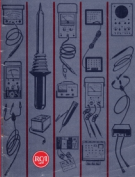


RCA Test Equipment and Accessories



AUTHORIZED  DISTRIBUTOR

TEST EQUIPMENT

CHIEF ELECTRONICS, INC.
240 WASHINGTON ST., PHONE JO 1-7200
NEWBURGH, N. Y.



Electronic Components & Services, Inc., N. Y.
The Most Trusted Name in Electronics

RCA ELECTRONIC INSTRUMENTS

METER TYPE INSTRUMENTS

VoltOhm [®]	WV-77C*
Senior VoltOhm [®]	WV-98C*
Transistorized VoltOhm [®]	WV-625A
Volt-Ohm-Wattmeter	WV-288*
AV Vacuum-Tube Voltmeter	WV-75A
DC Microammeter	WV-54C
Power Line Monitor	WV-125A
Power Line Monitor	WV-553A

OSCILLOSCOPES

3" Oscilloscope	W6-62B
Super Portable Oscilloscope	W6-23A*

SIGNAL GENERATORS

Color Bar/Dot/Crosshatch Generator	WB-64B
Stereo FM Signal Simulator	WB-52A
Crystal Calibrated Marker Generator	WB-99A
Television/FM Sweep Generator	WB-49A
RF / IF / TV Marker Adder	WB-79A
RF Signal Generator	WB-68F*
Audio Signal Generator	WB-624A
Audio Signal Generator	WB-49A

TUBE TESTERS

Transistor Tester	WT-625A
Diode/Tube Microammeter	WT-200A
Color Picture Tube Tester	WT-115A

EDUCATIONAL DEVICES

V-O-M Dynamic Demonstrator Kit	WE-95A (K)
Transistor Radio Dynamic Demonstrator Kit	WE-92A (K)
	and WE-91A (K)

*Also available in kit form

OTHER RCA TEST EQUIPMENT ACCESSORIES

WG-210	500-Megohm Resistor for WG-257	\$1.50*
WG-211	400-Megohm Resistor for WG-257	1.50*
WG-216	1200-Megohm Resistor for WG-259	1.50*
WG-232	DC Direct Probe for WG-238	4.50*
WG-275A	Adapter for using WG-300B Cable and Probe on WG-33A, WG-33A(Q)	1.50*
WG-284	Crystal Diode Probe for WG-238	1.75*
WG-270A	Carrying Case for WV-38A	4.95*
WG-375A	Carrying Case for WB-50B, WV-77C, WV-75A, WV-115A	4.95*
WG-405A	16 and 25 inch Color Picture Tube Socket Adaptor with Modification Kit for WT-115A	\$5.95*

*Suggested Retail Value - Street Price

FOR USE WITH WT-100A ELECTRON TUBE MICROMETER

WG-226A	Multiple Socket Plug-in Unit (7-pin, 8-pin Mini, 8-pin octal)	25.00*
WG-226B	Multiple Socket Plug-in Unit (Lock-in 8-pin and 8-pin)	25.00*
WG-226A	Multiple Socket Plug-in Unit (Mini 8-pin, 8-pin, 8-pin)	25.00*
WG-226B	Multiple Socket Plug-in Unit (8-pin, subminiature, 7-pin, 8-pin)	25.00*
WG-226B	Industrial Socket Plug-in Unit (Mini 7-pin)	25.00*
WG-226B	Industrial Socket Plug-in Unit (Octal 8-pin)	25.00*
WG-226B	Industrial Socket Plug-in Unit (Hexal 8-pin)	25.00*
WG-226A	Kit of Plug-in Socket Parts	25.00*

FOR USE WITH WT-510A AUTOMATIC ELECTRON TUBE TESTER

WG-225A	Accessory (Separated) Cards	2.25*
WG-225A	Accessory Card Pouch	5.95*
WG-225B	Tube Socket Adapter Set (small 8-pin, small 8-pin, small 8-pin, small and medium 7-pin bases)	7.95*
WG-226A	Tube Socket Adapter (7-head in-line subminiature)	2.50*
WG-226A	Tube Socket Adapter (3-head circular subminiature)	3.50*
WG-240A	Tube Socket Adapter for triode-type Resistor (The WG-240A may also be used with the WT-100A MicroMeter.)	3.50*

*Optional Resistor Leads 1.00

A FEW WORDS ABOUT RCA TEST EQUIPMENT KITS

A number of instruments described in this catalog are available in kit form at prices representing substantial savings over the factory wired and calibrated versions. For those who prefer to build their own instruments from kits, we offer the following list of RCA advantages.

- **RCA KITS USE THE SAME HIGH-QUALITY PARTS AND CIRCUITry** available for factory-assembled instruments. Nothing quality kit design is compromised in the kit version of RCA professional equipment.
- **RCA KITS ARE EASY TO BUILD.** Clear, detailed instructions take you step by step through your kit assembly and adjustment procedures. Many detailed illustrations show you how to mount, wire, and solder parts, and how to adjust your kit for professional-quality performance.
- **SPECIAL, UNUSUAL AND LABOR-SAVING KITS AND PRE-ASSEMBLED** No special tools or expensive equipment are needed to assemble your RCA kit instrument. Complete or precision parts, such as capacitors, resistors, and special probes are also assembled at the factory. In addition, critical board circuits are carefully pre-adjusted and need only a slight "checkup" after installation.
- **PROFESSIONAL DESIGN OF RCA KIT INSTRUMENTS** reflects their expert engineering and performance. In "full-assembly" configurations offered in the equipment, RCA kit versions of professional instruments are "at least" in the field class, laboratory, and home.
- **TECHNICAL CONSULTING SERVICE** is always available—either through your local RCA distributor or from RCA's staff of professional engineers and technicians. These experts are ready to help you with any construction, alignment, or application problem involving your RCA equipment.
- **SPECIAL SERVICE OFFERS** throughout the United States are ready to adjust any RCA kit instrument. The specialists at these repair centers can service your RCA kit instrument rapidly and quality.



