



Simpson

WORLD'S LARGEST MANUFACTURER
OF ELECTRONIC TEST EQUIPMENT

TEST EQUIPMENT



FOR INDUSTRIAL ELECTRONIC
AND ELECTRICAL APPLICATIONS

INCLUDING RADIO AND TV SERVICING, AIR
CONDITIONING, REFRIGERATION AND HEATING

SIMPSON ELECTRIC COMPANY

5200 West Kinzie Street Chicago 44, Illinois

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Distributed By:

ELECTRONIC WHOLESALERS, INC.,

2345 Sherman Avenue N. W.

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WORLD FAMOUS 260* AC/DC Volt-Ohm-Milliammeter



\$48.95

Complete with test leads and operator's manual.



260
Ever-Redy
Carrying Case
No. 4236
\$9.75



260RT
In Roll Top
Safety Case
\$54.95

20,000 Ohms per Volt DC
5,000 Ohms per Volt AC

- **Polarity Reversing Switch:** Makes DC measurements easier and faster . . . no lead reversal.
- **50 Microampere-250 Millivolt Range:** Gives more sensitive measurements.
- **Easier-to-Read Scales:** Black and red scales have been spread out for faster reading, less chance of error!
- **Less Circuit Loading:** Sensitivity of AC voltage ranges increased to 5000 ohms-per-volt!
- **Popular DBM Ranges:** -20 DBM to +50 DBM, one milliwatt in 600 ohms!
- **Improved Frequency Response in AC Measurements:** 5 to 500,000 cycles per second!
- **Full-Wave Bridge Rectifier System:** Provides more accurate AC voltage measurements!
- **Fused:** Ohmmeter ranges protected from high voltage overloading with internal 1 amp fuse.

VOLTAGE RANGES

DC: 0-250mv; 0-2.5v; 0-10v; 0-50v; 0-250v; 0-1000v; 0-5000v.

AC: 0-2.5v; 0-10v; 0-50v; 0-250v; 0-1000v; 0-5000v.

AF: 0-2.5v; 0-10v; 0-50v; 0-250v.

DB (1MW-600Ω): -20 to +10 db; -8 to +22 db; +6 to +36 db; +20 to +50 db.

CURRENT RANGES

DC: 0-50ua; 0-1ma; 0-10ma; 0-100ma; 0-500ma; 0-10 amps.

RESISTANCE RANGES

0-2000Ω (12Ω ctr.); 0-200KΩ (1200Ω ctr.); 0-20 meg. (120KΩ ctr.).

FREQUENCY RESPONSE

Essentially flat through 50,000 cps.

ACCURACIES

DC Volts ±3% of full scale. DC current ±3% of full scale.

AC Volts ±3% of full scale.

DC resistance ±3° of linear arc.

Size: 5¼" x 7" x 3⅝" **Net Wt.:** 3½ lbs.

Complete with test leads No. 7500 and operator's manual. **\$48.95**

260 in roll top safety case, **260RT** **\$54.95**

ACCESSORIES: Leads, Probes and Cases	Part No.	Price
Banana plugs and alligator clip	7500	\$ 2.10
Banana plugs and test prods.	7538	2.50
10,000v High voltage probe	0507	10.20
25,000v High voltage probe	0508	11.50
50,000v High voltage probe	0509	12.50
Leather Carrying Case	1818	8.50
Ever-redy Carrying Case	4236	9.75
Roll top safety case only, 260-3	0249	9.95

HIGH ACCURACY MODEL 270* AC/DC Volt-Ohm-Milliammeter



\$59.95

Complete with test leads and operator's manual.



270
Ever-Redy
Carrying Case
No. 4236
\$9.75



270RT
In Roll Top
Safety Case
\$65.95

20,000 Ohms per Volt DC
5,000 Ohms per Volt AC

Model 270 includes all of the excellent features of the world famous 260, plus a **mirror scale** and **knife-edge pointer**. It offers you repeatability, dependability, ruggedness, and the higher accuracy necessary for many production and laboratory applications. Fused: Ohmmeter ranges protected from high voltage overloading with internal 1 amp fuse.

RANGES

D.C. Voltage (20,000 ohms-per-volt): 0-250 mv; 0-2.5 v; 0-10 v; 0-50 v; 0-250 v; 0-1000 v; 0-5000 v.

A.C. Voltage (5000 ohms-per-volt): 0-2.5 v; 0-10 v; 0-50 v; 0-250 v; 0-1000 v; 0-5000 v.

A.F. Voltage (Output) (With 0.1 uf internal series capacitor): 0-2.5 v; 0-10 v; 0-50 v; 0-250 v.

Volume Level in Decibels (Zero db equal to 1 milliwatt across a 600 ohm line): -20 to +10 db; -8 to +22 db; +6 to +36 db; +20 to +50 db.

D.C. Resistance: 0-2000 ohms (12 ohm ctr.); 0-200,000 ohms (1200 ohms ctr.); 0-20 megohms (120,000 ohms ctr.).

Direct Current: 0-50 ua; 0-1 ma; 0-10 ma; 0-100 ma; 0-500 ma; 0-10 amp.

ACCURACIES over a wide temperature range

Ranges	Temperatures	
	77° F.	67° F. to 87° F.
50 ua	¾%	1¼%
DCV to 1000	1½%	2%
5000 VDC	2½%	3%
DC Current (except 50 ua)	1½%	2%
Ohms	1½° of arc	2° of arc
ACV to 1000	2%	3%
5000 VAC	3%	4%

The change in accuracy from that at 77° F. is ±0.05% per degree F. on DC and ±0.1% per degree F. on AC over the temperature range of 77° F. ±10° F.

SENSITIVITY

Current—250 mv drop at full scale.

DCV—20,000 ohms per volt at full scale.

ACV—5000 ohms per volt at full scale.

FREQUENCY RESPONSE

Flat from 20 cycles to 30 kc and within ½ db on 2.5, 10, and 50 VAC ranges at 200 kcps.

HIGH VOLTAGE STABILITY

Newly developed feature permanently eliminates the possibility of erratic readings due to electrostatic fields.

Size: 5¼" x 7" x 3⅝" **Net Weight:** 3½ lbs.

Complete with leads No. 7500 and operator's manual. **\$59.95**

270 in roll top safety case, **270RT** **\$65.95**

ACCESSORIES: Leads, Probes and Cases	Part No.	Price
Banana plugs and alligator clip	7500	\$ 2.10
Banana plugs and test prods.	7538	2.50
10,000v High voltage probe	0507	10.20
25,000v High voltage probe	0508	11.50
50,000v High voltage probe	0509	12.50
Leather Carrying Case	1818	8.50
Ever-redy Carrying Case	4236	9.75
Roll top safety case only	0249	9.95

260 OR 270 ADAPTER PLUG-IN UNITS EXPANDS THE FAMOUS 260® OR 270 VOM AS THE NEED ARISES

Before you buy a VOM, consider your future needs in test equipment. Will you require a transistor tester... or a DC VTVM... possibly a temperature tester... or maybe an AC ammeter? If so, you can use Simpson's world-famous 260® VOM or the 270 VOM as the basis for these, as well as a whole "test bench" of high-quality instruments. All you do is plug in "Add-A-Tester" adapters. As each new test need arises, you buy only an adapter; you save the cost of duplicate meters and circuitry necessary for single-purpose testers. Note: All Simpson 260 adapters provide for normal usage without disconnecting the adapter. Cannot be used with roll top models.



Transistor Tester
Model 650
\$26.95

DC VTVM
Model 651
\$32.95

Temperature Tester
Model 652
\$38.95

AC Ammeter
Model 653
\$18.95

Audio Wattmeter
Model 654
\$18.95

Microvolt Attenuator
Model 655
\$18.95

Battery Tester
Model 656
\$19.95

Milliohm-meter
Model 657
\$39.95

DC Ammeter
Model 661
\$17.95

TRANSISTOR TESTER, Model 650...\$26.95

Used with Simpson's 260 or 270 to check low and medium power transistors of the junction type. Checks Beta and Ico with an accuracy heretofore found only in laboratory type instruments.

Beta Ranges: 0-10, 0-50, 0-250, (F.S.)

Beta Accuracy: $\pm 3\%$, with 260 $\pm 5\%$ nominal; with 270 $\pm 4\%$ F.S. (Nom.)

