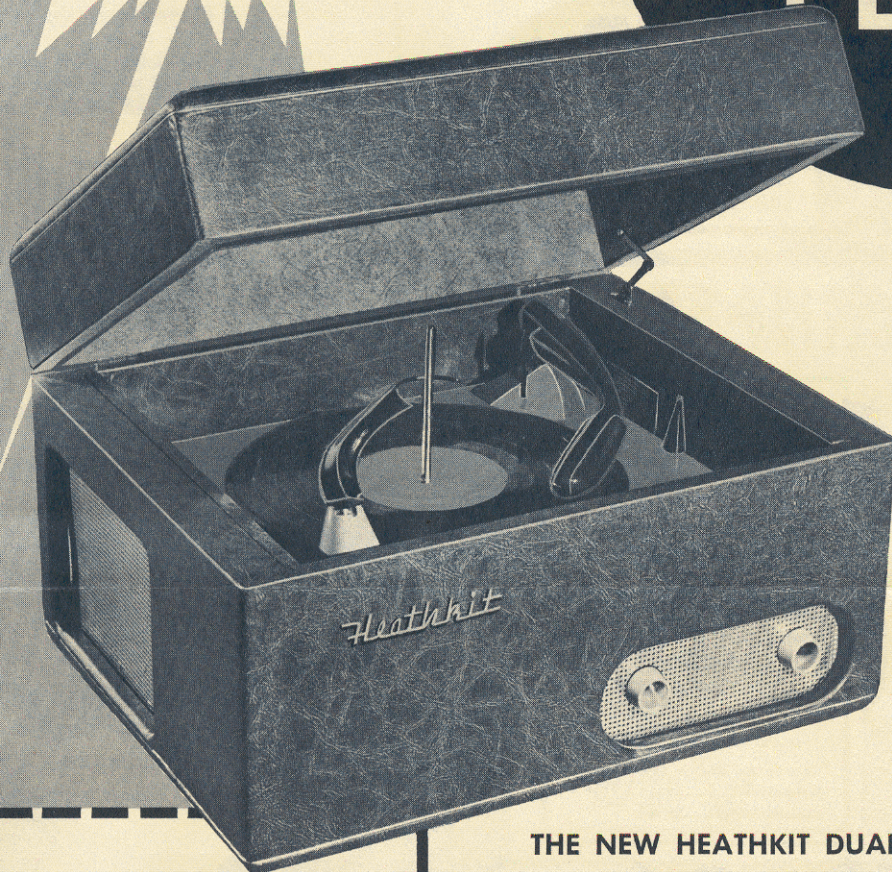


# New



## HEATHKIT *Dual* RECORD PLAYER KIT

MODEL RP-1

# \$59.50

SHIPPING WT. 30 LBS.

- Plays all record sizes, all speeds.
- Newly developed ceramic cartridge.
- Automatic shutoff for changer and amplifier.
- Acoustically correct cabinet enclosure.
- Attractive modern styling.
- Two Matched Speakers.
- Easy to assemble.
- Compensated Volume Control.

### THE NEW HEATHKIT DUAL RECORD KIT . . . OFFERING AN ENTIRELY NEW CONCEPT OF RECORDED MUSIC REPRODUCTION

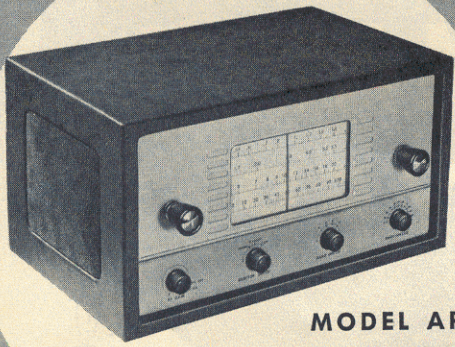
Here is a *new* introduction to quality record reproduction, a simple to operate compact, table top model with none of the specialized custom installation problems usually associated with high fidelity systems. The entire unit can be easily moved from living room to recreation room, porch, etc. Two matched synchronized speakers mounted in an acoustically correct enclosure reproduce *all* of the music on the record, musical reproduction with the unique sensation of being in a halo-like aurora of glorious sound. This spectacular characteristic is possible only because of the diffused non-directional properties of the matched dual speakers. The Heathkit Dual makes listening to fine recorded music a thrilling new experience through naturally clear life-like reproduction of sound at all levels throughout the tonal system. The performance level is vastly superior to the ordinary phonograph or console selling for many, many times the price of the Dual.

The world famous VM Tri-O-Matic record changer plays all three record sizes at all three speeds. Automatic shut-off for both changer and amplifier after the last record is played. A wide tonal range ceramic cartridge features an ingenious turn-under twin sapphire stylus for LP or 78 records without turning the cartridge.

Simplified easy to assemble four tube amplifier features compensated volume control and separate tone control. Proxylin impregnated fabric covered cabinet supplied completely assembled. You build only the amplifier from step-by-step construction. No specialized tools or knowledge required as full recognition is given to the fact that many purchasers of this kit enjoy good musical reproduction on a purely non-technical basis and, therefore, the construction manual has been simplified to the point where even the complete novice can successfully construct the Heathkit Dual without difficulty. The price of the Heathkit Dual includes cabinet, VM record changer, 5½" speakers, tubes, and all circuit components required for amplifier construction.



# New HEATHKIT COMMUNICATIONS RECEIVER KIT



**MODEL AR-2**  
**\$25<sup>50</sup>**  
 SHIP. WT. 12 LBS.

Here is the Receiver kit you have repeatedly asked for, a new Heathkit Communications Receiver, the perfect companion piece for the AT-1 Transmitter Kit. Many outstanding desirable features have been incorporated in the design of the AR-2 such as: electric tuning spread scale for logging and tuning convenience — high gain miniature tubes and IF transformers for high sensitivity and good signal to noise ratio — separate RF gain control with optional automatic volume control or manual volume control in addition to the conventional audio gain control. Noise limiter — standby switch — stable BFO oscillator circuit — headphone jack, etc., all contribute to a high performance standard.

Range.....	535 KC to 35 MC
12BE6.....	Mixer oscillator
12BA6.....	IF amplifier
12AV6.....	Detector - AVC - Audio
12BA6.....	BFO oscillator
12A6.....	Beam power output
5Y3GT.....	Rectifier
Chassis dimensions: 11½" wide x 5¾" high x 6¾" deep.	
105-125 volts AC 50/60 cycles 45 watts.	

Frequency coverage is continuous from 535 KC to 35 MC in four ranges. For added convenience, various Ham bands have been separately identified in respect to their relative placement on the slide rule tuning scale. A chassis mounted 5½" PM speaker is included with this kit.

The Heathkit AR-2 is supplied complete with all tubes, punched and formed sheet metal parts, circuit components, and detailed step-by-step construction manual.

CABINET Proxilyn impregnated fabric covered plywood cabinet. Shipping wt. 5 lbs.  
 Part No. 91-10.....**\$4.50**

## New Heathkit 20 WATT HIGH FIDELITY AMPLIFIER KIT

A new 20 watt high fidelity amplifier designed especially for custom audio installations demanding clean reproduction, adequate power, and flexibility to meet individual operational requirements. Separate treble and bass tone controls provide up to 15 db boost, or 15 db cut. Four switch-selected inputs have been provided, each with the necessary degree of compensation for the service desired.

