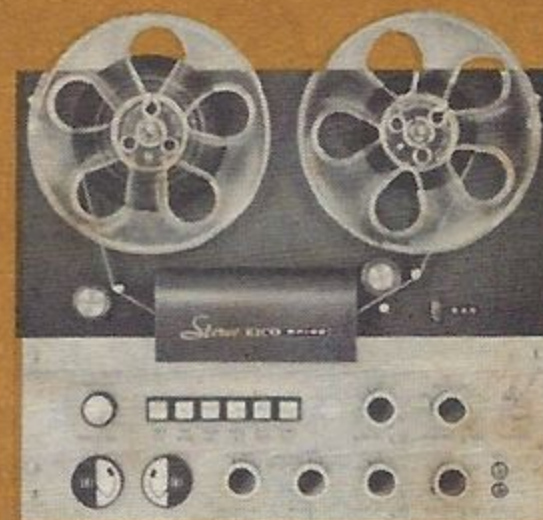


Introducing

THE NEW
Medalist
SERIES

A bold new blending of:
Professional Engineering
Excellence • Beauty in
Esthetic Design
• Economy

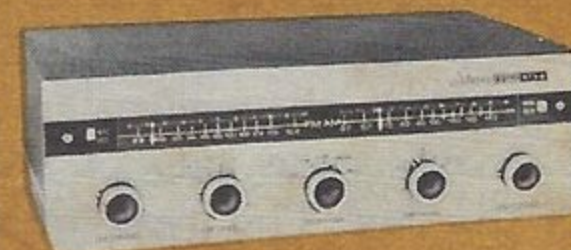


EICO®

KITS & WIRED



1961



**STEREO
AND MONO HIGH FIDELITY
TEST INSTRUMENTS
HAM EQUIPMENT
CITIZENS TRANSCEIVERS
WALKIE-TALKIES
RADIOS**

The Pleasures of Kit-building

with **EICO**®

For most people kitbuilding is irresistibly fascinating and infinitely rewarding.

The pleasures are manifold:

There is, first of all, the pleasure of the work itself. Sitting, soldering iron in hand, putting together, piece by piece, a fine, complex component is a creative experience akin to the creation of a work of art — painting, sculpture or woodcarving. For many, immersing themselves in the building of an electronic kit is one sure way of shaking off the tensions and worries of the day. The average kitbuilder becomes so absorbed in the work that he loses track of time. Many hate to stop, even for meals, or to go to bed!

Beyond this there is the pleasure of anticipation: the pleasure of watching a complex piece of electronic equipment develop under your hand; of knowing that each bit of wire, each resistor and capacitor that you solder into place is being put there to serve its own special function in the completed component; of realizing that every move you make is a move toward the perfecting of something of lasting value.

And the pleasures of kitbuilding do not end when the last component is in place. The instrument that you build yourself is more truly *yours* than a component you buy ready-made; the instrument you create gives, and continues to give extra dividends through the years by virtue of your having put something of yourself into it. Every time you use it, you re-experience some of the creative pleasure and resultant pride that accompanied its construction.



Exclusive Quadruple Quality Control: Another Extra Precaution That Only EICO Takes



INCOMING INSPECTION: all incoming parts for both kit and factory-wired production are examined by the quality control department. When satisfactory, this material is released simultaneously to both kit and wiring production lines. EICO custom designed many of its inspection test instruments to be able to check parts for stringent standards of performance.



SUB-ASSEMBLY INSPECTION: line foremen for kit production periodically inspect parts envelopes for accuracy of count. Wiring production foremen visually inspect all chassis at all stages of wiring.



FINAL PACKAGE INSPECTION: each EICO kit is packaged in an individual manner predetermined by the engineering department for the maximum protection of the contents. Line foremen inspect all phases of packaging. A shadow scale at the end of the conveyor belts checks weight accuracy to within 2 ounces.

Instructions that Instruct

The instruction book is the heart of any kit. Clear, easy-to-follow instructions are essential to kitbuilding enjoyment.

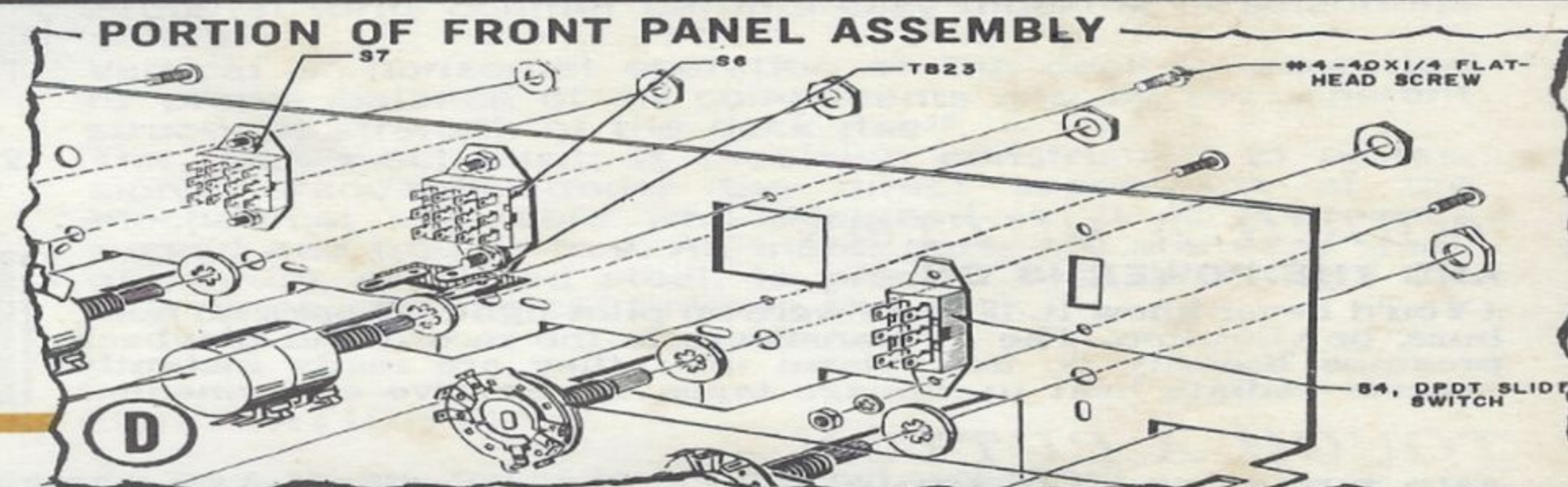
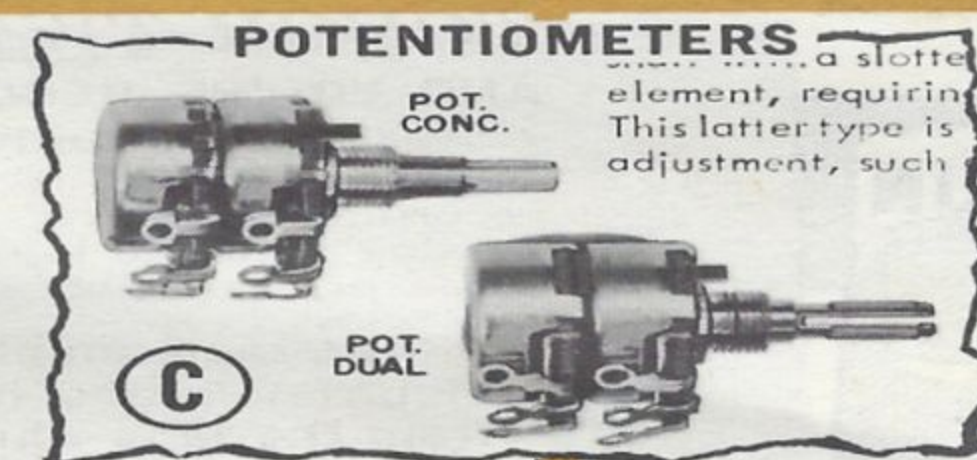
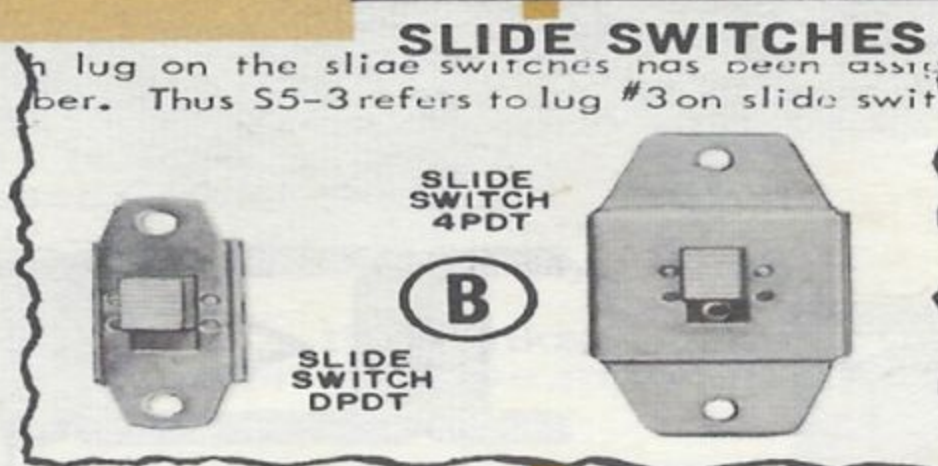
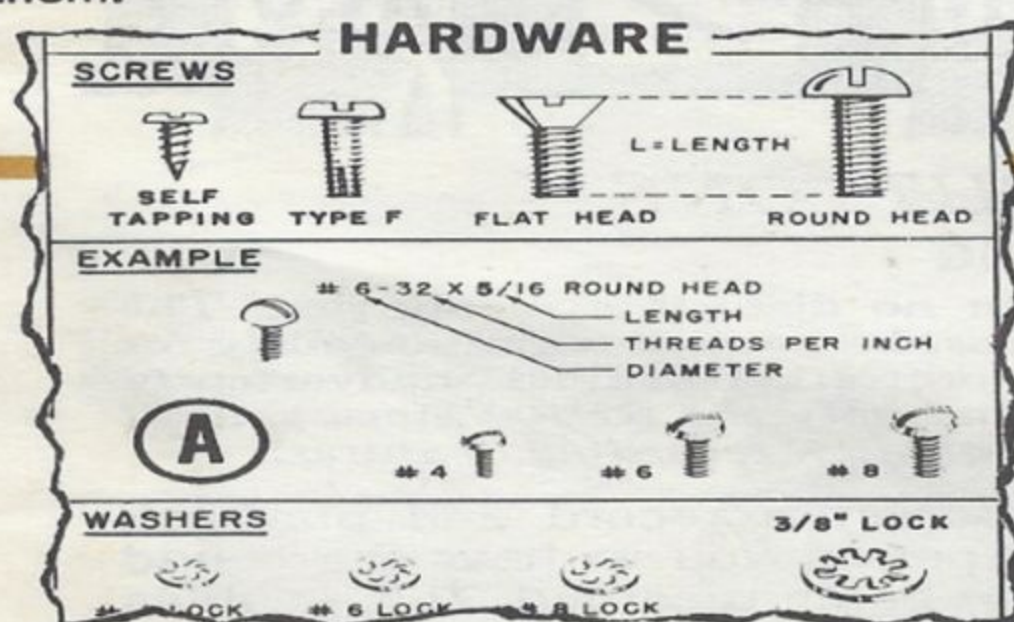
For this reason, EICO takes special pains to create instruction books that will definitely add to your creative pleasure.

EICO's instructions begin at the very beginning. Have you never held a soldering iron in your hand? EICO tells you how to hold one, how to use it, and how to recognize a properly soldered joint. Would you not recognize a #6-32 x 5/16 round head screw if you fell over it? EICO gives you a full size illustration of this and every other piece of hardware in the kit—and tells you exactly what all the numbers and all the names mean.

Every step in the construction—down to the point where your component is working perfectly—is carefully described and clearly illustrated. Furthermore, every word of the text refers to an adjacent illustration. This means you can always watch the text and the pictures at the same time.

Nothing is left to chance. Every EICO instruction book is fully tested both by electronics experts and by beginners, and no instruction book is published until beginners can put the kit together without a hitch.

All components used in kit construction which might be unfamiliar to you if you are a novice in electronics, are fully described and illustrated in the introduction (A, B, C). When the time comes for you to put them in place (D), you are thoroughly familiar with them, and have no trouble recognizing them.

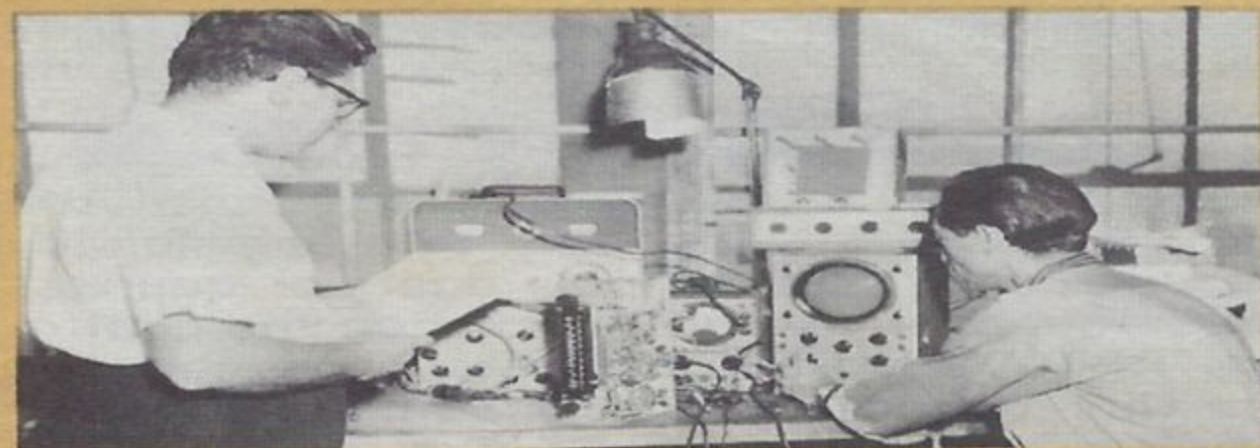


HOW TO SOLDER



Complete instructions—and all necessary illustrations—everything you need to do expert soldering right from the start, are included in EICO instruction books.

to Assure You of the Finest:



FINAL TEST INSPECTION: all EICO factory assembled equipment is completely and meticulously hand wired throughout. Each factory assembled unit is 100% "live" final tested throughout for each feature and function—no "spot" or "partial" checking—nothing is left to chance. Since the identical parts are used for simultaneous kit manufacture, this final live inspection is an additional vital quality control on every kit part as well. This step is exclusive with EICO and is another reason why EICO has the reputation for the fewest field rejections in the industry.

Whether you are able to realize the pleasures and reap the rewards of kit-building depends largely upon the kit you build. The pleasure will be lost if the instructions are incomplete or difficult to follow; if you feel you are working with second-rate material; or if you do not feel that you are creating a fine, precision instrument. The rewards are few if you are not able to enjoy to the fullest the results of your labor.

It is because EICO is concerned with *your* self-expression through creative electronics that EICO makes the extra effort to bring you kits that are completely satisfactory in every respect. This effort covers all aspects of mechanical and electronic engineering, industrial design, and quality control; and it has behind it EICO's 15 years of experience in satisfying the creative needs of kitbuilders everywhere. That is why, with EICO you can be assured of:

- **Superb, no-compromise engineering**... EICO engineers go all out to design instruments that will look and perform like the finest professional equipment. All EICO instruments are characterized by sound engineering practice, wide margins of stability and safety, and the absence of gadgetry merely for the sake of gadgetry.
- **Rugged construction**... heavy gauge topgrade steel cabinets; top quality enamels; prepunched cadmium-plated steel chassis; best hardware—all add up to lifetime durability.
- **Latest and finest parts**... EICO continuously searches the U. S. and world markets for the best... EICO was the first kit manufacturer to use the West German low-noise resistors... first to use the British Mullard Audio tubes... EICO initiated the development of the new tube type 12DW7.
- **Dramatic high styling**... EICO's new Medalist Series of stereo hi-fi components establishes a new standard of visual beauty (in a chromatic brown-and-pale-gold motif)... in the other hi-fi components, the subdued baked enamel brown of the cabinets contrasts dramatically with the rich high-luster of the brushed brass front panels.

- **Intelligent layout**... trouble-free point-to-point wiring; thoughtful, careful separation of component parts to avoid objectionable interaction.
- **In-stock availability**... only EICO maintains a nation-wide network of over 1500 neighborhood dealers who will gladly demonstrate any EICO product for you and give you any additional information you may want. Furthermore—you pay your EICO dealer *only* the advertised price.
- **You save up to 50%, too**... EICO advanced no-compromise engineering and high-volume purchasing result in lowest costs for the highest quality parts. When you build a kit you add to the savings achieved by avoiding the cost of factory labor and time.

Mr. Electronic Engineer:

EICO's constant growth and diversification present you with excellent career opportunities for creative design in all fields of electronics.

EICO offers you the ultimate freedom of self expression: the opportunity to use your creative ability to see a product through from initial design to final production.

If you are interested, please write to the Chief Engineer.

Uncompromising Engineering Excellence...

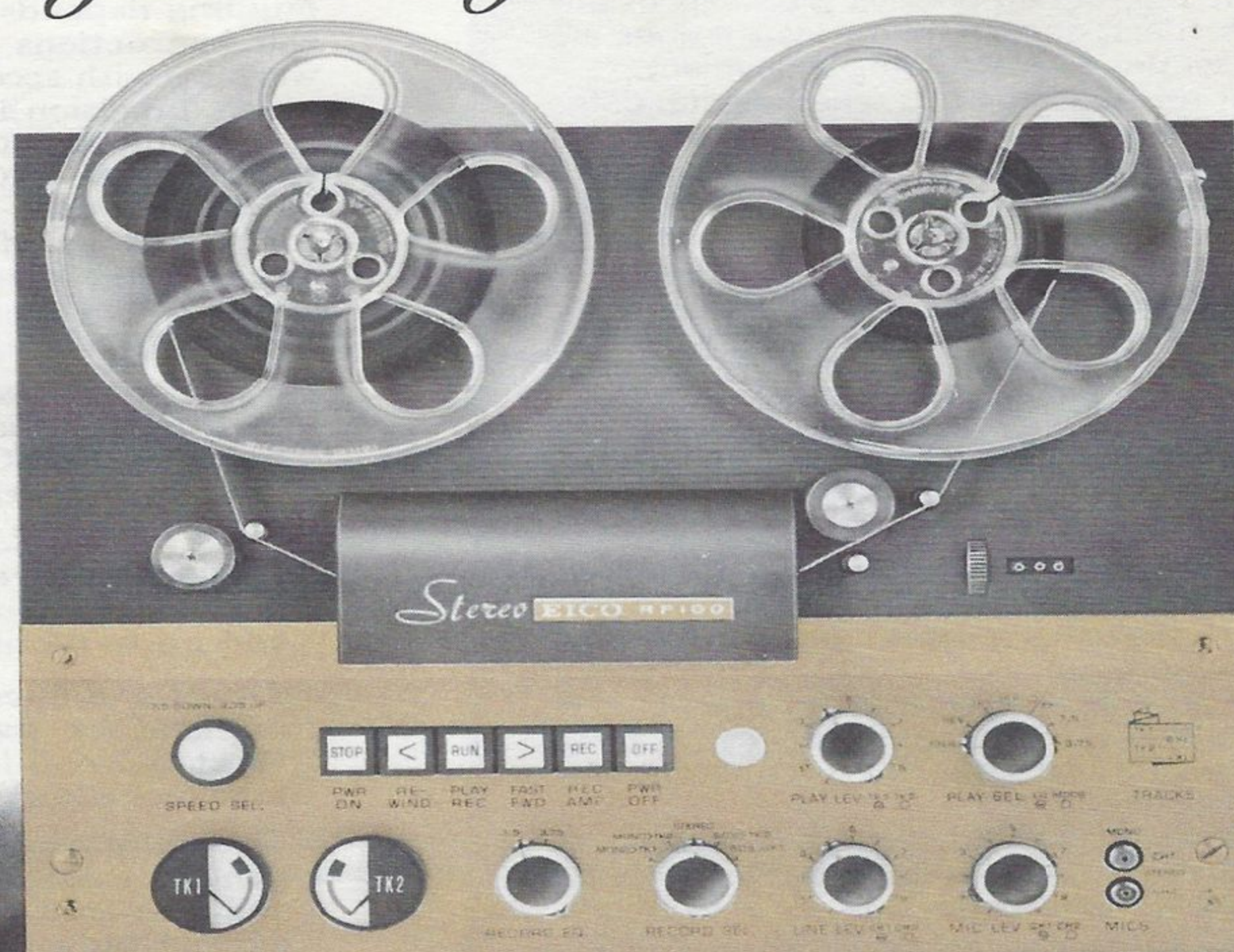


Transistorized Stereo/Mono 4-Track Tape Deck

Semikit Model RP100K
Tape transport assembled and
tested; electronics in kit form
\$289.95

Wired Model RP100W
Handwired throughout by
skilled American craftsmen
\$395.00

An original, exclusive EICO product designed and
manufactured in the U.S.A. (Patents Pending)



TOUCH A BUTTON — AND THE POWER IS ON

(You'd never know it, if there were no pilot light: There's no hum, buzz, or vibration. The 14 transistors in the record and playback preamps literally do *not* "warm up": they are ready instantly—never radiate heat to damage tapes or sensitive components.)

TOUCH A BUTTON — AND THE TAPE IS PLAYING

(—giving you flawless, flutter-free, stereo or mono performance at 7½ or 3¾ ips, through an entirely independent 6-transistor stereo/mono preamplifier... Watch the tape closely, as it passes across the heads, and you will see a phenomenon that goes a long way toward explaining why the sound you hear is so perfect: *The tape seems to be standing still!* There is no tape weave, no flutter, no variation in speed or tension to betray its motion. Tape weave is eliminated by tape guides precision-ground to .001" accuracy; tape flutter, and variations in tape speed and tension are eliminated by the ultrasmooth operation of the hysteresis synchronous capstan motor, by the precision construction of the capstan, by reverse torque applied to the supply-reel motor, and by mechanical filtering applied directly to the tape.)

TOUCH A BUTTON — AND THE TAPE IS STANDING STILL

(—brought to a halt by fast, *frictionless* electro-dynamic braking: DC applied to reel motors. You *have* to push the STOP button before you can send your RP100 from one operating mode to another—absolute insurance against sudden changes in direction which *might* snap weak tape. And, because the STOP button is also the POWER ON button, you always know that when you turn the power on, you cannot inadvertently go into any operating mode. In other words, your RP100 always "starts" standing still.)

TOUCH A BUTTON — AND THE TAPE IS REWINDING OR SPEEDING AHEAD IN FAST FORWARD... with the tape lifted away from the heads

(And, as the tape starts racing backwards or forwards, two highly polished "tape lifters" slide forward and move the tape away from the heads. This is important: the iron oxide coating on all tapes is an abrasive. The erase, record, and playback heads are precision-made components with gaps lapped to optical standards. Tape sliding swiftly past can quickly wear away these gaps, widen them, make their edges rough... Tape lifters make *sure* that the tape never touches the heads when it is moving faster than at normal play or record speed.)



TOUCH TWO BUTTONS — AND YOU'RE RECORDING

(—instantly, silently, with no distortion or slurring. The RUN and REC buttons *must* be pressed simultaneously for recording to start: your protection against inadvertently erasing valuable tapes.) And *only the RP100* gives you all these professional, studio-quality recording features:

- **Off-the-tape monitor:** Separate record and playback electronics and heads permit you to hear the sound from the tape while it is being recorded. This enables you to be sure that you are feeding the proper signal(s) into the tape at all times, and to adjust for proper signal recording levels.
- **Separate line and microphone mixing level controls in each channel.** Microphone input designed for commonly available dynamic microphones with low impedance output (30 to 500 ohms).
- **Dual meters for stereo recording.**
- **Sound-on-sound without changing connections:** Add your own vocal or instrumental solo to professionally recorded backgrounds; sing or play duets or quartets with yourself—simply by turning knobs on the control board. (The RP100's push-button ease and convenience make this feature extremely valuable for language study.) You can also record two separate and distinct programs at the same time!
- **Perfect pitch and timing accuracy:** The hysteresis synchronous capstan motor, unaffected by natural line voltage variations, and the capstan shaft of hardened stainless steel ground to an accuracy of ± 0.00015 ", maintain a timing accuracy of $\pm 0.15\%$ (± 3 seconds in 30 minutes).

THE NEW

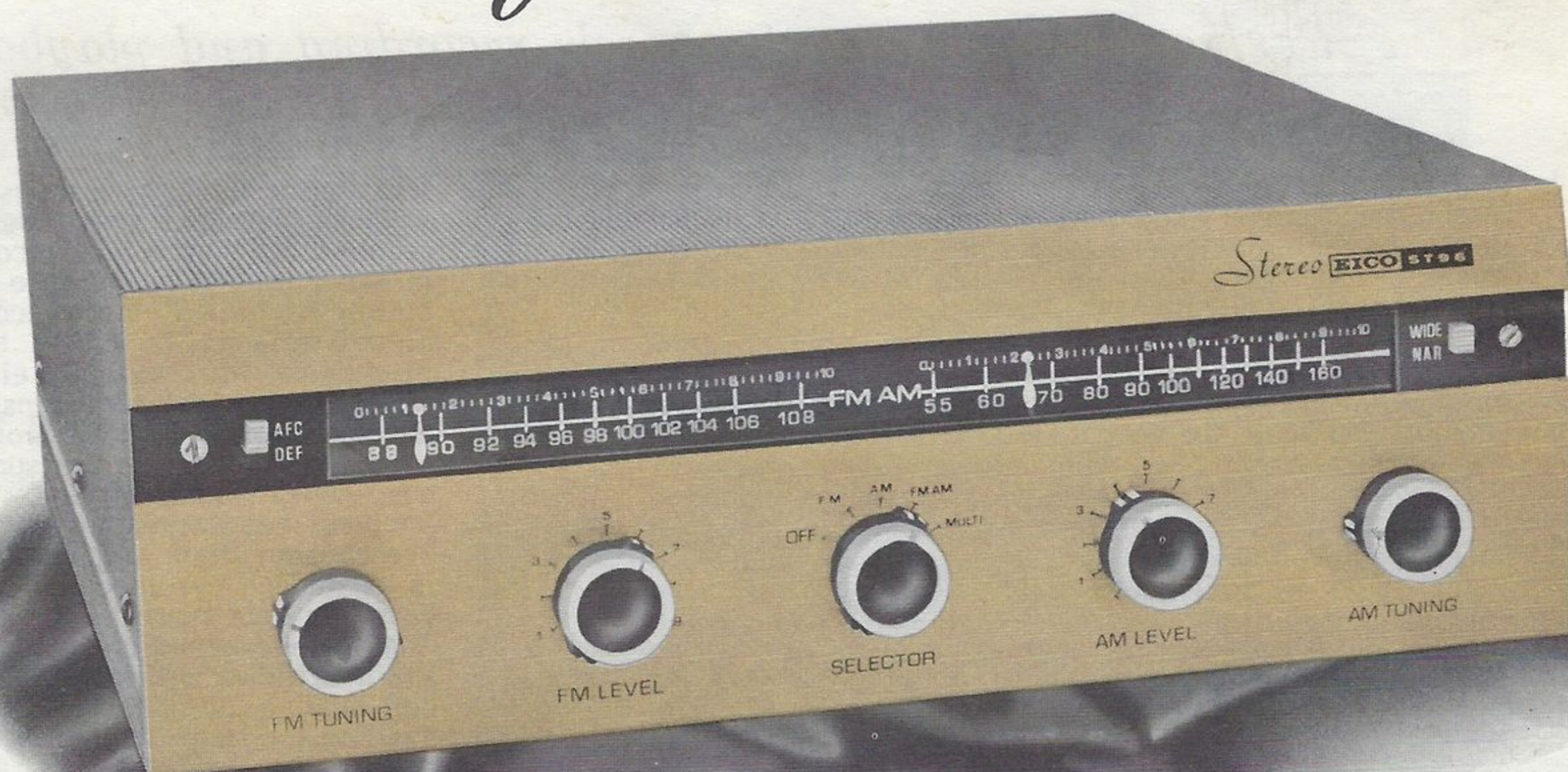
Medalist SERIES

A bold new blending of:
Professional Engineering
Excellence • Beauty in
Esthetic Design
• Economy



All the most critical and difficult sections—the AM and FM, RF and IF stages, the FM “front end,” and the **eye-tronic** tuning assembly—prewired and prealigned at the factory, reducing wiring to a minimum and assuring perfect performance on all sets built from the kit.

Beautiful to Look at and..



A brilliant new example of EICO's no-compromise, advanced engineering...

FM-AM Stereo Tuner ST96

Kit **\$89.95** Wired **\$129.95**

Includes Metal Cover and FET

Superb, separate AM and FM tuners, each capable of providing perfect, distortion-free, drift-free reception, mounted on one compact chassis:

- Play them together for FM-AM stereo reception
- Play them separately for FM mono or AM mono reception — (or both at the same time! Move one speaker into another room, and listen to your favorite programs on FM while other members of the family hear theirs on AM!)
- Plug in FM-Multiplex adapter for the ultimate in FM stereo broadcasting

Both Tuners Feature: Exclusive, precision, prewired **eye-tronic®** traveling tuning indicators which contract into exclamation points at the exact center of each broadcast channel • Sliderule dials • Effortless, smooth, precise flywheel tuning • Amazingly low interstation noise • Prewired, prealigned RF and IF stages.

