

Simpson



INSTRUMENTS THAT STAY ACCURATE

The VOM That Outsells All Others Combined is Now Better Than Ever!

Simpson

260*

AC-DC VOLT-OHM-MILLIAMMETER

Seven Features
Make the 260 More
Valuable Than Ever!

For years, the rugged dependability of the Simpson 260 has made it the world's most popular volt-ohm-milliammeter. Now . . . Simpson offers a new and improved 260 . . . easier to operate, more sensitive, more accurate . . . a better buy than ever before. Over 3/4 million Simpson 260's have been purchased by technicians, service organizations, laboratories, factories, and the armed forces. Such overwhelming preference is proof that the 260 best meets the needs of VOM users. When you're in the market for a VOM, you can feel sure that the 260 is your best buy.



*Trademark

NEW FEATURES

1. POLARITY REVERSING SWITCH: Speeds up servicing when making direct current measurements.
2. 50 MICROAMPERE-250 MILLIVOLT RANGE: Gives more sensitive measurements . . . reads lower values of current and voltage.
3. EASIER-TO-READ SCALES: Black and red scales have been spread out for faster reading, less chance of error.
4. LESS CIRCUIT LOADING: Sensitivity of AC voltage ranges has been increased to 5000 ohms per volt.
5. POPULAR DBM RANGES: -20 DBM to +50 DBM, one milliwatt in 600 ohms.
6. IMPROVED FREQUENCY RESPONSE IN AC MEASUREMENTS: Five to 500,000 cycles per second.
7. FULL-WAVE BRIDGE RECTIFIER SYSTEM: Provides more accurate AC voltage measurements.

The 260
in Ever-
Redy Carry-
ing Case



The 260RT
(Roll-Top
Safety
Case Unit)



RANGES

DC 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. Accuracy, $\pm 3\%$ of full scale..

AC VOLTAGE (5000 ohms-per-volt): 0-2.5 v; 0-10 v; 0-50 v; 0-250 v; 0-1000 v; 0-5000 v. Accuracy, $\pm 5\%$ of full scale.

AF OUTPUT VOLTAGE (With .1 microfarad 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.
DC RESISTANCE: 0-2000 ohms (12 ohms center); 0-200,000 ohms (1200 ohms center); 0-20 megohms (120,000 ohms center). Accuracy, $\pm 3\%$ of arc length.
DIRECT CURRENT: 0-50 u a; 0-1 ma; 0-10 ma; 0-100 ma; 0-500 ma; 0-10 amp.

DEALER'S NET PRICES

260 VOM, complete with test leads and Operator's Manual	\$43.95
(Size: 5 1/4" x 7" x 3 1/8". Wt: 3 1/2 lbs. Ship Wt: 5 lbs.)	
1818 LEATHER CARRYING CASE	7.75
4236 EVER-REDY VINYL CARRYING CASE	9.75
260RT VOM, in Roll-Top Safety Case, complete with test leads and Operator's Manual	49.95
(Size: 6 3/8" x 9" x 4 3/4". Wt: 6 1/2 lbs. Ship. Wt: 9 lbs.)	
HIGH VOLTAGE PROBE for 260 (25,000 v)	9.95
HIGH VOLTAGE PROBE for 260 (50,000 v)	12.50

Adjust-A-Vue Handle — holds the 260 at convenient viewing angle. Eliminates separate gadgets and makeshift props.

MIDGETESTER, Model 355, AC-DC Volt-Ohmmeter

SELF SHIELDED, 10,000 Ohms Per Volt AC and DC

World's smallest! Ideal for appliance repair, radio-TV service, etc. Utilizes the rugged Core Magnet Meter Movement.

VOLTS, DC: 3, 12, 60, 300, 1200.
VOLTS, AC: 3, 12, 60, 300, 1200.
RESISTANCE, DC: 0-10K ohms (120 ohms center); 0-100K ohms (1.2K ohms center); 0-1 megohm (12K ohms center); 0-10 megohms (120K ohms center).

SIZE: 2 3/4" wide, 4 1/2" high, and 1" thick.

WEIGHT: 7 oz.

MODEL 355 with Leads, Operator's Manual

\$34.95

ZIPPER CASE, Leather with Belt Loop #6355

\$2.95

Fits in
Your
Shirt
Pocket



★ Simpson

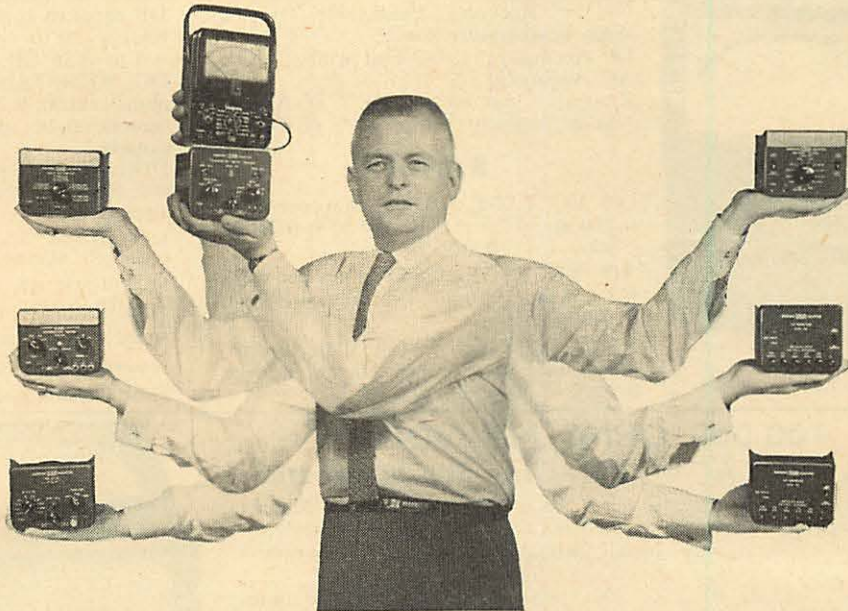


INSTRUMENTS THAT STAY ACCURATE

NEW! ADD-A-TESTER



JUST PLUG THEM IN



Converts Your 260* VOM into 7 Testers

Think of it! A small investment turns your 260 VOM into a whole array of testers — equipment with a quality that is found only in individual pieces of test equipment at much higher prices. The secret lies in combining an adapter with the *top-notch meter and circuitry* of your 260.

Each combination of Add-A-Tester unit and 260 is self-contained, self-powered. Each adapter goes on

and off in a jiffy. No gadgets, no complicated connections. Furthermore, Add-A-Tester units require only 1/2 to 1/3 the storage space of individual testers. By reducing bench clutter, this compactness makes jobs go faster, raises shop efficiency. Make your 260 do double duty. See your Electronic Parts Distributor and get all the facts soon.

*Trademark

ADD-A-TESTER Adapters (All measure 5⁵/₁₆" x 4³/₈" x 3⁷/₁₆"')

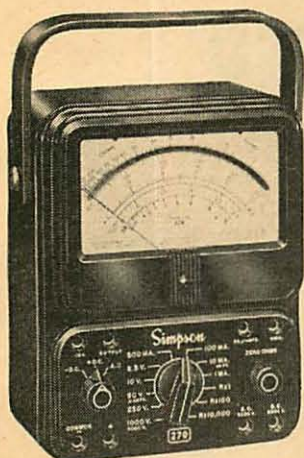
- TRANSISTOR TESTER, Model 650\$26.95
Beta Ranges: 0-10, 0-50, 0-250, (F.S.)
Beta Accuracy: ±3%, with 260, ±5% nominal
Ico Range: 0-100 ua
Ico Accuracy: ±1%, with 260, ±3% (F.S.)
- DC VTVM, Model 651\$32.95
Voltage Ranges: 0-.5/1.0/2.5/5.0/10/25/50/100/250/500
Accuracy: ±1%, with 260 ±3% (F.S.)
Input Impedance: greater than 10 megohms for all ranges
- TEMPERATURE TESTER, Model 652\$38.95
Temperature Ranges: —50°F to +100°F, +100°F to +250°F
Accuracy: with 260 ±2° (nominal)
Three lead positions provided
Sensing Element: Thermistor
- AC AMMETER, Model 653\$18.95
Ranges: 0-0.25/1/2.5/12.5/25 amps
Accuracy: ±1%, with 260 ±3% nominal

- Frequency Range: 50 cycles to 3000 cycles.
 - AUDIO WATTMETER, Model 654\$18.95
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: ±5%, with 260 ±10% nominal
Direct reading scale from 17 microvolts to 100 watts
 - MICROVOLT ATTENUATOR, Model 655\$18.95
Ranges: 2.5 microvolts to 250,000 microvolts continuously variable in decade steps
Frequency: DC to 20 KC
 - 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.
- Note: All Simpson 260 Adapters provide for normal 260 usage without disconnecting the adapter.

