

TM 11-6625-438-15

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

**ORGANIZATIONAL, DS, GS, AND DEPOT
MAINTENANCE MANUAL**

VOLTMETER, ELECTRONIC AN/USM-98



**HEADQUARTERS, DEPARTMENT OF THE ARMY,
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TECHNICAL MANUAL
No. 11-6625-438-15

HEADQUARTERS
DEPARTMENT OF THE ARMY
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Organizational, DS, GS, and Depot Maintenance Manual

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*This manual supersedes TM 11-6625-438-10, 26 October 1962, including C 1, 27 December 1963, and TM 11-6625-438-50, 20 February 1963, including C 1, .5 May 1964.



Figure 1-1. Voltmeter, Electronic AN/USM-98, less two-prong adapter and technical manuals.

CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Scope

This manual contains instructions for the operation, organizational, direct and general support, and depot maintenance of Voltmeter, Electronic AN/USM-98. Also included is the functioning of Voltmeter, Electronic AN/USM-98. Throughout this manual, Voltmeter, Electronic AN/USM-98 will be referred to as the voltmeter (vtvm).

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 (report of Packaging and Handling Deficiencies) as prescribed in AR 700-58 (Army)/NAVSUP Pub 378 (Navy)/AFR 71-4 (Air Force) MCO P4030.29 (Marine Corps), and DSAR 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 (Army)/NAVSUPINST 4610.33/AFM 75-18/MCO P4610.19A (Marine Corps), and DSAR 4500.15.

1-3.1. Reporting of Equipment Publication Improvements

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 Commander, US Army Electronics Command, ATTN: AMSEL-MA-C, Fort Monmouth, NJ 07703.

Section II. DESCRIPTION AND DATA

1-4. Purpose and Use

The vtvm is a portable, precision test equipment, used to measure voltages between 0 and 500 volts direct current (dc) and resistances between 1 and 500,000 megohms. Voltages may be measured by use of the vtvm either as a vacuum-tube voltmeter or as a differential voltmeter.

1-5. Technical Characteristics

a. *Specifications, When Used as Vacuum-Tube Voltmeter (NULL switch in VTVM position).*

Input voltage range	VOLTS RANGE setting	Input resistance (megohms)	Accuracy
0 to $\pm 500V$	500	10	Within ± 490 on all ranges.
0 to $\pm 50V$	50	10	
0 to $\pm 5v$	5	10	
0 to $\pm 0.5v$	.5	10	

b. *Specifications, When Used as Differential Voltmeter.*