

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

SIGNAL

GENERATOR

AN/URM-70

This copy is a reprint which includes current pages from Change 2.

DEPARTMENT OF THE ARMY . JULY 1955

SIGNAL GENERATOR AN/URM-70

			<i>Paragraph</i>	<i>Page</i>
Chapter	1.	INTRODUCTION		
Section	I.	General -----	1, 2	2
	II.	Description and data -----	3-11	2
CHAPTER	2.	INSTALLATION -----	12-15	7
	3.	OPERATION		
Section	I.	Controls and instruments -----	16, 17	11
	II.	Operation under usual conditions -----	18-22	13
	III.	Operation under unusual conditions -----	23-26	14
Chapter	4.	ORGANIZATIONAL MAINTENANCE		
Section	I.	Preventive maintenance -----	27-32	16
	II.	Lubrication and weatherproofing -----	33-35	19
	III.	Troubleshooting at organizational maintenance level -----	38-39	20
CHAPTER	5.	THEORY -----	40-52	22
	6.	FIELD MAINTENANCE		
Section	I.	Troubleshooting at field maintenance level -----	53-59	36
	II.	Repairs -----	60-72	41
	III.	Alinement and adjustment procedures -----	73-87	59
	IV.	Final testing -----	88-94	63
CHAPTER	7.	SHIPMENT AND LIMITED STORAGE AND DEMOLI- TION TO PREVENT ENEMY USE		
Section	I.	Shipment and limited storage -----	95-98	66
	II.	Demolition of materiel to prevent enemy use -----	99,100	67
INDEX		-----		71

CHAPTER 1 INTRODUCTION

Section I. GENERAL

1. Scope

a This manual cover Signal Generator AN/URM-70 (fig. 1). Instructions are given for its installation, operation, repair, and maintenance. In addition to these instructions, there is a chapter devoted to its circuit theory.

b. All comments on this manual will be forwarded direct to Commanding Officer, Signal Corp Publications Agency, Fort Monmouth, N. J. ATTN: Standards Division.

2. Forms and Records

The following forms will be used for reporting unsatisfactory conditions of Army equipment and when performing preventive maintenance:

a DD Form 6 (Report of Damaged or Improper Shipment) will be filled out and forwarded as prescribed in SR 741 (Army); Navy Shipping Guide, Article 1804 (Navy); and AFR 71-4 (Air Force).

b. DA Form 468 (Unsatisfactory Equipment Report) will be filled out and forwarded to the Office of the Chief Signal Officer as prescribed in SR 700-45-5.

c. DD Form 535 (Unsatisfactory Report) will be filled out and forwarded to Commanding General, Air Materiel Command, Wright-Patterson Air Force Base, Dayton, Ohio, as prescribed in AF TO 00-35D-54.

d. DA Form 11-238 (Operator First Echelon Maintenance Check List for Signal Corps Equipment (Radio Communication, Direction Finding, Carrier, Radar)) will be prepared in accordance with instructions on the back of the form (fig. 6).

e. DA Form 11-239 (Second and Third Echelon Maintenance Check List for Signal Corps Equipment (Radio Communication, Direction Finding, Carrier, Radar)) will be prepared in accordance with instructions on the back of the form (fig. 7).

f Use other forms and records as authorized.

Section II. DESCRIPTION AND DATA

3. Purpose and Use

a. Signal Generator AN/URMM-70 is designed to provide very-high frequency (vhf) test signals for field or laboratory measurements, testing, and alignment. The signal generator is intended primarily for use as test and maintenance apparatus for Radio Sets AN/TC-24, AN/TRQ-9, AN/CRG-10, AN/TRC-8, and AN/TRC1.

b. Signal Generator AN/URM-70 consists of a Signal Generator S-8/U in a shock-mounted carrying case (Transit Case CY-14/URM-70) along with accessories and parts (fig. 9). In field installations, the signal generator can remain in its carrying case, which provides adequate shock mounting. All cables, controls, and connections are available at the front panel when the 2 transit case cover is removed. Front-panel

louvers provide ventilation for the signal generator chassis. When used indoors, the instrument may be taken out of the transit case

c. The signal generator provides radio-frequency (rf) test signal variable between 50 and 400 megacycles (mc) in three bands. The output signal can be frequency-modulated (fm) by an external source or by the internal audio oscillator. The internal source provides three different modulating frequencies: 1,000 cycles, 1,600 cycles, or 20,000 cycles. The maximum frequency deviation produced by the internal modulator is 150 kilocycles (kc) for an rf output between 50 and 100 mc; 800 kc for an rf output between 100 and 200 mc; and 600 kc for an rf output between 200 and 400 mc.

