TB 9-6625-2354-35

CHANGE 1

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

CALIBRATION PROCEDURE FOR ANALOG MULTIMETERS 0 TO 1000 VOLTS (GENERAL)

Headquarters, Department of the Army, Washington, DC
21 December 2004

TB 9-6625-2354-35, 15 April 2004, is changed as follows:

1. Remove old pages and insert new pages as indicated below. New or changed material is indicated by a vertical bar in the margin of the page.

Remove Pages	**Insert Pages**
17 and 18	17 and 18

2. File this change sheet in front of the publication for reference purposes.

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Headquarters, Department of the Army, Washington, DC
15 April 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, together with TB 9-6625-2352-35, dated 15 April 2004 and TB 9-6625-2353-35, dated 15 April 2004, supersedes TB 9-6625-2147-35, dated 3 April 1985, including all changes, in its entirety.

SECTION I
IDENTIFICATION AND DESCRIPTION

1. Test Instrument Identification. This bulletin provides instructions for the calibration of Analog Multimeters 0 to 1000 Volts (General) listed in table 1. The manufacturers' manuals or TMs 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, tables, and figures.

b. Time and Technique. The time required for each 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. Test Instrument

Manufacturers	Models or military designators	Tables for specifications, calibration performance limits, and figures for adjustments	
		Tables	Figures
---	ME-77( )/U	3	----
Simpson	160	4	1
Simpson	260-6	5	2
Simpson	260-6M	6	2
Simpson	260-6P	7	2
Simpson	260-6XLP	8	3
Simpson	260-6XLPM	9	3
Simpson	260-7	10	2
Simpson	260-7M	11	2
Simpson	260-7P	12	2
Simpson	260-8	13	4
Simpson	270-4	14	5

SECTION II
EQUIPMENT REQUIREMENTS

4. Equipment Required. Table 2 identifies the specific equipment to be used in this calibration procedure. This equipment is issued with Secondary Transfer Calibration Standards Set AN/GSM-286 and AN/GSM-287. Alternate items may be used by the calibrating activity. The items selected must be verified to perform satisfactorily prior to

use and must bear evidence of current calibration. The equipment must meet or exceed the minimum use specifications listed in table 2. The accuracies listed in table 2 provide a four-to-one ratio between the standard and TI. Where the four-to-one ratio cannot be met, the actual accuracy of the equipment selected is shown in parenthesis.

5. Accessories Required. The accessories required for this calibration are common usage accessories, issued as indicated in paragraph **4** above, and are not listed in this calibration procedure.

Table 2. Minimum Specifications of Equipment Required

Common name	Minimum use specifications[1]	Manufacturer and model (part number)
CALIBRATOR	Dc voltage: Range: 0 to 1000 V Accuracy: ±.4375% Dc current: Range: 50 μA to 10 A Accuracy: ±.25% Ac voltage Range: 0 to 1000V Frequency: 60 Hz to 100 Hz Accuracy: ±.75%	Fluke, Model 5720A (5700A/EP) (p/o MIS-35947), w/amplifier, Fluke, 5725A/AR (5725A/AR)
RESISTANCE STANDARD NO. 1	Range: 0 to 1.1 MΩ Accuracy: ±0.047%	Biddle-Gray, Model 71-631 (7910328)
RESISTANCE STANDARD NO. 2	Range: 1 to 10 MΩ Accuracy: ±0.047%	Beckman, Model CR10M (8598965)
RESISTANCE STANDARD NO. 3	Range: 10 to 20 MΩ Accuracy: ±0.047%	Beckman, Model CR100M (8598966)

[1]The ranges and accuracies listed reflect the highest range required and the best accuracy required, respectively, in this technical bulletin.

SECTION III
CALIBRATION PROCESS

6. Preliminary Instructions

a. The instructions outlined in paragraphs **6** and **7** are preparatory to the calibration process. Personnel should become familiar with the entire bulletin before beginning the calibration.

b. Items of equipment used in this procedure are referenced within the text by common name as listed in table 2.

c. Unless otherwise specified, verify the result of each test and, whenever the test requirement is not met, take corrective action before continuing with the calibration. Adjustments required to calibrate the TI are included in this procedure. Additional maintenance information is contained in the manufacturers' manuals and/or technical manuals for the TI.

d. This is a general procedure which provides instructions for the calibration of a variety of multimeters.

e. Unless otherwise specified, all controls and control settings refer to the TI.

7. Equipment Setup

WARNING

HIGH VOLTAGE is used or exposed during the performance of this calibration. DEATH ON CONTACT may result if personnel fail to observe safety precautions. REDUCE OUTPUT(S) to minimum after each step within the performance check where applicable.

a. If necessary, mechanically zero meter pointer, using adjustment screw on meter face.

b. Connect test leads to TI COM (–) and VOA (+) jacks.

8. Dc Voltage

a. Performance Check

(1) Set function switch to dc volts and range switch to first dc voltage range listed in calibration performance specifications and adjustments table for TI being calibrated.

(2) Connect TI to calibrator **OUTPUT HI** and **OUTPUT LO**, observing polarity.

(3) Set calibrator to initial output as listed in table.

(4) Rotate calibrator knob, below **EDIT FIELD** pushbutton, for the required indication on TI. If calibrator **err** display does not indicate within limits specified, and an adjustment is listed, adjust calibrator for nominal value and then perform adjustment for required indication on TI.

(5) Repeat technique of (1), (3), and (4) above for the remaining dc voltage ranges.

b. Adjustments. No further adjustments can be made.

9. Ac Voltage

a. Performance Check

(1) Set function switch to ac volts and range switch to first ac voltage range listed in calibration performance limits and adjustments table for TI being calibrated.

(2) Set calibrator to initial output and frequency as listed in table.

(3) Rotate calibrator knob, below **EDIT FIELD** pushbutton, for the required indication on TI. If calibrator **err** display does not indicate within limits specified, and an adjustment is listed, adjust calibrator for nominal value and then perform adjustment for required indication on TI.

(4) Repeat technique of (1), (2), and (3) above for the remaining ac voltage ranges.

b. Adjustments. No further adjustments can be made.

10. Resistance

a. Performance Check

(1) Set function switch to ohms and range switch to first ohms range listed in calibration performance limits and adjustments table for TI being calibrated.

(2) Short test leads together and adjust ohms adjust for a 0 indication on TI ohms scale.

NOTE

Perform (2) above for each range prior to making resistance check on the range.

NOTE

Connect resistance standards NO. 1, NO. 2, and NO. 3 in series, as needed, to obtain required resistance values.

(3) Connect TI to resistance standard NO. 1.

(4) Adjust resistance standard for required indication on TI as listed in table. If resistance standard does not indicate within limits specified, and an adjustment is listed, adjust resistance standard for nominal value and perform adjustment for required indication on TI.

(5) Repeat technique of (1), (2), and (4) above for the remaining ohms ranges.

b. Adjustments. No further adjustments can be made.

NOTE

The sets of tables below for each instrument are setup as follows; a = specifications, b = Dc volts, c = Ac volts, d = resistance and e = Dc current. If a table is not present, that parameter is not checked on that instrument.

11. Dc Current

a. Performance Check

(1) Set function switch to dc amps and range switch to the first dc current range listed in the calibration performance specifications and adjustments table for the TI being calibrated.

(2) Set calibrator to initial output as listed in table.

