TM 10-8400-203-23&P

TECHNICAL MANUAL

FIELD MAINTENANCE MANUAL
INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST
FOR

GENERAL REPAIR PROCEDURES FOR INDIVIDUAL EQUIPMENT

SUPERSEDURE NOTICE: TM 10-8400-203-23&P dated 1 October 2014 supersedes TM 10-8400-203-23&P dated 24 May 2010, including all changes.

HEADQUARTERS, DEPARTMENT OF THE ARMY

1 OCTOBER 2014

WARNING SUMMARY

This warning summary contains general safety warnings and hazardous materials warnings that must be understood and applied during operation of this equipment. Failure to observe these precautions could result in serious injury or death to personnel. Also included are explanations of safety and hazardous materials icons used within this technical manual.

FIRST AID

Field level maintenance and repair of individual equipment requires the use of equipment and chemicals which may be hazardous if used improperly. Before undertaking any procedures presented in this manual, make sure you are familiar with the potential hazards and appropriate first aid measures. Refer to FM 4-25.11, First Aid.

EXPLANATION OF SAFETY WARNING ICONS

BIOLOGICAL — abstract symbol bug shows that a material may contain bacteria or viruses that present a danger to life or health.

CHEMICAL — drops of liquid on hand shows that the material will cause burns or irritation to human skin or tissue.

ELECTRICAL — electrical wire to hand with electricity symbol running through hand shows that shock hazard is present.

EXPLOSION — rapidly expanding symbol shows that the material may explode if subjected to high temperatures, sources of ignition or high pressure.

EYE PROTECTION — person with goggles shows that the material will injure the eyes.

FIRE — flame shows that a material may ignite and cause burns.

FLYING PARTICLES — arrows bouncing off face shield show that particles flying through air will harm face.

HOT AREA — hand over object radiating heat shows that part is hot and can burn.

EXPLANATION OF SAFETY WARNING ICONS – CONTINUED

MOVING PARTS — hand with fingers caught between rollers shows that the moving parts of the equipment present a danger to life or limb.

POISON — skull and crossbones shows that a material is poisonous or is a danger to life.

SHARP OBJECT — pointed object in hand shows that a sharp object presents a danger to limb.

SLICK FLOOR — wavy line on floor with legs prone shows that slick floor presents a danger for falling.

VAPOR — human figure in a cloud shows that material vapors present a danger to life or health.

GENERAL SAFETY WARNINGS DESCRIPTION

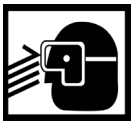
WARNING

Solvents, cleaners, and adhesives are toxic, and may be flammable and explosive. Wear protective goggles and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes and don't breathe vapors. Do not use near open flame or excessive heat. If you become dizzy, get fresh air immediately and get medical aid. If contact with eyes or skin is made, immediately flush with clean water and get medical aid for eyes immediately.

WARNING

Sewing machine needles can break with great force. Serious injury can result from flying metal pieces coming in contact with eyes, if proper safety precautions are not observed.

WARNING



Eye protection should be worn when operating a sewing machine. Failure to wear eye protection can lead to injury to eye(s).

WARNING

Exercise care when using a hot knife. Ensure cuts are made on a non-flammable surface. Failure to comply can result in serious burns to personnel.

LIST OF EFFECTIVE PAGES/WORK PACKAGES

NOTE: This manual supersedes TM 10-8400-203-23&P dated 24 May 2010. Zero in the "Change No." column indicates an original page or work package.

Date of issue for the original manual is:

Original 1 October 2014

TOTAL NUMBER OF PAGES FOR FRONT AND REAR MATTER IS 22 AND TOTAL NUMBER OF WORK PACKAGES IS 31, CONSISTING OF THE FOLLOWING:

Page/WP No.	Change No.	Page/WP No.	Change No.
Front Cover (1 pg)	0	WP 0029 (4 pgs)	0
Blank	0	WP 0030 (2 pgs)	0
Warning Summary (3 pgs)	0	WP 0031 (2 pgs)	
Blank	0	Back cover	
i-vi (6 pgs)	0		
Chapter 1 title page	0		
Blank	0		
WP 0001 (4 pgs)	0		
WP 0002 (12 pgs)	0		
WP 0003 (2 pgs)	0		
Chapter 2 title page	0		
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Chapter 4 title page	0		
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WP 0028 (6 pgs)	0		

HEADQUARTERS,
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 1 OCTOBER 2014

TECHNICAL MANUAL

FIELD MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST FOR

GENERAL REPAIR PROCEDURES FOR INDIVIDUAL EQUIPMENT

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this publication. If you find any errors, or if you would like to recommend any improvements to the procedures in this publication, please let us know. The preferred method is to submit your DA Form 2028 (Recommended Changes to Publications and Blank Forms) through the Internet on the TACOM Unique Logistics Support Applications (TULSA) Web site. The Internet address is https://tulsa.tacom.army.mil. Access to all applications requires CAC authentication, and you must complete the Access Request form the first time you use it. The DA Form 2028 is located under the TULSA Applications on the left-hand navigation bar. Fill out the form and click on SUBMIT. Using this form on the TULSA Web site will enable us to respond more quickly to your comments and to better manage the DA Form 2028 program. You may also mail, e-mail, or fax your comments or DA Form 2028 directly to the U.S. Army TACOM Life Cycle Management Command. The postal mail address is U.S. Army TACOM Life Cycle Management Command, ATTN: AMSTA-LCL-MPP/ TECH PUBS, MS 727, 6501 E. 11 Mile Road, Warren, MI 48397-5000. The e-mail address is: TACOMLCMC.DAForm2028@us.army.mil. The fax number is DSN 786-1856 or Commercial (586) 282-1856. A reply will be furnished to you.

SUPERSEDURE NOTICE: TM 10-8400-203-23&P dated 1 October 2014 supersedes TM 10-8400-203-23&P dated 24 May 2010.

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

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HOW TO USE THIS MANUAL

HOW TO OBTAIN TECHNICAL MANUALS

When a new system is introduced to the Army inventory, it is the responsibility of the receiving units to notify and inform the Unit Publications Clerk that a Technical Manual (TM) is available for the new system. Throughout the life cycle of the new system, the Distribution Center DOL-W will also provide updates and changes to the TM.

To receive new TMs or change packages to existing TMs for fielded equipment, provide the Unit Publications Clerk the full TM number, title, date of publication, and number of copies required. The Unit Publications Clerk will justify the request through the Unit Publications Officer. When the request is approved, the Unit Publications Clerk will use DA Form 12-R to order the series of TMs from the Army Publishing Directorate (APD).

Instructions for Unit Publications Clerk

Obtain DA Form 12-R and request a publications account from the APD Web site at http://www.apd.army.mil. Once on the Website, click on the "Orders/Subscriptions/Reports" tab. From the dropdown menu, select "Establish an Account," then select "Tutorial" and follow the instructions in the tutorial presentation.

Complete information for obtaining Army publications can be found in DA PAM 25-33.

ORGANIZATION OF THIS MANUAL

This Manual contains General Information and Maintenance instructions for Individual Equipment. The equipment is arranged into general categories of Sleeping Bag Systems, Skis and Snowshoes, Mountaineering Gear, Bags and Load-Carrying Vests, and Chemical Protective clothing.

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

CHAPTER 1 – GENERAL INFORMATION, EQUIPMENT DESCRIPTION, AND THEORY OF OPERATION. Chapter 1 contains general information, equipment description and data, as well as theory of operation.

CHAPTER 2 – PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS). Chapter 2 provides PMCS procedures for individual equipment.

CHAPTER 3 – FIELD MAINTENANCE INSTRUCTIONS. Chapter 3 provides inspection, service, and maintenance procedures authorized at the field maintenance level that include repair and replacement of key components.

CHAPTER 4 – PARTS INFORMATION. Chapter 4 contains Repair Parts and Special Tools List (RPSTL), national stock number index and part number index.

CHAPTER 5 – SUPPORTING INFORMATION. Chapter 5 contains references, the maintenance allocation chart, and the expendable and durable items list.

REAR MATTER. Rear matter consists of 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 where XXXX is the work package number (e.g. 0010 is work package 10) and YY represents the number of the page within that work package. A page number such as 0010-1/blank means that page 1 contains information but page 2 of that work package has been intentionally left blank.

ORGANIZATION OF THIS MANUAL – CONTINUED

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, figures, and tables contained within each chapter and the work package sequence number where it can be found.

Example: If the reader were looking for instructions on Service Upon Receipt, the table of contents indicates that information on operation can be found in Chapter 2.

CHAPTER 1

GENERAL INFORMATION, EQUIPMENT DESCRIPTION, AND THEORY OF OPERATION FOR GENERAL REPAIR PROCEDURES FOR INDIVIDUAL EQUIPMENT

INDIVIDUAL EQUIPMENT
GENERAL INFORMATION

SCOPE

Type of Manual

This technical manual provides field maintenance instructions for repairing individual equipment issued to U.S. Army personnel. This manual also provides a Repair Parts and Special Tools List (RPSTL), located in Chapter 4.

MAINTENANCE FORMS, RECORDS, AND REPORTS

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by (as applicable) DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual; DA PAM 738-751, Functional Users Manual for the Army Maintenance Management Systems - Aviation (TAMMS-A); or AR 700-138, Army Logistics Readiness and Sustainability.

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR)

If your individual equipment needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you do not like about your equipment. Let us know why you do not like the design or performance.

All non-Aviation/Missile EIRs and PQDRs must be submitted through the Product Data Reporting and Evaluation Program (PDREP) Web site. The PDREP site is: https://www.pdrep.csd.disa.mil/.

If you do not have internet access, you may submit your information using an SF 368 (Product Quality Deficiency Report). You can send your SF 368 using email, regular mail, or fax using the addresses/fax numbers specified in DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual. We will send you a reply.

CORROSION PREVENTION AND CONTROL (CPC)

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

Corrosion specifically occurs with metals. It is an electrochemical process that causes the degradation of metals. It is commonly caused by exposure to moisture, acids, bases, or salts. An example is the rusting of iron. Corrosion damage in metals can be seen, depending on the metal, as tarnishing, pitting, fogging, surface residue, and/or cracking.

Plastics, composites, and rubbers can also degrade. Degradation is caused by thermal (heat), oxidation (oxygen), solvation (solvents), or photolytic (light, typically UV) processes. The most common exposures are excessive heat or light. Damage from these processes will appear as cracking, softening, swelling, and/or breaking. SF Form 368, Product Quality Deficiency Report should be submitted to the address specified in DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual

DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE

Destruction of Army materiel to prevent enemy use shall be in accordance with TM 750-244-3.

LIST OF ABBREVIATIONS/ACRONYMS

Table 1. List of Abbreviations/Acronyms.

ABBREVIATIONS/ACRONYMS	MEANING
AR	As Required
ASIP	Advanced System Improvement Program
BII	Basic Issue Item
BOI	Basis of Issue
BTU	British Thermal Unit
°C	Degrees Celsius
CAGEC	Commercial and Government Entity Code
CBRN	Chemical, Biological, Radiological, and Nuclear Decontamination
CIF	Central Issue Facility
cm	Centimeter
COEI	Component of End Item
CP	Chemical Protective
CPC	Corrosion Prevention and Control
CTA	Common Table of Allowances
CWK	Cold Weather Kit
DA	Department of the Army
DD	Department of Defense
ea	Each
ECWCS	Extreme Cold Weather Clothing System
EIR	Equipment Improvement Recommendation
°F	Degrees Fahrenheit
FG	Foliage Green
Fig.	Figure
FM	Field Manual
ft	Foot
ft-lb	Foot/pound(s)
G	Gram
GEN	Generation
Gr	Grenade
IAW	In Accordance With
K	Thousand
kg	Kilogram(s)
KW	Kilowatt(s)
L	Liter(s)
lb	Pound(s)
m, M	Meter(s)
MAC	Maintenance Allocation Chart
MOLLE	Modular Lightweight Load-Bearing Equipment
MOS	Military Occupational Specialty
MSS	Modular Sleep System

LIST OF ABBREVIATIONS AND ACRONYMS – Continued

Table 1. List of Abbreviations/Acronyms. – Continued

ABBREVIATIONS/ACRONYMS	MEANING
MTOE	Modified Table of Organization and Equipment
N	Narrow
No. NATO	Number North Atlantic Treaty Organization
OCIE	Organizational Clothing and Individual Equipment
OCP	Operation Enduring Freedom Camouflage Pattern
PASGT	Personnel Armor System Ground Troops
PBO	Property Book Officer
PMCS	Preventive Maintenance Checks and Services
UCP	Universal Camouflage Pattern
UG	Urban Gray
VB	Vapor Barrier
W	Wide
WP	Work Package
WT	Weight

QUALITY OF MATERIAL

Material used for replacement, repair, or modification must meet the requirements of this manual. If quality of material requirements is not stated in this manual, the material must meet the requirements of the drawings, standards, specifications, or approved engineering change proposals applicable to the subject equipment.

END OF WORK PACKAGE

FIELD MAINTENANCE

INDIVIDUAL EQUIPMENT

EQUIPMENT DESCRIPTION AND DATA

EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES

This manual provides standards for the classification, repair, and maintenance of individual equipment. Maintenance and repair procedures for each type of garment are divided into individual work packages. DA forms and records used for the equipment maintenance will be only those prescribed in DA PAM 738-750. Destruction to prevent enemy use will be in compliance with instructions outlined in TM 750-244-3.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS

Sleeping Bag Systems

Modular Sleep System (MSS) and Accessories. The MSS (Figure 1) consists of two "mummy-bag" type sleeping bags, the intermediate cold weather sleeping bag (Figure 1, Item 1), and the patrol sleeping bag (Figure 1, Item 3), all constructed of water-resistant, ripstop nylon, a waterproof bivy cover (Figure 1, Item 2), two compression stuff sacks, into which the bags may be placed. Each sleeping bag (Figure 1) may be used separately or may be joined together, with the patrol sleeping bag going inside the intermediate cold weather sleeping bag. The system will protect from -10°F, when used with the layers of the Extended Cold Weather Clothing System (ECWCS).

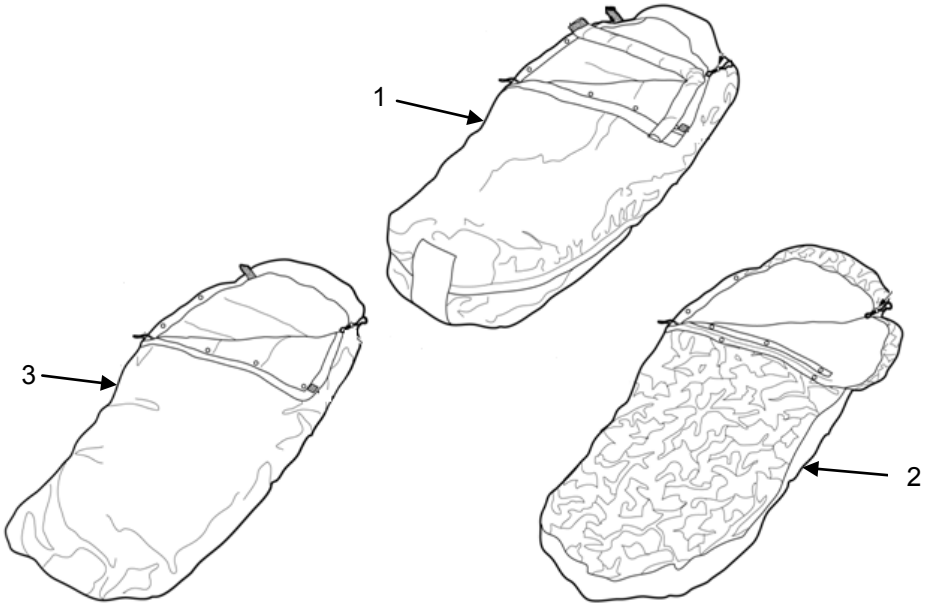


Figure 1. Modular Sleep System.

MSS Intermediate Cold Weather Sleeping Bag. The intermediate cold weather sleeping bag provides the user with adequate insulation to as low as 17°F and weight approximately four pounds. The intermediate bag has a chest collar sewn along the inside, at the top of the chest area to prevent air drafting up and down through the hood. The intermediate bag has an adjustable hood for heat retention and is adjustable. The slide fastener has a draft flap to prevent heat loss and to prevent inadvertent snagging of the liner.

MSS Patrol Sleeping Bag. The patrol sleeping bag is designed for use down to 40°F and weighs approximately three pounds. The patrol bag has an adjustable hood for heat retention and is adjustable. The slide fastener has a draft flap to prevent heat loss and to prevent inadvertent snagging of the liner.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS – Continued.

MSS Bivy Cover. The bivy cover may be used alone or with any combination of sleeping bags in the modular sleep system. The cover provides protection from water, wind, and cold.

MSS Compression Stuff Sacks. The Stuff Sacks, when packed with the sleeping bags, are capable of being compressed to one cubic foot and will fit in the sleeping bag compartment of the MOLLE II Large Field Rucksack.

Self-Inflating Sleeping Mat (Figure 2)**.** An extension on the conventional, manually inflated mattress, this type is capable of self-inflation due to the open-cell foam that fills the internal cavity.

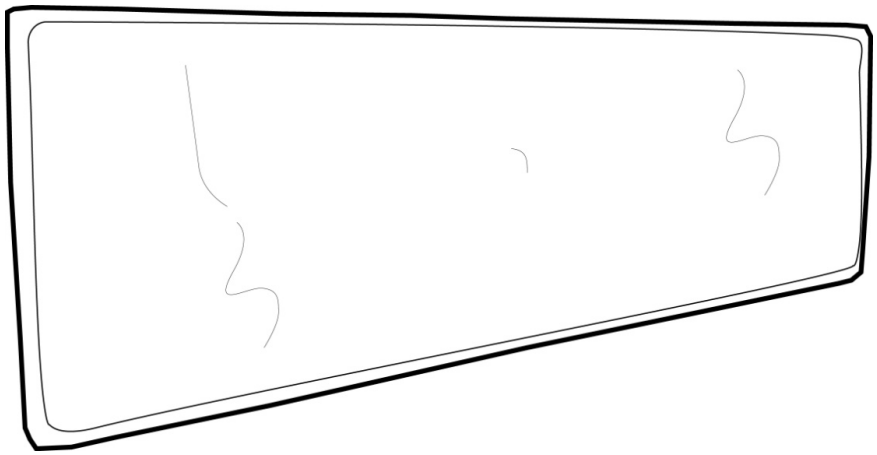


Figure 2. Self-Inflating Sleeping Mat.

Foam Sleeping Mat (Replaced by Modular Sleep System). The Foam Sleeping Mat (Figure 3) is made of closed-cell, cross-linked polyethylene foam. The mat is equipped with tie tapes at one end to hold it in the rolled condition for carrying. The mat weighs about 1 1/4 pounds and is 24 inches wide by 75 inches long. The mat will not absorb water and remains flexible in extreme cold temperatures. Downsizing is authorized at the commander's discretion subject to Central Issue Facility (CIF) manager/Property Book Officer (PBO) approval. Authorized modifications should be performed using available cutting instruments such as scissors, pocket knife, or razor knife. Since the foam is of a closed-cell composition, the cut edge need not be sealed. The minimum width authorized is 20 inches. Length will be determined by Soldier's height. Tie straps are not to be removed. Soldiers are not authorized to cut sleeping mat to his/her size without written approval from CIF manager/PBO.

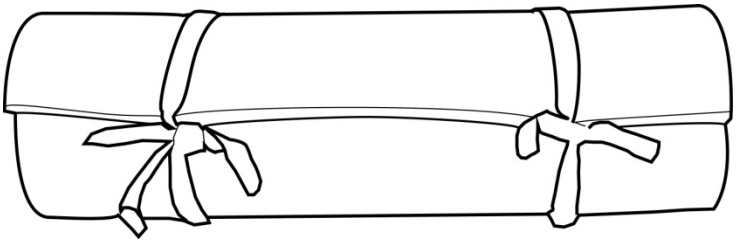


Figure 3. Foam Sleeping Mat.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS – Continued.

Arctic Gear

Skis and Snowshoes

Military Skis. The all-terrain military-type skis (Figure 4) are intended for use in tactical operations for mass movement of troops over level or hilly snow-covered terrains. The ski has an outer plastic composite material construction with a foam core, steel edges, and an aluminum tail protector. The tip of the ski has a hole for towing the skis, and the tail is notched to accept the strap on a ski climber. The skis are 78 inches in length.

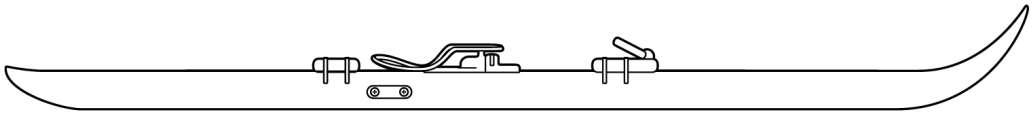


Figure 4. Military Skis.

Ski Binding. The ski bindings (Figure 5) are commercial, North Atlantic Treaty Organization (NATO) 120 Bindings. This binding is a cable binding consisting of a front throw, a toe piece, a heel plate, and cable with guides. The cable is engaged in the guides for downhill skiing and release from the guides to allow the heel to lift for cross-country skiing. The front throw is equipped with a release mechanism to release the cable in the event of a fall while in the downhill mode.

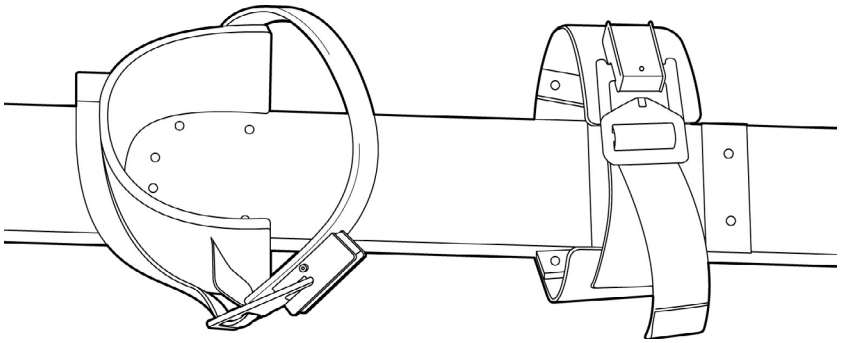


Figure 5. Ski Binding.

Ski Pole. The ski pole (Figure 6) is composed of a steel shaft, rubber grips, leather wrist straps, and rubber snow ring assembly.

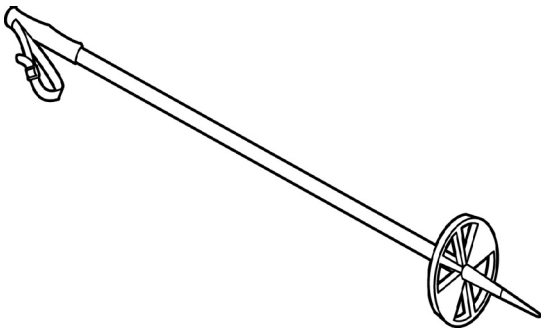


Figure 6. Ski Pole.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS – Continued.

Magnesium Trail Snowshoes (Replaced by Assault Snowshoe.) The Magnesium Trail Snowshoes (Figure 7) are a standard-type snowshoe with ski-type upturned front and sharply tapered rear. The frame is magnesium, laced with plastic-covered steel cable.

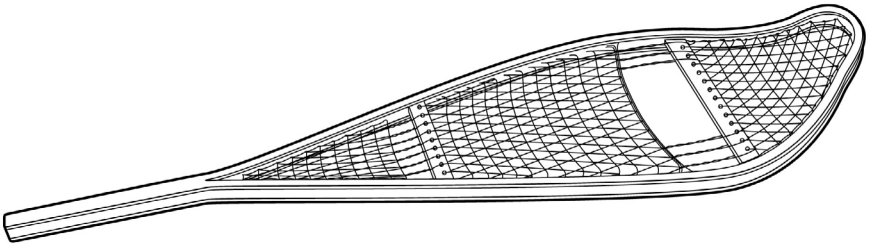


Figure 7. Magnesium Trail Snowshoes.

Snowshoe Binding (Replaced by Assault Snowshoe.) The snowshoe binding (Figure 8) is intended for use with the magnesium trail snowshoe and will accommodate either the left or right boot.

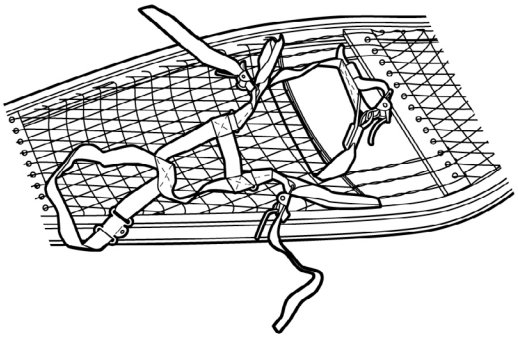


Figure 8. Snowshoe Binding.

Military Assault Snowshoes and Tails. The modular, injection-molded snowshoe (Figure 9) is used in steep and side-hill terrain. It includes are movable 8-inch tail for use on packed or powdery snow, and a heel-raise device to prevent excessive lower leg muscle fatigue on steep slopes. The universal strap system is usable while wearing mittens.

Figure 9. Military Assault Snowshoes and Tails.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS – Continued.

Mountaineering Gear

Wired Snow Anchors (Figure 10). The fluted anchor portion of the snow anchor is made of aluminum. The wired portion is made of either galvanized steel or stainless steel.

- Size I is 8 1/2 inches long with a 5 1/2-inch fluted anchor portion. The wire portion has a 1/8-inch diameter, and the outstretched wire cable assembly is 2 feet, 3 inches long.

- Size II is 7 1/2 inches long with a 10 1/2-inch fluted anchor portion. The wire portion has a diameter of 0.156 inch, and the outstretched wire cable assembly is 5 feet, 3 inches long.

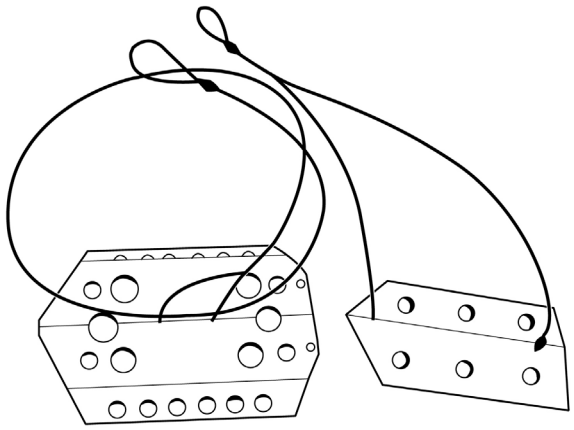


Figure 10. Wired Snow Anchors.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS – Continued.

General Bags

Waterproof Clothing Bag. The waterproof clothing bag is fabricated of Olive Green, 106 nylon duck cloth coated on one side with synthetic rubber. The color of the coating compound is black. The coated side of the fabric is on the inside of the bag, and the seams are fully vulcanized with no stitching. The waterproof clothing bag is provided for protecting the sleeping bag when it is stored, carried, transported, or not in use.

Duffel Bag. The Duffel Bag (Figure 11) is fabricated from Olive Green 106 Nylon Duck and is provided with a handle and straps for either hand or over-the-shoulder carrying. The bag is provided with a pocket to accommodate shipping documents. Nylon webbing is used for fabrication of the straps.

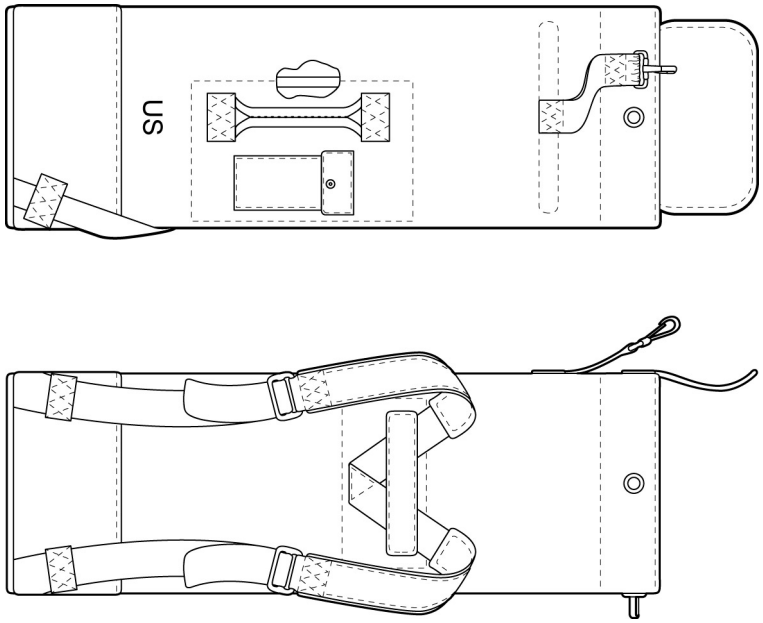


Figure 11. Duffel Bag.

Barracks Bag. The Barracks Bag (Figure 12) is fabricated essentially of sateen cotton cloth. It is intended for use as a laundry bag, for soiled clothing of Army personnel.

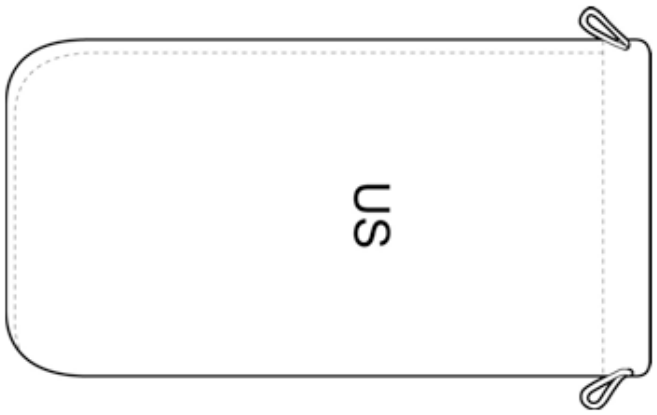


Figure 12. Barracks Bag.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS – Continued.

Load-Bearing Equipment

Tactical Load-Bearing Vest (Replaced by MOLLE II TM 10-8465-236-24&P). The Tactical Load-Bearing Vest (Figure 13) is made of a seven-ounce nylon fabric and weighs 1.8 lbs. empty. The vest is compatible with the standard equipment belt. The equipment belt is secured to the vest with 10 belt loops that use both hook-and-loop fasteners and snaps. The vest has four permanently attached ammunition pockets that can carry six 30-round magazines. The pocket covers are secured by one snap and a strip of hook-and-loop. A pull tab is used to open the pocket. Located below the ammunition pockets are two fragmentation grenade pockets. The shoulders are protected by 1/2-inch foam padding. The vest closes in front with two chest straps using plastic quick-release buckles. There are two 2 1/4-inch webbing and two D-rings sewn to the back of the vest that can be used as equipment attachment points.

