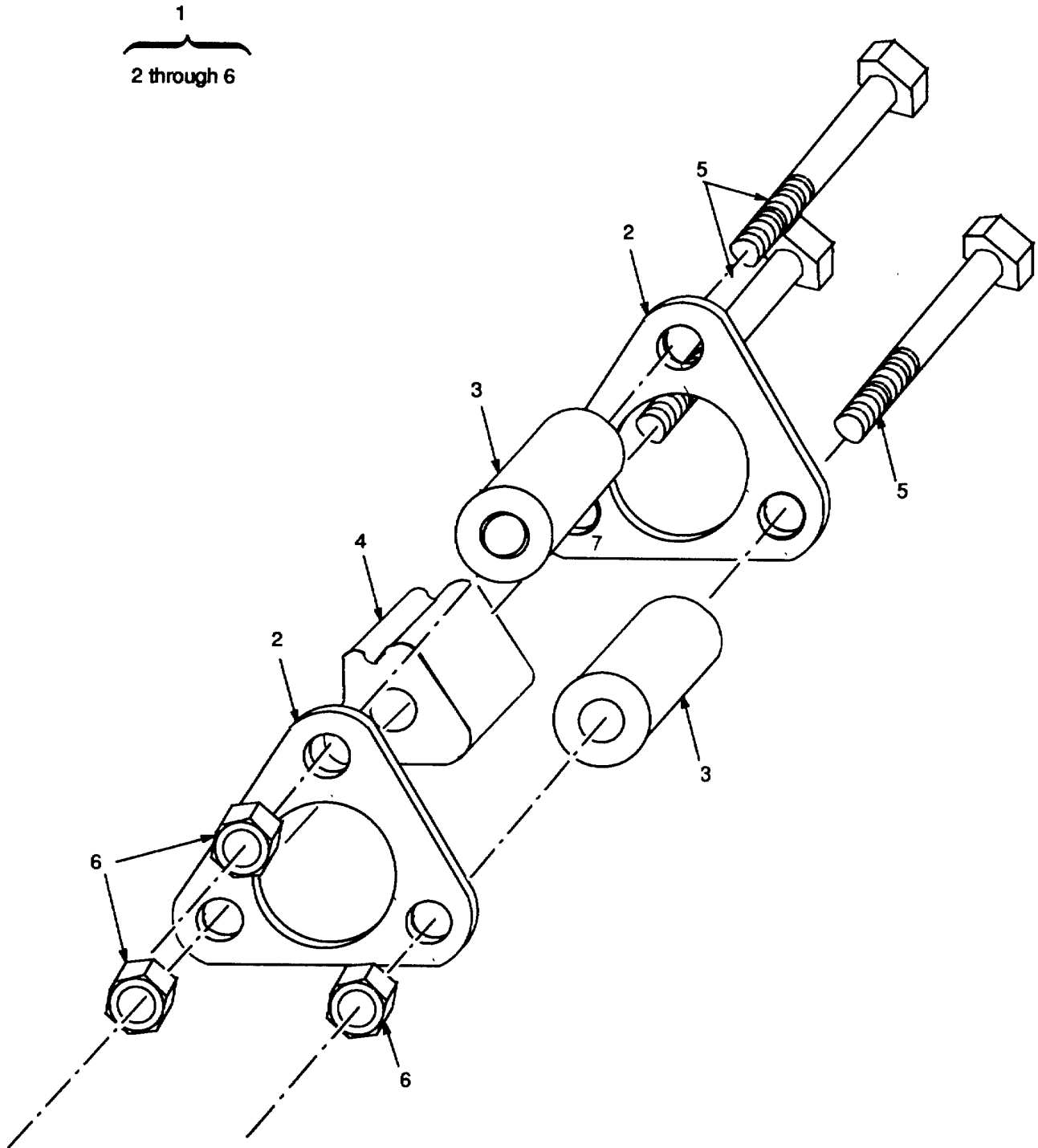


Figure C-4. Link Assembly, Coupling

SECTION II REPAIR PARTS LIST

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				<b>GROUP 0202. LINK ASSEMBLY, COUPLING</b>  <b>FIG. C-4. LINK ASSEMBLY, COUPLING</b>	
1	PAOOO	81337	11-1-1715-1	LINK ASSEMBLY, COUPLING .....	1
2	XAOZZ	81337	11-1-1717	PLATE, SIDE.....	2
3	PAOZZ	81337	11-1-1718	SPACER, SLEEVE .....	2
4	XAOZZ	81337	11-1-1716	CAM .....	1
5	PAOZZ	96906	MS90727-235	SCREW, CAP, HEXAGON .....	3
6	PAOZZ	96906	MS21083-N16	NUT, SELF-LOCKING, 1-INCH, 12-UNJF-3B .....	3
END OF FIGURE					

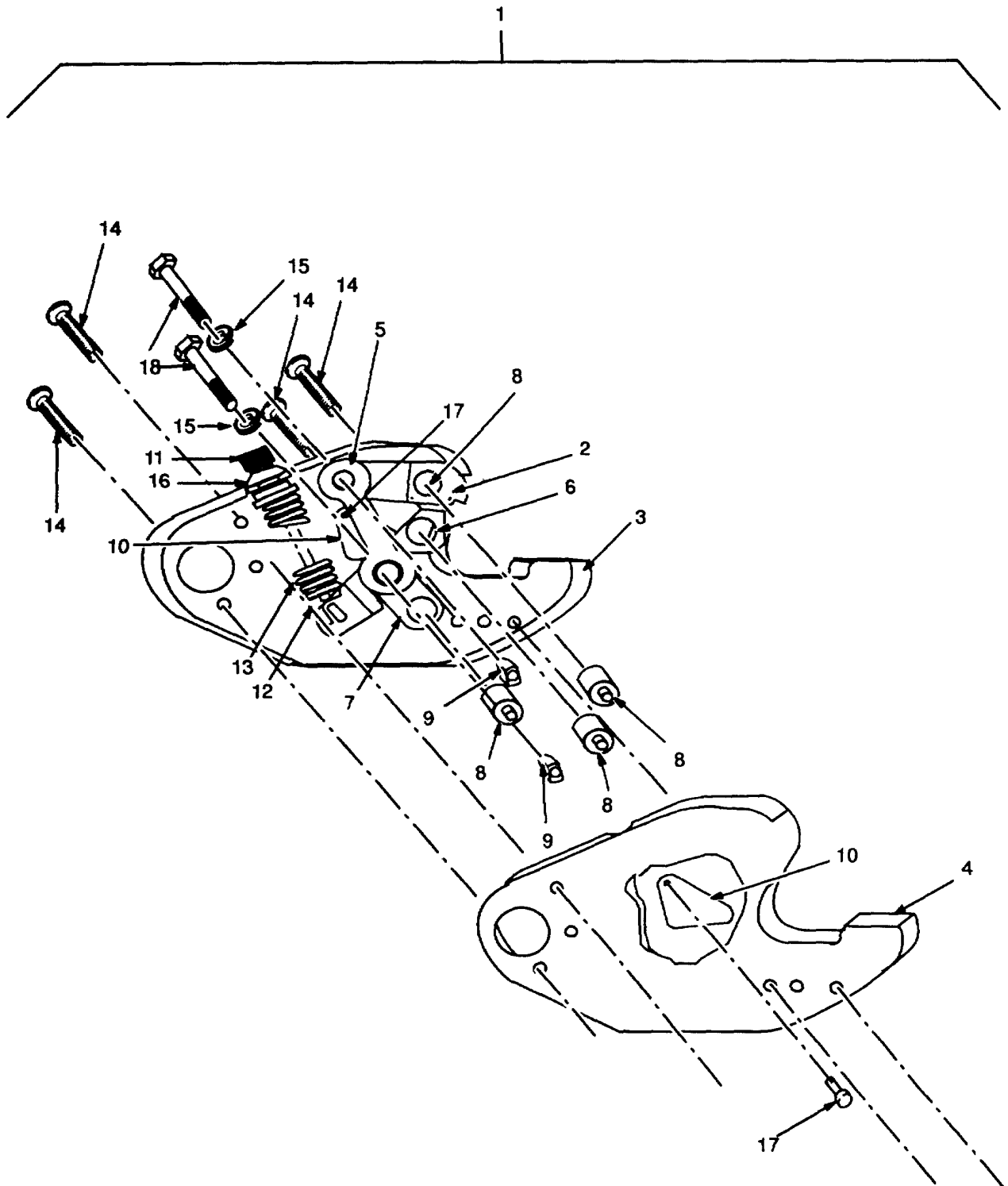


Figure C-5. Latch Assembly, Coupling

SECTION II REPAIR PARTS LIST

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				<b>GROUP 0203. LATCH ASSEMBLY, COUPLING</b>	
				<b>FIG. C-5. LATCH ASSEMBLY, COUPLING</b>	
1	PAOOO	81337	11-1-1725	LATCH ASSEMBLY, COUPLING .....	1
2	XAOZZ	81337	11-1-1726	HOOK RETAINER .....	1
3	XAOZZ	81337	11-1-1727-1	PLATE, SIDE, LEFT .....	1
4	XAOZZ	81337	11-1-1727-2	PLATE, SIDE, RIGHT .....	1
5	XAOZZ	81337	11-1-1728	LINK, IDLER .....	1
6	XAOZZ	81337	11-1-1729	CATCH .....	1
7	XAOZZ	81337	11-1-1730	LINK, LOCK .....	1
8	XAOZZ	81337	11-1-1731	PIN .....	3
9	XAOZZ	81337	11-1-1732	SLEEVE, IDLER, LINK .....	1
10	XAOZZ	81337	11-1-1733	PAD, FRICTION .....	2
11	XAOZZ	81337	11-1-1734	RETAINER, UPPER .....	1
12	XAOZZ	81337	11-1-1735	RETAINER, LOWER .....	1
13	XAOZZ	81337	11-1-1736	SPRING, CATCH .....	1
14	XDOZZ	96906	MS24694-S115	SCREW, MACHINE, 1/4-INCH, 28UNF .....	4
15	PAOZZ	96906	MS35338-44	WASHER, LOCK. 1/4-INCH .....	2
16	PAOZZ	96906	MS21083-N12	NUT, SELF-LOCKING, 3/4-INCH, 18-UNJF.....	1
17	PAOZZ	96906	MS20470AD4-7	RIVET, SOLID .....	4
18	PAOZZ	88044	AN4-5A	BOLT, MACHINE, 1/4-INCH, 28-UNF .....	2
				END OF FIGURE	

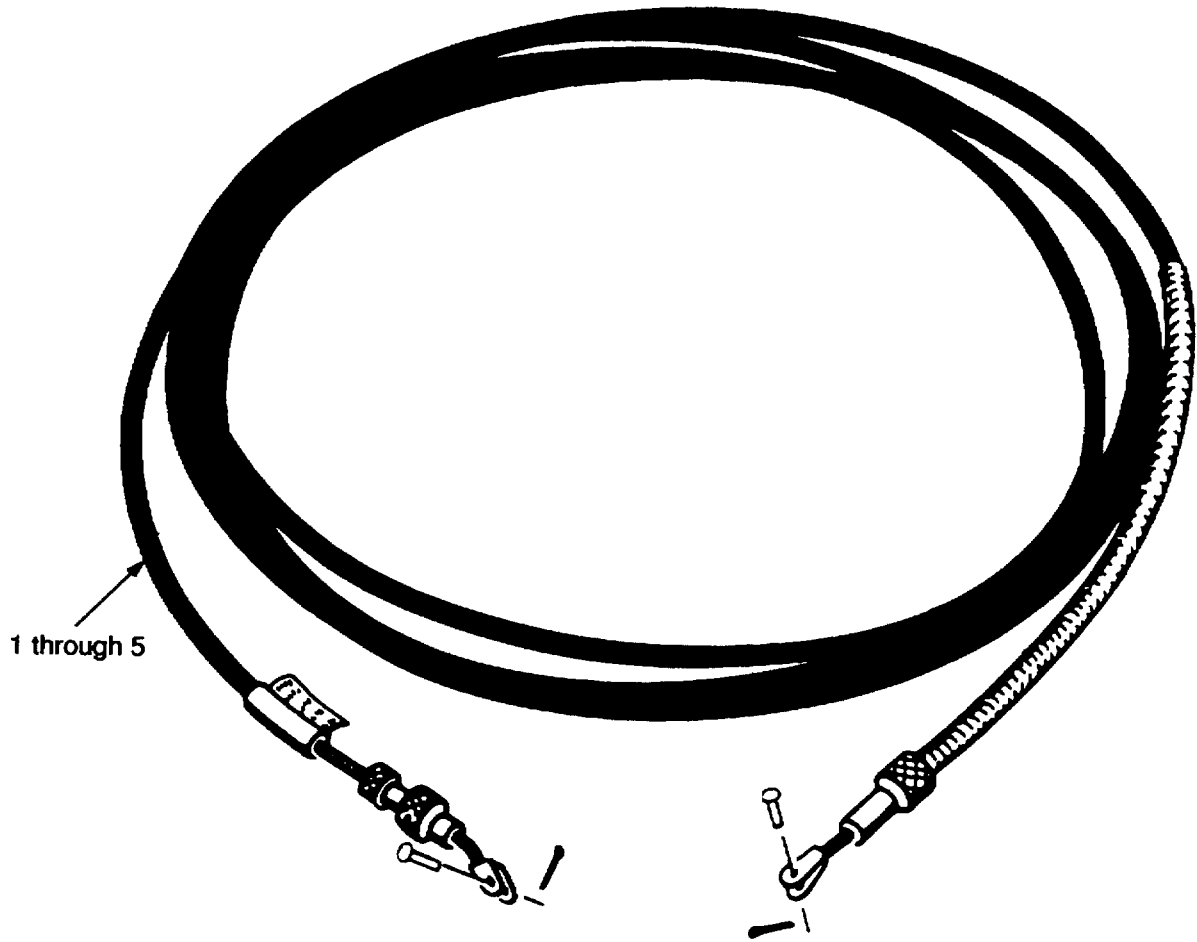


Figure C-6. A Typical Cable Assembly, Coupling

SECTION II REPAIR PARTS LIST

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				<b>GROUP 0204. CABLE ASSEMBLY, COUPLING</b>	
				<b>FIG. C-6. CABLE ASSEMBLY, COUPLING</b>	
1	PAOZZ	81337	11-1-2061-1	CABLE ASSEMBLY, COUPLING, 12-FOOT .....	1
2	PAOZZ	81337	11-1-2061-2	CABLE ASSEMBLY, COUPLING, 16-FOOT .....	1
3	PAOZZ	81337	11-1-2061-3	CABLE ASSEMBLY, COUPLING, 20-FOOT .....	1
4	PAOZZ	81337	11-1-2061-4	CABLE ASSEMBLY, COUPLING, 24-FOOT .....	1
5	PAOZZ	81337	11-1-2061-5	CABLE ASSEMBLY, COUPLING, 28-FOOT .....	1
END OF FIGURE					

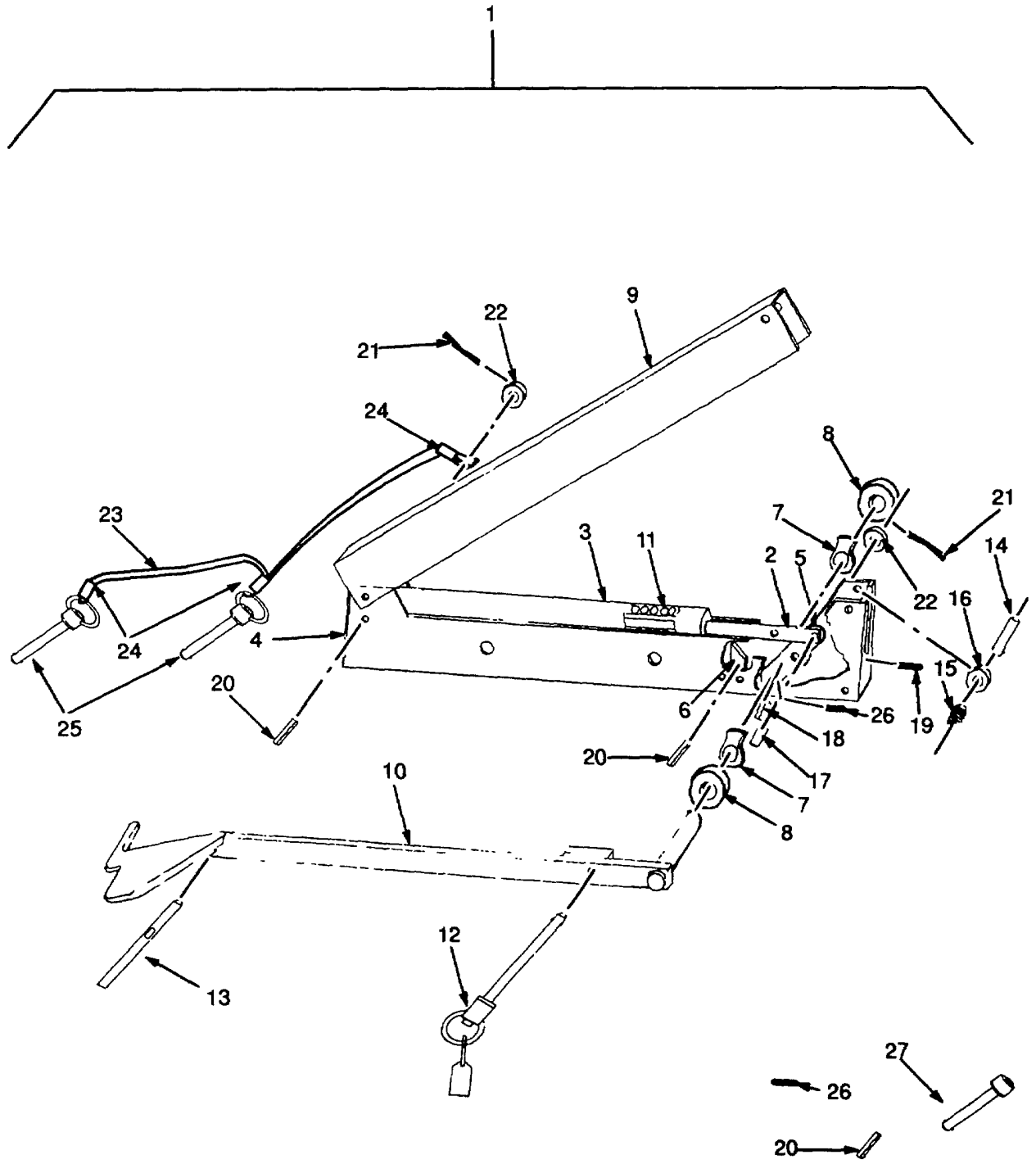


Figure C-7. Actuator Assembly



SECTION II REPAIR PARTS LIST

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
<b>GROUP 0205. ACTUATOR ASSEMBLY</b>					
<b>FIG. C-7. ACTUATOR ASSEMBLY</b>					
1	PAOOO	81337	11-1-1737	ACTUATOR ASSEMBLY .....	1
2	PAOZZ	81337	11-1-1738	ROD, SPRING GUIDE .....	1
3	XAOZZ	81337	11-1-1739	SHELL, SPRING .....	1
4	XAOZZ	81337	11-1-1740	HOUSING, ACTUATOR .....	1
5	XAOZZ	81337	11-1-1741	ACTUATOR, CABLE .....	1
6	XAOZZ	81337	11-1-1742	BLOCK, STOP .....	1
7	XAOZZ	81337	11-1-1743	CAM, LOCKING .....	2
8	XAOZZ	81337	11-1-1744	SPACER.....	2
9	XAOZZ	81337	11-1-1745	COVER, HOUSING .....	1
10	PAOZZ	81337	11-1-1746	ARM,ACTUATOR .....	1
11	PAOZZ	81337	11-1-1747	SPRING, HELICAL, COMPRESSED .....	1
12	PAOZZ	81337	11-1-1749	PIN, WIRE LOCKING .....	1
13	PAOZZ	81337	11-1-1753	PIN, SHOULDER, HEADLESS .....	1
14	PAOZZ	81337	11-1-1750	PIN, SHOULDER, HEADLESS .....	1
15	PAOZZ	81337	11-1-1751	SPRING, HELICAL, COMPRESSED .....	1
16	PAOZZ	81337	11-1-1752	RING, RETAINING .....	1
17	XDOZZ	96906	MS20392-2C19	PIN, STRAIGHT, HEADLESS.....	1
18	XDOZZ	96906	MS35678-30	PIN, GROOVED, HEADLESS.....	1
19	PAOZZ	96906	MS16562-230	PIN, SPRING.....	1
20	PAOZZ	96906	MS16562-240	PIN, SPRING.....	3
21	PAOZZ	96906	MS24665-132	PIN, COTTER .....	2
22	PAOZZ	96906	MS27183-8	WASHER, FLAT, 7/32 INCH .....	2
23	XAOZZ	81349	MIL-W-5424	CABLE, 7X7X1/16 .....	1
24	XAOZZ	96906	MS51844-1	SWAGING SLEEVE, WIRE .....	3
25	XDOZZ	96906	MS17985-620	PIN, QUICK RELEASE .....	2
26	PAOZZ	96906	MS35675-26	PIN, GROOVED, HEADLESS .....	2
27	XDOZZ	96906	MS20392-2C57	PIN, STRAIGHT, HEADED .....	1
END OF FIGURE					

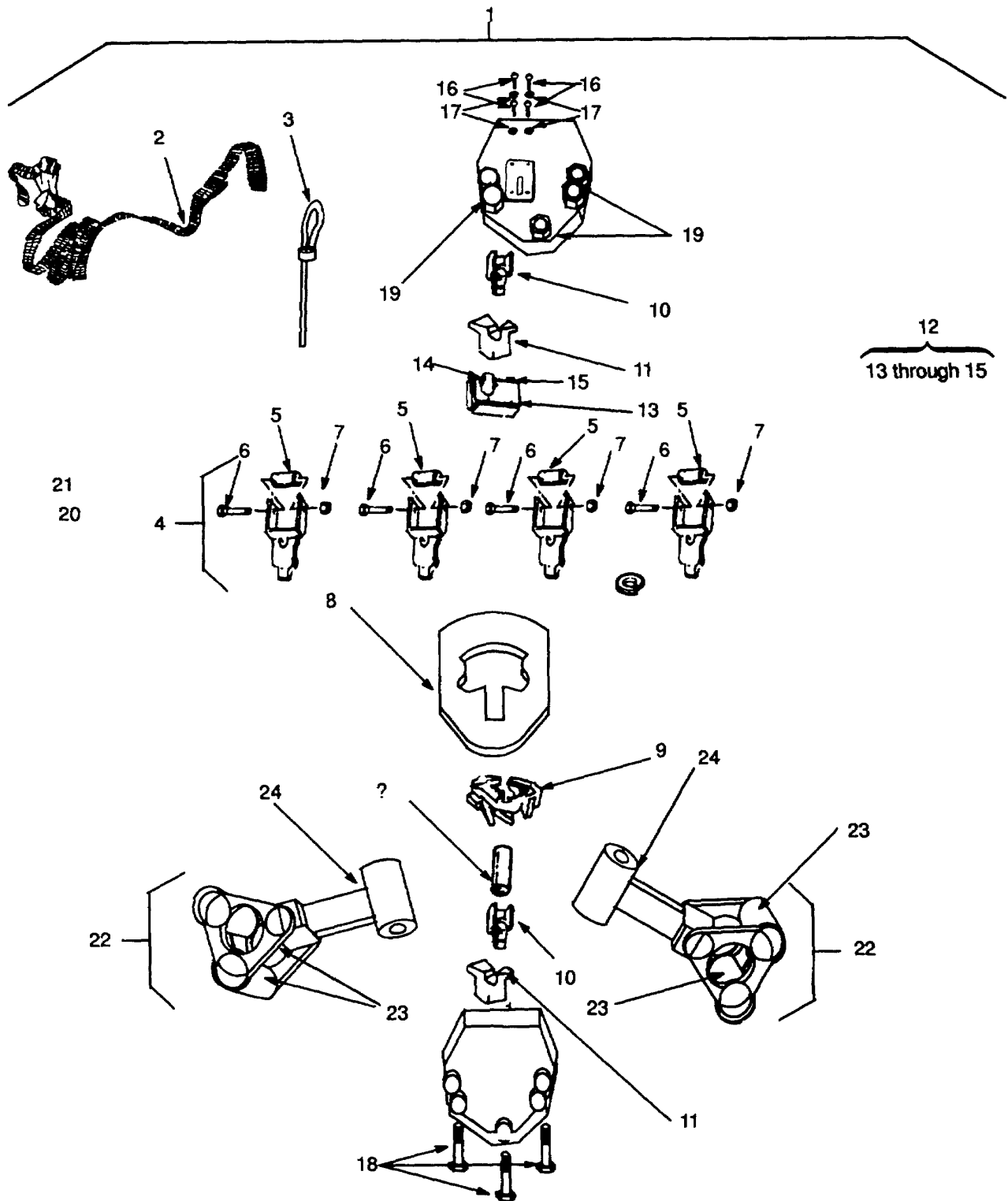


Figure C-8. Release, Cargo Parachute, M-1

SECTION II REPAIR PARTS LIST

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				<b>GROUP 03. RELEASE, CARGO PARACHUTE, M-1</b>	
				<b>FIG. C-8. RELEASE, CARGO PARACHUTE, M-1</b>	
1	PAOOC	81337	11-1-1487-2	RELEASE, CARGO PARACHUTE, M-1 .....	1
2	MOOZZ	81337	11-1-488	LANYARD, ARMING WIRE .....	1
3	PAOZZ	81337	11-1-493	WIRE, ARMING.....	1
4	PAOOC	81337	11-1-150	CONNECTOR, PARACHUTE .....	4
5	PAOZZ	81337	11-1-150-6	SPACER, SLEEVE .....	4
6	PBOZZ	81337	11-1-150-4	BOLT, SHOULDER .....	4
7	PAOZZ	96906	MS21083N9	NUT, SELF-LOCKING .....	4
8	XAOZZ	81377	11-1-1498	LINK, LOAD SUSPENSION, UPPER.....	1
9	PAOZZ	81337	11-1-1490	CLAMP, RETAINER .....	1
10	PAOZZ	81337	11-1-2669	TOGGLE .....	1
11	PAOZZ	81337	11-1-1492	SLIDE, TOGGLE LOCK .....	2
12	PAOOC	81337	11-1-894-1	TIMER DELAY ASSEMBLY .....	1
13	PAOZZ	81337	11-1-2614-1	TIMING MOVEMENT, MECHANICAL .....	1
14	PAOZZ	81337	11-1-2671	KEY, SHORT .....	1
15	PAOZZ	81337	11-1-2670	KEY, MACHINE .....	1
16	PAOZZ	96906	MS24693S272	SCREW, MACHINE .....	4
17	XDOZZ	96906	MS35790-17	WASHER, LOCK .....	4
18	PAOZZ	88044	AN6-24A	BOLT, MACHINE .....	3
19	PAOZZ	96906	MS21083N6	NUT, SELF-LOCKING .....	3
20	XDOZZ	88044	AN3-46A	BOLT, MACHINE .....	6
21	PAOZZ	96906	MS21083N10	NUT, SELF-LOCKING .....	6
22	XAOZZ	81337	11-1-1497	LINK, LOWER SUSPENSION .....	2
23	PAOZZ	81337	11-1-1499	SPACER, SLEEVE .....	4
24	PAOZZ	88044	AN30-44A	BOLT, CLEVIS .....	2
				END OF FIGURE	

