The most important Heathkit news of the month, and in our opinion of the year, is the new Heathkit Impedance Bridge Kit. Who hasn't needed to know the actual inductance and "Q" of an unmarked choke or transformer or the millihenries of an R.F. choke? The accurate resistance of chokes - resistors measured either

There was no March flyer. This month the flyer is eight pages and we have included several interesting construction articles. The variable power supply is simple and can be constructed from surplus - the sample we constructed has been extremely useful in our laboratory. The midget audio amplifier was used by us several years ago in a table model phonograph and gave remarkable results.

The most important Heathkit news of the month, and in our opinion of the year, is the new Heathkit Impedance Bridge Kit. Who hasn't needed to know the actual inductance and "Q" of an unmarked choke or transformer or the millihenries of an R.F. choke? The accurate resistance of chokes - resistors measured either with AC or DC, the capacity and dissipation factor of all types of capacitors - only an impedance bridge gives you all this information accurately and quickly. Once an Impedance Bridge has become a part of any shop, it is the last instrument with which any worker would part. Nearly everyone who has seen a Heathkit Impedance Bridge has placed an order for one. This Heathkit is a natural for small schools, laboratories, service shops, colleges, and serious experimenters.

Heathkit IMPEDANCE BRIDGE KIT

Steatures

- * Measures Inductance from 10 microhenries to 100 henries
- * Capacitance from .00001 MFD to 100 MFD
- * Resistance from .Ol ohms to 10 megohms
- * Dissipation factor from .001 to 1
- * "Q" from 1 to 1000

An impedance bridge for everyone - the most useful instrument of all, which heretofore has been out of the price range of serious experimenters and service shops. Now at the lowest price possible. All highest quality parts. General Radio main calibrated control. General Radio 1000 cycle hummer. Mallory ceramic switches with 60 degree indexing - 200 micro-amp zero center galvanometer - ½ of 1% ceramic non-inductive decade resistors. Professional type binding posts with standard 3/4" centers. Beautiful birch cabinet. Directly calibrated "Q" and dissipation factor scales. Ready calibrated capacity and inductance standards of Silver Mica, accurate to ½ of 1% and with dissipation factors of less than 30 parts in one million. Provisions on panel for external generator and detector. Measure all your unknowns the way laboratories do -with a bridge for accuracy and speed.

Internal 6 volt battery for resistance and hummer operation. Circuit utilizes Wheatstone, Hay and Maxwell circuits for different measurements. Supplied complete with every quality part - all calibrations completed and instruction manual for assembly and use. Deliveries are limited. Shipping weight, approximately 15 lbs.

A Laboratory Instrument now within the price range of all.



Gudio SIGNAL TRACER PROBE

PROD ON AMPLIFIER, NEST NEON BULB

ALL INSIDE IF. CAN

Neon will oscillate at 400 Cycles approx. and provide Audio Signal....

This little gadget can be tossed into your tool kit and will prove invaluable for tracing trouble in amplifiers - audio sections of receivers and PA systems. It consists of a neon 400 cycle audio oscillator which can be clipped to the power supply of the unit under test. The probe is then touched to each audio stage grid until the dead stage is located. It is assembled in an I.F. can.



How THE TV-ALIGNMENT GENERATOR was developed

The Heathkit Television Alignment Generator is an amazingly easy instrument to use. This ease is due to many months of hard work by Heath Company engineers. The first problem to obtain a generator without the confusing multitude of beats was solved by placing the fundamental frequency of the variable oscillator at the high frequency end of the band 165-220 MC. Thus the second Harmonic 330-440 MC is well beyond the present band. The other ranges were then obtained by using the difference frequencies of two other fixed high freranges were then obtained by using the difference frequencies of two other fixed high frequency oscillators beating against the variable oscillator. These frequencies were chosen to eliminate all except the desired band. Thus the 0-55 MC range is obtained with a 165 MC fixed oscillator beating against the 165 MC to 220 MC variable oscillator. The difference frequency 165-165-0, 220-165-55 MC is used while the sum frequency 165+165-330, 165+220=385 MC is again way beyond the present band. The 55 to 110 MC band is covered similarly by a 275 MC fixed oscillator. The extreme sweep width of 0-30 MC was obtained by varying the inductance of the master oscillator tank coil with an aluminum cup mounted on a special speaker cone. This cup is mounted parallel to the tank coil and as AC is applied to the speaker voice coil the cup vibrates at 60 cycles. From its center position the speaker cup moves nearer the come during one half the cycle and away during the other half. This cup varies the actual frequency of the tank coil thus sweeping it each side of its center frequency. As more AC is applied to the voice coil the cup moves farther each way and varies the frequency over a greater range.

