

NOT MEASUREMENT  
SENSITIVE

MIL-M-49501(TM)

25 JANUARY 1990

## MILITARY SPECIFICATION

### MANUALS, TECHNICAL:

### DAILY PREVENTIVE MAINTENANCE CHECKLIST

This specification is approved for use by the Department of the Army, and is available for use by all Departments and Agencies of the Department of Defense.

#### 1. SCOPE.

1.1 Purpose. This specification provides the detailed requirements for the preparation of an operator's, pocket size, preventive maintenance checklist (PMC) for all equipment except aircraft. The checklist includes all before, during, and after operation preventive maintenance checks, including tactical and safety checks, that the operator or crew performs to ensure that the equipment is mission capable and in good operating condition.

1.2 Examples/Figures. The figures used in this specification are examples only. The text of this document takes precedence over the figures.

1.3 Applicability. Each item specified herein will be included in the PMC unless otherwise specified by the contracting activity.

Comments, recommendations, additions or deletions, and any other pertinent data which may be used in improving this document should be addressed to: Materiel Readiness Support Activity, ATTN: AMXMD-MP, Lexington, KY 40511-5101 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) supplied at the end of this document or a letter.

AMSC NO A4874

AREA TMSS

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

**MIL-M-49501(TM)****2. APPLICABLE DOCUMENTS****2.1 Government documents.**

**2.1.1 Specifications, standards, and handbooks.** The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the Department of Defense Index of Specifications and Standards (DODISS), and its supplement, cited in the solicitation (see 6.2).

**SPECIFICATIONS (Military)**

MIL-M-38784	Manuals, Technical: General Style and Format Requirements
MIL-M-85337	Manuals, Technical: Quality Assurance Program, Requirements For

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

**2.1.2 Non-Government publications.** The following document forms a part of this specification to the extent specified herein. Unless otherwise specified, the issue of the document, which is DOD adopted, shall be that listed in the issue of the DODISS specified in the solicitation. Unless otherwise specified, the issue of a document not listed in the DODISS shall be the issue of the nongovernment document which is current on the date of the solicitation.

American Society For Testing and Materials

ASTM D3951 Standard Practice for Commercial Packaging

(DOD activities can obtain copies of ASTM D 3951 from the Naval Publications and Forms Center, ATTN: NPODS, 5801 Tabor Avenue, Philadelphia, PA 19120-5099. Other Government activities, contractors and other private concerns must procure copies from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103).

**2.2 Order of Precedence.** In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

**MIL-M-49501(TM)****3. REQUIREMENTS****3.1 General.**

3.1.1 **National stock numbers and part numbers.** National Stock Numbers shall not be used in procedural steps in the PMC. Part numbers shall not be used in procedural steps except when absolutely necessary for identification.

3.1.2 **Accuracy and ease of use.** The PMC shall have accurate technical content and be easy for the operator or crew to use.

3.1.3 **Level of coverage.** Sufficient information shall be included so that trained personnel with minimal experience can perform the procedures in the PMC safely and efficiently.

3.1.4 **Illustrations.** Illustrations shall not be used in the PMC.

**3.2 Style and format requirements.**

a. The general style and format of the PMC shall be in accordance with MIL-M-38784.

b. The PMC shall consist of a cover page (see figure 1) and the checklist. The checklist shall consist of all before, during, and after operation check and service procedures in the validated and verified preventive maintenance checks and services (PMCS) table in the associated operator's manual.

c. When the content of the PMC, including the cover page, is 10 pages or less, it shall be prepared as a pocket size accordion foldout. An example is shown in figure 2. If it is 11 pages or more, it shall be prepared as a vertical pocket manual. The PMC shall have a trim size of 4 by 5 1/2 inches and a maximum printed area of 3 3/8 by 5 1/4 inches. The maximum printed area shall include all printed matter including publication and page numbers.

d. Type size shall not be smaller than 6 point for pocket size accordion foldout and 8 point for the vertical pocket manual format.

e. The PMC shall use the same basic TM identification number as the operator's manual from which the preventive maintenance checks and services were extracted. A -10PMC suffix shall be added to the basic TM number. See figure 1 for an example.

**3.3 Technical content.**

a. The checklist shall consist of all before, during, and after operation interval check and service procedures contained in the verified PMCS table in the associated operator's manual.

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b. The item numbers in the checklist shall be the same as those assigned to the procedures in the operator's PMCS table.

c. The check and service procedures in the checklist shall be presented in the same sequence and include the same crewmember headings, if any, as those in the associated operator's PMCS table. Appropriate interval headings shall precede each group of procedures. See figure 3 for examples.

d. Any check that could reveal a Not Mission Capable (NMC) fault shall be identified by placing an asterisk by that item number. Each page containing an asterisk shall have a note explaining its meaning and instructing the operator to report the NMC fault using the appropriate forms. The note shall appear at the bottom of the page. See figure 3 for an example.