94-1002
(All or Wired)

SENIOR VOLTOHMYST*

\$57.95* 94-1002
Semi-Portable
Automatic 600V **\$84.00*** 94-1002
Semi-Portable
Automatic 600V
(Factory Wired)

Provides precise reading of resistance values of complex circuits. Scale based in ohms, kilohms, and megohms. Includes an internal current shunting circuit, accuracy follows on both AC and DC measurements with less than 1% loading error. Features auto-ranging conductance and low-impedance conductance test mode capable of testing low-impedance conductors (up to 500 microhms) and insulators (up to 500 megohms) with accuracy of $\pm 5\%$ and provides full scale of ohms for checking transformer circuits. Model 94-1002-000, South Star, Model 94-1000.

- Large 8" x 5" display read, full scale meter 90 ohms to 500 megohms conductance readings from 0.1 ohm to 500 megohms conductance in 1-resistor mode.
- Displays rms value of sine waves from 0.1 volt to 250 volts in 1-resistor mode.
- Measures rms value of sine waves to 2500 volts in ac line mode in 1-resistor mode.
- AC/DC/RESISTANCE/CONDUCTANCE/TEMPERATURE — 12 functions in all AC ranges.
- Features accuracy that is less than 1% regardless of range.
- **FLUKE'S WIRELESS™**™ 94-1002™ is portable with wireless probes (sold separately Model 94-1002-000) or 10 and 1000 ohm (94-1002-000)

*All features are standard on 94-1000 Model.

*National Distributor South Star

SOUND DETECTOR TEST BLOCK —

\$11.50* **94-4254
(0001)**

Used for the sound detection alignment of the audio output transformer and the audio input transformer in a detector probe for the 9000.

MIXER GRID MATCHING PAD —

\$13.50* **94-4168
(0000)**

Used to correct the output of both the mixer and a test generator in the sound detector probe for the 9000. Alignment of the transformer is accomplished. Model 94-4168-000, South Star, Model 94-4168.

TUNER IF INPUT HEAD —

\$11.50* **94-4169
(0000)**

A matching pad used to correct the output generator in the I.F. head and during alignment of the 9000 head, 100 or 94-1000 and the 94-1002, available in both wire and 94-1000 version.

SOUND DETECTOR PROBE (SOLID STATE) —

\$29.75* **94-4200
(0010)**

A very low capacitance detector for alignment of the audio detector transformer of wire using a wide scale telegraph (1100) sound I.F. amplifier and miscellaneous.

*National Distributor South Star

RCA ALIGNMENT PROBES



VIDEO DETECTOR —

\$13.50*

WG-415A
(08102)

Used during electron beam alignment and during board troubleshooting. Connects directly from the closed end to the probe. Comes also with SMA and push-on for adjustment of speed control transformer, stand U.F. transformer, stand detector and 3/2 Ww. tip.

L.F. TEST BLOCK —

\$15.25*

WG-416A
(08102)

Includes oscillator detector and L.F. transformer loading circuit. Used to correct a loss in the gain of the U.F. amplifier and in a detector at the probe of the U.F. amplifier during alignment or tracing of the transmitted I.I. line circuit. Use related controls directly to the control register on the indicator.

*Optional Distributor Resale Price



WG-772
(S1 or Wood)

VOLTOMYST

\$38.00* or \$76.00 (S1 or Wood) or \$52.00* or \$104.00 (S2 or Wood)

The WG-772 features full frequency response (400,000 cps) from 100 mv to 3 kv and the 1.5, 15, and 150 ohm ranges and the 1, 10, and 100 ohm peak-to-peak ranges. 100 mv of resistance in both leads will be 1000 mv, and in lead S1 will be 1000 mv. Accuracy is to 10% and its high scale and resolution are 1000 mv and 1000 ohms/mv. It has a range extending beyond 200 mv up to 2 kv, 10 ohm and 100, 1000 ohm in impedance. The meter indicates ohms, ohms/mv, and ohms/v. It has an impedance range from 10 ohms to 100,000 ohms. It has 11 plug-in heads: 100, Ohm, 100, Ohm, 100, Ohm, 10, Ohm, 10, Ohm, 10, Ohm, 100, Ohm, 100, Ohm, 10, Ohm, 10, Ohm.

- Does not show direct ground accidental burnout
- Does not show direct ground accidental gain or loss or ground change
- Does not show for noise meter readings
- One 1000 cycle and voltage/ohm scale

Prices for WG-772(S1) and WG-772 include its probe and cables, an L.F. probe and cables, ground lead and clip, and measuring leads. Reading instructions sheet is included with the WG-772(S1) and WG-772(S2).

*Optional Distributor Resale Price



W1-100H

BATTERY OPERATED TRANSISTORIZED VOLTMYST®

\$75.00* (includes carrying case and batteries)
Batteries not included.

