

TB 9-2320-273-13&P-1

TECHNICAL BULLETIN

OPERATOR'S, UNIT, AND DIRECT SUPPORT MAINTENANCE MANUAL, INSTALLATION INSTRUCTIONS, AND REPAIR PARTS AND SPECIAL TOOLS LISTS (RPSTL)

FOR

CREW PROTECTION KIT

FOR

TRUCK, TRACTOR, LINE HAUL, 6X4, M915A1P1
NSN 2320-01-525-7444

TRUCK, TRACTOR, LINE HAUL, 6X4, M915P1
NSN 2320-01-525-7451

TRUCK, TRACTOR, LIGHT EQUIPMENT TRANSPORTER, 6X6 WINCH,
M916P1
NSN 2320-01-531-2626

TRUCK CHASSIS, 8X6, FOR 20 TON DUMP TRUCK, M917P1
NSN 2320-01-531-2623

TRUCK, TRACTOR, MEDIUM EQUIPMENT TRANSPORTER, 8X6,
WITH WINCH, M920P1
NSN 2320-01-531-2638



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HEADQUARTERS, DEPARTMENT OF THE ARMY

JUNE 2006

WARNING SUMMARY

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



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



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



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



FLYING PARTICLES - arrows bouncing off face with face shield shows that particles flying through the air will harm face.



HEAVY PARTS - hand with heavy object on top shows that heavy parts can crush and harm.



HEAVY PARTS - heavy object on human figure shows that heavy parts present a danger to life or limb.



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

NOTE

For information on first aid, refer to FM 4-25.11.



WARNING

ADHESIVES AND SEALANTS

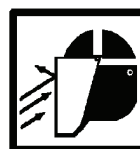


Use caution when using adhesives and sealants. Prolonged inhalation of vapors can cause lung irritation. Contact with skin can cause dermatitis. Wear gloves and safety goggles and use product in a well-ventilated area away from open flame. If ingested, keep individual calm and seek medical attention. DO NOT induce vomiting. If contact with skin or eyes is made, flush thoroughly with water. Dispose of cleanup rags IAW local policy and ordinances. Failure to follow this warning may cause injury to personnel.



WARNING

COMPRESSED AIR



Particles blown by compressed air are hazardous. DO NOT exceed 15 psi (103 kPa) nozzle pressure when drying parts with compressed air. Use a maximum of 30 psi (207 kPa) when cleaning components. DO NOT direct compressed air against human skin. Failure to follow this warning may result in injury or death to personnel. Make sure air stream is directed away from user and other personnel in the area. To prevent injury, user must wear protective goggles or face shield.



WARNING

DRILLING AND RIVETING

Eye protection is required when drilling and when using riveter to install rivets. Failure to follow this warning may cause injury to personnel.



WARNING

HEAVY COMPONENTS



Use caution when handling heavy parts. Provide adequate support and use assistance during procedure. Ensure that any lifting device used is in good condition and of suitable load capacity. Keep clear of heavy parts supported only by lifting device. Failure to follow this warning may cause injury or death to personnel.

WARNING

VEHICLE OPERATION

Due to increased weight of vehicle with armor kit installed, operator should be aware of differences in vehicle's driving characteristics and adjust his/her driving accordingly. Failure to do so may cause an accident and injury or death to personnel.



WARNING

SHARP EDGES

- Use caution when handling window glass. Glass can break unexpectedly during removal/installation procedure. Wear face shield, apron, and gloves. Failure to follow this warning may cause injury to personnel.
- Edges of metal armor panels may be sharp. Wear protective gloves when handling armor panels. Failure to follow this warning may cause injury to personnel.



WARNING

SOLVENT CLEANING COMPOUND



Solvent cleaning compound MIL-PRF-680 Type III is an environmentally compliant and low toxic material. However, it may be irritating to the eyes and skin. Use protective gloves and goggles. Use in well-ventilated areas. Keep away from open flames and other sources of ignition. Failure to follow this warning may cause injury to personnel.

WARNING

THREAT PROTECTION

For proper threat protection, ballistic glass must be correctly installed onto ballistic glass frame. During installation, ensure that decal "INSTALL THIS SURFACE TOWARDS THREAT" is located on outside of cab. Improperly installed windshield ballistic glass will not protect occupants. Failure to follow this warning may cause injury or death to personnel.

WARNING

WELDING NOT AUTHORIZED

To ensure survivability of personnel, welding repairs on armor kit are NOT authorized. If armor plates are damaged, they must be replaced. Failure to follow this warning may cause failure of armor, resulting in injury or death to personnel.

LIST OF EFFECTIVE PAGES/WORK PACKAGES

Date of issue for original manual is:

Original 1 June 2006

Total number of pages for front and rear matter is **16** and total number of work packages is 26 consisting of the following:

Page/WP No.	*Change No.	Page/WP No.	*Change No.
Cover	0	WP 0028 00 (4 pp.)	0
a to k	0	Ch. 5 title page	0
l blank	0	WP 0029 00 (2 pp.)	0
i to vi	0	WP 0030 00 (4 pp.)	0
Ch. 1 title page	0	WP 0031 00 (4 pp.)	0
WP 0001 00 (2 pp.)	0	WP 0032 00 (4 pp.)	0
WP 0002 00 (2 pp.)	0	WP 0033 00 (4 pp.)	0
WP 0003 00 (2 pp.)	0	WP 0034 00 (26 pp.)	0
Ch. 2 title page	0	WP 0035 00 (7 pp.)	0
WP 0004 00 (2 pp.)	0	WP 0036 00 (25 pp.)	0
WP 0005 00 (2 pp.)	0	Index (4 pp.)	0
WP 0006 00 (2 pp.)	0	Metric conversion chart	0
WP 0007 00 (2 pp.)	0	Back cover	0
Ch. 3 title page	0		
WP 0008 00 (2 pp.)	0		
WP 0009 00 (8 pp.)	0		
WP 0010 00 (2 pp.)	0		
Ch. 4 title page	0		
WP 0011 00 (6 pp.)	0		
WP 0012 00 (4 pp.)	0		
WP 0013 00 (2 pp.)	0		
WP 0014 00 (2 pp.)	0		
WP 0015 00 (4 pp.)	0		
WP 0016 00 (2 pp.)	0		
WP 0017 00 (4 pp.)	0		
WP 0018 00 (4 pp.)	0		
WP 0019 00 (4 pp.)	0		
WP 0020 00 (4 pp.)	0		
WP 0021 00 (2 pp.)	0		
WP 0022 00 (6 pp.)	0		
WP 0023 00 (4 pp.)	0		
WP 0024 00 (4 pp.)	0		
WP 0025 00 (4 pp.)	0		
WP 0026 00 (4 pp.)	0		
WP 0027 00 (4 pp.)	0		

* Zero in this column indicates an original page or work package.

TECHNICAL BULLETIN
TB 9-2320-273-13&P-1

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D.C., 1 June 2006

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Current as of February 2006

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this publication. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Submit your DA Form 2028 (*Recommended Changes to Equipment Technical Publications*), through the Internet, on the Army Electronic Product Support (AEPS) website. The Internet address is <https://aeeps.ria.army.mil/>. The DA Form 2028 is located under the Public Applications section in the AEPS Public Home Page. Fill out the form and click on SUBMIT. Using this form on the AEPS will enable us to respond quicker to your comments and better manage the DA Form 2028 program. You may also mail, fax or e-mail your letter or DA Form 2028 directly to: AMSTA-LC-LPIT/TECH PUBS, TACOM-RI, 1 Rock Island Arsenal, Rock Island, IL 61299-7630. The e-mail address is: TACOM-TECH-PUBS@ria.army.mil. The fax number is DSN 793-0726 or Commercial (309) 782-0726.

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Table of Contents - Continued

	Page Number
Warning Summary	a
How To Use This Technical Bulleting	v
 CHAPTER 1 GENERAL INFORMATION, EQUIPMENT DESCRIPTION AND DATA, AND THEORY OF OPERATION	
WP 0001 00 General Information	0001 00-1
WP 0002 00 Equipment Description and Data.	0002 00-1
WP 0003 00 Theory Of Operation	0003 00-1
 CHAPTER 2 OPERATOR INSTRUCTIONS	
WP 0004 00 Description and Use of Operator Controls	0004 00-1
WP 0005 00 Operation Under Usual Conditions	0005 00-1
WP 0006 00 Operation Under Unusual Conditions	0006 00-1
WP 0007 00 Stowage and Decal/Data Plate Guide	0007 00-1
 CHAPTER 3 OPERATOR MAINTENANCE INSTRUCTIONS	
WP 0008 00 Operator Preventive Maintenance Checks and Services (PMCS) Introduction .	0008 00-1
WP 0009 00 Operator Preventive Maintenance Checks and Services (PMCS).	0009 00-1
WP 0010 00 Cleaning Ballistic Glass	0010 00-1
 CHAPTER 4 UNIT MAINTENANCE INSTRUCTIONS	
WP 0011 00 General Maintenance Instructions.	0011 00-1
WP 0012 00 Door Assembly Replacement	0012 00-1
WP 0013 00 Door Handle Replacement	0013 00-1
WP 0014 00 Door Latch Replacement.	0014 00-1
WP 0015 00 Door Ballistic Glass and Frame Replacement.	0015 00-1
WP 0016 00 Cab Support Replacement.	0016 00-1
WP 0017 00 Wheel Well Armor Replacement	0017 00-1
WP 0018 00 Floor Armor (Left) Replacement.	0018 00-1
WP 0019 00 Floor Armor (Right) Replacement	0019 00-1
WP 0020 00 Floor Armor (Center) Replacement.	0020 00-1
WP 0021 00 Quarter Panel Armor Replacement	0021 00-1
WP 0022 00 Rear Armor Replacement	0022 00-1
WP 0023 00 Roof Armor Replacement	0023 00-1
WP 0024 00 Windshield Ballistic Glass Replacement.	0024 00-1
WP 0025 00 Firewall Armor Replacement	0025 00-1
WP 0026 00 Escape Hatch Replacement	0026 00-1
WP 0027 00 Outer Firewall Armor Replacement	0027 00-1
WP 0028 00 Glove Box Armor Replacement	0028 00-1
 CHAPTER 5 SUPPORTING INFORMATION	
WP 0029 00 References	0029 00-1
WP 0030 00 Maintenance Allocation Chart (MAC) Introduction	0030 00-1
WP 0031 00 Maintenance Allocation Chart (MAC)	0031 00-1
WP 0032 00 Expendable and Durable Items List	0032 00-1
WP 0033 00 Torque Limits	0033 00-1
WP 0034 00 Crew Protection Kit Installation Instructions	0034 00-1
WP 0035 00 Field Maintenance (Unit and Direct Support Maintenance) Repair Parts and Special Tools Lists (RPSTL) Introduction	0035 00-1
WP 0036 00 Repair Parts and Special Tools Lists (RPSTL)	0036 00-1

Table of Contents - Continued

		Page Number	
		Illus/ Fig	Page
GROUP 33	SPECIAL PURPOSE KITS		
3307 -	SPECIAL PURPOSE KITS		1-1
	CAB SUPPORTS	1	1-1
	WHEEL WELL AND FRONT FIREWALL ARMOR	2	2-1
	FLOOR AND FIREWALL ARMOR	3	3-1
	INTERIOR CAB ARMOR.....	4	4-1
	SIDE ARMOR.....	5	5-1
	DOOR ASSEMBLIES	6	6-1
	OVERHEAD ARMOR	7	7-1
	WINDSHIELD ARMOR	8	8-1
	NATIONAL STOCK NUMBER INDEX.....		I-1
	PART NUMBER INDEX		I-3
	Index		Index 1

HOW TO USE THIS TECHNICAL BULLETIN

NOTE

If at any time you are unsure how to use this technical bulletin or you cannot locate the information you need, notify your supervisor.

INTRODUCTION

1. This technical bulletin is designed to help you operate and maintain the Truck, Tractor M915A1P1, M915P1, M916P1, M917P1, and M920P1 Crew Protection Kit. It also provides installation instructions for the Crew Protection Kit (CPK) and the Repair Parts and Special Tools Lists (RPSTL).
2. This technical bulletin is written in work package format:
 - a. Chapters divide the technical bulletin into major categories of information (e.g., *General Information, Equipment Description and Data, and Theory of Operation; Operator Instructions; Operator Maintenance Instructions; Unit Maintenance Instructions; and Supporting Information*).
 - b. Each chapter is divided into work packages, which are identified by a 6-digit number (e.g. 0001 00, 0002 00, etc.) located on the upper right-hand corner of each page. The work package page number (e.g. 0001 00-1, 0001 00-2, etc.) is located centered at the bottom of each page.
 - c. If a Change Package is issued to this technical bulletin, added work packages use the 5th and 6th digits of their number to indicate new material. For instance, work packages inserted between WP 0001 00 and WP 0002 00 are numbered WP 0001 01, WP 0001 02, etc.
3. Read through this manual to become familiar with its organization and contents before attempting to operate or maintain the armor kit.

CONTENTS OF THIS TECHNICAL BULLETIN

1. A *Warning Summary* is located at the beginning of this technical bulletin. Become familiar with these warnings before operating or performing maintenance on the armor kit.
2. A *Table of Contents*, located in the front of the technical bulletin, lists all chapters and work packages in the publication.
 - a. The Table of Contents also provides *Reporting Errors and Recommending Improvements* information and DA Form 2028 addresses, for the submittal of corrections to this technical bulletin.
 - b. If you cannot find what you are looking for in the Table of Contents, refer to the alphabetical *Index* at the back of the technical bulletin.
3. Chapter 1, *General Information, Equipment Description and Data, and Theory of Operation*, provides general information on the manual and the armor kit.
4. Chapter 2, *Operator Instructions*, explains and illustrates all operator controls and contains a *Description and Use Of Operator Controls*. It also provides procedures for the armor kit: *Operation Under Usual Conditions* and *Operation Under Unusual Conditions*, as well as a *Stowage and Decal/Data Plate Guide*.
5. Chapter 3 deals with *Operator Maintenance Instructions*. This chapter includes *Operator Preventive Maintenance Checks and Services (PMCS) Introduction, Operator Preventive Maintenance Checks and Services (PMCS)*, and *Cleaning Ballistic Glass*.
6. Chapter 4 includes all maintenance tasks related to *Unit Maintenance Instructions*.
7. Chapter 5 includes *Supporting Information: References; Maintenance Allocation Chart (MAC) Introduction; Maintenance Allocation Chart (MAC); Expendable and Durable Items List; Torque Limits; Crew Protection Kit Installation Instructions; Repair Parts and Special Tools Lists (RPSTL) Introduction; and Repair Parts and Special Tools Lists (RPSTL)*.

FEATURES OF THIS TECHNICAL BULLETIN

1. WARNINGS, CAUTIONS, NOTES, subject headings, and other important information are highlighted in **BOLD** print as a visual aid.
2. Weight warnings at the beginning of a procedure apply to all steps where armor panels are removed or installed.

WARNING

A WARNING indicates a hazard that may cause injury or death to personnel.

CAUTION

A CAUTION is a reminder of safety practices or directs attention to usage practices that may cause damage to equipment.

NOTE

A NOTE is a statement containing information that will make the procedures easier to perform.

3. Statements and words of particular interest may be printed in CAPITAL LETTERS to create emphasis.
4. Within a procedural step, reference may be made to another work package in this technical bulletin or to another technical bulletin. These references indicate where you should look for more complete information.
 - a. If you are told: “Refer to *Crew Protection Kit Installation Instructions* (WP 0034 00),” go to WP 0034 00 in this technical bulletin for instructions on this procedure.
 - b. If you are told: “For complete information on Truck, Tractor M915A1 Operator PMCS, refer to TM 9-2320-283-10”, go to *References* in WP 0029 00 for complete information on the cited reference.
5. Illustrations are placed after, and as close to, the procedural steps to which they apply. Callouts placed on the art are text or numbers.
6. Numbers located at lower right corner of art (e.g. 417-001; 417-002, etc.) are art control numbers and are used for tracking purposes only.
7. Technical instructions include metric units as well as standard units. For your reference, a *Metric Conversion Chart* is located on the inside back cover.

CHAPTER 1
GENERAL INFORMATION, EQUIPMENT
DESCRIPTION AND DATA, AND THEORY OF OPERATION

SCOPE

This technical bulletin is for your use in operating and performing Operator, Unit, and Direct Support (Field) Maintenance on the Crew Protection Kit installed on the Truck, Tractor M915A1P1, M915P1, M916P1, M917P1, and M920P1 Line-Haul. This technical bulletin also covers armor kit installation instructions and the Repair Parts and Special Tools Lists (RPSTL) for the kit.

MAINTENANCE FORMS, RECORDS, AND REPORTS

Department of the Army forms and procedures used for the equipment will be those prescribed by DA PAM 750-8, *Functional Users Manual for The Army Maintenance Management System (TAMMS)*, as contained in the Maintenance Management Update.

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR)

If your armor kit needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance. If you have Internet access, the easiest and fastest way to report problems or suggestions is to go to <https://aeprs.ria.army.mil/aeprpublic.cfm> (scroll down and choose the "Submit Quality Deficiency Report" bar). The Internet form lets you choose to submit an Equipment Improvement Recommendation (EIR), or a Product Quality Deficiency Report (PQDR). You may also submit your information using an SF Form 368 (*Product Quality Deficiency Report*). You can send your SF Form 368 via e-mail, regular mail, or facsimile using the addresses/facsimile numbers specified in DA PAM 750-8, *Functional Users Manual for The Army Maintenance Management System (TAMMS)*. We will send you a reply.

CORROSION PREVENTION AND CONTROL (CPC)

1. Corrosion Prevention and Control (CPC) of Army materiel is a continuing concern. It is important that any corrosion problems with this item be reported so that the problem can be corrected and improvements can be made to prevent the problem in future items.
2. While corrosion is typically associated with rusting of metals, it can also include deterioration of other materials, such as rubber and plastic. Unusual cracking, softening, swelling, or breaking of these materials may be a corrosion problem. If a corrosion problem is identified, it can be reported using SF Form 368 (*Product Quality Deficiency Report*). Use of key words such as "corrosion," "rust," "deterioration," or "cracking" will ensure that the information is identified as a CPC problem. The form should be submitted to the address specified in DA PAM 750-8.

DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE

For destruction of Army material to prevent enemy use, refer to TM 750-244-6.

PREPARATION FOR STORAGE OR SHIPMENT**M915A1P1**

Refer to TM 9-2320-283-20.

M915P1, M916P1, M917P1, AND, M920P1

Refer to TM 9-2320-273-20.

LIST OF ABBREVIATIONS/ACRONYMS

NOTE

Refer to ASME Y14.38-1999 for standard abbreviations.

ABBREVIATION/ACRONYM	DEFINITION
cm	Centimeter
CPK	Crew Protection Kit
IAW	In Accordance With
IED	Improvised Explosive Device
kg	Kilogram
lb-ft	Pound Foot
lb-in.	Pound Inch
mm	Millimeter
Nm	Newton Meter
PMCS	Preventive Maintenance Checks and Services
P/N	Part Number

QUALITY OF MATERIAL

Material used for replacement, repair, or modification of the Crew Protection Kit must meet the requirements of this technical bulletin. If quality of material requirements are not stated in this technical bulletin, the material must meet the requirements of the drawings, standards, specifications, or approved engineering change proposals applicable to the Crew Protection Kit.

SAFETY, CARE, AND HANDLING

Follow procedures, warnings, and cautions as written in this technical bulletin.

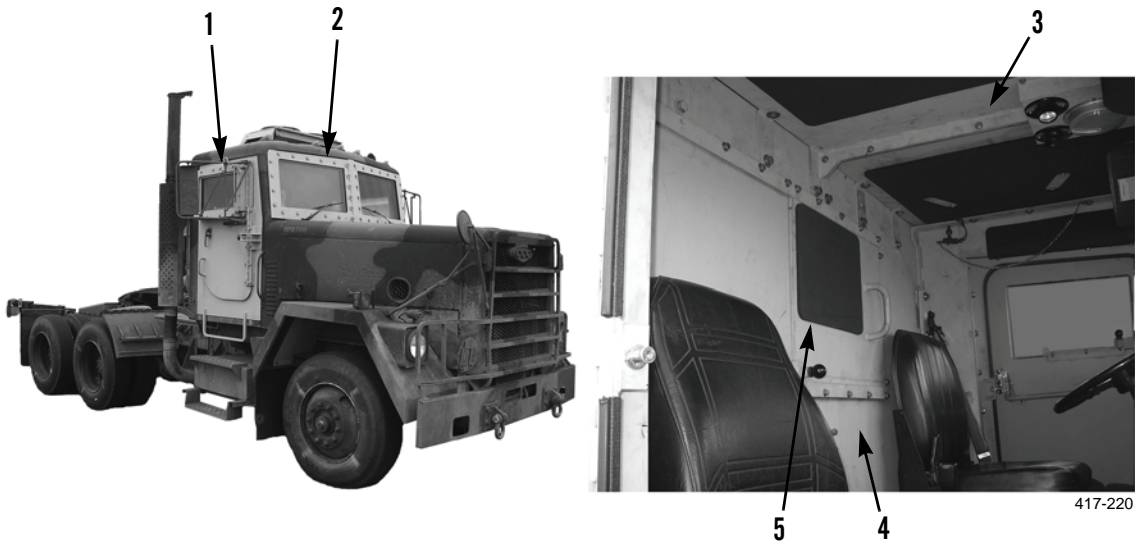
END OF WORK PACKAGE

EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES

1. The Crew Protection Kit provides the vehicle with improved protection.
2. The Crew Protection Kit consists of the following:
 - a. Driver-side, floor, and passenger-side armor
 - b. Front, firewall, rear, and roof armor panels
 - c. Door assemblies
 - d. Ballistic glass for windshield and side door windows
 - e. Emergency exit

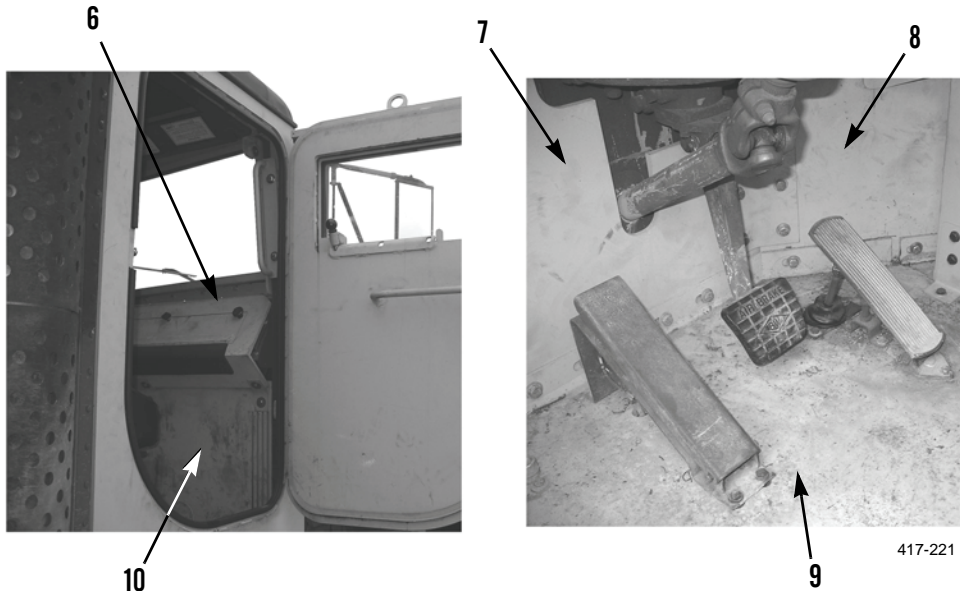
LOCATION AND DESCRIPTION OF MAJOR COMPONENTS

The illustrations below show major armor kit components and their location in relation to the cab.



KEY	COMPONENT
1	Door Assembly
2	Windshield Frame and Windshield Ballistic Glass
3	Roof Armor
4	Rear Armor
5	Escape Hatch

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS - CONTINUED



KEY	COMPONENT
6	Glove Box Armor
7	Firewall Armor - LH
8	Firewall Armor - Center
9	Floor Armor
10	Firewall Armor - RH

END OF WORK PACKAGE

THEORY OF OPERATION

0003 00

GENERAL

The Crew Protection Armor Kit consists of two armored doors, roof armor, windshield ballistic glass, floor armor, fire-wall armor, rear cab armor panels, and an armored emergency exit.

The floor armor consists of three panels and is installed under the seat and operator floor controls. The door armor assembly consists of an armored door, hinge, sliding ballistic glass, and armored frame that is mounted to the existing door opening. The rear armor consists of two panels and rests on the floor armor. The roof armor consists of two panels that are supported by door frames, rear armor, and a center support. The windshield and side windows are constructed of ballistic glass. The remaining armor panels are fastened to the vehicle using attachment brackets and Grade 8 attachment hardware.

END OF WORK PACKAGE

CHAPTER 2
OPERATOR INSTRUCTIONS

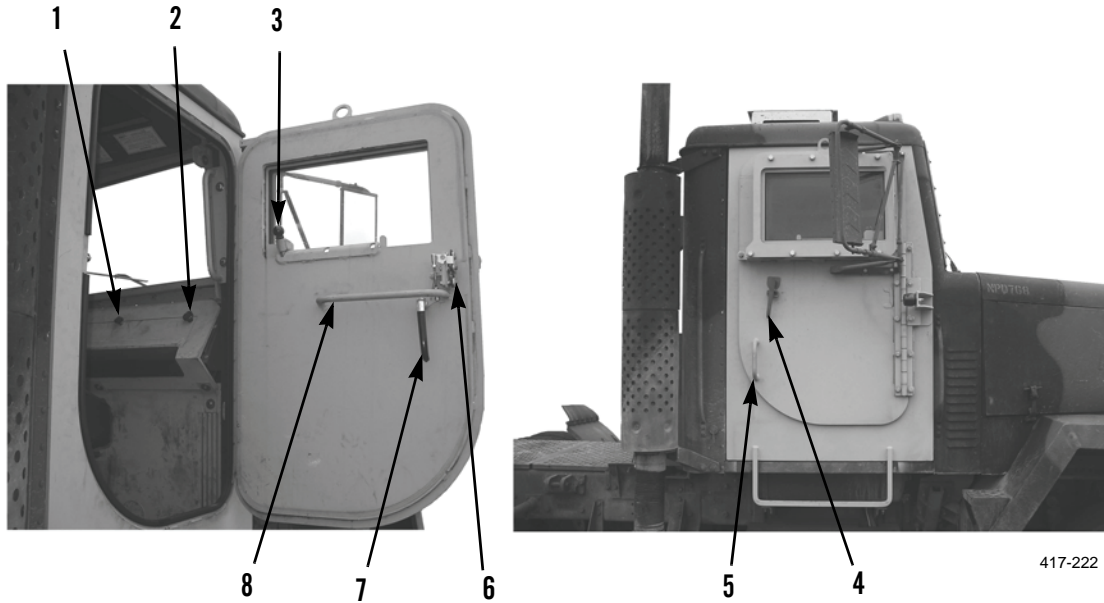
DESCRIPTION AND USE OF OPERATOR CONTROLS

0004 00

GENERAL

1. This work package describes all operator controls for the Crew Protection Kit.
2. Do not attempt to operate the vehicle with Crew Protection Kit installed until becoming familiar with the location and function of all armor kit controls.

OPERATOR CONTROLS

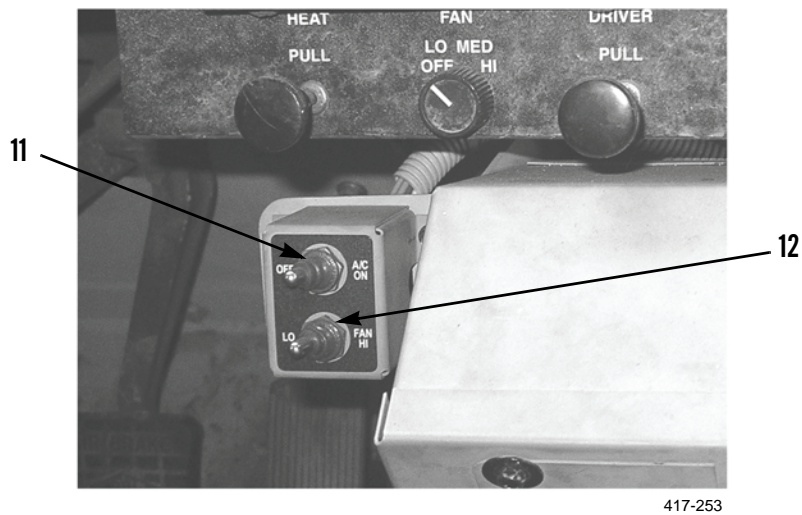


KEY	CONTROL OR INDICATOR	FUNCTION
1	Glove Box Handle	Used to open glove box.
2	Glove Box Latch	Unscrew both latches to open glove box door.
3	Window Latch	Lift up on latch and slide window to open or close.
4	Exterior Door Handle	Allows driver or passenger side door to be opened from the outside.
5	Grab Handle	Provides a hand hold for opening the door.
6	Door Latch	Secures side door closed.
7	Interior Door Handle	Allows driver or passenger side door to be opened from the inside.
8	Interior Grab Handle	Provides a hand hold for entering or existing the vehicle.

OPERATOR CONTROLS - CONTINUED



KEY	CONTROL OR INDICATOR	FUNCTION
9	Escape Hatch Grab Handle	Use grab handle to open escape hatch.
10	Escape Hatch Latch	Pull to release latch and slide escape hatch open.



KEY	CONTROL OR INDICATOR	FUNCTION
11	A/C On-Off Switch	Switches the A/C system on and off.
12	Fan Speed Switch	Controls the speed of the A/C blower fan.

END OF WORK PACKAGE

GENERAL

1. This work package contains instructions for safely operating the vehicle with Crew Protection Kit installed.
2. Read and follow the procedures in *Operation Under Usual Conditions* before operating vehicle with Crew Protection Kit. For the M915A1P1, refer to TM 9-2320-283-10. For the M915P1, M916P1, M917P1, and M920P1, refer to TM 9-2320-273-10.

INITIAL ADJUSTMENTS AND DAILY CHECKS**NOTE**

Refer to WP 0004 00 for the location and operation of operator controls.

Perform *Before Operator Preventive Maintenance Checks and Services (PMCS)* before operation (WP 0008 00 and WP 0009 00).

OPERATING VEHICLE**WARNING**

Due to increased weight with Crew Protection Kit installed, operator should be aware of differences in vehicle's driving characteristics and adjust driving accordingly. Failure to do so may cause injury or death to personnel.

1. With Crew Protection Kit installed, vehicle is heavier than usual. Due to this increased weight, adjust driving to allow for greater stopping distance.
2. Vehicle may steer differently with Crew Protection Kit installed. Adjust vehicle speed accordingly and exercise caution.

WARNING

- The center of gravity is higher on a vehicle with a Crew Protection Kit installed.
 - Always use slower speed when operating vehicle.
 - DO NOT operate vehicle on steep hills or inclines.
 - Failure to follow these warnings may cause injury or death to personnel.
3. The center of gravity is higher with a Crew Protection Kit installed. Use slower speeds when making turns or changing lanes. Also, use extreme caution when operating the vehicle on any incline. The higher center of gravity increases the chance of rollover.

WARNING

Visibility is reduced on a vehicle with a Crew Protection Kit installed. Always use ground guides when maneuvering vehicle near obstacles. Failure to follow this warning may cause injury to personnel or damage to equipment.

4. Visibility is reduced with a Crew Protection Kit installed. Operate vehicle with caution and use ground guides.

WARNING

Vehicles with a Crew Protection Kit installed have different door handles and latching hardware. Do not allow clothing or equipment to catch on door hardware. Failure to follow this warning may cause injury to personnel.

5. When entering or exiting the vehicle, use three-point contact procedure at all times. Keep clothing and equipment away from door hardware.

OPERATING VEHICLE - CONTINUED

WARNING

DO NOT park vehicle on a hill or incline. The parking brake has a reduced capacity due to the increased weight of vehicle with Crew Protection Kit installed. Failure to follow this warning may cause injury or death to personnel.

6. Park vehicle on level surface.
7. Operate heater/air conditioning system as needed to ensure proper cab ventilation (WP 0004 00).
8. Maintain good visibility for operating personnel. Keep all ballistic glass clean. Follow cleaning instructions in *Cleaning Ballistic Glass* (WP 0010 00).

END OF WORK PACKAGE

OPERATION UNDER UNUSUAL CONDITIONS

0006 00

For the M915A1P1, refer to TM 9-2320-283-10. For the M915P1, M916P1, M917P1, and M920P1, refer to TM 9-2320-273-10.

Read and follow the procedures in *Operation Under Unusual Conditions* before operating the vehicle with Crew Protection Kit installed.

ESCAPE HATCH OPERATION

1. Pull escape hatch latch (5).
2. Pull grab handle (2) and slide escape hatch (1) towards passenger side of vehicle.

NOTE

Escape hatch latch will engage when escape hatch is moved to full open position.

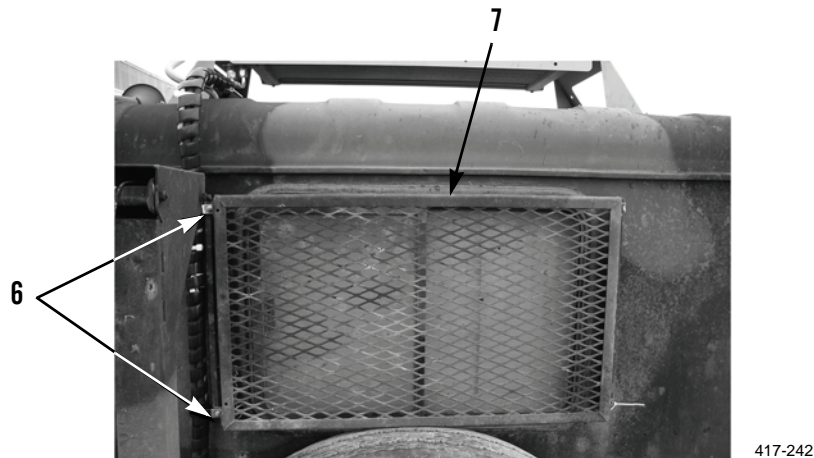
3. Release rear window latch (3) and slide rear window (4) towards passenger side of vehicle.



NOTE

Pins (6) can be removed from inside of cab once rear window is open.

4. Remove two pins (6) from rear window grate (7) on driver's side.
5. Exit vehicle through rear window.



OPERATION IN EXTREME TEMPERATURES

Operation in extreme temperatures with a Crew Protection Kit installed requires altering operating procedures.

Extreme Cold

CAUTION

Never use scraper to remove frost or ice from ballistic glass. Failure to follow this caution will damage outer layer.

NOTE

Clearing frost from ballistic glass requires more time than standard glass.

Extend vehicle warm-up time and operate heater and defroster to clear frost from ballistic glass. For the M915A1P1, refer to TM 9-2320-283-10. For the M915P1, M916P1, M917P1, and M920P1, refer to TM 9-2320-273-10.

Extreme Heat

NOTE

The Crew Protection Kit absorbs and retains more heat than a standard cab.

1. Park vehicle away from direct sunlight whenever possible.
2. Extend vehicle start/warm-up times and operate air conditioner to cool down interior of cab (WP 0004 00).

END OF WORK PACKAGE

GENERAL

1. There is no stowage guide related to the Crew Protection Kit. For the M915A1P1, refer to TM 9-2320-283-10 for stowage guide. For the M915P1, M916P1, M917P1, and M920P1, refer to TM 9-2320-273-10.
2. Refer to TM 9-2320-283-10 or TM 9-2320-273-10 for decals and data plates.

END OF WORK PACKAGE

CHAPTER 3
OPERATOR MAINTENANCE INSTRUCTIONS

GENERAL**NOTE**

- Information in this PMCS Introduction applies only to preventive maintenance checks and services for the Crew Protection Kit.
 - For information specific to the M915A1, refer to the PMCS Introduction in TM 9-2320-283-10.
 - For information specific to the M915, M916, M917, and M920, refer to the PMCS Introduction in TM 9-2320-273-10.
1. To ensure that the Crew Protection Kit is ready for operation at all times, it must be inspected on a regular basis so that defects may be found and corrected before they result in injury or death due to equipment failure.
 2. The PMCS Table in WP 0009 00 contains systematic instructions on inspections and services to be performed by the operator to keep your equipment in good operating condition and ready for its primary mission.

EXPLANATION OF TABLE ENTRIES

1. **Item Number (Item No.) Column.** Numbers in this column are for reference. When completing DA Form 2404 or DA Form 5988-E (Equipment Inspection and Maintenance Worksheet), include the item number for the check/service indicating a fault. Item numbers also appear in the order that you must perform checks and services for the interval listed.
2. **Interval Column.** This column tells you when you must perform the procedure in the procedure column.
 - a. *Before* procedures must be done immediately before you operate vehicle with Crew Protection Kit installed.
 - b. *After* procedures must be done immediately after operating vehicle with Crew Protection Kit installed.
 - c. *Weekly* procedures must be done once each week.
3. **Location, Item to Check/Service Column.** This column provides the location and item to be checked or serviced.

NOTE

The WARNINGS and CAUTIONS appearing in your PMCS table should always be observed. WARNINGS and CAUTIONS appear before applicable procedures. You must observe these WARNINGS to prevent injury or death to personnel, and CAUTIONS to prevent your equipment from being damaged.

4. **Procedure Column.** This column gives the procedure you must perform to check or service the item listed in the Item to Check/Service column, to know if the equipment is ready or available for its intended mission. You must perform the procedure at the time stated in the interval column.
5. **Not Fully Mission Capable If: Column.** Information in this column tells you what faults will keep your equipment from being capable of performing its primary mission. If you perform check/service procedures that show faults listed in this column, the equipment is not mission-capable. Follow standard operating procedures for maintaining the equipment or reporting equipment failure.

GENERAL PMCS PROCEDURES

1. Always perform PMCS in the same order so it gets to be a habit. Once you've had some practice, you'll spot anything wrong in a hurry.
2. If anything looks wrong and you can't fix it, write it on your DA Form 2404 or DA Form 5988-E. If you find something seriously wrong, IMMEDIATELY report it to your supervisor.
3. Before performing preventive maintenance, read all the checks required for the applicable interval and prepare all that is needed to make all the checks. You'll always need a rag (Item 6, WP 0032 00) or two.

**OPERATOR PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)
INTRODUCTION - CONTINUED**

0008 00

GENERAL PMCS PROCEDURES - CONTINUED**WARNING**

Solvent cleaning compound MIL-PRF-680 Type III is an environmentally compliant and low toxic material. However, it may be irritating to the eyes and skin. Use protective gloves and goggles. Use in well-ventilated areas. Keep away from open flames and other sources of ignition.

- a. **Keep It Clean.** Dirt, grease, oil, and debris get in the way and may cover up a serious problem. Clean as you work and as needed. Use solvent cleaning compound (Item 2, WP 0032 00) on all metal surfaces. Use detergent (Item 4, WP 0032 00) and water when you clean rubber, plastic, and painted surfaces.

**WARNING**

When servicing this machine, performing maintenance, or disposing of materials such as engine coolant, hydraulic fluid, lubricants, battery acids or batteries, and CARC paint, consult your unit/local hazardous waste disposal center or safety office for local regulatory guidance. If further information is needed, please contact The Army Environmental Hotline at 1-800-872-3845.

- b. **Hazardous Waste Disposal.** Ensure all spills are cleaned up and disposed of IAW local policy and ordinances.
- c. **Rust and Corrosion.** Check metal parts for rust and corrosion. If any bare metal or corrosion exists, clean and apply a light coat of lubricating oil (Item 5, WP 0032 00). Report it to your supervisor.
- d. **Bolts, Rivnuts, Nuts, and Screws.** Check bolts, rivnuts, nuts, and screws for obvious looseness and missing, bent, or broken condition. If you find one that is loose, notify your supervisor.
- e. **Electric Wires and Connectors.** Look for cracked or broken insulation, bare wires, and loose or broken connectors. Reconnect loose connectors. Ensure that wires are in good condition.