**3.3.1 Warnings and cautions.** All warnings and cautions applicable to the check and service procedures extracted from the PMCS table in the appropriate operator's manual shall be included in the checklist in their entirety.

**3.3.2 Usage note and reporting errors statement.** The following text shall appear on the front cover of the PMC (See figure 1):

**"NOTICE**

To effectively perform the tasks in this checklist, you must be experienced in using the PMCS table in TM (Insert the identification number of the applicable operator's TM). The checklist item numbers match those in the PMCS table in the TM.

**REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS**

You can help improve this publication. If you find any errors, or know of a way to improve the publication, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to: (address of proponent). A reply will be sent to you."

**4. QUALITY ASSURANCE PROVISIONS**

**4.1 Responsibility for inspection.** Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and devices conform to prescribed requirements.

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**4.1.1 Responsibility for compliance.** All items must meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of assuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of defective material.

**4.2 Quality assurance provisions.** The contractor shall be responsible for quality assurance in the preparation of the PMC. Quality assurance provisions shall be in accordance with MIL-M-85337 to the extent specified by the contracting activity.

**4.3 Contracting activity inspection.** Material furnished by the contractor as being in accordance with this specification shall be subject to inspection, and approval or disapproval, by the contracting activity as specified by the terms of the contract. Inspection will be performed by the contracting activity prior to acceptance.

**4.4 Validation.** When specified by the contracting activity, the contractor shall validate the PMC in accordance with the requirements of MIL-M-85337. Unless otherwise specified by the contracting activity, the contractor shall validate the PMC tasks by actual performance.

**4.4.1 Validation certification.** When specified by the contracting activity, the contractor shall prepare a validation certificate attesting to the accuracy and adequacy of the PMC. (see 6.3)

**4.5 Task corrections.** If the PMC does not meet the inspection requirements above, the contractor shall correct it until it meets those requirements.

**4.6 Government furnished information.** The contractor shall accurately and properly include all Government furnished information in the PMC.

**5. PACKAGING**

**5.1 Packaging requirements.** Packaging for delivery shall be in accordance with the requirements of ASTM D3951.

**6. NOTES**

(This section contains information of a general or explanatory nature which may be helpful. It is not mandatory.)

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**6.1 Intended use.** This specification covers the preparation of operator's preventive maintenance checklists. It is not intended for producing aircraft checklists.

**6.2 Acquisition requirements.** Acquisition documents should specify the following items:

- a. Title, number and date of this specification.
- b. Title and number of the technical manual.
- c. Source of validated and verified PMCS tables for use in preparing the PMC.
- d. Requirements, if any, for a validation.
- e. The issue of the DODISS cited or, if required, the specific issue of the referenced documents.

**6.3 Data requirements.** The following Data Item Descriptions (DID) should be considered when this specification is cited. Also, they should be listed on a Contract Data Requirements List (DD Form 1423), if required, except where DOD FAR Supplement 27.475-1 exempts the requirement for a DD Form 1423. (see 4.4.1)

DID number	DID Title
DI-M-2196	Manual, Technical: Validation Certification

The above DID was cleared as of the date of this specification. The current issue of DOD 5010.12-L, Acquisition Management Systems and Data Requirements Control List (AMSDL) must be researched to ensure that only current and cleared DIDs are cited on the DD Form 1423.

**6.4 Technical manual acquisition.** This specification must be listed on the Contract Data Requirements List (DD Form 1423) in order to acquire the technical manual described by this specification, except where DOD FAR Supplement 27.475-1 exempts the requirement for a DD Form 1423.

**6.5 Definitions.**

**6.5.1 Operator or crew.** These terms apply to the soldier(s) who will actually use or operate the equipment.

**6.6 Subject term (key word) listing.**

Accordion foldouts	Interval
Checklist	PMC
Crew	

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TM 9-2350-252-10PMC

**CREW/OPERATOR  
DAILY PREVENTIVE  
MAINTENANCE CHECKLIST  
FOR HULL**

**FIGHTING VEHICLE, INFANTRY  
M2 AND M2A1**

**NOTICE**

To effectively perform the tasks in this checklist, you must be experienced in using the PMCS table in TM 9-2350-252-10-1. The item numbers in this checklist are the same as those in the PMCS tables.

**REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS**

You can help improve this publication. If you find any errors, or if you know of a way to improve the publication, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to: (address of proponent). A reply will be furnished to you.

