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## C O R P O R A T I O N $\omega$

 833 W. JAGKSON BLVD. GHIGAGO


True VALUE represents much more than merely low prices. Naturally, ALLIED'S prices are the lowest in radio-but beyond this, we offer you the largest selection of regularly-stocked high quality merchandise, the fastest handling of every order, and radio's friendliest, most helpful personal service. It is this combination of "plus" services and consistently lowest prices which makes up ALLIED'S conception of VALUE and sets the standards by which VALUE must be judged. This is the policy which has earned for ALLIED the honestly-merited reputation of "Radio's Leading Supply House." Our old customers have always profited by the ALIIED concept of VALUE-our new customers will be sure to endorse it.


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- DIA, POWT OUTPUT - 5" DYNAMC sP是AKT - EULTT-IN AERLAL - ETAUTIFUL NEW DAL



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A mart convenient carroins case for the
 on page 5 , or for any ounef compse racio stractive Suedette, with sipper opening and carryint handle.

$\$ 1.25$
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## Knight 5 TUBE AC-DC

## 2 BANDS: 75-550 METERS

Smartiy reyled beacty-poweriul performance-rich tone-all of theoc qualitiel have been combined in the Knifht ${ }^{\text {Sch }}$ Ac-oc to make it the ideal personal of "ppare" receiver. From its Dual Wave circuit features, striking a new high in compact radio performance.

- Tunct Two Eande. The Kalyht S Dunl-Wave AC-DC cumea from 5 to Polmeters, and Wave Police and Amateur asationt as well ap exardard sroadcart Ameri an and the dia
Flay Anywhore. Designed for office, home or traveling uper the Knhat 5 AC. DC will pley anywhere from 110 Volta, AC or DC. 40 dapter tivited beyow.) From eitber type of carrent, reception is the ame-alwaya poweriful and lull-toned.
- Eeautiful Platic Cabinet Especially attractive and practical the handrome Bakelite cabinet Will got scar or become dincolared; it ness are svilabie in choice of the following colore, plony black, warm vory, brilliant red, sleet walnut or smooth ereen. Pheasing streamlined

- Pewerful Clrewit Licensed by R.C.A. and Haseltine, the circmit of the Krinht 5 develope full 2 wates output-outstanding in AC-DC ert of compactnesp; han exceptional sensitivity and mercivity Latest tuber used are: $6 D 6$ an R.F.; ©C6 at Det. ${ }^{25 L 6}$ as Beam Powei tube in an important factor in the amaxins power and tone quality of the Knifhe 5 .
-Latest Features. Other advanced, refineroenta which make tbe Knight 5 a real ralue leader are: full $5^{\circ}$ dynamic aperker, mounted in fromt with odequate bafie erea, handiling the 2 watts output with amooth. rich. enjoyable clarity; novel $34{ }^{\prime \prime}$. 3 -colored, full vision dial with eany. to-tune kDobe. accurate at all timet; built-in antenna, etc. Here are "Mgse" featarea at an amaringly low price.
- Sot Comalote. Order this eet in quantity lots-ute it an a demor-trator-ita winning beauty, extreme verwatility, and exceptional perormance mean sided as 5 Volto AC-DC. 40 to 60 cyctes, complete with Raytheon tubel. Shpe. wt., 9 IBa. Choice of Colort.


HETEACH, 1 1.25.S 165 Lots oficench . 1 -
810503. Whek. Walnut

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B9145. 229 Vehadapter. MET

## with Hew OUICK-OUCH Did

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- TUNRS IN A FLASH <br> - Dual wayi kance <br> - 2. WATTS OUTPUT <br> - CUILT-IN An事IAL <br> - $5^{5}$ DYNAMAC SPLAKP <br> - BLAUTIFUL CAENNRT
}
R.C.A. \% HAZELTINE HCENSED
- Extrene Voratility. Operating from 110 Volta AC or DC. the knight Dunlowave will pay practicaly aoywhere. It will Th operate from 220 Volis, AC or DC, With the adapter litued betow. Tion Mntpht 5 is conveniently portable, making it an excellent "companion receiver. Here'a a wet whowe market it undimited- wet you can well everywhere-quickly and profitably
- Latest Cireult. Compact, yet complete, the Mnlint 5 employe toturdy chassia designed around an R.C.A. and Hazelitine licensed circuit, loeded with featurea not usually found in AC-DC portables. Tube uned are: 6D6 as R.F. 6C6 as Det.; 25L6 as Beam Power Ontput 2525 as Rectifier LA9C as Ballast. Thid efficient circuit develope ful 2 watta output ! The 2515 tube providee full-streasth reception on both tiandard Brosacant and Sbort
 antivity and melectivity built-in antenna etc
basitivity and aectivisy, builtin anterna, Fic.
- Eeautiful Cablnat. The Knlyht 5 AC-DC in housed in an attractive cabinet, the top and tront of which are of one-piece vertically-ganaed to conform with the charming desiem. Has two-tone front base finimh
Beasurea: 12$)^{2}$ x $x$.
Tot Cemplote. The new Kright 3 AC-DC, $40-60$ ave AC-DC for 110 Volts AC-DC, $40-60$ cycie operation, is o onered
complete with $1-6 D 61-6 C 6,1-25 L 6$, comprete with -2525 and 1-L49C Raytheon tube Shipping weight, it lbo. Code CLASS. A wonderlul AC-DC radio value.
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## OUTSTANDING AC-DC RADIO VALUES!



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- PULI A.V.C. ACTION
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## Ruight

## 7 TUBE AC-DC SUPERHET

## an Amazing 3 band radio value

Splendid new circult featuree, powerful All-Wave reception and full, counded tone meke this 1938 Knight 7 an unumally excellent buy. Quick-Toucb" Dialing make tuning eay and accurate; new mult purpowe tubes offer extritube efficiency at a ennationally, ow frice,
3 Full Eands. Continuou Al-Wave reception Is yours with the Khlaht AC-DC 7 \$pper. Tunes 17 to 55 meters for foreien and domertic Short Wave programa; 35 to 185 meters fot Police. Amateur, Airplane signall; and 185 to 560 meter for powerfal, enjoyable reception of standard Broadcant American and Canadían promrams. Imagine dependable allwave tuning at thin low pricel
L Latost "quick-Tomeh" Turing. Styled to the minute, the Knight AC-DC 7 employ the pewest easy way to ture. Juat welect any one of 12 of your favorite stations. Aip the dial with your finger, and your program rollsin. Of course, you may also tune the Krighit 7 in tbe conventional winy. - Electric Eye. With both new "Quick-Touch" tuming and the unerring Elecerke Eye. you have the ideal combination for acientifically precite tuning. Nonoite-no "off-gtation tuning-your prograna tow in periectly. - Now superhet Cirewit. Powerful, dependable, expertly engipeered to meet today's ritorout requirementa for AC-DC mensitivity and eclectivity, the circuit of the Knifht 7 is licensed by R.C.A. and Haseltine. High
 75 at 2 nd Det.-A.V.C. 1 st Audio; 25 L6 an Beam Power Output; 2525 as Rectifier: L49C Ba Ballart; And 6G5 an Electric Eyc. Has ertra-tube eficiencyl $25 L 6$ Bean Power Output etage develope 2 full prats outgut, making the Knligh 7 an exceptionally powerful AC-DC performer. Other outetandins features include: ding all prostams with Vivid, $C$ recelvers; Automatic Volume Control to amure uniform volume on all stations; Litz-wound coils for increased maitivity and electivity; etc.

- Plars Anywhere. Veratility pius-that's the Kalpht. 7 AB-DC Superhetl It will work perfectly from any 110 Volt, 40 to 60 cycle. AC or DC outlet and may alto be operated from 220 Volts. 40 to 60 cycle. AC-DC, with the adspter liated below.
- Attractive Cpbinet. The beautiful modern cabinet of the Knight 7 harmonise ideally with the sturdy, up-to-the-minute chastis, Front and fulty ahaped rille with cut-out miniped conforms pleaaingly to the detign.

 Volts AC-DC, $40-60$ cycles operation, it offered complete with Ruybeon tubed. Shipping weight, 11 ithe. Code: ENTRY.
t10s08, Retail Value, \$35.00.
NET PRICEEACN, 17.35.

B9148. 220, vait adapter fer ebevis see." 'NTT
88c


## Kuight 5 TUBE AC-DC <br> 2 BANDS: 75-55O METERS

Here'e a typical ALLiED valuel A new Knight in Tube 2 Eand AC-DC receiver with desirable new featurea and amart, modern otyling at a price you can't beat anywhere. We ve priced thie knight set to standards in every detall.

- Twe Band Roeptlen. Tunch two full band: powerfully and enTwe Eand Koception. Tina as well as all stenderd Broadcat pro joyably for Stort Wave atations as well an all zendar Broand Police grams. Range covere Broadcast reception. Surprising distance reach and power make this Dew Knlyhi an outetanding AC-DC Radio.
- WIII Operate Anywhore. You can operate the Knight 5 wherever 110 volta. $40-60$ cycles Alternating or Direct current is aveilable. Simply plug into electric outlet for intant performance. May aloo be uned on 220 volte. $40-60$ cyclen AC or DC with special admpter listed below. Ue the Knlight 5 at home or at the office-take it along when travellingit's the perfect "Companion" Radio.
- R.C.A. and Harotitno Licensed. A carefully engineered circuit employing newest Raytheon tubes. in the foundation of the Knifh 5 Tube racio's brilliant performance. Tubes are correctly chosen for Freatemt power and efficiency: 6D6 an R.Fic 6 C as Det.; 25L6 Bearn Power Output; 2525 as Rectifier; and L49C as Ballast. Full 2 watts output-remarkably high for a compact AC-DC receiver-is developed from the 25L6 Beam Power Output atage for strong reception and pleaaing reproduction of every program. Litz-wound coils are beed for utmont senitivity and excelient aelectivity. Specially matched Sic dynarmic speaker providen faithful reproduction of both voice and Built-in one quality far surpasoes
- Handseme Pertable Coblnot. The Knight 5 is offered in a newly deaigned cabinet that pleasen the eye and providea proper acoustica backing. Haa atriped wanut face and top with beaded eulumanel and easy-to-read.
- set complete. Knight Tube 2 Eand

Sot Complete, Knight Sube 2 Eand AC-OC or DC. Complete with 5 , poltaker mand Ray. $A C$ or DC. Complete with $5^{\prime}$ ipeaker and kay
 12 ibe. Order several of hese sou fast repeat ales. Code: VERSE.
B10509. Retail Value. $\$ 20.00$.
MET PRICE EACH, $\mathbf{1 0 . 4 5}$.
YOUR PWICE, LOTS OF 3, EACM
Be145. 220 Volt Adapter. NET.

- 175-550 Meters - 2-In-1 Design
- Full A.V.C. Gets Police Calls
- Alrplane Dial - Dynamic Speaker

Here is a wonderful combination of versatility, beauty, and value in an ultra-modern compact radio met at an amazingly low price. ideal ",uplity." radio for bedroom kitchen spare room and office use it will add distinction and beauty to any interior. 175 to 550 Meters are covered poweriully and dependably bringing in standard Broadcast and police-calt feception clearly and faithfully,

- Boantiful Alpplane dial. Newest pillowshape; indirectly flood-illuminated, softly wet clearly. Calibrations are etched in color on a gold background and are ingeniously placed on the bias for easy-reading in both laydown and - Wright positions. Size. 2x2
famous R C A. and Hazeltine Laboratories assuring you of the latest enginecting developments. Uses the latest tubes as follows: 6A7 as Det.-Osc.; 616 as I.F.; 75 as 2nd Let.A.V.C.: list Audio; 41 as Pentode Output: 80 as rectifier. This cube line-up assures high gain. big
output. and fiawless tonal ficlity. The tone of output. and fawless tonal ficmity. The tone of the Kright $\$$ is a constant joy.
fuli A. V C Foatures. Tbe Knight A.C. 5 has full A.V.C. action to assure uniform volume: volume-handling capacity and excellent tona! response; special high-gain antenna coil of litz wire giving exceptionally increased antenna gain: statically shielded pouver transiormer for noise-free opration. etc
Ser complete. The Knight 5 A.C. Suparhet in handsome Bakclite cabinet. complete with Raytheon tubre. For operation on 110
 B1O534, Whlte. List. 829.95. STO95

BLACK PLASTIC MODEL


EACH, IN LOTS OF 3.

This nb-to-the-minute atyled Knlght 5 is beautifully presented in the mart new plastic cabinet shown above. It can be placed in either the upright or laydown position, the dial being perfectly legible in either case. Available in handsome cabinets will not mar or discolor, and handse finest acoustical notility aluays. The assure minest acoustical quality always. The finished grille; the fabric is woven with harmonious yellow tracer. The Black model is tastefully trimmed with a giesming chrome grille and has a speaker cloth woven from black and silver fabric which lends a distinctive note to the entire color scheme. The Knight $\mathbf{S}$ A. C. is distinpuished for both beauty and performance. conforming to the rigid Knight atandarda of radio
value. Cabinet measures $11 \times 7 \times 6 \mathrm{~K}^{\prime}$.

## Kright 6 TUB

Exceptional cabinet craftsmanthip is evident in every line of the cabinet of the knight 6 The chasgis is housed in a beautiful walnut "laydown" cabioet. Too, front and bottom are rolled with rounded corners at both top and bottom of a single piece of vertically striperf
walnut Richly-grained and carefuly matched the wood contained in this cabinet has been especially selected to produce finest tone gual ities. Ends are of color-matched selected red um. Dial shape and apeaker grille design concorm to the pleasing. graceful lines of the cabinet. The entire cabinet ia finished in a lustrous piano finish. The Knlght 6 is a receiver that will make every owner proud of its beauty Measurea $17^{\circ}$ long. $10 \%^{\prime \prime}$ hish. $8^{\prime}$ deep.

- 3 BAND UTILITY
- WITH ELECTRIG EYE
- TONE CONTROL
- FULL A, V.C. ACTION
- 6" DYNAMIC SPEAKER
- LARGE $41 / 2^{\prime \prime}$ DIAL
- 3 WATTS OUTPUT

A. C. SUPERHET

Value is the keynote of this new Knlght Dual Wave A.C. Superhet-value that is expressed in its new exclusive features, strong power, exceptional performance. rood looks. splendid tone and moderate price. Here's a quality receiver that ev

- Tumea 2 Full

Kunes 2 Full Bande. 3-Band Reception 1 The Knlght 6 tunes from 47 to 130 meters to bring in as well as fascinating foreign reception on the popula 49 meter foreign Short Wave channel. The second band covers 175 to 550 meters and tunes the upper Police channel and all American and Canadian standard Broadcant stations. Think of it a 2-band set with actual three band reception
Electric Eye. You're assured of scientifically precise tuning with the accurate Electric Eye. You cune with the volume down, and when the dark sec. tor is narroweat you turn the volume up-and theres your station-berfectly tuned!
Exquinite Now Dial. Beautiful, modern, easy-to-read I It's pillow-shaped. edge-lighted. with silvet face: the calibrations are etched in large black letters on a motled silver backoground. Each wave placed converienty just above del. placed convenien fust above the dial.
6" Oynamie Spaaker. To bring you the best in faithfully reproduced voice and music, the Knight note and nuance is prought out with matchery note and nuance is brought out with matchless of the new Knlght $6!$

- Tone Centrol. Ueually found only in much higher-priced sets. the continuously variable Tone Control incorporated in the Knight 6 is an extra value feature. Adds to tonal beauty; permits personal sccentuation of either bass or treble.
- Now Extra-Power Suparhet Circuit. Licensed by R.C.A. and Hazeltine; develops fu!l 3 watts outDut. Latest tubes used are: 6A7 as Mod.-OAC.; 6D6 Output - 2 . 75 as Det.A.V. C.Audio; 4 as Power octual $\delta$ tube efficiency! Other features include: rubber-floated tuning condenser for greater stability; Aucomatic Volume Control to maintain uniorm volume at all times, enc
- The Knight Dual-wave 6 is offered complete with cabinet and tubes. For 110 Volt. 60 Cycles AC peraion. code.
510562

810562. 

Retail Value. \$37.50.
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LOTS OF 3, EAC

## R. C. A. A HAZELTINE LICENSED <br> A SMASHING RADIO VALUE-FEATURES GALOO <br> - FOR 110 VOLTS AC OR DC <br> - WORLD-WIDE RANGE <br> - Ilictajc ryt <br> - TONE CONTEOL <br> - FULL A.Y.C. Action <br> - BEAM POWER OUTPUT <br> \$295 <br> EACK, IM LOTS OF 3

## Kaight 8 TUBE AC-DC 3 BAND SUPERHET <br> Incomparable beauty-luzurious tone-utmort verpa- <br> - Aceurate Electrle Ey* Tuning, Unerring, preciex

tility-extra-reserve power-keenest electivity and sen-Sivity- these are the qualities that make the 1938 Quality is unbeatable, yet the price is unbelievably low. - Continueus All-Wave Turing. The Knlint AC-bc bringa you unlimited reception from all over the world. Three complete, thrilling bande tune 17 to $\$ 5$ and 55 to 175 meters for enjoyable foreigh and domestic Short
Wave programs; and 175 to 550 meters for powerful American and Canadian standard Broadcast reception. Every band is alive with fascinating programa!

- Superb Tone Quality. The 6/4" opeaker in the table model and the 8 . apeaker in the console bring vivid. accurate reproduction of all programs-you hear them jubt as they are broadcast 1 Clear, flawlese power in developed by the new 25 L 6 Beam Power Output Tube, and reproduced with matchless clarity-never before have such
power and tone been attainable in AC-DC receiversl power and tone been attainable in AC-DC receiversl
Wewest Geld Dlal. Recognizing the fact that All. Wave Tuning requires a ample, easy-to-read dial, we have incorporated in the Knfint all-Mave t fullytable model and ox 8 in the congole, this dial is clearly and accurately calibrated to facilitate' Sbort Wave tuning Important channels are plainly indicated wach band is ciear-even a child can easily tune the Knlaht 81
and a real meceasity for, sharp tuning, the Electic Eye elminates ofr-atation. of-tone turing. Keep the Eye ia narrowest-then turn up the volume and let the propram roll in surely, perfect!y!
ing .h. Leensed Crcult. Every new Jadio engineering achievement developed in the famoun R.C.A. and Hazeltine laboratories has been incorporated in the brilliant Superhet circuit of the Kmlght 8, Newest Raytheon as 2nd Det.-A.V.C.-1Bt Audio: 6 K 5 an A.F. Amp.; 76 $25 L 6$ as Beam Power Out put; $2 \$$ ZS as Rectifier; L40C of Ballast. and 6GS as Electric Eye. Here's 9 Tube efficiency at the price of 81 Featurea include: Beam Power Amplification; special coil syatem; A.V.C.; Tone Control; rub-ber-floated condenser, etc.
hot will playsatity. The Knlyht AC-BC \$nperhot will play wherever 110 volts. $A C$ or DC, 60 cycle curcord is avalable. For 220 volta AC or DC, we the line cord listed below. The Kmlint t he-pe Superhet table model is offered complete with $61 h^{\circ}$ speaker and Raytheon tubes. For 110 Volts, AC or DC, $40-60$ cycles.
Shipping weight, 21 lbs . Code: SPORT. 810510 Retail Value, 49.50 I
NETGRICE EACH S23.45.
YOUR PRICE, EOts OF 3. EACH


1938 EEAUTY The 1938 Knight 8 Tube all-wite suparhet is beautifully presented in the handaome tablecabinet frown above. Top and ront pane are of one-piecs verinut in beautiful solled top efiect. The simple but top eactive crille desipn with Fertical overiay bare enbances the mart 1938 appearance of the Knight Entire cabinet is handrubbed to a soft. pleaning
fniah. Sise: 18 Kx 9 yx 73 y .

## KNIGHT 8 TUBE AC-DC CONSOLE MODEL

The Knleht All-Wave is aleo offered in the auperb console model ahown at the right The finest butt walnut hardwood veneers are incorporated; caref ul craftomanahip is refiected throughout its construction. Handsome roll-top harmonizes splendidly with the shaped and fluted side pilasters. A beautifully figured, tasteful grille cloth fs used behind the shaped as in the table and chairtide models. Whth the exception that the dial tize is $6 x 8^{*}$ and the apeaker diameter $8^{\prime \prime}$. This oversized, nuper-dynamic speater has been incorporated In the console model to bring you the peak performance of which the Knight is capable-the mellow richnes, the magnificent depth of tone which this console radio, using adequate baffle area, projoyment. It will add charm and fignity to my setting. thrilling entertainment to every home. joyment. It wil add charm and dignity to deny setting. thriling entertaingent to every home. operation from 110 volts. AC or DC. 40 to 60 cycles. Shpg. wh., 44 Ibs.
Code: SHADE.
E1981 itc Retail Value. 57.
YOUR PRICE, LOtS OF 3 , EACH.
53450


BEAUTIFUL CHAIRSIDE MODEL
The 1938 Knlyht E Chairside Model offers the utmost in comfort, grace and beauty when placed sides of one-piece vertically etriped tralnut Has convenient and attractive shelves for books, etc. Here is the und attinctive sineves ior books, etc. and nobe are placed on the top of the cabinet, to that tuning is leisurely, luxurioualy simple. The chasis if the same as in the Knif it table model deacribed above: 8 tube AC.DC R.C.A. and Hazeltine licensed circuit; $6 \times 6^{\circ}$ giant colored dial; Volume Control; Continuousiy Variable Tone Control; 25L6 Beam Power Output Tube, etc. Meas-
 Chairside Model is offered complete with $8^{\circ}$ speaker and Raytheon tubes. For 110 volta, AC or DC Code HEART cycles. Shpg. wt., 41 lbe.

BSI48. 22 wott ads. Eter. NET......8BC


## WITH THE EXCLUSIVE New eass INTENSIFIER CONTROL

- 3 Bands - 3 Watts Outpur
- Bectric Eye - 65/8" Speaker
- Glant Dial - Tone Control
- Full A.v.C. - Preselector


## ${ }^{5} 25 \frac{95}{6}$



## Kright 7 TUBE 3 BAND A. C. SUPERHET

This new 1938 Knight 7 Tube All-Wave Radle is a model of which we're exceptionally proud-and justly so. That's because it's actually one of the finest 7 tube table models of-
fered anywhere today even at much higher fered anywhere today even at much higher
prices. Outatanding for richness of tonal qualprices. Outatanding for richness of tonal quality. for pensicivity and oelectivity in tuning, the Exclusive new features and skillful engineering
 joyable. medertir radio performance. When you'll agree with uathatit'san unbeatable value. - Rich Tenal Beauty, A noteworthy feature of thal nuality A full $6 \%^{\circ}$ Dynamic Speaker. personal Tone Control, and new exclusive."Bass personal rone Control, and new exciusive brass production of every program. Every note. every sound is brought to you vividly, full:bodied, and clearly. The "Bass Intensifier" bringa up the low notes which have heretofore been lost, to assure correct shading and depth. The personal Tone Control permite you to telect treble or basg emphasis at will. The result is true beauty of tone which will delight the fulf 3 watta undistorted output is developed.

- Eritilantiy Englnodred Clrcult. R,C.A. and Hazeltine Licenaed, the Superhet circuit of the Knight 7 incorporates every degirable feature. lncludes heavy-duty 3 gang condener with pre eclector stage; Continuously Variable Tone Control; full Automatic Volume Control; new single-unit pre-assembled coil system; tic. Latest Raytheon tubea are used as follows: etc. Latest Raytheon $\frac{1}{2}$ as Det are used as follows: Diode Det.-A.V.C. 75 as I.F. Anp. 76 as Power Output, go ai Rectifier, ous as Electric Eye. These efficient types account for the strong power and tong-diotance range of the Knlyt 7 Tube All-Wave Radle. They as bure full and faithful reproduction of every program from near or far
-Werld-WIde Tuninf Range. The 1938 Knifht 7 tunes the world in three full bands continuous (no rape or oripa) from 16 to $\$ 50$ and domestic Short Wave otations efficiently and domestic Short wave stations efficiently and reliably; 52-175 meters Covers Ships-at 550 , Airplanes, Amateurs, and Pohce; and $175-$ American and Caradianstations. A twirl of the dial of this ampazing new Kni hit brings the whole world of radio into your home.
- New Easy-to-Turso Difi. New full-vision, pllow-shaped airplane dial measurea $63^{\circ} \mathrm{x}$ 74"; gold-faced and edge-illuminated, Large, easy-to-read numerals are etched on a pleasing gold background aratig and accurately calated for quich marked and accurately calibrated for quick
reference. The Electric Eye is incorporated conveniently in the dial face for fulleat utility.
- Medern Tablo Cabirot. 1938 in styling and execution. Top. front, and bottom are shaped from a single piece of selected erain walnut. Grille is scroll-cut from panel; proThe entire cabinet is bandrubbed and highly polished to a gleaming finish. Size: $\left.19^{*} \times 11\right\}^{\prime \prime} x$ polished Well-suited for bookabelf, table, or deak.
- Sot Complete. The Knight 7 Tube 3 Band A.C. Superhes is supplied complete with Ray the on matched cuoed and 110 volt 60 cy apeaker. For operation from 110 volts. 60 cy clea A.C. Shipping weight: 231 bs
Code: STATE



## Kruight 5 TUBE A.C. SUPERHET



- Handsome Now Cablnot. The 1938 Knlaht 5 is presented in a very attructive "laydown" table cabinet styled tight up to the minute. Sweeping rolltop. front face, and bottom are of lue trous grained walnut set off with shaped sides and fluted base mounts. Pleasing grille cut-out fends horizontal emphasis
with bar effect. Cabinet dimensions: with bat effect. Cabinet dimensions: a shelf in your bookease, an end table. or a mantel.
- 3 Band utility
- Large airplane dial
- special wavetrap
- FULL A.V.C. ACTION
- 6" OYNAMIC SPLAKER
- HIGH-GAIN OUTPUT


## 2 BANDS: 16-51; 175-550 METERS

An almast unbelievable "buy" at ALLIED"S low price Cbeck the features of this new Knights Tubo Denal Wave Recolver; note our money-gaving price and you'il wonder
 Extra utility tuning range, realintic tone quality. generous reserve power. and latest refinements-that's real valuel

- I and utility. The Krifint 5 is practically an AllWave receiver. Its tuning range covers 16 to $\$ 1$ meter and that's interesting and importane. The Short Wave band rom 16.51 metero tume Amateur. Aviation, and Police calls, plus the always enjoyable 49 meter Foreign program channel. 175 to 550 meters covers upper Police wave bands and all tandard Broadcast American and Canadian stations. This ia actual three-band efficiency.
- New Gold-Faced Dlal. An unusualiy attractive goldfaced, pillow-ahaped airplane dial. Measurea $5 \mathrm{~K}^{\prime \prime}$ x $\mathrm{H}^{\prime}$ faced, ifllowinated from all sides. Upper scale is clearly cajibrated in kilacycles
R.C.A. ind Haxeltite Lleensed CIrcmit. New Superhet carefully engineered circuit uses latest Raytheon tubes 6A7 as Det.-Opc.; 6D6 as I.F-Amp-; 75 as Det.-A.V.C.-is Audio; 41 as Power Output; 80 as Rectifier. Each tube contributes effectively to the powerful sindiatorted output to develop actual 7 tube utility and performance. A special corie interference on Broadcast band. Full Automatic Volume Control maintains uniform volume level.
- Dollghtiul Tome. New heavy-duty o' dynamic apeaker $^{\text {d }}$ Dollghtful Tond. New heavy-duty o dynamic eppenter affords higheat quality reproduction of all programs. It The Knilht $\$$ ia a joy to liften to.
- The 1938 Kmisht 5 Tube A.C. Supartot In table Comitic sime wexdid

R
YOERACH, SI7.OS. ORE, EACH..
 AUTOMATIC DIAL
- $10^{\prime \prime}$ SLIDE-RULE DIAL - ELECTRIC EYE - tONE CONTROL - FULL A.V.C. ACTION - $61 / 2^{\prime \prime}$ DYNAMIC SPEAKER - WORLD-WIDE RANGE - FULL 3 WATTS OUTPUT ${ }^{5} 27 \frac{35}{35}$


## Now you can enjoy Automatic Push-Butzon dium Wave. and Short Wave stations. You Sera. Ardanes. Amateurs and Police Calls; and tuning in a table model radio at a really popular station simply by pushing a single button has been available before only in expensive console model rectivers. The new Selectronic Autotnatic Dial is combined with other outst anding new features in this new 1938 Knlght 6 Tube 3 Band A.C. Superhet to bring advanced radio performance at a price any one catn afford. ot her makes because we know this new receiver out-performs them all. <br> - Co-ordinated Automatic Tuging. The amaziny new Selectronic Dial. new 10 'Slide-Rule ocale. and Electric Eye combine to provide lectronic Dial consists of 7 push-buttons: 6 station buttons and 1 station "clearer." Juat push a button-there e your otation! Tunes right on the head every time! Selectronic Tuning is unusually aimple. The six selected stations are wit alice by easily accessi ble trimmer condensers and will operate tbereafter without further desired station call-jetters above each buteon. Regular tuning is also revolutionized in the Knight 6 by the new $10^{\circ}$ Stide-Rule horizontal dial with vertical travelling pointer. Has three meparate ucales for standard Broadcant. Me- <br> dium Wave, and Short Wave atations. You know exactly which band you're tuning with this neu: sensible kind of dial. Each scale is of equal length-stations are s-D-re-a-d out for quicker losging. Electric Eye-the modern vimul tuning aid-further simplifief station selection. When the Selectronic Dial is not in use. the Electric Eye helps you to tune accur <br> - Powerful Superhet Circult Ising the latest types of Raytheon tubes in an R.C.A and Hazeltine licensed Superhet circuit. the tance reach. Includes: 6 Ag as bet. Oec. ; 6D6  dio; $4 i$ aspower Ontput; 80 as Rectifier; and 6 G 5 as Electric Eye. All circuit components are carefully elected and matched for "bal anced" radio performance. Other developments are: full Automatic Volume Control to maintain steady volume level; personal Tone Control to permit personal emphasis of bastor greatest wectivity" Litz-wound coils for maxi greateat selectivity; intz-wound cous for maxi Mum sensitvity. etc. Wave, Werld-Wlde Reception. Travel the airlanes from your easy chair. Tuning range from ti to 500 meters leaves no gaps range irom in to 500 meterg leaves no gaps.  $185-560$ meters for unusually dependable atandard Broadcast American and Canadian reception. Every band ls alive with entertainment Rich. Vital Tone. Enjoy the life-like voice of the Knight 6 . The 41 Power Qutput stage  and faithfully handed by the full 6 a dynamic the nuances and overtonca. <br> - Uitra-Medern Teble Cabinet. A most appropriate complement to this ultra-modern receiver. A gorgeous creation with walnut top rand sidest front panel and left side of one-piece horizontally-striped walnut with striking "roll effect. Streamlined protruding speaker grille louvres. Contrasting toned base. Entire cabinet rubbed to a piano finith. Here's a cabinet to be proud of a radio worth cheering about Size: Kind <br> Superhet complete with Apeaker and A.C. $\$$ uperhet complete with speaker and Ray theon tubes. For 110 volts. 60 cycles A.C. theon tubes. For 110 volts. <br>  <br> (For efficient aerial. .ee page 99 )

## Fright 5 TUBE 2 BAND A.C. SUPERHET

TUNES 47-130; 174-550 METERS Weve outdone oursclves to bring you this surational
offering a 1938 designed Nintsht 5 Tube 2 有and A.C. Superfiot, buile up to a standard, yet priced extraordinarily low I From cabinet to circuit components this new radio fairly shouts "Value" It has the features of sets at double the price 3 Band eficiency. full 3 Watts outdut. rare tonal beauty, easy-to-read shuare airplane dial. fuli dynamic speaker, and new Superhet circuit. Check these:

- 3 Eand Utillty. Tunes two full bands-47-1 30 meters for Short Wave police, aviation, and amateur calls, in addition to the thrilling 49 meter Foreign Short Wave band; and $174-550$ meters to cover upper police channeis and amazingly powerful reception of American and Canadian standard Broadcast programs. This is prac-
tically 3 Band reception-and the Knight 5 performi powerfully on both ranges.
- 3 Watts output. Latest R.C.A. tubes in a new R.C.A. and Hazeltine licensed Superhet circuit develop full 3
 80 as Rectifier. 5 tubes do the work of 7 .
- Striking Tone Quality. Lateat heavy-dnty $\mathbf{6 n}^{\prime \prime} \mathrm{dy}$ namic speaker selected and matched, provides fineet acoustical response. Enioyabae realism of cone is furthits achieved through personal Tone Control which permits
accentuation of bass or trethe. Volume level. too, is conaccentuation of bass or tretwe. Volume level. Coo, is con
stantly controlled by full Automatic Volume Control.
- Mew Alrplane Dlal. The latest type of airplane dial-$434^{*}$ in size and edse-lighted-makes tuning easy and convenient. Clearly calibrated in kilocycles on Broadcast vision type and is exceptionally attractive.
- Set Complete. The Knight 5 is offered complete in table cabinet with $6^{\circ}$ sureaker and R.C.A. tuber. For 110 Shipring weight: 15 Ibs.
R1OSGZ Retail Value. $\$ 35.00$
* 1 2

YOURPPRICE, LOTS OF 3. EACH.


- 3 BAND EFFICIENCY
- WITH TONE CONTROL
- 3 watts output
- FULL A.V.C. ACTION
- 41/2" ARPLANE DIAL
- $6^{\circ}$ DYNAMIC SPEAKER
- Unusually Attractive Cabinet. Gracefully proportioned, this new cabinet is "correct lor any interior. Choice walnut woods sides and top horizontally grained front panel, and praceful, routed base mounts. Hor panel, and gracefu, routrd base mounts Hor ing line enhance the appearance. Dimen sions: $144688 \times 7$ inches. This truly beau tiful table model radio will lend distinction to any home background and give splendid


## Letś LOOK at a 'Kright RADIO



Look inside the cabinet of any KNIGHT radio, and you see a clean-cùt, sturdy, ship-shape chassis-the heart of a quality radio set. Licensed by the world's foremost radio laboratorks, R.C.A. and Hazeltine, the circuit of each KNIGHT radio incorporates radio's outstanding engineering achievements. Every part used in each KNIGHT radio has been carefully selected, rigorously tested, and perfectly matched. Finally, skilfil workmanship blends these ciements to produce a balanced radio of unsurpassable quality, performance and tonal beauty.

There is more value and more profit for you in the 1938 KNIGHT sets. ALLIED is America's most efficient distributor of radio sets, because expensive advertising campaigns, costly selling methods, and wasteful overhead costs have no place in ALLIED'S merchandising plan. The savings thus effected are passed directly on to you. That is why KNIGHT radios sell for so much less. That is why this year-as always-KNICHT radios cive you most for your money.


## 61 GREAT NEW 1938 MODELS A Radio for Every Purse and Purpose <br> MORE VALUE - MORE PROFIT FOR YOU!

Skyrocketing beyond all previous records-the demand for KNIGHT Radios is sure to hit a new high for 1938 ! What's the magic-what's the secret behind this phenomenal sales success? The answer is-there's no magic--there's no secret-there is only the most honest merchandising in the world behind every KNIGHT Radio. Ours is a simple formula-the only successful one in the long run: (1) Build the best radios money can buy; (2) Sell with minimum distribution cost and overhead expense; (3) Achieve enormous sales volurre by selling at bottom prices. It is this formula that brings you radio's biggest values and profit-making opportunities.

The new 1938 KNIGHT Radios give you more for your money in every way: performance, tone, beauty, and features. These quality receivers cost just as much to make as the most expensive sets. Every KNIGHT Radio is built of the finest materials. Each component part has been carefully selected, matched, and pre-tested for durability and efficiency. Brilliant engineering, skilled craftsmanship, and rigorous production standards result in the finest radios you can buy. But, because KNIGHT Radios sell for so much less, each one of the 61 great new 1938 models offers more value -more profit for you! In 1938 you'll save, you'll profit with KNIGHT!

## night tantunss.

(4)

Now Full-Volced Speakers. Latest powerful electro-dynamics in $A C$ and $A C$ DC models; new special alloy P.M. dynamic typen in battery models. The finest speakers made. Perfectly matched with each receiver for finest tone.
Nowest Tube Types. Perfected metal, glass, and octal-glass tubes are specially selected for each circuit. Each type is correctly used for greatest efficiency.
Electrle Eye. Shows you visually when your atation is perfectly tuned. Eliminatea gutse-work and noisy tuning.

Eroadcast Studio Tone Quality. A constant characteristic of all 1938 KNIGHT Radios. Every effort has been made in both circuit design and speaker matching to assure a full rich fidelity of tone on all programs at any volume level.
World-Wlde Range. All KNICHT 3-Band Radios tune the whole wide world -powerfully, dependably, with full tun ing ease. KNIGHT 3-Band Radios bring you fascinating entertainment.

New Chairside Cabinets. Beautiful practical, and convenient. Bring your radio set to your side. Tune ot your ease-luxuriously, comfortably.

TO HELP YOU SELL KNIGHT RADIOS
Sell more $K N I / H T$ Radios with the metr ctive and

1Foluar Rer. Write for omple copies. Shows Mutrations and deseriptione of all KNIGHT models with list prices only. Areal sales-pro. moter! We'll imprint your own business name and address at nominal cost. Make bigger profits selling 1938 KNICHT Quelity Radios

NOTE: Practically every KNICHT AC Radio is available with special transformer equipment for 95.230 Volta, 25-60 cyeles operation at slight additional cost. Write for quotations.

NOTE: For quick shipment and safe delivery, we recommend that all radio receivers be ordered shipped by express. See page 142 for handy table of express ratea or consult your local express

## $G$

uarantes Any KNIGht Radio that does not satisfy completely, if returned within 15 days after purchase, will be promptly adjusted by exchange. repair or full refund, less transportation charges. Furthermore, every $K N I G H T$ Radio is also core, ered by the Radio Manufacturers Association Guarantee against dedate of purchase three months from

## -ALLIED RADIO CORP.



## 


C. C.A. HAZESTINE IICENSED

The new 1938 Knight All-Wave s Tube A.C o-Dial, complete model, with Automatic ubbes. For operation on 110 voits. 60 cycles A.C. Code: WI, 32 libs.
Code: CI,EF
810565
Retail VIUE. $\$ 72.50$.
NETPRICEE
EACH, $\$ 34,75$.
LOTS OF 3, EACH
(For efficient aerial, see page 99.) When we say that this new 1938 Knight Allradio "buy" to come your way in years, we mean just that. Here is an unbeatable performerpriced far below its real value! Read every word of our description for prool and then add the outstanding beauty of the table model cabinet to which no tllustration can do justice-and the vibrant tonal quality and power which no words can occurately desctibe-and you'll get the full picture

- Automitic solect-o-Dlal. The new 1938 Knlght 8 Lunes your favorite stations automatically. With true ease and precision. The call in the automatic tuning disc buttons. Just place a finger on the name of the atation you want to tune-spin the wheel down to the atop pointand there-you're tuned in ingtantly and perfectly. It's as easy as pointing a finger! Any one can adjust Automatic Tuning in the Knight a, regardleas of location. Call letters of all U.S. stations are included in tab form and any ten avorites you desire to tune zutomatically may be inserted in a few seconds. The regular manual and foreign stations course, for additional domestic


## 8 TUBE CHASSIS MODEL

The 1938 Kright Tube A.C. Superhat with Automatic Tuning is also available in chassis form. console and armehair models described on this. page and on pane 13 . Includes: 3 Band coverame Irom 16 to 550 Meters; Automatic Select-o-dial; Contric $\frac{E}{7}$ We; Automatic Volume Control: Tone ControI; 7 Watt Output; 12" Dynamic Speaker: Preselector; 3 Gang Condenser; Wave Band Indicator; Doublet Anterina Connection; etc. A 1938 struction. Beautifully built aiong generous lines Size: $13^{\circ} \times 91^{*} \times 8^{\circ}$. Supplied complete with fuil $12^{\circ}$ Electrondynamic $\quad$ peaker and R.C.A. tubes. Automatic Select-o-Dial mechanism and escutcheon ( 8 ' diameter) are included. For operation from 110 volts. 60 cycles A.C. Stipg. wh. 20 lbs . Code: STAMP

81O586.
Retail Value $\$ 68.50$.
NETPRICE
EACH, 832.75.
YOURPR1CE
LOTS OF 3, EACH...

## - Automatic Tuning

- With Tone Controi


## - Electric lye

- 3 Full Bands
- Full A.V.C. Aetion
- Preselector Stage


## - Bass Compensation

- 7 Watts Oufput


## - 3 Gang Condenser

Travel Word-wide Range. Tour the World Knlof the air-lanes any time with the 1938 Its nowertul three Wave A.C. Superiot everything on the air from 16 to 550 Meters The 16-52 Meter band covers thrilling Short Wave foreign programs; the $51-175$ Meter band tumes police. amateur airplane calls and ships-at-sra; the $175-550$ Meter band brings you powerful standard Broadcast ereption from all of America and Canada.
Auromat Now Dial. In addition to true Automatic Tuning, the 1938 Knifht has a regular large 6 airinch full-viaion illuminated ranges. Each band is separytely and tunim indicated: Broadcast channels are calibrated in kilocycles; Short Wave bands are n megacycles with popular channela clea-ly designated. Has a wave-band indicator
7 Wetts Output. The Knlght All-wave 8 provides a giant output of 7 wattg for splen did tone performance and reserve power. This oower is handled as flawless tone by the large 8-inch Electro-dynamic speaker.

- A Supprb Clrcult. A brilliantiy engi neered 1938 R.C.A. and Hazeltine licensed circuit is used in the Kolght ह. The follow ing tubes are employed: 648 G as Ogc. Mod; 6R 7G as t.F. Amp; 6Q7G as Det-A. Y. C-1at Audio; 6C5G as Phase Inverter; 2-6K 6 G as push-pull Audio Output; 5 Y 4 G as Rectifier; GS in Electric Eye.

Contror Fentures: Full Automatic Volume Control-maintains steady volume level on pergonal selection of bass or treble emphasis RF. Preselection-assures or treater sensitivity and stronger signal pickup, Electric Eye-the visual way to perfect tuning; you "see" when your program is perfectly tuned. Bass Compensation - assures correct reproduction of both bass and treble frequencies at any volume level. 3 Gang Condenser-assures sharper, more gelective tuning. Wave Band Indicator inch Electro-dynamic bpeaker-the finest that can be used - powerful and true-toned A!so-doublet antenna connection. rubberfloated chassis and tuning condenser. These fine features combine to produce powerful World-wide reception and rich. life-like tonethe best you can get in tadio.

- Wenderful Tone. The 1938 KnIght reproduces the full range of voice and music It offers you unkimited enjoyment clarity programs you unlimited enjoyment on all overgeas or a popular dotestic programi
- Handeome Table Model. Up-to-theminute in design and utyling. Instrument panel and top are of one-plece verticallygrained walnut with beautiful ralletop effect. Sides are gracefully curved with attractive ends in beaded overlay effect. Size: $22^{*}$ long. $11 \mathrm{~K}^{\prime}$ high, $9 \%{ }^{\prime}$ deep.



## with AUTOMATIC SELECT-0-DIAL

## KNIGHT 8 TUBE CONSOLE MODEL

The 1938 Knight All-Wive 8 with Automatic Select-o-Dial is avallable in a luxurious new console cabinet of more than distinguished beauty- he instrument panel and top are of one-piece matehed walnut. choicely grained with graceful rolled" eftect. The side pilasters are correcty and grace the cops of the pilasters ond sides walnut. horizontally-striped. The cops of the plasters and side ire console is hand-rubbed to a lustrous piano finteh. Measures $4015^{\circ}$ high. $2535^{\circ}$ wide, $13^{\prime}$ deed. Here is one of the most successtu and beautiful console designs ever built. In beauty of wooda used, in superb proportion, in fine finish and in correct acoustical properties.
it has few rivals. The new Kight represente the last word in radio beauty coupled with outstanding performance. It is unbeatable for ease of tuning; the Automatic Select-o-Dial is uncamnily accurate and simple operate. Anyone can tune it periecty. Fr wfors continuous radio abo. the 1 of of riceiver, and you get the utmost in radio pleasurc; 7 Watts Out pal 12* Electrodynamic Speaker. Electric Eyc: Tone Control; Full A.V.C.; Hass Compensation: 3 Gang Condenser; Preselector; Duublet Connection: Wave Band Indicator, etc. Compare the 1938 Knight 8 , feature for feature. with any new 1938 receiver and you will find out for yourself that only Kinight offers you the utmost in radio value. Were back of this new set too\%-because we know that for oul standing exceilence. the Knight is a buy that cant be matched. The Knlght 8 Tube Ali-wave supertet with Automatic Select-o-
Dial is offered in console illustrated at right. complete with $12^{*}$ speaker and R.C.A. tubes. For 110 volts, 60 sycales A C. operation. Shpg. ut. 65 ibs. cycles A.CTOpe 810567. Retail Value. \$99.50. YOURPRICE,LOTS OF 3.EACH
(For efficient aerial. see page 99.)


## KNIGHT 8 TUBE ARMCHAIR MODEL

Here is the ver latest radio comfort. beauty and convenience the 1938 Knight All-Wave 8 Superhet with Automatic Tunine in a modern armehair model. Placed next to easy chair or sofa. this new model makes the ideal radio for sheer comiort, convenience and grace. The dial and controls are set right in the table top to previde the utmost tuning convenience. 8 Au can operate the receiver with out getting up. The Knight ofitmerair the is of gelect walnut as is the attractively designed speaker grille face. Handy shelves of graceful design are provided to hold books. pottery. amoking ac cessories, etc. The design of this Armehair model also lends it for plearing use as a commode-piece against a wall. The size is: $23^{\circ}$ high. $20^{\prime \prime}$ wide. $145^{\prime \prime}$ deep. The Knight 8 Armchair Model has all of the features found in the table, chassis and console models. In. cludes: Automatic Select-co-Dial for quick. easy and accorate tuning ; World-wide Range for enjoyable radio reception on three full bands from 16-550 meters; Electric Eye for even greater tuming ease and accuracy; Tone Control for personal accentuation of tonal emphasis desired; A. 3 Gang Condenser: $8^{*}$ Speaker; Doublet Connection; Bass Compensation, etc. The Knight All-Wave 8 Armchair Model comes complete with R.C.A tubse and 8 inch speaker. For operation on 110 volts. 60 Cycles. A.C, Ships. wt., 52 lbs .

B10568. Retail Value, $\$ 105.00$
$\$ 4750$ 1学 1 NET PRICE EACH. 549.95.


## KuightII-TUBE Cll-Wave A. C. SUPERHET $-5.54 .51988$ Sumbinar Therel <br> BROADCAST STUDIO TONL

## Hectric Tuning - Select-e-mutic Dlal - Full A.V.C. Aetlen - Preselector Stare

-3 Full Bands
7 Wetts Output

- 2 I.F. Stages - Triple Pilering
- 12" Dynamle Speaker - Aut. Freq. Control


## Varlable Tene Centrol

 - 3-Gang CondenserHere is the brilliant new Knloht All-wave 11-the Radio leader for 19381 Here is Automatic Electric Push-Button Tuning-accurate, unfailing. Bimple! Here is world-wide all-wave reception-poweriul, dependabie, enjoyable, Here is crue tone quainty at its very best. Here in performance to thrilio the ear and cabinet beauty to priced if Tube Radio with every new and worthwhile feature.

- WORLD-WIDE RECEFTION. The 1938 Knight 11 tunez everything that's broadcast, Its complete range covera three full bands: fowerful and dependable reception of Short Wave foreign, amateur, aviation and police calls; 175-550 Meters for magnificent lond-distance reception of all American and Canadian standard Broadcast. Into this splendid receiver is incorporated every new and advantageous redio feature for 1938 .
- ELECTRIC TUNING. Tunes your favorite stations automatically at the touch of a button with absolute ease and preciaion. Eight station-eclecting buttons are provided which can be set to any eight favorite preselected stations on the broadcast band. Juat presa the button you want-and there's youf program - automatically, instantily; electrically) You can tune eight stationa in less than eight meconds. A child can do it And anyone can adjust Electic Automatic Tuning in the Knhyt is, regardless of location. Here is the new miracle in radio tuning-the simplest and most efficient automatic tuning device ever developed. Theres nothing better in easy
- SELECT-O-RATIC DIALL In addition to Electric Automatic Tuning, the Knight 11 has a recular fall-vision dial of entirely new devign. This dial is a large easy-to-read rectangle ( $\mathscr{F}^{\prime}$ longl showing three horizontal scales of equal length, one for each band making each range easy to read and to tune. The broadcast band has all popular and powerful U. S. station call-letters clearly indicated for quick and easy tuning. The over the entire length of the scale. The entire dial is beautifully framed by a satingold finish escutcheon.
- AUTOMATIC FREQUENCY CONTROL. Found only in the fineat 1938 radio receiver. AFC used iu the Electric Tuning Circuit ahifta the Knhght 11 automatically into hairliae tuning for absolutely gerfect tone and keeps it in precise tune Automatic Electric Tuning and AFS, you aimply can't tune "off-tone.
- A CIRCUIT OF MATCHLESS EFFICIENCY. The very latest tubes are used 11. They are pemployed as foilowe: 6A8G as Det-Oec 6 K 7 G as 1 cuit of the Knigh I.F. 615 G as 1 st Audio; 6J5G as Phame Inverter: 615 G as 2 nd Det.-A. $V . \mathrm{C}$.; 6 J 5 G as AFC channel discriminator: 6 J 7 G as AFC Control; $2-6 \mathrm{~F} 6 \mathrm{G}$ as push-pull Pentode output; 523 as rectifier. Each tube contributes splendidy to develop full power and accurate tongl reproduction. You will note the very real difference in power and tone the minute you hear the 1938 Knlght 11 in action-tuning the whole wide world of radio
glorioualy, bringing you a new concept of radio enjayment. glorioualy. bringing you a new concept of radio enjoyment.
- ADDITIOMAL FEATURES. Other advanced featurea found in the 1938 Knisht 11 Superhet include: Ful Automatic Volume Control for uniform volume on all stations; Continuously Variable Tone Control for accurate personal emphasis of tonal frequency to meet individual desire; Double-tuned I. F.a for amazingy increased senof extra-heavy construction for sharp selectivity; push-pull pentode output for full 7 watts undistorted outputi giant 12 -inch Auditorium Electro-dynamic apeaker for highfidelity tonal reproduction; apecial triple-filter system for absolute freedom from bum; tatically-abielded power tranaformer of generous deaign; large chassis with wide safety margins built into quality components.
- EEAUTIFUL 1938 CON\$OLE. The Knisht 11 ia presented in a aplendid new cabinet creation with top, front and sides of genuine walnut. ToD and instrument pane are of a zonque piece of beautifully figured butt walnut with roiled-topeffect. sindee Recessed grille is covered with gold choth fronted by three vertical walnut posts. Size $42^{\prime \prime}$ bigh. $27^{\circ}$ wide. $13^{\circ}$ deed.
- CONSOLE MODEL COMPLETE. The Kalght 11 All-Wave A.C. Suparhet is offered complete in console as illustrated, with 12 dynamic speaker and R.C.A. tubea. For 110 volte. 60 cycles A.C. operaton. Americase lowest-priced Electric Tuning radio.
Shipping weimht, 73 lba.


## Code: ADORN.

## R18537 Retail Value $\$ 122.50$.

YOUR PRICE, INL $87{ }^{8} \cdot 95$, EACH
(For efficient aerial, see listing on page 99.)

Perfect tuning-perfect broadcat atudio tone cuality is a contant feature of the performance of the new 1938 Knight 11 oorydatest development known porated to enamure thriling, enjoy able recention. Here is the ul timate in luxurious radio enter tainment.

## PUSH-EUTTON TUNING

Just ouch a button and any one of your eight favosite atations is uned in eltetrically-instantly. unerringly, automatically. Ab solutely practical, thoroughiyular new Select-o-matic Diai, too lar new ical, the finest yet developed.

12 IN. DYNAMIC SPEAKER
Rich, enjoyable higb-fidelity tone ia consiotently reproduced by che giant new 12 -inch ElectroKnamic speaker used in the 1938 powerful, more faithful, this poweaker is responsible for the ful rich tone-depth evident in every program tuned by this fine set.

## WIDE-RANEE RESPONSE

Faithful tonal reproduction is constancly evident in the per: ormance of the 838 祭 are retained with fult depth and fibrant reality. Triple-âtering and Variable Tone Control further enhance and earich the tone
of the Knight 11 .

## TUNES THE WORLD

The 1938 Knifht 11 is one of the most powerful and far-reach inf Superhet radios ever developed. Tuning coverage en cornpasser three full continuous bands from 16 to 550 meters as Wring always dependable Short Wave from all over the world and amazingiy powerful Broad cast band receotion.

## KNIGHT 11 TUBE CHASSIS

The Knlifitit Tube All-witwa Superhet with Electric Tuning is also available in de luxe chasais form as illustrated on page 14. Includes features as deacribed: 3 Band World-Wide Ranse; Electric Tuning; Select-o-matic Dial; A.F.C.: A.V.C.; Tone Control; $12^{2}$ Speaker; 2 stages I.F.; Preselector; 3-gang condenser: 7 watts output, etc. Fullwith mutomatic Tuning and dial mechaniam. $12^{\text {- }}$ momplet and R.C.A. tubes. For 110 volts, 60 cycles. A.C. Shog and R.A. tubed. For ino volt 810538. Retail Value, \$94.50. NET PRICEEACH, $\mathbf{Y} 44.9$ BR $^{\circ}$ YOURERic
OF 3 , EACH.

## 11 TUBE PHONO COMBINATION

For music-lovers who want the best in tonal performance, the Knifht 11 is aso offered in a new phono-radio comp Packard auth distinguighed instrument, equipped with finest musical entertainment. It employs the de luye chassia described above to provide poweriul World-Wide radio reception, rich, full-bodied tone and superb all-around performance. Perfect reproduction of recordinge is asured by the high-grade pick-up, silent powerful phono-motor and automatic record changer, Recordg are played through the $10^{\circ}$ recorda or seven $12^{\prime}$ records automatically. Full 7 wate output provides perfect amplification of the most delicate nuances and overtones through the Auditorium 12 inch dynamic tpeaker. The Knight 11 Phono-Combination includea all the features described above-Electric Push-Button Tuning, Tone Control, A.V.C., 3 Band Coverage. A.F.C.. Triple Filtering, Preselector Stage, 3 Gang Condenmer, etc. A quality muaical instrument in every reapect-both on radio and phonograph, For operation from 110 volts. 60 cyclea A.C. De luxe cabinet measurea: $42^{\prime \prime} x$ weight, 95 lbs Code: WALTZ.
810538.

Retai Galue, $\$ 225,00$
NETPRICE EACH
S107 $7^{50}$



## Kright 6 TUBE 2 BAND A.C.SUPERHET

R.C.A. AND HAZELTINE

UCENSED


Here is a cbarming new 1938 chair-tide radio model at an amazingly low price. This new knight A. C. offers the utmost convenience in radio tuning coupled with encomfort and ease. Has these outstanding features: 2Fult Bands. Tunes 47 to 130 Meters for the most poputar Short Wiave promams: and Canadian standard Broadcast. You actually get the advantage of three band reception on these wave bands.

- Electrle Eye. The accurate cathode-ray Tuning Eye is used in the Kright 6. Aseures precise visual tuning ; when the shaded portion of the Eye is narrowest. you are tuned in perfectly. Avoids noisy and inaccurate tuning.
- $41 / 2$ Inch Dial. Latest edge-lighted type. Easy to ture. Showa two easy-to-read for Short wave Popular kilocycles for Broadcast, the other marked in megacycles for Short Wave. Popular Short Wave channels are clearly indicated.
banding capacity. Renders bath voice noted for faithful response and fine volumehandling capacity. Renders bath voice and music with astonlighing fidelity. Handles the large 3 watt outDut of the circuit with enjoyable fullness and depth
Permits emphasis of bass or treble variable Tone Control is ued in the Knight 6 permits emphassis of bass or treble response to nuic personal taed. Adra found generally only tonal beauty of knight 6 performance. A big extra-value feature found generaly ony in much higher-priced sets.
usestent clireult. The R.C.A. and Hazeltine licensed Superhet circuit of the Knight 6 matic Volume Control; 6 tuned circuics. 41. 80. $6 \mathrm{G5}$. Other features include: Auto . Ches Has Cabinot. The Knight 6 Armchair Model cabinet is built walnut. Size: $23^{\circ}$ high, $18^{2}$ deep. $111^{2}$, wide. - Armehalr Model Complete. $1 \%$ wide.
an illustrated with 6 -inch dile. The Knight 6 Armchair Model is offered complete For 110 voits. 60 cycles A C Comic speaker and R.C.A. tubes. BEOF7ROE Retail Value. 559.95 .
NET PRICE, LOTS OF 3, EACH,
(See page 6 for more detailed deacription of the 1938 Knight 8.)


## Thight 1 TUBE <br> 3 BAND A.C.SUPERHET

WITH NEW


This 1938 Knight 7 Tube All-Wiave A.C. Superhot is beautifully presented in one of the most racelul chair-side models made today. Briliantly desigmed or uee anywhere in the side of chair or sora-as wall piece, etc. Practical a rell as beautiful. The cabinet has a matched walnut top and a charming grille of wal nut. Convenient shelves are built in to accommodate books or decorative pieces. The armchar model measures $23^{\prime}$ high. $144^{\prime}$ deep. $24^{\prime \prime}$ wide. One of the finest radio world wide
52 to 174 Meters for Short Wave police. Tunes 16 to 52 Mers for World-wide Short Wave reception to 550 Meters for upper police channels andeur, ahip and airplane signele, and 17 Broadcast reception. Tunes everything thar's Aroadcancan and Canadian otandard Automatle Tunlrit. The 1938 Knight 7 tures ten of
matically. The Select-o-Dial provides a button for ten of your favorite dations auto your finjer on the button you want. swing the tuning each favorite station. Juat pu and there's your otation. tuned in instantly. Derfectly If's as easy as pointing.
Glant Dlal. In addition to true Automatic Tuning, the Knight 7 has a regular large futi-vision illuminated dial. Each band in meparately and clearly calibrated with all popular channels indicated. The built-in Teleye for visual tuning is an added feature. A Superb Cireult; A brilliantlyengineered R.C.A. and Hazeltine licensed Superhet circuit is used in the Knliht 7. Latest tubes are used: $6 A 7$ as Oec. Mod. $6 D 6$ as I. F Amp.; 76 as Det.-A.V.C.; 75 as lst Audio; 41 at Audio Output; 80 as Rectifier; 6 G 5 - Elecric Eye.

- Added Fenturen. The Knlght 7 incorporates theae additional outatanding features: Electric Eye for visual accurate tuning; Tone Control for basa or treble emphasis aia desired; A.V.C. Sor maintenance of uniform volume on all programa; 8-inch Electrodynamic speaker for flawleas tonal reproduction; 3 watts undiotorted output; doublet antenna conn ction; rubber-foated tuning condenser; 6 tuned circuits on each band, etc Armehair Model Cemplete. The Knight 7 Armchair Model in offered complete as described with 8-inch dynamic speaker and R.C.A. subes.
 NET PRICE, EOTSOF3, EACH (See inside back cover for more detailed deacription.)


# Zuight 9 TUBE 3 BAND A.C. SUPERHET 

Here is a de luxe 1938 Knight 9 Tube All-Wav* A.C. Armchair Model. Luxand tuning of choice matched walnut woods; desis offor ter um firet time ate low a price. The Knifht g ts housed in a beautifully built cabinet. The instument at so panel and grille are of one-piece vertically striped walnut with roll-effect. The sides are of matched walnut woods, luxuriously grained and beautifully finished. Sixe: $254{ }^{2}$ high. $223^{\prime \prime}$ long, $144^{\prime \prime}$ wide. Here is the utmost in radjo beauty coupled with out. standing radio performance and the following features:
World-Wide Range. Tunes 17 to 52 Meters and 52 to 172 Meters for all Short Wave foreign, police. amateur and aviation signals; 172 to 555 Meters for utandard Broadcast of all American and Canadian stations.
Glant $6^{\circ}$ y $3^{\prime \prime}$ Dlal. A new 1938 feature. Each band is generously spread out for the utmost ease in tuning. An Electric Eye is included with the dial to show you yisually when you are tuned in perfectly
the lateat ofo ofubes. Developed by a powerful push-pull output stage using two of the latest $6 F O$ tubes. This wonderful output is aithfully reproduced through the full tonal performance of the kpagher which is perfectly matched to the receiver. The tona performance of the Knight is thrillingly faithful and enjoyable on all programs. of the 1938 Knisht $9: 1-6 A 8 ; 2-6 \mathrm{K7} ; 1-607$; 1-60 tubes are ured in the circuit Outstanding additional features are. Bass Compenated Volume Control for full-range reproduction of both bass and treble at any volume level; full A.v.C for umiform volume; Tone Control for any tonal accentuation desired. new Uni-Coil System for gtability; R.F. preamplifier; 3 gang rubber-cusbioned condenser, etc.
in thenchair model Complote. The Knights All-Wave A.C. Superhot is offered in the Armchair Model illuatrated. complete with 10 -inch dynamic speaker and Ray theon tubea. For 110 voltg, 60 cycies A. C.
Shpg wh. 65 lbs. Code: GLOBE,
BiOSt
Met Retail Value, $\$ 94.50$.
NET PRICEEACH, 4 GF. SO,
(See page 160 tor more detailed description of the 1938 Knifht 9 )
R.C.A. AND HAZELTINE

LICENSED



R．C．A．－Radiotron Tubes are always the standard for deperdable performance and superb operating efficiency．They enjoy a tremendous constimer acceptance and are the most widely demanded tubes sold today．They represent a good， etendy source of profit for the dealer who stocks them．All R．C．A．－Radiotron tubes are sold in attractive factory－sealed car－ tons to assure your trade of brand－new
perfect tubes in original packages．tested for quality，just as they left the factory． This method of packing builds good－will and sales．R．C．A．－Radiotron Tubes represent full value．They give longer life．heat quicker，and have better tone quality together with unusual uniformity and stability of operation．WE CARRY THE COMPLETE LINE OF R．C．A． TUBES IN STOCK AT ALL TIMES．

EXTRA QUANTITY DISCOUNTS
Your can barm blager prefts by buyllin RCA twbes in quanttion．We ive yeu special $50 \%$ isceurnt frem the inot priced RCA－Redfetrin the yed trier 25 or mert oxamplie，if the ist price of your tur．Fer coventis io sस），zupr met eest witi me sp\％ bese，or sie．RCA tubes arw ainuly in lenalal． Rembit eut yeur cteck and forease yeur prelit en owery twbe sale．You can gasily selet 25 sint－inevins tube frem our firtiry bolew fer blager discomutis and preills．

## STANDARD GLASS TYPE TUBES

| Type | Ne． | List | NET | Type | No． | List | NET |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OOA | 100 | 2.25 | 1.22 | 36 | 18121 | 1.10 | ． 59 |
| 014 | ［102 | ． 75 | ． 41 | 37 | 1012 | ． | ． 49 |
| 144 | Elce | 1.75 | ． 95 | 38 | 0123 | 1.25 | ． 68 |
| 146 | E161 | 1.75 | ． 95 | 39／44 | $4{ }^{\text {星124 }}$ | 1.25 | ． 68 |
| 184 | mact | 2.25 | 1.22 |  |  |  |  |
| 18S | 迷 | 125 | ． 68 | 40 | E 23 | 1.00 | ． 54 |
| 166 | －194 | 1.75 | ． 95 | 41 | 0326 | 1.10 | ． 59 |
| 1 F4 | E165 | 1.50 | ． 81 | 42 | Ex7 | 1.29 | ． 65 |
| 1 F6 | dics | 2.25 | 1.22 | 43 | －128 | 1.40 | ． 76 |
| 1 V | 4183 | 1.10 | ． 59 | 45 | －130 | ． 50 | 49 |
| 243 | 045 | 2.50 | 1.35 | 46 | elsi | 1．50 | ． 81 |
| $2 A 5$ | H16s | 1.20 | ． 65 | 47 | 4032 | 1.50 | ． 81 |
| 246 | 8159 | 1.20 | ． 65 | 48 | －133 | 3．50 | 1.89 |
| 247 | E17 | 1.50 | ． 81 | 49 | 0134 | 125 | ． 68 |
| 287 | H171 | 1．ct | ． 86 | 5 |  |  |  |
| 523 | 5172 | 1.10 | ． 59 | 53 | －138 | 1.75 | 1．35 |
| 6A4／L | 177 | 1.50 | ． 81 | 55 | $\underline{139}$ | $\underline{1.50}$ | ． 81 |
| 646 | 4175 | 1．60 | ． 86 | 56 |  | 20 | ． 43 |
| $6 A 7$ | －176 | 1.40 | ． 76 | 57 | E14 | 125 | ． 68 |
| 687 | －178 | 1.50 | ． 81 | 58 | H142 | 125 | ． 68 |
| $66^{6}$ | B179 | 1.23 | ． 65 | 59 | B143 | 200 | 1.08 |
| 6 66 | 810 | 1.20 | ． 65 | 714 | B14 | ． 30 | ． 49 |
| GE5 | mist | 1.50 | ． 81 | 75 | Hus | 1．110 | ． 59 |
| $6 F 7$ | 8183 | 1.75 | ． 95 | 76 | B146 | ． 80 | ． 43 |
| 6G5 | Bres | 1.50 | .81 | 77 | 6147 | 1.35 | .73 |
| 6N5 | Blel | 1.75 | ． 95 | 78 | B148 | 1.30 | ． 65 |
| 10 | －104 | 275 | 1.49 | 79 | E14s | 150 | ． 81 |
| 1247 | E188 | 225 | 1.22 |  |  |  |  |
| 1228 | 8181 | 1.35 | 1.73 | 81 | E151 | ${ }_{2} 2.75$ | 1.22 |
| 15 | E10 | 2.25 125 | 1.22 | 82 | 0152 | 250 | ． 81 |
| 20 | H110 | 1.25 2.25 | 1.22 | 83 | E253 | 1260 | ＋．86 |
| 22 | 0111 | 1.75 | 1.22 | $\begin{aligned} & 83 V \\ & 84 / 624 \end{aligned}$ | P154 | 2.25 | 1.22 |
| 244 | 5112 | 1．00 | ． 54 | $\begin{aligned} & 84 / 624 \\ & 85 \end{aligned}$ | 8155 | 1．60 | ．86 |
| 2525 | ELPs | 125 | ． 68 | 89 | －156 | 1290 | ． 81 |
| 26 | E113 | ． 70 | ． 38 | V99 | E158 | 1.50 | ． 81 |
| 27 | E14 | 40 | ． 43 | $\times 99$ | E159 | 1.50 | 81 |
| 30 | $\underline{415}$ | 1.00 | ． 54 | 112 A | E17 | － 0 | .49 |
| 31 | E115 | ． 3 | ． 49 | WD11 | mies | 2.25 | 1.22 |
| 32 | E117 | 1.75 | ． 95 | W×12 | E106 | 225 | 1.22 |
| 33 | ［118 | 1.35 | ． 73 | 874 | ［183 | 4．00 | 2.75 |
| 34 | E13 | 1.75 | ． 95 | 876 | Els4 | 6．50 | 4.50 |
| 35 | 8120 | 1.10 | ． 59 | 886 | E135 | E．e0 | 6.00 |

## ALL－METAL TYPE TUBES

Deaiswed by General Electric；de－ veloped and manufacturred by R．C．A－ feature unnoual sturdinees，self－ mhielding．quiet operation，hetter short wave results．new octal hase． elf－alignine plurg and key．etc．The new metal tubes are not directly interchangeable with conventional glass eube trpes．We carry all metal type
R．C．A．tuben in stock constantly．

| 574 | Exs | 250 | $1.35$ |
| :---: | :---: | :---: | :---: |
| 514 | E262 | 1，00 | 4 |
| 574 | 5263 | 200 | 1.08 |
| 6A8 | －264 | 1.50 | 81 |
| 688 | 5265 | 1.75 | 95 |
| $6 \mathrm{C5}$ | Lest | 125 | ．88 |
| $6 F 5$ | －207 | 185 | 68 |
| $6 F 6$ | East | 1.85 | ．73 |
| 646 | 8293 | 125 | 68 |
| 637 | －270 | 1.50 | 81 |



| Type | No． | List | NET |
| :---: | :---: | :---: | :---: |
| 6K7 | ［201 | 1.35 | 3 |
| 6L6 | E272 | 2.25 | 1.22 |
| 617 | E273 | 1.75 | .95 |
| $6 N 7$ | E274 | 1.75 | .95 |
| 607 | E25 | 1.35 | .73 |
| 6R7 | －276 | 255 | ．73 |
| $6 \times 5$ | E2rs | 1．50 | ．81 |
| 25A6 | 5279 | 250 | ．81 |
| 2516 | －200 | 2.25 | 1.22 |
| 2526 | E291 | 1．50 | ．81 |

13 88．METAL TUTE CHARACTERISTICS EOOKLET．Con－ tains valuable information，imeluding pin arrangements．
covering new metal tubes．

OCTAL BASE GLASS TUBES
Glass types with same characteristics as new mietal tubes．

| Type | No． | List | NET | Type | No． | Ust | NET |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1 \mathrm{c7a}$ | B2et | 225 | 1.22 | EF6G | E229 | 135 | 73 |
| 1080 | 522 | 2.25 | 1.22 | 6H6G | E230 | 1.25 |  |
| 1D7G | 8203 | 1.75 | ． 95 | $6 J 5 \mathrm{c}$ | E231 | 1.35 | 7 |
| 1 ESG | －204 | 225 | 1.22 | 6J7G | E232 | 1.50 |  |
| $1 E 7 G$ | 3205 | 275 | 1.49 | 6K59 | B233 | 1.35 |  |
| 1FSC | E266 | 2.25 | 1．22 | 6K6G | E234 | 1.35 | 73 |
| 1F7a | B247 | 2.25 | 1.22 | 6K79 | －235 | 135 | ． 7 |
| 1 H 46 | S20s | 1.8 | － 6.8 | ELEG | B236 | 225 | 1.22 |
| 1HEG | \％210 | 1.75 | ． 95 | ELBG | E237 | 2.50 | 1.38 |
| 156 c | B212 | 1.35 | .73 | 6L7 ${ }^{\text {c }}$ | B238 | 1.75 | ． 95 |
|  | －213 | 1.50 |  | 6N7G | B241 | 1.75 | 98 |
| Sv4a | B214 | 2.35 | 1.2 | 6979 | 8243 | 1.35 | 7 |
| $5 \times 46$ | －214 | 2.50 | 2.81 | 6R7G | E244 | 1.35 | 7 |
| 6Y3G | －217 |  |  | 6876 | 3245 | 2.25 | 1.22 |
| 8746 | E218 | 1.0 |  | 6T76 | －3246 | 2.25 | 1.22 |
|  |  |  |  |  | B248 | 1.75 | 9 |
| GABE | B221 | 1.50 | ． 81 | 6x59 | E251 | 1．90 | 暑 |
| crata | 8224 | 1.75 | ．98 | 25160 | 255 | 1.50 |  |
| 6cse | $\underline{825}$ | 1.25 | 68 | 2Fsec | 257 | 1.75 | 5 |
| 6p8e | E227 | 225 | 1.22 | 25 ¢6C | 258 | 2.25 | 1.22 |
| 6Fsa | E223 | 1．25 | ． 68 | 2s26G | 259 | 150 |  |

## FREE TUBE SALES ADOS

8391．DUN WY CARTONS． 25 R．C．A． diaplay tube cartons froe with tube order．
8392．DECALCOWAM1A． 3 color window adig 393 ．with order for R．C．A．tubes．
8393．PhiCE CAGDS．Showr list prices 0394 all R．A tubea Fret with tube order．
Fobe； 18 o．K．TAEs．Fith order for completed repair

## a．C．A．TUSE MANUAL

B395．Complete technical epece for all R．C．A． receiving type tubeb FREE with order for 25
R．C．A．tubed or．if bought eparately．．． 2 sc
a．C．A．PINDEX
B396．Pocket elide rule prbich gives easential information about tubees，pins，etc．FREE with onder for 25 R．C．A．lubes，or mold for．．．． 2 多c

## TUBE TEST STICXP胃S

A roll of 2.000 perforated fummed labele， $1 \mathrm{x}^{2} \times 1 \%{ }^{\circ}$ mpanted with your name adress and city；has space to mark date and tube con－ plainly on order $\$ 1.00$

# rayTHEON radio tubes 

RAYTHEON ghow you the way to bigger tube profits. Handle this moneymaking line which offers you amaxingly EIC DISCOUNTS and a powerful sales appeal. RAYTHEON tubes are noted for quality and bave an outatanding reputation for long life, silent operation and brilliant tonal reproduction. For better results and for sure custorner satiofaction and good-will, uge RAYTHEON tubes for replacements in all radio secs.

Backed by extensive advertising, RAYTHEON Tubes enjoy a tremendous consumer demand. In addition, they come packed in attractive factory-sealed cartons to protect your customers and to assure you of fresh new stock. There is a RAYTHEON tube for every set requirement. Stock this popular sales- and profit-building tube line. WE CAREY THE COMPLETE LINE OF RAY. THEON TUEES IN STOCK AT ALL TIMES. DEPEND ON ALLIEDI

## SPECIAL DISCOUNTS

Bary Raytheen tubes in quantities for mold practis In lots of 25 or mere, we stve you e special discount of 50 and $5 \%$ frem the list prices shewn. Fer example, If the list price of your tube erder amounts to $\$ 2$.06, your not price at this special discount is 53.50 . Suild your order to 25 or mere tuluet and earn entra pronits!

## ALL STANDARD GLASS TYPE TUBES

| Type | No. | List | NET | Type | Mo. | List | NET | Type | No. | List | NET | Type | No: | List | NET |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 00A | 200 | 2.25 | 1.18 | GE5 | Eati | 1.50 | . 78 | 34 | Eas | 1.75 | . 92 | 71A | 844 | . 90 | . 47 |
| 01A | Ben | . 75 | .39 | 6E6 | E4R | 2.00 | 1.03 | 35 | E20 | 1.10 | . 57 | 75 | Beas | 1.10 | . 57 |
| 1 A4 | -400 | 1.75 | . 92 | $6 F 7$ | 4683 | 1.75 | . 92 | 36 | Een | 1.18 | . 57 | 76 | B44 | . 0 | . 41 |
| 1 A6 | -461 | 1.75 | . 92 | 6G5 | 8484 | 1.50 | . 78 | 37 | 402 | . 38 | 47 | 77 | B47 | 1.35 | . 70 |
| $1 \mathrm{B4}$ | -ces | 2.25 | 1.18 | 6N5 | -498. | 1.75 | . 92 | 38 | 803 | 2.25 | . 65 | 78 | -48 | 12 | . 62 |
| 185 | E463 | 1.25 | . 65 | $6 T 5$ | B4St | 1.50 | . 78 | 39 | -293 | 2.25 | . 65 | 79 | E49 | 1.50 | . 78 |
| 1 C 6 | E464 | 1.75 | . 92 | 6U5 | B497 | 1.50 | . 78 |  |  |  |  | 80 | east | . 70 | . 36 |
| $1 F 4$ | -46s | 1.50 | . 78 | 624 | Eess | 1.60 | . 83 |  |  |  |  | 81 | 8451 | 225 | 1.18 |
| 1 F6 | E466 | 2.25 | 1.18 |  |  |  |  | 40 | 005 | 1.00 | . 52 | 82 | East | 1.50 | . 78 |
| 1 V | -103 | 1.10 | . 57 |  |  |  |  | 41 | 8428 | 1.10 | .57 | 83 | E453 | 1.ce | . 83 |
|  |  |  |  | 12A5 | ¢ 485 | 225 | 1.18 | 42 |  | 1.20 | . 62 | $83 V$ | Hens | 2.25 | 1.18 |
| 243 | 467 | 2.50 | 1.30 | $12 A 7$ 1273 | E085 | 225 | 1.18 | 43 | E438 | 1.60 18 | . 73 | 84 | Hens | 1.6 | . 83 |
| 245 | -46s | 120 | . 6.32 | $\underline{1223}$ | B487 | 1.35 125 | .70 | 44 | P484 | 1.25 | 7 | 85 | E156 | 1.20 | . 62 |
| 246 | 4469 | 1.20 | . 62 | 10 | - | 2.75 | 1.42 | 46 | -431 | 1.50 | .78 | 89 | E157 | 1.50 | . 78 |
| 247 | 847 | 150 | . 78 | 12A | Lelt | . 50 | . 1.47 | 47 | 1032 | 1.50 | . 78 |  |  |  |  |
| 287 | E471 | 1.00 | .83 | 15 | E4te | 2.2 | 1.18 | 48 | 0433 | 3.50 | 1.81 | V99 | E15 | 1.50 | . 78 |
| $2 E 5$ | Heaso | 1.50 | .78 | 19 | -409 | 1.25 | . 65 | 49 | P434 | 1.25 | . 65 | $\times 99$ | E45 | 1.50 | . 78 |
|  |  |  |  |  |  |  |  |  |  |  |  | 182B | \$624 | 200 | 1.03 |
| 523 | 4072 | 1.18 | . 57 |  |  |  |  |  |  |  |  | 183 | [65 | .00 | 1.03 |
| 643 | 0473 | 2.00 | 1.03 | $\begin{aligned} & 20 \\ & 20 \end{aligned}$ | B410 | 25 | 1.18 | 50 | 0435 | 2.50 | 1.30 | 485 | Beas | 2.00 | 1.03 |
| 644 | 8474 | 1.50 | .78 | 22 | E041 | 1.75 | $\cdot 91$ | 51 | E48 | 1.10 | . 57 | 950 | East | 225 | 1.18 |
| 6AB5 | -492 | 1.75 | . 92 | 24 | 2 | $\omega$ | 52 | 52 | 043 | 200 | 1.03 | 951 | He9s | 225 | 1.18 |
| 646 | E475 | 1.6 | . 83 | 6 | E43 | 7 | . 36 | 53 | E138 | 1.75 | . 92 | WD11 | EMS | 2.5 | 1.18 |
| 647 | E676 | 100 | . 73 | 27 | 841 | 50 | . 41 | 55 | E438 | 1.50 | .78 | W×12 | E40 | 225 | 1.18 |
| 685 | 487 | 225 | 1.18 | 30 | 445 | 1.00 | . 52 | 56 | -40 | . 20 | .41 | BA | B60 | 1.50 | 4.20 |
| 687 | ent | 1.50 | . 78 | 31 | Ex | . 90 | .47 | 57 | E461 | 1.25 | . 65 | BH | est2 | 4.65 | 2.65 |
| $6 \mathrm{C6}$ | Pars | 1.20 | . 62 | 32 | E617 | 1.75 | . 92 | 58 | 402 | 1.25 | . 65 | BR | 362 | 2.75 | 1.42 |
| $66^{6}$ | 104 | 1.20 | . 62 | 33 |  | 135 | . 70 | 59 | E43 | 200 | 1.03 | LA |  | 1.50 | . 78 |

## MERCHANDISING AIDS TO

 INCREASE YOUR TUBE PROFITSRaytheon offers you. through ALLIED. some of the finest merchandising aids ever produced to promote the sale of tubes. These consist of attractive, new attention-arresting window displays, dummy cartons for display purpoees, booklets containing valuable information. quick reference price cards showing interchangeable tube types, repair tickets, etc. Get these sales-stimulating helps, and put them to work selling tubes helps, and pat them to work selling tubes
for you. They were all designed for just that purpose.
RAYTHEON HELPS YOU SELL With your nert order for Raytheom tuhes, ang to be pleced on the Raytheon mailing tist. This wil bring you timely ales aide, window diplays, etc. It will pay you to "puab" the fort-deling profit building Raytheon inne.

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## NEW WINDOW DISPLAYS

As mansumily attrictive blackboard window dieplay meanurimg a full reet wide by 23 feet mace for your "opecialp" or memagea. A great "attentiongetter."
 With order for Raytheon tubes.

## A LIVE DISPLAY

A E00d-hoonine window dib play which identifies you as a Raytheom dealer. Enatiles you to get your share of profits from Raytheon's tremendons nation al advertiging. Sbow Serviceman testing tubed Has dign Worth size 2 feet wide by $21 / 2$ feet high.
3.96
124.


## RAYTHEON <br> TUBE TALKS

This very valuable profitbuilding book wan carefully prepared by the Raytheon YOUR engmeeri to atimblate 46 pages which tell you just 46 pages which tell you just where to look for busines.
 and how to get it. The book delearly printed on high-grade paper and bound in a stif fibre Cover with aluminum epiral back. Also contains the tube complement for practically every radio receiver. Really will help you sell Raytheon tube becaune it reflects the best eris. A heipful book that will pay for itel many heipetil book that will pay for itge Rasay timen over.

## DEALER PRICE CARDS

Latent handy reference dealer price list card for sill Raytheon tubes. Shows interchange ebie tabe typea Indicates popular replace Raytheos tubew.
B698. Finab Request on mert emper.


## METAL TYPE TUBES

DAYTHEON offera a complete line of the new all-metal tubea Made entirely of metal; self-shielded and sturdy. With octal base and special stud which makes insection of tube into socket very easy. Not directly interchangeable with conventional glass tube types. We atock all typea.

| Type | No. | List | NET | Type | No. | List | NET |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 024 | Eset | 1.50 | . 78 | $6 K 7$ | E571 | 1.35 | . 70 |
| 574 | Escis | 250 | 1.30 | 6 66 | 5572 | 2.25 | 1.18 |
| 5W4 | E562 | 1.00 | . 52 | $6 L 7$ | 5573 | 175 | . 92 |
| 524 | E563 | 20 | 1.03 | 6N7 | 1-574 | 175 | . 92 |
|  |  | 1.50 |  | 697 | E575 | 1.35 | 70 |
| 688 | ESc5 | 175 | . 92 | $6 R 7$ | 4576 | 1.35 | 70 |
| $6 \mathrm{C5}$ | Lset | 1.25 | . 65 | 6 6 6 | BST | 175 | 92 |
| 6F5 | E567 | 1.25 | . 65 | $6 \times 5$ | E57 | 1.50 | 78 |
| $6 F 6$ | 1568 | 135 | . 70 | 2546 | E575 | 1.50 | 78 |
| 646 | 1569 | 1.25 | . 65 | 25 L6 | Ese | 2.25 | 1.18 |
| 6.57 | \$570 | 1.5* | . 78 | 2526 | - | 1.50 | 7 |

## SPECIAL MAJESTIC SHIELDED TUBES

| $\begin{aligned} & \text { Type } \\ & 245 \end{aligned}$ | No. HSse | List L. 50 | $\begin{aligned} & \text { NET } \\ & .78 \end{aligned}$ | Type | No. | List |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 275 | 31 | 1.10 | . 57 | 2B75 | Esas | 2.36 | 1.20 |
| 355 | es92 | 1.50 | . 78 |  |  |  |  |
| 515 | 5592 | 1.5* | .78 | 6475 | E604 | 239 | 1.20 |
| 555 | E593 | 173 | . 92 | 6875 | -505 | 2.30 | 1.20 |
| 56AS | e5s4 | 1.35 | . 70 | $6{ }^{607}$ | Ecest | 200 | 1.03 |
| 565 | 8595 | . 35 | .70 | 6 67 | Btes | 200 |  |
| 575 | H596 | 1.75 | .92 | 6 67 5 | E409 | 200 | 1.03 |
| 57AS | H597 | 1.75 | . 92 | $6 Y 5$ | -510 | 200 | 1.03 |
| 585 | E5s8 | 175 | . 92 |  |  |  |  |
| 58AS | -599 | 1.75 | . 92 | 25-45 | Esil | 275 | 1.42 |
| 755 | Eeot | 175 | . 92 | 222 G 8 | E:42 | 2.0 | 1.03 |
| 85AS | B6en | 175 | . 92 | 625 | Enis | 20 | 1.03 |

## OCTAL GLASS TUBES

Identical in electrical characteristics and pin connections to the all metal tubes, but made in glaes. We stock aill Octal types.

| Type N | Li | NET | Type No. | List | NET |
| :---: | :---: | :---: | :---: | :---: | :---: |
| OZ4G B50 | 150 | .78 | 6J5G 553 | 235 | 70 |
| 1C7G bsen | 2\% | 1.18 | 6J7G E53 | 158 | 78 |
| 105G eso | 2.25 | 1.18 | 6M5G | 1.35 | 70 |
| 1076 ES | 175 | 92 | 6K6G Es34 | 1.35 | 70 |
| 1E5G Ese | 2.55 | 1.18 | 6K7G Es35 | 135 | 70 |
| 1E7G ESA | 275 |  | 6L5G 5338 | 2.5 | 1.18 |
| 1FSG men | 2.25 | 1.18 | 6L6G ES37 | 2.50 | 1.30 |
| 1F7G ESN | 2.25 | 1.18 | 6L7G E53 | 175 | . 92 |
| 1G5G B | 20 | 1.03 |  |  |  |
| 1H4G Es | 1.80 |  | 6NGG ES39 | 2.25 | 1.18 |
| 1H6G | 1.75 | .92 | 6R6MGE50 | 2.50 | 1.30 |
| 1J5G B51 | 2.25 | 1.18 | 6N7G msel | 175 |  |
| 1J6G Esi | 1.35 | . 70 | 6P7G Est | 2.25 | 1 |
| 514G B51 | 150 | 78 | 606G BSt | 2.25 |  |
| 5V4G E51 | 2.35 | 1.22 | 6Q7G 543 | 1.35 |  |
| 5w4G BSL | 1-0 | 1.52 | 6R7G 54 | 1.35 |  |
| 5X4G BSI | 150 | .78 | S7G B545 | 2.25 |  |
| 5Y3G 5517 | 1.00 |  | 546 | 2.5 |  |
| 5Y4G but | 10. | - |  |  |  |
| 5Z4MG 5 | 2 | 1.03 | 6V7G E54 | 1.35 | 70 |
| 6ASC E5 | 200 | 1.03 |  |  |  |
| 6ABG E5C | 1.50 | .78 | 6W5GES50 | 1.50 | 8 |
| 6B4G E57 | 20 | 1.03 | 6X5G 551 | 1.00 | 83 |
| 6B6G Exy | 1.35 | .70 | 6Y7G 552 | 150 | 8 |
| GB8G ESt | 175 | 92 | 6ZY5G Es53 | 1.50 | 8 |
| 6C5G Esy | 1.25 | . 85 | 627G 555 | 1.75 | 92 |
| 6C8G | 1.50 | .78 | 25A6G Es5 | 1.54 | 8 |
| 6D8G | 2.25 | 1.18 | 25A7G E5st | 2.3 | 1.18 |
| 6F5G E52 | 1.25 | . 65 | 25B6G E557 | 1.75 | . 92 |
| 6F6G | 185 | . 70 | 25L6G ess | 2.25 | 1.18 |
| 6H6G 553 | 1.25 | .65 | 2576G 559 | 2.51 | 8 |

## NEW RAYTHEON TUBE STICKERS

The new Raytheon tabe stickers for zlyo cubea, have spares. for notiog ed." condition of tube. "Satiffactory," or "Un-matifactory"-and mpace for Your name. $A /$ pad of 100 is given Iree with your order for Raybeon tubes. (Available in pedis of 2000 with your marne imprinted at 81.00 .
3889.

## METAL TUPE STMGXIS

Attractive Raytheon wichera exactly the enme a above bat for metal tubee. A roll of 100 comes to you free prith your order for Rayitheon tubes. (Pade of 2000 tube ticicers with your name imprinted are available at $\$ 1.00$ per pad. Print your name plainly on order.)
8890. Ped of ion with tulve ereler. MI!

## REPAIR TICKETS

Consists of combination repair ticket and receipt. Contains space for name, addres phone number, make and model of re ceiver. Perforated; one end is altached to set or chasais taken in for repairs, and detachable end is customer receipt. B691. Fire 50 Ropelr Jlcterte, with tirbe ordor.

## GUARANTEE BLANKS

Conies of a "90 Day Radio Repair and Service Guarantee." Has space for complete description of services performed: condition of tubes, transformers, condensers, connections, wiring, etc; and charges for parta and labor. A real busineselike service card that instills confidence.
 with tivterer

## TECHNICAL DATA CHART


to latert edition; invaluable maniry dealer and acr vice toan; contraina complete, up on all ate technical dat tubee Raytiena recei dia trami and complete tube characterietics. We offer this chart free with your order for Raytheon tuber.
Bes3. Fintir

## DUMAY CARTONS

For display purposes only. Exact replicas of the standard影rractive cartons cen be uned for an arreating, salen etimulat. ing dieplay. We offer 12 dummy carton free with your order for Raptheor tubes.
EB94. Finta

## Ken－Rad RADIO TUBES

THE DPPRDABLE TUE LINE
In the radio tube teld．the name KEM－RAD is sycomymous with dependeble lome Hfe，unugal sturdi－ formis dependabie tubea are ofreted in somp．complete selec－ tion of sless types，metal type tand metal－gless types－ to meet every radio tube need

EXTR AUANTIN Pr COMNTS
 specigl dicoeunt of S and J\％frew the lint wileos shown．



| Tym |  | Liet | NET |
| :---: | :---: | :---: | :---: |
| 174 | 780 | \＄1．75 | 0.92 |
| 146 | 781 | 1.75 |  |
| 184 | 762 | 2.25 |  |
| 185／258 | 376 | 1.25 |  |
| 106 | 778 | 1.75 | ． 82 |
| IF4 | 786 | 1.58 | 78 |
| 1FE | 8786 | 2.25 | .18 |
| 2A3 | B767 | 2.5 | ． 30 |
| 2 A 5 | 8788 | 1.2 |  |
| 214 | 78 | 1 |  |
| 2 A 7 | 776 | 1.3 |  |
| 287 | 8771 | 1.0 |  |
| 523 | 8779 | 1.19 | 7 |
| 643 | 8773 | 2.04 | 1.83 |
| 8 A | 774 | 1.30 | － |
| $6{ }^{68}$ | 8775 | J． 6 | 3 |
| 647 | 8776 | 1.40 |  |
| 685 | 8777 | 2.25 | 1．18 |
| ¢87 | 6778 | 1.58 | .78 |
| $6 C 6$ | 8779 | 1.28 | ． 82 |
| $6 C 7$ | 8790 | 2.00 | ．03 |
| 608 | 3780 | 1.20 | 62 |
| 607 | 3761 | 2.00 | 1.03 |
| 6Es | 781 | 1.50 | 78 |
| CE | 3783 | 200 | － |
| 6E7 | 8792 | 2.0 | 0 |
| $6 F 7$ | 8783 | 1.75 | － 8 |
| 6 E 5 | 8784 | 1.50 | 78 |
| 645 | 8783 | 1.75 | －82 |
| 675 | 8794 | 2.9 | ． 03 |
| 625 | 3795 | 2.00 | ．03 |
| 12A5 | 8785 | 2.25 | .18 |
| 1247 | 8788 | 2.45 | ． 18 |
| 1273 | 3787 | 1.35 | ． 76 |
| 2525 | 8788 | 1.25 | 8 |
| －14 | 8701 | ． 75 |  |
| iv | 8783 | 1．18 | 67 |
| 10 | 8764 | 2.75 | ，42 |


 undersell all competition fith ohis popular line of sonerior quality tubes．They are precision－buatt for stemedy．de－ pendable porformance．An KMIGNT Trbes ans pactied in fectory－bealed cartons ssauring perfect perthapdiac．At－ tractife，gefety－first packaging，dependsble quality and low
 otoek of popular trpes and match your tuho prodta soar． We earry the complete line of KNIGNT tubes to etock it all times．

| Ty | Ne． | Lint | ET |
| :---: | :---: | :---: | :---: |
| 4 | 8980 | E1．76 | 3 |
| 146 | 8981 | 1.75 | 3 |
| 184 | 3982 | 2.25 |  |
| 185 | 8883 | 1.25 | 8 |
| 1ct | 5\％ | 1.75 | 3 |
| $1{ }^{18} 4$ | S | 5 |  |
| $1 F$ | 3886 | 2.25 | 1.08 |
| 243 | 8887 | 2.31 | 1.17 |
| 243 | \％88 | 1.20 |  |
| 246 | 96 | 1.2 |  |
| 247 | 3970 | 1.50 |  |
| 2B7 | 8.871 | 1.68 |  |
| 523 | 8972 | 1.10 |  |
| （1）3 | 873 | 20 | g |
| 6 A4 | 897 | 1.50 | 7 |
| $6{ }_{6}$ | 978 | 1．th |  |
| 647 | 8976 | 1.40 |  |
| 6B7 | 3878 | 1.50 | .70 |
| 6 | 7979 | 1.20 | ． 8 |
| D6 | 4980 | 12 | .68 |
| 6 ES | 8 | 1.50 |  |
| GE6 | 83 | 2.00 |  |
| $6 \mathrm{F7}$ | 3 | 1.75 |  |
| 624 | 895 | 1．40 |  |
| 1245 | 8988 | 2.25 | 1.08 |
| 1247 | 8988 | 2.25 | 06 |
| 1273 | 987 | 1.35 |  |
| 2325 | 1983 | 1.25 |  |
| $1 \mathrm{~A}$ |  | $\begin{aligned} & .75 \\ & 1.10 \end{aligned}$ |  |


| $\begin{aligned} & 7 \mathrm{HN} \\ & 19 \\ & 124 \\ & 15 \\ & \text { is } \end{aligned}$ |  | Lift 2.85 2.85 1.26 |  |
| :---: | :---: | :---: | :---: |
| 2 | 810 | 28 | 1.08 |
| 22 | 811 | 1.75 | － |
| 24A | 5912 | 1.09 | 4 |
| 28 | 8813 | ． 7 |  |
| 27 | 1914 | 0 | －37 |
| 36 | 3818 | 1.0 | 7 |
| 31 | 818 | ＋ |  |
| 32 | 817 | 1.75 | ． 8 |
| 33 | 818 | 1.35 |  |
| 34 | 3818 | 1.75 | 3 |
| 35／51 | 888 | 1.18 |  |
| 35 | 85 | 1.18 | .6 |
| 37 | 1923 | － | ． 42 |
| 38 | 8923 | 1.25 | 8 |
| 39／44 | 8924 | 1.23 | 8 |
| 41 | P98\％ | 1.18 | \％ 1 |
| 42 | 3827 | 1.20 |  |
| 43 | 8928 | 1.40 | 8 |
| 45 | 1530 | ．90 | 2 |
| 49 | 93 | 1.5 | 70 |
| 47 | 832 | 1.50 | 70 |
| 48 | 3933 | 3.59 | .6 |
| $4{ }^{\text {4 }}$ | 1934 | 1.23 | 68 |

1.90
2.25
1.2
2.2
1.75
1.7
.8
1.6
1.7
1.3
1.7
1.1
1.2
1.2
1.10
1.2
1.4
1.2
1.5
3.5
2.5
1.7
1.5
1.2

The popriler KNIENT Bne of redio tuber has beer


| Tyen | M | Lhet | NET |
| :---: | :---: | :---: | :---: |
| 50 | 8938 | 2.50 | 1.17 |
| 53 | 血938 | 1.75 | .83 |
| 55 | R939 | 159 | ． 74 |
| 51 | B940 | 踼 | ． 37 |
| 57 | E941 | 1.25 | ． 68 |
| 58 | 8942 | 1.25 | ．58 |
| 89 | 8943 | 200 | .93 |
| 718 | 3944 | $\pm 0$ | .42 |
| 75 | P948 | 1.10 | ． 81 |
| 76 | 5946 | ． 6 | .37 |
| 77 | 8947 | 1.35 | ． 83 |
| 7 | 8948 | 1.20 | ． 68 |
| 7 | B949 | 1.50 | .70 |
| 0 | ＇9980 | ．70 | .32 |
| 81 | －951 | 2.28 | 1.08 |
| E | 8982 | 1.50 | ． 70 |
| 63 | 8983 | 1．60 | ． 75 |
| 4 | 3985 | 1.60 | .78 |
| 55 | 8988 | 1.20 | .88 |
| \％ | 8987 | 1．5］ | .70 |
| VN Xet | 89888 | 1.50 1.50 | $\begin{aligned} & .70 \\ & .70 \end{aligned}$ |

OCTAL BLASS TYPES

| Tye | Me． | Llet | MET |
| :---: | :---: | :---: | :---: |
| 1246 | －800 | \＄1．50 | B0．78 |
| 1C7e | 8801 | 2.25 | 8 |
| 1D5G | 8802 | 2.25 | 8 |
| 1076 | 803 | 1.75 |  |
| IES6 | 1864 | 2.25 |  |
| IE76 | 8805 | 2.75 | .42 |
| ｜F59 | 808 | 2.25 |  |
| $1 F 76$ | 8807 | 2.25 |  |
| 195G | 808 | 2.0 | ． 0 |
| 1H4C | 806 | 1.09 | － |
| IH6G | 816 | 1.75 | ． 92 |
| 1556 | 81 | 2.25 | 1.18 |
| 156 | 312 | 1.35 | .70 |
| 5148 | 3813 | 1.50 | 78 |
| $5{ }^{5} 4 \mathrm{E}$ | 814 | 2.35 | 1.22 |
| $5 \times 46$ | 8816 | 15 | ． 28 |
| 5736 | 881\％ | 1.00 |  |
| 5Y4G | 8818 | 1.00 | 2 |
| 6APG | 82 | （．90 |  |
| 684 | 2 | 2.0 | ． 03 |
| CBES |  | 1.73 |  |
| 6 C 56 | 8826 | 1.25 | ． 88 |
| 6c80 | 8 | 1.50 | .78 |
| 6F96 | 82 B | 1.25 | ． 88 |
| 6F66 | 829 | 1.35 | .76 |
| CHES | 88，${ }^{\text {a }}$ | 1.25 | －${ }^{\text {F }}$ |
| 6156 | 83 | 1.35 | －76 |
| 6178 | 1332 | 1.5 | .78 |
| EKSG | 8833 | 1.35 | .78 |
| 6K6日 | 83 | 1.35 | .78 |
| 6K76 | 83 | 1.35 | 0 |
| 6 656 | 883 | 2.25 | ． 18 |
| 6166 | 日837 | 2.50 |  |
| 6 6 70 | 日838 | 1.75 |  |
| $6{ }^{6} 5$ | 8839 | 2.25 | 1.18 |
| 6N76 | 841 | 1.75 |  |
| 6079 |  | 1.35 |  |
| 6R7e |  | 1.35 |  |
| 6876 | B940 | 2.25 | 8 |
| 6T76 | B848 | 2.25 | .18 |
| 6078 | 847 | 1.35 | 0 |
| SYGA | 48 | 1.75 | 2 |
| $6 V 76$ | 8848 | 1.35 | ． 70 |
| 6w5 | 8886 | 1.60 | ． 78 |
| 1）59 | 85 | 1.60 | 83 |
| 6 7 76 | 3852 | 1.50 | .78 |
| 25A66 | B8E5 | 1.59 | 8 |
| 25868 | 8857 | 1.75 | \％ |
| 25489 | 8858 | 2.25 | ． 18 |
| 2 z 6 | 3858 | 1.50 | .78 |

1
1
1
1
18
1
1

| Trou |  | Let | ${ }^{1} 16$ |
| :---: | :---: | :---: | :---: |
| 81 | 789 | 2.25 | 1.78 |
| 8 | 782 | 1.50 | 78 |
| 83 | 75 | 1.80 | 83 |
| 83V | 3754 | 2.25 | 18 |
| 54 | 78 | 1.60 | 3 |
| 5 | 75 | 1.2 | ． 62 |
| \％ | 7 | 1.5 | ． 78 |
| Ve9 | 758 | 1.30 |  |
| X | 76. | $1-9$ |  |
| 35 | 8788 | 2.25 | .18 |
|  | ITA | TP3 |  |
| Trio | 1 | Llat | NET |
| 024 | F880 | \＄1．50 | 0.78 |
| 514 | 1861 | 2.56 | 1．36 |
| $50 / 4$ | $88 \%$ | 1．0 | 2 |
| 524 | B863 | 2.0 | 3 |
| 6A8 | 888 | 1.50 | ． 78 |
| 688 | 8866 | 1.75 | ． 92 |
| 6C5 | 386 | 1.25 | ． 85 |
| $6 F 5$ | 3867 | 1.25 | .65 |
| $6 F 6$ | 8888 | 1.35 | .70 |
| ${ }_{6} \mathrm{H}^{6}$ | 8886 | 1.25 | ． 65 |
| 617 | 輛86 | 1.50 | .78 |
| $6 \times 7$ | 887 | 1.35 | .76 |
| 64 | 3872 | 2.25 | 1.18 |
| 8 EL 7 | 8873 | 1.75 | .92 |
| CN7 | 8874 | 1.75 | ． 92 |
| 697 | 8875 | 1.35 | .78 |
| 887 | 387 | 1.35 | .70 |
| GY\％ | 8877 | 1.75 | ． 92 |
| $6 \times 5$ | 8878 | 1.50 | 8 |
| 25A | 3879 | 1.50 |  |

## RECTIFIERS•SPECIAL TUBES•BULBS

KENRAD 6 E 12 VOLT LIGHT BULBS
G．E．licensed light bulbs of supe jor construction．Desiamed for stor age battery operated lighting systems Ideal for farms，camps．lodges．houke Fint naximum etfieiency and economy． ＊VoLT LAMPs

| Fatts | Drain | EACH |
| :---: | :---: | :---: |
| 15 | 2.5 A131］？ | 25 |
| 25 | 4．2 Ampl ${ }^{\text {a }}$ |  |
| 50 | 8.5 Ant ${ }^{\text {d }}$ | 35 c |
|  |  |  |
| 15 | 1．3Amp．？ | 256 |
| 25 | 2.1 Amp．${ }^{\text {a }}$ |  |
| 50 | 4.2 Snuy． | 356 |
| OR QUANTITY PRICESIN STAND． ON AND CASE LOTS．For a com－ of 6 Volt Light Plants and associ－ |  |  |
|  |  |  |
|  |  |  |
| Vent，ste pages 149， |  |  |
|  |  |  |
| needs an | shall sup |  |

## GENUINE G．E．

 TUNGAR BULBS

The well－known，highly efilicient G．E．Tungar Busbs．Esed in many standard chargers Win replace jectigon bubs of the same rating．Shut．
wf．g
jis．The finisersalig famous for efflefent ojuration and long life．




## NEW KNICRT

## RESISTANCE TUBES

New metal－shell hailast tubes fo replacemant in A．C．－D．C．sets．Iden－ tivilly the same in electrical char－ arterisils．and base connertions as ply renove old defective ballast inme Dhy renope olace with the proper Knight Fhalises tube Sturdily built for long ufe．Will glve proper performance．

| Stock No． | Type No． | Replemes |
| :---: | :---: | :---: |
| B1030 | 50.42 |  |
| B1031 | 50B4 | 50B2．KX49B， 16584. <br> $165 \mathrm{~KB}, \mathrm{~K} 49 \mathrm{X} .5 \mathrm{~B}$ |
| B1032 | K23C | K23C |
| 81033 | K19C | K19C |
| 31034 | K「5C | K5s5 |
| 81036 | K551 | K551T |
| 81036 | K74B | K743 |
| 81037 | K898 | K80\％ |
| 81038 | K゙！ | lions |
| 81039 | に！${ }^{\text {ar }}$ | Kart |
| 81040 | 1.4110 |  |
| 81041 | LA？C | ［A＊C，1，104 |
| 81042 | 1A9B | L491，2c＇16－294．69．2033 |
| 81046 | IA9 ${ }^{\text {L }}$ | E19CT，2VR－215， 8598 |
| 81044 | L5SC | 1， 5150 |
| 81045 | Ts5ic | 5ms 1 |
| 81047 | 14．5＊ | L55心2 |

[^1]
## GENUINE EVEREADY MAZDA BULBS

Genuine Eveready Mazia bulbs for radto and flashlight use．All have mitr tature serem hase excent those marked ${ }^{*}$ lteplare burned out bulbs with these Renuine Mazdas for gonger bulb life Theaper than foreign－made bulls in ity prices and buy them in lots of $w n$ RADIO PILOTEIGRT BULBS Steck

| Steck No． | Limp | Velts | Amps． | $\begin{aligned} & \text { PRICE } \\ & \text { EACH } \end{aligned}$ | $\begin{gathered} \text { PER } \\ 10 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 8125 | 41 | 2.5 | －60 | \＄0．09 | 50.54 |
| E1215 | $43^{*}$ | 2.5 | ． 50 | ． 10 | ． 59 |
| 81251 | 42 | 3.2 | ． 35 | .12 | ． 71 |
| 81253 | 40 | 6.3 | ． 15 | ． 09 | ． 54 |
| 81257 | 501 | 6－8 | ． 20 | －10 | ． 51 |
| B1216 | $51 *+$ | 6－8 | 1.0 | ． 07 | .41 |
| B1254 | Spec． | 2.0 | －06 | ． 20 | 1.18 |
| B1217 | Sper．＊ | 2.0 | ． 06 | －22 | 1.29 |
| 81255 | 44＊ | 6.3 | ． 25 | ． 09 | ． 54 |
| B1256 | 46 | 6.3 | 25 | ． 09 | ． 54 |

－indicates miniature bayonet base．
†Indieates small round bulb．
POR PLASELIGETS

## 



## GENERAL ELECTRIC NEON GLOW LAMPS



Genuine G．E．neon gas lamps．Useful in many test instruments nuch as Weston and to build shor abe tost $r$ and rakage testers．Wurpuses such as light sonuce for stroboscones，night Hights，etc．Both elec－
trotes slow on A．C．；only nesative glows on D．C．For 105 to 120 volt operation．Feature very low eurrent drain．
86454, MIDGET $1 / 4$ WATT．candelabrs tha diam．Split cone electrode．$\}$ net
B6457．MIDGET 1／4 WATT．Barnnet Rase． denser Tester．Tubular clear lub． 418 NE


E6452．MEDIUM $1 / 2$ WATT．Edison Rase． ．05 c．i＇a． 005 Amp．Round $14^{\prime \prime}$ dia．For A．
only．Spit cylnder electrode． NET Sith eynader electrode．

36c
B6451．MEDIUM I WATT Edison Base． elveriode．See right hand cut alsore． 368 B6450．MEDIUM 2 WATT．Edison Base． snlit－disc electrode．Pear shan． NET ．．．el．
B6453．MEDIUM 3 WATT．Edison Base． hound electrodes．An ideal night light Ex adlent for test panel．

54c
NET
We can supply any type of nean glow lamp made．If the type you need is not listed，send order with deposit or writo for prompt qua． tatlon．

## PORCELAIN SOCEETS

 For neon lamps．IIfgh－ struetion．Screw termi－ For Fdison and candela－


B6459．Edison Base．Cleat IOE nwouting type．NET EACH．．． B6460．Edison Base．Sub－panel I6E mounting．NET EACH ．．．．．．．．．．．．．．．
B6461．Candelabre Base．Sub－ 285

MALLORT BLAS CELL
Designed to furnish inltial bias for RF，IF Rnd AVC tubes．Sirw， onlyctive at audio frequencies． rides a no－current potential of Pides a no－current potential of in series for higher blas roltage． These cells sreatiy elifuluate dis． tortion caused by conventional bias arrangempnts．
811939
HEE EACH．．．．．．．．．．．．．．．


## DURESITE VOLTAGE．

 REGULATOR TUBESFherient type voluge control turate．Origina equipment on mans standard sets． BIOO4．TYPE IIO．For use Brunswick S14，S21，S31（60 cycle）， 14． 21,31 （ 25 cycle）． （emer．Tully 81． 82 （ 25 cycle）， 83. Grebe 21950，2inc．285， 450. Hammarlund $11 i \mathrm{C} 30$. National．
B1005．TYPE 105．For use with：
Branswick $14,21,31$（ 60 cycle）． \＆ Bremer－Tully 81 ， 82 （ 60 cycle）． List，$\$ 3.00$ ．NET EACH．

The ean supply ans Durecte made．Write to
firices or order tulpe desijed with demosit．


Here is ALLIED'S design for 1938 radio servicing. Because complex circuits, new engineering wrinkles, and intricate mechanisms have changed the nature of radio servicing, today's "Well-dressed Service Shop" must have complete, modern, professional equipment prepared to handle today's problems.