Simpson



INSTRUMENTS THAT STAY ACCURATE



ADJUST-A-VUE HANDLE



NEW! HIGH ACCURACY VOM—MODEL 270

Excellent Repeatability
Greater Accuracy Predictable Over a Wide Temperature Range
DC Accuracy, 1½%* Full Scale
AC Accuracy, 2%* Full Scale
Resistance Accuracy, ±1½° of Arc
*At an Ambient Temperature of 77°F

RANGES

DC 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.

AC VOLTAGE (5000 ohms-per-volt): 0-2.5 v; 0-10 v; 0-50 v; 0-250 v; 0-1000 v; 0-5000 v.

AF OUTPUT VOLTAGE (With .1 microfarad 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.

DC RESISTANCE: 0-2000 ohms (12 ohms center); 0-200,000 ohms (1200 ohms center); 0-20 megohms (120,000 ohms center).

DIRECT CURRENT: 0-50 mu a; 0-1 ma; 0-10 ma; 0-100 ma; 0-500 ma; 0-10 amp.

MODEL 270, complete with test leads and Operator's Manual\$59.95

MODEL 270 RT, in Roll-Top Case\$65.95

25,000 V High Voltage Probe, No. 0247 \$ 9.95

50,000 V High Voltage Probe, No. 0248 \$12.50

Leather Carrying Case, No. 1818\$ 7.75

Vinyl Carrying Case, No. 4236\$ 9.75

100,000 OHMS PER VOLT

MODEL 269*, AC-DC Volt-Ohm-Microammeter

Self Shielded . . . 33 ranges . . . 7" scale . . . rugged Core Magnet Meter Movement with spring backed jewels. Can replace VTVM's for many voltage and resistance checks. Carrying case and accessory probes available.

VOLTS DC: 1.6, 8, 40, 160, 400, 1600, 4000 . . . 100,000 ohms per volt. Accuracy, ±3% of full scale.

VOLTS AC: 3, 8, 40, 160, 800 . . . 5,000 ohms per volt. Accuracy, ±5% of full scale.

OUTPUT: 3, 8, 40, 160 volts AC.

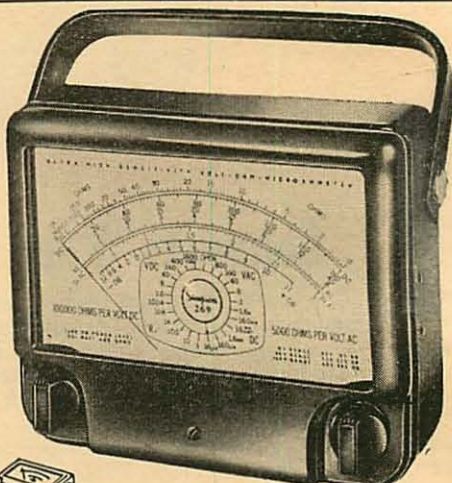
DECIBELS: -12 to +45.5 DB in 4 ranges. ODB = .001 watt in 600 ohms.

RESISTANCE DC: 0-2K ohms (18 ohms center); 0-20K ohms (180 ohms center); 0-200K ohms (1.8K ohms center); 0-2 megohms (18K ohms center); 0-20 megohms (180K ohms center); 0-200 megohms (1.8 megohms center). Accuracy, ±3% of arc length.

CURRENT DC: 0-16, 0-160 ua; 0-1.6, 0-16, 0-160 ma; 0-1.6, 0-16 a.

SIZE: 7-15/16" x 6" x 2-15/16". WEIGHT: 4 lbs.

MODEL 269 with leads and Operator's Manual **\$88.00**



*ADJUST-A-VUE HANDLE

DELUXE VOM

MODEL 262*, AC-DC Volt-Ohm-Milliammeter

This compact instrument is made possible by the Simpson Self Shielded Core Magnet Meter Movement with spring backed jewels. . . . 20,000 ohms per volt . . . 33 ranges . . . 7" scale. Carrying case and accessory probes available.

VOLTS DC: 1.6, 8, 40, 160, 400, 1600, 4000 . . . 20,000 ohms per volt. Accuracy, ±3% of full scale.

VOLTS AC: 3, 8, 40, 160, 800 . . . 5,000 ohms per volt. Accuracy, ±5% of full scale.

OUTPUT: 3, 8, 40, 160 volts AC.

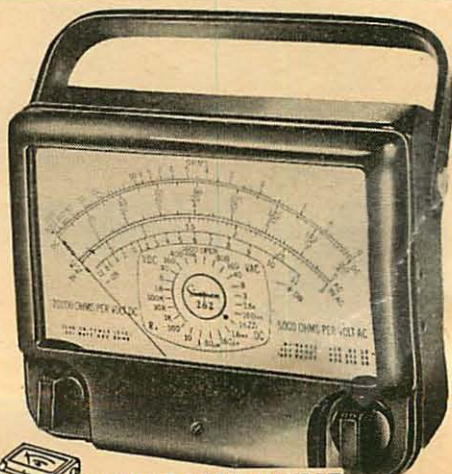
DECIBELS: -12 to +45.5 DB in 4 ranges. ODB = .001 watt in 600 ohms.

RESISTANCE DC: 0-500 ohms (4.5 center); 0-5K ohms (45 ohms center); 0-50K ohms (450 ohms center); 0-500K ohms (4.5K ohms center); 5 megohms (45K ohms center); 0-50 megohms (450K ohms center). Accuracy, ±3% of arc length.

CURRENT DC: 80, 160 ua; 1.6, 16, 160 ma; 1.6, 16 a.

SIZE: 7-15/16" x 6" x 2-15/16". WEIGHT: 4 lbs.

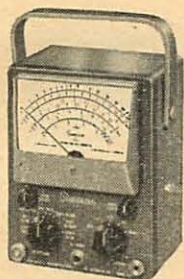
MODEL 262 with leads and Operator's Manual **\$59.50**



*ADJUST-A-VUE HANDLE

Simpson

INSTRUMENTS THAT STAY ACCURATE



HIGH SENSITIVITY VTVM Model 311

Compare these features: 22 MEGOHM Input Impedance • Peak-to-Peak Readings of Complex AC Voltages • Accessory RF Probe with High Frequency Response and Accuracy • New "TIMESAVER" Probe

Tip Hangs on Wire for Continuous Readings, Gives Quick Pressure Contact also for Point-to-Point Readings • Unbreakable Metal Case • Sensibly Priced.

SPECIFICATIONS

DC VOLTS: 0-1.5, 5, 15, 50, 150, 500, 1500 ($\pm 3\%$ accuracy). AC VOLTS: 0-1.5, 5, 15, 50, 150, 500, 1500 ($\pm 3\%$ accuracy, of full scale).

AC PEAK-TO-PEAK: 0-4, 14, 40, 140, 400, 1400, 4000 volts ($\pm 5\%$ accuracy, of full scale).

INPUT IMPEDANCE: 22 Megohms.

OHMS: X1; X10; X100; X1000; X10,000; X100,000; X1 megohm (meter can be set for center zero for FM alignment).

AC FREQUENCY RANGE: 30 to 100,000 cycles per second.