Portable voltage and current transducer circuit that can deliver 100 microampere full-scale deflection with 1000 microvolts sensitivity in an extremely compact instrument. Operates on standard 9-volt battery. Used for current, resistance and capacitance, power measuring. Accuracy ranges measure from 1/2 to 100% accuracy. High impedance 10-megohm input impedance means it does not load your circuit. Sensitivity around 100 ohm range, or measurement ranges of current measuring from 1/2 amp to 1000 volts, and AC from 1/2 amp to 1000 volts. Input impedance of 100 ohm range is 1.1 megohm.

All measurements are made with a single, universal single-lead probe with built-in shielded lead wire. The probe is specially shielded to pickup AC measurements for AC and measuring impedance from AC source across and an extremely accurate impedance probe. The 100 ohm to 1000 ohm range is made possible by means of a 100 ohm to 1000 ohm range.

*Optional Full-Order Model Price



W1-212A
\$2.95*

RF DIODE

The W1-212A RF Diode is designed for use with the 200 MHz range of spectrum analyzers. The W1-212A is a precision rectifier circuit, and will give a very accurate reading when used with a high impedance load. It will provide a very accurate reading when used with a low impedance load.



W1-212A
\$3.95*

BALANCED RF DIODE

The W1-212A Balanced RF Diode is designed for use with an impedance load in the 200 MHz to 1000 MHz range. It is designed for use with a spectrum analyzer. The W1-212A is a precision rectifier circuit, and will give a very accurate reading when used with a high impedance load. It will provide a very accurate reading when used with a low impedance load.



W1-212A
\$3.95*

RF DIODE

The W1-212A RF Diode is a precision rectifier circuit, and will give a very accurate reading when used with a high impedance load. It will provide a very accurate reading when used with a low impedance load. The W1-212A is a precision rectifier circuit, and will give a very accurate reading when used with a high impedance load. It will provide a very accurate reading when used with a low impedance load.



W1-212A
\$4.95*

CURRENT MEASURING ADAPTOR

The W1-212A Current Measuring Adaptor is designed to permit current measurements in the 100 mA to 1000 mA range. The W1-212A is a precision rectifier circuit, and will give a very accurate reading when used with a high impedance load. It will provide a very accurate reading when used with a low impedance load.

*Optional Full-Order Model Price



W15-038A
\$5.25*

DEMODULATOR PROBE

For use with the W15-024 Super-Flexible Oscilloscope for Demodulation and signal levels of 200V/1500V/2100V.

W15-021B
\$5.25*



CRYSTAL DIODE PROBE

For extending the measuring capability of the W15-022, W15-024, W15-025, and W15-026 Oscilloscopes for, for use 100V/150V.



W15-040A
\$6.75*

DIRECT/LOW-CAPACITANCE PROBE

A 48 inch, steel-clad, extremely flexible shielded cable designed for use with the W15-024 Oscilloscope. The probe consists of three shield leads with adaptor clips for ground, signal, and low capacitance connections. For maximum use, the shield should be grounded for shielding. It consists of the shield for most of a manufacturer's shielded cables, maximum input impedance is 10 megohms, 10 pF capacitance, when used with the W15-024 and W15-026.

*Optional Distribution Invoice Price



W15-028
(D.C. or A.C.)

VOLT-OHM-MILLIAMMETER

\$52.00* For use with Ohmmeter Head and Leads only. **\$38.00*** For use with Ohmmeter and Leads.

FEATURES:

- 1. Heavy commercial protected printed face and
- 2. 17 scale, 2000 counts.

These meters contain five protected, Bakelite-cased probes of polyethylene film and make rugged permanent records. Resistance ranges include 100 ohm through infinity through other ranges. Other probes and connectors also are made. Models other than those shown are available for extra wiring connections.

The W15-028 has an input resistance of 25,000 ohms and an ac and dc input impedance of 20 and 10 ohms, respectively. It has a scale of 10, 100, 1000, 10,000, 100,000, and 1,000,000 ohms. The W15-028 has an ac range of 10, 100, 1000, 10,000, 100,000, and 1,000,000 volts. The W15-028 has an ac range of 10, 100, 1000, 10,000, 100,000, and 1,000,000 volts. The W15-028 has a scale of 10, 100, 1000, 10,000, 100,000, and 1,000,000 ohms. The W15-028 has a scale of 10, 100, 1000, 10,000, 100,000, and 1,000,000 ohms.

For complete information, write to distributor. Deal direct in quantities 1000 for special prices. Price and other information on the face of this literature. All prices subject to change without notice.

*Optional Distribution Invoice Price



Model 75A

AC VACUUM-TUBE VOLTMETER

\$79.95+ Model 75A Features
 Meter and Calibrated

A high-impedance AC VTVM for AC and other AC voltage applications. Designed for measuring AC voltages from 0.1 volt to 1000 volts. Probe has the frequency range of 10 to 1,000,000 cycles. Offers the performance of voltage relay—free of resistance for full scale full wave.

Construction is rugged made for measurements of loads from 100 ohms to 1000 ohms.

Offers a built-in amplifier which may be used separately as a pre-amplifier. Provides approximately 30 db gain throughout the frequency range from 10 Hz to 100 kHz with greater than 100 db gain from 10 Hz to 10 kHz with gain of 10 db or greater.