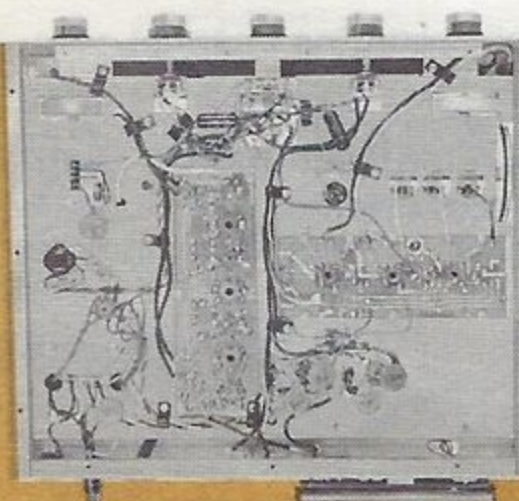
FM Tuner Features: Prewired, prealigned “front end” housed and completely shielded in a solid aluminum-zinc die-casting, providing fabulous sensitivity, low noise and low oscillator radiation, entirely stable and guaranteed drift-free • Switched AFC (Automatic Frequency Control) • AGC (Automatic Gain Control) • Stabilized low limiting threshold assuring excellent performance from weaker signals • Broadband ratio detector for improved capture ratio and easier tuning.

AM Tuner Features: Switched “wide” and “narrow” band-pass; “narrow” bandwidth (to 7 kc) essential for picking up weak or distant stations with minimum of interference; “wide” bandwidth (to 14 kc) necessary for the “highest-fi” available on AM • 3-ganged tuning capacitor • Built-in ferrite loop antenna and tuned RF stage ensure highest selectivity and sensitivity • High Q filter eliminates 10 kc whistle without noticeably reducing response at 9000 kc.

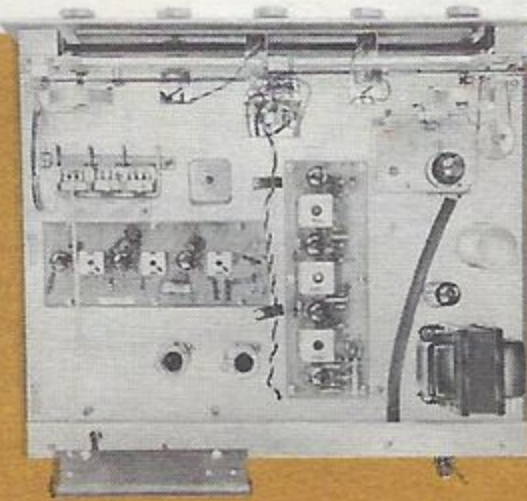
Panel Controls Include: Separate AM, FM tuning; separate AM, FM level controls; selector switch which allows you to choose AM alone, FM alone, AM-FM stereo (or simultaneously with separate programs), or FM-Multiplex, with the turn of a single knob.

SPECIFICATIONS: FM Tuner: Sensitivity: 1.5uv for 20 db quieting; Selectivity: 250kc IF bandwidth (6 db down); Frequency Response: 20-15,000 cps ± 1 db; Image Rejection: 40 db; Hum Level: 60 db down; Drift: less than 2 parts in 10,000 from cold start; Tuning Range: 87.5-108.5 mc; Output Level: 2.5v for 100% mod.

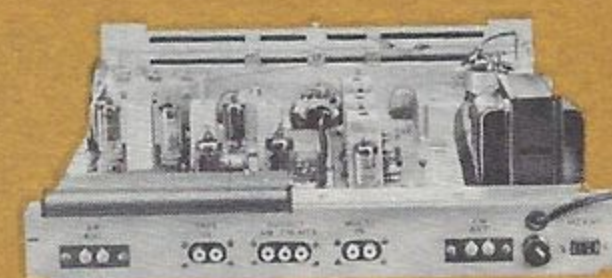
AM Tuner: Sensitivity: 3uv for 1.0v average output at 20 db S/N ratio; Selectivity: overall IF bandwidth of 18kc at “wide bandwidth,” 9kc at “narrow bandwidth,” 6 db down; Frequency Response: 20-9,000 cps on “wide bandwidth,” 20-4,500 cps on “narrow bandwidth”; Image Rejection: 60 db; Hum Level: 60 db down; Drift: negligible; Tuning Range: 540 to 1650kc; Output Level: 1.0v average. Size (HWD): 5 $\frac{1}{8}$ ” x 15 $\frac{7}{8}$ ” x 13 $\frac{1}{8}$ ”.



BOTTOM VIEW, showing clean separation of the two tuners ensuring easy, accurate building from the kit. Note printed circuit boards containing prewired, prealigned AM and FM, RF and IF stages.



TOP VIEW, showing neat, spacious trouble-free arrangement of component parts. Note prewired, prealigned FM front end (in upper right-hand corner), completely shielded in die-cast housing.



REAR VIEW, showing multiplicity of outputs and inputs. Note plugs for multiplex adaptor, and for tape recorder (enabling you to record AM-FM or FM-Multiplex broadcasts directly on tape).

Add 5% in the West. Slightly higher in Canada.

Beautiful to Listen to



40-Watt Integrated Stereo Amplifier ST40

Kit \$79.95 Wired \$129.95

Includes Metal Cover

"The Eico ST40 exhibits all of the well-known Eico electronic design knowhow... it is a lot of amplifier for the money... meets its published specifications... In summation, it is an easy building integrated stereo amplifier kit of handsome appearance with excellent specifications for its category—an excellent buy for those with a modest budget."—AUDIO

The ST40 will accept, control, and amplify signals from any stereo source. Separate pairs of inputs are provided for: Preamplified tape, tape head, magnetic changer cartridge, magnetic turntable cartridge, FM-AM, AM-AM, and FM-Multiplex. For each stereo source there is a separate pair of inputs and a separate position on the selector switch. Other controls include tape monitor switch; separate level and balance controls; balance check switch; scratch and rumble filters; loudness compensation switch; and full individual feedback-type bass and treble tone controls for each channel. 4-, 8-, and 16-ohm speaker connections, plus third channel speaker connection direct to 3rd speaker.

The ST40 contains two audio power amplifiers, each conservatively rated at 20 watts, and employing a voltage amplifier, a split-load phase inverter, and a pair of self-biased 7591 output tubes. The preamplifier-control section of each channel includes a dual-triode preamplifier with equalization in a loop around both stages for minimum distortion, and a dual-triode in a variable inflection type tone control circuit for best control action and lowest distortion due to feedback.

Other important design features (characteristic of all EICO products) include: rugged, generous chassis, allowing maximum separation of power tubes from each other and from heat-sensitive components; trouble-free point-to-point wiring; high quality audio output transformer with grain-oriented steel, extensively interleaved windings. Heavy duty power transformer, filter electrolytics and rectifier tube operate well below maximum ratings to insure long life.

SPECIFICATIONS: Output Power: 40 watts (two 20-watt channels) continuous; 80 watts peak. IM Distortion: 1% at 40 watts. Harmonic Distortion: Less than 1% 40-20,000 cps within 1 db of 40 watts. Frequency Response (2 watts—1 watt each channel): ± 1 db 12-25,000 cps. Inverse Feedback: 18 db. Stability Margin: 11 db. Damping Factor: 11. Sensitivity* (input for 20 watts): mag. phono—3 mv; tape head—1.75 mv; FM, AM, Multiplex, Tape—360 mv. Hum and Noise Level* (below 20 watts): mag. phono—63 db; tape head—54 db; tuners, auxiliaries—78 db. Tone Control Range*: ± 15 db at 50 cps and 10 kc. Speaker Connections*: 4, 8, and 16 ohms. Tubes: 2-12AX7, 4-7591, 1-GZ34 rectifier. Power Source: 117 v, 60 cps. Power Consumption: 165 watts. Size (HWD): 5 1/8" x 15 7/8" x 13 1/8".

*each channel



Each unit is a complete stereophonic high-fidelity control center plus two separate, powerful, expertly-designed amplifiers all on one chassis. Mode switches on front panels enable you to:

- Play either amplifier alone
- Use both amplifiers together for normal stereo, or for reverse stereo
- Use both amplifiers together for enhanced mono listening thru two speaker systems

70-Watt Integrated Stereo Amplifier ST70

Kit \$94.95 Wired \$149.95

Includes Metal Cover

Quality-first, completely flexible stereo high-fidelity at moderate cost. Fully-equipped control panel allows you to enjoy normal or reverse stereo using both of the identical 35-watt amplifiers, or unsurpassed mono listening using either amplifier alone. Has separate pairs of inputs for preamplified tape, tape head, magnetic changer cartridge, magnetic turntable cartridge, FM-AM, AM-AM, and FM-Multiplex. Controls include selector switch for choosing stereo inputs; tape speed equalizer and tape monitor switches; separate level and balance controls; balance check switch; scratch and rumble filters; speaker-phase reversal switch; loudness adjustment switch; full individual feedback-type bass and treble tone controls for each channel. Third channel speaker connection. Each audio power amplifier of the ST70, conservatively rated at 35 watts, employs the thoroughly proven cathode-coupled, phase-inverter circuitry, preceded by a direct-coupled voltage amplifier. Fixed-biased push-pull 7591's are used in the output stage and provision is made for both bias and dc adjustment. The preamplifier-control section of each channel includes a dual-triode preamplifier with equalization in a loop around both stages for minimum distortion, and a dual-triode in a variable inflection type tone control circuit for best control action and lowest distortion due to feedback.

In addition, the ST70 is characterized by those hallmarks of quality which are expected of all EICO products: Clean, wide spacing of components, with particular attention paid to keeping heat-sensitive components a sufficient distance from power tubes; straightforward point-to-point wiring simplifying kit-building; highest quality output transformers; filter electrolytic and rectifiers operating well below maximum ratings to insure long life.



SPECIFICATIONS: Output Power: 70 watts (two 35-watt channels) continuous; 140 watts peak. IM Distortion: 1% at 70 watts. Harmonic Distortion: less than 1% from 25 to 20,000 cps within 1 db of 70 watts. Frequency Response (2 watts—1 watt each channel): $\pm 1/2$ db 10-50,000 cps. Inverse Feedback: 17 db. Stability Margin: 10 db. Damping Factor: above 11. Sensitivity* (input for 35 watts): mag. phono—4 mv; tape head—2 mv; tuners, auxiliaries—0.5 v. Hum and Noise Level* (below 35 watts): mag. phono—63 db; tape head—54 db; tuners, auxiliaries—78 db. Tone Control Range*: ± 15 db at 50 cps and 10 kc. Speaker Connections*: 4, 8, and 16 ohms. Tubes: 3-12AX7, 2-12DW7, 2-6SN7GTB, 4-7591, 1-GZ34 rectifier. Power Source: 117 v, 60 cps. Power Consumption: 150 watts. Size (HWD): 5 1/8" x 15 7/8" x 15".

*each channel



FM Tuner HFT90

- monaural FM reception
- stereo FM-Multiplex reception with Adapter
- stereo FM/AM reception with matching EICO AM Tuner or equivalent

Kit \$39.95 Wired \$65.95
Metal Cover E3: \$3.95 Includes FET

"One of the best buys in high fidelity kits"—AUDIOCRAFT

"An excellent kit . . . and at a very attractive price"—AUDIO

"Audio quality . . . excellent; its frequency response very wide, its distortion low. Noise pickup . . . was minimal. Drift . . . absolutely absent . . . would lock into a station in 30 seconds—and stay locked in!"—ELECTRONICS ILLUSTRATED

"Without question an extraordinary value"—AMERICAN RECORD GUIDE

Among the most advanced of FM tuners, the HFT90 equals or surpasses wired tuners up to three times its price. With a sensitivity more than six times that of other kit tuners and equaling the most expensive wired tuners, the HFT90 provides excellent reception even in fringe areas. Other features include: eye-tronic tuning; automatic gain control; stabilized low limiting threshold for excellent performance from weaker signals; broadband ratio detector for improved capture ratio and easier tuning; full-wave rectifier and heavy filtering for a stable dependable power supply.

SPECIFICATIONS: Sensitivity: 1.5 uv for 20 db quieting*, 2.5 uv for 30 db quieting, full limiting from 25 uv. Inputs: 300 ohm balanced. Frequency Response: Uniform from 20 to 20,000 cps ± 1 db. IF Bandwidth: 260 kc at 6 db points. Detector Characteristic: Peak separation of 600 kc. Linear bandwidth of 400 kc. Broad-band ratio detector preceded by stabilized limiter stage. Stability: Maximum drift of 20 kc from cold start. Stable after approximately one minute. Radiation: Complete shielding of oscillator circuit and tube in preassembled unit reduces radiation to comply with FCC requirements. Output: Two provided: cathode follower and multiplex. Cathode follower permits use of up to 200 ft. of connecting cable. For 10 uv input with 75 kc deviation, an audio output of 1.0 volt is obtained. Hum: 60 db below 1 volt. Controls: Tuning, Level/Power On-Off. Tubes: 1-ECC85/6AQ8 grounded grid r-f amplifier and reflex converter; 2-6AU6 IF amplifiers; 1-6AU6 IF amplifier/limiter; 1-6AL5 dual diode detector; 1-DM70 tuning indicator; 1-6C4 cathode follower output; 1-6X4 full-wave rectifier. Power: 110-125 VAC, 60 cps; 40 watts drain. Size (HWD): 3 $\frac{5}{8}$ " x 12" x 8 $\frac{1}{4}$ ". Weight: 10 lbs. *Typical unit, measured with Marconi TF 955 A/2 FM-AM Signal Generator.



AM Tuner HFT94

- monaural AM reception
- stereo FM/AM reception with matching EICO FM Tuner HFT90 or equivalent

Kit \$39.95 Wired \$65.95
Includes Metal Cover and FET

"One of the best available . . . ideal for those wishing to add AM to their systems"—HI-FI SYSTEMS
"A most excellent AM tuner . . . capable of duplicating . . . all that the AM stations can deliver . . . can hardly be bettered at any price"—AMERICAN RECORD GUIDE

The HFT94 is a high fidelity AM tuner, engineered with the same care and consideration as the widely acclaimed HFT90 FM tuner. It features a choice of wide (to 14 kc) or narrow (to 7 kc) bandpass, the former for the highest fidelity available on AM, the latter for pulling in weaker or more distant stations. The tuned RF stage and built-in ferrite loop antenna help provide sufficiently high selectivity and sensitivity so that very little signal is required to achieve acceptable signal-to-noise ratio. Noise and distortion are remarkably low. A high Q filter eliminates 10 kc whistle while reducing response by no more than 3 db at 9kc.

The excellence of the electronic design is complemented by superb mechanical construction, trouble-free point-to-point wiring, spacious horizontal chassis, and thoughtful component layout.

SPECIFICATIONS: Typical Sensitivity: 3uv at 30% mod. for 1.0 output, 20 db S/N. Overall Selectivity: (Wide) 14 kc at -6 db, (Narrow) 7 kc at -6 db. Frequency Response: (Wide) 20-9000 cps at -3 db, (Narrow) 20-5000 cps at -3 db. Image Rejection: 58 db. Hum Level: 60 db below output with 3uv input, 30% modulation (1.0 Volt). Distortion: Less than 1% harmonic distortion at 100% modulation. Output: Low impedance plate follower (8000 ohms). Extra recording output. Controls: Bandwidth Selector, Level/Power On-Off, Tuning. Tubes: 2-6BA6, 1-6BE6, 1-12AU7/ECC82, 1-DM70 tuning eye, 1-6X4, 1-CK885 diode. Power: 110-125 VAC, 60 cps; 40 watts drain. Size (HWD): 3 $\frac{5}{8}$ " x 12" x 8 $\frac{1}{4}$ ". Weight: 12 lbs.



FM/AM Tuner HFT92

- monaural FM reception
- monaural AM reception
- stereo FM-Multiplex reception with Adapter

Kit \$59.95 Wired \$94.95
Includes Metal Cover and FET

The new HFT92 FM/AM Tuner combines, on one chassis, the renowned HFT90 High Fidelity FM Tuner with excellent AM tuning facilities. (The HFT92 is not a stereo FM-AM tuner, since it does not receive FM and AM simultaneously.)

SPECIFICATIONS: (AM only: FM specifications same as HFT90.) Sensitivity: 20 uv for 0.8v output with 15 db S/N. Selectivity (IF Bandwidth): 8 kc at 6 db. Antenna Input: Ferrite Rod; terminals for external antenna provided. Frequency Response: 20-5000 cps ± 3 db. Hum: 60 db below 1 volt. Output: Min. output of 0.8 volt with 20 uv input, 30% modulation. Image Rejection: 40 db. Tuning Range: 540-1650 kc. Total Harmonic Distortion: Below 2% up to 70% modulation. Controls: Tuning, Volume/Power On-Off, FM-AM Selector Tubes:

All These Features In All EICO Tuners

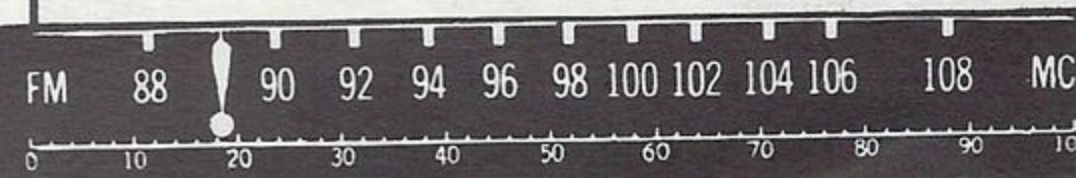
—Make Every EICO Tuner
A Best Buy In Its Class

- Prewired, prealigned FM "front end"
- Exclusive precision eye-tronic® tuning indicator
- Effortless flywheel tuning
- FM-multiplex outlet for FM stereo adapter to protect against obsolescence
- Prealigned RF coils and IF transformers
- Low impedance output
- Low-silhouette construction utilizing horizontal chassis to permit proper component layout and separation
- Very little interstation noise
- Extreme flexibility of design, permitting easy console installation with adaptability to different thicknesses of panel
- No test or alignment instruments needed

Pinpoint tuning . . . fabulous sensitivity . . . excellent stability . . . absolute freedom from drift—all assured in every EICO FM tuner (and in the FM section of every EICO FM/AM tuner) whether built from kit or purchased factory wired—

BECAUSE . . .

EICO expertly wires and carefully pre-aligns the most critical part of the entire FM circuit—the "front end"—essentially the entire tuning circuit—and presents it to you housed and completely shielded in an aluminum-zinc casting. This front end is characterized by the most advanced circuitry, by the finest, temperature-compensated components. It is this front end that makes it possible for anyone—even a novice—to build any EICO tuner from the kit without any trouble, without the need for test or alignment instruments, and with absolute assurance of performance equal to that obtained from the finest factory-built tuners.



Turn on any EICO tuner—FM, AM, or FM/AM—and within seconds a bright green exclamation point starts to glow from the dial. Twist the tuning knob: the exclamation point glides smoothly along the slide-rule dial, contracting to minimum size as it reaches the *exact center* of each broadcast channel. This exclamation point is your double-purpose tuning indicator: it not only guides you to the station you want, but also shows you, electronically, when you have that station tuned in perfectly.

The exclamation point is formed in the heart of the DM70 tube, part of EICO's famed eye-tronic® tuning assembly, supplied prewired with all EICO tuner kits. It is not only one of the most sensitive tuning indicators available; it is the first one which serves the double function of a traveling dial position indicator and a hairline electronic tuning indicator simultaneously.

Once it's tuned in—sit back, relax, forget about it. Your signal stays sharp, clear, and clean. Your tuner *will not drift* (and if you turn it off for hours—or days—you find it's still on station whenever you turn it on again). It continues to deliver, hour after hour, day after day, every tone, every overtone, every nuance that the broadcast signal has to offer.

The Finest Stereo System You Can Assemble

Stereophonic Dual Preamplifier HF85

Kit \$39.95

Wired \$64.95

Includes Metal Cover

"Extreme flexibility... a bargain"—HI-FI REVIEW

"An outstanding buy... it is in performance that the HF85 excels"—THE AMERICAN RECORD GUIDE

The HF85 is a stereophonic preamplifier designed for virtually no distortion, very high gain, and superb tone control action. All essential switching and control facilities for stereo or mono listening are provided. Capable of selecting, amplifying and accurately controlling any stereophonic source—tape, disc, or broadcast—the HF85 features:

- Separate low level inputs in each channel for magnetic phono, tape head, and microphone. Provides the high gain without hum and noise required by tape heads and high quality, low output magnetic cartridges. Front panel switch permits choice of proper NARTB tape head equalization for either 7½ and 15 ips, or 3¾ ips... Separate high level inputs for AM tuner, FM tuner, and FM-Multiplex, and auxiliary inputs for other sources.
- Independent level, bass, and treble controls in each channel which may be operated separately or together with built-in clutch.
- Distortionless, 3-stage, independent bass and treble tone control circuits in each channel. Each tone control circuit consists of a feedback amplifier pair (30 db of feedback) driving a true variable crossover, feedback tone control stage. Bass and treble controls do not interact with each other or affect the level. Bass controls in both channels and treble controls in both channels are concentric.
- Fletcher-Munson loudness compensation for low level listening which may be defeated by front panel slide switch.

SPECIFICATIONS FOR BOTH CHANNELS: Frequency Response: ± 0.3 db 5-200,000 cps at any level up to 3V RMS out. (Measured from high level inputs with level controls set at maximum and tone controls electrically flat.) Sensitivity (input for 2V RMS output at 1000 cps): Mag. Phono-1 mv; Microphone-1 mv; Tape Head—0.5 mv; High Level Inputs—0.17 V. Hum Noise: Mag. Phono-60 db; Microphone-60 db; Tape Head-50 db; High level inputs-75 db. (For low level inputs, values given are equivalent noise input in db down from 10 mv input level. For high level inputs, value given is equivalent noise input in db down from 0.5 V input level).

IM Distortion (60 and 7000 cps at 4:1): 0.02% for 0.5V out, 0.03% for 1.0V out, 0.04% for 2.0V out, 0.07% for 3.0V out, 0.11% for 4.0V out, 0.17% for 5.0V out.

Harmonic Distortion (20-20,000 cps): 0.1% at 3V RMS out; 0.15% at 5V RMS out. Tone Control Range: At 10 kc: 15 db boost, 15 db cut. At 50 cps: 15 db boost, 15 db cut. Equalization: Phono-RIAA; Tape Head-NARTB for 15 ips, 7½ ips, and 3¾ ips. Output to Tape Recorder Impedance: 1,400 ohms. Output to Main Amplifier Impedance: 8,000 ohms. Tube Complement: 5-12AX7/ECC-83, 1-6X4. Size: 3½" high, 12" wide, 8¼" deep. Power Source: 117 VAC, 60 cps. Weight: 10 lbs.



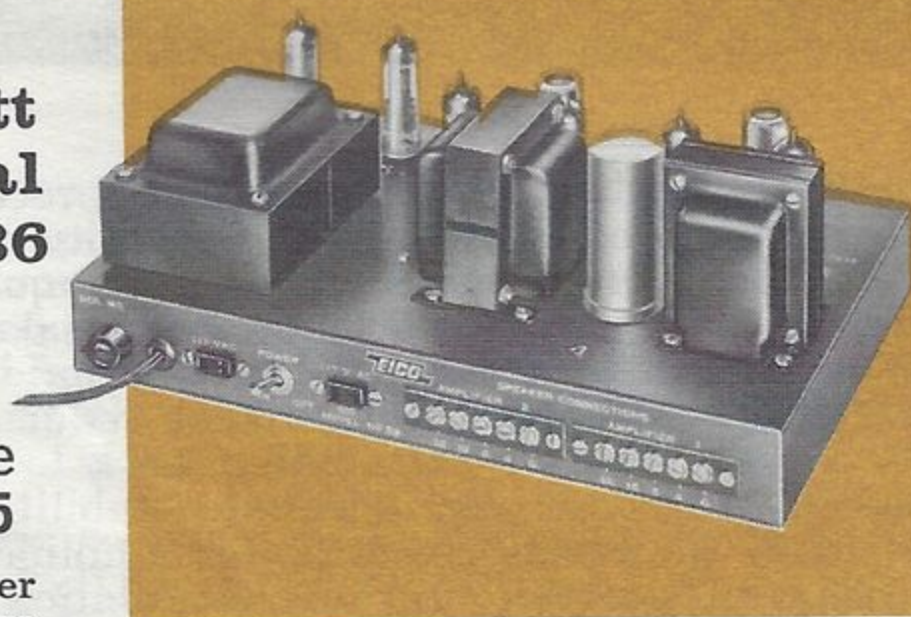
Shown in Furniture Wood Enclosure WE-70: Unfinished Birch \$8.95; Walnut or Mahogany \$12.50

28-Watt Stereo Dual Amplifier HF86

Kit \$43.95

Wired \$74.95

Matching Enclosure Model E-7: \$3.95



The two separate power amplifiers in the HF86 are conservatively rated at 14 watts output and employ Williamson-type circuits with push-pull EL84 output stages. A service selector switch allows the two amplifiers to be operated to deliver 28 watts for mono use. Other convenience features include a level control of each input, an ac power switch, two convenience outlets, and a fuse in an extractor post mounting.

SPECIFICATIONS: Output Power: 28 watts (two 14 watt amplifiers) continuous, 56 watts peak. IM Distortion (60 & 7000 cps at 4:1): 1.5% at 28 watts (14 w. each), 0.5% at 10 watts (5 w. each), 0.3% at 4 watts (2 w. each). Harmonic Distortion: 16 watts (8 w. each) less than 1% from 30 c to 15 kc; 20 watts (10 w. each) less than 1% from 40 c to 15 kc; 28 watts (14 w. each) less than 2% from 40 c to 15 kc and 1% from 50 c to 7 kc; 20 c distortion: 3% at 12.5 watts (6.25 w. each). Frequency Response: 2 watts (1 w. each) ± 0.5 db 10 c to 100 kc. Transient Response: Excellent square wave reproduction (4 usec rise time); negligible ringing, rapid settling on 10 kc square wave. Inverse Feedback: 20 db. Stability Margin: 15 db. Sensitivity: 1.15 V for 14 w. output. Hum: 90 db below rated output. Controls: Level Ch. 1, Level Ch. 2, "Service Selector" switch, ON-OFF switch. Speaker Connections: 4, 8, 16, and 32 ohms. Tubes: 2-12DW7, 4-EL84, 2-EZ81. Power Source: 117 V, 60 c. Power Consumption: 115 watts. Size (HWD): 5" x 13½" x 9". Weight: 16 lbs.

100-Watt Stereo Dual Power Amplifier HF89

Kit \$99.50

Wired \$139.50

Matching Enclosure Model E-8: \$4.50

"An excellent amplifier... listening quality is clean and smooth, with a good solid feel in the bass register, which is the mark of a good amplifier... Our measured results are even better than the specifications"—AUDIO

"Our measurements verified EICO's claims quite closely... There is no point in plotting frequency response, for it would be virtually a straight line. It was within 0.1 db up to 10 kc, and down 0.4 db at 20 kc. This is within the possible range of our instrument errors... The HF89 had the effortless, solid sound typical of a good, high-powered amplifier, at a relatively modest price"—Hirsch-Houck Labs (HIGH FIDELITY MAGAZINE)

In producing the HF89, the finest techniques of the audio art were applied to the creation of an instrument that meets or exceeds every professional criterion for a power amplifier of this power rating. Each power amplifier of the HF89, conservatively rated at 50 watts, employs the thoroughly proven cathode-coupled phase-inverter-driven circuit, preceded by a direct-coupled voltage amplifier. Fixed-biased, push-pull EL34's are used in the output stage and provision is made for both bias and dc balance adjustments. The very low impedance characteristic of silicon diode rectifiers gives the common power supply for the two amplifiers very good regulation, so that signal conditions in one amplifier have negligible effect on operating conditions in the other. To ensure long life for the silicon diode rectifiers, electrolytics, and tubes, a surgistor is included to limit the starting surge currents.

The intrinsic quality of the driving circuit, the output tubes, and the output transformers in the HF89 is unsurpassed. Furthermore, the high circuit and component quality result in less feedback required to achieve the very low distortion figures, so that the HF89 has an excellent stability margin.

SPECIFICATIONS: Output Power: 100 watts (two 50 watt amplifiers) continuous, 200 watts peak. IM Distortion (60 & 7000 cps at 4:1): 0.5% at 100 watts. Harmonic Distortion: Less than 0.25% from 30 to 15,000 cps and less than 1% from 20 to 20,000 cps within 1 db of 100 watts. Frequency Response: ± 0.5 db 5 cps—100 kc. Rise Time: 2.5 usec. Square-Wave Response: Essentially undistorted to 20,000 cps. Inverse Feedback: 18 db. Stability Margin: 13 db. Damping Factor: above 12, 20 cps to 20 kc. Channel Separation: 60 db. Sensitivity: 0.55V for full output. Hum: Better than 90 db below full output. Controls: Level Ch. 1, Level Ch. 2, "Service Selector" switch, ON-OFF switch. Speaker Connections: 4, 8, and 16 ohms. Tubes: 1-ECC83/12-AX7, 2-6SN7GTB, 4-EL34, 2 silicon diode rectifiers (power), 1 selenium rectifier (bias); surgistor protected for long life. Power Source: 117V, 60 cps. Power Consumption: 215 watts at no signal, 270 watts at 100 watts out. Size (HWD): 6" x 15" x 11". Weight: 40 lbs.



70-Watt Stereo Dual Power Amplifier HF87

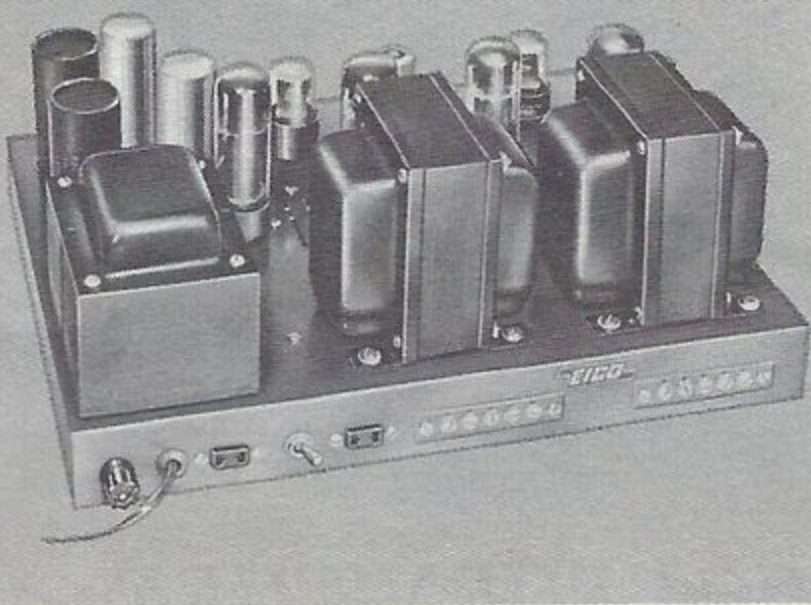
Kit \$74.95

Wired \$114.95

Matching Enclosure Model E-8: \$4.50

Quality-designed and quality-engineered, the HF87 is similar (except for self-bias operation of the output stages and power ratings of output transformers) in circuitry design and characteristics to EICO's outstanding HF89 stereo dual power amplifier, and, like it, features excellent regulation of its common power supply; a surgistor to limit the starting surge currents; and a high margin of stability. A service selector switch on the chassis enables the HF87 to act as a stereo dual 35-watt amplifier or a monophonic 70-watt amplifier.