This fine amplifier features a Peerless output transformer with output impedances of 4, 8, and 16 ohms to further simplify speaker installation problems. Preamplifier, amplifier, and phase splitter circuits utilize 9-pin twin triode miniature tubes for extremely low hum and noise level. The circuitry features a separate hum balancing potentiometer for absolute control of hum. Two 6L6 push-pull operated output tubes provide full 20 watts output power. DC operating voltages are obtained from a well-filtered power supply, using a 5U4G rectifier tube. The chassis is finished in an attractive enamel hammer-tone gray finish, and features adjustable length break-off type control shafts for added convenience.

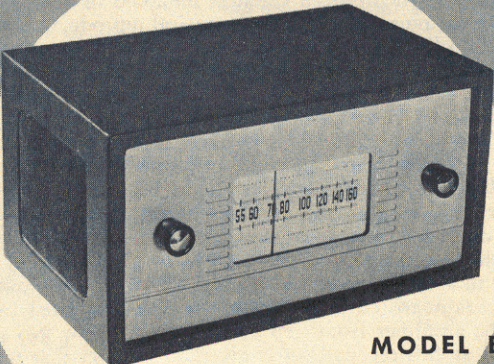
Here is truly outstanding performance at modest cost. The kit includes all tubes, parts, chassis, circuit components, and a completely detailed construction manual featuring a fool-proof step-by-step assembly procedure.

SPECIFICATIONS	
Frequency Response.....	1 db 20 to 20,000 cps
Power Output.....	20 watts
Total Harmonic Distortion.....	1% (at 3 db below rated output)
<b>Tone Controls</b>	
Bass (at 30 cps).....	15 db boost, 15 db cut
Treble (at 15 kc).....	15 db boost, 20 db cut
Power Requirements.....	100 watts, 105-125 volts 50/60 cycle AC
Tube Complement.....	12AX7 magnetic phono pre-amplifier and input amplifier 12A07 voltage amplifier and tone control amplifier 12AU7 voltage amplifier and phase splitter Two 6L6G push-pull pentode power amplifiers 5U4G Rectifier
Dimensions.....	13¼" x 8½" x 6½" high
Shipping Weight.....	18 lbs.



**MODEL A-9A**  
**\$35<sup>50</sup>**  
 SHIP. WT. 18 LBS.

## New Heathkit BROADCAST BAND RECEIVER KIT



**MODEL BR-2**  
**\$17<sup>50</sup>**  
 SHIP. WT. 11 LBS.

Another new Heathkit, the Model BR-2 Broadcast Band Receiver. Here is the ideal radio kit for the student, beginner, or hobbyist. If you have ever had the urge to build your own radio receiver, this kit warrants your attention. An outstanding feature seldom encountered in so-called beginner's kits is that the entire receiver is transformer operated, thereby eliminating the shock hazards usually associated with AC-DC circuits.

New high gain miniature tubes and IF transformers provide excellent sensitivity and good signal to noise ratio. A powerful ferrite core built-in rod type antenna has been provided. A chassis mounted 5½" PM speaker provides excellent volume and tone quality not ordinarily expected in this low price range.

The BR-2 can be operated either as a receiver or tuner at the flick of a switch. A chassis mounted 110 AC receptacle is provided for accessory operation such as amplifier or phonograph. In this manner the single on-off switch of the receiver will control the operation of additional equipment.

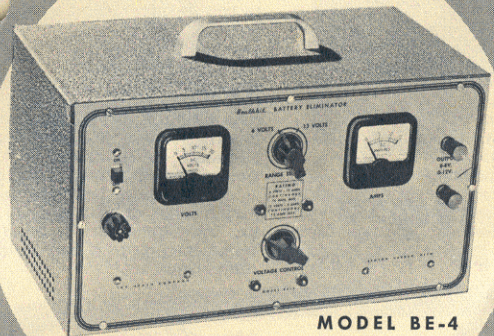
An interesting aspect of the BR-2 kit is that in the construction manual particular consideration has been given to the student and in addition to a complete breakdown of overall circuit theory, further explanations are given as various circuit developments are encountered.

This Heathkit is supplied complete with all tubes, chassis, speaker, circuit components, and a completely detailed construction manual. Tube line-up: 12BE6 Mixer oscillator, 12BA6 IF amplifier, 12AV6 Detector - AVC - First audio, 12A6 Beam power output, 5Y3GT Rectifier.

CABINET Proxilyn impregnated fabric covered plywood cabinet. Shipping wt. 5 lbs.  
 Part No. 91-9.....**\$4.50**



# New HEATHKIT BATTERY ELIMINATOR KIT



MODEL BE-4

**\$31<sup>50</sup>**

SHIP. WT. 18 LBS.

Here is the new Heathkit Battery Eliminator that you service men have been requesting. The Model BE-4 furnishes either 6 volts or 12 volts output at the flick of a panel switch. Use the BE-4 to service the new 12 volt car radios in addition to the conventional 6 volt radios.

The Heathkit BE-4 provides two continuously variable output ranges 0-8 volts DC at 10 amps, or 0-16 volts DC at 5 amps. Heavier loads up to 50% increase may be safely carried for short periods of operation. The input voltage is clean and well-filtered, as the circuit uses two 10,000 mf condensers. The continuously variable voltage output feature is a definite aid in determining the starting point of vibrators and the voltage operating range of oscillator circuits.

Panel mounted meters constantly monitor voltage and current output and will quickly indicate the presence of a major circuit fault in the equipment under test. The power transformer primary winding is fused, and for additional safety an automatic relay of the self-resetting type is incorporated in the DC output. The heavy duty rectifier is a Mallory 18-plate, split type magnesium copper sulfide unit used either as a full wave rectifier or voltage doubler according to the position of the panel range switch.

Here is the ideal battery eliminator for all of your service problems, and as an additional feature, it can also be used as a battery charger. The BE-4 kit contains all necessary constructional material, circuit components, and a detailed construction manual. Two hours of your assembly time will furnish your shop with a high-quality battery eliminator capable of producing many years of useful service.

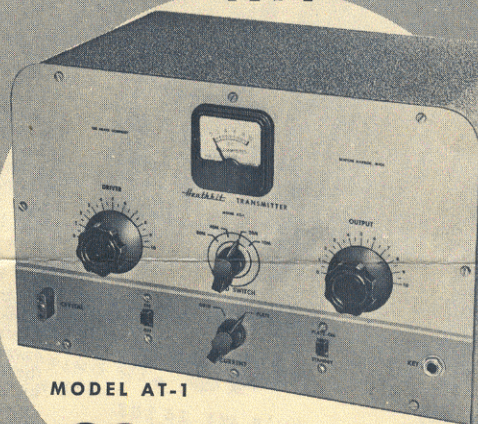
## SPECIFICATIONS

Voltage output.....0-8 volts at 10 amps continuous  
15 amps maximum intermittent.  
0-16 volts at 5 amps continuous  
7.5 amps maximum intermittent.  
Meters.....0-15 volts DC  
0-15 amps DC  
Power 105-125 volts 50/60 cycles AC  
requirements. 175 watts  
Dimensions.....13<sup>1</sup>/<sub>4</sub>" wide x 7<sup>1</sup>/<sub>4</sub>" deep x 7<sup>1</sup>/<sub>4</sub>" high

# Heathkit AMATEUR TRANSMITTER KIT

Here is the latest Heathkit addition to the ham radio field, the AT-1 Transmitter Kit, incorporating many desirable design features at the lowest possible dollar-per-watts price. Panel mounted crystal socket, stand by switch, key click filter, AC line filtering, good shielding, etc. VFO or crystal excitation — up to 35 input — single knob band switching — pre-wound coils — built-in power supply, 52 ohm coaxial output, all represent outstanding Heathkit features. Built-in power supply provides 425 volts at 100 ma. Amazingly low kit price includes all circuit components, tubes, cabinet, punched chassis, and detailed construction manual. (Crystal not supplied.)

