

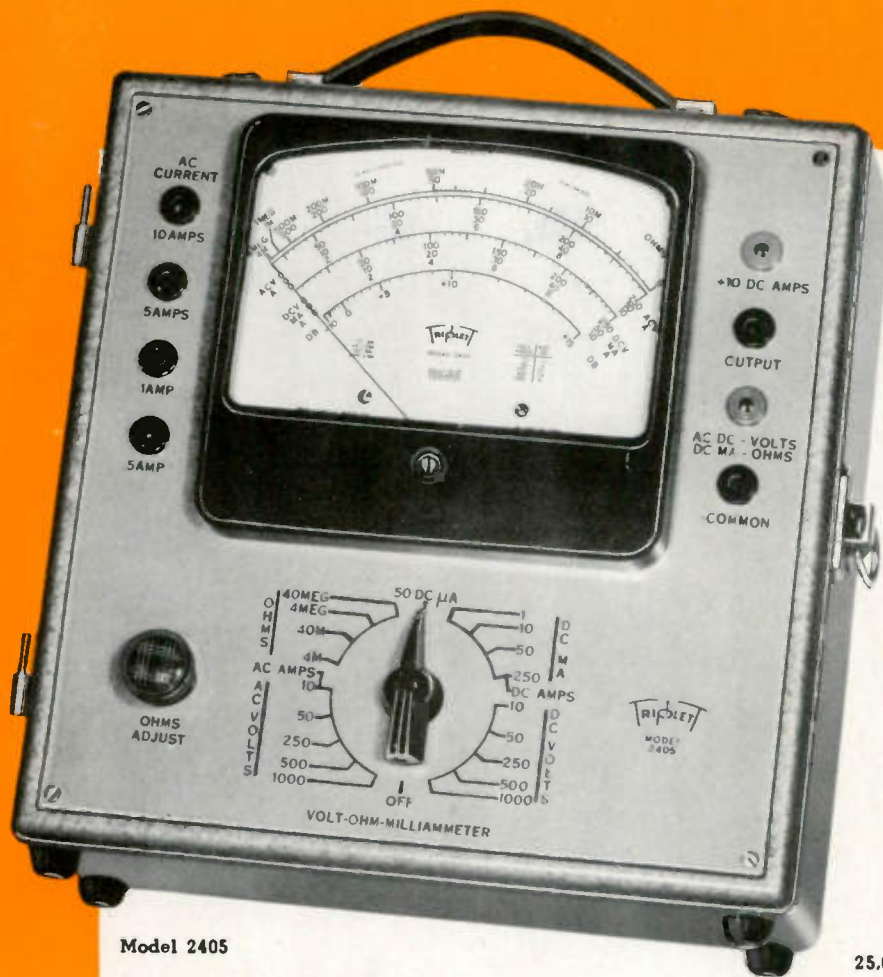
# TRIPLET

**RADIO TEST EQUIPMENT**

Applon Radio Supply Co.  
Madison, Wisconsin



# Wide-Range Volt-Ohm- Mil-Ammeters



Model 2405

Model 2405  
25,000 Ohms per Volt

Model 2400  
5,000 Ohms per Volt

## MODELS 2400 & 2405

The post-war Volt-Ohm-Mil-Ammeter you want—new in engineering, in design and in the broad testing facilities the many ranges offer. 10 A.C. and D.C. Volt ranges; 10 A.C. and D.C. Current ranges; Four Resistance ranges; Decibel readings: -10 to +55db, and Output readings. All easily readable on the long 5.6" instrument scale. Engineered to assure simplicity of operation, extreme accuracy and precision reliability.

Where extreme sensitivity is required, the 25,000 ohms per volt D.C. Model 2405 is recommended. Model 2400 is suitable for all practical testing, with 5000 ohms per volt sensitivity for D.C. Volt ranges. Both Volt-Ohm-Mil-Ammeters have ranges up to 10 D.C. and A.C. Amperes.

### RANGES FOR MODEL 2405

**D.C. Volts:** 0-10-50-250-500-1000, at 25,000 ohms per volt.  
**D.C. Amperes:** 0-10, at 250 M.V.  
**D.C. Milliampers:** 0-1-10-50-250, at 250 M.V.  
**D.C. Microampers:** 0-50, at 250 M.V.  
**A.C. Volts:** 0-10-50-250-500-1000, at 1000 ohms per volt.  
**A.C. Amperes:** 0-0.5-1-5-10, at 1 Volt-Ampere.  
**Ohm-Megohms:** 0-4000-40,000 ohms—0.4-40 megohms (self contained batteries).  
**Output:** Condenser in series with A.C. Volts ranges.  
**Decibels:** -10 to +15, +29, +43, +49, +55.  
**Condenser Test:** Capacity check of paper condensers is possible by following data in instruction book.

### RANGES FOR MODEL 2400

Same as above, except **D.C. Volts** at 5000 Ohms per Volt instead of 25,000. **D.C. Microampers**, 0-250 instead of 0-50.

## GENERAL DESCRIPTION

### NEW "SQUARE LINE" CASE

Striking new "SQUARE LINE" case design has "eye appeal"—attractively finished in a new tan "hammered" baked-on enamel, it is an impressive counter or portable unit. As a portable unit the metal case, 10" x 10" x 5 3/4", is equipped with detachable, hinged cover, sturdy leather strap handle, nickel plated hardware and rubber feet. Compartment for accessories and instructions. Cover can readily be attached to the back of the tester by hook-on fasteners when tests are

being made. This keeps the cover out of the way and provides additional stability when the tester is used in an upright position.

**PANEL**—Easy to read brown markings on tan enameled background.

### INSTRUMENT

Extra large 6" Model 626 is adjusted to 40 Microampers, at 250 M.V. for Model 2405 and 200 Microampers, at 250 M.V. for Model 2400. **RED • DOT** Lifetime Guarantee against defects. Adequate series resistance in meter provides for maximum accuracy on current measurements.

### SCALE

A long 5.6" top arc enables clear, easy readings at all times. Dial markings are black on white except for A.C. which are red on white.

### PLUG-IN RECTIFIER

Simplifies replacement in case of accidental damage by overloading. Rectifiers are pre-calibrated and thoroughly impregnated after incorporation in a small molded case. Prongs plug into a socket in the tester, making replacement of the rectifier as simple as installing a new radio tube.

### SELECTOR SWITCH

For all instrument ranges. Rugged construction. Foolproof in operation.

### OHM ADJUSTMENT

Knob operated adjustment for resistance ranges. Ohms circuit arranged for maximum accuracy over wide range of battery voltage variation.