SPECIFICATIONS: Output Power: 70 watts (two 35 watt amplifiers) continuous, 140 watts peak. IM Distortion (60 & 7000 cps at 4:1): 1% at 70 watts. Harmonic Distortion: Less than 1% from 20 to 20,000 cps within 1 db of 70 watts. Frequency Response: ± 0.5 db 5 cps—100 kc. Rise-time: 3 microseconds. Square-wave Response: Essentially undistorted to 20,000 cps. Inverse Feedback: 17 db. Speaker Connections: 4, 8, 16, and 32 ohms. Stability Margin: 17 db. Damping Factor: above 11, 20 cps to 20 kc. Tubes: 1-ECC83/12AX7, 2-6SN7GTB, 4-EL34, 2 silicon diode rectifiers protected by surgistor. Channel Separation: 55 db. Sensitivity: 0.38 V for full output. Power Source: 117 V., 60 cps. Hum: Better than 90 db below full output. Power Consumption: 215 watts; 5 amp. fuse. Controls: Level Ch. 1, Level Ch. 2, "Service Selector" switch, ON-OFF switch. Size (HWD): 6" x 15" x 11". Weight: 32 lbs.



Stereophonic Dual Amplifier-Preamplifier HF81

Kit \$69.95

Wired \$109.95

Includes Metal Cover

"Excellent"—SATURDAY REVIEW; HI-FI MUSIC AT HOME

"Outstanding quality...extremely versatile"—ELECTRONICS WORLD LAB TESTED

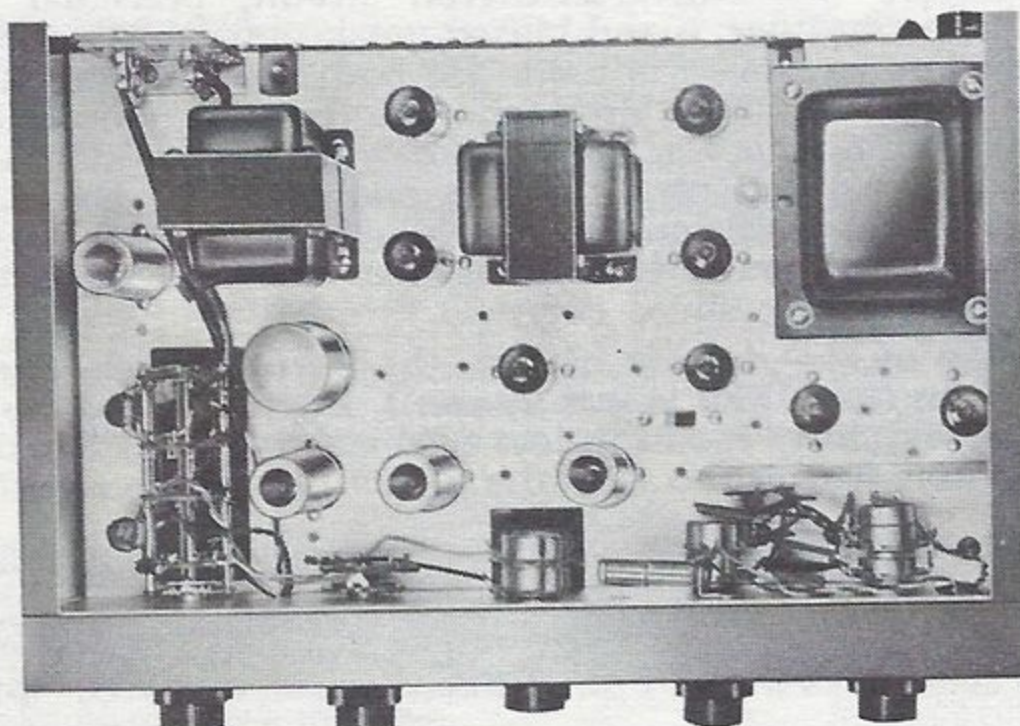
"A good buy"—MODERN HI-FI

"Solid, well-designed unit"—POPULAR ELECTRONICS

"A good value on its own merits, a better one when price is considered"—Hirsch-Houck Labs (HIGH FIDELITY MAGAZINE)



Shown in Furniture Wood Enclosure WE-71:
Unfinished Birch \$9.95; Walnut or Mahogany \$13.95



Top view of open chassis of the HF81, showing intelligent spacious, horizontal layout: trouble-free point-to-point wiring and thoughtful careful separation of component parts to avoid objectionable interaction.

stereo normal, stereo reverse, monophonic record playing with stereo cartridge (mixes the two channels for cancellation of vertical rumble), monophonic tuner (channels unmixed so that no extraneous noise from the unused input is introduced); ganged level controls; separate focus (balance) control; independent, full-range low distortion variable crossover feedback type bass and treble tone controls in each channel. The HF81 can also convert a mono system to stereo: To incorporate your present amplifier into a stereophonic system, a service selector switch on the chassis permits you to drive both internal power amplifiers from one preamplifier control section, while the other drives your present amplifier. The HF81 can also be used in monaural applications, the 14 watts available for each channel adding up to 28 watts for your speaker system.

SPECIFICATIONS: Output Power: 28 watts (two 14 watt channels) continuous; 56 watts peak. IM Distortion (60 & 6000 cps at 4:1): 2% at 28 watts, (14 watts each channel); 0.5% at 10 watts, (5 watts each channel). Frequency Response: 2W (1W each channel) ± 0.5 db 10 c to 100 kc. Harmonic Distortion: 16W (8W each channel) less than 1% from 30 c to 10 kc; 20W (10W each channel) less than 1% from 40 c to 10 kc; 28W (14W each channel) less than 1% from 50 c to 5 kc; *Sensitivity (input for 14W): mag. phono-4 mv; tape head-2 mv; Mic.-6 mv; tuners, auxiliaries-0.5 V. *Hum and Noise Level (below 14W): mag. phono-60 db; tape head-51 db; mic-57 db; tuners, auxiliaries-75 db. *Tone Control Range: ± 15 db at 50 c and 10 kc. *Speaker Connections: 4, 8, 16, and 32 ohms. Tubes: 4-ECC83/12AX7, 2-ECC82/12AU7, 4-EL84, 2-EZ81. Size: 15" wide, 4 3/4" high, 10 1/2" deep. Weight: 24 lbs. *each channel



Now...beautiful FURNITURE WOOD CABINETS for your EICO hi-fi components

- Adds the rich, warm beauty of fine furniture wood to your decor.
- Slips right over the metal cabinets of your EICO components in seconds.

WE70 (for HF85, HF65, HF12, HFT90, HFT92, HFT94, AF-4)
In unfinished birch, \$8.95
In walnut or mahogany, \$12.50

WE71 (for HF81, HF32)
In unfinished birch, \$9.95
In walnut or mahogany, \$13.95



Shown in Furniture Wood Enclosure WE-70:
Unfinished Birch \$8.95; Walnut or Mahogany \$12.50

Complete Stereo Dual Amplifier AF4

Kit \$38.95

Wired \$64.95

Includes Metal Cover

Two highly fed-back, 4-watt amplifiers preceded by all the control facilities required for complete flexibility in stereophonic/monophonic operation provide high fidelity quality at power levels adequate to drive high efficiency loudspeakers to concert volume. A moderate single tone control is used and the available gain thus released is converted into distortion-reducing negative feedback. With a great deal of painstaking work to ensure both excellent frequency response and adequate stability margin, a feedback level of 27 db around each power amplifier has been achieved, resulting in harmonic and intermodulation distortion characteristics within hi-fi standards at average listening levels. No control devices are employed in the feedback loops which can affect distortion or stability, nor are the distortion figures dependent on matching components or making adjustments.

SPECIFICATIONS (total of both channels):

Harmonic Distortion:

1/2W: < 0.3% 100-20,000 cps; 0.6% at 50 cps; 1.3% at 30 cps.
4W: < 1% 100-10,000 cps; 2.8% at 50 cps.
8W: < 3% 200-5,000 cps.

IM Distortion (200 & 7000 cps at 4:1): 5% at 8W; 2.2% at 4W; 1.4% at 2W; 0.6% at 1/2 W. Frequency Response (2W): ± 0.5 db, 30-20,000 cps undistorted within high fidelity standards. Feedback: 27 db. Stability Margin: 5 db. Damping Factor: 9. Tone Control Range: Up to 9 db treble cut (10 kc) and 8 db bass cut (50 cps). Sensitivity (input for 4W output per channel): Ceramic cartridge phono input—0.26V; Crystal cartridge phono input, FM tuner, AM tuner input, FM multi input, tape inputs—0.1V. Input Impedance: Ceramic cartridge phono input—2 megohms; all other input—1 megohm. Hum & Noise (below full output): —74 db. Speaker Connections: 4, 8, 16 and 32 ohms. Tube Complement: 2-12DW7, 2-EL84, 1-EZ81. Power Requirements: 117VAC, 60 cps, 70 watts power consumption. Size: 3 5/8" high, 12" wide, 8 1/4" deep. Weight: 13 lbs.

The Finest in Integrated Amplifiers... Use 2 for Stereo



12-Watt Williamson- type Integrated Amplifier HF12 Kit \$34.95 Wired \$57.95

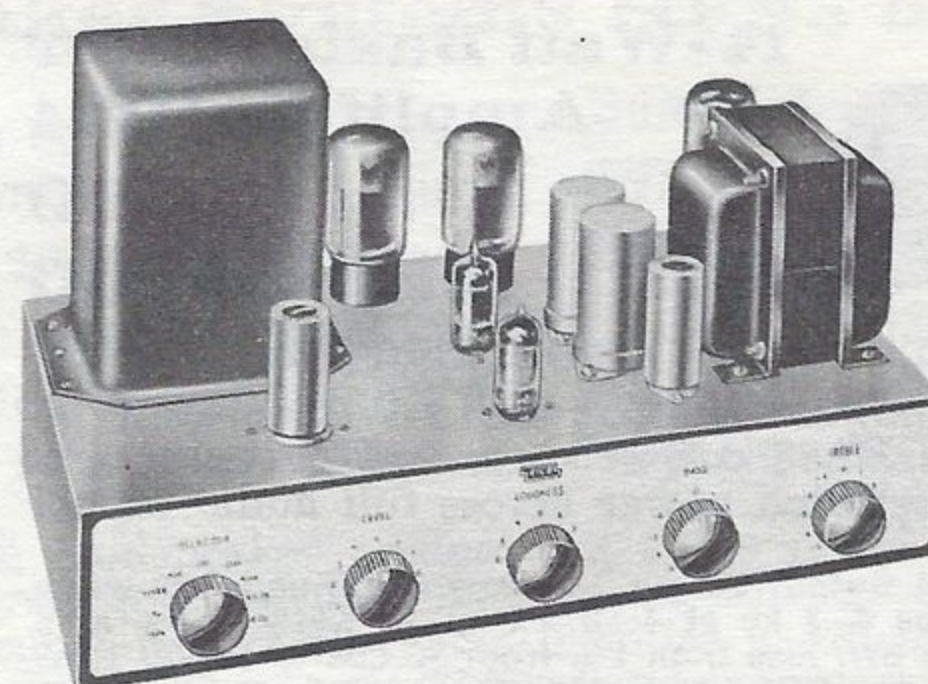
Shown in Furniture Wood Enclosure WE-70:
Unfinished Birch \$8.95;
Walnut or Mahogany \$12.50

Includes Metal Cover

"Packs a bigger wallop than is apparent from the specifications."—POPULAR ELECTRONICS

The HF12 is a true high fidelity 12-watt integrated amplifier that provides complete "front end" facilities and true high fidelity performance of such excellence that we recommend it unreservedly for any medium-power high fidelity application. Two HF12's may be used for stereo tape reproduction, each amplifier connecting directly to a tape head, with no other electronic equipment required.

SPECIFICATIONS: Output Power: 12 watts continuous, 25 watts peak. IM Distortion (60 & 6000 cps at 4:1): 1.3% at 12W; 0.55% at 6W; 0.3% at 4W. Frequency Response: 1W: ± 0.5 db 12 cps—75 kc; 12W: ± 0.5 db 25 cps—20 kc. Harmonic Distortion: 20 cps: 2% at 4.2W; $\frac{1}{2}$ % at 2.5W; 30 cps: 2% at 11W; $\frac{1}{2}$ % at 6.3W; 40 cps: 1% at 12W; $\frac{1}{2}$ % at 9.3W; 2000 cps: $\frac{1}{2}$ % at 12W; 10 kc: 1% at 10W; $\frac{1}{2}$ % at 6W. Transient Response: excellent square wave reproduction (4 usec risetime); negligible ringing, rapid settling on 10 kc square wave. Inverse Feedback: 20 db. Stability Margin: 12 db. Damping Factor: above 8, 20 cps—15 kc. Speaker Connections: 4, 8, and 16 ohms. Sensitivity (input for 12W): mag. phono—5 mv; tape head—2 mv; tuner, auxiliary—0.5 v. Hum & Noise Level (below 12W): mag. phono—60 db; tape head—50 db; tuner, auxiliary—75 db. Tone Control Range: at 10 kc, ± 13 db; at 50 cps, ± 16 db. Tubes: 3—ECC83/12AX7, 2—EL84, 1—EZ81. Size: $3\frac{3}{8}$ " high, 12" wide, $8\frac{1}{4}$ " deep. Weight: 13 lbs.



20-Watt Williamson- type Integrated Amplifier HF20 Kit \$49.95 Wired \$79.95

Matching Enclosure E-1 \$4.50

"Well-engineered"—RADIO & TELEVISION NEWS

The HF20 employs an output transformer capable of handling far in excess of its 20 watts rated power, a full Williamson power amplifier circuit, and the finest preamplifier-control facilities. It has become established as the outstanding value in amplifiers of this power class.

SPECIFICATIONS: Rated Output: 20 watts (34 watts peak). IM Distortion: (60 & 6,000 cps @ 4:1): 1.3% @ 20w. Harmonic Distortion: below 1% 20-20,000 cps within 1 db of 20w. Frequency Response: ± 0.5 db 15-30,000 cps at any level from 1 mw to 20w; no peaking or raggedness outside audio range. Square Wave Response: 20-20,000 cps essentially undistorted. Inverse Feedback: 14 db. Damping Factor: 7. Stability Margin: 12 db. Sensitivity: Mag Phono: 4 millivolts for 20w output; Tuner, TV, Tape, Auxiliary 0.4 volts for 20w output. Hum & Noise Level: Mag Phono: 60 db below 20w (RIAA, max-gain, and tone controls at "flat" positions); Tuner, etc.: 75 db below 20w (max-gain, and tone controls at "flat" positions). Tone Control Range: ± 15 db @ 50 cps; and ± 15 db @ 10 kc. Phono Equalizer Curves: RIAA (new AES, NARTB ORTHO, RCA), Columbia (original LP), London, American 78, European 78. Speaker Connection Taps: 4, 8, and 16 ohms. Power Consumption: 110-120 volts, 60 cps, 100 watts; 2 amp fuse. Tube Complement: 2-12AX7/ECC83; 2-12AU7/ECC82; 2-6L6GB; 1-5U4GB. Size (HWD): $8\frac{1}{2}$ ", 15", 10". Weight: 25 lbs.



30-Watt Integrated Amplifier HF32 Kit \$57.95 Wired \$89.95 Includes Metal Cover

Shown in Furniture Wood Enclosure WE-71:
Unfinished Birch \$9.95; Walnut or Mahogany \$13.95

The HF32 is an excellent example of EICO's "low silhouette" design where compactness and a rich, attractive appearance are obtained without compromising good engineering practice. Power tubes are well separated from each other and from heat-sensitive components, undesirable couplings are avoided, and a single horizontal chassis is used which greatly simplifies kit construction and maintenance. A top value in high fidelity amplifiers.

SPECIFICATIONS: Output Power: 30 watts continuous, 47 watts peak. IM Distortion (60 cps & 7 kc at 4:1): 2% at 30 watts; 1% at 20 watts, 0.5% at 10 watts. Total Harmonic Distortion: below 1% 20 cps—20 kc within 1 db of 30 watts. Frequency Response: 1 w: ± 0.5 db 10 cps—50 kc; ± 1.5 db 10 cps—100 kc; 30 w: ± 0.5 db 15 cps—50 kc; ± 1.5 db 15 cps—100 kc; ± 0.1 db 15 cps—30 kc at any level from 1 mw to 30 w; no peaking or raggedness outside audio range. Square Wave Response: 20 cps to 20 kc essentially undistorted. Inverse Feedback: 20 db. Stability Margin: 15 db. Damping Factor: above 10, 10 cps to 20 kc. Speaker Connections: 4, 8, and 16 ohms. Tone Control Range: at 10 kc—13 db boost, 15 db cut; at 50 cps—14 db boost, 15 db cut. Equalization: Mag Phono Input: RIAA, COLUMBIA (original LP), LONDON, American 78. Tape Head Input: NARTB. Sensitivity (input for rated output): Mag Phono—5 millivolts; Tape Head—2 millivolts; Microphone—4 millivolts; High Level (TV TUNER, AUX.)—0.4 volt. Hum and Noise Level (below rated output): Mag Phono—60 db down. Tape head—51 db down. Microphone—57 db down. TV, TUNER, AUXiliary—75 db down. (Maximum gain, tone controls set at flat position). Scratch and Rumble Filters: Scratch filter introduces approximately 12 db/octave slope above 5 kc; Rumble filter introduces approximately 12 db/octave slope below 70 cps. The nominal cut-off frequencies are points at which response is 6 db down when the corresponding filter is introduced. Power Requirements: 117 V, 60 cps; 140 watts consumption. Tubes: 2—ECC83/12AX7, 2—EC90/6C4, 4—EL84, 2—EZ81. Size: 15" wide, $4\frac{3}{4}$ " high, $10\frac{1}{2}$ " deep. Weight: 24 lbs.

A Complete Monophonic Control Center... Perfect for Use with EICO Power Amplifiers Shown on the Next Page



Master Control Preamplifier HF65A Kit \$29.95 Wired \$44.95

Includes
Metal Cover

With power supply, HF65:
Kit \$33.95 Wired \$49.95

A Master Control Preamplifier offering practically every control and switching facility that is ever needed... Characterized by distortion bordering on the immeasurable! The HF65A plugs directly into the EICO HF14, HF22, HF30, HF50, and HF60 power amplifiers, and can easily be adapted for use with other basic power amplifiers. The HF65 is self-powered with a full-wave rectifier tube power supply.

SPECIFICATIONS: Frequency Response: ± 0.3 db 5-200,000 cps at any level up to 3V RMS out (Measured from high level inputs with level and loudness controls set at maximum and tone controls electrically flat.) Sensitivity (input for 2V RMS output at 1000 cps): LO Mag. Phono-1 mv; HI Mag. Phono-3 mv; Microphone-1 mv; Tape Head-0.5 mv; High Level Inputs-0.17V. Hum-Noise: Mag. Phono-60 db; Microphone-60 db; Tape Head-50 db; High Level Inputs-75 db. (For low level inputs, values given are equivalent noise input in db down from 10 mv input level. For high level inputs, value given is equivalent noise input in db down from 0.5V input level.) IM Distortion (60 and 7000 cps at 4:1): 0.02% for 0.5V out; 0.04% for 2V out; 0.17% for 5.0V out. Harmonic Distortion (20-20,000 cps): 0.1% at 3V RMS out; 0.15% at 5V RMS out. Filter Cut-off Frequencies: Rumble Filter-50 or 100 cps at 9 db/octave; Scratch Filter-5 kc or 10 kc at 9 db/octave. Tone Control Range: At 10 kc: 15 db boost, 15 db cut; At 50 cps: 15 db boost, 15 db cut. Phono Equalizations: RIAA, LONDON, COLUMBIA, 78. Tape Head Equalization: NARTB for $7\frac{1}{2}$ ips. Output to Tape Recorder Impedance: 1400 ohms. Output to Main Amplifier Impedance: 770 ohms. Tube Complement: 3-12AX7/ECC83, 1-6X4. Size: $3\frac{3}{8}$ " high, 12" wide, $8\frac{1}{4}$ " deep. Weight: 9 lbs.

A Monophonic Power Amplifier for Every Need ... Use 2 for Stereo

All mate perfectly with EICO Preamplifier HF65A ... All exhibit flawless stability and transient response



14-Watt Basic Power Amplifier HF14

Kit \$23.50

Wired \$41.50

Matching Enclosure Model E-6: \$4.50

An excellent moderate power amplifier with a Williamson-type circuit and a push-pull EL84 output stage ... Delivers a surprising amount of undistorted power across full audio range.

SPECIFICATIONS: Rated Output Power: 14 watts continuous, 28 watts peak. IM Distortion: (60 cps & 7 kc at 4:1): 2% at 14 watts, 0.5% at 5 watts. Harmonic Distortion: 8W: less than 1% from 30 cps to 10 kc; 10W: less than 1% from 40 cps to 10 kc; 14W: less than 1% from 50 cps to 10 kc; 20 cps distortion: 2% at 4.2W. Frequency Response: 1W: ± 0.5 db 10 cps-100 kc. Transient Response: excellent square wave reproduction (4 usec rise time); negligible ringing, rapid settling on 10 kc square wave. Inverse Feedback: 20 db. Stability Margin: 12 db. Damping Factor: above 8, 20 cps to 15 kc. Sensitivity: 1.15 volts for 12 watts output. Hum: 90 db below rated output. Speaker Connections: 4, 8 and 16 ohms. Tubes: 1-ECC83/12AX7, 2-EL84, 1-EZ81. Power Source: 117 volts, 60 cps. Power Consumption: 65 watts. Size (HWD): 3 3/4" x 12" x 4". Weight: 10 lbs.



35-Watt Power Amplifier HF35

Kit \$47.95

Wired \$72.95

Matching Enclosure Model E2: \$4.50

"Highly and without any qualification recommended"
—THE AMERICAN RECORD GUIDE

A premium quality power amplifier employing a low-noise EF86 pentode voltage amplifier direct-coupled to a 6SN7GTB cathode-coupled phase inverter, driving a push-pull EL34 tapped-screen output stage.

SPECIFICATIONS: Rated Output Power: 35 watts continuous, 70 watts peak. IM Distortion: (60 cps & 7 kc at 4:1): 1.5% at 35 watts, .15% at 20 watts. Harmonic Distortion: Below 1% at any frequency from 20 cps to 20 kc within 1 db of 35 watts. Frequency Response: 1 w: ± 0.5 db 5 cps-60 kc; ± 1.5 db 5 cps-100 kc; 35 w: ± 0.5 db 15 cps-40 kc; ± 1.5 db 15 cps-60 kc; ± 0.1 db 20 cps-30 kc at any level from 1 mw to 35 watts; no peaking or raggedness outside audio range. Square Wave Response: 20 cps to 20 kc essentially undistorted. 3.5 usec rise time. Inverse Feedback: 20 db. Stability Margin: 18 db. Damping Factor: above 10, 20 cps to 20 kc, 15 at 1 kc. Sensitivity: 0.43 volt for 35 watts output. Hum: 90 db below rated output. Speaker Connections: 4, 8 and 16 ohms. Tubes: 1-EF86/Z729, 1-6SN7GTB, 2-EL34/6CA7, 1-GZ34. Power Source: 117 volts, 60 cps. Power Consumption: 130 watts. Size (HWD): 7" x 14" x 8". Weight: 25 lbs.



22-Watt Power Amplifier HF22

Kit \$38.95

Wired \$61.95

Matching Enclosure Model E-2: \$4.50

A top-quality power amplifier employing a low-noise EF86 pentode voltage amplifier direct-coupled to a 6SN7GTB cathode-coupled phase inverter, driving a push-pull 6L6GB tapped screen output stage.

SPECIFICATIONS: Rated output power: 22 watts continuous, 44 watts peak. IM Distortion: (60 cps & 7 kc at 4:1): 1% at 22 watts, 0.25% at 10 watts. Harmonic Distortion: Below 1% at any frequency from 20 cps to 20 kc within 1 db of 22 watts. Frequency Response: 1w: ± 0.5 db 5 cps-50 kc; ± 1.5 db 5 cps-100 kc; 22w: ± 0.5 db 19 cps-40 kc; ± 1.5 db, 15 cps-60 kc; ± 0.1 db 25 cps-30 kc at any level from 1 mw to 22 watts; no peaking or raggedness outside audio range. Square Wave Response: 20 cps to 20 kc essentially undistorted. 3.5 usec rise time. Inverse Feedback: 20 db. Stability Margin: 15 db. Damping Factor: above 12, 20 cps to 20 kc, and 21 at 1 kc. Sensitivity: .6 volts for 22 watts output. Hum: 85 db below rated output. Speaker Connections: 4, 8 and 16 ohms. Tubes: 1-EF86/Z729, 1-6SN7GTB, 2-6L6GB, 1-5U4GB. Power Source: 117 volts, 60 cps. Power Consumption: 90 watts. Size (HWD): 7" x 14" x 8". Weight: 25 lbs.



30-Watt Power Amplifier HF30

Kit \$39.95

Wired \$62.95

Matching Cover Model E4: \$3.95

A 30-watt power amplifier employing four EL84 output tubes in push-pull parallel, and a very high quality output transformer with extensively interleaved windings and grain-oriented steel laminations.

SPECIFICATIONS: Rated Output Power: 30 watts continuous, 47 watts peak. IM Distortion: (60 cps & 7 kc at 4:1): 2% at 30 watts, 0.83% at 20 watts, 0.35% at 10 watts. Harmonic Distortion: Below 1% at any frequency from 20 cps to 20 kc within 1 db of 30 watts. Frequency Response: 1w: ± 0.5 db 5 cps-50 kc; ± 1.5 db 5 cps-100 kc. 30 w: ± 0.5 db, 15 cps-50 kc; ± 1.5 db 15 cps-100 kc. ± 0.1 db 15 cps-30 kc at any level from 1 mw to 30 watts; no peaking or raggedness outside audio range. Square Wave Response: 20 cps to 20 kc essentially undistorted. Inverse Feedback: 20 db. Stability Margin: 15 db. Damping Factor: above 10, 20 cps to 20 kc. Sensitivity: 1.24 volts for 30 watts output. Hum: 80 db below rated output. Speaker Connections: 4, 8, and 16 ohms. Tubes: 1-12DW7, 4-EL84, 2-EZ81. Power Source: 117 volts, 60 cps. Power Consumption: 125 watts. Size (HWD): 5" x 12" x 7". Weight: 17 lbs.

Superb Sound... Furniture Finish.

2-Way Speaker System HFS1

Semikit \$39.95

Wired \$47.95

Complete with factory-built cabinet

In unfinished smooth-sanded birch

Expertly constructed, furniture-quality, tuned bass-reflex speaker cabinet (NOT A KIT): Acoustically engineered by Jensen for the woofer speaker supplied. All visible surfaces are smooth-sanded, clear-grained birch hardwood and no plywood edges are exposed to mar the appearance. The front of the cabinet is covered by a handsome acoustical grille cloth framed by a smooth-sanded solid birch "picture" molding.

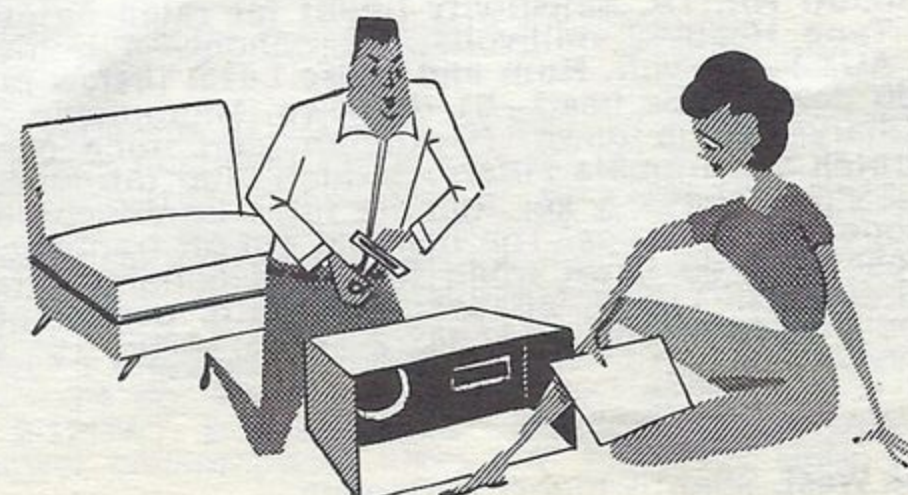
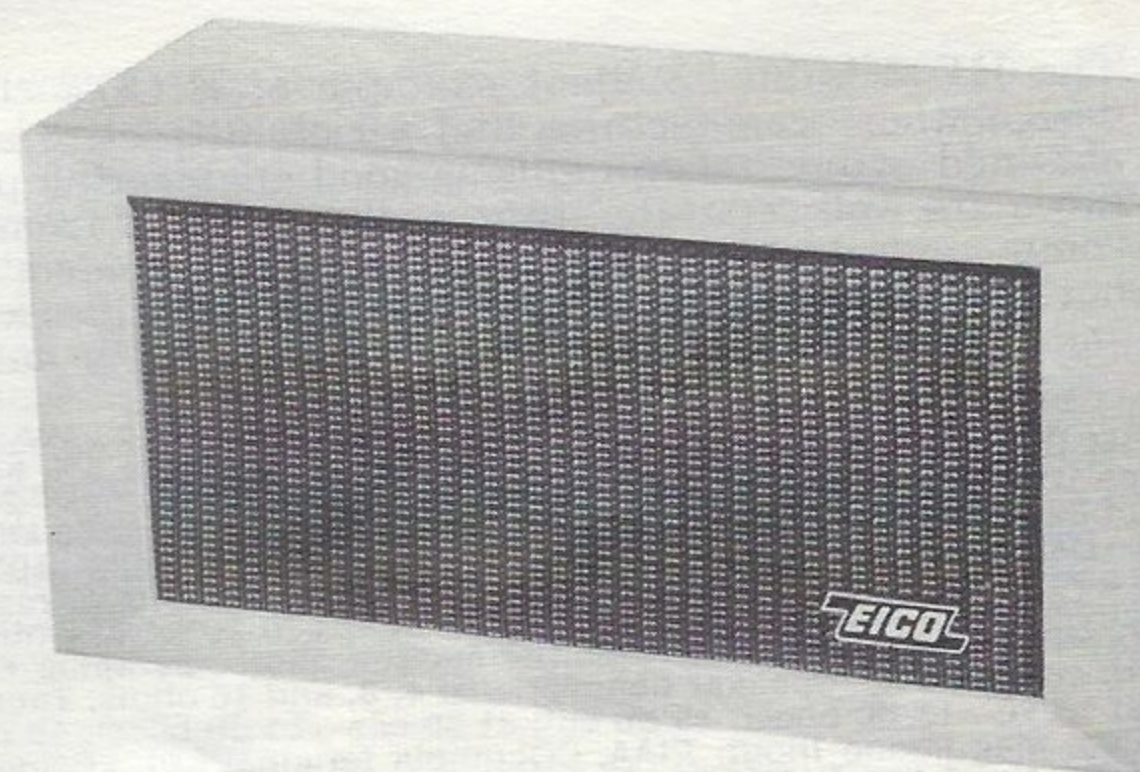
Heavy-duty 8" woofer (Jensen): High energy 1/2 lb. Alnico 5 D.P. magnet. Response engineered for smooth cross-over to tweeter at 1800 cps. In bass-reflex cabinet supplied, bass and mid-range are remarkably smooth, clean and free of coloration.