CAUTION

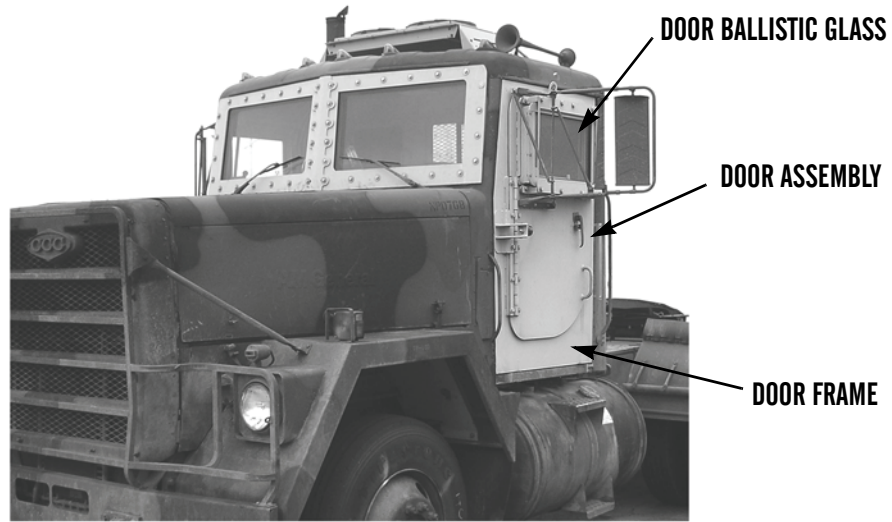
- Remove rings or other hard objects from hands before cleaning ballistic glass. **DO NOT** use hard, dirty, or gritty cloths on ballistic glass. **DO NOT** apply water or detergent unless ballistic glass is cool and is protected from heating effects of sunlight. Failure to follow these instructions will damage ballistic glass.
 - Do not use bug spray or other aerosol sprays on or near ballistic glass. Failure to follow these instructions will damage ballistic glass.
- f. **Ballistic Glass.** Keep ballistic glass clean (WP 0010 00).

END OF WORK PACKAGE

Item No.	Interval	Location	Procedure	Not Fully Mission Capable If:
		Item To Check/Service		
1	Before		NOTE	
		FRONT AND LEFT SIDE	<ul style="list-style-type: none"> • Perform PMCS for the M915A1 in TM 9-2320-283-10 BEFORE performing PMCS for the CPK. • Perform PMCS for the M915, M916, M917, and M920 in TM 9-2320-273-10 BEFORE performing PMCS for the CPK. • Review all WARNINGS, CAUTIONS, and NOTES before performing PMCS and operating the vehicle with CPK. • Perform all PMCS checks if: <ol style="list-style-type: none"> a. You are the assigned operator but have not operated the vehicle with CPK since the last weekly checks. b. You are operating the vehicle with CPK for the first time. • Perform PMCS with vehicle parked on level ground, parking brake applied, transmission in N (Neutral), wheels blocked, and engine shut down. 	
		Front Armor	<ol style="list-style-type: none"> a. Inspect wheel well armor for damaged, loose, or missing armor plate and mounting bolts. b. Open left hood (M915A1P1: TM 9-2320-283-10; M915P1, M916P1, M917P1, and M920P1: TM 9-2320-273-10) and inspect exterior firewall armor for damaged, loose, or missing armor plate and mounting bolts. c. Inspect windshield ballistic glass mounting hardware for damaged, loose, or missing brackets and mounting bolts. d. Inspect exterior surface of windshield ballistic glass for cracks, scratches, or pitting. 	<p>Armor plate is damaged, loose, or missing, or mounting bolts are loose or missing.</p> <p>Armor plate is damaged, loose, or missing, or mounting bolts are loose or missing.</p> <p>Any windshield ballistic glass mounting hardware is damaged, loose, or missing, or mounting bolts are loose or missing.</p> <p>Cracks, scratches, or pitting in the exterior layer of windshield ballistic glass that penetrates through to the inner layer.</p>

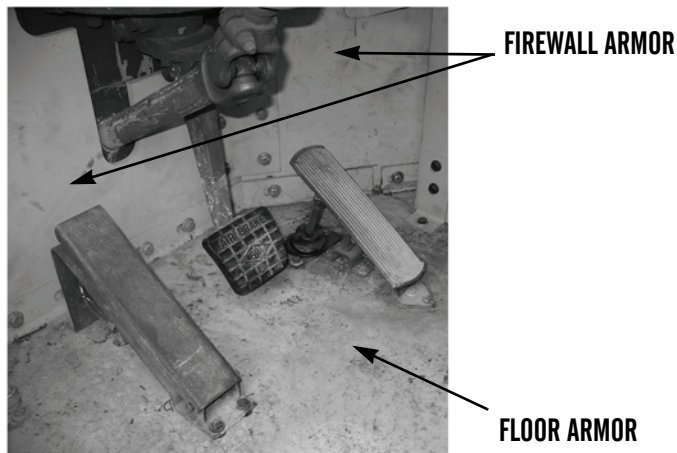
Item No.	Interval	Location	Procedure	Not Fully Mission Capable If:
		Item To Check/Service		
1 - Cont.			e.If dirty, clean windshield ballistic glass (WP 0010 00).	
2	Before	Side Armor (Left Side)	<p>a. Inspect door assembly and door frame for damaged, loose, or missing mounting hardware.</p> <p>b. Inspect exterior surface of door ballistic glass for cracks, scratches, or pitting.</p> <p>c. Open door and enter cab. Close door using grab handle. Make sure door closes without binding and latches correctly (WP 0004 00).</p> <p>d. Make sure door ballistic glass can open, close and securely lock.</p> <p>e. Inspect interior surface of door ballistic glass and windshield ballistic glass for cracks, scratches, or pitting.</p>	<p>Any armor panel or door assembly is damaged, or mounting hardware is loose or missing.</p> <p>Cracks, scratches, or pitting in the exterior layer of door ballistic glass that penetrates through to the inner layer.</p> <p>Door binds or does not latch.</p> <p>Door ballistic glass will not close or lock.</p> <p>Cracks, scratches, or pitting on the interior surface of the door ballistic glass or windshield ballistic glass.</p>

Item No.	Interval	Location	Procedure	Not Fully Mission Capable If:
		Item To Check/ Service		
2 - Cont.			f. If dirty, clean ballistic glass (WP 0010 00).	

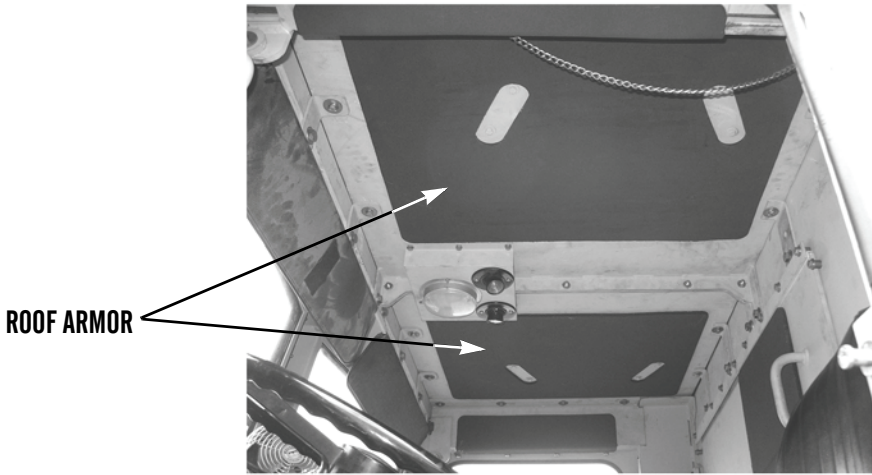


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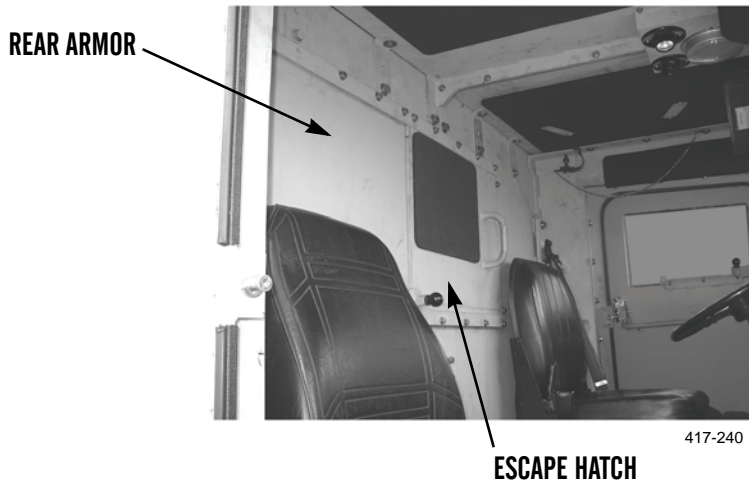
3	Before	Floor/Firewall Armor (Left Side)	Inspect left side floor and firewall armor for damage or loose or missing armor plates and mounting bolts.	Any floor or firewall armor is damaged, loose, or missing, or mounting bolts are loose or missing.
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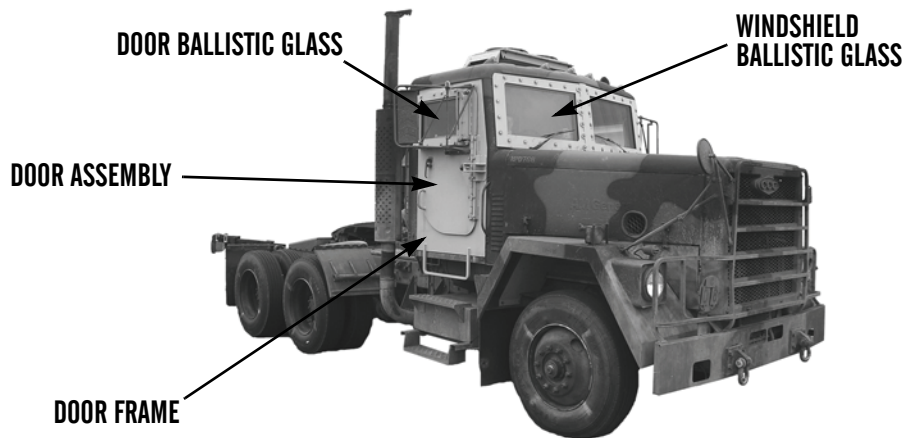
Item No.	Interval	Location	Procedure	Not Fully Mission Capable If:
		Item To Check/ Service		
4	Before	ROOF	Inspect roof armor for damage or missing components. Inspect roof mounting hardware for loose or missing components.	Roof armor is damaged. Roof mounting hardware is loose or missing.
		Roof Armor		
				
417-245				
5	Before	REAR AND RIGHT SIDE	a. Inspect rear armor for damage or loose or missing armor plates and mounting bolts. b. Inspect escape hatch for damage.	Rear cab armor is damaged, loose, or missing, or mounting bolts are loose or missing. Escape hatch is damaged, or mounting hardware is loose or missing.
		Rear Armor and Escape Hatch		

Item No.	Interval	Location	Procedure	Not Fully Mission Capable If:
		Item To Check/ Service		
5 - Cont.			c. From inside the cab, check that escape hatch will open and then securely latch closed. Ensure there is no damage to latch and mounting hardware (WP 0004 00).	Escape hatch will not open or latch closed securely.




6	Before	Side Armor (Right Side)	<p>a. Inspect door assembly and door frame for damage or loose or missing mounting hardware.</p> <p>b. Inspect exterior surface of door ballistic glass for cracks, scratches, or pitting.</p> <p>c. Inspect windshield ballistic glass mounting hardware for damaged, loose, or missing brackets and mounting bolts.</p> <p>d. Inspect exterior surface of windshield ballistic glass for cracks, scratches, or pitting.</p> <p>e. Open door and enter cab. Close door using grab handle. Make sure door closes without binding and latches correctly (WP 0004 00).</p>	<p>Armor panel or door assembly is damaged or mounting hardware is loose or missing.</p> <p>Cracks, scratches, or pitting in the exterior layer of door ballistic glass that penetrates through to the inner layer.</p> <p>Any windshield ballistic glass mounting hardware is damaged, loose, or missing, or mounting bolts are loose or missing.</p> <p>Cracks, scratches, or pitting in the exterior layer of windshield ballistic glass that penetrates through to the inner layer.</p> <p>Door binds or does not latch.</p>
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Item No.	Interval	Location	Procedure	Not Fully Mission Capable If:
		Item To Check/ Service		
6 - Cont.			f. Make sure door ballistic glass can open, close, and securely lock. g. Inspect interior surface of door ballistic glass and windshield ballistic glass for cracks, scratches, or pitting. h. If dirty, clean ballistic glass (WP 0010 00).	Door ballistic glass will not close or lock. Cracks, scratches, or pitting on the interior surface of the door ballistic glass or windshield ballistic glass.



417-246

7	Before	Floor and Firewall Armor (Right Side)	a. Inspect left side floor and firewall armor for damaged or loose or missing armor plates and mounting bolts. b. Inspect glove box armor for damaged, loose or missing armor plates, and mounting bolts.	Any floor or firewall armor is damaged, loose, or missing or, mounting bolts are loose or missing. Any armor panel is damaged, loose, or missing, or mounting bolts are loose or missing.
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Item No.	Interval	Location	Procedure	Not Fully Mission Capable If:
		Item To Check/ Service		
7 - Cont.			c. Make sure glove box armor is securely latched (WP 0004 00).	Glove box armor will not close or latch securely.
				
			417-247	
8	Weekly	Front Suspension	Inspect front suspension springs and mounting hardware for cracks, breaks, or loose or missing hardware and/or shackles. Notify your supervisor of any damage found.	Any cracks, breaks, or loose hardware or damage to suspension springs is noted.
9	Weekly	Cab Mounts	Inspect front and rear cab mounts for evidence of deterioration, overcompression or loose mounting hardware. Notify your supervisor of any damage or looseness found.	
10	Weekly	Wheels and Wheel Rims	Inspect wheel lug nuts and wheel rim bolts/nuts for looseness (e.g., polished surface, rust, or minor cracks around bolt and wheel mating surfaces). Notify your supervisor of any looseness found.	Two or more studs or nuts are missing from the same wheel.
11	Weekly	CPK Mounting Hardware	Check all armor kit mounting hardware for loose or missing hardware. Notify your supervisor of any loose or missing mounting hardware found.	

OPERATOR PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) - CONTINUED

0009 00

Item No.	Interval	Location	Procedure	Not Fully Mission Capable If:
		Item To Check/ Service		
12	Weekly	Escape Hatch	From inside the cab, check that escape hatch will open and then securely latch closed (WP 0004 00). Ensure there is no damage to latch and mounting hardware.	Escape hatch will not open or latch closed securely.
13	Weekly	Door Assemblies and Stops	Check both door assembly seals, hardware, and door stops for damaged or loose components. Notify your supervisor of any damage found.	Loose components are evident.

END OF WORK PACKAGE

CLEANING BALLISTIC GLASS

0010 00

THIS WORK PACKAGE COVERSCleaning

INITIAL SETUP**Maintenance Level**

Operator

Materials/Parts

Detergent (Item 4, WP 0032 00)

Rag, Wiping (Item 6, WP 0032 00)

Equipment Conditions**(M915A1P1)**

Vehicle parked on level ground (TM 9-2320-283-10)

Equipment Conditions - Continued**(M915A1P1) - Continued**

Parking/Emergency Brake applied (TM 9-2320-283-10)

Engine off (TM 9-2320-283-10)

(M915P1, M916P1, M917P1, and M920P1)

Vehicle parked on level ground (TM 9-2320-273-10)

Parking/Emergency Brake applied (TM 9-2320-273-10)

Engine off (TM 9-2320-273-10)

CLEANING**CAUTION**

- Remove rings or other hard objects from hands before cleaning ballistic glass. DO NOT use hard, dirty or gritty cloths on ballistic glass. DO NOT apply water or detergent unless ballistic glass is cool and is protected from heating effects of sunlight. Failure to follow these instructions will damage ballistic glass.
- Do not use bug spray or other aerosol sprays on or near ballistic glass. Failure to follow these instructions will damage ballistic glass.

NOTE

Follow this procedure to clean inner plastic laminate surfaces of ballistic glass. Clean outside surfaces of ballistic glass as you would clean plain glass.

1. Add detergent to 1 gal. (3.8 L) of water as directed by manufacturer's label.
2. Saturate a soft, clean cloth with cleaning solution and lightly rub plastic surfaces.
3. Flush off cleaning solution with water and dry with a soft, clean cloth.

END OF WORK PACKAGE

CHAPTER 4
UNIT MAINTENANCE INSTRUCTIONS

GENERAL MAINTENANCE INSTRUCTIONS

0011 00

THIS WORK PACKAGE COVERS

Scope	Standard Tool Requirements
Work Safety	Use of Thread Adhesive
General Information	Use of Sealant
Cleaning Instructions	Applying Torque
Inspection Instructions	Tagging Instructions
Painting Instructions	

INITIAL SETUP

Maintenance Level

Unit

Tools and Special Tools

Tool Kit, General Mechanic's (Item 8, WP 0031 00)

Shop Equipment, Common No. 1 (Item 6, WP 0031 00)

Materials/Parts

Adhesive, Thread (Item 1, WP 0032 00)

Cleaning Compound, Solvent (Item 2, WP 0032 00)

Cloth, Abrasive (Item 3, WP 0032 00)

Detergent (Item 4, WP 0032 00)

Materials/Parts - Continued

Oil, Lubricating (Item 5, WP 0032 00)

Rag, Wiping (Item 6, WP 0032 00)

Tag, Marker (Item 9, WP 0032 00)

References

WP 0033 00

TB 43-0209

TB 43-0242

TM 9-2320-273-10

TM 9-2320-283-10

TM 9-247

SCOPE

1. The general maintenance instructions contain general shop practices and specific methods you must be familiar with to properly install and maintain the Crew Protection Kit.
2. Read and understand the following practices and methods before starting maintenance tasks on the CPK.

WORK SAFETY

1. Before starting a task, think about the risks and hazards to your safety as well as others. Wear protective gear such as safety goggles or lenses, face shield, safety shoes, and gloves. Protect yourself against injury.
2. Observe all WARNINGS and CAUTIONS.
3. When lifting heavy parts, have someone help you. Ensure lifting equipment is working properly, suitable for the task assigned, of sufficient load capacity, and secured against slipping.
4. Always use power tools carefully.

GENERAL MAINTENANCE INSTRUCTIONS - CONTINUED

0011 00

WORK SAFETY - CONTINUED

5. Before beginning a procedure, ensure that the following conditions have been observed, unless otherwise specified. For the M915A1P1, refer to TM 9-2320-283-10. For the M915P1, M916P1, M917P1, and M029P1, refer to TM 9-2320-273-10.
 - a. Vehicle must be parked on level ground with parking/emergency brake applied.
 - b. Transmission must be in N (Neutral).
 - c. Engine must be off.

GENERAL INFORMATION

1. Before beginning a task, find out how much teardown is needed to fix the equipment as described in this manual. Sometimes complete teardown is not necessary. Remove components only as far as necessary to replace damaged or broken parts.
2. All tags and forms attached to the equipment must be checked to learn the reason for removal from service. Check all Modification Work Orders (MWOs) and Technical Bulletins (TBs) for equipment changes and updates.
3. Replace all locknuts and lockwashers if removed during procedure.
4. Inspect seals for damage. Replace seals if damaged.

CLEANING INSTRUCTIONS

1. **General.**
 - a. The importance of cleaning must be thoroughly understood by maintenance personnel. Great care and effort are required in cleaning. Dirt and foreign material are a constant threat to satisfactory maintenance.
 - b. The following should apply to all cleaning operations:
 - (1) Keep all related parts and components together. Do not mix parts.
 - (2) Clean all parts before inspection and before installation.
 - (3) To prevent contamination, hands should be kept free of accumulation of grease, which can collect dust, dirt, or grit.

CLEANING INSTRUCTIONS - CONTINUED2. **Cleaning Instructions.****WARNING**

- Solvent cleaning compound MIL-PRF-680 Type III is an environmentally compliant and low toxic material. However, it may be irritating to the eyes and skin. Use protective gloves and goggles. Use in well-ventilated areas. Keep away from open flames and other sources of ignition. Failure to follow this warning may result in injury to personnel.
 - Improper cleaning methods and use of unauthorized cleaning solvents may injure personnel and damage equipment. Refer to TM 9-247, *Materials Used for Cleaning, Preserving, Abrading, and Cementing Ordnance Materials and Related Materials Including Chemicals*, for correct information.
 - Fire extinguishers should be placed nearby when using solvent cleaning compound.
 - Cloths or rags saturated with solvent cleaning compound must be disposed of IAW authorized facilities' procedures.
 - Eye shields must be worn when cleaning with a wire brush. Flying rust and metal particles may cause injury.
 - Particles blown by compressed air are hazardous. DO NOT exceed 15 psi (103 kPa) nozzle pressure when drying parts with compressed air. Use a maximum of 30 psi (207 kPa) when cleaning components. DO NOT direct compressed air against human skin. Failure to follow this warning may result in injury or death. Make sure air stream is directed away from user and other personnel in the area. To prevent injury, user must wear protective goggles or face shield.
- a. Use solvent cleaning compound to clean any surface coated with grease or oil.
 - b. Clear out all drilled or tapped (threaded) holes with compressed air to remove dirt and solvent cleaning compound.
 - c. Wash externally exposed parts, not subject to grease and oil, with detergent and water. Rinse thoroughly and air dry.
 - d. Remove old sealing compound using a wire brush and solvent cleaning compound.
 - e. Clean all rusted surfaces using a wire brush and abrasive cloth.
 - f. After cleaning, cover or wrap all parts to protect them from dust and dirt. Any part that is subject to rust should be lightly coated with lubricating oil.

INSPECTION INSTRUCTIONS

1. **General.** All components and parts must be carefully inspected to determine if they are serviceable for reuse or if they must be replaced.
2. **Drilled and Tapped (Threaded) Holes.**
 - a. Inspect for wear, distortion (stretching), cracks, or any other damage in or around holes.
 - b. Inspect threaded areas for wear, distortion, or evidence of cross-threading.
 - c. If damage is noted, entire part should be replaced.
3. **Armor Plates.**
 - a. Inspect for breaks, cracks, dents, and rust damage.
 - b. Particularly check areas around studs, screw openings, and sharp corners.

INSPECTION INSTRUCTIONS - CONTINUED**WARNING**

To ensure survivability of personnel, welding repairs on CPK are NOT authorized. If armor plates are damaged, they must be replaced. Failure to follow this warning may cause failure of armor, resulting in injury or death to personnel.

- c. Replace any damaged armor plate. DO NOT repair by welding.
4. **Bolts and Screws.** Replace if threads are damaged, bent, loose, or stretched.
5. **Studs.** If studs are damaged, repair or replace as necessary.
6. **Rubber Seals.** Replace seal if damaged, cracked, or shows signs of excessive wear.

PAINTING INSTRUCTIONS**CAUTION**

Whenever paint is applied, care must be taken to prevent covering up installation aid markings (**THIS SIDE UP**, up arrows ↑, etc.). These installation aid markings must be protected during paint application by using masking tape, paper, etc.

Parts must be painted in accordance with TB 43-0209, *Color, Marking, and Camouflage Painting of Military Vehicles, Construction Equipment, and Materials Handling Equipment*, and TB 43-0242, *CARC Spot Painting*.

STANDARD TOOL REQUIREMENTS

1. The following are general practices regarding the use of tools:
 - a. Always use the proper tool kit and tools for the procedure being performed.
 - b. Ensure that tools are clean and lubricated to reduce wear and prevent rust.
 - c. Keep track of tools. Do not be careless with them.
 - d. Return tools to toolbox when finished with repair or maintenance.
 - e. Return toolboxes and tools to tool storage when not in use.
 - f. Inventory tools before and after each use.
2. Some maintenance tasks may require special or fabricated tools. The “Initial Setup” of each procedure will specify any special or fabricated tools needed to perform that procedure. Use special tools only for the maintenance procedures for which they are designed or called out. If you are unfamiliar with a required tool, see your supervisor.

USE OF THREAD ADHESIVE**WARNING**

Use caution when using adhesives and sealants. Prolonged inhalation of vapors can cause lung irritation. Contact with skin can cause dermatitis. Wear gloves and safety goggles and use product in a well-ventilated area away from open flame. If ingested, keep individual calm and seek medical attention. DO NOT induce vomiting. If contact with skin or eyes is made, flush thoroughly with water. Dispose of cleanup rags IAW local policy and ordinances. Failure to follow this warning may cause injury to personnel.

Selected bolts and screws require use of adhesive during installation of the armor kit, or when replacing armor kit components. Generally, if no locking fastener (i.e., locknut or lockwasher) is used, thread adhesive is required.

USE OF SEALANT

1. When applying sealant, follow manufacturer's instructions on label of container.
2. Sealant should be applied with an even and continuous 1/4-inch bead along mating surfaces.

APPLYING TORQUE

1. When tightening fasteners, use torque value as specified in *Torque Limits* (WP 0033 00).
2. If a unique torque value is required, it will be provided in the procedural step of the task.

TAGGING INSTRUCTIONS

1. Use marker tags to identify all electrical wires and any other parts that may be hard to identify or replace later. Fasten tags to parts during removal by wrapping wire fasteners around or through parts and twisting ends together. Position tags to be out of the way during cleaning, inspection, and repair. Mark tags with a pencil, pen, or marker.
2. Whenever possible, identify electrical wires with the number of the terminal or wire to which it connects. If no markings can be found, tag both wires or wire and terminal, and use the same identifying mark for both. If you cannot tag a wire because it must fit through a small hole or you cannot reach it, write down the description of the wire and the point to which it connects, or draw a simple diagram on paper. Be sure to write down enough information so you will be able to properly connect the wires during assembly. If you need to identify a loose wire, look for identifying number near end of the wire, stamped on a permanent metal tag. Compare the number to wire numbers on the appropriate electrical schematic.
3. Identify and tag other parts as required by name and installed location.

END OF WORK PACKAGE

DOOR ASSEMBLY REPLACEMENT

0012 00

THIS WORK PACKAGE COVERSRemoval, Cleaning and Inspection, Installation

INITIAL SETUP**Maintenance Level**

Unit

Personnel Required

Two

Tools and Special Tools

Tool Kit, General Mechanic's (Item 8, WP 0031 00)

Shop Equipment, Common No. 1 (Item 6, WP 0031 00)

Sling, Nylon (Item 7, WP 0031 00)

Lifting Device (500-lb capacity)

Equipment Conditions**(M915A1P1)**

Vehicle parked on level ground (TM 9-2320-283-10)

Parking/Emergency Brake applied (TM 9-2320-283-10)

Engine off (TM 9-2320-283-10)

Materials/Parts

Rag, Wiping (Item 6, WP 0032 00)

Lockwasher (26)

(M915P1, M916P1, M917P1, and M920P1)**References**

WP 0004 00

WP 0011 00

TM 9-2320-273-20

TM 9-2320-283-20

Vehicle parked on level ground (TM 9-2320-273-10)

Parking/Emergency Brake applied (TM 9-2320-273-10)

Engine off (TM 9-2320-273-10)

NOTE

The following procedure is for right door assembly. Use same procedure for left door.

DOOR ASSEMBLY REPLACEMENT - CONTINUED

0012 00

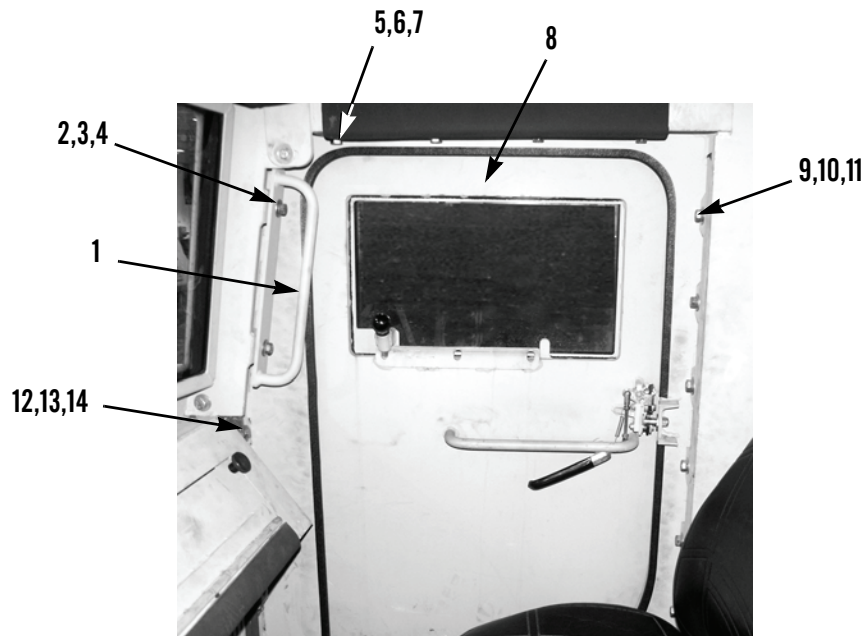
REMOVAL

1. If installing new door assembly (8), remove outside mirror from door assembly and set aside. For the M915A1P1, refer to TM 9-2320-283-20. For the M915P1, M916P1, M917P1, and M920P1, refer to TM 9-2320-273-20.
2. Remove two bolts (2), lockwashers (3), washers (4), and grab handle (1) from inside of cab. Discard lockwashers.

**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Ensure that any lifting device used is in good condition and of suitable load capacity. Keep clear of heavy parts supported only by lifting device. Failure to follow this warning may cause injury or death to personnel.

3. Attach lifting device to door assembly (8).
4. Remove eight bolts (5), lockwashers (6), and washers (7) from top and bottom of door assembly (8). Discard lockwashers.
5. Remove eight bolts (12), lockwashers (13), and washers (14) from front of door assembly (8). Discard lockwashers.
6. Remove eight bolts (9), lockwashers (10), washers (11), and door assembly (8) from vehicle. Discard lockwashers.
7. Remove lifting device from door assembly (8).



417-223

CLEANING AND INSPECTION

Clean and inspect all parts IAW *General Maintenance Instructions* (WP 0011 00).

INSTALLATION**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Ensure that any lifting device used is in good condition and of suitable load capacity. Keep clear of heavy parts supported only by lifting device. Failure to follow this warning may cause injury or death to personnel.

1. Attach lifting device to door assembly (8).
2. Using lifting device, align holes in door assembly (8) with holes in cab.
3. Install eight washers (11), new lockwashers (10), and bolts (9) on rear of door assembly (8). Hand tighten bolts.
4. Check alignment between door assembly (8) and remaining bolt holes. Adjust door assembly as necessary until alignment is correct.
5. Install eight washers (14), new lockwashers (13), and bolts (12) on front of door assembly (8).
6. Install eight washers (7), new lockwashers (6), and bolts (5) on top and bottom of door assembly (8).
7. Tighten eight bolts (9) on rear of door assembly (8).
8. Install grab handle (1), two washers (4), new lockwashers (3), and bolts (2) on inside of cab.
9. Verify correct operation of door assembly (WP 0004 00).
10. If removed, install outside mirror on door assembly (8). For the M915A1P1, refer to TM 9-2320-283-20. For the M915P1, M916P1, M917P1, and M920P1, refer to TM 9-2320-273-20.

END OF WORK PACKAGE

DOOR HANDLE REPLACEMENT

0013 00

THIS WORK PACKAGE COVERS

Removal, Cleaning and Inspection, Installation

INITIAL SETUP

Maintenance Level

Unit

Tools and Special Tools

Tool Kit, General Mechanic's (Item 8, WP 0031 00)

Materials/Parts

Rag, Wiping (Item 6, WP 0032 00)

Locknut

References

WP 0004 00

WP 0011 00

Equipment Conditions

(M915A1P1)

Vehicle parked on level ground (TM 9-2320-283-10)

Parking/Emergency Brake applied (TM 9-2320-283-10)

Engine off (TM 9-2320-283-10)

(M915P1, M916P1, M917P1, and M920P1)

Vehicle parked on level ground (TM 9-2320-273-10)

Parking/Emergency Brake applied (TM 9-2320-273-10)

Engine off (TM 9-2320-273-10)

NOTE

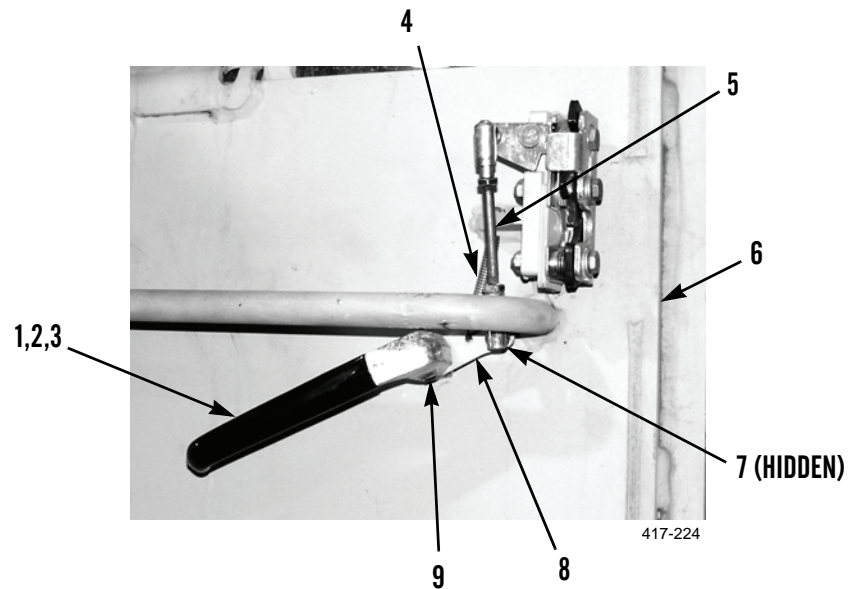
The following procedure is for right side handle. Use same procedure for left handle.

DOOR HANDLE REPLACEMENT - CONTINUED

0013 00

REMOVAL

1. Remove spring (4) from cam (8).
2. Remove locknut (7) and disconnect link rod (5) from cam (8). Discard locknut.
3. Loosen setscrew (9) and remove inside handle (1), cam (8), shaft (2), and outside handle (3) from door (6).

**CLEANING AND INSPECTION**

Clean and inspect all parts IAW *General Maintenance Instructions* (WP 0011 00).

INSTALLATION

1. Install shaft (2), outside handle (3), cam (8) and inside handle (1), and tighten setscrew (9).
2. Connect link rod (5) and install new locknut (7) on cam (8).
3. Connect spring (4) to cam (8).
4. Verify correct operation of door assembly (WP 0004 00).

END OF WORK PACKAGE

DOOR LATCH REPLACEMENT

0014 00

THIS WORK PACKAGE COVERS

Removal, Cleaning and Inspection, Installation

INITIAL SETUP

Maintenance Level

Unit

Tools and Special Tools

Tool Kit, General Mechanic's (Item 8, WP 0031 00)

Materials/Parts

Rag, Wiping (Item 6, WP 0032 00)

Locknut (4)

References

WP 0004 00

WP 0011 00

Equipment Conditions

(M915A1P1)

Vehicle parked on level ground (TM 9-2320-283-10)

Parking/Emergency Brake applied (TM 9-2320-283-10)

Engine off (TM 9-2320-283-10)

(M915P1, M916P1, M917P1, and M920P1)

Vehicle parked on level ground (TM 9-2320-273-10)

Parking/Emergency Brake applied (TM 9-2320-273-10)

Engine off (TM 9-2320-273-10)

NOTE

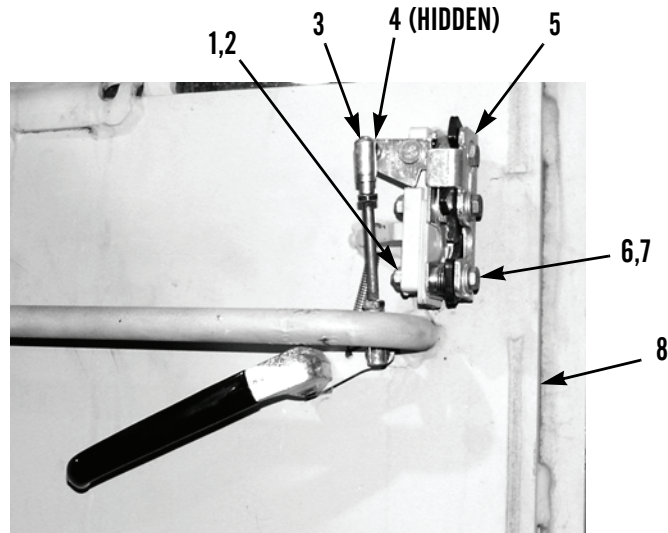
The following procedure is for right latch. Use same procedure for left latch.

DOOR LATCH REPLACEMENT - CONTINUED

0014 00

REMOVAL

1. Remove locknut (4) and disconnect link rod (3) from latch (5). Discard locknut.
2. Remove three locknuts (1), washers (2), bolts (6), washers (7), and latch (4) from door (8). Discard locknuts.



417-224

CLEANING AND INSPECTION

Clean and inspect all parts IAW *General Maintenance Instructions* (WP 0011 00).

INSTALLATION

1. Install latch (5), three washers (7), bolts (6), washers (2), and new locknuts (1) on door (8).
2. Connect link rod (3) and install new locknut (4) on latch (5).
3. Verify correct operation of door assembly (WP 0004 00).

END OF WORK PACKAGE

DOOR BALLISTIC GLASS AND FRAME REPLACEMENT

0015 00

THIS WORK PACKAGE COVERS

Removal, Cleaning and Inspection, Installation

INITIAL SETUP

Maintenance Level

Unit

Tools and Special Tools

Tool Kit, General Mechanic's (Item 8, WP 0031 00)

Shop Equipment, Common No. 1 (Item 6, WP 0031 00)

Sling, Nylon (Item 7, WP 0031 00)

Lifting Device (500-lb capacity)

Materials/Parts

Rag, Wiping (Item 6, WP 0032 00)

Locknut (18)

Lockwasher (8)

References

WP 0011 00

Personnel Required

Two

Equipment Conditions

(M915A1P1)

Vehicle parked on level ground (TM 9-2320-283-10)

Parking/Emergency Brake applied (TM 9-2320-283-10)

Engine off (TM 9-2320-283-10)

(M915P1, M916P1, M917P1, and M920P1)

Vehicle parked on level ground (TM 9-2320-273-10)

Parking/Emergency Brake applied (TM 9-2320-273-10)

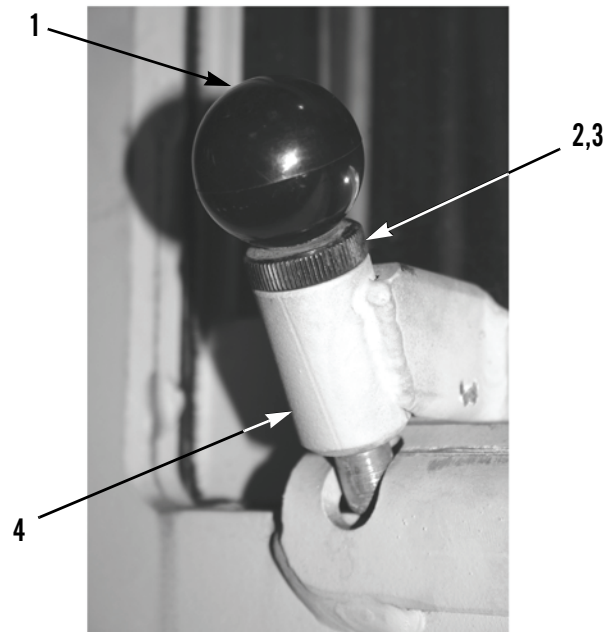
Engine off (TM 9-2320-273-10)

NOTE

The following procedure is for right door ballistic glass and frame. Use same procedure for left side.

REMOVAL

1. Remove nut (2), spring (3), and door window latch (1) from ballistic glass frame (4).



417-251

REMOVAL - CONTINUED

- Remove four bolts (5), lockwashers (6), washers (7), and upper support (9) from ballistic glass cover (8). Discard lockwashers.

**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

CAUTION

Use caution when handling ballistic glass. Protect surfaces when stored.

