TM 32-5410-217-14&P

TECHNICAL MANUAL

OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT, AND GENERAL SUPPORT MAINTENANCE MANUAL [INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST]

SHELTER, ELECTRICAL EQUIPMENT S-389/MSA-34

This publication is not available through AG publication Center. Requisition through Commander, US Army Electronics Materiel Readiness Activity, Vint Hill Farms Station. Warrenton, VA. 22186

HEADQUARTERS, DEPARTMENT OF THE ARMY

APRIL 1977

WARNING

DEATH or SERIOUS INJURY may result from hazards in this equipment unless the proper safety measures are observed.

READ and OBSERVE the referenced warnings contained herein and in the technical manuals provided for the system components.

NOTICE

As contained in this publication, the words he, his and him are intended to include both the masculine and the feminine genders. Any exceptions to this are so noted. TECHNICAL MANUAL

32-5410-217-14&P

HEADQUARTERS DEPARTMENT OF THE ARMY WASHINGTON, DC, 1 April 1977

Operator's, Organizational, Direct Support and

General Support Maintenance Manual

(Including Repair Parts and Special Tools List)

for

SHELTER, ELECTRICAL EQUIPMENT

S-389/MSA-34

This publication is not available through AG Publications Center. Requisition through Commander, US Army Electronics Materiel Readiness Activity, Vint Hill Farms Station, Warrenton, VA 22186.

LIST OF FEFECTIVE PAGES	INSERT LATEST CHANGED PAGES, DESTROY SUPERSEDED PAGES
	NOTE: The portion of the text affected by the changes is indicated by a vertical line in the outer margins of the page.
Dates of issue for original and change	ed pages are:
Original Date: 1 April 1977 Change Date: 8 May 1979	
TOTAL NUMBER OF PAGES IN T	THIS PUBLICATION IS 97 CONSISTING OF THE FOLLOWING:
Page *	ChangePage*ChangeNo.No.No.
Warning Page	0 64
* Zer	o in this column indicates an original page.

TECHNICAL MANUAL

32-5410-217-14&P

HEADQUARTERS DEPARTMENT OF THE ARMY WASHINGTON, DC, 1 April 1977

Operator's, Organizationed, Direct Support and

General Support Maintenance Manual

(Including Repair Parts and Secial Tools List)

for

SHELTER, Electrical EQUIPMENT

S-389/MSA-34

Page

CHAPTER 1.	INTRODUCTION
Section I. Section II.	General 1-1 Description and Data 1-2
CHAPTER 2.	SERVICE UPON RECEIPT AND INSTALLATION
Section I. Section II. Section III.	System Planning 2-1 Service Upon Receipt of Materiel 2-1 Installation 2-1
CHAPTER 3.	OPERATING INSTRUCTIONS
Section I. Section II. Section III. Section IV.	Controls and Indicators3-1Operation Under Usual Conditions3-2Operation Under Unusual Conditions3-2Preparation for Movement3-3
CHAPTER 4.	OPERATOR/CREW MAINTENANCE INSTRUCTIONS
Section I. Section II.	General 4-1 Operator/Crew Preventive Maintenance Instructions 4-1
CHAPTER 5.	ORGANIZATIONAL MAINTENANCE INSTRUCTIONS
Section I. Section II. Section IV. Section V.	Tools and Equipment5-1Repainting and Refinishing Instructions5-1Organizational Preventive Maintenance Checks and Services5-1Troubleshooting.5-3Organizational Maintenance Instructions5-4
CHAPTER 6.	DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE 6-1
Section I. Section II.	RepairParts,SpecialTools,andEquipment6-1MaintenanceInstructions6-1

CONTENTS (Continued)

		Page
CHAPTER 7.	MATERIAL USED IN CONJUNCTION WITH MAJOR ITEM	. 7-1
Section I. Section II. Section III.	Air Conditioner Mounting Kit	7-1 7-4 7-6
APPENDIX A.	REFERENCES	A-1
APPENDIX B.	MAINTENANCE ALLOCATION CHART	B-1
APPENDIX C.	BASIC ISSUE ITEMS LIST AND REPAIR PARTS AND SPECIAL TOOLS LIST	C-1
INDEX		Index

LIST OF ILLUSTRATIONS

Figure

1-1.	Shelter, Electrical Equipment, S-389/MSA-34	1 - 1
1-2.	Single Shelter Units Interconnected to Form a Large Fixed Communications Complex	1-2
1-3.	S-389 Electrical Equipment Shelter, Basic Components	1-3
1-4.	Electrical Cable Ducts	1-5
1-5.	Shelter Blackout Lighting Circuit Schematic	1-6
2-1.	Panel Clamp Assembly	2-2
2-2.	Panel, Roof Storage	2-3
3-1.	Ceiling Light Pairs	3-2
5-1.	Shelter Wiring Diagram	5-3
5-2.	Shelter Light Unit Components	5-5
6-1.	Door Assembly, Side/End Panel	6-4
7-1.	Air Conditioner Mounting Kit MK-001-1U	7 - 1
7-2.	Air Conditioner Mounting Kit, Components	7-2
7-3.	Dolly Adapter Kit MK-A002-1U	7-4
7-4.	Dolly Set M-720	7-4
7-5.	Dolly Adapter Plate Installation	7-5
7-6.	End and Side Walkway Kits	7-6

LISTS OF TABLES

Table

1-1.	Auxiliary Equipment	1-4
2-1.	Components Listing	2-1
3-1.	Electrical Controls	3-1
4-1.	Operator/Crew Preventive Maintenance Checks and Services	4-1
5-1.	Organizational Preventive Maintenance Checks and Services	5-2
5-2.	Organizational Troubleshooting	5-4

INTRODUCTION

Section I. GENERAL

1-1 SCOPE. This manual provides operator/crew, organizational, direct support, and general support instructions for installation, operation, and maintenance of Shelter, Electrical Equipment, S-389/MSA-34 (fig, 1-1). It includes instructions for troubleshooting, testing, repairing, and replacement of maintenance parts in conformance with the Maintenance Allocation Chart (MAC).



Figure 1-1. Shelter, Electrical Equipment, S-389/MSA-34

1-2 MAINTENANCE FORMS AND RECORDS. Department of the Army forms and procedures used for equipment maintenance will be those prescribed by TM 38-750. Forward all Equipment Improvement Reports (EIR) to Commander, USASA, Materiel Support Command, ATTN: IAMNMP/M, Vint Hill Farms Station, Warrenton, Virginia 22186.

1-3 EQUIPMENT SERVICEABILITY CRITERIA (ESC). An ESC technical manual has not been prepared for Shelter, Electrical Equipment, S-389/MSA-34.

1-4 REPORTING OF ERRORS. The reporting of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to Publications) and forwarded direct to Commander, USASA Materiel Support Command, ATTN:

IAMNMP/E, Vint Hill Farms Station, Warrenton, Virginia 22186.

1-5. DESTRUCTION OF ARMY MATERIEL TO PRE-VENT ENEMY USE. Destruction of the shelter will be in accordance with instructions prescribed in TM 750-244.2

1-6 ADMINISTRATIVE STORAGE. Administrictative storage will be in accordance with instructions prescribed in TM 740-901.

1-7 REPORTING EQUIPMENT IMPROVEMENT RE-COMMENDATIONS (EIR). EIR's will be prepared using DA Form 2407, Maintenance Request. Instructions for preparing EIR's are provided in TM 38-750, The Army Maintenance Management System. EIRs should be mailed directly to Commander, USASA, Materiel Support Command, ATTN: IAMNMP/E, Vint Hill Farms Station, Warrenton, Virginia, 22186. A reply will be furnished directly to you.

Section II. DESCRIPTION AND DATA

1-4 PURPOSE AND USE. The shelter is designed to provide a watertight structure for housing electrical, electronic or communications equipment. The shelter can be transported by air, rail, or vehicle and can be mounted on a

vehicle or installed as a single, freed ground unit Removable end and side panels are provided to permit interconnection of single units to form a large fixed complex (fig. 1-2).



Figure 1-2. Single Shelter Units Interconnected to Form a Large Fixed Communications Complex

1-9 DESCRIPTION

a. General. The basic S-389 Electrical Equipment Shelter (fig. 1-3) is a rectangular unit constructed of aluminum sheets that form a double, hollow core wall. The wall is filled with polyurethane insulation. The shelter has four removable panels. One side and one end panel are

blank, whereas the other side and end panel each contain a door. The side panels are interchangeable to provide a door entrance from either side and the end panels are interchangeable to provide an entrance from either end. Also, one or more panels may be removed entirely to provide throughways to additional shelters in multiplex installations or to provide additional cable entrances.



LEGEND:

- 1. 3-way light switch
- 2. Door type side panel
- 3. Blank type end panel
- 4. Blank type side panel
- 5. Door type end panel
- 6. Small door assembly

- 7. Large door assembly
- 8. Skid
- 9. Center skid
- 10. Name plates
- 11. Lifting and tiedown fitting
- 12. Dreg loop

- 13. Step
- 14. Air register
- 15. Electrical duct
- 16. Fluorescent light unit
- 17. Fire extinguisher

Figure 1-3. S-389 Electrical Equipment Shelter, Basic Components

b. Doors. The two doors, similar in appearance, operate in the same manner. Each door is provided with a double slide bolt latch that is operated by turning either the interior or exterior door handle approximately 90 degrees. A leg brace on each door limits the amount. of swing and provides a means of holding the door open when required. Both doors may be locked on the inside by a lockpin or on the outside by padlock.

c. Air Ducts. The shelter is provided with two air ducts (input and return), one located on each side of the shelter below the floor panel. These ducts are used for interconnecting shelters, normally in multiples of three units, to provide conditioned air to the shelters emanating from a central source. Internal airflow is controlled in each shelter by four adjustable louvered air registers, one located in each comer of the shelter floor (fig. 1-3). When the air ducts are not in use or interconnected, the end openings are capped with a watertight cover which is stored on a bracket adjacent to each opening.

d. Fire Extinguisher. A fire extinguisher, mounted in a quick release bracket, is provided in each shelter. It is located on the ceiling (fig. 1-3).

e. External Power Connectors. Two external waterproof male electrical connectors are provided, one located at each end of the shelter. Either connector will accept a power source of 208 Vat, 50-60 Hz, 3-phase, and both are fitted with a watertight cover and a drawstring type boot to prevent water from entering the connectors. The connectors are routed internally through circuit breakers to provide a master control and overload protection for all circuits. Cabling is routed through the shelter by utilizing the electrical ducts and center skid as cable troughs. A removable cover in each vertical electrical duct provides interior outlets for cabling at the rack positions.

f. Electrical System. Vertical electrical ducts (fig. 1-4) in each end comer of the shelter house the switching for the electrical system. Three convenience receptacles are located in each vertical duct. Power is routed through the vertical ducts at one end, down into cross ducts within the shelter floor, through the center skid, and back into the cross and vertical ducts at the other end. Covers in the floor at either end provide access to the cross ducts and skid. Four fluorescent light units (fig. 1-3), recessed in the ceiling, provide interior lighting. The lights are controlled by switches in a three-way circuit which allows on/off control from either end of the shelter. The shelter is provided with a blackout lighting system (fig. 1-5). A plug-in actuator at either door of the shelter turns the ceiling lights off and the blackout light on when a door is opened. A grounding lug is located at each end of the shelter.

g. Auxiliary Equipment. The auxiliary equipment listed in table 1-1 is available for use with the shelter when required. For complete description of equipment refer to appropriate technical manual(s) in Appendix A. Refer to chapter 7 for installation of kits.

Item	Model	NSN
Air conditioner, vertical, compact	CH 620-2 or CE 20 VAL6	4120-00-168-1781 4120-00-973-4589
Mounting kit, air conditioner	MK-001-lU	
Generator set, DED	SF-30-MD/CJED	6115-00-935-5111
Dolly adapter kit (for M-720 dolly set)	MK-A002-lU	

Table 1-1. Auxiliary Equipment

h. Handling Features. The shelter has lifting/tiedown rings at each upper comer and towing eyes at each lower comer. Three skids are attached to the bottom of the shelter. A sling set (fig. 1-3) consisting of four steel cables with snap hooks and a turnbuckle is provided with the shelter for lifting or towing or for securing the shelter on a mobile unit. A dolly adapter kit is available for installation on the shelter. The kit provides attaching points for Dolly Set M-720 which allows towing by a vehicle (see chapter 7).

1-10 TABULATED DATA.

Shelter,	Electrical	Equipment,	S-389/MSA	1 <i>-34</i>
Weig	ht (approx	.)		5,166 lb

Exterior Dimensions

Length	in
Width	in
Height	in
Cube 693	ft ³

Interior Dimensions

Length
Width
Height
Cube
Floor space

Power Requirements

208 Vat, 50-60 Hz, 100 A

Mounting Kit, Air Conditioner

Length	9.5 in
Width	.32 in
Height	30 in
Cube	14.2 ft ³

Dolly Adapter Kit

Length	36 in
Width	30 in
Height	24 in
Cube	15 ft



Figure 1-4. Electrical Cable Ducts



Figure 1-5. Shelter Blackout Lighting Circuit Shematic

SERVICE UPON RECEIPT AND INSTALLATION

Section I. SYSTEM PLANNING

2-1 GENERAL. The Shelter, Electrical Equipment, S-389/MSA-34, is a basic unit which can be adapted to various uses. The shelter may be transported by air, rail, or vehicle. A single shelter unit may be installed as a fixed ground installation or installed in multiple units to provide a large interconnected complex. It can also be mounted on a vehicle.

2-2 SITE SELECTION. Site selection for shelter installation is determined primarily by application. For freed

installation, a single unit requires an area approximately 8 by 12 feet. However, the selected area site must be large enough to permit unhindered access to and the proper placement and servicing of the shelter (or of multiple units) and the associated equipment required to perform a mission. A level area with natural drainage is desirable. Swampy or spongy areas and areas with close-in high grounds should be avoided whenever possible.

Section II. SERVICE UPON RECEIPT OF MATERIEL

2-3 UNPACKING THE SHELTER. The basic shelter is shipped fully assembled. Unpacking is limited to the removal of waterproof tape from doors, panels, and electrical entrances to ready it for service.

2-4 CHECKING UNPACKED EQUIPMENT.

a. Inspect the equipment for damage incurred during shipment. If the equipment has been damaged, report the damage on DD Form 6 (see paragraph 1-2).

b. Check the equipment against the components listing (table 2-1) and the packing slip to see if the shipment is complete. Report all discrepancies in accordance with paragraph 1-2. The equipment should be placed in service even though a minor assembly or part that does not affect

Table	2-1.	Com	ponents	Listing

Nomenclature	Quantity
Power lead-in cable	1
Cable sling set	1

proper functioning is missing.

c. Check to see if the equipment has been modified. Equipment which has been modified will have the Modification Work Order (MWO) number on the front panel near the nomenclature plate. Also check to see if all currently applicable MWO's have been applied. (Current MWO's applicable to the equipment are listed in USASA Pam 310-6 or DA Pam 3107.)

Section III. INSTALLATION

2-5 GENERAL. The site space requirements for a fixed ground or vehicular-mounted shelter are limited to providing enough room for the unit and the additional equipment needed to perform a mission.

2-4 SHELTER INSTALLATION.

a. Position the shelter unit on site location and level with blocking.

b. Ground the shelter to earth as follows:

(1) Select a location approximately 12 feet from either end of the shelter.

(2) Dig a hole about 12 inches in diameter and 6 inches deep.

(3) Place a ground rod in the center of the hole and drive the rod down until about 6 inches remains above ground.

(4) Connect one end of the ground cable to the shelter ground lug and the remaining end to the ground rod with cable clamp provided. Ensure that lugs and clamp are tight at both ends of the cable before connecting electrical service.

2-7 EXTERNAL ELECTRICAL POWER CONNECTION.

External electrical power may be connected to the shelter by either of the two external, waterproof male connectors provided at each end of the shelter. Either of the two connectors will accept 208 Vac, 60 Hz, 3-phase power.

2-8 SIDE AND END PANEL REMOVAL AND INSTAL-LATION.

a. General. The end door panel is interchangeable with the end blank panel, and the side door panel is interchangeable with the side blank panel to provide a door entrance from either side or either end. A louver with air filter and watertight outer cover is provided in the upper section of one door and a blank panel in the other. The louver unit or blank panel is removable, providing additional openings for cable feed-through when required.

b. Panel Removal Panels may be removed for interconnecting or for relocating doorways in the following manner:

(1) Station two men inside the shelter and three or four men on top of the roof above the panel to be removed.

(2) From inside the shelter, loosen the clamps around the perimeter of the panel by loosening the screws on each clamp (fig. 2-1).

(3) Rotate all panel clamps 90 degrees to release panel from shelter and retighten the screw on each clamp to hold it in release position. Have the men on top of the shelter apply light pressure to the top of the panel to prevent the panel from falling out of the opening.

(4) From inside the shelter, tip the top of the panel out so that the men on the roof can grasp and lift it to the top of the roof.

(5) Repeat steps (1) through (4) for removing additional panels.



PANEL CLAMP ASSEMBLY, VIEW 1



PANEL CLAMP ASSEMBLY, MODIFIED, VIEW 2

Figure 2-1. Panel Clamp Assembly

c. Panel Roof Storage. The panels removed from the shelter are stored on the roof and secured in place by U-clips and latch bolts located in recessed roof pockets (fig. 2-2). In hot sunny climates, the panels act as a solar shield, thus providing additional protection from the sun. The panels are secured to the roof by locking the standoffs in the four recessed roof pockets as follows:



Figure 2-2. Panel Roof Storage.