### CONNECTIONS

Four banana jacks located on left side for A.C. Amperes. Four banana jacks on right side for Com., V-O-Ma., Output and 10 D.C. Amperes. Banana jacks insure low contact resistance and trouble free plug-in connections.

### BATTERY

Self-contained. One 1.5 Volt Burgess Uni-cel No. 2, one 22.5 Volt Burgess Battery No. 4156, or equivalent.

### LEADS

50" long. Test prods with removable alligator clips at one end. Banana plugs for connecting to tester jacks at other end.

**WEIGHT**—Approximately 11 pounds.

### HIGHER CURRENT RANGES

A.C. current ranges may be extended to 100 amperes by addition of external do-nut current transformer which fits in cover.

D.C. current ranges may be extended to 100 amperes by addition of external pin jack shunt.





Model 625-N

## Long-Scale Volt-Ohm-Mil-Ammeter

### MODEL 625-N

D.C. Voltage ranges with dual sensitivity (10,000 and 20,000 ohms per volt) provide for double the number of full scale readings the average tester gives. Ideally suited for testing Television and other high resistance D.C. and A.C. circuits.

A.C. Voltage ranges at 10,000 ohms per volt, permit checking many audio and high impedance A.C. circuits where a vacuum tube voltmeter usually is required. Spiral X resistors used in circuit provide greater stability on voltage ranges, not to be had with ordinary carbon type resistors.

**Double Sensitivity D.C. Volt Ranges:** 0-1.25-5-25-125-500-2500 Volts, at 20,000 ohms per volt. 0-2.5-10-50-250-1000-5000 Volts, at 10,000 ohms per volt.

**A.C. Volt Ranges:** 0-2.5-10-50-250-1000-5000 Volts, at 10,000 ohms per volt.

**D.C. Microamperes:** 0-50 Microamperes, at 250 M.V.

**D.C. Milliamperes:** 0-1-10-100-1000 Milliamperes, at 250 M.V.

**D.C. Amperes:** 0-10 Amperes, at 250 M.V., Temperature compensated circuit for all current ranges.

**Ohm-Megohm Ranges:** 0-400 ohms (60 ohms center scale), 0-50,000 ohms (300 ohms center scale), 0-10 megohms (60,000 ohms center scale), Voltage compensated circuit for all ohm ranges.

**Direct Reading Output Level Decibel Ranges:** -30 to +3, +15, +29, +43, +55, +69 DB.

**OUTPUT READINGS**—Condenser in series with A.C. Volts for output readings.

#### CONDENSER TEST

Capacity check of paper condensers is possible by following data in instruction book.

#### RED • DOT INSTRUMENT

The large 6" RED • DOT Lifetime Guaranteed indicating instrument is adjusted to 50 Microamperes at 250 Millivolts.

#### LONG 5" SCALE ARC

Long 5" scale provides excellent readability. All dial markings are black on white except A.C. and DB which are red on white.

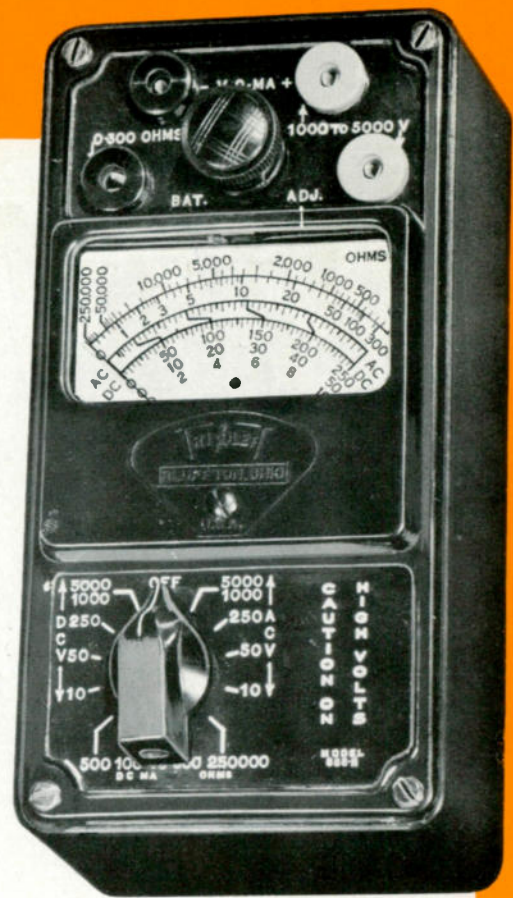
#### MOLDED, INSULATED CASE

The compact, portable, black molded case 6" high x 5½" wide x 2½" deep is furnished with a leather strap handle. Completely insulated. (An attractive, black leather carrying case, No. 629, with strap handle, may also be ordered if desired.)

#### ACCESSORIES

Accessories furnished include one pair of 50" test leads with banana type plugs for jacks at the lower two sides of the case, alligator clips with test prods, instructions.

**BANANA JACKS**—Insure low contact resistance and trouble-free plug-in connections.



Model 666-H

## Handy Pocket Volt-Ohm-Milliammeter

### MODEL 666-H

Incorporates many of the testing capabilities of larger, more costly equipment, yet small enough to slip into a coat pocket. Just the instrument for servicemen, radio amateurs, industrial engineers, laboratory technicians, etc.

#### RANGES

**A.C.-D.C. Volts:** 0-10-50-250-1000-5000 at 1000 ohms per volt.

**D.C. Milliamperes:** 0-10-100-500.

**Resistance:** 0-300 ohms (shunt type circuit) 10 ohms center scale. 0-250,000 ohms (series type) 3,700 ohms at center scale.

Selector Switch for all instrument readings. Higher resistance measurements are available by using external batteries. Knob operated adjustment for resistance ranges.