**NEW HEATHKIT ANTENNA COUPLER** specifically designed for the Heathkit AT-1 Transmitter. Can be used with any 52 ohm coaxial input — up to 75 watts power. Low pass filter with a cut-off frequency of approximately 36 mc — L section tuning network — neon tuning indicator — rugged compact construction — transmitter type variable condenser and high Q coil are featured. The AC-1 has both inductance and capacity tuning for maximum operating versatility. Shipping wt. 3 lbs., cabinet 8<sup>1</sup>/<sub>8</sub>" wide x 4<sup>3</sup>/<sub>8</sub>" high x 4<sup>7</sup>/<sub>8</sub>" deep. **\$14.50**



MODEL AT-1

**\$29<sup>50</sup>**

SHIP. WT. 16 LBS.

## SPECIFICATIONS

Range.....80, 40, 20, 15, 11, 10 meters  
6AG7.....Oscillator multiplier  
6L6.....Amplifier doubler  
5U4G.....Rectifier  
105-125 volts AC 50/60 cycles 100 watts  
Dimensions.....8<sup>1</sup>/<sub>8</sub>" high x 13<sup>1</sup>/<sub>8</sub>" wide x 7" deep

# NEW Heathkit VARIABLE ISOLATION TRANSFORMER KIT



MODEL IT-1

**\$16<sup>50</sup>**

SHIPPING WT. 9 LBS.

Another new Heathkit for the service man, the Isolation Transformer Kit, Model IT-1. Provides line isolation for AC-DC radios thereby eliminating shock hazard, hum problems, etc. The secondary or output voltage of the IT-1 is variable between the range of 90 to 130 volts AC, and is constantly monitored by a panel mounted AC volt meter.

The Heathkit Isolation Transformer can be used to increase radio AC operating input voltage to induce breakdown of faulty or intermittent circuit components. This feature is of special value in saving the service time required to locate intermittents. Use it also to simulate varying line voltage conditions and to determine the low line voltage level at which oscillator circuits cease functioning, particularly in 3 way portable radios. The IT-1 is of definite value in eliminating the many annoying problems that occur in alignment work involving AC-DC radios.

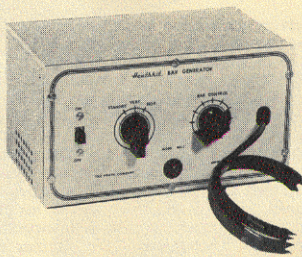
Additional applications would be to check the starting characteristics of fluorescent lamps, small motors, or even to isolate interference radiating devices from the power supply line. Continued service shop use of the isolation transformer will suggest many additional applications. Build this kit in thirty minutes for years of useful service. Easily assembled from detailed instructions.

## SPECIFICATIONS

Input voltage.....105-125 volts AC 50/60 cycles  
Output voltage.....90-130 volts AC 50/60 cycles  
Power rating.....100 watts continuous  
200 watts maximum  
Dimensions.....8<sup>1</sup>/<sub>8</sub>" high x 4<sup>3</sup>/<sub>8</sub>" wide x 7<sup>7</sup>/<sub>8</sub>" deep



# NEW *Heathkit* BAR GENERATOR KIT



MODEL BG-1

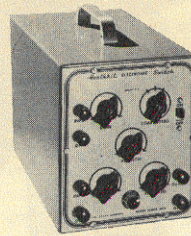
**\$14<sup>50</sup>**

SHIPPING WT.  
6 LBS.

The station transmitted test pattern is rapidly disappearing and the Heathkit Bar Generator is the logical answer to the TV service man's problem in obtaining quick accurate adjustment information. The Bar Generator produces a series of equally spaced horizontal or vertical bars on the TV screen, which will quickly indicate picture linearity of the receiver under test. The Bar Generator will also indicate the efficiency of the vertical or horizontal hold circuits as well as provide an indication of picture size.

The instrument is transformer operated for safe use with universal type TV chassis. An antenna clip and output lead are provided and impedance matching is not at all critical. Instrument use merely requires that the antenna leads be disconnected from the receiver terminals and the clip connected to the receiver antenna terminals. The instrument is simple to use and is extremely portable thereby providing a quick means of checking the television receiver either in your own workshop or in your customer's home.

# *Heathkit* ELECTRONIC SWITCH KIT



MODEL S-2

**\$19<sup>50</sup>**

SHIP. WT. 11 LBS.

The Heathkit Model S-2 Electronic Switch Kit will reveal many entirely new fields of application for your oscilloscope. Basic instrument function is to permit simultaneous oscilloscope observation of two separate traces, which can be either superimposed or separated for individual study. This is accomplished through the use of two individually controlled inputs working through amplifier, multi-vibrator, and blocking stages. A typical example of electronic switch operation would be simultaneous observation of the signal as it appears at both the input and output stages of an amplifier. Buy this kit complete with 5 tubes, power transformer controls and all necessary components.

## *Heathkit* PUSH-PULL 5" OSCILLOSCOPE KIT



MODEL O-8

**\$43<sup>50</sup>**

SHIP. WT. 26 LBS.

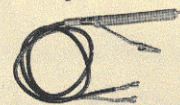
The outstanding 1953 Model O-8 Heathkit Oscilloscope features the finest performance ever offered in this popular kit instrument. Primarily intended as a general purpose oscilloscope for the faithful reproduction of actual wave forms and other electrical phenomena, its production of actual wave forms and other electrical phenomena, its vastly improved band width good 100 kc square wave reproduction, 3 step vertical input attenuator, high sensitivity, etc., admirably qualify this instrument for TV and radio servicing, laboratory use, ham applications, and all general electronic development work. Improved vertical band width is obtained through the use of shunt peaking chokes with proper cathode compensation in the vertical push-pull output stage. For additional flexibility of operation, provisions have been made for direct connections to the deflection plates. A "Z" axis input and a spot shape control for really fine focusing. The vertical sensitivity of this instrument has been increased to .025 volts per inch—wide band sweep generator with 15-100,000 cps range—provisions for internal or external synchronization—shielded transformer—push-pull balanced deflection—calibrated graph screen, all represent outstanding features. The beautiful durable infra-red baked enamel drawn panel along with a formed ventilated aluminum cabinet add to the smart professional appearance of the completed instrument. This kit is complete with all 10 tubes, including a 5" CRT, all necessary construction material, and a completely detailed step-by-step construction manual.

## *Heathkit* SCOPE DEMODULATOR PROBE KIT

No. 337-A

**\$4<sup>50</sup>**

SHIP. WT. 1 LB.



Obtain the necessary demodulation of high frequency signals encountered in TV service work through the use of the Heathkit Demodulator Probe. Its usefulness with an oscilloscope will many times re-pay the modest kit price.