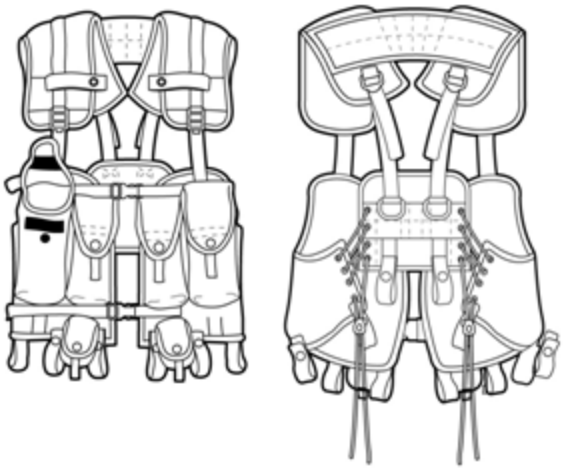


Figure 13. Tactical Load-Bearing Vest.

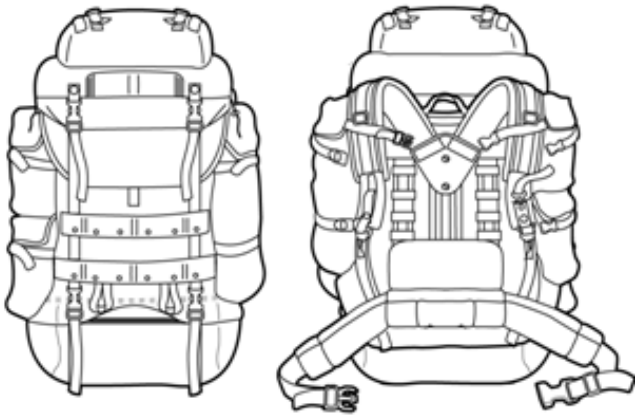


Figure 14. Large Field Pack with Internal Frame.

Large Field Pack with Internal Frame (Replaced by MOLLE II TM 10-8465-236-24&P). The Large Field Pack with Internal Frame (Figure 14) is constructed of an 8.0 ounce back coated nylon fabric which has excellent abrasion resistance and water repellency. The weight of the empty pack is 8 lbs. The pack has two major sections: the sleeping bag compartment, and the main compartment. The main compartment has a false bottom that may be opened for full use of the pack when a sleeping bag is not carried. The outside of the pack has one long tunneled pocket and two smaller cargo pockets, all using compression straps for securing contents, and equipment attachment points in the form of 2 1/4-inch webbing and 1-inch webbing loops are located throughout the pack.

The internal frame is comprised of two aluminum staves running the full height of the pack. The staves are removable. The suspension system is adjustable, allowing the user to position the pack where it is most comfortable. The pack has lower back padding as well as an extended lumbar support pad, and the shoulder pads are made of bi-laminate foam. A softer, open-cell foam is against the body for comfort, followed by a stiffer closed-cell foam for stability and good recovery after compression.

Two strap assemblies with quick-release buckles allow for the attachment of the Combat Patrol Pack atop the field pack, when both packs are used together. When used in combination with either the 40mm Grenade Vest or the Tactical Load-Bearing Vest, the Field Pack shoulder pads are worn over those of the vest, where they are retained by two 1-inch webbings.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS – Continued.

Load-Bearing Equipment – Continued

Combat Patrol Pack (Replaced by MOLLE II TM 10-8465-236-24&P). The Combat Patrol Pack (Figure 15) was designed for short missions and offers 1200 cubic inches of cargo space in two compartments. The main compartment is padded to protect the back from heavy, sharp items. The main compartment incorporates two tie-down straps that can be used to stabilize equipment such as a field radio. The patrol pack has a separate shoulder harness. When used in combination with either the 40mm Grenade Vest or the Tactical Load Bearing Vest, the Combat Patrol Pack shoulder pads are worn over the vest shoulder pads, and retained for stability by two 1-inch pieces of webbing. The pack can also be used in conjunction with the Field Pack, Large with Internal Frame.

Figure 15. Combat Patrol Pack.

Grenade-Carrying Vest (Replaced by MOLLE II TM 10-8465-236-24&P). The 40mm Grenade-Carrying Vest (Figure 16) is intended for use by the combat Soldier armed with the M203 or M79 Grenade Launcher. It is constructed of a 7-ounce nylon fabric and weighs 2.1 lbs. empty. The vest is compatible with the standard equipment belt which is secured to the vest with 10 belt loops. The loops use hook-and-loop fasteners and snaps. The vest has 18 permanently attached ammunition pockets that can carry four pyrotechnic and 14 high-explosive rounds. The pocket covers are secured by one snap. A pull tab is used to open the pocket. The shoulders are protected by 1/2-inch foam padding. The vest closes in front with two chest straps, using plastic quick- release buckles. Two 2 1/2-inch webbing and two D-rings sewn to the back of the vest can be used as equipment attachment points. This vest replaced the M-79 grenade vest. Both vests are replaced by the MOLLE II Grenadier Set. Refer to TM 10-8465-236-24&P.

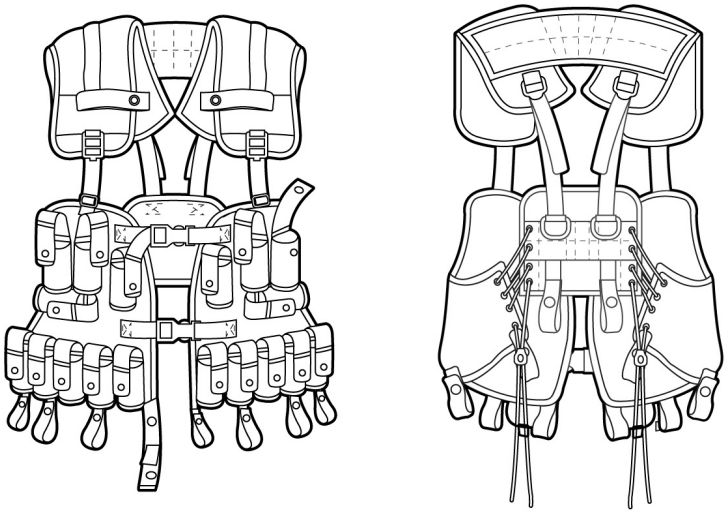


Figure 16. Grenade-Carrying Vest.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS – Continued.

All-Purpose Lightweight Individual Carrying Equipment (ALICE)

Small Arms Ammunition Case (Replaced by MOLLE II TM 10-8465-236-24&P). The Small Arms Ammunition Case (Figure 17) is designed for the 30-round magazine used with the M-16 rifle. It is fabricated of nylon duck cloth and webbings with polyester sheet stiffeners in the front, rear, and lid of the case. Each magazine is held in place by means of 3/4-inch (1.91 cm) wide webbing spacers which cross the top of the case. The lid is closed by means of a plastic latch. Grenade-carrying pockets are on each side of the case, which is secured by means of a nylon web strap and metal snap fastener. A tab with a metal eyelet is located at the top back of the case to which the suspenders are attached. The case is attached to the heft by keepers with interlocking slides.

Figure 17. Small Arms Ammunition Case.

Individual Equipment Belt (Replaced by MOLLE II TM 10-8465-236-24&P). The individual equipment belt (Figure 18) is made from Army Olive Drab #7 nylon webbing with black, chemical finish adjusting buckles, keepers, and belt buckle. The medium size belt is for Soldiers with waists measuring less than 30 inches, and size large is for those with waists measuring 30 inches or more. The belts are adjusted from each end by means of clamp-type buckles which slide on the belt when open. The individual equipment items are attached by interlocking slide keepers or are hooked through eyelets along the bottom of the belt. The eyelets along the top of the belt are for attaching the suspenders.

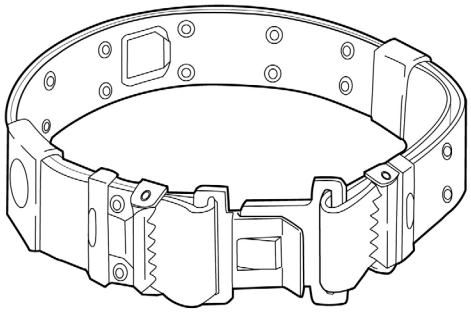


Figure 18. Individual Equipment Belt.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS – Continued.

All-Purpose Lightweight Individual Carrying Equipment (ALICE) – Continued

Individual Equipment Belt Suspenders (Replaced by MOLLE II TM 10-8465-236-24&P). The Individual Equipment Belt Suspenders (Figure 19) are Y-shaped with three adjusting straps, with four points of attachment to the belt and ammunition cases. The shoulder straps are padded with spacer cloth. Each shoulder strap has a web loop and a non-slip buckle on each of the straps, in the front and one at the back, through which the adjusting straps pass. There are rectangular wire loops located between the web loops and the buckles on the front of the straps. The 1-inch wide adjusting straps have side-retaining snap hooks at one end. The back adjusting strap has an inverted “V,” of which each end has a side-retaining snap hook. Each of the adjusting straps has a loop around it made of 1-inch elastic material.

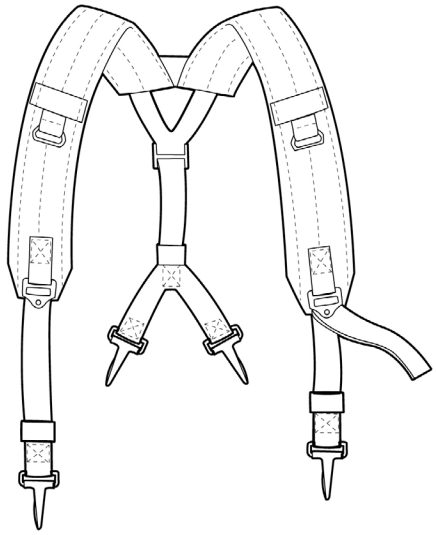


Figure 19. Individual Equipment Belt Suspenders.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS – Continued.

Chemical Protective Equipment

Chemical Protective (CP) Glove Set (TM 10-8400-205-23&P). The components of the packaged set consists of an outer rubber glove (Figure 20), to provide the chemical protection, and an inner glove to assist in absorption of perspiration. The outer, five-finger gloves (right and left hands) are of an impermeable, unsupported, black butyl rubber.

The glove set gives protection against vapors, aerosols, and small droplets of chemical agents. One pair each of the glove sets and an instruction sheet are packaged and sealed in a clear polyethylene film bag with excess air removed. The sets are issued as initial issue and as replacement items. The gloves are available in five sizes: X-Small, Small, Medium, Large, and X-Large. Cotton inserts are provided with the gloves to be worn as a liner to aid in the absorption of perspiration. Proper fit should be checked upon issue. In addition to the above, the standard issue leather gloves or other work gloves can be worn over the CP glove set. It is important to wear the leather gloves when handling rough objects to protect the butyl rubber, of the CP glove set, from punctures and tears.

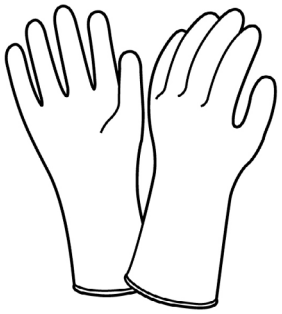


Figure 20. Chemical Protective Gloves.

Chemical Protective Helmet Cover (TM 10-8400-205-23&P). The Chemical Protective Helmet Cover (Figure 21) is a one-piece configuration consisting of butyl-coated nylon cloth gathered at the opening by elastic webbing enclosed in the hem. It is intended to provide the Personnel Armor System Ground Troops (PASGT) Helmet with protection from chemical and biological contamination. The helmet cover is designated for use in all climatic categories.

Figure 21. Chemical Protective Helmet Cover.

END OF WORK PACKAGE

FIELD MAINTENANCE

THEORY OF OPERATION

Soldiers are required to perform many different tasks related to their MOS, as well as each individual Soldier's responsibilities within the unit. Soldiers, therefore, require a wide variety of equipment in order to accomplish their tasks and missions. To support the Soldier, equipment must be kept in good repair or replaced as needed. On receipt of equipment, the individual items are inspected, assessed, and then classified for serviceability, which in turn determines the disposition of the item.

END OF WORK PACKAGE

CHAPTER 2

PREVENTIVE MAINTENANCE CHECKS AND SERVICES FOR GENERAL REPAIR PROCEDURES FOR INDIVIDUAL EQUIPMENT

FIELD MAINTENANCE

PREVENTIVE MAINTENANCE CHECKS AND SERVICES INTRODUCTION

GENERAL

The following information describes PMCS procedures at the field level. The PMCS table has been provided to ensure that the equipment is in proper operating condition and ready for use. This PMCS chart should be used in conjunction with the serviceability criteria in WP 0007.

PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

Frequency of Performing PMCS

PMCS will be performed before equipment is packed for use, during modification and repair after use, or at any time deemed necessary by unit standard operating procedure.

PMCS Columnar Entries Table 1

Item Number. The item number column shall be used as a source of the item number required for the TM Number column on DA Form 2404 (Equipment Inspection and Maintenance Worksheet), when recording the results of the PMCS.

Interval. This column identifies the required PMCS interval.

Item to be checked or serviced. Contains the common name of the item to be inspected.

Procedure. Provides a brief description of the procedures by which the checks are to be performed.

Equipment not ready/available if. Indicates faults that will prevent your equipment from performing its primary mission. If you perform procedures listed in Procedure column that show faults listed in this column, do not operate the equipment. Follow standard procedures for maintaining the equipment or reporting equipment failure.

Recording Defects

All defects discovered during the inspection will be recorded using the applicable specifics in DA PAM 750-8 and DA PAM 738-751.

Corrosion Prevention and Control (CPC)

CPC of Army materiel is a continuing concern. It is important that any corrosion problems with these items be reported so that the problem can be corrected and improvements can be made to prevent the problem in future items.

Corrosion specifically occurs with metals. It is an electrochemical process that causes the degradation of metals. It is commonly caused by exposure to moisture, acids, bases, or salts. An example is the rusting of iron. Corrosion damage in metals can be seen, depending on the metal, as tarnishing, pitting, fogging, surface residue, and/or cracking.

Plastics, composites, and rubbers can also degrade. Degradation is caused by thermal (heat), oxidation (oxygen), solvation (solvents), or photolytic (light, typically UV) processes. The most common exposures are excessive heat or light. Damage from these processes will appear as cracking, softening, swelling, and/or breaking.

END OF WORK PACKAGE

FIELD MAINTENANCE

PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

INITIAL SETUP:

Equipment Condition	Personnel Required
Unpacked	Non-MOS Specific

GENERAL

Table 1 describes PMCS procedures at the field level. The PMCS table has been provided to ensure individual equipment is in proper operating condition and ready for its primary mission.

PMCS PROCEDURES

Table 1. Preventive Maintenance Checks and Services for Individual Equipment.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
			MODULAR SLEEP SYSTEM (MSS)	
1	Before After	Intermediate Cold Weather Sleeping Bag	Inspect for rips, tears, holes, burns, dry rot, oil, grease, and other contaminants. Check slide fasteners for damage and freedom of movement. Ensure there are no missing teeth in the zipper. Check for torn or loose tape and bead. Check snap fasteners and eyelets for damage (crushed or loose) and that they are positioned in the original location. Check the bag for loss of filling material (polyester filling). Check reinforcement tape for tears, loose ends, and loose or missing thread.	Rips, tears, holes, burns, dry rot, oil, grease or other contamination. Slide fastener is damaged or does not open/close for the entire length of the bag. Snap fasteners or eyelets are damaged, do not work or are missing. Fill material is missing. Reinforcement tape has tears, loose ends, or missing/loose threads.
2	Before After	Patrol Sleeping Bag	Inspect for rips, tears, holes, burns, dry rot, oil, grease, and other contaminants. Check slide fasteners for damage and freedom of movement. Ensure there are no missing teeth in the zipper. Check for torn or loose tape and bead. Check snap fasteners and eyelets for damage (crushed or loose) and that they are positioned in the original location. Check reinforcement tape for tears loose or missing thread.	Rips, tears, holes, burns, dry rot, oil, grease or other contamination. Slide fastener is damaged or does not open/close for the entire length of the bag. Snap fasteners or eyelets are damaged, do not work, or are missing. Fill material is missing. Reinforcement tape has tears, loose ends, or missing/loose threads.
3	Before After	MSS Bivy Cover	Inspect for rips, tears, holes, burns, grease, oil, discoloration or fading, dry rot, missing or broken snap fasteners or single-cord locks (barrel locks), or damaged draw cords.	Rips, tears, holes, burns, grease, oil, discoloration or fading, dry rot, missing or broken snap fasteners or single-cord locks, or damaged draw cords.

Table 1. Preventive Maintenance Checks and Services for Individual Equipment – Continued.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
4	Before After	MSS Compression Stuff Sacks	Inspect for rips, tears, holes, burns, grease, oil, stains, missing or broken double bar buckles and single-cord locks and discoloration or fading.	Rips, tears, bums, snags, oil, grease, or other contaminants. Missing or broken double-bar buckles and single-cord locks. Severe discoloration or fading.
5	Before After	Self-Inflating Sleeping Mat	Check for rips, tears, dry rot, holes, missing plugs, or damaged air valve. Inflate the mattress and check for small tears and holes. Check to determine that air bottle is fully charged.	Rips, tears, holes, burns, grease, oil, stains, missing or broken snap fasteners or single-cord locks, damaged draw cords, ripped seams, or loose stitching. Air bottle has been discharged.
6	Before After	Foam Sleeping Mat	Check for rips, tears, dry rot, holes, missing plugs, or damaged air valve. Inflate the mattress and check for small tears and holes. Check to determine that air bottle is fully charged.	Rips, tears, holes, burns, grease, oil, stains, missing or broken snap fasteners or single-cord locks, damaged draw cords, ripped seams, or loose stitching. Air bottle has been discharged.
		ARCTIC GEAR		
7	Before After	Military Skis	Inspect for straightness, rough edges, cracks, holes, burns and gouges. Inspect for shape, delaminating, and sharpness of steel edges. Inspect for mildew, rot, or cracks.	Ski is not straight. Ski has rough edges, cracks, holes, burns, or gouges. Ski is misshapen or is delaminating.
8	Before After	Ski Binding	Inspect bindings for frays, cracks, chips, burns, loose fasteners, malfunctioning springs and pivot points. Inspect for mildew, rot, or cracks.	Rips, tears, snags, oil, grease, or other contaminants, or mildew, rot, or cracks.
9	Before After	Ski Pole	Inspect for straightness, cracks in shaft and tip of pole. Check fasteners for serviceability and proper mounting. Inspect grip for looseness, cracks, frays, tears, or pieces of leather missing. Inspect basket for attachment, frays, tears, burns, cracks, and completeness of stitching. Inspect for mildew, rot, or cracking.	Pole is not straight or has cracks in shaft or tip of pole. Fasteners are missing or do not function properly. Grip is loose or has cracks, frays, tears, or pieces of leather missing. Basket is missing or does not attach properly. Basket is damaged.
10	Before After	Magnesium Trail Snowshoes/ Military Assault Snowshoes and Tails	Inspect shoes for cracks, pits, scratches, chips, or burrs. Inspect plastic-coated steel for cracks, tightness, unbound ends, cut or bare steel. Inspect for mildew, rot, or stains.	Cracks, pits, scratches, chips, or burrs. Plastic-coated steel has cracks, is loose, has unbound ends, is cut, or has bare steel, mildew, rot, or stains.

Table 1. Preventive Maintenance Checks and Services for Individual Equipment – Continued.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
11	Before After	Snowshoe Binding (All types)	Inspect bindings for frays, burns, tears, grease, oil, or stains. Check metal components for cracks or corrosion. Check for damaged or broken fasteners and loose or broken stitching.	Rips, tears, snags, oil, grease, or other contaminants. Cracks or corrosion to metal components. Damaged or broken fasteners.
		MOUNTAINEERING GEAR		
12	Before After	Wired Snow Anchors	Check metal cables for frays, kinks and loose or damaged hardware, rust or corrosion, and chips or scratches in the finish.	Cables are frayed, or kinked. Loose or damaged hardware, rust or corrosion, damaged finish.
		GENERAL BAGS		
13	Before After	Waterproof Clothing Bag	Inspect for rips, tears, holes, dry rot, mildew, missing parts, or weakened material. Check to determine if the bag has a hard painted area for stenciling owner's name.	Rips, tears, snags, oil, grease, or other contaminants.
14	Before After	Duffel Bag	Inspect for rips, tears, holes, dry rot, mildew, missing parts, or weakened material. Check to determine if the bag has a hard painted area for stenciling owner's name.	Rips, tears, snags, oil, grease, or other contaminants.
15	Before After	Barracks Bag	Inspect for missing or damaged grommets and drawstrings. Check for rips, tears, snags, oil, grease, or other contaminants.	Missing or damaged grommets and drawstrings. Rips, tears, snags, oil, grease, or other contaminants.
		LOAD-BEARING EQUIPMENT		
16	Before After	Tactical Load-Bearing Vest	Inspect for missing or damaged hardware or drawstrings. Check for rips, tears, fraying, burns, loose binding, oil, grease, and stains.	Rips, tears, loose binding or loose/broken stitching. Damaged drawstrings, oil, grease or stains. Hook-and-loop fastener tape is damaged. Plastic or metal hardware is damaged or missing.
17	Before After	Large Field Pack with Internal Frame	Inspect for cuts, tears, open seams in shell fabric and webbing material. Inspect ballistic inserts for damage.	Missing or damaged hardware or drawstrings. Rips, tears, fraying, burns, loose binding, oil, grease or stains.
18	Before After	Combat Patrol Pack	Inspect for cuts, tears, open seams in shell fabric and webbing material. Inspect ballistic inserts for damage.	Missing or damaged hardware or drawstrings. Rips, tears, fraying, burns, loose binding, oil, grease or stains.
19	Before After	Grenade-Carrying Vest	Inspect for rips, tears, loose binding, loose or broken stitching, oil, grease, or stains. Check that hook-and-loop fastener tapes are undamaged. Check that all snap fasteners and other hardware are serviceable.	Rips, tears, loose binding, loose or broken stitching, oil, grease or stains. Hook-and-loop fastener tape is damaged or does not work. Snap fasteners are missing or do not work.

Table 1. Preventive Maintenance Checks and Services for Individual Equipment – Continued.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
ALL-PURPOSE LIGHTWEIGHT INDIVIDUAL CARRYING EQUIPMENT (ALICE)				
20	Before After	Small Arms Ammunition Case	Inspect item for damaged or missing parts. Check for damaged or broken plastic flap fasteners and metal parts. Check for rips, tears, holes, burns, grease, oil or other contaminants. Check inside case for missing or damaged separation straps. Cracks or splits in the plastic stiffener in the wall of the case shall not be considered unserviceable unless the stiffener interferes with placing magazines in or taking them out of the case.	Damaged or missing parts. Damaged or broken plastic flap fasteners or metal parts. Rips, tears, holes, burns, grease, oil or other contaminants. Missing or separated straps. Cracks or splits in plastic stiffener that interfere with placing magazines in or taking magazines out of case.
21	Before After	Individual Equipment Belt	Inspect item for damaged or missing parts. Check for damage to metal parts. Check webbing for fraying or discoloration.	Damaged or missing parts. Damage to metal parts. Frayed or severely discolored webbing.
22	Before After	Individual Equipment Belt Suspenders	Inspect item for damaged or missing parts. Check for damage to metal components. Check webbing and pads for fraying, discoloration, stretched material, grease, oil, or other contamination.	Damaged or missing parts. Damage to metal components. Webbing and pads are fraying, discolored or stretched. Material has grease, oil or other contamination.
23	Before After	Entrenching Tool Carrier	Inspect for missing or damaged keepers and snaps. Check for rips or tears in the flap or case.	Missing or damaged keepers and snaps. Rips or tears in the flap or case.
24	Before After	Field First Aid or Compass Case	Inspect item for missing or damaged snaps, tears, holes, burns, grease, oil, or other contamination.	Missing or damaged snaps, rips, tears, graying, oil, grease, burns, or other contamination.
25	Before After	1-Quart Canteen Cover	Inspect item for damaged or missing parts. Check for rips, tears, holes, burns, grease, oil or contamination.	Damaged or missing parts. Rips, tears, holes, burns, grease, oil, or contamination.
26	Before After	2-Quart Canteen Cover	Inspect for rips, tears, holes, fraying, and loose or broken stitching. Inspect for stains, grease, oil or other contaminants. Check for D-rings (2), plastic snap fastener, pocket, hook-and-loop tape fastener, and metal grommet. Check inside for damaged, loose, or fraying synthetic fur.	Rips, tears, holes, fraying, loose or broken stitching. Missing components. Stains, grease, oil, or other contamination.
27	Before After	Canteen cup	Inspect for dents, abrasions, discoloration, and cleanliness. Check to see that handle is present and operable. Check to see that rivets are secure.	Cup has dents, abrasions, discoloration, or is unclean. Handles missing or don't work. Rivets are missing or loose.

Table 1. Preventive Maintenance Checks and Services for Individual Equipment – Continued.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
CHEMICAL PROTECTIVE EQUIPMENT				
28	Before After	Chemical Protective Gloves	Inspect gloves for rips, tears, holes, and abrasions. Check to see that fingers are properly secured to glove palm and that fingertips are serviceable.	Rips, tears, holes or abrasions. Fingers are not secured to palm. Fingertips worn out.
29	Before After	Chemical Protective Helmet Cover	Cover for rips, tears, holes, and/or damaged elastic webbing enclosed in hem.	Rips, tears, holes, and/or damaged elastic webbing enclosed in hem.

END OF WORK PACKAGE

CHAPTER 3

FIELD MAINTENANCE
FOR
GENERAL REPAIR PROCEDURES
FOR
INDIVIDUAL EQUIPMENT

FIELD MAINTENANCE
SERVICE UPON RECEIPT

INITIAL SETUP:

	Personnel Required
Tools and Special Tools	
	Non-MOS Specific (1)
None Required	
	References
Materials/Parts	
	WP 0005
None Required	WP 0007

SERVICE UPON RECEIPT

All individual equipment will be thoroughly inspected upon receipt, whether new or used, IAW WP 0005, Preventive Maintenance Checks and Services; and WP 0007, Inspect.

END OF WORK PACKAGE

INSPECT

Soldiers are required to perform many different tasks related to their MOS, as well as each individual Soldier's responsibilities within the unit. Soldiers, therefore, require a wide variety of equipment in order to accomplish their tasks and missions. To support the Soldier, equipment must be kept in good repair or replaced as needed. On receipt of equipment, the individual items are inspected, assessed, and then classified for serviceability, which in turn determines the disposition of the item. Table 1 lists the classification codes along with the defining criteria.

Table 1. Item Classification Codes and Criteria.

CODE	EXPLANATION
A	New and unused property possessing original appearance and serviceability.
B	Serviceability as to be acceptable for issue or sale in lieu of class A like-new property. • Items peculiar to the clothing allowance system will possess a high degree of appearance and serviceability. These items affect the personal appearance of the individual and should be in such condition as to be readily acceptable for issue and cash sale purposes. In no case should the wear expectancy be less than 75 percent of a like-new item. • Items of organizational clothing and equipage will possess such appearance and degree of serviceability as to justify their issue to troops and afford a satisfactory military appearance. As a guide only and where practicable for application, these items should possess not less than 50 percent of the life of a like-new item.
F	Unserviceable items which are economically repairable. Economically repairable items are those which may be restored to Class B condition for not more than 65 percent (clothing) or equipage of prices contained in current Army Master Data File.
H	Unserviceable items which are obviously scrap or salvage, for which any use would require a repair cost exceeding 65 percent for clothing or equipage of the current cost of the item.
X	Items which do not possess the appearance or degree of serviceability to justify the classification of B or which cannot be repaired economically for the purpose originally intended, but which can be used as an end item (without benefit of repair) for duties which are harmful to clothing, i.e., mechanics, painters, construction workers, etc.

As a general guide, classification of all clothing and equipment items will be subject to the stipulations and limitations listed here.

Items of personal clothing and footwear will be classified as new only when they show no evidence of color fading, stains, uncleanliness, and/or rotting of stitching or fabric.

Each item will be complete in every detail, and all parts properly designed and attached. A new item which has been tried on for size purposes, or from which the tags have been removed, will not be classed as used; nor will such items be soiled to the extent that dry cleaning or laundering is required.

When dry cleaning or laundering is required, garment will be reclassified from new to a used category. Only pressing of new garments or polishing of new leather footwear does not lower the classification.

INSPECT – CONTINUED

NOTE

The Operation Enduring Freedom Camouflage Pattern (OCP), Universal Camouflage Pattern (UCP), Woodland Temperate, Daytime Desert, and Hot Weather Camouflage Clothing and Individual Equipment items will be considered serviceable from a fading standpoint if the pattern is visually discernible and the colors are still subdued in nature.

Organizational Clothing General Inspection Criteria. Items of organizational clothing and equipment will require the following for classification in serviceable condition codes (A or B):

- Complete state of repair.
- Cleaned. Must be in a clean (laundered, dry cleaned, sterilized, or painted) condition.
- Hook-and-Loop Tape Fasteners. All hook-and-loop tape fasteners must be functional and of the correct color for the item. The tape shall not be frayed or worn.
- Buttons. Replacement buttons visible on outer garments when worn should be of a size, shape, and color like those originally affixed. Buttons which are not visible when a garment is being worn need not be specifically of the same color but should be of the same size.
- Buttonholes. Buttonholes should not be enlarged or ripped.
- Fasteners. All present and of the same size originally affixed to item.
- Frayed edges. Frayed edges of an inconspicuous or minor nature will be permitted.
- Linings. Linings in all outer garments must be in a complete state of repair. Repair may include minor patches. The patch does not have to exactly match the color of the lining, but should be reasonably similar in color.
- Patches and darns. Patches and darns will be permitted, provided their color is similar to that of the original material.
- Pockets. Pockets must be clean and in a complete state of repair. Any repairs will be of a wear expectancy similar to that of the remainder of the garment. Replaced pockets must be of a size consistent with those originally in garment.
- Belt loops. All belt loops on trousers will be the same as on any new garment of a like make, including shade, material, and number.
- Fading. Fading will be permitted.
- Identification marks. Marks of identification include those made at issue point and those made by individuals. These should be lined out or obliterated. A mark is considered obliterated when its cancellation is readily evident.
- Spots and stains.
    - Items worn by individuals. Small paint, grease, or other spots or stains will be permitted if garment or other item is otherwise completely serviceable.
    - All other organizational items. Spots and stains will not be considered a determining factor in classifying this category of property if such spots and stains are minor.
- Hardware. Hardware will not be bent, broken, or missing. Bright and shiny hardware will not disqualify items from a serviceable classification.

