

DEPARTMENT OF THE ARMY  
TECHNICAL MANUAL

TM 9-8030

DEPARTMENT OF THE AIR  
FORCE TECHNICAL ORDER

TO 36A-1-411

OPERATION AND  
ORGANIZATIONAL  
MAINTENANCE

$\frac{3}{4}$ -TON 4 x 4

CARGO TRUCK M37

$\frac{3}{4}$ -TON 4 x 4

COMMAND TRUCK M42

$\frac{3}{4}$ -TON 4 x 4

AMBULANCE TRUCK M43

AND  $\frac{3}{4}$ -TON 4 x 4

TELEPHONE INSTALLATION

LIGHT MAINTENANCE

AND CABLE SPLICING

TRUCK V-41 ( )/GT



DEPARTMENTS OF THE ARMY AND THE AIR FORCE

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DEPARTMENTS OF THE ARMY AND  
THE AIR FORCE  
WASHINGTON 25, D. C., 2 May 1955

**OPERATION AND ORGANIZATIONAL MAINTENANCE: ¾-TON  
4 x 4 CARGO TRUCK M37; ¾-TON 4 x 4 COMMAND  
TRUCK M42; ¾-TON 4 x 4 AMBULANCE TRUCK M43; AND  
¾-TON 4 x 4 TELEPHONE INSTALLATION LIGHT MAINTENANCE AND CABLE SPLICING TRUCK V-41 ( )/GT**

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\*This manual supersedes TM 9-840, 6 December 1950; TB 9-840-1, 6 June 1952; TB 9-840-2, 8 September 1952; TB 9-840-3, 16 January 1953; TB 9-840-4, 6 November 1952; TB 9-840-7, 13 March 1953; and those portions of TB ORD 487, 3 February 1953, pertaining to materiel covered herein.

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# CHAPTER 1

## INTRODUCTION

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### Section I. GENERAL

#### 1. Scope

*a.* These instructions are published for information and guidance of the personnel to whom this materiel is issued. They contain information on the operation and organizational maintenance of the materiel, as well as descriptions of major units and their functions in relation to other components of the materiel.

*b.* The appendix contains a list of current references, including supply manuals, forms, technical manuals, and other available publications applicable to the materiel.

*c.* This manual differs from TM 9-840, as shown in (1), (2), and (3) below.

- (1) Adds information on command truck M42, ambulance truck M43, telescope installation, light maintenance, and cable splicing truck V-41 ( )/GT troubleshooting, and design changes.
- (2) Revises information on shifting transfer, special tools, lubrication, preventive maintenance, troubleshooting, engine description and maintenance in vehicle, engine removal and installation, ignition timing, and starting system.
- (3) Deletes reference to utility truck M42.

#### 2. Organizational Maintenance Allocation

In general, the prescribed organizational maintenance responsibilities will apply as reflected in the allocation of tools and spare parts in the appropriate columns of the current ORD 7 supply manual pertaining to these vehicles and in accordance with the extent of disassembly prescribed in this manual for the purpose of cleaning, lubricating, or replacing authorized spare parts. In all cases where the nature of repair, modification, or adjustment is beyond the scope or facilities of the using organization, the supporting ordnance maintenance unit should be informed, in order that trained personnel with suitable tools and equipment may be provided or other proper instructions issued.

*Note.* The replacement of certain assemblies, that is, the engine, clutch (pressure plate, disk, and release bearing), transmission (with or without power-take-off), transfer, and front and rear axles, is normally an ordnance

maintenance operation, but may be performed in an emergency by the using organization, provided approval for performing these replacements is obtained from the supporting ordnance officer. A replacement assembly, any tools needed for the operation which are not carried by the using organization, any necessary special instructions regarding associated accessories, etc., may be obtained from the supporting ordnance maintenance unit.

### 3. Forms, Records, and Reports

*a. General.* Responsibility for the proper execution of forms, records, and reports rests upon the officers of all units maintaining this equipment. However, the value of accurate records must be fully appreciated by all persons responsible for their compilation, maintenance, and use. Records, reports, and authorized forms are normally utilized to indicate the type, quantity, and condition of materiel to be inspected, to be repaired, or to be used in repair. Properly executed forms convey authorization and serve as records for repair or replacement of materiel in the hands of troops and for delivery of materiel requiring further repair to ordnance shops in arsenals, depots, etc. The forms, records, and reports establish the work required, the progress of the work within the shops, and the status of the materiel upon completion of its repair.