(3) Rotate calibrator knob, below **EDIT FIELD** pushbutton, for the required indication on TI. If calibrator **err** display does not indicate within limits specified, and an adjustment is listed, adjust calibrator for nominal value and then perform adjustment for required indication on TI.

(4) Repeat technique of (1), (2), and (3) above for the remaining dc current ranges.

b. Adjustments. No further adjustments can be made.

Table 3a. ME-77/U Series Specifications

Test instrument parameters	Performance specifications
Dc voltage	Range: 0 to 1000 V Accuracy: ±3% of FS
Ac voltage	Range: 0 to 1000 V Accuracy: ±4% of FS
Resistance	Range: 0 to 20 MΩ Accuracy: ±5% of reading

Table 3b. ME-77/U Dc Volts

Calibration Performance Limits and Adjustments Dc Voltage				
Test instrument		Calibrator		Test instrument
Dc volts range	Indication (V)	Initial output (V)	**err** indication ± (%)	Adjustments
1	1	1	3	None
10	10	10	3	
10	6	6	3	
10	2	2	3	
100	100	100	3	
1000	1000	1000	3	

Table 3c. ME-77/U Ac Volts

Calibration Performance Limits and Adjustments Ac Voltage					
Test instrument		Calibrator			Test instrument
Ac volts range	Indication (V)	Initial output (V)	Frequency (Hz)	**err** indication ± (%)	Adjustments
10	10	10	60	4	None
10	10	10	400	4	
100	100	100	60	4	
100	100	100	400	4	
1000	1000	1000	60	4	
1000	1000	1000	400	4	

Table 3d. ME-77/U Resistance

Calibration Performance Limits and Adjustments Resistance				
Test instrument		Resistance standard indications (Ω)		Test instrument
Resistance range[1]	Indications ohms scale (Ω)	Min	Max	Adjustments
X1	100	95	105	None
X10	100	950	1050	
X100	100	9.5 K	10.5 K	
X1K	100	95 K	105 K	
X10K	100	950 K	1050 K	

[1] Short leads and adjust **OHMS ADJ** for **0** indication on ohms scale. Repeat for each range.

Table 4a. Simpson, Model 160 Specifications

Test instrument parameters	Performance specifications
Dc voltage	Range: 0 to 1000 V Accuracy: ±2% of FS
Ac voltage	Range: 0 to 1000 V Accuracy: ±3% of FS
Resistance	Range: 0 to 20 MΩ Accuracy: ±3° of arc
Dc current	Range: 0 to 500 mA Accuracy: ±3% of FS

Table 4b. Simpson, Model 160 Dc Volts

Calibration Performance Limits and Adjustments Dc Voltage				
Test instrument		Calibrator		Test instrument
Dc volts range	Indication (V)	Initial output (V)	**err** indication ± (%)	Adjustments
1[1]	1	1	2	None
2.5	2.5	2.5	2	
10	10	10	2	
25	25	25	2	
50	50	50	2	
100	100	100	2	
250	250	250	2	
500	500	500	2	
1000[2]	1000	1000	2	

[1] Connect positive lead to TI **+1V DC** input. After 1V check is complete, reduce output to minimum and move positive lead back to TI **+** input.

[2] Reduce output to minimum and move positive lead from TI **+** input to TI **1000V DC** input. After 1000V check is complete, reduce output to minimum and move positive lead back to TI **+** input.

Table 4c. Simpson, Model 160 Ac Volts

Calibration Performance Limits and Adjustments Ac Voltage					
Test instrument		Calibrator			Test instrument
Ac volts range	Indication (V)	Initial output (V)	Frequency (Hz)	**err** indication ± (%)	Adjustments (fig. 1) (R)
2.5	2.5	2.5	60	3	R4
10	10	10	60	3	----
25	25	25	60	3	----
50	50	50	60	3	----
100	100	100	60	3	----
250	250	250	60	3	R3
500	500	500	60	3	----
1000[1]	1000	1000	60	3	----

[1] Reduce output to minimum and move positive lead from TI **+** input to TI **1000V AC** input. After 1000V check is complete, reduce output to minimum and move positive lead back to TI **+** input.

Table 4d. Simpson, Model 160 Resistance

Calibration Performance Limits and Adjustments Resistance				
Test instrument		Resistance standard indications (Ω)		Test instrument
Resistance range[1]	Indications ohms scale (Ω)	Min	Max	Adjustments
RX1	30	27	35	None
RX10	30	270	350	
RX100	30	2.7 k	3.5 k	
RX1K	30	27 k	35 k	
RX10K	30	270 k	350 k	

[1]Short leads and adjust **OHMS ADJ** for **0** indication on ohms scale. Repeat for each range.

Table 4e. Simpson, Model 160 Dc Current

Calibration Performance Limits and Adjustments Dc Current				
Test instrument		Calibrator		Test instrument
Dc current range	Indication (A)	Initial output (A)	**err** indication ± (%)	Adjustments (fig. 1) (R)
50 µA[1]	50 µA	50 µA	3	R2
100 µA	100 µA	100 µA	3	----
1 mA	1 mA	1 mA	3	R1
1 mA	.6 mA	.6 mA	5	----
1 mA	.2 mA	.2 mA	15	----
10 mA	10 mA	10 mA	3	----
100 mA	100 mA	100 mA	3	----
500 mA	500 mA	500 mA	3	----

[1] Connect positive lead to TI **+50µA/250mV** input. After 50 µA check is complete, reduce output to minimum and move positive lead back to TI **+** input.

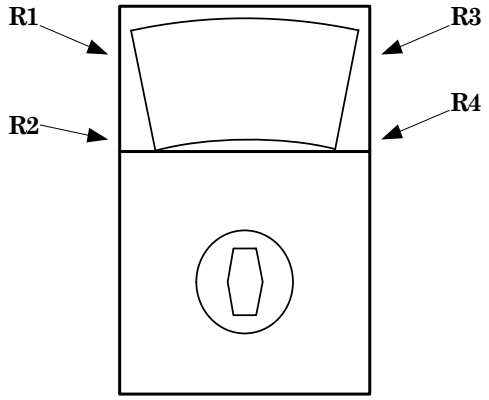

Figure 1. Simpson, model 160.

Table 5a. Simpson, Model 260-6 Specifications

Test instrument parameter	Performance specification
Dc voltage	Range: 0 to 1000 V Accuracy: ±2% of FS
Ac voltage	Range: 0 to 1000 V Accuracy: ±3% of FS
Resistance	Range: 0 to 20 MΩ Accuracy: ±2.5° of arc for RX1 range, ±2° of arc for all other ranges
Dc current	Range: 0 to 10 A Accuracy: ±1.5% of FS for 50 μA range, ±2% of FS for all other ranges

Table 5b. Simpson, Model 260-6 Dc Voltage

Calibration Performance Limits and Adjustments Dc Voltage				
Test instrument[1]		Calibrator		Test instrument
Dc volts range	Indication (V)	Initial output (V)	**err** indication ± (%)	Adjustments
1[2]	1	1	2	None
2.5	2.5	2.5	2	
10	10	10	2	
50	50	50	2	
250	250	250	2	
500	500	500	2	
1000[3]	1000	1000	2	

[1]TI must be calibrated in horizontal position.
[2] Connect positive lead to TI **+1V DC** input. After 1V check is complete, reduce output to minimum and move positive lead to TI **+** input.
[3] Reduce output to minimum and move positive lead from TI **+** input to TI **1000V DC/AC** input. After 1000V check is complete, reduce output to minimum and move positive lead to TI **+** input.

