

TECHNICAL MANUAL

OPERATOR, ORGANIZATIONAL, DIRECT SUPPORT,  
AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING  
REPAIR PARTS AND SPECIAL TOOLS LIST

**TEST SET,  
TRANSISTOR  
TS-1836C/U**

**Operator, Organizational, Direct Support, and General Support  
 Maintenance Manual Including Repair Parts and Special  
 Tools List  
 TEST SET, TRANSISTOR TS-1836C/U**

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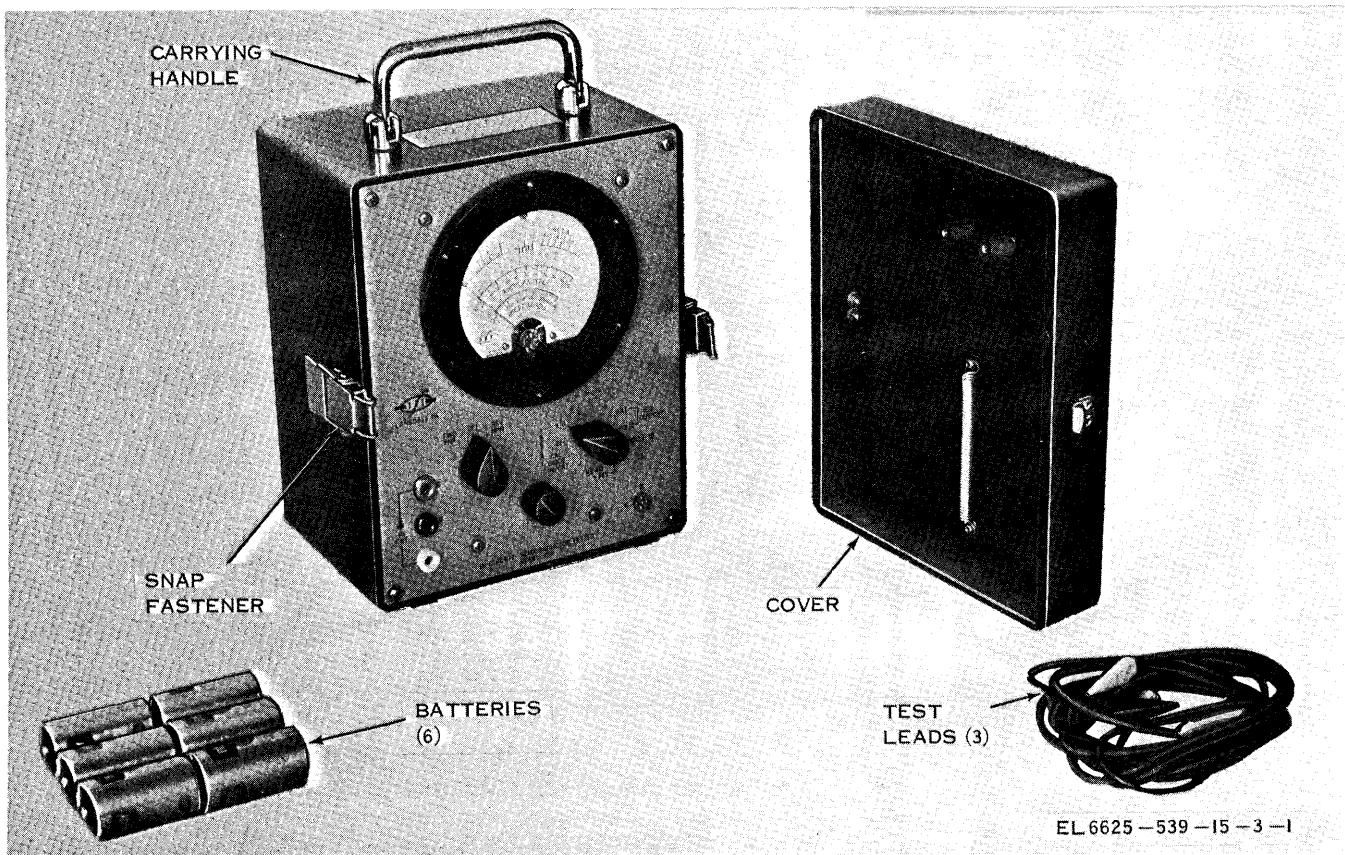


Figure 1-1. Test Set, Transistor TS-1836C/U.

# CHAPTER 1 INTRODUCTION

## Section 1. GENERAL

### 1-1. Scope

a. This manual describes Test Set, Transistor TS-1836C/U (fig. 1-1) and provides instructions for operation, organizational maintenance, and general support (GS) maintenance. Instructions are provided for the operator and the organizational repairman for installation, operation, preventive maintenance, and replacement of parts available at organizational maintenance. Circuit functioning is included for general support maintenance, together with instructions appropriate to these categories of maintenance for troubleshooting, testing, adjusting, aligning and repairing the equipment, and replacing maintenance parts.

b. Appendix B is current as of 2 January 1972.

### 1-2. Indexes of Equipment 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

700-58/NAVSUPINST 4030.29/AFR 71-13/MCC 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 55-38/NAVSUPINST 4610.33A/AFR 75-18/MCO P4610.19B and DSAR 4500.15.

### 1-3.1. Reporting of Errors

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 Blank Forms) and forwarded direct to Commander, US Army Electronics Command, ATTN: DRSEL-MA-Q, Fort Monmouth, NJ 07703.

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

EIR 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 Commander, US Army Electronics Command, ATTN: DRSEL-MA-Q, Fort Monmouth, NJ 07703.

### 1-3.3. Administrative Storage

Administrative storage of equipment issued to and used by Army activities shall be in accordance with TM 740-90-1.

### 1-3.4. 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. Description and Use

a. Test Set, Transistor TS-1836C/U (test set) is a solid state semiconductor tester, capable of testing semiconductors in or out of the circuit. Beta, the resistance appearing across the semiconductor electrodes, and the  $G_m$  of field effect transistors may be obtained either in or out of circuit. Reverse current ( $I_{cbo}$ ) and reverse-to-forward ratio measurements of diodes and rectifiers can be obtained; however, the diode or rectifier must be out of the circuit.

b. The test set is equipped with a carrying handle and two snap fasteners that secure the cover to the test set case. Operating power is obtained from six self-contained size C batteries. The leads necessary for testing are stored in the cover of the test set,

c. All controls required to operate the test set are on the front panel,

### 1-5. Technical Characteristics

Number of transistors . . . . . 6.  
Power requirements . . . . . .9 volts dc (6size C batteries).  
Temperature range . . . . . .0° C to 65° C.

a. *Beta ( $h_{fe}$ , 1 kc)  $I_c = 1.0ma$ ;  $V_{cb} 0$  Volk*

(1) *Out of circuit.*

Range	Beta	Accuracy
x1	1 to 100 . . . . .	±5 percent.
X10	10 to 1,000 . . . . .	±5 percent.

(2) *In circuit.*

Range	Beta	Accuracy	E-B load
	1 to 100 . . . . .	± 10 percent . . . . .	50 ohms.
x1	10 to 1,000 . . . . .	± 10 percent . . . . .	500 ohms.