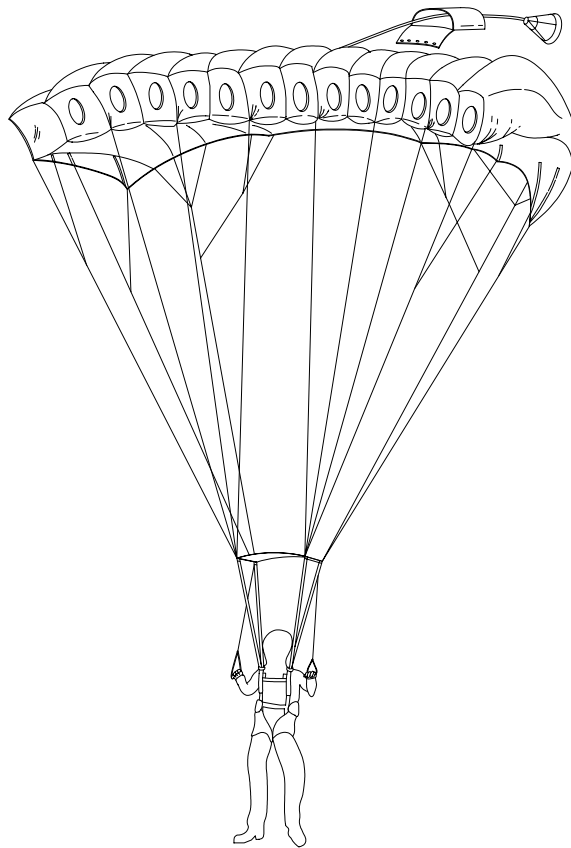


TECHNICAL MANUAL

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

MC-4 RAM AIR FREE-FALL PERSONNEL PARACHUTE SYSTEM

NSN 1670-01-306-2100



DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.
*This manual supercedes TM 10-1670-287-23&P, dated 31 January 1992

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REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know.

ARMY - 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-L(N), Kansas Street, Natick, MA 01760. You may also send in your recommended changes via electronic mail directly to <amssbriml@natick.army.mil>. A reply will be furnished directly to you. Instructions for sending electronic 2028 may be found at the back of this manual immediately preceding the hard copy 2028.

AIR FORCE – Reports by U.S. Air Force units should be submitted on AFTO Form 22, Technical Order Publication Improvement Report and Reply, and forwarded to the address prescribed above for the Army. An informational copy of the prepared AFTO Form 22 shall be furnished to WP-ALC/TILTA, 420 2nd Street, Suite 100, Robins AFB, GA 31098-1640.

MARINE CORPS – Submit NAVMC Form 10772 to Commander, ATTN: (Code 850), Marine Corps Logistics Bases, 814 Radford Blvd., Albany, GA 31704-1128. A reply will be sent to you.

NAVY – Submit NAVSEA Form 4160/1 (REV 299) to Commander, NSDSA Code 5E30, NAVSURFSENDIV, 4363 Missile Way, Port Hueneme, CA 93043-4307. A reply will be sent to you.

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HOW TO USE THIS MANUAL

In this manual, primary chapters appear in upper case/capital letters; work packages are presented in numeric sequence, e.g., 0001 00; paragraphs within a work package are not numbered and are presented in a titles format. For a first level paragraph, title all upper case/capital letters, e.g., FRONT MATTER subordinate paragraph title will have the first letter of the first word of each principle word all upper case/capital letters, e.g., Manual Organization and Page Numbering System. The location of additional material that must be referenced is clearly marked. Illustrations supporting maintenance procedures/text are located underneath, or as close as possible to, their referenced paragraph.

FRONT MATTER. Front matter consists of front cover, warning summary, title block, table of contents, and how to use this manual page.

CHAPTER 1 - INTRODUCTION. Chapter 1 contains general information and equipment.

CHAPTER 2 - OPERATOR INSTRUCTIONS. Chapter 2 contains service upon receipt, initial receipt, receipt of used parachute assembly, and preventive maintenance checks and services (PMCS), lubrication instructions, and maintenance procedures authorized at operator level.

CHAPTER 3 – UNIT MAINTENANCE INSTRUCTIONS. Chapter 3 contains maintenance procedures authorized at the unit level.

CHAPTER 4 – DIRECT SUPPORT MAINTENANCE INSTRUCTIONS. Chapter 4 provides maintenance procedures authorized at the direct support level.

CHAPTER 5 - SUPPORTING INFORMATION. Chapter 5 contains references, expendable and durable items list, maintenance allocation chart, repair parts and special tools list, national stock number index, part number index, and illustrated list of manufactured items.

REAR MATTER. Rear matter consists of alphabetical index, DA Form 2028, authentication page, and back cover.

Manual Organization and Page Numbering System. The manual is divided into five major chapters that detail the topics mentioned above. Within each chapter are work packages covering a wide range of topics. Each work package is numbered sequentially starting at page 1. The work package has its own page-numbering scheme and is independent of the page numbering used by other work packages. Each page of a work package has a page number of the form XXXX YY-ZZ where XXXX is the work package number (e.g. 0010 is work package 10), YY is the revision number for that work package, and ZZ represents the number of the page within that work package. A page number such as 0010 00-1/(2 blank) means that page 1 contains information but page 2 of that work package has been intentionally left blank.

Finding Information. The table of contents permits the reader to find information in the manual quickly. The reader should start here first when looking for a specific topic. The table of contents lists the topics contained within each chapter and the work package sequence number where it can be found.

