

**ARMY
NAVY
AIR FORCE**

**TM 11-6625-3024-14
EE641-AC-MMA-010/E154 SYSEX
TO 33AA50-5-1-1**

TECHNICAL MANUAL

**OPERATOR'S,
ORGANIZATIONAL, DIRECT SUPPORT,
AND GENERAL SUPPORT MAINTENANCE MANUAL**

**TEST SET,
MAGNETIC TAPE TRANSPORT
TS-4002/UYH-5
(NSN 6625-01-128-2432)**

DEPARTMENTS OF THE ARMY, NAVY, AND AIR FORCE

FEBRUARY 1983

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Washington, DC, 17 February 1983

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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, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in back of this manual direct to: Commander, US Army Communications – Electronics Command and Fort Monmouth, ATTN: DRSEL-ME-MP, Fort Monmouth, New Jersey 07703.

For Air Force, submit AFTO Form 22 (Technical Order System Publication Improvement Report and Reply) in accordance with paragraph 6-5, Section VI, T.O. 00-5-1. Forward direct to prime ALC/MST.

For Navy, mail comments to the Commander, Naval Electronics Systems Command, ATTN: ELEX 8122, Washington, DC 20360.
In either case, a reply will be furnished direct to you.

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SECTION I

GENERAL DESCRIPTION

1-A.1. SCOPE

This manual describes the Test Set, Magnetic Tape Transport TS-4002/UZH-5 (Figure 1-1), hereafter referred to as the Exerciser, The manual contains instructions for the installation, operation, functional description and maintenance of the equipment. A complete listing of reference publications is provided in Appendix A. The Maintenance Allocation Chart is contained in Appendix B. The Repair Parts and Special Tools List (RPSTL) is contained in TM 11-5835-250-24P.

1-A.2. INDEX OF TECHNICAL PUBLICATIONS

a. Army. Refer to the latest issue of DA Pam 310-1 to determine whether there are new editions, changes, or additional publications pertaining to the equipment.

b. Air Force. Use T.O. 0-1-31 Series Numerical Index and Requirements Table (NIRT).

1-A.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 TM 38-750, The Army Maintenance Management System (Army). Air Force personnel will use AFR 66-1 for maintenance reporting and TO-00-35D54 for unsatisfactory equipment reporting. Navy personnel will report maintenance performed utilizing the Maintenance Data Collection Subsystem (MDCS) IAW OPNAVINST 4790.2, Vol 3 and unsatisfactory material/conditions (UR submissions) IAW OPNAVINST 4790.2, Vol 2, chapter 17.

b. Report of Packaging and Handling Deficiencies. Fill out and forward SF 364 (Report of Discrepancy (ROD)) as prescribed in AR 735-11-2/ DLAR4140.55/NAVMATINST 4355.73/AFR 400-54/MCO 4430.3E.

c. Discrepancy in Shipment Report (DISREP) (SF367). Fill out and forward Discrepancy in Shipment Report (DISREP) (SF361) as prescribed in AR 55-38/NAVSUPINST 4610.33B/AFR 75-18/MCO P4610.19C and DLAR 4500.15.

1-A.4. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR)

a. Army. If your Exerciser needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design. Tell us why a procedure is hard to perform. Put it on an SF 368 (Quality Deficiency Report). Mail it to Commander, US Army Communications – Electronics Command and Fort Monmouth, ATTN: DRSEL-ME-MP, Fort Monmouth, NJ 07703. We'll send you a reply.

b. Air Force. Air Force personnel are encouraged to submit EIR's in accordance with AFM 900-4.

c. Navy. Navy personnel are encouraged to submit EIR's through their local Beneficial Suggestion Program.

1-A.5. ADMINISTRATIVE STORAGE

Administrative storage of equipment issued to and used by Army activities will have preventive maintenance performed in accordance with the PMCS charts before storing. When removing the equipment from administrative storage, the PMCS should be performed to assure operational readiness. Prepare in accordance with TM-740-90-1.

