D E P A R T M E N T O F T H E A R M Y T E C H N I C A L M A N U A L

OPERATOR'S, ORGANIZATIONAL, DS, GS, AND

DEPOT MAINTENANCE MANUAL

RANGE CALIBRATOR SET

AN/UPM-11

This copy is a reprint which includes current pages from Change 1.

H E A D Q U A R T E R S, D E P A R T M E N T O F T H E A R M Y

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Operators, Organizational, Direct Support, General Support, and Depot Maintenance Manual
RANGE CALIBRATOR SET AN/UPM-11

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*This manual supersedes so much of SM SIG 7 & 8 AN/UPM-11, 1 November 1957, as pertains to the basic issue Items for the AN/UPM-11.

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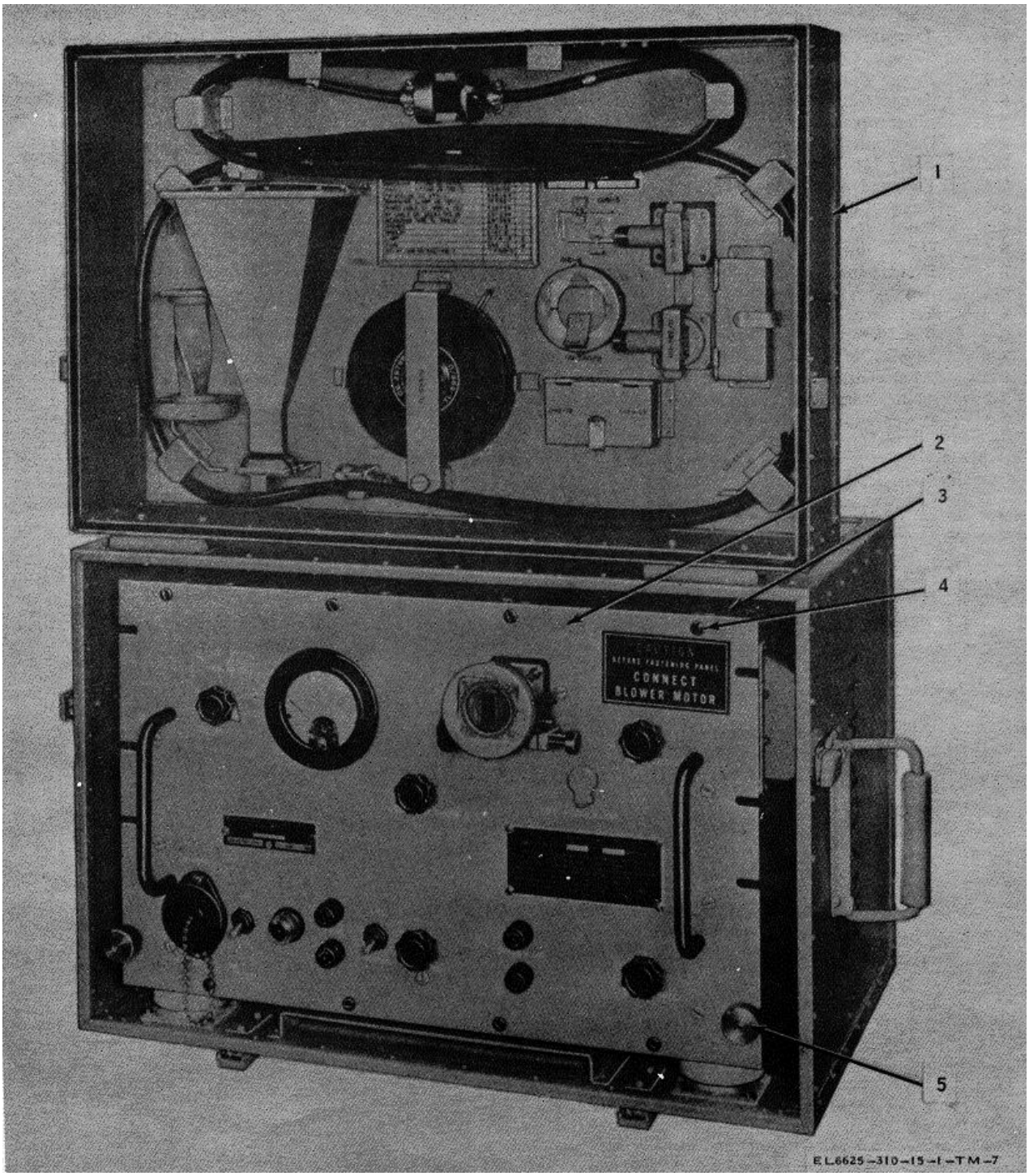