Example: If the reader were looking for instructions on “Conversion (Reserve Canopy to a Main Canopy)”, which is a unit maintenance topic, the table of contents indicates that unit maintenance information can be found in chapter 3. Scanning down the listings for chapter 3, Conversion (Reserve Canopy to a Main Canopy) information can be found in WP 0049 00 (Work Package 49).

An Alphabetical Index can be found at the back of the manual; specific topics are listed with the corresponding work package number.

CHAPTER 1

INTRODUCTORY INFORMATION FOR MC-4 RAM AIR FREE-FALL PERSONNEL PARACHUTE SYSTEM

MC-4 RAM AIR FREE-FALL PERSONNEL PARACHUTE SYSTEM
GENERAL INFORMATION

SCOPE

This manual contains instructions for organizational and Direct Support (DS) maintenance on the MC-4 Ram Air Free-Fall Personnel Parachute System. Included are procedures for service upon receipt, packing procedures, maintenance procedures, and repair parts and special tool lists.

MAINTENANCE FORMS, RECORDS, AND REPORTS

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA PAM 738-751, Functional Users Manual For The Army Maintenance Management System (TAMMS). Additional maintenance forms, records, and reports that are to be used by organizational and direct support maintenance personnel are listed in and prescribed by TM 10-1670-201-23 and TB 43-0002-43. TM 4700-15/1 prescribes maintenance forms and records used by the Marine Corps.

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR)

Army. If the MC-4 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. Tell us why a procedure is hard to perform. Put it on a SF 368 (Product Quality Deficiency Report). Mail it to us at Commander, U.S. Army Soldier Biological and Chemical Command, ATTN: AMSSB-RIM-E (N), 15 Kansas Street, Natick, MA 01760. A reply will be furnished directly to you.

Air Force. Reports by U.S. Air Force units should be submitted on AFTO Form 22, Technical Order Publication Improvement Report, and forwarded to the address prescribed above for the Army. An information copy of the prepared AFTO Form 22 shall be furnished to ALC/LDEAM, Kelly AFB, TX 78241.

Navy. Submit NAVSEA Form 4160/1 (REV 2-99) to Commander, NSDSA Code 5E30, NAVSURFCENDIV, 4363 Missile Way, Port Hueneme, CA 93043-4307. A reply will be sent to you.

Marine Corps. Submit NAVMC Form 10772 to Life Cycle Management Center, ATTN: Product Support Section 822, 814 Radford Blvd., Albany GA 31704-0320. A reply will be sent to you.

CORROSION PREVENTION AND CONTROL (CPC)

Corrosion Prevention and Control (CPC) of Army materiel is a continuing concern. It is important that any corrosion problems with this item be reported so that the problem can be corrected and improvements can be made to prevent the problem in future items.

While corrosion is typically associated with rusting of metals, it can also include deterioration of other materials, such as rubber and plastic. Unusual cracking, softening, swelling, or breaking of these materials may be a corrosion problem.

If a corrosion problem is identified, it can be reported using Standard Form SF 368, Product Quality Deficiency Report. Use of keywords such as "corrosion," "rust," "deterioration," or "cracking" will ensure that the information is identified as a CPC problem.

The form should be submitted to the address specified in DA PAM 738-750, Functional Users Manual for the Army Maintenance Management System (TAMMS).

OZONE DEPLETING SUBSTANCES (ODS)

Not applicable.

DESTRUCTION OF ARMY MATERIAL TO PREVENT ENEMY USE

GENERAL INFORMATION:

Objective. Methods of destruction used to inflict damage on air delivery equipment should make it impossible to restore equipment to a usable condition in a combat zone by either repair or cannibalization.

Authority. Destruction of air delivery equipment that is in imminent danger of capture by an enemy is a command decision that must be made by a battalion or higher commander or the equivalent.

Implementation plan. All units that possess air delivery equipment should have a plan for the implementation of destruction procedures.

Training. All personnel who use or perform such functions as rigging, packing, maintenance, or storage of air delivery equipment should receive thorough training on air delivery equipment destruction procedures and methods. The destruction methods demonstrated during training should be simulated. Upon completion of training, all applicable personnel should be thoroughly familiar with air delivery equipment destruction methods and be capable of performing destruction without immediate reference to any publication.

SPECIFIC METHODS:

Specific methods of destroying Army material to prevent enemy use shall be by mechanical means, fire, or by use of natural surroundings.

Destruction by Mechanical Means. Air delivery equipment metal assemblies, parts, and packing aids shall be destroyed using hammers, bolt cutters, files, hacksaws, drills, screwdrivers, crowbars, or other similar devices to smash, break, bend, or cut.

WARNING

Exercise extreme care when using petroleum products to destroy equipment by fire, as these materials are highly flammable. Improper handling may cause injury to personnel.

Destruction by Fire. Items that can be destroyed by fire shall be burned. The destruction of equipment by use of fire is an effective method of destroying low melting point metal items. However, mechanical destruction should be completed first, whenever possible, before initiating destruction by fire. When items to be destroyed are made of metal, textile materials (or some comparable low combustible material) they should be packed under and around the item, then soaked with a flammable petroleum product and ignited. Proper concentration of equipment that is suitable for burning will provide a hotter and more destructive fire.

Destruction by Use of Natural Surroundings. Small vital parts of assemblies that are easily accessible may be disposed of as follows. Disposal or denial of equipment to an enemy may be accomplished through use of natural surroundings. Accessible vital parts of assemblies may be removed and scattered through dense foliage, buried in dirt or sand, or thrown into a lake, stream, or other body of water. Total submersion of equipment in a body of water will provide water damage as well as concealment. Salt water will inflict extensive damage to air delivery equipment.

Other Methods of Destruction. Oxygen system equipment will be destroyed as prescribed in TM 750-244-1-2.