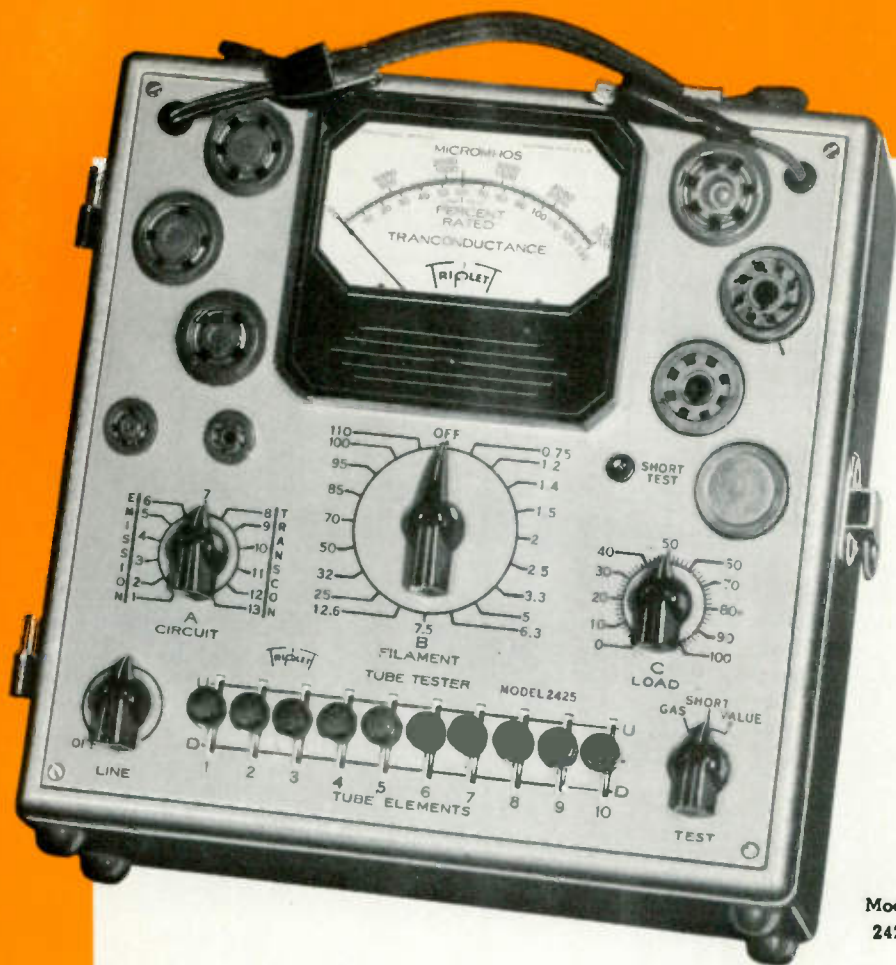
The 3" indicating instrument provides a long two-color multi-range scale to facilitate reading. RED • DOT Lifetime Guarantee protects against defective workmanship or materials.

Black molded case and panel, completely insulated. Handy pocket size 3½" x 5½" x 2½" deep. Complete with self-contained battery—one 1.5 Volt Size C Eveready No. 935, or equivalent. 50" test leads. Test prods with removable alligator clips at one end. Pin plugs at other end. Weight 1½ pounds.

#### LEATHER CARRYING CASE

Model 669 leather carrying case with snap-on cover, sturdy strap handle, available on request.





Model  
2425

# A Conclusive

## New Transconductance (DYNAMIC MUTUAL CONDUCTANCE) Reading Tube Tester

FOR  
PORTABLE OR  
COUNTER TUBE  
TESTING

# Tube Test Readings in Micromhos

## MODEL 2425

Transconductance readings in micromhos, plus flexibility of Triplet's exclusive three-position lever switching enables final analysis testing of all tubes with the Model 2425 Tube Tester.

Three-position lever switching makes this one of the most flexible of all tube testers. Simplified settings assure maximum speed in operation. Just snap the switch up or down. Provides the maximum in operating simplicity. Switching circuit gives individual control for each tube element. Takes care of roaming elements, dual-cathode structures, multi-purpose tubes, etc.

The only circuit with individual control of each tube element with respect to switching between plate and filament. Will always accommodate new tubes without regard to their element connections.

One socket for each kind of tube base is used and there is a spare socket furnished, as well as an extra element switch should future tubes require.

Constant improvement has been the keynote of Triplet's superiority. Triplet engineering has combined in a most compact way the Model 2425 Transconductance reading tube tester to give a truly complete test through every tube element for quality, gas, shorted and open elements of all types of receiver tubes. Those wanting the ultimate in a tester that will furnish speedy, accurate, proven readings for all types of receiver tubes will find this their favorite tester.

### GENERAL DESCRIPTION

#### TUBES TESTED

Receiving tubes, gaseous rectifiers, resistor and ballast tube continuity, and pilot lamps. Separate plate tests on rectifiers and diode types. The continuity test circuit may also be used to check electrical appliances for shorts or open circuits. The Transconductance reading check allows accurate matching of tubes.

#### NEON SHORT TEST

Shows slightest inter-element short or leakage while the cathodes are hot. Wide-angle neon indicator for greater visibility of the glo test.

#### CASE (NEW "SQUARE LINE")

Metal with tan hammered enamel finish, brown trim. Size: 10" x 10" x 5 3/4". Equipped with detachable hinged cover and compartment for holding large book-type tube chart. Brown leather strap handle, nickel plated hardware and rubber feet. Cover can readily be attached to the back of the tester by hook-on fasteners when tests are being made. This keeps the cover out of the way and provides additional stability when the tester is used in an upright position.

#### PANEL

Easy to read, contrasting brown markings on tan enamel background.

#### LINE VOLTAGE INDICATION

Permits observation and adjustment for line fluctuations thereby insuring greater test accuracy. Line Voltage can be checked at any time.

#### INSTRUMENT

Long scale Model 426 has exclusive Triplet RED • DOT Lifetime Guarantee against defects in workmanship or materials.

#### SCALE

3 1/2" long, 0-2500-5000-10,000 Micromho scale for direct Transconductance value readings. Red arc indicates "BAD" tubes, yellow for "?" (questionable) tubes and green for "GOOD" tubes. A mark for Line Test at center of scale.

#### FILAMENT VOLTAGES (FULL RANGE)

0 - .75 - 1.2 - 1.4 - 1.5 - 2 - 2.5 - 3.3 - 5 - 6.3 - 7.5 - 12.6 - 25 - 32 - 50 - 70 - 85 - 95 - 100 - 110 Volts.

#### SOCKETS

4, 5 and 6 prong, 7 prong large and small with combination for pilot lights and flashlight bulbs; 8 prong octal, 9 prong loctal, 5 prong bantam, 7 prong miniature, 7 prong subminiature and one spare.

**POWER SUPPLY**—110 Volts, 60 cycles A.C.

#### TUBE CHART

Booklet 8 1/2" x 9 1/2" has simplified arrangement for quick reference and large easily read printing. Additional tube data can be added easily. Chart carried in compartment in cover of the tester.

**WEIGHT**—Approximately 12 lbs.

# New Plate Current Test Method...

## The Very Latest in Transconductance (Dynamic Mutual Conductance) Tube Testers

Conclusive tests under set operating conditions are made with Model 2425, an entirely new tester providing transconductance (dynamic mutual conductance) reading in micromhos.