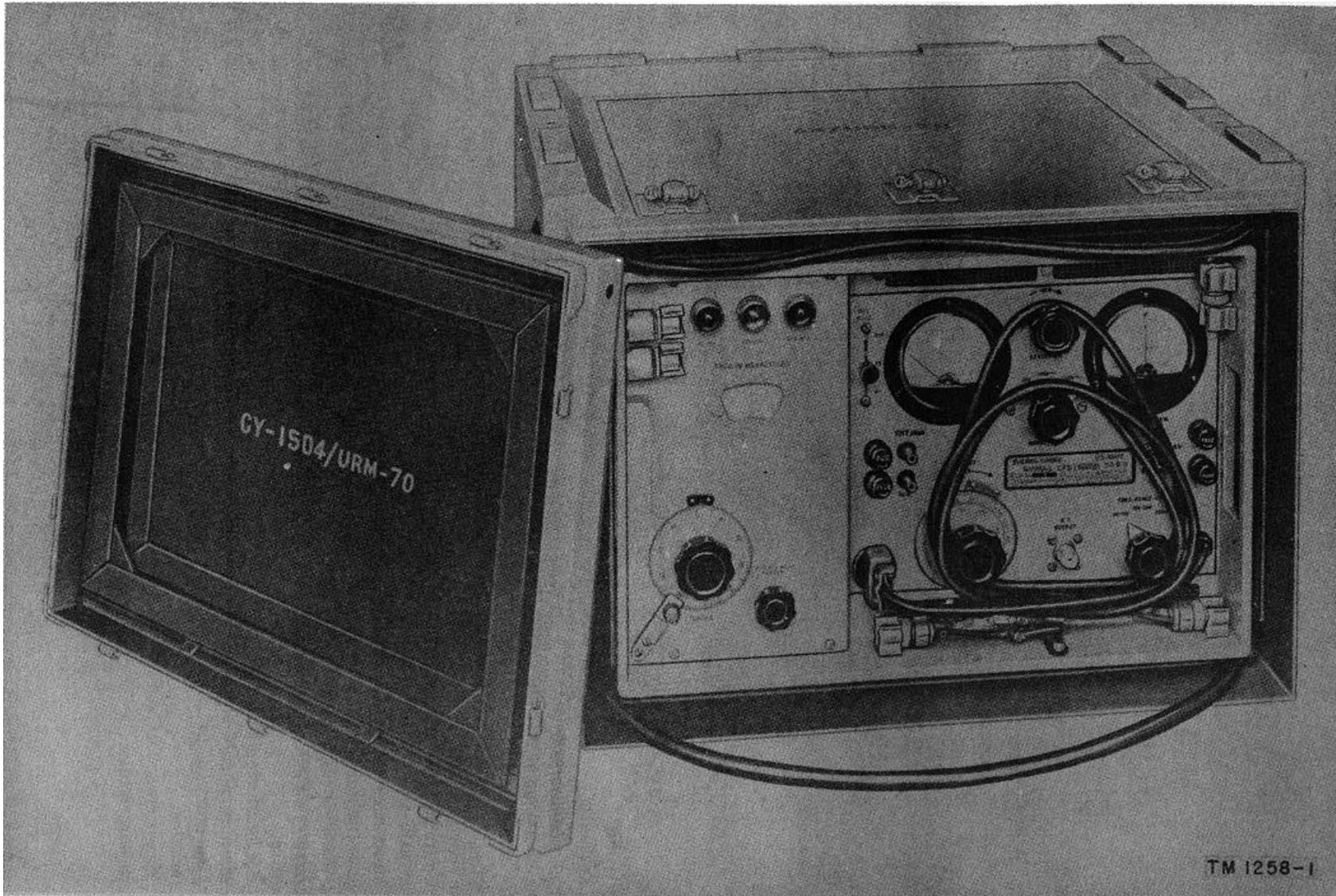


Figure 1. Signal Generator AN/URM-70.