In the following pages, $A L L I E D$ offers radio's most comprehensive selection of everything you'll need to outfit a complete, modern service shop -to handle every service job. Make the ALLIED Catalog your Buying Guide-for better work, for satisfied customers, for maximum returns on your investment,

## SHOP YOUR ALLIED CATALOG FOR:

## SIGNAL GENERATOR

For accurate alimment of all radio sets, every ser vice shop needs a modern signal generator. ALLIED offers the nationally known Supreme. Clough-Brengle. Triplett, Readrite, and Ranger makes in models for either A.C. or battery operation. See these of pages $23-27,24-31$.

## CATHODE RAY OSCILLOSCOPE

For complete visual checking of any raclio receiver ineluding alignment, distortion, selectirity, ete. Indispensable for checking niodern all-wate, high-fidelity rereivers. Turn to pages $23-26,31$ for descriptions and illustrations of new Supreme, Clough-Brengle, Triplett and R.C.A. models

## SERVICE ANALYZER

For quick. precise measitrements of voltages, current. and resistance. a modern Service Andyzer is a neressity. One of these modern instruments does the work of several separate meters. Dewest Weston, Triplett. Supreme, Clough-Brengle, and Readrite models are shown on pages $23-26,28,30$.

## MODERN TUBE CHECKER

To accommodate all tube types-including newest metal, octal, and glass tubes as well as older types-a modern tube checker must be used. These ncw ingtruments uill text every tule now in use-acourately, efficiently, convenienty. ALLIED lists it very full line including Triblett, Supreme. Million. Dependable. Weston, Readrite, RTL, and Ranger models. Dependable. 23 eston, Reartri

## CONDENSER ANALYZER

Measure all condensers for enpacity, leakage, shorts, and power factor with an up-to-diste instrument which is thoromghly accurate. Triplett, Tobe and Solar mosiels are featured on

Uimost convenience and safety in radio servicing are assured by the new Chassis Cradle shown on page 111. Holds anymorlel or size radio or amplifier chassis in any position. Prevents damage to parts in set, and leaves loth hands free for work.

## COMPLETE TOOL EQUIPMENT

Every radio tool you need--soldering irons, pliers, serewdrivers, wrenches, hackisaws. circle-tutters, aligning tools. drills. and combination kits in the leading brands are listed at the lowest prices. Turn to pages $110-113$ for complete descriptions.

## SERVICE BOOKS

A complete service library can be built up from the extemsive selection in this catalog. Vervice manuals such as Rider's wit Gerasback's, books on theory such as Ghirardis. (roubleshooters' handbooks and "csclopedith are offered to meet every reference need. Books on Radio Fngineering, Sound. Televisioú, and Refrigeration are also included. See pages 36-37, 139.

## BASIC PARTS STOCK

Every sertice shop should regularly stock an assortment of tubes, resistors, condensers, volume controls, and ot her replarement farts which are used on practically all service johs. ALLIED'S listiag of replacement parts is the most comnlete sou've ever seen. All quality bratuls are incluted, and listings cover all types and ratings. Refer to pages $17-21,40-68$, etc.

## YOUR ALLIED CATALOG

Therc's one servicing lelpurneanil lowithout. Vour ALLIED Catalog is a true radio index, a reference book, a buyirg euide -all in one. Keep it handy on sour service beuch-unhe it your one dependable, money-saving source for all radio supplic*-


## NEW 502

 RADIO TESTER- New Floating Fliament Return.
- Tapped Line Voltage Selector.
" "Good-Bad" Tube Test Scale.
- Five Ohmmeter Ranges.
- Makes Condenser Leakage Tests.
- Four Voltage Ranges AC or DC.
A "Supreme", aehieyement in modern tube tester desifn. Fermits fast.
 inesent or future, jegardies of tilarnent connection locations Only six burbets are refuired to bandle all lulie wpes. Direct-rtadin" "(bood-ladi" sarale ror tube tests is also usper for electrolytic condenser leakage rests. Neon bub provides chech on therrostatic condenser leakape. Nuw suaze meter with 1 M.A. movement (1100 ohnts ther rolt) has nine scate ranges
 Las mid-spale reading of 3.5 ohms. All niter kcales are evenbs spaced. This new mbe testro has liren desimed to sheed un sour work. elther
in the shon or on surice calls. Trists are inade while rube is loot. thus in the shon or on sricice calls. Tests are made white rube is loot. thus
 fion: revulres a mintmurn of contiols ior earlh test, l'anel selector switch corrents line vohaze variatienk. External eireuit lests using muitimeter

 plete tube charts and instructions.
For 115 withs $50-60$ cycles. Wt., 16 lbs.
NET CASH PRICE
s4895
S.I.C. TIME PAYMENTS: $\$ 5.50$ down, $\$ 4.95$ monthly for 10 months.


## MODEL 501 TUBE TESTER

This new instriment uses the sane adranced tube checking system used in the loflel 502 described above, but contains no set testing ranges. Employs the new foatink filament return system: tests erery tube now BIO267. NET CASH PRICE....
$\$ 36.21$
S.I.C. TIME PAYMENTS: \$1.00 down. $\$ 3.66$ monthly for 10 menths.


## 529 FREQUENCY MODULATOR

A nexry dereloped unit for use in wis. ual alignment work. May be used with any simal menerator having frewuency momulater Jiput terminals, expecially the
sumeme Mruin 570 (IIsted on lare 24 .
 B1025(i). Will frequency minduater the carrior of the R.F. Signal Geberator al-
inwing
the ontput to be used with an osillospole for sivual alignnust of siet under test. Conpletely electrical in opWhich to fixpt-tuned to cong KiC. "sing an inon-core inductor. litr qupury nutudadion the arrolizh with band width controllable as desired by the opwritor. Onl, two lanel controls, one for adjustment of hand
 Xtodel 5en provides an accurate, casily-0, wrated means of prowlucing perfect aliznime joth. In attractive word rase with

\$2151 S.I.C. TIME PAYMENTS: $\$ 4.00$ down and $\$ 4.00$ monthly for 5 months.


## 505 STANDARD TUBE TESTER

Ifere of a hish quality tube tester which romblnes low cost with maxi num flexihility and accuracy. Completrly tests all metal of slass tubes in 6 sockets mithout adabiters All tubes tested undet IBMA rated loads. Nits Sinmeme Quadrimeter with Bi-indicating needlesi is indi
rectly illuminated throush dual Vhew windows. Top meter scale has
three sectors. "Goorl" "s." "1had" three sectors. "Goorl" "as" "Had"
for gualnty test to indiuste emuls for miality test to indisate emission lass: hottom scale disfutd into checks between tubes of sinilar irpes. Butlt-in power sumply has comacruratels faltre voltages.

 from bad. Tents all sections of multi-phrmse tubes and both plates of from bad. Tehts all secticns of multi-purgmsermbes and both blates of
 28-125 Volt. 00 cycle A.C.
B 10259 . NET CASH PRICE

SIC. TIME PAYMENTS : $\$ 5.25$ down and $\$ 4.75$ monthly for 10 months

## 535 2" $^{\prime \prime}$ CATHODE-RAY

 OSCILLOSCOPE- New Two-inch CathodeRay Tube.
- New Snap-lock Synchro nizer.
- Calibrated Amplifier Controls.
- Exclusive Screen Hood
- Flexlble Control Func tions.

new. conipact oseillosmen with the exclustre new twe harth wrepa cathode tay tube Merts ever refuirement of fikial alignuent work inlortant features. Liss a new $z^{\prime \prime}$ scren cathode-tay tube which has four times the usable image surface of the $1^{n}$ tule. Return sweep eliminator subpreswes hish frequencs linear sweep remurn. Has selectire return swees elininator for inclusion or rejection of nower supply frequency retuin streth; snap-lock shehronizer for iosilite interloek of linear oscillator wfth Infut ishal. New Uni-Control prenit's separate contiol of two circuits with only one shaft. Sinnulifying operation.


## INCLUDES BUILT-IN AMPLIPIERS

Lincar owillator with remine pontrol has keren renges eofering 15 to


 per theh deflection Ilas buit-in firosisions for either external or intelnal shehronizing. Model $5: 5$ is a connlete. fexible unit with a minimum of contross for simplicity and ease of oberation. Ciruits are combletely nrotected by hikh-sperd fuses; has on-off suititi equiuped wilh indicating



s4
S.I.C. TIME PAYMENTS: $\$ 5.50$ down, $\$ 4.95$ monthly for 10 months.

## $5302^{\prime \prime}$ CATHODE-RAY OSCILLOSCOPE

A new inexpensiwe we escellencope similar to the Model 535 described hase oscillator. Particularls smitable for use in all Amatene stations for checkink modulation, audio distontion. cte. Wees three tubes: ? cas liode-
 tions.
BIO266. NET CASH PRICE
$\$ 29.35$
S.I.C. TIME PAYMENTS: $\$ 4.00$ down. $\$ 4.13$ monthly for 7 months.

## MODEL 551 ANALYZER

The new strulel 551 anatyzer permite last and accurate checking of atl radio
circuits through the use of suprenc's excluspe "Free Reterence Joint sisterit of Analysiv." All resistance, voltaze. ond current measuretnuents may be taken intresti any two tulse elemurts or betwern ans tuber element and wround or clansis without remming the receiter from to cubinet. All matimeter rankes

 ards of breernon hy anting volts. D.C.
 1400 volts A.C.: $0-7-25-140$ milliamperes D.C. $0-7-140-350-1400$ volts
 tained, With 1 ohm as first indication and 3.5 ohins as center scale on 1 the
low range. FGr use on 110 volta. $6 \|$ creles only. Housed in an oak carry inz case. Connlete with all leads, catiles. adapters and full merating inata. CASH PRICE
BIO268. NET for 10 menths

## MODEL 541 MULTIMETER

The new sutheme 3rodfl 541 set Tenter is one of the most effecient multi. has been carefully desiened to protide fast, accurate reatlings; its 20 ranges and functions are at your finser tip. on a single selector switch, Four D.C. foltage ranges are proticled: 0-7-140:
$350-1400$ rotts at 1 pot ohms per rolt; four A.C roltaze rantes of $0-7-100-3519$
 14 iff, thite 1 Ce milliamprere rances of


 negohms All rexistance medsurements are mate with a self-contained
 A.C. orify. Complete with test leads and fult operatBI O269. NET CASH PRICE
orths.

#  



## SUPREME 585 <br> DE LUXE DIAGNOMETER

- A Complete Portable Laboratory.
- Double - view Illuminated Meters.
- Full Analysis of Every Circult.
Tube Tests on "GoodBad" Scale.
- Forty-two Multimeter Ranges.
-5 Decibel Ranges - 10 to +46 DB.
A truly adrenced professional service test instrument. Makes gulck and accurate checks of all circuits and components: also tests extry type of metal or glass lube. All measurements of reshstance, roltage, current, capacity, power level, ete, as prell as ruhe and condenser tess s, are read These new Quadrimeters, exchnswe with sujreme Instruments, have biindicating needles and illunimated double-riew wintows tor tast accurate reacings. All tube tests and electrolytic condenser leakige tests are made with direct-reading "Goud-9-1ad" scales.


## FORTY-TWO FUNCTIONS AND RANGES

or D.C. volts, or D.C. M.A.; $0-14$ D.C. amperes: $0-200-2000-20,000$
 $0 \mathrm{to}+16,+10$ to $+26,+2050+36_{\mathrm{r}}+30$ to +46 D B. A.C. and ca pacity ranges sre read from evenly, spared scales for accuracy. The Model 585 incorporates Supreme's exclusive tree Reference point Analrsis system that checks every circuit. New balance ratio tube-testing circhit
accurately indicates tube deprectation: tests for opens, leakage, and irter-clement shots. ITnisedin an oak-finished camming case with re movable cover; size 2o3isxisx-" orerall. With all 51 surtions and accessories. For 110 volts. 50
BlO250. NET CASH PRICE
s9500 S. I. C. TIME PAYMENTS: $\$ 10.00$ down, $\$ 8.00$ monthly for 12 months.


## 570 SIGNAL GENERATOR

An All-Ware signal Generator cos ering from 20 KiC to 60 M. C. Fin
damentals corer 90 K.C. to 20 B.C. hammonies cover 20 M.C. to 60 M. © Has directly calibrated airjlane dial Unusial stability is affordect by use of elect ron-coupled oscillator and complete circuit stieldinz; not aftectech by varying load or lime vollage. Irosides modulated or un-modulated sin-
nal: tip-jacks furnish for C. $\mathbf{1}^{\prime}$. nal: tip-jacks furnish for C. $]^{\prime}$ S.
audio stmal for test puthoses. Has profisions for use with an external frequthey modulator it desired for $400 \mathrm{C} . \mathrm{I}^{2} . \mathrm{S}$. is obtained from built-in modulator. K . $F$. outpus may be smoothir controlled by means of laddir-tyje aitenuator. Complete with of carrying case is $101 / 2 \times 816 \times 5 "$. For 110 volts
50 - 60 cyeles. Q 10256 . NET CASH PRICE.
S. I. C. TIME PAYMENTS: $\$ 4.00$ down, $\$ 3.90$ monthly for 8 months.

## MODEL 580 SIGNAL GENERATOR

Has all the features of the Mordel $5 i 0$ with additional functinns neressary for precisson test work. R.F. outjut may be electronically fre-quency-modulated at a constant band-width of 24 K . C. Huiti-is beatR.F. carler may be used unmodnlated, freducner modnated or anisil. tude-motwlated $30 \%$ ot $40 n$ C.P.S. by a built-in atidio osciliator which
 BlO252. NET CASH PRICE
S. 1. C. TIME PAYMENTS: $\$ 6.00$ down, $\$ 5.41$ monthly for 10 months


510 FOUNDATION KIT
A modern volt-ohm-milliammeter in complete hit form. Easliy simbled and Indlsipensable to the Serricoman. Experimenter or Amateitr. The neg sumeme Quadrimeter incladed employs a bi-indicating or wouble-pointer. Easy-to-read
$3{ }^{3}$ " scales are eleatly mathed: A.C. voltapes are real on evenly-5jaced scales for greatest convenience. Srond-point newolles permit accurate refiting even in poor llaht: scales mas he illaminated by dial lights if desired. This new and exclusively designed meter meastues $5 \frac{1}{4} x$ attractire bakelite.

## TWENTY-SEVEN RANGES

The complete kit contains all parts nectesury for the following ranges $0.9000-20000-900000$ ohms ac rences mas be used for output meas urements. Kit consisis of: A-CECV NUPRFME QLiADRIMPTVI meas. meter adjustment tisistor. 9-metallized resistors for moltage and feniat -




- Tests All Condensers.

This new Supreme test instrument is a combination set analyzer and point-to-point tester, Provides complete circuit analysis of reststance. voltage and current as well as tube tests directly from tube sockets in stz All meter ranges are applied through the analyzer cable making it un-
necessary to remore the elassis from the cabinet. Aleter ranges are:


 condensers reads afrectly on meter dial makes. Lectrostatice of electrolytic anl electroltc condersy on merer daat, makes plectrosiatic lcikage list preme s famous Free heference point method of analy is enabies complete plete with text prols, cable and pluss. adapters.
rharts, and complete instuctions. For 110 Yots, $51 / 60$ cycie A.C.
S. J. C. TIME PAYMENTS: $\$ 6.00$ down. $\$ 5.55$ monthly for ten months.

## MODEL 540 STANDARD ANALTZER

Similar in apnearance and perfoinance to the Model 550 , hit does not include its thbe testing circuits or jonwer level scales. Has 24 ranges and functions. A truly Deluxe liadio Tester. B10255. NET CASH PRICE
S.I.C. TIME PAYMENTS: $\$ 4.00$ down, $\$ 3.66$ monthly for 10 months.

## SUPREME 555 DIAGNOMOSCOPE

A comhination of the 545 Cathoray Oscilloscove and 580 simal Generutor. Provides fundamenharnionies to 60 M.C. K.C. $F$. outmit may be used unmodulated, or 3 n\% modulated at for cycles. Has brilt-in provistons 10 r cither frequrncy or amplitude-modulation of casijer for May be used for arcurate measurements of tooth" oscillaror has range of 7 to 20.000 C.P.S.
 horlzontal and vertical anmlifiers have range of 20 to 90,000 C.P.S. Has individual controls for Signal Gemerator and Oscilloscope so that either may be used separately if clesired. The siodel 5.55 biapmomoscope is an ideal instrument for the "un-to-then minate"s service shop. Its complete ficxibility of operation and nubleons functions permit "reak" aligntment or rital to the operation of moriern receivers. as well as accurate analysis of andio sseferns or other elrouts. Completely housed in metal cabinet $16 x 24 x^{2} 4^{\prime \prime}$ overall. Complete nith a!l thes,
and ovrating charts and instructions. For
110 volts. $50-60$ cres. B 10253 N NET CASH PRICE

## 545 CATEORAY OSCILLOSCOPF

A visual servicing instrument of unusual value. an absolite necessity In the nodern sersice shop. The 545 Cathoray Ogcilloscone is similar in desion. apprarance. and ojeration to the 555 Diaknomoscope descritred athire but does not have the buifl-in signal keherator. Silphled whin complete set of It.C.A. 14 bes and alt necessary operating in tuuctions
Howned in sturdy steel case. For operation on 110 BIOZSI. NET CASH PRICE.
1028 TIME PAYMENTS SIO.D0

## 500 AUTOMATIC TUBE TESTER

Designed to meet every requirement of present day tube testing. Tests all types of metal or glass denvers atid provides a multi-pur pose meter for adalitional circuit aralysis. Meter tanstes available sre: 0-7-140-70-1+40 volts AC. and D.C. $0-7-140-700-1400$ MA.

 +10 and -10 to +26 DB . Tube sre tested for quality under rated operating conditions; Entlish-reading meler stale realls "Gond." "p" or "Bad." Six sockett test all tubes by means of exclusive flament retum selector sulith. Neon test for in-
ternal leakage; aiso checks leakare of electrolytic condensers. Sultierinal leakage: aiso checks leakage of electrolytic condensers. Sulti-
meter ranges may be used for Fiee Reference Point Analysis by nieans meter rangex may he used for Free Reterence point analysis by nifans
 docessary accessorles. instructions and tube charts.
BI 0260 . NET CASH PRIC

# Modern TEST <br> EQUIPMENT 

CLOUGH-BRENGLE INSTRUMENTS

## CRA OSCILLOGRAPH


checkin of instrument or vis it a boms of roltage and current protb find it invathablat for motanarenteats of voltage modulation perceritaje. audio Mastortion, etc. Wher used with the Model OM-A. or 110 and 111. 1roo Fides artual selrctivity hrawlentits at ail R.F. and lif. rembenetes. horsemsitinity of 38 IR amblis rolts haty a of deflection. Horizoutal volts wer inech sujustable from 1210 20,401) rati is Joused in a mark ristalline-fimishmed
 suruen alld all newessary tuhps. fien 110 V .60 cyele A.C. Shje. Wt. 41 jbs BiO37I.
NETM PRICE $\ldots \ldots .$.
CASH
TIME PAYAENTS: $\$ 9.00$ down 58.05 mon

## thly for 10 mont

## 105 OSCILLOGRAPH


 ceivels. and the study of all radio fircuits. lias a howt of nther alpulirations. larorrmorates spparate tectital and hurizomtal swerd amplit.
 30,000 C. Ps. Inyut sumitivity is 68 KMS so cicle it C. Wt. 18 los. Size. $8{ }^{\circ} \mathrm{K}^{2}$ bigh $81 / 2 x^{148}$
810370 BI0370. Complete with

- 182 NET CASH PRICE
TIME PAYHENTS: $\$ 5.50$ down, $\$ 5.05$ manthly for 10 months.



## ALL.WAVE SIGNAL-GENERATOR MODEL OC-A

Provides copty Intermedinte hroadrast and short-wate fitatula's inr practically any alsentiment pirimese. Yise hants covir all Treduencies iront 160 ki to gu megacycles: rype dial has per band scale length of iss" Output is continuously variable from a min.
 may be switched off. 400 crcle simnal also available for audio tusts. Uses $1-6 \mathrm{CJ}, \mathrm{I}-6 \mathrm{N7}$ and $1-51$ tubes, For 110 v .60 cycle A.C. opera lion Housed in ruggen, durable metal case. with
hack crackle finish. Complefewith tubes. WI. II Ibs
Bio 372 . NET CASH PRICE. .......... TIME PAYMENTS: $\$ 3.50$ down, $\$ 4.32$ monthly for 7 months. MODEE OH-A

 B10373.
NET CASH PRICE
$\$ 63.21$
TIME PAYMENTS: $\$ 7.00$ down. $\$ 5.56$ monthly for 10 noonths.

## 110 SICNAL GENERATOR

## at Dreviou-ly ata ilable

enfures: 5 lant afr trimmer on each band: adjustable Jit ron cores; push-pull audio modulation: many other feetnres. Complete with 3 tubes, cable

Bl0374. GASH PRIGE
TIME PAYMENTS: $\$ 5.00$ down, $\$ 4.40$ monthly for 10 months.

## MODEL III FREQUENCY MODULATOR

For une with ally signd generator in rolljnition with an oselloscope. hanel control. Next vircuit filiens out objectionable latimonies of modut lator fundamental ( 1650 Kと


TIME PAYMENTS: $\frac{54.50 \text { oown, } 53.66 \text { monthly for to months. }}{120 \text { SUPER AIMALYZER }}$ 20,0e0 OHMS PER VOLT
Spurially dexigted io that thw those uned Toltartes tray be read at anproximately of scale. at the thent of griatost metert acyutranges, $0-3.5-\bar{x}-35-140-3,51+1410$ volts. A.C..

 $-14 \mathrm{ta}+6 \mathrm{Db}$. with nulitiniers for +6 . $+26+32+40$. and +55 [) ${ }^{2}$. In metial


## WESTON TEST INSTRUMENTS

## SUPER-SENSITIVE ANALYZER

 MODEL 772-2eoes OHMS PER VOLTJlas 41 mulutarale meter with $1+0$ division sraje and sensitire D'sonval notomarnt hnife. elfre pointer. Ideal for checking all tylus of
radio sets and tranumilners: has hish setiaitinity tor alalymis of pelposion eircuits. limmorntes the followitug ranges: $0 \cdot 2.5-1 \mathrm{it}-50-251$-1mou volts.
 ohms luer solt: $0-50-1 \mathrm{fij}$ micro-a mperes 1).C.
 ohmis: 0-3-30 mezohms. Hiah range olimuseter may be used for condenser lealiage tests. Housial in sturdy tahricoid carryimy tracme etched has's tanle 8immed in red and thmome. E10350. NET.

## ${ }^{5} 52^{13}$



## MODEL 773-1 PORTABLE TUBE CHECKER

Carefully desimned to presithe dejnidable accutary. With opelating shmpleity, Terting chenith wilt handle all metal and glass true tubes BAD. Hanel sorkets. Tinhly sprimitive Whiton meter gives Goobtariable line ronitrof, heon siont anfl leakase test, and aumble noise


## MODEL 773-2 COUNTER TUBE CHECKER <br> BI0352. The same electher as the Tis.1. hat bunstil in a hand

 tator-tble tuhe chartNET
$\$ 58.13$

## MODEL 775 COMBINATION SERVICE SET

The Dloklel 775 Serinet combines the Model 74 Tube clueker and the Morled $: 72$ Super-sensicive Analyzel. Sturdily baitt work cane with ample carrying suace for tomis and accesories. Contains all the tent is an invaluable vales aid
$\$ 104.25$

## WESTON CHECKMASTER

## MODEL 771-2

A comulete thise and circult analyzer. Checks all tereiver tubes; measures receirer ircuit roltagen; locates condenser leakage. exparate tests for dionle tyre tubes; check for shorts under actual oproting conditions duich leading, eaxily understandable scale reacls "Gord-1baci" for tube texts, also reads $0-10-100-1000$ volts and $0-2.0009 .100$ ohms. In attactive racring case. Whe li lbs.
i-or 110 volt. 60 cycle A.C. One of the fines all- milisher testers made. Attractivelyprimed to bunk it within the reach of every ritilo serviceman.
810354
53513


WRITE FOR DETAILS OF OUR TIME
WRITE FOR DETAILS OF OUR TIME PAYMENT PLAN. EARN

## NEW DEPENDABLE TUBE TESTER

MODEL 306
A new inexpensine tukn tesiter desizned to completely check twer tipe of tulk in use torlay, includiny all the new octa ubes. Has complete flexibility; is pro fected against oimolucence lis free
insurance polis? with fach tester darance polir?
mapters remuined.
athode iectitien is trited. Tests rolis dition is ircibrated on colorid "CovD
 aze tiv checked his neon tube alid muter til ements are hot-checkeri for shorts and leakage by weon buly sensl-



## COUNTER MODEL

## GT FORM

BI0356. 306 KC . All parts, cluding case and panel fo
 PRICE

COMPLETELY WIRED
A10357, 306C. Completely ssembled and wired Counter rubs Tester. As ilhestrated. in attractive cas e 9 "xl2"x5". A and sales stimulator. Shng. Wi lbs.
$\$ 21.51$

## PORTAELE MODEL

## KIT FORM

B10358. 306 KP. All parts, with hinged cover, for building 306 Tester
NET
$\$ 19.55$
COMPLETELY WIRED BIO359. 306P. Completely assembled and wir od Portable Tube Tester. The cover of this tester is removable for counter use. A taseful double-purpose instrument

# Fontioi De Luxe IEST EQUIPMENT 

## DE LUXE TEST INSTRUMENTS



## MODEL 1601 DE LUXE

 SET TESTERz500e OEMS PER VOLT
A modern, hish quality tester for the up-to-date serviceman provides acrurate rabid tinalssis of every ctr time renulred. Measures $10-50-250$ 500. $10010-2000$ rolts, A.C. and D.C D.C. sensitirity is 25000 ohms Der volt; A.c is 11100 ohms per volt. D.
current: $0-250$ microamperes: $0.1-10=$ current: $0-250$ microamperes:
$50-250-500$ MA: $0-1-2-20$ amp Ite sistanace: $0-500-20.000-200.000$ ohms and $0-2-2 n$ megohms All meter
scale ranges are available for extermal circuit measurements by means of panel tip-jacks. Condener tester checks catiacities from 001 to 30 mith. Cahbration is easily checked by line voltaze control and separate shadow Grabh meter. All ranges are easily read on large illuminated dial scale.
Fret'-I Point Tester cherst all metal and tlass tube eireuits, panel has ailrer finish with etched black lettering. Housed in sturdy black lealherette case with remosable onver. Built-in tool compartment. Size,


## 直N MEFALCSE

B9962. The Model 1601 tester is also available in a black wrinkletimsthed metal case with leatherette unalle.
$\$ 44.42$

## LABORATORY TEST PANELS

A new idea in attractively matched combination wetice test units that
 prinkical. Any Triplett Master or De Luxe Lime sorvice instmment aman be mounted on them. Three tine conibinations of new Triplett De $\mathbf{~ d i d e}$ be mounted on them. Three time contbinations of new Triplett De lase shown below. Other equally aturactlye conbinations may easly be made up. A continuous panel witup may be obtained by boling raljinets together. iTesters built into the panels below cannot be remored for
 bottom. Cabinets have liandy accessory drawer

## 

This test panel consists of a combination of has Lodel 1690 Osrilloscone end the Model These two Instruments form a cumplete seplap for the visual siudy and atjustment of all sadio and tube circuit problems. Tie eathode-ray and tube circuit problems. Tise cathode-ray adjusted to place the screen in direct alignment with yuur line of vision. The Sigmal Generator covers trom 100 F C to 30 MiC in six ranges. Frequency modulation is continunusiy rariable from 5 ciclea to to kC. Signal Generator can be used unmodulated or with either 404 C.F.S. infermel modulation or external modulation. An inralusble instrument group for the serviceMan who repairs nodern High-Fidelity and Allbelow. B9971. Your price
\$10714

## MODEL 1494

This unit combines the Model 1210-A Tube Tester, Model 1232 All-Wave Hiknal Generato for 110 volt AC operation, the Model 1200-A and the Joodel 1209-D Munti-lsancibed below) and the Model 1209-D Mult-1ange DC Folt Ohm-Milliammeter (described below), al mounted on one test panel. With inis pauib mant you are prepared to make the majority of the Generator covers fiom average ratio repalis modulated or unnodulated. Tube to all tubus now in use witl. Tube tester cliecks thas, Tube condition is indicated on future "Good-Bad" scale. Ineindes a complete test or mionts and leakaze. Comple with 89973 , less lamp.

S $5=12$


## MODEL 1690 DE LUXE 2" OSCILLOSCOPE



Meets evers requirement of the Sersice or commanications endineer for the wual study and adsustment of all radlo circuit Droblems. The cscilloscope incorporates
 lorizomal and vertical amylifiers. 1 th to welf-contained
20,000 cyrles.
Either
interna!, externa! ur to cycle sweep may we usel. All con trols are on the panel; gbsolutely no inused has an efpective screen area four impes that of the one inch tube usually used. Turtet-tylue mounting allows addustment of screen to ditect alignment with uner sine of whions Edjustable shleld. Provides acrurate visual analyis of R.F.. l.F., and Audio systems, thereby permiting peat aligament for maximum sensity its: splectivity. and tone nualty. Will shorten the time rentived for completely servicing modera all-wave sets. Tubes used are: $25 z 5$, 6at , 6C6,

 YOUR 8 PRICE
s 4998
5N METAAL CASE
B9964. Model $1600^{2 *}$ ( oscilloscore mounted in a black wriakiefinished case with leather handle. NET
$\$ 46.06$


## MODEL 1630 DE LUXE TRIPLE-SHIELDED OSCILLATOR

An outstanding signal generator for extreme accurats. Coner 100 KC to 303 st in six ranges, Answers every relulrement of wide frequency range oscilitior. Arusually larse direct-reading calithrated dial has total scale leneth of $52 \%$. Each coll indlyldually calitrated and tracked for linearity orer the entite range. This generator hias zero leskase with riple shielding where necessary to eliminat ale posisustor of controts the output from zero o maximum. Ruspedly buitt to withstand the wear and tear of constant ervice. Internal construction is as rikid as possible to eliminate amy chauses In calibration. Furnivhed in case sinitar to that of Model 1601. Panel is etched in black on attractive silver bachiground. For use on 116 volts 60 cycles. A.C.
B9965. YouR PRICE...........

## HN METAL CASE

89966. Model 16300 is aliso available in a black wrinkle-finished metal Case with leather handle.
NET
$\$ 44.10$

## MODEL 1631

Same as Model 1830. but in additinn incorporates electronle frequency modulation. Frequency modulation is continuously variable fron rerles 1040 KC . Supplifes 400 C.P.S. modulated or unmodtulated slemal.
 B9968. MODEL I631 IN METAL CASE. In black getal case tith leather hande.
minkle finishen NET
$\$ 53.90$

## MODEL 1403

This combination is esirecially desianed for the vervice show where the mote elablorate wretup of the other thanels is not rejuited. Consists of the Martel 1630 Sigosi Generator, the Model 1949-A Mult1-range AC Voltmeter, and the Model With these instruments the skilled service ent. gineer ran easily handle all repriir work. The
 of 1 form rom 10 KC to 30 NlC All frequcncies internally or externally modulated. A 400 evele udto ext note niay be obiained from slecial 89972 Le
YOUR PBICE

## MODEL 1209-D VOLT-OFIM-MILLIAMMETER

An Ideal unit for the service bench. The $5^{\prime \prime}$ meter has extra lon scales. nuaking it easy to read even at a considerable distance. An aluminum mecdle type pointer allows extreme accuracy of regdings. The
 homs per tolt: 0-1-10-50-250 MA; and $6-500-100,000-1,000,000$ olims Conplete with leads.
$\mathbf{8 9 9 7 4}$. YOUR PRICE
$\$ 19.60$

## MODEL 1209-A AC VOLTMETER

This AC boltmeter is an extremety ureful unit for all-round tadid
 $0 \cdot 16-50-250-509-1000$ solts. The $5^{\prime \prime}$ metet has an umutually long acale with large numerals. Complete with leads.
B9975. YOUR PRICE
+15 5

## CABINETS ONLY

The convenient and practiral Triplett Tent ianel Cabinets are alsn avatable separately without insiminents. Two or more may be bolter steel with black wijnkie finish. A handy diawer is movided in cart
 B9976. MODEL 1402 RACK ONLY. YOUR PRICE. EACH B9977. MODEL 1403 RACK ONLY.
89978. MODEL 1404 RACK ONLY.
$\$ 9.80$

## 

89979 . This handy rianimon light was esperlally resikued for flitimimating the Triplett pancls. hut may be used answhere. Easily fastent NET


1200-A VOLT-OHMMILLIAMMETER 2000 OHMS PER VOLT
A rompaet universal A.C.-D.C Volt-ohm Millansmeter with many Hew inatures. Twith meters in simbic rase have separate A.C. and D.C.
movements.
D. meter reads: $50-250-500-1000$ volts at 20140 ohnt ier vol! $0-1-10-50-200$ M. A. $0-1500$ diusx-1.5 Hitg. -3 meg. Mas addisional "bachup" low olum scale of $\cdot 5$-51t ohnrs witl 15 ohm conter seate reat-sumi-10ict volts. Meter may be tilled and trall at any anglt: all voltape sules are dirext-rwadin: olinmeter swith for rapid ourration. Switeh contact error i
 black backiound Betal wise. $\mathrm{Ft}, 10 \mathrm{lus}$. B904I. List, $\$ 35.75$.
s2335

MODEL $1200-$ B-2000 OHMS PER VOLT

 B9942. List. $\$ 44.06$. NET.
$\$ 28.74$

## MODEL I $200-6-5000$ OFMS PER VOLT

 same as the somel 1 enm-A exectil that meter has sensiturity of 5000 olums wer rolt on DC boltazes. suritable for cheching all cicuits, int

## MODEL $1200-E-25000$ OETS PER VOLT

Similar in ampalane and design to Moudel loulas. but the D.C. meter has a rircuitt resistance of 25,160 ohms jer volt. a wiwater sensitivity than Waso has 0 ôll mieroampere scale. B9944. List. $\$+6.75$. NET..
$\$ 30.55$


## TUBE TESTER MODEL I210-A

Tests all types of tulbes. metal as well as glasi. Enission type desing with four tokekets tor making all tests. Meads "GuOD" ant "B.D. directly an aiza theh D'Arwonal meter scale.
Indicates short and leakage tests diIndicates short and leakage tests directly on meter. A line mitage reau-
lator is huitt-in. Simple to use; tests all tubes quickly and accurately slope Operates on 100 inf wolts. 60 crole currem. In nom
 89945 .
List, $\$ 33.00$ NET.
$\$ 2156$ E9958, WOOEL 131 COUWTER TYEE TUBE TESTER. SMme hatal tubte charts and slon-long pancl. NET.........
$\$ 26.63$


## FREE-POINT TESTER

## MODEL 1220-A

Fine use with the Moded I340 Master Folt-Ohn Millianmetets, Makes fropwr roltage tesis between any pube elements. current tevis in suriss with any tube element. and resistance tests betwen any tube - boment or socket contacts. Pancl contains $4.5,6$. combination 7 prong, amid 8 octal son kets. Fifthteen jacks permit invertion of meter leats for all lexts


## ALL-WAVE SIGNAL GENERATORS

## MOBTI 1232

A stable, accurate, direct-reading All-Wave Signal Generator of niw desigh and stirdy construction. liarge tremely tine dial-scale jermits ex on each of the six fundamental ifeulsencs hamds: ralibratad from 100 to 31. (H00 K.C. Anthlitude-modulated
 oncillator. The cmils are all Inditidtually shitlded and placed to rembire the short tst lussible leadis. All Mrid leaks aru carefully shitided. The aratiater attenuator is perfertly manth and clesigned for une with A.V.C. circuits returing a law sig-
 nat is available for extermal tosts throuzh pathel tin jackis. Every and. tanced detall of modern curincering practice has been folloned in the conktrurtion of thls minhal gemprator. All parts are of the lifthest quality, hardest type of service nimeter all rimathe conditions. Mounted in hand-
 with sthtelded lead. Fol 110 cole gio eyclo A.C.
89949 LIst $\$ 41.25$.
YOUR NET PRICE
s2695

## MODEL 1231 SIGNAL GENERATOR

Sume as Model 1gas above, bitt tenigned tor localities where 110 volt A.C. is mot avalahte. Fintrely batters-orntathat. Lises two 13 ine 30 tulhes. batteries and eronneving leads. B9948. List, $\$ 38.50$. YOUR PRICE \$25.16

## MODEL 1230

stabilized frequency. continuomsly variable sigual Generator, Furnishes fretuencies in six ranges. Six individual liand-diswn ealibration charts are supplied. one for each ranere. Lises a type 3) tulve as the di.F. oscillator. A separate 30 tube lised as audio oscillator generstes elear 400 crele note. switeh on panel bermits sifnal to be used eitber modulated or tamodulatem. $1-221 / 2 \mathrm{~V}$. and 3-1/2 bateries furnish tube current. Oscitlator is independent of line leakages. All parts are indivadually hitlard. does not upret circuit stability. Output is controlled by 3 jacks and attemuator. In metal case. Complete with tubes $\mathbf{B 9 9 4 7}$. List, $\$ 25.25$. NET.


## AUDIO FREQUENCY OSCILLATOR MODEL 1260

The ideal instrument for trsting all audio amblitirs, vis.akers, etce, ficelity ins this oserillator and a exad outhut muler. New eijresit makes uee of the feedback tive owillator to produce pure sine wave at dul different frequencies which are amplitel and fed to a liniveral output transformer. arranged to matrh any amplifier irisut. smooth. positice gain
 hrated $100 \cdot 250-500-1001-200 \mathrm{n}-3 \mathrm{Bm0}-4000-$
 5 (414.7500 arid 10,000 cycles, kiring adequate froquency, range for full tegt
 110 Voits 60 cyrle A.C. operation. Conylete with tube. B9950. List, $\$ 42.50$.

## COMBINATION MASTER UNIT TEST SETS

 A professional, completely jortahle laboratory ronsisting of four accurate Trifjrtt instruments. Each instrumput is deseribed in detail aluve. Set of four is housed in compact leatherette case as illustrated.

## MODEL 1205-A

 Mon- 1210 -A. Model 1200 . A Model 1210-A. Model 1220-A. and model 1230 In leatheretts 89951.50
LISt $\$ 19.50$ YOUR PRICE

## MODEL 1206

Same as 1205-A. but with Modol 1231 Master All-Wave Signal Generator instad of



## MODEL 1207

Similar to 1205-A but with new Model 1232 . 110 valt A.C All- Wave Signal Generator. Coinplete 下ith all test leath. achapt B9953. CASES ONLT FOR MASTER UNITS

[^2]
# FWibiot UNIVERSAL TEST EQUPMMENI 



## Model 1181-A PORTABLE LABORATORY TESTER

An bbolutely mudern tester which combincs three instruments in one case for completc circuit analys. Includes: (1) the ipecision Sodel 1151 . All-Wave $O$ cillator for alipning all sets and for

 arll circuit analjsis and overall performance tests on all circuits All units have etched vanelso

THREE GREAT TESTING SYSTEMS IN ONE
The new 1181-A portable Laboratory Tester makes point-to-point arialysis without remoring the ehas is trom the cubinet. Quickly and accurately meanures roltages, resistances and currenls between
 the All-wave Ocillator and output meter portion of the polt-Ohm. Nilliammeter. Permits ascurure circuit aligoment and defnltely locates causes of intermittent recelition. Charts are suppljed for direct capacity medsurement; large calibration maths suphiled for the oscilaior.

## FOR ALL CIRCUITS

The 1181-A Tister is ultra-modern; it will handle all metal tube as will is hass tube cirenfits. Sleter scaleo read as follows: 0-15-25-$150-750$ Folts A.C. or D.C. at butho ohns ner volt : 0-1500-1.5 meg -3 miegohnis. Oscillator has tour
 twater has f. 5.6 í prong and 8
Bochets mith jacks for all analyens.

## COMPLETE MODEL 1181-A

The lisl-A Tester constitutes a complad com$4 / 4 \pi \overline{2}$ ". Furnished, romplete with batterien, adapters, accessories, and instructions. shyg.
Wt.. 20 Jbs
89932,
YOUR PRICE


## 1125 UNIVERSAL AC-DC VOLT-OHMMILLIAMMETER

Desimned to measure noth A.C. and D.C. pitages. currents, and resistance. Sensifor chonsits ranges. Reads: 0-15.75-151T5 I.A.C and D.C.; 0-1.5-15-150 M. A. D.C. 0 - $15-150$ M.A. A.C.; $0-1500$ ohm. is 1000 ohns per folt for all fanges. lias chart for accurate camaeity measurements Ideal for use winh Mrodel llfifis Auxiliary set Tenter 10 make a complete frep-point analyzer. Supplled complete pith test
 89933. List, $\$ 33.00$. NET.

## V. T. VOLTMETER MODEL 1250

A laboratory Vacuum Tube Voltmeter for making accurate reading of $A F$, RF, and low A.C. or D. C. voltakes. L'seful for detelminifng simnal roltakes, paln bur stact. AlC voltages, etc. Efidige rircult design tisen 1 -ico, $1-i 6$, and $1-81$, Calibsa.
iton is atuays correct. innut drawi neglithble curreth from circitit ynder 1 egt. IRanues: 0-2.5-10-50. For 110 valt, 50 -fio crele. A.C. With all necersary leads and tubes. shpg. wt., 13 lbs. Erebed metal wanel.
89935 List. $\$ 55.00$. YOUR PRICE: $\$ 55.00$.

## MODEL 1251



## CONDENSER TESTER

## MODEL 1241

A preclsion insirument for the service engineer. Tests for shorts. opens and Ingh resistance leakates: capracities of condenstis are deternined by sensitive microammeter, shadow-tste neter is ised to obtain exaet line voltage adjus:ntents. All A.C. and D.C. voltages to lo00 volis are arailable for breakilown,
opto ath caparity iests. Chechs all juber. mica. oil, and electrolytic condensers in 4 ranges . $0001.01,01-2$ .2-2.0. $2.0-30.0 \mathrm{mtL}$ Has Good-B.AD seale for electrolyties, For 110 volt, with rectitier tube and Juids Compleie Wrt. 10 lbs. Metal cace
 YOUR PRICE.

## VIBRATOR TESTER MODEL 1670 DELUXE

This new sibrator tester checks all automotive aftd lume battery radio recetver ions. Tests ate made und a 50 HW 0 ohm load as recommended by pibrator encincers. three scale meter: 0 -10 rolt scale shotes input voltage to vibrator: "COOD-ESAD" scale is used for ountut: siale marked n-100 shofs percent of olitput roltage as reflected ly change in inmit voltage. Law-damped meter bermits needle to follow roltage fluctuations. In black wrinkle-flnished metal
 in fed and silver on black backeromin?.
89939

## UNIVERSAL SELECTING ANALYZER MODEL 1167.A

This instrument is ideal for making conmlete re. cetver analyses by elther front-to-moint or standard Monlel 116fi-A Auxiliary Set Tester ant Model 1125 Finirereal Volt-ohm Milliammeter in a simule oak case. scatas read as follows: 0-15-75-150T 50 rolts, A.C. or D.C. at 100 ohms per roit. 0-1.5-15-150 D.C. M.A 0-15-150 A.C. M.A.: 0-150 nhms, 0-1.5-3 merohms. Chart- are sumiljed for capacity measurements. With etched meial pancl.

TESTE ALI NETAL AND GLASS TUBE SETS A plug-In cable brings all set citcuits to the 5 sochets on the lamed;
 sories, leads and instructions. Shps. wit, on lbs B9934. List. \$+1.25.


## PERPETUAL

 TESTERMODEL 1180
A proftesional in-trument de signed to mett pitectsion sersit standards. Comblnes a Model 1101 shelced All-Ware Oscllator with larde calloration araiths
and a Mon 11:35 Universal lolt-Ohm- MHianmeter in a sin-
 gle oak carryms case. The onchlitor penerates a moululated or unmodulated sisnal for complete alignment of all receivers.

## ALL-WAVE OSCILLATOR-VOLT-OHM- <br> MILLIAMMETER COMBINED IN ONE CASE

The 1180 Perpetial Tester will cherk the overall performance of any re-
 selector switch on panel chooses ranke quiekly. A zeto adjustment knob for the ohmmeter an AC.-1).C. shitch and tout tip jacks are also profided. The Ali-Wave Osciliator bas four bands coverlng $110-500 \mathrm{~K}$. C.
 shieldits eliminates all radiation excegt through otuput jacks on oscillator. Completady opetated from self tontained $22 \frac{1}{2}$ V., hattery and $1-11 / 2$ V. flasilikht cels shmplet with test prods, leads and instructions. Shlys. rit. 20 lins. Panels a re etched metal. B9938. List, \$19.50,

53234

## FREE-POINT SET TESTER MODEI, 1166-A

## For use with Model 1125 Volt-Ohm.

 Milliammeter. Pantl contains 4 . I. 6.7 brought out to jarks on face of ranel. Makes tests without remoring chassis. Eoms case, Etched yanel.Eg 940 , List, $\$ 16.50$.
NET


## MODEL 1166-A IN CASE

The Model tleti-s Free-Point Auxillary Sot Tester as described atone illitrument Eiched metal janel. shig. wt., 13 the. 29924. List. $\$ 20.25$. NET.
( 13.23

# Thiph; TEST EQUIPMENT Reandice 

## TRIPLETT TESTERS



MODEL 1503 MULTI-PURPOSE
P.O.E. TUBE TESTER

- Nine Instruments in One - Accurately Checks All Metal - Tests Paper and Electrolytic Condensers
- Provides Full and Adequate Circuit Analysis
new combination instrument of remarkathe design. I'ronides complete text for all metal and plass tubes as mell as circuit analysis. Tests ali
tuljes for gain and out but under acTubes for gain and output under ac-


## NINE INSTRUMENTS IN ONE

An ideal combination of nine separate instrument functions. Tests all tubes on larte "GoOD-BAD" scale. Givez neon tests for tube shorts. or leakage or paper and electrolytic condensels. 3leter reads: 0-115-50-450-
 ohms; -10 to +15 Db ; $0-10-50-250 \mathrm{MA}$. D. D. S. Sensitlvity is 1090 ohms per
 case with slouthy panel and remowable corer; size. $15 \% \times 111 / 6 \mathrm{a} 7 \frac{1 / 2}{2}$ ". For


## MODEL 1504 MULTAKPURPOSE TUBE TESTER

Similar to Model 1503 but with added Drovisions for circuit analysis. Ten instruments in oue. Tubes are tested by power vatjut methoi, tarels as on Model 1503 . For 110 volts, $50-60$ cycles. A.C. 11 t . 20 jlbs
s6108
MODEL 1502 POWER OUTPUT TUBE TESTER A Power Output-Emishon tube tester of de luze design similar to the
Model 1503 int wifiont the Volt-Ohn-Mmismmeter features. Testh all Yies or blass anu meral tubes timer actual operatos ronditons hor gaja. antpti. shoris. ond leskake. heter saste reaus GOOD-1s.AD. in Fat 89925 , List. $\$ 60.50$.
YOUR PRICE
s3952


## MODEL 666 VOLT-OHM-

## MILLIAMMETER

A nem and improved service instrament of precise desima and suberior construntion. Huilt around a sensitire sieroammeire movement. It Fill accurately indicate rallies of Volts. Onms and Silliamperes. Compensated copper-oside ogets. Mever seale reads: $0-10-50-2511-500-1640$ Folts D.C. $0-10-50-270-501-1000$ Folts A.C. ;
 Higher revistance readings nay be obtalned wizh extermal battery. Neter sensitivity for both D.C. and A.C. roliages is ll/60 Ohms per Vit. l'anel carries thre confrols: A.C.
D.C. togele swith, rotary fuetm-range switch. D.C. toggle switch, rotary
Comblete with baltery.
and zero olims adjuster. leads, alligator clius and $89 \times 2$. Wt.,
89928 . List, $\$ 22.50$. YOUR PRICE
${ }^{5} 1470$ B9929. MODEL 669. CARRYING CASE ONLY, Desinned to offer conthete protection for the Model 666 Volt-Ohm-Milliammeter for portable use, Sturdy constinction
leatiner-corered. NET.


MODEL 1200-A VOLT-OHMMILLIAMMETER EIT 1000 OHMS PER VOLT
A complete kit of parts for service En: gincers who with io build-their-own" Tribleft Milian-unter. Ohm-Miliammeter, Ket inclucles: nerf Twin meter कith separate A. Marhed pariei







MODEL 1200-C 5000 OHMS PER VOLT


 B9931. YOUR PRICE.
$\$ 20.90$

## NEW RANGER INSTRUMENTS

## 740 VOLT-OHM-MILLIAMMETER

A new brecision Volt-Ohm-Milluarmmeter. Cses a Triplett Model 326 square wrecision meter with accuracy of $2 \%$ on D.C. and $5 \%$ on A.C. Readings are: $0-10-50-250+500-1000$ Volts A.C. ant D.C. st 1000 olims ger volt: 0-1-10-50-051 D.C; Milliamperes: $0-300-250$. 0rifo ohms with "back-up" scale for lon ramge having mid-scale reading of 25 ohms. Ohmmeter scale can be made to read up to 2.5 megohms in mezt menhm steps.




## 640 FREE-POINT TESTER

This Free-Point Tester when used with the T 40 Tulti-Meter atoore makes a complete circuit ancilizurbing circuit wiring. 11 as 5 sochets with standard F.M.A. narkings for servicing all sets with new or oid type of tubes. Whether alass. octal or metal. 8 automatic and 10 standard jacks bring zul circuits to the panel. Extra comections may be added later if necessary. In sturds black metal 'ase, measuring $4 / 1 / x^{7} 7 / x^{\prime \prime}$. Has robvenient handle, and compartment for accessories With instructions.
B9912. List.
B9912. List. $\$ 17.25$

## MODEL 440 TUBE TESTER

Chech all tubes speedily anil accurately A single unit tube testel using a ${ }^{2 \prime \prime}$ Triplett meter accurate 10 2\%. Has a "GOOD-FAD" scale in
colors. Fmhodies the latest improvements. Buitt to stand large ortrloads. All of the R.M.A. stanito stand large ortriodids. All of the M. M. A. Stand-
ards for proper testing of tubes are ineluded in the 3oded 440 . Some of the salfent features are: Direct-reading seale; tests metal and glass tubes; dests for leakate and shorts: meter is adequately protected against damage; uses A.C. meter for line voltare adjustments:- requires only four simple operations in making complete tabe tests. Metal rase size bxi7\%xiy, Complete with tube data


## 540 SIGNAL GENERATOR

suppies signals on 5 irequency banus from 110 to 20,000 kllocycles. atl fundamentias. 1 lug-in roils are arcurately calibrated. Guaranted accuracy is less than $1 \%$ on broadeast lreanencjes; less than 2 每 on short waves. Prorlikes either modulated or unmodulated stmal. Stability of olseration is askured by rikid mechanital constrife Inn and carefully designed circuits. Completely shlelded against static or magnetle flelds. Equlpped
 89914. $\$ 32.50$.
s1911


COMBINATION RANGER INSTRUMENTS
The Ranker units in the contitimations shown below gite you the instraments most necessary to jour general setvicins needs. They are offered to you at a substantial saving. Use hiemi to com wlete your test equipment line and as quitable laboratories on seryice calls. Available in combinatlons only as shown. Furnished in bortable electro-
hlach enameled metal cases. $1 l^{*} / \mathrm{c}^{\prime \prime} x$

 B9916. Model 640-740. Free-Point Tester and Multimeter. $\$ 27.78$
B9915. Model $440-740$. Tube Tester and Multimeter........ 36.16 $\begin{array}{lll}\text { B9915. Model 440-740. Tube Tester and Multimeter........ } 36.16 \\ \text { B9917. Model 40-540. Tube Tester and Signal Generator. } & 36.16\end{array}$ B9917. Model $440-540$. Tube Tester and Signal Generator. . 36.16
B9918. Model 540.740 . Signal Generator and Multimefer.. 36.75

## MODEL 735 D.C. VOLT. OHM-MILLIAMMETER

A complete, handy Voll-Ohm- Milltanmeter of convenient smah size: may be easily parried in a D'Ansonval type instrument with 2\% accuracy, with seales for reading 0-15-150--50 volts D.C.: 0-1.5-15-150 M.A.; $5-1000-100.000$ ohms. Honsed in a black sma sllier fanel. suppiled wilh leads and test elins. Aolded cost. 89919.

List, \$18.00. NET.
s1058
B9920. CARRYING GASE ONLY. FOR MOdel :15 Yolt -Ohm-Mllitamneter. Itorides twotection for meter phen not in use or can be used as portable case. Sturdy construction;
leather-corered. NET.......................................................... 53


## FLEEIBLE OPERATION

Will make complete point-to-polnt tests between all tuhe sockpt terminals by meaths of breat-in jatks. Permits complete circuit checking as well as standard reats of voltege, current, and continuity. Eass to opetate; extremely portable.


## READRITE POINT-TO-PONTT ANALYZER MODEL 720-A

Designed to test all parts of all radio circults including modern metal as well as glass rube types. Messules roltagex and currents sccurately In any tube circuit. Reslotance. continuitios, and caparities are also quickly measured. Isreak-in jacks In all tube diruits phointe a
mpans of ohtaining all rurrent and voltage mpans of obtaining a all rurrent and woltage
 ant plug whth neressary adanitrs for butzing nino any type tub
anit D.c. auters.

## TESTS MTETAL AND GLASS TUBE CIRCUITS

All meter rankes are arallable throurh a sinchooses proper scale an Acertor or wit e hauickly scales are: 0-15-150-300-600 Volts. 0-15-150 MA. A. AC seales are: $0-10 \cdot 25 \cdot 150 \cdot 750$ Volls. Complete analysis mas be made without remorjng the receiver chasios from the rahinet. In
leatherette case $1114 \% \times 8{ }^{\prime \prime}$. Wt. 10 lise B9900. Complete with adapters, charts, and instructions.
List, $\$ 25.00$.
YOUR
PRICE
s1470



## READRITE ALL-WAVE SIGNAL GENERATOR MODEI 554-A

A comnletely ahtelded All-Wave Orcillator. Tube-modufated and hatiprs-cherated. I'lus-in coils are useed to give rompiete coserage on five orer-lapsing fundamental bands, from 100-200fig K.c. Desiened to meet all present and futrre reguirements. For additional frequency bands to meri fullire renuirements, it is onis neressary to add new enik- The exura-large seale permits accurate fre-
quency setulng.

## 5 BANDS: 100-20000 K.C.

## MODEL 557 DIRECT-READINC

Similar to Model 554-A above but wilh direct-reading dial. Arcurary of calibration is less than $1 \%$ on broadcast band and $3 \%$ on high fre. Leatherette case. $12^{2 \prime} \times 6,15^{2} \times 5 \%$. Wt.t Li lbs. With tubes and batteries.
B9905.
List, $\$ 31.50$. NET..

 uned-one as II.F. oweillator and ons as audio osplilator.
 variable attenuator on front panel raries oscillator outpul over entire range. Circuits are thoroushly stablized for
 ispes of radio receivers. fursishing all shorl Wase, Jroadcast. and Intermediate fredurncies. Ilousct in broanleatherette carsying case with remnvable hinged sover. leathrefte cafsving case with frmnuable hinged cover. 89904. Complete with coils, tubes and batteries.
List. $\$ 24.00$.
NET.
$43 A 1$


## READRITE ANAL YZER MODEL 710-A

A new Readrite Standard Analyzer which completely and accuratuly tests all parts of all metal and glass tube receiver circuits, Meters masy be connected into ratious parts of the circuit for testing plate, illament. grid. screch and line voltages and curtents. A $41 / 2$ volt batiery is required for pesting continults and revistance of all resistors, cheokes. Irantformetr, etr, without remosing the radio chassis frum the cabinet. Cilarts are prosided for use in testing condenser. and for muaving recurate to within $5 \%$. A ohms, Motern ani acinstrument tor the small service this will instrumpat for the stnall vervice shop. Whit In any set and for ans of the tulves in the sel. whether A.C. or battery trye,

## FOR ALL OCTAL AND CLASS TUBE CLRCUITS

Four workets are proxided to accommodate all metal and flass tubser, The analyatr cable is equipind with a small-size latch-tybe burg anovide the following readines: 0.90 .60 antatis
 M.A. DC. External itmis ate prowidel for using these nine smales wratnuly selector switch comperts the meters thio vaitious parts of circult under test. Jonsed in a sthurs atractive teatherette case. $11^{\prime \prime} \times 8^{2} / z^{* x} x^{\prime \prime}$. Shyg. wt.. 10 lbs .
B9902. Complete with plug. cable, and instructions.
List.
YOUR
${ }^{5} 1617$
PRICE

## MODEL 712-A

Name as E 10 A A destribert ahore but With
 In leathereite ease. Shimping wit, 11 ths
B9903. Complete with plug, cable, adapters and intructions.
YOUR PRICE
52176


## NEW READRITE 430 TUBE TESTER

A brand new, inexpensive direct-reading Tube Tester. Quichly and accurately determines mondition of all meta! and plass trpe tubes. Two meters are provided; one is a Triplett Model 221 meter with "GOOD-RAD" scale: the orther is shadow-type AC meter for adjuxting ing roltage. Simple to operate for sccurate tube condition tests. Apslien actusl loan ralnes to tube under test. Has five sockets which handle all 4, 5, 6. 7 and the new 8 prong Ooval tuhes. lydo-date in tesign and performane. Cheoks all rube tupes completels and accuratels. l'mitively and efticiently judirates the presence of the slightest leakaben and all shorts.

## TESTS NEW MLTAL E ALL CLASS TUBES

The now Rearitite 430 Thibe Tester checks all octal hase mptal tubez as well as every existing class twpe. Shows cendition of tuhe as "GOOD" or "1sAD" on binglish-reading meter. Tris lor shorts and leakage are read ditertly on meter. Meter is proterted against damage. Cont trots are provided for adjusting nfoner line voltage, flament roliage and ruhe load. An antitional control selpets nmper tube sreket ronnections. Actual tuhe test is made by prescing a single bitton. The Eleadrite 430 Tube Tester is attractively housed in a quartered oak cace
 Tube Teitpr which completely checks this condition ot salps hasiness, with the new featrite t: pendable tube teiter builit to effirient standards and offered at an aftratite bow price

## MODEL 431

As feccribed aknve, hut with acrurate feadrite "GOOD-BAD" Englisli-feating meter in Nulace of Trinlett meter. Complete with cord and blis and Instrictions. For 110 volt. 60 cyele AC operation.
B9006.
YOUR PRICE
s15ss

## MODEL 430

The Readrite 4?n direct-reading Tube Tecter exactis as diswerihert ahore. whin Tilumert Model 2s1 Meter. Complete in cosk case with full insturions. For 110 volt, 60 cyete Ad operation.
B9907.
YOUR PRICE
s1940

# SERVIC <br> E <br> Instruments. 

MILLION TEST EQUIPMENT


## MODEL TV TUBE TESTER

 AND MULTIMETERConbines tube lester reatures to Fintirt with the atalizzer secales and Iunctions mont commonis used in serv-
 thas emission of all types of tubes in-
cludimg the new oefal base glass and Hludimiz the new ortal base klass and
metal itueq. Neon bulb test shows metal iftes. all shorts and leaks uf to 2 megohm all tube quallys tests are made ons a farxe or square $D$ inrsonval meter with a lirilliantly illumiriated dial for easyreading. Ilas the following multimeter rallaes: $0-30-300-400$ rolts DC at 5000 obras per roll; $0-300$ sulcroampeirs
 ohras; and $0-15$ mekohms. All resistance measurements are made with the seli-contained power shpply erving readings directs to 15 megolitas For 110 Pober citcuit is fused for meter protection B10375. NET
s27오

## MODEL TM TUBE TESTER

A tube tester desinned to 1 :si all tubes includitip metal, metal-glass
 cates the exact comililon of the tubes under text. Contains all other
 Bl0376. NET $\qquad$

## MODEL OM MULTETETER-20,000 OHMS PER VOLT

 Bl0377. Jtanges: $0.3-30-300-900$ tolts ne at 20.000 ohris per tolt.


## MODSL VO MULTLAETER-5000 OHHS PER VOLT

 B10378. Slmilar to Model OM. int dines not inde d-tio nuieroamjeres and $0-30$ meg. ranges. Case is firished in hard ba ked blackenamel spacial high torque movenent. Wt. 5 hm.
NET........................................................ 89.95


## MILLION TUBE AND CONDENSER TESTER

MODEL CP. This new emission type whe tester teste all tubes including the newest metal and piass octal thace the
 meter. Nion tube shows shorts and leakages up to
2 megohms. This same leakage test ran be used n megohms. This same leakage lest can be used
throunh extemal jarks. for the measurement of rethronkh external jacks for the measurement of re-
sistance and for cheching brpass and eleetrolytic con-
 Bl0379. MODEL CN. Same as above bit neon linb performs functions of meter used in Model Cl', Jacks are provided
for testhag resistance, condenser leakage, de NET........

NEW TOBE BRIDGE ANALYZER
the necessary equitment for nutinitu evers essemtial test of conterneers and revistors. Deteltanes restistanue Falues betwer. n 1 ohm and 1 megohrn. gs well 25 salurs of eqpacitatict between 10 minf, and 100 mfd.. and the rosistance. Hower Pactor. leakake. and tenetal
condition of any electrolytio mitca. or wabtr condition of any electrolytir milca. or waber is not necessary to refer to any aduitional chatis or calibrations. The null point is indieater by an electric eye with preamplifier. Contalncy in a rugued steel case with sloping wanel on which all controls are Rrouped. Complete with tubes. leads
Folt, 60 cycle AC only. and instructions. For 110 Folt, 60 cycle AC only.
B10340. NET...............................................

S2850

## NEW RTL COUNTER TUBE TESTER



A new "rouble.chacking" tulse tester. Eses the exclugive 1\&TL tubr-testing circult. Grial and bite voltakes ofdmme to prochnce m metes the erid to control plate rurient and abilits of the cathode to furnisli this curtent. IRe jection reults ather from defectire arld control or from sjotty and porn-ont rathodes. Tests all tuhes now in use with ample prot
tision for future tope-G. Tube condfion i tision for future trik-s. Tube condtion is
indicated simultameously on meter and flash Indicated simtitancously on meter and flash Ing lights in alass eylinders which indicat
"h.wn." "WHAK" and "Goob." Has ear mhone test for noise. In grey crystalline enamel finishert rasu with ehrome sted patitl. For 110 volt. 60 cyde. AC.
s5292 NET.

## RCA TEST EQUIPMENT

## MODEL 151 CATHODE-RAY

 OSCHLOGRAPHUses new 913 onte-incli cathode-ray tube Gives you all the valusble ieatures of tie larker insiruments at the lowest Possible price, The muny tests कhatch can bhe mede with this insinment make it a tisity 15 roltx Jivis ber ineh de sitifity, 1.75 volts lisis yer inch de fertical ampliffens each have a gain of sprtieal amplinens "ach hate a gain o
5 and are that irom $20-10.000$ vicles. at and are that roin $30-10.000$ wices. This oscllloseope will aid in mifning recelvers visually, check distortion, gain and hmm, as well as rump other emainy yaluablo texts. All controls are non nickel-silser For 110 Volts, $50-60$ meles. AC only compuered casc, We tubes: $1-013$ 1-885, BiOi68, YOUR NET PRICE, and $1-80$

## MODET ISO FLFCNRONT SWESP TEST OSCILLATOR

For use with an osclloscope for visual alihnment. Fariable electronic sweed from 1 to 40 KU wide las sweep rate of 120 times ber second Larbe $4^{\prime \prime}$ dial is diruety cabibrated to cover entire range ot 90 to 2.000 1)ial has two vernier ratios, ? to 1 and 5 to 1 . T.F.F, out put is 25
 unmodulater simat. Fulty shiptied. BIOI69. YOUR NET PRICE...

MODEL 4317 OUTPUT INDICATOR acilator when aliming recelvers. IJgh sensitivity neon flow lamp indicates resonance accurately. Has three njut itmpedanees, 4 ohnas. $1^{1 / 2}$ ohms, and 6 ohms. Works from aby cmathic speaker; not atrected by overload.



## PORTABLE STANDARD VOLT-OMMMETER

A piractleal and conventent whet-size Voti-Ohmmetre Mounted in sturdy metal case 3 inches in diamete: : ] 3
 rapid channeorer frum rolts to ohtis B2894. YOUR PRICE.
$\$ 250$


## PORTABLE SIMPLEX VOLT-OHMMETER

An excentionalty tompact, worket-size test unit. Scale marked $0-3,0-30,0 \cdot 300$ volts D.e., and $0-10,000$ ohns:弥", Jas pin jarki for thick selection of tesired seale, self-contsined hatterles inchuded. Supplied with 30 inch polarized test-jeatis,

| ald hatrueliong |
| :--- |
| $\mathbf{8 2 8 9 2}$ |

$\$ 323$


## PORTABLE PRECYSION VOLT-OHMMETER

 2 pincketsize volt-ohmbiter. Noving colt meter has accuracy of ohms. Ohmmeter hag zero alluatment. In blark bakt- volt: $0-500.000$ ohms. Ohmmpter has zero atjustment. In btark bakt B2893. YOUR PRICE .... $\theta^{7} 72$NEW MODEL 363 UNIVERSAL AC-DC V. O. M. 82891. Universal AC-DC Folt-Utwh-Milliammeter. Ranges: 0-15 150-450 volts and 0-15 mas.. AC and 1)C; 0-20.040-100.000 ollms. with uilt-jn power supply which worki from 110 V. A.C. or D.C.; the.

## ACCURATE SOLAR CAPACITY ANALYZER

A sensational new instrument for quickly
 \% 0 mid. A 6 F 5 tube is uspit as a bridge-balance indies:or: cabseity of condenzer under est Is showin diectiy on accurately caliorated color-coded srale.
or, and deterts defertise condensers. Two large resistance sristes give radings up to mezohms. for checking Instlation remistance, or for measuring resistors- Checks all is jues of condensers. No beatibhones. meters, etc, ato requited; rompactly mailt in sturdy. attractive

 S10187. Model CB-2.U. For $110-220$ v. 25.60 eycle EIO


## READRITE METERS SHUNTS•RECTIFIERS

## READRITE PANEL METERS



Standard Type

## MODEL 55 D．C．

The popular and economical Readrite Inpe used extensively in radto and electrical work where an asared within $5 \%$ D．C．mntets are polarized Fane，solenoid trim．Require 25 的 ${ }^{n}$ mounting hole llave easy reating white dial．black lettering and fuil nickel－finlsh metal shell．Clamp included to hold meter lizht against panel．Screw connections with binding nuts on rear．21／4 diameter．Readity convertible for oulside fianze mountine with use of No．65A Flange rin＇．Zero adjustment type has screw on miter face to control idle posilion of needle．


Zers Adijustment

## D．C．VOLTMETERS

| with Zare Adjustment |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No． | ${ }_{\text {Nach }}^{\text {Net }}$ | ｜rest | Volt | No | ${ }_{\text {cost }}^{\text {Noth }}$ |
| ${ }^{350}$ | 5\％c | 30 | $\begin{aligned} & 0-1 \\ & 0-3 \\ & 30-3 \\ & 0-5 \\ & \hline \end{aligned}$ | 873753737 <br> 8737 <br> 87378$\|$ | $73 c$ |
| 87352 |  |  |  |  |  |
| B7353 |  | 410 |  |  |  |
| ${ }^{354}$ | $5 \%$ | 550 | $\begin{aligned} & 08 \\ & 0-10 \\ & 0-15 \\ & 0-15 \end{aligned}$ |  | $73 c$ |
| 5 |  | 1475 |  |  |  |
| 87357 |  | 2914 1625 |  |  |  |
| 87359 | $\begin{gathered} \mathbf{3 1 . 6 2} \\ .59 \\ \hline 1.91 \\ \hline \end{gathered}$ | ${ }_{32} 720$ | $\begin{aligned} & 0-25 \\ & 0-50 \\ & 0-50 \end{aligned}$ |  | $\begin{array}{\|c\|} \hline \$ 1.76 \\ .73 \\ \hline 206 \end{array}$ |
| 7361 |  | 15440 |  |  |  |
| B7362 | ${ }^{8188}$ | ${ }^{6} 650$ | $\xrightarrow{0-100}$ |  |  |
| 7364 | 1.91 | ${ }_{975}^{3088}$ | $\begin{aligned} & 0160 \\ & \mathbf{0 - 1 . 5 0} \\ & \mathbf{0}-180 \\ & \hline \end{aligned}$ |  |  |
| 87365 | 1.03 1.91 | 46320 |  |  |  |
|  | $\begin{aligned} & 1.91 \\ & 2.65 \\ & 3.23 \\ & 3.23 \end{aligned}$ |  |  | $\begin{array}{r} 87389 \\ -87390 \\ \hline 87299 \end{array}$ |  |
| ${ }_{7368} 368$ |  | 154400 |  | 887392 |  |
| ${ }^{87369}$ |  | ${ }_{16200}^{23160}$ |  |  |  |
| E1370 | 2.653.23 | 92640 | O－60 |  | ${ }^{2.75}$ |
| 87371 |  | 180000 | $0-2$ | ${ }^{87396}$ | 3.3 |

MODEL 55 A．C．METERS Double vane repulsion type．Clamp－on flush mounting．Aceurate withln $10 \%$ ．

| Voltmeters |  |  | Milliammeters |  |
| :---: | :---: | :---: | :---: | :---: |
| No． | Volts | Each | No．M．A． | 崖 |
| B7450 | 04 | \＄1．62 | E74620－25 |  |
| B7451 | 0－6 | 1.62 | 874630－50 |  |
| 8745 | 0－10 | 1.62 | 874440－100 | ST． 6 |
| E7453 | 0－15 | 2.62 | B74650－25 B7466 0－50 |  |
| 87455 | 0－300， | 3.23 | A $\mathrm{m}^{\text {an }}$ |  |
| 87456 | $\mathrm{O}_{0} 6000$ | 3.82 4.56 | Ho．Amps． | Each |
| 87458 | 10－140． | 2.65 | B7468 0 －1 | \＄1． 62 |
| Ping In Line Type |  |  | B7459 0－3 |  |
| B453 | 0－150 | \＄1．91 | 87471 0－10 |  |
|  |  |  | B7472 10.50 | \＄2．20 |



## OUTPUTMETER

MODEL 575 Indicates ourpit rolt ares ror corruct alignment
 Kanges：o．5．0－50 rolis． fler．In in its blach en－ anselled metal caxe．Has B7348．\＆ 6

## MODEL 515 ©UTPUT METRR

 Same as Model 575 above hut with Triplett meter．Has range of 2.5 .5 wolts． $\mathbf{z} 50$ ohnts re－ sisinime per roltB 7349 ．List，$\$ 16.50$ ．NET．．．．89 RESISTANCE METER MODEL 501


Direct reading：0－10．000 ohrns． $0-4 \frac{1}{2}$ volts．Measures resistance and checks contin－ ulty in radlo and ejectrieal circuits．Uses 3 small flash limpt cells．NET．．．．．88e

## EESESTOR

No． 503 Resistor． 115 m olras resistance to in－
 B7343．List，$\$ 1.00$ ．NET hatery．
87343．List，\＄1．00．NET．
59c
504 Reslstor．． 2,300 ohms，center－tapperi．for use with tis Y．＂B＂to merease frading of No． 501 ohtrmatrer 20100. 日in ohras．
B7344．With tip jacks．
List．\＄2．25．NET．．
$\$ 1.32$
D．C．MILLIAMMETERS

| Withaut Zero Adjustment |  |  |  | With Zere Adjustment |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No． | Not Each | Realst Ohms | M．A． | No． | Not Each |
| 8740 | \＄1．32 | 2160 | 0－5 | 87414 | \＄1．47 |
| 87848 | 1.18 | 700 | 0－10 | 87415 | 1.32 |
| 87402 | ． 59 | 295 | 0－15 | 87416 | ． 73 |
| 87403 | ． 53 | 85 | 0－25 | 87417 | ． 73 |
| 87441 |  | 20 | 0－50 | B7418 |  |
| 87405 |  | 5.5 |  | 87419 |  |
| B7406 |  | 3.3 | 0－150 | \％ 7420 |  |
| E7497 |  | 1.9 | 0－200 | B7421 |  |
| 87408 |  |  | 0－300 | 87422 | \＄0．73 |
| 87409 | ． 59 | 5 | 0－400 | ${ }^{87423}$ | ． 73 |
| 87410 | 1.18 | 175－30 | －20－100 | B7424 | 1.32 |
| E 7411 | 1.18 | 305－24 | 0－15－150 | 87425 | 1.32 |

D．C．AMMETERS

| No． | $\begin{aligned} & \text { Net } \\ & \text { Each } \end{aligned}$ | Type | Amps． | No． | $\begin{aligned} & \text { Not } \\ & \text { Each } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 87424 |  | \＄80 | $0^{0-3}$ | 87433 |  |
| 87429 87430 |  |  |  | $\begin{aligned} & \text { E7439 } \\ & 87446 \end{aligned}$ |  |
| $\begin{aligned} & 87430 \\ & 87431 \end{aligned}$ |  | 381 338 | $\stackrel{0}{0-10}$ | $\begin{aligned} & 87446 \\ & 87441 \end{aligned}$ |  |
| $\overline{87427}$ | 50.88 | 382 | 0－25 | 67437 | \＄1． |
| 87426 | 1.47 | 383 | 0－50 | 87449 | 1.62 |
| B7432 |  | 101 | 1－0， 1 | 87442 |  |
| 87433 |  | 303 | 3－0－3 | 87443 |  |
| E734 |  | 606 | 6－0－6 | B 7444 |  |
| 87435 |  | 110 | 10－0－10 | 87445 |  |
| 87436 |  | 220 | 20－C－20 | 87446 |  |
| 744 | \＄1．18 | 330 | 30－0－30 | 7 |  |

## 65A TLANCE RINC

Conierts any type fleadrite Model 55 meter for flange
mounting． $2 \mathbf{z}^{\prime \prime}$ flange diam－ mourting． $2 \psi_{s}$ nange diam－ black finlsh to match bato． He bantli．complete with 87473．List， 15 c. YOUR PRICE ．．．．．．．．．


## INDUCTION AMMETER

1 ndic ates antomohile starter current．stimpls ulace meter over starter cable to bead current fow．sicier roore．Reada 400－0－400 anp．D．C．
37499 Model 444.
List，$\$ 3.00 . \ldots$ ．

## RADIO CITY SRIUNTS

 for use with milliammeters

unch as thowe havitu 0－1

arales for meresesin：thel
ranseq．Caparlty of each unit abolit watt．Negligible temperature coefficient．Size s，xizn


List．Each，\＄1．40．
NET．EACH

TUNING METERS


For accurate visual tuning of motern A．F，C． sets．High resistance milliammeters in neat． easy－to－mount cases．Inclicate exsct tuning point．Four types are available，each with full scaie deflections as listed．Model 121 is shadom． tuning type．Supplled less escutcheons．


## FULL－WAVE

COPPER－OXIDE RECTIFIERS

## 5 M．A．CAPACTYT <br> For converting rhuving－eol D．f：meters with lews that en 5 ithiamperes iraln．to A．A．in－ itruments． Imsitlialed flesihim wire leads allow mounting ingicte mett  Hete with whing diagram and fill instrictions． 82500. <br> YOUR PRICE <br> $\qquad$ $\$ 2.15$

## st M．A．CAPACITT

Makes A．C．meters out of D．C instraments drawisg not more than 20 miliamperes．Acrurate on all irequencies to 5 KC ．Will nat meed re－calibration．Ideal for capacit measurements．ti－：$: 22$ bolt．insulated from recti－ fier，for conventent mounting．$/ 10^{n}$ round，$\frac{3}{4}$ B2501．YOUR PRICE．

## se 趩，A．CAPAClTY

For heabs－duty selvice in cir－ cults lianing Aj 10 of 3 ．A D．C．lianutrs A．C．of y 11 rter volts：600．tise to rectity 110 Tolts A．C．for excitation of B．C．dynamic speakers with 2050 1
$B 2502$ ．
YOUR PRIC

## CRS COPPER OXIDE

## RECTIFIERS

Excentionally san fll full－wave rectiner for converting D．C．meters for A．C．use．Inutht 10 vadts hims：
 outmut $20 \mathrm{M} . \mathrm{A}$ ．Ideal for a nalyzers， test panels，efe．
B2BO3．NET EACH．
\＄2．06

## TRIPLETT PRECISION

 METERSThese accurate, derendable meters are arailable in ratiety of styles sizes and ranres. Ideal for service insimichines, or any equipment requalring high-grade Indieating meters. The rugred Darsonval morement used assures accuracy within $2 \%$. The exiralikht movinkeopll carrying the balanred aluminum needle moves on cupphire jewel bearings. Scales are white enameled metal. Fquipped with gero adjusters. In dustproof cases. A.C. meters are movable iron repulsion type. A Model 321 D.C. ters are mowable iron replision typ
hanh-arade sitractivejy-priced line.
METER DIMENSIONS


## MODEL 326 D.C. <br> MILLLAMMETERS

Precision built meters in a new moder $\quad$ style.
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| Cat. No. | To Test | In Socket | Adaptar Base |
| :---: | :---: | :---: | :---: |
| E1681 | $\begin{aligned} & 6 \mathrm{A8} \\ & 6 \mathrm{~L} 7 \end{aligned}$ | 6 A 7 | 75 |
|  | 655 646 645 | 75 or 85 75 or 85 37 or 76 | $\begin{aligned} & 6 \\ & 5 \end{aligned}$ |


| Cat. No. | To Test | In Socket |
| :---: | :---: | :---: |
| B1677 | $\begin{array}{r} 5 Z 4 \\ 5 W 4 \\ \hline \end{array}$ | 80 |
| $\begin{array}{r} 81688 \\ 81689 \\ \hline \end{array}$ | $\begin{aligned} & 2576 \\ & 6.55 \end{aligned}$ | $\begin{array}{r} 2525 \\ 8402624 \end{array}$ |
| B1680 | 6.7 | 74 or 6 C 0 |
|  | $6 \mathrm{K7}$ | 78 or 612 |
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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## SUPER "E" BATTERIEs

| $\mathbf{B 8 9 0 0}$ | 21308 | 45 | 16 | 6 | $\$ 3.20$ | 52.40 | $\$ 2.18$ |  |
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New types which replace old No. 6 cells. No. 4FA is smaller and Hghter than old No. 6 but has same caparity. No 44 is much smaller than old No. 6 and has only sightly dess cabacity. With screw terminals.

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A new $\mathbf{1 0 0 \%}$ dry " $A$ " battery doveloped eapecially for 2 polt battery sets. Does not require recharking or illing with water; ready tor Immediats use. Provides 400 tours servive at

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The ideal mower pact for auto and hatters radio sales demonstration and for serice test gook Silminates need for storage
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Costw less to oferate than any other $\cdots$ hal Cell bitteries listed below arte rated at dul ant pere luurs and have a usefal life of approstmately litho hours. The A-600 tyle is for eets with a maximum current drain of 660 M.A. The saWe. 2t lis. (Not mailable.) B10025. No. A-600. NET 54.62 . Less $2 \%$

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Do away with " B " battery expense. The Carter Genemotor operates directly from any ${ }^{6}$. volt baltery (or zz yolt plani) and sutplites all ${ }^{\text {a }}$,
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NEW CARTER LIGTTTWEGETT SUPER GENEMOTORS


A new line of lightweisht geaemotors for une mith portable or mabtle ratio ren amptifiers, transmitters, ets. Extremely eftrient Hare sturdy frames and dynamteally bal. anced armatures Which insure smonth trouble-free operation. All bearings are quiet-running: require no oillngNewly dexigned brushes are free from sparking and nolge. D.C. voltage oatpout is easily filtered. Supplied with diagrams and sketches for construction of correct fitters. With heary leacis Tor connection to power source, and rubber
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Permits the operation of A.C. radio sets. sound systems, and other derices and appliances from 32 rolf light plants or 110 volt D.C. lines conned, and huilt for lons life. The armature emplows the superior dynamotor type armaturewound) construction. The fildi frames are of high quality rolled steel and ithe ffeld poles are laminated for the very highest efficiency. Remorable grid covers protect the commutator sitp rings and brushes, Quality construction throughout assures freedom from trouble.

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The Janete hotary Converters listed below are equipled irith special Al- Wate interference exceptionally quiet receptlon results on all bands from 500 to 30,000 K.e. ( 10 to 517 meters). Wo can also sumply converters for special voltages, frequencles or both. please describe your requirements and we shall quote promptls.

32 VOLTS D. C. TO

| ck | Output | Input | MPr |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Watts | Amps. | Tyd |  |
| B10200 | 80 |  |  |  |
| 810201 | 110 | 6.5 | CA-20 |  |
| B10202 | 1.50 | 9.4 | CA-16-F |  |
| B1019 | 225 | 11.5 | CA-16-F |  |
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| B10204 | 500 | 18 | CE-14-E |  |
| B10198 | 650 | 27 | CE-12-F |  |
| ITE-ITS VOLTs D.C.TO |  |  |  |  |
|  |  |  |  |  |
| B10205 | 89 | 1.4 | CA- $20-\mathrm{F}$ |  |
| 8 | ${ }_{110}^{110}$ | 1.9 | Catere |  |
| 8 | 150 | 8.7 | CA-16-F |  |
| B10210 | 225 | 3.0 | CA-16-F |  |
| 8102 | 300 | 4.0 | 13 |  |
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| We can supply all other types of lanette converters. motor or pas-engine driven generators, etc. at lowest prices. Write descriting your |  |  |  |  |
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CRNYMOTORS
 eliminator m ade Completely sbleld ed. Has built-in tilter. Ball bear ings eliminate, oil ing end adjust mens. Eany in pall efienty frem a 6 rolt Measures onty 27 ibs.

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E10235, Onerates from 6 Volt battery and delifers 135 Vol!s at 30 M.A. tapped at 6 , $1 / 1 /$ ) 18e FOLT MODEL
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List. Each. \$16.50.
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Carefully engineered mits destaned to ovenome undesirable radio interference at its source.


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## MODEL 7 AC-DC



## POWER LINE FILTER

## An easily installed Tobe cayacht

 spe line tilter which will effectireb eliminate llne moises Plugs into electric light socket or wall necreptacie. Receiver plus fits into tod of filter unit. Materiaily reduces anturbing radio Interferthce from power ligeB8406. NET. ET..
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practical Hilter unlt for reducing interfelence from elertric fazors. Enjoy early morning inozrams, hame signats. reports. etc.. Fithout the disiturbing buzz centacle and pluk razor in other end. 88402
NET.


59c

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an indurtive-canacitive unit desimped or use with appliances requirime larger filter than the unit list id pillance. B8404. NET

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A light-welghat flerette for attacliment to applapces such as electric drills, harber clifipens. ralled as permanent equipment. 88407. NET...

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The laratest and noost cf rembe of dive plug-in flater dten, whi handle up to 5 aroperes. Jdpal for use with etectric refliterators, wasiting suarhines. clental equip$\mathrm{V}_{\mathrm{t}} \mathrm{t}+\mathrm{lb}$.


## 88408. NET

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bisignea to eliminate noises coming from the pouer line. Eftective tiltring is attalned throuzh comblning caparits and inductance in one careinlyy engineered unit. For and power linc. For use an power hac. For use does not exem 130 rolt
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 Enginecred especially or uge with any oilburner type of heating blitnt, Mounterd in a out cabinet. Equipped With dity chable mount mp brackets. Will hatiat 114 volts. ${ }^{\text {ander }}$ Shpg. wt., 6 lbs.B84II. $\qquad$ $+5.59$

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## ELIMINATOR

- Eliminate power
- Completely factorybupit
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Completely elimitates all wow er-11ae polvas. Gleatly reducen man= nasde slatle from elextric butois vartum cleaners, elergtors, znit other interferiag electrical devies
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- Capacitative Inductance circuit used
- Duo-lateral R. F. cholke colfs
- Complete line noise elimination
Fositlre resulis are obtained by use of complete filter circuit- Off condens-
$H$ gise long life. DunHs give long life. Dunlateral chokes are ugec for greatest itterinz May be used on smatl interfering
 self Requites no adjustment. PIng radio or appliance into filter. and filrer into outlet. With cord and phig- 110 volts, 200 watts. B7213. List. \$4.00.


## INTERFERENCE ELIMINATION CONDENSERS AND CHOKES

Eshaustive experiments shew that different nolse conditions must be met with different filter units. The units lelow will ill defibite needs as indicated by the Sirazue Analyzer abore.
Type FF-11. Dual Condanser. For large Type CH.1 Choke. Specially deslzned; will motors. as in refrimerators, oll bumers, etc. BII455. List, 52.50 NET.
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## A practical book covering the lom from A to $Z$ Esed by the National Radlo Instliute as a reference boos in teaching how o lorate interference and how o clear it up after it is found. <br>  Shows which jaterference unit to use tor different. filter problems. End FREF on request with orters for firsague Interfermene filters. You need this book for noise-elimination work. <br> NEW NOISE ELIMINATION MANUAL

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| Set | mallory |  |  | UTAH |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name and Model | Mirs. | $\mathrm{Our}$ | NET | Mirs. | Our | NET |
| AIRLINE |  |  |  |  |  |  |
| 62-166, 62-118 | 253 | B4650 | \$2.65 | NP42 | B9052 | \$2.65 |
| 15, 25, 35, 451 1st Ser. | 206 |  | 2.65 |  |  | 35 |
| 15, 25. 35, 45 2nd Ser. | 292 | 84652 | 2.35 | NP6 | B9050 | 2.65 |
| 13, 27.170 .3737 | 294 | B4653 | 2.65 | NP42 | B9052 | 2.65 |
| TWATER KENT |  |  |  |  |  |  |
|  | 296 |  | 2.65 | NP6 |  | 2.65 3.23 |
| audiola |  |  |  |  |  |  |
| $33 \mathrm{A6}$. | 225 | B4658 | 3.53 | SL5 | B9064 | 3.23 |
| C6. 64. | 294 |  | 2.65 | NP42 | B9052 | 2.65 |
| $33 \mathrm{S6}$ (2 Prong) |  | B4659 | 4.41 |  |  |  |
|  |  |  |  |  |  |  |
| BELMONT $566.666 .$. | 294 | B4653 | 2.65 | NP42 | B9052 | 2.65 |
| 660 (vibrator only) | 292 | B4652 | 2.35 | NL3 | B9054 | 2.35 |
| 580. 670.680 Series | 296 | B4651 | 2.65 | NP6 | B9050 | 2.65 |
| B OSCH |  |  |  |  |  |  |
| 52+A. $634-634 \mathrm{~A}$. | ${ }_{253}^{27}$ | B4662 | 2.65 | $\mathrm{XP}^{1}$ | B9052 | 2.65 |
| 150 (ist Serics) | 219 | B4663 | 4.41 |  |  |  |
|  |  |  |  |  |  |  |
|  | 221 | B4664. | 2.65 |  | B9054 |  |
| 600153 S | 222 | B4654 | 3.38 | SL5 | B9064 | 3.23 |
| 601038 Ser: | 223C | B4665 | 3.23 | SP5: | B9056 | 3.09 |
| 985100.985200 | 294 | B4653 | 2.65 | NP42 | B9052 | 2.65 |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 441 , $5 * 3$, A1 | 247 | B4 | 3.38 | SP6 | B9 | 3.38 |
| Etrola |  |  |  |  |  |  |
| 6A, 1100. | 220B | B4655 | 3.82 | NL3M | E90 | 2.79 |
| ${ }_{1934.1935}$ (3 Lead) | 294 | 84653 | 2.65 | $\mathrm{NP}^{42}$ | ${ }^{89052}$ | 2.65 |
|  | 292 | B4652 | 2.35 | NL3 | B9054 | 2.35 |
| EMERTSON |  |  | 2.65 |  | B9050 |  |
| 5A | 2775 | 84669 | 3.53 | $\mathrm{SP}^{1} 6$ | B9067 | 3.53 |
| 678-1 | 222 | B4654 | 3.38 | SL5 | B9064 | 3.23 |
| 6A, 14. 2A E123 | 253Y | B4662 | 2.65 | NP42 | B9052 | 2.65 |
| ERLA-SENTINEL |  |  |  |  |  |  |
| 5500. 602.603. | 292 | ${ }^{2} 1652$ | 2.35 | $\mathrm{NP}_{\mathrm{N} 42}$ | B9054 | $\begin{aligned} & 2.65 \\ & 2.35 \end{aligned}$ |
| FADA |  |  |  |  |  |  |
| 101, 102. 104. 10 | ${ }_{2531}$ | ${ }^{84664}$ | 2.65 | NL3 | B9054 | 2.35 |
| 166. 260 Series | 253Y | B4662 | 2.65 | NP42 | B9052 | 2.65 |
| MAJESTIC 40-18805 | 220B | 84655 | 3.82 | NL3M |  | 2.79 |
| PHILCO. | 500P | B6677 | 1.76 | NP41 | B9051 | 1.76 |
| FREED | 210 | B4663 | 4.41 | SPSH | B9059 | 4.4 |
| G.E.' An.......) 210 B4663 4.41 SPS ES059 |  |  |  |  |  |  |
| ${ }^{\text {B40. C41, B52 }}$ | ${ }^{275}{ }^{\text {2 }}$ | 84661 | 3.53 | SLSI | B9074 | 3.53 |
| C60 | 253 | B4650 | 2.65 | NP42 | B9052 | 2.65 |
| D50, D51, D52 | 287M | B4670 | 3.23 | SP62 | B9061 | 3.23 |
| KNIGHT |  |  |  |  |  |  |
| U6 | 294 | 84653 | 2.65 | NP42 | B9052 | 2.65 |
| 17. X6. 24. 25.8841 | 245 C | B4689 | 3.23 | SP55 | B9063 | 3.23 |
| A9811-12, H9817. | 285 \S | B4687 | 4.12 | SP67 | B9073 | 4.12 |
|  | 292 |  |  | NL3 | 89054 | 2.35 |
| MAJESTIC |  |  |  |  |  |  |
| mALLORY |  |  |  | NL3M | B9055 | 2.79 |
|  |  |  |  |  |  |  |
| $10,11,12,13,14$ Ser. | 210 | B4663 | 4.41 | SPSH | B9059 | 4.41 |
| MOTOROL |  |  |  |  | B9052 |  |
| 34, 68.60. | ${ }_{3025}^{29}$ | 84671 | 4.41 | NP42 |  | 2.65 |
| 77 | 230 | B4672 | 4.41 | SPSH | B9059 | 4.41 |
| 77A. 44A. 66 | ${ }_{2}^{270 B}$ | B4673 | 3.53 | SP53 | B9058 | 3.53 |
| 55 | 231 | $8{ }^{8674}$ | 4.26 | SLH | ${ }^{89065}$ | 4.26 |
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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name and Mode! | Mfrs. No. | Our No. | NET | $\begin{aligned} & \text { Mirs. } \\ & \text { No. } \end{aligned}$ | Our No. | NET |
| MOTOROLA (cont'd) |  |  |  |  |  |  |
| Dual 6, Twin 8 . | 253 | B4650 | 52.65 | NP 42 | B9052 | \$2.65 |
| TEN TEN |  |  |  |  |  |  |
| PHILCO | 292 | 34652 | 2.35 | NL3 | 89054 | 2.35 |
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| 817, 818,819 | 501 P | 84678 | 1.76 | NP44 | B9053 | 1.76 |
| RCA VICTOR |  |  |  |  |  |  |
| 5M, 6M. 6M2 | 249 | 84679 | 3.23 | SP62 | B9061 | 3.23 |
| M34, M 105, M | 271 * | B4661. | 3.53 | SL5 1 | B9074 | 3.53 |
| M10 | 253 | B4650 | 2.65 | NP42 | 89052 | 2.65 |
| M101, M104, M108. | 287 M | B4670 | 3.23 | SP62 | B9061 | 3.23 |
| SEARS-ROEBUCK |  |  |  |  |  |  |
| 7128 (4 PRONG) | 294 | B4653 | 2.65 | NP42 | B9052 | 2.65 |
| 7117, 1859A | 271 | B4661 | 3.53 | SP53 | B9058 | 3.53 |
| $\underset{T}{\ln }$ |  |  |  |  |  |  |
| SPARTON |  |  |  |  |  |  |
| 33, 33A, 33 | 292 | B4652 | 2.35 | NL3 | B9054 | 2.35 |
| 36. | 222 | B4654 | 3.38 | SLS | B9064 | 3.23 |
| STEWART-WARNER |  |  |  |  |  |  |
| R112, 1121, 1122, 123 | 292 | B4652. | 2.35 | NL3 | B9054 | 2.35 |
| R118,1171, 1172,1181 | 294 | B4653 | 2.65 | NP42 | B9052 | 2.65 |
| STROMBERGCARLSON |  |  |  |  |  |  |
| 33, 33A | 236 | B4663 | 4.41 | SP5H | B9059 | 4.41 |
| UNITED MOTOR |  |  |  |  |  |  |
| BUICK-OLDS- |  |  |  |  |  |  |
| 393884-5, 4050 | 273 C | B466 | 3.23 | SP51 | B9056 | 3.09 |
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| 544267 Series | 273C | 184665 | 3.23 | SP51 | B9056 | 3.09 |
| WELLS-GARDNER |  |  |  |  |  |  |
| V6Z2, 262 | 253 292 | B4650 B4652 | 2.65 2.35 | $\mathrm{NP42}_{\mathrm{NL}}$ | 89052 | 2.65 2.35 |
| 062.002 A | 206 | B4680 | 3.97 | NL | Es05 | 2.35 |
| 072-072A | 211 | B4663 | 4.41 | SP5H | 89059 | 4.41 |
| MURLITZER |  |  |  |  |  |  |
| A60 | 292 | B4652 | 2.35 | NL3 | B9054 | 2.35 |
| 460,462 |  |  |  |  |  |  |
| JUNIOR 7. FOR | 296 | B4651 | 2.65 | NP6 | 89050 | 2.35 2.65 |
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These controls are supplied with 300 ohin blas circtites which meluite fixed minioum re shtante．
t－Tapped for tone control circuit

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use at full resklance． Resistance wite is wonnd on thorelaing core and covered with
vitreons ensmel except vitrenas entamel except
for contact surfaces：
for contact surfares:
asures extreme rigidity，Larke contact shoe is of metal－impregnated carbon kraphite．Shaft is
 as potent lonmeter．

| Model |  |  | Model S．st |  | W䊍 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No． | \％ 0 Mms | Each | N0． | Ohms | Each |
| B6600 | 1 | \＄2．65 | B6622 | ．5） |  |
| B6601 | 2 |  | 86623 | 1 | \＄2．94 |
| B6602 | 3 |  | B6624 | 2 |  |
| B6603 | 6 |  | B6625 | 4 |  |
| B6604 | 8 |  | B6626 | 8 |  |
| 86605 | 10 |  | B6627 | 12 |  |
| B6605 | 15 |  | B6628 | 29 |  |
| B6607 | 25 |  | B6629 | 35 ！ |  |
| B6608 | 35 | 2.35 | 86630 | 50 | 2.65 |
| 86609 | 50 |  | B6631 | 80 |  |
| 86610 | 75 |  | 86632 | 150 |  |
| B6611 | 100 |  | 86633 | 20.5 |  |
| 86612 | 175 |  | 86634 | 340 |  |
| B6613 | 250 |  | 86635 | 5001 |  |
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$30 s^{3}$ wherinon of dependable ryathality
Fulume contrul Insulated shaft
 form tapur． $1 \%$ inch shafti may easily be cut to shorter iengh． 3 ＂bashing．May be had with or without AC line switch．


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 muis．On！y $\left.1^{\prime \prime}\right|^{\prime \prime}$ dia．，and Diswimates back of mancl． know siates tiogle hale mount－ ing tyre．May be used for alt radio miduirenients． Ideal mhere suace is at a
 soldtitik easy．Nave motion low－primed minta depelidable
low
potrntiourtzas

| No． 89020 89021 89022 89023 |  | Ne． 89025 89026 89027 89028 | Ohms 400 500 1000 1500 |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| No． 903 | Ohme | No． c9037 | Ohms |
| 8903 | 1 | 89038 | 25 |
| 89032 | 2 | 89039 | 30 |
| 89033 | 3 | B9040 | 40 |
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 tends 11／4．Code：A－Antenna control．U－ Potentioneter．T－Tone controt or audio sbunt Potentioneter．T－Tone control or audio shunt．
Less Switch With Switch


## FIETERMATIC

 TONE CONTROLSAdanced monefier tsice oc mincothly and noiselessly．Mica dielentic conkturifing．in bake－



 \begin{tabular}{ccc|cc}
Cap． \& No． \& Each \& No． \& Esch <br>
．015 \& 85025 \& $35 c$ \& 85030 \& 47 c

 

.0116 \& 85026 \& $35 c$ \& 85031 \& 47 <br>
.01 \& 85027 \& 41 c \& 85032 \& 53 <br>
.015 \& 85028 \& 47 c \& 85033 \& 59 <br>
.02 \& 85029 \& 53 c \& 85034 \& 65
\end{tabular}

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 RHEOSTATS}Ideral theowlats for many comenerijal aphwathons．Give maximumi dissipation or size becative of cumulete at cir－ inswated with asbestos．



\section*{\title{

STANDARD

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These new Yarley Caiversal Controls make it possible for the serviceman to
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## ABEOLUTELT NOIGELESS

Contrinoles scientifir develophent has re sulted in tho new raxley wermanent ailent controls. They have perfertiy smooth tapers controlled by specisi geometrie design. Silver-to-silfer contacts are used between all mowing curtemtecarting parts to result in perfect, noiseless contact bethe resictance element This control and the resictance element. This is the lieal struction. Jom priced quality units.


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35 c

## TAXLEY VOLUMIE CONTROL TAPER CHARTS

The graphe shown here illustrate the various tapers of Yaxiey volume controls. To stmplity the reading of these tapers, the following explanations are given

A modiffed logarithmic left-hand taper In the carbon unit: semi-Iogarithmic taper In the wire wound unds. For us



II A right meircins. trols, emi-logarith- CARBON CONTROL TAPERS wound types. Fer series circults, such as cathode voltage con-
trols.
Cight Combination tager. For antenna and "C" bias con-
IV. LInear taper. Lsed where the voltane changes proper. tionate to the degroe of rotatian.
Vil. A left hand tapar found only in wire-wound confrols. Uneful in consbined control circuits.

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Cat.
Manufacturer and Model
No. YOUR
PRICE
A. C. Dayton
"Navigator" Serles $\qquad$ .89009 S0.88
Alrcastle

D, DC, H, B80....................... 88500 .88

D, DC, H, $680 \ldots \ldots, \ldots, \ldots$
1.47

B7 $^{85,86,88,110 \text { V. D.C., 8F... B8s01 }}$
Allied Radio
G9545. G9547. G9549. . . . . . . . . . . B8859
Z4. 25
B8531
89010
Atwater Kent
37. 37C. 37F. 38,40 . 40F. 41DC.


(Farly) …........................B8504
55. 55 C (Late). 60. 60 C (Late).
(70. 74.76 ). 122 (70. 74.76 ,

$87 \mathrm{D}, 55 \mathrm{~F}, 55 \mathrm{FC}$ (Late)........B8505
H1. 112 (72) ........................... B8506
84 (Late), 84 F (Liste), 87.94.

Balkelt
MLI. ML2, Z4, Z5. ................ 89010 .8B

Belmont

Brunswick
$\mathbf{B 1 7}$ (For PR17-8. 2nd Type) . . . B9014 Colonlal
164. 164B. 182. . . . . . . . . . . . . . . . . B9015

Crosley
Crosiey
27.1
77.1
28. 53. 54. 36. 57. 58.
30 S 31 S 3S 34 S .49 S .418 S . 82513
$40 \mathrm{~S} .41 \mathrm{~S} .42 \mathrm{~S}, 82 \mathrm{~S} . . .$. 41. 41S. 40. 804 (Fsandbox)

608 (Gernbox) for (Gem:
Chest). 610 (Gembox). 704
(Jewplbox). $7041 \mathrm{~s}, 705$ (Show
box DC) 706 (Showbox) . 88
${ }_{121}^{120}$ Serles ${ }^{\prime}{ }^{\prime \prime} B^{\prime \prime}, 127,127 \cdot 1$
${ }^{12} 150$ Sertes A $123.126 .126-1 . \mathrm{Br} 25$
1 ti
128.
129
5
$\begin{array}{lll}128 . & 129-1,131,137,131,169, \\ 526, & 550, & 626,916,\end{array}$
130. 139 -1 132.1 136-1 ......... B8528
136. 989 (026) $160(796)$ B8529
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816. 889 ( 926 ). 769 (726). 1199 . 128530

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| :---: | :---: | :---: | :---: | :---: | :---: |
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| Eria |  | 220 ( | 1.47 | 380 Hh , Duo $311 . . . . . . . . . .$. Bas58 | . 88 |
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| NF (43), Ko (761, $\mathbf{i 6 2}$. |  | Mont gomery-Ward |  |  | 8 |
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| Or CA, SF $45 / 72-\mathrm{Ca}$ ( or |  |  |  |  |  |
|  |  | 17 ('31) י"Turret Cond.: .............B9117 | 1.48 | Sparton |  |
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$41890.5580 .424,534 \ldots \ldots$. . 33052 50.59 $37.3,40,42,52,41,43,44.83106 *$. 88 60. $60 \mathrm{C}, 70$ (D a I, Chis.

(F Chassis) ….............B3105*
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 $165,21 t_{1} 246,275,310.667$.
$418,55,708,821.188$. $228,260,867,816,612$,
$627,808,812,80 \mathrm{~F}, 92 \ldots .$.
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511
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945

Brunswick

## B3087

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| MF |
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the left and maximum volume at the the left and maximin volume at the curves indicate percentage of resistance change: flairs at top indicate percentame of clockwise rotation. Refer to
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 Majestle（Cont＇d

Montgomery－Ward（Ajrline）
1522－62， $3035-37$－65－67，811， 1711 ． 33037
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| anufasturer and | Model | Cat．No． | NET |
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B3 1634093 90，226．30．111，211， 112 ．

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| 61 | 31076 | 8\％； 87 ，511．．．．．．．．．．．． |
| 166 | －37999 |  |
| 83162 | 4094 |  |
| B3225 | ${ }^{33-5067}$ | FT－6 |
|  | －${ }_{\text {3 }}^{3}$ | 60． |
|  |  | ${ }^{35 .}$ |
|  |  |  |
|  | ${ }^{33-\text {－3147 }} 5$ | 8 |

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|  |  | Res． |  |  |  |
| No． | No． | Ohms | No． | N | N |
| B3286 | N106 | 5，000 | 1 | 83298 | 1108 |
| 83288 | N1／10 | 19，000 | 3 | 83293 | PL00 |
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 Allied Radio (See Knirht) American Hosch Magneto Model 5 . Ambrola, 16 Ambrola46 DC
35 Crutisers. 5 . 87,66 . $76 \ldots$ 84217 50.59 35 Cruisersi. 5i, 87 , 66 . T6.l. 84200 .52

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20 L,

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 54 (Tone Contral), ${ }^{\square}$ F. A, D'Andrea (Fada)




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48Kw. 49にW. Flas.B4262**48KW. t9kW. Flashograf.........84215RC Chassis Tsed in 78.79 Iie-1.47
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[^3]$\dagger$ Requires "On-Off"' Switch, B423t.

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| Manufacturer and Model Cat. | YOUR PRICE | Manufacturer ant moded ${ }_{\text {Cat. }}$ No. | YOUR <br> PRICE | nufacturer and Model Cat. | YOUR <br> PRICE |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Crosley Radio Corp.- (Cont'd) |  | Montgomery Ward \& Co. |  | Sears, Roebuck \& Co.- (Cont'd) |  |
|  | S 1.18 | 2829 Balkoa, 2827. 2895 DeSoto, 2897 | 50.59 | 1708, 1709, 1720, 1745, 7065....84403* <br> 7091, 7692. 7053. 7004 ........... 84404 | S1.47 |
| male Shafl- 60 , fr10 Gem Rox, |  | 1111, 811, 1111X. 811X, WC24. | S0.59 | $1708,17091712 \text { 1713, 17i4, }$ |  |
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1.18Zenith Radio Corp1.18I. 761.1876
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| :---: | :---: | :---: | :---: | :---: |
| 100 | 84850 | 84950 | 85050 | 85150 |
| 150 | 84851 | 84951 | 85051 | 85151 |
| 200 | 84852 | 84952 | 85052 | 85152 |
| 250 | 84853 | 84953 | B5053 | 85153 |
| 300 | R4854 | B4954 | 85054 | 85154 |
| 3.30 | B4855 | 84555 | 85055 | 85155 |
| 400 | 84856 | 84956 | 85056 | 85156 |
| 450 | B4857 | 84957 | 85057 | 85157 |
| 500 | B4858 | B4958 | B5058 | B5158 |
| 600 | 84859 | B4959 | B5059 | B515s |
| 700 | 84860 | B4960 | B506 | 85160 |
| 800 | 84861 | 84962 | 85061 | 85161 |
| 900 | 84862 | 84962 | 85662 | B 5162 |
| 1000 | 84833 | 84963 | 8593 | 85163 |
| 1250 | B4864 | 84964 | B5064 | B5164 |
| 1.500 | B4865 | B4965 | B5965 | B5165 |
| 1750 | 84866 | 84966 | B5866 | B516\％ |
| 2000 | B4867 | B4967 | B5067 | B5167 |
| 22\％00 | 84868 | B496t | 85068 | B5168 |
| 22500 | 84869 | 84969 | 85069 | 85169 |
| 3000 | 84870 | 84970 | B5070 | B5170 |
| 3600 | 84871 | 84971 | 85071 | 85171 |
| 4000 | 84872 | 84972 | 85072 | 85172 |
| 4500 | 84873 | 84973 | B5073 | 85173 |
| 5000 | 84474 | 84974 | 85074 | 85174 |
| 6000 | E4875 | B4975 | B5975 | B5175 |
| 7800 | B4876 | B4976 | 85876 | 85176 |
| 8000 | 8 4877 | B4977 | 85077 | 85177 |
| 9000 | B4878 | B4978 | B5078 | 85178 |
| 10900 | E4879 | 84979 | 85079 | 85179 |
| 12500 | 8 4880 | 84980 | E5080 | 85180 |
| 1.3000 | B4E81 | 84981 | B5082． | B5181 |


| Reslst． Ohms | $\begin{gathered} \text { W/4TT } \\ \text { No. } \end{gathered}$ | $\begin{aligned} & 1 / 2 \\ & \text { wat } \\ & \text { No. } \end{aligned}$ | $\begin{gathered} \text { witt } \\ \text { No. } \end{gathered}$ | $\underset{\text { No. }}{\substack{2 \\ \text { No. } \\ \hline}}$ |
| :---: | :---: | :---: | :---: | :---: |
| 17500 | 84882 | 84982 | B5082 | 85182 |
| 210001 | 84883 | 84983 | B5083 | E5183 |
| 22.500 | B488 | B4914 | 85084 | 85184 |
| 25000 | B485 | 84985 | 85085 | 85185 |
| 30000 | B4E86 | 84986 | 85086 | B51策 |
| 40000 | B4887 | 84987 | B5087 | 85187 |
| SP＞0， | B4888 | B4988 | BS889 | 85188 |
| 60000） | 84889 | B4989 | B5089 | 85189 |
| 7．0009 | B4830 | 84990 | B5390 | B5190 |
| 100000 | B4891 | 84991 | 85891 | B5191 |
| 150000 | 84892 | 84992 | B5092 | B5192 |
| $2 \times 18 \times 0$ | 84893 | 84993 | 25093 | B5193 |
| 250009 | 84894 | 84994 | 85094 | B5194 |
| 900003 | 8485 | 84995 | 85095 | B5195 |
| 401000 | 84896 | B4996 | 85096 | B5196 |
| 504 Emb | B4897 | B4997 | 85997 | B5197 |
| 5armiki | B4898 | 84998 | B5898 | 85198 |
| 500060 | B4839 | 84999 | 85099 | 85199 |
| 900000 | B4909 | 85000 | 85100 | 85209 |
| 1 meg． | 84901 | 85001 | B5101 | 85201 |
| 15 meg． | 8492 | B5002 | 85102 | B5202 |
| 2 meg． | 84903 | 8503 | B5103 | B5203 |
| 1 meg． | B4904 | 85004 | B5104 | 85204 |
| 3 treg． | E4905 | 85005 | B5105 | 85205 |
| 3.5 meg． | E4906 | B5006 | B5108 | S5206 |
| 1 meg． | 官4907 | B5007 | E5107 | 85267 |
| 5 meg． | E4908 | B5008 | 85108 | B520 |
| 1 meg－ | B4999 | 85009 | B5109 | 85209 |
| \％meg． | 84918 | 85010 | B5110 | 85218 |
| 8 meg． | E4911 | 85011 | 85111 | 85211 |
| $1{ }^{1}$ meg． | 88912 | 85012 | B5112 | 85212 |
| 1）meg． | E4813 | B513 | B5113 | E5213 |


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STANDARD STOCK RANGES

## TYPE "F" RESISTORS

Qulet, metallized type resistors for use in rificul circuits. Ahoolutely dejendable famons IURC guality. Standard with leading manufac thrers and radio servicemen. Order tesistors wanted from list below, mpecifying resistance and ciring stock number slown undef each type.