MODEL 311, complete with slimline probe, lead, ground cable, clips, and Operator's Manual **\$64.95**

RF PROBE: 50 cycles to 100 megacycles, $\pm 5\%$; 0-150 volts RMS, maximum. Input capacity, 10 mmf **\$10.95**

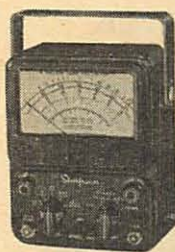
PORTABLE LABORATORY INSTRUMENTS*

MODEL 9 — Accuracy $\frac{1}{2}$ of 1% Full Scale, D'Arsonval Movement

MODEL 10 — Accuracy 1%, Iron Vane Movement

Range	MODEL 9 (DC)	MODEL 10 (AC)	Range	MODEL 9 (DC)
VOLTS			Double Range Milliamperes	
50	\$49.50	\$43.95	10-100	\$55.00
100	49.50	43.95	25-250	55.00
150	49.50	43.95	100-500	55.00
300	55.00	49.50		
Double Range Volts			Double Range Amperes	
15-150	55.00	.....	2.5-5	55.00
150-300	60.45	55.00	5-10	55.00
300-750	66.00	60.45		
Triple Range Volts			Triple Range Amperes	
15-150-300	63.75	.....	2.5-10-25	60.45
150-300-600	66.00	60.45	10-25-50	60.45
Milliamperes			Microamperes	
1	57.15	.....	50	71.55
50	49.50	43.95	100	67.00
100	49.50	43.95	200	64.95
500	49.50	43.95		
Amperes				
5	49.50	43.95		
15	49.50	43.95		
30	49.50	43.95		
50	49.50	43.95		
100	49.50	.....	

* Also available in Simpson Roll-Top Safety Case at \$8.00 additional.



VACUUM TUBE VOLT-OHMMETER* MODEL 303*

AC VOLTS: 1.2, 12, 60, 300, 1200. Accuracy, $\pm 5\%$ of full scale.

DC VOLTS: 1.2, 12, 60, 300, 1200. Accuracy, $\pm 3\%$ of full scale.

OUTPUT: 1.2, 12, 60 volts AC.

RESISTANCE DC: 1K ohms (10 ohms center); 100K ohms (1000 ohms center); 1 megohm (10K ohms center); 10 megohms (100K ohms center); 1000 megohms (10 megohms center).

DECIBELS: -20 to +63 DB in 5 ranges. ODB = .001 watt in 600 ohms.

R.F. VOLTS: (with R.F. probe) 20 volts maximum. Frequency — Flat 20 Kc to 100 Mc.

LINE VOLTAGE: 105-125V, 50/60 Cycles.

Accessory Probes and Carrying Case available.

MODEL 303 with DCV Probe, ACV-Ohms Probe, Ground Lead, Operator's Manual **\$68.00**

LOW-OHM-METER MODEL 362

Greater Accuracy from
0.1 to 25 ohms

Low Circuit Current



RANGES:
0-5 ohms and
0-25 ohms.

The two ranges of the Low-Ohm Meter permit highly accurate readings between 0.1 and 25 ohms. This is 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 3% of full scale value.

Model 362 with calibrated test leads **\$24.95**

DYNAMOMETER INSTRUMENTS, AC-DC Model 880*

Accuracy 1% of Full Scale — Portable

SINGLE PHASE WATTMETERS

Max. Volts	AMPERES		WATTS		Price
	Normal	Maximum	Low Range	High Range	
150-300	1	1.5	100	200	\$60.45
150-300	2	3.0	200	400	60.45
150-300	5	7.5	500	1000	60.45
150-300	10	15	1000	2000	60.45
150-300	20	30	2000	4000	66.00
150-300	50	75	5000	10000	66.00

DOUBLE CURRENT RANGE WATTMETERS

150-300	2.5-5	3.75- 7.5	250-500-1000	\$76.95
150-300	5-10	7.5 -15	500-1000-2000	76.95

VOLTMETERS

0-150	.....	\$60.45	* Also available in Simpson
0-150-300 (Double Range)	.....	71.55	Roll-Top Safety Case
0- 75-150-300 (Triple Range)	.....	76.95	(Model 880 RT) at an
0-150-300-600 (Triple Range)	.....	76.95	additional \$8.00

★ Simpson



INSTRUMENTS THAT STAY ACCURATE

COLOR BAR GENERATOR

Model 430

- Service Any Color TV Receiver — Past, Present, and Future
- True, 100% Saturated NTSC Signals
- Exceptionally Wide Range of Outputs
- Outputs Pictured in Color on Single Master Control



IMPORTANT SPECIFICATIONS

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.

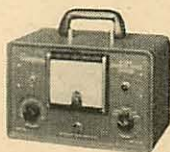
COLOR BAR DISPLAY PATTERN — Left to right: red, yellow, green, cyan, white magenta, blue, black.

Model 430, complete with Operator's Manual, and Leads **\$395.00**

In-Circuit

HORIZONTAL SYSTEM

ANALYZER, Model 382



Model 382 is the world's most complete "testing package" for analyzing TV horizontal deflection systems. With this **one** instrument, you can:

(1) Check any winding in the horizontal system (transformer or yoke) for **shorts** and **opens**. Even one shorted turn is clearly indicated on a large 4½" meter. Uses reliable, time-proven Q-type test.

(2) Check flyback and yoke system **IN-CIRCUIT** (disconnect only plate cap of output tube). High-Q systems are checked on a quick-reading, Good-Bad scale (most present day sets use the High-Q system); Low-Q systems on comparative logging scale.

(3) Measure capacitance value (and check for open capacitors) — direct-reading scales indicate from 10 mmf to 0.1 mfd — no bridge to balance. Measures capacitance to better than 10%.

(4) Make continuity checks of **any** wire-wound component, such as width coils, linearity coils, oscillator transformers; check capacitors for direct shorts. Can check many other components for Q, also.

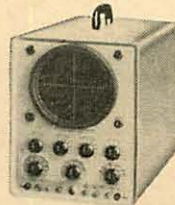
Model 382, test cable, Operator's Manual **\$69.95**

COLORSCOPE

Model 458

- 100% RESPONSE AT 3.58 MC COLORBURST
- DUAL BANDWIDTH — NARROW OR WIDE
- BIG 7-INCH SCREEN

\$229.95



Frequency Response of Vertical Amplifier

Wide Band Position

From 20 cycles/sec. to 4.5 mc/sec.—flat within ±1 db.

From 10 cycles/sec. to 5.0 mc/sec.—within ±2 db.

Rise Time — less than 0.05 microseconds.

Narrow Band Position

From 20 cycles/sec. to 200 kc/sec.—flat within ±1 db.

From 10 cycles/sec. to 300 kc/sec.—within ±2 db.

Maximum Vertical Deflection Sensitivity

WB:50 Mv RMS/inch; NB: 20 Mv RMS/inch

Frequency Response of Horizontal Amplifier

Same as Vertical Amplifier — Narrow Band Position

Maximum Horizontal Deflection Sensitivity

"Hi" — 150 Mv RMS/inch; "Low" — 1.4V RMS/inch

Z-axis sensitivity 4.0 volts RMS to extinguish beam

Calibrating Voltage (@ 117.5 VAC Input to Colorscope)

1.0 P-P volts ±10%

Maximum Input Voltage—600 volts peak

Input Resistance (Minimum)—3.3 Megohms ±10%

Input Capacitance @ 5.0 mc/sec.—20 uuf ±10%

Sawtooth Sweep Range—14 cycles/sec. to 250 kc/sec.

HANDISCOPE, Model 466

5" SCREEN

Measures only 8" x 12¼" x 16¼"



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 R.M.S./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 ±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).

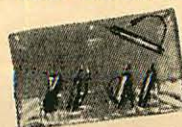
SAWTOOTH SWEEP RANGE: 15 cycles/sec to 80 Kc/sec.

MODEL 466 with lead, Operator's Manual **\$144.95**

PROBE KIT FOR 458 and 466 SCOPES

Adaptable to other Scopes Also

Contains: Low Capacity, Voltage Double-Detector, 100:1 Voltage Divider, and Dual-Direct Probes; Plastic Roll Case; 466 Adapter Socket; and Operator's Manual **\$39.95**



Model 739

Simpson



INSTRUMENTS THAT STAY ACCURATE

PORTABLE Field Strength Meter

Model 498A

- Multi-Power
- Calibrated
- Operates Anywhere
- Covers All Channels



This newest Simpson calibrated field strength meter provides means for measurement of television signals in any locality. It answers the need of service technicians for a combination power line or battery operated field strength meter that is self-charging.

