

SECTION I

IDENTIFICATION AND DESCRIPTION

**1. Test Instrument Identification.** This bulletin provides instructions for the calibration of Digital Multimeter, John Fluke, Models 8120A and 8125A. The manufacturer's 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.** Differences among models are shown in text.

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

**2. DA Form 2416 (Calibration Data Card)**

**a.** Forms, records, and reports required for calibration personnel at all levels are prescribed by TB 750-25-1. DA Form 2416 must be annotated in accordance with TB 750-25-1 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
Dc voltage	Range: 0 to 1000 V in 4 (5) ranges
Model 8125A	Accuracy: $\pm 0.01\%$ of input + 0.01% of range
Model 8120A	Accuracy: $\pm 0.02\%$ of input + 0.01% of range for 1, 10, 100, and 1000 V ranges; $\pm 0.05\%$ of input + 0.02% of range for 100 mV range
Dc current (model 8120A only)	Range: 0 to $\pm 1000$ mA in 5 ranges Accuracy: $\pm 0.1\%$ of input + 0.02% of range
Ac voltage and frequency response	Range: 0 to 1000 V in 4 (5 for model 8120A) ranges Accuracy: $\pm 0.2\%$ of input + 0.05% of range from 50 Hz to 10 kHz; $\pm 0.5\%$ of input + 0.1% of range from 30 to 50 Hz and 10 to 20 kHz