STANDARD RANCES

| OMMS | OHMS | OMNS | OMMS |
| :---: | :---: | :---: | :---: |
| 50 | 2000 | 12500 | 200000 |
| 100 | 2250 | 15000 | 250000 |
| 200 | 2500 | 17500 | 300000 |
| 250 | 3000 | 20000 | 400000 |
| 300 | 3500 | 25000 | 500000 |
| 350 | 4000 | 30000 | 750000 |
| 400 | 5000 | 40000 | 1 Meg |
| 509 | 6000 | 50000 | 1.5 Meg |
| 600 | 7000 | 60000 | 2 Meg. |
| 750 | 7500 | 65000 | 3 Meg. |
| 800 | 8000 | 70000 | 5 Meg |
| 1000 | 9000 | 7590 | 6 Meg. |
| 1250 | 10000 | 100000 | 7 Meq. |
| 1500 | 11000 | 150000 | $10 \mathrm{Meg}$. |

$1 / 2$ WATT.
85700. F. $1 / 2 \mathrm{a}$ 1the" long. Pigtail tspe, 50 Listit Exch $1 \bar{c} \mathrm{c}$. LETH EACH:

I1e
specify value when ordering

## 1 WATT.

B5701. F-1. 113,4" long. Pigtail tupe. 100 OHMS TO 10 MEG.
List Each 20e.
Specify value when ordering
2 WATTS.
B5702. FF2. $1^{173 / 4 \%}$ long. Pigtail tspe. 50 Hith Each 300 List EFACH, 30 .

SPECIFY VALUE WHEN ORDERING

## -IRC METALLIKED RESISTOR KITS

Handy kits coniaining an assortment of the most popular ralues of the InT tyje insulated mplallined resistors. Packed in neat. compact container, of durable construction.

## STANDARD 1 WATT EIT

B57 5 . Ten of the most used values of the popular type BT-1 rully insulated InC resistors. in a handy contaner wisch ran pasily be carried in bour rocket. Ikesistor falues not ineluded may be eacils obtained by usiog two or nore of the units in this kit

## NET

51.18

## STANDARD $1 / 2$ WATT EKT

## 85716, An exmerially liandr assortment of ten

 trpe RT . $1 / 2$ resistors. ronsisting of the most poputar values. Iteal for mietiget
## DELUXE 1 WATT EIT

B8717. A lardir asoriment of the most monular salues of the type BT- 1 resistors. Consists of 20 resistors of practical. most often used inflaite spare marking for earh unit. $\& \rightarrow$ diffente spare marking for earh unit. © 4.353
Ideat for the service kit. NET......

| Ohme | Ohmes | Ohms | Ohms | Ohms | Ohms | Ohms | Ohms |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 40 | 500 | 3000 | 11000 | 35000 | 150000 | 1.5 meg |
| 2 | 50 | 600 | 3500 | 12000 | 40000 | 2000000 | 2 meg. |
| 3 | 100 | 750 | 4000 | 12500 | 50000 | $250000$ | 3 meg. |
| $\underset{\sim}{5}$ | 150 | 800 | 5000 | 15000 | 60000 | 300000 | 4 meg . |
| 7.5 | 200 | 1000 | 6000 | 17500 | 6.5000 | $400000$ | 5 meg. |
| 10 | 250 | 1250 | 7000 | 20000 | 70000 | 500000 | 6 meg. |
| 15 | 300 | 1500 | 7500 | 22500 | 75000 | 600000 | 7 mex. |
| 20 | 350 | 2000 | 8000 | 25000 | $100000$ | $750000$ | 10 mer. |
| 25 30 | 400 450 | 2250 2500 | 9000 | 30000 | 125000 | 1 meg. |  |

Type BT- $1 / 2-1 / 2$ Watt B5705. Available in a 11
 ohms are insulated wire wound
 Speciity values when ordering. List, Each, 170. NET

10c

## Type BT-I-I Watt B57006. Available in a ${ }^{2} 11$ MEGOHMS. (Talure below 500 ollms are inculated wire wound resintors.) size $1 \% \times 1 / 4$ ". Spee. ify values when ordering List. Each. 20c. ${ }_{\text {EACH }}^{\text {NET }}$

## Type BT-2-2 Watt

 B5707. Available ${ }^{1}$ n ${ }^{2}$ all ohms are insulatmd wire wound resistors.) Sizajzx"in". Spec. iny values when ordering. List. Each. 36c.
NET EACH .....


## NEW IRC RESISTANCE

 INDICATORA $n$ ew walibrated
continuously satiable Renintance Indivaror Fustd to promect against overloads. Direet-ruading telifed range from zero to I Megohm. Equipped with four flexible leads permiting it to the ustd as a voltage drider, ray also bo used for check mining rircuit ralues borniometers and volume ink resistor unirs. Jotenthomers an functions controts. units. Housed in a sturds molded bakelite base: has mounting tect for wermanent Installation on strites hench. Supplied complete with four rolor-poded leads, illigator clips, and instruc-

${ }^{5} 485$

## IRC POWER WIRE-WOUND RESISTORS

- Heavy Ceramic Core


Itigh quality wire-wound units of sturdy construction. Finest resistance whe is evenly spaced on non-hygrowholic ceramic core, Durable cement coating provides proterion edrainst extreme
heat and humidity. Wirh tinned wire leads.

PREE-NEW IRC
RESISTO-CHEST With Purchase of 56 Rexistors
By ordeling 56 of the giew Tybe LT- 1 watt re-
sistors, any values listed asiors, any palues listed chest. Just the thing for your service bench. Chest measures 8 佔" high. $42{ }^{\circ \prime}$ wide. $5 \%^{\prime \prime}$ deep; has 7 small drawers. 1 large drawer. Will hold several Jundred resistors. R57714. RESISTO-CHEST and NET..... watt resistors.

RESISTO-CHEST
The above handy drawer-chest by Itself, no resistors included. A real value at this price.
YOUR PRICE
818

| Resist. Ohms | TyP最AE No. | $\begin{gathered} \text { TXpe DG } \\ 2 \mathrm{WW} \text { Wo. } \\ \text { No. } \end{gathered}$ | Reglst. Ohms | $\begin{gathered} \text { Trpens } \\ \text { iXatt } \\ \text { Ne. } \end{gathered}$ | $\begin{gathered} \text { Type DG } \\ \text { ze Watt } \\ \text { Ne. } \end{gathered}$ | Rusfst. Ohms | $\begin{gathered} \text { Type AR } \\ \text { 10 Watt } \\ \text { No. } \end{gathered}$ | $\begin{gathered} \text { TypeDG } \\ 20 \text { We.te } \\ \text { Ne. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 857 | 85925 | 100 | 85761 | 85931 | 3000 | B577 | B5942 |
| 2 | 857 |  | 200 | B5783 | 85932 | 4000 | 85773 | 8594 |
| 3 | 85752 |  | 300 | 85763 | 85933 | 5000 | 85774 | 85944 |
| 5 | 85753 | $B 5926$ | 400 | 85764 | 85934 | 7500 | 85775 | 85945 |
| 7.5 | 85754 |  | 500 | 85765 | 85935 | 10000 | 85776 | B5946 |
| 10 | 85755 | B5927 | 750 | 85766 | B5936 | 15000 | 85777 | 85947 |
| 15 | 85756 |  | 1000 | E5767 | 85937 | 20000 | 85778 | 85948 |
| 20 | 85757 |  | 1250 | 85768 | 85938 | 25000 | 85779 | 85948 |
| 25 | 85758 | 5928 | 1500 | 85769 | 85939 |  | 85723 | B5956 |
| 50 | 85759 | 85929 | 2000 |  | 85940 | 40000 | 85724 | 85951 |
| 75 | E5760 | 85930 | 2500 | 65771 | 85941 | 50000 | 85725 | B5952 |

TYPE AB-10 WATTS
Available in all ranges up to 50,000 ohms. Fxtremody bopular among Nervicemen and Exmorimenters ior making wip diang inge lieary tinned leads for easy connertion
List. Each. 40c. HET EACH

## TYPE DG-20 WATTS

Availabie in all ranges up to 50,000 ohme 2 long: fies digm. For all thpes of installa tions.
1-15.000 0hm Units. NET EACH
38 c 20000 to 50.000 Ohm Units.
NET EACH

# MAmoiral adjustable resistors 



## VARIOHM RESISTORS

Wire wound on sturds porcelain tuhe，cosred Wiih vilteous unamet．Exposes a norrow track
 lugs assute permanent connectlon．Wattare rating
confurnis to N．E．M．A．standatus．Moninting conformis to N．E．M．A．standards．Mounting
brackets are adinutable．One adjustshle lug is bramets ate addinstatile．one adjustahbe

## VTREOUS ENAMELED WITE

 ADJUSTABIE LUGSAll Variohrn units are $\frac{3 / 8}{}$ inches in diameter． Tong adije withtiout undue wear on the wire these units are fideal replecerumps for tapped voltage dividers．May be used in revelting sels，amalene transmitters．etc．Archrate to withln siof of the specifled salue．Listing below rowers pogular yaiurg， You can depend on these well－ruade resistor units．

| 25 WATTS 56＂$\times 25^{\prime \prime}$ TUBE |  |  | 50 WATTS |  |  | 80 WATTS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| t． | Resist | Cur |  |  |  |  |  |  |
| No． | Ohms | M．A． | B4717 | 5 | 33300 | B4773 | 10 | 2730 |
| E4705 | － 1 | 5460 3160 | B4742 84743 | 10 | 2340 $1+80$ | 84774 | 15 25 | 2230 1730 |
| 84796 | 5 | 3160 2450 | 84743 84744 | 25 | 1480 1000 | 84776 | 50 | 1220 |
| 84712 | 10 | 2450 1730 | 84745 | 75 | 850 | 84777 | 100 | 865 |
| B4714 | 15 | 1410 | B4746 | 100 | 740 | 84778 | 250 | 545 |
| 84715 | 25 | 1090 | E4747 | 150 | 600 | 84779 | 300 | 500 |
| E4716 | 50 | 770 | B4748 | 200 | 520 | 84780 | 500 | 387 |
| E4717 | 75 | 630 | B4749 | 250 | 465 | 84781 | 750 | 316 |
| 8471884719847208472184722 | 100 | 545 | 84750 84751 | 500 | 330 370 | 84782 84783 | 1000 1500 | 270 |
|  | 150 |  | B4751 |  | 270 |  |  |  |
|  | 200 | 385 | B4752 | 800 | 260 | 84784 | 2000 | 190 |
|  | 250 | 345 | B4753 | 1000 | 234 | B4785 | 2500 | 173 |
|  | 500 | 245 | B4754 | 1500 | 190 |  | 3500 | 146 |
| 847238472484725872684727 | 750 | 200 | 84755 | 2000 | 165 | List Price，$\$ 1.75$ YOUR PRICE， EACH |  | $8 \rightarrow 1+3$ |
|  | 800 | 193 | 84756 | 2500 | 148 |  |  |  |
|  | 1000 | 173 |  | 3000 | 135 |  |  |  |
|  | 1500 | 14. |  |  |  | EACH ．．．．．．． <br> B4789 <br> 8500 |  | 100 |
|  | 2000 | 122 | B4759 | 5000 | 104 |  |  |  |
| 84828 | 2500 | 109 | List Price，si． 35 |  |  | $\begin{aligned} & 84790 \\ & 84791 \\ & 84792 \\ & 84793 \\ & \hline \end{aligned}$ | $\begin{aligned} & 10000 \\ & 15000 \\ & 22000 \\ & 25000 \\ & \hline \end{aligned}$ | $\begin{array}{r}70 \\ 61 \\ -55 \\ \hline\end{array}$ |
|  | 3000 | 100 |  |  | － |  |  |  |
| 84730 | 3500 | 92 | E |  |  |  |  |  |
| 84731 | \％ 4000 | 7 | B4761 7500 － 85 |  |  |  |  |  |
| B4732 |  | 7 | 84762 |  | 82 |  |  |  |
| Eist Price． 85 c YOURPRICE， EACH． |  |  | 8476484765 | 10000 | 7467 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  | B47668476784768 | $\begin{aligned} & 60 \\ & 50 \end{aligned}$ | 84794 30000 <br> 84795 35000 |  | 50 |  |
| $64733$ |  |  |  | 45 |  |  | ， |  |
| 847368473784738 | ${ }_{10000}$ | 64 | List Price， 51.50 （ |  |  | 84795 84797 8489 | 30000 40000 45000 | 4139 |
|  | 12000 | 50 | YOURPRICE， EACM． |  |  | 84797 <br> B4798 <br> 188 | 45000 50000 |  |
| 84737 84738 | S00 | 23 |  |  |  | List Price． $\mathbf{\$ 2 . 2 5}$YOURPPRICE．，EACM．．．．．．．．．． 32. |  |  |
| List Price．95e YOURPRICE， |  |  | $\mathbf{8 4 7 6 9}$ 30000 43 |  |  |  |  |  |  |  |
| EACH．．．．．．．．． |  |  | B4771 50000LStPrice， 51.70YOURPRICE，EACH．．．．．．．．．．．．． |  |  |  |  |  |
| B4739 | 20000 | 20 |  |  |  |  |  |  |  |  |  |  |
| B4740 | 25000 |  |  |  |  |  |  |  |  |  |  |  |
| List Price． 51.10 <br> YOURPRICE， <br> EACH． <br> $65 c$ |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 84803 ． <br> Listioc． <br> NET EACM |  |  |  |  |  |  |  |
| Varlohms are alse avail－ able in 100 and 200 watt sizes．Write for prices． |  |  |  |  |  |  |  |  |  |  |  |  |

## ELECTRAD PRECISION RESISTORS



| $\begin{aligned} & \text { Cat. } \\ & \text { Ne. } \end{aligned}$ | Redist． Ohens | Curs． <br> M．A． | List | $\begin{aligned} & \text { NET } \\ & \text { EACH } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 84805 | 5 | 1225 | \＄0．85 |  |
| 84806 | 5 | 548 | ． 85 |  |
| 84807 | 10 | 387 245 | ． 85 |  |
| 84809 | 50. | 173 | ．85 | 510 |
| B4E10 | 100 | 122 | ． 85 |  |
| B4E11 | 150 | 100 | ． 85 |  |
| B4812 | 200 | 86 | ．85 |  |
| B4813 | 500 | 55 | ． 85 |  |
| 84814 | 1090 | 38 | ． 90 | 50.53 |
| B4815 | 2500 | 24 | ． 98 | ． 53 |
| 84804 | 4500 | 18 | 1.00 | ．588 |
| $8{ }^{4816}$ | 5000 | 17 | 1.00 | －58 |
| 8417 | 7300 | 14 | 1.00 | ． 58 |
| B4818 | 10000 | 12 | 1.00 | ． 58 |
| B4819 | 12500 | 11 | 1.10 | ． 64 |
| B4820 | 15 N 00 | 10 | 1.10 | ． 64 |
| 84821 | 20000 | 8.6 | 1.35 |  |
| B4822 | 25000 | 7.7 | 1.35 |  |
|  | 30000 35000 | 7.5 | 1.35 1.35 |  |
| 84824 84825 | 35000 40000 | 6.5 | 1．35 |  |
| $\begin{aligned} & 84825 \\ & 84826 \end{aligned}$ | 40000 50000 | 5.5 | 1.35 1.35 |  |
| B4827 | 60000 | 5 | 1.60 | 50.94 |
| 84828 | 75000 | 4.4 | 1.60 | 94 |
| B4829 | 100000 | 3.8 | 1.85 | 1.09 |

Aecurate dependable resistors，non－Inductively wound in layers un isolantite．Fitremuly low againes molsture．lideal for use as multiviters laboratory resistors etc．Accuracy plus or minus 1\％．With tinned leads．Ferrule terminals listed below mas be added．

| $\begin{aligned} & \text { Cat. } \\ & \text { No. } \end{aligned}$ | Resisth Ohms | Curr. | 1．ist | $\begin{aligned} & \text { NET } \\ & \text { EACH } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 84830 | 125000 | 3.4 | \＄2．10 | 51.23 |
| 84831 | 150000 | 3.1 | 2.35 | 1.38 |
| 84832 | 175000 | 2.9 | 2.35 | 1.38 |
| B4833 | 200000 | 2.7 | 2.35 | 1.38 |
| 84834 | 225000 | 2.5 | 2.60 | 1.53 |
| 84835 | 250000 | 2.4 | 2.60 | 1.53 |
| 84836 | 300000 | 2.2 | 2.85 | 1.68 |
| B4837 | 400000＊＊ | 1.9 | 3.00 | 1.76 |
| ${ }^{888385}$ | 500000＊ | 1.7 | 3.40 | 2.00 |
| B4839 | 230000＊ | 1.3 | 4.50 | 2.64 |
| B4840 | 1 meg．＊ | 1 | 5.25 | 3.09 |
| ＊These resistors are wound on 8 section form to provide the bigher dielectric strength neces－ sary for 1 多 watt or 1000 volt rating in these |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

## FERRULE TERMINALS

Designed for use with the Precision Resistors described above．Screts into the resistor ends B4842 Per of ferrule tyives．
Electrad Precisisn Resistors are availablo in Electrad Precisisin Resistors are availabite in
other values not listed，on special order with re． mittance，at the prise of the next higher unit．


## 10 WATT

TRUVOLT RESISTORS
Wire－wound replacement resistors with 1000 Folt fusulation，Fasily adjusted to mmpired re－ sistance by means of convenient sliding clip． Festures space－wound construction，heat－con－ chleting copper core and aisestos insulation for cooler operation．lias protectire fibre insulatin： slefye Arruract is within $5 \%$ of simerifed balue．资＂dia．， $13^{3 \prime \prime}$ long；with stidiny flip．

| $\begin{aligned} & \text { Cat. } \\ & \text { No. } \end{aligned}$ | Type | $\begin{aligned} & \text { Thers } \\ & \text { Ohms } \end{aligned}$ | M.A. | $\begin{aligned} & \text { Volts } \\ & \text { Vols } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| E4459 | A－． 005 |  | 4500 | 2.2 |
| 84460 | A． 01 |  | 3150 |  |
| 84461 | A－． 02 | 2 | 2200 | 4.5 |
| 84452 | A－． 025 | 2.5 | 2000 | 5 |
| B4463 | A－． 03 | 3 | 1800 | 5.5 |
| E4464 | A－． 05 | 5 | 1400 | 7 |
| B4465 | A－． 075 | 7.5. | 1150 | 8.5 |
| B4466 | A－． 1 | 10 | 1000 | 10 |
| 84467 | A－． 15 | 15 | 815 | 12 |
| 84468 | A－． 2 | 20 | 700 | 14 |
| 84469 | A－． 25 | 25 | 630 | 16 |
| 84470 | A－． 3 | 30 | 570 | 17 |
| E4471 | A－． 5 | 50 | 450 | 22 |
| B4472 | A－． 75 | 75 | 360 | 27 |
| B4473 | A－1 | 100 | 315 | 31 |
| 84474 | A－2 | 200 | 220 | 45 |
| B4475 | A－3 | 300 | 150 | 55 |
| E4476 | A－4 | 400 | 158 | 63 |
| 64477 | A－5 | 500 | 141 | 70 |
| B4478 | A－8 | 800 | 112 | 89 |
| 84479 | A－10 | 1000 | 100 | 100 |
| B4480 | A－12．5 | 1250 | 89 | 111 |
| 84481 | A－15 | 1500 | 81 | 122 |
| B4482 | A－20 | 2000 | 70 | 141 |
| B4483 | A－25 | 25000 | 63 | 158 |
| B4484 | A－30 | 3000 | 56 | 173 |
| E4485 | A 40 | 4000 | 50 | 200 |
| 84486 | A－50 | 5000 | 45 | 222 |
| 84487 | A－75 | 7500 | 36 | 274 |
| B448 | A－100 | 10000 | 31 | 316 |
| 84489 | A－150 | 15000 | 26 | 388 |
| 84490 | A－200 | 20000 | 20 | 395 |
| B4491 | A－250 | 25000 | 16 | 400 |
| List Price，50c． YOUR PRICE， EACH． |  |  |  |  |

## －N ADJUSTABLE CLIP

Permits easy additional adjustmen of Electrad 10 Watt Truvolts to inter． mediate value by sliding to proper pe
sition．Easy to mount sition．Easy to mount． B4620．List．10c．NET．．．

5
We can supply the complete line of Truvolt Adjustable Resistors in 25,50 and 75 watt sizes． Available in all standard values．Please order
with remittance or write for quotations． with remiftance or write for quotations．
TR2
ELECIRAD ADJUSTARLE

## VOLTACE DIVIDERS

Atr－cooled voliage dividers with i sliding taps Which．when adjusled．Five correct voltagns de－ sired for any application，can he used to re－ place burned－out or defertire voliage dividers
in many radio sets or amplifiers．Wh，ilb． in many radio sets or amplifiers．Wi， $1 \mathbf{1 b}$ ．

13e日e ORNE－50 WATTS
B4622．Type C．i30S．
List Price $\$ 1.65$
YOUR PRICE．．
76
250 OHMS－50 WATTS
B4623．Type C．250S．
List Price．$\$ 1,90$.
YOU PRIC
73

## 2504 DIMAS－75 WATres

B4624．Typе D．250S．
List Price，$\$ 2,30$
＊1， 24

## 4100e otims－75 WATrs

Designidd for use in the pewer suppiy of a ideal or for use in hizh rexeiver or transmittor． ideal for use in high power amitifiers and re：
cefrers．Equipped with 0 silding taps to give B4625．Type 0．4ios．
List Price，\＄4．50．NET．
＊1E3？
WE CAN SUPFLY ALL MALLORY－ELEC．
TRAD PROOUCTS．WRITE FOR PRICES．

# OHMITE Wisw RESISTORS 



10 WATT

| No. | Ohms | No. | Ohws |
| :---: | :---: | :---: | :---: |
| B8008 | 1 | B8035 | 1250 |
| 88001 | 2 | 88036 | 1500 |
| 88002 | 3 | 83037 | 1750 |
| 88003 | 4 | 8803: | 2000 |
| 88004 | 5 | 88039 | 2250 |
| B8005 | 7.5 | 88940 | 2500 |
| E8006 | 10 | 88041 | 3000 |
| B8007 | 12 | 88042 | 3500 |
| B8009 | 15 | 88043 | 4000 |
| B8009 | 20 | B8044 | 4500 |
| E8010 | 25 | B8045 | 5000 |
| B3011 | 30 | 88046 | 6000 |
| 88012 | 35 | B8047 | 7000 |
| Btois | 40 | B8048 | 7500 |
| 88014 | 50 | 88849 | 8000 |
| 88015 | 7.5 | E8050 | 8500 |
| 88816 | 100 | 88051 | 10040 |
| 88017 | 125 | 880S2 | 11600 |
| B8018 | 150 | B8053 | 12000 |
| B8019 | 200 | B8054 | 12500 |
| 88020 | 225 | B8055 | 13500 |
| 88021 | 250 | 83056 | 14300 |
| 88022 | 300 | 88057 | 15000 |
| R8023 | 350 | 88058 | 18000 |
| 88024 | 400 | 88059 | 17500 |
| 88025 | 450 | B8060 | 18000 |
| 88026 | 500 | 88861 | 20000 |
| E8027 | 600 | 88062 | 22500 |
| B8028 | 700 | E8063 | 25000 |
| -8029 | 750 | 88280 | 30000 |
| 88030 | 800 | 88281 | 35000 |
| B8031 | 909 | 88282 | 40000 |
| 88032 | 1000 | 8823 | 45000 |
| 88033 | 1100 | B8284 | 50000 |
| B8034 | 1200 |  |  |
| List. Each. 40 c . YOUR PRICE, EACH |  |  |  |

BROWN DEVIL RESISTORS
A high quality line of wire wound resistors for als radio and many industrial reqtirements. Accurately rated: wound on high rrade porcelain core. These resistors have a vitreous ebamel coating for complete protectlon. Fispeciglly rerommended for applications whele abnornal mois.
ture is present. Size, $1 \%{ }^{\prime}$ n $3^{\prime \prime}$; with beary tinned wire
 20 WATT

| No. | Ohms | Ne. | Ohms |
| :---: | :---: | :---: | :---: |
| B1065 | 5 | 88086 | 1500 |
| B8065 | 10 | 88087 | 1750 |
| E8067 | 25 | 88088 | 1850 |
| B8068 | 50 | 88089 | 2000 |
| B8069 | 75 | 88990 | 2250 |
| B89070 | 100 | 88991 | 2400 |
| B8971 | 150 | 88092 | 2500 |
| B89072 | 200 | 88093 | 2750 |
| Bae73 | 250 | 88094 | 3000 |
| B8074 | 300 | 88095 | 3500 |
| B8075 | 350 | 88095 | 4000 |
| E8076 | 400 | 88097 | 4500 |
| B8077 | 500 | 8809 | 5000 |
| B907 | 650 | E8039 | 6600 |
| E8979 | 700 | 88100 | 7000 |
| E805 | 750 | 88101 | 7500 |
| Bgas1 | 800 | E8102 | 8000 |
| Brese 2 | 850 | B8103 | 10000 |
| 8885 | 11000 | E8194 | 12500 |
| Bg084 | 1200 | E8105 | 15000 |
| B8085 | 1250 |  |  |
| List, Each. 65t. <br> YOUR PRICE. EACH |  |  |  |
| 88106 | 20000 | 83110 | 40000 |
| 88107 | $2 \overline{5000}$ | B8111 | 43000 |
| 88108 | 30000 | B8112 | 50000 |
| gel 09 | 35000 |  |  |
| List, Each, 75c. YOUR PRICE, |  |  |  |
| B8113 | 55000 | B8118 | 80000 |
| 88114 | 60000 | E8119 | 85000 |
| 88115 | 65000 | E8120 | 90000 |
| B8116 | 70000 | E8121 | 95000 |
| B8117 | 75000 | B8122 | 100000 |

List. Each, $\$ 1.00$.
YOUR PRICE, EACH
59c

WIRE-WOUND RESISTORS


 7c | $\mathbf{B} 9090$ | 400 | $B 9093$ | 700 | 89999 | 1000 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 89091 | 500 |  |  |  |  |

8 c CENTER-TAPPED RESISTORS
May be turet in any flament or hum balancins cir ible fibre strib?
 TOFOR 73c.

## (a)

## ELECTRAD

 CENTER-TAPPED RESISTORSfonfenteatly small, compuct, snd fully pro-

tected with a coating of enamel. Center tap asme. Ohms No. Ohms Ne. Ohms | Ne. | Ohms | No. | Ohms | No. | Ohms |
| ---: | :---: | :---: | :---: | :---: | :---: |
| R4610 | 10 | B4613 | 30 | 84616 | 100 |
| B4611 | 15 | 84614 | 50 | 84617 | 200 |
| $B 4612$ | 20 | $B 4615$ | 70 |  |  | NET

15c

## EAGEE PEUNGER LEAK

 83974. YOUR PRICE.


CONTINENTAL CARBON SEMI-PRECISION RESISTORS
A hlath-quality line af solid-molded tiple The mopular sizes linted below are dideal for use as meter range maltipliers. They are arcuraite githin $5 g_{t}$ and can be used with any A-1 mil liammeter to contstrict an accurate volt-olimmeter Alf units are curefully pre-azed to aswite ab-
solutely constant rated resistance valuts. Body solutely constant rated resistance valuts. Bods
and entis of resistors are entirely covered to sind ernhs of
prevent shorts.




## 10 WATT "RED DEVIL" RESISTORS

For all ratio requiremtents. Wire-wound an lias-losa parer will not aptriotate or chanie talue with bea diflrimes is lufer at rated watiage; will stand themparary overloais of un to 5 if witis size. $1 \%$ " $x \times$. With firnls anchored $1 \frac{1 / 2 "}{2}$ bespy Inned wire lexds.

| No. | Ohms | No. | Ohms |
| :---: | :---: | :---: | :---: |
| B8180 | 1 | B8212 | 1000 |
| 88181 | 2 | B3213 | 1100 |
| 88182 | 3 | B8214 | 1200 |
| 88183 | 4 | 88215 | 1250 |
| 88184 | 5 | 88216 | 1500 |
| 88185 | 7.5 | 88217 | 1750 |
| 88186 | 10 | 88218 | 2000 |
| 68187 | 12 | E8219 | 2250 |
| 88188 | 1.5 | B8220 | 2500 |
| 88189 | 20 | 88221 | 3000 |
| 88190 | 25 | 88222 | 3500 |
| E8191 | 30 | 88223 | 4000 |
| 88192 | 35 | 88224 | 4500 |
| 88193 | 40 | B8225 | 6000 |
| 88194 | 50 | -8226 | 6000 |
| 88195 | 75 | B8227 | 7000 |
| 88196 | 100 | 88228 | 7500 |
| 88197 | 125 | 88229 | 8000 |
| B8198 | 1.50 | 88230 | 8500 |
| 88199 | 200 | 88231 | 10000 |
| 88200 | 22.5 | 88232 | 11000 |
| 88201 | 250 | B8233 | 12000 |
| B8202 | 300 | 88234 | 12500 |
| B8293 | 350 | 88235 | 13500 |
| B8204 | 400 | 88236 | 143100 |
| B8205 | 450 | 88237 | 15000 |
| B8206 | 500 | 88238 | 16000 |
| B8207 | 600 | 88239 | 17560 |
| B8208 | 700 | 88240 | 18000 |
| 88209 | 750 | 88241 | 20000 |
| 88210 | 800 | 88242 | 22500 |
| 88211 | 900 | B8243 | 25000 |

List Each, 40 E
EACH
24 c


## OFMITE I WATE

"WIRE-毒ATT" RESISTORS
An excellent wire-wound resistor for use in all जives of radio rirctits. Noiseless; non-induce the. 1 as hith dielertric mre. colered with in sulating material. RMA color-coded. Acruracy of rating is within $5 \%$.


CENTER-TAPPED "WIRE-WATTS" Accuralely adjusted.

| No. | Ohms | N0. | Ohms |
| :---: | :---: | :---: | :---: |
| B8170 | 10 | B8175 | 40 |
| B8171 | 15 | 88176 | 50 |
| 88172 | 20 | B8177 | 75 |
| 88173 | 25 | 88178 | 100 |
| B8174 | 30 | B8179 | 2100 |

[^5]YOUR PRICE, EACH.
$21 c$

# RESISTORS•BALLASTS 

CANDOHM EXACT DUPLICATE RESISTORS


- Exactly duplicate the original unit.
- Resistance romains Unchanged indefinitely.



Cot.
No.


These resjstors are exact duplicates of the orjginats listed below. C sed as original equibment by luading manufacturers To order units not licied, give all numbers stamped on original part or seni sample. Also give make, model whit oruer and we will ship proper unit.

## CANDOHMETER RESISTANCE INDICATOR

An accurately caljbrated duad-rande resistance indicator. Consists of two Candibhm resistor onits in a single mounting. insuiater rrom and prial in fieat metal rasina, (uithly and acturafely determines value nereasary for mopacing any burned-out or defective resistor

## 

Two scales. reading $0-10,000$ and $0-100,000$ ohtos, are acelterely stamped into the metal
housing of the Cundibmeter-the ubser scate for determining approximate values, and the jower to permit of more accurate reading within its range. Exrellent for expertimental or service work. Complets wib test leads, insulated handle prod, and alligator clips.
Shpg. wt., 11 lb .
86599. List. $\$ 2.00$ $\qquad$ * 1 8 YOUR PRICE

## $0 \cdot 10 ; 0-1,000$ OLIS

The same debion and quality construction as the Candohmeter listed above, but intended for determining lower ralues of resisiance with areater accurary. Srales read: 0-100 and $0-1000$ ohms. Shyge wt., 1 lb . B6596. List. \$1.75.
YOUR PRICE
$\Leftrightarrow 13$

## MUTER 5 WATT ZIPOHM RESISTORS



Wire-wound 5 Watt, fiat-Iype resistors, Combact enough for use in all radio sel and ambli her circuits to repiace over-loaded carbon re sistors. Most unity only $14212^{\prime \prime}$. Thoce pres
 lona Accuracy is 5 Sc. Esch unit is protected with a non-porous high temperature electrical
 List Price, ${ }^{25 c}$.
EACH.


## ZIPOHM 5 WATT RESISTOR KIT

Contalns 57 Ziphin resistors in 27 differen ralues. These units were carefully selected from requency cherts and Fill cover $80 \%$ of replacemente for prire-wound reslstors. Contains the following 5 watt units, feach. 150 ohm, 250 , 110, 600, 195n, 1000, 60070, $7500,15010,20000$ and 25000 ohm. 2 each. 100 ohm, 200. 3001 ,
 $00{ }^{2}$ ing 10 watt unitt: 100001 ohm 15000 . 5000 and ing 10 watt Unitt: 10000 olm, 15000,20000 and 250 n 1 mhm .
SOURASESLIAL PRICE. PABIO


## AC-DC LINE CORD

A rpecial cord with built-in resistor which hermits the operation of any .3 ampere 110 Volt A. C. D. C. receiver from a 220 Volt line. With jlug and recepacle.
B9145. List. \$1.50. NET,
$65 c$


## EUROPEAN ADAPTERS

Designed to adapt American setg for use with European wall outlets Two types are available. One is for Great Britain and possestions iexcept Canidal. the other is for Continental Eurose B7210, Continental Adanter.
8721 I. English Adapter
18c

## PROTEX VOLTACE REGULATOR

An air-cooled dependahle voltage restiator. Fits any standard socket or outdet and will delber corrert voltage to any cer. Sniall and inconapimuons. Extrumply eltitiant. Will give lasting service. Shpg. wt.,
1 ib .
$\mathbf{8 3 9 7 0}$. Lots of $10 . \$ 2.85$.
NET EACH

## THE MALLORY－YAXLEY RADIO ENCYCLOPEDIA

SERVICE 12，000 DIFFERENT RAD10 SETS： SHOWS YOU HOW

ALLIED＇S BIG STOCK OF MALLORY CONDENSERS MAKES IT EAST
listhed for tita serviceman！In one volume，on one page，on one line， you pet the right answer to pieery service problem－－ccomplete analsais of
over 12.0 non sets－data on IF Deaks． rolunie controls．tone controls．tube line－uns，mondensers，vibrutors，trans－ fortier and fititr circuits used．etc． inciudes romplete indimanre．resist－ ance and eapacity data 10 mert all Cloth－bwind \＆\＆ BII80I NET
\＄147


The new Mallory Lnirersal and
Special Iteplacement Condensers jisted below enable the serviceman lo replace defoctire units，rectaid－ lus of shape，size，or electicual charactuistics．An orer 5 ma of all radio recelvers．A small stork of these hish－wuality consitratively－ rateviluments．We carty the entise line of Mallory Condentits in stork at fill lintes．Any item not listed levors is immediately arallable from ALILED stock at $40 / 2 \%$ off Jist ！rlife Plar safe：Order Mallory ifudsets from Al．LIED．

## DRY ELECTROLYTIC CONDENSERS

## CARDBOARD CASED


pact replacement contensers．In－
ternal mutaj seal prevants damase humbitits luat or mobnting hangers， Altor．coded leads



TUBULAR DRY ELECTROLTTICS
Explasialy destighed for
racior．Jtath loakage ro－ leads．
TS－SINGLE SECTION

| Ne． | Mid． | Wherl． | －Type | Size | NET |
| :---: | :---: | :---: | :---: | :---: | :---: |
| E11735 | 10 | 25 | TS 101 | 12，${ }_{4}$ | 29e |
| 811736 | 20 | 25 | TA 102 | $2{ }^{2} \mathrm{x}$ 活＂ | 35 c |
| 811737 | 25 | 25 | Ts 103 | $2 \cdot x$ | $3{ }^{3} \mathrm{C}$ |
| 81173 | 50 | 25 | TS 104 | $2{ }^{\text {\＃}}$（x | 56 c |
| B11739 | 5 | 50 | TS 105 |  | 29 c |
| 811740 | 10 | 50 | TS 106 | $23 \times 1{ }^{\text {2 }}$ | 38 c |
| 811741 | 25 | 50 | TS 107 | 2 保＂ | 47 c |
| E11742 | 50 | 50 | TS 108 | 35x11／4 | 71c |
| TN－DUAL－COMMON NEGATIVE |  |  |  |  |  |
| 811745 | $5 \cdot 5$ | 25 | 1＇N 110 |  | NET |
| 821746 | 10－10 | 25 | TN 111 | \％＇才＂ | Each |
| B11747 | 5－5 | 3.5 | TN 113 | $1{ }^{4}$ |  |
| R11748 | 5－3 | －6） | TN 113 |  | 4 |

IN METAL CANS


## REPLACEMENT

 MULTIPLE SECTIONS TYPT MTDry electrolyties in large round metal cans．Desimned primarily for replacenient of simbialy sized units． thits five listmi $1 y$ jes to reblace all


WET ELECTROLYTICS TIPE WI
Low porrer factor and effelent self－ healing characteristics natare these units iflual for thll heaps－atury flom rmiulie． nients．Lated at int Volts 1 le working vollage extcpt Bli793，whinh is 400 Folts DCe and B11752 and B11794，which are 45 t Volts DC．
$\left.\frac{\text { No．}}{811787}\left|\frac{\text { Mid．}}{4}\right| \frac{\text { Type }}{\text { WE } 447} \right\rvert\,-\frac{\text { Sze }}{\text { NET }}$
 B11788
R11789 811790 811791
311792

| 817793 | 35 |
| :--- | :--- |
| 311794 | 40 |

TUBULAR BY．PASS UNITS

## TrPE TP

| Non－inductive by－pass condensers of superior qualis：．Thoroughly im－ promatecl against mois－ ture．Wire loads are firmily anchored to metal disics． |  |  |  |
| :---: | :---: | :---: | :---: |
| E11750 | ． 0001 |  |  |
| 811751 | ．00025 | $1{ }^{1} / 4 \times 1 /{ }^{\prime \prime}$ |  |
| 811752 | ． 00005 | $1^{1}$ ，x ${ }^{3}$ |  |
| S11753 | ． 001 | $1 / \mathrm{x} \mathrm{l}^{\circ}$ |  |
| B11754 | ． 002 | $1{ }^{\prime \prime} x^{\prime \prime}$ | $\}$ |
| 811755 | ． 005 | 130x＇s |  |
| B11756 | ． 006 | $1{ }^{3}$ | 19 |
| 811757 | ． 01 | 13／4x $\mathbf{1}^{4}$ |  |
| 811758 | ． 02 | 1／3 $x^{6}$ |  |
| 811759 | ． 03 |  |  |
| 811768 | ．03 | 189x | 128 |
| B11761 | ． 06 | $13 / 18 \%$ |  |
| 811762 | ． 1 | $21 / x^{13}$ | 15 c |
| 811763 | ． 25 | $26.0 \times 35$ | 214 |
| B11764 | ． 5 | $2^{2} \times 10$ | 29 c |
| B11765 ${ }^{406}$ V．D．C．WORKINE |  |  |  |
|  |  |  |  |  |
| 811766 | ． 02 | $13 \times 8{ }^{\text {a }}$ |  |
| B11767 | 05 |  |  |
| B11768 | ． 1 | 1＇／4x ${ }^{5}$ | 12 c |
| B11769 | ． 25 |  | 15c |
| B11770 | \％ |  | 21 c |
| 260 V．D．C．WORKING |  |  |  |
| 811771 | ． 05 | 13 ${ }^{\text {a }}$ |  |
| B11772 | ． 1 | 15，8×11／2＊ |  |
| 811773 | ． 25 | 1\％x ${ }^{4}$ | 154 |
| B11774 | ． 5 | $2 x^{12} \times$ | 214 |
| E11775 | 1. | 23x1 | 29 c |

## ＂SPECIAL UNIVERSAL＂ DRY ELECTROLYTICS

Special unity designed to fill those appleations which camat be Laken
care of wih Standard Mablory Units． care of wiuh standard siatiory dits． inals in the sets listed．

## IN METAL CANS

3－2－1－1 Mfd．， 450 Wkg．Volts BIIB95．Type CR－181．For Philce 16．17．13．116． $118.200,201$. 640， $650,660,680$. Size
131,23

8－8 Mfd．， 350 Wkg．Volts B I 1896 ．Tyue Sit－G05．For At－
 NET．


## CARDBOARD CASED

## 8－8 Mfd．250－300

Wkg．Volts
R1 1897．Tyue UR－180， or Crosley $95,96.98,99$ ，
 148．154， 157 ， 158. 14811／x20＂
$76 c$

## 5－25－10 Mifd．， 150 Wkg．Volts

 BII898．Type Lik－182．For Belmont 53， 425 ． 40,525 ， $530.540,625,650:$ Echophone 711A．Emerson．H5．30AW．33AW．250．250AW， 350LW：Grunow 5B．501，550；Zenith 701，702． 801；Wells－Gardner 05A， 5 B．$\$ 1.15$
4－4－4 Mfd． 150 Wkg．Volts BII899．Tyıe［1R－183．For＂＇F＂Kadette Jr．，



## MOTOR－STARTING CONDENSERS d．

Tsed as replacements for faulty orig－ up Mow－startligy motors．For the with ing rint and niefal cap．Workin： Volts， 110 volts AC．


## CARTRIDGE CONDENSERS

These high-quailty condensers are ideal for
 couphing circuits. Figh leakage resistance: low power lactor. Encased in double-impregnated hinthest degree of purlty are used in these the pedly -buile unfer. Dual units have common connertion to strap lug.



## HANDY CONDENSER

 ASSORTMENTComplete assortments of nowWlar sizes used in serice work. hounted on ne a t strips for ing in your hit. 12 condensers to a strlp. one of each ralue. B7760. Consists of:

| Mid. | Volts | Md. | Voles |
| :---: | :---: | :---: | :---: |
| .001 | 400 | .004 | 600 |
| .003 | 400 | .006 | 600 |
| .005 | 400 | .01 | 600 |
| .006 | 400 | .03 | 600 |
| .001 | 600 | .05 | 600 |
| .002 | 600 | .1 | 600 | PRICE $\qquad$

$\qquad$ B7761. Consists Mid. Volts $\quad$ mfd. 85


## WAXED UNCASED REPAR SECTIONS

Wax-dipped units for replacement use in flter block repairing, Compect; high dielectric resiktafre. $6^{\prime \prime}$ color-coded leads are of heat-proof
pushback wire. plopark mire.


## SPARTON TUBULAR REPLACEMENT

Eract duplleate 400 roit units for mparton sfets.
No.
$R 7769$
87779


## MOLDED BAKELITE MHCA CONDENSERS

Genuine bakelite molded units avallabie in three consenient mounitig stries. Hitherf aualits mica dieleciric anit hakelite caseg slyes: ind lug types, ifrmlasly which may alisa be used for mounting. Hithest quality mica units arailable.

| Cap. mid. | $\begin{aligned} & \text { Pigtail } \\ & \text { (Fype } \\ & \text { (Fig.A) } \end{aligned}$ | $\begin{aligned} & \text { (nyut. } \\ & \text { (Fig.B) } \end{aligned}$ | $\begin{aligned} & \text { Lug } \\ & \text { Trop } \\ & \text { (Fig.C. } \end{aligned}$ | Met |
| :---: | :---: | :---: | :---: | :---: |
| .000025 | 87827 | 87826 | 87844 |  |
| . 000004 | 87828 | 87889 | 87845 |  |
| . 00001 | 87829 87830 | ${ }^{87810}$ | 87846 87847 |  |
| .00015 | 57831 |  | 87848 |  |
| . 0002 | B7832 | 87812 | B7649 | -er Dez. |
| . 00022 | 87833 | 87813 | B7850 | 85 c |
| . 0004 | B7834 | 87814 | 87851 |  |
| . 00005 | 87835 | 87815 | 87852 |  |
| . 0008 | 87836 | 87816 | 87853 |  |
| . 001 | 87837 | B7817 | 87554 |  |
| . 0015 | 87838 | 87818 | 87855 |  |
| . 002 | 87833 | 87815 | ${ }^{87856}$ |  |
| . 0025 | 87848 | B7820 | B745 |  |
| . 003 | B7841 | 87821 | 87858 | Proz. |
| . 004 | B7842 | 87843 | 87859 | \$1.30 |
| . 005 |  | 87322 |  |  |
| . 006 |  | E7323 |  |  |
| . 01.8 |  | B7825 |  | 26c |



## BATHTUB CONDENSERS

Non-Inductive metal-cased unlts tor all bypaks repuinements, Permanently, of e I ed and



| Muicliple (eetion (Type ${ }^{\text {a }}$ ) |  |  |  |
| :---: | :---: | :---: | :---: |
| No. | MId. | Velts | Net |
| 87794 | .1-.1-.1-.1 | 200 | 52 c |
| 87795 | .25-. 25 | 300 | 31 c |
| 87796 | .5-. 5 | 300 | 38 c |
| B7797 | . $1-.1-1$ | 400 | 36 c |
| 87798 | . $5-.55$ | 400 400 | $32 c$ 396 |

## EXACT DUPLICA CONDENSERS

These condensers in a Fe electrieal and physical cheracteristics exactly identical to the originals they re* place. we can also supply. ates not listed here. Send us your old con. denser unit with deposit. indeating make. model. aud tube line-up of set, and we Fill duplicate It.

 resse) BELMONT (Ereshman) 655, C-525-C |- Cosici | 6651 | $W 23801$ | 124,125 |
| :---: | :---: | :---: |
| $B 6652$ | $W 25857 \mathrm{~B}$ | 35,163 |



86


## B64571 1460

## CONDENSERS <br> CONDENSER

## BLOES

Fifibest quality reDlacempnt condenmer and blocks. Theze units tor than oliginals. fax get phwical and elec trical duplicates.
renlilling necessary. Wh
for any set not listed lolow. Send In four old rondenser thork with deposit In sll caser let us anow make, model number, and tube line-up. ATWATER KENT
No.
87105
$37 \ldots$ Medel NET
87186 Sphr miter. all sets (A.K. 5.59
$8710740,42,46,62,37.38 .30$

$\begin{array}{llll}87117 & \text { (N5. } 55 \mathrm{C} \text { Chnkes) Early ilate types.. } & 1.55 \\ 87121 & 43.10\end{array}$

87128 40, 42, 44, 45. 52, 56, 57. 1.47
87142 14, 21, 31................... 4.60
87099 1200473. (.1-.1-.1).......... . 59
B7109 8G8 . . . . . . . . . . . . . . . . . 3.4

$\begin{array}{ccccc}\text { B7115 } & \text { M0. 7P6, 7BP6. } \\ 87118 & 90 & 9 P 6 \text { 9BP6 (With re } & 1.73\end{array}$
B7118 90 9pt.9BP6 (Witi re
$\begin{array}{lll}87119 & 90(5) \\ 87120 & 180.8 P \\ B 7122 & 50.1 \\ 87123 & \text { Series }\end{array}$
.85
2.35
B 7148 908. $100 \mathrm{~B} . .$.
B7124 R32, RE45, 52 SPARTM...... 4.20

B7135 89A..... TE MPiE
37129 8- 120, TRO. RQQL........... 3.60
U. SADIO-APEX-GLORITONE



 GENERALELECTRIC-RCA-VICTON 57 \begin{tabular}{l|l|l|l|l}
86660 \& 66143 \& K52, R28 \& 44 \& .57 <br>
B6661 \& 66155 \& K60. R37 \& $4-4-10-4$ \& 1.01 <br>
\hline 86662 \& $66189-1$ \& K64, 121 \& $8-4-4$ \& .94

 

86663 \& $66189-2$ \& K66, 22 \& $8-4-4-4$ \& 1.10
\end{tabular} INTERNATIONAL



\section*{| B6668 | 4713 | 211 Serles | 8 | .56 |
| :--- | :---: | :---: | :---: | :---: |
| B6669 | 7278 | 291 Serie | $7-10$ | .68 |}


\section*{| 86676 | 7824 |
| :--- | :--- |
| 86671 | 8385 |
| 86672 | 8755 |
| 8 |  |}


| 86673 | 96 |
| :--- | :--- |
| B6674 | 99 |


B6677| 80944A| $62-96,62-98 \mid$ 4-12-16 $\mid 1.09$

| E6678 | 1388 | MOTOROLA |  |
| :--- | :--- | :--- | :--- |
| 66679 | 1688 | 75 Lite | $8-8-25$ |

STEWART-WARNER

| EG668 | B1959 | R125, R116 | $4-13-7$ | .97 |
| :--- | :--- | :--- | :--- | ---: |
| B6681 | 83111 | Fil2 | $8-8-5-5$ | 1.15 |

WELLS-GARDNER
 and metal can ty pm. Built to give binding service. Thoroughly imprecated against moisture; conservatively rated. For low price, long life. compactness. low power factor and reliability, these Knight Electrolytic Condensers are values that cant be matched.

## DRY ELECTROLYTIC CONDENSERS <br> METAL CONTAINERS

 CARDBOARD BOXES

Single and multiple section electiotyic condensers in capacities adaptable to pramirally any repair job. Jupally salted for original installation in custombuilt suits. Llpasisy imppreznatert par -ailed carduazd durability: These compar i sad sturdy units are equipage with long insulated wire Reals that allow the greatest ing sidle flexibility in mounting. ¿550 D.C. peak volts; 450 D.C. Fork his volts.
55 Volts Peak -sse Volt Fire. SINGLE SECTIONS


MULTIPLe


## BANTAM SIZE

DRY ELECTROLTTICS
Will fit in the smallest space. Ideal replacement units. Can be ganged to replace defective concardboard containers with six inch color-coded insulated wire leads. Tabs for easy numbing
550 Volts Penk-45e Vols Wing.


## ALUMINUM-COATED

 CARDBOARD CONTAINERS Dec- and midget A.C receivers Containers are of aluminum-coated cardboard. Spade lugs are provided for easy mounting. Flexible lieuLated wire leads, Railings are conmivahye, assuring Cong line and up 10 41\%" high. $11 \mathrm{~h}_{\mathrm{s}} \mathrm{x}^{\prime \prime}$ in diameter Hing a soot of condenses of diff rent values so that you will have on hasid always.

## LOW VOLTAGE ELECTROLTTICS

 Insulated Type
Mounted in aluminum insulated containers. Standard stud and nut mounting. Insulated leads.
Sse Volts Peak-45e Volts Why.


SPECIAL VALUE DRY ELECTROLYTIC


BUY THEM! USE THEM! WORTH DOUBLE THE MONEY - AluminumCansor Each Section Conservatively- Minimum Mount Rated 450 V. D. Ing Spice Re C.: 530 . Peak. quires. $^{\text {. }}$ - Alisingie Units © C $\quad$ Minenient Have Wire Leads Mounting Tab Firmly Fastened. and lugs.
Wish quality dry electrolytic comatencers at
 trobtios sold as any price. supribirct in both ahminum cortratuers and in waxed cardlkiand cartons. Conner ritively rated at 450 volts D. 4 working voltage. 500 volts meath. Ait single units have fribble insulated wire lead. Earn stein of the double units is a separate condenser mounting talos for easy mounting. All ubiety nulifiple unis have solder laue terminals Frey nod service shod shout have a stock of there Juan quality remacemant to be condelasers on hama for every emergency. stock un with the o hit quality Knight Dry Electrolytic on your next 550 VOLTS DC PRAT



138 za B3842 30 C



8-8-8 MFD. $\begin{array}{ll}3 \times 1 \%^{2} \\ \text { B3845 } & . . .888\end{array}$ 5-15 MFD. $23 / 5 t^{\prime \prime}$.
B3846

72c

WET ELECTROLYTICS
For heavt-rints filter wink in ration sets and smylithers. etc. Self-hentinh properties and ability 10 binlatand voltage overloads make the units dependable in operation. Low leakaise sir long and excellent power Ifonsed in round aluminum containers. $11 / 2^{*}$ diameter and $47^{\circ \prime}$ high. Inverted sid mounting. Can is megatire. thenlace dry electrolytics that continualls' break down with these units, for


## VOLTAGE DOUBLING

 DUMA SHEIIONSEspecially desimeded for A.C. ratio sells which have voltage that:
 inch insulated wire learls-2 black and 5 red. Fart canarity separate condenser section

## 175 Y01F D, C. FEAK

 No. 8389783808 83808
83809

B3841 ....778

## 

## CARTRIDGE TYPE DRY ELECTROLYTIC

Jima-srade units encased in impregnated mntsture-mingf (aidboand. with 2 " bare wire



## ＊A AFROVOX CONDENSERS

CARTFIDRE CONDJNBTRS
Conservatively rated compact non－Inductive pa per condenserts．Sealed in wax－impreanited ne here sommon lug for convenient－mounting

| －Volt | Cap． | ＊Volt |  |
| :---: | :---: | :---: | :---: |
| ） NET | 1 d. |  | HET |
| Gal EACH | ． 002 | 36819 | EACH |
| $1{ }^{1} 92$ | ． 0102 | 86820 |  |
| 86803 | ． 164 | 86821 |  |
| 86804 | ． 095 | 88822 |  |
| 6805 | ． 006 | 86823 |  |
| 6806 | ． 01 | 36824 |  |
| －6197 | 015 | 88825 |  |
| 86898 | ． 02 | 36826 |  |
| 86809 | ． 03 | E6827 | 12 c |
| 86810 | ． 05 | 86828 | 12 c |
| 86811 12 c | ． 1 | 86829 | 15 c |
| A6812 156 | ． 25 | 86830 | 21 c |
| 868i3 21c | 5 | 86831 | 29 c |
| 86814 27c | 1． 1.1 | 86832 | 30 c |
| 86815 416 | ．25－．25 | 86833 | 60 c |




## －

TYPE 1450 CONDENSERS
Accurate mica－ifinfoti condensers in bakelfte cases，Handy soldering lugs．Working voltage up to 500 volus D．C．Terted at 1040 volts． Thoroughiy sealed against changes in humidicy， Capacits of units is clearly marked on case．

| $\begin{aligned} & \text { No. } \\ & 86890 \\ & 8891 \\ & 8892 \\ & 8889 \end{aligned}$ | 暗的。 <br> －4 4 H105 <br> .00007 <br> .000075 <br> ． 0001 | No． 86894 86895 86898 86897 | $\left.\begin{array}{l} \text { Hedd. } \\ .00012 \\ .00025 \\ .00097 \\ .0005 \end{array}\right\}$ | $\begin{aligned} & \text { NET } \\ & \text { EACM } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| No． |  | Mfd． | List | NET |
| 86898 |  | ． 0001 | 30c． | 8 C |
| B |  | ． 0015 | 30 c ． | 8 c |
| 88900 |  | ．002 | 35c． | 210 |
| 86901 |  | ． 0025 | 35 c | 216 |
| 66902 |  | ． 003 | 40c | 24 c |
| 903 |  | ． 014 | 450 | 26 |
| 86904. |  | ． 005 | 45c | 26 |
| 86905 |  | ． 006 | 55 c | $32=$ |
| 8690 |  | ．008 | 60 c | 35 c |
| 86907 |  | ． 01 | ． 705 | 415 |
| $86908$ |  | .015 | ．855． | $50^{\circ}$ |

## AEROVOX ELECTROLYTIC CONDENSERS

## ROUND METAL CAN

 DRY ELECTROLYTICSInverted mounting，aluminum can type condensers sutiable for use in ant tyige condensers stitable for use in ant， hiler circuit Threader stem，\＆ill units equipied with $8^{\prime \prime}$ flextble insu－ lated color－coded leads．Muliziole gec－ tion units have scpenate positive and negative leads：may be used in either common netastive or common powitise circhits．sietal can is inaniated from condenser sections．These high－umality condeftrers are ldeal for all 131 hs of replaperment or manstrumion work． carefilily desimed and ennmerratively rated for ond，trubibe－iree service． Every Servicrman hhould carry a sanali stock of the types listed for in－

TEPE CLS－sINCLE SHCTION WIrE THELEABS
ges volt D．C．Mat．Berfe

| No． | Mfd． | Size | NET |
| :---: | :---: | :---: | :---: |
| 86771 | 4 | 13831／＊ | 30.50 |
| 86772 | 8 | 1＊944＂ | ． 62 |
| E6773 | 12 | 1考牫1／＂ | 82 |
| 86774 | 16 | 12955 ${ }^{\text {a }}$ | ． 91 |
| TEPE 3ELS－DOUIET SECTION |  |  |  |
|  |  |  |  |
| No． | Mfd． | Size | NET |
| 86775 | 4．4 |  | 50.76 |
| 86776 | 4－8 | 14943＊＊ | ． 85 |
| 36777 | 8－8 |  | .94 |




| No． | Mid． | Size | NET |
| :---: | :---: | :---: | :---: |
| B6778 | $4-4-4$ | $1833 / 4$ | 51．18 |
| 86779 | 8－8－8 | $1 \% \times 4 \%$ | 1.41 |


|  |  |  |  |
| :---: | :---: | :---: | :---: |
| No． | Mid． | Size | NET |
| B6780 | B－8－8 | $13 \mathrm{Ex} 1^{\prime \prime}$ | 31.2 |
| 86781 | 6－8．16 | $1 \max ^{\text {a }}$ | ， |
| B6782 | 8－16－16 | 1\％xis＊＊ | ． 53 |

## 

An ultra－conipact metal can elec－ trolytic for sefteral replacement pur－ poses or for use where spare is at a can．Etuipped with long fitrible leads． llas threaded hard－rubber stem for inferted mounting．Particularly adapted to replacemient work


| No． | Mid． | Sizs |
| :---: | :---: | :---: |
| 86942 | 4 | $1 \times 28{ }^{\prime \prime}$ |
| 86943 | 8 | $1 \mathrm{x} 2 \mathrm{~L} / 1 \mathrm{c}^{\prime \prime}$ |
| 86944 | 12 | $1 x^{3} 3^{3 / 4}$ |
| 86945 | 16 | 1x1䍖 |



UNIVERSAL MOUNTING MTITMPE SECITBNG
These hish quallty dry electro Istic condensers are exact replace ments for a large number of pop－ ular radio receivers．Abviutely dependable unit s，hermetically
sealed．Supplied with clamping rings for univergal mounting．
 5t5 Volt D．C．Ting．Burce

| Stocis No． | Clep． Mfd． | Dia． | Ht. | $\begin{aligned} & \text { NET } \\ & \text { EACH } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 86785 | $5 \cdot 15$ | 21／2 | ＝ 4 暏 | \＄1．35 |
| 86786 | 8－8－8 |  | $x 414$ | 9 |
| 66787 | 9－9－18 | 3 | I 4 | 0 |
| 86788 | 8－8－8－8 | 3 | $\times 418$ | 2.12 |

SMALL CARDBOARD DRY ELECTROLYTICS

Space－staer midset units，Con－ servatively rated to stand up under containers：thoroughty imbergnated and sealed．Wiln edjatithle mounting brackets an d flexible leads．Each section of multiple unlts has seperate leads．

TYP PIP


TIPT PISE－200
 leeds are securely anchored


## TUBULAR ELECTROLYTICS

Light and compact units for renlacement u or for construction work．Ideal for bs－pass and wire leads．TYPE PR．Mid．Wkg．F．Size NET
No．Mfor

| No． | Mfd． | Wk．V． | Size | NET |
| :---: | :---: | :---: | :---: | :---: |
| 86911 | 2 | 450 | $3 \times 1 / 6$ | 386 |
| 86912 | 8 | 450 | 1\％14x2 | 56 c |
| 86913 | 4 | 200 | －372 | 38 c |
| 86914 | 8 | 200 | 2852 | 47 c |
| 86915 | 10 | 2000 | 7／821／4 | 53 c |
| 86916 | 25 | 1510 | 151982 | 56 |
| 86917 | 5 | 50 | $4 \mathrm{~m}{ }^{4}$ | 29 |
| B6918 | 10 | 50 |  | 386 |
| 86919 | 20 | 50 | $3 \times 31 /$ | 446 |
| 86920 | 25 | 50 | $7 \mathrm{x} \times 1 / 4$ | 476 |
| 86921 | 50 | 50 | 114x23／4 | 715 |
| 86922 | 5－5 | 50 | 350214 | 44 c |
| 86923 | 5 | 25 | $88 \times 14$ | 29 c |
| 86924 | 10 | 25 | $3 \times 14$ | 295 |
| 86925 | 20 | 25 | 4x $x^{2}$ | 35 c |
| 86926 | 25 | 25 | $7{ }^{3} \times 21 / 4$ | 38 c |
| 86927 | 50 | 25 | $114 \times 234$ | 56 c |
| 86928 | 5－5 | 25 | 36x ${ }^{1 / 4}$ | 44 c |
| 86929 | 10－10 | 25 |  | 44 c |

WET ELECTROLYTICS
TYPE PG．Use these electrolyties for heavt－duty work where dry units give trouble．Positively non－leaking． 500 Yolts DC peak， 450 Tolts DC Forking． With stud and nut Inverted mounting．

$86843 \quad 4 \quad 1 \% \times 4 \% \quad 50.47$
$86844 \quad 6 \quad 1 \% \times 4 \% \quad .50$

$\begin{array}{lll}86846 & 12 & 17 \\ 36847 & 16 & 13 \% \\ 8684 \% & 20 & 1 \%\end{array}$
86847
86849
PARTS


＂DWARF＂TUEULAR PAPER CONDENSERS

## TYPE DT

Reliable non－istuctive all－purpose con－ quinni molsture．law nower faczor gnil lish BC resisianue make these unifs idugl for all AF F IF and anfio br－pase requirumpints．With se． curbly fastened $2 h^{*}$ tinned leads．


## MOLDED BAKELITE

 MICA CONDENSERSTual by－puax and coulphing rondintrets for al rating of 5th 0 Y．D．C．is basked on

 3is＂．The choice of discriminating strvice yn－ gineers and Amateurs．

| Cap． Md． | No． Type W | $\stackrel{\text { No. }}{\text { Type }}$ | NET EAGH <br> Eithar Typu |
| :---: | :---: | :---: | :---: |
| ． 014103 | 83641 | 83652？ |  |
| ．001005 | 83642 | 83653 ？ |  |
| ． 1 H01 | 83643 | 83654 |  |
| ． 01025 | 83644 | 83655 |  |
| － 0160 | 83645 | 83656 | 1 |
| ．tral | 83646 | 83657 | 15 c |
| －0102 | B3647 | 83658 | 216 |
| ． 013 | B3648 | 83659 | 240 |
| ．f0＇） | 83649 | 83660 | 26 c |
| ．005 | 83650 | 366 | 32 c |
| ．006 | 83651 | 83662 | 35 c |

## 

## VIBRATOR REPLACEMENT CONDENSERS

Oif－fitarl，rotnoletciy sexter units for auto tatio lowrr sumplime f＇an lo used as rellary． urults for orluinal intallatims．All are 2 niph 1．J．e fexepy Tyw c－．01 mfd．which is 1500

Ne．Tyue Mrd Nive NET

| ${ }^{\text {B3\％}} 3$ | The | ज1ft． |  | NET |
| :---: | :---: | :---: | :---: | :---: |
| B3723 | A | ． 015 | ${ }_{5} \times 1{ }^{7}$ |  |
| B 3724 | A | ． 02 |  |  |
| B3725 | A | ．03 |  |  |
| B3726 | B | ． 01 | 1 的 「\％tia． | 18 c |
| B3724 | 8 | ．02 | 18，${ }^{5}$ | 24 c |
| B3729 | 8 | ， 123 |  | 29 c |
| B3730 | C | ． 01 |  | 35 c |
| B3731 | C | ． 5 | 310x ${ }^{\text {a }}$ | 38 c |

## DRY ELECTROLYTIC CONDENSERS



## CARDBOARD CASED DWARF MIDGETS

## TYPE JR

Dependable，inuximsive．compact dry electosistics For use in fruited space ：make indeal reparements in every type of ralio service joh where pace is Ifmiterl．In silver－guareu ontainers：sealen suminv humudity With adustahle momnting fett


Compact dty electrulytic rondensers for use Wherte hiat cyparity low leakase unith are re－ quired．tril－made；doubte－seated in dursble

| No． | Mfd．Pe | Peait． | W＊eg． V ． | Slze | NET |
| :---: | :---: | :---: | :---: | :---: | :---: |
| B3700 | 5 | 35 | 25 | 2\％ \％$^{\text {5／4．}}$ | 296 |
| 83701 | 10 | 35 | 25 |  |  |
| 83702 | 20 | 35 | 25 | 2\％ | 35 c |
| 83703 | 25 | 35 | 25 | $2 \%{ }^{2}$ | 38 c |
| B3704 | 50 | 35 | 25 |  | 56 |
| 83705 | 5－5 | 35 | 25 | 2然 $\mathrm{x}^{\text {c }}$ | 44 c |
| 83706 | 10－10 | 35 | 25 | 2\％ $\mathrm{xl}^{1 / 2}$ | 44 c |
| 3707 | 5 | 75 | 50 | 2＊$\times$ | 29 c |
| 83708 | 10 | 35 | 50 | 23 T $3 / 4$ | 38 c |
| 83709 | 25 | 35 | 50 | 2 x 511／＊ | 47 c |
| 83710 | 50 | 75 | 51 | 23 x1采 | 71 c |
| 83711 | 5 | 150 | 100 | 2\％x ${ }^{2}$ | 32 c |
| 83712 | 10 | 150 | 100 | $2{ }^{3} \mathrm{xl}{ }^{\prime \prime}$ | 41 c |
| 83713 | 25 | 150 | 110 | $2 \mathrm{z}^{2} \times 1{ }^{1 / 4}$ | 56 c |
| 83883 | 4 | 200 | 150 | 93 x1＂ | 35 c |
| 8884 | 8 | 200 | 150 | 2\％ $51 / 1 /{ }^{*}$ | 44 c |
| 83885 | 2 | 450 |  |  | 32 c |
| 83886 | 4 | 930 |  |  | 38 c |
| 83887 | 8 | 250 | 200 | $2 \pi \times 18 *$ | 47 c |
| 83664 | 4 | 310 | 850 |  | 38 c |
| 83665 | 8 | 300 | 950 |  | 50 c |
| B3666 | 10 | 3018 | 450 | $\because 4 \times 1{ }^{*}$ | 56 |
| 867 | 12 | 3 co | 250 | $2 \%^{4} \times$ | 62 c |
| 83668 | 16 | 300 | 250 |  | 68 c |
| B3888 | 2 | 350 | 301 | 2\％x＊＊＊ | 35 c |
| 83889 | 4 | \％ | 7 Ma |  | 41 c |
| 83628 | I | 5 | 4.50 | \％2发 x \％ | 32 c |
| 83629 | 2 | 9120 | 450 |  | 38 c |
| 83630 | 4 | 7－5 | 1.0 | \％ $1 / 8 \times 11 /{ }^{\circ}$ | 44 c |
| 33627 | 8 | $52{ }^{2}$ | 451 |  | 6 c |

## METAL CAN DWARF MIDGETS

## TYPE K：

Etched－foi
denutix－di sulall as a 6 Ki tube．Ma be easity instalife on the smaltro and delentiable joh．plutigle units have two separate leards for each seep sisurus ion life and hiph allyium ldeal low reost replacerntits．


| Ne． | M m d． | Size | NET |
| :---: | :---: | :---: | :---: |
| 83670 | 4 | 1 x－${ }^{\text {a }}$＂ | 50.50 |
| 83671 | 8 | 1 x＂为＂ | 0.6 |
| B3672 | 12 | 1 xil＂ | 8 |
| B3673 | $4 \cdot 8$ | 1䊽如＂ | 8 |
| 83674 | 8－8 |  |  |
| 83676 | 8 8－16 | $11.8 \pm{ }^{*}$ |  |
| 83676 | 8－8－8 | 11／2x ${ }^{\text {\％}}$＂ |  |
| 3et Y |  | ＋ |  |
| No． | Mfd． | Sike | NET |
| B3680 | 4 | $1{ }^{1} 2{ }^{\prime \prime}$ | \＄0．4 |
| 83681 | 8 |  | ． 5 |
| 83682 | 12 | 1 x23＊＊ | ． 6 |
| B3683 | $4-8$ | $1 \mathrm{x} 3^{\prime \prime}$ |  |
| 83884 | 8－8 | $1{ }^{10}$ |  |
| 83685 | 8－16 |  |  |
| B3686 | 8－8－8 | $18 / 3 \times 316^{\prime \prime}$ |  |

## TYP显 宣

High grade inverted type dry elec－ trolytic condensers．Inrernal sectlons are contplelely insulated from nictal mhamer．kleal for ail reblanerm jrifiosets and particulariy suter in
circuits where can is above ground notentlal．Excentional stability．min－ imum leakage current．High in ober－ athim eftictency．Single momnting tylwe， wilh insulated Wire leads．Workins Foltare 450 D．

| N8． | Mfd． | $\mathrm{Size}^{\text {Six }}$ | NET |
| :---: | :---: | :---: | :---: |
| 83890 | 2 | 2 L x ${ }^{\text {\％}}$ | \＄0．44 |
| B3891 | 4 | 23］${ }^{\text {a }}$ 年＂ | ． 50 |
| 83892 | 8 | 4， $51 \%$ | 62 |
| 83893 | 10 | 4\％x1\％＂ | 3 |
| 63894 | 12 | 43x11／＂ | ． 82 |
| 83897 | 16 | 48x1\％＂ | ．91 |
| B3895 | 4－4 | $48 \times 13$ | .76 |
| 83896 | 8－8 | 4\％x1／2＂ | .94 |

TEPEE思
Single and ubultule capacity electrolyties in aluminum con－ tainers．Nount in any position by means of clamping rings． flave excepilonally low power ractor and leakage culrent．Can is conmmon nextive on all tsux． fospecialls suite 10 replacement work in older type radio sets usin：multiple serlion filters． Working roltake， 450 ．


## sts Velt ${ }^{5}$ DePentat

| ${ }^{\circ} \mathrm{Na}$ | Mfd． |  | NET |
| :---: | :---: | :---: | :---: |
| 83631 | 4 |  |  |
| 83632 | 8 |  |  |
| 83633 | ${ }^{8}$ | 1384\％ |  |
| 83635 | 5－15 | 914x㫫＂。 | 1.35 |
| B3636 | $8-8$ | $2{ }^{2} \times 43$ | ． 06 |
| 83637 | －8－8 | $3 \times 18$ |  |
| 83638 | 8－8－8－8 | 3 x4\％＂， | 2.12 |
| 83639 | 9－9．18 | 3 x4\％＂， | 2.29 |
| 83640 | 8－8－18－18 | $3 \times 43$＂ | 2.85 |

WET ELECTROLYTICS

## 官TPE EI

Ideal for all heary－atuty work whete dry units filse irtultle．ibsolutely de bendiblife in olretalloth．Inow Dhwer fac－ tor and leakare current．in roumd monplinas．These wet electrolytim unis are rated at a maximum inak $D$ C holtage of 500．Can be effectively used for rephatempats in older sets usibas ＂brute force＂filier circuits．

| No． | Wfd． | Size |
| :---: | :---: | :---: |
| 33715 | 4 | 31. |
| 83716 | 6 | $4{ }^{1 / 2} \times 10 \times$ |
| 83717 | 8 | $4{ }^{4} \times 1 \times$ |
| 83718 | 10 | $41 /{ }^{\text {cos }}$ |
| 83719 | 12 | 41／2x1\％＂ |
| 83720 | 16 | 41／2，${ }^{1 / 2}$ |
| B372i | 18 | 41／2x1／3＂ |

##  <br> SURCPROOF <br> <br> TUBULAR CONDENSERS

 <br> <br> TUBULAR CONDENSERS}Mace－saring non－jnductive conternsers．Vae ulum－imprechated for protection against exces－ dre pabsidite．sperial metal and thates tarliate heat hom sour volifring iron and prevetst in－ rermitert calachs changes．Eanily sumborted and here by their thonk 2 zeineh tinnmer cop－唯 Wire lead．，Conwrwatively ratad．Only hit fuals for all bypass errice didea］for awer replatiluency original instaliation inerease cour profis bs toving thest high－giasilty low－itriced unitm．

（HOETE

－VOHTS

| $\begin{aligned} & 88474 \\ & 88475 \\ & 8848 \\ & 88498 \\ & 88496 \\ & 88497 \end{aligned}$ | ． 04 |  | $\begin{aligned} & 13 c \\ & 13 c \\ & 14 c \\ & 15 c \\ & 29 c \end{aligned}$ |
| :---: | :---: | :---: | :---: |
|  | ． 05 |  |  |
|  | ． 06 | $11_{18}{ }^{1818 / 8}$ |  |
|  | ． 1 |  |  |
|  | .25 | $1!3, A x{ }^{4}$ |  |
|  | ． 5 | ［13， $\mathrm{mx}^{\text {］}}$ |  |
| 3et \％9ET8 |  |  |  |
| B8490 | 1 | 14 里年 | 13 c |
| 88491 | 25 | $13{ }^{19} 9$ | 18 c |
| 88492 | 5 |  | 26 |
| 88493 | 1.11 | ［13185］＂ | 416 |

## REPAIR CONDENSERS

（compact hlier sections that sum－
plity service work．Compact moleture－juroof．These hath tual． ity units are built for the hard－ est types of service under condi－ ordinery paper condensers Te ordinary paper conuensers．Tested coltane．Witil fong flextule imall lated learis．
$4 *$ VOLT CBNDTNETE

| 0. | Mfd． | Size | T |
| :---: | :---: | :---: | :---: |
| 88478 | ． 1 |  | 21 c |
| 88479 | ＋25 |  | 26 |
| 88480 | ． 5 |  | 32 |
|  | 1. |  | 44 |
| B8482 | $\underline{\square}$ |  | 68 c |
|  | $v$ | COND ${ }^{\text {CR }}$ |  |
| $88483$ | 1 |  | 28 c |
| $88484$ | ． 25 | $0^{20} \times 1, x^{2}$ | 32 |
| 88486 | ． 5 | $914 \times 15 \times 1$ | 38 |
| 88486 | 1. |  | 53 c |
| 88487 | 2. |  | 79 c |
|  | 70 | CONDENS |  |
| $\begin{aligned} & 88445 \\ & 8446 \end{aligned}$ | 1. |  | $1 . i$ |
| 18 | 70 | CONDENS |  |
| B8447 | 1. | 4＂x21／8＂x ${ }^{\prime \prime}$ |  |



## TOBE AUTO VIBRATOR

 REPLACEMENT CONDENSERS| On－impreanated condensers esperially de－ sianed fir ribrator work．Wrill－buils to safely |
| :---: |
| B8517．For Model 44 Motoroln．T35 Eliko node as illusirated．．0＇s mith 2six |
|  |
|  |
| Motorola 44．TiA．Mui．18in NET．．．．．． 18 S |
| B8519．Tubular，02．13／3s |
| Yo |
| B8520．Tubular ．05． |
| Your price ．．．．．．．． |

## TOBE ELECTROLYTIC CONDENSERS



## STANDARD

 FLEXIDONSsumething new in rondenser monstructlon．Compact high－solt aun elertrolytic condensets．teatur－ an patented asphait casing tive rating，ptc fiach serlion of multiple units has insitidual moctrive and neqative ltatls：mas be unsily removerd and relldarend in case of failure．without boiherlng undatiaged sertions．Wex plue end seul is pros－ Ided for each seption thus swaling condpmer ends against moliture Flexible，insulatel．color－toming roleane tis rolts D．$C^{\prime}$ ．


## COMPACT UNIDONS ＂BUILD YOUR OWN＂

No mute trouble with those A．C．－
D．C．spuctisls．These C，IDDONS can be conbined to assimble soly block you peed．Sam e quality as the and will stack up to sily known com－ bination．Thone indivithal sections taret all necelw for bikherst duality and Frisulfity．An assortment of these units wil］ allow you to rejuir any small set dutrdily and proftrably．No delay ordering exact dublicates，
 ssevoles Worling



## KIT NO． 2

Consists of the follimior buy for Dor Elec rolytic rondensers in a steel cablatt： $2-8$ mid． in mutal contalners： $5-8 \mathrm{mfd}$ ．and $2-1$ mid． units in cariboart containets． B8523．WITH CABINET NET．．
－ $4 \cdot 1$


## NEW TUSIDONS

use tor uni vernal replacyment setvire．Triple－sealed．With asthalt－lified pajur；completely moisture－proof． Terthinals can＇t eor rode lisult for dependable No life under als pes of climetie conditions－

| No． | Mfd． | Wkg．${ }^{\text {N：}}$ | L．gth．Dis． | NE |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 88322 \\ & 88323 \end{aligned}$ | $\stackrel{4}{8}$ | $5000$ | $2^{2} \pi 1$ | 53 c |
| 88300 | 1 | 4.5 | $24 \times$ | 29 c |
| 88301 | 2 | 155 | $2{ }^{1} \times$ | 32 c |
| 8302 | ＋ | 475 | $21 / 2 \times$ |  |
| 8303 | 8 | 475 | 2\％$\times 1$ | 4 |
| 8304 | 2 | 200 | $24 \times 5$ | 26 c |
| 88305 | 4 | 204 | $24 \times$ |  |
|  | ， | 200 | 23 17 | 32 c |
| 3.37 | 12 | 200 | $214 \times$ |  |
| 308 | 16 |  |  | 44 |
| 309 | 5 | 50 | $214 \times$ | 26 |
| 10 | 10 | 50 | $2^{14} \times$ | 38 |
| 88312 | 50 | 50 |  | 4 |
| 88313 | 5－5 | SH1 | 21. |  |
| 3 | $10 \cdot 10$ | 50 | $24 \times 5$ | 44 |
| 88315 | 5 | 35 | $24 \times$ | 2 |
| 88316 | 10 | 35 | 214 |  |
| 317 | 25 | ${ }_{35}^{35}$ | 214 | 2 |
| （88318 | 50，5 | ${ }_{3}^{35}$ | 2\％${ }^{24}$ |  |
| 8830 | 1 6 － 110 | 35 | 214 | 41 |

METAL CAN UNITS High quality flter units．Single seetions ha re threated slud for in－ eqted mounting：＂hith ratived $6-32$ ble leade Muhiule sietions cruw lertatals and clamping sink

## see Volt DC Peals

| No． | Mrid． | 1ris． | t |
| :---: | :---: | :---: | :---: |
| 88918 | 1 | $1 *$ |  |
| 88420 | 8 | 130 | 41 |
| 88422 | 5－15 | 21／4 | 3 |
| 884 | 8 －8 | 1動＊ |  |
| 88423 | 8 888 | ${ }^{1}{ }_{2}$ ．＂ |  |
| 88416 | $8-16$ | 212＂ |  |
| 8424 | 8.8 .8 | 3＂ |  |
| 68425 | 8 8－8－8－8 | $3^{*}$ |  |
| 8426 | 9－9－18． | 3＂ |  |
| B8427 | 9－3－18．18 | 32． | 3\％4 |




## SPECIAL UNITS FOR <br> AC－DC RECEIVERS

I＇obular combinations in slngle and nultiple section tubular electrohstis lis nulleted flexihle leads for connecton numertad fexihle leads for connecrlon． ceaters of spade lugs： $15^{\circ} \mathrm{s}^{\circ}$ ．

| No． | Mfd． | Wikg．Yolts | N |
| :---: | :---: | :---: | :---: |
| 38325 | 16 | 435 | $S O$ |

$\qquad$
$\left.\begin{array}{cc}16 & 435 \\ 4-4 & 455 \\ 4-8 & 475 \\ 8-8 & 475 \\ 8.8-8 & 200 \\ 8-16 & 200 \\ 8-16\} & 2401 \\ 10-16\} & 35\end{array}\right\}$
30.82

## HANDY CONDENSER EITS GITE PREE MRTAL，CABENTT

Thene handy stexl cabinets masy by olbsintud FHEE by purchasing the fant－moving Tobe Ite－ parcenent Condenser Kits．Offered In three use－ ul amsortraches in convenient and substaptiox
 nts mas be fastened together as new kits ate prets lues and other small perty resivions ondensetsic Constatent for flins purposese

## KIT NO．

Consists of the following Tobe Tuhular Cond ansers in a steel cahinet ： 800 Valt types： $3-$ M01， $2.0019,3-.1015 .3^{5} .01 .5-.02: 400$ Volt B8522．WITH CABINET
NET．

## $\$ 4.84$

## EIT NO． 3

Consiats of the following fiter sectinn Tobe
 and．： 200 rolt Fections．
B8524．WITH CABINET． NET．
\＄4．56

## Valeres in <br> POWER TRANSFORMERS

## LOW-COST PBILCO

 EXACT DUPLICATE POWER TRANSFORMERS
A. newly duveloped lite of hish-quality exact rlubicate Philed Iteplacenutht howity Iranvormors. Tinve limits art exatily irientical to the ortigitaly in esury miectrical and ohesical charactartutic. Thwy $\quad$.rare produced only after thotothrh examing fon of liutted-out and otlumsive abefortive ariai tal tompformens. IIfm buality al hus prires.

| No. | Modiels | NET |
| :---: | :---: | :---: |
| B11684 | 18 | 53.59 |
| 811685 | 20, 290 | 2.70 |
| B11686 | 50. 51. 52, 551 | 2.07 |
| B11687 | 65 | 2.50 |
| B11688 | 70, 270, 370. 470.570 | 2.45 |
| B11689 | 76, 77 | 2.70 |
| 811690 | 86 | 2.60 |
| B11691 | 87 | 2.35 |
| B11692 | 90 (1-47) | 2.75 |
| B11693 | 90 (2-4i) | 2.95 |
| B11694 | 50 (2--45) | 2.60 |
| 811695 | 91 | 2.60 |
| B11696 | 95. 91. 206 | 2.85 |
| B11697 | 111. 112, 212. (45's) | 3.10 |
| B11698 | 112. 212. $1+{ }^{\text {F* }}$ ¢ 1 | 3.10 |
| B11699 | 511 | 2.19 |
| B11680 | 16. 17 (Code 122) | 3.10 |
| B11681 | 14. 91 (Code 221-3) | 2.70 |
| B11682 | 16. 17 ltokle 1211 | 2.70 |
| B11683 | 21 | 2.85 |

Additional Exact Duplicate iranstormers for all sets are listed on Page 64. We can supply exact duplicate power tranglormers for all Philco sets, at correspondingly low prices. Write us for prices, or order. with deposit, giving moded number and tuhe Ilneup of set.

## KNIGHT HIGH-QUALITY <br> POWER TRANSFORMERS






## A TRANSTORMITR FOR EVERY PURPOSE

 not neeressary to bring leads thrmeth ehan ois hase. Favlly in stalled as corner bolts, furnish pouftise, wolid mountinas. Itheal or use in limited splace. These tranifommers ale a houn io



## FOR 2.5 VOLT TURES

 anl wotc nsing the 2.5 solt series of tulvex

## 4OR 5 TUBE SETS

For: 2-24, 27, or 3-56, 57: 1-45. 47 1-80.
Primary: 115 v. at 50/60 cycles
Sec.: Givi $v$ at in M. -C.T.

$\qquad$

## 5 TO 7 TUBE SETS

For: 3-24, 27. or 5-56. 57: 1-45, 47; 1-80. Primary: 115 I. at 50,60 eycles.
Sec.: 6.50 .
5.0 vi a 2.0 Ani山s

$98 c$

## 7 TO 10 TUBE SETS

Fer: 4-27. 24 or 7-56. 57. 58; 2-45, 47. Primiary: 115 V. at $51 / 60$ cacles
Sec. 700 , at 70 M.A.-C.T.
2.5 - at 3.5 A.-C.T

3165

## NEW UTAH POWER


 pell-cenunt rumbormers. dinl for either
 bies experially tend to telute bum con ciefably. ("itrefully enktheered and hon for crmetant omraion and maximunt llfe. Tertuinals and Juzds ane cearts marked for ather socuratr cormen hou. Tuits listed briow are the moe pularis drmanded types

FOR 6.3 VOLT TUBES

## FOR 5 TO G TUBE SETS

 HALF-BHELL TYPRFor: 3 or $+76.77,{ }^{78}, 6 \mathrm{C6}, ~ 6 D 6,617.6 K 7$ : -41. 42, 6F6: 1-80. 524.
Primary: 115 Y.. ${ }^{\text {minn }}$ (gincles
Sec.: ti50 V. 日f 41 M.A.C.T
 Bil288. List, $\$ 1.75$.
YOUR PRE

## FULEY stitemed TIPE

Same eharacterivtirs in tranathmir abme ex chil fuily shielded. Has enoled
of luen.
B/I289. List. $\$ 1.90$
*1 12

## YOUR PRICE

## FOR 6 TO TUBE SETS

## HALF-SHIEL, TYPI

For: 5-76, 77. 78, 6C6. 6D6, 6J7, 6K7: -H1, 42, $6.6,150.527$
Primary: 15 Y. at all hill cxeles.
A..3 $Y$. ai 2.5 Amps

FULLT SBIELDED TYPI
Sular characterintios as tranhrormer atove ex
 BJil291. List. $\$ 3.00$.
YOUR PRICE

# Troomasow UIITERSSAL POWER TRANSFORMERS 

FULLY SHIELDED


## URRIGITS

A eomplete linc of fully shielded transformers for every purpose．These units meet all tequiruments for Onansiomers of thas ispe are used inest materials facture．Flectrically and mechandeally sturdy in construction with erets deatail of their manufar ture palnstakinkls han dify．All listings are for
III Volts 80 cyrle opera－ 1io Volts 80 cycle opera－
tion．other frequencies and woltages are avallable at extra cost．Please send devosit with order or write for price．

| Transf． | BIMENSIONS |  |  | MOLES |
| :---: | :---: | :---: | :---: | :---: |
|  | H． | W． | $\mathrm{B}_{4}$ |  |
| T－70R78 | 43＊ | 3年 | 330 |  |
| T－70R61 | 4\％＊ | 3\％＊ | \％ | $2{ }^{2}$ |
| T－56R02 | 4\％＊ | $34 \%$ | 85 | $24 \times 3$ |
| T－56R最 | ${ }_{5}^{4} 5^{\circ}$ | 3\％\％ |  | $25 \times 3^{\circ}$ |
| T－56R日4 | $5{ }^{\circ}$ | 3\％＊ | 3 | $3 \times 3 \times 1$ |
| T－70R62 | $5{ }^{\circ}$ | 3＊＊＊＊＊＊＊＊＊ |  | $31 \times 3.6$ |
| T－56R05 | $5{ }^{*}$ | 3＊＊ |  | 3x3） |

## 4 OR 5 TUBES－ 6.3 VOLTs

Type T．70R78．For ${ }^{2}$ or $3-76,77.76$ ，6C5． 6K7．6F5；1－42，6F6：－80，524．
SEC．： 680 Y．，C．T．at 55 M．A．


## 

Type T－70R61．For 5 or 6－76．77，78，6C5． $6 K 7,6 F 5: 1-12,6 F 8: 1080$ ， 524
$6.3 Y$ at 2.5 A．－C．T．


## 720 II TUBES－8．s VOLTS

Type T－56R02．For 5－27，84，or 9－56．57； SEC． 700 ： 1
2.5 V ．at $9.0 \mathrm{~A}-\mathrm{C} . \mathrm{T}$


Type T－56ROI．For 5－26；2－27；2－71A：
SEC．： 650 Y．，C．T at 70 M．A．
$.5 V$ at $1.0 A$ ．
$.5 V$ at 3.0 A．- C．
2.0 V．
5.0 V．at 2.0 A．C．T．Wt． 7 lbs．
BIIOI9．List． 54.50 NET．．．．

## 

Type T．56R04，For $5-24$ ．27，or $9-56,57$ ； 2－47． $245 ; 1-80,83,523$ ．
SEC． 700 V．．C．T．at 105 A．


Type T－70R62．For to 10－76，6C6，606， F2，6F6；－30，523．524 6.3 v．it 4.5 A．－C．T．


## 

Type T．56R05．For 7－24，27．or 12－56，37； 2－i7，2A5； 1 －80，83． 523 ．
2．5V．at 9.0 A．T．at 110 M．A．
2.5 V ．at $9.0 \mathrm{~A}=\mathrm{C} . \mathrm{T}$.
 B1 1022 ．List．$\$ 5.75$ ．NET．

SPECIAL FREE OFFER

## Themand

（ANDT THORDARSON PROBINC MCHT
An Invaluable new trouble Hght can be sours FREE rieny of itght where you need 10 rolt line．No batteries．Ideal Operates from 110 rolt line．No batteries．Idea for the shop or service culls．Cowpletely in－ B1 1003 Given FREE with ord for Thordarson units totalling orders $\$ 5.00$ ：

NEW UNIVERSAL DUPLICATE TRANSFORMERS


ALL－PURPOSE TIPMS A radically new
line of transformers desirned to mert the requirements of esery sefriceman and set－ hiflder．One type of case meets all mount ing the special mountiog brackets supulied．Prleed for
the experimenter＇s purse and the serviceman＇s protit．Long，fexible color－codtd leads，Easy protht Long，fexime neat $1 m \times 1$ lilatorss．Socondary comr binations to meet the regutrements of any bet． Completels slifiden electroatathally and mag－ netically，Desimned for long service．Frima－ risi for 110 Volts，50－60 cyctes

| DIMENSIONS |  |  |  |
| :---: | :---: | :---: | :---: |
| Transf． | H． | W． | D． |
| T－13 Re1 | 3 | 21／2 | $2^{11} 4$ |
| T－13R02 | 3 | $21 / 2$ | $2{ }^{13}$ |
| T－13R03 | 316 | $2^{11}$ ， | $3{ }^{3} / 4$ |
| J－13R94 | 3\％ | $31 / 4$ | $31 / 2$ |
| T－13R日5 | 34 | 3195 | ． 314 |
| － $\begin{array}{r}T-13 \% 06 \\ \hline-13 \% 07\end{array}$ | 43 | 34 | － 38 |
| $\begin{array}{r} \text { - T-13R07 } \\ \text { T-13R0 } \end{array}$ | 44 32 | 3 | 31／2 |
| $\begin{aligned} & \text { T-13RO8 } \\ & \text { T-13R } \end{aligned}$ | 43． | $3 \%$ | 30 |

 Type T－13RB1．For 1－27，24，or 2－56，58： SEC． 650 \％ 47 ． 823 ．
2．5 5．C．T．at 4 ．T．at $10 \mathrm{M} . \mathrm{A}$
2．5 Y．at 3 A． 4 A．
511223 ．List． 32.35 ．NET．．．．
 Type T－13R02．For $3-27,24$ ，or 5－36．57． 58： $1-45,47: 1-80,523$ ．
SEC．： 700 Y．，C．T．at 50 in．A．
2.5 V．C．T．at 7.25 A
5.0 Y．3t 3．0A．
List．$\$ 3.00$ ．NET．．．．

Bil224．List，$\$ 3.00$ NET．．．．
ype T．13803．For $3-27,24$ ，or $5-56,57$ ． 58；2－45．47：I－80． 523.
SEC．：700 V．C．T．at 70 X4．A．

BII225，List．53．25．NET．．．．$\$$ ，$\$ 1$
© T0 18 TUEES－ 2.5 FPLTS
TyDe T－13R04．For 5－27． 24 or 9－56．58： 2－45．47：1－80． 523.
SEC．：$i \omega 1$ Y．C．T．at 90 M．A．
2.5 V．C．T．at 12.5 A
5.0 F．at 3.0 A ．

235

Typt T．13R05．For 5－27，24，or 9－56．58； 2－45．47： $1-80,523$.
SEC．：T00 Y＇C．T．at 70 M．A
$2.5 \mathrm{~V} . \mathrm{c}^{2} \mathrm{~T}$ at 3.5 A ．
811227 ．List．\＄4．00．NET．．．．83） 3

Type T．13R06．\＆or $7-27.24$ ，or $12-56$ ． 58：2－45．47：1－80． 523.
SEC．；\％in F．C．T．AT 120 ML ．A．
2.5 V．C．T．at 3.5 A

Bil22盟．List．\＄5．00．NET
294
LI TO I客 TUEES－2．5 FOLTS
Type T．13R07．For 8－27．24，or 15－56，

$2.5 \%$ C．T．at 15.0 A ．
2.5 H ．C．T．at 3.5 A ．

BII229．List，\＄5．00．NET
s2，94
$\rightarrow$ TOX 3 TVIEs Ther： 42，6F6，or 8 to $10-76,6 \mathrm{D} 6,6 \mathrm{~F}$, ，etc．，and

6．3 V．C．T．日t 3.3 A ．
5.0 v．at 3.0 A．A．
Bil 330 ．List，\＄4．NET．．．．
 Type T．13R09．For $3-24,27$ or $6-56$ ． 58 and $75,62,66$ ，or $10-76,606,6 J 7$ ，etc．，and SEC．：750 V．C．T．at 180 M
6．： 750 Y．C．T．at $180 \mathrm{M} . \mathrm{A}$ ．
6.3 V C．T．at 3.3 A ．
2.5 F .0 A ．

REPLACEMENT ENCTCLOPEDIA
A brand new 32－page book that tells you what Thordarson transformer is mont for repracement in al－ mont ans set．Frabies you listed in serice of the sels 18 units isted below Ther duplicate ortgingis They mimimum stofk require－
papints and at the sarte time service more sets perfectly than will any other assortment．This book will show you all this and more．A real

BI 1004 ．YOUR COST ONLY 15 s or send or the Thordarson registration card and get it FREE by returning the card with your next order．

| DIMENSIONS |  |  |  |
| :---: | :---: | :---: | :---: |
| Transf． | H． | W． | D． |
| T－13R00 | 336 | $2^{11 / 4}$ | $3^{2} 4$ |
| $\mathrm{T}-13 \mathrm{R11}$ | 3 | $21 / 0$ | $210$ |
| T-13R12 | 3 | 24 | $15$ |
| $T-13 R 13$ | 331 | 318 | $312$ |
| $T-13 \times 14$ | 34 | 3.8 | $34$ |
| T-13R15 | $41 / 5$ | $3{ }^{4}$ | $33$ |
| T-13R1C | 415 | 33 | $3 \%$ |
| T-13 P17 | 336 | $2^{12} / 4$ |  |
| T－13 M18 | 3釉 | 349 |  |

 Type T－13R00．For 6－24，27，or $10-56,58$ ；


Bil $232, ~ L i s t, ~$ 3.50 NET．．．．
Typa T－13R1I．For 3－36，77，606，6C5；1－ 42，6F6．41：1－80， 523 ．
SEC．： 650 V．C．T．at 40 M ．A
5.0 at 3.0 A
${ }^{s} 147$

## 

Type T－13R12．For 6－36．77．606．6F5：1－ 42，6F6，41；1－80，573
SEC．： 700 V．C．T．at 70 M．A
5.0 F．et 3.0 A

Bil 234，List．\＄3．00．NET．．．．．
$\$ 176$

## 

Type T－13R13．For 6－36，77．606．6F5； $2 \rightarrow$ 2．6F6．38．41： $1=80$ ． 523 ．
SEC．： $700 \mathrm{~V} . \mathrm{C.T}$ at 90 MA ．
5.3 Y．C．T．at 3.5

Bil250．List．\＄3．75．NET．．．
4232

## 13 TU

Type T－13R14．For 10－36，77，606，6F5；2－ $42,6 \mathrm{~F} 6: 1-80,523$ ． 120 3 a
6.3 v ．C．T．at 1.7 A ． 120 M．

BII 5.0 it 3.0 A．List，$\$ 4.25$ ．NET．．． ＊250

Type T．13Ri5．For 11 to $13-36,77,606$ ， 6F5：2－42．6F6．or $4-38$ ． 11 ：1－80． 573.
SEC．： 750 Y．C．T．at 150 M ．A．
5.3 Y．C．T．at 5.0 A ．

Bil252．

## 

Type T－I3R16，For 10 to $14-36$ ， 77.606 ， 6F5：3－42，6F6．or 4－38．4i；1－80． 523 ．
3EC．Y MT 514 at
5．0 V．at 3.0 A．
BIIS3．List．$\$ 6.50$ ．NET
3 ${ }^{82}$

TyRe T－13R17．Far 3－24， 27 or 6－ 56.58 and －42，6F6：or 6－76，6D6，617，2－27 and I－ 45，47．2A5：1－80，523．
SEC： 600 ． $\mathrm{T}_{5}^{8 t} 60 \mathrm{M}$ ．
$2.5 \mathrm{Y} . \mathrm{C} \cdot \mathrm{T}$, at 7.5 A ．

 Type T－13R18．For 5－24． 27 or $9-56$ ， 58 ，and and 2 －42，6F6：1－80． 523 ．
SEC． 700 V．C．T．at 90 M．
6.3 and 2.5 V at 3.5 A ．
2.5 F C．T．at 9.0 A．
Bil 12 S ．List． 84.50

## SWHCOR <br> POWER TRANSFORMERS

(20)

ATWATER KOdels ATWPTER KFNT 37, 37C, 38. 50 and (bale
60 and goc (early 60 and finc (early 66 and
66 (Plate)
 82.85 serie 84, 89, 89р.......
BRCNSWICK

|  |  |  | $2.47$ |
| :---: | :---: | :---: | :---: |
| $14, \$ 1,31,81,82 .$ |  | 65 ….............. 11569 | 3.20 |
|  |  | 70, $370,370,470$, |  |
| S8\%, S31 ......8!1512 | 4.03 | 570........... BII570 | 3.12 |
| 10 ............ 811513 | 2.62 | 76, $77 \ldots . . . . . .811571$ | 3.56 |
|  | 3.18 |  | 3.53 |
| 3NC8, 5NC8 +....-81I518 | 3.20 | 0.5, 96, 296....... $\mathrm{Bil}_{1578}$ | 3.82 |
| CLAR10N |  | 511 ...........811581 | 3.35 |
|  | 2.62 | 18 .............E\| 1582 | 3.59 |
| AC60 ;-.........B11518 | 3.65 | RCA-RADIOLA-VICTOR |  |
|  | 3.47 | AP716. AZ774B, 10. |  |
| AC80. 81, 84, 85. |  | $61.10-69,10-70$ |  |
| 120 …........B11520 | 2.50 | $12-15 \cdots \operatorname{BI} \operatorname{AB}$ | 5.53 |
| AC90, 90A, 91....811521 | 3.79 |  | 5.50 |
| AC100 .......... ${ }^{\text {Bl }}$ i522 | 2.29 | R64. R67, g.188. ${ }^{\text {A }}$ |  |
|  | 3.18 | 9-54. AP-777C...B1\|585 | 10.58 |
|  | 3.59 | R32. R59. E35 |  |
| AC3(10 . . . . . . . . . $\mathrm{B}_{1} 526$ | 3.65 | Ei3s. E152, RE45, |  |
| AC330 ...........EII527 | 2.15 | RETS. REİ4. |  |
| AC360 . | 2.68 | RE156 ........BII586 | 4.00 |
| AC470, AC472 . . . B11530 | 2.18 3.82 | R4, R8 .......... ${ }^{\text {Bi }} 1587$ | 2.82 |
| AC480 ..........Bi\|531 | 3.82 | R7, R9 ......... B11589 | 2.85 |
| COLITBIA RADIO BII532 |  | R7A .......... B11590 | 2.97 |
|  | 2.59 | R8. R10. Ri\% RE19.BII 591 | 2.94 |
| AC7 ............ ${ }^{\text {A }}$ I 533 | 2.73 | R1i. Ri1. RAE"6, |  |
| SG8 ............. ${ }^{\text {S }} 11534$ | 5.14 | RE18. RE18A., Bl\| 592 | 3.29 |
| SG9 .............. EII535 | 4.50 | R14.R15. R42. Ris. |  |
| CROALEI |  | RE17 ....... 11593 | 3.88 |
| 40.S. 41.5 .48 .9 , |  | R17. R18AC. R33AC, |  |
| 45-S. 8:-S .....E\|1536 | 3.18 | RJ1AC. RJ0. ${ }^{7-}$ |  |
|  |  | 11. $7.95,7-26 \mathrm{X}$. - 11515 | 3.18 |
| 706 Showbox...EII537 | 3.18 | R44. R46AC, R4'. - 11594 | 3.50 |
| EDISO |  | Rf6, R6s ......... 81516 | 3.29 3.8 |
| C4, R4, Ry. JR, 8P. . Bt\|538 | 4.53 | R80. R82, R86.... 11596 | 3.82 |
| EFEREADY |  | SPARTOY |  |
| 52. $53,54 \ldots . . . .811539$ | 2.88 | C- <br> 63. . . . . . 811600 | 2.47 |
| KNIGHT |  | 9A, 410, 600 Series. ${ }^{\text {a }} 1601$ | 3.76 |
|  | 2.59 | 89 A ............ Bil 603 | 3.18 |
| SG8 ............. ${ }^{\text {S }} 11534$ | 5.14 | 99,109 . . . . . 81604 | 4.29 |
| SG9 ............ ${ }^{\text {S }} 11535$ | 4.50 | 10.3, 301. $301 \mathrm{~A}, 564$ |  |
|  | 2.68 6.47 | 570 574 578, |  |
| KENNEDY |  | $740.750 \ldots . .$. 589 | 4.79 3.85 |
| 10.20 . . . . . . . . . . B\|| 544 | 3.65 | 591, 593, 931.... B\||607 | 3.79 |
| MAJESTIC |  | C. S. RAMO \& TEL. |  |
| 20, 21, 22, 23, (un- ${ }^{\text {a }} 1550$ |  | 8 (series) .........B1\|610 | 3.18 |
|  | 2.82 | $9.19 \text { … } 10 \text { B } 1611$ | 3.38 |
| 51, 52 (ummounted). $\mathbf{B l \| ~}_{5} 51$ | 3.20 | 10 (series) . . . . . ${ }^{\text {a }}$ (16:2 | 3.56 |
| 70 chasis (Plate).. Bi/ 562 | 2.88 |  | 4.94 |
| 70 \& 70 B chassis |  | 7 (series) ........ B11614 | 3.09 |
| (Filament) ( $-\cdots$ - 11553 | 2.73 | 96 series Gloritone. - ${ }^{\text {a }} 11616$ | 2.29 |
| 708 chassis (Plate). ${ }^{\text {d }}$ ( 1554 | 2.97 | 26 P geries Gloritone.B11617 | 2.29 |
|  | 2.73 | 32 ..............E11618 | 2.97 |


|  |  |  | $2.47$ |
| :---: | :---: | :---: | :---: |
| $14, \$ 1,31,81,82 .$ |  | 65 ….............. 11569 | 3.20 |
|  |  | 70, $370,370,470$, |  |
| S8\%, S31 ......8!1512 | 4.03 | 570........... BII570 | 3.12 |
| 10 ............ 811513 | 2.62 | 76, $77 \ldots . . . . . .811571$ | 3.56 |
|  | 3.18 |  | 3.53 |
| 3NC8, 5NC8 +....-81I518 | 3.20 | 0.5, 96, 296....... $\mathrm{Bil}_{1578}$ | 3.82 |
| CLAR10N |  | 511 ...........811581 | 3.35 |
|  | 2.62 | 18 .............E\| 1582 | 3.59 |
| AC60 ;-.........B11518 | 3.65 | RCA-RADIOLA-VICTOR |  |
|  | 3.47 | AP716. AZ774B, 10. |  |
| AC80. 81, 84, 85. |  | $61.10-69,10-70$ |  |
| 120 …........B11520 | 2.50 | $12-15 \cdots \operatorname{BI} \operatorname{AB}$ | 5.53 |
| AC90, 90A, 91....811521 | 3.79 |  | 5.50 |
| AC100 .......... ${ }^{\text {Bl }}$ i522 | 2.29 | R64. R67, g.188. ${ }^{\text {A }}$ |  |
|  | 3.18 | 9-54. AP-777C...B1\|585 | 10.58 |
|  | 3.59 | R32. R59. E35 |  |
| AC3(10 . . . . . . . . . $\mathrm{B}_{1} 526$ | 3.65 | Ei3s. E152, RE45, |  |
| AC330 ...........EII527 | 2.15 | RETS. REİ4. |  |
| AC360 . | 2.68 | RE156 ........BII586 | 4.00 |
| AC470, AC472 . . . B11530 | 2.18 3.82 | R4, R8 .......... ${ }^{\text {Bi }} 1587$ | 2.82 |
| AC480 ..........Bi\|531 | 3.82 | R7, R9 ......... B11589 | 2.85 |
| COLITBIA RADIO BII532 |  | R7A .......... B11590 | 2.97 |
|  | 2.59 | R8. R10. Ri\% RE19.BII 591 | 2.94 |
| AC7 ............ ${ }^{\text {A }}$ I 533 | 2.73 | R1i. Ri1. RAE"6, |  |
| SG8 ............. ${ }^{\text {S }} 11534$ | 5.14 | RE18. RE18A., Bl\| 592 | 3.29 |
| SG9 .............. EII535 | 4.50 | R14.R15. R42. Ris. |  |
| CROALEI |  | RE17 ....... 11593 | 3.88 |
| 40.S. 41.5 .48 .9 , |  | R17. R18AC. R33AC, |  |
| 45-S. 8:-S .....E\|1536 | 3.18 | RJ1AC. RJ0. ${ }^{7-}$ |  |
|  |  | 11. $7.95,7-26 \mathrm{X}$. - 11515 | 3.18 |
| 706 Showbox...EII537 | 3.18 | R44. R46AC, R4'. - 11594 | 3.50 |
| EDISO |  | Rf6, R6s ......... 81516 | 3.29 3.8 |
| C4, R4, Ry. JR, 8P. . Bt\|538 | 4.53 | R80. R82, R86.... 11596 | 3.82 |
| EFEREADY |  | SPARTOY |  |
| 52. $53,54 \ldots . . . .811539$ | 2.88 | C- <br> 63. . . . . . 811600 | 2.47 |
| KNIGHT |  | 9A, 410, 600 Series. ${ }^{\text {a }} 1601$ | 3.76 |
|  | 2.59 | 89 A ............ Bil 603 | 3.18 |
| SG8 ............. ${ }^{\text {S }} 11534$ | 5.14 | 99,109 . . . . . 81604 | 4.29 |
| SG9 ............ ${ }^{\text {S }} 11535$ | 4.50 | 10.3, 301. $301 \mathrm{~A}, 564$ |  |
|  | 2.68 6.47 | 570 574 578, |  |
| KENNEDY |  | $740.750 \ldots . .$. 589 | 4.79 3.85 |
| 10.20 . . . . . . . . . . B\|| 544 | 3.65 | 591, 593, 931.... B\||607 | 3.79 |
| MAJESTIC |  | C. S. RAMO \& TEL. |  |
| 20, 21, 22, 23, (un- ${ }^{\text {a }} 1550$ |  | 8 (series) .........B1\|610 | 3.18 |
|  | 2.82 | $9.19 \text { … } 10 \text { B } 1611$ | 3.38 |
| 51, 52 (ummounted). $\mathbf{B l \| ~}_{5} 51$ | 3.20 | 10 (series) . . . . . ${ }^{\text {a }}$ (16:2 | 3.56 |
| 70 chasis (Plate).. Bi/ 562 | 2.88 |  | 4.94 |
| 70 \& 70 B chassis |  | 7 (series) ........ B11614 | 3.09 |
| (Filament) ( $-\cdots$ - 11553 | 2.73 | 96 series Gloritone. - ${ }^{\text {a }} 11616$ | 2.29 |
| 708 chassis (Plate). ${ }^{\text {d }}$ ( 1554 | 2.97 | 26 P geries Gloritone.B11617 | 2.29 |
|  | 2.73 | 32 ..............E11618 | 2.97 |

3 NCP .5 NC 8
Clarion
AC40
AC60
LOWER PRICES-BIGGER PROFITS
i'terisori-binilt tratisiothers which tonform exactiy thons of physical srud electrical characterlathes, Current ratings are conservatios and assure prower operation and long life. basily end guicky installed. No retitting. or redribling is necesiagy, Throush close contact with Siancor. we can suppls Exart Duplicate Power Transformers for practicalts any set. Aas for FREE emper of the Stancor feart Ininlicate Fower Transformer llstings,
with your next order.
No.
B11501 52.79
$\begin{aligned} & 811502 \\ & B 11503\end{aligned}$
B!1503
811594
811505
B1 1507
Bil 1509
$\begin{gathered}\text { Bitio } \\ \text { Bilfil }\end{gathered}$
$\begin{aligned} & 3.15 \\ & 3.76 \\ & 3.56 \\ & 2.82 \\ & 3.67 \\ & 3.41 \\ & 3.41 \\ & 3.41 \\ & 3.70\end{aligned}$
$\begin{aligned} & \text { IANESTIC (Continned) } \\ & 10 \& 100 \text { chassis. . }\end{aligned}$
$00 \& 100$ chassis. . . Bl 1556
130. 131. 132. 233 . Bil 557
1.)1. 153, 154. 155.
180. 181 (Plate)..
$210,211,214,215$
unmounteri) 2\%. 1559
$290,091,-93.204$ :
40. 340B, 344...
300. 343
$\rightarrow 0$.
$\begin{array}{r}570 \\ 87 \\ 87\end{array}$
951 96, $996 .$.


