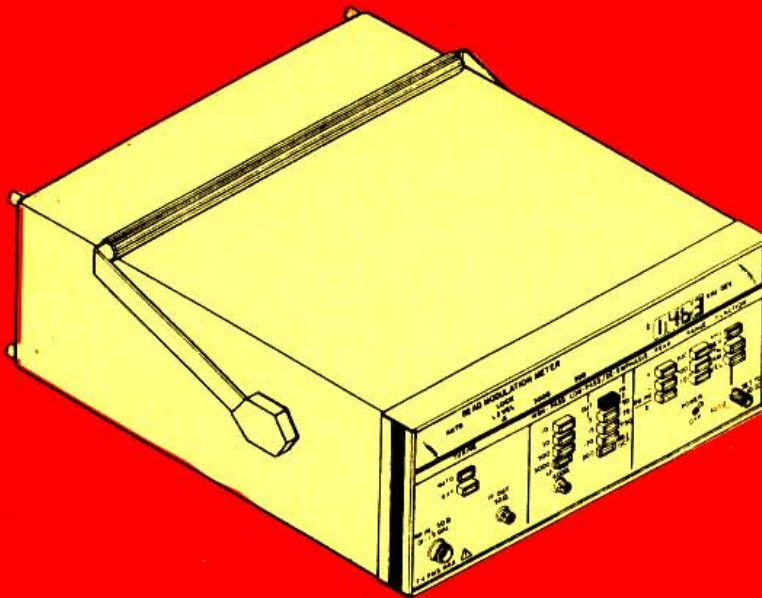


TECHNICAL MANUAL

OPERATOR'S MANUAL



**AM/FM MODULATION METER
ME-525A/USM**
(NSN 6625-01-161-1459)

**EQUIPMENT
DESCRIPTION**

**OPERATING
INSTRUCTIONS**

**CONTROLS AND
INDICATORS**

**PREVENTIVE
MAINTENANCE
CHECKS AND
SERVICES**

**OPERATION UNDER
USUAL CONDITIONS**

**OPERATION UNDER
UNUSUAL CONDITIONS**

**GENERAL
OPERATOR
MAINTENANCE**

**TROUBLESHOOTING
PROCEDURES**

**OPERATOR'S MANUAL
AM/FM MODULATION METER ME-525A/USM
(NSN 6625-01-136-8477)**

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 the back of this manual direct to: Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: DRSEL-ME-MP, Fort Monmouth, New Jersey 07703. A reply will be furnished direct to you.

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HOW TO USE THIS MANUAL

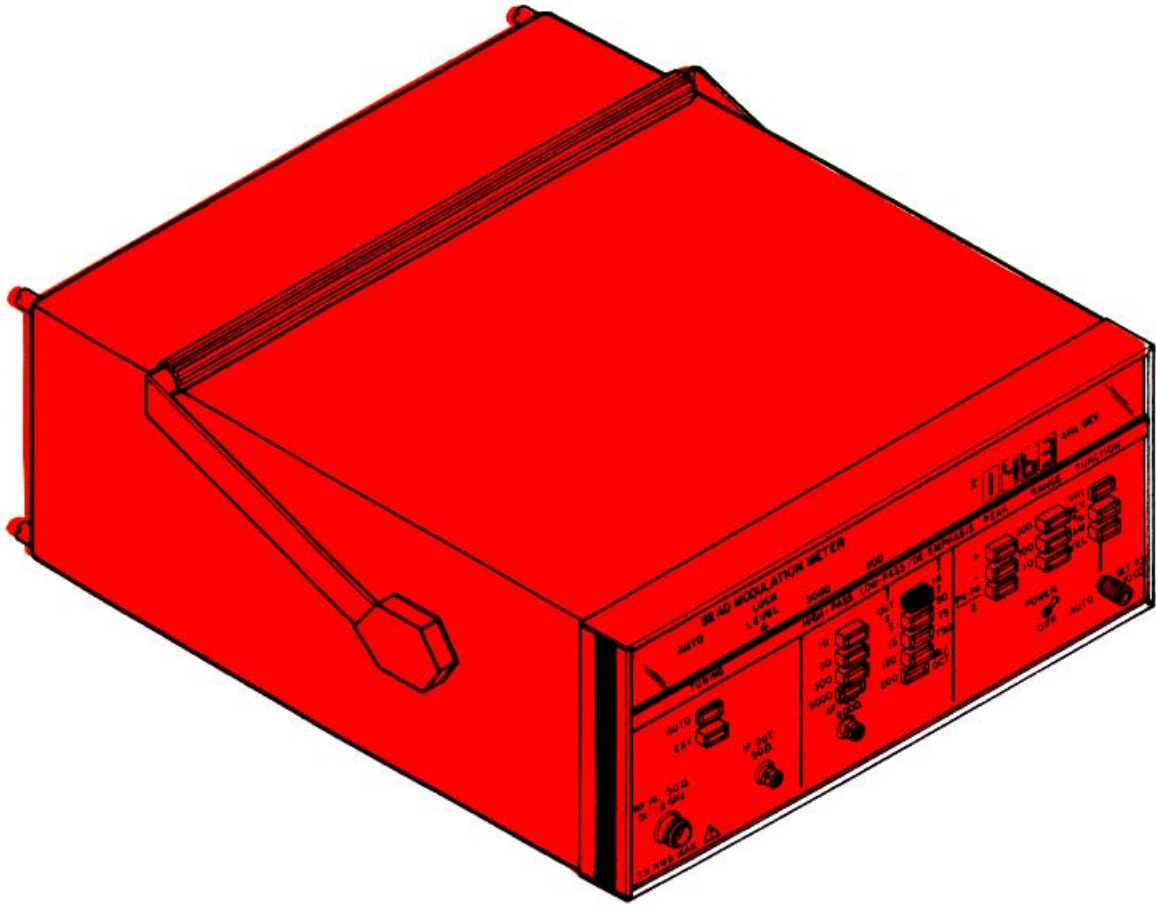
This manual has been prepared in a sequentially numbered order of chapters and sections.