New Heathkit TELEVISION ALIGNMENT

GENERATOR KIT

Jeatures

- * Calibrated Sweep Width 0-30 Megacycles * Calibrated absorption Marker 19 to 43 Megacycles
- * Vernier driven master oscillator 0-110 MC and 165-220 MC
- Over 45 inches of calibration
- 10,000 to 1 step type output attenuator
- Mechanical driven inductive sweep
- * AM modulation over entire range
- * Variable Phase Control
- All coils wound and calibrated
- * 3 T.V. instruments in one

The new Heathkit Television Generator is as simple and easy to use as a conventional AM Generator - the traces are steady - solid and easy to follow. There is more than enough sweep. The first truly wide band sweep generator. The absorption marker indicator "pip" can be moved directly through the trace and peaks and traps instantly located. Size of "pip" adjustable with marker amplitude control. Covering all FM and TV frequencies - O-110 and 165 to 220 megacycles a marker indicator covering 19 to 43 magacycles - AM modulation for RF alignment - variable calibrated sweep width 0-30 Mc. - mechanical driven inductive Husky 110V. 60 cycle power transformer operated - step type output attenuator with 10,000 to 1 range - high output on all ranges - band switching for each range - vernier driven main calibrated dial with over 45 inches of calibration - vernier driven calibrated indicator marker tuning. Large grey crackle cabinet 16 1/8" x 10 5/8" x 7 3/16". Phase control for single trace adjustment. Uses four high frequency triodes plus 5Y3 rectifier - split stator tuning condensers for greater efficiency and accuracy at high frequencies - this Heathkit is complete and adequate for every alignment need and is supplied with every part - cabinet - calibrated panel - all coils and condensers wound, calibrated and adjusted. Tubes, transformer, test leads every part with instruction manual for assembly and use. Actually three instruments in one - TV sweep generator - TV AM generator and TV marker indicator. Also covers FM band.



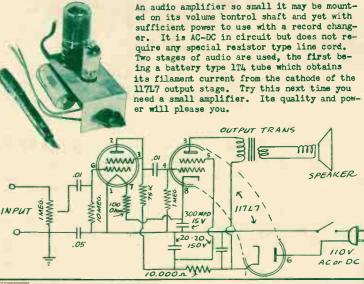
Heathkit SIGNAL TRACER & UNIVERSAL TEST SPEAKER KIT



The popular Heathkit signal tracer has now been combined with a universal test speaker at no increase in price. The same high quality tracer follows signal from antenna to speaker - locates intermittents - defective parts quicker - saves valuable service time - gives greater income per service hour. Works equally well on broadcast - FM or TV receivers. The test speaker has assortment of switching ranges to match push pull or single output impedance. Also tests microphones, pickups - PA systems - comes complete - cabinet -110V. 60 cycle power transformer -

tubes, test probe, all parts and detailed instructions for assembly and use. Shipping weight 8 lbs.

Midge



Ould

Heathkit VACUUM TUBE

VOLTMETER KIT

HAS ALL THESE Features

- * 200 Microamp meter
- * Full scale ranges of 3-10-30-100-300-1,000V.
- * Linear AC and DC scales
- * Both AC and DC scales
- * Automatic meter protection
- * Isolated DC probe for dynamic testing
- * Chummeter measures .1 ohm to 1 billion ohms with internal battery
- * 24 ranges on large plastic faced meter
- * New pictorial wiring diagram for easy assembly

A new Model V2 Heathkit VTVM with new 200 microampere meter, four additional ranges. Accessory probe listed elsewhere in ad extends voltage range to 3,000 and 10,000 Volts DC. New model has greater sensitivity, stability and accuracy-still the highest quality features-shatterproof plastic full view meter face, push-pull electronic voltmeter circuit, linear scales-db. scales-ll megomm input resistance on DC-AC uses electronic rectification with 6H6 tube. All these features and still the amazing price of only \$24.50. Comes complete with cabinet-panel-three tubes-new Mallory switches-test prods and leads, 1% ceramic divider resistors and all other parts. Complete instruction manual for assembly and use. Better start your laboratory with this precision instrument. Shipping Wt. 8 lbs.

nothing ELSE TO BUY





\$650

New HIGH FREQUENCY R. F. PROBE KIT

No. 309 R.F. probe kit uses 1N34 crystal to measure R.F. voltages with Heathkit VTVM. Will measure accurately to 100 megacycles and give good indication to 250 megacycles. Complete --easily assembled in few minutes time--reads on regular DC scales. Shipping Wt. 1 lb.