*b. Authorized Forms.* The forms generally applicable to units operating and maintaining these vehicles are listed in the appendix.

For a current and complete listing of all forms, refer to DA Pam 310-20. For instructions on use of these forms, refer to FM 9-10.

*c. Field Report of Accidents.* The reports necessary to comply with the requirements of the Army safety program are prescribed in detail in the SR 385-10-40 series of special regulations. These reports are required whenever accidents involving injury to personnel or damage to materiel occur.

*d. Report of Unsatisfactory Equipment or Materials.* Any suggestions for improvement in design and maintenance of equipment and spare parts, safety and efficiency of operation, or pertaining to the application of prescribed petroleum fuels, lubricants, and/or preserving materials, or technical inaccuracies noted in Department of the Army publications, will be reported through technical channels, as prescribed in SR 700-45-5, to the Chief of Ordnance, Washington 25, D. C., ATTN: ORDFM, using DA Form 468, Unsatisfactory Equipment Report. Such suggestions are encouraged in order that other organizations may benefit.

*Note.* Do not report all failures that occur. Report only REPEATED or RECURRENT failures or malfunctions which indicate unsatisfactory design or material. However, reports will always be made in the event that exceptionally costly equipment is involved. See also SR 700-45-5 and printed instructions on DA Form 468.

## Section II. DESCRIPTION AND DATA

### 4. Description

a. This manual covers the  $\frac{3}{4}$ -ton 4 x 4 cargo truck M37 (fig. 1),  $\frac{3}{4}$ -ton 4 x 4 command truck M42 (fig. 2),  $\frac{3}{4}$ -ton 4 x 4 ambulance truck M43 (fig. 3), and  $\frac{3}{4}$ -ton 4 x 4 telephone installation light maintenance and cable splicing truck V-41 ( )/GT (fig. 4).

b. All models are equipped with a liquid cooled, six-cylinder, "L" headtype gasoline engine, located at the front of the vehicle. Power is transmitted through the clutch and the four-speed transmission. A short propeller shaft connects the transmission to the two-range transfer unit. Power is then transmitted to both front and rear axles by propeller shafts.

c. Front and rear springs are of the semielliptic-type. Hydraulic-type shock absorbers are used to control flexing of both front and rear springs.

d. The steering gear is the worm- and sector-type.

e. A 24-volt electrical system supplies current for starting, ignition, lights, and horn. The electrical system is completely waterproofed. The lighting system includes service headlights, blackout driving light, marker lights, service and blackout tail and stop lights, and instrument panel lights.