## EXACT DUPLICATE

 VIBRATOR TRANSFORMERSFor reblacing dufective fibrato transfortuess in eitbre home or atlo raftin sits oterating from 6 lon-vollage D.E. hapuly. 'omiorm lox-volis to the manutracturers oripinals both in electical and ohyicical characterisities ('arelat ty desioned to movide lon:s efticient service.



## STANCOR

## REPLACEMENT

## TRANSFORMER

## coils

Repair these hard-
to-set power trans.
tormers with the ex-
Iisted below. Save time and money and make the old transformer as good as new. $\mathrm{BOSCH}_{48}$


CROSLE $\qquad$

 1622
11623

| 11623 |
| :--- |

HOWARD
Green Diamond
Green Diamond
.. BII 625
Green (71A's) ........BI $1626 \quad 1.62$ MAJENTIC


STHNAKTNARAER BI 102 BI
1.47

## ATWATER-ERNT <br> POWER PACK

## FOR MODELS 40, 42, ETC

An exae duplicate power pack that winimum reps defective origitials with 40. $40 \mathrm{~F}, 43,42 \mathrm{~F}, 44,44 \mathrm{~F}, 45$ 52 56. 57.
87102. NET
$\$ 8.85$

## POWER TRANSFORMERS REBUILT LIKE NEW

## SERVICE YOU WTEL EPE

We will rebuild for you any defective power transformer to exaet orignal specifreations. Rewinding is expertly done, original case and laminations You will find this serrice invaluable where exact fuplicate transformers are no longer obtainable or hard to get see the table at timat for aturetive prices. 1 t year ale right for atiractive price. 1 your iype for quotation, etating name and model number of receiver. tube line-up. and other arailable dara. We can help you increase your profils and good*will with neat, efficient transiormer repair jobs.
WE PAT RETURN POSTAGE

| $\begin{aligned} & \text { SETS } \\ & \text { EPT0 } \end{aligned}$ | $\begin{aligned} & \text { POWER } \\ & \text { TCBES } \end{aligned}$ | $\begin{aligned} & \text { YORR } \\ & \text { PRICE } \end{aligned}$ |
| :---: | :---: | :---: |
| 8 Tubas | 1-71A | \$2.95 |
| 8 Tubes | 2 - 11 A | 3.95 |
| 8 Tubes | 1-45. or 47 | 3.95 |
| 9 Tubes | 2-45, or 47 | 4.65 |
| 10 Tubew | 1-50. or 110 | 5.25 |
| 10 Tubes | 2-50. or 10 | 6.50 |

FOR SETS EQUIPPED WITH CARDON
Up to 9 Tubes. $2-82 \mathrm{~B}$ Power Tubes.. $\mathbf{S 4 . 3 5}$ $U_{0}$ to 11 Tubes. 2-50 Poper Tubes.. 7.10 Prices quoted above are for rebuilding tran*formers not mounted in wax or pitch. Add $\$ 1.00$ to price if in wax or pitch.

## SIIPPING INSTRUCTIONS

For speedy and effloient sorvice, please follow these suggestions.

1. Send in the old transformar by prepaid exoress of parcel post. be sure your name and address appear clearly on the parchage
2. Send your order in at the same time by in full or with a $20 \%$ deposit. At the pame time. you may include sour order for other items as desired
3. Be sure to specify on your order the make and model number of the set, giving the exact
 wh whether 25 or 00 crele.
We return rebuitt transformers postpaid anywhere in the United States. Take advantage of this additional big saving for added profits.

# TIORARSON AMPIFIER couvthe TRANSFORWERS 

LATEST COUPLING TRANSFORMERS


FIG. 2-A


FIG. 2-D


FIG. 2-B


FIC. 2-F


FIG. 2-G

The latest Thordarson bigh quality transformers, designed for practically every input, gutput, mixer or line purpese. A transtormer finf dimost any need will be found in the listing below. All units have been carcfully designed, and are prectsien-built.

TUBE TO LINE [LOW LTVEL]

| Cat. Me. | Type | Flg. | Primary | Secondiry | List | NET |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E11041 | Tssals | $2 . \mathrm{F}$ | 56, 37.27. 864, 30, etc. | 200 or 500 hms | 52.25 | S 1.32 |
| 811042 | T62A26 | 2-F | 56, 37: $27,844,30$ |  | 2.25 | \$1:32 |
| 811043 | T72A11 | 2 -F | P. P. $56.37,27.864$. | $5(x)$ or 125 Ohmas.. | 2.50 | 1.47 |
| B11044 | T75A73 | 2.F | P. P. 56, 37, 27, 864, etc. | 200 us 50 Ohms... | 2.50 | 1.47 |
| MEXER OR LINT TO TUBE |  |  |  |  |  |  |
| 811045 | T55.A ${ }^{\text {d }}$ | 2-F | 200 or 50 chims. | Single or PP Grids . | 52.75 | \$1.62 |
| 811046 | T63A72 | $2 \cdot \mathrm{~F}$ | 50, 100. 150 or 200 Ohms. .. | Single Grid | 3.50 | 2.06 |
| 811047 | T6.a 71 | 2 -F | $2100,400.6000$ or 8000 hm | Single Gric | 3.50 | 2.06 |
| B11eab | T61A94 | $2 \cdot \mathrm{~F}$ | 5 mh or 125 Ohms. | Single or PP Grids. | 3.25 | 1.91 |
| MIXER OR LINE TO LINE |  |  |  |  |  |  |
| B11050 $\mathbf{B 1 1 0 5 1}$ | T61A96 T63A74 | $\begin{aligned} & \frac{2-F}{2 \cdot F}, \end{aligned}$ | 500 or 1250 mms . | 200 | 53.50 | 2.06 |
| MICROPHONE COUPLING TRANSPORMERS |  |  |  |  |  |  |
| B11052 | T63A73 | 2-F | W. B. Mike 2 匆- 200 Ohms. | 2\% or 50 Ohms | 53.25 | 1. |
| B11054 | Tildis3 | 2-F | Crystal Mike | 200 or 50 Ohms. | 3.50 | 2.06 |
| B11055 | T65A] 3 | 2-F | D. B. Mike 2000-200 ©hmes. | Stugle Grid. | 2.75 | 1.62 |
| B11056 | T58A37 | 2-F | D.B. Mike 2000-260 Ohms | Single Gr | 2.25 | 1.32 |
| 811057 | T304.20 | 2 2-A | D. B Mike 200-0-200 Ohms. | Siugle | 3.00 | 1.76 |
| B11058 | T23A57 | 2+A | Single Hutton Microphome 200 Ohms.............. | Single Grir | 2.25 | 1.32 |
| OUTPUT COUPLINC TRANSFORMERS |  |  |  |  |  |  |
| B11060 | T61525 | 2-8 |  | 500 Ohrns.... |  |  |
|  | T61526 | 2-B |  |  | 53.50 | 52.06 |
| m11061 | T61526 |  | 47, 50, etc. | 500 Ohms. | 3.50 | 2.06 |
| 811862 | T57S01 | 2-B | Universal, Single or |  |  |  |
| 811063 | T67S54 | 2-F | PP2A 3 or tubeslass 45 AB , $\ldots$ | 4.8.15 or 500 Ohims | $\begin{aligned} & 2.00 \\ & 4.00 \end{aligned}$ | 2.18 |
| E11064 | I67 S48 | 2-F | ${ }^{\text {PP45 Class }}$ " A " or $\mathbf{B}$ "-53 | 4.8.15 or 500 Ohms | 3.58 | 2.06 |
| B11065 | T67S32 | 2-F | 2-53 PP parathel Class ${ }^{\circ}$. or 2-46 or 59 Class "B" or |  |  | - |
|  |  |  | 2.676 Class ${ }^{\text {a }}$ AB** | 4.8, 15 or 500 Ohme | 4.00 | 2.35 |
| B11066 | T67S92 | 2-F | 4-2A3 or 45 Pr parallel Class <br> "AB' | 4.8, 15 or 500 Ohms | 4.00 | 2.35 |
| B11067 | T67S53 | 2-G | 4-46 or 59 PP parallel Class "B". |  |  |  |
| B11074 | T67S51 | 2-F | PP Pentodes 79 class "B." | 4.8.15 or 500 Ohms | 6.50 | 3.82 |
| 811071 | T65S94 | 2-F | or 2-10 Class "A. <br> PP50 Class "A," 2 AS or" 42 | 4.8.15 or 500 Ohas | 3.50 | 2.06 |
|  |  |  | $\text { Class }{ }^{\text {Cos. }} \text { or } 2.79$ |  |  |  |
| B11072 | T75S75 | 2-F | PP6BS, 2B6.6A6.6N7,6F6. | 4.8, 15 or 509 Ohms $4.8,15$ or 500 Omms | 4.00 | 2.35 |
| 811073 | T84S58 | 2.G |  | 4.8. 15 or 5000 hms | 6.06 | 3.53 |
| 611068 811069 | T89-575 | 2-F |  | 4,8,15 or 51 KI Ohmes | 4.00 3.75 |  |
| $\begin{array}{r} 811069 \\ 811049 \end{array}$ | $\begin{aligned} & \text { T89:74 } \\ & \text { T89565 } \end{aligned}$ | ${ }_{2-G}^{2-F}$ | Prol.oclass"A" <br> P1 P'ar. 6 L6 Class | $\begin{aligned} & \text { 4, \&. is on } 5(x) O h m m s \\ & 50-125-200-250-333 . \end{aligned}$ | 3.75 | 2.20 |
| B11074 | T67560 | 2-F | 9 or | 500 thans, 4.8 or 2 mKO Ot | $\begin{aligned} & 6.00 \\ & 2.50 \end{aligned}$ | 3.53 |


| LINT TO SPEAKER |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 811075 | T60S48 | 2-G | 500 Ohms | Universal Voic |  |  |
| B11076 | T53581 | 2-D | 500 or $250 \%$ | coils <br> 4, 8 or 15 Ohms | $\begin{array}{r} 53.00 \\ 4.50 \end{array}$ | $\$ 1.76$ |
| CLASs "B'9 AND "AB" INPUTS |  |  |  |  |  |  |
| B14078 | T67D50 | $\overline{2} \cdot \mathrm{~F}$ | 1.80 class | 1-790\% 53 Class "B | 52.75 | \$1.62 |
| 811079 | T67D89 | 2-F | 1-89 Class | 2-79 prarallel class |  |  |
| 811089 | T67D47 | 2-F | $1-53$ (pl | 1-53 Clags " B ". | 3.25 <br> $\mathbf{2 . 7 5}$ |  |
| 811091 | T67078 | 2-F | $1-46$ or 54 (lass "A | 2.46 or 39 class $\cdots$ | 3.50 | 2.06 |
| 811082 | T66098 | 2-D | 2-46 or 59 PP Class ${ }^{\text {a }} \mathrm{A}$ | +460r 59 gush pult parallelClass " $\mathrm{H}^{\prime}$ " | 5.25 | 3.09 |
| 811083 | T65D78 | 2-F | 1-2.4.5 or 42 Trio | pP 2.45's or 42 s | 5.25 | 3.09 |
|  |  |  |  |  | 4.00 3.75 | 2.35 |
| B11085 | T81D42 | 2-F | 6 FF Trio |  | 3.50 | 2.20 |
| B11086 | T84059 | 2.F | PPoC5.37. 76. etc. | 1P6L6Class *AB | 3.50 | 2.06 |

MODULATHON TRANSFORMERS

| B11087 | T64M26 | 2-D | $\text { 2-46 or } 59 \text { Class "B" or }$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B11089 | T67M59 | 2-F | 1-53, 6A6, RK34 Class "B"*. | 5.000 or 10.000 <br> Ohms ( 1 (N) MA). <br> 3.010 Ohms 100 <br> MA). | $\begin{array}{r} 56.00 \\ 3.00 \end{array}$ | $\begin{array}{r} \$ 3.53 \\ -1.76 \end{array}$ |


| E11090 | 4D63 | 2-F | 1-30 or ${ }^{49}$ Class ${ }^{\text {- }}{ }^{\text {a }}$ " |  | 52.50 | \$1.47 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E11091 | T67 ${ }^{\text {2 }} 69$ | 2-F | 1-19 Class *B** | 2.700Ohms (503iA) | 2.75 | 1.62 |
| 811074 811093 | T67 600 | $\frac{2}{2-F}$ | 1-19 or PP3 3 Class "B | 4.8 or 2000 Ohins. | 2.50 <br> 2.50 | $1.47$ |
| B11094 | T72S58 | 2-B | Single Pentor | High or Low 1 m - |  |  |
| B11095 | T72A.59 | 2-B | Single Plate and Single Button Microphone...... | pedance Phones Single Grid. | $\begin{aligned} & 1.65 \\ & 1.65 \end{aligned}$ | $\begin{aligned} & .97 \\ & .97 \end{aligned}$ |

## TRANSFORMERS FOR NEW 6L6 TUBES

B 1100 T84P60. Plate Transtormer. Fig. 2-G. Speclally designed to supply plate and cereen
voltages to $6 \mathrm{~L} 6^{\prime}$ s. voltages to 6L6's. Jiturati. 11 s folt, din us"le:


Bil073. T84S58, Output Transformer, Flo. 2.G. For coupling push-pull Class AB 6L6's to 4 , 8 or 15 ohm voice coil or 500 ohm line. Misd NET.
$\$ 3.53$


 sc21/2 $\times 21 / 2^{\prime \prime}$. S 111 g . Wt. . 3 lha
$\$ 2.06$
NET.

 ohm 2.D.


NET
$\mathbf{\$ 5 . 8 8}$
81IIO4. T79F84. Filament Transformer. Fig. 2-G. Primary winding for 115 Volts 60 cycle A.C. has secondaries for 6.3 Volts. 3 Amp. C.T.: 5
 NET.
$\$ 2.79$

## 18 WATT AMPLIFIER KIT



Buitd your own hikh-quality high-rain amplifer arounk this nev. suluetion Thonataron bekw bs all romb circuit. Complete kit olierta berm ba in operation. [-njersal input for ans malcronhone leld muply for 1 to 4 susdkers: Luilt-in pre-amSlifier: buflt in mistruphone clirrent suphly ete,
 tone qualits.

GOUNDATION UNET T7SKIS-M Consists of separate amplifier and power supply bases, with sockets mounted and all other necbase: 4-resistor mounting strips; ingut and output tarminal strips, and complete
diagrams and instructions.
B||||8. YOUR PRICE.............

## COMPLETE PARTS EIT

BII 20 . All resistors, voiume and tone controls, coadensers, switches, dial plates, hard. won is etc. required for completing the Thordat Fowntals Amplifier. Durs hot inclucie ano Preater. SEND FOR DETAILED FREE PARTS LIST AND OESCRIPTION.
\$12.25

## THORDARSON SOUND MANUAL

 We new metal and flass tube power circinits orer pre-ampliners. nixers, etc
BIIOOI. NET
9 C

# AUDIOS-0UIPUIS.CHOKES 



THORDARSON TRANSFORMERS
Deperdable audio units assuring good reproduction at attractive lo prices. Universally adaptable for service rephacement work.


## PUSF-PULL OUTPUT CHOKES

 PLATE COUPLINC CROKES

|  |  | $2-B$ $2-F$ $2-F$ $2-B$ $2-F$ |  | 1080 1080 51 510 2 | 0 0 0 |  | \|r $\left.\begin{array}{r}51.50 \\ 1.75 \\ 2.25 \\ 2.80 \\ 2.80\end{array} \right\rvert\,$ | 2 <br> 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| For use as parte inductance vith S. G. tubes. Max. Cap. 8 ma. |  |  |  |  |  |  |  |  |
| FTLER ¢EOETS |  |  |  |  |  |  |  |  |
| Cat. No. | ype | Fig. | Hys. | MA | Ohmers | 5 5lme | LIst | NET |
| 811116 | T18C92 | 2-8 | 22 | 35 | 405 | $2 \times 256 \times 24$ | \$1.75 | 1.03 |
| E11149 | T47c日7 | 2-B | 12 | 75 | 290 | 2×23) ${ }^{2} 1 / 4$ | 1.75 | 1.03 |
| 811150 | T68C07 | 2-B | 15 | 80 | 375 | $2 \times 235 \pm 3$ | 2.05 | 8 |
| 811151 | T57C53 | 2-B | 9.5 | 110 | 200 | $2 \times 235 \times 3$ | 2.00 |  |
| BiII关 | T57CS4 | 2-F | 9.5 | 110 | 200 | $2 \times 213 \times 3$ | 2.25; |  |
| 811153 | T17C0es | 2-F | 12 | 130 130 | 231 | 2513x3 | 2.75 |  |

## KNIGHT AC-DC CHOKES

May be used in my 4 or 5 tube midget set. Seinlshiclded iyne with black enameled channel frame. llorizontal mountina. $b^{\prime \prime}$ insulased leads. Size, 1\%"



| Ohms | NET | Ne. | Ohms | NET |
| :---: | :---: | :---: | :---: | :---: |
| 200 | 30.38 | $B 11639$ | 400 | 50.38 |
| 250 | .41 | 811640 | 450 | .37 |
| 300 | .43 | 811641 | 500 | .37 |
| 350 | .37 | 811642 | 550 | .38 |

SIITIDDAMIMROPITONSTRANFFORMIRS B6050. Single button coupling irantiformer. Turn ratio. 1 to 64; impedance ratio, 1 to 3000 . For singlo bution carbon mike to tube Input. Fully shieided.
B605 I. Two button type. To coupte any double bute
to 45 ; impedance ratio, 1 to 20 no.
$\$ 1.32$

## KNIGHT TRANSFORMERS

## unversal audio

A combact. hish guality audio transformer for unir in any A.C. or baftery set or amplifier
 Bil644. YOUR PRICE......... $\$ 8$

## UNIVERSAL OUTPUT

This transformer couples practically any power tubus, pither single or pash-pull, to ans dyamic or maknetic speaker. Ias Unirersal
 instructions. Shps. wt. 2 lbs.
BII 846. YOUR PRICE..........

## UNIVERSAL PUSE-PULL INPUT

May be used to couple any single viate to any comblnation of single or


## STANDARD AUDIOS

Idealy suited for replacement purposes. Open type construction as illustrated. $3 \frac{3}{4} \times 1 / 4 \times 1 y^{\prime \prime}$. Mig.
 plate to 1 $\begin{array}{llll}81 \\ 8: 1648 . & 3.1 . & \text { P.P. Ingut. } 1 \text { plate to } 2 \text { grids. }\end{array}$ 2 plates 10 3. Push. pull intorstage.


## HEAVY-DUTY UNIVERSAI OUTPUT

Witi hesur-duty, unshielded output transformer for untrersal application. Will accurately match any single or push-pull output stage 10 any speaker roice coil. Strap mounting. Size, $2 \% \times 2 \% \times 1$ ". EIIOO5. YOUR PRICE

953

## FILTER CHOKES

Open type construction. with leads. Size $1 \psi^{\prime \prime} \times 2^{\prime \prime} \mathrm{x} 2 \%^{\prime \prime}$.
B1 1650 . 25 henries at 25 MA . 850 ohms DC resistance.
YOUR PRICE
838
B11651. 25 henries at 60 mA. 325 ohms DC resistance.
YOUR PRICE
658
Bit 652 . 20 henrles at 80 mA . 260 ohms DC resistance. 858


YOUR PRICE 750 herries at $\mathbf{5}$ MA. 3500 ohms DC resistance. Plate coupling choke for screen grid dotector tube. Has high impedance 948
at audlo frequencies, YOUR PRICE................................. 94

MICROPHONE TRANSFORMER
Suitable for single or double, button microphone. Tapped primary.


## SPECLAL AUDIO TRANSTORMRRS




## OUTPUT TRANSTORMERS

To foed inte 8 to 15 ohm woice coil. Open frame.

 BI 1680 . Push-pull 45, 43, 48. 59, 71A. Size. 2"x1\%"x2\%". 698


## STANCOR OUTPUT TRANSPORMERS

These scientifically desianed output transformers are substantialls built. usinit only the bighest qualits single or push-pull power tubes into 6 to 10 ohn voice coils of dynamic speakers.

## BINCLE

 Mitg. centers $2^{2 *}$. 1 lb.
List. $\$ 1.10$. NET......... 659

 List. $\$ 1.40$. NET.
$82 c$
B1 1665 . A2227. 31. 41. 10. 12 tubies. Size and mit. as above. List. \$1.40. NET.........828 B1 $1666,{ }^{\text {A2313. 33. }} 42.47$. above. Wt. 2 lbs. 829

## PESER-PULI

R1 1667 A A220. PP43. 45, 48. Mig. centers 2 2". 1 lb.
List. $\$ 1.20$. NET........ 718 B1 1668. A2201. PP43, 45, 48,
 att. centers 21316 $\qquad$ 88c BII669. A223I. PP3I. 41. 10, i2 tubes. Size and mounting as
 Lid, \$1.50. NET. $\qquad$
B I 1670. A2312. PP33. 42. 47. 49. 2A5 tubes. Size and mount ing as abore. Wt. 2 lbs .889

#  



## THORDARSON TRU-FIDELITY TRANSFORMERS

The sensational new dr-sizn of these transformers finally makes posstble the realization of really True Fldelity. These Thordarson transformers are completely shitlded fron esternal fields and electrostatically shiplded betwren prinary and sewondayy. Single hole mounting permiti oier or under chas sis mounting. Itads may be taken from tod or boitom a= required. Equally adapabble for replocpment on laboatary use, or for arighal inctalacalaritative enns inductive balance to esenter tap tor use an bulanced iransmission balance to center tap, tor use

## Line or Mine

to Single Grid
Type T-50.400. For coupling a line- nuternplitice or mix.r mito the crid of any fubl. 1 inmary fin-
 antes. 75.0419 and 18.750 ohmes Bllito.
$\$ 8.53$
Line or Mineto P.P. Grids The T-00.M11. Fur rouplins a Hae or microphone to the Eriuls of push-pull tubes. Primaty imperdAprondary jmp. 150,000 and 35 and BlII71. NET...\$10.88

## LIme or Mike to Lime

 oipms. Necondary impedance, $500^{*}$ BIII72.

## NET 72.

Crystal Mike or Photo Cell to Line
Type T-50. 06 . Snecial high im pedance prinary and 50 ohtris. NET.... \$9.11 BIII73. NET....

## Andio Reactor <br> parallel feed

 circuits. etc. Has inductance of learissat $16 \mathrm{M} . 厶$. BIII82.NET
$\$ 5.88$
P. P. Plates to P. P. Grida Type T-gituj. For applieations Whirh eall for coupling punh-null triode type tubes into push-pul
 45 thin and il wo ohme B11178. NET
$\$ 7.35$

## Single Piate to single Grid

Trpe T-90A03. Intended for coualing a single triode type tube to anmer sin"ie thite of cascatie or dor. L'rimary imbedances are

 single Plateto P.P. Gride Tybe T-90A01. As a thowe but with BIII77. \$6.76 NET

## Lime to Volee Coll

 T-30sia. The to roict cot of dinamict suk-akers. Primary imm and 50 ohms, Sec, 1.25-3.75-5-7.5 10 and 15 ohms.$\$ 8.53$
P. P. Power Tabesto Lime Type T-90\&07. Primary 5.0nin 3.900-1.250 and 750 olims. Secondary $500^{*}-333^{-250-200^{*}-125}$ and 50 ohnis. $\qquad$ $\$ 8.53$
P. P. Tubee to V. Coll Tspe T-90ios similarto T-90:07 10 and 15 ohms. $<8,5$ BII \&80. NET $\mathbf{\$ 8 . 5 3}$

## Single Tube to Lime

Type T-g0a 02 . For coupling sinale triudes 864. 6C6, 6J7. etc., to a line or mixer. Primary lmpedances imperiances. $500^{\circ}-333-250-200^{*}-125$ and 50 olums.
$\$ 8.53$
P. P. Tmbes to Line Type T-90.401. P. $\mathrm{l}^{\text {² }}$. triodes to line. Primary impedances, 20.000 and 5.000 ohms. secondary 1 Inand 50 ohms
BIII
SET..... $\mathbf{\$ 8 . 5 3}$

## TRORDARSON "C.F.T." SERIES AUDIO COUPLING TRANSFORMERS



An entirely new line of transformers fllling the gan between laboratofy grade unlts and servicemen's replacements. Their response curve meets all requireratents tor wide-ranke teprodurtion. stany adranced electrical and mechanical fcantires take the C.H.T. line
 ing easy. Complete impsegnation eliminates moisture problems. Ideal for use in high-grade receivers, tans mitters. and portable public aduress systems. Size,

## LOW IMPEDANCE SOURCE TO GRID



## UNIVERSAE AUDIO REPLACEMENT TRANSFORMER

A small, compact audio unit for use in any AC or fll set. Core of high prade coil. True Jefferson qualig. Frrmished with two sets of brackets for hori rontah o. rettical monntims. Srow hrikht makes suitable for suli-base mounting. 2 to 1 Pomblar for wolbilding atio, $/ 1$ becment partooes.
 B6025. Type 467-164. List, \$1.25. YOUR PRICE

## NEW JEFFERSON STAR SEALED TRANSFORMERS

Outstanding values in high quality trandormers Cor use in any set or alithilier, A.C. of D.C. Ila
 In black enameler sheet steel casen with bicketiacd binding poats. Windituts completuly shinelded and
 centers $2 \frac{3}{4}=1$. Shpg. Ft.. 2 lus. each.

B6030. 467.113. 3 to t.
B6031. 467.116. 5 to
List. 82.25 .
YOUR PRICE
 -132
36032. 467-117. Push-pul input, (Lugs side.) YOUR PRICE.. 3 , 3 6033 46\%-118 imput. (Iase bntion.) \$1.47


| Miciofliont |
| :---: |
| TRANSFORNDRS |
| Microphone to prid. Single-but- |
| ton lypes have tura ratio of 1 to |
| fit: artible-pution twine 1 ta 40 |
| Flat response, 30-700n eycles. |
| These are low-cust high quality |
| units. |


 mounting $2 \times 3 \frac{14}{4}$ lbs. List, ${ }^{\text {as. }} 11 / 2$ Double Button; sicap nowatifge. List. $\$ 1.75 . \$ 182$ \$2.25

Q1.3?

## LINE TO VOICE COIL OUTPUT TRANSFORMER

A hich-quality heary-duty transformer capable of handling up to 12 Fatts continuously; ideal for P.A. installations, Several of these
 momedance is 10 MA ohms. with taps at 500 and 250 ohms, for matching almnest anv hne. Seecnitary is $3,6,9$ and 15 ohnas, Size. $4 \times 2 \frac{1}{2} \times 212^{n}$. Wt., 3 lts .
B8135. Type 467-438. List. $\$ 3.00$.

* 76


## NEW JEFFERSON PLASTIC-SEALED TRANSFORMERS

A completely new line of transformers, hermetically sealed with a platic conting. This coating las a high melting point, is moisture-pronf. permanently adheres to and seats all exposed surfaces and assures positive protertion from adver:a cil
inatle conditions. The very last word in trans former desizn and construction. Absolutely de pendable units.

## ABSOLUTELY MOISTURE-PROOF

The delicate Findints aire completely proferted saainst electrolyus or deterioration, assuring peak performance from the transformers at all times. Fach unit is caretully msde to meut the highest stantarde of traneformer construction, The coils are preision-made, machine-wounci, vacuum-dired and impregnared; cores of laminated silicon steel, annealef
after stamping. The ideal transormer where consistently dependable performance is destred.

## AUDIO TRANSFORMERS

| Na. | Type | Ratio | Size | NET |
| :---: | :---: | :---: | :---: | :---: |
| B6\|55 | $467-501$ | 1702 |  | 0.91 |
| 86156 | 467-503 | 1203 |  | 1.06 |

86157
86168
$11: 7-5092$
P. P. INPUT TRANSFORMERS

## OUTPUT TRANSFORMEES

For single or P. P. 71A. 45. 33, 42, 47, etc. Have $\mathbf{i d 0 0}$ ohmi prmaries.



## CFOKES




# 71 <br> Ruight INTEGRATED SOUND SYSTEMS 

##  <br> UNIT-MATCHED

EVEMY Kolgith Intererated samon System represents maximum value for your dollar-reflected by perfectiy matched components in constant dependability, higher quality and finer performance and tone.

ON the following pages you will find new Knisht Integrated Sound Equlfonent to cover practically every Sound need; our answer to the constantly-growing demand for the high quality Knight line of Public Addresa Equipment.

NEW featurea perfected in the World's greatest Sound Laboratories, combined with precision-matched component units, give you extra value.

NEW low prices, the result of large volume production, bring you greater savings. Never before has your P. A. dollar been able to bay 0 much value.
HONET conervative ratings, and careful assembling and testing before ahipment afford fulleat protection; our Helpful Consulting Service saves you time, trouble and money by recommending dependable and proper equipment for every requirement.

OUR liberal guarantee is your assurance of consistent satisfaction. For these reasons it will pay you to do your Sound buying at will pay you to do your Sound b

## 6uarantes



## Sonnd Spsciakist

Sound experta supervise the assembling, testing and shipping of every Krilitut Sennll system. Our Sound Engineerl have collaborated with industrial organizations architects, and educatorn in deaigning specialixed sonnd equipment for schools, industry, hospitals prisons, etc Final, exheustive tests for maximum safety and operating performance are given each knight Sounnd system in our modern laboratories before shipment. Only Sound Special its can asoure you of such care and etill in meeting your Sound requirements. That is why Public Address purchasere everywhere depend on ALIEB for the fineat in Sound Equipment.

## FREE CONSULTING SERVICE

 We invite you to submit your Public Addred probleme to ourSonnd Enginetr for authoritative ald and proper zecommendafion. without eny obligetion on yout part. Our valt experience in aeiectige Soqud Equipment for individual requirements ia refected in abe many highy tuccefill inctaliationa made by drousends of our cuetomers in alit parte of the world. Whether Fon make your inquiry by matil or whether Fou vigit our Sonnd Studios permonaly, the experience and knowledte of our Sound Engineers mre al wray at your dibponal. It will pay you to take dventege of our Conmiting Service when modermizing oid riterse or plannifes mev installations

## HOW TO ORDER P. A. EQUIPMENT

We cap apply Sound Eunipment for every concei vable meed and parpoec. The atandard Whblit syeten. if lised on the followin pape will cover mont reqmirementa. If, howewer, you will need, our Enaineers will be eact to od exajpment you obly the you gumy with the followin informantion: (1) Ten Whe perpoat for which you require the equipanent; for ex
 atc: (2) Scate whether you detire permanent or portahie equipment; (3) Advige what curreat you have available; (4) If ponible, proply us vithe rough elroteh fediceting ill fmportant dimenaions of are to be covered. finctitutiong mat mbmit binepriate which will be eafely retarned); (5) Indicate any pecial preferencea you maty have in regard to microphones, peotrers, etc. State yonr requirernents an clearly and completedy en powible to that we can help for elect the proper


## Knight 8 WATT



## 8 WATT AMPLIFIER ONLY

The Knight Watt Amplifier is offered eparately as an ideal replacement for old maplifiers or for use as the heart of practically any low-powered aound system; Hicrophove uansformer and current supply; equipped with microphone and pbosograph mixer. Has Tone Control. Developa full eight watio using 1-6J7 and I-6L6 metal tubee and 524 metal rectifier. Has an excelient goin of 69 db . with emsentially fat treauency remponse from 80 to 10.000 cyetica. Supplies feld current for $1-1000$ ohm dynamic speaker; output is from plate of 61.6 . Input in for aingle or doable-button carbon micraphone and bish impedance
 Lizt. 25.08 Yoliz putce



The amaxing 6L6 Flectron Beam Metal Power Output Tube uned in
 put with minimum dietortion
 compactly and pleaningly deairned. Meapure only $12^{\circ}$ I ${ }^{\circ}$ I $\%^{\circ}$. In modern brown wrinkle-finimh metil case. Has attructive new control promel haidbed in etriking chrome and monionely deamed control trab of brown batrelite. Has a really arofempion bateite. nas a apearance. There is mo finer 8 Watt Amplifier benilt today.

A *undy practical portable carrylng come which Fill house the lectly, is shown on page 86 .


## 8 WATT CRYSTAL MICROPHONE SYSTEM

For the first time at so low a price-a mew high quality modern full 8 Watt High-Gain Sound System with latest duai-diaphragm Crystal Microphone, using all of the advantages of the latest netal tubes for superb reproduction. Ideal for smaller installations where fimited sound coverage or effective reinforcement is desired. The new bigh-gain amplifier permits the direct use of lectrod yype of Crystal Microphone tor unwoually ame udevity. A high-srade fuH oling
 versatile in operation. giving continuous. dependable performance. Each syptem is carefully tested in our laboratory before shipment. Polarized connections and complete operating inatructiona permit quick and proper inatallation and operation

## WITH NEW CRYSTAL MIKE

The Knight fermet Migh-Gain Soumd System uses the new Astatic Dual-diaphragm non-directional Crystal Microphone. The butt-in preamplifier stage makes its direct use possible without additional external amplification. The Astatic Crystal Microptone features exceptionally fine frequency response; will pick up sound from any angle; reduces feed-back" to a minimum. All voice and musical frequencies are faithfully handled. The compact, watch-case size of the microphone makes it convenient to use. The KMisht 害 watt Mish-Cain Sousind system has been killfully engineered to utilize to the fullest he decided advantages of crystal microphone performance. Each Kmight 8 Watt HighCalm Sound Sy置tem is manufactured unde! license arrangernents with Electrical Research Co.. Inc., Radio Corporation of America.

## LATEST METAL TUBES

The Knipht EWatt HIFh-Galn Ampliener used in the syotem employs a powerful thee stage circuit utilizink the newest metal tubes to the fullest advantage as follows: 1-6J7 as crystal mike preamplifier: 1 -6N7 as electronic mixer and driver: i-6L6 Electron Beam Power tuhe as power output; 1 - 524 as rectifier. This modern tube line-up assures aboolute rated output and minimum distorcion. Tbe Kright 8 Watt High-Gain Sound System comes to you complete with all cables and plugs attached. It can be set up instantly and is unutually simple to operate. For perMrolante, ior relabliry, and for value, kint competicion $\operatorname{sh}$-Gain syourm is with out competision

## NEW HIGH-GAIN CIRCUIT

The new high-gain circuit used in the Kalght t Watt "Little Giant" Ampilifer employa the latest metal tubes. Input is ar ranged for a high-impedance magnetic phono craph Dickup at well as for the crystal micro are preppied. Separate volume control permitting for microphone and phonograph Control is alsonding and miring action. rone treble as desired. The amplifier develops an esaentially flat frequency responge from 80 to 10,000 cycles. Gain it 110 db . for crystal current for the dynatic spenter is aupplied by the amplifier ${ }^{-}$an extra speaker iack permite the use of an additional speaker if desired The versatite design of the Mniyht है whatt System makes it suitable for many sound applications.

## SYSTEM COMPLETE

The Kmight है Watt thah-Gain sound Syatam includer the Little Giant Amplifie described on mext page. a high grade full 83 inch dynamic speaker with 25 foot 4 conductor cable and plug attached, an Astatic Dual diaphragm Crystal microphone with 25 foo cable and plug, attractive microphone banquet stand, a Eit of Raytheon metal tubes, only 64 watte from 110 Volt 60 cych A C lin Shpg w 39 the Ready for eegy inatallation and operation The Kntint en watt linte mratedmigh-Galt
\%raned System is the finest 8 watt $P$.A. value ever affered
312012 312012.
Li $\$ 80.00$.

Lis \$80.00.
s3995



## 8 WATT High-Gain PORTABIE SOUND SYSTEM <br> The Kright Watt High-Gain Saund Systom with

 Crystal Microphone is also offered in a modern low-cost portable system. Designed for coverage of mall audiences. Ideal for musical organizations, lecturers, demonstrators, side-shows, etc. Uses the new Astatic Dual-Diaphragm Crystal Microphone for quiet performance and clear reproduction of both voice and music Input is provided for the crystal microphone aupplied and for a high impedance phonograph. Individual volume controls are provided for microphone and phonograph for mixing and blending voice and music. Tone control permits compensation for varying acoustical conditions. The use of the latest powerful metal tubes in the high-gain circuit of the amplifier assures full 8 watte output practically free from distortion. The new 6L6 Electron Beam-Power Tube plays an important part in developing this flawless power. A large $81 / 2$ inch Knight Dynamic speaker handles full volume without blasting. All components are housedin a single compact carrying case. $811^{\circ} \times 128^{\circ} \times 161^{\circ}$. Weight complete is only 42 lbs The new Kndeht's Watt High-Caln Soumi System is one of the most versatile portable systems ever designed. For value, completeness, ready portability, ease of operation and highert tonal fidelity, it is absolutely unrivalled even by 8 watt systems at much higher prices.
## COMPLETE 8 WATT HIGH-GAIN SYSTEM

The complete Knights Watt ATjoth-Galn Portable Systom includes: 1-Kmith 8 Watt high-gain amplifier; i-Astatic Dual-diaphragm Crystal microphone mounted on an attractive banquet otand with 25 foot cable and polarized plug; $1-8$ 1/ inch Keteht dynamic speaker with 25 foot cable and polarixed plug. Entirely self-contained in a single sturdy carrying case. Complete with tubes and insiructions. For operation on 110 Volts, 60 cycles, A.C. A wonderful value in a complete, compact full 8 watt portable system. 812015.

List $\$ 91.50$.
YOUR PRICE COMMLETE

## S4535

(The above systam can also be had with a Knifht ilpor stand Inste⿻d of manquet stand at no axtra cest. For sultabile pertable phonezriph, see our ittractive soloction on pape 55 . Nivite your total orfor ceme to 375 or mores and you cont buy your Kmight gound Equlpment on Esisy Ternus. See page 70 for dotalis.)

#  




EASY TERMS
Vou can now buyathe Kulght is Watt Crystal Mifke Searna Systom on our attractive Thrme Payment Man by bringing your P. A. order up to $\$ 75$ total or more. (See Page 70 for detaile) You may add a suitable portable phonograph such suitable portable phonograph such
as B10080 or B10081 on page 85 ; as 810080 or 810081 on page 85 ;
or speaker baffes such as BiO
; page 86 , or an additional crystal microphone and stand. This will bring your total P. A. order up to or over the minimum time payment requirements. Take advantage of the new ALLIE Time Fayment Pianuse the Moisht Sennd Equiponowt you need now, and pay for it conyou need now, and pay for

The Knlght 12 Waft High-ealm Seund Systemb art manultefimed Under biconte arrangements with
 pheldisty of Wostorm Ewetrie Ce:

An exceptional value in a new low-cost complete Kni yint it Watt Intugrated Spennd syotem using the latest dual-diaphragm type crystal microphone. This new type of crystal microphone hat an erceptionally Gae frequency response; greatly reduces feed-back and will pick up sound has an exceptionally gne frequency response; greatly reduces feed-back and win pick up sound actually the size of an ordinary watch. (An additional high-impedance microphone may be added if desired, for special effecta.) The high-gain amplifier of this 18 Watt System develope full 18 watts output uaing the crystal microphone. Four high-gain stages are employed using the latest type tubes; 1 -6C6, 2-6A6, 2-6B5, 1- 523 . The two 6B5 tubes used as pash-pull power amplifiers assure greater gain ( 115 db .) with less distortion than any other equivalent tubes. Frequency response is essentially flat from 80 to 10,000 C.P.S. Hum level is minus 25 db . These splendid characteristics assure high output coupled with excellent fidelity.

## BUILT-IN ELECTRONIC MIXER CIRCUIT

Inpat is provided in the Knight 18 Watt Sys-- mor a high-impedance phonograph pickup. Individual volume controls ior microphone and Monograph permit blendion abd controlled Tod Control is provided to give base or treble emphasie and to compensate for varying acoustical condiciont. All controla are readily aconstible on the modern chrome and brown operating panel. Two ciant Keright full 12 idch Auditorium electrodymamic speakera are supodied with the Kmlift 18 yatt seumid Syitem. They adequately bandle the fof output of the amplifier. giviag wide range celd cil reproduction. The ampliner suppliea ail eld (ane for (noperauctaila) ert page for furtier details.)

## 18 WATTS OUTPUT

The High-Gain Amplifier incorporated in the Knlagh 18 Watt Seunted system develop a full 18 watta output, with admirable fidelity. free from diatcrtion. High-prade componenta. integrated perfectly, are coupled with advanced deajes and tillfal building to menure hishert quality and value

## COMPLETE 18 WATT CRYSTAL MIKE SYSTEM

The complete Knight is Watt Crystal mive seund System includes: 1 -Knight 18 Watt High-Gain Amplifier; 1-Astatic dual diaphragm Crystal microphone; 25 feet of special crystal microphone cable and polarized plug: 1-standard Kintetht microphone floor stand writh sure-grip clutch (adjustable from 46 to 70 inches) 2 - 12 ivch Kentent dynamic 46 to 70 inches); 2 - 12 inch knight dynami speakers with 30 foot cables and polarized plugs; complete Raytheon tube kit, and ful instructions. For operation on 110 Volts, 60 cycles A.C. Ready for in stallation. Shpg. wt., 55 lbs
812019.

List, \$127.50,
$345 \sqrt{4}$
(Note: See page 85 for Portable Phonograph. See page 86 for Portable Case and Bafles. Make your order come to $\$ 75$ or more and buy on our Easy Terms Plan.)

# With Qutstanding NEW FEA iE MEVER BEFORE 50 MUCH PIIBLIC ADDRESS VALIIE! 

 PIIBLIC ADDRESS VALIIE!}


Has universal input for any high-impedance microphone. Available with choice of Crystal. Velotron, Velocity, or Sound Cell miken


Has plug-in input for high-impedance magnetic phono pickup. See page 85 for suitable portable phonograph.


For suitable baffles and projectors which will give even wider coverage to the Kright coverage to the knitht tembs see listing on page 86.

## NEWEST FEATURES:

- Untvorsal Impuit for: Crystan Volectity soumd Coll mintos - Bullitin Pre-Amplisor - Provere Input
- Tene contral
- Dused mille Switch
- 12' speakers
- Jectronic miner
- Universal Outpunt
- Priartred Connections
- Fubliz watts outpur
- Modern Design


## WIDE FREQUENCY RANGE

Brilliant engineering ham made the Kifht $1:$ watt seermil Sytems marvela of efficiency, resulting in erceptional high gin and remarkable wide-range fidelity. Frequency reaponge is eosentially flat from 80 to 10,000 C.P.S. The four exages utilized in the amplifer develop the exceptionally high gain of 115 db . At full
rated ontput. distortion is only $7 \%$. Hym rated ontput. distortion is oniy f\%o. Ham level in minus 25 db , These spiendid charwith excellent fidelity. The Kniphtis wait semind syrtem: are ideal both for sound reinforcement an well as fon powerfill public addrest coverage.

## GIANT 12" SPEAKERS

The Knhint 1s Watt High-Caly Sonnd syetems use 2 giant Kinlyint full 12 inch Auditorium Dynamic Speakers which adequately handle the output of the moplifier, giving wide-range faithiul reproduction. Theat popular epeakers fearure beavy pressed-ateel construction and rugged deapp for beavy-duty use. ampiliser mupplies all field current for the operation of tbese spenkers. Each opeaker if equipped with 30 foot cable and plus attached. (For suitable apeaker baffes. which will give even wider coverage, see our complete listing on page 86 .)


## VELOTRON

 SY5TEAComplete Knight 18 Watt Integrated System as deacribed at left. but with a Veletren staticvelocity microphone instead of Crystal instead of microphone.
B 12020 B 12020.
$\mathrm{Lixt}, 120.00$ CABH PRICE


VELOCITY SYSTEM
Complete Kwisht 1s Watt integrited Sytem as deacribed, but equipped with a high-grade Velectty microphone. Meets the demand for widerange tonal fidelity. B12021. List, \$137.50. CASH PRICE


SOUND CELL SYSTEM CompleteMnlatht 18 Watt Inter grated Syctem as described but with a Cell microphone. Has $360^{\circ}$ pickup has fine response. | and fine respon |
| :--- |
| $\mathbf{B 1 2 0 2}$ | B12022.

List,
140.00. CASH PRICE. .

## S5975

(Te tale mivantage of our Time Paynont Manp briog your p.an orlor up to $\$ 75$ of mert by addins pertable phous,


## POWERFUL CIRCUIT

The High-Gain Amplifier incorporated in the Knisht 18 Watt sound Systems develops a full 18 watts output. with admirable fidelity, free from distortion. Four high-gain stages are employed, using the latest type tubes as follows: 1-6C6 as crystal mike preamplifier; 1-6A6 as electronic mixer and voltage amplifier; 1-6A6 as phase inverter and driver; 2-6B5 as push-pull power amplifiers; with 5 Z3as rectifier. The two 6 B5 tubes with $5 Z 3$ as rectifier. Thetwo 6BS tuber used as push-pull power ampliner than any other equivalent tubes. High grade components, advanced design and skillful building assure highest quality and futi value. These Kmitht 1 Wettintegrafed s yund syatom: should not be confused with syatems ctalinins the same pefformance but which are actually of juferior design and construction

## ELECTRONIC MIXER

Individual volume controls are provided for both microphone and phonotraph permitting bending or fading as deaired trolled in the GA6 tube. Provision is also made to permit the use of an additiona microphoae. with a epecial selector switch arrangemeat which allows either microphone to be cut in at will. This feature odde real versatility to the system, mak ing it possible to achie ve special effectu such as off-stage announcementa, solo Tors Control is provided to rive base or treble amphatio and to compentate for trebse aconstical conditions All controls are conveniently located on front bese of amplifer. Polarized receptacles are provided to: microphone and speakels. Twin-jack accommodates phonograph input. Note the modern attractive deaign of the pew Knhatot is Wett A mpilitior. The metal crase is finished in attractive brown-wrinkle. Control panel is chrome
and brown with brown bar-knobo. phono. 4 high-gain stages develop a remarkable gain of 115 db . perquiring the use of a pre-amplifier. The frequency response is en Shpg. wh., 25 bs. For 110 voits, 60 cycles A.C. B12018. Knight is Watt High-anin Ampliner, leas tubes.
List, \$57.50. CASH PRICE


Individual volume controls are provided for elec. tronically mixing mike and phono. Tone Control is also included. All controls are easily accessible.


Two giant 12 -inch Elec-tro-dynamic speakers are coupled with the Kolisht 18 Watt Syrterne for rich, wide-fidelity tonal range,


Has provision for use of additional microphone. Switch arrangement allows either mike (they need not be alike) to be cut in at will as desired.

## 18 WATT HIGH-GAIN AMPLFIER ONLY

The Molght is Watt High-Cmin Amplinar is available separately as an ideal nucleus for sound systems using low level microphones. Has univereal inpnt for any high impedance microphone and mitting the direct use of high impedance microphones without re sentially flat from 80 to 10,000 cycles. The Kilcht 18 Watt HighCsin Amplitier has individual volume controls for both microphone and phonograph, permitting them to be "faded" or "mixed" as de sired. Provision is made for the use of two microphones, either of which may be used at will. Tone Control is built in for bass or treble emphasis. Has polarized receptacles for mike and speakers and twin jack for phono input. Has built-in field excitation for $2-4000 \mathrm{ohm}$ dynamic speakers; output is universal, tapped at




An entirely new High-Gain Sound System of intermediate, power. etyled along the most modera lipes. Includes many exclusive new features. Uniweral input is provided for the une of two of any type high-impedance mictophones. We offer below a choice of bystems uning either dual-diaphragm Crystal, Velotron. Velocity or Sound Cell Microphones. Input is also arranged for a high-impedance magretic phono pickup. Both microphones may be used simultancoudy anow vizuslly the outpur level at which the syitem is operating. The ure of the new 6 L 6 Fectron Beam Power tubes asaures full 25 waris output with absolute minimum of digtortion. The new Knhift 25 , whet Aigh-Galn Sound 5 yotem is suitable for use by orchestran, churches. morticians, michools, ciubs and lodrea, night clubs and carnivais or wherever intermediate power with exceptionally fine tonal fdelity ia desired.

## 4 HIGH-GAIN STAGES - 3 CHANNEL MIXER

The amplifier used in the Knlyht 25 Watt 5 yotem features four high-gain stages uaing the following oretal tubes; $2-6 \mathrm{~J} 7$ as mike prearaplifiers; $2-6 N 7$ as voltage amplitiers and Electronic mizers; 1-6N7 as driver; 2-6L6 as push-pull Beam Power output stage; 1-6X5 as output meter tabe. An 83 tube ia rectifier. This powerful circuit hae a rain of 118 db . on microphone and 65 db . for phono. Frequency responoe is esoentially that from 80 to $10.000 \mathrm{C} . \mathrm{P} . \mathrm{S}$. A three-channel mixer is incorporated, which includea a separate volnme control for each micbending as desired. Each control functions independently and has no effect on the others. Tone Control is provided to compensate for varying acoustical conditions. Two of the latest 12 inch Knleht Auditorium Electro-dynamic apcakers handle the full output without diatortion and with excellent tonal fidelity. Al receptacles for microphonea and speakers are polarised.

## COMPLETE 25 WATT CRYSTAL HIGH-GAIN SYSTEM

The Kmisht is Watt High-Gain Imitogratod geand syatem it offered complete an illugtrated above with two Astatic Dual-diaphragm Crystal Microphones. Includics: il Kndeht 25 Watt High-Gain Amplifier: 2-Knipht 12 inch dynamic speazera with 30 foot cables and polarized plugs; 2-Astatic Crystal Microphones with 25 foot cables and polarized R12O2

SEE PAEE TO FOR CONYEMIERT TINE PAYMENT PLAM

812027. 25 WATT VELOTHOM SYSTEM Same as Crystal System described above at right Vilotren Micrephem Crystal Mikes.
Complete 25 Watt System.
Liti. $\$ 170.00$. CASAPR
5845
B12028. 25 WATT VELOCITY SYSTEM Same as above but with 2 Velecity Nicrephenes Complete 25 Watt System
List 200.00.
CASH PRICE
sg950
B12029. 2S WATT SOUND CELE SYSTEH. Same as above but with 2 Irtreh seum Cell Milerephen as
Complete 25 Watt System
Liot 215.00
CASH PRICE
s 1075
Tb Soe Page 70 for Easy Payment Pian


B12025. 25 wATT AmPLIFIER ONEY. Fentures as described above $17 \times 1218 / 7$ sope to cycles ror 1 yots. 60 cycles.
A.C. Led tubes.
ATS



3 Channel Mixer hat eep tate volume controls for each microptione and for phonopermitting electronic "mixing of all three, Each control functions independently and has no effect on the others. Tone Control is aloo included. With excluaive output indicator.

Baffies and Project ors For even better oound cov erage, indoor or outdoors mounted on large flat baffles) we necommend the use of the projectors and directional baffles which are iliustrated on page 86 .


FEATURES:

- UnNERSAL mike input
- NEW OUTPUT INDICATOR
- 3 CHANNEL MIXER
- $6 L 6$ BEAM POWER TUBES
- PHONOGRAPH INPUT
- WITH TONE CONYEOL
- POLARIZED CONNECTIONS
- MODERN DESIGN

New giant bigh-gain Sound Syatema deetigned for complete coverage of huge crowds. Particulariy recommended for outdoor use in large athletic
felda in public parke in muaic bandnhells, at race felds. in public parke, in muaic basdnbells, at race the simultaneous use of 2 high impedance mictophones such as: diaphragm type Crymtal, etaticvelocity Velotron, Velocity, or Sound Cell cryatal typen, as well as a bigh impedance magreuc phonograph. Complete Giant Sound Syatema are listed below uaing these bigh-quality microphones.

## GIANT 60 WATTS OUTPUT

The Knight si Watt Hyh-Gain Ampllifer uned develope full output whit any of the microphonea listed. 4 high-Eain st ages employ: 2-6I7 at microphone preamplifiets. 2 - 6 N 7 as electronic mixere and voltage amplifiers, 2 -OC5 as drivers. ${ }^{2} 6 \mathrm{LL}$ at Electron Beam-power output tubes: $1-524$ an fixed bias tube. $1-6 \times 5$ as Volume Indicator tube, $1-83$ ms rectiver. This modern tabe combination angares and 65 db for phonorraph. Frequency reaponse is estentially flat from 80 to 10,000 cydeo. Separate volume controla are incorporated for each microphone as well as for phono, permitting any desired defree of blending; mixing is accomplished electronically. A tone control in provided to compenmate for varying scoustical conditions. All controls, induding "on-of" Ewitch are conveniently Frouped on the front panel for ready acoesoibility.


CALIBRATED OUTPUT INDICATOR

The KnIght ce Watt sound Eystoms are manuffectured under lleense errengements with Electrical Researeh PredGubsidiary of WestornElectrie Con, Inc, Radle America.

## WITH OUTPUT METER

An exclusive feature of Malyht ws Whtt Intereated Glant seennd syateming the cali brated output meter which permits accurate is a practical necesaity where the and located at a dietance from the microphones or ppeakers. Four new type permanent magoet dynamic epeakers are wupplied with each Knipht © Watt Alant seand System. They employ a new magnetic alloy in their field etructures to asaure excetlent power handling ability with true tonal fidelity. (Additional opeakers may be added aa deaired.) Each apeaker in equipped 500 ohm output of tbe maplifer and with 50 feet of connecting cable, with polarised plug attiched.

## COMPLETELY ASSEMBLED

Kmbint co Witt cliont Seund Syaterne are completely a manbled and teated in our laboratories before sbipment. This amures aboolute comporite installation and operation. Al componente are carefully matched to asure deperdabie operation and muperb reproduction Southi Sytiteme are atill low in coat and economical in operation. They draw oniy 275 watt from a 110 yolt 60 cycle A.C. line. The complete Fetems as listed offer a choice of any 2 Cryptal Velotron, Velocity or Soand Cell microphones
For 110 Volt 60 cycle A.C. operation.

## COMPLETE CRYSTAL SYSTEM

The powerful Kriaht co Watt Glant seund Syrtem is oftered complete, with 2-A tatic dual-diaphrazm Cryutal microphones with 25 ft . cables and polarixed puris; 2Gain Amplifer: 4; mew type P.M. Dynamic Speeterra. each with 50 ft . cable and polarized plug: Ratheon tube tis and complete inatruc cions. For $i 10$ volte, 60 cycles A.C. Shpy. wh. 812061 . Liat, 5265.00 . CASH PRICE. ....

## S3250

Yet en fow buy the Net Kaleht t
 piote ietullen and Eavi Tornwa churt.

## t



B12082. Knight wat Sytem complete as deacribed below at left bu of Cirstal Mikes. whephentan incead Liot 250.00 ikes. \$/2500

312083 . Knfint 5 Wat syatem complete as described with 2 -hinhrale yolpelty
Hicrephener.
Lit, $\$ 280.00$.
ง 3950
312084 . Mwhin ef Watt tresten complete as described with 2-Gruph setnil Cell
Alereghemes.
Ligt. 295.00 .
CASMPTicE
S465s


AMPLIFIER ONLY
812080 . Knlate ce Watt Ampither ony. with all feature aa dencribed $17 \pi 12 \times 84$. For use on 110 volta. 60 sycles A.C. Lrser eubea. CASH P10000.
CASH PRICE
S4995
量12075. Rarthom Tube Klt.
 wide-range fidelity, at a remarkably low price. Uses two high-grade new type dual-diaphragm Astatic Crystal Microphones. Especially developed for excellent service where large coverage and fine tone quality are desired. Suitable for use by orchestras, for church and school. for auditorium and hall platform use; for theater stage presentation; for outdoor pageants, field days, etc. Also recommended for dance halls, convention halls, skating rinks, athletic fields, etc. The Knisht High-Gain Integrated Sound Systemi with two Crystal Microphones develops full 35 watts output. Has four high-gain stages using $2-6 \mathrm{~J} 7.2-6 \mathrm{~N} 7,1-6 \mathrm{CS}, 2-6 \mathrm{~L}$, develops full
 level is minus 25 db . These fine characteristics assure wide range tonal fidelity and large output without distortion. Input is provided for a high impedance phono pickup as well as for two Crystal Microphones. Individual volume controls permit fading and blending at will. Mizing action is electronically controlled. Tone Control is provided to compensate for varying acoustical conditions. The two giant 12 inch Knisht Electro-dynamic speakers supplied with the system handle full output, rendering wide-range tonal fidelity. The amplifier supplies all field current.

GIANT 35 WATTS OUTPUT
The newly-desiened circuit of the amplifier used in the Knight 36 wati Sotind syisem has 4 as followa: 2-6j7's as preamplifier tubes (one for each microphone) ; $2-6 N 7$ 's as voltage amplifiers and etectronic mixers; 1 - 6 C 5 as driver. with 2-6L6's as push-pull Beam Power output etape; and 83 iube is rectifer; I-6X5 is output indicator tube. This powerful circuit developa a gain of 121 db permitting the direct use of the two crystal microphones without external preamplification. Diatortion is less than $7 \%$ at fulf 35 watt output

## WITH OUTPUT INDICATOR

Wrine exclusive new Output Indicator used in the yout to ve vieually high-Galn System enables you to sce visually at all tinen the exact volume piatta output is consisten is operating. Giant 35 ful circuit using 2-6L6's an push-pull Beam Power Output Stase. The Kution 35 Watt Himh-Galn Sysfom ie built along entirely modern lines, incorporating exclusive new features in both design and construction. The amplifier is entirely housed in a brown wrinkle-fnished steel case with dit-erill-work, handsome chrotoium and biown dial plates and output indicator ntrip. Truly professional in appearance and performance. (For further descriptive details. see next page.)

## 3 CHANNEL MIXER

A unigue circuit is provided for complete easy control of the Kniliht 3 Channel 35 Wratt Am pliner. A separate volume control is provided for This arrangement permits full for phonograph This arrangement permits full control of any both microphones may the uned for singing or speech against a soft musical backstound from phono or orcheatra. Tone Contro! is also provifed co accentuate bass or creble and to compensate for unfavorable acoustical conslitions. Thie contro design gives the Knlght 35 watt Syitem unusua vermatility.
COMPLETE CRYSTAL SYSTEM
The complete Knifint 35 Watt Migh-Galn The complete Knivht 35 Watt Mlgh-Galn
Crystal
Knight 35 Watt Amplifier; 2-Astatic Crystal Microphones with 25 foot rabies and Dolarized mlugs: 2-Mnlght Adjustable Micropinone Floo Stands; 2-12 inch Knight Dynamic Speaker with 30 foot cables and polarized p!uge; complete Raytheon tube kit and instructions. Shps. wt. 73 ibs. For 110 volts, 60 cycles. A.C. E12036. Cemplete 35 whet Mish-Galn List $\$ 200.00$ phone Systemm. c解 200.00
CASH PRBCE
599.50
(Seetiap it fer Portable Cblet.)


## UNIVERSAL MIKE INPUT

The Kalght 35 Watt High-Gain Amplither will give splendid results with any type high-impedance microphones. We have selected and offered on these pages a fine choice of associated microphone equipment in four complete $\$ 5$ Watt High-Gain Sound Systems. You have your choice of a system plete 35 Watt High-Gain Sound Sybtems. You have your choice of a system splendid quality at a very moderate price; a system with two of the new staticvelocity Velotron Microphones for somewhat wider frequency range; a system with two high-grade Velocity Microphones for high quality voice and music work; and a system with two Brush Sound Cell Microphones for applications demanding the very finegt studio quality sound performance. This large choice of microphone equipment permits Kright 35 Watt Migh-cain Sound Systems to meet practically any Public Address or Sound application where giant coverage and excellent tonal fidelity are required.

## LARGE POWER -LOW COST

For installationg requining giant output with rood tonal quality at a remonable price. the Knight 33 watt Nigh-Gsim Dual Microphon* Systems are the ogical answer, They are remarkable for installation and operation. Anyone can set ehese systems up for operation in just a few minutes. They bave a multitude of applications, including use for large political meetings. for skating rinks. for dramatic performances, for large orchestras, for athetic fields, etc. Ideal large power, low-coot sound systems which offer versatile high fidelity microphone reproduction and brilliant phonograph performance. Knight 35 watt intefrated Migh-Galn Sound syitomis represent value that canoot be eurpased at anywhere sear hLifin's low prices.

## Craikt 35 WATT AMPLIFIER ONIY

The Kultht 35 Watt High Galn Ampllfer is available geparately for replace ment in bigh grade wound symtems or an initial equipment. Has input for two high impedance microphones, and phonograph. Four high pain stages develop a gain o 121 db . permitting the direct use of low-level microphones wit mout external pre amplification- Unestifict. The amplifier has arceptionally wide frequency response essentially rectificr. 50 to 10,000 cycles. Distortion is less than $7 \%$ at full 35 watt outDut. Hum level is minus 25 db . Field supply for 2 - 4000 ohm dynamic speaters is buil in. Output is universal, tapped at $\uparrow, 8$, 16 and 500 ohms . Polarized recrptacles for microphones and spenkera are provided. Equipped with individual volume controls for each microphone and for phonofraph. A tone control is also provided to attenuate the higher frequencies where 'feedback' may be encountered. The A.C bwitch is located on tbe front panel. Modern cose measuree 17
Brown wrinkle finish, with chromium end brown control plates Brown wrinke fiaish, with chromium had brown control plates
and output indicator strip. For 110 volts, 60 cycles A.C.Shpg. wt. and output indicator strip. For 110 volte, Ei2035, ${ }^{35}$ Witt AnPR



PHONO INPUT
Provision is made for plugging in higb-impedance phonograph prckup. Sedarate volume control dividually or with microphones in dividually For desired. Pbonographs. tee Page 85. Whinht 35 wret components assure the very fine
in high quality sound results.


BAFFLES
For even better sound coverage. indoors or outdoors (where speakers are not mounted on lare, flat baflies) we suggest the use of the projectors and direc tional baffles shown on page 86 . Wathes type ar well as indoor lypes ad well as indoo type are shown.



WOAEHTE SYSTETM COMPLETE, cash Prict

## S07

SEE PACE 70 FOR COMPLETE DETAILS OF OUR NEW CONVEMENT TAME PAY MEMY PLAM EANH WITH THIS KNIGHY PA EQUIPMENT WHILE YOU PAYI

## BUILT-IN MIXER

The built-in control panel conveniently located on the top face of the venel amptifier cahinet carries meperate volume controls for the microphone and phono pickup. permitting bleading and Aloo indurdes come control as wesll and Aloo-ont switch and bull'seye and on-of" "witch and bull's-eye and tectes are provided for piugring in
 110 Volt AC power pack. May be inwhatied comppletery, pack hay be inchanged from 6 rolts to 110 volts source quickity and earily.

## NEW CRYSTAL MIKE

The bnilt-in preamplifier incorporated tis the Kely wi whet Hiph-Galw Fortablo-moblio A oplliler permita the direct use of a new type Astatic Dualdiaphragm Watch-case Crystal Hand Micropione. The uec of this rety microphone asmures exceptional fidelity of quality of tone pever before posible in quality of tone never betore pospibe in menjent companct size of the Antatic Cryotal Hand Microphone permita itn use practically anywhere. it has the rugrednetiond quality anstial es

Decially for mobile work.

## 20 WATI MOBILE SYSTEM

An entirely new powerful Public Addres System dealgned for vermatile performance. Operates directly and entirely from a single 6 volt storage battery wherever AC current is not available. or may be used on 110 Volts AC current simply by adding the inerpensive power pack listed below. Has truly universal application for mobile or temporary installations both indoors and outdoors, no matter what the current limitationa may be. Will cover large crowily with wonderful power and excellent fidelity. Compact and portable. May be simply and quickly installed or changed from car to car or from one place to another. The finest and most efficient mobile-portable counged from available. Features a powerful 20 watt new high-gain circuit for direct operation of a high quality Astatic Dual-diaphragm Crystal Hand Microphone as well as phonograph. Built of the finest components and designed for the utmoet simplicity in installation and operation. Beautifully built into a modern brown-wrinkle finished teel case with rounded corners, chromium and brown enamel trim, and heavy chromium carrying handles. Anyone can install and operate the Knight 20 Watt Mebtie Systern easily and properly. It is the last word in versatile P.A. performance.

## COMPACT-POWERFUL

The complete Kinisht 24 Watt Wobllo-Fort abie syatem comeniots of: $1-$ powerful 20 Watt High Gain Amplifier, higt grade dynamotor, wingle-epeed electric phomo motor, good quality magnetic pickup and control panel aill melf-contained in a singie compact ${ }^{2}$ modern steel cabinet with carrying Dynamic Speakers with 10 foal cablessant Magnet Rlugz; 1- Rew type Artatic Dual-diaphragm Prystal Hand Microphe Artatic Dual-diaphratmo ired plug. Designed to operate directly from a poiarie 6 volt mionge battery, but equipped with receptacle for quict consection to mpecial 110 Volt AC power paci described below, to permit efficient operation from any 110 Volt 60 cycle AC line. The poweriul 20 Watt High-Gain Amplifier ueca six new type tubea in an efficient \& stage circuit with and 3 of 115 db . Tubee nued are: $1-6 \mathrm{C} 6,2-76$ and 3-6A6. The mmplifier bas an etwentially Rat Irequency reapose from 80 to 10.000 C.P.S.

## COMPLETE 20 WATT SYSTEM

 abla 5ythen is offered for operation from a 6 Volt stor age battery only ( 110 Volts, 60 cycles AC power pack is listed below). comptete an follows: $1-20$ Wat High-Gaid Amplifer, mixing panel, and phonograph in steel cabinet, with $2-12$ inch Permanent Magnet Dynamic Speakers with cables and plugs. Astatic Cryatid Hand Microphone with cable and plug. and complete operating instructions. 312030 . Cemplete Veft 24 Watt System. List Price $\$ 2: 5,00$.
with tenleses.
S107
B12031. FPECIAL PLUE-TN 116 VOLT 6 operation of Pi PAC Permith complete cyde AC lite Complete with tube. 1.1 .95


Illuntration above whowe typlcal wound car speaket installation using directional aluminum baflies page 86 for cound coveraze. See These baffies make deactiption. sturdy and attractive inctaila. tion. and may easily be taken down for wes indcore. Add theoe low cost baffles to your order.


Fat opeaker bafice built into the aide of the wound car are illustrated above. Theme batfies may he easily and inexpensively constructed out of heavy ply. wood or any other ant wrond. with finish of sound car This type of baffic sives excelfent aide coverage at low cost.


Another method of mounting meakers on $w$,und car. Here. reatherpeoor directional baffee are used. These baffies are described on pase 86 . They are low-priced. Effective units. built tively finished in aluminum. Thes baffes distribite sound over wide area.

## VOLTS D. C. OR 110 VOLTS A. C.

POWER PACK

## ICENSED

## 

 Pat dibe Wiil operates ato $\mathrm{K}_{\mathrm{Wat}} \mathrm{min}$ minie Watt lnesest sert below purpeat dewcribed below $50-60$ syturts 110 Volt. p puga cy anychingen. pucy andy and into mplifier quich on both 2 equily- and is Watt Amphfiers permits rapid chan ito 110 olt over rom 6 or vice vertat. opergtion or plat yn perts.



 B


- Unlversal Mike tmpul
- Electranle Mixer
- Stand-by 5 willch
- For $6 \mathrm{~V} . \mathrm{DC}$ or 110 V . $A C$
- Bulbin Preampitioer
- Phonograph Input
- Palarized Receptactes
- Now P.M. Speckers
- Full is Wams Output The Knthge 15 Wett All-
 rongometiomaductsictivc. Reperch Prot ot wssurn Subsifery. incimorica. Corper tion year Fubli


 Payntent put the Au-Ftirnctis Sothlite 15 wite carnind fit. Subter to werk exnintor it.


## 15 WATT All Purpose SYSTEM <br> A metr attractively-priced is watt All-Purpose <br> The Nabyt is watt Ano wher is otyled hoong

 Sound System. Operate entirely and directly from a angle 6 yolt atorage battery wherever AC current is not avaisable, or may be operated from 110 Volts AC current simply by adding the plas-in Power Pack lixted below. Delivers full 15 rates power output with rood coverage. Ideal for all public addrem applications that require priveral use in both city and rural areas. The 15 Watt Amplifer hes unvermal input permituing the use of any high-imperations ne ofing piaphriem type Cryetal, Velotron, Velocity, or Sound Cef Microphones. Input is also provided for a hishmpedance mannetic phono pickup. A polarixed receptance on the amplifier permits ita use with the special portable phonomraph listed below on either 6 Volts DC of 110 Voits AC .
## LATEST HIGH-GAIN CIRCUIT

The 15 Watt Amplifer incorporatea the mook recent hifh-gain clrcuit. Four high-train staged are employed angy: $1-6 \mathrm{C} 6$ an mike pre-amplifier; 1-6A6 as Ehecaverter and driver; 2 ate omphitier; 1-0A6 win amplifiers. This modern tube combination anture full 15 wretts output with a gain of 113 db . for microphone and 65 db . for phono. The freguency respopte ia enientially fist from 80 to 10,000 cycles. Current drain from a 6 volt storage battery is about 14 amperea; drain using AC pack is approximately 100 . Watts. A built-in sturdy genemotor furnishes A " current. dependabiy orovided, alave current by keeping the cubet warm for immediavte operation while the amplifier itself is turped off. A map of this rwitch puts the emplifier into operation rithout waiting.


The new static welocity Velotro Microphose festrites exced tional mensicivity wide ranse Eidel. ity, ateractive de rign and compract rixe. Hise unusuality fine tona eensitivity.


Latest Velodty Micro-phone- eepeorcbestral and who work. Has exceptionally fine quatity on both voice and music. A five new mike.


Cell Micro-phone-fea ture 360 de rrees pickupcompret sise has broadcast otudio quality -roun for choral mork.
nodern lines. It is bonsed in a metal case, finished in a warm brown-wrinkle. Hat attractive chromium and brown control plate with matrhing brown bakelite bar moobe. Separate volume controis are proval be or microphone and phonograph to that they may be biended or mized at will: mining is electronically controkled. Tope Contro is included for emphent varying acousticel conditions. Input it provided for plueging in two high impedance enicrophones; a aritch cuts either one in ot will. Two ginnt 12 inch new type permaneat manemet dywamic opeakers wing new apecial alloy magneti harode full output adequately with wide tonal retponec. Polarized recepthcles ore provided for microphones, speakers and phonograph motor

## 15 WATT CRYSTAL SYSTEM

The Kinjot is watt Ab-Purpere Hiph-calm Syrte is offered complete for 6 Voit operation, with dual-diaphragu Crystal Microphone as illustrated Above, Includex: 1-Kmisht 15 Watt Ais-Purpose Amplifier: vith 30 foot cables and polarized plues; complete with 30 foot cables and poiarized piugs; 25 Acot special microphone cable and polarized plum: 25 coot special microphone cable and potarized piay tubes, and full operating instructions. For 6 Volt operation only. Shpg. wt .60 lba. CASPFP. Lide fif0.00.

B12031. Special Pinetin AC Pompr Fack. Per mita complete operation of above system from 110 Volt 60 cycle AC line. Complete with 911.95 vabe Link 5.00 . Ne.
 with Kright is Watt Amplifier on 6 Volte DC or 110 Volt AC (Must not be used directly
on 110 Volt AC.) List, $\$ 55.00$. NET ... 27.50

## COMPMETE VELOTRON SYSTEM

The Knlint 15 Watt Velt AllFirnees genn \$y the complete at described above but with mew phome. Lew Piotin 110 Volt Pack. 87 ( हi edish hict hiom

5795

## COMPLETE VELOCITY SYSTEM

The Kntyht is watt 6 Velt Ali-Fterpert semne srote $\ln$ complete eractly as dencribed above but with high erade Folectty Minerephene. Les Pug-tin 110 Voit Power Pact.
C12

## COMPLETE SOUND CEL SYSTEM

 Syriten, complete at described but furaithed with Poprer Pact
RASO43
3 5 5



Two giant Dew 12 inch Permament Mngmet Dynamic Speak. erw using epecial mazotic alloys in their fields are provided with the new Kniplut is wiest gystompors They are amaxingly effcient, handling tull output without overloading and witb abmolute tonal fidelity.


The Molpht 25 Whet All-Pur--to Anrpllier has plug-in input for high impedance magnetic phore prekup. mear of conven ient pin tip leads. See our listing of new epecial portable phonocraph above at left.

Take a attractive Time Paymont Plan.
 tive torint. Fon een use Elrest Kmighe is watt systems gnd eara while you fay. 81

# Hers are the Latest Practical Low Cost INTERCOMMUNICATION SYSTEMS 



The splendid new Kinlstht Intereemmanication Seand Systems described on this page will adequately serve modern businesses, homes and institutions, proFiding instant communication between two or more points with outstanding tonal clarity and power. These systems save time and money and will pay for themselves many times over. They are ideal for:

## Bushness Onicest

Private Residences stores
Factories
Ciubs in Lodyes Parking Lets

All Scheols
Hespitals
Wolghmasters
Garages
Mowrpapers
Brekerage Omlees, otc.


## COMPLETE 2 WAY SYSTEM

Here is an entirely new. Knipht tntercemmennication Sound System with distinct advamtazes. Permits instant automatic direct commanication between two (or roores and floors in homes and offices; muitable for paging and calling in factories. schoola and hospitals, or for conversation between etore and stockroom, house and garage. etc. The complete standard system as illuetrated consiets of one compact etation unit ( $7^{\circ} \times 75^{\circ} \times 5^{5}$ ). and one central unit ( $11 \%^{\circ} \times 7 \%^{\prime} \times 6$ ), contaiming amplifier and tubes. (bhown at left above) with 50 feet of tranamimion cable with plugatat each end. Each station unit is made up of a high prede permanent-magnet combination epeaker-microphone housed in an zttractive walnut cabinet. with "Talk-Listen" switch. The annplther unit usea -6C. 110 Volte 110 Volts, either A.C. or D.C. Inatalmering can be made in a it to listen. No need to shout-just speak normally. Tone quality is perfectly natural. Additional station unita may be added at desired up to a total of five for common tall" operation (all stations working simultaneously). including $\rightarrow 1$
 polarized connecting plugs and instivetions.
E1208 1 A Alitipnat Station Uwit with se foet catblo ani plaga.

3 3.85

## N 2 w SUPER-SELECTIVE SYSTEMS Up to 10 Stations May BE USSd <br> STANDARD SUPER-SELECTIVE SYSTEM

This is a new grivate Intercommunication Syatem eapecially desirable for use in executive offices, ingtitutions etc. Permita direct two-way private communication between any two stations. Any group of two stationa may converse privately while any interference or over-hearing between these grouph. Tbe Knfint sepper-fotective Orstem agarea aboolute privacy. Any station in the gystem may converse inatantaneously and at will with any other station. with no interference or eavew-dropping from any of tbe other units. The Mollet Super-selective System may conatet of from two to ten self-powered Station unita (illuatrated at left), with any amone of deaired cable to comnect all units. Each Station unit contains an AC-DC 4 tube amplifier using the newest Beam Power qubes. New full-range audio tyytem aseures aboolutely natural voice quality; epecial filter circoit eliminates all trace of hum. Each Station unit aloo incorporates a combination P. M. Speaker-Microphone of witch and noiseles 10 -position Station Selector Switch. This Suritch permits instant welection of any Station in the Syatem. Operation in extremely eary and convenient. Simply set the selector in the Systerm. Operation in extremely eary and convenient. lever to speal and relezte to listen. The Knifht Serper-selactive gystems are deeigned for extreme nexibility. You may begin with two or three Stations and add any number up to 10. Each Station Unit is built into attractive walnut cabe; size: 11 K I $75^{\circ} \mathrm{x}$ 的; with beautiful hand-rubbed finish. Each Station Unit is equipped with 6 foot multi-conductor cable with color-coded junction bos and terminal strip ansembled. Simply connect junction boxe: by means of cable listed below. Installation of the
 described above, with tubes. 6 foot cable, junction box and ingtruciona, ready toinstall.

PRICE EACH STATIOM



DE LUXE SYSTEM WITH "PRIVACY" EARPHONE
Emactly the ame type of Syatem deacribed above hut in equipped with mensitive earphome. Asourea the complete privacy required by buay executiven. Call comed through over speaker, but converwation in made private invantly upon removai of earphone from book. When using earphone, it in not aecengry telephone.
 instructions $\$ 59.50$ y YU P青 PICE EACH STATION


 strattoplea My fleced whers they mo metled.

## Knight PORTABLE SOUND SYSTEMS

## 18 WATT Gakik SOUND SYSTEM

An entirely new, completely portable full 18 watt public address oystem of exceptional power and wide-range fidelity. Uses the new type dual-diaphragm Astatic Crystal Microphone. Designed especially for use by orchestras and lecturers, for demonstration purposes, funeral parlors, churches, political meetings, etc. Complete in every detail. Unusually portable, compact and convenent. Entirely self-contained in a single carrying case, $91 / 4 \times 181 / 2 x$ $181 \mathrm{~h}^{\prime}$. Weighs only 45 lbe complete. The Knight if Watt Portable Sound Syttem is also arranged for phonograph input. (See page 85 for suitable portable phonographs.) It is provided with individual volume controls for phonograph and microphone permitting blending or fading in any degree desired. Tone control for bass or treble emphasis is also incorporated. For value, completeness, ready portability, and highest tonal fidelity, the Knight 18 Watt Portable Sound System is unrivalled.

## WITH DUAL-DIAPHRAGM CRYSTAL MIKE

The new dual-diapbragm Astatic Crytal Microphone is used in the Knight 18 Watt Sound System. This high quality microphone is non-directional, picking up sound from any angle. It has an exceptionally fine frequency responte from 20 to $10,000 \mathrm{C}$. P. S. The four-stage amplifier develops a remarkably high gain of 115 dh . to utilize the crystal microphone to fillest advantage- Frequency response in evendirly Aat rom 2 -6BS $1-573$, hat handles output adequately with splendid tonal response. The Knitht 18 Whtt Porliblif Sound Systom is as much distinguished for its attractive appearance as for its performance. The new 18 Watt Amplifier is in a pleasing brown wrinkle-finished metal care with harmonious chromium and brown control panel and transformer case trim. Really modern in design.

## COMPLETE 18 WATT SYSTEM

The complete Knlyhe if Watt Pertale Sound System ncluder: $1-18$ watt high-gain amplifier; 1 -dual diaphragm cryolal mictophone mounted on 10 inch banquet stand with 25 foot cable and polarized plug; $1-12$ inch Kintint dynamic apeaker with 30 foot cabie and plus. Entirely self-contained in a single sturdy castying case. Complete with tubes
and instructions. For operation on 110 Volts. 60
cyclesAC. Shps. wt 51 ibs. cycles AC. Shpi wt $\$ 12023$.
(Extra apeaker in portable case is available at 89.75 . The above system can also be had with a Knight floor stand instead of bangue stand at no extra cost.) Make yeur $\mathrm{P}_{\text {, A. Arder tetali up to } \$ 75 \text { er }}$ mere and buy yewr Kinight sound onulpment en our cenvenivnt time payment plan.


## Kright 8 WATT STANDARD SOUND SYSTEM



A compact new portable sound system of modern design. Delivers a full output of 8 watts for dependable inexpensive performance. Very suitable for use in store demontrations, small halis, churches. club-rooms, sales talks, side-shows, etc Has real advantages in compactness and completeness. The entire system is completely contained in a single leatherette-covered carrying case. $815^{\prime \prime} \times 12 \%{ }^{\prime \prime} \times$ 162". Weighs onty 24 lbe. Includes the following: 1-kulghe LLittle Giant" Standard Amplifier; high quality carbon microphone in desk stand with 25 foot cable and potarized plug; 1-81/3" electrodynamic speaker mounted in case, with 25 foot cable and polarized plug. Uses the lateat new metal tubes throughout for complete stability and for space economy. No external batteries or mixeris are required; microphone transformer and current supply are built in. Has input for phonograph as well as for microphone.

## COMPACT-PORTABLE-INEXPENSIVE

The Krolght Watt Standard Portable System is an unugual value in a high quality small portable public address syatem. Has unusual modern featuree. Provided with individual volume controla for microphone and phonograph to permit "mixing' action. Tone control allows accentuation of bass or treble as desired and compensates for varying acoustical conditions. All controls are conveniently grouped on the modern attractive front panel which is strikingly frished in chromium with harmonious brown enamel trim. Full 8 watts output and a minimum of distortion are assured by the use of the powerful new Electron Beam Power $6 L 6$ metal output tube. A 657 is used as voltage amplifier; with $5 Z 4$ as rectifier. The finest quality double-button carbon microphone is used for good fidelity pickup; mounted in a 9 inch deak stand for convenient use. The full 81/2 inch Knlstht electro-dynamic speaker handlea volume adequately with exceptionally fine tone quality.

## COMPLETE 8 WATT STANDARD SYSTEM

The Kulght © Watt Stmonderal Sound \$ystem comes complete in the sturdy attractive carrying case illustrated. Includes: 1 Kalght 8 watt Metal Tube Amplifier; 1-high quality carbon microphone in desk stand with 25 foot cable and polarized plug; 1 Kinlift $81 / 2$ inch electro-dynamic speaker with 25 foot cable and polarized plug all in a single unit carrying case. For operation on 110 volts, 60 cycles. AC. Shipping weight, 40 lbs. This high quality low-cost Knight it Watt Portate Sound Syntemn 17 has hundreds of useful applications. B12010. Complete with tubet
List. $\$ 60.00$. YOUR PRICE
see Page 85 fer sultable Pertaible Phennegrain.


# Fright Sow.Pniced INSTITUTIONAL SOUND SYSTEMS 

## EFFECTIVE SOUND DISTRIBUTION FOR SCHOOLS, HOSPITALS, HOTELS, ETC.

ALLEED now makes available a complete line of custom-built Sound Systems designed to meet the sound diat ribution needs of schools, hospitals, hotels, department stores, etc. This equipment is the product of considerable experience in filling the special sound needs of innumerable inotitutions, both large and small. The new Keedent imstiturtional seanm systems are diatinguished for their completeness, their adaptability for future expansion, their outstanding quality and their low cost. Every conceivable Institutional sound quality and their low cosh. Every conceivable matis in schools, it is need can be covered by this type of regular educational program by invaluable in supplementing the reguar educational program for mesembly wort, for individual clasa room contact, for alarms, etc. In hospitala, hotels, etc., perfect radio and record distribution is available for patients and guests. Each Knlyht $\$$ ystem is hand-built to meet the requirements of the institution for which it is intended. It is buil into an attractive wood cabinet of harmonious design to bleod with any setting. While the size of the system may vary, basic built-in equipment includes a powerful high quality amplifier, all-wave radio tuner. 2 speed phonograph, program selector panels, speaker selection and diatribution controls, volume level indicator, and monitor speaker A high quality Crystal Microphone it included and Jensen wall type peridynamic apeakers are supplied. Knight Institurtioned soun Systewns are available with single or dual channel input. to operate practically any number of speakers. "Talk-back" or "monitor feature may also be included if degired. There is a Kolsht sounvil pistrimution Sytitem for every need and requirement.

## KNIGHT DE LUXE 10 SPEAKER SYSTEM

A typical Knisht Irutiturtional sound System is illustrated at the left. It is available in basic form for sound distribution to 10 rooms. (Additional channels and speaker may be added.) The complete system includes: All-Wave radio tuner; dual-speed phonograph; yybern iscluctor panel- ten speaker control panel high quality 18 program selector panil, watt high-gain amplifier; monitor speaker-all buit into a massive cabinet of gelected wood, hand-rubbed to a splendid wainut hnign. An Astatic Dual-diaphragm Crystal Microphone with banquet stand Magnet wall-type inclined-baffe room speakers. Supplied complete with tubes. For 110 volts, 60 cycles A.C. Less speaker cables.

## E12051 Cornplete 10 Spaaker System as ate

 Erribed. YOUR PRICEs375
We ean supply custem-buift Seund Distriburtion Systemut
 to make cemplete recemmmendations and to supply suiteble cerulpment at lowest prices to moest any Instifutional sound requilirtivent, regardless of sixe.

## TRANSCRIPTION REPRODUCER and RECORD PLAYER

This fine new instrument answers the demand for a portable, versatile. high-quality transcription reproducer and record player. Meets the needs of achools, broadcast studios, government agencies, advertising agencies and all other institutions and services requiring good fidelity reproduction of all types of transcriptions and recordings. Consists of a built-it amplifier unit for 110 Volts AC or DC operation Which has an output of 4 watts; a universal high-grade dual-speed Green Flyer motor with 12 -inch turntable which operates from 110 Volts. either AC or DC; a 12 -inch Astatic Crystal pickup which will handle all 8,10 or 12 -inch recordings as well as 16 -inch transcriptions; an 8 -inch high-Gdelity permanent-magnet speaker with 25 -foot cable in remcrable front cover-all contained in a single sturdy portable leatherette-covered carrying case, $191 / 2 \times 11 / / 4 \times 14^{\prime \prime}$. With handle.

## PLAYS $10^{\prime \prime}$ \& $16^{\prime \prime}$ RECORDS ON 110 V. AC OR DC

The new Knight Tranecription Reproducer and Record Player has been designed for maximum versatility in operation. It especially answers the need for reproduction of recorded advertising or educational prostams on 16-inch discs and is also very suitable for the bigh-grade reproduction of all standard recordings The universal character of both amplifier and phonograph equipment makes the Wnight Transcription Reproducer suitable for use on any 110 volt line, AC or DC. The amplifier has been especially developed to give maximum fidelity with the Astatic Crystal pickup and has a ecratchfiter built in for elimination of surface noise. The latest Beam Power tubes are empoyed for manmutn output on DC as well as AC. The amplifier has a gain control for accurate volume-setting and is equipped with Tone Control which permits accentuation of bass or treble ranges as desired. The dual-speed phono motor is equipped with speed regulator, speed-shift lever ( $331 / \frac{1}{2} 78$ R.P.M.) and AC-DC switch. All controls are grouped conveniently on top panel of portable case. B 10082 . Knight Transeription Repredweer
complete as described. YOUR PRICE


## LOW-COST•SINGLE-SPEED MODEL

A dependable portable electric phonopraph. suitable for uee with any amplifier or radio set having a high-impedance phono input circuit. Incorporates a high-grade single-apeed 78 R.P.M. motor, melf-starting aynchronous type; maintains constant speed regardlesa of line voltage variations Equipped with 12 inch turntable. Use flat type magnetic pickup which has excellent frequency response. Pickup card is equipped with convenient phone tip ends. Includes built-in volume control. Has needle cup. The entire assembly is housed in a compact, sturdy leatherette-covered cane which measuree $15 \%^{\prime \prime} \times 13 K^{\prime \prime} \times 4 K^{\circ}$ open; $15 K^{\prime \prime} \times 13 K^{\prime \prime} 7^{\prime \prime}$ cloved. Leather carrying handle is mecurely riveted on top. Eatire unit is light in weight; compactly burith for easy portability. Inciudes approved 6 toot cord and plug. For operation on 110 Volts, 60 cycles, A.C. Shpg. wt. 29 lbs.

3465
B10080. YOUR PRICE.

## HIGH GRADE DUAL-SPEED MODEL

Essential equipment for sound systems. Also auitable for use with any radio set arranged to accommodate high impedance phonograph. Equipped with the finest self-starting dual-speed (78 and $33 / /$ R.P.M.) heavy-duty phonograph motor with weighted, balanced 12 inch turntable. Motor hap peed-regulating and epeed-thift levers. Incorporatea the lateat Webeser high-fidelity magnetic pickup with built-in volume control. Has pickup cord with convenient phone tip ends. Comes in handsome black leatherette-covered case with metal corners and rubber feet. Has alip-type hinges which allow cover to be removed. Measures $173^{\prime \prime} \times 134^{* 9} 9^{*}$. Equipped with leather carrying handle which will not loosen or pall off. Fills every requirement for high quality, portable phono equipment. In* cludes approved 6 foot cord and plug. For operation
on 110 Volts, $50-60$ cycles, A.C. Shpg. wh., 36 !bs. B10081. YOUR PRICE.
IY SUITABLE FOR USE WITH ALL KNIGHT SOUND SYSTEMS


## PACKARD AUTOMATIC RECORD CHANGERS

A completely dependable Automatic Record Changer; two apeed type; witl play either 78 or $331 / 2$ R.P.M. records.- Last record will repeat until mechanism is turned of. May be set to repeat or reject any record at will. Motor is governor-controlled, induction type. Operates without noise. Available with either high impedance magnetic pickup or with crystal pickup. either type assuring the very best fidelity of reproduction. For 110 Volts, 60 cycles A.C. operation. Available as mechanism only or in portable case. See below for listings

## MODEL K

Mechaniam only. lesa case, Will play eight $10^{\circ}$ records automatically on one side; 1 rerordm may be played manualy Requires bigh, and $12^{\text {spander }}$ wide. For 110 Volta, 60 Cycles. Wt 26 libe. 810085 . With Mog Motte Pietup. 810086 . With Crystal Pickup.
L据, sid EACH

## MODEL L

Mechanimm only, lewase. Size $14^{\text {Mechanam }}$ wide $15^{\circ}$ long $x 54^{\circ}$ higb. Will play eight 10 recorde or zeven $12^{2}$ records automatically. Highly dependeble in operation; will give excellent tonal response. Shpr. ME.
$81008{ }^{26} \mathrm{lbs}$. 810087 Whic Wagmotic Piekup.
810088 , With Crrstal Piekupich

## 3320

## HN PORTABLE CARRYING CASE

The Parkard Record Chasger mechaniams, an listed above, are aloo available in attractive black leatherette-covered carrying casea, of sturdy, eddress systems. or for demonstration purposes.

MODEL K
810090
with
810091
EACH:.
$\$ 4.95$


## HIGH-QUALITY LOW-COST KNIGHT PRE-AMPLIFIERS

## KNIGHT A.C. PREAMPLIFIER

A new broadcast-stationquality A.C. operated pre-amplifier. Completely built into one compact steel case. Designed to amplify the output of crystal, velocity, dynamic or other low-level micrephones to other low-level micreplrones to into mixing circuits, telephone lines or any low-gain main amplifier. Input is arranged for 50,200 or 500,000 ohms to match the output of any type of microphone. A volume control is incorporated for convenient operation. Output isto 200 ohm line. Uses 1 - 6 C 6 as S.G. Amp.; $1-6 \mathrm{C} 6$ as Tri-ode-Amp.; usea 44 as rectifier. Amplifier component parts are carefully shielded and mounted on aponge-rubber brackets. Has a gain of 60 db . and a flat response from 30 to 12,000 cycles. Hum is negligible. Case size $63^{\prime \prime} 28 y^{\prime \prime} \times 11 \%^{\prime \prime}$. Shpg. wt. 33 lbs. For 110 Volts, 60 cycles A.C. Complete with tubea
Bitors
Your
PRICE
\$4425
Soo Pages 83-91 fer a cemplete solitetion of the innest Velocity, Crystal and Dymamic Mieruphonts ideaily suittabie for use with the Kinight Pre-Amplifiers described abeve.

## PORIABLE CASES • BAFFLES • HORNS

PORTABLE CASES FOR AMPLIFIERS, SPEAKERS \& PHONOGRAPH


FOR ENIGRT 18

## WATT AMPLIFIERS

An unusually fine portable amplifier case. Designed for use with the Knight is Watt High Gain Amplifier for portable work. It can also be used to carry other equipment of similar type and size Leafastened carrying handle; bottom futted with rubber feet. Has shielded grille for 12. speaker, protected by roll-town cover with gnap fasteners. Web saraps provided for holding deak type mike sind | B 12516. |
| :--- |

5795

## For Enight 25, 35, e

 60 Watt AmplifiersAnexceptionally ruggedcarrying case ior use with the Kmight Strong and rigifly constructed: laminated plywood used cocom: bine strength with light weight. Durable black leatherette cover. tos. Case covere amplifier and astens at bottom. Has sturdy leather carrying handle.
812517.

5725


## GINCLE SPEAKER CASE STURDI - LOW PRICED

Ab attractive portable carrying case Permits easy installation of any 12 o $12 \%$ inch dynamic speaker. Ideal to use with portable sound syatems or for field. Speaker opening is fully protected by grille cloth with protective stoel-wir screen backing. Snap-on back is fitted with easy acting trurk clasps. Excep tionally rugged. Bunlt for many years o service. Nontiring carrying handle on $t$ op. Measures $1314=13 \mathrm{~h}$ B12518.

433

## DUAL SPEAKER CASE

## HANDY - WELL BUILT

Permits easy carrying of two $12^{\circ}$ or $123^{\circ}$ speakers. Case divides into two sedarate units Trunk clasps hold units together firmaly. Heavy phandy cangtruction with leatherette covering cones are prote handle Speakers mounted inve with grille cloth. Si by steel wire scrally designed to serve an baffies for ane wers while they are in operation. Extremely compact and easily portable when closed, measuring 2114 hiph $134^{\prime}$ wide. $8 \%^{\prime \prime}$ deep. W't.. 7 lbs. A really fine ${ }^{\text {case }}$ ETalle.

5395


## RANDT NEW PORTABLE

## PRONOGRAPI CASE

Handsome black leatherette-covered carrying case for portable electric phonographs. Sturdy plywood construction Convenient carrying handle. Prolished corners and clasps. Rubber feet protect your furniture.
Motor board is drilled for Green Flyer motor nedle cuos. and volume control
 Measures 17 y $x$ 133 $x$ y ${ }^{2}$ An essential and home phono installatious.
\$595

WEATHIRPROOF BAFPLES DIE ECTHONAL-DEMOUNTABLE


Ideal for uee arth any standard dynamic
speaker; will
toay greatly increase tonal fidelity and enlarge sound coverage. Wilt materially improvelarge
spaker intatlations. Weatherprool. Speaker housing measures $152 / x^{151 / 2 x 11}$ inchee, Type $A$ is for sprakers inch comes.
LESS SPEAKER HOUSINE B10270. Type A.

WITH SPEAKER HOUSINC
B10272. Type A. ЕАсн
\$8. 10

3510

FIARE TYPE-DEMOUNTAELE

semi-directional weatherprooi baffle thorns Finisher in Will improve the trequency response. increase the efficiency, and direct the sound disuribution of any dynamic er. Easily demokntable. Supplied abie. Supplied speaker tousing case. Housing case aids in directing sound forwarid for large area coverage. Type $A$ is for ppeakers with 10 to 12 inch cones.

EESS SPEAKER HOUSING
B10276. Type A.

9395
WITH SPEAKER HOUSING
B10278: Type A. ЕАсн..... \$8.80

## STANDS AND MOUNTINGS FOR ALUMINUM BAFFLES

The ideal sound acces-
sory combination tor alt portable speaker requireheavy gauge Deluxe al. urainum battle shown at the right together with a sturdy auljustable stand Stand is fully adjustable at heights ranging from 46 to 78 ${ }^{\circ}$. Equipped with
 ${ }^{3} 6^{\circ}$ ang elutch. Triposd legs with 36 spread stand firmly, This reliable stand will safely hold up to
$250 \mathrm{I} \times \mathrm{x}$. May be colla 250 1tre. May be coilapsed into a ${ }^{3} 9$ long for easy cartying or pack ing. Swivel ton permits easy adjustment of baffle to any desited position Entire stand is handsomely finished in non-tarnishing chromium. Baffle is of Deluxe type complete nith weatherproof cover. Dome is linerd with acoustic felt padding to prevent severberaare both stand and swivel top listed betow. Shipping weight isted below. Shipping weight B10290. Camplete Unit as described: Defuxe Baffle. Stant YOUR
YRICE B10291 Stand Only
B10292. Swivel and saddle.
©11.47
2 1Be. YOUR PRICE
\$2.86

## AUTOTOP \& WALL MOUNT WITE SWIVEL

For easy mounting of aluminum bal fles on top of Auto or on the wall Sturdily constructed with $74^{\prime \prime}$ cast base. Finished in aluminum. Swivel permits pointing baffle for best sound distribution. Stand is $12^{\circ}$ bigh. Wt. 6 lhy. With saddle.
B10293. NET.
92.83<30

## ALUMINUM BAFFLES WTATERRPROOF MODEL

Deluxe baffle of heary 18-gauge
aluminum. Rurged aluminum. Rukged yet readily portable. Has acousticady correct design. $9 \times{ }^{\circ}$ deep housing $0^{\prime \prime}$ deed is heavily padeted to eliminate reverberation. May be
swivel shown at left. Has weatherproof snap on cover and protective metal sereen for cone opening. Use reducer rings listed below for speakers smatier than 12
$\mathbf{B 1 0 2 8 2}$ E10282.
$\$ 776$

## GTANDATD MODEL

810283 . Same sturdy baffle as above. but less weatherprool cover and absor bent felt tining in dorne. NET
B10284. TRUMPET FLARE only, For mounting on front of portable cases. etc

B10285, Wreatherpreof Cever. . Ste B10280, REDUCER RINGS. For reducing size of opening. State apeaker
size when ordering. EACH........... 535
INCINTE SPEATEP
 ldeal for mounting either 8 or 12 inch speakers Especially auited to centralized radio and sound installations. cloth. FOI wall or table B10287. Fer $\boldsymbol{B}^{\prime \prime}$ spenkers. B 1028

B10288. Fer 12' speakers.

## PA. SPAKKERS • HORNS • UNIITS

## KNIGHT AUDITORIUM DYNAMIC SPEAKERS

Powerful 12 inch Auditorium Dyamic Speakers designed to reproduce lario sudio power with absoluta Adelity. Essily handles 101015 Watrs of yower without distortion. Heapy. pressed steel dreadnaught comstruction assurea loug life. Satin-biact enamel finish. Has one piece pressed cone with new 3 polint
 7 inches. Fiasy to mount. Soupplied in various feld resistances or in un A.C. operated type using an Knight Uniteram Output Transformer tapped to match any power tube combination is histed below.

## EKCLIITNT QUANIET

These ruggediy-built drnamic speakers are ideal tor evers installation wiere a powerful tul-toned reproducer is rexuired. Use them for replacement yurposer. for PA systems, for extebsion speailers. etc. All models have heary fields and oversized bousings glring a higher field strengih. enabling the speater to handile large power mithout danger of overlogding. Cone and voice coll are designed to give high quaity wide-range frequency response when, operated at any sudio level up to 15 watts

Write tor pricon for Knight Auditorium Dynamics efuipped with ony theld you specify, and with speclat output transforser for claks "g" or Class "AB" operation.
Portabia canes for Knight Auditorlum Dynamic Speakers are lixted to the left on papo 86 . When orderad togothor, queaker: and caske will ho as-

CINAUDAGRAPH
"Magic-Magnet" SPEAKERS
Untque compact design and construction; cong and roice coil are one integral asembly. Voice coil cannot become off-center. Resuire no extermal excitation.
 Diam. 6\% ${ }^{\prime \prime}$ : depth, $27 / \mathrm{m}^{\prime \prime}$
 $\begin{array}{ll}\text { Nix } \\ \text { NET } & \$ 3.09\end{array}$ BIQAII. MODELEZ 8-7.
 Voine. ©H. $1=8.84 .41$ ohme. Wi.. 3 lbe NET BIO4i2. MODEL EZ 8-10. s~TYPE. hes larger stronger metert. has added sen.

 Handles 8.10 watts. Orersll dism. $10 \%{ }^{\prime \prime}$ :
depth. ${ }^{\prime \prime}$. Volce coil, $1^{\prime \prime}$ diam. 6 ohms. Res-


## YOR ALL P. A. STETEMS

Especially derigned for heary-duty use Handle voice and music brilliantly. These Knight spesters are ideal for use efther indoors or outdoors. Bi2525. 6 Volt Field. ( 4 Ohm.) Storage bettery excliation.
Ri2526. 1000 on Field.
Bi2527. 2500 on Field.
YOUR PRicE EACH Fheld. RIVOOS, Kmight Unlversal Output Tranaformet. Matcbes all output tube circuits. $\$ 8$. If ordered with speaker, speelify outpurt tubes and how copnected.
B12529. I2-inch Auditoriun Dynanlo for 110 with 60 eyeles, A.C. Complete with heavy-duty. MET ..................................


OXFORD SPEAKERS


## ETMONENITAE BOENS C UNETS

A new exponential type of indoor or portable horn. Constructed of heavy.gage span-niuminum with chrome finlshed steel shell houking acoustically designed and treated to preven metallic sounds. Complete sssembly is imper Fous to all weather and atmospherlc conditions. duty 5 " diaphrasms with 6 ohm poice coils: fil handle up to 15 Fratts safely. Dinits are ;iveil able Fith either PM or DC-excited flelds. Horn has adapter for use on all standard horn stands bell diam. $20^{\prime \prime}$, length $20^{\circ}$, over-all length p prorimetely $36^{\circ}$. Laght weight malkes this comDlete unit ideal for mobile or portable sound spotems. Shpg. Wh. 28 lbs.
BIO438. Equipped with P.M. (No3
horn pait. List. 80.50 . NET... B10438. Wlth 6 yolt horn unit

 310441 . Heary-duty chromiue-plated col 31044 il. Neary-duty chroraiue- Piated col belght, $7_{8}^{*}$ Minimum beight. ( $1_{1} 17$ Bi0442. Wetherproef Cower. mbherized fabric fiaro cover for wet- $\$ 2,1$
Weather use. NET. ............ Weather use. NET.

## OXFORD DYNAMIC SPEAKERS

For many years the choice of lesding get manuiacturers: now tom - thulders and Servicemen. Incor porate many features of design evolved from yeare of research in the speaker field. Ideal for replaciny speskers of limited frecuency response in radio sets, of lor public address installations. Have new erryelinear cones with 8 ohm $1 \times$ 1ach poice coil. Fill bapdile 12 Fatts continuously, 15 watts peak. $14 \mathrm{~K}^{\prime \prime}$ h.: $8^{\prime \prime}$ d B9537. With 6 volt 4 on mint held. 89538 . With 1000 ohm feld. 89539. With 2500 ohin
List. 16.50 . NET EACH 89540 . A.c. Type. Ideal as ertension
speaker in P.A. and call syaterng. For uss on 110 volts 60 cycle current. Lese go tube and output transformer.
List, \$25.25. NET $\qquad$ $\$ 1485$

## densen DYMAMIC SPEAKEis - Whalit

## JENSEN DYNAMIC SPEAKERS



PERMANENT MAGNET TEPES
Speaters of exceptional deedgn and construction. Capacity and adelity are equal censitivity and efficiency. Now permanent sens highis magnetized alioy oliminater meed for field supply. Ideal for all types of radio and public address work. Yoice coll. 6 ohms it 400 cycles. With universal output transformer for all output tubes.

## SINCE MODEL FM5-畐

 An Ideal ipeaker for use with any of thesmaller type sets. High pensitpity with smaller type sets. High seasitiplty with easy to mount. sman and st EASy
to
80
mount. YOUR PRICE.

## 6-INCI MODEL PMO-C

Fspecially destgned for use where extrems sensitivity and high guality reproduction are desired. as in cantralized P.A. systems. \$ 59 B9675. YOUR PRICE

18-D. MODEL M18.C
Particularly recommended for superlative performance to eommettion with recelvert and small public ad dress installations. B967?