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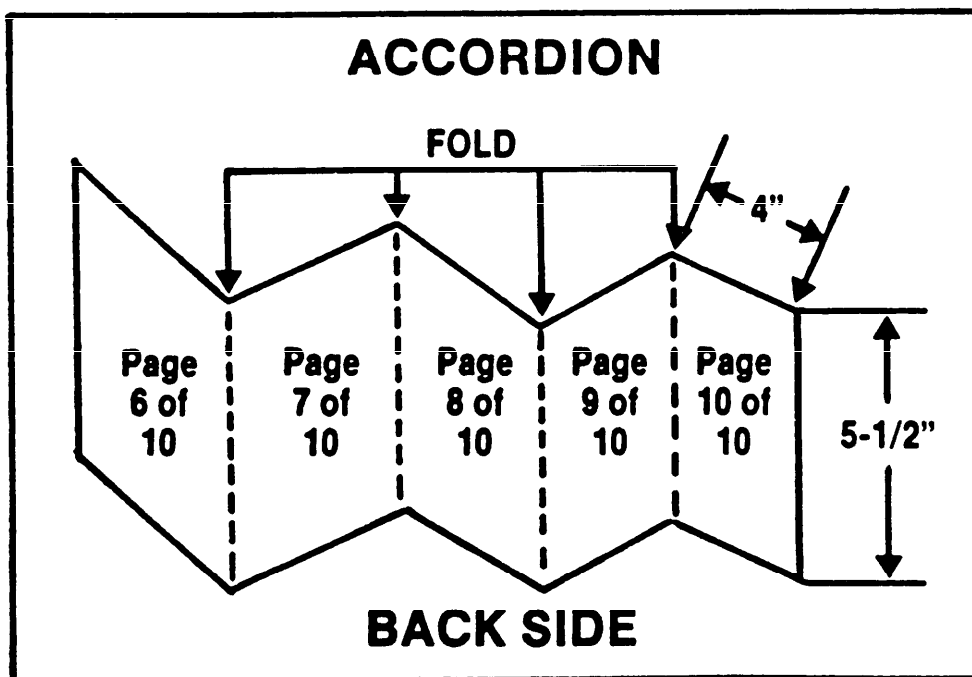
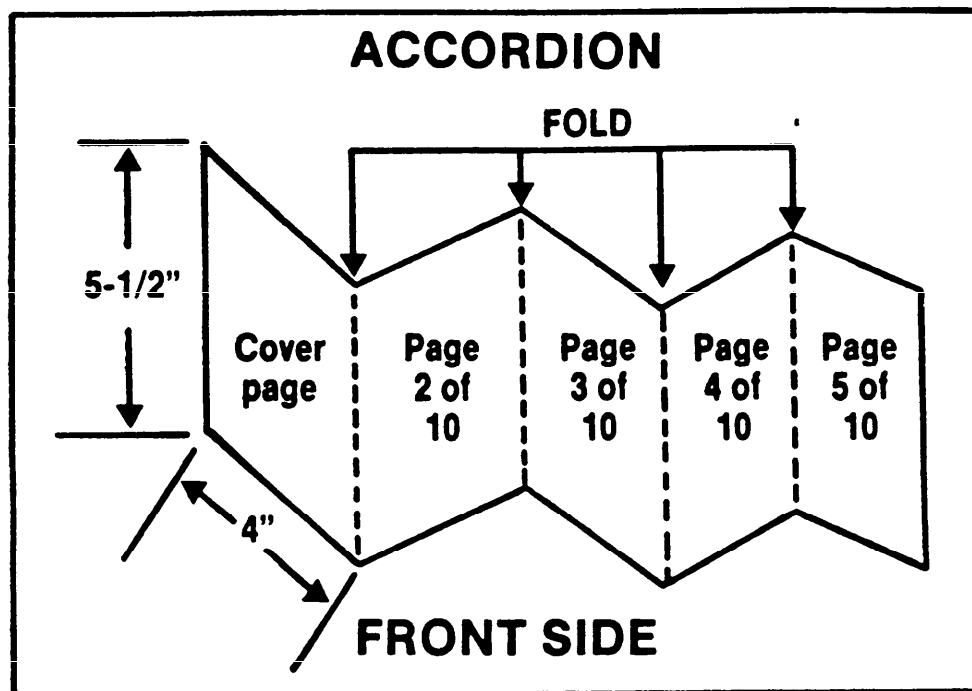
**HEADQUARTERS, DEPARTMENT OF THE ARMY**

**29 SEPTEMBER 1989**

**FIGURE 1. Example of a PMC cover.**



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**FIGURE 2. Example of an accordion foldout.**



