

**DEPARTMENT OF THE ARMY TECHNICAL MANUAL**

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**OPERATOR AND  
ORGANIZATIONAL MAINTENANCE MANUAL**

**SIGNAL GENERATOR SG-321B/U**

**This copy is a reprint which includes current  
pages from Changes 1 and 2.**

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**HEADQUARTERS, DEPARTMENT OF THE ARMY**

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**OPERATOR AND ORGANIZATIONAL MAINTENANCE MANUAL  
 SIGNAL GENERATOR SG-321B/U**

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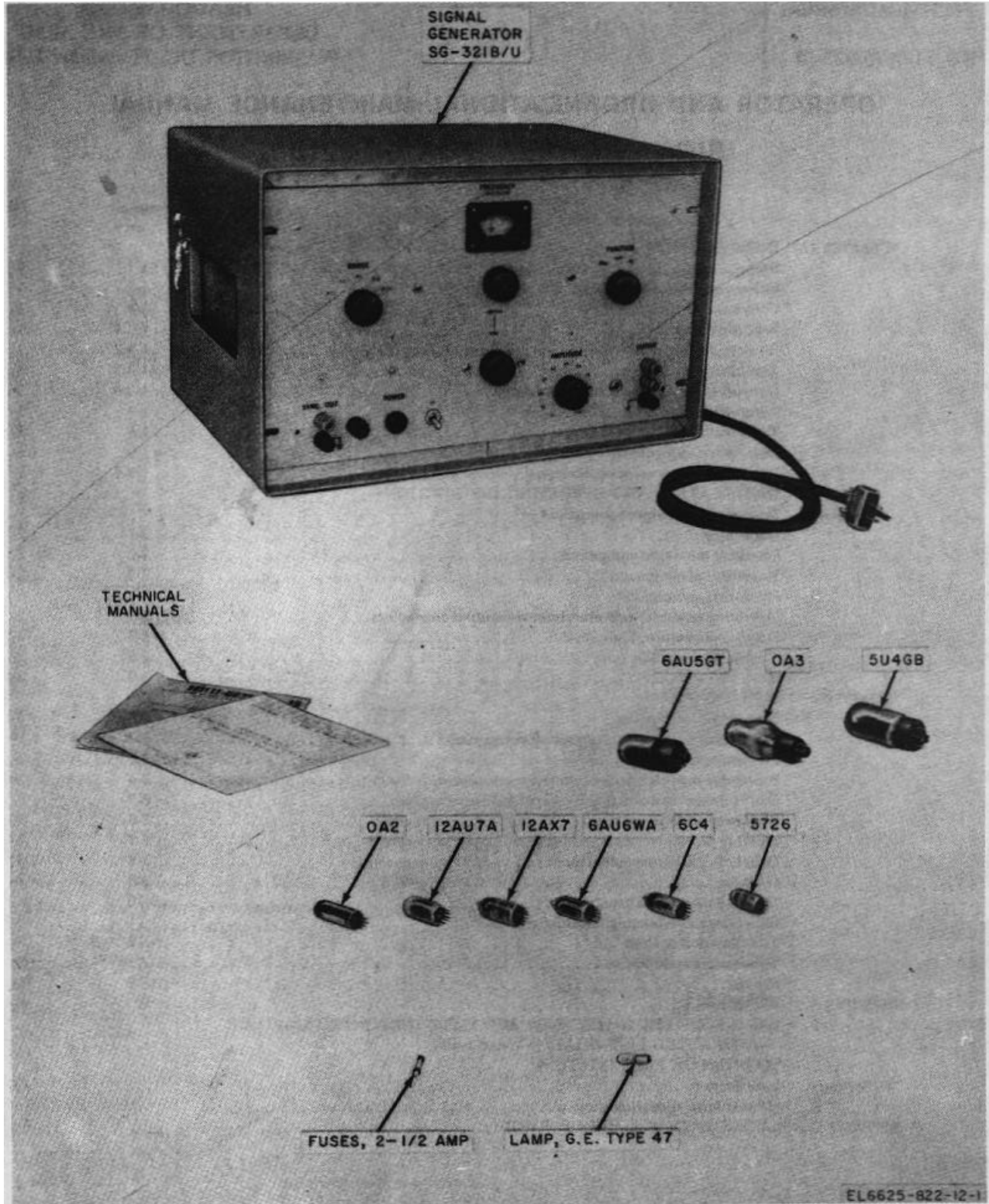


Figure 1-1. Signal Generator SC-321 B/U and running spares.  
Change 2 1-0

## CHAPTER 1 INTRODUCTION

### 1-1. Scope

a. This manual describes Signal Generator SG-321B/U (fig. 1-1) and provides instructions for operation and operator and organizational maintenance. It includes instructions for cleaning and inspection of the equipment and replacement of parts available to the operator and organizational technician.

b. The maintenance allocation chart appears in appendix C.

c. Deleted.

### 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 (Packaging Improvement Report) as prescribed in AR 70058/NAVSUPINST 4030.29/AFR 71-13/MCO P4030.29A, 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 5538/NA 4610.33A/AFR 75-18/MCO P4610.19B and DSAR 4500.15.

#### 1-3.1. Reporting of Errors

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 Blank Forms) and forwarded direct to Commander, US

Army Electronics Command, DRSEL-MA-Q, Fort Monmouth, NJ 07703.

#### 1-3.2. Reporting Equipment Improvement Recommendations (EIR)

EIR's will be prepared using DA Form 2407, Maintenance Request. Instructions for preparing EIR's are provided in TM 38-750, the Army Maintenance Management System. EIR's should be mailed directly to Command, US Army Electronics (Command, ATTN: DRSEL-MA-Q, Fort Monmouth, NJ 07703. A reply will be furnished directly to you.

#### 1-3.3. Administrative Storage

For procedures, forms, and records, and inspections required during administrative storage of this equipment, refer to TM 740-90-1.

#### 1-3.4. Destruction of Army Electronics Materiel

Destruction of Army Electronics materiel to prevent enemy use shall be as prescribed in TM 750-244-2.

### 1-4. Purpose and Use

a. Signal Generator SG-32 B/U is a precision, low frequency signal generator. It provides square, triangular, and sinusoidal waveforms in the frequency range of 0.008 to 1.200 cycles per second (cps). A synchronizing (sync) output pulse is also provided.

b. The SG-321/U is useful for any general purpose, low frequency testing application. It is particularly valuable in the testing of servosystems, geophysical equipment, vibration and stability characteristics of mechanical systems, electromedical equipment, and for the electrical simulation of mechanical phenomena.

c. The frequency range from 0.008 to 1.200 cycles per second is covered in five bands. The frequency dial is linear.

d. The SG-321B/U is rated to deliver at least 30 volts peak-to-peak to a 4,000-ohm load. The sync pulse is negative 10 volts minimum into a 2,500-ohm load and has a pulse width of less than 5 micro-seconds.