(1) Release panel standoffs from flush position (fig. 2-2).

(2) Release the two spring ded latch bolts, in recessed roof pockets, by sliding the bolt side-ways and lifting up to unlocked position.

(3) Secure one end of panel by hooking two standoffs in recessed pocket containing U-clips.

(4) Lower the two remaining standoffs into recessed pockets containing latch box: Release latch bolts to lock (down) position to secure panel of roof.

(5) Repeat above procedure for additional panel storage.

d. Modified Clamp Assembly. A modified clamp assembly (fig. 2-1) has been installed on some shelters and may be removed from outside of the shelter as follows:

(1) With wrenches provided with the shelter, hold the stud by wrench flats on end of stud to prevent it from turning.

(2) Use a second wrench and backoff jam nut to loosen clamp assembly.

(3) Rotate stud by turning wrench flats 90 degrees to release inside clamp from shelter wall. Retighten jam nut to hold clamp in release position.

NOTE

The wrench flats are parallel with long side of clamp inside of shelter to identify open/closed positions.

(4) Repeat steps (1) through (3) for removing remaining clamps.

(5) Store removed panels as instructed in paragraph c.

e. Panel Installation. Install panels in reverse order of removal.

OPERATING INSTRUCTIONS

Section I. CONTROLS AND INDICATORS

3-1 GENERAL. The Electrical Equipment Shelter S-389/MSA-34 is provided with switches and circuit

breakers for control of the electrical system as listed in table 3-1.

Control	Description	Function
Blackout circuit	ON/OFF switch	Controls blackout circuit.
Blackout	Receptacle	Provides input for blackout actuator cable.
Blackout	Circuit relay	ON position permits shelter light circuits to be controlled by interlock switch. OFF position will bypass interlock switch.
Light	ON/OFF circuit breaker	Connects phase A power to shelter light circuit through ceiling light switches. Provides circuit overload protection.
Phase A	Circuit breaker	Provides power to phase A receptacle connectors and provides circuit overload protection.
Phase A	Receptacle	Provides a means of connecting phase A power to external circuits.
Phase B	Receptacle	Provides a means of connecting phase B power to external circuits.
Phase B	Circuit breaker	Connects phase B power to phase B receptacles and provides circuit overload protection.
Phase C	Circuit breaker	Connects phase C power to receptacle connectors and provides circuit overload protection.
Phase C	Receptacle	Provides a means of connecting phase C power to external circuits.
Ceiling lights	ON/OFF switch	Controls phase A power to four dual fluorescent lights.
Blackout	Door switch	Activates blackout light when door is opened.

Table 3-1. Electrical Cor	ontrol	S
---------------------------	--------	---

3-2 NORMAL LIGHTING CIRCUIT. The shelter is provialed with two ceiling light switches mounted in the ceiling at each end of the shelter between the ceiling light pairs (fig. 3-1). The two switches are part of a three-way light switching circuit, permitting lights to be turned on or off from either end of the shelter. A circuit breaker switch is provided on one of the electrical ducts to cut off power from the lighting circuit (see fig. 1-4).

3-3 BLACKOUT LIGHTING CIRCUITS. A plug-m actuator consisting of a micro-switch is installed in each door and is plugged into one of the four blackout (BO) receptacles (fig. 1-4) located at the top of the electrical ducts. The BO electrical circuits are controlled by a master ON/OFF BO circuit breaker switch. This switch must be m the ON position to energize the BO circuit which controls automatic switching from normal lighting to BO lighting.





When the BO switch is ON and the door is opened, the fluorescent lights (normal lighting) are extinguished and the BO lamp comes on. When the door is closed, normal lighting is restored. When the BO circuit breaker switch is set to the OFF position, the BO circuit is discontinued and the normal lighting circuits restored.

3-4 CONVENIENCE RECEPTACLES. The shelter is provided with four sets of plug-in convenience receptacles (fig. 1-4) with three receptacles grouped on each electrical duct. The receptacles are overload-protected by circuit breakers.

3-5 CIRCUIT BREAKERS. Four 40-ampere (switch-type) circuit breakers are provided for circuit overload protection (fig. 1-4). One circuit breaker controls power to the normal light circuit and the remaining three control power to the four convenience receptacles.

3-6 AIR DUCTS AND CONTROLS. The shelter is provided with two air ducts located beneath the floor on each side of the shelter. These control air entering or leaving the shelter from an external source. The ends of both air ducts are sealed, when not in use, by a cap and gasket. Air flow via the air ducts from an external source is controlled by . four louvered air registers, one located in each comer of the shelter. The louvers in each air register can be adjusted by a knurled nut on a threaded rod to set and hold the louvers in a variety of selected open/closed positions.

Section II. OPERATION UNDER USUAL CONDITIONS

3-7 GENERAL. Prior to placing the shelter in operation, perform the following:

a. Check earth ground terminals to ensure that clamp connections are tight.

b. Ensure that all circuit breakers are in the OFF position before connecting external power source.

3-8 OPERATING PROCEDURE.

a. Refer to the appropriate technical manual for connetting power source to shelter and for operating specific equipment that may be installed.

b. Set light circuit breaker to ON.

c. Turn shelter ceiling lights ON.

d. Ensure that all switches to installed equipment are placed in OFF position.

e. Set phase A, B and C circuit breakers to ON.

f. Operate installed equipment as instructed by appropriate technical manual(s).

3-9 SHUTDOWN PROCEDURE.

a. Refer to appropriate technical manual and shutdown all operating equipment.

- b. Set phase A, B and C circuit breakers to OFF.
- c. Turn shelter ceiling lights OFF.
- d. Set light circuit breaker to OFF.

Section III. OPERATION UNDER UNUSUAL CONDITIONS

3-10 GENERAL The S-389/MSA-34 shelter is fully insulated and weatherproofed for operation in hot, cold, wet, or moderate climates. The shelter is capable of provialing complete protection from the elements for personnel and any equipment that may be installed.

3-11 OPERATION IN EXTREME COLD.

a. The shelter may be heated from an external source connected to the shelter air duct system, or by a portable heating unit installed in an end door when the door panel is

removed. Refer to the appropriate technical manual for instructions on the specific heating system employed.

b. Extreme cold causes cable and wire insulation to become hard and brittle and difficult to handle. Use care in handling and avoid sharp bends and unnecessary loops. Improper handling can cause cracks and breaks in insulation that may result in permanent damage.

3-12 OPERATION IN EXTREME HEAT UNDER DUSTY CONDITIONS.

a. The shelter may be air conditioned from an external source connected to the shelter air duct system, or by a portable air conditioning unit installed in an end door when the door panel is removed. Refer to the appropriate

technical manual for instructions on the specific air conditioning unit employed.

b. In hot, dry climates, connectors, receptacles, and binding posts are subject to damage from dust and dirt. Open doors only when necessary and ensure that door and panel gaskets seal properly. Clean and dust the shelter daily.

3-13 OPERATION UNDER HOT HUMID CONDITIONS.

a. The shelter is weatherproof and is capable of providing complete protection from the elements. However, the shelter is subject to damage from moisture and fungi.

b. Heat and high humidity, prevalent in tropical climates, can cause rapid deterioration of equipment. Rust, corrosion, and fungi accumulation are major problems. Open doors only when necessary. Remove accumulated moisture, rest, and fungi.

Section IV. PREPARATION FOR MOVEMENT

3-14 GENERAL The basic shelter S-389/MSA-34 may contain a variety of equipment not covered by this manual. Therefore, to prepare the sheltered equipment for movement, refer to the appropriate technical manual(s) covering the specific items of equipment and for removing the external power source. For specific manuals, refer to DA Pam 3104 (see Appendix A).

3-15 SHELTER PREPARATION FOR MOVEMENT.

a. Ensure that all sheltered equipment is turned off and secured in accordance with appropriate technical manual(s).

b. Place all electrical switches and circuit breakers in the OFF position.

c. Remove external power source to shelter in accordance with appropriate technical manual.

d. Remove earth ground by disconnecting ground cable at stud connectors located in the shelter and at the ground rod.

e. Pull ground rod from earth.

f. Store ground cable and rod inside shelter.

g. Install side and door panels, if removed, in the reverse order of removal procedure (see paragraph 2-8).

h. Install covers on air duct openings.

OPERATOR/CREW MAINTENANCE INSTRUCTIONS

Section I. GENERAL

4-1 TOOLS AND EQUIPMENT. Repair parts, tools, and accessories issued with or authorized for use by the operator/crew for the Shelter, Electrical Equipment, S-389/MSA-34 are listed in the Basic Issue Items List, Appendix C of this manual.

4-2 LUBRICATION INSTRUCTIONS. Lubricate door

hinges, locks, and panel standoffs with a light oil periodi-

tally for proper operation.

Section II. OPERATOR/CREW PREVENTIVE MAINTENANCE INSTRUCTIONS

4-3 GENERAL. To ensure that the basic Electrical Equipment Shelter S-389/MSA-34 is always ready for operation, it must be inspected systematically so that defects may be discovered and corrected before they result in serious damage or failure. The necessary preventive maintenance checks and services to be performed are listed and described in table 4-1. The item numbers indicate the sequence of

minimum inspection requirements. Defects discovered during operation of the unit will be noted for future correction to be made as soon as operation has ceased. Stop operation immediately if a deficiency is noted during operation which would damage the equipment. Record all deficiencies together with the corrective action taken on the appropriate maintenance form listed in TM 38-750.

Table 4-1. Operator/Crew Preventive Maintenance Checks and Services

NOTE

If the equipment must be kept in continuous operation, check and service only those items that can be checked and serviced without disturbing operation; make the complete checks and services when the equipment can be shut down.

D–Daily Interval and Sequence No.		Daily	W-W	eekly	y M-Monthly M/H		-Man-Hours	
		l and ce No.	Item to be Inspected		Procedure		Work Time	
D	W	M		<u> </u>				
1			Shelter exterior	a. Check all loose con higher ma	connecting cables for kinks and stra nections. Report cut, frayed or brol intenance level.	nins. Tighten ken items to		
		1		b. Inspect shelter for signs of rust and corrosion. Report rust and corrosion condition to higher level maintenance.				
		2		c. Check do oil as requ	or and hinged mechanism. Lubricate uired.	with a light		
2			Shelter interior	a. Check ce Report by	iling lights for burned out fluores urned out tubes to higher level mainter	scent tubes. nance.	- 14 • 14	

	D -1	Daily	W-W	eekly M-Monthly M/H-M	an-Hours
lı Se	nterva quenc	l and e No.	Item to be Inspected	Procedure	Work Time
D	W	M			<u> </u>
3				b. Check blackout lights for proper operation. Report any malfunction to higher level maintenance.	
	1			c. Clean shelter. Remove moisture, dirt, or other foreign materials.	
	2			d. Clean electrical ducts, air registers, and light fixtures.	
4				e. Check light switches, circuit breakers, and receptacles for good condition and proper function. Report any malfunctions to higher level maintenance.	
		3		f. Inspect earth ground cable connections for looseness and cable for good condition. Report loose connections or damaged cable to higher level maintenance.	

Table 4-1. Operator/Crew Preventive Maintenance Checks and Services (Continued)

PREVENTIVE MAINTENANCE CONDITIONS.

a. General. The preventive maintenance checks and services in table 4-1 must be performed during the period specified. In addition, the specified checks and services must be performed when the following conditions exist:

(1) When the equipment is installed initially.

(2) When equipment is removed and reinstalled.

(3) At least once each week if the equipment is maintained in a standby condition.

WARNING

Cleaning solvents are flammable and fumes are toxic; do not use near flame or in an unventilated area.

b. Cleaning.

(1) Use a dry, clean, lint-free cloth or brush to remove dust or dirt. If necessary, moisten the cloth or brush with an approved cleaning solvent. After cleaning, wipe dry with a clean cloth.

(2) Dry compressed air, not to exceed 60 pounds per square inch, may be used to remove dirt and dust from inaccessible places.

ORGANIZATIONAL MAINTENANCE INSTRUCTIONS

Section I. TOOLS AND EQUIPMENT

5-1 GENERAL. No special tools, equipment, or lubricants are required by organizational maintenance to perform maintenance functions authorized by the Maintenance Allocation Chart (MAC).

5-2 REPAIR PARTS. Repair parts issued with or authorized for use by organizational maintenance are listed in the Repair Parts and Special Tools List (RPSTL), Appendix C of this manual.

Section II. REPAINTING AND REFINISHING INSTRUCTIONS

5-3 PAINTING AND PRESERVATION SUPPLIES. Painting and preservation supplies available for field use for Electronics Command Equipment are listed in SB 11-573.

5-4 PAINTING AND PRESERVATION INSTRUCTIONS.

Field instructions for painting and preserving Electronic Command Equipment are covered in TB 746-10. The care of painting equipment is covered in TM 9-213, Painting Instructions for Field Use.

Solar reflection paint per MIL-E-46061 (MO) has been used to paint the exterior of some shelters. Before applying touchup paint on the exterior, check for a caution notice on the exterior door. If solar reflecting paint has been used, refer to TB 750-240 for application instructions. Do not use any other paint on shelter when solar paint has been used.

Section III. ORGANIZATIONAL PREVENTIVE MAINTENANCE CHECKS AND SERVICES

5-6 GENERAL. To ensure that the shelter is always ready for operation, it must be inspected systematically so that defects may be discovered and corrected before they result in serious damage or failure. The necessary preventive maintenance checks and services to be performed are listed and described in table 5-1. The item number indicates the sequence of minimum inspection requirements. Defects

discovered during operation of the unit will be noted for future correction to be made as soon as operation has ceased. Stop operation immediately if a deficiency is noted during operation which would damage the equipment. Record all deficiencies, together with the corrective action taken, on appropriate form(s) as directed by TM 38-750.

NOTE

Table 5-1. Organizational Preventive Maintenance Checks and Services

NOTE

If the equipment must be kept in continuous operation, check and service only those items that can be checked and serviced without disturbing operation; make the complete checks and services when the equipment can be shut down.

W-Weekly		Weekly	M	Monthly Q-Quarterly	M/H-Man-H ours	
Interval and Sequence No.		l and æ No.	Item to be Inspected	Procedure	Time M/H	
w	M	Q			4	
	1		Publications	Verify that all publications are current, complete, and service able. See DA Pam 310-4.	-	
	2		Modifications	Verify that all current MWO's have been applied. Apply urgen MWO's immediately. Schedule normal MWO's to avoid disrupting operation(s) when possible.	t 1	
	3		Cable and wires	Tighten loose connections. Repair cracked or cut insulation Remove kinks or strains.	•	
	4		Ceiling lights and starter	Replace lights or starter as necessary.		
	5		Receptacles, switches and circuit breakers	Inspect for shorts and operation. Repair or replace as necessary.		
	6		Walls, ceiling, and floor	Inspect for holes, open seams, or signs of seepage or leaks. If repairs are required, report to a higher maintenance level.		
	7		Earth ground connection	Inspect ground connections for tightness and earth condition for conduction. Tighten connections and/or pour water around ground rod to improve conduction.		
	8		Preservation	Inspect all surfaces for evidence of rust and corrosion. Sand and repaint as required. See paragraphs 5-3 and 5-4.		

5-6 CHECKS AND SERVICES. The preventive maintenance checks and services provided in table 5-1 outline inspections to be performed and procedures to be followed

by organizational maintenance personnel as authorized by the Maintenance Allocation Chart. Inspections are to be performed at the specified intervals. **5-7 GENERAL.** The information presented in this section is provided as an aid to organizational maintenance in isolating troubles to a defective unit or item of equipment that may require repairs. Refer to appropriate technical manuals for troubleshooting specific items of equipment not covered by this manual. See Appendix A.

5-8 TROUBLESHOOTING TABLE. Troubleshooting the shelter is accomplished in conjunction with the preventive

maintenance checks listed in table 5-1. When an abnormal condition or malfunction is observed, locate the appropriate symptom in the malfunction column of table 5-2 and figure 5-1. The procedure listed in the corrective action column should then correct the trouble. Refer any trouble that is beyond the scope of organizational maintenance to a higher level of maintenance as specified by the Maintenance Allocation Chart, Appendix B.



Figure 5-1. Shelter Wiring Diagram

Malfunction	Probable cause	Corrective Action	
1. No power available inside shelter when power is connected.	a. Defective power cable.b. Defective power receptacle.c. Defective main circuit breaker.d. Defective wiring from power entrance to circuit breaker.	a. Check and repair or replace.b. Replace receptacle.c. Replace circuit breaker.d. Check and repair or replace as required	
 Fluorescent ceiling lights do not illuminate when switches are turned ON. 	a. Defective fluorescent lamp.b. Defective starter.c. Defective circuit breaker.d. Defective fluorescent switch.e. Defective wiring.	 a. Replace lamp. b. Replace starter. c. Replace circuit breaker. d. Replace switch. e. Check and repair as required. 	
3. Blackout lights fail to illuminate when door is opened.	a. Defective interlock switch.b. Defective wiring.	a. Replace switch. b. Check and repair as necessary.	
4. Ceiling lights do not extinguish when door is open and blackout switch is ON.	a. Defective interlock switch.b. Defective blackout switch.c. Defective wiring.	a. Replace switch.b. Replace switch.c. Check and repair wiring as required.	
5. No power at receptacles.	a. Defective circuit breaker.b. Defective wiring.	a. Replace circuit breaker. b. Check and repair as required.	