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## **BEFORE OPERATION CHECKS**

### **DRIVER (CONTINUED)**

#### **CAUTION**

**Vehicle must be on a level surface for proper oil or fluid checks.**

- \* 19. Check oil/fluid levels in these items:
  - a. Engine
  - b. Transfer gear case

#### **WARNING**

**CARBON MONOXIDE IN EXHAUST CAN KILL YOU. MAKE SURE YOU HAVE ADEQUATE VENTILATION AND THAT THE EMERGENCY BRAKE IS SET BEFORE STARTING ENGINE.**

- \* 20. Check radiator and heater hoses for leaks with the engine running.
- \* 21. Check fuel lines for leaks.
- 22. Turn engine off and then drain fuel filter contamination.

### **GUNNER**

- 23. Check the deck and make sure all items are secured.
- \* 24. Check the machine gun mount for proper operation.
- 25. Check the commander's cupola.

#### **NOTE**

**An asterisk indicates a Not Mission Capable (NMC) fault that must be reported on DA Form 2404 or other maintenance form prescribed by your command.**

**FIGURE 3. Example of a PMC inside page identifying crewmembers.**

(Sheet 1 of 2)

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## BEFORE OPERATION

### CAUTION

**Vehicle must be on a level surface for proper oil and fluid checks.**

1. Check oil and fluid levels in these items:

- \* a. Engine.
- \* b. Transmission.
- \* c. Cooling system reservoir.
- d. Windshield washer reservoir.

- \* 2. Check operation of emergency brake.

### WARNING

**DO NOT TOUCH HOT EXHAUST PIPES. YOU COULD RECEIVE SEVERE BURNS.**

- \* 3. Check exhaust system for obvious damage, leaks, or rust through.

## DURING OPERATION

- \* 4. Check steering for excessive play.
- \* 5. Check oil pressure and temperature gauges for normal readings.
- 6. Check windshield wipers.

## AFTER OPERATION

- 7. Make sure emergency brake is set.
- 8. Make sure all lights are turned off.

### NOTE

**An asterisk indicates a Not Mission Capable (NMC) fault that must be reported on DA Form 2404 or other maintenance form prescribed by your command.**

FIGURE 3. Example of an PMC inside page.

(Sheet 2 of 2)

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**Custodian:**

**ARMY-TM**

**Review activities:**

**ARMY: AL, AR, AT, AV, CR,  
CU, ME, MI, TS**

**Preparing activity:**

**ARMY-TM**

**Project number: TMSS A246**







**INSTRUCTIONS:** In a continuing effort to make our standardization documents better, the DoD provides this form for use in submitting comments and suggestions for improvements. All users of military standardization documents are invited to provide suggestions. This form may be detached, folded along the lines indicated, taped along the loose edge (*DO NOT STAPLE*), and mailed. In block 5, be as specific as possible about particular problem areas such as wording which required interpretation, was too rigid, restrictive, loose, ambiguous, or was incompatible, and give proposed wording changes which would alleviate the problems. Enter in block 6 any remarks not related to a specific paragraph of the document. If block 7 is filled out, an acknowledgement will be mailed to you within 30 days to let you know that your comments were received and are being considered.

**NOTE:** This form may not be used to request copies of documents, nor to request waivers, deviations, or clarification of specification requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

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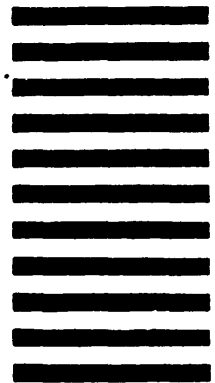
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## STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

(See Instructions - Reverse Side)

1. DOCUMENT NUMBER <b>MIL-M-49501(TM)</b>		2. DOCUMENT TITLE <b>Manuals, Technical: Daily Preventive Maintenance Checklist</b>	
3a. NAME OF SUBMITTING ORGANIZATION		4. TYPE OF ORGANIZATION (Mark one)	
b. ADDRESS (Street, City, State, ZIP Code)		<input type="checkbox"/> VENDOR	
		<input type="checkbox"/> USER	
		<input type="checkbox"/> MANUFACTURER	
		<input type="checkbox"/> OTHER (Specify): _____	
5. PROBLEM AREAS			
a. Paragraph Number and Wording:			
b. Recommended Wording:			
c. Reason/Rationale for Recommendation:			
6. REMARKS			
7a. NAME OF SUBMITTER (Last, First, MI) - Optional		b. WORK TELEPHONE NUMBER (Include Area Code) - Optional	
c. MAILING ADDRESS (Street, City, State, ZIP Code) - Optional		8. DATE OF SUBMISSION (YYMMDD)	