

# HICKOK TEST INSTRUMENTS HICKOK

## MODEL 123A CARDMATIC TUBE TESTER

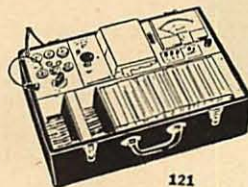
Laboratory accuracy in a revolutionary card type tube tester. The most accurate portable tube tester available. Code cards make all test settings—test any receiving tube with highest accuracy. All indications are automatic and instantaneous by use of two push-buttons. Ideal for production line use. Permits special engineering tests to meet any exact tube specifications for special circuit use. 60 watts, 110-125 v., 60 cps. In black leatherette carrying case, 19½" x 16½" x 9¼" d. Shipping, 57 lbs. Complete with 500 cards. **\$499<sup>50</sup>**



123A

## MODEL 121 AUTOMATIC CARDMATIC TUBE TESTER

Technician's portable "Cardmatic" tube, transistor and semi-conductor diode tester; instantaneous and automatic high sensitivity shorts test. Heater to cathode leakage is quantitatively indicated directly on the meter. Measures: 320 heater voltages; 140 fixed bias potentials; 640 plate voltages; 640 screen voltages; 100 self-bias settings; and 1000 quality-value sensitivity ranges—all set automatically. Accurately checks horizontal and vertical amplifier tubes for pulse operation. 50 watts, 110-125 v., 60 cps. Baked gold finished panel. 19¾" x 13¼" x 8" d. Shipping, 40 lbs. **\$299<sup>50</sup>**



121

## MODEL 6000 PORTABLE TUBE AND TRANSISTOR TESTER

New, high-speed dynamic mutual conductance tube, transistor and semi-conductor diode tester cuts testing time in half; tests all receiver tubes normally found in present day electronics equipment, including the new 11-pin types. Hickok-built 5" multi-scale meter. Instantaneous line adjust and automatic short indication. One push-button immediately permits rating in micromhos. Third push-button instantly provides accurate gas evaluation. 40 watts, 105-125 v., 50-60 cps. 16½" x 11¼" x 7½" d. Shipping, 21 lbs. **\$189<sup>25</sup>**

**Model 6000 Portable Tube and Transistor Tester—Net Each..... \$189<sup>25</sup>**

**Model 6000C Counter Tube and Transistor Tester—Net Each..... \$195.00**

**Model 6000 or Model 6000C with CRT Adapter—For testing all picture tubes including new 110° types; and with SA-1 adapter for testing 7-pin inline and 8-pin round subminiatures. \$18<sup>05</sup>**  
Add Additional Net.....

## MODEL 6005 ALL-PURPOSE TUBE AND SET TESTER (NOT ILLUS.)

Contains all features of Model 6000. Accurate, built-in, 20,000 ohms/v. DC, 1000 ohms/v. AC multi-meter panel covers AC-DC volts, (0-1000, in four ranges); Ohms, 0.1-100 megohms—(center scale 25, 2500, 500,000 ohms); Inductance, (to 70 henries); capacitance, (50 µf, 5 µf—to as low as .001 µf); Current (10, 100, 500 ma DC); Decibels (-10 to +50 db). Excellent for leakage tests of electrolytics and for hum checking in any receiver stage. Bias fuse protects bias potentiometer. **Model 6005 All-Purpose Tube/Multitester—With leads..... \$231<sup>00</sup>**

**Model 6005 All-Purpose Tube/Multitester—With CRT adapter, 7-pin inline, and 8-pin round subminiature socket adapters. Net Each..... \$249.05**

**Acorn Adapter for Models 6000 or 800—Net Each..... 14.80**



6000

## MODEL 539B LABORATORY PORTABLE TUBE TESTER

6 Micromho Ranges: 60,000, 30,000, 15,000, 6,000, 3,000 and 600; Rectifier-Diode Range and Voltage Regulator Range in addition, .25, .5, 1.0 or 2.5 v., may be applied to grid. Separate DC voltmeter for grid bias; separate AC meter for line voltage. Separate rectified DC voltages applied to each tube element. Test leakage (to 50 megohms); neon test lamp for shorts; self-bias through switch; tubes can be matched; tests future life; also noise and gas. Test tubes at normal or at low plate and screen voltages. 40 watts, 110-125 v., 50-60 cps. Black leatherette covered case; 16¾" x 18¾" x 7½" d. Shipping, 35 lbs. **Model 539B Tester—Complete with SW-1 replaceable socket set. Net Each..... \$415<sup>00</sup>**

