

REPRINT INCLUDES CHANGE 1

***TB 9-6625-1314-35**

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

**CALIBRATION PROCEDURE FOR
DIGITAL VOLTMETER
HEWLETT-PACKARD MODEL 3439A OR C28-3439A
WITH C15-3444A AND 3444A PLUG-INS;
DIGITAL VOLTMETER,
HEWLETT-PACKARD MODEL 3440A
WITH 3445A OR C06-3445A PLUG-IN AND
HIGH GAIN AUTO RANGE UNIT MODEL 3443A; AND
DIGITAL MULTIMETER,
DATA TECHNOLOGY MODEL 360**

Headquarters, Department of the Army, Washington, DC
30 August 1979

REPORTING OF ERRORS

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*This bulletin supersedes TB 9-6625-1314-35, 27 October 1971, including all changes.

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SECTION I IDENTIFICATION AND DESCRIPTION

1. Test Instrument Identification. This bulletin provides instructions for the calibration of Digital Voltmeter Hewlett-Packard Model 3439A or C28-3439A with C15-3444A and 3444A plug-ins; Digital Voltmeter, Hewlett-Packard Model 3440A with 3445A or C06-3445A Plug-in and High Gain Auto Range Unit Model 3443A; and Digital Multimeter, Data Technology Model 360. The manufacturer's instruction manuals 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. Model variations which affect calibration are described in text.

b. Time and Technique. The time required for this calibration is approximately 4 hours per instrument, using the dc (direct current) and low frequency technique.

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. 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 tables 1 through 3.

Table 1. Calibration Description for Digital Voltmeter, Hewlett-Packard Model 3439A
or C28-3439A with 3444A or C15-3444A Plug-ins

Test instrument parameters	Performance specifications
Dc volts Range Accuracy	100 mV to 1000 V in five ranges $\pm 0.1\%$ of reading ± 1 digit from 99.99 to 999.9 mV $\pm 0.05\%$ of reading ± 1 digit from 9.999 V to 999.9 V
Dc current Range ¹ Accuracy	99.99 μ A to 999.9 mA in five ranges $\pm 0.2\%$ of reading ± 1 digit
Resistance Range Accuracy	0 Ω to 9.999 M Ω in five ranges $\pm 0.3\%$ of reading ± 1 digit, except $\pm 1\%$ ± 1 digit on 10 M Ω range

¹1000 mA range not calibrated at Level C.