INSPECT – CONTINUED

NOTE

This item classification criteria applies to only Central Issue Facility (CIF), Organizational Clothing and Individual Equipment (OCIE) and Central Initial Issue Point. Army Military Clothing Sales stores are not affected by this item classification criteria.

- Footwear (Shoes and Boots). Shoes and Boots can be reissued if footwear is treated with a fungicidal spray designed for shoes and boots (procured locally) and is in like-new condition, free from obvious stretching or creasing of leather upper. Indentations in insoles of footwear causal by minimal wear is acceptable and suitable for Code A (See Table 1). This also applies to rubber and canvas footwear, men's leather ski boots.

Inspection and Classification Procedures for Individual Organizational Equipment. Instructions in this work package will be used as a guide in making inspections of clothing and individual equipment in the hands of units or individuals for the purpose of determining serviceability and repair eligibility.

NOTE

Restitching of open seams is NOT to be counted as a tear and has no limitation in length.

Maximum repairs mean the number of repairs authorized on an item each time it is turned in for repair.

Additional repairs are authorized as long as expenditure limits do not exceed 65 percent replacement cost. Refer to TB 43-0002-27, Maintenance Expenditure Limits.

Inspection of Modular Sleep System

1. Intermediate Cold Sleeping Bag
    a. Inspect for rips, tears, holes, burns, grease, oil, missing or broken snap fasteners and single cord locks (barrel locks), damaged slide fasteners and frayed webbing, missing or damaged draw cords, ripped seams or loose stitching.

       Code A. See Table 1.

       Code B. Used items that are clean, unstained, undamaged and have no more than 10 repaired areas.

       Code F. Unserviceable items that can be repaired by patching, re-stitching, or replacing the damaged part.

       Code H. Unserviceable items that do not meet the criteria for Code F or are obviously scrap.

    b. Refer to WP 0008 for maintenance procedures.

2. Patrol Sleeping Bag
    a. Inspect for rips, tears, holes, burns, grease, oil, missing or broken snap fasteners and single cord locks (barrel locks), damaged slide fasteners and frayed webbing, missing or damaged draw cords, ripped seams or loose stitching.

       Code A. See Table 1.

       Code B. Used items that are clean, unstained, undamaged and have no more than 10 repaired areas.

INSPECT – CONTINUED

Code F. Unserviceable items that can be repaired by patching, re-stitching, or replacing the damaged part.

Code H. Unserviceable items that do not meet the criteria for Code F or are obviously scrap.

b. Refer to WP 0008 for maintenance procedures.

3. MSS Bivy Cover

a. Inspect for rips, tears, holes, burns, grease, oil, discoloration or fading, dry rot. missing or broken snap fasteners or single cord locks (barrel locks), or damaged draw cords.

Code A. See Table 1.

Code B. Complete and clean. No damage.

Code F. Unserviceable items that can be repaired by replacing the draw cord or single cord locks (barrel locks).

Code H. Unserviceable items that do not meet the criteria for Code F or are scrap.

b. Refer to WP 0010 for maintenance procedures.

4. MSS Compression Stuff Sacks (No LIN)

a. Inspect for rips, tears, holes, burns, grease, oil, stains, missing or broken double bar buckles and single cord locks and discoloration or fading.

Code A. See Table 1.

Code B. Complete and clean. No damage.

Code F. No repairs authorized.

Code H. Any damage. Any contamination that cannot be cleaned.

b. No repairs authorized.

5. Self-Inflating Sleeping Mat

a. Inspect for rips, tears, holes, burns, grease, oil, stains, missing or broken double bar buckles and single cord locks and discoloration or fading.

Code A. See Table 1.

Code B. Complete and clean. No damage.

Code F. No repairs authorized.

Code H. Any damage. Any contamination that cannot be cleaned.

b. No repairs authorized.

6. Foam Sleeping Mat

a. Inspect for rips, tears, holes, burns, grease, oil, stains, missing or broken double bar buckles and single cord locks and discoloration or fading.

Code A. See Table 1.

Code B. Complete and clean. No damage.

Code F. No repairs authorized.

Code H. Any damage. Any contamination that cannot be cleaned.

b. No repairs authorized.

INSPECT – CONTINUED

Inspection of Arctic Gear

1. Military Skis (LIN T64512)
    a. Inspect for straightness, rough edges, cracks, holes, burns and gouges. Inspect for shape, delamination and sharpness of steel edges. Inspect for mildew, rot or cracks.

        Code A. See Table 1.

        Code B. Complete and clean. No damage.

        Code F. Unserviceable items that can be repaired by waxing and sharpening steel edges.

        Code H. Unserviceable items that do not meet the criteria for Code F or are scrap. Holes, cracks, or gouges reducing the overall stability or strength of ski is cause for salvage.

    b. Refer to WP 0009 for maintenance procedures.
2. Ski Binding (No LIN)
    a. Inspect bindings for frays, cracks, chips, burns, loose fasteners, malfunctioning springs and pivot points. Inspect for mildew, rot or cracks.

        Code A. See Table 1.

        Code B. Complete and clean. No damage.

        Code F. Unserviceable items that can be repaired by replacing missing screws or damaged parts. Malfunctioning release mechanisms, springs, and pivot points are cause for salvage.

        Code H. Unserviceable items that do not meet the criteria for Code F or are scrap.

    b. Refer to WP 0009 for maintenance procedures.
3. Ski Pole (LIN P15510)
    a. Inspect for straightness, cracks in shaft, and tip of pole. Check fasteners for serviceability and proper mounting. Inspect grip for looseness, cracks, frays, bums, tears or pieces of leather missing. Inspect basket for attachment, frays, tears, burns, cracks, and completeness of stitching. Inspector mildew, rot, or cracking.

        Code A. See Table 1.

        Code B. Complete, clean and unstained. No damage.

        Code F. Unserviceable items that can be repaired by replacing grips, leather strap, tip or basket.

        Code H. Cracks, severe bends or dents or dents leading to cracks or permanent deformation is cause for salvage.

    b. Refer to WP 0009 for maintenance procedures.
4. Magnesium Trail Snowshoes (LIN T89527)/Military Assault Snowshoes
    a. Inspect shoes for cracks, pits, scratches, chips or burrs. Inspect plastic coated steel for cracks, tightness, unbound ends, cut or bare steel. Inspect for mildew, rot or stains.

        Code A. See Table 1.

        Code B. Complete and clean. No damage.

        Code F. Unserviceable items that can be repaired by restringing the plastic coated wire.

        Code H. Unserviceable items that do not meet the criteria for Code F or are obviously scrap. Cracks, bends, or dents severely lessening the overall strength of shoe is cause for salvage.

    b. Refer to WP 0009 for service procedures.

INSPECT – CONTINUED

5. Snowshoe Binding
    a. Inspect bindings for frays, burns, tears, grease, oil or stains. Check metal components for cracks or corrosion. Check for damaged or broken fasteners and loose/broken stitching.

        Code A. See Table 1.

        Code B. Complete and clean. No damage.

        Code F. Unserviceable items that can be repaired attaching new webbing (minimum fraying is permissible) replacing damaged or broken fasteners. Small tears or rips (3/4 inch diameter or in length), may be replaced, no more than three per binding. Holes, rips or cracks in bottom of pivot section of the binding is cause for salvage.

        Code H. Holes, rips or cracks in bottom of pivot section of the binding. Unserviceable items that are obviously scrap or cannot meet the criteria for Code F.

    b. Refer to WP 0009 for maintenance procedures.

Inspection of Mountaineering Gear

1. Wired Snow Anchors
    a. Inspect item for loose or damaged hardware, rust or corrosion, kinks in the wires, and chips or scratches in the finish.

        Code A. See Table 1.

        Code B. No rust or corrosion. Finish is free of nicks or burrs. Wire is free of kinks.

        Code F. Unserviceable items that can be repaired by cleaning.

        Code H. Unserviceable items that do not meet the criteria for Code F or are scrap.

    b. Refer to WP 0010 for maintenance procedures.

Inspection of General Bags

1. Duffel Bag (LIN B14729)
    a. Inspect for rips, tears, holes, dry rot, mildew, missing parts, or weakened material. Check to determine if the bag has a hard-painted area for stenciling owner's name.

        Code A. See Table 1.

        Code B. Complete and clean. No damage.

        Code F. Unserviceable items that can be repaired by cleaning.

        Code H. Any damage. Any contamination that cannot be cleaned.

    b. Refer to WP 0011 for cleaning procedures.

2. Barracks Bag (LIN B13907)
    a. Inspect for missing or damaged grommets and drawstrings. Check for rips, tears, burns, snags, oil, grease or other contaminants.

        Code A. See Table 1.

        Code B. Complete and clean. No damage.

        Code F. Unserviceable items that can be repaired by cleaning.

        Code H. Any damage. Any contamination that cannot be cleaned.

    b. Refer to WP 0011 for cleaning procedures.

INSPECT – CONTINUED

3. Waterproof Clothing Bag (LIN B15825)
    a. Inspect each item for holes, tears, separated seams, or missing tie cord. Check loops to assure they are present and serviceable. Check that items is not deteriorated. Check for oil, grease, or other soiled areas. Inspect for mildew, rot, or other deterioration.

        Code A. See Table 1.

        Code B. Complete and clean. No damage other than pin holes.

        Code F. No repairs authorized

        Code H. Any damage other than pin holes. Any contamination that cannot be cleaned.

    b. Refer to WP 0011 for cleaning procedures.

Load-Bearing Equipment

1. Tactical Load-Bearing Vest (No LIN)
    a. Inspect for rips, tears, loose binding and loose or broken stitching, damaged drawstrings, oil, grease and stains. Check that all hook-and-loop tapes are undamaged. Check that all plastic and metal hardware is serviceable and undamaged.

        Code A. See Table 1.

        Code B. Complete and clean. No damage.

        Code F. Unserviceable items that can be cleaned, or can be repaired by restitching or replacing damaged or missing components.

        Code H. Unserviceable items that do not meet the criteria for Code F or are obviously scrap. Any contamination that cannot be cleaned.

    b. Refer to WP 0013 for maintenance procedures.

2. Combat Patrol Pack (No LIN)
    a. Inspect for rips, tears, loose binding and loose or broken stitching, damaged drawstrings, oil, grease and stains. Check that all hook-and-loop tapes are undamaged. Check that all plastic and metal hardware is serviceable and undamaged.

        Code A. See Table 1.

        Code B. Complete and clean. No damage.

        Code F. Unserviceable items that can be cleaned, or can be repaired by restitching or replacing damaged or missing components.

        Code H. Any unserviceable items that do not meet the criteria for Code F or are obviously scrap. Any contamination that cannot be cleaned.

    b. Refer to WP 0012 for maintenance procedures.

3. M-79 Grenade-Carrying Vest (LIN Y00790)
    a. Inspect for rips, tears, loose binding, loose or broken stitching, oil, grease, or stains. Check that hook-and-loop fastener tapes are undamaged. Check that all snap fasteners and other hardware are serviceable.

        Code A. See Table 1.

        Code B. Complete and clean. No damage.

        Code F. Unserviceable items that can be cleaned, or can be repaired by restitching or replacing damaged or missing components.

        Code H. Any Unserviceable items that do not meet the criteria for Code F or are obviously scrap. Any contamination that cannot be cleaned.

    b. Refer to WP 0012 for maintenance procedures.

INSPECT – CONTINUED

4. Large Combat Field Pack (LIN H39835)
    a. Inspect for missing or damaged hardware or drawstrings. Check for rips, tears, fraying, burns, loose binding, oil, grease, and stains.

        Code A. See Table 1.

        Code B. Complete with all attached hardware, have minimal discoloration, and clean. No damage.

        Code F. Unserviceable items that can be repaired by replacing missing or damaged parts or hardware, or by patching holes or tears or repairing binding.

        Code H. Unserviceable items that do not meet the criteria for Code F or are obviously scrap.

    b. Refer to WP 0012 and WP 0013 for maintenance procedures.

5. Medium Combat Field Pack (LIN H39835)
    a. Inspect for missing or damaged hardware or drawstrings. Check for rips, tears, fraying, burns, loose binding, oil, grease, and stains.

        Code A. See Table 1.

        Code B. Complete with all attached hardware, have minimal discoloration, and clean. No damage

        Code F. Unserviceable items that can be repaired by replacing missing or damaged parts or hardware, or by patching holes or tears or repairing binding.

        Code H. Unserviceable items that do not meet the criteria for Code F or are scrap.

    b. Refer to WP 0012 and WP 0013 for maintenance procedures.

6. Small Arms Ammunition Case (LIN D70550)
    a. Inspect item for damaged or missing parts. Check for damaged or broken plastic flap fasteners and metal parts. Check for rips, tears, holes, burns, grease, oil or other contaminants. Check inside case for missing or damaged separation straps. Cracks or splits in the plastic stiffener in the wall of the case shall not be considered unserviceable unless the stiffener interferes with placing magazines in or taking them out of the case.

        Code A. See Table 1.

        Code B. Complete and clean. No damage.

        Code F. No repairs authorized.

        Code H. Any damage. Any contamination that cannot be cleaned.

    b. This item has no repair or service procedures in this TM.

7. Individual Equipment Belt (LIN B59567)
    a. Inspect item for damaged or missing parts. Check for damage to metal parts. Check webbing for fraying or discoloration.

        Code A. See Table 1.

        Code B. Complete and clean. No damage.

        Code F. No repairs authorized.

        Code H. Any damage. Any contamination that cannot be cleaned.

    b. No repairs authorized.

INSPECT – CONTINUED

8. Individual Equipment Suspenders (LIN U73323)
    a. Inspect item for damaged or missing parts. Check for damage to metal components. Check webbing and pads for fraying, discoloration, stretched material, grease, oil, or other contamination.

       Code A. See Table 1.

       Code B. Complete and clean. No damage.

       Code F. No repairs authorized.

       Code H. Any damage. Any contamination that cannot be cleaned.

    b. This item has no repair or service procedures in this TM.

9. Entrenching Tool Carrier (LIN D11812)
    a. Check for missing or damaged keepers and snaps. Check for rips or tears in the flap or case.

       Code A. See Table 1.

       Code B. Complete, clean and undamaged except for small cuts and cracks that do not impair serviceability.

       Code F. No repairs authorized.

       Code H. Any damage. Any contamination that cannot be cleaned.

    b. This item has no repair or service procedures in this TM.

10. Field First Aid or Compass Case (LIN D64043)
    a. Inspect for rips, tears and frays.

       Code A. See Table 1.

       Code B. Complete and clean. No damage.

       Code F. No repairs authorized.

       Code H. Any damage. Any contamination that cannot be cleaned.

    b. This item has no repair or service procedures in this TM.

11. 1 Quart Canteen Cover (LIN F30391)
    a. Inspect for rips, tears, frays holes, burns, grease, oil or other contaminants.

       Code A. See Table 1.

       Code B. Complete and clean. No damage.

       Code F. Unserviceable items that can be repaired by replacing missing or damaged parts (cap, cap strap and cup).

       Code H. Unserviceable items that do not meet the criteria for Code F or are scrap.

    b. This item has no repair or service procedures in this TM.

INSPECT – CONTINUED

12. 2 Quart Canteen Cover (LIN F30117)
    a. Inspect for rips, tears, holes, fraying, and loose or broken stitching. Check the outside for “D” rings (2), plastic snap fastener, pocket hook-and-loop tape fastener, and metal grommet. Check the inside for damaged, loose, or fraying synthetic fur. Inspect for stains, grease, oil, or other contaminants.

       Code A. See Table 1.

       Code B. Complete and clean. No damage.

       Code F. No repairs authorized.

       Code H. Any damage. Any contamination that cannot be cleaned.

    b. This item has no repair or service procedures in this TM.

13. Canteen Cup (LIN F54817)
    a. Inspect for dents, abrasions, discoloration, and cleanliness. Check to see that handle is present and operable. Check to see that rivets are secure.

       Code A. See Table 1.

       Code B. Complete and clean. No damage.

       Code F. No repairs authorized.

       Code H. Any damage. Any contamination that cannot be cleaned.

    b. This item has no repair or service procedures in this TM.

Chemical Protective Equipment

1. Chemical Protective Gloves (No LIN)
    a. Inspect gloves for rips, tears, holes, and abrasions. Check to see that fingers are properly secured to glove palm and that fingertips are serviceable.

       Code A. See Table 1.

       Code B. Complete and clean. No damage.

       Code F. Unserviceable items that can be cleaned.

       Code H. Any damage. Any contamination that cannot be cleaned.

    b. Refer to WP 0014 for maintenance procedures.

2. Cover, Helmet, Chemical Protective (No LIN)
    a. Inspect cover for rips, tears, holes, and/or damaged elastic webbing enclosed in hem.

       Code A. See Table 1.

       Code B. Complete and clean. No damage.

       Code F. Unserviceable items that can be cleaned.

       Code H. Any damage. Any contamination that cannot be cleaned.

    b. Refer to WP 0014 for maintenance procedures.

END OF WORK PACKAGE

FIELD MAINTENANCE
MODULAR SLEEP SYSTEM
INSPECT, SERVICE, REPAIR

INITIAL SETUP:

Tools

Iron, Clothing (WP 0031, Item 9)
Knife, Hot Metal (WP 0031, Item 10)
Ruler, Tab, Metal, 16-inch (WP 0031, Item 20)
Sewing Machine, Bartack (WP 0031, Item 25)
Sewing Machine, Medium Duty (WP 0031, Item 34)
Shears, Tailor's (WP 0031, Item 36)
Stitch Removal Tool (WP 0031, Item 38)
Tape, Measuring (WP 0031, Item 39)

Personnel Required

Non-MOS Specific (1)

References

WP 0005
WP 0007
FM 42-414

Materials/Parts

Loop Tape 4-inch, Color FG504 (WP 0016, Item 3)
Hook Tape, 1 ½-inch Color FG504 (WP 0016, Item 4)
Cord, Elastic, Nylon, 1/8-inch Diameter, Type II, Black (WP 0016, Item 7)
Fastener, Cylinder, Spring-Loaded (WP 0016, Item 6)
Hook Tape, 4-inch Color UG505 (WP 0016, Item 9)
Hook Tape, 1 ½-inch Color UG505 (WP 0016, Item 10)
Kit, Repair, (WP 0023, Item 3)
Loop Tape, 4-inch Color UG505 (WP 0016, Item 11)

INSPECT

Perform PMCS inspection on all items IAW WP 0005, and determine serviceability IAW WP 0007.

END OF TASK

SERVICE

CAUTION

Do not starch, bleach, or dry clean. Discoloration and degradation of infrared protection capacity of the material will result.

Cleaning

Clean off mud or other foreign matter with brush, damp or dry cloth, or scrub the exceedingly dirty areas with limited amounts of water that will not saturate the insulation; then rinse off and dry.

Field Laundry

The sleeping bags will be laundered using formula II of FM 42-414. Bivy cover will be laundered using formula VIII of FM 42-414.

Machine/Hand Laundering

Sleeping bags may be machine laundered using the delicate/gentle fabric cycle or by hand, using cold water (up to 85°F/30°C) and cold water laundry detergent. Wash and rinse the bivy cover in a standard commercial washing machine at less than 100°F on gentle cycle. Rinse thoroughly in clean warm water.

CAUTION

Drying temperature for sleeping bag must not exceed 130°F (54°C) and do not press. Degradation of the component materials will result.

Drying

Tumble dry the sleeping bags at lowest fabric cycle delicate/gentle. Dry at 90°F (32°C) at no more than 2/3 capacity. Remove immediately at end of drying. Avoid over drying. To drip dry, remove from water and place on rustproof hanger. Tumble dry the bivy cover at low temperature (100°F/38°C), and remove immediately from dryer. Avoid over drying. To drip dry, remove from water and place on rustproof hanger.

END OF TASK

REPAIR

Filling Material Repair

The filling material (batting) of the MSS sleeping bags is constructed so that it will not separate or fall out unless tears or holes are large. If the bag lining cannot be patched as described below, the item should be classified code H.

Iron-on Patches and Tape

1. Cut patches to the desired size and shape such that the patch, when applied, will extend approximately 3/4 inch (1.9 cm) in all directions from the tear or damaged area. Patches will have rounded corners.
2. With the sleeping bag unzipped, place the area to be patched on a wooden or other nonmetallic surface not affected by heating or ironing.
3. Smooth out by hand. Remove any feathers on the area to be patched.
4. Pre-warm the area to be patched by pressing with a household electric dry or steam iron. Use a dry iron set initially at a low temperature. Gradually increase the iron temperature setting as needed, to avoid burning or scorching or damaging the fabric and patch material, for about five seconds.
5. Immediately cover with patching material, previously cut, in the desired size and shape.
6. Hold the iron on the patch for about eight seconds. Use only a slight rotating or reciprocal motion of the iron.
7. Allow to cool about five seconds or long enough so that the patch will not drift off when the patched bag is removed from the table. Adjust the heating, pressing, and cooling times as required for the specific iron being used.
8. Check the quality of the adhesive bond periodically, as follows; and adjust heating times and temperatures of the iron accordingly.

NOTE

A bonded patch which has a lifted edge, or which is suspected or found by the check test to be weakly bonded, may be re-ironed; that is, replacement is not required.

A small amount of patch adhesive strike-through is not objectionable for sleeping bag repair, provided the patch meets the check test.

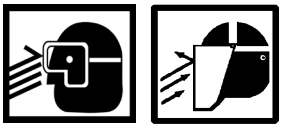
9. Test a patch that has cooled for about five minutes by picking with the fingers at an edge of the patch until a tab 1/4- to 1/2-inch (0.635 to 1.27 cm) long is formed. Pull hard on the tab with fingers. A well-bonded tab will be difficult to peel off. This will indicate that iron adjustment and time heating the patch is adequate.
10. Replace any detached patch with a new patch or re-iron the old patch.

END OF TASK

REPAIR – CONTINUED

Re-stitching

WARNING



Eye protection should be worn to protect the Soldier from flying particles when operating a sewing machine. Sewing machine needles can break with great force. Failure to wear eye protection may result in injury to eye(s).

CAUTION

Re-stitching of the bivy cover can only be done at the edge binding. Do not perform re-stitching on any seam where you cannot see both sides of the existing stitching.

Re-stitch using sewing machine, thread, and stitch listed in Table 1. Re-stitch directly over the original stitch pattern as closely as possible. Lock each row of stitching by backstitching at least 3/4 inch (1.905 cm). Maintain thread tension to prevent loose stitching.

Table 1. Sleeping Bag Stitching Requirements.

COMPONENT	RECOMMENDED SEWING MACHINE (CODE SYMBOL)	STITCHES PER INCH	TYPE	THREAD SIZE
Patrol Sleeping Bag (Color FG504)				
General Re-stitching	Medium Duty	8 to 10	301	E
Hook-and-Loop Tape Fastener	Medium Duty	8 to 12	301	E
Intermediate Sleeping Bag (Color UG505)				
General Re-stitching	Medium Duty	8 to 10	301	E
Hook-and-Loop Tape Fastener	Medium Duty	8 to 12	301	E
Bivy Cover (Color UG 505)				
General Re-stitching	Medium Duty	8 to 10	301	E
Compression Stuff Sack (Color FG504)				
General Re-stitching	Medium Duty	8 to 10	301	E

END OF TASK

REPAIR – CONTINUED

Drawcord Repair

WARNING

Exercise care when using a hot knife. Ensure cuts are made on a non-flammable surface. Failure to comply can result in serious burns to personnel.

1. Remove defective drawcord.

2. Cut a length of drawcord in accordance with Table 2, the same length as the drawcord being replaced, as required (AR).

Table 2. Drawcord Lengths.

COMPONENT	TYPE	DIAMETER	LENGTH	COLOR
Patrol Sleeping Bag				
Hood Drawcord (Face)	Elastic	1/8	AR	FG504
Hood Drawcord (Back to Front)	Elastic	1/8	AR	FG504
Zipper Pulls	Static	1/8	AR	FG504
Intermediate Sleeping Bag				
Hood Drawcord (Face)	Elastic	1/8	AR	UG505
Hood Drawcord (Back to Front)	Elastic	1/8	AR	UG505
Chest Collar	Elastic	1/8	AR	UG505
Zipper Pulls	Static	1/8	AR	UG505
Bivy Cover				
Hood Drawcord (Face)	Elastic	1/8	AR	FG504
Zipper Pulls	Static	1/8	AR	FG504
Compression Stuff Sack				
Zipper Pulls	Static	1/8	AR	FG504

3. Cut and sear ends.

4. Knot one end of drawcord with a figure-eight knot located 3/8 to 5/8 inch (0.953 to 1.588 cm) from end.

5. At one end of casing, pass unknotted end of drawstring through opening, and position drawstring within the casing with the unknotted end protruding approximately two inches from other end of casing and on opposite side.

6. Knot the other end of drawcord with a figure eight knot located 3/8 to 5/8 inch (0.953 to 1.588 cm) from end.

REPAIR – CONTINUED

7. If necessary, run drawcords through appropriate spring locks.

8. If spring locks are connected with tape, replace tape.

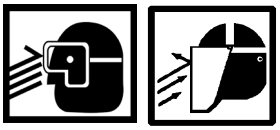
   a. Remove stitching holding tape in place.

   b. Measure and cut a new piece of tape the same size, type, and color as the original.

   c. Sear both ends of the tape.

   d. Thread the tape through the barrel lock.

WARNING



Eye protection should be worn to protect the Soldier from flying particles when operating a sewing machine. Sewing machine needles can break with great force. Failure to wear eye protection may result in injury to eye(s).

   e. Sew the tape back in the original position.

9. If one end of the drawcord is sewn in place, cut the old cord as close as possible to the seam, and re-sew new cord in same position.

END OF TASK

REPAIR – CONTINUED

Hook-and-Loop Fastener Tape Repair

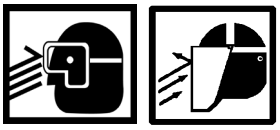
1. Remove stitching holding damaged hook-and-loop fastener tape to the component.

2. Cut a new piece of hook-and-loop fastener tape as indicated in Table 3.

Table 3. Hook-and-Loop Fastener Tape Information.

COMPONENT	TYPE	WIDTH (IN)	LENGTH (IN)	COLOR
Patrol Sleeping Bag				
Hood Closure, Right Side	Loop	1	4	FG504
Hood Closure, Left Side	Hook	1	1 1/2	FG504
Intermediate Sleeping Bag				
Hood Closure, Right Side	Loop	1	4	UG505
Hood Closure, Left Side	Hook	1	1 1/2	UG505
Chest Collar, Right Side	Loop	1	4	UG505
Chest Collar, Left Side	Hook	1	4	UG505
Chest Collar, Left Side	Loop	1	4	UG505

WARNING



Eye protection should be worn to protect the Soldier from flying particles when operating a sewing machine. Sewing machine needles can break with great force. Failure to wear eye protection may result in injury to eye(s).

3. Using the sewing machine and thread indicated in Table 1, sew the hook-and-loop fastener tape in the same position as the original.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE

ARCTIC GEAR

INSPECT, SERVICE, TEST, REPAIR

INITIAL SETUP:

Tools

File, Hand, Flat (WP 0031, Item 4)
Knife, Hot Metal (WP 0031, Item 10)
Push Drill, (WP 31, Item 19)
Ruler, Tab, Metal, 16-inch (WP 0031, Item 20)
Scraper (WP 0031, Item 22)
Sewing Machine, Bar Tack (WP 0031, Item 25)
Sewing Machine, Medium Duty (WP 0031, Item 34)
Shears, Tailor's (WP 0031, Item 36)
Stencil Cutting Machine (WP 0031, Item 37)
Stitch Removal Tool (WP 0031, Item 38)
Tape, Measuring (WP 0031, Item 39)

Personnel Required

References

WP 0005
WP 0007
ATTPS 3-97.11

Materials/Parts

Adhesive, Paste (WP 0030, Item 2)
Emery Cloth, 120 Grit (WP 0030, Item 11)
Screw, Tapping-FF-S-107 (WP 0017, Item 3)
Screw, Type A, Cadmium Plated, Steel, #8 X 3/8-Inch Long, Slotted, Pan Head (WP 0017, Item 3)
Screw, #12 X 5/8-inch Long, Slotted, Flat Head (WP 0017, Item 3)
Wax, Ski, MIL-W-1510 (WP 0030, Item 19)

INSPECT

Perform PMCS inspection on all items IAW WP 0005, and determine serviceability IAW WP 0007.

END OF TASK

SERVICE

Cleaning

Thoroughly clean each item, removing mud, dirt or other foreign matter, using a brush, cloth, steel wool, or other type of suitable cleaners. To clean molded leather, wipe with a moist cloth, apply saddle soap, working lather well into leather, rinse with sponge and clean water, and allow to air dry. Apply in well-ventilated area and thoroughly wash hands with cool water and soap after using.

Waxing Skis

Keep the running surfaces of skis well waxed at all times. This is necessary not only to help sliding and climbing but also for waterproofing, to avoid warping. Use appropriate wax, depending on type of snow on which skis are to be used. For waxing, refer to ATTPS 3-97.11, Army Tactics, Techniques, and Procedures for Cold Region Operations.

END OF TASK

REPAIR

The repair of skis (Type I), snowshoes, and accessories under normal conditions is usually of an emergency-type, consisting of tightening and/or replacing screws, steel edge, and bindings. To facilitate repair, the following items are necessary: repair kit, ski, replacement components, and bindings.

Ski Poles

Keep the steel point of ski poles sharp by filing. Turn in damaged poles for replacement.

END OF TASK

Binding Repair

1. Use a tape to measure the ski in a straight line from the tail of the ski to the tip (Figure 1).

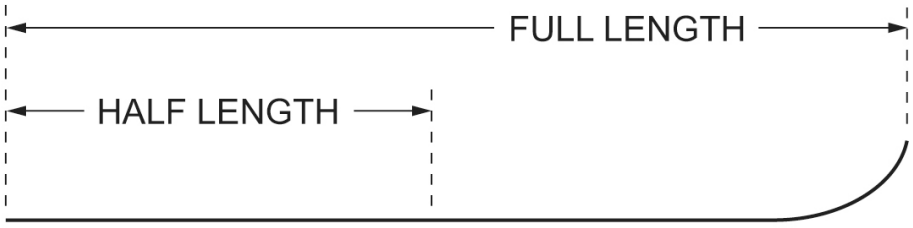


Figure 1. Finding the Ski Center.