Table 5-2. Organizational Troubleshooting

Section V. ORGANIZATIONAL MAINTENANCE INSTRUCTIONS

5-9 FLUORESCENT LAMP LENS.

a. Lens Removal (fig. 5-2).

(1) Remove two cover locking screws and allow cover to swing down slowly.

(2) Remove lens contacts by removing the three assembly hardware sets securing each contact to cover.

(3) While holding lens in cover frame, remove remaining assembly hardware sets around frame perimeter. Remove lens.

b. Lens Installation.

(1) Position new lens in cover frame.

(2) Install lens retainers and secure with hardware removed in step a(3).

(3) Install lens contacts using three assembly hardware sets for each.

(4) Swing light cover up and install two cover locking screws.

5-10 FLUORESCENT/INCANDESCENT LAMP.

a. Lamp Removal (fig. 5-2).

(1) Remove two screws holding cover closed. Allow cover to swing down slowly.

(2) To replace blackout light, remove old bulb by turning bulb counterclockwise and install new bulb in its place by inserting bulb in socket and turning clockwise. (3) Turn off ceiling lights. Set LIGHT circuit breaker to OFF.

(4) Grasp defective fluorescent lamp gently with one hand while pressing firmly against spring pressure of lock-holder.

(5) Pull lamp down from unit.

b. Lamp Installation.

(1) Insert one end of new lamp in either lockholder. Press firmly against spring pressure of engaged lockholder. Raise lamp to align pins with lockholder. Release lockholder over pins.

(2) Swing light cover up and install two screws removed. Reset LIGHT circuit breaker to ON position.

5-11 FLUORESCENT STARTER.

a. Starter Removal (fig. 5-2).

(1) Remove light cover and fluorescent lamp (see paragraph 5-9) on same side of unit as defective starter.

(2) Rotate defective starter approximately 1/4 turn counterclockwise until it is disengaged from holder. Extract starter.

b. Starter Installation.

(1) Insert new starter into holder. Press in firmly on starter and rotate it approximately 1/4 turn until it clicks into position.

(2) Install lamp and close cover of unit as specified in paragraph 5-9.



LEGEND:

- 1. Cover locking screw
- 2. Incandescent lamp (blackout light)
- 3. Fluorescent lamp
- 4. Lock holder with starter receptacle
- 5. Starter

- 6. RFI filter
- 7. Self-locking hex nut
- 8. Ballast
- 9. Lock holder without starter receptacle



DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE

Section I. REPAIR PARTS, SPECIAL TOOLS, AND EQUIPMENT

6-1. TOOLS AND EQUIPMENT. Tools and equipment issued with or authorized for Shelter, Electrical Equipment, S-389/MSA-34 are listed in Appendix C.

6-2 SPECIAL TOOLS AND EQUIPMENT. No special tools or equipment is required to perform direct support or general support maintenance on the shelter.

6-3 MAINTENANCE REPAIR PARTS. Repair parts and equipment are listed and illustrated on the Repair Parts and Special Tools List (RPSTL) covering direct support and general support maintenance for the shelter. See Appendix c.

Section II. MAINTENANCE INSTRUCTIONS

6-4 RFI FILTER.

a. Filter Removal (fig. 5-2).

(1) Place light circuit switch to OFF position.

(2) Remove two cover locking screws and allow cover to swing down slowly.

(3) Cut each wire entering filter as close as possible to filter unit.

(4) Using a thin screwdriver and an 11/32-inch wrench, remote one self-locking hex nut and flat washer securing falter to the light unit.

(5) Loosen remaining hex nut a few turns and remove falter.

b. Filter Installation.

(1) Using a small piece of sandpaper, remove paint from area around screw slots on new falter unit.

(2) Slide one end of falter under washer and locknut. Wrap ground wire around screw shaft under flat washer. Tighten hex nut.

(3) Install flat washer and hex nut removed in step a(4).

(4) Cut all four wires on new filter approximately 5 inches in length. Strip 3/8-inch of insulation from each wire.

(5) Connect black wire from falter (side closest to incandescent lamp) to wire connecting both ballasts using a crimp-type, solderless butt connector.

(6) Connect black wire from filter (side opposite incandescent lamp) to previously clipped wire at end of light unit using a crimp-type, solderless butt connector.

(7) Connect white wire from filter (side closest to incandescent lamp) to wire running to two flex lockholders not having starters. Use a crimp-type solderless butt connector.

(8) Connect white wire from filter (side opposite incandescent lamp) to wire running to shell side of incandescent lamp fixture. Use a crimp-type solderless butt connector.

(9) Apply electrical tape around all solderless connectors. Dress all wiring into channel of unit.

(10) Swing light cover up and install two locking screws. Reset LIGHT circuit breaker to ON position.

6-5 BALLAST.

a. Ballast Removal (fig. 5-2).

(1) Place light circuit switch to OFF position.

(2) Remove two cover locking screws and allow cover to swing down slowly.

(3) Cut both ballast wires as close as possible to ballast unit.

(4) Using a thin screwdriver and an 11/32-inch wrench, remove one self-locking hex nut and flat washer used to secure ballast in light unit.

(5) Loosen hex nut on opposite end of ballast a few turns. Remove ballast.

b. Ballast Installation.

(1) Slide one end of replacement ballast under washer and locknut.

(2) Install flat washer and hex nut removed in step a(4) above.

(3) Cut wires on new ballast to approximately 5 inches. Strip 3/8-inch of insulation from each wire.

(4) Connect each wire from new ballast separately to two wires in channel cut from old ballast. Use solderless butt connectors.

(5) Swing light cover up and install two cover locking screws. Reset LIGHT circuit breaker to ON position.

6-6 LIGHT SWITCH.

a. Light Switch Removal.

(1) Set LIGHT circuit breaker to OFF.

(2) Remove four assembly hardware sets securing mounting plate of defective switch to ceiling.

(3) Pull plate and switch down from ceiling far enough to gain access to connections on back of switch.

(4) Remove two assembly hardware sets securing light switch to mounting plate. Remove plate.

b. Light Switch Installation.

(1) Loosen three terminal screws on new switch.

(2) Remove wires from old switch and connect to corresponding terminals on new switch. Tighten terminal screws.

(3) Install mounting plate on switch using the two hardware sets removed in step a(4) above.

(4) Press mounting plate into position, ensuring wires are dressed neatly behind plate.

(5) Install four assembly hardware sets removed in step a(2) above.

(6) Reset LIGHT circuit breaker. Turn on ceiling lights.

6-7 CONVENIENCE RECEPTACLE.

a. Receptacle Removal.

(1) Set circuit breaker controlling receptacle to be replaced to OFF.

(2) Remove screws securing defective convenience receptacle to electrical duct.

(3) Pull receptacle from duct far enough to gain access to connections on back of receptacle.

(4) Loosen terminal screws on back of new receptacle.

(5) Loosen terminal screws on old receptacle. Remove wires and connect to corresponding terminals on new receptacle. Tighten terminal screws on new receptacle.

b. Receptacle Installation.

(1) Position receptacle in duct, ensuring wires are dressed neatly into duct and insulation is not cut.

(2) Install screws removed in step a(2) above.

(3) Reset circuit breaker to ON position.

6-4 BLACKOUT RECEPTACLE.

a. Receptacle Removal.

(1) Set LIGHT circuit breaker and BLACKOUT CIRCUIT switch to OFF.

(2) Remove four assembly hardware sets securing blackout receptacle to top of electrical duct.

(3) Pull receptacle from duct far enough to gain access to wires on back of receptacle.

(4) Using a soldering iron, remove wires from back of blackout receptacle and solder same wires to corresponding terminals on new receptacle.

b. Receptacle Installation.

(1) Install receptacle in electrical duct and secure with hardware removed in step a(2) above.

(2) Set light circuit breaker and blackout switch to ON.

6-9 BLACKOUT CIRCUIT SWITCH.

a. Switch Removal.

(1) Set LIGHT circuit breaker, BLACKOUT CIRCUIT switch, and "A" and "B" phase circuit breakers to OFF.

(2) Remove nine assembly hardware sets securing upper cover plate to electrical duct. Pull upper cover plate away from duct far enough to gain access to BLACKOUT CIRCUIT switch.

(3) Remove two assembly hardware sets securing blackout switch to side of electrical duct.

(4) Loosen terminal screws on new switch.

(5) Remove wires from old switch and connect to corresponding terminals on new switch. Tighten terminal screws.

b. Switch Installation.

(1) Install switch in side of electrical duct using hardware sets removed in step a(3) above. (2) Install upper cover plate on front of electrical duct using rune assembly hardware sets removed m step a(2) above.

(3) Reset LIGHT "A" phase and "B" phase circuit breakers.

6-10 BLACKOUT CIRCUIT RELAY.

a. Relay Removaal.

(1) Set LIGHT "A" phase and "B" phase circuit breakers and BLACKOUT CIRCUIT to OFF.

(2) Remove nine assembly hardware sets securing upper cover plate to electrical duct. Pull upper plate away from duct far enough to gain access to blackout circuit relay.

(3) Remove hardware securing relay duct.

(4) Remove wires from old relay and connect to corresponding terminals on new relay.

b. Relay Installation.

(1) Install new relay in duct using hardware removed in step a(3) above.

(2) Install upper cover plate on front of electrical duct using nine assembly hardware sets removed in step a(2) above.

(3) Reset LIGHT "A" phase and "B" phase circuit breakers.

6-11 CIRCUIT BREAKER.

a. Circuit Breaker Removal.

(1) Remove external power cable from shelter having defective circuit breaker.

(2) Remove nine assembly hardware sets securing upper cover plate to electrical duct having defective circuit breaker. Remove plate.

(3) Remove two assembly hardware sets securing circuit breaker nomenclature cover plate to duct. Remove plate.

(4) Remove screw securing one terminal of defective circuit breaker to buss.

(5) Remove wire connected to other terminal of circuit breaker.

(6) Remove defective circuit breaker.

b. Circuit Breaker Installation.

(1) Install new circuit breaker on mounting bracket.(2) Install screw through one terminal of circuit breaker into buss bar.

(3) Connect wire removed in step a(5) above to other terminal of circuit breaker.

(4) Install circuit breaker nomenclature cover plate using two assembly hardware sets removed in step a(3) above.

(5) Install upper cover plate on electrical duct using nine assembly hardware sets removed in step a(2) above.

(6) Connect external power cable to shelter.

6-12 DOOR ASSEMBLY.

a. General. The side and end door assemblies are of the same configuration. The following instructions apply to both doors. Refer to figure 6-1.

b. Door Removal.

(1) Remove three screws (2) securing leg brace (3) to interior side of door.

(2) Remove screws and locknuts (22) from the three hinges (20).

(3) Turn door handle (18) to open position (approximately 90 degrees counterclockwise) and lift door free of panel assembly.

c. Door Installation.

(1) Position door in panel assembly and hold in place with door lock engaged.

(2) Install screws in the three hinges (20) and secure with locknuts (22) on inside of door.

(3) Install screws (2) and secure leg brace (3) to door interior.

6-13 DOOR HINGE ASSEMBLY.

a. General. A single hinge may be removed without removing the entire door assembly. If all hinges are to be removed, refer to paragraph 6-12 and remove door assembly first. Refer to figure 6-1 for the following procedures.

b.. Hinge Removal.

(1) Remove screws and locknuts (22).

(2) Remove screws, locknuts, and flat washer (21).

(3) Remove hinge from door and frame assembly.

c. Hinge Installation.

(1) Position hinge on shelter frame assembly and secure with screw, flat washer, and locknut (21).

(2) Position strap of hinge (20) against door assembly and secure with screw and locknut (22). Ensure that locknuts are inside of shelter.

6-14 SHELTER OUTER SKIN REPAIR. The outer skin of the shelter can be repaired in accordance with instructions provided in TB 750-240.



LEGEND:

- 1. Screw and lockwasher
- 2. screw
- 3. Leg brace
- 4. Clamp, spring, flat washer and screw
- 5. Strike bolt
- 5a. Microswitch, Blackout Lights
- 6. Strap assembly
- 7. Link bar
- 8. Inside handle
- 9. Center case assembly
- 10. Spring washer
- 11. Clamp, spring, flat washer and screw

- 12. Lockpin
- 13. Link bar
- 14. Standoff
- 15. Locknut and flat washer
- 16. Bolt housing
- 17. Strike bolt
- 18. Outside handle
- 19. Latch plate and locking screw
- 20. Hinge
- 21. Screw, locknut and flat washer
- 22. Screw and locknut

Figure 6-1. Door Assembly, Side/End Panel

MATERIAL USED IN CONJUNCTION WITH MAJOR ITEM

Section I. AIR CONDITIONER MOUNTING KIT

7-1 GENERAL. The MK-001-IU Air Conditioner Mounting Kit (fig. 7-1) is designed for the installation of the following air conditioners: Trane Model CE 20 VAL 6 (NSN: 4120-00-9734589) or American Air Filter Model CH 620-2 (NSN: 4120-00-168-1781). The mounting kit consists of a special end panel, mounting frame, power cabling, grounding kit, and mounting hardware. The mounting kit may be installed at either end of the shelter

by removing the appropriate end panel and installing the special end panel and mounting frame. Both air conditioning units require a power source of 208 V. 50-60 Hz, 3-phase. The units have a cooling capacity of 18,000 Btu/h and a heating capacity of 12,000 Btu/h. Refer to the appropriate technical manual for air conditioner operation and maintenance instructions. See Appendix A.



Figure 7-1. Air Conditioner Mounting Kit MK-001-IU

7-2 INSTALLATION.

a. Preparation.

(1) Remove appropriate end panel from shelter as instructed in paragraph 2-8 and stow on roof.

(2) Install special end panel provided in kit in the reverse order of end panel removal.

b. Installation (fig. 7-2).

(1) Remove blankoff panels and stow in blankoff panel stowage bracket.

(2) Install mist eliminator drip pan.

(3) Install air conditioner mounting frame, lay angle hooks on top doorway castings of shelter, and slide into end panel while engaging studs through mounting holes in frame. Secure frame to end panel and shelter with hardware specified.

(4) Prepare air conditioner (GFE) for mounting to frame as follows and as per air conditioner technical manual TM 54120-308-15.

(a) Remove mist eliminator and intake and discharge grilles.

(b) Disengage fresh air damper chain.

(c) Prepare air conditioner for operation.



LEGEND:

- 1. End panel air cond
- 2. Frame weldment air cond
- 3. Nut 3/8-16
- 4. Lockwasher 3/8"
- 5. Flat washer 3/8"
- 6. Blankoff panel
- 7. Stabilizer bracket
- 8. Screw 5/16-18 x 1-3/8"
- 9. Lockwasher 5/16"

- 10. Lockwasher 5/16"
- 11. Screw 1/2-13" x 1-1/2"
- 12. Flat Washer 1/2"
- 13. Nut 1/2-13
- 14. Screw 1/2-13 x 4"
- 15. Spherical washer
- 16. Nut 1/2-13
- 17. Clamp gasket compression

- 18. Blankoff panel stowage
- 19. Screw 7/16-14 x 2-1/2"
- 20. Lockwasher 7/16"
- 21. Flat washer 7/16"
- 22. Screw 1/4-20 x 1-1/4"
- 23. Lockwasher 1/4"
- 24. Fiat washer 1/4"
- 25. Stud

Figure 7-2. Air Conditioner Mounting Kit Components (Sheet 1 of 2)


LEGEND:

- 26. Mist eliminator (GFE)
- 27. Sound attenuator (GFE)
- 28. Drip pan mist eliminator
- 29. Chain pull bracket
- 30. Air cond (NSN No. 4120-00-168-1781)
- 32. Ground strap33. Ground cable assy

34. Ground rod

- 37. Cable main power
- 38. Flat washer No. 10
- 39. Lockwasher No. 10
- 40. Screw No. 10-32 x 1/4"

Figure 7-2. Air Conditioner Mounting Kit Components (Sheet 2 of 2)

35. Ground rod clamp

CAUTION

Mist eliminator drip pan fits into discharge opening snugly.

(5) Set air conditioner on frame and up against gasket on end panel,

(6) Install stabilizer bracket under the air conditioner canvas zipper cover and attach to frame and air conditioner with hardware specified.

(7) Install gasket compression clamp on frame with hardware specified.

(8) Install air conditioner bottom mounting screws snug-tight only.

(9) Tighten gasket compression clamp and stabilizer bracket until gasket is compressed to approximately .62 inch; then tighten bottom mounting screws securely.

(10) Install sound attenuator (GFE) to the hinged panel with hardware specified.

31. Air cond (NSN No. 4120-00-973-4589) 36. Cable air cond

(11) Connect fresh air damper chain to the chain pull bracket and install the mist eliminator in the drip pan and the discharge opening in the panel.

(12) Securely close the sound attenuator panel.

(13) Install ground strap from frame mounting screw to the ground stud on the shelter.

(14) Drive ground rod into nearby area to obtain good grounding conditions.

(15) Install ground cable from ground stud on shelter to the clamp on the ground rod.

(16) Install air conditioner cable from power outlet on shelter to the power inlet on air conditioner.

(17) Install main power cable from power outlet on shelter to available power source.