Tweeter (Jensen): Compression-driver loaded by cast aluminum Hypex* horn. Small, precisely controlled and loaded diaphragm is free of "breakup" and the accompanying excessive peaks and dips in the frequency response. This tweeter provides flat frequency response, high conversion efficiency, and reduced directivity. The advanced design and the excellence of the techniques used in its manufacture are responsible for the clean, crisp, extended highs, free of coloration or artificial brilliance.

*T.M. reg. Jensen Mfg. Co.

SPECIFICATIONS: Frequency Response: (Measured in anechoic chamber, 2 ft. away on principal axis): Woofer: ± 4 db maximum variation 80 to 1800 cycles. Tweeter: ± 2 db maximum variation 2800 to 10,000 cycles. Crossover Region: 1800 to 2800 cycles; 4 db gradual rise in response over this region when the tweeter level control is set to introduce no attenuation. Overall Response: ± 6 db 70-12,000 cps. Impedance: 8 ohms. Power Handling Capacity: 25 watts. Bookshelf Size: 23" wide, 11" high, 9" deep. Weight: 25 lbs.

Add 5% in the West. Slightly higher in Canada.



BOOKSHELF SIZE

Easy to assemble—no gluing or woodworking needed

Purity of Sound in Stunning Cabinetry

3-Way Speaker Systems HFS3 and HFS4

	Semikit*	Wired
HFS3 (With cone tweeter)		
In unfinished, smooth-sanded birch	\$72.50	\$84.50
In oil walnut or satin mahogany	\$87.50	\$99.50
HFS4 (With horn tweeter)		
In unfinished, smooth-sanded birch	\$83.50	\$96.50
In oil walnut or satin mahogany	\$98.50	\$112.50

New techniques in loudspeaker engineering make possible extraordinarily pure and full reproduction of bass frequencies, with good efficiency in an enclosure of $2\frac{1}{4}$ cubic feet. The HFS3 includes a 12" bellows suspension woofer ($1\frac{3}{4}$ lb. Alnico 5 DG magnet 22 cps free-air resonance, 1" max double peak movement), an 8" closed back mid-range speaker with a high internal damping cone for smooth response, and a $3\frac{1}{2}$ " cone tweeter for soft, delicate highs; the HFS4 has a compression-driver horn tweeter for more brilliance and greater projection in the highs. (In all other respects the two are identical.)

Frequency division is accomplished by a quarter-section LC network at 600 cps and a high-pass filter at 4000 cps; a level control is provided for the tweeter. The enclosure in both systems is constructed of $\frac{3}{4}$ " stock throughout and is tuned to 25 cycles by a tubular ducted port. The tuned enclosure loads the woofer and thereby reduces the cone excursion and the distortion in the 28 to 60 cps region, while providing substantial supplementary undistorted radiation from the port. A system Q of $\frac{1}{2}$ means that the speaker is critically damped when used with any modern amplifier of normal damping factor (7-20). Critical damping gives the smoothest possible frequency response, and the best transient response.

The HFS3 and HFS4 present no phasing problem in stereo installations: each system has polarity of connection terminals indicated.

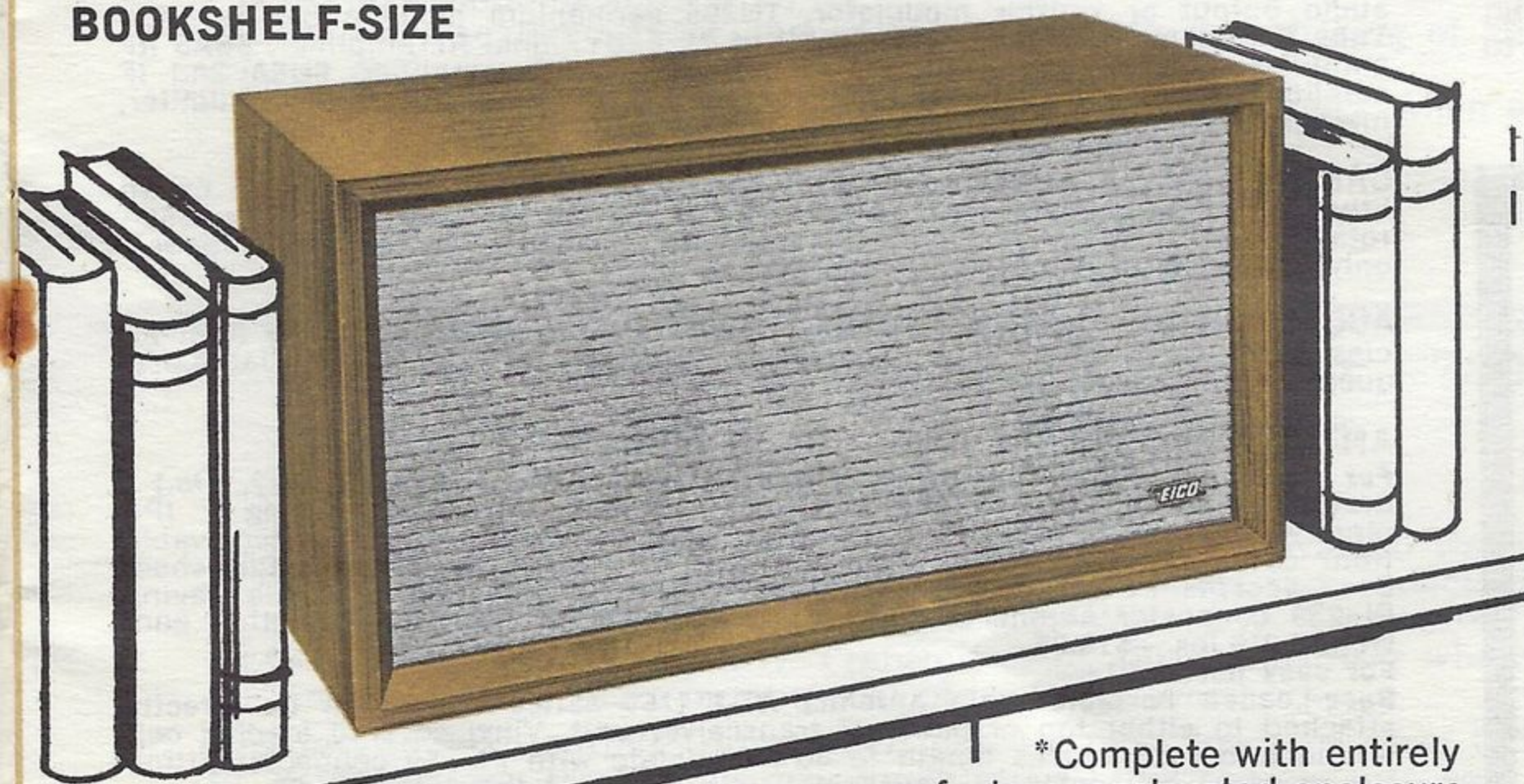
SPECIFICATIONS: Frequency Response (along-the-wall-position): Essentially uniform (± 5 db) from 45 to 14,000 cps. Response is only 10 db down from average level at 28 cycles. The octave from 28 to 60 cps is undistorted and entirely usable. **Continuous Rated Power Handling:** 30 watts program. **Amplifier Power Requirements:** Clean 10 watts. **Rated Impedance:** 16 ohms. **Dimensions (HWD):** $26\frac{3}{8}$ " x $13\frac{7}{8}$ " x $14\frac{5}{8}$ ". **Cabinet:** Completely factory-constructed (not a kit) with a decorator-designed frame and acoustical grille cloth in place. Fitted with speaker mounting studs and supplied ready to receive speakers and networks.



*Complete with entirely factory-constructed enclosure
Easy to assemble—no gluing or woodworking necessary

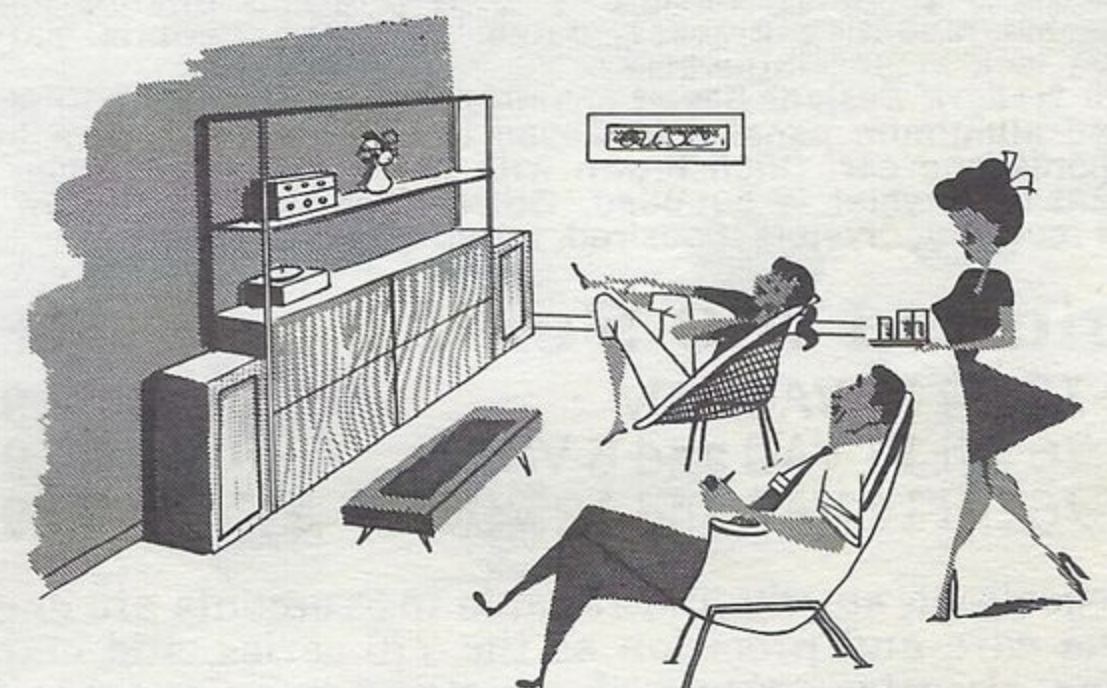
Bookshelf Convenience

BOOKSHELF-SIZE



*Complete with entirely factory-constructed enclosure
Easy to assemble—no gluing or woodworking necessary

SPECIFICATIONS: Frequency Response (along-the-wall position): Essentially uniform (± 5 db) from 52-14,000 cps. Response is only 10 db down from average level at 36 cps. The octave from 40 to 80 cps is undistorted and entirely usable. **Continuous Rated Power Handling:** 25 watts program. **Amplifier Power Requirements:** 10 clean watts minimum for high fidelity use; 4 clean watts minimum for good quality economy use. **Rated Impedance:** 16 ohms. **Dimensions (HWD):** 24 " x $12\frac{1}{2}$ " x 10 ". **Cabinet:** Completely factory-constructed (not a kit) with a decorator-designed frame and acoustical grille cloth in place. Fitted with speaker studs and supplied ready to receive speakers and networks.



2-Way Speaker System HFS5

	Semikit*	Wired
In unfinished birch	\$47.50	\$56.50
In oil walnut or satin mahogany	\$59.50	\$69.50

The Model HFS5 employs extraordinary engineering techniques to provide extremely clean, deep, and smooth bass from a bookshelf-size enclosure. It is a two-way system including an 8" bellows-suspension woofer (10.7 oz. Alnico 5 DG magnet, 45 cps free-air resonance, $\frac{5}{8}$ " max. double peak excursion) and a $3\frac{1}{2}$ " closed back tweeter of exceptional quality. The impregnated cloth bellows woofer suspension used excels in linearity of the force-displacement ratio over a very wide axial excursion and underlies the excellence of the bass reproduction. Frequency division is accomplished by a high-pass capacitor filter at 2000 cps; a level control is provided for the tweeter.

The enclosure is constructed of $\frac{3}{4}$ " stock and is tuned to 45 cycles by a tubular ducted port. The tuned enclosure loads the woofer and thereby reduces the cone excursion and the distortion in the octave from 40 to 80 cps, while providing substantial supplementary undistorted bass radiation from the port. A system Q of $\frac{1}{2}$ means that the speaker is critically damped when used with any modern amplifier of normal damping factor (7-20). Critical damping gives the smoothest possible frequency response and the best transient response.



NOW! 2-Way Radio Communications for You!

Citizens Band Transceivers

770 Deluxe Series

Model 770: 117 VAC only
Model 771: 117 VAC and 6 VDC*
Model 772: 117 VAC and 12 VDC*

	Kit	Wired
Model 770: 117 VAC only	\$69.95	\$ 99.95
Model 771: 117 VAC and 6 VDC*	79.95	109.95
Model 772: 117 VAC and 12 VDC*	79.95	109.95

Offering every luxury feature you need for easier, more effective Citizens Band communications:

- **4-Channel Crystal-Controlled Transmitting:** Channel-selector knob on front panel chooses one of four transmit crystals.†
 - **Crystal-Controlled Receiving Available with One Transmit Channel:** At one position, matched receiving crystal for same channel is selected to provide crystal control on both transmit and receive.†
 - **Continuous Tuning Over All 23 CB Channels available with 3 Transmit Channels:** Continuous receiver tuning over the 23 CB channels is employed at the remaining three transmit crystal positions.†
 - **"Press-to-Talk" Button Microphone:** Transmit-receive switching accomplished by high-quality relay with minimum capacity between contacts to prevent current leakages at RF frequencies.
 - **Superhet Receiver with RF Stage for High Sensitivity and Low Signal-to-Noise Ratio:** Includes 1750kc IF strip for unequalled image rejection and freedom from oscillator "pulling" on strong signals. IF strip is prealigned, and requires only "touch-up" alignment without instruments.
 - **Current Metering Jack in Series in Cathode Circuit:** Permits checking of input power to transmitter final, and adjusting it to FCC limit.
 - **Optimum Adjustment to Any Popular CB Antenna:** Achieved through use of variable pi network in output.
 - **13-Tube Performance:** 4 dual function tubes; 4 single function tubes; plus germanium diode.
 - **Adjustable Squelch Control:** In addition to automatic noise limiter.
 - **Built-in AVC:** Automatically boosts gain on weak signals.
 - **Built-in 3" x 5" Oval PM Speaker and Detachable Ceramic-Element Microphone.**
 - **5-Watt (maximum permissible power as defined by FCC) Crystal-Controlled Transmitter.**
 - **Covers up to 20 miles:** Depending on terrain and antenna height.
 - **Posi-Lock® Mounting Bracket (patent pending):** Permits 360° rotation, and positive lock at 30° intervals.
 - **Superb Modern Design:** Baked enamel steel cover and cast metal frame, lithographed aluminum panel color-keyed to blend with modern interior decor in both home and car. (Rich brown with beige, white and silver accents.)
- †One transmit crystal is supplied. Other transmit crystals are available, with matched receiving crystals if desired, for all 23 CB channels.

Standard 760 Series

Model 760: 117 VAC only
Model 761: 117 VAC and 6 VDC*
Model 762: 117 VAC and 12 VDC*

	Kit	Wired
Model 760: 117 VAC only	\$59.95	\$89.95
Model 761: 117 VAC and 6 VDC*	69.95	99.95
Model 762: 117 VAC and 12 VDC*	69.95	99.95

These excellent, sturdy and reliable instruments are engineered with the same care and precision as the 770 series, and employ much of the same circuitry, many of the same components. Only certain "luxury" features of the 770 series—facility for crystal receiving, press-to-talk relay, and the squelch circuit have been omitted, to make the transceivers of the 760 series superbly economical.

*Including Posi-Lock® mounting bracket (Pat. Pend.)



COMING SOON!

The New



Citizens Band Walkie-Talkie #740

	Kit	Wired
	\$54.95	\$79.95

Complete with rechargeable battery & charger



Easy to Operate as a Telephone—Station to Vehicle, Station to Station, Vehicle to Vehicle. License available to any citizen over 18—no exam or special skill required • Rugged • Powerful • Reliable • Economical

The entire transmitter oscillator circuit and RF final in every EICO transceiver kit is premounted, prewired, pretuned and sealed at the factory, (about 3 hours of skilled labor, precision adjustments, and testing, complying with FCC regulations (section 19.71, part d), and permitting you to build the kit and put it on the air without the supervision of a person holding commercial radio-telephone license.

SPECIFICATIONS

TRANSMITTER SECTION: Input Power to Final RF Amplifier: 5 watts maximum (FCC limit). Transmitter Frequency Range: 26.965-27.255 mc. Transmitter Frequency Control: 3rd overtone type quartz crystal operating within 0.005% of marked channel frequency between -32° and 140° F. In 770 series, socket provided for 4 different crystals selected by front panel switch. Modulation: AM plate modulation automatically limited to less than 100% (FCC requirement). Output Impedance: Variable "pi" network adjustment to different antenna types. Antenna Connector: On rear apron for connection of separate antenna of any type; 760 series has, additionally, facilities for either top mounting or panel mounting of directly attached base-loaded portable whip antenna. Indicators: On Panel: On-off pilot light; transmit indicator light. Microphone: Ceramic element plastic case, cord and connector. Microphone of 770 series has push-to-talk switch.

RECEIVER SECTION: Receiver Type: Superheterodyne with RF stage, 1750kc IF strip, and automatic noise limiter. 770 series has adjustable squelch control. Continuous Tuning Range: 26.965-27.255 mc. In 770 series, fixed tuning on any one channel available, depending on specified crystal. Sensitivity: 1 microvolt for 10 db signal-to-noise ratio. Audio Output: 1 watt at low distortion, 2 watt with tolerable distortion. Speaker: Built-in 3" x 5" oval PM. Transmit-Receive Mode Selection in 770 Series: Relay on chassis actuated by "press-to-talk" switch on microphone.

ORIGINAL EQUIPMENT: All models include appropriate built-in power supplies, line cord(s), one transmitting crystal, microphone cord, and connector. Antenna is not supplied as part of original equipment.

POWER SUPPLIES: All models have transformer-operated silicon diode double power supplies for 117 VAC, 60 cycle operation. Models 761, 762, 771 and 772 include, additionally, vibrator power supplies for 6 VDC and 12 VDC battery operation, respectively. The latter equipped with both regular and heavy duty line cords having appropriately wired connectors for 117 VAC and battery operation. Power consumption in 117 VAC operation is 60 watts. Current drain is 900 ma in 6 VDC battery operation and 4A in 12 VDC operation. **Tube Complement of 770 Series (Total of 8 plus 1 germanium diode):** 12BY7 transmitter final RF amplifier, EC97/6BY5 xmitter crystal oscillator exciter, 6BA6 rec. RF amplifier, 6U8A mixer, 6U8A 1st IF amplifier, crystal local oscillator, 6U8A 2nd IF amplifier, audio amplifier, 6FM8 noise limiter, squelch, microphone preamplifier, 6AQ5 rectifier, audio output or xmitter modulator, 1N295 germanium diode audio detector. **Tube Complement of 760 Series (Total of 7):** 12BY7 final RF amplifier, 6BA6 RF amplifier, 6U8A mixer, 6U8A 1st IF amplifier, audio amplifier, 6U8A 2nd IF amplifier, transmitter crystal oscillator, 6FM8 diode detector, noise limiter, microphone preamplifier, 6AQ5 audio output or transmitter modulator.

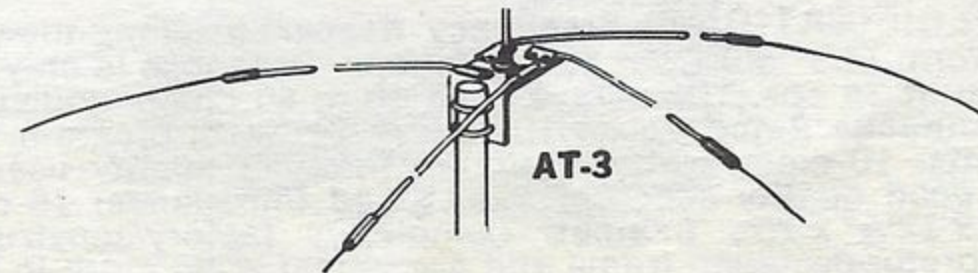
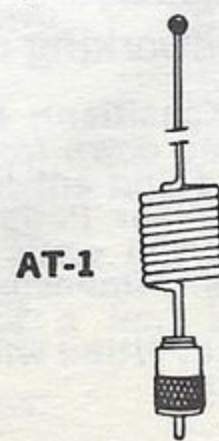
CABINET: Brown enamel steel with beige enamel cast metal frame; brown lithographed aluminum panel. Posi-Lock® mounting bracket permitting 360° rotation with positive locking at 30° intervals provided with dual supply mode only. Size (HWD): 6" x 8½" x 9". Weight: 12 lbs.

ACCESSORIES: Crystals—Additional Transmitting Crystals: Available frequencies on request—\$3.95 each. Receiving Crystal for 770 Series: Available frequencies on request—\$3.95 each.

ANTENNAS:

For maximum range at permanent base station (home, office, factory, etc.): **Ground Plane Antenna AT-3:** A roof-type nondirectional antenna fitting 1" IF pipe. Vertical radiator and four 2-piece radials are solid aluminum, all removable from cadmium plated steel mounting bracket. "U" bolt hardware furnishes Base accepts PL-259 connector. Supplied with 50' of RG-58/U cable having PL-259 connector at one end and auto-radio lead-in connector on other end. Weight 3½ lbs.—\$19.95.

For easy portability—**Base-Loaded Portable Whip Antenna AT-1 (760 series only):** Can be directly attached to either top or panel of transceiver unit. Vinyl covered loading coil wound into rod reduces length to 40". Complete with PL-259 connector fitting top or panel connector on transceiver unit. Weight 1 lb., 4 oz.—\$6.95



For Veteran and Novice—Uncompromising Engineering...

Compact Design... Modest Prices...

Ham Radio Gear

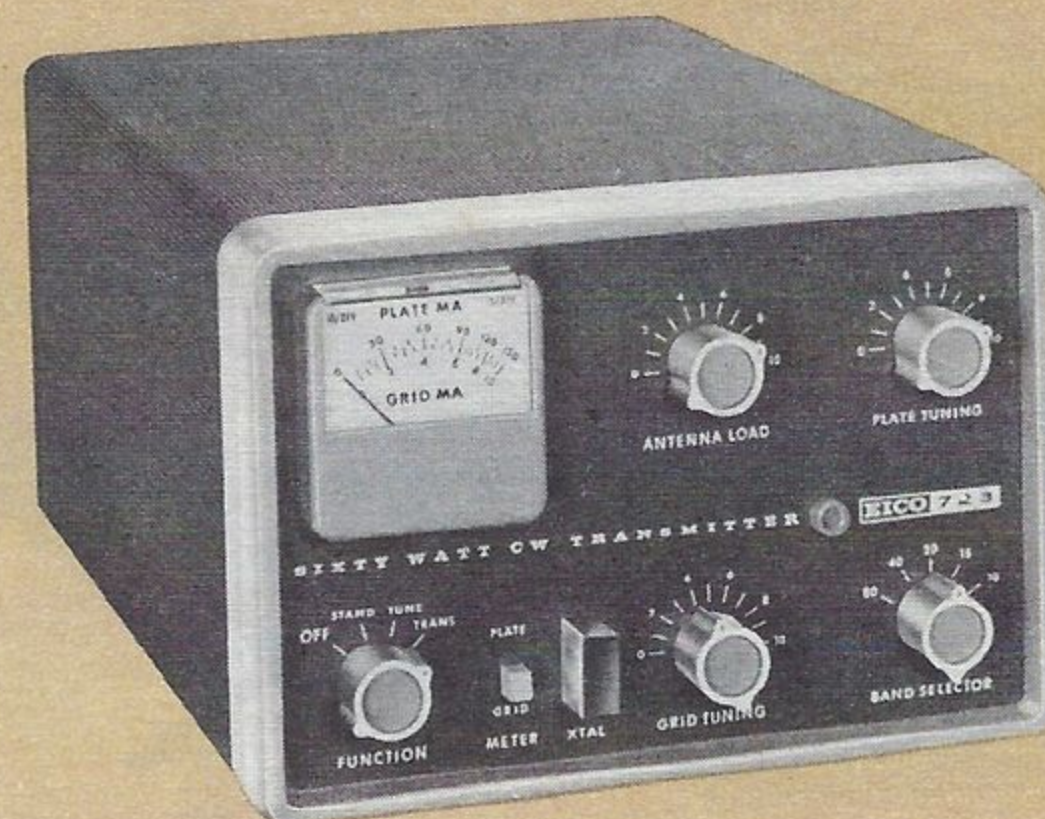
New 60-Watt CW Transmitter #723

Kit \$49.95

Wired \$79.95

Ideal for the novice as well as for the advanced ham requiring a low-power stand-by rig, the new Model 723 is a fine example of EICO's uncompromising engineering standards. Employing time-proven circuitry throughout, the new model is nevertheless up-to-the-minute in conception and design. The 6CL6 oscillator is an electron-coupled Colpitts type noted for low crystal heating and minimized effect of plate loading on frequency, and the full-wave, choke input, 500-volt power supply employs a high-efficiency GZ34 rectifier. The output pi network consists of a tapped coil and plate-tuning and antenna-loading air variables. Another air variable tunes the grid tank of the final (and the plate tank of the oscillator). The panel meter can be switched into either the grid or plate circuit of the final. Rear apron load switch inserts extra capacity for low Z loads on 80 and 40 meters. Modulator/accessory socket for modulator input, antenna relay, VFO power take-off and emergency power input. Features include:

- 60 watts input to a rugged 6DQ6-B neutralized final on CW
- External plate modulation, permitting use as AM phone transmitter of up to 50 watts input
- One-knob bandswitch covering 80, 40, 20, 15, and 10 meters
- One-knob Off-Standby-Tune-Transmit switch
- Oscillator keying for break-in operation
- Effective TVI suppression through filtering and bypassing, copper-plated chassis and solid die-cast bezel providing tight-fitting joint between panel and chassis
- Beautifully modern styling—attractive in living room or "shack"



SPECIFICATIONS: Power Input: 60 watts CW; 50 watts AM-phone with external plate modulation. Output Load Impedance: 50-1,000 ohms. Band Coverage: 80, 40, 20, 15, 10 meters. Operation: Crystal, external VFO, external plate modulation. Tubes: 1-6DQ6-B final amplifier, 1-6CL6 oscillator, 1-GZ34 rectifier. Power Requirements: 117 volts, 60 cycles AC, 140 watts. Cabinet Size (HWD): 6" x 8½" x 11¼". Weight: 15 lbs.

90-Watt CW Transmitter* #720

Kit \$79.95

Wired \$119.95

"Ideal for veteran or novice"—ELECTRONIC KITS GUIDE

"Top quality"—POPULAR ELECTRONICS

"Well designed"—ELECTRONICS WORLD (LAB-TESTED)

This exceptionally conservative, stable, high efficiency instrument, housed in a modern "low-silhouette" cabinet to permit its use in normal living room space, is a very "clean" 90-watt CW, 80 through 10 meters bandswitching amateur transmitter. External plate modulation terminals permit use as an AM phone transmitter delivering up to 65 watts plate power input with the EICO Model 730 High Level Universal Modulator-Driver. A basic VFO unit will also be available in a short time, which can be plugged into the Model 720 without modification. Some important design features of the 720 are:

- One-knob band-switching—no coils to change
- One-knob power, tune, and operate switch
- Final amplifier grid drive control without detuning oscillator
- 6146 final amplifier for full 90 watts CW input
- Completely sealed cabinet and careful by-passing and choking of all input and output leads for effective TVI suppression
- Protection of final amplifier, provided by clamper tube circuit, when a loss of excitation exists
- No shock hazard at key terminals
- "Novice limit" calibration (75 watts) on the meter
- Matching antennas from 50 to 100 ohms



SPECIFICATIONS: Power Input: 90 watts CW (novice limit calibration on meter); 65 watts AM-phone with EXT plate modulation. Output Load Impedance: 50-1000 ohms. Band Coverage: 80, 40, 20, 15, 11, 10 meters. Operation: XTAL, EXT, VFO. Tubes: 1-6146 final amplifier, 1-6CL6 oscillator, 1-6AQ5 clamper, 1-6AQ5 buffer-multiplier, 1-GZ34 rectifier. Power Requirements: 115 volts, 60 cycle AC. Cabinet Size: 15" wide x 5" high x 9" deep. Shipping Weight: 27 lbs.