This simplified transconductance reading tube tester incorporates a new plate current test method which gives correct micromhos values on a 0-2500-5000-10,000 Micromho scale. A scale is also provided for a separate test which indicates the percent of rated transconductance values. The percent scale has colored arc portions for reference as to good, questionable, and poor tubes, including diodes and rectifiers.

The transconductance  $G_m$  (grid to plate) of a tube is measured by applying rated D.C. voltages to all the tube elements and then imposing a small A.C. signal voltage to the control grid. The A.C. plate current due to this signal is then measured and the ratio of the A.C. plate current to the applied grid signal voltage is equal to the transconductance expressed in micromhos. This results in an absolute measurement which is essential when extreme accuracy is required particularly in development work. This method necessitates a complicated power supply, control and measurement setup, which is generally not practical or essential in commercial tube testing done by the serviceman.

### NEW TEST APPROACH

Triplett now offers a radically new approach in this transconductance reading tube tester by making a simple measurement which is directly proportional to  $G_m$  and calibrating the measuring instrument accordingly. The value  $G_m$  in general for a tube free from gas is a function of tube geometry, element spacing, and cathode emission so that a measurement proportional to these factors is directly proportional to  $G_m$ .

### TUBE USABILITY SHOWN

Thus a transconductance reading as provided by Model 2425 is one of the most accurate indications of the usability of all amplifier type tubes. The micromhos dial readings correspond to good tube values—where standardized values are available—as recorded in tube manufacturers' manuals.

### NO GRID OVERLOADING

By means of a unique circuit there is no possibility of grid overloading due to excessive signal—an exclusive and outstanding feature of this tube tester. Tubes with control grids cannot be damaged, or circuits in which they are used be disrupted by improper tube tests because there is no "forced" meter reading as happens when the grid is overloaded, or the meter reading is not directly proportional to the true  $G_m$ .

### NO COMPLICATED TESTS

The Triplett Model 2425 thus can truly be termed the first approach to applying transconductance readings in a commercial tube tester which are directly proportional to the readings obtained by the more elaborate laboratory methods without the complications in construction and controls in use.

In addition a simple operated Gas Test is provided to check tubes in which ionization occurs, commonly known as "gassy."

This is the easiest and quickest of all transconductance reading testers to operate—a few simple lever switch settings give the complete and accurate story of the tubes capabilities. All switching is straightforward and easily understood. Only one socket is used per tube base type thus eliminating possibility of plugging tube in wrong socket.

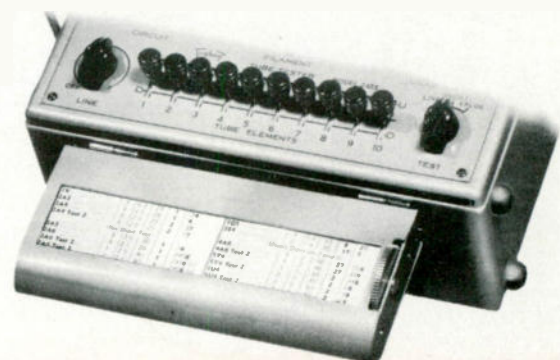
## ROLL CHART ATTACHMENT FOR EASE IN TESTING For Tube Tester Models 2425 and 2413

Another sensational new Triplett feature. An external roll chart in a streamlined case that quickly can be attached to the tester case by the hinge posts when cover is removed. The roll chart fits in the carrying compartment in the tester cover when not in use.

This chart has all the advantage of a roll chart incorporated in a tester and yet has all the advantages of a book chart in reference to adding new data. The location is right, and settings can be made easily and quickly. A replacement chart may be obtained to cover new tubes at a minimum charge if the old one is returned.

Handy for checking tube stocks—just take the chart in your hand and work through your shelves.

The external roll chart is available at extra charge with Model 2425 shown on these pages or Model 2413 on page 7.







## Good-Bad-“?” Readings on 6" Meter

STREAMLINED, MODERN  
COUNTER-TYPE  
TUBE TESTER WITH  
SPEED-ROLL  
CHART

Model  
3212

# For Counter Tube Testing

## MODEL 3212

A professional, highly attractive tube tester that will add distinction to any dealer's counter or service shop. Quickly and conclusively tests tubes for value, inter-element shorts and leakage—plus Trans-conductance comparison test.

New slide-lever three-position switch gives individual control for each tube element and makes this one of the simplest and speediest of all testers in operation. You will find tests easier to make than ever before. Simply snap the switch up or down. Generally, never more than a total of five settings per tube required. Takes care of roaming elements, dual cathode structures, multi-purpose tubes, etc. It is the final answer to simplified tube element control plus security, against obsolescence.

In the Transconductance Comparison test the test voltages are applied to the tube elements without any chance of overloading. In the direct reading GOOD-?-BAD value test the control and screen grids are tied to the plate which operates at minimum plate voltage.

An Appliance check lead permits "short" and "continuity" test of motors, leads, resistance elements, etc.

Modern two-tone metal case, 15½" x 11¾" x 6", is furnished in the new and highly attractive tan "hammered" enamel with brown molded sockets, knobs, etc. A design of unsurpassed styling and customer appeal. Its professional design and operation are a definite asset from the customer confidence aspect.

## GENERAL DESCRIPTION

### TUBES TESTED

Receiving tubes, gaseous rectifiers, resistor and ballast tubes continuity, and pilot lamps; Separate plate tests on rectifiers and diode types. The continuity test circuit may also be used to check electrical appliances for shorts or open circuits.

### NEON SHORT TEST

Shows slightest inter-element short or leakage while the cathodes are hot. Wide-angle neon indicator for greater visibility of the glow test.

### ATTRACTIVE COUNTER STYLE CASE

Metal with highly attractive two-tone tan with brown trim hammered, baked on enamel finish. 15" x 11¾" x 6".

### PANEL

Easy to read attractive brown markings on tan background.

### LINE VOLTAGE INDICATION

Permits observation and adjustment for line fluctuations thereby insuring greater test accuracy. Line voltage can be checked at any time by throwing snap-action switch for indication on the meter.

### INSTRUMENT

Long-scale Model 626 adjusted to 1 milliamperes, 100 millivolts. Has exclusive Tripplet RED • DOT Lifetime Guarantee against defects in workmanship or materials.

### SCALE

5.6" long at top arc. Red section for "BAD" tubes, yellow for "?" (Questionable) tubes and green for "GOOD" tubes. A mark for Line Test.