## *Heathkit* LOW CAPACITY PROBE KIT

No. 342

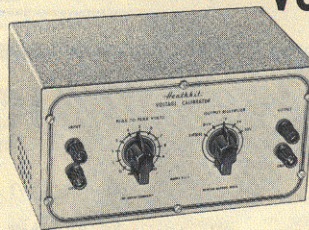
**\$3<sup>50</sup>**

SHIP. WT. 1 LB.



The Heathkit Low Capacity Probe will permit accurate oscilloscope display of wave forms without permitting distortion or loss of gain. A variable capacitor in the probe furnishes the necessary adjustment range. Smart, new styling, polished aluminum body, two-color polystyrene probe tip ends, low loss shielded cable.

## NEW *Heathkit* VOLTAGE CALIBRATOR KIT



MODEL VC-2

**\$11<sup>50</sup>**

SHIPPING WT.  
4 LBS.

Increase oscilloscope usefulness through the simplified operation of the new Heathkit Voltage Calibrator. The Voltage Calibrator provides a convenient method of making peak-to-peak voltage measurements with an oscilloscope by establishing a relationship on a comparison basis between the amplitude of the unknown wave shape and the known output of the voltage calibrator. Peak-to-peak values of complex wave forms are read directly on the calibrated panel. Range .01-100 volts peak-to-peak.

To insure maximum accuracy the Voltage Calibrator features a regulated power supply to compensate for line voltage variation. A convenient "signal" position on the panel switch permits the signal under observation to be applied directly to the input of the oscilloscope when desired thereby eliminating the necessity for constantly transferring test leads.

## *Heathkit* MODEL DR-1 DECADE RESISTANCE KIT

**\$19<sup>50</sup>**

SHIPPING WEIGHT  
4 LBS.

The Decade Resistance Kit provides individual switch selection of resistance values using 20 1% resistors, providing a choice of 1 to 99,999 ohms in 1 ohm steps. Ceramic wafer switches, silver plated contacts, smooth positive detent action, baked enamel panel and polished birch cabinet.

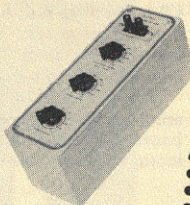
## *Heathkit* DECADÉ CONDENSER KIT

MODEL DC-1

**\$16<sup>50</sup>**

SHIP. WT.  
4 LBS.

The Heathkit Decade Condenser Kit features silver mica precision condensers with a rated accuracy of  $\pm 1\%$ . Capacity values are arranged in 3 decades from 100 mmf to .111 mf in steps of 100 mmf. Useful in laboratory work or circuit development. Durable baked enamel panel and polished birch cabinet.



## PORTABLE TUBE CHECKER CABINET

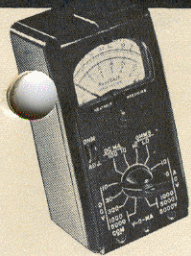
A strikingly attractive two-tone portable cabinet is now optionally available for the Heathkit Tube Checker. The rich maroon Proxilyn impregnated fabric-covered cabinet with its contrasting Heathkit gray on the inside cover, trimmed with brass-plated hardware and a sturdy plastic handle imparts a truly professional appearance to the instrument. The detachable cover is sufficiently deep so that the Heathkit TV Picture Tube Adaptor can be conveniently carried on home service calls. There is also room in the cover for any reference data that might be useful in TV service work. The plastic cabinet covering is durable and easily cleaned with a damp cloth. For further information, refer to the tube checker advertisement on page 7 of this Flyer.

## YOUR MAILING ADDRESS PLATE

Even though we make every effort to keep our mailing lists up-to-date and correct, we feel that there are a number of errors that may have escaped our attention. Please check your name and address as it appears on this Flyer. If there are any errors, we would appreciate your tearing out the printed mailing address and returning it to us with suitable corrections. We would also appreciate your advising us if you are receiving more than one copy of the Flyer. Perhaps your correspondence with Heathkits is at your place of business or employment, and you would like to have the Flyers mailed to your home address. Any assistance that you can give us in this matter will not only insure prompt receipt of Flyers as they are mailed, but will also definitely establish your correct mailing address in our records.



# Heathkit HANDITESTER KIT



MODEL M-1  
**\$13<sup>50</sup>**  
SHIP. WT. 3 LBS.

The Heathkit Model M-1 Handitester readily fulfills major requirements for a compact portable volt-ohm-milliammeter. Despite its compact size, the Handitester is packed with every desirable feature required in an instrument of this type. AC or DC voltage ranges full scale 10, 30, 300, 1,000, and 5,000 volts. Two ohmmeter ranges 0-3,000 and 0-300,000. Two DC milliammeter ranges 0-10 ma and 0-100 ma. The instrument uses a 400 milliamper meter movement, which is shunted with resistors to provide a uniform 1 ma load on both AC and DC ranges. The Handitester is easily assembled from complete instructions and pictorial diagrams. Necessary test leads are included in the price of this popular kit.

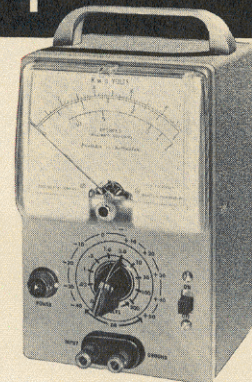
# Heathkit AC VACUUM TUBE VOLTMETER KIT

A new AC VTVM that makes possible those sensitive AC measurements required by laboratories, audio enthusiasts and experimenters. Extremely low level measurements are easy to make because of the complete voltage coverage of the instrument. In the basic instrument circuit, the input voltage is amplified through two successive stages to a meter bridge circuit. A feedback loop provides the necessary stability and frequency response and the bridge circuit is used to develop negative feedback in the cathode circuit of the voltage amplifier.

Additional advantages are the wide db ranges provided, -52 to +52 db, and the excellent frequency response characteristics. Operation is simplified through the use of only one control.

The large 200 microampere Simpson meter has clearly marked and easy-to-read scales. An improved meter bridge circuit features 4 germanium diodes for excellent linearity. 10 voltage ranges covering from .01 rms full scale to 300 volts rms. Frequency response  $\pm 1$  db from 20 cycles to 50,000 cycles. High 1 megohm input impedance.

The extremely low kit price includes the meter, tubes, cabinet, and all necessary constructional material, plus a construction manual for complete information.



MODEL AV-2  
**\$29<sup>50</sup>**  
SHIP. WT. 5 LBS.

## Heathkit 30,000 V. DC. PROBE KIT

High Voltage Probe Kit affords a multiplication factor of 100 on the DC scale of the Heathkit 11 megohm VTVM. The kit includes precision resistor, two-color probe tip, connector spring, test lead, phone plug, panel connector, and assembly instructions.



No. 336  
**\$5<sup>50</sup>**  
SHIP. WT. 2 LBS.

## Heathkit PEAK-TO-PEAK PROBE KIT

Read peak-to-peak voltages on the DC scale of the Heathkit 11 megohm VTVM. Measurements can be made in the frequency range of 5 kc to 5 mc. Use this kit to extend the usefulness of your VTVM. Supplied complete with all necessary material and assembly sheet.



No. 338  
**\$6<sup>50</sup>**  
SHIP. WT. 2 LBS.