NOTE

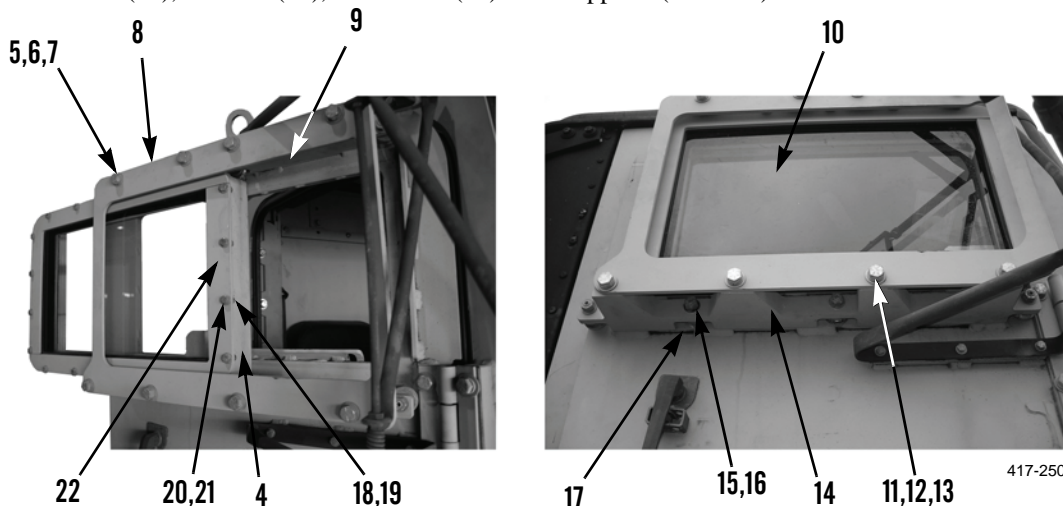
Only loosen bolts enough to remove ballistic glass from lower support.

- With assistance, loosen four bolts (11), and remove ballistic glass (10) from lower support (14), and place on flat surface.
- With assistance, remove four bolts (11), lockwashers (12), washers (13), ballistic glass cover (8), and lower support (14) from door. Discard lockwashers.
- Remove 18 locknuts (18), washers (19), bolts (20), washers (21), and two ballistic glass frames (22) from ballistic glass (10). Discard locknuts.

**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

- With assistance, remove ballistic glass (10) from ballistic glass frame (4).
- Remove 10 nuts (15), washers (16), and rollers (17) from supports (9 and 14).



CLEANING AND INSPECTION

Clean and inspect all parts IAW *General Maintenance Instructions* (WP 0011 00).

INSTALLATION

1. Install 10 rollers (17), washers (16), and nuts (15) on supports (9 and 14).

**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

CAUTION

Use caution when handling ballistic glass.

2. With assistance, install ballistic glass (10) in ballistic glass frame (4).
3. Install two ballistic glass frames (22), 18 washers (21), bolts (20), washers (19), and new locknuts (18) on ballistic glass (10).

**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

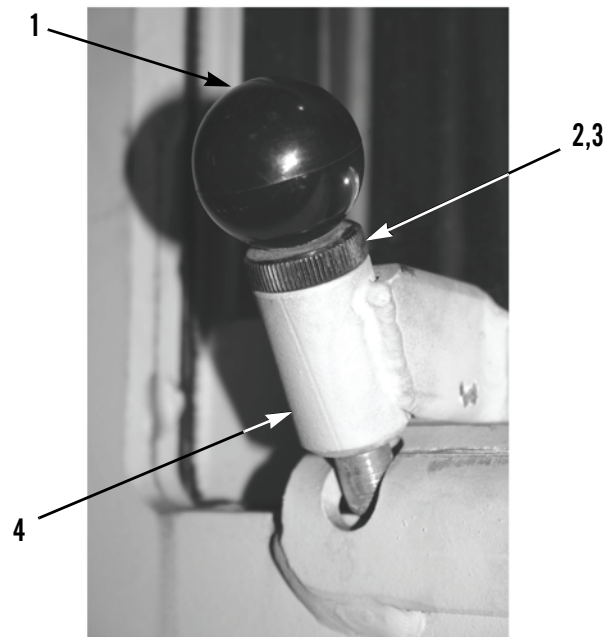
NOTE

Install bolts loosely to allow enough clearance to install ballistic glass and frame.

4. With assistance, loosely install lower support (14), ballistic glass cover (8), four washers (13), new lockwashers (12), and bolts (11) on door.
5. With assistance, position ballistic glass (10) on lower support (14).
6. With assistance, install upper support (9), four washers (7), new lockwashers (6), and bolts (5) on ballistic glass cover (8).
7. Tighten four bolts (11) on ballistic glass cover (8).

INSTALLATION - CONTINUED

8. Install spring (3), door window latch (1), and nut (2) on ballistic glass frame (4).



417-251

9. Open and close ballistic glass to verify correct operation (WP 0004 00).

END OF WORK PACKAGE

THIS WORK PACKAGE COVERS

Removal, Cleaning and Inspection, Installation

INITIAL SETUP

Maintenance Level

Unit

Personnel Required

Two

Tools and Special Tools

Tool Kit, General Mechanic's (Item 8, WP 0031 00)

Shop Equipment, Common No. 1 (Item 6, WP 0031 00)

Sling, Nylon (Item 7, WP 0031 00)

Lifting Device (4,000-lb capacity)

Block, Wood (2" x 4")

Equipment Conditions

(M915A1P1)

Vehicle parked on level ground (TM 9-2320-283-10)

Parking/Emergency Brake applied (TM 9-2320-283-10)

Engine off (TM 9-2320-283-10)

Materials/Parts

Rag, Wiping (Item 6, WP 0032 00)

Locknut (2)

(M915P1, M916P1, M917P1, and M920P1)

Vehicle parked on level ground (TM 9-2320-273-10)

Parking/Emergency Brake applied (TM 9-2320-273-10)

Engine off (TM 9-2320-273-10)

References

WP 0011 00

NOTE

The following procedure is for right cab support. Use same procedure for left cab support.

REMOVAL



WARNING

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Ensure that any lifting device used is in good condition and of suitable load capacity. Keep clear of heavy parts supported only by lifting device. Failure to follow this warning may cause injury or death to personnel.

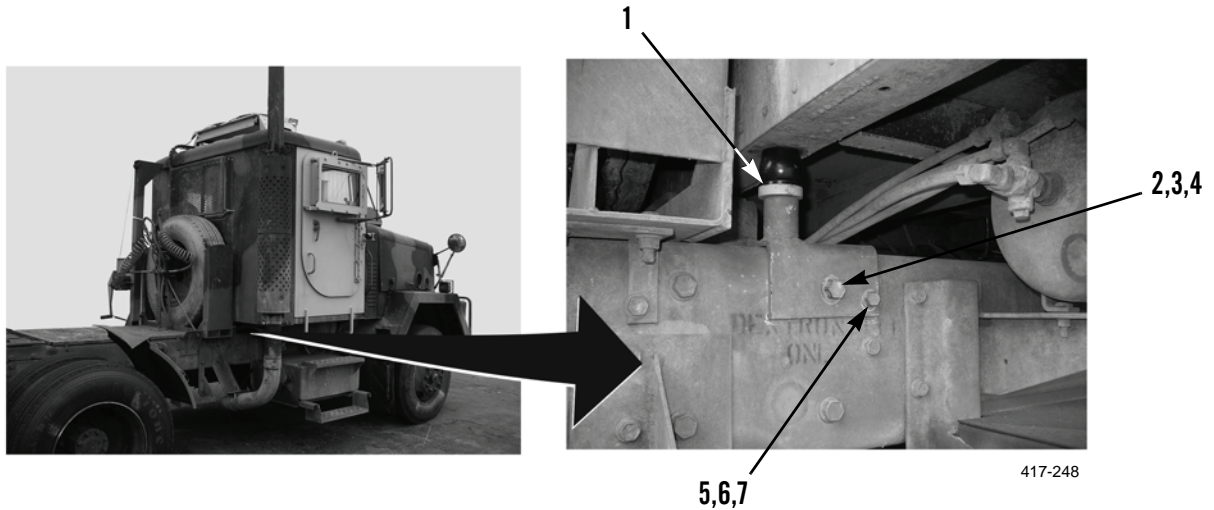
1. Using lifting device, raise cab 2 - 2 1/2 in. and support with wood block.

CAB SUPPORT REPLACEMENT - CONTINUED

0016 00

REMOVAL - CONTINUED

2. Remove locknut (4), bolt (2), and washer (3) from cab support (1). Discard locknut.
3. Remove locknut (7), bolt (5), washer (6) and cab support (1) from frame between spare tire and cab. Discard locknut.

**CLEANING AND INSPECTION**

Clean and inspect all parts IAW *General Maintenance Instructions* (WP 0011 00).

INSTALLATION

1. Install cab support (1), washer (6), bolt (5), and new locknut (7) on frame between spare tire and cab.
2. Install washer (3), bolt (2), and new locknut (4), on cab support (1).
3. Using lifting device, raise cab slightly and remove wood block.
4. Lower cab onto support (1) and remove lifting device from vehicle.

END OF WORK PACKAGE

WHEEL WELL ARMOR REPLACEMENT

0017 00

THIS WORK PACKAGE COVERSRemoval, Cleaning and Inspection, Installation

INITIAL SETUP**Maintenance Level**

Unit

Tools and Special Tools

Tool Kit, General Mechanic's (Item 8, WP 0031 00)

Materials/Parts

Rag, Wiping (Item 6, WP 0032 00)

Locknut (4)

References

WP 0011 00

Personnel Required

Two

Equipment Conditions**(M915A1P1)**

Vehicle parked on level ground (TM 9-2320-283-10)

Parking/Emergency Brake applied (TM 9-2320-283-10)

Engine off (TM 9-2320-283-10)

(M915P1, M916P1, M917P1, and M920P1)

Vehicle parked on level ground (TM 9-2320-273-10)

Parking/Emergency Brake applied (TM 9-2320-273-10)

Engine off (TM 9-2320-273-10)

NOTE

The following procedure is for left wheel well armor. Use same procedure for right side.

WHEEL WELL ARMOR REPLACEMENT - CONTINUED

0017 00

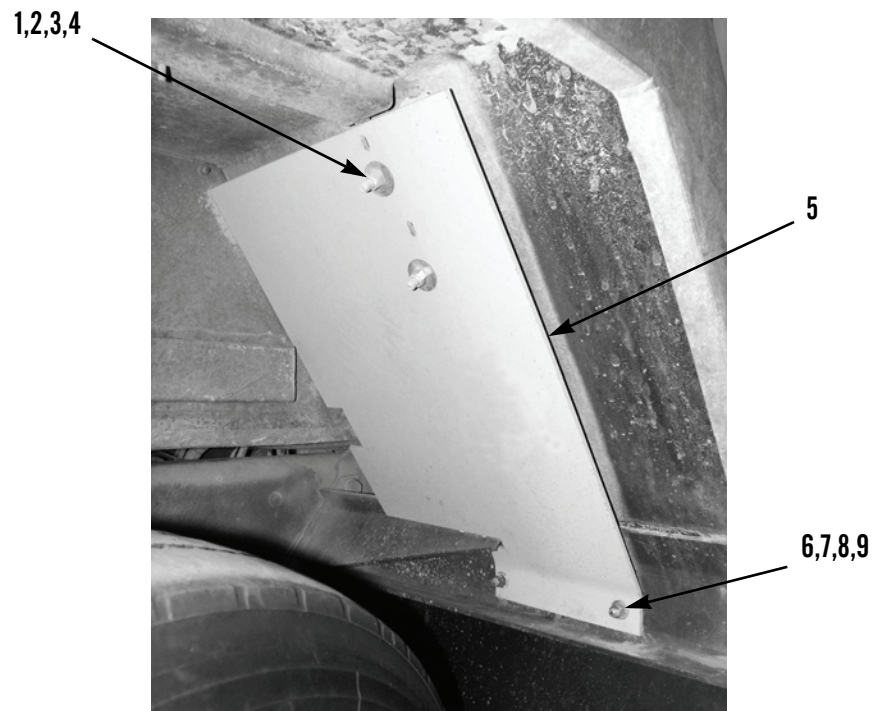
REMOVAL

1. Remove two locknuts (1), washers (2), bolts (4), and washers (3) from wheel well armor (5). Discard locknuts.

**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

2. With assistance, remove two locknuts (6), washers (7), bolts (9), washers (8), and wheel well armor (5) from front wheel well. Discard locknuts.



417-226

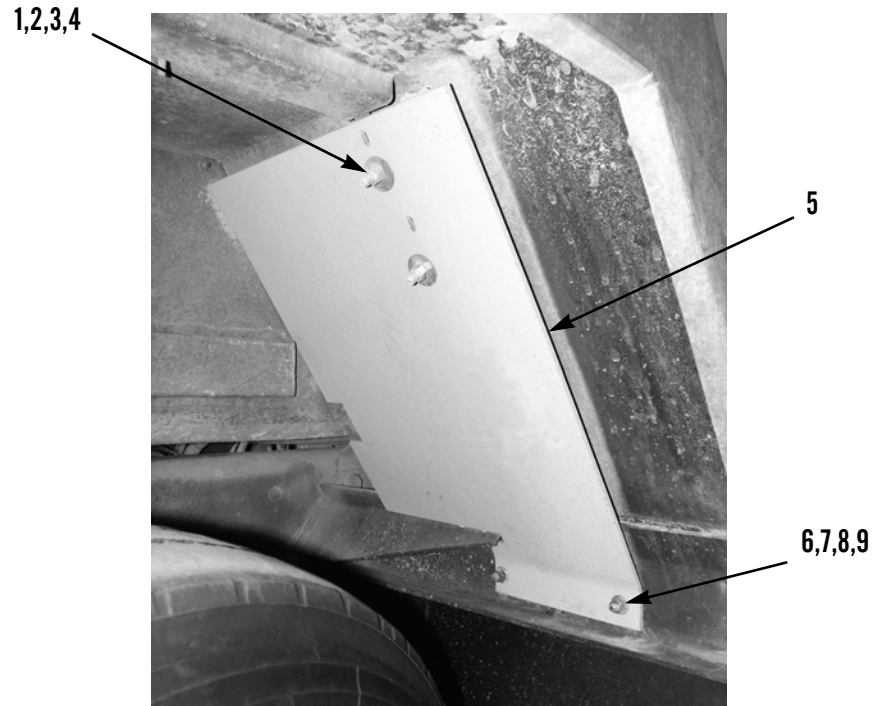
CLEANING AND INSPECTION

Clean and inspect all parts IAW *General Maintenance Instructions* (WP 0011 00).

INSTALLATION**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

1. With assistance, install wheel well armor (5), two washers (8), bolts (9), washers (7), and new locknuts (6) in front wheel well.
2. Install two washers (3), bolts (4), washers (2), and new locknuts (1) on wheel well armor (5).



417-226

END OF WORK PACKAGE

FLOOR ARMOR (LEFT) REPLACEMENT

0018 00

THIS WORK PACKAGE COVERS

Removal, Cleaning and Inspection, Installation

INITIAL SETUP

Maintenance Level

Unit

Tools and Special Tools

Tool Kit, General Mechanic's (Item 8, WP 0031 00)

Materials/Parts

Rag, Wiping (Item 6, WP 0032 00)

Lockwasher (12)

References

WP 0011 00

Personnel Required

Two

Equipment Conditions

(M915A1P1)

Vehicle parked on level ground (TM 9-2320-283-10)

Parking/Emergency Brake applied (TM 9-2320-283-10)

Engine off (TM 9-2320-283-10)

Left Seat removed (TM 9-2320-283-20)

Accelerator Pedal removed (TM 9-2320-283-20)

Equipment Conditions - Continued

(M915A1P1) - Continued

Engine Retarder Pedal removed (TM 9-2320-283-20)

Headlight Dimmer Switch removed (TM 9-2320-283-20)

Left Rear Armor Panel removed (WP 0022 00)

Quarter Panel Armor removed (WP 0021 00)

(M915P1, M916P1, M917P1, and M920P1)

Vehicle parked on level ground (TM 9-2320-273-10)

Parking/Emergency Brake applied (TM 9-2320-273-10)

Engine off (TM 9-2320-273-10)

Left Seat removed (TM 9-2320-273-20)

Accelerator Pedal removed (TM 9-2320-273-20)

Engine Retarder Pedal removed (TM 9-2320-273-20)

Headlight Dimmer Switch removed (TM 9-2320-273-20)

Left Rear Armor Panel removed (WP 0022 00)

Quarter Panel Armor removed (WP 0021 00)

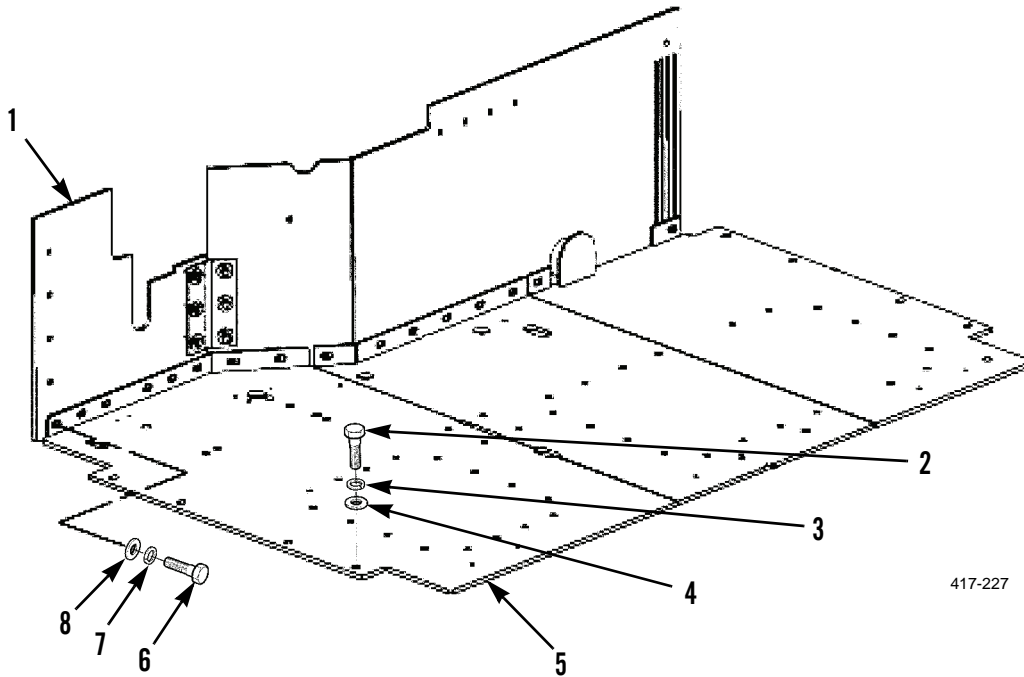
FLOOR ARMOR (LEFT) REPLACEMENT - CONTINUED**0018 00****REMOVAL**

1. Remove eight bolts (6), lockwashers (7), and washers (8) from firewall armor (1). Discard lockwashers.
2. Remove four bolts (2), lockwashers (3), and washers (4) from left floor armor (5). Discard lockwashers.

**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

3. With assistance, remove left floor armor (5) from vehicle.

**CLEANING AND INSPECTION**

Clean and inspect all parts IAW *General Maintenance Instructions* (WP 0011 00).

INSTALLATION**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

1. With assistance, install left floor armor (5) in vehicle.
2. Install four washers (4), new lockwashers (3), and bolts (2) in left floor armor (5).
3. Install eight washers (8), new lockwashers (7), and bolts (6) in firewall armor (1).
4. Install quarter panel armor (WP 0021 00).
5. Install left rear armor panel (WP 0022 00).
6. Install headlight dimmer switch. For the M915A1P1, refer to TM 9-2320-283-20. For the M915P1, M916P1, M917P1, and M920P1, refer to TM 9-2320-273-20.
7. Install engine retarder pedal. For the M915A1P1, refer to TM 9-2320-283-20. For the M915P1, M916P1, M917P1, and M920P1, refer to TM 9-2320-273-20.
8. Install accelerator pedal. For the M915A1P1, refer to TM 9-2320-283-20. For the M915P1, M916P1, M917P1, and M920P1, refer to TM 9-2320-273-20.
9. Install left seat. For the M915A1P1, refer to TM 9-2320-283-20. For the M915P1, M916P1, M917P1, and M920P1, refer to TM 9-2320-273-20.

END OF WORK PACKAGE

FLOOR ARMOR (RIGHT) REPLACEMENT

0019 00

THIS WORK PACKAGE COVERS

Removal, Cleaning and Inspection, Installation

INITIAL SETUP

Maintenance Level

Unit

Tools and Special Tools

Tool Kit, General Mechanic's (Item 8, WP 0031 00)

Materials/Parts

Rag, Wiping (Item 6, WP 0032 00)

Lockwasher (6)

References

WP 0011 00

Personnel Required

Two

Equipment Conditions

(M915A1P1)

Vehicle parked on level ground (TM 9-2320-283-10)

Parking/Emergency Brake applied (TM 9-2320-283-10)

Engine off (TM 9-2320-283-10)

Right Seat removed (TM 9-2320-283-20)

Right Rear Armor Panel removed (WP 0022 00)

(M915P1, M916P1, M917P1, and M920P1)

Vehicle parked on level ground (TM 9-2320-273-10)

Parking/Emergency Brake applied (TM 9-2320-273-10)

Engine off (TM 9-2320-273-10)

Right Seat removed (TM 9-2320-273-20)

Right Rear Armor Panel removed (WP 0022 00)

FLOOR ARMOR (RIGHT) REPLACEMENT - CONTINUED

0019 00

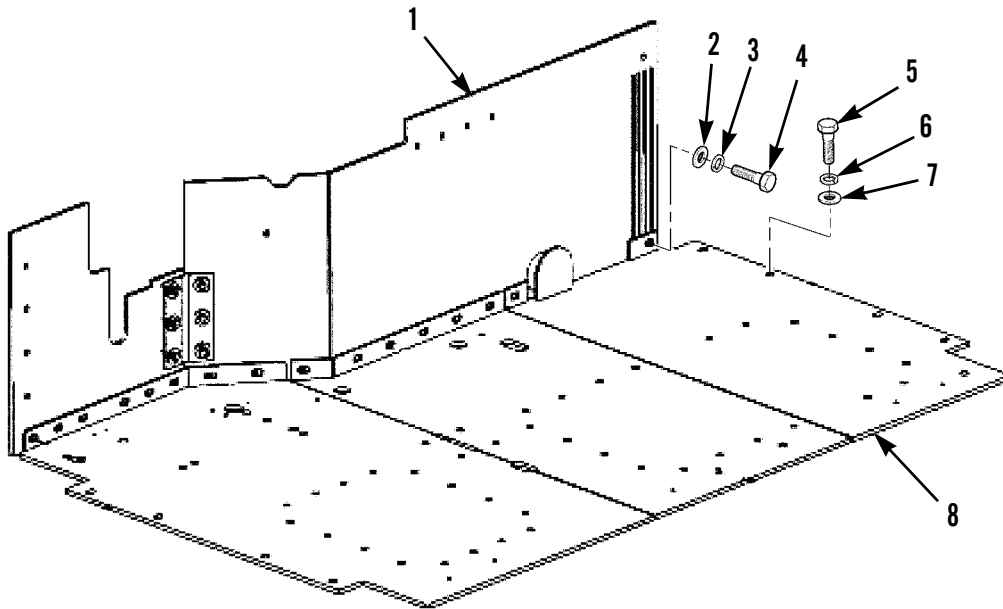
REMOVAL

1. Remove two bolts (4), lockwashers (3), and washers (2) from firewall armor (1). Discard lockwashers.
2. Remove four bolts (5), lockwashers (6), and washers (7) from right floor armor (8). Discard lockwashers.

**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

3. With assistance, remove right floor armor (8) from vehicle.



417-228

CLEANING AND INSPECTION

Clean and inspect all parts IAW *General Maintenance Instructions* (WP 0011 00).

INSTALLATION**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

1. With assistance, install right floor armor (8) in vehicle.
2. Install four washers (7), new lockwashers (6), and bolts (5) in right floor armor (8).
3. Install two washers (2), new lockwashers (3), and bolts (4) in firewall armor (1).
4. Install right rear armor panel (WP 0022 00).
5. Install right seat. For the M915A1P1, refer to TM 9-2320-283-20. For the M915P1, M916P1, M917P1, and M920P1, refer to TM 9-2320-273-20.

END OF WORK PACKAGE

FLOOR ARMOR (CENTER) REPLACEMENT

0020 00

THIS WORK PACKAGE COVERS

Removal, Cleaning and Inspection, Installation

INITIAL SETUP

Maintenance Level

Unit

Tools and Special Tools

Tool Kit, General Mechanic's (Item 8, WP 0031 00)

Materials/Parts

Rag, Wiping (Item 6, WP 0032 00)

Lockwasher (6)

References

WP 0011 00

Personnel Required

Two

Equipment Conditions

(M915A1P1)

Vehicle parked on level ground (TM 9-2320-283-10)

Parking/Emergency Brake applied (TM 9-2320-283-10)

Engine off (TM 9-2320-283-10)

Equipment Conditions - Continued

(M915A1P1) - Continued

Gear Shift removed (TM 9-2320-283-20)

Right Seat removed (TM 9-2320-283-20)

Air Conditioning Unit removed (TB 9-2510-251-13)

Left and Right Rear Armor Panels removed (WP 0022 00)

(M915P1, M916P1, M917P1, and M920P1)

Vehicle parked on level ground (TM 9-2320-273-10)

Parking/Emergency Brake applied (TM 9-2320-273-10)

Engine off (TM 9-2320-273-10)

Gear Shift removed (TM 9-2320-273-20)

Right Seat removed (TM 9-2320-273-20)

Air Conditioning Unit removed (TB 9-2510-251-13)

Left and Right Rear Armor Panels removed (WP 0022 00)

FLOOR ARMOR (CENTER) REPLACEMENT - CONTINUED

0020 00

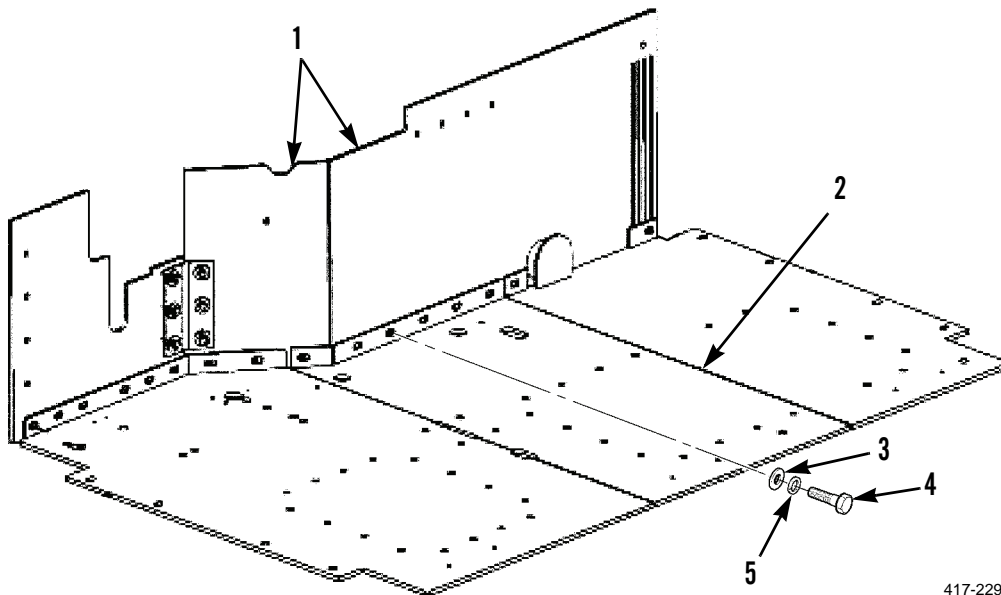
REMOVAL

1. Remove six bolts (4), lockwashers (5), and washers (3) from firewall armor (1). Discard lockwashers.

**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

2. With assistance, remove center floor armor (2) from vehicle.



417-229

CLEANING AND INSPECTION

Clean and inspect all parts IAW *General Maintenance Instructions* (WP 0011 00).

INSTALLATION**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

1. With assistance, install center floor armor (2) in vehicle.
2. Install six washers (3), new lockwashers (5), and bolts (4) in firewall armor (1).
3. Install right and left rear armor panels (WP 0022 00).
4. Install air conditioning unit (TB 9-2510-251-13).
5. Install gear shift. For the M915A1P1, refer to TM 9-2320-283-20. For the M915P1, M916P1, M917P1, and M920P1, refer to TM 9-2320-273-20.
6. Install right seat. For the M915A1P1, refer to TM 9-2320-283-20. For the M915P1, M916P1, M917P1, and M920P1, refer to TM 9-2320-273-20.

END OF WORK PACKAGE

QUARTER PANEL ARMOR REPLACEMENT

0021 00

THIS WORK PACKAGE COVERS

Removal, Cleaning and Inspection, Installation

INITIAL SETUP

Maintenance Level

Unit

Tools and Special Tools

Tool Kit, General Mechanic's (Item 8, WP 0031 00)

Materials/Parts

Rag, Wiping (Item 6, WP 0032 00)

Lockwashers (6)

References

WP 0011 00

Equipment Conditions

(M915A1P1)

Vehicle parked on level ground (TM 9-2320-283-10)

Parking/Emergency Brake applied (TM 9-2320-283-10)

Engine off (TM 9-2320-283-10)

(M915P1, M916P1, M917P1, and M920P1)

Vehicle parked on level ground (TM 9-2320-273-10)

Parking/Emergency Brake applied (TM 9-2320-273-10)

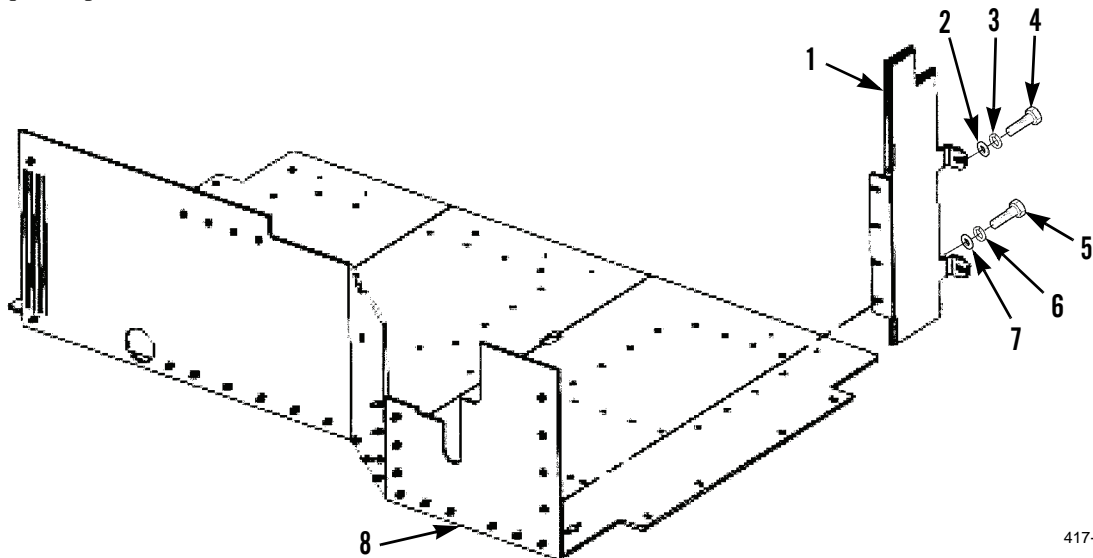
Engine off (TM 9-2320-273-10)

REMOVAL

NOTE

There is one quarter panel armor located on left side of cab.

1. Remove four bolts (5), lockwashers (6), and washers (7) from firewall armor (8). Discard lockwashers.
2. Remove two bolts (4), lockwashers (3), and washers (2) from quarter panel armor (1). Discard lockwashers.
3. Remove quarter panel armor (1) from vehicle.



417-230

QUARTER PANEL ARMOR REPLACEMENT - CONTINUED

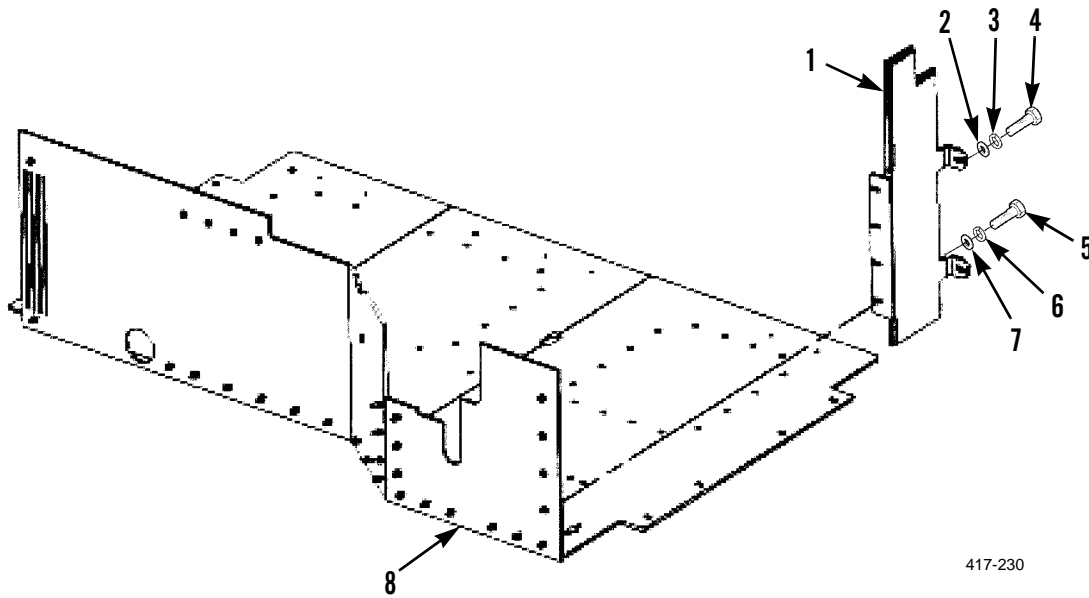
0021 00

CLEANING AND INSPECTION

Clean and inspect all parts IAW *General Maintenance Instructions* (WP 0011 00).

INSTALLATION

1. Install quarter panel armor (1) on vehicle.
2. Install two washers (2), new lockwashers (3), and bolts (4) on quarter panel armor (1).
3. Install four washers (7), new lockwashers (6), and bolts (5) on firewall armor (8).

**END OF WORK PACKAGE**

REAR ARMOR REPLACEMENT

0022 00

THIS WORK PACKAGE COVERS

Removal, Cleaning and Inspection, Installation

INITIAL SETUP

Maintenance Level

Unit

Tools and Special Tools

Tool Kit, General Mechanic's (Item 8, WP 0031 00)

Materials/Parts

Rag, Wiping (Item 6, WP 0032 00)

Lockwasher (60)

References

WP 0011 00

Personnel Required

Two

Equipment Conditions

(M915A1P1)

Vehicle parked on level ground (TM 9-2320-283-10)

Parking/Emergency Brake applied (TM 9-2320-283-10)

Equipment Conditions - Continued

(M915A1P1) - Continued

Engine off (TM 9-2320-283-10)

Right and Left Seats removed (TM 9-2320-283-20)

Escape Hatch removed (WP 0026 00)

Seat Belts removed (TM 9-2320-283-20)

(M915P1, M916P1, M917P1, and M920P1)

Vehicle parked on level ground (TM 9-2320-273-10)

Parking/Emergency Brake applied (TM 9-2320-273-10)

Engine off (TM 9-2320-273-10)

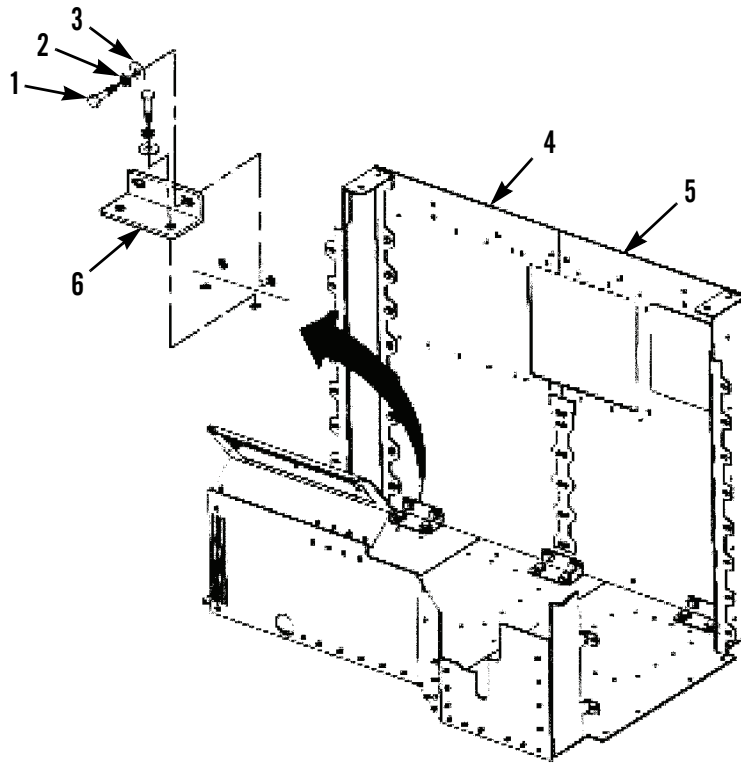
Right and Left Seats removed (TM 9-2320-273-20)

Escape Hatch removed (WP 0026 00)

Seat Belts removed (TM 9-2320-273-20)

REAR ARMOR REPLACEMENT - CONTINUED**0022 00****REMOVAL**

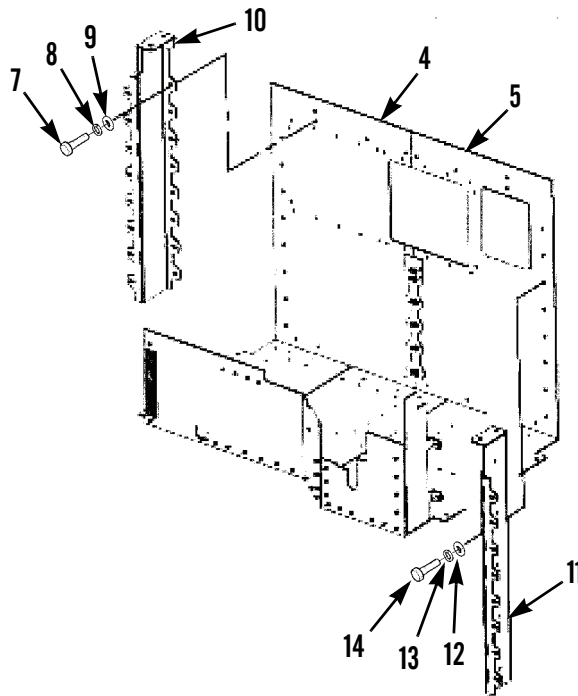
1. Remove 12 bolts (1), lockwashers (2), washers (3), and three rear armor floor brackets (6) from rear armor (4 and 5). Discard lockwashers.



417-231

REAR ARMOR REPLACEMENT - CONTINUED**0022 00****REMOVAL - CONTINUED**

2. Remove 18 bolts (7), lockwashers (8), washers (9), and armored side corner (10) from right rear armor (4). Discard lockwashers.
3. Remove 18 bolts (14), lockwashers (13), washers (12), and armored side corner (11) from left rear armor (5). Discard lockwashers.



417-232

REAR ARMOR REPLACEMENT - CONTINUED

0022 00

REMOVAL - CONTINUED

- Remove 12 bolts (15), lockwashers (16), washers (17), and bracket (18) from rear armor (4 and 5). Discard lockwashers.

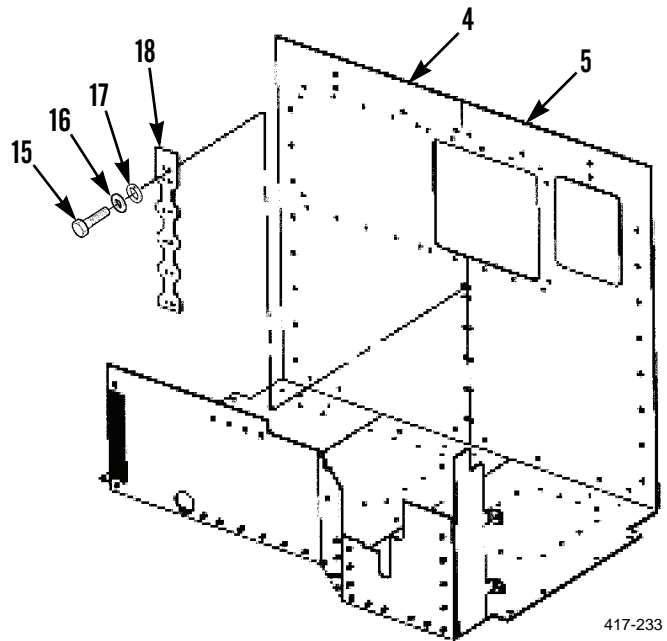
**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

CAUTION

Use care when removing rear armor panels from cab. **DO NOT** contact ballistic glass or other cab components.