Table 5c. Simpson, Model 260-6 Ac Voltage

Calibration Performance Limits and Adjustments Ac Voltage					
Test instrument[1]		Calibrator			Test instrument
Ac volts range	Indication (V)	Initial output (V)	Frequency (Hz)	**err** indication ± (%)	Adjustments (fig. 2) (R)
2.5	2.5	2.5	60	3	R25
10	10	10	60	3	----
50	50	50	60	3	----
250	250	250	60	3	R22
500	500	500	60	3	----
1000[2]	1000	1000	60	3	----

[1]TI must be calibrated in horizontal position.
[2] Reduce output to minimum and move positive lead from TI **+** input to TI **1000V DC/AC** input. After 1000V check is complete, reduce output to minimum and move positive lead to TI **+** input.

Table 5d. Simpson, Model 260-6 Resistance

Calibration Performance Limits and Adjustments Resistance				
Test instrument [1]		Resistance standard indications (Ω)		Test instrument
Resistance range[2]	Indications ohms scale (Ω)	Min	Max	Adjustments
RX1	12	10.7	13.5	None
RX100	12	1110	1300	
RX10,000	12	111,000	130,000	

[1]TI must be calibrated in horizontal position.
[2] Short leads and adjust **OHMS ADJ** for **0** indication on ohms scale. Repeat for each range.

Table 5e. Simpson, Model 260-6 Dc Current

Calibration Performance Limits and Adjustments Dc Current				
Test instrument[1]		Calibrator		Test instrument
Dc current range	Indication (A)	Initial output (A)	**err** indication ± (%)	Adjustments (fig. 2) (R)
50 µA[2]	50 µA	50 µA	1.5	R1
1 mA	1 mA	1 mA	2	R2
10 mA	10 mA	10 mA	2	----
10 mA	6 mA	6 mA	3.3	----
10 mA	2 mA	2 mA	10	----
100 mA	100 mA	100 mA	2	----
500 mA	500 mA	500 mA	2	----
10 A[3]	10 A	10 A	2	----

[1] TI must be calibrated in horizontal position.
[2] Connect positive lead to TI **+50µA/250mV** input. After 50 µA check is complete, reduce output to minimum and move positive lead to TI **+** input.
[3] Reduce output to minimum and connect TI negative lead to **–10A** input and connect TI positive lead to **+10A** input.

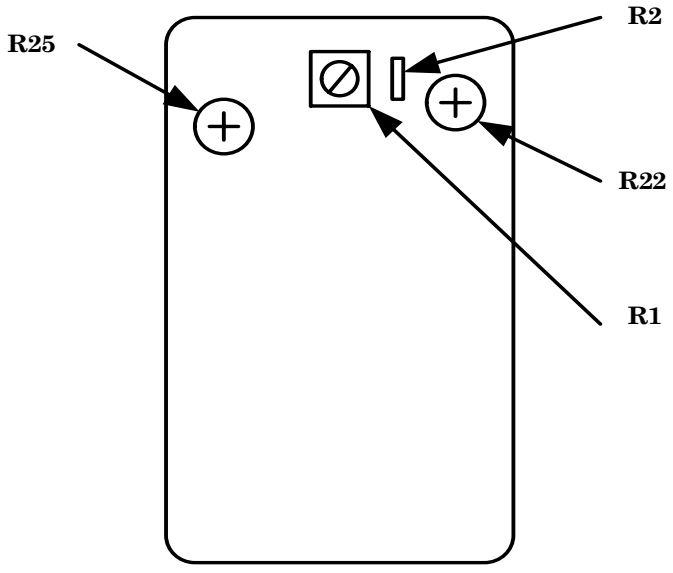

Figure 2. Simpson, models 260-6, 260-6M, 260-6P, 260-7, 260-7M, and 260-7P.

Table 6a. Simpson, Model 260-6M Specifications

Test instrument parameter	Performance specification
Dc voltage	Range: 0 to 1000 V Accuracy: ±2% of FS
Ac voltage	Range: 0 to 1000 V Accuracy: ±3% of FS
Resistance	Range: 0 to 20 MΩ Accuracy: ±2.5° of arc for RX1 range, ±2° of arc for all other ranges
Dc current	Range: 0 to 10 A Accuracy: ±1.5% of FS for 50 μA range, ±2% of FS for all other ranges

Table 6b. Simpson, Model 260-6M Dc Voltage

Calibration Performance Limits and Adjustments Dc Voltage				
Test instrument[1]		Calibrator		Test instrument
Dc volts range	Indication (V)	Initial output (V)	**err** indication ± (%)	Adjustments
1[2]	1	1	2	None
2.5	2.5	2.5	2	
10	10	10	2	
50	50	50	2	
250	250	250	2	
500	500	500	2	
1000[3]	1000	1000	2	

[1]TI must be calibrated in horizontal position.
[2] Connect positive lead to TI **+1V DC** input. After 1V check is complete, reduce output to minimum and move positive lead to TI **+** input.
[3] Reduce output to minimum and move positive lead from TI **+** input to TI **1000V DC/AC** input. After 1000V check is complete, reduce output to minimum and move positive lead to TI **+** input.

Table 6c. Simpson, Model 260-6M Ac Voltage

Calibration Performance Limits and Adjustments Ac Voltage					
Test instrument[1]		Calibrator			Test instrument
Ac volts range	Indication (V)	Initial output (V)	Frequency (Hz)	**err** indication ± (%)	Adjustments (fig. 2) (R)
2.5	2.5	2.5	60	3	R25
10	10	10	60	3	----
50	50	50	60	3	----
250	250	250	60	3	R22
500	500	500	60	3	----
1000[2]	1000	1000	60	3	----

[1]TI must be calibrated in horizontal position.
[2] Reduce output to minimum and move positive lead from TI **+** input to TI **1000V DC/AC** input. After 1000V check is complete, reduce output to minimum and move positive lead to TI **+** input.

Table 6d. Simpson, Model 260-6M Resistance

Calibration Performance Limits and Adjustments Resistance				
Test instrument[1]		Resistance standard indications (Ω)		Test instrument
Resistance range[2]	Indications ohms scale (Ω)	Min	Max	Adjustments
RX1	12	10.7	13.5	None
RX100	12	1110	1300	
RX10,000	12	111,000	130,000	

[1]TI must be calibrated in horizontal position.
[2] Short leads and adjust **OHMS ADJ** for **0** indication on ohms scale. Repeat for each range.

Table 6e. Simpson, Model 260-6M Dc Current

Calibration Performance Limits and Adjustments Dc Current				
Test instrument[1]		Calibrator		Test instrument
Dc current range	Indication (A)	Initial output (A)	**err** indication ± (%)	Adjustments (fig. 2) (R)
50 μA[2]	50 μA	50 μA	1.5	R1
1 mA	1 mA	1 mA	2	R2
10 mA	10 mA	10 mA	2	----
10 mA	6 mA	6 mA	3.3	----
10 mA	2 mA	2 mA	10	----
100 mA	100 mA	100 mA	2	----
500 mA	500 mA	500 mA	2	----
10 A[3]	10 A	10 A	2	----

[1] TI must be calibrated in horizontal position.
[2] Connect positive lead to TI **+50μA/250mV** input. After 50 μA check is complete, reduce output to minimum and move positive lead to TI **+** input.
[3] Reduce output to minimum and connect TI negative lead to **–10A** input and connect TI positive lead to **+10A** input.