Ico Range: 0-100 ua

Ico Accuracy: $\pm 1\%$, with 260 $\pm 3\%$ (F.S.); with 270 $\pm 2\%$ F.S.

Part No. 7545—Test Lead.....\$1.20

DC VTVM, Model 651...\$32.95

High sensitivity with laboratory type DC coverage (10 ranges) offers higher accuracy of reading. Ideal for general VTVM applications, transistorized circuitry (design and servicing).

Voltage Ranges: 0-.5/1.0/2.5/5.0/10/25/50/100/250/500

Accuracy: $\pm 1\%$, with 260 $\pm 3\%$ (F.S.); with 270 $\pm 2\%$ (F.S.)

Input Impedance: Greater than 10 megs all ranges

Part No. 7547—Ground Lead.....\$1.20

TEMPERATURE TESTER, Model 652...\$38.95

Three lead hook-up. Ideal for production and engineering spot temperature measurements, servicing of heating and refrigeration devices, and for general type measurements. Normally supplied with °F scale; can be supplied with °C scale for \$1.95 additional.

Temperature Ranges: -50°F to +100°F, +100°F to +250°F

Accuracy: with 260 $\pm 2^\circ$ (nominal)

Three lead positions provided

Sensing Element: thermistor

AC AMMETER, Model 653...\$18.95

Wide frequency range 50 to 3000 cps. Ideal for government engineering and testing, commercial engineering and testing, industrial applications, general servicing, electrical installations and servicing.

Ranges: 0-0.25/1/2.5/12.5/25 amps

Accuracy: $\pm 2\%$, with 260 or 270 $\pm 3\%$ nominal

Frequency Range: 50 cycles to 3000 cycles

BATTERY TESTER, Model 656...\$19.95

Checks all radio and hearing aid batteries up to 90 volts at the manufacturer's recommended load, or any external load.

Accuracy: Adapter only $\pm 1\%$, with 260 $\pm 3\%$ F.S., with 270 $\pm 2\%$ F.S.

MICROVOLT ATTENUATOR, Model 655...\$18.95

Calibrated output from 2.5 microvolts to 250,000 microvolts from DC or audio frequency power sources. Applications: Audio circuitry, DC circuitry (choppers, low level DC systems) design and servicing; and industrial control systems.

Ranges: 2.5 microvolts to 250,000 microvolts continuously variable in decade steps

Frequency: DC to 20 KC

Accuracy: ± 1 db, with 260

AUDIO WATTMETER, Model 654...\$18.95

Can be used as a dummy load in some DC systems. Ideal for service and installation of high fidelity and general type audio systems, telephone and intercoms, and public address systems.

Load Ranges: 4,8,16,600 ohms

Wattage: Continuous 25 watts (8,600 ohms), 50 watts (4,16 ohms)

Intermittent 50 watts (8,600 ohms), 100 watts (4,16 ohms)

Accuracy: $\pm 5\%$, with 260 $\pm 10\%$ nominal

Direct reading scale from 17 microwatts to 100 watts.

MILLIOHM-METER, Model 657...\$39.95

Measures resistance values as low as .001 ohm. Ideal for accurate measurements of low resistance windings in motors, generators, and transformers; accurate measurement of ammeter and milliammeter shunts; and accurate measurement of contact resistance in switches and relays.

Ranges: 0-.1, .25, .5, 1 ohm

Accuracy: Adapter only $\pm .5\%$, with 260 $\pm 2\%$ (F.S.), with 270 $\pm 1.5\%$ (F.S.)

DC AMMETER, Model 661...\$17.95

Multi-range, excellent accuracy of reading. Applications: Automotive accessories (servicing), automotive electrical system, DC supplies, industrial (DC control systems—welding, heavy current rectifiers, etc.)

Ranges: 0-1, 2.5, 5, 10, 25 amperes DC

Accuracy: Adapter only $\pm .5\%$, with 260 $\pm 2\%$ F.S. (nominal) with 270 $\pm 1.5\%$ (F.S.)

260/270 CONVERSION CASES

Kit 401...\$1.95
For 260, series III and 270. Consists of a new case with a latching feature to provide a firm support for the adapter and the 260 or 270.

Kit 402...\$3.95
For 260, series II. Consists of a new case with an adapter locking and complete hardware for adding a 50 microamp range.

SIMPSON LARGE 7" SCALE VOLT-OHM-MILLIAMMETERS



AC/DC Volt-Ohm-Microammeter
Model 269.....\$89.95



AC/DC Volt-Ohm-Milliammeter
Model 262.....\$69.95



AC/DC Volt-Ohm-Milliammeter
Model 267.....\$54.95



AC/DC Volt-Ohm-Milliammeter
Model 268.....\$54.95

MODEL 269* AC/DC Volt-Ohm-Microammeter

100,000 Ohms per Volt DC • 5,000 Ohms per Volt AC

Model 269 incorporates spring back jewels in its self shielded core meter movement. This eliminates damage to the meter pivots which could result from shock and vibration. Thus greater accuracy, dependability, and long life is ensured. The high sensitivity of 100,000 ohms per volt offers a higher input impedance than many VTVM's on the higher DC volt ranges.

VOLTAGE RANGES

DC: 1.6v; 8v; 40v; 160v; 400v; 1600v; 4000v.

AC: 3v; 8v; 40v; 160v; 800v.

AF: 3v; 8v; 40v; 160v.

DB: (1 MW-600Ω): -12 to +45.5 db in four ranges.

CURRENT RANGES

DC: 0-16ua; 0-160ua; 0-1.6ma; 0-16ma; 0-160ma;
0-1.6 amps; 0-16 amps.

RESISTANCE RANGES

0-2KΩ (18Ω ctr.); 0-20KΩ (180Ω ctr.); 0-200KΩ (1800Ω ctr.);

0-2 megΩ (18KΩ ctr.); 0-20 megΩ (180KΩ ctr.);

0-200 megΩ (1.8 megΩ ctr.).

FREQUENCY RESPONSE

Essentially flat through 50 kc.

ACCURACIES: DC Ranges ±3% of full scale. AC Volts ±5% of full scale. DC Resistance ±3° of linear arc.

Size: 7-15/16" x 6" x 2-15/16".....Net Wt.: 4 lbs.

Complete with test leads No. 8463, 4000 V DC probe extension and operator's manual.....\$89.95

	Part No.	Price
Ever-Redy Vinyl Carrying Case.....	5262	\$ 9.95
16,000v High voltage probe.....	0173	11.95
40,000v High voltage probe.....	0181	13.50

MODEL 267* AC/DC Volt-Ohm-Milliammeter

20,000 Ohms per Volt DC • 5,000 Ohms per Volt AC

Companions to the World Famous 260, Models 267 and 268 are ideal for TV and Radio service work, General Laboratory work, and Production line testing where accurate repetitive readings are required. Simpson's 7" meter provides for expansion of all the meter scales making it easier to obtain closer repetitive readings.

Model 267—Complete with test leads No. 7500 and operator's manual.....\$54.95

MODEL 262* AC/DC Volt-Ohm-Milliammeter

20,000 Ohms per Volt DC • 5,000 Ohms per Volt AC

Model 262 is compact with 33 ranges on a large, easy-to-read 7" scale. One control selects range and function. *Self shielded core meter movement* incorporates spring back jewels which eliminates damage to the meter pivots that could result from shock and vibration. Ensures dependability and longer life.

VOLTAGE RANGES

DC: 1.6v; 8v; 40v; 160v; 400v; 1600v; 4000v.

AC: 3v; 8v; 40v; 160v; 800v.

AF: 3v; 8v; 40v; 160v.

DB: (1 MW-600Ω): -12 to +45.5 db in four ranges.

CURRENT RANGES

DC: 80ua; 160ua; 1.6ma; 16ma; 1.6 amps; 16 amps.

RESISTANCE RANGES

DC: 0-500Ω (4.5Ω ctr.); 0-5KΩ (45Ω ctr.); 0-50KΩ (450Ω ctr.);

0-500KΩ (4,500Ω ctr.); 5 megΩ (45KΩ ctr.);

0-50 megΩ (450KΩ ctr.).

FREQUENCY RESPONSE

Essentially flat through 50 kc.

ACCURACIES: DC Ranges ±3% of full scale. AC Volts ±5% of full scale. DC Resistance ±3° of linear arc.

Size: 7-15/16" x 6" x 2-15/16".....Net Wt.: 4 lbs.

