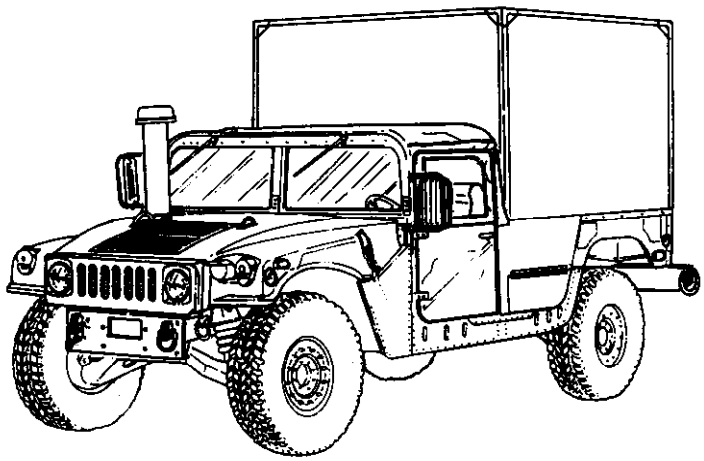
# TECHNICAL MANUAL

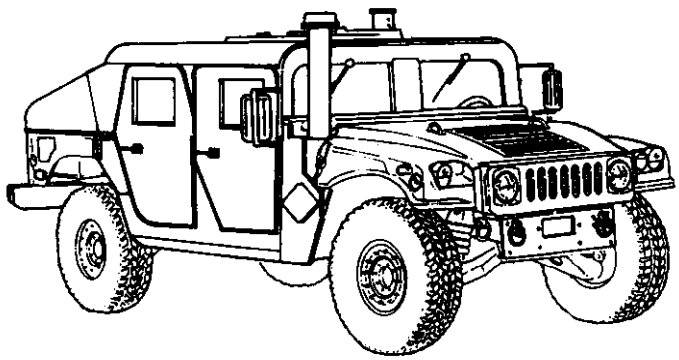
# UNIT, DIRECT SUPPORT, AND GENERAL SUPPORT MAINTENANCE

## FOR

## TRUCK, UTILITY: S250 SHELTER CARRIER, 4X4, M1113 (2320-01-412-0143) (EIC: B6B)



## TRUCK, UTILITY: UP-ARMORED CARRIER, 4X4, M1114 (2320-01-413-3739) (EIC: B6C)







HEADQUARTERS, DEPARTMENTS OF THE ARMY
AND THE AIR FORCE

DECEMBER 1997

TECHNICAL MANUAL
NO. 9-2320-387-24-1

TECHNICAL ORDER
NO. 36A12-1A-3052-1

HEADQUARTERS
DEPARTMENTS OF THE ARMY AND THE AIR FORCE
WASHINGTON, D.C., *31 December 1997*

# TECHNICAL MANUAL
# VOLUME 1 OF 2

## UNIT, DIRECT SUPPORT, AND GENERAL SUPPORT MAINTENANCE FOR

## TRUCK, UTILITY: S250 SHELTER CARRIER, 4X4, M1113 (2320-01-412-0143) (EIC: B6B)

## TRUCK, UTILITY: UP-ARMORED CARRIER, 4X4, M1114 (2320-01-413-3739) (EIC: B6C)

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This manual is published in two parts. TM 9-2320-387-24-1 contains chapters 1 through 9, and TM 9-2320-387-24-2 contains chapters 10 through 33 and appendices A through H.

This manual contains a table of contents and alphabetical index for both volumes 1 and 2.

## VOLUME 1 OF 2

## VOLUME 2 OF 2

# CHAPTER 1
# INTRODUCTION

## Section I. GENERAL INFORMATION

### 1-1. SCOPE

a. This technical manual contains instructions for unit, direct, and general support maintenance of the 4x4, M1113 and M1114 vehicles.

b. Models included are:

(1) M1113, S250 Shelter Carrier

(2) M1114, Up-Armored

### 1-2. MAINTENANCE FORMS, RECORDS, AND REPORTS

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA Pam 738-750, The Army Maintenance Management System (TAMMS).

### 1-3. DESTRUCTION OF ARMY EQUIPMENT TO PREVENT ENEMY USE

Refer to TM 750-244-6, Procedures for Destruction of Army Tank-automotive Equipment to Prevent Enemy Use.

### 1-4. PREPARATION FOR STORAGE AND SHIPMENT

Refer to TM 740-90-1, Administrative Storage of Equipment and TM 746-10, Marking, Packaging, and Shipment of Supplies and Equipment: General Packaging Instructions for Field Use.

### 1-5. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR)

If your vehicle 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. The preferred method for submitting QDRs is through the Army Electronic Product Support (AEPS) website under the Electronic Deficiency Reporting System (EDRS). The web address is: https://aeps.ria.army.mil. This is a secured site requiring a password which can be applied for on the front page of the website. If the above method is not available to you, put it on an SF 368, Product Quality Deficiency Report (PQDR), and mail it to us at: U.S. Army Tank-automotive and Armaments Command, ATTN: AMSTA-TR-E/PQDR MS 267, 6501 E. 11 Mile Road, Warren, MI 48397-5000. We'll send you a reply.

