

**TECHNICAL MANUAL**

**DIRECT SUPPORT AND GENERAL SUPPORT  
MAINTENANCE MANUAL INCLUDING REPAIR  
PARTS AND SPECIAL TOOLS LISTS**

**METER,  
FLUTTER AND WOW  
ME-254/U**

**Direct Support and General Support Maintenance Manual  
 Including Repair Parts and Special Tools Lists**

**METER, FLUTTER AND WOW ME-254/U**

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## CHAPTER 1

### INTRODUCTION

#### Section I. GENERAL

##### 1-1. Scope

a. This manual contains direct and general support and depot maintenance instructions for Meter, Flutter and Wow ME-254/U (fig. 1-1). It includes instructions for troubleshooting, testing, aligning, and repairing the equipment. It also lists tools, materials, and test equipment required for maintenance. Functional analysis of the equipment is covered in this chapter.

b. The complete technical manual for this equipment includes TM 11-6625-670-12.

c. The reporting of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to Publications) and forwarded direct to Commanding General, US Army Electronics Command, ATTN: AMSELMA-SNV, Fort Monmouth, N.J., 07703.

##### NOTE

For applicable forms and records, refer to paragraph 1-3, TM 11-6625-670-12.

d. Appendix A contains a list of publications applicable to this manual. Direct and general support maintenance repair parts are listed in appendix B.

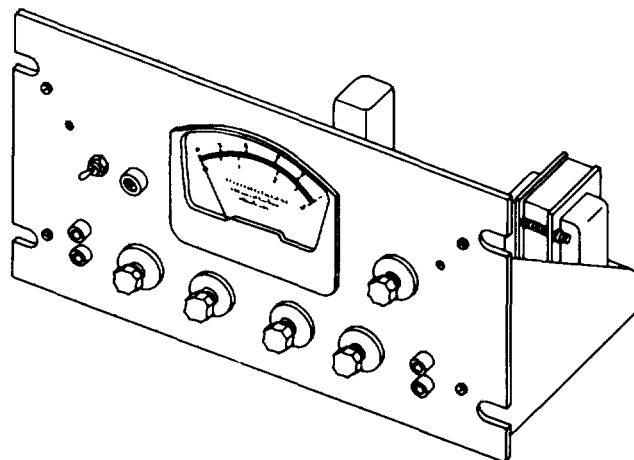


Figure 1-1. Meter, flutter and wow ME-254/U.

##### 1-2. Indexes of Publications

a. DA Pam 310-4. Refer to DA Pam 310-4 to determine latest 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.

#### Section II. DESCRIPTION AND DATA

##### 1-3. Description

The Meter, Flutter and Wow ME-254/U is an extremely sensitive, electronic measuring device, designed for measuring flutter and wow, which is defined as the ratio, expressed as a percentage, of the root mean square deviation in frequency of a standard recorded signal (3,000 Hz) to the average frequency. It provides a rapid and accurate direct visual indication of flutter and wow content of all types of tape recorders and playback

equipment including 33 1/3, 45, and 78 rpm discs and 8, 16, and 35 mm sound film mechanisms. For research and development work, two output terminals are provided for analyzing the characteristic of the flutter. The output terminals on the front panel are provided for oscilloscope display, and a test point jack mounted on the rear chassis apron provides dc response so that drift as well as wow and flutter may be recorded on a direct recorder with suitable amplifiers.