Table 7a. Simpson, Model 260-6P Specifications

Test instrument parameter	Performance specification
Dc voltage	Range: 0 to 1000 V Accuracy: ±2% of FS
Ac voltage	Range: 0 to 1000 V Accuracy: ±3% of FS
Resistance	Range: 0 to 20 MΩ Accuracy: ±2.5° of arc for RX1 range, ±2° of arc for all other ranges
Dc current	Range: 0 to 10 A Accuracy: ±1.5% of FS for 50 μA range, ±2% of FS for all other ranges

Table 7b. Simpson, Model 260-6P Dc Voltage

Calibration Performance Limits and Adjustments Dc Voltage				
Test instrument[1]		Calibrator		Test instrument
Dc volts range	Indication (V)	Initial output (V)	**err** indication ± (%)	Adjustments
1[2]	1	1	2	None
2.5	2.5	2.5	2	
10	10	10	2	
50	50	50	2	
250	250	250	2	
500	500	500	2	
1000[3]	1000	1000	2	

[1]TI must be calibrated in horizontal position.
[2] Connect positive lead to TI **+1V DC** input. After 1V check is complete, reduce output to minimum and move positive lead to TI **+** input.
[3] Reduce output to minimum and move positive lead from TI **+** input to TI **1000V DC/AC** input. After 1000V check is complete, reduce output to minimum and move positive lead to TI **+** input.

Table 7c. Simpson, Model 260-6P Ac Voltage

Calibration Performance Limits and Adjustments Ac Voltage					
Test instrument[1]		Calibrator			Test instrument
Ac volts range	Indication (V)	Initial output (V)	Frequency (Hz)	**err** indication ± (%)	Adjustments (fig. 2) (R)
2.5	2.5	2.5	60	3	R25
10	10	10	60	3	----
50	50	50	60	3	----
250	250	250	60	3	R22
500	500	500	60	3	----
1000[2]	1000	1000	60	3	----

[1]TI must be calibrated in horizontal position.
[2] Reduce output to minimum and move positive lead from TI **+** input to TI **1000V DC/AC** input.

Table 7d. Simpson, Model 260-6P Resistance

Calibration Performance Limits and Adjustments Resistance				
Test instrument[1]		Resistance standard indications (Ω)		Test instrument
Resistance range[2]	Indications ohms scale (Ω)	Min	Max	Adjustments
RX1	12	10.7	13.5	None
RX100	12	1110	1300	
RX10,000	12	111,000	130,000	

[1]TI must be calibrated in horizontal position.
[2] Short leads and adjust **OHMS ADJ** for **0** indication on ohms scale. Repeat for each range.

Table 7e. Simpson, Model 260-6P Dc Current

Calibration Performance Limits and Adjustments Dc Current				
Test instrument[1]		Calibrator		Test instrument
Dc current range	Indication (A)	Initial output (A)	**err** indication ± (%)	Adjustments (fig. 2) (R)
50 µA[2]	50 µA	50 µA	1.5	R1
1 mA	1 mA	1 mA	2	R2
10 mA	10 mA	10 mA	2	----
10 mA	6 mA	6 mA	3.3	----
10 mA	2 mA	2 mA	10	----
100 mA	100 mA	100 mA	2	----
500 mA	500 mA	500 mA	2	----
10 A[3]	10 A	10 A	2	----

[1] TI must be calibrated in horizontal position.
[2] Connect positive lead to TI **+50µA/250mV** input. After 50 µA check is complete, reduce output to minimum and move positive lead to TI **+** input.
[3] Reduce output to minimum and connect TI negative lead to **–10A** input and connect TI positive lead to **+10A** input.

Table 8a. Simpson, Model 260-6XLP Specifications

Test instrument parameter	Performance specification
Dc voltage	Range: 0 to 1000 V Accuracy: ±2% of FS
Ac voltage	Range: 0 to 1000 V Accuracy: ±3% of FS
Resistance	Range: 0 to 20 MΩ Accuracy: ±2.5° of arc for RX1 range, ±2° of arc for all other ranges
Dc current	Range: 0 to 5A Accuracy: ±1% of FS for 50 µA range, ±2% of FS for all other ranges

Table 8b. Simpson, Model 260-6XLP Dc Voltage

Calibration Performance Limits and Adjustments Dc Voltage				
Test instrument[1]		Calibrator		Test instrument
Dc volts range	Indication (V)	Initial output (V)	**err** indication ± (%)	Adjustments
1[2]	1	1	2	None
2.5	2.5	2.5	2	
10	10	10	2	
25	25	25	2	
50	50	50	2	
100	100	100	2	
250	250	250	2	
500	500	500	2	
1000[3]	1000	1000	2	

[1]TI must be calibrated in horizontal position.
[2] Connect positive lead to TI **+1V DC** input. After 1V check is complete, move positive lead to TI **+** input.
[3] Reduce output to minimum and move positive lead from TI **+** input to TI **1000V DC/AC** input. After 1000V check is complete, reduce output to minimum and move positive lead to TI **+** input.

Table 8c. Simpson, Model 260-6XLP Ac Voltage

Calibration Performance Limits and Adjustments Ac Voltage					
Test instrument[1]		Calibrator			Test instrument
Ac volts range	Indication (V)	Initial output (V)	Frequency (Hz)	**err** indication ± (%)	Adjustments (fig. 3) (R)
2.5	2.5	2.5	60	3	R40
10	10	10	60	3	-----
25	25	25	60	3	-----
50	50	50	60	3	-----
100	100	100	60	3	-----
250	250	250	60	3	R43
500	500	500	60	3	-----
1000[2]	1000	1000	60	3	-----

[1]TI must be calibrated in horizontal position.
[2] Move positive lead from TI **+** input to TI **1000V DC/AC** input. After 1000V check is complete, reduce output to minimum and move positive lead to TI **+** input.

Table 8d. Simpson, Model 260-6XLP Resistance

Calibration Performance Limits and Adjustments Resistance				
Test instrument[1]		Resistance standard indications (Ω)		Test instrument
Resistance range	Indications ohms scale (Ω)	Min	Max	Adjustments
LP RX1	20	17.2	22.0	[2]
LP RX10	20	172	220	----
RX1[3]	6	5.35	6.75	----
RX100	6	555	650	----
RX1K	6	5550	6500	----
RX10K	6	55,500	65,000	----

[1] TI must be calibrated in horizontal position.
[2] Short leads together. If TI does not indicate **0**, adjust R2 (Fig. 3). Then, with leads separated, rotate TI **OHMS ADJ** control to set TI pointer to infinity (∞) on the blue low power ohms arc. If pointer cannot be adjusted to infinity (∞), replace the 1.5 V battery.
[3] Short leads and adjust **OHMS ADJ** control for **0** indication on ohms scale. Repeat for each range.