Section II. DOLLY ADAPTER KIT

7-3 GENERAL. The Dolly Adapter Kit MK-A002-1U (fig. 7-3) is required to provide a means of attaching Dolly Set M-720 (fig. 7-4) to the S-389/MSA-34 shelter for mobilization. The kit consists of four upper and four lower adapter plates and attaching hardware. Refer to TM 9-2330-285-14 for operation and maintenance of the Dolly Set M-720.

7-4 ADAPTER KIT INSTALLATION.

a. Preparation.

(1) Raise the shelter approximately 36 inches off the ground and block securely. Ensure that blocking is placed clear of installation area.

(2) Remove all foreign material, such as mud, tar, etc., from shelter in the area to be used for adapter plate installation (eight places).

(3) Use adapter plates as templates for drilling pilot holes. Ensure that the plates are secured to the shelter firmly to prevent them from moving during pilot hole drilling operations.

b. Bottom Adapter Plate Installation.

(1) Position the bottom adapter plate against the shelter skid (fig. 7-5) and secure to prevent movement.



Figure 7-3. Dolly Adapter Kit MK-A002-1U



3. Hitch pin assembly

6. Lifting lip

Figure 7-74. Dolly Set M720

- 9. Mounting bracket



LEGEND:

- 1. Dolly adapter plate upper r.h.
- 2. Dolly adapter plate upp
- 3. Screw 5/8-11x2"
- 4. Lockwasher 5/8"
- 5. Flat washer 5/8"
- 6. Screw 1/4-20 x 7/8"

er r.h.	7. Lockwasher 1/4"	13. Screw 5/8-11 x 2-1/2'
er I.h.	8. Flat washer 1/4"	14. Screw 1/4-20 x 3/4"
	9. Nameplate	15. Screw 1/4-20 x 5/8"
	10. Screw tapping No. 4 x 1/4"	16. Rivnut No. S25B-140
	11. Dolly adapter plate skid r.h.	
	12. Dolly adapter plate skid l.h.	

Figure 7-5. Dolly Adapter Plate Installation

(2) Use a 9/32-inch diameter (.281 diameter) drill bit and drill 32 pilot holes (each plate) approximately .09 inch into shelter skids.

(3) Remove the adapter plate and redrill all pilot holes to .332 inch diameter, .50 inch deep maximum.

(4) Remove all hole burrs and install the S25B-140 rivnuts (32 holes each plate). Use standard rivnut installation procedure, except hand set the torque out strength to 70 inch-pounds. Use a torque wrench and a bottoming screw to check the torque out strength.

(5) Position the adapter plates and secure with hardware specified in figure 7-5.

c. Upper Adapter Plate Installation.

(1) Use the upper adapter plate as a template and position 25.5 inches above the bottom plate as illustrated in figure 7-5. Secure firmly to prevent movement when drilling pilot holes.

(2) Use a 5/16-inch diameter (.312 diameter) drill bit and drill 10 pilot holes (each plate) approximately .09 inch into shelter skin.

(3) Remove adapter plate and redrill pilot holes to .332 inch diameter, .50 inch deep maximum.

(4) Repeat rivnut installation procedure specified in paragraph b(4) above.

(5) Position the upper adapter plates (four places) and secure with hardware specified in figure 7-5.

Section III. WALKWAY KIT

7-5. DESCRIPTION.

a. General. more shelters may be interconnected side-to-side or end-to-end by use of side and end walkway kits (fig. 7-6). The use of one or more kits depends on the number of intended shelters and installation configuration.

b. Side Walkway Kit. The side walkway kit consists of a four-piece walkway cover and an aluminum walkway tread-plate. The walkway cover (top, bottom, and two side sections) is made of insulated. waterproofed cloth and is attached to an aluminum frame with wing nuts.

c. End Walkway Kit. The end walkway kit consists of an insulated, waterproofed cloth cover with an aluminum walkway tread-plate.

7-6 INTERCONNECTING SHELTERS END-TO-END.

a. End Panel Removal Remove end panels from openings in abutting shelters and store on roof as instructed in paragraph 2-8.

b. Walkway Cover Installation (fig. 7-6).

(1) Remove walkway cover package from storage and lift onto roof at position to be connected.

(2) Drop cover into position between shelters, allowing top of cover to support it in position.

(3) Insert wing nuts through cover from top of shelter to hold cover in position. Do not tighten at this time.

(4) From inside the shelter, reach inside shelter cover and start all wing nuts around perimeter. Do not tighten at this time.

(5) From on top of the roof, tighten all wing nuts to compress top of cover to shelter.

(6) Check contact of gasket between cover and shelter and ensure that lip pieces at the bottom of cover are resting on shelter panel opening extrusion. Tighten all wing nuts around inside perimeter of cover to ensure a weatherproof seal.

NOTE

Walkway treads are supplied with two interchangeable bolt-on angles. The long leg angle is used if both panels in abutting shelters are removed; the short angle is used if one of the door-type panels is left in position. Select the desired angle and bolt in position prior to proceeding with the remainder of the installation.



Figure 7-6. End and Side Walkway Kits

c. Walkway Tread Installation.

(1) Remove walkway tread from storage and move to point of installation inside of shelter.

(2) Lay the walkway tread in place across the bottom of cover and fasten the cover framing with the four quarter-turn screw devices provided.

7-7 INTERCONNECTING SHELTERS SIDE-TO-SIDE.

a. Side Panel Removal. Remove side panels from openings in abutting shelters and store on roof as instructed in paragraph 2-8.

b. Walkway Cover Installation (fig. 7-6).

(1) Remove walkway cover package from storage and separate into individual parts, a top, a bottom, two side sections, and a bow assembly.

(2) Position bottom part in place between shelters, with lip pieces along bottom nesting around edge of shelter panel opening extrusion. Install bottom boot between shelters and secure with wing nuts.

(3) Lift top section to shelter roof above panel opening to be connected.

(4) Position top section in place and insert wing nuts to hold top section in place. Do not tighten wing nuts at this time.

NOTE

Ensure that a wing nut is installed inside of boot, one at each side at both ends.

(5) Install side section from inside shelter. Install all wing nuts in both side sections. Do not tighten at this time. (The side sections are installed inside the side flaps of the top section anti outside the upright legs on the bottom section.)

(6) From outside of cover assembly, snap the "lift the dot" type fasteners, top and bottom, to completely close the assembly.

(7) Check contact of gasketing on cover to shelters and check that lip pieces at bottom are resting on shelter panel opening extrusion. Tighten all wing nuts as required for weatherproof seal.

(8) Install the bow assembly on each side section. To install, disassemble bow side brackets by removing pins. Attach the bracket with four screws (either of the side sections may be used). Reassemble bow to bracket with pins. Adjust bow as required to give a "tenting" effect to the top cover section.

NOTE

Side walkway treads are supplied with two interchangeable bolt-on angles. The long leg angle is used if both panels are removed; the short angle if a door-type panel is left in position. Select the desired angle and bolt in position prior to proceeding with installation.

c. Walkway Tread Installation.

(1) Remove the walkway tread from storage package.(2) Lay the walkway tread in place across bottom of the cover and adjust width to suit span between cover framing. Fasten the tread to cover framing with the 12 quarter-turn screw devices provided.

APPENDIX A

REFERENCES

DA Pam 310-4	Index of Technical Manuals, Technical Bulletins, Supply Manuals (Types 7, 8, and 9), Supply Bulletins and Lubrication Orders.
DA Pam 310-7	U.S. Army Equipment Index of Modification Work Orders.
TM 54120-222-14	Air Conditioner, Compact Vertical, 208 V, 3-phase, 50/60 Hz, Trane Model CE 20 VAL 6, NSN 4120-973-4589.
TM 5-4120-308-15	Air Conditioner, Compact Vertical, 208 V, 3-phase, 50/60 Hz, American Air Filter Model CH 620-2, NSN 4120-168-1781.
TM 5-6115-449-15	Generator Set, Self Powered, Diesel Engine Driven 30 kW ac, 3-phase, 120/208 V, 60 Hz, Skid Mounted, NSN 6115-00-935-5111.
TM 43-0139	Painting Instructions for Field Use.
TM 9-2330-285-14	Dolly Set, Lift, Transportable Shelter, 3-Ton, M720, NSN 2330-00-912-425 1; Composed of Dolly Trailer Front, M721, NSN 2330-00-912-4252 and Dolly Trailer Rear, M722, NSN 2330-00-912-4253.
TM 740-90-1	Administrative Storage of Equipment.
TM 750-244-2	Procedures for Destruction of Electronic Material to Prevent Enemy Use.
TB 43-0118	Field Instructions for Painting and Preserving Electronics Command Equipment.
TB 750-240	Maintenance and Repair Procedures for S-141/G, S-144/G, S-250/G, S-280/G and S-318/G Type Shelters.
SB 11-573	Painting and Preservation Supplies Available for Field Use for Electronics Command Equipment.
DA Form 2028	Recommended Changes to Publications.
DD Form 6	Report of Damaged or Improper Shipment.

APPENDIX B

MAINTENANCE ALLOCATION CHART

Section I. INTRODUCTION

B-1 GENERAL

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

b. The Maintenance Allocation Chart (MAC) in section II designates overall responsibility for the performance of maintenance functions on the identified end item or component. The implementation of the maintenance functions upon the end item or component will be consistent with the assigned maintenance functions.

c. Section III lists the tool and test equipment required for a particular maintenance function as referenced from section II.

d. Sectiion IV contains supplemental instructions on explanatory notes for a particular maintenance function as referenced from section II.

B-2 MAINTENANCE FUNCTIONS

a. Inspect. To determine the serviceability of an item by comparing its physical, mechanical and/or electrical characteristics with established standards through examination.

b. Test. To verify serviceability and detect incipient failure by measuring the mechanical or electrical characteristics of an item and comparing those characteristics with prescribed standards.

c. Service. Operations required periodically to keep an item in proper operating condition; i.e., to clean (decontaminate), to preserve, to drain, to paint, or to replenish fuel, lubricants, hydraulic fluids. or compressed air supplies.

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

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

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

g. Install. The act of emplacing, seating, or fixing into position an item, part, or module (component or assembly) in a manner to allow the proper functioning of an equipment or system.

h. Replace. The act of substituting a serviceable like type part, subassembly, or module (component or assembly) for an unserviceable counterpart.

i. Repair. The application of maintenance services or other maintenance actions to restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), and item, or system.

j. Overhaul. That maintenance effort (services/actions) necessary to restore an item to a completely serviceable/ operational condition as prescribed by maintenance standards; i.e., DMWR, in appropriate technical publications. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.

k. Rebuild Consists of those services/actions necessary for the restoration of unserviceable equipment to a like new condition in accordance with original manufacturing stanards. 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 (hours/miles, etc.) considered in classifying Army equipments/components.

B-3 COLUMN ENTRIES USED IN THE MAC

a. Column 1, Group Number. Column 1 lists group numbers, the purpose of which is to identify components, assemblies, subassemblies, and modules with the next higher assembly.

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

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

d. Column 4, Maintenance Level. Column 4 specifies, by the listing of a "work time" figure in the appropriate subcolumn(s), the lowest level of maintenance authorized to perform the function listed in column 3. This figure represents the active time required to perform the maintenance function at the indicated level of maintenance. If the number or complexity of the tasks within the listed maintenance function vary at different maintenance levels, appropriate "work time" figures will be shown for each level. The number of man-hours specified by the "work time" figure represents the average time required to restore an item (assembly, subassembly, component, module, end item, or system) to a serviceable condition under typical field operating conditions. This time includes preparation time, troubleshooting time, and quality assurance/quality control time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the maintenance allocation chart. The symbol designations for the various maintenance levels are as follows:

C	Operator or crew.
0	Organization maintenance.
F	. Direct support maintenance.
Η	General support maintenance.
D	Depot maintenance.

e. Column 5, Tools and Equipment. Column 5 specifies, by code, those common tool sets (not individual tools) and

special tools, test, and support equipment required to perform the designated function.

f. Column 6, Remarks. Column 6 contains letter codes in alphabetical order which shall be keyed to the remarks contained in section IV.

6-4 COLUMN ENTRIES USED IN TOOL AND TEST EQUIPMENT REQUIREMENTS

a. Column 1, Tool or Test Equipment Reference Code. The tool and test equipment reference code correlates with a maintenance function on the identified end item or component.

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

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

d. Column 4, National/NATO Stock Number. The National or NATO stock number of the tool or test equipment.

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

B-5 EXPLANATION OF COLUMNS IN SECTION IV.

a. Reference Code. The code scheme recorded in column 6, section II.

b. Remarks. This column lists information pertinent to the maintenance function being performed as indicated on the MAC, section II.

			(4)						l	
(1) Group Number	(2)	(3) Maintenance function	Maintenance level					(5) Tools and	(6)	
	Component/Assembly		С	0	F	н	D	equipment	Remarks	
00	Shelter; Electrical	Inspect	0.3							
	Equipment S-389/MSA-34	Service	0.3					1		
	,	Install Bomlaus						1		
		Replace Repair		1.0	75			1	`	
		Rebuild			2.5		40.0	1		
01	Outer Skin	Inspect		0.2						
		Service		0.2						
		Repair		2.0						
		1		0.2						
02	Panel Assembly	Inspect		0.2		ļ				
		Service		0.2		1		1		
		Replace		0.4						
		Repair		2.0				1		
03	Door Assembly	Inspect		0.2			ļ			
		Service		0.2						
		Replace		0.8				1		
		Repair		0.8				1		
	El	Inconst		04						
04	Electrical System	Tast		0.4				۰ n	R	
		Sarvica		0.4				-	U U	
		Replace		0.5	40			1		
		Repair		0.3	4.0			1		
05	Cable. Power	Inspect		0.2			.			
		Service		0.3						
		Replace		0.2						
		Repair		0.4				1		
							ł			
					1				s sources from	
				}					- - 	
						1		-		
							1			

Section II. MAINTENANCE ALLOCATION CHART

TM32-5410-217-14&P

SECTION III. TOOL AND TEST EQUIPMENT REQUIREMENTS

(1) REFERENCE CODE	(2) MAINTENANCE LEVEL	(3) NOMENCLATURE	(4) NATIONAL/NATO STOCK NUMBER	(5) TOOL NUMBER
1	0, F, D	TOOL KIT TK-105/G	5180-00-610-8177	
2	0	MULTIMETER AN/USM-223	6625-00-999-7465	

Section IV. REMARKS

Remarks					
Refer to TB 750-240 for shelter repair.					
Repair of electrical system by organizational maintenance is limited to replacement of breakers, switches and receptacles.					

APPENDIX C

BASIC ISSUE ITEMS LIST AND ITEMS TROOP INSTALLED OR AUTHORIZED LIST AND ORGANIZATIONAL, DIRECT SUPPORT, AND GENERAL SUPPORT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST (INCLUDING DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS)

Section I. INTRODUCTION

C-1 SCOPE. This manual lists basic issue items; items troop installed or authorized; repair parts; special tools; test, measurement, and diagnostic equipment (TMDE); and other support equipment required for operation and performance of organizational, direct support, and general support maintenance of the Shelter, Electrical Equipment, S-389/MSA-34.

C-2 GENERAL. This Basic Issue Items, Items Troop Installed or Authorized, Repair Parts and Special Tools List is divided into the following sections:

a. Section II. Basic Issue Items List. A list, in alphabetical sequence, of items which are furnished with and which must be turned in with the end item.

b. Section III. Items Troop Installed or Authorized List. A list, in alphabetical sequence, of items which, at the discretion of the unit commander, may accompany the end item, but should not be turned in with the end item.

c. Section IV: Repair Parts List. A list of repair parts authorized for use in the performance of maintenance. The list also includes parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending numerical sequence, with the parts in each group listed in figure and item number sequence. Bulk materials are listed in FSN sequence.

d. Section V. Special Tools List. A list of special tools, TMDE, and support equipment authorized for the performance of maintenance at the organizational level.

e. Section VI. National Stock Number and Part Number Index. A list, in ascending numerical sequence, of all National stock numbers appearing in the listings, followed by a list, in alphameric sequence, of all part numbers appearing in the listings. National stock number and part numbers are cross-referenced to each illustration figure and item number appearance. This index is followed by a crossreference list of reference designations to figure and item numbers when applicable. **C-3 EXPLANATION OF COLUMNS.** The following provides an explanation of columns found in the tabular listings:

a. Illustration. This column is divided as follows:

(1) *Figure Number*. Indicates the figure number of the illustration in which the item is shown.

(2) *Item Number*. The number used to identify each item called out in the illustration.

b. Source, Maintenance, and Recoverability Codes (SMR).

(1) *Source Code.* Source codes are assigned to support items to indicate the manner of acquiring support items for maintenance, repair, or overhaul of end items Source codes are entered in the first and second position of the Uniform SMR Code format as follows:

Code Definition

- PA Item procured and stocked for anticipated or known usage.
- PB Item procured and stocked for insurance purpose because essentiality dictates that a minimum quantity be available in the supply systems.
- PC Item procured and stocked and which otherwise would be coded PA except that it is deteriorative in nature.
- PD Support item, excluding support equipment, procured for initial issue or outfitting and stocked only for subsequent or additional initial issues or outfitting. Not subject to automatic replenishment.
- PE Support equipment procured and stocked for initial issue or outfitting to specified maintenance repair activities.