**Model 539B Tester—With CRT adapter. Net Each..... \$427.10**



539B

## MODEL 752 ENGINEER'S TUBE TESTER

Field engineers' most popular dynamic mutual conductance tube tester. Illuminated 4½" meter with 0-1,500, 3,000, 6,000, 15,000, 30,000 micromhos; four AC signal voltages; two plate voltages; two screen voltages. Tests shorts, noise, gas, tube life. Checks voltage regulator tubes under actual use conditions. Features test whereby dual tube elements are tested individually with only one test set-up. Meter and roll chart are illuminated. Includes tube pin straighteners mounted on panel. 40 watts, 110-125 v., 60 cps. Black leatherette covered portable case, 18½" x 16¼" x 7½" d. Shipping, 27 lbs. **Model 752 Engineer's Tube Tester—Net Each..... \$298<sup>00</sup>**

**Model 752 Engineer's Tube Tester—Net Each..... \$298<sup>00</sup>**



752

## MODEL 820 TUBE CADDY PAL

Combination tube-transistor tester and VTVM-Ohmmeter. Designed to fit into standard tube caddy. Tester checks gas, grid emission, contact potential and leakage. Also checks TV picture tubes (with CRT adapter) and transistors, including power types. **VTVM Ranges:** 0-1.5, 15, 150, 750 volts DC; Ohms, 100 ohm center scale, x1, x100, x10K. No batteries; has built-in power supply; operates on 15 watts, 115 v., 50-60 cps. 8½" x 3½" x 6" d. Shipping, 6 lbs. **Model 820 Tube Caddy Pal—Complete with three test leads. Net Each..... \$99<sup>55</sup>**

**Model 820 with CRT Adapter—For testing all picture tubes, including 110° types. Net. \$111.65**



820

## MODEL 850 TRANSISTOR ANALYZER

Low-cost, accurate, easy-to-use transistor analyzer that can never become obsolete. Panel selector switches check circuit use condition. Checks parameters in any of three configurations: Common Base, Common Emitter, Common Collector. Checks power transistors with collector current up to 1 amp. Checks collector leakage, C Base or C Emitter; Beta (current) gain; input and output resistance; power gain; linearity. Portable steel case with aluminum panel; 16½" x 13½" x 8" d. Shipping, 26 lbs. Battery operated. **Model 850 Portable Transistor Analyzer—Net Each..... \$138<sup>00</sup>**

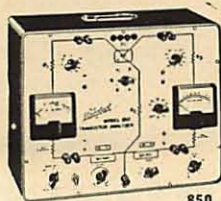
**Model 850P Console—Portable version in red leatherette case. Net Each..... \$147.00**

## MODEL 800 TUBE AND TRANSISTOR TESTER

Smaller, handier portable model for radio and TV technicians as well as labs and industry. Micromho Range: 0-3000, 6000, 15,000. AC signal, 2.5 v. 5" meter. Tubes are tested under simulated operating conditions; covers all latest types including miniatures and subminiatures. Includes Gas, Shorts and Transistor tests. Easy-to-read roll chart is replaceable. 40 watts, 110-125 v., 50-60 cps. Dark red, leatherette covered portable case; has gold finished panel. 16¾" x 11¼" x 7½" d. Shipping, 21 lbs.

**Model 800 Portable Tube-Transistor Tester— \$159<sup>50</sup>**  
Net Each.....

**Model 800 Tester—Including CRT adapter and replaceable socket set (7, 8, 9-pin non-oscillating) and 7-pin inline, 8-pin round subminiature socket adapters. Net Each... \$184.05**