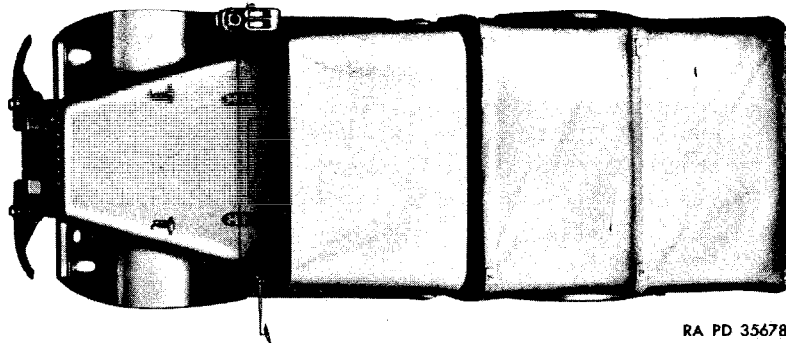
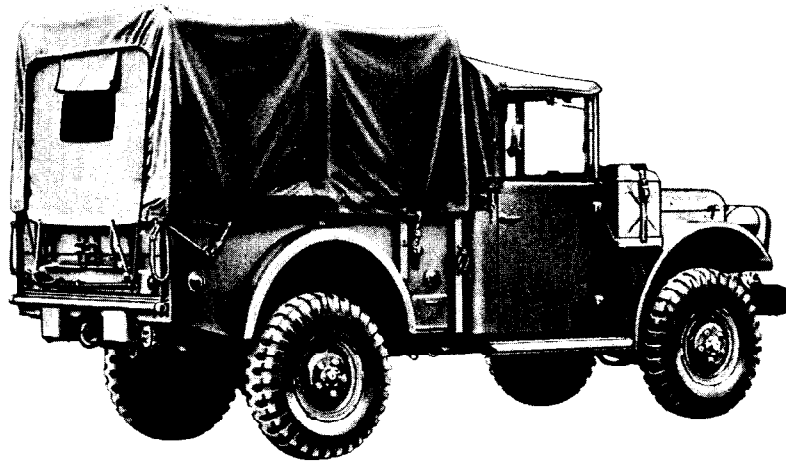
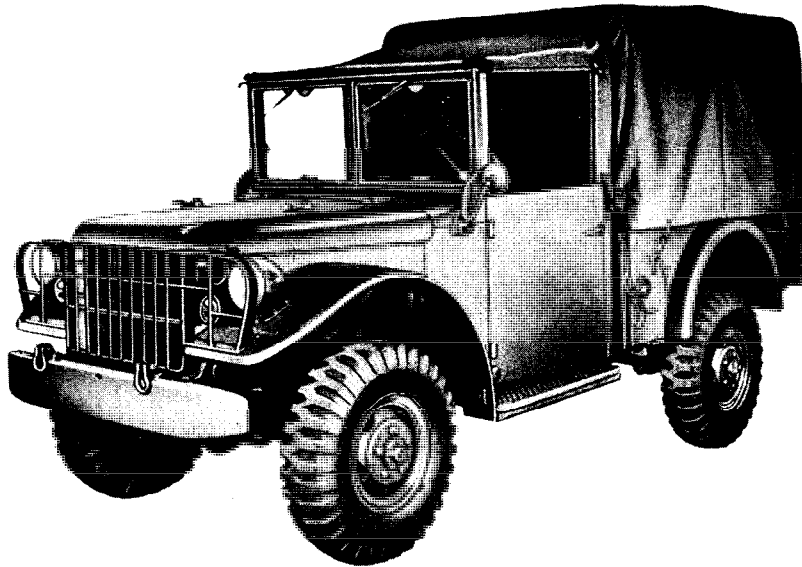
### 5. Differences Between Models

#### a. Chassis.

- (1) *Wheel base.* Wheel base of the cargo truck M37 and the command truck M42 is 112 inches; wheel base of the ambulance truck M43 and the telephone maintenance truck V-41 is 126 inches.
- (2) *Rear propeller shafts.* The rear propeller shaft in the ambulance truck M43 and the telephone maintenance truck V-41 is longer than that used in the cargo truck M37 and command truck M42.
- (3) *Springs.* Front springs for the cargo truck M37, the command truck M42, and the ambulance truck M43 have 7 leaves; front springs for the telephone maintenance truck V-41 have 8 leaves. Rear springs for the cargo truck M37 and the command truck M42 have 11 leaves; rear springs for the ambulance truck M43 and the telephone maintenance truck V-41 have 13 leaves.