- With assistance, remove the right rear armor (4) and the left rear armor (5) from vehicle.

**CLEANING AND INSPECTION**

Clean and inspect all parts IAW *General Maintenance Instructions* (WP 0011 00).

INSTALLATION**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

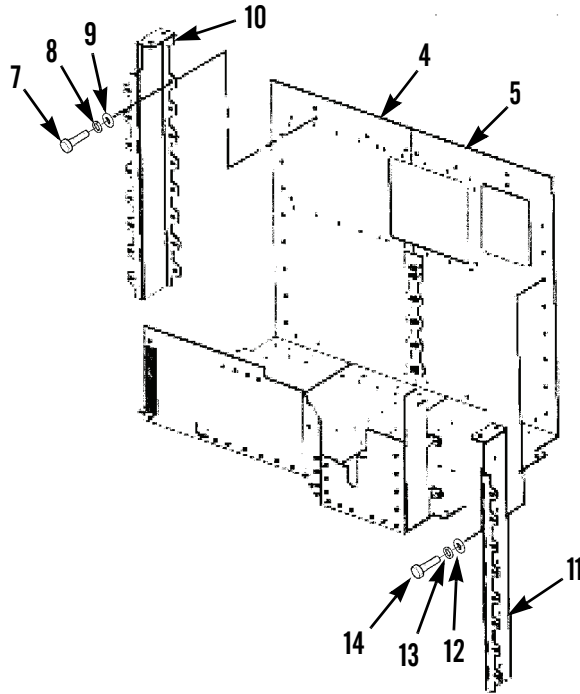
CAUTION

Use care when installing rear armor panels in cab. **DO NOT** contact ballistic glass or other cab components.

- With assistance, install left rear armor (5) and right rear armor (4) on vehicle.
- Install bracket (18), twelve washers (17), new lockwashers (16), and bolts (15) on rear armor (4 and 5).

INSTALLATION - CONTINUED

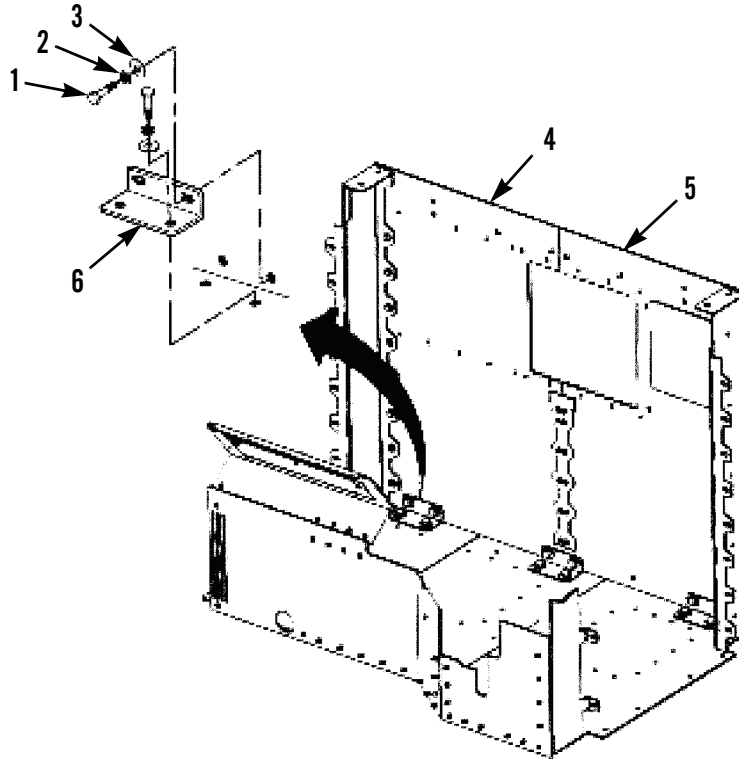
3. Install armored side corner (11), 18 washers (12), new lockwashers (13), and bolts (14) on left rear armor (5).
4. Install armored side corner (10), 18 washers (9), new lockwashers (8), and bolts (7) on right rear armor (4).



417-232

REAR ARMOR REPLACEMENT - CONTINUED**0022 00****INSTALLATION - CONTINUED**

5. Install three rear armor floor brackets (6), 12 washers (3), new lockwashers (2), and bolts (1) on rear armor (4 and 5).



417-231

6. Install escape hatch (WP 0026 00).
7. Install right and left seats. For the M915A1P1, refer to TM 9-2320-283-20. For the M915P1, M916P1, M917P1, and M920P1, refer to TM 9-2320-273-20.
8. Install seat belts. For the M915A1P1, refer to TM 9-2320-283-20. For the M915P1, M916P1, M917P1, and M920P1, refer to TM 9-2320-273-20.

END OF WORK PACKAGE

ROOF ARMOR REPLACEMENT

0023 00

THIS WORK PACKAGE COVERS

Removal, Cleaning and Inspection, Installation

INITIAL SETUP

Maintenance Level

Unit

Tools and Special Tools

Tool Kit, General Mechanic's (Item 8, WP 0031 00)

Materials/Parts

Rag, Wiping (Item 6, WP 0032 00)

Locknut (10)

Lockwasher (18)

References

WP 0011 00

Personnel Required

Two

Equipment Conditions

(M915A1P1)

Vehicle parked on level ground (TM 9-2320-283-10)

Parking/Emergency Brake applied (TM 9-2320-283-10)

Engine off (TM 9-2320-283-10)

(M915P1, M916P1, M917P1, and M920P1)

Vehicle parked on level ground (TM 9-2320-273-10)

Parking/Emergency Brake applied (TM 9-2320-273-10)

Engine off (TM 9-2320-273-10)

NOTE

The following procedure is for right roof armor. Use same procedure for left roof armor.

REMOVAL

1. Remove six bolts (11), washers (12), and dome light assembly (13) from roof armor (7).
2. Disconnect three dome light connectors (14) on dome light assembly (13).

NOTE

Bolts in following step secure roof mount A/C unit to cab roof.

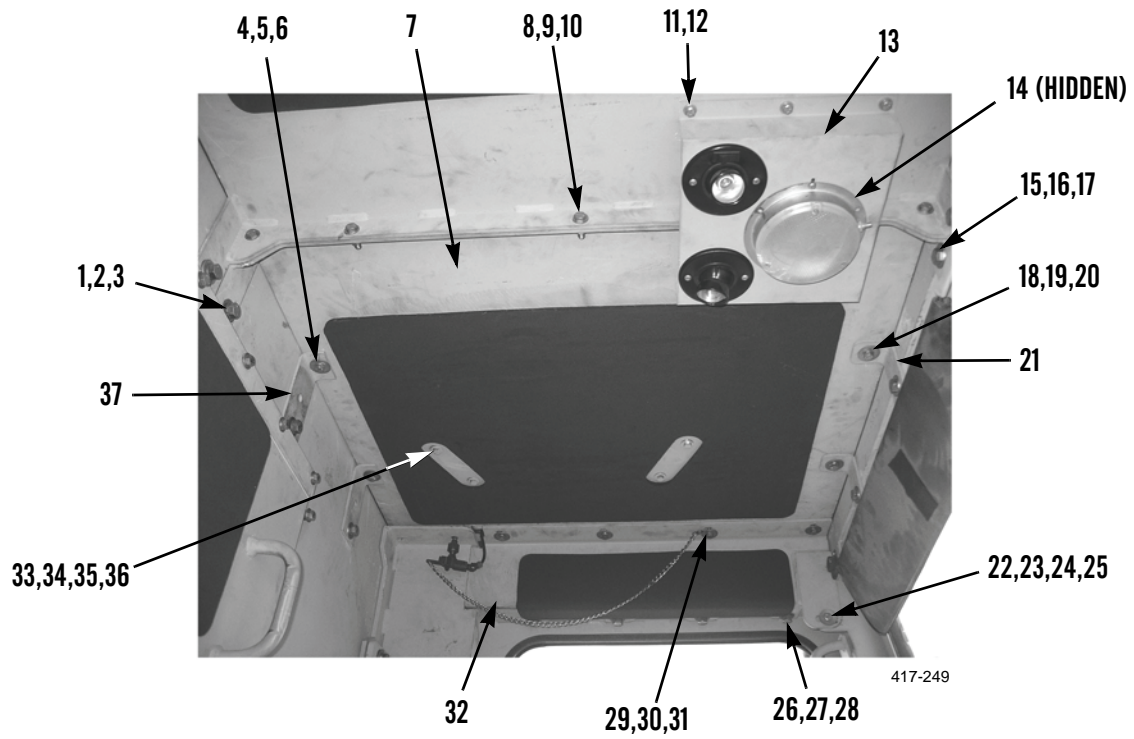
3. Remove four locknuts (36), washers (35), bolts (33), and washers (34) from roof armor (7). Discard locknuts.
4. Remove four bolts (26), lockwashers (27), and washers (28) from header (32). Discard lockwashers.
5. Remove locknut (24), washer (25), bolt (22), and washer (23) from header (32). Discard locknut.
6. Remove four bolts (29), lockwashers (30), washers (31), and header (32) from vehicle. Discard lockwashers.
7. Remove four bolts (18), lockwashers (19), washers (20), and two brackets (21) from roof armor (7). Discard lockwashers.
8. Remove four bolts (4), lockwashers (5), washers (6), and two brackets (37) from roof armor (7). Discard lockwashers.
9. Remove five locknuts (10), washers (9), and bolts (8) from center of roof armor (7). Discard locknuts.
10. Remove bolt (1), lockwasher (2), and washer (3) from roof armor (7). Discard lockwasher.

**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

11. With assistance, remove bolt (15), lockwasher (16), washer (17) and roof armor (7) from vehicle. Discard lockwasher.

REMOVAL - CONTINUED



CLEANING AND INSPECTION

Clean and inspect all parts IAW *General Maintenance Instructions* (WP 0011 00).

INSTALLATION**WARNING**

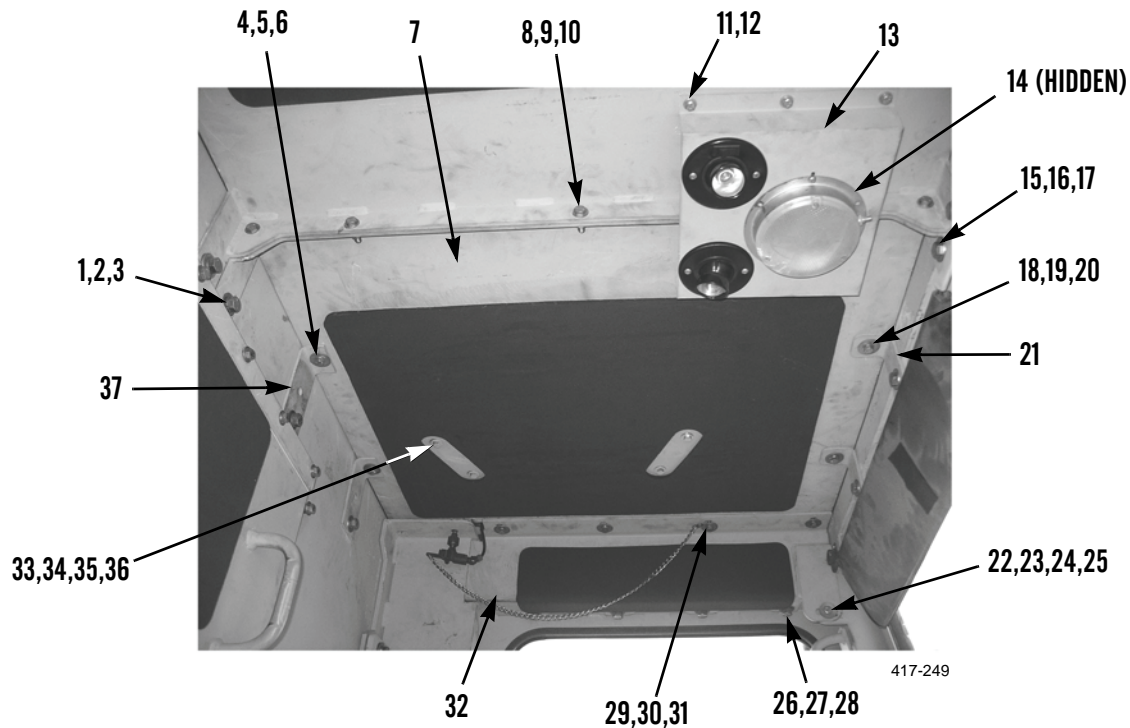
Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

1. With assistance, install roof armor (7), washer (17), new lockwasher (16), and bolt (15) on vehicle.
2. Install washer (3), new lockwasher (2), and bolt (1) on roof armor (7).
3. Install five bolts (8), washers (9), and new locknuts (10) on center of roof armor (7).
4. Install two brackets (37), four washers (6), new lockwashers (5), and bolts (4) on roof armor (7).
5. Install two brackets (21), four washers (20), new lockwashers (19), and bolts (18) on roof armor (7).
6. Install header (32), washers (31), new lockwashers (30), and four bolts (29) on vehicle.
7. Install washer (23), bolt (22), washer (25), and new locknut (24) on header (32).
8. Install four washers (28), new lockwashers (27), and bolts (26) on header (32).

NOTE

Bolts in following step secure roof mount A/C unit to cab roof.

9. Install four washers (34), bolts (33), washers (35), and new locknuts (36) on roof armor (7).
10. Connect three dome light connectors (14) on dome light assembly (13).
11. Install dome light assembly (13), six washers (12), and bolts (11) on roof armor (7).

**END OF WORK PACKAGE**

WINDSHIELD BALLISTIC GLASS REPLACEMENT

0024 00

THIS WORK PACKAGE COVERS

Removal, Cleaning and Inspection, Installation

INITIAL SETUP

Maintenance Level

Unit

Tools and Special Tools

Tool Kit, General Mechanic's (Item 8, WP 0031 00)

Materials/Parts

Rag, Wiping (Item 6, WP 0032 00)

Sealing Compound, Urethane (Item 7, WP 0032 00)

Lockwasher (40)

References

WP 0011 00

Personnel Required

Two

Equipment Conditions

(M915A1P1)

Vehicle parked on level ground (TM 9-2320-283-10)

Parking/Emergency Brake applied (TM 9-2320-283-10)

Engine off (TM 9-2320-283-10)

(M915P1, M916P1, M917P1, and M920P1)

Vehicle parked on level ground (TM 9-2320-273-10)

Parking/Emergency Brake applied (TM 9-2320-273-10)

Engine off (TM 9-2320-273-10)

REMOVAL

1. Remove two nuts (10), washers (11), and wiper arms (9) from front of vehicle.
2. Remove 12 bolts (6), lockwashers (7), washers (8), and center bracket (5) from ballistic glass (12). Discard lockwashers.

**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

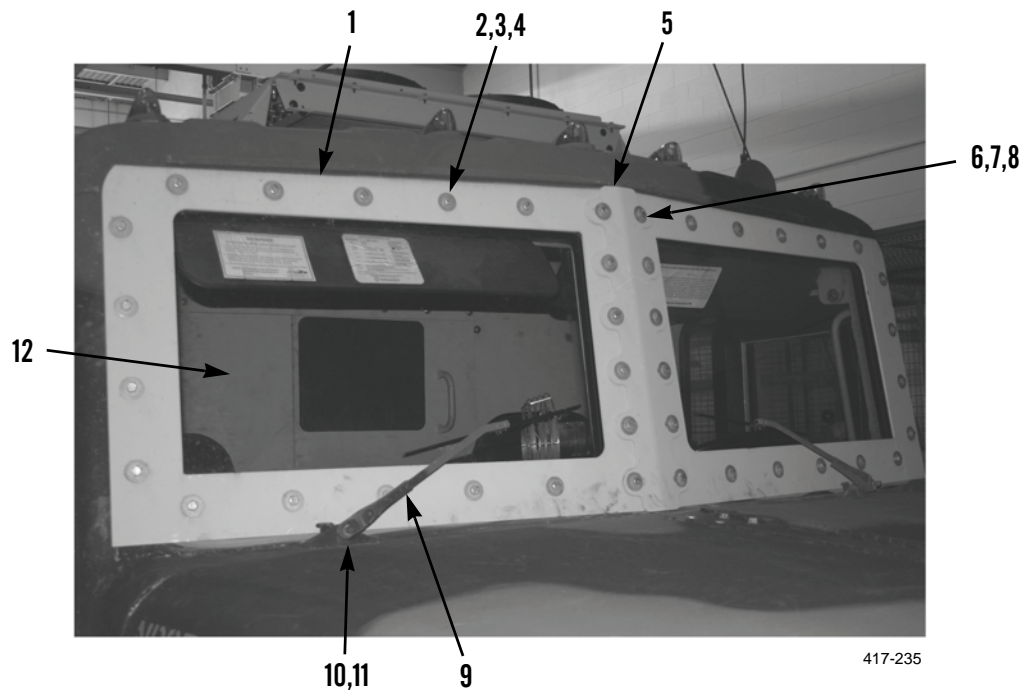
CAUTION

Use caution when handling ballistic glass. Protect surfaces when stored.

NOTE

Steps 3 and 4 are for right ballistic glass cover. Repeat steps 3 and 4 for left ballistic glass cover.

3. With assistance, remove 14 bolts (2), lockwashers (3), washers (4), and right ballistic glass cover (1) from vehicle. Discard lockwashers.
4. With assistance, remove right ballistic glass (12) from vehicle.



417-235

CLEANING AND INSPECTION

Clean and inspect all parts IAW *General Maintenance Instructions* (WP 0011 00).

INSTALLATION**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

CAUTION

Use caution when handling ballistic glass.

NOTE

Steps 1 and 2 are for right ballistic glass cover. Repeat steps 1 and 2 for left ballistic glass cover.

1. With assistance, install right ballistic glass (12) on vehicle.
2. With assistance, install right ballistic glass cover (1), 14 washers (4), new lockwashers (3), and bolts (2) on vehicle.
3. Install center bracket (5), 12 washers (8), new lockwashers (7), and bolts (6) on ballistic glass (12).
4. Install two wiper arms (9), washers (11), and nuts (10) on front of vehicle.

END OF WORK PACKAGE

FIREWALL ARMOR REPLACEMENT

0025 00

THIS WORK PACKAGE COVERSRemoval, Cleaning and Inspection, Installation

INITIAL SETUP**Maintenance Level**

Unit

Tools and Special Tools

Tool Kit, General Mechanic's (Item 8, WP 0031 00)

Materials/Parts

Rag, Wiping (Item 6, WP 0032 00)

Lockwasher (22)

References

WP 0011 00

Personnel Required

Two

Equipment Conditions**(M915A1P1)**

Vehicle parked on level ground (TM 9-2320-283-10)

Parking/Emergency Brake applied (TM 9-2320-283-10)

Engine off (TM 9-2320-283-10)

Accelerator Pedal removed (TM 9-2320-283-20)

Engine Retarder Pedal removed (TM 9-2320-283-20)

Equipment Conditions - Continued**(M915A1P1) - Continued**

Headlight Dimmer Switch removed (TM 9-2320-283-20)

Air Conditioning Unit removed (TB 9-2510-251-13)

Quarter Panel Armor removed (WP 0021 00)

Glove Box Armor removed (WP 0028 00)

(M915P1, M916P1, M917P1, and M920P1)

Vehicle parked on level ground (TM 9-2320-273-10)

Parking/Emergency Brake applied (TM 9-2320-273-10)

Engine off (TM 9-2320-273-10)

Accelerator Pedal removed (TM 9-2320-273-20)

Engine Retarder Pedal removed (TM 9-2320-273-20)

Headlight Dimmer Switch removed (TM 9-2320-273-20)

Air Conditioning Unit removed (TB 9-2510-251-13)

Quarter Panel Armor removed (WP 0021 00)

Glove Box Armor removed (WP 0028 00)

REMOVAL

1. Remove six bolts (16), lockwashers (17), and washers (18) from left firewall armor (1). Discard lockwashers.

**WARNING**

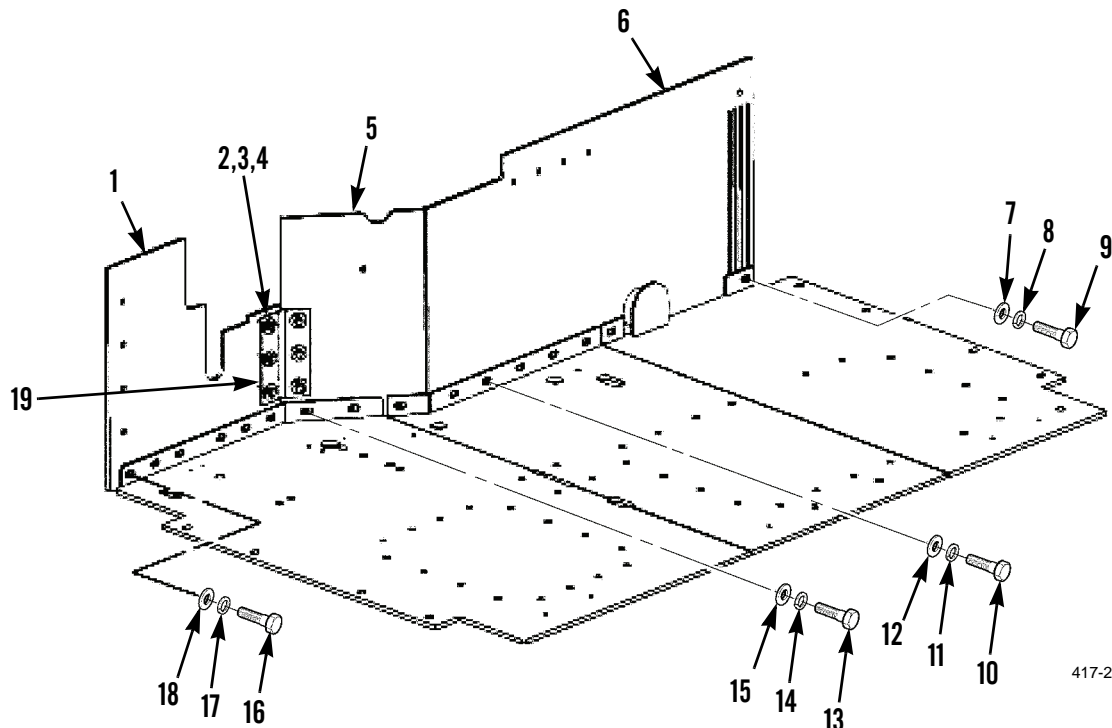
Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

2. With assistance, remove six bolts (2), lockwashers (3), washers (4), bracket (19), and left firewall armor (1). Discard lockwashers.
3. With assistance, remove three bolts (13), lockwashers (14), washers (15), and center firewall armor (5). Discard lockwashers.
4. Remove six bolts (10), lockwashers (11), and washers (12) from right firewall armor (6). Discard lockwashers.

**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

5. With assistance, remove bolt (9), lockwasher (8), washer (7), and right firewall armor (6). Discard lockwasher.



417-236

CLEANING AND INSPECTION

Clean and inspect all parts IAW *General Maintenance Instructions* (WP 0011 00).

INSTALLATION**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

1. With assistance, install right firewall armor (6), washer (7), new lockwasher (8), and bolt (9) on vehicle.
2. Install six washers (12), new lockwashers (11), and bolts (10) on right firewall armor (6).

**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

3. With assistance, install center firewall armor (5), three washers (15), new lockwashers (14), and bolts (13) on vehicle.
4. With assistance, install left firewall armor (1), bracket (19), six washers (4), new lockwashers (3), and bolts (2) on vehicle.
5. Install six washers (18), new lockwashers (17), and bolts (16) on left firewall armor (1).
6. Install glove box armor (WP 0028 00).
7. Install quarter panel armor (WP 0021 00).
8. Install air conditioning unit (TB 9-2510-251-13).
9. Install headlight dimmer switch. For the M915A1P1, refer to TM 9-2320-283-20. For the M915P1, M916P1, M917P1, and M920P1, refer to TM 9-2320-273-20.
10. Install engine retarder pedal. For the M915A1P1, refer to TM 9-2320-283-20. For the M915P1, M916P1, M917P1, and M920P1, refer to TM 9-2320-273-20.
11. Install accelerator pedal. For the M915A1P1, refer to TM 9-2320-283-20. For the M915P1, M916P1, M917P1, and M920P1, refer to TM 9-2320-273-20.

END OF WORK PACKAGE

ESCAPE HATCH REPLACEMENT

0026 00

THIS WORK PACKAGE COVERS

Removal, Cleaning and Inspection, Installation

INITIAL SETUP

Maintenance Level

Unit

Tools and Special Tools

Tool Kit, General Mechanic's (Item 8, WP 0031 00)

Materials/Parts

Rag, Wiping (Item 6, WP 0032 00)

Lockwasher (20)

References

WP 0011 00

Personnel Required

Two

Equipment Conditions

(M915A1P1)

Vehicle parked on level ground (TM 9-2320-283-10)

Parking/Emergency Brake applied (TM 9-2320-283-10)

Engine off (TM 9-2320-283-10)

(M915P1, M916P1, M917P1, and M920P1)

Vehicle parked on level ground (TM 9-2320-273-10)

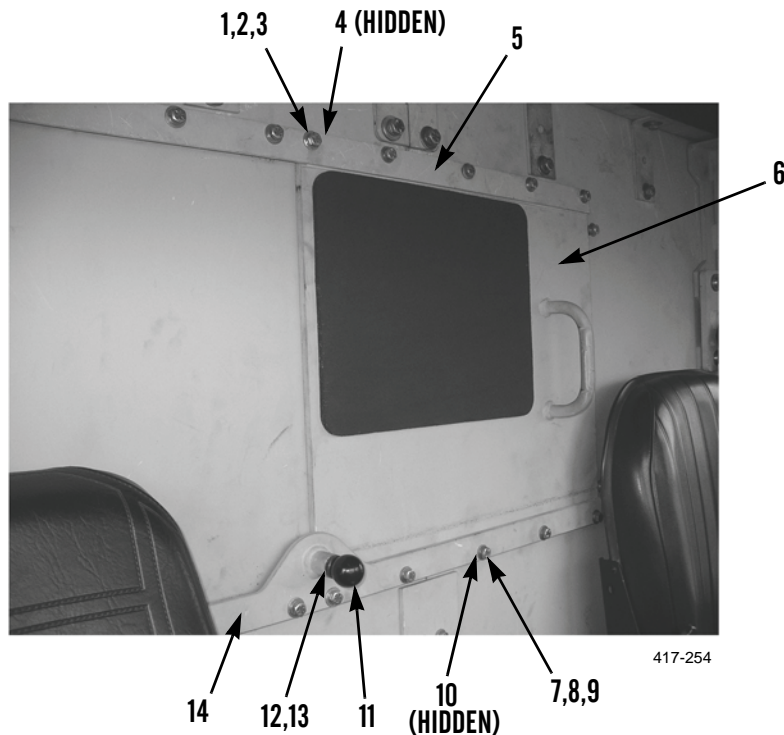
Parking/Emergency Brake applied (TM 9-2320-273-10)

Engine off (TM 9-2320-273-10)

REMOVAL**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

1. With assistance, remove 10 bolts (1), lockwashers (2), washers (3), bracket (5), 10 spacers (4), and escape hatch (6) from rear of cab. Discard lockwashers.
2. Remove 10 bolts (7), lockwashers (8), washers (9), bracket (14), and 10 spacers (10) from rear of cab. Discard lockwashers.
3. Remove nut (12), spring (13), and escape hatch latch (11) from bracket (14).

**CLEANING AND INSPECTION**

Clean and inspect all parts IAW *General Maintenance Instructions* (WP 0011 00).

ESCAPE HATCH REPLACEMENT - CONTINUED

0026 00**INSTALLATION**

1. Install escape hatch latch (11), spring (13), and nut (12) on bracket (14).
2. Install 10 spacers (10), bracket (14), 10 washers (9), new lockwashers (8), and bolts (7) on rear of cab.

**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

3. With assistance, position escape hatch (6) on bracket (14).
4. Install 10 spacers (4), bracket (5), 10 washers (3), new lockwashers (2), and bolts (1) on rear of cab.

END OF WORK PACKAGE

OUTER FIREWALL ARMOR REPLACEMENT

0027 00

THIS WORK PACKAGE COVERS

Removal, Cleaning and Inspection, Installation

INITIAL SETUP

Maintenance Level

Unit

Tools and Special Tools

Tool Kit, General Mechanic's (Item 8, WP 0031 00)

Materials/Parts

Rag, Wiping (Item 6, WP 0032 00)

Locknut (5)

References

WP 0011 00

Personnel Required

Two

Equipment Conditions

(M915A1P1)

Vehicle parked on level ground (TM 9-2320-283-10)

Parking/Emergency Brake applied (TM 9-2320-283-10)

Engine off (TM 9-2320-283-10)

(M915P1, M916P1, M917P1, and M920P1)

Vehicle parked on level ground (TM 9-2320-273-10)

Parking/Emergency Brake applied (TM 9-2320-273-10)

Engine off (TM 9-2320-273-10)

OUTER FIREWALL ARMOR REPLACEMENT - CONTINUED

0027 00

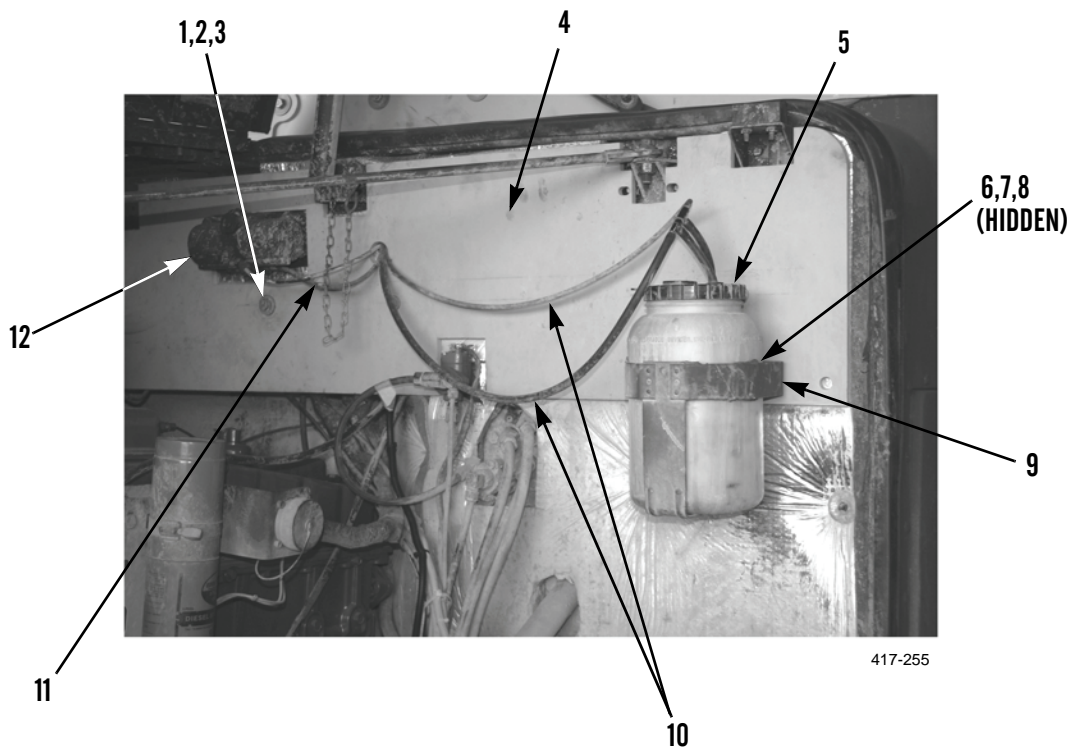
REMOVAL

1. Remove washer bottle (5) from bracket (9) and set aside.
2. Disconnect two hoses (10) from washer bottle (5).
3. Disconnect two hoses (11) from wiper motor (12).

**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

4. With assistance, remove three locknuts (1), six washers (2), three bolts (3), and outer firewall armor (4) from vehicle. Discard locknuts.
5. Remove two locknuts (8), washers (7), screws (6), and bracket (9) from outer firewall armor (4). Discard locknuts.

**CLEANING AND INSPECTION**

Clean and inspect all parts IAW *General Maintenance Instructions* (WP 0011 00).

INSTALLATION**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

1. Install bracket (9), two screws (6), washers (7), and new locknuts (8) on outer firewall armor (4).
2. Feed two hoses (10) and hoses (11) through hole in outer firewall armor (4).
3. With assistance, install outer firewall armor (4), six washers (2), three bolts (3), and new locknuts (1) on vehicle.
4. Connect two hoses (11) to wiper motor (12).
5. Connect two hoses (10) to washer bottle (5).
6. Install washer bottle (5) in bracket (9).

END OF WORK PACKAGE

GLOVE BOX ARMOR REPLACEMENT

0028 00

THIS WORK PACKAGE COVERS

Removal, Cleaning and Inspection, Installation

INITIAL SETUP

Maintenance Level

Unit

Tools and Special Tools

Tool Kit, General Mechanic's (Item 8, WP 0031 00)

Materials/Parts

Rag, Wiping (Item 6, WP 0032 00)

Lockwasher (15)

References

WP 0011 00

Equipment Conditions

(M915A1P1)

Vehicle parked on level ground (TM 9-2320-283-10)

Parking/Emergency Brake applied (TM 9-2320-283-10)

Engine off (TM 9-2320-283-10)

(M915P1, M916P1, M917P1, and M920P1)

Vehicle parked on level ground (TM 9-2320-273-10)

Parking/Emergency Brake applied (TM 9-2320-273-10)

Engine off (TM 9-2320-273-10)

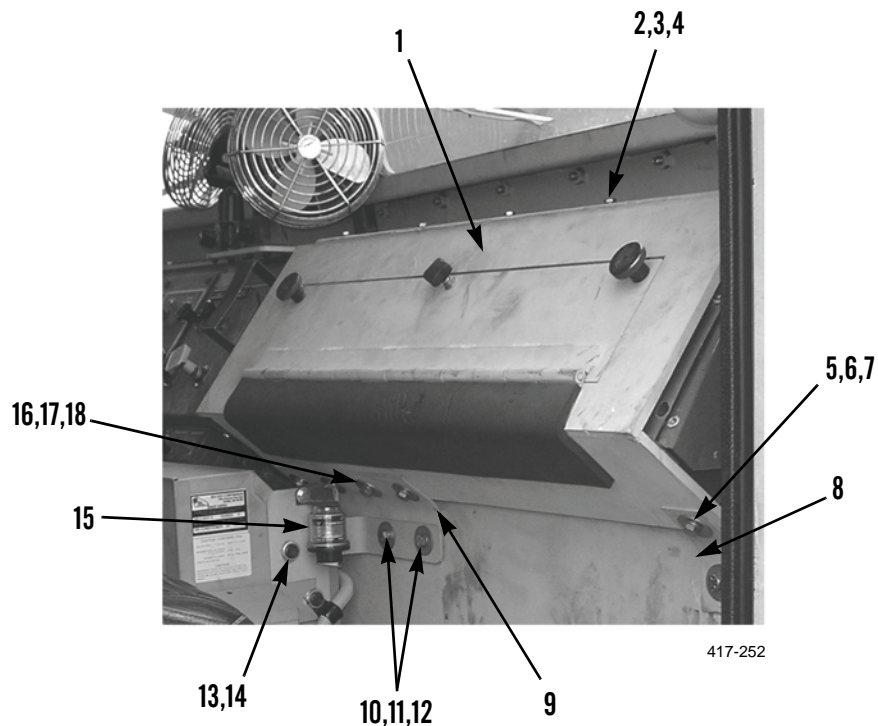
GLOVE BOX ARMOR REPLACEMENT - CONTINUED**0028 00****REMOVAL**

1. Remove two bolts (10), lockwashers (11), and washers (12) from air filter restriction indicator (15). Discard lockwashers.
2. Remove bolt (13), washer (14), and position air filter restriction indicator (15) aside.
3. Remove six bolts (16), lockwashers (17), washers (18), and bracket (9) from glove box armor (1). Discard lockwashers.
4. Remove two bolts (5), lockwashers (6), washers (7), and bracket (8) from right side of glove box armor (1). Discard lockwashers.

**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

5. With assistance, remove five bolts (2), lockwashers (3), washers (4), and glove box armor (1) from vehicle. Discard lockwashers.

**CLEANING AND INSPECTION**

Clean and inspect all parts IAW *General Maintenance Instructions* (WP 0011 00).

INSTALLATION**WARNING**

Use extreme caution when handling heavy parts. Provide adequate support and use assistance during procedure. Failure to follow this warning may cause injury or death to personnel.

1. With assistance, install glove box armor (1), five washers (4), new lockwashers (3), and bolts (2) on vehicle.
2. Install bracket (8), two washers (7), new lockwashers (6), and bolts (5) on right side of glove box armor (1).
3. Install bracket (9), six washers (18), new lockwashers (17), and bolts (16) on glove box armor (1).
4. Install air filter restriction indicator (15), washer (14), and bolt (13) on side of A/C unit.
5. Install two washers (12), new lockwashers (11), and bolts (10) on glove box armor (1).

END OF WORK PACKAGE

CHAPTER 5
SUPPORTING INFORMATION

SCOPE

This work package lists all publication indexes, forms, field manuals, technical bulletins, technical manuals, and other publications that are referenced in this technical bulletin and that apply to operation and maintenance of the Crew Protection Kit.

PUBLICATION INDEXES

The following indexes should be consulted frequently for latest changes or revisions and for new publications relating to material covered in this technical bulletin.

- Consolidated Army Publications and Forms Index DA PAM 25-30
- Functional Users Manual for The Army Maintenance Management System (TAMMS) DA PAM 750-8

FORMS

NOTE

Refer to DA PAM 750-8, *Functional Users Manual for The Army Maintenance Management System (TAMMS)*, for instructions on the use of maintenance forms.

- Equipment Inspection and Maintenance Worksheet DA Form 2404, DA Form 5988-E
- Product Quality Deficiency Report SF Form 368
- Recommended Changes to Publications and Blank Forms DA Form 2028

FIELD MANUALS

- First Aid FM 4-25.11

TECHNICAL BULLETINS

- CARC Spot Painting TB 43-0242
- Color, Marking, and Camouflage Painting of Military Vehicles, Construction Equipment,
and Materials Handling Equipment TB 43-0209
- HMMWV Air Conditioning Technical Bulletin TB 9-2510-251-13

TECHNICAL MANUALS

- Direct Support and General Support Maintenance Manual for Truck,
Tractor, M915A1 Line-Haul TM 9-2320-283-34
- Direct Support and General Support Maintenance Manual for Truck,
M915, M916, M917, M918, M919, and M920 Line-Haul TM 9-2320-273-34
- Materials Used for Cleaning, Preserving, Abrading, and Cementing Ordnance Materiel and
Related Materials Including Chemicals TM 9-247
- Operator’s Manual for Truck, Tractor, M915A1 Line-Haul TM 9-2320-283-10
- Operator’s Manual for Truck, M915, M916, M917, M918, M919, and M920 Line-Haul TM 9-2320-273-10
- Procedures for Destruction of Tank-automotive Equipment to Prevent Enemy Use
(U. S. Army Tank-Automotive Command) TM 750-244-6
- Unit, Direct Support, and General Support Including Depot Maintenance RPSTL for Truck,
Tractor, M915A1 Line-Haul TM 9-2320-283-24P
- Organizational Maintenance Manual for Truck, Tractor, M915A1 Line-Haul TM 9-2320-283-20
- Unit, Direct Support, and General Support Including Depot Maintenance RPSTL for Truck,
M915, M916, M917, M918, M919, and M920 Line-Haul TM 9-2320-273-24P
- Organizational Maintenance Manual for Truck, Tractor, M915, M916, M917, M918,
M919, and M920 Line-Haul TM 9-2320-273-20

REFERENCES - CONTINUED

0029 00

OTHER PUBLICATIONS

Standard Abbreviations ASME Y14.38-1999
Army Medical Department Expendable/Durable Items CTA 8-100
Expendable/Durable Items (Except Medical, Class V, Repair Parts, and Heraldic Items) CTA 50-970

END OF WORK PACKAGE

THE ARMY MAINTENANCE SYSTEM MAC

1. This introduction provides a general explanation of all maintenance and repair functions authorized at the two maintenance levels under the Two-Level Maintenance System concept.
2. The MAC immediately following this introduction designates overall authority and responsibility for the performance of maintenance functions on the identified end item or component. The application of the maintenance functions to the end item or component shall be consistent with the capacities and capabilities of the designated maintenance levels, which are shown in the MAC (WP 0031 00) in column (4) as:

Field - includes subcolumns:

C - Operator/Crew

O - Unit

F - Direct Support

Sustainment - includes subcolumns:

H - General Support

D - Depot

3. The tools and test equipment requirements (immediately following the MAC) list the tools and test equipment (both special tools and common tool sets) required for each maintenance function as referenced from the MAC.
4. The remarks (immediately following the tools and test equipment requirements) contain supplemental instructions and explanatory notes for a particular maintenance function.