### FILAMENT VOLTAGES (FULL RANGE)

At 0.75 - 1.2 - 1.4 - 1.5 - 2 - 2.5 - 3.3 - 5 - 6.3 - 7.5 - 12.6 - 25 - 32 - 50 - 70 - 85 - 95 - 100 - 110 Volts.

### SOCKETS

4, 5 and 6 prong; 7 prong large and small with combination for pilot lights and flashlight bulbs; 8 prong octal; 8 prong loctal; 5 prong bantam; 7 prong miniature; 7 prong subminiature and one spare. Only one socket is used for each tube base type, eliminating possibility of plugging into the wrong socket.

**POWER SUPPLY**—110 Volts, 60 cycles—A.C.

### SPEED ROLL CHART

Speed roll chart simplifies testing. It can be spun from one end to the other in less than four seconds. Chart markings are immediately below switch panel, thereby enabling settings simply and quickly. Chart is illuminated to facilitate reading.

**WEIGHT**—13¾ pounds.



## A Tester Needed by Every Full-Time Service Shop

**HANDY,  
ATTRACTIVE TESTER  
WITH FLEXIBLE  
THREE-POSITION LEVER  
SWITCHING**

Model  
2413



Roll chart attachment optional, see page 5.

# Counter or Portable Tube Tester

## MODEL 2413

A sensational new model embodying the best features of wartime engineering plus the pioneering experience in tube testers dating back to Triplet development of the first commercial tube tester. It is highly flexible yet speedy in use.

Multi-purpose test circuit provides for emission test, short and open element test and transconductance (mutual conductance) comparison test for most amplifier tubes. In the transconductance comparison test the test voltages are applied to the tube elements without any chance of overloading. In the emission test the control and screen grids are tied to the plate which operates at minimum plate voltage.

Three position lever switching makes this one of the most flexible of all tube testers. Settings are quickly made—just snap the switch up or down. Generally not more than five of the ten lever switches need to be set. Provides the maximum in operating simplicity. Switching circuit gives individual control for each tube element. Takes care of roaming elements, dual-cathode structures, multi-purpose tubes, etc. in addition to standard tests.

New SQUARE LINE case design. Portable, but large and impressive enough in appearance for use as a counter tester. It will add distinction to any shop or store.

### GENERAL DESCRIPTION

#### TUBES TESTED

Receiving tubes, gaseous rectifiers, resistor and ballast tube continuity, and pilot lamps. Separate plate tests on rectifiers and diode types. The continuity test circuit may also be used to check electrical appliances for shorts or open circuits.

#### NEW SHORT TEST

Shows slightest inter-element short or leakage while the cathodes are hot. Wide-angle neon indicator for greater visibility of the glow test.

#### CASE (NEW "SQUARE LINE")

Metal with highly attractive two-tone hammered, baked-on enamel finish. 10" x 10" x 5½". Equipped with detachable hinged cover with facilities for holding large book type tube chart. Leather, strap handle, nickel plated hardware and rubber feet. Cover can

readily be attached to the back of the tester by hook-on fasteners when tests are being made. This keeps the cover out of the way and provides additional stability when the tester is used in an upright position.

**PANEL**—Easy to read attractive white markings on dark background.

**LINE VOLTAGE INDICATION**—Permits observation and adjustment for line fluctuations thereby insuring greater test accuracy. Line Voltage can be checked at any time by throwing snap-action switch for indication on the meter.

#### INSTRUMENT

Long-scale Model 426 adjusted to 1 milliamperes, 100 millivolts. Has exclusive Triplet RED • DOT Lifetime Guarantee against defects in workmanship or materials.

#### SCALE

3½" long at top arc. Red section for "BAD" tubes, yellow for "?" (Questionable) tubes and green for "GOOD" tubes. A mark for Line Test.

#### FILAMENT VOLTAGES (FULL RANGE)

At 0.75 - 1.2 - 1.4 - 1.5 - 2 - 2.5 - 3.3 - 5 - 6.3 - 7.5 - 12.6 - 25 - 32 - 50 - 70 - 85 - 95 - 100 - 110 Volts.

#### SOCKETS

4, 5 and 6 prong; 7 prong large and small with combination for pilot lights and flashlight bulbs; 8 prong octal; 8 prong loctal; 5 prong bantam; 7 prong miniature, 7 prong subminiature and one spare. Only one socket is used for each type tube base, eliminating the possibility of plugging into the wrong socket.

**POWER SUPPLY**—110 Volts, 60 cycles—A.C.

#### TUBE CHART

Book-type tube chart 9" x 9½", carried in lid of tester, has simplified arrangement for quick reference and large easily read printing. Additional tube data can be added easily.

**WEIGHT**—12 pounds.

Roll Chart Attachment Optional. See Page 5.





**Complete Shielding,  
Quality Construction  
Throughout**

**SIX FREQUENCY  
RANGES  
75 KILOCYCLES TO  
50 MEGACYCLES  
ALL FUNDAMENTALS**

**Model  
2432**

## *A Wider Range Signal Generator*

### **MODEL 2432**

A completely NEW Signal Generator. Model 2432 embodies features normally found only in "custom-priced" laboratory models. Its frequency coverage is continuous and overlapping on six bands—75 KC to 50 MC—all fundamentals. Strong second and third harmonic signals provide for extending coverage to the new FM bands.

Other outstanding new features include six-position, fully shielded turret-type coil switching for rapid, efficient band changing; and stability greatly increased by use of air trimmer capacitors, permeability adjusted coils, and electron-coupled oscillator circuit.

### **RANGES**

#### **SIX FREQUENCY BANDS (All Fundamentals)**

Band A— 75 to 224 KC	Band D—2450 to 8500 KC
B— 220 to 750 KC	E— 8 to 25 MC
C— 700 to 2500 KC	F— 24 to 50 MC

#### **INTERNAL MODULATION**

Approximately 30% at 400 cycle,  $\pm 15\%$  (RMA standard).

**AUDIO SIGNAL**—400 cycle obtained from panel jacks.

### **GENERAL DESCRIPTION**

#### **TURRET-TYPE COIL ASSEMBLY**

Six-position, turret-type coil switching with complete shielding. Coil assembly rotates inside a copper-plated steel shield.

This new feature simplifies the switching process, makes it foolproof and assures complete shielding.

Entire R.F. and Audio assembly enclosed in separate shields.

#### **STABILITY**

Greatly increased by use of air trimmer capacitors, permeability adjusted coils, and electron-coupled oscillator circuit.

#### **DIAL**

Total dial length approximately 66 inches as covered by six 330° arcs. Directly geared to permit quick and accurate settings. Dial is aluminum, etched with black markings.