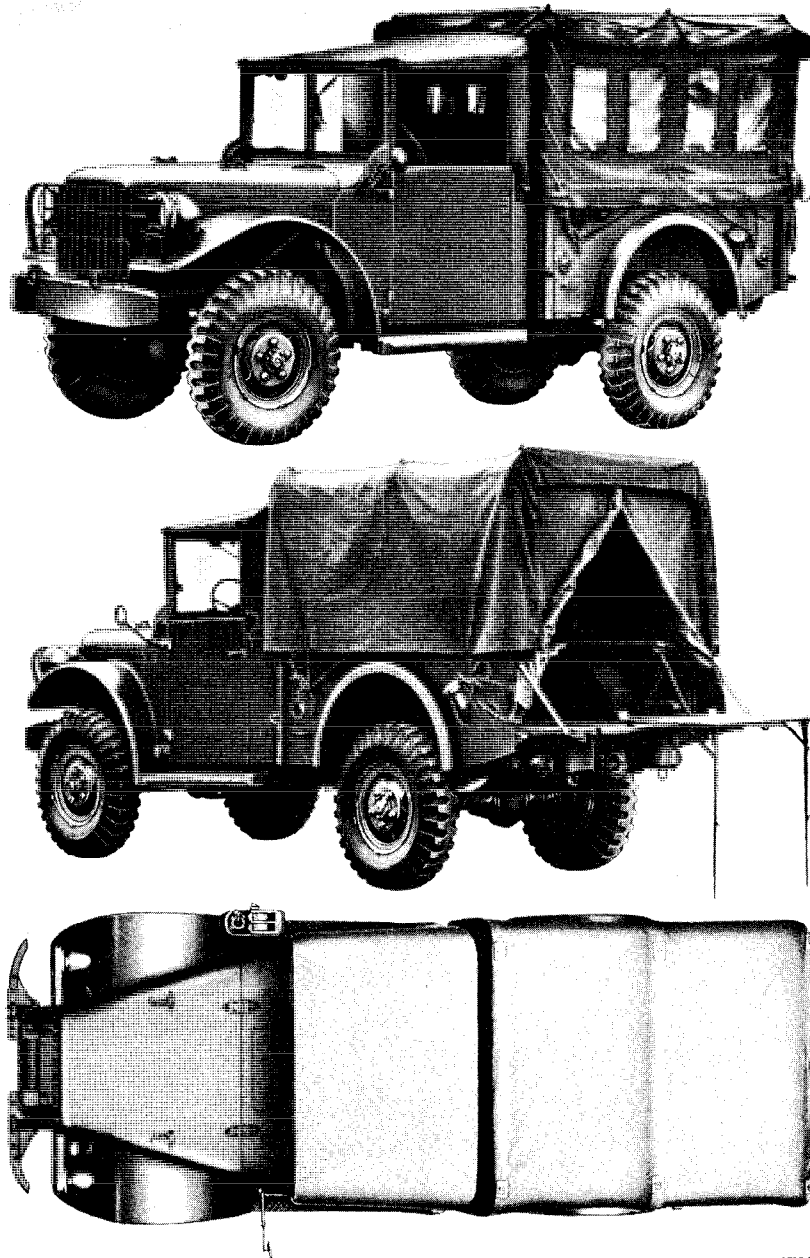
#### b. Cab and Bodies.

- (1) *Cab.* The cargo truck M37, command truck M42, and telephone maintenance truck V-41 are equipped with a steel cab with soft top which is separated from the body.
- (2) *Bodies.*



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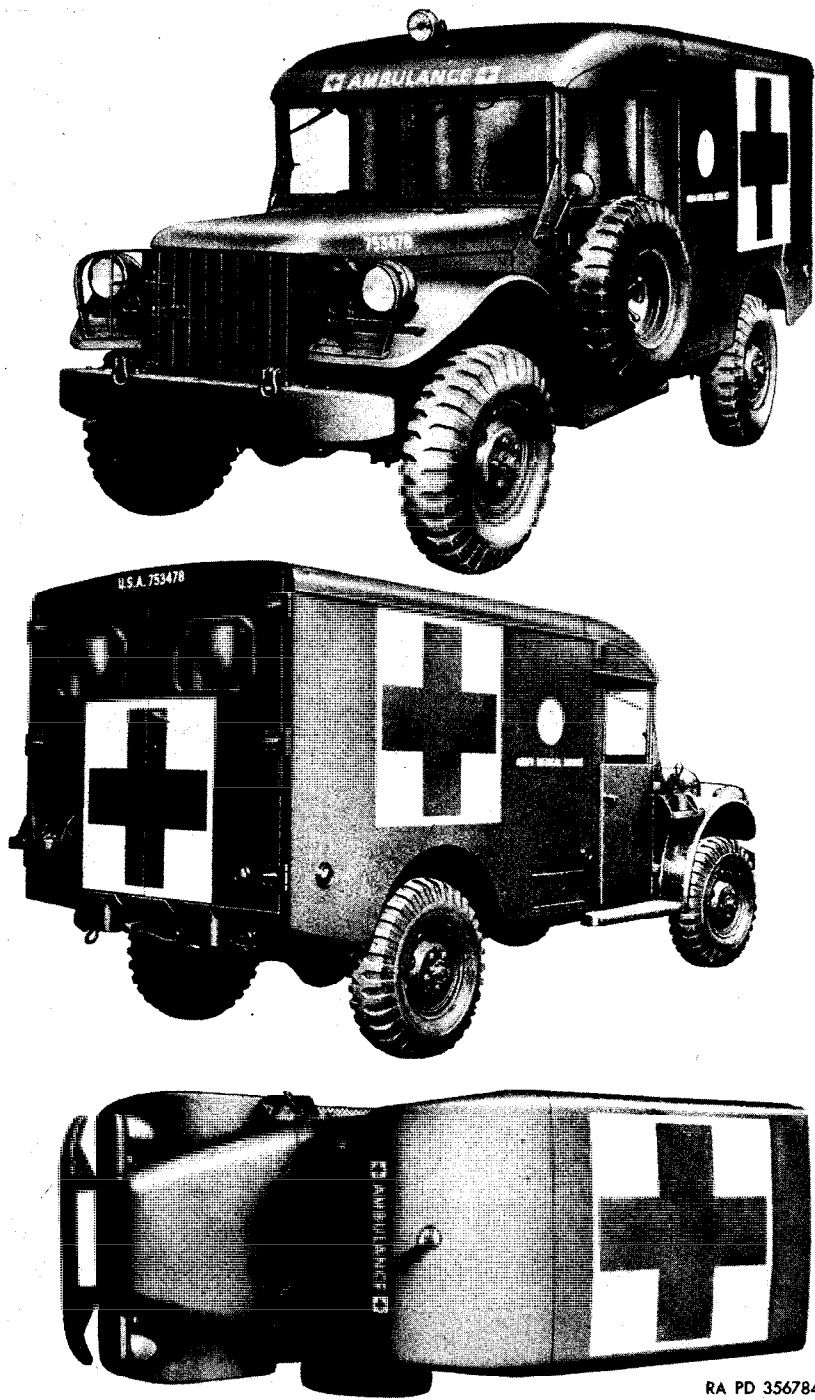
*Figure 1. 3/4-ton 4 x 4 cargo truck M37.*