Complete with test leads No. 8463, 4000 V DC probe extension and operator's manual.....\$69.95

	Part No.	Price
Ever-Redy Vinyl Carrying Case.....	5262	\$ 9.95
16,000v High voltage probe.....	0172	11.95
40,000v High voltage probe.....	0180	12.50

MODEL 268* AC/DC Volt-Ohm-Milliammeter

20,000 Ohms per Volt DC • 5,000 Ohms per Volt AC

One major switch in the tester selects range position and function at the same time which saves time in operation and also acts as a protection to the tester circuit.

Fused: Ohmmeter ranges protected from high voltage overloading with internal 1 amp fuse.

Model 268—Complete with test leads No. 7500 and operator's manual.....\$54.95

SPECIFICATIONS for MODELS 267 and 268

RANGES	Model 267 VOM	Model 268 VOM
DC VOLTS	0-.25/2.5/10/50/250/500/1000	0-3/12/60/300/600/1200
AC VOLTS	0-2.5/10/50/250/500/1000	0-3/12/60/300/600/1200
DC MICROAMPERES	0-50	0-60
DC MILLIAMPERES	0-1/10/100/500	0-1.2/12/120
DC AMPERES	0-10	0-12
DB SCALE	-20 +10, 1 mw, 600 ohms	-12 +11, 1 mw, 600 ohms
OUTPUT RANGES	AC Volt ranges to 250 V with .1/mfd condenser in series	AC Volt ranges to 300 V with .1/mfd condenser in series
RESISTANCE RANGES	0-2000Ω (12Ω ctr.), 0-200 KΩ (1200Ω ctr.), 0-20 meg (120KΩ ctr.)	
FREQUENCY RESPONSE	2.5/10 VAC 20 cps—500 KC ±5% 50 VAC 20 cps—150 KC ±5%	
ACCURACY	DC V, Milliamperes, Amperes ±3% F.S.; DC Mics ±2% F.S.; AC Volts ±5% F.S.; Ohms ±3° of linear arc.	
DIMENSIONS	6" x 7 1/4" x 3 1/4"	
NET WEIGHT	3 1/4 pounds (approx.)	

Model 267	Part No.	Price
High Voltage Multipliers:		
2500 V DC	8568	\$ 3.60
5000 V DC	8569	3.60
2500 V AC	8570	3.60
5000 V AC	8571	3.60
Probes		
10,000 V DC	0507	10.20
25,000 V DC	0508	11.50
50,000 V DC	0509	12.50
Needle Test Prods and Elbow Banana Plugs	7538	\$ 2.50
Carrying Case	5262	9.95

Model 268	Part No.	Price
High Voltage Multipliers:		
3000 VDC	8572	\$ 3.60
6000 VDC	8573	3.60
3000 VAC	8574	3.60
6000 VAC	0004	3.60
Probes		
12,000 V DC	0510	10.95
30,000 V DC	0511	10.95
Needle Test Prods and Elbow Banana Plugs	7538	\$ 2.50
Carrying Case	5262	9.95

*EXCLUSIVE SIMPSON ADJUST-A-VUE HANDLE.

MIDGETESTER VOM • VACUUM TUBE VOLT-OHMMETERS



AC/DC VTVM
Model 303.....\$73.95



AC VTVM
Model 715.....\$69.95



AC/DC VTVM
Model 311.....\$69.95

MODEL 715 AC VTVM

High input impedance, multi-voltage ranges and wide frequency response offers a greater versatility for general purpose applications. Ideal for hi-fi and general low level audio work such as hum and ripple measurements, IF gain and vibration analyzing. Model 715 features a specially designed meter scale that provides DB markings on both the voltage range positions and the meter scale.

RANGES:

Volts: 0-.01/.03/.1/.3/1/3/10/30/100/300 rms

Decibels: Total Range -52 to +52 DBM

Zero DBM: 1 millivolt in 600 ohms

Scale Markings: -12 to +2 DB

ACCURACY: $\pm 5\%$ of full scale

TESTER SENSITIVITY: 10 millivolts full scale on lowest range

INPUT IMPEDANCE: Minimum 1 meg @ 1 KC
shunted by 25 u u f

INTERNAL MULTIPLIERS: $\pm 1\%$ precision resistors

FREQUENCY RESPONSE: 10 cps to 400 KC ± 1 DB

INPUT POWER REQUIREMENTS: 110
to 125 VRMS, 50/60 cps @ 10 watts

SIZE: 7 1/2" W, 5 1/2" H, 3" D

NET WEIGHT: 3 pounds 12 ounces

Complete with operator's manual and
shielded input cable.....\$69.95

MODEL 355 MIDGETESTER

AC/DC Volt-Ohmmeter
10,000 Ohms per Volt AC-DC

Model 355 Midgetester incorporates Simpson's 100 micro-amp, self shielded core meter movement. It has built-in ruggedness and accuracy. The core magnet movement permits the midgetester to be used any place without interference from metals or strong magnetic fields.

VOLTAGE RANGES

DC: 3v; 12v; 60v; 300v; 1200v.

AC: 3v; 12v; 60v; 300v; 1200v.

RESISTANCE RANGES

0-10K Ω (120 Ω center); 0-100K Ω (1200 Ω center);

0-1 meg Ω (12K Ω center); 0-10 meg Ω (120K Ω center).

FREQUENCY RESPONSE

Essentially flat to 10 kc.

Size: 2 3/4" x 4 1/2" x 1" ... Net Wt.: 2 lbs.

Complete with test leads and operator's manual.....\$34.95

Ever-Redy Carrying Case.....
Test prods.....

Part No. Price
6355 \$3.95
8600 1.85



MODEL 311 AC/DC VTVM

Model 311 is the most advanced vacuum tube volt-ohm-meter in its field which features: High DC input impedance (22.0 megohm). This reduces circuit loading and permits measurements in high impedance circuits. Direct readout of RMS and peak to peak values. Excellent accuracy for low DC voltage measurements in transistorized circuitry.

VOLTAGE RANGES

DC: 0-1.5v; 5v; 15v; 50v; 150v; 500v; 1500v.

(22 meg Ω input impedance)

AC: 0-1.5v; 5v; 15v; 50v; 150v; 500v; 1500v. (RMS)

(Min. 2.2 meg Ω input impedance)

PP: 0-4v; 14v; 40v; 140v; 400v; 1400v; 4000v.

(Min. 2.2 meg Ω input impedance)

AF: 0-1.5v; 5v; 15v; 50v; 150v; 500v; 1500v.

(30 cycles to 100Kc $\pm 5\%$)

RF: 1.5v; 5v; 15v; 50v; 150v.

with probe (50 cycles to 100mc, 0-150 VRMS)

RESISTANCE RANGES

1K Ω (10 Ω center); 10K Ω (100 Ω center); 100K Ω (1K Ω center);

1 meg Ω (10K Ω center); 10 meg Ω (100K Ω center);

100 meg Ω (1 meg Ω center); 1000 meg Ω (10 meg Ω center).

FREQUENCY RESPONSE

$\pm 5\%$ to 100 kc (with RF probe, usable to 250 mc)

LINE VOLTAGE

105/125 v, 50/60 cycles.

ACCURACIES

DC VOLTS: $\pm 3\%$ of full scale.

AC VOLTS: $\pm 5\%$ of full scale.

DC RESISTANCE: $\pm 3^\circ$ of linear arc.

Size: 7 1/2" x 5 1/2" x 4 1/2" ... Net Wt.: 5 lbs.

Model 311 with AC/DC ohms probe No. 0734, ground
lead No. 0733 and operator's manual.....\$69.95

High Frequency Probe ... Part No. 0731.....\$11.50

High Voltage Probe ... Part No. 0732.....\$11.75

Dual Voltage model, 220/110 v, 50/60 cycles.....\$74.95

MODEL 303 AC/DC VTVM

Model 303 is a worthy companion to the World Famous 260 volt-ohm-milliammeter. Model 303, a ruggedly built instrument with high accuracy, features low current consumption, wide voltage and resistance ranges, and a large, easy-to-read 4 1/2 inch scale.

VOLTAGE RANGES

AC-DC: 1.2v; 12v; 60v; 300v; 1200v.

AF: 1.2v; 12v; 60v.

RF: 20 volts maximum. (With RF Probe)

DB: -20 to +63 db in five ranges.

