

***TB 9-4931-491-35**

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

CALIBRATION PROCEDURE FOR SWEEP/SIGNAL GENERATOR WAVETEK, MODEL 2001 AND SG-677A/U

Headquarters, Department of the Army, Washington, DC

14 July 2004

Distribution Statement A: Approved for public release; distribution is unlimited.

REPORTING OF ERRORS AND RECOMMENDING IMPROVEMENTS

You can improve this manual. If you find any mistakes or if you know of a way to improve these procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to: Commander, US Army Aviation and Missile Command, AMSAM-MMC-MA-NP, Redstone Arsenal, AL 35898-5000. A reply will be furnished to you. You may also provide DA Form 2028 information to AMCOM via e-mail, fax, or the World Wide Web. Our fax number is DSN 788-6546 or Commercial 256-842-6546. Our e-mail address is 2028@redstone.army.mil. Instructions for sending an electronic 2028 may be found at the back of this manual. For the World Wide Web, use <https://amcom2028.redstone.army.mil>.

		Paragraph	Page
SECTION	I.	IDENTIFICATION AND DESCRIPTION	
		Test instrument identification	1 2
		Forms, records, and reports	2 2
		Calibration description	3 2
	II.	EQUIPMENT REQUIREMENTS	
		Equipment required	4 3
		Accessories required	5 3
	III.	CALIBRATION PROCESS	
		Preliminary instructions	6 4
		Equipment setup	7 4
		Marker system.....	8 5
		Frequency band.....	9 7

*This bulletin supersedes TB 9-4931-491-35, 8 July 1988, including all changes.

	Paragraph	Page
Dial accuracy	10	9
RF output level and vernier accuracy	11	9
RF output flatness	12	10
Attenuator accuracy	13	11
Power supply	14	11
Sweep rate voltage	15	12
Source relationship	16	15
Sweep drive voltage	17	16
Final procedure	18	17

SECTION I IDENTIFICATION AND DESCRIPTION

1. Test Instrument Identification. This bulletin provides instructions for the calibration of Sweep/Signal Generator, Wavetek, Model 2001 and SG-677A/U. The manufacturer's manual and TM11-6625-2955-14 were 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. None.

b. Time and Technique. The time required for this calibration is approximately 2 1/2 hours, using the dc and low frequency technique.

2. Forms, Records and Reports

a. Forms, records, and reports required for calibration personnel at all levels are prescribed by TB 750-25.

b. Adjustments to be reported 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
Frequency range 3 overlapping bands	1 to 1400 MHz Band 1: 1 to 500 MHz ¹ Band 2: 450 to 950 MHz Band 3: 900 to 1400 MHz
Operating modes	Start/stop, Δf , and cw
Frequency dial calibration accuracy	10 MHz intervals Band 1: 10 MHz Band 2: 2% of selected frequency Band 3: 2% of selected frequency

Footnote at end of table.