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DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

CALIBRATION PROCEDURE FOR CALIBRATOR AN/USM-317 (SG-836/USM-317) (HEWLETT-PACKARD MODEL 8402B)

Headquarters, Department of the Army, Washington, DC
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REPORTING OF ERRORS

You can help improve this publication. If you find any mistakes or if you know of a way to improve the procedure, please let us know. Mail your letter or DA Form 2028 to: Commander, U. S. Army Aviation and Missile Command, ATTN: AMSAM-MMC-MA-NP, Redstone Arsenal, AL 35898-5230. A reply will be furnished to you. You may also send in your comments electronically to our e-mail address: 2028@redstone.army.mil or FAX 256-842-6546/DSN 788-6546.

			Paragraph	Page
SECTION	I.	IDENTIFICATION AND DESCRIPTION		
		Test instrument identification	1	2
		Calibration data card, DA Form 2416	2	2
		Calibration description	2	2
	II.	EQUIPMENT REQUIREMENTS		
		Equipment required	4	3
		Accessories required	5	3
	III.	CALIBRATION PROCESS		
		Preliminary instructions	6	4
		Equipment Setup	7	4
		Output and stability	8	5
		Thermistor resistance	9	6
		Power supply	10	8
		Final procedure	11	9

CHANGE 1

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SECTION I
IDENTIFICATION AND DESCRIPTION

1. Test Instrument Identification. This bulletin provides instructions for the calibration of Calibrator, AN/USM-317 (SG-836/USM-317) (Hewlett-Packard Model 8402B). The manufacturer's instruction manual was used as the prime data source in compiling these instructions. The equipment being calibrated will be referred to as the TI (test instrument) throughout this bulletin.

a. Model variations. TI's with serial numbers prefixed 610 or 613 use transistors A1Q4 and A1Q5. TI's prefixed 739 or 811A replace A/94 and A1Q5 with A1Q8 (A-B).

b. Time and technique. The time required for this calibration is approximately 4 hours, using the dc (direct current) and low frequency technique.

2. Calibration Data Card, DA Form 2416

a. Forms, records, and reports required for calibration personnel at all levels are prescribed by TM 38-750. DA Form 2416 must be annotated in accordance with TM 38-750 for each calibration performed.

b. Adjustments to be reported on DA Form 2416 are designated (R) at the end of the sentence in which they appear. When adjustments are in tables, the (R) follows the designated adjustment. Report only those adjustments made and designated with (R).

3. Calibration Description. TI parameters and performance specifications which pertain to this calibration are listed in table 1.

Table 1. Calibration Description

Test instrument parameters	Performance specifications
Line voltage regulation [1]	Satisfactory performance with any line voltage between 103.5 and 126.5 V ac
Calibration points Range Accuracy	 0.01 to 2.0 mW ±0.05%
Thermistor operating resistance Range Accuracy	 99.5 to 100.5 or 199 to 201Ω ±0.06%

[1]Verified from 105 to 125 V ac (volts alternating current).