### 1-6. EQUIPMENT IMPROVEMENT REPORT AND MAINTENANCE DIGEST (EIR MD)

The quarterly Equipment Improvement Report and Maintenance Digest, TB 43-0001-62 series, contains valuable field information on the equipment covered in this manual. The information in the TB 43-0001-62 series is compiled from some of the Equipment Improvement Reports that you prepared on the vehicles covered in this manual. Many of these articles resulted from comments, suggestions, and improvement recommendations that you submitted to the EIR program. The TB 43-0001-62 series contains information on equipment improvements, minor alterations, proposed Modification Work Orders (MWOs), warranties (if applicable), actions taken on some of your DA Form 2028s (Recommended Changes to Publications), and advance information on proposed changes that may affect this manual. The information will help you in doing your job better and will help in keeping you advised of the latest changes to this manual. Also refer to DA Pam 25-30, Consolidated Index of Army Publications and Blank Forms and appendix A, References, of this manual.

## 1-7. METRIC SYSTEM

The equipment described herein contains metric components and requires metric common and special tools; therefore, metric units in addition to standard units will be used throughout this publication. In addition, a metric conversion table is located on the inside back cover of this publication.

## 1-8. MANDATORY REPLACEMENT PARTS

The maintenance instructions contained herein make reference to removing and discarding piece parts such as: gaskets, lockwashers, cotter pins, O-rings, seals, etc.; these items should be considered mandatory replacement items and replaced with new parts during assembly/installation.

## 1-9. BREAK-IN PROCEDURE

Upon receipt of vehicles, or after engine replacement, break-in procedures must be observed during the first 500 miles (804 kilometers) of operation. For break-in procedure, refer to TM 9-2320-387-10.

# Section II. EQUIPMENT DESCRIPTION AND DATA

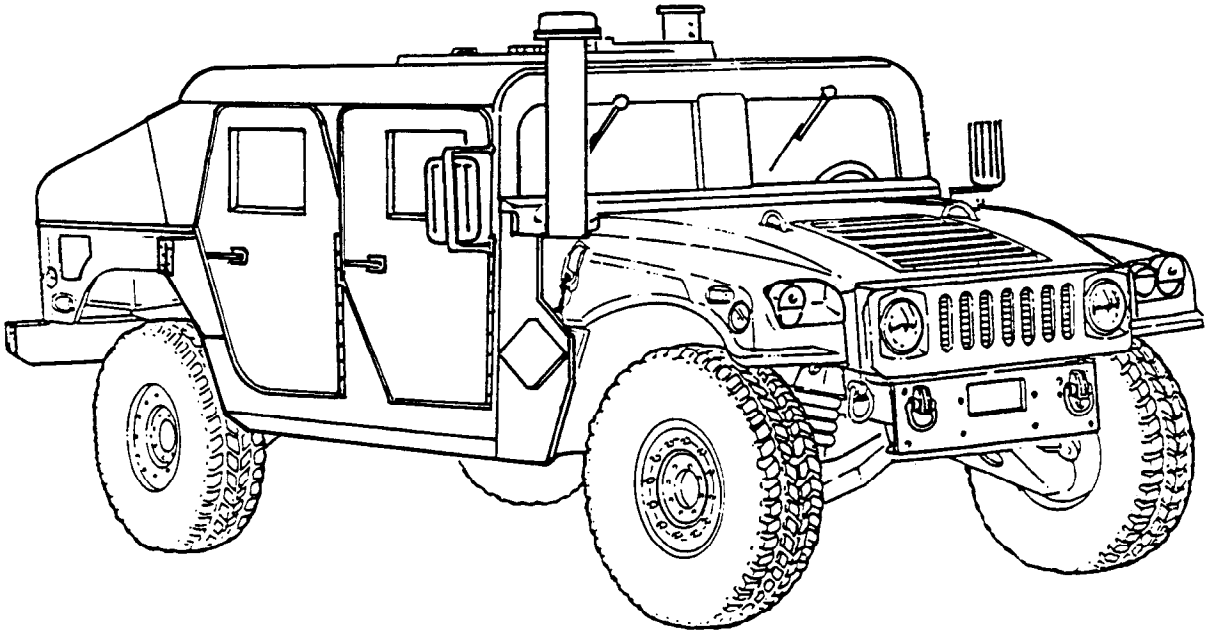
## 1-10. EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES

The 4x4, M1113 and M1114 vehicles are tactical vehicles designed for use over all types of roads, as well as cross-country terrain, in all weather conditions. The vehicles have four driving wheels powered by a V-8, liquid-cooled, turbocharged diesel engine. Four-wheel hydraulic service brakes and a mechanical parking brake are common to all models. M1113 and M1114 vehicles are equipped with a pintle hook for towing. Tiedown and lifting eyes are provided for air, rail, or sea shipment.