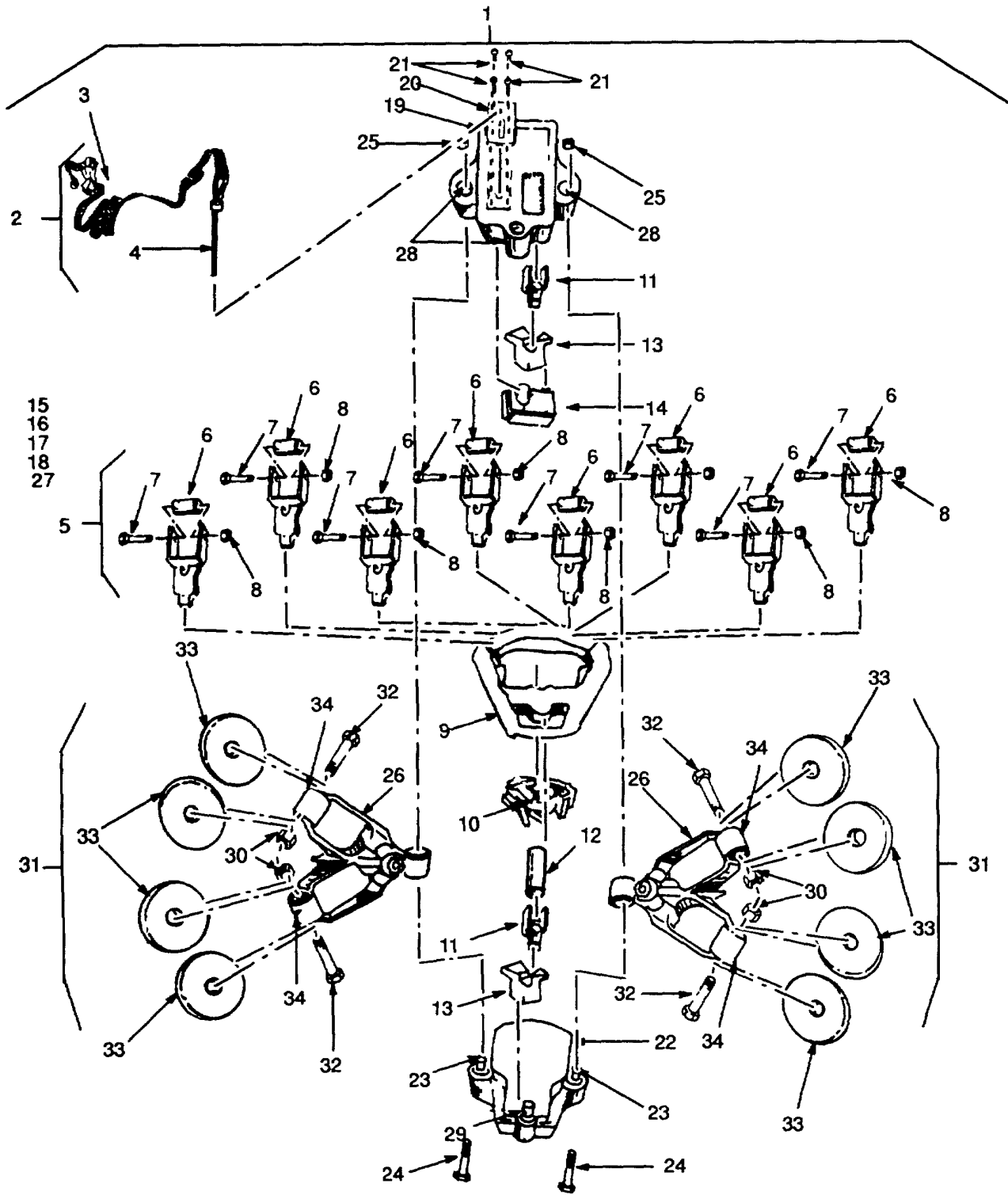


Figure C-9. Release, Cargo Parachute, M-2

SECTION II REPAIR PARTS LIST

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				<b>GROUP 04. RELEASE, CARGO PARACHUTE, M-2</b>	
				<b>FIG. C-9. RELEASE, CARGO PARACHUTE, M-2</b>	
1	PAOOO	81337	11-1-565-2	RELEASE, CARGO PARACHUTE, M-2 .....	1
2	XCOZZ	81337	11-1-487	LANYARD& ARMING WIRE .....	1
3	MOOZZ	81337	11-1-488	LANYARD, ARMING WIRE .....	1
4	PAOZZ	81337	11-1-493	WIRE, ARMING.....	1
5	PAOOO	81337	11-1-150	CONNECTOR, PARACHUTE .....	8
6	PAOZZ	81337	11-1-150-6	SPACER, SLEEVE .....	8
7	PAOZZ	81337	11-1-150-4	BOLT, SHOULDER .....	8
8	PAOZZ	96906	MS21083N9	NUT, SELF-LOCKING .....	8
9	XAOZZ	81377	11-1-477	LINK, LOAD SUSPENSION, UPPER .....	1
10	PAOZZ	81337	11-1-512	CLAMP, RETAINER .....	1
11	PAOZZ	81337	11-1-511	TOGGLE .....	2
12	PAOZZ	81337	11-1-3724	SHAFT, STRAIGHT, TOGGLE .....	1
13	PAOZZ	81337	11-1-567	SLIDE, TOGGLE LOCK .....	2
14	PAOOO	81337	11-1-894-1	TIMER DELAY ASSEMBLY .....	1
15	PAOZZ	81337	11-1-2614-1	TIMING MOVEMENT, MECHANICAL .....	1
16	PAOZZ	81337	11-1-2671	KEY, SHORT .....	1
17	PAOZZ	81337	11-1-2670	KEY, MACHINE .....	1
18	PAOZZ	81337	11-1-2669	TOGGLE .....	1
19	XAOZZ	81337	11-1-513	PLATE, FRONT .....	1
20	XDOZZ	81337	11-1-899	GUIDE, ARMING WIRE .....	1
21	PAOZZ	96906	MS1 6998-26	SCREW,CAP .....	4
22	XAOZZ	81337	11-1-566	PLATE, BACK .....	1
23	PAOZZ	81337	11-1-3441	SPACER, SLEEVE .....	2
24	PAOZZ	81337	11-1-3514	BOLT, SHOULDER .....	2
25	PAOZZ	96906	MS21044N10	NUT, SELF-LOCKING .....	2
26	PAOZZ	81337	11-1-491	CLEVIS, ROD END .....	2
27	PAOZZ	81337	11-1-490	BOLT, SHOULDER .....	2
28	PAOZZ	96906	MS21083N9	NUT, SELF-LOCKING .....	2
29	PAOZZ	81337	11-1-562	STUD, SHOULDERED .....	1
30	PAOZZ	96906	MS21083N8	NUT, SELF-LOCKING .....	2
31	XAOZZ	81337	11-1-478	LINK, SUSPENSION, LOWER .....	2
32	PAOZZ	81337	11-1-3515	BOLT, SHOULDER .....	4
33	PAOZZ	81337	11-1-3725	GUIDE, SLING .....	8
34	PAOZZ	81337	11-1-1499	SPACER, SLEEVE .....	4
				END OF FIGURE	

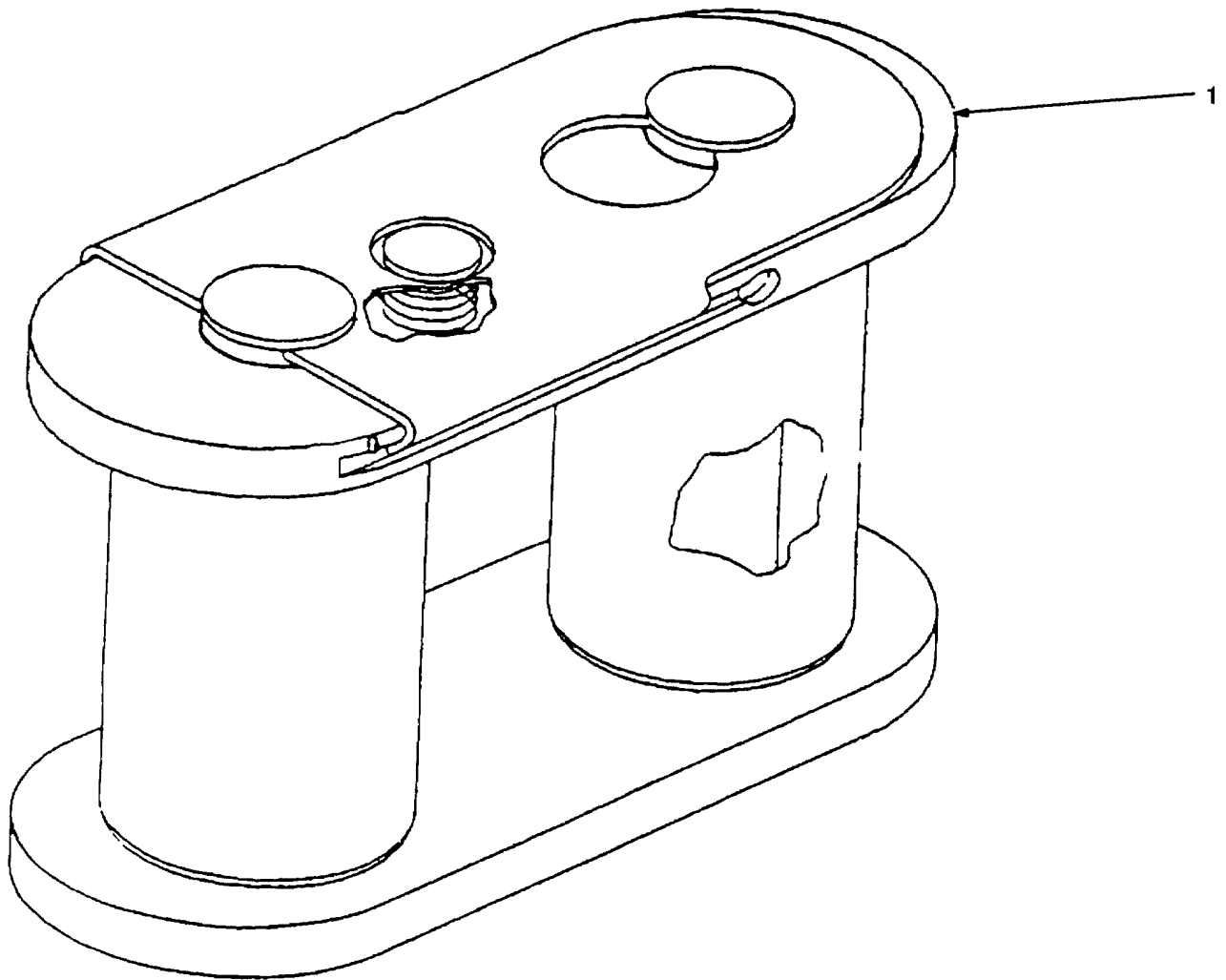


Figure C-10. Link Assembly, Single Suspension, Type IV

SECTION II REPAIR PARTS LIST

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	81337	11-1-3359	<p>GROUP 05.           NONREPAIRABLE LVADS                           ANCILLARY EQUIPMENT</p> <p>FIG. C-10.           LINK ASSEMBLY, SINGLE                           SUSPENSION, TYPE IV</p> <p>LINK ASSEMBLY, SINGLE SUSPENSION, TYPE IV ....</p> <p>                          END OF FIGURE</p>	AR

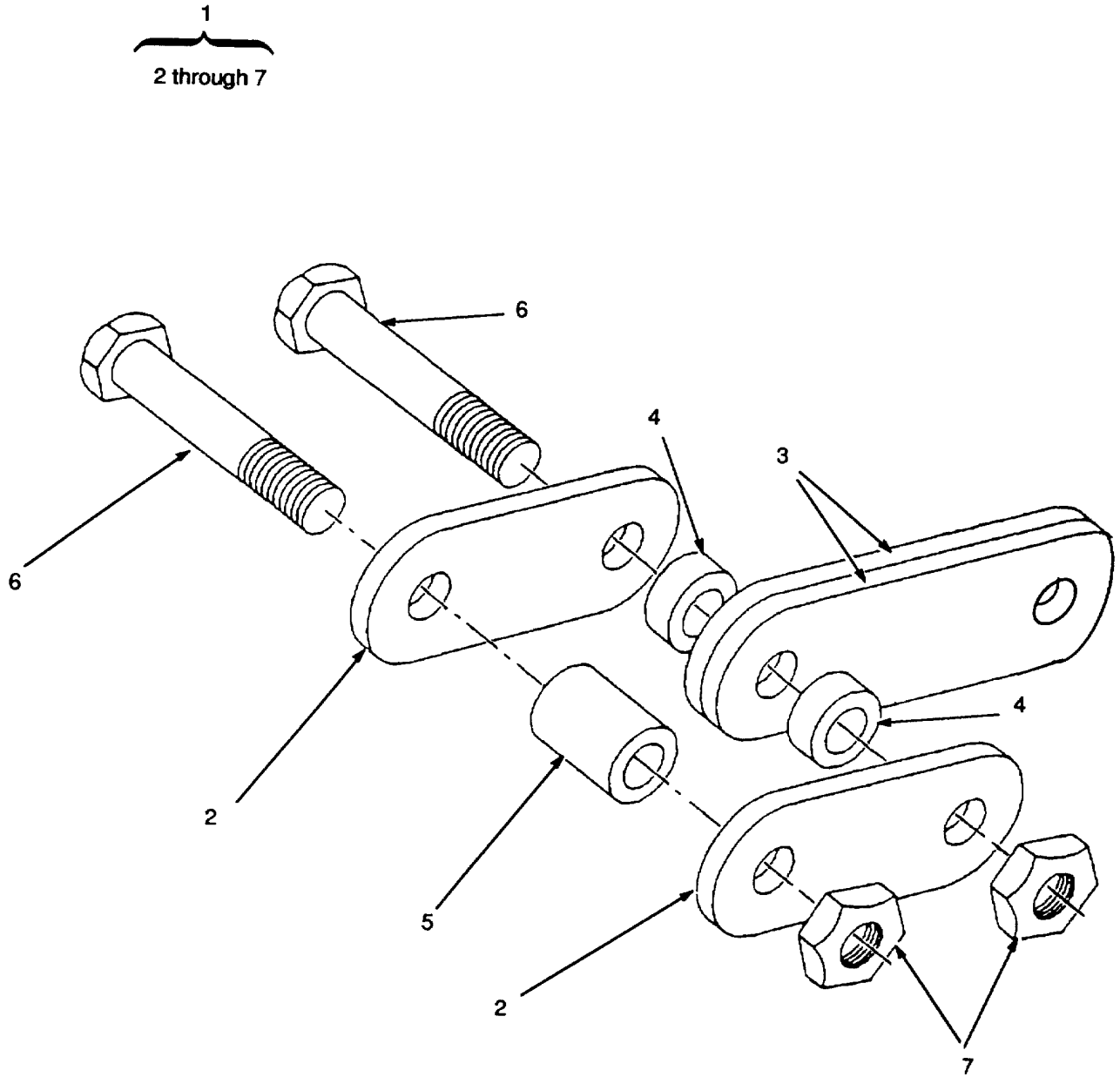


Figure C-11. Link Assembly, Heavy Duty



SECTION II REPAIR PARTS LIST

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
<p><b>GROUP 05. NONREPAIRABLE LVADS ANCILLARY EQUIPMENT</b></p> <p><b>FIG. C-11. LINK ASSEMBLY, HEAVY DUTY</b></p>					
1	AOOZZ	81337	68B1883	LINK ASSEMBLY, HEAVY DUTY .....	AR
2	PAOZZ	81337	66B1883-1	SIDE PLATE, 3-3/4 INCH .....	2
3	PAOZZ	81337	66B1883-2	SIDE PLATE, 5-1/2 INCH .....	2
4	PAOZZ	98750	66B1887	SPACER, SLEEVE, SMALL.....	2
5	PAOZZ	98750	65B3650	SPACER, SLEEVE, LARGE .....	2
6	PAOZZ	88044	AN17-36A	BOLT, MACHINE, 1-INCH, 12-NF .....	2
7	PAOZZ	81352	AN315-15R	NUT, PLAIN, HEX., 1-INCH, 12-NF .....	2
<p>END OF FIGURE</p>					

1  
2 through 6

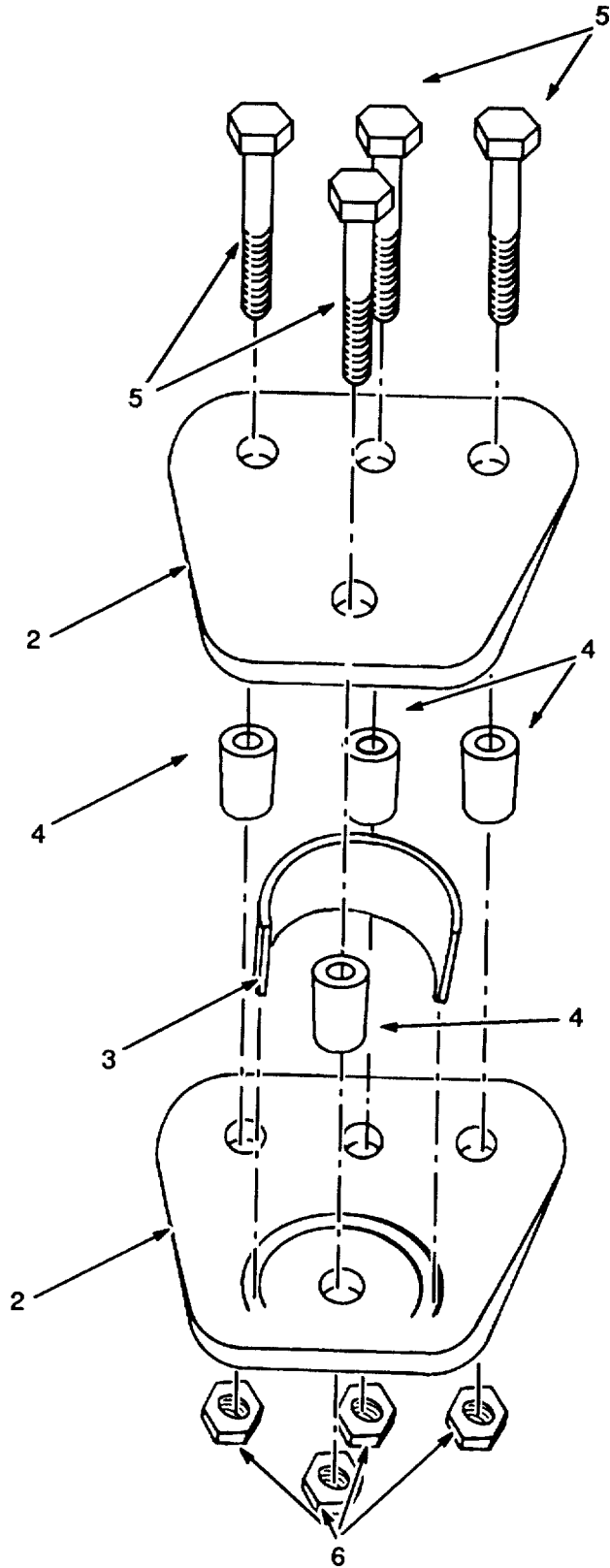


Figure C-12. Link, 4-Point

SECTION II REPAIR PARTS LIST

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
<p><b>GROUP 05.           NONREPAIRABLE LVADS ANCILLARY EQUIPMENT</b></p> <p><b>FIG. C-12.           LINK 4-POINT</b></p>					
1	PAOOO	81337	65D3820	LINK, 4-POINT .....	AR
2	XAOZZ	81337	65D3663	PLATE, SIDE.....	2
3	XAOZZ	81337	67B2211-1	SPACER, LOOP .....	1
4	PAOZZ	81337	67B2226	SPACER, BOLT .....	4
5	PAOZZ	81352	AN17-36A	BOLT, MACHINE, 1-INCH, 12-NF .....	4
6	PAOZZ	81352	AN315-15R	NUT, PLAIN, HEX., 1-INCH, 12-NF .....	4
<p>END OF FIGURE</p>					

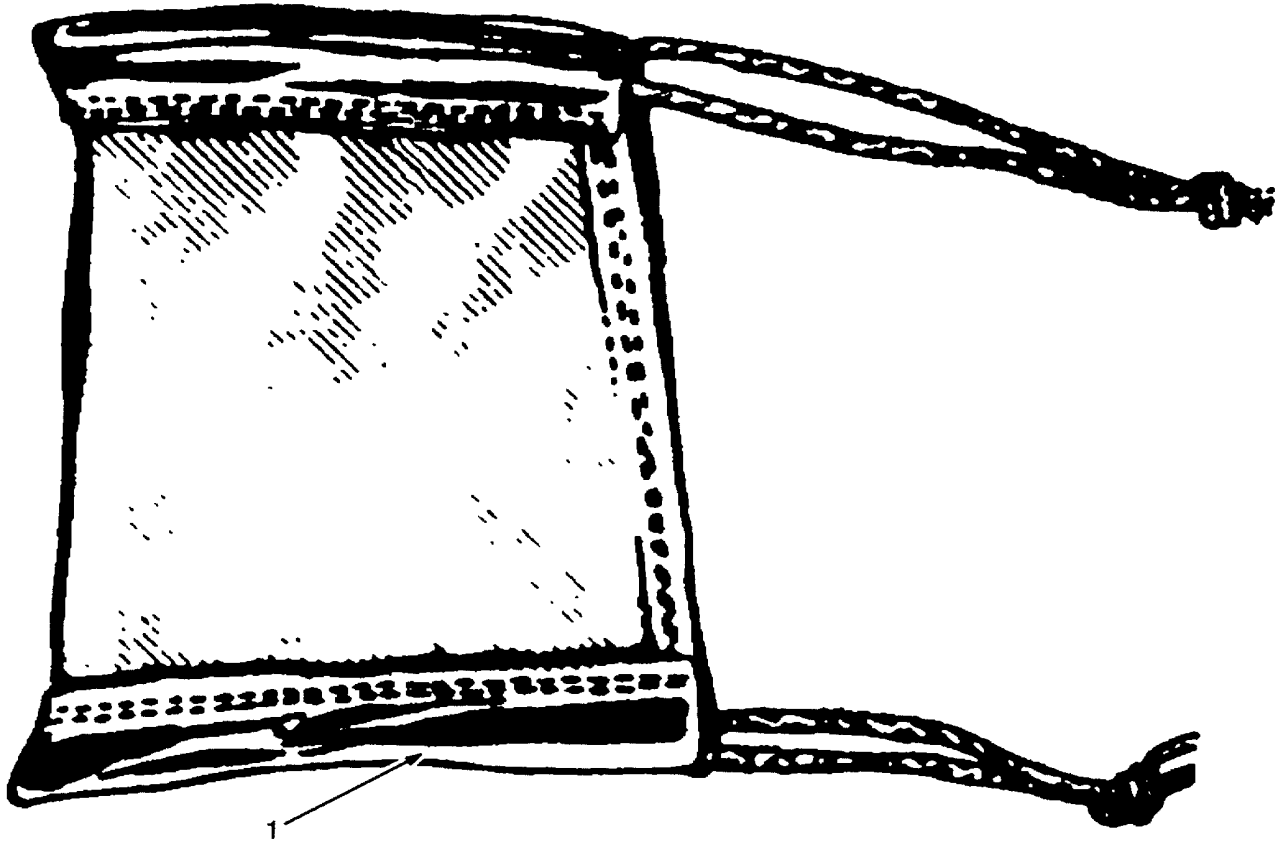


Figure C-13. Cover, Link, Type IV

SECTION II REPAIR PARTS LIST

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	98750	50C7496	<p><b>GROUP 05.           NONREPAIRABLE LVADS                           ANCILLARY EQUIPMENT</b></p> <p><b>FIG C-13.           COVER, LINK, TYPE IV</b></p> <p>COVER, LINK, TYPE IV .....</p> <p>                          END OF FIGURE</p>	AR

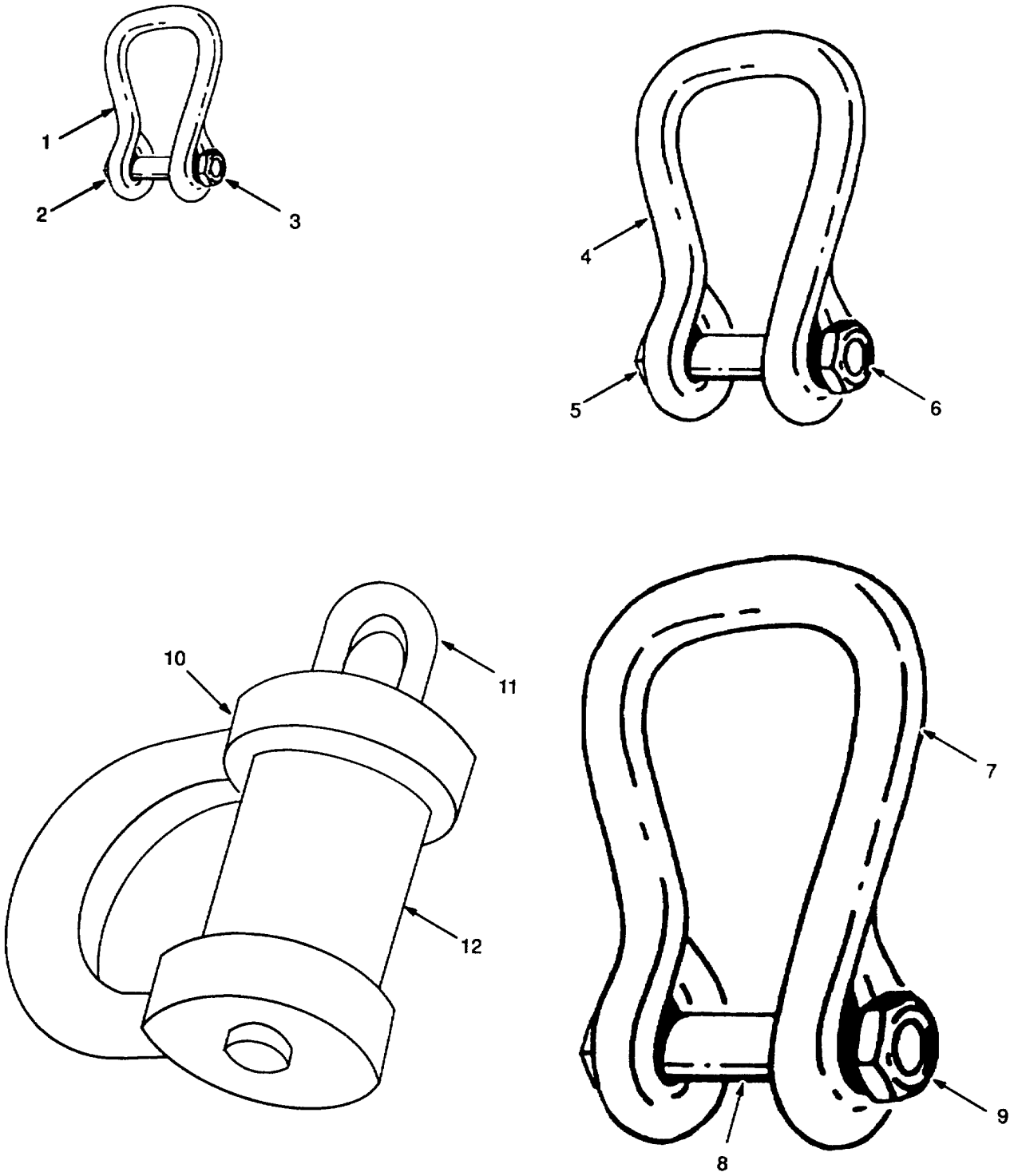


Figure C-14. Clevis, Aerial Delivery

SECTION II REPAIR PARTS LIST

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
<p><b>GROUP 05.           NONREPAIRABLE LVADS ANCILLARY EQUIPMENT</b></p> <p><b>FIG C-14.           CLEVIS, AERIAL DELIVERY</b></p>					
1	PAOZZ	96906	MS70087-1	CLEVIS, SMALL, 1/4-INCH.....	AR
2	PAOZZ	96906	MS70087-6	BOLT.....	1
3	PAOZZ	96906	MS35691-53	NUT.....	1
4	PAOZZ	96906	MS70087-2	CLEVIS, MEDIUM, 3/4-INCH.....	AR
5	PAOZZ	96906	MS70087-7	BOLT.....	1
6	PAOZZ	96906	MS35691-61	NUT.....	1
7	PAOZZ	96906	MS70087-3	CLEVIS, LARGE, 1-1/8-INCH.....	AR
8	PAOZZ	96906	MS70087-8	BOLT.....	1
9	PAOZZ	96906	MS35691-77	NUT.....	1
10	PAOZZ	96906	MS70087-5	CLEVIS, SCREW PIN, 1-1/8-INCH.....	AR
11	PAOZZ	96906	MS70087-10	PIN.....	1
12	PAOZZ	96906	MS70087-11	SLEEVE.....	1
<p>END OF FIGURE</p>					

