DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR AND ORGANIZATIONAL MAINTENANCE MANUAL
TEST SET, TELEPHONE TS-816/U

Headquarters, Department of the Army, Washington 25, D. C.
2 February 1962

WARNING

HIGH VOLTAGE
is used in
this equipment.

DEATH ON CONTACT
may result if safety precautions
are not observed.
Be careful not to contact high-voltage output connections
when operating, testing, or servicing Test Set, Telephone
TS-816/U.

---

*Appendix II supersedes that portion of TM 11-6625-201-25P, 1 June 1959. as pertains to the maintenance allocation chart; and appendix III supersedes TM 11-6625-201-10P, 1 June 1959.

CHAPTER 1
INTRODUCTION

Section I. GENERAL

1. Scope

This manual describes Test Set, Telephone TS-816/U and covers its installation, operation, and operator's maintenance. It includes operation under usual and unusual conditions, cleaning and inspection of the equipment, and replacement of parts available to first echelon maintenance personnel. No maintenance is performed at second echelon (appx II).

2. Forms and Records

a. Unsatisfactory Equipment Reports. Fill out and forward DA Form 468 (Unsatisfactory Equipment Report) as specified in AR 700-38.

b. Report of Damaged or Improper Shipment. Fill out and forward DD Form 6 (Report of Damaged or Improper Shipment) as prescribed in AR 700-58 (Army).

c. Preventive Maintenance Forms. Prepare DA Form 11-266 (fig. 5 and 6), (Maintenance Check List for Signal Equipment (Test Equipment)) in accordance with instructions on the form.

d. Parts List Form. Forward DA Form 2028 (Recommended Changes to DA Technical Manual Parts List or Supply Manual 7, 8, or 9) direct to the Commanding Officer, U. S. Army Signal Materiel Support Agency, ATTN: SIGMS-MLM, Fort Monmouth, N. J., with comments on parts listings.

e. Comments on Manual. Forward all other comments on this publication direct to the Commanding Officer, U. S. Army Signal Materiel Support Agency, ATTN: SIGMS-PA2d, Fort Monmouth, N. J.

f. DA Pamphlet 310-4. Refer to DA Pamphlet 310-4 to determine what changes to or revisions of this publication are current.

Section II. DESCRIPTION AND DATA

3. Purpose and Use

The TS-816/U is designed to apply a high voltage across conductors of a fixed plant cable to break down (burn in) a high-resistance fault. Tone facilities and a resistance-measuring circuit are provided to locate the fault after it has been burned in.

NOTE

The TS-816/U does not provide adequate voltages to break down a high-resistance fault in plastic insulated cable.

4. Technical Characteristics

Operating Voltages:

Buzzer	4.5, 9, 22.5, 45, 67.5, and 90 volts dc.
Breakdown	630 volts dc.
Power source	Internal batteries.
Buzzer:	
Frequency	500 cps.
Operation	Interrupted or continuous tone.
Meter range:	
Resistance	0-2 megohms.
Current	0-5 amperes.

5. Components

For a list of items comprising an operable equipment and a list of running spares, refer to appendix III.

6. Description

(fig. 1 and 3)

Test Set, Telephone TS-816/U is housed in a metal carrying case. A control panel

occupies the lower third of the carrying case. A battery compartment occupies the remaining space. A coiled 31-foot test cable assembly and a battery test cable assembly are stored between the metal cover and the plastic battery compartment cover. A carrying handle and a hanger are secured to the outside of the carrying case.

7. Additional Equipment Required

Equipment required for operation, but not supplied as part of the TS-816/U is listed in the following chart.

Quantity	Equipment	Function
1	Battery BA-15-A	Provides dc for operation of ohmmeter in RX 1 position.
2	Battery BA-27	Provides dc for operation of buzzer in 4.5- and 9-volt position.
15	Battery BA-63	Provides dc for operation of ohmmeter in RX 1000 position and provides breakdown voltage.
1	Exploring coil (FSN 5950-309-5383)	Permits tracing tone to cable fault without physical connection.
1	Telephone receiver (FSN 5965-223-4567) equipped with cord.	Permits operator to hear tone picked up by exploring coil.
1	Fibre-Glass Pruner Pole Section (Winston Products Co. No. GP-36) equipped with Safe Exploring Coil (Winstor Products Co. No. GEC-4).	Permits operator to hold exploring coil against cable while standing on the ground.
1	Resistance Bridge ZM-4/U	Permits locating faults by resistance measurement.