## Heathkit R.F. PROBE KIT

This RF probe used in conjunction with the Heathkit 11 megohm VTVM will permit RF measurements up to 250 mc. The complete kit includes the probe housing, shielded lead, panel connector.



No. 309  
**\$5<sup>50</sup>**  
SHIP. WT. 2 LBS.

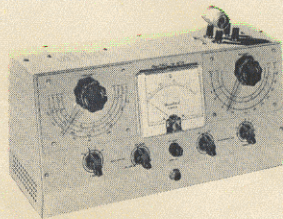
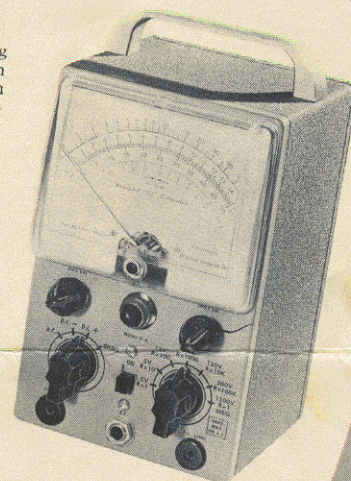
# Heathkit VACUUM TUBE VOLTMETER KIT

The beautiful Heathkit Model V-6 VTVM, the world's largest selling kit instrument, now offers many outstanding new features in addition to retaining all of the refinements developed and proven in the production instrument for every branch of electronics, easily meets all the requirements for accuracy, stability, sensitivity, convenience of ranges, meter readability, and modern styling. It will accurately measure DC voltages, AC voltages, offers tremendous ohmmeter ranges and a complete db scale for a total of 35 meter ranges.

For added convenience, a DC polarity reversing switch and center scale zero adjustment have been provided. New 1 1/2 volt full scale low range provides well over 2 1/4 inches of scale length per volt. Upper DC limits, 1500 volts. DC ranges 0-1.5, 5, 15, 50, 150, 500, 1500 volts. With accessory probe up to 30,000 volts. AC ranges 0-1.5, 5, 15, 50, 150, 500, 1500 (1,000 volts maximum). 7 ohmmeter ranges from .1 ohm to 1,000 megohms.

The smartly styled, compact, sturdy formed aluminum cabinet is finished in an attractive gray crackle finish. The beautiful two-color infra-red baked enamel panel further adds to the professional appearance. A completely detailed construction manual, written in a clear, informative, step-by-step style will permit the electronics novice to successfully construct this instrument and in the process obtain a much better understanding of VTVM operation.

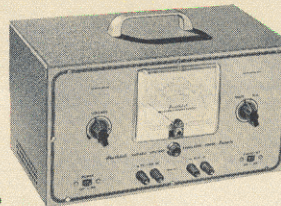
MODEL V-6  
**\$24<sup>50</sup>**  
SHIPPING WT. 6 LBS.



MODEL QM-1  
**\$39<sup>50</sup>**  
SHIPPING WT. 14 LBS.

# Heathkit Q-METER KIT

Another outstanding example of successful Heathkit engineering effort in producing a highly desirable Q-Meter kit within the price range of schools, laboratories, and experimenters. The Heathkit Q-Meter meets RF design requirements for rapid accurate measurements of Q, inductance, and capacity values, and all measurements are made at the operating frequency and can be read directly on the calibrated scales. Oscillator sections supplies RF frequencies of 150 kc to 18 mc. Calibrate capacitor with range of 40 mmf to 450 mmf with vernier of  $\pm 3$  mmf. The entire kit consists of 5 tubes, a 50 microampere Simpson meter, power transformer, cabinet and all other parts necessary for construction, as well as instructions for assembly, testing, and operation of the completed instrument.



MODEL PS-2  
**\$29<sup>50</sup>**  
SHIPPING WT. 17 LBS.

# Heathkit POWER SUPPLY KIT

The Heathkit Laboratory Power supply has many outstanding features that thoroughly qualify it for laboratory and service shop applications. The regulated voltage output is continuously variable and constant under wide load variations. A 4 1/2" Simpson plastic-enclosed panel mounted meter provides accurate meter output information of voltage or current output. Linear variable DC output voltage with excellent regulation is available from panel isolated terminals. Additional terminals supply a separate 6.3 volt AC supply at 4 amps for filament requirements. Ripple component is exceptionally low, .03 volts ripple at 250 volts under 50 ma load conditions for a percentage of .012. In addition to voltage regulation, the 5 tube circuit can be used with a built-in standby switch to eliminate warm-up time. Continued use of the Heathkit Laboratory Power Supply will suggest many other useful applications, and the kit will readily pay for itself in time and money saved.

## HEATHKIT AR-1 ALL WAVE RECEIVER CONVERSION

The May 1953 issue of QST Magazine features an interesting article regarding the conversion of the Heathkit AR-1 All Wave Receiver into a communications type receiver suitable for ham use. The essential circuit changes involve the addition of a BFO circuit, electrical band spread, RF gain control, AVC switch, and a headphone jack.

The major circuit changes as well as material required are shown in the partial schematics. The band spread condenser is a modified dual gang unit having a capacity of approximately 15 mmf per section. The physical mounting of the band spread condenser is on the panel to the right of the slide rule dial allowing sufficient clearance for the dial drive pulley. The two 15 mmf sections are connected in parallel with the AR-1 tuning condenser gang.

Detailed construction information and conversion procedure can be obtained by securing a copy of QST Magazine. Necessary additional material should be purchased locally, as the conversion items required are not available from the Heath Company.

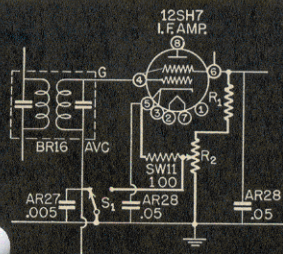


Fig. 2 — Circuit diagram of r.f. gain control and a.v.c. switch additions.

$R_1$  — 23,000 ohms, 1 watt.  
 $R_2$  — 1000-ohm potentiometer (IRC No. WK1000).  
 $S_1$  — S.p.d.t. switch, mounted on back of  $R_2$  (IRC No. 53).

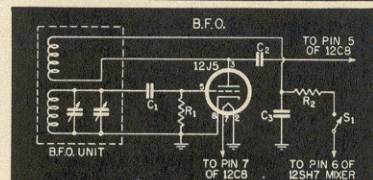


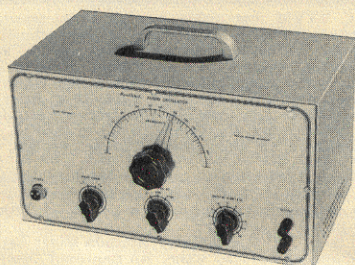
Fig. 1 — Circuit diagram of b.f.o. unit installation.

$C_1$  — 100- $\mu$ fd. mica.  
 $C_2$  — 5- $\mu$ fd. mica.  
 $C_3$  — 470- $\mu$ fd. mica.  
 $R_1$  — 47,000 ohms, 1/2 watt.  
 $R_2$  — 47,000 ohms, 1 watt.  
 $S_1$  — S.p.d.t. toggle switch, one-inch shank.  
450-ke. b.f.o. unit (Meissner 17-6753).