The 6X4 500-0000 High-Vacuum Diode Tube Probe and Cable is rugged made for handling from 100 to 1000 volts. Features a built-in amplifier for handling from 100 to 1000 volts. Features a built-in amplifier for handling from 100 to 1000 volts. Features a built-in amplifier for handling from 100 to 1000 volts. Features a built-in amplifier for handling from 100 to 1000 volts.

Approved Distributor: Radio Shack
 *Model 75A, \$79.95 (incl. tax) to \$99.95 (incl. tax) per unit.



Model 500B
\$11.00+

DIRECT/LOW-CAPACITANCE PROBE AND CABLE

Designed for use with the 6X4 Vacuum Diode is 48" long, coil, probe attached from miniature connector to order for its resistance from and other field control. Multiple shield provides mutual induction of shield or capacitance impedance from connector, allows full frequency response, free from field and impedance in the impedance position. Includes ground lead and tag.



Model 304B
\$18.00+

RF MODULATOR

An attenuator used to check the overall frequency response of TV receivers, most sensitive to picture tube grid. The unit permits modulation of an RF carrier signal from a modulator generator such as 40-100 or 100-1000 Hz. A signal from a video sweep generator such as 60-100 or 100-1000 Hz.

*Approved Distributor: Radio Shack



WG-2044
\$7.50*

CAPACITANCE-TYPE VOLTAGE DIVIDER PROBE

The new Model 2044 Capacitance-Type Voltage Divider Probe is a special accessory for use with the Model 20000 Conductance Voltage Divider Microammeter Probe. The Model 2044 with the Model 20000 Probe and cable extends the range of measurements just as the Model 20000 and Model 20000-100 extend the range of the Model 20000.

The Model 2044 and Model 20000-100 can be used with the Model 20000 or the Model 20000-10000 in Europe.



WG-2014
\$8.25*

CRYSTAL-DIODE PROBE

"Eliect" type for use with the Model 20000, S.C., or Model 20000 Probe and cable extending the frequency range of measurements to 200 Mc.



WG-2002A
\$9.00*

RF/IF/VF SIGNAL TRACING PROBE

"Eliect" type high-frequency probe designed for use with the Model 20000 or 20000-10000 probe and cable for general signal tracing for signal detection of crystals in radio receivers and in transmitters if one wire stage.

*Optional Distributor Quote Price



WG-2000

ULTRA-SENSITIVE DC MICROAMMETER

\$110.00* Includes 10' and 200' range probe and cable, instruction booklet, battery for 100 hours.

Application: A battery-operated ultra-sensitive microammeter designed for measuring steady direct currents, for making current and voltage measurements in resistances and ohmic impedances, and for measuring currents in light meters, photo-cells and infrared detectors, and photoconductive devices. The ultra-sensitive internal probe and external conductors, low-noise signal control system, etc. are protected by dielectric metal against damage due to accidental contacts. When used as a voltmeter, it is internally shunted to measurements in circuits where loading is a primary factor. For use as a voltmeter it is necessary to measure extremely high resistances, such as leakage and insulation resistances.

- The ultra-sensitive range for measuring currents from 0.0002 to 1000 microamperes.
- Can be used as ohmmeter to measure resistances in the order of billions of ohms.
- Voltage drop for electrode protection only 0.5 volts.
- Input impedance of one megohm for measurement of voltages from 0.1 to 1 volt, 1000 ohms input impedance for voltages from 1 to 10 volts, 1000 ohms for voltages from 1 to 100 volts.
- Overall measurement accuracy on D.C. range 0.5% or better, accuracy on all other ranges 10% or better.
- Size 7 1/2" x 4 1/2" x 2 1/2", Weight 10 lbs., including battery.

*Optional Distributor Quote Price



NY-120A



NY-602A

POWER LINE MONITORS

\$16.50* NY-120A Analog Power Line Monitor

\$16.50* NY-602A Analog Power Line Monitor

The NY-120A and NY-602A Power Line Monitors are designed for use by industries, laboratories, and radio/TV stations where close watch is to be maintained to insure the power-line voltage of an area. These instruments include a continuous, accurate indication of the ac line voltage without the inconvenience of reading meters and switches or the necessity of inserting one or several fuses to obtain the proper meter reading.

Used in conjunction with a suitable isolator transformer, they are a valuable aid in detecting line problems for the user operator here. Only the equipment collection and the operation of electronic equipment will require a meter line voltage leads.

Both instruments feature:

- Extended Voltage Range — NY-120A... 200-0-200; NY-602A... 200-0-200V
- High Accuracy — ± 2% under load to 2% Code of code
- Two Meter Reading — Meter scale has center zero accurate 600 readings, zero when line-voltage is at zero line zero
- Two Meter Action — Shows "bounce" and fluctuations in the voltage
- Wide Frequency Range — From 20 to 600 Hz
- Large, Removable, Large Panel, Large Scale — Provides easy reading from a distance
- Grounded Heat Shielding — Shielding tubes to cut off heat

*National Distributor Quote Price



WJ-410A
\$8.00*

DC/AC OHMS PROBE AND CABLE

The WJ-410A is supplied with the WJ-600A Precisionized Non-Inductive, zero to one ohm range of a conventional ohmmeter. It is a rugged and precise and easy-to-use DC/AC Ohms probe. It is designed for the great convenience of not the loss of measurement being made. It is identical to the WJ-600A with the exception of the terminals.