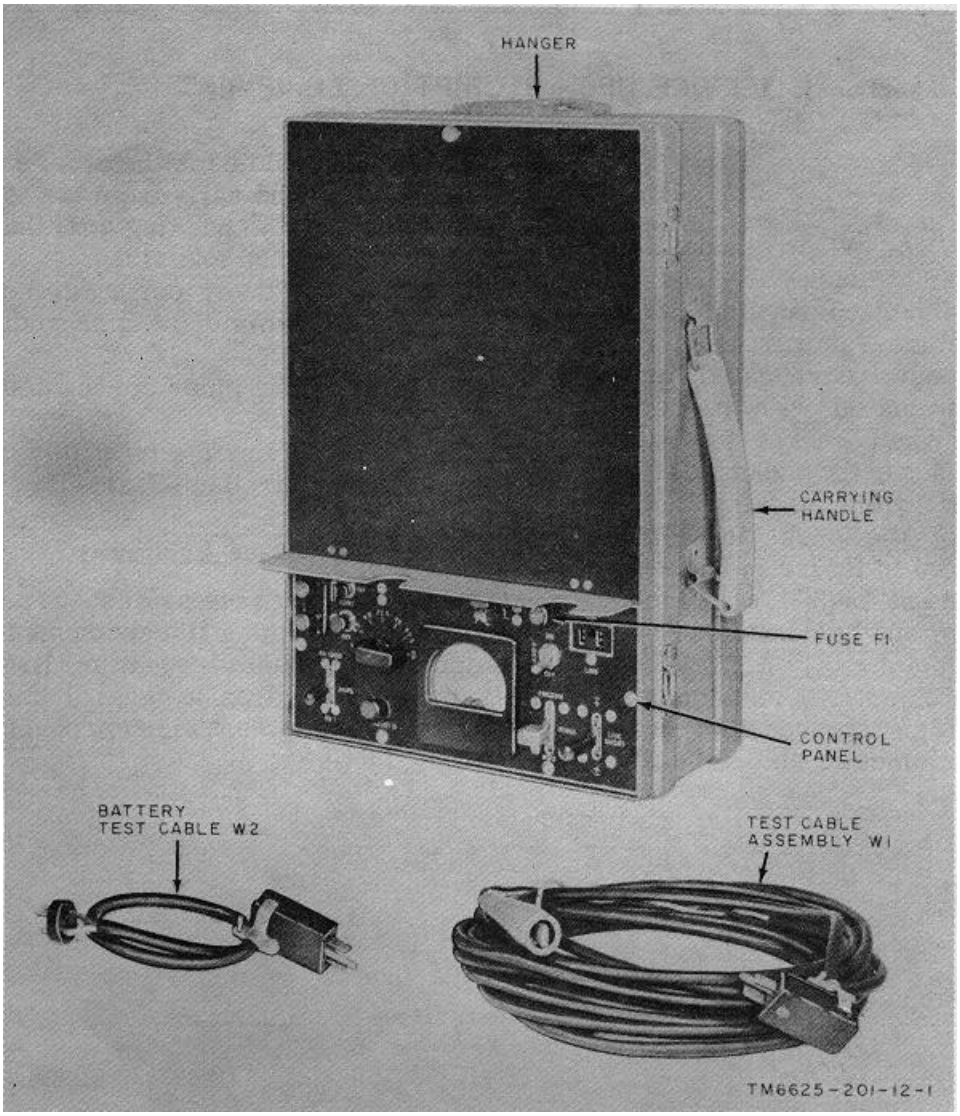

Figure 1. Test Set, Telephone TS-816/U.