*TB 9-6625-2215-35

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

CALIBRATION PROCEDURE FOR MEASURING SYSTEM, TD-1209/U (HEWLETT-PACKARD, MODEL 5300A); 50 MHz UNIVERSAL COUNTER, TD-1211/U (HEWLETT-PACKARD, MODEL 5302A); 10 MHz COUNTER, HEWLETT-PACKARD, MODEL 5301A; 500 MHz COUNTER, HEWLETT-PACKARD, MODEL 5303A; 525 MHz COUNTER, HEWLETT-PACKARD, MODEL 5303B; TIMER/COUNTER, HEWLETT-PACKARD, MODEL 5304A AND MULTIMETER/COUNTER, HEWLETT-PACKARD, MODEL 5306A

Headquarters, Department of the Army, Washington, DC
3 June 2004

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.

*This bulletin supersedes TB 9-6625-2215-35, dated 9 September 1988, including all changes.

SECTION I
IDENTIFICATION AND DESCRIPTION

1. Test Instrument Identification. This bulletin provides instructions for the calibration of Measuring System, TD-1209/U (Hewlett-Packard, Model 5300A); 50 MHz Universal Counter, TD-1211/U (Hewlett-Packard, Model 5302A); 10 MHz Counter, Hewlett-Packard, Model 5301A; 500 MHz Counter, Hewlett-Packard, Model 5303A; 525 MHz Counter, Hewlett-Packard, Model 5303B; Timer/Counter, Hewlett-Packard, Model 5304A and Multimeter/Counter, Hewlett-Packard, Model 5306A. The manufacturers' manuals were used as the prime data sources in compiling these instructions. The equipment being calibrated will be referred to as the TI (test instrument) throughout this bulletin.

a. Model Variations. Variations among models are described in text.

b. Time and Technique. The time required for this calibration is approximately 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
TD-1209/U (Hewlett-Packard, Model 5300A)	
Time base	Frequency: 10 MHz Stability: Aging rate <3 parts in 10^7/month Line stability: <± 1 part in 10^7 for 10% line variation
TD-1211/U (Hewlett-Packard, Model 5302A)	
Frequency	Range: Channel A: 10 Hz to 50 MHz Channel B: 10 Hz to 10 MHz
Sensitivity	25 mV rms: 50 Hz to 1 MHz 50 mV rms: 10 Hz to 10 MHz 100 mV rms: 50 MHz
Hewlett-Packard, Model 5301A	
Frequency	Range: 10 Hz to 10 MHz
Sensitivity	25 mV rms: 50 Hz to 1 MHz 50 mV rms: 10 Hz to 10 MHz