2. Divide the total distance in half (which gives you your center or mid-point); half of an 82 3/4-inch ski, for example, would be 41 3/8 inches. Always measure from the tail of the ski (Table 1.)

SERVICE – CONTINUED

Table 1. Ski Mid-Point Chart.

SKI LENGTH	HALF LENGTH	
cm	cm	in
120	60.0	23 5/8
130	65.0	25 5/8
140	70.0	27 5/8
150	75.0	29 1/2
160	80.0	31 1/2
165	82.5	32 1/2
170	85.0	33 1/2
175	87.5	34 1/2
178	89.0	35
180	90.0	35 3/8
183	91.5	36
185	92.5	36 3/8
188	94.0	37
190	95.0	37 3/8
193	96.5	38
195	97.5	38 3/8
198	99.0	39
200	100.0	39 3/8
203	101.5	40
205	102.5	40 3/8
208	104.0	41
210	105.0	41 3/8
213	106.5	42
215	107.5	42 3/8

3. Mount the binding so that the swivel point of the toe piece is on the mid-point of the ski.

4. In mounting the toe piece, ensure that it is centered with the long axis of the ski.

NOTE

The following dimensions, locations, and notes will aid you in mounting the binding:

- Swivel point of toe piece at mid-point.
- 8 inches from swivel point of toe piece to center of rear of front throw (large).
- 7 inches from swivel point of toe piece to center of rear screw of front throw (small).
- 8 1/4 inches from swivel point of toe piece to front screw of downhill cable guide.

SERVICE – CONTINUED

- Forward edge of heel plate even with center of downhill cable guide, if heel plate is large (2 1/2 inches x 2 1/4 inches); 1 inch further rearward if small heel plate (1 1/4 inches x 2 1/4 inches).
- To determine a large front throw from a small front throw: Measure from the front mounting holes (those nearest the tip of the ski) to the back end of the lever, in the closed position. This distance is approximately 5 1/2 inches for the large throw and 4 1/2 inches for the small throw.

5. Use the toe piece, front throw, and cable guides (side hitches) as templates in marking holes to be drilled. Locate the binding parts as shown in Figure 2.

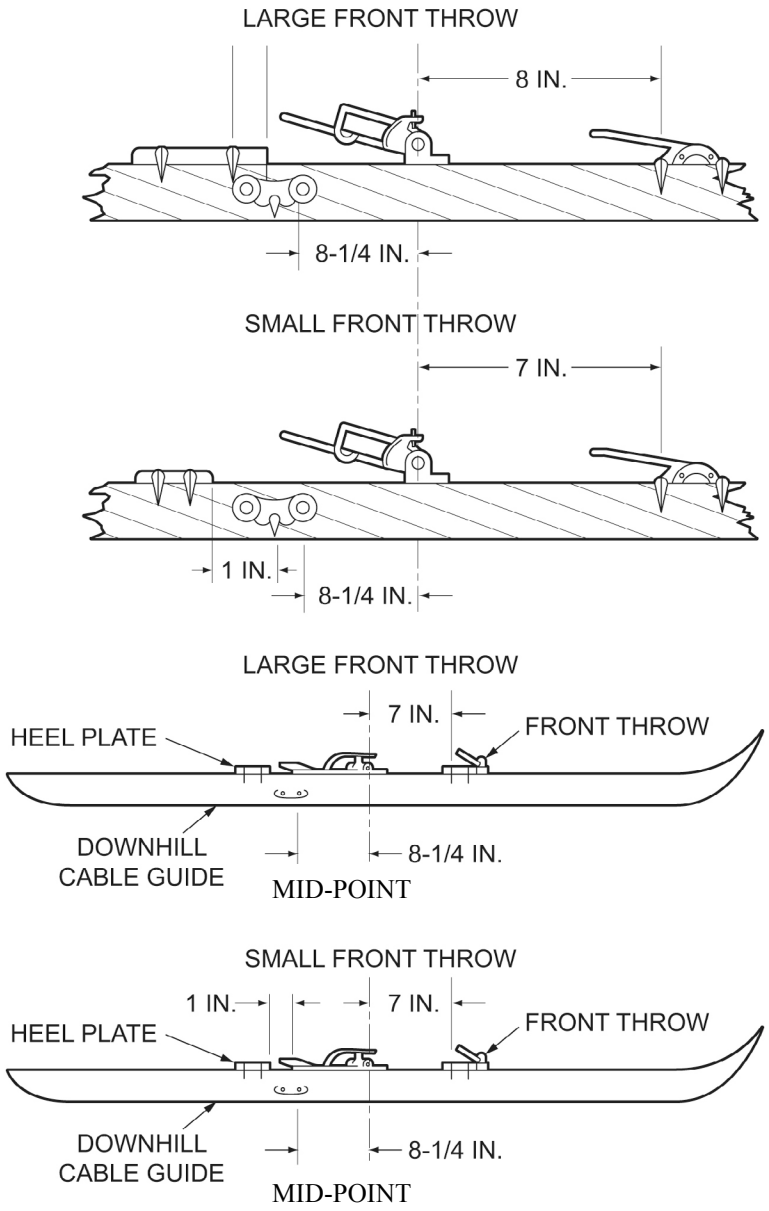


Figure 2. Binding Parts Location.

6. Center punch holes before drilling.

SKI SERVICE – CONTINUED

WARNING

Protective eyewear and gloves are required to protect personnel from metal shavings when drilling.

7. Use sharp drills to prevent walking, keep points centered, and drill at 90-degree angle to prevent oversize holes.

CAUTION

Use the right size drill for the screws used in mounting the various parts of the binding. Do not use a screw which is too long; it will act as a jack and separate the various laminations or pierce the bottom. When you have a screw that is not short enough, grind the point off to the desired length. Do not force a sheet metal screw into too small a hole, as it will cause the top skin to lift and not take a good seat (skis constructed with metal top skin).

Use some form of lubricant on the screw before insertion. Wax is effective and will help seal the hole against water seepage. When installing bindings on fiberglass skis, it is imperative that holes be countersunk through the top plastic.

8. Install bindings with high quality hardened sheet metal screws. Countersink screw hole slightly. If there were problems with the installation, go through the next steps to fix. If the installation was successful, go to step 13.
9. If a screw breaks off flush and cannot be removed with pliers, simply punch it through into the inner core of the wood or polyurethane. A new screw, usually the next larger size, can be installed in the same hole.
10. Where old shank remains embedded, the new screw will go in slightly crooked but will still do the job.
11. If a screw breaks so that the above procedure cannot be followed, it will require moving to a new hole location. In order to avoid moving the binding and drilling all new holes, a new hole can be drilled adjacent to the plugged hole, through the toe plate into the ski. Drill the right size for screw threads then countersink to receive screw head.
12. If a screw should loosen up or strip, due to an oversize hole, use any of the following procedures:
    a. Use next larger size screw.
    b. Drill a new hole through both binding and ski.
    c. Fill hole with steel wool soaked in adhesive and insert in hole; then let cure for 24 hours.
    d. If the binding is being mounted on a ski from which a binding of another type (using a different set of drilled holes) was removed, all old holes must be filled with adhesive. This will keep water from penetrating and weakening the inner core of the ski.

SKI SERVICE – CONTINUED

13. Select proper cable size IAW Table 2.

Table 2. Cable Sizing Chart.

CABLE SIZE	MOUNTAIN BOOT SIZE	VAPOR BARRIER (VB) BOOT SIZE
Short	6 and below	
Medium	7 though 13	3 N through 14 x W
Long	14 and above	

END OF TASK

Ski Pairing

Match skis in pairs for appearance, type, size, and weight. Do not re-mark for flexibility. On skis requiring rematching, obliterate the old pair numbers, and stamp new pair numbers on each ski. Skis remaining as paired by original manufacturer will retain the original numbers. Re-mark skis with faint paint numbering with the original numbers. Skis will have the proper size, length, pair number, and the letters US indented thereon. All re-marking will be placed as an original marking in an area 8 to 11 inches (20.3 to 27.9 cm) forward of binding location point, located to read from the heel of ski.

1. Place the letters “US” in characters not less than 3/8 inch (0.952 cm) or more than 1/2-inch (1.27 cm) high.
2. Identification serial numbers will be 1/4-inch (0.635 cm) high on each ski of a pair. Number pairs commencing with 0001 each year.

END OF TASK

Repair of Gouges

1. Using a scraper and 120-grit emery (aluminum-oxide abrasive) cloth, remove wax and dirt from the area to be repaired.
2. Melt the repair wax, holding it very close to the ski to prevent the wax from cooling and not bonding properly.
3. Let the wax drip into the gouge, filling slightly higher than the surrounding material. Allow the gouge to cool.
4. Remove excess material with a scraper, and smooth the surface with emery cloth.

END OF TASK

Edge Sharpening

Sharpen the edges using a flat hand file. Beginning at the tip of the ski and working toward the rear and with the file parallel with the side of the ski, remove only that amount of metal necessary to restore the square corner to the edge. Only in the event of local damage to the edge should any filing be done on the bottom of the edge. When the skis are not to be used for any period of time, the steel edges should receive a thin film of oil to prevent corrosion, and the skis should be stored in a dry place.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE
MOUNTAINEERING GEAR
INSPECT, SERVICE, REPAIR

INITIAL SETUP:

Tools

File, Hand, Flat (WP 0031, Item 4)
Knife, Hot Metal (WP 0031, Item 10)

Personnel Required

Non-MOS Specific (1)

Materials/Parts

Emery Cloth, 120 Grit (WP 0030, Item 11)

References

WP 0005
WP 0007

INSPECT

Perform PMCS inspection on all items IAW WP 0005, and determine serviceability IAW WP 0007.

END OF TASK

SERVICE

Marking

If stock numbers or size designation is in such a condition that it is apparent that it will not retain legibility when subject to wear after re-issue, then item in question must be renumbered.

Cleaning

CAUTION

Do not starch, bleach, or dry clean. Discoloration and degradation of infrared protection capacity of the material will result.

Clean off mud or other foreign matter with brush, damp, or dry cloth.

The metal components will be brushed, sanded, or ground free of burrs, edges, deep nicks, or irregularities of the striking edges or face.

END OF TASK

REPAIR

Repair operations will be performed by personnel skilled in the particular trade applicable to their duties in the repair of subject items.

The metal components will be brushed, sanded, or ground free of burrs, edges, deep nicks, or irregularities of the striking edges or face.

The handles and shafts will be finished relatively smooth without breaks, splits, or other defects which may affect serviceability of the item.

REPAIR – CONTINUED

Straps will be properly constructed and attached and present a satisfactory and serviceable appearance. Hardware that is slightly corroded or rusty will be cleaned and finished without defacing the end item.

The finished item will be complete, thoroughly clean, and free from all defects which may affect the serviceability or general appearance.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE
GENERAL BAGS
INSPECT, SERVICE

INITIAL SETUP:

Tools

Brush, Scrub (WP 0031, Item 1)

Personnel Required

Non-MOS Specific (1)

Materials/Parts

Detergents, General Purpose, Type I of MIL-D-16791 (WP 0030, Item 9)
Detergents, General Purpose, Type II of MIL-D-16791 (WP 0030, Item 10)

References

WP 0005
WP 0007
FM 42-414

INSPECT

Perform PMCS inspection on all items IAW WP 0005, and determine serviceability IAW WP 0007.

END OF TASK

SERVICE

Cleaning

With a cloth or brush, thoroughly clean each item by scrubbing with mild soap and water.

Laundry

Items will be processed in Army laundry facilities in accordance with FM 42-414. When such facilities are not available, item will be laundered by contract with private industry in accordance with accepted commercial laundry practices.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE
LOAD-BEARING EQUIPMENT
INSPECT, SERVICE, REPAIR

INITIAL SETUP:

Tools

Brush, Scrub, Household (WP 0031, Item 1)
Knife, Hot Metal (WP 0031, Item 10)
Ruler, Tab, Metal, 16-inch (WP 0031, Item 20)
Sewing Machine, Bartack (WP 0031, Item 25)
Sewing Machine, Medium Duty (WP 0031, Item 34)
Shears, Tailor's, 12-inch (WP 0031, Item 36)
Stitch Removal Tool (WP 0031, Item 38)
Tape, Measuring (WP 0031, Item 39)

Personnel Required

Non-MOS Specific (1)

References

WP 0005
WP 0007

Materials/Parts

Buckle, Non-Slip, Steel, 1-inch, Black Chemical Finish (WP 0020, Item 8)
Detergents, General Purpose, Type II of MIL-D-16791 (WP 0030, Item 10)
Fastener, Quick Release (WP 0020, Item 3)
Fastener, Snap, Style 2, Black Chemical Finish (WP 0020, Item 4)
Fastener Tapes, Pile, Type II, Class 1, 1-inch Wide (WP 0020, Item 6)
Fastener Tapes, Hook, Type II, Class 1, 1-inch Wide (WP 0020, Item 7)
Tape, Nylon, Type II, Class 2, OD-7, 1 ½-inches Wide (WP 0020, Item 9)
Tape, Nylon, Type III, Class 2, OD-7, 1-inch Wide (WP 0020, Item 2)
Webbing, Textile, Nylon, Type III, OD-7, 1-inch Wide (WP 0020, Item 5)

INSPECT

Perform PMCS inspection on all items IAW WP 0005, and determine serviceability IAW WP 0007.

END OF TASK

SERVICE

Field Cleaning

CAUTION

Do not use chlorine bleach, yellow soap, cleaning fluids or solvents. Such products will discolor and deteriorate component materials.

Do not launder or dry items in fixed, commercial/home laundry equipment. Material will be degraded.

1. Scrape dirt or mud from the equipment using a flat stick or a dull instrument which will not cut the fabric or webbing.
2. Remove loose dirt from soiled surfaces using a cloth or soft brush.
3. Clean the exceedingly dirty areas by wetting out the surface and applying a warm solution of Type II powdered laundry detergent per gallon (3.79 L) of water.
4. Scrub with soft brush, cloth, or sponge.
5. Flush the item thoroughly with clean, warm water until all the cleaning solution has been rinsed away.
6. Dry the item or equipment away from direct sunlight, direct heat, and open flames.

END OF TASK

Cleaning for Issue

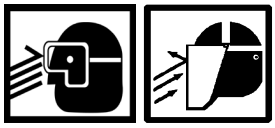
1. The equipment will be cleaned in soak and wash tanks in the same manner as other lightweight load-carrying equipment. Laundry washing machines will not be used.
2. Remove loose dirt or dust from the items to be washed using a brush, cloth, or vacuum attachment.
3. Remove staves from field pack.
4. Soak items for at least five minutes or longer as necessary in a tank containing warm water.
5. Wash the items in a solution of Type II powdered laundry detergent scrubbing vigorously with a soft brush cloth or sponge as necessary.
6. Flush the washed equipment with clean, warm water until all cleaning solution has been rinsed out.
7. Air dry the equipment away from direct sunlight and heat, or open flames.

END OF TASK

GENERAL REPAIR

Restitching

WARNING



Eye protection should be worn to protect the Soldier from flying particles when operating a sewing machine. Sewing machine needles can break with great force. Failure to wear eye protection may result in injury to eye(s).

Use machine stitching for all sewing. Re-sew loose, broken, or defective stitches using thread specified in Table 1. Maintain proper thread tension to prevent loose stitches; backstitch breaks and ends not less than 1 inch (2.54 cm) to prevent raveling. Use the types of stitches, thread size, and stitches per inch for sewing as shown in Table 1.

Table 1. Sewing Machine and Thread Chart.

COMPONENT	RECOMMENDED SEWING MACHINE (CODE SYMBOL)	STITCHES PER INCH	TYPE	THREAD SIZE
Tactical Load-Bearing Vest				
General	Medium Duty	7 to 11	301	E/F
Reinforcements	Bartack	42	301	E
Large Field Pack (Internal Frame)				
General	Medium Duty	6 to 8	301	F
Reinforcements	Bartack	28 to 42	301	E
Combat Patrol Pack				
General	Medium Duty	6 to 8	301	F
Reinforcements	Bartack	28 to 42	301	E
40mm Grenade Vest				
General	Medium Duty	7 to 11	301	E/F
Reinforcements	Bartack	42	301	E

Ends of all stitching, except box and box-x, shall be backstitched or overstitched not less than 1 inch (2.54 cm) except where ends are turned under in a hem or held down by other seams or stitching. On box and box-x stitching, all ends shall be backstitched or overstitched 1/2 inch (1.27 cm) minimum. Ends of a continuous line of stitching shall overlap not less than 1/2 inch (1.27 cm).

Thread tensions shall be not less than 1/2 inch (1.27 cm). Thread tensions shall be maintained so that there will be no loose stitching resulting in puckering of materials sewn. The lock shall be embedded in the materials sewn.

When thread breaks, skipped stitches, run-offs, or bobbin runouts occur during stitching, the stitching shall be repaired by restarting the stitching a minimum of 1 inch (2.54 cm), or 1/2 inch (1.27 cm) for box and box-x stitching, back of the interrupted stitching.

GENERAL REPAIR – CONTINUED

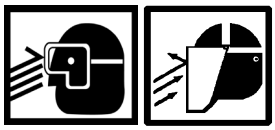
Except for prestitching, thread breaks of two or more consecutive skipped or run-off stitches noted during inspection of the item shall be repaired by overstitching. The stitching shall start a minimum of 1 inch (2.54 cm), or 1/2 inch (1.27 cm) for box and box-x stitching, in back of defective area. Continue over the defective area onto the existing stitching.

Loose or excessively tight stitching shall be repaired by removing defective stitching without damaging the materials, and restitching in the required manner.

When making above repairs, backstitching at the beginning and end of stitching is recommended.

Slide Fastener Repair

WARNING



Eye protection should be worn to protect the Soldier from flying particles when operating a sewing machine. Sewing machine needles can break with great force. Failure to wear eye protection may result in injury to eye(s).

1. Replace malfunctioning or damaged slide fasteners on the field pack, as necessary.
2. Remove damaged fasteners by carefully cutting off the fastener tape as close as possible to the outer row of stitching holding the slide fastener.
3. Trim any raveled yarns from the remaining fastener tape.
4. Attach a new fastener of appropriate length and type as specified in Table 3, using a medium duty sewing machine, size F thread and six to eight stitches per inch (2.54 cm).

END OF TASK

Snap Fastener Repair

Replace missing, loose, or damaged snap fasteners. Repair damaged area surrounding snap fastener sockets and studs prior to attaching new fasteners. A hole will be pre-punched through the material before inserting the sockets or studs. The pre-punched hole will be smaller than the outside diameter of the fastener barrel, so that the barrel must be forced through the hole. The fasteners will be securely clinched without cutting the adjacent material and no more than three splits shall occur in the button or eyelet barrels.

Drawcords and Cord Locks

WARNING

Exercise care when using a hot knife. Ensure cuts are made on a non-flammable surface. Failure to comply can result in serious burns to personnel.

Replace damaged, missing, or defective drawcords in lengths matching the original construction. Drawcord ends will be heat seared and knotted. Replace cord locks, as necessary. The specific lengths are listed in Table 2.

GENERAL REPAIR – CONTINUED

Table 2. Drawcord Lengths.

ITEM	APPLICATION	LENGTH
Vest	Width Adjustment- Side to Back Panel Connectors	72 inches (176.40 cm)
Patrol Pack	Top Compartment	30 inches (73.50 cm)
Patrol Pack	Main Compartment (2)	21 inches (51.45 cm)
Field Pack	Harness Release Assembly	6 inches (14.70 cm)
Field Pack	Spindrift Collar Assembly	45 inches (110.25 cm)
Field Pack	Right Side Pocket	14 inches (34.30 cm)
Field Pack	Pocket Flap Assembly	18 inches (44.10 cm)
Field Pack	Left Side Pocket	14 inches (34.30 cm)
Field Pack	Main Frame Assembly	61 inches (149.45 cm)

END OF TASK

Binding Tape Repair

Overlap the binding tape using material specified in Table 3, extending the new tape at least 1/2 inch (1.27 cm) beyond the damaged area. Turn the binding edges under 1/2 inch (1.27 cm), and stitch 1/8 inch (0.33 cm) in from the edge of the tape. Material lengths and widths for specific applications are listed in Table 3.

Table 3. Binding Material Lengths.

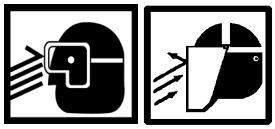
ITEM	APPLICATION	WIDTH (in.)	LENGTH (in.)
Vests	Right and Left Panel Seams	1	AR
Vests	Shoulder Strap Seams	1	AR
Vests	Back Assembly	1	AR
Vest (TLB)	Pouches (Magazine and Grenade)	1	AR
Vest (Gr)	Pouches (Grenade)	1 ½	AR
Vests	D-Ring Holder	1 ½	2
Patrol Pack	Pull Tabs	3/8	6
Patrol Pack	Pocket Flaps	1	33
Field Pack	Side Pocket (Long) Assembly	1	18
Field Pack	Side Pocket (Short) Assembly	1	11 5/8
Field Pack	Spindrift Collar	1	14 1/4
Field Pack	Basket, Radio Assembly	1	22 1/2
Field Pack	Right/Left Side Pocket Assembly	1	8
Field Pack	Pocket Flap	1	12 3/4

END OF TASK

GENERAL REPAIR – CONTINUED

Hardware Repair

WARNING



Eye protection should be worn to protect the Soldier from flying particles when operating a sewing machine. Sewing machine needles can break with great force. Failure to wear eye protection may result in injury to eye(s).

Replace damaged, missing, or malfunctioning D-rings, double bar, and quick release fasteners as necessary. Remove stitching holding damaged hardware or trim any raveled yarns from torn stitching. Cut appropriate webbing specified in Table 3, to the length indicated. Thread hardware to be replaced through webbing. Sew webbing as in original construction, and bartack as appropriate.

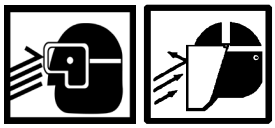
Replace Staves and Lower Back Pad

These items are removed by sliding the staves out of their tunnel and the webbing slots of the pad. Install serviceable items by reinstalling the staves.

END OF TASK

Torso Track Channel and Yoke Repair

WARNING



Eye protection should be worn to protect the Soldier from flying particles when operating a sewing machine. Sewing machine needles can break with great force. Failure to wear eye protection may result in injury to eye(s).

When the yoke does not move freely along the track channel after the screws have been loosened, or is damaged so that it cannot serve its intended function, it must be replaced. To replace the torso track, remove stitching along the damaged torso track panel. Trim any raveling yarns from the field pack back panel. Stitch the new torso track to the pack back panel using type 301 stitching, size F yarn, and six to eight stitches per inch (2.54 cm). To replace the yoke, remove stitching that holds the yoke to the shoulder straps. Trim any raveling yarns from the shoulder straps. Stitch the new yoke to the shoulder straps using type 301 stitching, size F yarn, and six to eight stitches per inch (2.54 cm). Slide new yoke onto the track from the bottom, and secure with friction screws.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE
ALL-PURPOSE LIGHTWEIGHT INDIVIDUAL CARRYING EQUIPMENT (ALICE)
INSPECT, SERVICE, REPAIR

INITIAL SETUP:

Tools

Knife, Hot Metal (WP 0031, Item 10)

Ruler, Tab, Metal, 16-inch (WP 0031, Item 20)

Sewing Machine, Bartack (WP 0031, Item 25)

Sewing Machine, Medium Duty (WP 0031, Item 34)

Shears, Tailor's (WP 0031, Item 36)

Stitch Removal Tool (WP 0031, Item 38)

Tape, Measuring (WP 0031, Item 39)

Personnel Required

Non-MOS Specific (1)

References

WP 0005

WP 0007

Materials/Parts

Cord, Fibrous, Type II (WP 0024, Item 10)

Detergents, General Purpose, Type II of MIL-D-16791 (WP 0030, Item 10)

Eyelet, Metallic, Style A, Size 4094, Black Chemical Finish (WP 0024, Item 17)

Fastener, Snap, Style 2, Black Chemical Finish (WP 0024, Item 19)

Loop, Strap Fastener, Type IV (WP 0024, Item 20)

Washer, Flat, Style A, Size 4096, Black Chemical Finish (WP 0024, Item 41)

INSPECT

Perform PMCS inspection on all items IAW WP 0005, and determine serviceability IAW WP 0007.

END OF TASK

SERVICE

Cleaning

CAUTION

Do not use chlorine bleach, yellow soap, cleaning fluids or solvents. Such products will discolor and deteriorate component materials.

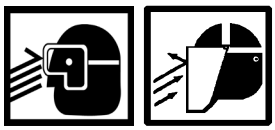
Do not launder or dry items in fixed, commercial/home laundry equipment. Material will be degraded.

1. Scrape dirt or mud from the equipment using a flat stick or a dull instrument which will not cut the fabric or webbing.
2. Remove loose dirt from soiled surfaces using a cloth or soft brush.
3. Clean the exceedingly dirty areas by wetting out the surface and applying a warm solution of Type II powdered laundry detergent per gallon (3.79 L) of water.
4. Scrub with soft brush, cloth, or sponge.
5. Flush the item thoroughly with clean, warm water until all the cleaning solution has been rinsed away.
6. Dry the item or equipment away from direct sunlight, direct heat, and open flames.

END OF TASK

LARGE AND MEDIUM RUCK REPAIR

WARNING



Eye protection should be worn to protect the Soldier from flying particles when operating a sewing machine. Sewing machine needles can break with great force. Failure to wear eye protection may result in injury to eye(s).

Restitching

Use machine stitching for all sewing. Re-sew loose, broken, or defective stitches using thread specified in Table 1. Maintain proper thread tension to prevent loose stitches, backstitch breaks, and ends not less than 1 inch (2.54 cm) to prevent raveling. Use the types of stitches, thread size, and stitches per inch for sewing as shown in Table 1.

Table 1. Sewing Machine and Thread Chart.

COMPONENT	RECOMMENDED SEWING MACHINE (CODE SYMBOL)	STITCHES PER INCH	TYPE	THREAD SIZE
Large Ruck				
General	Medium Duty	8 to 10	301	F
Reinforcements	Bartack	28	301	E
Medium Ruck				
General	Medium Duty	8 to 10	301	F
Reinforcements	Bartack	28	301	E

LARGE AND MEDIUM RUCK REPAIR – CONTINUED

Darning

Darn rips, tears, and holes in areas one inch (2.54 cm) or less in greatest dimension. There is no limit to the number of darns which may be applied.

END OF TASK

Patching

Patch rips, tears, and holes exceeding 1 inch (2.54 cm) with a single patch of nylon cloth using thread as specified in Table 1.

1. Cut the patch of sufficient size to extend at least 1/2 inch (1.27 cm) beyond the hole or area to be patched, allowing for a 3/8-inch (0.952 cm) turn under.
2. Place the patch on the outside and sew it 1/8 inch (0.318 cm) from the edge of the patch.
3. Cut away the damaged area to a square or rectangular shape, depending upon the shape of the hole.
4. Turn the raw edges under 3/8-inch (0.952 cm).
5. Using a medium duty sewing machine, size F thread, 8 to 10 stitches per inch, sew 1/8 inch (0.318 cm) from the edge.

END OF TASK

Binding Tape Repair

Overlap the binding tape using nylon tape.

1. Place marks at least 1/2 inch (1.27 cm) from both edges of the damaged area.
2. Measure between the marks.
3. Cut a new piece of 1-inch wide nylon tape the length of the measurement in step 2.
4. Sear the cut ends of the tape.
5. Place the new tape between the marks made in step 1.
6. Turn the binding edges under 1/2 inch (1.27 cm).
7. Using a medium duty sewing machine, size E thread, 8 to 10 stitches per inch, sew 1/8 inch (0.318 cm) in from edge of tape, with a 1/2-inch overstitch.

END OF TASK

Securing Strap Buckle Repair

1. Carefully cut and remove stitching for a distance of 2 inches (5.08 cm) from the buckle end.
2. Cut the single bottom layer of the strap webbing and discard buckle.
3. Sear cut ends of webbing.
4. Replace with new buckle.
5. Secure webbing by stitching with 1 ½-inch (3.81 cm) three-point WW stitch pattern 1/2 inch (1.27 cm) from folded webbing edge.

END OF TASK

LARGE AND MEDIUM RUCK REPAIR – CONTINUED

Radio Pocket Strap Repair

1. Cut stitching which secures the strap to the pack.
2. Cut a 12-inch (30.5 cm) length of new webbing, with one end diagonally cut and sear ends.
3. Place the buckle strap in the original location and secure the webbing by stitching with one row of stitching.

END OF TASK

Frame Buckle Chape Repair

1. Cut stitch pattern which secures the chape (tongue of buckle) to the pack and discard.
2. Cut a 4-inch (10.2 cm) length of new webbing and sear ends. If buckle is damaged, discard and replace.
3. Fold webbing 1/2 and 2 1/2 inches (1.27 and 6.35 cm) from one end.
4. Place the buckle chape in the original location, and secure the webbing with a 1 ½-inch (3.81 cm) three-point WW stitch pattern.

END OF TASK

Strap Pocket Repair

1. Replace by cutting webbing and remove from buckle and discard.
2. Cut a 14 1/2-inch (36.8 cm) length of webbing.
3. Sear both ends.
4. Fold webbing 3 1/4 inches (8.26 cm), and stitch with one row 1/8 inch (0.318 cm) from edge around folded strap.
5. Install a new snap fastener (with proper-sized dies) according to the original construction and locations.
6. Thread webbing through buckle as other pocket straps, double-fold free end of webbing 1/2-inch (1.27 cm) length, and stitch with one 3/4-inch (1.91 cm) bartack or three rows of stitching in the center of the fold.

END OF TASK

Loop Chape Repair

1. Cut the webbing as close to the 1-inch (2.54 cm) reinforcement webbing as possible.
2. Cut a 5-inch (12.7 cm) length of new webbing.
3. Sear ends or replace loop.
4. Fold webbing 1/2 and 2 1/2 inches (1.27 and 6.35 cm) from one end.
5. Place the loop chape on top of the original, and secure the webbing with a 1 1/2-inch (3.81 cm) three-point WW stitch pattern.
6. Stitch with one, 1-inch (2.54 cm) bartack or three rows of stitching 1/8 inch (0.318 cm) from edge of 1-inch (2.54 cm) reinforcement webbing (stitching should be sewn through reinforcement webbing).

END OF TASK

LARGE AND MEDIUM RUCK REPAIR – CONTINUED

Frame Tie-down Strap

1. Replace strap by carefully cutting off the webbing as close to the bartack as possible.
2. Cut a 14 1/2-inch (36.8 cm) length of new webbing with one end at an angle.
3. Fold end 1/2 inch (1.27 cm), and stitch with a 1 1/2-inch (3.81 cm) three-point WW stitch, positioned on top of the cut, original tie-down strap.