MODEL 498A covers all channels. UHF and VHF. Measures relative field strength from approximately 20 microvolts to .05 volts. Excellent for fringe areas. Also useful as a tuner substitute when servicing TV. Continuously variable sensitivity. Operates from any one of four sources: (1) 117 VAC line; (2) Self-contained storage battery*; (3) Your automobile battery; and (4) Your external battery.

ACCURACY: VHF (± 6 db); UHF (± 8 db).
SIZE: 8" x 11" x 8 1/2". WEIGHT: 11 1/2 lbs. Shipping Wt: 15 lbs.

MODEL 498A, 117 VAC and 6.3 VDC, less battery.
\$199.95

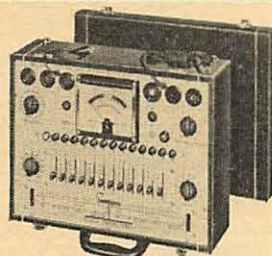
No. 5721 Storage battery, 12 ampere hour capacity.
\$14.00

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

PLATE CONDUCTANCE TUBE TESTER

Model 1000

Extra Lo-Volt Leakage Test
Will Not Damage Any Tube



MODEL 1000 is ideal for radio-TV and industrial control servicing. Tests any receiving tube, including 9 pin miniatures and sub-miniatures with base arrangements in a line or circle. The Simpson plate conductance method makes testing simpler . . . more positive . . . more accurate. Multi-position toggle switches provide quick adjustment.

Snap-Out-Snap-In transparent plastic windows are provided over the roll chart . . . add new tube data at any time.

LINE VOLTAGE: 105-125 Volts, 50-60 cycle.

SIZE: 15 3/4" x 11 3/4" x 6"

WEIGHT: 15 lbs. Shipping Wt: 19 lbs.

MODEL 1000 complete
with Operator's Manual **\$135.00**

VARIDOT

WHITE DOT GENERATOR

MODEL 434A



VARIABLE DOT SIZE . . . VARIABLE DOT NUMBER

The NEW Simpson Model 434A provides white dot patterns with variable dot size (from 1 to 8 scanning lines, with corresponding dot widths), and variable dot number, from 6 to 11 horizontal dots, and 6 to 12 vertical dots.

Very high modulation provides bright, clear dots.

With the Model 434A White Dot Generator, you make linearity adjustment of black and white TV and linearity and convergence adjustments on color TV receivers with confidence. Adjustable dot size provides a check of receiver transient response.

Horizontal and vertical sync pulses are provided, with adjustable vertical sync which can be operated at line frequency or off line frequency. This also operates as a hum-check control for both color and black and white receivers. This feature is rarely found in test equipment offered at this price. Vertical and horizontal synchronization assures you of correct aspect ratio . . . ample attenuation . . . 300 ohm RF output.

Positive or negative video output . . . excellent for accurate and fast checking transient response of video amplifiers is available.

Modulated RF output is available, operating on fundamentals from Channel 2 to Channel 6. Line Voltage: 117 Volts, 50-60 cycles, 45 watts.

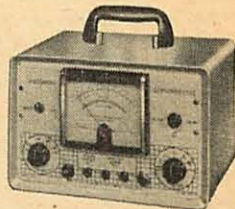
DEALER'S NET PRICE, Complete with operating instructions and output cables **\$147.50**

CAPACOHMETER

Model 383A

World's First
IN-CIRCUIT

Capacitor Leakage Tester



The "Capacohmeter" combines in "one package" the flexibility to: (a) Measure leakage of defective paper, mica, or ceramic capacitors in ohms; (b) indicate directly the capacitance of good paper, mica, or ceramic capacitors over a range of 10.0 micromicrofarads to 10.0 microfarads; (c) detects many marginal capacitors by means of a pulse technique. All tests are read directly on a 4 1/2" instrument. No adjusting of a bridge circuit and balancing controls. All measurements made under load conditions. Borderline capacitors which cause costly "call backs" are immediately "knocked out" with the "pulse test." Many tests are made right "in circuit."

MODEL 383A, complete with test leads and Operator's Manual **\$89.95**

* Simpson



I N S T R U M E N T S T H A T S T A Y A C C U R A T E

SIMPSON MICROTTESTERS (Size: 3" x 5 7/8" x 2 1/2")

AC-DC VOLT-OHM-MILLIAMMETER, Model 240

Designed for radio testing . . . 1000 ohms per volt, AC and DC.

AC VOLTS: 15, 150, 750, 3000.

DC VOLTS: 15, 75, 300, 750, 3000.

DC MILLIAMPERES: 15, 150, 750.

OHMS: 0-3000 (center scale 30); 0-300,000 (center scale 3000). Model 240 with Leads.



\$28.95

AC-DC VOLT-OHM-MILLIAMMETER, Model 230 —

AC Volts: 10, 250, 1000 (400 ohms per volt) — DC

Volts: 10, 50, 250, 1000 (1000 ohms per volt) — DC

Milliamperes: 10, 50, 250 — Ohms: 0-1000, 0-100,000

— with Leads **\$27.95**

DC AMMETER, Model 375 — 0-1, 2.5, 5, 10, 25 amps **\$19.95**

DC MILLIAMMETER, Model 373 — 0-1, 5, 10, 25, 50, 100, 250, 1000 ma **\$19.95**

DC MICROAMMETER, Model 374 — 0-50, 100, 250, 500, 1000 ua **\$23.00**

AC AMMETER, Model 370 — 0-1, 0-2.5, 0-5, 0-10, 0-25 amps **\$21.95**

AC MILLIAMMETER (Self-contained transformer), Model 378 — 0-5, 25, 100, 250, 1000 ma **\$23.95**

DC VOLTMETER (Res. 1000 ohms per volt), Model 377 — 0-1, 2.5, 5, 10, 25, 50, 100, 250, 500, 1000 DC volts **\$19.95**

AC VOLTMETER (Rec. Type — 1000 ohms per volt), Model 376 — 0-5, 10, 25, 50, 100, 250, 500, 1000 AC volts **\$19.95**

AC VOLTMETER, Model 371 — 0-150, 0-300, 0-600 volts **\$19.95**

OHMMETER, Model 372—0-500 ohms (5 ohms center); 0-5000 ohms (50 ohms center); 0-50,000 ohms (500 ohms center); 0-500,000 ohms (5,000 ohms center); 0-5 meg. (50,000 ohms center); 0-50 meg. (500,000 ohms center) — with Leads **\$27.95**

AC VOLT-AMP-WATTMETER, Model 390 — Volts: 0-150, 300 — Amps: 0-0.3, 15 — Watts: 0-300, 600, 1500, 3000—with break-in plug and Leads **\$43.95**

AC-DC VOLT-WATTMETER, Model 391 — AC or DC — Volts: 0-130, 0-260 — Watts: 0-1500, 0-3000 — with Cord and Plug **\$34.95**

AC-DC VOLT-WATTMETER, Model 392 — AC or DC — Volts: 0-130, 0-260 — Watts: 0-1000, 0-5000 — with Cord and Plug **\$37.95**

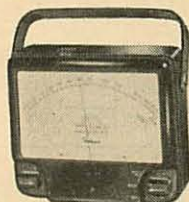
BATTERY TESTER, Model 379 — (Separate arcs for Radio A Batteries, Hearing Aid A Batteries, and for all B Batteries) — with Leads **\$24.95**

TEMPERATURE TESTERS — Check 3 Temperatures at 1 Time

THERM-O-METER*

Model 388-3L

Scale: Fahren./cent.
-50°F to +1000°F
-46°C to + 538°C



The Therm-O-Meter measures the temperature of air, gases, liquids, or solids by means of thermocouple type leads. Readings can be made in 15 to 30 seconds, and up to a distance of 7 1/2'. Model 388-3L, the three-lead model, is particularly useful where two or three temperatures must be measured at the same time.

LEADS — Two types available: General Purpose and Surface Temperature probe. Length is 7 1/2'.