## Heathkit AUDIO OSCILLATOR KIT

The new Heathkit Model AO-1 Audio Oscillator features sine or square wave coverage from 20 to 20,000 cycles in 3 ranges at a controllable output level up to 10 volts. An instrument specifically designed to fulfill the needs of the audio engineer and high-fidelity enthusiast. Numerous advantages, such as high level output across the entire frequency range, low impedance output, 1% precision resistors in multiplier circuits, and low distortion readily qualify this instrument for audio experimentation and development work. Special design features include the use of a thermistor in the second stage for maintaining essentially flat output. The complete kit includes all necessary constructional material as well as a detailed step-by-step construction manual.



MODEL AO-1

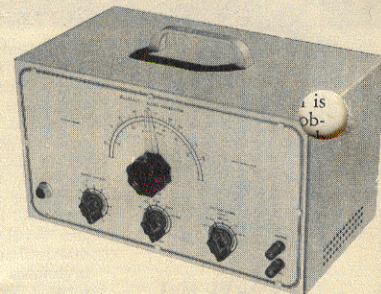
**\$24<sup>50</sup>**

SHIPPING WT. 11 LBS.

## Heathkit AUDIO GENERATOR KIT

A new audio generator with features formerly found in only the most expensive instruments. Such features as complete coverage from 20 cycles to 1 mc response flat  $\pm 1$  db from 20 cycles to 400 kc, down 3 db at 600 kc and down only 8 db at 1 mc. Calibrated continuously and step attenuator output controls allow you to easily set calibrated output voltage. Distortion is less than .4% from 100 cps through the audible range.

An unbelievable dollar value. Here is an audio generator with wide frequency coverage, excellent frequency response stepped and continuously variable calibrated output, high signal level, low impedance output, and low inherent distortion. Construction of this instrument is not at all difficult and the detailed assembly manual can be easily followed. The kit price includes tubes, cabinet, and all necessary constructional material.



MODEL AG-8

**\$29<sup>50</sup>**

SHIP. WT. 11 LBS.

## Heathkit GRID DIP METER KIT

The new Heathkit Grid Dip Meter is an instrument with many applications for amateurs, service men, lab technicians, and experimenters. It can be used with oscillator energized for finding the resonant frequency of tuned circuits, or with the oscillator not energized the instrument acts as an absorption wave meter and indicates the frequency of radiating sources. Pre-wound plug-in coil kit provides frequency coverage from 2 mc to 250 mc. Variable meter sensitivity control and a quality 500 ma Simpson meter all add to the tremendous value of this useful instrument.

Two additional plug-in coils are available and provide continuous extension of low frequency coverage down to 355 kc. Dial correlation curves included. Shipping weight 1 lb., kit 341.....\$3.00

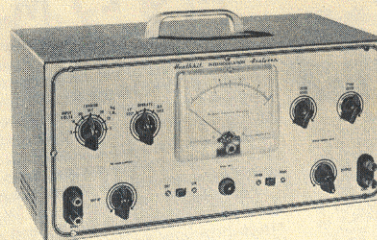


MODEL GD-1A

**\$19<sup>50</sup>**

SHIP. WT. 4 LBS.

## Heathkit INTERMODULATION ANALYZER KIT



MODEL IM-1

**\$39<sup>50</sup>**

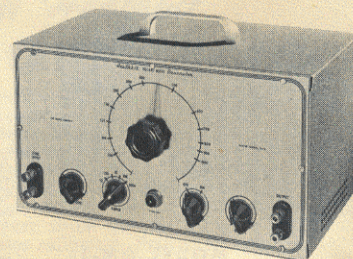
SHIPPING WT. 17 LBS.

The Heathkit IM-1 is an extremely versatile instrument specifically designed for measuring the degree of interaction between two signals in a specific piece of apparatus. It is primarily intended for making tests of audio amplifiers, but may be used in other applications, such as checking microphones, records, recording equipment, phonograph pickups and loudspeakers. High and low test frequency source, intermodulation unit, power supply, and AC volt

meter all in one complete instrument. Per cent intermodulation is directly read on three calibrated scales, 30%, 10%, and 3% full scale. Both 4:1 and 1:1 ratios of low to high frequency easily set up. At this low price, you can now enjoy the benefits of intermodulation analysis for accurate audio interpretation.

## Heathkit SQUARE WAVE GENERATOR KIT

The Heathkit Square Wave Generator provides an excellent square wave frequency source with completely variable coverage from 10 cycles to 100 kc. This square wave generator features a low output impedance of 600 ohms and the output voltage is continuously variable between 0 and 20 volts, thereby providing the necessary degree of operating flexibility. The instrument can be easily assembled from the detailed step-by-step instructions and the kit is complete with all tubes, cabinet, formed sheet metal parts, and necessary constructional material.



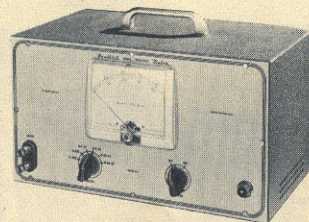
MODEL SQ-1

**\$29<sup>50</sup>**

SHIP. WT. 12 LBS.

## Heathkit AUDIO FREQUENCY METER KIT

The Heathkit Audio Frequency Meter provides a simple and convenient means of checking unknown audio frequencies from 10 cycles to 100 kc at any voltage level between 3 and 300 volts RMS and with any non-critical wave shape. Instrument operation is entirely electronic and there are no vibrating reeds or rotating discs. It is merely necessary to set the range switch for the most convenient reading, feed an unknown frequency into the instrument, and read the frequency directly on the meter. This kit also is supplied complete with all tubes and necessary components, in addition to a detailed construction manual.



MODEL AF-1

**\$34<sup>50</sup>**

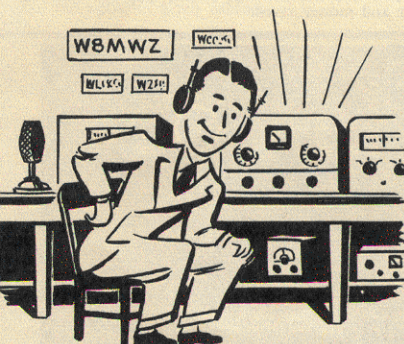
SHIPPING WT. 12 LBS.

## HAM RADIO

Last fall the Heath Company entered the ham radio field with the announcement and introduction of the now famous Heathkit GD-1A Grid Dip Meter. This Spring a new Heathkit Transmitter Kit was announced, which in turn was followed by the release of an Antenna Coupler, and an entirely new Communications Receiver kit. Your response to the Grid Dipper was tremendous and this high degree of acceptance was directly responsible for further exploration of ham radio by the Heath Company.

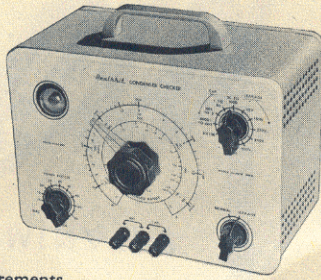
The Heath Company feels that Heathkits have a definite place in the amateur radio field, and have many interesting possibilities to offer. For this reason, we would appreciate your cooperation and request that you drop us a line indicating the type of ham radio equipment you would like to see in Heathkit form. Your cooperation in this matter will be appreciated and every suggestion offered will be given very careful consideration. Keep in mind that there are some necessary qualifications for a successful Heathkit, such as; the proposed kit must lend itself to convenient kit construction; the suggestion must also appeal to the wide group rather than to a limited few; there must be sufficiently good demand for the suggested item in order to obtain the necessary production volume.