450

VTVM PROBE for T.V.

No. 310 Converts any Heathkit (crother ll megohm input) WTVM into a kilovoltmeter. Highly insulated 1% accuracy divider resisters. Reads 3,000 volts on 300 volt scale and 10,000 volts on 1,000 volt scale-a necessity for television. Shipping Wt. 1 lb.

Heathkit HIGH FIDELITY PUSH-PULL AMPLIFIER KIT

\$ 495

Amazing quality $\frac{f}{2}$ land db.
response between 20 cycles
and 17,000 cycles achieved
by phase inverter 5 Fushpull circuit together with
high quality Chicago Transformer cased output transformer. Husky

former cased output transformer. Has preamplifier stage, approximately 14 watts
output. Uses 6517 and 1619 (military type 2½ Volt 6L6's). The
price is made possible by use of high grade army surplus parts.
Complete with four tubes, punched chassis and all parts (speaker
extra). Has tone control. Shipping Wt. 20 lbs.

ACCESSORIES AVAILABLE

12" high quality PM speaker matches the amplifier......\$6.95
Mahogany speaker cabinet size 14½"x14"x8" for above

New Heathkit FM TUNER KIT



An excellent way to get acquainted with F.M. This little super regenerative F.M. converter outperforms the big tumers. Amazing sensitivity. Easy to build as all coils and tuning condenser are wound and adjusted. Only the assembly and wiring necessary. Like all Heathkits, it is 110 Volt 60 cycle transformer operated. Has 2 gang tuning condenser, slide rule calibrated dial, two tubes; complete instructions including pictorial makes assembly easy and pleasant. Assemble these tuners for your neighbors at a profit. Shipping Wt. 5 lbs.

Beautiful mahogany cabinet, extra.....\$3.75

TUBE CHECKER KI Measures each element individually.
 Has gear drive roller chart.
 Has lever switching for speed. features Complete range of filament voltages. Checks every tube element. Uses latest type lever switches.

9. Checks new 9 pin miniatures. Check the features and you will realize that this Heathkit has all the features you want. Speed - simplicity beauty - protection against obsolescence. The most modern type of tester - measures each element - beautiful Bad-Good scale, high quality meter - the best of parts -rugged oversize 110V. 60 cycle power transformer - finest of Mallory switches - Centralab controls - quality wood cabinet - complete set of sockets for all type tubes including spare blank spare for future types - fast action gear driven roller chart uses brass gears to quickly locate and set up any type tube. Simplified switching cuts

necessary time to minimum and saves valuable service time. open element check. No matter what arrangement of tube elements, the Heathkit flexible switching arrangement easily handles it. Order your Heathkit Tube Checker today. See for yourself that Heath again saves your 2/3 and yet retains all the quality - this tube checker will pay for itself in a few weeks - better build it now. Complete with detailed instructions - all parts - cabinet - roller chart - ready to wire up and operate. Shipping weight 15 lbs.





Heathkit

Now a complete tool kit to assemble your Heathkit. Consists of Kraeuter diagonal cutters and pointed nose assembly pliers, Xcelite screwdriver, 60 Watt 110V. soldering iron and supply of solder. Shipping Wt., 2 lbs.

TIPS and COMMENTS

To obtain minimum hum in an amplifier, wire both sides of the filament to all the sockets with twisted leads, then with the amplifier operating through a speaker try grounding either side of the filament at each socket. In this way the point of lowest hum level will be found - usually at the first audio stage.

Due to technical difficulties, the Heathkit Battery VTVM has been discontinued for the present. Some magazine ads are placed two months in advance, so ads may still appear offering it.

Pictorials are being used in all new Heathkits and have proven extremely helpful in part and wiring location and in trouble shooting. The entire line of Heathkit instructions will contain pictorials as soon as they can be prepared and added.

Heathkit 3-TUBE ALL WAVE



RADIO

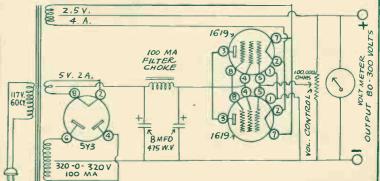
an ideal way to learn radio. This kit is complete, ready to assemble, with tubes and all other parts. Operates from 110V. AC. Simple, clear de-tailed instructions make this a good radio training course. Covers regular broadcasts and short wave bands. Plug-in coils. Regenerative circuit. Operates loud speaker. Shipping Wt. 3 lbs.