- Code Definition
- PF Support equipment which will not be stocked but which will be centrally procured on demand.
- PC Item procured and stocked to provide for sustained support for the life of the equipment. It is applied to an item peculiar to the equipment which, because of probable discontinuance or shutdown of production facilities, would prove uneconomical to reproduce at a later time.
- KD An item of a depot overhaul/repair kit and not purchased separately. Depot kit defined as a kit that provides items required at the time of overhaul or repair.
- KF An item of a maintenance kit and not purchased separately. Maintenance kit defined as a kit that provides an item that can be replaced at organizational or intermediate levels of maintenance.
- KB Item included in both a depot overhaul/repair kit and a maintenance kit.
- MO Item to be manufactured or fabricated at organizational level.
- MF Item to be manufactured or fabricated at the direct support maintenance level.
- MH Item to be manufactured or fabricated at the general support maintenance level.
- MD Item to be manufactured or fabricated at the depot maintenance level.
- AO Item to be assembled at organizational level.
- AF Item to be assembled at direct support maintenance level.
- AH Item to be assembled at general support maintenance level.
- AD Item to be assembled at depot maintenance level.
- Item is not procured or stocked because the requirements for the item will result in the replacement of the next higher assembly.
- XB Item is not procured or stocked. If not available through salvage, requisition.
- A support item that is not stocked. When required, item will be procured through normal supply channels.

NOTE: Cannibalization or salvage may be used as a source of supply for any items source coded above except those coded XA, XD, and aircraft support items as restricted by AR 70042.

(2) *Maintenance Code*. Maintenance codes are assigned to indicate the levels of maintenance authorized to USE and REPAIR support items. The maintenance codes are entered in the third and fourth positions of the Uniform SMR Code format as follows:

a. The maintenance code entered in the third position will indicate the lowest maintenance level authorized to remove, replace, and usc the support item. The maintenance code entered in the third position will indicate one of the following levels of maintenance:

Code Application/Explanation

Ι

- C Crew or operator maintenance performed within organizational maintenance.
- O Support item is removed, replaced, used at the organizational level.
 - Support item is removed, replaced, used by the direct support element of integrated direct support maintenance.
- F Support item is removed, replaced, used at the direct support level.
- H Support item is removed, replaced, used at the general support level.
- D Support items that are removed, replaced, used at depot, mobile depot, specialized repair activity only.

NOTE: Codes "I" and "F" will be considered the same by direct support units.

b. The maintenance code entered in the fourth position indicates whether the item is to be repaired and identifies the lowest maintenance level with the capability to perform complete repair (i.e., all authorized maintenance functions). This position will contain one of the following maintenance codes:

Code Application/Explanation

- O The lowest maintenance level capable of complete repair of the support item is the organizational level.
- F The lowest maintenance level capable of complete repair of the support item is the direct support level.

Code Application/Explanation

- H The lowest maintenance level capable of complete repair of the support item is the general support level.
- D The lowest maintenance level capable of complete repair of the support item is the depot level, performed by *(enter applicable activity)* depot, mobile depot or specialized repair activity.
- L Repair restricted to designated specialized repair activity.
- Z Nonreparable. No repair is authorized.
- B No repair is authorized. The item may be reconditioned by adjusting, lubricating, etc., at the user level. No parts or special tools are procured for the maintenance of this item.

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

Recoverability Codes

Definition

- Z Nonreparable item. When unserviceable, condemn and dispose at the level indicated in position 3.
- Reparable item. When uneconomically reparable, condemn and dispose at organizational level.
- F Reparable item. When uneconomically reparable, condemn and dispose at the direct support level.
- H Reparable item. When uneconomically reparable, condemn and dispose at the general support level.
- Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal not authorized below depot level.
- L Reparable item. Repair, condemnation, and disposal not authorized below depot/specialized repair activity level.

Recoverability

Codes

А

Definition

 Item requires special handling or condemnation procedures because of specific reasons (i.e,, precious metal content, high dollar value, critical material or hazardous material). Refer to appropriate manuals/directives for specific instructions.

c. National Stock Number. Indicates the national stock number assigned to the item and will be used for requisitioning purposes.

d. Part Number. 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. For BIIL and ITIAL, see explanation of description column, para f.

NOTE: When a stock numbered item is requisitioned, the repair part received may have a different part number than the part being replaced.

e. Federal Supply Code for Manufacturer (FSCM). The FSCM is a 5-digit numeric code listed in SB 70842 which is used to identify the manufacturer, distributor, or Government agency, etc. For BIIL and ITIAL, see explanation of description column, para f.

f. Description. Indicates the Federal item name and minimum description to identify the item.

g. Unit of Measure (U/M). Indicates the standard of the basic quantity of the listed item as used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in, pr, etc.). When the unit of measure differs from the unit of issue, the lowest unit of issue that will satisfy the required units of measure will be requisitioned.

h. Quantity Furnished with Equipment (Basic Issue Items Only). Indicates the quantity of the basic issue item furnished with the equipment.

i. Quantity Authorized (Items Troop Installed or Authorized Only). Indicates the quantity of the item authorized to be used with the equipment.

j. Quantity Incorporated in Unit. Indicates the quantity of the item used in the breakout shown on the illustration figure, which is prepared for a functional group, subfunctional group, or an assembly. A "V" appearing in this column in lieu of a quantity indicates that no specific quantity is applicable, (e.g., shims, spacers, etc.).

C-4 HOW TO LOCATE REPAIR PARTS.

a. When National Stock Number or Part Number Is Unknown:

(1) *First.* Using the table of contents, determine the (*insert as applicable - functional group or subgroup*) within which the repair part belongs. This is necessary since illustrations are prepared for (*insert as applicable - functional groups or subgroups*), and listings are divided into the same groups.

(2) Second. Find the illustration cowing the (*insert* as applicable - functional group or subgroup) to which the repair part belongs.

(3) *Third.* Identify the repair past on the illustration and note the illustration figure and item number of the repair part.

(4) *Fourth*. Using the Repair Parts Listing, find the figure and item number noted on the illustration.

b. When National Stock Number or Part Number Is Known:

(1) *First.* Using the Index of National Stock Numbers and Part Numbers, find the pertinent national stock number or part number. This index is in ascending NSN sequence followed by a list of part numbers in ascending alphameric sequence, cross-referenced to the illustration figure number and item number.

(2) *Second*. After finding the figure and item number, locate the figure and item number in the repair parts list.

C-5 ABBREVIATIONS.

Abbreviations	Explanation
cd-or	cadmium-ore
zn-pltd	zinc-plated
MOD	Model
opn	opening

			SECTION II. BASIC ISSUE ITEMS						
(1) ILLUSTRATION		(2)	(3)						
(A) FIG	(B) ITEM	STOCK NUMBER	DESCRIPTION		WITH EQUIP				
NO.	NO.		PART NUMBER & FSCM	USABLE ON CODE					
C-1	1		SLING ASSEMBLY 0283-2-2000 (15942)		1				
C-1	2		CABLE ASSEMBLY 0283-1-2226-1 (15942)		1				
C-1	3	4210-00-555-8837	EXTINGUISHER, FIRE W/BRACKET MIL-B-52031 (99539)		1				
C-1		4210-00-408-0031	EXTINGUISHER, FIRE W/O BRACKET MIL-B-52031 (99539)		1				
C-1	4		PADLOCK AND CHAIN ASSEMBLY, MODIFIED 0283-2-2234-1		2 2				



Figure C-1. Basic Issue Items

	SECTION III. ITEMS TROOP INSTALLED OR AUTHORIZED LIST			
	(2)	(1)	(3)	(4)
NATIONAL STOCK NUMBER	DESCRIPTION		U/M	QTY AUTH
NONDER	PART NUMBER & FSCM	USABLE ON CODE		
4120-00-973-4589	AIR CONDITIONER, 208 V, 3-PHASE, 50/60 HZ, CE 20 VAL 6		EA	1
4120-00-168-1781	AIR CONDITIONER, 208 V, 3-PHASE, 50/60 HZ, CH 620-2			
2330-00-912-4251	DOLLY SET, LIFT, TRANSPORTABLE, SHELTER, M-720		EA	1
6115-00-935-5111	ELECTRIC GENERATOR, DED 30 KW, 208 V, 3-PHASE, 60 HZ		EA	1
	KIT, AIR CONDITIONER MOUNTING, MK-001-1/U 0216-1-1100 (15942)		EA	1
	KIT, DOLLY ADAPTER, MK-002-1/U 0216-1-1000 (15942)		EA	1
	KIT, WALKWAY, CONSISTING OF: WALKWAY, END 0283-1-4500-1 (15942)		EA	1
	WALKWAY, SIDE 0283-1-4600-1 (15942)		EA	1
	KIT, GROUND ROD, COMPRISED OF: CABLE, GROUND 0283-1-2221-2 (15942)		EA	1
5975-00-186-3912	CLAMP, GROUND ROD 9592 (90190)		EA	1
5975-00-549-0011	ROD, GROUND 9438 (90190)		EA	1



Figure C-2. Shelter, S-389/MSA-34

SECTION	I IV. REI	PAIR PAR	TS LIST		TM32-5410-217-14&P				
1 ILLUSTF	RATION	2	3 NATIONAL	4	5	6		7	8 QTY
		SMR CODE	STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION		U/M	ĨNC IN
FIG NO	ITEM NC)	-	-			USABLE ON CODE		UNIT
C-2	REF			0283-2-4000	15942			EA	0001
0-2	1			0283-2-4200	15942	PANEL ASSY, DOOR END SEE FIG 4		EA	0001
C-2	2			0283-2-4500	15942	PANEL, SIDE BLANK SEE FIG 3 FO		EA	0001
C-2	3		4213-08-555-8837	MILE52031	81349	EXTINGUISHER, FIRE, M		EA	0001
C-2	4			0283-2-4806	15942	LIGHT UN ASY FLOUR SEE FIG 10		EA	0004
0-2	5			0283-2-3998	15942	INSERT, INSTRUCTION PLATE		EA	0001
C-2	6		5930-88-912-4552	55031	75582	SWITCH		EA	0002
C-2	7			0283-2-4401	15942	PANEL ASSY, END BLK SEE FIG 4		EA	0001
C-2	7			0283-2-4301	15942	PANEL ASSY, SIDE SEE FIG 5		EA	0001
C-2	9			0283-2-4700	15942	DOOR ASSY LARGE SEE FIG 3		EA	0001
C-2	10			0283-2-4804	15942	ELECTRICAL DUCT SEE FIG 6		EA	0004
C-2	11			0283-2-4907-2	15942	AIR DUCT ASSY, SEE FIG 9		EA	0004
0-2	12			0283-2-2105	15942	STEP FLDG MOD		EA	0003
C-2	13			0283-2-3111	15942	CAP CABLING ACCESS SEE FIG 8		EA	0004
C-2	14			0283-2-2106	15942	POWER INLET ASSY SEE FIG 7		EA	0004
C-2	15			0283-2-4600	15942	DOOR ASSY SMALL SEE FIG 3		EA	0001

C-9



Figure C-3. Door Assembly (Sheet 1 of 2)



Figure C-3. Door Assembly (Sheet 2 of 2)

SECTION 1	N IV. REP.	AIR PART 2	S LIST 3	4	5	TM32-5410-217-14&P 6		7	8
ILLUST	ATTON	SMR	NATIONAL STOCK	PART	FSCM	DESCRIPTION		U/M	Q'I'Y INC
FIG NO	ITEM NO	CODE	NUMBER	NUMBER			USABLE ON CODE		IN UNIT
C-3				0283-2-4500	15942	PANEL, SIDE, BL			0001
C-3	REF			0283-2-4600	15942	DOOR ASSY, SMAL		EA	0001
C-3	REF			0283-2-4700	15942	DOOR ASSY, LARG		EA	0001
C-3	1			0283-2-2606-1	15942	PLATE, NOMENCLATURE		EA	0001
C-3	2		5305-01-019-9665	MS51863-11	96906	SCREW, SELF-TAP NO.4		EA	0006
C-3	3			0283-2-2922-1	15942	SHIM		EA	0001
C-3	4			0283-2-2402	15942	PLATE ASSY LCH		EA	0002
C-3	5			0283-2-2403	15942	SCREW LOCKING		EA	0002
C-3	6			0283-2-2606-2	15942	PLATE , NOMENCLATURE		EA	0001
C-3	7			0283-2-2603	15942	PLATE, SHIM		EA	0001
C-3	8			0283-2-3600	15942	HINGE ALTERED		EA	0003
C-3	9			SG 1330		STOP, DOOR		EA	0001
C-3	10			0283-2-2400	15942	SCREW, THLMB		EA	0002
C-3	11			0283-2-2401	15942	WASHER, THREADED		EA	0002
C-3	12		5340-00-503-5423	5658-1	19220	BOLT,LOCKING		EA	0002
C-3	13			5658-30	19220	HOUSING BOLT		EA	0002
C-3	14		5310-00-877-5797	MS21044N3	96906	NUT, SELF-LOCKING, HEX		EA	0016
C-3	15		5310-00-619-1148	MS15795-809	96906	WASHER NO 1		EA	0023
C-3	16			28-254	19228	BOLT, SCREW UNIT		EA	0002
C-3	17			0283-2-2601-2	15942	LINK BAR		EA	0001
C-3	18		5310-00-933-8120	MS35338-138	96906	WASHER,LOCK NO 10		EA	0007
C-3	19		5305-00-995-3444	MS35207-266	96906	SCREW, MACH 10-32X7/8		EA	0001
0-3	20			6-5647-50	19228	CASE CENTER ASSY		EA	0001
C-3	21			0283-2-3602	15942	HANDLE ASSY DR		EA	0001
C-3	22			0283-2-2606-3	15942	PLATE , NOMENCLATURE		EA	0001

SECTION 1 ILLUSTE	N IV. REPA	AIR PART 2	S LIST 3 NATIONAL	4	5	TM32-5410-217-14&P 6		7	8 0TY
100011	(SMR CODE	STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION		U/M	INC IN
FIG NO	ITEM NO						USABLE ON CODE		UNIT
C-3	23			0283-2-2601-1	15942	LINK BAR MOD			0001
C-3	24			0283-2-2602	15942	PLATE, WEAR		EA	0001
C-3	25		5305-00-071-1322	MS51960-65	96906	SCREW, MACHINE 10-32X1/2		EA	0002
C-3	26		5306-00-225-8508	MS90725-44	96906	SCREW, MACHINE		EA	0006
C-3	27		5310-00-088-1251	MS51922-1	96906	NUT, SELF-LOCKING, HEX		EA	0006
C-3	28		5310-00-625-5756	MS15795-812	96906	WASHER, FLAT		EA	0006
C-3	29			0283-2-2604	15942	PLATE, SHIM		EA	0001
C-3	30		5305-00-225-8507	MS90725-43	96906	SCREW, MACH 5/16-8X3		EA	0006
C-3	31		5310-00-984-3806	MS51922-9	96906	NUT, SELF-LOCKING, HEX		EA	0008
C-3	32		5310-00-087-7493	MS27183-13	96906	WASHER, FLAT 5/16		EA	0008
C-3	33			0283-2-2605	15942	PLATE, SHIM		EA	0001
C-3	34		5340-00-664-1322	MS35647-3	96906	PADLOCK AND CHAIN ASSY MOD		EA	0001
C-3	35			0283-2-2600	15942	HASP ASSY, ESCAPE		EA	0001
C-3	36			0283-2-3601	15942	HANDLE ASSY DR CUTER		EA	0001
0-3	37		5305-00-993-1848	MS35207-265	96906	SCREW, MACHINE 10-32X3/4		EA	0003
C-3	38			0283-2-4701	15942	DOOR, SUBASSY		EA	0001
C-3	39				96906	SCREW, MACH 10-32X2-3/4		EA	0008
C-3	41			0283-2-2607	15942	SCREW, RELEASE		EA	0001
C-3	41			79-028-125-875	72962	PIN, ROLL		EA	0001
C-3	42			0283-2-4604	15942	PANEL ASSY, FEED THRU		EA	0001
C-3	43			0283-2-2405-2	15942	GASKET SECTION		EA	0002
C-3	44			0283-2-2405-1	15942	GASKET SECTION		EA	0002
C-3	45		5305-00-989-7434	MS35207-263	96906	SCREW, MACHINE 10-32X1/2		EA	0008
C-3	46				96906	SCREW, MACHINE 5/16-18X3-3/4		EA	0002
C-3	47			0283-2-2606-5	15942	PLATE NOMENCLATURE		EA	0001

SECTION IV. REPAIR PARTS LIST						TM32-5410-217-14&P			
1		2	3	4	5	6		7	8
ILLUSTRATION NATIONAL							QTY		
		SMR	STOCK	PART	FSCM	DESCRIPTION		U/M	INC
FIG NO	ITEM NO	CODE	NUMBER	NOMBER			USABLE ON CODE		IN UNIT
C-3	48			0283-2-3403	15942	COVER, LOUVER		EA	0001
C-3	49			0283-2-3402	15942	PANEL, DOOR OUTER		EA	0001
C-3	50			0283-2-4603-2	15942	PANEL, DOOR INN		EA	0001
C-3	51					FILTER, AIR 1X12-1/4X13-1/2		EA	0001
C-3	52			0283-2-3400	15942	PANEL, LOUVER		EA	0001
C-3	53		5410-01-050-9910		15942	MODIFICATION KIT, BLACKOUT LIGHTS		EA	0001