Table 8e. Simpson, Model 260-6XLP Dc Current

Calibration Performance Limits and Adjustments Dc Current				
Test instrument[1]		Calibrator		Test instrument
Dc current range	Indication (A)	Initial output (A)	**err** indication ± (%)	Adjustments (fig. 3) (R)
50 µA[2]	50 µA	50 µA	1	R1
.5 mA	.5 mA	.5 mA	2	R3
.5 mA	.3 mA	.3 mA	3.3	----
.5 mA	.1 mA	.1 mA	10	----
5 mA	5 mA	5 mA	2	----
50 mA	50 mA	50 mA	2	----
500 mA	500 mA	500 mA	2	----
5 A[3]	5 A	5 A	2	----

[1] TI must be calibrated in horizontal position.
[2] Connect positive lead to TI **+50µA/250mV** input. After 50 µA check is complete, reduce output to minimum and move positive lead to TI **+** input.
[3] Reduce output to minimum and connect TI negative lead to **–5A** input and connect TI positive lead to **+5A** input.

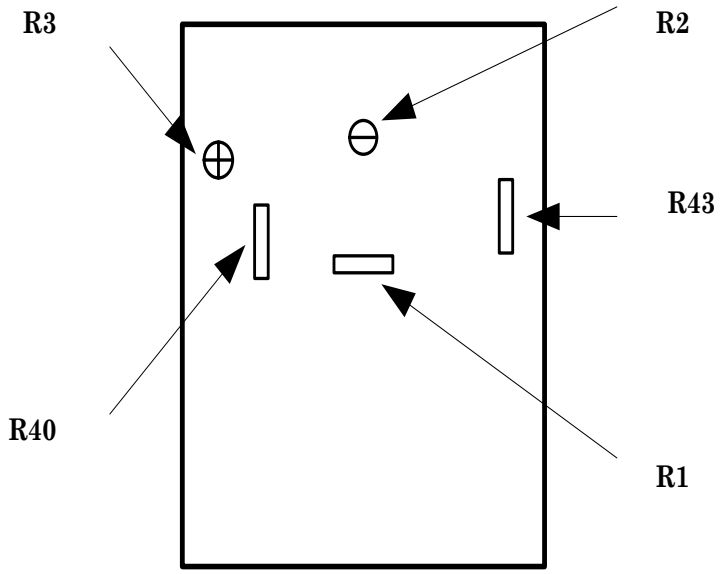

Figure 3. Simpson, models 260-6XLP and 260-6XLPM.

Table 9a. Simpson, Model 260-6XLPM Specifications

Test instrument parameter	Performance specification
Dc voltage	Range: 0 to 1000 V Accuracy: ±2% of FS
Ac voltage	Range: 0 to 1000 V Accuracy: ±3% of FS
Resistance	Range: 0 to 20 MΩ Accuracy: ±2.5° of arc for LPRX1, LPRX10 and RX1 ranges, ±2° of arc for all other ranges
Dc current	Range: 0 to 5A Accuracy: ±1% of FS for 50 µA range, ±2% of FS for all other ranges

Table 9b. Simpson, Model 260-6XLPM Dc Voltage

Calibration Performance Limits and Adjustments Dc Voltage				
Test instrument[1]		Calibrator		Test instrument
Dc volts range	Indication (V)	Initial output (V)	**err** indication ± (%)	Adjustments
250 mV[2]	.25	.25	2	
1	1	1	2	
2.5	2.5	2.5	2	
10	10	10	2	
25	25	25	2	
100	100	100	2	
250	250	250	2	
500	500	500	2	
1000[3]	1000	1000	2	

[1]TI must be calibrated in horizontal position.
[2] Reduce output to minimum and move positive lead from TI + input to TI **+50µA/250mV** input. After 250mV check is complete, reduce output to minimum and move positive lead to TI + input.
[3] Reduce output to minimum and move positive lead from TI **+** input to TI **1000V DC/AC** input. After 1000V check is complete, reduce output to minimum and move positive lead to TI **+** input.

Table 9c. Simpson, Model 260-6XLPM Ac Voltage

Calibration Performance Limits and Adjustments Ac Voltage					
Test instrument[1]		Calibrator			Test instrument
Ac volts range	Indication (V)	Initial output (V)	Frequency (Hz)	**err** indication ± (%)	Adjustments (fig. 3) (R)
2.5	2.5	2.5	60	3	R40
10	10	10	60	3	-----
25	25	25	60	3	-----
100	100	100	60	3	-----
250	250	250	60	3	R43
500	500	500	60	3	-----
1000[2]	1000	1000	60	3	-----

[1]TI must be calibrated in horizontal position.

[2] Reduce output to minimum and move positive lead from TI **+** input to TI **1000V DC/AC** input. After 1000V check is complete, reduce output to minimum and move positive lead to TI **+** input.

Table 9d. Simpson, Model 260-6XLPM Resistance

Calibration Performance Limits and Adjustments Resistance				
Test instrument[1]		Resistance standard indications (Ω)		Test instrument
Resistance range	Indications ohms scale (Ω)	Min	Max	Adjustments
LP RX1	20	17.2	22.0	[2]
LP RX10	20	172	220	----
RX1[3]	6	5.35	6.75	----
RX100	6	555	650	----
RX1K	6	5550	6500	----
RX10K	6	55,500	65,000	----

[1] TI must be calibrated in horizontal position.

[2]With leads separated, rotate TI OHMS ADJ control to set TI pointer to infinity (~) on the blue low power ohms arc. If pointer cannot be adjusted to infinity (~), replace the 1.5 V battery. If pointer still cannot be adjusted to infinity (~), rotate TI OHMS ADJ control to the middle of its rotation, then adjust R2 (Fig.3) to set pointer to infinity on the blue low power ohms arc.

[3] Short leads and adjust **OHMS ADJ** control for **0** indication on ohms scale. Repeat for each range.

Table 9e. Simpson, Model 260-6XLPM Dc Current

Calibration Performance Limits and Adjustments Dc Current				
Test instrument[1]		Calibrator		Test instrument
Dc current range	Indication (A)	Initial output (A)	**err** indication ± (%)	Adjustments (fig. 3) (R)
50 μA[2]	50 μA	50 μA	1	R1
.5 mA	.5 mA	.5 mA	2	R3
.5 mA	.3 mA	.3 mA	3.3	----
.5 mA	.1 mA	.1 mA	10	----
5 mA	5 mA	5 mA	2	----
50 mA	50 mA	50 mA	2	----
500 mA	500 mA	500 mA	2	----
5 A[3]	5 A	5 A	2	----

[1] TI must be calibrated in horizontal position.

[2] Connect positive lead to TI **+50μA/250mV** input. After 50 μA check is complete, reduce output to minimum and move positive lead to TI **+** input.

[3] Reduce output to minimum and connect TI negative lead to **–5A** input and connect TI positive lead to **+5A** input.

Table 10a. Simpson, Model 260-7 Specifications

Test instrument parameter	Performance specification
Dc voltage	Range: 0 to 1000 V Accuracy: ±2% of FS
Ac voltage	Range: 0 to 1000 V Accuracy: ±3% of FS
Resistance	Range: 0 to 20 MΩ Accuracy: ±2.5° of arc for RX1 range, ±2° of arc for all other ranges
Dc current	Range: 0 to 10A Accuracy: ±1.5% of FS for 50 µA range, ±2% of FS for all other ranges

Table 10b. Simpson, Model 260-7 Dc Voltage

Calibration Performance Limits and Adjustments Dc Voltage				
Test instrument[1]		Calibrator		Test instrument
Dc volts range	Indication (V)	Initial output (V)	**err** indication ± (%)	Adjustments
1[2]	1	1	2	None
2.5	2.5	2.5	2	
10	10	10	2	
50	50	50	2	
250	250	250	2	
500	500	500	2	
1000[3]	1000	1000	2	

[1]TI must be calibrated in horizontal position.
[2] Connect positive lead to TI **+1V DC** input. After 1V check is complete, reduce output to minimum and move positive lead to TI **+** input.
[3] Reduce output to minimum and move positive lead from TI **+** input to TI **1000V DC/AC** input. After 1000V check is complete, reduce output to minimum and move positive lead to TI **+** input.

