

***TB 9-6625-2321-35**

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

CALIBRATION PROCEDURE FOR DIGITAL MULTIMETER NATIONAL INSTRUMENTS, MODEL DAQCARD-4050

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*This bulletin supersedes TB 9-6625-2321-35, dated 14 September 1998.

SECTION I IDENTIFICATION AND DESCRIPTION

1. Test Instrument Identification. This bulletin provides instructions for the calibration of Digital Multimeter, National Instruments, Model DAQCard-4050. The manufacturer's 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. The AN/PSM-95 or AN/PSM-95A and current shunt, National Instruments CSM-200ma (part of TI) will be required for this procedure.

a. Model Variations. None.

b. Time and Technique. The time required for this calibration is approximately 1 hour, 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 in table 1.

Table 1. Calibration Description

Test instrument parameters	Performance specifications
Dc voltage	Range: .2 to 200 V Accuracy: $\pm 1\%$ of range
Ac voltage	Range: .2 to 200 V Frequency: 1000 Hz Accuracy: $\pm 3\%$ of range
Resistance	Range: 0 to 20 M Ω Accuracy: $\pm 1\%$ of range
Dc current ¹	Range: 20 to 200 mA dc Accuracy: $\pm 1\%$ of range
Ac current ¹	Range: 20 to 200 mA ac Frequency: 1000 Hz Accuracy: $\pm 3\%$ of range

¹Current measurements require current shunt (CSM-200ma).