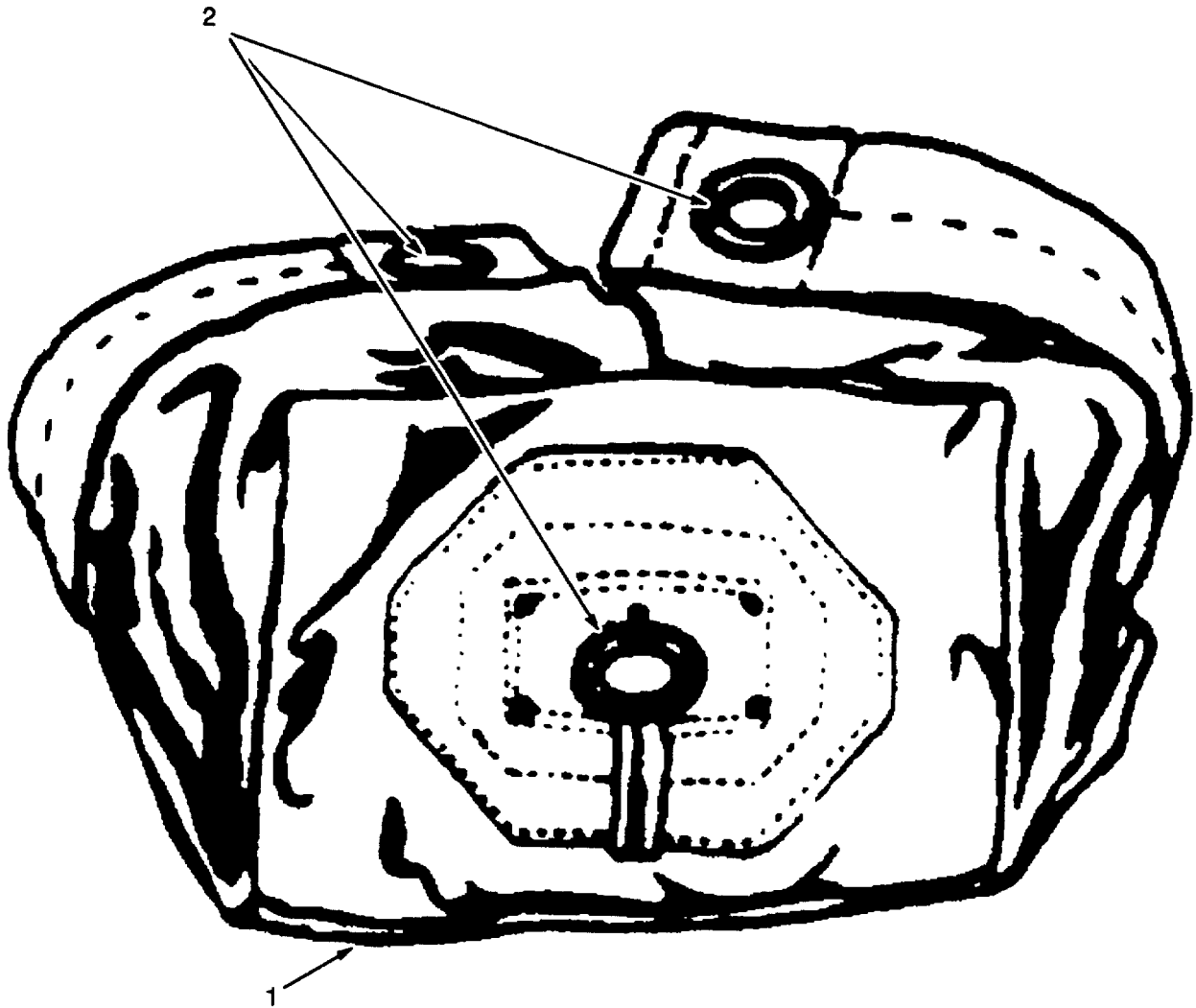


Figure C-15. Cover, Clevis

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**SECTION II REPAIR PARTS LIST**

**TM 10-1670-296-20&P**

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				<p><b>GROUP 05. NONREPAIRABLE LVADS ANCILLARY EQUIPMENT</b></p> <p><b>FIG. C-15. COVER, CLEVIS</b></p>	
1	PAOZZ	98750	50C7406	COVER, CLEVIS .....	AR
2	PAOZZ	81349	MIL-G-16491	GROMMET, METALLIC .....	1
				END OF FIGURE	

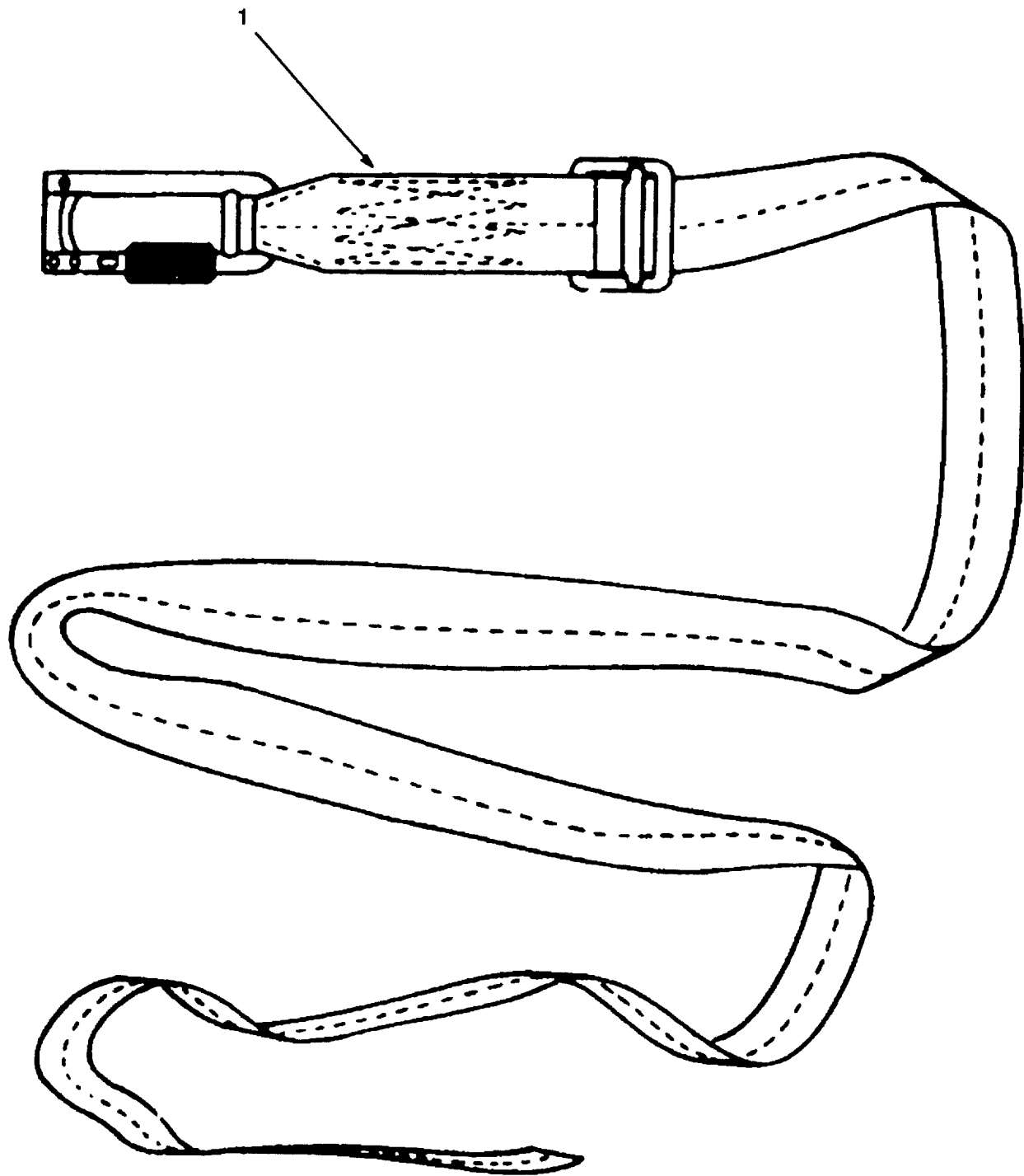


Figure C-16. Strap, Parachute Release, Single Knife

**SECTION II REPAIR PARTS LIST**

**TM 10-1670-296-20&P**

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	81337	11-1-129	<p><b>GROUP 05. NONREPAIRABLE LVADS ANCILLARY EQUIPMENT</b></p> <p><b>FIG. C-16 STRAP, PARACHUTE RELEASE, SINGLE KNIFE</b></p> <p>STRAP, PARACHUTE RELEASE, SINGLE KNIFE .....</p> <p>END OF FIGURE</p>	AR

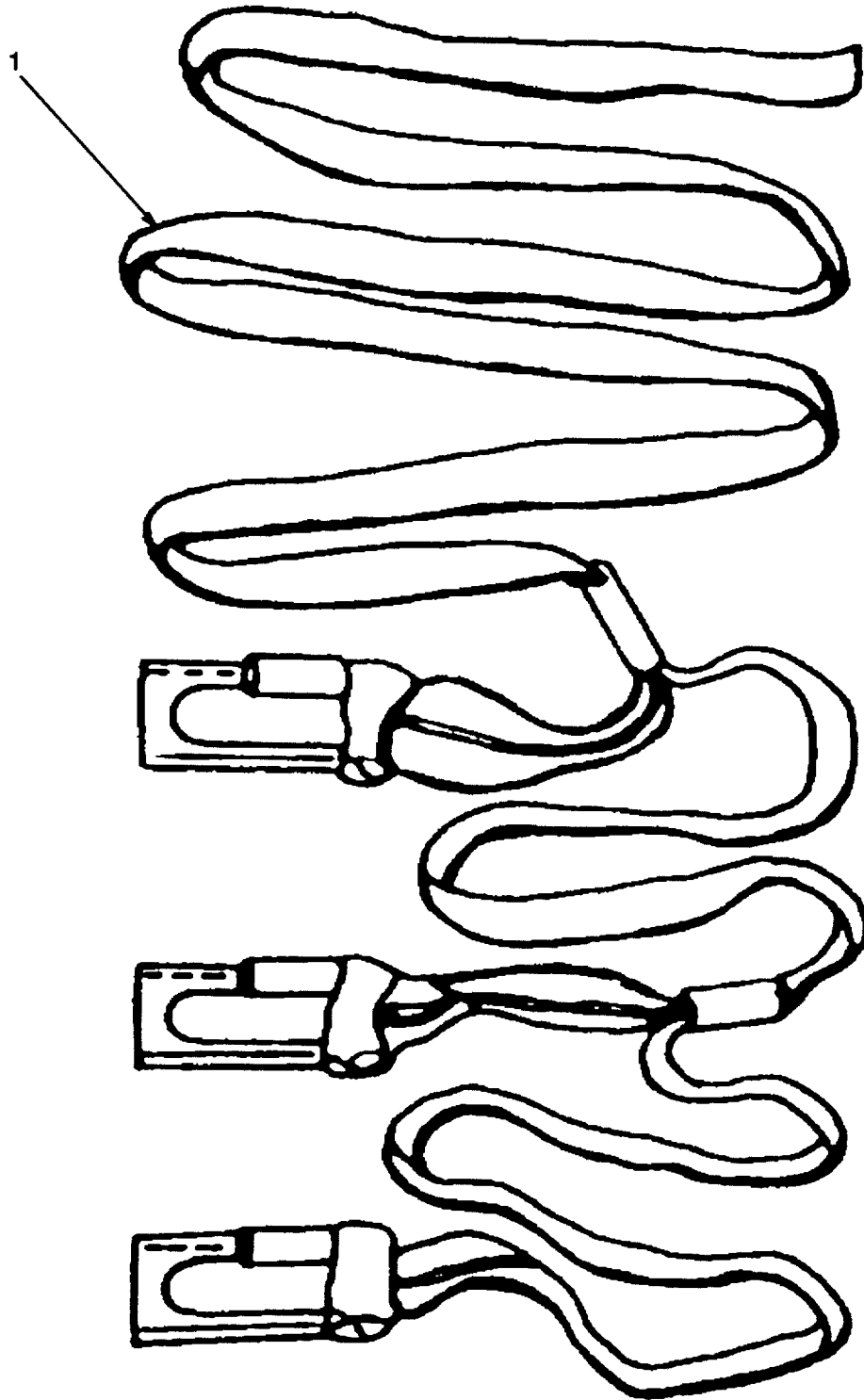


Figure C-17. Strap, Parachute Release, Multi-Knife

**SECTION II REPAIR PARTS LIST**

**TM 10-1670-296-20&P**

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	81337	11-1-484	<p><b>GROUP 05. NONREPAIRABLE LVADS ANCILLARY EQUIPMENT</b></p> <p><b>FIG. C-17 STRAP, PARACHUTE RELEASE, MULTI-KNIFE</b></p> <p>STRAP, PARACHUTE RELEASE, MULTI-KNIFE .....</p> <p>END OF FIGURE</p>	AR

1  
2 through 5

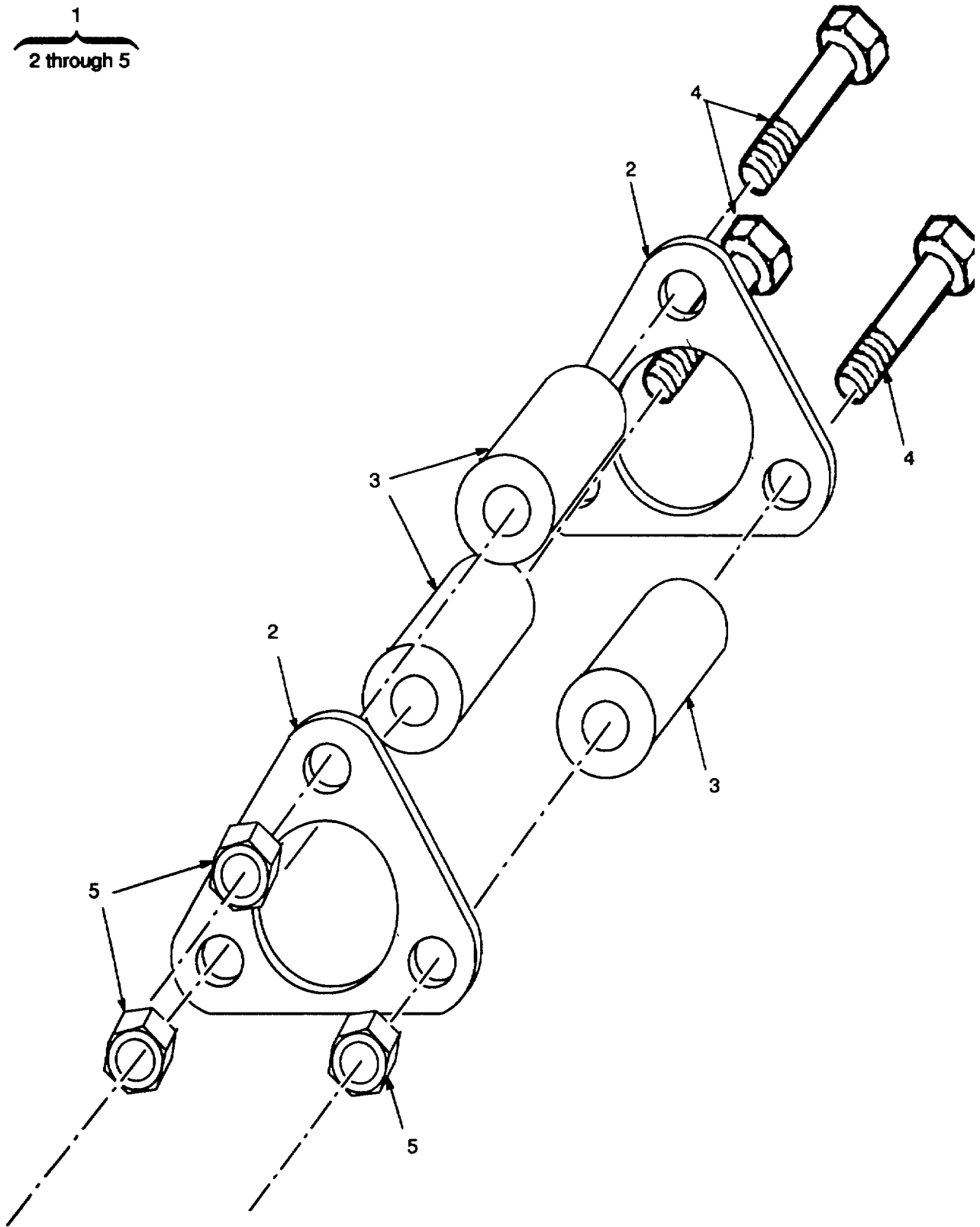


Figure C-18. Link Assembly, Coupling, 3-Point

SECTION II REPAIR PARTS LIST

TM 10-1670-296-20&P

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
<p><b>GROUP 05. NONREPAIRABLE LVADS ANCILLARY EQUIPMENT</b></p>					
<p><b>FIG. C-18. LINK ASSEMBLY, COUPLING, 3-POINT</b></p>					
1	PAOZZ	81337	11-1-1715-2	LINK ASSEMBLY, COUPLING, 3-POINT .....	AR
2	XAOZZ	81337	11-1-1717	PLATE, SIDE.....	2
3	XAOZZ	81337	11-1-1718	SPACER, BOLT .....	3
4	XAOZZ	81337	11-1-1715-6	SCREW.....	3
5	XAOZZ	81337	MS21083-N16	NUT, SELF-LOCKING, 1-INCH, 12UNJF-3B .....	3
<p>END OF FIGURE</p>					

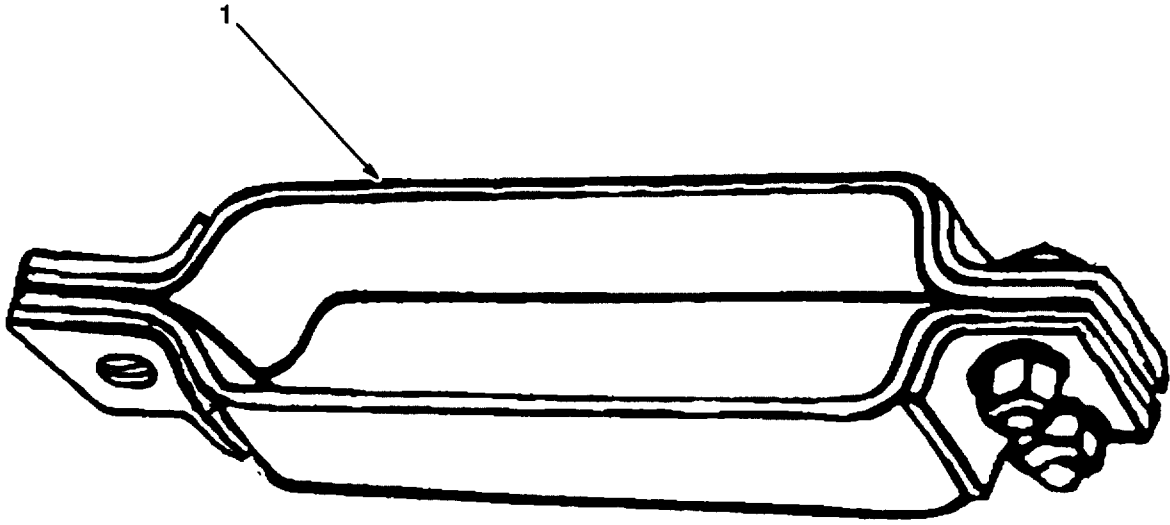


Figure C-19. Bracket, Suspension

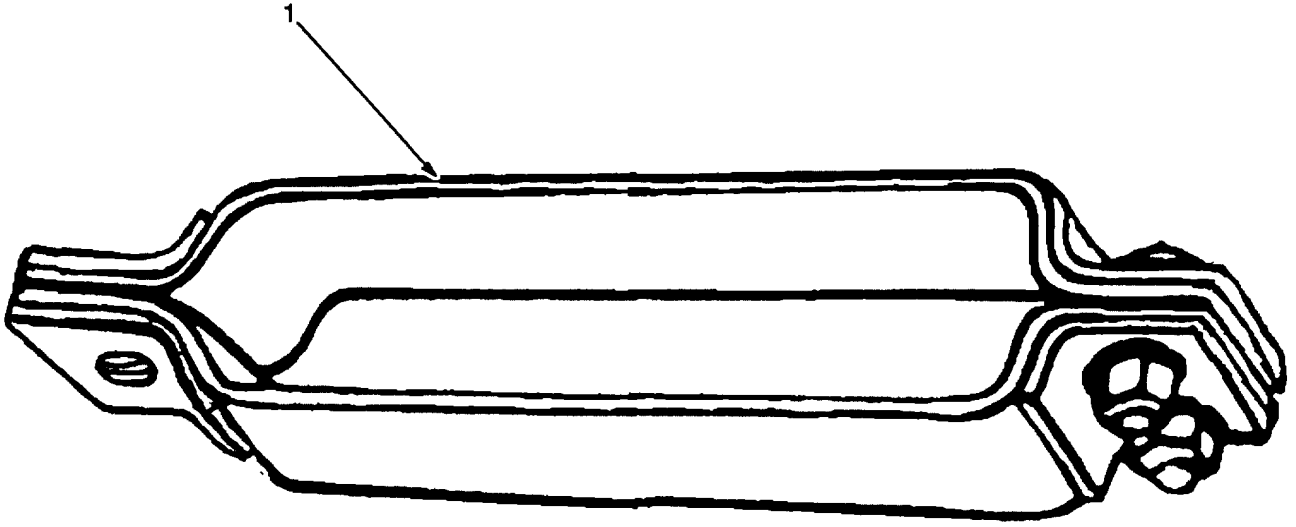
C-46



**SECTION II REPAIR PARTS LIST**

**TM 10-1670-296-20&P**

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	81337	53C7084-1	<p><b>GROUP 05. NONREPAIRABLE LVADS ANCILLARY EQUIPMENT</b></p> <p><b>FIG. C-19. BRACKET, SUSPENSION</b></p> <p>BRACKET, SUSPENSION .....</p> <p>END OF FIGURE</p>	AR



*Figure C-20. Bracket, Suspension*

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**SECTION II REPAIR PARTS LIST**

**TM 10-1670-296-20&P**

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	81337	53C7084-2	<p><b>GROUP 05. NONREPAIRABLE LVADS ANCILLARY EQUIPMENT</b></p> <p><b>FIG. C-20. BRACKET, SUSPENSION</b></p> <p>BRACKET, SUSPENSION .....</p> <p>END OF FIGURE</p>	AR

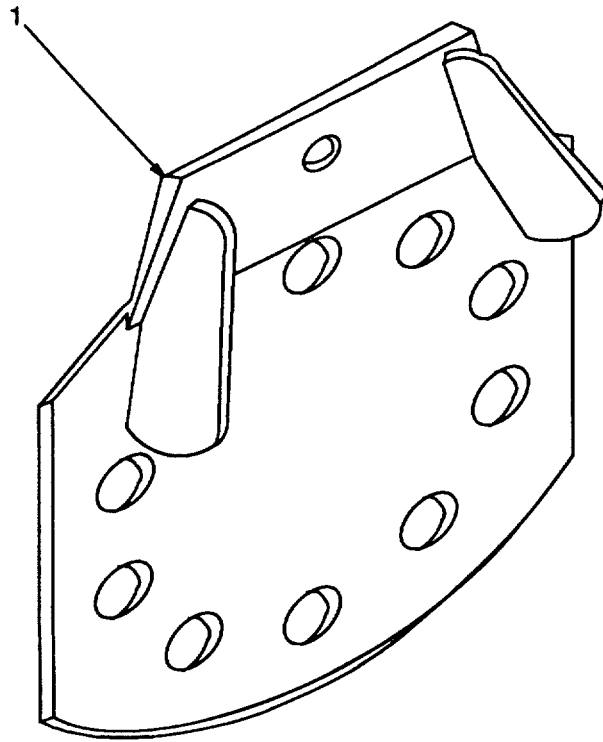


Figure C-21. Plate, Suspension

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**SECTION II REPAIR PARTS LIST**

**TM 10-1670-296-20&P**

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	81337	11-1-2615	<p><b>GROUP 05. NONREPAIRABLE LVADS ANCILLARY EQUIPMENT</b></p> <p><b>FIG. C-21. PLATE, SUSPENSION</b></p> <p>PLATE, SUSPENSION .....</p> <p>END OF FIGURE</p>	AR

1  
2 through 4

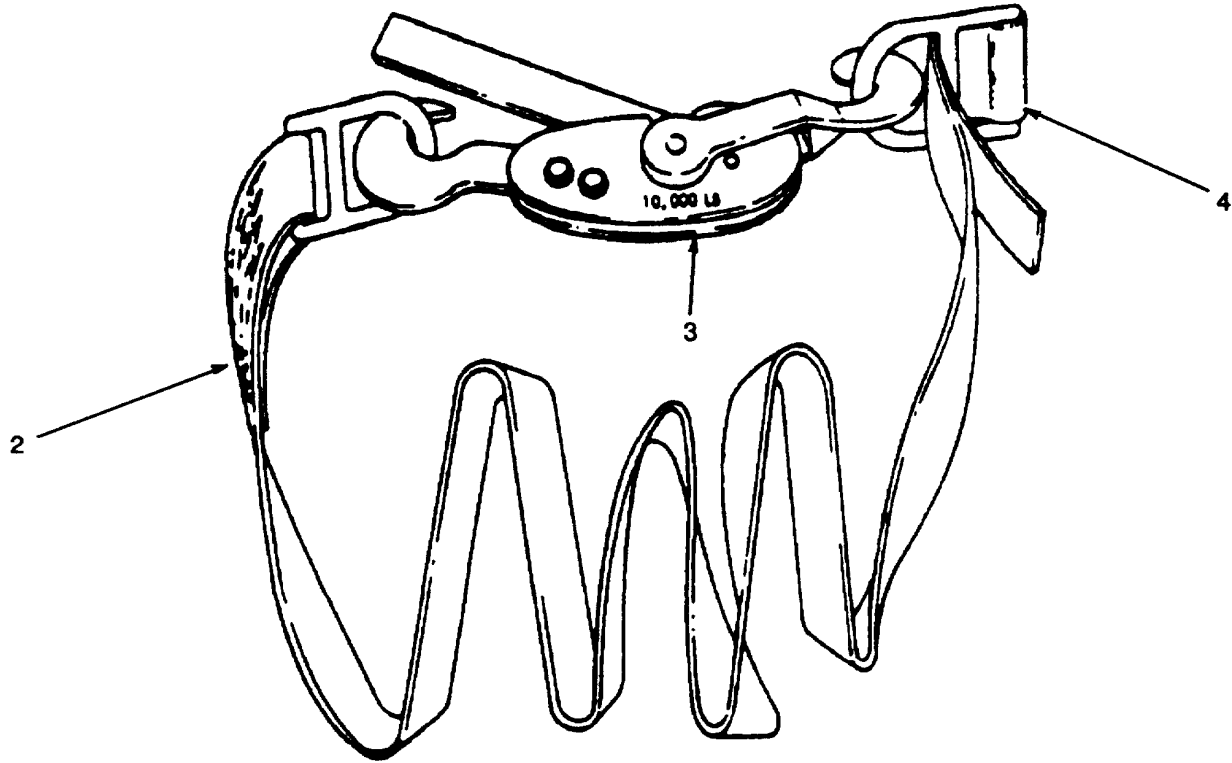


Figure C-22. Tiedown, Cargo, 10K

**SECTION II REPAIR PARTS LIST**

**TM 10-1670-296-20&P**

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
<b>GROUP 05. NONREPAIRABLE LVADS ANCILLARY EQUIPMENT</b>					
<b>FIG. C-22. TIEDOWN, CARGO, 10K</b>					
1	PAOZZ	81337	11-1-721	TIEDOWN, CARGO, 10K .....	AR
2	PAOZZ	81337	11-1-892	STRAP, TIEDOWN .....	1
3	PAOZZ	81337	11-1-901	BINDER, LOAD .....	1
4	PAOZZ	96906	MS22046-8	D-RING, HEAVY-DUTY .....	1
END OF FIGURE					

