DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

CALIBRATION PROCEDURE FOR CHARGER BATTERY ANALYZER AN/ASM-137 (NSN 6135-00-788-8481) AND AN/ASM-137A (NSN 6130-00-238-4433)

Headquarters, Department of the Army, Washington, DC
3 May 1977

REPORTING OF ERRORS

You can help improve this publication by calling attention to errors and by recommending improvement and stating your reasons for the recommendations. Report these errors or recommendations on DA Form 2028 (Recommended Changes to DA Publications and Blank Forms) direct to: Commander, U.S. Army Electronics Command, ATTN: DRSEL-MA-Q, Fort Monmouth, N.J. 07703. A reply will be furnished direct to you.

			Paragraph	Page
Section	I.	IDENTIFICATION AND DESCRIPTION		
		Test Instrument identification	1-1	2
		Calibration data card, (DA Form 2416)	1-2	2
		Calibration description	1-3	2
	II.	EQUIPMENT REQUIREMENTS		
		Equipment required	2-1	2
		Accessories required	2-2	2
	III.	PRELIMINARY OPERATIONS		
		Preliminary instructions	3-1	3
		Equipment setup	3-2	3
	IV.	CALIBRATION PROCESS		
		Timer accuracy	4-1	3
		Voltmeter accuracy	4-2	3
		Voltmeter accuracy using AN/GSM-256 calibration facility	4-3	3
		Ammeter accuracy	4-4	3
		Ammeter accuracy using AN/GSM-256 calibration facility	4-5	4
		Charge current	4-6	4
		Discharge current	4-7	4
		Battery Low	4-8	4
		Final procedure	4-9	4

***This bulletin supersedes TB 11-6625-678-35/1, 22 June 1966.**

Section I. IDENTIFICATION AND DESCRIPTION

1-1. Test Instrument Identification. This bulletin provides instructions for the calibration of Charger Battery Analyzer AN/ASM-137 and AN/ASM-137A, hereafter referred to as Test Instruments.

a. Model Variations. There are slight differences in physical and electrical components but these differences do not affect the calibration.

b. Time and Technique. The time required for this calibration is approximately four hours, using the dc-low frequency technique.

1-2. 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. Report only those adjustments made and designated with (R).

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

Table 1-1. Calibration Description

Test Instrument parameters	Performance specification
Power put requirements	115 volts ac, 60 Hz, single phase
Charging characteristics	
Type	Pulsing constant current
Rate	4 hours (nickle-cadmium batteries)
Voltage range	0 to 40 volts dc ± 2-
Current range	0 to 20 amperes dc ± 2%

*During the performance of this calibration monitor the input voltage. Do not allow this voltage to drift beyond 2%. Do not attempt to vary power transformer to check Test Instrument at 105-125 vac operation.

Section II. EQUIPMENT REQUIREMENTS

2-1. Equipment Required. Table 2-1 identifies the specific equipment used in this calibration procedure. This equipment is issued with secondary transfer Standards Calibration Set AN/GSM-256 and electronic maintenance shop sets and is to be used in performing this procedure. Alternate items may be used by the calibrating activity when the equipment listed in table 2-1 is not available. The items selected must be verified to perform satisfactorily prior to use and must bear evidence of current calibration. The equipment must meet or exceed the minimum use specifications listed in table 2-1.

2-2. Accessories Required. The accessories listed in table 2-2 are issued with secondary transfer Standards Calibration Set AN/GSM-256 and electronic maintenance shop sets and are to be used in this calibration procedure. When necessary, these items may be substituted by equivalent items.

Table 2-1. Minimum Specifications of Equipment Required

Item	Common name	*Minimum we specifications*	[1]Manufacturer, model, National stock number, and military designation
A1	METER CALIBRATOR	Current Range: .03 to 20.50 amperes. Voltage Range: 0 to 50 volts. Accuracy: ±1.25%	[2]John Fluke, Model 760A (TS-2734/U) (6625-00-935-7002).
A2	METER TEST SET.	Current Range: .03 to 20.50 amperes. Voltage Range: 0 to 50 volts Accuracy: ±1.25 %	TS-682/GSM-1 (6625-00-669-0747).

[1]The calibration equipment utilized in this procedure was selected from those known to be available at Department of Defense facilities, and the listing by make of model number carries no implication of preference, recommendation, or approval by the Department of Defense for use by other agencies. It is recognized that equivalent equipment produced by other manufacturers may be capable of equally satisfactory performance in the procedure.

[2]Issued with AN/GSM-256.