WJ-1000
\$8.00*

DC/AC OHMS PROBE AND CABLE

The WJ-1000 is a ruggedized probe for use with conventional ohmmeter WJ-60A. It has precision metal construction of its ac probe operation. The WJ-1000 replaces the WJ-600A, WJ-600B and WJ-600C.

*National Distributor Quote Price



WG-020

5" OSCILLOSCOPE

\$289.00+ Complete with WG-020B Waveform Recorder and Lens, ground cable, signal plug, plug bracket, screw-driver, brush, instruction book.

The IGT WG-020 is a versatile, heavy-duty, precision instrument especially suited for use in production and servicing both broadcast video and video for research, education, broadcast equipment, TV distribution systems, test systems and communications equipment. Essential for troubleshooting in electronics circuits, the WG-020 can be used to observe and measure individual signals and to display control for signal tracing and display additional video amplifiers. A multi-range control covers video peak-to-peak voltage measurements as easy as with a VOM. Applications include repetitive displays, square wave testing, and observation of circuit and control logic characteristics. A 2 stage video expansion makes it easy to check for horizontal and vertical speed synchronization.

- High gain vertical section of wideband or high-sensitivity operation
- Full response (10:1) to 100 MHz to 0.5 MHz
- 0.25 inch per inch resolution capability for use as low signal level
- 0.1 microsecond rise time for accurate display of fast, critical waveforms
- Storage-adjustable, frequency-compensated sine wave generator for "T" amplifier
- 2-Axis focus
- Fast recovery adjustment (to 100 MHz) video amplifier for accurate accuracy
- Provision for connecting signals directly to the vertical deflection coil points of the CRT
- Size — 10 1/2" x 10 1/2" x 17" Height — 10 lbs.

*Optional 800-Number Module Price



WG-090C
\$32.50+

VIDEO MULTIMARKER

The WG-090C provides faster synchronization, detection from memory, an adjustable control, measurement for multiple video channels, input of color signals. Features: 1.1, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0, 11.0, 12.0, 13.0, 14.0, 15.0, 16.0, 17.0, 18.0, 19.0, 20.0, 21.0, 22.0, 23.0, 24.0, 25.0, 26.0, 27.0, 28.0, 29.0, 30.0, 31.0, 32.0, 33.0, 34.0, 35.0, 36.0, 37.0, 38.0, 39.0, 40.0, 41.0, 42.0, 43.0, 44.0, 45.0, 46.0, 47.0, 48.0, 49.0, 50.0, 51.0, 52.0, 53.0, 54.0, 55.0, 56.0, 57.0, 58.0, 59.0, 60.0, 61.0, 62.0, 63.0, 64.0, 65.0, 66.0, 67.0, 68.0, 69.0, 70.0, 71.0, 72.0, 73.0, 74.0, 75.0, 76.0, 77.0, 78.0, 79.0, 80.0, 81.0, 82.0, 83.0, 84.0, 85.0, 86.0, 87.0, 88.0, 89.0, 90.0, 91.0, 92.0, 93.0, 94.0, 95.0, 96.0, 97.0, 98.0, 99.0, 100.0.



WG-100
\$19.95+

TV SIGNAL AMPLIFIER AND SET COUPLER

For improved reception in fringe areas.

- 2 Channels for increased gain, greater stability
- Provides up to 10 dB gain
- Fits up to 8 sets for areas of easy-to-set individual couplers
- No CRT section
- Includes antenna
- Set of the antenna

*Optional Distributor Return Price



WP-25A
\$37.50*

TV ISOTAP

Save! No wiring, prevents damage to test equipment, eliminates shock hazard, cuts down costly returns. The WP-25A may be used as a high-voltage probe voltage isolation transformer on an air ratio transformer for testing video and TV monitors at various voltages of line voltages. Operates outside of 120, 100, and 200 ac volts at maximum load and is capable of matching line voltages from 100 to 220 volts in six steps.



WP-5270D
\$11.50*

TV BIAS SUPPLY KIT

The 924 WP-5270 (D) TV bias supply provides three output voltages, and is designed for use in servicing and aligning color and black and white TV receivers. Three separate output voltages, adjustable from 0 to -10 volts maximum are provided for application to R, G, and age bias circuits. The WP-5270 (D) utilizes a power transformer and operates from 100-220 volts, 60 Hz.

*Optional Distributor Marked Price



WP-540

COLOR BAR/DOT CROSSHATCH GENERATOR

\$109.50*

Complete with all output cables, video-coupling amplifier, photoresistor, setup leads for connection to test tube, and bench grid connections, and instructions book.

The 924 WP-540 Color Bar-Dot-Crosshatch Generator incorporates all the elements made in several years of laboratory development and field testing. This compact, adjustable instrument generates the time-locked color bar signals needed for adjusting and troubleshooting the color TV circuit, as well as red and crosshatch patterns for adjusting convergence in color receivers, and for obtaining forward and reverse in both color and black and white receivers.

- Digital-controlled 60° Oscillator for stable picture center
- Digital-controlled colorizing circuit
- Digital-controlled sound center for accurate adjustment of receiver line timing
- Fixed number of dots and lines for most in checking receiver
- Easy flow controls
- Multiple control (Color-Bar-Dot-Crosshatch)
- EXTENSIVE control to check receiver color spectrum output
- EXTENSIVE control with OFF — CHANNEL — EXTENSIVE — PICTURE — BUSTLE positions
- Removable control switches for starting and the test tube, or green pins of the color picture tube
- Size: 10 1/2" x 10 1/2" x 8", weight 10 1/2 lbs.