Figure C-4. Panel Assembly, Door End (Sheet 1 of 2)







Figure C-4. Panel Assembly, Door End (Sheet 2 of 2)

SECTION	N IV. RE	PAIR PAR 2	IS LIST 3	4	5	TM32-5410-217-14&P 6		7	8
TLLUST	RATION	SMR	STOCK	PART	FSCM	DESCRIPTION		U/M	INC
FIG NO	ITEM NO	CODE D	NUMBER	NUMBER			USABLE ON CODE		IN UNIT
C-4	REF			0283-2-4200	15942	PANEL ASSY, DOOR END		EA	0001
C-4	1			0283-2-4201	15942	PANEL, SUBASSY, DOOR END		EA	0001
C-4	2			0283-2-4402	15942	PANEL, WELDMENT		EA	0001
C-4	3			0283-2-2226	15942	PLATE, STRIKER		EA	0001
C-4			5310-00-298-8192		96906	WASHER,LOCK NO 10		EA	0006
C-4	5		5305-00-993-1851	MS35207-267	96906	SCREW, MACHINE, 10-32X1		EA	0006
C-4	6			0283-2-2224-1	15942	CLAMP PANEL		EA	0006
C-4	7			0283-2-2225-2	15942	SPRING CLAMP		EA	0010
C-4	8		5305-00-269-3217	MS90725-67	96906	SCREW, MACHINE, 3/8-16X2 1/4		EA	0010
C-4	9		5310-00-809-4061	MS27183-15	96906	WASHER, FLAT 3/8		EA	0010
C-4	10			16113	19220	KEEPER		EA	0001
C-4	44		5340-00-630-2343	15928	19220	PIN LOCK		EA	0001
C-4	12		4010-00-054-2667	15929	19220	CHAIN SASH		EA	0001
C-4	13			0283-2-2216	15942	PLATE, WEAR		EA	0010
0-4	14		5320-00-904-4136	AD-43-ABS	07707	RIVET, POP		EA	0062
C-4	15		5320-00-075-6211	AD-44-ABS	07707	RIVET, POP		EA	0020
C-4	16			2-2108	0283-	EXTRUSION, NEOPRENE		IN	0148
C-4	17			0283-2-4401	15942	PANEL ASSY, END		EA	0001
C-4	18			0283-2-3913-1	15942	STAND-OFF ASSY,		EA	0004
C-4	19		5320-00-493-4101	AD-64-ABS	07707	RIVET, POP		EA	0032
C-4	20			0283-2-3924-1	15942	BRACKET ASSY		EA	0001
C-4	21		5305-00-071-1322	MS51960-65	96906	SCREW, MACHINE, 10-32X1/2		EA	0002
C-4	22			0283-2-2228	15942	PLATE, WEAR		EA	0001
C-4	23		5310-00-595-6772	MS15795-808	96906	WASHER, FLAT NC 10		EA	0002
C-4	24			0283-2-2229	15942	PLATE, DOOR LATCH		EA	0001



Figure C-5. Panel Assembly, Door Side

SECTION IV. REPAIR PARTS LIST						TM32-5410-217-14&P			
1	ATTON	2	3 Nattonal.	4	5	6		7	8 0TV
100011	GATION	SMR	STOCK	PART	FSCM	DESCRIPTION		U/M	INC
FIG NO	ITEM NC	CODE)	NUMBER	NUMBER			USABLE ON CODE		IN UNIT
C-5	REF			0283-2-4301	15942	PANEL ASSY, SIDE DOOR		EA	0001
C-5	1			0283-2-2224-1	15942	CLAMP PANEL		EA	0016
C-5	2		5310-00-809-4061	MS27183-15	96906	WASHER, FLAT 3/8		EA	0016
C-5	3		5305-00-269-3217	MS90725-67	96906	SCREW, MACHINE, 3/8-16X2-1/4		EA	0016
C-5	4			0283-2-2225-2	15942	SPRING CLAMP .		EA	0016
C-5	5			0283-2-2226	15942	PLATE, STRIKER		EA	0002
C-5	6		5305-00-993-1851	MS35207-267	96906	SCREW, MACHINE, 10-32X1		EA	0004
C-5	7		5310-00-298-8192		96906	WASHER,LOCK SP NO 10		EA	0006
0-5	8		5310-00-595-6772	MS15795-808	96906	WASHER, FLAT, NO 10		EA	0002
C-5	9			0283-2-2229	15942	PLATE, DOOR LATCH		EA	0001
C-5	10			16113	19220	KEEPER		EA	0001
C-5	11		5320-00-904-4136	AD 43 ABS	07707	RIVET, POP		EA	0002
C-5	12		5340-00-630-2343	15928	19220	PIN,LOCK		EA	0001
C-5	13		4010-00-054-2667	15929	19220	CHAIN, SASH		EA	0001
0-5	14			0283-2-2228	15942	PLATE, WEAR		EA	0001
C-5	15		5305-00-071-1322	MS51960-65	96906	SCREW, MACHINE 10-32X1/2		EA	0004
C-5	16			0283-2-2108	15942	GASKET SECTION		IN	0204
C-5	17			0283-2-4302	15942	PANEL SUBASSY, DCOR SIDE		EA	0001



Figure C-6. Duct Assembly, Electrical (Sheet 1 of 2)



Figure C-6. Duct Assembly, Electrical (Sheet 2 of 2)

SECTIO	N IV. RE	PAIR PART 2	IS LIST 3 NATIONAL	4	5	TM32-5410-217-14&P 6		7	8 0TTV	
10031	ATTON .	SMR	STOCK	PART	FSCM	DESCRIPTION		U/M	INC	
FIG NO	ITEM NO	CODE)	NUMBER	NUMBER			USABLE ON CODE		IN UNIT	
C-6	REF			0283-2-4804	15942	DUCT ASSY, ELECT				
C-6	1			0283-2-3920-1	15942	COVER		EA	0004	
C-6	2			0283-4-2615-1	15942	NAME PLATE, RECEPTACLE		EA	0004	
C-6	3		5305-00-253-5604	MS21318-2	96906	SCREW DRIVE		EA	0008	
C-6	4			MS51960-30	96906	SCREW, MACH FH 4-40X3/8		EA	0001	
C-6	5		5310-00-596-7457	F22NM40	72962	NUT HEX		EA	0004	
C-6			5935-00-257-7641	P3-13	71468	PANEL RCPTL		EA	0001	
C-6	7		5310-00-809-3365	MS35340-42	96906	WASHER LOCK 8		EA	0017	
C-6	8		5305-00-984-6193	MS35206-245	96906	SCREW 8-32X1/2		EA	0006	
C-6	9		5310-00-687-6704	S8-75	83481	RIVNUT		EA	0016	
C-6	10		5310-00-765-3197	MS27183-41	96906	WASHER FL NO 8		EA	0017	
C-6	11		5975-00-296-6086	3304	59730	CONNECTOR CABLE		EA	0001	
C-6	12		5305-00-837-9739	MS21316-13	96906	SCREW THUMB		EA	0028	
C-6	13			0283-2-4915-1	15942	DUCT ELECT		EA	0001	
C-6	14			0283-2-3919-2	15942	COVER LOWER		EA	0001	
C-6	15		5935-00-644-6818	7557G	74545	CONNECTOR, RECEPTACLE		EA	0012	
C-6	16		5310-00-081-8087	F22NM62	72962	NUT HEX		EA	0006	
C-6	17		5305-00-889-3000	MS35206-230	96906	SCREW MACH 6-32		EA	0028	
C-6	18			0283-2-3922-1	15942	COVER UPPER		EA	0001	
C-6	19		5310-00-045-9116	SR-160	03481	RIVNUT		EA	0001	
0-6	20			0283-2-4802	15942	DUCT ASY ELECT		EA	0001	
0-6	21			0283-2-3921-1	15942	COVER UPPER		EA	0002	
C-6	22			0283-2-2921-1	15942	NAME PLATE		EA	0001	
C-6	23			5503-1	7582	SWITCH AC		EA	0001	
0-6	24		5310-00-839-3770	MS35340-41	96906	WASHER LOCK 6		EA	0002	
SECTION	J IV. RE	PAIR PAR	TS LIST			TM32-5410-217-14&P				
--------------	----------	-------------	------------------	----------------	-------	--------------------	----------------	-----	-----------	--
1 ILLUSTF	RATION	2	3 NATIONAL	4	5	6		7	8 QTY	
		SMR CODE	STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION		U/M	INC IN	
FIG NO	ITEM NO)					USABLE ON CODE		UNIT	
C-6	25		5310-00-983-8483	MS27183-5	96906	WASHER FL 6		EA	0010	
C-6	26			S10-80	03481	RIVNUT		EA	0004	
C-6	27		5925-00-553-9899	P115	09709	CIRCUIT BRKR		EA	0004	
C-6	28			0283-2-2806-1	15942	COVER ASSY		EA	0001	
C-6	29			0283-2-2806-2	15942	COVER ASY		EA	0001	
C-6	30		5305-00-889-3001	MS35206-231	96906	SCREW MACH 6-32		EA	0022	
0-6	31		5305-00-061-8148	MS21316-15	96906	SCREW THUMB		EA	0022	
C-6	32			0283-2-3919-1	15942	COVER LOWER		EA	0002	
C-6	33			0283-2-4910-2	15942	DUCT ELECT		EA	0001	
C-6	34			0283-2-4910-1	15942	DUCT ELECT		EA	0001	
C-6	35			0283-2-2809-1	15942	HOLDER CK BRK		EA	0002	
C-6	36			61036-70AL	63448	BLOCK TERM		EA	0002	
C-6	37		5945-00-995-0029	ABC 11 AY	77342	RELAY PWR		EA	0001	
C-6	38		5310-00-638-2410	F22NM82	72962	NUT HEX		EA	0001	
0-6	39		5310-00-595-6772	MS15795-808	96906	WASHER FL 10		EA	0004	
C-6	48		5305-00-993-1848	MS35207-265	96906	SCREW MACH		EA	0004	



Figure C-7. Power Inlet Assembly

SECTION	SECTION IV. REPAIR PARTS LIST TM32-5410-217-14&P									
1		2	3	4	5	6		7	8	
FIG NO	TTEM NO	SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION	USABLE ON CODE	U/M	OTY INC IN UNIT	
110 110									01111	
C-7	REF		5940-00-557-1629	0283-2-2106	15942	POWER INLET ASSY		EA	0001	
C-7	1			X8879-21	75477	CONNECTOR, ELEC		EA	0001	
C-7	2			0283-2-2131	15942	ELBOW POWER INLET		EA	0001	
C-7	3			MS51863-55	96906	SCREW, SELF-TAP 1/4-28X3/4		EA	0004	
C-7	4		5310-00-823-8804	MS27183-9	96906	WASHER, FLAT, 1/4		EA	0004	
C-7	4			0283-2-2130	15942	PLATE, POWER IN		EA	0001	
C-7	6			0283-2-2110	15942	GASKET		EA	0001	
C-7	7					CAP AND CHAIN ASSY		EA	0001	



Figure C-8. Cap, Cabling Access

SECTION	I IV. RE	PAIR PAR	TS LIST			TM32-5410-217-14&P			
1		2	3	4	5	б		7	8
ILLUSTR	ATION	SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION	USADI E ON CODE	U/M	QTY INC IN
FIG NO	LIEM NC)					USABLE ON CODE		UNII
C-8	REF			0283-2-3111	07707	CAP CABLING ACCESS		EA	0001
C-8	1			ND-1252	94364	FILLER NECK		EA	0001
0-8	2			CD-109	61957	CAP W/COPRENE GASKET		EA	0001
C-8	3			AD-42-ABS	07707	RIVET POP		EA	0001
C-8	4			NAS1455-8	80205	CHAIN, SASH, NO.8X6 IN LG		EA	0001



Figure C-9. Air Duct Assembly, Shielded

SECTION	IV. REE	PAIR PART	'S LIST			TM32-5410-217-14&P			
1		2	3	4	5	б		7	8
ILLUSTR	ATION	SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION		U/M	QTY INC IN
FIG NO	ITEM NO)					USABLE ON CODE		UNIT
C-9	REF			0283-2-4907-2	15942	AIR DUCT ASSY, SHIELDED		EA	0001
0-9	1			0283-2-2830-1	15942	ROD, THREADED		EA	0001
C-9	2			0283-2-4908-1	15942	AIR DUCT, WELDMENT		EA	0001
C-9	3		5315-00-271-3001	59-028-125-0500	72962	ROLL PIN		EA	0001
C-9	4			0283-2-2831-1	15942	THUMBWHEEL		EA	0001



Figure C-10. Light Unit Assembly

SECTION 1	N IV. REF	PAIR PART 2	S LIST 3 NATIONAL	IST 4		TM32-5410-217-14&P 6			8 0TTV
100011	(AIION	SMR	STOCK	PART	FSCM	DESCRIPTION		U/M	INC
FIG NO	ITEM NO	CODE	NUMBER	NUMBER			USABLE ON CODE		IN UNIT
C-10	REF			0283-2-4806	15942	LIGHT UNIT ASSY FLOUR		EA	0001
0-10	1			0283-2-3808-1	15942	COVER LIGHT		EA	0001
0-10	2			0283-2-2823	08595	GROUND CONTACT LIGHT LENSE		EA	0002
C-10	3			S25	02241	BALLAST		EA	0001
C-10	4		5915-00-538-3555	89G635	24457	FILTER, RADIO FREQ		EA	0001
0-10	5		6250-01-015-0128	143	77881	LAMPHOLDER		EA	0001
0-10	6		6240-00-115-8007	10S11NCB	08805	LAMP, INCANDESCENT		EA	0001
C-10	7			0283-2-2824-1	15942	LENS, LIGHT		EA	0001
0-10	8			653W	02241	HOLDER, FLEX LOC		EA	0002
C-10	9			0283-2-2821-2	15942	RETAINER, LENS, LIGHT COVER		EA	0001
C-10	10		5330-00-483-6322	0283-2-2822-6	15942	GASKET,LIGHT COVER		EA	0001
C-10	11			0283-2-3805	15942	LIGHT UNIT, SUBASSY		EA	0001
0-10	12			0283-2-2822-8	15942	GASKET,LIGHT COVER		EA	0001
C-10	13			0283-2-2818-1	15942	RETAINER, LENS,		EA	0001
C-10	14			T12 3314	02214	LAMP FLOUR 33IN		EA	0002
C-10	15		5305-00-054-6657	MS51957-33	96906	SCREW, MACHINE, 6-32X7/8		EA	0002
C-10	16			651-W	02241	HOLDER, FLEX LOC		EA	0002
C-10	17			0283-2-2821-1	15942	RETAINER, LENS,		EA	0001
0-10	8		5330-00-483-6313	0283-2-2822-5	15942	GASKET, LIGHT COVER		EA	0001
C-10	19			0283-2-2820	15942	RETAINER, LENS,		EA	0002
C-10	20		5330-00-483-6261	0283-2-2822-4	15942	GASKET,LIGHT COVER		EA	0002
0-10	21		6250-00-344-4274	FS25	08595	STARTER FLUORESCENT LAMP		EA	0002
0-10	22			GR 215	87585	GROMMET		EA	0003
C-10	23		5310-00-167-0832	AN960-6L	81350	WASHER, FLAT NO 6		EA	0025
C-10	24		5305-00-054-6652	MS51957-28	96906	SCREW, MACH, PAN HD 6-32X3/8		EA	0023

SECTION IV. REPAIR PARTS LIST TM32-5410-217-14&P									
1	2		3	4	5	б		7	8
FIG NO	CITEM NO	MR ODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION	USABLE ON CODE	U/M	QTY INC IN UNIT
C-10	25			0283-2-2822-1	15942	GASKET,LIGHT COVER		EA	0002
C-10	26			0283-2-2822-2	15942	GASKET,LIGHT COVER		EA	0002
C-10	27		5310-00-081-8087	F22NM-62	72962	NUT, HEX		EA	0025
C-10	28		5310-00-187-1836	P063091	28528	WASHER, FLAT NO 10		EA	0002
0-10	29		5305-00-059-3660	MS51958-64	96906	SCREW, MACH, PAN HD 10-32X5/8		EA	0002
C-10	30		5310-00-638-2410	F22NM-82	72962	NUT, HEX		EA	0006
C-10	31		5310-00-595-6772	MS15795-808	96906	WASHER, FLATNO 8		EA	0006
0-10	32		5305-00-054-6672	MS51957-47	96906	SCREW, MACH PAN HD 8-32X3/4		EA	0006
C-10	33			0283-2-2819-1	15942	RETAINER, LENS, LIGHT COVER		EA	0001
C-10	34			0283-2-2822-3	15942	GASKET,LIGHT COVER		EA	0001
C-10	35			0283-2-2817	15942	SOCKET BRACKET BLACKOUT LGT		EA	0001





Figure C-11. Air Conditioning Mounting Kit, S-389 Shelter (Sheet 2 of 3)



Figure C-11. Air Conditioning Mounting Kit, S-389 Shelter (Sheet 3 of 3)