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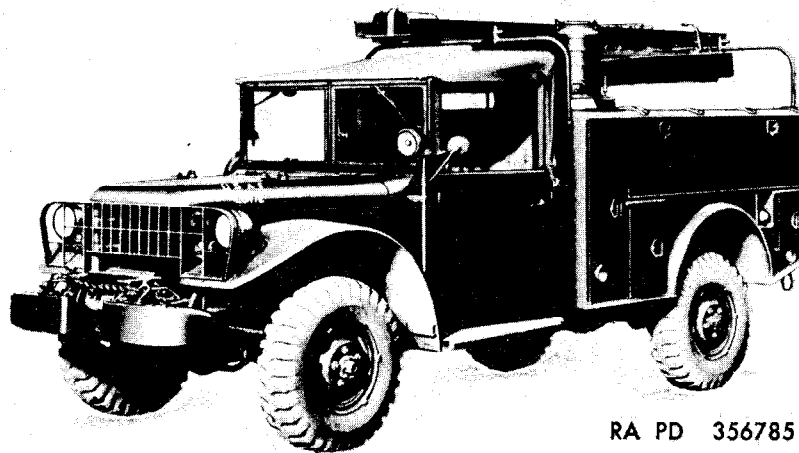
*Figure 2. 1/2-ton 4 x 4 command truck M42.*





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*Figure 3. 3/4-ton 4 x 4 ambulance truck M43.*



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Figure 4.  $\frac{3}{4}$ -ton 4  $\times$  4 telephone installation light maintenance and cable splicing truck V-41 ( )/GT.

- (a) *Cargo truck M37.* The cargo truck M37 (fig. 1) has an open-type steel body with folding troop seats, removable front rack, seat back, and supports. The spare wheel is mounted on a bracket attached to the front panel. An auxiliary seat, attached to the front panel at the right of the spare wheel locking bracket (fig. 5), is usable when the spare wheel is removed. A roof paulin, supported by bows, covers the cargo compartment. Canvas front and rear end curtains are provided with windows.
- (b) *Command truck M42* (fig. 2). The command truck M42 is slightly different from the cargo truck M37 ((a) above). This difference is made by the installation of a conversion kit consisting of body side curtains with windows, a split-type rear end curtain, map light, and folding table.
- (c) *Ambulance truck M43.* The ambulance truck M43 (fig. 3) has a panel-type closed steel body consisting of the driver's compartment and the patient's compartment with a connecting partition door. The spare wheel is mounted on a carrier at the left side of the driver's compartment (fig. 6). A spotlight is mounted on the roof of the driver's compartment.
- (d) *Telephone maintenance truck V-41.* The telephone maintenance truck V-41 (fig. 4) has an all steel body which incorporates compartments for stowage of tools and supplies. The spare wheel is located in the right side front compartment of the body (fig. 7). A spotlight is mounted on a support at the left front fender.