RESISTANCE RANGES

1K Ω (10 Ω center); 100K Ω (1000 Ω center);

1 meg Ω (10K Ω center); 10 meg Ω (100K Ω center);

1000 meg Ω (10 meg Ω center).

INPUT IMPEDANCE

10 megohms (all ranges) on DCV; 275K ohms
shunted by 210 uuf on ACV.

FREQUENCY RESPONSE

AF: Flat to 100 Kc on the three low AC ranges

RF: 20 Kc to 100 Mc (with RF probe)

LINE VOLTAGE

105/125 v, 50/60 cycles.

ACCURACIES

DC VOLTS: $\pm 3\%$ of full scale.

AC VOLTS: $\pm 5\%$ of full scale.

DC RESISTANCE: $\pm 3^\circ$ of linear arc.

Size: 5 1/4" x 7" x 3 1/8" ... Net Wt.: 4 lbs.

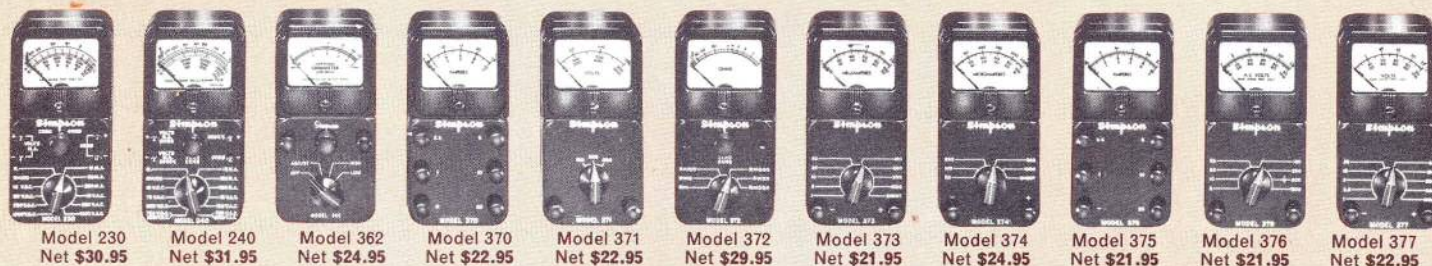
Model 303 with DCV probe No. 0067, ACV-ohm probe
No. 0068, ground lead No. 0069 and operator's manual...\$73.95

Model 303RT (in roll top safety case).....\$82.95

Part No. 0073 ... R.F. Probe.....\$ 8.75

Dual Voltage Model 303, 220/110 volts, 50/60 cycles.....\$78.95

Dual Voltage Model 303RT, 220/110 volts, 50/60 cycles....\$87.95



MODEL 240—AC/DC Volt-Ohm-Milliammeter

Popularly called the "Hammer", this multipurpose instrument was specially designed for general application around the laboratory, class room, ham shack and other similar applications.

With the maximum voltage ranges of 3000 volts AC or DC it was the first self contained pocket instrument built expressly to check high voltage on all the component parts of transmitters and receivers.

1,000 Ohms per Volt AC-DC

VOLTAGE RANGES

DC: 15v; 75v; 300v; 750v; 3,000v.

AC: 15v; 150v; 750v; 3,000v.

RESISTANCE RANGES

0-3,000Ω (30Ω center); 0-300KΩ (3KΩ center).

ACCURACIES: DC volts $\pm 3\%$ F.S.; AC volts $\pm 5\%$ F.S.; DC resistance $\pm 3^\circ$ of linear arc from absolute value of resistance measured.

Complete with test leads and operator's manual.....**\$31.95**

MODEL 362—Low-Ohmmeter

RESISTANCE RANGES: 0-5Ω, 0-25Ω

The two ranges of the Low-Ohmmeter permit highly accurate readings between 0.1 and 25 ohms. Ideal for checking motor armatures and fields; switch and relay contact resistances; shorts between generator windings and grounds; shorts in TV and radio chassis wiring; electrical equipment in industrial plants; plus many other uses. Accuracy is within $\pm 3^\circ$ of linear arc from absolute value of resistance measured.

Complete with calibrated test leads.....**\$24.95**

MODEL 370—AC Ammeter

Ideal for checking small motors, line loads and other applications where AC current measurements are required. 60 cycle application. Self contained current transformer.

RANGES: 0-1, 0-2.5, 0-5, 0-10, 0-25 amperes.

ACCURACY: $\pm 5\%$ of full scale. **\$22.95**

MODEL 373—DC Milliammeter

General purpose tester. Valuable in a number of applications such as plate and screen grid measurements on vacuum tubes. Provides for DC current measurements from .02 to 1000 ma.

RANGES: 0-1, 5, 10, 25, 50, 100, 250, 0-1,000 ma.

ACCURACY: $\pm 3\%$ of full scale. **\$21.95**

MODEL 374—DC Microammeter

Basic movement sensitivity 50 microamperes with self contained shunts for all other ranges. This tester can be used with external resistors or multipliers as a high sensitivity voltmeter at 20,000 ohms per volt. Can be shorted out of circuit by use of selector knob.

RANGES: 0-50, 100, 250, 500, 1000 microamperes.

ACCURACY: $\pm 3\%$ of full scale. **\$24.95**

MODEL 230—AC/DC Volt-Ohm-Milliammeter

Simpson's Model 230 is one of the smallest AC and DC service instruments on the market, yet it contains a sufficient number of ranges to enable the experienced technician to do a complete servicing job. Specifically designed for telephone, teletype and marine use. Also excellent trouble shooter for industrial maintenance departments. The entire case, including the front panel, is molded of black phenolic for complete protection against high voltages.

1,000 Ohms per Volt DC

400 Ohms per Volt AC

VOLTAGE RANGES

DC: 10v; 50v; 250v; 1,000v.

AC: 10v; 250v; 1,000v.

CURRENT RANGES

DC: 10ma; 50ma; 250ma.

RESISTANCE RANGES

0-1,000Ω, 0-100KΩ

ACCURACIES: DC volts $\pm 3\%$ F.S.; AC volts $\pm 5\%$ F.S.; DC resistance $\pm 3^\circ$ of linear arc from absolute value of resistance measured.

Complete with test leads and operator's manual.....**\$30.95**

MODEL 372—Ohmmeter

Provides a wide range of resistance measurements in a small package. .2 ohm to 500 megohms. Ideal for use in schools, on test benches or at incoming inspection facilities.

RANGES: 0-500, 0-5,000, 0-50,000, 0-500,000 ohms; 0-5, 0-50 megohms.

CENTER SCALE: 5, 50, 500, 5,000, 50,000, 500,000 ohms.

ACCURACY: $\pm 3^\circ$ of linear arc length.

Complete with test leads and operator's manual.....**\$29.95**

MODEL 375—DC Ammeter

Provides a complete range from a fraction of an amp to 25 amps without the necessity of using auxiliary external shunts. Ideal unit for use with unmetereed power supplies generally present in radio and TV shops.

RANGES: 0-1, 2.5, 5, 10, 25 amperes.

ACCURACY: $\pm 3\%$ of full scale. **\$21.95**

MODEL 378—AC Milliammeter

Five separate ranges make it suitable for a wide variety of testing applications. Typical industrial applications are transformer tests or vacuum tube inspection. Contains a current transformer and an indicating instrument in one case.

RANGES: 0-5, 25, 100, 250, 1,000 ma.

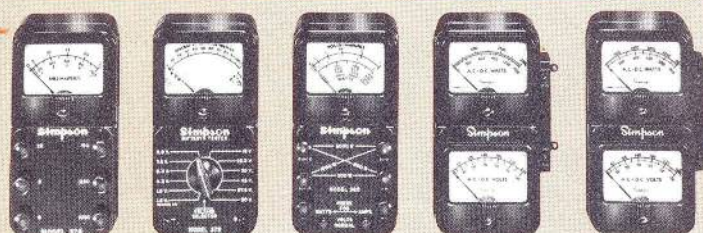
ACCURACY: $\pm 5\%$ of full scale. **\$24.95**

MODEL 379—Battery Tester

Provides accurate indications of the condition of all standard flashlight, hearing aid (mercury cells), transistor and portable radio batteries.

Complete with test leads and operator's manual.....**\$29.95**

TEMPERATURE TESTERS



Model 378 Net \$24.95 Model 379 Net \$29.95 Model 390 Net \$48.95 Model 391 Net \$43.95 Model 392 Net \$43.95

MODEL 371—AC Voltmeter

Designed primarily for testing line voltages applied to motors, heating equipment and many other industrial applications.