END OF TASK

D-Ring Chape Repair (Medium Ruck Only)

1. Replace by carefully cutting off the webbing as close to the bartack as possible.
2. Cut a 3-inch (7.62 cm) length of webbing, and sear ends, or replace D-ring.
3. Fold webbing in half with D-ring in center. Place the chape on top of the original location of D-ring, and secure the webbing with two, 1-inch (2.54 cm) bartacks, located close to the D-ring and 3/16 inch (0.476 cm) from the seared edges.

END OF TASK

Lower Equipment Hanger Repair (Medium Ruck Only)

1. Carefully cut webbing 5/8 inch (1.59 cm) from the pocket side seam, and cut stitching which secures the hanger to the pack.
2. Cut a 6 1/2-inch (16.5 cm) length of webbing.
3. Sear both ends.
4. Make a mark 3 1/4 inches (8.26 cm) for the center line location. From the center line, make a mark 1 1/4 inches (3.18 cm) from each side and 1/2 inch (1.27 cm) from webbing edge. Install a new eyelet and washer (with proper-sized dies).
5. Fold webbing 1/2 inch (1.27 cm) on each end, and position as in original location, and stitch with a 1/2-inch (1.27 cm) wide box stitch on the folded ends and center of the hanger.

END OF TASK

Keeper Repair

1. Carefully cut stitching which secures the keeper to the side or bottom of the pack.
2. Cut a 2 3/8-inch (6.03 cm) length of webbing.
3. Sear both ends.
4. Fold webbing 1/2 inch (1.27 cm) on each end, and position as in original location, and stitch with two, 1 inch (2.54 cm) bartacks or three rows of stitching.

END OF TASK

LARGE AND MEDIUM RUCK REPAIR – CONTINUED

Upper Equipment Hanger Repair (Medium Ruck Only)

1. Cut a length of webbing of sufficient length to overlap the stitch patterns 1/2 inch (1.27 cm).
2. Sear both ends.
3. Fold webbing 1/2 inch (1.27 cm) on each end, and position over damaged section, and stitch with a 1/2-inch (1.27 cm) wide box stitch 1/8 inch (0.318 cm) from the folded ends.

END OF TASK

Drawstring Repair

1. Remove cord from grommets and plastic clamp cord.
2. Cut a 55-inch (140 cm) (large ruck) or a 72-inch (183 cm) (medium ruck) length of cord.
3. Thread cord through the back panel center two grommets, and tie with a square knot on the outside.
4. Thread each cord end through the six grommets.
5. Thread each end of cord through plastic clamp cord, tie with overhand knot, and sear ends.

END OF TASK

Upper and Lower Equipment Hanger Repair (Large Ruck Only)

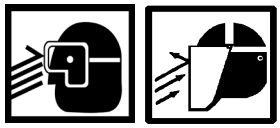
1. Carefully cut stitching which secures the hanger to the pack.
2. Cut a 6-inch (15.2 cm) length of webbing.
3. Sear both ends.
4. Make a mark 3 inches (7.62 cm) for the center line location. From the center line, make a mark 1 1/4 inches (3.18 cm) from each side 1/2 inch (1.27 cm), from webbing edge.
5. Install a new eyelet and washer (with proper-sized dies).
6. Fold webbing 1/2 inch (1.27 cm) on each end, and position as in original location, and stitch with two, 1-inch (2.54 cm) bartacks or three rows of stitching on the folded ends and center of the hanger.

END OF TASK

FIELD PACK COVER REPAIR

WARNING

Solvents, cleaners, and adhesives are toxic, and may be flammable and explosive. Wear protective goggles and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes and don't breathe vapors. Do not use near open flame or excessive heat. If you become dizzy, get fresh air immediately and get medical aid. If contact with eyes or skin is made, immediately flush with clean water and get medical aid for eyes immediately.



Eye protection should be worn to protect the Soldier from flying particles when Operating a sewing machine. Sewing machine needles can break with great force.
Failure to wear eye protection may result in injury to eye(s).

Elastic Cord Repair

1. Carefully cut stitching on hem for a distance of approximately 3 inches (7.62 cm), and cut cord.
2. Cut a 40-inch (102 cm) length of elastic cord.
3. Dip cut ends of cord in adhesive by at least 1/2 inch (1.27 cm).
4. Attach heavy string to existing cord in channel and new cord with a square knot.
5. Pull existing cord and string until new cord ends are at hem opening.
6. Remove string, and overlap cord ends 1 1/2 inches (3.81 cm) and clamp (with proper-sized dies).
7. Restitch hem as in original, overlapping stitching a minimum of 1 inch (2.54 cm).

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE
CHEMICAL PROTECTIVE EQUIPMENT
INSPECT, SERVICE

INITIAL SETUP:

Tools	Personnel Required
N/A	Non-MOS Specific (1)
Materials/Parts	**References**
N/A	FM 3-11.5
	WP 0005
	WP 0007

INSPECT

Perform PMCS inspection on all items IAW WP 0005, and determine serviceability IAW WP 0007.

END OF TASK

SERVICE

Cleaning

Refer to FM 3-11.5 for CBRN Decontamination of protective clothing ensembles.

END OF TASK

END OF WORK PACKAGE

CHAPTER 4

PARTS INFORMATION
FOR
GENERAL REPAIR PROCEDURES
FOR
INDIVIDUAL EQUIPMENT

PARTS INFORMATION
REPAIR PARTS AND SPECIAL TOOLS LIST (RPSTL)

INTRODUCTION

SCOPE

This RPSTL lists the authorized spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMDE); and other special support equipment required for performance of field maintenance of Organizational Clothing and Individual Equipment (OCIE). It authorizes the requisitioning, issue, and disposition of spares, repair parts, and special tools as indicated by the source, maintenance, and recoverability (SMR) codes.

GENERAL

In addition to the Introduction work package, this RPSTL is divided into the following work packages.

1. Repair Parts List Work Packages. Work packages containing lists of spares and repair parts authorized for use in the performance of maintenance at the levels determined by the MAC/SMR code. These work packages also include 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. Sending units, brackets, filters, and bolts are listed with the component they mount on. Bulk materials are listed by item name in the Bulk Items work package which follows RPSTL WP 0023. Repair parts kits are listed separately in their own functional group and work packages. Repair parts for reparable special tools are also listed in a separate work package. Items listed are shown on the associated illustrations.

2. Bulk Items Work Package. This work package lists all items identified as ‘bulk’ in the parts lists. Due to the nature of bulk items, this work package does not include a Figure.

3. Cross-Reference Indexes Work Packages. There are two cross-reference indexes work packages in this RPSTL. The National Stock Number Index work package refers you to the Figure and item number for each NSN listed in the RPSTL. The Part Number Index work package refers you to the Figure and item number for each part number listed in the RPSTL.

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LIST AND SPECIAL TOOLS LIST WORK PACKAGES

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

SMR CODE (Column 2). The SMR code containing supply/requisitioning information, maintenance level authorization criteria, and disposition instruction, as shown in the following breakout. This entry may be subdivided into 4 subentries, one for each service.

TABLE 1. SMR Code Explanation.

Source Code	Maintenance Code		Recoverability Code
XX	XX		X
1st two positions:	3rd position:	4th position:	5th position:
How to get an item.	Who can install, replace, or use the item.	Who can do complete repair on the item.	Who determines disposition action on unserviceable items.

NOTE

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.

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LIST AND SPECIAL TOOLS LIST WORK PACKAGES — CONTINUED

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

TABLE 2. Source Code Explanation.

Source Code	Application/Explanation
PA PB PC PD PE PF PG PH PR PZ	Stock items; use the applicable NSN to requisition/request items with these source codes. They are authorized to the level indicated by the code entered in the third position of the SMR code. **NOTE** Items coded PC are subject to deterioration.
KD KF KB	Items with these codes are not to be requested/requisitioned individually. They are part of a kit that is authorized to the maintenance level indicated in the third position of the SMR code. The complete kit must be requisitioned and applied.
MF-Made at maintainer class MH-Made at below depot sustainment class ML-Made at SRA MD-Made at depot MG-Navy only	Items with these codes are not to be requisitioned/requested individually. They must be made from bulk material which is identified by the P/N in the DESCRIPTION AND USABLE ON CODE (UOC) entry and listed in the bulk material group work package of the RPSTL. If the item is authorized to you by the third position code of the SMR code, but the source code indicates it is made at higher level, order the item from the higher level of maintenance.
AF-Assembled by maintainer class AH-Assembled by below depot sustainment class AL-Assembled by SRA AD-Assembled by depot AG-Navy only	Items with these codes are not to be requested/requisitioned individually. The parts that make up the assembled item must be requisitioned or fabricated and assembled at the level of maintenance indicated by the source code. If the third position of the SMR code authorizes you to replace the item, but the source code indicates the item is assembled at a higher level, order the item from the higher level of maintenance.
XA	Do not requisition an "XA" coded item. Order the next higher assembly. (Refer to NOTE below.)
XB	If an item is not available from salvage, order it using the CAGEC and P/N.
XC	Installation drawings, diagrams, instruction sheets, field service drawings; identified by manufacturer's P/N.
XD	Item is not stocked. Order an XD-coded item through local purchase or normal supply channels using the CAGEC and P/N given, if no NSN is available.

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LIST AND SPECIAL TOOLS LIST WORK PACKAGES — CONTINUED

NOTE

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

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

Third Position. The maintenance code entered in the third position tells you the lowest maintenance class authorized to remove, replace, and use an item. The maintenance code entered in the third position will indicate authorization to the following classes of maintenance:

Maintenance Code	**Application/Explanation**
C -	Crew
F -	Maintainer maintenance can remove, replace, and use the item.
H -	Below Depot Sustainment maintenance can remove, replace, and use the item.
L -	Specialized repair activity can remove, replace, and use the item.
G -	Afloat and ashore intermediate maintenance can remove, replace, and use the item (Navy only).
K -	Contractor facility can remove, replace, and use the item.
Z -	Item is not authorized to be removed, replaced, or used at any maintenance level.
D -	Depot can remove, replace, and use the item.

NOTE

Army will use C in the third position. However, for joint service publications, other services may use O.

Fourth Position. The maintenance code entered in the fourth position tells you whether or not the item is to be repaired and identifies the lowest maintenance class with the capability to do complete repair (perform all authorized repair functions).

Maintenance Code	**Application/Explanation**
C -	Crew (operator) is the lowest class that can do complete repair.
F -	Maintainer is the lowest class that can do complete repair of the item.
H -	Below Depot Sustainment is the lowest class that can do complete repair of the item.
L -	Specialized repair activity *(enter specialized repair activity designator)* is the lowest class that can do complete repair of the item.
D -	Depot is the lowest class that can do complete repair of the item.

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LIST AND SPECIAL TOOLS LIST WORK PACKAGES — CONTINUED

Maintenance Code	Application/Explanation
G -	Both afloat and ashore intermediate levels are capable of complete repair of item. (Navy only.)
K -	Complete repair is done at contractor facility.
Z -	Nonreparable. No repair is authorized.
B -	No repair is authorized. No parts or special tools are authorized for maintenance of "B" coded item. However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

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

Recoverability Code	Application/Explanation
Z -	Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in the third position of the SMR code.
F -	Reparable item. When uneconomically reparable, condemn and dispose of the item at the field level.
H -	Reparable item. When uneconomically reparable, condemn and dispose of the item at the below depot sustainment.
D -	Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item are not authorized below depot.
L -	Reparable item. Condemnation and disposal not authorized below Specialized Repair Activity (SRA).
A -	Item requires special handling or condemnation procedures because of specific reasons (such as precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.
G -	Field level reparable item. Condemn and dispose at either afloat or ashore intermediate levels (Navy only).
K -	Reparable item. Condemnation and disposal to be performed at contractor facility.

NSN (Column (3)). The NSN(s) for the item is listed in this column.

CAGEC (Column (4)). The Commercial and Government Entity Code (CAGEC) is a five-digit code which is used to identify the manufacturer, distributor, or Government agency/activity that supplies the item.

PART NUMBER (Column (5)). Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications, standards, and inspection requirements to identify an item or range of items.

NOTE

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

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LIST AND SPECIAL TOOLS LIST WORK PACKAGES — CONTINUED

DESCRIPTION AND USABLE ON CODE (UOC) (Column (6)). This column includes the following information:

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

2. Part numbers of any bulk materials required if the item is to be locally manufactured or fabricated.

3. Hardness Critical Item (HCI). Items that require special handling or procedures to ensure protection against electromagnetic pulse (EMP) damage are marked with the letters ‘HCI.’

4. The statement ‘END OF FIGURE’ appears below the last item description in column (6) for each Figure in the repair parts list, special tools repair parts, kits, bulk items, and special tools list work packages.

5. Refer to Usable on Code details presented later in this work package under SPECIAL INFORMATION.

QTY (Column (7)). The QTY (quantity per Figure) column indicates the quantity of the item used in the breakout shown on the illustration/Figure. A "V" appearing in this column instead of a quantity indicates that the quantity is variable and quantity may change from application to application.

EXPLANATION OF CROSS-REFERENCE INDEXES WORK PACKAGES FORMAT AND COLUMNS

1. National Stock Number (NSN) Index Work Package. NSNs in this index are listed in National Item Identification Number (NIIN) sequence.

STOCK NUMBER Column. This column lists the NSN in NIIN sequence. The NIIN consists of the last nine digits of the NSN. When using this column to locate an item, ignore the first four digits of the NSN. However, the complete NSN should be used when ordering items by stock number.

For example, if the NSN is 5385-01-574-1476, the NIIN is 01-574-1476.

FIG. Column. This column lists the number of the Figure where the item is identified/located. The Figures are in numerical order in the repair parts list and special tools list work packages.

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.

2. Part Number (P/N) Index Work Package. Part numbers in this index are listed in ascending alphanumeric sequence (vertical arrangement of letter and number combinations which places the first letter or digit of each group in order A through Z, followed by the numbers 0 through 9 and each following letter or digit in like order).

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

FIG. Column. This column lists the number of the Figure where the item is identified/located in the repair parts list and special tools list work packages.

ITEM Column. The item number is the number assigned to the item as it appears in the Figure referenced in the adjacent Figure number column.

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LIST AND SPECIAL TOOLS LIST WORK PACKAGES — CONTINUED

SPECIAL INFORMATION

UOC. The UOC appears in the lower left corner of the Description Column heading. Usable on codes are shown as "UOC:" in the Description Column (justified left) on the first line under the applicable item/nomenclature. Uncoded items are applicable to all models.

Fabrication Instructions. Bulk materials required to manufacture items are listed in the bulk material work package of this RPSTL. Part numbers for bulk material are also referenced in the Description Column of the line item entry for the item to be manufactured/fabricated. Detailed fabrication instructions for items source coded to be manufactured or fabricated are found in the applicable maintenance WP.

Index Numbers. Items which have the word BULK in the Figure column will have an index number shown in the item number column. This index number is a cross-reference between the NSN/Part Number (P/N) Index work packages and the bulk material list in the bulk items work package.

HOW TO LOCATE REPAIR PARTS

1. When NSNs or Part Numbers Are Not Known.

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

Second. Find the Figure covering the functional group or the subfunctional group to which the item belongs.

Third. Identify the item on the Figure and note the number(s).

Fourth. Look in the repair parts list work packages for the Figure and item numbers. The NSNs and part numbers are on the same line as the associated item numbers.

2. When NSN Is Known.

First. If you have the NSN, look in the STOCK NUMBER column of the NSN index work package. The NSN is arranged in NIIN sequence. Note the Figure and item number next to the NSN.

Second. Turn to the Figure and locate the item number. Verify that the item is the one for which you are looking.

3. When Part Number Is Known.

First. If you have the part number and not the NSN, look in the PART NUMBER column of the part number index work package. Identify the Figure and item number.

Second. Look up the item on the Figure in the applicable repair parts list work package.

END OF WORK PACKAGE

FIELD
PARTS INFORMATION
MODULAR SLEEP SYSTEM

MODULAR SLEEP SYSTEM – CONTINUED

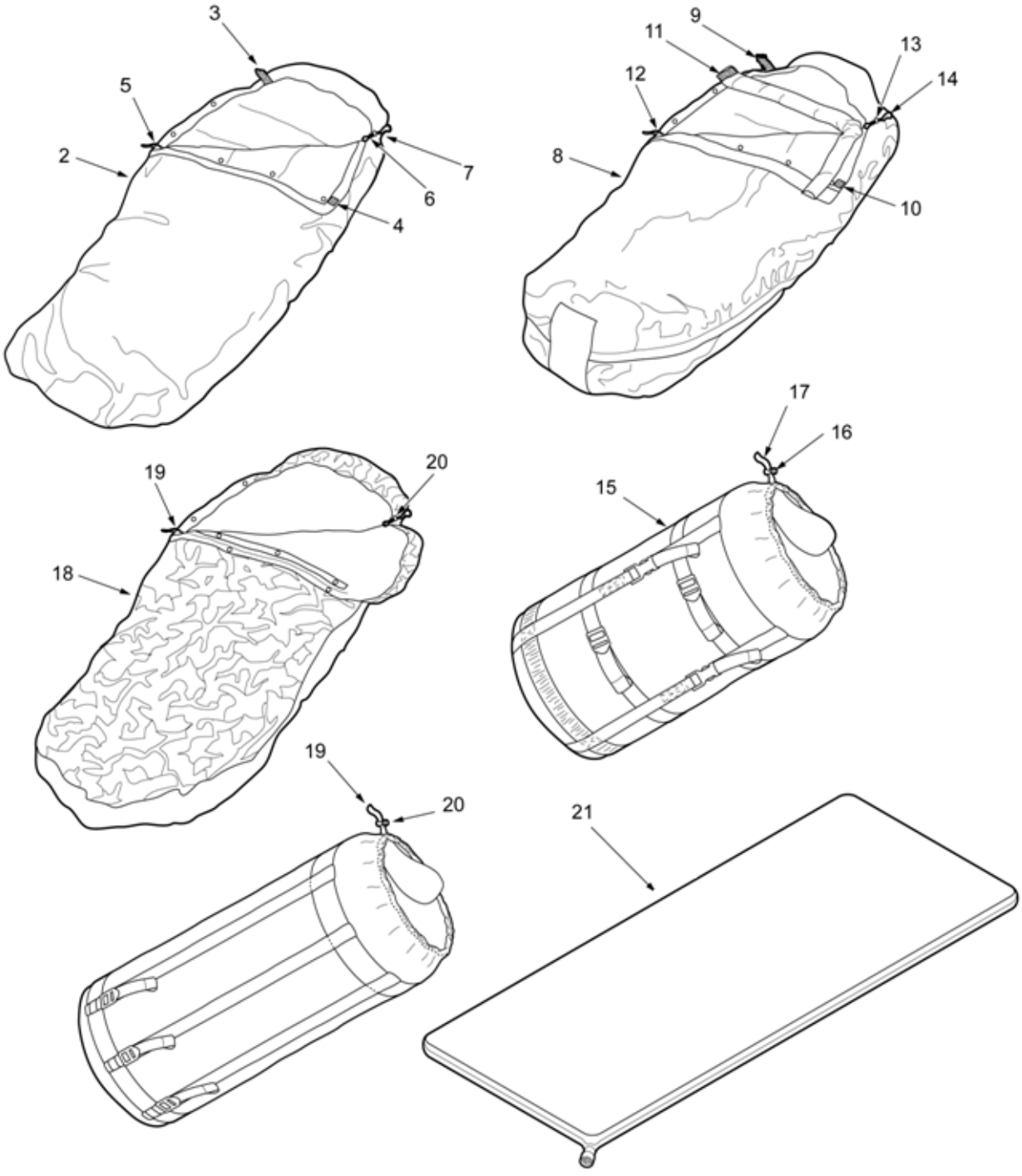


Figure 1. Modular Sleep System.

MODULAR SLEEP SYSTEM – CONTINUED

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 01 MODULAR SLEEP SYSTEM FIG. 1 MODULAR SLEEP SYSTEM	
1	PAFFF	8465-01-445-6274	58536	A-A-55262	MODULAR SLEEP SYSTEM	1
2	PAFZZ	8465-01-398-0685	58536	A-A-55262	.SLEEPING BAG, PATROL	1
3	XDFZZ		8T804	A-A-55126	..LOOP TAPE 4-INCH, COLOR FG 504	AR
4	XDFZZ		8T804	A-A-55126	..HOOK TAPE, 1 ½-INCH COLOR FG504	AR
5	PHFZZ	4020-00-262-2019	81349	MIL-C-5040	..ZIPPER PULL, MAKE FROM: CORD, ELASTIC, NYLON, 1/8 INCH DIAMETER, TYPE II, BLACK.	AR
6	PBFZZ	5340-01-393-4890	02768	302-0000-5614	..FASTENER, CYLINDER, SPRING LOADED	1
7	PBFZZ	4020-00-262-2019	81349	MIL-C-5040	..CORD, ELASTIC, NYLON, 1/8 INCH DIAMETER, TYPE II, BLACK. CUT TO 38 INCHES	AR
8	PZFFF	8465-01-398-0687	58536	A-A-55262	.SLEEPING BAG, INTERMEDIATE COLD WEATHER	1
9	XDFZZ		8T804	A-A-55126	..HOOK TAPE, 4-INCH COLOR UG505	AR
10	XDFZZ		8T804	A-A-55126	..HOOK TAPE, 1 ½-INCH COLOR UG 505	AR
11	XDFZZ		8T804	A-A-55126	..LOOP TAPE, 4-INCH COLOR UG505	AR
12	PBFZZ	4020-00-262-2019	81349	MIL-C-5040	..ZIPPER PULL, MAKE FROM: CORD, ELASTIC, NYLON, 1/8 INCH DIAMETER, TYPE II, BLACK.	AR
13	PBFZZ	5340-01-393-4890	02768	302-0000-5614	..FASTENER, CYLINDER, SPRING LOADED	1
14	PBFZZ	4020-00-262-2019	81349	MIL-C-5040	..CORD, ELASTIC, NYLON, 1/8 INCH DIAMETER, TYPE II, BLACK. CUT TO 38 INCHES	AR
15	PBFZZ	8465-01-398-5428	58536	A-A-55262	.STUFF SACK, COMPRESSION	1
16	PBFZZ	5340-01-393-4890	02768	302-0000-5614	..FASTENER, CYLINDER, SPRING LOADED	1

MODULAR SLEEP SYSTEM – CONTINUED

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
17	PBFZZ	4020-00-262-2019	81349	MIL-C-5040	..CORD, ELASTIC, NYLON, 1/8 INCH DIAMETER, TYPE II, BLACK. CUT TO 38 INCHES	AR
18	PBFZZ	8465-01-416-8517	99994	PD-95-04	.BIVY COVER	1
19	PBFZZ	4020-00-262-2019	81349	MIL-C-5040	..ZIPPER PULL, MAKE FROM: CORD, ELASTIC, NYLON, 1/8 INCH DIAMETER, TYPE II, BLACK.	AR
20	PBFZZ	5340-01-393-4890	02768	302-0000-5614	..FASTENER, CYLINDER, SPRING LOADED	1
21	PAFFF	8465-01-393-6515	58536	A-A-55074	MAT, SLEEPING, SELF-INFLATING	1
					END OF FIGURE	

FIELD

PARTS INFORMATION

ARCTIC GEAR

ARCTIC GEAR – CONTINUED

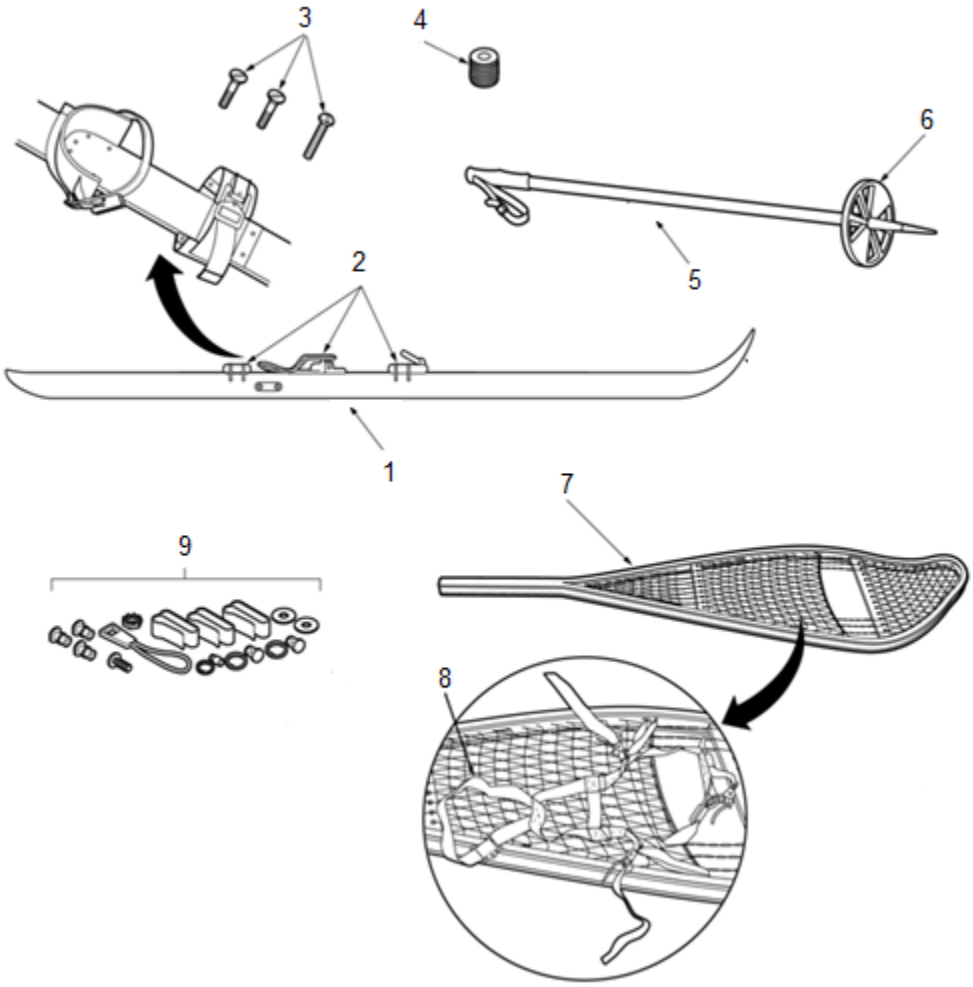


Figure 2. Arctic Gear.

ARCTIC GEAR – CONTINUED

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 02 ARCTIC GEAR **FIG. 2 ARCTIC GEAR**	
1	PAFZZ	5465-01-085-1935	58230	TRUCKER MODEL	SKIS, CROSS-COUNTRY	
2	PAFZZ				BINDING, SKI (LOCAL PURCHASE: SILVRETTA ALPINE TOURING BINDING)	
3	PAFZZ				.SCREW, TAPPING-FF-S-107	
3	PAFZZ				.SCREW, TYPE A, CADMIUM PLATED, STEEL, #8 X 3/8-INCH LONG, SLOTTED, PAN HEAD	
3	PAFZZ				.SCREWS, #7 X 5/8-INCH LONG, SLOTTED, ROUND HEAD	
3	PAFZZ				.SCREW, #12 X 5/8-INCH LONG, SLOTTED, FLAT HEAD	
4	PAFZZ	9505-00-288-6400	81346	ASTM A853	.WIRE, NON-ELECTRICAL	
5	PAFZZ	8465-00-753-6145	81349	MIL-P-41806	POLE, SKI (53-INCH)	
5	PAFZZ	8465-00-753-6142	81349	MIL-P-41806	POLE, SKI (58-INCH)	
6	PAFZZ	8465-00-753-5962	81349	MIL-P-41806	.SNOW RING, SKI POLE	
7	PAFFF	8465-00-965-2174	81349	MIL-C-1780	SNOWSHOES	
8	PBFZZ	8465-01-558-6863	0CCM0	469030	.BINDING, ASSEMBLY, SNOWSHOE (LEFT)	
8	PBFZZ	8465-01-558-6896	0CCM0	469029	.BINDING, ASSEMBLY, SNOWSHOE (RIGHT)	
9	PBFZZ	8465-01-558-7688	0CCM0	469731	.KIT, CLEVIS PIN, SNOWSHOE	
					END OF FIGURE	

FIELD

PARTS INFORMATION

MOUNTAINEERING GEAR

MOUNTAINEERING GEAR – CONTINUED

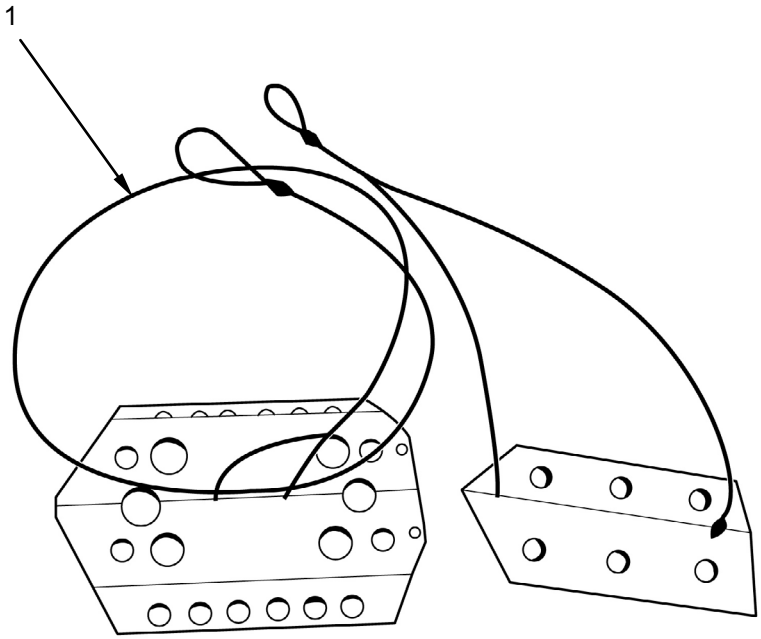


Figure 3. Mountaineering Gear.

