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DEPARTMENT OF THE ARMY TECHNICAL MANUAL

SIGNAL GENERATOR SG-13/ARN

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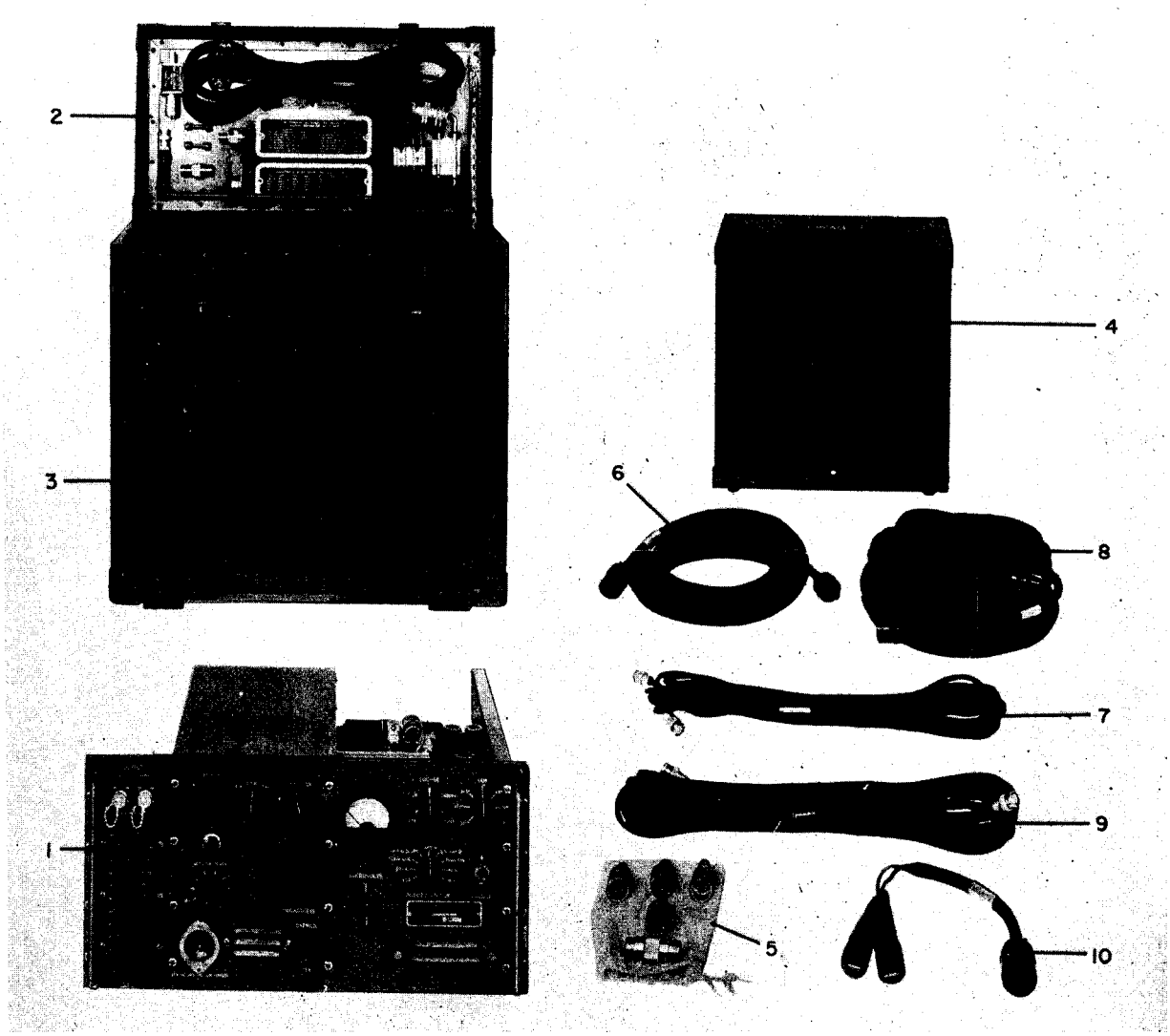
SIGNAL GENERATOR SG-13/ARN