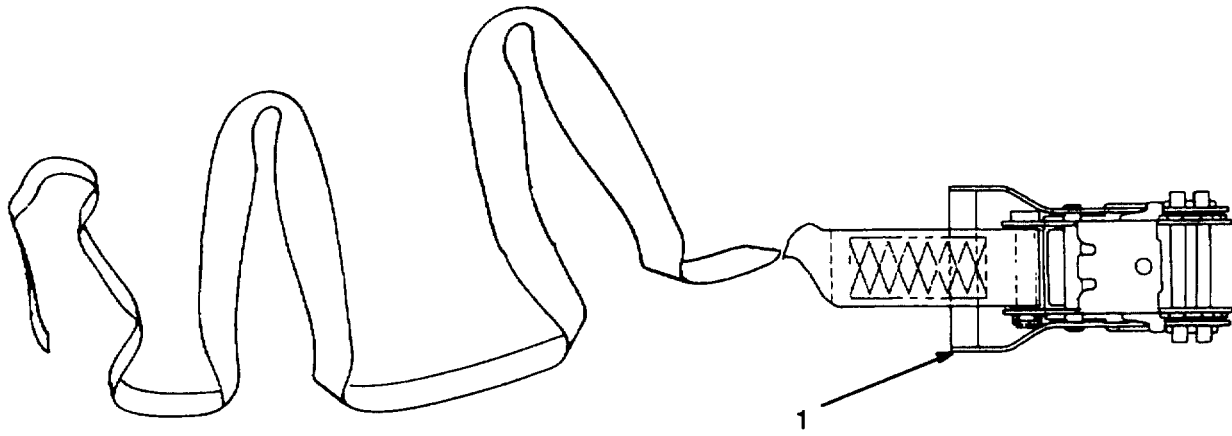


Figure C-23. Tiedown, Cargo, Quick-Release

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**SECTION II REPAIR PARTS LIST**

**TM 10-1670-296-20&P**

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	81337	11-1-3922	<p><b>GROUP 05. NONREPAIRABLE LVADS ANCILLARY EQUIPMENT</b></p> <p><b>FIG. C-23. TIEDOWN, CARGO, QUICK-RELEASE</b></p> <p>TIEDOWN, CARGO, QUICK-RELEASE .....</p> <p>END OF FIGURE</p>	AR

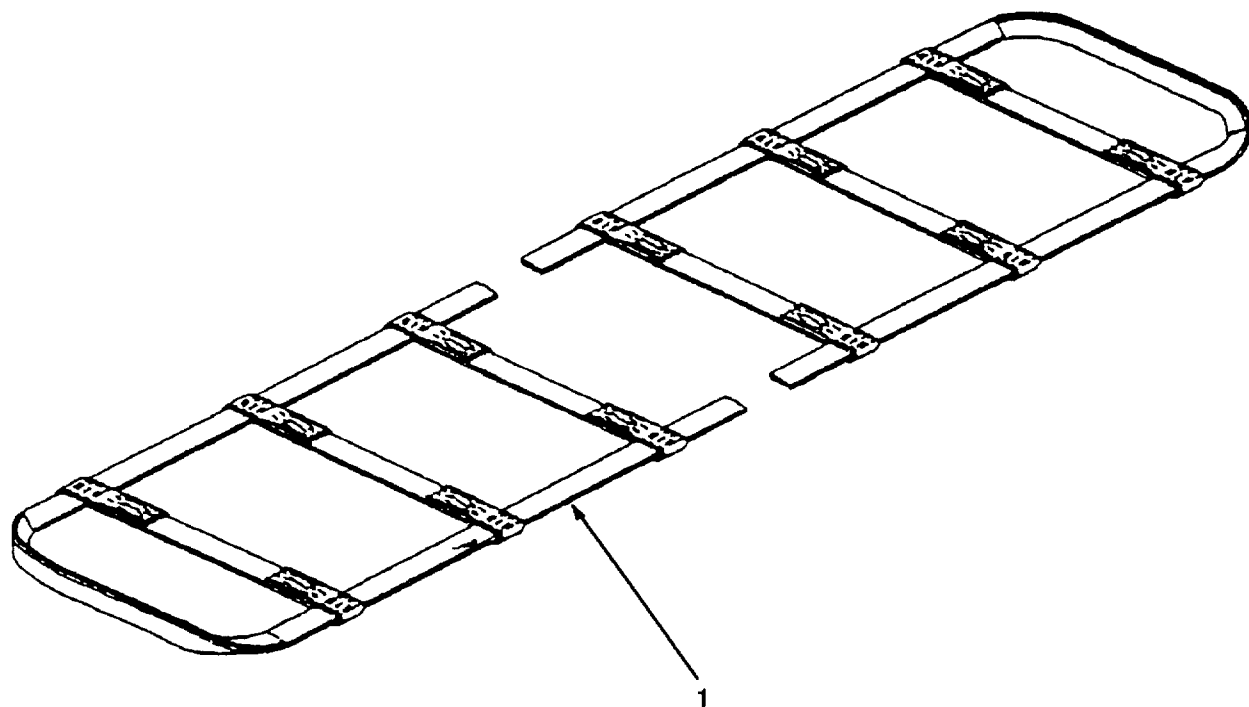


Figure C-24. Drive Off Aid, Type IV

**SECTION II REPAIR PARTS LIST**

**TM 10-1670-296-20&P**

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	81337	11-1-3771	<p><b>GROUP 05. NONREPAIRABLE LVADS ANCILLARY EQUIPMENT</b></p> <p><b>FIG C-24. DRIVE OFF AID, TYPE IV</b></p> <p>DRIVE OFF AID, TYPE IV .....</p> <p>END OF FIGURE</p>	AR

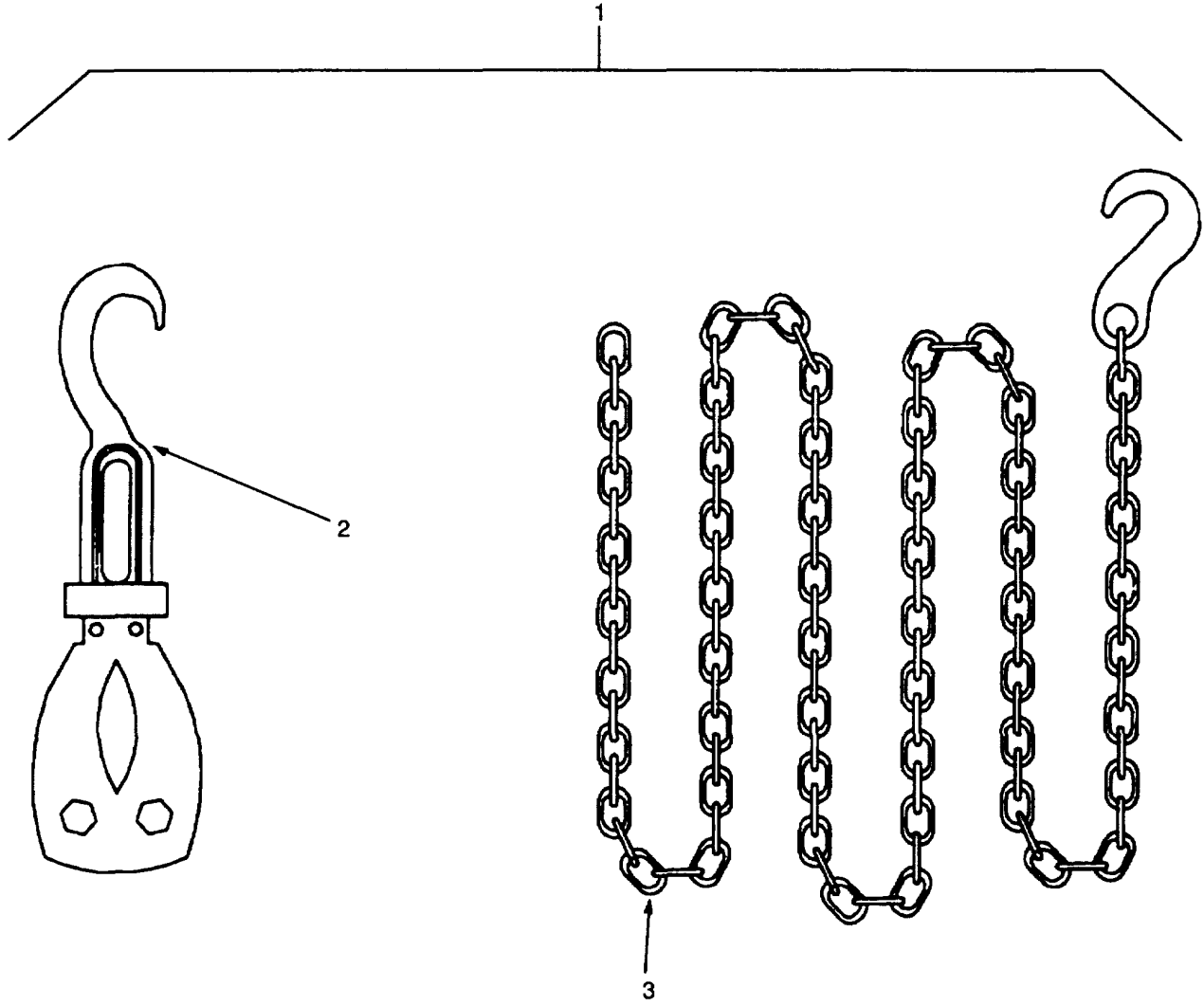


Figure C-25. Tiedown, Cargo, Aircraft

**SECTION II. REPAIR PARTS LIST**

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	81349	MIL-T-25959	<p><b>GROUP 05, NONREPAIRABLE LVADS ANCILLARY EQUIPMENT</b></p> <p><b>FIG. C-25. TIEDOWN, CARGO, AIRCRAFT</b></p> <p>TIEDOWN, CARGO, AIRCRAFT</p>	AR
2		81349		<ul style="list-style-type: none"> <li>• RACHET</li> </ul>	1
3		81349		<ul style="list-style-type: none"> <li>• CHAIN</li> </ul>	1
END OF FIGURE					

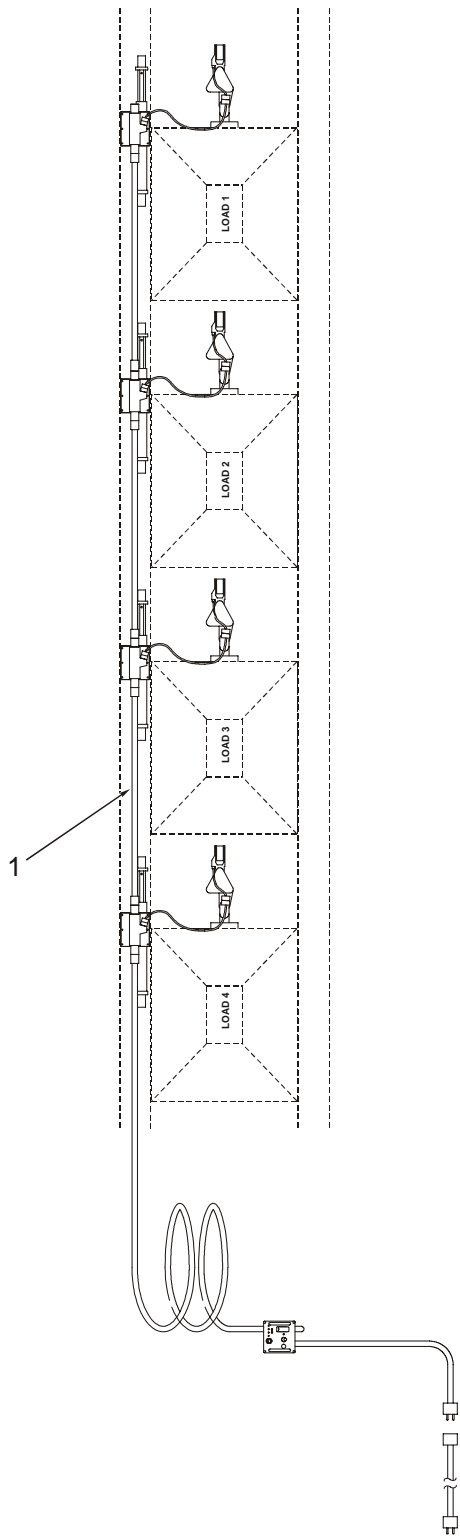


Figure C-26. Jettison System, Parachute, Extraction (EPJS)

SECTION II. REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOOO	52497	811-00429	<p>GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM</p> <p>FIG. C-26. JETTISON SYSTEM, PARACHUTE, EXTRACTION (EPJS)</p> <p>JETTISON SYSTEM, PARACHUTE, EXTRACTION</p> <p>END OF FIGURE</p>	1

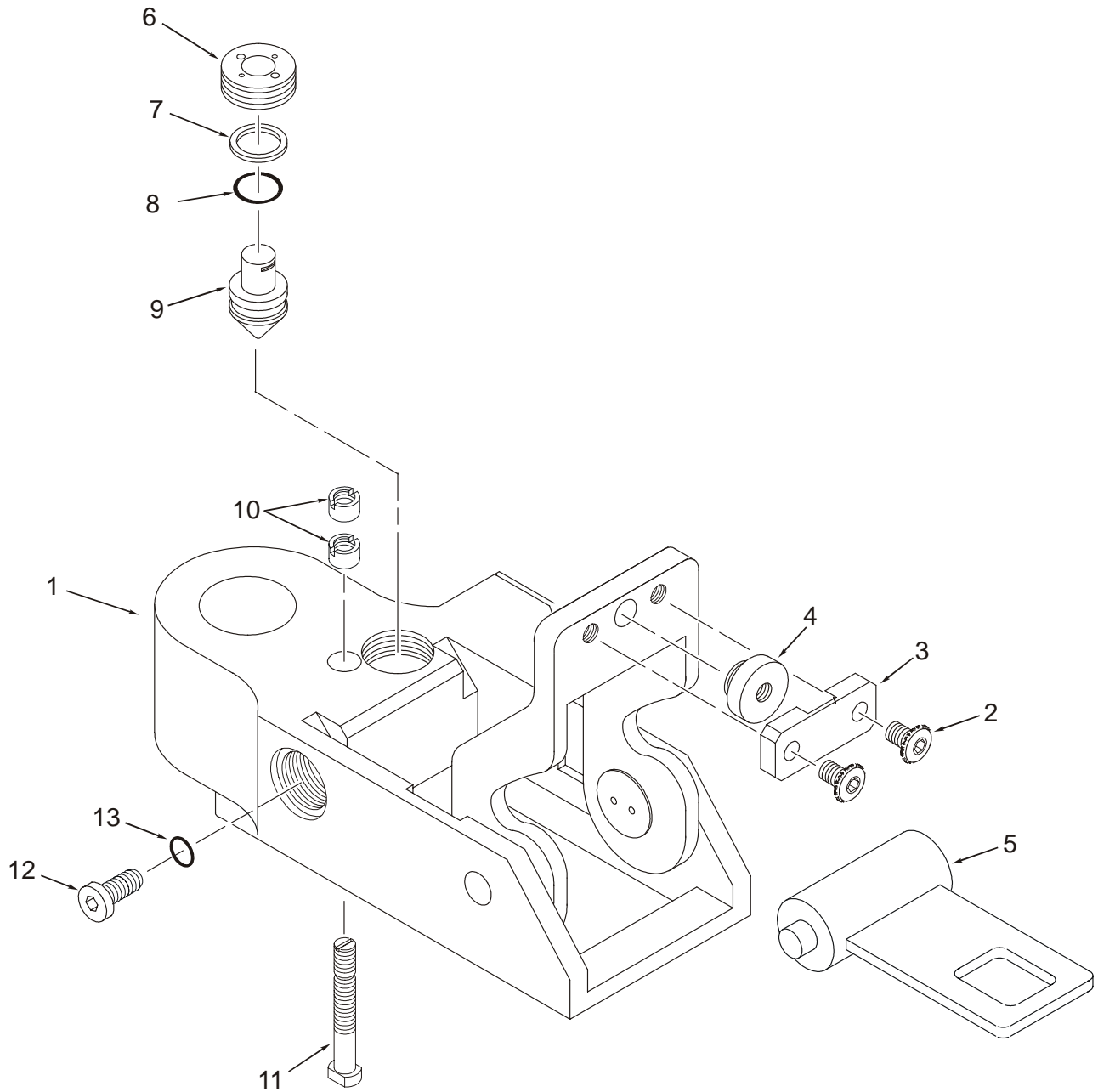


Figure C-27. Jettison Device, Parachute, Extraction (EPJD)



SECTION II. REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				<b>GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM</b>	
				<b>FIG. C-27. JETTISON DEVICE, PARACHUTE, EXTRACTION (EPJD)</b>	
1	PAOOO	52497	811-00414	JETTISON DEVICE, PARACHUTE, EXTRACTION	4
2	PAOZZ	52497	511-00695	• SCREW ASSY, BUTTON HD	2
3	PAOZZ	52497	311-21893	• CLAMP, RETAINER	1
4	PAOZZ	52497	311-21647	• RETAINER, LATCH	1
5	PAOZZ	52497	811-00496	• KEEPER	1
6	XAOZZ	52497	311-21644	• STOP, PISTON	1
7	XAOZZ	52497	311-80313-015	• RING, BACKUP	1
8	XAOZZ	52497	311-80603-015	• PACKING, PREFORMED	1
9	XAOZZ	52497	311-21643	• PISTON	1
10	XAOZZ	52497	311-21646	• RETAINER, SHEAR BOLT	2
11	XAOZZ	52497	311-21645	• BOLT, SHEAR	1
12	PAOZZ	52497	311-21788	• PLUG, CROSS HOLE	1
13	XAOZZ	52497	311-81124	• PACKING, PREFORMED	1
END OF FIGURE					

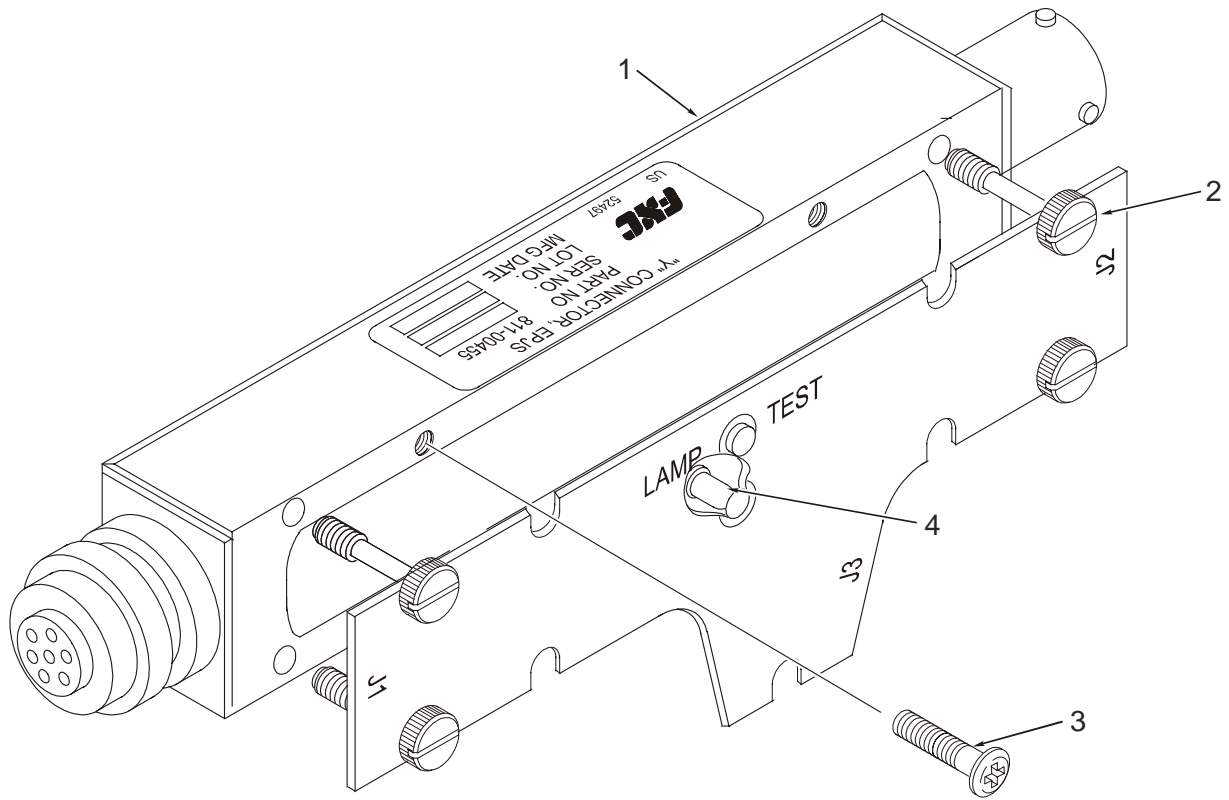


Figure C-28. Y-Connector

SECTION II. REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				<p><b>GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM</b></p> <p><b>FIG. C-28. Y-CONNECTOR</b></p>	
1	PAOOO	52497	811-00455	Y-CONNECTOR	4
2	XDOZZ	52497	311-81126	• SCREW, THUMB	4
3	XDOZZ	52497	311-80266-15	• SCREW, PAN HEAD	5
4	PAOZZ	52497	811-00494	• LED, BLUE	1
END OF FIGURE					

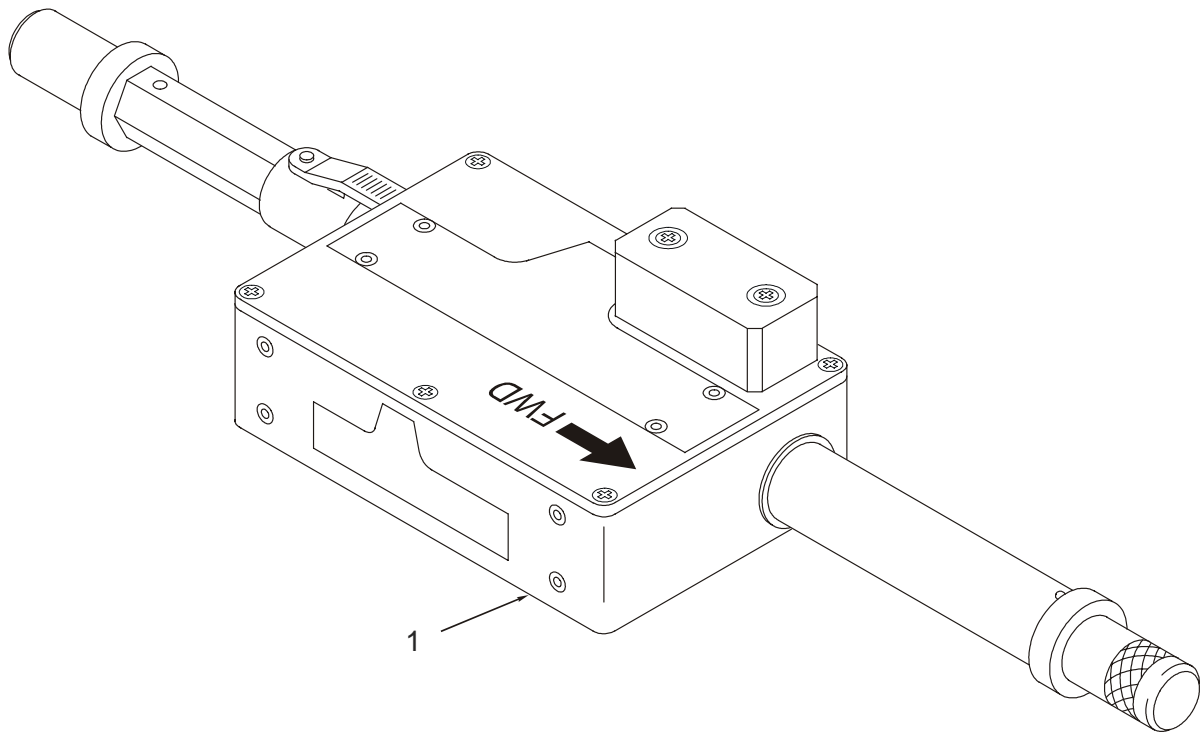


Figure C-29. Mounting Box, Y-Connector (C-130; C-141; C-17)

SECTION II. REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOOO	52497	811-00480	<p><b>GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM</b></p> <p><b>FIG. C-29. MOUNTING BOX, Y-CONNECTOR (C-130; C-141; C-17)</b></p> <p>MOUNTING BOX, Y-CONNECTOR (C-130; C-141; C-17)</p> <p style="text-align: center;">END OF FIGURE</p>	4

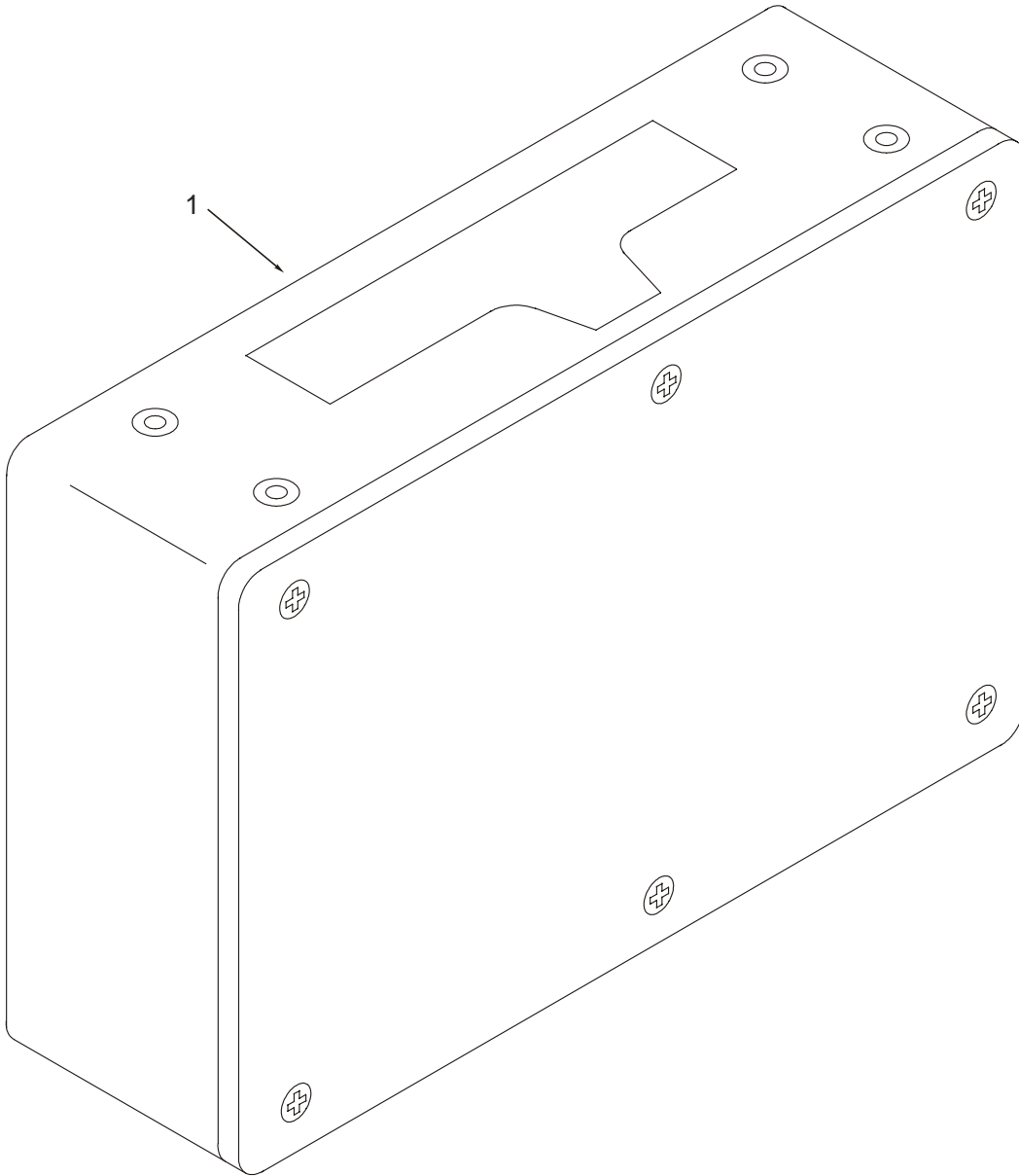


Figure C-30. Mounting Box, Y-Connector (C-5)