#### **ATTENUATION**

Individually shielded and adjustable, by fine and coarse controls, to zero for all practical purposes.

**LINE FILTER**—Internally shielded power transformer.

#### **VOLTAGE REGULATED POWER SUPPLY**

115 Volts, 50-60 cycles A.C. Voltage regulated for increased oscillator stability. Provides greater accuracy and more stable operations independent of line voltage fluctuations.

#### **CO-AXIAL CABLE**

For output lead, to minimize losses. Output connections are two co-axial fittings: one for AF and one for RF.

#### **CASE**

Metal with attractive tan hammered enamel finish; contrasting brown markings and knobs. Matches other Triplett "SQUARE LINE" matched unit testers. Leather strap handle for carrying. Case size 10" x 10" x 6 $\frac{3}{4}$ ".

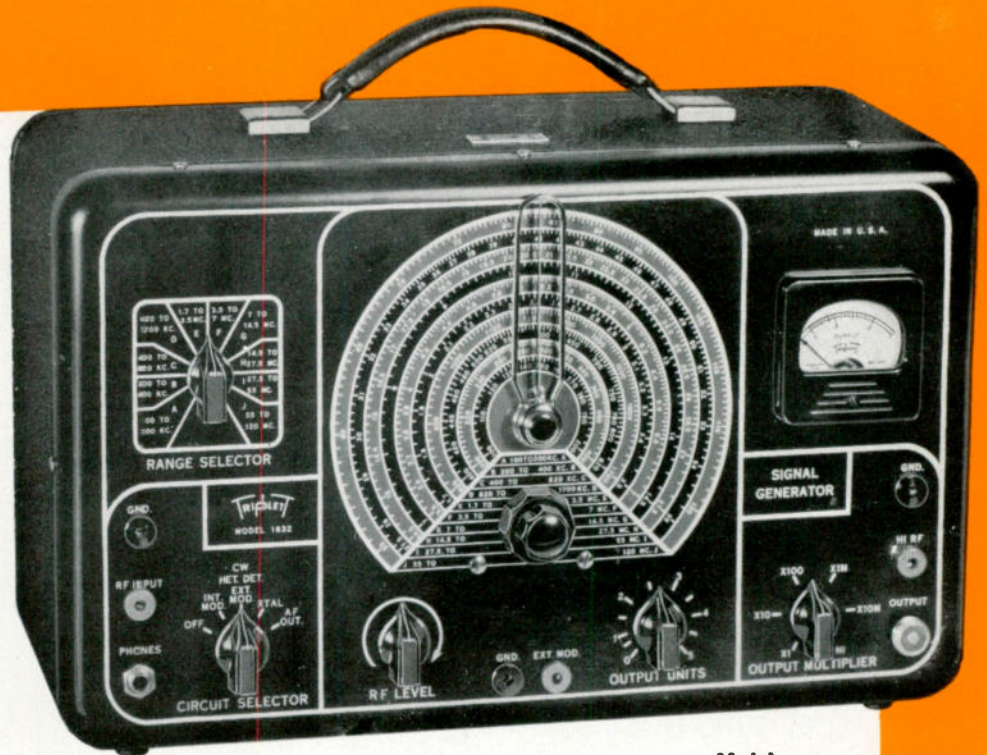
**PANEL**—Tan with dark brown markings.

**TUBES**—One each 6SJ7, 6J5, 6X5GT rectifier and VR-150-30.



## Laboratory Quality Signal Generator

CONTINUOUS  
COVERAGE  
100 KC TO  
120 MC  
ALL  
FUNDAMENTALS



Model  
1632

# Signal Generator to 120 Megacycles

### MODEL 1632

One of the finest of all Signal Generators—for use on frequencies up to 120 MC—in keeping with the broader requirements of today's needs. A laboratory type unit in design and workmanship at a cost in the serviceman's price range.

Frequency coverage on 10 bands is continuous—100 KC to 120 MC. ALL FUNDAMENTALS. Coverage is adequate for the new FM bands, and other high frequency bands using the strong 2nd harmonics.

Air Trimmer Capacitors and Permeability Adjusted Coils provide a new conception of stability and accuracy. Triple-shielded construction throughout. Litz wire-wound coils are impregnated against humidity with "high-Q" cement.

### RANGES

#### FREQUENCY (All Fundamentals)

Band	Kilocycles	Band	Megacycles
A	100- 200	E	1.7- 3.5
B	200- 400	F	3.5- 7.0
C	400- 820	G	7.0- 14.5
D	820- 1700	H	14.5- 27.5
		I	27.5- 55.0
		J	55.0-120.0

#### CIRCUIT SELECTOR

Provides for internal or external modulation at audio or radio frequencies.

#### OUTPUT MULTIPLIER

Steps of 1-10-100-1000-10,000 relative output units for metered output thru attenuator panel switch. HI-RF jack for still greater output.

Minimum output for:

100.0 kc to 14.5 mc.....	approx. 2 microvolts
14.5 mc to 27.5 mc.....	approx. 5 microvolts
27.5 mc to 55.0 mc.....	approx. 25 microvolts
55.0 mc to 120.0 mc.....	approx. 50 microvolts

### GENERAL DESCRIPTION

#### CASE

Metal with black enamel finish. 15" x 9" x 6¾". Snap away black leather handle.

**PANEL**—Red and white markings. Black and white trim.

#### METERED OUTPUT

To multiplier and attenuator provided by panel mounted Triplet Model 227-A, adjusted to 100 microamperes.

#### HETERODYNE DETECTOR

Permits checking oscillator by beating against either a self-contained crystal or an external signal.

#### CO-AXIAL CABLE

For output lead to minimize losses and disturbance to circuit under test. Equipped with shielded impedance coupler for either Direct, Capacitance or Balanced Doublet connection.

#### STABILITY

Increased by use of air trimmer capacitors and permeability adjusted coils.

#### VOLTAGE REGULATOR TUBE

For increased oscillator stability. Protected against line voltage fluctuations.

#### COPPER SHIELDING

Low loss construction for coils, trimmer assemblies and condensers to minimize radiation.

#### DIAL TUNING

Positive vernier control with no backlash. Total scale length is 98.7 inches.

#### CRYSTAL

Provision incorporated for checking the oscillator frequency. Use Bliley 1000 kc, MS 432 or equivalent and mount in self-contained octal-socket. Crystal is not supplied with signal generator.