Each chapter contains sections given in Roman numeral order such as Section I, II, and III.

A table of contents is given at the beginning of each chapter for ready access to pages.

A bullet (•) indicates additional information needed for the paragraph above it.

A locator is provided on the right-hand border of the front cover. This gives the location in the manual of the information most frequently needed.



AM/FM Modulation Meter ME-525A/USM

**CHAPTER 1
INTRODUCTION**

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Section I. General Information

SCOPE

- This manual covers operation and operator's maintenance of AM/FM Modulation Meter ME-525A/USM.
- The ME-525A/USM is used to measure amplitude modulation (AM) and frequency modulation (FM) signal characteristics of equipment used for AM and FM communications.

CONSOLIDATED INDEX OF ARMY PUBLICATIONS AND BLANK FORMS

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

MAINTENANCE FORMS, RECORDS, AND REPORTS

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by TM 38-750, The Army Maintenance Management System (TAMMS).

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, The Army Maintenance Management Systems (TAMMS).

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 4430.3F.

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.

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 your equipment. Let us know why you don't like the design. Put it on SA 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.

DESTRUCTION OF ARMY ELECTRONICS MATERIEL

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

Section II. Equipment Description

DESCRIPTION

FM/AM Modulation Meter M E-525AIUSM provides automatic (**AUTO**) tuning, leveling, and modulation display of AM and FM signals. Manual tuning and leveling is also possible using an external (EXT) signal using front panel controls and controls of the external signal source.

- **Automatic and Manual Operation.** The highest amplitude radio frequency(rf) carrier in the frequency range of 10 megahertz (MHz) to 1.2 gigahertz (GHz) is automatically tuned (or manually acquired by adjustment of equipment used for external input) and normalized in level to produce a 1.0 MHz intermediate frequency (if.) signal identical to the input rf carrier (AM or FM modulated). The modulating signal is detected, filtered, measured and then displayed on the digital display in percent of AM modulation or kilohertz of FM deviation.
- **Detectors.** Pushbutton switches select displays of positive or negative peak modulation or peak average, each in three ranges for FM and AM.
- **Audio Filters.** Four high and four low pass filters and four de-emphasis networks provide the means for bandpass simulation of most communications systems. The 6 decibel per octave (6 dB/OCT) pushbutton de-emphasis switch relates phase deviation to the frequency deviation displayed.

EQUIPMENT DATA

- **Weight and Dimensions**

Weight	14 lbs. (63.5 kg)
Length	15.72 in. (399.3 mm)
Width	13.68 in. (347.5 mm)
Height	6.36 in. (111.5 mm)
- **Data Plate**