PRICE
8750

## B-ANE MODI PME-C

A popalar size for use in console type radios or for call systems, etc. Eirtremely senstitve, repuroduces with exceptional fidelity.
B9876. YOURPRICE
38
I2-IN. MODIL PMIt C For uas with larse console rocetvers. or medlum-powered pubito address gystems; will provide ex-
ceptionany floe tone. ceptionally floe tome. 89678.
YOURPICE

## 

A superior speaker tor uso with high-quality, large sonnd syatems, or Whereper high fidelity reproduction at high levels of volume is desired. Equal to finest electro-dynamic speakers.
$\mathbf{8 9 6 7 9}$. YOUR PRICE. 89679. YOUR PRICE

## JENSEN ELECTRO-DYNAMICS

ITGAV-DUTE MODII EIZ-X
A particularly high-quality. highly-efticient $12^{n}$ dynamic speaser of acivanced design. Recomformance is required Especialiy sulted to Public Addrese Systems. New curvilinear cona results io extended high-frequency range. will handle 10 eratts continuousits. Equipped with hum-bucting coil and adjusisble squipped with hum-bucting lubes. 8 ohm votce coll. Shpw. wh, 14 lis. B9668. 12500 OH M FIELD.
Llat. \$17.25. YOUR PRICE EACH
s 10


## MODEL "R" DINAMTCS

Famous Jensen dynamic speakers in a new compeet style. Features very rusged construction and unusual coll. Adfustable output transformer for hill tubes 89072 INCH OYNAMIC. 5900 3 , 3000 ohm teld. List. \$4.00. NET B9873. 6 INCH DYHAMIC. 2500 ohm feld. Ligt, $\mathbf{3 5 . 4 0}$. NET B9874. 8 INCH DYMAMIC.
2500 ohm feld. Lst, 56.65 . NET.
52.35 $\$ 3.18$ \$3.91

## NEW JENSEN CONCERT SPEARERS



A ngw line of wide-range spenters offering xceptionalis high vergitivity. frequency reaphase and amiciency. Upequalled for use in arge console roceivers, public address aystems, large coms and other ingtallations Where cacrifice Power-handling capecity is the maximum for equil-sised spenters. Adiustable output trans ormer is tapped at 4500 . 7000. 10.000 , and 4.006 ohus, adjustable the cransiormer it

## T2-INCR PM MODTES

Model A12PM. A moderate-priced speaker utiliziog the per blahly affeciont permanent magnet developed ty Jensen. No fiold supply is necesary, Has full frequency responge up to 7500 cyclea. 89685. With Adjurtable Output Tranaformes B9688, With Adjustible Line Transformer. YOUR PRICE EACH

## IS-INCH EDGE FIDEITT PM MODELS

Mosel AISPM, A new oversize Dermanent magnet dynamic speniker Combines high fidelity with the ability to hmale excoprionaly high outputs. Suitable for use with large console radioa or whin sound Systems. Adjustable impedsince transformers match any uibe combination instantly. No field supply required. Maximum depth. 8/2"; dtameter. $15^{N}$ 89687. With Adjustable Output Tranafomer. B9688. With Adjustabie Lint Tramformer.

## IB-INC: STANDARD FIDEILTT MODER

Medel misac. This electrodynamic speaker is designed for the largest public addreas installations. Hat 8 ohm, $21 /$ inch voice colls. Full re-


## UTAH DYNAMIC SPEAKERS

## UTATLIES P.M. TYPE8

- Ne Fiold Current Supply Nootiod
- Mow High Eficioncy Hengots
- Priced for the Average Purse
- Compliste Range of Slews

A complete new line of Dermaneat-magnet budget poeakers Popularly-priced to it the men of the experimenter and pubilc address handsome profit. A new mugnet alloy of apect al shape and desion permits full power-handilal ability uith wide-range response. Ideal for all purposes including both old and new installa-


## 5-INCH MODEI

Bapecially designed for small re ceivers Where space is at a orem D.C. Ideal for battery and A.C.D.C. seti since no field power is former matches al


## 8-INCR MODEL

For use with all trpes of receiverts and sman public address sysFull Ten watt maxlmum capacity. Gut ional response Output tram former for $8 / 800$
sil tubes. sil tubes.
39694. NET.
$\ldots=$

## 6-INCE MODEL

Popular sise speaker for expery menters and servicarnen. sultahi for use in an A.C.-D.C. and mid ret recelvers. Peak rating of ali requency High quaint reauency rasponse. B9693. NET.

332

## 1-INCR MODI

Ideal speaker for larger conmales and portables or battery-operated Labilic address spstems. Sixteen watt capacity. Pull responie. Universal
oxtprat. 89695. NET

## EIAVY-DUTY 12-INCE MODELS

Desikned especiany for those instalisticas where requirements ure for arceplional quably and yolume handitig capacity as in high qually radto receivers and pubilc address systems. No deld supply is needed and marimum eurciency and tobe quality are pronided output from tube or line. Line tranaformer tapped 500 . 1000. 1550. and 2000 obms. 89696 . With Universal Output Transformer 8969 W. With Universal Line Transformer.
YoUR PRICE EACH...................................
$\$ .38$

## UTAH EITGH FIDELITY REPLACEMENT SPEAKERS

A now lipe of high tidelity speskers for elther replacement or origtnal installations. Workrasnshid and materialis of the highest quallty comavatiable at raoderate cost Solid vibration-proof constraction rith con servatlye powor handling ratings prorlde meximum performance fer aupe rior to that obtainable from inferior types of speathera.


A rusxed tru-toned amall speater ultabls for all replecement purposes. Especially gulted for use in A.C.-D.C. and midet $t$ jo $\theta$ recelvers. Handle power input of 6 watts. peak 9 witts Requires $61 / 4$ watts field orcltation. Volos coll 8 ohms. With universal ontput transformer; 2590 ohm field. ShipDing weight, 4\% Ths.


10-INCR MODEL
For use wherever exceptionally true reproduction in desired in a modium slze speaker. Buiteble for console type recelvers and mall cound wistems. Will deliver bellliant reproduction without distortian st full rolume Normal Inpat 9 Fatts, 12 witt pearis Voloe coll 8 ohms: teld colt 2500 ohma With universal transformer. An ex cellen ralue in high-uuality powarful Electro-dynamic peaker. Wt., 10 lbs



For use in console rocedvert and thall Public Address gystems. Ha arcolieat 0 on ganlity and wil hapdle fuil 8 watts normally, is waus peak 8turdy rattle-propif cone assembly with 8 ohm volce coll. Supplied Fith univeral out put tranformer: teld coll 250 pleatro-dynamica meste. Wt, 6 lbe


12-INC: M 1 IT
The ideal reproducer for large conoole veta. Has ample powar handiling sbility coopled with the brilliant, falthful reproduction exDected pely from mare expendro upenkers. Normal inpot 10 Fistt With 15 mett deak Voice coll 8 obms. Requires o watts fleld exeltation ith oniversal ontyit transformer. Wh. 12 lbs.
89475.

1000 oh
NET EACH

## ASTATIC

NEW SFURE CRYSTAL MICROPHONE

## MODEL 74C

 ＂SPREROID＂TYPEBadically me wive sbolutely not－directional wide－ranfe crys－ tal microphoent of strking $n$－ pearance．specisily ghapod small durel disphragio drives a new type＂Grafoll＂hmorpa crystal unit sound reaches the diaphramm uniformly from any angio through $360^{\circ}$ ．Excellent rooultacy response is fist within 5 db．from 40 or．nos cyeles．Output level．－55 db．Weith ing piug and stand sda diter ing plog and stend adader
hering -27 thrend．
B2554．List，$\$ 37.50$ ．MET

75 ＂${ }^{\text {B }}$（SPREROID＂
4 det non－directional crystal miterophone Acoustically streamilined，with curvilinear dia phragm．Genuite Bimorph crpatal． 4 －27 mread pueput，-60 db 82555 ．NET
\＆18．82


## MODEE 720－A

## ＂TRI－POLAR＂TTPE

A new mike paving three different directional characterisilca available by means of a 3 point switch．Can be Uni－Directional：Wide－angle front pickup，dead at back；Bl－dirertional： pickup from front and beck．deed at sides：or Non－Directional： 360 destee pickup．Wids range respoase from 40 to 10,000 cyeles．Blacis and chrome case， $51 / 2^{\prime \prime}$ hish，dinmater $21^{*}{ }^{*}$ ．$/ 4-27$ thrend． Wit $2 \%$ libs．With 25 foot B2556．WET

## \＄2323

## LATEST TMPE SHURE MICROPHONE STANDS



Black finish．Stem has W－27 thred bite or velocity milkes． $12 \frac{1 / 2}{} \mathrm{lbe}$ B9875．WET．

An inexpensive．high． rade fioor stand．Made in 3 sections．adjust－
 riction lock．Base is 0\％in in diamoter． Prisbed in bleck with chronium trim．Too 4．Etem is thrasded BET．．．．\＆5．83 MODEL Mesen An aturactive hieg nality tioor stand．Ad－ justable from 43 to $69^{\prime \prime}$ ． Sections held firmby by lutcha $10 y^{\prime \prime} b \in \& e$ $+1014$

## nobet ecy

 trim．Threaded $\%$－27．3\％lbs．$\$ 3.37$ 89876．NET
－inc BANoUET ETAND
89877．Modemistre Banquet Stand．Slmi－ iar to model 332 C ；useful where greater heigigh is needed．Heitht range．15＂to 22＂．Black Galsh．Wit． $4 \% \mathrm{lbs}$ NET

## MODE 70

DIAPHRACMTYPE
a superior erystal micro pbone of the diaphragim pres． sure－actugted type．The spe－ cisal cantliever principle ers－ ployed alds in eifectively han． dling music and spech．Gut－ put is -60 db ．Besutiful
chist chromium－ 1 ated case mounts directy on mise hounts directiy on mike
 tands haring \％－27 threaded zils hoots of mappy be spring－mounted by means of goors suppled．${ }^{3}$ in．Hiameter： 1 多 in，thick covered cable． 822.50 ．
\＄1323

## Whit 25 FT．CATET

game as the Model 70 H listed abort．bus with 25 ft ．of whielded microphone cable at ached．
B2868．NET．．．．．．．
$\qquad$ $\$ 14.29$
＂MILTART TMR＂ HAND MIEE
Tbese small and complact crys－ al microphoaes are devigned to fi naturally in the paim of the hand．Only 3k＂hikh by 1 年 hick．Furnished with remorable suspension hook and 7 100t shper Ft． 1 lb ．

B2580．Gam as sbove but and on－or switch HeT．


SEURE ULTRA WIDE．RANOE CRTSTAL MICROPHONES


These new Shurt microphones pronde repro－ duction Irom 90 to 10,000 cycles．have the highest output level congistent wilh good naelity． diftartarm is of high－ehterency．sconusticsily cor rect design；protected when case is opened．By interas screen．Crys on． $\mathbf{2 I}^{\circ}$ threed for stand moderting amd 7 ft mielded rubber－oppered cable 22561 Ton Sherical cent 82561．Model 702A．Spherical seml－Eon－ firrectional trap 2 多＂orerali diameter．Rub－ ber－black firish Fith chromium trim．Wt－． 1 lb．Complete mith foot rubber shielded eable． B2862．Model 700A．Sesil－diretional typo． Swivel arrangement for tilting head．Chromium finish．2\％＂．Shpg．Wit．i lbs．Complete with 7 fool rubber－covered shielded cable．
B2563．Medel 701A．Grille type case；rub－ ber－covered bleck screen covers with chromium
 Fith 7 ft cabie
NET PRICE EACH


## UNIVERSAE MICROPRONES ＂EX＂TWO <br> ＂W＂＇LAPER

## 億UTON TTPE

Develops truly falthful，natu rsi tone．Hea good frequencs ragge．Equipped with Dura lumip diaphragm．pure sold contacts．Rutgediy built． 200 ohms pet button． B2806．L碞 $\$ 10.00$ ．NET．
82507．MODEL＂X．＂Similar of singlo button tybe． A bigh qualits unit．NET． MCROPHONE
Vers small compect lapel mikeromono mice provected rold grot diaphrakim．Idenl for de－ nlcating ssitems portahle trans．
 formance．so00 obm single bu -38 Db． $134^{\prime \prime}$ diam．．$\%^{\prime \prime}$ thick．
B2508，List，\＄3．00．
YOUR NET PRICE．
$\qquad$

## TWO EUTTON RAND MICROPRONE

This scientifcally damped double－butwa hand microphose has been built to withstand rough handling．Excellent for sound trucks，portable trans－ mitters and demonstration work．Damped for une close io loud speakers．

plated anish

## ASTATIC CRYSTAL MICROPHONES

 MODEL D－2
## WATCE CASE TYPE

A small，light crystal micropbone of exceptionally kood freauenes responise cbaraciensuss．Dacs a Gravol Bhoorph Crystal and dual diaphragm desien． Non－directionai．Frequency reeponse is fist from 10 ． 0000 ．lin risige charac teristics to 10,000 cycles．Output level
dismeter，inch thick．Has loctios in diameter， $1 / 2$ inch thick．Has lockng type plug
and socies adapter：$\%-27$ thread．Shpe．Wh．， 2 lbs．With 8 ft．cable．
125 725.00
＊
147
 above，buit with 25 foot cord．
．$\$ 15.76$

## MOD吉 D－IOA <br> sTANDAn TYP量

Responds equally well in any po－ sition．No hlss or background sponse essentially fiat from about 10 to 10,000 cycles：output level． － 65 db．Hich impedance；may be connected directity to tube grid． Housed in an sttractive chromium case． $3^{\prime \prime}$ dismeter： $1^{\prime \prime}$ thlek．Sup－ olled with 8 foot rubber－covered shielded cable and handy mountion Threaded for $\%-Z 7$ stands L2572．$\$ 22.50$ NET．


## LAPLL CRYSTAL MCROPFONE

 A new dual－dilaparam．lapel ype crystal microphone．Oniy 116 only one ounce．Output，-68 db．With a irequency response dat from 50 to 6000 cyc les．Non－ directional．Element is genuine Grafoil Bimotph crratal．Supplied Fith 25 R2 enielded cable．P2573 $\qquad$

## MOD学 B－2－2：

## ：INNE MEROR：N2，

$A$ utility hand microphonte buil around the D－2 Watch Cese mode isted at toy right of page．Has hand－ some rugged metal hapdic．findshed in bright chromium．Unilize．dusi die phragm princtple，with the newly per fected Grafoll－Bimorph crystal unit，pro viding excellent responise from 30 to 6000 cycles．With 6 ft．shielded
rubber－corered cabis． 82574，NET．D．2．i．Bame as above but B2576．Medw D．2HS．Beme as abave
with an－of switch．
WET ＊ET


## RCA MICROPHONES

## TWO BYTTON TYPE

Genuine RCA quanty 2 but ton microphone．Same m used in RCA Transmitters．P．A and home－recording equipment etc．Idesl for the amsteur trangmitter．Buitable for use in call systems and public so dres work．Impedance is 300 ohms per button．Case is 6x3／ $x 2$ inches．and is hindromely finished in dert brown crackle With teaible cord．
B2561．NET．


## AERODTNAMIC

## TT？

Thils new microphone it of the pressurs－operated dypanic type．Combines ex pellent froquency response With smill size and hith whige．outpot－68 D．B 8ntteble in ampir Cuatalne permsant menet oppication．Cuataint a permancat maket made Practically non－directional：axcellent for close－ tilhing Slve， $2 \%^{\prime \prime}$ Fide． $3^{*}$ himh． $3 \% "$ deep． Threaded $1 / /^{\prime \prime}$ pipe Completo with $30^{\circ}$ shielded eable．Polished chromium tn－$\$ 477$ ish．Wi．
B2 5 Lbe
WET PRICE．


## latest type MICROPHONES • stands

BRUNO MICROPHONES


## VILOTRON MODEL A

 A otatic－velocity microphone com－ May be used writh any bigh or low－hrail maylifier．Reaponse is eajily varied．Re－ quired from 150 to $\mathbf{3 5 0}$ Volt polarizing voltage．Ontput，－50Db．Highiydirectional． $1 / 27$ mit．with ball directional． $4-27$ mitg；with ball
swivel．rubber ahock aboorber．and

11.47

B2691．Lea cable．
with connector．NET


## WIDE－ANCLE VELOTR

Designed especially for wide－angle pickup．Combining the desirabie eatures of the Model A Velotron With $175^{\circ}$ pickup．this micropbone is bimilar types of work．Optput－45Db． Same ftting at above，les cable． 82593.

Letarnitepand
$\therefore \rightarrow 06$
82594
13．23
B2584． 25 th．ciolefor slove．NET．事1．47


## ORATOR TYPE VELOCITY

A new addicion to the Bruno line．This micro－ above is especialy de－ agned tot lecturers and opelde－angle pickup per－ mire pa haed poss mike either in front or at the side of the apreaker．Has an adjustable base－ Both high rad low impedance models have out－ put of -65 Db ．Furnished less cable．
 eso mwitch．NET
32568 200 otim nëriel，
 B2569，204 one medel．
$\$ 27.64$ 3\％．6 32584.25 ft ．caliv for above．NET 3．1．47

## BRUSH MICROPHONES

## BR2s SOUND CELL

## CRISTAL MET

A hish－fidelity piezo－electric crys－ tal microphone．Ideal for general purpose installation or for use with public sidires systems where on each job No polarizing voltaget， on eaca job，Nut tranfiormer seeded． Non－directional．Output，-66 D b． Feed directly into lngut tube． With locting type plug and socket conpector； eesa cable．
解우…
42925

## MODEI EI

AR2 popular－priced companion to the BR2S demcribed above．Has the tame features induding internal ppring Thounting and non－directiona pickup． thector．Output－66Db．Dufl chrome pector．Les cable． B2536．
$8 \rightarrow 1$ 1
B2 DIES MTE
A high－fidelity deak mike detaigned eadecially for use in pulpite lecture halls，etc．
 -66 Db ．Complete with cable－locking ring and bese but less cable． T．．． $\qquad$ 4793
 THIATRE MIKT A special eet of mi－ crophones demigned par－
ticulaty for theater ce．Fuminhed in aeta of four with $\sigma^{\prime}$ cablea be－ tween each unit and $15^{\prime}$ of cable at one end．
Ideal for wound，reinforcement．Unis are bat
$31 / 2 \times 2 \% \times 14$ ．Output， 66 Db ．Net weight of set． 3 lbe．Same bigh fidelity，reaponne and other feature characterititic of Brueh Sound既 38.

## LOW COST ENIGET MICROPHONES

## ETANDARD

## TWO BUTTON

 A rugged，well－con urprisingly low price Frequency range ia from 40 to 3500 cycles reauting in natural reproduction of voice．Diaphragm is of velected Duralumin stretched at correct tenaion bet e halver of the heavy cast metal case． 200 ohms per button．82585. PEf．


## DE LUXE

TWO EUTTON Outatanding in value this ill one of the fincet law－priced double button able．Has epsentially fat responme from 45 to 7200 cycles．Imp． 200 ohme per button．High quality
 stretched duralumin diapiragm with gold－ apotted centers．Made by leading microphone manutwcturer．Came，${ }^{3}$ in dian． W\％thick Satir－nickel Giniah．

## KNLCET MIE ETANDS

 B2ANDAD TEP Attractive profes－aional type telescop－ ing floor at ands．Poni－ tive clutch；adjust－ able from $477^{1}$ to $72^{2}$ ． Ideal for all sound ayoteme．Base wrigha 10 lbw ．Threaded Stem ia chrome mik． iehed，base ia back cryatalline．
Wr． 17 Ibe

 Beauciful cbrome
finich overall．One－ hand clutch adjust－ ment．Iden where a sturdy etand is re－ guired．Cable can be desired．Threaded
B9980．
943

## 

Ring for ueing carbon mike with either stand listed above．Chrome Complete diam．Thrended 4i－27．


HTE STAND ADAME
P9881．Adapts old Astatic，Brush and Turner miken to Knight foot atanda．4i－27 Chrome－plated male pipe thread． P98S2 For Amperite SR－s0．RCA Velocity． Chromeplated．
ChET

 Has octatonal $54^{\prime \prime}$ ring for aumpenaion of Complete fith 8 epring
Comprete with
B988．

For all crytal or velocity（rise E） For al crystal or velocity miken Ha Overall heitht， 8 ．Heavy caat bame． M888．．．．
$\$ 1.25$
 Stand－mountins switch for use with any microphone．in biack 27 umunum Model A80A．


## ELECTRO－VOICE VELOCITY MIKES

## MODEL VI

High quality ribbon－velocity microphone with range of to to acteristic eliminate backeround noier and feedback Shoclyproof mounting．Hum－free．Has pro－ reasional appearance combined with emall sipe．Finish：date gray cosiog，chrome screen．Choice of high impedance or 200 ohm modela． Output． 68 Db With 8 ft B2577． 206 Ohm medel B2578．Hiyh Im medame HETEACN $\qquad$ $\$ 1470$

## MODEL Vz

Molocity microphooe of higher quality than tbe Threlded $\boldsymbol{i s}$－ 27 ．Output．to 14000 CiP．S．With 20 ft cable．
82579．Standaral trapedance， 204 ohmas

NET EACH $\qquad$ 205s

## MODEL V3

High quality velocity microphone for ultra－ faithill zound wort．Excellent frequency re－ aponse characteriatics；cutof beging at 14000 Cycles Output， 10 Db．Equipped with Tith plus．
最2581．Standard Imapedance，200 onge
 List ${ }^{\text {Each }}$ EACH

## MODEVE15

Communication Special．＂For high－quality voice transma ission．Recponse， $40-12000$ C．P．S． ortput -64 db ．High impedance Complete Há locking cradie deaign B2E83．

8493
TRANSDUCER＇BULLET＇ DYNAMIC

## Mixige

## MODIL TR－6

Latest dynamic micro phone．High output， 42 Db．Wide freguency re－ eponse Does aot require preamplifer or extermal，highly directional， power． $3^{\text {Low }}$ ；length 5 ；Wisk highly directional． 25 ft．cable and Amphenol coanector plus．K－ 27 thread．



## MODI TR－5

Similar to the TR－6 described above but pop－ nlarly priced for all－purpose instalations：Black bakelite crace．For $1 /-27$ thread．With 25 ft 82587． 2 Onm Medil．
Lirs． 527.50 ．AETERCH．
MODEL TR－9
Laboratory prade microphone for the finent ntallations．Individually calibrated．Remponet 20 to 10000 C．P．S．Output．-38 Db． 8 － 21 mounting．Weyht $2 y$ ibe．

ORCIIETRA MIXT ETAND
Handmome and practical three－ secion collapmible ettan with marimum beight of 66 inche？and Cun be used either as floor or ban－ quet type microphone teand Stand finished in chromium with cadmium plated leza．Ideal for any intallation．The 4 －-27 atanderd intallation．The $9-27$ stand try thread at the top will fit ail packed into a space， $3^{*} \times 3^{\prime \prime} \times 20^{\circ}$ Shped weight．
pounds．
Shpe．weight．4
pounds．
B9880．wET．．．．

# MICROPHONES and ACCESSORIES 

## AMPERITE YELOCITY MICROPHONES

A complete line of bigh－quality ibhon－velocity microphones． Streamline construction．Itecorpo－ rate latest reatures of acoustic de－ siga．Minimizes feedback．hum pickup and extraneous noises．Swivel mounting bracket with built－insbock

## Monel R－M

B2540．For high qualtty speech and music reproduction．Frequency range． $40-11,000$ CPS．OutDut． 200 ohoss：－65 D．B．Has built－in switch and locking－type cable connector． Supplied contlete with 25 feet of
matched microphone cabie．

## 

B2541．Same as Model RB－Mn above but had high impedance out－ put of 2000 obtens to feed directly to grid．

B2542．Directional type．Ideally suited to theater stage installations．Frequency range flat D．B．With switch and 25 foot cable．

B2543．Same as Model RB－Bn above but high mpedance type． 2000 ohm output．
Listt $\$ 2.00$ ．
NETH OF AEOVE．
s2470
Motel ES－
82544．For all－around speech and masic re－ production．Frequency range． $60-8000$ CPS Output． 200 ohms；－ plete with 12 foot cable and built－in ewitch．

Mol
82545．Same as Model RB－Sn above，but with high itmpedance output of 2000 ohms． Liset ${ }^{\text {NETH2．00 }}$
EACH．
818

## MOBEL EAL



82546．A moderately－priced rib bon velocity microphone of typical bigh quality Amperite construction．
Output． 200 ohms－ 68 D．B．Com－ Output． 200 ohms；－ 68 D．B．Com－ plete with 8 feet of cable．

## MODEL A A

22547．Has same unusually fine pusic as microphone above but high imper and music as microphope above，but high impedance ohma．With 12 feet of cable． List．$\$ 22.00$
NET
$8 \rightarrow 274$


## JUNLOR VIOMTY

## LAPIL TTPE

Small in size but capable of really high quality performance． Reproduction is ife－like and dear． 7 Has flat responge from
60 to 7500 CPS for all voice work Givea speaker unob structed，view of，audience．Out Dut－70 D．B 1 ． B2548．204 Ohm Medet．
List．\＄22．00．NET EACH．

## 8394



## 室TTERAL <br> INPUT

TRANSTORMT
A balanced，bum－buck winding transformer for coupling low impedance veiocity microphopes to


## 

 82598．STANDARD． Packaxe 2 ribbons．NE $73 c$ B2599．SUPERSE NSITIVE，1． 1.3


## CAL

 Laboratory－made bigh qual． ity carbon \＆ranules．No． 100 siase．Sufficient to recarbon two double－hutton $\mathbf{8 2 5 9 7}$ mpt．55e

## MICROPHONE ACCESSORIES

COUPIINE TRANSFO票MTR
 B605O．SPNGLE EUT－ TON TYPE，Has primary for standard 200 ohm single button microphone；second ary winding is designed for coup－ ling to tube grid．Completely
shielded．Wits flexibte wire shuelded．With flexible wire leads．
BEOFT．TWO EUTTON button type microphones．Primary impedance，
 TETH．Ratio，to to 45.

3 WAI MCROFEONE PLUO


JACES
High－grade 3 circuit plug with bakelite horing to accommodate plug． 4 inch mounting． B8957．18）88958．R PLUG．

## MIDOFTMCX

Three contact jack for atandard micro－ phone pluga．Has solder lug terminala－ Sturdy fool－prooi construction．，
BIGOS．NET．．．．．．．．．

## PORTATEE JACK

Aceurately－made portabie jack．Made to receive any standard 3 way micro－ phove piug．Compact black molded fasten to metal jacin．Fully instlated． B5665．
8：IELDED TLUE \＆JACES


Standard 2 and 3 circuit plugs and jacks sup－ plied with nickel－plated brass ahielded barrele Fully ingulated．

| B5666．PLUG．日5667：JACK NET |  |
| :---: | :---: |
|  |  |
|  |  |



## CRYETAL MILE CARLE

Shielded，rubber－facketed cable．Conductor of utranded coDDer；extremely derible． aneL CONDECTO
${ }^{8} 2^{2} 4^{9}$
． 160 FEET
FOOT
DOUBL CONDUCTO
R2498．10 FEET．

| PER |
| :--- |
| FOOT． |

6.40

WEATRER PROOF CABL

Heavy rubber jacket over tinned copper shielding－Ideal for outdoor and heavy duty service．CODA．PERFOOT 1ef FTET | 83514 | 2 | 3 Kc | 12.70 |
| :---: | :---: | :---: | :---: |
| 83515 | 3 | 4 c | 3.75 |



## BRUNO TRIPLE CONNECTOR

An ingenious and simple de－ vice which will farilitate the connection of two parallel cir－
cuits．Malren ponible the con－ cuits．Malkes poseible the con－
nection of two micropbones or nection of two micropbones or loud speakers in parallel to a singl
outpot amplifier．Threaded $\%^{\circ}-27$.
B1979．


ST． 18

## SEIITDID CONRECTORS

## Polished

chrome－fin－ ished，heavy braseshell microphone connectors．Male and female thres tict CAELE TYPE PLUGS RECEFTACLES



## STAND TIPR

For use with cable typea above；has 4＂－27 female thread for mounting on microphone stand． RECEPTACLES


## CHASSIS TMF

A convenient chasais type con－ nector．Mounts in 1／4＇chasain hole；for ube with above cable con－
nectors when connection is made nectors when connection is made
at amplifier．With knurled ring． lock washer and her locking nut． B1971 3 CONTACT
 B1073 COME NET．．．．．．．．．．．．．．．29 B1973． 4 CONTACT RECEPTACLE HETVEACM．．．．．．．．．．．．．．．．
$\qquad$ ．．．32

## CONNECTOR CAP

Fite cable and chassis type connectors above；protects plugs and receptacle from dirt and tampering


## SINOLE CONDUCTOK MCROPEONE CONNECTORS



A new type of aingle conductor cable connector Degigoed to permit instant connection or dis－ connection of cables．Side set－acrew bolds cable securely．Coupliag ring locks contacts securely against vibration．Polished chrome ginish．Will the cablea up to tí＂dia．
 $\qquad$
 294 24c
 18e

## ARMORED TYPE

 CONNECTORSturdily constructed connectors for microphone cables．Polarized type； connections cannot be reversed when able cable clampe．Kaife btade con－ tacts male positive connection．Very effucient．Will have connection．very 10 Ampe．at 250 volte．



## MICT BECPYACLI

Wor wall－type polarized reoeptacles es for use with 37579 plug shown
above．Ideal for permanent sound above．Ideal ior permaneat sound Anditoripms．etc．For mountins
on P．A．and broadcast station
master controd pamels，etc．Two types available amall receptacle only；or receptacle mounted io 4 round cover for standard conduit bozes． 85485.

सET
85486．With 4 Imeh cover．
MIE RECEPTACLE AND PLATE
A polarized microphone recep－ tacle monnted on a bakelite single－ Gang plate for fush wall mounting－ B7579 plug above．
R5487． $\qquad$
$\$ 1.32$

## PHONOGRAPH PICKUPS • RECORDS



## BRILLIANT TONE RUALITY

 Has exceptionally fine frequency response and aif output. Will reproduce with high fidelity ecratch is reduced to an absolute minimum by correct balancing. Wiil provide clear, brilliant reproduction at low cost. Attractive black finishNEW WEBSTER MAGNETIC PICKUPS


## hich fideluty

Plays both 78 and $33 y z$
R.P.M. recorde. Has frequency reaponase from 100 to 7000 C.P.S. A true bigh fidelity magnetic
pickup of advanced pickup of advanced
design. Attractive design. Attractive
rolden-bronve finigh.

## HATILST

## 

A new improved wide-range pickup capable of clear reproduccion. will re produce extended treble and bane range: for brilliant, faithf ul tone quality. Perfectly balanced to minimize needle ecratch; will play all records up' to 12 im . vize.

The 30 -A 2 Standard model has an impedance of 9.100 ohm and delivera .5 volt high impedance pickup
B2290.
Whitolivelume centrol.
Lit. 291 .75. WIthyolume controL. $\$ 5.65$
ETPE IPTBANCE MODSE
Model 31 -A 4 has an impedance of 36.500 ohms and an output of $t$ volt. For low gain amplifiers 82292.

Witheut wolume central.
List, $\$ 9.75$ YOURPRICE
B2293. With velume contral. \$8.05

## FAMOUS LKNGHT HIGE TMPEDANCE PICKUP

An outatanding value in a high quality phonograph pickup. Ideal ior use in gound yybems, phono combinations, and for modern mount. Accurately balanced for corsect needie presasure. Built to higheat standards; has high percentage cobalt magret for superior performance. Features extremely flat frequency remponse over a wide range. Uniform reaponse may be obtained by uning a 50,000 ohm volume control; bass acceatuation by using only 10,000 ohm control. Higb im pedance type witb high output, Extremely light in weight yet gturdily built.
 nce Pliku P. MET

## NEW WEBSTER

## CRYSTAL PICKUPS

## 40 TO Bee C.P.s.

Exceptionally fine frequency responge and freedom from meedle noise is obtained through ad ancer tyDC of con uality pick in very respect.


FIEO CRISTAL PICIUPS
The origimal cryatal pickup. and still a favorite With constructors of record-reproducing units needie pressure assuring maximum fidelity re production with minimusm surface noite. Frequency response is frec from objectionable peaks. Connecte to grid of input tube.

## EIOR M1DEMTE ETBPN

Simall compact type of assembly makes theo record-playing devices. Exceptionally fine frequency responge may be varied to accen either treble or bass by varying the value of input circuit resistance.
87693. E"minfor 10 er 12' Fecerds.
YOUR NET PRICE
空7694. 12" ormior 10 to 10* List. $\$ 12.50$
YOUR NET PRICE $\qquad$ $\$ 7.35$

## ASTATIC ECRATCII FILTER

87688 . For crystal pickupe. Tuned to rebonate at matcici frequency. Sealed in metal can NET.
\$5
$\$ 505$
$\$ 565$

## Latest astatic crystal phono picirups

 2.5 Voin, lmpedanc. 3229 Less volun centrol. You82297. With velume cemtrel

B2297, With velune ce

## UHOT HIDENTT MODEL

Similar to the et andard model described above but is designed for the very finest installations. Frequency responge is tat from 40 to 5000 cyctes within 2 db. with a conatantly rising output F2288.
-0ss velume centrol
ist \$12.75
8730


## popular Record ASSORTMENTS

 DOU RLEFACSD Trenns

Famoud brands American record asoortments at rea savings. For dealer demon *trations and pubbic addres use. Packed 25 astorted records to the carton; re cordinge by farnous Ameri dance archest vocal, bend cause these aseortment reach us already packed we cannot determine what titles are in each asoort toeet: all recordings by fa mous artirti, dance orches tras and bands. Shpg. wt., 13 lbs. 29999.

Carten 25 Ageorted
 YOUR SPECIAL PRICE${ }^{5}{ }^{255}$

## FOREIGN RICORDS

Popular pelections of foreign language record inge. 25 gasorted to the carton.

## 89998. Spanish. PE震 ASSORTMENT

 89998 Ttentant

## GENUINE RCA-VICTOR <br> <br> PRONOCRAPA NEEDEES

 <br> <br> PRONOCRAPA NEEDEES}87613. Sott Tenc. 1 get te plage

B7605: Mall Tenc. 75 to Blye.
87606. Fuli Tene. ife to pkit.
87607. Lend Tene. 1ed to elye. 750

 B7619. Tungstent. Full Tenc. it thang. B7611. Tumptome. Lend Tone. $25 c$


## FEDHO POTNT METDLE

87620. Fhy ever 2001 reterthic Fitt rocerd


## NETDLE CUP

Attractive,well-maderesedle cup. Will fit eay 1 Y inch round opening.
57601. NET......... Se



## shure "ZEPHYR" -

## NEW BLUTR ""EPAYR"

## CRTSTAL PCKUP

A new crystal pickup with many features. Uniform ", 000 ohms inpedance; connects direct to grid Aero-Stream" deaig. New "needle-tilt" feat ure record needle tangent to. and centered in the low needle prose The ieature together with fo minimum prear and of 2, ounces, makes minimum wear and loweat possible background
noise. In molded balkelite housing; 10\% lons: with 315 ' cord and motor board 87 ?



High-fidelity pickupa built on
Ehe Magneto-induction prisciple.
the limita of commercial records. asturing bri liant reproduction. Ball-bearing mounted. Low center of gravity. High impedance, bigh output
 List. $\$ 35.00$. YOURHET PRICE
82250 Type HRA4.
For ail $10^{\circ}$ and $12{ }^{\circ}$ recards.

# PHONO MOIORS•RECORD PLAYERS•CHANGER 

## SPECIAL VALUE PHONO MOTOR



A hrand-new atli-starting synchronous tspe single sipet inono hiotor. Desikned 3long ild in operation. Minmtains ronstant speed repard-
 conered rumsishle. Diomis ewly with three 810068 B10068.
\$585 BIOO76. Sirel mminsing ilato for 188

## FAMOUS GREEN FLYER PHONO MOTORS

SINGLE SPEED-78 R. P. M.
A huth qualits phonotrabh motor fir TS R.P.M. M.
 sped. Equipisd with 10 inch tirntable and $50-60$ cyeles Ace Mor oiseration on $61 / 20$ om.
 YOUR PRICE

9795

## 2 SPEED: $331 / 3 \cdot 78$ R. P. M.

hiavy dhry tyne as above. Plays both $331 / 3$
 an $_{3}{ }^{\prime \prime}$ cutout. Mig. center. $314 \times 51 / 4.110$ vols,

s1030 BI 0071 . Same as above, bat with $10^{\prime \prime}$ tuлn. B 10071. same as above, bit with
talik. Lisf, sif.50........... S10.
NET ....................

## UNIVERSAL IIO V.A.C.D.C

Slagle spetd is J.1'. M. type. Has A.C. D. C change
Bi 0073 . your Pric $\qquad$ $\$ 12.30$

## DUAL SPEED UNIVERSAL

For ofselation from 110 holt 6 Chele or 111 turntable. and all hardware. ©13.... 35
B 10069 . NET..............

6 VOLTS D. C.
Two-sperl ispe. Oppratec imm fo sill starage bartery at 9.8 amps. Mas jo marnable B 10074.
ist. $\$ 24.50$. NET.
$\$ 14.70$

## WEIGETED 18' TURNTABEE



## GREEN FLYER RECORDING MOTOR <br> 

7 havy-aluty double notor and turntable for lias constant slewil. governor-controlled. induction motots. Sulent performance is assured by spiral-cut gears ruminis sealeal in oil: overale. selt-lubaricaning hearings, Just the tuanable to use with high-giade recording and play-lark
 with slued slift lerer, sowed regulator, hardware


## NEW RCA-VICTOR RECORD PLAYER

An insculotis and finexpensive litile an ideal secotid plaser for use in adapt lin rialo sets to fine photiogranh mer formance. Slas he uad in conizinction Fith the PCA 1 KKe 4 Fhonograph Osrillator, or nlay he direcily connected to the radio rreefrar. In sas pilth low audlo patn the Ost-Illator nullst be used. The ready hortability of the itc: A fecorit 1'layer also adains it tor eftionthe us
With portable A.C. sompd equipment.

## PORTARLE FLECTRIC

The IlC. Record Player consists of an labitrieaty drisen, contant sueed tum-

 cxtornds outh of one end of the casce


CAN BE USED WITE ANY RADIO RTCITVER
Sill matra enteriambunt hrotitably hy means of che licA-Victor Phonomradh liccori Playe. kasjly conamedted 10 any radio receiter. lioused in an aitractive wainut finished clest, ohly BIOO99. MODEL R.93.A. NET EACH. $\$ 12.49$
RCA-VICTOR JR. AUTOMATIC RECORD CHANGER
This new reeord chanter is ideal for custom-built comblnation sets. I'A eubibseent. phohograph modernization. and otber applications. It alutomaticalls changes seven
10-Inch records, plass 12 Inch records manualls, and repeats the laci record of eiftrer size, Extrumely small and compact; nnly $1 \$ 1 / c^{\prime \prime}$ long. $10 t /$ " deep. Height above moror





## PHONO MOTOR AND <br> PICKUP ASSEMBLY

An exceptionally comract motor and Dlckup of expellent desinn. same as used in the RCA-Victor Mudel 30 Ralio-1 pionograth Combination. a here space is limited. Symiluronous motor is only $7^{\prime \prime}$ in diameter, 2 ", deep. Mannal startard cerord zenculuetion. For j05-125 volt co rele operation. The pickup is only $83 /{ }^{\prime \prime}$ long,

 B9447. MIDGET MOTOR.
Part No. 11873 . For 105-125 wilt 60 Part No. ll873. For $105-120$ wolt
cycle operation. List, $\$ 10.50$. NET
MOTOR MOUNTING ASSEMBLY MOTOR MOUNTING ASSEMBLY
Consists of all necessary hardware and rubber mashin's for mounting the IRCA motor descrited alove.
B9446. List. 56c. NET.
$34 c$
B9448. MIOGET PICKUP. Part No. 12329.


DEAGAN MUSICAL STATION CHIMES

Produces four perfectly
wit he notes Crates de-
random tapuint. Ireat for hume use, 3 nil for dauteur or Eroalcast stations. Chromlumbiated screxs and black uabes, Supplied complete with tapping matlet.
and FREE book of 80 calls and musleal selections.
87330 Model 201.
List.
YOUR PRICE........

## RCA RK 24 PHONO OSCILLATOR

Designed by RCA-Victor to Insure grod phonosraph redroduction when used with practicaly any feceiser. Sell extra eniertainment Oectllator. Nay be connected in a fem minutes, Remulres no changes in the recetver wiritug Selles itself to vour prospects umon demonstration by "tuning in", phonorraph reproduction just

SIMPLIFIED INSTALLATION
Ieads artarranted to slip under recejver tube pronas. While the miky Uscillater is designed
 Hs a minlature transmitting station modulated wh the phonotrath pickup. Ifas a tundrie range of $1+10$ to $1700 \mathrm{~K} . \mathrm{C}$. Hequires the use of a 6.27 tube with sets using 6.3 Yolt tubes, or a $2 A 7$ with kets uvinis e. 5 Volt tuluws. Furninhed less tube; with directions. Easy to install; dejendable in operation
$894 n 7$.
List. YOUR PRICE

## RCA-VICTOR

 PICKUP EITADS Grnuine RCA- Mirter pick-up heads.B9496. RCA 9676. Exact duplicate pichu for $116: 45$ and RE:5. Imp. 400 ohms. YOUR PRICE ........................ $\$ 3.91$ 89495 RCA 9666. For Model 331. ImYOUR PRICE $\$ 3.30$ 87326. New Pick-up Transformer. 30 ohns


# RECORDING EQUIPMENT 



## NEW PRESTO MODEL "D" PORTABLE RECORDER

A new portable unit especially suited to the needs of Schools, Advertising agnerims. Broadrast slations. etc. Complete recording and playback equipment in one compact,
easitr portahle unit. fleaw 12 turntable. whieh handles easity portable unit. fleary dy turntalble, when handie Sturds overhead assenths cuts, aroores and records in some operation ; revording head has wide fretuency range sor the tonal reproduction, Has builh-in four-stage ampli Ber wihh suritrh for recording or plasback: provides excel lent tont quality. with ample polume to hil classioom lecture-hall. etc. Front panell las $8^{\prime \prime}$ dynatuic speaker Fixtremee simple in operation; anyone cat make high phalify excorlings of sjuesch or music withourate input for radio. Has himh-srade magnetic playback pickud
 stand. For 110 volts ou cyeles. Wt. 70 lbs.

SCHOOLS AND COLLEGES. Write for attractive Educational Discounts on Presto Recording

SCHOOLS AND GOLLEGES. Write Tor attraetive Educational
Equipment. discs. etc. We can suppy all your recerding needs at lawest prices.

## UNIVERSAE PORTABLE <br> RECORDER

A new portable recorder. Simple enough in operation so that the ordinary lasman can operate it. Speech and dramatic schools will tind it of great ralue in correct. ing defective speech. Nim record any blank up to 1 i at elther is or ${ }^{331}$, I.P.M. Can be instantly changed to cut either 30,110 or 130 Iines per inch. inside to ing bead described below. The full frequetry mashack ind head decce with 130401 can be uved for monitor-
 $1 z^{\prime \prime}$. For 110 rolts. 80 cycles. 80 hipg. Wt. 80 lbs B 1040 i Universal Portahle with
500 hm plekup. NET................... 68.59


## UNIVERSAL PROFESSIONAL RECORDER

Precision workmanship and h ikhest hined with ine hnowledge galmed througt sears of reconding experience. make this the vely
flaest recorder obtainable. A heary prociston machinery for iong und conthuced use resigned for he now warims fernuing ic Enrles and hardware. Write to our Sound EnEincering Division for full details. 8 104000 Complete Pro- Conal Recosder, less cut- $\$ 3 \rightarrow 00$ ling head. NET........
(tin record on Aluminum. Sitivemid. Acetate
 htarted. Kums wher fo or $33 \%$ R.P.M. Sut Crating eharge extra................32 plied leas cuttinz head.
$\mathbf{B 7 2 3 0}$, Professional Cutting Head, Re- B7231. Floating Recording Head for Acelate macnet. balanced armature, and st? fully adjustable. 15 olims. NET. 447 , 101 lienponse, 30 to 8000 C.P.s. within 88.00 These heads come in 50 . 200 or 500 ohm models at same prices as above. on special order.


## UNIVERSAI RECORDER

Consists of a powerful, rubber-mounted motor for 78 or $331 / 3$ R.P. M. use: weinhted turnable; rentorable 8 Lae ner inch leadscrew: l’rotesslona cobalt marnet cutting horg of 15 ohbins impwanace. With Sample control, luvel mieter, and ondont invinuctions are supplied. Despred for making recouls on blank alumimum disc: ut to $13^{2 *}$ in size. For 110 V . 5 fi/co cyeles A. ('- Alno in 50 . alh. or tot ohm mindels at the same price. Wt., 98 lbs. RETOO96.

## PRESTO GENUINE SAPPRIRE

 RECORDING NEEDLES82606. Gpmuine sapphite needies for acetate recordinge. Acrurately ground for maximunt sprice. Average life antlrox 15 (\$) 1 We can resharpen Prosto sapphire needles at cost of $\$ 1.65$ onch

## STROBOSCOPE

Checks the speed of any urntable. Place Stroboscope on turntable and illuminate by any 11 gh opetating on 80 or 25 cycles. $6^{\prime \prime}$ in dismeter. of hesus carriboard.
B7293. YOUR PRICE.
 15c

RECORDING DISCS


## ALUMINUM

Made of of special Itardened sluminum allas: oliror-polisihed. Assise maximnm volume sud brilliancy of lone with long life.

## PREMEQEVED DISCS

yed disces slay be re corded on both sidec. Cse Type $B$ sapuhhe or Noel Dome Itproiding Nevlles.
No.
Dia.

| No. | Dia. | List | NET |
| :---: | :---: | :---: | :---: |
| B7280 | $0^{\prime \prime}$ | 30.30 | 16 c |
| 87281 | $8^{\prime \prime}$ | .58 | 23 c |
| 87282 | $1 i^{\prime \prime}$ | .75 | 39 c |
| 87283 | $12^{\prime \prime}$ | 1.00 | 55 c |

## $87283 \frac{12}{1.00}$

Extra-heary aluminum discs. 036 Recong


PRESTO GREEN EEAK DISCS
The flnest prolessional recording dise a waitible. Hear an oase frenly coater wilit celiuFith minimum

| $\mathrm{No}$ | Dia. | Thickness | NET |
| :---: | :---: | :---: | :---: |
| 87303 | $6^{\prime \prime}$ | .051" | 50.40 |
| E7304 | $8 \prime$ | . 051 " | . 85 |
| 87306 | 10" | . $0.51 *$ | . 8 |
| 87306 | $12^{\prime \prime}$ | . $15151^{\prime \prime}$ | . 80 |
| 87307 | $16^{*}$ | .1551 ${ }^{\text {c }}$ | . 80 |

## 

Oversize discs for producing master jecordlors Wher a number of duplicate iressing art requited. Only one slde can be

| 87309 | 1115' | .079** |  |
| :---: | :---: | :---: | :---: |
| 87310 | 13\% | . 079 " |  |
| 8731 |  | .079** |  |

ESCORD PRESSINE SERVICT
Allied now offers an lnexpensive reoord press ing service to small recording siudios, or persons requiring several copies of any particular recording ticates at low cost. Wrlte for prices.
PRESTO BLACE SEAL DISCS
shatar to the Green Shal disco listid aluwas \& !a, in fheavy. Hecontmendid for test recordin. atin for speech correction wonk where liont
 Atiractive Edacational Discounts on quantity orders for recerding aises are offered to Schools. Unlversities. etc. Write for complete details.

CUTTITN LUBRICANT
B7247. For use on usce sulace before cut


## 

B7248. For apullealion to record after cus t10g Polistis srooves, and preserves by sealur off newly exposed materinl.

29 c
02. cans. NET $\qquad$ .

## RYCOND 新党CONDITIONER

 87249 A sas-liberating chemical for softold 1ecoits. or softens new blanksbefore cuming. 1 oz, cans. HET..... 4 \&

## PLAYBACK NEEDEES

B7589. BA M BOD REPROOUCING NEEOLES. For Hlastar all trpes of
recorded discs. PACKAGE OF $100 \ldots .318$ B7278. RED CACTUS NEEDLES. The most durable non-metalle needle
Plass 5 to 15 records. PKG. OF $10 \ldots 5989$ B7272. REO SHANK STEEL NEEDLES For maximum number of plasbacks on Acetale roated discs. $.002^{*}$ radlus at polnt. PACKAGE OF 10.

15 c
B7279. "TRAILING SHOE" NEEDLE, FOr Siverold. pregrooved coniposition, or reluluse is less than $30^{\circ}$ from the vertical.
PACKAGE OF 10.

# REPLLCEMENT DYNAMC SPEAKERS 



## DYNAMIC SPEAKERS

## A new line of high quality permanent mag

 net dynamic sweakers with exerptional fea



 arodel hatw universal outhut transformer

NEW $31 / 2$ INCE MODFL
Ifral for tatteyy on mall dU－DC sets，Onily ollim，furnished les outuut transformer． B9528． NET

## S INCR MODEI．


 Whits wirh remarkable file－lity．


最 INCE MODEL
An intal rehiacturnt siwaker for all battery sela．or for speaker expeovlons 5 ohm rol ce coll．
Will pasily hamile 5 watts Slup wi hame 89535．NET．
\＄3．42

## $\$ 1.76$

## －ENC邁 MODEI

piece： 5 obm toite coil．Handles pisce： 5 obsm toipe coll．
4 Watts withont divturtion．
莗 HNCT MODIE

May be ustd as P．A．Extenstion ppeskits ol for larger radio cets， 3 warts without distortion． | Shty |
| :--- |
| B95 36 ．WEF．．．．．． 55.99 |

## WRIGHT－DECOSTER UNIVERSAL REPLACEMENT DYNAMIC SPEAKERS


－INCE MODEL
Ideai for mialiget sets．Whal 1 m － hrove quatios of teprovicrion with Stus．．t：


 B9592．NET．．．．． $\mathbf{\$ 5 . 3 9}$

A hith grade tine of sjegkers for uni－ versal authlideloh．Antoms the many，de－ sirahle teatules are：Size for every re－ adrement；Unicensal field coil；Uni－ tetsal output tra hisotaier，etc，ldeal for quirements which demand high qual－ its retroduction．Linfersal field colis： 2500,2200 ．1800，1500．1040， 700 and 1su0 ohms tapied at 300 ohms．Stay be used to feblace any speasers with be used to ieblace any speaters tith
field resjitances losted above．Ontjut

 output whes，Euety surviee sthod should
hate severat of these sthedkers to take hast severat of thest strakers to tal
cate of emmraticy rejulacement calls．

## E INCI MODEL

 For use as trilaceruent speak－ers in siall crinsoles and larger Sturnt．
B9691．：NETM．\＄3．92 IS INCF MODEL
Farublurd with flut ladmus：Para－ Curve dialiurazm，Ideal for large ratio sets and whall P．A．syntems．
$81 / 5$ Ins． $81 /$ Ins．
B9593．NET．．．．．．SS？

## NEW WRIGHT－DECOSTER NOKOIL DYNAMIC SPEAKERS



NO FIELO GOIL－NO FIELO DRAIN
A radically new desiani Cabable of perform－ stice uidally expected only tiona electio－dymam－
 petics in battery－opetased receisers．Simail in siza require lifile spare．For small sets．Gall
sy＊tum，vic．Hidye 5.3 ohn roice coils．With hatersal ouplout tramsiormer

## NEW 5 INCP MODEL

For small rallus atud call is：si－nss．etc．Fur－ nished with srfin－univelsal outvut transformer； Be 575 s．

## －INCEMODEI

Excellent fur smail jurtable ra－ dios．baltery sels，oftice inter－
communteation systerns，eic．Wit．
2141 l.
B9576．List．\＄8．00． YOUR PRICE
$\$ 3.92$ I INC溥（ODEL
llere＇s an illeal limit ror thowe nothum foweled teplacrement or
ortuinal invallations．Will han－ ortuinal intallations，Will han
matts．Wh． $4 \frac{1}{2}$ lbs．


## 5 INCH MODEL

For table hodel tallu suts，call Systems，or sutetl PA． $31 / 2$ witrs．Wit．${ }^{23 / 4}$ lis．
B957．List．$\$ 9.00$ ． ${ }_{\text {Bosit }}$ T 1 INCE MODEL
Large site wither－sensitine sjakker for lasge ladur vets．or tur runltiple
speaher call systris．Wh．ith lbs B9579．List，$\$ 12.00$ ．\＆o 59
YOUR PRICE．．．．．． YOUR PRICE．．
TULL RANGE 15 ENCE MODEI
 wirh hithest posible officients．Wit． 8 las．

## KNIGHT DYNAMIC SPEAKERS OUTSTANDING VALUES

－Universally Accepted by Discriminating Servicemen －Incorporate Every Valuable Feature of Modern Design －Quality Construction Gives Fine Frequency Response －Cones and Voice Coils Built for Maximum Efficiency －Ample Power－Handling Ability；Conservatively Rated －Long Life Assured Even Under Continuous Operation －All Speakers Equipped with Universal Transformers

## KNIGHT 6 INCH DYNAMIC

A compact dyuamic speaker capable of suatringaply sumen methormathe

 ite－1！．（cavefulls assomblod of lifitiont－ unalits rolutworthts；tixidly iminetided to insume a sueskir nirehamitally and
 The sturdy cobstruction of this
 atinn．Voice coil，${ }^{3 / 4}$ diampter：im－ Dedance， $3 \frac{14}{2}$ ohtars at 400 eycles Arailable with feld coils to fill all
rendirempnts of either replarement or redurempents of either repharement or
orininal Instailations．fach sine ker
 former for matihing any single or bush－mult outjuit slake．
B9286．6 Volt Field．
39257．IWrit Ohm plud．
39258 ． 18100 Omm Field
tapura at 30 n Olums．
89259 ， 25100 Uhin Fleld．


## KNIGHT 81／2 INCH DYNAMIC


 rorting．Come ansembly deshint 10 parmit maximum filelty of rejurutuction without ob－ jevt tonable rusnnant poims．－Correetly atigned roine coll and cone assure masimum effi clency．Heaw rikid frame assembly． coil．＂t diamespr；imperlance， 3 ohms at tin
 diep．Whth umversal outwut transformer 89260 ． 6 Volt Field．
8926 i． 11100 Ohm Fleld．
89262 ． 1800 Ohm Fitid Tanned at 300 2iza，mon on $\$ 240$ YOUR PRICE EACH

## KNIGHT 5 INCH DYNAMIC

Developed expecially for use in the new combact receivers where apare is at a pronium． 6 wolt model ls ideal for use as replacement speaker for auto radios． An inexpensure speaker for reblacement phere cost must be beld to a minimum． or where only limited vate is availatble． Or where only fimited yate is analiatim handle a sururisingly tarae amount of rofume Correct destion and alimnment of fire moving cone and vouve coll amanhbls larkely eliminatm distorion even whon delnverting full volume．Volce coil， $\mathrm{yn}^{\sim}$ diameter：impectance， $3 / 2$ ohms at ith croles，Only ${ }^{\prime}$ dismeter，and $2 \%{ }^{3}$ deep． Supplied with universal trans－ former to mateh all tubes． 89254,6 Folt Field， 89255 ．3nn ohm Field．


## KNIGFT 12 INCF DYNAMIC

An excelitionaily wrll－built reproducer With excellent power hatidifig ability． Deximnt to render the highest tyue of faithful reproctuction and tane duallit． Will handle up to 8 watts wieh a mini－
nitim of diatortinh and cornplete ellmina－ fion of annoving rattles and＂blastina．＂ likeal for use in laye console tybe re－ crivers，or fire small indoor tulalie sdifess
 aritetion combined with iareftal silection of materfals aswires maximum perform－ ance．Ovrall smendilvits lar sumption to similat sa＇akers of the same plysirnil thatacterivtics．Baluibued with unlvemal outbut transformer to match any single or fush－zull outnut stage．Shyg．wi．． 64
thes．

B953
BOER PRICE EACH．．．．．．．．
YOUR PRICE EACH

# KNIGHT MAGNETIC SPEAKERS 

## RADIO'S GREATEST SPEAKER VALUES



- Compiete Assortment of Sizes
- Sturdity Constructed for Long Life
- Ideal for "Second-Speaker" Uso


A sturds and porerfal, small size magpetic speaker. only 6 in diameter, mas heave pressed stee frame athe imbored armanure desimn exmet. fatest imble diaphered armaine Will handle up to 1 watt output. DC resistance, 1600 ohms. Especially recommended for batiery and ACDC set use. as an extension sjeaker. or in mulitple-speaker Installations. An ldeal high qualty sll-purpose unlt constantly in demand and priced low for nrolitable installations. Shipping welaht. 4 lbs.

diameter. Pressed steel fram diameter. Pressed steel trame is of ribit desian. Has
generous slaed magnet. DC resistance is 1000 ohms. Unusually fine tonal pepponse resistance is 10n ohms. mensually fonit for all comuact-sjbe radio sets, or for use in jnulti-unit installations and as extenston speaker. Weat-hbllt for pood service. A wonderful value at our low price. Shipplag weidt, 3 wos.

## 5 INCH noan 89281 ${ }^{5} 113$

A well-tiesigned midget type speaker suitable for use with battery. Small AC-DC and AC sets Where space 1 s rezy lim-
ited. Onty 5 incbes in ?

- Sultable for All Types of Sets
- Tone Quality Like an Electrodynamic - Priced for Serviceman Experimenter


## Wright-Decoster HYFLUX MAGNETIC SPEAKERS

A new and improred type of mamnetic speaker. Designed for use in both new and old construction. Compact assembly ruakes this speraker ideal for instaliation where space is at a prenilum. as in lrattery and auto sets. or in multiple cxtention
sparaer systems. buph behtn panel is less than
but Sparer systems. Depth behind panel is less than
3 inches. Frequency tespmane is unusully good. Rigidly construeted from finest materials for suars of troible-free service. Alt parts ame fully shiefded and protected against dust, grit, and other foreign matter.
B93I7. SPEAKER.
YOUR PRICE.

## UTAH SPEAKERS <br> ORTHOVOX PM TYPE

Nex tyre permanent mazpet swabke at a pealls attractive price l'rorides high quality reproduction which compares rery farorably with that of the best electro-dymamics. Conr and drtver as-
semblies are perfecty aligned, insuring freedom sembifes rate desfecis and vibration even at full volume. from rattles and vibration even at fun volurae. and heavy-duty laminared armature, enclosed and wotected from dist, grit. etc. Because no field excliation is required, this eveaker Is ideal for multinle spesker installations. or as an extension speaker for radio sets. etc. Abalaile in several popular sizes, with output arrangements Output Tube Data below.

## Model 5X-5" Diameter <br> Idegt for use ith A.C.-D.C watts. Shpg. wt.. 2 lbs. <br> 89219 . Typo A. <br> B9220: Typo B. <br> 89221 . Type C 89231 Type 89232 Type E . <br> List, \$3.is. EACH

Model BX-8 Diameter Whill handle up to 3 ati watls. ralue.
89225 . Type A.
Type 8.
Type $\mathbf{C}$.
Type $\mathbf{D .}$
Sut or

## OUTPUT TUBE DATA

TYPEA | Nincle. fla-39-49 |
| :--- |
| $\begin{array}{l}\text { Pusin-Pull. } 6 A+10-12 A-20-31-33-38-41-42-46-47-50- \\ 86-2 A 5 .\end{array}$ |

|  | Class B. 6A6-61-6-19-49-53-79-89. |
| :---: | :---: |
| TYPE ${ }_{\text {B }}$ | Single. 5. 2A5-8. 2AA-6F6-10-12A-20-31-33-41-42-46-47- |
|  | 1'ush-1'ull. 43-45-71A. |
| TYPEC | Single. +3-45-i1A. |
|  | Push-1'ull. 2A3-48. |
| TTPE | 500 ohm line. |
| TTPE | 1000 ohm line. |

[^6]Model 6X-6 $1 / 2^{\prime \prime}$ Diameter
Will handle up to 2 watts. A sturdy dopular speaker. Sbyg. wt.,

## $\begin{array}{ll}\text { B9222. } & \text { Type A. } \\ 89223 . & \text { Type B. } \\ 89224 . & \text { Type C. } \\ 89233 . & \text { Typs } \\ 89234 . & \text { Type E. } \\ \text { List, } 54.00 . & \text { EACH. }\end{array}$

\$235

## 

Will handle up to 6 Wstts.
lleary-duty model. Shps. Wh., 5
B9228. Type A.
229. Typ B

List, $\$ 4.50$. EACH. he total plate-to-plate load impedance.

## KNIGHT 3 INCH MIDGET MAGNETIC SPEAKER

Here's the smaliest effleient spozker sou can buy. A ligh quality, well-designed magnetic speaker meanuring only 3 inches fin diameter. Intended especially for use in pocket-sized midget receivers. two-pay communtcation systems, and small portable shortmatereceivers. Strolg. permanent manmets amilats. of full slze, ate mounted on a midset rigtd oressed steel frame. May be mounted from front or hack. In ${ }^{6 n y}$ yosition desired. Sbpg. Wit. 1 lb.
G9458,
YOUR PRICE . . . . . . . . . . . . . . . . . . . . . . .


## 81/2 INCH MAGNETIC SPEAKERS GOTEIC CABINER MODDL

A fine table model mametic speaker. Comblnes attractlve appearance and excellent tone quality. Handsome walnut-fnish cabinct is 11 ity magnetic speaker chassis is mounted in the eahinet Spesker chassis is $812^{\prime \prime}$ diameter, $35 /{ }^{\prime \prime}$ deeu: has pressed steel frame, larse magnet and improved semature structure 1000 ohms DC resiste bigut arate sueabur is ideal for tise rith battery sets multifle speater systems, extensions, etc.
89444.
 YOUR PRICE

## WALNUT SPEAEER CABINET ONLY

Cahinet only as llustrated above. Very iturds. Has beautiful walnut
 B9445. YOUR PRICE

## SQUARE CABINET MODEL

 she speaker cebinet finished in rich dark walnut. Equipped with new, inprofed $81 / 2^{*}$ dolt-ble-mapmet magnetic tove reprowucer. An lapal extension speaker Has gold-bironze ailk grille.

89483.

B9484. Same ss ahove, but with Volume Control and "On-Of", swltci. Load resistor is volume of other speakers on same
line is not atected. NET......
 line is not atrected. NET...... . \&4. $\$ 1$

## JENSEN PERI-DYNAMIC SPEAKERS

Ahsolutely new. The "Per-dynamic" (enclosed dynamic) inlnciple permits buperlor bating of the speaker, protties improted periornalance and bositive of the overation of sweakers in air-fleht enclosures. The chelosure and the new Jensen R" 1'M type "C" electro-dynamis speaker were desianed for best acoustic results. The jerformance of the nery Perl dynmic is amazingly fine, and it is easily capable of handline a full 5 watts continuously witiout dis tortion. Enclowed in a mood cabinet finlshed in black lacquer and walnat. $15 \frac{1}{2} / 3^{\prime \prime}$ wide $=164^{\prime \prime}$ high.
39682 . With 6 ohm voice coil.
Less transformer. NET...............

$\$ 1220$
89683. WItfi adjustable Ilne transformer. 500. 1000. I500. 2000 ohms. B9684, With adjustable output transformer, 4500 .
7000,10000 , 14000 ohms CT. List, $\$ 22.00$. NET EACH..

## REPLACEMENT PARTS FOR SPEAKERS



Replacement field coils thich exactly duplicate the orighals physteally ant clectrically.
ferefectly impreanated again-t moisture.



## AC-DC FIELD COILS

For midget $5^{\prime \prime}$ and $6^{\prime \prime}$ speakers. I'" $^{\prime \prime}$ inside dia.; ${ }^{2 \prime \prime}$ outaide dia. to permit secure installation.
$\begin{array}{lll}82690 . & 1.000 \text { Ohm. } & \text { List. } \$ 1.50 \\ 82691 . & 1.500 \text { Ohm. } & \text { NETEACH } \\ 82692 . & 2.000 \text { hhm. }\end{array}$ 82693. 82693. 2.500 Dhm.

We can supply field coils other than those listed. Please specify resistance.

## REPLACEMENT DIAPHRAGMS

 FOR DYNAMIC UNITSFor all Racon and Western Electric unlis. Please specily model, type. and serial number of your unit fint may lie shimed to us for an cost of $\$ 1.50$ net
B2672. For Racon Units.
$E A C H * 24$

## SPEAKER

## CPNPRRINE SIITE

Colluteid spacers for centering and adjusting speaker voico conis and armatures. Flexible and tough. kit indudes: 4 shims-005; 4 sh1ms.0075: 4 shims-.010. 4 shimso.0125. In handy compact leather case with separate
82999.
YOUR PRIC

## EXACT DUPLICATE SPEAKER CONES

Duplleate replacement cones accurately decianed and carefinlts concricterl to math the orisinale, One pifere spamless matesiat is usd; noted for enturing. non-rescnant qualits. An accuately wount voice coll is ithluded with earh cone cones are brecisefy molded by patented pricess to serure excellent tonal quality and lons hife. Voire coils are also exart duulicares of the orlginals in all xrecifictions. for impored tone auslity. replace your old speaker cones with these reliabie exact duplicates.

It the cone you require is not listed below. your" cost can be genprally dotermined by the following sehedute: $5^{\prime \prime}$ to $6^{\circ}$ canes- $\$ 1.10: 7^{\prime \prime}$ to $9^{\prime \prime}$ cones- $\$ 1.50$; $10^{\prime \prime}$ to $12^{\prime \prime}$ cones- $\$ 1.95$. Cones $13^{\prime \prime}$ and over will be dualicated at a cost not to exceed \$2.75. Please send in your old cone with remitiance. Tf the entire speaker is sent in for cono nne
pricas to cover installing and cleaning.




## FIPLD

## EXCITEF

A useful fielul supply unit, usint a trye 80 tube rest ing a D.C. field speaker fert ine a D.C. field speaker
for A.C. operstion. Furror A.C. operstion, Fur-
nishes is watts unider norter reflices srealier hum. mat use. special fitter transformer. Size $\overline{3} 4 \mathrm{~L} x$ 9xiy" high. W't. 5 lbs. Less tube. S7 ${ }^{2} 9$

## SPEAKER CONE

## CEMENT

Readily cements sipeakior cones, paper rings and felts to speaker fin ines. comes in confenient metal tutse conThis high ourlity' cement dries quictsly and holds permanently. A mecessary item in the setvicemans kit. Almon as important to have as the right cone.
Y293 PR10E
$24 c$

## 



TRANSMISSION LINE
Magic-Wave Transmission Line. lay be used on single or maltipleutlet Installetions to extend the ransmission line or to carry it long to other sets when more than ons is used. RCA 9816.
R 7643 . 45 Foot Coil.. FOR ENDTACBOUNDTSI A special transmission line is trallable for underground service Can be buried. RCA 12429 37544
45 Fo0t
37545 RCA 12430 ? 24 GROUND LINE, 0 Foot Coin $\$ 2.25$

U.EX.F. EIT

B7581. Uitra High Frequency Kit. When added to the Spiderfrom 23 to 70 M.C. With complete nolise refection. NET

90c

## NEW RCA MAGIC WAVE ANTENNA SYSTEM

- Emify Installed With Lengthefrom 20 to 120 Feet Versatile-No Doublets or Critical Lengths
- Up to 16 Outidts with Proper RCA Transiormerz may Be Mountod Lasily in Any position
A new all-wave antenns system offering many new features and opportunities for profit. Antenmas mas be mounted vertically, or horizontally and from 20 to 120 feet in length. Special purpose leads from center of the geria are eliminated. No rritical lengths in doublets or trans mission lines. As many as 16 sets may be used with onls slight efficiency loss. New magretite cores in antenna and receiving transforpuets give high enticrency from 530 to may be buried. Factory-wired kit consists of: Receiver may be buried. Couactory-wired kit consists of: keceiver Wire: 45 -feet Transm1ssion cable: 5 -feet
kround wire; 5 -porcelain insulators and B7540. List, \$6.95. NET..
B7541. Distribution Transformer. One is \$189 required for eacli 4 addltional outlets. NET., $\$ 180$ B7542. Set Goupling Transformer. One is
required for each additional outlet. NET...... $\$ \mathbf{S}$


## RCA SPIDER-WEB ANTENNA

New communications trpe antema ssatem. Consists of a seites of doublets. with high efficiency transmiswion line Functions as a "T" type antenna belo 4000 kc ., and as a multiple-uned doublel from 4000 to 23 , tan ke kasy ance. The unigue desimp of this antenna finsurea greater signal pickuu on everis tand. bringing In mote stations than ever before. Factory-assembled for quirk installation.

## 8YSTEM CONFIST옹 OFz

Complete ascembly fncluding: 6 colls of $7 \times 22$ stranded antenna fire in arrious lengths; 2 hangers; 1 coil of lead-In, wire; recelver and antenna coupling transformers; complete instanation instructions.
B7580. List. \$8.95.
9337


## RCA RK-40 ALL-WAVE ASSEMBLED ANTENNA

- Gives All-Wave Coverage
Improves Breadcast Reception
- Improver Breadcast Reception
- Comes Complately Assmo

A sclentifically designed All-Wave ontenos of the Tiniversal Doublet type. Complecely assembled. ready to install : total span is only 68 feet. Noise vickup is eliminated hy use of thisted pair transmission line. lnuposes reception on all bands, One of the very tinest low
cosi All-Wave aerials avallable today.

## EOW TRE STETE NORKS

The antenne itself acts as an efficient pickup medium, giving high siknal strength on all short Fave and broadeast bands. The tanamission which automsticallz matches e cone the which automatically matches the line to. the
nput circuit of the receiver.

## WT CONBISTS OF:

1 Complete antenna assembly, with end insulators, 75 feet transmission line. hermeticall. sealed antenna junction box. all completeis as rorcelain nailoon knobs; 1 i'orcelain lead-in tube; 1 Adjustable ground clamp.
B7598.
List. 55.75. YOUR PRICE

## ANTENNA EQUIPMENT

ANTENNA INSULATORS

BEE-HIEEHNSULATOR
 For supporting wiring. or fnstiuments. Made of glazed porcelain. Extra st ${ }^{2}$ dian high. Extra stiong and weatherbroof. May support leati-in or ground wires.
86190.

10 FOR 8
PORCELAT LVGULATORS
Giazed porcelain corrugated for mintstrons. B6192. $21 / 2$ inches 10 F 10 FOR 20c. 100 FOR ${ }^{2} 1.85$ EACH. $2 \frac{1}{2}$
 ${ }_{10} 6193: 4{ }^{4} \mathrm{C}$ $5 \frac{1}{2} \mathrm{c}$ EACH...............
BA194, 5 inches. 9 c 10 FOR B5c. EACH....... 9C

## PIRETINSULATOR

Strong rugged insula tors. with low power los anit will to wibland heat. .old and other at mospheric conditions
B3750. 3 年" $^{\prime \prime} 10 \mathrm{ng}$. For Recolving
Aerialt. EACH.. B3751. 712" $10 n \mathrm{E}$ Will hande up to 250
watts.
NET EACH ....

## CLASS INSULATOBS

Absolutely cllmate-
proof.
cient; designed for great
51 rain. 3 in. long. in

## expensive

E6198. 10 FOR 27c
100 FOR $\$ 2.50$.
NET
EACH
$3 c$ (9)

## PORCELAN TUBES

Durable, non-absorbent porcelain. with smooth finish inside and ont. Flanged at one end to avoid driv ng in too far. laside dia. $86212.3^{*}$ Long. 10 for 18c. EACH.
$2 c$
$86213.6^{*}$ Long.
10 for 24c. EACH.
Hkh-made glaza porctain construetion wions decp corriak brass harcer phated B61 higb, with base 21 inches square EACH 37 c B6149. $43 / 8$ in
hith. With base $1 \%$ Inches square. NET EACH

18c


ETE WALLINSUTATOR
Bakelite center mounted in gal. vanized screw eye.
83430. 3 INCH.

10 FOR 21e. NET EA... $\mathbf{2} \frac{1}{2}$ C
B3431. 7 INCH.

## ATRPLANEINBULATOR <br>  <br> Streamlined strain insulators. made of low-loss \& a 2 ed Ideal for bresking up ontenng ruy  Weight. 3 oz <br> ${ }^{86217} 8$ <br> YOUR PRICE EACH <br> 3c

PORCELAIN NAIL KNOES
Sturdy split knobs of glazed White poreslaln for holding leadin and ground wire awas from walls. Have allicetor jows for sure grip of wire lextlier ting. $1 \% \%^{*}$ high. $1 \%{ }^{*}$ ting. $13 / 4 \mathrm{high} .1$ B3418. 10 FOR 2 Ic. $2 \frac{1}{2} 2$
100 FOR $\$ 1.75$. EACH...

## STRAIN INSULATOR



Brown dorcelaln onstruction. $2 / /^{*}$ long, $11 / 2 \mathrm{~mm}$ dia. Lnusualls strong.
B6195.
10 LOTS. 54 c . ©
EACH......... EACH..


## ANTENNA INEULLATORS

Made of white rlazed. Fet process porcetain. In a ve sreat Very low endacity. low leakage. For transmiting or recejving ecrials. All ${ }^{\infty}$ diameter.
B3416. 7 ln. Iong.
NET EACH
$20 c$
B3416. 12 in . Iong NET EACH

29c
B34!7. 20 in . long

TAANSPOSITION BLOCES
Made of glazed Ceranic matertal. correcty designed to
prevent twisting of prensyosed lead-in: reduces electrical loss in minimum. 21 B $^{\prime \prime} \pi$ is minin.
36215 . Wht. 302. YOUR PRICE EACH BLOCK


CAGEATETATBPREADER porcela in spreaders for C a a e atrials.
Nturdily construeted of swerial moistureproof bureciain. Tn glayed. Ilikh in in sulating properties

B6218. Wt., 302. 10 FOR 90c.
 NET EACH 198

## CROBSOVER INSULATOR

Designed for use With double-double Made of a low-los ceramic compound Glazed. Will not bsorb moisture.
B5548.
EACH
$7 c$


## [20 <br> (2 +ive

## FIEDER BPREADER

arade of himh-grade velute glazed porcelain. Fur correet spaciag of pasallel antenns feeders. Ridutres electrical loss. 偶" Wide $x$ \%

60


- 4 -



## FOR PRILCO SETE

Fully asemabled，rendy for inditeilate erection Or－ctinter－ted dushatel tyine tesisged to offer an srimtilically correet rewivet compler．

## NET．

## FOR GRUNOW BETE

An All－Way type anterna．Desibued to onerate at prak embenty with Gunow Al－Wave sets． Winl wep uis rueprion on all bands and reduce P3382 noiser．subpled in bit form． NET NET
\＄2， 18

## FOR ZENITH SETS

Balanced dobillet tyon with no ise rejecting trallinission line．Pertaits greater distance re－ miloiflance with Zenith wis． B3383．NET．
$\$ 2.32$


MALMMTML
Increases the selectivity and sensitivity of uny set．An un－ new desif：n．Pernidts abrolutely All－Dizctional reception．Wijl materially improve recelition on short wave bauds：mukes bossible inuroved cflle ieney on standaid hroatleast land．May be quitchly installerl mith a scremariser．pliminates all masts，moleg，lon acrials，
dangling wires，etc，IRequitres anly a very small suare for mountiog hardware weut 4 ints．
Biog 10.
List．$\$ 2.75$.
YOUR PRICE．

## AERIAL ACCESSORIES



## MUELLTR CLAMP



## KNIGHT ANTENNA KITS

## FOR POPULAR SETS

Now ther I fup from topular sets，These new Knieht Antenna
Kits have been scientifugly destuned to Kits have heen selentiftealiy deslaned to exactiy fit the requirporents of the particular set for which they are listed．Wach comploment unit is of the hubhent gually．Thewe kils are poistr－reducing god


FOR 異CA－VICTOR EETS
A complite
 all bands．Elimiaties miterfening ighat pickup on B3384．NET
\＄232
FOR GENTEAL HHETREC BETS
Scientificully deniphod for dym dublet af tenna．Fully asselublut．ready for immedtare
 bent uniform recebtion derformance in ali bends 83385

## NET．

$\$ 2.32$
FOR ALE ENEPET BET雷
A coralitute high－urade aerial devinded for Jncreases signal otrenuth on thote raves De rresses noise．Fully assembled．（o1


## KNIGHT LOW．COST

## UNIVERSAL ANTENNA KIT

A imimplete kit of eswential parts．Enables you to reme the mosit efficletht the of antura for
 ＂Jhuhbe－D．

 sian mikub an aby tsue of radio recriver． ＇altintlaily recomnended for use with jaight erwfors．

## ETT CONSISTE OF：

100 ft．coil stranded aerial wire： 50 ft．coll rubber－ceverod twisted transtmission line；Porce－ lain crossover block； 4 glast insulators； $2-6^{\prime \prime}$ orew eyes；Doublet type lightning arrestor ；bou－ coupler；complete instructions．
B3380．

## TUBULAR STEEL MASTS

Sturdy，nest－appuaring．Weatherproof getlal supports．Made of substantial sitel tubing，combining stremgth with ehumel．Each section is $31 / 2$ feet long． liase fittings are adjustable to ht amy roof angle．Additional sections may be atded 10 inctease heighl．Low in irice．Ewential for neat installat cions．Change over those unsithtty aetial installations with these neat


A doulhe－putpore insulator which hulils antenna tight by litedite of a hesty slifing．Mas lee uscol with any antema．

7 c


BII297．YOUR PRICE

## qutumomy

TENSION INSULATOR

## LIGHTNING ARRESTERS

becaume of channeled constiuction．Case－ hardened screw．Cad－ miuni plated． 36508．Lots of 10.46 c I00 Lots．$\$ 4.50$ ．
EACH．．．．．．．．．

## CRIPPER CROUND CEEMP

 This beaby－duty ciam mas be ustd on ang in ore or rod top to lin＇in diamuter，lolmed screw asmires jusitive contact through palat or rust．
B3599 EACH 0 lots $3 c$

KNOC－OUT GROUND CLAMP
An etticlent and easily at－ tached clatup which makes sure contact．
B3429．Per 10．35c
NET EACH ．．．．．．． 48
AERIAL CONNTETOR
$/ 7 / 4)$ and leading caliles in eithet auto or hone
 B342I．EA．S 5


## Sadule type in－ulated staples．Stuidy，tutable． and very luserul．1＋acked 100 to the buax． <br> P3975．of $100 \ldots$（1） Per 1000 （ 10 Bexes）． 95 c

DOUBLE．WINDOW EEAD－IN Designted for use with any two． wite lead－in．or transmishion tine． Conliflefiry fisulufed：Whit surew terminals： $12^{\prime \prime}$ long．
B6I98．YOUR PRICE． 3

## 

AERHA SPRING ADJUSTER
Prevents arremaa sag．Puwerful． conpyression type rust－proof spting． With poreetain inctlator end rings． Esperislly subied for donblet type antenna to prevent spaying．
83419
YOUR PRICE
29c

## ofwnewneo

SPRING AERIAE
Estmerially thealtalule where space is linited．kiasy to erert．Is non－ direct tonal．Srrereh of 15 to 30 ft ． Nith 140
83433.
YOUR PRICE
$11 c$

## WINDON LIAD－IN

Fits berween sas b and sill． Fhensinsklated brald B3428． 16 inch．
NET EACH
12 inch．
5c
83427.
Per 100， 52.85.

NET EACH 4 C


ELECTROSTATICARRESTER
Combination lishtning and atsete arrester．Incorturates choke coll and condenser actinu as noise and static reducer and fllter．Allords maximum protection asainst tire hezard．
B5533．List $\$ 1.00$ ． YOUR PRICE

43 C


APPROVED PORCELAIN ARRESTER
A high wrade dejendable air gap tye firestlar．Porcelain construc ton．An inusial talue．
83425.
${ }^{12}$ FOR 7 万C．EACH．．．．．．7C


NEW DOUBLET ARRESTER
Two arregtes combined in one single unit．May be used indoors or outhours for any two－wire leat－ or trensmiscion line．Blat porcetain case；Weat Wpinht 1 lb．
B5549．YOUR PRICE


BABT BAKELITE ARRESTER
Alsolutely dependable，saft tion．Exerumely compact to fit smy tion．Extremely compact to fit any writers：Laboratories．Ghes anup profection． B6199． 10 FOR 80 c 100 FOR $\$ 7.25$ ．EACH

9 c


Underwriters＊approued．Fiftelently proterts against dishrning hazard Also improws reception lig rujucliag struction． －3420
83420.

YOUA PRICE EACH
$25 c$


A new improved type lishoning ar rester that will prozite posit ive pro－ ection．Ahcolutely asures atainst lirngerous statice discharges．Diplex sny for use rith loubirt aerials．or Acruy Haty be lilntalled Indoorc or outcoors B3432．
NET

## AERIALS - AERIAL ELIMINATORS

## TACO ALL-WAVE AERIALS

 MODEL 210 DE LUXE SELF-SELECTINGA new self-belecting allgad merchanicesty designet ta runder hivluyt possible etticiunner. The use of dial prcision-built transfortaty asitres pertect matehing to any Itroalleant. Nhore - Wate of All-Wave receiner. Ein tirely ellminates interfer mute. and prorldes maxi noisy locatinns. A erja lefigh ls only bil reet. consists of: 1 -Antenna Tranmformer: 1-Recelper Tranistormer: 2-30 foot colls siranded geria Wire: 75 foot weather-proof trankinisuinn cable, all factory-assenbled and and contplete installatlon instruction. shipg. wi.. 4 lb. B7904. List, \$6.75. YOUR PRICE

MODEL 510 STANDARD ALL-WAVE AERLAE
This high quality. factory-asxembled antenna in desiform to eliminate Interference on the broadcast band and all short ware bands. Matches all sefs and newides altater sicnal-to-nois ratio in sny location. conSints of 1-interina Transfornier; I-Set Transformer: 2 - 30 foot coils siranded atilat wire; and 60 loot transinission cable, all comuletels assemblitd at fartory and ready for Inviallation: YOUR PRICE List, $\$ 4.50$

## MODEL 400 JUNEOR ALL-WAVE AERHAL

 prove the olntration of 1-sel Tranafortur: 2-3n foot colls stramdeil atrial mire-all factory
 B7900. List, $\$ 3.75$. YOUR PRICE

## MASTER AERIAL FOR HOTELS, ETC.

A multiple antenna ssstem for Hotels. Apartment Builihngs. etc. Sclentlifally desifited to trowlde noke-free recempion to as many as 25 re:
 $1-22$ foot coll of $i \times 20$ tinned couper aerial wire; $1-$ Trinster unit: $1-35$ foot icol teamsinisson line: $2-7$ ineh insulators; $2 \rightarrow$ orsin insulators.

List. $\$ 6.00$. NET
6353
B7908, TYPE 302 RECEIVER COUPLER. FOr exjosed Wirint,
 cahne One rexiuired tor each
$\$ 1.47$


## DK TIFBTIME ASRIATS

 crease welectsity ond reduce interierence Wifucially sultable for successiful short tave terypton, Convenient form makis installation eass
 rinks, Ansembled with two porrelain. in

No. ${ }^{6}$
B9135. Length, 50 ft .6 apacer rings. Contains 250 ft. wirs. Yous. Wt. 4 lbs.
YOUR
PRIGE
\$2,79
B9137. Lenoth, 20 ft .5 apacer rings. Contalin 100 ft . wire. YOUR ${ }^{\text {Yipt.. }} 2$ libs. PRICE
\$175


## No. 46 DOUBLET SYSTEM

A new doublut type cage autenna derigned for nolse-tree Short-Wave reception. Ideal for ube with any All-Wave or Broadcast set. Conpair tead-1n. Each cage has 3 sombertely asmenibled with 25 Nhould be used Fith an All-Wave Coupler for maximum emiency. Weight. fibs
BeI38. YOUR SPEGIAL PRICE...............................
\$359

## No. 25 DOUBLET SYSTEM

A noise-reducing aerial for use with all-wate receivers where space is $2 t$ a premium, Only 10 feet long. Each 5 foot cage contains 25 it of wire, connected to 25 ft . of 1 wisted pair weather-proot includes 4 antenna inmalators and instructions.
B9139. YOUR SPECIAL PRICE
S1. 53
B9140, NO. 50 OOUBLET SYSTEM. Same as above
S1.91

TOBE WINDOW POLE ANTENNA FITS ANY WINDOW PROVIDES FINE SIGNAL PICKUP Drwarned espectially for radio set installations in hew antenna provides pickuy far sumerior to dinary induor antial. a atd easily ontrachanl wintinw sill or frame. to alis a full elght feet from the buils Ing. fitend for temporary use renuifes no lewls 10 formil. Ilas


## DUAL POATREN NOUNTENG BRAOETT

## 

 zonial ingtaliation. Antenna rod is drawn steel in threw lemountable able ior lise hy tourists. tratelers. tic.. Drotidng perfect lectition fiom fastener: lise sumb-nibler insulator. Finished in neat iajan biach 810482 List. \$1.95.

DOUBLE-TUNED AEREAI ELIMENATOR

fully iscareunls thesigred
mill beld to incretiate the selectivity of anctivity of ldeal for AC. DC sets to inand distance reception. Compart and efficient : elim. mates noises. Easy to install. Has morable arms to match impedance of receiver.
$\because 15$ List. $\$ 1.00$

NET..
2


AERIALELIMINATOR and ANTPNMA THNER

This new device operates an neise reducer Fhen used with an outside atrial. May alko be usd by Itself as an Indoor aerial. Easily inslalled; works with any receiver: rolume on weak btationt. rolume on wesk stationt.
BS5S 4 List, $\$ 1.00$.
YOUR PREE.

## MEISSNER DUAL UNH-

 VERSAL WAVETRAP Tunes out unWanted. interferimp
stations on bot staions on both
$B C$ and If chanbels at the sathe $t$ in e. Ellminates blanketing by
bowerful local bowerrut local tions. Einds inter. ton trom wode tlons. Ranges are tong wabe sta KC. and took kit tor kit Dual control. Extrentety sharp tuning: KC of are not noticesbly at


## RCA UNIVERSAL WAVE TRAP



DYNATROL FILTER and INDOOR ANTENNA
Combination indoor nertal and line nolse filter, louge into ilem lar aerial to gain increasod niekup. Reducer maive and improves set wensiltrity. llighly efteimit. B5518. YOUR PR $83^{\circ}$

## NOISE-REJECTING

 TACO SET COUPLER arlable larmbla erna-matchlus dif. Desigmed accurate match ofturen maten antema lranf mIs ion line circuit of any radio set. vuleks and easils adjusted by means of top knob. With wire leads tor set connection: scrow terminals for anunas lead-in. llonsed in dinstroof elunifinmi case with mount-


## RECEIVER MATCEIINO TRANSTORMER

4 rompget and well-made unit tor matrintne the transmission line of and doublet aeria] to ans AllWabe or shont ware recelvtr. Provides a rery eatiwith transmisuion line to eliminate nole amil increace stinal strength on all bands. Has changeorer stitih for all band operation. Will give very efectise results in iticressed sensitivity and reater sikial tickzip
85545. List, \$1.50. YOUR PRICE. © C


## BELDEN MAGNET WIRE

llighest made soft-diawn ropper wire, uniformly insulated. Hach sool is one conlinuolk leneth, unitornily drawn On convtriont sinall-sized metal speols. Absolutely the finest ghallty maznet wire you can buy.

| PLAIN ENAMETLED |  |  |  | DotsL |  | cotton |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | \%/2 | LB. | SPOOLS |  |
| - ${ }_{\text {No. }}$ | Size | Feer | NET | No. | Slze | Frat | NET |
|  | 15 | 3 | \$0.34 | 83950 | 18 | 96 | 50.41 |
| $\begin{aligned} & \text { B3900 } \\ & \mathbf{B} 3901 \end{aligned}$ | 18 | 63 | .34 | 8395 | 20 | 150 | . 44 |
| $83902$ | 18 | 101 | .34 | B3952 | 22 | 235 | 48 |
| $\begin{aligned} & 83903 \\ & 83904 \end{aligned}$ | 20 | 160 | . 34 | 83953 | 24 | 382 | 56 |
|  | 2.2 | 25: | . 34 | 83954 | 23 | Yaf |  |
| 83905839068390733908 | $\cdots$ | 402 | . 36 | 83955 | 28 | $8+0$ | 8 |
|  | 24 | 646 | .41 | 83956 | 30 | 1521 | 93 |
|  | 怱 | 1013 | .44 | 83957 | 32 | 1930 | 13 |
|  | 30 | 1010 | .49 | 83958 | 34 | 2-40 | 41 |
| $\begin{aligned} & 83909^{1 / 4} \\ & 83910 \\ & 83911 \\ & 83912 \\ & 83913 \end{aligned}$ | LB. | SPOOLS |  | 1/4 | LB. | SPOOLS |  |
|  | 38 | 1275 | .34 | 83959 | 9\% | 4311 | 46 |
|  | 34 | 203: ${ }^{\text {a }}$ | .41 | 83960 | 30 | 1:64 | 49 |
|  | 314 | 220 | 49 | 83961 | 32 | 90.5 | 63 |
|  | 3* | 5120 | .65 | 83962 | 34 | 1373 | 7 |
|  | 40 | 8140 | . 90 | 83963 | 36 | 1675 | 98 |
|  |  |  | 10U1 |  |  |  |  |
| No. 1/2 L | LB. | SPOOLS |  | $1 / 4$ | LB. | SPOOLS |  |
| No. | Size | Fut | NET | No. | Size | Fict | NET |
| B3980 | 18 | 106 | SO. 58 | 83987 | 24 | 1!16 | 30.41 |
| 83981 | $\stackrel{1}{2}$ | 166 | . 60 | 83988 | 26 | 310 | . 49 |
| 3982 | 2 | 25.2 | .67 | 83989 | 28 | 450 | 58 |
| 3983 | 24 | 315 | . 77 | 83990 | 30 | 775 | 65 |
| 83984 | 26 | 620 | 90 | 83291 | 32 | 1217 | 83 |
| B3985 | 28 | 080 | .02 | 83992 | 34 | 1285 | . 14 |
| 83986 | 30 | 1 วิu | 1.19 | 83993 | 36 | 2685 | 1.56 |

## CELANESE-WRAPPED PUSH-BACK WIRE

## No. 20 Solid

Belden RADIO PRODUCTS

RUBBER-COVERED
MULTIPLE CABLE
indi wrade. tubbet-covered multi condlletor calde. Individual conwrappud and an orerenl jack of heasy, tlexible rubber.
82390. 2 Conductor

8239 2.95. PER FOOT. $31 / 2 \mathrm{E}$ 8239 I
100 Ft . $\$ 3.52$. PER FOR FOOT
$3239 \mathbf{n}^{\$ 3.52 \text {. PER FOOT.... } 4 \mathrm{c}}$ $B 2392$
100 Ft. 42 Conductor, PER FOO $\mathrm{B2} 293 \mathrm{~S}$
100 Ft . $\$ 5.40$. PER FOOT, $61 / 2 \mathrm{C}$

## SHIELDED CRYSTAL "MIRE" CABLE

Tinned conjer (18x'sís condur. tor. sixsulation: finned con oer shielding: ribher-jackpt oritall
SINGLE CONDUCTOR 32470. 26 Mmf per foot 00 Feet $\$ 4.66$. PER FOOT 2471 CONDUCTOR 100 Feet $\$ 7.69$.
PER FOOT. $\qquad$ $9 c$


SHIELDED RUBBER COVERED CABLE
Exiremely ligh-ertadr widtinte conductor, shimelded, rubber-covered elc. For indimer or outtioor use. No. Cond. PerFt. 100 Ft . $\begin{array}{cccc}\text { No. } & \text { Cond. Per Ft. } & 100 \mathrm{Ft} \\ 82462 & 2 & 5 / \mathrm{c} & s 4.74 \\ 82439 & 3 & 61 / 2 \mathrm{c} & 5.40 \\ 82464 & 4 & 8 \mathrm{c} & 6.62 \\ 82465 & 5 & 10 \mathrm{c} & 8.35 \\ 82469 & 6 & 16 & 9.24\end{array}$ $\begin{array}{lllr}82465 & 5 & 10 \mathrm{c} & 8.35 \\ 82466 & 6 & 12 \mathrm{c} & 9.24 \\ 32467 & 7 & 10.47\end{array}$ An unto of hookuy wire for radio purimese. Conduc tor is soid number
tinned copser. fush back insulation is crlanese. covcolored cotion hraid of fout spools No. Color $\begin{array}{lll}\text { No. } & \text { Color } & \text { NET } \\ \text { B2450 } & \text { Red } & \text { EACH } \\ \text { B245: } & \text { Blue } & \text { Green } \\ \text { B2452 } & \text { Black } & \\ \text { B2453 } & \\ \text { B2454 } & \text { Yellow } & \end{array}$

## No. 20 stranded

Same hish grade insulation as a hove bue conductor is 10 strand of number 30 tinned copper wire

| No. | Color | NET |
| :--- | :--- | :--- |
| B2465 | Red | EACH |
| B2456 | Blue | Green |
| B2457 | Black | S |
| B2458 | Yellow |  |

No. 14 Stranden Sumilar to above sigat makes it idrai for use in the lilament circuits of
multitube recticers, multi-tube receivers, trancmitte and wower amplitiers Sumbers conductor is made up of 41 strands B2480 25 fonger wir PIat HET foot spool, Blatk. NET "...........
B246I, 25 foot spol. 44 44 c Red. NET


## All-Rubber Cord Sets

 The modern safe enrd for re Hackment on lamis. radios. ele.Small wnft rubler wlig and brown Small wift rubler wing and brown
No-Fray cord. iK ft. approsed No-Fray cond. $i \frac{1}{2} \mathrm{ft}$ approbed
cord. cord.
B 2447 . EACH....... 238
PER 10. 82448. Same as sbove but

## COMMUNICATING SYSTEM CABLES

Twisted pair cables experially destimed for inter-communication syctems. Conductors arm No. 20 stranded; celanese and cotton-wrapjed


## BELDEN AUTOMATIC

 FREQUENCY SELECTING ANTENNA SYSTEMS No. 8907 DOUBLET TYPEA radieally new appllcation of the-provedi principles. The Iheliden International Couplers and 72 ohm Trannmision line have been espe of recention on losh the brosdeast and short-ware hands. The tis prove hiat not onty ara better roulds aik twined hat thet noive plek-ull is Jiractirally eltminated, Antenna

 ing sighals. and the sustion is funed by the receiver itself. Complete




## Ne. S9O1 DOUBLE DOUBLET SYSTEM

The Bedcen No. Stini brable Doublet Antenna Sysirm is similat to but even more edneient than the 0 . Sime antenns described abost, by kit conslists of: $2-30 \%$ foot and $=-19$ inot colls $7 \times 22$ stranded herial wire, $i 5$ font transmiswion line. $2: 5$ foot ground wire. 1 -each. Abiomatle Antenna ant Recetver Couslers; hardware. efc. Completo B2405. List.

No. B9IL STANDARD ALL-WAVE SYSTEM
The Belden Dotuble-Douhlet has lonz bewn the choice of exjeerts for maximum sisnal strencth and grontest noise redisction. 1desal tor hroad-
 sulators, rectiver coupler, function block staples, nail hnobs, sround



## EEIELDED

Heary rubber insulalion over stratided con-
ductor. Oxerall shleld of tinned brationd conIdeal for sh
in use.
N 0
B 242
82427
82428
82429
824

$$
\begin{aligned}
& \text { Length } \\
& 50 \mathrm{ft} .
\end{aligned}
$$

$$
\begin{gathered}
\text { NET } \\
\$ 1.5!
\end{gathered}
$$

MATCEED 1MPEDANCE TWISTEDPAIR LEAD-IN


72 ohm twisted pair transnifs sion line. Two No 19 coniluc. ber and weatherproof outer braid. Deazoned to match most all- Foy antennas and recelvers. $S$ B2324. i5 Foot Coil
B2328. 500 Foot Coll. . 55.97

## COMPERCLAL TEP药 THISTED PAR

93 ohm virge trapedance. Two No. 22 (7x30) tinned condurtors with orerall watlerifoof bialid
covering: color-cuded rulbter and covering: color-cuded rubber ath 82326.75 Foot Coil. 979 B2327. 500 Foot Coil.. $\$ 5.69$

## TRANSMITTING PYPE

## T VISTED PAIR

72 ohm line desitned for transmitiond use. Two No. 12 conducwaits output. Weatheritoof insil. lation overall.
B2328. 100 Ft. Coll. 3.76

## AERIAL WIRE BELDENAMEL

 the wire from mospulure from corrosion and at

> 7822 FNAMIIED
 B24 ${ }^{100} \mathrm{Nt}$. 61e
 B24
List. 510.25.
In

## 7플 TNAMELED

 82416.1000 ft.
List, $\$ 20.00$. NET. 1 . 7 ? 3OLID INAMHESD


## BAEELITE ARRESTER

 positivo protertinn. Surdy and romptet. liakilite borly sultable B2403 10 to $\$ 140$ $\mathrm{B2} 20$EACH
$15 c$


DOUBLET ARRESTER
For conplete protection with any domblet arituna system. to mount anywhere. 218

# AERIAL WIRE AND EQUIPMENT 

SPECIAL VALUE AERIAL KITS


## DE LUXE AERIAL KIT

 An excuptonally the kit. Whll ims prove rect lisoli of any ratio set. con wite: in feet of rubher- [oveterl lendi-in wire; 25 feet of ground wire: 4-porcebain insulators: 2 - wrew-eve insulators t-hishtning arrmiter: 1-window leadIn strib: 1-adjustable wround clamp. Fawin installad in ang lawation by fol lowing the complete, eass instrictionspartid with exth kit, partivd with each kit. Nhuti, wi., 6 lhe. B3486


## STANDARD AERIAL KIT


 gire: winlow lead-in stria: two tolcelain insulaters; tho gail khods and an arljuspable atrap-type kroming remp. conveniartly lomath. com phite instructions are included. Shimung wi.. 4 liss 83485
YOUR SPECIAL PRICE.

## ALL-PURPOSE RUBBER COVERED LEAD-IN WIRE



Stranded Wire siramiced Mo, 18 fubFilexible and alas to




## Solid Wire

Hiph ubbber quality So. 16 wire. Weathed leadion $\begin{array}{ll}\mathrm{No} \\ 3475 & \mathrm{Ft} \\ \mathrm{g}, ~ f o r ~ E A C H\end{array}$

|  | Ft. | 10 for |  |
| :---: | :---: | :---: | :---: |
| 33475 |  | $\$ 1: 14$ |  |
|  |  |  |  |
| 3467 |  | 10.65 |  |

## WEATHERPROOF TWISTED PAIR LEAD-IN

For use as low-impedance transnilssion lline with nuiserterhuritaz atrials. Two stranded cobler con ducturs, rubber covered. larai ined braid over all.
B2434. 50 ft , coils. NET EACH B2432. 100 t. colls. HET EACH B2437 250 COIL NET EACH $\mathbf{\$ 2 . 3 5}$



## COMBINATION LEAD-IN AND AERIAL WIRE

## RUBBER TWISTED

 PAIR LEAD-INFor all noise-reducing aeriel systems emplovint douthet or doume-doublat anceane black rub metance No. 20 twisted black rub dinlons. 50 ft NET. 45 B3488. 50 th NET. $45 s$ B3489. 100 ft YOUR NET PRIGE.... SBe B349 I. $250 \mathrm{ft} . \$ 210$
YOUR NET PRICE.

##  <br> FLEXIBLE INDOOR ANTENNA WIRE

$3 a^{10}$ coulater wire, i sulated with Gutia lerrelia. Free-
 seft hookill.

| No. | Length | NET |
| :---: | :---: | :---: |
| B3471 | 25 tr . | \$0.13 |
| B3470 | 50 ft . | . 25 |
| B3469 | 10 fi ft . | 48 |
| B3466 | 250 \% | 1.18 |
| 83468 | 10 нil t? | 4.65 |

For A.C.-D.C and nidiget sets. stoisture-broof bromn cotton coser ing Biay be inconspintiously inintilled
B3483. 100 Fett...... $45^{e}$
25 Feet.................... $15 e$

## AERIAL WIRE VALUES

Exceptionalty higl-qualily hard-drawn copper wire. Hus hiph conduetivity and reT litile siftelis. En-al for all types will not corrome. lenal for all types of zutials: single wire doulslet, or case-tyle, for All-Wave. Shot-Ware, ir bruadenst whts. Servicenten: take attantage of these low pr
vant $n+i$ lal
wire
jrofit.
STRANDED ENAMELED
7 STRANDS No. 22
Fixrerlethe for All-Wave aerial B3444. 50 ft . EACH... 258
10 for $\mathbf{\$ 2} .38$. EACH B3445. 100 ft . 10 for $\$ 4.60$. 49 ( B3446. 200 ft.
10 for $\$ 920$. EACH... 958

7 STRANDS No. 36
B3447, 50 ft. EACH 148 B3448. 100 ft .
10 for $\$ 2.40$. EACH.... 868


7 STRANDS No. 3*
teavedart wite tor lmun di
B3434. 50 ft.
YOUR PRICE
E3441. 100 it
$47 c$
YOUR PRICE ............. 92t B3442. 200 ft . \$1.30

## SOLID ENAMELED

Hatd-diviwn solid enameled copper wire for $x$-miting and recelving.

| N | aug | 10, |  |
| :---: | :---: | :---: | :---: |
| 83450 | $\begin{aligned} & 111 \\ & 117 \end{aligned}$ | ${ }^{101010}$ | \$0.93 |
| 83452 | 10 | 5010 | 4.20 |
| B3453 | 12 | $100^{\prime}$ |  |
| 83454 | 12 | $200{ }^{\circ}$ | 1.10 |
| B3455 | 14 | 1010 | .41 |
| E3456 | 14 | $200{ }^{\circ}$ | 75 |

## WIRE FOR PARM <br> POWER PLANTS

Weathernroof sinsle conductor wire tor use with W'intcharker or Fartn frower plants solid copper conductor: tifile cotton-cotered and iniprepmated. For battery chariaing. Use wirte as folluws: A - distance of 75 feet from charge to baftery. use No. 6: at 50 feet. use No. 8; at 25 fett, use Ne. 10 : gle 6 volt 25 waft lamo: 150 feet gle ${ }^{\text {frem battery, watt tamo } 8 \text { : } 75 \text { foet }}$ Here No 10: 50 teet 1 30 teet or less, use No. 14 .
Ne. Size 100 Ft. Per Ft.

| 82490 | 6 | $\$ 5.25$ | $51 / 2$ |
| :--- | ---: | ---: | :--- |
| 82491 | 8 | 4.50 | 5 c |
| 32492 | 10 | 3.10 | $31 / 2$ |
| $B 2493$ | 12 | 2.65 | 3 c | $\begin{array}{llll}82496 & 14 & 2.65 & 3 c \\ 8.25 & 11 / 2 c\end{array}$



TWISTED LAMP CORD
apmoved in lie thta-r wititers with black coten hericl. For extension or A.C. line cords
83592 . Per foot.
NET
$2 c$
B3593. Per 100 Ft.
NET
E1.............. $\mathbf{S 5}$


CORD SET
Tifte cordf for une of A light peade
 with mbler thus. PRICE. 1 GO
B3498. YOUR PR


STRANDED BARE

## $78 T \mathrm{ANDSNO}$

andard size for all aerials. 83435.50 tt.
10 tor 5 I .90 . EACH . 240 R3436. 100 ft . 3 ? 10 for $\$ 3.65$. EACH.3 3 10 oro 57.25.

75 TRANDS No. 36 an excellent bus in tinn wire. B3438. 54 ft EACH. 178 B3.439. 100 ft . 278 10 for $\$ 2.09$. EACH..
83440.200 ft . 10 for $\$ 3.80$. EACH 40 C

7 STRANDs No. $2 *$
feaws wire fus adderd stragth.
 83473.100 ft .
10 for $\$ 6.65$. EACH. 8 . 83474.
10 for $\$ 13.10 . ~ E A C H . ~$ . 32

## PHOSPHOR BRONZE

Atrongist aetial wire. llas likel contuctivity; non-stretching. Used commercialis on shifs.

| No. | Slye | Ft . | NETEA. |
| :---: | :---: | :---: | :---: |
| R3460 | 7x22 | 100 | SI.10 |
| B3461 | 7x29 | 2010 | 2.15 |
| 83462 | 7x94 | 100 | 75 |
| 83463 | $7 \times 24$ | 200 | 1.45 |
| 83464 | 7×26 | 1 140) | 60 |
| 83465 | $7 \times 26$ | 2 KiO | 1.15 |

## HANDYCORD

## LAMP CORD

1tulbbel-jneketed flexible cord: eath comblimtor is No. 18 stamded coppre wine, sejatalely insinbated down center mhen pulled abart. own centry when pulted apart. Q3410. Brown. PER FOOT $\begin{array}{llll}834 & 2 . & \text { Black. } \\ \text { B34 } & \text { White. } & \frac{1}{2}(s)\end{array}$ B34il. lvory.
B34i4. Green.
PER IGO FEET......

## 

## AUBEER SERVICE CORD

kound flexible Weat her proof abli So. 18 (hi/zin sianded ered and rutetl. with motion wrajfing and outar live rubler shealh.
B2435. 2 COND.
100 FT. \$2.95. PER FT.. $3 \frac{1}{2}$. 100 FT. \$3.75. PER FT... 48

## TBST- LJAD MIRE

Fixtra-flexible No. 18 tmi ltad oirct Inleal for rembrimg Wobment tent-brod lends ot ror naking nf wo matiment maxle of 4 wire, bilh waved cutton wrapitr coverivl by $1 /$ sit wall of rubler 82385. RED. B2386. BLACK. 5 FOOT COILS. EACH .... (b) 82387. REO.