SECTION II. REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	52497	811-00480-1	<p><b>GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM</b></p> <p><b>FIG. C-30. MOUNTING BOX, Y-CONNECTOR (C-5)</b></p> <p>MOUNTING BOX, Y-CONNECTOR (C-5)</p> <p>END OF FIGURE</p>	4

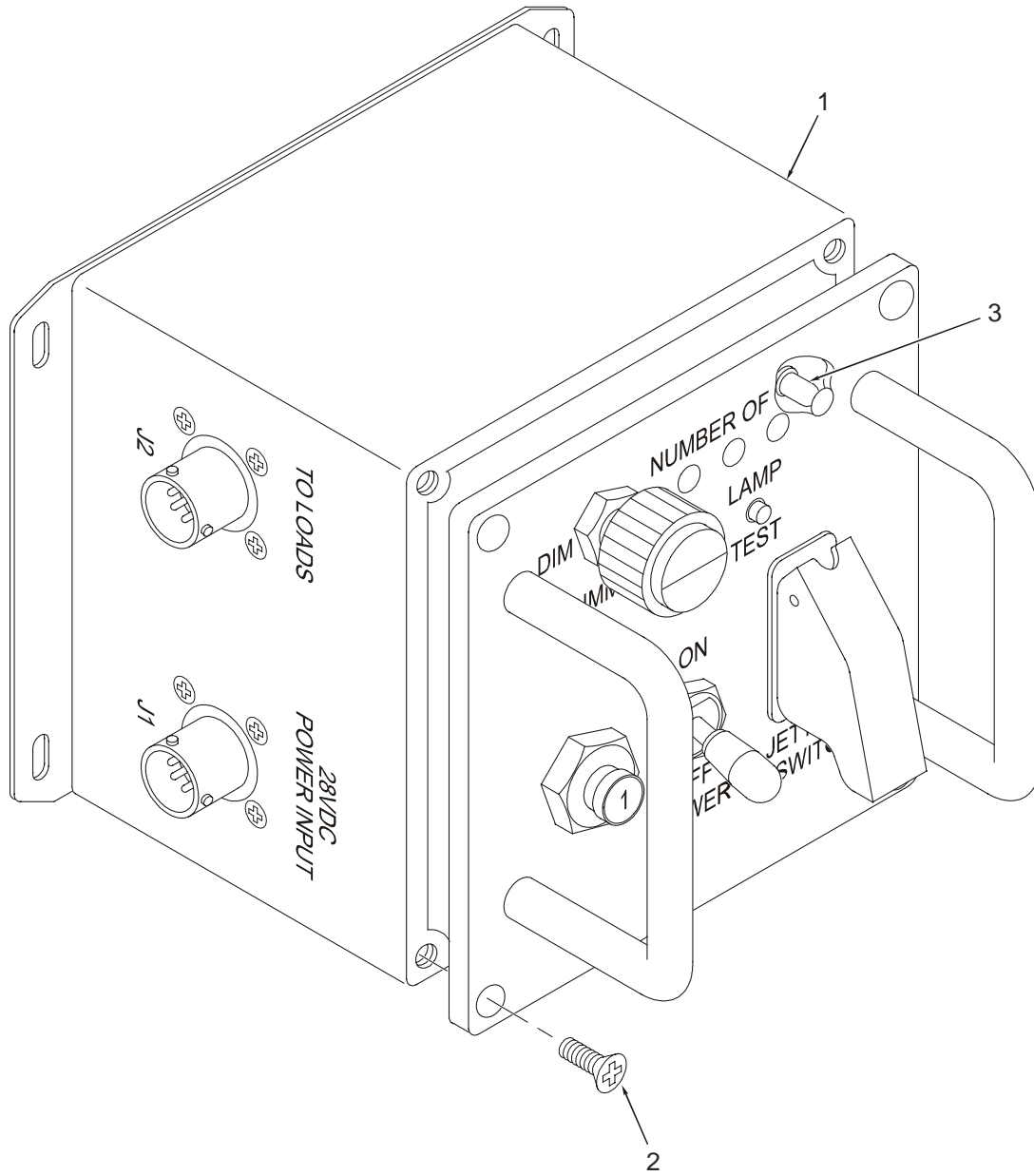


Figure C-31. Box, Control



SECTION II. REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				<p><b>GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM</b></p> <p><b>FIG. C-31. BOX, CONTROL</b></p>	
1	PAOOO	52497	811-00457	BOX, CONTROL	1
2	PAOZZ	52497	311-80268-30	• SCREW, FLAT HEAD	4
3	PAOZZ	52497	811-00494	• LED, BLUE	4
END OF FIGURE					

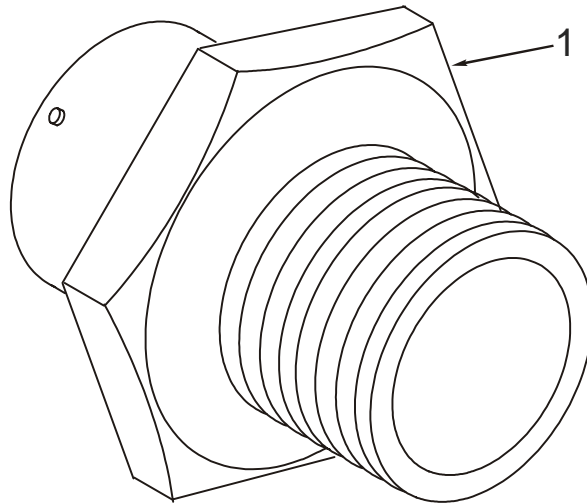


Figure C-32. Assembly, Squib

SECTION II. REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	52497	811-00434	<p>GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM</p> <p>FIG. C-32. SQUIB</p> <p>SQUIB</p> <p>END OF FIGURE</p>	4

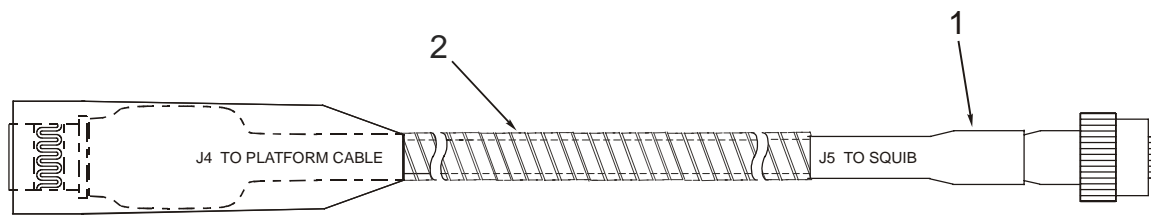


Figure C-33. Cable, Squib, EPJS

**SECTION II. REPAIR PARTS LIST**

<b>(1) ITEM NO.</b>	<b>(2) SMR CODE</b>	<b>(3) CAGEC</b>	<b>(4) PART NUMBER</b>	<b>(5) DESCRIPTION AND USABLE ON CODES (UOC)</b>	<b>(6) QTY</b>
				<b>GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM</b>	
				<b>FIG. C-33. CABLE, SQUIB</b>	
1	PAOZZ	52497	811-00481	CABLE, SQUIB	4
2	PAOZZ	3AQ054	7432K51	WRAP, SPIRAL	AR
				END OF FIGURE	

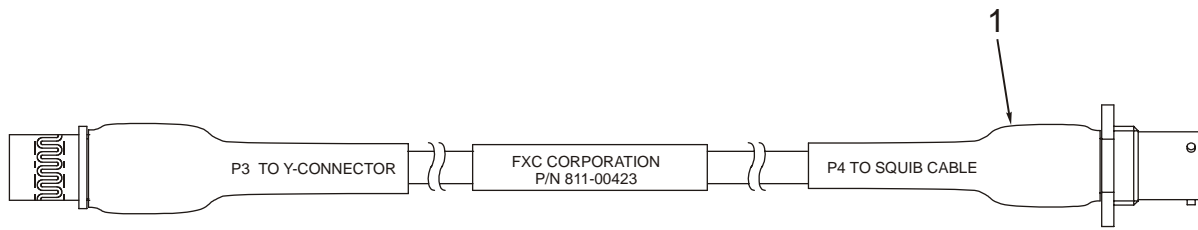


Figure C-34. Cable, Platform, 10-Foot

SECTION II. REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	52497	811-00423	<p><b>GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM</b></p> <p><b>FIG. C-34. CABLE, PLATFORM, 10-FOOT</b></p> <p>CABLE, PLATFORM, 10-FOOT</p> <p>END OF FIGURE</p>	4

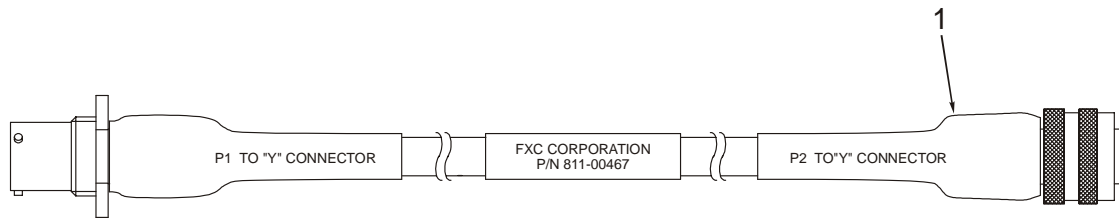


Figure C-35. Cable, Interconnect, 10-Foot



SECTION II. REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	52497	811-00467	<p><b>GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM</b></p> <p><b>FIG. C-35. CABLE, INTERCONNECT, 10-FOOT</b></p> <p>CABLE, INTERCONNECT, 10-FOOT</p> <p>END OF FIGURE</p>	3

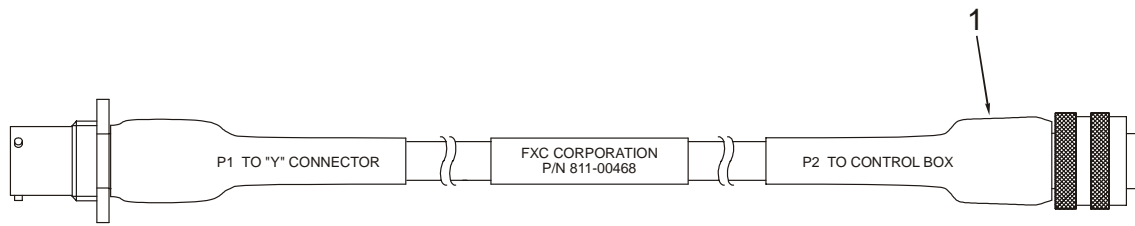


Figure C-36. Cable, Main, 50-Foot

SECTION II. REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	52497	811-00468	<p><b>GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM</b></p> <p><b>C-36. CABLE, MAIN, 50-FOOT</b></p> <p>CABLE, MAIN, 50-FOOT</p> <p>END OF FIGURE</p>	1

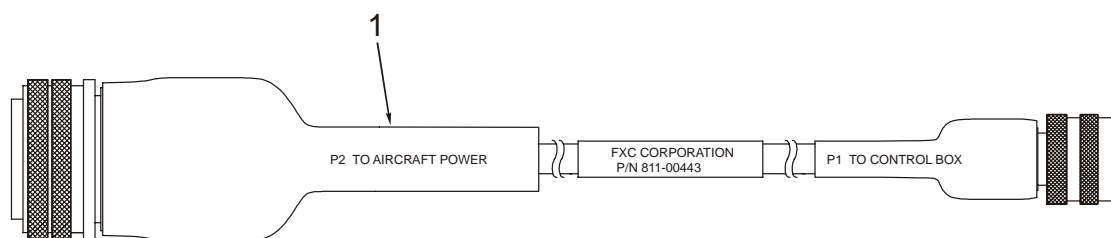


Figure C-37. Cable, Power, 20-Foot

## SECTION II. REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	52497	811-00443	GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM FIG. C-37. CABLE, POWER, 20-FOOT CABLE, POWER, 20-FOOT  END OF FIGURE	1

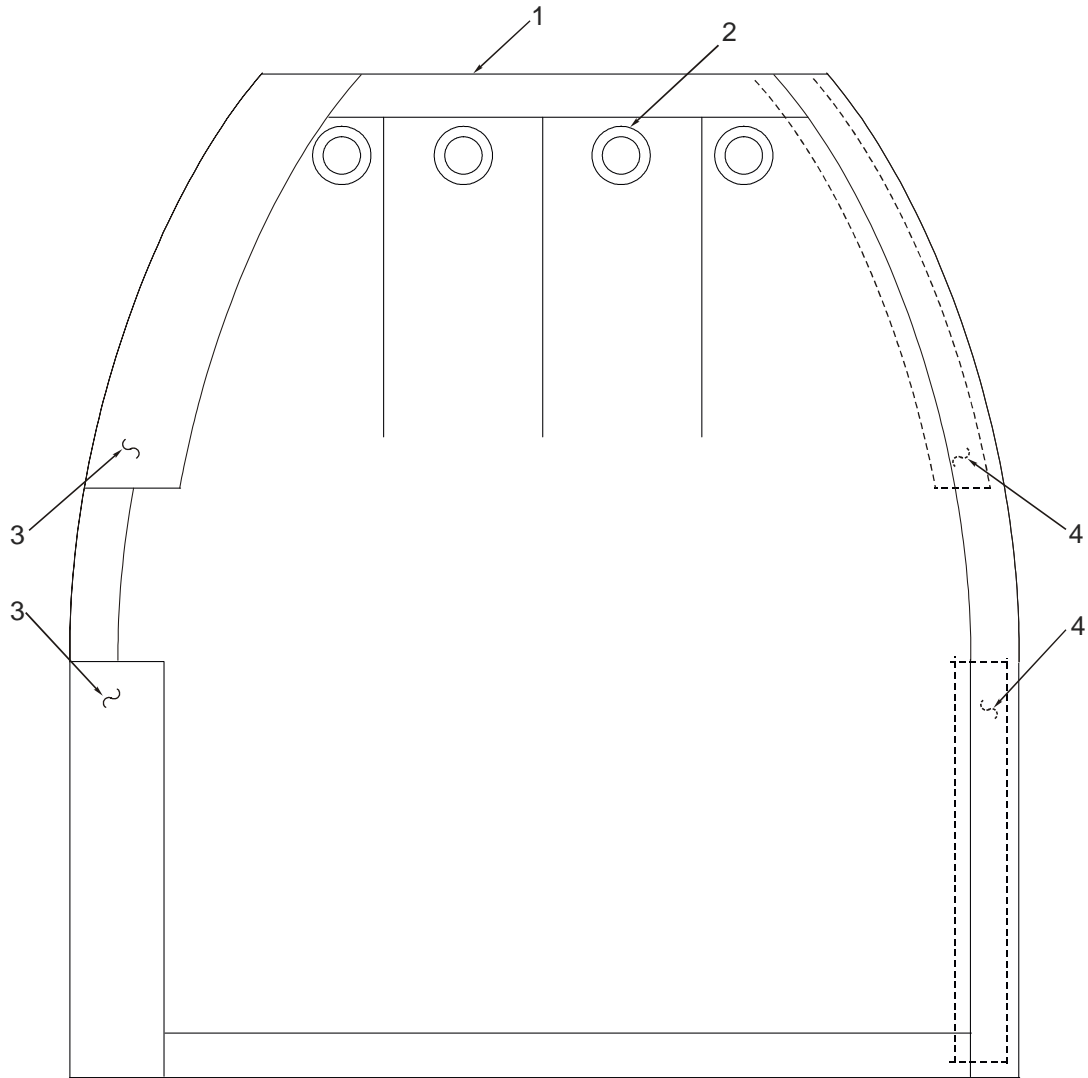


Figure C-38. Cover, Protective

SECTION II. REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				<p><b>GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM</b></p> <p><b>FIG. C-38. COVER, PROTECTIVE</b></p>	
1	PAOZZ	52497	821-00430	COVER, PROTECTIVE	4
2	PAOZZ	96906	MS20230BPS2	• GROMMET, METALLIC, SPUR, DIE SET	4
3	PAOZZ	81349	MIL-F-21840	• TAPE, HOOK, FASTENER, 1-1/2 INCH	AR
4	PAOZZ	81349	MIL-F-21840	• TAPE, PILE, FASTENER, 3/4 INCH	AR
END OF FIGURE					

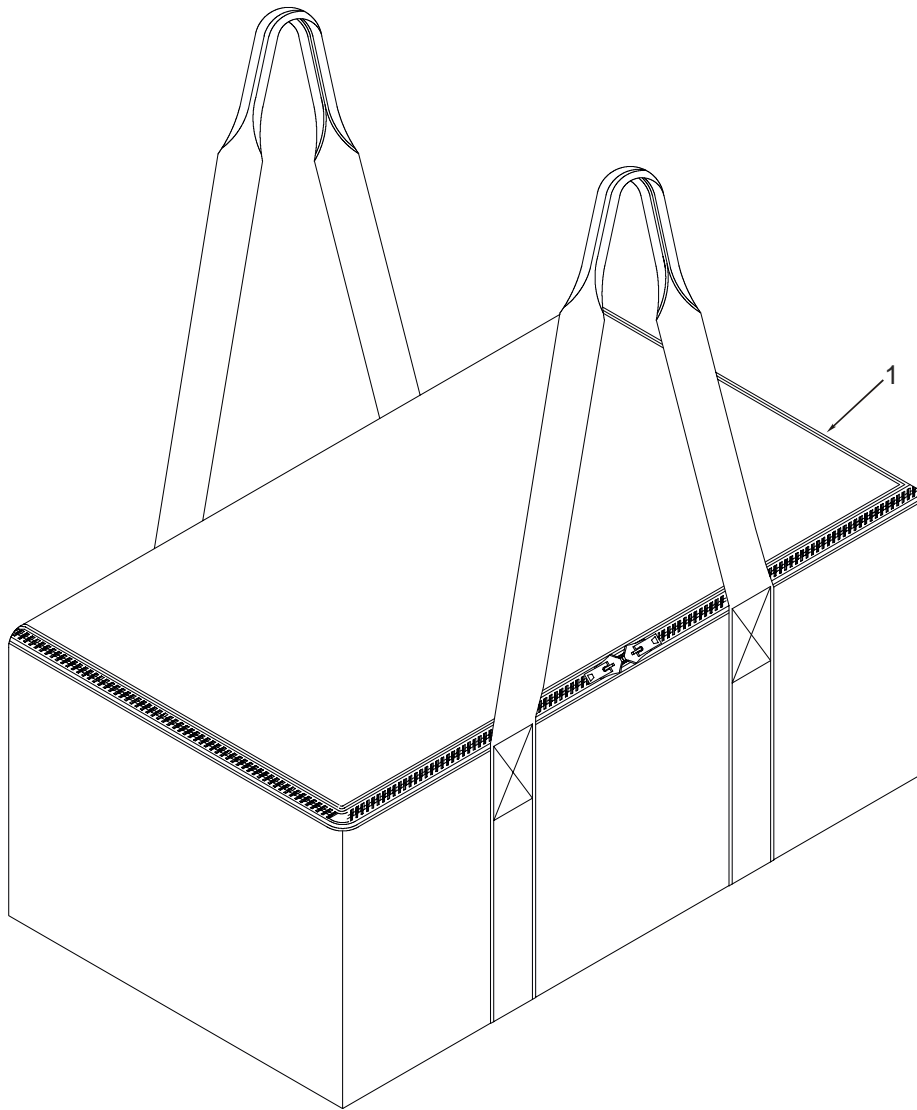


Figure C-39. Bag, Kit



SECTION II. REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	52497	821-00457	<p>GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM</p> <p>FIG. C-39. BAG, KIT</p> <p>BAG, KIT</p> <p>END OF FIGURE</p>	1

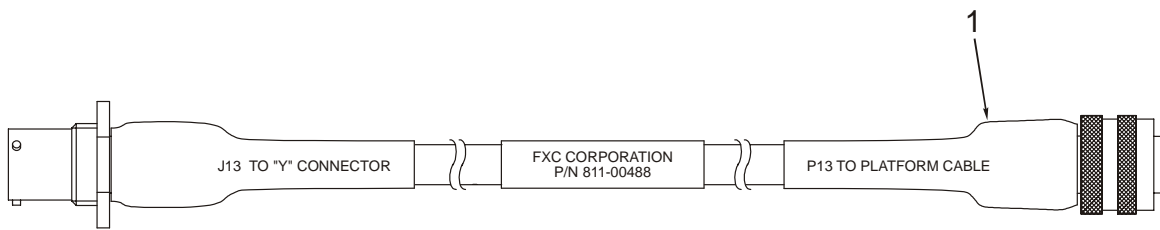


Figure C-40. Cable, Extension, 4-Foot (C-5 and C-17)

SECTION II. REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	52497	811-00488	<p>GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM</p> <p>FIG. C-40. CABLE, EXTENSION, 4-FOOT (C-5 AND C-17)</p> <p>CABLE, EXTENSION, 4-FOOT (C-5 AND C-17)</p> <p>END OF FIGURE</p>	4

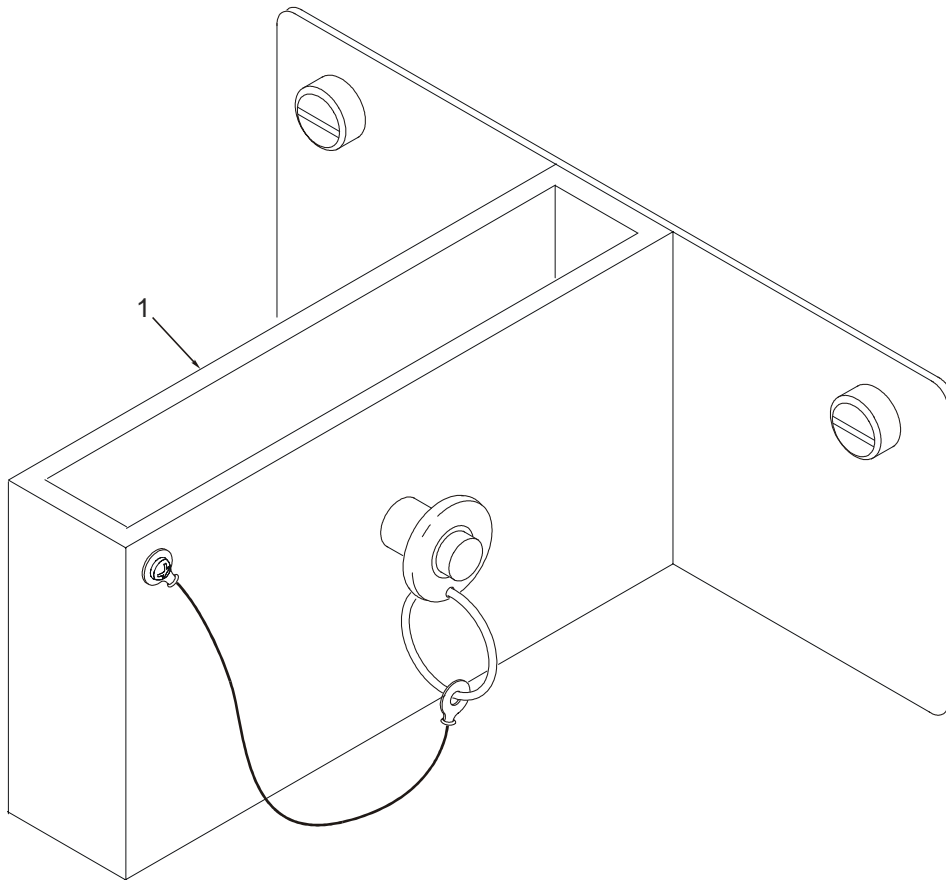


Figure C-41. Bracket, Tiedown, Y-Connector Mounting Box (C-5)

SECTION II. REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	52497	811-00516	<p><b>GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM</b></p> <p><b>FIG. C-41. BRACKET, TIEDOWN, Y-CONNECTOR MOUNTING BOX (C-5)</b></p> <p>BRACKET, TIEDOWN, Y-CONNECTOR MOUNTING BOX (C-5)</p> <p>END OF FIGURE</p>	4

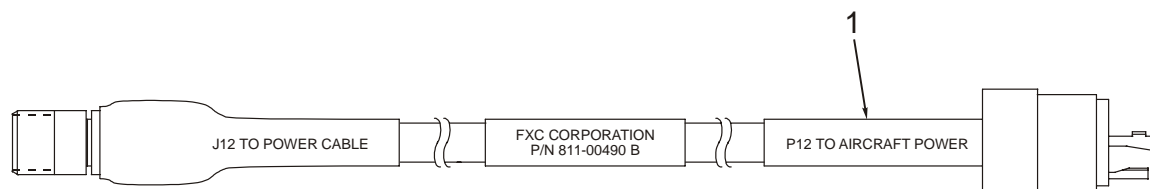


Figure C-42. Extension, Power Cable, 20-Foot (C-17)

SECTION II. REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	52497	811-00490	<p>GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM</p> <p>FIG. C-42. EXTENSION, POWER CABLE, 20-FOOT (C-17)</p> <p>EXTENSION, POWER CABLE, 20-FOOT (C-17)</p> <p>END OF FIGURE</p>	1

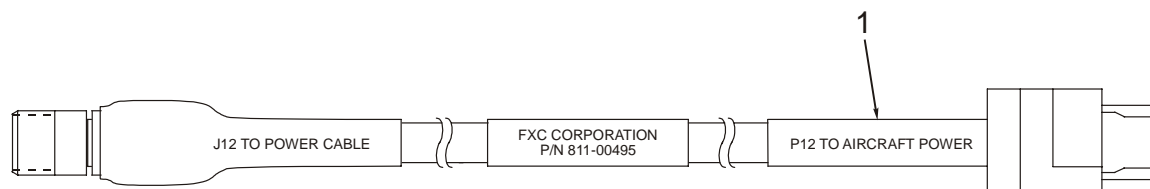
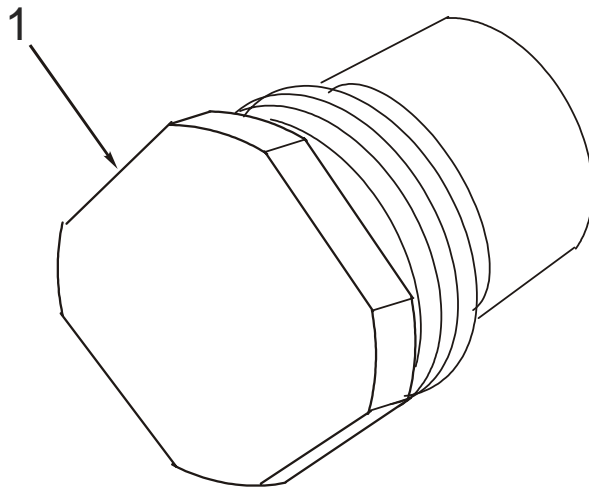


Figure C-43. Adapter, Power Cable, 1-Foot (C-5)



SECTION II. REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	52497	811-00495	<p><b>GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM</b></p> <p><b>FIG. C-43. ADAPTER, POWER CABLE, 1-FOOT (C-5)</b></p> <p>ADAPTER, POWER CABLE, 1-FOOT (C-5)</p> <p>END OF FIGURE</p>	1



*Figure C-44. Cap, Safety*

SECTION II. REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	52497	811-00493	<p><b>GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM</b></p> <p><b>FIG. C-44. CAP, SAFETY</b></p> <p>CAP, SAFETY</p> <p>END OF FIGURE</p>	4