**ACCURACY**— ±1% of the dial reading.

**TUBES**—Consist of one each: 6F7, 6F8G, 6J5, 6SA7, 80 and VR-150/30.

**POWER SUPPLY**—110 Volts, 60 cycles, A.C.

**WEIGHT**—22½ pounds net.





Model  
2470

## For the Smallest and Largest Appliance Motors

WATTMETER, AMMETER  
AND VOLTMETER  
ELECTRICAL CIRCUIT  
ANALYZER

# Tests All Household Appliances

### MODEL 2470

An ELECTRICAL CIRCUIT ANALYZER, new advanced design, that measures the wattage consumption, current and line voltage of all household appliances and small motors under actual operating conditions. Double-primary transformers and "Y" box resistors for accurate testing on lines with unbalanced currents or voltages. Just the tester for watt, current, and volt analyses of electric refrigerators, washers, radios, ironers, and other appliances, including ranges operating on 220-Volt single phase three-wire and three phase three-wire systems. Power used by the smallest appliance is readily checked on the extremely low scale range of 0-20 watts (fused to prevent damage from accidental overload). All switches and leads are ample to carry full load continuously.

### RANGES

**Five A.C. Watt Scales**—0-20-40-500-1000-2000-4000 at either 130 or 260 volts.

**Four A.C. Current Scales**—0-.26 amperes at approx. 8 volts; 0-6.5 amperes at approx. .4 volts; 0-13 amperes at approx. .3 volts; 0-26 amperes at approx. .2 volts.

**Two A.C.-D.C. Volt Scales**—0-130-260.

### GENERAL DESCRIPTION

#### TESTS

Watts consumption, amperes and volts of all household appliances

such as electric refrigerators, ranges, ironers, washers, radios, and other fractional horsepower motors.

#### TRANSFORMER

With double primary winding for accurately measuring watts on lines with unbalanced currents.

#### "Y" BOX

Self-contained resistor circuit for accurately measuring watts on lines with unbalanced voltages.

#### INSTRUMENT

Model 626, electro-dynamometer type. RED • DOT Lifetime Guarantee.

**SCALE**—5.6 inches at top arc. Black on white.

#### ACCURACY

±4% of full scale at any part of scale on 60 cycle supply.

#### CASE

Metal (matching "SQUARE LINE" series) with brown hammered enamel finish. 10" x 10" x 5 3/4". Hinged removable cover has compartment for accessories and instructions. Cover can readily be attached to the back of the tester by hook-on fasteners when tests are being made. This keeps the cover out of the way and provides additional stability when the tester is used in an upright position. Brown leather strap handle, nickel plated hardware and rubber feet.

**PANEL**—Tan with brown markings.

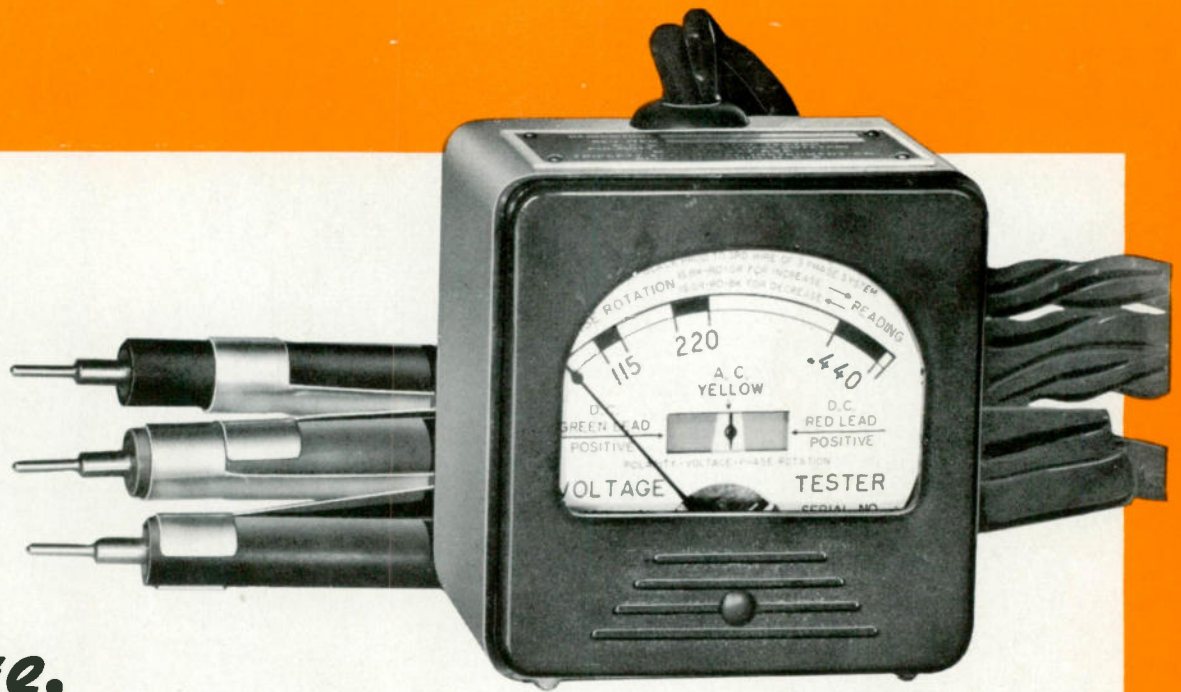
#### LEADS (Two-Wire)

One set 5 feet long with male plug at one end and terminals at other end for connection to tester binding posts.

One set 2 1/2 feet long with dual socket at one end and terminals at other end for connection to tester binding posts.

**WEIGHT**—Approximately 11 pounds.





Model 337-AVP

# Voltage, Polarity, Phase Rotation Testing

## MODEL 337-AVP

Model 337-AVP Voltage-Polarity-Phase Rotation Tester provides the maintenance man with a compact, handy size, portable unit for making all necessary checks of a power line.

This tester is used to check 115, 220, or 440 line voltages when servicing an electrical installation for open circuit, blown fuses or damaged wiring, or when installing new equipment to converted plant installations. It can also be used for the same functions as an electrician test lamp for locating blown fuses, etc.

Wiring in many power plants is extremely complicated and may consist of any number of types of voltages. The maintenance man must know if the line is A.C. or D.C.: if D.C., which wire is positive

in polarity; if A.C., the phase rotation. "Phase rotation" is the sequence in which the three lines of an A.C. System reach their peak voltages and thus determine the direction of motors, operation of controls, etc. A check of the direction of phase rotation is simply and quickly made with the Model 337-AVP Voltage-Polarity-Phase Rotation Indicator. The fastest and surest of all tests.