MAINTENANCE FUNCTIONS

Maintenance functions are limited to and defined as follows:

1. **Inspect.** To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination (e.g., by sight, sound, or feel).
2. **Test.** To verify serviceability by measuring the mechanical, pneumatic, hydraulic, or electrical characteristics of an item and comparing those characteristics with prescribed standards on a scheduled basis, i.e., load testing of lift devices and hydrostatic testing of pressure hoses.
3. **Service.** Operations required periodically to keep an item in proper operating condition; e.g., to clean (includes decontaminate, when required), preserve, drain, paint, or replenish fuel, lubricants, chemical fluids, or gases.
4. **Adjust.** To maintain or regulate, within prescribed limits, by bringing into proper position, or by setting the operating characteristics to specified parameters.
5. **Align.** To adjust specified variable elements of an item to bring about optimum or desired performance.
6. **Calibrate.** To determine and cause corrections to be made or to be adjusted on instruments of test, measuring, and diagnostic equipment used in precision measurement. Calibration consists of comparisons of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.
7. **Remove/Install.** To remove and install the same item when required to perform service or other maintenance functions. Installation may be the act of emplacing or seating a spare, repair part, or module (component or assembly) into position in a manner to allow the proper functioning of an equipment or system.
8. **Replace.** To remove an unserviceable item and install a serviceable counterpart in its place. Replacement is authorized by the MAC and the assigned maintenance level is shown as the third position code of the Source, Maintenance, and Recoverability (SMR) code.
9. **Repair.** Repair is the application of maintenance services, including fault location/troubleshooting, removal/installation, disassembly/assembly procedures, and maintenance actions, to identify troubles and restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.

MAINTENANCE FUNCTIONS - CONTINUED**NOTE**

The following definitions are applicable to the "repair" maintenance function:

- Services - Inspecting, testing, service, adjustment, alignment, calibration, and/or replacement.
 - Fault location/troubleshooting - The process of investigating and detecting the cause of equipment malfunctioning; the act of isolating a fault within a system or Unit Under Test (UUT).
 - Disassembly/assembly - The step-by-step breakdown (taking apart) of a spare/functional group coded item to the level of its least component, assigned a SMR code for the level of maintenance under consideration (i.e., identified as maintenance significant).
 - Actions - Welding, grinding, riveting, straightening, facing, machining, and/or resurfacing.
10. **Overhaul.** That maintenance effort (service/action) prescribed to restore an item to a completely serviceable/operational condition as required by maintenance standards in appropriate technical publications. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.
11. **Rebuild.** Consists of those services/actions necessary for the restoration of unserviceable equipment to a like new condition in accordance with original manufacturing standards. Rebuild is the highest degree of materiel maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (hours/miles, etc.) considered in classifying Army equipment/components.

EXPLANATION OF COLUMNS IN THE MAC, TABLE 1

1. **Column (1) - Group Number.** Column (1) lists Group numbers, the purpose of which is to identify maintenance significant components, assemblies, subassemblies, and modules with the Next Higher Assembly (NHA).
2. **Column (2) - Component/Assembly.** Column (2) contains the item names of components, assemblies, subassemblies, and modules for which maintenance is authorized.
3. **Column (3) - Maintenance Function.** Column (3) lists the functions to be performed on the item listed in Column (2). (For a detailed explanation of these functions refer to "Maintenance Functions" outlined above.)
4. **Column (4) - Maintenance Level.** Column (4) specifies each level of maintenance authorized to perform each function listed in column (3), by indicating work time required (expressed as manhours in whole hours or decimals) in the appropriate subcolumn. This work time figure represents the active time required to perform that maintenance function at the indicated level of maintenance. If the number or complexity of the tasks within the listed maintenance function varies at different maintenance levels, appropriate work time figures are to be shown for each level. The work time figure represents the average time required to restore an item (assembly, subassembly, component, module, end item, or system) to a serviceable condition under typical field operating conditions. This time includes preparation time (including any necessary disassembly/assembly time), troubleshooting/fault location time, and quality assurance time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the MAC. The symbol designations for the various maintenance levels are as follows:

Field:

- C - Operator/Crew Maintenance
- O - Unit Maintenance
- F - Direct Support Maintenance

Sustainment:

- H - General Support Maintenance
- D - Depot Maintenance

EXPLANATION OF COLUMNS IN THE MAC, TABLE 1- CONTINUED**NOTE**

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

5. **Column (5) - Tools and Equipment Reference Code.** Column (5) specifies, by code, common tool sets (not individual tools), common Test, Measurement, and Diagnostic Equipment (TMDE), special tools, special TMDE, and special support equipment required to perform the designated function. Codes are keyed to the entries in the tools and test equipment table.
6. **Column (6) - Remarks Code.** When applicable, this column contains a letter code, in alphabetical order, which is keyed to the remarks table entries (Table 3).

EXPLANATION OF COLUMNS IN THE TOOLS AND TEST EQUIPMENT REQUIREMENTS, TABLE 2

1. **Column (1) - Tool or Test Equipment Reference Code.** The tool and test equipment reference code correlates with a code used in column (5) of the MAC.
2. **Column (2) - Maintenance Level.** The lowest level of maintenance authorized to use the tool or test equipment.
3. **Column (3) - Nomenclature.** Name or identification of the tool or test equipment.
4. **Column (4) - National Stock Number (NSN).** The NSN of the tool or test equipment.
5. **Column (5) - Tool Number.** The manufacturer's part number, model number, or type number.

EXPLANATION OF COLUMNS IN THE REMARKS, TABLE 3

1. **Column (1) - Remarks Code.** The code recorded in column (6) of the MAC.
2. **Column (2) - Remarks.** This column lists information pertinent to the maintenance function being performed as indicated in the MAC.

END OF WORK PACKAGE

Table 1. MAC for the Crew Protection Kit .

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL				(5) TOOLS AND EQUIPMENT REF CODE	(6) REMARKS CODE	
			FIELD		SUSTAINMENT				
			UNIT		DS	GS			DEPOT
			C	O	F	H			D
33	SPECIAL PURPOSE KITS								
3307	Crew Protection Kit:	Install		50.0			8		
	Vehicle Preparation	Install		16.0					
	Cab Support	Inspect	0.2					A	
	Reinforcement	Install		1.0			8		
		Replace		1.0			8		
	Door Assembly	Inspect	0.2					A	
		Service	0.2					B	
		Install		4.0			5,6,7,8		
		Replace		3.0			5,6,7,8		
	Door Handle	Inspect	0.2					A	
	Assembly	Replace		1.0			8		
	Door Latch	Inspect	0.2					A	
		Replace		1.0			8		
	Door Ballistic Glass	Inspect	0.2					A	
	and Frame Assembly	Service	0.2					B	
		Install		1.0					
		Replace		2.0			8		
	Firewall Armor	Inspect	0.2					A	
		Install		3.0			8		
		Replace		2.0			8		
	Outer Firewall	Inspect	0.2					A	
	Armor	Install		2.0			8		
		Replace		1.0			8		
	Glove Box Armor	Inspect	0.2					A	
		Install		1.0			8		
		Replace		1.0			8		
	Floor Armor - Left	Inspect	0.2					A	
		Install		2.0			8		
		Replace		2.0			8		
	Floor Armor - Right	Inspect	0.2					A	
		Install		2.0			8		
		Replace		2.0			8		
	Floor Armor - Center	Inspect	0.2					A	
		Install		2.0			8		
		Replace		2.0			8		

MAINTENANCE ALLOCATION CHART (MAC) - CONTINUED

0031 00

Table 1. MAC for the Crew Protection Kit - Continued.

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL				(5) TOOLS AND EQUIPMENT REF CODE	(6) REMARKS CODE		
			FIELD		SUSTAINMENT					
			UNIT		DS	GS			DEPOT	
			C	O	F	H			D	
33	SPECIALPURPOSE KITS - Continued	Quarter Panel Armor	Inspect	0.2					A	
			Install		0.5			8		
			Replace		0.5			8		
		Rear Armor	Inspect	0.2						A
			Install		4.0			2,5,6,7,8		
			Replace		2.0			2,5,6,7,8		
		Roof Armor	Inspect	0.2						A
			Install		4.0			5,6,7,8		
			Replace		1.5			5,6,7,8		
		Rear Window Armor	Inspect	0.2						A
			Install		1.5			5,6,7,8		
			Replace		1.0			5,6,7,8		
		Wheel Well Armor	Inspect	0.2						A
			Install		1.0			8		
			Replace		1.0			8		
		Windshield Ballistic Glass	Inspect	0.2						A
			Service	0.2						B
			Install		2.0			2,6,8		
		Windshield Ballistic Glass Frame	Replace		1.0			2,6,8		
			Inspect	0.2						A
Install			3.0			2,5,6,7,8				
		Replace		2.0		2,5,6,7,8				

Table 2. Tools and Test Equipment Requirements for the Crew Protection Kit.

(1) TOOLS OR TEST EQUIPMENT REFERENCE CODE	(2) MAINTENANCE LEVEL	(3) NOMENCLATURE	(4) NATIONAL STOCK NUMBER (NSN)	(5) TOOL NUMBER (CAGEC)
1	O	Clamp, C: 2-1/2 In. 10 In. Size	5120-00-203-6432	5120-00-203-6432 (08292)
2	O	Dispenser, Sealant	5120-00-679-5655	101 (06798)
3	O	Drill Set, Twist: 33/64 to 3/4 In. 1/64 In. Increments	5133-00-596-8088	B94.11M (05047)
4	O	Drill, Twist: 7/8 In.		91456 (16568)
5	O	Link, Bearing (Lifting)	5120-01-451-1401	1387575 (11083)
6	O	Shop Equipment, Automotive Maintenance and Repair: Organizational Maintenance, Common No. 1, Less Power	4910-00-754-0654	SC 4910-95CLA74 (19204)
7	O	Sling, Nylon	2835-01-078-2081	4-8FTX2IN (91796)
8	O	Tool Kit, General Mechanic's: Automotive	5180-01-454-3787	12B470000 (59678)

Table 3. Remarks for the Crew Protection Kit.

(1) REMARKS CODE	(2) REMARKS
A	Refer to Operator PMCS.
B	Service by cleaning ballistic glass.

END OF WORK PACKAGE

SCOPE

This work package lists expendable and durable items you will need to install, operate, and maintain the Crew Protection Kit. This listing is for informational purposes only and is not authority to requisition the listed items. These items are authorized to you by CTA 50-970, *Expendable/Durable Items (Except Medical, Class V, Repair Parts, and Heraldic Items)*, or CTA 8-100, *Army Medical Department Expendable/Durable Items*.

EXPLANATION OF COLUMNS

1. **Column (1) - Item Number.** This number is assigned to the entry in the listing and is referenced in the narrative instructions to identify the item (e.g., Apply sealing compound [Item 7, WP 0032 00]).
2. **Column (2) - Level.** This column identifies the lowest level of maintenance that requires the listed item.
 - C - Operator/Crew
 - O - Unit Maintenance
3. **Column (3) - National Stock Number.** This is the National Stock Number assigned to the item which you can use to requisition it.
4. **Column (4) - Description, CAGEC, and Part Number.** This provides the other information you need to identify the item.
5. **Column (5) - Unit of Measure (U/M).** This column shows the physical measurement or count of an item, such as gallon, dozen, gross, etc.

EXPENDABLE AND DURABLE ITEMS LIST - CONTINUED

0032 00

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION, CAGEC, AND PART NUMBER	(5) U/M
1	O	8040-01-250-3969	ADHESIVE: Thread (05972) 242 50 Milliliter Bottle	BT
2	C	6850-01-474-2318	CLEANING COMPOUND: Solvent, Type III (81349) MIL-PRF-680 1 Gallon Can	CN
		6850-01-474-2320	5 Gallon Can	CN
		6850-01-474-2321	55 Gallon Drum	DR
3	O	5350-00-584-4654	CLOTH, ABRASIVE (80204) ANSI B74.18 50 Sheet Package	PG
4	C	7930-00-282-9699	DETERGENT: General Purpose, Liquid (83421) 7930-00-282-9699 1 Gallon Can	CN
		9140-00-286-5294	Bulk	GL
		9140-00-286-5295	5 Gallon Can	CN
		9140-00-286-5296	55 Gallon Drum	DR
5	C	9150-00-189-6727	OIL, LUBRICATING: OE/HDO-10 (81349) MIL-PRF-2104 1 Quart Can	CN
		9150-00-186-6668	5 Gallon Can	CN
		9150-00-191-2772	55 Gallon Drum	DR
6	C	7920-00-205-1711	RAG: Wiping (64067) A-A-431 50 Pound Bale	BL
7	O	8030-01-320-4710	SEALING COMPOUND: Urethane (52157) 051135-08609 10.5 Ounce Cartridge	CA
8	O	5975-01-379-4997	STRAP, TIEDOWN: Electrical Components (06383) PLT35-C-O Package of 100	PK

EXPENDABLE AND DURABLE ITEMS LIST - CONTINUED

0032 00

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION, CAGEC, AND PART NUMBER	(5) U/M
9	O		TAG, MARKER (64067) 9905-00-537-8954	
10	O	9905-00-537-8954	Bundle of 50	BD
		7510-00-473-9513	TAPE: Pressure Sensitive Adhesive (81349) MIL-T-23397 60 Yard Roll	RL

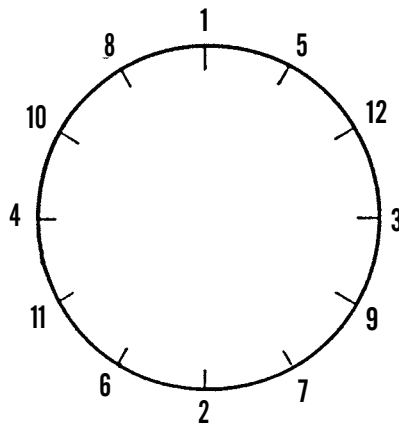
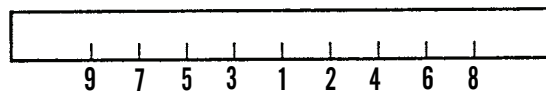
END OF WORK PACKAGE

SCOPE

This work package lists standard torque values and provides general information for applying torque. Special torque values and tightening sequences are indicated in the maintenance procedures for applicable components.

GENERAL

1. Always use torque values listed in Tables 1 and 2 when a maintenance procedure does not give a specific torque value.
 - a. Table 1 provides torque limits for SAE standard fasteners.
 - b. Table 2 provides torque limits for metric fasteners.
2. Unless otherwise indicated, standard torque tolerance shall be ± 10 percent.
3. Torque values listed are based on clean, dry threads. Reduce torque by 10 percent when engine oil is used as a lubricant. Reduce torque by 20 percent if new plated capscrews are used.
4. If the maintenance procedures do not specify a tightening order, use the following guides:
 - a. Unless otherwise specified, lubricate threads of fasteners with clean oil (OE/HDO-10).
 - b. When tightening fasteners above 30 lb-ft (41 Nm), use the torque pattern but only tighten to 70 percent of final value (multiply final value by 0.7). Repeat pattern until final value is reached.
 - c. Tighten circular patterns using circular torque pattern and tighten straight patterns using straight torque pattern.

**CIRCULAR TORQUE PATTERN****STRAIGHT TORQUE PATTERN****CAUTION**

If replacement capscrews are of higher grade than originally supplied, use torque specifications for the original. This will prevent equipment damage due to overtightening.

Table 1. Torque Limits - SAE Standard Fasteners.

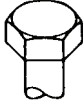


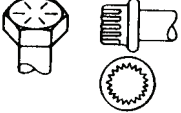
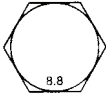
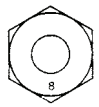
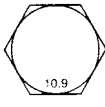
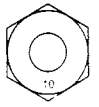
CURRENT USAGE	MUCH USED	MUCH USED	USED AT TIMES	USED AT TIMES
QUALITY OF MATERIAL	INDETERMINATE	MINIMUM COMMERCIAL	MEDIUM COMMERCIAL	BEST COMMERCIAL
SAE Grade Number	1 or 2	5	6 or 7	8
Capscrew Head Markings				
Manufacturer's marks may vary				
These are all SAE Grade 5 (3 line)				
CAPSCREW BODY SIZE IN. - THREAD	TORQUE LB-FT (NM)	TORQUE LB-FT (NM)	TORQUE LB-FT (NM)	TORQUE LB-FT (NM)
1/4 20 28	5 (7) 6 (8)	8 (11) 10 (14)	10 (14)	12 (16) 14 (19)
5/16 18 24	11 (15) 13 (18)	17 (23) 19 (26)	19 (26)	24 (33) 27 (37)
3/8 16 24	18 (24) 20 (27)	31 (42) 35 (47)	34 (46)	44 (60) 49 (66)
7/16 14 20	28 (38) 30 (41)	49 (66) 55 (75)	55 (75)	70 (95) 78 (106)
1/2 13 20	39 (53) 41 (56)	75 (102) 85 (115)	85 (115)	105 (142) 120 (163)
9/16 12 18	51 (69) 55 (75)	110 (149) 120 (163)	120 (163)	155 (210) 170 (231)
5/8 11 18	83 (113) 95 (129)	150 (203) 170 (231)	167 (226)	210 (285) 240 (325)
3/4 10 16	105 (142) 115 (156)	270 (366) 295 (400)	280 (380)	375 (508) 420 (569)
7/8 9 14	160 (217) 175 (237)	395 (536) 435 (590)	440 (597)	605 (820) 675 (915)
1 8 14	235 (319) 250 (339)	590 (800) 660 (895)	660 (895)	910 (1234) 990 (1342)

Table 2. Torque Limits - Metric Fasteners.

TORQUE VALUES FOR METRIC THREAD FASTENERS WITH LUBRICATED* OR PLATED THREADS†				
Thread Diameter-Pitch				
	Class 8.8 Bolt	Class 8 Nut	Class 10.9 Bolt	Class 10 Nut
	Torque: lb-ft (Nm)		Torque: lb-ft (Nm)	
M6	5 (7)		7 (9)	
M8	12 (16)		17 (23)	
M8 x 1	13 (18)		18 (24)	
M10	24 (33)		34 (46)	
M10 x 1.25	27 (37)		38 (52)	
M12	42 (57)		60 (81)	
M12 x 1.5	43 (58)		62 (84)	
M14	66 (89)		95 (129)	
M14 x 1.5	72 (98)		103 (140)	
M16	103 (140)		148 (201)	
M16 x 1.5	110 (149)		157 (213)	
M18	147 (199)		203 (275)	
M18 x 1.5	165 (224)		229 (310)	
M20	208 (282)		288 (390)	
M20 x 1.5	213 (313)		320 (434)	
M22	283 (384)		392 (531)	
M22 x 1.5	315 (427)		431 (584)	
M24	360 (488)		498 (675)	
M24 x 2	392 (531)		542 (735)	
M27	527 (715)		729 (988)	
M27 x 2	569 (771)		788 (1068)	
M30	715 (969)		990 (1342)	
M30 x 2	792 (1074)		1096 (1486)	

* All plated and unplated fasteners should be coated with oil before installation.

† Use these torque values if either the bolt or nut is lubricated or plated (zinc-phosphate conversion-coated, cadmium-plated, or waxed).

END OF WORK PACKAGE

INSTALLATION INSTRUCTIONS

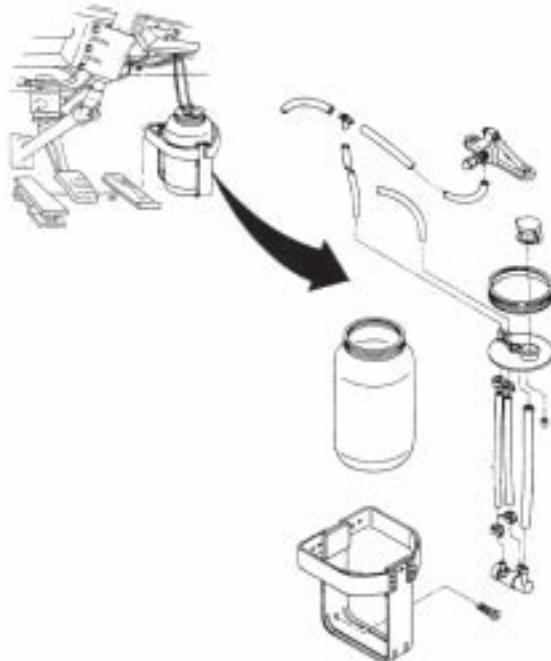
INSTALLATION INSTRUCTIONS FOR M915 ARMOR KIT

HARDWARE FOR ENTIRE KIT

PART NUMBER	TYPE	QTY
B1821BH063C200N	5/8-11 X 2" Bolt	2
B1821BH050C200N	1/2-13 X 2" Bolt	2
B1821BH050C150N	1/2-13 X 1 1/2" Bolt	85
B1821BH038C200N	3/8-16 X 2" Bolt	64
B1821BH038C150N	3/8-16 X 1 1/2" Bolt	92
B1821BH031C125N	5/16-18 X 1 1/4" Bolt	36
B1821BH025C150N	1/4-20 X 1 1/2" Bolt	15
B1821BH025C075N	1/4-20 X 3/4" Bolt	9
MS35206-265	Screw	12
MS35206-247	Screw	10
MS35338-48	Lock Washer	61
MS35338-46	Lock Washer	150
MS35338-45	Lock Washer	36
MS35338-44	Lock Washer	21
MS35338-43	Lock Washer	2
MS27183-59	Washer	152
MS27183-52	Washer	37
MS27183-21	Washer	4
MS27183-17	Washer	89
MS27183-14	Washer	42
MS27183-8	Washer	22
MS27183-7	Washer	12
M45193/2-10CG8Z	Lock Nut	2
M45193/2-8CG8Z	Lock Nut	10
M45193/2-6CG8Z	Lock Nut	24
M45193/2-4CG8Z	Lock Nut	8
M45193/2-010CG8Z	Lock Nut	10
M45193/2-08CG8Z	Lock Nut	10

a. Removal of Existing Parts and Preparation for Installation.

1. REMOVE SEATS, SEAT BELTS, AND FLOOR ANCHORS
Reference: TM9-2320-283
Set aside for use with installation.
2. REMOVE DOOR MIRRORS
Reference: TM9-2320-283
Set aside for use with installation.
3. REMOVE DOOR ASSEMBLY
Reference: TM9-2320-283
Tag and store all removed parts.
4. REMOVE THRESHOLDS
Reference: TM9-2320-283
Tag and store all removed parts.
5. REMOVE GAS, BREAK, AND HIGH-BEAM LIGHT PEDALS
Do not remove rubber boot from gas pedal rod.
Reference: TM9-2320-283
Set aside for use with installation.
6. REMOVE FLOOR MAT
Reference: TM9-2320-283
Set aside for use with installation.
7. REMOVE INTERIOR HANDLES
Reference: TM9-2320-283
Tag and store all removed parts.
8. REMOVE WINDSHIELD WASHER JUG
Disconnect hoses from T-fitting. Remove three screws.
Set aside for use with installation.



a. Removal of Existing Parts and Preparation for Installation (Cont'd).

- 9. REMOVE ROOF LINER
Reference: TM9-2320-283
Tag and store all removed parts.
- 10. REMOVE AIR HORN LEVER
Reference: TM9-2320-283
Set aside for use with installation.
- 11. REMOVE CABLIGHTS
Reference: TM9-2320-283
Set aside for use with installation.
- 12. REMOVE VISORS
Reference: TM9-2320-283
Set aside for use with installation.
- 13. REMOVE GLOVE BOX COVER
Reference: TM9-2320-283
Tab and store all removed parts.
- 14. REMOVE FUSE BOX COVER
Reference: TM9-2320-283
Tag and store all removed parts.
- 15. REMOVE HARDWARE FROM DASHBOARD
Reference: TM9-2320-283
Remove all screws except center screw from Dashboard.
Tag and store all removed parts.

a. Removal of Existing Parts and Preparation for Installation (Cont'd).

16. REMOVE DASH FANS
Reference: TM9-2320-283
Set aside for use with installation.
17. DETACH GEAR SHIFT FROM FLOOR
Reference: TM9-2320-283
18. REMOVE REAR WINDOW GRILL

NOTE

Do not remove rear window glass.

- Reference: TM9-2320-283
Set aside for use with installation.
19. REMOVE WINDSHIELD WIPER BLADES
Reference: TM9-2320-283
Remove wiper blades from wiper arms and discard blades.
Set wiper arms aside for use with installation.
20. REMOVE WINDSHIELD
Reference: TM9-2320-283
Cut gasket from outside for easier removal.
Tag and store all removed parts.
21. REMOVE DOOR LOCK LOOPS FROM DOOR FRAME.
Reference: TM9-2320-283
If loops are bolted on, remove hardware and loops.
Tag and store all removed parts.
If loops are riveted on, cut loops off. Discard loops.
22. REMOVE SPARE TIRE
Reference: TM9-2320-283
Set aside for use with installation.
23. LOOSEN EXHAUST STACK
Reference: TM9-2320-283
24. REMOVE CAB MOUNTS, FRONT AND REAR
Reference: TM9-2320-283
Discard cab mounts.
25. INSTALL NEW CAB MOUNTS, FRONT AND REAR
Reference: TM9-2320-283

b. Cab Armor Installation .

1. INSTALL CAB SUPPORTS

NOTE

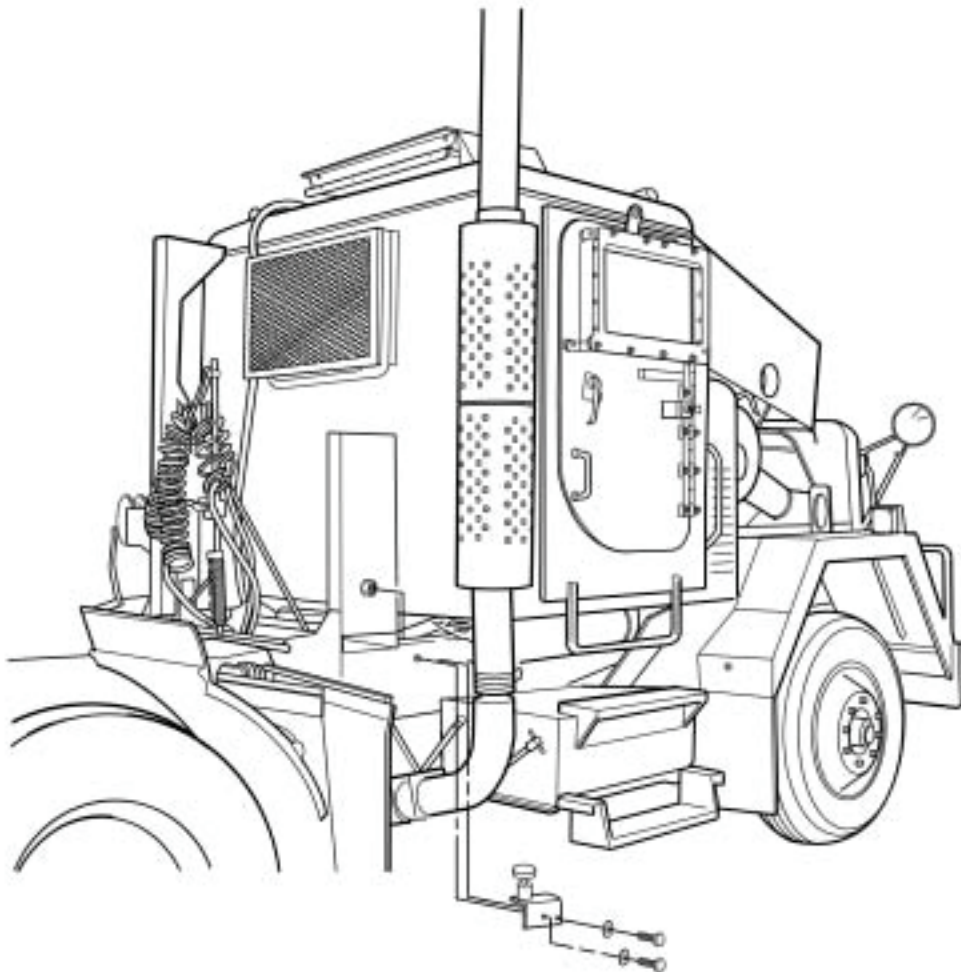
There are two cab supports. Both are installed the same way. Passenger side shown.

Position cabsupport underneath the cross beam and between the spare tire and cab.

Secure the lower hole with bolt (B1821BH050C200N), washer (MS27183-17), and locknut (M45913/2-8CG8Z).

Secure the upper hole with bolt (B1821BH063C200N), washer (MS27183-21), and locknut (M45913/2-10CG8Z).

Repeat for remaining cab support.



b. Cab Armor Installation (Cont'd).

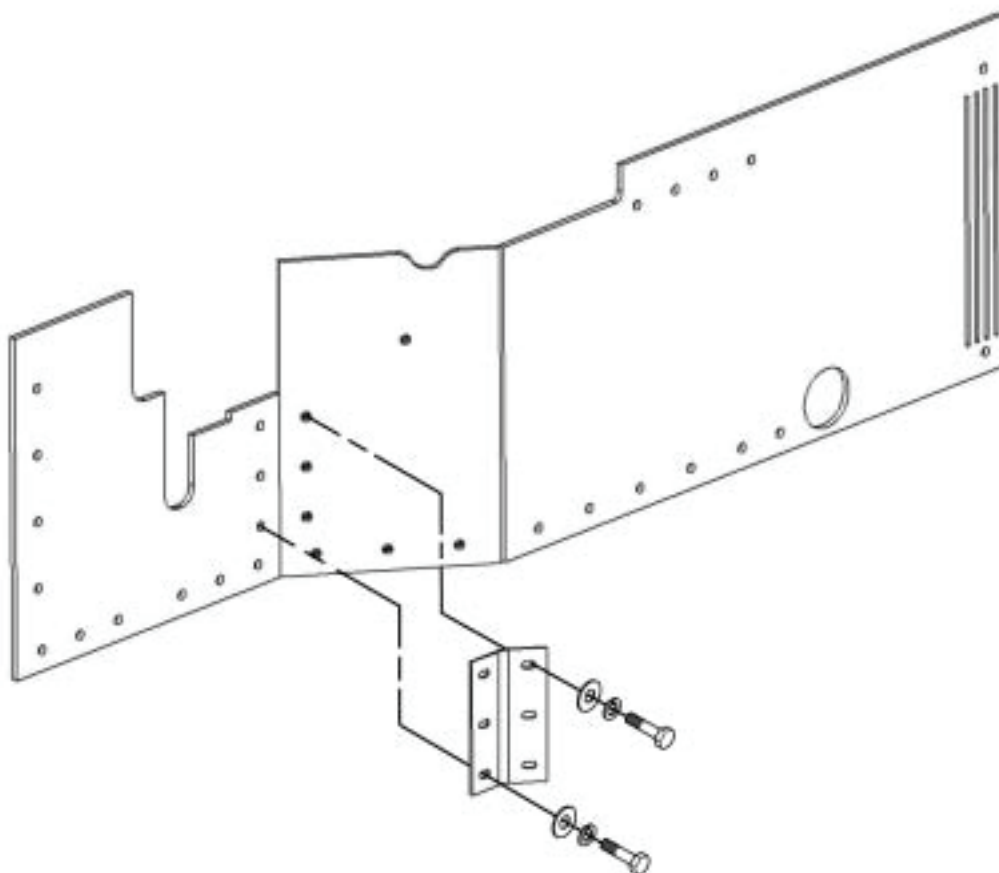
NOTE

For ease of installation, DO NOT tighten any hardware until kit is completely installed.

2. INSTALL FIREWALL ARMOR

Position steering column firewall around steering column. Position main firewall under dashboard.

Position bracket on steering column firewall and main firewall and secure with six bolts (B1821BH038C150N), washers (MS27183-59), and lock washers (MS35338-46).



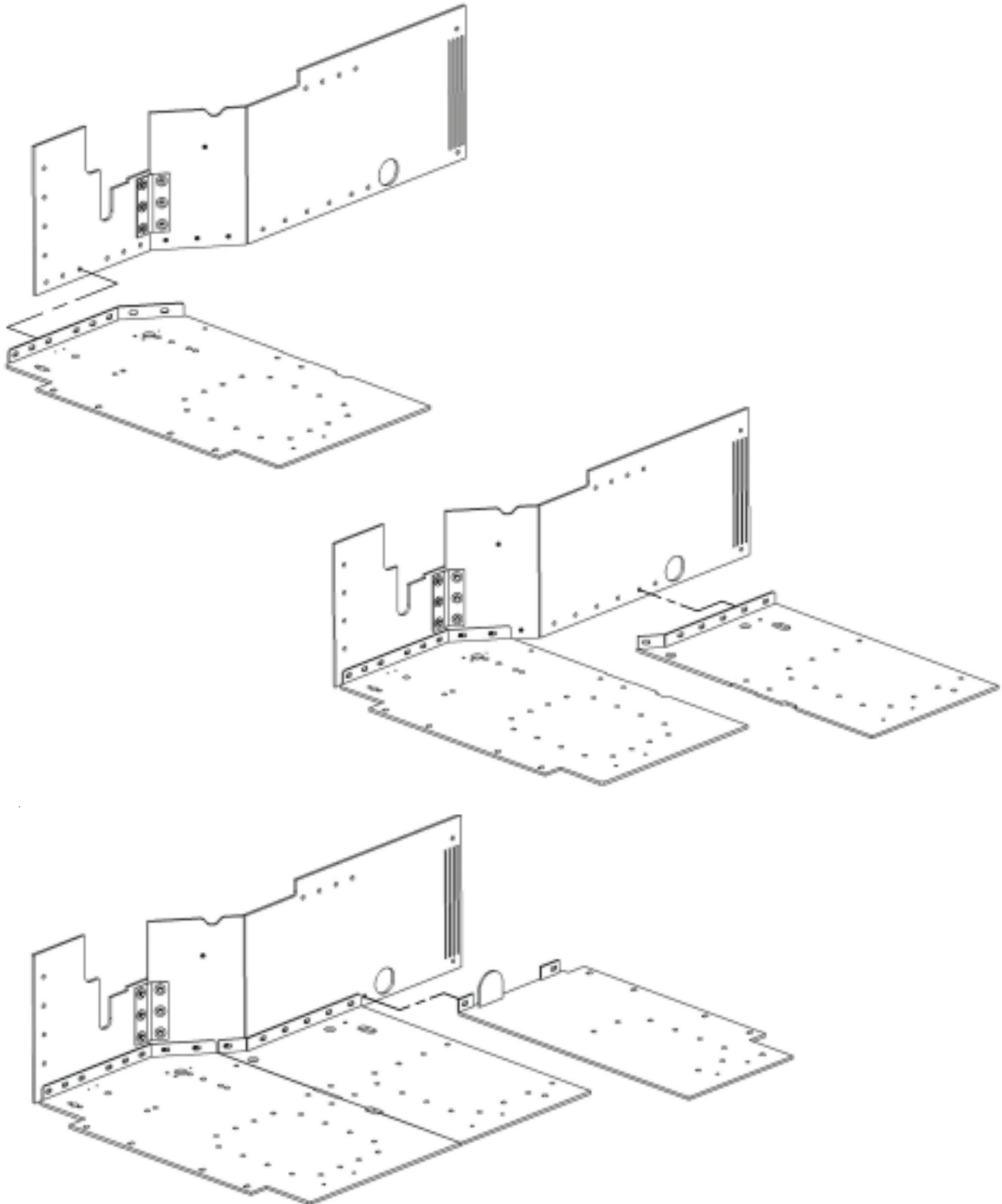
b. Cab Armor Installation (Cont'd).

3. INSTALL ARMORED FLOOR PLATES

Position driver side floor plate on cab floor. Ensure gas pedal rod is through hole in plate.

Position center floor plate on cab floor. Ensure gear shift box wires, and hoses are not trapped between plates.

Position passenger side floor plate on cab floor.



b. Cab Armor Installation (Cont'd).

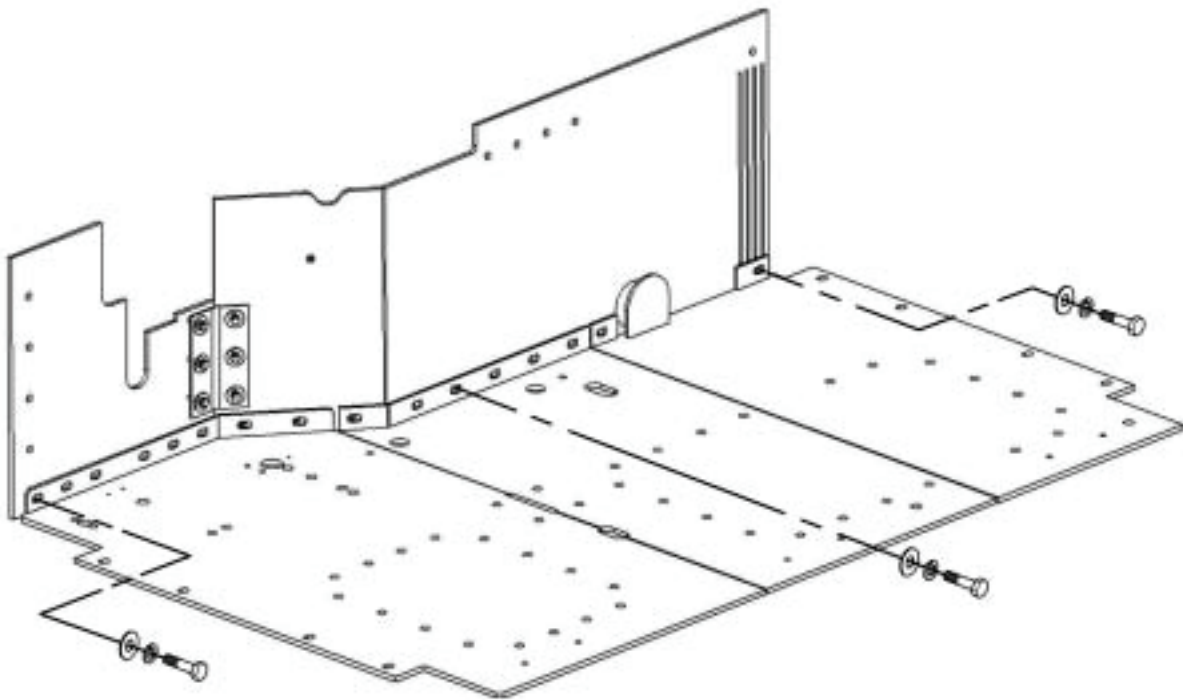
3. INSTALL ARMORED FLOOR PLATES (Cont'd).

Secure steering column firewall to driver side floor plate with six bolts (B1821BH038C150N), washers (MS27183-59), and lock washers (MS35338-46).

Secure driver side floor plate to main plate firewall with two bolts (B1821BH038C150N), washers (MS27183-59), and lock washers (MS35338-46).

Secure middle floor plate to main plate firewall with six bolts (B1821BH038C150N), washers (MS27183-59), and lock washers (MS35338-46).

Secure passenger side floor plate to main plate firewall with two bolts (B1821BH038C150N), washers (MS27183-59), and lock washers (MS35338-46).