850



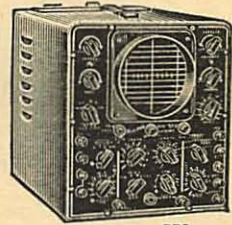
800

HICKOK... CHOICE OF THE EXPERTS

# HICKOK TEST INSTRUMENTS HICKOK

## MODEL 770 5" LABORATORY OSCILLOSCOPE

For general purpose, industrial laboratory and TV applications. **Wide Band Amplifier:** Response DC to 5 mc. -3 db. **Vertical DC and AC Amplifiers:** 10 mv rms/inch (wide); 35 mv rms/inch (narrow); 0-2.5 mc. -3 db (narrow); 0-5 mc. -3 db (wide). **Horizontal Amplifier:** 75 mv rms/inch deflection at full gain. **Built-in Calibrating Voltages:** p-p, 100, 10, .01 volts. **Test Signals:** Line Frequency, 3 v. rms; Sawtooth available; direct connection to horizontal and vertical deflection plates. **Line Frequency Phasing Control:** 0, =90° phase shift. Shock mounted; shielded; stabilized. Illuminated, calibrated screen with green filter. Equipped with new flat-face tube for improved reading linearity or photographing trace. 150 watts, 105-125 v., 50-70 cps. Portable steel case, 14" x 12" x 18". Net, 50 lbs.; Shipping, 61 lbs. Complete with combination light shield and camera base, test leads. **Model 770 5" Scope—Net Each..... \$435.00**



770

## MODEL 675A 5" OSCILLOSCOPE

New 5" scope with all late design features for unusual accuracy in servicing present day electronic equipment, including color TV receivers. Illuminated, calibrated screen, with astigmatic focus and green filter. **Vertical Amplifier:** Response: 1 cps to 4.5 mc. =3 db; flat through color burst frequency (3.58). Sensitivity: 20 mv rms/inch. **Horizontal Amplifier:** Response: 1 cps to 450 kc. =3 db. Sensitivity: 250 mv rms/inch. **Time Base Generator:** Four calibrated decades, with 10:1 vernier control—10-100 cps, 100-1000 cps, 1 kc-10 kc, 10 kc-100 kc. Both B+ and Line fused. **Power:** Consumed—125 watts at 115 v. AC. Source—105-125 v., 50-100 cps. Portable case, 13" h. x 10" w. x 16" d. Net, 35 lbs.; Shipping, 43 lbs. **Model 675A 5" Scope—Complete with light loading probe, Net Each..... \$299.00**



675A

## OSCILLOSCOPE PROBES

**Model 34 Crystal Probe—**For signal tracing with Model 770. Shipping, 2 lbs. **Net Each..... \$5.75**  
**Model TVP-1 Television Probe—**For true reproduction. Shipping, 2 lbs. Net Each..... **\$12.85**

## MODEL 209A CAPACITANCE TESTER AND TRUE VACUUM TUBE VOLT-OHM-MILLIAMMETER

9" meter with non-glare black scale; conversion chart; P-P Voltmeter (also measures AC rms); 0-Center DC scale; high input Z to prevent loading; built-in power supply. **AC-DC Volts:** 0-3, 12, 30, 120, 300, 1200. **DC Current:** 0-3, 12, 30, 120, 300, 1200 ma. **Capacitance:** 0-10,000 μf (2 ranges); 0-1000 pf (5 ranges). **Inductance:** 50 mh to 100 henries. **Ohms:** 0.1 ohm to 10,000 megohms. **Frequency:** Up to 200 mc AC. **Input Z:** DC—15 megs; AC—12 megs. **Tubes:** 1-6X5GT, 1-6SJ7, 1-6SN7GT. 20 watts, 105-125 v., 50-70 cps. Gray-finished steel portable case; attractive black panel with white nomenclature. 13 1/4" x 16 1/4" x 7" d. Net, 18 lbs.; Shipping, 26 lbs. **Model 209A Tester—**Complete with leads and high frequency light loading probe. Net. **\$149.00**  
**Model PR-30KVA High Voltage Probe—**For DC only. Net Each..... **\$16.40**



209A

## MODEL 455A VOLT-OHM-MILLIAMMETER

Exclusive overload cut-out and fuse system provides complete protection for meter, resistors, shunts, and other components. Any high voltage or current can be applied directly across any function, without danger or damage. **Sensitivity:** 20,000 ohms/v. **DC-AC Volts:** 0-3, 15, 60, 150, 600, 1200 DC-AC. **Ohms:** 0-100 megs. (5, 500, 5000, 50,000 ohms—center scale.) **Current:** 50 microamps; 1, 10, 100, 1000 ma; 10 amps. Single Function-and-Range switch. Full-wave bridge-type rectifier circuit. Streamlined case with curved face and slanted dial; batteries housed in special compartment—just snap in. Portable case, 8 1/2" x 5 3/4" x 3" (inclined to 1 1/4" h.). Net, 3 1/4 lbs.; Shipping, 6 lbs. **Model 455A Volt-Ohm-Milliammeter—**Complete with leads. **Net Each..... \$69.50**