HS30 Headphones per set\$1.00 22" Permanent Magnet Loudspeaker Mahogany Cabinet

VARIABLE D.C. POWER SUPPLY SURPLUS PARTS



A variable power supply is a most convenient tool around any shop. This simple supply can be varied between 80 and 300 volts with only one 100,000 ohm potentiometer. The control tubes may be surplus 1619 tubes or 6L6 and the two control tubes will pass up to 100 MA. The photos show a sample built up by the Heath Company. The layout is not important and may suit the builders material.



Fleathkit SIGNAL GENERATOR KIT



Mothing ELSE TO BUY

\$ 950

This RF Signal Generator Kit is rapidly becoming our most popular kit. Calibrated from 150 Kc. to over 100 Megacycles with fundamentals to 34 Megacycles, it is adequate for every

Megacycles, it is adequate for every service need. An exceptionally complete assembly and use manual makes it a lot of fun to build and no one needs to resort to slipshod methods of alignment when a quality Signal GeneratorKit is available for less than atwenty dollar bill. The audio modulation is supplied by a relaxation type oscillator which also supplies a sawtooth audio voltage for amplifier testing. The coils used are precision wound and factory calibrated eliminating the need for adjusting each band. The kit is complete with large calibrated scales on two color panel, grey crackle cabinet, 110V. 60 cycle power transformer, precision coils, test leads, tubes and all other parts. Shipping weight 8 lbs.

Heathkit BATTERY ELIMINATOR KIT

Only \$2250



Now a bench 6 Volt power supply kit for all auto radio testing. Supplies 5-7½ Volts at 10 Amperes continuous or 15 Amperes intermittent. A well filtered rugged power supply uses heavy duty selenium rectifier, choke input filter

rectifier, choke input filter
with 4,000 MFD of electrolytic filter. 0-15 Volt meter indicates
output. Output variable in eight steps. Excellent for demonstrating auto radios. Ideal for servicing - can be lowered to find
sticky vibrators or stepped up to equivalent of generator overload
easily constructed in less than two hours. Complete in every respect. Shipping weight 18 lbs.

Heathkit HIGH FREQUENCY

SIGNAL GENERATOR KIT

\$1950

Mothing ELSE TO BUY

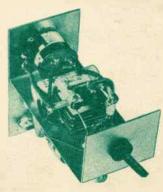
A companion high frequency
AM Signal Generator Kit to the
famous Heathkit Signal Generator. Ideal for amateur, taxicab, and short wave use. Covers
37 to 110 megacycles on fundamentals with extremely strong
harmonics to above 220 mega-

cycles. Uses two 6C4 minature high frequency tubes as oscillator and cathode follower output tubes. Has 400 cycle saw tooth audio modulation which is available separately for audio testing.

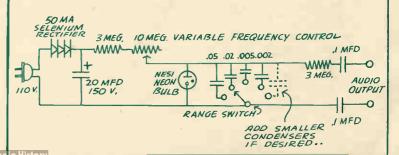
Think of extending your signal generating range to over 200 megacycles for less than a twenty dollar bill. The oscillator tank coil is ready wound and calibrated. Unit is 110V 60 cycle transformer operated and complete with all parts - tubes - test leads and instruction manual. Shipping weight 7 lbs.

AUDIO OSCILLATOR





This little relaxation type audio oscillator can be built in a short time and has many uses - testing amplifiers - as sweep generator for modulation oscilloscopes - as tone source for code practice - for testing speakers, etc. It operates from 110V AC -DC and covers 20 to 2,000 cycles and can be extended by adding smaller charging condensers.



Heathkit 5" OSCILLOSCOPE

Features

- * Instant switching to plates or amplifier from front panel * Sweep generator supplying variable sweep 15 to 30,000 cy * All controls on front panel * Cased electrostatically shielded 110V. 60 cy. transformer

- AC test voltage on front panel
- External synchronization post on front panel
- * Deflection sensitivity .65V per inch full gain * Frequency response ± 20% from 50 cycles to 50 Ke
- * Input impedance 1 Magohm and 50 MMF

The Heathkit Oscilloscope incorporates the best of parts. Power transformer with proper electrostatic shield built by Chicago Transformer Corp., Mallory switches, Centralab controls, Kenrad tubes - all the best. The scope itself has all the features. Instant switching direct to the CR tube plates - instant switching to external synchronization - instant switching to sweep generator or horizontal input - source of test voltage on front panel - sensitivity of 1 volt per inch deflection - good frequency response. And it is complete, aluminum cabinet, 2 color panel, all tubes, transformers, condensers, everything in-cluding instruction manual for assembly and use. Has sweep generator covering 15 cycles to 30,000 cycles - vertical and horizontal amplifiers - high and low voltage rectifiers. An oscilloscope provides endless sources of experimentation in radio, electronics, medicine and scientific research. Better get one. Shipping Wt. 24 lbs.