*U. S. Pat. No. D-184,776

High-Level Universal Modulator-Driver #730

Kit \$49.95

Wired \$79.95

Cover E-5 \$4.50

This superb, truly versatile, low cost modulator can deliver 50 watts of undistorted audio signal for phone operation—more than sufficient to modulate 100% the EICO Model 720 90-Watt CW Transmitter, ELCO Model 723 60-Watt CW Transmitter or any transmitter whose RF amplifier has a plate input power of up to 100 watts.

The multi-match output transformer matches most loads between 500 to 10,000 ohms. Its unique over-modulation indicator permits easy, reliable monitoring, thus precluding any need for a plate meter. It provides low level speech clipping and filtering with peak speech frequency range circuitry. Its low distortion feedback audio circuitry employs premium quality audio power pentodes; the vacuum tube rectifier is the extra-rugged, slow warmup GZ34 which eliminates high starting voltages and lengthens electrolytic and tube life.

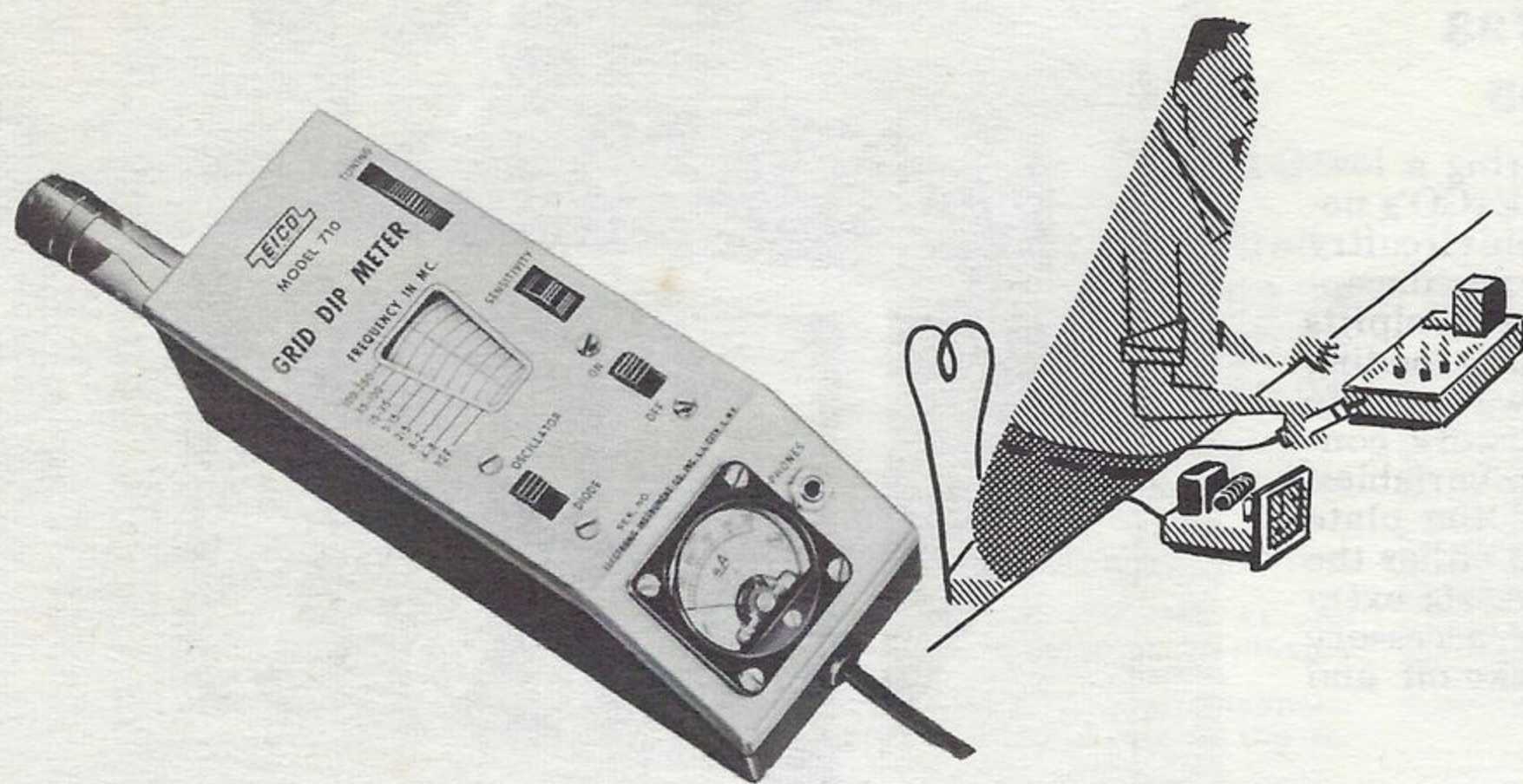
Balance and bias adjustment controls are also provided. Finest quality, conservatively rated parts are used throughout. The Model 730 is also an excellent low impedance driver for a class B high-power modulator.



SPECIFICATIONS: Power Output: 50 watts. Output Transformer Matching Impedances: 500 to 10,000 ohms. Inputs: Low level, high impedance—crystal or dynamic mikes. High level, low impedance—phone patch, etc. Tubes: 1-ECC83/12AX7 speech amplifier, 1-6AL5 speech clipper, 1-6AN8 amplifier driver, 2-EL34/6CA7 power output, 1-EM84 over-modulation indicator, 1-GZ34 rectifier. Power Requirements: 117 volts, 60 cycles; 150 watts drain. Size: 6" high x 14" wide x 8" deep. Weight 21 lbs.

Add 5% in the West. Slightly higher in Canada.

Ham Accessories...



Grid Dip Meter #710

Kit \$29.95 Wired \$49.95

Including complete set of coils for full band coverage

- An exceptionally versatile, stable, rugged, compact instrument for work in amateur radio and in electronic servicing
- Covers all broadcast, FM, "ham" and TV bands in 8 overlapping ranges
- Precision 500-microampere meter movement
- Accurately wound ($\pm 1\%$) plug-in coils

Basically a VFO with a microammeter in its grid circuit, the 710 determines frequency of other oscillators or tuned circuits; has a sensitivity control and phone jack to facilitate "zero beat" listening; and excels as an absorption wave meter. Ham uses: pretuning and neutralizing transmitters, power indication, locating parasitic oscillations, antenna adjustment, correcting TVI, general de-bugging with transmitter power off, determining C.L.Q. Electronic servicing uses: alignment of traps, filters, IF's, peaking compensation networks, and as signal or marker generator. Easy to hold and thumb-tune with one hand. Continuous coverage of broadcast, FM, ham and TV bands in 8 ranges. Brushed satin deep-etched aluminum panel; grey wrinkle steel case.

SPECIFICATIONS: Frequency Range: 400 kc-250 mc in 8 overlapping ranges. Meter Movement: 500 microamperes. Plug-in Coils: Accurately wound to $\pm 1\%$ accuracy, inside polystyrene forms. Labelled for easy identification. Circuit: Exceptional stability is obtained with improved grid current stability over tuning range. Tuning: Tuning condenser, equipped with planetary drive of 1:7 ratio. Tube: 6AF4(A) (Colpitts oscillator). Scale: Rotating drum, 340° rotation. All scales on the drum are the same length for all ranges. Scale is illuminated by pilot light, is approximately 3 3/4" long. Power Requirements: 117v 50/60 cy; 10 watts. Power Supply: Transformer-operated selenium rectifier. Dimensions: 2 1/4" high x 2 3/8" wide x 6 7/8" long. Net Weight: 3 lbs.



New Code Practice

Oscillator Model 706

Kit \$8.95 Wired \$12.95

Supplied with battery

Invaluable aid for learning Morse Code with outstanding conveniences not found in other units. Unusually efficient speaker provides a clean, loud signal. Includes pitch control to obtain subjectively pleasing tone, phone jack for private use, and choice of tone, flashing light, or both together. Employs battery-operated transistor oscillator to provide many years of trouble-free service.

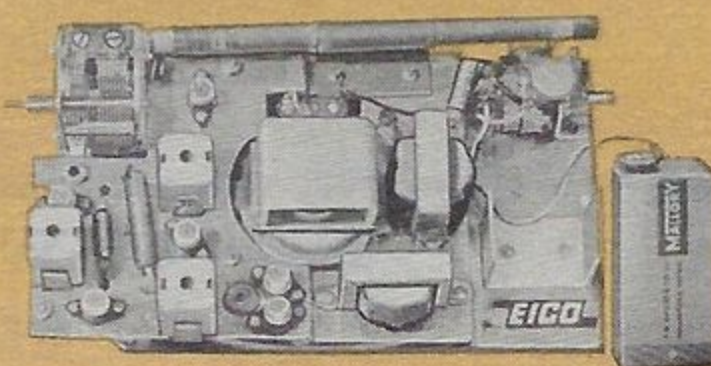
SPECIFICATIONS: Tone Frequency Range: Approx. 500 to 2000 cps, continuously variable. Controls: PITCH, TONE, and/or LIGHT. Current Drain (Tone): 40 ma at 3VDC. Current Drain (Light): 300 ma at 3VDC. Current Drain (Tone and Light): 340ma at 3VDC. Terminals: Key, Phones. Case: High-impact bakelite. Panel: Satin finish, deep-etched aluminum. Size: 6 1/2" high, 3 3/4" wide, 2 3/4" deep. Shipping Weight: 2 lbs.

Transistor Portable Radio RA6

Kit \$29.95

Wired \$49.95

Includes FET



"This new portable... is among the finest we have seen to date"
—ELECTRONICS WORLD LAB TESTED

Even a novice can build this modern American all-transistor superheterodyne portable receiver and be sure of a handsome professional assembly, and outstanding performance. The utilization of transistor circuitry and finest quality parts throughout assures you that your set will not only perform magnificently, but will take the kind of punishment that a portable radio *should* take.

Here is a portable that gives you a lifetime of big-set radio entertainment wherever you go, indoors or out: on picnics, boating, bicycling, strolling, hiking, horseback riding. Plug in an earphone and listen in complete privacy, without disturbing others, in dormitories, or in hospital rooms.

Developed in EICO's laboratories to meet our traditionally high standards, the RA6 provides unusual sensitivity, selectivity, and high undistorted sound output in a size that's just right for comfortably carrying. An efficient 4" x 6" oval PM speaker driven by a 250 milliwatt push-pull output stage supplies satisfying big-set volume and tone quality.

Operating features include planetary vernier tuning (7:1 reduction) that makes it easy to find and tune in stations properly; a high impedance earphone jack that eliminates the drain of the output stage when an earphone is in use; and a built-in rod-type antenna for good reception in any location.

Kit construction features include the latest type plug-in transistor sockets and prealigned IF transformers permitting top performance to be achieved by a slight touch-up alignment using a radio station broadcast as reference. The RA6 is housed in a tan, simulated leather carrying case with retractable handle.

Compact Size: 8 1/2" long, 4 1/2" high, 2 1/2" deep

Shipping Weight: 3 lbs.

Requires battery (not supplied) of N.E.D.A. type 1602 (type number for Ray-O-Vac, Burgess, Mallory) equivalent to RCA VS305, Eveready 246, mercury type Mallory TR246R.

Civil Defense and emergency rescue authorities recommend a battery-operated radio in every home. Every EICO Transistor Portable shows the two CONELRAD frequencies as 2 gold arrows on the tuning dial.



New Versatility and Compactness in Professional Test Equipment

AC VTVM & AMPLIFIER #250



New EICO
Engineering
Achievement

kit \$49.95 wired \$79.95

The Model 250 is a high sensitivity, wide-band AC VTVM & AMPLIFIER of laboratory accuracy and quality. It measures AC voltage from 100 microvolts to 300 volts in 12 ranges. A function selector switch on the panel converts the instrument to a wide-band amplifier with a gain of 60 db on the 1mv range, and a maximum output of 5 volts RMS.

The instrument responds to the average value of the applied wave and reads in RMS value of a sine wave. The 0-1, 0-3 voltage scales are linear. The decibel scale is based on 0 db = 1 mw in 600 ohms, with 10 db interval between ranges.

features

- Frame-grid triode cathode follower input circuit; frequency-compensated input attenuator, and cathode circuit attenuator
- Use of high-gain frame-grid pentodes permits fewer amplifier stages for less phase shift and greater stability
- Two-stage R-C coupled amplifier, and full-bridge meter circuit in one overall feedback loop
- Single sensitivity adjust
- No response adjustment required in amplifier circuit
- Stabilized power supply incorporates voltage regulator
- DC-biased filaments and hum-adjust pot

specifications

VOLTMETER: Voltage Ranges: 1, 3, 10, 30, 100, 300 RMS millivolts. 1, 3, 10, 30, 100, 300 RMS volts. Decibel Range: -80 to +52 db, in 12 ranges. Frequency Response: ± 0 db 10 c to 600 kc. Input Impedance: 10 megohms shunted by 15 mmf. Accuracy: $\pm 3\%$ of full scale. Maximum Hum & Noise: 30 microvolts (on any range).

AMPLIFIER: Max. Output Voltage: 5 RMS volts. Max. Gain (1 mv Range): 60 db. Frequency Response: +0, -3 db 8 c to 800 kc. Maximum Hum & Noise: 30 microvolts at output. Input Impedance: 10 megohms shunted by 15 mmf. Output Impedance: 5K ohms. Tube Complement: 2-6EJ7/EF184 frame-grid pentodes, 1-6FY5/EC97 frame-grid triode, 1-6X4 full-wave rectifier, 1-OA2 voltage regulator. Power Requirements: 105-125 VAC, 60/50c; 15 watts drain. Size (HWD): $8\frac{1}{2}'' \times 5\frac{3}{4}'' \times 7''$. Weight: 7 lbs.

AC VTVM #255



New EICO
Engineering
Achievement

kit \$44.95 wired \$72.95

The Model 255 is a high sensitivity, wide-band AC VTVM of laboratory accuracy and quality. It measures AC voltage from 100 microvolts to 300 volts in 12 ranges.

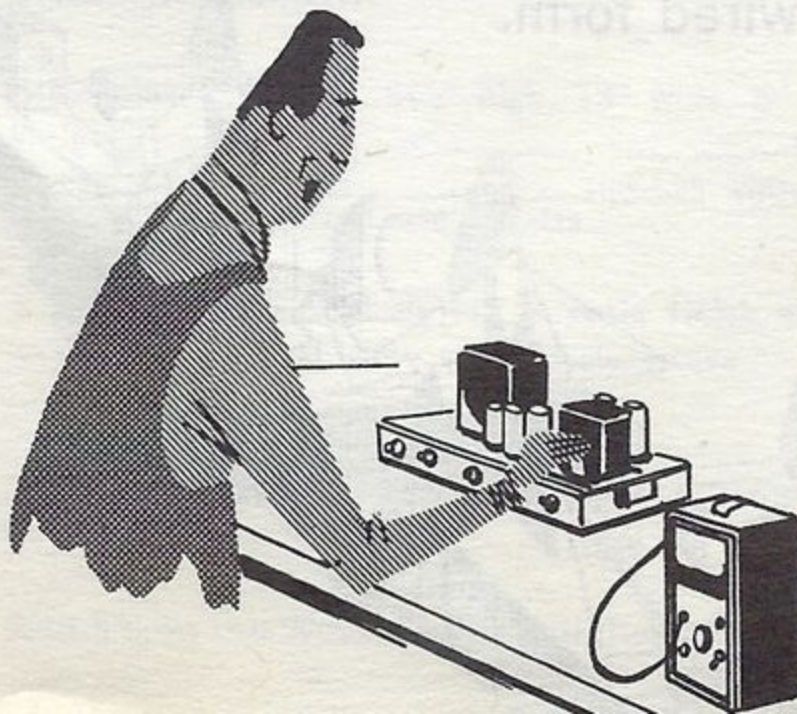
The instrument responds to the average value of the applied wave and reads in RMS value of a sine wave. The 0-1, 0-3 voltage scales are linear. The decibel scale is based on 0 db = 1 mw in 600 ohms, with 10 db interval between ranges.

features

- Frame-grid triode cathode follower input circuit; frequency-compensated input attenuator, and cathode circuit attenuator
- Use of high gain, frame-grid pentodes permits fewer amplifier stages for less phase shift and great stability
- Two-stage R-C coupled amplifier, and full-bridge meter circuit in one overall feedback loop
- Single sensitivity adjust
- No response adjustment required in amplifier circuit
- Stabilized power supply incorporates voltage regulator
- DC-biased filaments and hum-adjust pot

specifications

Voltage Ranges: 1, 3, 10, 30, 100, 300 RMS millivolts. 1, 3, 10, 30, 100, 300 RMS volts. **Decibel Range:** -80 to +52 db in 12 ranges. **Frequency Response:** ± 0 db 10 c to 600 kc. **Input Impedance:** 10 megohms shunted by 15 mmf. **Accuracy:** $\pm 3\%$ of full scale. **Maximum Hum & Noise:** 30 microvolts (on any range). **Tube Complement:** 2-6EJ7/EF184 frame grid pentodes, 1-6FY5/EC97 frame-grid triode, 1-6X4 full-wave rectifier, 1-OA2 voltage regulator. **Power Requirements:** 105-125 VAC, 60/50c; 15 watts drain. **Size (HWD):** $8\frac{1}{2}'' \times 5\frac{3}{4}'' \times 7''$. **Weight:** 7 lbs.



AC VOLT-WATT METER #260



New EICO
Engineering
Achievement

kit \$49.95 wired \$79.95

AC voltmeter and load-compensated audio-wattmeter of unique quality and accuracy. Measures AC voltage from 1 millivolt to 1000 volts in 11 ranges, and power from .015 milliwatt to 150 watts, in 7 ranges, across standard loads from 4 to 600 ohms.

The instrument incorporates a tapped power resistor load (4, 8, 16 and 600 ohms) to handle up to 80 watts of power on 8 ohms, and 40 watts on other taps. It may be switched to external load up to 150 watts. The meter is automatically compensated for any load selected, internal or external, to provide a single watt scale for all loads and ranges.

The instrument is an average reading device calibrated in RMS voltage or power of a pure sine wave. The 0-1, 0-3 voltage scales are linear and the single 0-1.5 power scale is quadratic. In wattmeter use, the decibel scale reads directly in dbm with any of the four standard loads selected. In voltmeter use, the decibel scale reads directly in dbm with a 600 ohm load; corrections must be applied for any other load. (0 dbm = 0.775V across 600 ohms). The interval between successive wattmeter or voltmeter ranges is 10 db.

applications

Use it to measure amplifier gain response, amplifier power output, network response, and output level... Use it for null indication, for "Q" measurement, and for comparison measurement of capacity, resistance, and inductance.

features

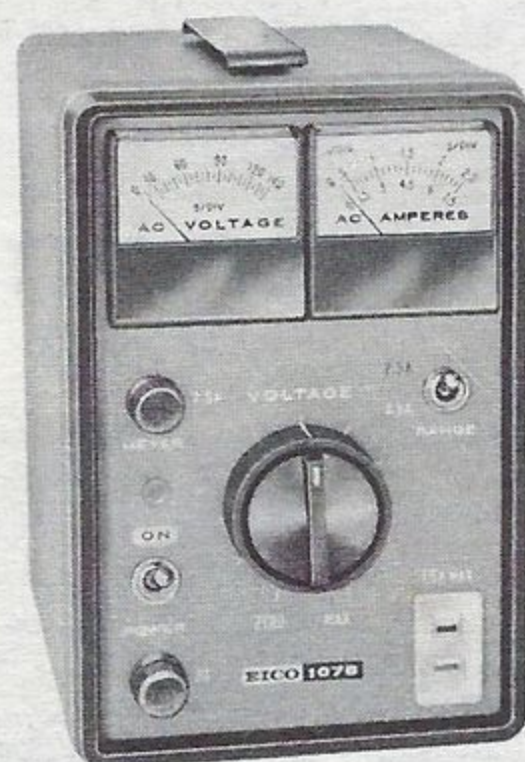
- 11 Voltage Ranges—7 Power Ranges
- Automatically compensates for any load selected, internal or external, to provide a single watt scale for all loads and ranges
- Voltage-regulated silicon diode power supply
- 1000-Volt range for power transformer checking

specifications

VOLTMETER: Ranges: .01, .03, .1, .3, 1, 3, 10, 30, 100, 300, 1000 RMS volts. **Frequency Response:** ± 0 db 10 c to 150 kc, -3 db at 50 kc. **Input Impedance:** 2 megohm shunted by 15 mmf. **Accuracy:** $\pm 4\%$ of full scale.

WATTMETER: Ranges: .15 mw, 1.5 mw, 15 mw, 150 mw, 1.5W, 15W, 150W. **Frequency Response:** ± 0 db 10 c to 100 kc. **Accuracy:** $\pm 5\%$. **Internal Loads:** 4 ohms (40W), 8 ohms (80W), 16 ohms (40W), 600 ohms (40W). **External Loads:** 4 ohms, 8 ohms, 16 ohms, 600 ohms (all to 150W). **Tube Complement:** 6BL8/ECF80 pentode-triode, 12AT7 dual triode, OB2 voltage regulator. **Power Requirement:** 105-125 VAC, 60/50 cps; 15 watts drain. **Size (HWD):** $8\frac{1}{2}'' \times 5\frac{3}{4}'' \times 7''$. **Weight:** 6 lbs.

METERED VARIABLE AC BENCH SUPPLIES



Model 1073

(3-ampere current rating)

kit \$35.95 wired \$47.95

Model 1078

(7½-ampere current rating)

kit \$42.95 wired \$54.95

Invaluable for production line testing, quality control, and service work, EICO's new, instrument-styled, fully metered variable AC supply is a must for every engineering bench... Use it to study performance under varying line conditions—to check power consumption—to compensate for power line voltage variations—to expose intermittent components by inducing failure with over-voltage... Available in two models differing only in current rating and ammeter range, the new instrument is rugged and compact in construction and presents an entirely professional laboratory appearance.

features

- 0-140 VAC adjustable output voltage from 120 VAC power line input
- Highly efficient variable auto-transformer of toroidal core design
- Smooth rotary brush-tap controlled by dial on panel
- Linear variation of output voltage, 0-140 volts
- No waveform distortion or significant voltage drop from no load to full load
- Separate output ammeter and output voltmeter
- Dual range ammeter: switching permitted under load
- Auto-transformer and ammeter protected by separate extractor-post fuses on panel
- 2-pole power switch disconnects both sides of power line

specifications

Frequency: Model 1073—60 cycles. Model 1078—50/60 cycles. **Input Voltage:** 120 VAC. **Output Voltage:** 0-140 VAC (30-140 VAC voltmeter). **Output Current:** 1073—Two ranges: 0-1, 0-3 amperes. 1078—Two ranges: 0-2½, 0-7½ amperes. **Switching:** POWER switch, 2-pole type, disconnects unit from both sides of power line at OFF position. RANGE switch selects lower or higher current range for ammeter. Range may be switched under load. **Meter Accuracies:** ±3% of full scale. **Line Connection:** 2-wire cord and plug. **Load Connection:** 2-wire output receptacle. **Fusing:** Auto-transformer—Model 1073: 3 ampere slo-blo. Model 1078: 7½ ampere slo-blo. Ammeter—1-ampere fuse protects ammeter on both current ranges for Model 1073. 2½-ampere fuse protects ammeter on both current ranges for Model 1078. **Size (HWD):** 8½" x 5¾" x 7". **Shipping Weight:** Model 1073—9 lbs. Model 1078—13 lbs.

For
production
line and
laboratory
work...

EICO® GIVES YOU

- Professional Performance
 - Reliability
 - Ruggedness
 - Versatility
- ... and at moderate cost

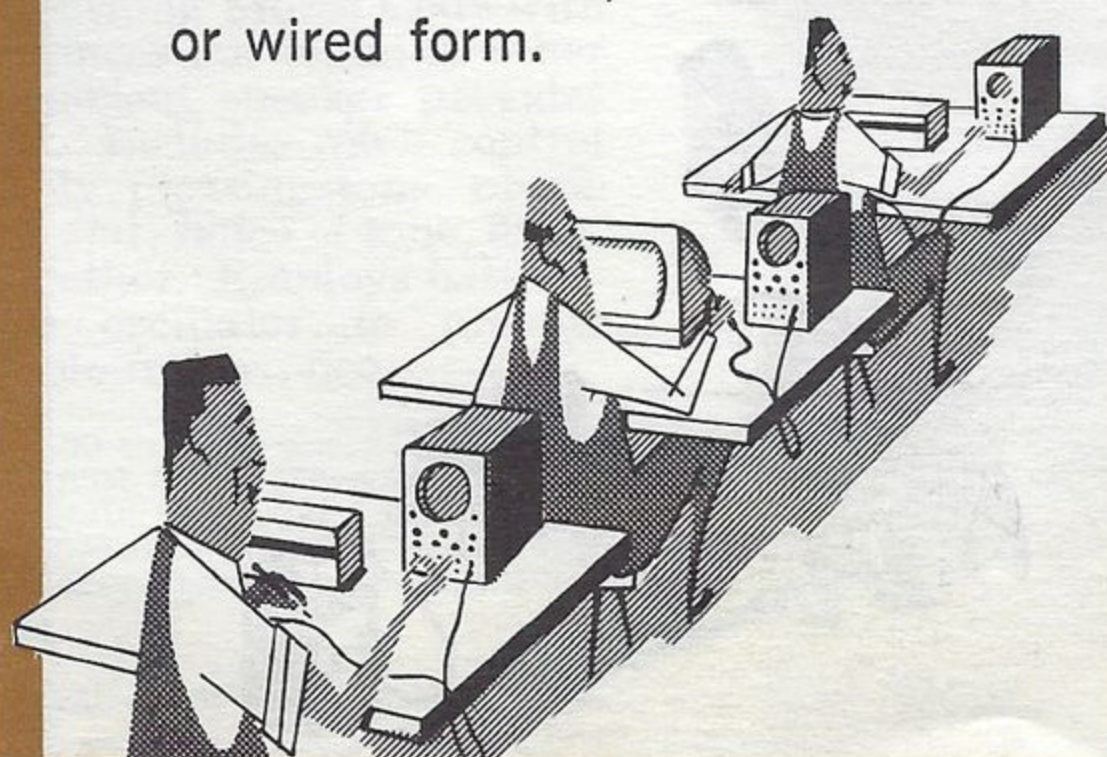
EICO's high quality standards and low initial costs add up to **true economy:** EICO's factory-wired units normally outperform and outlast similar units costing far more.

With EICO kits, of course, the initial cost is even lower. And the use of kits brings additional savings: As one builds one's own scope, VTVM, power supply, etc., one gets to know the instrument literally inside and out.

This means one works with it more efficiently, and therefore far more economically.

- And, when anything goes wrong, this same inside-and-out familiarity simplifies repairs, and reduces "down" time to a minimum. Maintenance charges virtually disappear!

Drop in on your nearest EICO distributor. Let him demonstrate the many advantages you will derive from using EICO test instruments, in either kit or wired form.



extra-low-ripple 6- and 12-volt BATTERY ELIMINATOR AND CHARGER #1064



kit \$43.95 wired \$52.95

Delivers the smooth, undistorted DC necessary for servicing transistorized equipment, or for any application where minimum ripple is mandatory. The extra-low-ripple output is achieved through the use of a special L-C filter circuit consisting of a very heavy-duty iron choke and a dual 5000 mf 20 Volt electrolytic filter capacitor. The ability of this circuit to handle the full continuous as well as the higher intermittent rated current output of the instrument, without danger of overloading or burnout—on both current ranges—ensures that the many advantages of its highly filtered DC output are available for all conceivable applications.

features

- Two DC voltage ranges: 0-8 volts and 0-16 volts
- Simultaneous monitoring of both voltage and current on both ranges
- Exclusive: Automatic switching of appropriate ammeter range as you select either of the 2 voltage ranges
- Separate voltmeter and dual-range ammeter for more accurate readings
- Continuous voltage adjustment with variable-type transformer
- Fused transformer primary
- Transformer secondary also protected by means of automatic re-set overload relay
- Extra heavy-duty selenium rectifiers
- All parts operated well below their stated ratings for voltage and current
- Compact, professional appearance

applications

Operating 6- or 12-volt transistor, tube, or "hybrid" auto or portable radios under repair... Charging 6- or 12-volt storage batteries... Simulating various battery operating voltages for detecting intermittents and shorts in radio equipment... Supplying DC for filament voltages in high gain audio circuit work... Determining starting point of vibrators... Determining voltage operating range of oscillator circuits... Running small electrical appliances (shavers, trains, etc.).

