

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR AND ORGANIZATIONAL MAINTENANCE MANUAL

CALIBRATOR, CRYSTAL TS-810/U

Headquarters, Department of the Army, Washington 25, D.C.

21 August 1961

WARNING

Be careful not to contact high-voltage connections or the 115-volt ac input connections when replacing tubes in the test set. Voltages up to 205 volts dc may be encountered in this equipment. Serious injury or death may result from contact with these connections.

RADIATION HAZARDS

The OA2WA voltage regulator to be used in this equipment is radioactive. Dangers of poisoning from radioactive materials contained in the tube exist when the tube is broken. For detailed instructions on handling, storing, and disposing of radioactive tubes, see TB SIG 225.

DON'T TAKE CHANCES!

*** This manual supersedes so much of TM-11-1261, 14 June 1957, including C3, 26 July 1960, is applicable to operational and organizational maintenance, and so much of TM 11-6625-269-20P, 17 March 1959, as pertaining to maintenance allocation.**

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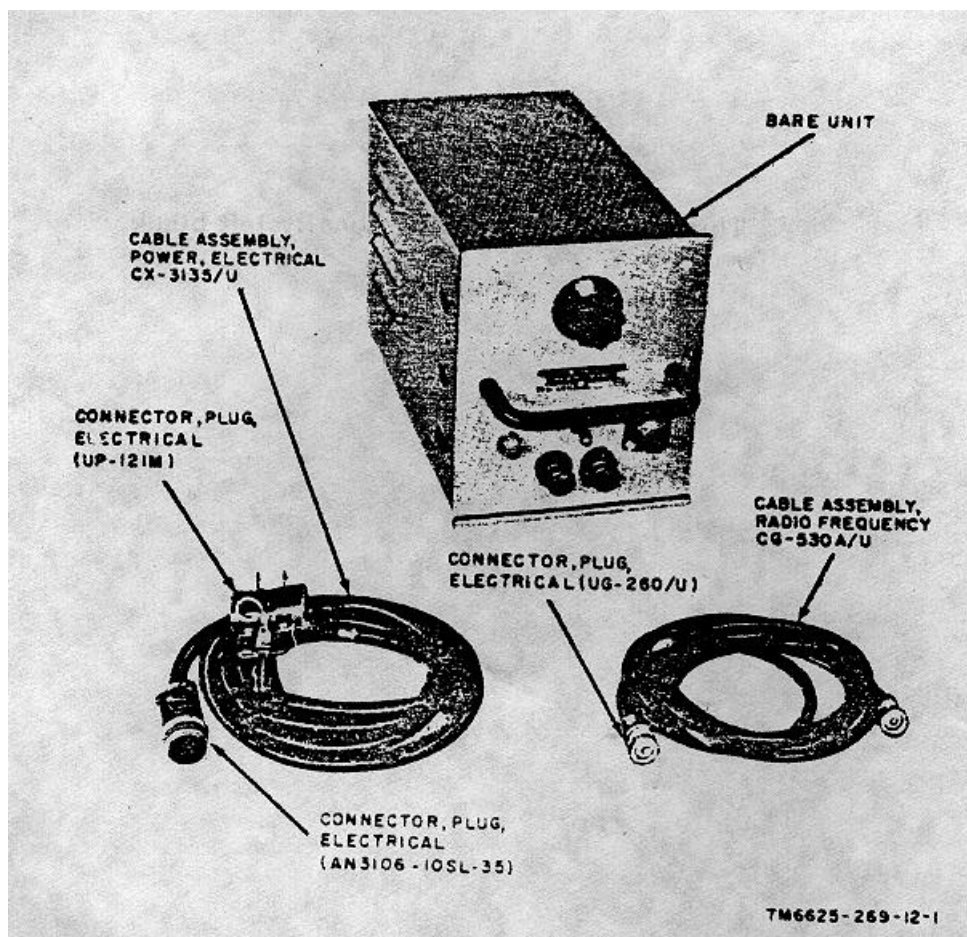


Figure 1. Calibrator, Crystal TS-810/U, bare unit and cable assemblies.

CHAPTER 1

INTRODUCTION

Section I. GENERAL

1. Scope

This manual describes Calibrator, Crystal TS-810/U (fig. 1) and covers installation, operation, and first and second echelon maintenance. It includes instructions for operation under usual conditions, cleaning and inspection of the equipment, and replacement of parts available to first and second echelon maintenance personnel.

2. Forms and Records

a. Unsatisfactory Equipment Report.

- (1) Fill out and forward DA Form 468 (Unsatisfactory Equipment Report) to the Commanding Officer, U.S. Army Signal Materiel Support Agency, ATTN: SIGMS-ML, Fort Monmouth, N.J., as prescribed in AR 700-38.
- (2) Fill out and forward AF TO Form 29 (Unsatisfactory Report) to the Commander, Air Materiel Command, Wright-Patterson Air Force Base, Ohio, as prescribed in AF TO 00-35D-54.

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), Navy Shipping Guide, Article 1850-4 (Navy), and AFR 71-4 (Air Force).

c. Preventive Maintenance Forms. Prepare DA Form 11-266 (fig. 5, 6, and 8) (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 Lists or Supply Manual 7, 8, or 9) direct to the Commanding Officer, U.S. Army Signal Materiel Support Agency, ATTN: SIGMS-ML, Fort Monmouth, N.J., with comments on parts listings.

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

Section II. DESCRIPTION AND DATA

3. Purpose and Use

a. Purpose. Calibrator, Crystal TS-810/U (fig. 1) is a portable source of stable, positive pulses for use as accurate calibration markers. The repetition frequency of the output pulse is variable in steps between 1 megacycle (mc) and 100 cycles per second (cps). The corresponding periods in microseconds (usec) are variable in steps between 1 and 10,000 μ sec.

b. Use. Calibrator, Crystal TS-810/U can be used for superposition of timing markers on an oscilloscope sweep trace or to check the following:

- (1) Cathode-ray oscilloscope sweep linearity.
- (2) Calibration of oscilloscope sweep.
- (3) Proper operation of pulse analyzer groups.
- (4) Calibration of signal generators.
- (5) Decade-frequency-range switches.