Checking RECEIVER HUM with a

An oscilloscope provides an ideal means of locating sources of hum in a receiver and identifying the type. Connect the 60 cycle test voltage to the horizontal input and a test lead to the vertical input. Use a ground olip between scope and unit under test. 60 cycle hum will be indicated by a circle or oval pattern while 120 cycle hum is indicated by a figure 8 pattern. Starting at the output, the hum may be followed to its source. 60 cycle hum is usually picked up in the audio section through misplaced leads while 120 cycle hum is the result of insufficient or defective filtering in the power supply. 60 cycle hum may also be picked up from the magnetic field of the power transformer. To check for this, try a metal shield between transformer and suspected pickup source. If pickup is in a choke or output transformer, often turning the unit to a different angle on the chassis will help.

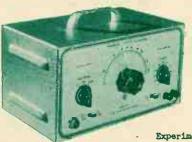


A CUSTOMER IN ST. LOUIS Says.

The Heathkit VTVM is truly a high price laboratory caliber inatrument for an unbelievable low price. You are to be congratulated in being the only manufacturer to bring laboratory quality instruments within the reach of the average radio serviceman, and by so doing you are really promoting better servicing. The serviceman in assembling these instruments learns to know them, their limitations, and their ability--that which he seldom learns with the average ready built instrument."

We propose to inaugurate a letters column starting with the next issue of the Flyer. In writing, please give your permission to publish your letter if willing.

Heathkit SINE and SQUARE WAVE



Wt. 3 1bs.

AUDIO GENERATOR KIT

Experimenters and servicemen working with a square wave for the first time invariably wonder why it was not in-

troduced before. The characteristics of an amplifier can be determined in seconds compared to several hours of tedious plotting using older methods. Stage by stage, amplifier testing is as easy as signal tracing. The low distortion (less than 1%) and linear output (± one db.) make this Heathkit equal or superior to factory built equipment selling for three or four times its price. The circuit is the popular RC tuning circuit using a four gang variable condenser. Three ranges 20-200, 200-2,000, 2,000-20,000 cycles are provided by selector switch. Either sine or square waves instantly available at slide switch. All components are of highest quality, cased 110 V. 60 cycle power transformer. Mallory F.P. filter condensers, 5 tubes, calibrated 2 color panel, grey crackle aluminum cabinet. The detailed instructions make assembly an interesting and instructive few hours. Shipping Wt. 13 lbs.

Heathkit FLECTRONIC SWITCH KIT

DOUBLES THE UTILITY OF ANY SCOPE ...

An electronic switch used with any oscilloscope provides two separately controllable traces on the screen. Each trace is controlled independently and the position of the traces may be varied. The input and output traces of an amplifier may be observed one beside the other or one directly over the other illustrating perfectly any change occurring in the amplifier. Distortion -phase shift and other defects show up instantly, 110 Volt



60 cycle transformer operated. Uses 5 tubes (1 6X5, 2 6SN7's, 2 6SI7's). Has individual gain controls, positioning control and coarse and fine sweeping rate controls. The cabinet and panel match all other Heathkits. Every part supplied including detailed instructions for assembly and use. Shipping Wt. 11 lbs.

ARMY BC 645 ANTENNA

ched to the BC 645 Transceiver and is proper length for use in citizens band. It is ideal for mounting in the roof of car or boat. Two are required per unit, one for re-ceiver, one for transmitter. Comes complete with mounting flange and coaxial connector. Shipping Wt. 1 lb.



HEARING HEADPHONES

No. 216. The Army's best eliminate flat ears and outside noise. Complete with transformer for conversion from low to high impedance. With cord and plug complete. Add postage for 1 lb.



No. 237. Brand new De fur Model 312 0-800 N.A.D.C. Square 3" 0-10 M.A. basic meter with built in shunt. Probably the best buy ever offered in a surplus meter. Shipping Weight 1 lb.

*



G.E. BC 306 ANTENNA

No. 231. Matches any aerial to 150 watt transmitter, used on BC 375. Brand new. Add postage for 20 lbs.