1-A.6. DESTRUCTION OF ARMY ELECTRONICS MATERIEL

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

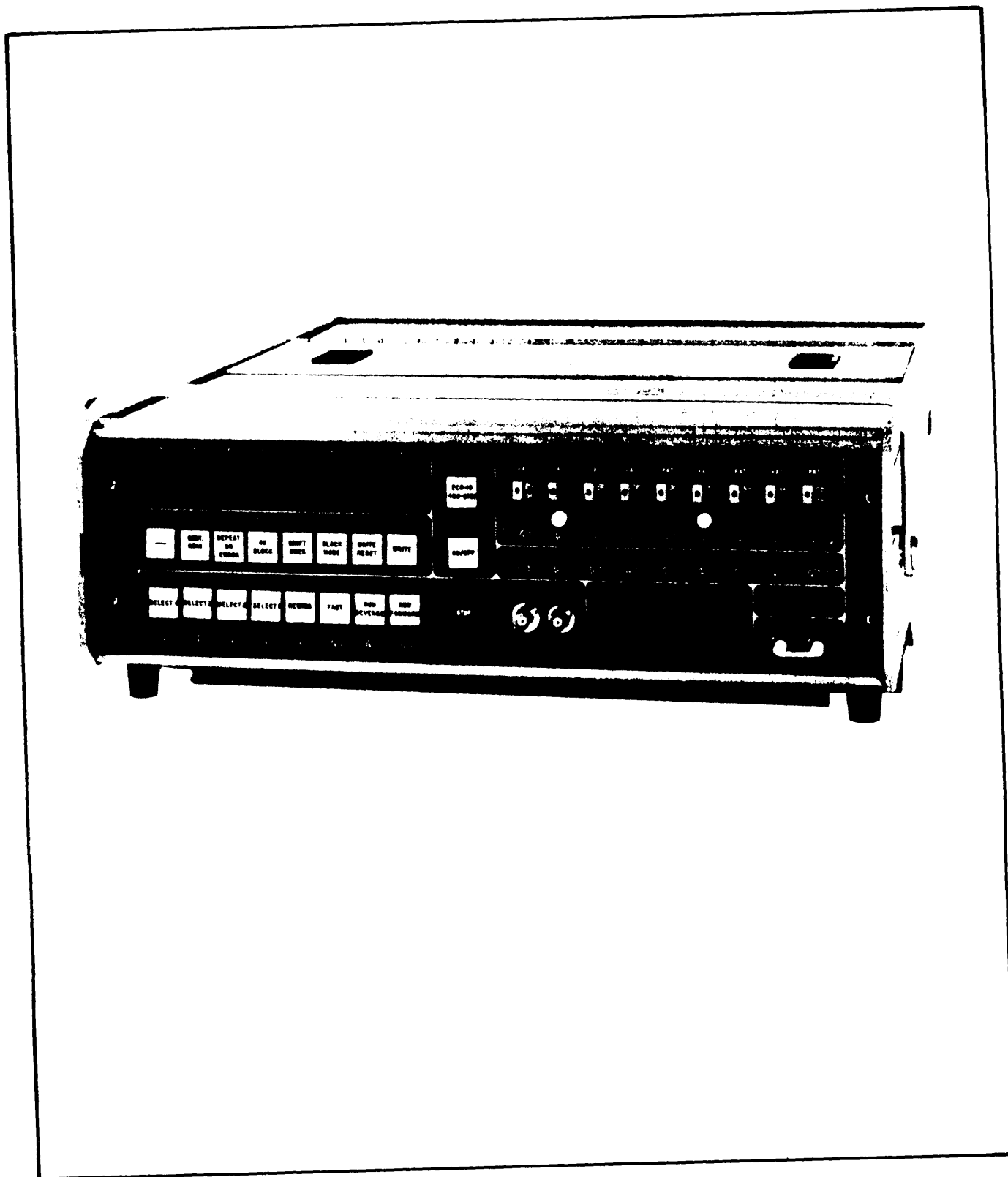


Figure 1-1. Magnetic Tape Transport Test Set TS-4002/UYH-5

1-1. INTRODUCTION

This technical manual provides installation, operation, and field level maintenance instructions for the TS-4002/UYH-5 Exerciser. Information contained in this manual is intended for use by technical personnel involved in the actual operation and maintenance of the subject equipment.

1-2. PURPOSE AND USE

The instructions contained in this manual apply to the Exerciser to be used in exercising the Magnetic Tape Transport AN/UYH-5.

1-3. EQUIPMENT DESCRIPTION

The Exerciser is a portable instrument designed to be a testing and troubleshooting aid for the AN/UYH-5 Magnetic Tape Transport. The Exerciser includes all the controls required to exercise the transport in both read and write modes. The unit is a portable, self-contained instrument that provides all data, control signals, and power required by the AN/UYH-5 transport.

Operator controls, indicators, and test points are located on the front panel. Test points are provided on the front panel for monitoring status indications from the transport, read and write data to and from the transport, and motion control signals to the transport.

The Exerciser generates a selected data pattern for recording on eight data channels and a parity channel. Front panel controls are provided for selecting ALL '0', ALL '1', or ALL PATTERN for write data on all eight channels. Write data is also selectable for each individual data channel. Front

panel controls and indicators are provided for selecting write data in block mode, 256 byte block (short block), 4K byte block mode (long block), and shifted ones mode. The Exerciser will read the data from the transport in the recorded block mode and in a continuous read mode.

BNC connectors are provided on the front panel for external start enable inputs and start output pulses. Connectors are also provided on the front panel for monitoring the transport power supply current, data and control signals.

The Exerciser monitors the reproduced data from the transport for parity errors. Soft errors and hard errors are accumulated and displayed on 2-digit LED displays. The type of error (VRC error or LRC error) is also displayed on front panel indicators.

The Exerciser generates and formats nine read/write channels of parallel digital data in NRZ format. The Exerciser control logic controls the timing for the transport.

The Exerciser is housed in a sturdy metal case 6¼ inches high, 18 inches wide, and 23 inches deep. The power supply is separately housed and attached to the rear of the Exerciser mainframe. All front panel controls, indicators, and test points are an integral part of the logic printed circuit cards. Six printed circuit cards, containing all logic circuits, are located behind the front panel plate.

Cable storage is provided in a compartment located above the power supply module. One power cable and one transport interconnect cable provide interface between the Exerciser and transport.