SIZE AND WEIGHT—7-15/16" x 6" x 2-15/16", 4 lbs.

MODEL 388-3L* (for three leads) with one No. 0190 general purpose lead, battery, and Operator's Manual. **\$64.50**

MODEL 388* (for one lead) with one No. 0190 general purpose lead, battery, and Operator's Manual. **\$59.50**

Ever-Redy Carrying Case, Vinyl, No. 5262 **\$9.95**

General Purpose Lead, No. 0190 **\$4.95**

Surface Temperature Probe Lead, No. 0187 **\$6.95**

*Adjust-A-Vue Handle supports instrument at convenient angles.

TEMPERATURE METER

Model 385-3L

Measures Temperatures from -50° to +70° F



The Temperature Meter was developed primarily for servicing refrigeration equipment such as deep-freeze units, home refrigerators, and walk-in coolers. It can also be used to service air-conditioning units when the test requirements fall within its temperature range.

MODEL 385-3L, for three 15-foot leads, is especially useful where two or three temperatures must be checked at the same time, such as in setting up a refrigerator thermostat or in checking ambient temperature rises and control apparatus.

LEADS — General purpose type, 15' long. Thermistor tip.

SIZE AND WEIGHT — 3" x 5 7/8" x 2 1/2", 1 1/2 lbs.

MODEL 385-3L (for three leads) with one test lead and Operator's Manual **\$33.95**

MODEL 385 (for one lead) with one test lead and Operator's Manual **\$30.00**

Additional Thermistor Lead, No. 0010 **\$3.95**

Ever-Redy Carrying Case, Leather, No. 4299 **\$5.95**

Simpson

INSTRUMENTS THAT STAY ACCURATE



NEW! DUAL RANGE THERM-O-METER

Low Range, -50° to 100° F; High Range, 100° to 250° F

APPLICATIONS — Frozen Food Packaging, Ice Manufacturing, Freezer Storage, Refrigeration, Photo Processing, Air Conditioning, Heating Systems, Pasteurization, Distillation, and numerous others. Readings are made in 15 to 30 seconds.

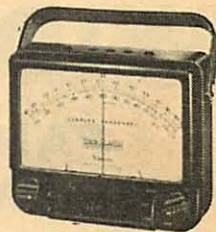
ACCURACY — Over-all accuracy is $\pm 3^{\circ}$ F, in any position. However, near center scale, accuracy is within $\pm 2^{\circ}$ F or better. Compensated for room temperature effects from 60° F to 100° F.

PROBE — Thermistor tip with a 15' lead.

The lead cord is only .144" in diameter to permit closing doors of equipment being checked. Model 389-3L is designed to accommodate 3 leads simultaneously with separate readings through one selector switch.

MODEL 389-3L, Complete with single Thermistor, Lead, and Operator's Manual \$62.50

Additional Thermistor Lead, No. 0010 3.95
Carrying Case, No. 5262 9.95



Model 389-3L

Can Measure Temperatures In Up to Three Locations at One Time!

Checks Safety Thermocouples on GAS-FIRED Equipment

MILLIVOLTMETER

MODEL 387

For Servicing Gas-Fired—

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

The new Simpson Millivoltmeter makes gas unit servicing faster, more accurate. Simply place the probe leads across the thermocouple terminals and test for correct value. Ranges are 10, 30, 100, 300, and 1000 millivolts. Accuracy is 3% of full scale from 50° to 120° F. Handy pocket size—only 3" x 5 1/8" x 2 1/2".



\$29⁹⁵

MODEL 387, with leads and Operator's Manual

EDGEWISE PANEL INSTRUMENTS



VERTICAL
(Special Order)



HORIZONTAL

- Require only 1/2 the panel area of a conventional 2 1/2" meter
- Self Shielded Core Magnet Meter Movement
- Scale length comparable to a 2 1/2" meter
- Accurate comparative readings by mounting meters next to each other

Edgewise Panel Meters are available in popular DC and AC rectifier types, and can be adapted to use also, as position indicators, or as null indicators for tuning circuits. Supplied complete with mounting hardware, including a bezel with two Speed Nuts for quick, simple mounting. Write for information on your special requirements in scales, ranges, sensitivities, and resistances.

Accuracy — DC, 2% of full scale. AC Rectifier Type, 5% of full scale.

Scale Length — 1 7/8".

Case — Dustproof, molded Lucite.

Terminals — Solder or stud type for ammeters.

Weight — Approximately 5 ounces.

HORIZONTAL TYPE	RANGE	SENSITIVITY OHMS/VOLT	MODEL 1502
DC VOLTMETER	0-10 v	1000	\$12.60
DC VOLTMETER	0-15 v	1000	12.60
DC VOLTMETER	0-50 v	1000	12.60
DC VOLTMETER	0-150v	1000	12.60
DC VOLTMETER	0-300v	1000	12.60
DC VOLTMETER	0-500v	2000	12.75
Approx. Terminal Res.			
DC AMMETER	0-5 amp	.010	13.35
DC AMMETER	0-10 amp	.005	13.35
DC AMMETER	0-15 amp	.003	13.35
DC AMMETER	0-25 amp	.002	13.35
DC AMMETER	0-50 amp	.001	13.35
DC MILLIAMMETER	0-1 ma	20	13.05
DC MILLIAMMETER	0-5 ma	5.0	13.05
DC MILLIAMMETER	0-10 ma	1.5	13.05
DC MILLIAMMETER	0-25 ma	2.0	13.05
DC MILLIAMMETER	0-50 ma	2.5	13.05
DC MILLIAMMETER	0-100 ma	1.2	13.05
DC MILLIAMMETER	0-150 ma	.80	13.05
DC MILLIAMMETER	0-200 ma	.60	13.05
DC MILLIAMMETER	0-250 ma	.48	13.05
DC MILLIAMMETER	0-300 ma	.40	13.05
DC MILLIAMMETER	0-500	.24	13.05
DC MICROAMMETER	0-25 ua	6000	20.70
DC MICROAMMETER	0-50 ua	2000	18.15
DC MICROAMMETER	0-100 ua	1750	16.05
DC MICROAMMETER	0-200 ua	650	13.95
DC MICROAMMETER	0-500 ua	100	13.50

VU METERS

HORIZONTAL TYPE	MODEL 1507
"A" Scale	\$21.60
"B" Scale	21.60

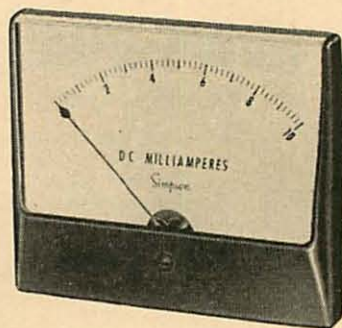
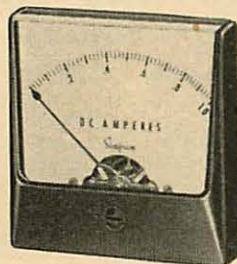
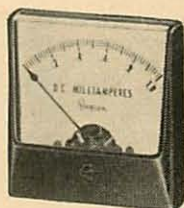


Simpson PANEL INSTRUMENTS

WIDE-VUE

PANEL INSTRUMENTS

2 1/2", 3 1/2", 4 1/2" SIZES



New Wide-Vue meters provide not only ultramodern styling, but also wide-angle readability and longer scales, compared with conventional units. The black, plastic cover is formed in one piece and wraps around the dial for maximum protection. Meters mount in round holes

by means of four studs. All DC meters listed below, except those marked by an (*), have the Simpson self shielded Core Magnet Meter Movement which eliminates calibration problems.