SECTIO 1 ILLUST	N IV. RE	PAIR PAR 2	IS LIST 3 NATIONAL	4 5	5 FSCM	TM32-5410-217-14&P 6			8 0TY
10001		SMR	STOCK	PART	FSCM	DESCRIPTION		U/M	INC
FIG NO	ITEM NO	CODF CODF	NUMBER	NUMBER			USABLE ON CODE		UNIT
C-11	REF			0216-1-1100	15942	AIR COND MINGKT S-389,MSA-34			
C-11	REF			0216-1-4101	15942	END PANEL ASSY AIR COND			
C-11	1			0216-1-4102	15942	END PANEL, SUBAY		EA	0001
C-11	2			0283-2-2224-1	15942	CLAMP MOUNT		EA	0010
C-11	3		5305-00-455-0315	MS35307-367	96906	SCREW MACH HEX 3/8-16X2-1/4		EA	0010
C-11	4		5310-00-773-7618	MS15795-814	96906	WASHER, FLAT 3/8		EA	0010
C-11	5			0283-2-2225-2	15942	SRRING CLAMP		EA	0010
C-11	6		5307-01-019-1279	0216-1-3119-1	15942	STUD WELDMENT		EA	0006
0-11	7		5310-00-984-7042	MS35338-141	96906	WASHER,LOCK 3/8 IN		EA	0006
C-11	8		5310-00-773-7618	MS15795-814	96906	WASHER, FLAT 3/8 IN		EA	0006
0-11	9			0216-1-3121	15942	GUTTER PANEL		EA	0001
C-11	10		5305-00-059-3661	MS51958-65	96906	SCREW, MACHINE 10-32X3/4		EA	0019
C-11	11		5310-00-933-8120	MS35338-138	96906	WASHER,LOCK NO 10		EA	0023
C-11	12		5310-00-550-5054	MS15795-809	96906	WASHER,LOCK NO 10		EA	0023
C-11	13			0216-1-3112	15942	PANEL WELD BOT BLANKOFF		EA	0001
C-11	14			0216-1-3113	15942	PANEL WELD BOT BLANKOFF		EA	0001
0-11	15			0216-1-3114	15942	PANEL WELD TOP BLANKOFF		EA	0001
C-11	16			0216-1-3115	15942	RETAINER PLATE PANEL		EA	0003
0-11	17		5305-01-012-6732	0216-1-3129-1	15942	THUMBSCREW ASSEMBLY		EA	0006
C-11	18			0216-1-3129-2	15942	WASHER		EA	0006
0-11	19			NAS1455-8	80205	CHAIN SASH #8		EA	0006
C-11	20		5320-00-175-6347	AD62ABS	07707	RIVET, BLIND		EA	0008
C-11	21		5330-01-015-2179	0216-1-3118-1	15942	RUBBER STRIP		EA	0001
0-11	22		5330-01-013-8778	0216-1-3118-2	15942	RUBBER STRIP		EA	0001
C-11	23		5330-01-013-8779	0216-1-3118-3	15942	RUBBER STRIP		EA	0001

SECTION IV. REPAIR PARTS LIST 1 2 3 ILLUSTRATION NATIONAL				4	5	TM32-5410-217-14&P 6		7	8 QTY
		SMR	STOCK	PART NUMBER	FSCM	DESCRIPTION		U/M	INC
FIG NO	ITEM NO	CODE	NORDER	NOMBER			USABLE ON CODE		UNIT
C-11	24			0216-1-3127	15942	BRACKET CHAIN		EA	0001
C-11	25			0216-1-3000-2	15942	NAMEPLATE		EA	0001
C-11	26		5305-00-753-7171	MS24630-10	96906	SCREW, TAPPING		EA	0002
C-11	27			0216-1-3111	15942	HINGE		EA	0001
C-11	28		5320-00-493-4101	MILR24243-18604	81349	RIVET, BLIND		EA	0010
C-11	29		5330-01-013-8777	0216-1-3128-1	15942	PLASTIC STRIP		EA	0001
C-11	30		5330-01-015-4140	0216-1-3128-2	15942	PLASTIC STRIP		EA	0002
0-11	31		5330-01-015-4141	0216-1-3128-3	15942	PLASTIC STRIP		EA	0002
C-11	32			0216-1-3110-1	15942	FRAME WELDMENT		EA	0001
C-11	33		4130-00-456-9801	13211E3798	97403	SOUND ATTENUATOR GFE		EA	0001
C-11	34			0216-1-3126	15942	DRIP PAN		EA	0001
C-11	35			0216-1-3123	15942	STRIKER		EA	0002
C-11	36		5305-00-984-1859	MS21316-37	96906	THUMBSCREW 1/4-20X1-1/2		EA	0002
C-11	37		5310-00-582-5677	MS15795-810	96906	WASHER, FLAT 1/4		EA	0002
C-11	38			0216-1-3122	15942	CLAMP		EA	0002
C-11	39			0216-1-3116	15942	RETAINER		EA	0001
C-11	40			0216-1-3117	15942	STRGE TRAY ASSY		EA	0001
C-11	41		5305-00-059-3660	MS51958-64	96906	SCREW, MACHINE 10-32X5/8		EA	0004
C-11	42			0216-1-4104-1	15942	FRME WELDMENT AIR COND		EA	0001
0-11	43		5305-00-021-3668	MS35307-310	96906	SCREW, CAP, HEX 1/4-20X1-1/4		EA	0012
C-11	44		5310-00-933-8121	MS35338-139	96906	WASHER,LOCK 1/4 IN		EA	0012
C-11	45		5310-00-582-5677	MS15795-810	96906	WASHER, FLAT 1/4 IN		EA	0012
C-11	46		5305-00-616-6375	MS35307-417	96906	SCREW, CAP HEX 1/2-13X2-1/2		EA	0002
0-11	47		5310-00-767-9425	MS15795-818	96906	WASHER FLAT 1/2 IN		EA	0002
C-11	48		5310-00-768-0321	MS51971-5	96906	NUT, PLAIN, HEXAGON 1/2-13		EA	0004

SECTION IV. REPAIR PARTS LIST 1 2 3 1 2 3				4	5	TM32-5410-217-14&P 6		7	8
ILLUSTF	RATION SMR		NATIONAL STOCK	PART	FSCM	DESCRIPTION		U/M	QTY INC
FIG NO	COD ITEM NO	Е	NUMBER	NUMBER			USABLE ON CODE		IN UNIT
C-11	49			0216-1-3130	15942	STABILIZER BRKT		EA	0001
C-11	50		5306-00-576-0529	MS35307-337	96906	BOLT, MACHINE 5/16-18X 1-3/8		EA	0001
C-11	51		5310-00-974-6623	MS35338-140	96906	WASHER,LOCK 5/16		EA	0001
C-11	52		5310-00-802-4701	MS15795-813	96906	WASHER, FLAT 5/16		EA	0002
0-11	53			0216-1-3131	15942	CLAMP, GASKET		EA	0002
C-11	54		5305-00-225-3656	MS35307-423	96906	SCREW, MACH HEX 1/2-13X4		EA	0004
0-11	55			12005-12-SW	32005	WASHER SPHERICAL		EA	0004
C-11	56		5305-00-878-7326	MS35307-392	96906	SCREW, MACH HEX 7/16-14X2-1/4		EA	0004
C-11	57		5310-00-973-8786	MS35338-142	96906	WASHER,LOCK 7/16		EA	0006
0-11	58		5310-00-184-8628	MS15795-816	96906	WASHER, FLAT 7/16		EA	0006
C-11	59		5310-00-913-8881	MS51971-3	96906	NUT, PLAIN, HEXAGON 3/8-16		EA	0006
C-11	60		5310-00-984-7042	MS35338-141	96906	WASHER, LCCK 3/8 IN		EA	0001
C-11	61		5310-00-773-7618	MS15795-814	96906	WASHER, FLAT 3/8 IN		EA	0002
C-11	62			0216-1-3000-2	15942	NAMEPLATE		EA	0001
C-11	63		5305-00-753-7171	MS24630-10	96906	SCREW, TAPPING, THREAD		EA	0001
C-11	64		4120-00-168-1781	CH620-2	90598	AIR CONDITIONER GFE		EA	0001
C-11	65		4120-00-973-4589	CE20VAL 6	60532	AIR CONDITIONER GFE		EA	0001
C-11	66			0283-4-2002	15942	GROUND STRAP		EA	0001
C-11	67		5995-01-012-9514	0283-1-2222	15942	CABLE ASSY, GROUND		EA	0001
C-11	8		5975-00-296-5324	WR00550	81348	GROUND ROD		EA	0001
C-11	69		5999-00-186-3912	5057	73569	CLAMP, ELECTRICAL		EA	0001
C-11	70			0216-1-3133	15942	CABLE AIR COND PWR		EA	0001
C-11	71			0216-1-3132	15942	CABLE ASSY PWR		EA	0001



SECTION IV. REPAIR PARTS LIST TM32-5410-217-14&P									
1	ATTON	2	3 National	4	5	6		7	8 0TV
100011		SMR	STOCK	PART	FSCM	DESCRIPTION		U/M	INC
FIG NO	ITEM NO	CODE)	NUMBER	NUMBER			USABLE ON CODE		IN UNIT
0-12	REF			0216-1-1000	15942	DOLLY ADAPTER KIT, S-389, MSA-34			
0-12	1			0216-1-4001-1	15942	DOLLY ADAPTER PLATE, UPPER		EA	0072
C-12	2			0216-1-4001-2	15942	DOLLY ADAPTER PLATE, UPPER		EA	0002
C-12	3			MS35370-464	96906	SCREW MACH HEX 5/8-11 X 2 IN		EA	0002
C-12	4		5310-00-937-0453	MS35338-145	96906	WASHER LOCK 5/8		EA	0004
0-12	5		5310-00-614-3505	MS15795-820	96906	WASHER FLAT 5/8		EA	0012
C-12	6		5305-00-021-3620	MS35307-307	96906	SCREW, MACH 1/4-20 X 7/8 IN		EA	0012
C-12	7		5310-00-933-8121	MS35338-139	96906	WASHER, LOCK 1/4 IN		EA	0040
C-12	8		5310-00-582-5677	MS15795-810	96906	WASHER, FLAT 1/4 IN		EA	0096
C-12	9			0216-1-3000-1	15942	NAMEPLATE		EA	0096
C-12	10		5305-00-753-7171	MS24630-10	96906	SCREW TAPPING TYPE F, PAN HD		EA	0008
C-12	11			0216-1-4002-1	15942	DOLLY ADPTER PLATE SKID		EA	0016
C-12	12			0216-1-4002-2	15942	DOLLY ADPTER PLATE SKID		EA	0002
C-12	13		5305-00-923-8268	MS35307-466	96906	SCREW, MACH HEX 5/8-11X2-1/2		EA	0002
C-12	14		5305-00-702-4523	MS35307-306	96906	SCREW, MACH HEX 1/4-20X3/4		EA	0008
0-12	15			MS24693-95	96906	SCREW, MACH HEX 1/4-20X5/8		EA	0056

SECTION V. SPECIAL TOOLS LIST (NOT APPLICABLE)

(1) ILLUSTR	ATION	(2)	(3)	(4)	(5)	(6)		(7)	(8) OTY
(A) FIG NO	(B) ITEM NO	SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION USABLE ON	CODE	U/M	INC IN UNIT

SECTION VI. NATIONAL STOCK NUMBER AND PART NUMBER INDEX

NAT.STOCK NUMBER	FIG NO.	ITEM NO.	NAT.STOCK NUMBER	FIG NO.	ITEM NO.
4010-00-054-2667	C-4	12	5310-00-087-7493	C-3	32
4010-00-054-2667	C-5	13	5310-00-088-1251	C-3	27
4120-00-168-1781	C-11	64	5310-00-167-0832	C-10	23
4120-00-973-4589	C-11	65	5310-00-184-8628	C-11	58
4130-00-456-9801	C-11	33	5310-00-187-1836	C-10	28
4210-00-555-8837	C-2	3	5310-00-298-8192	C-4	4
5305-00-021-3620	C-12	6	5310-00-298-8192	C-5	7
5305-00-021-3668	C-11	43	5310-00-550-5054	C-11	12
5305-00-054-6652	C-10	24	5310-00-582-5677	C-11	37
5305-00-054-6657	C-10	15	5310-00-582-5677	C-11	45
5305-00-054-6672	C-10	32	5310-00-582-5677	C-12	8
5305-00-059-3660	C-10	29	5310-00-595-6772	C-10	31
5305-00-059-3660	C-11	41	5310-00-595-6772	C-4	23
5305-00-059-3661	C-11	10	5310-00-595-6772	C-5	8
5305-00-061-8148	C-6	31	5310-00-595-6772	C-6	39
5305-00-071-1322	C-3	25	5310-00-596-7457	C-6	5
5305-00-071-1322	C-4	21	5310-00-614-3505	C-12	5
5305-00-071-1322	C-5	15	5310-00-619-1148	C-3	15
5305-00-225-3656	C-11	54	5310-00-625-5756	C-3	28
5305-00-225-8507	C-3	30	5310-00-638-2410	C-10	30
5305-00-253-5604	С-б	3	5310-00-638-2410	C-6	38
5305-00-269-3217	C-4	8	5310-00-687-6704	C-6	9
5305-00-269-3217	C-5	3	5310-00-765-3197	C-6	10
5305-00-455-0315	C-11	3	5310-00-767-9425	C-11	47
5305-00-616-6375	C-11	46	5310-00-768-0321	C-11	48
5305-00-702-4523	C-12	14	5310-00-773-7618	C-11	4
5305-00-753-7171	C-11	26	5310-00-773-7618	C-11	8
5305-00-753-7171	C-11	63	5310-00-773-7618	C-11	61
5305-00-753-7171	C-12	10	5310-00-802-4701	C-11	52
5305-00-837-9739	C-6	12	5310-00-809-3365	C-6	7
5305-00-878-7326	C-11	56	5310-00-809-4061	C-4	9
5305-00-889-3000	C-6	17	5310-00-809-4061	C-5	2
5305-00-889-3001	C-6	30	5310-00-823-8804	C-7	4
5305-00-923-8268	C-12	13	5310-00-839-3770	C-6	24
5305-00-984-1859	C-11	36	5310-00-877-5797	C-3	14
5305-00-984-6193	C-6	8	5310-00-913-8881	C-11	59
5305-00-989-7434	C-3	45	5310-00-933-8120	C-11	11
5305-00-993-1848	C-3	37	5310-00-933-8120	C-3	18
5305-00-993-1848	C-6	40	5310-00-933-8121	C-11	44
5305-00-993-1851	C-4	5	5310-00-933-8121	C-12	7
5305-00-993-1851	C-5	6	5310-00-937-0453	C-12	4
5305-00-995-3444	C-3	19	5310-00-973-8786	C-11	57
5305-01-012-6732	C-11	17	5310-00-974-6623	C-11	51
5305-01-019-9665	C-3	2	5310-00-983-8483	C-6	25
5306-00-225-8508	C-3	26	5310-00-984-3806	C-3	31
5306-00-576-0529	C-11	50	5310-00-984-7042	C-11	7
5307-01-019-1279	C-11	6	5310-00-984-7042	C-11	60
5310-00-045-9116	C-6	19	5315-00-271-3001	C-9	3
5310-00-081-8087	C-10	27	5320-00-075-6211	C-4	15
5310-00-081-8087	C-6	16	5320-00-175-6347	C-11	2.0

SECTION VI. NATIONAL STOCK NUMBER AND PART NUMBER INDEX

NAT.STOCK NUMBER	FIG. NO.	ITEM NO.	NAT. STOCK NUMBER	FIG NO.	ITEM NO.
5320-00-493-4101	C-11	28	5340-00-630-2343	C-5	12
5320-00-493-4101	C-4	19	5340-00-664-1322	C-3	34
5320-00-904-4136	C-4	14	5915-00-538-3555	C-10	4
5320-00-904-4136	C-5	11	5925-00-553-9899	C-6	27
5320-00-956-4067	C-8	3	5930-00-912-4552	C-2	6
5330-00-483-6261	C-10	20	5935-00-257-7641	C-6	6
5330-00-483-6313	C-10	18	5935-00-644-6818	C-6	15
5330-00-483-6322	C-10	10	5945-00-995-0029	C-6	37
5330-01-013-8777	C-11	29	5975-00-296-5324	C-11	68
5330-01-013-8778	C-11	22	5975-00-296-6086	C-6	11
5330-01-013-8779	C-11	23	5995-01-012-9514	C-11	67
5330-01-015-2179	C-11	21	5999-00-186-3912	C-11	69
5330-01-015-4140	C-11	30	6240-00-115-8007	C-10	6
5330-01-015-4141	C-11	31	6250-00-344-4274	C-10	21
5340-00-503-5423	C-3	12	6250-01-015-0128	C-10	5
5340-00-630-2343	C-4	11			

