

TM 11-6625-620-45-2

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

GENERAL SUPPORT AND DEPOT MAINTENANCE MANUAL

TEST SET, TELETYPEWRITER TS-800/UGM-1

This copy is a reprint which includes current
Pages from Changes 1 and 2

HEADQUARTERS, DEPARTMENT OF THE ARMY

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TECHNICAL MANUAL }
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HEADQUARTERS
 DEPARTMENT OF THE ARMY
 WASHINGTON, D. C., 14 March 1968

General Support and Depot Maintenance Manual

TEST SET, TELETYPEWRITER TS-800/UGM-1

(NSN 6625-00-965-0197)

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-ME-MP, Fort Monmouth, NJ 07703-5007.

In either case, a reply will be furnished direct to you.

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*This manual supersedes TM 11-6625-620-45-2, 6 December 1966.

CHAPTER 1 INTRODUCTION

Section I. GENERAL

1-1. Scope

a. This manual contains general support and depot maintenance instructions for Test Set, Teletypewriter TS-800/UGM-1. It includes instructions appropriate to general support and depot maintenance personnel for troubleshooting, testing and repairing the equipment. It also lists tools, materials, and test equipment required for general support and depot maintenance. Functional analysis of the equipment is also covered.

b. The complete technical manual for this equipment includes TM 11-6625-620-12 and TM 11-6625-620-25P-2.

1-2. Consolidated Index of Army Publications and Blank Forms

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.

1-2.1. 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 738-750 as contained in Maintenance Management Update.

b. *Report of Packaging and Handling Deficiencies.* Fill out and forward SF 364 (Report of

Discrepancy (ROD)) as prescribed in AR 735-11-2/DLAR 4140.55/NAVMATINST 4355.73A/AFR 400-54/MCO 4430.3H.

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 4610.33C/AFR 75-18/MCO P4610.19D DLAR 4500.15.

1-2.2. Destruction of Army Materiel To Prevent Enemy Use

Refer to TM 750-244-2 for procedures to be used for this equipment.

1-2.3. Administrative Storage

Refer to TM 760-90-1 for procedures to be used when equipment is to be placed in administrative storage.

1-2.4. Reporting Equipment Improvement Recommendations (EIR)

If your equipment 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 the design. Put it on an SF 368 (Quality Deficiency Report). Mail it to: Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: AMSEL-PA-MA-D, Fort Monmouth, New Jersey 07703-5023. We'll send you a reply.

Section II. UNIT FUNCTIONING

1-3. General

Test Set, Teletypewriter TS-800/UGM-1 (distortion analyzer) provides a direct-reading, panel-meter indication of the amount of distortion present in a start-stop telegraph signal. It compares the position of the input signal transitions to an accurate time-base signal that is generated in the time-base circuits, and indicates whether the signal transitions are occurring at the correct time, early, or late. The EARLY lamp lights to indicate when the transitions are early; the LATE lamp lights to indicate when the transitions are late. The time-base circuits synchronize the time-base signal (reference) with the mark-to-space transition of the stop-mark and start-space. The distortion analyzer also compares the succeeding mark-to-space or space-to-mark transitions of the

input signal to this reference. The displacement of the telegraph-signal transitions with respect to the reference is directly indicated as a percent distortion indication on the PERCENT DISTORTION meter.

1-4. Block Diagram Analysis

(fig. 6-2)

a. *Signal-Input Circuits.* The signal-input circuits accept either neutral or polar telegraph signals for distortion analysis.

(1) Neutral or polar telegraph signals are applied to neutral and polar marking tone keyer No. 1 or to polar spacing tone keyer No. 2, as applicable, through POLARITY switch 1A1S2, CURRENT SELECT switch 1A1S3, and a noise- and interference-rejecting filter assembly. The