DC VOLTMETERS

RANGE	APPROX. RESISTANCE (OPV)	2 1/2" MODEL 1227	3 1/2" MODEL 1327	4 1/2" MODEL 1329
0-5	1000	\$11.55	\$12.00	\$13.20
0-8	1000	-----	12.00	13.20
0-10	1000 opv	11.55	12.00	13.20
0-15	1000	11.55	12.00	13.20
0-25	1000	11.55	12.00	13.20
0-30	1000	11.55	12.00	13.20
0-50	1000	11.55	12.00	13.20
0-100	1000	11.55	12.00	13.20
0-150	1000	11.55	12.00	13.20
0-200	1000	-----	12.00	13.20
0-350	1000	-----	12.00	13.20
0-300	1000	11.55	12.00	13.20
0-500	2000	12.00	12.60	13.65
0-750	2000	12.00	12.60	13.65
0-1000	2000	14.25*	14.85*	16.05*

DC MILLIAMMETERS

RANGE	APPROX. RESISTANCE (OHMS)	2 1/2" MODEL 1227	3 1/2" MODEL 1327	4 1/2" MODEL 1329
0-1	46	\$10.80	\$11.25	\$12.00
0-3	46	10.80	11.25	12.00
0-5	23	10.80	11.25	12.00
0-10	7	10.80	11.25	12.00
0-15	2.20	10.80	11.25	12.00
0-25	2.0	10.80	11.25	12.00
0-50	3.0	10.80	11.55	12.60
0-100	1.5	10.80	11.55	12.60
0-150	1.0	10.80	11.55	12.60
0-200	.75	10.80	11.55	12.60
0-250	.60	10.80	11.55	12.60
0-300	.50	10.80	11.55	12.60
0-500	.30	10.80	11.55	12.60
0-750	.20	-----	11.55	12.60
0-1000	.05	-----	11.55	12.60

*Supplied w/Ext. Resistor

DC AMMETERS

RANGE	APPROX. RESISTANCE (OHMS)	2 1/2" MODEL 1227	3 1/2" MODEL 1327	4 1/2" MODEL 1329
0-1	.050	\$10.95	\$11.40	\$12.60
0-1.5	.033	10.95	11.40	12.60
0-2	.025	10.95	11.40	12.60
0-3	.0166	10.95	11.40	12.60
0-5	.010	10.95	11.40	12.60
0-10	.005	10.95	11.40	12.60
0-15	.0033	10.95	11.40	12.60
0-25	.002	10.95	11.40	12.60
0-30	.00166	-----	11.40	12.60
0-50	.001	10.95	11.40	12.60
0-100	10.0*	10.95	11.40	12.60
0-150	10.0*	10.95	11.40	12.60
0-200	10.0*	-----	11.40	12.60
0-300	10.0*	-----	11.40	12.60
0-500	10.0*	-----	11.40	12.60
15-0-15	.0033	-----	12.15	-----
30-0-30	.00166	-----	12.15	-----
50-0-50	.001	-----	12.15	-----

* Basic 50MV Meter Requires Ext. Shunt. Self-contained for ranges shown.

NOTE—AC-DC ammeters are self-contained for ranges up to and including 50 amperes. Higher range DC ammeters (50MV) listed above CAN be supplied with external shunts and include 6 foot leads. Higher range AC ammeters can be supplied with external current transformers and include 2 foot leads. Price of external shunts or current transformers should be added to meter prices shown.

DC MICROAMMETERS

RANGE	APPROX. RESISTANCE (OHMS)	2 1/2" MODEL 1227	3 1/2" MODEL 1327	4 1/2" MODEL 1329
0-15*	4500	-----	\$21.00	\$22.95
0-25*	2200	\$17.85	18.60	20.70
0-50*	2000	15.30	15.75	17.10
0-100	2000	13.80	14.40	16.05
0-200	1000	11.70	12.45	13.80
0-500	200	11.25	11.85	13.20
25-0-25*	2000	-----	15.90	17.25
50-0-50	2000	13.95	14.55	16.20
100-0-100	1000	-----	12.60	13.95
500-0-500	46	-----	11.40	12.15

*Ext. Magnet Movement

AC VOLTMETERS — IRON VANE TYPE

Frequency Range 25—120 CPS

RANGE	APPROX. RESISTANCE (OHMS)	2 1/2" MODEL 1257	3 1/2" MODEL 1357	4 1/2" MODEL 1359
0-5	33	-----	\$10.95	\$12.60
0-10	133	\$10.20	10.95	12.60
0-15	300	-----	10.95	12.60
0-25	833	10.80	11.25	12.60
0-50	3,333	10.80	11.25	12.60
0-100	16,666	-----	11.70	12.60
0-150	25,000	11.40	12.15	13.20
0-250	41,166	-----	12.15	13.20
0-300	50,000	11.40	12.15	13.20
0-500*	25,000	-----	16.95	18.15

*SUPPLIED WITH EXT. MULTIPLIER, TOTAL RESISTANCE OF METER AND MULTIPLIER IS 83,333 OHMS.

Simpson

INSTRUMENTS THAT STAY ACCURATE



WIDE-VUE Panel Instruments (Continued)

AC AMMETERS — IRON VANE TYPE

Frequency Range 25—1000 CPS

RANGE	APPROX. RESISTANCE (OHMS)	2½" MODEL 1257	3½" MODEL 1357	4½" MODEL 1359
0-1	.287	\$10.20	\$10.80	\$12.75
0-1.5	.185	10.20	10.80	12.75
0-2	.115	-----	10.80	12.75
0-3	.028	-----	10.80	12.75
0-5	.012	10.20	10.80	12.75
0-10	.003	10.20	10.80	12.75
0-15	.0015	10.20	10.80	12.75
0-25*	.0003	10.20	11.10	13.20
0-50*	.0001	10.20	12.00	15.45
0-100**	.012	-----	10.80	12.75
0-150**	.012	-----	10.80	12.75
0-200**	.012	-----	10.80	12.75
0-300**	.012	10.20	10.80	12.75

*FREQUENCY RANGE 25-125 CPS

**REQUIRES EXTERNAL CURRENT TRANSFORMER FREQUENCY RANGE 25-400 CPS

AC MILLIAMMETERS

RANGE	APPROX. RESISTANCE (OHMS)	2½" MODEL 1257	3½" MODEL 1357	4½" MODEL 1359
0-50	80	-----	\$10.95	\$12.75
0-100	20	-----	10.95	12.75
0-250	3	-----	10.95	12.75
0-500	1.0	\$10.20	10.95	12.75

AC VOLTMETERS — RECTIFIER TYPE

(Frequency Range 25—5000 CPS)

RANGE	SENSITIVITY OHMS/VOLT	3½" MODEL 1347	4½" MODEL 1349
0-5	1000	\$16.20	\$17.85
0-10	1000	16.20	17.85
0-15	1000	16.20	17.85
0-50	1000	16.20	17.85
0-150	1000	16.20	17.85
0-150	2000	16.80	18.45
0-300	1000	16.20	17.85

NEW 4½" METER RELAYS

Externally Adjusted DC Type

The Simpson standard design of these front adjust relays features nonlocking contacts which may be positioned along the instrument scale arc by means of an extremely adjusted gear drive. Controlling source is DC voltage within limits of the relay design.



MODEL 29XA

RANGES	Model 29XA
0-50 Microammeter	\$44.10
0-100 Microammeter	42.15
0-500 Microammeter	39.00
0-1 Milliammeter	38.10
0-50 Millivoltmeter	38.25

RF — AMMETERS

(Frequency Range 10 CPS—40MC)

RANGE	APPROX. IMPEDANCE @ 1 MC	3½" MODEL 1337	4½" MODEL 1339
0-1	.325	\$13.35	\$16.05
0-3	.100	13.35	16.05
0-5	.050	13.35	16.05
0-8	.031	13.35	16.05
0-10	.025	13.35	16.05

VOLUME LEVEL INDICATORS VU METERS

RANGE	3½" MODEL 1347	4½" MODEL 1349
A—Scale	\$19.80	\$21.00
B—Scale	19.80	21.00

DECIBEL METERS

RANGE	2½" MODEL 1247	3½" MODEL 1347	4½" MODEL 1349
General-Purpose 5000 ohms	\$16.35	\$16.50	\$18.00

DC GALVANOMETERS

SCALE	MICRO-AMPERES SENSITIVITY	RES.	MODEL 1227	MODEL 1327
50-0-50	75-0-75 MICS	2000	\$12.15	\$13.35
50-0-50	500-0-500 MICS	46	10.80	11.40

DC MILLIVOLTMETER

RANGE	RESIST. (OHMS)	MODEL 1227	MODEL 1327	MODEL 1329
0-50	10	\$10.95	\$11.40	\$12.60

SHUNTS

External switchboard type for use with DC ammeters. Adjusted for 50 millivolt drop. Shunts available for one ampere to 7000 amperes. Six-foot lead included with each unit.