B2388. BLACK
$1 \frac{1}{2} \mathrm{c}$

## 102

## HOOKUP \& MAGNET WIRE-CABLES



## SINGLE COTTON ENAMELED MAGNET WIRE

An exceptionally hisin-grade mareasy handing. foton wrap over enamel gives adequate insulation. Each spood holds one rontinuous, uniforml 3/ LB. SPOOLS $\mid$ LB. SPOOLS

| 3/ LE. SPOOLS. |  |  |  | 8. SPOOLS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Ft. | NET | Slize | N*. | Ft. | NET |
| 83354 | 39 | \$0.23 | 14 | B3367 | 78 | 50.41 |
| 83355 | 49 | -24 | 15 | 8336 | 98 | . 42 |
| -3358 | 62 | . 25 | 16 | 83369 | 124 | . 43 |
| E3354 | 78 | . 26 | 17 | B3370 | 156 | 44 |
| 355 | 98 | . 27 | 18 | 83371 | 198 | 4 |
| 3350 | 124 | . 28 | 19 | 83372 | 248 | 9 |
| 3360 | 158 | . 29 | 20 | 83373 | 312 | 52 |
| B3361 | 196 | . 30 | 21 | 83374 | 392 | 55 |
| B3362 | 245 | . 31 | 22 | 83375 | 490 | . 59 |
| 83363 | 386 | . 35 | 24 | 83376 | 772 | . 67 |
| B3364 | 468 | . 38 | 25 | 83377 | 936 | 70 |
| B3365 | 605 | . 41 | 26 | 83378 | 1209 | 7 |
| B3366 | 938 | . 46 | 28 | B3379 | 1876 | . 39 |

HIGH GRADE MAGNET WIRE ON SPOOLS
Insulated copper wire of highest qually for all radio and electrical purposes. Wround on spoots in continutus lenghs, Exceilent for winting armatures and field cols,
recterer and transmiter colls, rewinding powe transformers and chokes. For shops, schonls, lahoretorles, etc. Standard B. \& S, Gauge. We can supnly mame wire in schools. laboretorles. etc, sizandard $B$, and trpes of insulation in larger quantities than listed betow wire in atractive prices which will save sou money on quantity purchases of magnet wire

PLAN ENAMELED

| No. | Stie | Ft. | NET |
| :---: | :---: | :---: | :---: |
| 8350 | 14 | 38 | \$0.20 |
| B3522 | 16 | 63 | . 23 |
| B3522 | 18 | 101 | . 26 |
| 83523 <br> 83524 |  | $\begin{array}{r}159 \\ 25 \\ \hline\end{array}$ | . 28 |
| $\begin{aligned} & \text { B } 3524 \\ & \text { B } 3525 \end{aligned}$ | 24 | 4 | . 38 |
| B3526 | 26 | 640 | . 32 |
| 83527 | 28 | 1013 | . 35 |
| B 3528 | 30 | 1602 | . 38 |
| 83529 | 32 | 2543 | . 41 |
| 83530 83512 | 36 | 4012 | . 56 |

DOUBLE COTTON

|  |  |  | NET |
| :---: | :---: | :---: | :---: |
| 8353 | 14 | 36 | \$0.25 |
| 83534 | 16 | 81 | . 27 |
| 83535 | 18 | 96 | . 36 |
| B3536 | 20 | 150 | .33 |
| 83537 | 22 | 234 | . 36 |
| 83538 | 24 | 362 | . 43 |
| ${ }^{8} 3539$ | 26 | 558 | . 52 |
| B3540 | 28 | 842 | . 71 |
| E3541 | 30 | ${ }_{1889}^{1321}$ | .70 |
| E3543 | 34 | 2746 | 1.14 |
| 83544 | 36 | 3801 | 1.40 |

DOUBLE SILE

| No. | Stze | Fr. | NET |
| :---: | :---: | :---: | :---: |
| B3546 | 18 | 49 | \$0.26 |
| B3547 | 20 |  | . 29 |
| 83558 | 22 | 126 | 31 |
| 83549 | 24 | 198 | . 34 |
| 83550 | 26 | 310 | .39 |
| E3551 | 28 | 486 | . 48 |
| B3552 | 30 | 775 | . 55 |
| 83553 | 32 | 1207 | 72 |
| 83554 | 34 | 1828 | 1.17 |
| E3555 | 36 | 2688 | 1.41 |
| 83556 | 38 | 3875 | 1.68 |
| 83557 | 40 | 5325 | . 25 |

## CABLES FOR EVERY PURPOSE

## CRYSTAL MTCRO. PHONE CABLE

shiplded. rubber-jacketed cable Condactor is of line stranded copiet: exiremely fexihe. Arailabia

ductor. Low-lase.
Single Conductor E2499. 100 Ft . ....... $\$ 3.70$ PER
bouble conductor 82498. 100 Ft. ........ 36.40 PER .75

## 

## TELDPEONE WIRE

For teleyhone and mulipie to. 10 solld timnet copper. Has is.. rublter insulation with glazed coiton braid overall.
C2494. 2 Conductor.
$\begin{array}{lll}100 \mathrm{Ft} & 500 \mathrm{Ft}_{.} & 1000 \mathrm{Ft} \\ \$ 1.70 & \$ 8.10 & \$ 15.40\end{array}$ B2495. 3 Conductor. $\$ 2.15 \quad 310.15 \quad \$ 19.40$

## BATTERY CABLES

Well-minde, For battery, speakton braid orerall.

## No. <br> $41 / 2$ Foot Cables <br> 329 <br> 32904

## IIEADPEONE AND SPEAEER CORDS



Copper tinsel inner conductor corered with closels-wwen cotton Flexible and long-wearing.

## SINELE CORDS

82932 . 4 foot cord. Tips on speakers.
82933.

4 toat cord. Tips on both ends. $\qquad$ …........ 8 10 for 75 c . 100 for $\$ 7.15$. DOUREE CORDS
82934 . Spades on one end. Tips in other. 5 foot cord. B2935.
foot cord.
I?

## MELTI-CONDUCTOR

## CABLES

High quality eable for slmost every indoor or outdoor requirement. Fach emnductor is No. 18. Color-coded; flexible.

##  <br> COTTON BRALI OVERALL

No. 18 stranded conductors. each covered cotith rubher sacker winy brown cotion bradid orer all
lenzth.
PETY
10 OVERALL
Thahtly wosen orerall shielding of Ane tinned conper wire. Fach is ruliber jacket. Any length.


## TXTENSION CORDS

Flexibte brald.cosered cords for ase with expuncion sireakerc, etc B5555. 20 Ft. Cort. YOUR PRICE ......... B5556. 30 Ft. Cord. YOUR PRICE .......... B5557. 50 Fi. Cord.
YOUR PRICE

| lenath. | Cond. | Per 10 Feet | $\begin{aligned} & \text { NETY } \\ & 100 \mathrm{Ft} . \end{aligned}$ | 83560. Hack. 83561: 2ellow. | PER ROLL |
| :---: | :---: | :---: | :---: | :---: | :---: |
| B3500 | 2 | 18 c | \$1.45 | 83562. Red. |  |
| 83501 | 3 | 256 | 2.25 | 4. Bfue. |  |
| B3502 | 4 | 32 c | 3.00 | 10 FOR 99 c . |  |
| 83503 | 5 | 41 c | 3.65 |  |  |
| B3604 | 6 | 46 c | 4.25 | I* Fost | 18 |
| B350 | 7 | 526 |  | 65. Black |  |
| W60\% |  |  |  | B3566. इellor. B3567. Red. |  |
|  | - |  | $4=1$ | 83568. Greer. |  |
| WOVIN SPITILDING |  |  |  | 10 FOR 53.55. |  |

32c highest quality. Only evende-drawn pure conper wire is used. Available in both solid and stranded wire. The standed wire is made up of careruty


## FIVE DIFFERENT COLORS

This mire is domberntion cowerel with paraftin treated damp-buoof trald which puabes thack easily Available in the distinctive colors. Cise a different color for each circuit for ready identification. Buy this hish quality hook-up wite in quantities at our
astractive tow prices.

## No. 20 SOLID

## 25 FOOT ROLL <br>  <br> <br> Ie FOOT ROLLS

 <br> <br> Ie FOOT ROLLS}
## 100 FOOT SPOOLS

Solld push back wire as described above in 1 uino ft. continu-
ous rolls in iny color listed. Specily color when ordering. 83570. $\qquad$ $\$ 3.35$

## Ne. I4 SOLID

35 FOOT ROLLS
High-roltake insulation. Ideal for transtnitters, power Hacks, etc. 82870 . Black.
 NET EACH
. $\$ 1.07$

## COPPER SIIRLDING

Tinned shlelding Very flexible. For use atc. Easily soldered. Dlam. Per Per

|  | Dlam. | Per |  |
| :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Open } \\ & \text { y } \end{aligned}$ |  |  |
|  | 吾 in. | 1.1 |  |
|  | 3, in. |  |  |
| 335 | 3 in . |  |  |

## 

JTeasily itmonenalmand weanur proefed. Fint shimbitik auto antenna fead-ins. cables. and grouped leads.


## PUSH-BACK HOOK-UP WIRE

This tuned push-back hook-up wire is of the

Ne. 20 STRANDED


I00 FOOT ROLIS


## Lee FOOT ROLLS

Stranded push-back hook-up wire in 1 wite ft. leneths Arallable in colors listed. Spectiy color wher B3590.
1000 FT . $\qquad$ $\$ 3.60$

## No. 18 SOLID

35 FOOT ROLLS
Heavier wire especially suited for use in filament circuits. etc. PER
 Grem.
3997. Rlue.
33999 Sllow. 100 FT. ROLLS. SPECIFY COLOR.

COLORED RUBBER HOOK-UP WIRE
Stranded linned No. 20 couper wire oded rubber insula
 out or crack. Apatiable in 5 different and distinctive colors. Use a differcat color to fdentily each ctrcuit.

## 25 FOOT COILS


83574. Mise
83575. Wlark
83 Fi6. White.
10 FOR 1.15. $\quad \rightarrow 2$

B3577. 1000 FT, ROLLS.
Spectity coior.
NET 1000 FT. ....... $\$ 4.20$

## AUTO RADIO ACCESSORIES

## LATEST AUTO RADIO AERIALS

CARFLO AUTO AERIAL ＂FITS ANY CAR TOP＂
in new terelopment in auto antennas．Abso－ lutely non－direcional design gives increased sig－ less noise．Constructed of one pirtit it semalion less noise．Constucted of one herti
drawn cobier tubing．Furnished in two types： hishly pulished chrominm finish，or polished copper finish which can he theo＇d to matoh car
color．Jeceiving area of antunns is equiraleut color．Jeceiving area of antenns is equiralent
to 50 feet of No． 16 aetial wirc．

## EASY TO INSTALI

Qutclily and easily insialled on any car lop． rubber vacuum cups astach artial securely，al－ thonith it may be readily reniones if desired． Guramline shape offers minimum of wibd re－
sintance．May be Iverl with any car talin for
 Bl0470．Polished Chromium
Finish．NET ．．．．．．．．．．．．．．．．．．．．．．．．． Finish．NET B1047I Polished Cogper Fin－
ish．Jay be duco＇d．NET．．．．．．．．．

## WARD AUTO AERIALS flexrod aerial

 Iliwijs entiotur．Fits door－hingeof any cear．Drawn from vanadium of any cat．Drawn from vinudium
stecl uith polished chrominm finish．
 insall；will increast the shat
whap and improve rechenion．Com－ plete with $3^{7}$ leadi－in and mount－ luy bracket．Wi．． 2 lbs．
B10383．
$\$ 2.06$
GFISTIOLE＂ATRTAT
Consists of flexible，telescouing 8 toot stetl iod with insulating brack－ e！anll lead－in wite．basily at tached to any rear bumber． plefe homation simal pickup with ignition syarem．Winh 12 foot leatl－



LONG－RANGE TWINS
A nex dual－section urilercar antenina whih stapal wickup equalling that of roof type aerials， Nealed in ruliber：alsolutely weather－preof，Has notided rubber bracket suppurtis．Movalbe brack： notied rubber bracket suppurts，sovalbe brack wis jermit thounting drifing boles．With $66^{\circ \prime}$ shlelded lexal－



## ＂TUR－RETTE＇AERIALS

An＂Over－the－Top＂alto amtenna designel for intalation on tuitet wha cart having wind－ ghtides that can be opemed（hlickly and rasids ment subplard with atrlal inesurs ilyid foslal． lation．Antrona is polithed chomium－plated atrel．mountent on minded standorf imeulators． Nont tilectional design permins maximum signal bieckily With 5 foot lead－in．Shyg．Wt．．3ng 810380.
YOUR PRIC
$\$ 2.50$


Fith ylek－ap auto aerial for installatlon un． dermeath cear from front in rear axiea，fithed with straps for qultok hasiallationg Rivo lime stlectistry and gidis plents of folume to somer allto sef．VI．．． 2 Is．
B9143．List．$\$ 1.50$ ．NET．
48 c


## ＂REDHEAD＂SENIOR AUTO ANTENNA

A scientifically desizned．welded，vibration－
 ficiency．Strong sinnal pickup with mininumin of completely insulated with an oftratl rubber con completely insulated with an ofelah rubber cov－
er，pritervroof and rum－resisting．basy to in． stam．No springs，wime ete．on ratie or loosen Ifas stt serew ronnection for antlema lead d－in． Length $46^{*}$ ：piditI $5^{\prime \prime}$

## EASILT ADJUSTABLE

Tha＂Rerlhearl＂Auto Antelna has mortuting orackets of malleable inn which are easily bent





 Shig．Wt． 7 Jbs． B10473．NET
\＄147

## I．C．A．AUTO AERIALS EAGLET TWIN

A modern doublet iype araximum signal pickup with less noise．Full trinle chromitum－plated for last－
ing beauty．Easily inctalled ing beauty．Easily invtalled
with rac＇umm cup montutites．
Fits all hetal top cars．
 B10475．
$\$ 2.50$ B 10476 ．For Cars with Permanently Closed Windshialds．
NET
\＄2．65

## TOBE ATYO－POLI

Corvists inf a telesconing iod with plefty assembled and can be at－ rached easily and instantly to the ear bumber hracket of any car． solated fom motor noisos；bas more effective simnal plekip．Fxtends 3 to
fe世t．Less liad－in wize． fiem less that－in NET

$$
\$ 1.73
$$

## R．C．A．AUTO ANTENNA



Hased on a fundamental frinciule which as－ sures maxinint results with any auto radio．

 B10483．RCA No．9605．No $\begin{array}{lll}\text { BIO483．RCA No．9605．} \\ \text { List．} \$ 2.60 . & \text { NET．．．．}\end{array}$


## KNIGHT AUTO RADIO SUPPRESSORS

Scurdy，efficient carbon type suppressors for use on any automobile engine．Heat－and moia－ ture－proof．Well－built to withstand constant tibration．Resistance element enclosed in pol－ ished bakelite case except Fig．D Which is new type for furd

86990．A．Spark Piug Type．
B699．
B6991：C．Distributor
B6992．C．Cable Type．
B6994．E．Shert Buick Type．


B6995．D．Special 50.090 ohm．Ford V8 Brush Type．For 1933－1935 models．
86999．D．Special small typo，50，000 ohm． For 1936 and 1937 Ferds
YOUR PRICE，EACH．．．

12c


## LOW RESISTANCE

WIRE－WOUND SUPPRESSORS
Extremely effect ive in eliminating motor noises． I ＂asitively wild not attect upetation of notot be
 lite heat－resisting cases cont
unnu with rinameled wire．


AUTO RADIO FILTERS
single capactions fer
Metal－cased compact
by－pass condensers for use
on generators，ammeters．
burns，etc．，to eliminate
B2942． $1 / 4$ mFD．IRound netal containet药＂x2＂Single lead with lug． B29．43． $1 / 2$ MFD．Round metal containe For coil．EACH．．．．．．．．．．．．．．．．．．．．．．．．． B2944．J MFD．H o und metal contane For generator，EACH ．．．．．．．．．．．．．．．．．．．．． 48 B2945．i MFD． $11 / 4 \times x=1 / 2 "$ ．Heasy duty for use nesr monnt．

32c

## CONDENSER 6 CHOKE UNIT

A 2 ampere choke and dual ［TOMC mfil．condenser in a com－ pact metal case， $2 x^{2 y} x^{2 / 2}$ ． B2940．EACH

43c 82939．A 2 amp．choke and $1 / 2 \mathrm{mfd}$ con rtenser in a metal case．For horus．
fans，etc．NET．．．．．．．．．．．．．．．．．．．．．．．．．．．．．

## DOME ETGTIT FTETER

A 解 mhi，condenser and 2 amp．cheter in a rolund
invallated exntainet． $3 x / \%{ }^{\circ}$ ． Nowhated emmainer． 82941.

31c


E2938．Ammeter \＆Gas Gauge Filter．A． mfll．condenser in inaulsted case with
two flexble Insulated leads．NET．．．．．．

FORD V－8 CONDENSER
Esperially desiened to fit the Furd V8 distributor－herat．Sis S－ distributor fuad bolts．hiomuired tistrimpor huad boble hembined 85921．For 193－1．35 V8 Fords．EACH 26e 85922．For 1936.37 V8 Fords． NET EACH
$29 c$

# RADIO－BUILDERS＇SUPPLIES 

CRYSTAI－FINISEIED CABINETS


## TUBE SHIELDS AT LOW PRICES

## CLOSE－FITTINC TUBE SHELDS



## For 5 T12 要mibs

Space－savels． Ke place old shtelds：also or spray－shis ronslsts कि s $n$ u fitting of tro s nug hitidg with cap and base es－ urlag perfect flt．For erge and small dome fized tubes sitrh as 146，2A7，38，75，$\$ 9,12 \wedge 5,57$ ． B5255．For short tuben with grid caps，解 146，2A7，38， 75 ． 89．etc．
B5256．For short tubes with－ out grid caps，as 6Y5，12AS． 27 B8257．For long tubes with 58．etc B5258．For long tubes with－ NET grid eapro NET LOTS OF 10.
－
For \＄14 and sTrA Bulbe
B52B3．For 814 straight tide tubes such $1424 \mathrm{~A}, 27,32,35$ ．eic． B52b4，For STIP domeshaped 14 $26,45,714$ ，etc NET
EACH． OF ．．．．．．．．．．．．．．．．．．．．． 500


## UNIVERSAL

## METAL CEIASSIS

An ideal chassis base for ex pedmenters 1 las spesker cutout mounting stots and boles for Fa－ lious parts，and 5 sorket holes vay be used for 4 or 5 tube set and many ot her apulteations． prarts may be monnted 20 if in any position．Stamped from heavs： 52uge steel．
89718．
YOUR PRICE DNLY．
19 c 89719．Bracket for

35 Volume Contral

1 89720．Mounting bracket． Sultable for coll shield．．．

5c

## VENTILATED

 3 PIECE SHIELD ${ }_{55}$ For $5 T 12$ bulbs，such as 55．57， $2 A 7$ ，exp，Made of tuminum；well－ventilated， With curled－in aeck to hold tube．Shell measures $1 \%^{\prime \prime}$ high overall with cap which is siotted for Erid lead Winh base．ind cap．

COIL SHIELD CANS
Heary－gauge non－magnetic meral shietd beautiful hakmi black crackle finith．Tuese fine shields are
 arailehle in two shapes and a va－ riety of sizes，All are furnifhed Jogel for repair jobs or oricina construction

| CQUATE CANB |  |
| :---: | :---: |
| 85283 | 136 $\times 1 \% \times 256{ }^{\prime \prime}$ |
| 85284 |  |
| 85285 | $14 \times 1{ }^{4} \times{ }^{\prime \prime}$ |
| B5286 | $2 \mathrm{x} 34 \times$ |
| ROUNDCAM |  |
| 85287 | $1{ }^{1 / 2}$＂din． x 13＂ |
| 85288 | 178＂dia． x 2 ${ }^{\text {\％}}$＂ |
| $1{ }^{1}$ | －以下L |

A necusity were metal tubes are tused in high＋gain circults．The shield fits frmly oree the arid cap．combletel． shielding the tube：slo 35290.

NET
5c


## REPAIR CEMIENT

For repairing coils and speaker cones．Kit consists of one can of cement．one can of thinner and handy brush．
B2930．NET
348

## BAKELITE TUBING

Tifh grade amooth poitshed bakelite tubing．Natural Anish Excident insulating prop－ries and high riejectrie strength． las Jít Inrh wall．Jasting beluw wives insido diameter．


## RADIO METAL CHASSIS BASES

For use in constructing radio sets and amplifiers． Troo types listed．Ternplate is heary lead－coated steen－magnetic metal：ensy to drill：cuts and solders readily．Bases are 2 or ory high．with open boitons Folded on $\frac{s}{}$ sides，except $4 \% \times 81 / 2 x^{1 / 2} 2^{7}$ size，which bas open ends．Cndrilled．Wits． 3 to 7 lbs

## TERNPIATE




ELECTRALLOT


## RUTBER PANELS

Spectal hlack hard rubber com－ pound panels．Smooth finish．\％ 10
lach thick．Will not waro．

| No． | size | EACH |
| :---: | :---: | :---: |
| B9768 | $7 \times 10$. |  |
| B9769 | $7 \times 12$. |  |
| B9770 | $7 \times 14$. |  |
| B9771 | $7 \times 18$. |  |
|  | $7 \times 21$. |  |
| B9773 | $7 \times 2$－ |  |
| B9774 | $7 \times 26$ |  |
| B9775 | $7 \times 3$ |  |

## BAKELITE PANELS

High quality hlack bakelite ban－ els．Smooth polshed inisk．sumplied in standard sizes listed，or cut to size．

cial sizat


## CHASSIS SERVICE

A new ALLIED service for sett builders．We will form and punch any chassis to your specift－ holes ip Charges are as tollows：Driling small to $13 / \mathrm{s}^{\mathrm{N}}$ incluslve－10e eath；holes larger than $13 /{ }^{\prime \prime}$ or cutouts of special design are priced
 forming chassis，35e．Minimum charge is 95c，This does sheet Elec． the chassis base for metal for it）．Blank chassis bases，or shacet with dimensions and hale sizes cfoarly marked．Chassis bases are made up on final sales basia only：denesit of 95 c ．must accompany order

## SOCKETS • PLUGS • CONNEGTORS

## SHIELDED

CABLE CONNECTORS


Exceptionally rugged ecnstruction. Insulatel steel cap nnaps over clipTite wimet (or plis, ; proviles tretber crommet in end to protert coble ding contarts assurc iniffet connecion lylack jacan finish Jhamet $1 \%$ "only $1 \%$ lons.


LOCKINE TYPE METAL SLEEVES

Catninm-thated ster sheils, din binea to shp orer commectorsural for nthite address use.
Set, 2 piecen.
BI640
$15 c$


CRASSIS TYPE
Same design as tyie Histex above, except tha The female section has a The sock under cilp mounted ont, when Proxides locked connection. 15 E B1783


## RUBBER PLUG HANDLE

A lieasy rulther muz snumily over the shictited camle connectors, male anid femste. lisied abore. Made of lough. flexible B4549. EACH
$9 c$


CABLE TYPE CONNECTORS
Far connteting extension cablez ogether. Cablts cannot pull apart: ed rink Drapry weil thell wian turabie polished cbrome fulated timish. Chlal type has guide kes.


## FEMALE

No. Prongs No. Pring N4556
84557
84558

84560 IO FOR $\$ 6.55$ IO FOR $\mathbf{\$ 6 . 5 5}$ | NET |
| :--- | :--- | :--- |
| EACH.. |
| NET |
| EACH.. |

## CHASSIS TYPE

 Chasis ture remalerahle connectors five connection vided hy cadmium mated hronze contarts. shitided condling ring locess male and female wnits scicutely.


CLIP-TITE SOCKETS


REPLACEMENT TYPE
A new stuldy socket made of manded bakilite. with tong rontacts the thombted in any Invition. Sne dial miversal allapter plato with

 ryplacement of any wifer sow EAFA | No. |
| :--- |
| 4.62 |

84525
84525

## B4 427



- PRONG OCTAL SOCNET Same construction as abore. to $\mathbf{B 4 5 3 0} 10$ hat $B 4$.
CRIASSIS


## TYPE

For chasslg mole
mounting. Sn 14 wind with tem. vered steat lorking ring. Molded bakelite with cad-minti-


Prengs EACH


## STEATITE TYPE

The ideal
socket for
yecelvers
and trans-
New low


of alazesl steatite. With sjecial universal mounting plate.
No. Prongs EACH PER 10 $\left.\begin{array}{ll}84641 & 4 \\ 84542 & 5 \\ 84543 & i \\ 84544 \\ 84545 & 7 N\end{array}\right\}$
$\$ 2.25$
2,75

## PUNCIIES FOR

CLIPTITE SOCKETS
Inin-hes clean-ent loles $\pi$ it Iocking fing for clip-1ite sockits. Bi642: 111,", 7M and ${ }^{\text {P }}$ Comb. NET
EACH
s294


TVO PIECE CONNECTORS
Connectors of two piece molden hakelite constimetion. Sil te arid handies; stlurdy contacts and pins

$$
\begin{gathered}
\text { Fot micropho } \\
\text { HaLD }
\end{gathered}
$$

| ALE |  | ITMLE |  |
| :---: | :---: | :---: | :---: |
| No. | Prongs | $\mathrm{NO}_{0}$ | I'rongs |
| 81807 | 4 | B1813 |  |
| B1808 | 5 | B1814 | 6 |
| 81809 | 0 | B1815 | ${ }^{6}$ |
| 81810 | 7M | B1810 | 7M |
| 81811 | \% | B1817 | 7 S |
| 81812 | 8 (0x+1al) | B1818 | 8 (0ktal) |
| NET | 18 | NET |  |
| ACH |  | EACH |  |

## SUB-PANEL SOCKETS

Iaminated bakelite construction. Stardy and reliable. ToD Top VIEW EOFTOM VEW entirety insulated. Full foating contacts, self-allening, and of one plece consiruction for Jow resistance connertion. Sturdily made for endurine

## STANDARD SIZE

WIDGET STZZ
127/32" Mounting Gentors

$1 / 2^{\prime \prime}$ Mounting Centers
No. Prongs EACH PER IO

## NEW OCTAL SOCKET

A hew small size wheket of wafer construction decikned to accommodate all of the new octal hase fitio types. A single sucket will fit anl motaj, rital-Riass sna octal batse gias lubes having 4. U. G, 7 or 8 prongs. $1 \not / 2^{\prime \prime}$ mounting centers. 84031. 10 FOR 55 c . YOUR PRICE, EACH

##  <br> AIDEN 'TUNING FORE' CONTACT SOCKETS <br> New type molderl bakelite sockets <br> EBT BAKELITE SOCKETS

 for iest ejuipment use, Silver-platicl floating 'thaning fork' contacts 35 . sure jons life, then maler severe 119 mpount abung or benters. pane
modernizing test instruments
No.


## HEAVY-DUTY

HANDLE PLUGS
Molded bakelite plugs and sockets mounted in
ituhreakable rubber handles. These fiugs a na sockets rrevent wire breakage. $2 z^{\prime \prime} \quad$ ll


| No. | Prongs | $\begin{aligned} & \text { No. } \\ & \text { B40 } 40 \end{aligned}$ | Pronts |
| :---: | :---: | :---: | :---: |
| B4035 | 4 | 84041 | 5 |
| 84036 | 5 | B4042 | 6 |
| B4037 | 6 | 84043 | 7 1 |
| -4039 | 75 | 84044 | Ts |
| NET |  | NET |  |
| EACH |  | EACH |  |

## BAKELITE MALE CONNECTOR PLUC

A sturdy neat two niece molded bakelite sumaker connertions, etc. No. ITongs | No. | 170ngs |  |
| :---: | :---: | :---: |
| 8 | 800 | 4 |
| 8 | 801 | 5 |

One-picee molded black bskeTite construction. Suliable either for baseboard or sub-panel mounting. Sturdy contact suides. 111010 mounting centers.
Mohled bake-
bite sorkets for

| No . | Prangs |  |
| :---: | :---: | :---: |
| B4000 | ${ }_{5}^{4}$ | Eaches |
| B4001 84002 | ${ }_{6}^{5}$ | Each... 80 |
| B4003 | 5 and 6 |  |
| 84004 | ilf | Each...24P |
| 8.4005 $8+006$ | 7.1 ( 855 ) |  |
| 84006 | $\begin{array}{r} 80 \mathrm{ctal} \\ \text { Base } \end{array}$ | 26 c |

## COMPACT <br> \section*{SOCKETS}

 sup-panel mounting. Base of sock. et is laminated bakelite plate.
Mounting centers, 111 ,
No. Prongs EACH PERIC

| 84007 | 4 |  |
| :--- | :--- | :--- | :--- |
| 84008 | 5 |  |
| 84009 | 6 |  |
| 84010 | $7 S$ | 51.15 |
| 840 | 5 | 1.35 |



## EBY

 ISOLANTTTE
## SOCKETS

Ideal for H1.F.
use. Large josi-
Onal holes for $111 / s^{\prime \prime}$ to $17 / 3 z^{\prime \prime}$ mounting.

| No . | Prongs | EACH | PER 10 |
| :---: | :---: | :---: | :---: |
| B4015 | 4 | -90 | \$2.85 |
| B4016 | 5 |  |  |
| B4017 | ${ }^{6}$ |  |  |
| B4018 | is | 3 | 3.10 |
| 84019 | ${ }_{8}{ }^{\text {\% }}$ |  |  |

## BASE SOUNT Bakelite socket mot banel or bicectosyd

monntitg Ruesed contacts w 111 withsiand sesere $11 s a g e .17$ " $^{\prime \prime}$ dlam-
eter with nickel- piated knurled binding posts. Ideal for experimental use.

| No. | Prongs | EACH | PER 10 |
| :---: | :---: | :---: | :---: |
| 84515 | 4 |  | \$1.95 |
| 8456 | 5 |  |  |


| $8: 803$ | $7 N$ |
| :---: | :---: |
| 8 | 804 |
| 8 | 805 |
| (0ctal) |  |

## FUSES • BATITRY CIPS•HARDWARE

## LITTLEFUSES <br> 

Designed for the protection of delicate test instruments. Operare quicker than ${ }^{\text {a }}$, short circuit Widels used. ${ }^{1 "}$ long . May be used on A.C. or D.C. Glass enclosed.
Stock Amps. Losd
No. Rating M.A. EACH
36330 1/100 10$]$
$\left.\begin{array}{lll}86230 & 1 / 100 & 10 \\ 8623 \\ 8623 & 1 / 16 & 25 \\ 86233 & 1 / 8 & \text { Raw } \\ 862\end{array}\right\}$ PER D0Z.
EACH

| 86234 | $1 / 8$ | 100 |
| :--- | :--- | :--- |
| 8635 | $1 / 4$ | 200 |
| 86236 | $3 / 8$ | 300 |


| 86236 | $3 / 8$ | 300 |
| :--- | :--- | :--- |
| 86237 | $1 / 2$ | 400 |
| 36238 | $3 / 4$ | 600 | PER DOZ

$\left.\begin{array}{lll}86239 & 1 & 100 n \\ 36240 & 2 & 20 n 0\end{array}\right\}$ EACH,

## FOB RADIO AND ANPTIFTJB TSE

For use in 105-120 rolt primary line. Cndermriters
lomi
/

| 1) Volts EACH |  |  | EACH |
| :---: | :---: | :---: | :---: |
| 86242 | 1 | 250 |  |
| 86243 | 142 | 450 |  |
| 86244 |  | 250 |  |
| 86245 | 3 | 250 | 002.50c |
| B6246 | 1/8 | 500 |  |
| 86247 | $1 / 4$ | 500 |  |
| 86248 | $1 / 2$ | 5 Su | PER 002. |
| 86249 | $3 / 4$ | 500 | $\$ 1.00$ |

 ed bakelite Instrumen Littlefuses. Single mole mount.
86250.

PER DOZ., 98e. EACH...... 9 86251, Panel type mounting PER DOZ , \$1.30.

12c EACH ........................ 36255 . For mount



FRTRAcros FUST POST B6258 Linderwriters' Approred, Black, Bakelite: for all panels us tool to renew fuse. for 24 , Litilefuses. NET...
$24 c$


METAL. COVERED MOUNTINES
These metal-covered 3AG fuse he new metal tube radio sets Abproped hy the underwriters. Cail mium-plated shell with bakelite hase. Size, $242 \times 7 /$ II as $6-3 \%$ mounting screws spseed st $2 \%$ B6257 centers. PER DOZ

8
FUSE CLIPS Single hole mount for smail a u to or radio ubular fuses. B6253. PACH 218 FUSE RETAINER

## FUSE

('admium-plated separable container for fusing a line xtensirely for suto sete Tizes 1. or $1 \mathrm{~K}_{4}$ forse. Also siltalnaker for B6252. EACH
B6252. EACH

## MUELLER BATTERY CLIPS <br> 

Strong channel constraction. No solder required. For screw or lus connections. 5 and 10 amD . ifjes cadmiun-slated; balance leadcoated steel.

## MESt TEETE TYPE

B6500; $13 / 2 \mathrm{in}$. 1002 NET EACH. 4 c .
Box of 10. .
B6SOI. 2 in long. NET EACH. 5 F . ${ }^{10}$. Box of


GRIP TEETE TYPE
B6502. 2Ta lonk. 25 amps. NET ${ }^{2+A}$ IT lib. spriug. NET EACH, 8C.
Box of 10.
59c
B6503. $4^{\prime \prime}$ long. 50 amps. No NET EACH, Sitic.
+1.18 80x of 10.
 No. IIA. 38 lb spring 338
NET EACH ................ 33

GOLDD COPPER CLIPS For 11 . F. Work. Non-ferrous. $11 / 2{ }^{2 \prime}$ long. 10 ampt.
B6480, Type 45-C NET EACH, 8 c . 80X OF 10 $\qquad$ 54c

## - 4 and $x$

## ALHEATOR CLIPS

Small clips with slemder elongated jaws. Have screw terminuls: with barrel ends to fit banana jlugs. Less Lnsulators
86477 Cip only. Box of 10 , 49 c . 100 Lots, $\$ 3.88$. G8 EACH.. $\qquad$ 68
Colored rubber insulaints for alligator clips. Win not gllp ont. In B648i. PER PAIR. 1 Red \& 1 Blatk Inculator
YOUR PRICE PER PAIR.... © Box of 10.
(Pkd. $1 / 2$ RED. and $1 / 2$ BLACK.)


LTAD-COATED - ATERX cIDPE
sturds, non-corrosive
lead-covered battery cllis. Take small shac:Will gise long depentable service.
E6505. 15 amp .
10 Icts 29 c . Each
$4 c$
B6506. 25 ajaj.
10 lots 42 c. Each.......... 58 B6507. ${ }^{50}$ amp. 10 . 10 C
10 lots 85 c Each

LEADE賭 TTDROMETER - large. nccuratn allit firlenuable lise resilient rubber. Shbe git 1 lb.
83971.

We can supaly all types of radio hardwart, Write to trs, describing your naeds, blating zizt, etc., atnd
we shall be glad le shin etat yau we siag be glad to shiv what you

## HARDWARE

 1000 PIECEASSORTMENT sortment that wil prose invaluable to any serviceman or tains rigets. con mets. nuts. grrews outering lues hashersio brarkets hardoware teeful around erery rork bench. YOUR PRICE 9 S

## RUABER CROMMETS



For insulatime toles In metal chassis plases parts. Tough. strone culcanizpd mibber. For
metal stock about in. thek.



## INSULATED

 GROMMETSLatest type busbinws. amaratus to prrent in sulated wires from fray Stock Fits or bicide No. Hole Diam. Length $\operatorname{DOZ}$
BO 024 D


SOLDERING LUCS
Tin coated for easy solidering.

| No. | Style |  |
| :---: | :---: | :---: |
| B7045. | Style 1. |  |
| 87046. | Style 2. | BOX OF |
| B7047. | Style 3. |  |
| 87048. | style 1. |  |
| B7049. | Style 5. |  |

## HILARCONAT NTTS


mandard sici nute
 stevi Shag. Wh. $i_{2}^{2} \mathrm{lb}$,
B7005. 6-32. PER 100.18 e
B7006. 8.32 . PER BRACKET ASEORTMENT
Consists of 28 popular-sizatol angles and bracliet
for radio work. Nickel - placed
trass. Shpg. wt., 1 lb, 265
87009. YOUR PRICE. .


SCREW
ASSORTMENTS
For all radio sprime and set
builting needs Each kit motain assorted length. B703I. No. I Kit. 85 round head screps.
B7032. No. 2 Kit. 85 flatEACH KIT
$23 C$


FUSES


Fractional Sizes
86020. 14 Amp... Box 65
86021. , Amp …..... 45

|  |  |  |
| :---: | :---: | :---: |
|  |  |  |

## CADMIUM-PLATED <br> MACRINE SCREWS

Standard thread, good quality.


For mounting shield rans, et Cadnilum plated, 6-32 thread. B7007. PER 100.............33c
PER 10.
NET.......................................$~$

|  |  |
| :---: | :---: |
| Solid brass. Heat. ily nictit-mater with 14 in . 6 6-32 mut. |  |
|  |  |
| Swith points. | Swith stops. |
| B7003. | B7004. |
| PER | ER |
| DOZ. | D02. |

## CRILE CLOTE

Frial. with artinatio forial. With artisitic
ching of interthoran hlack and cold. For use behind speaker grills. Sperify stee. furnishid puly in 1 , bithe wix 2. 3. Or 4 ft , widiths, B29i6. NET FER
SQUARE FOOT

## JACKS. JBY ETINOR

insuleted foosts with not-remorable, enkraged
tons. Dia. ons wh lone screm is 84050.
84051.

B4051. Gnd.
B4052. 1nput. $\begin{array}{ll}84052 . & \text { Plain } \\ 840563 . & \text { Output. }\end{array}$ 84064.
84055. $12 c$
LIst, 20e. NET EACH PER DOZ.

## CONBINATION

Top section will revelire any standard banana tope plat serex bart will take
or wire. Fixed ton.
B6325. RED.
Doz.. BOc. EACH
7c

## 

 Consists of standard Ant. and Gind. Eby posts mounted
on laminated or moulded bakelite strips. 2 in. 34058 Moulded o a $k$ pasts. strip. LIst. 35c. NET.. 21c B4059. Laminated bakellite List, 250. NET..........14C

## GRID CAPS COMBINATION

# versible cap de-  stabes and $n$ ew metal tułes. 12 " leads hove siand- ard phone tips. <br> 86328. Red. B6329. Black $12 c$ <br> <br> INSULATED <br> <br> INSULATED <br> Well-made sprink cijs. Colored composis inch wire leads. Wifl fis all giass tubes. Sake sure contact. <br> STANDARD For 866 TUBE STAND 8630. E6332. <br>  <br> 8833. <br>   <br>  <br> <br> STANDARD 

 <br> <br> STANDARD}

Sure cuntarct suring ellpis Type A is for standard finbers. 35 for tietr metas th B6334. Type A.
B6335. Type B. EACH.. 18 12 FOR


TWIN JACKS


## LAMINATED TTPE

F1G. A. of laminated bakelite consiruction, Fith sure-grip contact springe. Essy to monint. ldeal for lieadphone. thonortaph or sleaker connections.
B4062. PHONO.
84062. PHONO.

34063 PLAIN.
10 FOR 55 C . EACH...... ${ }^{3}$.

## TRIPER TTR TACXS

1aninated bakelite. For microphones, speabers, etc. 34068. Platin. 10 FOR 82 c . EACH. 9c
MOLDEDTWINJACKS
FIG. B. Of molded bakelite: attrantive, dursble, ${ }^{2 \prime \prime} x$ B4064. Speaker
$34065 . \quad$ Phono.
B4086. Plain. EACH. $\mathcal{S}$

## SIORTINE TYPI

Particulaty desinned for use in point-to-point gnalyzers, Circuit are remored. Single nominting screw. Resembles Fig. B. ? 84067. YOUR PRICE.

## A8000

MOUNTINC STREPS
Hands inculated strips to supDort resistors, junction conner-
tions, etc. on mutal chassis to tons, etc., on mutal chassis to prevent grounding and shorting $\begin{array}{cccc}\text { NO. } & 2 & 3 c & 22 c \\ 86305 & 3 & 3 c & 24 c \\ 86307 & 4 & 5 c & 39 c \\ 86308 & 5 & 5 c & 44 c \\ B 6309 & 6 & 5 c & 44 c\end{array}$ Attractive
bakelite
bakelite
strips with
stripsurity
securely
fistened
fastened

screw terminals. $*$ nections quiekly. Special lugs preFent wire from slipping out when screw is tightened. Mounting holes at ends of strip for eacy fastening.
No. Terra. Each TEN $\begin{array}{cccc}\text { No. Term. Each } & \text { TEN } \\ 86311 & 2 & 9 \mathrm{c} & 30.79\end{array}$


## FARENSTOCK

 CONNECTORSMakes connections by holding wire firmiy in syring grip. B6320. Single, ${ }^{2}$ " long.
NET PER DDZ............ B6321. SIngle, $3 / 4^{* \prime}$ long,
NET PER DOZ.

 NET PER DOZ........... 1 ,

## EAGLE INDICATING

## FUSES

New tyive fise which
shows "OK" in wandow When fuse is gnod; fuse blowishes when fuse blows.
B3995. 10 Amp.
B3996. is Amp,
B3996. is Amp, 5 FOR
$\begin{array}{lll}B 3997 . & 20 & \text { Amp. } \\ 83998 . & 25 & \text { Amp. } \\ B 3990 . & 30 & \text { Amp. }\end{array}$

## TEST CLIPS

## AR $=0$ <br> AILICATOR TYPE

Long. thin-nased clibs, eass to Eet into tight places. llandy for all test instruments, Back of cir
fits all banana plugs. $S t r o n g$ spring grid
Spring grid. FIG. A. $2^{\prime \prime}$ long.
100 Lots. \$3.15.
NET EACH.....
$4 c$
B6318. FIG. A. $234^{\prime \prime \prime}$ long.

| Per loz, $54 . \mathrm{C}$. |
| :--- |
| 100 Lots. |

NET EACH $\qquad$ 5c

## IREULATED TEPE

FlG. B. 2", " long.
B6337. RED.
B6338. BLACK.
Per Doz., BOc. EACH... 7 (G) FiG. B. ${ }^{31 / 2^{\prime 2}}$ long.
86339.
$86340 . ~ B L A C K$

B6340. BLACK.
Per Doz. \$1.08. EACM
$10 c$

## PLUGS \& JACKS



## BANANA TYPE

86342 FIG, A. New is De plug-in prong. Ideal for uge with aty test equipment. 11/6" long. Per Doz., 4 fc.
100 Lots 53.25 . EACH.. 48 B6343. FIG. B. Nickel-plated prass jark to tit above phut. ComPer Doz., 41 c. EACH 48 100 Lots, S3.25. EACH.. 48

## INSULATED TPP?

PLUGS JAGKS
FIG.G $\begin{array}{lll}86346 & \text { RED } & 86347 \\ 86346 & B 6 A C K & 863\end{array}$ 86346 BLACK
Per 100 Asstd. $\$ 4.90$. Per 10 Asstd.. SEC. NET EACH

## $\Rightarrow A_{A} \rightarrow \frac{B}{B}$

## SPLIT TYPE

## banana plugs

FIG. A. New tspe plug with contact between of ug and juck. Wili stand up under much heavier service than any other plus.
B6350. Doz, 38c.
100 Lots, 52.95.
NET EACH
4
INSULATED TYPE R6351. RED. Fig. B. Doz. 85 c . EACH. B. 8 c


## BABY BANANA

PLUES AND JACKS
A new small hanana DIug and fack made especially for coil nickilplated. 1 G Per 002 36354 Per 100, G3. Per Doz.
40 c. NET EACH ................. 4 B6355. JACK. Per Doz. 40 C Per $100, \$ 3.15$.
NET EACH ................. 88


## TIP JACKS



86362 Fic A Nickel-piated tiv jacks reruiring a minitnum of panel mounting space $13 \mathrm{r} 0 \mathrm{a} z \mathrm{e}$ sutings alip phone or speaker cotd tils firmly for pasitive manfection.
lifotires only
 Wt., 202 Per Doz. 32 c. EACH.... $3 \boldsymbol{3}$ B8363. FIG. B. Heavy spring contact cotnpact 14 pe for limited space. fit panels up to 4 " thick. Fun nickel-plated. 3 ?
Per Doz.. 32 c . EACH.... 3
ENSELATED TXPE
New type sure-grip contacts for smooth positive action. Insulated for use on metal chassis or panels for headphone or speaker output or for test equipment. FIG. C.
B6364. RED.
Per 05 . BLACK. EACH
Per boz.. 59C. 6 c
Banana Piag or Tip Jaek
FIG. 0 . A new insulated lact srranged to take either standard phone tips, or the new popule benans type plubs. Insulated head end shoulder washer. $1 / 4$ " meg. B6367. REDCK, EACH
B6368. BLACK. Per boz. 85 c.
100 Lots. 56.50.

8
Yaxjey Colored
Tip Jacks
9 in a package
Bakelite caps, one red
orie blach. Insulated
thpe Fits is in. hole. Spring contact with solder lug connee tions. Takes standard cord thp. 84069. Per set of 2.
List. 25c. NET...........


## IMP PLUCS

B8370. FIG. A. A midigt mily With screm-on solderless connection. Fits all standard tip jacks Per Doz, 35 C
100 Lots, $\mathbf{5} 2.85$.
NET EACH

## INSULATED TTPE

 8637 RED. EACH B6372. BEA. ce简 6c

## CORD TIPS

FIG. A. Practical new design Hole in side bllows a quick snd elsy connection to be made: juit incert wirs and apbly solder to hole.
863
B6373. Per $100,72 \mathrm{c}$. ?
B6374. Per $10 \ldots . . .$.
FIG. B. Sinndiard kize tip. $11_{8}{ }^{m}$ long, solderless screw-on eomnec Per 100. 52.45.
B6375, EACH.
FIG. C. Standard nickel-plated brass cord tips: will til suly resular tip jack.
lar tip jack.
B6376. $100.50 c$.
B6377. Per $10 . . . . . . .$.

## BLOW TORCHES • PLIERS • SCREW DRIVERS

## LENK BLOW <br> HI－HEAT <br> BLOTORCH

This heary－duty blow torch assures perfect results．rea－
tures jlame control，shut－oft salve，and non－closiding burn er．Fool－proof in clesign and construction；selt－rleaning type．（ienerates quickly from asbestos－filled drip－cup． Produres a $2000^{\circ}$ F．flame The tank is of heary gause seamless drawn brass，with funnel shaped boitom for easy

TORCIES

filling．Ileight $74 / 2$ inches；diameter at base 3 inches．Two models are available．cluther for alcohol or easoline fuel




## MODEL 145

a sturdily built gasoline torch for all heaty solderink obs．Special burner gives hot blue dame：new needre－ ment of orifice．$P$ y mp is conalmety emclosed and leak－ proof．Tank holdis a quart of fluel．Tias heat－resisting Bike－
litu vaive wheel．shug．wL． litu vaive wheel．shiug．wL．
$41 / 2$ lha． $41 / 2 \mathrm{lh}$ ．
B6229．NET．$)^{2}+1$

## MODEL 24 <br> BLOTORCR

Entirely automatic in operation Uses alcohod for fuel．Fas cod－ jer heat concluctor for auick getu－ eration of kas．Marle of nicked phated brass．sold leakpoor bine．Idedifor shop it B822i． YOUR PRIC

69c

## IMP CASOLINE IMAND TORCE

Entirely automatic gasollne hand torch．Flame tomperature is over 2ung F．Tlas priming cup for quick action．No pumping or blowing ratc－ or brazing beat is required． B6226．
YOUR PRJCE

## 69c <br> 

RCA CABINET REFINISHING


## EIT

For refinishinz scratched
marred or dented

and Marred ar derticd | funilite． 1 lath－ |
| :--- |
| cretif case $~$ |
| $91 / 2 \mathrm{z}$ | reptit case $9 / 1 / 2 \mathrm{x}$ $41824^{\prime t}$ con－

taing： 1 can rleaning oll： 1 － can of Vatroline sorted stick shellac；2－pligs，aniline stain pow－ bing block；fnstructions．Shpgatula； 1 －rub－日766． wet
$\$ 2.90$

## G－L MICROMETER

Just the thing for the home work－ shcp．Precision－built and guaranteed accurate willinn $1 / 1$ now of an inch． accurat $\mathrm{l}_{\mathrm{y}}$ catibrated．Zato setring in ansih．Finished in hars，polinhed



## POCEET TOOL CASE

A high crade，two bantition case
that you can ca rI $\ln$ your bip that you can carrg in your bip
pocket．will holel a RIMat number pocket．Will holed a Ryerat number
of small tools Mate of Lenuine of small tools Mate of Lenuine
lenther．double sewed，with snap－On lenther double sewed，with snap－on
flap．shaves wear and tear on jour flap．saves wetr and tear on 3our
Jorkets．
BIG43．YOUR PRICE $S$

## VALUES IN PLIERS



## ERAEUTER PLIERS

Known everywhere：used eversuhere．Per－ rectls made of qualty materials．Scientincally fisted below．Equipped with famous－Don＇t Slipa handes．Will pire Iffe－time service．Cut－ link curfaces are designed 10 clip a sreat number of materials without nicklag．American－made． B7806．Type B． 6 Inch Needle．Nose Side Cutter． 8302 YOUR PRICE


B7807．Type A
67／2 Inch＇Electrician＇s Type． YOUR PRICE

87808．Type C
41／2 Inch Diagonal Cutters．
YOUR PRICE
5300
B78 806．Type C．
8106
YOUR PRICE

## RADIO PLIPRS

Well－made handy pliers for rado and plectrical work Made of fully－polished foryed tool steel．Diagonal cutting type（5is long）has hard－ fith knerled gun－metal finish handles．Thin mose type（ $\mathrm{G}^{\prime \prime}$ lon f）are nickel plated Stoutly built to gire lastinc service．Eicellent tool values． B7800．Diggonal Cutting Pliers． B7801 Thin Note Yyp YOUR PRICE EACH


## SPECLAL LONE NOSE SIDE－CUTTING PLIERS

 High quality，inexpensive bliers， rarefully made of hardened sheri． long slim nose for reaching into hard． fitted．sud are around 10 make clean easy cut Oterall length． 5 inches． Particularly useful in radio construe tion and repair work．Esery service－ man，experimenter．and amateur，can the theseYOUR PRIC
38c

## END WRENCR SET

A handy little wrench set with many tses．Wrenches scamped from hish grade steel，properis hardened for lons service．Cadmium－plated；can
 jaw．American－made．
82078．Complete set of 118
 3 wrenches．NET

## FRICTION TAPE

Made of good qualits fabrle impregnated Fith adhesive rub－ sulation qualities．Made espe cially for radio and electrical work，Easy to apply：will not

## disy out． <br> 87705， 2 oz．rall．NET． B7706， 402. rall．NET．

日7707． 8 oz．roll．NET．．．．．．．．．．．．．．．．．．．．．．．．．．． $9_{7}^{\mathrm{c}} \mathrm{c}$

## SCOTCR ELECTRIC TAPE

A tough，flexible，plectric tape with extremply high insulation factor：Neutral paper Lacking whith touch－sensifire adhesise coating，Will stick to any surface． $3 / z^{*}$ wide． 10 Yard Roll B7708．
YOUR PRJCE
29 c

## SCREWDRIVERS



## GRIP POINT UTILITY

 SCREWDRIVERSEspectally desimed for starting or removing screws in tigit，congested spaces．Itevolving formue enganty released or and hollos scray frmig． 5 nstantly released or locked th a siment of the thumb movement of the thumb．May alion be used as with sturdy easy－grip wooden handle．


## 

## NON－SEID SCREWDRIVER

Slonek－troof，with ribled points．Handy foun tain pen stsle with clip．American－made
 B7711．2－inch blade．
NET．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．188 NET
B77iO． $14 / 2$－inch hade． 100

## Ch

FIRM－GRIP SCREWDRIVERS
forned chrome－vanadium alloy steel hades accurately kround to it shrew slot：tounh ham mer－proor．Amberlite hanules．American－made B7715． 3 INCH BLADE．
YOUR PRICE
34c
B7716． 6 INCH BLADE．
YOUR PRICE …．．．．．．．．．．．．
YOUR PRICE ．．．．．．．．．．．．．．．．．．．．．．．．．．．S2\＆

INSULATED BLADE

## SCRENDRIVER

A 5 inch screwdricer with attractive mottled red and black composition handle，designetl to five a comfortable．sure arip．High quality stipel blade is innulated almost its entire length：with－
 B7718．YOUR PRICE

## 5）＝2n

## MUPLLER SNAPPER

May be used to start nuts and screwa in out－ of－the－way places：serv＋s ats terd clib in inacees： sible spols．or may be user as a trod contact Consists of unitprsal mib mounted in a lonir in－ sulated tibe．Intw－buton on the toD opens and 64B＊RED
B6483．RED．
B6484．BLACK．EACH

## HANDY LOW COST <br> SCREWDRIVER KIT

A pophlar kit of three screwdriv－ ers it the mosit uspful sizes．Comes in convenlent leatherette holder for diver has insulated handle and fin－ arr guard． 1 talles measure $51 / 2^{*}$ ． $316^{*}{ }^{23} \mathrm{~K}^{n}$ ．American－made．
NET PER SET．
38c

## FISTIBLH SI：AFT SCRTKWDRTM思

Here is a screwdilver that will eliminate a lot of skinned kmuckles． Special fiexible shaft allows its use in many awhward places where ant－ other srrewdriver coulin＇t reach．Hiss insalated morable screw lorator，fluted molded mande． $8 \%{ }^{\prime \prime}$ lon． 87739.

YOUR PRICE
88c

## 2rabition. TOOLS for Every Purpose

## CIRCLE CUTTERS



Diquitened to cut larate holes accurately and
 or band-lrate. Itlatal for radio set builiers, servicemed. carbeliters. Tyne No. 5 is deiknert for heabs-ulity work; Thwe No. 4 is a sundard profesinhal cutter, heavy bar construeion, uniol ripe is for liatit Fnrk on snfter materials, Will cut holes in wood. bakelite. B7731. No. 4
ill. hulti 1 to $\mathrm{i}^{\prime \prime}$ in diam. NET.... S1,2, 87730 . Juntor Cutcholet
in $21 / 2$
in diam. NET............ 78 B7732. No. 5. Square shank. \&18

 tonnul shank. NET | 87735 . Extra cutter blades for No. 4 and |
| :--- |
| No. 5. |
| 4.4 | EACH



ICA ALL-PURPOSE CIRCLE CUTTER
An improved circle entep that cuts holes from vi" noed steel. Hexazon shaft tits either brace or drill chuck. Easy adjustment of cutter. Cuts IBI5 YOUR PRICE.
$\$ 2.35$


## GOODELL-PRATT HAND DRILL

## Highy serviceathe with solid steel

 rame and single speed, cut gears. Equipped with three-jawed chuch holding any size drill up to $144^{2}$ latke gear. red ellammed. Mahozany finished hatidwood handle. Solidly billt to hive komi setvire. A rare valle th a rood Ainerisan-niade raon. $\mathbf{B 7 7 2}$ : B772YOUR

ASSORTED DRILL SET A real ralue. Iligh duality popular sixes neceswary for radio athd othert work. sut consists of
9 cartan ster] drifls ranging grum carixin to sterl drins ramging size sraduations. AmericanB7ade.

## PISTOL GRIP HACRSAW



A real bargain In a fine Anterican-manle tool. The hendle is nurde of wood, slatherl for easy gripping; ${ }^{\text {bel'y sturdy, }}$ and highly pollished. The beary, rigid frame is tully nitckel-jldted and is
 B7722. YOUR PRICE
$42 c$
QUALITT HACKSAW BLADES

[^7]
## QUALITY PUNCHES



## SOCRET AND

 CONDENSER PUNCFIESPunches clean fonnd holes in sheet metal \{chassig bants. panels, ete.\} Easy to use. Sayex time' no pre-drill rusturoof hardened steel to gire last ing service. New pin - point center piercing pin cuts through without drilling; contour edges cut clean, accurate boles. All punches are diereanned and oll-tempered. These munch sets are all American-made. Bi649. For $1 / 2^{*}$ Holes.
B1645. For 13 /2" Heles.
 81647.

List. $\$ 3.00$
For $34^{\prime \prime}$ Holes.
YOUR PRICE EACH


SET OF 5 PUNCHES

## 

Kiperdally' destrned to cut out holes for the for sorbet.
B1841 It1/4"-Standard.
81642 . $121_{64^{n}-7 \mathrm{M}}$ and 7 Comb.
$\$ 2.94$
ICA RIVET © ETELET PUNCH SET
A universal tool for resetting any siza eyelet or rivet. lleavy cast-iron april bas hisagon sittes: may be
clamped in vise. Seitax tools of clamped in vise. Setting tools of
hardened steel produce clean. factory. like job.
BIGIG. NET ....... *)

ACRO Chassis CRADLE
Holds any radio set chassis in any position rixidly and damare to tubes, roils dials, ete. Allows use of bonk hands for repain, quitkis like clamps. mithi, sturdy construction.


MORRIS COIL WINDER

coll mitersal machine. Wilt wind Honeycomb. Spider coils. etc. in difterent withthand diametiors and will handie wire of ditier
ent gat
ges. colls that equal factory accuraco. Has tecorter With adjustahle pointer for counting number of inali factory. Shag. wt., 4 lbs. $\leqslant 1 \rightarrow 2$ B9302. List. $\$ 7.50$. NET.... *4, 3


## NEW SERVICE KIT

Includes the following: 2 long prod handies, 2 short prod handles, 2 phane tips. 2 phene tip and black fiexible wire; 2 imsulated screwdrivers ( $11 / 2^{\prime \prime}$ and $21 / 2^{\prime \prime}$ ) ; 6 socket wrenches ( $2-6^{\prime \prime}$. 2 -- 2-0fiset type): hardware kit (tips, jacks. grid caps): leather kit of 3 open end wrenches: 3 in 1 meutralizing tool, and combensating screwdriver.
$\$ 2.95$

## SOCKET WRENCHES



SPIN-TYPE WRENCHES
A complete selection of bigh grade hexagonal socket wrenches for every radio requirement.
Sixkets ars of hardened tool steel
designed to srip surely. Shanks are of hears cadmiumplated stej wha sibe ors-to- crin mum handles. Offset type is for reaching into titht places. Sizes listed will handle all standard nut sizes used in radio work. American-made.
Nut Size $6^{*}$ Straight $\mid \mathrm{S}^{\prime \prime}$ Straight $\mid 6^{\prime \prime}$ Offset

| Nut Size | $6 \times$ Straight | $9^{\prime \prime}$ Straight | $6^{\prime \prime}$ Offse |
| :---: | :---: | :---: | :---: |
| $31{ }^{10}$ | 82055 | B2062 | B2069 |
|  | 82056 | 82063 | 82070 |
| O"A" | 82057 | 52064 | 82071 |
| 厚 | 82058 | 82065 | 82072 |
| 7/8" | 82059 | 82066 | 82073 |
|  | 82060 | 52067 | 82074 |
| E |  | NET |  |
| EACH |  | EACH |  |
| Set of | 52 c | Set of |  |

## HOLLOW RANDLE WRENCH SET

## American-made

려여여영
Ideal for shnp and tool beg. Hollow handie
 heavily knitled for good gripplng surface. Whit niekel finish.
B773\%. YOUR PRICE
54c

## LOCK-SOCKET WRENCH <br> SET AND SCREWDRIVER

in set of 9 sockets in assorted sizes to handle hex, square
and round nuts. Conand round nuts, Consocket mounted on 33/4" stralsht exten. sion: 5 hex sockets in
 mockets in $1 / 4^{\prime \prime}$ and
 nut socket, 1 "Lo" shaped extension $4^{*}$ tong and dithicewdriver wrench handie. Patented lockias BSSIG. YOUR PRICE...............858

SOCKET WRENCR SET


A set of tive derisithahle socicets of fine wrought steel. Conplete with wrenct handle ln pophlat

B7690. YOUR PRICE

## FLEXIBLE DRIVE

 SOCKET SETFienible laminated steul shaf will bend ground comers Purinaccessible to orifinary toots Has comfortable fluted wood Handle, $10^{\prime \prime}$ lone; equipped with six texazon sockets sizes $\frac{81 / 5 \%}{}$ (4ickeleal sochéts easily inter. changeable.
B7738. NET. \& 6
RADIO TOOL CHEST


This handy chest contains ly h a $n$ d $y$. sthe the twolk for the service
matior get builider. Consift ${ }^{n}$ of: s"
and ${ }^{\prime \prime}$ s.riw-
drivers, scribur drifers, scribst.
reanier, conntersink, pliers, center-punch, socket wreneh setts Ior hexapon and knitred mits, and 3 hexaqna Amprictani-made.
B7691. NET
$\$ 2.25$

# M:UTRAMIINIG TOOLS•TIEST ITADS 

## LATEST SERVICE TEST LEADS AND TEST KITS



PENCLL PROD TEST KIT
A serriceable kit that meets every testing need. Handies are $6^{\prime \prime}$ long with 5 foot leads astached to bahana ispe pugys. Each but contains 2 alligator cllips; 2 needle point tips. and 2 spade lug tyse. ell of whleh fit tightly on banana tips of test iends Interchangeable tips make thls kit ideal for all tspes of testing.
 Hifi, ${ }^{3} 1.50^{6}$. NET.

72


AMERICAN TEST KIT
A complete test, kit with innumerable, uses. Consists of: $2-4^{\prime \prime}$. $2-21^{\prime \prime}$ and $2-1 \%^{\prime \prime}$ tent prod bandies with banana rype plugs, each pair and 2 spade lug solderless tips-designed to of and 2 spade lug solderless tipsbanana plums of handles. Also
82121
$\leqslant 115$

KINKLESS WEADE

PENCIL TYPE TEST PRODS
Hifh-quality, rest leads for tse with all test
equipment.
5 handles are made of red and equipment. 5 ," handies are made of red and black insulating materlal. with fife flexible solt rubber kinkless wire. The sharp-Dointed penetraing tip is threaded and screws into the handro, projecting one inch. Al connections are connections that providing the low resistance Moided finger ain wh precision test work. rided with set grerews for easy rencus are proThe total length of the leads and handles is 65 inchess
B5530. YOUR PRICE...........

## NESDLE-POINT TBST LEADS



Equipped with needfe points for making good contact through insulation or pitch. 4" handles; 3/" litick. 45 leads.
WITH KINKLESS WIRE LEADS
B5496. Phone Tips.
B5497. Spade Tips.
PER PAIR
299
85498. Alligator

Terminals. PER PAIR.
36c

## SOLDERLESS TEST PRODS

Needte-point test prod with insulated handle. Completely soldertess. Wire clampa lightly in prod. 54i. Reng.
B5472. Black. Each
ach
159


Phone


EPAVE DUET LAB MODEI.
WITE KINLEESE WIRE LTADS
All-purpose leads for practirally any test need. Flexible rubber-covered kinkless wire fitted into Ilandies are 5 \% inches long with bointed ll leads are 40 incharg with pointed turs. Leads are 40 inches lone
85490. Phone Tips..... $\}$ PER
B5491: Spade Tla.... 473 B5492. Alligator Terminais, 539 PER PAIR


SERVICE TBST LEADS
Popular test prods with solderless phone tips. t" handles; 3 " thirk. $45^{\prime \prime}$ wires. Prod mire
is secapely tightened by knurled rut. is secafely tightened by knurled nut
FITE FINKLESS WREE LEADS 85493. Phone Tips.... \} PER 3 PE B5495: Alligator Torminals PER PAIR


ALIGNING AND NEUTRALIZING

## ALICNMENT

 TOOL EITHere is a tool kit that every Serficeman should have. promen hie cor or aligning sny trpe of or aligning sny type of test prods; I flexible tuning wand; I alligator wrench with scrowdriver tip: 1 - $1 / 4$ " socket tool with screwdriver; $1-6^{\prime \prime}$ insulated screwdriver: i- A" balancing tool; l-3-in-1 neutralizing tool; 1 trimmer for new metal tube sets. B2I22.
YOUR PRICE

8775


NEUTRALIZING AND ALICNINC TOOL KIT
Has a tool for erery type of receiver. 12 separate plarts corer felescope into pach other forming four separate tools for easy car rying in handy leatherette peit pocket case. Includes; (1) al ligator wrench; $6^{\prime \prime}$;insulated screwdriver with metal nib $5 / \%^{\prime \prime}$ and $5 / 4^{\prime \prime}$ nut wrench: (2) $1 /^{2}$ square nut wrench: /4' $^{\prime \prime}$ hex side wrench; 21/2" screwdriver with melal nib:
sloted
(3)
y ${ }^{n}$ her. sloted Wrench: metal screw-
driser: on hex nut wreneh driver: ${ }^{\prime \prime}{ }^{\prime \prime} \mathrm{s}^{\prime \prime}$ hex nut wreneh: (i) $6^{*}$ insulated screwdriver. Complete with carrying case. Shlpping
B5532. YOUR PRICE
3730

## DE LUXE KIT

Cortains all the blah quality tools in the regular kit, but also includes 2 new items. the mavic tuning alignment tool and the newly deindispensable for allgning the new alt-ware sets with thetr small coil and trimmer assembilies. Complete with leatheretae pochitt case with belt joops.
B5529. Your price. ........ $\mathbf{\$ 2} 4$

METAL NE NEUTRAEIZING TOOL
Two valuable tools. One is a $6^{\prime \prime} x \%^{\prime \prime}$ tube. on each end of which are heary brass nicket nuted socket Wrenches for ${ }^{\circ}{ }^{\prime \prime \prime}$ and ${ }^{\prime \prime}$ " hex. a strong screver triver blade at one end with the other end of special magnetic steel. B5528. YOUR PRICE................ 698
TLBXIBLE SDAFT TUNLNG WAND


Excellent for checking alignment of radio sets Without disturbing the adjust hent of the trimmers. Shaft his of flixible calcut; brass cylinder
at one end. fine iron core at other. 85534. YOUR PRICE

59 c

## NLUERALITINE WRTNCE

Hex broarhing runs entire length. Eod ma be cut of when worn. Fibre rod. Fiss 3 3" nut


A handy alknment tool kit that will gerve in-
 frenches. miniature blade screwdriver, and ${ }^{8}$ 85527.

YOUR PRICE
698


AUTO RADIO TUNINE WRENCE SET
Permits allgning or tuning set in car or on sersice trol head. 10 high quality steel tools match shaft ropnections on most popular auto setsIn meat leatherette roll.
$\$ 4.41$

# SOLDERIUG IROHS and AGGESSORIES 

COMPLETE WITH 2 SCAEW－ON TIPS


## KNIGHT SOLDERING IRON

## 55 WATT MODEL

A well－desimed high quality KXIGIIT 55 watt Iron suitable for evers service use．Has a devendsble hire－wound elcment in a ceramic tubs－ Heats up quickly，stays hos．Tuo typos rif rilk are supplied with iron to handle all work from fine soldering 162 tinnity ul rhasso bases．Tils



## 100 WATT ENICET SOLDERING IRON

a high quality all－puryose iron．Ils．＂is inth diampet 1 morahle
 B6006．YOUR SPECIAL PRICE．

KESTER SOLDERS
Coblifinanslect at the highers
 relmanent joints free from corrobiun，Wialely used ly
sentirmen，The dinest solder that ran bu bouglit． monary by buying
one pound spool．


## ACID CORE

 artul with pruburls फW？ B6175． 1 cb．S500 86176. Per Tin．．．．．15cROSIN CORE
Kester solver with pure plastic rosin core tlux．
B6177．64
1 Lb．Spool．


ALUMINUM
A flux－filled Solder older Aluminum．
P6179．
 ${ }_{\substack{\text { B6 } \\ \text { Per Tin．} \\ \text { Pind }}} 17 \mathrm{C}$

## KESTER SOLDERING PASTE

 resive ioh of soldering．Eixcellent for radio work． 1 B6IBI， 10 FOR $\$ 1.05$ ．PER TIN．．．．．．．．．．．12C
## 

DRAKE SOLDERING IRONS
Cnderwriters Tested and ADproced．A surdy dependable iron for all sinp or Service require－
 nichrome wife wound on genuine aruber mica： reaches soldeting heat quickly．liemoviable jlunger type tid with set serem stillotmont－
 eter 努＂：Wt． $11 / 1 / \mathrm{lbs}$ ．
List．$\$ 3.15$ ．YOUR PRICE．．．．．．．．． 82204．100 WATT．Length $12 \frac{1}{2}{ }^{\circ}$＂：11D diam
 82205． 200 WATT．Length $14^{\prime \prime}$ ：tip Ulym－


## cthan

## AMERICAN BEAUTY SOLDERING IRONS

B2000．Tyse 3：：8．Adalned lur fundumion uork on radio．iknition．telpphone．etc．lith Walt


$\$ 5.85$
82001．Type s－ib．Iiph ind compact．Heats
 of romi mid． List．$\$ 4.50$ ．YOUR PRICE $\qquad$ \＄3．45 TIP 5 FOR AMERICAN BEAUTY RRONS
 Type 3133 iran．NET． 396



## DRAKE

 variable HEAT CONTROL A new rariable heat matrol that will res． ithat the letat of your senient togicle switch．mominteal oiti the bisate of the stand．Instantly velects the hest feipuited fur burning or corrosion of lip dur to otrrimesting． A neevesity for ptery soryice thencll．primburtion line，etre For 115 Volts A．C．or D．C．Ship－ bind 4 wight． 3 lbs 82202．${ }^{80}$
\＄223
7－INCH SOLDERINGIRON HOLDER
A sturdy，well－bullt soldfring imon holfer mpasurine 7 inchen long sulitly ernctrueded．



A new．practical soldering iron，well－desisned and proberly built．Heating element is of the hizives：tuality resistance wire，wound on hat tesisting boblin of machined and threaded In－ sules．Will heat in three ninutes，Habule ie mains coal ecen after the iron has been on for hours．Plunger trise tip is easily remoped for clearing or replacernent．A heasy get screw keepe tip firmly in place．and prosides for aci－ justment of tip lenatil．With roti atrit nhtr． feasoinahly priced．Will give long reliable scis
 for radio wark．Shpe witi 2 lbs．
路 Linis．So．in vour paice．
$4-3$

## $\longrightarrow$ <br> marvel electric SOLDERING IRON

A neat，compact soldering tron of high quallty construction．Wifle acceptance and treat rolume ？imeluction make our remarkable low price bit－ ahime This soliderins from should be in ebers 110 rolt A．C．or D．C．olwtatithe fohal for all

 Jint．

## 

This quality Iron las at Nichrome wite elenment motanted in a whosterye porcelailin tube． Figuipled with a good quality consw ith two incluer lonk．Winh lrown finished well－designed atay－cool handle and 3 foot Undertitits ars－ frroted tlexihle coral．A well－babanced unit． suitathe tor gemeral rablio and light soldeaing
would．A value that is untatiable． woul．A
B6008． B6008． YOUR PRICE
PER DOZ．
$\$ 3.05$
 GARDINER
RADIO SOLDER
ROSIN CORE

A new ratin core
 Ple＋＇thisthl and ratio pork．Jlure rosin anu
flux assures iftulom from corrosion．Makes depentiable lasting juints． ian bothe 3 to 4 ohe This pelithle solde＇t will gipe excellent results and save monts． 129 86184.

I LB．SPOOL
62c


JACKSON SOLDERING IRONS
A hiuh grade line of electric soldering Jrons， Flements are wouth on amber mica insulation ofrt strel sore．Abailable with plunger tips or


## WITH PLUNGER TYPE TIP

B6000． 75 Watt．Wifith tis＂colper rod tip


 86002．150 Watt．With the＂copter tid with set
YOUR PRICE
zrew．
．．．．．．．．．．．．．．．．．．．．．$\$ 3.80$

## WITE REMOYABEE SCREW TIP

 86003． 75 Watt．With $7 /$ en $^{*}$ remonable cop fre tin． $12^{\prime \prime}$ lougt，Nlekel－flated$\$ 1.20$

## 绍 <br> MAGIC STYLUS <br> SOLDERING PENCIL

A new．small，easy－jo－landle soldering tool Ideal for soldering shall parts in hald－to－set－at corners．Heals allefils：Instiketid handie with Tip is ensify renoord for flimings or renlace－ ment．With 5 fr．coad．Indermillere or fendace
 A6．
Ket Trach
72c

 heat is conctarrated at the 1ip，wher．it is
 Abtrmid ly the Indernotiters laboratorjes．
 type．tinned copper tip and soldering iron holter．

 YOUR SPECIAL PRICE


## SOLDERINC IRON TIPS

Minh quality rplarement plunger tripe mpmes tils．Make yoatr soldering from as good as new． $\mathrm{No}_{0}$.
B 59.97
85998
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# NATIONA 

## NATIONAL SW-3

 RECEIVERS A favorite with imateurs and kw Fans the world oter, U.sea a lishols - ficient Thorr control. smoorh novelo mesentration Dermits setting at point of maximurn sensilivity without spiling over. nier typue- variahle ratio dial proviles either fast. mediuns or slow tuning; volume control fish cieel cabinet is only $9 * x^{2} \mathrm{xari}^{-1}$. Wt., 17 lbs.BIOO53. AC.SW3 For A.C. operation. ives 2-58 and 1-27 tubes. Bioos 4. $60 \mathrm{C}-5 w 3$. For 6 volt D.C. operation. Requires $2-36$ and
 YOUR PRICE EACH

## SW. 3 COILS

Luw-loss ylur-in tyat coils for the NaWoumd on thas coil forms with lineer rim rot es sy hariding. Series ${ }^{-10} 10^{\prime \prime}$ Coils are for lise in the original A.C. and D.C. SW施- C. Ans. A-C. Coits are for "60' present molle] A.c SWh and A.C A.C. I3oth genural coverage of coils are thatlaty tor jull coverage

| Ceneral Coverage Coils |  |  |  |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & 10 \text { Serles } \\ & \text { NO. } \end{aligned}$ | $\begin{aligned} & 60 \text { Serlet } \\ & \text { NO. } \end{aligned}$ | Meter <br> Range | $\begin{gathered} \text { NET } \\ \text { PER PAIR } \end{gathered}$ |
| S145 | B1425 | Y-15 |  |
| 81416 | 81426 | 13.5-25 |  |
| 81417 | 81427 | 23-41 |  |
| B1418 | 81425 | 40-70 |  |
| 81419 | B1429 | 65-115 |  |
| 81420 | E1430 | 115-200 |  |
| B1421 | B1431 | $\begin{aligned} & 20(-360 \\ & 3.0-5050 \end{aligned}$ | 43 |
| EAND-SPWEAD COILS |  |  |  |
| B1435 | B1440 | 10 |  |
| B1436 | 81441 | 20 | + |
| B1437 | 81442 | 40 |  |
| B1438 | B1443 | 80 |  |
| B1439 | B1444 | 160 |  |

## PLUG-IN PONER PACAS FOR SM-3

For use with ine National $5 w 3$ rectivers. Provide correct Mate voltare for proner operation. Type 5830 alwo supplies 2.5 volts A.C. for tube liaments.
B\$0056. Type 5880 AB Power Supply. Rquires 80 tube Fior 110
 BIOO57, Type 3580 "B"' Power Supply. Iis. electrostatic shield und double section ifter. Supsies i B rollages. 22.45 List. $\$ 22.50$. NET. . . . . . . . . . . . .


ERO "JUNIOR" AMATEUR RECEIVER
A communication recfiter with all the teatures of the IIRO Staniard except for thising meter and wsial flfer, Maximum gain and hiph signalfonolse ratio attantud witin two tuned 13.F. stazes and two air-tuned f.F. stages. Accurately calibrated ganged glug-in roils. Dierometer dial whin san dibsions asulres ample bandsinead (alifough not as ereat as the Hifo senior). The Ilizo Junior 18 supplied with colls toning from 10 to metern 2 amatmur bands). Auditinal conk hatel below honsed in a black crystal stew cabinet, $8,4 \times 10 y \times 10$. Shpg. Wt., 35 the Our Time Payment Plan makes it easy to own an HRO Junior. Write for details of attrective easy-to-pay terms.
B10065. For 2.5 Volt A.C. operation. Supplied complete wit3, RCA tubes ( $4-58,3-57,1-237$. and $1-45$ ), and one set of coils ( 10 to 20 noters). Leses speaker and jower suptly.
BIOO66. For 6 Volt Battery operation. Supplied complete bith RCA
 speaker and battcries
List. \$180.00.
YR PRICE EITHER MODEL
DTNAMIC SPEAKER
Bt0067. A liith quality $8^{*}$ ractive table mantel $\$ 14.10$

## AB POYFR PACE

BI0046. Tyde 5897 AB. For Junior For 110 v, 60 Creles Ind Lees 80 tule. W't., 1 \&ol

## HRO JUNIOR COILS

B1400. Set ol coils coverina
 B1401, Set of colls covetus the Amateri 80 and 40 metet bands. 3.5 to 7.3 M.C.
B1402. Set of coils covertag bands, 1.7 to 4 MC.C.
PER SET........

## COMPLETE SELECTION OF NATIONAL DIALS <br> TYPE "B" 4" <br> TYPE "A" 4" DIAL

 81531. Scal 150.0 . $270^{\circ}$ clockwise.

A rompact dial with a smonth ariable ratio drize. Dial seall is raill througle a window in the 81525 Scalo 35525 . Scale 0-100.0, $180^{\circ}$ BI526. Scale $200 \cdot 0$. $360^{\circ}$ counter-ciockwise. 16 NET EACH … .... 31527 . Illuminator for dial ith bracket.

NET....
TYPE "BM" 3"
Smaller than the "B" dial: similay in opB t 528 . Scale $0.100 \cdot 0$. 180 . universal BI529. Scale 200-0, $360^{\circ}$. \$1,

TTPE "N"
Prerision dials. to it h ma-chine-divited scales and rat Dial ts $4^{\prime \prime \prime}$ in diametr with smonth planetary mechanism: 5 to 1 tatio.
B1530. Scale 0.100. $180^{\circ}$. c. c.
$8: 533$. Scale 200-0. $360^{\circ}$. coun 8 , 95
THPE FRO IF/B DIAT
BI534. Neat etohett silver dial as uned on the lfaO rereliters. $1 \times \prime$ diam. for $1 \% 0^{\circ}$ shaft. NET

 Clockwise.
Youn PR
TYPE "HR" DRUM DIAL
Has insifite dial rord dive. Sical no parallat. Oimstes at risht antite B1539
Bl539. Scale 0-100. $180^{\circ}$. c.e.
 EACH .............. $\$ 3.30$
TYPE "0" 31/2" DIAL ${ }^{\text {BIISA3. Aitractive }}$
 nio ke. liarze thuted tinger


 Fracptionally smionth
net Firnier rese fionn backlan: entirely $1 s$ inted vernirr me-haniam. Mat io 81536 Scale 0.100 . $180^{\circ}$
1.80


## GRID CAPS

## S-101 AUDIO COUPLER

I mishotatll unir for rotplins mithit of ar leen grlad aletrector to tital of andio rulue. Consists of Cil herty miate mapling ehole A1 couphint condenser and as B1485. 030

Thidue constructinn assures pernot vontinu
B1547 For Standard Glass Tubes. BI548. For All Octal Base Tubes. NET EACH ......................................... Bi549. For Transmitting Tubes
 NET

## 1. F. TRANSFORMERS

 dieleptice condencers, stathe in shation: alantimum plates Coil on son of Ondilatas art tunid by a knub.
$\mathrm{B} \mid 462.450 .550 \mathrm{KC} \mathrm{IF}$. $\begin{array}{lll}\text { Bi463. } & 450.550 \mathrm{KC} \text { Beat 0sc. } \\ 8 / 464 . & 175 \mathrm{KC} \text { IF. }\end{array}$ Bi465. 175 KC Beat Osc.

## DODETRANSFORMERS

 push-tull swondaty. Deskinaed tor us
 moluling to a elimalis cletector tubt. Tunes 450 to 550 K.C. Isolantite monted and thotolughy moist th nriotert. Finclosed in aluminum situeld. B1469. List. $\$ 3.50$.
YOUR PRICE ...........
AIR-TUNED PADDERS


## LOW FREQUENCY OSCILLATOR COLL

For usy in susw - tranemetatit. rew ibers as finterimptigh fre ghtury osediator. Cunsist of clovely counhet, mommath in an aluminumb shedd. Mounts pas-
 ily lus means uf two spade iuge, Sumoniary in dumance is 6.25 mh . Tunes to 100 kC wht


## NATIONAL SHort


 selection. Tuning range fom 550 he to wh die is continous in fuur
 listener New full-vision dial with multiple semles aecurately eallbrated; hav auxilary line ar beale: equijped thith adjustable frevu*hey markers reduction rates, Ik to 1 and 20 to 1 , edeh with separate knob.

## AUTOMATIC COIL SEIFTING

Excentionalty wide bandspread is provided on all tuning ranzes. making tuning a muasure on crowded bigh.frequescy bamis. A unique coil at-
 C.'S. to 5 KC for sharp thaing of CWe of for hish guality reception of pione signals. self-contained power subsly does awiay with suparito unit: operates at mamimum entieney from $3 n y 110$ volt A.C. or D.C. supply. leatn power 251.6 G outjut tube supplies 2 walts of undistoiter
 plete with cubes and $s^{\prime \prime}$ I'M. Speater. $^{\prime}$
 $\qquad$ 879ㅡㅇ
SPECIAL AMATEUR BAND NC-81K RECEIVER A eamsletely new communications receiver deslened for maximum effi-
cienes on the crowded Amatear hands. Similar to the Aorlel $\triangle$ - 80 x ciency on the crowded Amaleur hands. Similar to the Mordel NC-80x as desimbed above hat inconfotates model. Tuning range covers only the Antateur handa and

 20. or 10 meter bands. Novel design of calibrated full-rision dial matasi accurate lowing of sations ponsible. This feature alone is extreplels valuable to the Amateur pheritor who malntains trame sehedulew, or to the DX fan; enables the ojemator to repeatedly retune stations previonsly loghed. New erystal filter with controllable selectivity makes receptiont bill- in rower suppity for for 110 volts A.C. or D.C.
With tubes and high.grade $8^{\prime} \mathrm{P} . \mathrm{M}$. speaker. With tubes and high arade 8" P. H. speaker.
BIO32i. List. $\$ 1+6.65$. YOUR NET PRICE.

NEW NATIONAL NC-BOX RECEIVER

A mew connmanications m:celter designed for A.C. -D. operation, mhich has many
new and exclusive features. Excevtionally high gain. selectivits, and sensitivity are provideli by ten of the latest. tubes in a nuw superhet circuit. New 150 KC JF ant. phitier as-ures eomplete image suatression withont H. F. pre-

## NATIONAL RECEIVING CONDENSERS



## SE $270^{\circ}$

 This well-known con.Jenser has straight line Jenser has straipht line
fruquency plates. $290^{7}$ fruquency plates. 240
rolation. steatite insurolation. Steatite insuated Plates and ftame bearing roror with front bearing jnsulated. Roor contac ealstant-1mpedancr pig. 15 mmp . and 25 mmf condencer have thick wates with roumied aid polished edres. All other types have cut for tise in all tyjus of high-fremuency recelvers. smaller capacity units are especially sulted to balldepread circuits

| $\begin{aligned} & \text { sTOCK } \\ & \text { No. } \end{aligned}$ | CAP. MMF. | $\begin{aligned} & \text { NO.OF } \\ & \text { PLATES } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { AIR } \\ & \text { GAP } \end{aligned}$ | $\begin{aligned} & \text { NET } \\ & \text { EACH } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 81300 | 15 | 6 | .055" | \$1.50 |
| E1301 | 25 | 9 | .055* | 1.68 |
| B1302 | 50 | 11 | .02t ${ }^{\circ}$ | 1.80 |
| B1303 | 75 | 15 | .026* | 1.95 |
| 81304 | 100 | 20 | .026* | 2.10 |
| 81305 | 150 | 29 | .026" | 2.25 |
| B1306 | 200 | 27 | . $018^{\circ}$ | 2.25 |
| 81307 | 250 | 32 | .018 ${ }^{\prime \prime}$ | 2.40 |
| 81308 | 300 | 39 | . 018 | 2.40 |
| 81309 | 335 | 43 | .018* | 2.55 |


| Similar to type sk. tut wifh $180^{\circ}$ sitraight Line-Wavelength plates, and somewhat in ora compact. 15.25 and50 mm (. condensers Gith .018 spacing hare single bearing. Others bave two bearings. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| STOCK No. | CAP. MMF. | $\begin{aligned} & \text { NOATOF } \\ & \text { PLATES } \end{aligned}$ | AIR | $\begin{aligned} & \text { NET } \\ & \text { EACH } \end{aligned}$ |
| 81311 | 15 | $3^{3}$ | $018{ }^{\circ}$ | \$0.84 |
| 81312 | 25 |  | $018{ }^{\circ}$ |  |
| 81313 | 50 35 | 8 | ${ }^{.018}{ }^{\circ}$ | 98 90 |
| 81315 | 50 | 11 | . $0226^{\circ}$ | 1.08 |
| 81316 | 75 | 15 | . 026 | 1.20 |
| 81317 | 100 | 20 | .026** | 1.35 |
| 81318 | 140 | 28 | .026* | 1.50 |
| 81319 | 150 | 27 | ${ }^{026}{ }^{\circ}$ | 1.50 |
| E132\% | 250 | 37 | .018 018 0. | 1.65 1.80 |
| B1322 | 300 | 39 | . 018 | 1.95 |
| B1323 | 335 | 43 | . $018{ }^{*}$ | 2.1 |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| UTRA-MIDGET |  |  |  |  |
| CONDENSERS |  |  |  |  |
| Compact midget condensers. For Clira |  |  |  |  |
|  |  |  |  |  |
| and transmitters. <br> for paduling or neutral: |  |  |  |  |
|  |  |  |  |  |
| izims. and for Fixed-Tuned exeiter stages of band-switching transmitters. Isolantite insula- |  |  |  |  |
|  |  |  |  |  |
| TYPE UM: SINGLE.SPACED |  |  |  |  |
| Stock No. | $\mathrm{Ca}$ |  |  | $\mathrm{NE}$ |
| E1333 |  |  |  | 0.75 |
| B1334 | 3.5 |  |  |  |
| E1335 | 50 |  |  | . 96 |
| 81336 | 0 |  |  | 2 |
| 81337 | 100 |  | 100 |  |
| B1339 25 LMA-25 lit |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |



## STEEL CABINETS

For housing home-buitt receirers or srecial equipment. Used with such sets as National FB7. SW- 3. SRR. PSK. HKO, gna NC100. Un drilled pantls and sub-uases. Black crinkle fln-



## PRECISION GANGED CONDENSER WITH MICROMETER DIAL



AB POWER SUPPLT
B10046. -Type 58y7AB. fuedrody necessary niliment and whte volta for the liko Stand plate voltage ror the hiro StandFor 110 Volts $50-60$ cycles. Wt NET
$\$ 15.90$
The HRO Standard receiver may be purchased on our easy Time

HRO STANDARD AMATEUR RECEIVER
Meets the nost exacting requirendens of high-freguency commundeation Enbodies such desirable features ac: the tuned R.F. stares; crsstal tilter with adjustable selectisity; calibratict Ranged plug-in coils; single control tuning: signal strengih meter calibrateil in " s " units: sariable pitel lieat oscillator. Hicromeler type dial with 20 to 1 worm drite fias
500 divisions for absolute banispread and accusate tunimer. Usable sen500 divisions for absolute banispread and accurate tuningr. Usable sensitivity and selectlvity are exuemely high with comntete suppression of
image frequencies. Complete dismipitie literature on requust. mame frequencies. Complete discridiwe literature on request.
B 10062 , FOR 2.5 VLT AC. OPERATION. With tubes and coils BIOO63. FOR 6 VOLT BATTERY OPERATION: Complete with coils costring 1.7 to 30 M.c. Le'ss speaker and ond batteries
YOUR

DINABCRPRAET

## BiOO64. A ligh nuatity

 table model metal cabinet. dinivhtal to match the eabinet of the $I l l e$ Standard.NET ............ \$14.

## TETAR कOtLs

Purg-in coil assemblites for the National llpo.
BI404. 175.400 K.C. SI 6.50 $\begin{array}{llll}B 1405, & 500-1000 \mathrm{K.C.} & 12.00 \\ \mathrm{Bi} & 106 . & 900-2000 \mathrm{K.C}, & 12.00\end{array}$

# Wrave <br> <br> CRM CATHODE-RAY <br> <br> CRM CATHODE-RAY OSCILLOSCOPE 



# EQUIPMENT 

## NATIONAL NC-100 ALL-WAVE RECEIVER <br> 30 MC TO 540 EC

An amazingly eflicient 12 twhe superthet for the digeriminating Amateur or Short-Wive Listener. Capable of extremely hith performance over its entire fre quency range of rom sti 0 , 3n, unusual features of design, including an infinious
 luand-change spitch. The micrometer dial and worm-

 drite tuning mechanism protides an accuracy of
tunting that amazes the onerator. Panel controls are tunfag that amazes the onerator- Panel controls are
grouped for easy operation and Inctude: Range selector: A. F. C.-Manual Volume-Beat Oselliator control switch: Combined A.C. on-off. and Stand-by switch; R.F. and Audio Gain Gontrals: Tone Control. etc. Crystal filter model ulso has tariabie filtar and phasing control, The NC-100 has a tuned preselector stage which operates on all bands. Power supply is butit in and is hum-free.

## 

Tubes used are; 3-6K7, 4-6J7, 1-6C5, 2-6F6, 1-6E5 and 1-80. The calibrated electronefe tube on front panel accurately indieates strength of incoming signals. Antena input is arranged for either doublet or single-wite antenna. lu" elcetro-dynamic speaker is mounted in black crinklefinish metal cabinet: rerefres field excitation from power supply buile into recelver. Tlie NC-100 is


## MC-100 AC MODEL

Complete with matched set of tubes and bulltin poser supply. Supplied with high grade $10^{*}$ celver finish For 110 \& volts. $50-60$ cycles.
B10048. NET.
s12510

## NC-IOQT CRTBEAT NODIE

Same as NC-100 listed above, but has built-in single-signal crystal filter. Fitter circuit is equipyed with panel controls for phasing and variable selectivity. Cristal chiter manes cas reduces side bands for phone recedtion. Com. Has in wrind anteis 1460 Bion ios wet pane: 14760

## NC-100 BATTERY MODEL

Similar to A.C. model, but for operation with solt storage battery and "B" battcrics for
 BiOZIB. NET

## NC-IOIX HAM MODEL

A sjecial model of the NC- 100 for Arnateur Communication. Tuning ranges cover onls 160. plied with calibration curres accurate to $.25 \%$ of onerating frexuency. Has bultt-in crysial filter and power supply. With tubes and speaker



WRITE FON DETALLS OF OUR TMEE PATMENT PLAN

## NATIONAL TRANSMITTING CONDENSERS

 TTPE TMS
## LOW POWER

-recision type conrent radial rear bearing. Stcatite-Isolantite insulation. For Oscillators. Buffers, Doublers. Etc.



NEUTRALIZANG CONDENSERS


## TYPE TCN

A heasy-flity neutralizing condenser. With a peak folt Biarimum capacity 25 mmf . For Axe with 205A. 852, 204A and like tubea ${ }^{2} 1368$. NET. 40 TYPE NC-
For use with the lls:A 800 or Other tubes which require small nelltralizing cabacity, Isolantite ment with lock nut. Max. capacity 10 mmf . B1369. NET.

## TYPE NC-150

A high-voltege condenser for neutralling the HK-354. RK-36. 300T, 852 and like tubes. Max. capacity 12 mml . Adjustable from 2 to $1.6^{\prime \prime}$. Isolantite insulated. B1370. NET


## TEPE STH $30 \%$

Sultable for neutralizing type 45. He insurat diax 18 mmi. Peak voltage breakdown, 30 mo solts. 1deal for buffer of doubler stages.
B 1371 . NET

## CRYSTAL HOLDERS

## VERTHCAL TTPE

Mounts crystal in vertica position, allowing it to vi-
brate freely. Permits rapio change of erystals. Molded R-30 body. with metal shield. Less crysial.
Bj558. Hesonator Ty de Bi559. Transmiteing Type CHT. NET EACH.

## VART-GAP CRTSTAL EIOLDER

 Permits tuning over a range of 6 KC when used with special ${ }^{3.5}$ KC on 14 MC . B - 30 holder for socket mounting supplied with six tneh tlexible shaft. 0.10 dial. haob. and panel bushing. This holder cannot be used with $X$ or $Y$ cut crystals. B1561. Molder only $\mathbf{5 0 7 1}$ B1562. With erystal ..............s 19.50 NATIONAL TRANEMITTINO BOOK B1600. Contains 14 dakes of data on design and construction of a modern halr-kilowatt phene transmitter, using newest tuber 108 and circuits. NET... and circuits. with aurchase

TTPE TMC-MODERATE POWER For use in power stages of transmitters where the prak
voltage does not exvoltage does not ex-
coed 3000 volts. Cxtremely rifid frimmely steatiteIsoiantite insulaplates have buffed

## TYPE TMA

 HEAVY-DUTY Isolantite insulated. Aluminum plates, with buffed cdxes. le eak $6000 \mathrm{v}^{3000} \mathrm{v} \cdot 265.9000 \mathrm{~V}$.
 edges: air-gap is .07i". lave conical front bearing and radial rear bearing with single ball thrust. Stator of split-stafor model is supported at both ends.

For RE-It, RE-1e, BCA-30

 | Na |
| :---: |
| $\mathrm{B}: \frac{\mathrm{N}}{3} 75$ |



| $354 \cdot 12000$ | Mmf | Airgap | NET |
| :---: | :---: | :---: | :---: |
| B1384 | 300 | . 077 | 57.20 |
| 81385 | 200-200 | . 077 | 9.00 |
| 81386 | 50 | . 171 | 3.90 |
| 8 387 | 110 | .171 | 6.80 |
| 8388 | 150 | . 171 | 7.20 |
| 81389 | 230 | .171 | 0 |
| 81396 | 50-50 | . 171 | 8.60 |
| 81391 | 100-100 | .171 | 10.50 |
| 81392 | 100 | . 265 | 8.10 |
| 81393 | 150 | . 265 | 10.20 |
| 81394 | 60-60 | . 265 | 11.10 |
| 81395 | 50 | . 350 | 4.80 |
| E1396 | 100 | . 359 | 8.70 |
| 81397 | 10-40 | . 359 | 8.10 |

## SHAFT COUPLINGS

## TIPE TK-

BI550. A small effecient condenser haft coupling. Hubs fit $2 / 4$ shaft.


Insulation is Steatite. NET

TX-11 \& TX-E2
Fiexible shaft wit h 1/\% hubs for driving ontiet shafts up former frome hruress Frew from thacklash TX-18 has
ixolantite insulated isolantite insulated

inubs. | lubs. |
| :--- |
| Bt551. TX-12. NET.. |
| 1 |



## 

For use with transinitting condensers in hish roltage circults. Insulation of glazed wolantite. Hubsift ang $1^{\prime \prime}$ shaft. TX-1 leak-
ago path la $1^{\prime \prime}$; TX-2 leakage Dath is $2^{\prime \prime}$, B1553. TX-i.
NET ............... 81554. TX-2.

66c


# NATIONAL SH운, WANF 



## FB7A 6 FBXA RECEIVERS

Tro popular seven tube conmmunination tspe revetrers for the
 tivity; 2 -ail-tuned IF stages; full-vislon dial with suren theh

 to nakie operation eass al all thines singie rontiol turing: FFiNA bas bullt-in crystal tilter. $1141413 \times 8^{\prime \prime}$. Shig. pit., es ths. B 10044 FB7A. tonnlieit as drarrbed above. [ros crysta] Supplied lpas tubes, coils and powet supuls.
Spe coils beluw.

B10045. FBX.A CRYSTAL MODEL. With crystal filer for single sigmal reception. Less tube's, coils and power suppls tuber
$\$ 57.00$ BIOO46, HEAVY-DUTY POWER PACK. TYpe 5897AB. For maximun performance. For 110 . $\$ 1 / 60$ ercles. Lars so tube.
$\$ 15.90$

$\$ 14.70$

## COILS FOR FB7A E FBXA RECEIVERS

General coverage and Band-spread tolls.

tectise sleeve. With notal ead and hand


NATIONAL INSULATORS

## AA3

$\longrightarrow$
$\xrightarrow[A A G]{\square}$ BI570. TYPE AA.3. Steatite feeder spreadBi571. TYPE AA.5. Aireraft compression ivipe strain thisulator. 18c NET EACH


## $\overbrace{i}^{\infty}$

$\begin{array}{ccc}\mathrm{B} & \mathrm{C} \\ & \end{array}$
Nake Ideal forms for hl. F , anteme ofincientry. sietal mounting feet. Type GSi. $1{ }^{\prime}{ }^{\prime \prime}{ }^{*}$ hich. $1 / 2^{\prime \prime}$ diam. NET. Bi574. Fig. A. GS2. 27/3" high $15 c$ 1/2" diam. NET.

210
B1575. Fig. B. A Siearite |nsula mountiar part tajpred 8 -32 each end. GSín and GS7 thmped 10-24 each end. GS5. $11_{4}^{\prime \prime}$ hish. 159

 B1578. Fig. C. GS8. A stuall Statite in cuits for coil mountings. etc. Base has
$13 / k^{n}$ mounting centers. N ET............ 1 e

## XTB COIL FORM

## ow-lows siteatite 801 m fur it.

 chokes. precision reststots, ot. c Four sectinns: wine slot betpeedsections and to friminals. B!508. NETEACH

## XS6 HT BUSEINE

situt stratite slocitider


BI509. NET EACH $9 c$


## FIXED TUNED

 EXCITER TANKAn butal undt for wie in multhband exciters uxing bandxwitulumg,
 and $\mathbf{R}$-39 coil form, $14{ }^{2}$ Jone. I' diam. Whith plus-in bare to fit tuhe sorkets. Nluminum shield iso
laten ennelensera: finmos from top. BIEI2. TYPE FXTB. 5 Prong
Base. NET .............................. 9.94
 Base. NET
BIEII. TYPE FXY. Without plug-in base. NET

With inuilt-in air diellectric mondensers. Both types of colls are interchangeatble.

| CRNTRAE COVERACI COILS |  |  |  |
| :---: | :---: | :---: | :---: |
| 81453 | $3-4.000$ to | 18.000 Kc.$]$ |  |
| 81454 | 19.500 to | 11.400 Kc. | EACH |
| 81455 | 11.700 to | 7.000 Kc | AIR |
| B1456 | 7,300 to | 4.000 Kc. |  |
| B1457 | 4.200 to | 2.400 Kc . |  |
| B1458 | 2.500 to | 1.500 Kc. |  |
| B1459 | 1.500 to | 900 Kc. |  |

## NATIONAL SOCKETS LOW-LOSS

 ISOLANTITE Fur hase in H.F. reweisers than low power xtalem of su'ket for National (oils is suluare: others as funtrated.
Ns. Bi580 PRONGS $B$
$B$
8
$B$
$B$
Bi58
50 WATT SOCEETS priced high sorket: has gla/ped ee ramic instlation and meta
 List. 60 c EACH 36c

81589. XC-50. ALL.STEATITE. JAW-lom: mutal in entire assembls.
List. $\$ 3.50$. NET. $\qquad$ $\$ 2.10$

ACORN TUBE SOCKETS
B 1591 F F OR
TRIODES. Five cont-
 NET BET 1592 .......................................... B 592 . FOR PENTOOES. Has aluninum ground. NET

## POWER PENTODE TYPE

Latse wafcr irfee Inolantite sorket for the RK 28 and $11 \mathrm{~L} A$ moint monntins.

Bi 595 . As zbove, but less stand
$\$ 1.80$



NATIONAL R-100 R.F. CHOKE Ideal for high frobuency circuits. Fixturively and in rearitels hati tow-puwer staprs of traths Hite fiss continuous 4 section untier waning on ixolanite form. Distribured. Ca oinm D.C. resistance. B1479. List. 60t. YOUR PRICE

TRANSMITTINC TYPE CHOKES
Untiersis elohes with humes conib-tyje windings in flve sec usls: Indurtance. $\$$ Mil. 10 ohnm D.C. resistancen R152 is lor the 1 fió meter hand, and al54 for the 40 mieter band.


#### Abstract

$\qquad$


 8i48I. R152. B1482. RIS.. NET EACH.$\mathbf{\$ 1 . 3 5}$
81483. RIS4U. For 241 . 40 and 80 meter bands. Five section honeyromb type coll on $6(60) \$ . A$. cont inuous, 1 mh . indactence. 6 ohns D. $:$ : resistance. 8105

## NATIONAL COIL FORMS

## RECTIV县 FORES

Inw-loss li-z forms which are trenely wopular with Amatears and Ex winarntes, Lasy* to woik. ringer-brib 1490 1 Preng lori2.


## TRANBMITTER FORMS

 C'endmit lurnts for windint low-lofs $t$ ratulnBI494. XR10A. 20 or 40 ?





## PLUG-IN COIL

 FORM and SOCKETS This completerv he Le LR-1MA coil form sind sorket assembiy colvists of the xir-10A con ol and mo mers and loup-in Base and somber rite bong plus is easily ansaited to coill form by means of twio serews. Yiut may alno be und separatoly for air-wound colls. Socket and five mounting for orountion or Thith shecial attachments for BI503 TYPE UR.iOA GOIForim Assembly. Complete. NET... ©2. 76
 BISOS. TYPE PB.15. Plug.In Base 818


## ROTOR CLAPPING DFVICR

RI556. For elamping rotor shaft of TMA or to mount. Holds firmiy. NET

51 c

# AMATEUR TRANSMITIERS 

## ALL-STAR TRANSMITTER KITS

Here is a modern half-kilowatt transmitter in easy-to-assemble kit or:h. Phoner Amateur or begmaner planning a complete hirn-power CW Designed by leading enalneers. Every detail of layout and wiring is worked out and frowled in witing and pictorial diagrams. Reguires only a few hours tinit for easy asmembly and wiring with ferwest posisible tools such as pliers, soldering iron and screndrifer. - All manels, chassis, ete., are conmpletely drilled and finished


40 WATT RF UNIT
The ideal transmitter for the begin-
ner. or for the old timer who wants nep. or for the old timer tho wants to modernize his station. Consists of buffer driviug the push-pull 802 am: plltier. Provides four band operation witli only two crystals. hand chanaing is by plug-in coils. blocked arid kerjog of the amilifier stage effectively privents key clicks. Complete hit confinished panel and chassis base. coll torms, condensers. etc. Less tubes and cristal. dequires $1-47$ and $3-802$
tubys. Instruction book furnished. 89850.
YOWATYKIT.
YOURRICE.......

## LOW VOLTAGE POWER SUPPLY KIT

Complete kit of parts for the low voltaze power subuly; for use with
日9861. Iess tube. NET...
SPEECH AMPLIFIER AND POWER SUPPEY
89852. May lw used ss a modulator for the 10 watt RF unit or as river abaple for of rrystal mike. Lises 2-SC6. 2-76, 2-42, 1-43. and $1-8: 1$
lubess tubes and mike. NET......................................... B9853, Sanie as above but with T-80Dji driver transformer. Adwhatcer excites the class " $\mathbf{B}^{\prime}$ ' 833 tubes in the 200 .

## 500 WATT R.F. AMPLIFIER

Any mateur with a low jower transmitter can. by the of the All-Star
 furnishing 15 to tan watis for excttation. Uses two 838 tubes in yush-pull. Janel and chassis base are trllled and finished. Even the begnning "Hamn" can binid and oprate the conpleted job. Klt contains vanel, chassis base, harduare, condencers. chokes. insulatoms, moper; everything or build a high momer aniplitier for your preseut rig or 8 89864.

## HETH VOETACE PONER SUPPIT

## 39856 For use with the tll-sic 500 wati lkt amplifter listed

 986 Includce panel thatis.

$\$ 48.95$
89856. Will $100 \%$ mownate the 300 wat hil amblifier or your Hesent 500 wath CW rig. lequites the sjeect dmplifer at top (B0853) or similar unit as at triver anmblifer. Uses $2-838$ tulses in Class B.


25 는

 NET.......................................................................

 JOENSON INDUCTORE FOR AROVE T TARSMETTER
High eficuncy, plug-in tank colls for the 500 watt R.F. stage. NET


## ALL-STAR INSTRUCTION BOOK

16 connplete pages of assembly data for the An-Star Transmitter Clear conciut instructions, photographic layouts, and detailed
uiting diagrams make construction eacy. B1|002. NET.... 5 ,


## NEW UTAH TRANSMITTER KITS

mateut, old-timers and boxinners allike. Designed to provide maximum Alcifact circulte are based on newest and latest type tubes Can be assmbled and wited in a few honrs. No cutting or diflling: all cabinets ou chassis bases drilled and finished.

## 80 WATT CW KIT

An ideal starting rit for the betinner. A base on whichitio bulld to a
complete 5in watt tiation. For the old-tiner it's a teach of an ausiliary unit to allony operation on several bands. It's new and up-to-the-min ute: uses \& 6 L 6 regenerative crys:a oscillater, parallel Bl.6's in the K. W amplitier, and $1-5 Z 3$ rectifle ately handle input bower ub,
hatts: nore if properiy handled raclive sterl cahinet. 18xi6xty", is fnished in back elystal Circuit de sign Drodtuces maximum "sock" With to excessive bower reaurements. Easy ore arready done for soll nunching
 ane 0 to 50 done ror lataire ne to and one to meters, $2^{\prime \prime}$ size. All parts arc care
 complete ready for assembly,
B9858 complete kit, less only tubes, crystal and
meiers.

89869. When usad with the 80 watt CW kit will provide a nifty ilttle moderate-power phone rig. Has input for ary type uike; output of 50 waita with adjustable impedance output transiorme: Uses -
 supply, Cabinet same size and style as su wati kit. ©
Complete, less tubes and meters. NET................

## ANTENNA COUPLER EIT

89860. A complete antenna matching unit for use with either the sot tunfog condenters and low-loss coit. Will match any type of 3000 roit tuning condenters and low-loss coil. Will mateh any trpe of tuned Jeguiten 1-b-5 H.F. ammeter. Supplied with all neces
sary hardmare: coll riready wound. Less meter. NET. 500 WATT R.F. AMPLIFIER
B9861. A high enciency 500 watt R.F. amplifier which can be driven by the Cuth 80 watt ch unit, or any similar excitet hait. Uses 2-T5 and continuous fervice. Input circuit is a ranged for link roupling to exciter steres, Plate tank usis sineially devind digh-Q coil. Requires two



## 250 WATT MODULATOR KIT

B9862, A high-oniality high-foutr modulator for twe with the 500 Wat h.F. amplime above or with any similar hieh-nower R.F. stage.
 M.A, Houced in same style sind kize cabinet as all other $\leqslant a \rightarrow$

## NEW UTAR BEGINNERS' TRANSMITTER KIT

Designed especially for the bexinner with a limited budget luild a new low power CW ris of true conc. mercial appearance Lises $1-6 \mathrm{~L} \theta$ in a regenerative ertsiat.controlled circuit uith 20 watis
power output. Uses $1-5 Z 4$ rectifier in built-in yower supply. Crystal finished drilted calinet counling link for conpling to a "Zupp" fred
 system lias potier oft-on and send-recelve switches. Etched dials with


## RCA ACT-20 TRANSMITTER

Espectally designed for the ad-factory-built tranmitter at jow cost, Win dedver 20 watts into any single or two-wire ferd anteman system,
Uses 1-807 crystal oscillator, 1802 bufter-doubler. 1-807 Ii F. am-

 modulatore. Has speech injut for D.B. carbon mike. Incorporates many exelusive features betmiting maximum flxibility of operation Unique seml-fixed cajucitors and plug-in coll ssstem permit eingle control tuning Lither CW or 'lhone is proviled at tho finp of a switch. Operates on all bands, 165 dorn io io meters. coils for one band only: specify band desired. B-10172. YOUR PRICE

# Shot-Wove REGEIVERS•TRANSGEIVERS 

## RME MODEL 69 SINGLE SIGNAL SUPERHET


precianombilt receiver for Intateur and Khort-Ware Listemer. impraved circuit dereloys excentinnal efticiency across entire frulleduc rathae of recelier. Has two 5 ind illunhinated dials; one calibrated in hesacyeles for easy arratrate tunnga and one callbrated for lazdsipread. Finger tim thaning is provided he flanearrier mater calibrited in DB and $\delta$ on mits; modulajots monitor uned presector stase: thre-mesition crustal ther: coil as smity german selection of electin 550 to $8: 300 \mathrm{k} . \mathrm{C}$.