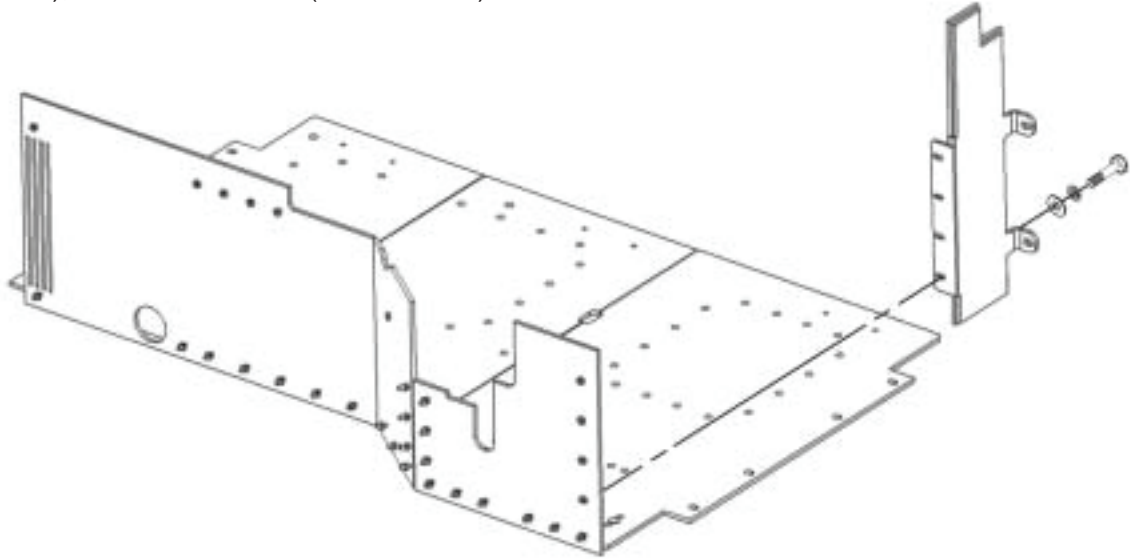
b. Cab Armor Installation (Cont'd).

4. INSTALL QUARTER PANEL

NOTE

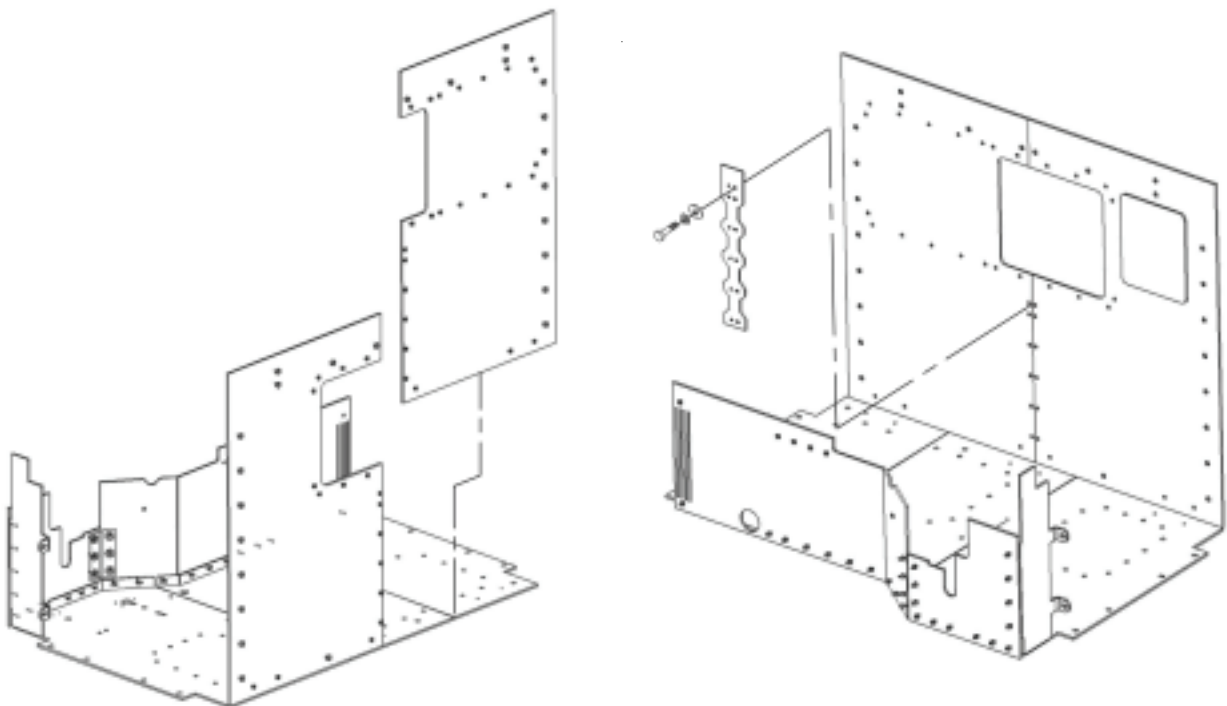
There is one quarter panel located on the driver's side.

Position quarter panel and secure with four bolts (B1821BH038C150N), washers (MS27183-59), and lock washers (MS35338-46).



5. INSTALL REAR WALL ARMOR

Position driver side rear wall and passenger side rear wall in cab and secure with bracket and twelve bolts (B1821BH038C150N), lock washers (MS35338-46), and washers (MS27183-14).



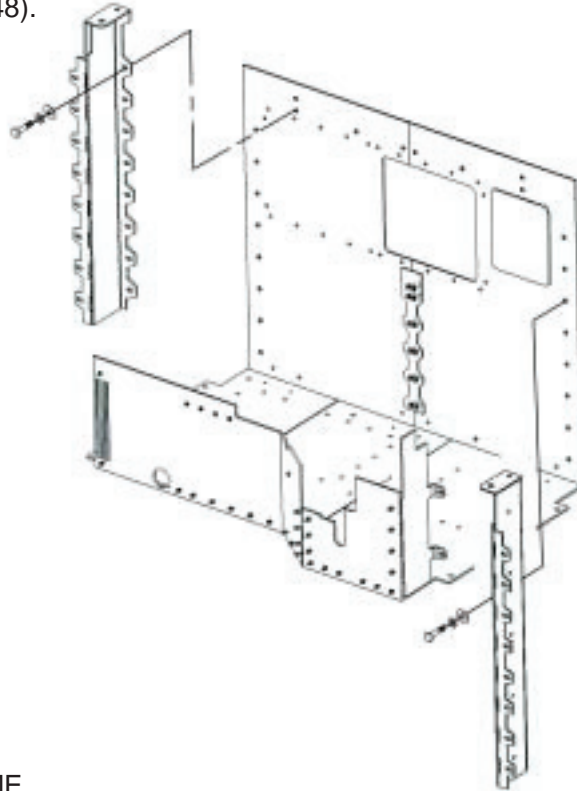
b. Cab Armor Installation (Cont'd).

6. INSTALL ARMORED SIDE CORNERS

NOTE

There are two armored side corners. Both are installed the same way. Passenger side shown.

Position side corner and secure with eight bolts (B1821BH050C150N), washers (MS27183-17), and lock washers (MS35338-48).

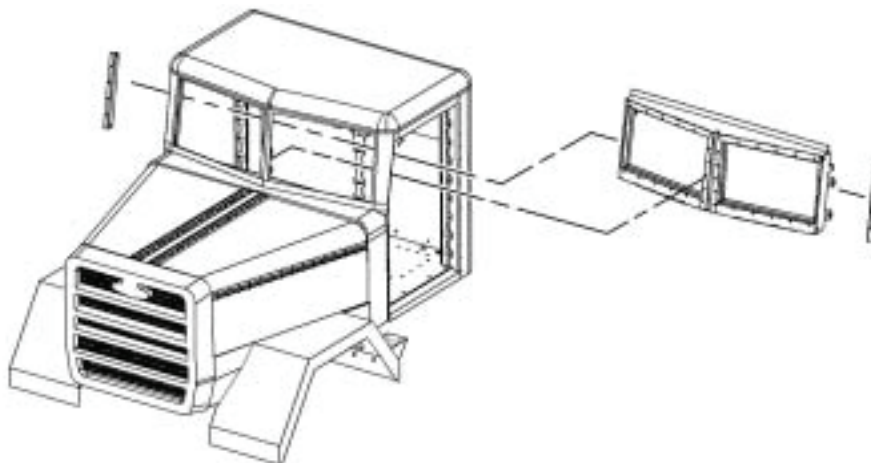


7. INSTALL WINDSHIELD MAINFRAME

Position windshield brace in windshield portal from outside of cab.

While holding windshield braces in position, position windshield main frame from inside of cab.

Secure windshield main frame on each side with two bolts (B1821BH050C150N), washers (MS27183-17), and lock washers (MS35338-48).



b. Cab Armor Installation (Cont'd).

8. INSTALL ARMORED DOOR ASSEMBLIES

NOTE

There are two armored door assemblies. Both are installed the same way.

Position door assembly on door frame with the brackets underneath the windshield brackets and the corner brackets.

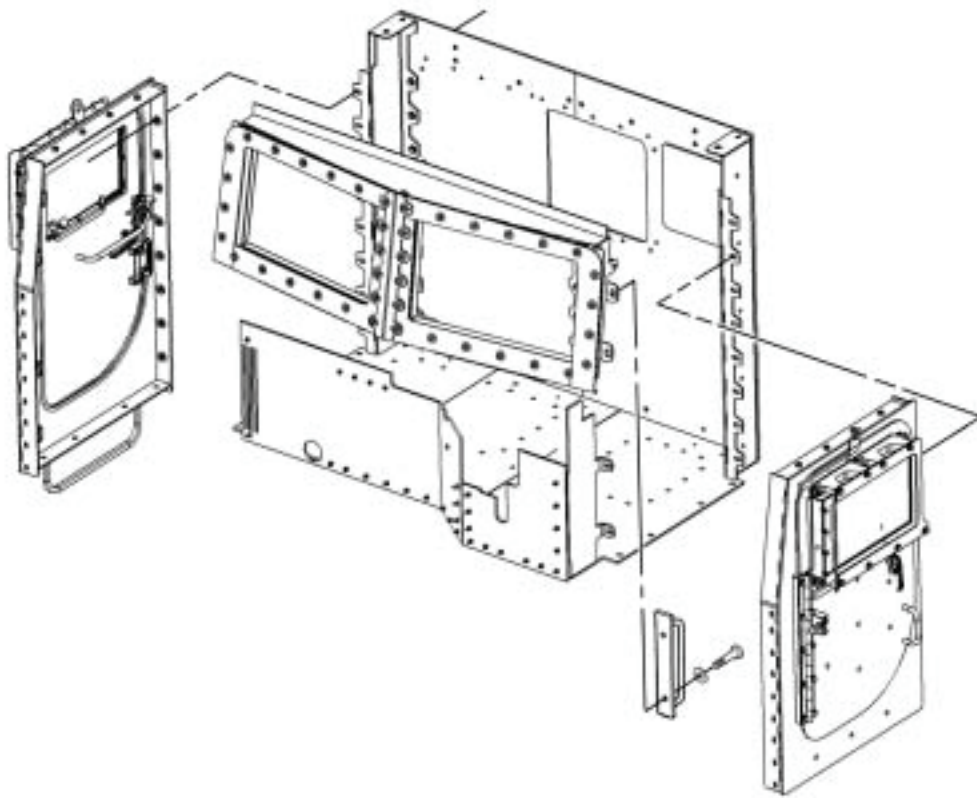
Secure the front of the door assembly to cab with eight bolts (B1821BH038C150N), lock washers (MS35338-46), and washers (MS27183-59).

Secure door assembly to the floor plate with four bolts (B1821BH050C150N), washers (MS27183-17), and lock washers (MS35338-48).

Secure the rear of the door assembly to corner armor with eight bolts (B1821BH050C150N), washers (MS27183-17), and lock washers (MS35338-48).

Driver's Side Door Assembly only:

Secure driver's side door assembly to quarter panel with two bolts (B1821BH050C150N), washers (MS27183-17), and lock washers (MS35338-48).

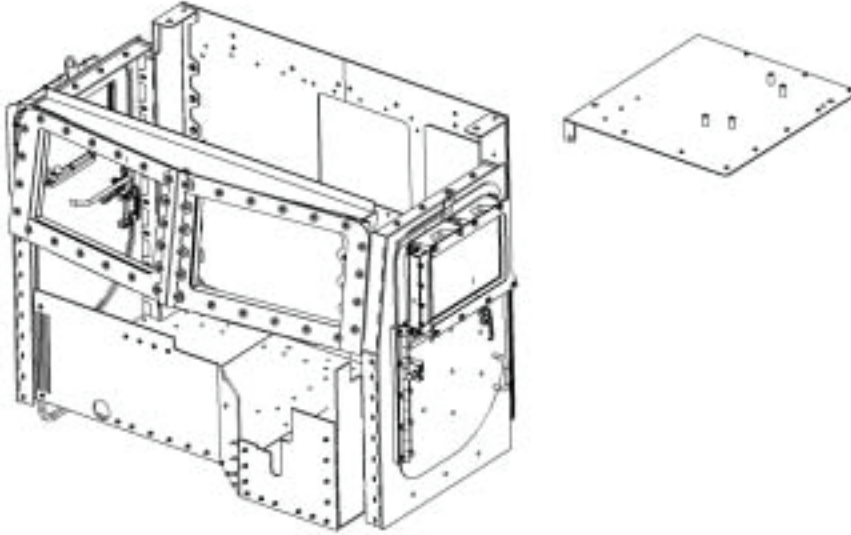


Position grab handles on windshield main frame and door assembly and secure with two bolts (B1821BH050C150N), washers (MS27183-17), and lock washers (MS35338-48).

b. Cab Armor Installation (Cont'd).

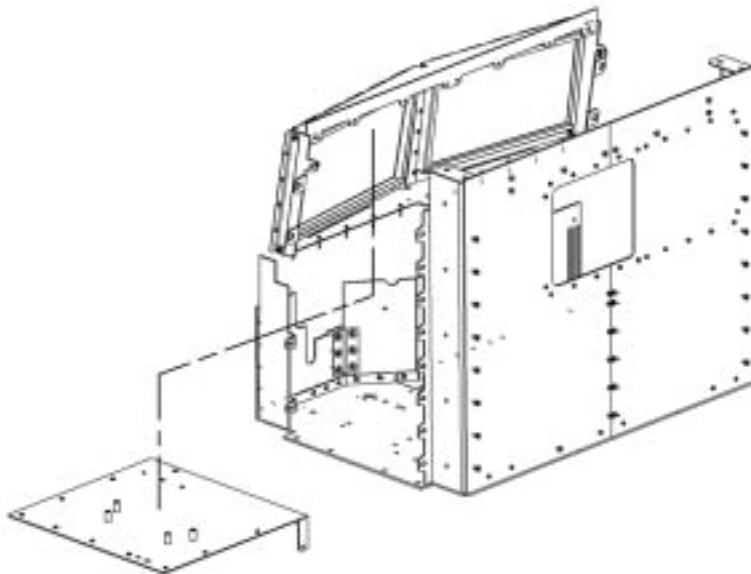
9. INSTALL ARMORED ROOF PLATES

Position driver side roof plate in cab and secure to two windshield brackets with three bolts (B1821BH050C150N), six washers (MS27183-17), and three lock nuts (M4913/2-6CG8Z).



Position bracket in cab and secure driver side roof plate to rear of cab with four bolts (B1821BH050C150N), lock washers (MS35338-48) and washers (MS27183-17).

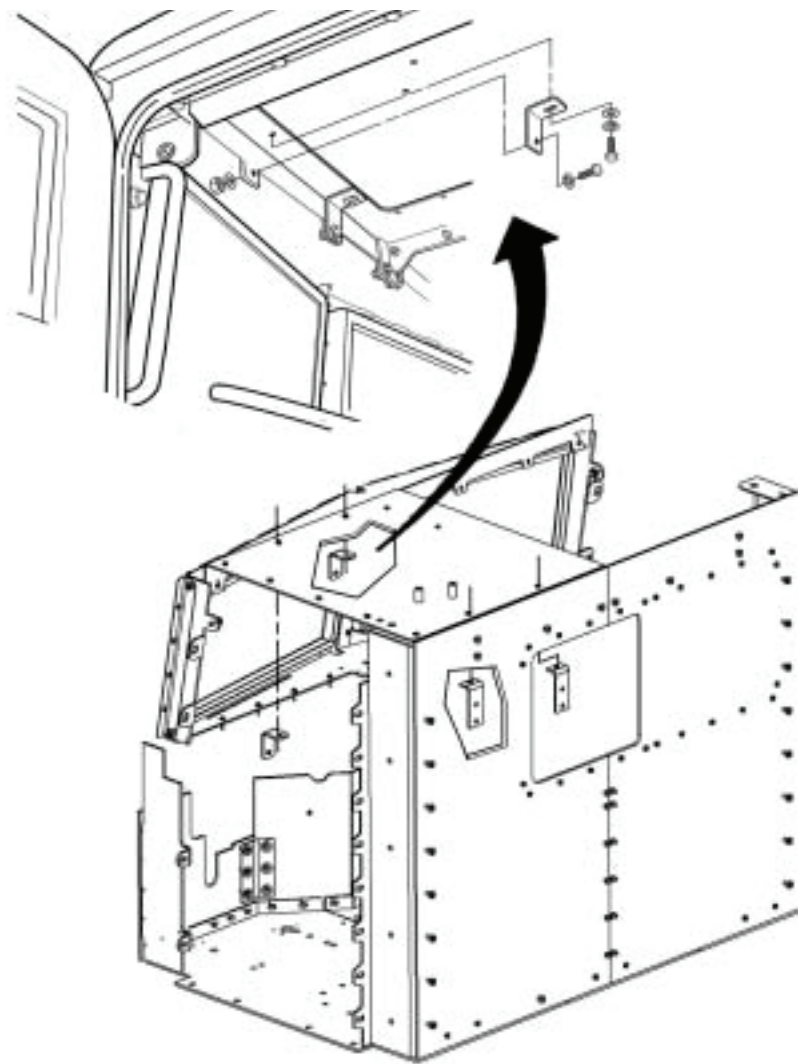
Repeat steps for passenger side roof plate.



b. Cab Armor Installation (Cont'd).

9. INSTALL ARMORED ROOF PLATES (Cont'd).

Secure driver and passenger side roof plates together with five bolts (B1821BH038C150N), ten washers (MS27183-14), and five lock nuts (M45913/2-6CG8Z).

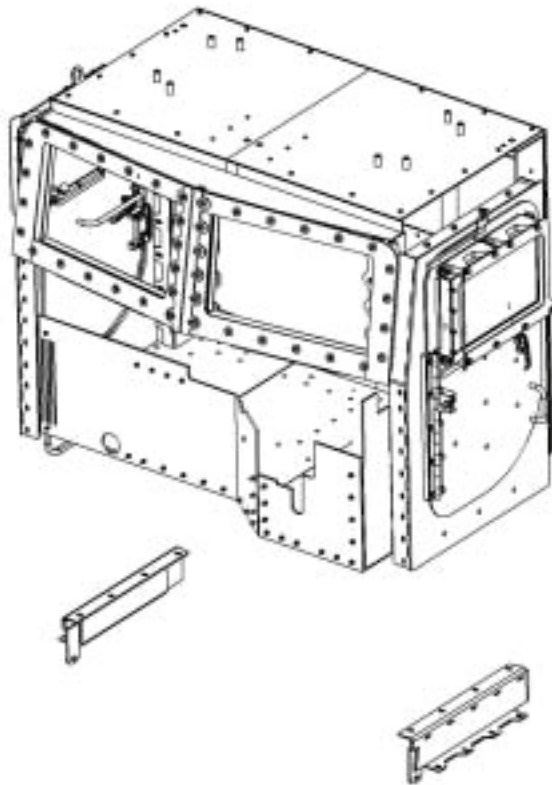


b. Cab Armor Installation (Cont'd).

10. INSTALL HEADERS

Position header above door opening and secure to portal with one bolt (B1821BH038C150N), two washers (MS27183-59), and one lock nut (M45193/2-6CG8Z).

Secure header to roof armor plate with four bolts (B1821BH050C150N), lock washers (MS35338-48), and four washers (MS27183-17).

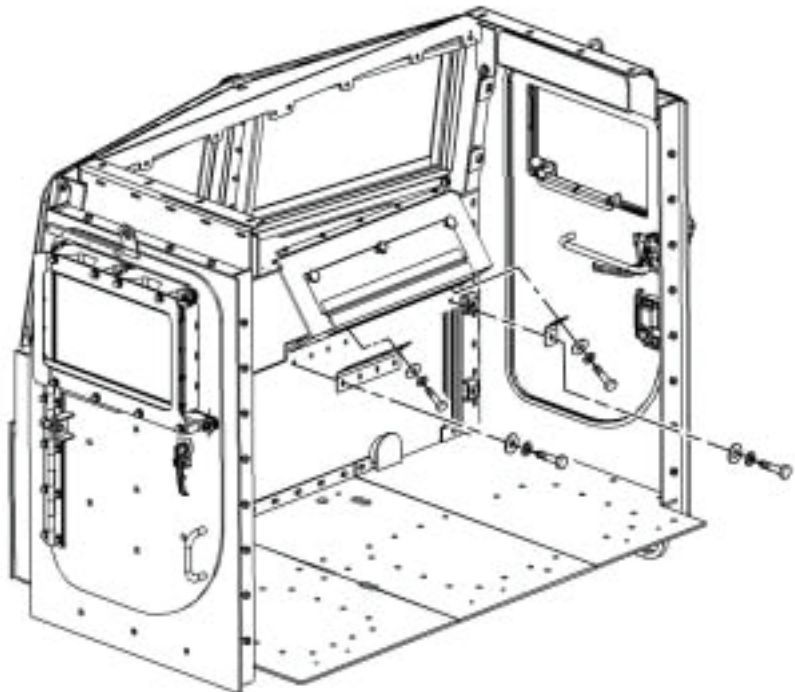


11. INSTALL GLOVE COMPARTMENT

Position bracket on bottom of glove compartment and secure to firewall with eight bolts (B1821BH038C150N), washers (MS27183-59), and lock washers (MS35338-46).

Position glove compartment and secure to windshield frame with five bolts (B1821BH025C150N), lock washers (MS35338-44), and washers (MS27183-52).

Position bracket on bottom of glove compartment and secure to firewall with two bolts (B1821BH038C150N), washers (MS27183-59) and lock washers (MS35338-46).



b. Cab Armor Installation (Cont'd).

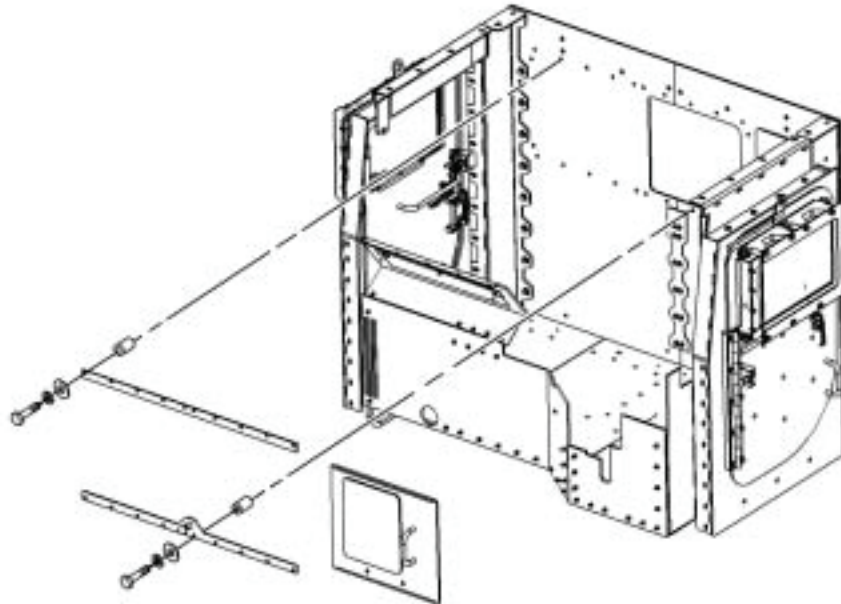
12. INSTALL REAR WINDOW ARMOR

Position bottom rear window bracket on rear wall armor and secure with ten bolts (B1821BH038C200N), lock washers (MS35338-46), and washers (MS27183-14).

Install sliding armored door on bottom rear window bracket and secure by installing upper rear window bracket with ten bolts (B1821BH038C200N), lock washers (MS35338-46), and washers (MS27183-14).

Install four bolts (B1821BH038C200N) and lock washers (MS35338-46) to be used as a stopper for the sliding door.

Adjust bottom bracket to allow door to lock in fully open and fully closed positions.



13. ADJUST FIT TO ALIGN HOLES

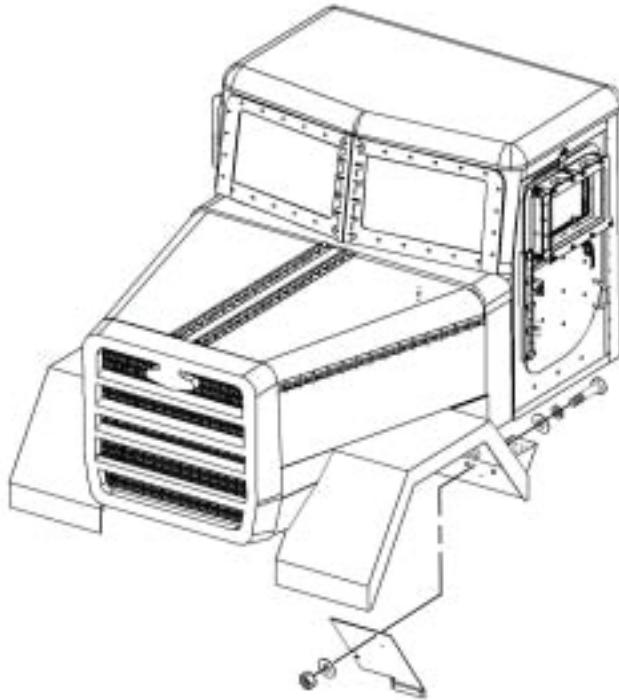
Adjust or shift plates to align seat mount holes in armor floor plate with holes in cab.

Once all hardware can be started, tighten all firewall armor hardware.

b. Cab Armor Installation (Cont'd).

14. INSTALL ARMORED WHEEL WELL

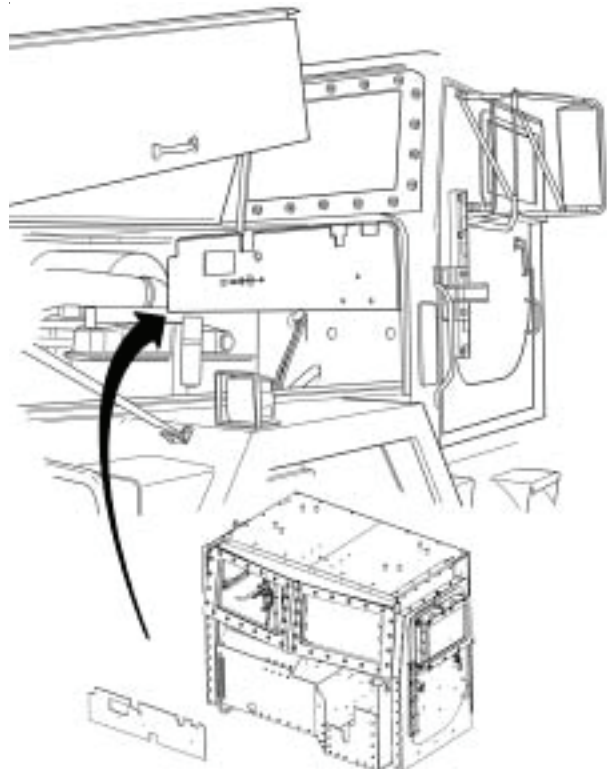
Remove middle two bolts from mudflap. With the small bend of the wheel well plate facing downward, secure top two holes to wheel well with two bolts (B1821BH038C200N), four washers (MS27183-59), and two lock nuts (M45193/2-6CG8Z). Secure bottom two holes with two bolts (B1821BH038C150N), four washers (MS27183-59), and two lock nuts (M45193/2-6CG8Z).



15. INSTALL ARMORED OUTER FIREWALL

Position outer firewall with holes on lower right used as a template to drill through to inner firewall and secure with three bolts (B1821BH038C150N), six washers (MS27183-59), and three lock nuts (M45913/2-6CG8Z).

Position windshield washer fluid bottle bracket on tapped holes and secure with two screws (MS35206-265), washers (MS27183-8), and lock washers (MS35338-43).



b. Cab Armor Installation (Cont'd).

16. CONNECT REAR ARMOR PLATES TO FLOOR PLATES

Drill holes through floor plates to connect brackets.

Position bracket on rear of passenger side floor plate and secure to floor plate with two bolts (B1821BH038C150N), four washers (MS27183-59), and two lock nuts (M45193/2-6CG8Z).

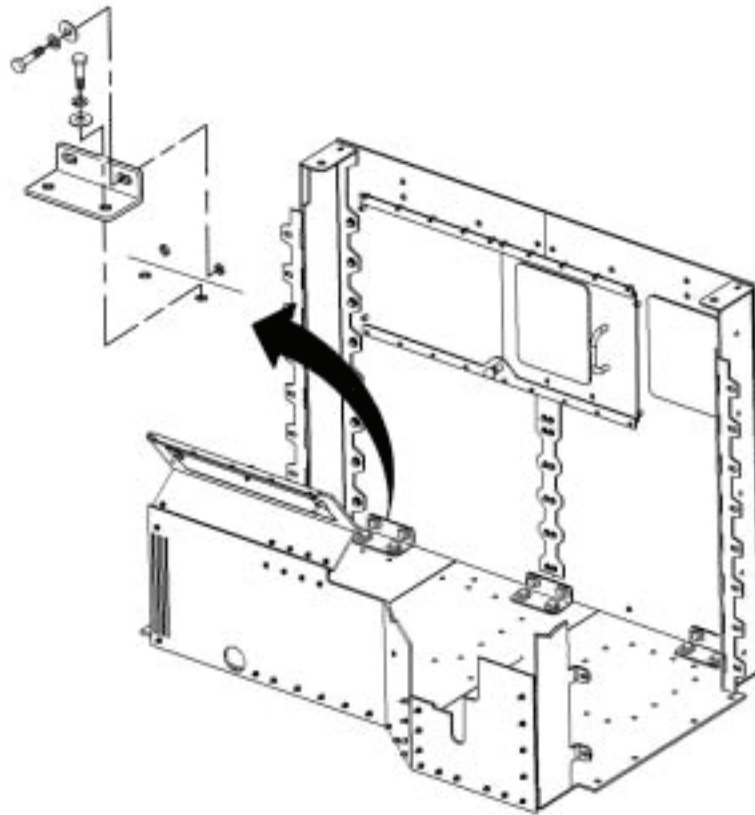
Secure bracket on rear of passenger side floor plate to rear wall with two bolts (B1821BH038C150N), four washers (MS27183-59), and two lock washers (MS35338-46).

Position bracket on rear of middle floor plate and secure to floor plate with two bolts (B1821BH038C150N), four washers (MS27183-59), and two lock nuts (M45193/2-6CG8Z).

Secure bracket on rear of middle floor plate to rear wall with two bolts (B1821BH038C150N), four washers (MS27183-59), and two lock washers (MS35338-46).

Position bracket on rear of driver side floor plate and secure to floor plate with two bolts (B1821BH038C150N), four washers (MS27183-59), and two lock nuts (M45193/2-6CG8Z).

Secure bracket on rear of driver side floor plate to rear wall with two bolts (B1821BH038C150N), four washers (MS27183-59), and two lock washers (MS35338-46).



b. Cab Armor Installation (Cont'd).

17. INSTALL AIR CONDITIONER ASSEMBLY

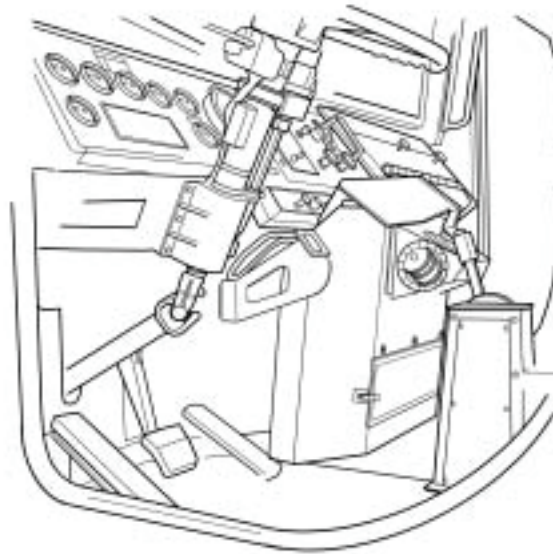
The air conditioner mounting bracket and glove box armor share hardware.

The condenser hoses run through holes cut in the floor.

Evaporator: Attach to firewall with bolt (B1821BH038C150N), washer (MS35338-46), and lock washer (MS27183-59).

Attach to floor armor with bolt (B1821BH031C150N), washer (MS27183-13), and locknut (M4591312-5CG8Z).

Condensor: Use eight holes in roof plate armor to drill holes in roof of cab and attach to outside of cab with eight bolts (B1821BH031C300N), sixteen washers (MS27183-13), and eight lock nuts (M45913/2-5CG8Z).



b. Cab Armor Installation (Cont'd).

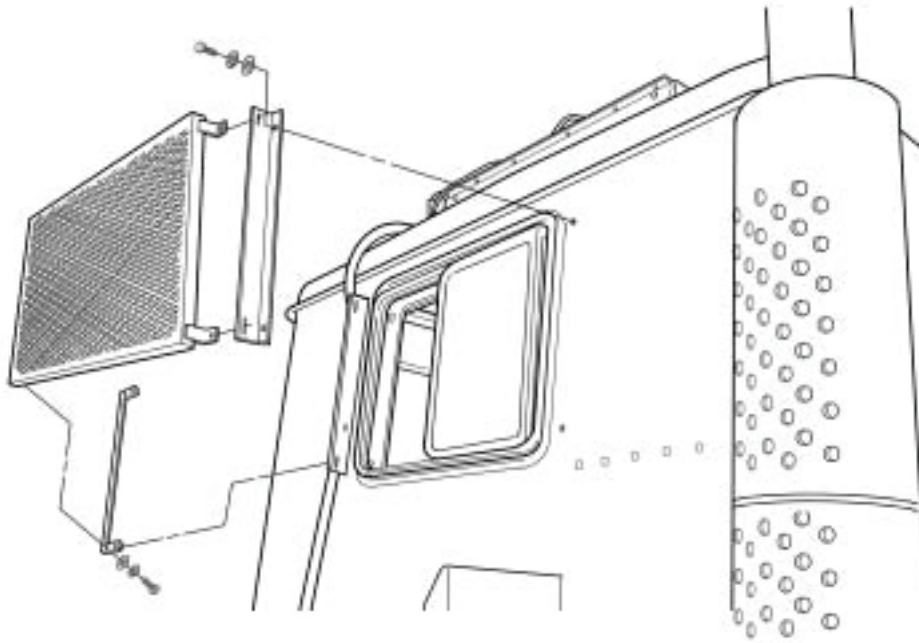
18. INSTALL REAR WINDOW GRILL

Position two angle brackets so the slots are as high as possible on rear window opening and secure with existing armor.

Install pin and lanyard through round hole on driver side angle bracket.

Position adapter on rear window grill and secure with existing hardware.

Position rear window grill with adapter on driver side and install on angle brackets. Secure with pin and lanyard.



19. INSTALL OPERATOR PEDALS

Position brake pedal on driver side floor plate and secure upper right hand corner with bolt (B1821BH025C075N), lock washer (MS35338-44), and washer (MS27183-52).

Position gas pedal on driver side floor plate and secure the right most holes with bolt (B1821BH025C075N), lock washer (MS35338-44), and washer (MS27183-52). Secure the remaining holes with bolts (B1821BH025C150N), washers (MS27183-52), and lock nuts (M45193/2-4CG8Z).

20. INSTALL SEAT BELTS

Install bolt (31, B1821BH050C150N), two washers (32, MS27183-17) and lock nut (33, M45193/2-8CG8Z) in rear corner of middle floor plate (2).

Install bolt (x, B1821BH050C150N), two washers (x, MS27183-17), and lock nut (x, M45193/2-8CG8Z) in rear corner of passenger side floor plate (x).

b. Cab Armor Installation (Cont'd).

21. INSTALL WINDSHIELD AND COVER

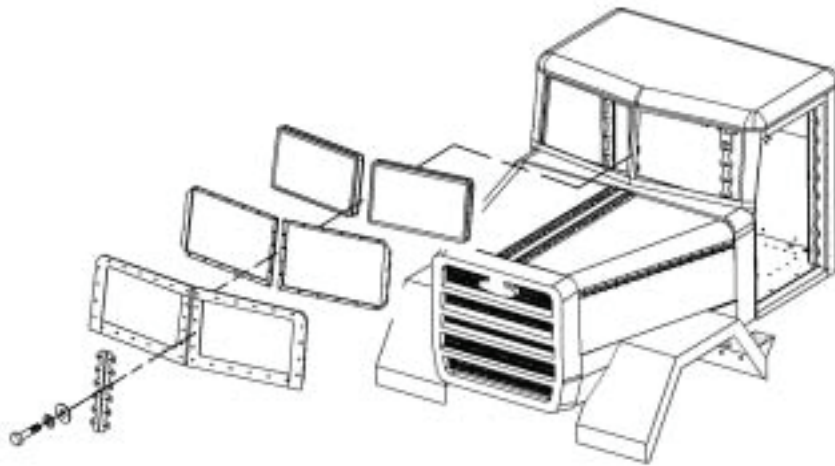
Install armored glass in windshield frame.

Position spacer on outside of windshield frame.

Position windshield cover with rounded corner on upper outside corner.

Repeat for remaining windshield cover.

Position center frame on windshield covers and secure windshield cover assembly with forty bolts (B1821BH038C200N), washers (MS27183-59), and lock washers (MS35338-46).



b. Cab Armor Installation (Cont'd).

22. INSTALL CEILING LIGHTS

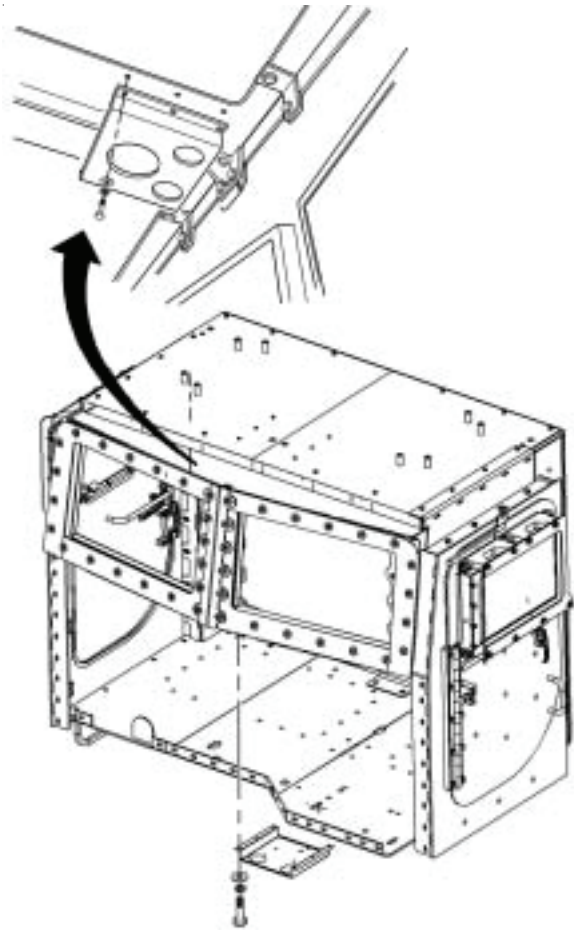
Install light and light in bracket and secure with four screws (MS35206-265), eight washers (MS27183-8), and four lock nuts (M45193/2-010CG8Z).

Remove connection from dome light and replace with supplied connection.

Remove connection from dome light roof connection and replace with supplied connection.

Position dome light in bracket and secure with two screws (MS35206-247), four washers (MS27183-7), and two lock nuts (M45913/2-08CG8Z).