CURRENT TRANSFORMERS

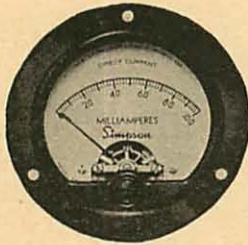
These current transformers are of the inserted, one turn, primary type. Designed for switchboard and panel AC ammeters that require external transformers. Models available for 50-1000 amperes primary — all with 5 amperes secondary.



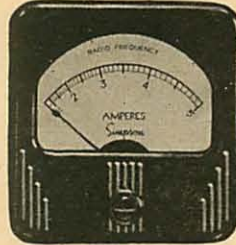


Simpson

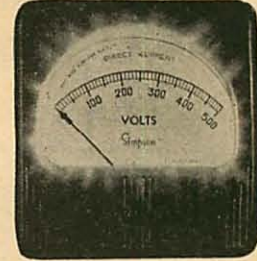
PANEL INSTRUMENTS



MODELS 125, 135, 145, 155
 2½" ROUND CASE — OPEN FACE STYLE. Flange diameter, 2¾"; depth overall, 2-5/16"; body diameter, 2-11/64"; scale length, 1⅞". Bakelite case.



MODELS 127, 137, 147, 157
 2½" RECTANGULAR CASE. Width, 2⅜"; height, 2⅜". Mounts in round hole. Body diameter, 2-3/16". Scale length, 1⅞". Bakelite case.



MODEL 27-37-57 ILLUMINATED
 3½" RECTANGULAR CASE. Width, 3"; height, 3⅜". Mounts in round hole. Body diameter, 2¾". Scale length, 1-5/16". Bakelite case.

NOTE: The 2½" and 3½" rectangular instruments indicated (*) are also carried in stock with lucite illuminated dials. Supplied complete with socket and 6 volt bulb for an additional cost of \$1.95 dealer's net. RF ammeters, lucite illuminated, must be supplied with external thermocouple. Add \$5.55 for couple. All instruments are calibrated for use on non-magnetic panels.

VOLTMETERS

RANGE	APPROX. RESISTANCE	MODEL 125-127	MODEL 25-27 DC	MODEL 29	APPROX. RESISTANCE	MODEL 155-157	MODEL 55-57 AC	MODEL 59
0-1.5		\$10.95	\$11.40	\$12.60	3 ohms	\$ 9.60	\$10.35	\$12.00
0-3		10.95	11.40	12.60	12	9.60	10.35	12.00
0-5		10.95	11.40	12.60	33	9.60	10.35	12.00
0-8		10.95	11.40	12.60	.....	.....	.....	.....
0-10		10.95*	11.40*	12.60	133	9.60*	10.35*	12.00
0-15		10.95	11.40	12.60	300	9.60*	10.35*	12.00
0-25		10.95	11.40	12.60	833	10.20	10.65	12.00
0-30		10.95	11.40	12.60	.....	.....	.....	.....
0-50	1000 ohms per volt	10.95*	11.40*	12.60	3.333	10.20	10.65	12.00
0-100		10.95	11.40	12.60	16.666	10.65	11.10	12.00
0-150		10.95*	11.40*	12.60	25.000	10.80*	11.55*	12.60
0-200		10.95	11.40	12.60	.....	.....	.....	.....
0-250		10.95	11.40	12.60	41.166	10.80	11.55	12.60
0-300		10.95*	11.40*	12.60	50.000	10.80*	11.55*	12.60
0-500		11.40	12.00*	13.05	83.333	15.60	16.35	17.55
0-750		11.40	12.00	13.05	125.000	15.60	16.35	17.55
0-1000		13.65	14.25*	15.45	166.666	15.60	16.35	17.55
0-1500		13.65	14.25	15.45	.....	.....	.....	.....
0-2000		13.65	14.25	15.45	.....	.....	.....	.....
0-2500		13.65	14.25	15.45	.....	.....	.....	.....
0-3000		13.65	14.25*	15.45	.....	.....	.....	.....
0-4000		13.65	14.25*	15.45	.....	.....	.....	.....
0-5000		13.65	14.25*	15.45	.....	.....	.....	.....

External resistors are furnished on AC meters having a range of 500 volts or higher. DC 1000 volts or higher.

MILLIAMMETERS

RANGE	APPROX. RESISTANCE	MODEL 125-127	MODEL 25-27 DC	MODEL 29	APPROX. RESISTANCE	MODEL 155-157	MODEL 55-57 AC	MODEL 59
0-1	46 ohms	\$10.20*	\$10.65*	\$11.85	.....	.....	.....	.....
0-1.5	46	10.20	10.65	11.85	.....	.....	.....	.....
0-3	46	10.20	10.65	11.85	.....	.....	.....	.....
0-5	23	10.20	10.65	11.85	.....	.....	.....	.....
0-10	7	10.20*	10.65*	11.85	2,000 ohms	\$ 9.60	\$10.35	\$12.15
0-15	1.5	10.20*	10.65*	11.85	875	9.60	10.35	12.15
0-20	1.0	10.20	10.65	11.85	.....	.....	.....	.....
0-25	2.2	10.50*	10.95*	12.45	390	9.60	10.35	12.15
0-50	3.0	10.50*	10.95*	12.45	80	9.60	10.35	12.15
0-75	2.0	10.50	10.95	12.45	.....	.....	.....	.....
0-100	1.5	10.50*	10.95*	12.45	20	9.60	10.35	12.15
0-150	1.0	10.50	10.95	12.45	.....	.....	.....	.....
0-200	.75	10.50*	10.95*	12.45	.....	.....	.....	.....
0-250	.60	10.50	10.95	12.45	5	9.60	10.35	12.15
0-300	.50	10.50*	10.95*	12.45	.....	.....	.....	.....
0-500	.30	10.50*	10.95*	12.45	.9	9.60	10.35	12.15
0-750	.20	10.50	10.95	12.45	.....	.....	.....	.....
0-1000	.15	10.50	10.95	12.45	.....	.....	.....	.....

MICROAMMETERS

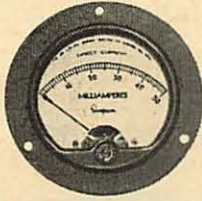
RANGE	APPROX. RESISTANCE	MODEL 125-127	MODEL 25-27 DC	MODEL 29
0-15	4800 ohms	.....	\$21.00	\$22.95
0-25	2200	\$17.85	18.60	20.70
0-50	2000	15.30	15.75	17.10
0-100	2000	13.20	13.80	15.45
0-200	1000	11.10	11.85	13.20
0-500	200	10.65	11.25	12.60
25-0-25	2000	.....	15.90	17.25
50-0-50	2000	.....	13.95	15.60
100-0-100	1000	.....	12.00	13.50
500-0-500	46	.....	10.80	12.00

MILLIVOLTMETERS

RANGE	APPROX. RESISTANCE	MODEL 125-127	MODEL 25-27 DC	MODEL 29
0-50	5 ohms	\$10.35	\$10.80	\$12.00
0-100	10	10.35	10.80	12.00

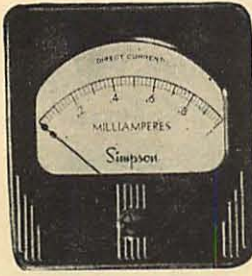
Simpson

PANEL INSTRUMENTS



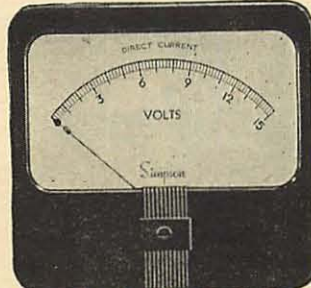
MODELS 25, 35, 45, 55

3 1/2" ROUND CASE — OPEN FACE STYLE. Flange diameter, 3 1/2"; depth over-all, 2 1/4"; body diameter, 2 3/4"; scale length, 2-9/16". Bakelite case.