Ranges are 0-440 A.C.-D.C. Volts, at 166 ohms per volt. Accurate indications fall well within the black blocks at 115, 220, and 440 volts. A small polarized vane green-yellow-red indicator mounted on the center of the dial shows whether the green or red prods are connected respectively to + or -D.C. Phase rotation is indicated on the instrument dial by an up or down scale motion of the line voltage pointer when black prod is connected to the third wire of a three-phase A.C. line. A non-static, unbreakable glass is used in the 3" square indicating instrument.

Three 36" leads for Model 337-AVP are permanently attached and terminate in pointed test prods with insulated handles. Prods are held together by detachable spring clips to permit use with one hand.

## Dual Instrument Appliance Testers

### MODELS 2000, 2001, 2002

#### RANGES—MODELS 2000 AND 2001

A.C.-D.C. Watts: 0-750-1500 at 5 amps. rated, 10 amps. max. A.C.-D.C. Volts: 0-130-260 at 125 ohms per volt (Other ranges to order).

#### RANGES—MODEL 2002

A.C.-D.C. Watts: 0-1500-3000 at 10 amps. rated, 20 amps. max. A.C.-D.C. Volts: 0-130-260 at 125 ohms per volt (Other ranges to order).

### GENERAL DESCRIPTION

#### TESTS

Power consumption of radios, small motors and household appliances under running conditions.

#### CASE

Heavy leather with snap button cover and leather handle. 6½" x 4½" x 3¼". Ample space provided for connecting cords.

#### SWITCHES

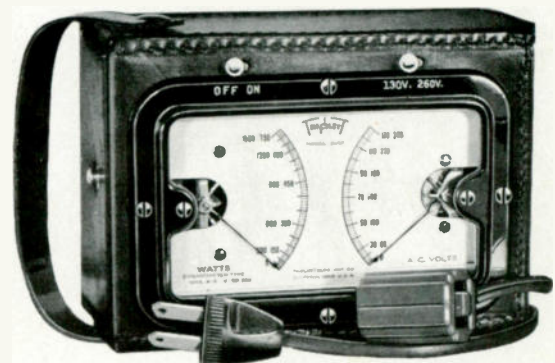
One "130 V-260 V" to control the two scale readings. One "off-on" to protect wattmeter on starting motor load. One "Trans-Direct" to permit use of external 60 cycle 5 amp. secondary current transformer for higher ranges on Model 2001 only.

#### INSTRUMENT

Consists of a Wattmeter on the left and a Voltmeter on the right. Permits watts and line volts to be read simultaneously.

SCALE—2¼" at outer arcs. Black on white.

ACCURACY—±2% of full scale at any part of scale on 60 cycle supply.



Model 2000

#### CORDS

One cord plugs into wall socket and the other has socket to receive connection from appliance under test.

WEIGHT—2 pounds.



# Electronic Volt-Ohm- Milliammeter

VACUUM TUBE—  
VOLT - OHM - DB -  
MILLIAMMETER  
ADVANCED DESIGN  
FEATURES

Model  
2450



## MODEL 2450

Engineering considerations render this attractive instrument most useful for FM and Television work or any sensitive circuit requiring a high impedance measuring device. Long-scale 6" meter with three-color markings for greater readability provides greatest accuracy in all applications. Minimum tube change and full line voltage compensation are outstanding features.

This unit employs a cathode follower circuit preceding the balanced bridge circuit which makes possible the use of high input impedance for A.C. and D.C. Voltage measurements . . . . The resistance measuring circuit is extremely sensitive . . . . All conventional current ranges are provided . . . . The bridge circuit prevents meter overload on all voltage and ohm readings, and on such readings there can be no damage from accidental misuse.

An unusual feature is a capacitor measuring circuit to accommodate paper or mica capacitors with a direct reading microfarad scale . . . . Readings can be made directly from the dial without reference to instruction book or charts to determine the value.

Two voltage regulator tubes provide absolute stability for both the positive and negative voltages, within a line variation range of 90 to 130 volts . . . . This important feature assures accurate, uniform measurements within the limits of source voltage variations, and provides positive voltage regulation for the most exacting measurements.

In order to accomplish these various tests without restriction to method or technique, more tubes and component equipment are used than in ordinary electronic testers of this type. Nothing has been spared in the number or quality of parts to make this equipment outstanding in performance.

In addition to a miniature type tube used in the RF probe a special diode circuit is contained in the unit for use in low frequency A.C. voltage measurements and also for correcting contact potential . . . . Spiral-X temperature and voltage compensated resistors are used in the multiplying sections to give greatest accuracy on voltage and resistance measurements. These resistors are calibrated within  $\pm 1\%$  accuracy.

TRIPLETT ALSO MANUFACTURES A COMPLETE LINE OF ELECTRICAL MEASURING INSTRUMENTS INCLUDING PANEL METERS, PORTABLES, RELAYS

Another feature is a detachable RF probe which can be conveniently removed and stored when not in use.

## RANGES

D.C. Volts: 0-2.5-10-50-250-500-1000. A.C. Volts: 0-2.5-10-50-250-500-1000. D.C. Milliamps: 0-0.1-1.0-10-50-250-1000. Ohms: 0-1000 (midscale 10)—10,000-100,000. Megohms: 0-1-10-100-1000. Capacity in MFD: 0-.005-.05-.5-5-50.

## GENERAL DESCRIPTION

**INSTRUMENT**—Model 626 with RED • DOT Lifetime Guarantee.

### SCALE

5.6" long at top arc. White background. Ohm scale green, D.C. scale black, A.C. and Capacity scales red.

### LOAD IMPEDANCE

51 megohms on D.C. Volts. Low frequencies. Circuit loading equal to 8 megohms shunted by 35 mmfd. High frequency circuit loading equal to 8 megohms shunted by 5 mmfd.

### CONNECTIONS

Four jacks at lower edge of panel for D.C. Volts, D.C. Milliamps, Ohms, Capacity, and Low Frequency A.C. Volts. Detachable vacuum tube Probe for R.F. Voltage measurements.

### POWER SUPPLIES

115 Volts, 50-60 cycle, positive and negative supplies voltage regulated to maintain accuracy independent of supply voltage fluctuation. Two voltage regulator tubes are used to provide absolute stability for both the positive and negative voltages with a line variation of 90 to 130 volts . . . . This important feature makes for accurate, uniform measurements within the limits of source voltage variations. Two 1½ V No. 2 Cells used for ohmmeter.

### CASE (New Square Line Series)

Metal with brown hammered enamel finish 10" x 10" x 5¾" overall. Brown leather strap handle, nickel plated hardware, and rubber feet.

**PANEL**—Metal with baked enamel finish and screened markings.