MINIATURE ELECTRIC MOTOR

No. 211. Tiny Delco motor only 1" x 12" x 2" 10,000 RPM. Operates from 6 to 24V. Excellent for models. Add postage for 1 lb.



6 VOLT AUTO RADIO POWER SUPPLY



No. 306. A 6 Volt vibrator power supply many have requested. Input 6 Volts, output 250 Volts at 60 MA. Has husky shielded transformer and 024 rectifier tube, uses standard 4 prong vibrator (not supplied) Excellent for amplifiers, auto radios, etc. New completely assembled in shielded case. Shipping Wt. 2 lbs.

BC 731 CONTRO

Shipping Weight 18 lbs.

No. 208. Excellent buy in motor control box. Size 8" x 10" x $5\frac{1}{2}$ ". Contains Weston 0-150V. AC $3\frac{1}{2}$ "volt meter, motor starting switch, 28 fuses all 30 Amp 110V. and 8 fuse holders. Fuses and holders alone worth the price.

RDER LANG

HEATH COMPANY BENTON HARBOR, MICHIGAN

Ship via Parcel Post Express Preight

Best Way QUANTITY ITEM PRICE THE PRICE QUANTITY Heathkit HF Signal Generator Kit ____ Heathkit Impedance Bridge Kit __ Heathkit Television Alignment Generator Kit _____ Heathkit Battery Eliminator Kit ____ Heathkit Condenser Checker Kit___ Heathkit Signal Tracer Kit ____ Heathkit VTVM Kit. _ Heathkit R.F. Probe Kit ___ Heathkit TV Probe Kit ___ Heathkit Amplifier Kit ___ Heathkit F.M. Tuner Kit _ Heathkit Tube Checker Kit ____ Heathkit Tool Kit _ Heathkit 3 Tube Radio Kit ____ Heathkit Oscilloscope Kit ___ Heathkit Scope Shield __ Heathkit Audio Generator Kit ___ Heathkit Electronic Switch Kit __ Check Money Order for __ Enclosed find Heathkit Signal Generator Kit ___ pounds Please ship C.O.D. Postage enclosed for ____

Heathkit CONDENSER CHECKER

KIT

Geatures

- * Bridge type circuit
- * Magic eye indicator
- * 110V transformer operated
- * All scales on panel
- * Power factor scale
- * Measures resistance
- * Checks Leakage
- * Checks paper-mica-electrolytics



\$ 1950

Checks all types of condensers, paper-mica-electrolytic-ceramic over a range of .00001 MFD to 1000 MFD. All on readable scales that are read direct from the panel. NO CHARTS OR MULTIPLIERS NECESSARY! A condenser checker anyone can read without a college education. A leakage test and polarizing voltage for 20 to 500 volts provided. Measures power factor of electrolytics between 0% and 50%. 110V. 60 cycle transformer operated complete with rectifier and magic eye tubes, cabinet, calibrated panel, test leads and all other parts. Clear detailed instructions for assembly and use. Why guess at the quality and capacity of a condenser when you can know for less than a twenty dollar bill. Shipping Wt. 7 lbs.

HEAVY DUTY 6V6 PUSH PULL OUTPUT TRANSFORMER

No. 228. This husky transformer is out of a popular Juke box amplifier and has excellent response characteristics, has connections for 6-8 ohm voice coil or 500 ohm line

3 FOR \$ **95**



Federal POWER TRANSFORMER



No. 252. New cased 110V 60 Cy. Power Transformer. Supplies 480V CT at 50 MA and 6.3V at 2.1 Amps. A beautiful transformer. Shipping Wgt. 4 1bs. Each

Only \$ 50

POWER TRANSFORMER

No. 247. Beautifully cased power Transformer with 12.6 Volt at 1 Ampere, 6.3 Volt at 2 Ampere and 500V. C.T. at 60 MA. An excellent unit for military receivers. Shipping Wt. 6 lbs.

FOR \$ 195



The HEATH COMPANY BENTON HARBOR, MICHIGAN

* New LABORATORY
IMPEDANCE BRIDGE..

* Construction OF
VARIABLE POWER SUPPLY.

* Construction OF
MIDGET AUDIO AMPLIFIER
MIN. AUDIO OSCILLATOR

* New hkits

* Peuthkits

Sec. 562, P. L. & R. U. S. POSTAGE

1¢ Paid

Benton Harbor, Mich. Permit No. 273

RETURN POSTAGE Guaranteed