## MODEL 457 VOLT-OHM-MILLIAMMETER

Similar to Model 455A Volt-Ohm-Milliammeter except 1000 ohm/v. AC and special automatic cut-out overload protective circuit is not included. **Model 457 Volt-Ohm-Milliammeter—**Net Each..... **\$43.95**  
**Leather Carrying Case—**For 455A and 457—Net Each..... **\$9.00**

## MODEL 225K VTVM QUALI-KIT

Practical kit with a big 9" meter that permits reading easily at normal working distance. Designed for the serviceman. Accurate peak-to-peak scales. Built-in audio tone for quick continuity testing. DC Voltmeter measures plus and minus 0-1.5, 3, 12, 30, 120, 300, 1200. **Input Resistance:** 10 meg-ohms. **Ohmmeter:** Center Scale—10 ohms; Readability—0.2 ohm to 1000 megohms. **AC Voltmeter Ranges:** 7 Ranges AC rms—0-1.5, 3, 12, 30, 120, 300, 1200; 7 Ranges Peak-to-Peak—0-4, 8, 32, 80, 320, 800, 3200. **Frequency Characteristics:** Flat, 40 cps to 3.5 mc. 20 watts, 105-125 v., 50-800 cps. Blue hammertex steel case, 13 1/4" x 16 1/4" x 7". Net, 16 lbs.; shipping, 23 lbs. Complete with new Dual-Probe and leads, plus 60 page instruction book for easy assembly. **Model 225K VTVM Quali-Kit—**Net Each..... **\$59.50**

## VTVM-VOM PROBES

**Model PR-30KVA Probe—**High voltage probe for use with Model 209A. DC only. Ship- **\$16.40** plus, 2 lbs. Net Each.....  
**Model PR-46 Probe—**High voltage probe for use with Models 455A and 457 to measure up to 6 kv. Shipping, 2 lbs. Net Each..... **\$16.60**  
**Model PR-50KV Probe—**High voltage probe for use with Model 470 to check voltages up to 50 kv. Shipping, 2 lbs. Net Each..... **\$16.40**  
**Model PR-430 Probe—**High voltage probe for use with Models 455A and 457 to measure 30 kv. Shipping, 2 lbs. Net Each..... **\$16.60**



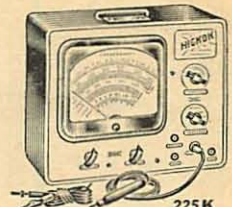
455A

## MODEL 470 PORTABLE ELECTRONIC VOLT-OHMETER

New, handy size professional's portable electronic volt-ohmmeter features a large Hickok-built 7" meter. Also featured is a new high-sensitivity, low voltage range for transistor bias testing. **DC Volts:** 0-1.5, 5, 15, 50, 150, 500, 1500; input resistance 13.3 megs with probe. **Ohms:** (No batteries needed) x 1, x 10, x 100, x 1K, x 10K, x 100K, x 1 meg; readable 0.2 ohm to 1000 megs; design center 10 ohms. **AC Volts:** Based on p-p detection and calibrated in rms—0-1.5, 5, 15, 50, 150, 500, 1500. **Frequency Response:** 30 cps to 2.5 mc. 10 watts, 105-125 v., 50-400 cps. Rugged, shock-resistant, molded phenolic case has long proven to be the only practical housing for this type of instrument. 8 1/2" x 5 3/4" x 3" - 1 1/4" h. Net, 7 lbs.; shipping, 10 lbs. Complete with AC-DC probe, ohms lead, ground lead, instructions and guarantee. **Model 470 Electronic Volt-Ohmmeter—**Net Each..... **\$89.75**