## 1-10. EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES (Cont'd)

### UP-ARMORED CARRIER, W/SUPPLEMENTAL ARMOR: M1114

PURPOSE: This model is used to transport, mount, and operate the M2 and M60 machine guns and MK19 automatic grenade launcher with armor protection for crew, weapons components, and ammunition. The M1114 model may have a optional rear winch which can be used for recovery operations.

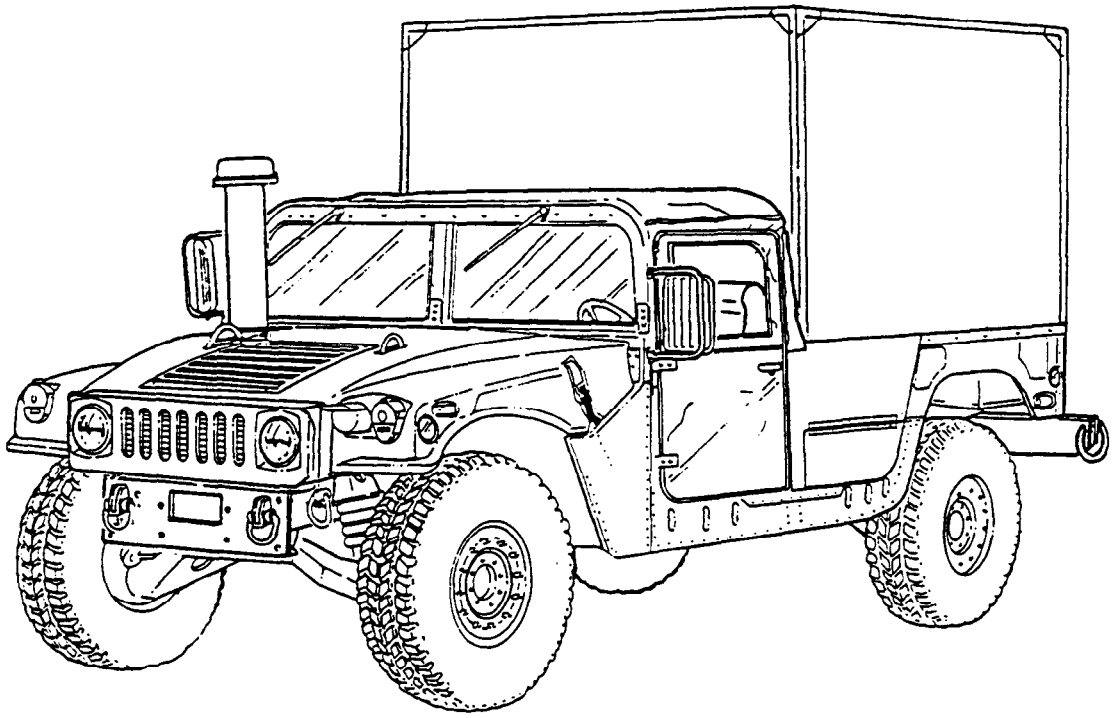


M1114

## 1-10. EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES (Cont'd)

### S250 SHELTER CARRIER: M1113

PURPOSE: This model is used for securing and transporting the S250 electrical equipment shelter. The M1113 model may have a optional front winch which can be used for recovery operations.



M1113

## 1-11. LOCATION AND DESCRIPTION OF MAJOR EXTERIOR COMPONENTS

The exterior components described below are common to all vehicles covered in this manual. Special differences are found in TM 9-2320-387-10 or table 1-1, Differences Between Models, in this manual.

(A) **AIR CLEANER** – Filters air before it enters intake manifold.

(B) **ENGINE** – Provides power for the vehicle.

(C) **TRANSMISSION** – Transmits engine power to transfer case at varying speeds.

(D) **FUEL TANK** – Stores fuel.

(E) **GEARED HUB** – Transfers turning action of halfshafts to wheels for vehicle motion.

(F) **PINTLE HOOK** – Permits towing of vehicles or equipment.

(G) **REAR PROPELLER SHAFT** – Transmits power from the transfer case to the rear differential.

(H) **TRANSFER CASE** – Provides full-time four-wheel drive with three drive ranges.

(I) **FRONT PROPELLER SHAFT** – Transmits power from the transfer case to the front differential.

(J) **MASTER CYLINDER AND HYDRO-BOOSTER** – Provides hydraulic pressure and power assist for vehicle stopping power.

(K) **DIFFERENTIAL** – Transfers turning action of the propeller shaft to the geared hubs through the halfshafts.

(L) **WINCH** – 9,000 lb electrically powered to provide recovery capability. Located in front of vehicle on M1113 models (if equipped) and rear of vehicle on M1114 models (if equipped).