

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR'S AND ORGANIZATIONAL
MAINTENANCE MANUAL

TEST SET, SIGNAL CONVERTER

AN/ASM-416



HEADQUARTERS, DEPARTMENT OF THE ARMY

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CHAPTER 1 INTRODUCTION

Section I. GENERAL

1-1. Scope

a. This manual covers the operation and organizational maintenance of Test Set, Navigational Computer-Control Indicator AN/ASM-386 (test set) (fig.1-1).The manual includes instructions for operation under unusual conditions, trouble- shooting, and removal and replacement of parts available at the organizational level.

b. The organizational repair parts and special tools list appears in TM 11-6625-2441-20P.

1-2. Consolidated Index Of Army Publications And Blank Forms Refer to the latest issue of DA Pam 25-30 to determine whether there are new editions, changes or additional publications pertaining to the equipment.

1-3. Maintenance Forms, Records And Reports

a. Reports of Maintenance and Unsatisfactory Equipment. Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA Pam 738-?50, as contained in Maintenance Management Update.

b. Report of Item Packaging Discrepancies. Fill out and forward SF 364 (Report of Discrepancy (ROD)) as prescribed in AR 735-11-2/DLAR 4140.55/SECNAVINST 4355.18/AFR 400-54/MC04430.3J.

c. Transportation Discrepancy Report (TDR) (SF 361). Fill out and forward Transportation Discrepancy Report (TDR) (SF 361) as prescribed in AR 55-38/NAVSUPINST 4610.33C/AFR 75-18/MCO P4610 19D/DLAR 4500.15.

d. Reporting Errors and Recommending Improvements You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, or DA Form 2028 (Recommended Changes to Publications and Blank Forms) direct to: Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: AMSEL-LC-ME-PS, Fort Monmouth, New Jersey 07703-5000.

e. Deleted

Section II. DESCRIPTION AND DATA

1-4. Purpose and Use

a. The test set is an automatic tester that provides digital and analog signals for testing navigational computers and their associated control- indicators such as Computer, Navigation CP-941/ ASN-86 and Control-Indicator ID-1579/ASN-86. When performing self-test, the input and output signals are interconnected, with appropriate resistive loads, through Adapter, Self Test MX-8586/ASM-386.The test set utilizes program punched-tape inputs, and test data is displayed on front panel indicators and digital displays.

b. When testing navigational computers, the input data is processed and converted to simulate input signals from associated avionics. Computer output signals are compared in the test set with programmed data. The results of these comparisons are displayed on the front panel. The test set is capable of filling computer memory and then verifying the stored data for validity. Testing, memory fill, and fault isolation may be performed automatically.

c. Control-indicator testing is performed in the same

manner as the computer tests. When manual or visual operations are required, tape-stop instructions are provided in the punched-tape program to permit these manual operations. Control- indicator output signals are compared with programmed data from the punched tape in the tape set. Results of these comparisons are displayed on the control-indicator panel or on the test set front panel.

d. When used in conjunction with the MX-8586/ASM-386, the test set performs an automatic self-test and analysis using computer and control-indicator test cables for input-output inter- connection. The MX-8586/ASM-386 is a passive device which contains load resistors and interconnecting wiring. The analysis of data is also performed by the comparison method and the results are displayed on front panel.

1-5. Technical Characteristics

Characteristics of the Logic Control Unit TS-2912/ASM-386 and Signal Conditioning Unit TS- 2913/ASM-386 are listed in the following chart.