

# TM 11-6625-1559-12

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

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OPERATOR AND ORGANIZATIONAL  
MAINTENANCE MANUAL  
INCLUDING REPAIR PARTS AND SPECIAL TOOLS LISTS  
GENERATOR, SIGNAL SWEEP

**AN/USM-203**

(NSN 6625-00-935-0145)

This copy is a reprint which includes current  
pages from Changes 1 through 3.

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HEADQUARTERS, DEPARTMENT OF THE ARMY

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**OPERATOR AND ORGANIZATIONAL MAINTENANCE MANUAL  
 GENERATOR, SWEEP SIGNAL  
 AN/USM-203  
 (NSN 6625-00-935-0145)**

REPORTING OF ERRORS

You can improve this manual by recommending improvements using DA Form 2028-2 located in the back of the manual. Simply tear out the self addressed form, fill it out as shown on the sample, fold it where shown, and drop it in the mail.

If there are no blank DA Form 2028-2 in the back of your manual, use the standard DA Form 2028 (Recommended Changes to Publications and Blank Forms) and forward to the Commander, US Army Communications and Electronics Readiness Command, ATTN: DRSEL-ME-Q Fort Monmouth, NJ 07703.

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

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**CHAPTER 1  
INTRODUCTION**

**Section I. GENERAL**

**1-1. Scope**

This manual describes Generator, Signal Sweep AN/USM-203. It covers instructions for operation and installation, and for operator and organizational maintenance, cleaning and inspection of the equipment, and replacement of parts available to the operator and organizational repairman.

**1-2. Indexes of Publications**

*a. DA Pam 310-4.* Refer to 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 (Packaging Improvement Report) as prescribed in AR 700-58/NAVSUPINST 4030.29/AFR 71-13/MCO P4030.29A, and DLAR 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/NAVSUPINST 4610.33B/AFR 75-18/MCO P4610.19C, and DLAR 4500.15.

**1-3.1. Reporting Equipment Improvement Recommendations (EIR)**

EIR's will be prepared using Standard Form 368 (Quality Deficiency Report). Instructions for preparing EIR's are provided in TM 38-750 (The Army Maintenance Management System). EIR's should be mailed direct to Commander, US Army Communications and Electronics Materiel Readiness Command, ATTN: DRSEL-ME-MQ, Fort Monmouth, NJ 07703. A reply will be furnished direct to you.

**1-3.2. Administrative Storage**

There are no special procedures for preparing this equipment for limited storage. Place all ancillary items as shown in figure 1-1 in a bag. Tie or tape the bag to the equipment. Place equipment in an organizational storage room. Protect equipment from dust, humidity, and extreme temperature changes.

**1-3.3. 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. DESCRIPTION AND DATA**

**1-4. Purpose and Use**

*a.* Generator, Signal Sweep AN/USM-203 is a portable, wide-band radio frequency (rf) generator with a frequency range of 500 kiloHertz (kHz) to 1,200 megaHertz (MHz), and sweep widths variable from 10 kHz to 400 MHz. The unit produces crystal-controlled, pulse-type frequency marker signals at 1, 10, and 100 MHz and at all multiples of these frequencies within the range of the unit. Also, provisions are made for the insertion of one or two externally generated marker signals. Throughout this manual, Generator, Signal Sweep SG-593/U (the main component of Generator, Signal Sweep AN/USM-203) will be referred to as the sweep generator.

*b.* The sweep generator can be used in conjunction with an external oscilloscope to measure

frequency response, gain and bandpass of receivers, amplifiers, filters, transformers, cavities, and resonant circuits. It can also be used to measure the sending-end impedance of a loaded transmission line to determine proper matching.

**1-5. Technical Characteristics**

Frequency range:

- Vhf (wide and narrow) . . . . .500 kHz to 400 MHz.
- Unf (narrow) . . . . .350 MHz to 1,200 MHz.
- UNF (wide) . . . . .275 Mhz to 1,100 MHz

Sweep width:

- Vhf (narrow) . . . . .10 kHz or less minimum;  
1 MHz or more maximum.
- Vhf(wide) . . . . .500 kHz or less minimum;  
400 MHz or more maximum.
- Unf (narrow) . . . . . 10 kHz or less minimum;  
1 MHz or more maximum.