470



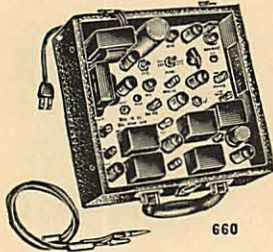
225K

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660

**MODEL 660 WHITE DOT-BAR COLOR TV GENERATOR**

Provides 3 patterns on screen of any color TV set: White Line Crosshatch (20 vertical, 15 horizontal, less those in blanking); White Dot (Small size—300 dots, less those in blanking); Color Display (Sequence of orange, red, magenta, blue, cyan, green). All frequencies crystal controlled and locked together with extreme stability. RF output preset, channel 2 through 6. Small dot and crosshatch down to 2 lines, horizontal and vertical. Sync to video output variable 10-100%. Stable timer circuit. **Video Output:** 0-4 v. p-p; 300 ohm Z.; black positive or negative. Sidelock color frequency crystal 3.563795 mc; output 1 v. p-p. **RF Output:** .001 v. to .05 v. RF modulated by all video outputs (60% modulation). 40 watts, 105-125 v., 50-60 cps. 10 1/2" x 10 1/2" x 5 1/4". Net, 15 lbs.; shipping, 21 lbs. **Model 660**—Complete with 2 crystals and cables, instructions, guarantee. Net Each... **\$243.00**

**MODEL 656XC STANDARD TV COLOR GENERATOR**

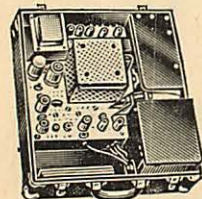
Produces standard 100% fully saturated NTSC color bar pattern on color TV sets; provides signals for complete color alignment—will never be obsolete. Color generated within 30 seconds of warmup. Generates 3 primaries, 3 complements, plus black and white (white produced by adding 3 primaries), pattern is green, yellow, red, magenta, white, cyan, blue and black. Crystal controlled. Sub carrier and brightness amplitudes set with precision resistive networks. Also produces White Dot Crosshatch, Vertical Lines, Horizontal Lines, and White Dots (small). Sound carrier and signals for R-Y, B-Y, G-Y, -G-Y, and G-Y at 90° RF output modulated through color bar pattern, channels 2-6. Video output, 0-2 v. p-p open circuit; 0-1 v. p-p across 100 ohms. 125 watts, 105-125 v., 50-60 cps. Black leatherette covered case, 16 1/4" x 18 1/2" x 7 1/2" d. Net, 43 lbs.; shipping 48 lbs. **Model 656XC Generator**—Complete with leads. Net Each... **\$495.00**



656XC

**MODEL 760 VIDEO SCANNER**

Stable, versatile TV trouble-shooter has many uses; features innumerable signals and displays normally not available to the TV technician. Instantly scans and produces a video or RF signal for any side that is inserted into the unit; works with black and white, and color receivers. Generates and scans at the 525 line, 60 field and 30 frame system. Patterns furnished are Bar, Dot, Standard Test Pattern and transparent blanks for grease pencil use; optional patterns are Gamma, Square Wave and Burst Wave forms. Fully crystal controlled; sync to EIA specifications. 145 watts, 105-125 v., 50-60 cps. Portable, 18 3/8" x 14" x 8 3/4" d. Net, 43 lbs.; shipping, 51 lbs. **Model 760 Video Scanner**—Net Each... **\$372.00**



690

**MODEL 690 VHF-UHF MARKER GENERATOR**

Crystal controlled. RF output .25 v. Provides dual markers with any sweep generator. 45° of Non-Parallax shadow-type dial can be self-calibrated to ±.05% accuracy with self-contained crystal calibrator. RF, channels 2 through 8; also 3.57 mc crystal (color burst frequency). No counting of beats, interpolation or remembering of frequencies. Calibrates other signal generators accurately. Marker can be modulated by self-contained 400 cps. Provision for two other crystals, in addition to 2.5 mc crystal supplied. Electronic-eye and phone jack for visual or audible zero-beat. Attenuation controlled by step attenuator and vernier. All VHF frequencies on fundamentals. 20 watts, 105-125 v., 50-70 cps. Steel case, 16 1/4" x 13 1/4" x 8" d. Net, 26 lbs.; shipping, 34 lbs. **Model 690 Generator**—Complete with crystal and leads. Net Each... **\$362.00**

**MODEL 691 HETERODYNE MARKER ADDER**

Together with 695 and 690, provides ultimate in TV alignment. Marker visible at all times, including trap points; will not change amplitude or distort response curve. Sweep and marker generators heterodyned so marker signal never passes through receiver—no overloading. **Input:** 50,000 mv (RF); 90 ohms Z. **Output:** 3 v. max. **Attenuation:** Marker, variable 0-60 db; Response, variable 0-20 db. 25 watts, 105-125 v., 50-60 cps. Portable steel case, 11 1/4" x 8 1/4" x 7" d. Net, 10 lbs.; shipping, 15 lbs. **Model 691 Marker Adder**—Complete with leads. Net Each... **\$109.00**