Table 10c. Simpson, Model 260-7 Ac Voltage

Calibration Performance Limits and Adjustments Ac Voltage					
Test instrument[1]		Calibrator			Test instrument
Ac volts range	Indication (V)	Initial output (V)	Frequency (Hz)	**err** indication ± (%)	Adjustments (fig. 2) (R)
2.5	2.5	2.5	60	3	R25
10	10	10	60	3	----
50	50	50	60	3	----
250	250	250	60	3	R22
500	500	500	60	3	----
1000[2]	1000	1000	60	3	----

[1]TI must be calibrated in horizontal position.
[2] Reduce output to minimum and move positive lead from TI **+** input to TI **1000V DC/AC** input. After 1000V check is complete, reduce output to minimum and move positive lead to TI **+** input.

Table 10d. Simpson, Model 260-7 Resistance

Calibration Performance Limits and Adjustments Resistance				
Test instrument[1]		Resistance standard indications (Ω)		Test instrument
Resistance range[2]	Indications ohms scale (Ω)	Min	Max	Adjustments
RX1	12	10.7	13.5	None
RX100	12	1110	1300	
RX10,000	12	111,000	130,000	

[1] TI must be calibrated in horizontal position.
[2] Short leads and adjust **OHMS ADJ** for **0** indication on ohms scale. Repeat for each range.

Table 10e. Simpson, Model 260-7 Dc Current

Calibration Performance Limits and Adjustments Dc Current				
Test instrument[1]		Calibrator		Test instrument
Dc current range	Indication (A)	Initial output (A)	**err** indication ± (%)	Adjustments (fig. 2) (R)
50 μA[2]	50 μA	50 μA	1.5	R1
1 mA	1 mA	1 mA	2	R2
10 mA	10 mA	10 mA	2	----
10 mA	6 mA	6 mA	3.3	----
10 mA	2 mA	2 mA	10	----
100 mA	100 mA	100 mA	2	----
500 mA	500 mA	500 mA	2	----
10 A[3]	10 A	10 A	2	----

[1] TI must be calibrated in horizontal position.
[2] Connect positive lead to TI **+50μA/250mV** input. After 50 μA check is complete, reduce output to minimum and move positive lead to TI **+** input.
[3] Reduce output to minimum and connect TI negative lead to **–10A** input and connect TI positive lead to **+10A** input.

Table 11a. Simpson, Model 260-7M Specifications

Test instrument parameter	Performance specification
Dc voltage	Range: 0 to 1000 V Accuracy: ±2% of FS
Ac voltage	Range: 0 to 1000 V Accuracy: ±3% of FS
Resistance	Range: 0 to 20 MΩ Accuracy: ±2.5° of arc for RX1 range, ±2° of arc for all other ranges
Dc current	Range: 0 to 10A Accuracy: ±1.5% of FS for 50 μA range, ±2% of FS for all other ranges

Table 11b. Simpson, Model 260-7M Dc Voltage

Calibration Performance Limits and Adjustments Dc Voltage				
Test instrument[1]		Calibrator		Test instrument
Dc volts range	Indication (V)	Initial output (V)	**err** indication ± (%)	Adjustments
1[2]	1	1	2	None
2.5	2.5	2.5	2	
10	10	10	2	
50	50	50	2	
250	250	250	2	
500	500	500	2	
1000[3]	1000	1000	2	

[1]TI must be calibrated in horizontal position.
[2] Connect positive lead to TI **+1V DC** input. After 1V check is complete, reduce output to minimum and move positive lead to TI **+** input.
[3] Reduce output to minimum and move positive lead from TI **+** input to TI **1000V DC/AC** input. After 1000V check is complete, reduce output to minimum and move positive lead to TI **+** input.

Table 11c. Simpson, Model 260-7M Ac Voltage

Calibration Performance Limits and Adjustments Ac Voltage					
Test instrument[1]		Calibrator			Test instrument
Ac volts range	Indication (V)	Initial output (V)	Frequency (Hz)	**err** indication ± (%)	Adjustments (fig. 2) (R)
2.5	2.5	2.5	60	3	R25
10	10	10	60	3	----
50	50	50	60	3	----
250	250	250	60	3	R22
500	500	500	60	3	----
1000[2]	1000	1000	60	3	----

[1]TI must be calibrated in horizontal position.
[2] Reduce output to minimum and move positive lead from TI **+** input to TI **1000V DC/AC** input. After 1000V check is complete, reduce output to minimum and move positive lead to TI **+** input.

Table 11d. Simpson, Model 260-7M Resistance

Calibration Performance Limits and Adjustments Resistance				
Test instrument[1]		Resistance standard indications (Ω)		Test instrument
Resistance range[2]	Indications ohms scale (Ω)	Min	Max	Adjustments
RX1	12	10.7	13.5	None
RX100	12	1110	1300	
RX10,000	12	111,000	130,000	

[1] TI must be calibrated in horizontal position.
[2] Short leads and adjust **OHMS ADJ** for **0** indication on ohms scale. Repeat for each range.

Table 11e. Simpson, Model 260-7M Dc Current

Calibration Performance Limits and Adjustments Dc Current				
Test instrument[1]		Calibrator		Test instrument
Dc current range	Indication (A)	Initial output (A)	**err** indication ± (%)	Adjustments (fig. 2) (R)
50 µA[2]	50 µA	50 µA	1.5	R1
1 mA	1 mA	1 mA	2	R2
10 mA	10 mA	10 mA	2	----
10 mA	6 mA	6 mA	3.3	----
10 mA	2 mA	2 mA	10	----
100 mA	100 mA	100 mA	2	----
500 mA	500 mA	500 mA	2	----
10 A[3]	10 A	10 A	2	----

[1] TI must be calibrated in horizontal position.
[2] Connect positive lead to TI **+50µA/250mV** input. After 50 µA check is complete, reduce output to minimum and move positive lead to TI **+** input.
[3] Reduce output to minimum and connect TI negative lead to **–10A** input and connect TI positive lead to **+10A** input.

Table 12a. Simpson, Model 260-7P Specifications

Test instrument parameter	Performance specification
Dc voltage	Range: 0 to 1000 V Accuracy: ±2% of FS
Ac voltage	Range: 0 to 1000 V Accuracy: ±3% of FS
Resistance	Range: 0 to 20 MΩ Accuracy: ±2.5° of arc for RX1 range, ±2° of arc for all other ranges
Dc current	Range: 0 to 10A Accuracy: ±1.5% of FS for 50 µA range, ±2% of FS for all other ranges

Table 12b. Simpson, Model 260-7P Dc Voltage

Calibration Performance Limits and Adjustments Dc Voltage				
Test instrument[1]		Calibrator		Test instrument
Dc volts range	Indication (V)	Initial output (V)	**err** indication ± (%)	Adjustments
1[2]	1	1	2	None
2.5	2.5	2.5	2	
10	10	10	2	
50	50	50	2	
250	250	250	2	
500	500	500	2	
1000[3]	1000	1000	2	

[1]TI must be calibrated in horizontal position.
[2] Connect positive lead to TI **+1V DC** input. After 1V check is complete, reduce output to minimum and move positive lead to TI **+** input.
[3] Reduce output to minimum and move positive lead from TI **+** input to TI **1000V DC/AC** input. After 1000V check is complete, reduce output to minimum and move positive lead to TI **+** input.