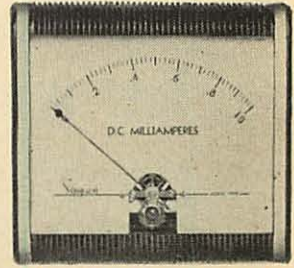
MODELS 27, 37, 47, 57

3 1/2" RECTANGULAR CASE. Width, 3"; height, 3 1/8". Mounts in round hole. Body diameter, 2 3/4". Scale length, 2-9/16". Bakelite case.



MODELS 29, 39, 49, 59

4 1/2" RECTANGULAR CASE. Width, 4-21/32"; height, 4-13/64". Mounts in round hole. Body diameter, 2 3/4". Scale length, 3-29/32". Bakelite case.



MODELS 1160, 1161, 1162

New 5 1/2" Modernistic Meter. Supplied on special orders only. Also available in 2 1/2", 3 1/2" and 4 1/2" sizes.

DC AMMETERS

RANGE	APPROX. RES.	MOD. 125-127	MOD. 25-27	MOD. 29
0-1	.0500 ohms	\$10.35	\$10.80	\$12.00
0-1.5	.0330	10.35	10.80	12.00
0-2	.0250	10.35	10.80	12.00
0-3	.0166	10.35	10.80	12.00
0-5	.0100	10.35	10.80	12.00
0-10	.0050	10.35	10.80	12.00
0-15	.0033	10.35	10.80	12.00
0-25	.0020	10.35	10.80	12.00
0-30	.0017	10.35	10.80	12.00
0-50	.0010	10.35	10.80	12.00
0-75	10	10.35	10.80	12.00
0-100	10	10.35	10.80	12.00
0-150	10	10.35	10.80	12.00
0-200	10	10.35	10.80	12.00
0-250	10	10.35	10.80	12.00
0-300	10	10.35	10.80	12.00
0-500	10	10.35	10.80	12.00
0-750	10	10.35	10.80	12.00
0-1000	10	10.35	10.80	12.00
15-0-15	.0033	10.95	11.55	12.75
30-0-30	.0017	10.95	11.55	12.75
50-0-50	.0010	10.95	11.55	12.75

*Frequency range, 25-125 CPS.

AC AMMETERS (Iron Vane Type: Freq., 25-1000 CPS)

RANGE	APPROX. RES.	MOD. 155-157	MOD. 55-57	MOD. 59
0-1	.287 ohms	\$9.60	\$10.20	\$12.15
0-1.5	.185	9.60	10.20	12.15
0-2	.115	9.60	10.20	12.15
0-3	.027	9.60	10.20	12.15
0-5	.012	9.60	10.20	12.15
0-10	.003	9.60	10.20	12.15
0-15	.0015	9.60	10.20	12.15
0-25	.003*	9.60	10.50	12.75
0-30	.002*	9.60	10.50	12.75
0-50	.001*	9.60	11.40	14.85
0-75	.012**	9.60	10.20	12.15
0-100	.012**	9.60	10.20	12.15
0-150	.012**	9.60	10.20	12.15
0-200	.012**	9.60	10.20	12.15
0-250	.012**	9.60	10.20	12.15
0-300	.012**	9.60	10.20	12.15
0-500	.012**	9.60	10.20	12.15
0-750	.....	.....	.....	.....
0-1000	.....	.....	.....	.....
15-0-15	.....	.....	.....	.....
30-0-30	.....	.....	.....	.....
50-0-50	.....	.....	.....	.....

**Requires external current transformer. Frequency range, 25-400 CPS.

WATTMETERS — DYNAMOMETER TYPE FREQ. RANGE, DC AND 25-125 CPS

RANGE WATTS	MAX. VOLTS	MAX. AMPS	MODEL 175-177	MODEL 75-77	MODEL 79	RANGE WATTS	MAX. VOLTS	MAX. AMPS	MODEL 175-177	MODEL 75-77	MODEL 79
0-75	150	1.0	\$22.65	\$24.15	\$31.35	0-600	300	4.0	\$25.20	\$26.40	\$33.75
0-150	150	2.0	22.65	24.15	31.35	0-1500	300	10.0	25.20	26.40	33.75
0-300	150	4.0	22.65	24.15	31.35	0-3000	300	20.0	25.20	26.40	33.75
0-750	150	10.0	22.65	24.15	31.35						

AC VOLTMETERS — RECTIFIER TYPE

RANGE	FREQ. RANGE 25-5000 CPS		MOD. 45-47	MOD. 49
	SENSITIVITY			
0-1			\$15.60	\$17.25
0-3			15.60	17.25
0-5			15.60	17.25
0-10			15.60	17.25
0-15			15.60	17.25
0-50		1000 ohms per volt	15.60	17.25
0-100			15.60	17.25
0-150			15.60	17.25
0-300			15.60	17.25
0-1			\$16.20	\$17.85
0-3			16.20	17.85
0-5			16.20	17.85
0-10			16.20	17.85
0-15		2000 ohms per volt	16.20	17.85
0-50			16.20	17.85
0-100			16.20	17.85
0-150			16.20	17.85
0-300			16.20	17.85

AC MILLIAMMETERS — RECTIFIER TYPE

	APPROX. IMPEDANCE @ 60 CPS		
0-1	600 ohms	\$15.45	\$16.80
0-2	400	15.45	16.80
0-5	200	15.45	16.80

AC MICROAMMETERS — RECTIFIER TYPE

	APPROX. IMPEDANCE @ 60 CPS		
0-100	3400 ohms	\$18.60	\$20.10
0-200	2400	16.35	18.00
0-300	1800	16.20	17.70
0-500	1200	15.90	17.40

DC GALVANOMETERS

SCALE	SENSITIVITY MICRO-AMPS	RESIST.	MODEL 125-127	MODEL 25-27
50-0-50	500-0-500	46 ohms	\$10.20	\$10.80
50-0-50	75-0-75	2000	11.55	12.75

RF AMMETERS

THERMOCOUPLE TYPE

RANGE	FREQ. RANGE, 10 CPS TO 40 MC			
	APPROX. IMP. @ 1 MC	MODEL 135-137	MODEL 35-37	MODEL 39
0-1	.205 ohms	\$11.40*	\$12.75*	\$15.45
0-1.5	.177	11.40	12.75	15.45
0-2	.104	11.40*	12.75*	15.45
0-2.5	.088	11.40	12.75	15.45
0-3	.076	11.40*	12.75*	15.45
0-5	.039	11.40*	12.75*	15.45
0-8	.025	11.40	12.75	15.45
0-10	.021	11.40	12.75	15.45

*These 2 1/2" and 3 1/2" rectangular instruments are also carried in stock with lucite illuminated dials. Supplied complete with socket and 6 volt bulb for an additional cost of \$1.95 dealer's net. 2 1/2" R.F. ammeter lucite illuminated must be supplied with external thermocouple. Add \$5.55 for couple.

RF MILLIAMMETERS

0-115	..... ohms	.....	\$26.10	.....
0-150	4.5	.....	15.45	\$17.70
0-250	3.0	.....	15.45	17.70
0-500	.6	.....	15.45	17.70

VOLUME LEVEL INDICATORS—DECIBEL METERS

ZERO POWER LEVEL—6 MW. 500 OHM LINE
RANGE MOD. 145-147 MOD. 45-47 MOD. 49

GENERAL PURPOSE TYPE			
-10 to +6 db 5000 ohms	\$15.75	\$15.90	\$17.40
HIGH SPEED TYPE			
-10 to +6 db 5000 ohms	.....	16.95	18.15
LOW SPEED TYPE			
-10 to +6 db 5000 ohms	.....	16.95	18.15

VOLUME LEVEL INDICATORS—VU METERS

REFERENCE LEVEL—1 MW 600 OHM LINE
RANGE MOD. 145-147 MOD. 45-47 MOD. 142

Not illuminated A or B Scale—3900 ohms	.....	\$19.20	\$20.40
Illuminated A or B Scale—3900 ohms	.....	.....	23.40

Model 142 has same physical appearance as Model 29