The appearance of additional Heathkit ham gear depends on you. Let us have your suggestions for new equipment as well as any suggestions pertaining to present Heathkit ham equipment.





## Heathkit CONDENSER CHECKER KIT



Use the Heathkit C-3 to accurately measure unknown condenser and resistor values. All values are read directly on calibrated panel scales. A leakage test switch with a choice of 5 polarizing voltages, 25V to 450V DC, will quickly indicate condenser operating quality under actual load condition. The spring return leakage test switch automatically discharges the condenser under test and eliminates shock hazard. Capacity measurements in four ranges from .00001 mfd to 1,000 mfd. Checks paper, mica, ceramic, and electrolytic condensers. Resistance ranges from 100 ohms to 5 megohms.

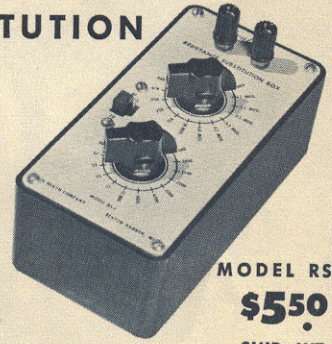
The Heathkit Condenser Checker is transformer operated for safety. The kit is furnished complete with all necessary parts, test leads, and includes step-by-step detailed construction manual for assembly and operation.

MODEL C-3

**\$19<sup>50</sup>**

SHIP. WT. 8 LBS.

## Heathkit RESISTANCE SUBSTITUTION BOX KIT



The Heathkit Resistance Substitution Box kit represents one of the handiest "gadgets" available for electronic work. It has many applications for service work such as experimentally determining the value of an unmarked or charred resistor, using it to change values of resistors in circuits during actual operation, as a means of determining maximum circuit performance, etc.

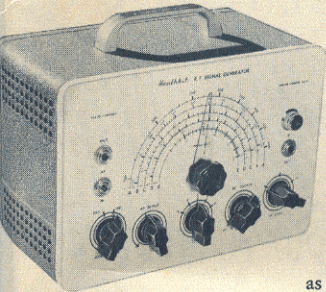
In circuit development work, several Resistance Substitution Box kits will provide the necessary degree of flexibility required to quickly change the resistance values. The Heathkit Substitution Box provides switch selection of any one of 36 RTMA 1 watt 10% standard value resistors ranging from 15 ohms to 10 megohms. The entire kit is priced less than the retail value of the resistors alone.

MODEL RS-1

**\$55<sup>00</sup>**

SHIP. WT.  
3 LBS.

## Heathkit SIGNAL GENERATOR KIT



The Heathkit Model SG-7 Signal Generator easily fulfills service requirements for a controllable modulated or unmodulated source of variable frequency. Extended fundamental range 150 KC to over 50 MC. Calibrated harmonics up to 155 MC. Output voltage over 100,000 microvolts.

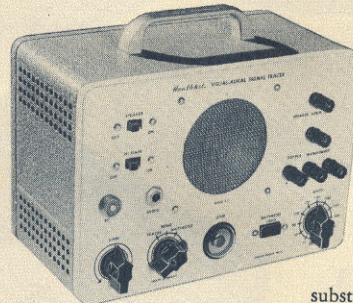
The coils (pre-wound and adjusted), band switch, and tuning condenser all mount as a turret assembly so as to offer the advantage of short leads and easy mounting of parts. RF output is low impedance obtained by the use of cathode coupling through a step attenuator and continuously variable attenuator.

The entire kit is supplied complete with tubes and all necessary material as well as detailed step-by-step construction manual for the assembly and operation of the instrument.

MODEL SG-7

**\$19<sup>50</sup>**

SHIP. WT. 8 LBS.



## Heathkit VISUAL-AURAL SIGNAL TRACER KIT

The Heathkit Visual-Aural Signal Tracer represents one of the most convenient and useful instruments a service man can use in AM, FM, and TV service work. The electron-ray beam indicator constantly monitors both input channels for visual signal observation. Separate high gain channel and special shielded demodulator probe for RF circuit work. Low gain channel for audio circuit investigation and for use as a noise locator.

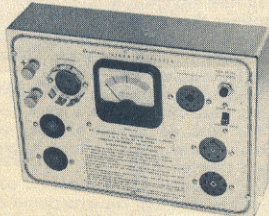
Outstanding features are a noise locator circuit—a calibrated wattmeter—excellent RF sensitivity—two channel input—substitution test speaker—utility amplifier—VTVM and scope panel terminals—and 5 tube transformer operated circuit. Use the T-3 as a universal test speaker and substitution transformer. The entire kit is priced complete with tubes and all necessary construction material as well as detailed step-by-step construction manual.

MODEL T-3

**\$22<sup>50</sup>**

SHIP. WT. 10 LBS.

## Heathkit VIBRATOR TESTER KIT



Your repair time is valuable and service use of the Heathkit Vibrator Tester will save you many hours of work. This tester will instantly tell you the condition of the vibrator being checked. Checks vibrators for proper starting and the easy to read meter indicates quality of output on a large BAD-?-GOOD scale. The Heathkit VT-1 Vibrator Tester checks both interrupter and self-rectifier types of vibrators. 5 different sockets for checking hundreds of vibrator types.

The Heathkit Vibrator Tester operates from any Battery Eliminator capable of delivering continuously variable voltage from 4 to 6 volts DC at 4 amperes. The Heathkit BE-4 is the ideal companion piece for this tester. The kit is supplied complete with all material and can be quickly assembled to provide many years of time saving service in your shop.

MODEL VT-1

**\$14<sup>50</sup>**

SHIP. WT. 6 LBS.

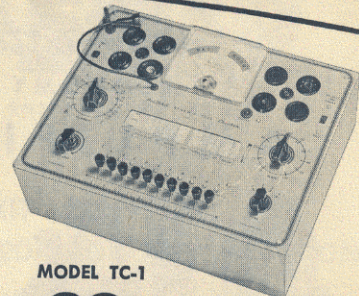
## Heathkit TUBE CHECKER KIT

The Heathkit TC-1 Tube Checker was designed to check the operating quality of tubes encountered in radio and TV service work. Test setup procedure is simplified, rapid, and flexible. Panel sockets accommodate 4, 5, 6, and 7 prong tubes, octal and loctal 7 and 9 prong miniatures, 5 prong Hytrons, and a blank socket for new tubes.

Built-in, gear driven roll chart for instant setup reference, neon short indicator, individual three position lever switch for each tube element, spring return test switch and line set control to compensate for supply voltage variation. At this low price, no service man need be without the advantages offered by the Heathkit Tube Checker.

PORTABLE TUBE CHECKER KIT  
MODEL TC-1P—This instrument is the same as the TC-1 except that an attractive two color cabinet with removable cover for portable use is supplied. Shipping Wt. 14 lbs.