1 Transit Case CY-818/U
2 Range Calibrator TS-696A/UPM-11
3 Dust Cover
4 Captive Retaining screw
5 Swivel bolt with nut

Figure 1-1. Range Calibrator Set AN/UPM-11.

CHAPTER 1
INTRODUCTION AND DESCRIPTION

Section I. GENERAL

1-1. Scope

a. This manual describes Range Calibrator Set AN/UPM-11, and covers its installation and operation and organizational, direct support (DS), general support (GS), and depot maintenance.

b. The basic issue items list is in appendix B and the maintenance allocation chart is in appendix C.

NOTE

Appendix B is current as of 1 February 1974. Appendix C is current as of 21 November 1969.

1-2. Indexes of Publications

a. DA Pam 310-4. Refer to the latest issue of DA Pam 3104 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. Use equipment forms and records in accordance with instructions given in TM 38-750.

b. Report and Packaging and Handling Deficiencies. Fill out and forward DD Form 6 (Report of Packaging and Handling deficiencies) as prescribed in AR 700-58/NAVSUP PUB 378/AFR 71-4/MCO P4030.29, 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 4610.33/AFM 75-18/MCO P4610.19A, and DSAR 4500.15.

d. Reporting of Equipment Publication Improvements. 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: AMSEL-MA-S, Fort Monmouth, NJ 07703.

Section II. DESCRIPTION AND DATA

1-4. Purpose and Use

The AN/UPM-11 is an electronic device which provides a means of calibrating accurately the radar range or any X-band radar system. The AN/UPM-11 may also be used with the narrow-beam pickup horn to collimate accurately the antenna axis of a radar system.

1-5. Description of Range Calibrator Set AN/UPM-11

a. Range Calibrator Set AN/UPM-11 consists of Range Calibrator TS-696/UPM-11 or TS-696A/UPM-11 (fig 1-2), a dust cover (fig. 1-3), and Transit Case CY-818/U (fig. 1-4. Accessory equipment to be used with the AN/UPM-11 is fastened to the cover of the transit case. This equipment is illustrated in figure 1-5.

b. Range Calibrator, TS-696A/UPM-11 (fig. 1-1) contains a 40-megacycle (mc), intermediate frequency (IF) amplifier, fused quartz delay line mounted in a thermostatically controlled oven; balanced mixer assembly; AFC assembly; and a power supply. Each assembly, except the power supply, may be removed easily for servicing or replacement. All operating controls are on the front panel. The calibrator slides into the dust cover (3) and is secured by eight captive retaining screws (4) The calibrator and dust cover are secured to the transit case by two swivel bolts with nuts (5).

c. The aluminum dust cover (1, fig. 1-3) protects the calibrator chassis. The cover contains standby heater HR-601 (2) and a thermostatically controlled fan and motor assembly (4).

d. Transit Case CY-818/U is an aluminum plymetal case, the exterior and interior surfaces of which are finished in Federal Grey. The case is equipped with an inseparable hinged cover (fig. 1-4) secured by four hinged clamps which fasten over mating brackets attached to the cover. A rubber gasket (2, fig 1-5) is cemented to the edge of the cover to make the case watertight. Two swivel bolts and nuts (10) secure the calibrator and dust cover to a U-shaped mounting rack (13) which is attached to the bottom of the case by four