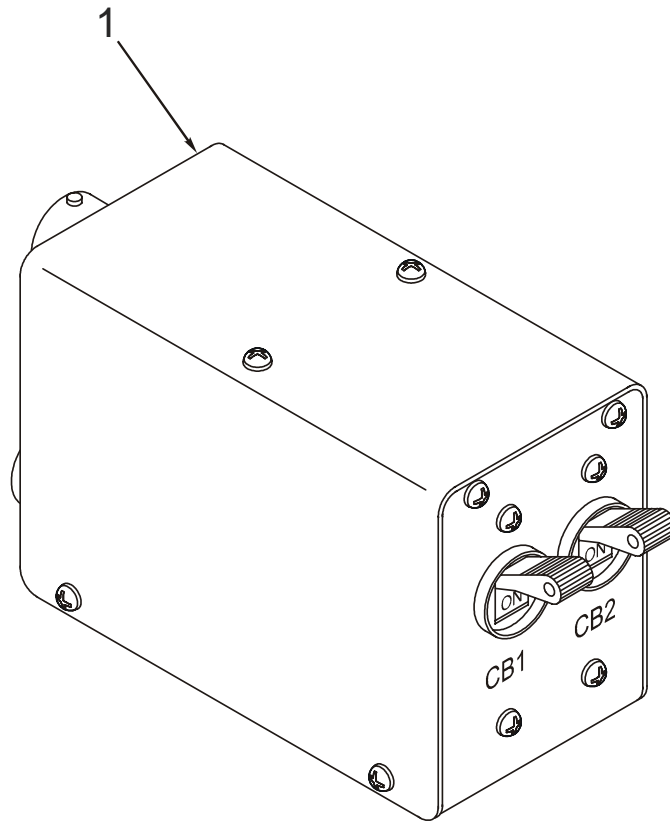


Figure C-45. Simulator, Initiator

SECTION II. REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	52497	811-00444	<p><b>GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM</b></p> <p><b>FIG. C-45. SIMULATOR, INITIATOR</b></p> <p>SIMULATOR, INITIATOR</p> <p>END OF FIGURE</p>	4

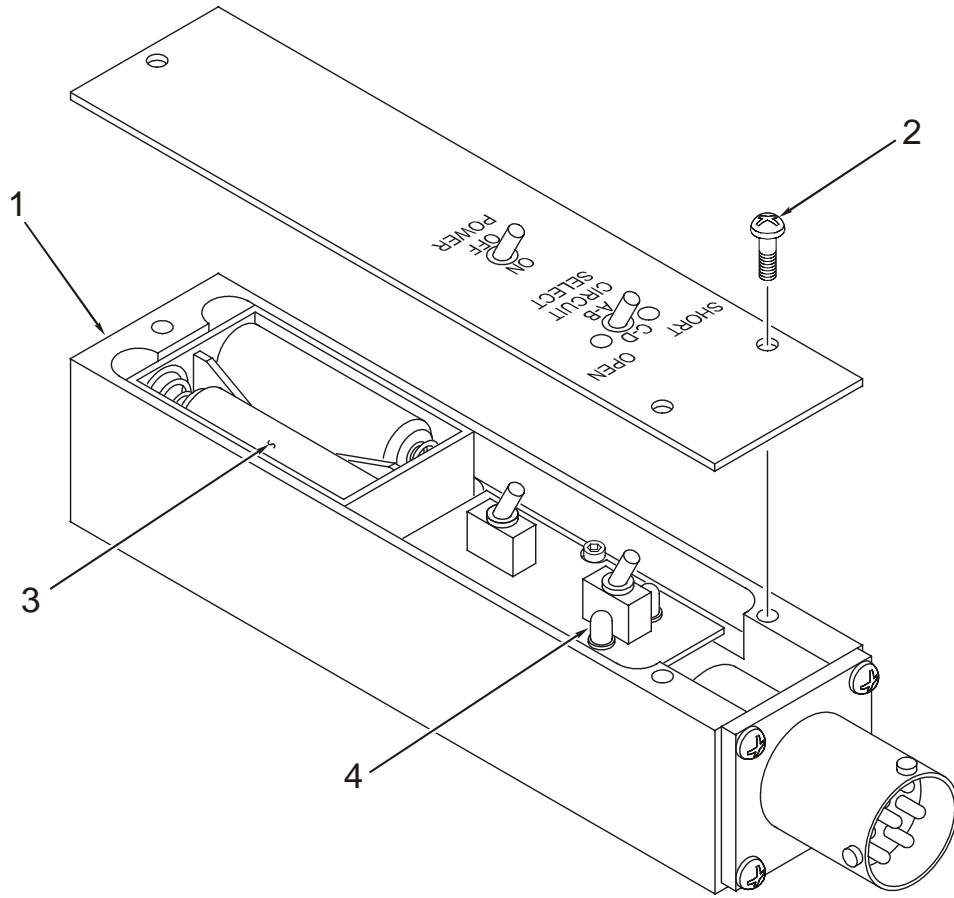


Figure C-46. Tester, Squib

SECTION II. REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				<p><b>GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM</b></p> <p><b>FIG. C-46. TESTER, SQUIB</b></p>	
1	PAOZZ	52497	811-00491	TESTER, SQUIB	1
2	PAOZZ	52497	311-80266-15	• SCREW, PAN HD	3
3	PAOZZ	52497	311-81140	• BATTERY, AA	2
4	PAOZZ	52497	811-00534	• LED, RED	2
END OF FIGURE					

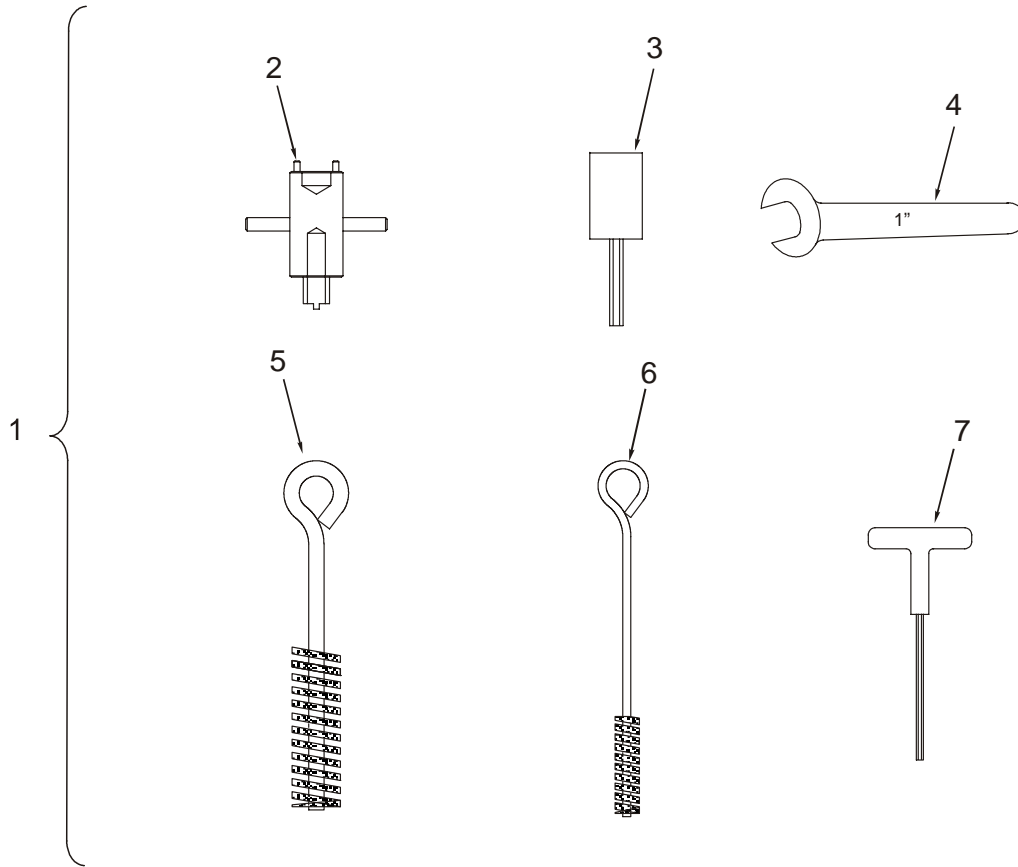


Figure C-47. Tool Kit, Refurbish, EPJD



SECTION II. REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				<b>GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM</b>	
				<b>FIG. C-47. TOOL KIT, REFURBISH, EPJD</b>	
1	PAOZZ	52497	811-00469	TOOL KIT, REFURBISH, EPJD	1
2	PAOZZ	52497	811-00470	• WRENCH, PISTON STOP/SHEAR BOLT RETAINER	1
3	XAOZZ	52497	811-00532	• SOCKET, HEX BIT, 5/32 IN.	1
4	XAOZZ	52497	811-00531	• WRENCH, OPEN END, 1-IN.	
5	XAOZZ	52497	811-00471	• BRUSH BRISTLE	1
6	XAOZZ	52497	811-00471-1	• BRUSH BRISTLE	1
7	XAOZZ	52497	811-00535	• DRIVE, HEX, T-HANDLE, 5/32 IN.	1
				END OF FIGURE	

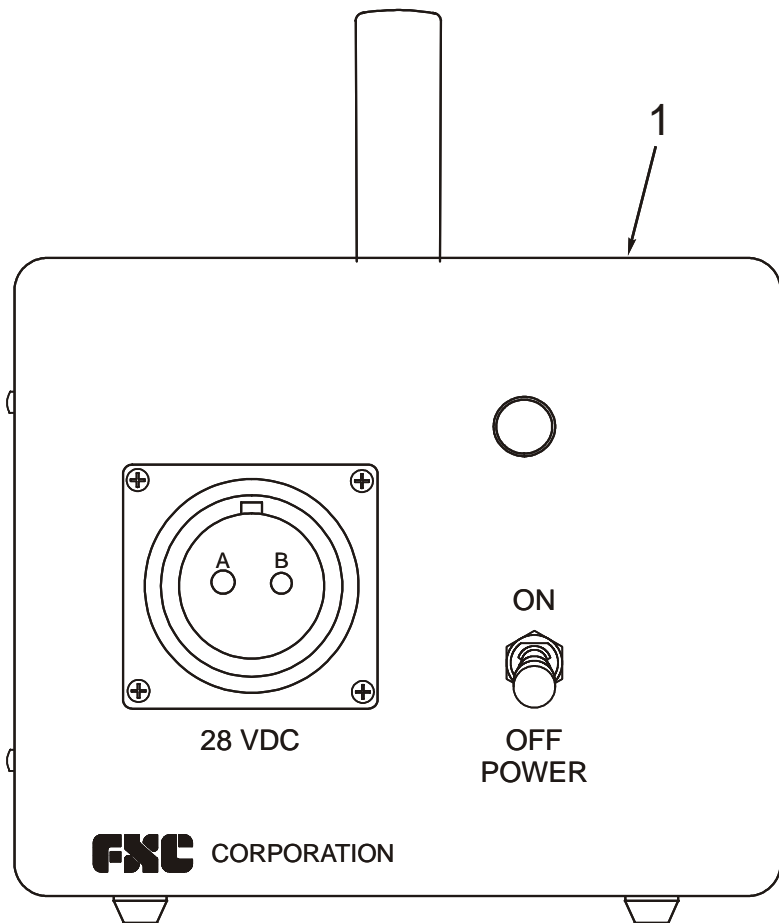


Figure C-48. Power Supply, 28 VDC

SECTION II. REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1	PAOZZ	52497	611-00189	<p><b>GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM</b></p> <p><b>FIG. C-48. POWER SUPPLY, 28 VDC</b></p> <p>POWER SUPPLY, 28 VDC</p> <p>END OF FIGURE</p>	1

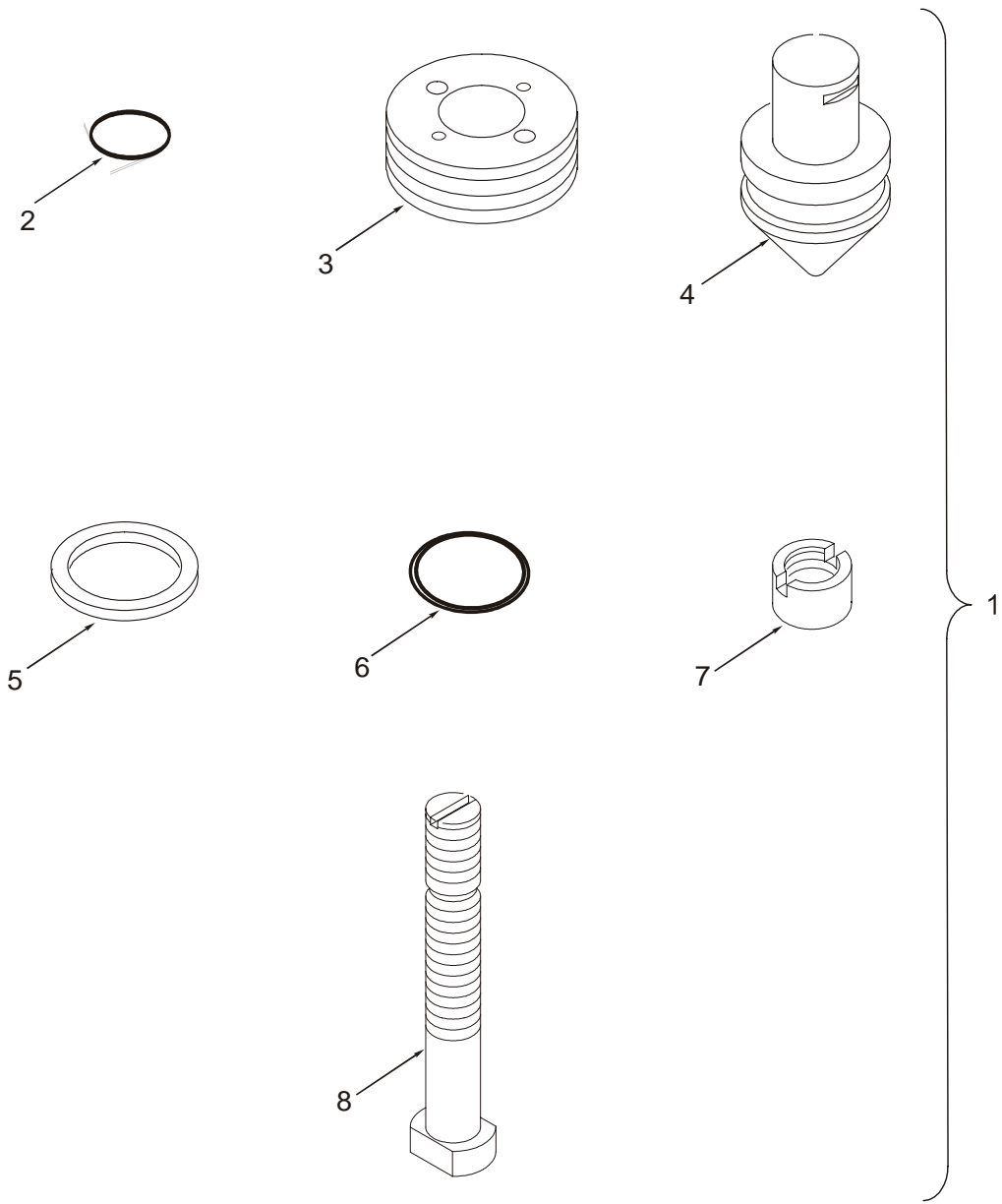


Figure C-49. Refurbish Kit, EPJD

SECTION II. REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				<b>GROUP 06, EXTRACTION PARACHUTE JETTISON SYSTEM</b>	
				<b>FIG. C-49. REFURBISH KIT, EPJD</b>	
1	PAOZZ	52497	811-00415	REFURBISH KIT, EPJD	1
2	XAOZZ	52497	311-81124	• PACKING, PREFORMED	1
3	XAOZZ	52497	311-21644	• STOP, PISTON	1
4	XAOZZ	52497	311-21643	• PISTON	1
5	XAOZZ	52497	311-80313-015	• RING, BACKUP	1
6	XAOZZ	52497	311-80603-015	• PACKING, PREFORMED	1
7	XAOZZ	52497	311-21646	• RETAINER, SHEAR BOLT	2
8	XAOZZ	52497	311-21645	• BOLT, SHEAR	1
				END OF FIGURE	

(1) ITEM NO.	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				<b>GROUP 99, BULK MATERIALS</b>	
				<b>FIG. C-50. BULK MATERIALS</b>	
1		81348	V-T-276	THREAD, COTTON, TICKET 8/7, NAT.	AR
2		81348	V-T-295	THREAD, NYLON, SIZE FF, OD	AR
3		81348	V-T-295	THREAD, NYLON, SIZE 5, OD	AR
4		81348	V-T-295	THREAD, NYLON, SIZE 3	AR
5		81349	V-T-295	THREAD, NYLON, SIZE 6, OD	AR
6		81348	MIL-W-5665	WEBBING, COTTON, TYPE VII, OD	AR
7		81348	VV-W-95	WAX, PARRAFIN, TECHNICAL, TYPE I, GRADE A	AR
8		81349	MIL-W-4088	WEBBING, NYLON, TYPE XXVI, OD	AR
				END OF FIGURE	

**SECTION III. SPECIAL TOOLS LIST**

<b>(1) ITEM NO.</b>	<b>(2) SMR CODE</b>	<b>(3) CAGEC</b>	<b>(4) PART NUMBER</b>	<b>(5) DESCRIPTION AND USABLE ON CODES (UOC)</b>	<b>(6) QTY</b>
				<p><b>GROUP 08, SPECIAL TOOLS</b></p> <p><b>FIG. C-51. SPECIAL TOOLS</b></p> <p>NONE APPLICABLE</p> <p>END OF FIGURE</p>	

**CROSS-REFERENCE INDEXES  
NATIONAL STOCK NUMBER INDEX**

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
1670-00-003-1953	C-11	2	1670-00-434-5795	C-2	11
1670-00-003-1954	C-11	3		C-6	3
5365-00-005-1577	C-11	4	1670-00-434-5797	C-6	1
1670-00-006-2752	C-12	1	1670-00-434-5798	C-6	2
5365-00-007-3414	C-11	5	1670-00-434-5782	C-2	4
5315-00-058-9765	C-7	19			
1670-00-078-4319	C-20	1	1670-00-434-5783	C-2	1
4030-00-090-5354	C-14	7	1670-00-434-5785	C-2	2
5320-00-117-6829	C-5	17	1670-00-434-5787	C-2	3
5365-00-139-4990	C-8	5	1670-00-434-5797	C-2	9
5306-00-151-1427	C-9	6	1670-00-434-5798	C-2	10
	C-5	18	5306-00-435-8994	C-11	6
1670-00-157-6527	C-2	13		C-12	5
	C-6	5			
5306-00-159-5392	C-8	24	5306-00-451-1136	C-8	6
				C-9	7
1670-00-162-4979	C-2	6			
	C-3	1	5306-00-451-1138	C-9	27
1670-00-162-4981	C-2	7	5365-00-451-8290	C-8	23
	C-4	1		C-9	34
5315-00-166-5441	C-7	12	4030-00-452-2568	C-7	24
5306-00-180-0304	C-8	18	1670-00-545-9063	C-25	1
5365-00-180-5850	C-3	3	5310-00-582-5965	C-5	15
5315-00-200-3183	C-7	20	4030-00-678-8562	C-14	4
8310-00-227-1244	C-26	2	1670-00-783-5988	C-10	1
5310-00-232-5165	C-11	7	5310-00-809-8546	C-7	22
	C-12	6	5315-00-839-2325	C-7	21
5305-00-257-3125	C-4	5	5310-00-891-3428	C-14	9
8305-00-260-2564	C-26	6	8310-00-917-3945	C-26	1
8310-00-262-2777	C-26	3	5310-00-925-9642	C-8	21
8310-00-262-2780	C-26	5	5310-00-926-1852	C-8	19
9160-00-285-2044	C-26	7	5310-00-937-0147	C-22	4
4030-00-360-0304	C-14	1	3990-00-937-0272	C-22	3
1670-00-360-0328	C-15	1	5310-00-939-0783	C-5	16
1670-00-360-0329	C-13	1	5310-00-943-9897	C-8	7
1670-00-400-2771	C-8	4	5305-00-957-7811	C-8	16
	C-9	5	5310-00-943-9897	C-9	8
5365-00-405-9293	C-4	3	5305-00-983-7428	C-9	21
	C-18	3	5310-00-982-6809	C-9	25
4010-00-431-8490	C-8	3	5310-00-943-9897	C-9	28
	C-9	4			
4030-00-432-2516	C-14	10	5310-00-902-9369	C-9	30
			1670-00-937-0271	C-22	1
			5340-00-937-0273	C-22	2



**CROSS REFERENCE INDEXES  
NATIONAL STOCK NUMBER INDEX**

<b>STOCK NUMBER</b>	<b>FIG.</b>	<b>ITEM</b>	<b>STOCK NUMBER</b>	<b>FIG.</b>	<b>ITEM</b>
1670-00-998-00116	C-16	1	1670-01-141-1522	C-21	1
1670-01-020-2013	NO TAG	NO TAG	1670-01-182-1979	C-2	14
5325-01-028-0945	C-15	2		C-7	1
1670-01-062-6301	C-1	1	8305-01-206-9219	C-26	8
1670-01-062-6302	C-1	1	1670-01-207-7223	C-19	1
1670-01-062-6303	C-1	1	1670-01-307-0155	C-18	1
1670-01-062-6304	C-1	1	1670-01-307-0534	C-9	13
1670-01-062-6305	C-1	1	5340-01-310-2323	C-9	10
1670-01-062-6306	C-1	1	5315-01-312-1188	C-7	26
1670-01-062-6307	C-1	1	3040-01-313-8016	C-9	12
1670-01-062-6308	C-1	1	1670-01-315-2768	C-17	1
1670-01-062-6309	C-1	1	1670-01-315-4562	C-9	11
1670-01-062-6310	C-1	1	1670-01-315-7001	C-7	2
1670-01-062-6311	C-1	1	5315-01-318-6886	C-7	14
1670-01-062-6312	C-1	1	5306-01-318-9533	C-9	24
1670-01-062-6313	C-1	1	5360-01-310-0999	C-7	11
1670-01-063-7760	C-1	1	5306-01-320-1048	C-9	32
1670-01-063-7761	C-1	1	5307-01-320-7260	C-9	29
1670-01-064-4451	C-1	1	5365-01-320-8511	C-7	16
1670-01-064-4452	C-1	1	5365-01-321-0603	C-9	23
1670-01-064-4453	C-1	1	5365-01-321-2530	C-9	34
1670-01-064-4454	C-1	1	5360-01-322-3607	C-7	15
1670-01-087-1604	C-8	9	5340-01-323-5678	C-9	26
5325-01-087-1605	C-8	11	1670-01-326-7309	C-2	5
5365-01-092-7489	C-12	4	1670-01-333-1748	C-9	33
1670-01-097-8816	C-8	1	1670-01-333-6082	C-23	1
1670-01-097-8817	C-9	1	1670-01-344-0825	C-24	1
1670-01-099-2380	C-8	12	5365-01-354-8932	C-3	2
	C-9	14	5315-01-357-8453	C-7	13
1670-01-102-8753	C-8	10	5120-00-221-1148	C-38	2
	C-9	18	1670-01-475-1990	C-26	1
5315-01-102-8754	C-8	15			
	C-9	17			
5315-01-102-8755	C-8	14			
	C-9	16			
1670-01-107-7651	C-1	1			
1670-01-107-7652	C-1	1			
6645-01-108-3457	C-8	13			
	C-9	15			

**CROSS REFERENCE INDEXES**  
**PART NUMBER INDEX**

<b>CAGEC</b>	<b>PART NUMBER</b>	<b>STOCK NUMBER</b>	<b>FIG.</b>	<b>ITEM</b>
88044	AN17-36A	5306-00-435-8994	C-11	6
81352			C-12	5
88044	AN3-46A		C-8	20
88044	AN30-44A	5306-00-159-5392	C-8	24
81352	AN315-15R	5310-00-232-5165	C-11	7
			C-12	6
88044	AN4-5A	5306-00-151-1427	C-5	18
88044	AN6-24A	5306-00-180-0304	C-8	18
81349	MIL-G-16491	5325-01-028-0945	C-15	2
52497	MIL-T-21840		C-38	3
52497	MIL-T-21840		C-38	4
81349	MIL-T-25959	1670-00-545-9063	C-25	1
81349	MIL-W-4088	8305-01-206-9219	C-26	8
81349	MIL-W-5424		C-7	23
81349	MIL-W-5665	8305-00-260-2564	C-26	6
96906	MS16562-230	5315-00-058-9765	C-7	19
96906	MS16562-240	5315-00-200-3183	C-7	20
81337	MS16998-26	5305-00-983-7428	C-9	21
96906	MS17985-620		C-7	25
96906	MS20230BPS2		C-38	2
96906	MS20392-2C19		C-7	17
96906	MS20392-2C57		C-7	27
96906	MS20470AD4-7	5320-00-117-6829	C-5	17
81337	MS21044N10	5310-00-982-6809	C-9	25
96906	MS21083N10	5310-00-925-9642	C-8	21
96906	MS21083-N12	5310-00-939-0783	C-5	16
96906	MS21083-N16		C-3	6
			C-4	6
			C-18	5
96906	MS21083N6	5310-00-926-1852	C-8	19
81337	MS21083N8	5310-00-902-9369	C-9	30
96906	MS21083N9	5310-00-943-9897	C-8	7
81337			C-9	8
81337			C-9	28
96906	MS22046-8	5365-00-937-0147	C-22	4
96906	MS24665-132	5315-00-839-2325	C-7	21
96906	MS24693S272	5305-00-957-7811	C-8	16
96906	MS24694-S115		C-5	14
96906	MS27183-8	5310-00-809-8546	C-7	22

**CROSS REFERENCE INDEXES  
PART NUMBER INDEX**

<b>CAGEC</b>	<b>PART NUMBER</b>	<b>STOCK NUMBER</b>	<b>FIG.</b>	<b>ITEM</b>
96906	MS35338-44	5310-00-582-5965	C-5	15
96906	MS35675-26	5315-01-312-1188	C-7	26
96906	MS35678-30		C-7	18
96906	MS35691-53		C-14	3
96906	MS35691-61		C-14	
96906	MS35691-77	5310-00-891-3428	C-14	9
96906	MS35790-17		C-8	17
96906	MS51844-1	4030-00-452-2568	C-7	24
96906	MS70087-1	4030-00-360-0304	C-14	1
96906	MS70087-2	4030-00-678-8562	C-14	4
96906	MS70087-3	4030-00-090-5354	C-14	7
96906	MS70087-5	4030-00-432-2516	C-14	10
96906	MS70087-6		C-14	2
96906	MS70087-7		C-14	5
96906	MS70087-8		C-14	8
96906	MS70087-10		C-14	11
96906	MS70087-11		C-14	12
96906	MS90727-235	5305-00-257-3125	C-4	5
96906	MS90727-238		C-3	5
81349	V-T-276	8310-00-917-3945	C-26	1
81348	V-T-295	8310-00-227-1244	C-26	2
81348	V-T-295	8310-00-262-2777	C-26	3
81348	V-T-295	8310-00-262-2775	C-26	4
81348	V-T-295	8310-00-262-2780	C-26	5
81348	VV-W-95	9160-00-285-2044	C-26	7
81337	11-1-129	1670-00-998-0116	C-16	1
81337	11-1-1487-2	1670-01-097-8816	C-8	1
81337	11-1-1490	1670-01-087-1604	C-8	9
81337	11-1-1492	5325-01-087-1605	C-8	11
81337	11-1-1497		C-8	22
81337	11-1-1498		C-8	8
81337	11-1-1499	5365-00-451-8290	C-8	23
			C-9	34
81337	11-1-150	1670-00-400-2771	C-8	4
			C-9	5
81337	11-1-150-4	5306-00-451-1136	C-8	6
			C-9	7
81337	11-1-150-6	5365-00-139-4990	C-8	5
			C-9	6