PART ONE. **SERVICE INSTRUCTIONS**

LIST OF ILLUSTRATIONS



1 Signal Generator SG-l3/ARN
2 Carrying case cover (See Figure 1-2)
3 Signal generator carrying case
4 Accessory Case CY-868/U
5 Adapter UG-29/U and four Adapters UG-201/U
6 Power Cable Assembly CX-1506/U (25 ft)
7 R-F Transmission Line CG-409A/U (25 ft)
8 Power Cable Assembly CX-1506/U (50 ft)
9 R-F Transmission Line CG-409A/U (50 ft)
10 Power Adapter CX-2489/U

Figure 1-1. Signal Generator SG-13/ARN

SECTION I

DESCRIPTION AND LEADING PARTICULARS

1-1. INTRODUCTION.

1-2. This handbook contains the theory of operation and maintenance of Signal Generator SC-13/ARN (figure l-l).

1-3. PURPOSE.

1-4. The signal generator is a portable test instrument for ramp testing of aircraft navigation, localizer and glide slope receivers.

1-5. EQUIPMENT SUPPLIED.
(See figures 1-1 and 1-2.)

1-6. The signal generator is supplied in two cases. Case 1 contains all equipment necessary for operation within 10 feet of the receiver under test and the power source. Case 2 contains additional equipment necessary for operation within 85 feet of the receiver under test and the power source. Table I lists all equipment supplied as part of Signal Generator SG-13/ARN.

TABLE I. EQUIPMENT SUPPLIED

QUANTITY	NAME	GOVERNMENT TYPE DESIGNATION
	CASE 1	
1	Signal Generator	SG-13/ARN
1	Antenna	AT-170/ARN
1	Power Cable Assembly (10 ft)	CX-1095/U
1	R-F Transmission Line (10 ft)	CG-409A/U
1	Adapter	UG-201/U
1	Adapter	UG-29/U,
1	Adapter (impedance matching)	UG-529/U
2	Fuse	3AG
1	Bristol Wrench #10	
1	Bristol Wrench #8	
1	Bristol Wrench #6	
1	Bristol Wrench #4	
1	Phillips Screwdriver #2	
1	Phillips Screwdriver #1	
	CASE 2	
1	Accessory Case	CY-868/U
1	Power Cable Assembly (25 ft)	CX-1506/U
1	Power Cable Assembly (50 ft)	CX-1506/U
1	Power Adapter	CX-2489/U
1	R-F Transmission Line (25 ft)	CG-409A/U
1	R-F Transmission Line (50 ft)	CG-409A/U
1	Adapter	UG-29/U
4	Adapter	UG-201/U

1-7. DESCRIPTION.

1-8. SIGNAL GENERATOR. The signal generator (figure 1-3) is mounted in a combination case having a waterproof snap-on cover (figure 1-2) that contains all accessories necessary for operation within 10 feet of the equipment under test. The signal generator is divided into two sections that have a common front panel.

a. The r-f section contains all the circuits necessary to produce the required r-f signals. It comprises a shielded r-f chassis, (2, figure 1-3) for producing r-f signals in 280 channels spaced at 100 kc intervals in the range of 108.0 to 135.9 megacycles and a shielded univerter chassis (1, figure 1-3) for producing r-f signals spaced at 100 kc intervals in the range of 329.3 to 335.0 megacycles for glide slope testing. The r-f chassis also contains a piston type attenuator allowing the r-f output to be varied from 4 to 200,000 microvolt.

b. The audio section (3, figure 1-3) contains all the circuits necessary to produce the required audio signals for modulating the r-f carrier and the power supply for the signal generator. An audio selector switch is used to select the type of modulating signal desired.