PRESELECIIONON ALL BANDE
Higli-gain preselector stage elimlnates imame simals; increases sclean
 madt. All major parts. I.F. coils ece. are laboratory-huilt and subjected to rigid tests, workmanslinp is of the highest quality throughont-
 is completely laborstory-built and tested. Tuhe's fincluded with each set are those used for fanal labnratory tests. Which acsures rou that the set 5ou recelve is perfectly alfmed and adjusted for maximim performance. below. 75. Complete with cabinet model sneaker: B10i75. Complete with cabinet model speaker:
with tubes. YOUR PRICE .............................. B10176. completo with tubes, less speaker. YOUR PRICE
\$13935
The RME-69 Receivers Ilsted above are available with bullt-in LS.I Naise Silencer and tubes at an additional price of $\$ 11.40$ net. Specify "With Built-in Nolse Silencer" when ordering

WRITE FOR DETAILS OF DUR TIME.PAYMENY PLAN

## RTL "COMPACT" PORTABLE

 TRANSMITTER-RECEIVER 56.60 MC

A portable unit that Is "at home' answhere you may take it. Permits Dubles or Break-in QSO's without switches. Tran-nituter emploss $1-30$ as input amplifier, 1-10 as oscillator. Cartiar. 2 watis, 8 watts peak. Non-radiating receiver uses $1-34$ or $1-1$ At TRF slage, $1-30$ super-rusenerative detactor
and the 2 matt andin ssestem of tlue ratumitfr. Both the transnitrer and receiner operate from the sathe antenina. Jintire until bowsed it 12每"nis"x15" crachle finished steel rase with cather cartying handle, Batterips fit in lower "R" hatieries, 2 dry cellw. and $1-41 / 2$ rolt batteries. Weltht less batteries $124 /$ liss.
Biol 192 . The Compact, Battery-operated Portable
Transmitter-Receiver. Jess tubeg and acceasories...... IOI TELESCOPING FLEX-STEEL ANTENNA Teinforeed FOR



## PEAK PRE-SELECTOR

 AND PRE-AMPLIFIERA new improved ruodel of the fanous Peak Preselector. Will add incravinti ettin ifncy to
 trol of R.F. senstisity, rejects images, and queatly increases simnalto-noiveretio. Tumes from a to 200 meters in four bands. Lises Bit BIO183. Less tubes. YOUR PRICE
s1930

## NEW IPS RUBBER CRYSTAL



On yon the hear QRM "ich yout trans missions? In can make eroty 250 lifere mith from $\mathrm{n}^{2}$ from under interferinz simals: hut your orn sigyou want to hook: nuve around in unerowded pritions of the bind-atl as pasy as tunin" tour receiver. The IPS Rubber Crystal can be flaced on the operating rathe and link-coustled to your mitfer stage. Bandis, read tuning permits shift of frequency as areat as 50 KC each side of any chesen stot frequency. Output is sintiefrnt to
 thansmitter: just rimose rystal ant dink-couṭile the "Rubber Crymal" to the pitite "oil of the
 810331. Heavy-Duty Power Supply (lins 83 tabe). NET... 515.90 ADDITIONAL COLLS FOR RUBERR CRTSTAL
B 10332 . 160 meters.
B 10333 . 40 meters. 10334 . 20 moters.

## NEW RCA AMATEUR RECEIVERS ACR-155

 A new up-to-the-minule conmumications teretiver. Allcontrols erouped on front panel tuake oferation easy and ithtiring Flas loo-1 tminitus ratio: Calibrated band-spean for vosilteé loszint: HF and Autio , gain controls; AtC "on-of" switell; stancths
Exith: Range selectar; Beat
 osillator on-or ant pire controls; Tane comial. and name other features. lniseting the 'phonts in front yuncl fack iuntes the slewher

## TUNES sse TO 22, eeo EC

Three band. continuons tunina ranke from 500 to 02 men KC : Amateur bands eleariy delined with atunle bandsiread. Tunted li.F. stase on al bands. Tuning dial shous catifuated scale for onls the ranes in ace us ure. The Ach-155 conies complete with thes. butht-th powet susply

 $10 \%$. Stig. Wi.. 59 Jhs. For 110 Volts. $50 / 00$ cycles.
BIO1399. Complete with tubes. and buitt-in nower
supaly YOUR PRICE

NEW ACR-111
This fine 16 tube sumerintrodyno was carefully designeri to till coers reulirement of madern high-fre. quency communieation serrice. An deal receiver for the amatelur S. W. listener. Tunes from 540 Kl to 32 alC in 5 bands. Fratures inclitde 2 imnincore IF stages: cryafal
flter; sifnal strenath indicator: fliter: simnal strength indicitior
 amminnd and delsyd AVC wind of switch for Ch redelition; and a stage tuntel lif amplitier provides anme pre-selection ant


 conlrols are conteaiently grouped on front panel.
B10398. Complete with all tubes and $8^{n}$
dustprooi dynamic speaker.

## AR-67 COMMERCIAL <br> RECEIVER

This A hatnd sumembetrolyme has lees specially devicned fra the reception of 2 atho-telt phone, tele maph. and time sitnals hriween 75 for narine tase. Will withstand the nost serere operating and climatic RF stage; all JEF coils air-primmand 2 stages of variable-selectivisy iron
 core Lf adtomatic semsitisity con

trol; CW beit ascillator; output liminiag rontrol out put to hemdinunes or 6 in ohm line. Hunsel in gras wrinkte-finistied mordal table cabinet. $21 \times 123 \times 1614 \%$. For 110 volts. $10-60$ çecie AC, or external batters oskia tion.
BiO396; Complete with tubes. less speaker.

## NEW RTL 56-60 MC DUPLEX

 TRANSMITTERRECEIVERType TREA . A complete transmitter and recefter that premits Dujbex overa-
tion in the Anatevr 5 meter band. Iteceirer and tramsmitter wach uxe netrest,
 shlched. The oprotior may tith and
lisforl whithut throwing a switeth as is
 dulles or hreak-in oneration. Finthe uñt housed in a single stuty stepl case
 hizh. Transminter uses unity-confled 6.a6. with Class - B', modulation; carrier
 stape ard lientode out mut with built-In dynatule sexaker has tuncd IR.F. ments are 250 to 300 wolts at 175 MA , and 6 volis at 3.6 amps. Las be Hi-q d for moriable-holsile or hermanent station. Tulies requised are: Trans-
 BtOI 90 Less tubes.
YOUR PRICE

R1OI9I. 110 VOLT A.C. POWER SUPPLY, For use Fith TRGAG
 $1-5 Z$, rectifier tube. Less tube.
YOUR PRICE
$\$ 30.00$


# Woutsu Shot Wlave RECEIVERS 

## LATEST HALLICRAFTERS SHORT WAVE RECEIVERS



## LOW PRICED SKY BUDDY

NEW SUPER to -55 in work of eight. Tunes from
 Hhteth can be thined off for CIV rectuction; calibrated dial. With 36 to 1 ratio bandspread action: shielded beat ascillator, controllable from yanel: and buitr-in power subply and speaker. Arranged for use with elfher straicht ant mua or doublet. Heartione jack and ah controls are


Bloi50. YOUR PRICE, With Tubes

## SKY-CHIEF



A pesi communiration design and construetion. An efficient sumerheterod)ne circuit mahes use of seven tubev to gove inn tube performance. Among the features of this remarkahle set are: liand sultching to tune from 17.15 IIC. to 590 KC.
corering annateur, short covering amateur, short and regular broadeast
bands: variable beat os cillator controllable from front panel: 6G5 slanal strength indicator: iron core 1.F stane ical banduread: built-in gnealier and power sumbly controls: me-
 In auractive. rugged metal cahinet. For 110 volts. 60 cycles A.C. BIOI 51
YOUR PR

$\$ 4.40$

## SKY



## CHALLENGER

## A recent addition 10 the Fa

 mous "llallicrafter" line. The "Sky Chalkenter" embodies many of the salient features of thehigher-friced Ilas been emgineered to satisy
the nost critieal Amateur. Cor. ets all frenuencies from 40 , ino to इ35 K.C. (7.5 to 56il meters) with
 elcetrical band spread, a feature inciuded only in the more expencive ham reveirens. Farures incluted are: fron core I.F.s: air-trommed R. F. coils; nine tubes as jollows: 1-6C5. 4-6K7. 1-61, 1-6Q78. 1-6F6G, and 1-80: singlesignal action (cristal ontional): lieadphone jack: A.v.C. switch: Sendfereive switch; leat Oscillator l'itch control; Tone control; Antenna circuit ayranged tor efther doublet or conventional antenna: 4 waits of audio poxer, etc. With tubes- Less speaker. Blofbe. Model S-15,
s6950 B10159. Model SX-15. With crystal. NET


SKY-RIDER

## - Latest 1938 Type

## Directly Calibrated

 6 Band Dial
## Eloctro-Mechanical

 BandspreadThw "Headliner" for 19381 critical Amateur or shoit
 Wave instenfr. this trewest of has lilerally "everything." Features: Cont tinuous tuming ranme, $5 t 5 \mathrm{k} . \mathrm{C}$. to $6 \boldsymbol{2} \mathrm{MC}$. in 6 directly calibiated ranzes; Simal strehnth niter; inertia tuning: Extreme bandspread; Varlable selectivity: 1.F.O. With pitch contol; Ceramic-insulated tank circilts and tive sockets; Illuninated dials; 11 tube superbet circuit. with extreme sensitivity; R.F. stage on all bands mith controllable gain; and many more features, found only in recetvers costing much mote. The new 1903 Suner sky-Kider has been designed to flll etery need of the adranced Armateur as well as the begtnmer. It is also idealiy sulted for every serv* ice requiring maximum performance on the H. $F$ bands. Supplited whth
 ant $1-5 Z 3$ tubes for 110 volts $50-60$ cycles. BIOIGO. less speaker.
YOUR NET PRICE...... BIOI6I. MODEL $S X I 6$. Same receiver as ahore cxcept that it inComplete with 11 tubts, less sjeaker
s111응
B10162, SPEAKER. Large 12" P.M. Dynamic speaker. Metal housIng has a coustieally-trested wooden bafle to eliminate
vibration. Will perfectly match recmivers above. NET....

## S.12 COMMERCIAL SKT-RIDER

An 11 tube superhet receiver deneeds of shin and aireraft onerator: Continuous tuning ranse from 26.1 to Etu0 neers $(100 \mathrm{lC}$ to 11.5 II: 1 I. F ireduency is 100 KC , Nes $1-6 \mathrm{C} 5$ and $1-5 Z 4$. Calibrated $33 \mathrm{I}^{1-6 \mathrm{R}}$, $1-6 \mathrm{C} 5$ and $1-5 Z 4$. Calibrated 338 degree main tuning dial Has many


B10157. MODEL SX-12, As abore but with improved crystal fiter:

BIOI63. I2" P.M. SPEAKER. In metal cabinet. NET...Si:2.00 ULTRA SKT-RIDER Designed for use on the $3.7 \%$
o 53 neter bancis. Covers the $5,10, \pm 0$ and 40 meter bands. Features include: lron core 1.F's: R.F and Audio sain controls: "send-heceive'" switch, eta Uses 10 tubes as follows: $2-6177$. 2-6I. 1-6.57. 1-6C5. 1-6R7. $1-6 \mathrm{G}, 1-6 \mathrm{Fr}$
handsome blaci metal cabinet.



BIOI53. MODEL SX.10. As above but with crsistal fiter and panel NET Nolled crsstal thasing condenser. $\$ 114.50$
B10163. $12^{\prime \prime}$ P.M. Speaker in metal cablnet. NET......Si2.00 WRITE FOR DETAILS OF THE HALLICRAFTERS TIME PATMENT PLAN


## NEW SARGENT <br> RADIO COMPASS AND VISUAL BEARINGINDICATOR

Designed to filt the rexairements of small boas radio commas. Aluor runctionsias radio receiver with continuoks tutitny range from 200 to 3500 meters. l'roritles both visua! and sudible check of hearing simnal. Consists of a high. efficiency repeiver with buitit-in Jensen spocaker. calibrated tuning dial. beral oseillator for conde recuition: sind a $141 / 2$, whus jn trpe loop with an accurate 360 degree bearlnge seale. Operation is extremely iton. bisual indlation of sharn nuld noin posp iton: bisual indaation of sharm nuls boint per-
 yange. Electron-s.e mem is usual as math puitit indirator: slwatiz perratts double chack by atoli. bions. hemuires of colt inattery; maximum


RECEIVERS
all.wavereceiver MODEL II-AA

Standard all-wave cornmbinicatlon recester for the Amateur or Short Ware can. Ukes fice highly efficient. tubes in a mordern stable T. R.F. citcuit Carefully designed to provide untisual seleciivity rith the greatest nossible sisnal stability, No nlug-in coils are used: bands are selected
by switehing. Has binitith power subply; breab-in by switehing. Has built-in power supply; break-in switch and headphone jack on panel; precisely calibrated main tuntag diel; spooth. sileat reShort wave broadcas Commerciai and remular Brosdcast bands from 9.5 to $5 . w_{1}$ meters. smonh operating mevhaninal bandspread is controlled by spiatate tining dlal with absolute freedon from bachash, Moded 11. Ah may be umal with pither rinuhte or single wite antimna, t'ses
 sturds' metal cabinet. inished in dark crackle enamel. For 110 volts. 60 cy'cles AC operation.
810391
Complete with tubes. YOUR NET PRICE
${ }^{5} 2^{\circ}$

# Xammarlund precision PRODUCTS 



SEPARATE POWER SUPPLY

 firld exritation for the dymamic syerster．For 110 Volt． 60 Cyrle A．C．
BIOI41．MODEL SP． 110 ．Has fult tuning $8^{+}$sueaker．For 10 rolt $50-60$ cycle operation．
 Complele wint tules，bower sulinly and $8^{\prime \prime \prime}$ speaker． For 110 volt $313-$ ion cyrle onvithtan．
…．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． The Super Pro is also available with rack mounting panol and dust

## I．F．TRANSFORMERS

## TYPE＂Tr＂

Specially desibned for experimen－ tal and replacewent purioses．Dou－ ble－anmed，with mica comurrest on type condensers on isolantite base． Adhistable from top of can．Colls are litz－Folund and wax－injureynated． Alutninum shleld can is $2 \%$ dian．． threaded lugs on 2 ＂centers．

Untapped Frequency Center Tapped
$85390 \quad 175 \quad \mathbf{B 5 3 5 2}$
$\begin{array}{lll}85351 & 465 & \text { B5353 } \\ 8535 & 410 & \text { Beat Oscillator }\end{array}$
List．\＄1．65．YOUR PRICE．
99c

## TTPE＂gT＂MIDGET需

s abore but in compact can， $1 / 16^{7}$ square． by，yty high．Slig．centers， $1 \mathrm{H}_{1}$＂
Untapped Frequency C．T．


＂AIR－TUNED＂TTPE For use where aboolute stabilisy is nerescary：Air－quned，with Jitz－ wound coils．Tune froln top．Tijh－ mer condenser nownted on isolan－
tite Provile gain in exerss of 200 tite．Probile gain in excess of 200
per stare with uncqualled sclectivity． per stake with uncquailed sclectivits．
Devigned fartilularly for soreen Grid tyle tubes．Jeat Oncillator has funing lever to wary buat note． hus luning reads rolos－coded．Can． 2032 dia．， $5^{\prime \prime}$ high．

## Un．Fre

$\begin{array}{lccc}\text { tapped } & \text { quency } & \text { C．T．} \\ \text { R } 5360 & 175 & 85363\end{array} \quad$ NET EACH

VARIABLE coupling TTPE Type VT．Fermits continuouny ramable selectivity from slarp bedk
to blab fidelity；air－trinulud． $1 F$ frequentry 465 kic．Size． $2^{\prime \prime} \times 2^{\prime \prime} \times 5^{\prime \prime}$ B5378．
NET＊．．．．．．．．．．．．34 BS386．TYpe VTC．Variable trol of up to 4 VT iransformers．NET．．． 85383．Type VTF，Similar to VT，but Fith ME coupling．YTF－CT Cuter B5384，Type VTF－CT．Center－iapped out－ pis ${ }^{2} 87$ ．Type $V$ TO． 465 KC ．beat oscillator． For electron－coupled oscillator．
$\$ 2.70$


## ＂TSS－50＂ALUMINUM TUBE SHIELD

Complete Isolating is aftorded by this hield for the new high－gain RF pentodies． Drawn－in nerk completes shielding be－
imeen grid and plate of tube．Siarial de－ sign aflords maximum cooling．＂㘯＂high， $1 \%{ }^{\prime \prime}$ diameter．15／3＂ mounting centers．

24c

## NEW＂110＂SERIES＂SUPER PRO＂

## FINEST PROFESSIONAL TYPE COMMUNICATIONS RECEIVER

－Electrostatically Snielded Input
－Noiseless Band Switchint
－Two T．R．F．Stages on Aif Bands
NTW I6 TUBE CIRCUIT
 reviter． 13 ullt a round a 15 tule subselhet cir－ athit has indudes evert major develombent in hial features receiver desizn．mony previnus model．eft is sinaple enoush for even the rurice to tune in sta－ inms from every bait of the world．Xom awati－ alile lit two midels：$\Sigma^{\prime}-110$ tunes frum 15 in
 to ewt meters in 5 kiands．Nither model with or withouls rry－itit flltil．palicularly samalle for all Comusertial，Marine．Airciaft．Slunici－

## －Continuously Variable Selectivity

－Visual Tunins Meter
－Callbrated Band－Width Control

## MANY NEW FTATURES

 corporate every desitable ftatitr fer tudximula
 Whith of 3 to 16 KC for hifh tinlelity reterthtion： with califuratnd remirol．Nure features are： tieat orcillator ivolantite－nounted coils，note－
 table I A bands und nany orhers，Lises eishl metal and
 cataton for comblete data．
pal．or Anateur commanications work．

## crsstal bilter for extente s－lectivits on $c$ ．Wh．and

 minne．With tubses，power supply and $8^{\circ}$ sueaker． For 110 volts． $50-60$ cyrles． BIOI44，MODEL SP－IIOSX，Nunt as Hodel Sl＇lius but has milr－in varlabie selpetivity erystal tilter．Withinlos．nower sumply and $8^{*}$
sprakpr．
you can buy your Super Pro receiver on our convenient deferred pay． ment plan．Complete schedule of payments will be seat on request．


## ＂MEX＂EQUALIEER AKS Fixtremely small luw－lows con－ denser．heregryduntment．No． and phosphur brontie plates． 3 to

 30 nimf． $5^{4} x^{\prime \prime} 3^{n \prime}$ ． B5376．Llst．3oc．NET． 18c
## TYPE＂IET＂

A hith grade mited parluling condenser on a wa duch di－ ameter lisolamile bace．staim－ rasisting moisture，tempera－ ture and sibtation，With 4 －${ }^{2} 6$ nernal
ters．

| No． | Mruf． | List |
| :---: | :---: | :---: |
| 85420 | 1H－70 | 506 |
| 85421 | 71.16 | 60 c |
| 85422 | 14ヶr－＊＊4 | 70 c |

## ＂APC＂MICRO CDNDINSERS

 Wigh quality air－dielec in condeasers；compac in size．Particularlsadaptahle to S．W．and adtaptahle to s．W．and
T＂lira S．W．Work．lion

 cans．Screwdriver adfust ment．


## ＂ICT＂IRON CORE I．F．TRANSFORMERS

 A mew iron core I．F．trannformerFibleb Drorides naximum main rer stage coluted with extremely shar selecrlity．Core ls of fith leer－
meability manesfum alluy：rust－ meability masnexium allu＊：rust preof and thon－corrontre lsolantite mounted trlanmers．nize $13 / 4$ squate 4／8＂blgh．Sounting centers $155^{\circ}$ I．F．frequentw 165 KC ．
B5444．Single stage input． 85445，Single stage output．



## TRANSMITTING CONDENSERS

## TTPE＂MTC＂

For high and ul－ （ta－hikh medilent＇）
 been attained by amtill workmati－ hiates，sirer－Dlated thlom contatets，and I velantite tusula－ full．insure com－
 thlet －lability under all retuditious．Fath con－ lymant compes with hardirate for both panel or



## H．F．D．DUAL MICRO

## CONDENSERS

A new dual condense
for thae in low－pow－
iTird iranvilters．etc．
lias lsolantite base：
has sillit rear bear
ing：individual wip－
diot coitatet for earib section；shield between sec－ fons for grapunding，（＇adminim biated brass
 No，Capacity

## NOM 85438 85439

> Per Sec
50
100
140
28.5

NET
1.65
1.95
2.25

# Kammarlund precision PRODUCTS 

## HAMMARLUND CHOKES


midget
Chote CH-X

For receivers and transmittefs. Adaptable to many uses in even the smallest space. Univer sal-wound. Thoronghly impregnated. Center core is of isolantite May be mounted by ins own leads in any position 125 . MA. inze, $1 \delta^{\prime \prime} \times 1 / 2^{\prime \prime}$
BS344. List 60c. NET......... 36c


## CIIS

 Low-loss 8 mh . R.F choke. Ideal for all and transmitters. Sec-tion-wound on compact isolantite sponl. inas are protected by lacatier and cellophane. poquipped with fexibie leads and reversible end brackets for univetmal nioumting. D.C. resist-ance. 50 ohms. Citrent rating ies
 E5343. List. \$1.io. NET......
$\qquad$

SHIELDED CH-10-5 I nemy shielded choke for use in high gain circuits. Conjuctely en
closed in alaminum shell. Eliminates circuitt instabifity through stray couphing. Lniversal-wound lamb inductance trpe with very low distributed capacity, Diameter, 1 潒". Ihas remoralsle mounting legs. Inductance, 10 mhs D.C. re-



## X'MITTING CHOKE

 cFi=500A heavy-duty choke for himh vower trankmitters employing parallel feed. Universal found on Isolantite corre 11 as removable mountin
ghackets. Inductance $21 / 4 \mathrm{mh}$. D.C. resistance, 8 ohms. 504 MA. contimuons ratha. Size Lits" xisk B5345. List, S1.75.
$\$ 105$

## RFC-85



For use in plate circuits of all Brosdcast and Shoit-Wave leceivers. Has hikh inductance of 85 mh . With extremely low distributed eapacity for mani-
mum effiencs, D.C. resthance. mutn effciency, D.C. resistance.
215 ohms. Iax . current rut215 ohms Max. curnemt rut-
ing, 60 Sr.A. Bakelite case is 1ng, 60 his.A. Bakelite case is B5349. List, $\$ 2.00$. NET
${ }^{s} 120$
ISOLANTITE SOCKETS STANDARD SOCKET
 Low - loss lisolantite
sockets. Have long leakage paths with josilive
rut-proof side-gripping contacts. W'th mounting plilars. Glazed top and sides. Sub-panel or base mounting. Standard $17, z^{2}$ mountlag centers. List, 60c. $\begin{array}{ll}85339 . & 4 \text { prong } \\ 85340 . & 5 \text { prong. }\end{array}$ NET. EACH 55341.6 prong.
85348.


## ACORN

TUBE SOCKET
Desimned for the new JCA 955. 956 and 954 Acorn typa tubes Lowloss f lazed isolantite base. Ithin surface rusistivity. Silver-plaped bronze spring clips. 1$\}^{\prime 3}$ in diameter with two mounting holes. $1 \%{ }^{\prime \prime}$ mig. centers. B5338. List, \$1.50.
YOUR PRICE
 RLUND "STAR" CONDENSERS

## A nopular low priced midye

 for seq hliflders, experimenters and latoratorios. Sizesfor short Wave tuning. regeneration. antenta couplom mount m" shaft. Size. $1 \% / a^{\prime \prime} x 1 \alpha^{2}$ thikh and ip to $1 \frac{1}{2}$ m deep behikh and up to lizd panel, depending on capacity.|  | T-ise | Mmi. | Lust | NET |
| :---: | :---: | :---: | :---: | :---: |
| 85328 | Sm- 15 | 15 | \$0.85 | 1 1 |
| 85329 | SM- 25 | 25 | . 855 |  |
| 85330 | SN- 50 | 50 | . 90 | 54 c |
| 85331 | SM. 100 | 100 | 1.00 | 60 c |
| 85332 | SM-140 | 140 | t. 25 | 756 |

## "STAR" DOUBLE.SPACED CONDENSERS

Slmilar to etandayd "STAR' condensers listed above, but with greater air-gap between adjacent rotor and stator plates, allowing use in B5333. Max. capacity 35 mmf . List, $\$ 1.00$. NET....................
B5335. Max. capaeity 50 mm . B5335. Max.
List, $\$ 1.25$. NET.

60c 75c


## HAMMARLUND "SWK" S.W. PLUG-IN COILS

Efficient, well-designed S.W. colls. Wound on low-loss XP-53 forms. Hligh frequency coil secondarises have heay silest-plated wire- Others
have heavy enameled copper wlre. For use with hate heavy enameled.
$1+0 \mathrm{mmf}$ condenser.
4 PRONG COILS: $17-270$ METERS. Kit of 4. two-winding coils.
B5367. List.
B5367. List. $\$ 3.00$ NET........ .
$\$ 1.80$
6 PRONG COILS: 17.270 METERS. KIt of 4, three-windink coils.
\$2.25

INDIVIDEAL "SWE" COLLS
4 prong coils have twe windings; 6 preng have three windings. For 140 mmf . condenser.

| Range | 4 Prong | 6 Prong |
| :---: | :---: | :---: |
| 10.20 Meters | 85399 | B5389 |
| 17.41 Meters | 85390 | 85392 |
| 33-75 Meters | B5391 | B6393 |
| NET | 1 ${ }^{2}$ | $\cdots 2$ |
| EACH |  |  |
| 66-150 Meters | 85394 | 85396 |
| 135-270 Weters | 85395 | 85397 |
| NET |  | $2 \rightarrow$ |
| EACH |  |  |

## Brondenat Coiliaz 25050 Meters

日5369. \& PRONG. two-windint coil. $75{ }^{3}$ B5370.6 PRONG, three-winding coll. OR List, \$1.50. NEY...938

## NEW SWF LOW-LOSS COIL FORMS

Rugzed 10w-loss forms; of XP-53. nibhed for air-spacing. With fanye grilts Have shelf inslde for momm$2 \%{ }^{2} /{ }^{10}$ long. Nancural a amber color. $\left.\begin{array}{ll}\text { B6371. } & 4 \\ \text { B6RONG } \\ 5 & \text { PRONG }\end{array}\right\}$ Ea. 218 B5373. 6 PRONG........... 24 c

## ULTRA SEORT FAVE

 COIL FORMSIsolantite coil forms desikned for maximum effelency at ultas-high frequencies. Forms are os in riamhave holes dilled to permit almost Pater Made onty ith five pronz tijec. Iutal - Por colls thaing tod 23 and 56 meraB5382. List, $\$ 1.00$. B5382. List
YOUR PRICE

MIDGET CONDENSERS
High quallty midget condensers. Insulated
 an $n \rightarrow y^{\prime \prime}$ air tapk with curvily fastened to gre se, shaft wide heytints at Tont ond rear nroulde at ra bood contart clockwise rotation shaft extends beyond rear to fa . cilliate ganging.


DOTELTMSPACED MEDEETS
Have special bearings and Isolantlte insutation. Fxrejfionally efficient at ultra-high frequencics.



## DUAL MDDGET

## CONDENSERS

Rigid, high quality twogang midaret condensers. dealded efticieney at ultra-
high frequencies. Plates are
.0225" brass, with .0245" air-gap. Overatl leagth behind panel, $34 / 4$
BS434. 50 MMF. PER SECTION. Semi-cir Rular I'lates. Minimum cajracity 50 m minf. PER SECTION. Hidine Plates. Min. cap. 5 mmif.
 List, \$3.00. NET EACH. .
*1 31
B53II. 100 MMF, PER SECTION. Didine B6346, 100 MHF. PER SECTION. Seml-
 B53i2. 140 MMF. PER SECTION. Midline plater. H .nimu capacit 7 mol B6347. 140 MMF. PER SECTION. Semicircular Mates. Min. cap. 8 mmf.
List, $\$ 4.00$. NET EACH ............

## MOUBLE-SPACEH DUAL MIDEETS

Similar to above dual condensers, bat hapo air-gap of 0715" brtwern adjacent rotor and siator plates. Ifleal for conipact 5 meter transmitters using 45s or 10s. etc., in puab-bilin No
8.53 Mas. Min.


## BANDSPREAD

 MIDCDISFor use as bandspread tuning condensers in short क ave receivers and for anateut froquency meters. locked and sil tuninay be be done with bandspread


|  | Tank | Tuning |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Stock | Cap. | Cap. | List | NET |
| No. | Mmf. | Mmi. | Price | PRICE |
| B53i3 | 100 | 18 | $\$ 3.00$ | Sic |
| B5314 | 100 | 50 | 3.25 | 1.96 |

CONDENSER COUPLING Bakelized canvas instulation: brass
buthints. Flexible: for sangling monbuthines. plexible: for gangling monjunsers elf.. Without need of exact liaft alignment. For $1 / 4{ }^{\prime \prime}$ shafts. B5323. List. 60c.
YOUR PRICE......

Truansmitting Epuipresent

## RAYTHEON

## TRANSMITTING TUBES

Ruggedly built to give excellent service and long life at rull rated output.

## EK49

A new bean-jower type Tetrode for Amateur use. Fil., 6.3Y at . 9 Amps. Plate. fip Y. niax. et ion watis. 6 prong Isolantite bas B676.
NET....

TRTODE

oliage 200 ode. Fil. 5 t. at 4 A.; Plate lumilin Ideal for use as H.F. osciletor or BII30. YOUR PRIGE.. TYPE 16eT-I
General-purpose triode. Amplification factor 12. D'late discipation 100 W. : Class C power outpli 1110 to 400 W. For R.F. service ar Clans i: modutator.
BII3\|. YOUR PRICE.........
General-purgose 3n. Same as $100 \mathrm{~T}-\mathrm{L}$ but requires less driving bower and lower biss. Especially sulted for use ill diathermy equipment.
BII32. YOUR PRIC


## OIMTTE R.F. PLATE CTOEFS

Fligh efficiency R.F. chokes for all transmituer circuits. Sinnle layer windings on ceranate core are hed in moce and insula pruct coating. Pate
88250. TYPE Z1. For the 5 meter band. Indtuctance. 5.4 microhenries. D.C. resistancetail leads. NET
38
88 microhenries. Reni.fance $9 \rightarrow$ and 20 meletrs.

 95 mirroheriris. Resistance. 5 ohnis. $\mathrm{s}^{\prime \prime}$; diam. $11 / \mathrm{s}^{\prime \prime}$. With mitg. brackets. NET.
88253. TYPE 24 . For $20,40,80$, crs. 220 miernhenries. Resistance. 9 ohnisSize, 61/2x ${ }^{2}$. With mounting brackets. 88 C
NET........................................

## FIMACTUBES

Designed especialy for heavy reputation for being able to \%ake a beating" and for long Life. Plates and cride of tantalum: envelopes of harri Nonex plass. Will onerale pflirienily at tither salues: used by leading Amateurs.

$$
\text { TTPE } 35 T
$$

A beam-pnuer transmition tube for oscillator or doubler Fin vi at so MA. max Power B672.
B672.
NET...
$\$ 3.50$

PENTODES

|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Type | No. | Plate Diss. | $\begin{aligned} & \text { Class of } \\ & \text { Service } \end{aligned}$ | NET |
| RK17 | 86 | 10W | ${ }^{A-C}$ | \$ 4.5 |
| RK20 | 8654 | 40W |  | 15.0 |
| RK20A | 8655 | 40W | C | 17.50 |
| RK25 | B65 | 10W | C | 4.50 |
| RK25B | B659 | 10w | C |  |
| RK28 | 866 | 100 W | C | 34. |
| RK39 | 867 | 20 W | C |  |
| RK44 |  | 15W | C |  |
| ${ }^{\mathrm{RK} 45}$ |  | 10w | B |  |
| RK96 |  | 40w |  |  |
| RectiFIERS |  |  |  |  |
| Type | No. | Peal Volts | $\begin{aligned} & \text { Max. } \\ & \text { Amps. } \end{aligned}$ | NET |
| RK19 | $\begin{aligned} & 8683 \\ & 86845 \\ & 8686 \\ & 8687 \\ & \hline \end{aligned}$ | $\begin{array}{r}1250 \\ 1250 \\ 1250 \\ 10.000 \\ 10.000 \\ \hline\end{array}$ | 0.30.30.30.62.5 | 7.505.007.5016.50 |
| RK21 |  |  |  |  |
| RK22 |  |  |  |  |
| 8664 |  |  |  |  |
| 872A |  |  |  |  |
| CLASS OF SERVICE. CLASS A: Audlo Amp.: CLASS B: Class "B" Mod, or Class B or Amp. |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

MERRILL LOW "C'
TRANSMITTINC INDUCTORS
Desiand for maximum potherency in hish or
 than coulur tabing. "T" series wojls which aie wound with Ko. 10 wire will stand 1 Nw. input " 13 " series coils and for medilun puwer tiona $\because A \cdot$ series are for Antena Coupling


OAMITE VOLTAGE DIVLDERS
Idesl for transmit ter power suyplizix
Concriatisply
rateri. lave sliding contacta.
long; zato walt 10, Hollow cersmic core permits allewinate air circulation to prevint orerheating; covererl with baked enamel coating. ojen only on contact side.

| 10e FATTS |  |  |  |
| :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { No. } \\ \text { B8255 } \end{gathered}$ | Ohms | MA. | NET |
|  | 10.000 | 140 | \$1.32 |
| 88256 | 25.009 | 5 | 3 |
|  | 50.0 mol | 28 | 7 |
| 88258 | 75.040 | 11 | . 62 |
| 88259 | 109, 0000 | 11 | 1.62 |
|  | ExTRA | SLIDER | . 09 |
| No. Se0 VATATE NA. NET |  |  |  |
|  |  |  |  |
|  | 12.0 mm | 111 | 1.76 |
| 88262 | 25.900 | 88 | 2.06 |
| 88263 | 5N.000 | 19 | 2.06 |
|  | 75.000 | 30 | 2.06 |
| 88265. | Inomin | $\stackrel{20}{20}$ | 2.06 |
|  | ExTRA | SLIDER | . 09 | CONDENSERS

## MIDFAY

Sturdils built, compart. artable condensers.
Aluminum ol a tes and thates are cartfully ma calex insulation. Double
 tatiras ate at 4 DC. shaft in int. Winh tanti


## 

smatz athe *unjzart. flatal for portable receivers or Jow-llower portable transmit ears. Aluminum nlatus and frame. Catruiumblated steel sliaft. Air gaj. . aFe 1000.

| ${ }^{1} \mathrm{O}$ | Mmf. | NET |
| :---: | :---: | :---: |
| 82840 | 25 | 31.59 |
| 32841 | 51 | 1.65 |
| 82842 | 70 | .73 |
| B2844 | 105 | .79 |
| 82844 | 159 | . 85 |
| 82845 | 260 |  |
| 82846 | 365 | 2.23 |

AMNBMDTTINC trabsinftepty 14 to to 100 walts (W. ar 3i) Walts hobie, I a teshate rolltier edges alld are holsheri. suitable for ralizing. Airgap, 070" Peak soltage, 3000. No.

Mnf. $\begin{array}{rr}5 & \$ .9 \\ 2.6 \\ 2.2 \\ 2.6 \\ 2.8 \\ & 3.6\end{array}$

MDWAY DUALS

| CAT. NO. | $\begin{aligned} & \text { TVPE } \\ & \text { NO. } \end{aligned}$ | $\begin{gathered} \text { MMF } \\ \text { Pep. } \\ \text { See. } \end{gathered}$ | $\begin{gathered} \text { PEAK K } \\ \text { V. Per } \\ \text { Bec. } \end{gathered}$ | NET |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 82863 \\ & 82864 \\ & 82865 \\ & 82865 \\ & 82867 \\ & 82869 \\ & 82834 \\ & 82835 \end{aligned}$ | MR- 25-BD | 25 | 1200 | 2.56 |
|  | MR- $50-\mathrm{BD}$ | 50 | 1200 |  |
|  | MR-150-BU | 150 | 12000 |  |
|  | MR-100-BI) | 100 | 1200 |  |
|  | MR-260-B1) | 260 | 1200 |  |
|  | © 1 T- 20-CU | 20 | 3500 |  |
|  | *TT-50-G1) | 50 | 3500 3500 |  |
|  | MT. MO -GU | 70 | 3500 |  |
|  | *MT-100-GD | 100 | 3500 |  |
|  | * $\mathrm{MO}-180-\mathrm{BD}$ ) | 180 | 2000 | 4.70 |

Rounded Plate Edges

## TRANSMITTING TYPES

Inconporate uvel; adranced feature in modern condenter clevizn. Mycalez inculated, Accurate ant relialsle Hifid and vilstation-proof. Peak
roltage ratines are at 4 Mi'. Conden ers rated at 4000 volts and ofer trave folished extra beany ulates with rounded edges. ('mubuct size.



TRANSMITTINE DUALS

| CAT. <br> NO. | $\begin{aligned} & \text { TYPE } \\ & \text { NO. } \end{aligned}$ | $\begin{array}{\|c\|} \hline \mathbf{M M F} \\ \text { Per } \\ \text { Sec. } \end{array}$ | $\begin{aligned} & \text { PEAK } \\ & \text { Y. Per } \\ & \text { Sec. } \end{aligned}$ | NET |
| :---: | :---: | :---: | :---: | :---: |
| B2837 | KT-80-PD | 88 | 3500 | \$3.23 |
| 82838 | -T-210-PD | 214 | 3500 | -5.12 |
| 82831 | - P-3: $25-K D$ | 325 | 4000 | 12.94 |
| B2823 | -G-50-K1) | 50 | 5250 | 6.29 |
| 82824 | XG-110-Kl) | 110 | 5250 | 10.58 |
| B2836 | T2-40-RI | 40 | 12000 | 25.28 |

TRIM-AIR MIDGETS
For use wherever high qual minder condenserp are tio mountex assembly insures great ent possible stability; mininitum
cilities. Small enough to mount
cinsides. IF or Inf shipld can. Two or more can be easily ganged. ('an be used for miduet tuning condenser or low lowitr nelltralzation. With monning hardmare and extension sitst.
$\begin{array}{cc}1000 \text { VOLT PEAK } & \text { No. MOL MFA NET } \\ \text { Stock Gap. NET }\end{array}$

 B2848. 4 Purpost Condenser. For ulita
himh frequency work. 2 or 3 plate condenser with solid or split stator.
NET.
73 C


## COTO CONTROL WHEEL <br> A new line of dials and

 indicators aspecially suit ed for use on Ansatelle transmiters. Combine the fany advantages of bork pointer abal dial in a sincle attractive professional yyg coptrol. will give
your equipment that much desired commercial molded biack bakellte fitted with aluminum molded biack bakelite fitted with aluminum fshed aluminum with pollshed aluminum marking. Name plates atiach eandy with lwo small pins. $3 y^{n \prime}$ wheel has a pointer. radius of $1 z_{8}{ }^{\prime \prime}$ : suale width. $5 y^{\prime \prime}$ dia. ${ }^{\prime \prime}$ wher whee has a Name plater avallable as follows: OSCllilat TOT: ONG P1.ATE: JINFFFIF: J1FFER INATE:

 ANTENNA, Specify nome plate desired when
ordering complese control. Whel.
B2665. $31 / 4^{n}$ control
With name plate. NET.............. B2666. $31 / 4$ " Control Wheel Only. 1t. B2667. $21 /{ }^{\prime \prime}$ Control Wheel. With name plate. NET
1.18 B2668. $21 / 4^{\prime \prime}$ Control Wheel Daly. With bolater. NET *)

misINSULATED GRID CAPS B6331. Standard sizt for receiv. ing tubes. Biack insulaition. Large size for transmitting 86333. Large size for transmitting 110

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B385. Contains valuable terhndral and oper ating information on rcA-deforest Amateur Transmitting tubes. NET.
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Conaiki intcrmation on twisc new tubes: RCA 801. 802. 8238, 850. 354 and 955 .

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A complete booklet on the ojeration of Cathode Ray tubes. Detailed data of real value.
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## KNIGRT UNMOUNTED <br> TRANSMITTER CRYSTALS

Iligh quallty: inexpensive. Aceurstels around from the dnest quartz svallable: individually callitrated by a legd ing nanufacturer of fine quartz cristals. Calibration ating frequency under normal ondifions, dependent on type las only one trexuenm: no pow these tine units three spurious frequetries as folund in many cleap ersstals. sperify frequency and closest stork nait will be shipped.


## TRANSMITTING TYPES

New Ulexa B. F. Tubea
T20 0scillator. R.F. Amplifier, Modulator. Plate dissibnte 20 watts.
BIIOO. NET. STS
T220 Zero bias Oscillator. R.F. Ampllfter. Modulator.
\$2.45
Ts
日l 102 NET
T125 AllO2. NET AMpililer. $\$ 8.00$
 Bes 125 watts.

T200 Oscillator: NET, Ampininer. Plats0
814

814 Osclilator and R.F. Ampiliter. Plate dissipatesi ${ }^{200}$ Watts.....$\$ 18.50$
GENERAL PURPOSE TUBES
866B Halt.Wave mercury vapor $\$ 3.00$
reetifier. B1IO7. $\mathrm{NET} . \mathrm{S} .00$
866 Jr . Half.Wave mercury vapor. $\mathbf{r}$ rectiner. BIIOB. NET.. $\$ 1.00$
$866 \begin{aligned} & \text { Hall-Wave mercesry vapor } \\ & \text { rectifter, BIIO9. NET. . } \$ 1.65\end{aligned}$
756 Osclilator. Doubler, Modulator. Dissi-
BIIIO. NET
.$\$ 4.95$
$825 \begin{aligned} & \text { Oscillator. R.F. Amplitier. } \\ & \text { to watls. }\end{aligned}$
Disslpatees
.$\$ 4.95$
203E (Metal Piste) Avo ion and liow power R.

2032 (Metal Plate) Zero Bias Modulator. Bisilipates, NET ........... S8.50
841A H. F. Ossillator, Oowber. R.F. Ampliner. Dissidates 50 wats. $\$ 7.00$
845 Audio Ampliner, medulator. Delivers 2 to 188 wates Class A.
BIII5. NET...... $\$ 12.50$
203A Oscillator, A.F. Amplifter, Modulator. 31116 MET
$\$ 12.50$
$211 C$ H. F. Oscillator, R.F. Amplitiner, Mod. ulator. Diss. ${ }^{100}$ watts. $\$ 12.50$ HD203A ${ }^{\text {ascillator. R.F. Amplifer. Modulator. }}$ BIII8 NET
$\$ 14.50$
822 (Super HD203A) Osc., Amp. Mod.


## POPULAR AMPEREX TRANSMITTINC TUBES

A Well-known and reliable tine of teurs and Experimenters Careftalls mantifetured; built to rigid specifications. Graphite anodes, Channel type
element supports, riveted plate conelement supports, riveted plate conhi:hh efflciencr fitaments, are but some of the many festures which make them leaders in the field. ponular types are listed below. Ve can supols all other Amperex tubes. Order with deposit.


7BI 20 Zerovblas A.F. and R.F. Power Am lion BI I25. NET...... *1. 49
HF100 R.F. Amplifer. Oselliator. Class $\mathbf{H}$ Modulator. lilete dissipation at maits.
BI $1 ?$ BII26. NET
$\$ 12.50$
HP2, R.F. Amplifier. Oscillator. Modulator.

EIP308 R.F. Ampllfier, Oscillator. Modulator.


## Transmitting Equipment



## BLILEX MOUNTED CRYSTALS

Chit from the finest raw Brazilian quartz：accepred as stantard by Amatellis thronghotit the entire wortis． world＇s finest cristal labo． ratory．Frequency callbrations pisen are ar－ fived at by comparison with a standard which ing in a precise，accurately calibrated crystal．

## TIPE LD：

A new mpstal with many features．Frequency drilt is less than 4 cyrles per meqarycle per degree C．：ellminates nred for oven equipment． Calibration is within，D3 \％Specity frequency．


## TYPE HF2

Spectically desimed for the higher rrequency bands．Avaliable in tro ranges：for 20 meter operation．and for multipising into the 10 and
 stee！machune－lspped electrodes in a holuer of molded Victron G．Specify frequency．
 $\begin{array}{llll}82523 & 14.0 \text { to } 14.4 \mathrm{MC} & 5 \mathrm{KC} . . . . & 10.00 \\ \mathrm{~B} 2524 & 14.4 \text { to } 15.0 \mathrm{MC} & 5 \mathrm{KC} . . . \mathrm{in}, & 15.00\end{array}$

## TYPE BC3

Trpe fe3．Accurately calibrated X－cut crys－ tal mounted in a moditd lisikilite holdet．has－ ins expoied heat－radialing electiode．Pluse into 5 prong tube socket．Callibration is within ． 03 多． Syecify rrequency when ordering．

| $\begin{aligned} & \text { STOCK } \\ & \text { NO. } \end{aligned}$ | $\begin{aligned} & \text { Frequency } \\ & \text { Whala } \end{aligned}$ | $\begin{aligned} & \text { Band } \\ & \mathbf{M C C} \end{aligned}$ | $\begin{aligned} & \text { NET } \\ & \text { EACH } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & 82525 \\ & 82526 \end{aligned}$ | 圭 5 KC | 7.0 3.5 | 53.9 |
| $\begin{aligned} & 82527 \\ & 82528 \end{aligned}$ | $\begin{aligned} & \text { EXACT } \\ & \text { EXACT } \end{aligned}$ | 7.0 3.5 |  |

TYPE CFI CRYSTAL FILTER For ersstal tiller circuits in Sinnle signal recelvers．Vertiral mounting steatite holder；pins fit 5 prong sockec．Flolder stze， $114 \leq 13 \mathrm{Ki} / 15$ Supplied for $4 \overline{56}$ Iic filters． B2529．NET
$\$ 5.50$


## VARIABLE <br> FREQURNCT UNIT

TYPE VF－I
Easily qujusted rariable crys al．Can be shifted uy to 6 dit at the fundamental 3．5 MC fre
 B2530．Within 5 KC of sheci－\＄8．09 B2531．Exsct speclfied 3.5 S10．00 MC irequency．NET

## BLILEY CRYSTAE

 HOLDERSMolded bakeiite holders for inch tollare rristals．Threatleal setew toll Plug into finh socker．Jiouats in ansi 10sition． E2832． $20-40$ meter．
E2533．80． 160 meter．EACH．
95c

## JOEINSON X－MITTINE SOCEETS

B6I40．UX BASE． For tye 10.
other UX bas
tubes． l＇orcelaln ingulailion； heasy List， 85 c ．
List，
NET
36141.50 WATT socket．Torce．．59 waTh Prrelain base springs．Cadnitum plated．
List，\＄1．25．NET
128 emane
732

## MIDGET STAND－OFF

 INSULATORSSmall．glazed porcelain units． Inexpensive sad efficient insulators for multi－stage rles．
86142 inches
86！ 42,2 inches high．IKod hardware． $10 \cdot 32$ nickel mated brane NET EACP
$7 c$

 nickel hated brass hardware． hardware．A ting unit NET EACH 4
JACK TYPE
An assmbly of $2^{2 \pi}$ stindi－nft inaulator and light duty jack B6I45． NET EACH $\qquad$ 9c 0

## FEED－THRU STAND－ <br> OFF INSULATORS

The ideal method of bringing through sub－fanels．Nturdy insula－ rovs of glazed porcelain．Einiversalls eccepted tor transmitter use． B6， 10 ． $1 / 4^{\prime \prime}$ high， $78^{\prime \prime}$ dig．base Fits NET EACH

15c
 NET EACH

12c
B6112．\％\％＂high，4／9＂dia．baке．Fit NET EACH
．7e

## JACE TTPE FELD－TERU

 fitted with built－in jack on top． Jack firs standari Gli plug， MET
 Hace；fits $7 / 14$ hole．
NET $15 c$

## CR TYPE JACKS E PLUGS

 Banana if F e spring brass．B6343．METAL JACK．
BOZ． 41 G EACH
PLUG INSULATED TYPE $\begin{array}{ll}86345 \\ 86346 & \text { RED } \\ 10050\end{array}$
100 FOR $\$ 4.90$ ．
10 ASSTD． 55 C ．EACH．

## TRANSMITTINC CONNECTORS

 B6146．JACK． $14 x^{n \prime}$ nimh． Mouat with a NET12c
B6147 PLUE祭 nut，has hole in end． 4＂＇mopler tubing． $\qquad$
$\qquad$
 aro Ideal for use in amsteur transmittens or whtrier curtents of tradio fiequitics must the
meastited．Extemal contines will stand？ onerloads and fre easlly retulactabte．Moulded batelite case．flange moutring tyse．síg＂size． MODEL 341


## TRANGMITTING

## COIL TORMS

An Ideal inductance form for fransmilters and for numerous other uses．Pakelite body， $23^{\prime \prime \prime}$ diame－ ter， 3 䏠＂long，whit molded fin－ get rrip rim．Winding space， 3 Lis $^{\prime \prime}$ rithe extending is＂insure low－los airceore winding．Two styles： are threaded 12 turns der inch


PLAIN FORME GROOVED FORMS

| $\begin{aligned} & \text { No. } \\ & \text { 82650 } \\ & 82661 \\ & 82652 \end{aligned}$ | Prong： 4 5 6 |  |  |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { NET } \\ & \text { EACH } \end{aligned}$ | $18$ | NET EACH |  |

## COLL FORMS <br> Low－loss coil torn2s of Insu－ lex．Farticulart adapled or Threaded for Na 10 wire mith phents of holes for wire and supports． 20 and 40 mpter coil \＆b  4＂x612＂．FOR 20 AND 40 METERS <br> | R5696．Less suaporting legs．．．．．．．．S0． 69 |
| :--- |
| 5697 ．With supporting legt．．．．．．． 88 | <br> B5698 FOR 80 AND I60 METERS <br> 86698．Lets supporting legs． <br> .51 .18 <br> SOFTDRAWN COPPER <br> TURINE <br> For winding your own inductances．Made of seamless solt drawn copper，annealed．Lhendu easils． $4 w^{\prime \prime}$ wall．Manimum lengths， 25 feet easils．＂ha＂wall．Maximum lengths， 25 feet． Steck Outside 

## CONCENTRIC <br> TREDER CABLE

For fepting any type of transmatith antenha，A new fluxible cable，completely
weatherbooted；with ney mothed rubher seal at friangle tormintis for conmerting to either voltage or current－fed antenna systems．Dielectric breakdown is 460 n n rolts；surge inpudance． 68 ohms．Will lande up to 1 liw．with comsant overall efliciencs B2472．50 FOOT COILS．


B2473． 75 F00T COILS
B2473． 75 FOOT COILS．
NET.................................$~$
B2474． 100 FOOT COILS
＊26．75
Wo can supply above cabie in lengtha wo to 1000 feet．Write for prices．
GUARDIAN

## RELAYS

## MDDED 3－10

Fincerially sultable cuit D．1．D．T．IyJu． Will prowiderapid ing to trantamitint：with mintmiun number of

contan switches．Can be numpl in a numbet of methoxs th permit fast burak－in ompation for CW or for Mish－totalk circmits for plone tranc
 siltur contects．For 110 volt AC．
B7884．NET．．．．．．．．．．．．．．．．．．．．．

## MODEL $\mathrm{E}=\mathbf{1}$ 事

May be used lin all thpes of keying civcuts． bastifive edtirn spings allow hagh speed kerint without sputtering－Coil operates mm any 5 to 16 A．A．c．dilament winding or frome $11 / 2$ to B7685．NET
\＄3．23


## Trainsmitting Equipment



## SECTIONAL

 RELAY RACKSAn ingenionsisy deximnen ratk the At erery 1 talkmilter requitrment Sion with lrine minit and add a ver of hesvy strel, tindihed in black of hesry sirel, hayined in black crinke-enantel. wouvres profide am-

wle ventilation. Side sections, fions panels. and blank nanels are avail able in standaril raek sizes (see the complete living belows. Thasic sectlion can be placed on riesk of table: then as mections are added. rank may th tacrd on four. regardiesi of number of sections insed.
B9777s Base. Ileavy rest steel. Size. Enx Jhit hops an' prontiod lor flut MET Blask crinkle-thash.

B9778. Top Cover. Inverted
TOD Cover. inserted tray tle
 stDEs


## BACK



## RELAY RACKS E PANELS



Dexigned for Tramsmitters or Public Address Systerns. Hears manimum ripidity and keeps al units in alignment. leary wrought steel base is drilted for floor moninting. Acruratels drilled for mountius srems every 13 inches Stondard size to accommodate 1 ? inch pancls With folosi sjecer $18 \%$. Shipped in knock-down form. Complete with necescary mutt and bolts for montintine. Wiil Transmitter or lublic Addres Installations.
$31 / 2$ TNOT ERCE
812510. Shimmeknocked-town. Complete with hardware. Weizht, 26 lbs.
$\$ 8.95$

## TB $1 / 2$ INCE RACK

B12511. shiped knomedi-dimo. romplete


## BLANK PANELS

Rlack orvotaline finich. Fit standard relay racks. All ranels are 1!p: long. HeTV No. Helght NET

89803
B9804
89805
CHASSIS FOR RELAY RACES
Theve zinc-coated, auto-buly neel chassis ary
 Inailimal cay be lised for receiver chassis bases mar-himed.

## 39812 39814

- 


50.98

## RELAY RACE BRACEETS

rorides easy mounting of chassis bases and sub-panels to relay rack panels. Made of sturdy suto hody stepl with black erystalline lacques

SPEED-X TRANSMITTING KEYS

## NO. 301 AMATEUR'S KEY

 key, sturdils voon stritcted. Mouldet singer contarts. Arn and binding post chrome plated $\qquad$ $\$ 1.26$
NO. 320 HEAVY DUTY KEY Ilas $1 /$ inch solid coin silver contacts. Well insathated. Black base. All other parts chront
mated.
B7982. List, \$3.25. NET....
$\$ 1.91$

NO. 310 STANDARD EEY
 Skipleton design Well monstructed: Coin silver contacls
Black base with Black base with B7963. $\$ 1.47$


NO. 300 Weell-made 10 . cost prattice key. B7960. 88e

## HI-SPEED AUTOMATIC KET

NO. 501

sional hey fossional key fully | adjussablef from |
| :--- |
| 8 |
| wordd | 8 words per


hird adjustment at contacts. List. $\$ 17.50$. NET. S10. 29
B7964.

## NO. 515 AMATEUR KET

A durable, beay-duty Speed Key, Statuary bronze noving parte hase and casting are cornarls. With brown wrinke to perfectly match other abore. Less eord and plug.
B7967. List, s9.25. NET...... \$5.44

## SPEED-X BUZZER

a professional constant frequencs buzzer. Will hold its ad2 dry cells battery.
B7986. NET

## .73c

## THE FAMOUS "MAC-KEY" LINE

## DE LUXE MAC-EEY



One of the smoothest - operating Semi-Auto-
nitic keys on the market. Built by world's fastest telegrapher, Ifuge one-jiece cest hase.
in smooth black marble effec of brass. chromium+Ilated $1 / \mathrm{c}^{\mathrm{c}}$ adjustront servors. will help make yout dicmals as smooth and rhythmical as an automatic sending machino.
B7973. NET
$\$ 9.50$

## STANDARD MAC-EEY

Heavy cast base anchors key firmly to table. Contact points perfectly alimnable. Vibrationess and stutter-proof. Easy to use and non iring.

NET.
$\$ 7.50$

## MAC STRAICET KEY

A well-halanced, sturdily constructed stratiaht hey for nue in all tyrtic of radio or wire transheary cast hase makes sending eacy and tireluw Wial not slide around and nued not be fastened B7969. NET................. $\mathbf{\$ 1 . 5 0}$ 87969. NET

## CODE PRACRICE STT



Slmal key and adustrable buzzer on wood base leprocode xignals.


UNIYRZSAL METAE CABINETS


Sturdy malti-purpose black crivalline-finished cabinets.
 tranmmitters. eic. Froverty Puntilated, Will take chassiz
un to $14^{\prime \prime} \times 1 a^{N}$ B9825. SINGLE UNIT. Size. $8 \times 10 \times 13^{\prime \prime}$ Will take
one 8 . $\times 10^{\prime \prime}$ panel. Has
doar on top only. size.
one

NET
$\$ 5.14$

## mac oscillator

 frovides pure tone, adlobe eycles. Ideal for berinners who find it code simals orer the sir. Also uyeful as instruc:
 ion equipment for sehools. "Ha"
 B7970. NET....

## MAC FUMMER

A simple but entirely efficient mechanical audio arcillator. destimed for self-instruction of the Morse and telecraph codes. Whll produce a limu chece note as clear as a bell. Requires pat words per minute

## B7971. MET

minue. $\qquad$ $\$ 1.50$

## MAC PRACTICE SET

 "Braight Key" and merhanical ‥II um. mer" on one hirime base. Excellent for bexinners learaing



## TBANSMITTING CONDENSERS

 CONTINENTALCompact, high-voltake, non-induc tive condensers expecially desimmed Toill ine amateur transmititrs. Completelstand a e a $\nabla 5^{\circ}$ oyerioads. Completely wax-impregrated. $\Delta 1$ i condensers hare bindink post terminals mounted on highly efficient Doreelain stand-ofl insulators. Equipped with mounting ears.

|  | W-TYPE |  |  |
| :---: | :---: | :---: | :---: |
|  | 細d. | Folts | Nize |
| 87880 | 1 | 1000 | $5 \times 2{ }^{\text {a }}$ |
| 7881 | 2 | 1010 |  |
| 7882 | 4 | 1000 | $5 \pm 21 / 4 \mathrm{SN}^{1 / 4}$ |
| 7883 | 1 | 1500 | $5 \times 21 / 41^{5}$ |
| 37884 | 2 | 1500 |  |
| 87885 | 4 | 1500 | 5xix ${ }^{\text {¢ }}$ |
| 7886 | 1 | 2000 | 5x2 $1 / 2150$ |
| 37887 | 2 | 2000 | 5x21, $\times 2.4{ }^{\circ}$ |
| 87888 |  | 2000 | $5 \times 1 \times 3^{\prime \prime}$ |

finish. Win abmery prex PAIR of stwites

898
89819

## METER PANELS

Heavy stepl, hbark erystathine mpter panel


B9826: DOUBLE UNIT. Size. 1i36x19x13N. Whit take iwo 8 "xl0" slotted pantio fas tonts on top and hath.
$\$ 9.12$
B9827 TBIPLE UNIT, Size, 26,4x19x13" Fill tate three $8 x^{2} \times 19$ " sloted wanels.

B9828. QUADRUPLE UNIT.
 NET rar dior nils. $\quad \$ 11.60$

TOBE MLCRANOL
These condensers are positively sealed against moisture and are
brocessed in Micranol gull mit trocessed in Mleranol. Will give Fong raithful sorvice under hard neat matal dotitainers with porceneat matal containers tith porct-
lain insulator subported terminali. jlare mefal ears for casy thotinting. Working voltage 2000 D.C.



## Transmititing <br> THORDARSON TRANSFORMERS



## AND CHOKES

A popular Amateur line oftering a complete variety of transformer equip－ ment for dependable power supplies Heavily constructed；conservatively rated Tor assured hes listed below are for 110 － 115 Volts，50－40 cycles． 25 eycle， 110 volt primaries are avallable at $60 \%$ net additional． 220 yoit， $50-60$ cycle prlmaries can be had at $30 \%$ extra．
PLATE TRANSFORMERS


FLament

| Cot： |  | ${ }^{\text {a }}$ Vols | ${ }_{\text {D }}^{\text {Dotes }}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }_{\text {Elilisi }}$ |  | 1460 C．T | ${ }^{525}$ | $\xrightarrow{150}$ |  |  |
| ${ }_{\text {elilits }}$ |  |  | cois |  |  | cin |
| ${ }_{\text {E1121 }}$ |  |  | ${ }_{\text {cosem }}^{18000}$ | 500 | 634x6480 |  |
| ${ }_{\text {cher }}$ |  | cose |  |  |  | （12．35 |
| ${ }_{\text {B11124 }}$ |  |  | ${ }^{2000}$ | ${ }_{\substack{300 \\ 380}}$ |  | ${ }^{35.28}$ |
| cill |  |  | coiol |  |  | ci．23 | dary

$\dagger$ Has bias tap at 30 volts for $6 L 6$ tubes．
FIIAMENT TRANSFORMERS

| Cat． No． | Type | $\begin{aligned} & \text { Secondary } \\ & \text { Volts Arops. } \end{aligned}$ | $\begin{aligned} & \text { Insu- } \\ & \text { Lation } \end{aligned}$ | Size | NET |
| :---: | :---: | :---: | :---: | :---: | :---: |
| E11183 | T64F35 | 7.5 at 6.5 | 1600 | 395x3s／x ${ }^{\text {a }}$ | \＄2．65 |
| B11184 | T64F13 | 7.5 at 2.5 | 1600 |  | 1.91 |
| B11185 | T64F14 | 10.0 at 8.0 | 1600 | $336 \times 35 \times{ }^{\text {a }}$ | 2.94 |
| B11186 | T64F15 | 11.0 at 10.0 | 1600 | $31 / 8 \times 41 \times 48{ }^{4}$ | 4.41 |
| 811187 | T64F33 | 2.5 at 10.0 | 7500 | 3453\％${ }^{4}$ | 2.65 |
| 81118 | T70F4 6 | 5.0 at 3.0 |  |  |  |
|  |  | $\begin{array}{ll} 5.0 \text { at } \\ 5.0 \text { at } & 6.0 \end{array}$ | 5000 | 3\％ $5 \times 4$（ | 4.56 |
| P11189 | T74523 | $\begin{aligned} & 5.25 \text { at } 12.0 \\ & \text { (Eimac } 100 \mathrm{~T} \text { ) } \end{aligned}$ | 1600 |  | 2.94 |
| 811194 | T74F24 | 5.25 at 20.0 |  |  | 4.12 |
|  | T61F | （Eimac 2505 ） | 1600 | 3\％13．7x470 | 4.12 |
|  | T61F | or 5.0 at 2.5 |  |  | 1.18 |
|  |  | $\begin{array}{lll}\text { or } 2.5 \text { at } & 2.5 \\ 2.5 & \text { at } & 5.0\end{array}$ | 1600 1600 | 2 x2 x2 ${ }^{2}$ | 1.03 |
| 8181193 | To4F55 | 2．5 at 10.0 | 1600 | $234 \times 3 \times 3 \%$ | 1.47 |
| －811194 | T63F99 | 5.0 at 4.0 | 1600 | 2 多 $x^{3}$ x3 $4^{\prime \prime}$ | 1.91 |
| 811195 | T64F17 | 7.5 at 6.5 |  |  |  |
|  |  | $\begin{array}{ll}7.5 \text { at } & 4.5 \\ 2.5 \text { at } & 4.0\end{array}$ | 1600 |  | 5.29 |
| \＄11196 | T60F94 | 5.0 at 6.0 |  |  |  |
|  |  | 2.5 at 14.0 |  | 33731¢54 | 3.53 |
| 811197 | T54F66 | $2.58 t$ 7.5 at $\mathbf{2 . 5}$ |  | 335x3）3x |  |
| －11197 | T54F60 | 7.5 at 2.5 | 1600 | 2\％x3 $\times 3 \times 1$ | 1.91 |

SWINGING CHOKES

| Cat． No． | Type | Henrtes | MA | Ohms | Sita | NET |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E11198 | T64C05 | 10－30 | 150－0 | 200 |  | \＄2．50 |
| B11199 | T63C15 | 12－38 | 280－0 | 156 | $4 \times 4.4 \times 6{ }^{4}$ | 5.00 |
| B11200 | T68C16 | 8－17 | 500－0 | 70 | $5 \times 53 \times 6 \%^{\prime \prime}$ | 8.23 |
| B11208 | T64C06 | 10－19 | 380－0 | 93 | 43455 $\times 6$ \％ | 7.06 |
| E11209 | T72C16 | 8－22 | 6．50－0 | 55 |  | 9.11 |


|  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 811202 | T64C08 | ${ }^{23.6}$ | 280 | 110 | $4 \times 240466$ | 5．88 |
| ${ }_{\text {B11204 }}$ | T $\mathrm{T}^{\text {54C50 }}$ | 12.9 | ${ }_{250}$ | 121 | ${ }^{6} \times 3 \times 4 \times 4 \%^{\circ}$ | 2.98 |
| E11205 | T33C19 | 7.2 | 120 | 290 | $2 \times 2 \times 23$ | ． 88 |

New Plate Modulation Transformer

| Cat． No． | Type | $\begin{aligned} & \text { Modubator } \\ & \text { Tubes } \end{aligned}$ | $\begin{gathered} \text { To } \\ \text { Modulate } \end{gathered}$ | $\begin{aligned} & \text { Sec. } \\ & \text { Imp. } \end{aligned}$ | Bec. | Max． <br> Wints | NET |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B11103 | T84 M170 | $\left\lvert\, \begin{aligned} & 2-6 L 6 \\ & 2-35 ' \\ & 4-210 \\ & \text { Class } \\ & \mathrm{AB} \\ & \mathrm{B}\end{aligned}\right.$ |  | $\begin{aligned} & 2500 \\ & 5000 \end{aligned}$ | 250 200 150 | 75 | 5.8 |

Plate and Screen Modtalation Tranoformers
Have double secondaries for slmultaneous modutation of plate and sereen Have double secondaries for slmultaneous moduliton of plate and．



## THORDARSON TRANSMITTER MANUAL

B11206．A 32 －pare book，completely revised，and crammed full of d！agrams，parts lists，modulation table，coil dais，power suppls citcuits and tipta，etc．As a reference book it will be a useful asset 10 any Arasteur Station．
HET

# TRANSFORMERS <br> AND CHOKES 

NEW THORDARSON C．H．T．SERIES


An entirely new line incorporat ing the latest feltures of trans former desizn．These unils wil give continuorss service furmished in matching streamilned cases．Eisss mounting with sub－penel connes－ lions．Completely impreatated． Plate trancformers will glve from 4 to 8 different serondary tolt． ages；have 115 or $2: 30$ wolt bri maries．Inead for many typer of

MUITE．YOLT PLATE TBANSPORMER

| No． | тype | D．C．Volts | Current | List | NET |
| :---: | :---: | :---: | :---: | :---: | :---: |
| B11813 | T15P12 | 6.50 or 500 | ${ }^{2000}$ M1．A． | \＄15．00 | 58.82 |
| B11814 | T15P14 | 1000 or 750 | 300 MiA ． | 22.50 | 13.23 |
|  |  |  |  |  |  |
| No． | TYpe | A．C．Volrs | Curreat | List | NET |
| B11815 | T15R00＊ | 1000 C．T． | 150 M．A． |  |  |
| B11816 | T15R01＊ | 7.5 tap at $6.3 \mathrm{C} . \mathrm{T}$. | 5 ${ }^{5}$ ． | \＄10．50 | 56.17 |
|  |  | 1000 C．T． | 400 MA ． |  |  |
|  |  | 6．3 C．T． | 6 A. 6. | 15.00 | 8.82 |

＊Bottom Lugs for Sub－panel Wiring．


| No． | Type | Secondary | Insulation | List | NET |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Volts Amps． |  |  |  |
| B11817 | T11F50 | 7.5 tap at 6．3， 5.0 |  |  | 3.5 |
| B11818 | T11F51 | and 2.5 C．T． | 1600 | 8 |  |
| B11828 | T1FS | and 6.3 C．T． 8.0 | 1600 | 6.50 | 3.82 |


|  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No． | Type | Henries | M．A． | Insulation | Ohms | NET |
| E11813 | T15C36 | 5－25 | 200－20 | 4000 | 105 | 53.53 |
| B1182 | T15C37 | 5－25． | 300－30 | 4000 | 90 | 5.29 |



| No． | Type | Henries | M．A． | Insulation | Ohms | NET |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E11821 | T15C45 | 12 | 200 | 4000 | 105 | \＄3．53 |
| P11822 | T15046 | 12 | 300 | 4000 | 90 | 5.29 |

MULTH－MATC MODELATION TRANSFORHERE
iluest quatity modmation aramiormiers hich many advanced features． flug－in terminal board jeamits instant matchng of any driver－modulator tube combination．Sireamline cases．Completely impregnated；easy 10 mount．

| Cat. | Type | Cap. | Pri．MA． Per Side | Bec．M．A． Ser．Par． | List | NET |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B11823 | T11M74 | 40 | 100 | $80 \quad 160$ | \＄ 8.00 | \＄4．76 |
| B11824 | T11M75 | 75 | 145 | 145290 | 12.50 | 7.35 |


| cat． Ne． | Type | Cap． <br> Watts | Max． <br> Pri．M．A． <br> Per side | Ratio <br> Pri．to $1 / 2$ Sec． | List | NET |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E11825 | T15076 | 15 | 60 | $1: 1,1.2: 1,1.4: 1$ | 88.25 | \＄4．85 |
| 811826 | T15077 | 15 | 00 | $\left\|\begin{array}{r} 2: 1,2.2: 1,2.4: 1 . \\ 2.6: 1 \end{array}\right\|$ | 8.25 | 4.85 |

## THORDARSON AMATEUR SPECIALS



A complete nem line of hish guality ransmilter compentuts．Desibned for Intermitent use in amatetr commu－
nication work．These transifomers were espectially desimped by Thordar－ the average amateur．Tliey embody such teatures as：comple：shiplding： tapped primaries：high tension por－ construction．
PLATH TBANSPORM置S

T16P02． 1250 or 1000 D．C．votts（rt $5100 \mathrm{MI} . \mathrm{A} . . .$.

FILAMENT TRANSFORMERS
 1NPUT CHOEES
B11832．T16C20．5－2n 1F．200 N．A． 2040 V．Insulathon．．．．．．s2．29


## SMOOTHING CAOKES

 $81+836 . \quad$ TG626．1\％1才． 300 II．A． 3000 F．Inculution

## Gramsuritting TRANSFORMERS AND CONDENSERS



## UTAH TRANSMITTER COMPONENTS

A puality line of transmitter power supply com ponents. Ctah trantsormers and phokes are miced ticht. to sive every budget-minded Amateur a chance to get top-qusilas at a prico within his mosible carciully designed to give the greatest under the grueling service of continuous operation at full loads. Every detail of construction has been planned to sive sreater value. compact size ease of mounting. and lonk trouble-free life. Cur rent ratings, moltage hrealidown of insulation. etc. Only highest quality materials are used throughout
PLATE TRANSPORMERS

| Mo. | Type | AC Volts | $\xrightarrow[\text { Volts }]{\text { DC }}$ | M.A. | NET |
| :---: | :---: | :---: | :---: | :---: | :---: |
| E11850 81185 E11853 | 1800 1801 1802 1803 | $550-0-550$ $675-0-675$ $4850-485$ $7500-750$ | 400 500 375 680 | 200 250 175 200 | $\begin{array}{r} \$ 4.41 \\ 5.25 \\ 3.59 \\ 5.29 \\ \hline \end{array}$ |
| SWINCING CEOEES |  |  |  |  |  |
| Mo. | Type | Henries | M.A. | Ohms | NET |
| 811854 811855 811856 | 4500 4501 4502 | $8-40$ $8-30$ $8-30$ | 150 200 250 | 190 125 125 | $\begin{array}{r} \$ 2.50 \\ 2.65 \\ 3.53 \\ \hline \end{array}$ |
| FILTER CHOLJS |  |  |  |  |  |
| 811857 811856 | 4509 4510 4511 | 15 10 12 | 150 200 250 | 190 125 125 | $\begin{array}{r} \$ 2.59 \\ 2.65 \\ \hline \end{array}$ |
| FILAMENT TRANSFORMERS |  |  |  |  |  |
| Cat. No. | 1. Type | Secondary |  | Insulation | NET |
| 811860 811861 Bi 1862 B11864 | 1826 1831 2896 1823 2301 | V <br> 5 <br> 5 <br> 6.3 <br> 5 <br> 5 <br> 6.3 |  | $\begin{aligned} & 2060 \mathrm{~V} \\ & 2400 \mathrm{~V} . \\ & 2500 \mathrm{~V} . \end{aligned}$ | $\begin{array}{r} \$ 1.91 \\ 2.94 \\ 2.20 \\ 3.23 \end{array}$ |
| B1864 |  | 6.3 | 3-C.T. | 2500 V | 3.23 |

Wo can subply all unlts made by Utah. Write for Drices.

## KENYON SPECLALS

Fspecially designed by Keuyon enyineers to provide analuy powet supply units at prices that every Amateilr can afforsl. Wiery unit is buill to stand up unable. No frills": juat real quitality at low cost. BII868. POWER TRANSFORMER. 1500-200030 Ma . . each side C.T. at 30 MA. DC NET
\$10.78 BI; 869. SWINGING CHOKE. Inductance swing 5.25 \$79.84 B!I870. SMDOTHING CHOKE. Inductance 20 hemries $\mathbf{S Z} \mathbf{Z}_{4}^{8}$ wa anso We can also supply any
arices or order with deposit.

## THORDARSON HIGH POWER TRANSFORMER

## deally sulted for use in low-mower Amiatitur tans

 mitters. Primar. $V .50 / \mathrm{v}^{00}$ cy. Nerondaties: $\begin{array}{ll}\text { lug terminails on ali secondaries. insu- } & \text { 4 }\end{array}$ 311141. NET .............. , 4,

## KNIGHT PLATE TRANSFORMERS

BIt006. High qualits. moderately priced plate rancformer for medium and fow- Dower transmitters. Fully enclosed in cast case with standoft invulator spe terminals. Serondary, 1000-750-0.750-1000 Volts at 300 M.A. Primary. 110 V. $50 / 60$ rycles. Sturdy construction; well-insulated. An excentional value. Shpg. Fh., 22 libs.
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5745


cycle. Shps. Wi.
cycle. Shps.
lbs. NET.


## ENICHT FLLTER

## CROKES

8I1009. Swing. ing Choke. Especial ly desigated for inaut or me of transmitter supplies. Capacity 200 M.A.: induct. ance $8-30$ henrles. Fully cased: Insulated Wire leads, A real who in a higls-gumity $4{ }^{1 / 4}{ }^{\text {T}}$; Welght 6 lbs.
BIIO1O. Smoothing Choke. For use as second choke in all me. dium or low-voltage power packs. Inductance 20 henries at 200 H.A. 70 ohm O.C. resistance. Shiclded the, insulatid wire lequs. size
 ceptionally low price, \$2, 10 NET EACH


300 M.A. Ini Ferial mount.

KNICHT FIL AMENT TRANSFORMERS


NET
EA.
811012.7.5 Voits at 4 Ands. and 2.5 Volts at 5 Amps. Ideal for use in low-power multi-stage figs or speech - antplifier - modulators. ${ }^{2} 4_{4}{ }^{\text {" }} \mathbf{x} 21 / 2 " \mathrm{x} 3^{\prime \prime}:$
WL. $31 / 2$ lbs. NET.... BIIOI3. 6.3 Volts at 4 Amps Designed for the new 6L6 Beam Power tubes, and for multi-tube receivers or iransmitkers. $24 x 2 \frac{1}{2} x$

$\$ 1.30$

## SANGAMO MICA TRANSMITTING CONDENSERS



Accepted by Amateurs ererywhere for all types 1 transmitter and recelver circuits. Ideal for use as by-pass condensers, in R.F. cirruirs, as coupheng copdensert, etcorate to within $10 \%$. Hivh machine serew terminals.


We can also supply 2500 and 5000 Vott Sangamo condensers with dead terminals on side,
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 PYRANOL TRANSMITTINC CAPACLTORSAttractire. durable transmitting condensers of the best quality, These
condensers will give exceptional service and lons life. Filled and treated with faranol, a non-inflammastance of unususl dielectrie iualities. fermetically sealrdi wein por mounting lugs for easy ujuright mounting.

| No. | Model | Mf. | Folts | NET |
| :---: | :---: | :---: | :---: | :---: |
| B5400 | 9 CLFA | 1 | the | \$1.61 |
| 85401 | 90 'Eiss | 2 | 600 | 2.06 |
| 85402 | 9CF5An4 | 4 | 600 | 2.65 |
| 35403 | 9CE5A30 | 1 | 1000 | 1.76 |
| 85404 | 0CE5A31 | 2 | 1000 | 2.6 |
| 35405 | $9 \mathrm{CH5A33}$ | 4 | 1000 | 4.12 |
| B5406 | 9 CFJA 40 | 1 | . 1509 | 2.20 |
| 85467 | $9 \mathrm{CW5A} 11$ | 2 | 1500 | . 6 |
| 85408 | 9 CESA43 | 4 | 1500 | 5.29 |
| 35409 | 9CENA59 | 1 | 2001 | 3.9 |
| 85410 | H'LEAS1 | 2 | 2 (m) 0 | 4.70 |
| 85411 | 9Cleas3 | 4 | 2060 | 6.46 |
|  | 9(155459 |  | 2500 | 8.24 |
| 85413 |  | 2 | 25.50 | 0.00 |
| -5414 |  | 4 | 2500 | 4.70 |

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 to the bekinner as well as to the sdvanced exjerimenter. Each hit is Chasis buses are punched ard dithed; only the simplest tools are rocomposed or high qually parts, based on modera pasy-10-wire circtits

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 ALL-WAVE KIT

The lowest irleed all-wave kit on the market. Compact. yct sensitive and simple to build. A one tube battery ons rated receiver which bring in police siphals. amateurs, broadtast stations and lots of clistant stations. All tertiningls are coior-coded and no wiring diagram is theressary. Coss wood base Uses a ty he 30 lon arally tube. Complete hit includes alt parts, base, hardware, clear instructions. Less tube and batteriea. B9830. Kit of parts as described above.
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$\$ 484$
B983! TUBEAND BATTERYKIT, Con: sists of: 2-1 $1 / 2$ volt dry cells, 1- 15 rolt 1 , YOUR NET PRIGE.
$\$ 1.85$ B5565. Short.Wave Coil Kit. 4 coils cover range from 16 to 217 meters. NET.
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B9832. A tho-stake sudio atolther for use with the one lube all-wate receiver above. Will blimes or smalf mannetic speater. Lixes 2 tuines. Complete kit less tubes and
batteries. NET...................... B9833. TUBE AND BATTERY KIT. COntains ${ }^{2-3}$ - 3 tubes, and $1-45$ volt $\$ 1.90$

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S.W.

sensitivity
and selectirity results from the use of reganeration in the brst and second detector sages: simpe-signal action on C. C . signals. iron-core IF transformer, Isolatitite coil sochets iron-core If transformet, isolantite coil sochets
and adequate shifeding. Lor current irain allows the use of fither batterles or the special A.C. power supply listed below. Complete kit A.c.udewel sumply phed chassis baser and front ponet. speeds! shitht. tulse anil coil sorkwts, resistors. condencers, hardwart, diagrams and instructions, etc. Itequires 1-6LJ. 1-iC5. 1-8F5, 1-6Ft. 89834 . Complete Kit of Parts
with 80 meter coils, less tubes. With 80 meter coils, less tubes.
B9835. Set of 8 coils. Coter the 10, 20, 40, B98 160 meter bands with adentate orerlap tor short-ware uroadcast band cocerage sid NET. B9836. Broadeast Coil Kit. Set of 4 coils to
coter the 540 to 1500 KC Broadcast coret the 540 to 1500 KC Broancast 18.7 B9837. A.C. Power Sugply Kft. Output, 240 Folts D. C., and 6.3 Volts at 1.6 A. Includecs punched chassis base, chokes. transformer, "ondensers, soekets, cable. diagrams, ete. Requlies
l-so tube, (not supplied).

## KNIGHT TWO TUBE DX-ER



## KIT

 One of the most populitr for the stiortwave beginner. Described and recommended by leading radio makathe mosit eftirirnt of the beivers Uses ceivers Usestwo type 30 tubes in 8 re senterative cir-
cult with one udio stage: orerates from two dry cells and two "万院 batprics. Coniplete hit contains all netessary hazts. irmed pance, coits diegram etc. coils ransforma, wiring diagram, etc. Coils. tubtw
B9838, Kit of Parts as de-
seribed above. YOUR PRICE....
$4 \longdiv { 3 }$
B9839. Tube and Battery Kit. Consists of
 NET. $\$ 3.20$ 82800. Brandes 2400 ohm head$\$ 1.59$ Shones. YOUR PRICE............ S5. Shet of four
85565 . Short Wave Coil Kit. Set


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B9840. A companion unit for use with the Tho Tube DX-Ell abore, Will operate a small
 sary parts and diazrams. NET.. \$1.25 B9841. Tute snan baztery hit for aublo am.:
 and $7-45 \mathrm{~V}$. "B"* Latiers.
$\$ 2.25$
KNIGHT 5 TUBE DUAL BAND
 AC-DC TRF RIT
An efficient thning the Broad cast and Police bands, 193 to 555
and 67 to 200
 $\begin{array}{lll}657 \\ 25 A G, ~ a n d ~ & \text { and } \\ \text { 20 }\end{array}$
 gain shielded colli with bullt-in timmers. Junctied and drilled classis base makes assembly easy. llas builb-in $5^{\prime \prime}$ dymumic speaker. Fit contains all parts.
B9842. Iess tubes and
cablact. NET.......................

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## KIT

Here is a new hfoh-zuerformance shiner for the beginner - antateur. Designed to mochte maximum berformance. wit simplitheri operation and
low cost. Cses five metal tuhes. five metal tubes.
and 1-5Zt. ITas bullt-in nower suopls panei sie'aktr tiginerasite second detector. headphon. gact, basdspread, stand-by switeh. and imon-core IF transformers. Rigenerstion is smooth. nolso. aron and easy to hamile. (oils are numbind fon 20,40 . 80. sind 3 mot meter bands. This eficlent litile supar can be assembleat in a spar houts. Kit contains all nevessary warts with jumbed


KNIGHT METAL TUBE DX-ER
 shieidel chassis construction: ultra-smooth nolseless regeneration control; non-witical antemaa input, athd real signal "sock." May be operated from dry batterjes or from sbecial A.C. Dotyer supply listed below. Itequires 6.3 volts at 1.5 A., 9.) to lait wolts for plate supply. hill ture 1 rom 16 to 195 meters with coils listed bilow. Kit eontains all mecessary parts for buhming this receiver: punched and erilled netal fhassis thase and panel. sockets. condersers. resistors. wiring diagram. etc. Cols. Latteries or A.C. power supply 8984 . Kit of Parts as ciescribed
Birove. YOUR PRICE B9845. Coil Kit. Set of four coils for the Mutal 7ube DN-FIR Tune 1t to $\$ 1.25$ B9846. A.C. Power Supply Kit. - Contains bunched and drilled chassis base, transiormer. chokes, condensers, etc. Ikequires
$1-1 V$ tube (not included). NET... B9847, 3 Watt Utility Amplifier and Power Supply Kit. Uses 1-Uis, $-6 F 6$, and 1-s2d. samic speaker. Nupplies 6.3 volts A.C. and 950 Folts DC ior mner unlt. Wit contoins all parts, chasists bave. etc. Iens tubes $\mathbf{\$ 5 . 3 5}$
and speaker. NET and sijeaker. NET
ENIGHT 6 TUBE DUAL-BAND


Control, Itigh-gain Coils. 6" Calimated Mial Triting Range. 540 to 21000 KC and 5.7 to 15
 1-5Z4. Full 5 watts cutput for a dyamic speaker with jonn olim jie-ld. Fit compalis bhached chassis base, all parts, and wiring diagram. Idss tubes, speaker, and
cabinet.
89848 . NET............... B9848. NET ND BROADCAST B9849. POLICE ANO BROADCAST
MODEL. Same as the 6 thbe kit above but thninz range is 5th to $16 i 10 \mathrm{hC}$. and 3.5 to 1.1 MC. Complete, lesis tubes and
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KIT One of the finest \& tube murners
available in kit available in $k$
form. Uses
2
 $60.5 .1-G F G$
$1-5 Z 2$ hands coser 7 fot Many ontelamil-
Ine features. Hiss and heat fiempencs oxcillator.
 Classin base is punched and drillex. Connmble kir eontains all batts except
luhes and speraker.
B9864. Less tubes. NET
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# TRANSCEIVER \&SHORT WAVE KITS 

## POPULAR BROWNING 35 ALL-WAVE RADIO KIT



An easy-to-bulld All-Wate Kit for Wheriminating N.W. Pans, lem ludec the rompletely aswemblet, wired and
teal Tol Tobe funjng unit. Tunes $1: 3.3$ to 550 meters continuousty is 4 tull bands with no skips. Sensitivity and to 1 ratio micro-vernier dial callastated in mezacyeles: with spparate scale for uprnier calitration. I'nexrelled selec-

 BLow lng parts list and wirhy diagram.

## COMPLETE BROWNLNO 35 EIT

Containg all necessary parts for the connlete receiver excent tubes. speaker, and cabinet. Includes: drilhed and Rnished chassis and panel. speakerete Tole runer. unit, I.t.es: transformers, condensers, resistors, wiring

BlOlOI. Browning KIt as above, but metal tub model. Requires


## TOBE 35 TUNER UNIT

Completely assembled. wirfd. tosited and alizned All-Wave tuner onit; two rolor lrakelite dial. dial calus. minters es.
culthenns, dial liuht, tracket, grommets, etc. BIOIO2. YOUR PRICE

## BASIC UNIT EIT

Contains drilled and fimathed chassis and panels. ©-T.F. transformers, Puat Owillator, power trangormer, 5 fibli-nize wiring diagrams and instruction books pith detailed construction data.
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## TOBE AMATEUR RECDIVR EIT

Besimed exelushely for Amateur Band operation and for adjacent chathnels. Bespd on, zad wery alnillar to the Rrownink 35 . All crifical circuita air-trimmed for exreme stability. Features excelationally wide band-
 wit sensitivits: extreme selectivit! it. F. Gat osclitator: stand by switch, sind many of hry outstanding features, hit contains all parts neceassy


## MEISSNER COMMUNICATIONS KIT

14 TUBE SUPRR

- 5 Wave gands- 3.8 te 555 Meter Coverage
- Accurately Balanced and
- Alligned Tuning A*sembly Callbrated ${ }^{6}$ minch Alrpla Band Wpread
powerfinl 14 tube "Commun! entions" recuiver liti. I-sperlally de simbid for hazatems aftal sod fuilli ars who want sultendid revilis mele hands. Siarts at 5 melere all the hands. includes and the Amarenm and hroadract bands. Some of the feaquenry Oucllator with cut-out switch and pltch eontrol-Koige Silencer
 seacityits Control-Iron Core I.F. Transformers-Audio Volume Control -F. P. Besm Puwer Output Tuhes etc. The completely wited and sccurately balsnerd sind allaned tuning assembly ineludes the Meissaner Mubil-Ware roil-assembly. band rhange swilch, variable gang condebist, tube workets (for tuning urit) and a calibrated g' $^{\prime \prime}$ alrilane cllal with "Hictomaster* mechanionl bandspread. Net builders will find this an



## COMPLETY EIT OP PARTE

Tncludes punched and wrilled blath crav-ikefinlulari chassis base, all
 latidware. The only fools yot netd are a serew-dristr, bolderlag hron and a paip of side-rutilng pliers. Furnlwhed with coniulete set of dianrams
and derailed insiruetions. Less only tubes and mealier.
BiO
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YOUR NET PRICE

## 

Inrludes comilntery wired and alianed runing units; band swith; Call
 Mratched pati of cristal filfer trans.: Iron-core I.F. oulfut and band
 B10108.
YOUR NET PRICE.
+3104
BiO109. Pun

## NNBCET IS INC: DTNAMIC SPRAKKR

A $12^{*}$ Kniblt swaker estwrialls selerted to work with alowe set. Wul


$\$ 4.55$

## KNIGHT 5 METER TRANSCEIVER

## TWO-WAT 56.60 MC

 AMATEUR PHONE KITI'oplar Amateur 5 Meter Transceiser destianisl by Frank c. Jones. Biasy to bulld and operate. ldeal fur local "harizon-range" comenunication and for experimental field
Fort Cises single 19 tube as DushTort Cises single 19 tube as pushoviliator. For reception, the same ovciliator. For reception, the same une scta as Disia-phili guper-regen-
eratipe detuctur. kimple $1 / 4$ or $1 / 2$ wave rod may be uned for antemna. Kit contuins all netresiny warts for bullding chassls mutel bhown. Acrecuories listed below. Diagram and Britime minit ior $\$ 558$ в $\quad$ gя95. Net. $\qquad$


|  | PORTA部宣 CASE |  HANDSET |
| :---: | :---: | :---: |
| Comsisis of j-meg- | Durable. leatherette | New Tniscrasl 5 me- |
| theon 19 tube. 2 Hur- | coiered split case for | ter bandset. Compret |
| gess 53n8 portable | knight transcelyer. | and Hithtweight. Illus- |
| "13's" and 2 jinight. | bottom holds latteries: | trated und described at |
| dry cells. | iransceirer in top. | uramer lidit. |
| 8 |  | 82513 |

## 

A sencational new derice for glting hark io sour londsiegkes all the fine foints of music studto depth can be recreated becalise the volame expander serves to further amplify fortiksimo
 The deatee of expansion is controllable come The dearee of expansion is controllabte. Complete kit includes ail neressa ry minoments for
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 12 TUBE EIT- 5 Wave Bands-7.5 to 2140 Meters Coverage
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An ideal set for the custombuilder atd experimanter. Ilas con, limuous tunlng range from 7.5 of
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## COMPLETE ETT OF PART

Includes punctud and drilled chasis base. all geressary condensers, revintors, switches, ulugs, transformers and haruware. You need only this kit. Comple? whit diagrams and iastructionb. BIOIIO YOUR


FU COMPLETE ESSENTIAI TUNING EIT Klt consists of conapletely whed and atisued tuning unit: wape-change two-bjeet bande, read type oval disl: poise siluneri I.F.; B.h.O. transformer; Iron-1ere thand expansion 1.F. and otathtit L.F. irañsformers: II.F. cluke's: diagrams and indructions. BIOIII. YOUR NET PRICE.
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## NOISE SILENCER KIT

No longer need your by static. motor noise or other forms of inerference. This new eliminate noises of practirally every type. Designed to work with any short wave or allwave superhet having this noise silencer tncorporates an extra 1. F. stage. Supplied
 complete with all necesiary parts, hastue tions and 1-6116, 1-6J7. 1-6K7, and 1-6L7
 ineasures 5
and drilled
P888 ${ }^{\text {OtTE }}$ LUXE MOOEL
\$7 72 B9870. Completely Fired. assembled and


## WIRING DIAGRAMS

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 OWN" EITSClear. easy-to-road parts lists. Enable youl to "build-your-own." using latest tryes tubes and modern efficlent circuits. Carefuls desimped and rapable of "factory-built" Der-

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BI758. 2 TUBE DX'ER SMORT WAVE
BI759. 2 METAL TUBE DX'ER. FOR
BI760. 4 TUBE A.C. BROADCAST TRF
BI76I. 4 TUBE A.C.-D.C. BROADCASY
Bi762. 4 METAL TUBE "SUPER.
BIT63. 5 TUBE A.C. BROADCAST SU.
81764. 5 TUBE SKIP-BAND A.C. SUPER.

Bl765. S TUBE A.C. BROADCAST TRF.
BI766. 6 TUBE BROADCAST BATTERY
BI767. 6 TUBE ALL.WAVE A.C. SUPER Bi768. KNIGHT 5 METER TRANSCEIVER BI769. VOLUME EXPANDER FOR RADIO Bl770. KNIGHT CRYSTAL SET
B1771. 3 WATT UTILITY AMPLIFIER
B1772. 5 TUBE 2 BAND (POLICE \& B.C.)
BI773. 6 TUBE 2 BAND (S.W. \& B.C.)
81774. 5 TUBE HAM SUPER.

Bi775. 8 TUBE 4 BAND A.C. SUPER.
Bi776. 12 TUBE "CUSTOM" ALL-WAVE
Bi777. I4 TUBE "COMMUNICATIONS"
B1778. NOISE SILENCER.
B1779. ELECTRIC FENCE CONTROL.
E1780. 6 TUBE 6 VOLT AUTO SET
DIAGRAM (To cover handling a malliag) ${ }^{\circ}$ CHOICE OF 6 OF
ABOVE DIAGRAMS
200
Schools-colleges-radio clubs. Write for our attractive offerings of wifing diagrams for class
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Compact. Iightwelpht combination earphone and microphone handset. nugged and fully proteeted agalnst rouph handling. Highis polished molded bakelite case contains the sperial high output single button 200 ohm microphone with highly efficient sensitive receiver. Cornplete with 6 ft. 4 condur Esperially desilnud and revelser. for use with high-Irequency traniceivers.
 YOUR PRICE. EACH..

## RCA BEAT

OSCILILATOR
Wiil enable you to 1hsten to eude signals or tune in weak signals on
any brosdcast or S.W. any brosdrast or S.W super. Requires it or 1-6De 4 ube $87617 . \$ 7$
NET $\ldots .93$


## LISTENING

## MONITOR

For Amateur station monitoring. checking quality of emitted sis ral or bhone cartler, ot for frequency drif celver.) Furnished com-
 ulete with roilis for 90
40 and 80 meter amateur bands. In rugied stcel case, $5 \times-510^{\prime \prime}$. Itequires $1-94$ tube 1-s $V$ "C"' bottery and i-2श\% Y. "B" */ S 89193. YOUR PRICE

## WORLD TMMF CEART

## AND EROBTWAVE

Im
11 Short Wase stations.
Faluable for the amatear
and sw hatener. 198
B523. NET ..

## POWER PACKS

## MODEL O-1 POWER PACK

A power supply for the Amateur X.mitter usIng ${ }^{3}$ of ${ }^{4}-210$ tubes. ${ }^{450}$ A. D.C. at 150 Hack crackle finish. Operates on 115 V. 60
 89196. YOUR PRICE ,

## MODEL OO-I POWER PACK

For use with Class "B" Modulators or $X$ . D.C. at 150 M.A., and $2 \frac{1}{2}$ v. C.T. at 6 A For 115 v. 60 cycles. liequires $87 / 5$
lype 827 tube your PRICE.
B 997 . POWER-PACK FOR S.W. STTS 89 i98. MODEL J. Far Shot Wiave Remeirers. Hum-free. substantla ly and neatly bullu Delivers $224 / 2$ and 90 rolts: $23 / 2$ yolts CT. at 5 amps. Velehs iths Itequires one 80 tube. 89189. Same as above excent hat filamient winding for 6.3 volt $\$ \geq 25$ tubes, at 2 amps.

## VARIABLE COIDENSERS \& CHOKES



## UNIVERSAL PRECISION GANG CONDENSERS

A tuning condeneer of truly univernal applicalion. lias shaft extending out trom both ends. Clockwise of counter clorkwise applecation in simple untit arar ball-race bearings: hizh end plates: high-grade lom-loss bakielite insulation: yotor krounding springs for each section. Holes are prorided at front, rear and bot tom. for braeket or sbade bolt mountinn
Trimmers may the haced on either side, or mua be removed entirel 14 " shaft can be Increased to $\%$ " by using 134586 bushing below

CLOCKWISE OR COUNTER.CLOCKWISE IN ONE UNTI!
These uniterval endensers solve areyy replacement or ortpinai exeng condenser problem. Jiasy ganking of 2 or more ${ }^{2}$ or 3 gang units for obfront, urotiding efther cloctiwise or counter-clockwise rotation in a sinale urit, Sronted end plates for complete alinnment of aft circults. Tro styles: TRF type, a!l sections alike, for TRF or padded osc. circuits. and superhet type. with snecial cut section for ungadded oscillators. Mieli end shtelns measure $2 x^{n 3} 1 x^{-1}$
370 MMF. 2 GANE $\left.\begin{array}{l}\text { B4 34. TRF } \\ \text { HET EACH } \\ \text { B5 KC. }\end{array}\right\} \leqslant 1,34$

420 MMF.-2 EANG




## DE-JONG BAND-SPREAD CONDENSERS WITH

## AIRPLANE DEAL

New band-spread tuning utis with one dial eontral. Main condpnset drives one molnter: other pointer is diven by bandsuriad condenser section. llas smooth opelating plametary drive with no backlach; one knob controls both sections al Will. ap scale and $0-10$ on bottom scale.



## USL MIDGET CONDENSERS

A small, well-built condenser, ideal for Short Ware
 sn buining ajlows rigid mounting in panels up io
 bigh quality units.
 No. Plates Minf. Max. NET No, Plates Mimf. Max.



## PRECISION SINGLE CONDENSERS

General-purpose mandact singlt unit connensers
 closes to ripht.

Cap. Mmi. NET EACH
$73^{c}$

## PREMESNN 150 MME. OANC CONDINSIRS

Combact short-wave cang condensers. Ball-bearing pivots. Trimmers
 $B 4119 .{ }^{2}$ GANG.
YOUR NET PRICE.
ENIGET COMPACT CONDENSERS
New, easy-to-mount compact. condenser as-
semblies of superior destign and precise constructlon. Trimniers are mounted on both sides. Flates sloted for acmirate alingment. Laximum capacity. 370 mmf. Clockwise rotation. Available for either TRF and padded osctllator circuits, or with specially cut section for tracking unpadded oxcilla cors. $1 /{ }^{" N}$ shaft extends $1 \frac{14}{2}$. Find shields
areasure 2 GANe
3 PNN




TRIMMER CONDENSERS donnats ideal for balancinge, mimming, neutraliziak. antenna coulilnge elc. of sturdy construction on low-low bakelite base theasuring
Hate tyie, wirh higlt
wrade mira dlleleetric. $3-30$ mmp. S matl
cnouphy to numat inside colls or cnough to numint inside coils or
dirncily to coil terminals. B2949. NET EACH
OTS OF 10 . B2947. Ceramic Type. Has hormelaln base instead of hakelize. How-loss. Measures ?



D PADDINC CONDENSTES Oscillator, tirmand First innality micainsulated: isolantite
basp. sorew driver gतljustment. May be chunted by fixed mica condenter to imcrease tit in smill suace or in coil form Dual sec tions are for use in dual band whts, commex $1 F$. Onillator or sime in dua band sus, comblex $1 F$.
 $\mathrm{N}_{0}$
8430
86431
8643
86433
86435. Cap Mmf. 5-120
$910-590$
850.600
$350-6010$
$355-735$
$335-735$
$\mathbf{3 2 0} 0.910$
D我AL TYPE [PIg. B]
86490.


## SHAFT FITTINGS



## Split Bushing

 COUPLINGS and EXTENSIONS "oowlings me deximotit for extendin"shafts of singite unis Pixenile rs are for decrea ciny or 1 Increaring' shaft diameter and for extending sher

| lengt |  |  |
| :---: | :---: | :---: |
|  | Kıng | ins |
| \% | couping |  |
|  | Ext. |  |
| - ${ }^{\text {\% \% }}$ | $\underset{\text { Ext. }}{\text { Ext. }}$ |  |
|  |  |  |
| 10 | Per 100 | NE |

NRASS
84576
84577
84578
84579
84580
84581
18
BRASS AND FIERE SHAFTINO
B4582. Brass.
 B4584: Fibre. ${ }^{6 \prime \prime}$ linn. EACH......igc

## SPITT B USEING

For increasing shaft diampter from

PANEL BEARING ASSEMBLY


For use with rind or movining volutue controls. condensers. theostats. elc. at a distance away from the nanel. lise theve panel

## CONDENSER GOUPLINE

Itmeilated. bakellte flexible shaft coupliner, l'urmits tandena opera, shafts. NET 21e

## RADIO FREQUENCY CROKES


 85605 $\left.\begin{array}{l}85666 \\ \text { B5607 } \\ \text { EACH..... } \\ \text { B5 }\end{array}\right]$
 B5610 299
$\begin{aligned} & \text { EACH.... } \\ & \text { B561! }\end{aligned}$
B56
EACH
E.... 356 unted. FERROCART [tron Core]


## POLAREEED

A new effcient, popular tionalized winding constructhon minimizes distributed capacity. Thorounhly int preanated against mojsture.
Has metal mounting feet. Has metal mounting feet.


# NEW COILS FOR AIL PURPOSES 

## LATEST TYPE MEISSNER COILS

## FERROCART IRON•CORE

1．F．TRANSFORMERS

new development in IF tians－ formers which browides improved purformance．The use of a thael particle insulated irom the others． results in a much higher＂O＇than mas leretofore porsible．core und कimoling losses are nuluced to a minimuis．Galn and splettipity ate abllroximatels twice that of air－ core tV1e Ideal for Hise as ne placematts or for ortrinal irstalla－ thons．Replaring one air－core tranufommer in old sets will one of liest unts will greatly increase selectivity and smbrove the beriorit－ ance of the set．Double－tunerl from top；mira inwiated thimmers．Cans neasire 130＂sudare， 31／3＂high．Instituctions included．

| Freq． | Input No． | Interstage Mo． | Output No． |
| :---: | :---: | :---: | :---: |
| 175 KC | 85800 | 85804 | 85808 |
| 436 KC | 85801 | 85805 | 85809 |
| 1．4nk | 85802 | 86806 | 88810 |
| 3ヵแ）Kし | E8803 | ［6807 | 3581 |
| NET |  |  |  |
| EACH |  |  |  |



## HICH GAIN THREE PI

 I．F．TRANSFORMERS New tysu of transtumers withthree pit windinus on juinary and pocondary，Exceptiunaliy hiph za in． For in a rereise
 Color－coded luals
B58 12． 456 Kc Input．88e


## MATCHED－PAR CRYSTAL FILTER

## 1．F．TRANSFORMERS

For use in low－impedance link－ coupled rrstal filker circuits in romitninicaition receivers．Supplited in matclied palrs desimed to pro－ vide ominming tai
mounting centers．

AR TUNED TEPE
 MICA TUNED TEP急
B58 16.
456 KC PER $3000 \mathrm{KC}\} \quad$ PAIR $\$ 2435$

## BEAT FREQUENCY OSCILLATORS

Fancrially desimeal thits for use

 Will provide＂bsat－note＂tunists for locallis weak sikitals，or for code Fereption．Facil unit has color－ roper leacis agd invtructions．Sice， 13s statre x sta．With jiteli
＂ontrol knob on lop．Sica－insu－
dirmuse 456 KC．

$\$ 1.03$


## PENTAGRID OSCILLATORS

 nated oseflitator colls barticu－ larly desizned for unt with menani ；bakulite lase with tur

rariabse condenser．
UNSEIELDED TEPE
 NET
EACH．

## SEIELDED TYPE

 B5823． 456 KC ．Use 350 mmif ．padder． EAC

56c

## ＂ALIGN－AIRE＂FERROCART

## IRON CORE I ．F．＇＇S

A newf line of hithl－efficiency 1 F reatly inctease keain，selectirity and sencitivjts of eithere old or ntw aets． Tunsed with air－dielectrim tonden－ sets affording maximum stability． No frequency drift under norntal changes of temperature．Finesit Litz wound coils：combirtely thletded：with shade lup niount－
 top tuited．
Freq．Input Interstage
$175 \mathrm{Ki} \quad \mathrm{B} 5825 \quad \mathrm{~B} 5828$
$\begin{array}{lll}45 \mathrm{Ki} & 85826 & 85829 \\ \because 00 \mathrm{KC} & 85827 & 85830\end{array}$ NET


EACH．
B5834 Television special．Tht
EX．NETT．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．$\$ 2.65$

## TRIPLETUNED I．F

 TRANSFORMERSIroside lliglt Fidellay recpution
 sliminazes gide－hand cuttine tie fords true 10 KC selpetivity with sords trie 10 Ke selfetirity with nels．Side－mounted trimprers．Ideal replacements for sets with only olse
IFsian．Size， $2^{n}$ square， $5^{\prime \prime}$ high． B5793， 456 KC 年 B5794． 456 KC Output．
NET．

$\$ 1.47$

## UNIVERSAL ADJUSTABLE IRON－CORE COILS

A unifue line of coils that permits exact duplication of defective R．F．， Antenna．or oscilian colls in any sut．Inductance is contmuously vari－ atcurate tracking with old coils in acelarate rackive wing old colls．in only one or two coils，Fully shitlded． rasily mounted in sman spare．Simple driver adjustnent．Size． $1 \% x y x^{2} z^{1 / 2} z^{\prime \prime}$
B5795．Antenna Coil．
B579．Oscilator Coll
B5797．R．F．Cail．
NET EACH
\＆1． 18
UNIVERSAL REPLACEMENT COMPOSITE

## OSCILLATORS

A condace．eflirient combination
 whirte first detector is also ustrd as wowllator．T＇unts from top．Fur use with any 330 mul．THF tyite mondenษr．Messures 2x2x $3^{7}$ ．Sup． plife with diastam to assure profer
 connertion in cilcuit
B5798． 175 KC ．
B5799． 456 KC.
NET EACH．．
$\$ 1.03$

## NOISE SILENCER 1．F．TRANSFORMERS

A close－combled IF tranafinmer， smale－tuned．with center－tapnth sec－ ondats，potimecially flewisted for use
 in the mopular noine silencer rir－ unti supjlied with Firing diagram． 85690． 175 KC．
85693． 456 KC ．
B5894． 3000 KC．．．．．．．．．．．．．．．．．．．．．
88c

## PRESELECTOR

A high－gian shinddid bund－past premector unti int the bundeast
Dand．Tunes $540 \cdot$ In k minf．Condenser．Noumted In guvare amminum can． $2 \times 2 \times 3^{3}$ ．
85782
YOUR PRICE


## STANDARD I．F． <br> TRANSFORMERS

Standard high－tain IF trans formers of supetior desish．fatel ing．Istlire－wound nrimary and weconda：tuned by mifa－insulated compresision type condenvers from top of can．Rili color－coded leads． Aluminum cans measture $1 \%$ NExact and $312^{\prime \prime}$ hirh．



| B5783． | 175 KC |  |
| :--- | :--- | :--- |
| B5784． | 456 KC | EACH．．．．．．．． |

## NEW MILLER COILS

VARIABLE SELECTIVITY

## I．F．TRANSFORMERS

faphetially desibthed to meet the de mannt for a iransiornier capable of birs－ DN．andi a broad band for himh biflelity
 cal movements．Available with 110 h or sir ceres

IRON CORE
вGE8I：
86582． 175 KC CDIE
B6583． $456 \mathrm{KC}$.$\} EACH$ $\$ 1.18$

## IRON CORE R．F．COLLS

Simall size R．F．coils：especially
desirable for use in auto or other desirable for use in auto or other
sets where a bigh－gain con of small phosical size is required．Ja alumi－ num shitell cars measuring 14 djameter and $z^{\prime \prime}$ hich．For use with replacentents of for use in modorr． izing old sets．



HIGE GAIN T．R．F．COILS
hank wound with litz wire，per mitting unusual sensitivlty and nini－ form gain over entife wave band． Ikound shielding can $2 \%$ in．high， 1 ？ in．diameter．Ure With 370 mani．con＊ dellner．（＇overs 1560
impedance primarics．
B5B44．ANTENNA COIL Small but highly emicien．
$\left.\begin{array}{l}\text { R5845．R．F．C01L．Same tize } \\ \text { and mounting as above，}\end{array}\right\}$ NET EACH
B5846． 4 TUBE KIT．Contains Coil and I R．F．Coil．
NET $\ldots$ ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．
Coil and 2 R．F．Coils．

－ANT．E R．F．COLLS
High－tain fully sligelded cofls；for impedance primarles．RTV．coil has wimary at $90^{\circ}$ ．For 370 mmin．con－ denser．With roulling rinis．Cuth． B2 $2 \times 3$ ．Tune jin to 1500
B5848．Antenna Coil．
B5849．R．F．Coit．EACHSS
MIDGET SOLENOID COLLS
Eolenoid type colls．mound solenoid type coils，wound
with enamelled wirg on ta Hint enambilat tubing．Ideal for re－ blacement in midiket THiF sets．Primarics aro adjust－
able．Unstitelded．Tapsed able．Linshielded．Taysmed
coils enable amatelr and police reception．For use
 Fith 379 ninif，condenser． 540
$B 6588 . ~ S E T ~ O F ~$
B COILS． YOUR PRICE．
B6589．TAPP 86589．TAPPED FOR 2400 KC． 1 －Ante na coil and I－RF coll． YOUR PRICE

## COILS • FORMS •COIL KITS

SKIP－BAND COIL ASSEMBLY
 Eninbles 301 O mida a sen－
itive rectiver sifive rectiver
tuning from 18 $\begin{array}{ll}\text { to } 55 & \text { neter：} \\ \text { and } \\ 155 & \text { to } 565\end{array}$ and 175 to 565 meters．Coil
assembly is completul： wired and ready to lastall．Kit contains： 2 band antemna con and 2 band oscillator coil mounted on a band－chance switch；paddine condencer； 2 ， kid If transformers．Itexuires a 2 gang 360 is inclitied．NET．

354


GEN－RAL COLL

## ASSEMBLY

Antenns，RF alld Osc．coils，assent bled gnu wired with point wave． $\begin{array}{ccc}\text { Thanges } & 15 & \text { to } \\ \text { Tum }\end{array}$ meters in four $\begin{array}{ll}\text { lands } & \text { ith } 370 \\ \text { mmf．} & 3\end{array}$ denser．Includes 2 －456 KC IF transformers and diagram B2709．COMPLETE KIT YOUR PRE above．

4135 B27IO．Less I．F．transformers．
YOUR PRICE ．．．．．．．．．．．．．．．．．．．．．．．．．


## TWO BAND COILS

Entcient Shoth－Wave and Broad －ast cuils for the selvicenan and ex－ perimenter．Slitelded tries ate com－ plete with macia－dielecicic trimanets． F 370 mmf．T．R．F．Tatiable mon－ densuts．

## TEOADCAST AND POLEC

EHtrient colls fur both Broudcast abd lolice bands．Cover tif．tull turter＇s and 1stis5j meters． 37500 SHIELDED TYPE
87500
87501 Antenna

EACH
B7502．
Oseiflater
95 C
Have 2 是dust able ruosinting fect
mers．
87503.
87504.