MOUNTAINEERING GEAR – CONTINUED

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 03 MOUNTAINEERING GEAR **FIG. 3 MOUNTAINEERING GEAR**	
1	PAFZZ	8465-01-319-4685	58536	A-A-50119	ANCHOR, MOUNTAIN, SNOW, WIRED, SIZE I	1
					END OF FIGURE	

FIELD

PARTS INFORMATION

GENERAL BAGS

GENERAL BAGS – CONTINUED

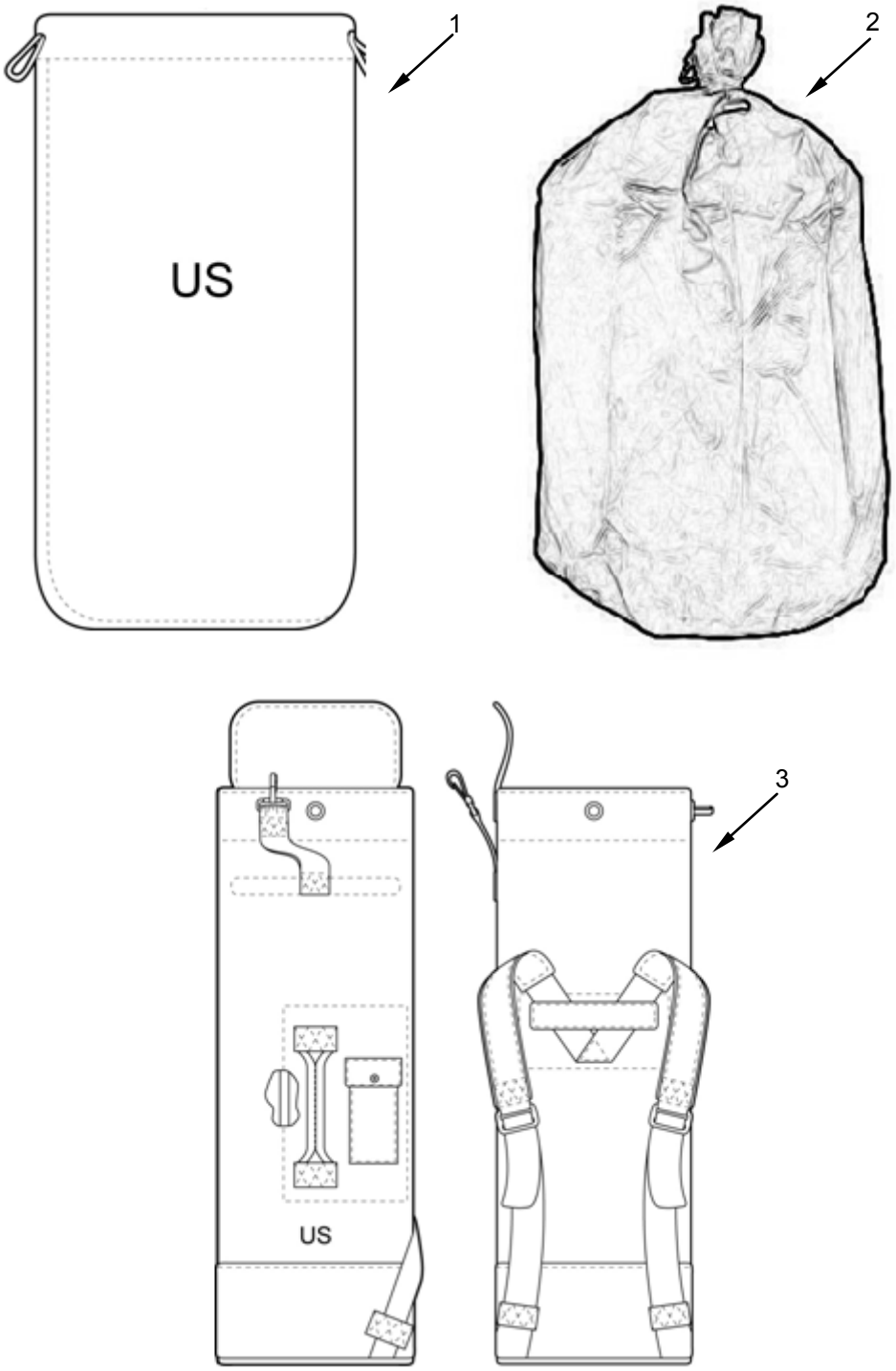


Figure 4. General Bags.

GENERAL BAGS – CONTINUED

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 04 GENERAL BAGS FIG. 4 GENERAL BAGS	
1	PAFZZ	8465-00-530-3692	81349	MIL-B-2378	BAG, BARRACKS	1
2	PAFZZ	8465-01-558-9958	0CCM0	335201	BAG, CLOTHING (WATERPROOF)	1
3	PAFZZ	8465-01-117-8699	81349	MIL-B-829	BAG, DUFFEL	1
					END OF FIGURE	

FIELD
PARTS INFORMATION
LOAD-BEARING EQUIPMENT

LOAD-BEARING EQUIPMENT – CONTINUED

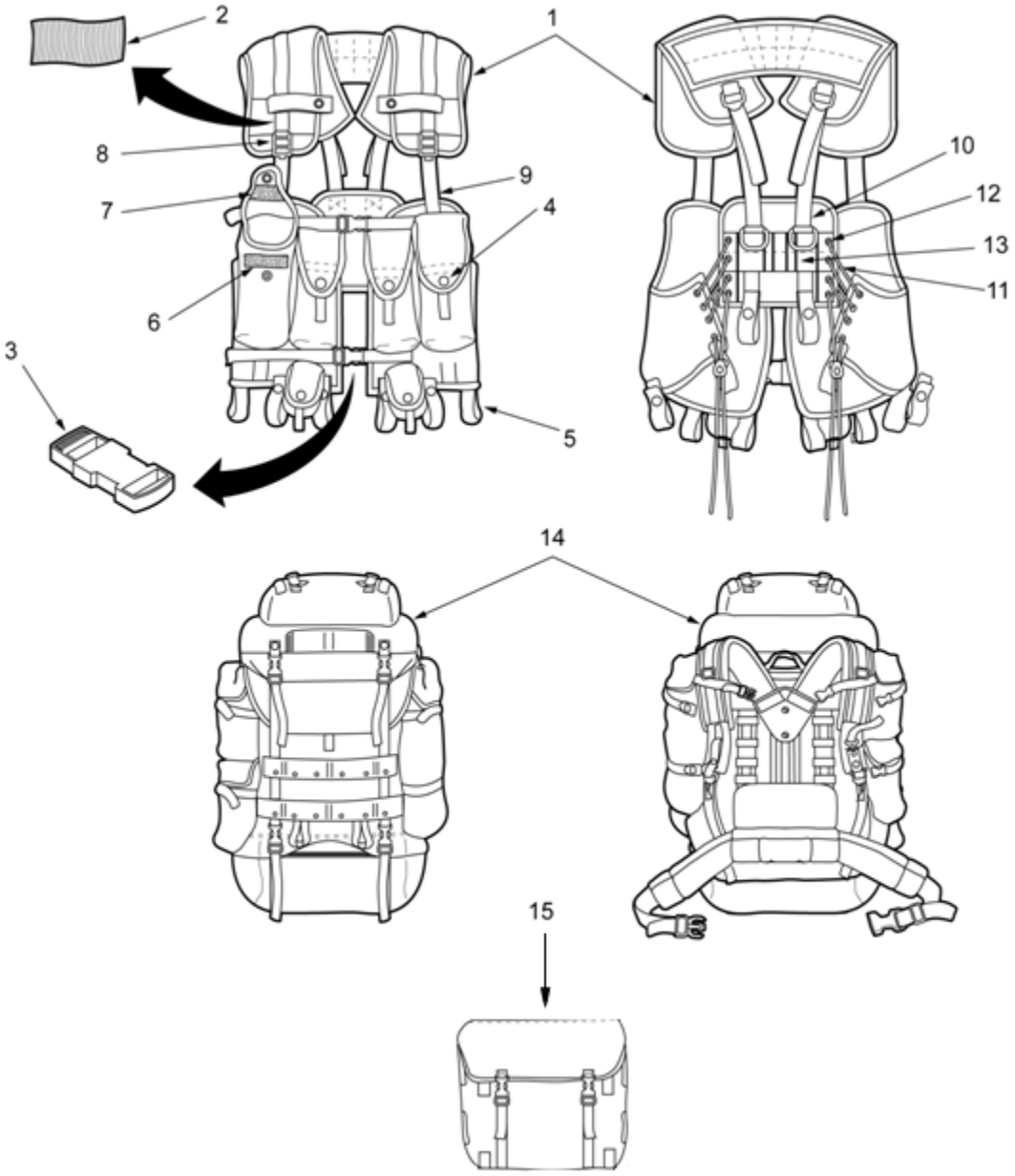


Figure 5. Load-Bearing Equipment (Sheet 1 of 3).

LOAD-BEARING EQUIPMENT – CONTINUED

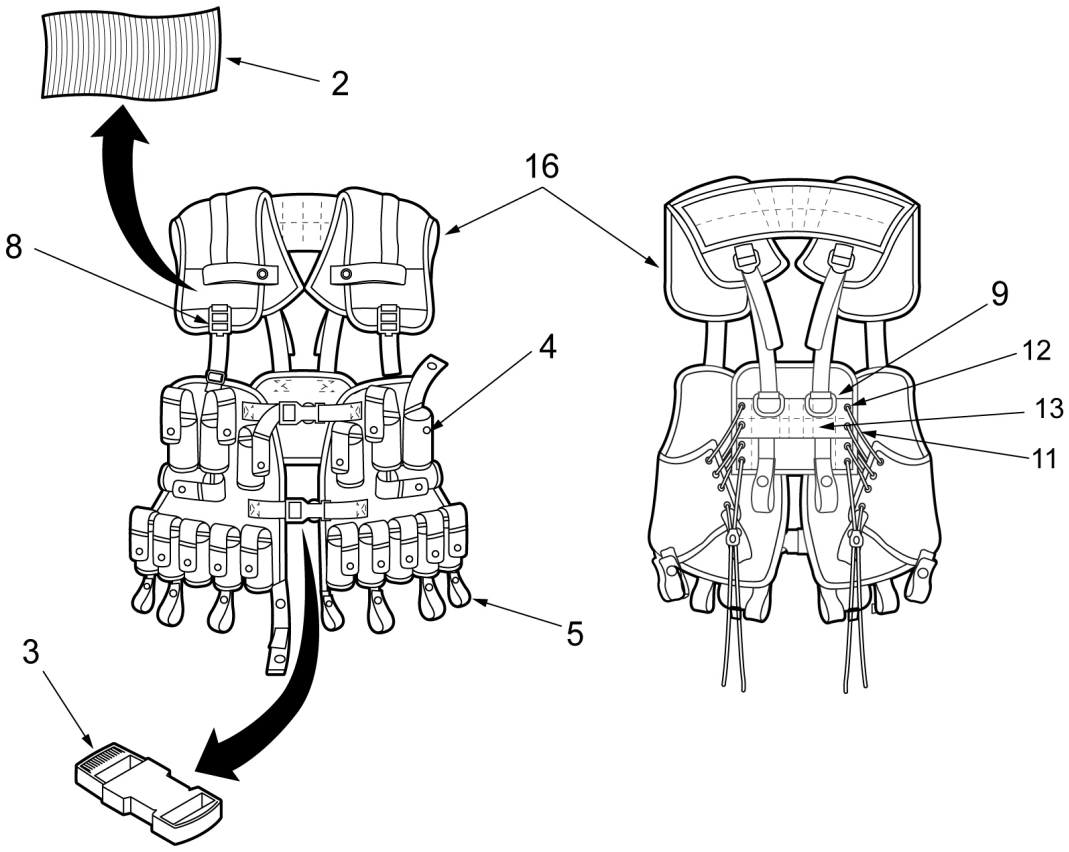


Figure 5. Load-Bearing Equipment (Sheet 2 of 3).

LOAD-BEARING EQUIPMENT – CONTINUED

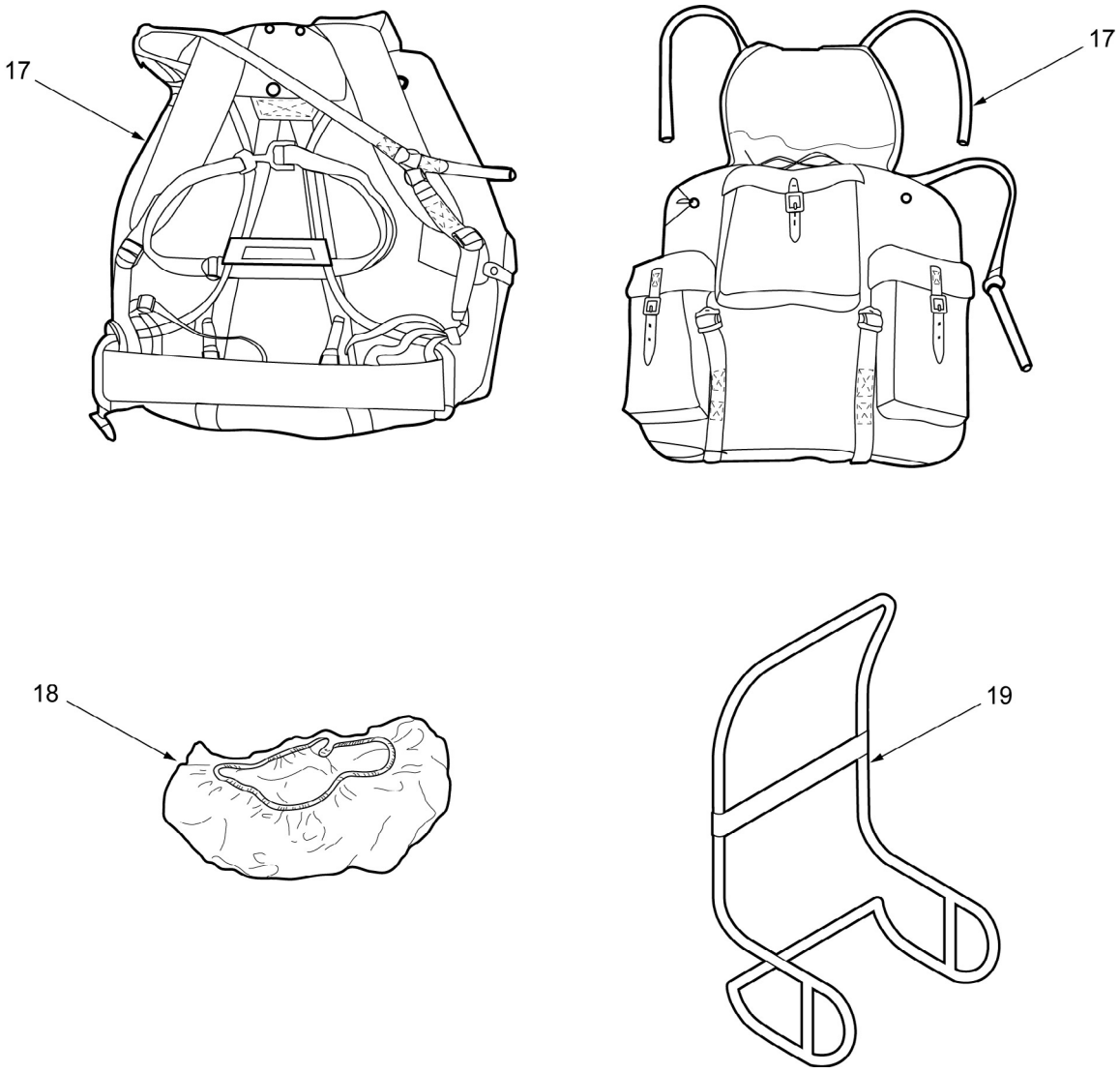


Figure 5. Load-Bearing Equipment (Sheet 3 of 3).

LOAD-BEARING EQUIPMENT – CONTINUED

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 05 LOAD-BEARING EQUIPMENT FIG. 5 LOAD-BEARING EQUIPMENT	
1	PAFFF	8415-01-296-8878	81337	2-1-1981	VEST, TACTICAL LOAD CARRYING	1
2	PAFZZ	8315-00-935-4741	81349	MIL-T-5038	.TAPE, NYLON, TYPE III, CLASS 2, OD-7, 1-INCH WIDE	AR
3	PAFZZ	8465-01-286-5352	81337	5-10-47	.FASTENER, QUICK RELEASE	AR
4	PAFZZ	5325-00-985-6718	81349	MIL-F-10884	.FASTENER, SNAP, STYLE 2, BLACK CHEMICAL FINISH	AR
5	PAFZZ	8305-01-062-7050	58536	A-A-55301	.WEBBING, TEXTILE, NYLON, TYPE III, OD-7, 1-INCH WIDE	AR
6	PAFZZ	8315-00-106-5974	81349	MIL-F-21840	.FASTENER TAPES, PILE, TYPE II, CLASS 1, 1-INCH WIDE (CUT TO 1 ¾ INCHES)	AR
7	PAFZZ	8315-00-106-5973	81349	MIL-F-21840	.FASTENER TAPES, HOOK, TYPE II, CLASS 1, 1-INCH WIDE (CUT TO 1 ¾ INCHES)	AR
8	PAFZZ	5340-01-070-8440	81349	MIL-B-543	.BUCKLE, NON-SLIP, STEEL, 1-INCH, BLACK CHEMICAL FINISH	AR
9	PAFZZ	8315-01-352-9305	81349	MIL-T-5038	.TAPE, NYLON, TYPE II, CLASS 2, OD-7, 1 ½ INCHES WIDE	AR
10	PAFZZ	8305-00-260-6910	81349	MIL-W-4088	.WEBBING, TEXTILE, NYLON, TYPE II, CLASS 2, OD-7, 1-INCH WIDE (CUT TO 5 ¾ INCHES OR 7 1/8 INCHES)	AR
11	PAFZZ	4020-00-262-2019	81349	MIL-C-5040	.CORD, NYLON, TYPE IIA	AR
12	PAFFF	5325-01-139-4839	81349	MIL-E-20652	.EYELET, BRASS, BLACK	AR
13	PAFZZ	8305-00-260-6909	81349	MIL-W-4088	.WEBBING, TEXTILE, NYLON, TYPE II, CLASS 2, OD-7, 1-INCH WIDE (CUT TO 7 1/8 INCH)	AR
14	PAFFF	8465-01-286-5356	81349	MIL-F-43832	FIELD PACK (INTERNAL FRAME)	1
15	PAFFF	8465-01-287-1278	81349	MIL-F-44324	PACK, PATROL, COMBAT	1

LOAD-BEARING EQUIPMENT – CONTINUED

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
16	PAFFF	8415-01-317-1622	81337	2-1-2143	VEST, AMMUNITION CARRYING	1
17	PAFFF	8465-00-935-6825	81349	MIL-F-43997	FIELD PACK	1
18	PAFZZ	8465-00-001-6478	81349	MIL-C-43830	.COVER, FIELD PACK, CAMOUFLAGE	1
19	PAFZZ	8465-00-558-0151	81337	2-3-81	.FRAME, FIELD PACK	1
					END OF FIGURE	

FIELD
PARTS INFORMATION
ALICE GEAR

ALICE GEAR – CONTINUED

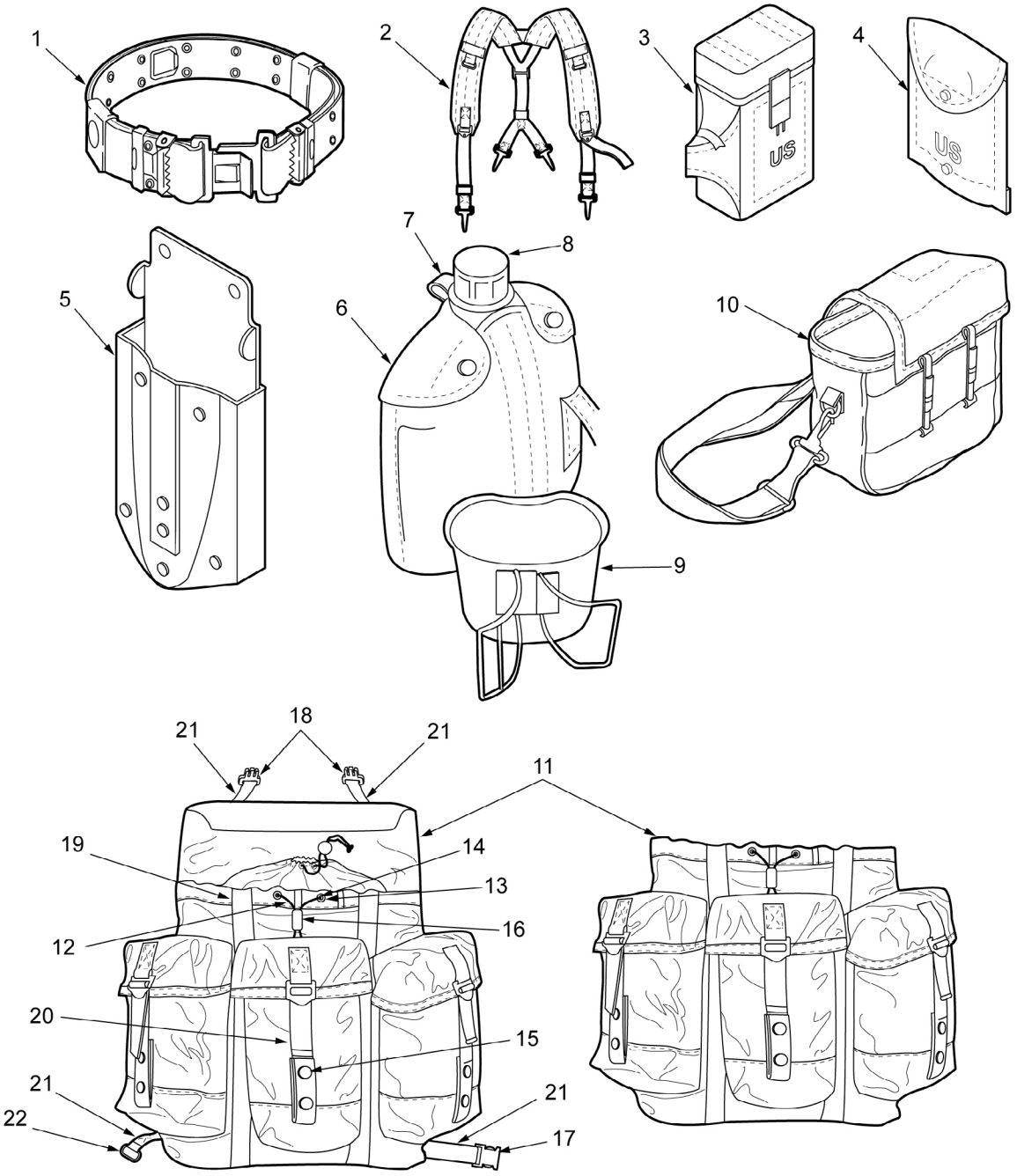


Figure 6. ALICE Gear (Sheet 1 of 2).

ALICE GEAR – CONTINUED

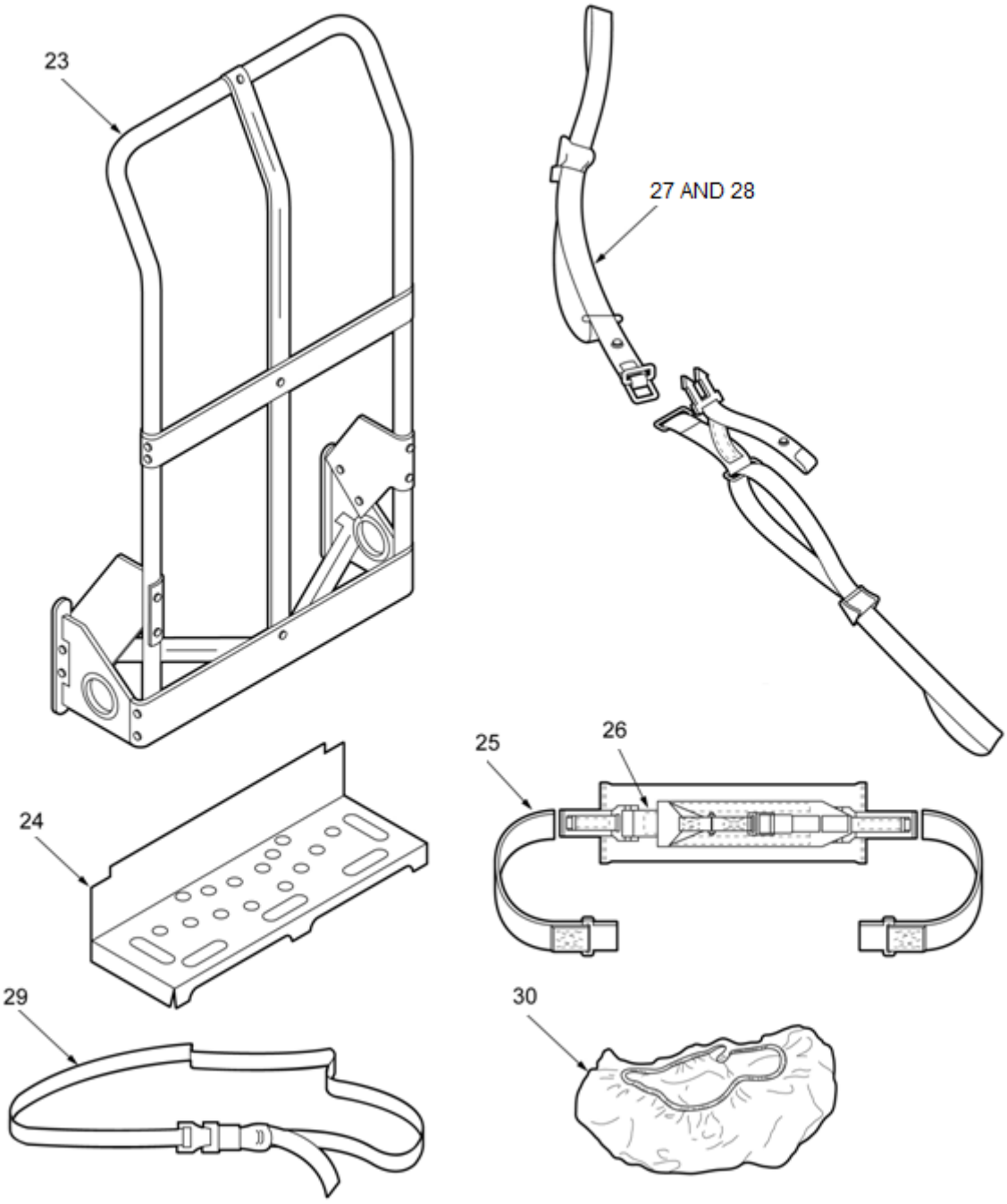


Figure 6. ALICE Gear (Sheet 2 of 2).