RANGES: 0-150, 0-300, 0-600 volts.

ACCURACY: $\pm 3\%$ of full scale. **\$22.95**

MODEL 376—AC Voltmeter

Rectifier type, 1000 ohms per volt. Useful in circuits where a limited amount of current is present. Makes an excellent output meter when used with the proper condenser.

RANGES: 0-5, 10, 25, 50, 100, 250, 500, 1000 DC volts.

ACCURACY: $\pm 5\%$ of full scale. **\$21.95**

MODEL 377—DC Voltmeter

Resistance, 1000 ohms per volt. Useful in radio servicing and industrial applications.

RANGES: 0-1, 2.5, 5, 10, 25, 50, 100, 250, 500, 1000 DC volts.

ACCURACY: $\pm 3\%$ of full scale. **\$22.95**

MODEL 390—AC Volt-Amp-Wattmeter

The most popular tester in the field for measuring AC/DC volts, AC amps. and AC watts with one meter. Ruggedly built... useful in servicing practically any appliance because of wide coverage offered with four wattage ranges.

Volts: 0-150, 300.

Amps: 0-3, 15.

Watts: 0-300, 600, 1,500, 3,000.

ACCURACY: $\pm 5\%$ or better of full scale.

Complete with break-in plug, test leads and operator's manual. **\$48.95**

MODEL 391—AC-DC Volt-Wattmeters

Simultaneous readings of volts and watts. Have two separate 3" square meters, built-in cord and plug for connection to the line outlet... and separate toggle switches for range selection.

3,000 Watts Maximum AC or DC Range

Volts: 0-130, 0-260

Watts: 0-1,500, 0-3,000

ACCURACY: $\pm 5\%$ or better of full scale.

Supplied with cord, plug, and operator's manual. **\$43.95**

Leatherette Carrying Case... Part No. 3413... \$5.95

MODEL 392—AC-DC Volt-Wattmeters

Simultaneous readings of volts and watts. Have two separate 3" square meters, built-in cord and plug for connection to the line outlet... and separate toggle switches for range selection.

5,000 Watts Maximum AC or DC Range

Volts: 0-130, 0-260

Watts: 0-1,000, 0-5,000

ACCURACY: $\pm 5\%$ or better of full scale.

Supplied with cord, plug, and operator's manual. **\$43.95**

Leatherette Carrying Case... Part No. 3413... \$5.95



Model 385-3L Net \$33.95 Model 388-3L Net \$67.95 Model 389-3L Net \$62.95 Model 387 Net \$29.95

MODEL 385-3L—Temperature Meter

ACCURACY: $\pm 1^\circ$ F. about center scale; $\pm 2^\circ$ F. at either end.

A compact instrument, it's ideal for measuring temperatures from $+70^\circ$ F to as low as -50° F, where fast, accurate temperature readings are important. Standard model has Fahrenheit scale. Available in 3 lead model only. Supplied with one No. 0010 15 ft. thermistor probe and operators' manual. **\$33.95**

Surface Temperature Probe Model 0790... \$5.95

Free Air Temperature Probe Model 0789... 7.45

Additional Thermistor Lead, No. 0010... 4.75

30 ft. Thermistor lead No. 0216... 5.55

50 ft. Thermistor lead No. 0415... 6.50

100 ft. Thermistor lead No. 0416... 8.70

150 ft. Thermistor lead No. 0417... 10.95

Ever-Redy Carrying Case, leather, No. 8073... 8.75

MODEL 388-3L—Therm-O-Meter

Measures Temperatures -50° F. to $+1000^\circ$ F.

ACCURACY: $\pm 1\frac{1}{2}$ scale divisions.

Measures the temperature of practically anything. Standard models have combination Fahrenheit and Centigrade scale. Sensing Element: Thermocouple (Iron-Constantan). Two models... each supplied with internal battery and one 8' general purpose probe No. 0190, and operator's manual. Order additional probes as required.

Size: 7-15/16" x 6" x 2-15/16".

Model 388: For one probe... **\$62.95**

Model 388-3L: For three probes... **\$67.95**

(Each model supplied with one No. 0190 probe)

General Purpose Type, No. 0190... \$4.95

Surface Temperature Probe Type, No. 0187 (300° F. Max.)... 8.90

Rugged Surface Lead, (8 ft.) No. 0496... 5.25

Ever-Redy Carrying Case, Vinyl, No. 5262... 9.95

MODEL 389-3L—Temperature Meter

• Dual Range • Accuracy: $\pm 2^\circ$ F.

This dual range instrument provides a means for temperature measurements between -50° F and $+100^\circ$ F and between $+100^\circ$ F and $+250^\circ$ F. Accuracy is within $\pm 2^\circ$ F. Supplied with combination $^\circ$ F and $^\circ$ C scale.

Available in 3-lead model only. Supplied with internal battery and one 15' thermistor type probe (No. 0010). Order additional probes as required.

Size: 7-15/16" x 6" x 2-15/16".

Model 389-3L... **\$62.95**

Surface Temperature Probe Model 0790... \$5.95

Free Air Temperature Probe Model 0789... 7.45

Additional Thermistor Lead, No. 0010... 4.75

30 ft. Thermistor lead No. 0216... 5.55

50 ft. Thermistor lead No. 0415... 6.50

100 ft. Thermistor lead No. 0416... 8.70

150 ft. Thermistor lead No. 0417... 10.95

Ever-Redy Carrying Case, Vinyl, No. 5262... 9.95

MODEL 387—Millivoltmeter

Checks safety thermocouples on gas-fired units.

• Furnaces • Boilers • Heaters
• Hot Water Heaters • Dryers • Refrigerators

Make gas unit servicing faster, more accurate. Use the new Simpson Millivoltmeter. Simply place the test leads across the thermocouple terminals and test for the correct value. Ranges are: 10, 30, 100, 300, and 1000 millivolts. Sensitivity: 1333 Ω /V. Accuracy is $\pm 3\%$ of full scale from 50° to 120° F. Handy pocket size—3" x 5 7/8" x 2 1/2". **\$29.95**

Complete with test leads and operator's manual.

Simpson

PORTABLE • SINGLE AND MULTI-VOLTMETERS • AMMETERS • MILLIAMMETERS

MULTI-RANGE STANDARDS

Models 1700 • 1701

1702 • 1703 • 1704

Simpson introduces a new line of laboratory standards for general industrial laboratory testing, plant incoming inspection, production line applications and for high school and college laboratories.

These standards feature Simpson's self-shielding deep core construction with spring mounted sapphire jewels and hardened steel pivots. This ensures the high degree of accuracy built into each standard. The combination of the self shielded core magnet meter movement and the steel case make these instruments impervious to the effects of external fields.

The meter is temperature compensated from 15° C. to 35° C. Hand stepped, hand drawn, white enameled dial with mirror segment assures greater accuracy over the entire scale arc. Tubular aluminum knife-edge pointer (painted black on top side only) improves readability, eliminates parallax.



