

UNCLASSIFIED
Security Classification

AD-738541

DOCUMENT CONTROL DATA - R & D		
<i>(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)</i>		
1. ORIGINATING ACTIVITY (Corporate author) U.S. Army Test and Evaluation Command Aberdeen Proving Ground, Maryland 21005		2a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED
		2b. GROUP
3. REPORT TITLE U.S. Army Test and Evaluation Command System Service Test Operations Procedure "Automotive Test Sets"		
4. DESCRIPTIVE NOTES (Type of report and inclusive dates) Final		
5. AUTHOR(S) (First name, middle initial, last name)		
6. REPORT DATE 16 February 1972	7a. TOTAL NO. OF PAGES 3	7b. NO. OF REFS 0
8a. CONTRACT OR GRANT NO.	9a. ORIGINATOR'S REPORT NUMBER(S) TOP 2-3-200	
b. PROJECT NO.	9b. OTHER REPORT NO(S) (Any other numbers that may be assigned this report)	
c. AMCR 310-6		
d.		
10. DISTRIBUTION STATEMENT APPROVED FOR PUBLIC RELEASE, DISTRIBUTION UNLIMITED		
11. SUPPLEMENTARY NOTES	12. SPONSORING MILITARY ACTIVITY Headquarters U.S. Army Test and Evaluation Command Aberdeen Proving Ground, Maryland 21005	
13. ABSTRACT Describes a method for evaluation of automotive maintenance test set physical and functional performance characteristics. Identifies supporting tests, facilities, and equipment required. Provides procedures for functional suitability tests.		

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Springfield, Va 22151

DD FORM 1473
NOV 66

REPLACES DD FORM 1473, 1 JAN 64, WHICH IS
OBSOLETE FOR ARMY USE.

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14 KEY WORDS	LINK A		LINK B		LINK C	
	ROLE	WT	ROLE	WT	ROLE	WT
Diagnostic Equipment						
Test Equipment						
Test Set						

U. S. ARMY TEST AND EVALUATION COMMAND
SYSTEM SERVICE TEST OPERATIONS PROCEDURE

AMSTE-RP-702-101

Test Operations Procedure 2-3-200

16 February 1972

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AUTOMOTIVE TEST SETS

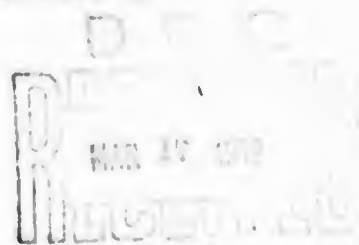
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SECTION I
GENERAL

1. Purpose and Scope. This Test Operations Procedure is to be used to test automotive test sets in maintenance operations. Test phases include trouble-shooting and verification of diagnosis as indicated by test item. The item will be tested under climatic categories 5 and 6 as defined in AR 70-38.
2. Background. The increase in mobility of the Army has placed greater and greater demand on the maintenance system. The combat elements and service troops must be in a posture when a vehicle is inoperable to ascertain the trouble by the use of the test item and to repair vehicle and place it back in operation in minimum time to ensure a high degree of availability.
3. Equipment and Facilities. As specified in the supporting tests defined in Section II below.

SECTION II
TEST PROCEDURES

4. Supporting Tests. Common Service TOPs, the test defined in Section III, and other published documents to be considered in formulating a service test as follows:



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a. Operator Training and Familiarization	10-3-501
b. Safety Hazards	2-3-501
c. Preoperational Inspection and Physical Characteristics	2-3-500
d. Functional Suitability (refer to para 5)	
e. Human Factors Engineering	2-3-516
f. Surface Transportability (Vehicles)	2-3-519
g. Air Portability, Internal - Suitability of Supplies and Equipment for	7-3-515
h. Air Portability, External - Suitability of Supplies and Equipment for	7-3-516
i. Maintainability	2-3-502
j. Maintenance Evaluation - Tools and Test Equipment	2-3-527
k. Maintenance Evaluation - Technical Manuscripts and Manuals	2-3-528
l. Reliability	2-3-507

SECTION III
SUPPLEMENTARY INSTRUCTIONS

5. Functional Suitability.

a. Objective. To determine the functional suitability of the test item as a means of testing automotive equipment in the field and to determine the technical performance, engineering adequacy, safety characteristics, and diagnostic accuracy of the test item and to further determine if the test item meets the criteria established in the Materiel Need (MN) or other applicable documents.

b. Method. Operate the test item through various cycles of testing utilizing each transducer kit and its accessories and attachments provided for performing the design function. Perform all hook-up and troubleshooting procedures in accordance with the technical manual for the item. During all testing, each time the test item indicates a fault, an independent check will be made if the fault in fact exists. Comparison will be made between equipment

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of known faults and equipment without faults to determine that the test item can diagnose each accurately. In addition, ascertain the validity of the diagnosis by checking readings with other automotive test sets. Rotate at least three operating crews through testing and compare results. Conduct 10 percent of operations during hours of darkness using available light.

c. Data Required.

- (1) Nomenclature of test item and description of test set-up.
- (2) Times required for test item set-up and initiation of troubleshooting procedures and time to diagnose various faults.
- (3) Deficiencies and shortcomings observed during operation.
- (4) Remarks concerning operation of test item.

d. Analytical Plan. Evaluate test results to determine whether or not the test item meets performance requirements as stated in the MN or applicable documents.

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