*Optional Distributor Marked Price



48-02A

STEREO FM SIGNAL SIMULATOR

\$248.00*

The 48-02A Stereo FM Signal Simulator is a compact, lightweight instrument designed to generate the signals necessary for service, alignment and maintenance of mono and stereo FM receivers and multiplex adapters. The RCA 48-02A Stereo FM Signal Simulator provides the following signals:

- Composite stereo output for either left or right channel.
- FM stereo output for either left or right channel. The 100 kHz FM center is adjustable to permit operation of a great part of the FM band. The FM deviation is adjustable from 0 to 75 kHz.
- Monaural FM output. A switch is provided to choose the 10 kHz oscillator for reproduction using FM output.
- 800 MHz carrier output to check receiver BW/IF alignment. Sweep rate is 10 Hz. Sweep width is adjustable from 1 to more than 750 kHz.
- Audio output signals of 100 Hz, 1000 cps, and 1 kHz.
- Crystal-controlled 50 kHz and 10 MHz signals for multiplier circuit adjustment.
- 87 MHz and 75 MHz output signals for test tap circuit adjustments.
- Special Internal Test output to check phase adjustment of 48-02A stereo signal.

The 48-02A comes complete with two connecting cables. A direct, unmodulated cable is for use with the composite stereo signal and audio signal outputs, and a modulated cable for FM output to a 75 ohm or 100 ohm resistor antenna input.

*Optional Distributor Retail Price



TEST EQUIPMENT ACCESSORIES

These versatile RCA test equipment accessories are expertly engineered to give you an economical and convenient means of extending the range and usefulness of your test equipment. RCA test equipment accessories are available for most servicing applications. They are especially useful in applications involving very high dc voltages, high frequencies, high impedances, or other special measurements.



NO-280A

PHASE CHECKER

\$14.95*

The NO-280 Phase Checker provides a simple, fast, and reliable method for checking the phasing of two-frequency and multi-range speakers in hi-fi, stereo, and PA systems.

One of the principal applications for the NO-280 is in checking the phasing between the speaker assemblies of the left and right-hand channels in stereo systems.

The NO-280 provides an ear-to-ear check on phasing, balancing everything in the system from the input source to the sound-wave output from the speakers.

GENERAL FEATURES:

- Indicates left and right-hand speaker assemblies in a stereo system.
- 12 variable speakers in a hi-fi or public-address system.
- 12 variable speakers in a radio or television receiver.
- Designed for simplicity and reliability.
- Permits dynamic check of output phasing.
- Designed for use with gear 400, 400A, or 400B.

*Retailer Suggested Retail Price



NO-28A

CRYSTAL-CALIBRATED MARKER GENERATOR

\$258.50*

Includes set of output cables,
instruction booklet.

Applicable, accurate fundamental frequency of order of crystal accuracy for use in aligning and frequency-checking TV color and black-and-white and FM receivers and other electronic equipment operating in the range of 50 to 200 Mc in 5 bands of fundamental frequencies. An ultra-precision electronic circuitry calibration and accuracy provides operating limits of ± 1 Mc in all 500-ohm-impedance output ranges which is superior to 1 degree accuracy in the 500-ohm crystal standard necessary accuracy for alignment of television and electronic equipment.

- Accuracy ± 1 Mc output and ranges to 200 Mc crystal frequency, 50% tolerance of 100 Mc.
- Provides signals for aligning vertical or horizontal frequency.
- Frequency modified impedance, resistance and capacitance, 500 Ω or 50 Ω loads.
- Special modulation level available for TV reproduction.
- Precision for use with television frequency dialer.
- Precision dual markers 4.5 Mc apart for color-coding checks and alignment.
- Triple markers for search-finding alignment and test with checks.
- Adjustable dual marker for accurate comparison with crystal calibration check bands.

*Retailer Suggested Retail Price



WB-406

TELEVISION/FM SWEEP GENERATOR

\$395.00* Complete with 20' output cable, 15' Video Output Cable and Instructional Manual.

Keys for visual alignment of both TV and FM receivers. The WB-406 has proved itself suitable for all 100 TV channels, the FM Broadcast band, and TV video, chrominance, and A Transmitters. 200 cycles/sec. in 100-hertz/second frequency range for color calibration or chrominance and sound. Additionally, great flexibility is provided by a precision oscillator continuously adjustable across octave and the added mode for precisely sweep television channels. The kit is especially suited for alignment of color receivers. Special audio-visual feature on panel permits use with transceiver units in alignment. Instructional literature provides complete video alignment and all the keys for the color standard and the range for A and video. Width 10 1/2", Height 10", Depth 7 1/2", Weight 22 lbs.

- 100 video output frequency continuously variable from 50 kHz to 50 MHz in 5 ranges.
- Sweep frequency (audio-visual) continuously adjustable from 10 kHz to 10 MHz in 100 kHz increments, 50 kHz range, in 10 channels.
- Return from standby.
- Tone continuously adjustable from 100 cps to 10 kHz, sweep rate on front panel.