**\$34.50**



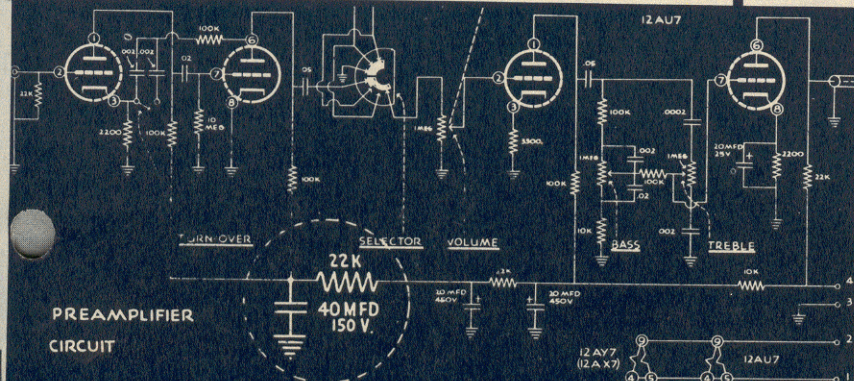
MODEL TC-1

**\$29<sup>50</sup>**

SHIP. WT.  
12 LBS.

HEATHKIT TV PICTURE TUBE TEST ADAPTER—This adapter used with your Heathkit Tube Checker will quickly determine picture tube quality. Check for emission and shorts independent of TV power supply. Consists of standard 12 pin TV tube socket, 4 feet of cable, octal socket connector and data sheet. No. 355. Shipping Wt. 1 lb.

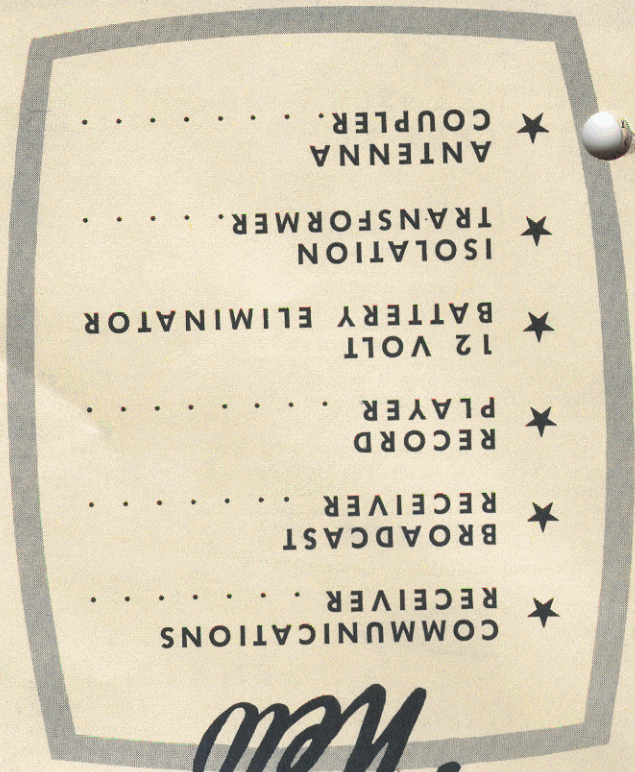
**\$4.50**



## MOTORBOATING IN W-2 AND W-3 AMPLIFIERS

Under certain conditions, some of these amplifiers have a tendency to motorboat or oscillate at low frequencies. This is generally caused by speaker systems which offer serious impedance mismatch at such low frequencies. To correct this condition, try adding a 22 K ohm resistor (1/2 watt) and a 40 mfd 150 volt condenser as shown at left. This provides additional decoupling in the plate supply system of the WA-P1 preamplifier.





*New*

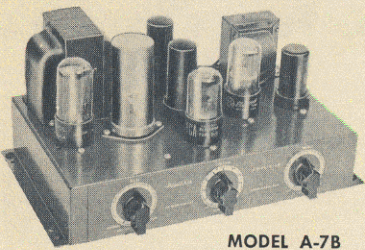
**HEATH COMPANY**  
BENTON HARBOR, MICHIGAN

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7336 VERDUGO CRESTLINE DR.  
TUJUNGA, CALIF. 91

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Benton Harbor, Mich.  
Permit No. 273

*Heathkit*  
ECONOMY 6 WATT

**AMPLIFIER KIT**



MODEL A-7B

**\$14.50**

SHIPPING WT. 10 LBS.

**SPECIFICATIONS**

Frequency response.....1½ db 20 to 20,000 cycles  
Power output.....6 watts  
Tubes.....1 12T5 amplifier  
1 12SL7 amplifier and phase splitter  
2 12A6 beam power output  
1 5Y3 rectifier  
1 12SH7 or 12SJ7 pre-amplifier (A-7C only)  
Output impedance.....4, 8, or 15 ohms  
Input voltage.....110-125 volts AC 50/60 cycles

**MODEL A-7C**

Model A-7C incorporates a preamplifier stage (12SH7 or 12SJ7) with special compensated network to provide the necessary gain for operation with variable reluctance or low output level phono cartridge. Circuit is properly compensated for microphone operation as a moderately powered sound system.

**\$16.50**

The *new* Heathkit Model A-7B Amplifier offers many unusually fine outstanding features not normally expected in this low price range. Either of the two input circuits may be individually switch selected for phono or tuner operation. Separate bass and treble tone controls readily permit the degree of tonal adjustment to meet individual listening requirements. Tapped output transformer offers choice of 4, 8, or 15 ohms output impedance. Amplifier output stage features beam power tubes in a push, pull circuit for balanced reproduction. Excellent voltage gain characteristics, good frequency response, and a full 6 watts power output all represent a truly tremendous kit value at this remarkably low price.

WILLIAMSON TYPE

*Heathkit*

**AMPLIFIER KIT**

When selecting an amplifier for the heart of a high fidelity audio system, investigate the outstanding advantages offered by the Heathkit Williamson type Amplifier. Here is an Amplifier that meets every high fidelity audio requirement and makes listening to recorded music a thrilling new experience. Wide acceptance of the Heathkit Williamson type Amplifier by the most critical purchasers clearly demonstrates that high fidelity can be coupled with low cost.

This outstanding amplifier is offered with the optional choice of Acrosound Output Transformer featuring "Ultra-Linear" operation or the Altec Lansing Peerless Output Transformer with additional primary taps to permit optional choice of the extended power circuitry now enjoying current popularity or all of the advantages of the original Williamson type circuit.

This fine amplifier kit is supplied complete in every respect and includes all tubes as well as other required constructional components. Sheet metal fabrication has already been done, chassis and panel are finished in attractive grey hammertone, control shafts are of the adjustable length break-off type that readily adapt themselves to individual custom installation requirements.

WA-P1 PREAMPLIFIER unit features three inputs for variable reluctance, crystal or tuner operation. Two position compensation—bass and treble tone controls providing ±15 db boost or cut.

**PRICES OF VARIOUS COMBINATIONS**

- W-2 Amplifier Kit (Incl. Main Amplifier with Peerless Output Transformer, Power Supply and WA-P1 Preamplifier Kit). Shipping Weight 37 lbs. Shipped express only.....**\$69.50**
- W-2M Amplifier Kit (Incl. Main Amplifier with Peerless Output Transformer and Power Supply). Shipping Weight 29 lbs. Shipped express only.....**\$49.75**
- W-3 Amplifier Kit (Incl. Main Amplifier with Acrosound Output Transformer, Power Supply and WA-P1 Preamplifier Kit). Shipping Weight 37 lbs. Shipped express only.....**\$69.50**
- W-3M Amplifier Kit (Incl. Main Amplifier with Acrosound Output Transformer and Power Supply). Shipping Weight 29 lbs. Shipped express only.....**\$49.75**
- WA-P1 Preamplifier Kit only. Shipping Weight 6 lbs. Shipped express parcel post.....**\$19.75**