For marine use: Operating boat lights, radio-phones, amplifiers, transmitters, bilge pump and other electrical utility units while at dockside, eliminating the need for installing a costly secondary AC lighting system.

specifications

DC Output Voltage Ranges: (Range selected by 6V-12V toggle switch) 0-8 volts, 0-16 volts. **Current Ratings:** 0-8 volt range: 10 amps continuous, 20 amps intermittent; 0-16 volt range: 6 amps continuous, 10 amps intermittent. **AC Ripple:** 0-16 volts range: 0.3% @ 2 amps, 1% @ 6 amps, 1.5% @ 10 amps; 0-8 volt range: 1.5% @ 2 amps, 2% @ 6 amps, 4.5% @ 10 amps. **Meters:** Voltmeter—0-20 volts. Ammeter—0-10, 0-20 amps. **Power Requirements:** 105-125 volts AC, 50/60 cps; 150 watts. **Size (HWD):** 8½" x 5¾" x 7½". **Weight:** 14 lbs.

peak-to-peak
VTVM #232
complete with UNI-PROBE®
U.S. Pat. No. 2790051
kit \$29.95
wired \$49.95



for COLOR &
MONOCHROME
TV SERVICING

The established leader in professional peak-to-peak VTVMs. You could spend 2 and 3 times more and not get all the advanced engineering features of this precision instrument. By far the best professional VTVM value in electronics. Up-to-the-minute in circuitry, design, functional simplicity and modern styling, with high sensitivity and precision, wide ranges and versatility — and day-in day-out dependability. Nobody but EICO brings you such outstanding instrument performance for so low a price!

applications

For all TV/FM/AM/electronic servicing with highest accuracy... true peak-to-peak measurement of complex voltage waveforms (necessary in TV servicing) and both peak-to-peak and RMS measurement of sine wave AC voltages on separate scales, plus DC voltage and resistance measurements... precision dynamic DC voltage measurement with negligible circuit loading... frequency response measurement... output meter... servicing electrical equipment.

features

- † Calibration without removing from cabinet
- ** Dual-purpose AC/DC UNI-PROBE — exclusive with EICO: Terrific timesaver! A half-turn of probe-tip selects DC or AC-Ohms
- New balanced bridge circuit for exceptional stability and accuracy
- High impedance input for negligible circuit loading
- Large 4 1/2" meter in can't-burn-out circuit
- 7 non-skip ranges on every function
- 4 functions: +DC Volts, -DC Volts, AC Volts, Ohms
- Uniform 3 to 1 range ratio for extreme wide-range accuracy
- Zero-center for TV-FM discriminator alignment
- One zero-adjustment for all functions and ranges
- 1% precision ceramic multiplier resistors
- Smart professional styling — satin finish etched aluminum panel, grey wrinkle steel case
- Transformer-operated for isolation and safety

specifications

Peak-to-Peak AC Voltmeter Ranges:.....0-4, 14, 42, 140, 420, 1400, 4200 volts
RMS Sine Voltage Ranges:.....0-1.5, 5, 15, 50, 150, 500, 1500 volts
DC Voltage Ranges:.....0-1.5, 5, 15, 50, 150, 500, 1500 volts. Reads up to 30,000 volts with HVP probe* using 1090-megohms Multiplier Resistor
Frequency Response:.....30 cps to 3 mc (up to 250 mc with PRF probe)*
Ohmmeter:.....0.2 ohms to 1000 megs in 7 ranges
Tube Complement:.....12AU7, 6AL5, selenium rectifier
Battery:.....1.5 v Weight:.....7 lbs.
Power Requirements:.....105-125 volts AC, 50/60 cps, 5 w.
Overall Size:.....8 1/2" high x 5" wide x 5" deep

DELUXE
vacuum tube
VOLTMETER #214
kit \$34.95
wired \$54.95



All the versatility and performance-proven features of #221 — Plus the extra convenience and legibility of its big 7 1/2" meter.

Dimensions:.....9" high, 13 1/4" wide, 6" deep
Weight:.....11 lbs.
Power Requirements:.....105-125 volts AC, 50/60 cps, 10 watts
Lifetime deep-etched aluminum panel; rugged grey steel case

vacuum tube
VOLTMETER #221
kit \$25.95
wired \$39.95



All the modern advanced features you need for all-around efficiency of electronics servicing... versatility, rugged construction, lifetime dependability — all at EICO's amazing low price.

applications

The famous EICO performance-proven Vacuum Tube Voltmeter — OVER 100,000 in use the world over — an excellent rugged instrument for field, shop, laboratory or production line use.

Entirely electronic measurement of a-c voltage, d-c voltage, decibels and resistance... precision dynamic d-c voltage measurement with negligible circuit loading... all TV, radio and electronics servicing... frequency response measurement... output meter... checking continuity... servicing electrical equipment.

features

- Improved, double triode, balanced bridge circuit for accuracy and stability
- High impedance 25 megohm input for negligible circuit loading
- 1% precision ceramic resistors
- Large 4 1/2" meter in CAN'T-BURN-OUT CIRCUIT
- Center scale zero adjustment for TV & FM alignment
- DB scale for gain measurement
- Transformer-operated for isolation and safety
- Accessory probe kits available*

specifications

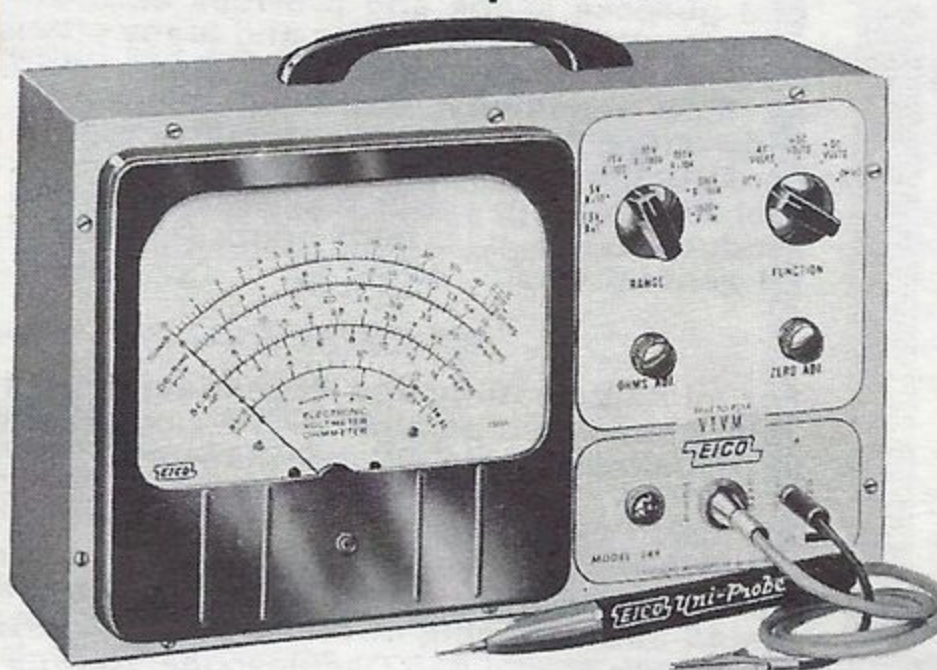
DC Voltmeter:.....Ranges: 0-5, 10, 100, 500, 1000 volts
To 30 kv with HVP probe* using 740-megohms Multiplier Resistor
Input Resistance: 25 megohms
Accuracy ±3%
AC Voltmeter:.....Ranges: 0-5, 10, 100, 500, 1000 volts
Input Resistance: 3 megohms
Accuracy ± 5%
Frequency Response: 20-200,000 cps:
Up to 200 mc with PRF accessory probe*
Peak-to-peak with PTP accessory probe*
DB Ranges:.....20 to +55 db in 5 ranges
Ohmmeter:.....Ranges: 0-1000 ohms, 10,000 ohms, 1 megohm, 10 megohms, 1000 megohms.
Accuracy: ±3%
Multiplier Resistors:.....±1% precision ceramic Tubes:.....1-6H6, 1-6SN7, 1-6X5
Batteries:.....1 1/2 V flashlight cell
Power Requirements:.....105-125 VAC, 50/60 cps, 10 watts
Overall Dimensions:.....9-7/16" high, 6" wide, 5" deep
Meter Size:.....4 1/2" Weight:.....10 lbs.
Lifetime deep-etched aluminum panel; rugged grey steel case

EXCLUSIVE VISUAL TRAINING AID!
Vacuum Tube Voltmeter
DYNAMIC DEMONSTRATOR
only \$10.00



Simulates EICO #221 VTVM in all its functions and ranges. Helps you teach the use and reading of the VTVM with giant 13" meter scale. 14 3/4" wide x 23" high x 3 1/8" deep. Easily viewed from desk or wall by complete class. Punched holes for easy hanging. Steel cabinet, aluminum panel.

DELUXE peak-to-peak
VTVM #249
with 7 1/2" Meter & exclusive Uni-Probe
kit \$39.95
wired \$59.95



for COLOR &
MONOCHROME
TV SERVICING

Dual-Purpose AC/DC Uni-Probe
Terrific time-saver! Only 1 probe performs all functions — a half-turn of probe-tip selects DC or AC-OHMS!

ALL THE OUTSTANDING AND EXCLUSIVE FEATURES OF #232 — PLUS THE EXTRA CONVENIENCE AND READABILITY OF ITS BIG 7 1/2" METER. AN IDEAL BENCH INSTRUMENT.

Dimensions:.....8 1/2" high, 13" wide, 5" deep
Weight:.....9 lbs.
Power Requirements:.....105-125 volts AC, 50/60 cps, 5 watts

- Smart professional styling — satin finish etched aluminum panel, grey wrinkle steel case

*SEE PAGE 23 FOR ACCESSORY PROBES

Add 5% in the West. Slightly higher in Canada.



COLOR
& black & white
lab & tv service
5" SCOPE
5 mc bandwidth
& dc amplifiers
#460
kit \$79.95
wired \$129.50

applications

Ideal for COLOR and BLACK-AND-WHITE TV servicing; electronic and industrial research, development, maintenance and production line work; all audio testing and experimentation; reproduction of 3.58 mc sync burst and 3.58 mc oscillator signals in color TV sets; DC amplifiers give zero tilt on low frequency square waves.

features

- Flat from DC to 4.5 mc for reproduction of 3.58 mc sync burst and oscillator signals in color TV sets
- V amplifier direct-coupled, and push-pull throughout, with gradual roll-off beyond 4.5 mc and useful response at 10 mc achieved in part by cathode-follower coupling between stages
- High vertical sensitivity; 25 millivolts per inch
- Choice of direct coupling (DC) or capacitive coupling (AC)
- Balanced or unbalanced inputs
- 4-step frequency-compensated attenuator in both AC and DC positions
- Calibrator position injects accurately adjusted reference voltage into V amplifier to permit direct peak-to-peak voltage measurement
- Automatic sync limiter and amplifier—anything visible on screen is synchronized automatically; eliminates sync voltage adjustment and prevents oversync
- Pre-set TV V and H sweep positions (30 cps and 7875 cps)
- Edge-lit lucite graph screen with dimmer control; filter; standard bezel fits standard photographic equipment
- Important adjustment controls accessible without cabinet removal
- No difficult or super-critical adjustments; all wiring points easily accessible. Excellent mechanical construction and layout so that it can be built at home without special equipment or special knowledge.

An oscilloscope engineering achievement unmatched anywhere in the industry! Surpasses in conveniences, features and performance wired scopes selling for 2 and 3 times the kit price. A professional 5 mc bandwidth scope, featuring DC amplifiers, that's EICO-designed for laboratory precision and EICO-priced for lowest cost. The acknowledged leader in professional 5 mc oscilloscopes!

specifications

- Vertical Amplifier**
Frequency response:.....flat from DC to 4.5 mc, down approx. 10 db at 10 mc
Sensitivity:.....25 rms millivolts/inch
Rise time:.....0.06 microseconds or less
Overshoot:.....8% or less
Input coupling:.....Direct or capacitive
Attenuator (switch type): By factors of 1, 10, 100, and 1,000; frequency-compensated
Input Impedance:.....3 megs shunted by 35mmf
Positioning:.....instantaneous, drift-free; permits centering any part of trace expanded to undistorted maximum
- Horizontal Amplifier**
Frequency response:.....flat 1 cps to 400 kc
Sensitivity:.....0.6 rms volt/inch
Input Impedance:.....approximately 5 megs shunted by 35mmf (at 1 kc)
Attenuator:.....low impedance type in cathode follower output
Positioning:.....2X full screen to permit examination of any part of trace even with full horizontal gain
- All on front panel:**.....intensity modulation, sawtooth output, 60 cps test signal, external sync, external capacitor jacks
Sweep frequencies: 10 cps to 100 kc; plus low frequency sweep with external capacitor
Filter screen:.....edge-lit plexiglass, with variable illumination
Bezel:.....designed to fit standard photographic equipment
Deep-etched satin aluminum panel:.....grey wrinkle steel cabinet
Tube complement:.....5UP1CRT, 2—6AU8, 2—6CB6, 1—12AU7A, 2—6J6, 1—6AX5, 1—1V2
Over-all size:.....13" high x 8½" wide x 16" deep
Shipping weight:.....26 lbs. approx.
Power requirements:.....105-125 VAC, 50/60 cps, 95 W

NOTE:

The #460 possesses a higher ratio of parts cost to final price than any comparable scope on the market today.
For example: Note the direct-coupled vertical amplifier which requires a considerably costlier power supply than conventional ac amplifiers. Note, too, that the DC vertical amplifier is push-pull throughout (instead of single-ended up to the output stage) and that the two stages of push-pull amplification are cathode follower coupled. This costs EICO more money but it assures you of exceptionally low amplitude distortion and minimized phase shift at both the low and high frequency extremes of the band. Note the professional convenience features of edge-lit lucite graph screen with dimmer control; glare-eliminating filter; and standard bezel designed to fit standard photographic equipment.
There are many more such examples in the #460. They all add up to one important thing for you . . . from concept to final product, the #460 brings you the highest possible quality at the lowest possible price.

VOLTAGE CALIBRATOR #495

kit \$12.95 wired \$17.95



Multiplies oscilloscope usefulness—makes your scope a wide-range, accurate, peak-to-peak AC electronic voltmeter. Excellent for COLOR & MONOCHROME TV servicing. It generates virtually perfect square wave signals of known value to calibrate oscilloscope display.

plays and to ascertain the value of unknown signals by the comparison method.

specifications

Output: Waveshape—semi-square (clipped sine wave); frequency—line; ranges—0-0.1, 0-1, 0-10, 0-100 volts peak-to-peak; dial reading accuracy—±5% of full scale on all ranges. **Tube Complement:** 1—0C3, 1—6AL5; selenium rectifier. **Power Requirements:** 105-125 volts AC, 50/60 cps; 5 watts. **Overall Dimensions:** 5" high, 7½" wide, 4" deep. **Weight:** 4 lbs. **Lifetime deep-etched aluminum panel; rugged grey steel case.**

ELECTRONIC SWITCH #488

kit \$23.95 wired \$39.95

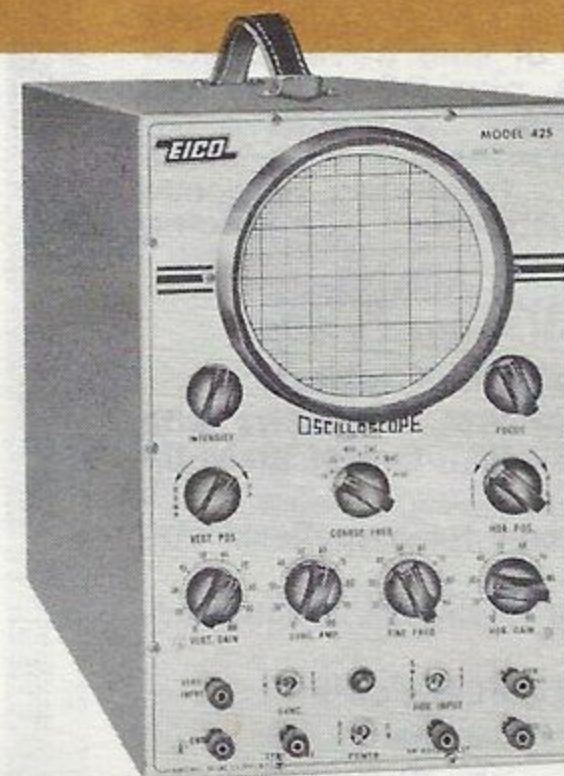
Makes your 1 scope more useful than 2 in many cases! Simultaneously observe 2 patterns on 1 scope: compare voltage and current amplitudes, waveforms, freqs. and phase relationships. Continuously variable switching rates from less than 10 cps to over 2000 cps. Very useful as square wave generator over same range.



Approximate Switching Rates (also Square Wave Generator Range): Low Range: less than 10 cps to 100 cps continuously variable; Middle Range: 50 cps to 400 cps continuously variable; High Range: 250 cps to 2000 cps continuously variable. **Signal Amplifiers:** (2). **Frequency Response (sinusoidal):** DC to 30,000 (—2 db); useful to 300,000 cps. **Maximum Gain:** 10 times (continuously variable gain control with negligible phase distortion to 25 kc). **Input Impedance:** 100,000 ohms. **Max. Input at Greatest Attenuation:** 400 volts peak-to-peak (142 v rms). **Output Impedance:** 50,000 ohms. **Power Requirements:** 105-125 volts AC, 50/60 cycles, 25 watts. **Overall Size:** 6" high x 8" wide x 6" deep. **Weight:** 7 lbs. **Smart professional styling—satin finish deep-etched aluminum panel, grey wrinkle steel case.**

the lowest-priced professional 5" oscilloscope in the world!

The EICO #425 is world-famous as a general purpose scope and provides accurate reproduction of waveforms and many other electronic and electrical phenomena. With its high sensitivity, improved bandwidth, wide-range linear sweep, stability, rugged construction, etc., it is a valuable working tool for TV-radio servicing, laboratory and production-line use, ham applications and all general electronic work.



5" push-pull OSCILLOSCOPE #425

kit \$44.95
wired \$79.95

For all its versatility and dependability, it's still the lowest-priced 5-inch oscilloscope! Small wonder it has proved so popular with schools, colleges, labs, factories and servicemen alike—there are tens of thousands in use all over the world!

applications

General waveform study . . . TV, radio servicing, signal tracing and alignment . . . amplifier design and servicing . . . frequency and phase measurements . . . transmitter testing and adjustment . . . design and servicing of rectifier, filter, oscillator circuits, etc. . . AC voltage and current measurement (with Model 495 Oscilloscope Voltage Calibrator) . . . production line testing.

features

- 5" cathode-ray tube
- Push-pull output stages in both V & H amplifiers for balanced V & H deflection
- Wide bandwidth and high sensitivity for added usefulness in TV servicing
- Wide frequency range, linear, stable sweep
- Dual potentiometer controls for full-screen V & H centering
- Intensity (Z-axis) modulation input for sweep blanking or insertion of timing markers on the trace
- 6.3 volt AC, 60 cps test signal output
- Direct connections to deflection plates of cathode-ray tube available at rear of cabinet
- Provision for internal and external synchronization
- Greatly reduced retrace time
- Rugged chassis construction for lifetime reliability
- Excellent instrument ventilation
- Shielded transformer-operated circuit
- Calibrated graph screen
- Accessory probes available *

specifications

- Vertical:** Frequency response:.....5 cps to 500 kc, usable to 2.5 mc
Sensitivity:.....0.05 to .1 volts RMS/Inch
Input impedance:.....1 megohm
- Horizontal:** Frequency response:.....5 cps to 500 kc
Sensitivity:.....0.05 to .15 volts RMS/Inch
Input impedance:.....1 megohm
- Sweep Generator:**.....Multivibrator with frequency range of 15 cps to 75 kc
Tube Complement:.....2—5Y3, 2—6J5, 3—6SN7, 1—5" CRT
Power Requirements:.....105-125 volts AC, 50/60 cps; 68 watts
Overall Dimensions: 15" high, 8½" wide, 17¼" deep
Lifetime deep-etched aluminum panel; rugged grey steel case

*SEE PAGE 23 FOR ACCESSORY PROBES

Add 5% in the West. Slightly higher in Canada.



specially designed for servicing
[transistorized] equipment
 as well as vacuum-tube equipment

LOW RIPPLE 6-volt and 12-volt BATTERY ELIMINATOR AND CHARGER #1060

kit \$38.95

wired \$47.95

The EICO #1060 is the most modern and versatile of battery eliminators. It incorporates an extra low-ripple filter circuit so that it can power both the newest all-transistor 6- and 12-volt equipment as well as the "hybrid" transistor-and-vacuum-tube or all-vacuum-tube equipment. In order to extend the many advantages of this highly filtered DC output to all applications of the #1060, its special filter circuit is comprised of a very heavy-duty iron choke and a dual 5000 mf-20v electrolytic filter capacitor — which are designed to take the full continuous as well as higher intermittent rated current output of the instrument.

More exclusive features, more versatility, more ruggedness — and yet, the lowest in price — these are the reasons why the EICO #1060 is without question the best value in modern professional battery eliminators.

Only the EICO #1060 has all these important features:

1. Separate voltmeter and dual-range ammeter for more accurate current readings
2. Simultaneous monitoring of both voltage and current on both ranges
3. Exclusive automatic switching of appropriate ammeter range as you select either of the 2 voltage ranges
4. Built-in special filter circuit is safely rated to take the full continuous and intermittent rated current output on both voltage ranges — without danger of overloading or burn-out
5. Exclusive sloping front panel for wide-angle vision and easy-to-read meters
6. Exclusive all-around heavy-gauge steel case in gray crackle finish — for extra ruggedness and long life
7. Exclusive: optional wall-mounting feature in the durable well-ventilated steel case
8. Exclusive: the industry's lowest price

additional outstanding features

1. Two DC voltage ranges: 0-8 volts and 0-16 volts
2. Continuous voltage adjustment with variable-type transformer
3. Extra heavy-duty selenium rectifiers
4. Fused transformer primary
5. Transformer secondary also protected by means of automatic re-set overload relay
6. All parts are finest quality
7. For additional safety, all parts are operated well under their stated ratings for voltage and current

applications

Work bench voltage supply for operating 6-volt or 12-volt transistor, tube, or "hybrid" auto radios under repair... charging 6-volt or 12-volt storage batteries... operation or servicing of battery operated transmitters, amplifiers, marine, and aviation equipment... simulation of various battery operating voltages for detection of intermittents and shorts in radio equipment... DC substitution voltage... excellent DC supply for filament voltages in high gain audio circuit work... determination of starting point of vibrators... determination of voltage operating range of oscillator circuits... runs many small electric appliances such as shavers, trains, etc... for marine use, it operates boat lights, radio-phone, bilge pump and other electrical utility units, while at dockside; also, it completely eliminates the need for costly installation of 110 VAC secondary lighting system.

specifications

DC Output Voltage Ranges: (Range selected by 6V-12V toggle switch) 0-8 volts, 0-16 volts. AC Ripple: 12V range — 0.3% @ 2 amps, 1% @ 6 amps, 1.5% @ 10 amps. 6V range — 1.5% @ 2 amps, 2% @ 6 amps, 4.5% @ 10 amps. Current Ratings: 0-8 volt range: 10 amps continuous, 20 amps intermittent. 0-16 volt range: 6 amps continuous, 10 amps intermittent. Meters: Voltmeter—0-20 volts. Ammeter—0-10, 0-20 amps. Power Requirements: 105-125 volts AC, 50/60 cps; 150 watts. Size: 8 3/4" high, 10 1/2" wide, 7 3/4" deep. Weight: 19 lbs.



MODEL 1020 POWER & BIAS SUPPLY FOR TRANSISTORIZED EQUIPMENT

kit \$19.95

wired \$27.95

"The output... is well filtered and therefore ideally suited for powering ripple-sensitive transistorized equipment."—PF REPORTER

"A fine investment"—POPULAR ELECTRONICS

Highly versatile, stable and reliable, the Model 1020 is a completely transistorized, very low ripple, portable DC power and bias supply providing continuously variable output voltage monitored by a dual range voltmeter (0-6, 0-30 VDC). It comprises a power transformer, full-wave silicon diode rectifier circuit, electrolytic capacitor input filter followed by a two-power transistor (2-2N256) cascaded filter circuit which provides extraordinary ripple rejection. The maximum permissible load current varies from 150 ma in the 0-12 V. range to 300 ma in the 24-30 V. range. The maximum ripple (120 cps) at full load is only 0.005%. The unit is housed in a rugged grey wrinkle steel case 5" x 4" x 5 1/2" (HWD) and is fused for protection against short circuits.

Applications include: a universal power supply for operating transistor radios, hearing aids, preamplifiers, instruments, and other transistor devices under repair, development, or study; a variable bias supply to bias transistors or vacuum tubes in circuit development or study; in service work, to offset AVC and AGC voltages in the alignment of TV and radio receivers or to cut off the color burst amplifier in color TV adjustment; a dc filament supply or a filament bias source, to check the operating voltage or current of high resistance relays, to recharge small storage batteries, or to do light electro-plating.

Specifications

Output Voltage Range: 0-30 VDC, continuously variable.

Max. Output Current Capacity (Continuous): 150 ma from 0-12 V., 200 ma from 12-24 V., 300 ma from 24-30 V.

Fuse: 1/2 amp. will blow in case of short circuit to protect unit. Pilot lamp will remain lit even when fuse is blown but voltmeter will read zero.

Ripple: (120 cps): 0.005% at full load.

Size (HWD): 5" x 4" x 5 1/2".

Weight: 5 lbs.

SERIES/PARALLEL R-C COMBINATION BOX #1140

kit \$13.95

wired \$19.95

U.S. Pat. No. 2954518

A combination of Models 1100 and 1120 (see page 23) with switching facilities permitting selection of any R alone, any C alone, or 1350 combinations of same in series or parallel. Open and short circuit positions provided. Standard E.I.A. values, 10% accuracy. Convenient jack-top binding posts. Size: (HWD) 6 3/4" x 5 1/4" x 2 3/8". Weight: 3 lbs.



Only
 EICO
 has it!



6V and 12V BATTERY ELIMINATOR & CHARGER #1050

kit \$29.95

wired \$38.95

This modern battery eliminator fulfills all the needs for a dependable 6-volt and 12-volt DC supply source for servicing vacuum tube auto radios and all other battery-powered equipment where the AC ripple component is not an important consideration. It will do all that the #1060 above accomplishes, except that it is not recommended for transistor work.

features

- Two DC voltage ranges, 0-8 volts and 0-16 volts
- Continuous voltage adjustment with variable-type transformer
- Separate voltmeter and ammeter for simultaneous readings of both voltage and current
- Heavy duty selenium rectifiers
- Fused primary; automatic reset overload relay for secondary
- Rugged, well-ventilated steel cabinet; may be wall mounted

specifications

DC Output Voltage Ranges: (Range selected by 6V-12V toggle switch).....0-8 volts, 0-16 volts

Current Ratings: 0-8 volt range: 10 amps continuous, 20 amps intermittent. 0-16 volt range: 6 amps continuous, 12 amps intermittent

Meters: Voltmeter0-20 volts
 Ammeter0-20 amps

Power Requirements:105-125 volts AC, 50/60 cps; 150 watts

Size:8 3/4" high, 10 1/2" wide, 7 3/4" deep

Weight:15 lbs.

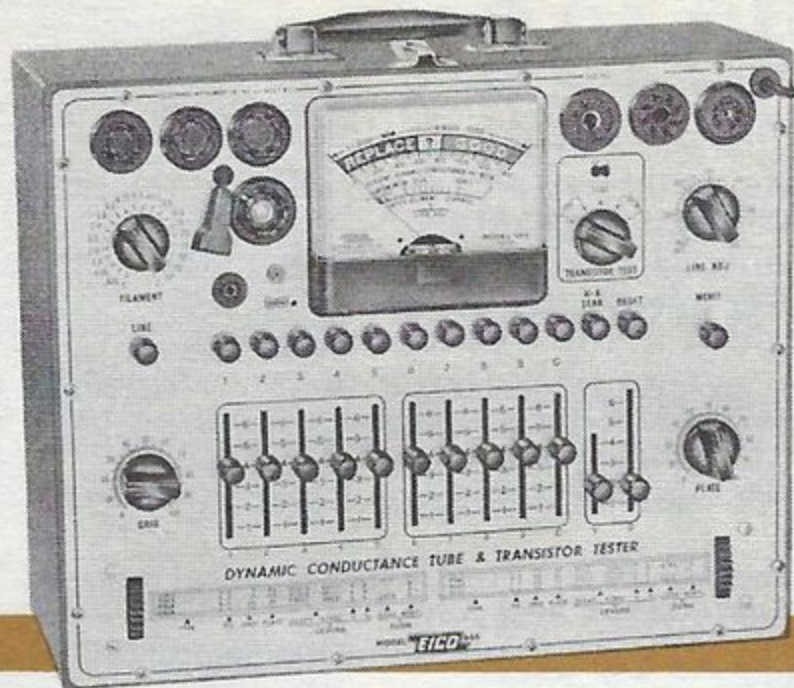


BATTERY ELIMINATOR ACCESSORY FILTER #1055

kit \$11.95

wired \$15.95

This modern heavy-duty L-C filter provides additional filtering of the DC output of the EICO #1050 Battery Eliminator above, or similar low-voltage power supplies, when they are to be used for powering transistor or "hybrid" auto radios or similar electronic equipment requiring extremely low AC ripple. The #1055 works on both the 6V and 12V ranges of the battery eliminator and can remain in use for all functions of the battery eliminator. Weight: 7 lbs.



DYNAMIC CONDUCTANCE TUBE AND TRANSISTOR TESTER #666

kit \$69.95

wired \$109.95

Complete with rugged steel carrying case, matching steel cover and carrying handle for easy portability.

Speedy, simple operation, close simulation of actual tube operating conditions, unexcelled thoroughness, sensitivity and accuracy of test, excellent electrical and mechanical design—these are the superb advantages of the #666.

APPLICATIONS: Ideal for COLOR AND MONOCHROME TV servicing: Tests all receiving tubes including 4, 5, 6 and 7-pin, octal, loctal, miniature 7 and 9-pin, subminiature 5, 6, 7-pin (in-line base) and 8-pin (circular base) receiving tubes, many small transmitting and special-purpose tubes, voltage regulators, cold-cathode rectifiers, electron-ray indicators, ballast tubes, and BLACK-and-WHITE TV picture tubes with accessory adaptor. Tests n-p-n and p-n-p transistors.

electrical characteristics

TRANSISTOR TEST: Dependable industry-approved two-step test on both n-p-n and p-n-p transistors, using internal dc power supply: (1) leakage measurement of collector current and (2) direct reading of current amplification factor or Beta.

DYNAMIC CONDUCTANCE TUBE TEST: Composite indication of mutual conductance (Gm), plate conductance (Gp) and peak emission capability. Test accuracy is assured by the following:

- Multi-circuit lever switch for speedy simultaneous selection of any one of 4 combinations of 3 plate, 3 screen and 3 ranges of control grid voltages. • Grid voltage variable over each range with a 5% accurate wire-wound potentiometer. • 5 ranges of meter sensitivity using 1% carbon-deposited shunts and 5% accurate wire-wound meter range potentiometer. • 200 ua meter provides unusual sensitivity for checking tubes with low cathode current. • Rectifiers tested near maximum rated current for extra accuracy.