**MODEL 288X CRYSTAL-CONTROLLED SIGNAL GENERATOR**

High output AM-FM generator. RF variable 110 kc to 110 mc AM and 100 kc to 160 mc FM in 7 bands; all fundamental. Fixed 50 mc output internally FM at 60 or 400 cps. Fixed, crystal controlled 100 and 1000 kc outputs. Variable AF output 0-15,000 cps; fixed AF 400 cps. **DB:** -10 to +38, over 100° of scale. 13 1/4" x 16 1/4" x 7" d. Net, 25 lbs.; shipping, 33 lbs. **Model 288X Generator**—Complete with cables and 100-1000 kc crystal. Net Each... **\$298.00**

**MODEL 290X AM GENERATOR (NOT ILLUSTRATED)**

Accurate, stable source of RF power for alignment of AM receivers. All frequencies obtained by dialing front panel selector. Preset, calibrated frequencies: 262 kc, 455 kc, 465 kc, 600 kc, 1400 kc. Internal crystal oscillator 500 kc to 20 mc. Modulated and unmodulated RF outputs; variable 2-200 mv, 400 cps audio output. 6" x 9 1/2" x 3 3/4" d. Net, 6 lbs.; shipping, 8 lbs. **Model 290X Generator**—Complete with leads, less crystal. Net Each... **\$44.25**



690

**MODEL 810 TRANSISTOR-RADIO TESTER**

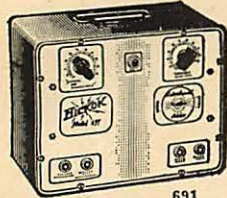
Has all the necessary features for complete transistor radio troubleshooting. Includes tuned receiver (for IF and RF), audio amplifier (400 cps output for signal injection), AM signal generator (for IF and RF), cathode follower input probe, transistor tester, loudspeaker for signal tracing. 25 watts, 105-125 v., 50-70 cps. Portable steel case with aluminum panel, 11 1/4" x 9" x 7" d. Net, 11 lbs.; shipping, 16 lbs. **Model 810 Transistor Radio Tester**—Net Each... **\$119.00**

**MODEL 695 VHF SWEEP ALIGNMENT GENERATOR**

Sweep signal absolutely linear, without amplitude modulation. Fundamental output on all VHF channels (3 volt). Blanking of oscillator provides reference base line. Continuously variable tuning, 0-50 mc. 16 heterodyned output (.15 volt), 100 db attenuation, 3 volt to 3 mv. Triple-shielded—no leakage. Metered, variable DC bias voltage, 0-12 v. 170° phasing. Sweep width, 0-15 mc. ±3 mc. 90 ohms output Z. 30 watts, 105-125 v., 50-800 cps. Portable steel case, 16 1/4" x 13 1/4" x 8" d. Net, 30 lbs.; shipping, 39 lbs. **Model 695 Generator**—Complete with leads. Net Each... **\$391.00**

**MODEL 615 SWEEP AND MARKER ALIGNMENT GENERATOR**

Complete, single-unit TV sweep and marker generator for visual alignment of any TV receivers, (Tuner, IF, Video). Strong 0.25 volts rms marker amplitude (less than .1 db/mc modulation); excellent attenuation; frequency—2.5-5.5 mc, 19-50 mc, 54-108 mc, 108-216 mc. Built-in retrace blanking (controlled). Variable sweep width (0-15 mc). Built-in 4.5 mc crystal. Marker and crystal oscillators can be amplitude modulated 30% by self-contained 900 cps internal modulator. 170° variable phasing. 13 1/4" x 16 1/4" x 8" d. Net, 31 lbs.; shipping, 39 lbs. **Model 615 Generator**—Complete with leads and crystal. Net Each... **\$339.50**



695

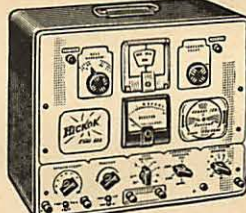
**TYPE 75 TERMINATION PAD**—For use with TV-FM alignment generators to eliminate most standing waves. For 90 and 300 ohms inputs. Shipping, 2 lbs. Net Each... **\$11.50**



288X



810



695



615

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