Position bracket on roof plate and secure with six bolts (B1821BH025C075N), lock washers (MS35338-44), and washers (MS27183-52).



23. INSTALL AIR HORN

Remove pipe union from air horn assembly and replace with pipe union (AA59616-03) and 3 inch pipe nipple (81346-B687R-12B).

Install .75 inch pipe nipple (81346-B687R-1B).

Replace air horn assembly on cab.

24. INSTALL VISOR CLIP

FIELD MAINTENANCE (UNIT AND DIRECT SUPPORT MAINTENANCE) REPAIR PARTS AND SPECIAL TOOLS LISTS (RPSTL) INTRODUCTION

0035 00

SCOPE

This RPSTL lists and authorizes spare and repair parts for performance of Field level maintenance of the M915A1 Crew Protection Kit. It authorizes the requisitioning, issue, and disposition of spares and repair parts as indicated by the source, maintenance, and recoverability (SMR) codes.

GENERAL

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

- a. **Repair Parts Lists Work Package.** Work package containing lists of spare and repair parts authorized by this RPSTL for use in the performance of maintenance. This work package also includes parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending alphanumeric sequence, with the parts in each group listed in ascending figure and item number sequence. Repair parts kits are listed separately in their own functional group. Items listed are shown on the associated illustrations.
- b. **Special Tools List Work Package.** There are no special tools for the M915A1 Crew Protection Kit.
- c. **Cross-Reference Indexes Work Package.** There are two cross-reference indexes in this RPSTL: National Stock Number Index and Part Number Index.

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LISTS

- a. **Item No. (Column 1).** Indicates the number used to identify items called out in the illustration.
- b. **SMR Code (Column 2).** The SMR code containing supply/requisitioning information, maintenance level authorization criteria, and disposition instruction, as shown in the following breakout:

SOURCE CODE	MAINTENANCE CODE		RECOVERABILITY CODE
XXxxx	xxXXx		xxxxX
1st two positions	3rd position	4th position	5th position
How you get an item.	Who can install, replace, or use the item.	Who can do complete repair* on the item.	Who determines disposition action on an unserviceable item.

* *Complete Repair:* Maintenance capacity, capability, and authority to perform all corrective maintenance tasks of the "Repair" function in a use/user environment in order to restore serviceability to a failed item.

FIELD MAINTENANCE (UNIT AND DIRECT SUPPORT MAINTENANCE) REPAIR PARTS AND SPECIAL TOOLS LISTS (RPSTL) INTRODUCTION - CONTINUED

0035 00

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LISTS - CONTINUED

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

<u>Code</u>	<u>Application/Explanation</u>
PA PB PC PD PE PF PG	<p>Stocked items; use the applicable NSN to request/requisition items with these source codes. They are authorized to the maintenance category indicated by the code entered in the third position of the SMR code.</p> <p style="text-align: center;"><i>Items coded PC are subject to deterioration.</i></p> <p>.....</p>
KD KF KB	<p>Items with these codes are not to be requested/requisitioned individually. They are part of a kit which is authorized to the maintenance level indicated in the third position of the SMR code. The complete kit must be requisitioned and applied.</p> <p>.....</p>
MO - Made at Unit/ AVUM level MF - Made at DS/AVIM Level MH - Made at GS Level ML - Made at SRA MD - Made at Depot	<p>Items with these codes are not to be requested/requisitioned individually. They must be made from bulk materiel which is identified by the part number in the DESCRIPTION AND USABLE ON CODE (UOC) column and listed in the bulk materiel group work package of the RPSTL. If the item is authorized to you by the third position of the SMR code, but the source code indicates it is made at a higher level, order the item from the higher level of maintenance.</p> <p>.....</p>
AO - Assembled by Unit/ AVUM level AF - Assembled by DS/ AVIM level AH - Assembled by GS level AL - Assembled by SRA AD - Assembled by Depot	<p>Items with these codes are not to be requested/requisitioned individually. The parts that make up the assembled item must be requisitioned or fabricated and assembled at the level of maintenance indicated by the source code. If the third position of the SMR code authorizes you to replace the item, but the source code indicates the item is assembled at a higher level, order the item from the higher level of maintenance.</p>
XA	Do not requisition an "XA" coded item. Order the next higher assembly. (Refer to NOTE below).
XB	If an item is not available from salvage, order it using the CAGEC and P/N.
XC	Installation drawings, diagrams, instruction sheets, field service drawings; identified by manufacturer's P/N.
XD	Item is not stocked. Order an XD-coded item through normal supply channels using the CAGEC and P/N given, if no NSN is available.

NOTE

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

FIELD MAINTENANCE (UNIT AND DIRECT SUPPORT MAINTENANCE) REPAIR PARTS AND SPECIAL TOOLS LISTS (RPSTL) INTRODUCTION - CONTINUED

0035 00

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LISTS - CONTINUED

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

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

<u>Code</u>	<u>Application/Explanation</u>
C.	Crew or Operator maintenance done within Field/AVUM maintenance.
O	Unit Level/AVUM maintenance can remove, replace, and use the item.
F.	Direct Support/AVIM maintenance can remove, replace, and use the item.
H	General Support maintenance can remove, replace, and use the item.
L	Specialized Repair Activity (SRA) can remove, replace, and use the item.
D	Depot Maintenance can remove, replace, and use the item.

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

NOTE

Some limited repair may be done on the item at a lower level of maintenance, if authorized by the Maintenance Allocation Chart (MAC) and SMR codes.

<u>Code</u>	<u>Application/Explanation</u>
O	Unit/AVUM is the lowest level that can do complete repair of the item.
F.	Direct Support/AVIM is the lowest level that can do complete repair of the item.
H	General Support is the lowest level that can do complete repair of the item.
L.	Specialized Repair Activity (SRA) is the lowest level that can do complete repair of the item.
D	Depot is the lowest level that can do complete repair of the item.
Z.	Nonreparable. No repair is authorized.
B.	No repair is authorized. No parts or special tools are authorized for the maintenance of a "B"-coded item. However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

FIELD MAINTENANCE (UNIT AND DIRECT SUPPORT MAINTENANCE) REPAIR PARTS AND SPECIAL TOOLS LISTS (RPSTL) INTRODUCTION - CONTINUED

0035 00

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LISTS - CONTINUED

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

<u>Code</u>	<u>Application/Explanation</u>
Z.	Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in the third position of the SMR code.
O	Reparable item. When uneconomically repairable, condemn and dispose of the item at the Unit level maintenance.
F.	Reparable item. When uneconomically repairable, condemn and dispose of the item at Direct Support level.
H	Reparable item. When uneconomically repairable, condemn and dispose of the item at General Support level.
D	Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item are not authorized below depot level.
L.	Reparable item. Condemnation and disposal of item not authorized below Specialized Repair Activity (SRA).
A	Item requires special handling or condemnation procedures because of specific reasons (e.g., precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.

- c. **NSN - (Column 3).** The NSN for the item is listed in this column.
- d. **CAGEC (Column 4).** The Commercial and Government Entity Code (CAGEC) is a five-digit code which is used to identify the manufacturer, distributor, or Government agency/activity that supplies the item.
- e. **PART NUMBER (Column 5).** Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications, standards, and inspection requirements to identify an item or range of items.

NOTE

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

- f. **DESCRIPTION AND USABLE ON CODE (UOC) (Column 6).** This column includes the following information:
 - (1) The Federal item name and, when required, a minimum description to identify the item.
 - (2) P/Ns of bulk materials are referenced in this column in the line entry to be manufactured or fabricated.
 - (3) Hardness Critical Item (HCI). A support item that provides the equipment with special protection from electromagnetic pulse (EMP) damage during a nuclear attack.
 - (4) The statement END OF FIGURE appears just below the last item description in column (6) for a given figure in both the repair parts list and special tools list work packages.

FIELD MAINTENANCE (UNIT AND DIRECT SUPPORT MAINTENANCE) REPAIR PARTS AND SPECIAL TOOLS LISTS (RPSTL) INTRODUCTION - CONTINUED

0035 00

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LISTS - CONTINUED

- g. **QTY (Column 7).** The QTY (quantity per figure) column indicates the quantity of the item used in the breakout shown on the illustration/figure, which is prepared for a functional group, subfunctional group, group or an assembly. A “V” appearing in this column in lieu of a quantity indicates that the quantity is variable and the quantity may vary from application to application.

EXPLANATION OF CROSS-REFERENCE INDEXES WORK PACKAGE FORMAT AND COLUMNS

- a. **National Stock Number (NSN) Index Work Package.**
 - (1) **STOCK NUMBER Column.** This column lists the NSN by National Item Identification Number (NIIN) sequence. The NIIN consists of the last nine digits of the NSN (i.e., NSN 5305-01-674-1467). When using this column to locate an item, ignore the first four digits of the NSN. However, the complete NSN should be used when ordering items by stock number.
 - (2) **FIG. Column.** This column lists the number of the figure where the item is identified/located. The figures are in numerical order in WP 0036 00.
 - (3) **ITEM Column.** The item number identifies the item associated with the figure listed in the adjacent FIG. column. This item is also identified by the NSN listed on the same line.
- b. **Part Number (P/N) Index Work Package.** Part numbers in this index are listed in ascending alphanumeric sequence (i.e., vertical arrangement of letter and number combination which places the first letter or digit of each group in order A through Z, followed by the numbers 0 through 9 and each following letter or digit in like order).
 - (1) **PART NUMBER Column.** Indicates the P/N assigned to the item.
 - (2) **FIG. Column.** This column lists the number of the figure where the item is identified/located in the repair parts list and special tools list work packages.
 - (3) **ITEM Column.** The item number is the number assigned to the item as it appears in the figure referenced in the adjacent figure number column.

SPECIAL INFORMATION

- a. **Usable On Code (UOC).** The UOC appears in the lower left corner of the DESCRIPTION column heading. Usable on codes are shown as “UOC:” in the Description Column (justified left) on the first line under the applicable item/nomenclature. Uncoded items are applicable to all models. Identification of the UOC’s used in the RPSTL are:

<u>Code</u>	<u>Used On</u>
5K1	M915A1 Crew Protection Kit

- b. **Associated Publications.** The publication(s) listed below pertain to the M915A1 Crew Protection Kit and its components:

Publication	Short Title
TM 9-2320-273 Series	Series of Manuals for the M915A1 Crew Protection Kit

FIELD MAINTENANCE (UNIT AND DIRECT SUPPORT MAINTENANCE) REPAIR PARTS AND SPECIAL TOOLS LISTS (RPSTL) INTRODUCTION - CONTINUED

0035 00

HOW TO LOCATE REPAIR PARTS

a. **When National Stock Number is Known.**

- (1) **First.** If you have the NSN, look in the STOCK NUMBER column of the NSN index work package. The NSN is arranged in NIIN sequence. Note the figure and item number next to the NSN.
- (2) **Second.** Turn to the figure and locate the item number. Verify that the item is the one you are looking for.

b. **When Part Number is Known.**

- (1) **First.** If you have the P/N and not the NSN, look in the PART NUMBER column of the P/N index work package. Identify the figure and item number.
- (2) **Second.** Look up the item on the figure in the applicable repair parts list work package.

ABBREVIATIONS

For standard abbreviations see ASME Y14.38-1999, *Abbreviations and Acronyms*.

<u>Abbreviations</u>	<u>Explanation</u>
NIIN	National Item Identification Number (consists of the last 9 digits of the NSN)
RPSTL	Repair Parts and Special Tools Lists
SMR	Source, Maintenance, and Recoverability Code
TMDE	Test, Measurement, and Diagnostic Equipment

END OF WORK PACKAGE

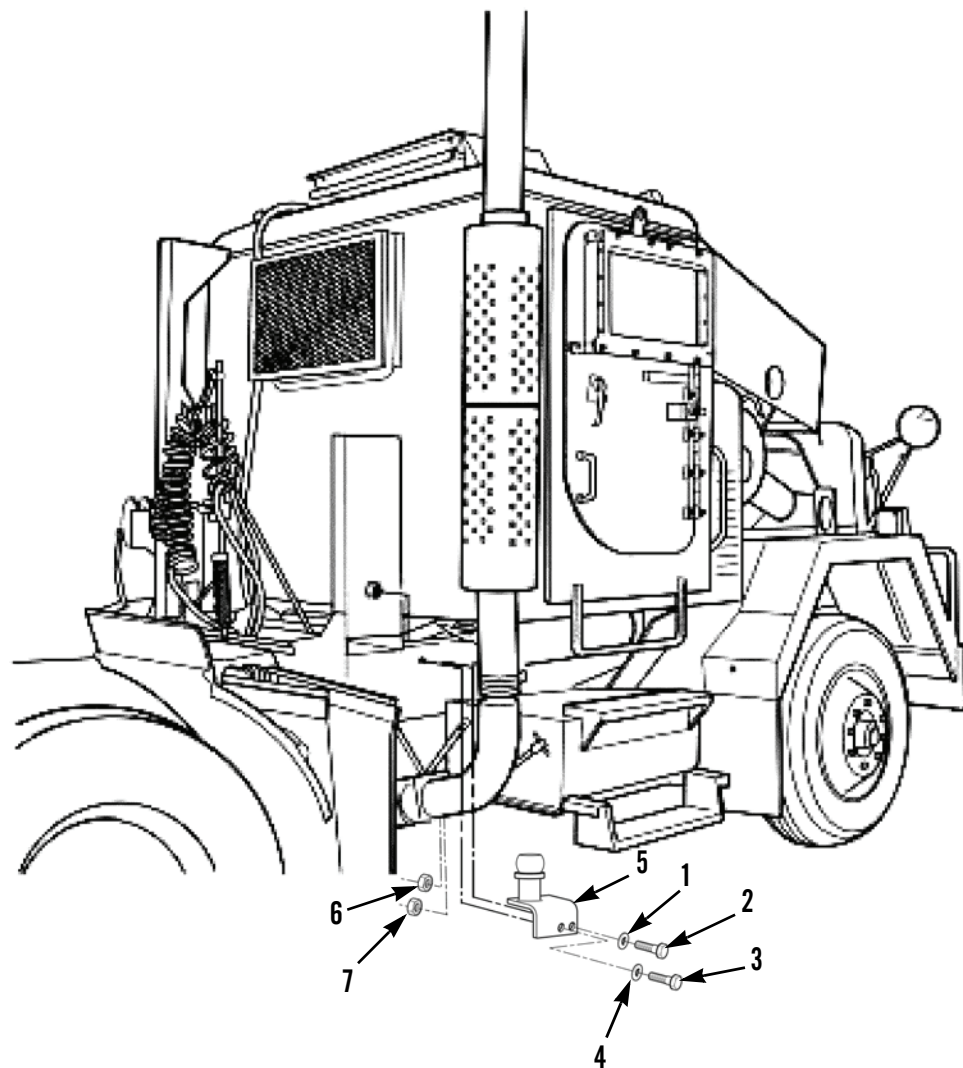


Figure 1. Cab Supports

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES(UOC)	(7) QTY
GROUP 33 SPECIAL PURPOSE KITS						
GROUP 3307 SPECIAL PURPOSE KITS						
FIG. 1 CAB SUPPORTS						
1	PAOZZ	5310008095997	96906	MS27183-17	WASHER,FLAT.....	2
2	PAOZZ	5305000712071	80204	B1821BH050C200N	SCREW,CAP,HEXAGON H 0.500-13 X 2.00	2
3	PAOZZ	5305007247222	80204	B1821BH063C200N	SCREW,CAP,HEXAGON H 0.625-11 X 2.00	2
4	PAOZZ	5310002838803	96906	MS27183-21	WASHER,FLAT.....	2
5	PFOZZ	2590015347505	19207	DTA182851-1	BRACKET,VEHICULAR C BLAST SHIELD, DRIVER SIDE.....	1
5	PFOZZ	2590015347506	19207	DTA182851-2	BRACKET,VEHICULAR C CAB SUPPORT, CURB SIDE.....	1
6	PAOZZ	5310015313946	81349	M45913/2-08CG8Z	NUT,SELF-LOCKING,HE.....	2
7	PAOZZ	5310015348667	81349	M45913/2-010CG8Z	NUT,SELF-LOCKING HE.....	2

END OF FIGURE

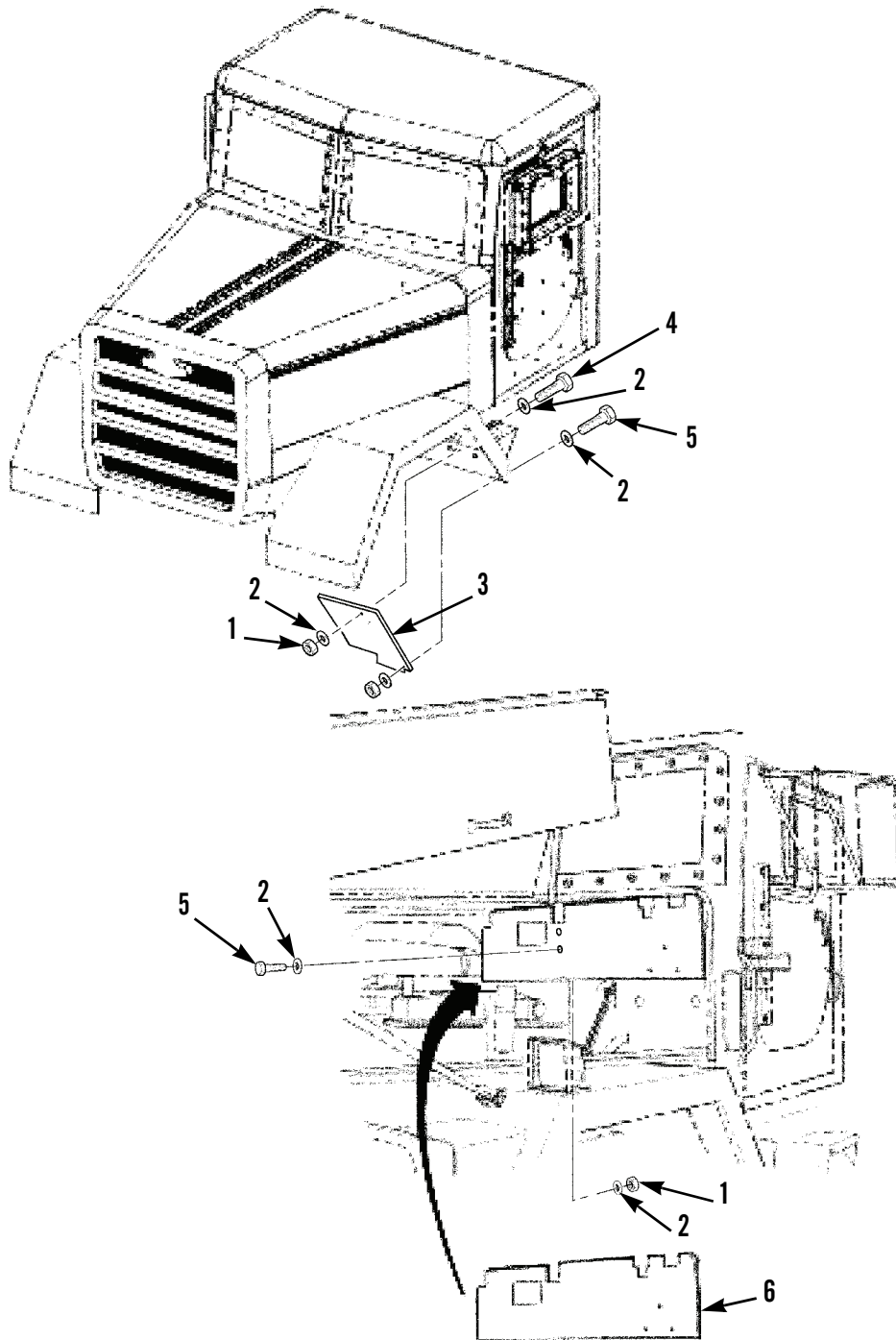


Figure 2. Wheelwell and Front Firewall Armor

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES(UOC)	(7) QTY
GROUP 3307 SPECIAL PURPOSE KITS						
FIG. 2 WHEELWELL AND FRONT FIREWALL ARMOR						
1	PAOZZ	5310013763506	19207	12387353-17	NUT, SELF-LOCKING HE.....	11
2	PAOZZ	5310014173828	96906	MS27183-59	WASHER, FLAT.....	22
3	PFOZZ	2540015347722	19207	DTA182907	ARMOR, SUPPLEMENTAL, BLAST SHIELD, DRIVER SIDE.....	1
3	PFOZZ	2540015347725	19207	DTA182908	ARMOR, SUPPLEMENTAL, BLAST SHIELD, CURB SIDE.....	1
4	PAOZZ	5305007829489	80204	B1821BH038C200N	SCREW, CAP, HEXAGON H.....	4
5	PAOZZ	5305007252317	80204	B1821BH038C150N	SCREW, CAP, HEXAGON H.....	7
6	PFOZZ	2540015351253	19207	DTA182768	ARMOR, SUPPLEMENTAL,.....	1

END OF FIGURE

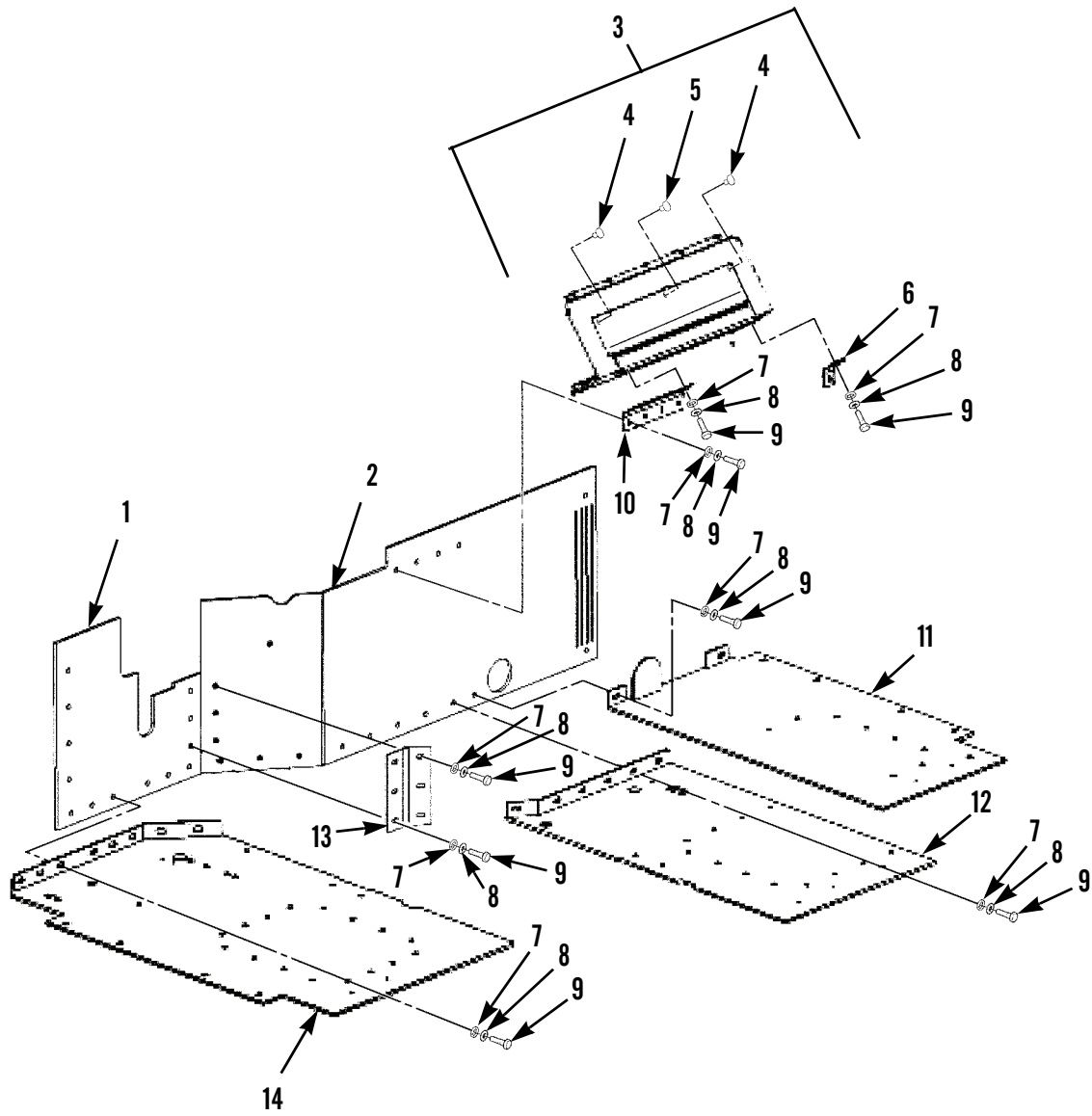


Figure 3. Floor and Firewall Armor

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES(UOC)	(7) QTY
GROUP 3307 SPECIAL PURPOSE KITS						
FIG. 3 FLOOR AND FIREWALL ARMOR						
1	PFOZZ	2540015347512	19207	DTA182765	ARMOR,SUPPLEMENTAL, FRONT,LH.....	1
2	PFOZZ	2540015347491	19207	DTA182763	ARMOR,SUPPLEMENTAL, FRONT,RH.....	1
3	PFOZZ	2540015347494	19207	DTA182966	ARMOR,SUPPLEMENTAL, DASHBOARD.....	1
4	PAOZZ	5355015347500	39428	6091K51	.KNOB.....	2
5	PAOZZ	5355015347498	39428	2454K62	.KNOB.....	1
6	PFOZZ	2590015347519	19207	DTA182864	BRACKET,VEHICULAR C.....	1
7	PAOZZ	5310014173828	96906	MS27183-59	WASHER,FLAT.....	32
8	PAOZZ	5310006379541	65035	P49866-11	WASHER,LOCK.....	32
9	PAOZZ	5305007252317	80204	B1821BH038C150N	SCREW,CAP,HEXAGON H.....	32
10	PFOZZ	2590015347518	19207	DTA182766	BRACKET,VEHICULAR C.....	1
11	PFOZZ	2540015347714	19207	DTA182757	ARMOR,SUPPLEMENTAL, FLOOR,LH.....	1
12	PFOZZ	2540015347715	19207	DTA182756	ARMOR,SUPPLEMENTAL, FLOOR,CENTER...	1
13	PFOZZ	2590015347520	19207	DTA182769	BRACKET,VEHICULAR C.....	1
14	PFOZZ	2540015347718	19207	DTA182755	ARMOR,SUPPLEMENTAL, FLOOR,LH.....	1

END OF FIGURE

9	13	15
10-11	14	16-17

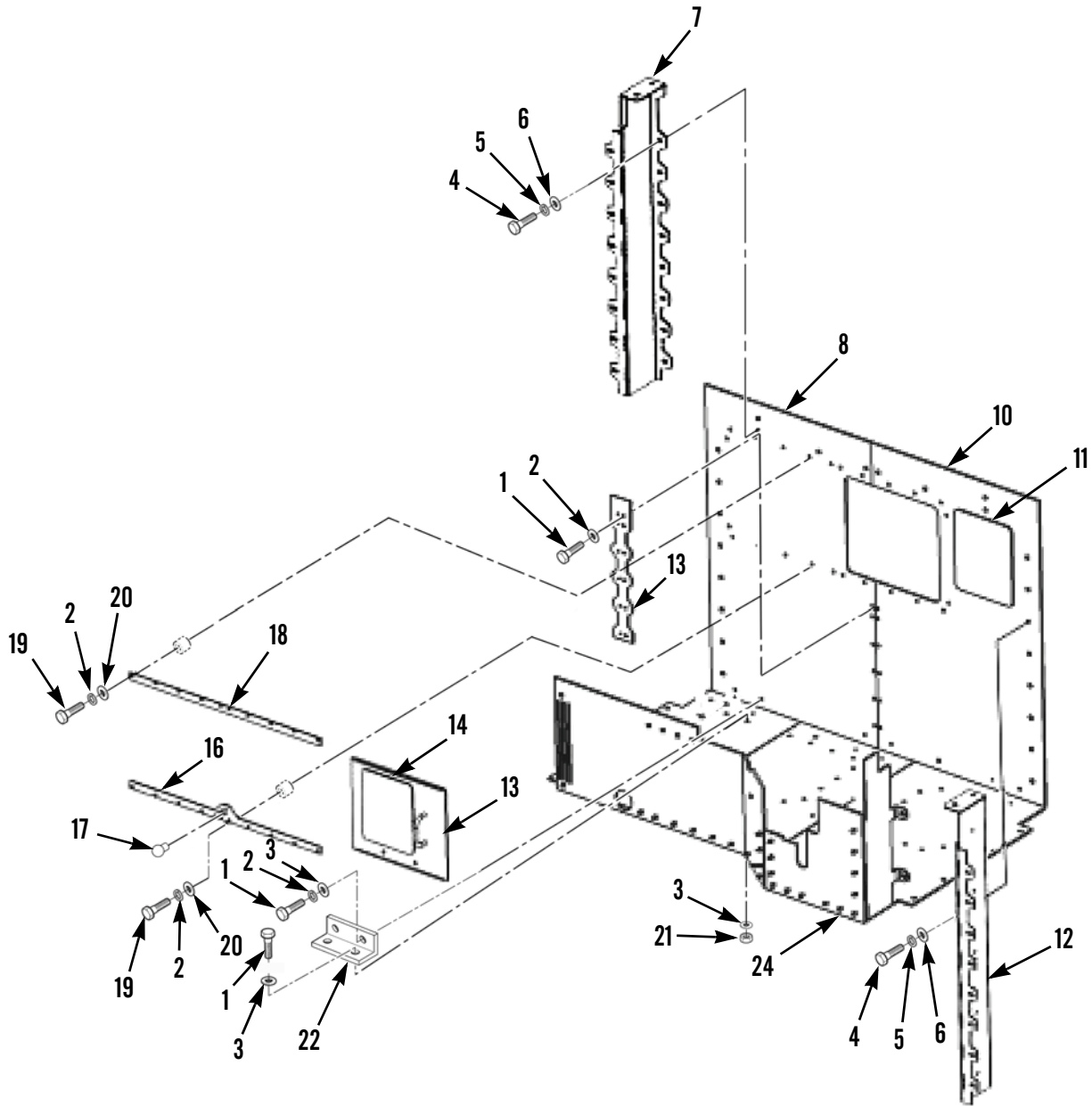


Figure 4. Interior Cab Armor

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES(UOC)	(7) QTY
GROUP 3307 SPECIAL PURPOSE KITS						
FIG. 4 INTERIOR CAB ARMOR						
1	PAOZZ	5305007252317	80204	B1821BH038C150N	SCREW,CAP,HEXAGON H.....	24
2	PAOZZ	5310006379541	65035	P49866-11	WASHER,LOCK.....	34
3	PAOZZ	5310014173828	96906	MS27183-59	WASHER,FLAT.....	28
4	PAOZZ	5305000712069	80204	B1821BH050C150N	SCREW,CAP,HEXAGON H.....	16
5	PAOZZ	5310005845272	80205	MS35338-48	WASHER,LOCK.....	16
6	PAOZZ	5310008095997	96906	MS27183-17	WASHER,FLAT.....	16
7	PFOZZ	2540015347405	19207	DTA182973-2	ARMOR,SUPPLEMENTAL.....	1
8	PFOZZ	2540015347767	19207	DTA182858	ARMOR,SUPPLEMENTAL, BACK PLATE, RIGHT SIDE.....	1
9	PFOZZ	2540015347761	19207	DTA182974	ARMOR,SUPPLEMENTAL, BACK PLATE ASSEMBLY,LEFT SIDE.....	1
10	PFOZZ		19207	DTA182782	.PLATE.....	1
11	PFOZZ	2590015347766	19207	DTA182969-3	.PAD,CUSHIONING.....	1
12	PFOZZ	2540015347403	19207	DTA182973-1	ARMOR,SUPPLEMENTAL, LEFT SIDE.....	1
12	PFOZZ	2540015347405	19207	DTA182973-2	ARMOR,SUPPLEMENTAL RIGHT SIDE.....	1
13	PFOZZ	2540015347774	19207	DTA182970	ARMOR,SUPPLEMENTAL,.....	1
14	PFOZZ	2590015347766	19207	DTA182969-3	.PAD,CUSHIONING.....	1
15	PFOZZ	2540015347771	19207	DTA182828	CHANNEL,LIFT,VEHICL WINDOW ASSEMBLY	1
16	PFOZZ	2540015347772	19207	DTA182761	.CHANNEL,LIFT,VEHICL.....	1
17	PFOZZ	5315015329119	39428	90222A419	.PIN,QUICK RELEASE.....	1
18	PFOZZ	2540015347778	19207	DTA182911	CHANNEL,LIFT,VEHICL.....	1
19	PAOZZ	5305007829489	80204	B1821BH038C200N	SCREW,CAP,HEXAGON H.....	20
20	PAOZZ	5310000806004	96906	MS27183-14	WASHER,FLAT.....	20
21	PAOZZ	5310013763506	19207	12387353-17	NUT,SELF-LOCKING,HE.....	12
22	PFOZZ	2590015347716	19207	DTA182789	BRACKET,VEHICULAR C.....	3
23	PFOZZ	2590015347791	19207	DTA182775	BRACKET,VEHICULAR C.....	1
24	PFOZZ	2540015347515	19207	DTA182779	ARMOR,SUPPLEMENTAL, QUARTER PANEL..	1

END OF FIGURE

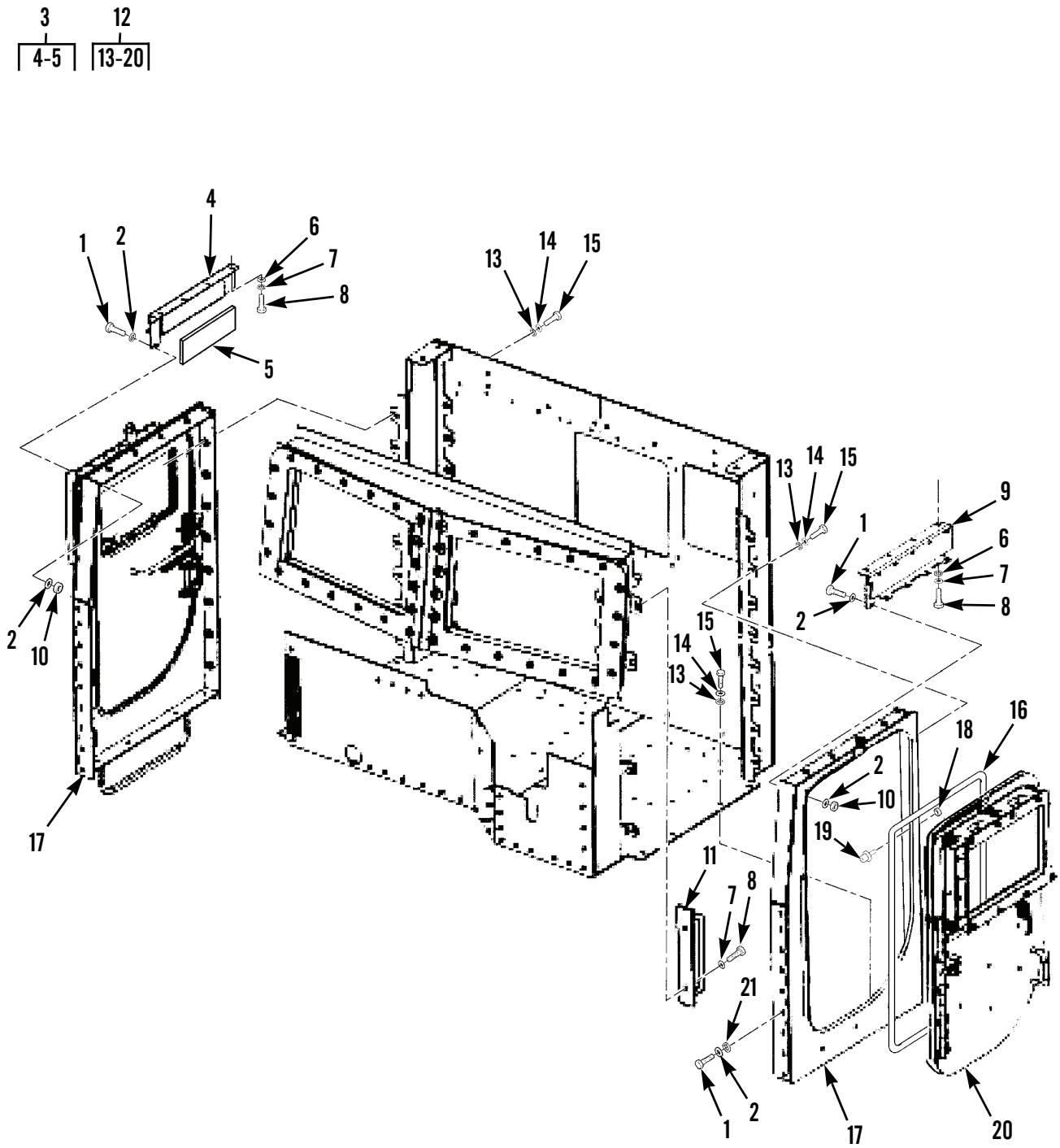


Figure 5. Side Armor

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES(UOC)	(7) QTY
GROUP 3307 SPECIAL PURPOSE KITS						
FIG. 5 SIDE ARMOR						
1	PAOZZ	5305007252317	80204	B1821BH038C150N	SCREW,CAP,HEXAGON H.....	18
2	PAOZZ	5310014173828	96906	MS27183-59	WASHER,FLAT.....	20
3	PFOZZ	2590015347467	19207	DTA182968-2	BRACKET,VEHICULAR C HEADER ASSEMBLY,RIGHT SIDE.....	1
4	PFOZZ	2540015347481	19207	DTA182777	.ARMOR,SUPPLEMENTAL, HEADER.....	1
5	PFOZZ	2590015347479	19207	DTA182969-1	.PAD,CUSHIONING RIGHT SIDE ONLY....	1
6	PAOZZ	5310005845272	80205	MS35338-48	WASHER,LOCK.....	16
7	PAOZZ	5310008095997	96906	MS27183-17	WASHER,FLAT.....	12
8	PAOZZ	5305000712069	80204	B1821BH050C150N	SCREW,CAP,HEXAGON H.....	22
9	PFOZZ	2590015347466	19207	DTA182968-1	BRACKET,VEHICULAR C HEADER ASSEMBLY,LEFT SIDE.....	1
10	PAOZZ	5310013763506	19207	12387353-17	NUT,SELF-LOCKING HE.....	2
11	PFOZZ	5340015347759	19207	DTA182965	HANDLE,BOW.....	2
12	PFOZZ	2510015346900	19207	DTA182976-1	FRAME SECTION,STRUC LH SIDE.....	1
12	PFOZZ	2510015347448	19207	DTA182976-2	FRAME SECTION,STRUC RIGHT SIDE.....	1
13	PAOZZ		96906	MS35338-48	.WASHER,LOCK.....	16
14	PAOZZ	5310008095998	96906	MS27183-18	.WASHER,FLAT 0.50.....	12
15	PAOZZ	5305000712069	80204	B1821BH050C150N	.SCREW,CAP,HEXAGON H.....	22
16	PAOZZ	9390012814587	57137	4375B3X3/8A	.NONMETALLIC SPECIAL.....	1
17	PFOZZ	2540015347459	19207	DTA182773-1	.ARMOR,SUPPLEMENTAL, PORTAL ASSEMBLY,LEFT SIDE.....	1
17	PFOZZ	2540015347462	19207	DTA182773-2	.ARMOR,SUPPLEMENTAL, PORTAL ASSEMBLY,RIGHT SIDE.....	1
18	PAOZZ	5310015313915	81349	M45913/2-7CG8Z	.NUT,SELF-LOCKING,HE.....	1
19	PFOZZ	5340013650250	19220	2T-400-52	.STRIKE,CATCH.....	2
20	PFOZZ	2510015346904	19207	DTA182837-1	.DOOR,VEHICULAR LEFT SIDE.....	1
20	PFOZZ	2510015347450	19207	DTA182837-2	.DOOR,VEHICULAR RIGHT SIDE.....	1
21	PAOZZ	5310006379541	65035	P49866-11	WASHER,LOCK.....	21