DC VOLTMETER
MODEL 1700



DC MILLIAMMETER
MODEL 1702

DC MICROAMMETER
MODEL 1703

DC MILLIVOLTMETER
MODEL 1704



DC AMMETER
MODEL 1701

Ever-Ready Leather
Carrying Case
Part No. 9808...\$18.90

SPECIFICATIONS	DC VOLTMETER MODEL 1700	DC AMMETER MODEL 1701	DC MILLI- AMMETER MODEL 1702	DC MICRO- AMMETER MODEL 1703	DC MILLI- VOLTMETER MODEL 1704
RANGES	0-1.5, 3, 7.5, 15, 30, 75, 150, 300, 750, 1500	0-0.75, 1.5, 3.0, 7.5, 15, 30, 75	0-1.5, 3, 7.5, 15, 30, 75, 150, 300, 750, 1500	0-75, 150, 300, 750, 1500	0-30, 75, 150, 300, 750, 1500
ACCURACY	1/2 of 1% of Full Scale in Horizontal Position @ 25° C.				
LOSS (Max.)	1 milliampere	45 mv (approx.)	50 to 150 mv	.160—.578 Volt	5 ma
EXT. TEMP. INFLUENCE	1/4 of 1%	1/4 of 1%	1/4 of 1%	1/4 of 1%	1/4 of 1%
DIELECTRIC TEST	3000 V. RMS	3000 V. RMS	3000 V. RMS	3300 V. RMS	3300 V. RMS
MIRROR SCALE LENGTH	5.5"	5.5"	5.5"	5.5"	5.5"
DAMPING	Magnetic	Magnetic	Magnetic	Magnetic	Magnetic
METER MOVEMENT	Deep Core Magnet Meter Movement (1-5/16")				
SENSITIVITY	1000 Ω/V	—	—	—	200 Ω/V
RANGE SWITCH	Rotary, Ceramic, Solid Silver Contacts				
POINTER	Knife-Edge Tubular Aluminum				
PANEL	Etched Aluminum				
ZERO ADJUSTER	External	External	External	External	External
CASE	Steel	Steel	Steel	Steel	Steel
SIZE	11 3/8" x 7 3/8" x 3 1/4"	11 3/8" x 7 3/8" x 3 1/4"	11 3/8" x 7 3/8" x 3 1/4"	11 3/8" x 7 3/8" x 3 1/4"	11 3/8" x 7 3/8" x 3 1/4"
WEIGHT (Net)	5 lbs, 10 oz.	8 lbs	5 lbs, 10 oz.	5 lbs, 10 oz.	5 lbs, 10 oz.
LEADS	—	—	—	—	.026 ohm
CARRYING CASE	Ever-Ready Leather—Part No. 9808—\$18.90				
NET PRICE	\$160.00	\$155.00	\$135.00	\$140.00	\$150.00

Made to Conform to ASA C 39.1—1959

DC DECADING VOLTMETER MODEL 1900

1-1000 Volts DC • Accuracy: 1/10% of Reading
Self-Powered • Self-Calibrated

Simpson's new Laboratory type, wide range Decading DC Voltmeter features a DC voltage range of 1 through 1000 volts with an accuracy of reading of .1%. Model 1900 is ideal for general purpose laboratory and field applications. It's designed for high accuracy... stable operation and... excellent portability. Completely self-powered, self-calibrating, compact and lightweight... it goes where you go... with the accuracy of a "stay-at-home" standards laboratory instrument.

SPECIFICATIONS

- VOLTAGE RANGE: 1 through 1000 Volts DC
 - VOLTAGE ACCURACY: ±.1% of reading at 25°C
±.25% of reading from 15°C to 35°C
 - ACCURACY OF CALIBRATION SOURCE: ±.05%
 - ACCURACY OF DECADES: ±.05%
 - SENSITIVITY: 1000 ohms per volt
 - EXTERNAL POWER REQUIREMENTS: none
 - INTERNAL POWER REQUIREMENTS: 1-45 volt battery Eveready No. 482 or equivalent (used for the calibration circuit only)
 - BATTERY LIFE: based on two calibrations per day, approx. one year
 - SIZE: 17" x 9" x 6"
 - WEIGHT: 16 lbs. (net)
- Net Price.....

\$345.00



RANGE STANDARDS

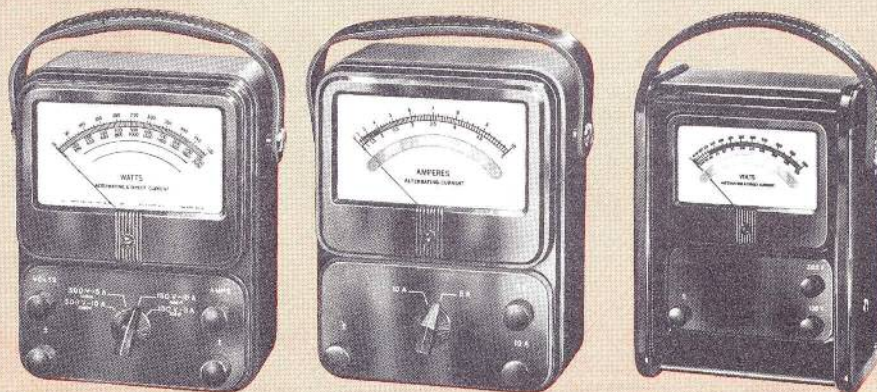
MICROAMMETERS • MILLIVOLTMETERS • WATTMETERS

SINGLE AND MULTI-RANGE STANDARDS

Models 9 • 10 • 880

Simpson Models 9, 10, and 880, AC and DC precision portable instruments, are offered in a wide selection of ranges to meet practically every demand for general purpose testing.

Ruggedly constructed, these instruments insure accuracy within $\frac{1}{2}$ of 1% on DC meters and within 1% on AC meters. Large, easy-to-read $4\frac{1}{2}$ inch meter. Molded black phenolic case with Simpson's exclusive Adjust-A-Vue handle.



D'Arsonval Meter Movement—DC—Model 9
Iron Vane Meter Movement—AC—Model 10
Dynamometer Meter Movement—AC/DC—Model 880
Accuracy: Model 9, $\frac{1}{2}$ of 1% of Full Scale @ 77° F.
 Models 10 and 880, 1% of Full Scale @ 77° F.
 $4\frac{1}{2}$ " Hand drawn scale, mirror; knife-edge pointer

D'ARSONVAL AND IRON VANE METER MOVEMENTS Models 9 and 10

SINGLE RANGE		MULTIPLE RANGE	
DC Model 9	AC Model 10	DC Model 9	AC Model 10
VOLTMETERS		VOLTMETERS	
50	49.50	15-150	55.00
100	49.50	150-300	60.45
150	49.50	300-750	66.00
300	55.00	15-150-300	63.75
		150-300-600	66.00
MILLIAMMETERS		MILLIAMMETERS	
1	57.15	10-100	55.00
50	49.50	25-250	55.00
100	49.50	100-500	55.00
500	49.50	—	—
AMMETERS		AMMETERS	
50	49.50	2.5-5	55.00
15	49.50	5-10	55.00
30	49.50	2.5-10-25	60.45
50	49.50	10-25-50	60.45
100	52.50	—	—
MICROAMMETERS		MICROAMMETERS	
5	71.55	—	—
100	67.00	—	—
200	64.95	—	—

AC-DC DYNAMOMETER TYPE METER MOVEMENT Model 880

WATTMETERS, SINGLE PHASE—Maximum Volts 150-300

Amperes		Watts Range		Price
Normal	Maximum	Low	High	
1	1.5	100	200	\$60.45
2	3.0	200	400	60.45
5	7.5	500	1000	60.45
10	15.	1000	2000	60.45
20	30.	2000	4000	66.00
50	75.	5000	10000	66.00

WATTMETERS, DOUBLE CURRENT RANGE Maximum Volts 150-300

2.5- 5	3.75- 7.5	250- 500-1000	76.95
5-10	7.5 -15.0	500-1000-2000	76.95

VOLTMETERS—Single and Multiple Ranges

Maximum Volts	Price
0-150	\$60.45
0-150-300	71.55
0-75-150-300	76.95
0-150-300-600	76.95

All portable instruments above can be furnished in the Simpson Roll Top Safety Case at an additional cost of \$8.00.

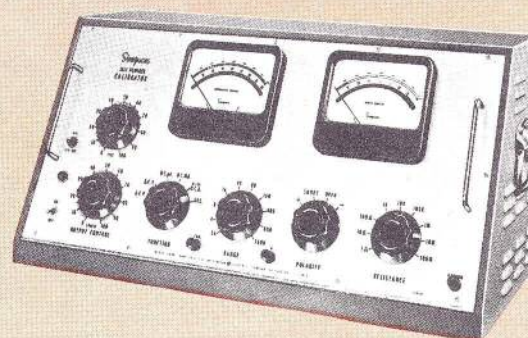
SELF POWERED LAB STD CALIBRATOR Model 2600

A Self-Powered Calibrator for Electrical Instrument Maintenance and High Accuracy Testing

Two terminal connections cover all 49 ranges for unusually fast operation. DC accuracy is $\pm 0.5\%$ F.S.; AC, $\pm 0.75\%$ F.S. (at 77°F, 25°C). Separate meters (self shielded movements) for DC and AC readings.

Price.....\$1620

WRITE FOR ADDITIONAL SPECIFICATIONS



Size: 15" x 31" x 15" **Power Requirement:** Approx. 50 watts
Net Wt: 132 lbs. **@** 117.5 volts 50/60 cps.

MODEL 430

COLOR BAR GENERATOR†



Hinged Door for quick access and maintenance.