**CROSS REFERENCE INDEXES  
PART NUMBER INDEX**

<b>CAGEC</b>	<b>PART NUMBER</b>	<b>STOCK NUMBER</b>	<b>FIG.</b>	<b>ITEM</b>
81337	11-1-1715-1	1670-00-162-4981	C-2	7
			C-4	1
81337	11-1-1715-2	1670-01-307-0155	C-18	1
81337	11-1-1715-6		C-18	4
81337	11-1-1716		C-4	4
81337	11-1-1717		C-4	2
			C-18	2
81337	11-1-1718	5365-00-405-9293	C-4	3
			C-18	3
81337	11-1-1721	1670-00-162-4979	C-2	6
			C-3	1
81337	11-1-1722	5365-01-354-8932	C-3	2
81337	11-1-1723	5365-00-180-5850	C-3	3
81337	11-1-1724		C-3	4
81337	11-1-1725		C-2	8
			C-5	1
81337	11-1-1726		C-5	2
81337	11-1-1727-1		C-5	3
81337	11-1-1727-2		C-5	4
81337	11-1-1728		C-5	5
81337	11-1-1729		C-5	6
81337	11-1-1730		C-5	7
81337	11-1-1731		C-5	8
81337	11-1-1732		C-5	9
81337	11-1-1733		C-5	10
81337	11-1-1734		C-5	11
81337	11-1-1735		C-5	12
81337	11-1-1736		C-5	13
81337	11-1-1737	1670-01-0182-1979	C-2	14
			C-7	1
81337	11-1-1738	1670-01-315-7001	C-7	2
81337	11-1-1739		C-7	3
81337	11-1-1740		C-7	4
81337	11-1-1741		C-7	5
81337	11-1-1742		C-7	6
81337	11-1-1743		C-7	7
81337	11-1-1744		C-7	8
81337	11-1-1745		C-7	9
81337	11-1-1746		C-7	10
81337	11-1-1747	5360-01-320-0999	C-7	11

**CROSS REFERENCE INDEXES  
PART NUMBER INDEX**

<b>CAGEC</b>	<b>PART NUMBER</b>	<b>STOCK NUMBER</b>	<b>FIG.</b>	<b>ITEM</b>
81337	11-1-1749	5315-00-166-5441	C-7	12
81337	11-1-1750	5315-01-318-6886	C-7	14
81337	11-1-1751	5360-01-322-3607	C-7	15
81337	11-1-1752	5365-01-320-8511	C-7	16
81337	11-1-1753	5315-01-357-8453	C-7	13
81337	11-1-2060		C-2	
81337	11-1-2060-1	1670-00-434-5783	C-2	1
81337	11-1-2060-2	1670-00-434-5785	C-2	2
81337	11-1-2060-3	1670-00-434-5787	C-2	3
81337	11-1-2060-4	1670-00-434-5782	C-2	4
81337	11-1-2060-5	1670-01-326-7309	C-2	5
81337	11-1-2061-1	1670-00-434-5797	C-2	9
			C-6	1
96906	11-1-2061-2	1670-00-434-5798	C-2	10
81337			C-6	2
96906	11-1-2061-3	1670-00-434-5795	C-2	11
81337			C-6	3
81337	11-1-2061-4	1670-00-434-5796	C-2	12
			C-6	4
81337	11-1-2061-5	1670-00-157-6527	C-2	13
			C-6	5
81337	11-1-2614-1	6645-01-108-3457	C-8	13
81337	11-1-2614-1	6645-01-108-3457	C-9	15
81337	11-1-2615	1670-01-141-1522	C-21	1
81337	11-1-2669	1670-01-102-8753	C-8	10
			C-9	18
81337	11-1-2670	5315-01-102-8754	C-8	15
			C-9	17
81337	11-1-2671	5315-01-102-8755	C-8	14
			C-9	16
81337	11-1-3359	1670-00-783-5988	C-10	1
81337	11-1-3441	5365-01-321-0603	C-9	23
81337	11-1-3514	5306-01-318-9533	C-9	24
81337	11-1-3515	5306-01-320-1048	C-9	32
81337	11-1-3724	3040-01-313-8016	C-9	12
81337	11-1-3725	1670-01-333-1748	C-9	33
81349	11-13771	1670-01-344-0825	C-24	1
81337	11-1-3922	1670-01-333-6082	C-23	1
81337	11-1-477		C-9	9
81337	11-1-478		C-9	31

**CROSS REFERENCE INDEXES  
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<b>CAGEC</b>	<b>PART NUMBER</b>	<b>STOCK NUMBER</b>	<b>FIG.</b>	<b>ITEM</b>
81337	11-1-484	1970-01-315-2768	C-17	1
81337	11-1-487		C-9	2
81337	11-1-488		C-8	2
81337	11-1-488		C-9	3
81337	11-1-490	5306-00-451-1138	C-9	27
81337	11-1-491	5340-01-323-5678	C-9	26
81337	11-1-493	4010-00-431-8490	C-8	3
			C-9	4
81337	11-1-511	1670-01-315-4562	C-9	11
81337	11-1-512	5340-01-310-2323	C-9	10
81337	11-1-513		C-9	19
81337	11-1-562	5307-01-320-7260	C-9	29
81337	11-1-565-2	1670-01-097-8817	C-9	1
81337	11-1-566		C-9	22
81337	11-1-567	1670-01-307-0534	C-9	13
81337	11-1-721	1670-00-937-0271	C-22	1
81337	11-1-892	5340-00-937-0273	C-22	2
81337	11-1-894-1	1670-01-099-2380	C-8	12
			C-9	14
81337	11-1-899		C-9	20
81337	11-1-901	3990-00-937-0272	C-22	3
52497	311-21643		C-27	9
52497	311-21644		C-27	6
52497	311-21645		C-27	11
52497	311-21646		C-27	10
52497	311-21647		C-27	4
53497	311-21788		C-27	12
52497	311-21893		C-27	3
52497	311-80266-15		C-28	3
52497	311-80268-30		C-31	2
53497	311-80313-015		C-27	7
52497	311-80603-015		C-27	8
52497	311-81124		C-27	13
52497	311-81126		C-28	2
96906	50C7406	1670-00-360-0328	C-15	1
98750	50C7496	1670-00-360-0329	C-13	1
53497	511-00695		C-27	2
81337	53C7084-1	1670-01-207-7223	C-19	1
81337	53C7084-2	1670-00-078-4319	C-20	1
52497	611-00189		C-47	8

**CROSS REFERENCE INDEXES  
PART NUMBER INDEX**

<b>CAGEC</b>	<b>PART NUMBER</b>	<b>STOCK NUMBER</b>	<b>FIG.</b>	<b>ITEM</b>
98750	65B3650	5365-00-007-3414	C-11	5
81337	65D3663		C-12	2
81337	65D3820	1670-00-006-2752	C-12	1
81337	66B1883-1	1670-00-003-1953	C-11	2
81337	66B1883-2	1670-00-003-1954	C-11	3
98750	66B1887	5365-00-005-1577	C-11	4
81337	67B2211-1		C-12	3
81337	67B2226	5365-01-092-7489	C-12	4
81337	68B1883		C-11	1
81337	68F217-2		C-1	3
81337	68F217-22	1670-01-063-7761	C-1	1
81337	68F217-3	1670-01-064-4454	C-1	2
			C-1	2
			C-1	2
			C-1	2
			C-1	2
			C-1	2
			C-1	2
			C-1	2
			C-1	2
			C-1	2
			C-1	2
			C-1	2
			C-1	2
			C-1	2
			C-1	2
			C-1	2
			C-1	2
			C-1	2
81337	68F217-30	1670-01-062-6313	C-1	1
81337	68F217-32	1670-01-064-4454	C-1	1
81337	68F217-33	1670-01-062-6312	C-1	1
81337	68F217-41	1670-01-062-6311	C-1	1
81337	68F217-45	1670-01-064-4452	C-1	1
81337	68F217-47	1670-01-064-4451	C-1	1
81337	68F217-48	1670-01-062-6301	C-1	1
81337	68F217-49	1670-01-062-6304	C-1	1
81337	68F217-5		C-1	4
81337	68F217-50	1670-01-062-6303	C-1	1

**CROSS REFERENCE INDEXES**  
**PART NUMBER INDEX**

<b>CAGEC</b>	<b>PART NUMBER</b>	<b>STOCK NUMBER</b>	<b>FIG.</b>	<b>ITEM</b>
81337	68F217-51	1670-01-062-6302	C-1	1
81337	68F217-52	1670-01-062-6306	C-1	1
81337	68F217-53	1670-01-062-6305	C-1	1
81337	68F217-54	1670-01-062-6307	C-1	1
81337	68F217-55	1670-01-062-6308	C-1	1
81337	68F217-56	1670-01-064-4453	C-1	1
81337	68F217-57	1670-01-062-6309	C-1	1
81337	68F217-58	1670-01-063-7760	C-1	1
81337	68F217-59	1670-01-062-6310	C-1	1
81337	68F217-60	1670-01-107-7651	C-1	1
81337	68F217-61	1670-01-107-7652	C-1	1
3AQ054	7432K51		C-33	2
52497	811-00414		C-27	1
52497	811-00423		C-34	1
52497	811-00429		C-26	1
52497	811-00434		C-32	1
52497	811-00443		C-37	1
52497	811-00444		C-45	1
52497	811-00455		C-28	1
52497	811-00457		C-31	1
52497	811-00467		C-35	1
52497	811-00468		C-36	1
52497	811-00469		C-47	1
52497	811-00470		C-47	2
52497	811-00471		C-47	5
52497	811-00471-1		C-47	6
52497	811-00480		C-29	1
52497	811-00480-1		C-30	1
52497	811-00481		C-33	1
52497	811-00488		C-40	1
52497	811-00490		C-42	1
52497	811-00491		C-46	1
52497	811-00493		C-44	1
52497	811-00494		C-28	4
52497	811-00494		C-31	3
52497	811-00495		C-43	1
52497	811-00496		C-27	5
52497	811-00516		C-41	1
52497	811-00531		C-47	4
52497	811-00532		C-47	3
52497	811-00535		C-47	7
52497	821-00430		C-38	1
52497	821-00457		C-39	1



## CROSS REFERENCE INDEXES

## FIGURE AND ITEM NUMBER INDEX

FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
C-1	1	1670-01-062-6301	81337	68F217-48
C-1	2		81337	68F217-3
C-1	1	1670-01-062-6306	81337	68F217-52
C-1	2		81337	68F217-3
C-1	1	1670-01-062-6304	81337	68F217-49
C-1	2		81337	68F217-3
C-1	1	1670-01-062-6305	81337	68F217-53
C-1	2		81337	68F217-3
C-1	1	1670-01-063-7760	81337	68F217-58
C-1	2		81337	68F217-3
C-1	1	1670-01-062-6310	81337	68F217-59
C-1	2		81337	68F217-3
C-1	1	1670-01-062-6303	81337	68F217-50
C-1	2		81337	68F217-3
C-1	1	1670-01-062-6307	81337	68F217-54
C-1	2		81337	68F217-3
C-1	1	1670-01-063-7761	81337	68F217-22
C-1	2		81337	68F217-3
C-1	1	1670-01-062-6308	81337	68F217-55
C-1	2		81337	68F217-3
C-1	1	1670-01-062-6302	81337	68F217-51
C-1	2		81337	68F217-3
C-1	1	1670-01-064-4453	81337	68F217-56
C-1	2		81337	68F217-3
C-1	1	1670-01-062-6309	81337	68F217-57
C-1	2		81337	68F217-3
C-1	1	1670-01-064-4451	81337	68F217-47
C-1	2		81337	68F217-3
C-1	1	1670-01-064-4452	81337	68F217-45
C-1	2		81337	68F217-3
C-1	1	1670-01-062-6313	81337	68F217-30
C-1	2		81337	68F217-3
C-1	1	1670-01-064-4454	81337	68F217-32
C-1	2		81337	68F217-3
C-1	1	1670-01-062-6311	81337	68F217-41
C-1	2		81337	68F217-3
C-1	1	1670-01-062-6312	81337	68F217-33
C-1	2		81337	68F217-3
C-1	1	1670-01-107-7651	81337	68F217-60
C-1	2		81337	68F217-3
C-1	1	1670-01-107-7652	81337	68F217-61
C-1	2		81337	68F217-3
C-1	3		81337	68F217-2
C-1	4		81337	68F217-5
C-2			81337	11-1-2060
C-2	1	1670-00-434-5783	81337	11-1-2060-1
C-2	2	1670-00-434-5785	81337	11-1-2060-2
C-2	3	1670-00-434-5787	81337	11-1-2060-3
C-2	4	1670-00-434-5782	81337	11-1-2060-4
C-2	5	1670-01-326-7309	81337	11-1-2060-5

## CROSS REFERENCE INDEXES

## FIGURE AND ITEM NUMBER INDEX

FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
C-2	6	1670-00-162-4979	81337	11-1-1721
C-2	7	1670-00-162-4981	81337	11-1-1715-1
C-2	8		81337	11-1-1725
C-2	9	1670-00-434-5797	81337	11-1-2061-1
C-2	10	1670-00-434-5798	96906	11-1-2061-2
C-2	11	1670-00-434-5795	96906	11-1-2061-3
C-2	12	1670-00-434-5782	81337	11-1-2061-4
C-2	13	1670-00-157-6527	81337	11-1-2061-5
C-2	14	1670-01-182-1979	81337	11-1-1737
C-3	1	1670-00-162-4979	81337	11-1-1721
C-3	2	5365-01-354-8932	81337	11-1-1722
C-3	3	5365-00-180-5850	81337	11-1-1723
C-3	4		81337	11-1-1724
C-3	5		96906	MS90727-238
C-3	6		96906	MS21083-N16
C-4	1	1670-00-162-4981	81337	11-1-1715-1
C-4	2		81337	11-1-1717
C-4	3	5365-00-405-9293	81337	11-1-1718
C-4	4		81337	11-1-1716
C-4	5	5305-00-257-3125	96906	MS90727-235
C-4	6		96906	MS21083-N16
C-5	1		81337	11-1-1725
C-5	2		81337	11-1-1726
C-5	3		81337	11-1-1727-1
C-5	4		81337	11-1-1727-2
C-5	5		81337	11-1-1728
C-5	6		81337	11-1-1729
C-5	7		81337	11-1-1730
C-5	8		81337	11-1-1731
C-5	9		81337	11-1-1732
C-5	10		81337	11-1-1733
C-5	11		81337	11-1-1734
C-5	12		81337	11-1-1735
C-5	13		81337	11-1-1736
C-5	14		96906	MS24694-S115
C-5	15	5310-00-582-5965	96906	MS35338-44
C-5	16	5310-00-939-0783	96906	MS21083-N12
C-5	17	5320-00-117-6829	96906	MS20470AD4-7
C-5	18	5306-00-151-1427	88044	AN4-5A
C-6	1	1670-00-434-5797	81337	11-1-2061-1
C-6	2	1670-00-434-5798	81337	11-1-2061-2
C-6	3	1670-00-434-5795	81337	11-1-2061-3
C-6	4	1670-00-434-5782	81337	11-1-2061-4
C-6	5	1670-00-157-6527	81337	11-1-2061-5
C-7	1	1670-01-182-1979	81337	11-1-1737
C-7	2	1670-01-315-7001	81337	11-1-1738
C-7	3		81337	11-1-1739
C-7	4		81337	11-1-1740
C-7	5		81337	11-1-1741
C-7	6		81337	11-1-1742

## CROSS REFERENCE INDEXES

## FIGURE AND ITEM NUMBER INDEX

FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
C-7	7		81337	11-1-1743
C-7	8		81337	11-1-1744
C-7	9		81337	11-1-1745
C-7	10		81337	11-1-1746
C-7	11	5360-01-320-0999	81337	11-1-1747
C-7	12	5315-00-166-5441	81337	11-1-1749
C-7	13	5315-01-357-8453	81337	11-1-1753
C-7	14	5315-01-318-6886	81337	11-1-1750
C-7	15	5360-01-322-3607	81337	11-1-1751
C-7	16	5365-01-320-8511	81337	11-1-1752
C-7	17		96906	MS20392-2C19
C-7	18		96906	MS35678-30
C-7	19	5315-00-058-9765	96906	MS16562-230
C-7	20	5315-00-200-3183	96906	MS16562-240
C-7	21	5315-00-839-2325	96906	MS24665-132
C-7	22	5310-00-809-8546	96906	MS27183-8
C-7	23		81349	MIL-W-5424
C-7	24	4030-00-452-2568	96906	MS51844-1
C-7	25		96906	MS17985-620
C-7	26	5315-01-312-1188	96906	MS35675-26
C-7	27		96906	MS20392-2C57
C-8	1	1670-01-097-8816	81337	11-1-1487-2
C-8	2		81337	11-1-488
C-8	3	4010-00-431-8490	81337	11-1-493
C-8	4	1670-00-400-2771	81337	11-1-150
C-8	5	5365-00-139-4990	81337	11-1-150-6
C-8	6	5306-00-451-1136	81337	11-1-150-4
C-8	7	5310-00-943-9897	96906	MS21083N9
C-8	8		81337	11-1-1498
C-8	9	1670-01-087-1604	81337	11-1-1490
C-8	10	1670-01-102-8753	81337	11-1-2669
C-8	11	5325-01-087-1605	81337	11-1-1492
C-8	12	1670-01-099-2380	81337	11-1-894-1
C-8	13	6645-01-108-3457	81337	11-1-2614-1
C-8	14	5315-01-102-8755	81337	11-1-2671
C-8	15	5315-01-102-8754	81337	11-1-2670
C-8	16	5305-00-957-7811	96906	MS24693S272
C-8	17		96906	MS35790-17
C-8	18	5306-00-180-0304	88044	AN6-24A
C-8	19	5310-00-926-1852	96906	MS21083N6
C-8	20		88044	AN3-46A
C-8	21	5310-00-925-9642	96906	MS21083N10
C-8	22		81337	11-1-1497
C-8	23	5365-00-451-8290	81337	11-1-1499
C-8	24	5306-00-159-5392	88044	AN30-44A
C-9	1	1670-01-097-8817	81337	11-1-565-2
C-9	2		81337	11-1-487
C-9	3		81337	11-1-488
C-9	4	4010-00-431-8490	81337	11-1-493
C-9	5	1670-00-400-2771	81337	11-1-150

## CROSS REFERENCE INDEXES

## FIGURE AND ITEM NUMBER INDEX

FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
C-9	6	5365-00-139-4990	81337	11-1-150-6
C-9	7	5306-00-451-1136	81337	11-1-150-4
C-9	8	5310-00-943-9897	81337	MS21083N9
C-9	9		81337	11-1-477
C-9	10	5340-01-310-2323	81337	11-1-512
C-9	11	1670-01-315-4562	81337	11-1-511
C-9	12	3040-01-313-8016	81337	11-1-3724
C-9	13	1670-01-307-0534	81337	11-1-567
C-9	14	1670-01-099-2380	81337	11-1-894-1
C-9	15	6645-01-108-3457	81337	11-1-2614-1
C-9	16	5315-01-102-8755	81337	11-1-2671
C-9	17	5315-01-102-8754	81337	11-1-2670
C-9	18	1670-01-102-8753	81337	11-1-2669
C-9	19		81337	11-1-513
C-9	20		81337	11-1-899
C-9	21	5305-00-983-7428	81337	MS16998-26
C-9	22	1670-01-877-4459	81337	11-1-566
C-9	23	5365-01-321-0603	81337	11-1-3441
C-9	24	5306-01-318-9533	81337	11-1-3514
C-9	25	5310-00-982-6809	81337	MS21044N10
C-9	26	5340-01-323-5678	81337	11-1-491
C-9	27	5306-00-451-1138	81337	11-1-490
C-9	28	5310-00-943-9897	81337	MS21083N9
C-9	29	5307-01-320-7260	81337	11-1-562
C-9	30	5310-00-902-9369	81337	MS21083N8
C-9	31		81337	11-1-478
C-9	32	5306-01-320-1048	81337	11-1-3515
C-9	33	1670-01-333-1748	81337	11-1-3725
C-9	34	5365-00-451-8290	81337	11-1-1499
C-10	1	1670-00-783-5988	81337	11-1-3359
C-11	1		81337	68B1883
C-11	2	1670-00-003-1953	81337	66B1883-1
C-11	3	1670-00003-1954	81337	66B1883-2
C-11	4	5365-00-005-1577	98750	66B1887
C-11	5	5365-00-007-3414	98750	66B3650
C-11	6	5306-00-435-8994	88044	AN17-36A
C-11	7	5310-00-232-5165	81352	AN315-15R
C-12	1	1670-00-006-2752	81337	65D3820
C-12	2		81337	65D3663
C-12	3		81337	67B2211-1
C-12	4	5365-01-092-7489	81337	67B2226
C-12	5	5306-00-435-8994	81352	AN17-36A
C-12	6	5310-00-232-5165	81352	AN315-15R
C-13	1	1670-00-360-0329	98750	50C7496
C-14	1	4030-00-360-0304	96906	MS70087-1
C-14	2		96906	MS70087-6
C-14	3		96906	MS35691-53
C-14	4	4030-00-678-8562	96906	MS70087-2
C-14	5		96906	MS70087-7
C-14				MS35691-61

**CROSS REFERENCE INDEXES  
FIGURE AND ITEM NUMBER INDEX**

<b>FIG.</b>	<b>ITEM</b>	<b>STOCK NUMBER</b>	<b>CAGEC</b>	<b>PART NUMBER</b>
C-14	7	4030-00-090-5354	96906	MS70087-3
C-14	8		96906	MS70087-8
C-14	9	5310-00-891-3428	96906	MS35691-77
C-14	10	4030-00-432-2516	96906	MS70087-5
C-14	11		96906	MS70087-10
C-14	12		96906	MS70087-11
C-15	1	1670-00-360-0328	96906	50C7406
C-15	2	5325-01-028-0945	81349	MIL-G-16491
C-16	1	1670-00-998-0116	81337	11-1-129
C-17	1	1670-01-315-2768	81337	11-1-484
C-18	1	1670-01-307-0155	81337	11-1-1715-2
C-18	2		81337	11-1-1717
C-18	3	5365-00-405-9293	81337	11-1-1718
C-18	4		81337	11-1-1715-6
C-18	5		96906	MS21083-N16
C-19	1	1670-01-207-7223	81337	53C7084-1
C-20	1	1670-00-078-4319	81337	53C7084-2
C-21	1	1670-01-141-1522	81337	11-1-2615
C-22	1	1670-00-937-0271	81337	11-1-721
C-22	2	5340-00-937-0273	81337	11-1-892
C-22	3	3990-00-937-0272	81337	11-1-901
C-22	4	5310-00-937-0147	96906	MS22046-8
C-23	1	1670-01-333-6082	81337	11-1-3922
C-24	1	1670-01-344-0825	81349	11-1-3771
C-25	1	1670-00-545-9063	81349	MIL-T-25959
C-25	2		81349	
C-25	3		81349	
C-26	1		52497	811-00429
C-27	10		52497	311-21646
C-27	11		52497	311-21645
C-27	12		52497	311-21788
C-27	13		52497	311-81124
C-27	2		52497	511-00695
C-27	3		52497	311-21893
C-27	4		52497	311-21647
C-27	5		52497	811-00496
C-27	6		52497	311-21644
C-27	7		52497	311-80313-015
C-27	8		52497	311-80603-015
C-27	9		52497	311-21643
C-28	1		52497	811-00455
C-28	2		52497	311-81126

**CROSS REFERENCE INDEXES  
FIGURE AND ITEM NUMBER INDEX**

<b>FIG.</b>	<b>ITEM</b>	<b>STOCK NUMBER</b>	<b>CAGEC</b>	<b>PART NUMBER</b>
C-28	3		52497	311-80266-15
C-28	4		52497	811-00494
C-29	1		52497	811-00480
C-30	1		52497	811-00480-1
C-31	1		52497	811-00457
C-31	2		52497	311-80268-30
C-31	3		52497	811-00494
C-32	1		52497	811-00434
C-33	1		52497	811-00481
C-33	2		3AQ054	7432K51
C-34	1		52497	811-00423
C-35	1		52497	811-00467
C-36	1		52497	811-00468
C-37	1		52497	811-00443
C-38	1		52497	821-00430
C-38	2		96906	MS20230BPS2
C-38	3		52497	MIL-T-21840
C-38	4		52497	MIL-T-21840
C-39	1		52497	821-00457
C-40	1		52497	811-00488
C-41	1		52497	811-00516
C-42	1		52497	811-00490
C-43	1		52497	811-00495
C-44	1		52497	811-00493
C-45	1		52497	811-00444
C-46	1		52497	811-00491
C-47	1		52497	811-00469
C-47	2		52497	811-00470
C-47	3		52497	811-00532
C-47	4		52497	811-00531
C-47	5		52497	811-00471
C-47	6		52497	811-00471-1
C-47	7		52497	811-00535
C-47	8		52497	611-00189
C-48	1	8310-00-917-3945	81348	V-T-276
C-48	2	8310-00-227-1244	81348	V-T-295
C-48	3	8310-00-262-2777	81348	V-T-295
C-48	4	8310-00-262-2775	81348	V-T-295
C-48	5	8310-00-262-2780	81348	V-T-295
C-48	6	8305-00-260-2564	81349	MIL-W-5665
C-48	7	9160-00-285-2044	81348	VV-W-95
C-48	8	8305-01-206-9219	81349	MIL-W-4088

## APPENDIX D

COMPONENTS OF END ITEM AND BASIC ISSUE ITEMS LIST

---

## SECTION I. INTRODUCTION

**D.1 SCOPE.**

This appendix lists components of end item and basic issue Items for the LVADS Ancillary Equipment to help you Inventory items required for safe and efficient operation.

**D.2 GENERAL**

The components of End Item and Basic Issue Items List are divided into the following items:

a. Section II. Components of End Item. This listing is for informational purposes only, and is not authority to requisition replacements. These items are part of the end item, but are removed and separately packaged for transportation or shipment. As part of the end item, these items must be with the end item whenever it is issued or transferred between property accounts. Illustrations are furnished to assist you in identifying the items.

b. Section III. Basic Issue Items. These are the minimum essential items required to place the LVADS Ancillary Equipment in operation, to operate it, and to perform emergency repairs. Although shipped separately packaged, BII must be with the LVADS Ancillary Equipment during operation and whenever it is transferred between property accounts. The illustrations will assist you with hard-to-identify items. This manual is your authority to request/requisition replacement BII, based on TOE/MTOE authorization of the end item.

**D.3 EXPLANATION OF COLUMNS .**

The following provides an explanation of columns found in the tabular listing:

a. ITEM NUMBER Column. This column indicates the number of the illustration in which the item is shown.

b. NATIONAL STOCK NUMBER Column. Indicates the national stock number assigned to the item and will be used for requisitioning purposes.

c. DESCRIPTION. CAGE CODE. AND PART NUMBER Column. Indicates the Federal item and name and, if required, a minimum description to identify and locate the item. The last line for each item indicated the CAGE Code (in parentheses) followed by the part number.

d. UNIT OF ISSUE (U/I) Column. Indicates the measure used in performing the actual operational/maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in, pr).

e. QUANTITY REQUIRED (QTY REQD) Column. Indicates the quantity of the item authorized to be used with/on the equipment.