END OF FIGURE

5
6-17

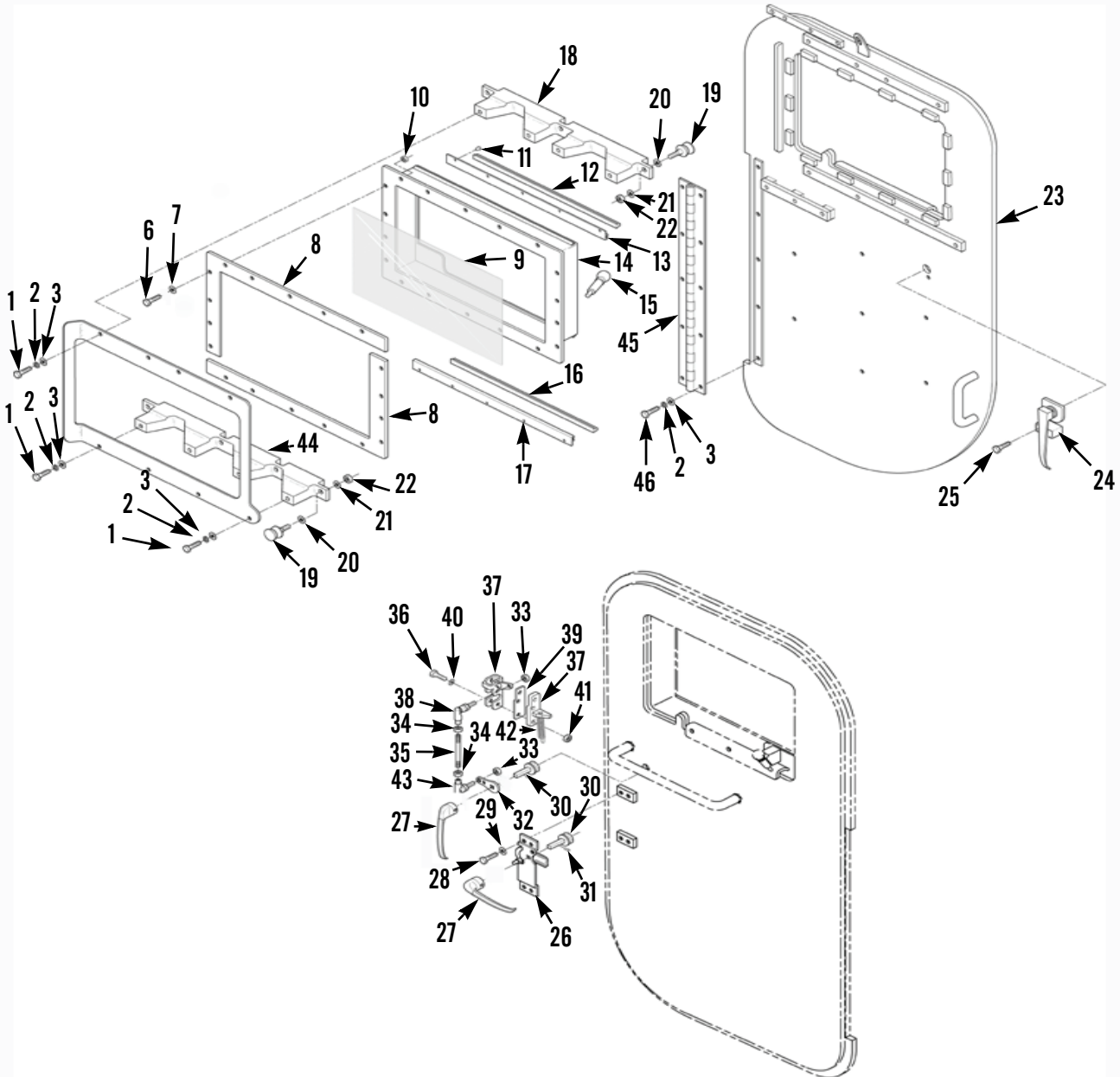


Figure 6. Door Assemblies

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES(UOC)	(7) QTY
GROUP 3307 SPECIAL PURPOSE KITS						
FIG. 6 DOOR ASSEMBLIES						
1	PAOZZ	5305000712082	80204	B1821BH050C475N	SCREW,CAP,HEXAGON H.....	16
2	PAOZZ	5310005845272	96906	MS35338-48	WASHER,LOCK.....	26
3	PAOZZ	5310008095998	96906	MS27183-18	WASHER,FLAT.....	26
4	PFOZZ	2510015346917	19207	DTA182924-1	FRAME SECTION,WINDO COVER,LEFT SIDE	1
4	PFOZZ	2510015347453	19207	DTA182924-2	FRAME,WINDOW,VEHICU COVER,RIGHT SIDE.....	1
5	PFOZZ	2510015344622	19207	DTA182944-1	WINDOW,VEHICULAR LEFT SIDE.....	1
5	PFOZZ	2510015344631	19207	DTA182944-2	WINDOW,VEHICULAR RIGHT SIDE.....	1
6	PAOZZ	5306002264826	80204	B1821BH031C088N	.BOLT,MACHINE.....	18
7	PAOZZ	5310000814219	96906	MS27183-12	.WASHER,FLAT.....	18
8	PFOZZ	2540015346972	19207	DTA182954	.ARMOR,SUPPLEMENTAL,.....	2
9	PFOZZ	2510015344638	19207	DTA182953	.WINDOW,VEHICULAR DOOR.....	1
10	PFOZZ	5310015313929	81349	M45913/2-5CG8Z	.NUT,SELF-LOCKING,HE.....	18
11	PFOZZ	5320015347031	39428	97447A025	.RIVET,BLIND.....	16
12	PFOZZ	5330015347015	19207	DTA182956-2	.SEAL,NONMETALLIC ST.....	1
13	PFOZZ	2590015346980	19207	DTA182955-2	.BRACKET,VEHICULAR C WEATHERSEAL RETAINER,LH WINDOW.....	2
13	PFOZZ	2590015346979	19207	DTA182955-1	.BRACKET,VEHICULAR C WEATHERSEAL RETAINER, RH WINDOW.....	2
14	PFOZZ		19207	DTA182945-1	.FRAME,WINDOW LEFT SIDE.....	1
14	PFOZZ		19207	DTA182945-2	.FRAME,WINDOW RIGHT SIDE.....	1
15	PFOZZ	5315015329119	39428	90222A419	.PIN,QUICK RELEASE.....	1
16	PFOZZ	5330015347000	19207	DTA182956-1	.SEAL,NONMETALLIC ST.....	1
17	PFOZZ	2590015346797	19207	DTA182955-1	.BRACKET,VEHICULAR.....	2
18	PFOZZ	2590015347308	19207	DTA182854	BRACKET,VEHICULAR C.....	1
19	PFOZZ	3040015347344	45092	VLRE-1.50-4	CAM,CONTROL.....	14
20	PAOZZ	5365015347362	39428	94773A778	SHIM.....	14
21	PAOZZ	5310015330278	39428	98023A032	WASHER,FLAT.....	14
22	PAOZZ	5310015329640	39428	90636A057	NUT,SELF-LOCKING,HE.....	14
23	PFOZZ	2510015346905	19207	DTA182838-1	DOOR,VEHICULAR LEFT SIDE.....	1
23	PFOZZ	2510015347451	19207	DTA182838-2	DOOR,VEHICULAR RIGHT SIDE.....	1
24	PFOZZ	2540015314369	19220	67-5655XPKL	HANDLE,DOOR,VEHICUL LEFT SIDE.....	1
24	PFOZZ	2540015314364	19220	67-5655XPKR	HANDLE,DOOR,VEHICUL RIGHT SIDE.....	1
25	PAOZZ	5305000712506	80204	B1821BH025C050N	SCREW,CAP,HEXAGON H 0.250-20 X 0.50	4
26	PFOZZ	2540015347435	19220	5647-50	LATCH,DOOR,VEHICULA COMBAT LATCH, DRIVER'S DOOR.....	2
27	PFOZZ	2540015175300	19220	53-5655X	HANDLE,DOOR,VEHICUL.....	2
28	PAOZZ	5305000680508	80204	B1821BH025C075N	SCREW,CAP,HEXAGON H 0.25-20 X 0.75.	8
29	PAOZZ	5310005825965	80205	MS35338-44	WASHER,LOCK 0.260 ID.....	10
30	PFOZZ	3040015347438	19207	DTA183072	SHAFT,SHOULDERED.....	2
31	PFOZZ	5315015347440	39428	90692A700	PIN,SPRING.....	4
32	PFOZZ	5340015347369	19207	DTA182959	PLATE,MOUNTING.....	2
33	PAOZZ	5310015313943	81349	M45913/2-4FG8Z	NUT,SELF-LOCKING,HE.....	4
34	PAOZZ	5310015347396	39428	93839A805	NUT,SELF-LOCKING,HE.....	4
35	PFOZZ	2510015347385	19207	DTA182960	ROD,DOOR CHECK,VEHI.....	2
36	PAOZZ	5306002264832	80204	B1821BH031C175N	BOLT,MACHINE.....	6
37	PFOZZ	2540011516209	19220	400-L	CYLINDER,LOCK,VEHIC LEFT.....	1
37	PFOZZ	2540011515475	19220	400-R	CYLINDER,LOCK,VEHIC RIGHT.....	1

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES(UOC)	(7) QTY
38	PFOZZ	3040015347399	6K430	EST250	BALL JOINT ROD END.....	2
39	PFOZZ	5365015347367	19207	DTA182958	SHIM.....	12
40	PAOZZ	5310000814219	96906	MS27183-12	WASHER,FLAT.....	6
41	PAOZZ	5310015313929	81349	M45913/2-5CG8Z	LOCKNUT.....	6
42	PAOZZ	5360012829316	19220	2-300-P5	SPRING,HELICAL,EXTE.....	2
43	PFOZZ	3040015347401	6K430	ES250	BALL JOINT ROD END.....	1
44	PFOZZ	2590015347310	19207	DTA18255-1	BRACKET,VEHICULAR C.....	1
44	PFOZZ	2590015347455	19207	DTA182855-2	BRACKET,VEHICULAR C.....	1
45	PFOZZ	2510015347342	39428	15665A637	HINGE,DOOR,VEHICULA.....	2
46	PAOZZ	5305007320511	80204	B1821BH050C113N	SCREW,CAP,HEXAGON H.....	10

END OF FIGURE

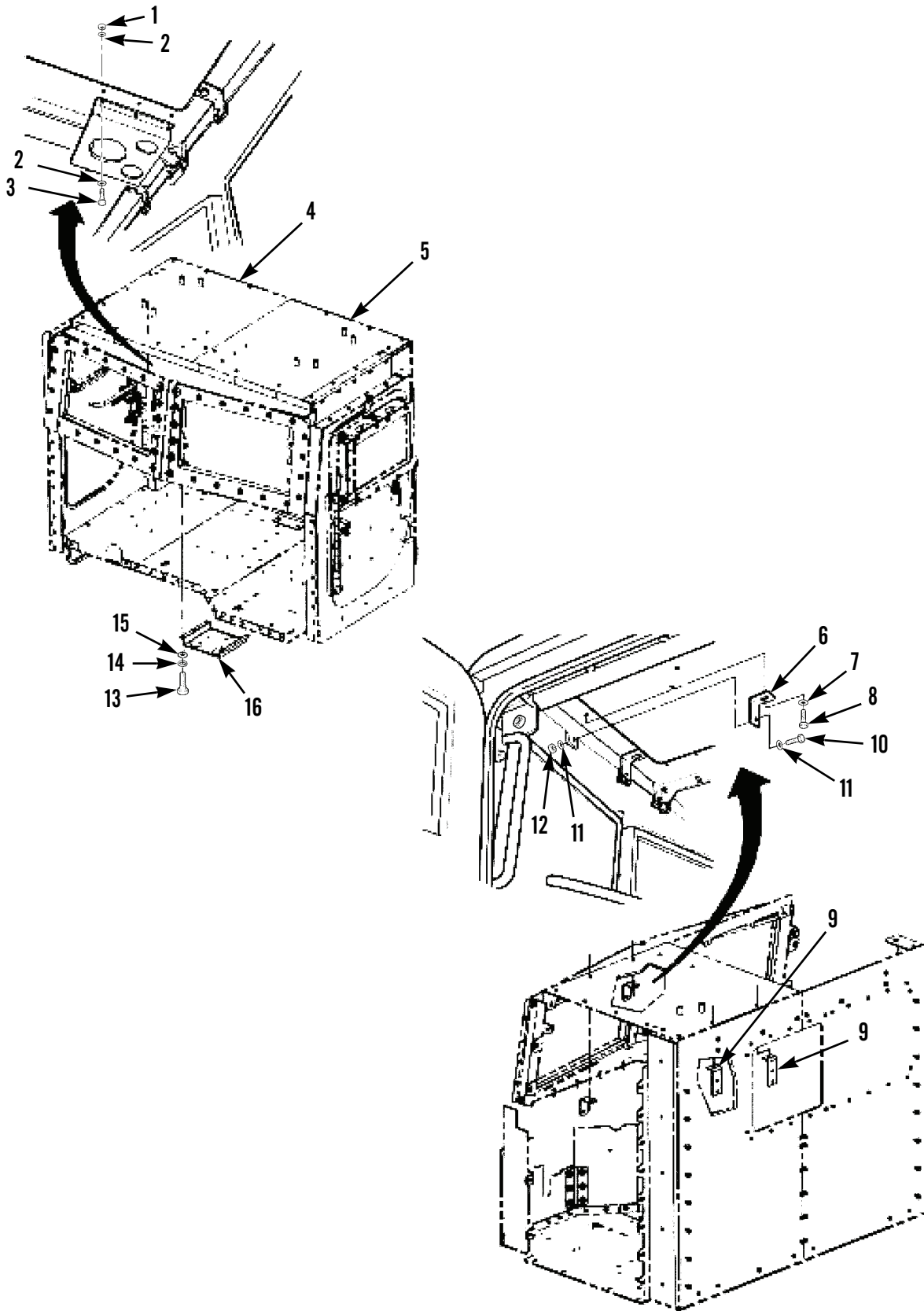
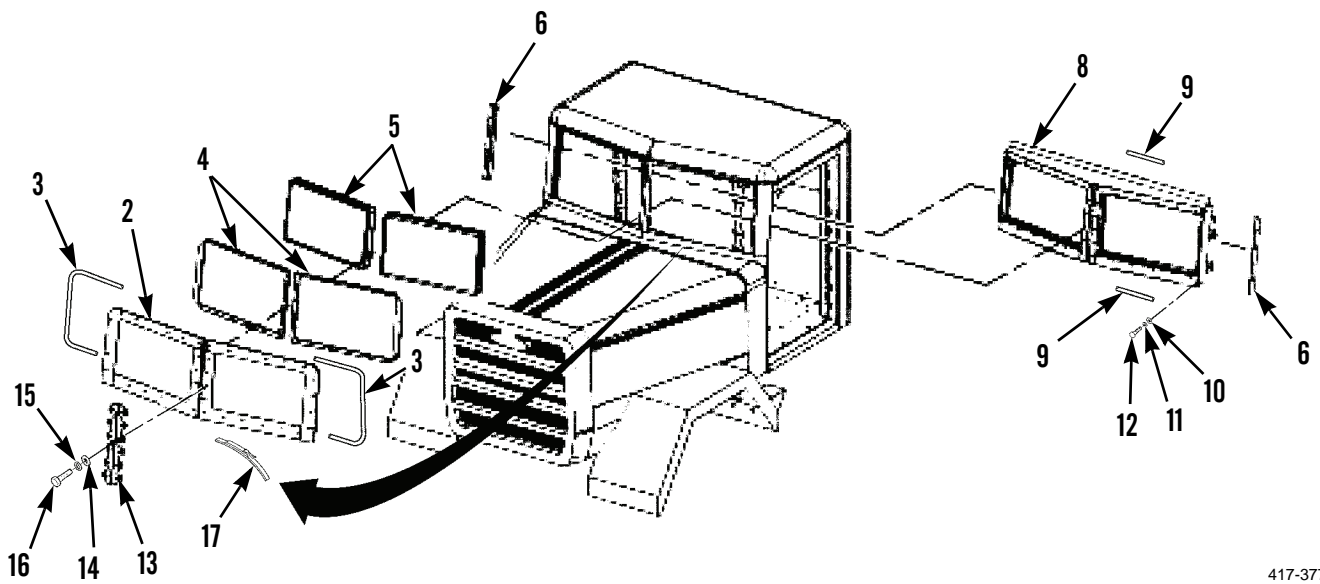


Figure 7. Overhead Armor

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES(UOC)	(7) QTY
GROUP 3307 SPECIAL PURPOSE KITS						
FIG. 7 OVERHEAD ARMOR						
1	PAOZZ	5310015348667	81349	M45913/2-010CG8Z	NUT,SELF-LOCKING HE.....	4
2	PAOZZ	5310008098546	96906	MS27183-8	WASHER,FLAT.....	8
3	PAOZZ	5305009846212	80205	MS35206-265	SCREW,MACHINE.....	4
4	PFOZZ	2540015347424	19207	DTA182972-2	ARMOR,SUPPLEMENTAL, ROOF PANEL, RIGHT SIDE.....	1
5	PFOZZ	2540015347420	19207	DTA182972-1	ARMOR,SUPPLEMENTAL, ROOF PANEL, LEFT SIDE.....	1
6	PFOZZ	2590015347480	19207	DTA182895	BRACKET,VEHICULAR C.....	4
7	PAOZZ	5310008095997	96906	MS27183-17	WASHER,FLAT.....	24
8	PAOZZ	5305000712069	80204	B1821BH050C150N	SCREW,CAP,HEXAGON H.....	16
9	PFOZZ	2590015347469	19207	DTA182896	BRACKET,VEHICULAR C.....	4
10	PAOZZ	5305007252317	80204	B1821BH038C150N	SCREW,CAP,HEXAGON H.....	5
11	PAOZZ	5310000806004	96906	MS27183-14	WASHER,FLAT.....	10
12	PAOZZ	5310013763506	19207	12387353-17	NUT,SELF-LOCKING HE.....	5
13	PAOZZ	5305015347435	80204	B1821BH025C075N	SCREW,CAP,HEXAGON H.....	6
14	PAOZZ	5310005825965	80205	MS35338-44	WASHER,LOCK.....	6
15	PAOZZ	5310012743255	96906	MS27183-52	WASHER,FLAT.....	6
16	PFOZZ	2540015347484	19207	DTA182894	ARMOR,SUPPLEMENTAL, LIGHT BRACKET..	1

END OF FIGURE

1	7
2-3	8-9



417-377

Figure 8. Windshield Armor

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES(UOC)	(7) QTY
GROUP 3307 SPECIAL PURPOSE KITS						
FIG. 8 WINDSHIELD ARMOR						
1	PFOZZ	2540015347731	19207	DTA182989-1	ARMOR,SUPPLEMENTAL, WINDSHIELD COVER PLATE ASSEMBLY,LEFT SIDE.....	1
1	PFOZZ	2540015347732	19207	DTA182989-2	ARMOR,SUPPLEMENTAL WINDSHIELD COVER PLATE ASSEMBLY,RIGHT SIDE.....	1
2	PFOZZ	2540015347736	19207	DTA182774	.ARMOR,SUPPLEMENTAL,.....	2
3	PAOZZ	5330015347734	0A6L5	SCE41B 1/2X3/4X2 5'	.RUBBER STRIP.....	1
4	PFOZZ	2540015347739	19207	DTA182913	ARMOR,SUPPLEMENTAL SPACER.....	2
5	PFOZZ	2510015344635	19207	DTA182770	WINDOW,VEHICULAR.....	2
6	PFOZZ	2590015347729	19207	DTA182781	BRACKET,VEHICULAR C.....	2
7	PFOZZ	2510015347719	19207	DTA182975	FRAME,WINDOW,VEHICU.....	1
8	PFOZZ	2510015347727	19207	DTA182759	.FRAME,WINDOW,VEHICU.....	1
9	PFOZZ	5330015347724	39428	93745K71	.RUBBER STRIP.....	2
10	PAOZZ	5310008095997	96906	MS27183-17	WASHER,FLAT.....	4
11	PAOZZ	5310005845272	80205	MS35338-48	WASHER,LOCK.....	4
12	PAOZZ	5305000712069	80204	B1821BH050C150N	SCREW,CAP,HEXAGON H.....	4
13	PFOZZ	2590015347737	19207	DTA182778	BRACKET,VEHICULAR C.....	1
14	PAOZZ	5310014173828	96906	MS27183-59	WASHER,FLAT.....	40
15	PAOZZ	5310006379541	80205	MS35338-46	WASHER,LOCK.....	40
16	PAOZZ	5305007829489	80204	B1821BH038C200N	SCREW,CAP,HEXAGON H.....	40
17	PAOZZ	2540004813637	60703	M874-44EC	BLADE,WINDSHIELD WI.....	2

END OF FIGURE

CROSS-REFERENCE INDEXES

NATIONAL STOCK NUMBER INDEX					
STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5305-00-068-0508	6	28	5340-01-365-0250	5	19
	7	13	5310-01-376-3506	2	1
5305-00-071-2069	4	4		4	21
	5	8		5	10
	5	15		7	12
	7	8	5310-01-417-3828	2	2
	8	12		3	7
5305-00-071-2071	1	2		4	3
5305-00-071-2082	6	1		5	2
5305-00-071-2506	6	25		8	14
5310-00-080-6004	4	20	2540-01-517-5300	6	27
	7	11	5310-01-531-3915	5	18
5310-00-081-4219	6	7	5310-01-531-3929	6	10
	6	40	5310-01-531-3943	6	33
5306-00-226-4826	6	6	5310-01-531-3946	1	6
5306-00-226-4832	6	36	2540-01-531-4364	6	24
9390-01-281-4587	6	41			
2540-00-481-3637	8	17	2540-01-531-4369	6	24
5310-00-582-5965	6	29	5315-01-532-9119	4	17
	7	14		6	15
5310-00-584-5272	4	5	5310-01-532-9640	6	22
	5	6	5310-01-533-0278	6	21
	6	2	2510-01-534-4622	6	5
	8	11	2510-01-534-4631	6	5
5310-00-637-9541	3	8	2510-01-534-4635	8	5
	4	2	2510-01-534-4638	6	9
	5	21	2510-01-534-6900	5	12
	8	15	2510-01-534-6904	5	20
5305-00-724-7222	1	3	2510-01-534-6905	6	23
5305-00-725-2317	2	5	2510-01-534-6917	6	4
	3	9	2540-01-534-6972	6	8
	4	1	2590-01-534-6979	6	13
	5	1		6	17
	7	10	2590-01-534-6980	6	13
5305-00-732-0511	6	46	5330-01-534-7000	6	16
5305-00-782-9489	2	4	5330-01-534-7015	6	12
	4	19	5320-01-534-7031	6	11
	8	16	2590-01-534-7308	6	18
5310-00-809-5997	1	1	2510-01-534-7342	6	45
	4	6	3040-01-534-7344	6	19
	5	7	5365-01-534-7362	6	20
	7	7	5365-01-534-7367	6	39
	8	10	5340-01-534-7369	6	32
5310-00-809-5998	5	14	2510-01-534-7385	6	35
	6	3	5310-01-534-7396	6	34
5310-00-809-8546	7	2	3040-01-534-7399	6	38
5305-00-984-6212	7	3	3040-01-534-7401	6	43
2540-01-151-5475	6	37	2540-01-534-7403	4	12
2540-01-151-6209	6	37	2540-01-534-7405	4	7
5310-01-274-3255	7	15		4	12
5360-01-282-9316	6	42	2540-01-534-7420	7	5

CROSS-REFERENCE INDEXES

NATIONAL STOCK NUMBER INDEX					
STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
2540-01-534-7424	7	4	2540-01-534-7771	4	15
2540-01-534-7435	6	26	2540-01-534-7772	4	16
3040-01-534-7438	6	30	2540-01-534-7774	4	13
5315-01-534-7440	6	31	2540-01-534-7778	4	18
2510-01-534-7448	5	12	2590-01-534-7791	4	23
2510-01-534-7450	5	20	5310-01-534-8667	1	7
2510-01-534-7451	6	23		7	1
2510-01-534-7453	6	4	2540-01-535-1253	2	6
2590-01-534-7455	6	44	5310-01-536-3929	6	41
2540-01-534-7459	5	17			
2540-01-534-7462	5	17			
2590-01-534-7466	5	9			
2590-01-534-7467	5	3			
2590-01-534-7469	7	9			
2590-01-534-7479	5	5			
2590-01-534-7480	7	6			
2540-01-534-7481	5	4			
2540-01-534-7484	7	16			
2540-01-534-7491	3	2			
2540-01-534-7494	3	3			
5355-01-534-7498	3	5			
5355-01-534-7500	3	4			
2590-01-534-7505	1	5			
2590-01-534-7506	1	5			
2540-01-534-7512	3	1			
2540-01-534-7515	4	24			
2590-01-534-7518	3	10			
2590-01-534-7519	3	6			
2590-01-534-7520	3	13			
2540-01-534-7714	3	11			
2540-01-534-7715	3	12			
2590-01-534-7716	4	22			
2540-01-534-7718	3	14			
2510-01-534-7719	8	7			
2540-01-534-7722	2	3			
5330-01-534-7724	8	9			
2540-01-534-7725	2	3			
2510-01-534-7727	8	8			
2590-01-534-7729	8	6			
2540-01-534-7731	8	1			
2540-01-534-7732	7	1			
5330-01-534-7734	8	3			
2540-01-534-7736	8	2			
2590-01-534-7737	8	13			
2540-01-534-7739	8	4			
5340-01-534-7759	5	11			
2540-01-534-7761	4	9			
2590-01-534-7766	4	11			
	4	14			
2540-01-534-7767	4	8			

CROSS-REFERENCE INDEXES

CAGEC	PART NUMBER INDEX		FIG.	ITEM
	PART NUMBER	STOCK NUMBER		
80204	B1821BH025C050N	5305-00-071-2506	6	25
80204	B1821BH025C075N	5305-00-068-0508	6	28
			7	13
80204	B1821BH031C088N	5306-00-226-4826	6	6
80204	B1821BH031C175N	5306-00-226-4832	6	36
80204	B1821BH038C150N	5305-00-725-2317	2	5
			3	9
			4	1
			5	1
			7	10
80204	B1821BH038C200N	5305-00-782-9489	2	4
			4	19
			8	16
80204	B1821BH050C113N	5305-00-732-0511	6	46
80204	B1821BH050C150N	5305-00-071-2069	4	4
			5	8
			5	15
			7	8
			8	12
80204	B1821BH050C200N	5305-00-071-2071	1	2
80204	B1821BH050C475N	5305-00-071-2082	6	1
80204	B1821BH063C200N	5305-00-724-7222	1	3
19207	DTA18255-1		6	44
19207	DTA182755	2540-01-534-7718	3	14
19207	DTA182756	2540-01-534-7715	3	12
19207	DTA182757	2540-01-534-7714	3	11
19207	DTA182759	2510-01-534-7727	8	8
19207	DTA182761	2540-01-534-7772	4	16
19207	DTA182763	2540-01-534-7491	3	2
19207	DTA182765	2540-01-534-7512	3	1
19207	DTA182766	2590-01-534-7518	3	10
19207	DTA182768	2540-01-535-1253	2	6
19207	DTA182769	2590-01-534-7520	3	13
19207	DTA182770	2510-01-534-4635	8	5
19207	DTA182773-1	2540-01-534-7459	5	17
19207	DTA182773-2	2540-01-534-7462	5	17
19207	DTA182774	2540-01-534-7736	8	2
19207	DTA182775	2590-01-534-7791	4	23
19207	DTA182777	2540-01-534-7481	5	4
19207	DTA182778	2590-01-534-7737	8	13
19207	DTA182779	2540-01-534-7515	4	24
19207	DTA182781	2590-01-534-7729	8	6
19207	DTA182782		4	10
19207	DTA182789	2590-01-534-7716	4	22
19207	DTA182828	2540-01-534-7771	4	15
19207	DTA182837-1	2510-01-534-6904	5	20
19207	DTA182837-2	2510-01-534-7450	5	20
19207	DTA182838-1	2510-01-534-6905	6	23
19207	DTA182838-2	2510-01-534-7451	6	23
19207	DTA182851-1	2590-01-534-7505	1	5
19207	DTA182851-2	2590-01-534-7506	1	5

CROSS-REFERENCE INDEXES

CAGEC	PART NUMBER INDEX		FIG.	ITEM
	PART NUMBER	STOCK NUMBER		
19207	DTA182854	2590-01-534-7308	6	18
19207	DTA182855-2	2590-01-534-7455	6	44
19207	DTA182858	2540-01-534-7767	4	8
19207	DTA182864	2590-01-534-7519	3	6
19207	DTA182894	2540-01-534-7484	7	16
19207	DTA182895	2590-01-534-7480	7	6
19207	DTA182896	2590-01-534-7469	7	9
19207	DTA182907	2540-01-534-7722	2	3
19207	DTA182908	2540-01-534-7725	2	3
19207	DTA182911	2540-01-534-7778	4	18
19207	DTA182913	2540-01-534-7739	8	4
19207	DTA182924-1	2510-01-534-6917	6	4
19207	DTA182924-2	2510-01-534-7453	6	4
19207	DTA182944-1	2510-01-534-4622	6	5
19207	DTA182944-2	2510-01-534-4631	6	5
19207	DTA182945-2		6	14
19207	DTA1829451		6	14
19207	DTA182953	2510-01-534-4638	6	9
19207	DTA182954	2540-01-534-6972	6	8
19207	DTA182955-1	2590-01-534-6979	6	13
			6	17
19207	DTA182955-2	2590-01-534-6980	6	13
19207	DTA182956-1	5330-01-534-7000	6	16
19207	DTA182956-2	5330-01-534-7015	6	12
19207	DTA182958	5365-01-534-7367	6	39
19207	DTA182959	5340-01-534-7369	6	32
19207	DTA182960	2510-01-534-7385	6	35
19207	DTA182965	5340-01-534-7759	5	11
19207	DTA182966	2540-01-534-7494	3	3
19207	DTA182968-1	2590-01-534-7466	5	9
19207	DTA182968-2	2590-01-534-7467	5	3
19207	DTA182969-1	2590-01-534-7479	5	5
19207	DTA182969-3	2590-01-534-7766	4	11
			4	14
19207	DTA182970	2540-01-534-7774	4	13
19207	DTA182972-1	2540-01-534-7420	7	5
19207	DTA182972-2	2540-01-534-7424	7	4
19207	DTA182973-1	2540-01-534-7403	4	12
19207	DTA182973-2	2540-01-534-7405	4	7
			4	12
19207	DTA182974	2540-01-534-7761	4	9
19207	DTA182975	2510-01-534-7719	8	7
19207	DTA182976-1	2510-01-534-6900	5	12
19207	DTA182976-2	2510-01-534-7448	5	12
19207	DTA182989-1	2540-01-534-7731	8	1
19207	DTA182989-2	2540-01-534-7732	7	1
19207	DTA183072	3040-01-534-7438	6	30
6K430	EST250	3040-01-534-7399	6	38
6K430	ES250	3040-01-534-7401	6	43
96906	MS27183-12	5310-00-081-4219	6	7
			6	40

CROSS-REFERENCE INDEXES

CAGEC	PART NUMBER	PART NUMBER INDEX		FIG.	ITEM
			STOCK NUMBER		
96906	MS27183-14		5310-00-080-6004	4	20
				7	11
96906	MS27183-17		5310-00-809-5997	1	1
				4	6
				5	7
				7	7
				8	10
96906	MS27183-18		5310-00-809-5998	5	14
				6	3
96906	MS27183-21			1	4
96906	MS27183-52		5310-01-274-3255	7	15
96906	MS27183-59		5310-01-417-3828	2	2
				3	7
				4	3
				5	2
				8	14
96906	MS27183-8		5310-00-809-8546	7	2
80205	MS35206-265		5305-00-984-6212	7	3
80205	MS35338-44		5310-00-582-5965	6	29
				7	14
80205	MS35338-46		5310-00-637-9541	8	15
80205	MS35338-48		5310-00-584-5272	4	5
				5	6
				5	13
				6	2
				8	11
81349	M45913/2-010CG8Z		5310-01-534-8667	1	7
				7	1
81349	M45913/2-08CG8Z		5310-01-531-3946	1	6
81349	M45913/2-4FG8Z		5310-01-531-3943	6	33
81349	M45913/2-5CG8Z		5310-01-531-3929	6	10
81349	M45913/2-7CG8Z		5310-01-531-3915	5	18
81349	M45913/2-5CG8Z		5310-01-531-3929	6	41
60703	M874-44EC		2540-00-481-3637	8	17
65035	P49866-11		5310-00-637-9541	3	8
				4	2
				5	21
0A6L5	SCE41B 1/2X3/4X2 5'		5330-01-534-7734	8	3
45092	VLRE-1.50-4		3040-01-534-7344	6	19
19207	12387353-17		5310-01-376-3506	2	1
				4	21
				5	10
				7	12
				6	45
19220	2-300-P5		5360-01-282-9316	6	42
19220	2T-400-52		5340-01-365-0250	5	19
39428	2454K62		5355-01-534-7498	3	5
19220	400-L		2540-01-151-6209	6	37
19220	400-R		2540-01-151-5475	6	37
57137	4375BX3/8A		9390-01-281-4587	5	16

CROSS-REFERENCE INDEXES

CAGEC	PART NUMBER	PART NUMBER INDEX		FIG.	ITEM
			STOCK NUMBER		
19220	53-5655X		2540-01-517-5300	6	27
19220	5647-50		2540-01-534-7435	6	26
39428	6091K51		5355-01-534-7500	3	4
19220	67-5655XPKL		2540-01-531-4369	6	24
19220	67-5655XPKR		2540-01-531-4364	6	24
39428	90222A419		5315-01-532-9119	4	17
				6	15
39428	90636A057		5310-01-532-9640	6	22
39428	90692A700		5315-01-534-7440	6	31
39428	93745K71		5330-01-534-7724	8	9
39428	93839A805		5310-01-534-7396	6	34
39428	94773A778		5365-01-534-7362	6	20
39428	97447A025		5320-01-534-7031	6	11
39428	98023A032		5310-01-533-0278	6	21

INDEX

<i>Subject</i>	<i>Work Package/Page</i>
A	
Abbreviations/Acronyms, List of	0001 00-2
C	
Cab Support Replacement	0016 00-1
Cleaning Ballistic Glass	0010 00-1
Cleaning Instructions	0011 00-2
Corrosion Prevention and Control (CPC)	0001 00-1
Crew Protection Kit Installation Instructions	0034 00-1
D	
Decal/Data Plate Guide	0007 00-1
Description and Use of Operator Controls	0004 00-1
Destruction of Army Materiel to Prevent Enemy Use	0001 00-1
Door	
Assembly Replacement	0012 00-1
Ballistic Glass and Frame Replacement	0015 00-1
Handle Replacement	0013 00-1
Latch Replacement	0014 00-1
E	
Equipment Characteristics, Capabilities, and Features	0002 00-1
Equipment Description and Data	0002 00-1
Escape Hatch Operation	0006 00-1
Escape Hatch Replacement	0026 00-1
Expendable and Durable Items List	0032 00-1
Extreme Temperatures, Operation	0006 00-2
F	
Field Maintenance (Unit and Direct Support Maintenance) Repair Parts	0035 00-1
Field Maintenance (Unit and Direct Support Maintenance) Repair Parts and Special Tools Lists (RPSTL)	0036 00-1
Introduction	0035 00-1
Firewall Armor Replacement	0025 00-1
Firewall Armor Replacement, Outer	0027 00-1
Floor Armor	
Center Replacement	0020 00-1
Left Replacement	0018 00-1
Right Replacement	0019 00-1

INDEX - Continued

<i>Subject</i>	<i>Work Package/Page</i>
G	
General Information	0001 00-1
General Maintenance Instructions	0011 00-1
Glove Box Armor Replacement	0028 00-1
I	
Initial Adjustments and Daily Checks	0005 00-1
Inspection Instructions	0011 00-3
Installation Instructions, Crew Protection Kit	0034 00-1
L	
List of Abbreviations/Acronyms	0001 00-2
Location and Description of Major Components	0002 00-1
M	
Maintenance Allocation Chart (MAC)	
Introduction	0030 00-1
Tables	0031 00-1
Maintenance Forms, Records, and Reports	0001 00-1
O	
Operating Vehicle	0005 00-1
Operation	
Under Unusual Conditions	0006 00-1
Under Usual Conditions	0005 00-1
Operation, Extreme Temperatures	0006 00-2
Operator Controls, Description and Use of	0004 00-1
Outer Firewall Armor Replacement	0027 00-1
P	
Painting Instructions	0011 00-4
Preparation for Storage or Shipment	0001 00-1
Preventive Maintenance Checks and Services (PMCS)	
Introduction	0008 00-1
Procedures	0009 00-1
Q	
Quality of Material	0001 00-2
Quarter Panel Armor Replacement	0021 00-1

INDEX - Continued

<i>Subject</i>	<i>Work Package/Page</i>
R	
Rear Armor Replacement	0022 00-1
References	0029 00-1
Reporting Equipment Improvement Recommendations (EIRs)	0001 00-1
Roof Armor Replacement	0023 00-1
S	
Scope	0001 00-1
Sealant, Use of	0011 00-5
Standard Tool Requirements	0011 00-4
Storage or Shipment, Preparation for	0001 00-1
Stowage and Decal/Data Plate Guide	0007 00-1
T	
Tagging Instructions	0011 00-5
Theory of Operation	0003 00-1
Thread Adhesive, Use of	0011 00-4
Tools and Test Equipment	0031 00-3
Torque Limits	0033 00-1
Torque, Applying	0011 00-5
W	
Wheel Well Armor Replacement	0017 00-1
Windshield Ballistic Glass Replacement	0024 00-1
Work Safety	0011 00-1

By Order of the Secretary of the Army:

PETER J. SCHOOMAKER
General, United States Army
Chief of Staff

Official:

A handwritten signature in black ink that reads "Joyce E. Morrow". The signature is written in a cursive, flowing style.

JOYCE E. MORROW
Administrative Assistant to the
Secretary of the Army
0532701

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THE METRIC SYSTEM AND EQUIVALENTS

<p>Linear Measure</p> <p>1 Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches 1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches 1 Kilometer = 1000 Meters = 0.621 Miles</p> <p>Weights</p> <p>1 Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces 1 Kilogram = 1000 Grams = 2.2 Pounds 1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons</p> <p>Liquid Measure</p> <p>1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces 1 Liter = 1000 Milliliters = 33.82 Fluid Ounces</p>	<p>Square Measure</p> <p>1 Sq Centimeter = 100 Sq Millimeters = 0.155 Sq Inches 1 Sq Meter = 10,000 Sq Centimeters = 10.76 Sq Feet 1 Sq Kilometer = 1,000,000 Sq Meters = 0.386 Sq Miles</p> <p>Cubic Measure</p> <p>1 Cu Centimeter = 1,000 Cu Millimeters = 0.06 Cu Inches 1 Cu Meter = 1,000,000 Cu Centimeters = 35.31 Cu Feet</p> <p>Temperature</p> <p>$5/9 (^{\circ}\text{F} - 32) = ^{\circ}\text{C}$ 212° Fahrenheit is equivalent to 100° Celsius 90° Fahrenheit is equivalent to 32.2° Celsius 32° Fahrenheit is equivalent to 0° Celsius $9/5 \text{ C}^{\circ} + 32 = \text{F}^{\circ}$</p>
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APPROXIMATE CONVERSION FACTORS

To Change	To	Multiply By
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	0.914
Miles	Kilometers	1.609
Sq Inches	Sq Centimeters	6.451
Sq Feet	Sq Meters	0.093
Sq Yards	Sq Meters	0.836
Sq Miles	Sq Kilometers	2.590
Acres	Sq Hectometers	0.405
Cubic Feet	Cubic Meters	0.028
Cubic Yards	Cubic Meters	0.765
Fluid Ounces	Milliliters	29.573
Pints	Liters	0.473
Quarts	Liters	0.946
Gallons	Liters	3.785
Ounces	Grams	28.349
Pounds	Kilograms	0.454
Short Tons	Metric Tons	0.907
Pound-Feet	Newton-Meters	1.356
Pounds per Sq Inch	Kilopascals	6.895
Miles per Gallon	Kilometers per Liter	0.425
Miles per Hour	Kilometers per Hour	1.609

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