Table 12c. Simpson, Model 260-7P Ac Voltage

Calibration Performance Limits and Adjustments Ac Voltage					
Test instrument[1]		Calibrator			Test instrument
Ac volts range	Indication (V)	Initial output (V)	Frequency (Hz)	**err** indication ± (%)	Adjustments (fig. 2) (R)
2.5	2.5	2.5	60	3	R25
10	10	10	60	3	----
50	50	50	60	3	----
250	250	250	60	3	R22
500	500	500	60	3	----
1000[2]	1000	1000	60	3	----

[1]TI must be calibrated in horizontal position.
[2] Reduce output to minimum and move positive lead from TI **+** input to TI **1000V DC/AC** input. After 1000V check is complete, reduce output to minimum and move positive lead to TI **+** input.

Table 12d. Simpson, Model 260-7P Resistance

Calibration Performance Limits and Adjustments Resistance				
Test instrument[1]		Resistance standard indications (Ω)		Test instrument
Resistance range[2]	Indications ohms scale (Ω)	Min	Max	Adjustments
RX1	12	10.7	13.5	None
RX100	12	1110	1300	
RX10,000	12	111,000	130,000	

[1] TI must be calibrated in horizontal position.
[2] Short leads and adjust **OHMS ADJ** for **0** indication on ohms scale. Repeat for each range.

Table 12e. Simpson, Model 260-7P Dc Current

Calibration Performance Limits and Adjustments Dc Current				
Test instrument[1]		Calibrator		Test instrument
Dc current range	Indication (A)	Initial output (A)	**err** indication ± (%)	Adjustments (fig. 2) (R)
50 μA[2]	50 μA	50 μA	1.5	R1
1 mA	1 mA	1 mA	2	R2
10 mA	10 mA	10 mA	2	----
10 mA	6 mA	6 mA	3.3	----
10 mA	2 mA	2 mA	10	----
100 mA	100 mA	100 mA	2	----
500 mA	500 mA	500 mA	2	----
10 A[3]	10 A	10 A	2	----

[1] TI must be calibrated in horizontal position.
[2] Connect positive lead to TI **+50μA/250mV** input. After 50 μA check is complete, move positive lead to TI **+** input.
[3] Connect TI negative lead to **–10A** input and connect TI positive lead to **+10A** input.

Table 13a. Simpson, Model 260-8 Specifications

Test instrument parameter	Performance specification
Dc voltage	Range: 0 to 1000 V Accuracy: ±2% of FS
Ac voltage	Range: 0 to 1000 V Accuracy: ±3% of FS
Resistance	Range: 0 to 20 MΩ Accuracy: ±2.5° of arc for RX1 range, ±2° of arc for all other ranges
Dc current	Range: 0 to 10 A Accuracy: ±1.5% of FS for 50 µA range, ±2% of FS for all other ranges

Table 13b. Simpson, Model 260-8 Dc Voltage

Calibration Performance Limits and Adjustments Dc Voltage				
Test instrument[1]		Calibrator		Test instrument
Dc volts range	Indication (V)	Initial output (V)	**err** indication ± (%)	Adjustments
1[2]	1	1	2	None
2.5	2.5	2.5	2	
10	10	10	2	
25	25	25	2	
50	50	50	2	
250	250	250	2	
250[3]	500	500	2	
250[4]	1000	1000	2	

[1]TI must be calibrated in horizontal position.
[2] Connect positive lead to TI **+1V DC** input. After 1V check is complete, move positive lead to TI **+** input.
[3] Move positive lead from TI **+** input to TI **500V DC** input.
[4] Move positive lead from TI **500 V DC** input to TI **1000V DC** input.

Table 13c. Simpson, Model 260-8 Ac Voltage

Calibration Performance Limits and Adjustments Ac Voltage					
Test instrument[1]		Calibrator			Test instrument
Ac volts range	Indication (V)	Initial output (V)	Frequency (Hz)	**err** indication ± (%)	Adjustments (fig. 4) (R)
2.5	2.5	2.5	60	3	R25
10	10	10	60	3	----
25	25	25	60	3	----
50	50	50	60	3	----
250	250	250	60	3	R22
250[2]	500	500	60	3	----
250[3]	1000	1000	60	3	----

[1]TI must be calibrated in horizontal position.
[2] Move positive lead from TI **+** input to TI **500V DC/AC** input.
[3] Move positive lead from TI **500 V DC/AC** input to TI **1000V DC/AC** input.

Table 13d. Simpson, Model 260-8 Resistance

Calibration Performance Limits and Adjustments Resistance				
Test instrument[1]		Resistance standard indications (Ω)		Test instrument
Resistance range[2]	Indications ohms scale (Ω)	Min	Max	Adjustments
RX1	12	10.7	13.5	None
RX100	12	1110	1300	
RX10,000	12	111,000	130,000	

[1] TI must be calibrated in horizontal position.
[2] Short leads and adjust **OHMS ADJ** for **0** indication on ohms scale. Repeat for each range.

Table 13e. Simpson, Model 260-8 Dc Current

Calibration Performance Limits and Adjustments Dc Current				
Test instrument[1]		Calibrator		Test instrument
Dc current range	Indication (A)	Initial output (A)	**err** indication ± (%)	Adjustments (fig. 4) (R)
50 µA[2]	50 µA	50 µA	1.5	R1
1 mA	1 mA	1 mA	2	R2
10 mA	10 mA	10 mA	2	----
10 mA	6 mA	6 mA	3.3	----
10 mA	2 mA	2 mA	10	----
100 mA	100 mA	100 mA	2	----
500 mA	500 mA	500 mA	2	----
10 A[3]	10 A	10 A	2	----

[1] TI must be calibrated in horizontal position.
[2] Move positive lead from TI **+** input to TI **+10A/50µA/250mV** input. After 50 µA check is complete, move positive lead back to TI **+** input.
[3] Connect TI negative lead to **–10A** input and connect TI positive lead to **+10A/50µA/250mV** input.