Antenna
87505.

Osciliator
EACh

SOADCAST AND STGRT－WAV㖃 fovid 16－57 meters and 18 i 5.55 nieters．Sh SHIELDED TYPE EACH

| B7507． | Antenna | EACH |
| :--- | :---: | :---: |
| B7508． | R．F． | Oscillator |
| B7509． | UNSHIELDED TYPE |  |

R．F．
UNSHIELDED TYPE
Sunplad less temmmers－Adjustable mountinc．
B7510．Antenna
$87512 . \quad 0$ ．
$53 c$
$87512 . \quad$ Oscillator B75I4 DUAL ADJUSTABLE PADDING
COHDENSER．E゙ach section 180 690 mnfl． COHDENSER．Each sertion lido－ 590 minfl． The correct setles padder for the oscil－ 188
lator colls listed aboue．NET．．．．．．．．．．． 80.


## NT PRMAR

 WINDINGSReplacenuent high－impedance primary windings for use where bxrreme economs is necessary：for both Antentra and It coils．The mimensions given helow are the which these high quality replece－ ment finding Which these hi

| B7518． | $11 / 40$ | NET |
| :---: | :---: | :---: |
| 87517. |  |  |
| 87519. | \％${ }_{\text {\％}}^{4}$ | 150 |
| B7520． | $1 / 2$＂ |  |



## MEISSNER COLL DOPE

This hiftz－grade ttF lacouler as sures you betmanentl．－fthcient cails． Absolitely no lise in＂＇C＂at ally Irequency．Quick dryine．
B752？
NET

## PLUG－IN COILS



Space－wound coil for use uith 18 inmmf． smoora baikeltc． $1 \mathrm{k}=$ dameter at $\mathrm{d} 2 \mathrm{~d} / \mathrm{m}^{\prime}$ high；rim－top for PRONGE－2 WINDING8 35565．Short．Wave Coil
range 1 rom 16 to 217 nieters． B5568．Broadcast Coil Kit． 2 coils cover lanke from 190 to 550 meters

78c
 from 9.5 to 21 meters． from
NET．

## 5 PRONCg－2 WINDINCS

35582．Short－Wave Coil Kit．Four colls cover from 16 to 210 meters．Lse with band－ NETEX colls for general coltrage．\＆1．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．

## ＊PRONCg—3 WINDINES

## B5568．Short．Wave Coil Kit．Jrinary，sec－

 ontidry and tickler winduns．Cover 16 to 200 meters． 4 colls in kit．$\$ 1.35$
B5569．Broadcast Coil kit．NET．．87e 2 roils cover $19 n$ in 550 suters．NET．．．
B5570．Uitra Short－Wave Coil． Covers 9.5 to 21 meters．NET．．．．

38c

## BAND－SPREAD COILS

5 prong colls comblete with ceramir hase hand－ crowded amateur bands over large part of dial． For use with 140 minf．condenser．
 Fite prons band－spread cofly for the croxded international short wave broadyast bands．
No．
Meters Range－MC
 B1928．Kit of 4 coils．．．．．．．．．．．．．．．． 51.90

## BAKELITE RIBBED TYPE



1／4＂diameter and 21／m hfela；molded
ribs for low－luss ribs for low－luss
winling：rim lan－ dles Lniform wind－ angs for use with ind mmin．contlenser．

## 4 PIONGE—S WINDINGB

B5574，Short wave Coil Kit．set of four
 B5575．Broadcast Coil Kít． 2 coils \＄AB B5576．Ultra Short－Wave Coll

53 C topers 9.5 to 21 meters．NET． $\qquad$ 53

## 8둔 <br> BAKELITE COIL FORMS

 RM TYPE

LAREE RIMERTMPE
14／＂diameter with $2{ }^{1 / 2} h^{\prime \prime}$ winding space．nim molded on top for easy handling．In 4 colors．

# KNOBS•DIALS•REMOTE CONTROLS 

## HIGH GRADE BAKELITE KNOBS

2 TONE KNOBS
異OUND TYPE Two tone effect and well prophortioned． Apurigriate for nost shoor posis ns． isll For
B6206． $1^{\text {＂／d dam．}}$ 10 Lots， 55 diala．

OCTAGON TYPE


Modern oc a 40 shamed kinobs in wleas－ ing two－tone walnut and 045 finish 5 screw ty B6209． $138^{\prime \prime}$ diam． 86210 ． $15_{10}{ }^{\circ \prime}$ diam． $10 \mathrm{~L} 日 f \mathrm{~s}, \mathrm{E} 5 \mathrm{c}$ ．
EACH

PUSH－ON ENOE
 knob for $1 / 4$ inth shafts．Purth－on tyme． Exarellent for folume etc． 1 年＂$^{\circ}$ dia
829 t4．NET EACH．．．．． NET OCEAGON TNOB
 A handsonie donied ctagon knot of much－ walnut finish．will barmonize with prac－ tically any cabinet．
Diallieter，
 32917 YOAS of $10,40 \mathrm{CA}$.

38

MODERNESTIC TYPES B6202．11．＂across Mah in hole．Set high．
sirew
in 86203．
 Walnut pyramiki tob． sef screw in side．

B $88204.1 / 3$ Dia． scretgh hole set isherl blal $k$ ，flitish． Fluted deximn，ith whitr reference pointer on slde．
$86205{ }^{1 K^{\circ}}$ nia．$^{10}$ flat type Walnut fin－ ish．Set screw in side． An attractive knob． 10 for $45 c$
YOUR PRICE YOUR
EACH


## STREAMIINED

 BAR KNOBSModern knobs for test Instru． ments and other equiphient．Give a prottsisional appeatance to your ajn－
parains，Wirh eass－to retad white barains，With eass－to－read white sin－line to avold shocks，Fit is inch hafts．Black or brown finisli B6171．Black． $1 \mathrm{k}{ }^{2}$ ． 86i72；Brown． $14{ }^{\circ}$ ． YOUR PR
 86！73．Black． $91 \pi^{m}$ 86174 ，Brown． Y02

## AUTO RADIO REMOTE <br> ＂REMOTE－O－CABLE＂REPLACER

Here is the xiolution to your auto radio cable re－： place mentit prollatitis．Ay All mackine．finshles sou to repirir or seplace worn or withut delay． 1 uts both calble and holting neals and areprately．Sued ans caloe ands 10 ireetrat un－



 Cable lephacer with a small stock of fillings，rable，cable housing．hous－ ing puds，and gear fittings，is all that is required．Supplied with in
 YOUR PRICE

## 

## AUTO RADIO CARLE FITTINES

Long－wearing．exact duplirate fittints as userl in the majority of yress
 and reter to type listed bulow tor cortuct item．

| No． | No | Type |  |
| :---: | :---: | :---: | :---: |
| B1820 | 81826 |  | EACH |
| 81821 81822 | 最1828 | 8 |  |
| B1823 | 81829 | ${ }^{9}$ |  |
| B1824 | 81830 | 10 |  |
| B1825 | ¢ 1832 | 12 |  |

[^8]

## C

WALNUT AND MAPLE KNOBS
Genuine wond knobs，beautirully mravs bushinged．For 4 sharts．

| rass bushing inset：side set screw． |  |  |  |
| :---: | :---: | :---: | :---: |
| B3765 | A | ＂ | Walnut |
| 83766 | B | 3 | Maple |
| B3787 | B | \％＂ | Walnut |
| YOUR |  |  |  |
| PRICE |  |  |  |
|  |  |  |  |
|  |  |  |  |
| $\begin{aligned} & 83768 \\ & 83769 \\ & 83770 \\ & 83771 \end{aligned}$ | A | $1 "$ | Walnut |
|  | A | $1{ }^{\prime \prime}$ | Walinu |
|  | B |  | Majule |
|  | $C$ | $1 "$ | Walnut |
| B3772\} | filain | T01 | Walnut |
| 83763 | D | $1^{*}$ | Walnu |
| 83764 D $14 / 4{ }^{\prime \prime}$ Walnu1 |  |  |  |
|  |  |  |  |
|  |  |  |  |
| EACH |  |  |  |
| FER 10 |  |  |  |

F19．A


Fig．C




## POINTER KNOB

Mlack $1 / 2^{\prime \prime}$ bakelite knob．White a arrow on
fare．rits
y
B6208．
EACH
B6208．
EACH
LOTS OF $10 . . . .40 \mathrm{C}$



## CONTROL ACCESSORIES <br> ＂－

## CONTROL CABLE AND HOUSING

Thu same cable and housing used by leading factories．Spetiged end on cable to prewant unraveling．Housing latikrized to prevent nost－



Exact dujlifutc，acedrately mate
enu－fittings for cable housings．Fit perfectly

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A high quality transtucent Positive friction drive，will oot slip．Tunlag ratio 9 to 1．for smooth easy tuding． Dial pointer travels with condenser．Whll fit $\frac{1}{s}$ shaft With two nilot light sorkets，escutcheon plato and
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 NET EACH ……．．．．．． R5674． 180 Degrees．
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Above Plates less knohs．
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8574
8574
B5743 325 DEGGEES $\begin{array}{lll}85744 & 2^{\prime \prime} & 28 c \\ 85745 & 3 y^{\prime \prime \prime} & 48 c \\ 85746 & 4^{\prime \prime} & 57 c\end{array}$


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A fine new portable receiver that th llght. oast to handie. and a splendld perfarmer. Sinde tuning control makes it easy band. Singie tuning control makes it casy to that Useos spocialiy designed hirh and selectivity. Hes tapped antenns setting for maximum pictup selection. Tubat used draw lexs than one milliampere for economical bettery life Ratteries $r$. quired: 2 smanl $1 \%$ volt dry celle. 3 that 4h volt "C" batteries. Usea one ivpe 30 and one trpe 49 tube. Fibre carrying case. compact, $5 \% / 88 \% 171 /{ }^{\circ}$. Iess tabee. hpt


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Kit Includes: 1 type 30 and 1 type 48 tubes, mpiete set of five Burgeas betteried, 1 met of senaltiva headphoves anc 5 th of serial wira. These items sil fit in satne case with the set.
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HOW TO ESTIMATE PARCEL POST RATES
Packages Under: Ourtew, Allow $11 / 2$ Each 2 Ouneet

| $\begin{aligned} & \text { WEIGHTT } \\ & \text { POUNDS } \end{aligned}$ | ZONES |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | First, Upt miles | $\begin{aligned} & \text { Secend, } \\ & 50 \text { te } \\ & \text { 150 } \\ & \text { mites } \end{aligned}$ | $\begin{aligned} & \text { Third, } \\ & 150 \text { to } \\ & \text { mites } \end{aligned}$ | Fearth. 30 te WILES | Fifth. sto miles |  | $\begin{gathered} \text { Sarenth, } \\ 14 \text { ifete } \\ \text { nites } \end{gathered}$ |  |
| 1 2 3 3 4 5. | $\begin{aligned} & 8 c \\ & 10 c \\ & 11 c \\ & 12 c \\ & 13 c \end{aligned}$ | $8 c$ $10 c$ $11 c$ $13 c$ | $\begin{aligned} & 19 \mathrm{c} \\ & 11 \mathrm{c} \\ & 150 \\ & 17 \mathrm{c} \end{aligned}$ | $\begin{aligned} & 10 \mathrm{c} \\ & 17 \mathrm{c} \\ & 27 \mathrm{c} \\ & 24 \mathrm{c} \end{aligned}$ | $\begin{aligned} & 11 c \\ & 17 c \\ & 22 c \\ & 37 c \end{aligned}$ | $\begin{aligned} & 12 c \\ & 19 c \\ & 26 c \\ & 36 c \\ & 30 c \end{aligned}$ | $\begin{aligned} & 14 c \\ & 33 c \\ & 32 c \\ & 41 c \\ & 50 c \end{aligned}$ | $15 c$ $28 c$ $37 c$ $48 c$ |
| 6 7 8 10 | 148 $16 c$ $16 c$ $18 c$ | $14 c$ $15 c$ $17 c$ $18 c$ |  |  | $38 c$ $49 c$ $94 c$ $59 c$ | $\begin{aligned} & 47 \mathrm{c} \\ & 54 \mathrm{c} \\ & 11 \mathrm{c} \\ & 75 \mathrm{c} \end{aligned}$ | $\begin{aligned} & 59 e \\ & 68 \mathrm{ce} \\ & 87 \mathrm{c} \\ & 8 \mathrm{ck} \end{aligned}$ | $70 c$ 81 c 930 11.05 1.14 |
| $\begin{aligned} & 11 \\ & 12 \\ & 13 \\ & 14 \\ & 15 \end{aligned}$ | $\begin{aligned} & 18 \mathrm{c} \\ & 21 \mathrm{c} \\ & 30 \\ & 23 \mathrm{c} \\ & 24 \mathrm{c} \end{aligned}$ | $\begin{aligned} & 19 \mathrm{c} \\ & 21 \mathrm{c} \\ & 32 \mathrm{c} \\ & 33 \mathrm{c} \\ & 24 \mathrm{c} \end{aligned}$ | $\begin{aligned} & 29 \mathrm{c} \\ & 316 \\ & 30 \mathrm{c} \\ & 35 \\ & 37 c \end{aligned}$ | $\begin{aligned} & 45 \mathrm{c} \\ & 490 \\ & 52 \mathrm{c} \\ & 56 \mathrm{c} \\ & 59 \mathrm{c} \end{aligned}$ | $\begin{aligned} & 64 \mathrm{c} \\ & 70 \mathrm{c} \\ & 75 \mathrm{c} \\ & 80 \mathrm{c} \\ & 8 \mathrm{c} \end{aligned}$ | 82 c 99 c 31.03 1.10 | $\begin{aligned} & 1.04 \\ & 1: 182 \\ & 1: 23 \\ & 1: 30 \\ & 1.40 \end{aligned}$ | $\begin{aligned} & 1.25 \\ & 1.38 \\ & 1.87 \\ & 1.58 \\ & 1.69 \end{aligned}$ |
| $\begin{aligned} & 16 \\ & 17 \\ & 18 \\ & 18 \\ & 21 \end{aligned}$ | $\begin{aligned} & 25 c \\ & 26 c \\ & 27 c \\ & 38 c \\ & 29 c \end{aligned}$ | $\begin{aligned} & 25 \mathrm{c} \\ & 26 \mathrm{c} \\ & 27 c \\ & 28 \mathrm{c} \\ & 29 \mathrm{c} \end{aligned}$ | $\begin{aligned} & 39 c \\ & 410 \\ & 43 c \\ & 47 c \end{aligned}$ | $63 c$ 60 $73 c$ $37 c$ | $\begin{array}{r} 91 c \\ 9.08 \\ 1.8 \frac{1}{3} \\ 1.12 \end{array}$ | 1.17 1.34 $1: 38$ $1: 45$ | 1.49 1.68 $1: 76$ 1.85 | $\begin{aligned} & 1.89 \\ & 3.90 \\ & 3.63 \\ & 2.24 \end{aligned}$ |
| For Each Adititiena Pognd Add | 1 c | 1 c | 2 c | 3 hc | 5 c | 7c | 9 c | 118 |

HOW TO ESTIMATE EXPRESS CHARGES

| Weight | FOR DISTANCES OF |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Not | 50 Mi . | 150 Mi. | 300 Mi. | 500 Mi . | 750 Mi . | 1000 Mi . | 1500 Mi . | 2000 Mi. |
| 5 Lbu. | 00.39 | \$0.41 | \$0.45 | \$0.48 | 50.52 | 20.56 | \$0.66 | 00.76 |
| 10 Lbw. | . 43 | . 48 | . 56 | . 62 | . 69 | . 76 | .98 | 1.16 |
| 15 Lbe. | . 47 | . 54 | . 66 | . 75 | . 86 | . 97 | 1.29 | 1.57 |
| 20 Lhe. | . 51 | . 61 | . 77 | . 89 | 1.08 | 1.18 | 1.61 | 1.98 |
| 25 Lbe. | . 55 | . 67 | . 37 | 1.02 | 1.20 | 1.35 | 1.93 | 239 |
| 35. | . 63 | . 80 | 1.08 | 1.29 | 1.54 | 1.79 | 2.56 | 3.20 |
| 45 Lbe. | . 71 | . 93 | 1.29 | 1.56 | 1.88 | 2.21 | 3.19 | 4.02 |
| 55 Lbe. | . 79 | 1.06 | 1.50 | 1.23 | 2.22 | 2.62 | 3.82 | 4.83 |
| 75 Lbe. | . 95 | 1.32 | 1.92 | 2.37 | 2.90 | 3.44 | 5.08 | 6.46 |
| 95 Lhe. | 1.11 | 1.58 | 2.34 | 2.81 | 3.58 | 4.26 | 6.33 | 8.09 |
| $\begin{aligned} & \text { For Lach } \\ & 100 \text { Lbu } \end{aligned}$ | 1.15 | 1.65 | 2.45 | 3.05 | 3.75 | 4.47 | 6.65 | 8.50 |

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reception of A merican standard Broadcast stations plus reception of A merican standard Broadcast stations plus upper folice channels dial is clearly calibrated ia kilocycles. Five of the neweat low-drain cubes conser ve battery energy yet provide for strong reception. A full-aized $6^{\circ}$ newly-de veloped alloy P.M. dynamic apeaker astures fawless tone. Has Automatic Volume Control for uniform volume. - Attractive Cablinet. The new lay-dowa cabinet illustrated combines graceful beauty with perfect utility Measures $21^{\circ}$ wide. I1, deep. 12 high; has space to accommodate all batteries and eliminate unsighty, inconvenient trailing wiret. in cabinet is built
gleasingtifiained wanch, faithful tone is an outatanding feature of the Knight 5 Eattery Superhet. Full bodied. brilliant and life-like-it will meet the demands of today's wide-awale battery radio purchasers. suparfot in table cabinet as ilfuatrated above. complete with $\sigma^{*}$ speaker and R.C.A. thibes. less batteries. 810588.


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 attractive in appearance. Has handsome gold face fully illuminated from sides. Two acales are indicated: the lower
calibrated in silocyclea for atandard Broadcast; the low
trarked in megacycle for Short Wave. the latest type special alloy P.M. Dynamic speaker-the finest that can be used in a batiery radio. Assures perfect reproduction of both voice and music at all volume levels. - Tone control. Continuoualy variable type-an extra value feature of the Knight 6. Adds to the tonal betauty of the receiver by permiting emphasis of tastes. cesponse ${ }^{20}$ suit personad taster. 1938 Knight Battory 6 is beautifully preacnted in an attractive new upright atyle Table model eabinet. The front and wides are of one-plece
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Deaigned for maximum effieney and Deaigned for mamimum is unciency the latest low-drain tube as follows: 1 C 6 m Mod.-Ow.; 34 a I.F.; iF6 as Det.-A.V.C.-Audio; 33 as
 The 1F6 is a triple-purpose tube and does the work of 3 tubet oo that the Knight 5 actugily ofters tube poper with inciube: heavy-duty tuning condenacr. A.V.C. meavelied alloy P.M. dynamic, speaker rubber-cumioned chassis, no "C" battery required, etc. The 1938 Knighe 5 circuit represente the last word in powerful and economical battery radiooperation, asasuring dependable. enjoyahle reception always.


OPLAATES ON 3 YOLT DNY "A"-

## 2 VOLT STORAGE On Af CELL BATTEX


#### Abstract

- Ecenomiesi Opnration. The Knight may pe operated irom etther Storare Battery, or an Eveready Air Cell. When uped with a 3 Volt 'A. battery drain la only, 3 ampa. We offer the 1938 Knlint atesry for eco nomical operation from a 3 Volt Dry "A" batzery. (If ordered with Alr Cell. add $\$ 1.9410 \mathrm{~B} 10544$ ret price; if ordered with ${ }^{2}{ }^{2}$ Volt Storage "A ". bittery, add \$1.37.) Onaly ${ }^{2}$ "S Volt $B$ batueried A truly economical performer.


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## OPERATES ON 3 VOLT DRY "A" <br> - 2 VOLT STORAGE OR AIR CELL BATTERY

Kright 7 TUBE 3 BAND BATTERY SUPERHET

No other 7 tube battery radio has the remarkable operating economy of the 1938 Knight Esttery 7 . Only the very latest low-drain tubea are used in the powerful R.C.A. And Hazeltine licensed circuit for The Knight $\mathbf{7}$ is designed to work from either a 3 Volt Dry "A." a 2 Volt Storage, or an Air Cell Battery-no "C" batteries are required-and only 3- 45 Volt " $B$ " batteries are uaed. Convenien plus-in connectors are provided on the battery plug-in connectors are provided on the batick, easy connection. Our listing ofters cables for quick, easy connection. Our histing ofters the Knifht 7 ' for money-saving operation with a
3 Volt Dry "A" battery. (If the Knight Batery 7 is deaired with Air Cell battery, add $\$ 1.94$. I is deaired with Air Cell battery, add $\$ 1.94$. I The economy of the Mright 7 , plus its versatility The economy of the Mmight p, plus its versatility bigger battery radio tales and better profits coupled with real customer satisfaction


A new peak in Farm Radio value is repre sented in this 1938 Knight 7 Tube gattory Superhet. We feel that in this receiver we bring to the rural market the fulleat measure of performing power and ability, outstanding tone quafity and economical operation-plus new features of outstanding practicability
and value. You won't be able to beat the and value. You won't be able to beat the - Aupomatle Tunlng. Used for the first ime in a low coes battery radio. The new 1938 Knight Automatie selocto-gla tunes your avorite stations automatically, buttons for as many as 10 of your favorite stations. Put your finfer on the station button you want. swing the tuning wheel down to the stop point-and there's your stationtuned in instantly, perfectly! It's as easy as pointing a finger. Anyone, in any location. can adjust Automatic Tuning for any desired stations. And. of course. the Knight eattery 7 can be tuned in che regular manner for all other domeatic and foreign stations - World-Wide Ranga. The Kalght Eattery 7 tunes 3 full bands for genuine All-Wave coverage. Tunes $16-52$ Meters for worldwide Short Wave reception; 51-17S Meters ond amateur, police. ship and arcratz signas and Canadian standard Browerast reception The regular full-vision airplane dial shows each band clearly and has a butilt-in waveband indicator.

- Powerful 1938 Clreuit. The advanced superbeterodyne circuit used in the Knlght Battary 7 in licensed by R.C.A and Hazei-tine-your assurance of the latest practical
developments. The newest R.C.A. low-drain
tubes are used as follows: tC6 as Mod.-Osc. 34 as IF.: 1 FO as Det.A.V.C.; 30 as Audio Driver: $2-30^{-s}$ as Power Outputi $4-1$ as Voltage Regulator Battery drain is extremely low; only 420 Amps. on "A"; "B battery drain is only 20 M.A.
Important Extra Features. Fersonal Tone Control allown emphasis of bass or freble as desired. Fall A.V.C.- prevents grams: keepa volume uniform on all programs. Latest special alioy P.M. Dynamic flawlessly. developing tone quality comparable to that of the finest electric city radios. Added features: heavy-duty rubberfloated tuning condeneer; rubber-foated chansis; 6 tuned circuits on all bands
Cablnot Hoids Batterles. The 1938 Knight Battery 7 is presented in a handsome new laydown type cabinct of generous proportions and pleasing design. ToD is of onected walaut: front face and sides are of ont-piece borizontaly.grained walnut in atures $23 \times 12 / 4 \times 12^{\circ}$ and has plenty of space to hold all batteries conveniently.
Table Model Complete. The Knight 7 Tube 3-Eand Batfery Superhet is offered in laydown cabinet illustrated complete with 6 -inch P.M. Dynamic Speaker and R.C.A. ubes Less batteries. Shpg. ut. 28 libs.
Code: B10590.
Retait alue, 852.50
S2945
B10591. The Knight 1 Table Medel as deactibed, complete with Burgess Dry "A battery and 3- 45 Volt " $B$ " batteries. Shps YTOUR NET PRICE
$\$ 34.65$


## KNIGHT 7 TUBE CONSOLE MODEL

The Kalght Battery Suporhet is also available in the beautiful new conaole shown at left lnstrument panel is of butt walnut. with contrastingly-curved walnut pilasters. Size: $38 x$
 Aatomatic Sestect-o-Dial Shpg. wt. 50 Ibs. Code: PRIZE.
810592. Retail Value, $\$ 82.50$. YOUR NETPRICE

810593 . The Knight 7 Consele Model as deacribed. complete with Burgess Dry "A" batrery and 3 - 45 Volt "B" batteries. Sbpg. wi. 88 lbe.
YOUR NET PRICE.
$\$ 44.95$

## 7 TUBE CHASSIS MODEL

The 1938 Knight Eattery 7 chassis makes an excellent replacement for obsolece receivers. MeasDynanic Speaker. Includes Select-D-Dial mechanism and escutcheon ( $8^{\prime \prime}$ in diameter). Complete with R.C.A. tubes. Leks batteries. Shipping Feight t3 ibs.
810595
Retail Value, $\$ 57.50$.
\$2735
810596. The Knight 7 Battery Chasnis as described. complete with Burgess Dry "A" bat. tery and $3-45$ Volt " $B$ " batteries
Shog. Wt., 50 lbe.
YOUR NET PRICE.
532.55
(For efficient aerial, bee page 99.)

## Zight 6 TUBEAC－DC Ergusisite Molled Plastic Inodebs TUNES 43－143 AND 175－555 METERS

Completely new！From its advanced feature－packed circuit to 1 te ultra－modern plastic cabinet，this 1938 Knight $21 / 4$ Band AC－DC Superhet has been deaigned and built to give enjoyable and powerful $\mathrm{AC}-\mathrm{DC}$ periormance．Equal in resulta to many 7 and 8 tube sets． AC－DC periormance．Equal in results to many and stube sets． het tunes from 43 to 143 Meters for excellent coverage of Short－ Wave Amateur．police and aviation calle，as well as the popular and thrilling 49 meter band for foreign stations；and from 175 to 555 Meters for long－distance standard American and Canadian Broad－ catt programs．Gives actual 3 band efficiency at a truly low price． －Plays Anywhore．The Knight 6 is the ideal AC－DC receiver， Plays equally well on 110 volts AC or DC． 40 or 60 cycles，and may also be used on 220 volts with adapter listed below．The Knight AC． DC $\$$ is ideal as a personal or＇spare＂receiver．
－A Powerful Recelver．The Kntght AC－DC 6 utilizes the new powerful 25 B6G Beam Power tube which develope a large output never before attainable in $A C-D C$ sets．This strong volume is har，lled without distortion by the full 5 －inch Electro－dynamic speaker．
－Splendld New Features．The Knight f has a built－in antenna for added convenience；a novel illuminated dial，which can be tuned easily with the cabinet in either＂laydown＂or＂upright＂positions （eee illustrations）；Automatic Volume Control for uniform volume maintenance；special high－gain antenna coil for added sensitivity； latest type tubes used as follows：6A7 as Det．－Osc．；6D6 as I．F．Amp．； 75 as triple－purpoee 2nd Det．－A．V．C．－1st Audio； 25 B6G as Beam Power Output； 2525 as Rectifier；L49BJ as voltage regulator．
－Enautiful Piestic Coblnets．The smart new plastic cabinet of the Knlght $\& A C-D C$ is especially attractive and practical．It can be used and played in either laydown or upright position to suit any taste or place．Available in black or ivory．Features a pleasing modern design with handsome harmonizing chromium grille bars on the black model，and gold bars on the ivory．Size：11x7x64．
－Set Complete．Order several of these outstanding 1938 compact sets today－and watch them move at a real profitl The Knlght 6 Tubs $21 /$ Band AC－DC Superhet for 110 volts AC－DC， $40-60$ cycles，complete with Raytheon tubes．Shpg．wt．， 10 lbs．

Liat，S3．50．NETPRICEEACH， 16.45.
YOUR PRICE，LOTS OF 3，EACH ＇1545日10531．White．
Liat． $37.50^{\circ}$ ．NETPRICE EACH $\$ 17.95$. YOUR PRICE，LOTS OF 3，EACF
B9145． 220 Volt Adapter．NET．

## Z⿸丆口⿰亻⿱丶⿻工二灬力灬 5TUBE A．C．SUPERHET

## AN ALLIED 1938 feature VALUE！！！

## TUNES 175 to 555 METERS

An entirely new 1938 Superhet radio with exclusive features．with outstanding power and with splendid tone quality－worth twice our amazingly low price．A real value leader in every eense of the word－ priced low for large volume sales
Gqulek－Teuch Dtah．A new 1938 tuining featurel The quick， effortless way to locate your favorite stations．Simply put your finger on the station name of your choice and tune in your program with a single easy movement．You can tune 12 of your favorite atations in this smooth，convenient way．Of course，you may tune all other stations by number in the regular manner，as you prefer．
－Extra－Vilum Fopturest You get all of the following in the 1938 Kinght A．c．5：Tone Control for added tonal enjoyment；permits emphasis of treble or bass as desired；Full A．V．C．－maintains con－ stant volume on all programs；Five Inch Dynamic－one of the finest compact speakers made；handles all volume levels with uniform fidelity，achieving the most enjoyable tone possible in a five tube receiver；Litz－Wound Coilg－found only in the better sets；makes for greater seneitivity and stability．
＇Large $41 / 2$＇Dlal．The large full－vision dial used in the Knight A．C． 5 is easy to read and operate．Shows calibrations in kilocycles covering a range of 175 to 555 meters．Gives powerful atandard Broadcast reception of American and Canadian stations and tunes many police calls．You can use the＂Quick－Touch Dial＂for your twelve favorite stations and the regular station selector for all others． －Latest CHrcult．The R．C．A．and Hazeltine licensed Superhet cir－ cuit of the Knlght 5 uses the following tubes：6A7 as Det．－Oec．； 6D6 as I．F．Amp．； 75 as triple－purpose 2nd Det．A．V．C．－1st Audio； 41 as Power Output； 80 as Rectifier．These tubes attain remarkably high sensitivity and selectivity seldom found in a five tube radio．
－fet Complete．The Knight 5 Tube A．c．Superhet with ＂Quick－Touch Dial＂is presented in a handsome new 1938 table model cabinet．Front face is of selected walnut；has pleasing flowing lines．Size： $141 / 2 \times 81 / 671 / 4$＂．Feature this remarkable value as your ＂price－leader，＂Its new tuning feature，its striking appearance，its pleasing performance and its low price will bring you big sales volume and profits．The Knifht 5 A．C．Superthet is offered complete with Raytheon tubes for queration from 110 volte， 60 cycles A．C．Shps． wt．， 13 lbs．Code：IMAGE．
810501．

## Retail Value，$\$ 29.95$.


YOURPRICE，LOTS OF＇3，EACH．
5485

## with the new QUIICK－TOUCH dial

－TONE CONTROL
－FULL A．Y．c．
－41／2 INen Mal．
－DYNAMIC SPlAKS
－ITZ－WOUND COLS
－Latist supernt
－ontr police chas
R19891．c．The 1938 complets in table model cablot as inustrated，
Reth Reytheon tubes．
Moukacitecienst

## \＄1325



# Mow/ /hano faom $\quad$ voits д.c.on IIo voits a.c. 

## Kright 5 TUBE SUPERHET

## TUNES 175-555 METERS

```
* Tone Control Full A.V.C.
4 41/2 Inch Dlal * ©'P.M. Spealeer
* Tuned Cireults
- Blg Power
```

An entirely new and powerful 1938 Knlght 5 Tube Umivernal superhet which fill the long-felt demand for a trouble-prooi versatile radio receiver designed for tadion in one, because it cam be operated from a single 6 volt btorage battery or from any 110 volt, 00 cycle A.C. outlet without requiring a change of any kind. You can uee this fine performer on 6 volus in unwired places and then hook it up to 110 volts A.C. without adding anything at all to the set. You actually qet
two radios for the price of one. It the first time you ve two radios tor the price of one re the frat time you ve
been able to buy a universal radio receiver at so low a been able to buy a universal radio rect

- Poweriful Clircult. New type 1938 radio tubes are used in the R.C.A. and Hazeltine licensed circuit an follows: 608G As Oac.-Mod.: 6S7G as I.F. Amp-: 6 T7G as Det.-A.V.C. 1 Ist Audio; 41 as Audio Output; pos tube actually developa 7 tube power and eficiency The tube combination uaed in eapecialiy economical when the set is operated from 6 volts.
© Outstanding Features. The Knlght Universel 118 Volt- Volt 5 Tube superhet features Tone Control for peraonal emphasie of bass or treble as desifeder. Hadding to the natural tonal beauty of the revolume level maintenance and freedom from fading or blanting. 6 tuned circuits are incorporated for unusual performing stability. Further safety and efficiency are assured by the rubber-floated chaasis and tuning condenser. These fine new features assure splendid perOnmance no matter whether you operate the veraatile Knight 5 from 6 volus D.C. or from 110 volts A.C.
- Thrlillng Tene. Rich, faithful tone is another outatanding feature of the Knight Universel S., Clear perfect tone ie provided at every volume level, The aurpriaing volume of the receive. M. Dynamic Speaker by the lateat type of 6-inch PM. Circuit.
41/4-lnch Dial. A full-vision large airplane dial is used in the Knight Univertel 5 Yube Superhet. The tuning range is from 175 to 555 Meters, covering he complete etandard Broadcant Band Dlus the popular upper police channels. Calibration are in kipocycles attractive. large characters. It's easy to tume this at tractive. large dial



## IDEAL FOR FARM \& CITY HOMES—SHIPS—TRAILERS—CAMPS, ETC

The Knight Universil 5 Twbe Superhet may be operated efficiently and economically from a 6 volt storage " $\mathbf{A}$ " battery in Autos. Trailers. Boate or Campe. It can also be taken wberever electric current is available and operated from 110 valts. 60 cycles. A.C. Thus. the Kolght 5 may be used from 6 volte in a summer cottage during the vacation season and then trangerred to the city home for the winter, for oderation from 110 volte, A.C. Likewise. it can easily be transferred from car or boat to any 110 volt line. In trailer it may be used from a 6 volt battery on the road and rom 110 volts A.C. When in camp. It is also deal for use in rural communuties contemplat The Universal Knimht 5 doch not reatire The Univertal Knighe 5 does not require 110 volte or wice vereas it is the atile and all-around convenient twoin-one atile and all-around coavenient two-in-one radio mede today

- Econemical Operatlen. An outstanding advantage of the Knlght Unlvernals Tube uperhet is its economical operation when used from a 6 volt atormge battery. (No "B" or "C" batteries ape required.) The lated ow-drain tubes assure maximum power and efficiency and at the same time operate with unuaual economy.

Handeeme Mev Cabinet. One of 1938's finest table model cabinets has been choeen to house the new Knlght Untversal's Tube Superhet. Thistable model cabinet features "roll" top and bottom effect, with ont-piece inetrument panel and top of choice walnut pood. The speaker grille is attractively thaped and enhanced by three shaped overlay bars. Cornice lea mounts complete the graceiful design. The cabinet measure $17^{\circ}$ long, 10 Kin $^{*}$ high. $8^{\prime}$ deed.
sef Complate. The new 1938 Knlyht Unlversal 5 Tube Superhet is offered com plete with 6-inch P.M. Dynamic Speaker and也et of R.C.A. tubes. Denigned for operation on 110 volts, 60 cycles A.C. or from a 6 volt otorage " $A$ " battery, without requiring any additional equipment or change (See below for 6 Volt Storage Battery listing) Shpg wt., 20 lbas. Code: ERIDE. B10578.
Retail Value. \$56.50.
NETEACH, 828.75. YOUR PRICE,
LOTS OF 3, EACH
B10015. 6 Volt Knlght $\mathbf{4 5}$-plate Storge Battery. Shpg. wt. 42 lbe.
55.35

## Kright 4 TUBE 6 VOLT BATTERY SUPERHET

## COVERS 175-560 METERS

Now every home in unwired areas can enjoy powerful low-cost modern radio reception. Here is an amazingly tion from a 6 volt otorage battery. The 1938 Knight Battery 4 will outperform larger bactery seta both in power end in tonal excellence.

- Practically Electric. The Kolght 4 offers the convenience and economy of the finest A C. radios. A tery) do all the work. The Knithe 4 costs less to operate; requires only inexpensive occasional charging of the 6 voit " $A$ battery.
- Powerful circult. The latest developmenth in 6 Yolt radio design are incorporated in the R.C.A. and drain tubes are used as follows for actual 5 ture drain eubes are used as follows for actual 5 tube
 circuit includea fuli-acting Automatic Volume Control which prevent fading and blating
- Large $41 /\{-1$ neh Dlal. The latest airplane type fullvision dial is used in the Kright Battery 4. The tuning range covers 175 to 550 meters for dependable rtupper Police channels. Calibrations are in kilocycles. -61/2-Ineh P.M, spanker. The latest type specialalloy P.M. Dynamic Speater is used in the Knloht large output of the circuit reproduces the aurprisingly volume level. The Knlght 4 brings you at a monery. anving price, the finest tone in battery radio - never before equalted in a four tube battery act.
- Beautlial Cabinet. A splendid new 1938 design is featured in the table model cabinet of the Krifht Cottery 4, The top and front are of one-piece roll-top conatruction, in choice vertically-grained walnut. The brile has three shaped bar overiay and a decorative Tube 6 Volt superhet must be seen and heard to be fully appreciated.



## AMAZING ECONOMY

The Knight 4 Tuape Veft feiperinet operate economically from 6 wolt ptorage battery and omall $71 / 5$ volt "C" bettery. " $B$ '' batterie are dooe ewny with. Battery drain it 50 low it costs lete than a penny a dey to operate the 1938 Knifit 4, The amping economy and convenience of the Knilht 4 malent it deal for ane inferm homel, Eummer canpe, trailers, etc. Ita poterfal performence tas curea excelient repult evter in teoleted Jo-

The now 1935 Knithe 4 Tuhes ". , It Euperhet complete pith $63^{\prime \prime}$ P.:
$y$ mamic Spesker and isytheon tuben, ese
 Youn value stigs. $\qquad$ 110821. The Kahht gatert heayyduts. Dif Storise Bottery and Toutw ininc wesms

## Zuight 6 TUBE 6 VOIt battery superhei

ALL－WAVE WORLD－WIDE Reception<br>－Low Battery Drain<br>－Newess Airplane Dial<br>－Variable Tone Control<br>－Fuil A．V．C．Action<br>－Full 2 Watts Output<br>－P．M．Dynamic Speaker<br>－Tunes 3 Full Bands<br>\section*{$\$ 2995$}

RCA \＆HAZEITINE LICENSED


## Reguices only One Batery for Complate Operation！ <br> special alloy dynamic speaker．（ $6^{*}$ speaker

## costs practically nothing

## IO OPERATE！

 hat compares with the finest allelectric re－ ceivery－that brings modern 1938 radio Der－ formance to homes in cnlired areaz．Cher them al at so low a price．Ka therm al at solow a price．
tuningerla all－wave Reception．The uously frome 16 to 555 meters．From 16 to 51 and 51 to 175 metera．you tune thrilling Short Wave foreisn programs as well as interesting Amateur Airplane，and Police calls．From 175 to 555 meters you tune all standard Broadcast Americanand Canadian programs． －Latest Circuit Foatures．The newest developments front radio＇s leading labora－ and Hazeltine Superhet pircuit New low： drain Raytheon tubes of octal degign are used for extra efficiency：6S7G as R．F．Amp 608S：as Det－Ose；6T7G as Diode Det． AVC．－1st Audio； 30 as Driver： 19 as Class ＂B＂Power Output； 30 as Bias Rectifier． These tubes have been selected to sive the Knight 6 the power of many 3 and 9 tube radion－at a lower cost．The power output of ception on every program．Other features inctude：Full Automatic volune control： Yariable Tone Control；long－life fill－wave plus－in type vibrator to supply all＂B＂and ＇C．voltages：heavy－duty rubber－floated condenser： 11 tuned circuits；Litz－wound high－gain coils，ete
Glorious Tone Quality，Whether voice or music，a apeech or a full symphony，the Knight 6 Volt Farm Radio oners you su－ perb tonal quality on all programs M．hised by usc of a fult－sized P．latest
in table model．
chassis models．）
A Real Battery Wiser．So economical is the Knight 6 to operate，that it is truly a ＂Battery Miscr．＂Only a sispgle 6 Yolt stor－ teries are not needed．Low－drain tubes are used throughout to assure maximum savings without any sacrifice in efficiency．Battery drain is only 1.85 amperes－in average use you save from $\$ 18$ to $\$ 25$ a year on＂B＂and ＂C＂battery costs．That＇s real economy＇ －Easy to Turit．A newly designed，edze－ lighted airplane dial makes the Knight 6 Volt Battery Superhet exceptionally easy to tune．Dial measures 5 江 $\times 5$ 行 and all cali－ brations are large and clear．All bands are distinctly indicated for fuisest convenience． Heal beauty，of most modern design．Top． front and bottom are shaped from a simgle piece of aelected．richly－grained walnut－ hand－rubbed and highly polished．Dimen－ gions： $19^{\circ}$ long， $11 \mathrm{~h}^{\circ}$ high． $10^{\circ}$ deep． －Outrtanding Value．The Knight 6 Tube 6 Volt Battary Superhet in table mudel cabinet．complete uith $6^{\circ}$ P．M．dy－ namic speaker and Raytheon tubes．Sup－ plied less 6 Volt battery．Shipping weight Code：GREEN． 810545．
Retail ${ }^{2}$ alue，$\$ 02.50$ ．
$\$ 2995$日 10548 ．Set complete as described above．


## KNIGHT 6 TUBE 6 VOLT CONSOLE MODEL

The Knight 6 Tube 6 Volt All－Wave Battery Superfet，with all features described above，is also offered in the deluxe console cabinet illustrated at left Roll－top and instru－ ment panel are of selected＂$V$＂matched walnut．Fluted pilasters at mide blend harmo
 offers exceptionally full－voiced beauty of tone．Includes all features clescribed above． Knight 6 Tube 6 Volt Console Model complete with $\mathbf{夕}^{*}$ speaker and Raytheon tubes Less 6 Volt Storage battery．Code：GLADE．Shpg．wt．， 50 lbs ． 810546.

Retail talue．\＄89．50．
\＄4345

6 TUBE 6 VOLT CHASSIS MODEL
Here＇s an ideal chassis for custom cabinets or for te placement purposes．Measutres： $1135^{*} \times 8$ K＂${ }^{8} 8^{\circ}$ In cutues al features of models isted above：Alrolvave minated Airplate dial，low－rirain tubes． 2 watts output． tr．Supplied complete with $8^{\circ}$ special alloy P．N．dy－ namic speaker．dial with mnobs and escutcheon，and Ray theon tubes．Operates entirely from single 6 ．ol A Batcers．（No $\mathbf{B}$ or＂C batteries needed．）Les 6 Volt Battery：Shpe wt： 18 Ibs ． Code：BRO
B10547，Retait Value．$\$ 57.50$ ．
YOURET PficE
－ 745 810553 ．is above，but complete with Knloht 6 Voit 45 plate heavy－duty storage battery． $\mathbf{3} \mathbf{3 . 3 0}$
Shpg．Wit． 60 lbs．NET．．．．．．．．．．．．．．．．．． 30

## $7 n \varepsilon \varepsilon$ po

 FROM THE WIND ${ }^{\circ}$NEW RURLPOWER WINDCHARGER AMERICA'S FINEST-FOR LOW-COST. BATTERY RADIO OPERATION
Now! Get FREE power from the wind with the finest, most reliable Windcharger ever made. This new, perfected Rurlpower Windcharger offers true economy in storage-battery charging-costs nothing to operate; saves you the expense of dry batleries, of carting heavy hatteries to town for recharging. the expense of dry batteries, of carting heavy hatteries to town for recharging. Puts the wind to work for you to deliver up to 10 amperes of direct 6 voit current. Employs a newly-designed, excrusive Deen especially developed for the Rurlpower Windcharger-instead of the usual rebuilt, re-wound automobile type generator. This means longlived, thoroughly dependable service for you. The Rurlpower Windcharger is especially suited for use with the 1938 Knisht © Volt Redios shown on pages 147, 148, 151, 152. Order a Windcharger and new Knlsht 6 Volt Radlo together. The Windcharger assures better radio performance because it eliminates the nuisance of run-down batteries. Carefully engineered with many distinct new refinements; protected against weather; ruggedly constructed.

## CHECK THESE FEATURES:

- New Delco-Remy Gonerator-especially designed for Rurlpower Windchareer.
- Charises 6 voit or 2 velt steraze batterles at rate up to 16 amps.
- Generator has double-sealed ball bearine ${ }^{\text {t }}$ cuts in at 350 R.P.M.
- Airplane type propeller with metal-sheathed leading edset.
- All olect ric outlets are fully shisided against weather
- Pivoted equalizer bar assures proper sprinz tension.
- swivel throw-out automatically correcte position for any wind.
- Rotogrip distributor maintains double tonsion contact-permits free rotation of power haad.
- Generator ls seff-governing-mounted on offeat tiliting cradle.
- Ten foot tower is risidly const ructed, easy to assemble.


## CHARGES ANY STORAGE BATTERY

The Rurlpower Windcharger quickly and efficiently charges any 6 volt Storage "A" Battery, or used with the resistor below, will charge a 2 volt storage battery. Has automatic cut-out; automatic propeller speed governor. Easy starting and stopping with simple pull-down wire attached to swivelcallar. To install, mount Windcharger and 10 foot tower on unobstructed roof or in high, open place; attach wires from generator outlet to storage battery-the wind does the rest. May also be used for limited lighting service with heavy-duty batteries much as shown below.
B10032. Rurlpower Windeharger cemplotc. Includes Delco-Remy generator and bead-mechanipm, wired and ready to mount 10 foot Tower. Propeller, Tail Vane, nstructiona supplied. Shpg. Wh., 75 lbe.
List Price. $\$ 29.95$.
S975 YOUR NET PRICE $\qquad$
810031. 2 Volt Resiator for charging 2 Volt Storage Battery from Wind

## 6 VOLT RADIO \& LIGHT PLANT ACCESSORIES



## 6 VOLT STORAGE BATTERIES

Weppecially detigned for use with Rurlpower units. Oversize platea and carefully sealed cells provide long efficient service for lighting use.
810021 . 51 plate. For radio and not more than 1- $25^{\circ}$ watt lamp or $2-15$ watt $\$ 10.95$
lampa. 55 lbe. NEf. B 10022 . 63 plate, medium-duty type. For radio, and not more than 2 - 25 watt or $\$ 14.45$ B10023, 75 platt heavy-duty type. For
 B10024. GLASS JAR DELUXE TYPE. Especially developed for farm lightiog gervice. Has unuevally heavy plates. Pilot cell indicater gravity test at all timen Supplied with a aturdy wood protective case. i25 libo.
\$21.25

## LIGHT PLANT WIRE

Weatherproof single conductor wire for use with Windcharger or Rurlpower plante. Solid conper conductor; riple cottoncovered and impreanated. For battery charging, use wire follows: At a dis tance ot 75 feet from charger to battery. use No. 6 ; at 50 feet, use No. 8 ; at 25 feet use No. $10 ;$ at 15 feet use No. 12 . For a single 6 volt 25 watt lamp. 150 feet from 50 feet, use No. $8 ; 15$ feet, use No. 10 No 14


# Tow! economical farm lighting AND LOW-COST RADIO POWER 



## RURLPOWER STANDARD MODEL

[^9]
## Defure ovoltughtapower plant

Here is the brand new, 1938 Rurlpower Deluxe unit-the finest 6 volt plant ever made! Skillfully engineted with valuable new mechanical features and ruggedly built for long, reliable service. Employs a rendability. Rurloower is the ideal light and power supply for the farm, pendab, boat, sound truck, travelling ghow, roadside stand, etc. Charges tranler, boat, sound truck, traveling ghow. roadside stand, etc. Charges bulbs from heavy-duty 6 valt storage battery! Rurlpower develops full 200 watts of direct current for quick. low-cost battery charging to permit operation of 6 volt lighting syatem, 6 volt radion and 6 volt Sound Systems. Also has efficient direct motor power take-off for operating many farm appliances With convenient lever-atarting.
R10QOZ Complete DeLuse Plant. Shpg. wt. 87 Ibe.

## WHAT RURLPOWE $3 O E S$

Rurlpower DeLuxe will keep 6 volt storage Ruripower De cuxe wil keep 6 volt storage powerful radio performance and for real electric powerful ragio performance and IItructions are provided obowing how to charge 2 volt and 12 volt storage bat
teries.) Appliances such as washing machines, cream separators, pumps. etc., requiring not more than KH.P. may be driven from the mator with direct pulley take-off. Rurlpower eliminatee battery-charging troublem, inadequate lighting and laborious chores. There's nothing like the convenience of electric power offered by Rurl
power. Lever-starting-works in an instant Power, Lever-ntarting-works in an instant -runs 4 hours on 2 qts. of eas. Rurlpower saves enough time and money to pay for itself in a few weeks. Order now-for savings. for profits !

## RURLPOWER SPRCIFICATIONS

 Delute engine is famous Briggs and Stratton4 cycle. single cylinder, air-cooled $1 / \mathbf{h}^{2}$. P. type. 4 cycle, single cylinder, aur-cooled Lever-starting; motor ignition supplied by hightension built-in fywbeel magneto (battery not needed for starting). Also has starter pulley for emergency hand cranking. Special ball-bearing
senerator furnighes full 200 watts output at senerator furnighe full 200 watte output at
volts; fan-cooled; equipped with autornatic cirvolts; ian-cooled; equipped with autornatic cir-
cuit breaker. Multiple control switch providee cuit breaker. Mutiple control switch provice Ignition shielding prevents radio interference. Rubber-mounted feet prevent vibrations. Size: $14^{\prime \prime} \times 12^{\prime \prime} \times 20 \pi^{*}$ Supplied complete with charging leads and battery terminals. air cleaner, mutbow to charge 2 volt and 12 volt ptorage betteries as well as 6 volt.

## LOW-COST 6 VOLT LIGHTING SYSTEM



A complete kit of essential equipment for wiring the rural home. Enables you to take full advantage of electric ught obtained irom 6 volt storase batiery. Providea mod ernarged by at cower windrearger will provide an abundance of soft rar ful illumination. The completelighting system kit containa 1-Porcelain double-pole extrance switch and fuese block 2 - 30 Ampere plur fuses, 100 ft . roll No. 8 triple braid. covered weatherproof wire. 25 ft . roll twisted drop cord. $3-25$ watt and $3-15$ watt 6 volt light bulbe, 6 - pull-chain sockets, 6-porcelain cieat. 6-porcelain nail-knobs, 2 6 porcelain tubes, 1 -4-oz. roll friction tape. 1-4-0z, roll rubber tape, and
instructions.
B2GT.

## 6 VOLT LIGHT BULBS

These high grade G.E. licenaed light oulbe give volt gtorage battery. Ideal for use in farm lighting ayatems. camps, lodges, houetrailers, etc. Made by KEN-RAD; nation ally known for quality and life. Have standard Edison type base. Write for attractive quantity 12 prices. (Aso available in These bultbs have frosted inside gage 21.) for even light diffusion

| No. | Watte | Drain | EACH |
| :---: | ---: | :---: | ---: |
| B795. | 15 | 2.5 Amp. | 25 C |
| B796. | 25 | 4.2 Amp. | $25 C$ |
| B820. | 50 | 8.5Amp. | $35 C$ |

B5469. PULL-CHA! SOCKET. Pendant type. standard Edison socket.


## POWERFUL KNIGHIT AUTO RADIOS …



## SPECIALS IN <br> <br> AUTO RADIO <br> <br> AUTO RADIO <br> <br> ACCESSORIES

 <br> <br> ACCESSORIES}

RCA.VICTOR M. 34 VIBRATOR ASSEMBLY A genuine R.C.A.
Replacement Dart. An exact replacement vibrator. M-34 auto set. Sealed fully adjusted and ready to install Will operate on from 4 to 8 yolts input. Rubber-mounted in double aluminum can. Size $\mathbf{B}^{2} 3$ niz $\times 2 \%$ diameter.
B7320, Part 7604. \$3.60

## *

## BASE FOR ABOVE

<CA Part No. 6577 , Capacitor and base asily for vibrator N... 7604 . Two . 04 mfd. 2ni. f 6577. YOURPRICE. 47 c TH2 CONTENNA Auto kadio sets. to conrect antenna

wheelg of car. PER PAIR... 18 C

## FRONT WHEEL NOISE SUPPRESSORS

Effectively ellminates al noise caused by, static pick-up of front


MOTOR-NOISE FILTER
A new bcientifically desigued Auto or eliminator. Easy to install; does not interfere with the car ignition bysem. Asoures woisd-ree auto radio reception. Unit consists of a combipation high-irequency filer and adjustable balancing circuit which completely eliminate use of spaued in shielded metal container fitted with mounting brackec. Installed in series with the antenna at receiver. B5489. YOUR PRICE.


## SHIELDED AERIAL LEAD-IN

For efficient in-

antenna. Filier
18 conductor, with close-fitting shielding overall. B2444. K' DIAM.
100 FT
82443. 方 оімм.

Per ft.
100 Ft................................85.85


## ALLIED lead again with the first real sted towrard safe Auto Radio tuning-a sensational O-MATIC TUNINGUNIT Consista of a compact bakelite housing into uhich six smali pushpact bakelite housing into uhich six smalb pushare for program logsing. each controlling a sedarate station. The sixth button is intended for channel clearing-it makes the change from push-bution tuning to rexular manual dial tuming. Or vice versa. as desired. By merely Dressing any one of the five station-cnntrol pushbuttons. you can accurately log the program You can tune the station you want with a simple foucan tune the station you want with a simple ing your eyes of the road. (Regular control can. of course. be used at any time.) tion buttons can be easily adjusted to any fregraph should be used. The five buttons will adequately cover the most popular broadcast stations in each locality. any auto rado rectiver Only two condections push-button unit to the abecial routh-o-TOUCH-O-MATIC Unit is especinlly ideal for nse with Knight Auto sets. <br> Rnight 7 TUBE Suppressorless AUTO RADIO SUPERHET



Every outstanding Auto Radio feature has been incorporated in this new Knight 7 Tube Aute Sot to assure superb tone, dynamic nower output. wide distance reach. - Fits All Cars. The Kright 7 is cor - Fint Aif Cars. The Knight is completely contained in a single bronze crinklefingle hole mounting for quick easy installation

- No Suppressors. A special new multi-filter noise suppression circuit is built into the Knlpht 7 for noise free reception. There is no need for spark plug suppressors. Metal Tubes. Newest type tubes are used throughout the advanced circuit of the Kolght 7 . Three of these tubes are the latest metal types ( OK . $\mathrm{OH}, \mathrm{H}, \mathrm{O}$ ) - 5 Wetts output. The Kright 7 develops a full undistorted out put of 5 watty-- 6 \% ${ }^{\circ}$ Oynamic Speaker. The self-contained heavy-duty dynamic speaker bandles the tone of the Knight 7 with rare fidelity and richness. At all frequencies, reproduction is wonderfally real and brilliant.
- Tont Control. Continuously variable full-range Tone Control is incorporated in the new four-in-two control head. Aids enjoyment to every program.
- Full A.V.C. Automatic Volume Control has been brought to a ligh point of perfection in the Knight 7. There is no fading, no reduction of volume.
- Local and Distonce $\mathbf{s}$ witch. This switch is located on the new tuning head. In the "local" position it makes possible abeolurely noise-free reception so desirable uhen driving in the cicy. The distance: position is ideal for open country driving. - Ho-Glara Disi. The splendid new dial of the Knlaht 7 is a real safety feature. It is easy to read-there is absolutely no glare and no discraction.
- Antenna Matehling Circuit. A new built-in antenna compensator matches the Knlght 7 perfectiy for use with all high or low capacity auto aerials.
- Now CIrcult Features. The Knight 7 Auto Radlo incorporates splendid new refinements in its RCA and Hazeltine licensed circuit. A pre-selector R.F, stage reduces noise level and Drovides increased selectivity and sensitivity. 7 tuned circuits are used. A car pade Vale A Grast Car Radio Value. The Knight 7 Tube Auto Radio as described is offered complete with built-in speaker. Raytheon tubes, flexible shafts. tuning me-
chanism and hardware. (Mounting panel and knobs shown chaniksm and hardware. (Mounting panel and knobs shown panel kit to fit your car.) Shpg. wt., 24 libs. Code: B (ILD). pane kit to fit your car. Shp YOURPRICELOT'SOF S. EACH.


## Zmight 7 TUBE De fure AUTO RADIO <br> WITH SEPARATE 8" SPEAKER

The Knight 7 Tube Aute Radlo is also available in de lure Dual Unit degign This model is exacely the same as described above except that a separate full $8^{\circ} \mathrm{P} . \mathrm{M}$. Dynamic Speaker is used. The separate chassis unit and separate speaker unit are with chrome trim. Chasgis unit measures $8 \% /{ }^{2} 74 \times 74 \%$. Features include: Metal Tubes; No Suppressors; Tone Control; A.V.C. 5 Watts Output; No-glare Dial; Lical Tubesistance Switch; ; Gang Condenser; ; Tuned Circuits; Pre-selector, etc. The Knight 7 De Luxe Auto Raslo comes complete with separate $8^{\prime}$ speaker. Raytheon tubes. flexible shafts. tuning mechanism and hardware. (See listing on page ift for proper panel to fit your car, Shpg. wt., 26 lbs . Code: DELTA.


R.C.A. A HAZEITINE LICENSED

## Kright 8 TUBE 6 VOLT ALL-WAVE SUPERHET <br> - 3 Bands - With Electric Eyb <br> - Powarful Suparhet Circuit. Licensed <br> - Table Model Complate. In luxurious "laydown

- Tone Conirol - Bass Compensution
- Full A.V.C. - 3 Gang Condenser
- Glont Dial - New P.M.Speakers

Surpassing all previous achievements in the 6 Vole Radio field, the Knight AllWave offers every unvired home the full luxury, convenience, and outstanding features of the finest AC receivers. Using only one 6 volt atorage battery, it achie ves actual
0-tube erbicucy through the use of newest 10 -tube erhiciency through the use of newest
low-drain, multifunction tubes. Look at low-drain, mult
these features:

- 3 Full Bands
- 3 Full Bands. Tunes 12-40 and 40-136 meters for powerful world-wide Short Wave Foreign. Amateur, Police. Ship. and Arrolane reception; and 1insss meters for coast-to-coast Americtand Broadcast Etations. Irue AllWave reception-day and nikht
- Rich, Flawlews Tone. The latest specialRich, Flawlowi Tono. The latesi special the Knight 6 Volt All-Wave g, assuring finest wide-range tonal regroduction at all music - is rendered in vivid. Jife-like tone. Four-position Tone Control allows personal choice of tonal emphasis. Bass and Treble Compenaation eliminates "sficing of " of yital overtones
by R.C.A. and Hazeltine. Incorporates newest R.C.A. tubes: 6 S7G as RF: 608 GG as
 Detive is as Class "B" Push-Pull Output; Driver 6 NS as Electric Eye. Total drain is only 28 amps., yet this powerful circuit develops full three watts output 1 Other outstanding features: I.F. wave-trap, to prevent code from breaking through on Broadcast band; rubber-floated chassis for more stable operation: 3 gang tuning condenser for sharper tuning: 7 tuned circuits on each band, lul A. volume level; phono and doublet antenna connections
- Electric Eye. Scientifically precise, it shows you visuatly when you are tuned in periectly. Prevents "off-station" tuning. A splendid extra-value feature.
- R.F. on All Bands. Usually found only in the fincst custom-built reqeivers. $\mathrm{In}^{2}$ creases sensitivity tremendously, so tbat even the most distant olations are brought in clearly and dependla foreign reception.
- Latest Type Dial. The Kright 6 Volt 8 is enhanced by a handoome pillow-ghaped dial. $5 \%^{\prime \prime}$ in diameter and edse-lizbted. Accurately calibrated separate wave-bands are clearly marded on color is built into dial.


## 8 TUBE 6 VOLT CONSOLE MODEL

The Knight 8 Tube Eattery Superhet is offered also in the magnificent console illustrated at the right. Has verticaly sriped ralnut instrument panel and toped contrastinglygrained walnut. get of by top beaded sections. Size, $4024 \times 1121 / \times 24$ y B10608, Knight 8 complete with tubes and $10^{*}$ speaker, less 6 volt buttery
Kecail Value, $\$ 12000$. Code: ANGLE YOUR NETPRICE. B 10609 . Knlght 8 complete as above. but with Knight Heavy-duty S1-plate $\mathbf{C}^{\circ}$ volt trorage
YOUR NETPRICE. 1-plate. 6 volt storage battery. Shpg. wt., 122 libs
$\$ 63.20$

## CHASSIS MODEL

The chassis model of the Knight 8-Tube Battery Superhot is perfectly suitcd for all replacement purdyosimic speaker to obtain the fin. dyomic speaker to obtain tbe finest tone qualte shown above. Buit
new features shor new hatures shiph it will give de-
 q38 Knloht 8 chassis model ith tubes and tor speaker.
'battery. Shpg. wt.. 22
 table model cabinet. Front and top are of onepiece. attractively gtriped wainut ana beautifully



810607 . Knight in cumplete as above. but with Knight Heavy-duty 51 -plate, 6 volt storage battery. SKOR Wit NET PRICE
$\$ 53.95$

* No "B" or "C" Battoriof Needed. The Knight 8 operates from a single 6 volt storage battery which supplies all current necessary. eliminating " $B$ " and $c$ batteries. 6 volt battery may be inexpenaively Chasged throukh use of Ruripow.



## 



- all-Elictelc mabo
- WITH TONI CONTROL
- PULL A.V.e. ACTION
- ${ }^{\circ}$ DYNAmic splak
- cIaNT B $^{1 / 2}$ dIAL
- 3 BAND IFFICIINCY


The 7inest in 32 Volt RADIO
R.C.A. C HAZELTINE UCENSED

TUNES 16-51; 175-555 METERS FOR 3 BAND UTILITY

No finer 32 volt receiver than this 1938 Knight 6 is built today at any priceit stands head and shoulders above the rest of the field in beauty, power. tone quality. econotny and conventence. Typical cabinet, its sturdy chassis. Operating cabinet, Its sturdy chasais. ouperating Knight 6 tunes 2 complete bands- 16 to 51 and $175-555$ meters-bringing every desirable program in powerfully and dependably. New improvements. new refinements. now make it possible for every user of 32 volt power to obtain the fnest in radio-at an unbeatably low price. - Operates From Any 32 Volt D.C. Source. No batteries, power units, or vibrators are required-the Knlght 32 Yelt DC Superhet is entirely all-electric! The new type 48 titbes which are employed for genuine ail-electric power, convenience. and economy. This modern 32 yole super incorporates every new and advanced fea. ture found in the finest AC receivers!

- Glant Alrglane Diab. A beautiful S $1 /{ }^{*}{ }^{*}$ airplane dial enhances both the console and table models. Pillow-shaped. edgelighted. it has a gold face, with clear, accurate calibrations to make tuning a pleasure, not a task. Dial is calibrated ink cycles for the $175-555$ meter band;
megacycles for the $16-5$ meter band.
* Three Band Efficiency. The Knight 32 Volt 6 cunes $16-5$ meters for foreign and domestic hort wave programs, including the most popular overseas atations on the 19 and 49 meter bands; and 175 S5s meters for powerful American and Hanadian standard Broancast programs. -and give you all the thrill c-of threel - 8 Tuba Powar With 6 Tube Econemy. The newest R.C.A. and Hazeltine circuit Supertioy er by following multi-purpoit and single purpose tubes produce 8 tube results at no extra cost; 1-6A7 as Osc.Sod. 1 - 6 D 6 as I.F. Amp.; 1- 75 as Det. AVC.-1at Audio; i-76 as 2nd Audlo; and $2-48$ 's as push-pull audio output. Total drain is only 40 watts. Juat plug this set into any 32 Volt D.C. line and you're ready to enjoy radio at its best.
- Glorlous Tone. No other 32 Volt receiver can surpass the splendid tone quality of the Knight 6. Its Etrong power is handled efficiently, beautifully. as rich. full-bodied cone by the heavy-duty dynamic speaker ( 6 in the table model it in the console). Each note is delightfully free to the Knight 6 gives a new concept of to the Knight 6 gives a new concept of
32 Volt radio tone quality. No finer 32 Volt radio can be bought at any price.
- Latest Fentures. Every advanced feature usually found only in high-priced Kingher 6 Tube 32 Velt Superhot. Full Automatic Volume Control assures uniform volume and freedom from fading: Continuously Variable Tone Control permits personal accentuation of either treble or bass; nubber-mounted chassis and tuning condenser absorb jars and provide quieker, steadier reception; 6 tuned cirtivity doublet antenna connection smooth. dependable wave-band switch newest multifunction tubes, etc. Only the Knlght 32 Volt 6 gives you so many features. so much extra-value for your money!
1338-Styled Cablnot. Up-to-the minute in its beautiful modern design, the table model cabinet of the Knight shown above. has instrument panel and sides of one-piece horizontally-grained wal-
nut, with graceful rolled-end effect. The nut. with graceful rolled-end effect. The top is of selected walnut; the grille is enhanced by three attractive bar overlays.
 ntting complement to the guality and
worimanship of the Knight
32 Table Model Cemplete. The Knight 32 Volt 6 Tube table model is offered complete with $6^{\circ}$ dynarmic speaker. $5^{4}{ }^{2}$ operation. A $\$ 00.00$ value offered at a price that defies competition. Shrig. wit 20 lbs.
Code: BROOK

810612. 

Retail Value. $\$ 00.00$
Retai Value. $\$ 0.00$.
YOURPRICE $5,50$.
INLOTS OF 3, EACH.

The Knight 6wTube 32-Volt SuperHet is offered in the fine console sbown at the left. Built of choice walnut woods. with plenty of baffle area to assure finest beaustiful results. Has front isce of decorative fluted side pilasters. Measures $38^{\prime \prime}$ high. $2315^{\circ}$ wide. $12^{*}$ deep. $5^{\prime}$ audjtorium apeaker reproduces every tone level with dynamic. vivid, clarity. $5 \%$ dial is easy-to-read. simple to tune. For those who want the beat in 32 Volt radlo performance. Complete with set of 6 R.C.A. tubes. For 32 -Vole operation. Shipping
weight, 50 lbs . Code: GRANT.

## R10615.

## Retai Value. $\$ 82.50 .75$. NET EACR, 39.75. <br> YOURPRIC <br> LOTS OF 3 , EACH <br> :3715

## CHASSIS MODEL

A superb replacement for your present Cabinet. The chassis model of the Knigh 32 voli 6 is suppiled with an 8 super dynamic speaker and striking ${ }^{\circ} \times 8^{\circ}$ dial. flects the hizhert type of workmanship and quality. and is built for long life and enjoyable trouble-free perfo-mance. Em ploys an R.C.A. and Hazeltine circuit as deacribed above, assuring the moat modern type of radio reception Complete with speaker dial, tubes and eocutcheon. A splendid all-electric 32 Volt Radio value. For 32 volt operation. Shipping weight 13 lbs. Code: LIRESS

## R10617

Retait Value, 854.50 .
NETEACH, 25.75 . YOUR PRICE,
LOTS OF 3. EACN.
For efficient aerial, pee page 99.)


# ALMOST BATTERYLESS! POWERFUL AND ECONOMICAL!! Kaight 7 TUBE 6 VOIT BATTERY SUPERHET <br> 3 FULL BANDS •ELECTRIC EYE 

WENR
with the hew SEEECTV. D DA automaric
wLAC
Wushal
a.c.a. a hazeitine UCENSED
 Retal Value, 74.50.
$\mathrm{Cn}^{1060} 1 \mathrm{~A}$ - As above, but complete with Shpat. wt. 60 libe 6 NETt bettery.
$\$ 41.20$
teads the Fitid. ALLIED proudly offer: 7 Tube 8 ere pregentation of the 1938 Knigh new Farm Radio that's hrat with the amaning new Automatic Select-O-Dial and dozena of other features 1 Here's a radio that will be modtorn for years to come. There's no other met like without these sew much lesk than other atation a becond! Bringe you entertainment from all over the world oo realiatic you'll think you're in the atudol - World-wlde Hange. Tunea everything on the air in 3 continuous bands (no skipg or short spats) from 16 -Sso Amateurs, Airplanes, Police, and Shipt-at-Sea are reliably covered from $16-52$ and $52-174$ meters; cosst-to-coast American and Canadian standard Broadcast stations are tuned Dowerfully and pleasingly from 174-55S metera.

- Almest Batterylean. A revelation for convenience and economy. Operated entirely from
 or "C" batteries. Newest genuine R.C.A. tubes of low-drain types are ueed throughout,
(Draln is onty 2.5 ampa.) You wave on " $B$ ", (Draln is onty 2.5 ampa.) You wave on " $B$ "
and " $C$ " battery costa-in ordinary uac, at and "C" battery coste-in
- Stirpinf Towal Quality. Amazingly lifeike tope fo gasured through the use of a new P.M. dynamic speakry ( $0^{\circ}$ in table model; $8^{\circ}$ in console and chamia modela). Matched for baffle area, this speaker reproduces every program faithfully, richly. enjoyably. Rural listeners can now enjoy the pure tone of radio't perfect voice. Personal Tone Control enable: yon to emphasize treble or base ranges at will.


## 7 TUBE CHASSIS MODEL

The new Knight 7 Tube 6 Velt Battery Supprhet is also offered in deluxe chaseas form. Includes every feature as deecribed above dismeter. Operates entirely from single 6 Vol Storage Battery. Suppired complete with R.C.A. tubes, Select-O-Bial with knobe and eacutcheon, and speaker. Shpg. wt. 17 lbe Less 6 Volt battery Code:GROOM. Sin $\$ 5$
810604 Retail Value, 509.95 .
 810805. Aa above but complete with


Automatlic Tuning. Radio' newert mensation I The new adjustable Select-O-Disi prohdem for rapic and accurate automatic aelection of favorite podular tations. May be eatily ad10 tuted by anyone in any locality 00 that any of 10 stations may be quicky and Derfectly tuped. Anyone can ture this new convenuent way Seng wheel to the stopning point-your atation is theret The Knigbt 7 can also be tunce in the conventional manner. and Hazeltine licensed Superhet circuit include. every new development. Lateat R.C.A. tubet of low-drain typer are lased as follown: 6D8G at Owe.Mod.; 6S7G as I.F. Amp.; 6L5G as 2nd Det.-A.V.C.: 6S7G as 1 解 Audio Amp.: 6L5G as Eriver Long-life, plug in type vibrator supplica Eye. Long-life, Dlug-in type vibrator supplien. Tone Control; 3 gand condenser; Extention opeaker consection; Doublet anterna connection; Preselector; rubber-flonted chasaif, etc.

## 7 TUR CONSOLE MODEL

Magnificently presented in the luxuriour console cabinet shown nt right, the Knlight Tube enhance the finest farm home. Buile of choict polatite woods in the latest atyle. Dimentions: $40 \% \times 24 \mathrm{~K}=124^{\prime}$. Coneple model Includet all features deacribed above and at left. Furnisher complete with $8^{\circ}$ P.M. epeaker and R.C.A tubea; less 6 volt battery. ShDg. wt.: 55 lbe. Code: STOCK.
B10802. Retail Vauc. 107.50 . है है YOUR NET PRICE
R19803. As above, but complete with Knight S5-plate. 6 volt battery.
$\$ 56.70$

- Exgulaito Table Cablmet. The ulura-moder cabimet shown above is the periect houaing for the great new knt hi $\gamma$ tube Farm Nadto. Instrument panel and sidea are of one-piece, hori montally-grained winut in beautiful "roll" ef fect. Simple but gracelul grille has ahaped bar overlayt. Shaped bege-mount leas add a note of
 luatrou placo hiaias. Size: 19 $4 \times 11 \times 9$ g - Easy te Tume. Even when stations are not tunge automacany. Ehe MNishl in excrption into the dial. how you visually when your sta tion in properly tuned in. Full Automatic Volume Control action prevents fading-maintain even volume on all alprale. Wave Band Indicator aleo built into dial, thow you at a glance whether the recever is set for Broadcat or Short Wave tuning. For ali-around performance, attractive nese, and economy, the dinlfht 7 is beyond com parioon. It'e a typical AhbIED value


with AUTOMATIC SELECT-O-DIAL


## JUST DIAL YOLR STITION

 Hive- Werld-WIde Range. Tour the World with the pew 1938 Kninht Tube Allthe air. $16-52$ meter band coverithrialing Short. Wave foreign programe; 52-175 plane Calls and Shice, Amateur, Airer band brings you poweriul standard receptron from all American and Canadian ititions. tumet your favorite local atations autoThe call leter of ten ease and precision. the dial Juet dial your atation the way you would we atial 'ohone your tinger on the atation aarne you sping the tuning diac down to the perfectiy. It's as easy as pointing a finger Now in addition to true atomatic Tuing. the new 1938 Knights a regharar ul-vion illuminated ane outer tige to give the ad cantbated ancreas ecale loth and ereater station mread Fach band is clearty indicated.


## \section*{KNIGHT} <br> CHASSIS MODEL

As illustrated - a de luxe model in every detail size: ture demcribed above. Comes complete with $12^{\circ}$ dynamic appaker and Raytheon tubed; with Automatic Tuning mechanism and eacutcheon. For 110 volte 60 cyclea A.C Shpg. Wit 23 bos. Code: CHAMP. 810842.

3150
NET EAC'M,\$34.45.


## 


R.C.A. HAZELTINE UCENSED

## Kright II TUBE A.C. SUPERHET

## - With Mefal Tubes

- New A.F.C. Feafure
- Full A.V.C. Action
- 3 Full Bands
- 9 Watts Output
- Glont ${ }^{\text {" Dial }}$
- Aut. Tone Control
- R.F. Preselector

This roagnificent new Knight 11 Tube Antomatic Dialior is a splendid radio value Antomatic Dialing is a splendid radio value. Tume in your favorite domestic otations automatically, "quick as a flash." Thrill to powerful clear reception of foreign stations. Enjoy tone quality such as you have never heard before.

- Tunes Three Full Einnds. The Knight 11 covers the complete range: $16-32$ metera and 5 t-1 i4 meters for consigtenty reliable Short-h ave foreign, amateur. aviation, and police calls; $1 / 4-550$ meters for powerful long-distance reception of all standard all the new features.
- Automitlc Disllng. Tunes your favorite local stations automaticaly- Cal letters appear right on the dial Swing the of the station you wazt-and a light flashes -you're tuned in ingtantly, silently and perfectly.
- Glant Gelor-Band Dlal. In addition to automatic tuning the Kalght il has to automatic tuming, the Knight il has a
regular big illuminated airplase dial. Has regular bigue visual automatic wave band indicacor; shows you exactly which band if in use. Broadcast channels are clearly calibrated in kilocycles. Short Wave bands are in megacycles Foreign channels are indicated.
- Metal Tube Emiflency. 10 new metal tubes and 1 glass type are used effectively in the great new Knight 11 Superhet as follows: 6 K 7 an Pre-tuned R.F.; 6A8 as Mod. Osc.; 6 K 7 as I.F. 6 J 7 an A.F.C.: 2 H 6 as Det.-A.V.C. 6 C 5 as lat Audio; push-pull power stage; 80 as rectifier. You get the most from each tube. $\qquad$
Table model complete an illustrated. Built pleasingly of choice walnut woods. dynamic speaker and R.C.A. tubes. Shpg. wt. 51 Ibe. Code: REGAL. Biog80 NEJ EACH
$\$ 52.50$.
YOUR PRICE. EACH.
- Autematic Frequency Contrel. Found only in the most costly radios. AFC shifts the Knight il automatically into hairlint tuning for perfect tone. You can't tune in "off-tone"-the circuit snaps into perfect tune anywhere within range of the station
signal you are tuming signal you are tuming
- Aufematite Tone Control. Boonts bass automatically without cntting out the high notee. Has five poaitions permitting, Derfect acoustical matching for any type of program. Has final position for best porreception.
-Interstation Nelse Sileneer. You can tune from gtation to station with no acreeching, whisting or automatic device that makes tuning a real pleasure.
- Mere Featuret. Additional features found in the Knight All-Wave 11 include: Automatic Volume Control for steady, uniform volume; rubber-floated 3 -gang tuning condenser for sharp selectivity; preselector for added sensitivity; double pushpull audio for tremendous 9 satts power; fiant-sized auditorium dynamic speaker or broadcast-itudio tone quality; doublet
connection, etc. connection, etc.

CHAS5IS MODEL
The Knight 11 Tube All-Wave Superhet with Automatic Diang is also offered in chassis form. Has all the features described above. Beautifully built overbite chastis- $10 \%$ wide. 13,5 deep, $11^{*}$ high. Comes complete with $12^{\circ}$ Speaker R.C Automatic Diahing mechaniam and R.C.A. tubes. A wonderiul de luxe chassis wh. 40 Ibs Code: EPOCH B10582. 897.50 NETEACH, \$46.50
NET PRICE, LOTSOF

## CONSOLE MODEL

The Knlght 11 is fitcingly presented in a magnificent console built to the highest standards. Has richly figured butt walnut front face. with roll aidea of matched fig . ured arriped wainut. Size: $41^{\circ}$ high, $263^{\prime \prime}$ wide, 14 H deep. Offered complete with R.C.A. tubes For 110 yer and genuine AC operation Shpe volts. 60 cycles FLASH
R10581. Retail Value, 125.00 .
NET EACH, 59.95

## 3. EACH.

$\$ 56 \underline{95}$

For operation on all voltages from 95 to 260 volts, 25 to 60 cycles. A.C. add $\$ 3.65$.



# Kaikt 1938 <br> 16 TUBE A. C. SUPERHET onv $84=$ 

## with the SELECT-O-MATIC DIAL

- ELECTRIC TUNING
- NEW A.f.C. ACTION
- 20 WATTS OUTPUT
- R.F. ON all Bands
- is' ofnamic speaker
- 2 STAGES OF t.f.
- 3 full wave Bands
- FULL DELAYED A.V.C.
- dual TONE CONTROL
- EASS Amplifier
- high fidelity
- BEAM POWER tUBES

Here is ALLED'S great radio challenge for 1938-- 16 Tube World-Wide Superhet with true Electric Push-Button Tuning with a score of brilliant and exclusive new features th

- WORLD-WIDE COVERAEE. The KnIfht 16 A.C. Superhot covers 16 to 550 Meters-giving complete coverage of everything that's broadcast in the world todayTunes 16-51 Meters and 51-175 Metern for powefful and conaistent Short Wave foreign, amateur, aviation and police signal reception; 175-550 Meters for splendid coverage of all American and Canadian standard Broadcast programs. The 1938 Kinlght is is America's best long-dimeance radio!
- ELECTRIC TUNING. A 1938 radio miracle. Tunes any eight prebelected favorite gtations at the touch of a butson-works electrically with the utmost ease and accuracy, Here is the simplest and most practical automatic tuning device yet developed. You'l like Electric Push-Button Tuning-just press a button-and fash-there's your program. automatically, unerringly tuned? Anyone. in any location, can easily and quickly adjust he favorite stations desired
- SELECT-O-MATIC DIAL. A new advance in dial degign-a large full-vision rectangle with individual full-length horizontal scale for each band. Has vertical pointer; ghows names of popular otations on the Broadcast band; clearly iradicates all Short Wave channels. The Select-o-matic Dial is a fitting companion to the Electric Push-Button Tuning Syotem
- AUTOMATIC FREQUENCY CONTROL. You can't tune the Knight 16 "ofitone" becaust the new AFC circuit snaps each program into perfect tune anywhere
within range of the station aignal you are tuning. And AFC gives Electric Push-Button within range of the station aignal you are tuning. And AFC gives Electruc Push-Button Iuning its
- FULE PELAYED A. V.C. Applied on five of the circuit tubea-a feature found only in radios selling several cimes our price-absolutely overcomes fadint even on the weakest signali-gives equal intensity and unlform volume strength to all incoming signals picked up by the auper-senisitive circuit.
- DUAL TONE CONTROL. The 1938 Knight 16 has two separate controld-one for bass-one for treble. Thistype of dual control achieves proper acoustical correction for any programin any room. It is entirely diferent from conventional sone controls because either or both ends of a musical range extending from 30 to 6000 cycles. Thin dual highfidelity control will delight the most critical musical ear because it masters the full conal range from deepest bass to highest trebif
- R. F, ON ALL BANDS. This feature is iound only in the most expenaive custombuilt radios. Gives the utmont in selectivity, sensitivity and low noise level. Two douhletuned I.F. stages are aloo incorporated. (Sensitivity is absolute 2 Mv . measured at 50 miliwates on all bands! Selectivity is 8 to $10 \mathrm{~K} . \mathrm{C}$. at $10 \times$ power!)
- EASS AMPLIFIER. A special, eeparate bass amplifier is buititinto the Knisht 16. This amplifier handles bass (requencies exclusively-a circuit and design innovation found hitberto only in laboratory and
- 15-INCH DYMAMIC SPEAKER. A newly developed full 15 -inch Electro-dynamic speaker is used in the 1938 Kolght 16 . This speaker is designer and qualified by virtue of is power-inandifg ability and sensitivity to reproduce both voice and music faithfully with high-fidelity tone.
193s RADIO CI RCUIT. The neweat octal tubes are used throughout the R.C.A. and Hazeltine licensed circuit of the Knifht 1630 followa; 6 K 7 G as $R$. A. Amp; 6 K 7 G as ist
 Audio; 6J5G an 2nd Audio; $6 J 5 G$ as Rass Amp; $6 H 6 G$ as Diode Det.; $6 H 6 G$ as AFC Control: 6 J 7 G as AFC Control; 2 - 523 as rectifiers; ${ }^{2}$ - 6 L 6 G as Power Output stage. Outatanding circuit features are: 20 watts output; noise-reducing sensitivity control; 3 gang condenser; doublet antenna provision; special 3-pie I.F. s with fiat-toD characteris-
- MASSIVE NEW CDNSOLE. The console of the 1938 Mnight 16 ia magnificently designed and built. It uses four types of costly rich-fgured walnut in a design that is sensibly conceived for perfect harmony in the home. The center is a one-piece burlpanel is bordered with a strip of imported oriental walnut pilasters are beatififilly beaded at top and continue around fuli depth of side. The entire console is hand-rubbed to a high piano finigh. Size: $44^{*}$ high, $14^{\prime}$ deep. $26^{\circ}$ wide.
- COHSOLE RODEL COMPLETE. The 1938 Knight 16 Tube All-wave Superhot with Electric Tuning complete in console with 15 -iuch speaker and R.C.A. tubes. For 110 volts, 60 cycles A.
Chipping weight,
B10525, Retail Value, \$175.00.
(For efficient aerial, see liating on page 99.)


## KNIGHT 16 TUBE CHASSIS MODEL

The Knlght 16 Tube All-Wave Superhet with Electric Automatic Tuning is also available in the de luxe chassig form illustrated at right. Includes all of the 日uperlative features described above: 3 Band World-Wide Range; Electric Push-Button Automatic IUning; Select-o-matic Dial; Automatic Frequency Control; 20 Watts Output: R.F. on all band ; IS-inch Electro-dynamic apeaker; Basa Amplifer; Dual Tone Control; Full Dedoyblet connection lateat octal tubes each delivering the uned I.F.; 3 gang condenser; and performance. Exactly as described above. A big, beautifulty buitt chassis, made up of the finest components that can be used. The turer chassin measures $21^{\circ}$ wide, $111 / 2$
 Electric I uning and dial rochaniam. 15 dynamic speaker and R.C.A. tubes. For 110 volis, 60 cycles A.C. ShDe. wt., 60 lba . Code: EKACT.
81052\%.
Retail Value, \$12s.00.
${ }^{\$} 6195$

## 1938 ELECTRIC TUNING

An amainf mev feature foand only in che butcon and there your program-atomaniondiy, inetnaty. electrically! Abeolutely practical horoughy-teated and rellable Blectric tuning io completely suto matic. Puth the butcon- there' your tration-tursed perfectly, unerrindyl You can tune thry elfht of your favorite etations thif mirac the fualy eany and precise viny with
13.INCh SPEAKR

A siant 15-Inch Auditorium Dy-
 precedented 20 witte output of the circuit. All tonal frequenciee are brilliently projected in their of expresion in the low notes and ol expremon in the low noted and beter in thelned even by the mopt coetly etvilio and laboratory type amplifying indtrumente.

NIW A.F.C.
Automatic Frequency Controluned only in the mont expensive new matically shifte the circuif of the matically shifte the circuit of the perfect tonal reception. Actodly "enapa" etationa into perfect tone Yon emply can't tube "off-tone" with the Knlthe it- uncengy and certain is the zetion of ite per ected Automatic Frequency Con trol circuit.

| Everrthing on the air neate |
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| caper thim menstive nothing porid |
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| as; condrito-coent etandard Amer |
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## SUPEAB TONE

No finer tooe quallty is achieved y any radio itmpumeat mede to isy. repardleat of price. The Knflit 16 reprementien hish-fidelty reproduction A upecial built-in Ban Amptifer Dus Tone Control. end 15 -inch Dynamle Spelarer cepture ever ordinal manace and overtone. re creatin the orisinal readition with atoniahing faithfulnem thet will rint been eajoyment to the most critical Ilatemer.


# Kright 9 TUBE ALL－WAVE A．C．SUPERHET 



## A uper VALUE

The 1938 Knight All－Waves Tube superhet with －inch Dynamic Speaker is offered complete with Ray theon tubes in the splendid cable model illuserated above For operation from 110 volus． 60 cycles A．C． Code：ROYAL 810516． NETP RICE $\$ 69.50$ NETP RICE＇EACH，\＄32．75． NET PRICE， LOTS OF 3，EACH．．．．．．．．．．

－ 3 Full Bands
－Sllde－Rule Dlal
－Electric llye
－Tone Control
－Bass Compensafion
－R．F．Preampliner
－ 10 Wafta Output
－Full A．V．C．Action
－ 3 Gang Condenter－部＂－12 Speakers
－Letest Typo Tubes Unl－Coll System

## 9 TUBES WITH THE POWER OF II

A new 1938 Knleht Tube All－Wave A．C．Guperhot which offert more for yoar money than any other 9 tube receiver made today．This bew radio bringe you more powerf ut World－Wide reception，more faithful and enjoyable tone quality，more feature⿻ more refinements and more value than you have ever seen at this price．
3 FULI GANDS．The 1938 Kalght covers everything on the dir： 17 to 32 Metert for foreign and domeatic Short Wave programp： 52 to 172 Metere for Short Wave ama teur，airplare，ship and police sicnals；and 172 to 555 Meters for every standard Broad cast American and Canadian station．Tbe Knleht is super－oelective and muper craitive it bringe the whole entertaining wortd of radio to your home－faithfuliy， powerfuly，enjoyably．
10＂SLIDE－RULE DIAL．A new 1938 cype full－vision dial isused in the Kolght for the utmost convenience in euning any band．Thia eary－torread rectangular dial ahowa chree horizoncal ecales of equal length，one for each band．The Bropdcant band ia calt orated in kilocycles and the Short whow you wisually when your station is perfectiy moned in．Anyone can operate the Knlatis with perfect ease and accuracy．
－ 10 WATT Knight 9 circuit employs two ofo output tubes in a mighty push－pull combination to develop full 10 watte orpat the console and chassin modeis．Every program tuned by the Knifht in flawlesaly re－created and is a joy to listen to．
－A REMAFMABLE CIRCUIT．The KnIpht incorporates the finest R．C．A．and Hareltine licensed 9 cube Superhet circuit using the latest type tubes as followis：6K7 Audio； $6 C 5$ as Phase Inv．2－6F6 as P．P．Output；SY 3 an Rectifier；6G5 is Electric Eye． －ADOITIONAL FEATU央ES．Check the extra advantageous features：Bass Com． pensation on the volume control for full－range bass and treble reproduction of Foice and A．V．C．for uniform maintenance of volume on all programe；new Uni－Coil system with eparate coils for each band for unusual stability；R．F．preamplifer on Broadcast band or added sensitivity；rubber－cuahioned 3 gang condenier with low minimum capacity for ertra dependable tuning．etc．
－MAGNIFICENT NEW TABLE MODEL．The Knlaht Alj－Wave＇s is beautifully presented in a spleudid table model cabinet of tasteful deaign．it is made of vertically， etriped wainut in one piece，rolled at top and bottom，with a contrastingly－finished band centered on the grille opening－Hand－rubbed to a luxurious piano finioh．Measures： 21 long； $12 \mathrm{~K}^{\prime}$ high； $9 \%^{\prime}$ deep．


WITH THE KNIGHT 9
Lufie mround the world with the Knlint 9 on 3 thrill－packed radio bands．The tuning range covert everything；get intereating foreign programs，ahipa－at－ana，airplane，smateur and police siznals－as well as coast－to－coast American and Canadian atandard Broadcast， Thrill to the rich，faithil tope reproduced by the $12-i n c h$ thectroad 1938 radio cabinet n the luxurious console wor wind finiah；the interument panel is of Fertically－striped walnut in a rolftop effect．The aide pilaters are of curved horizontally－striped wainut with contrastingly crained top trims．This new generously designed console measure $42^{\prime}$ high，24 $4^{\prime}$ wide and 12\％＊deep

## CONSOLE MODEL

The 1938 Knights is offered com－ plete in the beatutif ol consoie illostrat－ d at the left，with full 12 －inch Electro－ dynamic apeaker and Reytheon tubee． Includes all features exactly as deecribed above．An outstanding radio value that eets the pace for 1938 For operation from 110 volte， 60 cycles，A．C．Shpe．wt．， 65 lba．
Blosifice Retail Value，\＄110．00．
 NETPRICE
COTSOF 3，EACH

## CHASSIS MODEL

The Knight 9 is offered also in chasels form．Incorporates the pow－ erful new circuit deacribed above with 12 －inch Efectrodynamic npeak－ er and 9 Raytheon tubes．Measure $13 \%^{\prime} \times 9 y 3^{\prime} \times 94^{\prime}$ ．Supplied com－ plete with 10 ．For 110 Folls 60 cycles． A．C．Shpe wit． 25 libe．
BEGST8，Retail Value，\＄67．50． NETPRICE
EACH， 31.
NETPRICE，
LOTA LOTS OFS，EACM．．． 4 （For an efficient aerial，see page 99．）

\section*{Rright 7 TUBE 3 BAND A.C. SUPERHET

\section*{1

## 1 <br> Radis at its Best-at $1938{ }^{\circ}$ Lowest Prices"

Here is the last word in 1938 radio-the value-parked Knight 7 Tube All-Wave A.C. Su perhet. Tunes everything on the air. Has more features, mote power. more sensitivity. more selectivity and finer tone than any other 7 tube radio buitt today. Just check these features:

- WORLD WIDE RANGE. Tunes 16 to 54 Mcters for world-wide Short Wave eception; 32 to 178 . Meters for Short wave police. amateur. ships. airplane and coman
 ability in rescrve; it has more power, more responsiveness, more faithful reception than any other 7 tube radio.
- AUTOMATIC TUNING. The 1938 Knight 7 tunes your favorite local stations automatically, with true ease and precision. The 1938 Select-onDiat provides buttons or ten of your favorite stations. Put your finger on the station but on you want. instantly, perfectly! It's as easy as pminting a finger. Anyone car adjust Automatic Tuning for any desired stations. And the knight 7 can also be tuned in the regular manner for all additional domestic and foreign stations.
- GIANT NEW DIAL. In addition to true Automatic Tuning. the Knight $\mathbf{7}$ has a regular large 44 inch full-vision illuminated dial. Each land is separately and gre shown in megacycles with popular channels clearly designated. The buikth Teleye is an added feature.
- A SUPERB CIRCUIT. A brilliantly-engineered R.C.A. and Hazeltine licensed superhet circuit is used in the Knight 7. Latest inbers are incorporated: 6A7 as Osc. Mod. 80 as Rectifier; 6 G s is Electric Ese. This tube line-up means powerful distancereach and strong reproduction of programs on all wave bands.
- OUTSTANDING NEW FEATURES. Knight 7 incorporates all of the following. Electric Eye for visual accurate tuning (built into the new Select-o-Dial): has fariable Tone Control for bass or freble eniphasis; Automatic Volume Control for uniform volume maintenance; the finest Electro-dynamic speakers to-inch in table modet-8-inch in console) for fawless reproduction at any volume level; giant 3 wates denser and chassis fot maximum stablity; 6 tuned circuits on each band; doublet antenna connection. etc. Fivery one of these fearures contributes to powerful world-wide reception and radio's richest tone quality.
- beautiful table model complete. The Knight $\mathbf{7}$ is offered in the beatifut 1938 table model catinet illustrated above. Has front face and rollends of one-piece choice horizontaly grained walnut; with walnut to 9 脌. Complete with $\sigma^{n}$ Dynamic Speaker and R.C.A. tubes. Shipring wiight, 20 bs. Code: PRIZE.

YOURPRICE, LOTS OF'3, EACH.


## Cecoutiful 7 tube console

 \$2585The 1938 Knight All-Wave $\mathbf{7}$ is alsn presented in a new console model of more than distinguished appearance. This bealutifil creation thas an instrument panel of butt walnut with rolled side pilasters of horizontally striped and matcherl wainnt. onhanced by top trims of vertically-striped walnut. The console measures 38,5; high. 22 /h wide and 11 deep. It will add graceful dignity and charm to any decorative sclieme. The Knlght All-Wave 7 A.C. Superhet in console model has all of the features deacribed above: Automatic Select-o-I ial: Electric Teleye; 3 Band Range; Full Variable Tone Control; Automatic Volume Control; 3 W'ats Prower Output; Doublet Antenna Connection; rubber-floated chassis and tuning condenser. etc. Comes complete with highest-quality 8 -inch Electrodynamic speaker and genuine R.C.i.t tubes. Shipping weight, 52 be. Code: SPRING.
B10586. List Price. $\$ 72.50$
NET EACH. $\$ 38.95$.
YOURPRICE, LOTS OF 3, EACH.
$\$ 3675$ 36

## The new 1038 Knight All-Wave

 7 A.C. Super het in talle model, with Automatic Sclect-o-Dial. cornplete with o $^{\circ}$ Speaker and R.C.A. tubes. For operation on 110 voles. Code: PR1ZEB10585, Retail Value, $\$ 57.50$.

## \$2585

 YOURPRICE, LOTS OF 3, EACHThe Knight A.C. 7 can also be had for operation on all woltages from 95 to 200 Volts, 25 to 00 cycles, A.C. at $\$ 2.50$ extra.


## Kright 6 TUBE 3 BAND A.C. SUPERHET



ELECTRIC EYE 3 WAVE BANDS TONE CONTROL $31 / 2$ WATTS OUTPUT NEW 6 INCH DIAL FULL-ACTION A.V.C. 6 "DYNAMIC SPEAKER


Wave A.C. Superhet, complete with Rastheon tubes. Retail Value. $\$ 42.50$. NETEACH, 520.75. YOUR PRICE,
LOTS OF 3 .

## s 1975

- WORLD.WIDE RANGE. A new 193 Knight 6 Tube A.C. Superhet that everyone can afford. Powertit, selective. sernitive-it brings you world-wide radio entertainment on three full wave bands. Covers forcign and domestic Short Wave between $1 ;-52$ Meters; police. aviation and amatcur phone between 32.175 dian standard Broadcast stations between 172 555 Meters.
- TELEYE TUNING. The unerring Electric Eye is incorporated in the new Knight 6. it provides the galent way to better tuning anci pertert tone You just watch the shadow in the flowing eye; when it is narrowest you are tuned
in perfectly.
- GIANT $6^{\prime}$ DIAL. The new dial of the Knight 6 is fully illuminated and accurately calibrated on each band. The upper scale is calibrated in kilocycles for the Broadcast band; the middle and lower scales are in megacycles for tuning foreign and domestic Short Wave Individual make for maximum tuning efficiency.
- $61 / z^{*}$ DYNAMIC SPEAKER. The oversized heayy-duty Electro-dynamic speaker used in the Knight 6 faithuly handies the full 3 wats output of the circuit with wide-tange tonal fidel-
ity. Voice and music are reproduced fawlessly ity any voice and music level.
- A WORLD OFPOWER. The Knight 6 de velops full $31 / 2$ watts output from its werfecter R.C.A. and Hazeltine licensed Superhet circuit. Oscest Raytheon cubes are used: 6.18 as Drit. isc. 606 as 1.F. Amp.; 607 as 2nd Det.A. .C. 6 G 5 is Electric Eye. This fine 1938 circuit actually develops 8 tube efficicncy.
- TONE CONTROL Continuously Variable Tone Control as incorporated in the new Knight 6 provides for the accentuation of either high or low notes, as desired. Makes the Knight 6 a more "personal" receiver-doubles your radio enjo
- GLORIOUS TONE. The clear, rich tone of the Knight 5 brings new joy to radio listening Never before has such vital and realistic tone quality been available in a radio receiver at such a modest $p$.
- FULL A.V.C. Maintaing constant volume level; prevents fading on Short-Wave signals and blasting on local stations. Has rubber-- NEW CABINET. The Knight 6 is housed in a stacetully proportionef table model cabinet whose pleasing beauty will harmonize anywhere The front panel is of carefully matchert walnut woons with a chaste grillwork design. Measures - SET COMP

WET COMPLETE. The Knight f Tube AllWave superhet is offered in table model illusHor operation on 110 volts, 60 cycles, A.C. Shps. wt. 22 Itse.
Code: PLA B10500
Retai Value S42.5 PRICE, LOTS OF 3, EACH
Folts, 25 to 00 cycles Ac voltage from 110 to 230 volts, 25 to 00 cycles A.C., add $\$ 2.85$

## Seautitul New ARMCHAIR nodel

The Knight $s$ Tube All-Wave A.C. Superhet is also available in the new 1938 Armchair Model as illustrated at the left. The very latest word in beatiful radio scyling and tuning convenience. Beautifuly proportioned, with both stifes and top rolited of one-filce eelected drained walnut. Gracefuliy curved shelves are useful as well as cecorative. The Aruchair Model measures $264^{\circ}$ high. $2135^{\circ}$ wide, $121 / \%^{\circ}$ deep. Complete Knight 6 Tube namic speaker and Raytheon tubes. Shipping weight, 41 lbs. 810522 Retail Value. 557.50. NET PRICE EACH, S27 50 .
${ }^{\text {s }} 25^{95}$ "Entire Contents Copypiphted, 1937, by ALLIED RADIO CORP.

# Knight <br> ALLIED opens the 1938 Radio Season with a <br> <br> sUPERHET <br> <br> sUPERHET <br> - 6 INCH DYNAMIC SPEAKER. A full-sized 

ELECTRIC EYE
2 FULI BANDS
3 BAND UTILITY TONE CONTROL FULL-ACTING A.V.C.
$6^{\prime \prime}$ DYN. SPEAKER $41 / 2$ INCH DIAL 3 WATTS OUTPUT

real Smash Hit-a new Dual-Wave Knight 7 Tube A.C. Superhet that's literatly packed with alue Hete's thr radio pacemaker for 193 the price for stronig power and wide distance reach. distinguished for its gloriously full true tone and its hanisome looks, You can't buy better built-in quality or more reliable periormance at even twice the price In the newio's Outstanding Valuel

- 3 BAND UTILITY. The 1938 Knight 7 tunes from 47 to 130 Acters to bring in Short wave police, aviation and amateur phone, as well as fascinating foreign recention on the popular 49 Meter Loreign Short Wive channel. The second band covers : 74 to 556 Aleters and tunes the unger police channel and all Americars and Canadian standard Broadcast stationst all important chanwels their conply you the advantage of chree band necuption. Whether vou tune standard Broadcast or Short Wave, local or distant stations, the new Kmight 7 offers you exceptionally strong, thoroughly pleasing reception of all programs.
- TEEEYE TUNING. The accurate cathoderay Tuning Eye used in the Knight 7 assures enjoyable, scientically-precise tunnig. fou cantane pertectly tuned-noiselessiv, unerringly! This feaperfectis generally found only in the higher-priced sets. It's a real contribution to tuning ease.
- BEAUTIFUL EDGE-LIGHTED DIAL. Latest 1938 typel Easy-to-tune; attractive in appearance. Measures 4 . face wich is re in large clear characters. Two legible scales are indicated. the upper calibrated in kilocycles for standard Broadcast tuning, the lower marked in mexacycles for Short wive logging. The important short wave channels are glainly designated. You will like this practical.
-inch Electro-dynamic speaker of the finest make is uged in the Knight 7 . It reproduces both voice and mugic with-amazing faithituress at all volume leveis. Never before has there been such stirming tonal realism mable modr - 3 WATTS OUTPUT. The Knight 7 develops a maximum power output of 3 watts! This power is thrillingly rendered as flawless enjoyable tonefull and rich at all volume levels.
- TONE CONTROL. Continuously variable a big extra feature usually found only in much higher priced sets. Permits emphasis of bass or treble response to suit personal tasters. beauty of the Knight ?
- 1938 CIRCUIT. The R.C.A. and Hazeltine licensed Superhet circuit of the Knight 7 assures the newest developments from these great laboratories. The latest tules are used as follows: 6.4
 fier. $6 G 5$ is Electric Eye. Other features include Automatic Volume Control to maintain uniform volume, rubber-floated tuning condenser and chas sis. 6 tured circuits on each band. highest quality parts with wide saiety factors.
- LATEST CABINET. The Knight $\mathbf{7}$ is beau tifully housed in the newest laydown cabinet fea turing "roll" top and bottom elfect. Front face is of choice vertically-striped walnut. Measures $17 x$ $8 \times 101 / 2$ inches.
- A 540 Value. The Knight 7 Dual-Wave is offered in the new and beautitul cabinet ilustrated bove, complete with R.C.A. tubes. For operation fom 110 volts. 60 cycles A.C. Code: CROWN. Shipping weight, 17 lbs

810560. 

Retail Value, $\$ 40.00$.
NET PRICE EACH, $\$ 18$.
YOURPRICE LOTS OF 3. $T$
EACH...................it voltages from 95 to 260 For operation on ald 25 to 60 cycles, A.C. add $\$ 2.00$.

## attractive radio dial. <br> - Scautiful N/Ew ARMCHAIR <br> R Modsl

The 1938 Knight Dual-Wave A.C. 7 is also available in the popular chair-side model illustrated at the left. Designed in the latest mode, this new type of cabinet offers the last word in convenient and luxurious radio tuning. Actually puts the world of radio enjoyment at your elbow. The Knight 7 Armehair Model is designed along pleasing flowing lines with instrument and speaker panel of one-piece, vertically-grained walnut, Size: ${ }^{23^{\circ}}$ high, 18 deep, $114^{\circ}$ wide. Complet with $8^{\prime}$ Speaker and R.C.A. tubes. Shipping weight, 33 lbs. Code: CHAIR.
E10561: Retail alue, 62.
47145
YOUR PRICE LOTS OF 3, EACH.


[^0]:    With your next tube order, ask for the Trel copy of the complete Riaytheth sanoterials are availabie Showa you what mater. Apt for fiartheen salo Alare cetill under number 869 .

[^1]:    FREE－Knight Glass and Metal Resistance tuest．Contains complete fist of Resistance Tubes to help you find the right replacement

[^2]:    You can make up any liwe of combrination Iortable Tent Lablocatory by uxinat these handsome thases to house any of the Triplett Master Units. B9954. FOR SINGLE UNITS. LIst. $\$ 6.00$ Y YOUR PRICE
    B9955. FOR TWO UNITS.
    54.57

    Desinned for portable use. Teatherette-corered fith protective cloth lining. llave large extra conalautment for test leads, adapters, etc. B9956. FOR THREE UNITS. List. $\$ 8.00$. YOUR PRICE. \$5.22
    

[^3]:    * Exact Duplicate Control.

[^4]:    Exact Duplicate Control

[^5]:    List, Each, 350

[^6]:    * For Class B operation. connect a I watt reslstor across two outtide speaker terminals. The resistor value in ohms should be at hast 5 times

[^7]:    Firxflate hlates of ximerial alloy strel, heattreated to produce toughness, Teeth are ca B7724. $8^{\prime \prime}$ BLAOE.
    YOUR COST, PER DOZ
    B7725. $10^{\circ}$ BLADE.
    YOUR COST, PER DOZE
    YOUR COST, PER DOZEN
    45c 55c 68c

[^8]:    WE WILL ASSEMBLE CABLES at right above in any desired endth with any of the nitinge shown．at a net charue of 35 c plu of hoth cable and housing and specify exact fittings desired．Full remittance must accorapany your order．

[^9]:    Thia new atandurd model is dimiler to the Deluze unit in featuree and apedifatione, except that th hat thand rope etarter. Compect, por table, yet thoroughly reilibble. Suppliet 100 wate 6 volta D.C. to charge 6 volt atorate batterief-quickly, inex pepnively-for operatiof win voit radio, ${ }^{6}$ pipllances requirlis. not more then auriiliary pulley. foduder renuine new Brigzi apd Stratton 4 -cycle, uircooled. sheslecyllader engive, and pewly denigned. trecielly matcbed zenertor Costs ooly: ew cente to operate runs 4 $15-5$ honro on
    
     Ebilly portable yet aturdy and dependmotor isnition is supplied by moirture proci, bif th-tenefon. builtitin fy-wheel mananeto. No more ive-warting drudgery. poor lifhting, weal radio performance. Put Rurpower to work-it will pay for iteelif in just a few reeks, Make mopey charging batteries for othera to addition to enilize tbe wait luedr. Ceah in on a big. waltion market
    E10008. standerd Murlpowor complete with charging leade, termlasl cipe:
    