ALICE GEAR – CONTINUED

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 06 ALICE GEAR FIG. 6 ALICE GEAR	
1	PAFZZ	8465-01-322-1966	81349	MIL-B-43826	BELT, INDIVIDUAL EQUIPMENT (LARGE)	1
	PAFZZ	8465-01-322-1965	81349	MIL-B-43826	BELT, INDIVIDUAL EQUIPMENT (MEDIUM)	1
2	PAFFF	8465-00-001-6471	81349	MIL-S-43829	SUSPENDERS, INDIVIDUAL EQUIPMENT	1
3	PAFFF	8465-00-001-6482	81349	MIL-C-28981	CASE, SMALL ARMS AMMUNITION	1
4	PAFFF	8465-00-935-6814	81349	MIL-C-43745	CASE, FIELD FIRST AID DRESSING – UNMOUNTED MAGNETIC COMPASS	1
5	PAFZZ	8465-00-001-6474	81349	MIL-C-43683	CARRIER, ENTRENCHING TOOL	1
6	PAFFF	8465-00-860-0256	81349	MIL-C-73742	COVER, WATER CANTEEN	1
7	PAFZZ	8465-01-082-6449	81349	MIL-C-43103	.STRAP, CAP, WATER CANTEEN	1
8	PAFZZ	8465-00-930-2077	81349	MIL-C-51278	.CAP, WATER CANTEEN	1
9	PAFZZ	8465-00-165-6838	81349	MIL-C-43761	.CUP, WATER CANTEEN	1
10	PAFFF	8465-00-927-7485	81349	MIL-C-43689	COVER, WATER CANTEEN (2-QUART)	1
11	PAFFF	8465-00-001-6480	81349	MIL-F-43833	FIELD PACK (MEDIUM, WITH LINERS)	1
11		8465-01-019-9102	81349	MIL-F-43833	FIELD PACK (MEDIUM, WITHOUT LINERS)	1
11	PAFFF	8465-00-001-6481	81349	MIL-F-43832	FIELD PACK (LARGE, WITH LINERS)	1
11	PAFFF	8465-01-019-9103	81349	MIL-F-43832	FIELD PACK (LARGE, WITHOUT LINERS)	1
12	PAFZZ	4020-00-262-2019	81349	MIL-C-5040	.CORD, FIBROUS, TYPE II	AR
13	PAFZZ	5310-01-392-9401	81349	MILSTD2073	.WASHER, FLAT, STYLE A, SIZE 4096, BLACK CHEMICAL FINISH	AR

ALICE GEAR – CONTINUED

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
14	PAFZZ	5325-00-221-1516	19200	8460214	.EYELET, METALLIC, STYLE A, SIZE 4094, BLACK CHEMICAL FINISH	AR
15	PAFZZ	5325-00-985-6718	81349	MILF10884	.FASTENER, SNAP, STYLE 2, BLACK CHEMICAL FINISH	AR
16	PAFZZ	5340-00-753-5577	81349	MIL-H-9890	.LOOP, STRAP FASTENER, TYPE IV	AR
17	PAFZZ	5340-01-062-6749	81349	MIL-B-543	.BUCKLE, NON-SLIP, WITH SPRING, 1 INCH, NO. 240, DULL BLACK OXIDE FINISH	AR
18	PAFZZ	5340-01-070-9440	81349	MIL-B-543	.BUCKLE, TYPE V, CLASS 3, SIZE 1	AR
19	PAFZZ	8305-01-015-9434	81349	MIL-W-4088	.WEBBING, TEXTILE, NYLON, 2 ¼-INCH WIDE, OD-7,M TYPE VIIC	AR
20	PAFZZ	8305-01-062-7050	81349	MIL-W-43668	.WEBBING, TEXTILE, NYLON, 1-INCH WIDE, OD-7, TYPE III	AR
21	PAFZZ	8315-00-935-4741	81349	MILT5038	.TAPE, TEXTILE, NYLON, 1-INCH WIDE, OD-7, TYPE III	AR
22	PAFZZ	5365-01-063-8996	81349	MIL-R-3390	.RING, DEE, CLASS 1 OR 2, 1-INCH BY 2/3-INCH, BLACK CHEMICAL FINISH	AR
23	PAFFF	8465-01-073-8326	81349	MIL-F-43834	FRAME, FIELD PACK	1
24	PAFZZ	8465-00-001-6476	81349	MIL-F-43834	SHELF, CARGO SUPPORT	1
25	PAFFF	8465-00-269-0481	81349	MIL-S-43835	STRAP, WEBBING (WAIST)	1
26	PAFFF	8465-01-075-8164	81349	MIL-S-43835	STRAP, WEBBING (LOWER BACK)	1
27	PAFZZ	8465-01-478-3009	81349	MIL-S-43835	STRAP, WEBBING (SHOULDER WITHOUT QUICK RELEASE)	1
28	PAFZZ	8465-01-478-3013	81349	MIL-S-43835	STRAP, WEBBING (SHOULDER WITH QUICK RELEASE)	1
29	PAFZZ	8465-00-001-6477	81349	MIL-S-43828	STRAP, WEBBING (CARGO STRAPS)	1

ALICE GEAR – CONTINUED

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
30	PAFFF	8465-00-001-6478	81349	MIL-C-43830	COVER, FIELD PACK, CAMOUFLAGE (SNOW)	1
30	PAFFF	8465-01-192-6616	81349	MIL-C-43830	COVER, FIELD PACK, CAMOUFLAGE (WOODLAND)	1
					END OF FIGURE	

FIELD

PARTS INFORMATION

CHEMICAL PROTECTIVE EQUIPMENT

CHEMICAL PROTECTIVE EQUIPMENT – CONTINUED

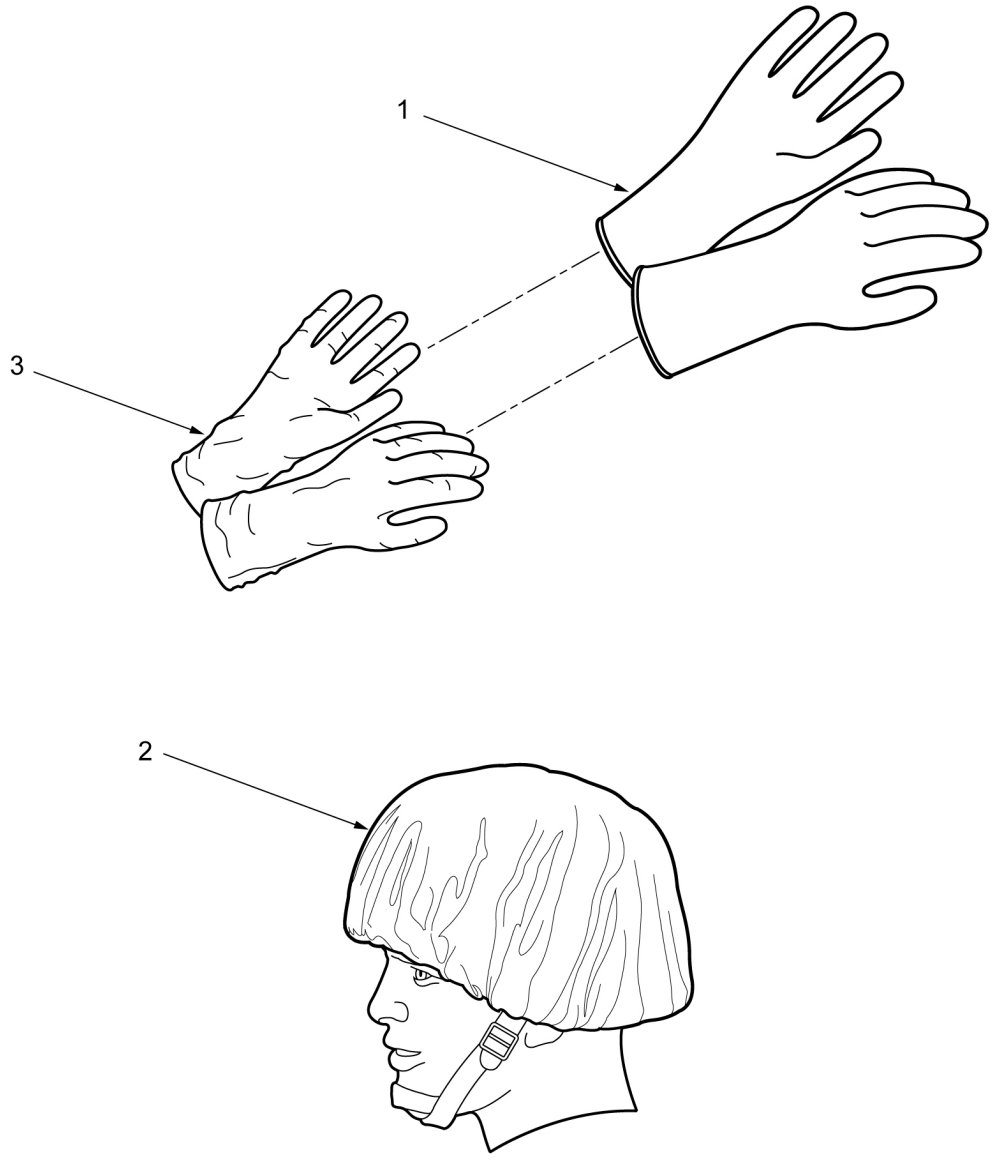


Figure 7. Chemical Protective Equipment.

CHEMICAL PROTECTIVE EQUIPMENT – CONTINUED

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 07 CHEMICAL PROTECTIVE EQUIPMENT **FIG. 7 CHEMICAL PROTECTIVE EQUIPMENT**	
1	PAFZZ	8415-01-144-1862	81349	MIL-G-43976	GLOVE SET, CHEMICAL PROTECTIVE, SIZE XS	1
1	PAFZZ	8415-01-033-3517	81349	MIL-G-43976	GLOVE SET, CHEMICAL PROTECTIVE, SIZE S	1
1	PAFZZ	8415-01-033-3518	81349	MIL-G-43976	GLOVE SET, CHEMICAL PROTECTIVE, SIZE M	1
1	PAFZZ	8415-01-033-3519	81349	MIL-G-43976	GLOVE SET, CHEMICAL PROTECTIVE, SIZE L	1
1	PAFZZ	8415-01-033-3520	81349	MIL-G-43976	GLOVE SET, CHEMICAL PROTECTIVE, SIZE XL	1
2	PAFZZ	8415-01-111-9028	81349	MIL-C-44001	COVER, HELMET, CHEMICAL PROTECTIVE	1
3	PAFZZ	8415-00-268-8354	81349	MIL-DTL-3866	.GLOVE INSERTS, CHEMICAL PROTECTIVE, SIZE S	1
3	PAFZZ	8415-00-268-8353	81349	MIL-DTL-3866	.GLOVE INSERTS, CHEMICAL PROTECTIVE, SIZE M	1
					END OF FIGURE	

FIELD

KIT PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP REPAIR KITS FIG. KITS	
1	PAFZZ	8465-01-016-4207	81349	MIL-R-44085	REPAIR KIT, SKI	V
2	PAFZZ	8465-01-558-6823	0CCM0	69071	KIT, REPAIR, SNOWSHOE	
3			4W867	15382	REPAIR KIT	
					END OF FIGURE	

FIELD

BULK ITEMS

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP BULK MATERIAL	
					FIG. BULK	
1	PCFZZ	8040-00-165-8614	37695	827848-7	ADHESIVE, LIQUID, MMM-A-121	AR
2	PAFZZ	8315-00-262-2784	81349	MIL-B-371	BRAID, TEXTILE, COTTON, TUBULAR FLAT, GREEN 107, TYPE VII, CLASS II	AR
3	PAFZZ	8315-00-641-8328	58536	A-A-55093	BRAID, TUBULAR, NYLON, OG-107, 5/16-INCH WIDTH, GREEN 107	AR
4	PAFZZ	5340-01-062-6749	81349	MIL-B-543	BUCKLE, NON-SLIP, WITH SPRING, 1 INCH, NO. 240, DULL BLACK OXIDE FINISH	AR
5	PAFZZ	5340-01-070-9440	81349	MIL-B-543	BUCKLE, TYPE V, CLASS 3, SIZE 1	AR
6	PAFZZ	8465-00-930-2077	81349	MIL-C-51278	CAP, WATER CANTEEN	1
7	PAFZZ	8305-01-025-4920	81349	MIL-C-12369	CLOTH, BALLISTIC, WATER REPELLENT, 48-INCH, 13 ½ TO 18 OUNCES PER SQUARE YARD, NYLON BASIC, CLASS II, ARMY GREEN 106	AR
8	PFFZZ	8305-00-926-6870	81349	MILC7219	CLOTH, DUCK, NYLON BASIC 7.25 OZ. SQ. YD., 43-INCH WIDTH, ARMY 106 GREEN	AR
9	PFFZZ	4020-00-236-1801	81349	MIL-C4-3307	CORD, FIBROUS (BRAIDED, ¼-INCH DIAMETER FOR SKI THONG REPAIR)	AR
10	PAFZZ	4020-00-262-2019	81349	MIL-C-5040	CORD, FIBROUS, TYPE II	AR
11			3Z8V4	350-2000-5674	CORD, LOCK, SINGLE	EA
12	PFFZZ	LOCAL PURCHASE	81348	CCC-C-419	COTTON DUCK CLOTH, DYED CCC-C419, ROO624	AR
13	PAFFF	8465-00-860-0256	81349	MIL-C-73742	COVER, WATER CANTEEN	1

BULK ITEMS – CONTINUED

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
14	PAFZZ	8465-00-165-6838	81349	MIL-C-43761	CUP, WATER CANTEEN	1
15	XDFZZ	LOCAL PURCHASE	81349	MIL-E-52798	ENAMEL, FOREST GREEN, IR REFLECTIVE	AR
16	XDFZZ	LOCAL PURCHASE	81348	TT-E-527	ENAMEL, GREEN; MUNSELL CO. COLOR NO. 10Y 3/3, LUSTERLESS FOR BRUSHING OR SPRAYING	AR
17	PAFZZ	5325-00-221-1516	19200	8460214	EYELET, METALLIC, STYLE A, SIZE 4094, BLACK CHEMICAL FINISH	AR
18	PAFZZ	5325-01-133-2296	81348	V-F-106	FASTENER, SLIDE, POLYESTER TYPE, TYPE III, STYLE 1, SIZE MHS, 69-71 INCHES LENGTH, 1 INCH WIDTH	AR
19	PAFZZ	5325-00-985-6718	81349	MILF10884	FASTENER, SNAP, STYLE 2, BLACK CHEMICAL FINISH	AR
20	PAFZZ	5340-00-753-5577	81349	MIL-H-9890	LOOP, STRAP FASTENER, TYPE IV	AR
21	XDFZZ	LOCAL PURCHASE	81349	MIK-F-21840	NOMEX HOOK, 3/8 INCH, MIL-F-21840, TYPE I –6.5 MIL, (220 DENIER) CLASS 2, NON-MELTING ARAMID, COLOR: GREEN 3421	AR
22	XDFZZ	LOCAL PURCHASE	81349	MIK-F-21840	NOMEX LOOP, 3/8 INCH, MIL-F-21840, TYPE I –6.5 MIL, (220 DENIER) CLASS 2, NON-MELTING ARAMID, COLOR: GREEN 3421	AR
23	XDFZZ	LOCAL PURCHASE	81349	A-A-50195	NOMEX THREAD, 60 TEX, A-A-50195, RO4990	AR
24	XDFZZ	LOCAL PURCHASE	81349	9650	NOMEX WEBBING, 3/4 INCH, PATTERN NO. 9650-3/4, BALLY RIBBON MILLS, TYPE 432, COLOR OG106	AR
25	XDFZZ	LOCAL PURCHASE	81349	9650	NOMEX WEBBING, 1 INCH, PATTERN NO. 9650-1, BALLY RIBBON MILLS, TYPE 432, COLOR OG106	AR

BULK ITEMS – CONTINUED

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
26	XDFZZ	LOCAL PURCHASE	81349	MIL-C-24500	POLYARAMID CLOTH, MIL-C-24500, TYPE I, COLOR OG106	AR
27	PAFZZ	5365-01-063-8996	81349	MIL-R-3390	RING, DEE, CLASS 1 OR 2, 1-INCH BY 2/3-INCH, BLACK CHEMICAL FINISH	AR
28	XDFZZ	LOCAL PURCHASE	00742	1-050-58-0211	SAND, SILICA: KILNDRIED, FREE OF SALTS AND DELETERIOUS MATTER, COMMERCIAL SCREEN AVERAGE NO. 70	AR
29	PAFZZ	8465-01-082-6449	81349	MIL-C-43103	STRAP, CAP, WATER CANTEEN	1
30	PAFZZ	8315-00-262-3376	81349	MIL-T-43566	TAPE, TEXTILE, COTTON, GENERAL PURPOSE, TYPE I, CLASS 8,1 INCH WIDTH	AR
31	PAFZZ	8315-00-262-3375	81349	MIL-T-43566	TAPE, TEXTILE, COTTON, OD-7, TYPE I, CLASS 8, 5/8-INCH WIDTH	AR
32	PAFZZ	8315-00-935-4741	81349	MILT5038	TAPE, TEXTILE, NYLON, 1-INCH WIDE, OD-7, TYPE III	AR
33	PAFZZ	8310-00-187-3920	58536	A-A-52094	THREAD, COTTON, OD-S-1, C.A. 66022, TYPE I, SIZE 50, 3-PLY	AR
34	PAFZZ	8310-00-187-3873	58536	A-A-52094	THREAD COTTON, OLIVE DRAB SHADE S-1, C.A. 66022, TYPE IA3	AR
35	PAFZZ	8310-01-115-6865	81348	A-A-59826	THREAD, NYLON, TYPE I, CLASS B, SIZE F, BLACK	AR
36	PAFZZ	8310-01-066-0973	58536	A-A-50199A	THREAD, POLYESTER CORE, COTTON-RAYON, OR POLYESTER-COVERED, OLIVE DRAB, C.A. 66022, SIZE 50, 3-PLY	AR
37	PAFZZ	8310-01-066-0973	81349	MIL-T-43548	THREAD, POLYESTER CORE, COTTON-RAYON, OR POLYESTER-COVERED, OLIVE DRAB, C.A. 66022, SIZE 50, 3-PLY	AR
38	PAFZZ	8310-00-988-1297	81349	V-T-285	THREAD, POLYESTER, NATURAL, WHITE, SIZE E, 3-PLY, TYPE I, SUBCLASS B	AR

BULK ITEMS – CONTINUED

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
39	PAFZZ	8310-00-988-1298	81348	V-T-285	THREAD, POLYESTER, OD-S1, SIZE E, 3-PLY, TYPE I, SUBCLASS B	AR
40	PAFZZ	8310-00-988-1300	81348	V-T-285	THREAD, POLYESTER, OD-S1, SIZE F, 4-PLY, TYPE I, SUBCLASS B	AR
41	PAFZZ	5310-01-392-9401	81349	MILSTD2073	WASHER, FLAT, STYLE A, SIZE 4096, BLACK CHEMICAL FINISH	AR
42	PAFZZ	8305-00-260-1750	81349	MIL-W-530	WEBBING, TEXTILE, COTTON, GENERAL PURPOSE, 1.250 INCH WIDTH, TYPE IIA, CLASS 8	AR

END OF FIGURE

FIELD
NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG	ITEM
8465-00-001-6471	6	2
8465-00-001-6474	6	5
8465-00-001-6476	6	24
8465-00-001-6477	6	29
8465-00-001-6478	5	18
8465-00-001-6478	6	30
8465-00-001-6480	6	11
8465-00-001-6481	6	11
8465-00-001-6482	6	3
8315-00-106-5973	5	7
8315-00-106-5974	5	6
8465-00-165-6838	6	9
8465-00-165-6838	BULK	14
8040-00-165-8614	BULK	1
8310-00-187-3873	BULK	34
8310-00-187-3920	BULK	33
5325-00-221-1516	6	14
5325-00-221-1516	BULK	17
4020-00-236-1801	BULK	9
8305-00-260-1750	BULK	42
8305-00-260-6909	5	13
8305-00-260-6910	5	10
4020-00-262-2019	1	5
4020-00-262-2019	1	7
4020-00-262-2019	1	12
4020-00-262-2019	1	14
4020-00-262-2019	1	17
4020-00-262-2019	1	19
4020-00-262-2019	5	11
4020-00-262-2019	6	12
4020-00-262-2019	BULK	10
8315-00-262-2784	BULK	2
8315-00-262-3375	BULK	31
8315-00-262-3376	BULK	30
8415-00-268-8353	7	3
8415-00-268-8354	7	3
8465-00-269-0481	6	25
9505-00-288-6400	2	4
8465-00-530-3692	4	1
8465-00-558-0151	5	19
8315-00-641-8328	BULK	3

STOCK NUMBER	FIG	ITEM
5340-00-753-5577	6	16
5340-00-753-5577	BULK	20
8465-00-753-5962	2	6
8465-00-753-6142	2	5
8465-00-753-6145	2	5
8465-00-860-0256	6	6
8465-00-860-0256	BULK	13
8305-00-926-6870	BULK	8
8465-00-927-7485	6	10
8465-00-930-2077	6	8
8465-00-930-2077	BULK	6
8315-00-935-4741	5	2
8315-00-935-4741	6	21
8315-00-935-4741	BULK	32
8465-00-935-6814	6	4
8465-00-935-6825	5	17
8465-00-965-2174	2	7
5325-00-985-6718	5	4
5325-00-985-6718	6	15
5325-00-985-6718	BULK	19
8310-00-988-1297	BULK	38
8310-00-988-1298	BULK	39
8310-00-988-1300	BULK	40
8305-01-015-9434	6	19
8465-01-016-4207	KITS	1
8465-01-019-9102	6	11
8465-01-019-9103	6	11
8305-01-025-4920	BULK	7
8415-01-033-3517	7	1
8415-01-033-3518	7	1
8415-01-033-3519	7	1
8415-01-033-3520	7	1
5340-01-062-6749	6	17
5340-01-062-6749	BULK	4
8305-01-062-7050	5	5
8305-01-062-7050	6	20
5365-01-063-8996	6	22
5365-01-063-8996	BULK	27
8310-01-066-0973	BULK	36
8310-01-066-0973	BULK	37
5340-01-070-8440	5	8

NATIONAL STOCK NUMBER INDEX – CONTINUED

STOCK NUMBER	FIG	ITEM
5340-01-070-9440	6	18
5340-01-070-9440	BULK	5
8465-01-073-8326	6	23
8465-01-075-8164	6	26
8465-01-082-6449	6	7
8465-01-082-6449	BULK	29
5465-01-085-1935	2	1
8415-01-111-9028	7	2
8310-01-115-6865	BULK	35
8465-01-117-8699	4	3
5325-01-133-2296	BULK	18
5325-01-139-4839	5	12
8415-01-144-1862	7	1
8465-01-192-6616	6	30
8465-01-286-5352	5	3
8465-01-286-5356	5	14
8465-01-287-1278	5	15
8415-01-296-8878	5	1
8415-01-317-1622	5	16
8465-01-319-4685	3	1
8465-01-322-1965	6	1
8465-01-322-1966	6	1
8315-01-352-9305	5	9
5310-01-392-9401	6	13
5310-01-392-9401	BULK	41
5340-01-393-4890	1	6
5340-01-393-4890	1	13
5340-01-393-4890	1	16
5340-01-393-4890	1	20
8465-01-393-6515	1	21
8465-01-398-0685	1	2
8465-01-398-0687	1	8
8465-01-398-5428	1	15
8465-01-416-8517	1	18
8465-01-445-6274	1	1
8465-01-478-3009	6	27
8465-01-478-3013	6	28
8465-01-558-6823	KITS	2
8465-01-558-6863	2	8
8465-01-558-6896	2	8
8465-01-558-7688	2	9
8465-01-558-9958	4	2

END OF WORK PACKAGE

FIELD

PART NUMBER INDEX

PART NUMBER	FIG	ITEM
1-050-58-0211	BULK	28
15382	KITS	3
2-1-1981	5	1
2-1-2143	5	16
2-3-81	5	19
302-0000-5614	1	6
	1	13
	1	16
	1	20
335201	4	2
350-2000-5674	BULK	11
469029	2	8
469030	2	8
469731	2	9
5-10-47	5	3
69071	KITS	2
827848-7	BULK	1
8460214	6	14
	BULK	17
9650	BULK	24
	BULK	25
A-A-50119	3	1
A-A-50195	BULK	23
A-A-50199A	BULK	36
A-A-52094	BULK	33
	BULK	34
A-A-55074	1	21
A-A-55093	BULK	3
A-A-55126	1	3
	1	4
	1	9
	1	10
	1	11
A-A-55262	1	1
	1	2
	1	8
	1	15
A-A-55301	5	5
A-A-59826	BULK	35
ASTM A853	2	4
CCC-C-419	BULK	12
MIK-F-21840	BULK	21
	BULK	22
MIL-B-2378	4	1
MIL-B-371	BULK	2
MIL-B-43826	6	1
MIL-B-543	5	8
	6	17
	6	18
	BULK	4
	BULK	5
MIL-B-829	4	3
MIL-C-12369	BULK	7
MIL-C-1780	2	7
MIL-C-24500	BULK	26
MIL-C-28981	6	3
MIL-C-43103	6	7
	BULK	29
MIL-C4-3307	BULK	9
MIL-C-43683	6	5
MIL-C-43689	6	10
MIL-C-43745	6	4
MIL-C-43761	6	9
	BULK	14
MIL-C-43830	5	18
	6	30
MIL-C-44001	7	2
MIL-C-5040	1	5
	1	7
	1	12
	1	14
	1	17
	1	19
	5	11
	6	12
	BULK	10
MIL-C-51278	6	8
	BULK	6
MILC7219	BULK	8
MIL-C-73742	6	6
	BULK	13
MIL-DTL-3866	7	3

PART NUMBER INDEX – CONTINUED

PART NUMBER	FIG	ITEM
MIL-DTL-3866	7	3
MIL-E-20652	5	12
MIL-E-52798	BULK	15
MILF10884	6	15
	BULK	19
	5	4
MIL-F-21840	5	6
	5	7
MIL-F-43832	5	14
	6	11
MIL-F-43833	6	11
MIL-F-43834	6	23
	6	24
MIL-F-43997	5	17
MIL-F-44324	5	15
MIL-G-43976	7	1
MIL-H-9890	6	16
	BULK	20
MIL-P-41806	2	5
	2	6
MIL-R-3390	6	22
	BULK	27
MIL-R-44085	KITS	1
MIL-S-43828	6	29
MIL-S-43829	6	2
MIL-S-43835	6	25
	6	26
	6	27
	6	28
MILSTD2073	6	13
	BULK	41
MIL-T-43548	BULK	37
MIL-T-43566	BULK	30
	BULK	31
MILT5038	6	21
	BULK	32
MIL-T-5038	5	2
	5	9
MIL-W-4088	5	10
	5	13
	6	19

PART NUMBER	FIG	ITEM
MIL-W-43668	6	20
MIL-W-530	BULK	42
PD-95-04	1	18
TRUCKER MODEL	2	1
TT-E-527	BULK	16
V-F-106	BULK	18
V-T-285	BULK	38
	BULK	39
	BULK	40

END OF WORK PACKAGE

CHAPTER 5

SUPPORTING INFORMATION FOR GENERAL REPAIR PROCEDURES FOR INDIVIDUAL EQUIPMENT

FIELD
REFERENCES

SCOPE

This Work Package lists all Field Manuals (FMs), Army Regulations, DA Pamphlets, Forms, Technical Manuals (TMs), Army Tactics, Techniques, and Procedures (ATTPs) referenced in this manual.

ARMY REGULATIONS

AR 700-138	Army Logistics Readiness and Sustainability
AR 750-1	Army Material Maintenance Policy
ATTP 3-97.11 C1/ MCRP 3-35.1D	Army Tactics, Techniques, and Procedures for Cold Region Operations

DA PAMPHLETS

DA PAM 25-33	User's Guide for Army Publications and Forms
DA PAM 738-750	The Army Maintenance Management System (TAMMS) User's Manual
DA PAM 738-751	Functional User's Manual for The Army Maintenance Management System –Aviation (TAMMS-A)
DA PAM 750-8	The Army Maintenance Management System (TAMMS) User's Manual

FIELD MANUALS

FM 3-11.5	Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination
FM 4-25.11	First Aid for Soldiers
FM 42-414	Tactics, Techniques, and Procedures for Quartermaster Field Service Company, Direct Support

FORMS

DA Form 12-R	Request for Establishment of a Publications Account
DA Form 2404	Equipment Inspection and Maintenance Worksheet
DA Form 2028	Recommended Changes to Publications and Blank Forms
SF 368	Product Quality Deficiency Report (PQDR)

TECHNICAL BULLETINS

TB 43-0002-27	Maintenance Expenditure Limits for FSC Groups 72, 83, and 84 (FSC Classes 7210, 8340, and 8400)

TECHNICAL MANUALS

TM 750-244-3	Procedures for Destruction of Equipment to Prevent Enemy Use (Mobility Equipment Command)
TM 10-8465-237-10/ Marine Corps TM 11770A/ 11771A-OI/1	Operator's Manual for Military Mountaineering Kits (MMK)

END OF WORK PACKAGE

FIELD

INDIVIDUAL EQUIPMENT MAINTENANCE ALLOCATION CHART (MAC)

INTRODUCTION

The Army Maintenance System MAC

This introduction provides a general explanation of the maintenance and repair functions.

The MAC (immediately following this introduction) designates overall authority and responsibility for the performance of maintenance tasks on the identified end item or component. The application of the maintenance tasks to the end item or component shall be consistent with the capacities and capabilities of the designated maintenance levels/classes, which are shown in the MAC in column (4). Column (4) is divided into two secondary columns. These columns indicate the maintenance levels/classes of “Field” and “Sustainment.” Each maintenance level column is further divided into two sub-columns. These sub-columns identify the maintenance classes and are as follows:

1. Field level maintenance classes:
    a. Crew (operator) maintenance. This is the responsibility of a using organization to perform maintenance on its assigned equipment. It normally consists of inspecting, servicing, lubricating, adjusting, and replacing parts, minor assemblies, and subassemblies. Items with a “C” (“O” for joint service reporting) in the third position of the Source, Maintenance, and recoverability (SMR) code may be replaced at the crew (operator) class. A code of “C” (“O” for joint service) in the fourth position of the SMR code indicates complete repair is authorized at the crew (operator) class.

    b. Maintainer maintenance. This is maintenance accomplished on a component, accessory, assembly, subassembly, plug-in unit, or other portion by field level units. This maintenance is performed either on the system or after it is removed. An “F” in the third position of the SMR code indicates replacement of assemblies, subassemblies, or other components is authorized at this level. An “F” in the fourth position of the SMR code indicates complete repair of the identified item is allowed at the Maintainer class. Items repaired at this level are normally returned to the user after maintenance is performed.

2. Sustainment level maintenance classes:
    a. Below depot sustainment. This is maintenance accomplished on a component, accessory, assembly, subassembly, plug-in unit, or other portion either on the system or after it is removed. The item subject to maintenance has normally been forwarded to a maintenance facility away from the field level supporting units. An “H” in the third position of the SMR code indicates replacement of assemblies, subassemblies, or other components is authorized at this class. An "H" appearing in the fourth position of the SMR code indicates complete repair is possible at this class. Items are normally returned to the supply system after maintenance is performed at this class.

    b. Depot. This is maintenance accomplished on a component, accessory, assembly, subassembly, plug-in unit, or other portion either on the system or after it is removed. Assets to be repaired at this class are normally returned to an Army Depot or authorized contractor facility. The replace function for this class of maintenance is indicated by the letter "D" or "K" appearing in the third position of the SMR code. A "D" or "K" appearing in the fourth position of the SMR code indicates complete repair is possible at the depot sustainment maintenance level. Items are returned to the supply system after maintenance performed at this class.

The tools and test equipment requirements table (immediately following the MAC) lists the tools and test equipment (both special tools and common tool sets) required for each maintenance task as referenced from the MAC.

INTRODUCTION — CONTINUED

The remarks table (immediately following the tools and test equipment requirements) contains supplemental instructions and explanatory notes for a particular maintenance task.

Maintenance Functions (Tasks)
Maintenance functions are limited to and defined as follows:

1. Inspect. A function 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).
2. Test. To verify serviceability by measuring the mechanical, pneumatic, hydraulic, or electrical characteristics of an item and comparing those characteristics with prescribed standards, e.g., load testing of lift devices or hydrostatic testing of pressure hoses.
3. Service. Operations required periodically to keep an item in proper operating condition such as replenishing fuel, lubricants, chemical fluids, or gases.
4. Adjust. To maintain or regulate, within prescribed limits, by bringing into proper position, or by setting the operating characteristics to specified parameters.
5. Align. To adjust specified variable elements of an item to bring about optimum or desired performance.
6. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments of test, measuring, and diagnostic equipment used in precision measurement. It consists of comparisons of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.
7. Remove. The act of taking a component off an asset to facilitate other maintenance on a different component or on the same component (except for replace and repair.)
8. Install. The act of placing, positioning, or otherwise locating a component to make it part of a higher level end item. The install task is authorized by the LMI/MAC and the assigned maintenance level is shown as the third position code of the SMR code.
9. Replace. The act of taking off an unserviceable component and putting a serviceable component in its place. The replace task is authorized by the LMI/MAC and the assigned maintenance level is shown as the third position code of the SMR code.

NOTE

The following definitions are applicable to the “repair” maintenance task: Fault location/troubleshooting. The process of investigating and detecting the cause of equipment malfunctioning; the act of isolating a fault within a system or Unit Under Test (UUT).

Actions. Welding, grinding, riveting, straightening, facing, machining, and/or resurfacing.

10. Repair. The act of restoring an item to a completely serviceable or fully mission capable status. The repair task is authorized by the LMI/MAC and the assigned maintenance level is shown as the fourth position code of the SMR code.
11. Paint. This is a function to prepare and apply coats of paint. When used with munitions, the paint is applied so the ammunition can be identified and protected.
12. Overhaul. This is the maintenance effort (service/action) prescribed to restore an item to a completely serviceable/operational condition as required by maintenance standards in the appropriate technical publications. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to a like-new condition.
13. Rebuild. This consists of those services/actions necessary for the restoration of unserviceable equipment to a like-new condition in accordance with original manufacturing standards. Rebuild is the highest degree of materiel maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (e.g., hours/miles) considered in classifying Army equipment/components.