Leakage Test: Direct-reading of inter-element leakage in ohms, with these features:

- Sensitive 200 ua meter permits accurate readings up to 20 megohms. • DC leakage test voltage always applied in correct polarity to eliminate emission effects from readings. • Accurate heater-cathode leakage achieved by isolation of heater and cathode from remaining tube elements during test. • 10 push-button switches permit rapid insertion of alternate tube elements in leakage test circuit.

Each active tube element can be individually connected to any of the following buses: plate voltage, screen voltage, grid voltage, filament voltage, ground (cathode and filament return), no connection.

Multi-section tubes have each section individually tested by rapid push-button selection—while all sections are simultaneously drawing full-rated current... Pentodes are tested as pentodes, with no "lumping together" of tube elements.

Filament switch provides selection from 20 filament voltages: adequate for all older tube types in use as well as for the new 600, 450 and 300 ma series string tubes. **Line voltage** may be read directly off the dial of the line-adjust rheostat on the panel with good accuracy.

Rollchart is extensive, up-to-date, and includes settings for all new series string type tubes.

Power: operates from 105-130 volts AC line, 50/60 cps. Provided with pilot lamp and fused for safety.

Exceptional control accuracy makes possible a very easy method for developing accurate test settings for new tube types before such data is published on a new roll chart (annually) or on a supplement.

Snap-in roll chart windows for easy entry of new test data.

specifications

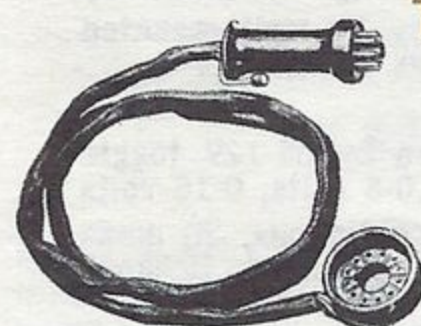
Components specifically selected for ruggedness in day-after-day servicing. **New gear-driven rollchart mechanism** is easily assembled, provides smooth trouble-free operation. Snap-in windows permit settings for new tubes to be entered on rollchart without disassembly. The 10 individual element push-buttons are ganged on one easily-mounted assembly through which they are interlocked mechanically and interconnected electrically to simplify mounting and wiring and assure safer operation. The 10 SIX-position lever switches plus the two lever switches for meter shunt, and plate, screen, and range of grid voltage selection, are all ganged together to form one quick-mounting assembly for not only very rapid settings but easier wiring for the kit constructor. The only internal adjustments in this tester are two calibrating rheostats for the line adjust and leakage measurement circuits. All the equipment required to calibrate the tester is one voltmeter of any type. The "Tube Merit" Switch, through which plate, screen, and grid voltages are applied to the tube under test, is of the spring-return type to eliminate the possibility of damage to the tube tester by continuous operation of a defective tube. Deep-etched, heavy gauge, brushed satin aluminum panel; 4 1/2", 200 ua D'Arsonval meter movement, in clear lucite case; rugged grey wrinkle steel carrying case with matching steel cover and carrying handle for easy portability. **Size:** HWD: 12" x 15" x 4 1/2". **Weight:** 18 lbs.



CATHODE RAY TUBE CHECKER #630

kit \$13.95
wired \$18.95

Engineered for fast, easy, dependable testing of all sizes TV picture & oscilloscope type CR tubes, right in the set or carton. Bridge measurement of peak beam current (proportional to screen brightness) using neon lamp as sensitive balance indicator. Balancing control calibrated directly in terms of tube condition. Overall size: 9 1/2" high, 6 1/2" wide, 3" deep. **Weight:** 5 lbs.



TV PICTURE TUBE TEST ADAPTERS #CRA: Wired \$4.50

Checks all sizes of TV picture tubes as fast and easily as ordinary tubes. Use with #625, #666 and similar tube testers.

#CRA-110: Wired \$3.95

For 110° deflection TV picture tubes. Use with #625, #666 and similar tube testers.

FAST TUBE & CRT FILAMENT TESTER #612

kit \$3.95 wired \$5.95

including batteries

Permits **FAST** filament checking of TV and radio tubes in an inoperative series string. Merely remove each tube from set, plug into appropriate tester socket while observing indicator lamp; then re-insert into set if O.K. No fiddling with controls or switches. Sockets are provided for 9-pin, octal, loctal, 7-pin portable and line-operated receiver tubes. 7-pin and 9-pin miniature tube pin straighteners also provided. Adapter plug permits filament checking of 14-pin, 12-pin and 8-pin (110°) picture tubes. Also checks bayonet and screw-type base pilot lamps, and cartridge fuses. Self-powered by internal batteries for convenience and safety. Deep-etched brushed aluminum panel; hi-impact molded bakelite case. Compact: 6 1/4" H x 3 3/4" W x 2" D. **Weight** 2 lbs.



TUBE TESTER #625

kit \$34.95 wired \$49.95

A must for TV servicing!

features

Only EICO gives you all these value-packed features at this remarkably low price!

- Simple test set-up procedure for checking emission, shorted elements, open elements, and continuity
- 10 individual lever-type element switches for complete flexibility and guarantee against obsolescence.
- 4 1/2" rugged, bakelite-cased meter with 3-color REPLACE-WEAK-GOOD scale, 0 to 1000 scale for matching
- Tests new 600 mil series string type tubes
- Pilot light test socket (contact type)
- Brightly illuminated, gear driven, "SPEEDROLL" roll chart with special anti-backlash design
- Protective overload bulb shows transformer overloads and acts as fuse
- Line adjust control
- Two grid caps for extra convenience
- Spare blank socket for future tube types
- Roll charts kept up-to-date periodically by EICO's Engineering Department

specifications

Type of Tube Tester: Cathode Conductance (Emission)

Tube Condition Indicator: 4 1/2" meter with both English and numerical scales

Tube types that may be tested: 4, 5, 6, large and small 7, octal, loctal, noval, hytron, VR, magic eye, and pilot lamps (also blank spare socket for future types)

Individual element tests: short and continuity (neon lamp indicator), open (meter indicator)

Method of line voltage adjustment: power rheostat in transformer primary with meter as indicator

Rectifier for line voltage adjustment: 6H6 tube for stability and easy replacement

Overload indicator and fuse: panel lamp in primary of transformer

Filament voltages available: 0, .75, 1.4, 2.0, 2.5, 3.3, 5.0, 6.3, 7.5, 12.6, 25, 32, 50, 70, 110

Individual tube settings: read from built-in illuminated, gear driven "SPEEDROLL" roll chart with special anti-backlash design

Power Requirements: 105-125 volts AC, 50/60 cps, 6 watts

Overall Dimensions: 9 1/2" high, 12 1/2" wide, 4 1/4" deep

Weight: 12 lbs.

also available

#625CK Tube Tester Kit with Counter Display Case.....\$44.95
#625C, as above, factory wired.....\$59.95

Add 5% in the West. Slightly higher in Canada.

ONLY EICO PROBES HAVE ALL THESE FEATURES*

- fully shielded
 - rugged terminal board mounting of all parts
 - shock-mounted floating construction
 - swivel action for ease of handling
 - color-coded for easy identification
 - easy accessibility of all parts
- *pat. app. for

SCOPE ACCESSORY PROBES

oscilloscope demodulator probe #psd

kit \$3.75
wired \$5.75



For signal tracing and checking of TV/radio RF and IF stages. Permits your scope to be used as a waveform tracer, gain analyzer and alignment indicator in all these stages. Demodulates amplitude-modulated carriers between 150 kc and 250 mc. Audio response practically flat from 20 cps to 6 kc, includes both high and low-frequency components of demodulated 60-cycle square wave—making this probe particularly good for observation of sweep curve response.

oscilloscope direct probe #pd

kit \$2.75
wired \$3.95



Direct test probe for use in low-frequency or low-impedance circuits where direct connection to the test point is required so as to utilize maximum scope sensitivity—and where the added input capacity contributed by the coaxial cable is not important. Eliminates stray pick-up and signal re-radiation.

oscilloscope low capacity probe #plc

kit \$3.75
wired \$5.75



Specially designed for TV sync signal tracing and general tests in video, sync and sweep circuits. High impedance—low capacity probe is extremely useful for tracing waveforms in high impedance, high frequency and wide-band circuits (such as found in TV) without distortion from overloading or frequency discrimination. A built-in but externally accessible variable ceramic capacitor provides adjustable frequency compensation.

VTVM ACCESSORY PROBES

peak-to-peak vtvm probes model ptp-11 or ptp-25

kit \$4.95
wired \$6.95



For accurate reading of peak-to-peak voltages directly on the DC scales of your Vacuum Tube Voltmeter. Excellent for tracing complex AC waveforms through TV receiver deflection systems. Operate efficiently over the entire frequency range of 5 kc to 5 mc to cover all TV servicing requirements. Use with any 11 or 25 megohm VTVM.

rf vtvm probes model prf-11 or prf-25

kit \$3.75
wired \$4.95



For radio-frequency voltage measurements up to 250 mc. Very useful for measurements in all TV and radio RF and IF stages. Accuracy $\pm 10\%$. Use with any 11 or 25 megohm VTVM.

high voltage probe #hvp-2

wired \$4.95



For safe measurement up to 30,000 volts dc with any VTVM or 20,000 ohms/volt VOM. Ideal for TV high voltage measurement. Light-weight, low-cost. Includes a choice of high quality multiplier resistor to match most popular instruments.

EXCLUSIVE UNI-PROBE #up kit \$4.95 wired \$6.95

EICO's amazing UNI-PROBE Formerly available only with EICO's #232-249 Peak-to-Peak VTVMs—is your terrific time-saver! It performs all functions—a half-turn of probe—tip selects DC or AC-OHMS! It adapts to your EICO #221 VTVM and other VTVMs in just 15 MINUTES. Complete instructions supplied.

high voltage
probe #hvp-1
wired \$6.95



READI-TESTER

#540

kit \$12.95
wired \$15.95

Designed expressly for "do-it-yourself" home appliance & auto repair—easily finds defects in irons, fans, heaters, TV & radio tubes, batteries, ignition coils, etc. It is an all-in-one MULTIRANGE AC/DC voltmeter, ammeter, ohmmeter, wattmeter, leakage checker. Extremely versatile, dependable, low in cost.

features

All voltage ranges (0-7.5, 15, 150, 300 volts) and current range (0-15 amps) are ac/dc.

Direct-reading ohms range 0-1000 ohms.

Neon lamp ac leakage test circuit permits continuity check of resistors between 1000 and 2,000,000 ohms and capacitors above .0005 mfd; also filament continuity and leakage between elements in radio and TV tubes.

Direct reading of power line voltage up to 300 volts ac/dc at any outlet with attached line cord (2 ranges: 150 and 300 volts).

Panel outlet permits metering current up to 15 amps drawn by any appliance, motor or other device. Switch-permits checking effect on line voltage. Kilowatts scale permits direct reading of power consumption.

Provides "GOOD-BAD" readings on 6V and 12V automobile storage batteries, and permits checking of individual cells.

Deep-etched brushed aluminum panel.

3 1/2" meter in modern clear lucite case.

Handy size (3 3/4" x 6 1/2" x 3 1/2"), rugged, high impact, polished black bakelite case. Weight: 3 lbs.



EIA RESISTANCE SUBSTITUTION BOX #1100

kit \$5.95 wired \$9.95

A handy, versatile, time-saving instrument having a wide variety of applications. Helps to ascertain the value of an unmarked or illegible resistor. You can change resistor values in a circuit during actual operation for optimum performance. In service or development work, the use of several #1100's provides the flexibility needed to change circuit values quickly.

Enables rapid substitution of wide range of EIA resistance values from 15 ohms to 10 megohms in decade multiples of 15, 22, 33, 47, 68, 100 ohms. Uses standard 1 watt, $\pm 10\%$ EIA resistors. Convenient 5-way, jack-top binding posts. Size 3 3/4" high x 6 1/2" wide x 3 1/2" deep. Weight: 2 lbs.

- Handsome satin aluminum front panel



DECADE CONDENSER BOX #1180

kit \$14.95
wired \$19.95

applications

General design and development work... useful in every laboratory as tuned circuit elements, bridge impedances, filter elements or components of any circuit where a wide-range variable capacitor is necessary... useful for rapid experimental determination of proper capacitance values required in a circuit.

specifications

Range: 100 MMF to .111 MF in increments of 100 MMF

Voltage Ratings: 350 VDC continuous, 500 VDC intermittent, 1000 VDC test

Dielectric: silvered mica

Accuracy of Incremental Capacity: $\pm 1\%$ (accuracy of capacitors used)

Zero Capacitance: approximately 7 MMF with all switches set at zero

Insulation Resistance of Capacitors Used: none under 50,000 megohms, most well over 250,000 megohms

Power Factor of Capacitors Used: better than .001

Switches: positive detent, ceramic wafer

Terminal Board: low loss lucite

Binding Posts: 5-way jack-type

Overall Dimensions: 9" long, 3 1/2" wide, 3 1/2" deep

Weight: 3 lbs.

Smart professional styling—satin finish deep-etched aluminum panel, grey wrinkle steel case



BATTERY TESTER #584

kit \$9.95
wired \$12.95

For fast running check of battery stock, testing of batteries commonly in portable vacuum tube & transistor radios, hearing aids, flashlights, photo-flash equipment, etc. Versatile, dependable, at a typical low EICO price.

features

• Accurately tests all A and B portable radio batteries in or out of the receiver

• Also tests lantern batteries, and may be adapted to other types

• Provides true dynamic tests as follows: Rotary switch selection of the exact voltage of the battery under test inserts the proper resistor in series and in shunt with the meter. Therefore the battery's internal resistance reduces its terminal voltage exactly as occurs under actual operating conditions.

specifications

Test Positions (Volts): 1.5, 4.5, 6.0, 7.5, 9.0, 22.5, 45, 67.5, 75, 90, plus Spare Position.

Size: 6 1/4" high x 3 3/4" wide x 2" deep.

Weight: 2 lbs. Test leads provided.

Case: high-impact Bakelite.

Panel: Satin finish deep-etched aluminum panel and gray wrinkle steel case.



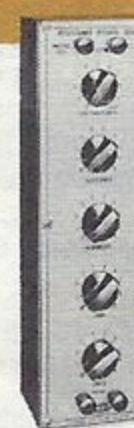
EIA CAPACITANCE SUBSTITUTION BOX #1120

kit \$5.95 wired \$9.95

The EICO #1120 is an excellent and logical companion to the #1100, and it affords the same multiplicity of servicing, development and time-saving advantages for capacitors as the #1100 does for resistors. Here, too, the price of the #1120 kit is less than the retail value of the capacitors alone!

Enables rapid substitution of a wide range of EIA capacitance values from 0.0001 to 0.22 mfd in an operating circuit to determine value needed for optimum performance and to find value of badly damaged or illegible capacitors. Minimum accuracy $\pm 10\%$. Uses silver-mica and molded plastic (or impregnated and sealed in plastic) capacitors, most conservatively rated at 600 volts. Convenient 5-way jack-top binding posts. Size: 3 3/4" high x 6 1/2" wide x 3 1/2" deep. Weight: 2 lbs.

- Smart professional styling—satin finish aluminum panel



DECADE RESISTANCE BOX #1171

kit \$19.95
wired \$24.95

applications

General design and development work... known resistance in bridge circuits... ohmmeter calibration... determining exact values required for meter or instrument multiplier resistors... determination by actual substitution of resistance values required in electronic circuits... determine value of badly burned or otherwise illegible resistors by substitution.

features

• Extremely wide range of 0-99,999 ohms in 1-ohm steps with 5 decades

• 1/2% accuracy at any setting

• Comparator Position permits instant substitution of actual equivalent component of the resistance value indicated on the box

• Rugged, trouble-free construction

Smart professional styling—satin finish deep-etched aluminum panel, grey wrinkle steel case

specifications

Resistors used: 1/2% accuracy, 1 watt rated power dissipation

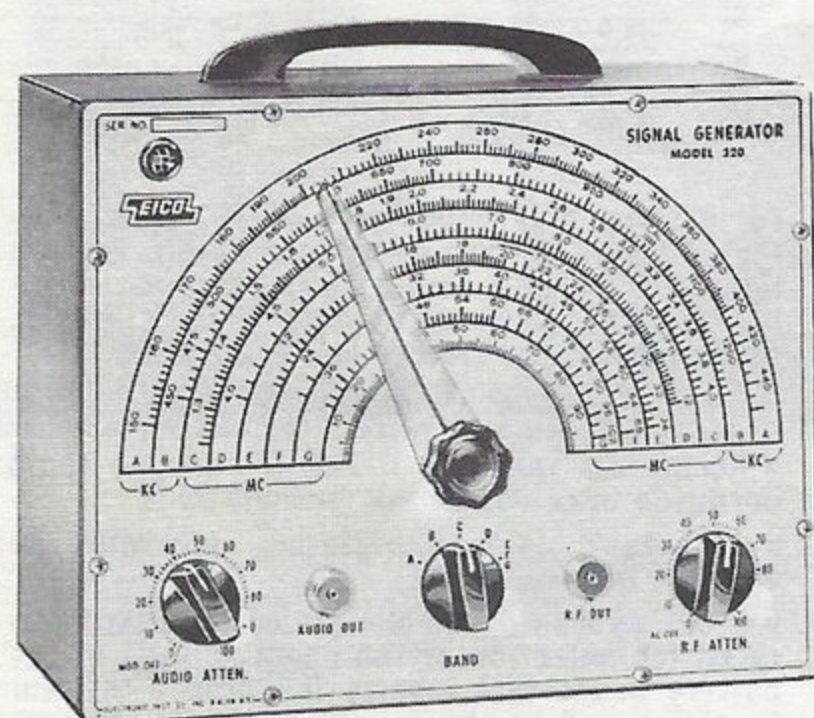
Overall dimensions: 12" long, 3 1/2" wide, 3" deep

Weight: 3 lbs.

Heavy-gauge, quality steel cabinet

Quality switches

rf signal GENERATOR #320



kit \$19.95
wired \$29.95

Designed primarily for general service requirements where an easily controllable source of modulated or unmodulated variable frequency is needed. Precision-wound and calibrated RF oscillator coils assure maximum accuracy and simplified calibration. Since the coils, band switch and tuning condenser mount as a turret assembly, short wiring leads and easy mounting of parts are the advantageous results. Continuously variable attenuators for both RF and audio are on the front panel.

The #320 has long been popular with beginners and professionals alike—thousands are in use. The reason is simple: The #320 delivers the most professional generator performance at the industry's lowest price!

applications

Radio servicing... AM and FM IF stage alignment... checking RF stages... marker generator for TV alignment... 400 cps sine wave audio testing... laboratory and experimental work.

features

- Fundamental frequency range of 150 kc to 34 mc plus powerful calibrated harmonics to 102 mc
- RF output attenuator
- 6 to 1 vernier dial ratio for more accurate, easier settings
- Turret-mounted coil sub-assembly
- Precision wound coils
- Hartley RF oscillator circuit
- Colpitts oscillator 400 cps sine wave output
- Modulated or unmodulated RF output
- Power supply with full-wave rectification for greater stability

specifications

Frequency Range:

Fundamentals—Band A: 150 kc to 450 kc

Band B: 450 kc to 1250 kc

Band C: 1.25 mc to 4 mc

Band D: 4 mc to 12 mc

Band E: 11 mc to 34 mc

Calibrated Harmonics—Band F: 22 mc to 68 mc

Band G: 33 mc to 102 mc

RF Output: Over 100,000 microvolts

Audio Modulation Frequency: Approximately 400 cps

Audio Output: 1½ to 2 volts

Tube Complement: 1-6SN7, 1-6X5

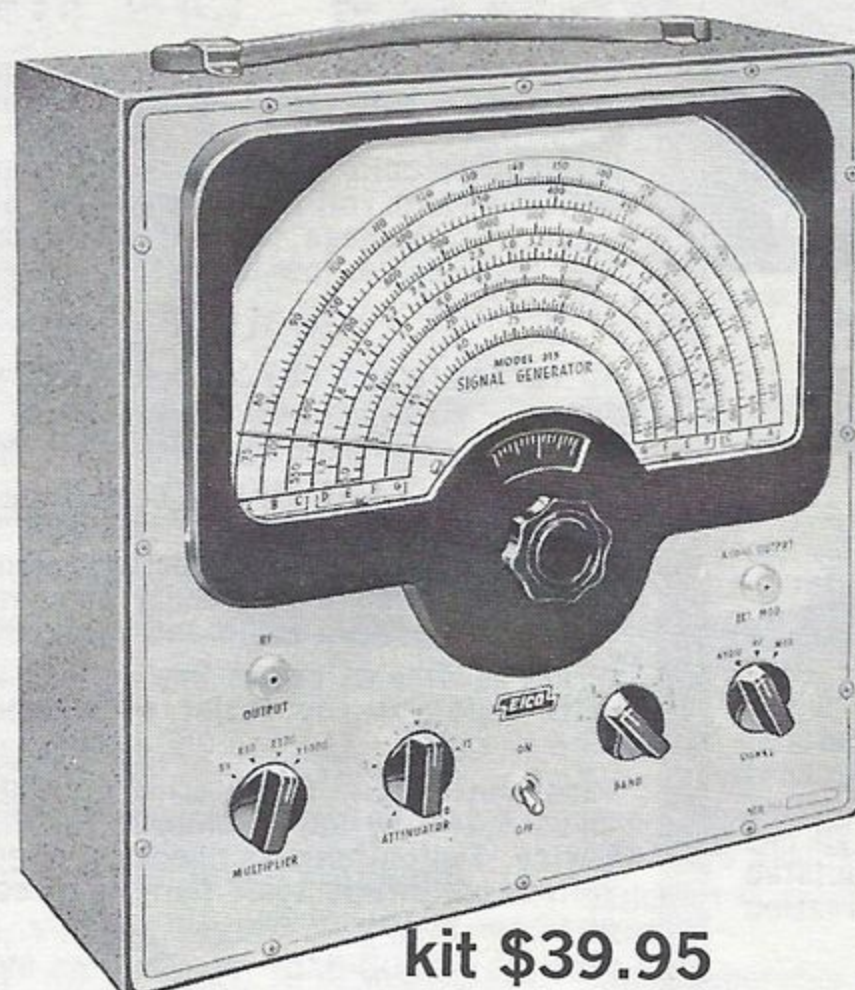
Power Requirements: 105-125 VAC, 50/60 cps

Overall Dimensions: 8" high, 10" wide, 4¾" deep

Weight: 10 lbs.

Lifetime deep-etched aluminum panel; rugged grey steel case.

deluxe rf signal GENERATOR #315



kit \$39.95
wired \$59.95

applications

Deluxe in every professional feature and detail, yet rock-bottom in cost—one more EICO champion instrument value!

Radio servicing... laboratory precision AM and FM IF stage alignment... checking RF stages... highly accurate marker generator for TV alignment... 400 cps sine wave audio testing... excellent calibration accuracy for laboratory and experimental work.

features

- Accuracy of frequency dial reading better than 1% on all 7 ranges
- Bandsread vernier tuning for precise adjustment of frequency
- Illuminated dial and gear-driven, anti-backlash, hair-line pointer protected by glass
- VR tube regulated power supply for unfailing accuracy and stability
- Fully shielded copper-plated chassis, attenuation controls and line filter for extremely low leakage output
- Internal 400 cps sine wave audio generator with attenuator for RF modulation and external audio testing

specifications

Frequency Range: Fundamentals 75 kc to 50 mc in 5 ranges. Calibrated Harmonics 13 mc to 150 mc in 2 ranges.

RF Output: over 100,000 microvolts.

Audio Modulation Frequency: 400 cps

Provision for external modulation

Tube Complement: 1-6C4, 1-6X5, 1-7F7, 1-VR150.

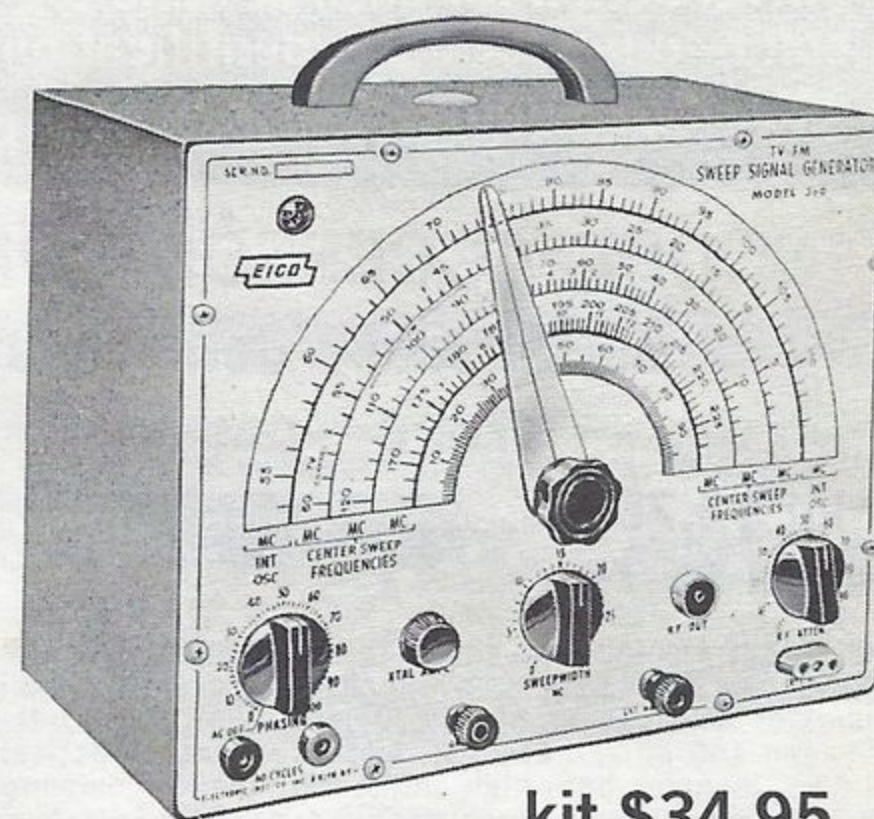
Power Supply: 105-125 VAC, 50/60 cps

Overall Size: 13" high, 12" wide, 7" deep.

Weight: 20 lbs.

Lifetime deep-etched aluminum panel; rugged grey steel case.

tv-fm sweep GENERATOR #360



kit \$34.95
wired \$49.95

applications

Complete, accurate alignment of VHF-UHF TV and FM receivers... video IF alignment and response curve adjustment... sound IF and sound detector alignment.

features

Every advanced feature you need for quick, easy, and correct professional alignment of TV and FM receivers... all at lowest cost in the industry—only from EICO!

- Complete coverage of all VHF TV and FM channels on fundamentals... as well as all IF frequencies.
- 30 mc maximum sweep width obtained with mechanical inductive sweep.
- Continuous sweep width control from 0-30 mc.
- Continuously variable shielded output attenuator.
- 6 to 1 vernier dial ratio.
- Crystal marker oscillator with variable amplitude control.
- Precision 5 mc and 4.5 mc crystals available, each \$3.95 (see below).
- Variable phase, 60 cps output available at panel jack to allow single trace adjustment.
- Provision for connection of external marker generator.

specifications

Frequency Range: 500 kc to 228 mc on fundamentals

Sweep Width Range: 0 to 30 mc

Crystal Marker Oscillator: marker frequencies depend upon fundamental frequency of crystal used; 5.0 and 4.5 mc crystals available

Tube Complement: 1-2C22/7193, 1-6C4, 2-6J5, 1-6X5

Power Requirements: 105-125 VAC, 50-60 cps

Overall Dimensions: 8" high, 10" wide, 6¾" deep

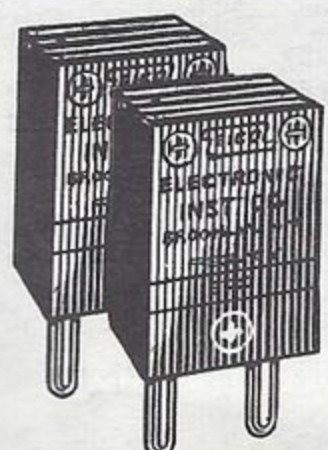
Weight: 12 lbs.

Lifetime deep-etched aluminum panel; rugged grey steel case.

rf signal GENERATOR #322

kit \$23.95
wired \$34.95

In addition to all the outstanding laboratory precision qualities of the famous EICO Model 320 (see above), this improved RF-AF signal generator features the individual calibration of each of its 5 bands.



5MC CRYSTAL

#C-5

4.5MC CRYSTAL

#C-4.5

(not kits)

ea. only \$3.95

Highest quality precision crystals; fit standard socket on all instruments requiring their use, including the EICO #360 TV-FM Sweep Generator.



#352 BAR GENERATOR

kit \$14.95
wired \$19.95

specifications

Operates on TV channels 3,4,5. 16 vertical bars to check horizontal linearity. 12 horizontal bars to check vertical linearity. Panel switch provides "stand-by" position, "Vertical Bars" or "Horizontal Bars". Output Voltage: 100,000 microvolts. Tube Complement: 1-12AU7, 1-6C4; selenium rectifier. Power Supply: Transformer operated—half-wave selenium rectifier circuit: 115 VAC, 50/60 cps. Weight: 4 lbs. Overall Size: 7½" wide, 5" high, 4½" deep. Smart professional styling—satin finish deep-etched aluminum panel, grey wrinkle steel case.