**SECTION II. COMPONENTS OF END ITEM**

(Not Applicable)

SECTION III. BASIC ISSUE ITEMS

ITEM NUMBER	NATIONAL STOCK NUMBER	DESCRIPTION CAGE CODE AND PART NUMBER	U/I	QTY REQD
1		UNIT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST for TM 10-1670-296-20&P	EA	1

**TM 10-1670-296-20&P**

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**TECHNICAL MANUAL**

**UNIT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST**  
for  
**ANCILLARY EQUIPMENT FOR LOW VELOCITY AIR DROP SYSTEM (LVADS)**

LINE MULTI-LOOP EXTRACTION LINES DEPLOYMENT LINES BAG CLUSTERING LINES RISER EXTENSION SUSPENSION SLINGS) NSNs 1670-01-082-8301 1670-01-082-8306 1670-01-082-8304 1670-01-082-8305 1670-01-083-7780 1670-01-082-8310 1670-01-082-8303 1670-01-082-8307 1670-01-083-7781 1670-01-082-8308 1670-01-082-8302 1670-01-084-4453 1670-01-082-8308 1670-01-084-4451 1670-01-084-4452 1670-01-082-8313 1670-01-082-8311 1670-01-082-8312 1670-01-107-7851 1670-01-107-7852

COUPLING EXTRACTION FORCE TRANSFER NSNs 1670-00-434-5783 1670-00-434-5785 1670-00-434-5787 1670-00-434-5782 1670-01-328-7308

RELEASE CARGO PARACHUTE M-1 NSN 1670-01-087-8818  
RELEASE CARGO PARACHUTE M-2 NSN 1670-01-087-8817  
LINK ASSEMBLY SINGLE SUSPENSION TYPE IV NSN 1670-00-783-5096

LINK ASSEMBLY HEAVY DUTY NSN 1670-00-783-5096  
LINK 4-POINT NSN 1670-00-098-2752  
COVER LINK TYPE IV NSN 1670-00-390-0329  
CLEVIS AERIAL DELIVERY NSNs 4030-00-390-0004 4030-00-478-8592 4030-00-090-5054 4030-00-432-2518  
COVER CLEVIS NSN 1670-00-390-0328  
STRAP PARACHUTE RELEASE SINGLE KNIFE NSN 1670-00-968-0116

STRAP PARACHUTE RELEASE MULTI-KNIFE NSN 4340-00-040-8219  
LINK ASSEMBLY COUPLING 3-POINT NSN 1670-01-307-8155  
BRACKET SUSPENSION NSN 1670-01-297-7223  
BRACKET SUSPENSION NSN 1670-00-478-4319  
BRACKET SUSPENSION NSN 1670-01-020-2013  
PLATE SUSPENSION NSN 1670-01-141-1322  
TIEDOWN CARGO 10K NSN 1670-00-897-0271  
TIEDOWN CARGO QUICK-RELEASE NSN 1670-01-333-6082  
TIEDOWN CARGO AIRCRAFT NSN 1670-00-545-8083  
DRIVE OFF AID TYPE IV NSN 1670-01-344-0825

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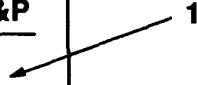


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**TO BE DETERMINED**





**APPENDIX E  
ADDITIONAL AUTHORIZATION LIST**

---

**SECTION I. INTRODUCTION**

**E1 SCOPE.**

This appendix lists additional items you are authorized for the support of the LVADS Ancillary Equipment.

**E2 GENERAL.**

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

**E.3 EXPLANATION OF COLUMNS.**

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

**SECTION II. ADDITIONAL AUTHORIZATION ITEMS LIST**

(There are no additional items authorized to support the LVADS Ancillary Equipment.)

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**APPENDIX F  
EXPENDABLE AND DURABLE ITEMS LIST**

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**SECTION I. INTRODUCTION**

**F.1 SCOPE.**

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

**F.2 EXPLANATION OF COLUMNS.**

a. Column 1-Item Number. This column is assigned to the entry in the listing and is referenced in the task Initial Setup instructions to identify the material; E.G., "Dry-cleaning solvent (Appendix F, Item 1)".

b. Column 2-Category. This column identifies the lowest category of maintenance that requires the listed item:

C-Operator/Crew  
O-Unit Maintenance  
F-Direct Support Maintenance  
G-General Support Maintenance

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

d. Column 4-Description. Indicates the federal item name and, if required, a description to identify and locate the item. The last line for each item indicates the part number followed by the Commercial and Government Entity (CAGE) Code for Manufacturer in parentheses, if applicable.

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 rest of the issue, requisition the lowest unit of issue that will satisfy your requirements.

## SECTION II. EXPENDABLE AND DURABLE ITEMS LIST

Item Number	Category	National Stock Number	Description	U/M
1	O	9160-00-253-1171	Beeswax, Technical, lib (81348)C-B-1 91	LB
2	O	7920-00-282-2490	Brush, Scrub Household (81348)H-B-1490	EA
3	O	7520-00-248-9285	Brush, Stenciling (81348)H-B-00621	EA
4	O	5350-00-221-0872	Cloth, Abrasive, Ferric Oxide and Quartz (81349)MIL-C-4279	EA
5	O	7930-00-281-4730	Dishwashing Compound, Hand Flake (81348)P-D-410	EA
6	O	7510-00-286-5362	Ink, Marking, Parachute, Strata-Blue (81349)	PT
7	O	7580-00-230-2734	Marker, Felt Tip, Black (81348)GG-M-0014	EA
8	O	7520-00-491-2917	Pen, Ballpoint (81348)GG-B-0060	EA
9	O	7920-00-205-3570	Rag, Wiping (81348)DDD-R-0060	BL
10	O	9310-00-160-7858	Stencilboard, Oiled (81348)UU-S-625, Type II	SH
11	O	7510-00-582-4772	Tape, Pressure Sensitive, 1-inch (81348)PPP-T-97, Type II	RL
12	O	7510-00-952-7512	Tape, Pressure Sensitive, 1¼-inch (81348)PPP-T-97, Type IV	RL
13	O	9150-01-132-8871	Lube, O-Ring (52497)884-2	TU
14	O	8310-00-262-2772	Thread, Nylon, Size E, Olive Drab (81348)V-T-295	YD or TU
15	O		Kit, Refurbish (52497)	EA
16	O	8315-00-448-5663	Fastener Tape, Hook, 1½-inch (81349)MIL-F-21840, Type II, Class 1	RL
17	O	8315-01-066-5855	Fastener Tape, Pile ¾-inch (81349)MIL-F-21840, Type II, Class 1	RL

SECTION II. EXPENDABLE AND DURABLE ITEMS LIST

Item Number	Category	National Stock Number	Description	U/M
18	0	5325-00-929-I 824	Grommet, Metallic, Spur, Die Set (52497)MS20230BPS2	EA
19	0		Cap, Protective (52497)	EA
20	0		Cap, Protective (52497)	EA
21	0		Cap, Protective (52497)	EA
22	0		Cap, Protective (52497)	EA
23	0		Cap, Protective (52497)	EA

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**APPENDIX G  
ILLUSTRATED LIST OF MANUFACTURED ITEMS**

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**G.1 SCOPE.**

This appendix includes simplified line drawings for each item authorized to be manufactured/fabricated, modified, or mounted by unit maintenance personnel.

**G.2 INTRODUCTION.**

a. This appendix includes complete instructions for making items authorized to be manufactured or fabricated at Unit Maintenance.

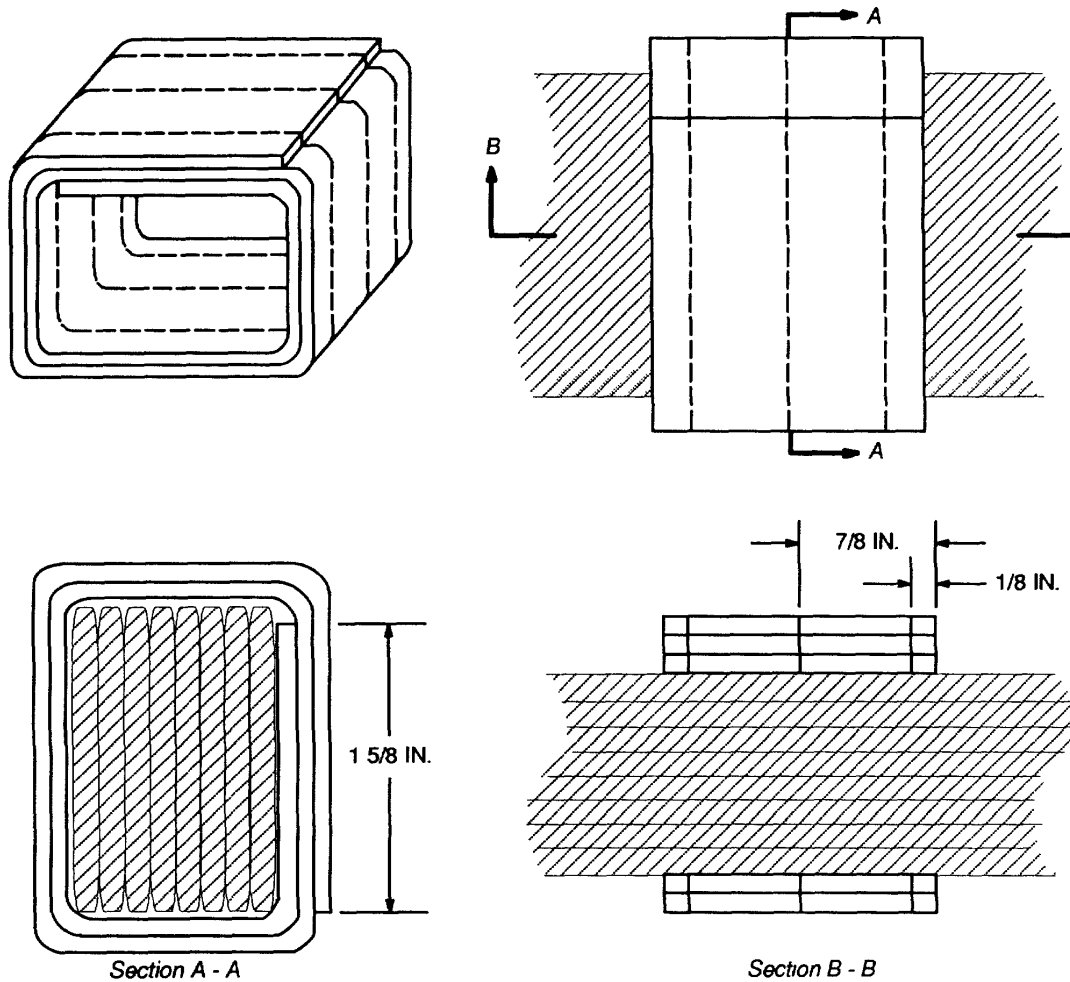
b. A part number in alphanumeric order is provided for cross-referencing the part number of the item to be manufactured to the figure that covers fabrication criteria.

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

d. All dimensions are given in U.S. standard measures.

**G.3 MANUFACTURED ITEMS PART NUMBER INDEX .**

Part Number	Nomenclature	Fig No.
(81337)68F217-2.....	Keeper, Sliding .....	G-1
(81337)68F217-3 .....	Keeper, Fixed .....	G-2
(81337)68F217-5 .....	Buffer .....	G-3
(81337)11-1-488.....	Lanyard, Arming Wire .....	G-4

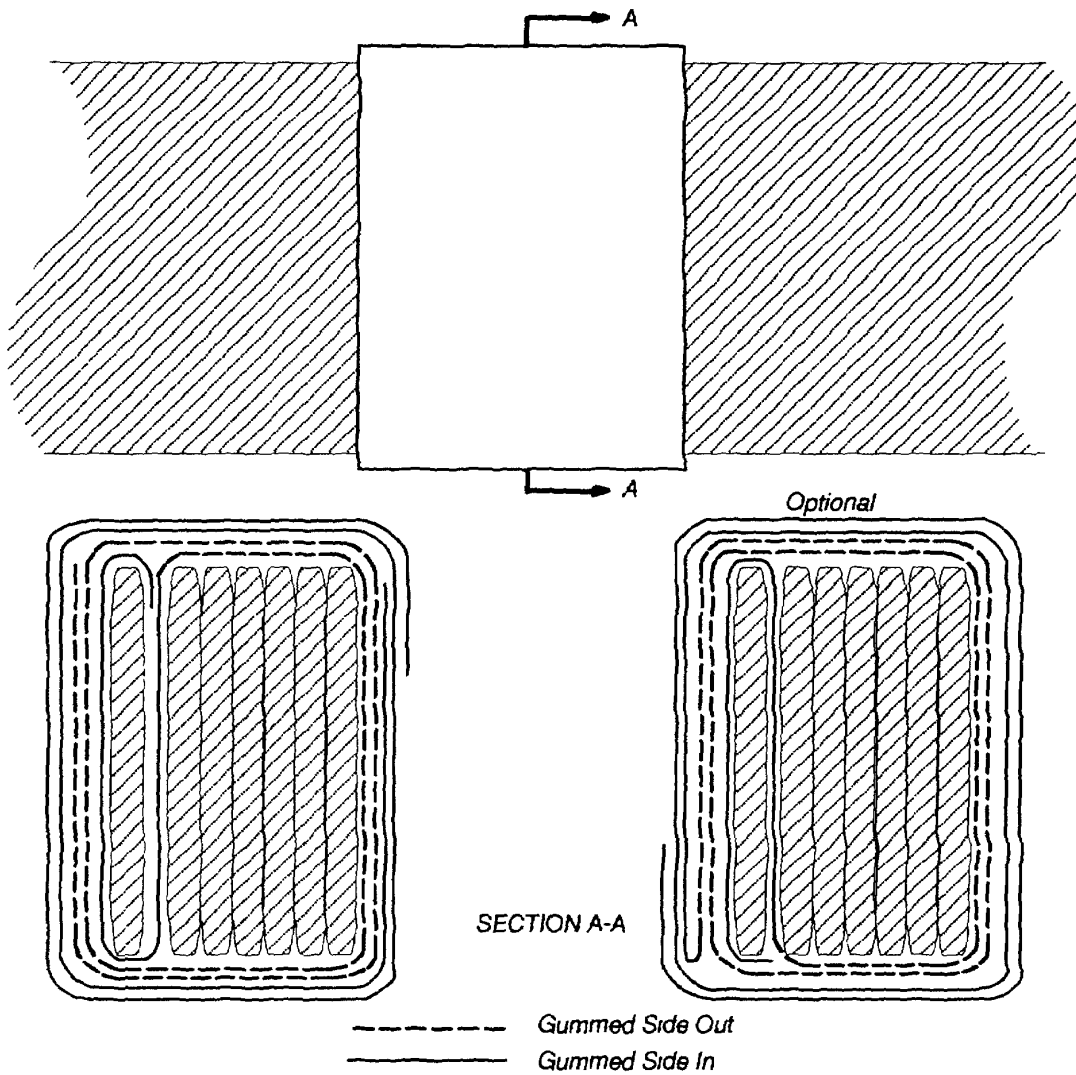


**NOTES:**

1. MAKE FROM NYLON WEBBING, P/N MI-W-4088, TYPE VIII, CLASS 2, COLOR OD-7, AND THREAD, P/N V-T-295, TYPE 1. II, OR III, CLASS A, COLOR ODS-1
2. ALL MACHINE STITCHING TO BE IAW FED-STD-751 TYPE 301. 5 TO 8 STITCHES PER INCH (2 TO 3 STITCHES PER CENTIMETER).
3. STITCH TOGETHER SO AS TO OBTAIN AS SNUG A FIT AS POSSIBLE WHILE STILL BEING LARGE ENOUGH TO SLIDE IN PLACE ONTO LOOP WITH BUFFER STITCHED IN PLACE.
4. THE KEEPERS SHALL BE STITCHED AND SHAPED TO THE CONTOUR OF THE ASSEMBLED LINE, AFTER WHICH THEY SHALL BE DIPPED IN A MELTED MIXTURE OF 50% BEESWAX AND 50% PARAFFIN AT A TEMPERATURE OF 180°±20° F (82°±11° C).

Figure G-1. Keeper, Sliding.

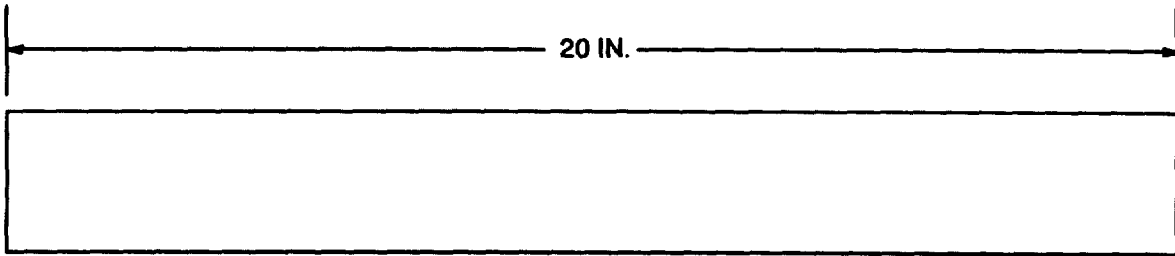




**NOTES:**

1. USE TAPE, PRESSURE SENSITIVE, 1 ¼-INCH (32 MM), TYPE IV, P/N (81348)PPP-T-97.
2. WRAP A TAPE STRIP AROUND AN OUTER PLY WITH THE GUMMED SIDE AGAINST THE WEBBING.
3. WRAP TAPE AROUND THE OUTSIDE OF ALL PLYS FOR TWO FULL TURNS WITH THE GUMMED SIDE AWAY FROM THE WEBBING.
4. CUT THE TAPE OR, (OPTIONAL METHOD), FOLD IT OVER GUMMED-SIDE TO GUMMED-SIDE
5. WRAP TAPE IN THE OPPOSITE DIRECTION TWO FULL TURNS WITH THE GUMMED SIDE TOWARD THE PREVIOUS WRAPS. CUT TAPE.

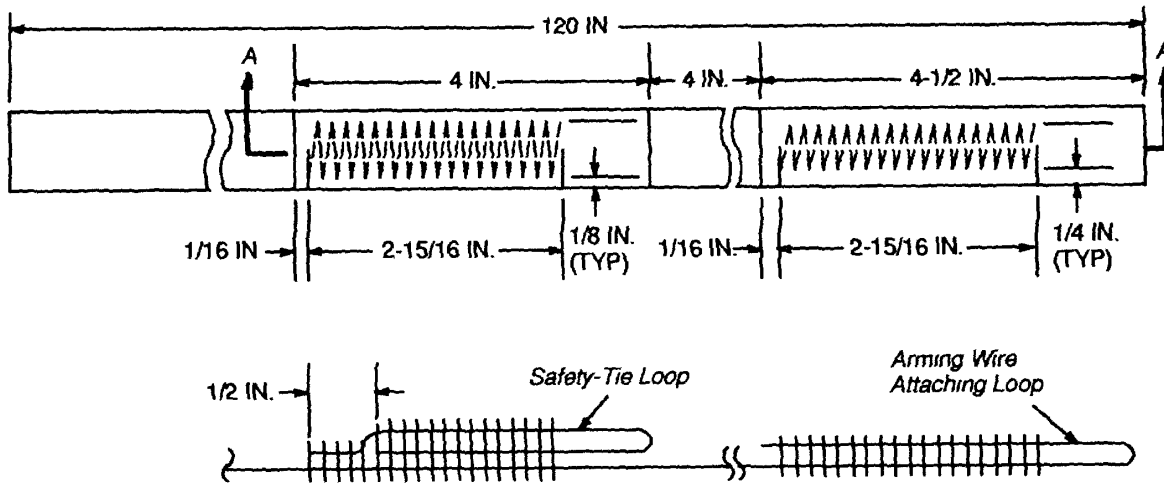
*Figure G2. Keeper, Fixed.*



**NOTES:**

1. MAKE FROM NYLON WEBBING, P/N MIL-W-4088, TYPE XXVI, CLASS 2, COLOR OD-7. CUT A LENGTH 20 IN (50 CM) LONG.

*Figure G-3. Buffer.*



SECTION A-A

NOTES:

1. MAKE FROM WEBBING, NYLON, TYPE XXVI, COLOR OD, P/N (81349)MIL-W-4088 AND THREAD, NYLON, SIZE FF, COLOR OD, P/N (81348)V-T-295.
2. CUT A 124 1/2-INCH-(316.2 CM) LENGTH AND A 7 1/2-INCH (19.0 CM),LENGTH OF WEBBING AND SEAR THE ENDS OF BOTH WEBBING LENGTHS.
3. MARK THE 124 1/2-INCH (316.2 CM) LENGTH OF WEBBING AT POINTS 3, 4 1/2, AND 13 INCHES (76, 114, and 330 MM) FROM ONE END.
4. FORM THE ARMING WIRE ATTACHING LOOP ON THE WEBBING LENGTH BY FOLDING THE MARKED END OF THE WEBBING BACK AT THE 4 1/2-INCH (114 MM) MARK.
5. USING A ZZ SEWING MACHINE STITCHING 7 TO 11 STITCHES PER INCH (3 TO 4 STITCHES PER CENTIMETER), SECURE THE WEBBING FOLD-BACK. BEGINNING AT THE 3-INCH MARK, STITCH A 2 15/16-INCH (75-MM) LONG ROW OF 1/4-INCH-(6 MM)WIDE DOUBLE THROW ZIGZAG STITCHING TOWARD THE FOLD-BACK SEARED END. END THE STITCH ROW AT A POINT 1/6 INCH (4 MM) BACK FROM THE FOLD-BACK SEARED END.
6. MARK THE 7 1/2-INCH (19.0 CM) WEBBING LENGTH AT POINTS 3 AND 4 INCHES (76 AND 102 MM) FROM ONE END.
7. FORM THE SAFETY TIE LOOP BY DOUBLING THE WEBBING LENGTH AT THE 4-INCH (102 MM)MARK, ALLOWING ONE END TO OVERLAP THE OPPOSITE END BY 1/2 INCH.
8. POSITION THE FOLDED 7 1/2-INCH (19.0 CM) WEBBING LENGTH ON THE 124 1/2-INCH-(316.2-CM) WEBBING LENGTH WITH THE 3-INCH (76-MM) LONG END OF THE FOLDED WEBBING FACE-DOWN AND THE FOLDED END ALIGNED WITH THE 13-INCH (330-MM) MARK MADE IN PARAGRAPH 2 ABOVE.
9. BEGINNING AT THE 3-INCH (76-MM) MARK, SECURE THE FOLDED WEBBING LENGTH BY STITCHING AS OUTLINED IN 5 ABOVE.

Figure G-4. Lanyard, Arming Wire.

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**APPENDIX H  
TORQUE LIMITS**

**H.1 SCOPE.**

This appendix provides torque limits for general use fasteners. The torque values given in this appendix shall be used when specific torque values are not identified in the maintenance instructions.

**H.2 TORQUE LIMITS.**

All figures are foot-pounds except those marked with an asterisk (\*), which are inch-pounds. There is no difference in the above chart between torque figures for fine or coarse threads. The torque figure for finely-fastened fasteners as compared to coarse-threaded fasteners of the same diameter may be slightly higher, but hardly worth mentioning.

**TORQUE LIMITS**

TYPE	MIN TENSILE STRGTH	MATERIAL	BODY SIZE OR OUTSIDE DIAMETER OF FASTENER													
			7/8	1	1 1/8	1 1/4	1 3/8	1 1/2	1 5/8	1 3/4	1 7/8	2	2 1/4	2 1/2	2 3/4	3
SAE 0-1-2	74,000 PSI	LOW CARBON STEEL	206	210	460	675	900	1100	1470	1900	2360	2750	3450	4400	7350	9500
SAE 3	100,000 PSI	MEDIUM CARBON STEEL	372	551	872	1211	1624	1943	2660	3463	4695	5427	7226	8049	13450	17548
SAE 5	120,000 PSI	MEDIUM CARBON HEAT TREAT STEEL	382	587	794	1105	1500	1775	2425	3150	4200	4550	6550	7175	13000	16000
SAE 6	133,000 PSI	MEDIUM CARBON STEEL QUENCHED TEMPERED	550	825	1304	1815	2434	2913	3985	5189	6980	7491	10825	14983	20151	26286
SAE 7	133,000 PSI	MEDIUM CARBON STEEL	570	840	1325	1825	2500	3000	4000	5300	7000	7500	11000	15500	21000	27000
SAE 8	150,000 PSI	MEDIUM CARBON ALLOY STEEL	600	900	1430	1975	2650	3200	4400	5650	7600	8200	12000	17000	23000	29000
SOCKET HEAD CAP SCREW	160,000 PSI	HIGH CARBON CASE HARDENED STEEL	640	970	1520	2130	2850	3450	4700	6100	8200	8800	13000	18000	24000	31000
SOCKET SET SCREW	212,000 PSI	HIGH CARBON CASE HARDENED STEEL														
MACHINE SCREW YELLOW BRASS	60,000 PSI	COPPER (CU) 63% ZINC (ZU) 37%	160	215	325	400		595								
SILICONE BRONZE TYPE "B"	70,000 PSI	COPPER (CU) 96% ZINC (ZU) 2% SILICON (SI) 2%	180	250	385	450		655								

APPENDIX H

torque limits-continued

TYPE	MIN TENSILE STRGTH	MATERIAL	BODY SIZE OR OUTSIDE DIAMETER OF FASTENER															
			2	3	4	5	6	7	10	1/4	1/10	1/8	1/16	1/2	5/16	3/8	3/4	
SAE 0-1-2	74,000 PSI	LOW CARBON STEEL									6	12	20	32	47	69	99	155
SAE 3	100,000 PSI	MEDIUM CARBON STEEL									9	17	30	47	69	103	145	234
SAE 5	120,000 PSI	MEDIUM CARBON HEAT TREAT STEEL									10	19	33	54	78	114	154	257
SAE 6	133,000 PSI	MEDIUM CARBON STEEL QUENCHED TEMPERED									12.5	24	43	69	106	150	209	350
SAE 7	133,000 PSI	MEDIUM CARBON STEEL									13	25	44	71	110	154	215	360
SAE 8	150,000 PSI	MEDIUM CARBON ALLOY STEEL									14	29	47	78	119	169	230	380
SOCKET HEAD CAP SCREW	160,000 PSI	HIGH CARBON CASE HARDENED STEEL									16	33	54	84	125	180	250	400
SOCKET SET SCREW	212,000 PSI	HIGH CARBON CASE HARDENED STEEL						9*	16*	30*	70*	140*	18	29	43	63	100	146
MACHINE SCREW YELLOW BRASS	60,000 PSI	COPPER (CU) 63% ZINC (ZU) 37%	2*	3.3*	4.4*	6.4*	8*	16*	20*	65*	110*	17	27	37	49	78	104	
SILICONE BRONZE TYPE "B"	70,000 PSI	COPPER (CU) 96% ZINC (ZU) 2% SILICON (SI) 2%	2.3*	3.7*	4.9*	7.2*	10*	19*	22*	70*	125*	20	30	41	53	88	117	

**GLOSSARY**

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**SECTION I. ABBREVIATIONS**

Cm	=	Centimeter
Ft	=	Feet
In	=	Inch
Kg	=	Kilogram
Lb	=	Pound
LVADS	=	Low Velocity Air Drop System
M	=	Meters
MM	=	Millimeters
P/N	=	Part Number
PSI	=	Pounds per Square Inch

**SECTION II. DEFINITIONS OF UNUSUAL TERMS**

Clevis	=	Shackle
Lanyard	=	A cord or strap that holds something

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By Order of the Secretary of the Army:

Official



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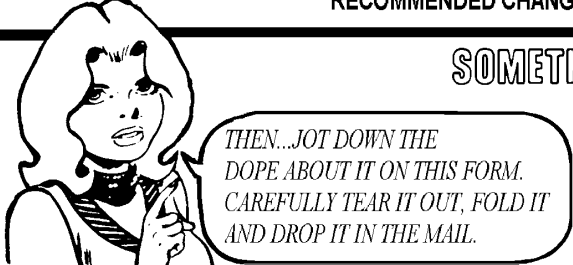
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## The Metric System and Equivalents

### Linear Measure

1 centimeter = 10 millimeters = .39 inch  
 1 decimeter = 10 centimeters = 3.94 inches  
 1 meter = 10 decimeters = 39.37 inches  
 1 dekameter = 10 meters = 32.8 feet  
 1 hectometer = 10 dekameters = 328.08 feet  
 1 kilometer = 10 hectometers = 3,280.8 feet

### Weights

1 centigram = 10 milligrams = .15 grain  
 1 decigram = 10 centigrams = 1.54 grains  
 1 gram = 10 decigrams = .035 ounce  
 1 dekagram = 10 grams = .35 ounce  
 1 hectogram = 10 dekagrams = 3.52 ounces  
 1 kilogram = 10 hectograms = 2.2 pounds  
 1 quintal = 100 kilograms = 220.46 pounds  
 1 metric ton = 10 quintals = 1.1 short tons

### Liquid Measure

1 centiliter = 10 milliliters = .34 fl. ounce  
 1 deciliter = 10 centiliters = 3.38 fl. ounces  
 1 liter = 10 deciliters = 33.81 fl. ounces  
 1 dekaliter = 10 liters = 2.64 gallons  
 1 hectoliter = 10 dekaliters = 26.42 gallons  
 1 kiloliter = 10 hectoliters = 264.18 gallons

### Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch  
 1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches  
 1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet  
 1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet  
 1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres  
 1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

### Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch  
 1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches  
 1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

## Approximate Conversion Factors

To change	To	Multiply by	To change	To	Multiply by
inches	centimeters	2.540	ounce-inches	newton-meters	.007062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.451	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29.573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	newton-meters	1.356	metric tons	short tons	1.102
pound-inches	newton-meters	.11296			

## Temperature (Exact)

°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C
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