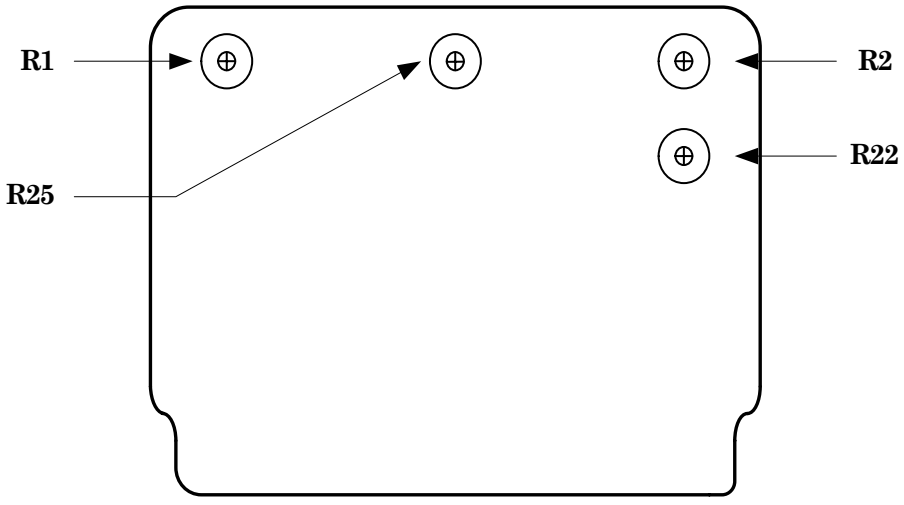

Figure 4. Simpson, model 260-8.

Table 14a. Simpson, Model 270-4 Specifications

Test instrument parameter	Performance specification
Dc voltage	Range: 0 to 1000 V Accuracy: ±1.75% of FS
Ac voltage	Range: 0 to 1000 V Accuracy: ±3% of FS
Resistance	Range: 0 to 20 MΩ Accuracy: ±1.75° of arc for RX1 range, ±1.25° of arc for all other ranges
Dc current	Range: 0 to 10 A Accuracy: ±1.25% of FS for 50 µA range, ±1.75% of FS for all other ranges

Table 14b. Simpson, Model 270-4 Dc Voltage

Calibration Performance Limits and Adjustments Dc Voltage				
Test instrument[1]		Calibrator		Test instrument
Dc volts range	Indication (V)	Initial output (V)	**err** indication ± (%)	Adjustments
1[2]	1	1	1.75	None
2.5	2.5	2.5	1.75	
10	10	10	1.75	
50	50	50	1.75	
250	250	250	1.75	
500	500	500	1.75	
1000[3]	1000	1000	1.75	

[1]TI must be calibrated in horizontal position.
[2] Connect positive lead to TI **+1V DC** input. After 1V check is complete, move positive lead to TI **+** input.
[3] Move positive lead from TI **+** input to TI **1000V DC/AC** input.

Table 14c. Simpson, Model 270-4 Ac Voltage

Calibration Performance Limits and Adjustments Ac Voltage					
Test instrument[1]		Calibrator			Test instrument
Ac volts range	Indication (V)	Initial output (V)	Frequency (Hz)	**err** indication ± (%)	Adjustments (fig. 5) (R)
2.5	2.5	2.5	60	3	R25
10	10	10	60	3	----
50	50	50	60	3	----
250	250	250	60	3	R22
500	500	500	60	3	----
1000[2]	1000	1000	60	3	----

[1]TI must be calibrated in horizontal position.
[2] Move positive lead from TI **+** input to TI **1000V DC/AC** input.

Table 14d. Simpson, Model 270-4 Resistance

Calibration Performance Limits and Adjustments Resistance				
Test instrument[1]		Resistance standard indications (Ω)		Test instrument
Resistance range[2]	Indications ohms scale (Ω)	Min	Max	Adjustments
RX1	12	11.2	12.9	None
RX100	12	1130	1260	
RX10,000	12	113,000	126,000	

[1]TI must be calibrated in horizontal position.
[2] Short leads and adjust **OHMS ADJ** for **0** indication on ohms scale. Repeat for each range.

Table 14e. Simpson, Model 270-4 Dc Current

Calibration Performance Limits and Adjustments Dc Current				
Test instrument[1]		Calibrator		Test instrument
Dc current range	Indication (A)	Initial output (A)	**err** indication ± (%)	Adjustments (fig. 5) (R)
50 µA[2]	50 µA	50 µA	1.25	R1
1 mA	1 mA	1 mA	1.75	R2
10 mA	10 mA	10 mA	1.75	----
10 mA	6 mA	6 mA	2.91	----
10 mA	2 mA	2 mA	8.75	----
100 mA	100 mA	100 mA	1.75	----
500 mA	500 mA	500 mA	1.75	----
10 A[3]	10 A	10 A	1.75	----

[1] TI must be calibrated in horizontal position.
[2] Connect positive lead to TI **+50µA/250mV** input. After 50 µA check is complete, move positive lead to TI **+** input.
[3] Connect TI negative lead to **–10A** input and connect TI positive lead to **+10A** input.

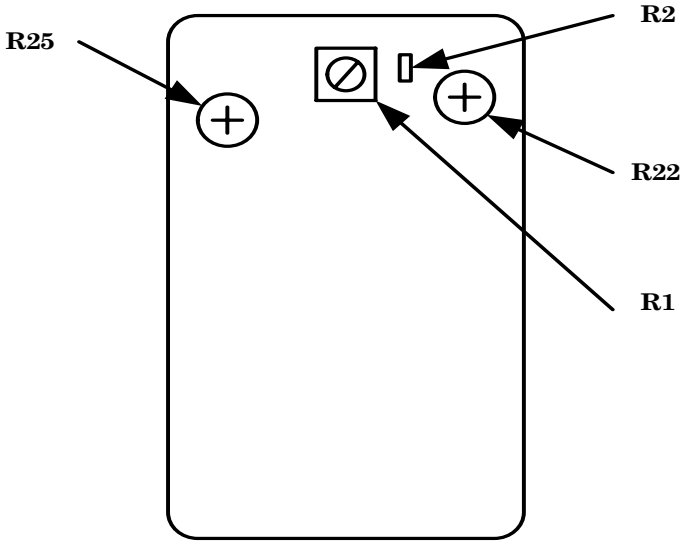

Figure 5. Simpson, model 270-4.

12. Final Procedure

a. Deenergize and disconnect all equipment.

b. Annotate and affix DA label/form in accordance with TB 750-25.

By Order of the Secretary of the Army:

PETER J. SCHOOMAKER
General, United States Army
Chief of Staff

Official:

JOEL B. HUDSON
Administrative Assistant to the
Secretary of the Army

0404909

Distribution:

To be distributed in accordance with the IDN 342248, requirements for calibration procedure TB 9-6625-2354-35.

Instructions for Submitting an Electronic 2028

The following format must be used if submitting an electronic 2028. The subject line must be exactly the same and all fields must be included; however, only the following fields are mandatory: 1, 3, 4, 5, 6, 7, 8, 9, 10, 13, 15, 16, 17, and 27.

From: "Whomever" whomever@redstone.army.mil
To: <2028@redstone.army.mil

Subject: DA Form 2028

1. **From**: Joe Smith
2. Unit: home
3. **Address**: 4300 Park
4. **City**: Hometown
5. **St**: MO
6. **Zip**: 77777
7. **Date Sent**: 19-OCT –93
8. **Pub no:** 55-2840-229-23
9. **Pub Title**: TM
10. **Publication Date**: 04-JUL-85
11. Change Number: 7
12. Submitter Rank: MSG
13. **Submitter FName**: Joe
14. Submitter MName: T
15. **Submitter LName**: Smith
16. **Submitter Phone**: 123-123-1234
17. **Problem**: 1
18. Page: 2
19. Paragraph: 3
20. Line: 4
21. NSN: 5
22. Reference: 6
23. Figure: 7
24. Table: 8
25. Item: 9
26. Total: 123
27. **Text**

This is the text for the problem below line 27.