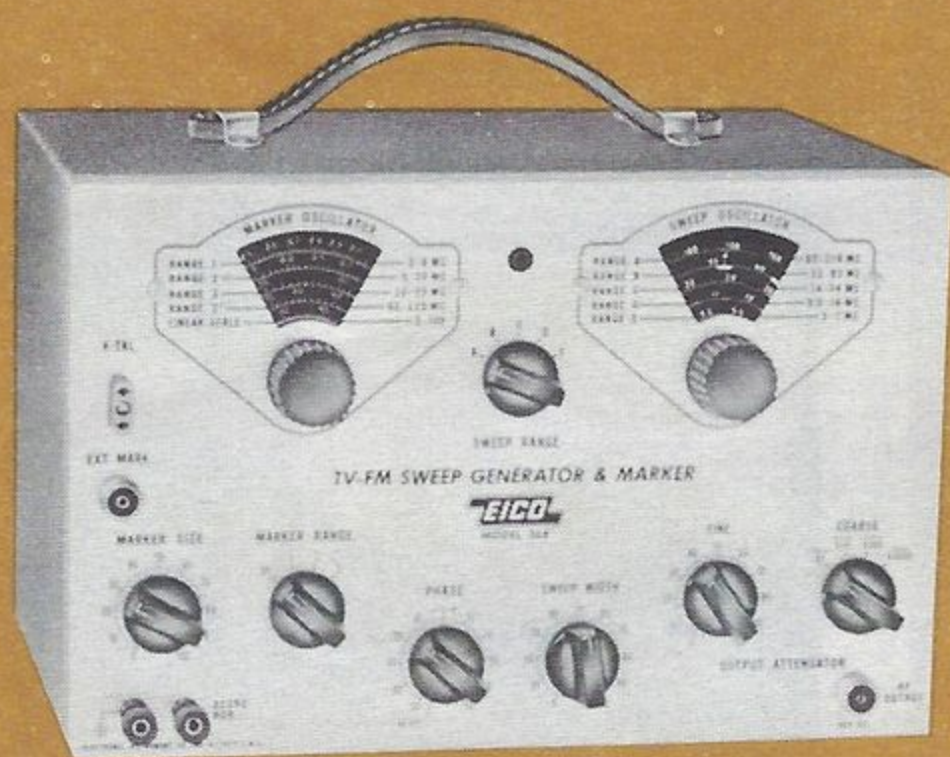
applications

Easily portable, light-weight, simple to operate—a really handy time-saver that is practically a necessity to servicemen now that station-transmitted test patterns are harder to find.

features

Produces a series of vertical or horizontal bars on the TV screen when connected to the antenna terminals of any TV set. Since these bars will be equally spaced on a correctly adjusted set, a quick indication is obtained of the picture linearity in the set under test. Also gives indication of overall picture size and vertical and horizontal sync circuit stability.

tv-fm sweep GENERATOR & MARKER #368



kit \$69.95
wired \$119.95

for color and monochrome tv servicing

To our knowledge the #368 is the finest and most highly perfected instrument of its type presently available in either kit or factory-wired form at ANY price! Not only does it embody new features never before offered in this price range, but it also provides more ranges and better performance than any competitive unit.

applications

Outstanding ease and accuracy in complete alignment of all FM and TV Monochrome and Color receivers.

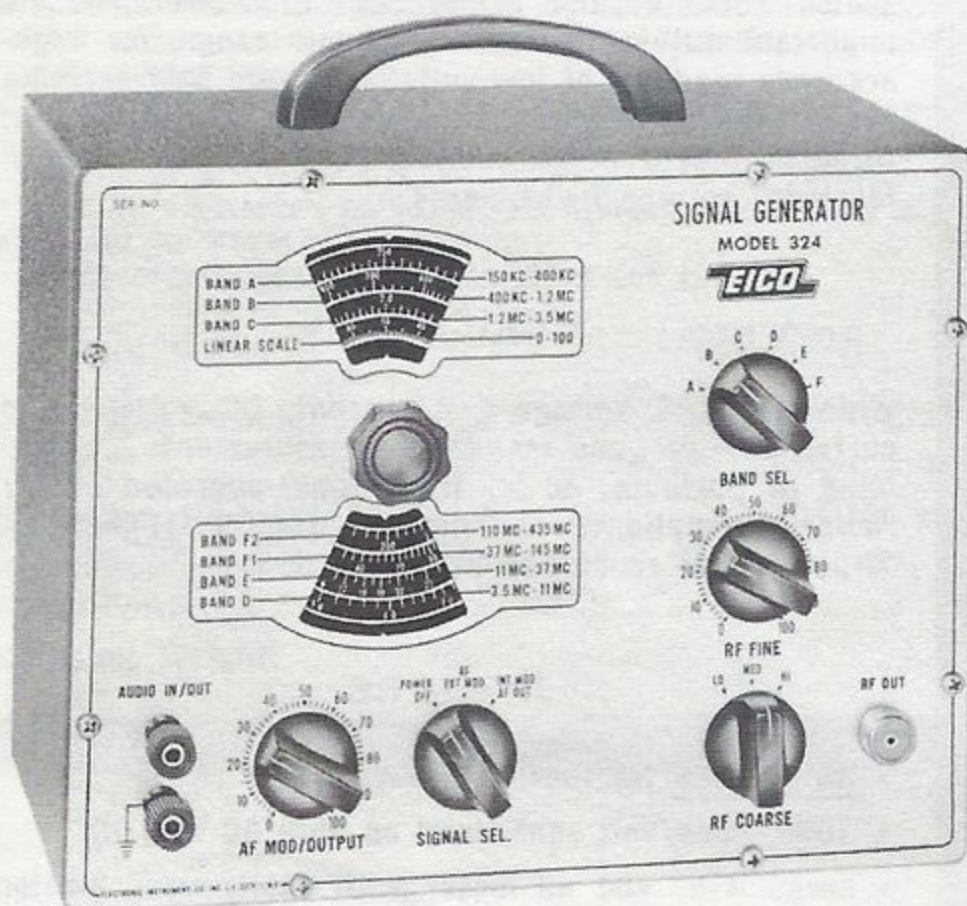
features

- Entirely ELECTRONIC sweep circuit; no moving parts, hum, or mechanical vibration.
- Accurately biased sweep circuit inductor assures excellent linearity on both sides of center frequency.
- Extremely flat RF output provided by newly-designed AGC circuit which automatically adjusts oscillator for maximum output on each band with minimum amplitude variations. Resonance-free RF choke eliminates "suck-out" points.
- Double pi isolation filter.
- Exceptional tuning accuracy: edge-lit hairlines eliminate parallax.
- Extremely high RF output permits "cold" alignment of all circuits.
- Advanced wiring techniques and heavy filtering eliminate hum and leakage.

specifications

- 5 Fundamental Sweep Ranges: 3-216 mc.
- 3 Fundamental Plus 1 Harmonic Marker Ranges: 2-225 mc.
- Crystal Marker: 4.5 mc crystal included. Panel mount permits use of other crystals.
- External Marker: mixable with crystal and variable markers for up to 3 marker pips on 1 trace; external connection for separate uses.
- Attenuators: continuously variable separate marker size control; 4-step decade "coarse" and "fine" for both sweep and marker output together.
- Complete 2-Way Blanking eliminates return trace. Narrow range PHASING CONTROL for accurate alignment.
- Sweep Width: 0-3 mc lowest max. deviation to 0-15 mc highest max. deviation.
- Output Impedance: 50 ohms, terminated at both ends of output cable.
- Cables: output cable, scope horizontal cable & compensated scope vertical cable.
- Tube Complement: One each 12AV7, 12AT7, 12AX7, 6AU6, 12B4, 6X4; plus selenium rectifier for bias voltage; transformer-operated.
- Power Requirements: 105-125 VAC, 50/60 cps; 50 watts.
- Size: 8 3/4" high x 13 1/2" wide x 7 1/4" deep. Wt. 16 lbs.
- Handsome lifetime deep-etched satin aluminum front panel; rugged grey wrinkle steel case.

rf signal GENERATOR #324



kit \$26.95
wired \$39.95

one generator covers
the whole range of
150 kc to 435 mc

The latest generator achievement created by EICO's service-minded engineers—hailed as the best generator buy in the world. More features, more versatility, more range, more accuracy—from input to output, more instrument—than many generators at 3 to 4 times its cost.

applications

IF-RF alignment, signal tracing and trouble-shooting of TV, FM and AM sets, all on fundamentals; marker generator for alignment of new high-frequency as well as older low-frequency TV IF's; 400 cps sine wave audio testing; laboratory and experimental work.

features

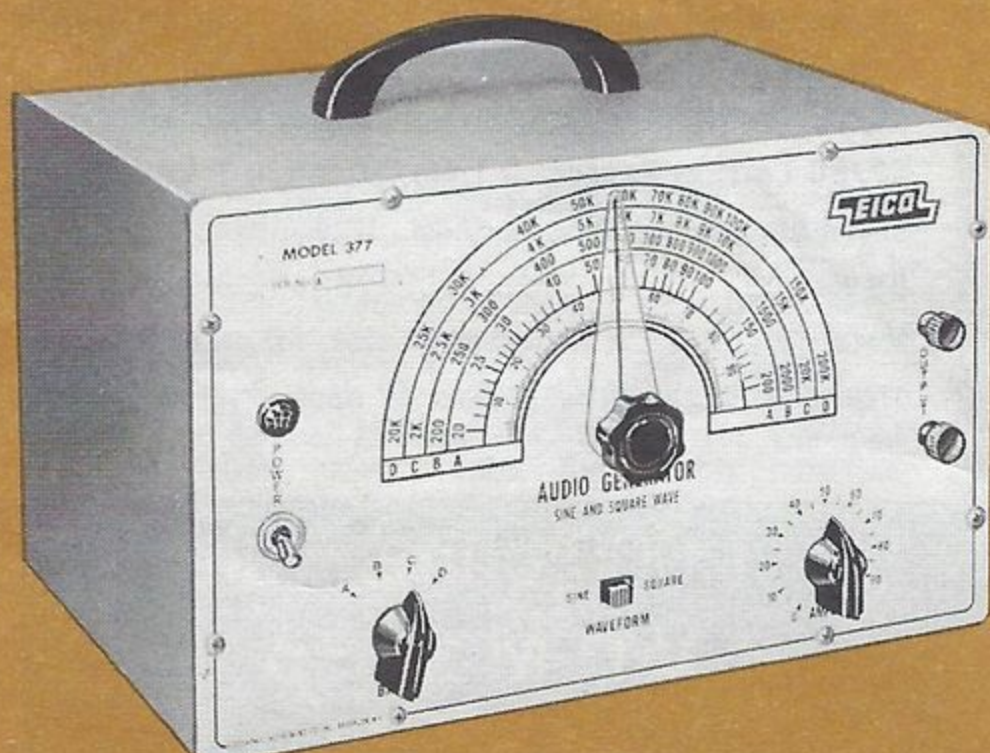
- One generator covers the whole range of 150 kc to 435 mc.
- $\pm 1.5\%$ frequency accuracy
- 6:1 vernier tuning knob and excellent spread at most important alignment frequencies
- Etched tuning dial, plexiglass windows, edge-lit hairlines—for utmost accuracy, convenience and professional appearance

- Colpitts RF oscillator directly plate-modulated by cathode follower for improved modulation
- Variable depth of internal modulation 0 to 50% by 400 cps Colpitts oscillator
- Variable gain external modulation amplifier—only 3.0 volts needed for 30% modulation
- Turret-mounted, slug-tuned coils for maximum accuracy
- Fine and Coarse (3-step) RF attenuators; 50-ohm output impedance

specifications

- 6 fundamental bands: 150-400 kc, 400-1200 kc, 1.2-3.5 mc, 3.5-11 mc, 11-37 mc, 37-145 mc; one harmonic band, 111 mc-435 mc
- RF output 100,000 microvolts; AF output to 10 volts
- Tube complement: 12AU7, 12AV7, selenium rectifier; transformer-operated
- 5-way jack-top binding posts for AF in/out; coaxial connector and shielded cable for RF out
- Handsome satin aluminum front panel and grey wrinkle steel case
- Power requirements: 105-125 VAC, 50/60 cps.
- Over-all size: 8" high, 10" wide, 4 3/4" deep. Weight 10 lbs.

sine & square wave AUDIO GENERATOR #377



kit \$31.95
wired \$49.95

The EICO #377 is expressly designed to fill the test instrument needs of the audio engineer, high-fidelity enthusiast and the radio-TV Serviceman. Its many modern features and its advanced circuitry and design make it particularly suitable for electro-acoustic experimentation, development work, as well as for TV service and wide-band amplifier work.

The #377 is another EICO exclusive instrument achievement. It is the equal in quality of separate professional sine and square wave generators each costing more than the #377 alone!

applications

Audio amplifier testing and design... determining radio receiver fidelity and loudspeaker response... square wave testing of TV receivers... development of filter or compensating circuits... frequency measurement in conjunction with an oscilloscope.

features

- High design standards met by costlier components and circuitry
- Resistance-capacitance (Wien Bridge) oscillator circuit with 1% precision resistors.
- Excellent calibration accuracy, stability, and purity of waveform
- Choke filtering in power supply for minimum hum level
- High power output over wide range of loads
- Constant output over wide frequency range

specifications

- Frequency Range: Sine wave, 20-200,000 cps in 4 bands. Square wave, 60-50,000 cps. (5% tilt at 60 cps, 5% rounding at 50,000 cps).
- Calibration Accuracy: $\pm 3\%$ or 1 cps, whichever is greater
- Frequency Response: ± 1.5 db, 60-150,000 cps
- Output Voltage: 10V across 1000 ohms rated load (100 milliwatts); drops to 8V across 500 ohms, rises to 14V across 10,000 ohms or higher
- Distortion: Less than 1%
- Hum: Less than 0.4% of rated output
- Tube Complement: 2-6K6, 1-6SN7, 1-6SJ7, 1-6X5, and 1-3S6 3-watt lamp
- Power Requirements: 105-125 VAC, 50-60 cps, 50 W.
- Size: 7 1/8" high, 11 1/8" wide, 7 5/8" deep.
- Weight: 14 lbs.
- Smart professional styling—satin finish deep-etched aluminum panel, grey wrinkle steel case.

Add 5% in the West. Slightly higher in Canada.

20,000 ohms/volt

V-O-M #565

kit \$24.95

wired \$29.95



The famous performance-proven EICO Multimeter design with world-wide recognition for excellence in both laboratory and field work. Engineered for maximum versatility, it is a valuable professional instrument for the accurate servicing of radio, TV and electronic apparatus. Being completely battery-operated, it is ideal for portable applications, field work and remote locations. It measures AC and DC voltage, DC current, resistance and decibels. The circuitry, ranges and physical layout have been carefully "serviceman-designed" for new convenience, ease and speed of operation. Note, too, how the advanced simplified "open" construction effects a far greater accessibility of all components for easier maintenance and replaceability. The beautiful, gleaming high-impact black bakelite case is a dust-free seal for the meter and a new high in styling that is both handsome and functional.

applications

Accurate TV, FM and AM radio servicing... high current range for complete appliance testing... wide-range DC voltage measurement at 20,000 ohms/volt sensitivity... wide-range AC and output voltage, decibel, and resistance measurement... testing commercial and amateur transmitters (since its accuracy is unaffected by RF fields)... checking automobile electrical wiring, generators, starters, batteries... movie, marine, aircraft and air conditioning equipment... any application where measurement of voltage, current or electrical continuity is needed.

features

- 31 RANGES for maximum versatility
- DC Sensitivity of 20,000 ohms/volt—minimizes circuit loading
- Large 4½", 50 ua meter movement; 2-color scale—easy-to-read
- Beautiful, gleaming case, molded of high-impact black bakelite
- Factory-adjusted, wire-wound potentiometers compensate for individual rectifier characteristics to assure accurate measurement
- Output voltage ranges for measuring signal voltages in circuits where DC is present

specifications

DC Voltage: Ranges 0-2.5, 10, 50, 250, 1000, 5000 volts
Sensitivity 20,000 ohms/volt
AC/Output Voltage: Ranges.....0-2.5, 10, 50, 250, 1000, 5000 volts
Sensitivity 1000 ohms/volt
DC Current: 0-100 ua, 10 ma, 100 ma, 500 ma, 10 amp
Decibels: -12 to +55 db in 5 ranges
Resistance: Ranges: 0-2000 ohms, 0.2 megohms, 20 megohms (.2 ohms to 20 megohms)
Meter: 4½" size, 50 ua movement
Size: 6¾" high, 5¼" wide, 3" deep. Wt.: 3 lbs.

20,000 ohms/volt

V-O-M #555

kit \$29.95

wired \$34.95

Same as #565 above, but with 1% precision resistors

1,000 ohms/volt

V-O-M #536

kit \$12.90

wired \$14.90



FOR THE FIRST TIME, a 1000 ohms/volt Multimeter so brimful of extra-extended ranges and special features that it's the "tops" of its type.

Only EICO gives you 7 full-scale AC/DC ranges to 5000 volts. The #536 is the only 1,000 ohms/volt Multimeter with a full scale zero-to-one-volt range! This makes possible accurate low-volt readings. For example, a half-volt on a 10-volt scale of an instrument whose lowest scale is 10V deflects the meter needle only 1/20th of the scale, where readings are inaccurate; but a half-volt on the 0-1 volt scale becomes mid-scale deflection with resultant high precision in reading.

Additional outstanding advantages include: compact, portable construction—in beautiful, rugged high impact bakelite—makes it easy to carry around in coat pocket, tool box or auto glove compartment; advanced new AC rectifier circuit employs a high-quality rectifier in a dual half-wave hook-up, which provides excellent linear characteristics. Indeed, every modern feature required in an instrument of this kind has been built into the #536. But — YOU compare it with so-called "look-alikes". You'll see why we say EICO gives you the best — and for less!

applications

Wide-range AC voltage and current, DC voltage and current, decibel and resistance measurements... servicing of portable, ac-dc, transformer-operated, or car radios... appliance servicing... continuity checking... electrical repairs in the home or car.

features

- 31 RANGES for maximum versatility
- 1000 ohms/volt sensitivity on both AC and DC
- Large 3" 400 ua meter with easily-read, 2-color scales
- New, high quality instrument rectifier in dual half-wave hook-up
- Both shunt and series rectifier compensation for uniform accuracy
- One set of precision divider resistors on both AC and DC minimizes switching
- Beautiful, gleaming, black case molded out of high-impact bakelite

specifications

AC/DC Voltage Ranges: 0-1, 5, 10, 50, 100, 500, 5000 volts
AC/DC Sensitivity: 1000 ohms/volt
AC/DC Current Ranges: 0-1 ma, 10 ma, 0.1 amp, 1 amp
Ohms Ranges: 0-5000 ohms, 100K ohms, 1 megohm
DB Ranges: -20 to +69 in 6 ranges
Meter: 3" size, 400 ua movement
Size: 6½" high, 3¾" wide, 2¾" deep Wt.: 2 lbs.

1,000 ohms/volt

V-O-M #526

kit \$13.90

wired \$16.90

Same as #536 above, but with 1% precision resistors

1,000 ohms/volt

V-O-M #566

kit \$14.90

wired \$18.95



The EICO #566 Volt-Ohm-Milliammeter is essentially a larger version of the #536. It possesses all the latter's excellent circuitry and application advantages plus 7 extra ranges (output) and plus the extra convenience and legibility of its large 4½" meter with 2-color scales. Note, too, that in the #566 EICO offers you the important full-scale zero-to-one-volt range for high-accuracy readings of low volts. You need only examine the #566 side by side with any comparable instrument to agree that it is one more EICO "best buy" in professional service instruments.

applications

Wide-range AC voltage and current, DC voltage and current, decibel and resistance measurements... servicing of portable, ac-dc, transformer-operated or car radios... appliance servicing... continuity checking... electrical repairs in the home or car.

features

- 38 RANGES for maximum versatility
- 1000 ohms/volt sensitivity on both AC and DC
- Large 4½" 400 ua meter with easily-read, 2-color scales
- New high quality instrument rectifier in dual half-wave hook-up
- Both shunt and series rectifier compensation for uniform accuracy
- One set of precision divider resistors on both AC and DC minimizes switching
- Beautiful, gleaming black case molded out of high-impact bakelite

specifications

AC/DC/Output Ranges: 0-1, 5, 10, 50, 100, 500, 5000 volts
AC/DC Sensitivity: 1000 ohms/volt
AC/DC Current Ranges: 0-1 ma, 10 ma, 0.1 amp, 1 amp
Ohms Ranges: 0-5000 ohms, 100K ohms, 1 megohm
DB Ranges: -20 to +69 in 6 ranges
Meter: 4½" size, 400 ua movement
Size: 6¾" high x 5¼" wide x 3" deep Wt.: 3 lbs.

1,000 ohms/volt

V-O-M #556

kit \$16.90

wired \$23.50

Same as #566 above, but with 1% precision resistors

deluxe MULTI- SIGNAL TRACER #147

kit \$24.95
wired \$39.95



A professional deluxe instrument crammed with unsurpassed facilities and conveniences for extra-easy, extra-fast profitable servicing of AM, FM and TV receivers. Here's one of the most useful and convenient instruments the serviceman can use in the servicing of TV, FM, AM, audio and electronic equipment. The #147 is a deluxe signal tracer brought up-to-date by EICO engineers in the light of servicemen's latest needs for this type of all-purpose instrument. Two separate input channels assure maximum adaptability for both RF and audio work; and RF gain is so high you can trace right up to the antenna terminals of the set under test. Now you can both see and hear the signal level in each stage—the eye tube and speaker give you both aural and visual monitoring. The valuable noise locator and calibrated wattmeter turn suppositions into certain answers—and fast! The #147 has everything you could ask for in a modern, up-to-date professional signal tracer, and then some more features no other tracer gives you. It's one more champion precision instrument, at lowest cost... from EICO.

applications

For signal tracing and trouble-shooting in RF, IF and audio stages in AM, FM and TV sets... locating noisy components... checking equipment power consumption.

features

- Two input channels: high-gain RF and low-gain audio. RF channel gain more than adequate for tracing up to receiver input.
- Both visual and aural signal monitors (eye tube and speaker). Visual monitor permits estimation of signal strength and gain-per-stage.
- Shielded RF crystal demodulator and direct probes. Individual panel receptacles provide easy change-over from RF to audio tracing or vice versa.
- Valuable noise locator applies DC test voltage to suspected component and amplifies effect—ferrets out noisy controls, resistors, capacitors, coils, transformers, cold solder joints, etc.
- Calibrated wattmeter reveals abnormal power consumption in set under test—valuable preliminary check. Detects B+ short, intermittent filament circuit, defective filter or bypass capacitors, etc. Fused for safety.
- May be connected as substitute speaker, amplifier, or output transformer.
- Output for VTVM or oscilloscope.
- Transformer-operated for isolation and safety.

specifications

Tube complement:.....1-12AX7 as dual amplifier; 1-6AQ5 as beam power amplifier; 1-1629 electron-ray indicator; 1-6X4 as full-wave rectifier.

Power requirements:105-125 volts AC, 50/60 cps, 40 watts

Cabinet:Satin finish deep-etched aluminum panel and grey wrinkle steel case

Overall size:8" high x 10" wide x 4 3/4" deep

Shipping Weight:10 lbs.



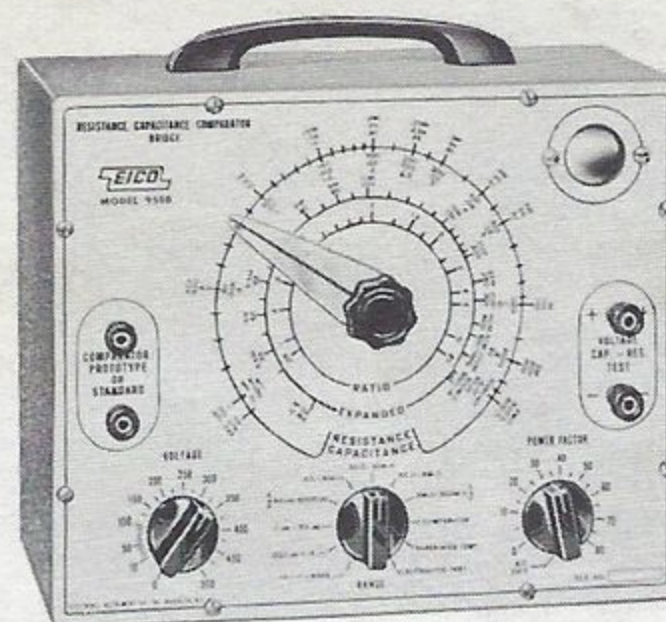
LOW-COST MULTI-SIGNAL TRACER #145A

kit \$19.95
wired \$28.95

High gain RF and low gain audio input channels for signal tracing and trouble shooting RF, IF, and audio stages of AM, FM, and TV receivers. More than enough RF gain to trace up to receiver input; signal is heard through built-in 5" PM speaker. Shielded RF crystal demodulator and direct probes supplied. Individual panel receptacles make for easy change-over from RF to audio tracing or vice versa. Noise localizer circuit applies DC test voltage through probe to suspected component and simultaneously picks up and amplifies effect. May be connected as test speaker, amplifier or output transformer. Output for VTVM or scope. Also excellent as null detector, scope preamp, etc. Remarkably compact. Entire unit is transformer-operated for maximum isolation and safety.

- Tube Complement:.....1-12AX7 dual triode as voltage amplifier, 1-6AQ5 beam power amplifier, 1-6X4 full-wave rectifier
- Power Requirements: 105-125 VAC, 50-60 cps, 40 watts

- Cabinet: satin finish deep-etched aluminum panel and rugged grey wrinkle steel case.
- Overall Size: 7-13/16" high x 5-9/10" wide x 5-1/16" deep.
- Weight: 7 lbs.



resistance- capacitance bridge & R-C-L COMPARATOR #950B

kit \$19.95
wired \$29.95

4 separate Capacity ranges and 4 separate Resistance ranges! The only instrument of its kind with a Comparator Range for measurement of capacitance, resistance and inductance with a complementary component as a standard! You can depend on the EICO #950 for rapidity and precision in the measurement of unknown resistors and condensers. You make your readings directly on the calibrated front panel—without the need for complex and time-consuming computations. The transformer-operated power supply assures safety of operation.

Here's a precision professional instrument that should be standard equipment in every laboratory and service shop. With the extremely valuable COMPARATOR RANGE—exclusive with EICO at this outstanding low price—the #950 is one more "best buy" from the serviceman-minded electronics laboratories of EICO.

applications

Capacitance measurement of paper, mica, electrolytic and ceramic capacitors... resistance measurement... comparison measurement of resistance, capacitance and inductance with a complementary component as a standard... power factor measurement on electrolytics... finding leaky and shorted capacitors (built-in source of continuously variable polarizing voltage).

features

- Direct reading scales for measurement of capacitance and resistance
- Direct reading ratio scale for comparison measurement of capacitance, inductance and resistance
- Extremely sensitive leakage indication directly on eye tube
- Sensitive magic eye tube null indicator
- Continuously variable polarizing leakage test voltage from 0 to 500 volts DC * $\pm 10\%$

specifications

Capacity: 4 ranges10 mmf to 5000 mf

Resistance: 4 ranges0.5 ohms to 500 megohms

Comparator: 1 rangeratio from .05 to 20 (400 to 1)

DC polarizing voltage:0 to 500 volts DC (continuously variable) * $\pm 10\%$

Tube Complement:1-1629, 1-6X5

Power Requirements:105-125 volts AC, 50/60 cps

Overall Dimensions:8" high, 10" wide, 4 3/4" deep

Weight:8 lbs.

Smart professional styling—satin finish deep-etched aluminum panel, grey wrinkle steel case.



FLYBACK TRANSFORMER & YOKE TESTER #944

kit \$23.95
wired \$34.95

Now one of the most difficult TV service jobs becomes quick and easy as A-B-C! Here's fast, positive testing of flybacks and yokes, in or out of the set... at lowest cost!

- Positive check of all types of flybacks and yokes, in or out of set—in just seconds
- Operates on the extremely sensitive grid-dip principle—shows up even 1 shorted turn!
- Exclusive separate calibration for air-core and iron-core flybacks assures accuracy for testing all types
- Large easy-to-read 4 1/2" meter • 3 separate colored scales
- New compact size for extra-easy portability
- Smart professional styling—satin finish aluminum panel, grey wrinkle steel case

applications

Check air-core and iron-core flyback transformers... check any inductance whose impedance is not too low... test continuity of yokes, coils, speakers, switches, etc.

specifications

Tube Complement:1-6K6

Overall Size:7" x 5" x 4"

Weight:5 lbs.

Power Requirements: 105-125 VAC, 50/60 cps,



INDEX

AM Tuner	8	Power Amplifiers	6, 7, 12, 13
Amateur Transmitters	15	Power Supplies	21
Amateur Universal Modulator Driver	15	Preamplifiers	9, 11
Amplifiers	7, 9, 10, 11, 12	Probes	23
Audio Generator	25	Signal Generators	24, 25
Bar Generator	24	Signal Tracers	27
Battery Eliminators	18, 21	Speaker Systems	12, 13
Battery Tester	23	Stereophonic Integrated Amplifiers	7, 10
Bridge	27	Stereophonic Power Amplifiers	9
Citizens Band Transceivers	14	Stereophonic Preamplifier	9
Code Oscillator	16	Substitution Boxes	21, 23
CRT Tester	22	Sweep Generators	24, 25
Crystals	24	Tape Deck	4, 5
DC Oscilloscope	20	Transistor Portable Radio	16
Decade Boxes	23	Transistor Tester	22
Economy Stereo Integrated Amplifier	10	Tube Testers	22
Electronic Switch	20	Utility Tester	23
FM Tuner	8	Vacuum Tube Voltmeters	17, 18, 19
FM/AM Tuner	8	Variable AC Supplies	18
FM/AM Stereo Tuner	6	Voltage Calibrator	20
Filament Tester	22	Volt-Wattmeter	17
Flyback Tester	27	Volt-Ohm-Milliammeters	26
Furniture Wood Enclosures	10	VTVM-Amplifier	17
Grid Dip Meter	16	VTVM Training Aid	19
Integrated Amplifiers	8, 10, 11	Walkie-Talkie	14

THE EXCLUSIVE **EICO** MAKE-GOOD GUARANTEE

Each EICO Kit and Instrument is *doubly guaranteed*, by EICO and your jobber, to contain only selected quality components. EICO guarantees to replace any component which might become defective in normal use if returned to the factory within 90 days of purchase.

EICO guarantees all Kits assembled according to EICO's simplified instructions will operate as specified therein.

EICO guarantees service and calibration of every EICO Kit and Instrument at nominal charge for the LIFETIME of the Instrument.

IF YOU LOVE TO CREATE... BUILD THE FINEST...



...engineered for • superb professional quality

• trouble-free performance • lifetime durability

• esthetic harmony • ease of assembly

EICO ELECTRONIC INSTRUMENT CO., INC., 3300 NORTHERN BLVD., LONG ISLAND CITY 1, N. Y.

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