SECTION VI. NATIONAL STOCK NUMBER AND PART NUMBER INDEX

MANUF. PART NO.	FSCM 96906 96906	FIG NO. C-3 C-3	ITEM NO. 39 46
		C-3	51
	96906	C-4	4
	96906	C-5	7
		C-7	7
ABC 11 AY	77342	C-6	37
AD 43 ABS	07707	C-5	11
AD-42-ABS	07707	C-8	3
AD-43-ABS	07707	C-4	14
AD-44-ABS	07707	C-4	15
AD-64-ABS	07707	C-4	19
AD62ABS	07707	C-11	20
AN960-6L	81350	C-10	23
CD-109	61957	C-8	2
CE2UVAL6	60532	C-11	65
CH62U-2	90598	0-11	64
FSZS	72062	C-10 C 10	21
FZZNM-0Z	72962	C-10	2/
$F \ge 2 \text{ NM} = 0 \ge 2$	72902	C-10 C 6	50
F 2 2NM 4 0	72902	C-6	16
F 2 21010 2	72962	C-6	38
CB 215	87585	C-10	22
MTLE52031	81349	C-2	3
MTLR24243-1B604	81349	C-11	28
MS15795-808	96906	C-10	31
MS15795-808	96906	C-4	23
MS15795-808	96906	C-5	8
MS15795-808	96906	C-6	39
MS15795-809	96906	C-11	12
MS15795-809	96906	C-3	15
MS15795-810	96906	C-11	37
MS15795-810	96906	C-11	45
MS15795-810	96906	C-12	8
MS15795-812	96906	C-3	28
MS15795-813	96906	C-11	52
MS15795-814	96906	C-11	4
MS15795-814	96906	C-11	8
MS15795-814	96906	C-11	61
MS15795-816	96906	C-11	58
MS15795-818	96906	C-11	47
MS15795-820	96906	C-12	5
MS21044N3	96906	C-3	14
MC01016 1E	90900		⊥∠ 21
MCJ1216 27	90900		5⊥ 76
MC01010 0	96906	C-11	20
MS24630_10	96906	C-0 C-11	3 26
MG24630_10	96906	C = 11	63
UT_DCHD2D_TD	0000	C-TT	0.5

MANUF. PART NO.	FSCM	FIG NO.	ITEM NO.
MS24630-10	96906	C-12	10
MS24693-95	96906	C-12	15
MS27183-13	96906	C-3	32
MS27183-15	96906	C-4	9
MS27183-15	96906	C-5	2
MS27183-41	96906	C-6	10
MS27183-5	96906	C-6	25
MS27183-9	96906	C-7	4
MS35206-230	96906	C-6	17
MS35206-231	96906	C-6	30
MS35206-245	96906	C-6	8
MS35207-263	96906	C-3	45
MS35207-265	96906	C-3	37
MS35207-265	96906	C-6	40
MS35207-266	96906	C-3	19
MS35207-267	96906	C-4	5
MS35207-267	96906	C-5	6
MS35307-306	96906	C-12	14
MG35307-307	96906	C-12	42
M635307-310	96906		43
MG25207 267	96906	C-11	2
MG35307-307	96906	C-11 C-11	56
MG35307-417	96906	C_{-11}	46
MS35307-423	96906	C-11	54
MS35307-466	96906	C-12	13
MS35338-138	96906	C-11	11
MS35338-138	96906	C-3	18
MS35338-139	96906	C-11	44
MS35338-139	96906	C-12	7
MS35338-140	96906	C-11	51
MS35338-141	96906	C-11	7
MS35338-141	96906	C-11	60
MS35338-142	96906	C-11	57
MS35338-145	96906	C-12	4
MS35340-41	96906	C-6	24
MS35340-42	96906	C-6	7
MS35370-464	96906	C-12	3
MS35647-3	96906	C-3	34
MS51863-11	96906	C-3	2
MS51863-55	96906	C-7	3
MS51922-1	96906		27
MG51957_98	96906	C-3 C-10	5⊥ 24
MC51057_22	96906	C = 10	47 15
MG51957-47	96906	C-10	10 10
MG51958-64	96906	C-10	29
MS51958-64	96906	C-11	41
MS51958-65	96906	C-11	10
MS51960-30	96906	C-6	4

MANUF. PART NO.	FSCM	FIG NO.	ITEM NO.
MS51960-65	96906	C-3	25
MS51960-65	96906	C-4	21
MS51960-65	96906	C-5	15
MS51971-3	96906	C-11	59
MS51971-5	96906	C-11	48
MS90725-43	96906	C-3	30
MS90725-44	96906	C-3	26
MS90725-67	96906	C-4	8
MS90725-67	96906	C-5	3
NAS1455-8	80205	C-11	19
NAS1455-8	80205	C-8	4
ND-1252	94364	C-8	1
P063091	28528	C-10	28
P115	09709	C-6	27
P3-13	71468	C-6	6
SG 1330		C-3	9
S10-80	03481	C-6	26
S25	02241	C-10	3
S8-160	03481	0-6	19
S8-75	03481	C-6	9
112 3314 WD00FF0	01240	C-10 0 11	14
WRUU55U	81348		00
0216 1 1000	15040	C-7 C-12	
0216-1-1100	15942	C = 12	DEE
0216-1-3000-1	15942	C_{-12}	Q
0216-1-3000-2	15942	C-11	25
0216-1-3000-2	15942	C-11	62
0216-1-3110-1	15942	C-11	32
0216-1-3111	15942	C-11	27
0216-1-3112	15942	C-11	13
0216-1-3113	15942	C-11	14
0216-1-3114	15942	C-11	15
0216-1-3115	15942	C-11	16
0216-1-3116	15942	C-11	39
0216-1-3117	15942	C-11	40
0216-1-3118-1	15942	C-11	21
0216-1-3118-2	15942	C-11	22
0216-1-3118-3	15942	C-11	23
0216-1-3119-1	15942	C-11	6
0216-1-3121	15942	C-11	9
0216-1-3122	15942	C-11	38
0216-1-3123	15942	C-11	35
0216-1-3126	15942	C-11	34
UZTO-T-3TZ/		C-11	24
0216 1 2120 2	15942	C-11 0 11	29 20
0210-1-3128-3	15942		3U 71
0210-1-3120-3	15040	C_{-11}	17
0216-1-3129-2	15942	C-11	18
···· · · · · · ·		·	10

MANUF. PART NO.	FSCM	FIG NO.	ITEM NO.
0216-1-3130	15942	C-11	49
0216-1-3131	15942	C-11	53
0216-1-3132	15942	C-11	71
0216-1-3133	15942	C-11	70
0216-1-4001-1	15942	C-12	1
0216-1-4001-2	15942	C-12	2
0216-1-4002-1	15942	C-12	11
0216-1-4002-2	15942	C-12	12
0216-1-4101	15942	C-11	REF
0216-1-4102	15942	C-11	1
0216-1-4104-1	15942	C-11	42
0283-1-2222	15942	C-11	67
0283-2-2105	15942	C-2	12
0283-2-2106	15942	C-2	14
0283-2-2106	15942	C-7	REF
0283-2-2108	15942	C-5	16
0283-2-2110	15942	C-7	6
0283-2-2130	15942	C-7	4
0283-2-2131	15942	C-7	2
0283-2-2216	15942	C-4	13
0283-2-2224-1	15942	C-11	2
0283-2-2224-1	15942	C-4	6
0283-2-2224-1	15942	C-5	1
0283-2-2225-2	15942	C-11	5
0283-2-2225-2	15942	C-4	7
0283-2-2225-2	15942	C-5	4
0283-2-2226	15942	C-4	3
0283-2-2226	15942	C-5	5
0283-2-2228	15942	C-4	22
0283-2-2228	15942	C-5	14
0283-2-2229	15942	C-4	24
0283-2-2229	15942	C-5	9
0283-2-2400	15942	C-3	10
0283-2-2401	15942	C-3	
0283-2-2402	15942	C-3	4
0283-2-2403	15942	C-3	5
0283-2-2405-1	15942	0-3	44
0203-2-2405-2	15942		43
0203-2-2000	15942	C-3	22
0203 - 2 - 2001 - 1	15042	C-3	23 17
0283-2-2001-2	15942	C-3	24
0203-2-2002	15942	C-3	21 7
0283-2-2604	15942	C - 3	, 29
0283-2-2605	15942	C-3	22
0283-2-2606-1	15942	C - 3	1
0283-2-2606-2	15942	C-3	6
0283-2-2606-3	15942	C-3	22
0283-2-2606-5	15942	C-3	47
0283-2-2607	15942	C-3	40

SECTION VI.	NATIONAL	STOCK	NUMBER	AND	PART	NUMBER	INDEX

MANUF. PART NO.	FSCM	FIG NO.	ITEM NO.
0283-2-2806-1	15942	C-6	28
0283-2-2806-2	15942	C-6	29
0283-2-2809-1	15942	C-6	35
0283-2-2817	15942	C-10	35
0283-2-2818-1	15942	C-10	13
0283-2-2819-1	15942	C-10	33
0283-2-2820	15942	C-10	19
0283-2-2821-1	15942	C-10	17
0283-2-2821-2	15942	C-10	9
0283-2-2822-1	15942	C-10	25
0283-2-2822-2	15942	C-10	26
0283-2-2822-3	15942	C-10	34
0283-2-2822-4	15942	C-10	20
0283-2-2822-5	15942	C-10	18
0283-2-2822-6	15942	C-10	10
0283-2-2822-8	15942	C-10	12
0283-2-2823	08595	C-10	2
0283-2-2824-1	15942	C-10	7
0283-2-2830-1	15942	C-9	1
0283-2-2831-1	15942	C-9	4
0283-2-2921-1	15942	C-6	22
0283-2-2922-1	15942	C-3	3
0283-2-3111	15942	C-2	13
0283-2-3111	07707	C-8	REF.
0283-2-3400	15942	C-3	52
0283-2-3402	15942	C-3	49
0283-2-3403	15942	C-3	48
0203-2-3000	15942	C-3	26
0203-2-3001	15942	C-3	21
0283-2-3805	15942	C-10	11
0283-2-3808-1	15942	C-10	1
0283-2-3913-1	15942	C-4	18
0283-2-3919-1	15942	C-6	32
0283-2-3919-2	15942	C-6	14
0283-2-3920-1	15942	C-6	1
0283-2-3921-1	15942	C-6	21
0283-2-3922-1	15942	C-6	18
0283-2-3924-1	15942	C-4	20
0283-2-3998	15942	C-2	5
0283-2-4000	15942	C-2	REF
0283-2-4200	15942	C-2	1
0283-2-4200	15942	C-4	REF
0283-2-4201	15942	C-4	1
0283-2-4301	15942	C-2	7
0283-2-4301	15942	C-5	REF
0283-2-4302	15942	C-5	17
0283-2-4401	15942	C-2	7
0283-2-4401	15942	C-4	17
0283-2-4402	15942	C-4	2

MANUF. PART NO.	FSCM	FIG NO.	ITEM NO.
0283-2-4500	15942	C-2	2
0283-2-4500	15942	C-3	15
0283-2-4600	15942	C-2	15
0283-2-4600	15942	C-3	REF
0283-2-4603-2	15942	0-3	50
0283-2-4604	15942	C-3	42
0283-2-4700	15942	0-2	9
0283-2-4700	15942	C-3	REF
0283-2-4701	15942	0-3	38
0283-2-4802	15942	C-6	20
0283-2-4804	15942	0-2	10
0283-2-4804	15942	C-6	KEF DEE
0283-2-4806	15942	C-10	REF
0283-2-4806	15942	0-2	4
0283-2-4907-2	15942	0-2	
	15942	C-9	REF 2
0203-2-4900-1	15942	C-9	2
0283-2-4910-1	15942	0-6	34
0203-2-4910-2	15942	C-6	33
0203-2-4915-1	15942	C-0	13
0203 - 4 - 2002	15942		00
0203-4-2013-1	15942	0-0	2
10011RCB	00005	C-10 C-11	22
1/2	97405	C-11 C-10	55
15000	10001	C-10	11
15020	10220	C-4 C-5	10
15920	10220	C-5	12
15929	19220	C-4 C-5	12
16113	19220	C-4	10
16113	19220	C-1 C-5	10
2-2108	0283-	C-4	16
28_254	19200	C-3	16
20-254 32005-12-SW	32005	C-11	55
3304	59730	C-6	11
5057	73569	C-11	69
5503-1	75582	C-6	23
55031	75582	C-2	6
5658-1	19220	C-3	12
5658-30	19220	C-3	13
59-028-125-0500	72962	C-9	3
6-5647-50	19220	Č-3	20
61036-70AL	63448	C-6	36
651-W	02241	C-10	16
653W	02241	C-10	8
7557G	74545	C-6	15
79-028-125-875	72962	C-3	41
89G635	24457	Č-10	4

INDEX

Subject	Paragraph, Figure, Table Number
Administrative Storage	1-6
Air Conditioner Mounting Kit	7-1
Components	F7-2
MK-001-IU	F7-1
Air Ducts and Controls	3-6
Auxiliary Equipment	T1-l

В

Ballast	5
Blackout Circuit	
Relay	10
Switch	.9
Blackout Lighting Circuits	-3
Blackout Receptacle	8

С

Ceiling Light and Pairs		•		•	•	•	•	•	•		•	•	•			•	•	•	•		•	•	•	•-	•	•	•	•	•	•	•	•	F3-1
Checking Unpacked Equipment	•	•	•	•	•	•	•	•	•	•		•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	2 - 4
Checks and Services		•	•	•			•	•	•		•	•	•	•	•			•	•			•	•	•		•	•		•	•	•.	• .	5-6
Circuit Breakers		•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	3 - 5
Components Listing		•		•	•	•	•	•	•		•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	T2-1
Controls and Indicators	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•		•	•	•	•		•	•	•	•	3-1
Convenience Receptacles																																	
Operating Instructions	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	3-4
Direct Support and General Su	ppc	ort	Μ	lai	nte	na	nce	e Iı	nst	ruc	ctic	ons		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	.6-7

D

Destruction of Army Materiel to Prevent Enemy Use	. 1-3
Dolly Adapter Kit	. 7-3
MK-A002-IU	• F7-3
Dolly Adapter Plate Installation	• F7-5
Dolly Set M-720	• F7-4
Door Assembly	· 6-12
Side/End Panel	• F6-1
Door Hinge Assembly	· .6-13

INDEX (Continued)

Subject	-														F	Par ligui Ni	ragraph, re, Table umber
Electrical Cable Ducts	• • • • • • • • • • • • • • • • • • •		• • • • • •		- · ·	· · ·		- · · - · ·	· · ·	• • •	•	· · · · · ·		•	• • • •	• • • • • • • •	F1-4 T3-1 F1-3 F7-6 1-3 2-7
Fluorescent/Incandescent Lamp	 	•	•••	• •	•	•••	•	• •	•	• • •	•	• • • •	•		•	 	5-10 5-9 5-11
None																	
	Н																
None																	
	I																
Installation	· · · ·		· · · · · ·	• • •	•	•••	• • •	• •	•	• • •	• • •	• • • • • -•	• • •		• • •	· · · · · · · · · · · · · · · · · · ·	2 - 5 7 - 2 7 - 4 2 - 4 2 - 8
Interconnecting Shelter End to End Side to Side		•	•••	•	•	•••	•	•	•	•	•	•••	•	•	•	 	7 - 6 7 - 7
	L																
None																	
	K																
None																	
	L																
Light Switch				•		•		•				•		•			6-6 3-3
Normal	· · · ·	 	•••		· ·	• • •	· · · ·	• •	• • •	· ·			· · · ·	• •		· · · ·	3-2

INDEX (Continued)

Subject		Paragraph, Figure, Table Number
	Μ	
Maintenance Forms and Records		· · · · 1-2 · · · · 6-3
	N	
Normal Lighting Circuit		3-2
	0	
Operation Under Unusual Conditions	ervices	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Painting and Preservation Instructions Supplies Panel Clamp Assembly Panel, Roof Storage Preparation for Movement Preventive Maintenance Checks and Services Operator/Crew Organizational Organizational, Table Preventive Maintenance Instructions, Operator/Crew Preventive Maintenance Instructions, Operator/Crew	Q	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
None		
	R	

Receptacle
Blackout
Convenience
Repainting and Refurnishing Instructions

INDEX (Continued)

Subject		Paragraph, Figure, Table Number
Repair Parts		5-2
Reporting of Errors		1-4
RFI Filter		6-4
:	3	
Shelter Blackout Lighting Circuit Schematic		F1-5
Electrical Equipment, S-389/MSA-34 Installation		• • F1-1 • • 2-6
Light Unit Components		F5-2
Outer Skin Repair		6-14
Wiring Diagram		••• 5-15
Shutdown Procedure		3-9
Side and End Panel Removal and Installation		2-8
Single Shelter Units Interconnected to Form a Large Fixed Con	mmunications Complex • • • • • • • •	••• F1-2
Site Selection		• • 2-2
Special Tools and Equipment		6-2
Blackout Circuit		• • 6-9
Light		
System Planning	· · · · · · · · · · · · · · · · · · ·	•• 2-1
	r	
Tabulated Data		1.0
Tools and Equipment		1-9 5-1
Operator/Crew Maintenance		4-1
Organizational Maintenance		5-1
Special Tools and Equipment		6-2
Troubleshooting		5-7
Troubleshooting Table		5-8
	U	
Unpacking the Shelter		2-3
	v	
None		
١	N	
Walkway Kit		7-5
· · · · · · · · · · · · · · · · · · ·	V 7	
^,	1, 2	

None

By Order of the Secretary of the Army:

BERNARD W. ROGERS

General, United States Army Chief of Staff

Official:

PAUL T. SMITH Major General, United States Army The Adjutant General

☆ U.S. GOVERNMENT PRINTING OFFICE : 1985 0 - 461-202 (11865)

COMMANDER US ARMY ELECTRONICS MATERIEL READINESS ACTIVITY WARRENTON, VIRGINIA 22186

OFFICIAL BUSINESS PENALTY FOR PRIVATE USE, \$300

-

POSTAGE AND FEES PAID DEPARTMENT OF THE ARMY DoD-314

.