Size: 19 1/4" x 17 1/2" x 14" . . . Shpg. Wt. 26 lbs.
Complete with operator's manual and test leads. . . . **\$395.00**
†Usable only on TV sets receiving transmission on U. S. Standards.

- 100% Saturated NTSC Signals
- Outputs pictured on a single, master control . . . a color print of the signal output is featured at each position on the master control
- Exceptionally wide range of outputs . . . includes G-Y at 90°
- Line Voltage 105/125 volts, 60 cycle only.

Outputs—Y; chroma; color bar (8 bars simultaneously); R-Y; B-Y; R-Y and B-Y simultaneously; I; Q; I and Q simultaneously; G-Y at 90°; sync and burst; horizontal sync; high level 3.58 megacycle output; high level modulated rf output; positive or negative video output. 4.5 Megacycle (crystal controlled) marker for proper tuning.

Chroma Level Switch—0 db for checking older style receivers and some current models; -6 db for video checks of newer receivers using vestigial color sideband alignment; -15 db for checking color sync lock under weak signal conditions. Variable chroma control position for other chroma levels.

Color Bar Display Pattern—Left to right; red, yellow, green, cyan, white, magenta, blue, black.

MODEL 498A

CALIBRATED FIELD STRENGTH METER†



PORTABLE—MULTI-POWER
Operates anywhere
Covers all channels

Size: 9 3/8" x 11 3/8" x 9 1/2" . . . Weight: 14 1/2 lbs., less battery;
Shpg. Wt. 18 lbs.
Complete with operator's manual
(less battery) **\$199.95**

Storage battery, 12 ampere hour capacity. . . . Cat. No. 5721. **\$16.95**
†For measurements involving U. S. transmission standards only.

IDEAL FOR LOCATING:

- maximum signal areas
- comparing antenna systems
- adjusting antenna boosters
- antenna orientation
- tuner substitution checks

Power line or battery operated . . . self charging*

Covers all channels, UHF and VHF. Measures field strength from approximately 20 microvolts to .05 volt with an accuracy of ±6 db on VHF signals and ±8 db on UHF signals. Continuously variable sensitivity. Operates from any one of four sources:

- (1) 117 volt AC lines;
- (2) Self-contained storage battery*;
- (3) Your automobile battery;
- (4) Your external battery.

Line Voltage: 105/125 volts, 50/60 cycle; 6.3 DCV storage battery.

*Internal storage battery can be recharged by self-contained charger or from your automobile battery while traveling between jobs.

MODEL 383A

CAPACOHMETER

World's First IN-CIRCUIT Capacitor Leakage Tester



"ONE PACKAGE FLEXIBILITY"

- Measures the leakage resistance of defective paper, mica, or ceramic capacitors
- Indicates directly the capacitance of good paper, mica, or ceramic capacitors over a range of 10.0 mmf to 10.0 mf

A pulse technique detects many marginal capacitors. All measurements are made under load conditions. No adjusting of a bridge circuit and balancing controls. Borderline capacitors which cause costly "call backs" are detected immediately with the pulse test.

Line Voltage: 105/125v, 60 cycle only.

Shpg. Wt. 12 lbs.

Complete with test leads and operator's manual. . . . **\$89.95**

MODEL 2620

PULSE GENERATOR

No Other Unit Offers Such Accuracy, Versatility, and Set-Up Speed Within This Price Range

Twin meters read pulse repetition frequency and pulse duration simultaneously. Rise time is 0.02 microsecond; decay time, 0.04 microsecond. Pulse duration, continuously variable from 0.1 to 1000 microseconds. Jitter, less than 0.005 microsecond. Pulse repetition rate, continuously variable from 10 to 100,000 pps in four ranges.

WRITE FOR ADDITIONAL SPECIFICATIONS



ACCESSORIES:

Detachable line cord and operator's manual are supplied with the equipment. 110v, 50/60 cycles.

Size: 15 1/2" x 13 1/4" x 21" . . . Net Wt: 66 lbs.
110v, 50/60 cycles. **\$625**

Price

MODEL 434A

VARIDOT® GENERATOR†



Adjusts the number and size of dots to your preference:

- white dot pattern with variable dot size (from 1 to 8 scanning lines, with corresponding dot widths)
- variable dot number (from 6 to 12 horizontal dots, and 6 to 14 vertical dots)

Horizontal and vertical sync pulses provided with adjustable vertical sync which can be operated at line frequency or off-line frequency. Also operates as a hum-check control.

Modulated r-f output is available, operating on fundamentals from Channel 2 to Channel 6. Positive or negative video output is also available.

Line Voltage: 105/125v, 60 cycles, 45 watts.
Shpg. Wt. 14 lbs.

Complete with operator's manual. . . . **\$149.95**
†Usable only on TV sets receiving transmission on U. S. Standards.

AVAILABLE FROM STOCK AT YOUR ELECTRONIC DISTRIBUTOR

MODEL 466

HANDISCOPE® WITH 5" SCREEN

AC operated portable oscilloscope • Ruggedly constructed

Ideal for general purpose applications in radio and TV servicing and for industrial use. The Handiscope contains horizontal push-pull amplification for the X axis, vertical push-pull amplification for the Y axis, and an intensity modulation input for the Z axis. Horizontal deflection may be obtained from either the internal sweep circuits or from an external signal voltage.



Size: 7 $\frac{7}{8}$ " x 12 $\frac{1}{4}$ " x 16 $\frac{5}{8}$ "
Net Weight: 19 lbs.

For use on 110 volts, 50/60 cps.

Complete with input cable
No. 0100 and
operator's manual **\$149.95**

Dual Voltage model
for 220/110 volts,
50/60 cycle. **\$159.95**

Frequency Response of Vertical Amplifier: From 15 cycles/sec to 100 Kc/sec, flat within ± 1 db; 6 db down at 250 Kc/sec; usable to 1 Mc/sec.

Maximum Vertical Deflection Sensitivity: 30 Millivolts RMS/inch.

Frequency Response of Horizontal Amplifier: From 15 cycles/sec to 20 Kc, flat within ± 1 db; 6 db down at 100 Kc/sec.

Maximum Horizontal Deflection Sensitivity: 0.7 volt RMS/inch.

Z-Axis Sensitivity (Voltage Required to Extinguish Beam): 20 volts RMS.

Calibrating Voltage (at 117.5 VAC power source): 1 volt P-P $\pm 10\%$.

Maximum Input Voltage: 400 volts peak.

Input Resistance: 0.1 Meg (at atten. x 1); 0.5 Meg (at atten. x 100).

Input Capacitance: 40 uuf (at atten. x 1); 35 uuf (at atten. x 100).

Sawtooth Sweep Range: 15 cycles/sec to 80 Kc/sec.

Power Consumption (at 117.5 volts AC): 50 watts $\pm 10\%$.

Dual voltage model 220/110v, 60 cycles, also available.

MODEL 458

7" COLORSCOPE

Line Voltage: 105/125v,
50/60 cycle.

Size: 11" x 16 $\frac{1}{2}$ " x 14 $\frac{1}{2}$ "

Weight: 29 lbs., Shpg. Wt. 38 lbs.

Complete with
operator's manual. . . . **\$249.95**

Accessory probes: See Model 739
in accessory section on back cover.

Dual Voltage: 220/110 volts,
50/60 cps.

Complete with
operator's manual. . . . **\$259.95**



features:

- 7" Cathode Ray Tube.
- Wide band operation, the frequency response is flat within ± 1.0 db to 4.5 Mc. Faithfully displays COLOR BURST frequency with a sensitivity greater than 40 Mv rms per inch of vertical deflection.
- Narrow band operation, the frequency response is flat within ± 2 db from 10 cycles to 300 Kc with a sensitivity greater than 15 Mv rms per inch.
- Good square wave response provides accurate representation of sync pulses and composite wave-form pattern for trouble-shooting video, sync, and sweep circuits.
- Horizontal sweep, to 250 Kc, for expansion of high frequency wave-form detail and color burst.
- Vernier and Compensated Decimal Step Attenuator for better signal controls.
- Provision for Intensity Modulation of CRT.
- 1 volt peak to peak calibrating voltage.

