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TECHNICAL MANUAL

OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT, AND

GENERAL SUPPORT MAINTENANCE MANUAL

FOR

TEST SET, SYNCHRO TTU-23/E

(NSN 6625-00-556-8108)

HEADQUARTERS, DEPARTMENT OF THE ARMY

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**OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT, AND
GENERAL SUPPORT MAINTENANCE MANUAL
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(NSN 6625-00-556-8108)**

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You can improve this manual by recommending improvements using DA Form 2028-2 located in the back of the manual. Simply tear out the self-addressed form fill it out as shown on the sample, fold it where shown; and drop it in the mail.

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Figure 1-1. Test Set, Synchro TTU-23/E

CHAPTER 1 INTRODUCTION

Section I. GENERAL

1-1. Scope

This manual provides instructions for the installation, operation, maintenance, and troubleshooting of Test Set, Synchro TTU-23/E (fig. 1-1). The manual describes the maintenance requirements for the operator, organizational, direct support, and general support maintenance personnel. Appendix A contains references and appendix D contains the maintenance allocation chart.

1-2. Indexes of Publications

a. *DA Pam 310-4.* Refer to the latest issue of DA Pam 310-4 to determine whether there are new editions, changes, or additional publications pertaining to the equipment.

b. *DA Pam 310-7.* Refer to DA Pam 310-7 to determine whether there are modification work orders (MWO's) pertaining to the equipment.

1-3. Forms and Records

a. *Reports of Maintenance and Unsatisfactory Equipment.* Maintenance forms, records, and reports which are to be used by maintenance personnel at all maintenance levels are listed in and prescribed by TM 38-750.

b. *Report of Packaging and Handling Deficiencies.* Fill out and forward DD Form 6 (Packaging Improvement Report) as prescribed in AR 700-58 /NAVSUPINST 4030.29/AFR 71-13/MCO P4030.29A, and DLAR 4145.8.

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

1-4. Reporting Equipment Improvement Recommendations (EIR)

EIR's will be prepared using DA Form 2407, (Maintenance Request). Instructions for preparing EIRs are provided in TM 38-750, The Army Maintenance Man-

agement System. EIRs should be mailed direct to Commander, US Army Electronics Command, ATTN DRSEL-MA-Q, Fort Monmouth, NJ 07703. A reply will be furnished direct to you.

1-5. Administrative Storage

Administrative storage of equipment issued to and used by Army activities shall be in accordance with TM 740-90-1.

1-6. Destruction of Army Electronics Materiel

Destruction of Army electronics materiel to prevent enemy use shall be in accordance with TM 750-244-2.

Table 1-1. Nomenclature Cross Reference

Nomenclature or component	Ref designation	Common name
Test Set, Synchro TTU-23/U		Test set
Autosyn, Test (Transmitter) 13658-77A	B201	Transmitter
Amplifier, Synchro, Signal Signal	A201	Servaamplifier
Autosyn, Servoed Indicator 13662-51A	B202	Indicator
Synchro, Transmitter AY201S-3B		Lacked autosyn
Cable Assembly, Special Purpose, Electrical "A"		Power source cable A
Cable Assembly, Special Purpose, Electrical "B"		Adapter cable B
Cable Assembly, Special Purpose, Electrical "C"		Power source cable C
Cable Assembly, Special Purpose, Electrical "E"		Power source cable E
Cable Assembly, Special Purpose, Electrical "F"		Power source cable F
Cable Assembly, Special Purpose, Electrical "G"		Test adapter cable G
Cable Assembly, Special Purpose, Electrical "H"		Test cable H
Cable Assembly, Special Purpose, Electrical "J"		Autosyn test cable J
Cable Assembly, Special Purpose, Electrical "K"		Dual indicator test cable K

Section II. DESCRIPTION AND DATA

1-7. Purpose and Use

Test Set, Synchro TTU-23/E is a portable field instrument used for testing 26-volt, 400-Hertz self-synchronous and servoed synchro indicators and transmitters installed in aircraft. The test set allows electrical zero and calibration checks as well as an operating check if the low-inertia motor is contained in servoed instruments.

1-8. Description

a. The test set consists of a panel assembly mounted

in a case and is supplied with nine electrical cable assemblies and one test plug.

b. The panel assembly contains the operating controls, switches, and indicators which are mounted on a panel and are protected by a hinged cover when the test set is not in use,

c. Beneath the panel assembly are located servoamplifier A201, power transformer T201, and three calibrated autosyn synchros: transmitter B201, indicator B202, and a locked autosyn B203.