INTRODUCTION — CONTINUED

Maintenance Functions (Tasks) – Continued

14. Lubricate. The act of applying a material (e.g., oil or grease) to reduce friction and allow a component to operate in a more efficient manner.
15. Mark. The process of restoring obliterated identification on an asset.
16. Pack. To place an item into a container for either storage or shipment after service and other maintenance operations have been completed.
17. Unpack. The act or removing an asset from a storage or shipping container in preparation to perform further maintenance (e.g., repair or install).
18. Preserve. The action required to treat systems and equipment whether installed or stored, to ensure a serviceable condition.
19. Prepare for Use. Those steps required to make an asset ready for other maintenance (e.g., remove preservatives, lubricate, etc.).
20. Assemble. The step-by-step instructions to join the component pieces of an asset together to make a complete serviceable asset.
21. Disassemble. The step-by-step breakdown (taking apart) of a spare/functional group coded item to the level of its least component, that is assigned an SMR code for the level of maintenance under consideration (i.e., identified as maintenance significant).
22. Clean. Step-by-step instructions on how to remove dirt, corrosion or other contaminants from equipment. Refer to appropriate painting, lubrication, and preservation methods to restore original corrosion prevention and control methods when removed as a result of cleaning and/or when using cleaning to remove corrosion from the item.
23. Non Destructive Inspection. Step-by-step instructions on preparation and accomplishment inspections which do not destroy or damage the equipment.
24. Radio interference suppression. Step-by-step instructions to ensure installed equipment, either communication or other electronics, does not interfere with installed communication equipment.
25. Place in Service. Step-by-step instructions required to place an item into service that are not covered in the Service Upon Receipt work package.
26. Towing. The step-by-step instructions to connect one vehicle to another for the purpose of having one vehicle moved through the motive power of the other vehicle.
27. Jacking. The step-by-step instructions to mechanically raise or lift a vehicle to facilitate maintenance on the vehicle.
28. Parking. Step-by-step instructions to safely place a vehicle in a lot, ramp area or other designated location.
29. Mooring. Step-by-step instructions to secure a vehicle by chains, ropes or other means to protect the vehicle from environmental conditions or secure for transportation.
30. Covering. Step-by-step instructions to place a protective wrapping over a vehicle to protect it from environmental conditions or to hide (e.g., camouflage) it.
31. Hoisting. Step-by-step instructions to allow a vehicle to be raised by cables or ropes through attaching points.
32. Sling Loading. Step-by-step instructions to place a sling around a vehicle to allow it to be raised.
33. External Power. Step-by-step instructions on how to apply electrical power from any authorized power source (e.g., external generator or facility power).
34. Preparation for Storage or Shipment. Step-by-step instructions for preparing the equipment for placement into administrative storage or for special transportation requirements.
35. Arm. Detailed instructions on activating munitions prior to use.

INTRODUCTION — CONTINUED

Maintenance Functions (Tasks) – Continued

36. Load. This may be one of two tasks:
    a. For transportation, the act of placing assets onto a transportation medium (e.g., pallet, truck, container).
    b. For weapons/weapons systems, the act of placing munitions into the weapon/weapons system.
37. Unload. This may be one of two tasks:
    a. For transportation, the act of removing assets from a transportation medium (e.g., pallet, truck, container).
    b. For weapons/weapons systems, the act of removing munitions from the weapon/weapons system.
38. Software maintenance. Step-by-step instructions for software maintenance (e.g., installing, un-installing, etc.).

Explanation of Columns in the MAC

Column (1) Group Number. Column (1) lists Functional Group Code (FGC) numbers, the purpose of which is to identify maintenance significant components, assemblies, subassemblies, and modules with the Next Higher Assembly (NHA).

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

Column (3) Maintenance Function. Column (3) lists the functions to be performed on the item listed in column (2). (For a detailed explanation of these functions, refer to maintenance functions (tasks) outlined previously.)

Column (4) Maintenance Level. Column (4) specifies each level/class of maintenance authorized to perform each function listed in column (3), by indicating work time required in the appropriate sub-column. This work time figure represents the active time required to perform that maintenance task at the indicated level/class of maintenance. If the number or complexity of the tasks within the listed maintenance task varies at different maintenance classes, appropriate work time figures are to be shown for each class.

The work time figure represents the average time required to perform the prescribed task (assembly, subassembly, component, module, end item, or system) on the item under typical operating conditions for that maintenance level/class. This time includes preparation time (including any necessary disassembly/assembly time), troubleshooting/fault location time, and quality assurance time in addition to the time required to perform the specific tasks identified for the maintenance tasks authorized in the MAC. The symbol designations for the various maintenance levels/classes and classes are as follows:

Field:

C Crew maintenance
F Maintainer maintenance

Sustainment:

L Specialized Repair Activity (SRA)
H Below depot maintenance
D Depot maintenance

INTRODUCTION — CONTINUED

Explanation of Columns in the MAC – Continued

NOTE

The “L” maintenance class is not included in column (4) of the MAC. Functions to this class of maintenance are identified by work time figure in the “H” column of column (4), and an associated reference code is used in the REMARKS column (6). This code is keyed to the remarks, and the SRA complete repair application is explained there.

Column (5) Tools and Equipment Reference Code. Column (5) specifies, by a number code, those common tool sets (not individual tools), common Test, Measurement and Diagnostic Equipment (TMDE), and special tools, special TMDE and special support equipment required to perform the designated function. Codes are keyed to the entries in the tools and test equipment table.

Column (6) Remarks Code. When applicable, this Column (6) contains a letter code, in alphabetical order, which is keyed to the remarks table entries.

Explanation of Columns in the Tools and Test Equipment Requirements

Column (1) Tool or Test Equipment Reference Code. The tool or test equipment reference code correlates with a code used in column (5) of the MAC.

Column (2) Maintenance Level. The lowest class of maintenance authorized to use the tool or test equipment.

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

Column (4) National Stock Number (NSN). The NSN of the tool or test equipment.

Column (5) Tool Number. The manufacturer's part number.

Explanation of Columns in the Remarks

Column (1) Remarks Code. The code recorded in column (6) of the MAC.

Column (2) Remarks. This column lists information pertinent to the maintenance task being performed as indicated in the MAC.

END OF WORK PACKAGE

FIELD

INDIVIDUAL EQUIPMENT MAINTENANCE ALLOCATION CHART (MAC)

Table 1. MAC for Individual Equipment.

(1)	(2)	(3)	(4) MAINTENANCE LEVEL				(5)	(6)
			FIELD		SUSTAINMENT		TOOLS AND EQUIPMENT REFERENCE CODE	REMARKS CODE
GROUP NUMBER	COMPONENT/ ASSEMBLY	MAINTENANCE FUNCTION	CREW C	MAIN-TAINER F	BELOW DEPOT H	DEPOT D		
01	System, Sleep, Modular	Inspect		1.0				
		Service		1.0				A, B
		Repair		1.0				
02	Arctic Gear	Inspect		1.0				
		Service		1.0				A, B
		Test		0.5				
		Repair		1.0				
03	Gear, Mountaineering	Inspect		1.0				
		Service		1.0				A, B
		Repair		1.0				
04	Bags, General	Inspect		1.0				
		Service		1.0				A, B
				1.0				
05	Equipment, Load-Bearing	Inspect		1.0				
		Service		1.0				A, B
		Repair		1.0				
06	Gear, All-Purpose Lightweight Individual Carrying Equipment (ALICE)	Inspect		1.0				
		Service		1.0				A, B
		Repair		1.0				
07	Equipment, Protective, Chemical	Inspect		1.0				
		Service		1.0				A, B

INDIVIDUAL EQUIPMENT MAINTENANCE ALLOCATION CHART (MAC) – CONTINUED

Table 2. Tools and Test Equipment for Individual Equipment.

Tools or Test Equipment	Maintenance Level	Nomenclature	National Stock Number (NSN)	Tool Number
1	F	Brush, Scrub, Household	Local Purchase	
2	F	Die Tool, Fastener	5120-00-090-4412	1401
3	F	Die, Eyelet	5120-00-144-2098	9083
4	F	File, Hand, Flat	5110-00-249-2848	A-A-2311
5	F	Gun, Glue	Local Purchase	
6	F	Heated Blade Cutter	Local Purchase	
7	F	Holder, Die	5120-00-357-6181	00-357-6181
8	F	Holder, Die Fastener (Chuck)	5120-00-357-6177	192
9	F	Iron, Clothing	Local Purchase	
10	F	Knife, Hot Metal	Local Purchase	
11	F	Pliers, Diagonal Cutting	5110-00-222-2708	220-7NS
12	F	Pliers, Lineman's	5120-00-756-1156	B107.20M
13	F	Pliers, Needle Nose	5120-01-021-7473	B107.13M
14	F	Pliers, Slip Joint	5120-00-223-7396	B107.23
15	F	Press, Grommet and Eyelet, Hand-Operated	5120-00-880-0619	M370
16	F	Punch and Die, Grommet Inserting, No 00	5210-00-357-5753	216-00
17	F	Punch and Die, Grommet Inserting, Size 0	5120-00-221-1146	217-0
18	F	Punch, Cutting, Double Bow	5110-00-180-0924	149-5/8
19	F	Push Drill	5110-00-293-3410	A-A-2552
20	F	Ruler, Tab, Metal, 16 Inches	7510-00-173-4897	16INCHMETAL
21	F	Scissors, 8-inch	Local Purchase	
22	F	Scraper	Local Purchase	
23	F	Screwdriver, Flat Tip	5120-00-596-8502	B107.600
24	F	Screwdriver, Flat Tip, 1/4-inch	5120-00-596-8653	B107.15
25	F	Sewing Machine, Bartack, Industrial	Local Purchase	JUKI LK-1900A-HS
26	F	Sewing Machine, Box X	Local Purchase	JUKI LK-1900A-HS
27	F	Sewing Machine, Darning	3530-01-177-8589	207
28	F	Sewing Machine, Double Box X	Local Purchase	JUKI LR-1900A-HS

INDIVIDUAL EQUIPMENT MAINTENANCE ALLOCATION CHART (MAC) – CONTINUED

Table 2. Tools and Test Equipment for Individual Equipment – Continued.

Tools or Test Equipment	Maintenance Level	Nomenclature	National Stock Number (NSN)	Tool Number
29	F	Sewing Machine, Double Needle	3530-00-892-4636	333RBP-6
30	F	Sewing Machine, Heavy Duty	3530-01-177-8588	733R-5
31	F	Sewing Machine, Heavy Duty, Zig-Zag	3530-01-181-1421	146RB-2A
32	F	Sewing Machine, Light Duty	3530-01-177-8590	7360R
33	F	Sewing Machine, Light-Heavy Duty	3530-01-186-3079	SK6F-1
34	F	Sewing Machine, Medium Duty	3530-01-177-8591	255RB-3
35	F	Sewing Machine, Zig-Zag	Local Purchase	Consew 199R-2A
36	F	Shears, Tailor's, 12-inch	5110-00-223-6370	PD5110-00-223-6370
37	F	Stencil Cutting Machine, Hand-Operated	7490-00-164-0537	A-A-2722
38	F	Stitch Removal Tool	Local Purchase	
39	F	Tape, Measuring	5210-00-182-4797	W9312
40	F	Wrench, Torque	5120-00-776-1841	B107.14M/(05047)
41	F	Yardstick	5120-00-985-6610	1260/(7L527)

Table 3. Remarks for Individual Equipment.

REMARKS CODES	REMARKS
A	Service is cleaning of equipment.
B	Refer to individual work package for tool requirements.

END OF WORK PACKAGE

FIELD

EXPENDABLE AND DURABLE ITEMS LIST

INTRODUCTION

Scope

This work package lists expendable and durable items that you will need to operate and maintain the Individual Equipment. This list is for information only and is not authority to requisition the listed items. These items are authorized to you by CTA 50-970, Expendable/Durable Items (Except Medical, Class V Repair Parts, and Heraldic Items), CTA 50-909, Field and Garrison Furnishings and Equipment or CTA 8-100, Army Medical Department Expendable/Durable Items.

Explanation of Columns in Expendable/Durable Items List

Column (1) Item No. This number is assigned to the entry in the list and is referenced in the narrative instructions to identify the item (e.g., Use brake fluid (WP 0098, item 5)).

Column (2) Level. This column identifies the lowest level of maintenance that requires the listed item (include as applicable: C = Crew, O = AMC, F = Maintainer or ASB, H = Below Depot or TASMG, D = Depot).

Column (3) National Stock Number (NSN). This is the NSN assigned to the item which you can use to requisition it.

Column (4) Item Name, Description, Part Number/(CAGEC). This column provides the other information you need to identify the item. The last line below the description is the part number and the Commercial and Government Entity Code (CAGEC) (in parentheses).

Column (5) U/I. Unit of Issue (U/I) code shows the physical measurement or count of an item, such as gallon, dozen, gross, etc.

Table 1. Expendable and Durable Items List.

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONALSTOCK NUMBER (NSN)	(4) ITEM NAME, DESCRIPTION, PART NUMBER/(CAGEC)	(5) U/I
1	F	8040-00-062-4173	Adhesive, 10C1693/(92755)	KT
2	F	8040-00-162-9704	Adhesive, Paste, 8040-00-162-9704/(80244)	KT
3	F	8040-00-054-5023	Adhesive, Room Temperature and Intermediate Temperature Setting Resin (Phenol Resoranol and Melamine Base) MIL-397B	AR
4	F	6850-01-228-7266	Cleaning Compound, Solvent	BT
5	F	8305-00-222-2423	Cloth, Cheesecloth, Type 1, Class I, (CAGEC 81348), P/NCCC-C-40	
6	F	3305-00-460-4200	Cloth, Coated, Balloon, Cotton, for Heat Seal Patching. Type I, (81349), MILC43677	YD
7	F	8305-01-003-5435	Cloth, Coated, Cotton, Nylon Oxford, 6.5 Oz, Quarpel Treated, Type II, (81349), MIL-C-43677	YD
8	F	8305-01-115-9168	Cloth, Parachute, Nylon 1.1 oz./yd., 36 Inch Width, (81349), MIL-C-7020	YD
9	F	7930-00-282-9699	Detergents, General Purpose, Type I of MIL-D-16791	BX
10	F	7930-00-531-9715	Detergents, General Purpose, Type II of MLL-D-16791	GL

EXPENDABLE AND DURABLE ITEMS LIST – CONTINUED

Table 1. Expendable and Durable Items List – Continued.

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONALSTOCK NUMBER (NSN)	(4) ITEM NAME, DESCRIPTION, PART NUMBER/(CAGEC)	(5) U/I
11	F	5350-00-192-5049	Emery Cloth, 120 Grit	PK
12	F	5350-00-115-3297	Grain, Abrasive, MIL-G-5634, Type 6	BG
13	F	6810-01-075-5546	Isopropyl Alcohol	BT
14	F	9150-00-999-7548	Lubricant, Interlocking Slide Fastener, Zipperease Stick Form, (96980), ZE-2GOV	BX
15	F	7520-00-973-1059	Marker, Felt Tip, Black (CAGEC 81348), P/N GG-M-00114	DZ
16	F	7930-00-170-5467	Soap, Saddle (CAGEC 80244), P/N 220-16	
17	F	7930-00-170-5467	Soap, Saddle, Paste Form 1 Lb Can FED P-S 609	LB
18	F	8030-01-104-5392	Thread Locking Compound	BX
19	F	9160-00-903-8339	Wax, Ski, MIL-W-1510, 2 oz. Tube	TU

END OF WORK PACKAGE

FIELD
TOOL IDENTIFICATION LIST

INTRODUCTION

Scope

This work package lists all common tools and supplements and special tools/fixtures needed to maintain Organizational Clothing and Individual Equipment (OCIE).

Explanation of Columns in the Tool Identification List

Column (1) Item No. This number is assigned to the entry in the list and is referenced in the initial setup to identify the item (e.g., Extractor (WP 0090, item 32)).

Column (2) Item Name. This column lists the item by noun nomenclature and other descriptive features (e.g., Gauge, belt tension).

Column (3) National Stock Number (NSN). This is the National Stock Number (NSN) assigned to the item; use it to requisition the item.

Column (4) Part Number/(CAGEC). 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. The manufacturer's Commercial and Government Entity Code (CAGEC) is also included.

Column (5) Reference. This column identifies the authorizing supply catalog, components list, or RPSTL for items listed in this work package.

Table 1. Tool Identification List.

(1) ITEM NO.	(2) ITEM NAME	(3) NATIONALSTOCK NUMBER (NSN)	(4) PART NUMBER/ (CAGEC)	(5) REFERENCE
1	Brush, Scrub, Household	Local Purchase		
2	Die Tool, Fastener	5120-00-090-4412	89-1401/(13940)	TM 10-8400-203-23&P
3	Die, Eyelet	5120-00-144-2098	9083/(61864)	TM 10-8400-203-23&P
4	File, Hand, Flat	5110-00-249-2848	A-A-2311/(58536)	TM 10-8400-203-23&P
5	Gun, Glue	Local Purchase		TM 10-8400-203-23&P
6	Heated Blade Cutter	Local Purchase		TM 10-8400-203-23&P
7	Holder, Die	5120-00-357-6181	DWG5120-00-357-6181/(80244)	TM 10-8400-203-23&P
8	Holder, Die Fastener (Chuck)	5120-00-357-6177	192/(13940)	TM 10-8400-203-23&P
9	Iron, Clothing	Local Purchase		
10	Knife, Hot Metal	Local Purchase		TM 10-8400-203-23&P
11	Pliers, Diagonal Cutting	5110-00-222-2708	220-7NS/(75347)	TM 10-8400-203-23&P
12	Pliers, Lineman’s	5120-00-756-1156	B107.20M/(05047)	TM 10-8400-203-23&P
13	Pliers, Needle Nose	5120-01-021-7473	B107.13M/(05047)	TM 10-8400-203-23&P
14	Pliers, Slip Joint	5120-00-223-7396	B107.23/(05047)	TM 10-8400-203-23&P
15	Press, Grommet and Eyelet, Hand-Operated	5120-00-880-0619	M370/(13940)	TM 10-8400-203-23&P

Table 1. Tool Identification List – Continued.

(1) ITEM NO.	(2) ITEM NAME	(3) NATIONALSTOCK NUMBER (NSN)	(4) PART NUMBER/ (CAGEC)	(5) REFERENCE
16	Punch and Die, Grommet Inserting, No 00	5210-00-357-5753	216-00/(76970)	TM 10-8400-203-23&P
17	Punch and Die, Grommet Inserting, Size 0	5120-00-221-1146	217-0/(76970)	TM 10-8400-203-23&P
18	Punch, Cutting, Double Bow	5110-00-180-0924	149-5/8/(76970)	TM 10-8400-203-23&P
19	Push Drill	5110-00-293-3410	03-043/(78525)	TM 10-8400-203-23&P
20	Ruler, Tab, Metal, 16 Inches	7510-00-173-4897	16INCHMETAL/(93287)	TM 10-8400-203-23&P
21	Scissors, 8-Inch	Local Purchase		TM 10-8400-203-23&P
22	Scraper	Local Purchase		
23	Screwdriver, Flat Tip	5120-00-596-8502	B107.600/(05047)	TM 10-8400-203-23&P
24	Screwdriver, Flat Tip, ¼-Inch	5120-00-596-8653	B107.15/(05047)	TM 10-8400-203-23&P
25	Sewing Machine, Bar Tack, Industrial	Local Purchase	JUKI LK-1900 A-HS/(8N184)	TM 10-8400-203-23&P
26	Sewing Machine, Box X	Local Purchase	JUKI LK-1900A-HS/ (8N184)	TM 10-8400-203-23&P
27	Sewing Machine, Darning	3530-01-177-8589	207(120/60/1)/ (90338)	TM 10-8400-203-23&P
28	Sewing Machine, Double Box X	Local Purchase	JUKI LR-1900A-HS (8N184)	TM 10-8400-203-23&P
29	Sewing Machine, Double Needle	3530-00-892-4636	333RBP-6/(90338)	TM 10-8400-203-23&P
30	Sewing Machine, Heavy Duty	3530-01-177-8588	733R-5/(90338)	TM 10-8400-203-23&P
31	Sewing Machine, Heavy Duty, Zig-Zag	3530-01-181-1421	146RB-2A	TM 10-8400-203-23&P
32	Sewing Machine Light Duty	3530-01-177-8590	7360R/(90338)	TM 10-8400-203-23&P
33	Sewing Machine, Light-Heavy Duty	3530-01-186-3079	SK6F-1/(90338)	TM 10-8400-203-23&P
34	Sewing Machine, Medium Duty	3530-01-177-8591	255RB-3/(90338)	TM 10-8400-203-23&P
35	Sewing Machine, Zig-Zag	Local Purchase	Consew 199R-2A/ (90338)	TM 10-8400-203-23&P
36	Shears, Tailor's, 12-Inch	5110-00-223-6370	5110-00-223-6370/ (80244)	TM 10-8400-203-23&P
37	Stencil Cutting Machine, Hand-Operated	7490-00-164-0537	68R/(38512)	TM 10-8400-203-23&P
38	Stitch Removal Tool	Local Purchase		TM 10-8400-203-23&P
39	Tape, Measuring	5210-00-182-4797	5210-00-182-4797/ (80244)	TM 10-8400-203-23&P
40	Wrench, Torque	5120-00-776-1841	B107.14M/(05047)	TM 10-8400-203-23&P
41	Yardstick	5120-00-985-6610	1260/(7L527)	TM 10-8400-203-23&P

END OF WORK PACKAGE

These are the instructions for sending an electronic 2028

The following format must be used if submitting an electronic 2028. The subject line must be exactly the same and all fields must be included; however only the following fields are mandatory: 1, 3, 4, 5, 6, 7, 8, 9, 10, 13, 15, 16, 17, and 27.

From: "Whomever" <whomever@avma27.army.mil>
To: TACOMLCMC.DAForm2028@us.army.mil

Subject: DA Form 2028

1. From: Joe Smith
2. Unit: home
3. Address: 4300 Park
4. City: Hometown
5. St: MO
6. Zip: 77777
7. Date Sent: 19-OCT-93
8. Pub no: 55-2840-229-23
9. Pub Title: TM
10. Publication Date: 04-JUL-85
11. Change Number: 7
12. Submitter Rank: MSG
13. Submitter FName: Joe
14. Submitter MName: T
15. Submitter LName: Smith
16. Submitter Phone: 123-123-1234
17. Problem: 1
18. Page: 2
19. Paragraph: 3
20. Line: 4
21. NSN: 5
22. Reference: 6
23. Figure: 7
24. Table: 8
25. Item: 9
26. Total: 123
27. Text:

This is the text for the problem below line 27.

RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS

For use of this form, see AR 25-30; the proponent agency is ODISC4.

Use Part II *(reverse)* for Repair Parts and Special Tool Lists (RPSTL) and Supply Catalogs/Supply Manuals (SC/SM).

DATE
21 October 2003

TO: *(Forward to proponent of publication or form) (Include ZIP Code)*
US ARMY TACOM LIFE CYCLE MANAGEMENT COMMAND
ATTN: AMSTA-LC-SECT
15 KANSAS ST
NATICK, MA 01760-5052

FROM: *(Activity and location) (Include ZIP Code)*
PFC JANE DOE
Co A 3RD Engineer Br.
Ft Leonard Wood, MO 63108

PART I – ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS

PUBLICATION/FORM NUMBER	DATE	TITLE
TM 10-1670-296-23&P	30 October 2002	Unit Manual for Ancillary Equipment for Low Velocity Air Drop Systems

ITEM NO.	PAGE NO.	PARA-GRAPH	LINE NO. *	FIGURE NO.	TABLE NO.	RECOMMENDED CHANGES AND REASON *(Provide exact wording of recommended changes, if possible).*
	0036 00-2				1	*In Table 1, Sewing Machine Code Symbols, the second sewing machine code symbol should be MDZZ not MD22* *Change the manual to show Sewing Machine, Industrial: Zig-Zag; 308 stitch; medium-duty; NSN 3530-01-181-1421 as a MDZZ code symbol.*

**Reference to line numbers within the paragraph or subparagraph.*

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
Jane Doe, PFC	(508) 233-4141 DSN 256-4141	Jane Doe *Jane Doe*

DA FORM 2028, FEB 74 REPLACES DA FORM 2028, 1 DEC 68, WHICH WILL BE USED. USAPPC V3.00

TO: (*Forward direct to addressee listed in publication*)	**FROM:** (*Activity and location) (Include ZIP Code)*	**DATE**
US ARMY TACOM LIFE CYCLE MANAGEMENT COMMAND ATTN: AMSTA-LC-SECT 15 KANSAS ST NATICK, MA 01760-5052	*PFC JANE DOE* *Co A 3RD Engineer Br.* *Ft Leonard Wood, MO 63108*	21 October 2003

PART II – REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS

PUBLICATION NUMBER	DATE	TITLE
TM 10-1670-296-23&P	30 October 2002	Unit Manual for Ancillary Equipment for Low Velocity Air Drop Systems

PAGE NO.	COLM NO.	LINE NO.	NATIONAL STOCK NUMBER	REFERENCE NO.	FIGURE NO.	ITEM NO.	TOTAL NO. OF MAJOR ITEMS SUPPORTED	RECOMMENDED ACTION
0066 00-					4			*Callout 16 in figure 4 is pointed to a D-Ring.In the Repair Part List key for Figure 4, item 16 is called a Snap Hook. Please correct one or the other.*

PART III – REMARKS (*Any general remarks or recommendations, or suggestions for improvement of publications and blank forms. Additional blank sheets may be used if more space is needed.)*

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE

RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS For use of this form, see AR 25-30; the proponent agency is ODISC4.	Use Part II *(reverse)* for Repair Parts and Special Tool Lists (RPSTL) and Supply Catalogs/Supply Manuals (SC/SM).	DATE

TO: *(Forward to proponent of publication or form) (Include ZIP Code)* US ARMY TACOM LIFE CYCLE MANAGEMENT COMMAND ATTN: AMSTA-LCL-MPP/TECHPUBS 1 Rock Island Arsenal ROCK ISLAND, IL 61299-7360	**FROM:** *(Activity and location) (Include ZIP Code)*

PART I – ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS

PUBLICATION/FORM NUMBER	DATE	TITLE
TM 10-8400-203-23&P	1 October 2014	Field Maintenance Manual Including Repair Parts and Special Tools List for General Repair Procedures for Individual Equipment

ITEM NO.	PAGE NO.	PARA-GRAPH	LINE NO. *	FIGURE NO.	TABLE NO.	RECOMMENDED CHANGES AND REASON *(Provide exact wording of recommended changes, if possible).*

**Reference to line numbers within the paragraph or subparagraph.*

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE

TO: *(Forward to proponent of publication or form) (Include ZIP Code)*	**FROM:** (*Activity and location) (Include ZIP Code)*	**DATE**
US ARMY TACOM LIFE CYCLE MANAGEMENT COMMAND ATTN: AMSTA-LCL-MPP/TECHPUBS 1 Rock Island Arsenal ROCK ISLAND, IL 61299-7360		

PART II – REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS

PUBLICATION NUMBER	DATE	TITLE
TM 10-8400-203-23&P	1 October 2014	Field Maintenance Manual Including Repair Parts and Special Tools List for General Repair Procedures for Individual Equipment

PAGE NO.	COLM NO.	LINE NO.	NATIONAL STOCK NUMBER	REFERENCE NO.	FIGURE NO.	ITEM NO.	TOTAL NO. OF MAJOR ITEMS SUPPORTED	RECOMMENDED ACTION

PART III – REMARKS (*Any general remarks or recommendations, or suggestions for improvement of publications and blank forms. Additional blank sheets may be used if more space is needed.)*

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE

RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS

For use of this form, see AR 25-30; the proponent agency is ODISC4.

Use Part II *(reverse)* for Repair Parts and Special Tool Lists (RPSTL) and Supply Catalogs/Supply Manuals (SC/SM).

DATE

TO: *(Forward to proponent of publication or form) (Include ZIP Code)*
US ARMY TACOM LIFE CYCLE MANAGEMENT COMMAND
ATTN: AMSTA-LCL-MPP/TECHPUBS
1 Rock Island Arsenal
ROCK ISLAND, IL 61299-7360

FROM: *(Activity and location) (Include ZIP Code)*

PART I – ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS

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TM 10-8400-203-23&P	1 October 2014	Field Maintenance Manual Including Repair Parts and Special Tools List for General Repair Procedures for Individual Equipment

ITEM NO.	PAGE NO.	PARA-GRAPH	LINE NO. *	FIGURE NO.	TABLE NO.	RECOMMENDED CHANGES AND REASON *(Provide exact wording of recommended changes, if possible).*

**Reference to line numbers within the paragraph or subparagraph.*

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE

TO: *(Forward to proponent of publication or form) (Include ZIP Code)*	**FROM:** (*Activity and location) (Include ZIP Code)*	**DATE**
US ARMY TACOM LIFE CYCLE MANAGEMENT COMMAND ATTN: AMSTA-LCL-MPP/TECHPUBS 1 Rock Island Arsenal ROCK ISLAND, IL 61299-7360		

PART II – REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS

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PART III – REMARKS (*Any general remarks or recommendations, or suggestions for improvement of publications and blank forms. Additional blank sheets may be used if more space is needed.)*

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE

By Order of the Secretary of the Army:

Official:

GERALD B. O'KEEFE
Administrative Assistant to the Secretary of the Army
1407001

RAYMOND T. ODIERNO
General, United States Army
Chief of Staff

Army Distribution:
Initially published in electronic media only. If at a later date this publication is printed, it will be distributed in accordance with the initial distribution number (IDN) 253995, requirements for TM 10-8400-203-23&P.

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 = 3 2.8 feet
1 hectometer = 10 dekameters = 328.08 feet
1 kilometer = 10 hectometers = 3,280.8 feet

Liquid Measure

1 centiliter = 10 milliliters = .34 fl. ounce
1 deciliter = 10 centiliters = 3.38 fl. ounces
1 liter = 10 deciliters = 33.81 fl. ounces
1 dekaliter = 10 liters = 2.64 gallons
1 hectoliter = 10 dekaliters = 26.42 gallons
1 kiloliter = 10 hectoliters = 264.18 gallons

Weights

1 centigram = 10 milligrams = .15 grain
1 decigrarn = 10 centigrams = 1.54 grains
1 gram = 10 decigrams = .035 ounce
1 dekagrarn = 10 grams = .35 ounce
1 hectogram = 10 dekagrams = 3.52 ounces
1 kilogram = 10 hectograms = 2.2 pounds
1 quintal = 100 kilograms = 220.46 pounds
1 metric ton = 10 quintals = 1.1 short tons

Square Measure

1 sq. centimeter = 100 sq. millimeters = .15 5 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 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	Iiters	.473	milliliters	fluid ounces	.034
quarts	Iiters	.946	liters	pints	2.113
gallons	Iiters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	newton-meters	1.356	metric tons	short tons	1.102
pound-inches	newton-meters	.11296			

Temperature (Exact)

°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

PIN: 086190-000