*Retail Distributor Suggested Price



WB-6000X and WB-6000Z

TRANSISTOR RADIO DYNAMIC DEMONSTRATOR KIT

\$39.95* WB-6000X

100% 100% dynamic model
(Instructional Manual Included)

\$49.50* WB-6000Z

100% 100% dynamic model
(Instructional Manual Included)

The WB-6000X and WB-6000Z are 100% semiconductor radios for radio students connected into 100% for educational and laboratory purposes. Both kits come with complete actual wiring and instructions.

Designed to provide the student with comprehensive, step-by-step instruction, the WB-6000X Transistor Radio Dynamic Demonstrator Kit includes easy-to-understand, step-by-step, step-by-step instructions to assemble the circuit diagram by means of a wiring board, which eliminates errors in a plastic component panel. The kit includes the diagram on the inner side with easy-to-read wiring and component drawings.

Take these important features:

- Special advanced wiring connections provide mechanical and electrical connection . . . assure safe completed construction.
- All components positioned on front panel in their proper place in construction.
- Each circuit function is color-coded for easy identification.
- Internal component capacity provides ease of service checks and tests . . . completely new component construction.
- Solid electrolytic filter and silver plated filter.
- Includes 200-ohm 1000 Transistor Manual and complete instruction.

*Retail Distributor Suggested Price



WE-00412

V-O-M DYNAMIC DEMONSTRATOR KIT

\$37.95*

Includes assembly instructions and "Learning About Electronic Circuitry" booklet. Solderless kit included.

This kit is a dynamic aid for teaching the principles of meters and measuring circuits to students ranging in age from fifteen years to 60. It features three meters: 5000 Ohm Van Meter (100 microamperes), 500 Ohm Van Meter (100 microamperes), and a 500 Ohm Van Meter (100 microamperes). The kit is well suited to educational use, but can also be used in test and service work. All the parts are standard, and all the measurements and values are standard.

Key Design Features:

- Complete schematic and wiring diagrams printed on large, easy-to-read layout paper.
- All components are positioned on front of panel in their proper place in each circuit.
- Each circuit function is color-coded for easy identification.
- Wiring diagram for each circuit is printed on rear of panel to avoid confusion and avoid errors.
- Kit assembly is so simple that previous experience is required.
- Solderless assembly instructions are provided.

The Chicago Electronics Group's "Electronic Circuitry" and "Solderless Kit" booklets are part of the differentials of this kit.

*Suggested Distributor Retail Price



WE-704

RF/IF/VF MARKER ADDER

\$47.00*

Complete with two signal cables and instruction booklet.

Applications: for RF, IF and video sweep generator of both color and black-and-white TV receivers. Provides sharp, clear marker signals for alignment. It consists of three different marker stages in parallel, permitting use of marker from level needed by the receiver being aligned. Designed for use with conventional marker and sweep generators, such as the W8-100 and W8-100 marker generator and the W8-100 and W8-100 sweep generator. With the W8-100, the marker signal is added to the video-frequency carrier after the video signal is taken out of the receiver video line.

- Eliminates all tedious adjustments of sweep carrier by the marker.
- Provides trap alignment without marker "walkout."
- 10 dB isolation—helps to completely remove TV waves.
- Four marker channels—carrier peak, marker peak, positive and negative video carrier levels, positive and negative video carrier levels.
- Power supply voltage stabilized for wide channel video stability.

*Suggested Distributor Retail Price



RB-502
(Kit or Wired)

RF SIGNAL GENERATOR WITH SWEEP FEATURES

\$65.00* (Kit or Wired) (Wired and Collected) **\$45.00*** (Kit or Wired) (Kit)

Designed for maintenance, troubleshooting and instructional purposes, this portable RF Signal Generator provides an accurate source of 100 or 1000-cycle-per-second signals in the fundamental range of 50 kHz to 40 MHz. The signals in performance well suited for checking and signal tracing with the built-in antenna (kit) and provide radio receivers. Many other uses can be found for this convenient troubleshooting and service aid. To help you get the most out of output provides a practical means for checking radio receiver circuits.

Speeds adjust by switches on 400 kHz and 10.7 MHz for sweep edges. Range of tone rate and 400 Hz of sweeps. This source is also useful in providing a signal to continuous wave receiver checks of 10 harmonic characteristics. A remote tone blanking circuit is included to provide a tone reference line.

- Built-in crystal calibrator oscillator circuit with fixed and crystal control
- Permanently attached screened RF output cable
- Built-in DC blocking capacitor
- Two-stage RF attenuator control plus a continuously-variable attenuator control
- Additional switch for further attenuation of the crystal oscillator output
- Easy-to-read dial scale
- Remote tuning
- Size — 7 1/2" x 10 1/2" x 4 1/2" Weight — 1.3lb.

*Optional Distributor Special Price



WT-115A

COLOR PICTURE TUBE TESTER

\$89.50* Complete with plug-in identification card case and extension cable storage compartments

The WT-115A Color Picture Tube Tester is designed specifically for the testing of color picture tubes. Including tube testers (MAGNY, MAGNAC, ECTRONIC, ECTRON, ECTRIC and ECTRON) the WT-115A offers a special, reliable means of testing each part of the color picture tube for maximum accuracy including electrical performance, time-response, picture, and picture brightness. Complete with the WT-115A picture tube tester and storage with an extension microphone for the testing of color picture tubes in the portable kit form or in the case.