MODEL 2610

WIDE BAND OSCILLOSCOPE

For the 1001 Jobs Where You Don't Need an Expensive Specialized Scope

Here's a high-gain scope that makes your test equipment appropriation go farther. Vertical sensitivity, 6 mv RMS/in. Vertical calibration accuracy, $\pm 3\%$. Response (linear position): DC to 5.0 mc/sec, ± 0.5 db; DC to 8.0 mc/sec, ± 1.5 db. Response (transient position): DC to 3.5 mc/sec, -3 db, and -6 db at 5.0 mc/sec. Triggered and recurrent sweeps. Precalibrated triggered sweep positions of 5, 50, 500, 5000 microseconds. Price. **\$575**

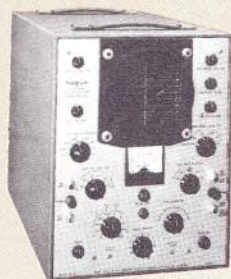
WRITE FOR ADDITIONAL SPECIFICATIONS

Accessories: A 10:1 probe, green filter, Graticule, detachable line cord, and instruction manual are provided as standard accessories and shipped with each unit.

Probe: Low Capacity
Cat. No. 0299. . . . **\$17.55**

Size: 15" x 11 $\frac{1}{2}$ " x 20 $\frac{1}{2}$ "
Net Wt. 53 lbs.

Power Requirements: Approx.
200 watts @ 117.5v., 50/60 cps.



WORLD'S LARGEST MANUFACTURER OF ELECTRONIC TEST EQUIPMENT

SIMPSON ELECTRIC COMPANY

ACCESSORIES

CARRYING CASES • LEADS • HIGH VOLTAGE PROBES



Ever-Redy
Carrying Case
No. 4236
\$9.75



Ever-Redy
Carrying Case
No. 5262
\$9.95



Ever-Redy
Carrying Case
No. 9808
\$18.90



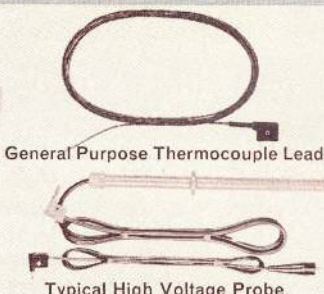
Roll Top
Safety Case
\$9.95



Microtester
Ever-Redy
Carrying Case
\$7.50



Oscilloscope
Probe Kit
Model 739
\$45.15



General Purpose Thermocouple Lead

Typical High Voltage Probe



Typical Multiplier

CARRYING CASES

... Saves you time and protects your instruments. Instruments are always ready for instant testing.

For Models	Cat. No.	Price
260, 270—Leather.....	1818	\$8.50
260, 270, 303—Ever-Redy Leather.....	4236	9.75
262, 267, 268, 269, 388-3L, 389-3L— Ever-Redy Vinyl.....	5262	9.95
385-3L—Ever-Redy Leather.....	8073	8.75
391, 392—Leatherette-Covered.....	3413	5.95
355—Ever-Redy Leather.....	6355	3.95
All Microtesters—Ever-Redy Leather.....	4299	7.50
All Microtesters—Leatherette-Covered.....	3011	5.95
Roll Top Safety Case For 260-2, 9, 10, 880's..	6192	9.95
Roll Top Safety Case For 260-3, 270.....	0249	9.95
Roll Top Safety Case For 303.....	6379	9.95
1700 Series—Ever-Redy Leather.....	9808	18.90

LEADS

For Models	Cat. No.	Price
260 Series 3, 270, Banana plugs and alligator clip.....	7500	\$2.10
260 Series 3, 270, 267, 268 Banana plugs and test prods.....	7538	2.50
355 Test prods.....	8600	1.85
385-3L, 389-3L Free Air Temperature Probe..	0789	7.45
385-3L, 389-3L, 15 ft. Thermistor lead.....	0010	4.75
385-3L, 389-3L, 30 ft. Thermistor lead.....	0216	5.55
385-3L, 389-3L, 50 ft. Thermistor lead.....	0415	6.50
385-3L, 389-3L, 100 ft. Thermistor lead.....	0416	8.70
385-3L, 389-3L, 150 ft. Thermistor lead.....	0417	10.95
388-3L, Rugged Surface Lead (8 ft.).....	0496	5.25
388-3L General purpose thermocouple.....	0190	4.95
388-3L Surface temperature thermocouple (300°F. Max.).....	0187	8.90
389-3L Surface temperature probe.....	0790	5.95
650 Test Lead.....	7545	1.20
651 Ground Lead.....	7547	1.20
1704—0.26Ω leads for Millivolt Standard; spade lugs both ends.....	0105	2.95
466, 715 Input cable.....	0100	2.85
Test prods and elbow terminals 230/240/260-2/372.....	8381	2.50
Test prods and spade terminals— all microtesters.....	8379	2.50
Alligator clips and elbow terminals— 230/240/260-2/372.....	8375	1.75
Alligator clips and spade terminals— all microtesters.....	8376	1.75
Combination test prods with removable alligator clips and elbow terminals 262/269	8463	2.30

PROBES—High Voltage Types

For Models	Cat. No.	Price
221 (30,000v).....	0009	\$12.55
260 Series 2 (25,000v).....	0007	10.75
260 Series 2 (50,000v).....	0179	12.50
260 Series 3 (10,000v).....	0507	10.20
260 Series 3 (25,000v).....	0508	11.50
260 Series 3 (50,000v).....	0509	12.50
262 (16,000v).....	0172	11.95
262 (40,000v).....	0180	12.50
267 2500 V DC Multiplier.....	8568	3.60
267 5000 V DC Multiplier.....	8569	3.60
267 2500 V AC Multiplier.....	8570	3.60
267 5000 V AC Multiplier.....	8571	3.60
267 10,000 V DC.....	0507	10.20
267 25,000 V DC.....	0508	11.50
267 50,000 V DC.....	0509	12.50
268 3000 V DC Multiplier.....	8572	3.60
268 6000 V DC Multiplier.....	8573	3.60
268 3000 V AC Multiplier.....	8574	3.60
268 6000 V AC Multiplier.....	0004	3.60
268 12,000 V DC.....	0510	10.95
268 30,000 V DC.....	0511	10.95
269 (16,000v).....	0173	11.95
269 (40,000v).....	0181	13.50
270 (10,000v).....	0507	10.20
270 (25,000v).....	0508	11.50
270 (50,000v).....	0509	12.50
303 (30,000v).....	0074	11.95

PROBES—Miscellaneous Types

For Models	Cat. No.	Price
303 High frequency.....	0073	\$8.75
303 AC Probe.....	0068	3.55
303 DC Probe.....	0067	3.55
303 Ground lead.....	0069	1.00
311 High frequency.....	0731	11.50
311 High voltage.....	0732	11.75
311 DC-AC/OHMS.....	0734	8.50
311 Ground lead.....	0733	1.25
479, 480 High frequency crystal probe and cable..	0185	7.65
479, 480 Output cable 45mc.	0046	4.25
Voltage Doubler.....	0740	14.65
Low Capacitance.....	0741	14.00
100:1 Voltage Divider.....	0742	15.20
Direct-Resistive Dual Purpose.....	0743	11.55

OSCILLOSCOPE PROBE KIT— Model 739

For use with Model 458 Oscilloscope. Includes
*low capacity probe, voltage doubler, detec-
tor, 100:1 voltage divider and dual direct-
resistive. (Isolation)
Complete with 4 probes, plastic roll, and
operator's manual.....\$45.15
*For Model 458 only.

Banana Plugs and Alligator Clips For 260-3



Alligator Clips and Spade Terminals
For Microtesters



Test Prods and Spade Terminals
For Microtesters



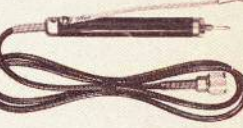
Banana Plugs and Test Prods
For 260-3, 267, 268



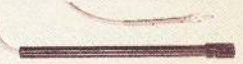
Test Prods and Elbow Terminals
For 230, 240, 260-2, 372



Alligator Clips and Elbow Terminals
For 230, 240, 260-2, 372



High Frequency Probe for Model 303



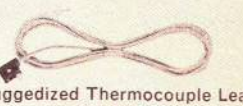
Free Air Temperature Probe, 0339



Surface Temperature Probe, 0084



General Purpose Thermistor



Ruggedized Thermocouple Lead
For 388-3L



MERCER PLANT



KINZIE ST. PLANT



ELGIN PLANT



LAC DU FLAMBEAU
PLANT



AURORA PLANT

SIMPSON ELECTRIC COMPANY

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