- Designed specifically for testing TV color picture tubes
- Tests each part for maximum quality, interference immunity, leakage, and safety
- Large, 3-color, resolution meter with two scales
 - Red-green "satellite" scale, with reference marks from 0 to 12
 - Secondary yellow scale to indicate intertube leakage
- Operable meter and control adjustment control for measuring the total electron gun output
- Meter short indicator
- 40' long-wiretap extension for accurate measurements
- Test procedure includes tube-type and cathode tests for determining overall performance of tube
- Tests color picture tubes in kit or out-of-kit
- Operation cable and socket assembly

*Optional Distributor Special Price



WT-1004

ELECTRON-TUBE MICROMHMMETER

\$889.00* Complete with 4 multi-pin socket-type coils, 1000-turn scale.

A precision laboratory measuring instrument which tests tube-cathode filament operating conditions as specified in the manufacturer's technical data sheets. It is particularly suited to production line testing, design and development work, troubleshooting for circuit malfunctions, quality control programs, and production maintenance. Microhmhmeter measurements are limited to about 1.000 ampere to 10 amperes at 60 Hertz (cycles) or 1/2, 100, 500, or 1000 cycles per second (Hz) and conventional double or quadrupole filament test frequencies to 200,000 cycles/sec. When the range of the test tube is not test within microhmhmeter, bridge, potentiometer, junction, resistance, inductance, capacitance and resistance types, full bridge, Wheatstone, bridge, potentiometer, inductance and full bridge potentiometer, in these cases and also when values are in a wide range, such as low ohm, inductance, capacitance, potentiometer and microhmhmeter, bridge-cathode filament, filament and cathode lead tests, this instrument is a "go-to" design.

- measures microhmhmeter up to 200,000 ohms in 100 ohm ranges
- includes both control potentiometer and suspension potentiometer
- built-in monitoring circuit—no test leads or wire device required
- meter completely demountable
- regulated power supplies for 60 cycles and current lead voltage
- measures microhmhmeter to an accuracy of 0.5%
- accurate measurement of "ohm" coils require tube type under test—operating conditions
- built-in electric test for one combination of tube elements

*Optional Distributor Trade Price



WA-5004

TRANSISTORIZED AUDIO SIGNAL GENERATOR SINE/SQUARE WAVE OUTPUT

\$85.00* Complete with 1000-turn scale.

The WA-5004 transistor audio signal generator provides a wide range of output wave forms, frequency range, and frequency response. The frequency range extends from 50 to 200,000 Hz.

Wave forms with varied forms using sine wave, triangle, square wave, and pulse wave, and frequency response, are available. The pulse width and frequency range extend to 100 Hz to 200,000 Hz.

The WA-5004 can be used in a wide variety of applications, including the direct measurement of frequency response characteristics of audio amplifiers, and testing, research and development in audio. The instrument can be used in testing the operation of all electronic test and in determining the frequency of onset of clipping in audio tubes.

- Wide frequency range, 50 Hz to 200,000 Hz
- Complete sine wave test
- Square wave output
- Variable amplitude of sine wave or square wave output and range of output level
- Attached, standard meter scale
- Size — 7 1/2" x 5 1/2" x 3 1/2", Weight 2 lbs.

*Optional Distributor Trade Price



WA-44C

AUDIO SIGNAL GENERATOR SINE/SQUARE WAVE OUTPUT

\$88.50* Complete with 64 page instruction booklet.

The General WA-44C is an operated from a 20-4-80 Hz, 100-1000 volt source, and controls the four basic wave forms 20 Hz to 100,000 Hz. Can be used for a wide variety of applications, including the measurement of frequency response characteristics of audio amplifiers, and the testing of loudspeakers and combinations or testing the impedance of coil combinations. Models WA-44C, WA-44C-1*, WA-44C-2*, WA-44C-3*, WA-44C-4*, WA-44C-5*, WA-44C-6*, WA-44C-7*, WA-44C-8*, WA-44C-9*, WA-44C-10*.

The circuit of the precision function consists of a "bridgeport" oscillator with a feedback network output stage. The impedance output is derived by using the impedance converter output to drive a coupling and output circuit. Provides a driving output with an amplitude variation of not more than 10.0 dB. Total harmonic distortion is limited to 0.5% over the range of 20 Hz to 20 kHz.

- Switch selection for sine wave or square wave output
- Impedance auto stop
- Separate 100 Hz sine frequency output for synchronization calibration measurements
- Wide frequency range, 20 Hz, 100,000 Hz
- Distortion limited to 0.5% over the audio-frequency range

*Optional Distributor Retail Price



WT-501A

IN-CIRCUIT/OUT-OF-CIRCUIT TRANSISTOR TESTER

\$66.75* Factory direct and excellent customer service.

Completely portable and operating as a battery powered device, WT-501A can be used in the field for testing and measuring the characteristics of both NPN and PNP transistors. The WT-501A can be used for testing and measuring the characteristics of both NPN and PNP transistors. The WT-501A can be used for testing and measuring the characteristics of both NPN and PNP transistors.

The instrument tests operational transistors for as little as 1 to 1000 microamps. It can be used to test for shorted, open, and other faults. It can be used to test for shorted, open, and other faults. It can be used to test for shorted, open, and other faults.

Collector current is adjustable from 10 microamperes to 1000 microamperes. The instrument can be used to test for shorted, open, and other faults. It can be used to test for shorted, open, and other faults. It can be used to test for shorted, open, and other faults.

*Optional Distributor Retail Price